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BIOLOGY AND MEDICINE
AGING

Are Chronic Degenerative Diseases Part of the Ageing Process? Insights from Comparative Biology
Michael A. Singer (Faculty of Health Sciences, Queen's University, Ontario, Canada)
In series: Aging Issues, Health and Financial Alternatives
Case: 978-1-62618-013-0. $175.00.
Most of the DNA in the human genome does not encode proteins but is involved in regulatory functions. In addition, the human genome is characterized by an extensive array of structural DNA variants arising from de novo mutations plus accumulated structural variants transmitted through an individual’s lineage. The result is that each person has a unique genome which is expressed as that person’s unique phenotype. Ageing can be understood on both the species and individual level. Each species has a programmed ageing and mortality pattern, but within those broad species-specific boundaries there is considerable individual variation. At the individual level, ageing reflects the integrated effects of that individual’s unique mix of DNA structural variants, unique experience-specific epigenetic marks and imperfectly repaired genomic and cellular damage. This book examines human “chronic degenerative” diseases which are not diseases, but rather variations of the ageing process across individuals.

ANATOMY AND PHYSIOLOGY

Advances in Reproductive Technology Research
Ignatz Sanger
In series: Human Reproductive System - Anatomy, Roles and Disorders
Assisted reproductive technology (ART) now accounts for 1-3% of all live births in the western world. Several procedures that may be used in the ART process are hormonal stimulation, egg retrieval, in vitro fertilization (IVF), intra-cytoplasmic sperm injection, micro-manipulation of gametes; and exposure to culture medium. Although these techniques are considered safe, in recent years evidence has been accumulating that ART may be associated with an increased risk of birth defects, low birth weight, and genetic imprinting disorders. This book provides current research in reproductive technology with a focus on Down's Syndrome screening in assisted conception pregnancies; sexed semen technology in buffalo breeding and reproductive technologies; a nationwide study of assisted reproductive technology and multiple births and accompanied birth defects; and assisted reproductive technologies and the risk for autism spectrum disorder.

Anatomy and Physiology Researcher Biographical Sketches and Research Summaries
Neil R. Zirena and Xia-Bo Liu
In series: Human Anatomy and Physiology
Case: 978-1-61942-595-8. $150.00.
This new book compiles biographical sketches of top professionals in the field of anatomy and physiology research, as well as research summaries from a number of different focuses in these important fields.

Auditory Cortex: Anatomy, Functions and Disorders
Mounya Elhilali (Johns Hopkins University, Baltimore, MD, USA)
In series: Physiology - Laboratory and Clinical Research
2012. 201 pp.
Case: 978-1-62100-685-5. $95.00.
e-book: 978-1-62100-725-8. $95.00.
In recent decades, auditory cortex has taken center stage in studies of the auditory system and sound perception. Our knowledge of this structure, though still sparse, paints a picture of an extremely complex brain region, probably the most complicated yet in the auditory pathway. This book is a collection of works summarizing the latest developments in auditory cortex research and reviews the current state of knowledge about cortical anatomy, function and malfunction. The book highlights use of state-of-the-art technological methodologies in unraveling various facts about auditory cortex. It canvasses findings ranging from intracellular and extracellular electrophysiology, optical imaging, quantitative electroencephalography in addition to reviews of molecular techniques, functional imaging approaches and histological anatomy.

Biophysics of Synovia
Leonid Semenovich Pinchuk (Metal-polymer Research Institute, Gomel, Belarus) Yuliya Michaelovna Cherniakova (Gomel State Medical University, Gomel, Belarus)
In series: Human Anatomy and Physiology
2012. 262 pp.
The objective of the book is to present a new understanding of the joint functioning as an “intelligent” friction assembly and of the biophysical mechanisms of interaction of synovial fluid with joint tissues through the electromagnetic biofield of the joint. These ideas have served the basis for the methodology of transfusion chondroprotection of synovial joints. Its main propositions and first encouraging results of clinical application are discussed in this book. The book can be of interest to orthopedists, physiologists, biophysists, and specialists in material science and tribology.

Bone Loss: Risk Factors, Detection and Prevention
Kuo-Cheng Lu (School of Medicine, Fu-Jen Catholic University, Division of Nephrology, Department of Medicine, Cardinal-Tien Hospital, Taiwan)
In series: Physiology - Laboratory and Clinical Research
In series: Human Anatomy and Physiology
2012. 204 pp.
Case: 978-1-62417-169-7. $120.00.
e-book: 978-1-62417-178-9. $120.00.
“Bone Loss: Risk Factors, Detection, and Prevention” will undoubtedly be a great reference source for a large number of readers interested in bone medicine. This book explores not only the current state of knowledge, but also the newest research grounds and discoveries related to bone loss. These include novel pathophysiological research including the impact of chronic kidney disease, heart failure, diabetes and cancer disease on bone loss and strategies for possibly improving individuals who suffer from bone loss. This volume seeks to update interested readers on the latest advances in the uncharted territory and relatively new field of bone loss medicine.
Calcification: Processes, Determinants and Health Impact
Marquise Bertrand and Amilie Rousseau
In series: Human Anatomy and Physiology 2013.
Soft: 978-1-62081-824-4, $69.00.
The process in which calcium salts build up in soft tissue, causing it to harden is known as calcification and may be classified based on whether there is a mineral balance or not, as well as the location of the calcification. In this book, the authors present current research in the study of the processes, determinants and health impacts of calcifications. Topics discussed include the pathology of heterotopic and dystrophic calcifications; placental calcification and its impact on pregnancy; post-traumatic calcification of iliopsoas muscle; the impact of vitamin K dependent proteins on vascular calcification in patients with kidney disease; and diffuse neurofibillary tangles with calcification as a rare form of tangle-predominant dementia.

Childhood Disorders of the Foot and Lower Limb
Joshua Burns (The Children's Hospital at Westmead, The University of Sydney, Australia), Anthony C. Redmond (Leeds Institute of Molecular Medicine, University of Leeds, Leeds, UK), Jane E. Hunt (Bond University, Gold Coast, Australia)
In series: Human Anatomy and Physiology
Case: 978-1-61942-033-5, $75.00.
e-book: 978-1-61942-039-7, $75.00.
It is stating the obvious to say that the foot in childhood is different in many respects from the foot in adulthood, but the differences can be often overlooked. The physical differences are readily apparent of course, but arguably the most important of the many differences is the malleability of the child’s foot and leg, and the potential for influencing its structure and function in the long-term. This is a potential that must not be taken lightly. This unique book is an excellent learning resource suitable for students and health care providers in the fields of pediatrics, orthopedics, neurology, podiatry, physiotherapy, orthotics and nursing other foot care professionals.

Circulatory System and Arterial Hypertension:
Experimental Investigation, Mathematical and Computer Simulation
Ludmila N. Ivanova (Institute of Cytology and Genetics, Novosibirsk, Russia), Alexander M. Blokhin (Sobolev Institute of Mathematics, Novosibirsk, Russia), Arcady L. Markel (Institute of Cytology and Genetics, Novosibirsk, Russia), Evgenia V. Mishchenk
Case: 978-1-62257-275-5, $150.00.
This book is a multidisciplinary book in which the problem on hypertensive disease is analyzed from different points of view by physiologists, mathematicians, biologists. Topics discussed include a review of genetic and physiological mechanisms of arterial hypertension; descriptions of various approaches to mathematical modeling of the system for controlling blood circulation and blood flow in a vessel; a survey existing models of hemodynamics and description of an approach to numerical modeling of the blood flow in the human cardiovascular system; and a software developed for visual creation and simulation of modular mathematical models of the biological systems.

Erectile Dysfunction: Causes, Risk Factors and Management
Paul Steven Grant (Specialist Registrar Diabetes & Endocrinology Kings College Hospital, London)
In series: Human Sexuality
Case: 978-1-61942-316-9, $165.00.
This book seeks to provide a general medical audience with a picture of the current state of play with regards to the evaluation and treatment of patients with erectile dysfunction. The authors aim to cover everything from the primary care approach to addressing the issue, through the important psychological causes and consequences of erectile dysfunction, the new diagnostic techniques involved in assessing the problem, the complex interplay between vascular and neurological disorders, as well as problems relating to hormonal disruption and diabetes.

FeverS: Types, Treatments and Health Risks
Krista Brassfield and Kenneth P. Steckel
In series: Human Anatomy and Physiology 2013. 159 pp.
Case: 978-1-62417-798-9, $120.00.
Fever is a centrally regulated thermoregulatory response leading to a rise of body core temperature. This book presents current research in the study of the types, treatment and health risks of fevers. Topics include the African Swine Fever virus pathogenesis and vaccine development; diagnosis of acute or obscure and prolonged febrile illnesses in adult patients; fevers of unknown origin in internal medicine; experimental fever and the role of acting neuropeptide mediators; fevers of intermediate duration; metabolic features of endothelium in hemorrhagic fever with renal syndrome; rat bite fever; nonlocal modeling of insect borne diseases; and treatment and drug resistance in cholera.

Handbook on Oxidative Stress: New Research
Adolfo M. Reyes and Cristóbal D. Contreras
Case: 978-1-61942-178-3, $325.00.
This book presents new research in the study of oxidative stress. Topics discussed include pharmacological treatments in myocardial ischemia-reperfusion injury; oxidative stress in neurodegenerative disorders, hypertension, and the cardiovascular system; the role of antioxidant supplementation in ischemic stroke; mitochondria at the crossroads of cancer and oxidative stress; and the influence of aerobic exercise training on postprandial oxidative stress.

Hyperthermia: Recognition, Prevention and Treatment
Xing-Hua Gao (Department of Dermatology, No. 1 Hospital of China Medical University, Shenyang, China), Hong-Duo Chen
Case: 978-1-61942-275-9, $140.00.
Hyperthermia is an abnormally high body temperature, usually resulting from infection, medication, or head injury, and sometimes brought about intentionally to treat diseases, especially certain cancers. In this book, a variety of hyperthermia related physiological and pathological phenomena described. This book will help the readers comprehensive view on the basic and practical knowledge of hyperthermia.

**Hypoxia: Causes, Types and Management**

_Dirk Vordermark (Martin Luther University Halle-Wittenberg, Halle/Saale, Germany)_

In series: _Pulmonary and Respiratory Diseases and Disorders_

2013. 347 pp.

Case: 978-1-62081-769-8. $195.00.

Low oxygenation levels are a hallmark of numerous pathologic conditions. Hypoxia occurs in chronic diseases of brain, kidneys and liver. Malignant tumors grow rapidly with insufficient vasculature, thereby producing areas of chronic hypoxia. This book contains contributions from an international group of authors covering a wide range of situations in benign as well as malignant diseases, in which understanding the role of hypoxia may lead to novel diagnostic and therapeutic strategies. These include modulation of tissue oxygenation as well as treatment concepts directed specifically at hypoxic cells.

**Inner Ear Development and Hearing Loss**

_Saima Riazuddin, Zubair Ahmed (Division of Pediatric Otolaryngology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH)_

In series: _Human Anatomy and Physiology_


Case: 978-1-62417-011-9. $150.00.
e-book: 978-1-62417-012-6. $150.00.

This book is a user-friendly book directed at practicing general otolaryngologists, developmental biologist, geneticists and researcher focused on understanding the inner ear structure and biology. This book is both comprehensive, easy to follow and each chapter is short, informative and self-contained. It will provide an overview of four main topics related to inner ear development, hearing loss and clinical remedies, genetics of deafness in the post genomic era. The overall objective of this book is to bring together noted otolaryngologists and scientists from the perspective of complementary disciplines for a review of the current state of knowledge and available clinical therapies, genetics testing practices in various populations and molecular components of inner ear and their function in sound perception.

**Intermittent Hypoxia: From Molecular Mechanisms To Clinical Applications**

_Lei Xi (Virginia Commonwealth University, Richmond, Virginia, USA) Tattiana V. Serebrovkaya (Bogomoletz Institute of Physiology National Academy of Sciences Kiev, Ukraine)_

In series: _Physiology - Laboratory and Clinical Research_

2013. 647 pp.

Case: 978-1-60876-127-2. $385.00.
Soft: 978-1-62257-710-1. $89.00.

In consolidation of the most updated experimental results and perspectives from diverse research fields on a main theme - Intermittent Hypoxia, this book encompasses the structural, physiological, pathophysiological, biochemical, genetic, metabolic, and therapeutic aspects of intermittent hypoxia and provides an open forum to promote the bench-to-bed translational implications of both adaptive (beneficial) and maladaptive (detrimental) responses to intermittent hypoxia in animals and humans. Authored by 74 leading scientists from 17 countries in Asia, Europe, North America, and Oceana, the 30 chapters are grouped under 7 different sections covering the profound effects of intermittent hypoxia particularly on cardiovascular, respiratory, nervous, and skeletal muscular systems. Special attentions are paid to the protective or injurious roles played by intermittent hypoxia and their underlying cellular and molecular mechanisms in several major human diseases such as acute myocardial infarction, stroke, sleep apnea, and Parkinson’s disease. Several chapters have also reviewed the use of intermittent hypoxia training for enhancing exercise performance in elite athletes. Overall, as endorsed by Professor John B. West (Member, Institute of Medicine, National Academy of Sciences of U.S.A.; Editor-in-Chief, High Altitude Medicine and Biology) through his Foreword for the book, this is the most comprehensive monograph to date on the topic of intermittent hypoxia, which can cause significant structural and functional impact on the systemic, organic, cellular and molecular processes of human physiology and pathophysiology. Hence, this book could serve as a thorough reference for research scientists, physicians, academic faculty, graduate and medical students, athletic coaches and trainers, who are interested in enhancing their knowledge about the past, present, and future of intermittent hypoxia research and its translational applications for prevention and treatment of major diseases and improving exercise performance.

**Lactation: Natural Processes, Physiological Responses and Role in Maternity**

_Lisa M. Reyes Cruz and Douglas C. Ortiz Gutierrez_

In series: _Obstetrics and Gynecology Advances_

In series: _Human Anatomy and Physiology_

2012. 192 pp.

Case: 978-1-62257-243-4. $150.00.

The primary function of the mammary gland is to provide nutrition for the young in the form of milk protein and fat. However, there are other benefits that are provided by lactation, such as the provision of immune factors that are secreted into the milk, which provide protection from infection. In this book, the authors discuss the natural processes, physiological response and role in maternity of lactation. Topics include gene expression in the mammary gland; human milk oligosaccharides and their health effects; the role of micro-RNAs in the lactation process; hormonal control of lactation, the role of breastfeeding in lactation; and Wnt signaling and ultrasound in lactation.

**Larynx: Surgical Procedures, Complications and Disorders**

_Kevin F. Rivera and Jeffrey M. Evans_

In series: _Otolaryngology Research Advances_


Case: 978-1-62257-096-6. $150.00.

In this book, the authors present current research in the study of surgical procedures, complications and disorders of the larynx. Topics discussed include the molecular biology of laryngeal cancer; laryngeal reconstruction and voice rehabilitation; open supraglottic horizontal laryngectomy; speech rehabilitation for patients who suffer larynx and voice box deficiencies; the lower esophageal sphincter and its relationship with the larynx; and the peri- and post-operative complications of endoscopic laser microsurgery of malignant tumors of the larynx.
Medicinal Essential Oils: Chemical, Pharmacological and Therapeutic Aspects
Damiao Pergentinio de Sousa (Department of Physiology, Federal University of Sergipe, Sao Cristovao, Sergipe, Brazil)
In series: Botanical Research and Practices
In series: Pharmacology - Research, Safety Testing and Regulation
Case: 978-1-61324-297-1. $150.00.
This book contains reviews covering studies in pharmacological research on the medicinal properties of essential oils and their chemical constituents. In addition, advances in the use of essential oils by inhalation route are also discussed. This book is intended for a broad readership, from curious undergraduates to pharmacologists, chemists, neuroscientists, health professionals, researchers in bioactive natural and synthetic products and from pharmaceutical industries. It is a valuable source for all people engaged in the study of medicinal plants.

Menopause: Management, Complications and Social Perceptions
Felipe C. L. Bezerra and Cristiano A. Oliveira
In series: Human Reproductive System - Anatomy, Roles and Disorders
In series: Endocrinology Research and Clinical Developments
Case: 978-1-62257-003-4. $150.00.
Women are born with a finite number of oocytes and throughout the reproductive aging process (which starts prior to birth and develops in a continuum), the progressive loss of these oocytes (during atresia or ovulation) is observed, which does not necessarily happen at a constant rate. The reproductive failure is what signals menopause. In this new book, the authors discuss the management, complications and social perceptions relating to menopause. Topics included in this complication examine the biopsychosocial conceptualization and assessment of menopausal symptoms; management of typically ignored but increased risk factors for dyspareunia, HIV and other STDS; perceptions about menopause and hormonal therapy in Brazilian women; estrogen deficiency in bone diseases in female hemodialysis patients; and estrogen dose in postmenopausal hormonal therapy.

Menstrual Cycle: Signs and Symptoms, Psychological/Behavioral Changes and Abnormalities
Madeleine Gosselin
In series: Human Reproductive System - Anatomy, Roles and Disorders
In series: Obstetrics and Gynecology Advances
2013.
Case: 978-1-62417-945-7. $95.00.
e-book: 978-1-62417-946-4. $95.00.
The menstrual cycle is the scientific term for the physiological changes that occur in fertile women and other female primates for the purposes of sexual reproduction. In this book, the authors discuss the signs and symptoms, psychological/behavioral changes and abnormalities of the menstrual cycle. Topics include the evolution of the menstrual cycle with a focus on the role of the luteal phase, extended sexual receptivity and the concept of concealed ovulation; functional and structural brain alterations associated with menstrual pain; premenstrual dysphoric disorder (PMDD) and premenstrual syndrome (PMS); the fluctuations on appetite and food intake that occur during the female reproductive cycle; and assessing energy intake and physical activity energy expenditure during the menstrual cycle.

Muscle Cells: Development, Disorders and Regeneration
Benigno Pezzo
In series: Human Anatomy and Physiology
2013. 156 pp.
Case: 978-1-62417-233-5. $95.00.
This book discusses current research in the study of the development, disorders and regeneration of muscle cells. Topics include the basic biology and current concepts of muscle regeneration; calvarial and periodontal tissue induction by autogenous striated muscle stem cells; the role of muscle cells on the processus vaginalis; a discussion on the key residues which cause differential gallbladder response to PACAP and VIP in the guinea pig; and controlling muscle functions with light.

Myopathies: New Research
Howard S. Washington and Chris E. Castillo Jimenez
In series: Muscular System - Anatomy, Functions and Injuries
2012. 159 pp.
Case: 978-1-62257-326-4. $150.00.
Myopathies are a clinically and genetically heterogenous group of muscle diseases characterized by pathologic changes in muscle fibers that compromise their contractile ability. The authors of this book have gathered new research from across the globe and topics discussed in this compilation include inherited myopathies with distinct clinical manifestations; muscle biopsy as a diagnostic procedure in suspected myopathies; inflammation in dysferlinopathies; mitochondrial disorders; dysphagia in the myopathies; and aB-Crystallin (HSPB5) and myofibrillar myopathies.

Osteonecrosis: Diagnosis, Treatment and Management
Giancarlo I. Bianchi and Pascual C. Giordano
In series: Muscular System - Anatomy, Functions and Injuries
In series: Human Anatomy and Physiology
Case: 978-1-62257-282-3. $95.00.
Osteonecrosis is a disease where there is cellular death (necrosis) of bone components due to interruption of the blood supply. Without blood, the bone tissue dies and the bone collapses. In this new book, the authors present current research in the diagnosis, treatment and management of osteonecrosis. Topics discussed in this compilation include bisphosphonate-related osteonecrosis of the jaw prevention and management in modern oncology; short stem hip arthroplasty in osteonecrosis of the femoral head; and concentrated autologous bone marrow aspirate transplantation (CABMAT) for osteonecrosis of the femoral head and bone non-union.

Pancreas: Anatomy, Diseases and Health Implications
Akiko Satou and Hana Nakamura
In series: Endocrinology Research and Clinical Developments
In series: Human Anatomy and Physiology
Case: 978-1-62081-539-7. $150.00.
In this book, the authors provide current research in the study of the anatomy, diseases and health implications of the pancreas. The pancreas consists of two organs in one; the exocrine gland secretes enzymes into the digestive tract, and the endocrine gland secretes hormones into the bloodstream. Topics discussed in this compilation include the development of the islets of Langerhans in the human fetal pancreas; autophagy in pancreatic diseases; characteristics of primary cystic pancreatic neoplasms; embryology of the pancreas and associated anomalies; emerging therapeutic options for metastatic exocrine pancreatic cancer; minimally invasive pancreaticoduodenectomy; and minimally invasive pancreatectomy.

Parathyroid: Anatomy, Functions and Disorders
James Kirkby-Bott (Kingston Hospital, Kingston upon Thames, UK)
In series: Otolaryngology Research Advances
In series: Human Anatomy and Physiology
2012. 201 pp.
Case: 978-1-62100-765-4. $150.00.
This book follows an up to date authoritative style on the subject of parathyroid glands and their disorder. This book seeks to expand the horizon of parathyroid hormone use and provides in depth information on surgical techniques for managing its disorder. There are four sections on anatomy, function, disorder and treatment. The first three show how these areas are interconnected and the fourth on techniques for managing parathyroid disease. While short enough to be read as a treatise on parathyroid glands it is also authoritative enough to be used as a reference text.

Pathology: New Research
Julie M. Vultaggio and Kyle N. Forester
In series: Human Anatomy and Physiology
Soft: 978-1-62100-698-5. $65.00.
General pathology is a broad and complex scientific field which seeks to understand the mechanisms of injury to cells and tissues, as well as the body's means of responding to and repairing injury. Areas of study include cellular adaptation to injury, necrosis, inflammation, wound healing, and neoplasia. The foundation of pathology is the application of this knowledge to diagnose diseases in humans and animals. In this book, the authors present topical research in the study of pathology, including challenging the authority of the autopsy in coronial investigations; pathological examination of influenza virus-associated and autoimmune encephalitis/encephalopathy in children; histopathological investigation in forensic autopsies; psychopathology of suicide in Bali and the pathology of fatty acid oxidation disorders on sudden unexpected death in infancy.

Physiology of Love - Role of Oxytocin in Human Relationships, Stress Response and Health
Toku Takahashi, Irena Gribovskaja-Rupp, Reji Babygirija (Zablocki VA Medical Center, Milwaukee WI, USA)
In series: Endocrinology Research and Clinical Developments
2013. 211 pp.
Case: 978-1-62417-302-8. $85.00.
Are human beings genetically predisposed to prosocial and cooperative behavior? Are human beings inherently virtuous or evil? Is love self-sacrifice? This book was written to answer these questions from the view point of the neuroendocrinology regulating oxytocin(OXT) system in our brain. OXT is synthesized mainly in a section of the brain called the "hypothalamus". While it is well known that OXT plays a crucial role in childbirth by facilitating both uterus contraction and milk ejection, OXT is sometimes called the "love hormone" because it also plays a key role in regulating affectionate behaviors, mother-infant bonding, sexual behavior, and social memory/recognition. There is a positive loop of attachment-parenting behavior on each side of the infant-mother relationship. Infants that experience positive interactions with their parents will develop an enhanced OXT system and display positive parenting and socially affectionate behaviors in adulthood.

Practical Sanomechanics®: Exercising for a Healthy Skeleton
Mark Pitkin (Physical Medicine and Rehabilitation, Tufts University School of Medicine, Sharon, Massachusetts, USA)
In series: Physical Fitness, Diet and Exercise
2013.
Soft: 978-1-62257-531-2. $52.00.
e-book: 978-1-62257-947-1. $52.00.
In this book, the reader will find a new approach to improving health. This approach is called "sanomechanics," from the Latin sanus (healthy) and mechanicus (science of the motion of bodies subjected to forces). The focus of sanomechanics is on exercising with an understanding of the biomechanical consequences of one’s movements. Based on the theory of the floating skeleton, which postulates a hydraulic connection between synovial joints, the theory explains the greater or lesser success of any exercise, appealing to the ability of the human skeleton to absorb and transform forces and moments from the body segments and the environment. This ability vanishes with age and illness; and the deeper our understanding of the nature of how our skeleton functions, the better we will be able to improve, protect, and prolong our skeleton’s health.

Prevention of Hearing Loss
Valerie Newton (Clock House, Preston, UK), Peter Alberti, Andrew Smith
In series: Otolaryngology Research Advances
In series: Human Anatomy and Physiology
Hearing loss is a chronic and often lifelong disability that can cause profound damage to the development of speech, language, and cognitive skills in children, especially when commencing before the critical period of language development in infancy. That damage, in turn, affects the child’s progress in school and, later, his or her ability to obtain, keep, and perform an occupation. In addition to its effects on individuals, data from several countries indicate that hearing loss has huge economic consequences. Thus, prevention of hearing loss, as well as being socially and morally justifiable, makes substantial economic sense as well.

Prospective study of patients with foot burns in Samarkand
Babur M. Shakirov (Samarkand State Medical Institute, Burn Department of RSCUMA, Samarkand, Uzbekis)
In series: Physiology - Laboratory and Clinical Research
2013.
Case: 978-1-62257-024-9. $85.00.
The basis of practical work of Samarkand Inter-regional burn Centre and Burn department of RSCUMA and literary data, regulations of scientific and practical achievements in treatment of foot burns and their consequences have been analyzed in this book. The problems and tasks in the field of scientific research and treatment of foot burns have been interpreted in detail and in consistency. Particular attention is paid to necrectomy, application of biological coverings, autodermoplasty. Treatment of thermic injuries of bones and joints, clinic and principles of elimination of different deformations, localized in the foot area, have been described. This book is of great interest among combustiologists, traumatologists, orthopedists and surgeons, performing reconstructive surgery.

**Rapid Eye Movement Sleep: New Research**

**Kiyoaki Bando and Aito Hotate**

In series: *Sleep - Physiology, Functions, Dreaming and Disorders*

Case: 978-1-62081-292-1. $150.00.

Rapid eye movement sleep (REM sleep) is a normal stage of sleep characterized by the random movement of the eyes. REM sleep is classified into two categories: tonic and phasic and criteria for REM sleep includes rapid eye movement, but also low muscle tone and a rapid, low-voltage EEG. REM sleep in adult humans typically occupies 20–25% of total sleep, about 90–120 minutes of a night's sleep. In this book, the authors present current research on REM sleep including the relationship of depression to REM sleep; neural regulation of REMs and the critical role of GABAergic inhibition; physiological effects and genotoxicity in humans and models corresponding to sleep deprivation; and the pathogenic mechanisms of sleep hallucinations.

**Recent Advances in Adhesions Research**

**Abigail McFarland and Matthew Akins**

In series: *Human Anatomy and Physiology*

In series: *Materials Science and Technologies*

Soft: 978-1-62417-447-6. $72.00.

In this book, the authors present current research in the study of adhesions. Topics discussed in this compilation include surface analysis techniques for root canal filling adhesion studies; polysialylated-neural cell adhesion molecules in the human nervous system at prenatal, postnatal and adult ages; surgical adhesions; interaction of diamond-transition metal substrates and interfacial adhesion enhancement/failure mechanisms; inhibition and impairment of cell adhesions; and effects of anti-cell adhesion molecules to prevent heart transplant rejection.

**Salivary Glands: Anatomy, Functions in Digestion and Role in Disease**

**Louis Braxton and Simone Quinn**

In series: *Human Anatomy and Physiology*

In series: *Physiology - Laboratory and Clinical Research*

Case: 978-1-62417-532-9. $150.00.

The salivary glands are well-known digestive organs with a highly branched duct system and a compound acinar gland. There are 3 pairs of major salivary glands and 600-1000 minor salivary glands in humans. This book discusses the anatomy, functions in digestion and role in disease of salivary glands. Topics include salivary gland structure and regulation of saliva secretion in health and disease; complications of parotid gland surgery; organogenesis and morphogenesis; anatomic and histological features of the salivary glands; regeneration and stem cell therapy; the role of transient receptor potential vanilloid subtype 1 in the saliva secretion of the submandibular gland; substances in saliva; fluid secretion and channel/transporter proteins; and replacing tears with saliva in severe dry eye syndrome.

**Scoliosis: Causes, Symptoms and Treatment**

**Absolon Bessette and Coralie M. Rousseau**

In series: *Physiology - Laboratory and Clinical Research*

In series: *Human Anatomy and Physiology*

Soft: 978-1-62081-007-1. $65.00.

Scoliosis is a lateral spinal deformity often coupled with vertebral rotation with most of the cases presenting as idiopathic. In this book, the authors present topical research in the study of the causes, symptoms and treatment of scoliosis. Topics discussed include the history and classification of scoliosis; the connection between idiopathic scoliosis, orthodontics and occlusion and their therapeutic implications; the trunk posture of the elderly population in Southern Brazil using the Shadow Moire Technique; new physical therapy interventions for scoliosis; effects of load carriage on children with scoliosis; and the relationship of the pineal gland, melatonin and scoliosis.

**Sexual Dysfunction: Female and Male Perspectives**

**A. R. Markos (Staffordshire General Hospital, Stafford, UK)**

In series: *Disorders of the Lower Genito Urinary Tract*

Edited by: **A. R. Markos**

2012. 201 pp.
Case: 978-1-62100-781-4. $75.00.
e-book: 978-1-62100-819-4. $75.00.

Sexual function is an integral part of human existence and wellbeing. Sexual dysfunctions could have detrimental repercussions on the individual, the couple, the family and society. This book provides individuals, couples and clinicians, who would like to understand sexual functions or dysfunctions, with a concise analysis of the different conditions and their options of management.

**Skeletal Muscle: Physiology, Classification and Disease**

**Mark Willems (Department of Sport and Exercise Sciences, University of Chichester, United Kingdom)**

In series: *Muscular System - Anatomy, Functions and Injuries*

In series: *Human Anatomy and Physiology*

Case: 978-1-62417-271-7. $150.00.

It is essential for our quality of life to have healthy muscles. Tragically, the loss of even a single protein can have dramatic effects on muscle functioning and quality of life. This book is about skeletal muscles, their physiological complexity and molecular functioning in health and disease. The range of topics varies from the fascinating events at the level of the cross-bridges, the aging process of skeletal muscles, ischemia-reperfusion, inflammatory myopathies and mitochondrial function, muscular dystrophy and the regulation of skeletal muscle mass in health and disease. This book is written by internationally acclaimed researchers and expert research groups and provides state of the art understanding of the plasticity of skeletal muscle, information that is vital for health professionals who deal with diverse chronic disease conditions.
Soft Tissue: Composition, Mechanisms of Injury and Repair
*Antonio J. Chavez Ruiz and Jose M. Alvarez Mendoza*
In series: *Human Anatomy and Physiology*
In series: *Physiology - Laboratory and Clinical Research*
Case: 978-1-62257-363-9. $95.00.
Soft tissue refers to tissues that connect, support, or surround other structures and organs of the body, not being bone. Soft tissue includes tendons, ligaments, fascia, skin, fibrous tissues, fat, and synovial membranes (which are connective tissue), and muscles, nerves and blood vessels (which are not connective tissue). In this book, the authors present current research in the study of the composition, mechanisms of injury and repair of soft tissue. Topics discussed include the soft tissue biomechanics of diabetic foot ulcers; cellular and physiological soft tissue response in hip arthroplasty; peri-implant soft tissues in orthodontic anchorage; connecting tissue injuries and mechanical properties; MRI findings of myopathies in soft tissue; and soft tissue behavior after mandibular synphysis bone graft harvesting.

The Human Hypothalamus: Anatomy, Functions and Disorders
*Bertalan Dudás (Lake Erie College of Osteopathic Medicine (Lecom), Erie, PA, USA)*
In series: *Neuropatomy Research at the Leading Edge*
In series: *Neuroscience Research Progress*
Case: 978-1-62081-806-0. $230.00.
The hypothalamus is a particularly complex part of the brain; it represents only a fragment of the brain volume and yet it is considered as one of the two most important regions involved in maintaining homeostasis and in the resulting survival of the individual. Since most of the experimental data in the scientific literature are based on animal studies, there is an emerging need for a volume that provides a review of the current research and knowledge of the major hypothalamic functions in humans. This book is intended to tackle these functions and the ensuing morphological and pathological aspects in order to give the reader a cross section of the most recent data and major trends in the current hypothalamic research in a convenient, compact format.

The Knee: Current Concepts in Kinematics, Injury Types, and Treatment Options
*Randy Mascarenhas (University of Manitoba, Canada)*
In series: *Muscular System - Anatomy, Functions and Injuries*
Case: 978-1-61942-268-1. $140.00.
e-book: 978-1-61942-278-0. $140.00.
Knee injuries are common occurrences that affect the young active population and can lead to subsequent long term joint degeneration. This book provides an overview of current research examining knee injury mechanisms, prevention, and treatment options. Detailed discussions are included related to current treatment options for ACL injury, PCL injury, meniscal tears, patellofemoral instability, and combined knee pathology. Additionally, current advances in tissue engineering in an ACL reconstruction and results following transphyseal ACL reconstruction in adolescents are examined. Furthermore, biomechanical studies and computerized modeling techniques are highlighted as methods for determining the mechanisms and sequelae of knee injuries, thus aiding in the development of injury prevention programs.

**Treadmills: Kinematic Variability, Uses in Therapy and Effects on Muscle Activity**
*Margarita Lopez and Arlena Gillingham*
In series: *Medical Devices and Equipment*
In series: *Physical Fitness, Diet and Exercise*
2013. 113 pp.
Soft: 978-1-62417-784-2. $72.00.
In this book, the authors present current research in the study of the kinematic variability, uses in therapy and effects on muscle activity of treadmills. Topics discussed include a treadmill's effect on motor control and variability in human gait pattern; tempo-spatial and kinematic variables in the context of rehabilitation following treadmill walking; evaluation of gait stability based on recovery steps in perturbed gait; and the effects of treadmill walking on muscle activity and neuromuscular junction of botulinum toxin-induced muscle atrophy.

**ANIMAL SCIENCE**

**Advances in Zoology Research. Volume 4**
*Owen P. Jenkins*
In series: *Advances in Zoology Research*
Case: 978-1-62081-122-1. $140.00.
This book presents a comprehensive review of various biological and ecological studies in animal science, including their embryology, evolution, classification, habitats and distribution. Topics discussed herein include the aphid behavior in a multicrophic environment; mechanisms determining benthic adult distributions of estuarine and coastal crabs; feeding ecology of the pig-tailed macaques; adult neurogenesis in primates; and visceral adiposity and splanchic organ mass in non-pregnant dry Holstein cows.

**Advances in Zoology Research. Volume 5**
*Owen P. Jenkins*
In series: *Advances in Zoology Research*
Case: 978-1-62417-802-3. $150.00.
e-book: 978-1-62417-803-0. $150.00.
This book presents a comprehensive review of various biological and ecological studies in animal science, including their embryology, evolution, classification, habitats and distribution. Topics discussed herein include the prophenoloxidase system in insects; cloacae, cloacal glands and female sperm storage in giant salamanders; anxiety, aggression and social behavior in zebrafish; the shifting and transition mode of vertebrate genome evolution; fish lectins; nutritional consequences of extreme sexual size dimorphism; feeding behavior of herbivores in rocky outcrops of northwestern Patagonia; the morphology of the brown dog tick; vertebrate biodiversity and its relationship to peptide hormone evolution; classification of dinosaurs from the anatomical viewpoint; allergen exposure and the development of insect bite hypersensitivity in horses.

**Cancer Tumor Life: Biological and Physical Aspects**
*Miroslaw Kozlowski (Warsaw University, Poland)*
In series: *Cancer Etiology, Diagnosis and Treatments*
2013.
Case: 978-1-62081-411-6. $150.00.
In this book, the authors study the mutual interaction of cancer and its host body. In the book, the authors present the point of view that this interaction is mediated by human consciousness. Although the term cancer refers to undisciplined and uncontrollable cellular growth, a basal cell carcinoma of the skin is quite different from adenocarcinoma of the lung, prostate, or breast, brain tumors, lymphomas, leukemias, and other malignancies. These all differ markedly with respect to growth rates, metastatic tendencies, and sensitivity to neuroendocrine or immune system influences, particularly those that might be modulated by stress. There are critical concerns when it comes to determining exactly how long a cancer has been present. If a lump in the breast is found to be malignant, when did the cancer start? A month, six months, or years before clinical detection? Such information would be crucial to establish any temporal relationship with antecedent.

**Canine Behavior, Classification and Diseases**

*Roberto Luiz Andrade and Cristina Isadora Batista*

*In series: Animal Science, Issues and Professions*


Case: 978-1-62081-304-1. $120.00.
e-book: 978-1-62081-337-9. $120.00.

In this book, the authors gather current research in the study of canine behavior and diseases. Topics include galectin therapy in the treatment of canine mammary tumors; gene therapy for canine cancers; canine carcinogenesis as a valuable model for studying human cancers; parasitic zoonosis in dogs; dog bite injuries as a public health problem; and the genetics of dog behavior.

**Carnivores: Species, Conservation, and Management**

*Federico I. Álvares and Guilherme E. Mata*

*In series: Animal Science, Issues and Professions*

2012. 201 pp.

Case: 978-1-62257-323-3. $120.00.
e-book: 978-1-62257-328-8. $120.00.

In this book, the authors present current research in the conservation, species and management of carnivores. Topics discussed include the adaptation, impact and management of the raccoon dog in Europe; human perceptions of cougars in Canada and El Salvador; the impact on wildlife conservation of emerging protozoal tick-borne diseases of canids; mitigating conflict between humans and large carnivores in carnivore conservation; the management and conservation of wolves in the Iberian Peninsula; and factors affecting small and middle-sized carnivore occurrence and abundance in Mediterranean agricultural landscapes in Southern Portugal.

**Cattle: Domestication, Diseases and the Environment**

*George Liu (USDA-ARS, ANRI, Bovine Functional Genomics Laboratory, Beltsville, MD, USA)*

*In series: Animal Science, Issues and Professions*


Case: 978-1-62417-820-7. $150.00.
e-book: 978-1-62417-829-0. $150.00.

The availability of bovine genome sequences has opened new research avenues for cattle biodiversity and diseases. Cattle also have a critical role in climate change, land degradation and water shortage. This new book presents current research in the immunity, nutrition, fertility and diseases of cattle. Topics include innate and acquired immunity; epigenetics, nutrigenomics and metagenomics; hormone regulation of bull fertility; diseases like abomasal displacement; and ozone and clominitolitis as disease treatments. This book also presents information about local adaptation, selection and biodiversity of native species and breeds of domesticated cattle in South America, East Asia and East Europe. This book was written by experts in each area, from institutions located in Brazil, Canada, China, Croatia, Greece, Hungary, South Korea and the United States.

**Chickens: Physiology, Diseases and Farming Practices**

*Iresha Kapur and Abdullah Mehra*

*In series: Animal Science, Issues and Professions*

2012. 177 pp.

Case: 978-1-62081-027-9. $150.00.

In this book, the authors present current research in the study of the physiology, diseases and farming practices of chickens. Topics discussed include recent trends in the diagnosis and vaccines for poultry diseases; nutrient regulation of intestinal development and function in chickens; the role of selenium in chicken physiology; harvest and post-harvest practices for chickens; organ blood flow in the hen fetal and early postnatal periods; central regulation of physiological and metabolic responses in neonatal chicks; bacteriophages in the control of colibacillosis; and chicken egg size and embryonic development.

**Crustaceans: Structure, Ecology and Life Cycle**

*Gennaro Sisto*

*In series: Animal Science, Issues and Professions*

*In series: Marine Biology*

2013. 132 pp.

Soft: 978-1-62417-317-2. $69.00.

In this book, the authors discuss the structure, ecology and life cycle of crustaceans. Topics include the structure, development and evolution of crustacean eyes; the effect of gamma radiation on the extraction of chitosan from the exoskeleton of crustaceans; lipid transport and metabolism in crustaceans; and soft-bottom crustacean assemblages influenced by anthropogenic activities in the Arabian Gulf.

**Ducks: Habitat, Behavior and Diseases**

*James Hambrick and Laurie T. Gammon*

*In series: Animal Science, Issues and Professions*

2013. 80 pp.

Soft: 978-1-62257-937-2. $69.00.

This book studies the habitat, behavior and diseases related to ducks. Topics include the origin and genetics of domestic ducks; bornaviruses in North American waterfowl; recent viral diseases of Japanese anatid with a fatal case of Marek's disease in the endangered white-fronted goose; bird schistosomes; and parasitic nematodes in waterfowl of Hokkaido, Japan.

**Endangered Species: Habitat, Protection and Ecological Significance**

*Manuel Esteban Lucas-Borja (Department of Agroforestry, Science and Technology and Genetics, School of Agricultural Engineers, Castilla-La Mancha University, Spain)*

*In series: Animal Science, Issues and Professions*


e-book: 978-1-62257-548-0. $195.00.

Natural ecosystems provide the basic conditions without which humanity could not survive. Good and services provided by ecosystems include for example provision of food, fibre and fuel, purification of water and air, cultural and aesthetic benefits, stabilization and moderation of the Earth's climate, generation and renewal of soil fertility, including nutrient cycling or maintenance of genetic resources as key inputs to crop varieties and livestock breeds, medicines, and other products. However, the ability of biological diversity to continue performing these services is seriously threatened.
since some species are being seriously deteriorated, and in some cases destroyed. While loss of species has always occurred as a natural phenomenon, the pace of extinction has accelerated dramatically as a result of human activity. Ecosystems are being fragmented or eliminated, and innumerable species are in decline or already extinct. This book is divided into ten chapters, which are all related to endangered species research studies.

**Felines: Behavior, Classification and Diseases**

*Rodrigo E. Moreno García and Ruben G. Ruiz Jiménez*

In series: *Animal Science, Issues and Professions*


Case: 978-1-62257-005-8. $95.00.

In this book, the authors gather and present current research in the study of the behavior, classification and diseases relating to the feline species. Topics discussed in this compilation include the use of Type 1 interferon for treating feline retroviruses; new advances in the diagnosis, epizootiology and taxonomy of feline pirolismids; feline hepatozoonosis and the resurrection of hepatozoon felis; the role of cats in toxoplasma gondii infection; and the therapeutic effect of melatonin in feline uveitis.

**Goats: Habitat, Breeding and Management**

*Diego E. Garrote and Gustavo J. Arede*

In series: *Animal Science, Issues and Professions*


Case: 978-1-61942-932-1. $95.00.
e-book: 978-1-61942-950-5. $65.00.

In this book, the authors present topical research in the study of the habitat, breeding and management of goats. Topics include the production and commercialization of goat milk and cheese in Northwest Argentina; infectious causes of abortion in goats; the oral environment and diet choices in goats; acute phase proteins as biomarkers of mastitis in dairy goats; and the influence of feeding goats with thyme and rosemary extracts on the physicochemical and sensory quality of cheese and pasteurized milk.

**Larvae: Morphology, Biology and Life Cycle**

*Kia Pourali and Vafa Niroomand Raad*

In series: *Animal Science, Issues and Professions*

In series: *Microbiology Research Advances*


Case: 978-1-61942-662-7. $140.00.

Larvae are the distinct juvenile form many animals undergo before metamorphosis into adults. Animals with indirect development such as insects, amphibians, or cnidarians typically have a larval phase of their life cycle. In this book, the authors present current research in the study of the morphology, biology and life cycle of larvae. Topics include the morphological changes of marine fish larvae and their nutrition needs; larvae and embryonization principles of ontogeny in arthropods; larvicidal lectins and trypsin inhibitors isolated from different plant tissues; aquaculture production and larval rearing; expression of recombinant proteins in insect larvae; and adaptive plasticity and evolution in larva with particular reference to the chironomid midge.

**Lepidoptera: Classification, Behavior and Ecology**

*Elia Guerrirote and Johannes DeSare*

In series: *Insects and Other Terrestrial Arthropods: Biology, Chemistry and Behavior*

In series: *Animal Science, Issues and Professions*


Lepidoptera is a large order of insects that includes moths and butterflies which inhabit all terrestrial habitats ranging from desert to rainforest, from lowland grasslands to mountain plateaus. In this book, the authors discuss the classification, behavior and ecology of lepidoptera. Topics include the molecular components of diapause in the moth sesamia nonagrioides; integrated pest management of lepidoptera in industrial crop models; odor plume behavioral and physiological implications in phytophagous insects; immune response in lepidoptera; grape vine moth behavior and ecology; South American caterpillars; and ecology of the blue-striped grub moth parasa lepida.

**Nutritional Strategies of Animal Feed Additives**

*Abdel Fattah Z.M. Salem* (Facultad de Medicina Veterinaria y Zootecnia, Universidad Autónoma del Estado de México, México, and Fac. Agric. Alex. Univ. Egypt)

In series: *Veterinary Sciences and Medicine*

In series: *Agriculture Issues and Policies*


Case: 978-1-62417-000-3. $150.00.

Quality of feed nutrition is influenced not only by the content but also by some other aspects such as, feed presentation, hygiene, anti-nutritional factors, digestibility and palatability. Feed additives provide a mechanism by which such dietary deficiencies can be addressed and also benefits not only associated with the nutrition and thus the growth rate of the animal concerned, but also its health and welfare. Feed additives could modify animal metabolism in specific and direct ways by improving production efficiency (weight gain or milk yield); improving carcass composition in growing animals; increasing milk yield in lactating animals; and decreasing animal waste per production unit. This book discusses the impacts of feed additives on animal metabolism, health and production.

**Random Thoughts on Recombinant Insects**

*Thomas A. Miller* (Department of Entomology, University of California, CA)

In series: *Insects and Other Terrestrial Arthropods: Biology, Chemistry and Behavior*

In series: *Agriculture Issues and Policies*


Case: 978-1-62081-441-3. $85.00.

This book discusses the development of transgenic pink bollworm for use in eradicating a major pest insect from the Arizona cotton fields. After pink bollworm invaded California from Arizona around 1968, the California Cotton Pest Control Board and California Department of Food and Agriculture combined to adopt the Sterile Insect Technique (SIT) to keep pink bollworm from invading the San Joaquin Valley where the majority of cotton is grown. This book discusses approaches in gaining control of this situation.

**Ruminants: Anatomy, Behavior and Diseases**

*Ricardo Evandro Mendes* (UNIBAVE Centro Universitário Barriga Verde, Professor of Veterinary Pathology, Orleans, Santa Catarina State, Brazil)

In series: *Animal Science, Issues and Professions*


Case: 978-1-62081-064-4. $185.00.
e-book: 978-1-62081-070-5. $185.00.

This book includes thoroughly revised and reviewed information with content of the most important diseases throughout the world. It presents...
up-to-date information on diseases affecting ruminants as Fasciolosis, Freemartism and BVD, as well as, present important information about behavior and evolutionary and morphological anatomy. Included also are observations collected during experiments using immunohistochemistry, flow cytometry and scanning and transmission electron microscopy. This book was written by some of the best researchers in each area, from universities located in Spain, Portugal, US, Switzerland, Brazil, Italy and Slovakia. Completely revised chapters reflect the information from current literature.

**Symbiosis: Evolution, Biology and Ecological Effects**

*Alejandro F. Camisão and Célio C. Pedroso*

In series: *Animal Science, Issues and Professions*

Case: 978-1-62257-211-3. $150.00.

Symbiosis refers to the biological interaction between two organisms or species, living in close association. In this book, the authors present current research in the study of the evolution, biology and ecological effects of symbiosis. Topics discussed include the evolution of arbuscular mycorrhiza; legume properties and symbiosis; sea anemones and hermit crab symbiosis in temperate seas; the agronomic and ecological importance between legumes and rhizobia; the behavioral, physiological and ecological effects of organisms in symbiotic associations; and a neuronal model with symbiotic interactions.

**The Biology of Snub-Nosed Monkeys, Douc Langurs, Proboscis Monkeys, and Simakobus**

*Cyril C. Grueter (School of Anatomy, Physiology and Human Biology, The University of Western Australia, Crawley, WA, Australia)*

In series: *Animal Science, Issues and Professions*

Case: 978-1-62417-621-0. $85.00.

Within the Colobinae, the genera Rhinopithecus (snub-nosed monkeys), Pygathrix (douc langurs) and Nasalis (proboscis monkeys and simakobus) are informally grouped as the odd-nosed monkeys. While these genera comprise an eclectic mix featuring remarkable natural histories, this ecologically diverse group previously received little attention from the scientific community. In the last decade, however, a plethora of new and exciting research has occurred on these understudied colobines. In this book, we present a summary and synthesis of this new knowledge, looking to compare across taxa and scientific disciplines and generate in-depth discussion of what odd-nosed monkeys can tell us about the unity and diversity of the primates as a whole. This review follows the central themes of primatology and covers topics as diverse as taxonomy and phylogeny, functional morphology, spatial and dietary ecology, activity patterns, social organization, life histories and ends with an overview of the conservation status of these enthralling and endangered primates.

**Trout: From Physiology to Conservation**

*Sergio Polakof (French National Institute for Agricultural Research, Clermont-Ferrand/Their Research Center, Saint-Genèse-Champamble, France), Thomas W. Moon (Department of Biology, University of Ottawa, Ottawa, ON, Canada)*

In series: *Animal Science, Issues and Professions*

In series: *Marine Biology*

2013. 466 pp.
Case: 978-1-62417-009-6. $350.00.

‘Trout’ are generally considered to be cool, freshwater fish species that belong phylogenetically to the rather young group of fin-rayed or teleost fishes in the Family Salmonidae. Trout have significant economic, social and scientific importance. This book examines two ‘trout’, the rainbow trout Oncorhynchus mykiss and the brown trout Salmo trutta. This book came from the editor’s interest to bring together some of the major areas that have made ‘trout’ such an important and enduring model species. The chapters have been carefully crafted by their authors to ensure that they cover as much of the topic as possible including references that support the information.

**BIOCHEMISTRY**

**Androgens: Production, Functions and Disorders**

*Berkley F. Thompson and Devon J. Robinson*

In series: *Endocrinology Research and Clinical Developments*

Case: 978-1-62081-145-0. $150.00.

Androgens have diverse effects at both a physiological and behavioral level. These steroid hormones are present right from the first weeks of gestation and, in addition to playing a key role in the development of the male sex organs (both internal and external) are also involved in the development of the central nervous system in both males and females. In this book, the authors present current research in the study of androgens including androgen deprivation therapy for advanced prostate cancer; and the relationship between androgen levels and diverse cognitive abilities and social behavior in childhood.

**Anthocyanins: Structure, Biosynthesis and Health Benefits**

*Noboru Motohashi (Meiji Pharmaceutical University, Tokyo, Japan)*

In series: *Biochemistry Research Trends*

In series: *Nutrition and Diet Research Progress*

Case: 978-1-62257-329-5. $150.00.

Anthocyanins and flavonoids in vegetables, fruits and grain corms have their diverse functions to human dietary life. Topics discussed in this book include original findings and reviews such as their distributions, extractions, separations, characterization, stability, functions, biosynthesis pathway, the regulation of the biosynthetic enzymes by anthocyanins and flavonoids, food colors, and molecular biology such as a relationship of biomolecule with anthocyanins or flavonoids in vegetables and fruits. Kiwifruits, muscadine berries, color rices, Justicia species, strawberry, a Brazilian fruit of jabuticaba (Myrciaria cauliflora), jujube berry fruits, grapes, bilberries, taro as a vegetable and corn, and other fruits have been included in this book.

**Arachidonic Acid: Dietary Sources and General Functions**

*Gerard G. Dumancas, Befrika S. Murdianti, Edralin A. Lucas (Oklahoma State University, Stillwater, Oklahoma, USA)*

In series: *Biochemistry Research Trends*

In series: *Nutrition and Diet Research Progress*

Case: 978-1-62257-481-0. $150.00.

Arachidonic acid (AA) is an ω-6 polyunsaturated fatty acid found in the phospholipids of the membranes of the human body’s cells, and is abundant in the brain, muscles, and liver. This fatty acid is particularly...
obtained from meat products including chicken, beef, pork, and fishes. An interesting source of AA is through its accumulation in a green microalga, Myrmecia incisa, enhanced by nitrogen starvation. The general functions of AA and its metabolites including its association with coronary heart disease, oxidative stress and cancer, metabolic syndrome, insulin resistance, and its endocrine response to stress are also discussed.

Bioactive Heterocycles: Synthesis and Biological Evaluation

K. L. Ameta (Department of Chemistry, MITS University, Rajasthan, India), R. P. Pawar (Department of Chemistry, Deogiri College, Maharashtra, India), A. J. Domb (Department of Medicine, The Hebrew University of Jerusalem, Jerusalem, Israel)

In series: Biochemistry Research Trends 2012. 319 pp
Case: 978-1-62257-636-4. $150.00.
This book is a critical and lucid account of various synthetic methodologies and biological activities of different sized bioactive heterocyclic compounds. In effect, this book imparts a great deal of comprehensive reviews about the chemistry and biology of selected groups of heterocycles and natural products including important pharmaceuticals as well as agrochemical pesticides in one handy project. Besides, this compendious effort encompasses different methods of synthesis and biological evaluation of heterocyclic compounds. The main purpose of this book is to share the recent advances and scope of Bioactive Heterocycles for the future avenues in the field. It has specifically been designed by keeping in mind the wide interests of individuals engaged in the design and synthesis of biologically active heterocyclic compounds as well as research scientists in academia and industry. The authors expect this book to be a standard reference in Universities and industrial libraries.

Biochemistry Researcher Biographical Sketches and Research Summaries

James T. Walker and Catherine M. Jones

In series: Biochemistry Research Trends 2012. 523 pp
Case: 978-1-62081-308-9. $150.00.
This new book compiles biographical sketches of top professionals in the field of biochemistry research, as well as research summaries from a number of different focuses in this important field.

Biomacromolecular Mass Spectrometry: Tips from the Bench

Simone König (Univ. Muenster, Germany)

In series: Protein Biochemistry, Synthesis, Structure and Cellular Functions

In series: Biochemistry Research Trends 2012. 189 pp
Case: 978-1-62081-932-6. $95.00.
e-book: 978-1-62081-933-3. $95.00.
This book compiles articles from the journal Biomacromolecular Mass Spectrometry which covers research in the fields of biomacromolecules such as proteins, DNA, and other biopolymers studied with mass spectrometry and peripherec techniques. Cleavage and breakdown of the large molecules are often necessary for their investigation and, therefore, studies on the products are also of importance to the book. Biomolecular mass spectrometry has become a major analytical technique during recent years driving the biosciences forward at the same time. Research tends to be more and more interdisciplinary, and the journal attempts to bridge all biomacromolecules in an effort to enhance communication among scientists. This book publishes the Proceedings of the Annual Münster Conference on Single Cell and Molecule Analysis.

Calcium Phosphate: Structure, Synthesis, Properties, and Applications

Robert B. Heimann (Am Stadtspark 2A, Gòrlitz, Germany)

In series: Biochemistry Research Trends 2012. 512 pp
Case: 978-1-62257-299-1. $350.00.
Calcium phosphates are key materials to sustain life on Earth as constituent of the gravity-defying bony skeletons of all vertebrates as well as the dentine and enamel materials of teeth. This book contains accounts on the historical development of the scientific knowledge gained on calcium orthophosphates, the latest information on the structure of carbonate-bearing hydroxyapatite, the role played by small amounts of molecular water residing in synthetic hydroxyapatite and bone mineral, as well as the nature of oxyhydroxyapatite and oxyapatite as intermediates during dehydroxylation of hydroxyapatite, pertinent information to unravel the complex processes relevant for plasma-sprayed calcium phosphate coatings on endoprosthetic implants. This book is recommended to industrial and academic professionals in the fields of medical technology, orthopedy, dentistry, biology, materials science, chemistry, environmental engineering, and mineralogy.

Creatinine: Production, Diagnostic Uses and Role in Renal Disease

Ivan H. Perkins and Catherine M. Chapman

In series: Nephrology Research and Clinical Developments

In series: Biochemistry Research Trends 2012. 213 pp
Case: 978-1-62257-475-9. $150.00.
Creatinine, a muscle waste product, is widely interpreted as a measure of renal function. However, the serum level reflects not only renal excretion, but also the generation, intake, and metabolism of creatinine. In this book, the authors present current research in the study of the production, diagnostic uses and role in renal disease of creatinine. Topics include the diagnostic use of creatinine in preeclampsia; serum creatinine and its effect and management in renal and hepatic disease; evaluation of renal function in patients with cirrhosis; the role of creatinine in kidney disease in neonates, infants and children; and retinol X creatinine in kidney disease.

Eicosapentaenoic Acid: Sources, Health Effects and Role in Disease Prevention

Theodore G. Bradley and Francisco P. Vargas

In series: Biochemistry Research Trends

In series: Nutrition and Diet Research Progress 2012. 230 pp
Case: 978-1-62257-480-3. $150.00.
Omega-3 long chain polyunsaturated fatty acids have been part of the human diet since the beginning of mankind. With the recent discovery of the tremendous health benefits provided by fatty acids, especially eicosapentaenoic acid (EPA); a growing progress is occurring in understanding their biological functions and mode of action as well as the introduction of EPA-enriched value-added foods and nutraceuticals. This book discusses the sources, health effects and role in disease.
prevention of EPA. Topics include the eicosapentaenoic acid role in bone metabolism, malignant diseases, mental health, and reducing coronary heart disease; identification and characterization of n-6 and n-3 fatty acid desaturase and elongase from acanthopagrus shlegelii; fractionation and concentration of omega-3 by molecular distillation; and combined supplementation with EPA-rich fish oil and phytosteros can improve plasma lipid profile and c-reactive protein in hyperlipidemia.

**Estrogen Receptors: Mechanisms, Structure and Role in Disease**
*George Chen (Department of Surgery, Prince of Wales Hospital Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong)*

In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*

In series: *Endocrinology Research and Clinical Developments*

Case: 978-1-62257-098-0. $150.00.

Estrogen receptors (ER) are emerging as important molecules involved in the variety of physiological and pathological activities. There are two classic estrogen receptors: alpha and beta. Different cells and tissues have shown divergent responses to these two estrogen receptors. While we are starting to understand the interaction between estrogen receptors and its ligands contributes to the development of various diseases, the discovery of sub-isofoms of estrogen receptor alpha and beta has further complicated the mechanism of estrogen receptors. Nevertheless, continuing efforts in the study of estrogen receptors have helped us to define their roles in diseases and to develop novel therapies against these disorders. The 11 chapters in this book are the excellent evidence to summarize our efforts in this direction. This book should be of great value to not only clinicians and medical students interested in estrogen/ER-related diseases but also basic scientists working in the field of estrogens/ERs.

**Ethanol: Production, Cellular Mechanisms and Health Impact**
*Roy I. Henry and Billy P. Woods*

In series: *Biochemistry Research Trends*

Case: 978-1-62257-297-7. $150.00.

The fermentation of sugar into ethanol is one of the earliest biotechnologies employed by humanity. In modern times, ethanol intended for industrial use is also produced from ethylene. Ethanol has widespread use as a solvent of substances intended for human contact or consumption, including scents, flavorings, colorings, medicines, and as a biofuel. This book discusses ethanol production, cellular mechanisms and its health impacts. Topics include the production of ethanol from synthesis gas in flowed vapor-solid catalytic systems; producing hydrogen from ethanol reforming processes through inorganic membrane reactors; the potential role of epigenetic factors in the etiology of fetal alcohol spectrum disorder; ethanol investment decisions; cellulose ethanol production through bioconversion of lignocellulosic biomass; and the effects of withdrawal from ethanol use on emotional learning.

**Glutamic Acid: Chemistry, Food Sources and Health Benefits**
*Dantel M. J. Balcazar and Esmeralda A. Reinoso Perez*

In series: *Protein Science and Engineering*
This book presents topical research in the study of the dietary sources, properties and health benefits of flavonoids. Topics discussed in this compilation include the pharmacokinetic variability of dietary phenolic acids and flavonoids in relation to chemical and biological factors; modification of flavonoid structures by oxovanadium (IV) complexation; anti-inflammatory properties of dietary flavonoids; UV-B radiation as a powerful tool to modulate flavonoid metabolism in tomato fruits; regulation of intestinal barrier function by dietary flavonoids; anti-cancer mechanisms of flavonoids in malignant neuroblastoma and dietary sources of isoflavones and the methodology used for the analysis.

**Hydroxyapatite: Synthesis, Properties and Applications**

Valeri S. Gshalaev and Aleksandra C. Demirchan
In series: *Biomaterials - Properties, Production and Devices*
Case: 978-1-62081-934-0. $350.00.

Hydroxyapatite is the most widely accepted biomaterial for the repair and reconstruction of bone tissue defects. It has all the characteristic features of biomaterials, such as, biocompatible, bioactive, osteoconductive, non-toxic, non-inflammatory and non-immunogenic properties. In this book, the authors present current research in the study of the synthesis, properties and applications of hydroxyapatites. Topics discussed include nanodimensional and nanocrystalline hydroxyapatite and other calcium orthophosphates; application of biomimetic nanocrystalline apatites in drug delivery and tissue engineering; polymer matrix mediated synthesis of nano hydroxyapatite crystals; osteointegration of titanium porous implants with carbon nanocoating and hydroxyapatite particles into the pores; hydroxyapatite thin film prepared by sputtering technique for medical applications; and hydroxyapatite application in dentistry and maxillofacial surgery.

**Lactic Acid: Production, Properties and Health Effects**

Alfonso Jiménez Migallón (University of Alicante, San Vicente del Raspeig, Spain) and Roxana A. Ruseckaite (Universidad Nacional de Mar del Plata, Mar del Plata, Argentina)
In series: *Progress in Food Science and Technology*
Case: 978-1-62081-643-1. $95.00.
e-book: 978-1-62081-690-5. $95.00.

The development of new materials of natural origin and biodegradable characteristics for many applications is one of the most important challenges for the materials research groups and polymer industry during the next few years. Poly(lactic acid), PLA, is a biodegradable polymer synthesized from lactic acid (LA), which on its side is obtained from renewable resources. The editors have carried out a selection and seemingly have chosen enough of good reviews and unique works in the branch of lactic acid and its properties, polymerization and final applications of PLA. Apparently, these works are at the front edge of science and will be of interest for high readership of scientists and students in the branch of chemistry and physics of polymers and biopolymers. The editors expect that the readers will be happy with this selection.

**Matrix Metalloproteinases: Biology, Functions and Clinical Implications**

Namae Oshiro and Eiko Miyagi
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*
Case: 978-1-62100-789-0. $95.00.
e-book: 978-1-62100-884-2. $95.00.

Matrix metalloproteinases (MMPs) are a large group of zinc-dependent extracellular endopeptidase proteinases involved in the cleavage of extracellular matrix macromolecules. MMPs play an important role in normal physiology, migration of inflammatory cells and the repair process after tissue damage. In this book, the authors present current research in the study of the biology, functions and clinical implications of matrix metalloproteinases. Topics discussed include TGF-B and MMPs as a complex regulatory loop in tumor progression; MMPs role in the pathogenesis of osteoarthritis; gelatinases in the skin; detecting MMP activity in vivo; MMPs in renal fibrosis; macrophage migration inhibitory factor as a mediator of MMP production; MMP regulation by macroldes in cardiac disorders and MMPs in neural plasticity and disease.

**Natural Products: Structure, Bioactivity and Applications**

Ramiro E. Goncalves and Marcos Cunha Pinto
In series: *Biochemistry Research Trends*
Case: 978-1-62081-728-5. $150.00.

A natural product is a chemical compound or substance produced by a living organism - found in nature that usually has a pharmacological or biological activity for use in pharmaceutical drug discovery and drug design. A natural product can be considered as such even if it can be prepared by total synthesis. In this book, the authors present current research in the study of the structure, bioactivity and applications of natural products. Topics discussed include the in-vitro assessment of chormones and alkaloids from Caribbean plants as potential anti-tubercularies and chemopreventors; natural products as inhibitors of ubiquitin and ubiquitin-like protein-proteasome pathways; the biological activities of red propolis; nanoencapsulation of natural
products, and natural products as a source of potential drugs for the treatment of fungal infections.

**Nitrate: Occurrence, Characteristics and Health Considerations**
*Silvia Antonio Brandan (Cátedra Química General, Facultad de Bioquímica, Química y Farmacia, Universidad Nacional de Tucumán, Ayacucho, San Miguel de Tucumán, Tucumán, Argentina)*

In series: *Biochemistry Research Trends*

Case: 978-1-62257-352-3. $150.00.

The study of the nitrate salts is of great chemical, biochemical, industrial, environmental and human health importance because nitrates are one of the most common wide-spread contaminants in groundwater. This book presents important studies related to nitrates, and their occurrence, production, properties, and health considerations. Topics include a biological treatment using a salt-tolerant, perchlorate- and nitrate-reducing culture; nutritional and safety properties of vegetable foods; the distribution of nitrates and nitrites in plants cultivated following organic and conventional procedures; nitrate removal processes; the signal-role of nitrate in different plant species; the catalytic removal of nitrates; synthesis and characterization of volatile anhydrous metal nitrates as precursors; bimetallic/activated carbon supported samples, used for NOx reduction by carbon; bimetallic-activated carbon supported samples that were studied after NOx adsorption experiments; an efficient catalytic system for the synthesis of dihydroxypyrimidinones derivatives; and the structural and vibrational properties of the chromyl, niobyl and vanadyl nitrates.

**Phenolic Acids: Composition, Applications and Health Benefits**
*Sergi Munné-Bosch (Universitat de Barcelona, Spain)*

In series: *Biochemistry Research Trends*

Case: 978-1-61942-032-8. $140.00.

This book aims at introducing the non-specialist as well as the professionals in the fields of chemistry, biochemistry, biotechnology, food science and biomedical sciences into the biochemistry, applications and health benefits of an important group of natural products, phenolic acids. The book shows how phenolic acids display a potent antioxidant capacity and therefore health promoting effects and describe the phenolic acid composition in fruits and vegetables. The book also covers industrial applications related to phenolic acids. Furthermore, the book discusses the application of phenolic acids as food additives, since the preparation of foods with a high content of phenolic acids can lead to a reduction in the use of synthetic additives, resulting in healthier foods that can be included in the functional foods group. The book is of interest to specialists in the field but also to graduate or postgraduate students that are interested in this particular group of natural products.

**Phosphates: Sources, Properties and Applications**
*Daichi Akita and Chinnatsu Iwate*

In series: *Biochemistry Research Trends*

Case: 978-1-61942-123-3. $140.00.

In this book, the authors present recent research in the study of the sources, properties and applications of phosphates. Topics include phosphates for seafood processing; zirconium phosphate as a versatile chemical carving board to produce solid, layered organic−inorganic materials; catalytic activity of ortho- and condensed phosphates; the role of phosphate transporters in skeletal and extraskeletal calcification; application of phosphates for metal immobilization and the thermodynamic stability of phosphate apatites.

**Polyphenols: Chemistry, Dietary Sources and Health Benefits**
*Jian Sun (Guangxi Academy of Agricultural Sciences, Guangxi, China), K. Nagendra Prasad (Monash University, Selangor, Malaysia), Amin Ismail (University of Putra, Malaysia), Bao Yang (Chinese Academy of Sciences, Guangzhou, China), Xiangrong You and Li Li*

In series: *Nutrition and Diet Research Progress*

In series: *Biochemistry Research Trends*

Case: 978-1-62081-809-1. $325.00.

Epidemiological and clinical data are accumulating on the health-promoting properties of diets rich in fruits, vegetables and grains associated with the reduced risk for degenerative diseases. Health-promoting components present in fruits, vegetables and grains are important for wellness benefits. Amongst many food components, polyphenols have attracted a considerable interest in recent years due to their various functionality and physiological effects. This book covers the important areas of polyphenols from fundamental chemical composition and classification to potential disease prevention and food application. It also covers the typical case of quality and quantity analysis of polyphenols as well as their individual components present in fruits and vegetables with a broad spectrum from tropical fruits, apples, grapes, blueberries, teas, wines, traditional herbal medicines, to food processing by-products and other functional foods.

**Recent Research Developments in Foldamer Chemistry**
*G. V. M. Sharma (CSIR-Indian Institute of Chemical Technology, Hyderabad, India) and A. C. Kunwar (CSIR-Indian Institute of Chemical Technology, Hyderabad, India)*

Y. V. D. Nageswar (CSIR-Indian Institute of Chemical Technology, Hyderabad, India) Y. V. D. Nageswar (CSIR-Indian Institute of Chemical Technology, Hyderabad, India)

In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*

In series: *Biochemistry Research Trends*

Case: 978-1-61942-133-2. $150.00.
e-book: 978-1-61942-137-0. $150.00.

The book presents details on the ‘aliphatic foldamers’, with a special emphasis on the peptides with – homogenous backbones (γ- and δ-peptides), peptides with heterogeneous backbones (from alternating α-, β-, γ-, δ- and ε-amino acids), peptides with backbone modifications (aminoxyl-, hydrazine- and ureido peptides), peptides from sugar amino acids and methods for conformational analysis. The material presented in the book is useful for the research and student community to usher in a sustained propagation of this active area of research on ‘foldamers’.

**Saponins: Properties, Applications and Health Benefits**
*Rani Koh and Isaac Tay*

In series: *Biochemistry Research Trends*

In series: *Animal Science, Issues and Professions*

Case: 978-1-62100-942-9. $150.00.
Saponins are a diverse group of glycosidic compounds widely distributed in the plant kingdom, which are characterized by structures containing triterpene or steroidal aglycones and one or more sugar chains. Despite their fairly large structural diversity, saponins share some unique biological properties including the ability to foam and lyse erythrocytes. This book presents current research in the study of the properties, applications and health benefits of saponins. Topics discussed include an analysis on the chemical structures and isolation of saponins from Panax species; triterpenoid saponins from genus Gypsophila L. (Caryophyllaceae); the potential of triterpenoids from ginseng to regulate cultured adipocytes and saponin use as antimicrobial in fibrous and consumer products.

The Third Element - Actinidic Archaea, Digoxin and the Biological Universe

Ravikumar Kurup A. and Parameswara Achutha Kurup (The Metabolic Disorders Research Centre, Trivandrum, Kerala, India)

In series: Biochemistry Research Trends
Case: 978-1-61942-318-3. $150.00.

An actinide dependent shadow biosphere of archaea and viroids in disease states is described with archaeal digoxin playing a pathological role. Archaeal digoxin can produce neuro-immuno-endocrine-genetic-metabolic integration. Archaeal digoxin by producing sodium-potassium ATPase inhibition can generate synchronized sustained burst activity in neuronal cells resulting in a electromagnetic field and a plasma state in the cell. This can generate cellular and molecular electromagnetic traces important in signal transduction and quantal perception. Metal actinides in beach sands have been postulated to play a role in abiogenesis. A hypothesis of cholesterol as the primal prebiotic molecule synthesised on actinide surfaces with all other biomolecules arising from it and a self replicating cholesterol lipid organism as the initial life form is presented. A cholesterol based theory of abiogenesis and its role in the evolution of universe is elucidated.

Whey: Types, Composition and Health Implications

Rafael Mauro Benitez and Gustavo M. Ortero

In series: Agriculture Issues and Policies
Case: 978-1-61942-862-1. $140.00.
e-book: 978-1-61942-888-1. $140.00.

Whey, the serum or liquid part of milk remaining after separation of the curd, results from the coagulation of milk by acid or proteolytic enzymes. Whey proteins have a relevant nutritional value, and several commercial uses have been developed by the dairy industry. In this book, the authors present topical research in the study of the types, composition and health implications of whey. Included in this compilation are the immune-modulating effects of whey proteins and peptides; the behavior of whey proteins as fat replacers in low-fat food products; up-stream processing methods, general principles and fermentation strategies for microbial productions using whey as a substrate; and the effects of whey protein intake on glucose homeostasis.

Xenobiotics: New Research

Saul F. Castaneda and Mauro L. Emerson

In series: Chemical Engineering Methods and Technology
Case: 978-1-61942-616-0. $120.00.
e-book: 978-1-61942-628-3. $120.00.

A xenobiotic is a chemical which is found in an organism but which is not normally produced or expected to be present in it. Specifically, drugs such as antibiotics are xenobiotics in humans because the human body does not produce them itself. In this new book, the authors present current research on xenobiotics including the potential effects of toxic agents on immune system function; medical strategies to prevent adverse effects of PAH-like anthropogenic xenobiotics; organophosphorus pesticides as dangerous xenobiotics for aquatic environments and phytoremediation for removal of organic xenobiotics from water.

BIOLOGY

Animal Models in Cancer Research and Human Disease: Applications, Outcomes and Controversies

Sean A. Murray

In series: Microbiology Research Advances
Case: 978-1-62417-587-9. $150.00.

This book discusses the applications, outcomes and controversies of using animal models in cancer research and human disease. Topics include murine models of sporadic and inflammation-related colon carcinogenesis with particular focus on the AOM/DSS chemically induced colorectal cancer model; large animal models of human cardiovascular disease; developments of cell therapeutic strategies for Alzheimer's disease using animal models; the techniques and limitations of murine models of human colorectal cancer; animal models for antineoplastic chemotherapy-induced alopecia; and development of columnar-lined esophagus with or without goblet cells in rate duodengastroesophageal reflux models through gut regenerative cell lineage (GRCL).

Antimicrobial Peptides: Properties, Functions and Role in Immune Response

Myung-Dae Seong and Young-Il Hak

In series: Immunology and Immune System Disorders
Cysts are pathological cavities that may or may not be lined by the epithelium and are filled with either gas, fluid or semi-solid materials. Once formed, a cyst could go away on its own or may have to be removed through surgery. In this book, the authors present current research in the study of the causes, diagnosis and treatment options of cysts. Topics discussed include recent advances in the diagnostic imaging of cysts and pseudocysts in the oral and maxillofacial region; inflammatory odontogenic cysts; cystic renal pathology; non-parasitic benign liver cysts; and the malignant potential of epidermal and verrucous cutaneous cysts.

**Embryo Development: Stages, Mechanisms and Clinical Outcomes**

*David Reyes and Angelica Casales*

In series: *Human Reproductive System - Anatomy, Roles and Disorders*

2013.

Soft: 978-1-62417-723-1. $72.00.

In this book, the authors discuss the stages, mechanisms and clinical outcomes of embryo development. Topics include chick embryogenesis as a unique platform to study the effects of environmental factors on embryo development; molecular and cellular aspects of blastocyst dormancy and reactivation for implantation; limb development and the emergence and function of the apical ectodermal ridge; and the use of time lapse photography in an in vitro fertilization program for better selection of embryo transfer.

**Encyclopedia of Virology Research (2 Volume Set)**

*Andrew P. Gatto and Benjamin S. Leon*

In series: *Virolology Research Progress*


Case: 978-1-61470-385-3. $325.00.

This book presents current research in the field of virology. Topics discussed include giant viruses and their genomes; replication, transcription and translation of coronaviruses; dengue detection, diagnosis and control; dengue virus pathogenesis and animal modeling; molecular diagnostics for detecting dengue; interspecies transmission of avian influenza virus to dogs; conventional and experimental vaccines against avian influenza; molecular pathogenesis of avian influenza and the prospect of therapy using small interfering RNA and U.S. and international responses to the global spread of avian flu.

**Estrogens: Biochemistry, Therapeutic Uses and Physiological Effects**

*Vito J. Thompson and Adiron E. Watson*

In series: *Endocrinology Research and Clinical Developments*


Case: 978-1-62081-747-6. $95.00.
e-book: 978-1-62081-749-0. $95.00.

Estrogens are a family of hormones that potently regulate reproductive, cardiovascular, bone, brain, and other physiology by altering gene expression. In this book, the authors present topical research in the study of the biochemistry, therapeutic uses and physiological effects of hormones. Topics include the physiological effects of estrogen in fish and its application; estrogens in osteoarthritis and inflammation; estrogens as mediators of obesity-induced inflammation; the transcriptional effect of estrogens on gene expression; and the role of estrogens in regulating the gender disparity of hepatocellular carcinoma.
Functional Impairment: Management, Types and Challenges
Emaad M. O. Abdel-Rahman (University of Virginia), Rasheed Abiodun Balogun (University of Virginia)
In series: Human Anatomy and Physiology
Case: 978-1-62081-410-9. $150.00.
e-book: 978-1-62081-413-0. $150.00.
Functional impairment, defined as any abnormality of organ, or psychological function or anatomical structure that leads to inability to perform normal activities, is growing to be a huge challenge. The recent advancements in science as well as technologies, have aided in prolonging human lives, and with that, newer challenges have surfaced as to the quality of this extended life. Thus identifying causes and types of functional impairments with different organ systems and methods of management of these impairments are very crucial. The authors aim to shed some light on this important topic of functional impairment, and to discuss the various causes, manifestations and managements of these impairments.

Fungi: Types, Environmental Impact and Role in Disease
Adolfo Paz Silva, Maria Sol (University of Santiago de Compostela, Lugo, Spain)
In series: Environmental Health - Physical, Chemical and Biological Factors
Fungi are very interesting organisms actively involved in a great number of environmental processes. Both animals and humans can also be affected by fungi, some of them especially important among immunocompromised individuals. This book provides research on the different types, impact and role in disease of fungi. Some of the topics discussed include gut fungi; carbohydrate uptake and catabolism in fungi; candida species as causative agents in infections; effect of polyeone antibiotics on the potential pathogenicity factors in saprophytic micromycetes; and ectomycorrhizal fungi and their role in symbiosis.

Glutathione: Biochemistry, Mechanisms of Action and Biotechnological Implications
Nikolaos Labrou and Emmanouil Flemetakis (Laboratory of Enzyme Technology, Department of Agr. Biotechnology, Agricultural University of Athens, Athens, Greece)
In series: Microbiology Research Advances
In series: Biochemistry Research Trends
Case: 978-1-62417-460-5. $195.00.
Glutathione (γ-glutamyl-cysteinyl-glycine; GSH) is the most abundant low-molecular-weight thiol found in both prokaryotic and eukaryotic organisms. GSH has potent electron-donating capacity that renders GSH both a potent antioxidant and a conventional cofactor for enzymatic reactions. GSH participates in many cellular functions such as redox control, stress defense, drug detoxification and cell signaling including regulation of DNA and protein synthesis, gene expression, apoptosis and cell proliferation. GSH concentration in the cell is homeostatically controlled, being continually self-adjusting with respect to the balance between GSH synthesis, its recycling from GSSG and its utilization by other enzymes. Alterations in its concentration contribute to oxidative stress, which plays a key role in aging and the pathogenesis of many diseases associated with redox processes modulation. This book discusses cutting-edge developments and deals with the information gained over the last few years on the physiological, biochemical and molecular roles of the GSH and its significance in mammalian, microbial and plant cells.

Human and Animal Mating: Strategies, Gender Differences and Environmental Influences
Misaki Nakamura and Takako Ito
In series: Animal Science, Issues and Professions
In series: Human Reproductive System - Anatomy, Roles and Disorders
Soft: 978-1-62417-085-0. $69.00.
This book presents topical research on human and animal mating strategies, gender differences and environmental influences. Topics include the mating effects on female reproductive organs and the paradigm of estrogen signaling pathways in the oviduct; sexual maturation, mating strategies and neuroendocrinology in social insects; plasticity in mating patterns of a benthic nest-holding fish related to the effects of nest-site abundance and social interactions; and human sexual strategies of short-term mating and parental control over mate choice.

Insulin Resistance: New Developments
John Freeman and Scott Newman
In series: Endocrinology Research and Clinical Developments
The hallmark of insulin resistance is an obstacle to glucose uptake, resulting in hyperglycemia and hyperinsulinemia as well as type 2 diabetes mellitus. The prevalence of diabetes mellitus is rapidly increasing worldwide and is becoming an important health problem. In this book, the authors present current research in the study of insulin resistance including: the pathophysiological basis for antioxidant therapy of insulin resistance; new insight into the regulation of insulin resistance; burn injury and its association with insulin resistance and hyperglycemia which complicates clinical management; and lipoprotein lipase and its role in insulin resistance.

Lactobacillus: Classification, Uses and Health Implications
Alba I. Perez Campos and Arturo Leon Mena
In series: Bacteriology Research Developments
In series: Microbiology Research Advances
Case: 978-1-62081-151-1. $195.00.
Lactobacillus plantarum is a widespread lactic acid bacterium commonly found in fermented foods as well as in the human gastrointestinal tract. Application of Lactobacillus plantarum and its probiotic properties has been widely used over the past several years. The authors of this book present topical research in the study of the classification, uses and health implications of lactobacillus. Topics include the biochemical and genetic characteristics of L. plantarum; the probiotic potential of different strains of Lactobacillus plantarum; beneficial lactobacilli for improving respiratory defenses; the implementation of lactobacilli in meat applications; environmental applications of lactobacillus; and probiotics in pediatric diarrheal diseases.
Lipase: Functions, Synthesis and Role in Disease
Hamdi Sassi and Sofien Cannamela
In series: Biotechnology in Agriculture, Industry and Medicine
In series: Biochemistry Research Trends
Lipases are ubiquitous enzymes which catalyze the hydrolysis of triacylglycerols to glycerols and free fatty acids. Due to their characteristics of enantioselectivity and regioselectivity and stability in organic solvents, they have gained importance in industrial applications. In this book, the authors examine the functions, synthesis and role in disease of lipases. Topics discussed include the action of lipases as a biotechnological tool; fungal lipases in biocatalysis; secreted phospholipase A2 inhibitors from cynara cardunculus L. and aloe vera extract as a potential therapeutic drug for inflammatory diseases; lipoprotein lipase activity in sickle cell nephropathy; lipases in the pharmaceutical industry; and yeast cell surface display of lipases.

Microbiology and Molecular Biology Research
Summaries
Akemi Hirashi and Haruto Fujimoto
In series: Microbiology Research Advances
Case: 978-1-62417-303-5. $195.00.
This new book compiles biographical sketches of top professionals in the field of microbiology and molecular biology, as well as research summaries from a number of different focuses in these important fields.

Microbiology and Molecular Biology Researcher
Biographical Sketches and Research Summaries
Akemi Hirashi and Haruto Fujimoto
In series: Microbiology Research Advances
Case: 978-1-61942-172-1. $185.00.
This new book compiles biographical sketches of top professionals in the field of microbiology and molecular biology, as well as research summaries from a number of different focuses in these important fields.

Peanuts: Bioactivities and Allergies
Iván López Expósito and Ana Belen Blazquez (Dept. of Bioactivity and Food Analysis, Institute for Food Science Research (CIAL), Madrid, Spain)
In series: Allergies and Infectious Diseases
2013. 197 pp.
Case: 978-1-62417-387-5. $110.00.
The peanut is an important crop grown on over 21 million hectares worldwide. Although peanuts have had an adverse image due to their content in saturated fatty acids, it is important to mention they also are an excellent source of protein, vitamins, and minerals for human nutrition. In addition, peanuts contain relevant bioactive constituents that can provide a wide range of health benefits. Unfortunately, peanuts are also one, if not, the most allergenic vegetables and the most common food-related cause of IgE-mediated allergic reactions, mainly in westernized countries. This book will present an up-to-date overview regarding peanut composition, physical characteristics and bioactive properties. The second part will cover peanut and legume allergen characteristics, together with their prevalence. In addition, the therapeutic strategies to treat peanut allergy and the problem regarding the cross-reactivity of peanut and other allergens will be discussed.

Practical Manual of Forensic Histopathology
Jose Blanco Pampin (Instituto de Medicina Legal de Galicia (IMELGA), Santiago de Compostela (A Coruña, Spain), Manuel Sañaguer Villadiego (National Institute of Toxicology and Forensic Sciences, Sevilla, Spain)
In series: Medical Procedures, Testing and Technology
Case: 978-1-62081-748-3. $175.00.
It is important to understand that forensic histopathology is quite different compared to the rest of histology. Diagnostic histopathology is largely an apprenticeship, learned through experience and by visual demonstration and example. It is of great importance in criminal cases, as the presentation of microscopic evidence improves the legal decision of Courts and promotes justice. This book focuses on the borderland between forensic pathology and forensic histology. Forensic pathologists also benefit from a realistic perspective with more than 300 full-color micrographs. The main advantage of this book is the modern concept of histopathology, with inclusion of immunohistochemical techniques of great utility to forensic pathologists, forensic pathology fellows, pathologists who consult in forensic cases, pathology residents, autopsy pathologists, coroners and forensic investigators.

Predictive Mycology
Philippe Dantigny (Laboratoire de Génie des Procédés Microbiologiques et Alimentaires, Dijon, France), Efstatios Z. Panagou (Agricultural University of Athens, Athens, Greece)
In series: Advances in Food Safety and Food Microbiology
Edited by: Dr. Anderson de Souza Sant’Ana and Dr. Bernadette D.G.M. Franco
Case: 978-1-61942-675-7. $165.00.
This book is the first state-of-the-art review that focuses on modeling fungal development in foods, an emerging field in the last decade. The objective of this book is to understand and to predict the development of fungi in food and raw materials and also the production and accumulation of secondary metabolites throughout the food chain.

Probiotics: Sources, Types and Health Benefits
Abby Smith and Caleb L. Jones
In series: Bacteriology Research Developments
Case: 978-1-61942-691-7. $140.00.
Probiotics are live microorganisms that beneficially influence human health. The majority of probiotics are found in the gastrointestinal tract and are mainly represented by lactobacilli and bifidobacteria. In this new book, the authors present current research in the study of the sources, types and health benefits of probiotics. Topics included in this compilation include the role of probiotics and dietary fibre on the modulation of human gut flora to a healthy flora; porcine toll-like receptors and their crosstalk with immunobiotics; probiotics in the prevention and treatment of elderly disease; probiotic cheeses;
antibiotic resistance and probiotics; and probiotics in maternal and early infant nutrition.

**Protozoa: Biology, Classification and Role in Disease**  
*Victor Castillo and Rodney Harris*  
In series: *Microbiology Research Advances*  
2013. 166 pp.  
Case: 978-1-62417-072-0. $150.00.  

In this book, the authors present current research in the study of the biology, classification and role in disease of protozoa. Topics discussed include the current and prospective tools for the control of cattle-infecting Babesia parasites; biological rhythms and cell behavior in paramecium; the use of protozoan tetrahymena as a cell model; anaerobic energy metabolism in protozoa; the biology of gregarines (protozoa: apicola); the biology of parasitic protozoan cysts involved in human water-borne infections; and the effect of nickel toxicity to nutrient removal by selected indigenous protozoan species in wastewater systems.

**Recent Advances in Microbiology. Volume 1**  
*Shree Prakash Tiwari, Rajesh Sharma, (VBS Purvanchal University, Jaunpur, India) and Rahul Kunwar Singh (Banaras Hindu University, Varanasi, India)*  
In series: *Recent Advances in Microbiology*  
Case: 978-1-61470-632-8. $250.00.  

Microbiology as a science has expanded by leaps and bounds in the past few decades due to advancements in sophisticated instrumentation and recombinant DNA technology which added new dimension and revealed the understanding of the subject at molecular level. This has resulted in the emergence of several applications of this domain. This book have been compiled with the help of leading Microbiologists from India and other countries with an objective of providing current developments in the field of Microbiology. This book will be useful for under and postgraduate students, academicians, researchers and laboratory personnel from disciplines like Microbiology, Biochemistry, Veterinary Science, Medicine, Pharmacy, Agriculture, Food Science, Environmental Science, Industrial Microbiology and other allied Biological Sciences.

**Renin-Angiotensin System: Physiology, Role in Disease and Health Implications**  
*Ayako Himura and Takeshi Sato*  
In series: *Endocrinology Research and Clinical Developments*  
2013. 239 pp.  
Case: 978-1-62417-788-0. $150.00.  

The renin-angiotensin system (RAS) is a major hormonal system that plays an essential role in regulating salt-water balance and blood pressure. In this book, the authors discuss the physiology, role in disease and health implications of RAS. Topics include the function of the renin-angiotension-aldosterone system in ISIAH rats with stress-sensitive arterial hypertension; RAS implications for eye diseases, obesity and diabetes, and cardiovascular disease; intensive blockade of renin-angiotensin systems; glomerular renin-angiotensin system activation; the role of vitamin D in RAS; the renin-angiotensin system in the pathogenesis of intracranial aneurysms; and a discussion on whether angiotensin-converting enzyme inhibitors are a contradiction for contrast-induced nephropathy prophylaxis?

**Somatostatin: Synthesis, Mechanisms-of-Action and Physiological Effects**  
*Allison Anderson and Taylor McAnulty*  
In series: *Endocrinology Research and Clinical Developments*  
2013. 144 pp.  
Soft: 978-1-62417-419-3. $69.00.  

Somatostatins (SST) form a family of cyclopeptides that are mainly produced by normal endocrine, gastrointestinal, immune and neuronal cells, as well as by certain tumors. By binding to G-protein-coupled receptors on target cells, SST act as neuromodulators and neurotransmitters, as well as potent inhibitors of various secretory processes and cell proliferation. In this book, the authors discuss the synthesis, mechanisms-of-action and physiological effects of somatostatins. Topics include the effects of somatostatin in animal models of retinal disease; radiolabelled somatostatin analogues for use in molecular imaging; somatostatin analogs as a treatment for congenital hyperinsulinism; somatostatin and its receptors in the mammalian cochlea; diagnostic accuracy of positron emission tomography with somatostatin analogues in gastroenteropancreatic and thoracic neuroendocrine tumors.

**Steroids: Biosynthesis, Functions and Health Implications**  
*Carlos Amada Figueiredo and Luiza Cação Garces*  
In series: *Endocrinology Research and Clinical Developments*  
Case: 978-1-62081-277-8. $150.00.  

Steroid hormones secreted from peripheral reproductive endocrine tissues regulate many important physiological functions not only during development, but also into adulthood and play a key role in the growth, differentiation and function of reproductive tissues. In this book, the authors present current research in the study of the biosynthesis, functions and health implications of steroids. Topics include cytotoxic steroids and derivatives in the development of anticancer drugs; identifying steroid hormones in biological and environmental samples; steroid receptors involvement in the pathogenesis of abnormal ovarian follicular cysts; estrogen treatment after menopause to protect against dementia and cognitive decline; the evolving role of steroids in immunosuppression and transplantation; nasal steroids in adenoidal hypertrophy; and cytogenetic damage following anabolic steroids exposure.

**BIOTECHNOLOGY**

**Advances in Biotechnology: A Practical Approach**  
*Harish Kumar Dhingra, P.N. Jha and P. Bajpai*  
(Faculty of Arts, Science & Commerce, MITS, Laxmangarh (Rajasthan) India)  
In series: *Biotechnology in Agriculture, Industry and Medicine*  
2013. 177 pp.  
Case: 978-1-62417-842-9. $85.00.  

Biotechnology is the use of living organisms to enhance products, our lives and our environment. It is a broad and complex discipline that encompasses many specialized areas. The promise that biotechnology holds for developing countries is well recognized and it is an important tool that can be applied to diverse economic sectors with a focus on the production of food crops, livestock management, human health care,
the chemical industry and environmental management. This book covers applications of biotechnology in selected areas such as health care, agriculture, microbial systems, “in silico” analysis for drug designing and drug discovery and the environment.

Biocontrol: Management, Processes and Challenges
Satinder Kaur Brar (Institut national de la recherche scientifique, Québec, Canada)
In series: Agriculture Issues and Policies
In series: Agricultural Research Updates
2012. 244 pp.
Case: 978-1-61942-803-4. $140.00.
Agricultural and forest pests lead to many plant diseases resulting in poor yield and productivity. Traditionally, chemical pesticides have been used to control these pests. However, the adverse health impacts of chemical pesticides have triggered parallel research in safe biological options. Nevertheless, biocontrol has come a long way ever since the commercialization of the first Bacillus thuringiensis based biopesticide (sporeine) in the 1940s, however, still there are research gaps. New knowledge and practical experiences have been added over the last few decades. This book reviews research on biological control agents, including bacterial, fungal and viral biopesticides along with their advanced formulation options.

Bioinformatics Research: New Developments
Chiheb Battik and Khalil Belhassine
In series: Biotechnology in Agriculture, Industry and Medicine
In series: Computer Science, Technology and Applications
Case: 978-1-61942-363-3. $150.00.
e-book: 978-1-61942-364-0. $150.00.
This book presents new developments in the study of bioinformatics research. Topics discussed in this compilation include natural selection, molecular recombination structure and evolutionary historical relationships in bioinformatics; gene-gene and gene-environment causal interactions from different types of genomic data using bioinformatics; bioinformatics analysis of gene networks involved in genomic stability and cancer and protein bioinformatics for drug discovery.

Biological Laboratories: Safety Reporting and Oversight Considerations
Jensen Hopkins and Neal Caldwell
In series: Laboratory and Clinical Research
In series: Safety and Risk in Society
Case: 978-1-62257-822-1. $110.00.
As the number of biological labs increases, so do the safety risks for lab workers. Data on these risks—collected through a safety reporting system (SRS) from reports of hazards, incidents, and accidents—can support safety efforts. However, no such system exists for all biological labs, and a limited system, managed by the Centers for Disease Control and Prevention (CDC) and the Animal and Plant Health Inspection Service (APHIS), applies to only a subset of these labs. Given the increase in biological labs and therefore risks, it is essential to understand the sources of risk and how to communicate them. This book examines the collection of data on accidents, incidents, and hazards in biological labs, that can help identify accident precursors. If the precursors can be identified, communicated, and eliminated, the occurrence of accidents, in particular those resulting in injury or death, might be prevented.

Biomedical Applications of Aptamers
John Bruno (Operational Technologies Corp, San Antonio, TX)
In series: DNA and RNA: Properties and Modifications, Functions and Interactions, Recombination and Applications
Case: 978-1-62081-838-1. $150.00.
This book intends to look ahead to the numerous future biomedical applications of DNA and RNA aptamers, especially in the areas of diagnostics and therapeutics. In this book, the editor assembles an international set of contributors from a variety of biomedical disciplines covering the whole gambit of diagnostic and therapeutic applications of aptamers. The reader will also be exposed to some of the latest applications of aptamers for the detection and destruction of pathogenic bacteria, exotic and sometimes lethal viruses and parasites as well as cancer cells.

Clostridia: Biotechnology, Medicinal Applications and Implications
Steven V. Clinton and Michael F. Kelly
In series: Biotechnology in Agriculture, Industry and Medicine
In series: Biomedical Applications
Case: 978-1-62100-761-6. $95.00.
e-book: 978-1-62100-806-4. $95.00.
The genus Clostridium consists of over 295 species of gram-positive, rod-shaped bacteria. These are mostly anaerobes and present ubiquitously in the environment due to their ability to form heat, radiation and chemical resistant spores. In this book, the authors present current research in the study of the biotechnology, medicinal applications and implications of clostridia. Topics discussed include the biodegradation of organic pollutants, reduction of metals and energy generation involving Clostridium sp.; the utilization of clostridium in industrial, biotechnological and medical endeavors; the clinical aspects of clostridium difficile associated with diarrhea and the potential use of megasphaera elsdonii as a hydrogen producer.

Medical Imaging: Procedures, Techniques and Applications
Maurizio D’Elia and Amedeo Madaffari
In series: Biomedical Devices and their Applications
In series: Medical Devices and Equipment
Case: 978-1-62081-049-1. $95.00.
In this book, the authors discuss the procedures, techniques and applications of medical imaging; which creates images of the human body for clinical purposes or medical science. Topics discussed in this compilation include the use of whole-body fluorine-18-fluorodeoxyglucose positron emission tomography in patients with large-vessel vasculitis and sarcoidosis; medical image registration; radiological techniques in medical imaging; electrical impedance tomography (EIT); imaging of brain function with PET and its role in aphasia research; and real-time functional magnetic resonance imaging.
Research on plant bioactive molecules, their development and utilization in food products. This book highlights various aspects of plant bioactive molecules such as lipids of physiological importance: antioxidants and health effects; micronutrients, botanicals and other dietary molecules; bioactive peptides; functional beverages/food products and other aspects of disease prevention and treatment.

**Fusarium: Epidemiology, Environmental Sources and Prevention**
*Tony Ferrari Rios and Emilia Reyes Ortega*

In series: *Botanical Research and Practices*
Case: 978-1-61942-539-2. $140.00.
e-book: 978-1-61942-562-0. $140.00.
Fusarium is commonly associated with higher plants and are among the most ubiquitous fungi in terrestrial ecosystems. Many Fusarium species are serious plant pathogens, causing symptoms such as necrotic lesions, rot, and wilt. In this book, the authors present current research in the study of the epidemiology, environmental sources and prevention of Fusarium. Topics include the development of natural products from fusarium including chemotherapeutic agents for human diseases and agricultural applications; the molecular basis of fusarium wilt in tomatoes and disease management; lectin preparations for the biocontrol of fusarium species and fusarium head blight and DON contamination management in soft and durum wheat cultivation.

**Plant Extracts: Role in Agriculture, Health Effects and Medical Applications**
*Adriana Giordano and Affieri Cost*

In series: *Botanical Research and Practices*
Case: 978-1-62417-534-3. $195.00.
In this book, the authors present current research in the study of the role in agriculture, health effects and medical applications of plant extracts. Topics discussed include the risks and benefits of phytochemicals present in fruits and vegetables; medicinal plants and their pharmacological attributes; Moringa oleifera and its benefits in nutrition and health; the potential health benefits and applications of the agave species; herbal medicinal plants used in the treatment of diabetes in Africa; phenolic compounds extracted from medicinal plants as an alternative for cancer prevention and treatment; using the antifeedant and repellent effects of plant extracts in the protection of plants and human health; essential oils and extracts of medicinal plants in the control of diseases in plants; herbal therapies for dermatological disorders; polyphenols as a source of antimicrobial agents against human pathogens; and new trends in plant extract use for food-borne pathogenic bacterial control.

**The Ethnobotanical profile of Tehsil Kotli Sattian, Rawalpindi, Pakistan**
*Rahmatullah Qureshi and Humaira Shaheen* (Department of Botany, Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi, Pakistan)

In series: *Botanical Research and Practices*
2013.
Case: 978-1-62417-290-8. $52.00.
e-book: 978-1-62417-626-5. $52.00.
Kotli Sattian is an extension of the Indo-Himalayan ecological region that falls in the transitional zone of the Indus-Saharan ecosystem which extends to the Southwest. This is a very beautiful subdivision of district Rawalpindi (Punjab), Pakistan which is bounded on the Northwest by the Murree Hills and touches the Kashmir territory on the East by bridging the river Jhelum on the Southwest. The evergreen hills with its gentle and steep slopes, the cool, fresh & health giving fountains,

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**Synthetic Biology: Prospects and Implications**
*Roger E. Hamilton and Laura M. Morales*

In series: *Biotechnology in Agriculture, Industry and Medicine*
Case: 978-1-62257-207-6. $195.00.
The 21st century is widely heralded as the century of biology. Building on the fundamental understanding achieved in the second half of the last century, revolutionary advances are expected to improve many aspects of our lives, from clean energy and targeted, safer medicines to new industries. Prominent among emerging technologies is "synthetic biology," which aims to apply standardized engineering techniques to biology and thereby create organisms or biological systems with novel or specialized functions to address countless needs. This book examines the Presidential Commission for the Study of Bioethical Issues review on the developing field of synthetic biology which researches and identifies appropriate ethical boundaries to maximize public benefits and minimize risks.

**Type I Collagen: Biological Functions, Synthesis and Medicinal Applications**
*Maria Eduarda Henriques and Marcio Pinto*

In series: *Biomaterials - Properties, Production and Devices*
Case: 978-1-62257-625-8. $120.00.
e-book: 978-1-62257-626-5. $120.00.
Type I collagen is a popular biomaterial for use in tissue engineering and regenerative medicine applications owing to its abundance in natural tissues and its natural functions within the body as a scaffold material with favorable cell-interaction properties. In this book, the authors present current research in the study of the biological functions, synthesis and medicinal applications of Type I collagen. Topics discussed include collagen type I as a candidate for in vivo delivery systems for cells, proteins, and drugs; degradation of type I collagen and the pathogenesis of infectious diseases; Type I collagen's synthesis, biological functions and medical applications during systemic inflammation; using collagen-based scaffolds in tissue engineering and repair; type I collagens from marine sources; and the role of extracellular matrix in the wound repair process.

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**BOTANY**

**Bioactive Molecules in Plant Foods**
*Florence Ojiugo Uruakpa (Department of Applied Health Sciences, Indiana State University, Terre Haute, IN, USA)*

In series: *Agriculture Issues and Policies*
Case: 978-1-62081-515-1. $150.00.
Functional foods (those with beneficial factors on health when consumed regularly as part of meals at effective levels) became prominent as food and nutrition science advanced beyond the treatment of deficiency syndromes to reduction of disease risk and health promotion. The dynamic trend of functional foods calls for accurate and reliable information in this emerging area of nutritional sciences. This book gives insight on physiologically active components of several plant foods. It is a collection of findings of basic and applied research on plant bioactive molecules, their development and utilization in food products. This book highlights various aspects of plant bioactive molecules such as lipids of physiological importance: antioxidants and health effects; micronutrients, botanicals and other dietary molecules; bioactive peptides; functional beverages/food products and other aspects of disease prevention and treatment.
CANCER

Adenocarcinoma: Pathogenesis, Treatment and Prognosis
Miguel Angel Longoria and Joris Ismael Alcalá
In series: Cancer Etiology, Diagnosis and Treatments
Case: 978-1-61942-173-8. $95.00.
E-book: 978-1-61942-174-5. $95.00.
Adenocarcinoma is a cancer of an epithelium that originates in glandular tissue and in this book, the authors present topical research in the study of the pathogenesis, treatment and prognosis of adenocarcinoma. Topics discussed include prostate adenocarcinoma; female genital adenocarcinoma; endoscopic submucosal dissection for early noninvasive gastrointestinal cancers; metastatic adenocarcinoma in the head and neck region; castration resistant prostate cancer; feline endometrial and canine cutaneous adenocarcinoma and advanced, unresectable adenocarcinoma of the gallbladder and biliary tract.

Cancer Metastasis Research: Pathological Insight
Takanori Kawaguchi (Division of Human Life Sciences, Fukushima Medical University School of Nursing, Fukushima, Japan)
In series: Cancer Etiology, Diagnosis and Treatments

Eosophageal Cancer: Epidemiology, Diagnosis and Treatment
Guy Douglas Eslick (The University of Sydney, Australia)
In series: Cancer Etiology, Diagnosis and Treatments
Case: 978-1-62100-701-2. $140.00.
E-book: 978-1-62100-713-5. $140.00.
This book presents current research in the study of esophageal cancer. Topics discussed include epidemiology and risk factors; helicobacter pylori infection and esophageal cancer; celiac disease and the risk of esophageal cancer; radiation therapy of esophageal tumors; endoscopic ultrasound in esophageal carcinoma; minimally invasive esophagectomy versus open techniques; esophagectomy for advanced stage esophageal cancer and surgical treatment of cervical esophageal cancer.
Essentials and Updates in Urologic Oncology (2 Volume Set)
Philippe E. Spiess, Matthew Biagioli, Mayer Fishman, Jorge Lockhart, Wade J. Sexton (H. Lee Moffitt Cancer Center, Tampa, FL USA)
In series: Nephrology Research and Clinical Developments
In series: Cancer Etiology, Diagnosis and Treatments
This book represents the most up-to-date, comprehensive textbook in urologic oncology to be published in recent years. Many of the world’s leading experts have contributed to the present work and in doing so have passed on their wisdom in terms of the key therapeutic considerations and clinical pearls pivotal in the management of these malignancies. This book not only addresses many of the essential diagnostic and therapeutic considerations in the management of prostate, bladder, upper tract, urethral, kidney, testis, penile, and adrenal cancers but also highlights many of the important technological advances in urological oncology including the rapid adoption of robotic assisted laparoscopic surgery in the care of many urologic malignancies.

Estrogen Prevention for Breast Cancer
Zsuzsanna Saba (Pathology Department of Surgical and Molecular Pathology, National Institute of Oncology, Budapest, Hungary)
In series: Cancer Etiology, Diagnosis and Treatments
Case: 978-1-62417-378-3. $110.00.
From the early 80s of the past century, clinical and epidemiological studies have increasingly pointed to an elevated breast, endometrial and ovarian cancer risk from high circulating estrogen levels. Estrogen deficiency as a cancer risk factor emerged first in 2007 in a study on Hungarian oral cancer cases based on the gender and age-related differences in tumor prevalence. Critical reevaluation of the contradictory results of hormone replacement therapy yielded a complete conversion that estrogen deficiency may confer cancer initiation. This book examines the deleterious interactions between estrogen deficiency and further hormonal disorders which illuminate the apparently controversial associations of obesity, light exposure and alcohol intake with breast cancer risk.

Gastric Cancer: From Staging to Surgical Treatment, Procedures, Complications and Oncological Results
Annibale D'Annibale, Vito Pende and Igor Monsellato (Department of Minimally Invasive Laparoscopic and Robotic Surgery, Azienda Ospedaliera S. Giovanni-Addolorata, Rome, Italy)
In series: Cancer Etiology, Diagnosis and Treatments
Case: 978-1-62081-294-5. $150.00.
e-book: 978-1-62081-624-0. $150.00.
The incidence of gastric carcinoma is declining, but this form of cancer is still the fourth most common cause of malignancy worldwide and the second most common cause of cancer-related deaths. This book is structured in eleven chapters, written by acknowledged experts in the field of gastric cancer and includes the most interesting topics including surgical anatomy, clinical staging, analysis of prognostic factors in early and advanced stages, sentinel node biopsy results, surgical standard, laparoscopic and robotic techniques of gastrectomy with D2 lymphadenectomy, perioperative and postoperative complications, neoadjuvant and adjuvant therapies and preoperative, perioperative and postoperative nutrition. This book is proposed to be useful both for surgeons in training and experienced surgeons for its completeness and actuality of the treated topics.

Hepatocellular Carcinoma: A Global Challenge
Isabelle Chemin (INSERM, France)
In series: Cancer Etiology, Diagnosis and Treatments
Case: 978-1-61470-644-1. $140.00.
Primary human liver cancer, of which hepatocellular carcinoma (HCC) is by far the predominant type, is a major cause of cancer death worldwide, accounting for 700,000 deaths per year. The epidemiology of HCC is particular with both geographic and temporal patterns of incidence paralleling exposure to viral etiologic factors. The highest HCC incidence rates are areas endemic for chronic infection with Hepatitis B virus, mainly Asia and Africa. The pathways by which HCC develop are heterogeneous and influenced by a variety of environmental and host factors. This book is dedicated to hepatocellular carcinoma and includes contributions that span various aspects of the disease from epidemiology, mechanisms and viruses, to promising new biomarkers and targets for treatment.

Hodgkin's and T-Cell Lymphoma: Diagnosis, Treatment Options and Prognosis
Warren K. Harvey and Randall M. Jacobs
In series: Cancer Etiology, Diagnosis and Treatments
Case: 978-1-62257-478-0. $150.00.
In this book, the authors present current research in the study of the diagnosis, treatments options and prognosis of both Hodgkin's and T-Cell lymphomas, gathered from across the globe. Topics discussed include the pathology and pathogenesis of Hodgkin's lymphoma; total skin electron beam therapy in the treatment of cutaneous T-Cell lymphoma; HIV-associated T-Cell lymphoma; critical mass hypothesis of T-Cell responses and its application in the treatment of T-Cell lymphoma; combined modality therapy, the short term benefits and long term toxicities in Hodgkin's lymphoma; and enteropathy-associated T-Cell lymphoma diagnosis and risk-stratification.

Horizons in Cancer Research. Volume 48
Hirosi S. Watanabe
In series: Horizons in Cancer Research
Case: 978-1-62100-524-7. $95.00.
e-book: 978-1-62100-666-4. $95.00.
“Horizons in Cancer Research” presents original research results on the leading edge of cancer. Topics discussed include gallbladder cancer pathogenesis and molecular targeting strategies for therapeutic options; rectal cancer staging; new DNA intercalating anti-cancer drugs; protection of bone growth using folinic acid during pediatric cancer chemotherapy; pinolenic acid as an anti-cancer agent and enhancement of human cancer cell radiosensitivity by conjugated eicosapentaenoic acid.

Horizons in Cancer Research. Volume 50
Hirosi S. Watanabe
In series: Horizons in Cancer Research
Case: 978-1-62257-080-5. $120.00.
e-book: 978-1-62257-166-6. $120.00.
This book presents original research results on the leading edge of cancer. Topics discussed include the etiology and treatment of
In series: Horizons in Cancer Research, Volume 51
Hiroto S. Watanabe
In series: Horizons in Cancer Research
Case: 978-1-62417-328-8. $150.00.
This book presents original research results on the leading edge of cancer. Topics discussed include the role of dendritic cells in the priming of cytotoxic T lymphocyte responses; current anti-cancer agents targeting apoptosis and autophagy and clues for future cancer drug discovery; the efficacy of bufadienolides and TCM preparations on in vivo and in vivo cancer models in clinical trials; the role of tetracyclic triperpenes and their glycosides in cancer prevention; adoptive cell therapy at the forefront of cancer immunotherapy; the challenges and promises of targeted chemoprevention; the physical, emotional and social challenges associated with cancer survivorship; bioinformatics tools and resources for cancer diagnosis and drug development; and the history of radical surgery for the treatment of prostate cancer.

Hybrid Nanostructures in Cancer Therapy
Mohsen Adeli (Sharif University of Technology, Tehran, Iran)
In series: Cancer Etiology, Diagnosis and Treatments
In series: Nanotechnology Science and Technology
Case: 978-1-62100-517-9. $95.00.
e-book: 978-1-62100-558-2. $95.00.
Nanotechnology has emerged as a key technology which has opened new vistas to find effective therapies for cancer. Nanomaterials are particularly promising candidates for early diagnosis of cancer cells. Several classes of nanomaterials, including dendritic and supramolecular polymers, carbon nanotubes, graphene and metal nanoparticles, have shown tremendous ability to recognize and destroy cancer cells in vivo. In this book, some of these novel systems and their potential applications in cancer therapy are reviewed.

Non-Small Cell Lung Cancer: New Research
Lina Pasquariello
In series: Cancer Etiology, Diagnosis and Treatments
2013. Case: 978-1-62417-804-7. $120.00.
e-book: 978-1-62417-805-4. $120.00.
In this book, the authors present current research in the study of non-small cell lung cancer. Topics discussed include the preclinical and clinical advances of epigenetics in lung cancer; therapeutic antibodies and non-coding RNAs (miRNAs) in non-small cell lung cancer; molecular profiling in lung cancer specimens leads to targeted therapeutic options in patients with non-small cell lung carcinoma; the role of radiation dose escalation in the treatment of stage III locally advanced inoperable non-small cell lung cancer; and mechanisms of resistance to EGFR inhibitors.

Pediatric Cancer
William Li (Department of Nursing Studies, The University of Hong Kong, China)
In series: Pediatrics - Laboratory and Clinical Research

In series: Cancer Etiology, Diagnosis and Treatments
202. 177 pp.
Case: 978-1-61942-112-7. $95.00.
e-book: 978-1-61942-113-4. $95.00.
The diagnosis and treatment of cancer can be a stressful and threatening experience, particularly for children. This book will shed light on the impact of cancer and its treatments on the physical, emotional, and psychosocial well-being of both children hospitalized with cancer and childhood cancer survivors. Additionally, this book will explore the coping strategies used by children with cancer and their parents. This book reports some empirical studies on evaluating the effectiveness of various psychological interventions in promoting the psychosocial well-being and quality of life of children with cancer. It is anticipated that this book can provide readers a more thorough understanding about the impact of cancer on children’s physical and psychological well-being.

Prostate Cancer Cells: Detection, Growth and Treatment
Zongbing You (Department of Structural & Cellular Biology, Tulane University School of Medicine, New Orleans, Louisiana)
In series: Cancer Etiology, Diagnosis and Treatments
Case: 978-1-62257-525-1. $150.00.
This book includes eight chapters of original research articles and six chapters of review articles, encompassing the latest advancements in detection, growth and treatment of prostate cancer. Detection of prostate cancer in human patients has been well established using prostate-specific antigen as a marker and a variety of imaging tools. However, for laboratory studies particularly in preclinical animal studies, such tools are still being developed. This book introduces novel imaging methods, such as bioluminescent imaging, chemiluminescence, and magnetic resonance imaging. Prostate cancer stem cells are emerging as a new focus of research. How to detect cancer stem cells and how to culture them are described in details herein. This book highlights several studies in exploring some unknown aspects of prostate cancer.

Radiation Therapy: Clinical Evidence for Decision-Making, Volume I
Gustavo Arruda Viani (Marilia Medicine School, Radiation and Clinical Oncology Department, Sao Paulo, Brazil)
In series: Cancer Etiology, Diagnosis and Treatments
2013.
Case: 978-1-62417-594-7. $150.00.
Radiation Therapy: Clinical Evidence for Decision-Making - Volume 1, is a comprehensive learning tool for medical students, residents, and junior attending physicians in radiation oncology. Organized in chapters and sections by site, the book covers in detail all the sites and cancer types currently treated with radiotherapy. Emphasis is on treatment recommendations and the evidence behind them. Moreover, this book provides easily accessible information for residents and practitioners in radiation oncology. It presents the most essential information that is immediately required in the clinical setting. Important data of epidemiology, anatomy, pathology, and clinical presentation are highlighted. Key facets of the work-up are listed, followed by staging and/or risk classification systems. Treatment recommendations are discussed based on stage, histology, and/or risk classification. Brief summaries of key trials and studies provide rationale for the recommendations.
Gustavo Arruda Viani (Marilia Medicine School, Radiation and Clinical Oncology Department, Sao Paulo, Brazil)
In series: Cancer Etiology, Diagnosis and Treatments 2013.
Case: 978-1-62417-595-4. $150.00.
"Radiation Therapy: Clinical Evidence for Decision-Making" - Volume 2, is a comprehensive learning tool for medical students, residents, and junior attending physicians in radiation oncology. Organized in chapters and sections by site, the book covers in detail all the sites and cancer types currently treated with radiotherapy. Emphasis is on treatment recommendations and the evidence behind them. Moreover, this book provides easily accessible information for residents and practitioners in radiation oncology. It presents the most essential information that is immediately required in the clinical setting. Important data of epidemiology, anatomy, pathology, and clinical presentation are highlighted. Key facets of the work-up are listed, followed by staging and/or risk classification systems. Treatment recommendations are discussed based on stage, histology, and/or risk classification. Brief summaries of key trials and studies provide rationale for the recommendations.

Signaling, Gene Regulation and Cancer
Shree Ram Singh (National Cancer Institute, Frederick, MD) and Manoj K. Mishra (Alabama State University, Montgomery, AL)
In series: Cancer Etiology, Diagnosis and Treatments 2012. 530 pp.
Case: 978-1-61942-088-5. $245.00.
Although there have been tremendous progress in cancer research and treatment, the mortality caused by this disease is still very high. Cancer is the leading cause of death worldwide and second leading cause of death in the United States of America. The book covers topics including the role of various signaling pathway in development, regulation of cell fate, tumor angiogenesis, duodenal neoplasias, breast, colorectal and prostate cancer, cancer development and progression, microRNA in cancer and epigenetic regulation of cancer. This book will provide valuable information for cell biologists, geneticists, cancer biologists, clinicians, and students involved in various aspects of cell signaling, regulation of genes and cancer.

Tamoxifen Concepts and Cancer: New Paradigms
Ramon Andrade de Mello (Oncology Portuguese Institute of Porto Francisco Gentil, Department of Medical Oncology, Porto, Portugal)
In series: Pharmacology - Research, Safety Testing and Regulation
In series: Cancer Etiology, Diagnosis and Treatments 2012. 227 pp.
Case: 978-1-62081-520-5. $150.00.
e-book: 978-1-62257-931-0. $150.00.
Tamoxifen was first approved in 1977 and up to now remains a noteworthy therapeutic weapon to treat mainly breast cancer. However, further considerations exist regarding the tamoxifen profile. This book discusses recent research and future perspectives in the tamoxifen field. The topics discussed include tamoxifen pharmacokinetics, pharmacodynamics, adverse effects, clinical indications, therapeutic drug monitoring, autophagy mechanisms, tamoxifen topical formulation and breast cancer risk prevention, the use of tamoxifen in an estrogen-independent manner for various neoplasms (Hepatocellular carcinoma, renal cell carcinoma, high grade glioma), mechanisms of resistance, potential role of CYP2D6, tamoxifen and antidepressants interaction in a psychiatric view, obesity influence in tamoxifen treatment, electrical pulse-mediated tamoxifen delivery, and tamoxifen in melanoma treatment.

Thyroid Cancer: Diagnosis, Treatment and Prognosis
Eduard Kreuger and Berta Trommler
In series: Cancer Etiology, Diagnosis and Treatments 2012. 182 pp.
Case: 978-1-62257-884-9. $150.00.
Thyroid carcinoma is the most common endocrine malignancy. The etiology of thyroid cancer is not yet fully known, although several issues are thought to predispose people, including radiation, nutrition, sex hormones, environment and genetics. This book presents research in the diagnosis, treatment and prognosis of thyroid cancer. Topics include the new paradigm in the cytologic and histologic diagnosis of thyroid cancer; arsenic trioxide in the treatment of iodine non-avid thyroid cancer; thyroidectomy for papillary thyroid microcarcinoma (PTMC); thyroid stimulating hormone and cancer; and the inference and analysis of apoptotic pathways in papillary thyroid cancer.

CARDIOLOGY
Arterial Hypertension: Etiology, Pathophysiology and Treatment Options
Marten Vosler and Siemen Weber
In series: Cardiology Research and Clinical Developments 2013. 177 pp.
Case: 978-1-62417-852-8. $150.00.
Arterial hypertension is one of the most frequent chronic diseases in the industrialized nations of the West and represents a major risk factor for cardiovascular morbidity and mortality. In this book, the authors present current research in the study of the etiology, pathophysiology and treatment options of arterial hypertension. Topics include endothelial dysfunction in hypertension; masked arterial hypertension; arterial hypertension in children and adolescence, treatment options, and influence of sex hormones; and target organ damage in hypertensive patients.

Cardiopulmonary Resuscitation: Procedures and Challenges
Leonard J. Doyle and Richard A. Saltzman
Case: 978-1-62100-139-3. $140.00.
Cardiopulmonary resuscitation (CPR) is an emergency procedure which is performed in an effort to manually preserve intact brain function until further measures are taken to restore spontaneous blood circulation and breathing in a person in cardiac arrest. Sudden cardiac arrest is the leading cause of death in the industrialized world. Early bystander's CPR has been recognized as one of the most effective interventions in improving outcome and as an essential link of the survival's chain. In this book the authors present current research in the study of CPR, including predictors of survival from out-of-hospital cardiac arrest; aspirin resistance in cardiovascular disease; out-of-hospital cardiac arrest in children and results of experience from a cardiopulmonary resuscitation program in Spain.
Coronary Computed Tomography Angiography in Coronary Artery Disease: A Systematic Review of Image Quality, Diagnostic Accuracy and Radiation Dose
Zhonghua Sun (Curtin University, Discipline of Medical Imaging, Perth, Australia)
In series: Cardiology Research and Clinical Developments
2012. 269 pp.
Coronary artery disease is the leading cause of death in the developed countries of the world and it is becoming increasingly common in the developing world. Conventional invasive coronary angiography currently remains the gold standard for the evaluation of patients with known or suspected coronary artery disease. Limitations of the modality include its invasiveness, expense and time consumption, with small but substantial procedure-related complications. In recent years, systematic reviews and meta-analyses of the diagnostic value of coronary CT angiography are increasingly being used to measure the progress and innovations in the diagnostic management of patients with suspected coronary artery disease. This book provides an overview of the scientific methods used to search, analyze, appraise and synthesize studies on coronary CT angiography.

Current Advances in Cardiovascular Risk (2 Volume Set)
Sandeep Ajay Saha (Providence Sacred Heart Medical Center, Spokane, WA)
In series: Cardiology Research and Clinical Developments
The primary focus of this book is to provide readers with a comprehensive, state-of-the-art overview of the recent advances in the understanding of cardiovascular risk, especially in selected, vulnerable patient populations. Chapters contained in this book are written by invited authors from all over the world, who are well-known experts and opinion leaders in their respective fields in the assessment and management of cardiovascular risk. In each chapter, emphasis has been placed on reviewing the current understanding of the pathophysiological mechanisms that affect cardiovascular risk, and on critical appraisal of the clinical evidence that guides clinical management of cardiovascular risk in these patients.

Drugs in Cardiopulmonary Resuscitation
Theodoros Xanthos (University of Athens, Athens, Greece)
In series: Cardiology Research and Clinical Developments
Soft: 978-1-62257-709-5. $79.00.
e-book: 978-1-61209-176-1. $79.00.
Although approximately one million cardiac arrests occur every year in the USA and Europe, cardiac arrest remains a clinical condition still characterized by poor prognosis. One possible explanation may be the fact that although 70% of cardiac arrests take place in out-of-hospital settings, the majority of the victims do not receive basic life support (BLS) prior to the arrival of emergency medical services (EMS). Survival of out-of-hospital cardiac arrest victims strongly depends on prompt cardiopulmonary resuscitation (CPR). Survival rates will only improve, if delay time until initiation of CPR is kept to an absolute minimum. Good quality CPR, with an emphasis on chest compressions is a key component for the victims’ survival. Drugs play a secondary role in the treatment of these patients. This book presents the latest research in drug therapy in CPR.

Encyclopedia of Cardiovascular Research (3 Volume Set)
James A. Collins
In series: Cardiology Research and Clinical Developments
2012. 967 pp.
Case: 978-1-61324-960-4. $395.00.
This book presents and discusses current research in the study of cardiovascular disorders. Topics discussed include cardiac rehabilitation in women; effects of exercise on the prevention and rehabilitation of diastolic heart failure; cardiac rehabilitation in children with congenital heart disease; single ventricle anatomy, physiology, repair and outcome; cardiac tumors; pulmonary hypertension in the down syndrome population; oxidative stress and heart failure; right ventricular failure in cardiac surgery and coronary artery bypass grafting for chronic and acute heart failure.

Gene Therapy for Cardiovascular Diseases and Arrhythmia
Kamilla Kelemen, Patrick Schweizer, Jin Li
In series: Cardiology Research and Clinical Developments
Case: 978-1-61942-741-9. $75.00.
Cardiovascular disease has evolved into an epidemic health concern. During the past decades, considerable effort has been made to develop novel and safer therapeutic options. Gene therapy has offered much renewed hope and instigated the present book. For the treatment of cardiovascular disease gene therapy has risen to an interesting and important point of view of curing disease. Although most of the studies are still experimental beneath a well defined number of clinical studies, more and more studies are designed to be carried out in humans. Based on a rich compilation of scientific as well as clinical studies around the world, this book gives insights into the general principles of gene transfer as well as therapeutic strategies including stem cell therapy as an alternative approach to gene therapy.

Hemodynamics: Monitoring, Theory and Applications
Hideaki Senzaki (International Medical Center Saitama Medical University Staff Office Building 303 1397-1 Yamane, Hidaka, Saitama, Japan)
In series: Cardiology Research and Clinical Developments
2012. 269 pp.
Case: 978-1-62257-361-5. $150.00.
In humans, hemodynamic stability is essential to maintain homeostasis. In order to achieve this, atrial, ventricular, and vascular properties, their interactions are rigorously and, in a sense, elegantly controlled. Cardiovascular diseases are associated with impairments of one or more such properties and interactions, and they often lead to end-organ damage, including damage to the liver, kidney, and gastrointestinal
system. Impairments of such organs can, in turn, influence the cardiovascular system and overall hemodynamics. Therefore, to better understand the underlying pathophysiology of several diseases and conditions of hemodynamic instability, each of the cardiovascular properties together with the organ functions other than those of the cardiovascular system should be precisely assessed. For this purpose, many researchers all over the world have put in efforts to develop the theory and applications of monitoring tools for hemodynamics. This book contains essential information regarding hemodynamic monitoring, encompassing issues from fetuses to adults, including experimental and clinical findings and data on invasive and non-invasive methodologies.

Horizons in World Cardiovascular Research. Volume 4
Eleanor H. Bennington
In series: Horizons in World Cardiovascular Research
Case: 978-1-62081-233-4. $95.00.
Cardiovascular disease refers to the class of diseases that involve the heart or blood vessels. While the term technically refers to any disease that affects the cardiovascular system, it is usually used to refer to those related to atherosclerosis. Chronic heart failure (CHF) has emerged as a major worldwide epidemic. This book gathers the latest research in cardiovascular disease with a focus on such topics as hemodynamic examination using echocardiography in critical care; transesophageal echocardiography during the implantation of core valve percutaneous aortic prostheses; left atrial radiofrequency ablation with mitral aortic valve surgery; intraoperative defibrillation threshold testing; and the pathogenesis and future treatments of chronic cardiac rejection.

Mitral Valve Disease: Diagnosis, Treatment and Future Therapy
Richard R. Heuser (St. Luke's Medical Hospital and Medical Center, Clinical Professor of Medicine, University of Arizona College of Medicine, Phoenix Heart Center, Phoenix, Arizona)
In series: Cardiology Research and Clinical Developments
2012. 177 pp.
Case: 978-1-61942-309-1. $95.00.
e-book: 978-1-61942-314-5. $95.00.
This book discusses the different aspects of mitral regurgitation as well as diagnostic and imaging studies to evaluate the patients at risk. Treatment options for patients with mitral regurgitation are discussed including some of the new non-surgical treatments. Various medical devices and technologies have evolved recently making the traditional surgery not the only option in these patients. This book will be helpful to surgeons, cardiologists, as well as other clinicians and students interested in the diagnosis and treatment of mitral regurgitation.

Off-Pump Coronary Artery Bypass Grafting: Evolution, Techniques and Technology
Shahzad G. Raja and Mohamed Amrani (Harefield Hospital, London, United Kingdom)
In series: Cardiology Research and Clinical Developments
Case: 978-1-62081-549-6. $175.00.
This book offers a comprehensive overview of the various off-pump coronary artery bypass techniques. This book is divided into two sections. After introductory chapters on evolution and history, detailed evidence-based discussion of technical aspects and applications of off-pump coronary artery bypass grafting in different settings is presented. Written by experts from leading institutions around the world, this superb compilation focuses on mastery of operative techniques and also provides a thorough understanding of how to select the best procedure, how to avoid complications, and what outcomes to expect. The user-friendly format is ideal for quick preoperative review of the steps of a procedure. The editors and authors are recognized experts in off-pump surgery, and draw on their vast experience to provide a book that will serve not only as a basic manual for cardiac surgeons, both practicing as well as in-training, but also as an invaluable compendium of readily understood information for cardiologists, anesthetists, intensivists, nurses and general practitioners.

Off-Pump Coronary Artery Bypass Grafting: Outcomes, Concerns and Controversies
Shahzad G. Raja and Mohamed Amrani (Harefield Hospital, London, United Kingdom)
In series: Cardiology Research and Clinical Developments
2012. 419 pp.
This book provides an in-depth insight into the various issues associated with off-pump coronary artery bypass grafting. This book is divided into three sections. Section 1 focuses on the outcomes of off-pump coronary artery bypass grafting while sections 2 & 3 address concerns and controversies associated with this revascularization strategy in an evidence-based manner. This book stands out for its readability, conciseness and clear illustrations and offers a clear and didactic style, presenting information in the form of lists and tables for quick and easy reference. The editors and authors are recognized experts in off-pump surgery, and draw on their vast experience to provide a book that will serve not only as a basic manual for cardiac surgeons, both practicing as well as in-training, but also as an invaluable compendium of readily understood information for cardiologists, anesthetists, intensivists, nurses and general practitioners.

Percutaneous Valve Technology: Present and Future
Jose Luis Navia, Sharif Al-Ruzzeh (Cleveland Clinic Foundation, Cleveland, Ohio)
In series: Cardiology Research and Clinical Developments
2012. 775 pp.
Case: 978-1-61942-577-4. $295.00.
e-book: 978-1-61942-588-0. $295.00.
Percutaneous valve technology has received tremendous interest in the last few years from both clinicians and public as a direct result of advancements in endovascular techniques that made this technology a potential option and a promising reality. In this book, the authors review the latest of this rapidly emerging medical technology from all aspects, as it stands at present with the prediction of progress into the near and far future. This is a valuable book for the general public and of special value for the Interventional Radiologists, Cardiac Surgeons, Cardiologists and Cardiac Anesthesiologists.
treatment of these deadliest arrhythmias becomes possible. The book also provides chapters on currently available pharmacological options, defibrillation and catheter ablation as well as chapters on new treatments and technologies such as cell and gene therapies and what may be the future of arrhythmia therapy.

**World Heart Research Yearbook. Volume 1**
Franz Halberg, MD (USA) and R B Singh, MD (India)

In series: World Heart Research Yearbook
Case: 978-1-60741-881-8. $145.00.
This new yearbook presents important research in the field of cardiovascular research from around the world. Particular emphasis is placed on circadian medicine and its relationship to cardiovascular events as well as other new areas such as gene therapy in heart disease.

**World Heart Research Yearbook. Volume 2**
Franz Halberg, MD (USA) and R B Singh, MD (India)

In series: Cardiology Research and Clinical Developments
This yearbook presents important research in the field of cardiovascular research from around the world. Particular emphasis is placed on circadian medicine and its relationship to cardiovascular events as well as other new areas such as gene therapy in heart disease. This book begins with a piece dedicated to the former editor of Cardiology and head of that specialty at the Mayo Clinic, followed by a consensus directed by a board member of the World Health Organization (also a minister of health) with a university president.

**Cell Biology**

Adenosine Triphosphate: Chemical Properties, Biosynthesis and Functions in Cells
Ebert Kuester and Gisa Traugott

In series: Cell Biology Research Progress
2013.
Case: 978-1-62417-890-0. $150.00.
Every organism needs energy for life. To satisfy this need, the so-called "molecular currency" adenosine triphosphate (ATP), is ubiquitously used for intracellular chemical energy transfer processes and therefore constitutes the universal form of directly available energy within cells. In this book, the authors discuss the chemical properties, biosynthesis and functions in cells of ATP. Topics include ATP as a sperm movement energizer; the hydrolysis reaction of adenosine triphosphate molecules and bio-energy transport in the cell; the use of exogenous ATP to stimulate the growth of human tissue engineered cartilage; ATP in experimental liver surgery; the functional role of cerebral ATP levels in body weight regulation; ATP as a potential mediator of the aging process; and involvement of extracellular ATP and derivatives in trichomonas vaginalis infection.

Adipocytes: Biology, Regulation and Health Impact
Michelle J. Weber and John M. Hoffmann

In series: Cell Biology Research Progress
Case: 978-1-62081-537-3. $95.00.
Adipose tissue has an important regulatory role in mammalian metabolism by storing and releasing high-energy metabolites according to the body energy needs, whether by storing excess energy in the form of triglycerides (TG), or by breaking down TG into fatty acids (FA) and glycerol. In this book, the authors present topical research in the study of the biology, regulation and health impacts of adipocytes. 

Topics discussed include the development, differentiation, structure and function of each type of adipose tissue in association with chronic diseases, such as obesity and insulin resistance; mTORG and regulation of adipose tissue metabolism and perfusion; adipose tissue-derived microvesicles and exosomes and the diagnosis of metabolic diseases; early regulation of adipogenesis; calpain-mediated regulation of bone and fat mass and glucose homeostasis in osteoblasts; and the role of estrogen-related receptors in adipocyte differentiation.

**Autophagy: Principles, Regulation and Roles in Disease**

*Nikolai Gorbonov (The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. Bethesda, Maryland)*

In series: *Cell Biology Research Progress*


Case: 978-1-61942-281-0. $195.00.

This book gives an up-to-date overview of the biomedical aspects of autophagy research, a large interdisciplinary field emerging on intersection of (i) cell, developmental, and cancer biology, (ii) tissue remodeling and plasticity, aging and longevity; (iii) immunology, microbiology, toxicology, and pathobiology; (iv) regenerative and adaptive biomedicine; and (v) pharmacology.

**Bilirubin: Chemistry, Regulation and Disorder**

*Jakub F. Novotny and Florian Sedlacek*

In series: *Hepatology Research and Clinical Developments*


Case: 978-1-62100-911-5. $140.00.

Bilirubin is the yellow breakdown product of normal heme catabolism. Heme is found in hemoglobin, a principle component of red blood cells. In this book, the authors present a brief review of what has already been done in the field of bilirubin research and provide some new insights into the future of the molecular simulation of bilirubin transport and studies of its chemistry. Topic discussed include biophysical and technical aspects of phototherapy for neonatal hyperbilirubinemia; genetic variants in bilirubin metabolism pathway, serum bilirubin and cardiovascular disease; molecular simulation of bilirubin transport and its pKa values and drug-induced cholestatic liver injury.

**Cell Proliferation: Processes, Regulation and Disorders**

*Changhong Zhang and Xiangqiong Zeng (Mohnlycke Health Care Corp., Wiscasset, Portland, ME, USA)*

In series: *Cell Biology Research Progress*


Case: 978-1-62417-352-3. $150.00.


Cellular proliferation, as a result of cell growth and cell division, is one of the most fundamental biological processes. Although there is a great deal which remains unclear, significant advances have been made in past decades in our understanding of the process and regulation of cell proliferation. There is considerable evidence that this understanding of different cells and cell proliferation behavior provides useful information that may be of major importance in disease control, drug discovery, biomaterial development and medical device improvement. This book studies and discusses recent developments in the field of cell proliferation including: the controlling factors for cell proliferation; changes occurring in the cells; therapeutic effects of the biological molecules to the cells; and analysis of cell proliferation based on the quantal concept. Furthermore, the effects that biomaterials and drugs have on cell proliferation are also reviewed in this book.

**Cell Response to Electromagnetic Field: Nuclear and Membrane Mechanisms**

*Yuriy G. Shchorkbatov, V.A. Katrich, V.N. Pasiuga, and A.O. Rudenko (Institute of Biology, V.N. Karazin Kharkiv National University, Kharkiv, Ukraine)*

In series: *Physics Research and Technology*

In series: *Cell Biology Research Progress*

2013. 143 pp.

Soft: 978-1-62417-895-5. $52.00.

e-book: 978-1-62417-902-0. $52.00.

This book discusses cell response to external electromagnetic and magnetic fields. A new ecological factor, artificial electromagnetic fields (EMF), is a cause for public concern. This book suggests that the cellular response to EMF and to magnetic fields is the base of response of the human organism to EMF. Processes of gene activity are especially important in understanding the EMF influence on cells. The historical review of investigations of cell reactions with special attention to the investigations in the Soviet Union is discussed, as is the EMF-induced increase in cell membrane permeability to ions, mutagenesis, and induction of DNA strand breaks, cell nucleus microelectrohoresis, and the state of chromatin in living cells.

**Hematopoietic Stem Cells: New Research**

*Wesley G. Montgomery and Heather I. Burton*

In series: *Stem Cells - Laboratory and Clinical Research*

In series: *Stem Cells and Regenerative Medicine*


Case: 978-1-62257-468-1. $150.00.

e-book: 978-1-62257-506-0. $150.00.

Hematopoietic Stem Cell Transplantation (HSCT) is an established treatment for a variety of malignant and nonmalignant conditions. In autologous HSCT, the stem cells are collected from the patient then infused back after high dose chemotherapy. On the other hand, in allogeneic HSCT, the stem cells are donated from another individual (who may be related or unrelated and unmatched or matched). In this book, the authors present new research in the study of hematopoietic stem cells including pulmonary complications following HSCT; psychological health and adjustment of families of children who undergo HSCT; the immunogenetics of unrelated HSCT for thalassemia; HSCT for inflammatory bowel diseases; and extramedullary hematopoiesis leading to the production of a novel antigen-presenting cell type in the murine spleen.

**Leukocytes: Biology, Classification and Role in Disease**

*Giles I. Henderson and Patricia M. Adams*

In series: *Immunology and Immune System Disorders*

In series: *Cell Biology Research Progress*


Case: 978-1-62081-404-8. $150.00.


White blood cells, or leukocytes are cells of the immune system involved in defending the body against both infectious diseases and foreign materials. Five different and diverse types of leukocytes exist, but they are all produced and derived from a multipotent cell in the
objective, that resorb mineralized bone matrix. Osteoclast precursors can
influence the characteristic of osteoblasts and factors related to
their role in skeletal bone diseases; bone morphogenetic proteins
into osteoblasts for bone tissue engineering; osteoblast function and
osteoblasts under mechanical strain; mesenchymal stem cells (MSC)
functions and clinical implications of osteoclasts. Topics include osteoclast formation and
function and its risk in skeletal bone disease; the high osteoclastogenic
potential of human osteosarcoma cells; osteoclast biology regarding
Paget’s disease and p62 mutations; the role of immuno-skeletal
interface in the regulation of osteoclast formation; and osteoclasts in
patients with neurofibromatosis 1.

Lysozymes: Sources, Functions and Role in Disease
Xu Guan Maang and Wei F. Cheung
In series: Cell Biology Research Progress
In series: Microbiology Research Advances
Case: 978-1-62257-844-2. $150.00.
Lysozymes are widely distributed in living organisms, and play an
important role in self-defense by destroying the cell walls of
pathogenic bacteria upon invasion. In this book, the authors present
current research in the study of the sources, functions and role in
disease of lysozymes. Topics include the adsorption behaviors of
lysozyme adsorbed onto moderately hydrophobic surfaces; functional
analysis using ESI-MS and NMR spectroscopy in the lysozyme
superfamily; functions of lysozymes and identification by MALDI-MS;
dissecting lysozyme by single-molecule techniques; the antimicrobial
activity and allergenicity of hen egg white lysozymes; human lysozyme
amyloid and protein folding; purifying lysozyme from egg whites; and
growing hen egg-white lysozyme crystals for neuron experiments.

Osteoblasts: Morphology, Functions and Clinical
Implications
Hugo Schaeuer
In series: Muscular System - Anatomy, Functions and
Injuries
In series: Cell Biology Research Progress
Case: 978-1-62417-806-1. $150.00.
Osteoblasts are highly specialized mesenchymal cells that are mainly
responsible for the formation and maintenance of the skeletal
architecture. They produce extracellular matrix proteins and are
regulators of matrix mineralization during bone formation and
remodeling. In this book, the authors discuss the morphology,
functions and clinical implications of osteoblasts. Topics include
osteoblasts under mechanical strain; mesenchymal stem cells (MSC)
into osteoblasts for bone tissue engineering; osteoblast function and
their role in skeleton bone diseases; bone morphogenetic proteins
(BMP) and osteoblastogenesis inhibitors; the effect of molecular and
biochemical differentiation agents on bone formation; and the
evaluation of characteristics of osteoblasts and factors related to
osteoblastic differentiation and mineralization.

Osteoclasts: Morphology, Functions and Clinical
Implications
Alexander J. Brown and Johanna S. Walker
In series: Cell Biology Research Progress
In series: Human Anatomy and Physiology
Case: 978-1-62081-306-5. $150.00.
Osteoclasts are highly specialized cells, derived from the hematopoietic
lineage, that resorb mineralized bone matrix. Osteoclast precursors can
be recruited to the bone remodeling sites by specific cytokines in the
microcellular environment, including some secreted by osteoblasts,
fibroblasts, and osteocytes. In this book, the authors present current
research in the study of the morphology, functions and clinical
implications of osteoclasts. Topics include osteoclast formation and
function and its risk in skeletal bone disease; the high osteoclastogenic
potential of human osteosarcoma cells; osteoclast biology regarding
Paget’s disease and p62 mutations; the role of immuno-skeletal
interface in the regulation of osteoclast formation; and osteoclasts in
patients with neurofibromatosis 1.

Photoreceptors: Physiology, Types and
Abnormalities
Eiji Akutagawa and Kazuo Ozaki
In series: Physiology - Laboratory and Clinical Research
In series: Cell Biology Research Progress
Case: 978-1-61942-619-1. $150.00.
Photoreceptors are nerve end organs or receptors that are sensitive to
light. In the retina of the eye, the outer limbs of rods and cones make up
the photoreceptor layer. This book presents topical research in the
study of the physiology, types and abnormalities of photoreceptors.
Topics include the mechanisms for tuning a photoreceptor’s spectral
sensitivity; foveal microstructure observed by optical coherence
tomography; the caudal photoreceptor in the crayfish and quantum
catches and photoreceptors.

Research Developments in Stem Cells
Wade T. Ereland
In series: Stem Cells - Laboratory and Clinical Research
In series: Stem Cells and Regenerative Medicine
2013.
Case: 978-1-60456-455-6. $129.00.
Stem cells are primordial cells common to all multi-cellular organisms that
retain the ability to renew themselves through cell division and can
differentiate into a wide range of specialised cell types. The two broad
categories of mammalian stem cells exist: embryonic stem cells,
derived from blastocysts, and adult stem cells, which are found in adult
tissues. In a developing embryo, stem cells are able to differentiate into
different cells of the specialized embryonic tissues. In adult organisms, stem cells
and progenitor cells act as a repair system for the body, replenishing
specialised cells. As stem cells can be readily grown and transformed
into specialised tissues such as muscles or organs through cell culture,
their use in medical therapies has been proposed. In particular,
embryonic cell lines, autologous embryonic stem cells generated
therapeutically, and highly plastic adult stem cells from the
umbilical cord blood or bone marrow are touted as promising
candidates. Among the many applications of stem cell research are
nervous system diseases, diabetes, heart disease, autoimmune diseases
as well as Parkinson’s disease, end-stage kidney disease, liver failure,
cancer, spinal cord injury, multiple sclerosis, Parkinson’s disease, and
Alzheimer’s disease. Stem cells are self-renewing, unspecialized cells that
can give rise to multiple types all of specialized cells of the body.
Stem cell research also involves complex ethical and legal
considerations since they involve adult, fetal tissue, and embryonic
sources. This new book presents the latest research in this dynamic
field.

Tetrahymena and Human Telomerase Enzymes:
Model and Dynamics of Processive Nucleotide and
Repeat Addition Translocations
Ping Xie (Laboratory of Soft Matter Physics and
Beijing National Laboratory for Condensed Matter
Physics, Institute of Physics, Chinese Academy of
Sciences, Beijing, China)
In series: Cell Biology Research Progress
In series: Genetics - Research and Issues
Soft: 978-1-62100-982-5. $47.00.
This book gives a review of the author’s previous work on modeling of the processive nucleotide and repeat addition translocations by recombinant Tetrahymena telomerase and proposes an analogous model for recombinant human telomerase. With the models, the dynamics of primer dissociation from the two enzymes and the dynamics of repeat addition translocation by the two enzymes are theoretically studied and compared in detail.

Tissue Engineering: Fundamentals, Techniques and Applications
Takeshi Ishikawa and Masayoshi Yamamoto
In series: Stem Cells and Regenerative Medicine
In series: Cell Biology Research Progress
Case: 978-1-62257-062-1. $150.00.
Tissue engineering and regenerative medicine uses a combination of cells, scaffolding and bioactive factors to treat a variety of pathological conditions and has become a treatment option for many adult diseases. In this book, the authors present current research from across the globe, in the study of the fundamentals, techniques and applications of tissue engineering. Topics discussed in this compilation include the characteristicization of liver organogenesis and fetal and adult stem/progenitor cells; in vitro biological activity of double and triple component system scaffolds in bone tissue engineering; stretching bioreactors for dynamic engineering of muscle tissues; adipose-derived stem cells and their application in tissue engineering; regenerative medicine and tissue engineering for congenital birth defects.

Tumor Necrosis Factor: Structure, Enzyme Regulation and Role in Health and Disease
Agueda Escarra
In series: Cell Biology Research Progress
Soft: 978-1-62417-721-7. $69.00.
Tumor necrosis factor-alpha (TNF-α) is a potent pro-inflammatory cytokine exerting pleiotropic effects on various cell types and plays a critical role in the pathogenesis of chronic inflammatory diseases. In this book, the authors discuss the structure, enzyme regulation and role in health and disease of TNF. Topics include TNF-α related to signal pathways and neuronal diseases; the role of TNF-α in rheumatoid arthritis and autoimmunity; the presence of 308-A TNF allele and its association with the clinical parameters of myelodysplastic syndromes; the significance of TNF in the immune response against tuberculosis; and TNF-α signaling and cathepsin B.

Chemical Engineering
Urea: Synthesis, Properties and Uses
Carla Maria Muñoz and Andrés Manuel Fernández
In series: Chemical Engineering Methods and Technology
In series: Human Anatomy and Physiology
2012. 266 pp.
Case: 978-1-62257-032-4. $150.00.
Urea serves an important role in the metabolism of nitrogen-containing compounds by animals and is the main nitrogen-containing substance in the urine of mammals. It is solid, colorless, and odorless and highly soluble in water. Urea is widely used in fertilizers as a convenient source of nitrogen and also an important raw material for the chemical industry. In this book, the authors discuss the synthesis, properties and uses of urea. Topics included in this compilation are the production of granular urea as nitrogenous fertilizer; urea and urea transporter physiology; urea transport in fungi and plants; urea used as the neutralizing agent for homogenous precipitation; the effect of urea on polymer films, natural fibers wood and jute plastic composites; pharmacological recognition of urea derivatives in brain disorders; non-bonding properties of urea; valproyl urea; and urea as an effective therapeutic option syndrome of inappropriate antidiuretic hormone secretion (SIADH).

CHILDREN
Child and Adolescent Health Yearbook 2011
Joav Merrick (Ministry of Social Affairs, Jerusalem, Israel)
In series: Pediatrics, Child and Adolescent Health
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-61942-782-2. $215.00.
In the year 2010, the new “International Journal of Child and Adolescent Health” was begun under the auspices of the National Institute of Child Health and Human Development in Israel, in collaboration with Nova Science Publishers in New York, in order to facilitate an outlet for peer-reviewed papers in the areas of both child and adolescent health and human development. The editors hoped that there would be an international interest in such a new journal, and they hoped to receive good-quality reviews and original papers in these areas. This in fact happened, and in this yearbook they have gathered papers from the year 2011. This book discusses recent advances in child and adolescent health with research findings published in the year 2011.

Child and Adolescent Health Yearbook 2012
Joav Merrick (Ministry of Social Affairs, Jerusalem, Israel)
In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-61942-788-4. $215.00.
In the year 2011, the new “International Journal of Child and Adolescent Health” was begun under the auspices of the National Institute of Child Health and Human Development in Israel, in collaboration with Nova Science Publishers in New York, in order to facilitate an outlet for peer-reviewed papers in the areas of both child and adolescent health and human development. The editors hoped that there would be an international interest in such a new journal, and they hoped to receive good-quality reviews and original papers in these areas. This in fact happened, and in this yearbook they have gathered papers for the year 2012. This book discusses recent advances in child and adolescent health with research findings to be published in the year 2012.
DENTAL

Biomechanics of Dental Implants: Handbook for Researchers
Murat Cehreli (CosmORAL, Oral and Dental Health Polyclinics, Ankara, Turkey)
In series: Dental Science, Materials and Technology
Case: 978-1-62100-780-7. $165.00.
e-book: 978-1-62100-817-0. $165.00.
Biomechanics is applied to many fields of dentistry including treatments involving the use of dental implants to provide a means for predicting the clinical outcome. Several experimental and theoretical approaches are being used to accomplish this goal. This book provides a brief guide to the apprentice, along with the most complete picture of clinical/animal/experimental biomechanical studies related to state-of-the-art dental implants. This book also includes a brief section related to post and core restorations.

Clinical Dentistry Research Compendium
Giuseppe Alessandro Scardina (University of Palermo)
In series: Dental Science, Materials and Technology
This book is a compilation of the International Journal of Clinical Dentistry. This book provides a multidisciplinary forum for publications from all fields of oral medicine. This book builds a bridge between basic and clinical sciences, promoting the exchange of information and the advancement of oral medicine for the benefit of patients and clinicians. It offers comprehensive coverage of new techniques, important developments, and innovative ideas in all fields of clinical dentistry.

Dentures: Types, Benefits and Potential Complications
Tibor Karoly Fábían, Pal Fejerdy and Peter Hermann (Semmelweis University Budapest, Faculty of Dentistry, Clinic of Prosthetic Dentistry)
In series: Dental Science, Materials and Technology
Case: 978-1-61942-280-3. $165.00.
This work is an edited collection of miscellaneous chapters from the huge field of prosthetic dentistry, about dentures, and their types, benefits and potential complications. Besides most frequently discussed related topics of the field, this edited collection also includes some chapters dedicated to rarely reviewed research areas like prosthodontics, brain correlates of wearing denture, psychosomatic aspects of prosthetic dentistry, denture related microbiology and the use of mind-body therapies, physiotherapies as well as complementary and alternative approaches for prosthetic dentistry, which may supply a great want. This book gathers and presents data on the leading edge of prosthetic dentistry.

Implant Dentistry Research Guide: Basic, Translational and Clinical Research
Ahmed Ballo (Department of Biomaterials, Sahlgrenska Academy at Göteborg University, Medicinaregatan, Göteborg Sweden)
In series: Dental Science, Materials and Technology

Case: 978-1-61942-447-0. $215.00.
This book introduces early career students and researchers to a complete update on various aspects of major methods and techniques used in the field of implant dentistry and guided-bone-regeneration research. This unique book guides the reader through each aspect in detail, from basic research approaches such as surface-characterization techniques, in vitro experiments, and ethics and regulations for the use of laboratory animals to the application of different animal models in implant dentistry and bone-regeneration research, imaging techniques, computer finite element models, biomechanical methods, analytical methods for the bone–implant interface, and finally to conducting clinical research.

Theoretical and Computational Developments in Modern Density Functional Theory
Amlan K. Roy (Division of Chemical Sciences, IISER-Kolkata, Kolkata, India)
In series: Physics Research and Technology
Modern day’s electronic structure theory of molecules, solids, materials, biomolecules, etc., heavily depends on the astounding success of density functional theory (DFT). Ever since its inception, the theory has come a long way. Despite the fact that there are many disconcerting open questions yet to be answered, it has made a remarkable impact towards our understanding of increasingly larger and complex systems. This book presents some of the exciting, important, latest developments that took place in DFT, of late. The main focus lies on theoretical, computational and conceptual aspects including formalism, algorithm etc., with some applications.

DISABILITY STUDIES

Down Syndrome and Dementia. A Comprehensive and Historical Review
Vee P. Prasher (Professor of Neuropsychiatry, The Greenfields, Monyhull, Brookfield Drive Kings Norton, Birmingham, United Kingdom)
In series: Disability Studies
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62081-263-1. $175.00.
It has been almost 150 years since Dr. Langdon Down first brought to our attention people with Down syndrome. Life expectancy, level of intellectual functioning, physical health, psychological health, social functioning, and integration into society are all issues that have markedly changed since 1866. The matter of aging in people with Down syndrome has consistently remained an area of intense interest. This book documents the most important published literature on the issue of dementia and Down syndrome published since Dr. Langdon Down’s momentous paper. Further, a number of publications from the general population which have had significant impact in the field of dementia and Down syndrome, and a number of papers in young adults and children with Down syndrome that have important implications for the aging population have been included.
New Developments in Down Syndrome Research
Alard van den Bosch and Elise Dubois
In series: Genetics - Research and Issues
In series: Disability and the Disabled-Issues, Laws and Programs
Case: 978-1-62081-893-0. $195.00.
Down syndrome (Trisomy 21), is characterized by the presence of an extra chromosome 21, and is the most common chromosomal abnormality. Clinical symptoms of Down syndrome (DS) often include orthopedic, cardiovascular, neurological, cognitive, perceptual and motor impairments. In this book, the authors present current research from across the globe on Down syndrome. Topics discussed in this compilation include the effects of regular versus special school placement of students with Down syndrome; the clinical association between disorders of the ENS and Down syndrome; the impact of environmental risk factors on maternal meiotic errors; genomic implications of gene dosage imbalance in autosomal trisomy during neural development; parenting stress in families with Down syndrome children; using technology in the evaluation of Down syndrome children’s social-cognitive skills; and atypical postural behaviors in individuals with DS.

DRUGS

Antipsychotic Drugs: Pharmacology, Side Effects and Abuse Prevention
Thomas L. Schwartz, James Megna (Department of Psychiatry, SUNY Upstate Medical University, Syracuse, New York) Michael E. Topel (Rush University Medical Center)
In series: Psychiatry - Theory, Applications and Treatments
Case: 978-1-62100-071-6. $175.00.
Since the mid-1990s, a revolution in regards to prescribing antipsychotics has taken place. Once utilized only for schizophrenia, the newer, second generation antipsychotics have now been approved for the treatment of bipolar disorders, depressive disorders, and autism spectrum disorders. They are often utilized elsewhere for the treatment of anxiety disorders, sleep disorders, and to calm agitated patients when dangerous behaviors occur. Prescription rates have soared making them some of the most advertised, prescribed and profitable drugs on the market. This book was developed with input of international authors of varying backgrounds to review the history and development of these agents and to focus on the utilization of these drugs in various disorders, age groups, and clinical situations.

Prescription Drugs: Abuse Education and Diversion Control Efforts
John J. Phillips and Wallace O. Penny
In series: Substance Abuse Assessment, Interventions and Treatment
2012. 147 pp.
Case: 978-1-62081-211-2. $110.00.
The Center for Disease Control and Prevention has declared that the United States is in the midst of an epidemic of prescription drug overdose deaths, with deaths associated to prescription pain relievers of particular concern. To address this issue, federal agencies are raising awareness by educating prescribers and the general public. This book examines the recent national trends in prescription pain reliever abuse and misuse; describes how the federal agencies are educating prescribers; assesses the extent to which federal agencies follow key practices for developing public education efforts; and identifies educational efforts that use similar strategies and assesses how agencies coordinate those efforts.

Synthetic Drugs: Scope and Trends in Synthetic Cannabinoids and Stimulants
Terrence L. Gray and Sage F. Evans
In series: Drug Transit and Distribution, Interception and Control
In series: Substance Abuse Assessment, Interventions and Treatment
Soft: 978-1-62081-813-8. $52.00.
Synthetic drugs, as opposed to natural drugs, are chemically produced in a laboratory. Their chemical structure can be either identical to or different from naturally occurring drugs, and their effects are designed to mimic or even enhance those of natural drugs. When produced clandestinely, they are not typically controlled pharmaceutical substances intended for legitimate medical use. Designer drugs are a form of synthetic drugs. They contain slightly modified molecular structures of illegal or controlled substances, and they are modified in order to circumvent existing drug laws. While the issue of synthetic drugs and their abuse is not new, the 112th Congress has demonstrated a renewed concern with the issues. This book provides an overview of current trends in select synthetic cannabinoids and stimulants, and reviews relevant legislation in the 112th Congress as well as issues for policymakers.

EMERGENCY MEDICINE

Septic Shock: Symptoms, Management and Risk Factors
Melvin C. Johnston and Jerome E. Knight
In series: Emergency and Intensive Care Medicine
Case: 978-1-62257-485-8. $95.00.
e-book: 978-1-62257-499-5. $95.00.
Septic shock is a common and lethal condition that remains one of the leading causes of death in the hospital. Greater awareness, understanding of the condition and knowledge of effective management may decrease the mortality rate. In this book, the authors discuss the symptoms, management and risk factors of septic shock. Topics include the pathophysiology of cardiovascular failure in septic shock; life threatening infections and septic shock during idiopathic drug-induced agranulocytosis; the role of HMGB1 in cardiac dysfunction during septic shock; the epidemiological impact of sepsis and septic shock; and possible implications for the treatment of septic patients with interventions aimed at opening microcirculation.

ENVIRONMENT

Overfishing and Rebuilding Fish Stocks in Federal Waters
Austin Hartwick and Lana Alfonson
In series: Fish, Fishing and Fisheries
In series: Marine Biology

Case: 978-1-62257-585-5. $110.00.
This book is a study on ending overfishing and rebuilding fish stocks in U.S. federal waters. Fishermen and fishing communities sometimes suffer from economic and social effects of harvest restrictions needed to satisfy the provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) for overfishing and stock rebuilding requirements. Many question whether these requirements adequately address the complexities and uncertainties associated with managing fish stocks. Often fishermen express doubt over the efficacy of fish population assessments used for developing management measures because of data constraints and inadequate population models. They refer to studies showing that other factors, often outside the immediate control of fisheries managers, such as environmental conditions and the quality of fish habitat, also affect fish population abundance.

FOOD SCIENCE

Bread Consumption and Health
Maria Teresa Pedrosa Silva Clerici (Federal University of Alfenas, UNIFAL-MG, Alfenas/MG, Brazil)

In series: Food and Beverage Consumption and Health
In series: Agriculture Issues and Policies

Case: 978-1-62081-090-3. $175.00.
This book presents a collection of studies that gather the leading researches and trends concerning the binomial bread-health. Topics discussed include possibilities and trends of use of other ingredients for mixture with the flour aiming to improve the nutritional value and/or use by-products those are beneficial to health; the use of fruits and their derivatives with high antioxidant capacity and as a source of fibers or resistant starch; and the use of whole wheat flour, obtained in a stone mill, returns to the past and appears as an option for high-fiber product, containing lower glycemic index carbohydrates; it focuses on an audience more concerned about health, as well as it shows the possibilities of replacing chemical additives by enzymes.

Caffeine Consumption and Health
Francesco D. Romano and Pietro F. Russo

In series: Nutrition and Diet Research Progress
In series: Public Health in the 21st Century

Case: 978-1-61942-332-9. $150.00.
e-book: 978-1-61942-335-0. $150.00.
This book presents current research in the study of caffeine consumption and health. Topics discussed in this compilation include the neuroprotective effects of caffeine; how chronic caffeine improves cardiac recovery following hypoxia; the role of cytochrome P450 in caffeine-herb interactions; the effects of caffeine on attention and motor performance and hypertension; caffeine use in sports and caffeine consumption and changes in the function of dopaminergic transmission.

Green Tea: Varieties, Production and Health Benefits
Wenbiao Wu (College of Food Science, Southwest University, PRC)

In series: Food and Beverage Consumption and Health

Case: 978-1-62257-562-6. $150.00.
e-book: 978-1-62257-569-5. $150.00.
It is believed that this is the first book to summarize the varieties, chemical components, healthy benefits and other functional applications of green tea. This book is intended for use as a reference book suitable for scientists, teachers, students and others who are interested in the interaction of tea components with human health and their application in food or other industries.

Genetics

Advances in Genetics Research. Volume 10
Kevin V. Urbano

In series: Advances in Genetics Research

2013. 211 pp.
Case: 978-1-62417-928-0. $150.00.
“Advances in Genetics Research” presents original research results on the leading edge of genetics discovery. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. In this continuing series compilation, the authors present and discuss varied topical data such as the role of IL-1 in the cytokine network of the body; genetic manipulation of leishmania parasites facilitating the exploration of polyamine biosynthetic pathways as potential therapeutic targets; RNA interference-mediated cell camouflage; identification of RNA in analysis of body fluids stains for forensic purposes; cationic lipid-based nanoparticles for siRNA delivery; Interleukin-1 in osteoarthritis; fungal genetic manipulation using RNA silencing; micrornia cathespins B-dependent IL-1B production; role of miRNAs in early embryonic development of drosophila melanogaster; and pHg/pSILBAy vector system for RNA silencing in mycorrhiza via agrobacterium-mediated transformation.

Advances in Genetics Research. Volume 9
Kevin V. Urbano

In series: Advances in Genetics Research

Case: 978-1-62081-466-6. $150.00.
“Advances in Genetics Research” presents original research results on the leading edge of genetics discovery. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. In this continuing series compilation, the authors present and discuss varied topical data such as genetic modification of stem cells in ex vivo gene therapy; viral RNA polymerases; polymerase chain reactions; genetic modification to improve the therapeutic potential of oncolytic clostridia and cloning of the B2-microglobulin from sea bass.
Enzymes are necessary for nearly all of life’s chemical reactions. With the advance of biotechnology, increasing numbers of enzymes are identified and over-produced prior to application in various industries that encompass medicine, agro-industry, commodity products sectors, and biofuel biotechnologies. Many enzymes currently are derived from recombinant microorganisms. Enzyme manufacturers take advantage of new genetic techniques to develop and manufacture enzymes with improved properties. Such enzymes often originate from microorganisms that cannot be readily cultured under laboratory or industrial conditions. By judicious selection of host microorganisms, recombinant production strains can be constructed to allow efficient production of enzymes that are substantially free of undesirable enzymes or other microbial metabolites. The developments in molecular genetics and cell biology in the last four decades have reshaped enzyme production. This book provides comprehensive material on applications of important microbes and their gene functions in enzyme technology for audiences across many disciplines.

Bioinformatics: Genome Bioinformatics and Computational Biology
Renu Tuteja (Staff Research Scientist International Centre for Genetic Engineering & Biotechnology (ICGEB), New Delhi, India)
In series: DNA and RNA: Properties and Modifications, Functions and Interactions, Recombination and Applications
In series: Genetics - Research and Issues
Case: 978-1-62100-913-9. $140.00.
Bioinformatics is the field of science in which computer science, information technology and biology, merge to form a single discipline. It is the application of information technology and computer science to the field of biology and biological systems. It is a new science which is very helpful in understanding most of the biological processes. Bioinformatics, which is the melding of molecular biology with computer science, is essential to the use of genomic information in understanding human diseases and in the identification of new molecular targets for drug discovery. This book describes current research from around the world on studies involving bioinformatics and computational biology tools. This book describes the use of bioinformatics and computational biology in a variety of processes. Some of these are biobanking, application of next-generation DNA sequencing in medical discovery, microRNA profiling involved in human tumorigenesis and cancer phylogenetics.

Comparative Genomics in Neglected Human Parasites
Mario César López-Camarillo (Universidad Autónoma de la Ciudad de México, Posgrado en Ciencias Genómicas, México) and Laurence A.
MicroRNA let-7: Role in Human Diseases and Drug Discovery
Neetu Dahiya (University of Virginia, Charlottesville, USA)
In series: DNA and RNA: Properties and Modifications, Functions and Interactions, Recombination and Applications
In series: Genetics - Research and Issues
Case: 978-1-62081-152-8. $85.00.
MicroRNAs are small non-coding RNAs involved in posttranscriptional regulation of gene expression. Thousands of miRNAs have been identified in different organisms including viruses, insects, plants and animals. MiRNAs has emerged as key regulators of important biological processes. The differential expression of miRNAs in various human diseases has made them potential candidates for developing novel therapies and personalized medicines. This book is focused on microRNA let-7, the second miRNA discovered in the year 2000 and one of the most studied miRNA. This book discusses various aspects of miRNA let-7 starting from its discovery, biogenesis, transcriptional and posttranscriptional regulation to its crucial role in various fundamental cellular processes such as development, stem cell maintenance and differentiation, regulation of signaling pathways in cancer, drug resistance and therapeutic potential in different human diseases.

Molecular Population Genetics, Evolutionary Biology and Biological Conservation of Neotropical Carnivores
Manuel Ruiz-Garcia and Joseph M. Shostell
(Pontificia Universidad Javeriana, Biology Dept., Bogota, Colombia)
In series: Animal Science, Issues and Professions
In series: Genetics - Research and Issues
2013. 739 pp.
Case: 978-1-62417-071-3. $265.00.
The neotropical ecoregion consisting of South America, Central America, Southern Mexico, the Caribbean Islands, and Southern Florida, has long been considered an area rich in mammalian diversity and one that contains some of the world’s iconic carnivores such as the Jaguar and Puma. These, and other carnivores represent the highest trophic levels within neotropical areas and as keystone species, can markedly alter omnivore and herbivore mammalian communities and indirectly, plant communities. Unfortunately, due to human population pressures, many neotropical areas and the mammals within them are increasingly at risk. This problem is compounded by the lack of current genetics, evolutionary biology and conservation data of these critical carnivores available to conservation biologists at the forefront of trying to preserve and protect these imperiled geographical areas. This book helps to meet these shortcomings by providing contributions from 60 of the world’s leading scientists in the area of neotropical carnivores. The first section of the book covers molecular population genetics and phylogeography of diverse neotropical carnivores such as otters, coatis and other Mustelidae and Procyonidae, wild cats, jaguar, puma, ocelot, jaguarondi, Pampas cat, and Andean cat and the Andean bear. Significant sections of the book are also devoted to the topics of reproduction, geometric morphometrics of wild canids and a complete paleontological view of the evolution of all neotropical carnivore groups. Furthermore, the book contains several chapters on the conservation details and varying cultural perspectives regarding the two larger and more mythical neotropical carnivores, the jaguar and the Andean bear, which together, are the paradigm for the conservation programs in Central and South America.

New Developments in Chromatin Research
Neil M. Simpson and Valerie J. Stewart
In series: Genetics - Research and Issues
In series: Cell Biology Research Progress
Case: 978-1-62081-816-9. $150.00.
Chromatin is DNA plus the proteins (and RNA) that package DNA within the cell nucleus. The primary functions of chromatin are: to package DNA into a smaller volume to fit in the cell; to strengthen the DNA to allow mitosis and meiosis and prevent DNA damage, and to control gene expression and DNA replication. In this book, the authors present topical research in the study of chromatin including the varied functions of aurora kinases A and B in mitosis and carcinogenesis; the chromatin state of pluripotent stem cells; MITF meets chromatin in melanoma; the state of chromatin as an integrative indicator of cell stress; analyzing DNA damage and its repair throughout entire genomes; the cloning process, structural characterization of Revolver transposon and its patented application for chromosome tags; DNA damage and Rad16; and glucocorticoid-induced chromatin remodeling.

Nutrigenomics: Application to the Development of Nutraceuticals and Cosmeceuticals
M.T. Ravi Subbiah (University of Cincinnati, College of Medicine, Cincinnati, Ohio, USA)
In series: Nutrition and Diet Research Progress
In series: Genetics - Research and Issues
Case: 978-1-62417-051-5. $150.00.
e-book: 978-1-62417-075-1. $150.00.
Nutrigenomics promises us the ability to tailor diet based on individual genetic make-up. Through the advances made in the Human Genome Project, single nucleotide polymorphisms in important genes have been identified and their clinical association with many metabolic imbalances has been documented. This has resulted in the creation of a nutrigenomic test panel that can be used to evaluate individual genomic differences in the clinical laboratory. The ability to interpret these nutrigenomic tests and perhaps recommend specific nutraceuticals and functional foods that can modify negative health effects of individual genetic profiles is the hallmark of nutrigenomics and can play a vital role in personalized medicine.

Plasmids: Genetics, Applications and Health
Favian E. Rivera Gonzalez and Magdalena I. Lopez
In series: Genetics - Research and Issues
In series: Microbiology Research Advances
Case: 978-1-62081-370-6. $150.00.
A plasmid is a DNA molecule that is separate from, and can replicate independently of, the chromosomal DNA. They are double-stranded and circular in form. Plasmids usually occur naturally in bacteria, but are sometimes found in eukaryotic organisms. In this book, the authors present current research in the genetics, applications and health issues relating to plasmids. Topics include the development of multifunctional plasmids for diverse biotechnological applications; plasmids as indispensable components of multipartite azospirillum genomes; structural and segregational instability in plasmid biology; and conjugal plasmid transfer and phage inhibition kinetics.

Sex Chromosomes: New Research
Mario D'Aquino and Vincente Stallone
In series: Genetics - Research and Issues
In series: Microbiology Research Advances
In this book, the authors present new research in the study of sex chromosomes. Topics discussed in this compilation include the evolution of mammalian X chromosomes and X chromosome inactivation; the role of sex chromosomes in mammalian female fertility; the fate of the Y chromosome; the role of Y chromosome genes on tumor development risk in disgenetic gonads; deletion of amelogenin Y-locus; non-invasive prenatal diagnosis for fetal sex determination; and application of X chromosomal STR polymorphisms to individual identification.

**Telomeres: Biological Functions, Sequencing and Aging**
*Nicolás E. Dominguez and Soñia M. Pereyra*
In series: *Genetics - Research and Issues*
In series: *DNA and RNA: Properties and Modifications, Functions and Interactions, Recombination and Applications*
Case: 978-1-61942-634-4, $150.00.
Telomere is the nucleoprotein complex located at the endmost chromosomal terminus and one of the essential cis-acting structural elements of chromosomes. Telomeres are composed of DNA, proteins, and RNA. In this book, the authors present current research in the study of the biological functions, sequencing and aging of telomeres. Topics discussed include the biology of telomeres in multipotent stromal cells; telomere maintenance in the blight fungus ustilago maydis; telomere length in lymphoid malignancies; unraveling the genetic basis of the alternative lengthening of telomeres and the adjustment of telomeres by cell-matrix interaction.

**Health**

**Building Community Capacity: Case Examples from Around the World**
*Rosemary M. Caron and Joav Merrick* (*Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel*)
In series: *Health and Human Development*
Edited by: Joav Merrick (*National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem*)
Case: 978-1-62417-143-7, $120.00.
e-book: 978-1-62417-144-4, $120.00.
In this book, the authors present new research in the study of sex chromosomes. Topics discussed in this compilation include the evolution of mammalian X chromosomes and X chromosome inactivation; the role of sex chromosomes in mammalian female fertility; the fate of the Y chromosome; the role of Y chromosome genes on tumor development risk in disgenetic gonads; deletion of amelogenin Y-locus; non-invasive prenatal diagnosis for fetal sex determination; and application of X chromosomal STR polymorphisms to individual identification.

**Evidence-Based Leadership Success Strategies for Nurse Administrators, Advance Practice Nurses (APN), and Doctors of Nursing Practice (DNP)**
*Darlene Sredl* (*Associate Teaching Professor of Nursing, Chesterfield, MO*)
In series: *Public Health in the 21st Century*
In series: *Nursing - Issues, Problems and Challenges*
Case: 978-1-62081-104-7, $150.00.
This book provides case study analyses of actual management dilemmas and how they were resolved. Each situation is equipped with a strategy that was employed in bringing about the positive resolution; management principles that were used; a nursing and non-nursing theory that guided practice, and the evidence-base of research that helped bring all this about. This book contains scenarios from twelve different types of management problems. It can be a springboard to successful resolution of management problems by adapting the identified strategies.

**Health Risk Communication**
*Marijke Lennal* (*Katholieke Universiteit Leuven, Leuven, Belgium*), Joav Merrick (*Medical Director, Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel*)
In series: *Health and Human Development*
Edited by: Joav Merrick (*National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem*)
2013. 186 pp.
Case: 978-1-62257-544-2, $150.00.
Health risk communication deals with planned or unplanned communication to the public about the nature, impact and management of a wide array of health threats, such as cancer, HIV/AIDS or influenza pandemics. Traditional health risk communication models used to stress a one-way flow of health risk messages to the public. The dominant focus was on experts (government, health organizations….) merely disseminating risk information and educating a ‘lay’ and ‘ignorant’ public about health threats. However, this simplistic top-down model of communication ignored the complex nature of the audience and the public’s understanding of risk information. Fortunately, there has been a shift away from top-down communication about health threats. This book gathers research findings and theoretical reviews with a focus on the role of mass media as sources of health risk information, the role of message formats or frames and risk information source characteristics.

**Textbook on Evidence-Based Holistic Mind-Body Medicine: Basic Philosophy and Ethics of Traditional Hippocratic Medicine**
*Søren Ventegodt* (*Quality of Life Research Center, Copenhagen V, Denmark*) and Joav Merrick (*Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel*)
In series: *Health and Human Development*
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62257-052-2. $175.00.
Holistic medicine, or quality of life as medicine, as we often call it, is basically a strategy for improving the patients quality of life, through mobilizing of inner resources. This can never harm and will almost always benefit the patient’s wellbeing and often also help him or her to fight back the disease. The cure is very much the same for all patients: Help to know yourself better and to step into character and be more yourself, and more in tune with the universe. So it can be started right away, also without a specific diagnosis. Is modern, holistic medicine powerful? Oh yes, very much so. Holistic medicine is a truly powerful medicine, in spite of nobody really understanding the deepest structures of consciousness, the connection between mind and body, and the way holistic medicine works. But just because our scientific understanding admittedly still is limited we should not stop doing what we know works. In this book the authors cover the basic principles of philosophy and ethics of traditional Hippocratic medicine from a new and modern scientific approach.

Textbook on Evidence-Based Holistic Mind-Body Medicine: Basic Principles of Healing in Traditional Hippocratic Medicine
Søren Ventegodt (Quality of Life Research Center, Copenhagen, Denmark) and Joav Merrick (Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)
In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62257-094-2. $230.00.
Holistic medicine, or quality of life as medicine, as we often call it, is basically a strategy for improving the patients quality of life, through mobilizing of inner resources. This can never harm and will almost always benefit the patient’s wellbeing and often also help him or her to fight back the disease. The cure is very much the same for all patients: Help to know yourself better and to step into character and be more yourself, and more in tune with the universe. So it can be started right away, also without a specific diagnosis. Is modern, holistic medicine powerful? Oh yes, very much so. Holistic medicine is a truly powerful medicine, in spite of nobody really understanding the deepest structures of consciousness, the connection between mind and body, and the way holistic medicine works. But just because our scientific understanding admittedly still is limited we should not stop doing what we know works. In this book the authors cover the basic principles of healing and ethics of traditional Hippocratic medicine from a new and modern scientific approach.
TEXTBOOK ON EVIDENCE-BASED HOLISTIC MIND-BODY MEDICINE: SEXOLOGY AND TRADITIONAL HIPPOCRATIC MEDICINE

Soren Ventegodt (Quality of Life Research Center, Copenhagen, Denmark) and Joav Merrick (Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)

In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)

Case: 978-1-62257-140-6. $175.00.
e-book: 978-1-62257-171-0. $175.00.
Holistic medicine, or quality of life as medicine, as we often call it, is basically a strategy for improving the patients quality of life, through mobilizing of inner resources. This can never harm and will almost always benefit the patient’s wellbeing and often also help him or her to fight back the disease. The cure is very much the same for all patients: Help to know yourself better and to step into character and be more yourself, and more in tune with the universe. So it can be started right away, also without a specific diagnosis. Is modern, holistic medicine powerful? Oh yes, very much so. Holistic medicine is a truly powerful medicine, in spite of nobody really understanding the deepest structures of consciousness, the connection between mind and body, and the way holistic medicine works. But just because our scientific understanding admittedly still is limited we should not stop doing what we know works. In this book the authors cover sexology in traditional Hippocratic medicine from a new and modern scientific approach.

TEXTBOOK ON EVIDENCE-BASED HOLISTIC MIND-BODY MEDICINE: RESEARCH, PHILOSOPHY, ECONOMY AND POLITICS OF TRADITIONAL HIPPOCRATIC MEDICINE

Soren Ventegodt (Quality of Life Research Center, Copenhagen, Denmark) and Joav Merrick (Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)

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HEALTH CARE

ADVERSE EVENTS IN HOSPITALS: SELECT STUDIES AND ANALYSES

Loren J. Boone and Earnest R. Payne
In series: Health Care Issues, Costs and Access
In series: Public Health in the 21st Century
Case: 978-1-62081-075-0. $215.00.
This book provides a descriptive analysis of the key issues regarding adverse events in hospitals. The term “adverse event” describes any harm to a patient as a result of medical care. An adverse event indicates that the care resulted in an undesirable clinical outcome and that the clinical outcome was not caused by an underlying disease. Research, policies, and action taken to reduce adverse events often focus on mistakes and systemic problems with care. However, adverse events do not always involve errors, negligence, or poor quality care and may not always be preventable.

ALTERNATIVE MEDICINE: PRACTICES, HEALTH BENEFITS AND CONTROVERSIES

Kenneth R. Carter and George E. Murphy
In series: Health Care Issues, Costs and Access
In series: Public Health in the 21st Century
Case: 978-1-62257-106-2. $150.00.
Complementary and alternative are terms used to describe a number of products, practices, and systems that are not part of mainstream (conventional, standard, or Western) medicine. They can include methods like herbs and dietary supplements, body movement, spiritual approaches, pills, extracts, creams and ointments. In this book, the authors present research from across the globe in the study of some practices, health benefits and controversies associated with alternative medicine. Topics include reflexology therapy as a form of manual pressure applied mostly to the feet; alternative therapies for children with attention-deficit/hyperactivity disorder; alternative medicine combined with integrative medicine to treat chronically ill patients; and complementary medicine use in pediatric inflammatory bowel disease, cancer, and epilepsy.

BEHAVIORAL AND MENTAL HEALTH COVERAGE: POLICIES, PARITY AND ANALYSES

Grace A. Clark and Victoria I. Perez
In series: Health Care Issues, Costs and Access
In series: Public Health in the 21st Century
2012. 120 pp.
Case: 978-1-62081-495-6. $52.00.
e-book: 978-1-62081-502-1. $52.00.
Behavioral health disorders (including both mental disorders and substance use disorders) affect a large number of people and contribute costs to the health care system, even as indicated treatment is often not received by individuals in need. In the United States, an estimated 26% of non-institutionalized adults experience behavioral health disorders in a given year; over the course of a lifetime, the estimate rises to 46%. This book provides an overview of sections in the health reform law that are expected to affect the financing and delivery of behavioral health care services. Access to health care services is determined by multiple factors, including financing arrangements and covered benefits. The Patient Protection and Affordable Care Act (PPACA) may increase access to behavioral health services by increasing the availability and affordability of financing arrangements; the law also contains sections that will affect both the coverage of behavioral health...
services, as well as the conditions under which those services are covered.

Building Community Capacity: Skills and Principles
Rosemary M Caron (University of New Hampshire, College of Health and Human Services, Durham, New Hampshire) and Joav Merrick (Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem)
In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62257-331-4. $150.00.
e-book: 978-1-62257-238-0. $150.00.
Today, local, state, and federal funding agencies have recognized the importance of the role the community plays in assuring a healthy population. As a result, these funding sources have mandated that the community which is primarily affected by these persistent public health issues, be present at the working table with academicians, researchers, public health practitioners, and policymakers so their “voice” may be heard and they may contribute to effective solutions. For sustainability purposes, we need to help these communities build their capacity to address the episodic, as well as the persistent, public health issues that affect their health. How do we, as public health professionals, do that? How do we learn the skills and principles necessary to establish partnerships with our communities? How do we then teach our community partners to continue to improve the health status of their neighborhoods when the funding expires? This book explores this topic in greater detail.

Child Health and Human Development Yearbook 2011
Joav Merrick (Ministry of Social Affairs, Jerusalem, Israel)
In series: Pediatrics, Child and Adolescent Health
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-61942-969-7. $325.00.
The early years in the life of a child are critical for cognitive, social and emotional development. It is therefore important that we make sure that children grow up in an environment where their social, emotional and educational needs are met. Children who grow up in an environment where their developmental needs are not met are at risk for compromised health, well-being and sometimes developmental delays. Society must therefore work to ensure that children develop in safe, loving and secure environments. This yearbook compiles the work done in 2011 with a broad research agenda on a global basis, addressing questions ranging from policy to practice, and spanning the developmental spectrum from human genetics, infancy and early childhood, to adolescence and adulthood.

Federal Health Centers: Improving Care for the Medically Underserved
Langston E. Gibson and Spencer J. Thomson
In series: Health Care Issues, Costs and Access
In series: Public Health in the 21st Century
Case: 978-1-62081-895-4. $195.00.
The federal health center program awards grants to support health centers: outpatient primary care facilities that provide care to primarily low-income individuals. The program supports four types of health centers: community health centers, health centers for the homeless, health centers for residents of public housing, and migrant health centers. Health centers are required to provide health care to all individuals regardless of their ability of pay and are required to be located in geographic areas that have few health care providers. These requirements make health centers part of the health safety net - providers that serve the uninsured, the underserved, or those enrolled in Medicaid. This book provides an overview of the federal health center program including its statutory authority, program requirements, and appropriation levels.

Fifty-Five Case Histories in Acute Geriatric Care: Bedside Skills and Beyond
Jochanan E. Naschitz (The Department of Acute Care for Elderly, Flieman Hospital and Rappaport Family Faculty of Medicine, The Technion Israel Institute of Technology, Israel), Yitshal N. Berner (Meir Medical Center, Kfar Saba, Sackler's School of Medicine)
In series: Geriatrics, Gerontology and Elderly Issues
Case: 978-1-62257-141-3. $150.00.
e-book: 978-1-62257-642-5. $150.00.
During the last decades, as the population grew older, gerontologically adjusted services became the norm for the highest standard of care. The Acute Care for Elderly Unit has been specifically devised to provide trained acute hospital care for elderly patients with geriatric syndromes, disabilities and frailty. Hospitalists and geriatricians find only limited guidance in the literature referring specifically to the management of acute disorders in elderly persons, having multiple comorbidities, geriatric syndromes, disabilities and frailty. For such conditions we have attempted to update the most recent evidence and define the frontiers of knowledge in the volumes ‘Challenges in Acute Geriatric Care’ in 2009 and ‘Acute Geriatric Care’ published in 2012. Fifty five case histories in this tome provide an insight into acute geriatric care: the patients, the problems and the physicians’ skills concerned.

Health Care Fraud and Questionable Costs: Select Investigations
Marco N. Stallone
In series: Health Care Issues, Costs and Access
2013. 111 pp.
Case: 978-1-62417-651-7. $110.00.
In fiscal year 2011, 48.4 million individuals were enrolled in Medicare; 55.6 million in Medicaid, and 8.7 million in the Children's Health Insurance Program (CHIP). Together, these programs accounted for approximately $849.2 billion in federal expenditures. The federal government allocated at least $608 million in funding to investigate and prosecute cases of alleged health care fraud in health care programs that year. Many different types of providers and suppliers who serve Medicare, Medicaid, and CHIP beneficiaries are subjects of fraud cases, including physicians, hospitals, durable medical equipment suppliers, home health agencies, and pharmacies. This book provides an overview of select investigations into health care fraud.

Health Care Quality: Select Research and Analyses
Miranda Dean
In series: Health Care Issues, Costs and Access
Quality gaps in the care delivered by the U.S. health care system result in preventable mortality and morbidity and contribute costs to the system, with multiple indicators showing that quality of care could be improved. Although no single definition of high-quality health care has been agreed upon, the Institute of Medicine (IOM) provided a framework for considering the quality of care, based on six domains: (1) effective, (2) efficient, (3) equitable, (4) patient-centered, (5) safe, and (6) timely. Ongoing congressional interest in enhancing the quality of health care is likely given the federal role in the delivery and financing of health care through, for example, the Medicare and Medicaid programs. This book begins with a discussion of the role of quality measurement in policies to enhance provider accountability and presents selected policies addressing quality measurement in this context. It then provides an overview of payment incentives and public reporting of performance data to improve quality, along with selected policy examples for each approach.

Health Insurance within the Affordable Care Act: Select Elements
Campbell Richardson and James T. Rivera
In series: Health Care Issues, Costs and Access
In series: Public Health in the 21st Century
Case: 978-1-62257-789-7. $110.00.
In March 2010, the 111th Congress passed health reform legislation, the Patient Protection and Affordable Care Act (ACA). ACA increases access to health insurance coverage, expands federal private health insurance market requirements, and requires the creation of health insurance exchanges to provide individuals and small employers with access to insurance. It also expands Medicaid coverage. The costs to the federal government of expanding health insurance and Medicaid coverage are projected to be offset by increased taxes and revenues and reduced spending on Medicare and other federal health programs. This book provides an overview of major ACA provisions, implementation and oversight activities.

Managed Care in a Public Setting
Richard Evan Steele (Klinikken Livet, Silkeborg, Denmark)
In series: Health and Human Development

Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
2013.
Soft: 978-1-62417-970-9. $52.00.
e-book: 978-1-62417-974-7. $52.00.
This book discusses health care, which has gone through profound changes in the preceding decades. Most of this change has been in what is possible, clinically speaking. These changes have transgressed international boundaries by virtue of the international nature of and ease of access to the literature and the internationality of health care conferences and the use of the internet. Many different actors deserve credit for these developments, from individual doctors, nurses, therapists and innovators to local, regional, national and international health care organizations. Much change has also come about due to the migration of quality assurance thinking from industrial realms to health care. This has not been anywhere near as uniformly distributed as state of the art care, however. Even across centers of excellence for treatment of specific diseases, large differences in quality assurance can be found, and one can also easily identify even more glaring deficiencies in quality of care in areas, where there is insufficient funding to make quality care available for all.

Health Informatics: An Adaptive Communication Technology for Future Healthcare
Naveen Chilamkurti (La Trobe University, Melbourne, Australia)
In series: Health Care in Transition
In series: Public Health in the 21st Century
2012. 194 pp.
Case: 978-1-61942-265-0. $95.00.
The current growth of Internet and communication technologies has given a new dimension to health care systems. In this book the authors provide examples of recent applications of IT in the health industry, starting from health care. The book chapters provide a clear picture of recent advances in health informatics with a vision of future applications in this domain. This useful book will enable interested readers, researchers, graduate students to familiarize themselves with the new e-health paradigm and in the future to contribute to new advances in this field.

Medical Data, Information Economy and Federative Networks: The Concepts Underlying the Comprehensive Electronic Clinical Record Framework
Giovanni Rinaldi, Antonio Gaddi, Fabio Capello (University of Bologna, Casalecchio di Reno (BO), Italy)
In series: Health Care Issues, Costs and Access
In series: Public Health in the 21st Century
2013.
Case: 978-1-62257-845-0. $230.00.
This book aims to present some fundamental pillars that must be taken into account for the design and construction of a medical record system. The work does not claim to be exhaustive, as the spirit of the book is to propose to reason out on some issues that have to be considered as the main features to take in consideration in the design and deployment of medical record systems, trying to bring positive issues to the general discussion. The first challenge has been to face the issues proposed in a co-productive way, in which the point of views of different actors (technicians, doctors, policy makers) are harmonized in shared visions, where the requirements that must be posed and considered become opportunities and challenges to overcome, also offering different shared solutions based on technology, organizational changes, medical actions and workflow in a unitary way.

Medical Malpractice: Considerations and Proposals
Vincent Braswell and Don Mccloud
In series: Health Care Issues, Costs and Access
2012. 188 pp.
Case: 978-1-61942-141-7. $125.00.
This book presents background and an examination of the issues before Congress as it relates to medical malpractice with a focus on the economic issues and historical experience.

Medicare Financing and Insolvency Projections
Shawn Palmer and Oscar J. Herrera
In series: Health Care Issues, Costs and Access
In series: Health Care in Transition
2012. 72 pp.
Medicare Spending and the Independent Payment Advisory Board

Ryan D. Brown and Steven J. Martin

In series: Health Care Issues, Costs and Access

In series: Public Health in the 21st Century

2012. 69 pp.

Soft: 978-1-62081-112-2. $47.00.

Among some proponents of health care reform, a major impetus for reform, in addition to improving quality and increasing access, has been the rising cost of the Medicare program. In response, in part, to overall growth in Medicare program expenditures and growth in expenditures per Medicare beneficiary, the Patient Protection and Affordable Care Act (PPACA), created the Independent Payment Advisory Board (IPAB), and charged the Board with developing proposals to “reduce the per capita rate of growth in Medicare spending.” This book provides an overview of the Board’s structure, and reviews the expedited and other parliamentary procedures that relate to congressional consideration of the Board’s proposals and impact.

The Health Care Fraud and Abuse Program

Lorena Townsend

In series: Health Care Issues, Costs and Access


Case: 978-1-62417-425-4. $110.00.
e-book: 978-1-62417-426-1. $110.00.

This book provides an overview of The Health Insurance Portability and Accountability Act of 1996 (HIPAA) which established a national Health Care Fraud and Abuse Control Program (HCFAC) under the joint direction of the Attorney General and the Secretary of the Department of Health and Human Services (HHS), acting through the Inspector General, and designed to coordinate Federal, state and local law enforcement activities with respect to health care fraud and abuse. In its fifteenth year of operation, the HCFAC’s continued success again confirms the soundness of a collaborative approach to identify and prosecute the most egregious instances of health care fraud, to prevent future fraud or abuse, and to protect program beneficiaries.

Transition from Pediatric to Adult Medical Care

David Wood, John G. Reiss, Maria E. Ferris, Linda R. Edwards, Joav Merrick (Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)

In series: Pediatrics, Child and Adolescent Health

Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)


Case: 978-1-62081-409-3. $175.00.

Transitioning youth with chronic medical conditions (also known as Youth with Special Health Care Needs—YSHCN) to adult services is a complex issue in clinical practice. It is estimated that about 10.2 million children and youth, ages 0–17 years, in the United States alone have special health care needs and while this group constitutes only about 14% of the childhood population, they account for 40% or more of medical expenditures for children. As reflected in this book there are a growing number of programs and projects from around the world that are developing and implementing innovative approaches to promoting successful health care transitions. The authors hope that the information and discussions provided will stimulate your interest and encourage you to take action to improve health care transition related services and supports for adolescents and young adults with special health care needs.

LANGUAGE

Aphasia: Classification, Management Practices and Prognosis

Edvin Holmgren and Ellinor S. Rudkilde

In series: Neurology - Laboratory and Clinical Research Developments

In series: Languages and Linguistics


Case: 978-1-62257-681-4. $95.00.
e-book: 978-1-62257-682-1. $95.00.

Aphasia is an acquired impairment of production or comprehension of language or both resulting from damage to the language network in the brain. In this book, the authors present topical research in the study of the classification, management practices and prognosis of an aphasia diagnosis. Topics discussed include aphasia consequences to the patient and care-givers; the clinical patterns of aphasia; intensive treatment, pharmacotherapy, transcranial magnetic/electric stimulation as a potential adjuvant treatment for aphasia; diagnosis and management of language impairment in acute stroke; and aphasia classifications.

MARINE BIOLOGY

Algae: Ecology, Economic Uses and Environmental Impact

Dagmar Krueger and Helga Meyer

In series: Environmental Science, Engineering and Technology

In series: Marine Biology


Case: 978-1-62081-280-8. $150.00.

This book presents current research in the study of the ecology, economic uses and environmental impacts of algae. Topics include ultraviolet irradiation to control algal proliferation in the environment; alga Trachydiscus minutus as a new source of polysaturated fatty acids; systematics and taxonomic keys for the marine green algal family monostromataceae; the ecophysiology of soil algae; and an
evaluation of the total phenolic content and antioxidant activities of crude extracts from red alga, Coralina elongata.

**Coralas: Classification, Habitat and Ecological Significance**

*Marco Agustín Liñán-Cabello (Acuicultura/Biotecnología Marina, FACIMAR Universidad de Colima, Manzanillo-Barra de Navidad, Manzanillo Col. México)*

In series: Marine Biology

Case: 978-1-62257-048-5. $150.00.

This book displays various topics related to knowledge, preservation and diagnosis of coral ecosystems. It shows different practical case studies, within them, the use of corals as indicators of geochemical thermal anomalies and the use of biochemical and molecular frontier tools to diagnose the coral population. It also analyzes several aspects of diversity, ecology and distribution of black coral, as well as addresses the ecological significance of bacteria in the community structure of a coral reef. This book presents studies that may be understood from the septogenesis principles to the study of the interconnection of coral ecosystems with artificial reefs, and a deep review about the methodological instruments supported by the molecular knowledge to make decisions on the coral ecosystems management.

**MEDICINE**

**ADHD: Cognitive Symptoms, Genetics and Treatment Outcomes**

*Russell Thompson and Naomi J. Miller*

In series: Neurodevelopmental Diseases - Laboratory and Clinical Research

In series: Neurology - Laboratory and Clinical Research Developments

Case: 978-1-62417-107-9. $95.00.

Attention-deficit hyperactivity disorder (ADHD) is conceptualized as a neurobehavioral condition that is characterized by developmentally inappropriate levels of inattention, impulsivity and motor overactivity. It is estimated to be present in 3-7% of school-aged populations and can result in significant impairment in academic, social and family functioning. In this book, the authors present current research in the study of the cognitive symptoms, genetics and treatment outcomes of ADHD. Topics discussed include the disadvantages and benefits of stimulant treatment; a discussion on whether professions differ in their beliefs about the causes and treatments of ADHD; motor coordination dysfunction in ADHD; nutrition optimization in the multimodal treatment of ADHD; and the relation between sluggish cognitive tempo and ADHD.

**Adiponectin: Production, Regulation and Roles in Disease**

*Masayoshi Yamaguchi (University School of Medicine, Atlanta, GA, USA)*

In series: Endocrinology Research and Clinical Developments

Case: 978-1-61942-165-3. $150.00.

Adiponectin has recently emerged as an anti-inflammatory, antiatherogenic, and insulin-sensitizing factor providing possible link between white adipose tissue and cardiovascular disease. Adiponectin also plays an important pathophysiological role in the metabolic syndrome. Recent topics concerning production, regulation and roles in disease of adiponectin are the focus of this book.

**Advances in Medicine and Biology. Volume 40**

*Leon V. Berhardt*

In series: Advances in Medicine and Biology

Case: 978-1-62100-421-9. $185.00.
e-book: 978-1-62100-479-0. $185.00.

This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include adenosviruses; molecular mechanisms in allergic rinitis; potential genetic factors in emphysema; magnesium homeostasis; disorders of fibrinogen and the cause and treatment of eclampsia.

**Advances in Medicine and Biology. Volume 41**

*Leon V. Berhardt*

In series: Advances in Medicine and Biology

Case: 978-1-62100-613-8. $140.00.

This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include muscarinic and nicotinic receptors as drug targets in disorders of the central nervous system; immune modulation for the treatment of HSV; state of the art and a new approach to the diagnosis and treatment of pulmonary edema; complications of colonoscopy requiring surgical or combined therapy; combining high throughput gene expression profiling and integrative systems biology analysis; drug treatment of early rheumatoid arthritis and placebo, nocebo and child neuropsychiatry.

**Advances in Medicine and Biology. Volume 44**

*Leon V. Berhardt*

In series: Advances in Medicine and Biology

Case: 978-1-62100-909-2. $140.00.
e-book: 978-1-62100-961-0. $140.00.

This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include insulin resistance, sensitizing factor providing possible link between white adipose tissue and cardiovascular disease; interferon and or hepatitis; complications of colonoscopy requiring surgical or combined therapy; combining high throughput gene expression profiling and integrative systems biology analysis; drug treatment of early rheumatoid arthritis and placebo, nocebo and child neuropsychiatry.

**Advances in Medicine and Biology. Volume 47**

*Leon V. Berhardt*

In series: Advances in Medicine and Biology

Case: 978-1-61942-135-6. $140.00.

This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include insulin resistance, sensitizing factor providing possible link between white adipose tissue and cardiovascular disease; interferon and or hepatitis; complications of colonoscopy requiring surgical or combined therapy; combining high throughput gene expression profiling and integrative systems biology analysis; drug treatment of early rheumatoid arthritis and placebo, nocebo and child neuropsychiatry.
carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include the comprehensive role of oxygenation in the regulation of erythropoiesis; the therapeutic actions and clinical implications of metformin in PCOS; issues and practices in spinal cord compression; application of immobilized RNases in molecular biology and biotechnology; magnesium and lung disease and threonine localization in a protein molecule.

Advances in Medicine and Biology. Volume 48
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-61942-300-8. $140.00.
This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include innovative drug delivery systems for the prophylaxis of HIV/AIDS and prevention of STIs; adiponectin production and role in disease; adverse drug events associated with anticonvulsants; neonatal resuscitation practices; total knee replacement using the kinematic navigation system; chest compressions during CPR and the clinical use of concentrated autologous bone marrow aspirate transplantation for osteonecrosis of the femoral head and bone non-union.

Advances in Medicine and Biology. Volume 49
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-61942-441-8. $150.00.
This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include the role of thyroid hormones on hypothalamus development and function; new therapies for hepatitis C virus infection; defense responses to abiotic stress in plants and mammalian skin cells; dysphagia in the elderly; mastectomy procedures and risks, pathology and management of bone tumors.

Advances in Medicine and Biology. Volume 50
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-61942-665-8. $140.00.
e-book: 978-1-61209-008-5. $140.00.
This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include growth hormone treatment in children; surgical interventions and acupuncture for low back pain; glycopeptide antibiotic sorption properties; opioid actions on the bulbar respiratory network; mesenchymal stem cells in therapeutic angiogenesis and vasculogenesis; aging physiology; the psychiatric aspects of constipation; and the genetics of COPD.

Advances in Medicine and Biology. Volume 51
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-61942-804-1. $185.00.
This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include abscisic acid-inducible genes during salinity and drought stress; medical device related infections; the effect of opiates on pregnancy and breastfeeding; using primate models to study vaginal HIV infection; the biosynthesis of ABA in fruits; patellar tendonitis in dancers; and metabolism and health.

Advances in Medicine and Biology. Volume 52
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62081-314-0. $150.00.
This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include the biology and prevalence of A. caninus parasites; the hyaluronic class of proteoglycans and their binding partners during vertebrate development; the onset of the hypothalamic-hypophysial-gonadal function during puberty; periodontal disease relating to systemic disease; peripheral arterial fragility from hemodynamic data; medical simulation training; carrier rates of pathogenic bacteria; glycosaminoglycan glycotecnology; and emergency medicine issues.

Advances in Medicine and Biology. Volume 53
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62081-565-6. $150.00.
This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include mesenchymal stem cells and Type 1 Diabetes Mellitus; recent advances in scleroderma pulmonary fibrosis; major histocompatibility complex; HDL quantity and quality in HIV; surgical management of chronic thromboembolic pulmonary hypertension; patient safety in radiation treatment; teledmedicine as an effective tool for the management of maxillofacial pathology; and biological agents in inflammatory eye disease.

Advances in Medicine and Biology. Volume 54
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62081-731-5. $120.00.
e-book: 978-1-62081-739-1. $120.00.
This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include the effect of aroma massage on constipation in advanced cancer patients; the histamine role in cell migration and matrix remodeling; neuronal histamine circuits as modulators of cognitive processes in the brain; cationic cell penetrating peptides mediating hemodynamic changes through mast cell activation; lipid emulsions for intoxications with membrane stabilizing agents; the pathomechanics and management of periulnar dislocations; and robotic arm-assisted orthopaedic knee arthroplasty.

Advances in Medicine and Biology. Volume 55
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62257-144-4. $150.00.
This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed include new research in serum angiotensin applied to equine medicine; pertussis symptoms and treatment; heliobacter pylori virulence factors in gastritis; robotic surgery in gynecology; sleep quality and health; management of complex osteomyelitis in children; thyroid hormone regulation and role in metabolism; and peripheral artery disease and arteriovenous fistula dysfunction as a cause of morbidity in hemodialysis patients.

Advances in Medicine and Biology. Volume 56
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62257-348-6. $150.00.
"Advances in Medicine and Biology" presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. This book discusses research on topics such as parasitoid venom and its effects on hosts; therapeutic effects of creatine supplementation; gastritis in heliobacter pylori infection; B1 adrenoreceptor signaling in arteriosclerosis; Coenzyme Q10 super nutrient; the eradication of leprosy; peptide contamination of cell membranes in the etiology of chronic noninfectious disease; eliminating the poliovirus; the effect of glycolic acid chemical peeling on facial skin; and ultrasound-guided robotic system for intervention treatment in liver tumors.

Advances in Medicine and Biology. Volume 57
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62257-438-4. $150.00.
"Advances in Medicine and Biology" presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. This book discusses research on topics such as sensory TRP channel interaction with lipids and their implications in pain modulation; immunological barriers to xenotransplantation of pig chondrocytes; the role of lipid metabolism regulator genes in chronic pancreatitis; immunodeficient mouse strains in biomedical research; acute pancreatitis in diabetes mellitus; patient-derived xenografts; oral disease and hydrogen sulfide production by oral bacteria; managing pancreatic exocrine dysfunction; and effective therapeutic interventions for the anxious, agitated or aggressive patient.

Advances in Medicine and Biology. Volume 58
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62257-803-0. $150.00.
"Advances in Medicine and Biology" presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. This book discusses research on topics such as global eradication of malaria; heterotopic calcification pathogenesis; medico-legal diagnosis in sudden death from anaphylaxis; intestinal mucosal hypoplasia risk factors; I&K Kinase and heat shock protein 90 complex in inflammatory response to bacterial infection; prescribing errors in primary care community pharmacies; the EsPress Implant in primary and secondary glaucoma; and hearing functionality assessment of cochlear hypoplasia.

Advances in Medicine and Biology. Volume 59
Leon V. Berhardt
In series: Advances in Medicine and Biology
2013. 270 pp.
Case: 978-1-62257-835-1. $150.00.
"Advances in Medicine and Biology" presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. This book discusses research on topics such as the provision of safe blood transfusion services in a low income setting in West Africa; anticoagulant and cytoprotective protein C pathways; bioanalytical applications of oligonucleotides; emerging targets for local pain therapy; platelet and transfusion platelet components; function of the 6 receptor C protein in intracellular trafficking; use of aptamer arrays to identify drug targets and assist drug development; C-reactive protein as an indicator for ischemic stroke risk; and bronchitis pathophysiology.

Advances in Medicine and Biology. Volume 60
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62417-122-2. $150.00.
"Advances in Medicine and Biology" presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. This book discusses research on topics such as the molecular biological aspects of lung development; adenosine receptors in psychiatric and neurological disorders; invasive monitoring in anesthesia; fluorescent oligonucleotides; surface plasmon resonance (SPR) in the biology laboratory; paleopathology of post-traumatic bone infections; first cases of syphilis in Naples; the implication of novel proteolytic modification in adhesion-GPCR signaling; managed care methods and impact analysis; and understanding GPCR-ligand pair dynamics.

Advances in Medicine and Biology. Volume 61
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62417-319-6. $150.00.
This continuing series gathers and presents original research results on the leading edge of medicine and biology. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed in this compilation include the management of facial hemangiomas by pediatric surgical laser therapy; pain sensor molecules of the primary afferent nerves and their nociceptive modalities; natural polymeric materials in pharmaceutical formulations; microelectrode arrays in mast cell electrophysiology; active adhesion in the context of the globalization of health services; objective measurement and monitoring of pain; homeopathy services in the National Health Service and other developed countries; axis orientation on visual performance in astigmatic eyes; and pulmonary hypertension and dialysis.

Advances in Medicine and Biology. Volume 62
Leon V. Berhardt
In series: Advances in Medicine and Biology
Case: 978-1-62417-730-9. $150.00.
Alopecia: Causes, Diagnosis and Treatment
Emid T. Miller and Mylo D. Allen
In series: Dermatology - Laboratory and Clinical Research
Soft: 978-1-62081-804-6. $69.00.
Alopecia areata (AA) is a common cause of reversible hair loss affecting approximately 1.2% of the general population. It commonly presents itself as round patches of hair loss. The etiology of AA is unknown but is characterized by hair cycle dysfunction and the presence of peribulbar and perifollicular mononuclear cell infiltrates. In this book, the authors present current research in the study of the causes, diagnosis and treatment of alopecia. Topics include radiation treatment and alopecia: the psychosocial aspects in alopecia areata; the classification, pathogenesis and treatment in alopecia areata and its genetic basis.

Alternative Medicine Research Yearbook 2011
Joav Merrick (Ministry of Social Affairs, Jerusalem, Israel)
In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62081-476-5. $350.00.
Life is complex and human life is even more so. Holistic derives from the Greek word ολος, holos, holos, meaning whole or complete. Looking at the whole organism minimizes loss of meaning, when the chaos of the detail is examined. Holistic medicine aims to restore health to all levels of the human being, including body, mind, spirit and the environmental system in which the patient lives. We aim to understand the patient in their system and avoid imposing an alien system that detracts from being able to understand the fully functioning person. This year book 2011 brings together the work the authors did over the past year with a broad research agenda on a global basis, addressing questions ranging from pain, food additives, quality of life, integrative medicine to discussion of randomized clinical trial. The authors hope this book will provide the reader with new knowledge, link research to practice and policy, and help build networks of research collaborations and move science forward in this field.

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Emid T. Miller and Mylo D. Allen
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Allergic Disorders of the Ocular Surface
De Gaulle I. Chigbu (Pennsylvania College of Optometry at Salus University, Elkins Park, Pennsylvania, USA)
In series: Eye and Vision Research Developments
In series: Allergies and Infectious Diseases
2013.
Alternative Medicine Yearbook 2010
Joav Merrick (Ministry of Social Affairs, Jerusalem, Israel)
In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
This compendium brings together articles from the ‘Journal of Alternative Medicine Research’ in 2009 with a broad research agenda on a global basis, addressing questions ranging from policy to practice, human development and a whole spectrum of issues also involving infancy and early childhood, to adolescence and adulthood. The information presented in this book is intended to generate new knowledge, link research to practice and policy, and help build networks of research collaborations and move science forward in this field.

Biomedical Tribology
J. Paulo Davim (University of Aveiro, Portugal)
In series: Materials and Manufacturing Technology
Edited by: Professor J. Paulo Davim (University of Aveiro, Portugal)
2012. 188 pp.
Case: 978-1-61470-056-2. $75.00.
Nowadays, it is common to define tribology as the “science and technology of interacting surfaces in relative motion”. It includes a study that deals with the design, friction, wear and lubrication of interacting surfaces. Consequently, biomedical tribology is defined as the tribological phenomena occurring in the human body. This book provides research and review studies on biomedical tribology. Topics discussed include tribocorrosion and bio-tribocorrosion in the oral environment; friction of hip replacement bearing; development of the friction and wear of articular cartilage; axisymmetric contact stress analysis for artificial hip joint and the stability of hip endoprostheses.

Biopsies: Procedures, Types and Complications
Isabella M. Evans and Kaelan Lewis
In series: Medical Procedures, Testing and Technology
2012. 188 pp.
Case: 978-1-61942-721-5. $95.00.
This book presents topical research in the study of the procedures, types and complications of biopsies. Topics included in this compilation are the historical evolution of the sentinel node biopsy; temporal artery biopsy; the value of FDG PET/CT in guiding bone marrow biopsy procedures in the initial evaluation of lymphoma patients; biopsy procedures in the diagnosis of IgG4-related sclerosing cholangitis; the options and techniques in the biopsy of musculoskeletal tumors; computed-tomography guided percutaneous biopsy; and lymphatic mapping and sentinel lymph node biopsy in early-stage cervical cancer.

Burns: Prevention, Causes and Treatment
Emily S. McLaughlin and Ava O. Paterson
In series: Surgery - Procedures, Complications, and Results
In series: Human Anatomy and Physiology
Case: 978-1-62100-446-2. $140.00.
This book presents topical research in the study of the prevention, causes and treatment of burns. Topics discussed in this compilation include emergency burn care; nanotechnology and nanomedicine advancements in burn therapy; post-burn hand deformities; the role of apoptosis in burn injury; burns during arthroscopy due to the use of electrosurgical devices; the body’s local and consecutive, systemic pathophysiologival reaction to thermal lesions; the burn reconstructive units on the face and neck; use of modern day technology for pain management during burn injury rehabilitation; carbon monoxide intoxication in burns; the clinical application of Versajet Hydrosurgery System in burn debridement and escharotomy techniques in burn injuries.

Chinese Medicine: Acupuncture, Herbal Medicine and Therapies
Jianguo Wang and Hong Zhu
In series: Health Care Issues, Costs and Access
In series: China in the 21st Century
Soft: 978-1-62081-529-8. $69.00.
Traditional Chinese Medicine refers to a broad range of medicine practices sharing common theoretical concepts which have been developed in China and are based on a tradition of more than 2,000 years, including various forms of herbal medicine, acupuncture, massage (Tui na), exercise (qigong), and dietary therapy. Although these practices are considered alternative medicine in the Western world, they are a common part of medical care throughout East Asia, accounting for an estimated 40% of all health care delivered in China. Topics discussed in this book include a comparison of Chinese views with Western perspectives on traditional Chinese Medicine and complementary alternative medicine; cinnabar and realgar in traditional Chinese Medicine; metabolomic analysis of herbal medicines; Chinese Herbal Medicine in health care; and acupuncture for patients with cerebral apoplexy.

Cholecystectomies: Procedures, Prognosis and Potential Complications
Miyu Akiyama and Satomi Kunomatsu
In series: Hepatology Research and Clinical Developments
In series: Surgery - Procedures, Complications, and Results
2013. 223 pp.
Case: 978-1-62257-890-0. $150.00.
Cholecystectomy is the surgical removal of the gallbladder. It is the definitive treatment for symptomatic gallstones and non-neoplastic gallbladder disease. In this book, the authors present current research in the study of the procedures, prognosis and potential complications of cholecystectomies. Topics include the techniques and indications of cholecystectomy; traditional laparoscopic cholecystectomy; iatrogenic bile duct injuries after cholecystectomy; surgical strategy for gallbladder carcinoma; cholecystectomy in patients with suspected cholelithiasis and cholecystitis in the elderly; and single-incision laparoscopic cholecystectomy.

Chronic Obstructive Pulmonary Disease: New Research
Leonidas Zirimis and Adelino Papazoglakis
In series: Pulmonary and Respiratory Diseases and Disorders
2012. 190 pp.
Deep Vein Thrombosis: Symptoms, Diagnosis and Treatments
Takashi Yamaki (Department of Plastic and Reconstructive Surgery, Tokyo Women’s Medical University, Tokyo, Japan)

In series: Recent Advances in Hematology Research 2012. 169 pp.
Case: 978-1-62257-519-0. $95.00.
e-book: 978-1-62257-522-0. $95.00.

Deep venous thrombosis (DVT) is the third most common cardiovascular disease. Two-thirds of patients with DVT are first episodes, and the remainder are recurrences. Pulmonary embolism is the most common complication of DVT. And now, DVT and pulmonary are considered two spectra of the same disease, namely venous thromboembolism (VTE). This book provides a comprehensive review of current diagnosis and treatment of DVT. This book includes chapters on clinical approaches in DVT, VTE and cancer, prevention of DVT in neurological surgery, combination of pretest clinical probability score and different D-dimer cutoff value for exclusion of VTE, ambulatory therapy for DVT, management of DVT with oral anticoagulant, surgical intervention for acute DVT, and recent multicenter survey of DVT from Japan. In this book, the mechanisms of VTE, diagnostic strategy of DVT, various treatment options for DVT, and prevention of VTE are discussed.

Endoscopic vaporization in lower urinary tract pathology – From monopolar to plasma
Bogdan Florin Geavlete (“Saint John” Emergency Clinical Hospital, Department of Urology, Bucharest, Romania)

Case: 978-1-62257-301-1. $150.00.

Monopolar transurethral resection still represents the standard endoscopic treatment approach in benign prostatic enlargement related to lower urinary tract obstruction. The method gained acknowledgement as a first choice therapeutic modality in medium size benign prostatic hyperplasia (BPH) treatment and the majority of clinical research regarded it as such. Endoscopic vaporization was introduced while trying to maintain therapeutic efficacy while reducing the peri- and postoperative morbidity, and it was easily adopted, as it required no special equipment or surgical skills. This book examines endoscopic vaporization in lower urinary tract pathology, from monopolar to plasma. The present publication follows the interest this treatment has gathered as well as the inevitable downfall when facing the test of time as well as the less flattering comparison to other methods.

Eosinophils: Structure, Biological Properties and Role in Disease
Garry M. Walsh (Division of Applied Medicine, School of Medicine & Dentistry, Institute of Medical Sciences University of Aberdeen, Foresterhill, Aberdeen U.K.)

Case: 978-1-61942-641-2. $165.00.

The eosinophil is an enigmatic cell with a continuing ability to fascinate. In this book, experts in the field of eosinophil biology comprehensively update our knowledge on the human eosinophil in health and disease. Topics discussed include a synopsis of eosinophil characteristics, properties and role in disease. Important information on how eosinophils release their potent and toxic granule proteins will be covered and how these basic proteins give rise to pathologies including issues such as the function of the nerves.

Epidemiology of Spinal Cord Injuries
Vafa Rahimi-Movaghar, Seyed Behzad Jazayeri, (Tehran University of Medical Sciences, Tehran, Iran) Alexander R. Vaccaro (Thomas Jefferson University, Philadelphia, PA, US)

In series: Neurology - Laboratory and Clinical Research Developments
In series: Neuroscience Research Progress
With hundreds of high-quality images, this work provides a simplified but high-quality diagnostic interpretation of hand radiography, for residents in training and experienced physicians, who wish to improve their knowledge of contemporary rheumatology, according to the rapid progress of treatment using biologic agents and various new diagnostics tools, including MRI and ultrasound. Topics discussed include arthritis in Behcet’s disease; adult onset Still’s disease; osteonecrosis in lupus; seronegative spondyloarthropathies; gout; and systemic sclerosis.

Gastrointestinal Disorders: Symptoms, Treatment and Prevention
Marouane Battik and Nesrine Grimaldi
In series: Digestive Diseases - Research and Clinical Developments
Case: 978-1-62100-997-9, $140.00.
e-book: 978-1-61942-017-5, $140.00.
In this book, the authors present current research in the study of the symptoms, treatment and prevention of gastrointestinal disorders. Topics discussed include short bowel syndrome; gastrointestinal disorders in pregnant women; dual topology of the gastric proton pump; epithelial barrier function in inflammatory bowel disease; treatment of laryngopharyngeal symptoms related to gastroesophageal reflux disease by proton pump inhibitors; Crohn’s disease and the therapeutic perspectives of gastrointestinal melanin.

Hemodialysis, When, How, Why
Biagio Raffaele Di Iorio, August Heidland, Claudio Ronco, Macaulay Onuigbo (Faculty of Medicine and Surgery, Seconda Università di Napoli, Napoli, Italy)
In series: Renal and Urologic Disorders
Case: 978-1-62257-701-9, $250.00.
This book with its most comprehensive and illuminating chapters covers all the relevant areas of hemodialysis practice including access for hemodialysis, hemodialysis modeling and membranes, timing of hemodialysis, infections in hemodialysis, the application of hemodialysis in extra-renal disease, the various formats of hemodialysis from nocturnal through SLED to apheresis and the wearable artificial kidney, convective hemodialysis methodologies, and various clinical aspects of hemodialysis including protein-calorie malnutrition, inflammation, hemoglobin stability and sleep disorders in ESRD patients and so on. Furthermore, the inclusion of such new topics as the syndrome of rapid-onset end stage renal disease (SORD-ESRD), and the place of reduced HBV testing among ESRD patients in regions with less de novo HBV incidence to cut down on costs of delivery of hemodialysis care without loss of quality of care, are new paradigms that would play stronger roles in hemodialysis care, well into the 21st century.

Hemodialysis: Indications, Procedures and Complications
Yuri F. Cabral and Marina Costa De Santos
In series: Nephrology Research and Clinical Developments
Case: 978-1-62081-301-0, $150.00.
In this book, the authors present topical research in the study of the indications, procedures and complications of hemodialysis. Topics discussed in this compilation include cardiovascular involvement in chronic kidney disease; nutritional therapy during hemodialysis; vascular access and common complications in patients undergoing hemodialysis treatment; prevention of hemodialysis catheter-related
infections; antiplatelet medication and the risk of bleeding in hemodialysis; and vascular calcifications in end stage renal disease.

Hemostasis Laboratory Yearbook. Volume 5
Thomas W. Stief (University Hospital, Marburg, Germany)
In series: Hemostasis Laboratory Yearbook
Case: 978-1-61324-642-9. $140.00.
Hemostasis (coagulation and fibrinolysis) is of importance in a broad range of medical disciplines. A high-quality hemostasis diagnosis enables a good therapy, which can be rather complicated without laboratory help. This yearbook gathers important contributions in this field and presents in a coherent and logical format.

Hormones and Behavior
Davis Simonsen
In series: Endocrinology Research and Clinical Developments
Case: 978-1-62417-767-5. $150.00.
In this book, the authors present current research in the study of hormones and behavior. Topics include the neuroendocrine regulation of sedation and excitation in neonatal chicks; the behavior of the mother and vasopressin; inhibited TRHericg pathway of amygdala and insular cortex may participate in high anxiety levels and decreased food intake of dehydrated-induced anorexic rats; the difference between morning and evening thyrotropin response to protirelin(TRH); altered energy balance in response to sleep restriction; hormones in breast carcinogenesis; ecadystriol and honeybee social behaviors; and changes in appetite-associated hormone and feeding behavior in advanced age.

Hypotheses in Clinical Medicine
Mohammadali M. Shoja, R. Shane Tubbs, Mostafa Ghanei, Paul S. Agutter, Kamyar Ghabili (Tabriz University of Medical Sciences, Tabriz, Iran)
In series: Medical Procedures, Testing and Technology
2013. 600 pp.
Case: 978-1-62257-276-2. $235.00.
Hypotheses are fundamental to all sciences, including medicine. They play a critical role in motivating the development of science, since interesting and important hypotheses foster the diversity and debate among which the scientific process depends. It is necessary to learn and understand how to assess a process, realize and discuss details and consequently launch a hypothesis. This book offers a number of novel, non-mainstream hypotheses – in various states of development – from authors with relevant expertise and experience.

Infertility: Genetic Factors, Treatment Risks and Benefits, Social and Psychological Consequences
Renato Nascimento and Henrique Vilas Boas
In series: Human Reproductive System - Anatomy, Roles and Disorders
In series: Obstetrics and Gynecology Advances
Case: 978-1-62257-909-9. $150.00.
Infertility affects about 15% of couples in western societies. In addition to isolation, infertility challenges women's sense of identity, expectations of their life trajectory and their perceived value in society. This book presents current research on the genetic factors, treatment risk and benefits, and social and psychological consequences of infertility. Topics include the traditional Chinese medicine approach to fertility management; adverse outcomes of assisted reproduction techniques; the impact of follicular fluid components and embryo-endometrial cross-talk on the oocyte quality or embryo viability; iatrogenic damage incurred during fertility treatment upon gamete competence and embryonic viability; genetic factors of male infertility; animal models for studying female infertility; and treatment of endometriosis associated with infertility.

Irritable Bowel Syndrome: Diagnosis, Pathogenesis and Treatment Options
Magdy El-Salhy, D. Gundersen, J. G. Hatlebakk and T. Hausken (Section for Gastroenterology, Department of Medicine, Stord Helse-Fonna Hospital, Norway)
In series: Digestive Diseases - Research and Clinical Developments
Case: 978-1-62081-552-6. $85.00.
Irritable bowel syndrome (IBS) is common and affects 5 to 20% of individuals worldwide. Physicians with various specialties and at different settings are bound to meet these patients. This book is written by clinicians with long experience with IBS patients at different settings that have performed active research on IBS from different angles. Topics discussed include the prevalence and incidence of IBS worldwide, symptoms and consequences for patients and the society; IBS symptom based diagnosis; pathogenesis and the different possible etiological factors; a new hypothesis for the pathogenesis of IBS; post-infectious and inflammatory bowel disease (IBD) associated IBS and treatment options, both non-pharmacological and pharmacological. This book does not only contain up to date data, but also included are the authors’ points of view and their argument in several debated issues in IBS.

Issues in Dialysis
Stephen Z. Fadem (Kidney Associates, PLLC, St. Lukes Medical Towers, Houston, TX)
In series: Renal and Urologic Disorders
Case: 978-1-62100-848-4. $185.00.
Despite our efforts at creating clinical performance measures, clinical practice guidelines and intense government regulations, we still have disparities in care, poor outcomes and quality that is inferior to many other nations. Bundling and payment reform challenge the ability to deliver good care to patients even further. Chronic dialysis is at a crossroads. Physicians and providers must incorporate new approaches, reinventing the paradigm of how to plot the course of patient therapy. This book offers new ideas. It is refreshing, timely and engaging, with a wide range of topics by leading authors, each designed to help meet the challenges yet to come.

Kidney Transplantation: Denervation, Reinnervation, Ischemia, Hypothermia
Tamaz J. Shioshvili (Dept. of Urology at the State Medical Academy), Tbilisi, GA
In series: Organ Transplantation Research Horizons
Leishmaniasis: Symptoms, Treatment and Potential Complications

Carlos Sepulveda
In series: Allergies and Infectious Diseases
In series: Public Health in the 21st Century
Soft: 978-1-62417-700-2. $69.00.

Leishmaniasis are vector-borne diseases due to infection caused by parasitic protozoans belonging to the Leishmania genus, which find hosts in various wild and domestic animals and can be occasionally transmitted to humans by insect vectors. In this book, the authors discuss the symptoms, treatment and potential complications of leishmaniasis. Topics include immunity against leishmaniasis; the clinical hematology, epidemiology and etiology of leishmaniasis; the role of neutrophils in visceral leishmaniasis; atypical manifestations of canine visceral leishmaniasis; and the parasitological and serological diagnosis of canine visceral leishmaniasis.

Medical Devices and the FDA: Regulation, User Fees and Tort Claims

Gil Frazier and Brady Malone
In series: Biomedical Devices and their Applications
In series: Laws and Legislation
2013. 139 pp.
Soft: 978-1-62257-674-6. $52.00.

Medical device regulation is complex, in part because of the wide variety of items that are categorized as medical devices. They may be simple tools used during medical examinations, such as tongue depressors and thermometers, or high-tech life-saving implants like heart valves and coronary stents. The medical device market has been characterized as including eight industry sectors: surgical and medical instrument manufacturing, surgical appliance and supplies, in vitro diagnostic products (IVDs, or laboratory tests), electromedical and electrotherapeutic apparatus, irradiation apparatus, dental equipment and supplies, ophthalmic goods, and dental laboratories. This book explores FDA regulation of medical devices with a focus on the user fee program and tort claims.

Myelodysplastic Syndromes: From Pathogenesis to Diagnosis and Therapy

Hamid Sayar (Indiana University Simon Cancer Center, Indianapolis, IN, USA)
In series: Stem Cells - Laboratory and Clinical Research
In series: Recent Advances in Hematology Research
Case: 978-1-62417-574-9. $195.00.
e-book: 978-1-62417-580-0. $195.00.

In spite of tremendous advances in the field, the current understanding of pathogenesis of myelodysplastic syndromes (MDS) remains limited. Furthermore, the correct diagnosis and effective therapy of this heterogeneous group of clonal hematological disorders represent a common challenge in daily practice of hematology. This book provides a thorough, up-to-date, and comprehensive review of different aspects of MDS. Chapters are written by selected investigators and clinicians with specific expertise and track record of research in the field. Of particular interest, the clinical chapters provide a practical approach to the treatment of patients with different manifestations of the disease. This book would be a useful asset to researchers in the field as well as hematologists in practice. Other health care members such as hematology fellows in training, residents, medical students and nurses will also find this book helpful for better understanding of the disease and clinical management of patients with MDS.

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Nephropathy: Diagnosis and Treatment

Stephen Fava (Diabetes & Endocrine Centre, Department of Medicine, Mater Dei Hospital, Tal-Qroqq, Msida, Malta)

In series: Nephrology Research and Clinical Developments


This book is intended for use by nephrologists, internists, hospitals, trainees in these specialties and indeed anyone interested in renal medicine. It contains top-class authoritative and up-to-date reviews by internationally renowned experts coming from some of the best nephrology centres in the world. It covers the diagnosis, causes and management of acute kidney injury. It also includes a discussion of the diagnosis of chronic kidney disease, including the use of simple clinical and laboratory data, imaging, proteomics and renal biopsy. It reviews the general management of chronic kidney disease, including an in-depth analysis of kidney transplant immunology. This book is therefore a comprehensive, authoritative text with clear explanation of even the most complex topics.

New Developments in Angiography Research

Kendrick I. Sanders and Addison M. Jackson

In series: Biomedical Devices and their Applications

Case: 978-1-62081-492-5. $150.00.
e-book: 978-1-62081-504-5. $150.00.

This book provides an overview of new developments in angiography research. Topics discussed in this compilation include endovascular treatment of acute ischemic stroke; the application of CT angiography in the diagnosis of cardiovascular disease; cathether-based registration and motion compensation for 2-D/3-D fusion during electrophysiology procedures; headaches related to angiography and endovascular procedures; hybrid coronary recanualization and routine intraoperative completion angiography; and image registration techniques in Digital Subtraction Angiography (DSA).

Non-Epithelial Ovarian Tumors: Clinicopathological Issues

Christos Iavazzo, Agathi Kondi–Pafiti (Pathology Department, Aretaieion Hospital, University of Athen, Athens, Greece)

In series: Cancer Etiology, Diagnosis and Treatments

In series: Obstetrics and Gynecology Advances

2013. 156 pp.
Soft: 978-1-62257-757-6. $52.00.

This book aims to become a useful tool in the field of gynecologic oncology providing the most up-to-date research on non-epithelial ovarian tumors, including the recent data on pathogenesis and the current strategies for diagnosis, treatment, and follow-up. The authors present and review important data on rare and various primary ovarian neoplasms such as the many subtypes of germ cell tumors, of the most important subtypes of Sex cord -Stromal tumors and the rare mixed forms of Germ cell and Gonadal -Stromal tumors. Non-specific mesenchymal tumors of the ovary are reviewed, as well as Secondary neoplasms, metastatic to the ovary from various sites (extragenital and genital primaries).

Osteomyelitis: Risk Factors, Diagnosis and Treatment Options

Mario E. López Covas and Eli Arroyo Ramírez

In series: Human Anatomy and Physiology

In series: Bacteriology Research Developments

Case: 978-1-61942-292-6. $95.00.

Osteomyelitis is a difficult-to-treat bone infection characterized by progressive inflammatory destruction of the bone, with necrosis and new bone formation. It can occur at any age and can involve any bone. In this book, the authors present current research in the study of the risk factors, diagnosis and treatment options for osteomyelitis. Topics include new antimicrobial therapies for osteomyelitis; osteomyelitis of the mandible; post trauma and salmonella-osteomyelitis; the impact of bone homeostasis materials on infection and healing and the clinical background of musculoskeletal infection.

Osteotomy: Procedures, Types and Potential Complications

Dante Parodi and Javier Besomi (Hip and Pelvis Unit, Clínica Alemana de Santiago, Chile)

In series: Surgery - Procedures, Complications, and Results

Soft: 978-1-62081-655-4. $20.00.
e-book: 978-1-62081-691-2. $52.00.

In today’s world, medicine is undergoing constant changes and advances that seek to answer various clinical and increasingly demanding problems. In this sense, it represents a challenge for surgeons for look for innovative, safe and reproducible responses. The authors present in this book a compilation of different topics about osteotomies; types, surgical techniques and potential complications in various areas of modern medicine. Here the reader will find updated plastic surgery, ear, nose and throat surgery, orthopadic surgery and innovative technological advances that allow and give our patients better functional and aesthetic results.

Oxidative Stress and the Critically Ill Patient

Ramón Rodrigo (Molecular and Clinical Pharmacology Program, Institute of Biomedical Sciences, Faculty of Medicine, University of Chile Independencia, Chile) and Bettina von Dessauer (Pediatric Intensive Care Unit, Roberto del Río Children’s Hospital)

In series: Public Health in the 21st Century

In series: Cell Biology Research Progress

Case: 978-1-62081-576-2. $175.00.
e-book: 978-1-62081-583-0. $175.00.

Recent clinical studies reported that in critically ill patients, oxidative stress caused by an increased production of reactive oxygen species (ROS) and reactive nitrogen species (RNS) and reduced antioxidant response is an expectable event. This book presents the actual scientific available evidence of the pathophysiology of oxidative stress and the role of it in different clinical situations in the critically ill patient, supporting an adjunct therapy to prevent the evolution to a multiple organ dysfunction syndrome. This point of view is supported by many recent clinical and experimental studies.

Parkinson's Disease: Diagnosis, Treatment and Prognosis

Chiyo Yoshida and Ami Ito

In series: Neurodegenerative Diseases - Laboratory and Clinical Research

In series: Neurology - Laboratory and Clinical Research Developments
trials, and investigated therapies for medical applications of PDT, including approved treatments, clinical results will help to further integrate PDT as a mainstream procedure and excellent cosmetic outcomes. Current basic research and clinical studies will help to further integrate PDT as a mainstream procedure for cancer treatment. This book presents an overview of the important medical applications of PDT, including approved treatments, clinical trials, and investigated therapies for cancer and non-malignant diseases.

Peritoneal Dialysis: Types, Procedures and Risks Factors
Anil K. Agarwal, Loay Salman, Arif Asif (University of Miami, Miller School of Medicine, Miami, Florida, USA)
In series: Public Health in the 21st Century
In series: Renal and Urologic Disorders
Case: 978-1-62257-896-2. $95.00.
e-book: 978-1-62257-902-0. $95.00.
This book reviews important literature to provide insight into the mechanisms and technical aspects of peritoneal dialysis (PD). PD is a harshly under-utilized modality of renal replacement. Continuous PD can enjoy weekly solute clearances approaching those with hemodialysis. Recent clinical research data indicates at least an initial survival advantage as well as better preservation of residual renal function of patients started on PD as compared to those initiated on hemodialysis. Recent advances in knowledge of mechanisms and new technological advances including development of advanced dialysis solutions have potential to improvise PD to extend its initial survival advantage to long-term treatment.

Photodynamic Therapy: New Research
Mohamed Lotfy Taha Elsaie (Lecturer of Dermatology and Dermatologic Surgery, National Research Centre; Cairo, Egypt - Voluntary Instructor of Dermatology and Cutaneous Surgery; Univ. Miami; USA)
In series: Medical Procedures, Testing and Technology
Case: 978-1-62417-635-7. $175.00.
Photodynamic therapy (PDT) is currently clinically employed to treat several malignant and nonmalignant diseases. With approvals for various applications by health agencies in Europe, the US, Canada, and Japan, PDT represents the method of choice for treatment of age-related macular degeneration and is appreciated as a minimally invasive therapeutic procedure to treat skin, esophageal, head and neck, lung, and bladder cancers with high cure rates, nearly no side effects, and excellent cosmetic outcomes. Current basic research and clinical studies will help to further integrate PDT as a mainstream procedure for cancer treatment. This book presents an overview of the important medical applications of PDT, including approved treatments, clinical trials, and investigated therapies for cancer and non-malignant diseases.

Prions and Prion Diseases: New Developments
Jean-Michel Verdier (École Pratique des Hautes Études (EPHE), Sorbonne, Paris)
In series: Protein Biochemistry, Synthesis, Structure and Cellular Functions
In series: Protein Science and Engineering
Case: 978-1-62100-027-3. $140.00.
Prions, probably the most fascinating proteins ever studied, have been in the spotlight for the last 50 years. However, their history is much older. Indeed, the symptoms of what are now known as prion diseases were first described in Europe in sheep in 1730 and called “scrapie” in England, “vertige” in France and “Traberkrankheit” in Germany. This book discusses the development of prions and their various diseases.

Prostatectomies: Procedures, Benefits and Potential Complications
Henrique Maya Alvelos and Yara Grão Izidoro
In series: Surgery - Procedures, Complications, and Results
In series: Public Health in the 21st Century
Case: 978-1-62081-077-4. $95.00.
e-book: 978-1-62081-099-6. $95.00.
In this book, the authors present current research in the study of the procedures, benefits and potential complications of prostatectomies. Topics discussed include suprapubic prostatectomy for benign prostatic hyperplasia; management of post-prostatectomy incontinence; biochemical recurrence following radical prostatectomy; techniques for neuro-vascular bundle preservation; and extraperitoneal endoscopic radical prostatectomy techniques.

Researcher Biographical Sketches and Research Summaries on Infections
Lawrence M. Powell and Ann P. Jenkins
In series: Allergies and Infectious Diseases
Case: 978-1-61122-538-9. $150.00.
This book compiles biographical sketches of top professionals in the field of infections, as well as research summaries from a number of different focuses in this important field.

Retinopathy: New Research
Connie Wahler and Lauren Wilkinson
In series: Eye and Vision Research Developments
Case: 978-1-62100-585-8. $120.00.
e-book: 978-1-62100-659-6. $120.00.
A significant number of important diseases, some of which are arriving at epidemic levels, such as diabetes and macular degeneration, produce, and therefore are correlated to, retinal anomalies. In this book, the authors present current research in the study of retinopathy, including nodavirus infection in viral encephalopathy and retinopathy; diabetic retinopathy in India; isoproterenol therapy improves neuronal function, vascular integrity and insulin receptor signaling in diabetic retinopathy; retinopathies and associated deafness; image mining approaches for the screening of age-related macular degeneration and diagnosis of retinal anomalies by statistical tests on OCT data.
Screening Tests: Principles, Analysis and Benefits
Marguerite Gauthier
In series: Medical Procedures, Testing and Technology
2013. 146 pp.
Soft: 978-1-62417-963-1. $69.00.
In this book, the authors gather and present current research in the study of the principles, analysis and benefits of screening tests. Topics discussed include the development of a screening instrument to detect common mental disorders in long-term sickness absence; a vision screening test in newborns; nailfold capillaroscopy as a basic screening tool in Raynaud’s phenomenon; the Profile of Moods Scale to assess six dimensions of mood; the Audio Recorded Cognitive Screen (ARCS) as a flexible and versatile instrument of clinical and research settings.

Skin Aging: New Research
Ayaka Ekiguchi and Moriko Imada
In series: Dermatology - Laboratory and Clinical Research
Case: 978-1-62257-945-7. $150.00.
The aging process, especially in the skin, is governed by changes in the epidermal, dermal-epidermal and dermal compartments. Extracellular matrix (ECM) proteins, which are the major component of dermis, constitute an important target for intrinsic and extrinsic aging related alterations. In this book, the authors present topical research in the study of skin aging including the effects of strenuous exercise on the aging skin; extracellular matrix proteins during skin aging; improved cell metabolism and strengthening of the extracellular matrix by nicotinamide and copper for anti-skin aging; skin morphology of Caucasian women during aging; molecular understanding of the development of age spots; and skin rejuvenation and ablative laser therapy.

Stem Cells in Disease
Prasad S. Koka (Laboratory of Stem Cell Biology, Torrey Pines Institute for Molecular Studies, USA)
In series: Stem Cells - Laboratory and Clinical Research
Case: 978-1-62257-169-7. $150.00.
It is for the first time that experimentally induced generation and isolation of cancer stem cells (CSC), with the fusion of hematopoietic stem cells (HSC) in vivo, is contained as content in this book. This methodology can be extended to the use of stem cells of totipotent, pluripotent and even multipotent lineages. This book consists of important and novel reports that the stem cell scientific community should further undertake.

Synopsis of Aesthetic Dermatology and Cosmetic Surgery
Mohamed L. Elsaie (Voluntary instructor of Dermatology, University of Miami; USA, Lecturer of Dermatology and Cutaneous surgery, National Research Centre; Cairo; Egypt)
In series: Surgery - Procedures, Complications, and Results
In series: Dermatology - Laboratory and Clinical Research
2013.
Case: 978-1-61942-967-3. $165.00.
Aesthetic dermatology and cosmetic surgery is constantly evolving and progressing. The use of laser therapy and cosmetic procedures is vastly expanding and for this reason a medical book of this magnitude is necessary. This book includes an up-to-date comprehensive look at procedures in the field of Cutaneous Laser Surgery. This book is also concerned with all other cosmetic procedures and rejuvenation techniques that is commonly used by physicians and dermatology specialists worldwide.

The I-Gel Supraglottic Airway
Pavel Michalek and William Donaldson (Department of Anesthesia and Intensive Medicine, First Medical Faculty of the Charles University and General University Hospital, Prague, Czech Republic)
In series: Medical Procedures, Testing and Technology
In series: Medical Devices and Equipment
2013.
Case: 978-1-62417-897-9. $150.00.
The I-Gel supraglottic airway is a disposable, latex-free device for airway management during anesthesia. The design of this device is significantly different from the previously used devices, notably laryngeal mask airways. Its bowl is made of a soft, noninflatable thermoplastic elastomer, anatomically preformed to mirror the perilyrarglottic structure. The I-Gel contains an additional epiglottis rest, which helps to prevent the epiglottis from down-folding or obstructing the laryngeal inlet. The device also includes a gastric channel, allowing drainage of air and gastric contents or passage of a gastric tube. This book provides a brief history of airway management and the classification of supraglottic airway devices; the mechanisms and forces contributing to their seal, and highlights the main differences between the devices. Also discussed is the process of I-Gel development including an initial mannequin and cadaver studies, with a description of the I-Gel’s use in clinical practice, indications and description of its use in the operating room, and use of the I-Gel in different surgical subspecialties including laparoscopic procedures.

The Role of Oxidative Stress, Mitochondria Failure, and Cellular Hypoperfusion in the Context of Alzheimer Disease: Past, Present and Future
Gjurnrach Aliev (Director of Electron Microscopy Research Center, The University of Texas at San Antonio, TX)
In series: Neurology - Laboratory and Clinical Research Developments
In series: Aging Issues, Health and Financial Alternatives
Case: 978-1-61942-878-2. $215.00.
Atherosclerosis and stroke are two leading causes of age-associated disability, dementia, and death. The Centers for Disease Control and Prevention (CDC) and the National Center for Health Statistics recently reported that Alzheimer’s Disease has surpassed diabetes as a leading cause of death. Alzheimer is now the sixth-leading cause of death in the United States. This book discusses the roles of oxidative stress, mitochondria failure, and cellular hypoperfusion in the context of Alzheimer Disease.
Thrombin: Function and Pathophysiology

*Thomas Stief (Institute of Laboratory Medicine and Pathobiocchemistry University Hospital, Marburg, Germany)*

In series: *Recent Advances in Hematology Research*

In series: *Physiology - Laboratory and Clinical Research*


Case: 978-1-61942-087-8. $140.00.


Thrombin is the main factor of mammalian blood coagulation, a complex system generating fibrin clots that physiologically prevents critical bleeding at local areas of tissue injury. There are many diseases, situations, or drugs that critically alter the blood matrix. Then, thrombin is massively generated in the systemic circulation. The individual reader of the present book will understand a bit more the complicated thrombin generating system - called coagulation.

Understanding thrombin means understanding coagulation.

Thrombocytopenia: Causes, Diagnosis and Treatment

*Maysaa El Sayed Zaki (Professor of Clinical Pathology, Egypt)*

In series: *Recent Advances in Hematology Research*


Case: 978-1-61942-802-7. $150.00.


Platelets are one of the components of the blood along with white and red blood cells. Platelets play an important role in clotting and bleeding. The number of platelets in the blood is referred to as the platelet count and is normally between 150,000 to 450,000 per micro liter (one millionth of a liter) of blood. Platelet counts less than 150,000 are termed thrombocytopenia. Platelet counts greater that 450,000 are called thrombocytosis. In the present book we will discuss different points concerning platelets functions, abnormalities and therapeutic modalities for thrombocytopenia.

Traditional Medicine: New Research

*Yosiharu Motoo (Kanazawa Medical University Hospital, Uchinada, Ishikawa, Japan)*

In series: *Medical Procedures, Testing and Technology*

In series: *Public Health in the 21st Century*


Case: 978-1-62257-448-3. $150.00.


This book consists of 16 chapters. The topics include the study of an application of Traditional Medicine (TM) to cancer care, a new anti-cancer TM drug without any strong side effect, TM for chronic fatigue syndrome and viral hepatitis, mechanisms of licorice-induced pseudoaldosteronism, anti-tumor effects of gomisin A, interactions between TM drugs and Western drugs, pharmacoeconomic evaluations, primo vascular system, a sustainable approach to TM, and medical ethics. This book will open a new window to future research on TM.

Triglycerides: Chemical Structure, Biosynthesis and Role in Disease

*Calista Araujo and Demetrio Perez*

In series: *Biochemistry Research Trends*

In series: *Endocrinology Research and Clinical Developments*


Case: 978-1-62417-727-9. $120.00.

e-book: 978-1-62417-728-6. $120.00.

In this book, the authors discuss the chemical structure, biosynthesis and role in disease of triglycerides. Topics include lipid levels in neuropsychiatric disorders; the role of circadian clocks in the absorption and metabolism of dietary triglycerides; serum lipoprotein lipase mass as a novel biomarker of insulin sensitivity; and the effect of plasma lipids and APOE genotype on cognitive decline.

Tuberculosis: Risk Factors, Drug Resistance and Treatment

*Scott E. Walker and David F. Martin*

In series: *Allergies and Infectious Diseases*


Case: 978-1-62081-991-3. $150.00.


The current resurgence of tuberculosis (TB) is being sustained and fueled by the increasing incidence of resistance of M. tuberculosis strains to the most-effective (first-line) anti-TB drugs and association of active TB disease with concomitant human immunodeficiency virus (HIV) infection or other underlying immunosuppressive conditions such as diabetes. In this book, the authors study the risk factors, drug resistance data and treatment methods for tuberculosis. Topics discussed include the global burden of TB and its public health crisis; new medicines to treat TB; rapid microcalorimetric detection of TB; meta-analysis and risk factors for tuberculosis susceptibility; Type 2 diabetes as a risk factor for TB; and elucidating the action mode of the bi-substrate InhA inhibitors as anti-tuberculosis agents through molecular dynamics simulations.

Type 2 Diabetes: Causes, Treatment and Preventive Strategies

*Isidoro Calpis and Stefanos Frangopoulos*

In series: *Metabolic Diseases - Laboratory and Clinical Research*

In series: *Endocrinology Research and Clinical Developments*

2012. 185 pp.

Case: 978-1-62081-016-3. $150.00.


Type 2 diabetes is a major health problem reaching epidemic dimensions. It's complications, macro- and macrovascular, have a great impact in health economics as well as in the diabetic patient's quality of life. In this book, the authors present current research in the study of the causes, treatment and preventive strategies of type 2 diabetes. Topics include the molecular genetics of type 2 diabetes mellitus; the pharmacogenetics and personalized therapy of oral antidiabetic drugs; gastric bypass and sleeve gastrectomy as effective treatment strategies in obese patients with type 2 diabetes; ACP1 genetic variability; and the study of biomarkers for diabetes mellitus type 2 and the role of high dose thiamine.

Ulcereative Colitis: Symptoms, Treatment and Complications

*Angelo Russo and Benedetta Gallo*

In series: *Digestive Diseases - Research and Clinical Developments*


Soft: 978-1-62081-820-6. $69.00.

e-book: 978-1-62081-851-0. $69.00.

Ulcereative colitis is a chronic inflammatory disorder of the gastrointestinal tract, primarily confined to the colon and rectum. The clinical manifestations are characterized by diarrhea, rectal bleeding, passage of mucus and pus and abdominal cramping. This book presents current research in the study of the symptoms, treatment and complications of ulcerative colitis. Topics include treatment of steroid-
dependent ulcerative colitis; the pathogenesis and neutrophil-derived 
defensin in ulcerative colitis; and the role of gastrointestinal 
granulocytes in inflammatory bowel disease.

Ultrasonography: Technology, Diagnostic 
Applications and Potential Benefits/Risks 
Alexander Burdenko 
In series: Medical Procedures, Testing and Technology 
In series: Medical Devices and Equipment 
Soft: 978-1-62417-536-7. $69.00. 
This book explores the technology, diagnostic applications and 
potential benefits and risks of ultrasonography. Topics discussed in this 
ccompilation include the contemporary role of ultrasound in prostate 
biopsy; ultrasound in the management of ischemic stroke; the role of 
endoscopic ultrasonography in pancreatic solid masses; standard 
screening procedures of ultrasonographic examinations when 
surveying cervical lymph nodes in patients with oral squamous cell 
carcinoma; and pre-analytical error in ultrasonography.

Vascular Access for the General Nephrologist 
Micah R. Chan, Alexander S. Yevzlin (University of 
Wisconsin, Madison, WI), Arif Asif (University of 
Miami Miller School of Medicine, Miami, FL) 
In series: Nephrology Research and Clinical 
Developments 
Case: 978-1-62257-309-7. $175.00. 
Chronic kidney disease and end stage renal disease (ESRD) is an 
epidemic in the U.S. and abroad. Dialysis is the major form of therapy 
to keep these patients with ESRD alive and functioning in society. 
Vascular access is the life line of hemodialysis. Yet, many general 
nephrologists are not familiar with the concepts that underpin this 
crucial subspecialty of nephrology. This book is a compendium of 
vascular access insights designed to augment the knowledge base of 
the general nephrologist. This book provides up to date information for 
the clinical practice of general nephrology as it applies to the care of 
vascular access. We have assembled international experts in the field of 
vascular access as authors to elaborate on the science and clinical 
practice of nephrology as it relates to arteriovenous fistulae and grafts, 
central venous catheters, peritoneal dialysis and vascular access 
mapping and surgery.

von Willebrand Disease: Diagnosis and Management 
Grant F. Cain and Cesar R. Massin 
In series: Recent Advances in Hematology Research 
In series: Public Health in the 21st Century 
Case: 978-1-61942-368-8. $95.00. 
von Willebrand disease (VWD) is an inherited bleeding disorder that is 
caused by deficiency or dysfunction of von Willebrand factor (VWF), a 
plasma protein that mediates the initial adhesion of platelets at sites of 
vascular injury and also binds and stabilizes blood clotting factor VIII 
(FVIII) in the circulation. This book examines the need for more 
information on VWD prevalence and the relationship between low 
VWF levels of bleeding symptoms or risk and improving clinical and 
laboratory diagnostic tools.

MILITARY

The Enemy Within: Preventing Suicides by Veterans 
and Members of the Armed Forces 
Jack M. Wright and Gabriel E. Lewis 
In series: Military and Veteran Issues 
Case: 978-1-62081-316-4. $195.00. 
More than 1.9 million warriors have deployed for Operation Iraq 
Freedom and Operation Enduring Freedom, two of our Nation’s longest 
conflicts. The physical and psychological demands on both the 
deployed and non-deployed warriors are enormous. In the 5 years from 
2005-2009, more than 1,100 members of the Armed Forces took their 
own lives, an average of 1 suicide every 36 hours. This book examines 
suicide prevention efforts of the Veterans Health Administration 
(VHA) with a focus on suicide surveillance; suicide risk and protective 
factors; and suicide prevention interventions.

NANOTECHNOLOGY

Nanomedicine: Drug Delivery, Molecular Diagnosis 
and Artificial Organs 
P.P. Yupapin, Nathaporn Suwanpayak, Jali Alı 
(King Mongkut’s Institute of Technology, 
Ladkrabang Universiti Teknologi, Malaysia) 
In series: Biotechnology in Agriculture, Industry and 
Medicine 
In series: Nanotechnology Science and Technology 
Case: 978-1-62081-763-6. $85.00. 
e-book: 978-1-62081-864-0. $85.00. 
There are many nano-parts composted and integrated to be parts of a 
human body, which can be investigated and improved by using 
nanotechnology. Nano-medicine has become the important subject of 
the world of health and beauty today, in which much of the research in 
this field has become the challenge and basis for our future 
developments. In this book, the nano-device known as a PANDA ring 
resonator is designed and used to form the applications in medicine, 
especially, nano-medicine. By using the practical optical device and 
thin film technology, the designed devices and systems can form the 
human body embedded device, which can be used as the human body 
embedded devices. There are three major areas of research subjects: 
drug delivery, molecular diagnosis and therapy and artificial organs 
integrated to be a monograph book.

NEUROSCIENCE

Advances in Autism Spectrum Disorder Research: 
Summaries, 2007-2011 
Richard L. Jackson and Anthony C. Lee 
In series: Neurodevelopmental Diseases - Laboratory 
and Clinical Research 
In series: Neuroscience Research Progress 
Case: 978-1-62257-058-4. $110.00. 
There is an urgent need for increased knowledge about all aspects of 
autism spectrum disorder (ASD), from identifying risk factors, to
understanding underlying biology, to developing new more effective treatments, to bringing evidence based practices into the community. Over the past decade, research addressing these issues has expanded dramatically due to greater availability of resources and wider appreciation of the individual, family, and societal costs of ASD. To comprehend the current state of ASD research and begin to plan next steps, Congress requested an annual update of scientific advances. This book is a summary on the advances in autism spectrum disorder research that has been ongoing from calendar years 2007 through 2011.

Advances in Brain Research
Owen B. Williams and Garet I. Wilson
In series: Neuroscience Research Progress
Case: 978-1-62081-712-1. $230.00.
This book presents and discusses topical data in the field of brain research. Topics discussed herein include nonpharmacological inhibition of cerebral dopaminergic activity; neuropsychology of the sense of agency; glucocorticoid-mediated regulation of tight junctions in brain vascular endothelium; the hierarchial organization and cerebral lateralization of hand control and its relationship to language; and a unique cause of traumatic brain injury and all neuro-musculo-skeletal injuries.

Alzheimer's Disease Research Compendium
Miao-Kun Sun (Blanchette Rockefeller Neurosciences Institute)
In series: Neurodegenerative Diseases - Laboratory and Clinical Research
Dementia is a brain disorder that seriously affects a person's ability to carry out daily activities. The most common form of dementia among older people is Alzheimer's Disease (AD), which involves the parts of the brain that control thought, memory, and language. Age is the most important known risk factor for AD. The number of people with the disease doubles every 5 years beyond age 65. AD is a slow disease, starting with mild memory problems and ending with severe brain damage. The course the disease takes and the speed at which changes occur vary from person to person. On average, AD patients live from 8 to 10 years after they are diagnosed, though the disease can last for as many as 20 years. Current research is aimed at understanding why AD occurs and who is at greatest risk of developing it, improving the accuracy of diagnosis and the ability to identify those at risk, discovering, developing, and testing new treatments, and discovering treatments for behavioral problems in patients with AD. This book presents the latest research in the field.

Astrocytes: Structure, Functions and Role in Disease
Oscar González-Pérez (Neuroscience Lab, Facultad de Psicología, University of Colima, Mexico)
In series: Neurology - Laboratory and Clinical Research Developments
In series: Neuroscience Research Progress
Case: 978-1-62081-558-8. $150.00.
Astrocytes are the main glial cell type in the central nervous system. These cells were originally regarded as supportive cells of the brain, but increasing evidence indicates they play fundamental roles in many brain functions, such as: neurotransmitters uptake, energy homeostasis, neurogenesis, myelination, immunomodulation, neurotrophic factor releasing and blood-brain-barrier maintenance. This book summarizes the latest discoveries, from basic to clinical science, regarding the main roles of astrocytes under physiological and pathological circumstances. To ensure that most of readers obtain clear and complete information, all chapters have been written in plain language by worldwide-recognized experts in their respective fields.

Ataxia: Causes, Symptoms and Treatment
SungHoi Hong (College of Health Science, Korea University, Korea)
In series: Neuroanatomy Research at the Leading Edge
Case: 978-1-61942-867-6. $140.00.
e-book: 978-1-61942-869-0. $140.00.
Ataxia is a neurological sign and symptom characterized by lack of coordination of muscle movement that is due to dysfunction of the parts of the nervous system, such as motor control of the cerebellum. Although the cause of the dysfunction varies from mutations in channels for potassium and/or calcium to progressive degeneration of cerebellar tissue-specific neurons, the neurological signs and symptoms of ataxia are similar. The treatment of ataxia and its effectiveness depend on the underlying cause, and it could be managed by pharmacological treatments and through physical therapy and occupational therapy. The treatment may ameliorate the signs of ataxia, but it is not likely to eliminate them entirely. In this book, the authors present current research in the study of the causes, symptoms and treatments on ataxia.

Autism Spectrum Disorders: Guidance, Research and Federal Activity
Gregory L. Campbell and Anthony O. Phillips
In series: Neurodevelopmental Diseases - Laboratory and Clinical Research
Case: 978-1-62257-976-8. $135.00.
Autism spectrum disorders (ASDs) are a group of developmental disabilities characterized by impairments in social interaction and communication and by restricted, repetitive, and stereotyped patterns of behavior. Symptoms typically are apparent before age 3 years. The complex nature of these disorders, coupled with a lack of biologic markers for diagnosis and changes in clinical definitions over time, creates challenges in monitoring the prevalence of ASDs. Accurate reporting of data is essential to understand the prevalence of ASDs in the population and can help direct research. This book provides a parent's guide to autism spectrum disorder with a focus on prevalence; suggested environmental factors; and federal financing research.

Autism Spectrum Disorders: New Research
Chaz E. Richardson and Reece A. Wood
In series: Neurodevelopmental Diseases - Laboratory and Clinical Research
Case: 978-1-62081-786-5. $150.00.
Autism Spectrum Disorders (ASD) have become a major public health concern due to increasing numbers of patients with this diagnosis and the level of disability from which they suffer. ASD symptoms over the life span can be synthesized into communication difficulties, awkward social relationships, unusual stereotypes and preoccupations, emotion regulation difficulties, and an unfavorable self-concept. In this book, the authors present new research in the study of ASD including emotion regulation, social cognition and social adjustment in children with ASD; modified dialectical behavior therapy; coping strategies and
QoL issues for mothers of children with high-functioning autism; distinct patterns of cortical coordinated activity in autism; identification and analysis of co-morbid psychopathology in ASD; cell therapies for ASD; criminal behavior and ASD; markers of immunologic dysfunction in the etiopathology of ASD; and diagnosing and living with Autism Spectrum Disorders in adulthood.

Brain Damage: Causes, Management and Prognosis

Aleric J. Schäfer and Johann Müller

In series: Neurology - Laboratory and Clinical Research Developments

In series: Neuroscience Research Progress


This book presents current research in the study of the causes, management and prognosis in brain damage including the implications for therapeutic intervention in the reorganization of elementary functions (REF) after brain injury; a reorientation towards fiber tracts damage in amnesia; the use of alkaline comet assay to assess DNA damage and repair in brain damage; responsiveness and prognosis in the severe disorder of consciousness; the pathophysiology, management and prognosis of cerebral radiation necrosis; exercise as a therapeutic approach after brain damage; neuroprotection in experimental cerebral ischemia; and initiation of inflammatory mechanisms in acute brain damage.

Cerebrospinal Fluid: Functions, Composition and Disorders

Vendelin Slavik and Tereza Dolezal

In series: Neurology - Laboratory and Clinical Research Developments

In series: Neuroscience Research Progress


Case: 978-1-62081-017-0. $95.00.

Cerebrospinal fluid (CSF) is a clear colorless fluid and the major part of the extracellular fluid of the central nervous system. The CSF fills the brain ventricles and central spinal canal and forms a thin layer around the brain and spinal cord in the subarachnoid space and cisterns. In this book, the authors present current research in the study of the functions, composition and disorders relating to the cerebrospinal fluid. Topics include the proteomics of cerebral microdialysate; neuronal cytoskeleton components in cerebrospinal fluid in selected neurological diseases; composition of normal and pathological cerebrospinal fluid in neuropathology; cerebrospinal fluid flow dynamics; and cerebrospinal fluid biomarkers for Alzheimer's disease.

 Consciousness: States, Mechanisms and Disorders

Andrea Eugenio Cavanna (Department of Neuropsychiatry, Birmingham and Solihull Mental Health NHS Foundation Trust The Barberry National Centre for Mental Health, Birmingham, United Kingdom), Andrea Nani (University of Turin, Italy)

In series: Perspectives on Cognitive Psychology

In series: Psychology Research Progress


Case: 978-1-62081-311-9. $150.00.

The so-called “hard problem” of consciousness, i.e. the problem of explaining how and why we have conscious experiences, has received different formulations across time. Back in 1868, Thomas Henry Huxley suggested that the mystery of consciousness resides somewhere – or somehow – in the activity of the brain. Since then, both clinical and basic neurosciences have taken the problem of consciousness seriously, joining the allied disciplines of philosophy and psychology in the seemingly insurmountable quest for consciousness. This book presents some of the latest research in the multidisciplinary field of consciousness studies, dealing with both theoretical and experimental aspects encompassing a wide range of normal and pathological states of consciousness.

Electromyography: New Developments, Procedures and Applications

Hiroki Takada (Graduate School of Engineering, University of Fukui, Japan)

In series: Muscular System - Anatomy, Functions and Injuries

In series: Neuroscience Research Progress


Case: 978-1-62081-717-9. $150.00.

Italian physician L. Galvani demonstrated the relationship between electricity and muscle contraction that occurs in the electric fluid carried to the muscles by the nerves. He coined the term animal electricity to describe the muscle-activating force. One hundred and fifty years after he determined that muscle activation is generated by an electric fluid carried by the nerves, mathematician N. Wiener studied an artificial hand controlled by an electrical current produced in the muscles. This book discusses new developments, procedures and applications of electromyography.

Encephalitis, Encephalomyelitis and Encephalopathies: Symptoms, Causes and Potential Complications

Andrew Ruiz and Douglas Fleming

In series: Neurodegenerative Diseases - Laboratory and Clinical Research

In series: Neuroscience Research Progress


Case: 978-1-62257-766-8. $150.00.

Encephalopathies are disorders or diseases of the brain. In modern usage, encephalopathy does not refer to a single disease, but rather to a syndrome of global brain dysfunction which can be caused by many different illnesses. In this book, the authors discuss the symptoms, causes, and potential complications relating to encephalitis, encephalomyelitis and encephalopathies. Topics include HIV-1 associated neurocognitive disorder; nonconvulsive status epilepticus; the implications of sensitization for chronic fatigue syndrome; treatment of tick-borne encephalitis; the immunology of encephalomyelitis; neuromyelitis optica; viral encephalopathy and retinopathy in farmed fish; septic encephalopathy; and Japanese encephalitis.

Encyclopedia of Neuroscience Research (3 Volume Set)

Eileen J. Sampson and Donald R. Glevins

In series: Neuroscience Research Progress


Case: 978-1-61324-861-4. $395.00.

This book presents current research in the field of neuroscience. Topics discussed include noradrenergic actions in prefrontal cortex; prefrontal morphology, neurobiology and clinical manifestations of schizophrenia; prefrontal cholinergic receptors; deep brain stimulation...
and cortical stimulation methods; deep brain stimulation in adult and pediatric dystonia; cognitive aspects in idiopathic epilepsy; cognitive interventions to improve prefrontal functions; molecular mechanisms involved in the pathogenesis of Huntington’s disease and DNA repair and Huntington’s disease.

Epilepsy: A Century of Discovery
Ramon Edmundo D. Bautista (University of Florida)
In series: Neurology - Laboratory and Clinical Research Developments
2012. 359 pp

The last century has witnessed remarkable progress in our understanding and treatment of epilepsy. Long regarded as a condition of the possessed and deranged, epilepsy is now accepted as a bona fide medical condition, with well-defined clinical symptoms, reliable diagnostic modalities, and effective therapeutic options that dramatically improve clinical outcomes and enhance quality of life. This book highlights the progress made in health-related topics such as social epilepsy and the globalization of epilepsy care. Chapters included in this book, combine both broad brushstrokes detailing the developments in fields as varied as basic epilepsyology, epilepsy classification, antiepileptic drug development, clinical neurophysiology, pediatric epilepsyology, and neuroimaging; as well as narrowed and focused treatises on topics such as the autosomal recessive epilepsies, subacute sclerosing panencephalitis, the interplay of psychiatry and epilepsy, and the use of the operating room as a research laboratory. The book ends with a somewhat iconoclastic piece challenging several of our ongoing assumptions of epilepsy care – perhaps serving as an impetus for further research as we head into the new century.

Frontal Lobe: Anatomy, Functions and Injuries
Andrea E. Cavanna (Department of Neuropsychiatry, University of Birmingham, Birmingham, United Kingdom)
In series: Neuroanatomy Research at the Leading Edge
In series: Neuroscience Research Progress
2013. 283 pp
Case: 978-1-62081-727-8. $175.00.
e-book: 978-1-62417-001-0. $175.00.

The frontal lobes, which constitute about one-third of the entire cerebral cortex, have long fascinated scientific explorers of human behavior. There are multiple reasons for this: the frontal lobes are the most recently evolved parts of the brain of Homo sapiens and can be viewed as the executive centre of the entire nervous system, subserving the key function of goal-oriented behavior and reconciling internal emotional states with the demands of the external environment. This book presents some of the latest research on the structure and functional role of the frontal lobes, as revealed by both physiological and pathological studies. This timely and comprehensive volume exemplifies that only a truly multidisciplinary and collaborative effort from the allied disciplines of neuroanatomy, neuropsychology, neuropathology, neuroimaging, neuropsychology and neuropsychiatry will result in a better understanding of the wide-reaching implications of frontal lobe dysfunction.

This compilation presents original study results on the leading edge of neuroscience research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Included in this volume is the etiology and treatment of meningitis; genetic influences in neurocristopathies of the gastrointestinal tract; migraine prevention and psychiatric comorbidity; the location and function of the parietal cortex; and multimodal monitoring in traumatic brain injury patients.

Horizons in Neuroscience Research. Volume 11
Andres Costa and Eugenio Villalba
In series: Horizons in Neuroscience Research
2013.
Case: 978-1-62417-733-0. $120.00.
e-book: 978-1-62417-734-7. $120.00.

This compilation presents original study results on the leading edge of neuroscience research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Included in this volume is white matter hyperintensities and major affective disorders; neurotransmitters in the sympathetic nervous system; the beneficial consequences of oxytocin on motherhood and offspring cognitive development; premotor cortex and primary motor cortex in action language comprehension; pain treatment by tDCS of the human primary motor cortex; neurotransmitter synthesis by newborn neurons in the penumbra; thalamus; central auditory processing alterations in phonological dyslexia; participation of the hippocampus in memory function; and the motor cortex under hypoxia.

Horizons in Neuroscience Research. Volume 6
Andres Costa and Eugenio Villalba
In series: Horizons in Neuroscience Research
2012. 331 pp
Case: 978-1-62100-063-1. $140.00.

This compilation presents original study results on the leading edge of neuroscience research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Included in this volume is the role of estrogen on cognitive functions; brain disorders, brain medicines and the blood-brain barrier; brain auditory processing during behavior seen from unitary activity; proinflammatory factors as targets against neurological and psychiatric disorders; the psychoneuroendocrinology of music effects on health; the neuroprotective mechanism of fibroin vein and neural circuits for social development in shared parieto-motor circuits.

Horizons in Neuroscience Research. Volume 9
Andres Costa and Eugenio Villalba
In series: Horizons in Neuroscience Research
2012. 251 pp
Case: 978-1-62081-246-4. $150.00.

This compilation presents original study results on the leading edge of neuroscience research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Included in this volume is the etiology and treatment of meningitis; genetic influences in neurocristopathies of the gastrointestinal tract; migraine prevention and psychiatric comorbidity; the location and function of the parietal cortex; and multimodal monitoring in traumatic brain injury patients.

Human Neurophysiology: Development and Repair of the Human Central Nervous System
Giselher Schalow (Private Researcher)
In series: Neuroanatomy Research at the Leading Edge
In series: Neuroscience Research Progress
To repair the injured, malformed or degenerating human central nervous system, we have to understand the functioning of the healthy human CNS on cellular and integrative levels to learn what changed in the neural networks. Since there is some similarity between development and repair, also the development of the human CNS has to be studied. Especially the strategy of movement-based learning of the CNS to eliminate occurring errors during development is of interest because it can also be used during repair. In this book, movement patters which have the highest rate of re-learning movement are analyzed as well as higher mental functions. The therapy using these efficient movement-based learning movements is called Coordination Dynamics Therapy (CDT).

**Hydrocephalus: Symptoms, Treatment and Potential Complications**

*Amaya Velazquez*

In series: *Neurology - Laboratory and Clinical Research Developments*

In series: *Neuroscience Research Progress*

Soft: 978-1-62417-725-5. $69.00.

Hydrocephalus as a clinical entity is usually defined as the presence of an excess amount of water (CSF, cerebrospinal fluid) resulting in increased pressure inside the head with variable clinico-pathological implications. In this book, the authors discuss the symptoms, treatment and potential complications of hydrocephalus. Topics include the features and management of hydrocephalus; normal-pressure hydrocephalus as a common source of elderly incontinence with brain etiology; pediatric hydrocephalus; and hemorrhagic hydrocephalus.

**Insights into the Amygdala: Structure, Functions and Implications for Disorders**

*Deniz Vilmazer-Hanke (Department of Anatomy and Biosciences Institute, University College Cork, Cork, Ireland)*

In series: *Neuroanatomy Research at the Leading Edge*

2012. 343 pp.

The amygdala is a brain region that has attracted the interest of many researchers. This book focuses on various aspects of amygdala structure and function, and provides insights into their role in disorders. Topics discussed include the evolution of the amygdala from fish through amphibians, reptiles and birds to mammals; the role of the serotonergic system in amygdala-related behaviors and the impact of histaminergic, cholinergic and endocannabinoid systems on memory formation; the role of the central and medial nuclei, two major output centers of the amygdala, in the regulation of autonomic and somatic responses is highlighted from a clinical perspective; and the interaction of the amygdala with the bed nucleus of the stria terminalis, as well as the importance of the central amygdaloid corticotropin-releasing factor (CRF) system in the regulation of stress-responses and in addiction, are analyzed.

**Interdisciplinary Approaches to Neuroscience Epistemology and Cognition**

*Tobias A. Mattei (Neurosurgery Department "Neurology Institute of Curitiba" - Brazil)*

In series: *Neuroanatomy Research at the Leading Edge*

In series: *Neuroscience Research Progress*

Case: 978-1-61942-273-5. $150.00.

The human brain and its behavior present one of the most challenging, but at the same time, one of the most fascinating endeavors among the scientific and philosophical inquiries. Therefore, from a comprehensive perspective, every heuristic approach (epistemological, philosophical and scientific) to the study of the human brain and mind should be understood not as an exclusive paradigm, but rather as a perspective from which these complex and amazing phenomenon are investigated. This book provides essays written by worldwide renowned academics with expertise in their respective fields of knowledge. They are intended both to stimulate the reader’s curiosity and also to provide him a broad sense of the several possible philosophical and scientific approaches to the study of brain, mind and behavior.

**Ischemic Stroke: Symptoms, Prevention and Recovery**

*Virag Lakatos and Balazs Somogyi*

In series: *Neurology - Laboratory and Clinical Research Developments*

In series: *Neuroscience Research Progress*

Case: 978-1-62257-799-6. $150.00.

Ischemic stroke (IS) is due to the sudden occlusion of a cerebral artery with the consequence of a critical reduction in cerebral blood flow in a localized region of the brain. It represents the second cause of death and the leading cause of neurological disability in developed countries. In this book, the authors discuss the symptoms, prevention and recovery strategies for ischemic stroke. Topics include the standard, current and new potential treatments of acute phase, prevention and rehabilitation of IS; ischemic stroke susceptibility gene research; the dual roles of inflammatory mediators in IS; modulation of protein kinase C isoforms as a potential treatment in IS; perioperative ischemic stroke; role of transcranial doppler ultrasonography in cerebrovascular disease; and management of carotid stenosis.

**Long-Term Memory: Mechanisms, Types and Disorders**

*Arseni K. Alexandrov and Lazar M. Fedoseev*

In series: *Neuroscience Research Progress*


This book presents current research in the study of the mechanisms, types and disorders of long-term memory. Topics included in this compilation include the role of long-term memory in aging and its correlation with topographic disorientation; the diversity and complexity of neocortical connections, circuits, maps and their relationships with superior cognitive function; PARP1 activation for long-term memory; the effects of aofazol on cognitive activity; the benefits of expressive writing on long-term memory performance; and visuo-spatial attention on long-term memory encoding.

**Manual of Spinal Endoscopy: A New Method for the Diagnosis and Therapy of Chronic Spinal Pain**

*Diego Beltrutti (Director Chronic Pain Service, ICH Humanitas, Rozzano (MI), Busca (CN) Italy)*

In series: *Neurology - Laboratory and Clinical Research Developments*

Soft: 978-1-62257-250-2. $52.00.
Clinical Research

Gerry J. Clark and Walcot T. Anderson

Neurogenesis Research: New Developments

Chick spina bifida; and an examination of whether neural tube defects comprehension and preventing NTDs; developmental delay in cellular mechanisms responsible for normal neural tube formation in prevention.

Neural Tube Defects are congenital malformations of the central nervous system caused by partial or complete failure of the neural tube to close, within 28 days of conception. They represent the second most frequent cause of congenital abnormality. In this book, the authors discuss the prevalence, pathogenesis and prevention of neural tube defects. Topics include preconception folic acid as a primary intervention, neuron motor, sensory tract, and synapse formation in chick spina bifida; and an examination of whether neural tube defects lead to structural alterations in the urinary and genital organs in human fetuses.

Neurogenesis Research: New Developments

Gerry J. Clark and Walcot T. Anderson

Neuroinflammation: Pathogenesis, Mechanisms and Management

Carmella Gemma (University of South Florida College of Medicine, Center of Excellence for Aging and Brain Repair, Department of Neurosurgery, Tampa, FL)

In series: Neuroscience Research Progress

Case: 978-1-62081-738-4. $150.00.

Neurogenesis is a process that includes not only a generation of new neurons from neural stem and progenitor cells, but functional integration of these newborn neurons into cortical circuits as well. In this book, the authors present current research in the study of neurogenesis including altered adult neurogenesis in neurodegenerative diseases; modulation of dentate area postnatal neurogenesis in rats and mice; ischemia and neurogenesis; the primary cilia as the tiny driver of dentate gyral neurogenesis; neurogenic hypothesis and psychiatric disorders; and neurogenesis in the adult neocortex under pathological conditions.

Neurological Disorders: New Research

Chloe E. Thomas and Jayden R. Moore

In series: Neurology - Laboratory and Clinical Research Developments

Case: 978-1-62100-059-4. $95.00.

Today, the neurotoxic and neuroprotective roles of the innate immune reactions in aging, brain injury, autoimmune and neurodegenerative disorders of the CNS are widely investigated and highly debated research topics. Nevertheless, several issues remain to be elucidated, notably the earlier cellular events that initiate dysregulation of brain inflammatory pathways. This book has been prepared to provide an overview of the field of neuroimmunology research.

Neuronal Migration: Disorders, Genetic Factors and Treatment Options

Andrew Girard and Luca Moreau

In series: Neuroscience Research Progress

Case: 978-1-62100-059-4. $95.00.

This book presents current material in the study of areas of complex neuroscience; neural resonance; a review into the genetic factors that contribute to the development of neurological disorders; and autoimmunity to neurons as a potential therapeutic target.
Neuronal migration is the method by which neurons travel from their origin or birth place to their final position in the brain. In this book, the authors present topical research in the study of the disorders, genetic factors and treatment options of neuronal migration. Topics include neuronal migration disturbance in neurodevelopmental disorders; candidate dyslexia susceptibility genes and disorders of neuronal migration; electrically guiding neuronal migration and membrane-cytoskeletal interactions in the regulation of neuronal migration in the adult brain.

Neuropathology: New Research
Estevo Almeirão and Thiago Honrado
In series: Neuroscience Research Progress
Case: 978-1-62257-583-1. $150.00.
In neuropathology, the nervous system tissue, usually in the form of either small surgical biopsies or whole autopsy brains are studied. This book presents current research topics in the study of neuropathology gathered from authors across the globe including the therapeutic strategies for polyQ diseases; mechanisms underlying the neuropathology of Huntington's disease; quantitative studies of a variety of neurodegenerative disorders; evaluation of the hypothalamic and circadian rhythm disturbances in developmental brain disorders; the role of B-synuclein in the pathogenesis of a-synucleinopathies; neuropathology of cultured retinas and the occipital cortex relating to visual problems of patients with vCJD.

Neuroscience Researcher Biographical Sketches and Research Summaries
Abram A. Chernyovskaya and Graviil F. Klossovsky
In series: Neuroscience Research Progress
Case: 978-1-62100-943-6. $150.00.
e-book: 978-1-62100-980-1. $150.00.
This new book compiles biographical sketches of top professionals in the field of neurosciences, as well as research summaries from a number of different focuses in this important field.

Parkinson’s Disease: Behavioural and Cognitive Aspects
Rita Moretti, Paola Torre, Rodolfo M. Antonello (Università di Trieste, Ospedale Cattinara, Trieste, Italy)
In series: Aging Issues, Health and Financial Alternatives
Case: 978-1-62417-636-4. $230.00.
Parkinson's disease is a progressive disorder of the nervous system that affects movement. It develops gradually, often starting with a barely noticeable tremor in just one hand. But, while tremors may be the most well-known sign of Parkinson's disease, the disorder also commonly causes a slowing or freezing of movement. The authors aim to reflect on different features of a poliedric structure, like Parkinson’s disease, and try to help clinicians and students to reflect on these aspects that mainly interfere with the daily life experience of patients and caregivers.
In series: Neuroscience Research Progress
Case: 978-1-62081-866-4. $195.00.
e-book: 978-1-62081-950-0. $195.00.
Spinal cord injury (SCI) results from damage to the spinal cord due to trauma or disease and leads to partial or complete paralysis. Following SCI, physiological and lifestyle changes can lead to poor health outcomes. However, advances in injury stabilization, medical treatment and rehabilitation have led to an increase in life expectancy. In this book, the authors present current research on the causes, risk factors and management of spinal cord injury. Topics include pain management following spinal cord injury; exercise training and its relation to slow bone loss in SCI; palliative and therapeutic strategies for SCI; NO-cGMP signalling in bulbospinal respiratory pathway after cervical spinal cord injury; and posterior pedicle screw fixation for thoracolumbar burst fractures.

Synaptic Plasticity: Cell Biology, Regulation and Role in Disease
Gale N. McMahon and Rich G. Buckner
In series: Neurology - Laboratory and Clinical Research Developments
In series: Neuroscience Research Progress
Case: 978-1-62081-004-0. $95.00.
e-book: 978-1-62081-009-5. $95.00.
Synaptic plasticity is the ability of the connection, or synapse, between two neurons to change in strength in response to either use or disuse of transmission over synaptic pathways. In this book, the authors present current research in the study of the cell biology, regulation and role in disease of synaptic plasticity. Topics include the involvement of zinc via crosstalk with calcium in synaptic plasticity and neurodegeneration in the hippocampus; convergent mechanisms of drug-induced and activity-dependent plasticity; neuronal calcium sensor 1 and its role in synaptic plasticity and neurological disease; Long Term Potentiation (LTP) and Long Term Depression (LTD) in neurological disorders; and synaptic plasticity in addiction.

The Blood-Brain Barrier: New Research
Pedro A. Montenegro and Stefanie M. Juárez
In series: Neuroscience Research Progress
Case: 978-1-62100-766-1. $140.00.
The blood-brain barrier (BBB) is a highly regulated system that maintains brain allostasis. BBB achieves its main function by transporting blood to brain glucose, amino acids and other molecules needed for proper neural physiology, while extruding from the brain molecules derived from neural and glial metabolism that may have neurotoxic properties. In this book, the authors present topical research in the study of blood-brain barriers including their local and temporal regulation during normal and altered physiological states; the therapeutic opportunities of efflux-transporters at the blood-brain barrier; novel strategies to restore blood-brain barrier integrity after brain injury; evaluation of the blood-cerebrospinal fluid barrier in neurological diseases and blood-brain barrier in hepatic encephalopathy.

Understanding Autism Spectrum Disorder: Current Research Aspects
Ditzia A Zachor (Director, Center for Autism, Assaf HarOfeh Medical Center, Zerifin, Israel) and Joav Merrick (Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)
In series: Pediatrics, Child and Adolescent Health
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62081-353-9. $150.00.
Autism spectrum disorders (ASD) are common neurodevelopmental disorders characterized by a triad of impairments in reciprocal social interactions, verbal and non-verbal communication deficits with repetitive and stereotyped behaviors. The disorder may adversely impact not just the affected child, but also his/her family members. Currently there is no effective means for prevention, no biomarkers for early diagnosis and no specific treatment approach or a drug that can “cure” the disorder. Interest in ASD has exploded in the past decade following the vast increase in the prevalence of ASD to 1:100-1:150 in the most recent reports. The dramatic increase in ASD cases has been accompanied by an increase in public and professional awareness and an abundance of new research and treatment strategies. Autism is probably not a single disorder, but rather reflects many different disorders with broad behavioral phenotypes causing atypical development.

Vasopressin: Mechanisms of Action, Physiology and Side Effects
Leonzio Galella
In series: Endocrinology Research and Clinical Developments
In series: Neuroscience Research Progress
Soft: 978-1-62417-311-0. $69.00.
Vasopressin is a hormone involved in water balance and osmoregulation. It is produced by the hypothalamus and released by the neuro-pituitary. In this book, the authors discuss the mechanisms of action, physiology and side effects of vasopressin. Topics include the study of the role of vasopressin in hypothalamo-pituitary-adrenocortical (HPA) axis regulation; vasopressin used in both adult and pediatric vasodilatory shock and cardiac arrest; the therapeutic potential and challenges of modulating myometrial smooth muscle tone through the vasopressin V1A receptor; the efficacy of vasoactive medications in acute variceal bleeds; and the reproductive and metabolic responses of desert adapted common spiny male mice to vasopressin treatment.

NUTRITION

Beans: Nutrition, Consumption and Health
Elena Popescu and Ivan Golubev
In series: Agriculture Issues and Policies
Case: 978-1-62100-042-6. $185.00.
e-book: 978-1-62100-216-1. $185.00.
In this book, the authors present topical research in the study of the nutrition, consumption and health benefits of bean products. Topics discussed in this compilation include the chemical composition and food properties of six cultivars of African yam bean flours; food-grade soybean consumption and nutrition; protease inhibitors from legumes; lectins in legumes; seed yield in mungbean as correlated with...
root length density and total dry matter; defensins in beans; nutritional quality of beans and growing conditions; bean by-products and the angiotensin I-converting enzyme inhibitory and antioxidant activities of protein hydrolysates from four tropical legumes.

**Child Nutrition and Health**

*Gregor Cvercko and Luka Predovnik*

In series: *Children’s Issues, Laws and Programs*

In series: *Nutrition and Diet Research Progress*

Case: 978-1-62257-981-5. $150.00.

In this book, the authors have gathered and present current research in the study of child nutrition and health from across the globe. Topics discussed include the exposure of Slovenian preschool children to preservatives and polyphosphates; the breakfast experience in low socioeconomic families with overweight children; nutrition in children and adolescents with cancer; calcium supplementation in young children in Asia; early vitamin D supplementation, immune modulation and allergy; and the factors associated with overweight and obesity among Kuwaiti young children.

**Early Life Nutrition and Adult Health and Development: Lessons from Changing Diets, Famine and Experimental Studies**

*L.H. Lumey (Department of Epidemiology, Columbia University, New York) and Alexander Vaiserman (Institute of Gerontology, Kiev, Ukraine)*

In series: *Nutrition and Diet Research Progress*

In series: *Public Health in the 21st Century*


Clinical, experimental and epidemiological studies suggest that chronic diseases may have their origin during early life and that early nutrition could be a key factor. New DNA technologies have been applied to evaluate possible long-term changes after exposure to famine in early life. These new instruments may clarify possible biological mechanisms linking early-life nutritional insults to health in adulthood. This book presents a state of the art overview of possible mechanisms for nutritional programming in relation to changes in dietary patterns. It also provides examples of nutrition deprivation in various famine settings around the world, mostly during conditions of war or political strife, and of the short and long-term outcomes after nutrition deprivation in these populations. This book includes contributions from many disciplines and represents the most comprehensive summary to date of long-term health and economic outcomes related to specific famines. The book is intended for those who are interested in the early origins of health and disease from a biological perspective, and those who want to know more about the long-term social, epidemiological and demographic consequences of specific famines in modern history.

**Human Malnutrition: Twin Burdens of Undernutrition and Overnutrition**

*Kaushik Bose (Department of Anthropology, Vidyasagar University, West Bengal, India)*

In series: *Nutrition and Diet Research Progress*

Case: 978-1-62417-043-0. $175.00.

Human malnutrition is a serious health problem worldwide. Traditionally, malnutrition is referred to as under-nutrition. However, during the last three decades, the problems of overweight and obesity have reached alarming proportions necessitating the coinage of the term “globesity” – which refers to global obesity. Thus, malnutrition manifests itself as a dual burden: under-nutrition and over-nutrition. Both these burdens have serious implications regarding morbidity and mortality. In this book, there are 15 chapters which discuss these dual burdens. These chapters address diverse aspects of human nutrition including birth weight, under-nutrition, overweight and obesity, nutrition interventions, micronutrients and other co-variates of malnutrition. Confounding factors of malnutrition are also highlighted.

**Linoleic Acids: Sources, Biochemical Properties and Health Effects**

*Igho Onakpoya (Research Associate in Pharmacovigilance Department of Primary Care Health Sciences University of Oxford, Oxford)*

In series: *Nutrition and Diet Research Progress*

In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*

Case: 978-1-62257-384-4. $150.00.

This book contains information on the latest research on linoleic acid composition, in a wide range of dietary sources, as well as advancements in food technology to ensure better nutritional quality of LA. Biochemists, nutritionists, dieticians, food industry technologists, clinicians, and allied health professionals will find the information in this book essential and immensely valuable. Topics discussed include: natural sources of linoleic acids (LA); variations in the LA content of plant and animal products; extraction methods for LA; plant adaptation in the polar region and its effect on LA composition in agricultural animals; the effect of geographical variation on consumer preferences for olive oil types; the influence of plant lipids on the LA composition of animal fat; the oxidation kinetics of LA; the potential benefits of LA isoforms in treatment of obesity, ischemic stroke and atopic dermatitis; and the possible mechanisms linking LA with the development of various types of cancers.

**Low and High-Fat Diets: Myths vs. Reality**

*João Eduardo Ferreira and Natalia Muniz*

In series: *Nutrition and Diet Research Progress*

In series: *Public Health in the 21st Century*

2013. 163 pp.
Case: 978-1-62257-797-2. $150.00.

In this book, the authors gather and present current research on the myths and reality of low and high-fat diets. Topics include new insights into high-fat diets and metabolic disorders; cactus stems (opuntia spp.) as an anti-hyperlipidemic and cholesterol lowering aid; dietary fat and its impact on health; the efficacy and safety of low-fat diets in children; and lipid profiling in the mouse brain and liver after starvation and a high-fat diet.

**Peppers: Nutrition, Consumption and Health**

*Mario Alfonso Salazar and Jose Miguel Ortega*

In series: *Nutrition and Diet Research Progress*

2012. 194 pp.
Case: 978-1-61942-085-4. $95.00.

This book present current research in the study of the nutrition, consumption and health effects of peppers. Topics discussed include the beneficial effects and mechanism of action of pepper capsaicinoids; the effect of different factors on parameters of pepper fruit quality; extraction of bioactive compounds from capsicum oleoresin; the effects of pre-treatment, drying method, and temperature on drying kinetics and quality of peppers; and the consumption of peppers in Brazil and its implications on nutrition and health in humans and animals.
The Omega-3 Fatty Acid Deficiency Syndrome: Opportunities for Disease Prevention

John P. McNamaara (University of Cincinnati, College of Medicine, Cincinnati, OH, USA)

In series: Metabolic Diseases - Laboratory and Clinical Research

In series: Nutrition and Diet Research Progress


Case: 978-1-62417-703-1. $230.00.

History has repeatedly taught us that diet-dependent nutrient deficiencies can cause a constellation of adverse symptoms (a syndrome) that are treatable and preventable by replacing the nutrient in the diet. Mammals are completely dependent on their diet to maintain optimal levels of long-chain omega-3 (LCn-3) fatty acids in cellular membranes throughout the body. It has been estimated that LCn-3 fatty acids in typical western diets have declined over the last century, largely being replaced by omega-6 fatty acids. Individuals residing in western countries commonly exhibit tissue and breast milk LCn-3 fatty acid levels that are substantially lower than those observed in individuals residing in countries that regularly consume LCn-3 fatty acids. This book, written by experts from around the world, describes what is currently known about the relationship between LCn-3 fatty acid status and resilience to different diseases. The goal of this book is to raise awareness of the importance of LCn-3 fatty acids in human health and their potential to increase resilience to several common diseases.

Tocopherol: Sources, Uses and Health Benefits

Angel Catala (Universidad Nacional de La Plata, Argentina)

In series: Nutrition and Diet Research Progress


Case: 978-1-62100-704-3. $140.00.

Natural vitamin E includes two groups of closely related fat-soluble compounds, tocopherols and tocotrienols, each composed of four isoforms. α-Tocopherol is a very well-known potent antioxidant and radical scavenger in chemical and biological systems. Its structure has served as template for design and synthesis of more potent antioxidant analogues with regard to its potential protective effect against certain diseases associated with aging- particularly cancer and heart disease. This book presents and discusses current research in the study of tocopherols. Topics discussed include quantification, antioxidant activity and pro-oxidant effects of α-tocopherols from several sources, design, synthesis and biological activity of tocopherol based hybrid molecules. Chromatographic separation of tocopherol isomers.

Weighty Factors in Children's Food and Beverage Consumption

Charles E. Oyler and Christina De Volld

In series: Food and Beverage Consumption and Health

2012. 130 pp.

Case: 978-1-62257-917-4. $110.00.
e-book: 978-1-62257-918-1. $110.00.

The prevalence of childhood obesity has risen dramatically in the last several decades in the United States, and is currently considered to be epidemic. This book examines the many factors that play a role in this crisis including the effect of food and beverage prices on children's weights; how food away from home affects children's diet quality; the environments to which children are exposed in their daily lives (ie., schools, child care, communities) can influence the healthfulness of their diets; and the potential effects on taxing caloric sweetened beverages.

PEDIATRICS

Common Infections in the Newborn Period

Tinuade A. Ogunlusi (Olabisi Onabanjo University, Ogun State, Nigeria), Olabisi Dedeke (Federal Medical Center, Abeokuta, Nigeria) and Fidelis Njokanna (Olabisi Onabanjo University, Ogun State, Nigeria)

In series: Pediatrics - Laboratory and Clinical Research

In series: Allergies and Infectious Diseases


Case: 978-1-62257-997-3. $52.00.

This book is intended to provide guides to the evaluation and management of common infectious conditions in the newborn period. The spectrum of the book covers neonatal infectious conditions which non-specialist medical practitioners may encounter in their clinical practices in the different parts of the world. The approach in this book focuses on specific characteristics of these infectious conditions in order to facilitate clinical assessment. To arrive at this point, the book is synthesized from several published scientific facts about each of the newborn in infections mentioned in the book. The scope of the book covers a description of the content and functions of the immune system in the newborn highlighting its peculiarities and comparing it with the immune system of the older child.

Preterm Infants: Development, Prognosis and Potential Complications

Diogo Contreiras and Johann Sampao

In series: Pregnancy and Infants: Medical, Psychological and Social Issues

In series: Pediatrics - Laboratory and Clinical Research


Case: 978-1-62081-819-0. $150.00.

In this book, the authors present current research from across the globe in the study of the development, prognosis and potential complications of preterm infants. Topics discussed in this compilation include the cognitive and behavioral problems in moderately preterm children at preschool age; the socio-emotional development and early intervention of preterm infants; later preterm birth and the developing brainstem; readiness of preterm infants to start breastfeeding; hormonal dysregulation of the HPT and HPA axes in preterm infants; effect of additional weight in proximal and distal adjustments of reaching behavior in preterm infants; language and literacy in preterm children; and cognitive, motor and communicative-linguistic developmental trajectories of extremely low gestational age preterms.

PHARMACOLOGY

Antidepressants: Pharmacology, Health Effects and Controversy

Louis J. Mignue and Jason W. Post

In series: Psychiatry - Theory, Applications and Treatment

In series: Pharmacology - Research, Safety Testing and Regulation


Case: 978-1-62081-555-7. $69.00.
Antidepressants are the category of drugs that act in a disease specific way to reverse the neuropathological basis of the symptoms of depression. In this book, the authors present current research in the study of the pharmacology, health effects and controversy relating to the use of antidepressants. Topics discussed in this compilation include the biology of fetal exposure to serotonin reuptake inhibitors; the addictive potential of antidepressant drugs; the immunomodulatory action of fluoxetine in normal and in pathological conditions; use of antidepressants in older people with mental illness; and the treatment of comorbid depression and alcohol abuse/dependence with antidepressant medications.

Authorized Generic Drugs: Short and Long-Term Competitive Effects
Edward R. Nelson and Jerry G. Wright
In series: Pharmacology - Research, Safety Testing and Regulation
Case: 978-1-62257-075-1. $195.00.
e-book: 978-1-62257-152-0. $195.00.
Rising health care costs have for many years focused congressional attention upon the development and availability of prescription drugs. Recently, the presence of "authorized generic" pharmaceuticals in the drug marketplace has been the subject of congressional concern. An "authorized generic" is a pharmaceutical that is marketed by or on behalf of a brand-name drug company, but is sold under a generic name. The brand-name firm may distribute the drug under its own auspices or via a license to a generic drug company. The price of this "authorized copy" is ordinarily lower than that of the brand-name drug. Some sources refer to authorized generics as "branded," "flanking," or "pseudo" generics. This book presents an analysis of the innovation and public health issues relating to authorized generic drugs beginning with a review of the procedures through which independent generic drug companies receive government permission to market their products and resolve patent disputes with brand-name firms and consumer welfare.

Benzodiazepine: Abuse and Therapeutic Uses, Pharmacology and Health Effects
Armando L. Soto and Carolina F. Reyes
In series: Substance Abuse Assessment, Interventions and Treatment
In series: Pharmacology - Research, Safety Testing and Regulation
Case: 978-1-62081-642-4. $150.00.
Although benzodiazepines are among the most commonly prescribed medications, owing to their roles in multiple areas of therapeutic action as anxiolytics, sedative hypnotics, anticonvulsants and muscle relaxants, they are also highly addictive. Long-term use can lead to dependency, rebound anxiety, memory impairment and withdrawal. In this book, the authors discuss the abuse and therapeutic uses, pharmacology and health effects of benzodiazepine. Topics include the effects of benzodiazepine during prolonged administration and under conditions of stress; anxiolytic-like effect and excessive side actions produced by benzodiazepines in the elderly; risk factors for benzodiazepine dependence in women with major depression or anxiety disorders; flumazenil slow-infusion in the treatment of high dose benzodiazepine dependence; benzodiazepine withdrawal syndrome; and encephalopathies related to exogenous or endogenous benzodiazepines.

Drug Development: Principles, Methodology and Emerging Challenges
Marco Rossi and Santina Bertone
In series: Pharmacology - Research, Safety Testing and Regulation
Soft: 978-1-62417-790-3. $72.00.
e-book: 978-1-62417-791-0. $72.00.
In this book, the authors discuss the principles, methodology and emerging challenges of drug development. Topics include outsourcing and technology transfer in pharmaceutical companies; analytical tools and chemometrics in the drug development process; the use of cytomtery for drug development of cell cycling inhibitors; and the antiproliferative effects of phenolic compounds isolated from the Brazilian propolis.

FDA Drug Approval: Elements and Considerations
Timothy I. King and Thomas R. Baker
In series: Pharmacology - Research, Safety Testing and Regulation
In series: Government Procedures and Operations
Case: 978-1-62257-091-1. $110.00.
The Food and Drug Administration (FDA) oversees the approval and regulation of drugs entering the U.S. market. Two regulatory frameworks support the FDA's review of prescription drugs. First, FDA reviews the safety and effectiveness of new drugs that manufacturers wish to market in the United States; this process is called premarket approval or preapproval review. Second, once a drug has passed that threshold and is FDA-approved, FDA acts through its postmarket or post-approval regulatory procedures. This book is a primer on drug approval and regulation. It describes how drugs are approved and come to market, including the FDA's role in that process and the FDA and industry roles once drugs are on pharmacy shelves.

Fluorouracil: Synthesis, Health Effects and Role in Chemotherapy
Alberto C. Dário Longinho and Sebastiao E. Britto Dobreiro
In series: Pharmacology - Research, Safety Testing and Regulation
In series: Cancer Etiology, Diagnosis and Treatments
Case: 978-1-62081-970-8. $95.00.
The fluoropyrimidine 5-fluorouracil (5-FU), an antimetabolite drug, works by being incorporated in the RNA and DNA and by the inhibition of the nucleotide synthetic enzyme thymidylate synthase. It is widely used in the treatment of a range of cancers, including gastrointestinal, head and neck, and breast cancers. In this book, the authors present current research in the study of the synthesis, health effects and role in chemotherapy of fluorouracil. Topics discussed include the antiproliferative activities, cell-cycle regulation, apoptosis and cellular differentiation of acyclic 5-fluorouracil O, N-Acetals; 5-fluorouracil and its immunotoxicity and side effects; 5-fluorouracil application in the management of bleb failure; and cisplatin and 5-fluorouracil for the treatment of ovarian adenocarcinoma.
General Pharmacology for Pharmacists: Principles and Applications
Adriana Adameova (Department of Pharmacology and Toxicology, Faculty of Pharmacy, Comenius University, Bratislava, Slovak Republic)
In series: Pharmacology - Research, Safety Testing and Regulation
Learning and understanding how medicine acts, what the body does to the drug, with both the beneficial and potentially deleterious effects it has, are among the key steps in becoming a pharmacist. Scientific disciplines, such as anatomy, physiology, pathophysiology, genetics, biochemistry and pharmaceutical chemistry are required to clearly and complexly understand the concepts of general pharmacology. This book provides current, readable, necessary background information of this branch of basic pharmacology. It reviews the underlying mechanisms of action of drugs; which factors influence the fate of the drug administered to the organism; and how they can be modulated by a concomitant disease and other therapy. In addition, basic principles of drug interactions are also discussed. This book will be applicable and adaptable to various educational programs for pharmacists and other medical professionals.

Halides: Chemistry, Physical Properties and Structural Effects
Jean Lefebure
In series: Pharmacology - Research, Safety Testing and Regulation
This book discusses the chemistry, physical properties and structural effects of halides. Topics include the physical properties of alkali halide clusters and cluster-assembled materials; the synthesis of the nano-crystalline organic-inorganic composite nylon-6,6 nickel carbonate membrane; nucleophilic substitution and palladium-catalyzed coupling mechanisms of aromatic halides; dislocation pinned by a monovalent ion in various alkali halide crystals; and the nonlinear elastic properties and Gruneisen constants of alkali halide.

Methotrexate: Pharmacology, Clinical Uses and Adverse Effects
Valentina S. Castillo and Laura A. Moyano
In series: Pharmacology - Research, Safety Testing and Regulation
Methotrexate (MTX) is an important component of therapy in several immune diseases (rheumatoid arthritis, psoriasis, and cancers such as acute lymphoblastic leukemia, osteosarcoma, ovarian cancer and others). Despite its clinical success, treatment with MTX often causes toxicity, dose reduction or treatment cessation. In this book, the authors present topical research in the study of the pharmacology, clinical uses and adverse effects of methotrexate. Topics discussed include lipid alterations instigated by methotrexate; acute toxicity of high doses of methotrexate in the treatment of lymphoblastic leukemia in children; pharmacogenetics update on MTHFR and methotrexate toxicity; animal models of cognitive impairment induced by methotrexate and damage, as well as the recovery of the bone and bone marrow following methotrexate chemotherapy.

Opioids: Pharmacology, Clinical Uses and Adverse Effects
Djavakhi Tvlidiani and Kakha Gegechkori
In series: Pharmacology - Research, Safety Testing and Regulation
2012. 177 pp.
Opioids are among the oldest and most enduring substances used for the management of pain and other medical problems. It is now known that the properties of the naturally occurring opioids (primarily morphine and codeine) and the related endogenous opioid-like peptides and synthetic chemical substances can be attributed to action at the receptors to which they bind within the central and peripheral nervous systems. This book presents current research in the study of the pharmacology, clinical uses and adverse effects of opioids. Topics include an historic review of the pain concepts and treatment by opioids; u-opioid receptor modulation of oxytocin and vasopressin release in the hypothalamic-neurohypophyseal system and synergy abilities of spinal opioid receptors.

Pediatric Drug Research and the FDA
Kevin L. Washington and Jeff E. Bennett
In series: Pharmacology - Research, Safety Testing and Regulation
2013. 95 pp.
Congress reauthorized two laws in 2007, the Pediatric Research Equity Act (PREA) and the Best Pharmaceuticals for Children Act (BPCA). PREA requires that sponsors conduct pediatric studies for certain products unless the Department of Health and Human Services’ (HHS) Food and Drug Administration (FDA) grants a waiver or deferral. On June 20th, 2012, the House of Representatives passed, by voice vote and under suspension of the rules, the Food and Drug Administration Safety and Innovation Act, as amended. This bill would reauthorize the FDA prescription drug and medical device user fee programs, create new user fee programs for generic and biosimilar drug approvals, and make other revisions to other FDA drug and device approval processes. This book examines how many and what types of products have been studied; describes the number and type of labeling changes and FDA’s review periods and describes challenges identified by stakeholders to conducting studies.

Pharmaceutical Innovation: Challenges and Competitors
Tomas E. Sanchez and Charles L. Scott
In series: Pharmacology - Research, Safety Testing and Regulation
Congress has exhibited a strong and ongoing interest in facilitating the development of new, innovative pharmaceuticals for the marketplace while reducing the cost of drugs to consumers. Policies pertaining to funding for research and development (R&D), intellectual property protection, and cooperative ventures have played an important role in the economic success of the pharmaceutical sector. Industry-specific legislation, also work to encourage innovation in the pharmaceutical sector while facilitating the entry of lower cost generic competition. While many factors contribute to innovation in the brand pharmaceutical industry and its ability to bring new and inventive products to the marketplace, this sector is facing significant issues associated with loss of revenue for additional R&D due to patent expirations and generic competition. This book examines the
challenges associated with striking the proper balance between lower cost drugs and maintaining an innovative domestic pharmaceutical sector.

**Pharmacology Researcher Biographical Sketches and Research Summaries**

*Zvezdelin Mihaylov and Georgi Stayanov*

In series: *Pharmacology - Research, Safety Testing and Regulation*


Case: 978-1-61942-007-6. $150.00.


This new book compiles biographical sketches of top professionals in the field of pharmacology, as well as research summaries from a number of different focuses in this important field.

**Rapamycin: Effectiveness, Safety and Drug Interactions**

*Martin J. Blanco and Agustina M. Torres*

In series: *Pharmacology - Research, Safety Testing and Regulation*

In series: *Organ Transplantation Research Horizons*


Soft: 978-1-61942-642-9. $65.00.


Rapamycin is a macracyclic natural product involved in various biological and pharmacological processes including antifungal, immunosuppressive, anticancer, and antigentic activities. In this book, the authors present current research in the study of the effectiveness, safety and drug interactions of rapamycin. Topics discussed include mTOR inhibitors in chronic liver diseases and cancer; rapamycin analogs temsirolimus and everolimus in the treatment of renal cancer; rapamycin control of multiple signalling pathways involved in cancer cell survival and drug resistance to rapamycin through elevated phospholipase D activity.

**Rituximab: Pharmacology, Clinical Uses and Health Effects**

*Gerond V. Lake-Bakaar (Beth Israel Deaconess Medical Center, Boston, MA)*

In series: *Pharmacology - Research, Safety Testing and Regulation*


Case: 978-1-62257-533-6. $150.00.


Rituximab (MabThera®, Rituxan®) is a chimaeric murine/human antibody targeted against the surface antigen CD20 that is expressed on normal and malignant human mature B cells, but not stem cells or plasma cells. It is potentially the proverbial magic bullet for diseases associated with B cell disorders as well as a probe for elucidating the role of B cells in health and disease. This book explores the full spectrum of activity of Rituximab in man.

**Statins: Pharmacology, Clinical Implications and Adverse Effects**

*Benedetta La Grua and Alessandro Molinelli*

In series: *Pharmacology - Research, Safety Testing and Regulation*

In series: *Biochemistry Research Trends*


Case: 978-1-62081-367-6. $150.00.

e-book: 978-1-62081-393-5. $150.00.

Statins work by reducing cholesterol synthesis by inhibiting the enzyme HMG-CoA reductase. The decrease in cholesterol levels is associated with increased expression of receptors of hepatocytes, with a greater extraction of plasma LDL-C and a lower diffusion of it into the tissues. In this book, the authors present current research in the study of the pharmacology, clinical implications and adverse effects of statins. Topics include the pleiotropic effects of statins beyond cholesterol lowering; anti-inflammatory activity of statins in asthma and COPD; statins as anticancer agents; statin use in patients with carotid disease; and the Alzheimer's disease risk-lowering effect of lipophilic statins.

**Valproic Acid: Pharmacology, Mechanisms of Action and Clinical Implications**

*Alexis Boucher*

In series: *Pharmacology - Research, Safety Testing and Regulation*


Case: 978-1-62417-952-5. $120.00.

e-book: 978-1-62417-953-2. $120.00.

Valproic acid (VPA) is a short chain fatty acid which has been used medicinally to treat conditions as far reaching as epilepsy, Bipolar disorder, migraines, and cancer. In this book, the authors research the pharmacology, mechanisms of action and clinical implications of valproic acid. Topics discussed include novel applications of the anticonvulsant drug valproic acid in cancer therapeutics; VPA treatment for epilepsy; use of fish models in fetal valproate syndrome studies; prenatal valproic acid exposure correlating with the occurrence of autism; and using 3D spheroids to determine the acute and chronic lethal thresholds of valproic acid.

**Warfarin Monitoring: Standard Practice and Beyond**

*Gary W. Moore, Graeme Thomson, Dominic J. Harrington (Diagnostic Haemostasis and Thrombosis Laboratories, GSTS Pathology, Guy’s & St. Thomas’ NHS Foundation Trust, London, UK)*

In series: *Pharmacology - Research, Safety Testing and Regulation*

2012. 130 pp.

Soft: 978-1-62100-189-8. $47.00.


Warfarin is one of the most commonly used anticoagulant drugs worldwide with a role in the treatment for a variety of conditions, such as atrial fibrillation, artificial heart valves, deep venous thrombosis, pulmonary embolism and antiphospholipid syndrome. Although effective as an anticoagulant drug, care must be taken in warfarin administration as it interacts with many commonly used medications and some foodstuffs. This book presents current research in the study and uses of warfarin.

**PREGNANCY**

**Cesarean Section: Procedures, Complications and Recovery**

*Eyal Scheiner (Department of Obstetrics and Gynecology, Soroka University Medical Center, Ben Gurion University of the Negev, Beer-Sheva, Israel)*

In series: *Obstetrics and Gynecology Advances*


Case: 978-1-62081-214-3. $175.00.


This book focuses on essential aspects of cesarean delivery: procedures, complications and recovery in a straightforward manner.
The book is divided in five parts: the first part is introductory, including basic concepts such as the history and epidemiology of CS. The second part describes specific procedures, tubal ligation (with its benefits and complication) and anesthesia for CS. The third part focuses on maternal as well as neonatal short and long term complications. Recovery is covered in the forth part of the book, including early feeding, wound care, and mobilization to prevent thromboembolism. Controversial issues are covered in the last part of the book including ethics of undirected cesarean delivery, vaginal births after cesareans delivery and the preferred timing for elective cesarean delivery.

Childbirth Research: New Developments
Scott R. Hall and Ginger M. Kelly
In series: Obstetrics and Gynecology Advances
Case: 978-1-62081-789-6. $120.00.
e-book: 978-1-62081-790-0. $120.00.
In this book, the authors present new developments in childbirth research. Topics discussed in this compilation include the theoretical and research findings on the psychopathology during transition to parenthood as a critical life event; the voices of postnatal women and how their experiences enhance antenatal practice; a sociological understanding of women’s childbirth discourses; ethical analysis on therapeutic abortion for fetal abnormality; the use of placental blood in term and pre-term newborns; self-efficacy theory and intervention in childbirth; and anal sphincter damages in childbirth.

Handbook of Methodological Concepts in Perinatal Medicine
Eyal Scheiner (Department of Obstetrics and Gynecology, Soroka University Medical Center, Ben-Gurion University of the Negev Beer-Sheva, Israel)
In series: Obstetrics and Gynecology Advances
Case: 978-1-62081-252-5. $85.00.
This book stems from the “Textbook of Perinatal Epidemiology” and was conceived to satisfy the rising need for epidemiology-oriented clinicians. This book discusses methodological issues in perinatal epidemiology in a straightforward accessible manner. It gives a clear and comprehensive set of tools for practical research, and understanding perinatal epidemiology. This is an essential manual for the clinician for research in OB/Gyn. This book focuses on definitions, measures of disease frequency, prevalence and incidence of disease, sensitivity and specificity of studies, including examples from the perinatal world. It also discusses study design: observational or experimental, case controlled, randomized etc.

Miscarriages: Causes, Symptoms and Prevention
Andrea Luigi Tranquilli (Chairman, School for Specialization in Gynecology and Obstetrics, Clinica Ostetrica e Ginecologica)
In series: Obstetrics and Gynecology Advances
Case: 978-1-62081-528-1. $150.00.
Miscarriage is a common problem in obstetrics and often experienced in woman’s life. It occurs in about 10 percent of pregnancy and is more frequent with increasing age and in women with previous miscarriages. It has many clinical forms and different known causes, although most miscarriages remain unexplained. When counselling a patient, Doctors share anguish with their patients when they are compelled to inform them on the causes remained unexplained and on the scarce chances to prevent the recurrence. All this triggered the authors to plan and make a book on miscarriages, wishing they may add knowledge to doctors and hope to families who experience the problem.

PROTEINS

Advances in Proteomics Research
Ya Li Huang and Anguo Chen
In series: Protein Biochemistry, Synthesis, Structure and Cellular Functions
In series: Protein Science and Engineering
Case: 978-1-61942-227-8. $95.00.
e-book: 978-1-61942-228-5. $95.00.
This book presents recent advances in proteomics research. Topics discussed include redox proteomics approaches to the evaluation of UV-induced protein oxidative damage; decoding amino acid sequences of proteins using inter-residue average distance statistics to extract information on protein folding mechanisms and modelling of protein folding and prediction of rate based on nucleation mechanism.

Amyloids: Composition, Functions and Pathology
Irene P. Halcheek and Nancy R. Vernon
In series: Protein Biochemistry, Synthesis, Structure and Cellular Functions
In series: Protein Science and Engineering
2012. 266 pp.
Case: 978-1-62100-538-4. $150.00.
Assembly and deposition of physiologically generated, amyloidogenic proteins occur in various human diseases, referred to as amyloidoses, through misfolding that is either partial unfolding or partial folding of the proteins. A growing body of evidence suggests that misfolding of a given protein is driven by point mutations or by the presence of environmental factors favorable for amyloidogenesis. In this book, the authors present topical research in the study of the composition, function and pathology of amyloids, including the effect of yeast red pigment on amyloid fibrils in vivo and in vitro; amyloid precursor protein and its relation to Alzheimer’s disease; amyloid precursor protein expression after traumatic brain injury; protein aggregation as a modulatory factor in EPM1 and the atomic-resolution structures of prion AGAAAAGA amyloid fibrils.

Apolipoproteins: Regulatory Functions, Health Effects and Role in Disease
Adrik D. Sidorov and Misha Y. Nikitin
In series: Protein Biochemistry, Synthesis, Structure and Cellular Functions
In series: Protein Science and Engineering
Case: 978-1-62257-484-1. $120.00.
e-book: 978-1-62257-498-8. $120.00.
Apolipoproteins are proteins that bind lipids (oil-soluble substances such as fat and cholesterol) to form lipoproteins. They transport the lipids through the lymphatic and circulatory systems. Apolipoproteins also serve as enzyme cofactors, receptor ligands, and lipid transfer carriers that regulate the metabolism of lipoproteins and their uptake in tissues. In this book, the authors present current research in the study of the regulatory functions, health effects and role in disease of apolipoproteins. Topics include macrophages, apolipoproteins, steroid hormones and molecular mechanisms of cell proliferation; formation of discoidal apolipoprotein A-1 lipid bound complexes; the role of apolipoprotein E in cardiovascular and renal disease; the functional
variants and mutations of the apolipoprotein A5 gene in human pathology; and regulation of PGF-1 of ApoE/HDL generation in astrocytes.

Autoantibodies: Detection, Pathogenicity and Health Implications
Graham E. Jenkins and Joanne J. Hall
In series: Immunology and Immune System Disorders
In series: Public Health in the 21st Century
Case: 978-1-62081-560-1, $120.00.
Autoantibodies that are directed against self antigens are called autoantibodies. Not all autoantibodies are harmful. Autoantibodies can be useful in the removal of cell debris during inflammation. Some autoantibodies may be the actual pathogenic agents of autoimmune disease, the secondary consequences of tissue damage, or the harmless footprints of an etiologic agent. In this book, the authors present current research in the detection, pathogenicity and health implications of autoantibodies. Topics include the implicated autoantibodies in kidney disease and Alzheimer's disease; autoimmunity in cardiovascular disease; detection and analysis of natural autoantibodies; and B Cells and autoantibodies in multiple sclerosis.

Cysteine: Biosynthesis, Chemical Structure and Toxicity
Fyodor V. Chorkina and Andrey I. Karataev
In series: Biochemistry Research Trends
In series: Protein Biochemistry, Synthesis, Structure and Cellular Functions
Case: 978-1-62081-386-7, $95.00.
e-book: 978-1-62081-400-0, $95.00.
The sulfur amino acid, cysteine, plays an essential role in maintaining cellular redox potential and is a key constituent of the antioxidant, glutathione. Cysteine is highly reactive and readily oxidizes to the disulfide form, cystine, producing oxygen radicals as a by-product. In this book, the authors present current research in the study of the biosynthesis, chemical structure and toxicity of cysteine. Topics include cysteine biosynthesis in plants; the structural and functional role of cysteine residues; new cysteine synthesis pathways and their applications; implications for cysteine neurotoxicity; and the protecting groups used to cage cysteine and their applications in biochemical experiments are reviewed.

Enzymes and Enzyme Activity: Structure, Biology and Clinical Significance
Eva M. Lashinski
In series: Microbiology Research Advances
In series: Protein Biochemistry, Synthesis, Structure and Cellular Functions
Case: 978-1-62417-696-8, $120.00.
In this book, the authors present current research in the study of the structure, biology and clinical significance of calpain, enzymes and enzyme activity. Topics discussed include monitoring the activation of calpain I for sensitive assessment of pathogenesis and neuroprotectant action; the myeloperoxidase enzyme as a diagnostic biomarker and target for new drug developments; the biological effects of calpain inhibitors on human phagocyte functions; ALDH activity of Artemia as a tool for the investigation of the toxicity of antifouling paints; and calpain as an indicator of organophosphorus-induced delayed neuropathy.

Erythropoietin: Human Production, Potential Uses and Adverse Effects
Brian Macmillan and Walter Joiner
In series: Cell Biology Research Progress
Soft: 978-1-62417-105-5, $69.00.
The extensive role of erythropoietin (EPO) going beyond the hematopoietic system has generated renewed interest in this recombinant protein as a potential therapeutic agent in cardiovascular and neurodegenerative disease. This book presents current research in the study of the human production, potential uses and adverse effects of erythropoietin. Topics discussed include the regulatory role of erythropoietin in the homeostatic system of the body; erythropoietin’s use in the in vitro management of anemia in sub-Saharan Africa; neurosurgical applications for erythropoietin administration; and in vitro studies to provide insight and understanding of the biological effects of EPO.

Fibronectin: Current Concepts in Structure, Function and Pathology
James Beattie (University of Leeds, Department of Medicine, Irvine, Ayrshire, UK)
In series: Protein Biochemistry, Synthesis, Structure and Cellular Functions
Case: 978-1-62257-298-4, $195.00.
The multidomain extracellular protein fibronectin (Fn) is assuming an increasingly important role in cell biology. Interactions between Fn and juxtaposed cells play an important role in the regulation of cell migration, adhesion, growth, differentiation and apoptosis. This classical “outside-in” signalling leads to the activation of intra-cellular signalling pathways and results in the transient formation of protein-protein complexes and alterations in the states of protein phosphorylation which ultimately lead to changes in gene expression. The role of Fn in the aetiology and regulation of different disease processes is an increasingly popular research area. The role of Fn in the establishment and spread of tumour cells is one such topic. This book draws on the expertise of many laboratories to provide up to date research findings for those interested in this field.

Heat Shock Proteins: Classification, Functions and Applications
Saad Usmani (Myeloma Institute for Research & Therapy, University of Arkansas for Medical Sciences, Little Rock, AR, USA)
In series: Cell Biology Research Progress
Case: 978-1-62417-571-8, $150.00.
Over the last decade, major advances have been made in understanding the role of heat shock proteins (HSPs) in cellular functions. They are universally expressed by all living organisms and are one of the oldest protective mechanisms cells have against environmental stress. The present book is an effort to provide the reader with an overview on the broad and diverse role of HSPs in normal as well as abnormal animal and human physiology. It covers topics ranging from the role of HSPs in immune system and cancer biology to their effects in regulating the
reproductive cycle. Each chapter has been written by well-respected investigators in the field, providing a well-balanced concise review of the subject.

**Histones: Class, Structure and Function**  
*Chang-Hui Shen (City University of New York, NY, USA)*  
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*  
Case: 978-1-62100-274-1, $140.00.  
e-book: 978-1-62100-373-1. $140.00.  
Histones are DNA-binding proteins that help in the packaging of DNA to fit into the cell nucleus in a hierarchy of organization. During the packaging and unfolding process, histones are involved in crucial biological activities at the molecular level. This book presents research in the study of histone class, structure and function, including the roles of linker histones in chromatin structure, the post-translational modifications of histones and the importance of chromatin structure and epigenetics in gene regulation and carcinogenesis.

**Interferons: Characterization, Mechanism of Action and Clinical Applications**  
*Joe H. Thomas and Adrian Roberts*  
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*  
In series: *Immunology and Immune System Disorders*  
Case: 978-1-62081-298-3. $150.00.  
Interferons are cytokines that are very important in regulating both innate and adaptive immune response. Of the two different types of interferons, Type I interferons are potent mediators of the innate immune response against viruses and cancer. Type II interferons, mainly IFN-γ enhances T cell polarization in the lymph nodes that result in their expansion. This book discusses the characterization, mechanisms of action and clinical applications of interferons. Topics include interferon-gamma, oligodendrocyte injury and inflammatory demyelination; the role of IFN-γ in esophageal squamous cell carcinoma; interferons in multiple sclerosis; the effect of interferons on NK cell activity in HIV infection and tumor cell development; and understanding the mechanisms of interaction between serine proteases, serine protease receptors and interferons.

**Interleukin-6: Genetics, Clinical Applications and Role in Disease**  
*Jovanni D'Aquino and Edward N. DeVito*  
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*  
In series: *Immunology and Immune System Disorders*  
2013.  
Case: 978-1-62417-592-3. $150.00.  
e-book: 978-1-62417-593-0. $150.00.  
Interleukin-6 (IL-6) is a pleiotropic cytokine that plays an important role in acute inflammation. It is secreted by T cells and macrophages during infection and after trauma. It is responsible for activation of B cells and other immune cells. In this book, the authors discuss the genetics, clinical applications and role in disease of interleukin-6. Topics include IL-6 inhibitors as novel generation of treatment strategies; the role of interleukin-6 in postoperative delirium; elevated interleukin-6 levels as a consequence of obesity and insulin resistance; the effects of IL-6 on respiratory mechanics in rats; and IL-6 targeting strategy for rheumatoid arthritis and various immune-mediated diseases.

**Proteins Researcher Biographical Sketches and Research Summaries**  
*Hui-Zhong Wang and Miao Tian*  
In series: *Protein Science and Engineering*  
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*  
Soft: 978-1-62100-777-7, $65.00.  
e-book: 978-1-62100-826-2. $65.00.  
This new book compiles biographical sketches of top professionals in the field of proteins, as well as research summaries from a number of different focuses in this important field.

**Ribosomes: Molecular Structure, Role in Biological Functions and Implications for Genetic Diseases**  
*Zhou Lin and Wang Liu*  
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*  
In series: *Microbiology Research Advances*  
Case: 978-1-62417-698-2. $150.00.  
Ribosomes are essential protein-RNA complexes that synthesize proteins according to the gene library of the cell in all living organisms. In this book, the authors present current research in the study of the molecular structure, biological functions and implications for genetic disease of ribosomes. Topics include ribosomal alterations and immune-related illness; the role of ribosomes in mediating hypoxia response and tolerance in eukaryotes; the potential biomedical use of ribosome-inactivating proteins; coarse-graining the nano-machine ribosome to elucidate its functional dynamics; and structural aspects of ribosomal ligands interactions providing the work of the human translational machinery.

**Serine Proteases: Mechanism, Structure and Evolution**  
*Isamu Chiba and Takao Kamio*  
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*  
In series: *Cell Biology Research Progress*  
Case: 978-1-61942-669-6. $150.00.  
Proteases refer to a group of enzymes whose catalytic function is to hydrolyze (cleavage) peptide bonds of proteins. Proteases occur naturally in all organisms and are involved in a multitude of physiological reactions from simple digestion of food proteins to highly regulated cascades. In this book, the authors discuss the maturation and stabilization mechanisms of two hyperthermostable subtilisin-like serine proteases from thermococcus kodakarenis; serine protease-related innate immunity; fungal and bacterial serine proteases; and the physiological function and pathology of neurosin/kallikrein 6 in the central nervous system.

**Structural Biology of Antiapoptotic Proteins of BCL-2 Family**  
*Valery G. Veresov (Department of Cell Biophysics, Institute of Biophysics and Cell Engineering, Minsk, Belarus)*  
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*
In series: *Cell Biology Research Progress*
Case: 978-1-61942-394-7, $165.00.

The BCL-2 family proteins are crucial regulators of the apoptotic process. This book covers recent structure-based insights into the mechanisms of action of antiapoptotic BCL-2 family proteins as well as into the interactions between antiapoptotic proteins and their ligands. While the main focus is on the apoptotic processes in mammals, the great part of the book is devoted to viral homologues of Bcl-2 family antiapoptotic proteins.

**Tubulin: Structure, Functions and Roles in Disease**
*Wei Yamauchi and Antonio Sokic*
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*
Case: 978-1-62100-141-6, $140.00.
e-book: 978-1-62100-208-6, $140.00.

Tubulin is one of several members of a small family of globular proteins. The most common members of the tubulin family are α-tubulin and β-tubulin, the proteins that make up microtubules. In this book the authors present topical research in the study of the structure, functions and roles in disease of tubulin. Topics discussed in this compilation include microtubule plus-end tracking proteins in neuronal development and nervous system disorders; trypanosome tubulin molecules as targets for drug and vaccine development for protozoan infections; tubulin inhibitors as vascular disrupting agents and evolution and coevolution of tubulin’s carboxy-terminal tails and mitochondria.

**Vimentin Concepts and Molecular Mechanisms**
*Ramon Andrade de Mello (Oncology Portuguese Institute of Porto Francisco Gentil, Department of Medical Oncology, Porto, Portugal)*
In series: *Protein Science and Engineering*
In series: *Protein Biochemistry, Synthesis, Structure and Cellular Functions*
Case: 978-1-62417-359-2, $150.00.

Intermediate filaments (IFs) are among the main cytoskeleton components in most animal cells, being intermediate in diameter between microtubules and actin filaments. Vimentin is one of the large intermediate filaments (IFs) of eukaryotic cell’s cytoskeleton, being the major protein in mesenchymal cells and it is frequently used as a developmental marker of cells and tissues. It may be overexpressed in several cancers, such as lung, breast, head and neck cancer, and sarcomas. Furthermore, it plays a main role in rheumatoid arthritis and Crohn’s disease. Thus, this book will address main topics concerning promising therapeutic targets for intestinal fibrosis, vimentin’s potential role in epithelial mesenchymal transition (EMT), the role of vimentin in rheumatoid arthritis, vimentin mechanisms and endothelial migration, and EMT and lung neoplasms. Also discussed are insights into the proteomics’ field. Many reputed experts worldwide contributed to improvement of this book and it will give readers the state of art regarding vimentin and novel approaches.

**PSYCHOLOGY AND PSYCHIATRY**

**Advances in Psychology Research. Volume 91**
*Alexandra M. Columbus*
In series: *Advances in Psychology Research*
Case: 978-1-61942-513-2, $150.00.
e-book: 978-1-61942-517-0, $150.00.

This continuing series presents original research results on the leading edge of psychology. This book reviews research on the effectiveness of teaching intervention programs for children with autism spectrum disorders in Greece: psychometrics in science and STEM education research; trauma-related guilt and its psychometric properties; cognitive behavioral therapy techniques; materialism and human motivation behaviors; male body image; violent video games and behavior and a comparison of business and psychology approaches to social responsibility.

**Advances in Psychology Research. Volume 93**
*Alexandra M. Columbus*
In series: *Advances in Psychology Research*
Case: 978-1-62081-470-3, $150.00.
e-book: 978-1-62081-471-0, $150.00.

This continuing series presents original research results on the leading edge of psychology. Each article has been carefully selected in an attempt to present substantial results across a broad spectrum. This book reviews research on the empirical status of cognitive models in social anxiety; critical variables in cognitive-behavioral therapy for pediatric and adult obsessive-compulsive disorders; management of trauma of war in Côte D’Ivoire; the impact of overseas working on family members; and treatment trial and long-term follow-up evaluation among co-morbid youth major depression and a cannabis use disorder.

**Advances in Psychology Research. Volume 94**
*Alexandra M. Columbus*
In series: *Advances in Psychology Research*
2012. 312 pp.
Case: 978-1-62081-696-7, $195.00.

This continuing series presents original research results on the leading edge of psychology. Each article has been carefully selected in an attempt to present substantial results across a broad spectrum. This book reviews research on the psychological effects of exposure to stress in law enforcement; mental health problems in civilians exposed to terrorism and war trauma in Israel; the role of desire in influencing behavioral decisions; the role of emotions in achievement during the elementary school years; retirement planning and its psycho/social implications; and CBT therapy in India and Northeastern Africa.

**Advances in Psychology Research. Volume 95**
*Alexandra M. Columbus*
In series: *Advances in Psychology Research*
Case: 978-1-62257-423-0, $150.00.

This continuing series presents original research results on the leading edge of psychology. Each article has been carefully selected in an attempt to present substantial results across a broad spectrum. This book reviews research on criminal offenders and mental health courts; the role of intuitive statistical knowledge in confidence-accuracy calibration; the psychosocial components in chronic pain aetiologies; the psychological and social dynamics of imbalance in cross-cultural stress encounters; the cognitive orientation approach to motivation of cognitive performance; genetic variations in aggressive behavior disorders; stereotype suppression; choice in educating children with pervasive developmental disorders; mental health factors in an urban environment; causal attributions and perceptions of choice; individual traits as predictors of cultural intelligence self-perception; and self-advocacy on mental health care users.
Advances in Psychology Research. Volume 96
Alexandra M. Columbus
In series: Advances in Psychology Research
Case: 978-1-62417-250-2. $195.00.

This continuing series presents original research results on the leading edge of psychology. Each article has been carefully selected in an attempt to present substantial results across a broad spectrum. This book reviews research on cognitive illusions and its impact on reasoning, judgment and decision-making; glutamatergic neurotransmission through N-methyl-D-Aspartate (NMDA) receptor and its role in the pathophysiology of schizophrenia; humanistic psychology and the mental health worker; inefficient neural control of attention in adolescent chronic cannabis abuse; behavioral choice paradigms and their mathematical representation; epistemological and clinical conceptions of perversion; critical variables in cognitive-behavioral therapy for pediatric and adult obsessive-compulsive disorders; cyber-bullying risk and protective factors; stigma and substance use disorders; and a transworld egoism and empathy study.

Aggressive Behavior: New Research
Renaud Bodine and Danielle R. Bucher
In series: Psychology of Emotions, Motivations and Actions
Case: 978-1-62417-171-0. $120.00.
e-book: 978-1-62417-172-7. $120.00.

Aggression, as a psychologically hostile and violent behavior, is an act intended to cause physical, mental or social harm, particularly between members of the same species. While we often think of aggressive behavior as physical violence, psychologists also consider instances of a more subtle nature. For example, using rumor to damage another's reputation and public ridicule are both forms of social aggression. In this book, the authors present current research in the study of aggressive behavior. Topics include evolutionary perspectives on aggression; impulsive-aggressive behavior in adolescents; new methods for predicting dominant individuals in mammalian social structure (Szepurini method); dealing with aggressive patients in healthcare; children's aggressive behavior in cultural context; and prenatal smoking, anger regulation and impulsive aggressive behaviors.

Anorexia Nervosa: Symptoms, Treatment, and Neurobiology
Nicole C. Barbarich-Marsteller (Department of Psychiatry, College of Physicians and Surgeons of Columbia University, New York State Psychiatric Institute, New York, NY)
In series: Eating Disorders in the 21st Century
Case: 978-1-62081-291-4. $120.00.
e-book: 978-1-62081-345-4. $120.00.

Anorexia Nervosa is an enigmatic and, too commonly, an extremely challenging disorder. Its core clinical features have been recognized for centuries, and the label anorexia nervosa was coined in the 19th century. Over the many ensuing years, the disorder has been examined from a wide variety of perspectives, ranging from psychoanalytic to genetic. While potential risk factors have been identified, features clarified and complications appreciated, a full understanding and universally effective methods of treatment remain elusive. The current volume does not attempt to review the long history of research on anorexia nervosa. Rather, leaders in the field describe fresh approaches and new directions. This volume is a very forward-looking examination of novel ideas and new approaches to the understanding of an old, extremely persistent and enigmatic mental disorder. The approaches described will hopefully form a foundation for significant advances in the years ahead.

Beyond Well-Being: The Fascination of Risk and of the New Psychological Addictions
Laura Tappatà (Department of Psychology, Catholic University of Sacred Heart, Milan, Italy)
In series: Psychology of Emotions, Motivations and Actions
2013.
Case: 978-1-62417-969-3. $150.00.

In this thought-provoking book, Laura Tappatà brilliantly guides the reader from a description of the existential problem of psychological addictions to a possible solution leading to a potentially positive outcome for the individual. The central theme of the book is anchored in the dismal nature of “postmodern identity” with a focus on searching for meaning in what we are and who we are. This identity is characterized as being narcissistic and fragile, suggesting from the outset that we need to somehow strive for a stronger and more well-defined self in order to, first, survive and, then, possibly thrive emotionally. Living in this postmodern world naturally leads to a superficial existence and the seemingly blind quest of acquiring nonessential and meaningless things designed to bolster our ill-defined, weak and vulnerable self. Although this leads to a false sense of happiness, it does not generate true contentment let alone a sense of well-being. As such, many of us are left to drift with few essential values, certainties and stable points of reference. This book attempts to lead the reader on the path from “the postmodern dependence on psychological addictions” to freedom, the expression of one’s identity and a true sense of well-being.

Bias in Human Behavior
Dr. Tanusree Dutta (Assistant Professor, I.I.M Ranchi), Manas K. Mandal, Sameer Kumar
In series: Perspectives on Cognitive Psychology
In series: Psychology Research Progress

One of the major goals of side bias is to understand the relationship between the functioning of the brain and a person’s behavior. Often at times it becomes difficult or unethical to directly study the nervous system during a behavior and therefore indirect methods are used instead. This book has many facets, many explanations, many techniques and many unanswered questions and scope for future research. This book intends to address each of these issues so that a comprehensive reading of the subject matter is made available to academicians, researchers, and other interested in this issue.

Chaos and Complexity Research Compendium. Volume 3
Franco F. Orsucci, (University College, London) and Nicoletta Sala (University of Italy in Switzerland)
In series: Chaos and Complexity
Case: 978-1-62081-872-5. $150.00.

This book presents leading-edge research on artificial life, cellular automata, chaos theory, cognition, complexity theory, synchronization, fractals, genetic algorithms, information systems, metaphors, neural networks, non-linear dynamics, parallel computation and synergistics. The unifying feature of this research is the tie to chaos and complexity.
Clinical Practice with Chinese Persons with Severe Depression: A Normalized, Integrated, Communicative, Holistic and Evolving Hope (NICHE) Recovery

Kam-shing Yip (The Hong Kong Polytechnic University Hung Hom, Kowloon, Hong Kong)

In series: Psychology of Emotions, Motivations and Actions

Case: 978-1-61470-516-1. $295.00.

This book focuses on persons with severe depression and formulates empathic, humanistic and effective interventions in dealing with severe depression. The NICHE approach described in this book is a prolonged and accumulative crystallization of innovative ideas, successful interventions, genuine sharing and courageous trials in the process of clinical training and supervision. The acronym NICHE refers to normalized intervention; integrated intervention; communicating and sharing unresolved emotional complex of clients with severe depression; holistic and humane self-assertion of clients with severe depression and evolving hope and meaningfulness for clients with severe depression.

Consciousness: Its Nature and Functions

Shulamith Kreitler, Oded Maimon (Tel-Aviv University, Tel-Aviv, Israel)

In series: Perspectives on Cognitive Psychology

Case: 978-1-62081-096-5. $245.00.

Human beings seem to have always been aware of something they called consciousness and have not stopped wondering what it is, what it does, where it came from, and why we have it. This book is testimony to the continuous attempts to crack the riddle, in the 21st century no less, if not even more than before. The book expresses two major convictions. One is that consciousness has a multiplicity of aspects, which need to be considered in order to deepen understanding of this phenomenon and of ourselves. These include in the very least biology, philosophy, religion, mathematics, physics, physiology, and psychology. The other is that the next phase of human evolution may well be the evolution of consciousness - its expansion, development, and enhanced ability on our part to recognize and control it, shape it and put it to our use for improving our chances of survival and enhancing our happiness. This book is aimed at contributing towards the attainment of this goal.

Discursive Psychology of Remembering and Reconciliation

Kyoko Murakami (Centre for Sociocultural and Activity Theory Research, Department of Education, University of Bath, United Kingdom)

Case: 978-1-62081-795-7. $150.00.

Since the end of the Second World War over half a century ago, Japan has re-established a high profile membership within the global economy and international community of politics and diplomacy, although experiences of the War remain a live issue to many. The Japanese Emperor’s state visit prompted a re-examination of war responsibility, restitution and reparation and apology concerning the Japanese military aggression and atrocities perpetrated during the Second World War and the period leading up to it. As a point of departure of this book, the author asks what it is to remember and to forget the past and how people’s understanding and memories of the past shape the way they handle the issue of war responsibility. In this book, the author aims to examine reconciliation, and other related issues of the consequences of the war and post-war conflict as a discursive practice of remembering.

Dyslexia and Depression: The Hidden Sorrow

Neil Alexander-Passe (London South Bank University, London, UK)

Case: 978-1-60876-118-0. $130.00.
e-book: 978-1-61942-872-0. $79.00.

This book is the culmination of fifteen years of the author’s research into dyslexia. As a dyslexic himself, the author grew up with many difficulties in dealing with both family and school life. As an adult he wanted to understand more about dyslexia, how it affects individuals and be better prepared if dyslexia affected his own children. So he began an academic study of the emotional effects, rather than educational interventions, based on the collection of the neurological deficit symptoms defined as dyslexia.

Dyslexia and Mental Health: Investigations from Differing Perspectives

Neil Alexander-Passe (Middlesex University, London, UK)

In series: Dyslexia. An Academic Perspective

Case: 978-1-62100-432-5. $140.00.

This is the second book of this series, the first being ‘Dyslexia and Creativity’. This format has been found to be advantageous to inform readers that looking at issues from a singular angle can cause distortion, so several points of reference are used to better understand complex problems. Enclosed you will find the work of nine professors and other researchers in the field, some taking highly academic perspectives, whilst others prefer a more down-to-earth style. Chapters are also included from neurologists, educational psychologists and employment specialists, who give alternative ways to understand the topic. No one continent has the whole picture, thus a worldwide span is required to do the subject justice, with the authors reflecting this concept.

Emotionality and Mental Illness: A Multidimensional Model

Kam-shing Yip (The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong)

Case: 978-1-62100-677-0. $165.00.

Emotions are interactive, spontaneous and contextual. Its comprehensiveness should be articulated by dynamic interpretation of emotionality rather than a static and description of emotions by reductionistic measurement and scales. The same applies to the emotions of persons with mental illness. This book describes various perspectives and conceptual underpinnings of emotionality including evolutionary, initial psychological, psycho-evolutionary, cognitive, psychodynamic, structural and post-structural, as well as
phenomenological perspectives. In each perspective, its implications on emotionality of persons with mental illness are thoroughly discussed. Furthermore, this book includes a full discussion of a multi-dimensional model of emotionality.

**Encyclopedia of Personality Research (2 Volume Set)**
*Elias Delgado-López and Daniela Arroyo*
Case: 978-1-61324-975-8. $325.00.
This book presents current research in the field of psychology, with a particular focus on the classifications, influences and effects of personality. Topics discussed include the contribution of personality to positive psychology; narcissistic and borderline personality traits; personality traits and daily moods; schizotypal personality traits; the imaginary companion experience in adults; structural and functional neuroimaging of the anxiety-related personality trait; child and adolescent personality development and assessment and a psycho-social approach to meanings and functions of trait labels.

**Frontiers in Suicide Risk: Research, Treatment and Prevention**
*Jill E. Lavigne (Department of Pharmacy Practice and Administration, Wegmans School of Pharmacy, St. John Fisher College, Rochester, New York)*
Case: 978-1-62081-373-7. $175.00.
This book features 17 chapters from scientists and clinicians around the world using methods at the bench, bedside and at the population level to prevent suicide. At the bedside, clinicians are exploring the use of motivational interviewing for the treatment of patients with active suicidal ideation. Prevention efforts are being developed and implemented to assess suicide risk and prevent attempts in specific patient groups, such as older adults and those with traumatic brain injury or substance use. This book also discusses suicide risk and prevention attempts by community based participatory research programs; the U.S. government and the field of economics.

**Handbook of the Psychology of Coping: New Research**
*Bernardo Molinelli and Valentino Grimaldo*
Case: 978-1-62081-464-2. $150.00.
Coping has been defined as constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that exceed the resources of the person. In this book, the authors present new research on the psychology of coping. Topics discussed include coping with climate change; coping with bereavement and other existential stressors; parental coping, emotional resources and children's adjustment; economic coping and heads of households' perception of health; coping in a relational context; how to cope with work-family conflicts in an international career context; and sequence of coping behaviours in adolescents.

*Karen O. Moore and Nancy P. Gonzalez*
Case: 978-1-62100-500-1. $215.00.
This book presents current research from across the globe in the study of the psychology of decision-making. Topics discussed include the point of view of neuroscience in decision-making; behavioral economics and decision-making in organizations; affective and cognitive approaches to assessing decision-making in overweight and obesity; multi-criteria decision-making based on linguistic assessments; sex differences in decision-making; psychological dimensions in financial decision-making and the impact of emotions on trust decisions.

**Handbook on Sexuality: Perspectives, Issues and Role in Society**
*Nicholas E. Peterson and Whitney Campbell*
Case: 978-1-62081-531-1. $195.00.
Sexuality can be defined as a process of integrating emotional, somatic, and intellectual and social aspects in ways that enhance one's own self. It incorporates intimacy, romance, sensuality, eroticism and relationships, and is an important contributing factor to an individual's quality of life and sense of well-being. In this book, the authors explore perspectives, issues and the role in society of sexuality. Topics discussed in this compilation include the functional measurement to cognitive mechanisms underlying attitudes toward sexuality and intellectual disability; the impact of rheumatic disease on sexual function; adolescent sexual behavior; queer sexuality and online pedagogy; sexual upbringing and sexual satisfaction; and sexuality and aging within correctional facilities.

**Humor and Health Promotion**
*Paola Gremigni (Psychometrics and Methodology in Health Psychology, Faculty of Psychology, University of Bologna, Italy)*
In series: Health Psychology Research Focus 2012. 297 pp.
Case: 978-1-61942-657-3. $165.00.
Interest in humor has grown in recent years, especially in relation to its clinical applications. Humor helps relax, improve relationships with others, and reduce negative emotions such as anger. A person who suffers from psychological distress, can learn to open up to others through humor, to complain less, and to transform her mood in a positive way and find constructive solutions to her problems. Mix therapeutic action can help with humor change and improve the management of several diseases (both somatic and mental). Therefore, humor can play a vital role in promoting general and mental well-being. It may seem difficult to measure the health benefits of laughter, but a number of scientific studies done in a clinical setting support the benefits of humor therapy. The aim of this book is to show how humor can become a valuable tool for working in health professions.
Individual Trauma: Recovering from Deep Wounds and Exploring the Potential for Renewal
Kathryn Gow (Queensland University of Technology, Australia) and Marek J. Celinski (Consulting Psychologist, Regional, Australia)
In series: Psychology Research Progress
Life is a mix of good and bad happenings and sometimes terrible things happen to people. Trauma is evident across our lifespan; it is part of our lives. Trauma may not exert the same demands on the individual when they get on with their lives or experience other positive aspects of what life has to offer; however, it does not change its form from trauma to growth – it stays there etched into our psyche as trauma. In simple terms, growth occurs alongside the traumatic etchings. This is a book that will provide some answers to psychologists, counselors, social workers and mental health workers about what happens to people who are traumatized and how they ‘get on with their lives’; it also gives some excellent examples of how therapies can assist them in moving forward in life’s journey.

Mass Trauma: Impact and Recovery Issues
Kathryn Gow, Marek Celinski (Consulting Psychologist, Regional Australia)
In series: Natural Disaster Research, Prediction and Mitigation
In series: Psychology Research Progress
2013. 393 pp.
Case: 978-1-62081-557-1. $230.00.
For those who think that 2012 is the year for Armageddon, then you might take courage from this book on mass trauma and its companion book on individual trauma. The stories about disasters and traumas in the book span the globe, with a focus on the people from Australia, African, Bangladesh, New Zealand, Japan, Sri Lanka, and the USA. This book comes at a time when mass disasters and mass trauma abound. It is impossible to turn on the television and not see incidents of floods, earthquakes, wildfires, avalanches, and every kind of natural disaster, competing with air space with the latest updates on wars, terrorism, mass murders, civil unrest, famine and mass migration.

Mental Health and Psychiatry
Adam S. Wilson and Michael S. Schneider
In series: Psychiatry - Theory, Applications and Treatments
Soft: 978-1-62417-589-3. $72.00.
In this book, the authors present current research in mental health and psychiatry issues. Topics discussed include the cognitive and emotional processes in approaching personality disorders; sensory impairment and mental health; evidence for epidemiological transition hypothesis for elderly suicides; and the psychiatry of Pellagra.

Methods and Implementary Strategies on Cultivating Students' Psychological Suzhi
Dajun Zhang, Jinliang Wang, Lin Yu (Southwest University, China)
In series: Psychology Research Progress
2013. 673 pp.
Soft: 978-1-62417-979-2. $79.00.
As a new topic in the domain of psychology, the cultivation of students' psychological suzhi is still at its initial stage no matter with regard to its proposal, theoretical discussion, content, methods, or results analysis. Therefore, as such an exploratory research, limitations are unavoidable. This book summarizes the main achievements of the presented research through systematic generalization. This book also serves as a Chinese characteristic reference material and research perspective for the school of mental health education and sound psychological suzhi cultivation.

Neuropsychology: New Research
Friedrich Metzger
In series: Psychology Research Progress
2013. 177 pp.
Case: 978-1-62417-859-7. $150.00.
In this book, the authors present current neuropsychology research. Topics discussed in this compilation include cognitive interventions in amnestic mild cognitive impairment; cross-cultural neuropsychology; enhancing memory rehabilitation; calculating intellectual decline due to early lead exposure; the potential of neuropsychological intelligence tests for predicting academic performance and reducing racial/ethnic test score differences; mental status and neuropsychological examinations for assessing neurodegenerative diseases; cognition and antiepileptic drugs; and neurocognition in hydrocephalus and surgical intervention.

Physical and Emotional Abuse: Triggers, Short and Long-Term Consequences and Prevention Methods
Seiji Kimura and Aiko Miyazaki
In series: Psychology of Emotions, Motivations and Actions
In series: Psychiatry - Theory, Applications and Treatments
Case: 978-1-62417-445-2. $120.00.
e-book: 978-1-62417-446-9. $120.00.
In this book, the authors present current research in the study of the triggers, short and long-term consequences and prevention methods of physical and emotional abuse. Topics discussed include violence issues of women’s rights and public health recommendations for action in South Africa; parent-child interaction therapy with children traumatized by physical abuse and neglect; the impact of peritraumatic dissociation on mental health outcomes of women with childhood and adult physical abuse histories; and childhood abuse and adult homelessness.

Post-Traumatic Stress Disorder: New Research
Edward Foreman and Jay Fuller
In series: Psychology of Emotions, Motivations and Actions
In series: Psychiatry - Theory, Applications and Treatments
Case: 978-1-62417-437-7. $95.00.
In this book, the authors gather and present new research in the study of post-traumatic stress disorder. Topics discussed include the diverse emotional consequences and treatment needs of sexual assault and intimate partner violence survivors; PTSD among visible and invisible electrically injured outpatients; early life stress and emotional vulnerability; delayed effects of repeated inescapable severe stress on brain cannabinoid receptor expression and acoustic startle response in adolescent male rats; suicidal ideation associated with PCL checklist-
Psychology of Adolescence: New Research
Latif Barış and Özetan Uzun
In series: Psychology of Emotions, Motivations and Actions
In series: Children’s Issues, Laws and Programs
2012. 190 pp.
Case: 978-1-61942-860-7. $95.00.
e-book: 978-1-61942-891-1. $95.00.
In this book, the authors present current research in the study of the psychology of adolescence. Topics discussed in this compilation include help-seeking behavior, self-esteem and self-efficacy in adolescents; genetic research in criminal adolescent delinquent behavior; mother-child emotional expressiveness in early adolescence; adolescent eating disorders; juvenile delinquency and the oedipus complex; mental health issues among adolescents with autism spectrum disorders; and understanding the feelings of sick children through art therapy.

Psychology of Attitudes
Corey D. Logan and Michelle I. Hodges
In series: Psychology of Emotions, Motivations and Actions
In series: Psychology Research Progress
Case: 978-1-62081-194-8. $95.00.
e-book: 978-1-62081-231-0. $95.00.
Attitude refers to feelings, beliefs, and reactions of an individual towards an event, phenomenon, object or person. Attitudes are not innate attributes of mankind, but learned behavior. The authors of this book present current research in understanding the psychology of attitudes. Topics discussed in this compilation include a review of attitudes research guided by theories of behavioral intention and dual-process models; types and origins of attitudes; decoupling and unpacking attitudes; adult attitudes toward adolescents who engage in substance use; personal networks and attitudes towards same-sex marriage; and college students’ attitudes about quality of life and health care issues.

Psychology of Bias
Glenn W. Mills and Sarah J. Stone
In series: Psychology of Emotions, Motivations and Actions
Case: 978-1-62257-324-0. $120.00.
e-book: 978-1-62257-376-9. $120.00.
The authors of this book examine the psychology of bias. Topics discussed in this compilation include biases in medical decision making; perceptual biases for the rapid detection of threats, their origin and implications for behavior adaptability; the relationship between stimulus valence, emotional bias and behavior; the bias toward cause and effect reasoning; the rightward perceptual bias for language processing; and the unseen role of juror bias implications.

Psychology of Cancer
Nathan L. Hicks and Rodney E. Warren
In series: Psychology of Emotions, Motivations and Actions
Case: 978-1-62257-364-6. $150.00.
In this book, the authors discuss the psychological aspects of dealing with cancer. Topics include the study that physical activity can improve the psychological outcomes in cancer survivors; the psychological and spiritual well-being of women diagnosed with breast cancer and participating in a yoga-based stress-reduction program; parent’s experiences of their child’s transition from treatment for childhood cancer; post-traumatic growth and the cancer experiences; parenting a child with leukemia; and information preferences, coping styles and participation behavior of older cancer patients.

Psychology of Gambling: New Research
Andrea Eugenio Cavanna (Department of Neuropsychiatry, Birmingham and Solihull Mental Health NHS Foundation Trust, The Barberry National Centre for Mental Health, Birmingham, United Kingdom)
In series: Psychology Research Progress
Case: 978-1-62100-503-2. $150.00.
Generally considered a social and/or recreational activity, in some cases gambling can become an addictive behavior. Pathological gambling is classified by the Diagnostic and Statistical Manual of Mental Disorders (DSM) as an impulse control disorder, characterized by failure to resist the impulse to gamble despite severe and devastating personal, family, or vocational consequences. The lifetime prevalence of pathological gambling in the adult population of North America has been estimated to be over 1%. Pathological gambling can also be associated with significantly specific behavioral problems and neuropsychiatric conditions, mainly affecting dopaminergic reward pathways. This book provides a 360-degree overview on the current psychological models for gambling behaviors, informed by both neurobiological and clinical observations.

Psychology of Gender Differences
Sarah McGeown (Psychology Department, University of Hull, Hull, United Kingdom)
In series: Psychology Research Progress
Case: 978-1-62081-405-5. $175.00.
Gender differences are of interest in a wide range of disciplines. This diversity is reflected within this book, which provides a contemporary account of sex differences in areas such as social skills, play behaviour, creativity, motivation, temperament, classroom behaviour, self-esteem, trust, physical and mental health, visuo-spatial skills, spatial learning and imagery. The scientific research includes studies with infants, children, adolescents and adults, with contributions from researchers worldwide. Collectively, the chapters provide an up-to-date account and new insight into differences between males and females throughout development.

Psychology of Memory
Dannie M. Hendrix and Orval Holcomb
In series: Psychology of Emotions, Motivations and Actions
In series: Neuroscience Research Progress
Case: 978-1-61942-633-7. $185.00.
In this book, the authors present current research in the study of the psychology of memory. Topics discussed include verbal association priming and episodic and semantic memory; working memory span tasks; capacity limits in visual short-term memory; processes of
conscious and unconscious memory and prospective memory in children.

**Psychology of Peace**
Emir L. Kovacevic and Jusuf J. Medvjed
In series: Psychology of Emotions, Motivations and Actions
2012. 150 pp.
Case: 978-1-62257-873-5. $150.00.

This book reviews the main contemporary dimensions in the study of psychology of peace. The editors present topical research including the role of forgiveness in the peacemaking and peacebuilding processes; the psychological consequences of war-traumatized adolescents during peacetime in post-war Bosnia and Herzegovina; the use of indigenous peace instruments and processes in the resolution of a religious-cultural conflict; mindfulness as a fundamental key in the process of peace; and peace education and multicultural understanding.

**Psychology of Personality**
Evan F. Morris and Marc-Antoine Jackson
In series: Psychology of Emotions, Motivations and Actions

Personality is composed of both temperament and character traits. Whereas temperament refers to an individual's innate emotional predisposition, character is what we intentionally make of ourselves. In this book, the authors present current research in the study of the psychology of personality with a focus on personality developments in neonates; positive psychology and the happy personality; the genetic influences of subjective well-being through mediation by personality traits and evaluative cognitions; job satisfaction and personality traits; the effect of personality on reasoning; temperament and character in first-episode schizophrenia; the relationship between personality and mood frequency; and electrophysiological dysfunction in psychopathic violent women.

**Psychology of Risk-Taking**
Jean-Pascal Assailly (French National Institute of Research on Transport Safety, France)
In series: Psychology of Emotions, Motivations and Actions
Case: 978-1-62417-507-7. $150.00.

This book reviews the main contemporary dimensions in the study of the psychology of risk-taking. In an introduction, the Editor J.P. Assailly (IFSTTAR) proposes a synthesis on the interactions between the psychological, biological and environmental perspectives on risk-taking, risk perception and risk acceptance. In the genesis of risky decision-making, the authors analyze the dynamic self-regulatory processes, their neuropsychological underpinnings (the dysfunctions of executive functions control and the somatic marker framework /hyperactivity of the limbic system, and hypoactivity of the prefrontal cortex). To treat the consequences of this neuropsychological vulnerability, the authors propose to adapt interventions as brief motivational interviews and contingency management.

**Psychology of Threat**
Bryan O. Hunter and Tony J. Romero
In series: Psychology of Emotions, Motivations and Actions
Case: 978-1-62257-344-8. $120.00.
e-book: 978-1-62257-374-5. $120.00.

In this book, the authors present current research in the psychology of threat. Topics discussed include the processing of threatening health information which promotes disease preventive behaviors; psychological reactions to threats of self-integrity; human reactions to threat from a group-level perspective; stereotype threat, cognitive self-regulation skills; and measuring threat as it relates to social policy.

**Psychology of Trauma**
Thijs Van Leeuwen and Marieke Brouwer
In series: Psychology of Emotions, Motivations and Actions
In series: Psychiatry - Theory, Applications and Treatments
Case: 978-1-62257-782-8. $150.00.
e-book: 978-1-62257-783-5. $150.00.

This book examines the psychology of trauma. The authors present current research including the topics of traumatic attachment as adaptation; trauma bonding and interpersonal violence; interventions to treat families who have experienced historical trauma; facial emotion perception and psychological functioning in victims of early-life trauma; energy psychology in the treatment of PTSD; hypothalamic-pituitary-adrenal axis dysregulation in posttraumatic stress disorder; the earthquake interference effect and traumatic episodic memory; and the positive after-effects of turmoil and trauma.

**Psychosis: Causes, Diagnosis and Treatment**
Xenia Anastassiou-Hadjicharalambous (Department of Psychology, University of Nicosia, Cyprus)
In series: Psychiatry - Theory, Applications and Treatments
Case: 978-1-62081-516-8. $175.00.
e-book: 978-1-62081-517-5. $175.00.

Psychosis is considered the most debilitating psychiatric condition. It presents a heavy burden of suffering in terms of its prevalence, morbidity, and potentially high personal, familial and social costs. In effect, it has in the past decades received increased attention by investigators. Despite the continually accumulating research on this puzzling and diverse disorder, its precise nature remains poorly understood. This book integrates major up-to-date advances in theory and research, and it is conceptualized as a useful tool for advanced clinical psychology students, researchers, and other mental health professionals, for whom a tool on Psychosis could prove useful in their scientific inquiry and/or evidence-based professional practice.

**Psychotherapy: New Research**
Augustus J. Lancaster and Olen Sharpe
In series: Psychiatry - Theory, Applications and Treatments
In series: Psychology Research Progress
Case: 978-1-61942-611-5. $95.00.
e-book: 978-1-61942-629-0. $95.00.

This book explores new research in psychotherapy including dyadic developmental psychotherapy and its primary components; hope-focused couple enrichment (HFCE) analysis; body-psychotherapy and trancework; the effect of perceived parental bonding on patients' attitudes towards psychotherapy; culture and psychotherapy and spiritual group psychotherapy.
Research on Hispanic Psychology Compendium. Volume 3
Cirilo H. García (Universidad Autónoma de Nuevo León, México)
In series: Hispanic Psychology Yearbook
This compendium incorporates works of empirical research, derived from different conceptual models based on any psychological or psychosocial theory. It presents a global forum that exposes scientific studies on psychology, done principally by Spanish-speaking researchers from different countries. It includes the best academic efforts of research as an easy way of communication with non-Latin researchers, propitiating in this way a fertile exchange of knowledge and cooperation among scientists of psychology around the world.

Research on Pre-Para-Post-Therapeutic Activities in Mental Health: Prevention, Promotion, Psychotherapy, and Rehabilitation
Luciano L’Abate (Georgia State University, Atlanta, Georgia, USA)
In series: Psychiatry - Theory, Applications and Treatments
In series: Mental Illnesses and Treatments
2013.
Case: 978-1-62417-940-2. $175.00.
e-book: 978-1-62417-971-6. $175.00.
In the past 25 years, the field of psychotherapy has made tremendous leaps and bounds with regard to the efficacy of psychotherapeutic interventions. The entire evidence-based treatment movement has no doubt revolutionized the manner in which psychotherapy is delivered and, accordingly to many, has served to assure the consumer that they are receiving treatment that falls in line with best practices. As part of this movement, treatment has focused on not only recipients of serious mental illness, but also on individuals who simply need assistance with improving personal and social impairments and developing life coping skills. Unfortunately, much of the service delivery in the past has involved very expensive and time consuming modes of individual, couple, and family therapy that have often extended outside the range of feasibility for many. Consequently, alternative methods of intervention have been explored with the aim of providing less expensive forms of intervention. This unique and timely volume addresses the use of both pre- and para-therapeutic activities, which can be administered prior to the onset of treatment. This may be considered a solid forerunner to the delivery of full fledged psychotherapy which, in some cases, may relinquish the need for the individual to embark on formal treatment.

Schizophrenia Research: Recent Advances
Tomiki Sumiyoshi (University of Toyama Graduate School of Medicine and Pharmaceutical Sciences, Toyama, Japan)
In series: Mental Illnesses and Treatments
Schizophrenia is a relatively common disease whose lifetime prevalence in the general population is reported to be about 1%. From the perspective of public health, the illness has been associated with serious consequences. Besides psychotic symptoms, schizophrenia is characterized by disturbances of cognitive function, which is considered to largely determine the outcome of patients. The neural and genetic substrates underlying its pathophysiology have not been fully demarcated, posing a challenge for the development of breakthrough therapeutics. This book provides key information about the latest endeavor to solve these difficulties characterizing this enigmatic disease.

Social Anxiety Disorder: From Research to Practice
Flávia de Lima Osório (Department of Neurociences and Behavior, Medical School of Ribeirão Preto, University of São Paulo Hospital das Clínicas de Ribeirão Preto – FMRP-USP, São Paulo, Brazil)
In series: Psychology Research Progress
Case: 978-1-62417-826-9. $150.00.
Social Anxiety Disorder (SAD) is the third most prevalent condition among psychiatric disorders, which has a chronic and disabling course and is highly associated with comorbidities. The onset of SAD is early and its diagnosis is underestimated by both mental health professionals and the patients themselves. A growing interest in the study of this disorder has been observed during the last decade, regarding its clinical, diagnostic and/or treatment aspects. The objective of this book is to present the scientific advances related to SAD obtained in studies by a group of Brazilian investigators involving rating and screening instruments, epidemiology, association with psychiatric comorbidities and other general medical conditions, neuroimaging, social skills and functional impairment, current parameters of pharmacological treatment, and studies involving new medications. The book is directed at students and professionals in the mental health area, and to professionals who act in the area of health prevention.

Social Psychology: New Developments
Jan M. Turner and Andrew D. Mitchell
In series: Psychology of Emotions, Motivations and Actions
In series: Social Issues, Justice and Status
Case: 978-1-62081-142-9. $95.00.
e-book: 978-1-62081-190-0. $95.00.
Social Psychology is the scientific study of how people’s thoughts, feelings, and behaviors are influenced by the actual, imagined, or implied presence of others. Social psychologists typically explain human behavior as a result of the interaction of mental states and immediate social situations. In this book, the authors present current research on social psychology including the cultural, social and gender influences on casual sex; allostatic load based on a stress physiology model of illness; conceptualizing identity within social psychology; psychological characteristics of heart disease and cancer patients; peer victimization, physical activity and social psychological adjustment in obese youth; and antisocial behavior in children with ADHD.

Suicide from a Global Perspective: Psychiatric Approaches
Amresh Shrivastava (University of Western Ontario, Canada), Megan Kimbrell (The University of Akron, OH), David Lester (The Richard Stockton College of New Jersey, NJ)
In series: Psychology of Emotions, Motivations and Actions
Case: 978-1-61942-267-4. $140.00.
This series of books presents current information on the causes of suicide and the best tactics for preventing suicide. The contributors represent diverse perspectives and academic disciplines and come from
all major continents, thereby providing a global perspective. This volume on psychiatric perspectives explores the role of psychiatric disorder in suicidal behavior. This book reviews current research on the neurophysiological basis for suicide.

**Suicide From A Global Perspective: Public Health Approaches**

Amresh Shrivastava, Megan Kimbrell and David Lester (The Richard Stockton College of New Jersey, Pomona, NJ)

In series: *Psychology of Emotions, Motivations and Actions*

Case: 978-1-62100-323-6. $150.00.

Suicide is the cause of death for nearly one million people per year. Attempts at suicide, estimated to be ten times more frequent than completed suicide, often cause permanent impairment and disability. Suicide can stigmatize families across generations. The loss of life caused by suicide presents a significant loss for the communities in which it occurs – socially, economically and by blocking progress towards the creation of a civic society. The availability of an assembly of carefully and critically presented facts in the form of chapters responding to specific problems can help in the education of health professionals and provide them with data that they can use in developing proposals for action. This book draws attention to methods of work that have been tried elsewhere and found useful.

**Suicide from a Global Perspective: Risk Assessment and Management**

Amresh Shrivastava (University of Western Ontario, Canada), Megan Kimbrell (The University of Akron, OH), David Lester (The Richard Stockton College of New Jersey)

In series: *Psychology of Emotions, Motivations and Actions*

Case: 978-1-62100-058-7. $140.00.

Suicide is the cause of death for nearly one million people per year. Death by suicide is often reported as being due to other causes to avoid stigmatization and other negative consequences of suicide for the family. It can, therefore, be assumed that the number of people who commit suicide is in actuality much higher than the given number. Attempts at suicide, estimated to be ten times more frequent than completed suicide, often cause permanent impairment and disability. The loss of life caused by suicide presents a significant loss for the communities in which it occurs – socially, economically and by blocking progress towards the creation of a civic society. This book brings together current knowledge about suicide, its causes and its prevention, which is a precious tool for public health efforts and for clinicians’ daily work.

**The International Psychiatry and Behavioral Neurosciences Yearbook, Volume II-2012**

Nash Boutros (Department of Psychiatry and Behavioral Neurosciences, Wayne State University, School of Medicine, Detroit, MI, USA)

In series: *Psychiatry - Theory, Applications and Treatments*

Case: 978-1-62257-566-4. $175.00.
e-book: 978-1-62257-570-1. $175.00.

The idea of the International Psychiatry and Behavioral Neurosciences (IPBN) was born as a result of the many occasions where, in the course of working on review articles or meta-analyses (MA) the author frequently encountered papers that needed to be included but were never translated into English. Usually an English abstract is available but this is never sufficient for the purposes of a detailed critical review or a close examination of the data as in meta-analyses. Most researchers simply ignore the published work and is observes the review or the MA uses English as a limiting term in the initial searches for relevant literature, thus weeding out all works done all over the world in other languages. While this is unfortunate, it is understandable as it is usually very expensive to accurately translate such data papers. Furthermore, while working on reviews or MAs one rapidly discovers the very many important works that were not published in English.

**The Psychology of Human Behavior**

Robert G. Bednarik (Convener, President and Editor, International Federation of Rock Art Organisations (IFRAO) Australia)

In series: *Psychology of Emotions, Motivations and Actions*

In series: *Health Psychology Research Focus*

Case: 978-1-62257-901-3. $195.00.

This book examines the psychology of human behavior which is dominated by the topic of how the extant behavior of modern humans may have developed, thus establishing an empirical framework for comprehending human ethology. An ethology of human behavior clearly has to be grounded in an understanding of its historical development through time, which is an aspect that has so far not received adequate consideration in scientific literature, be it that of psychology, psychiatry, human evolution, neuroscience, cognitive science, or paleoanthropology. The distinctly interdisciplinary format of this book provides an inking into the complexity of dealing with human behavior, and the reasons for its complexity relative to the behavior of other animal species.

**The Psychology of Women: Diverse Perspectives from the Modern World**

Jamie Marich (EMDR Certified Therapist, EMDRIA Approved Consultant, c/o PsyCare, Inc., Youngstown, Ohio, USA)

In series: *Psychology of Emotions, Motivations and Actions*

In series: *Women’s Issues*

Case: 978-1-62257-899-3. $150.00.

The experience of being a woman in the modern world cannot be easily described using a series of psychological clichés and generic feminist language. This book contains contributions from scholars and clinical practitioners around the globe (USA, Canada, China, Italy, UK). Collectively, these chapters show that studying the psychology of women in the modern world mandates the appreciation of diversity. Topics include pregnancy, motherhood, lifestyle issues, healthcare, gender role conflicts, stress management, addiction recovery, and trauma resolution. Information on causality and development of phenomena; implications for clinical care; and offering improved services for women are discussed throughout. Although primarily a psychology volume, influences from many academic disciplines, including public health, sociology, medicine, and literature are woven into the chapters, highlighting the importance of integrated approaches in conceptualizing the experiences of women in the modernity.
TREATMENT OF PTSD AND TRAUMATIC BRAIN INJURY AMONG VETERANS
Aiden D. Thomas and Milton L. Harris
In series: Neurology - Laboratory and Clinical Research Developments
In series: Military and Veteran Issues
Two combat-related conditions that affect some veterans who have served in Iraq and Afghanistan and that have generated widespread concern among policymakers are post-traumatic stress disorder (PTSD), and traumatic brain injury (TBI). This book explores the clinical care that the Veterans Health Administration (VHA), the health care system within the Department of Veterans Affairs, provides for recent combat veterans; VHA's coordination with the Department of Defense for the care of service members returning from Iraq and Afghanistan; the prevalence of PTSD and TBI among veterans of those conflicts and the occurrence of those conditions among recent combat veterans using VHA's services; and the costs to VHA of providing care and management to recent combat veterans for these conditions.

PUBLIC HEALTH

ACTIVITIES OF DAILY LIVING: PERFORMANCE, IMPACT ON LIFE QUALITY AND ASSISTANCE
Jean Baptiste Giroux and Charlotte Vallee
In series: Public Health in the 21st Century
2013.
Case: 978-1-62417-957-0. $150.00.
The authors of this book present current research in the study of the performance, impact on life quality and assistance in the activities of daily living. Topics discussed include health status and acute exacerbations of chronic obstructive pulmonary disease; daily mobility of the elderly in Spain; functional upper limb evaluation of activities of daily living in people with neurological disorders; influences of activities of daily living dependency on family caregiver burden and the strategies of adaptation; intervention with modified constraint induced movement therapy in occupational therapy and influence on activities of daily living; impact of mobility equipment on performance and quality of life; severity of unilateral spatial neglect and activities of daily living at discharge; rehabilitation strategies for people with cognitive impairments; flow experience in daily living and health-related quality of life.

ADDRESSING THE U.S. GOVERNMENT'S "HEALTHY PEOPLE" BREASTFEEDING GOALS USING A THEORY-BASED PROGRAM FOR EXPECTING PARENTS
Clare T. Pettis and Monica K. Miller (University of Nevada, Reno, Reno, NV, USA)
In series: Public Health in the 21st Century
2013. 201 pp.
Case: 978-1-62417-977-8. $85.00.
e-book: 978-1-62618-026-0. $85.00.
Research has indicated that breastfeeding benefits children, mothers, and society as a whole. The U.S. government has established policies that promote breastfeeding. There is a clear need for theory-based programs that increase breastfeeding in order to reach the government's goals. The studies represented in this book expand psychological theory and make suggestions for the design and implementation of such programs. This book is a first-step at promoting a healthier, more productive society through breastfeeding in accordance with the government's Healthy People program goals.

AIDS AND TUBERCULOSIS: PUBLIC HEALTH ASPECTS
Daniel Chemtob (Department of Tuberculosis and AIDS, Public Health Services, Ministry of Health, Jerusalem, Israel) and Joav Merrick (Medical Director, Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs, Jerusalem)
In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
2012. 188 pp.
Soft: 978-1-62081-382-9. $52.00.
AIDS and tuberculosis (TB) have complex health and societal determinants with large impacts. Worldwide, the burden of these infectious diseases are huge, especially in the 22 countries with a high TB burden, where more than 80% of TB worldwide occurs and in sub-Saharan Africa, where 67% of the world's HIV/AIDS cases occurred. Despite different ways of transmission and the fact that several separate national programs often exist, tuberculosis and HIV/AIDS are linked. They are often affecting similar population groups (e.g. vulnerable and other minorities groups) and HIV is the most potent risk factors in increasing the risk of progression from latent TB infection (LTBI) to disease among the two billions individuals estimated with LTBI worldwide, while the relative risk of HIV is more than 20. Therefore, it is crucial to combine and coordinate the efforts when addressing TB and HIV issues. Diverse responses have been developed, both at international and country levels for tackling the different health and social components of these diseases.

ANTHRAX DETECTION: ANALYSES AND SELECT STUDIES OF SAMPLING METHODS (WITH ACCOMPANYING DVD)
Corin M. Arnaud
In series: Allergies and Infectious Diseases
In series: Public Health in the 21st Century
A workgroup, led by the U.S. Department of Homeland Security (DHS) and including the Centers for Disease Control and Prevention (CDC), the Environmental Protection Agency (EPA) and the Federal Bureau of Investigation (FBI), have taken actions to validate environmental sampling methods for detecting Bacillus anthracis—the bacteria that cause anthrax. This book provides an overview of the studies in sampling methods and analyses with regard to anthrax detection.

APPLIED PUBLIC HEALTH: EXAMINING MULTIFACETED SOCIAL OR ECOCLOGICAL PROBLEMS AND CHILD MALTREATMENT
John R. Lutzker (Georgia State University, Atlanta, GA, USA) and Joav Merrick (Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)
In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62081-356-0. $150.00.

This book is devoted to a theme of public health reaching out to communities of practice/engaging communities in new public health endeavors/community-scientist collaborations. The authors sought chapters that fit the theme and were either quantitative or qualitative research, program descriptions, or theoretical reviews of public health issues. Thus, this book contains both quantitative and qualitative research papers, programmatic and theoretical papers on applied public health issues. A range of topics are included from violence and behavioral problems to nutrition, cancer survival, deinstitutionalization, intellectual disability and child maltreatment.

Asthma: Causes, Complications and Treatment
Adelina H. Bishini and Lulezime C. Tolka
In series: Pulmonary and Respiratory Diseases and Disorders
Case: 978-1-62257-447-6. $95.00.

Asthma is a complex disorder characterized by variable and recurring symptoms, airflow obstruction, bronchial hyper-responsiveness, and underlying inflammation. Although asthma is commonly thought of as a disease of children and young adults, a significant percentage of the older adult population is affected and carry a higher rate of morbidity and mortality from the disease. This book examines the causes, complications and treatment of asthma with topics including mathematical modeling in aspirin-induced asthma; the role of neuroimmune and psychological systems in the pathophysiology of bronchial asthma; special considerations of asthma in older adults; changes in the respiratory epithelium in bronchial asthma; and epidemiology of asthma during pregnancy.

Atherosclerosis: Risk Factors, Prevention and Treatment
Etsuo Murakami and Hayato Sakamoto
In series: Cardiology Research and Clinical Developments
In series: Cerebrovascular Research and Disorders
Case: 978-1-62081-150-4. $150.00.
e-book: 978-1-62081-187-0. $150.00.

Atherosclerosis is a chronic disease affecting the entire arterial tree, representing an inflammatory response in the vessels. The pathogenesis of atherosclerosis involves complex processes leading to the formation of atherosclerotic plaque. In this book, the authors present current research in the study of the risk factors, prevention and treatment of atherosclerosis. Topics include questioning the cholesterol-atherosclerosis hypothesis; diabetes-associated atherosclerosis and new therapies; the pathogenesis and oxidative mechanisms in atherosclerosis; peripheral arterial vasodilation for primary atherosclerosis prevention; and coronary artery atherosclerosis measured by a hybrid SPECT/CT camera.

Beneficial Effects of Propolis on Human Health and Chronic Diseases. Volume 1
Tahira Farooqui, Akhlaq A. Farooqui (The Ohio State University, Columbus, OH)
In series: Botanical Research and Practices

Case: 978-1-62081-440-6. $150.00.

Propolis is a natural product, collected by honeybees Apis mellifera, from various plant sources. Honeybees use it for the construction and repair of their hive as well as for defense purposes. Propolis has gained popularity in alternative medicine. It is extensively used as a popular remedy in foods and beverages. This book presents the chemical composition and biological activities of propolis from different regions of the globe.

Child and Adolescent Health Yearbook 2010
Joav Merrick (Ministry of Social Affairs, Jerusalem, Israel)
In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-61209-788-6. $295.00.

In the year 2009, the new “International Journal of Child and Adolescent Health” was begun under the auspices of the National Institute of Child Health and Human Development in Israel, in collaboration with Nova Science Publishers in New York, in order to facilitate an outlet for peer-reviewed papers in the areas of both child and adolescent health and human development. The editors hoped that there would be an international interest in such a new journal, and they hoped to receive good-quality reviews and original papers in these areas. This in fact happened, and in this yearbook they have gathered papers from the year 2010. This new book discusses recent advances in child and adolescent health with research findings published in the year 2010.

Cigarette and Tobacco Taxes: Effects on Health, Revenues, and the Federal Budget
Bennett Abney and Arron E. Christopherson
In series: Economic Issues, Problems and Perspectives
In series: Public Health in the 21st Century
2013. 199 pp.
Case: 978-1-62257-653-1. $110.00.

The federal government spends roughly $1 trillion on health care programs each year, so it is easy to imagine that policies that promote a healthier population could have a significant impact on the federal budget. Such policies might include initiatives that discourage smoking or excessive alcohol consumption, that promote better eating habits and physical activity to reduce obesity, or that encourage compliance with medical and dietary regimens for chronic conditions such as diabetes.

In this book, the Congressional Budget Office (CBO) analyzes a policy involving smoking, a hypothetical increase of 50 cents per pack in the federal excise tax on cigarettes and small cigars, to demonstrate the complex links between policies that aim to improve health and effects on the federal budget. The emphasis is on estimating the budgetary effects that would result from improvements in the health of the population stemming from the policy.

Cigarette Consumption and Health Effects
George G. Chen (Department of Surgery, Prince of Wales Hospital, Faculty of Medicine, The Chinese University of Hong Kong Shatin, N.T., Hong Kong)
In series: Public Health in the 21st Century
Case: 978-1-62081-725-4. $150.00.
e-book: 978-1-62257-775-0. $150.00.
Cigarette smoking is a well-known public health issue which has a great impact on society, medical insurance, government policy and population health in general. Although we all know that cigarette smoking will damage health and even cause cancers, for certain reasons, the habit of smoking persists in our society. Therefore, while we continue to warn people of the toxic effect of cigarette smoking on health, we need to find out how the damages occur, and how to prevent it or how to minimize the outcome. This book consists of 12 chapters that address different aspects of cigarette consumption and health effects. The content of these chapters should be valuable for policymakers, investigators, and the public by providing a source of information which they may refer to when dealing with cigarette smoking issues.

Compendium of Cognitive Linguistics Research
**Thomas Fuyin Li (Beihang University, China)**
In series: Languages and Linguistics
Case: 978-1-62100-751-7. $150.00.
e-book: 978-1-62100-825-5. $150.00.
This book presents high-quality research of a theoretical and/or empirical/experimental nature, focusing on the interface between language and cognition. This book adopts an interdisciplinary, comparative, multi-methodological approach to the study of language in the general cognitive perspective, as well as theory-based practical applications. It is open to research from the full range of subject disciplines, theoretical backgrounds, and analytical frameworks that inform the language and cognitive sciences.

Constipation in Children: Diagnosis and Treatment
**Ramón Núñez and María Angelica Fabbro (C/Fco. Vaca Morales, Badajoz, Spain)**
In series: Public Health in the 21st Century
2013.
This book on constipation in children contains a complete update of this common problem in the world. It has been written by authors from 9 countries, who are experts in this field. In most cases, constipation is functional in origin, but one mustn’t forget the organic causes such as Hirschsprung’s disease, endocrine-metabolic disorders (Hypothyroidism, hypokalemia) or digestive diseases such as celiac disease or cystic fibrosis. Over the course of 18 chapters, this book describes the epidemiology and genetics of constipation, the anatomophysiology of defecation, etiology, physiopathology, anterior ectopic anus, clinical evaluation, diagnostic testing of defecation disorders, colonic dysmotility, differential diagnosis (functional vs. organic), and several treatment options (medical and surgical). The book ends with long-term results in children with chronic constipation, and with the latest advances in future cellular therapies (Stem Cells) for defecation disorders.

Contemporary Folk Medicines of India to Combat Human and Veterinary Diseases and Conditions
**Vinay Kumar Singh (Central Council for Research in Unani Medicine, Ministry of Health & Family Welfare, Department of AYUSH, Govt. of India, New Delhi), Dr. Shweta (D.S. College, Affiliated to Dr. B.R.A. University, Aligarh, India)**
In series: Veterinary Sciences and Medicine
Case: 978-1-62081-265-5. $150.00.
Ethno-medicines have gained new dimensions in the present day through phyto-chemical research in India and abroad. Information on medicinal plants and folk drugs recorded during fieldwork is now being subjected to investigation in the search for new biodynamic compounds of therapeutic value. The curative properties of plants acquired by trial and error over centuries in “Human Laboratories” of tribals hold high esteem all over the globe. The present study is based on this rationale and provides first-hand information on some 1120 contemporary ethno-pharmacological prescriptions involving 444 taxa of medicinal plants collected and identified from certain rich tribal inhabited forest zones of the country between 1971-1997.

Exercise Therapy in Adult Individuals with Obesity
**Dominique Hansen (Hasselt University, Faculty of Medicine, Jessa Hospital, Dept. Cardiology & Cardiovascular Rehabilitation, Hasselt, Belgium)**
In series: Public Health in the 21st Century
2013. 312 pp.
Case: 978-1-62257-811-5. $175.00.
e-book: 978-1-62257-816-0. $175.00.
This book provides up-to-date evidence-based information on why and how to implement exercise intervention in the treatment of obesity. It starts with a description of the epidemiology of obesity, how to execute preparticipation screening in the obese, and the impact of caloric intake restriction vs exercise training in obese subjects. Next, a detailed description of exercise physiology in obesity is provided, followed by motivation techniques, the impact of training modalities on adipose tissue mass loss, and an exploration of factors related to the heterogeneity of adipose tissue mass loss in the obese when following exercise interventions. In final, the impact of emerging concepts in current exercise prescription for the obese, such as exercise in fasting condition, is covered. This book is dedicated to healthcare professionals and researchers dealing with obesity patients participating in exercise interventions. Moreover, this book could be a support to anyone with great interest for exercise physiology and exercise therapy in obesity.

Foodborne Protozoan Parasites
**Lucy J. Robertson (Norwegian School of Veterinary Science, Oslo, Norway) and Huw V. Smith (Scottish Parasite Diagnostic Laboratory, Stobhill Hospital, Glasgow, Scotland, UK)**
In series: Advances in Food Safety and Food Microbiology
Edited by: Dr. Anderson de Souza Sant’Ana and Dr. Bernadette D.G.M. Franco
Case: 978-1-61470-008-1. $185.00.
The human burden of infection caused by foodborne protozoan parasites is enormous; billions of people are infected worldwide and the DALY (disability-adjusted life year) toll due to these infections is correspondingly huge. Whilst some infections may result in mild, relatively insignificant clinical disease, others may be seriously debilitating or even fatal. This book provides detailed insights into those protozoa who are currently most relevant regarding foodborne transmission. This book is intended to be of use and interest for a range of professionals, from researchers to regulators, from diagnosticians to parasitologists to food technologists; it should be read by those who work in academia, within the various branches of the food industry and food research associations, in government regulatory agencies, and in environmental health departments.
Gastroenteritis: Epidemiology, Management and Prevention
Amrit Bandopadhyay and Lokesh Prajapati
In series: Digestive Diseases - Research and Clinical Developments
Soft: 978-1-62081-815-2. $72.00.
Gastroenteritis is marked by inflammation of the gastrointestinal tract involving both the stomach and small intestine, and resulting in diarrhea, vomiting, and abdominal cramps. Globally, it is estimated that 3-5 billion cases of gastroenteritis occur yearly primarily affecting children and those in the developing world. In this book, the authors present research in the study of the epidemiology, management and prevention of gastroenteritis. Topics discussed include benign infantile convulsions associated with mild gastroenteritis; the etiologic agents of viral gastroenteritis; traveler's diarrhea; and eosinophilic and E. coli gastroenteritis.

Global Public Health Policy
Michael W. Popejoy and Chinua Akukwe (Florida International University, Miami, FL, USA, and George Washington University, Washington, DC, USA)
In series: Public Health in the 21st Century
2013.
Case: 978-1-62417-719-4. $230.00.
Global Public Health Policy is a book that collects as many current issues as possible on what is happening globally in public health, medicine, and public administration related to health policy. The co-editors structured the book to leave the specific themes relatively open while allowing for an overall theme of globalization of health problems so that contributors could offer their perception and reflect their thoughts on current health issues in the widest possible perspective without being rigidly constrained. One undercurrent theme throughout the book is the co-editors shared concern for the necessity to forge a stronger cross-walk relationship between public administration and public health in many countries including the established developed countries. It is too often a reality that the two disciplines exist in relatively cocooned silos both at the academic level and at the operational level where they must both operate effectively to ensure the best service to society particularly in time of crisis when it is too late to forge these working relationships.

Handbook on Metabolic Syndrome: Classification, Risk Factors and Health Impact
Christopher M. Lopez Garcia and Patricia A. Perez Gonzalez
In series: Endocrinology Research and Clinical Developments
In series: Public Health in the 21st Century
2012. 413 pp.
Case: 978-1-62257-025-6. $230.00.
The constellation of obesity, hypertension, dyslipidemia, and hyperglycemia within an individual, is referred to as metabolic syndrome (MetS), and is increasing in prevalence in the United States and worldwide. Patients with MetS have a heightened probability of developing type 2 diabetes and atherothrombotic disease. In this book, the authors present current research in the study of the classification, risk factors and health impact of metabolic syndrome. Topics include the pathophysiological changes to the vasculature and inflammation within the skeletal muscle that accompany MetS; metabolic syndrome in children; role of triglyceride modifier genetic variants in the development of MetS; subclinical atherosclerosis and risk of stroke in metabolic syndrome; nuclear receptors and MetS; vascular repair by endothelial progenitor cells in an experimental model of metabolic syndrome; chromium mediations of glucose tolerance; and sleep disturbances and glucose variability.

Knowledge Transfer: Practices, Types and Challenges
Dragan Ilic (Department of Epidemiology & Preventive Medicine, School of Public Health & Preventive Medicine, Monash University, Melbourne VIC, Australia)
In series: Education in a Competitive and Globalizing World
In series: Public Health in the 21st Century
Case: 978-1-62081-538-0. $150.00.
The discipline of knowledge transfer has existed for many years across disciplines, but has more recently gained exposure within the health care field including medicine, nursing, health sciences, public health and health services research. Knowledge transfer is a complex iterative process that aims to implement high quality evidence into practice ensuring that better health outcomes are achieved across different levels including patients, health professionals, health systems and policy makers. This book provides an introduction to the field of knowledge transfer, examining the different approaches to knowledge transfer as well as detailing challenges to its implementation in practice. This book examines what knowledge transfer is, and how it may differ across different contexts and settings.

Listeria Infections: Epidemiology, Pathogenesis and Treatment
Andino Romano and Carmine F. Giordano
In series: Bacteriology Research Developments
In series: Allergies and Infectious Diseases
Case: 978-1-62081-639-4. $150.00.
Microbial food-borne illnesses have a great impact not only on public health but also represent high economic costs for many countries around the world. Listeria monocytogenes, is a gram-positive facultative intracellular pathogen. In this book, the authors discuss the epidemiology, pathogenesis and treatment of Listeria infections. Topics include the behavior of L. monocytogenes in Greek PDO cheeses and preventing the pathogen’s proliferation; epidemic clones of Listeria monocytogenes; description of outbreaks, pathogenesis and technology for controlling Listeria; sublethal damage in Listeria monocytogenes after non-thermal treatments and implications for food safety; and Listeria monocytogenes in RTE fermented meat and smoked fish products.

Lupus: Symptoms, Treatment and Potential Complications
Thiago Devesa Marquez and Davi Urgeiro Neto
In series: Endocrinology Research and Clinical Developments
In series: Immunology and Immune System Disorders
Case: 978-1-62081-078-1. $140.00.
Lupus is one of many disorders of the immune system known as autoimmune diseases, wherein the immune system attacks parts of the patient’s body, leading to inflammation and injury in body tissues. This book presents current research in the study of the symptoms, treatment and potential complications of lupus. Topics include autoantibody-producing B cells and B cell therapy in systemic lupus erythematosus; neuropsychiatric and hematologic manifestations of systemic lupus erythematosus; pulmonary hypertension in systemic lupus erythematosus; dual roles for antibodies in lupus nephritis; and treatment of systemic lupus erythematosus with intravenous immunoglobulins.

**Modern Data about Age-Related Cataract Pathogenesis in Humans**

*N. V. Korsakova (Medical Department of Federal State Educational Institution of Higher Vocational Education “Chuvash State University named after I.N. Ulyanov”, Cheboksary, Russia)*

In series: *Eye and Vision Research Developments*

Soft: 978-1-62081-823-7. $52.00.

This book deals with one of the most actual problems of modern medicine – the establishing of humoral factors’ role in age cataract pathogenesis of a human being. Topics discussed include development, structure and regeneration of a lens; the human lens normally and in age cataract formation; and biogenic amines role in the functioning of eye’s tissues.

**National Drug Shortages: Trends and FDA Response**

*Reid T. Stephens and Griffin Cook*

In series: *Health Care Issues, Costs and Access*

In series: *Public Health in the 21st Century*

2012. 149 pp.
Case: 978-1-62257-751-4. $110.00.
e-book: 978-1-62257-752-1. $110.00.

This book explores the trends and FDA response to national drug shortages. In recent years, hospitals and health care professionals have increasingly reported nationwide shortages of prescription drugs, including those that are life-saving and life-sustaining. Drug shortages directly threaten public health by preventing patients from accessing medications that are essential to their care. For example, recent shortages of oncology drugs have sparked concerns from health care professionals about how to care for cancer patients that need such medications in order to survive. During shortages, physicians may have to ration their supplies, delay treatments, or use alternative medications that may be less effective for the condition, carry unwanted side effects, or are most costly.

**Obesity and Weight Management: Challenges, Practices and Health Implications**

*Max P. Martinez and Hugh Robinson*

In series: *Nutrition and Diet Research Progress*

In series: *Public Health in the 21st Century*

Case: 978-1-61942-824-9. $150.00.

This book examines the risk factors, challenges and health implications of obesity. Topics include the implications for behavioral solutions to weight control in the general population; obesity prevalence and socioeconomic position; moral, scientific and social dimensions of the fat body; dietary approaches to obesity; and metabolic syndrome in weight management.


*Aurelio Leone (Department of Internal Medicine City Hospital, Massa, Italy)*

In series: *Cardiology Research and Clinical Developments*

Case: 978-1-62081-821-3. $150.00.

This book, which is an updated new edition in 2012 of an earlier book of 2007, addresses the role of passive smoking in causing the multiple aspects of cardiovascular damage under biochemical, physiological, pathological, clinical, epidemiological and statistic all aspects. In just five years, from 2007 to 2012, enormous progress on the effects of passive smoking has been achieved. This book also uses, under the editorial aspect, a modern and updated system of asterisks that bind, in each chapter, the existing concepts, without changing their content, with those of more recent acquisition that modify or cancel the previously issued. In this way, the reader can actively update on what was effectively the "past" and how current research on the subject suggests.

**Prescription Drug Monitoring**

*Christopher J. Kaelin and Meredith Nutting*

In series: *Public Health in the 21st Century*

In series: *Alcohol and Drug Abuse*

2013. 88 pp.
Soft: 978-1-62257-915-0. $52.00.
e-book: 978-1-62257-916-7. $52.00.

In the midst of national concern over illicit drug use and abuse, prescription drug abuse has been identified as the United States' fastest growing drug problem. Nearly all prescription drugs involved in overdoses are originally prescribed by a physician (rather than, for example, being stolen from pharmacies). Thus, attention has been directed toward preventing the diversion of prescription drugs after the prescriptions are dispensed. Prescription drug monitoring programs (PDMPs) maintain statewide electronic databases of prescriptions dispensed for controlled substances. This book provides an overview of PDMPs with a focus on supporting access to legitimate medical use of controlled substances; identifying or preventing drug abuse and diversion; facilitating the identification of prescription drug-addicted individuals and enabling intervention and treatment; and outlining and educating the public on drug use and abuse trends to inform public health initiatives.

**Public Health Yearbook 2011**

*Yoav Merrick (Ministry of Social Affairs, Jerusalem, Israel)*

In series: *Health and Human Development*

Edited by: *Yoav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)*

2012. 600 pp.

In this Public Health Yearbook 2011 the authors will touch upon several topics like health risk communication, translational research, primary care, AIDS, tuberculosis, smoking, alcohol and drug screening and finally in the last section discuss primary health care development. Health risk communication deals with planned or unplanned communication to the public about the nature, impact and management of a wide array of health threats, such as cancer, HIV/AIDS or influenza pandemics. Current important research questions are raised.
and this book provides several comprehensive up-to-date reviews on important public health areas. Worldwide partnerships, collaborations and communications between professionals and society so that new kinds of knowledge and knowledge networks can be developed.

Rehabilitation: Practices, Psychology and Health
Raimondo Lagana and Salvatore M. Esposito
In series: Health Care Issues, Costs and Access
In series: Public Health in the 21st Century
Case: 978-1-62081-065-1. $95.00.
This book examines the practices, psychology and health-related issues issues relating to rehabilitation. The authors present topical research including biofeedback rehabilitation in ophthalmology; the rehabilitation function of motor imagery after peripheral injury or central stroke; psychosocial variables as modulators of cardiac disease rehabilitation; postural control rehabilitation in patients with neurological disorders; neuropsychological issues in stroke rehabilitation; and virtual reality technology for the rehabilitation of instability in the elderly population.

Salmonella: Classification, Genetics and Disease Outbreaks
Adelaide S. Monte and Paulo Eduardo De Santos
In series: Allergies and Infectious Diseases
Case: 978-1-61942-928-4. $140.00.
Salmonella are ubiquitous enteric bacteria, responsible for thousands of deaths worldwide. In this book, the authors present current research in the study of the classification, genetics and disease outbreak cases relating to salmonella. Topics include the pre- and post-harvest intervention strategies for controlling salmonella contamination in broiler production; salmonella enterica survival to biocides and antibiotics; salmonella Newport contamination in produce; genome comparisons of salmonella; salmonella in sub-Antarctica and Antarctica; and hazard of salmonella in the intact shell egg.

Selenium: Sources, Functions and Health Effects
Chinatsu Aomori and Megumi Hokkaido
In series: Public Health in the 21st Century
In series: Nutrition and Diet Research Progress
Case: 978-1-61942-061-8. $140.00.
Selenium (Se) is an essential trace element of fundamental importance to health, primarily due to its antioxidant activity. Selenium has chemoprotective, anti-inflammatory, and antiviral properties and is related to enhancing immunity, controlling gastrointestinal, and reducing age-related disorders. In this book, the authors present current research in the study of the sources, functions and health effects of selenium. Topics discussed include selenium bioavailability and hormonal regulation; the physiological role of selenium; selenium supplementation of diet effects on antioxidant activity and protects against antibiotic resistance and avian influenza in poultry; selenium in critical illness and tropical diseases; products of animal origin as a source of Se in the human diet; selenium in food materials and stress signaling and proapoptotic pathways induced by selenite in malignant colonocytes.

Ticks: Disease, Management and Control
Morges Woldemeskel (The University of Georgia, College of Veterinary Medicine, Department of

Pathology, Tifton Veterinary Diagnostic and Investigational Laboratory, Tifton, GA, USA)
In series: Insects and Other Terrestrial Arthropods: Biology, Chemistry and Behavior
Case: 978-1-62081-136-8. $150.00.
Ticks and tick-borne diseases are among the major stumbling blocks to the development of livestock industry and entail heavy economic losses particularly in the tropics and subtropics. Ticks serve as vectors of several diseases and pose health hazards to animals and humans throughout the world. Attempts to control ticks and tick-borne diseases using different methods have been going on for several generations; however, ticks still cause insurmountable problems to the livestock industry and human and animal health. This book enlightens the reader on research and filed experiences obtained from different parts of the world on the various chemical and biological approaches used in the control of ticks and tick-borne diseases. This book would serve as a valuable reference and guide for students, and researchers in biological and biomedical sciences and tick control authorities aimed at devising a sound tick control strategy.

Tobacco: Production, Uses and Health Implications
Fernanda López Marcos and Cristofer Ramirez Ortiz
In series: Public Health in the 21st Century
2012. 188 pp.
Case: 978-1-61942-516-3. $95.00.
In this book, the authors present current research in the study of the production, uses and health implications of tobacco. Topics discussed in this compilation include the separation and determination of tobacco-specific n-nitrosoamines; the health risks of smoking; the use of tobacco plants in scientific research; asthma and tobacco use; lowering the nitrate content of flue-cured tobacco; oral health effects and cessation strategies in tobacco use by adolescents and cultural barriers to treating tobacco dependence.

Travel Medicine: A Country-to-Country Guide
Morteza Izadi (Head of Health Research Center, Baqiyatallah University of Medical Science, Tehran, Iran)
In series: Health Care Issues, Costs and Access
In series: Public Health in the 21st Century
Case: 978-1-62257-593-0. $175.00.
Travel medicine is accepted as a unique subspecialty in medicine. With more persons traveling to tropical and subtropical destinations, travel medicine is becoming an increasing challenge for the health care systems in many countries. New trends in tourism, such as trekking in sub-Saharan Africa, expose tourist travelers to unusual parasitic diseases. The global public health community has been confronting the challenges of the emergence and rapid worldwide spreading of new influenza virus strains, severe acute respiratory syndrome (SARS), chikungunya virus, drug-resistant Mycobacterium tuberculosis, and many other pathogens. The present book provides an epidemiologic based country-to-country guide to disease prevention and treatment; information on endemic diseases; necessary prevention guidelines, public health indicators, and an update of recent disease outbreaks.

Trends in National Blood Collection and Cord Blood Banking
Neil P. Byrd and Blake S. Terry
In series: Recent Advances in Hematology Research
**SUBSTANCE ABUSE**

**Cocaine Abuse: Pharmacology, Treatment and Relapse Prevention**  
*Xi Chun Fang and Lili Yue*  
In series: *Pharmacology - Research, Safety Testing and Regulation*  
Case: 978-1-61942-202-5. $140.00.  
This book explores the pharmacology, treatment and relapse prevention techniques relating to cocaine abuse. Topics discussed include incentive sensitization and loss of top-down control in cocaine addiction; cocaine abuse and dependence in schizophrenia; prenatal cocaine exposure and the associated adverse effects on pregnancy; and the clinical efficacy of medications with glutamatergic mechanisms of action for the treatment of cocaine addiction.

**Emerging Targets for Drug Addiction Treatment**  
*Juan Canales (Department of Psychology, University of Canterbury, New Zealand)*  
In series: *Substance Abuse Assessment, Interventions and Treatment*  
2012. 239 pp.  
Case: 978-1-62081-913-5. $150.00.  
In this book the editor presents a collection of state-of-the-art, authoritative overviews in the field of treatment for drug and behavioral addictions. Both clinical and basic research perspectives are integrated in the book, covering recent findings in the field of stimulant, cannabis and opioid abuse, as well as non-drug addictions, with an emphasis in novel pharmacological interventions and potential receptor targets recently identified. The intended audience of this exciting selection is broad, encompassing clinicians, researchers and graduate students who seek advanced knowledge and up-to-date information in this rapidly moving field of enquiry.

**Heroin: Pharmacology, Effects and Abuse Prevention**  
*Micel B. Guthrie and Branden M. Wooten*  
In series: *Pharmacology - Research, Safety Testing and Regulation*  
Case: 978-1-61942-652-8. $150.00.  
In this book, the authors present current research in the study of the pharmacology, effects, and abuse prevention in heroin. Topics discussed in this compilation include opiate sensitivity and gender; the role of heroin biomarkers in heroin abuse; dynamic behavior for heroin epidemic models; current controversies in the assessment and treatment of heroin addiction and heroin addiction in pregnancy.

**Nicotine Addiction: Prevention, Health Effects and Treatment Options**  
*Giuseppe Di Giovanni (Department of Physiology and Biochemistry, Faculty of Medicine and Surgery, University of Malta, Msida, Malta)*  
In series: *Substance Abuse Assessment, Interventions and Treatment*  
Case: 978-1-62081-290-7. $175.00.  

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**SOCIAL TOPICS**

**Rural Telemedicine and Homelessness: Assessments of Services**  
*Jake F. Andrews and Anthony I. Harper*  
In series: *Social Justice, Equality and Empowerment*  
In series: *Social Issues, Justice and Status*  
Case: 978-1-61942-926-0. $95.00.  
This book provides an overview of the issues of rural healthcare programs and rural homelessness. Telemedicine offers a way to improve health care access for patients in rural areas through remote access, medical diagnosis and patient care; often from specialists in urban areas or university hospitals. Additionally, information about rural homelessness issues including an examination of better collaboration by the departments of Health and Human Services (HHS) and Housing and Urban Development (HUD) are discussed, which could improve delivery of services in rural areas.
Smoking tobacco presents serious social problems with major impacts on public health. It is estimated that 25-30% of the general population in western countries are currently smoking. Tobacco use is the major preventable cause of death in the United States, responsible for more than 400,000 deaths annually. Within the USA and Europe, 70% of all smokers have tried to quit smoking at least once, but only about 6% of these succeeded in maintaining abstinence. This book covers the latest nicotine-related research. The selection of chapters has a certain unity as physiologic, pathologic and psychological themes run through the book and supply the logical connections between the various authors. This work is intended as a contribution to the reversal of the current tobacco epidemic and thereby to preventing many of the deaths attributable to tobacco predicted in this century.

Prescription Drug Abuse, Doctor Shopping, and the Role of Medicaid

Rene Fields and Stuart R. Banks

In series: Substance Abuse Assessment, Interventions and Treatment

In series: Health Care Issues, Costs and Access

2012. 121 pp.

Soft: 978-1-61942-324-4. $47.00.

Prescription drug abuse is a serious and growing public health problem. According to the Centers for Disease Control and Prevention, drug overdoses, including those from prescription drugs, are the second leading cause of deaths from unintentional injuries in the U.S., exceeded only by motor vehicle fatalities. Unlike addiction to heroin and other illicit drugs, addiction to prescription medications is often not associated with the social and psychological problems generally seen with addiction to controlled substances. However, it is widely accepted that insurance and public programs, such as Medicare, cannot afford to be in the business of financing prescription drug abuse, yet this is precisely what is occurring. Prescription drug abuse is a direct result of doctor shopping and the role of Medicaid in this health care crisis.

Surgery

Bone Grafts: Procedures, Complications and Alternatives

Iulian Nusem (Director of Orthopaedic Surgery, Logan Hospital, Loganholme, Australia)

In series: Surgery - Procedures, Complications, and Results

2013. 186 pp.


Autogenous bone grafting continues to be the gold standard for treating osseous defects and stimulating new bone formation. Harvesting of autogenous bone grafts can be associated with a significant risk of complications. Also, the amount of bone graft that can be harvested is limited. Therefore, efforts have been made to develop different bone graft substitutes such as: allografts, synthetic bone substitutes, platelet-rich plasma, bone marrow aspirate, Bone Morphogenetic Proteins, Vascular Endothelial Growth Factor, Fibroblast Growth Factors, parathyroid hormone and Wnt signalling. Some techniques with the use of bone autografts in orthopaedics and dentistry, complications associated with the harvest of autografts, the use of other alternatives, their biology and clinical applications and a look into research into new materials and technologies aiming to improve this field in medicine will be discussed in this book.

Principles of Research: From Idea to Publication

Luis H. Toledo-Pereyra (Michigan State University, Kalamazoo Center for Medical Studies, Kalamazoo, MI, USA)

In series: Surgery - Procedures, Complications, and Results

2013.

Case: 978-1-62417-968-6. $85.00.

Interest in surgical research was a decisive factor in the surgical advances seen in the 20th century. From the “stormy petrel” of surgery (John B. Murphy) to the pioneering Mayo brothers and the gifted surgeons who revolutionized cardiac surgery (Drs. Blalock, DeBakey, both Lilleheis, and Wangensteen), surgeons have advanced their practice by carefully planned and conducted studies. The principles of surgical research formulated by these leaders still pertain to the many challenges of contemporary surgery. Research results have a direct benefit when applied to the clinical sciences and patient care. Procedures that were once extraordinary, such as open-heart surgery, are now almost routine. Knowing that research is the basis for evidence-based medicine makes it obvious that interest in research facilitates the understanding and application of evidence-based principles. Principles of Research: From Idea to Publication draws on Dr. Toledo-Pereyra’s extensive experience as a surgeon, teacher, researcher, and research director to present profiles of accomplished scientists who exemplify the best traditions of surgical research.

The Fundamentals of Bariatric Surgery

Shahzeer Karmali and Daniel W. Birch (Minimally Invasive Gastrointestinal and Bariatric Surgery, University of Alberta, Edmonton, Ab, Canada)

In series: Surgery - Procedures, Complications, and Results


Case: 978-1-62417-732-3. $150.00.

The prevalence of obesity, defined as a body mass index (BMI) > 30 kg/m², has been steadily increasing in the United States and worldwide. Increased body mass is associated with an increased incidence of a wide range of medical problems affecting virtually every organ system. Each five-point increase in BMI over 25 kg/m² is associated with a 30% increase in mortality. Furthermore, obesity also significantly affects quality of life, social functioning, and monetary health. The management of obesity is complex, often requiring an amalgamation of medical, dietary and psychological regimens to successfully tackle this multidimensional disease. Respectively, bariatric surgery has been utilized as a modality to manage morbid obesity and meta-analyses have demonstrated the efficacy of bariatric surgery in treating severe obesity and its associated co-morbidities. An effect of this high utility benefit is reflected in an exponential increase in the number of bariatric operations performed in the United States (an 804 percent increase from 1998 to 2004. Hence, there are thousands of individuals yearly who have undergone or are undergoing bariatric surgery to manage morbid obesity. This book, is intended to provide the reader with a comprehensive overview of the management of the bariatric surgical patient. All of the contributors have been carefully selected as they each represent key opinion leaders in their own specific discipline regarding the assessment of the bariatric patient and we hope that all the readers will get as much enjoyment in reading their contributions as we have had in preparing this seminal work.
VIROLOGY

Avian Influenza: Molecular Evolution, Outbreaks and Prevention/Control
Kyle M. Taylor and Bruce O'Conno
In series: Allergies and Infectious Diseases
In series: Virology Research Progress
Soft: 978-1-62417-415-5. $72.00.
Avian influenza or bird flu refers to "influenza caused by viruses adapted to birds." Of the greatest concern is the highly pathogenic avian influenza (HPAI). Most human contractions of the avian flu are a result of either handling dead infected birds or from contact with infected fluids. In this book, the authors discuss the molecular evolution, outbreaks and prevention/control of avian influenza. Topics include the risk assessment of highly pathogenic avian influenza virus infections through water; biosecurity measures against highly pathogenic avian influenza (HPAI) in free-range flocks and commercial poultry in developing countries; outbreak control and viral evolution of the highly pathogenic H5N1 avian influenza in Thailand; and the changes in perceptions and attitudes that were identified in a follow-up survey conducted when bird flu was not the focus on widespread media coverage in Australia.

Bacterial Pathogens: Virulence Mechanisms, Diagnosis and Management
Aimee Boulanger and Maison Blanc
In series: Bacteriology Research Developments
In series: Allergies and Infectious Diseases
Case: 978-1-62081-887-9. $120.00.
e-book: 978-1-62081-952-4. $120.00.
Although the vast majority of bacteria are harmless or beneficial, quite a few bacteria are pathogenic. Pathogenic bacteria are only pathogenic under certain conditions, such as a wound that allows for entry into the blood, or a decrease in immune function. In this book, the authors present current research in the study of the virulence mechanisms, diagnosis and management of bacterial pathogens. Topics discussed include Pseudomonas aeruginosa (P. aeruginosa) in our environment; phage therapy in the treatment of bacterial infections; P. mirabilis virulence factor associated with urinary tract infections; efflux pumps for the multi-drug resistant phenotypes of bacterial pathogens; and the role of HtrA as a chaperone and protease in bacterial pathogenesis.

Cytomegalovirus Infections: Risk Factors, Causes and Management
Irmeli Lautenschlager (Department of Virology, Helsinki University Hospital, Helsinki, Finland)
In series: Allergies and Infectious Diseases
Case: 978-1-61942-221-6. $185.00.
This book deals primarily with pathogenesis, specific immunology, clinical management and efforts to prevent and treat Cytomegalovirus infection. The book includes chapters on the management of CMV infection in pregnancy, CMV and male fertility, CMV and immunity, risk factors, diagnosis and impact on immunity and health, as well as antiviral and vaccine strategies against CMV.

Hepatitis B: New Research
Jeffrey T. Cox and Dedrick I. Owen
In series: Public Health in the 21st Century
In series: Virology Research Progress
Case: 978-1-62081-846-6. $95.00.
e-book: 978-1-62081-851-1. $95.00.
Hepatitis B virus (HBV) infection is a problem of global health importance and represents a significant cause of morbidity and mortality worldwide. HBV can be transmitted parenterally, sexually and perinatally. Despite progress on prophylaxis, diagnostic and treatment of HBV infection, it remains one of the major causes of chronic liver disease, cirrhosis or hepatocellular carcinoma. This book presents a compilation of current research including such topics as Hepatitis B and dialysis; Hepatitis B virus infection among middle school students in South Brazil; genotyping and management of chronic Hepatitis B; the risk assessment for Hepatitis B infection and its role in hepatocellular carcinoma; and silencing Hepatitis B virus replication with antiviral Pri-Mir shuttles generated from liver-specific Pol II promoters.

Human Immunodeficiency Virus (HIV) Research: Social Science Aspects
Hugh Klein (Kensington Research Institute, Silver Spring, MD) and Joav Merrick (Medical Director, Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)
In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62081-293-8. $150.00.
Looking back over the course of the three-plus decades of the HIV/AIDS epidemic, scholars and researchers have made many significant strides in understanding and responding to HIV and AIDS. From the inception of the HIV/AIDS epidemic during the early 1980s until the mid-1990s, when highly active antiretroviral treatment (HAART) was introduced as an innovative and highly-effective way of controlling HIV and HIV-related diseases, the “average” person diagnosed as being HIV-positive could expect to live for several months and if lucky, for a few years. Today, with the medical advances that have been made in the fight against HIV/AIDS, people who have contracted HIV usually can expect to live relatively healthy lives, in most instances for many years without experiencing any serious complications of HIV disease. This book focuses on the social science aspects of current HIV research.

Parasites: Ecology, Diseases and Management
Gilmar S. Erzinger (Department of Medicine and Pharmacy, Programme in Health and Environment, University of Joinville Region, Joinville, SC, Brazil)
In series: Environmental Health - Physical, Chemical and Biological Factors
Case: 978-1-62257-692-0. $175.00.
Interactions between competitors, predators and their prey have traditionally been seen as the foundation of community structure. Parasites - long ignored in community ecology and the care necessary bio-security are now recognized to play an important role in influencing species interactions and, consequently affecting the functioning of the ecosystem. Parasitism can interact with other ecological drivers, resulting in both adverse and beneficial effects on biodiversity and ecosystem health. Species interactions involving
parasites are also keys to understanding many biological invasions and emerging infectious diseases. This book bridges the gap between ecology and epidemiology community to create a comprehensive examination of how parasites and pathogens affect all aspects of ecological communities, enabling a new generation of environmentalists to include parasites as a key element in their studies. They may be parasites human or animal, terrestrial or aquatic environments.

**Plasmodium Falciparum: Morphology, Life Cycle and Health Impact**  
*Ghislaine Mayer (Virginia Commonwealth University, Department of Biology, Richmond, VA)*  
In series: *Allergies and Infectious Diseases*  
Case: 978-1-62257-360-8. $150.00.  
Malaria is one of the most prevalent infectious diseases worldwide. Severe malaria leads to the death of close to two million individuals every year. Plasmodium falciparum, the causative agent of the most severe form of malaria is becoming increasingly resistant to current drugs, including artemisinin. This book presents current advances and comprehensive material in the biology of the parasite responsible for the most enduring and devastating disease of mankind. This book addresses P. falciparum infection and severe malaria, the role of heat shock proteins in the development and pathogenicity of the parasite, the biosynthesis of isoprenoid, specifically the methylerythritol phosphate (MEP) pathway in the erythrocytic stages of the parasite is described.

**Pseudomonas Aeruginosa: Symptoms of Infection, Antibiotic Resistance and Treatment**  
*Beningo M. Penha Escudeiro and Eduardo C. Baracho Marques*  
In series: *Bacteriology Research Developments*  
In series: *Allergies and Infectious Diseases*  
Case: 978-1-62257-198-7. $150.00.  
Pseudomonas aeruginosa is a unique pathogen with a characteristic hospital epidemiology resulting in colonization and major infectious complications. Institutions of infection control policies including guidelines on surveillance, infection control interventions and environmental decontamination are important preventive measures. In this book, the authors present current research on the symptoms of infection, antibiotic resistance and treatment of pseudomonas aeruginosa. Topics discussed include the mechanisms of antimicrobial resistance and antimicrobial treatment options; chronic pseudomonas aeruginosa infection in cystic fibrosis; and biofilm-forming ability and antimicrobial resistance of pseudomonas aeruginosa isolates of veterinary origin.

**Reassessing HIV Vaccine Design and Approaches: Towards a Paradigm Shift**  
*Omar Bagasra and Donald Gene Pace (Claflin University, South Carolina Center for Biotechnology, Office of International Study, Orangeburg, SC, USA)*  
In series: *HIV/AIDS - Medical, Social and Psychological Aspects*  
In series: *Virology Research Progress*  
Case: 978-1-62257-952-5. $175.00.  
e-book: 978-1-62417-538-1. $175.00.  
Why do we not have a vaccine for HIV? What are we doing wrong? Every HIV vaccine has failed so far, and public opinion is turning pessimistic against the scientific community. HIV vaccine efforts need a major shift in strategy. They require a better understanding of the immunological mechanisms that prevent African primates from getting AIDS. None of the 40 species of African primates, including chimpanzees and gorillas, get AIDS, even though all of them carry HIV-like viruses in their bodies. Why are they “naturally vaccinated,” while all of the man-made vaccines against HIV have failed miserably? This book offers intriguing new possibilities for the nature of human immunity, and the development of an effective AIDS vaccine. It is also a provocative treatise on the origin, evolution, and etiology of several forms of immune systems that is supported by a wealth of peer-reviewed scientific references. The compelling ideas presented in this study should have an important bearing on HIV vaccine development. It is a must read for anyone interested in the development of a safe AIDS vaccine, and for individuals interested in human immunity generally.

**WOMEN**

**In Support of Breastfeeding**  
*Evren Mataraci and Brent G. Watson*  
In series: *Women's Issues*  
Case: 978-1-62257-888-7. $110.00.  
For nearly all infants, breastfeeding is the best source of infant nutrition and immunologic protection, and it provides remarkable health benefits to mothers as well. Babies who are breastfed are less likely to become overweight and obese. Many mothers in the United States want to breastfeed, and most try. And yet within only three months after giving birth, more than two-thirds of breastfeeding mothers have already begun using formula. This book provides an overview guide to breastfeeding with a focus on why breastfeeding is important; common challenges; breastfeeding in public; and the Surgeon General’s Call to Action to support breastfeeding.
SCIENCE AND TECHNOLOGY
**AFRICA**

Computer-Mediated Discourse in Africa  
Rotimi Taiwo (Obafemi Awolowo University, Nigeria) Innocent Chiluwa (Covenant University, Ota, Nigeria)  
In series: Media and Communications - Technologies, Policies and Challenges  
Case: 978-1-62100-497-4. $140.00.  
e-book: 978-1-62100-545-2. $140.00.  
This book is a major documentation of the discursive practices of Africans when they engage in online communication. It presents mainly linguistic perspectives on what Africans do when they interact through mobile telecommunication and the Internet. The book reveals the unique ways Africans blend their traditional communicative culture with some of the well known online behaviors. In addition, it draws attention to how Africans have been attempting to use the modes of internet and mobile telecommunication to solve their socio-economic and political problems by engaging in active agitation for reforms in those directions.

**AGRICULTURE**

Agricultural Adaptation to Climate Change  
Ronald Oberdeck and Gina Parham  
In series: Agricultural Issues and Policies  
In series: Climate Change and its Causes, Effects and Prediction  
Case: 978-1-62257-935-8. $110.00.  
This book examines global climate models that predict increases over time in average temperature worldwide, with significant impacts on local patterns of temperature and precipitation. The extent to which such changes present a risk to food supplies, farmer livelihoods, and rural communities depends in part on the direction, magnitude, and rate of such changes, but equally important on the ability of the agricultural sector to adapt to changing patterns of yield and productivity, production cost, and resource availability. Study findings suggest that, while impacts are highly sensitive to uncertain climate projections, farmers have considerable flexibility to adapt to changes in local weather, resource conditions, and price signals by adjusting crops, rotations, and production practices. Such adaptation, using existing crop production technologies, can partially mitigate the impacts of climate change on national agricultural markets.

Agricultural Issues and Policies. Volume 2  
Lindsey K. Watson  
In series: Agricultural Issues and Policies  
Case: 978-1-62257-472-8. $135.00.  
Agriculture one of the defining elements of a nation. This series consists of analyses on a variety of agricultural issues including (but not limited to) the developments, policies, programs, trade, trends and economics of agriculture. Topics will be seen from a U.S. perspective, but not to the exclusion of other countries particularly when the discussion has an international scope.

Agricultural Research Updates. Volume 2  
Barbara P. Hendriks  
In series: Agricultural Research Updates  
Case: 978-1-61470-191-0. $325.00.  
This compilation examines agricultural research from across the globe and covers a broad spectrum of related topics. In this book, the authors discuss research including the diet selection of herbivores on species rich pastures; the olive oil food supply chain in Mediterranean regions; the invasive Argentine ant and its impact on agriculture and ecosystems; sustainability challenges in seafood supply chains; toxic element contamination in animal feed and agricultural management and land-use practices on pesticide loads.

Agricultural Research Updates. Volume 4  
Prathamesh Gorawala and Srushti Mandhatri  
In series: Agricultural Research Updates  
2012. 228 pp.  
Case: 978-1-62257-379-0. $150.00.  
This compilation examines agricultural research from across the globe and covers a broad spectrum of related topics. In this book, the authors discuss research including breeding improved cassava cultivars in tropical/subtropical bio-systems; sluggish alcoholic fermentations during wine production; agricultural productivity and poverty in Vietnam; the role of eco-management for sustainable agricultural production; molecular marker assisted selection for disease resistance breeds of cattle; an improved in vitro method for isolated microspore culture of durum wheat; modeling crop water requirements in the Upper Indus Basin of Pakistan for enhancing food security; and agricultural practices for sustainable crop production and soil health.

Agriculture and Food Science Researcher Biographical Sketches and Research Summaries  
Héctor J. Escobedo and Sergio M. Madrigal  
In series: Agricultural Research Updates  
In series: Agriculture Issues and Policies  
2013. 461 pp.  
Case: 978-1-62100-934-4. $150.00.  
e-book: 978-1-62100-979-5. $150.00.  
This new book compiles biographical sketches of top professionals in the field of agriculture and food sciences, as well as research summaries from a number of different focuses in this important field.

Alfalfa and Clovers: Properties, Medicinal Uses and Health Benefits  
Jakub Fiala and David Pospíšil  
In series: Botanical Research and Practices  
2012. 192 pp.  
Case: 978-1-62100-062-4. $150.00.  
In this book, the authors present topical research in the study of the properties, medicinal uses and health benefits of alfalfa and clover. Topics discussed in this compilation include the position of alfalfa oxidoreductases in soil enzymology and biotechnology; alfalfa properties and livestock nutrition and phytoestrogen use in menopausal patients.
Cooperatives: A Feasibility Study Guide and Education Efforts of Farmers
Jacob Rogers and Vincent K. Grant
In series: Business Issues, Competition and Entrepreneurship
In series: Agriculture Issues and Policies
2012. 95 pp.
Soft: 978-1-62081-251-8. $52.00.
e-book: 978-1-62081-273-0. $52.00.
This book provides a national perspective of cooperative education initiatives by farmer cooperatives. The analysis examines whom cooperatives educate, what resources they use, what topics they focus on, where they source their programs and materials, whether they feel there are enough resources available for education, and what educational topics they feel directors most need to fulfill their duties. A cooperative feasibility study guide is also outlined with a focus on the cooperative business development process.

Cotton: Cultivation, Varieties and Uses
Benedetto Giuliano and Emilia J. Vinci
In series: Botanical Research and Practices
In series: Agriculture Issues and Policies
Case: 978-1-61942-746-4. $140.00.
This book presents current research in the study of the cultivation, varieties and uses of cotton. Topics included in this compilation include cotton pests and strategies for management control; cotton biotechnology and application in breeding; phosphorous acquisition characteristics of cotton plants; chemically modified cotton fibers for biomedical applications; China and Australia's global cotton production; and climatic conditions affecting Egyptian cotton.

Dairy Cooperatives: Profiles and Research
Andrew West and Skye L. Kelly
In series: Agriculture Issues and Policies
Soft: 978-1-62081-247-1. $52.00.
Dairy cooperatives as a group are the most prominent among farmer cooperatives in terms of sales revenue and the important roles they play in the dairy industry, a major sector in agriculture. Their mission, functions, organization, governance, operations, market performance, financing, etc., are in full agreement with the economic theory of what cooperatives are and what cooperatives do. This book addresses some of the challenges faced by cooperatives and the issues raised by the alternative financing methods used. Classic literature on the economic theory of what cooperatives are and what they do in the market economy is discussed with a focus on measuring performance and marketing operations.

Distillers' Dried Grains: Market and Usage Trends
Justin N. Schuber
In series: Agriculture Issues and Policies
Case: 978-1-62417-683-8. $110.00.
Growth in corn dry-mill ethanol production has surged in the past several years, simultaneously creating a co-product—distillers' grains (DDGS). Many in the U.S. feed industry were concerned about the size of this new feed source and whether it could be used entirely by the feed industry, but they also worried about the price discovery process for the product. This book provides an overview of the methodology used to estimate the U.S. supply and consumption of DDGS. Potential domestic and export use of U.S. DDGS exceeds current production and is likely to exceed future production as ethanol production continues to grow. This book discusses the DDGS price discovery process along with the price relationships of distillers' grains, corn, and soybean meal.

Federal Crop Insurance: Elements and Proposals
Marc C. Brown and Noah E. Clark
In series: Agriculture Issues and Policies
Case: 978-1-62257-009-6. $110.00.
For many farmers, crop insurance is the most important component of the farm safety net, given the breadth of commodity coverage and capability to reimburse producers for crop losses. The federal crop insurance program began in 1938 when Congress authorized the Federal Crop Insurance Corporation. The current program provides producers with risk management tools to address crop yield and/or revenue losses on their farms. In purchasing a policy, a producer growing an insurable crop selects a level of coverage and pays a portion of the premium, or none of it in the case of catastrophic coverage, which increases as the level of coverage rises. The federal government pays the rest of the premium. Insurance policies are sold and completely serviced through 15 approved private insurance companies. This book provides an overview of the federal crop insurance program and discusses related issues.

Food Deserts and Access to Food in the United States
Juste Roche
In series: Agriculture Issues and Policies
2013. 120 pp.
Soft: 978-1-62417-879-5. $52.00.
e-book: 978-1-62417-880-1. $52.00.
The USDA's Economic Research Service previously identified more than 6,500 food desert tracts in the United States based on the 2000 Census and 2006 data on locations of supermarkets, supercenters, and large grocery stores. This book examines the socioeconomic and demographic characteristics of these tracts to see how they differ from other census tracts and the extent to which these differences influence food desert status. Relative to all other census tracts, food desert tracts tend to have smaller populations, higher rates of abandoned or vacant homes, and residents who have lower levels of education, lower incomes, and higher unemployment. Efforts to encourage Americans to improve their diets and to eat more nutritious foods presume that a wide variety of these foods are accessible to everyone. But for some Americans and in some communities, access to healthy foods may be limited.

Global Agricultural Industries: Research Spending Trends and Changing Market Structures
Shirley O. Kelley and Mike F. Grant
In series: Agriculture Issues and Policies
Case: 978-1-62257-476-6. $135.00.
Growth in the productivity of the global food and agricultural system will be largely determined by today's investments in research and development (R&D). In recent decades, the private sector has become a major player in developing innovations for food and agriculture. Factors spurring private companies to invest in food and agricultural research include the emergence of biotechnology and other new scientific developments, the strengthening of intellectual property rights (IPR) over agricultural innovations, new regulatory requirements, the expansion of markets for improved agricultural inputs and food products, and rising consumer demand for more diverse foods. This book evaluates investment trends by for-profit
companies in food manufacturing, biofuel, and agricultural input R&D and explores how these trends are affected by changes in market demand and industry structure.

Global Agriculture: Developments, Issues, and Research, Volume 1
Marvin R. Robertson and Jeffery I. Schmidt
In series: Global Agriculture: Developments, Issues, and Research
Case: 978-1-62257-369-1. $110.00.
This book explores the developments, issues and research outlook of global agriculture. Topics discussed include the trade and food security implications from the Indonesian agricultural experience; the remarkable growth in China's apple juice concentrate exports since the 1990s; the U.S. and Mexican dry bean sectors; and Peru as an emerging exporter of fruits and vegetables.

Global Agriculture: Developments, Issues, and Research, Volume 2
Marvin R. Robertson and Jeffery I. Schmidt
In series: Global Agriculture: Developments, Issues, and Research
This book explores the developments, issues and research outlook of global agriculture. Topics discussed include the expansion of modern grocery retailing and trade in developing countries; Indonesia's modern retail sector; the convergence in global food demand and delivery; and public agricultural research spending and future U.S. agricultural productivity growth.

Grazing Ecology: Vegetation and Soil Impact
José Ramón Arévalo (University of La Laguna, Spain)
In series: Agriculture Issues and Policies
Case: 978-1-62100-436-3. $95.00.
e-book: 978-1-62100-468-4. $95.00.
Grazing management is one of the most important management activities worldwide, and it has been a traditional sustainable land use in many areas of the planet. This book demonstrates the poor extrapolation capacity that grazing studies have due to site-dependent effects and sensitivity to changes in weather conditions and soil characteristics. Therefore, researchers should be cautious when suggesting management recommendations, such as removing all grazing animals or reducing grazing activities. A highly variable ecological force such as grazing, with important environmental and social implications, should be analyzed deeply before extrapolated results or suggesting management practices.

Inspecting Grain in the United States: Procedures and Diseases
Wayne B. Fisher and Sandra M. Gray
In series: Agriculture Issues and Policies
Case: 978-1-62257-252-6. $110.00.
Across America, U.S. grain flows from farm to elevator to destinations around the world. The Grain Inspection, Packers and Stockyards Administration (GIPSA), Federal Grain Inspection Services (FGIS), an agency of the United States Department of Agriculture (USDA), helps move that grain into the marketplace by providing farmers, grain handlers, processors, exporters, and international buyers with information that accurately and consistently describes the quality and quantity of grain being bought and sold. This book examines the nationally accepted grain standards and inspection procedures that provide producers, elevator operators, and others who trade grain with common terms for describing grain; a means for determining storability and end-product yield; and a framework for improving grain quality.

International Food Aid: Programs, Donors, and World Food Program Controls
John Di Corrado
In series: Global Agriculture: Developments, Issues, and Research
In series: Government Procedures and Operations
Case: 978-1-62417-209-0. $110.00.
For over 55 years, the United States has played a leading role in global efforts to alleviate hunger and malnutrition and to enhance world food security through international food aid activities. The development and implementation of a U.S. global food security initiative, and commitments made by global leaders to support agricultural development, have increased Congress's focus on U.S. international food aid programs. The primary objectives for foreign food aid include providing emergency and humanitarian assistance in response to natural or man-made disasters, and promoting agricultural development and food security. The United States provides food aid for emergency food relief and to support development projects. This book examines the programs, donors, and world food program controls in support of international food aid currently being enacted to deal with this global crisis.

Maize: Cultivation, Uses and Health Benefits
Jose C. Jiménez-López (High Council for Scientific Research (CSIC), Department of Biochemistry, Cell and Molecular Biology of Plants, Granada, Spain)
In series: Agriculture Issues and Policies
Case: 978-1-62081-516-4. $150.00.
Maize (Zea mays L.) commonly called corn, field corn, or Indian corn belongs to the Poaceae (Gramineae) family. It grows almost anywhere, although approximately 50% of the world's maize is produced in the USA. It is one of the 3 major grain crops worldwide and extremely important for human and animal consumption (15 to 56% of total daily dietary caloric intake), food processing and other commercial activities in many developed and developing countries. This book aims to provide an up-to-date knowledge of recent developments in maize cultivation; the improvement of maize nutritional values to be used in food preparation and human consumption; and maize health benefits provided by the use of alternative maize varieties. The authors expect this book will provide a compendium of valuable knowledge for anyone interested in agricultural, environmental and food sciences.

Natural Products and Their Active Compounds on Disease Prevention
M. Mohamed Essa, A. Manickavasagan (Sultan Qaboos University, Oman) E. Sukumar (Higher College of Technology, Oman)
In series: Food Science and Technology
In series: Public Health in the 21st Century
In this book, the authors present topical research in the study of the **Soft** environment. Organic fertilizers enhance the natural soil processes, which will improve the crop productivity to feed the growing population. Organic fertilizers are sustainable sources of nutrients due to slow release during decomposition. By increasing soil organic matter, intercropping with legumes, and using cover crops, farmers can improve soil structure, water retention, and nutrient cycling. This book focuses on implications of traditional and processed foods for health and disease prevention.

### Nitrogen Use in U.S. Agriculture: Implications and Management
*Everett F. Wilkinson and Edson J. Parker*

In *Agriculture Issues and Policies*, the authors explore the use of nitrogen in U.S. agriculture and assesses changes in nutrient management by farmers that may improve nitrogen use efficiency. It also reviews a number of policy approaches for improving nitrogen use efficiency. Nitrogen is an important agricultural input that is critical for crop production. However, the introduction of large amounts of nitrogen into the environment has a number of undesirable impacts on water, terrestrial, and atmospheric resources. This book explores the use of nitrogen in U.S. agriculture and assesses changes in nutrient management by farmers that may improve nitrogen use efficiency. It also reviews a number of policy approaches for improving nitrogen use efficiency.

### Organic Fertilizers: Types, Production and Environmental Impact
*Rajeen Pratap Singh (Division School of Industrial Technology, Universiti Sains Malaysia, Malaysia)*

In *Agriculture Issues and Policies*, the book focuses on the types and production of organic fertilizers, including their environmental impact. Organic fertilizers are natural products that are used to enrich the soil and promote plant growth. Organic fertilizers are sustainably produced and are considered to be a more environmentally friendly alternative to synthetic fertilizers. This book examines the impacts of using organic fertilizers on soil quality, crop productivity, and environmental sustainability.

### Peas: Cultivation, Varieties and Nutritional Uses
*Aiden M. Comstock and Braylen E. Lotthrop*

In *Food Science and Technology*, the book presents topical research on the cultivation, varieties and nutritional uses of peas. Topics discussed in this compilation include the enhancement of the nutritional value and functional properties of yellow pea protein via membrane processing; the volatile flavor profile of 24 pea cultivars using head space solid phase microextraction gas chromatography; regulation of nodule developments in *Pisum sativum* L.; developing fall-sown pea cultivars as an answer to the challenges of climatic changes; and the chemical, molecular structure, biodegradation and nutritional characterization of peas.

### Safety of U.S. Meat and Poultry Products: Development and Oversight
*Joseph J. Lewis and Mary A. Hernandez*

In *Agriculture Issues and Policies*, the book examines current developments to provide safety in the U.S. meat and poultry products industry. Poultry interventions that could reduce E.coli in cattle are discussed, as is the “pink slime” controversy, meat and poultry inspection, and the USDA’s authority to recall meat and poultry products.

### SNAP’s (Supplemental Nutrition Assistance Program) Role in Poverty Reduction and Increased Food Security
*Brian E. Hall and Richard F. Green*

In *Agriculture Issues and Policies*, the book examines the effects of the Supplemental Nutrition Assistance Program (SNAP) on poverty reduction and food security. SNAP is a federal program that provides food assistance to low-income individuals and families. This book examines the role of SNAP in reducing poverty and improving food security.

### Sugarcane: Production, Cultivation and Uses
*João F. Goncalves and Kauê D. Correia*

In *Agriculture Issues and Policies*, the book presents topical research in the study of the production, cultivation and uses of sugarcane. Topics discussed in this compilation include the ecology and tactics of control for three sugarcane stalkboring species in West Africa; sugarcane diversification, productivity and competitiveness by geostatistical techniques and precision agriculture; sugarcane as feedstock for biomediated polymer production.
production: sugarcane tillering and ratooning; products from the
delignification of sugarcane bagasse; and the adaptability and stability
of sugarcane genotypes.

The Farm Safety Net: Programs, Proposals, Overlap
Daniel E. Miller and Emma J. Harris
In series: Agriculture Issues and Policies
2012. 133 pp.
Soft: 978-1-62257-028-7. $52.00.
The U.S. Department of Agriculture and the broader farming
community often refer to the price and income support programs of the
farm bill’s Title I and the crop insurance and disaster assistance
programs of Title XII as encompassing the farm safety net. Many
policymakers and farmers consider federal support of farm businesses
necessary for their financial survival, given the unpredictable nature of
agricultural production and markets. In contrast, many environmental
groups and budget hawks argue that farm subsidies encourage
overproduction on environmentally fragile land and are a market-
distorting use of tax dollars. This book provides an overview of the
current farm safety net programs, proposals and overlap in producer
support. Also discussed is the congressional debate that is expected to
precede the next round of omnibus farm legislation in 2012 and the
budget and policy issues and implications for U.S. farm policy in the
context of the World Trade Organization (WTO).

U.S. Grasslands: Conservation and Conversion
Ava E. Wilson and William L. Anderson
In series: Environmental Science, Engineering and Technology
In series: Agriculture Issues and Policies
Case: 978-1-62257-036-2. $195.00.
Grasslands provide both ecological and economic benefits. The
importance of grasslands lies not only in the areas they cover, but also
in the diversity of environmental benefits they produce. The lands
provide forage for livestock, water for urban and rural uses, flood
protection, wildlife habitat, purification of air, and carbon
sequestration. The lands also provide aesthetic values and open space.
This book discusses the Grasslands Reserve Program (GRP), which
provides assistance to landowners and operators to protect grazing uses
and related conservation values on eligible private range and pasture
lands. The program emphasizes support of grazing operations,
mainhancing and improving plant and animal biodiversity, and
protecting grasslands and shrublands under threat of conversion to
cropping, urban development, and other non-grazing uses.

ANIMAL SCIENCE

Animal Science Researcher Biographical Sketches
and Research Summaries
Pascual F. Matolla and Sandy S. Miers
In series: Animal Science, Issues and Professions
Case: 978-1-62100-873-6. $150.00.
This new book compiles biographical sketches of top professionals in
the field of animal science research, as well as research summaries
from a number of different focuses in this important field.

Nematodes: Morphology, Functions and Management Strategies
Fausto Boeri and Jordan A. Chung
In series: Animal Science, Issues and Professions
Case: 978-1-61470-784-4. $185.00.
Nematodes are the most numerous multicellular animals in the
biosphere encountered in terrestrial or aquatic ecosystems among
multispecies communities and are integrated in the food chain at five
trophic levels according to their feeding habits. In this book, the
authors present topical research in the study of nematodes, including
the biological control of animal-parasitic nematodes and plant-parasitic
nematodes; resistance and virulence in plant-nematode interactions;
free-living nematodes in the marine ecosystem; management and
control of the Pine Wood Nematode and slug pest management through
nematodes in agricultural and horticultural crops.

The Impossible Escape: Studies on the Tonic Immobility in Animals from a Comparative Psychology Perspective
Carlo Alfredo Clerici and Laura Veneroni
(University of Milan, Italy)
In series: Animal Science, Issues and Professions
Soft: 978-1-62100-183-6. $47.00.
e-book: 978-1-62100-221-5. $47.00.
Since ancient times, a curious phenomenon has been described in many
animal species: people have been able to induce state of prolonged
immobility in the animal by using various methods. Over time, the
phenomenon has gone by several names, from the most evocative
animal hypnosis to the more scientific tonic immobility. For some
years now, investigations have been examining analogies between this
phenomenon and conditions occurring in humans, such as the
immobility that accompanies severe trauma and sexual violence,
wartime situations, catalepsy, cataplexy, catatonia and the immobility
experienced in panic attacks. This book reviews the literature on these
tonic immobility (TI) phenomena in animals and the comparative
cognitive research that has investigated how this model can
contribute to our understanding of aspects of human behavior.

BIOCHEMISTRY

Biochemistry and Biotechnology: Research and Development
Sergey D. Varfolomeev, G.E. Zaikov, Larisa P.
Krylova (Russian Academy of Sciences, Moscow,
Russia)
In series: Biochemistry Research Trends
In series: Biotechnology in Agriculture, Industry and Medicine
Case: 978-1-62100-452-3. $150.00.
This book presents current research in the fields of biochemistry and
biotechnology. Topics discussed include information about the
production of thermostable DNA polymerase suitable for whole-blood
polymerase chain reaction; isolation, purification and some properties
of L-Lysine α-Oxidase from Trichoderma sp. 6; production of nitric
oxide by endothelial cells infected with herpes simplex virus type 1;
optimization of the process of cultivation of recombinant Escherichia
coli TBI protein producing strain; development of HRP-functionalized
Glycine: Biosynthesis, Physiological Functions and Commercial Uses
Wilhelm Vojak
In series: Chemical Engineering Methods and Technology
In series: Biochemistry Research Trends
Soft: 978-1-62417-263-2. $69.00.
In this book, the authors present current research in the study of the biosynthesis, physiological functions and commercial uses of glycine. Topics discussed include the molecular complexation of glycine with 18-crown-6 in aqueous-organic solvent; concentrated glycine based electrolytes and application to solid pH sensor; heterologous expression of the glycine receptor chloride channel; the theoretical evaluation of the properties of energy deposition associated with the collision of fast ions with glycine and its zwitterions; electrochemistry of aliphatic bifunctional molecules; and the clinical uses of glycine.

Molecular and Supramolecular Bioinorganic Chemistry: Applications in Medical and Environmental Sciences. Volume 3
Ana Lucia Ramalho Mercê, Judith Felcman and Maria Ângela Lobo Recio (Universidade Federal do Parana, Pontifícia Universidade Católica do Rio de Janeiro, Universidade Federal de Santa Catarina, Brazil)
In series: Biochemistry Research Trends
2012. 244 pp.
Case: 978-1-62100-624-4. $140.00.
This book focuses on the newest information on metal ion contaminations and the influence of some of them in neurological diseases, a subject still not completely understood in the scientific literature so far. The book presents an extensive review on the aluminium forms of intoxication in humans and the role of this metal ion in human pathology by presenting live cases experienced in hospitals and discussing similar data; a review on the recent findings of the role of aluminium, zinc and copper in neurological disorders based on the chemical and bioinorganic aspects of these metal ions; a review on the genotoxic effects of the metal ions aluminium, iron and manganese either in vivo and in vitro results; information concerning arsenic and its structural effects on the human erythrocyte and some complementary model studies, and provides a study on coffee cultures in contaminated soils and its influence on human health.

Organic Chemistry, Biochemistry, Biotechnology and Renewable Resources. Research and Development. Volume 2 - Tomorrow and Perspectives
G.E. Zaikov, Oleg V. Stoyanov, Elena L. Pekhtasheva (Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia)
In series: Biotechnology in Agriculture, Industry and Medicine
In series: Biochemistry Research Trends
Case: 978-1-62081-159-7. $150.00.
This book includes the latest information in the field of organic chemistry, biochemistry, biotechnology, material science (synthesis, properties, applications) and renewable resources. This book discusses the modification of chitosan films as a way of regulating their transport properties, ozone and its reactions with diene rubbers, antiradical activity of different antioxidants depending on pH and polarity of model system detected by a photochemiluminescence method, the interlayer spacing and elasticity modulus interconnection for nanocomposites polymer/organoclay.

Biology
Biomacromolecular Mass Spectrometry Yearbook. Volume 2
Simone Koenig (Univ. Muenster, Germany)
In series: Biomacromolecular Mass Spectrometry Yearbook
Case: 978-1-61470-739-4. $140.00.
This yearbook covers research in the fields of biomacromolecules such as proteins, DNA, and other biopolymers studied with mass spectrometry and peripheral techniques. Cleavage and breakdown of the large molecules is often necessary for their investigation and therefore such studies on the products are also of importance. Topics discussed include protein modifications and their analysis using mass spectrometry; chemical profiles of the insect cuticle; polychlorosiloxane background in field-based ion generation at atmospheric pressure; screening methodology for substrates of protein histidine and compilation of fragmentation data of single amino acids prepared by electrospray.

Calcium Binding Lysozymes
Eugene A. Permyakov (Institute for Biological Instrumentation of the Russian Academy of Sciences, Pushchino, Moscow region, Russia), Ludmila A. Morozova-Roche (Umea University, Umea, Sweden) and Lawrence J. Berliner (Denver University, Denver, Colorado)
In series: Molecular Anatomy and Physiology of Proteins
Edited by: Vladimir N. Uversky (University of South Florida, USA)
Case: 978-1-62081-755-1. $150.00.
In this book, the authors describe an important class of calcium binding lysozymes that are evolutionarily related to the lysozyme superfamily and the lactalbumins. The authors take the reader through a journey from the evolution, then the structure and properties of the calcium binding lysozymes. They discuss new unique protein folding pathways with local cooperative, close related folding modes that exhibit multiple folding pathways which are not properties of the lactalbumins or non calcium binding lysozymes. They comprise one of the most diverse group of examples in protein folding. In addition this protein class, especially equine lysozyme, shows peculiar amyloid assembly properties that are not common with other fibril forming proteins. It is one of the first shown to form ring shaped amyloids and other complexes in vitro. Lastly equine lysozyme forms complex with oleic acid, a unique form ELOA, which contributes to the family of the human and bovine lactalbumin analogs HAMLET and BAMLET.

BIOTECHNOLOGY

Biotechnology of Microbial Enzymes
Vijai Kumar Gupta and Manimanaran Ayyachamy (National University of Ireland, Galway, Ireland)
In series: Biotechnology in Agriculture, Industry and Medicine
Case: 978-1-62100-131-7. $165.00.
Enzyme technology is a comprehensive and definitive source of information for all those fascinated in this area. It provides a complete survey of microbial enzymes currently available in the market, as well as their potential applications in several industrial processes. This book includes chapters detailing ACC Deaminase, Amylase, Chitinase, Hyaluronidase, Laccases, Proteases, Pectinases and other important enzymes utilized at commercial scale in various industrial sectors. The authors have prepared up-to-date and easy-to-read book chapters which will accomplish the mandate for a comprehensive survey of enzymes to audiences across disciplines. It is particularly very handy to undergraduates and diplomas pursuing degrees in microbiology, biotechnology, microbial technology or biochemistry.

Biotechnology: Health, Food, Energy and Environment Applications
Luis G. Torres Bustillos (Unidad Profesional Interdisciplinaria de Biotecnología-Instituto Politecnico Nacional, Col. Barrio La Laguna Ticoman, Mexico), Ines Garcia Peña (UPIBI-IPN, Mexico)
In series: Biotechnology in Agriculture, Industry and Medicine
Case: 978-1-62081-071-2. $165.00.
e-book: 978-1-62081-105-4. $165.00.
In a world of declining fossil energy, biotechnology explores multiple products and processes hidden in the rich genome of microbes, plants and animals. One of the reasons for the renewed spirit of biotechnology is supported by its capacity to swiftly incorporate the multidisciplinary advances in basic and applied sciences. This book presents a wide range of biotechnology research by the UPIBI community, teachers and students in the past 24 years. Novel methodologies, basic results and new processes are reported in several of the most dynamic fields in biotechnology such as health, energy, food and environment. This effort will certainly be an inspiration for students wishing to join research teams, for academic colleagues in search of new knowledge and for professionals exploring novel ideas or innovative solutions.

Emulating Human Speech Recognition: A Scene Analysis Approach to Improving Robustness in Automatic Speech Recognition
Andre Coy (University of West Indies, Mona, Jamaica)
In series: Computer Science, Technology and Applications
Case: 978-1-61209-228-7. $195.00.
This new book presents a systematic approach to the automatic recognition of simultaneous speech signals using computational auditory scene analysis. Inspired by human auditory perception, this book investigates a range of algorithms and techniques for decomposing multiple speech signals by integrating a spectro-temporal fragment detector within a statistical search process. The outcome is a comprehensive insight into the mechanisms required if automatic speech recognition is to approach human levels of performance.

Geometric Methods in Modern Biomechanics
Tijana T. Ivancevic (Tesla Science Evolution Institute, South Australia), Vladimir G. Ivancevic (Defense Science & Technology Organization, Australia), Bojan Jovanic (Sports Academy, Serbia)
In series: Biomechanics - Theory and Applications
In series: Mathematics Research Developments
This book gives a comprehensive introduction into geometrical methods of modern biomechanics. This book is designed for a rigorous, one–semester course at the graduate level. The intended audience includes mechanical, control and biomedical engineers (with stronger mathematical background), mathematicians, physicists, computer scientists and mathematical biologists, as well as all researchers and technical professionals interested in modelling and control of biomechanical systems and humanoid robots.

Organic Chemistry, Biochemistry, Biotechnology and Renewable Resources. Research and Development. Volume 1 - Today and Tomorrow
Gennady E. Zaikov (N.M. Emanuel Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia) Frank Pudel (Pflanzenoltechnologie, Magdeburg, Germany) Grzegorz Spychalski (Institute of Material Fibres and Material Plants, Poland)
In series: Biotechnology in Agriculture, Industry and Medicine
In series: Biochemistry Research Trends
2013. 222 pp.
This book includes the latest information in the field of organic chemistry, biochemistry, biotechnology, material science (synthesis, properties, applications) and renewable resources. This book
emphasizes the problems of classification of bio-damages, evaluation and protection methods, bio-damages and protection of artificial and synthetic leather, bio-degradation and biodeterioration of some natural polymers, bio-damages and protection of cosmetics, microbiological corrosion and protection of optical glasses, microbiological corrosion of metals and protection against it, bio-damaging and protection of paint materials.

**BOTANY**

Cultivars: Chemical Properties, Antioxidant Activities and Health Benefits

*Katya Carbone (Agricultural Research Council – Research Unit for Enology in Central Italy (CRA-ENCI), Velletri, Rome, Italy)*

In series: Botanical Research and Practices

In series: Agriculture Issues and Policies


Case: 978-1-62417-101-7. $175.00.
e-book: 978-1-62417-103-1. $175.00.

This new book is a collection of research and review articles from authors involved in diverse aspects of cultivar research. This volume discusses the agronomic, biochemical and nutritional aspects of a wide range of plant cultivars, including aspects related to the use of genetic tools for the production of vaccines as well as new molecular techniques available for product traceability. Also reviewed is the comprehensive treatment of the physiological effects of foods and food components capable of promoting good health and preventing or alleviating disease. Moreover, this volume will be of great help to undergraduate and graduate level students in Genetics, Agriculture, Phytochemistry, Biochemistry, Pharmacy, Plant Physiology and Crop Development, and an excellent reference material for plant researchers.

Herbs: Cultivation, Medicinal Uses and Environmental Concerns

*Shen Ten Ma and Zhi Yu Su*

In series: Food and Beverage Consumption and Health

In series: Botanical Research and Practices

2012. 133 pp.

Soft: 978-1-61942-983-3. $47.00.
e-book: 978-1-61942-984-0. $47.00.

Herbs are any plants with leaves, seeds, or flowers used for flavoring, food, medicine, or perfume or parts of such a plant as used in cooking. Herbs have a variety of uses including culinary, medicinal, and in some cases spiritual usage. In this book, the authors present research on the cultivation, medicinal uses and environmental concerns of herbs. Topics discussed include resources, cultivation, chemistry and biological activities of salvia miltiorrhiza; cultivation of aromatic plants under irrigation with secondary effluents; immunomodulatory effects of ayurvedic herbs; and development and application of a certified reference material on cadmium and lead in Chinese medicinal herb.

The Flora of Nara Desert, Pakistan

*Rahmatullah Qureshi (Department of Botany, Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi, Pakistan)*

In series: Botanical Research and Practices


Case: 978-1-62081-638-7. $175.00.

This book covers a topic of current interest in flora, and it can be considered as a specialized work that will not go out of date for a long time. This book provides new insights into the area of plant taxonomy with respect to xeric conditions. This area, being a hostile and harsh climate, has been neglected for the comprehensive and scientific study point of view. This book is thus a contribution of more than 10 years exploration and collection of plant specimens from the whole study area.

**BUSINESS**

Control Methodology

*Dmitry Novikov (Russian Academy of Sciences, Moscow, Russian Federation)*

In series: Management Science - Theory and Applications

2013.

Soft: 978-1-62417-962-4. $52.00.
e-book: 978-1-62417-965-5. $52.00.

The book “Control Methodology” focuses on the basics of control methodology as the theory of control activity organization. This is done using the framework of systems analysis in the logic of modern (project-technological and knowledge-based) types of organizational culture. Consideration of the psychological, sociological, philosophical, ethical and aesthetical foundations of control methodology: characteristics, logical and temporal structures of control activity as well as the general structure of control theory and its components, give to the reader a detailed panoramic picture of modern control theory foundations. The book allows the researcher (or the manager) not only to realize “what he is doing” in his everyday activity, but to improve and optimize this activity, as well as the activity of his colleagues and subordinates.

**CELL BIOLOGY**

Mesenchymal Stem Cells

*Yin Xiao (Queensland University of Technology, Brisbane, Australia)*

In series: Cell Biology Research Progress


This book presents a comprehensive insight into the biology of adult stem cells and their utility in current regeneration therapies. The adult stem cell populations reviewed in this book include bone marrow derived MSCs, adipose derived stem cells (ASCs), umbilical cord blood stem cells, and placental stem cells. MSC circulation and trafficking, neuroprotective properties, and the nurturing roles and differentiation potential of multiple lineages have been discussed in details. In terms of therapeutic applications, the strengths of MSCs have been presented and their roles in disease treatments such as osteoarthritis, Huntington’s disease, periodontal regeneration, and pancreatic islet transplantation have been discussed.

**CHEMICAL ENGINEERING**

Advances in Chemistry Research. Volume 17

*James C. Taylor*

In series: Advances in Chemistry Research
This book presents original research results on the leading edge of chemistry research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include the physicochemical properties and applications of dichloromethane; innovative strategies in endotoxin free plasmid DNA production; the electrolytic dissociation of thio derivatives of dicarboxylic acids; tetravalent ion conducting solid electrolytes; and biomolecule and layered double hydroxide assemblies.

Algebraic Chemistry: Applications and Origins
Cynthia Kolb Whitney (The Journal Galilean
Electrodynamics, Arlington, MA, USA)
In series: Chemical Engineering Methods and Technology
In series: Mathematics Research Developments
Case: 978-1-62257-861-0. $150.00.
Algebraic chemistry is based on numerical patterns observed in readily available data about ionization potentials of atoms, and on a physical model that interpolates and extrapolates from that data to situations for which data is not readily available, such as ionization potentials for atoms that are already ionized, or corresponding energy increments involved in adding, rather than subtracting, electrons. This Book presents an approach to chemistry that permits numerical evaluation of many chemical scenarios without use of much computation power. Everything here can be worked out with a hand calculator. The approach thus makes numerical analysis of scenarios in chemistry feasible for students, or up-coming researchers, or retirees, who work with minimal financial support.

Aniline: Structural/Physical Properties, Reactions and Environmental Effects
Kenneth Hernandez and Maria Holloway
In series: Chemical Engineering Methods and Technology
Case: 978-1-62417-417-9. $95.00.
e-book: 978-1-62417-418-6. $95.00.
Being a precursor to many industrial chemicals, aniline's main use is in the manufacture of precursors to polyurethane. Like most volatile amines, it possesses the somewhat unpleasant odor of rotten fish. It ignites readily, burning with a smoky flame characteristic of aromatic compounds. In this book, the authors discuss the structural and physical properties, reactions and environmental effects of aniline. Topics include the green catalytic process for the synthesis of aromatic amines from hydrogenation of aromatic nitro compounds; aniline-based polybenzoxazine and their copolymers or composites; one-step C-H amination offers a new synthetic strategy towards the clean and effective production of aniline; synthesis and structures of gossypol mono-aldehyde derivatives with o-substituted anilines; and oxidative polymerization of diphenylamine-2-carboxylic acid.

Application of Stable Lead Isotope Pb-208 in Nuclear Power Engineering and its Acquisition Techniques
Georgy Levanovich Khorasanov (State Scientific Centre of the Russian Federation, Institute for Physics and Power Engineering, Kaluga Region, Russian Federation)
In series: Chemical Engineering Methods and Technology
2013. 194 pp.
Case: 978-1-62417-653-1. $85.00.
The book provides an overview of the advantages in using lead enriched with stable lead isotope lead-208 instead of natural lead as a coolant of fast reactors (FRs) and accelerator driven systems (ADS). Lead-208 as a twice magic nucleus has low cross sections of neutron radiation capture and small moderation of neutrons in the range of neutron energies 10 eV – 20 MeV, i.e. in FR and ADS core neutron spectra. These unique features of lead-208 lead to the economy of neutrons, hardening the neutron spectra and other profitable factors.

Chemical Vapor Synthesis of Inorganic Nanopowders
H. Y. Sohn (University of Utah Salt Lake City, Utah, USA)
In series: Chemistry Research and Applications
In series: Nanotechnology Science and Technology
2012. 221 pp.
Case: 978-1-62100-002-0. $110.00.
Materials in the form of ultrafine or nanosized powders display many useful physical, mechanical and chemical properties. The properties of nano-scaled materials are significantly different from atoms and bulk materials arise mainly from large fraction of surface atoms, high surface energy and reduced imperfections. The effects of grain size on mechanical properties have been recognized and generated much interest. It would therefore be advantageous if compounds can be produced in fine powder form from inexpensive raw materials using less energy. Their small sizes also improve hardness, fracture toughness and low-temperature ductility as well as catalytic and interfacial processes. Nanomaterials also enable lower processing temperatures compared with bulk materials and faster reaction time due to their higher surface reactivity. Thus, the production of nano-sized powder is an important industrial process and is explored in this technical and informative book.

Denitrification: Processes, Regulation and Ecological Significance
Nico1o Savaglio and Raul Puropol0
In series: Chemical Engineering Methods and Technology
In series: Environmental Science, Engineering and Technology
Case: 978-1-61470-879-7. $185.00.
Denitrification is a process occurring in natural environments, such as soil, marine and fresh waters, where the role of the nitrogen cycle is relevant. Denitrification is defined as an anoxic biological process, which involves the reduction of nitrate or nitrite to molecular nitrogen. In this book, the authors present topical research in the study of the processes, regulation and ecological significance of denitrification. Topics discussed include the biological removal of nitrogen compounds from wastewaters; biofilm reactors in denitrification processes; design ecological treatment systems for nitrogen removal
through nitration and anammox; microbial water denitrification stimulated by electric fields and denitrification in plant-beneficial bacteria.

**Formaldehyde: Chemistry, Applications and Role in Polymerization**

**Chan Bao Cheng and Feng Hu Ln**

In series: *Pollution Science, Technology and Abatement*

In series: *Chemistry Research and Applications*


Case: 978-1-62257-214-4. $150.00.
e-book: 978-1-62257-228-1. $150.00.

Formaldehyde is a building block in the synthesis of many other compounds of specialized and industrial significance. It exhibits most of the chemical properties of other aldehydes but is more reactive. In this book, the authors discuss the chemistry, applications and role in polymerization of formaldehyde. Topics discussed include the properties of urea-formaldehyde resins for wood-based composites; electronic spectra of formaldehyde in aqueous solution; decontamination of indoor air pollutants of formaldehyde through catalytic oxidation over oxide supported noble metal nanocatalysts; indoor air monitoring using newly developed formaldehyde sensor elements and portable monitoring devices; unusual behavior during the electrochemical oxidation of formaldehyde; and an algebraic approach to estimate the PES of formaldehyde through the study of vibrational excitations.

**Germanium: Properties, Production and Applications**

**Regina V. Germanno**

In series: *Chemical Engineering Methods and Technology*


Case: 978-1-61209-205-8. $165.00.

Germanium is an important semiconductor material used in transistors and various other electronic devices. Its major end uses are fiber-optic systems and infrared optics, but it is also used for polymerization catalysts, as well as in electronics and solar cell applications. This book presents current research in the study of germanium, including properties and generation by irradiation of germanium point defects in Ge-doped silica; Germanium encaged fullerene-synthesis; research of silicon and germanium structures with films of oxides and fluoride rare earth elements and new generation germanium detectors for double beta decay searches.

**Glycerol: Production, Structure and Applications**

**Miguel De Santos Silva and Paulo Costa Ferreira**

In series: *Chemical Engineering Methods and Technology*

In series: *Biochemistry Research Trends*


Case: 978-1-62081-120-7. $140.00.

In this book, the authors present topical research in the study of the production, structure and applications of glycerol. Topics discussed include the use of glycerol from biodiesel to production of environmental technologies; thermochemical conversion of glycerol to hydrogen; the application of glycerol in pharmaceutical formulation; valorization of glycerol in propanediols production by catalytic processes; hydrogen production from glycerol via membrane reactor technology; ruthenium-catalyzed nitrile hydration reactions using glycerol as solvent; and natural activation of commercial glycerol.

**Graphene: Properties, Synthesis and Applications**

**Zhiping Xu (School of Aerospace and Center for Nano and Micro Mechanics, Tsinghua Society, China)**

In series: *Nanotechnology Science and Technology*


Case: 978-1-61470-949-7. $140.00.

Graphene is a fundamentally monolayer material with single-atom thickness. It possesses many fascinating properties including massless Dirac electron structure, extraordinary high electron mobility, thermal conductivity, stiffness and strength, and large surface volume ratio etc. This edited book is organized into two parts. The first part focuses on the electronic and mechanical properties of graphene materials. The second part of this book covers the application aspects of graphene and related materials. Graphene is a simple material, but also a building block for very complicated applications. The approach to understand the role of graphene and related materials in these fields relies not only on individual research by scientists in their own fields but also, on interdisciplinary cross-talk, as we present here in this book.

**Indium: Properties, Technological Applications and Health Issues**

**Hsiao G. Woo and Huang Tsai Choi**

In series: *Chemical Engineering Methods and Technology*

In series: *Materials Science and Technologies*


Case: 978-1-62257-696-8. $150.00.

In this book, the authors gather and present current research from across the globe in the study of the properties, technological applications and health issues relating to indium. Topics discussed include the properties of indium, gallium and Ga-In alloys in confined geometry; indium as a co-catalyst in Novel Cu or Ni catalysts for reduction of biomass derived fatty acids to alcohols; reliability of indium tin oxide thin films; indium reagents for chemical transformations; indium atoms using electron and optical spectroscopy; indium sulfide-manganese ore; rare earth ions doping on the photoluminescent properties of indium hydroxide; and hydrothermal synthesis of indium tin oxide nanoparticles without chlorine contamination.

**Iridium: Occurrence, Characteristics and Applications**

**Chieko Fukui and Maemi Ono**

In series: *Chemistry Research and Applications*

In series: *Materials Science and Technologies*


Case: 978-1-62081-681-3. $120.00.
e-book: 978-1-62081-692-9. $120.00.

Organometallic complexes of iridium have gained importance because of their novelty, reactivity and applications in diverse fields. In this book, the authors present current research in the study of the occurrence, characteristics and applications of iridium. Topics include the synthetic methods of different classes of volatile organometallic and coordination compounds of iridium; homogeneous iridium catalysts in aqueous solution; applications of iridium catalysts in green chemistry; iridium-carbonyl complexes of nitrogen-oxygen and phosphorous-oxygen donor ligands; iridium-catalyzed allylic substitutions; a novel amperometric transducer electrode with iridium-niobium binary alloys; and highly efficient electrophosphorescent organic light-emitting diodes based on iridium (III) complexes containing carbazole units.
Iron Oxides: Structure, Properties and Applications
Arturo I. Martinez (Center for Research and Advanced Studies, National Polytechnic Institute at Saltillo, Mexico)
In series: Chemistry Research and Applications
Case: 978-1-62257-407-0. $150.00.
This book presents the most recent findings in science and technology of iron oxides based materials. It contains eight chapters written by research experts from different countries. The book covers recent results on superparamagnetic iron oxide nanoparticles used as contrast agents for molecular imaging and cell tracking; the synthesis and characterization of nanostructured iron oxides embedded in porous matrices; the use of superparamagnetic nanoparticles in characterizing cardiac injury; application of iron oxide thin films in solar water splitting; the relation of photoreponse with different impurities in the iron oxide matrix; the use of coated iron oxide nanoparticles in cell and tissue engineering for designing strategies for cardiovascular medicine; and research on natural and man-made iron oxides nanoparticles focused on the natural iron oxides nanoparticles developed in plants and the impact of man-made iron oxide nanoparticles on the growth of plants. Additionally, the use of superparamagnetic iron oxide nanoparticles in magnetic resonant imaging, applied drug delivery, and photodynamic therapy are discussed. Finally, the application of both natural and synthetic iron oxides based adsorbents in arsenic removal is reviewed. For these characteristics, this book is useful for specialists working in multidisciplinary projects where iron oxides are involved, as well as to graduate students, and upper-level undergraduates undertaking research in this field.

Lithium: Technology, Performance and Safety
Francisco L. Tabarés (Head of the Plasma-Wall Interaction Group, Laboratorio Nacional de Fusion, As.Euratom/Ciemat, Madrid, Spain)
In series: Chemical Engineering Methods and Technology
In series: Chemistry Research and Applications
2013. 345 pp.
Case: 978-1-62417-154-3. $150.00.
e-book: 978-1-62417-155-0. $150.00.
This book presents new developments in chromophore research. Topics discussed include boron-Dipyromethene (BODIPY) chromophores; a chromophoric test for quantifying cholesterol and major polunsaturated fatty acids in food and biological samples; structural characterization of heterometalllic PtAg, PtAu, and PtCu complexes; the reduction of Re chromophores attached to polymeric backbones by electrochemical and pulse radiolysis techniques; development of H-shaped two-dimensional conjugated oligomers as functional chromophores and fluorophores; design of chromophores for photoinitiators of polymerization; phytochrome-chromophore biosynthesis and chloroplast development; and efficient plastic scintillators with luminescent Eu complexes.

Naphthalene: Structure, Properties and Applications
Gleb I. Antsyforov and Alyona F. Ivanski
In series: Chemical Engineering Methods and Technology
Case: 978-1-61942-550-7. $150.00.
In this book, the authors gather and present topical research in the study of the structure, properties and applications of naphthalene. Topics include several self-assembling technologies to naphthalene-based organic nanostructures; transition metals complexes of naphthalene; luminescence of naphthalene in self-assembled inclusion complexes with cyclodextrins and naphthalene-based fluorophore applications.

New Developments in Aldehydes Research
Luca Torrioni and Emilia Pescasseroli
In series: Chemical Engineering Methods and Technology
Case: 978-1-62417-090-4. $150.00.
e-book: 978-1-62417-091-1. $150.00.
In this book, the authors present topical research in the study of aldehydes. Topics discussed in this compilation include the synthesis and properties of intermediates in reactions of aldehydes with P(III) chlorides; synthesis of heterocyclic compounds by interaction of aldehydes with monoterpenoids; update on aliphatic aldehydes in lipid foods; inhibition of microbial biocatalysts by biomass-derived aldehydes and methods for engineering tolerance; co-oxidation processes promoted by N-hydroxypyridinamide/aldehyde systems; and the structure of gossypol condensation bis-product with 2-amino-4,6-dioxyopyrimidine in acidic environment.

New Developments in Chromophore Research
Auben Moliere and Elliot Vigneron
In series: Chemistry Research and Applications
In series: Chemical Engineering Methods and Technology
2013. 345 pp.
Case: 978-1-62417-154-3. $150.00.
e-book: 978-1-62417-155-0. $150.00.
This book presents new developments in chromophore research. Topics discussed include boron-Dipyromethene (BODIPY) chromophores; a chromophoric test for quantifying cholesterol and major polunsaturated fatty acids in food and biological samples; structural characterization of heterometalllic PtAg, PtAu, and PtCu complexes; the reduction of Re chromophores attached to polymeric backbones by electrochemical and pulse radiolysis techniques; development of H-shaped two-dimensional conjugated oligomers as functional chromophores and fluorophores; design of chromophores for photoinitiators of polymerization; phytochrome-chromophore biosynthesis and chloroplast development; and efficient plastic scintillators with luminescent Eu complexes.

Non-Phosgene Polycarbonate from CO2-Industrialization of Green Chemical Process
Shinsuke Fukuoka (Asahi Kasei Chemicals Corporation)
In series: Environmental Research Advances
In series: Environmental Remediation Technologies, Regulations and Safety
Case: 978-1-61470-877-3. $165.00.
All polycarbonate (PC) in the world have been produced using CO as a starting material until the a process was industrialized in 2002; among them, more than about 90% of polycarbonate (PC) have been produced by the so-called phosgene process. The phosgene process must use not only highly toxic and corrosive phosgene (COCl2) made from CO and Cl2, but also large quantities of solvents, water and methylene chloride which is suspected to be a carcinogen. Furthermore, the phosgene process must execute the disposal treatment of large quantities of wastewater to remove the contaminated organic materials before discharge from the factory. The Asahi Kasei Non-Phosgene Polycarbonate Process enables high-yield production of the two products, high-quality polycarbonate (PC) having excellent properties and high-purity monoethylene glycol (MEG), starting from ethylene oxide (EO), CO2 and bisphenol-A, without waste and wastewater.
Pesticides: Characteristics, Uses and Health Implications
Aaron J. Abrego Gomez and Eduardo M. Lugo de Ortega
In series: Chemical Engineering Methods and Technology
In series: Agriculture Issues and Policies
2012. 177 pp.
Case: 978-1-62081-577-9. $120.00.
e-book: 978-1-62081-630-1. $120.00.
In this book, the authors present current research in the study of the characteristics, uses and health implications of pesticides. Topics discussed include the evaluation of pesticide-induced DNA damage and oxidative stress on human and wildlife populations in Argentina; analytical methods of various families of pesticides in biological matrices; implications of pesticide use in the olive sector; pesticides and endangered sea turtles; monitoring emissions and atmospheric degradations of pesticides in the atmosphere; and adverse effects of pesticides in human health.

Phthalates: Chemical Properties, Impacts on Health and the Environment
Gerardo L. Moretti and Drago Romano
In series: Chemical Engineering Methods and Technology
In series: Environmental Health - Physical, Chemical and Biological Factors
In series: Chemical Engineering Methods and Technology
Case: 978-1-62081-994-4. $150.00.
Phthalates are esters of phthalic acid and are a group of chemicals of high environmental relevance due to their production rates and ecotoxicological potential. Phthalates are mainly used as plasticizers in PVC plastics, wherein many consumer products contain specific members of this family of chemicals. In this book, the authors present current research on the chemical properties and impacts on health and the environment of phthalates. Topics include phthalate contamination in two estuaries from the Basque Coast; bioaccumulation and intracellular signal modifications of in vivo and in vitro models of phthalate esters; DEHP behavior in contact with liquid food simulants, blood, saliva and soil; removal of phthalates from the environment; gas phase fragmentation reactions of phthalate ions; the effects of DEHP exposure on brain development; and phthalate toxicogenomics and health effects.

Platinum: Compounds, Production and Applications
Leonid Varennikov and Eduard Yedemsky
In series: Chemical Engineering Methods and Technology
In series: Materials Science and Technologies
2013. 163 pp.
Case: 978-1-62257-939-6. $150.00.
In this book, the authors present current research in the study of the compounds, production and applications of platinum. Topics discussed include the structural aspects of platinum coordination complexes; the problems of geochemical antagonism between REE and PGE in mafic and ultramafic rocks and their petrogenetic significance; the synthesis of platinum complexes of cyclic phosphines and bisphosphines; platinum films YSZ with different types of grain boundaries; platinum nanoparticles and inflammation; and platinum-halide square-prism compounds and their optical features.

Polymer Chains: Structure, Physical Properties and Industrial Uses
Regine Penzofer and Yasue Wu
In series: Chemical Engineering Methods and Technology
In series: Polymer Science and Technology
Case: 978-1-62100-422-6. $140.00.
The physical properties of a polymer are strongly dependent on the size or length of the polymer chain. As chain length is increased, melting and boiling temperatures increase quickly. Impact resistance also tends to increase with chain length, as does the viscosity, or resistance to flow, of the polymer in its melted state. In this book, the authors present topical research in the study of the structure, physical properties and industrial uses of polymer chains. Topics discussed include the flexibility of polyheteroarylenes and the effect on several physical properties of these polymers; aliphatic polyester-based nanocomposites; bioplastic-based blends; interactions in small permeants in polymeric matrices; the role of polymer chain ends in plasma surface modification and preceramic polymer chains.

Pressure Driven Membrane Processes: Modeling and Analysis
Sergey P. Agashichev (National Energy and Water Research Center, Abu Dhabi, United Arab Emirates)
In series: Chemical Engineering Methods and Technology
Case: 978-1-61942-411-1. $150.00.
e-book: 978-1-61942-603-0. $150.00.
Membrane technology being low-energy consuming and environmentally friendly is considered to be a new generation of the sustainable processes. Diversification of the spectrum of their applications in particular for processing aggressive fluids at elevated temperature; for separation of liquids with shear-dependent behaviour etc. require further development of the pressure driven membrane processes such as reverse osmosis, nanofiltration, ultrafiltration and microfiltration. Implementation of these processes are often hampered by existing techniques of process calculation and design, therefore this book focuses on modeling, development of the process-type calculations and analysis of the pressure driven membrane operations.
Silane: Chemistry, Applications and Performance
Katsuo Moriguchi and Susumu Utagawa
In series: Gases - Characteristics, Types and Properties
Case: 978-1-62257-432-2. $150.00.
Silanes are synthetic compounds containing one or more Si-C bonds. They have wide application in industry, dentistry and medicine. They are used mainly as surface coating agents for surface modification and as coupling agents for adhesion promotion between two dissimilar materials. In this book, the authors present current research in the chemistry, applications and performance of silanes. Topics include the role silanes play in the processing of electronic chips and their thermochelical data; silane application in dental materials; thermal cationic polymerization of E-caprolactone using silanes; nanosilica surface modification by low-volatility silane coupling agents; and synthesis of a mesoporous silica hollow microsphere using methyltrimethoxy silane.

Silicon Nitride: Synthesis, Properties and Applications
Emiliano Jose Hierra and Jesus Anjel Salazar
In series: Chemical Engineering Methods and Technology
Case: 978-1-61942-865-2. $150.00.
Silicon nitride (Si3N4) ceramic is used in numerous applications because of its superior properties, such as high-temperature strength, good oxidation resistance and low thermal expansion coefficient. In this book, the authors present current research in the study of the synthesis, properties and applications of silicon nitride. Topics include the optical and vibration properties of silicon rich nitride; high temperature oxidation of silicon nitride based ceramics; low temperature preparation of phosphate bonded silicon nitride ceramics with high mechanical strength; the SPS-sintering process and use of ceramics for high-temperature engineering applications; synthesis and properties of silicon nitride coatings; and the use of silicon nitride as biomaterial.

Strontium: Chemical Properties, Applications and Health Effects
Miaohua Wai and Xu Guan Gong
In series: Chemical Engineering Methods and Technology
In series: Biochemistry Research Trends
Case: 978-1-62257-631-9. $120.00.
e-book: 978-1-62257-632-6. $120.00.
Strontium (Sr) is one of the most extensively investigated alkaline earth metals and has received much attention for biomedical applications since strontium ranelate was marked as a new orally administered agent for the treatment of women with postmenopausal osteoporosis that reduces the risk of vertebral and nonvertebral fractures. In this book, the chemical properties, applications and health effects of strontium are discussed. Topics include the use of strontium in assessing the age of geological materials; the physical, chemical and biological roles of strontium in bone regeneration materials; mammalian oocyte activation with strontium chloride for parthenogenesis, somatic cell nuclear transfer and intracytoplasmic sperm injection; concentration distribution of emerging pollutant strontium in food and environmental samples; and lanthanum strontium manganites for application as cathodes in solid oxide fuel cells.

The Role of Ionic Liquids in the Chemical Industry
José Santiago Torrecilla (Departamento de Ingeniería Química, Facultad de Ciencias Químicas, Universidad Complutense de Madrid, Spain)
In series: Biochemistry Research Trends
Case: 978-1-62081-086-6. $75.00.
This book has been written by nearly twenty relevant authors in the field of ionic liquids. This book is a summary which will appeal not only to students and professionals, but also to non-qualified people interested in chemistry in general. Certainly, the readers of this book can take a pleasant stroll through the marvelous world of ionic liquids and some of their most important and novel applications. Their characteristics and applications are presented from the most general to the most specific points of view. In addition, these points are presented with more than sufficient scientific and technical references which can easily be found in the literature.

The Y-type Hexagonal Ferrite for Hyper-Frequency
Yang Bai (Advanced Material and Technology Institute, University of Science and Technology Beijing, Beijing, P.R. China)
In series: Materials Science and Technologies
Soft: 978-1-62081-564-9. $52.00.
e-book: 978-1-62081-622-6. $52.00.
With the rapid development of modern electronic technology, miniaturization, integration and high frequency have become the trends. Currently, the popularity of portable electronic products and wireless technology creates a great demand for novel chip inductive devices in hyper frequency, which demands soft-magnetic materials with both excellent electromagnetic properties in hyper frequency and good sintering behavior following the need of low temperature cofired ceramics (LTCC) technology. Hence, Y-type hexagonal ferrite is regarded as a good candidate of soft-magnetic material in hyper frequency and attracts much attention these years. On one hand, the strong planar magnetocrystalline anisotropy gives it a high cut-off frequency up to GHz and excellent soft magnetic character in hyper frequency. On the other hand, the relative simple crystal structure among hexagonal ferrites also endows it a low sintering temperature.

Triazines: Synthesis, Applications and Toxicity
Ramesh Bhai Patel and Amit Malhotra
In series: Chemical Engineering Methods and Technology
Case: 978-1-61942-299-5. $150.00.
1,3,5-Triazine derivatives find wide applications as bioactive compounds and drugs, components of polymer compositions, reactive dyes, energetic materials, reagents for organic synthesis, combinatorial and analytical chemistry. In this book, the authors present topical research in the study of the synthesis, applications and toxicity of triazines. Topics discussed include polynitrithromethyl 1-1,3,5 triazines; application of triazine based dendrimers as drug delivery agents; biodegradation of s-triazine herbicides in soil/surface water environments and synthesis and properties of heat-resistant polymers containing triaryl-s-triazine moiety.
Tritium in Fusion: Production, Uses and Environmental Impact
Silvano Tosti and Nicholas Ghirelli, (Via Della Sorgente, Frascati, Italy)
In series: Environmental Health - Physical, Chemical and Biological Factors
In series: Chemistry Research and Applications
Case: 978-1-62417-270-0. $195.00.
Tritium is a radioactive hydrogen isotope that is of interest for both civil and military applications. Most of tritium is used for the realization and the maintenance of fission and fusion nuclear weapons while only a minor fraction of tritium is commercially used. Among the non-military uses; medical diagnostic and research in pharmaceutical laboratories are discussed. For research purposes, tritium is also used in fusion power machines and, in particular, the development of processes for tritium recovery in the fusion fuel cycle has been the object of significant technological improvements. This book provides an overview on the processes for the production and treatment of tritium in nuclear fusion machines as well as the aspects of measurement, dose assessment and safety of tritium with a focus on the impact to human health and the environment.

Uranium: Characteristics, Occurrence and Human Exposure
Alik Ya. Vasiliev and Mikhail Sidorov
In series: Nuclear Materials and Disaster Research
In series: Chemistry Research and Applications
Case: 978-1-62081-207-5. $150.00.
Uranium has both radioactive and chemical hazards and risk assessments must address both types. Its environmental distribution depends on natural occurrence and has been influenced by human activities such as energy production, coal, and phosphate fertilizer exploration, which may impact freshwater ecosystems. In this book, the authors present current research in the study of the characteristics, occurrence and human exposure to uranium. Topics include the anthropogenic sources of uranium in Serbia; uranium mining in Portugal; laser-induced nuclear decays in uranium isotopes; uranium hydrothermal deposits; and geophysical studies to evaluate geological and hydro-geological features in old uranium mines.

Vanadium: Chemical Properties, Uses and Environmental Effects
Veniamin N. Baranova and Arkady V. Fortunatov
In series: Chemical Engineering Methods and Technology
In series: Biochemistry Research Trends
2012. 190 pp.
Case: 978-1-62081-600-4. $150.00.
In this book, the authors present topical research from across the globe in the study of the chemical properties, uses and environmental effects of vanadium. Topics discussed include vanadium in biology and its contributions on the environmental cycles of chemical elements; ferritic stainless steel protected vanadium alloy as cladding material for fast reactor; vanadium oxides for solar control applications; global scientific production of vanadium research; and soft solution processing of nanoscaled lithium vanadium oxides as cathode materials for rechargeable lithium ion batteries.

Zirconium: Characteristics, Technology and Performance
Lucy M. King and Kathy E. Allen
In series: Chemical Engineering Methods and Technology
In series: Materials Science and Technologies
2012. 150 pp.
Soft: 978-1-62081-497-0. $69.00.
In this book, the authors present current research in the study of the characteristics, technology and performance applications of zirconium. Topics discussed include the preparation of zirconium oxide thin film by plasma coating method and its hydrophobic nature; cellulose fibers coated zirconium oxide; zirconium and potassium cobalt molybdenum carbide as an active water-gas shift catalyst; the electrochemical characterization of two different zirconium-based permselective systems; zirconia and alumina bioceramic biocompatibility; and the preparation and properties of zirconia nanocrystalline ceramics.

CHEMISTRY

A Conceptual Approach to the Teaching of Chemistry
Raffaele Pietro Bonomo, Giovanni Tabbi, Alessandro Giuffrida (Dipartimento di Scienze Chimiche, Università degli Studi di Catania, Catania, Italy)
In series: Chemistry Research and Applications
In series: Education in a Competitive and Globalizing World
2012. 87 pp.
Soft: 978-1-62257-862-7. $52.00.
e-book: 978-1-62257-867-2. $52.00.
This book presents historical and conceptual considerations about some of the topics of a general chemistry syllabus used by the authors as introductory lectures to the said course. On the basis of their teaching experiences, the authors have arranged their ideas, so as to make the salient points of scientific disciplines like chemistry clear and easily used. In other words, their considerations may be employed as outlines of lectures on specific issues, which are to be completed by adding pertinent explicative examples and reading passages. To conclude the discussion of this subject, the authors also give some ideas as to considering a cultural approach to the teaching of chemistry, which they consider very important, and in general their proposal to improve the present way of teaching scientific disciplines.

Advances in Chemical Modeling, Volume 3
Mihai V. Putz (West University of Timisoara, Timisoara, Romania)
In series: Chemistry Research and Applications
This book presents and discusses current research in the study of chemical modeling. Topics discussed include the periodic law and the Scerri’s periodic table; the family resemblance view of quantum mechanics; the relationship between electronic sharing in bonding and electronegativity equalization of atoms in molecules; Gordy’s atomic electronegativity ansatz; amphoteric, amphihydric and ambisaline; from cyclic silylenes to allenic structures; and modeling and simulation of isothermal fixed-bed adsorption column.
Advances in Chemistry Research. Volume 13
James C. Taylor
In series: Advances in Chemistry Research
Case: 978-1-62100-519-3. $140.00.
This book presents original research results on the leading edge of chemistry research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include semiconductor photocatalysis and metal deposition; biochemical depolymerization of macromolecules; aeration technologies used for wastewater treatment; triketones herbicides and foaming tannin from a cellulose-tannin solution.

Advances in Chemistry Research. Volume 14
James C. Taylor
In series: Advances in Chemistry Research
Case: 978-1-61942-327-5. $140.00.
This book presents original research results on the leading edge of chemistry research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include the oxidative decomposition of oxalic acid in aqueous media; the physico-chemical properties of acrylamide; catalysis and the phenomenon of electrochemical promotion; oxalate metabolism in wood-rotting basidiomycetes; novel self-oscillating polymer chains; lysophosphatidic acid and heavy metal toxicity.

Advances in Chemistry Research. Volume 16
James C. Taylor
In series: Advances in Chemistry Research
Case: 978-1-62081-362-1. $150.00.
This book presents original research results on the leading edge of chemistry research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include quantum chemical research of the electronic structure and reactivity of nitric acid; furan chemistry and structure application; polyethylene glycol in metal-mediated catalysis; water chemistry research; membrane and membrane reactor technologies for COx purification of gaseous streams; docking of antischistosomal natural products with relevant protein targets; biosynthesis of propionic acid by anaerobic processes; and the analysis of bamboo-carbonized liquid.

Advances in Chemistry Research. Volume 18
James C. Taylor
In series: Advances in Chemistry Research
Case: 978-1-62257-911-2. $150.00.
This book presents original research results on the leading edge of chemistry research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include lymphoscinography using 99mTc-labeled colloidal particles; structural and stereoisomers in the chemistry of Ge, Sn and Pb complexes; Re/Tc radiopharmaceutical design utilizing orthogonal and metal template based click reactions; modulation of yield and stereoselectivity of glycosylation; advances in asymmetric Diels–Alder reactions; fructose and the Reaven’s syndrome; hydroxy acids and neurodegenerative disorders; the transmutation of technetium; applications of the Von Mises distribution (VMD) of circular statistics to chemical and environmental engineering; and the molecular composition and uses of technetium.

Chemical Information and Computational Challenges in the 21st Century
Mihai V. Putz (West University of Timisoara, Romania)
In series: Chemistry Research and Applications
In series: Chemical Engineering Methods and Technology
2012. 373 pp.
Case: 978-1-62109-712-1. $145.00.
While many fields of our current life and technology make use of the involvement of chemistry, even in a subtle way as quantum-, mathematical-, physical-, nano-, bio-, or eco-, and chemical disciplines, the chemistry itself drives almost all nature cycles through the atomic and molecular structure and reactivity universal principles. This new book presents an interdisciplinary-internationally picture of chemical information embedded in various micro- and macro- systems in order to show how fertile the field of research and knowledge is thanks to chemistry.

Chemistry Research Biographical Sketches and Research Summaries
Elnur S. Hüseynov and Vusal Babayev
In series: Chemistry Research and Applications
This new book compiles biographical sketches of top professionals in the field of chemistry, as well as research summaries from a number of different focuses in this important field.

Chemistry Research Summaries. Volume 1
Elnur S. Hüseynov and Vusal Babayev
In series: Chemistry Research and Applications
This book is a continuation of the book Chemistry Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of chemistry research, as well as research summaries from a number of different focuses in this important field.

Chemistry Research Summaries. Volume 2
Elnur S. Hüseynov and Vusal Babayev
In series: Chemistry Research and Applications
This book is a continuation of the book Chemistry Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of chemistry research, as well as research summaries from a number of different focuses in this important field.

Chemistry Research Summaries. Volume 3
Elnur S. Hüseynov and Vusal Babayev
In series: Chemistry Research and Applications
This book is a continuation of the book Chemistry Researcher Biographical Sketches and Research Summaries which compiles
biographical sketches of top professionals in the field of chemistry research, as well as research summaries from a number of different focuses in this important field.

**Colloids: Classification, Properties and Applications**
*Paresh C. Ray (Department of Chemistry, Jackson State University, Jackson, MS)*

In series: *Condensed Matter Research and Technology*
In series: *Chemistry Research and Applications*
Case: 978-1-62081-128-3. $140.00.  

Colloidal science and technology is one of the fastest growing research and technology areas. This book explores the cutting edge research in colloidal science and technology that will be useful in almost every aspect of modern society. This book has a depth of information related to historical prospective, synthesis, characterization, theoretical modeling and application of unique class of colloidal materials starting from colloidal gold to coated silica colloid and platinum, titania colloids. This book is unique in its design, content, providing depth of science about different colloidal materials and their applications in chemistry, physics, biological, medical sciences and environment. Graduate students, academic and industrial researchers and medical professionals will discover recently developed colloidal materials and their applications in many areas of human endeavors through this book.

**Fabrication and Characterization of Dilute Nitride Indium Antimonide for Long Wavelength Infrared Applications**
*Pham Huynh Tram, Yoon Soon Fatt and Lim Kim Peng (Nanyang Technological University, Singapore)*

In series: *Chemistry Research and Applications*
Soft: 978-1-62100-940-5. $47.00.  
e-book: 978-1-62100-972-6. $47.00.  

Recently, there has been increased interest in long wavelength infrared (LWIR) materials because of their applications in civilian and military imaging. Among many on-going research materials, dilute nitride indium antimonide (InSbN) has attracted great attention because of the unique characteristics of dilute nitride III-V compounds, which could complement the ubiquitous mercury cadmium telluride (HgCdTe) material in terms of performance and manufacturing. This book presents the molecular beam epitaxy (MBE) growth and characterization of InSb and InSbN materials, based on the research work under the Compound Semiconductor and Quantum Information group, Nanyang Technological University, Singapore.

**Green Chemistry**
*Rafael Luque (Universidad de Cordoba, Spain)*

In series: *Chemistry Research and Applications*
Case: 978-1-61324-877-5. $140.00.  
e-book: 978-1-61324-885-0. $140.00.  

Nanotechnology, energy and the environment are three key hot topics included in green technologies present in all international challenges for the future. The urgency to identify and develop sustainable and timely solutions for our future society is demonstrated due to the alarming trends in global energy demand, the finite nature of fossil fuel reserves, the need to dramatically curb emissions of greenhouse gases (GHG) to mitigate the devastating consequences of climate change, the damaging volatility of oil prices and the geopolitical instability in supplier regions. This book examines several of these topics related to green chemistry in a multidisciplinary and unique book which covers the essence of green chemical technologies. The book also features top contributions from well-established and respected authors in worldwide research programs.

**Handbook of Polycyclic Aromatic Hydrocarbons: Chemistry, Occurrence and Health Issues**
*Guilherme C. Bandeira and Henrique E. Meneses*

In series: *Chemistry Research and Applications*
In series: *Environmental Remediation Technologies, Regulations and Safety*
Case: 978-1-62257-473-5. $195.00.  

Polycyclic aromatic hydrocarbons (PAHs) are highly molecular weight, aromatic compounds containing two or more benzene rings joined together in different ways. They belong to a group of persistent organic pollutants (POPs); they are resistant to degradation; and can remain in the environment for long periods with the potential to cause adverse environmental and health effects. This book discusses the chemistry, occurrence and health issues related to PAHs. Topics include PAHs in foods and herbal medicines; biomonitoring of PAHs by pine needles; thermodynamics and phase behavior of polycyclic aromatic hydrocarbons mixtures; occurrence of polycyclic aromatic hydrocarbons in cephalopods; children environmentally exposed to PAHs and at risk of genotoxic effects; analysis of PAHs in environmental solid samples; the chemical and electronic properties of PAHs; and the determination of PAHs in drinking water sources.

**Handbook on Fullerene: Synthesis, Properties and Applications**
*Robert F. Verner and Carlos Benvegnu*

In series: *Chemical Engineering Methods and Technology*
Case: 978-1-62100-429-5. $325.00.  

The discovery of fullerenes, a new allotropic modification of carbon, is a prominent achievement of the late 20th century in chemistry. In this book, the authors present topical research in the study of the synthesis, properties and applications of fullerene. Topics discussed include phase equilibria in the fullerene-containing system; ionic compounds of fullerenes obtained by synthesis in solution; symmetrical features of fullerene structures in the fundamental domains theory of point symmetry groups; the biomedical application of fullerene; metal complex catalysts in the chemistry of fullerenes; functionalized nanofullerenes for hydrogen storage; self-assembly properties of fullerenes and the radiation induced phenomena in fullerenes.

**Hydroxides: Synthesis, Types and Applications**
*Abejundio Calixto Carillo and Delia Analiz Griego*

In series: *Chemical Engineering Methods and Technology*
In series: *Materials Science and Technologies*
Case: 978-1-62081-021-7. $140.00.  

In this book, the authors present topical research in the study of the synthesis, types and applications of hydroxides. Topics include synthetic approaches to ion-exchangeable metal hydroxides; layered double hydroxides as sorbents for environmental remediation; sodium and potassium hydroxides for preparing superior quality activated carbons; delamination of layered double hydroxides; anionic depollution by layered hydroxides; and ceramic pigments from mixed hydroxides with hydrotalcite-like structures.
Macromolecular Chemistry: New Research
Valentin Gartner
In series: Chemistry Research and Applications
2013.
Soft: 978-1-62417-854-2. $69.00.
In this book, the authors present current research in the study of
cmacromolecular chemistry. Topics include efficient biotechnological
tools on GM crops and bioinsecticide approaches; restructuring polymer
composites with chemically active fillers; enrichment of Sauvignon
Blanc wine by heat stable wine macromolecules; protein transduction
in human cells mediated by arginine-rich cell-penetrating peptides in
mixed covalent and noncovalent manners; and cleavage of
fibrinopeptides from fibrinogen during fibrin formation.

Mercury: Sources, Applications and Health Impacts
Ki-Hyun Kim (Sejong University, Goon Ja Dong, Seoul, South Korea) and Richard J. C. Brown
(Principle Research Scientist and Head of Trace
Chemical Analysis, Analytical Science Division,
National Physical Laboratory, Teddington,
Middlesex, UK)
In series: Chemistry Research and Applications
Case: 978-1-62257-721-7. $150.00.
The chemical element mercury is the only metal that is a liquid at
standard temperature and pressure. It is an extremely rare element in
the Earth’s crust with an average abundance of only 80 parts per
billion. However, where mercury ores do occur they can be very
concentrated – containing up to 2.5 % mercury by mass. The use of
these ores, and of mercury itself, by humans has a long history –
mercury was found in Egyptian tombs dating from 1500 BC. This book
attempts to cover recent developments and the current state-of-the-art
relating to many aspects of mercury science. The contributions made
by the author teams encompass diverse fields of mercury science such as
the monitoring of mercury in various environmental media and the
management of mercury in the earth’s ecological system. Efforts have
also been made to provide detailed insights into developments in novel
chemistry involving mercury and its compounds. This book’s coverage
is expanded further to cover the effect of mercury on animals and
plants.

Molybdenum: Its Biological and Coordination
Chemistry and Industrial Applications
Alvin Holder (The University of Southern
Mississippi, Department of Chemistry and
Biochemistry, Hattiesburg, MS, USA)
In series: Chemistry Research and Applications
2013. 348 pp.
Case: 978-1-62417-272-4. $175.00.
Molybdenum is an essential trace element for virtually all life forms. It
functions as a co-factor for a number of enzymes that catalyze
important chemical transformations in the global carbon, nitrogen, and
sulfur cycles. Thus, molybdenum-dependent enzymes are not only
required for human health, but also for the health of our ecosystem.
Molybdenum and its compounds are also very important in catalysis
and in medicine, so it is not surprising that its biological and
coordination chemistry remain very active areas of research. The
enormous chemistry of molybdenum, much of which remains
untapped, was investigated over many years by two icons: Edward I.
Stiefel and A. Geoffrey Sykes. Ed and Geoff, as they were
affectionately called by many of their friends and research students, are
being honored for their contributions to research on molybdenum with
this textbook.

Pyrene: Chemical Properties, Biochemistry
Applications and Toxic Effects
Petr Ružička and Tomas Kral
In series: Chemistry Research and Applications
2013.
Case: 978-1-62417-291-5. $150.00.
Pyrene (Py) and various metabolites with a Py chromophore are
powerful probes often used in biophysical and biochemical sciences
due to their high fluorescent quantum yields and relatively long
fluorescence lifetimes. In this book, the authors present current
research in the study of the chemical properties, biochemistry
applications and toxic effects of pyrene. Topics include the biological
effects induced by benzpyrene in soil and plants; benz(a)pyrene and
colonic cancer; bacterial metabolism of pyrene; low-temperature laser-
induced fluorescence studies of various biological systems with pyrene
chromophore; photo-energy and electron donating ability of pyrene;
and synthesis of novel silylated pyrene units and their application as a
fluorescent labeling agent for bioactive components such as oligodna
and cholesterol.

Quantum-Chemical Calculations of Molecular
Systems as the Basis of Nanotechnologies in Applied Quantum Chemistry, Volume 4
G.E. Zaikov and V.A. Babkin (Russian Academy of
Sciences, Moscow, Russia)
In series: Chemistry Research and Applications
In series: Nanotechnology Science and Technology
Case: 978-1-61324-284-1. $175.00.
This book presents current research in the study of quantum-chemical
calculations of various molecular systems. The research results
presented suggest that the development of nanotechnologies will offer
new and more effect advancements for the improvement of penicillins,
vitamins and catalysts. The results of quantum-chemical calculations of
various molecular systems presented here are the first step toward the
development of new nanotechnologies.

Recent Advances in Ginseng and Glycosides
Research
Claude J. Hopkins
In series: Chemistry Research and Applications
2013.
Case: 978-1-62417-765-1. $150.00.
In this book, the authors present current research in the study of
glycosides and ginseng. Topics include the synthesis and physico-
chemical properties of benzimidazolone derivatives with N-bound
glycosidic units; motif-based exploration of glycoside hydrolyases
family 1; ginsenoside and gintonin; Mediterranean medicinal plants;
isoflavone c-glycosides isolated from the root of Kadzu (pueraria
lobata) and their estrogenic and antimutagenic activities; changes in the
composition of saccharides in rice grains through cooking and
digestion using synthetic human saliva; and the effects of ultrasound
assisted extraction of water soluble constituents on Brazilian ginseng
roots.
Titanium Dioxide: Applications, Synthesis and Toxicity
Pratulla K. Jha (Department of Physics, Bhavnagar University, Bhavnagar, India)
In series: Materials Science and Technologies
In series: Chemistry Research and Applications
Case: 978-1-62417-024-9. $150.00.
e-book: 978-1-62417-027-0. $150.00.
Titanium dioxide, TiO2, in all its forms, exhibits distinctive physical and chemical properties and has emerged as one of the most fascinating materials in the modern era. It has succeeded in capturing the attention of chemists, physicists, engineers and material scientists in exploring its distinctive and unique properties for its utility in different fields such as energy, environment, pigments, fiber, pharmaceuticals, food, etc. This book is devoted to recent research trends in TiO2. It contains chapters contributed by outstanding experts who have extensively worked on different aspects of TiO2. This book focuses on interdisciplinary perspectives of current challenges for the solution of real world problems. In this book, research manuscripts are shortened as single chapters and the focus is on one hot topic. This book is written at the expert level, but also serves as a guide for researchers or graduate students aiming to enter TiO2 research. Finally, readers will get a deep and active insight into state-of-the-art synthesis techniques, application and toxicity of TiO2.

Trace Elements: Environmental Sources, Geochemistry and Human Health
Diego Alejandro De Leon and Paloma Raquel Aragon
In series: Chemical Engineering Methods and Technology
In series: Biochemistry Research Trends
Case: 978-1-62081-376-8. $150.00.
This book examines the environmental sources, geochemistry and human effects of trace elements. Topics discussed include an assessment of cancer and non-cancer health risk caused by trace element content in Belgrade; flow opto-sensing applied to the analysis of trace elements; trace metals in fruits and vegetables and their effect on human health; excessive livestock mineral supplementation on environmental pollution; assessing the geochemistry of trace elements in canal sediments; and trace element deficiencies in crops.

Unique Properties of Polymers and Composites: Pure and Applied Science Today and Tomorrow (Volume 2)
Yuri N. Bubnov, Valeri A. Vasnev, Andrei A. Askaskii and Gennady E. Zaikov (Russian Academy of Sciences, Moscow)
In series: Polymer Science and Technology
In series: Materials Science and Technologies
Case: 978-1-61470-520-8. $95.00.
e-book: 978-1-61470-646-5. $95.00.
This is the second volume in this series which is devoted to the memory of World Renowned Scientist professor Rusanov Alexander L’vovich. The authors have highlighted in this volume the information about synthesis and properties of some heterochain polymers; polymer chain containing alternating phthalide groups and hydrocarbon structures without heteroatoms; proton-conducting membranes on the basis of sulfonated polyphenylquinoxalines; anionic ring-opening polymerization of e-caprolactam in the presence of an ionic liquid; synthesis of polythiophenes and the modification of materials surfaces by functional oligoorganosiloxanes.

Zeolites: Synthesis, Chemistry and Applications
Maisyk K. Andreyev and Olya L. Zubkov
In series: Chemical Engineering Methods and Technology
In series: Materials Science and Technologies
Case: 978-1-61942-861-4. $140.00.
Zeolites, mainly consisting of silicon, aluminum, and oxygen atoms that connect in three-dimensional frameworks, are three-dimensional microporous or mesoporous materials. They are widely used in many applications, such as catalysts, catalyst supports, membranes, etc. In this book, the authors present current research in the study of the synthesis, chemistry and applications of zeolites. Topics include the conversion of ethanol to hydrocarbons over zeolite catalysts; air pollution catalytic control by metal promoted zeolites; zeolite from fly ash-iron oxide magnetic nanocomposites; application of zeolite containing rocks in berry crop growing; and dealuminated zeolites in biological systems.

COMMUNICATIONS

Advances in Communications and Media Research. Volume 6
Anthony V. Stavros
In series: Advances in Communications and Media Research
Case: 978-1-60876-576-8. $129.00.
In a society predicated on information, the media has a pervasive presence. From government policy to leisure television, the information age touches us all. The papers collected in this book constitute some of today’s leading analyses of the information industry. Together, these essays represent a needed foundation for understanding the present state and future development of the mass media. Current trends in communications as well as media impact on public opinion are studied and reported on.

Cryptography: Protocols, Design and Applications
Kamol Lek and Naruemol Rajapakse
In series: Cryptography, Steganography and Data Security
In series: Privacy and Identity Protection
Case: 978-1-62100-779-1. $140.00.
Cryptography is the practice and study of hiding information. Modern cryptography intersects the disciplines of mathematics, computer science, and electrical engineering. Applications of cryptography include ATM cards, computer passwords, and electrical commerce. In this book, the authors present recent research in the study of the protocols, design and application of cryptography. Topics discussed include quantum cryptography protocols and quantum security; visual cryptography for halftone images; mathematical cryptography of the RSA cryptosystem; multi-layer QKD protocol using correlated photon of dark soliton array in a wavelength router and low-cost mutual authentication protocols.
Emergency Communications: Policy, Technology and Funding Considerations  
Daniel H. Martinez and Allen E. Young  
In series: Media and Communications - Technologies, Policies and Challenges  
In series: Safety and Risk in Society  
2012. 147 pp.  
Case: 978-1-62081-140-5. $110.00.  
The United States has yet to find a solution that assures seamless communications among first responders and emergency personnel at the scene of a major disaster. Since September 11, 2001, when communications failures contributed to the tragedies of the day, Congress has passed several laws intended to create a nationwide emergency communications capability. The 111th Congress considered pivotal issues, such as radio frequency spectrum license allocation and funding programs for a Public Safety Broadband Network (PSBN), without finding a solution that satisfied the expectations of both public safety and commercial network operators. This book explores the areas where changes in existing policies and practices may facilitate achievement of the important goals for emergency communications that Congress and others have identified. Why these goals have become important, and recent planning efforts to achieve these goals is discussed.

Measuring Broadband Performance in America  
Dale Johnson and Margaret B. Wood  
In series: Internet Theory, Technology and Applications  
In series: Media and Communications - Technologies, Policies and Challenges  
2012. 93 pp.  
Soft: 978-1-61942-737-2. $47.00.  
e-book: 978-1-61942-742-6. $47.00.  
To make informed choices about purchasing and using broadband, consumers need to have access to basic information about broadband performance. Will a particular offering allow me to browse the web quickly and easily? Will it enable me to use new applications that help me maintain my health, search for a job, or take courses online? What should I look for in a provider if I want to watch high definition online video or play online video games? Does a given speed tier have sufficient upload capacity to enable video conferencing? Will a higher speed, higher priced service improve my Internet experience? To help answer these questions, this book presents the results of the first rigorous, nationwide study of actual home broadband performance in the United States.

Wireless Communications and Spectrum Management by the FCC and NTIA  
Adan F. Barlow and Danial I. Boyle  
In series: Media and Communications - Technologies, Policies and Challenges  
2012. 149 pp.  
Case: 978-1-61942-997-0. $125.00.  
The radio-frequency spectrum is a natural resource used to provide an array of wireless communications services that are critical to the U.S. economy and national security, such as mobile voice and data services, radio and television broadcasting, radar, and satellite-based services. Demand for radio-frequency spectrum has exploded over the past several decades as new technologies and services have been and continue to be brought to the market in the private sector and new mission needs unfold among government users of spectrum, including wireless communications critical for public safety officials responding to natural and man-made disasters. This book examines the plans and actions to meet future needs of commercial spectrum management.

Computers  
Advances in Security Information Management: Perceptions and Outcomes  
Guillermo Suárez de Tangil and Esther Palomar (Computer Science Dept., University Carlos III of Madrid, Madrid, Spain)  
In series: Computer Science, Technology and Applications  
Case: 978-1-62417-204-5. $150.00.  
e-book: 978-1-62417-221-2. $150.00.  
Network security is still a critical task that involves different disciplines aimed at proactively protecting, preventing, and swiftly responding to attacks. However, the classic management-related flaws still persist, e.g. the analysis of large amounts of reported intrusion alerts, whilst coexisting with novel problematic issues such as the integration of many heterogeneous sensing interfaces. Security information and event management (SIEM) then appears as the new paradigm to reconcile traditional intrusion detection systems along with recently advanced techniques such as event collection, aggregation, analysis, management and correlation. This book brings together the most novel research findings and the latest advances in security information management as well as compiling deeply settled technologies. The book firstly establishes the fundamentals of SIEM technology, and finally, new trends are also explored.

Advances on Processing for Multiple Carrier Schemes OFDM & OFDMA  
Faouzi Bader (Centre Technologic de Telecomunicaciones de Catalunya-CTTC, Barcelona, Spain), Nizar Zorba (University of Jordan, Amman, Jordan)  
In series: Computer Science, Technology and Applications  
Case: 978-1-61470-634-2. $375.00.  
Orthogonal frequency-division multiplexing (OFDM) has existed for many years, but it has recently acquired a huge momentum as an emerging technology for high data rates. This technology has quickly moved from books and lectures to be a key technique within almost all wireless commercial broadband technologies. OFDM stands as a low complexity and high efficiency way to deal with the channel frequency selectivity by dividing the channel into a large set of subchannels, each one of them showing flat fading characteristics. Therefore, OFDM is a multi-carrier transmission technique that makes the communication to be robust against large delay spreads by keeping the orthogonality in the frequency domain. This book presents current research on the advantages and disadvantages of OFDM.

Computational Intelligence  
Alexandra Floares (Artificial Intelligence Department, Cancer Institute Cluj-Napoca, Cluj-Napoca, Romania)  
In series: Computer Science, Technology and Applications
Computational intelligence aims to emulate aspects of biological systems for developing software and/or hardware that learns and adapts. Such systems primarily include neural networks, fuzzy logic systems and evolutionary computation each of them including multiple active and fast growing research directions. This book presents new and ground-breaking research from world-renowned experts focusing on various topics related to computational intelligence. What makes this book particularly interesting is the variety of subjects attained, which offer a global perspective on this central research field in the Knowledge Age.

**Computer Aided Design: Technology, Types and Practical Applications**

**Song Jia and Cheng Yu**

*In series: Computer Science, Technology and Applications*

Case: 978-1-62257-346-2. $150.00.

Computer aided design (CAD) applies computer-assisted methodologies to model 3-D products, perform geometrical shape design, generate industrial or graphic drawings, and make engineering documentation. In this book, the authors present current research in CAD technology, types and general applications. Topics discussed in this compilation include computer aided thermal module design; virtual manufacturing technology; application of feature recognition in uniform and adaptive slicing for rapid prototyping and tooling processes; and computer-aided design based on the function-behavior-structure (FBS) ontology.

**Computer Simulations: Technology, Industrial Applications and Effects on Learning**

**Boris Nemanjic and Navenka Svetozar**

*In series: Computer Science, Technology and Applications*

Case: 978-1-62257-580-0. $150.00.

The use of computers in simulating real-world situations has received widespread interest and attention. Computer simulations have widely been used in industrial applications, fundamental research and in computer-aided education and visualization. In this book, the authors present current research in the study of the technology, applications and effects on learning of computer simulations. Topics include computer modeling of re-rangement in liquid phase sintering; generating near-field fresnel diffraction patterns by Iterative Fresnel Integrals Method; computer simulation of the ion beam modification and analysis of single crystal surfaces under grazing incidence conditions; computer simulation of carbon and carbon-metal nanostructures; computation of residue curves using Mathematica and MATLAB; educational computer simulations of lightning and associated thunders; and designing energy efficient buildings using computer simulation.

**Face Recognition: Methods, Applications and Technology**

**Adamo Quaglia and Calogera M. Epifano**

*In series: Computer Science, Technology and Applications*

*In series: Mechanical Engineering Theory and Applications*

Case: 978-1-61942-663-4. $150.00.

Face recognition has been an active area of research in image processing and computer vision due to its extensive range of prospective applications relating to biometrics, information security, video surveillance, law enforcement, identity authentication, smart cards, and access control systems. Topics discussed in this compilation include two-dimensional principal component analysis algorithms for face recognition; principal component analysis (PCA) and artificial immune networks in face recognition; multi-class learning facial age estimation and forensic face recognition.

**Facial Recognition Technology: Best Practices, Future Uses and Privacy Concerns**

**Meena N. Harnois**

*In series: Computer Science, Technology and Applications*

2013. 144 pp.
Case: 978-1-62417-575-6. $110.00.

Having overcome the high costs and poor accuracy that once stunted its growth, one form of biometric technology - facial recognition - is quickly moving out of the realm of science fiction and into the commercial marketplace. Today, companies are deploying facial recognition technologies in a wide array of contexts, reflecting a spectrum of increasing technological sophistication. This book discusses recent and possible future advances in the use of facial recognition technologies; ways consumers can benefit from these uses; and the privacy and security concerns raised while promoting innovation.

**Federal Cloud Computing: Strategy and Considerations**

**Robert A. Jones and John E. Martinez**

*In series: Computer Science, Technology and Applications*

*In series: Internet Policies and Issues*

Case: 978-1-62081-989-0. $110.00.

This book provides an overview of the current strategies and considerations regarding federal cloud computing. The Federal Government's current Information Technology (IT) environment is characterized by low asset utilization, a fragmented demand for resources, duplicative systems, environments which are difficult to manage, and long procurement lead times. These inefficiencies negatively impact the Federal Government's ability to serve the American public. Cloud computing has the potential to play a major part in addressing these inefficiencies and improving government service delivery. The cloud computing model can significantly help agencies grappling with the need to provide highly reliable, innovative services quickly despite resource constraints.

**Federal Geospatial Information: Management and Coordination**

**Andrew Halpern and Mark Troupp**

*In series: Computer Science, Technology and Applications*

*In series: Earth Sciences in the 21st Century*

Case: 978-1-62257-572-5. $135.00.
Geospatial information is data referenced to a place—a set of geographic coordinates—which can often be gathered, manipulated, and displayed in real time. A Geographic Information System (GIS) is a computer data system capable of capturing, storing, analyzing, and displaying geographically referenced information. The federal government and policy makers increasingly use geospatial information and tools like GIS for producing floodplain maps, conducting the census, mapping foreclosures, congressional redistricting, and responding to natural hazards such as wildfires, earthquakes, and tsunamis. For policy makers, this type of analysis can greatly assist in clarifying complex problems that may involve local, state, and federal government, and affect businesses, residential areas, and federal installations. This book provides a primer on geospatial data and GIS and explores the complexity of managing, sharing, and using geospatial data from a variety of sources and across the breadth of the federal government.

**Horizons in Computer Science Research. Volume 5**

*Thomas S. Clary*

In series: *Horizons in Computer Science*

Case: 978-1-61324-789-1, $140.00.

This book presents original results on the leading edge of computer science research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed in this compilation include contemporary DRAM memories using predictors; database management in risk analysis for nuclear reactors; simulating load balancing in a distributed service architecture; ViER and VaSER analyses of logic circuits in advanced CMOS processes; VLSI circuit design for fuzzy C-means algorithm in reconfigurable hardware; scheduling in WiMAX mesh networks and performance evaluation of configurable multiprocessors.

**Horizons in Computer Science Research. Volume 6**

*Thomas S. Clary*

In series: *Horizons in Computer Science*

Case: 978-1-61470-455-3, $150.00.

This book presents original results on the leading edge of computer science research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include online impairment aware routing and wavelength assignment in WDM optical networks; data fusion in ad-hoc networks; NCTUns distributed network emulator; wireless mesh sensor networks and fully adaptive wormhole router design for network-on-chips.

**Horizons in Computer Science Research. Volume 7**

*Thomas S. Clary*

In series: *Horizons in Computer Science*

Case: 978-1-61942-774-7, $140.00.

This book presents original results on the leading edge of computer science research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include e-science machine learning and knowledge discovery in databases; intuitive human-robot interaction; virtual laboratories in physics education; linear dimensionality reduction and feature selection for visual object recognition; and a distributed infrastructure for monitoring network resources.

**Horizons in Computer Science Research. Volume 8**

*Thomas S. Clary*

In series: *Horizons in Computer Science*

Case: 978-1-62417-413-1, $150.00.
e-book: 978-1-62417-414-8, $150.00.

This book presents original results on the leading edge of computer science research. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include the deformation of materials from macro- to nanoscale and numerical modeling; enabling end-to-end QoS guarantees in the next generation internet with service overlay networks; neuro-fuzzy systems for autonomous mobile robots; semantic technologies to model and control the composability of complex systems; load-distribution algorithm for grid computing with heterogeneous tasks; a hybrid approach for robot policy adaptation; using mobile web applications as a multiprocessor mechanism to communicate users with embedded devices; genetic programming as a solver to challenging reinforcement learning problems; design and implementation of a system for interactive high-dimensional vector field visualization; and Routley-Star and informational interpretation.

**Image Processing: Methods, Applications and Challenges**

*Vítor Hugo Carvalho (Algoritmi Research Centre, University of Minho (UM), Guimarães, Portugal)*

In series: *Computer Science, Technology and Applications*

2012. 262 pp.
Case: 978-1-62081-844-2, $150.00.
e-book: 978-1-62081-858-9, $150.00.

The use of image processing is presenting nowadays an exponential increase in the development of new solutions to deal with challenges in the industry and in the day-to-day life of Society. The improvements of technology enable the recurrent use of image processing based applications with a market which has reached mobile supporting devices such as smart phones and tablets. With the objective of discussing the main issues, challenges, opportunities and trends related to image processing, the result is a compilation of studies available to the readers allowing them to achieve new technological developments, present practical solutions and state-of-the-art technologies, provide guidance for future research and to create a connection between research and applications.


*İvane Gorgidze (Georgian Technical University, Tbilisi, Georgia)*

In series: *Computer Science, Technology and Applications*

Case: 978-1-61942-777-8, $225.00.

This book consists of several chapters, each of which focuses upon the different aspects of innovative usage of modern Informational Technology and IT-related fundamental sciences in solution of different theoretical and practical problems.

**Information Technology: Effective Federal Acquisition and Management**

*Fedele D’Onofrio*

In series: *Internet Policies and Issues*

In series: *Computer Science, Technology and Applications*
Managing Implied Information and Connotative Features in Multilingual Human-Computer Interaction
Christina K. Alexandris (National University of Athens, Athens, Greece)
In series: Computer Science, Technology and Applications
In series: Languages and Linguistics
2013. 143 pp.
Soft: 978-1-62417-620-3. $52.00.
e-book: 978-1-62417-624-1. $52.00.
The increasing use of Human Computer Interaction Systems (HCI Systems) globally, as well as multinational research and development (R&D) HCI projects in industry and in online services is related to the creation and development of multilingual applications, including interaction with multilingual online texts and multilingual Dialogue Systems. In the present approach, the human factor in multilingual Human-Computer Interaction Systems for the International Public and the related Linguistic and Cultural Aspects are examined in respect to the processing of implied information and connotative features in written and spoken texts. The proposed general framework for the processing of implied information and connotative features is characterized by the reinforced role of the Pragmatic Level. This pragmatic framework concerns a finite set of re usable, transferable and language independent general specifications determined and defined for information management, dialog structure and prosodic modeling in the linguistic processing modules of Human – Computer Interaction (HCI) Systems for International Users.

Maximizing the Wireless Spectrum for Economic Growth
Matthew Echols and Janine Quigley
In series: Internet Theory, Technology and Applications
In series: Economic Issues, Problems and Perspectives
America’s future competitiveness and global technology leadership depend, in part, upon the availability of additional spectrum. The world is going wireless, and we must not fall behind. The resurgence of American productivity growth that started in the 1990s largely reflects investments by American companies, the public sector, and citizens in the new communications technologies that are what we know today as the Internet. The Internet, as vital infrastructure, has become central to the daily economic life of almost every American by creating unprecedented opportunities for small businesses and individual entrepreneurs. We are now beginning the next transformation in information technology: the wireless broadband revolution. This book explores and examines maximizing the wireless spectrum for economic growth in the new era of global technology leadership.

Multi-Disciplinary Virtual Prototype Modeling and Simulation Theory and Application
Xudong Chai, Baocun Hou and Bo Hu Li (Beijing Simulation Center, Beijing, PR, China) Xuefeng Yan (College of Information Science and Technology, Nanjing University of Aeronautics and Astronautics, PR China)
In series: Distributed, Cluster and Grid Computing
Edited by: Yi Pan (Georgia State University)
Case: 978-1-62100-273-4. $140.00.
The research of modeling and simulation has made great progress during the past few decades. A number of institutions and scholars from various domains have proposed different modeling theories and simulation technologies. Great variety and diversity tools and commercial software, which are mainly oriented to specific single-discipline, are rushing out and being applied in their own fields successfully. Multi-discipline virtual prototype has been applied in a wide range of engineering applications, especially the design, testing and evaluation of complex product. The growing complexity of the product and simulation system, as well as the user requirement, bring many challenges to modeling and simulation. This book examines the major theories and methods involved in modeling, simulation, optimization, evaluation and application of multi-discipline virtual prototype, based on component oriented thinking.

Neurocomputing: Learning, Architectures and Modeling
Elizabeth T. Mueller
In series: Computer Science, Technology and Applications
Case: 978-1-61324-699-3. $95.00.
e-book: 978-1-62417-598-5. $95.00.
In this book, the authors present topical research in the study of the architectures and modeling in neurocomputing. Topics discussed include a brain-computer interface for analyzing investment behavior and market stability; neural-based image segmentation architecture with execution on a GPU; EEG montages for the diagnosis of Alzheimer’s disease; design and training of neural architectures using extreme learning machines and the systematic comparison of single and multiple hidden-layer neural networks.

New Developments in Computer Research
Nikos E. Mastorakis (Technical University of Sofia, Bulgaria)
In series: Computer Science, Technology and Applications
Case: 978-1-61470-321-1. $140.00.
e-book: 978-1-61470-414-0. $140.00.
This book presents current research in the field of computer science. Topics discussed include reactive diagnosis of active systems; managing IT resources; parallel iterative solvers using programmable devices; current legislation, executive branch initiatives and options for Congress regarding cybersecurity; high-performance reversible and quantum stochastic parallel processing; software development for approximate bayesian computation; broadband infrastructure programs in the American Recovery and Reinvestment Act and spectrum policy in the age of broadband.
Public Cloud Computing: Security and Privacy Guidelines
Aiden E. Williams and Alexander L. Robinson
In series: Computer Science, Technology and Applications
In series: Internet Policies and Issues
Soft: 978-1-62081-982-1. $52.00.
e-book: 978-1-62257-046-1. $52.00.
Cloud computing can and does mean different things to different people. The common characteristics most interpretations share are on-demand scalability of highly available and reliable pooled computing resources, secure access to metered services from nearly anywhere, and displacement of data and services from inside to outside the organization. While aspects of these characteristics have been realized to a certain extent, cloud computing remains a work in progress. This book provides an overview of the security and privacy challenges pertinent to public cloud computing and points out considerations organizations should take when outsourcing data, applications, and infrastructure to a public cloud environment.

Reconfigurable Multipipeline Computing Structures
Igor A. Kalyaev, Ilya I. Levin, Evgeny A. Semenikhov, Vladimir I. Shmolov (The Russian Academy of Sciences, Southern Federal University, Taganrog, Russia)
In series: Computer Science, Technology and Applications
Case: 978-1-61942-854-6. $150.00.
This book covers theoretical aspects of design of reconfigurable multipipeline computing structures of various types and of their practical implementation, based on large-scale integration FPGAs. This book consists of the introduction and six chapters. Topics discussed include general design principles of reconfigurable multipipeline computing structure organization; organization principles of multicomputer computing structures within homogeneous environments; structural-procedural methods of organization of computations in multicomputer computing structures; and problems of practical implementation of reconfigurable multipipeline computing structures, based on large-scale integration FPGAs.

Construction Project Management Research Compendium, Volume 1
Faisal M. Arain (School of Construction, Southern Alberta Institute of Technology (SAIT), Canada)
In series: Construction Materials and Engineering
Case: 978-1-62081-925-8. $150.00.
e-book: 978-1-62081-926-5. $150.00.
The book presents various facets of construction project management. The diverse facets discussed in this book include an evaluation of a project management measurement framework that was used to cluster construction project management critical success factors. Consultants’ perspective on the main factors affecting the performance of construction projects, and the nature and impact of variation orders on the overall project performance are discussed as important aspects of effective construction project management.

Construction Project Management Research Compendium, Volume 2
Faisal M. Arain (School of Construction, Southern Alberta Institute of Technology (SAIT), Canada)
In series: Construction Materials and Engineering
Case: 978-1-62417-007-2. $150.00.
The book presents various facets of construction project management. The diverse facets discussed in this book include an evaluation of a project management measurement framework that was used to cluster construction project management critical success factors. Consultants’ perspective on the main factors affecting the performance of construction projects, and the nature and impact of variation orders on the overall project performance are discussed as important aspects of effective construction project management.

Guidelines For Improved Duct Design and HVAC Systems In The Home
Lane M. Collins and Danielle E. Martinez
In series: Energy Science, Engineering and Technology
Case: 978-1-62081-443-7. $110.00.
Heating and cooling losses from forced-air ducts can result in high energy costs, lead to thermal comfort problems, and—in some extreme situations—result in serious health and safety concerns. Reducing air leakage and conductive losses from ducts can be a straightforward way to reduce energy use and improve comfort in homes. This book discusses the basics of air distribution and duct design; strategies to seal and insulate ducts in existing homes; accurate heating and cooling load calculations and HVAC equipment sizing.

Multi-Parametric Concrete Compositions Design
Leonid Dvorkin, Oleg Dvorkin (National University of Water Management and Natural Resources Use, Rivne, Ukraine) and Y. Ribakov (Ariel University Center of Samaria, Ariel, Israel)
In series: Construction Materials and Engineering
In series: Materials Science and Technologies
2013.
Case: 978-1-62417-911-2. $85.00.
Concrete remains a dominant constructive material in the 21st century. Long-term experience of concrete application in all construction areas shows that its main efficiency and reliability condition is conformity of the material quality characteristics to its performance in structures and elements. This book explores the results of experimental and theoretical investigations carried out by the authors to develop the main theoretical concepts in the multi-parametric design of cement concrete compositions. A complex of design dependencies is proposed for predicting properties of concrete mixtures and hardened concrete, considering additional technological factors. Algorithms for different types of concrete compositions’ design are presented as are examples of these algorithms for specific industrial conditions. This book can be used by researchers and engineers, specialized in the field of concrete technology, as well as by graduate and undergraduate students.

**Criminal Justice and Law Enforcement**

**DNA for Defense Attorneys**
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Rohan Cassinelli

In series: *Criminal Justice, Law Enforcement and Corrections*


Case: 978-1-62117-998-3. $150.00.
e-book: 978-1-62117-999-0. $150.00.

Deoxyribonucleic acid, or DNA, is the fundamental building block for an individual's entire genetic makeup. DNA is a powerful tool for law enforcement investigations because each person's DNA is different from that of every other individual (except for identical twins). DNA can be extracted from a number of sources, such as hair, bone, teeth, saliva, and blood. As early as the 1980s, states began enacting laws that required collecting DNA samples from offenders convicted of certain sexual and other violent crimes. The samples were then analyzed and their profiles entered into state databases. Meanwhile, the FBI laboratory convened a working group of federal, state, and local forensic scientists to establish guidelines for the use of forensic DNA analysis in laboratories. This book provides an overview of how DNA is used to investigate crimes and help protect the innocent. It reviews current statutory law on collecting DNA samples, sharing DNA profiles, and providing access to post-conviction DNA testing.

**Defense and Security**

**Biometrics Use in the Department of Defense**

Steven C. Edwards and Elizabeth R. Adams


Soft: 978-1-62257-124-6. $52.00.
e-book: 978-1-62257-150-5. $52.00.

The long-term strategic success in counterinsurgency operations, such as Operation Enduring Freedom in Afghanistan, involves separating enemy combatants from innocent civilians in the general population. U.S. military forces in Afghanistan are using biometrics to identify enemy combatants and link individuals to events such as improvised explosive device detonations. Biometrics and related biometrics-enabled intelligence are decisive, nonlethal battlefield capabilities that deny enemy combatants the necessary anonymity to hide and strike at will. Biometrics is the measurement and analysis of a person's unique physical or behavioral characteristics, such as fingerprints, iris scans, facial photographs, or written signature recognition, which can be used to verify personal identity. This book examines biometrics use in the Department of Defense with a focus on additional training for leaders, timely transmission of data, and better standards to share information within federal agencies.

**Defense Manufacturing: Technology Strategy and Risk Management**

Preston I. Brown and Travis E. Robinson


Case: 978-1-62081-672-1. $110.00.

For over fifty years, the DoD Manufacturing Technology (ManTech) Program has been the Department's Investment mechanism for staying at the forefront of defense-essential manufacturing capability. In the 20th century, when the threat was highly predictable and the U.S. defense industrial base was largely self contained, ManTech helped keep the nation positioned to produce the best military systems in the world. In the 21st century, DoD faces new threats, the industrial base is globally networked, and the definition of "best" must increasingly consider affordability. These are the new demands placed on defense manufacturing, and they are shaping the future role of ManTech. This book examines the ManTech strategy for keeping DoD positioned to enhance and use 21st century manufacturing capabilities to address the growing challenges of weapon system affordability and timely delivery to the warfighter, and for enhancing U.S. global manufacturing competitiveness.

**Dirty Bombs: Elements, Prevention and Response**

Benjamin P. Kohler


Case: 978-1-62100-234-5. $125.00.

Congress has long sought through legislation and oversight to protect the United States against terrorist threats, especially from chemical, biological, radiological and nuclear (CBRN) weapons. Radiological dispersal devices (RDDs) are one type of CBRN weapon. Explosive-driven “dirty bombs” are an often-discussed type of RDD, though radioactive material can also be dispersed in other ways. Radioactive material is the necessary ingredient for an RDD. This material is composed of atoms that decay, emitting radiation. Some types and amounts of radiation are harmful to human health. This book provides background for understanding the RDD threat and responses, and presents issues for Congress.

**Federal Cybersecurity Planning: Human Capital and Research and Development**

Kiril C. Moore and Marion D. Taylor


Case: 978-1-61942-769-3. $47.00.
e-book: 978-1-61942-817-1. $47.00.

Threats to federal information technology (IT) infrastructure and systems continue to grow in number and sophistication. The ability to make federal IT infrastructure and systems secure depends on the knowledge, skills, and abilities of the federal and contractor workforce that implements and maintains these systems. In light of the importance of recruiting and retaining cybersecurity personnel, this book examines the extent to which federal agencies have implemented and established workforce planning practices for cybersecurity personnel and explores
the status of and plans for governmentwide cybersecurity workforce initiatives.

**Military Operations, Health and Technology**  
*Alexander L. Cobb*  
In series: *Defense, Security and Strategies*  
Case: 978-1-62100-328-1, $95.00.  
This book presents current research in the study of military operations, health issues, and technology. Topics discussed in this compilation include population transfers and the mediation of insurgent conflicts; the emotional and mental coping skills of a submarine crew in extreme environments; telehealth technologies for the provision of long-distance clinical health care, patient and professional education and health administration; military unit pathfinding problems applying MOACO algorithms and the strategic and military operation issues for conducting the war in Afghanistan.

**Security Issues and Chinese Telecommunications Companies: Huawei and ZTE**  
*Simon Johnston*  
In series: *Intelligence and Counterintelligence Studies*  
In series: *Defense, Security and Strategies*  
Case: 978-1-62417-423-0, $110.00.  
The House Permanent Select Committee on Intelligence initiated an investigation in November 2011 to inquire into the counterintelligence and security threat posed by Chinese telecommunications companies doing business in the United States. Prior to initiating the formal investigation, the Committee performed a preliminary review of the issue, which confirmed significant gaps in available information about the Chinese telecommunications sector, the histories and operations of specific companies operating the U.S., and those companies’ potential ties to the Chinese state. This book examines the potential security threat posed by Chinese telecommunications companies with potential ties to the Chinese government or military. In particular, to the extent these companies are influenced by the state, or provide Chinese intelligence services access to telecommunication networks, the opportunity exists for further economic and foreign espionage by a foreign nation-state already known to be a major perpetrator of cyber espionage.

**The F-35 Joint Strike Fighter Aircraft Program**  
*Clayton D. Simmons and Vernon F. Morgan*  
In series: *Military and Veteran Issues*  
Case: 978-1-62081-478-9, $110.00.  
e-book: 978-1-62081-479-6, $110.00.  
The largest procurement program in the Department of Defense (DOD), the F-35 Joint Strike Fighter (JSF), also called the Lightning II, is a new aircraft being procured in different versions for the United States Air Force, Marine Corps, and Navy. This book discusses the F-35 Joint Strike Fighter program and the F-35 Alternate Engine Program.

**U.S. Navy Shipbuilding Plans: Goals and Considerations**  
*Brandon Carmichael and Jason Lornel*  
In series: *Defense, Security and Strategies*  
Soft: 978-1-62100-694-7, $47.00.  
e-book: 978-1-62100-722-7, $47.00.  
This book provides background information and presents potential issues for Congress concerning the Navy's ship force structure goals and shipbuilding plans. The planned size of the Navy, the rate of Navy ship procurement, and the prospective affordability of the Navy's shipbuilding plans have been matters of concern for the congressional defense committees for the past several years. Decisions that Congress makes on Navy shipbuilding programs can substantially affect Navy capabilities and funding requirements, and the U.S. shipbuilding industry base.

**EARTH SCIENCES**

**Atmosphere and Climate: Physics, Composition/Dynamics and Health Impacts**  
*Andrew Wright and Shawn Johnson*  
In series: *Climate Change and its Causes, Effects and Prediction*  
In series: *Earth Sciences in the 21st Century*  
Soft: 978-1-62417-433-9, $72.00.  
e-book: 978-1-62417-434-6, $72.00.  
In this book, the authors present current research in the study of the physics, composition/dynamics and health impacts of atmosphere and climate. Topics discussed include global warming in the context of millennial climate history; large ice sheets may have the capacity to self-destruct and cause rapid and permanent changes in global climate and sea level; temporal and spatial patterns of PM10 concentrations in urban areas; and advanced fibrous adsorbents for CO2 removal from power plants and the atmosphere.

**Complex Monitoring of Volcanic Activity: Methods and Results**  
*Vyacheslav M. Zobin (Observatorio Vulcanológico, Universidad de Colima, Colima, México)*  
In series: *Geology and Mineralogy Research Developments*  
In series: *Earth Sciences in the 21st Century*  
Case: 978-1-62417-985-3, $150.00.  
e-book: 978-1-62618-023-9, $150.00.  
Volcanic activity represents a great hazard for rising populations and international air traffic over volcanic regions. This book is a compilation of papers devoted to the monitoring of volcanic activity with seismic, acoustic, geodetic, and video observations, and the catalogs of volcanic eruptions. The volcanoes, representing the subject of these observations (Bezymianny, Etna, Karymsky, Kizimen, Sakurajima, Sheveluch, Stromboli, Popocatépetl, Puracé, Volcán de Colima), are between the most active on our Earth. Special attention is applied to quantification of volcanic explosions from seismic and acoustic records and the estimation of the height of eruption plumes of Vulcanian explosions from seismic records. Monitoring volcanic eruptions and their forecasting based on the changes in the spectral characteristics of volcanic tremor, on the statistical analysis of appearance of Strombolian explosions, and on the analysis of historical eruption time series are also discussed.

**Cyclones: Formation, Triggers and Control**  
*Kazuyoshi Oouchi (Japan Agency for Marine-Earth Science and Technology) and Hironori Fudeyasu (Yokohama National University, Japan)*  
In series: *Natural Disaster Research, Prediction and Mitigation*
In series: *Environmental Science, Engineering and Technology*
Case: 978-1-61942-976-5. $140.00.
This book is edited for the young researchers and students who are interested in over-viewing and knowing the specific progress of tropical cyclone research. This book is devoted to either an up-to-date review or report of new research on the tropical cyclone, encompassing the problems of the genesis, development, climate control of tropical cyclone in terms of wide-ranging scales based on every types of method — theoretical, modeling, and observational analysis. Not only comprehensive climate model but stand-alone theoretical and conceptual modeling researches will continue to play important role in illustrating the essential physics of tropical cyclone, and observational studies will support their specific features.

**Eddies and Hurricanes: Formation, Triggers and Impact**
Agnes Tarasov and Maksim Demidov
In series: *Oceanography and Ocean Engineering*
Case: 978-1-61942-235-3. $150.00.
This book presents current research in the study of the causes, formation and impacts of eddies and hurricanes. Topics discussed include the exploration of experiences after Hurricane Katrina; the theory of streamlets; the methodology of satellite observations of eddies in the sea; hurricanes under climate change and the effect of eddy diffusion on the near surface profiles of atmospheric electrical parameters.

**Encyclopedia of Earth Science Research (3 Volume Set)**
Fumio Sato and Shigeo Nakamura
In series: *Earth Sciences in the 21st Century*
Case: 978-1-61470-247-4. $345.00.
This book presents current research in the study of earth science. Topics discussed include the formation of the lithosphere; the fate of subducted oceanic crust and the origin of intraplate volcanism; deformable lithospheric plates; cosogenic nuclides and geomorphology; geomorphic adjustment, geographic context and disturbances; erosion and sediment yield; paleomagnetic evidence for Siberian plate tectonics; dune ecosystems; the geology of sand dunes and improving water regimes of loamy sand for wheat cultivation by adding silt loam.

**Holistic Ice Sheet Modeling: A First-Order Approach**
Terence J. Hughes (University of Maine, USA)
In series: *Earth Sciences in the 21st Century*
Case: 978-1-62100-729-6. $75.00.
e-book: 978-1-62100-822-4. $75.00.
This book presents the basic physics needed to model the past, present and future of large continental ice sheets. Minimal mathematical ability is needed. Simple triangles and rectangles allow a visual treatment of the force balance for stresses driving and opposing glacier flow. The holistic aspect of the book recognizes that ice flow in ice sheets begins as slow sheet flow from high convex ice domes near the center of an ice sheet, with most sheet flow converging on fast concave currents of ice called ice streams near the ice-sheet margin, and ends as relatively thin and flat shelves of ice floating in water or lobes of ice grounded on land.

**Holocene: Perspectives, Environmental Dynamics and Impact Events**
Bahadur Singh Kotlia (Department of Geology, Kumaun University, Nainital, India)
In series: *Dialogues among Civilizations and Cultures*
In series: *Earth Sciences in the 21st Century*
2013. 279 pp.
Case: 978-1-62257-722-4. $150.00.
The Holocene (11.5 ka BP onwards), directly linked to the evolution of modern society, encompasses the increase and impacts of the human species world-wide, including by and large striking changeover towards living in the present. The Holocene climate is also responsible for expansion/migration/decline of the human cultures. Because of this, a period termed as Anthropocene (age of man) is also proposed as the latest part of this epoch since the recent human impacts have been found on the Earth and such impacts are unquestionably of global implication for our future. This book contains seventeen invaluable manuscripts submitted by the authors from diverse countries. While most of them are related to the climatic events and environmental dynamics during the Holocene, two chapters focus on the palaeoseismology and human migration/anatomy.

**Horizons in Earth Science Research. Volume 5**
Benjamin Veress and Jozsi Szigethy
In series: *Horizons in Earth Science Research*
Case: 978-1-61209-923-1. $195.00.
e-book: 978-1-62100-622-0. $185.00.
This book presents and discusses research in the field of earth science, with a focus on the dynamics of continental deformation with regard to rifting and plate tectonics; archaeological charcoal signals from Upper Paleolithic sites; olivine and its role in chemical evolution and in the origin of life; Great Lakes ecology, conservation and management; volcanic ash soils in Taiwan; finite half-space models of the oceanic lithosphere and manifestations of upwelling mantle flow on the Earth's surface.

**Horizons in Earth Science Research. Volume 7**
Benjamin Veress and Jozsi Szigethy
In series: *Horizons in Earth Science Research*
2012. 347 pp.
Case: 978-1-62100-637-4. $185.00.
e-book: 978-1-62100-622-0. $185.00.
This book presents and discusses research in the field of earth science, with a focus on glacial erosion and Karst Evolution; the Lake Urmia Dike and its hydrodynamic and geological impact; geometry of coronal rays; Estonian dolomite; the last continental glaciation of Western Siberia; fracture network properties in limestone and dolostone; and solar EUV coronas.

**Horizons in Earth Science Research. Volume 9**
Benjamin Veress and Jozsi Szigethy
In series: *Horizons in Earth Science Research*
2013. 244 pp.
Case: 978-1-62257-954-9. $150.00.
This book presents and discusses research in the field of earth science, with a focus on the role of hydrology in salt marsh ecology; modeling tool applications in freshwater ecosystems and resource management;
the flood cycle model; mechanisms of global change in the biosphere; the impact of tropical forest canopies in the planning of rural settlements and sustainable environments; long-term consistency of main taxonomic groups of Lake Kinneret phytoplankton; modeling landslide susceptibility analysis; and the Earth's gravitational dipole.

Ice Sheets: Dynamics, Formation and Environmental Concerns
Jonas Müller and Luka Koch
In series: Environmental Science, Engineering and Technology
Case: 978-1-61942-367-1. $150.00.
Ice sheets as vast accumulations of frozen water on land are a direct expression of energy distribution on our planet. They form from the interplay of intensive accumulation of frozen water and insufficient melt during the summer. They define global sea-level and affect the geochemical composition of the ocean. This book presents current research in the study of the dynamics, formation and environmental concerns relating to ice sheets.

Low Temperature Processes
Mouhamedou Bassir Diop (Earth Science Institute, University Cheikh Anta Diop De Dakar, Senegal)
In series: Energy Science, Engineering and Technology
2012. 185 pp.
Case: 978-1-62100-038-9. $75.00.
e-book: 978-1-62100-105-8. $75.00.
The manufacturing of bricks is an energy-intensive industry that contributes significantly to carbon dioxide emissions, with more than fifty chemical pollutants being generated by the process. In 2002, over eight billion bricks were sold in the United States alone. Considering the fact that the manufacturing of one brick consumes around 2 Mega Joules/kg brick, the total energy used in USA can be estimated at sixteen billion Mega Joules/kg brick. The heating process changes the molecular structure of the clay, such that it is vitrified. This book presents new approaches in the creation of cement which reduces energy by working at low temperature and eliminates pollutions.

New Developments in Quartz Research: Varieties, Crystal Chemistry and Uses in Technology
Bruno Novak and Pavla Marek
In series: Geology and Mineralogy Research Developments
Case: 978-1-62417-265-6. $150.00.
In this book, the authors present new developments in quartz research. Topics discussed in this compilation include the nature of paramagnetic defects in a-Quartz; veined quartz of the Urals; QCM in the active mode; densification of quartz particle beds by tapping; rapid detection for pollutants and bacteria based on quartz crystal microbalance biosensors; novel quartz oscillator measurement for gas composition changes; detection/adsorption of chemical and biological molecules based on quartz crystal microbalance QCM as sensor; usefulness of quartz crystal microbalance techniques to assess in situ detergency process efficiency; ultra-stable quartz oscillators; and gold analysis after nanoparticle adsorption on quartz reflectors and total reflection x-ray fluorescence (TXRF) analysis.

Perovskite: Crystallography, Chemistry and Catalytic Performance
Jinghua Zhang and Huan Li
In series: Geology and Mineralogy Research Developments
Case: 978-1-62417-800-9. $150.00.
In this book, the authors present current research in the study of the crystallography, chemistry and catalytic performance of perovskites. Topics discussed include the defect structure and defect-induced expansion of perovskite oxides; perovskite-based catalysts for transformation of natural gas and oxygenates into syngas; Bi containing multiferroic perovskite oxide thin films; perovskites as catalysts for environmental remediation; microwave-assisted synthesis and characterization of perovskite oxides; perovskite and lead based ceramic materials; photocatalytic properties of perovskite-type layered oxides; structure of perovskite electron-ionic conductors; and distorted perovskites.

Rainfall Nowcasting Models for Early Warning Systems
Davide Luciano De Luca (Department of Soil Conservation, University of Calabria, Italy)
In series: Hydrological Science, Engineering and Technology
Soft: 978-1-6257-805-4. $52.00.
This book provides a state of the art overview of rainfall nowcasting or short-term rainfall forecasting, which is an essential component of early warning systems for mitigating risks of landslide and floods. Special attention is given to spatial and temporal hydrological scales that are associated with the forecast of flash-floods and shallow-landslides. The importance of Probabilistic Quantitative Precipitation Forecast (PQPF) is highlighted. This approach is beneficial to a Quantitative Precipitation Forecast (QPF). Moreover, several approaches for nowcasting are compared. In particular, the differences in performances between stochastic and meteorological models. A methodology for coupling these approaches is proposed, which can improve nowcasting “outside a storm event” (i.e. prior to the commencement of rainfall).

Rainfall: Behavior, Forecasting and Distribution
Olga E. Martín and Tricia M. Roberts
In series: Environmental Science, Engineering and Technology
2012. 204 pp.
Case: 978-1-62081-551-9. $150.00.
In this book, the authors present topical research in the study of the behavior, forecasting and distribution of rainfall variability. Topics discussed in this compilation include coping strategies in relation to local rainfall variability in Tanzania; rainfall variability and changes in Bangladesh; non-parametric methods for forecasting time series from cumulative monthly rainfall; long term and interannual rainfall variability in the Argentinean Chaco plain region; study of wet scavenging of atmospheric aerosols using decay products in rainwater; spatial variability of rainfall and its erosivity in a tropical semi-arid area in Kenya; potential of the piezoelectric transducer for direct rainfall kinetic energy measurement and erosivity evaluation; climatology and rainfall in northeast Brazil; and the Kalman Filtering approach in the calibration of radar rainfall data.
Rare Earth Elements: Supply, Trade and Use Dynamics
Joseph O. Manino and Elvis T. Jones
In series: Earth Sciences in the 21st Century
2012. 159 pp.
Case: 978-1-62417-014-0. $110.00.
The concentration of production of rare earth elements (REEs) outside the United States raises the important issue of supply vulnerability. REEs are used for new energy technologies and national security applications. Some Members of Congress have expressed concern over U.S. acquisition of rare earth materials composed of rare earth elements used in various components of defense weapon systems. These elements are referred to as “rare” because although relatively abundant in total quantity, they appear in low concentrations in the earth’s crust and extraction and processing is both difficult and costly. China’s position as the world’s dominant producer and supplier of rare earths and its policies to limit exports have raised concerns among many in Congress. This book examines the economic and trade implications of China’s rare earth policies for the United States. Other topics, separately explore the use of rare earth elements by the Department of Defense and end use markets.

Spatial Planning: Strategies, Developments and Management
Elia Ciccotelli and Benigno Calò
In series: Urban Development and Infrastructure
Case: 978-1-61470-894-0. $95.00.
e-book: 978-1-61470-911-4. $95.00.
Spatial planning refers to the methods used by the public sector to influence the distribution of people and activities in spaces of various scales. In this book, the authors present topical research in the study of the strategies, developments and management of spatial planning. Topics discussed include planning the coastal zone; land management and its implication for spatial development; resource management on near shore ecosystems in Southwest Puerto Rico; coastal zone management in the Brazilian Amazon and marine spatial planning.

Zircon and Olivine: Characteristics, Types and Uses
Gilles Van Dijk and Valentijn Van den Berg
In series: Earth Sciences in the 21st Century
Soft: 978-1-62100-990-0. $65.00.
This book presents topical research in the study of the mineralogy of zircon and olivine and their properties, production and applications. Topics discussed include the application of U-Pb dating and chemistry of zircon in the continental crust of Calabria; the internal morphology and crystal growth of accessory zircon from igneous rocks; the reduction, softening and melting behavior of olivine pellets in an experimental blast furnace; characterizing the radiation damage in zircon and the weathering reactions of olivine as an effective way to sustainably capture CO2.

ECOLOGY

Advanced Modeling and Computer Technologies for Fluvial Water Quality Research and Control
Karlos J. Kachiaishvili and D.Y. Melidzhanian (Tbilisi, GA)
In series: Computer Science, Technology and Applications
In series: Water Resource Planning, Development and Management
Case: 978-1-61470-018-0. $75.00.
e-book: 978-1-61470-170-5. $75.00.
The results discussed in this book are interesting and useful for a wide range of specialists and scientists working in the field of applied mathematics, and in the modeling and monitoring of pollution of natural waters, ecology, hydrology, power engineering and building of different structures of water objects. Their importance and practical value are submitted in the friendly form for comprehension and are ready for direct application for the solution of practical tasks. Advantages of the elaborated methods and algorithms are shown not only through theoretical judgments and calculations, but also through the demonstration of results of particular calculus and modeling.

Biodiversity Conservation: New Research
Richard L. Nelson and John F. Carter
In series: Environmental Science, Engineering and Technology
Case: 978-1-62081-147-4. $150.00.
Biodiversity encompasses genes, species, ecosystems and their relative abundance. International awareness of the need to conserve biodiversity has been growing steadily since the first "Earth Summit" in 1992. The development of ecological networks can connect the fragmented habitats of wild animals, stem biodiversity loss, and promote dispersal and genetic exchanges of wild species. In this book, the authors present current research in the study of biodiversity conservation including the theory and practice of ecological networks to conserve biodiversity; sustainable utilization and conservation of indigenous Western Cape medicinal plants; biodiversity change and sustainable development; biodiversity management in the Brazilian Atlantic Forest; and agricultural water management inside the North African oasis.

Forest Certification and Sustainable Management: Programs, Standards and Techniques
John G. Robles and Charlotte A. Savage
In series: Environmental Remediation Technologies, Regulations and Safety
In series: Environmental Science, Engineering and Technology
Soft: 978-1-62081-206-8. $52.00.
The national forests have been the focus of controversy for many years. Reduced timber harvests, increased wildfire risks, degraded forest health, and disagreements among users and other stakeholders have led to congressional disputes over appropriate management. Some interests have suggested third-party certification of sustainable management of the national forests as a possible solution to many of these difficulties. This book outlines the history and development of forest certification as a voluntary, market-based mechanism to promote sustainable forest
practices. The two major certification programs are described, compared and contrasted based on a broad range of sustainable forest management issues pertinent to the National Forest System.

Forest Management: Technology, Practices and Impact
Armando C. Bonilla Cruz and Ramona E. Guzman Correa
In series: Environmental Remediation Technologies, Regulations and Safety
In series: Environmental Science, Engineering and Technology
2012. 204 pp.
Case: 978-1-62081-359-1. $120.00.
e-book: 978-1-62081-396-6. $120.00.
In this book, the authors gather and present current research in the study of the technologies, practices and impacts of forest management. Topics discussed in this compilation include forest fire management; forest management systems and conservation in Madagascar; the effects of land use history and forest management practices in Southern Chile; forest conservation and land use planning in Kilosa District, Tanzania; biological wildlife corridors as a tool for conservation management; Spanish Black Pine sustainability for forest management; and the development of carbon sequestration models for forest management and the management of coniferous forests.

Forests of Volga River Basin under Global Warming (Landscape-ecological analysis and prognosis)
Erland G. Kolomyts, Gennadly S. Rozenberg, Sergey V. Saksonov, Larisa S. Sharaya (Institute of Ecology of Volga Basin of Russian Academy of Sciences, Pushchino, Moscow Region, Russia)
In series: Climate Change and its Causes, Effects and Prediction
In series: Environmental Science, Engineering and Technology
Case: 978-1-62257-023-2. $175.00.
The coming global climate changes associated with the increase of atmospheric greenhouse effect, may disturb the natural carbon cycle in the biosphere and may lead to large-scale ecological consequences. The cognition of the mechanisms of environmental sustainability in changing climate is connected with studying the biotic regulation of the carbon cycle. Boreal forests play an important role in the global carbon cycle. This book expounds the regional-local prognostic conception as a scientific basis of monitoring forest ecosystems under global climatic changes. Predictive landscape-ecological scenarios of the nearest future of temperate forests and their paleogeographical analogs as a single system of global changes have been considered for the first time by the example of a large region – the Volga River basin.

Invasive Species: Threats, Ecological Impact and Control Methods
Joaquin J. Blanco and Adrian T. Fernandes
In series: Environmental Science, Engineering and Technology
In series: Wildlife Protection, Destruction and Extinction
Case: 978-1-61942-761-7. $150.00.
Many species of plants, microbes, and animals have been introduced around the world. Species are considered “invasive” or “alien” when they are not native to an area, but become established and cause, or are likely to cause, economic or environmental harm or harm to human health. In this book, the authors present current research in the study of the threats, ecological impacts and control methods relating to invasive species. Topics include thermochemical processing of wood from invasive arboreal species for sustainable bioenergy generation; invasive rodents in the U.S.; invasive Buprestid beetle species monitoring; the invasive beaver castor canadensis of the Tierra del Fuego Archipelago; leaf-cutting ants; invasive species and accurate ecological assessment in freshwater pollution; and the aquarium trade as a pathway for the introduction of invasive species in Mexico.

Multiple-Use Management of Protected Natural Areas: Integrating Conservation, Recreation and Recreation in the Spanish Basque Country
Ashley DuVal, Mark S. Ashton, Tamara Muruetagoiena (Yale School of Forestry and Environmental Studies, New York, NY)
In series: Environmental Remediation Technologies, Regulations and Safety
In series: Environmental Research Advances
Case: 978-1-61942-328-2. $75.00.
This book takes a multidisciplinary approach to integrative protected area management, drawing from perspectives in policy science, environmental science, political ecology and silviculture to address the historical, socio-political, economic and biophysical origins of contemporary conflicts in resource use and management. While this case study reflects the sets of conditions specific to Aiako Harria, it nonetheless provides broadly applicable lessons and methodological approaches in sustainable multiple-use protected area management, particularly in Europe.

The Mycorrhizal Symbiosis in Mediterranean Environment: Importance in Ecosystem Stability and in Soil Rehabilitation Strategies
Mohamed Hafidi (University Cadi Ayyad, Marrakech, Morocco) and Robin Duponnois (Institut de Recherche pour le Développement, Montpellier, France)
In series: Environmental Science, Engineering and Technology
Case: 978-1-62081-278-5. $150.00.
The role of mycorrhizal symbiosis has been usually related to its impact on the plant mineral nutrition and consequently on the development of the plant species. However, it has been demonstrated that this symbiotic process has a key role in ecosystem stability. Numerous recent studies have outlined the major role of mycorrhizal symbioses in ecosystem functioning and the necessity to manage this soil microbial component in order ensure the productivity of plant ecosystems and to maintain plant diversity. The main objectives of this book are to present recent results showing the expected benefits in managing the mycorrhizal symbiosis in order to ensure the conservation of endemic plant diversity and to rehabilitate degraded soils in Mediterranean areas.
Nicolas Vallée
In series: Economic Issues, Problems and Perspectives
In series: Trade Issues, Policies and Laws
2013. 142 pp.
Case: 978-1-62417-313-4. $110.00.

Innovation protected by Intellectual Property (IP) rights is key to creating new jobs and growing exports. Innovation has a positive pervasive effect on the entire economy, and its benefits flow both upstream and downstream to every sector of the U.S. economy. Intellectual Property is not just the final product of workers and companies—every job in some way, produces, supplies, consumers, or relies on innovation, creativity, and commercial distinctiveness. Protecting our ideas and IP promotes innovative, open, and competitive markets, and helps ensure that the U.S. private sector remains America’s innovation engine. This book attempts to identify the first-order players that are growing IP in the U.S. economy and protecting their innovations through patents, trademarks, or copyrights. These IP-intensive industries support tens of millions of jobs and contribute several trillion dollars to our GDP, and represent the leading edge of our economy that is built on the ingenuity of the American people.

Manufacturing Trends in the United States
Lucas G. Morán
In series: Economic Issues, Problems and Perspectives
In series: Manufacturing Technology Research
Case: 978-1-62100-583-4. $95.00.
e-book: 978-1-62100-663-3. $95.00.

The health of the U.S. manufacturing sector has been a long-standing concern of Congress. Although Congress has established a wide variety of tax preferences, direct subsidies and other federal programs with the goal of retaining or recapturing manufacturing jobs, only a small proportion of U.S. workers are now employed in factories. Meanwhile, U.S. factories have stepped up production of goods that require high technological sophistication but relatively little direct labor. Labor productivity in manufacturing, as measured by government data, has grown rapidly, suggesting that the manufacturing sector as a whole remains healthy. This book explores manufacturing trends in the United States with a focus on job creation in the manufacturing revival; the manufacturing extension partnership program; globalized supply chains and offshore outsourcing.

Computers in Education, Volume 2
Sergei Abramovich (School of Education and Professional Studies, SUNY Potsdam, NY)
In series: Computer Science, Technology and Applications
Case: 978-1-62100-623-7. $140.00.
e-book: 978-1-62100-635-0. $140.00.

This two-volume collection of diverse international experiences and perspectives on the current use of Horizons in Earth education is a joint effort of fifty-seven authors from sixteen countries. Most of the chapters describe current work of the authors on the use of computers in their respective areas of education. The material of this volume should be of interest to teacher educators in the areas of science, technology, engineering and mathematics (STEM) education involved in the use of computers as teaching tools; tertiary education faculty in STEM areas; curriculum developers; policy makers at different levels; and college students in STEM-related programs.

Environmental Education in a High School Biology Class: Knowing and Appreciating Nature
Dalva Maria Bianchini Bonotto (Instituto de Biociências, Universidade Estadual Paulista, UNESP Brazil)
In series: Education in a Competitive and Globalizing World
In series: Environmental Science, Engineering and Technology
Soft: 978-1-62257-738-5. $52.00.
e-book: 978-1-62257-746-0. $52.00.
The call for changes in the situation of environmental degradation that characterizes the contemporary world has come from diverse sectors of society, and education has an important role to play. To achieve this goal, educational efforts must contemplate the natural, as well as the cultural aspects of the environment. The theme can be addressed at different levels of formal teaching, by adopting an interdisciplinary approach that addresses the aesthetic dimension of natural and man-made environments. The purpose of this book is to present the analysis of an intervention, developed in biology classes related to the environmental thematic focusing on ecological knowledge and aesthetic dimension of natural and man-made environments. The author analyzes the engagement and participation of high school students and some possibilities and limits for the development of such activities.

Evaluation in e-Learning
Y. Psaromiligkos, A. Spyridakos (Technological Educational Institute of Piraeus, Athens, Greece), S. Retalis (University of Piraeus, Athens, Greece)
In series: Advances in Operations Research
Edited by: Prof. Constantin Zopounidis (Technical University of Crete)
Case: 978-1-61942-942-0. $150.00.
One approach which is becoming very popular nowadays is to measure the effectiveness of e-Learning solutions via analysis of data gathered from authentic educational environments. This constitutes the ultimate goal of the underlying book. More specifically, this book discusses and presents several evaluation approaches as they have been applied in real practice. Criticism, best practices, and lessons learned from the application of these approaches are discussed. The book includes innovative contributions and real world evaluation studies in authentic learning environments by experienced researchers in e-Learning.

Following the Northern Star: Caribbean Identities and Education in North American Schools
Greg Wiggan (University of North Carolina at Charlotte, Charlotte, NC, USA) and Jean T. Walrond (Concordia University College of Alberta and Northern Alberta Institute of Technology, Edmonton, Alberta, Canada)
In series: Education in a Competitive and Globalizing World
2013. 239 pp.
Case: 978-1-62417-597-8. $110.00.
This book explores the intersection of migration, identity development and the school achievement of Caribbean heritage children. In doing so, it uncovers the history of the Caribbean and its early inhabitants such as the Siboneyes, Guanahatabeyes, Tainos, Caribs, and Arawaks, who predated the arrival of European explorers and enslavers, and it explains the relevant connections to colonialism, neo-colonialism and Caribbean migration to North America. Through family interviews, it presents perspectives on Caribbean immigrants in North American schools (United States and Canada). The book further explains what happens when these immigrants transition from being the ethnic majority in their home country, into the minority in a foreign country. Interviews with families and personal narratives are woven into a rich discussion on immigrant identities in school and society. The findings strongly support the treatise in the literature that Caribbean heritage families place a strong emphasis on education and school achievement.

Postsecondary Education: Student Outcomes and Undercover Online Experiences
Joanne Morris and Andrew G. Lynn
In series: Education in a Competitive and Globalizing World
Case: 978-1-62081-297-6. $110.00.
This book examines postsecondary education with a focus on student outcomes and undercover online experiences. Institutions of higher education, including for-profit, nonprofit, and public schools, receive billions of dollars each year from the Department of Education to help students pay for school. Measuring the quality of educational programs (i.e., how much knowledge or skill students gain) is difficult. Because few direct measures are available, indirect outcome measures, such as graduation and student loan default rates, are often used. Although no single outcome can be used to fully measure something as complex as educational quality, looking at multiple outcome measures (e.g., graduation rates, pass rates on licensing exams, employment outcomes, and student loan default rates) can shed light on the quality of education provided by schools.

Professional Development: Perspectives, Strategies and Practices
Yael Bashevis and Yaniv Weidenseld
In series: Education in a Competitive and Globalizing World
In series: Professions - Training, Education and Demographics
Case: 978-1-62257-776-7. $150.00.
Professional development refers to skills and knowledge attained for both personal development and career advancement and encompasses all types of facilitated learning opportunities, ranging from college degrees to formal coursework, conferences and informal learning opportunities situated in practice. In this book, the authors examine the perspectives, strategies and practices of professional development. Topics discussed include pedagogical content knowledge and action research; team-training approaches to professional development; teacher’s perceptions of teaching at different stages of their professional development; teacher dilemmas in the new curriculum reform in China; developing reflective thinking through field research; increasing teacher engagement in professional development activities; instructional coaching as an effective structure for job embedded professional development; and improving program quality in urban child care centers.

Radical experiment in dialogic pedagogy in higher education and its Centauric failure: Chronotopic analysis
Eugene Matusov and Joseph Brobst (School of Education, University of Delaware, Newark, DE, USA)
In series: Education in a Competitive and Globalizing World
Case: 978-1-62257-362-2. $150.00.
This book analyzes a unique pedagogical experiment in Higher Education to explore innovative ways to teach a graduate seminar guided by Dialogic Pedagogy. There have been many books describing successful pedagogical innovations in higher education and beyond. In
contrast, this book describes a certain type of pedagogical failure of the innovation that is arguably common in practice but rarely reported. This pedagogical failure is called a “Centauric Failure”. Like the Centaur, who embodied two contrasting natures of half-human and half-beast, this pedagogical experiment was guided by humanistic and dialogic values, but also it caused pains to the participants. The in-depth analysis of events has pushed the boundaries of Dialogic Pedagogy based on the framework developed by Russian philosopher Mikhail Bakhtin toward the notion of agency in education.

Successful Science Education Practices: Exploring What, Why and How They Worked

Christine Redman (Science and Technology Education Teaching and Research Melbourne Graduate School of Education, University of Melbourne, 3010 Victoria, Australia)

In series: Education in a Competitive and Globalizing World

Case: 978-1-62257-387-5. $175.00.

This book has been designed to provide a conduit for the pre-service and beginning teacher of science to access contemporary educational research. The chapters offer researched forms of classroom practices that are also easy to transfer into classrooms. The teaching of chemistry, biology, astronomy and physics, and Primary Science teaching, are discussed with a focus on new technology tools, as well as important topics for the new teacher of science. This includes providing different types of feedback, the value of developing a supportive network of colleagues; planning for science teaching effectively: the types and contribution of models in science teaching and how they contribute to thinking, great ways to utilize demonstrations; and challenging the learners’ alternative conceptions. New technologies are pervasive in many chapters, and are used to enrich and deepen the learning experiences possible for learners.

The Role of Education in Reducing Inmate Recidivism: Strategies and Guidance

Silas Marchuk

In series: Criminal Justice, Law Enforcement and Corrections

In series: Education in a Competitive and Globalizing World

2013. 163 pp.
Case: 978-1-62618-197-7. $52.00.
e-book: 978-1-62618-000-0. $52.00.

How can we solve the reentry challenge and ensure that incarcerated individuals and those under community supervision become productive members of society? Although there is no one answer, a growing body of evidence shows that providing offenders with education and training increases their employment opportunities, addresses their cognitive deficits, and helps reduce their likelihood of recidivating. More work is needed, however, to ensure that low-skill individuals in the corrections population have access to these services and can advance their education and employment prospects despite their correctional status. This book examines the role of education in reducing inmate recidivism with a focus on community-based correctional education strategies and guidance.

University Teaching and Faculty Development Research Compendium

Luis M. Villar-Angulo, Olga M. Alegre-de la Rosa (University of Sevilla, Spain)

In series: Professions - Training, Education and Demographics

Case: 978-1-62257-516-9. $150.00.

This book is concerned with teaching for students at a university level and faculty development. This book will look at how teaching and research can be brought into a closer relationship. This book welcomes research-based articles on the practice of higher education, specifically those manuscripts that span a wide range of teaching and faculty development issues and trends occurring internationally.

What You Need to Know: An Insider’s Look at Graduate Studies

Jennifer Bonds-Raacke and John D. Raacke

In series: Education in a Competitive and Globalizing World

Soft: 978-1-61324-451-7. $47.00.

This book is designed for graduate students and provides helpful insights on what they can expect in the upcoming years and gives
suggestions for how to handle various situations. This book is not designed to provide the reader with study skills or content knowledge in their area, however, the goal is to share information with the reader about graduate studies that few people know.

**ENERGY**

*Simon M. Johnson*

In series: *Renewable Energy: Research, Development and Policies*

In series: *Energy Policies, Politics and Prices*

Case: 978-1-62417-567-1. $110.00.  

Today, the energy sources used to create electricity differ in many ways, including in their environmental impacts. In the United States, electricity is most often generated using fossil or nuclear fuels—forms of power generation that can have detrimental effects on human health and the environment through air emissions and other problems. Despite advances in pollution controls over the last 30 years, this conventional power generation is still the nation’s single largest source of industrial air pollution and is a major contributor to greenhouse gas emissions. Electricity markets now offer cleaner ways of producing power, however, and give many consumers the ability to choose how their power is generated. One of these choices is power from renewable sources, or “green power.” This book is a guide to purchasing green power and a summary of federal renewable energy and energy efficiency programs.

Advances in Energy Research: Energy and Power Engineering  
*Nicu Bizon (University of Pitesti, Arges, Romania) and Naser Mahdavi Tabatabaei (Seraj Higher Education Institute, Tabriz, Iran)*

In series: *Energy Science, Engineering and Technology*


Electric power engineering occupies the most dominant role in provision of the population with energy. The advantages of electric power and energy systems are universal and easily being converted into various other types of energy, easiness and cheapness of its transportation, accessibility for massive amounts of end users and practically capable to actuate directly all existing technical means. The book chapters and materials are very efficient in theoretical and application issues and are highly recommended for studying and considering in educational and research fields.

Advances in Energy Research. Volume 10  
*Morena J. Acosta*

In series: *Advances in Energy Research*

Case: 978-1-62100-838-5. $150.00.  
e-book: 978-1-62100-888-0. $150.00.

This book presents a comprehensive review of energy research studies from authors across the globe, including recent research in solar ground radiation in greenhouses; the energy outlook in Malaysia; biodiesel production using heterogeneous catalysts; digital control system stimulation for nuclear reactor neutronic parameters; strategies to increase the viability of power generation using renewable energy sources; the current state of CPV in Spain as an alternative for producing solar electricity and evaluation of a new combined power generation system under CO2 emission constraints.

Advances in Energy Research. Volume 12  
*Morena J. Acosta*

In series: *Advances in Energy Research*

Case: 978-1-62257-621-0. $150.00.  

This book presents a comprehensive review of energy research studies from authors across the globe, including recent research in direct expansion ground source heat pumps for better heating and cooling in new buildings; potential renewable energy technologies, efficient energy systems, and energy savings techniques to reduce climate changes; sustainable energy development and the environment; nonlinear finite element analysis of tubular expansion in oil wells; and super long conductive channels for energy delivery.

Advances in Energy Research. Volume 13  
*Morena J. Acosta*

In series: *Advances in Energy Research*

2013. 358 pp.  
Case: 978-1-62417-410-0. $150.00.  

This book presents a comprehensive review of energy research studies from authors around the globe, including recent research in building energy, the applications of biogas; ground-source heat pump technology advancements; sustainable green energies development and technologies; membrane technology for sustainable growth; applications of wind energy in the Sudan; renewable energy in heating, ventilation and indoor air quality systems, and agriculture; increasing energy efficiency; and evaluation of meteorological data with respect to renewable energy applications.

Advances in Energy Research. Volume 14  
*Morena J. Acosta*

In series: *Advances in Energy Research*

Case: 978-1-62417-736-1. $150.00.  

This book presents a comprehensive review of the renewable energy technologies environment and sustainable development; earth temperatures, heat pumps and systems design; the energy crisis and the role of renewables and global warming; energy and demand study of heating and cooling equipment; feedstocks for lignocellulosic biofuels; energy efficient technologies for refrigeration and air conditioning; and the principles of ground source energy.

Alternative Fuels and Advanced Technology Vehicles: Incentives and Considerations  
*Thomas Huber and Jack Spera*

In series: *Energy Science, Engineering and Technology*

In series: *Energy Policies, Politics and Prices*

2012. 177 pp.  
Case: 978-1-62257-556-5. $110.00.  

A wide array of federal incentives support the development and deployment of alternatives to conventional fuels and engines in transportation. These incentives include tax deductions and credits for vehicle purchases and the installation of refueling systems, federal grants for conversion of older vehicles to new technologies, mandates for the use of biofuels, and incentives for manufacturers to produce alternative vehicles. Many of the policy choices presented for alternative fuel and advanced vehicle technologies originated as a
response to the nation’s interest in reducing petroleum imports. This book examines the current array of incentives, which do not reflect a single, comprehensive strategy, but rather an aggregative approach to a range of discreet public policy issues, including improving environmental quality, expanding domestic manufacturing, and promoting agriculture and rural developments.

America's Pipelines: Safety and Security Issues
Jaron Wiacek
In series: Energy Policies, Politics and Prices
Case: 978-1-62417-994-5. $52.00.
Nearly half a million miles of high-volume pipeline transport natural gas, oil, and other hazardous liquids across the United States. These transmission pipelines are integral to U.S. energy supply and have vital links to other critical infrastructure, such as power plants, airports, and military bases. While an efficient and fundamentally safe means of transport, many pipelines carry volatile, flammable, or toxic materials with the potential to cause public injury and environmental damage. The nation's pipeline networks are also widespread, running alternately through remote and densely populated regions, some above ground, some below; consequently, these systems are vulnerable to accidents and terrorist attack. This book provides an overview of the federal pipeline safety program and the federal role in pipeline security, with a focus on the nation’s overall strategy to protect transportation infrastructure.

Battle of the Bulb: Lamps, Lumens and the State of the U.S. Lighting Market
Jasper A. Bennett and Alicia M. White
In series: Business Issues, Competition and Entrepreneurship
In series: Energy Policies, Politics and Prices
Case: 978-1-62081-491-8. $110.00.
More than 4 billion incandescent light bulbs are in use in the United States. The basic technology in these bulbs has not changed substantially in the past 125 years, despite the fact that they convert less than 10% of their energy input into light. Improving light bulb performance can reduce overall U.S. energy use. About 20% of electricity consumed in the United States is used for lighting homes, offices, stores, factories, and outdoor spaces. Lighting represents about 14% of residential electricity use. This book provides an overview of lighting industry trends; with a focus on the life-cycle and energy consumption of incandescent, compact fluorescent and LED lamps.

Bioenergy Systems, Biological Sources and Environmental Impact
Michel C. Allard
In series: Environmental Science, Engineering and Technology
In series: Energy Science, Engineering and Technology
Case: 978-1-62417-330-1. $150.00.
In this book, the authors present current research in the study of bioenergy systems and their biological sources and environmental impact. Topics discussed include the assessment of sustainability of bioenergy systems; soil loss as a forgotten aspect of biofuel production; effective biocatalysts for lignocellulosic biofuel by a proteomics study of fungal secretome; enhancing the interface between agricultural production, and tree biomass.bioenergy systems to improve farm-scale productivity in Western Australia; hydrogen and ethanol comparison as fuels for internal combustion engines; and hydrogen production by mixed cultures.

Biofuels in the United States: Developments and Trends
John M. Cucinotta
In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices
2013. 120 pp.
Soft: 978-1-62417-630-2. $52.00.
Biofuels is a collective term for liquid fuels derived from renewable sources, including ethanol, biodiesel, and other renewable liquid fuels. This book addresses the ethanol and biodiesel markets and presents data on biofuels consumption, production, imports and exports, prices and producer margins, and infrastructure.

Biomass Resource Allocation: Alternative Use Models
Ryan G. Daly and Jon Crociotta
In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices
Case: 978-1-62257-529-9. $110.00.
The Biomass Scenario Model (BSM) is a system dynamics model developed by the U.S. Department of Energy (DOE) as a tool to better understand the interaction of complex policies and their potential effects on the biofuel industry in the United States. This book provides a holistic understanding of the dynamics surrounding the allocation of biomass among uses that include traditional use, wood pellet exports, bio-based products and bioproducts, biopower and biofuels. Also discussed is a methodology for modeling tradeoffs between alternative uses of scarce biomass energy resources using a linear program (LP) designed to estimate concurrent biomass allocations to the transportation and electricity market sectors. The LP model is called the Biomass Allocation Model. Also discussed are the biomass allocation results of this methodology and the ethanol production and carbon mitigating potential of biomass allocations along with relevant sensitivities to significant model parameters.

Canadian Oil Sands, Greenhouse Gases, and the Keystone XL Pipeline
Travis J. Carlson and Sharon Harper
In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices
Soft: 978-1-62257-402-5. $52.00.
After discussing the basic methodology of life-cycle assessments and examining the choice of boundaries, design features, and input assumptions, this book compares several of the publicly available assessments of life-cycle emissions data for Canadian oil sands crudes against each other and against those of other global reference crudes. As congressional concern over the environmental impacts of Canadian oil sands production may encompass both a broad understanding of the global resource as well as a specific assessment of the proposed Keystone XL pipeline, the book surveys both the general scientific literature as well as the individual findings of the State Department’s Keystone XL Project Environmental Impact Statement. As lifecycle assessments have become an influential, albeit developing, methodology for collecting, analyzing, and comparing GHG emissions, this book concludes with a discussion of some tools for policymakers who are interested in using these assessments to investigate the potential impacts of U.S. energy policy choices on the environment.
Carbon Capture Beyond 2020: Basic Research Needs
Hal J. Compton and Brenda I. Raymond
In series: Energy Science, Engineering and Technology
Case: 978-1-61942-510-1. $185.00.
The problem of thermodynamically efficient and scalable carbon capture stands as one of the greatest challenges for modern energy researchers. The vast majority of U.S. and global energy use derives from fossil fuels, the combustion of which results in the emission of carbon dioxide into the atmosphere. These anthropogenic emissions are now altering the climate. Although many alternatives to combustion are being considered, the fact is that combustion will remain a principal component of the global energy system for decades to come. This book explores today’s carbon capture technologies which are expensive and cumbersome and energy intensive. If scientists could develop practical and cost-effective methods to capture carbon, those methods could alter the future of the largest industry in the world and provide a technical solution to one of the most vexing problems facing humanity.

Clean Energy: Benefits and Lessons for States
Gary T. Page and Archie Weber
In series: Energy Science, Engineering and Technology
Case: 978-1-61942-355-8. $185.00.
This book organizes and presents a comprehensive review of the multiple benefits of clean energy, together with an analytical framework that states can use to assess those benefits during the development and implementation of clean energy policies and programs. State clean energy initiatives can produce significant savings in fuel and electricity costs, the environment and public health and the economy.

Concentrating Solar Power: Data and Directions for an Emerging Solar Technology
Burt J. Alexander and Ted F. Richardson
In series: Renewable Energy: Research, Development and Policies
As the world looks for low-carbon sources of energy, solar power stands out as the single most abundant energy resource on Earth. This book focuses on the capacity value of concentrating solar power plants and presents detailed information about solar resource data and the resulting data products needed for each stage of the concentrating solar power project, from initial site selection to systems operations. It also examines the degree to which concentrating solar power may be complimentary to solar photovoltaic via its use of thermal energy storage.

Electric Vehicles and the Wind Industry: Effects of Federal Tax Credits
Adam P. Reyes
In series: Energy Science, Engineering and Technology
2013. 95 pp.
Soft: 978-1-62417-298-4. $52.00.
e-book: 978-1-62417-299-1. $52.00.
This book explores the effects of federal tax credits on the electric vehicle and wind industries. The federal government has adopted several policies to encourage the production and purchase of electric vehicles, which run partly or entirely on electric power stored in a battery that can be recharged from a standard home outlet. Federal policies to promote their manufacture and purchase include tax credits for buyers of new electric vehicles, financial support for the industry that produces them, and programs that promote efforts to educate consumers about electric vehicles and improve the infrastructure for charging them. Additionally, U.S. wind projects that use large turbines, greater than 100 kilowatts, are eligible to receive federal tax incentives in the form of production tax credits (PTC) and accelerated depreciation. Originally established in 1992, the PTC has played a role in the evolution and growth of the U.S. wind industry.

Electricity Reliability in the United States: Select Research
Emmanuel Martinez
In series: Energy Science, Engineering and Technology
Case: 978-1-62417-149-9. $110.00.
Since the 1960s, the U.S. electric power system has experienced a major blackout about once every 10 years. Each has been a vivid reminder of the importance society places on the continuous availability of electricity and has led to calls for changes to enhance reliability. At the root of these calls are judgments about what reliability is worth and how much should be paid to ensure it. In principle, comprehensive information on the actual reliability of the electric power system and on how proposed changes would affect reliability ought to help inform these judgments. Yet, comprehensive, national-scale information on the reliability of the U.S. electric power system is lacking. This book helps to address this gap by assessing trends in U.S. electricity reliability based on information reported by electric utilities on power interruptions experienced by their customers.

Electricity: Infrastructure Reliability and Vulnerabilities
Walter B. Guerriero
In series: Energy Science, Engineering and Technology
Case: 978-1-62417-600-5. $110.00.
The U.S. electric power system has historically operated at such a high level of reliability that any major outage, either caused by sabotage, weather, or operational errors, makes new headlines. The transmission system is extensive, consisting mainly of transformers, switches, transmission towers and lines, control centers, and computer controls. A spectrum of threats exists to the electric system ranging from weather-related to terrorist attacks. The main risk from weather-related damage or terrorist attack against the electric power industry is a widespread power outage that lasts for an extended period of time. This book explores the infrastructure reliability and vulnerabilities in the electric system; who should be responsible for implementing appropriate actions; who should pay; and should reliability guidelines or standards be implemented by the federal government or industry groups.

Emerging Advanced Energy Storage Systems: Dynamic Modeling, Control and Simulation
Marcelo Gustavo Molina (CONICET, Instituto de Energía Eléctrica, Universidad Nacional de San Juan, San Juan, Argentina)
In series: Energy Science, Engineering and Technology
In series: *Electrical Engineering Developments*
Soft: 978-1-61324-392-3. $52.00.

Although presently utility power systems operate successfully without energy storage, cost-effective ways of storing electrical energy can help make the grid more efficient and reliable. Electric energy storage systems (ESSs) can be used to store excess electricity generated during off-peak periods for discharging it at peak hours and thus substituting the generation reserve when it is more required. This book aims to provide major insights and projections regarding the future of emerging energy storage technologies in utility power systems around the world. This book provides both the comprehensive analysis and extensive data of leading emerging ESS applications. It includes a broad analysis of the new market for energy storage technologies applied in the global utility power sector.

**Emissions Control in Electricity Generation**
*Jackson L. Walker and Allen Hernandez*

In series: *Energy Science, Engineering and Technology*
Case: 978-1-62257-830-6. $110.00.

Federal policymakers have long been concerned about the impact of manmade carbon dioxide (CO2) emissions on global climate change. To address these concerns, Congress has been debating a range of potential initiatives for reducing atmospheric CO2 from U.S. sources. Legislative proposals would seek to limit U.S. CO2 emissions to specific (historical) levels through emissions caps, carbon taxes, or other regulatory mechanisms. Many of these proposals dictate or anticipate a declining long-term trajectory for annual U.S. carbon emissions. The most prominent CO2 proposals seek reductions of nationwide CO2 emissions to 1990 levels or lower by 2030. This book examines key uncertainties associated with CO2 emissions abatement measures, with a focus on available and emerging technologies, and new source review permits.

**Energy Efficiency: Methods, Limitations and Challenges**
*Emmanuel F. Santos Cavalcanti and Marcos Ribeiro Barbosa*

In series: *Energy Science, Engineering and Technology*
Case: 978-1-62081-817-6. $150.00.

In this book, the authors present current research from across the globe in the study of the different methods, limitations and challenges in energy efficiency. Topics discussed in this compilation include issues of information and communication technology in energy-efficient urban communities; energy-efficient appliances, road vehicles, and behaviors; hybrid models for energy efficiency in building services; methods for determination of energy efficiency in electric arc furnaces; energy assessments using pollution prevention tools; long-term energy and affordability implications of residential local decisions; and challenges and opportunities for developing a framework for achieving high energy efficiency in new housing.

**Energy in Latin America and the Caribbean: The Current and Future Role of Conventional Energy Sources in the Regional Electricity Generation**
*Jorge Morales Pedraza (Consultant on International Affairs, Vienna, Austria)*

In series: *Latin American Political, Economic, and Security Issues*
In series: *Energy Science, Engineering and Technology*

The preparation of a national energy policy in which priorities and preferences are identified should be one of the main responsibilities of national authorities in charge of the energy sector. It is important that every country's energy mix involves a range of national preferences and priorities reflected in national policies and strategies to be applied in order to satisfy the foreseen increase in the electricity demand. These policies and strategies should represent a compromise between expected energy shortages, environmental quality, energy security, energy cost, public attitudes, safety and security, available skills, as well as production and service capabilities. Relevant national authorities must take all of these elements into account when formulating an energy policy and strategy.

**Energy Storage**
*Marc A. Rosen (University of Ontario Institute of Technology, Ontario, Canada)*

In series: *Energy Science, Engineering and Technology*
In series: *Environmental Remediation Technologies, Regulations and Safety*
Case: 978-1-61324-708-2. $325.00.
e-book: 978-1-61324-814-0. $325.00.

Energy storage can be utilized in a wide range of applications. The main types of applications covered by the chapters in the present volume include utility and other electrical power systems, conventional and renewable power generation, renewable energy sources, heat pumps, building heating and cooling and district energy systems. The ability of energy storage to facilitate the efficient, effective and economic operation of renewable energy systems is reinforced in this volume, with chapters focusing on using energy storage to improve solar power plants and other renewable energy applications. This book addresses both existing and potential future energy storage technologies and systems.

**Energy Storage Technologies for Power Grids and Electric Transportation**
*Russell M. Ford and Rebecca M. Burns*

In series: *Energy Science, Engineering and Technology*
In series: *Energy Policies, Politics and Prices*
Case: 978-1-62257-351-6. $195.00.
e-book: 978-1-62257-353-0. $195.00.

Energy storage technology has great potential to improve electric power grids, to enable growth in renewable electricity generation, and to provide alternatives to oil-derived fuels in the nation’s transportation sector. In the electric power system, the promise of this technology lies in its potential to increase grid efficiency and reliability, optimizing power flows and supporting variable power supplies from wind and solar generation. In transportation, vehicles powered by batteries or other electric technologies have the potential to displace vehicles burning gasoline and diesel fuel, reducing associated emissions and demand for oil. This book summarizes the current state of knowledge regarding energy storage technologies for both electric power grid and
electric vehicle applications. It also addresses the significant policy, market, and other non-technical factors that may impede storage adoption, and considers eight major categories of storage technology: pumped hydro, compressed air, batteries, capacitors, superconducting magnetic energy storage, flywheels, thermal storage, and hydrogen.

Energy, Environment and Economics Research Compendium

Riad Benelmir (Univ. Henri Poincaré)
In series: Energy Science, Engineering and Technology
In series: Global Economic Studies
2013. 419 pp.
Case: 978-1-62257-801-6. $150.00.
This book publishes articles from the International Journal of Energy, Environment, and Economics. It presents research papers that shed light on the interaction between the utilization of energy and the environment, as well as the economic aspects involved with this utilization. This book is a vehicle for an international exchange and dissemination of ideas in the multidisciplinary field of energy-environment-economics between research scientists, engineers, economists, policy makers, and others concerned about these issues. The emphasis will be placed on original work, either in the area of scientific or engineering development, or in the area of technological, environmental, economic, or social feasibility. Shorter communications are also invited. This book will carry reviews on important issues, which may be invited by the Editors or submitted in the normal way.

European Energy Security: Options and Challenges

Radcliff E. Phillips and Jamison B. Cook
In series: European Political, Economic, and Security Issues
In series: Energy Policies, Politics and Prices
Soft: 978-1-62081-814-5. $52.00.
e-book: 978-1-62081-825-1. $52.00.
Europe as a major energy consumer faces a number of challenges when addressing future energy needs. Among these challenges are a rapidly rising global demand and competition for energy resources from emerging economies such as China and India, persistent instability in energy producing regions such as the Middle East, a fragmented internal European energy market, and a growing need to shift fuels in order to address climate change policy. As a result, energy supply security has become a key concern for European nations and the European Union (EU). This book focuses on potential approaches that Europe might employ to diversify its sources of natural gas supply, and Russia's role, as well as identifying some of the issues hindering efforts to develop alternative suppliers of natural gas.

Fossil Fuels: Competition and Elasticities

Charles M. Wright and Patricia O. Richardson
In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices
Case: 978-1-62257-713-2. $110.00.
Energy supplies and prices are major economic factors in the United States, and energy markets are volatile and unpredictable. Thus, energy policy has been a recurring issue for Congress since the first major crisis in the 1970s. As an aid in policy making, this book presents a current and historical view of the supply and consumption of various forms of energy. This book analyzes the competition between coal, natural gas and petroleum used for electricity generation by estimating what is referred to by economists as the elasticity of substitution among the fuels.

Further Explorations in the Energy-Water Nexus

Diane A. Hughes and Brian F. Smith
In series: Environmental Science, Engineering and Technology
In series: Energy Science, Engineering and Technology
Case: 978-1-62081-318-8. $110.00.
e-book: 978-1-62081-330-0. $110.00.
The exploration for and production of oil and gas to meet our nation's energy needs also results in the production of large quantities of water as a byproduct. This water, which is produced from wells during exploration and production, is known as "produced water." Because produced water may contain a variety of contaminants, such as salts and minerals, it is often considered to be a waste stream that oil and gas producers must appropriately manage and treat before this water can be disposed of. If it is not appropriately managed or treated, the contaminants present in produced water discharged from oil and gas operations may threaten human health and the environment. This book explores the inextricable link between energy production and water with a focus on what is known about the volume and quality of produced water from oil and gas production; what practices are generally used to manage and treat produced water; and how the management of produced water is regulated at the federal level and in selected states.

Hydraulic Fracturing and Shale Gas Production: Issues, Proposals and Recommendations

Spencer Ferguson and Matthew T. Gilbert
In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices
Case: 978-1-62257-672-2. $110.00.
Hydraulic fracturing is a technique used to free oil and natural gas trapped underground in low-permeability rock formations by injecting a fluid under high pressure in order to crack the formations. The composition of a fracturing fluid varies with the nature of the formation, but typically contains mostly water; a proppant to keep the fractures open, such as sand; and a small percentage of chemical additives. Some of these additives may be hazardous to health and the environment. The Shale Gas Production Subcommittee of the Secretary of Energy Advisory Board (SEAB) has recommended public disclosure, on a well-by-well basis, of all the chemical ingredients added to fracturing fluids, with some protection for trade secrets. This book provides an overview of current and proposed laws and regulations at the state and federal levels that require the disclosure of the chemicals added to the fluid used in hydraulic fracturing.

Hydropower and Energy Potential at Non-Powered Dams

Kevin F. Anderson and Sandra A. Collins
In series: Renewable Energy: Research, Development and Policies
In series: Energy Science, Engineering and Technology
2013. 88 pp.
Soft: 978-1-62257-711-8. $52.00.
e-book: 978-1-62257-712-5. $52.00.
The United States has produced clean, renewable electricity from hydropower for more than 100 years, but hydropower-producing facilities represent only a fraction of the infrastructure development that has taken place on the nation’s waterways. In contrast to the roughly 2,500 dams, the United States has more than 80,000 non-powered dams (NPDs)—dams that do not produce electricity—providing a variety of services ranging from water supply to inland
navigational. Importantly, many of the monetary costs and environmental impacts of dam construction have already been incurred at NPDs, so adding power to the existing dam structure can often be achieved at lower cost, with less risk, and in a shorter timeframe than development requiring new dam construction. This book discusses hydropower generation, government involvement at federal and nonfederal levels and the energy potential at non-powered dams.

**Integrating Approach to Photofunctional Hybrid Materials for Energy and the Environment**

Takashiro Akitsu (Department of Chemistry, Faculty of Science, Tokyo University of Science, Tokyo, Japan)

In series: *Energy Science, Engineering and Technology*


This book presents current research in the study of photofunctional hybrid materials having potential applications for current issues relating to energy and the environment. Topics discussed include: biomass energy, waste management, structural biology of protein for energy-conversion (photosynthesis), nano-biophysics (microorganisms), and organic/inorganic hybrid materials of metal oxide and porphyrin. In addition, developing ideas or examples as components for hybrid functional materials aiming at such applications are also included: metal oxide photocatalysts and bioorganic amino-acid complexes, multi-component (photoinduced electron-transfer and photochromism) organic/inorganic hybrid materials, phototunable fluorescence hybrid systems for sensing, and metal complexes exhibiting long-life emission.

**Ionizing Radiation: Applications, Sources and Biological Effects**

Eduard Belotserkovsky and Ziven Ostaltsov

In series: *Energy Policies, Politics and Prices*


This book presents current research in the study of photofunctional hybrid materials having potential applications for current issues relating to energy and the environment. Topics discussed include: biomass energy, waste management, structural biology of protein for energy-conversion (photosynthesis), nano-biophysics (microorganisms), and organic/inorganic hybrid materials of metal oxide and porphyrin. In addition, developing ideas or examples as components for hybrid functional materials aiming at such applications are also included: metal oxide photocatalysts and bioorganic amino-acid complexes, multi-component (photoinduced electron-transfer and photochromism) organic/inorganic hybrid materials, phototunable fluorescence hybrid systems for sensing, and metal complexes exhibiting long-life emission.

**Isochoric Heat Capacity of Fluids and Fluid Mixtures in the Critical and Supercritical Regions: Experiment and Theory**

Ilmutdin M. Abdulaev and Gennadii V. Stepanov (Geothermal Research Inst. of the Russian Academy of Sciences, National Institute of Standards and Technology, USA) Aziz I. Abdulagatov (Colorado State University, Colorado, USA)

In series: *Energy Science, Engineering and Technology*


All available sources of data for the specific isochoric heat capacity of technically important fluids and fluid mixtures have been collected and evaluated in this book. Results of critical analyses of the uncertainty of each data source, and comparisons with other sources are presented. All experimental data are compared with available reference fundamental and crossover equations of state. Special interest has been focused on the description of the isochoric heat capacity behavior along the coexistence curve, critical and supercritical regions. This book also includes a discussion of the thermodynamic background and basic thermodynamic relations connected with isochoric heat capacity as thermodynamic quantity.

**Isotopes and Neutrons: Select Assessments of National Science Programs**

Jordan J. Owens and Denise L. Gordon

In series: *Energy Science, Engineering and Technology*


This book presents current research in the study of photofunctional hybrid materials having potential applications for current issues relating to energy and the environment. Topics discussed include: biomass energy, waste management, structural biology of protein for energy-conversion (photosynthesis), nano-biophysics (microorganisms), and organic/inorganic hybrid materials of metal oxide and porphyrin. In addition, developing ideas or examples as components for hybrid functional materials aiming at such applications are also included: metal oxide photocatalysts and bioorganic amino-acid complexes, multi-component (photoinduced electron-transfer and photochromism) organic/inorganic hybrid materials, phototunable fluorescence hybrid systems for sensing, and metal complexes exhibiting long-life emission.

**LEDs and Solid-State Lighting: Energy Savings Potential and a Manufacturing Roadmap**

Douglas H. Flores and Janet M. Anderson

In series: *Energy Policies, Politics and Prices*

2014. 45 pp.

This book presents current research in the study of photofunctional hybrid materials having potential applications for current issues relating to energy and the environment. Topics discussed include: biomass energy, waste management, structural biology of protein for energy-conversion (photosynthesis), nano-biophysics (microorganisms), and organic/inorganic hybrid materials of metal oxide and porphyrin. In addition, developing ideas or examples as components for hybrid functional materials aiming at such applications are also included: metal oxide photocatalysts and bioorganic amino-acid complexes, multi-component (photoinduced electron-transfer and photochromism) organic/inorganic hybrid materials, phototunable fluorescence hybrid systems for sensing, and metal complexes exhibiting long-life emission.

**Natural Gas and Electricity: A Primer on Energy Markets**

Lee Huang

In series: *Energy Science, Engineering and Technology*

2013. 189 pp.

This book presents current research in the study of photofunctional hybrid materials having potential applications for current issues relating to energy and the environment. Topics discussed include: biomass energy, waste management, structural biology of protein for energy-conversion (photosynthesis), nano-biophysics (microorganisms), and organic/inorganic hybrid materials of metal oxide and porphyrin. In addition, developing ideas or examples as components for hybrid functional materials aiming at such applications are also included: metal oxide photocatalysts and bioorganic amino-acid complexes, multi-component (photoinduced electron-transfer and photochromism) organic/inorganic hybrid materials, phototunable fluorescence hybrid systems for sensing, and metal complexes exhibiting long-life emission.
natural gas into something else, like electricity. Roughly a third of the natural gas consumed in the United States goes into power plants for the production of electricity. Electricity, a secondary energy source, results from the conversion of primary fuels such as fossil fuels, uranium or wind, into a flow of electrons used to power modern life. This book explores the workings of the wholesale markets for these two forms of energy, as well as energy-related financial markets.

**Natural Gas in the United States: Status and Opportunities**  
*Hector T. Murano*

*In series: Energy Science, Engineering and Technology*  
In series: Energy Policies, Politics and Prices  
Case: 978-1-62417-761-3. $110.00.  
e-book: 978-1-62417-762-0. $110.00.

Due to the growth in natural gas production from shale gas, the United States is benefiting from some of the lowest prices for natural gas in the world and faces the question of how to best use this resource. Different segments of the U.S. economy have different perspectives on the role natural gas can play. Suppliers, which have become the victims of their own production success, are facing low prices that are forecast to remain low. Some companies that have traditionally produced only natural gas have even turned their attention to oil in order to improve their financial situation. Smaller companies are having a difficult time continuing operations and larger companies, having bought into many shale gas assets, face increased costs as consumption has increased, in part, because producers have raised production to meet demand and because companies have improved efficiency and extraction techniques. This book examines what has changed in the natural gas industry and focuses on the demand, side and ancillary benefits to the U.S. economy.

*Douglas Fernandes Barbin and Vivaldo Silveira Jr.*,  
*(Agriculture and Food Science Centre, National University of Ireland, Dublin, Ireland)*  
In series: Energy Science, Engineering and Technology  
2013. 197 pp.  
Case: 978-1-62417-070-6. $150.00.  

Large-scale power plants and energy producers discard massive heat energy that goes unused. Energy efficiency techniques such as insulation or properly maintained heating systems are less likely when it requires high investments. While “conservation” generally refers to the reduction of total energy usage, “efficiency” means increasing the yield per unit of energy. In many cases, the energy needed to heat water or refrigerate products can also be reduced through conservation and application of more efficient technologies. Heat pump water heaters use electricity to “move” heat from one place to another instead of generating heat directly. Therefore, they can be two to three times more energy-efficient than conventional electric resistance water heaters. This book examines the full application of energy-efficient water-heating systems, focused on heat pump devices. The main objective is to present a brief introduction of the working principles of this equipment, and concentrate on descriptions and applications where both “purposes” of the system are used, the heating and the cooling components, maximizing its effectiveness.

**Nuclear Energy: U.S. Policies and Considerations**  
*Bernard L. Washington and Samuel F. Burris*  
In series: Energy Policies, Politics and Prices  
Case: 978-1-62081-000-2. $110.00.  

The earthquake and resulting tsunami that severely damaged Japan's Fukushima Daiichi nuclear power plant on March 11, 2011, raised questions in Congress about the accident’s possible implications for nuclear safety regulation, U.S. nuclear energy expansion, and radioactive waste policy. This book explores the current nuclear energy issues facing Congress which include federal incentives for new commercial reactors, power plant safety and regulation, radioactive waste management policy, research and development priorities, nuclear weapons proliferation, and security against terrorist attacks.

**Photovoltaic Costs in the U.S.: Analyses of Prices and Trends**  
*Kelton J. Brooks and Peggy E. Edwards*  
In series: Energy Science, Engineering and Technology  
In series: Energy Policies, Politics and Prices  
Case: 978-1-62081-543-4. $110.00.  

Unlike traditional energy-production technologies that have ongoing consumables costs, nearly all of the costs of photovoltaic (PV) systems must be paid at the beginning. Reducing those initial capital costs is crucial to reducing the cost of solar electricity. In addition to module price, many factors contribute to the price of a PV system, including installation labor, power electronics, permitting and other regulatory costs, and in the case of ground-mount systems, site acquisition and preparation costs. This new book presents detailed, bottom-up 2010 benchmark system prices for residential and commercial rooftop systems and utility-scale ground-mount systems. The difference between the evolutionary projections and SunShot targets highlights the need for innovative system designs and installation methods to complement module-level cost reductions.

**Plug-In Electric Vehicles: A Primer for Consumers to Contractors**  
*Daniel J. Foley and Gregory Reed*  
In series: Energy Science, Engineering and Technology  
In series: Energy Policies, Politics and Prices  
Soft: 978-1-62257-554-1. $52.00.  
More than 100 years ago, all-electric vehicles (EVs) held much of the U.S. car market, but their popularity waned as the interest in cars with internal combustion engines (ICEs) rose. The ICE vehicle had a longer driving range, petroleum fuel costs were declining, and the electric starter and manufacturing assembly line improved the affordability and usability of ICE vehicles. Gasoline and diesel-powered ICE vehicles dominated transportation in the 20th century. However, concerns about the environmental impacts of ICE vehicles sparked a plug-in electric vehicle (PEV) renaissance at the end of the 20th century. Today, PEVs are back and ready to compete with and complement the ubiquitous ICE technology. This book is a primer for consumers, electrical contractors, fleet managers, and public charging station hosts on plug-in vehicles.

Plug-In Hybrid Electric Vehicles and Energy Use
Christopher B. Hummel
In series: Energy Science, Engineering and Technology
Case: 978-1-61470-633-5. $185.00.
Plug-in hybrid electric vehicles (PHEVs) are being developed around the world, with much work aiming to optimize engine and battery for efficient operation, both during discharge and when grid electricity is available for recharging. However, the general expectation has been that the grid will not be greatly affected by the use of PHEVs because the recharging will occur during off-peak hours, or the number of vehicles will grow slowly enough so that capacity planning will respond adequately. This expectation does not consider that drivers will control the timing of recharging, and their inclination will be to plug in when convenient, rather than when utilities would prefer. It is important to understand the ramifications of adding load from PHEVs onto the grid. This book analyzes the potential impacts of PHEVs on electricity demand, supply, generation structure, prices and associated emission levels.

Potential Impacts of Northeast Refinery Reductions
Mace R. Ward and Galen E. Smith
In series: Petroleum Science and Technology
2012. 56 pp.
Soft: 978-1-62081-667-7. $52.00.
Reduction in refining activity in the Northeast, as reflected in recently announced plans to idle over 50% of the regional refining capacity, is likely to impact supplies of petroleum products. The transition period as supply sources shift could be problematic for Ultra-Low Sulfur Diesel (ULSD), gasoline, and jet fuel supplies. Prolonged uncertainty over the coming months with regard to the disposition and operation of important logistical assets such as pipelines, ports and storage would compound adjustment challenges. Reduced short-term product supply flexibility due to longer delivery times and potential transportation bottlenecks for sources outside the region could also increase price volatility. This book explores potential developments of Northeast refinery reductions with a focus on alternative supply options; available pipeline capacity, implications for regional transportation fuels markets, heating oil supply and prices in the Northeast, and fuel security for the military.

Reactor Safety Recommendations: Insights from the Fukushima Dai-Ichi Accident
Kenton I. Vinson and Rupert E. Gilliam
In series: Nuclear Materials and Disaster Research
In series: Safety and Risk in Society
Case: 978-1-61942-645-0. $125.00.
This book examines the Near-Term Task Force, which was established in response to Commission direction to conduct a systematic and methodical review of the U.S. Nuclear Regulatory Commission processes and regulations to determine whether the agency should make additional improvements to its regulatory system and to make recommendations to the Commission for its policy direction, in light of the accident at the Fukushima Dai-Ichi Nuclear Power Plant. The Task Force recognizes that there likely will be more than 100 nuclear power plants operating throughout the United States for decades to come. In examining the Fukushima Dai-Ichi accident for insights for reactors in the United States, the Task Force addressed protecting against accidents resulting from natural phenomena, mitigating the consequences of such accidents, and ensuring emergency preparedness.

Renewable Energy Applications in Power Systems
Jizhong Zhu (Chongqing University, Chongqing, P.R., China)
In series: Renewable Energy: Research, Development and Policies
Case: 978-1-61470-798-1. $150.00.
An electric power system is a network of electrical components used to supply, transmit and use electric power. Burning coal produces sulfur, nitrogen oxide and mercury emissions and causes disastrous environmental and health consequences. In addition to environmental issues, fuels such as coal, oil, and natural gas are non-renewable. Once a deposit of these fuels is depleted it cannot be replenished. Thus, the renewable energy has been widely emphasized in the world. Renewable energy is energy which comes from natural resources such as sunlight, wind, rain, tides, and geothermal heat, which are renewable. Renewable energy sources are continually and naturally replenished in a short period of time. Renewable energy sources differ from conventional sources in that, generally they cannot be scheduled, and they are often connected to the electricity distribution system rather than the transmission system.

Renewable Energy Initiatives Supported by Federal Agencies
Rickey Taylor and Allen E. Martin
In series: Renewable Energy: Research, Development and Policies
Case: 978-1-62081-645-5. $110.00.
e-book: 978-1-62081-653-0. $110.00.
The nation's reliance on imported oil, rising energy costs, and fossil fuels' potential contribution to climate change have renewed the federal focus on renewable energy. Many federal agencies support renewable energy activities, raising congressional concerns about the number and roles of agencies implementing such efforts. This book examines the wide range of federal activities related to renewable energy and the recent increase in these efforts that have raised congressional concerns about the number of agencies implementing such activities, as well as the roles of agencies responsible for regulating and providing funding to various segments of the renewable energy industry.

Renewable Energy Products: Labeling, Production Guidance and Consumer Attitudes
Brett R. Harris
In series: Renewable Energy: Research, Development and Policies
Case: 978-1-62417-565-7. $110.00.
Green marketing -- a marketing strategy highlighting the environmental attributes of a product -- dates back to the 1970s but began to flourish in the early 1990s. More recently, a number of companies using renewable energy in the manufacture of products have begun to communicate renewable energy use directly on product packaging, relying either on a logo or some combination of text and imagery. This book describes the experience of companies that communicate to consumers that products are "made with renewable energy." Corporate commitments to using renewable energy, and communicating that commitment on product packaging and through other means, could play an important role in educating consumers about the availability and feasibility of using renewable energy as an alternative energy source.

**Renewable Energy Systems: Theory, Innovations and Intelligent Applications**
*Socrates Kapellos and Eleni Kapellos (Technological Educational Institute of Patras, Greece)*
In series: *Renewable Energy: Research, Development and Policies*
2013.
Case: 978-1-62417-741-5. $230.00.
This book aims to provide a friendly and comprehensive tool in the study of the key issues of Renewable Energy Systems, in order to gain a deeper insight in this broad field through thematic investigations, and, finally, to become able to design competitive innovations and intelligent applications of Renewable Energy Systems in the domestic, agricultural and industrial sectors. This work is a collaborative attempt to elaborate useful technical information from many countries around the world concerning the efficient and effective use and management of Renewable Energy Systems, either autonomous or hybrids, and to deliver theoretical and experimental analysis in Renewable Energy Systems issues, with numerous exercises, extended problems and case studies, simulation models and algorithms, which radically contribute to comprehensive learning, innovative design and engineering applications.

**Shared Solar Power: Project Guides for Communities**
*Emily J. Rose and Duncan Marks*
In series: *Energy Science, Engineering and Technology*
Case: 978-1-62257-527-5. $110.00.
In communities across the United States, people are seeking alternatives to conventional energy sources. Whether they aim to increase energy independence, hedge against rising fuel costs, cut carbon emissions, or provide jobs, people are looking to community-scale renewable energy projects for solutions. Falling costs and creative new financing models have made solar projects, including community shared solar projects, more financially feasible. "Community shared solar" is defined as a solar-electric system that provides power and/or financial benefit to multiple community members. This book provides current detail on projects designed to increase access to solar energy and to reduce up-front costs for participants.

**Smart Meters and the Smart Grid: Privacy and Cybersecurity Considerations**
*Irwin E. Reid and Hale A. Stevens*
In series: *Energy Policies, Politics and Prices*
Case: 978-1-62081-620-2. $135.00.
Electric utilities have accelerated their deployment of smart meters to millions of homes across the United States with help from the Department of Energy's Smart Grid Investment Grant program. As the meters multiply, so do issues concerning the privacy and security of the data collected by the new technology. This Advanced Metering Infrastructure (AMI) promises to increase energy efficiency, bolster electric power grid reliability, and facilitate demand response, among other benefits. However, to fulfill these ends, smart meters must record near-real time data on consumer electricity usage and transmit the data to utilities over great distances via communications networks that serve the smart grid. This book examines the privacy and cybersecurity considerations of smart meters and the smart grid.

**Solar Energy Markets: Industry, Installation, Labor and Technology Trends**
*Jamison E. Wood and Candace M. Robinson*
In series: *Energy Science, Engineering and Technology*
2012. 190 pp.
Case: 978-1-62081-474-1. $195.00.
The potential economic benefits of the growing renewable energy sector have led to increased federal, state, and local investments in solar industries, including federal grants for expanded workforce training for U.S. solar installers. However, there remain gaps in the data required to understand the size and composition of the workforce needed to meet the demand for solar power. This book seeks to address that gap, improving the understanding of both the evolving needs of employers and the economic opportunity associated with solar market development. It also focuses on solar market trends through December 31, 2010. It provides an overview of the U.S. solar electricity market, including photovoltaic (PV) and concentrating solar power (CSP) technologies, identifies successes and trends within the market from both global and U.S. perspectives, and offers a general overview of the state of the solar energy market.

**Solar Energy, Batteries and Energy Storage: Assessments of Federal Initiatives**
*Antonio D. Lopez*
In series: *Energy Science, Engineering and Technology*
In series: *Energy Policies, Politics and Prices*
2013. 139 pp.
Case: 978-1-62417-397-4. $110.00.
The United States has abundant solar energy resources and solar, along with wind, offers the greatest energy and power potential among all currently available domestic renewable resources. Additionally, federal interest in batteries and other energy storage technologies has increased in recent years to help address energy, defense, and space exploration challenges. The federal government has devoted substantial resources to support such technologies for the electric grid, electric vehicles, warfighting, and other uses. This book provides an overview of federal initiatives supporting solar energy, batteries and energy storage, with a focus on the potential for fragmentation, overlap, or duplication, as well as the extent of any coordination among these initiatives.

**Solar Photovoltaics: Cost and Economic Performance Considerations**
*Griffin Marks and Claudia J. Unger*
In series: *Energy Science, Engineering and Technology*
In series: *Energy Policies, Politics and Prices*
Case: 978-1-62257-651-7. $110.00.
Photovoltaic (PV) systems are installed by several types of market participants, ranging from residential customers to large-scale project developers and utilities. Each type of market participant frequently uses a different economic performance metric to characterize PV value because they are looking for different types of returns from a PV investment. Choice of economic performance metric by different customer types can significantly shape each customer's perception of PV investment value and ultimately their adoption decision. In this book, PV economic performance is characterized for three ownership types: residential customers who purchase their own PV systems, commercial customers (for-profit companies) who purchase their own PV systems, and residential and commercial customers who lease PV equipment or buy PV electricity from a third-party company.

**Solar Photovoltaics: U.S. Manufacturing Trends and Trade**
**Jason E. Foster and Arthur M. Powell**
In series: *Renewable Energy: Research, Development and Policies*
In series: *Energy Science, Engineering and Technology*
2012. 80 pp.
Soft: 978-1-62257-234-2. $52.00.
In recent years, job creation and the development of a domestic renewable energy manufacturing base have joined national security and environmental concerns as rationales for promoting the manufacturing of solar power equipment in the United States. The most widely used solar technology involves photovoltaic (PV) solar modules, which draw on semiconducting materials to convert sunlight into electricity. By year-end 2011, the total number of grid-connected PV systems nationwide reached almost 215,000. Domestic demand is met both by imports and by about 100 U.S. manufacturing facilities employing an estimated 25,000 U.S. workers in 2011. Production is clustered in a few states, including, California, Oregon, Texas, and Ohio. This book discusses the solar photovoltaic industry and its supply chain; employment trends; international trade flows; and federal policy efforts aimed at supporting the industry.

**Solar Power, Renewable Portfolio Standards and Solar Renewable Energy Certificates**
**Vanessa M. Evans and Wade L. Reed**
In series: *Energy Science, Engineering and Technology*
In series: *Energy Policies, Politics and Prices*
Case: 978-1-62081-532-8. $110.00.
e-book: 978-1-62081-570-0. $110.00.
Among the available options for encouraging the increased deployment of renewable electricity, renewables portfolio standards (RPS) have become increasingly popular. The RPS is a relatively new policy mechanism, however, and experience with its use is only beginning to emerge. One key concern that has been voiced is whether RPS policies will offer adequate support to a wide range of renewable energy technologies and applications or whether, alternatively, RPS programs will favor a small number of the currently least-cost forms of renewable energy. This book documents the design of and early experience with state-level RPS programs in the United States that have been specifically tailored to encourage a wider diversity of renewable energy technologies, and solar energy in particular. State-level RPS programs specifically designed to support solar energy have already proven to be an important, albeit somewhat modest, driver for solar energy deployment, and those impacts are projected to continue to build in coming years.

**Solar Radiation: Protection, Management and Measurement Techniques**
**Fatih Onur Hocaoglu (Afyon Kocatepe University, Turkey)**
In series: *Energy Science, Engineering and Technology*
Case: 978-1-61470-064-7. $150.00.
Solar energy is of vital importance for living organisms. The development of science gave us the opportunity to get much benefit from the sun. However, as all other beneficial tools, it can be very dangerous in the case of improper usage. This book presents different studies focusing on solar energy protection, measurement and applications. This book can also be used as a helpful reference of detailed knowledge about the status of solar radiation modeling and solar energy applications.

**Solar Ready Buildings and Homes: Planning and Promotion Practices**
**Walter J. Cook and Nate M. James**
In series: *Energy Science, Engineering and Technology*
In series: *Energy Policies, Politics and Prices*
2013. 81 pp.
Soft: 978-1-62081-573-1. $52.00.
e-book: 978-1-62081-596-0. $52.00.
Solar ready design is important if photovoltaic (PV) or solar hot water (SHW) technologies are to be installed on a building at any time during the building's lifespan. Solar ready also allows owners to take advantage of a changing energy market. The economics for installing solar on a new building are not always compelling, but, in the future, that picture could change with rising electricity prices and/or falling solar technology costs. It is important to recognize that solar ready itself does not reduce energy use or replace conventional energy with green energy. Solar ready does not contribute toward carbon emissions reduction until actual solar capacity is installed. Instead, solar ready has the potential to act as a catalyst for future installations and market expansion by reducing balance of system costs at the time of installation. In order to see this benefit, solar ready must become a widespread practice. This book explores the mechanisms for encouraging solar ready design and construction.

**Spent Nuclear Fuel: Storage Options and Efforts**
**Phillip T. Crawford and Alan E. Mason**
In series: *Nuclear Materials and Disaster Research*
In series: *Energy Policies, Politics and Prices*
e-book: 978-1-62257-366-0. $110.00.
Recent events have renewed long-standing congressional interest in safe management of spent nuclear fuel (SNF) and other high level nuclear waste. These issues have been examined and debated for decades, sometimes renewed by world events like the 9/11 terrorist attacks. The incident at the Fukushima Dai-ichi nuclear reactor complex in Japan, combined with the termination of the Yucca Mountain geologic repository project, have contributed to the increased interest. This book focuses on the current situation with spent nuclear fuel storage in the United States. It addresses the SNF storage situation, primarily at current and former reactor facilities and former reactor sites for the potentially foreseeable future. Although no nation has yet established a permanent disposal repository for SNF and other forms of high-level radioactive waste, there is broad consensus that a geological repository is the preferred method for these wastes.
Steam Systems: Performance Improvement Opportunities
Sadie M. Baker and Valerie Parker
In series: *Energy Science, Engineering and Technology* 2012. 197 pp.
Case: 978-1-62081-563-2. $135.00.
There are three principal forms of energy used in industrial processes: electricity, direct-fired heat, and steam. Steam provides process heating, pressure control, mechanical drive, and component separation, and is a source of water for many process reactions. Steam has many performance advantages that make it an indispensable means of delivering energy. These advantages include low toxicity, ease of transportability, high efficiency, high heat capacity, and low cost with respect to the other alternatives. This book is designed to provide steam system users with a reference that describes the basic steam system components, outlines opportunities for energy and performance improvements, and discusses the benefits of a systems approach in identifying and implementing these improvement opportunities.

The Consumer Component in Renewable Energy Use: Select Research
Georgia M. Lee and Russ L. Cooper
e-book: 978-1-62081-426-0. $195.00.
Renewable energy is available to consumers in three forms: (1) utility green pricing programs offered in regulated states, (2) competitive retail electricity products in deregulated or competitive markets, and (3) renewable energy certificates (RECs) purchased in over-the-counter transactions or through independent REC marketers. The objective of this book is to explore trends in consumer interest and awareness of renewable energy options through analysis of historical and regional survey data. This book documents green power marketing activities and trends in the United States and discusses the social acceptance of utility-scale renewable energy projects.

The Energy Basis of Reversible Adaptation
Rafik D. Grygoryan (Cybernetics Center of National Academy of Sciences of Ukraine, Kiev, Ukraine)
In series: *Environmental Science, Engineering and Technology* 2012. 262 pp.
Case: 978-1-62081-093-4. $175.00.
This book proposes a comprehensive energy theory of reversible adaptation (ETRA) explaining general rules and mechanisms of organism adaptation to shifts in both external and internal environments. The theory is based on cellular mechanisms of reactive adaptation (CMRA) controlling long-term energy balance. CMRA and an organism-scale distributed functional system called energy megasystem (EMS) provide human reversible adaptation to unstable external/internal environmental conditions.

The Energy-Water Nexus: Key Issues
Tucker Webb and Ellis Porter
Soft: 978-1-62417-753-8. $52.00.
e-book: 978-1-62417-754-5. $52.00.
Water and energy are inextricably linked and mutually dependent, with each affecting the others availability. Since 2009, the Government Accountability Office (GAO) has issued five reports on the interdependencies between energy and water. These reports have shown that a considerable amount of water is used to cool thermoelectric power plants, grow feedstocks and produce biofuels, and extract oil and natural gas. Some of these sources of energy may also negatively affect water quality. In addition, developing oil and gas resources can produce wastewater, known as ‘produced water’, that must be managed or treated. Conversely, significant amounts of energy are needed to extract, transport, treat, and use water in urban areas. This book identifies key energy-water nexus issues that Congress and federal agencies need to consider when developing and implementing national policies for energy and water resources.

The Financial Cost of Wind Energy: A Multi-National Case Study
Terry B. Wood and Nicholas C. Ross
In series: *Energy Science, Engineering and Technology* 2012. 176 pp.
Case: 978-1-62257-244-1. $110.00.
e-book: 978-1-62257-254-0. $110.00.
The lifetime cost of wind energy is comprised of a number of components including the investment cost, operation and maintenance costs, financing costs, and annual energy production. Accurate representation of these cost streams is critical in estimating a wind plant’s cost of energy. Some of these cost streams will vary over the life of a given project. From the outset of project development, investors in wind energy have relatively certain knowledge of the plant’s lifetime cost of wind energy. This is because a wind energy project’s installed costs and mean wind speed are known early on, and wind generation generally has low variable operation and maintenance costs, zero fuel cost, and no carbon emissions cost. Despite these inherent characteristics, there are wide variations in the cost of wind energy internationally. This book provides a cross-country comparative analysis of the cost of wind energy with a focus on country-specific case studies that describe the unique cost elements of a typical wind energy facility in each of the represented countries.

The Marcellus Shale Gas Resource: Development and Water Issues
Clark D. Richardson
In series: *Energy Science, Engineering and Technology* 2013. 159 pp.
Case: 978-1-62417-759-0. $110.00.
Until relatively recently, natural gas-rich shale formations throughout the United States were not considered to have significant resource value because no technologies existed to economically recover the gas. Development and deployment of advanced drilling and reservoir stimulation methods have dramatically increased the gas production from these “unconventional gas shales.” The Marcellus Shale formation potentially represents one of the largest unconventional natural gas resources in the United States, underlying much of West Virginia and Pennsylvania, southern New York, eastern Ohio, western Maryland, and Western Virginia. Directional drilling and “hydraulic fracturing” are essential to exploiting these low permeability shale gas resources. Although oil and gas developers have applied these technologies in conventional oil and natural gas fields for some time, recent improvements in both technologies have allowed them to be applied effectively to unconventional gas shales on an industrial scale. This book reviews the Marcellus Shale resource, development processes, and related surface water and groundwater issues.
The Role of Renewable Energy Certificates in New Energy Projects
George N. Fischer
In series: Renewable Energy: Research, Development and Policies
In series: Energy Science, Engineering and Technology
2013. 92 pp.
Soft: 978-1-62417-563-3. $52.00.
e-book: 978-1-62417-564-0. $52.00.
This book examines the role of renewable energy certificates in new renewable energy projects. For more than a decade, renewable energy certificates (RECs) have grown in use, becoming a common way to track ownership of the renewable and environmental attributes of renewable electricity generation. RECs are used widely, and are often required, to verify utility compliance with state renewable portfolio standards (RPs) and to substantiate claims made by voluntary purchasers of green power. In recent years, however, questions have risen about the role RECs play in the decision to build new renewable energy projects. Critics point to the uncertain demand for and, in some cases, low prices of RECs as evidence that RECs do not make a meaningful contribution in favor of building a new project. Others counter that any revenue source, large or small, contributes to making new projects profitable and also attracts investment to the broader industry.

The SunShot Initiative: Cost-Competitive Solar Energy
Ashley Sanchez and Aiden J. Hayes
In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices
Case: 978-1-62081-541-0. $230.00.
The SunShot Initiative was launched in February 2011 with the goal of making solar energy cost-competitive with conventional electricity generating technologies within the decade. Achieving this goal will require dramatic decreases in the cost structure of solar technologies, on the order of a 75% reduction, across all markets including residential, commercial and utility-scale deployments of solar. To do this most effectively, the SunShot Initiative spans the full spectrum from basic science to applied research and development. This book explores the implications of achieving the SunShot Initiative's targets both in terms of potential benefits as well as potential challenges.

The U.S. Non-Automotive Fuel Cell Industry: Status and Outlook
Roland J. Clarke and Peter DeFelice
In series: Renewable Energy: Research, Development and Policies
In series: Energy Science, Engineering and Technology
Case: 978-1-62257-559-6. $110.00.
e-book: 978-1-62257-559-6. $110.00.
Fuel cells (FCs) are considered essential future energy technologies by developed and developing economies alike. Several countries, including the United States, Japan, Germany, and South Korea have established publicly funded R&D and market transformation programs to develop viable domestic FC industries for both automotive and non-automotive applications. Important non-automotive applications include large scale and small scale distributed combined heat and electrical power, backup and uninterruptible power, material handling and auxiliary power units. The U.S. FC industry is in the early stages of development, and is working to establish sustainable markets in all these areas. To be successful, manufacturers must reduce costs, improve performance, and overcome market barriers to new technologies. This book examines the FC industry's progress with a focus on bringing both stack and system costs down by more than a factor of two while improving durability and efficiency, thanks in part to government support.

The Weatherization Assistance Program
Sherwyn L. King and Dally R. Griffiths
In series: Energy Policies, Politics and Prices
In series: Laws and Programs
Case: 978-1-62081-745-2. $110.00.
The DOE Weatherization Assistance Program enables low-income families to permanently reduce their energy bills by making their households more energy efficient. The DOE program guidelines specify that a variety of energy efficiency measures are eligible for support under the program. The measures include insulation, space-heating equipment, energy-efficient windows, water heaters, and efficient air conditioners. This book explores the Department of Energy's (DOE's) Weatherization Assistance Program, with a focus on its background, brief history of funding, program evolution, program activity, and program assessments and benefit-cost evaluations.

U.S. Natural Gas Exports: Opportunities, Uncertainties and Effects
Gavin F. Morris and Steve R. Green
In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices
2012. 77 pp.
Soft: 978-1-62081-668-4. $52.00.
e-book: 978-1-62081-693-6. $52.00.
Within the next five years, the United States may become a large exporter of natural gas for the first time in decades. Increased development of U.S. natural gas resources, particularly shale gas, along with low domestic prices in recent years and idle liquefied natural gas ( LNG) infrastructure, have drive: change in the US. The United States has exported some amounts of natural gas for close to 100 years, but has generally imported more than it has exported. However, imports have been declining since 2005, while exports have been climbing. As the debates over the economy, energy independence, climate change, and energy security continue, Congress is beginning to face important questions regarding a potential increase in U.S. natural gas exports. This book examines the changes in the U.S. natural gas market and the prospects and implications of the United States becoming a significant net natural gas exporter.

Unconventional Oil and Gas Development: Environmental and Public Health Requirements, Risks and Size of Shale Resources
Margaret Jackson
In series: Energy Science, Engineering and Technology
In series: Environmental Health - Physical, Chemical and Biological Factors
Case: 978-1-62417-439-1. $195.00.
New applications of horizontal drilling techniques and hydraulic fracturing, in which water, sand, and chemical additives are injected under high pressure to create and maintain fractures in underground formations, allow oil and natural gas from shale formations to be developed. As exploration and development of shale oil and gas have increased, including in areas of the country without a history of oil and natural gas development, questions have been raised about the
estimates of the size of these resources, as well as the processes used to extract them. This book examines the environmental and public health requirements, risks, and size of shale resources of unconventional oil and gas development.

**United States Nuclear Waste: Critical Management Strategies and Future Needs**

*Gregory Hall and Steven L. Greene*

In series: *Energy Science, Engineering and Technology*


Case: 978-1-62081-312-6, $195.00.

The Blue Ribbon Commission on America’s Nuclear Future was chartered to recommend a new strategy for managing the back end of the nuclear fuel cycle. The Nation’s failure to come to grips with the nuclear waste issue has already damaged and costly and it will be more damaging and more costly the longer it continues: damaging to prospects for maintaining a potentially important energy supply option for the future, damaging to state-federal relations and public confidence in the federal government’s competence, and damaging to America’s standing in the world - not only as a source of nuclear technology and policy expertise but as a leader on global issues of nuclear safety, non-proliferation, and security. This book examines the use of nuclear energy as a low-carbon energy resource with a focus on the management of the nuclear fuel cycle, based on emerging technologies and developments.

**Wind and Hydropower Integration: Concepts, Considerations and Case Studies**

*Craig Anderson and Rudolf I. Howard*

In series: *Energy Science, Engineering and Technology*


Case: 978-1-62081-450-5, $230.00.

Worldwide, hydropower facilities possess a significant amount of installed electric generating capacity. IEA statistics indicate that at the end of 2001 there was in excess of 450,000 MW of installed capacity within IEA member countries, with about half in Europe and half in North America. In addition to conventional hydropower, there is more than 80,000 MW of installed pumped-hydro capacity in IEA countries. In contrast, utility-scale wind power is relatively new in the electric market, but increasing rapidly. This book describes the background, concepts, issues and conclusions related to the feasibility of integrating wind and hydropower. It also describes in detail the study methodologies and participant case studies.

**Wind Power: Systems Engineering Applications and Design Models**

*Ted R. Moore and Ewardl J. Bailey*

In series: *Energy Science, Engineering and Technology*

In series: *Renewable Energy: Research, Development and Policies*


Case: 978-1-62081-787-2, $195.00.

Over the past 30 years, wind energy has evolved from a small industry active in a few countries to a large international industry involving major players in the manufacturing, development, and utility sectors. Coinciding with the industry growth, significant innovation in the technology has resulted in larger sized turbines with lower associated costs of energy and more complex designs in all subsystems, from the rotor to the drivetrain to the electronics and control systems. However, as deployment of the technology grows and its role within the electricity sector has become more prominent, so have the expectations of the technology in terms of performance, reliability, and cost. This book surveys the landscape of systems engineering methods and catalogs the various existing modeling tools that relate to the design of wind energy systems from components to entire plants.
mechanisms of capacitive sensors for gas and humidity detections; an overview of the leakage current mechanisms of ultra-thin gate dielectrics used in new-age capacitors and transistors; integration of capacitors into integrated circuits; and the impact of capacitor energization over the power quality of the MV distribution grid.

Capillary Electrophoresis: Fundamentals, Techniques and Applications
Zhongqi He (USDA-ARS Southern Regional Research Center, New Orleans, LA)
Case: 978-1-62081-785-8. $150.00.
e-book: 978-1-62081-867-1. $150.00.
Capillary electrophoresis (CE) is an analytical technique that separates ions based on their electrophoretic mobility with the use of an applied voltage. With the high efficiency and broad separating capabilities, CE has continuously spurred research interests among the scientific society to execute further developments in the technique. This book is a timely synthesis of the on-going CE development and application research in the formats of general reviews and detailed case studies. All chapters are invited contributions and peer-reviewed. This book is basically the result of the combined efforts of the dedicated international group of contributors who are from Argentina, Canada, China, Czech Republic, France, Italy, Japan, and USA. This book should be of interest to university faculty, graduate students, research scientists, industrial engineers, and anyone who works and deals with various aspects of CE development and application.

Electrodeposition: Properties, Processes and Applications
Udit Surya Mohanty (National Cheng Kung University, Taiwan)
Case: 978-1-61470-826-1. $165.00.
The present book has been contributed by prominent experts in the field of electrochemical science and technology. It identifies gaps in current knowledge and barriers to applications, and recommends research areas that need to be addressed to enable the rapid development of technologies. Some of the key areas covered in this book are electrochemical synthesis of non-stoichiometric hydroxyapatite-nanodiamond composite coating; electrodeposited biomimetic hydroxyapatite functionalized by lactoferrin for its potential use as bone-implantable biomaterials; development of new types of layered manganese oxides intercalated with cationic polymers applicable for the manufacturing of pseudocapacitor electrodes, electrochromic materials, catalysts, and biosensors and preparation of CulnSe2 thin films and its potential application in photovoltaic devices.

Encyclopedia of Electrical Engineering Research (2 Volume Set)
Zachary L. Fink
Case: 978-1-61324-671-9. $325.00.
This book presents current research in the field of electrical engineering. Topics discussed include voltage stabilization using a storage capacitor; AC bridge circuitry for the capacitive position sensor inside the superconducting linear motor system; ferromagnetism in semiconductors doped with non-magnetic elements; spin transfer torque effect and its applications; fundamentals of half-metallic full-heusler alloys; electronics, spintronics and orbitronics and electric motor drives for battery, hybrid and fuel cell vehicles.

Encyclopedia of Engineering Research (2 Volume Set)
Filippo A. Pasqualli
e-book: 978-1-61470-293-1. $325.00.
This book presents current research in the field of engineering. Topics discussed include characterization of advanced structural materials by acoustic emission indices; applications of polymeric treatments in improving building construction materials durability; types of sustainable building design and evaluation tools; raman spectroscopy; mechanical study of metallic targets impacted by metallic rods; advanced systems for automatically detecting faults occurring in bearings; fault detection and diagnosis with statistical and soft computing methods and advances in the numerical modelling of fatigue crack closure using finite elements.

Ferroelectrics: New Research
Xui Li Huang and Su Lyn Ma
Case: 978-1-61942-282-7. $140.00.
This book presents topical research in the study of ferroelectrics. Topics discussed in this compilation include metal ferroelectric insulator semiconductor field effect transistors; resonant and non-resonant microwave absorption studies in multiferroic materials; the nanoscale ferroelectric behavior of GeSbTe films studied by piezoresponse force microscopy; composition design and electrical properties' investigation of silver-containing perovskite lead-free piezoelectric ceramics; low temperature fabrication of high-k and ferroelectric thin films for capacitive applications and coplanar waveguide ferroelectric thin film microwave phase shifters.

Focus on Biomimetics Research
Abele Scipione
Case: 978-1-62417-332-5. $150.00.
In this book, the authors present current research in the study of biomimetics. Topics include the recent advances of microsystems and their application in developing new tools and techniques for investigating bone and bone-related phenomena; adhesives inspired in biological systems; biomimetic photonic crystal from butterfly wings; biomimetic molecular switches; a voltammetric sensor based on a hemin modified multiwalled carbon nanotube for hydroquinone determination in pharmaceutical samples; and trajectory formation of biomimetic robot arms with redundancy.

Hydraulics: Fluid Dynamics, Mechanical Applications and Role in Engineering
Angela S. Gomez-Ramirez and Jonathan C. E. Diaz
Case: 978-1-62257-246-5. $150.00.
Fluid mechanics provides the theoretical foundation for hydraulics, which focuses on the engineering uses of fluid properties. In fluid power, hydraulics is used for the generation, control, and transmission of power by the use of pressurized liquids. This new book discusses hydraulic mechanical applications and roles in engineering. Topics include axial piston pumps; turbulence structure and related mass transfer mechanisms in vegetated canopy open-channel flows; the hydraulic mechanism features of jet-curtain operation; experimental design and calibration of grid gates used in open channels; surface runoff simulation models; and applications of static and dynamic infinite elements to hydraulic engineering problems involving infinite domains.

Light-Emitting Diodes and Optoelectronics: New Research
Joshua T. Hall and Anton O. Koskinen
In series: Electrical Engineering Developments
Case: 978-1-62100-448-6. $140.00.
This book presents topical research in the field of light-emitting diodes and the systems, uses and efficiency of optoelectronics. Topics discussed include fabricating high efficiency organic light-emitting diodes for flat panel displays and solid-state lighting; reliability estimation from the junction to the packaging of LED; next-generation intelligent and green energy LED backlighting 3D display; inorganic-organic hybrid emitting material fabricated by solvothermal synthesis and photonic bandgap defect structure based on IV-VI semiconductors.

Optimal Control Engineering with Matlab
Rami A. Maher (Isra-University, Collage of Engineering- EE Department, Amman-Jordan)
In series: Engineering Tools, Techniques and Tables
Case: 978-1-62417-191-8. $150.00.
For control engineers, optimal control is a tool to design a primal controller which secures system stability and fulfills a certain set of specifications via the optimization of a specific performance index. In this way, troublesome trial-and-error controller tuning procedures are avoided. The next step is to assess the possibility of practical implementation, and this usually leads to a need to implement some controller trade-offs. To this end, this book aims to construct bridges between conventional parameter optimization and the methods of optimal control theory. Optimal Control Engineering with Matlab teaches students efficiently how to apply the well-known standard optimal control theory as well as recently developed methods for the practical implementation of optimal controllers for dynamic systems. In this book, the author uses his experience gained over twenty-five years of teaching and supervising graduate and postgraduate students in many engineering specializations to communicate the essentials of a very important branch of control system theory to a new generation of engineering students.

Principles and Practices of Engineering and Industrial Economics
M. Hossain Ali (Faculty of Civil Engineering and Earth Resources, University Malaysia Pahang)
In series: Economic Issues, Problems and Perspectives
In series: Engineering Tools, Techniques and Tables
Case: 978-1-62417-596-1. $150.00.
e-book: 978-1-62417-605-0. $150.00.
Every dollar an executive proposes to spend or proposes not to spend has to be subjected to economic decision making. Expenditure and investment proposals can be for cost reduction or income expansion. In some cases, both may be realized. For both the proposals, economic decision making is essential. The goal of equipment selection in a business system is acceptable financial efficiency, not engineering efficiency. The engineering economic analysts test the profitability of a proposed operation, or choose the best option among the existing alternatives. The book “Principles and Practices of Engineering & Industrial Economics” covers issues ranging from project formulation steps - through data collection, costing of project, detail financial analysis, decision rules, risk analysis and environmental considerations – to model study for financial and scenario analysis for decision making.

Quality Control: Developments, Methods and Applications
José A. Orosa (Marine Engineer and Naval architecture, University of a Coruña, Paseo de Ronda, Spain)
In series: Quality Control Engineering and Manufacturing
In series: Medical Procedures, Testing and Technology
Case: 978-1-62257-139-0. $150.00.
Quality control is defined as a set of activities or techniques whose purpose is to ensure that all quality requirements are being met. In scientific areas quality control for an analytical laboratory is essential to ensure good comparability of data in applications like insulin administration decision and transfusion-associated graft-versus-host disease. In engineering, statistical process control is one of the most important tools employed to monitor a production process over time in applications like wind farms maintenance and to control indoor environments. All these points of view were treated in depth in this book. This book aims to be an updated link between applications of quality control and its developments to serve as a guide for responsible persons of process control and researchers in these areas.

Radar Systems: Technology, Principles and Applications
Wen-Qin Wang (School of Communication and Information Engineering, University of Electronics Science & Technology of China, Chengdu, P. R China)
In series: Engineering Tools, Techniques and Tables
Case: 978-1-62417-872-6. $150.00.
“Radar Systems: Technology, Principles and Applications” is a comprehensive book about modern radar techniques, describing systems and methods at the college and graduate student level. It covers radar principles, radar technology and the application of that technology. This book starts with Radar Cross Section (RCS) simulation and radar frequency synthesizers, describes a manipulation of RCS with plasma, and develops a millimeter wave frequency synthesizer for radar systems. Next, multipulse performance evaluation of adaptive detection of fluctuation radar targets and a C-band radar over an urban area are introduced, followed by the interpolation of the radial velocity data from coastal HF radars. At the finish, three-dimensional synthetic aperture radar (SAR) mechanisms and imaging is introduced, followed by GPU-based SAR raw data simulation for a complex three-dimensional scene. This book will be of practical use to engineers, technicians, planners, specifiers, and managers who work in this field.
with radar systems and with systems containing radars and radar technology.

Toroidal Shells

Bohua Sun (Department of Mechanical Engineering, Cape Peninsula University of Technology, Cape Town, South Africa)

In series: Mechanical Engineering Theory and Applications

2012. 194 pp.
Case: 978-1-61942-247-6. $150.00.

Although research papers on toroidal shells can be found in academic journals, unfortunately, there is no published book dedicated to this subject. This book is the first one in the field, which covers analytical solutions, slender toroidal shells, vibration, pipe system etc. This book is suitable for all engineering under and postgraduates, researchers and scientists.

Ultrasonics: Theory, Techniques and Practical Applications

Hanako Ayabito and Mitsuko Katsukawa

In series: Engineering Tools, Techniques and Tables

In series: Mechanical Engineering Theory and Applications

Case: 978-1-62257-685-2. $150.00.

Ultrasonics has been recognized not only as a viable and dependable tool to prognosticate diseases in medical practices but also a prevailing technique in non-destructive detection and manufacturing. In this book, the authors study the theory, techniques and practical applications of ultrasonics. Topics include mechanicochemical cleavage of DNA by ultrasound; using ultrasonic wave transmission and wave reflection methods to monitor the setting and hardening process of cement based materials; ultrasonic spray-pyrolysis process for materials processing; ultrasonic assisted fixed abrasive machining of hard-brittle materials; dynamics and kinetics of supercooled liquids under ultrasonic field; mathematical model of a traveling wave ultrasonic motor; ultrasonic array image in anisotropic weld structures; and ultrasonics in machining operations.

Uranium Mining and Management: Federal Considerations

Jordan Dunn and Dwayne Arnold

In series: Mining Engineering - Research and Technology

In series: Environmental Remediation Technologies, Regulations and Safety

Case: 978-1-62257-412-4. $110.00.
e-book: 978-1-62257-413-1. $110.00.

This book examines uranium mining and management in the United States with a focus on federal considerations. From 2005 to 2007, uranium prices increased from about $20 a pound to over $140 a pound, which led to renewed interest in uranium mining, both exploration and extraction, on federal land in the U.S. In early 2012, thousands of claims have been filed to explore for and potentially extract uranium on federal land. This increase in claims filed, has raised concerns about the potential impacts that an increased level of uranium exploration and extraction could have on the environment. During uranium extraction, the waste rock piles that are formed can introduce radionuclides (such as radium) and heavy metals (such as selenium and arsenic) into the environment. Before the mid-1970s, many mines on federal land, were abandoned without any reclamation, leaving a costly legacy of abandoned mines that pose potential health, safety, and environmental hazards.

ENVIRONMENT

Adapting to Climate Change: National Strategy and Progress

Gerard Robinson and Lillian K. Moore

In series: Climate Change and its Causes, Effects and Prediction

In series: Environmental Science, Engineering and Technology

2012. 139 pp.
Case: 978-1-61942-749-5. $95.00.

As concentrations of greenhouse gases and heat-trapping particles increase in the atmosphere, it is becoming ever more urgent to understand and prepare for the resulting changes in climate. These changes include not only temperature increases but also shifts in precipitation patterns, storm tracks, and other parameters. Climate change affects human health, water and energy supplies, food production, coastal communities, ecosystems, and many other aspects of society and the environment. This book presents an overview of the national strategy and progress that the federal government is taking in adapting to climate change with a focus on the progress report of the Interagency Climate Change Adaptation Task Force.

Advances in Environmental Research. Volume 21

Justin A. Daniels

In series: Advances in Environmental Research

Case: 978-1-61470-007-4. $140.00.
e-book: 978-1-61470-159-0. $140.00.

This series covers leading-edge research focusing on the environment, including current research data on plant canopy conservation; environmental responsibility through ethnecology education; human activity, landscape transition and the evolving biotope association; incentive programs to promote clean power technologies for regional economic/environmental sustainable development; morphometric studies and possible relations to evolution and environmental adaptations and a study of the urbanization process around water-bodies which has caused damage to environmental balance.

Advances in Environmental Research. Volume 23

Justin A. Daniels

In series: Advances in Environmental Research

Case: 978-1-62100-837-8. $140.00.

This series covers leading-edge research focusing on the environment, including current research data on coal fly ash as a recycling treasure and environmental application; airborne fungi and bacteria in public indoor environments; integrated management of Natura 2000 forest spaces; biochemical markers in aquatic ecotoxicology; the vulnerability of northern cities in North America to weather-related hazards; impact of decreasing Arctic pack ice on the higher trophic levels and new bioindicator sampling procedures in indoor and outdoor air quality control.
Advances in Environmental Research. Volume 24
Justin A. Daniels
In series: Advances in Environmental Research
2012. 266 pp.
Case: 978-1-61942-171-4. $140.00.
This series covers leading-edge research focusing on the environment, including current research data on the acclimation to a changing environment in Arabidopsis Thaliana; the impact of methoxyl and carboburan insecticides on the environment and their remediation by photolabeling processes; systemic insecticides; polybrominated environmental exposure as a risk factor for mammal diseases; the effect of zinc on primary and secondary metabolism of Datura inoxia and Datura sanguinea; soot particle suspensions and the stability of related foams and emulsion; ventilation and indoor air quality; and the utilization of carbon, nitrogen and phosphorous in carp culture ponds.

Advances in Environmental Research. Volume 26
Justin A. Daniels
In series: Advances in Environmental Research
Case: 978-1-62081-468-0. $150.00.
This series covers leading-edge research focusing on the environment, including current research data on energy systems, greenhouse gases and environmental pollution control; ecology and impact of Ciguatera on coral reef ecosystems; climate change; particulate matter concentration in residential areas; coral; millepora species; loss on ignition; and heavy metal accumulation in water.

Advances in Environmental Research. Volume 27
Justin A. Daniels
In series: Advances in Environmental Research
Case: 978-1-62257-425-4. $150.00.
e-book: 978-1-62257-426-1. $150.00.
This series covers leading-edge research focusing on the environment, including current research data on habitat degradation and changes in Lake Victoria fisheries; conservation status of zostera marina populations in the Mexican Pacific; sustainable water resources management in the Sudan; organic and inorganic particulate matter in urban ambient air; the distribution of organic carbon and composition of the carboniferous mud in the Baltic Sea; heavy metals in the environment; outdoor air pollution and total suspended particles concentration; toxic metalloid arsenic contaminants; and post dam hydro-geomorphic alteration of the Dwarka River in Eastern India.

Advances in Environmental Research. Volume 28
Justin A. Daniels
In series: Advances in Environmental Research
Case: 978-1-62417-738-5. $150.00.
The environment consists of the surroundings in which an organism operates including air, water, land, natural resources, flora, fauna, humans and their interrelation. It is this environment which is both so valuable, on the one hand, and so endangered on the other. Effects stemming from the choices made by the human population in regards to environmental health are by and large ruining the environment both for themselves and for other organisms. This series covers leading-edge research in a cross-section of fields focusing on the environment including current research data on the ecotoxicological and genetic approach paradigms for environmental assessment; polybrominated eth (PBDE)flame retardants as emergent environmental pollutants; bioindicators for water quality; water resources in Tunisia; quorum sensing for clean environment and green bioenergy; spatio-temporal ecosystem shifts in the Baltic Sea; and the effects of high deer density on forest regeneration.

Air and Water Management for the Home: Select Research and Techniques
Kenneth I. Wright and John A. Nelson
In series: Energy Science, Engineering and Technology
2012. 188 pp.
Case: 978-1-62081-602-8. $110.00.
The U.S. Department of Energy recognizes the enormous potential that exists for improving the energy efficiency, safety and comfort of existing American homes. Air and water vapor are transported into and within single-family homes as a result of pathways and driving forces. Without pathways, no air or water vapor transport will occur. Homes always have pathways and driving forces. This book focuses on managing the driving forces that move air and water vapor across the building envelope and also identifies ways to make homes more comfortable, more energy efficient, and healthier to live in.

Air Pollution Emissions
Daniel G. Vasiliev and Robert A. Kask
In series: Environmental Science, Engineering and Technology
Case: 978-1-62100-453-0. $95.00.
In this book, the authors present topical research in the study of air pollution emissions. Topics discussed include opportunities for sustainable energy development and applications in building environments and air pollution controls; hydrocarbon air pollution laser monitoring; inventory and behaviour of air pollutants in an urban area of NW Spain and spatial modeling of air pollution based on traffic emissions.

Air Pollution: Sources, Prevention and Health Effects
Rajat Sethi (Texas A&M Health Science Center (TAMHSC), Kingsville, Texas)
In series: Air, Water and Soil Pollution Science and Technology
Case: 978-1-62417-735-4. $195.00.
e-book: 978-1-62417-746-0. $195.00.
Industrial pollution is the largest fountain of air offenses in most of the developed world. Statistics from the U.S. Environmental Agency confirm that more than half of the nation’s total pollution is courtesy of industry. What’s more, six out of every ten people in the United States live in urban areas and are currently inhaling these bi-products. The consequence of air misuse is glaring: approximately four percent of all deaths in the United States are attributed to air pollution. This book highlights the sources and effects of air pollution, and also puts forth solutions. Successful pollution prevention is essential to our future well-being. Quintessential to this end, is prevention through education; the goal of this publication.
Continuous inputs of heavy metals from different anthropogenic sources in the Arabian Gulf could be critical for both the naturally stressed marine ecosystems and humans that rely on marine resources for food, recreation and industry. This book identifies valued ecosystem components in the Arabian Gulf, characterizes sources of anthropogenic impacts, assesses the heavy metal contamination in a variety of living organisms, seawaters and sediments, and suggests measures for environmental management of heavy metal pollution in the Arabian Gulf.

Carbon Dioxide Emissions: New Research
Mitchell Carpenter and Everett J. Shelton
In series: Environmental Remediation Technologies, Regulations and Safety
2013. 159 pp.
Case: 978-1-62257-436-0. $150.00.
This book examines new research in carbon dioxide emissions. CO2 is emitted in a number of ways naturally through the carbon cycle and through human activities like the burning of fossil fuels. Since the Industrial Revolution in the 1700s, human activities, such as the burning of oil, coal and gas, and deforestation, have increased CO2 concentrations in the atmosphere. Topics discussed in this compilation include mitigating climate change and CO2 emissions; CO2 emissions from best practice landfills versus compost; evaluation of the potential carbon dioxide emissions reductions from the use of CHP systems in commercial buildings; renewable energy technology sources to mitigate CO2 emissions; and allocating carbon dioxide and other emissions with exergy.

Climate Change Disclosure and Financial Risk: Merits and Concerns
Carolyn S. Lawrence and Lloyd T. Wheeler
In series: Climate Change and its Causes, Effects and Prediction
In series: Financial Institutions and Services
Publicly traded companies are required to transparently disclose material business risks to investors through regular filings with the Securities and Exchange Commission (SEC). On January 27, 2010, the SEC voted to publish “Commission Guidance Regarding Disclosure Related to Climate Change”, which clarifies how publicly traded corporations should apply existing SEC disclosure rules to certain mandatory financial filings with the SEC regarding the risk that climate change developments may have on their businesses. The Guidance has been controversial and has prompted the legislation in the 112th Congress to repeal it. This book provides an overview of the Guidance, with a focus on opposing views; congressional legislation; potential corporate costs and benefits of implementing the Guidance; and the impact of the Guidance from the perspective of investors, corporations, and finance professionals.

Climate Change: Legal Issues and Contexts
Bailey Saunders and Ross A. Diaz
In series: Climate Change and its Causes, Effects and Prediction
In series: Laws and Legislation
Soft: 978-1-62257-847-4. $52.00.
e-book: 978-1-62257-848-1. $52.00.
This book surveys existing law for legal issues that have arisen, or may arise in the future, on climate change and the governments responses, thereto. At the threshold of many climate-change-related lawsuits are two barriers--whether the plaintiff has standing to sue and whether the
20 million engines already in use will continue to emit large amounts of diesel engine and fuel standards taking effect over the next decade, the public health challenges facing the country. Despite the EPA's stringent diesel emission reductions, the amount of federal grant funds used, to the lifetime tons reduced, to evaluate the effectiveness of federal investments in spurring diesel emission reductions.

**Coal Mine Dust: Health Reviews and Key Studies (with accompanying CD)**
*Patrick Fitzugh and Eileen Margach*
In series: *Environmental Health - Physical, Chemical and Biological Factors*
In series: *Public Health in the 21st Century*
2013. 81 pp.

Coal mine dust is one of the most serious occupational hazards in the coal mining industry, and overexposure can cause coal workers' pneumoconiosis (CWP) and a number of other lung diseases, collectively referred to as black lung disease. CWP has been the underlying or contributing cause of death for more than 75,000 coal miners since 1968. This book provides an overview of key studies, background history and health reviews on occupational exposure to respirable coal mine dust.

**Dams: Structure, Performance and Safety Management**
*Slaheddine Khlifi (Higher School of Rural Equipment Engineer, University of Jendouba, Tunisia)*
In series: *Environmental Science, Engineering and Technology*
Case: 978-1-62417-702-6, $150.00.
e-book: 978-1-62417-717-0, $150.00.

"Dams: Structure, Performance and Safety Management" describes the practical aspects necessary to design, manage, monitor, and assess these hydraulic structures. The approaches, used to develop tools and methods for assessing performance and safety of dams largely applied for French cases, has been discussed for aggregating heterogeneous information and expert knowledge. Field measurements have been applied to the performance and the safety assessment for two real-life examples of old dams: Zermanice Concrete Dam and Sance Rockfill Dam in the Czech Republic. The finite element models (FEM), to simulate the crucial loading and monitoring stages of these dams, indicate heave, tilting, uneven displacements, and large settlements. Dam safety and risk management have been performed through the design of spillways, energy dissipators, dams' aseismic air-cushion control, simulation of aseismic mechanisms, control optimization using shaking table tests, and the opportunity to use optic – fiber crack sensing to prevent seismic damage.

**Diesel Emissions: Reduction Efforts**
*Jarrett F. Price and Sheryl E. Mitchell*
In series: *Environmental Remediation Technologies, Regulations and Safety*
In series: *Energy Science, Engineering and Technology*
2012. 142 pp.
Case: 978-1-62081-561-8, $110.00.

Reducing emissions from diesel engines is one of the most important public health challenges facing the country. Despite the EPA's stringent diesel engine and fuel standards taking effect over the next decade, the 20 million engines already in use will continue to emit large amounts of nitrogen oxide and particulate matter, both of which will contribute to serious public health problems for years to come. Fortunately, a variety of cost-effective technologies can dramatically reduce harmful emissions, save fuel, and help our nation meet its clean air and sustainability goals. This book analyzes the cost-effectiveness of various diesel emission reduction strategies, wherein the EPA compares the amount of federal grant funds used, to the lifetime tons reduced, to evaluate the effectiveness of federal investments in spurring diesel emission reductions.

**Drought in the United States: Causes, Considerations and Policy Recommendations**
*Julie Simonetti and Matt Suricka*
In series: *Environmental Science, Engineering and Technology*
Soft: 978-1-62257-560-2, $52.00.
e-book: 978-1-62257-561-9, $52.00.

Drought is a natural hazard with potentially significant societal, economic, and environmental consequences. Public policy issues related to drought range from how to identify and measure drought to how best to prepare for, respond to, and mitigate drought impacts, and who should bear such costs. This book provides information relevant to drought policy discussions by describing the physical causes of drought, drought history in the United States, examples of regional drought conditions, and policy challenges related to drought.

**Dust: Sources, Environmental Concerns and Control**
*Laurent B. Wouters and Michel Pauwels*
In series: *Environmental Health - Physical, Chemical and Biological Factors*
In series: *Public Health in the 21st Century*
Case: 978-1-61942-547-7, $140.00.
e-book: 978-1-61942-556-8, $140.00.

In this book, the authors present current research in the study of the sources, environmental concerns and control of dust. Topics discussed in this compilation include the characterization of heavy metals content in attic dust from copper ore and ferronickel smelter processing plants in Macedonia; dust control in the mining industry of Australia; the health and environmental effects of dust storms in the Arabian Peninsula; dust fallout and its potential hazard on public health in Kuwait; photochemical and climate implications of airborne dust and assessing the quality of the urban environment by the elemental concentrations of foliage dust.

**Eco-City and Green Community: The Evolution of Planning Theory and Practice**
*Zhenghong Tang (University of Nebraska - Lincoln)*
In series: *Environmental Science, Engineering and Technology*
Case: 978-1-60876-811-0, $130.00.
Soft: 978-1-62417-983-9, $69.00.

This book's objective is to present a comprehensive, theoretical, practical, and adaptive approach to understanding the issues involved in eco-city planning and green community development. It builds on recent advances in urban theories, environmental science, architectural design, engineering, and geospatial information technologies to provide readers with the scientific foundation needed to understand the major visionary ideas about new urban forms. This book provides a basis of knowledge in planning theory and natural science and a major review of urban forms that have evolved over the past century; its primary emphasis is to describe and explain emerging approaches, methods, and techniques for eco-city. This book also responds to the key questions outlined at the beginning of this introduction: What are the...
Regulations and Safety
Marc A. Rosen (UOIT, Oshawa, ON, Canada) Management

Approaches to Environmental and Ecological emissions of CH4 and N2O from natural sources, including emissions latest research and provides global estimates of current and future temperat... and very likely contributing to an increase in global average deforestation. The added gases are enhancing the natural greenhouse atmosphere through activities such as burning fossil fuels and today would not be possible. During the past century, humans have... degrees Fahrenheit) lower than they are now, and life as we know it would not be possible. The book examines the EPA's current efforts to facilitate the environmentally sound management of used electronics, with a focus on the view of manufacturers, retailers, recyclers, state and local governments, and other stakeholders.

Electronic Waste: Reuse, Recycling and Export Considerations
Jermaine L. Price and Richard C. Cooper
In series: Environmental Remediation Technologies, Regulations and Safety

Case: 978-1-62081-617-2. $110.00.
Each year, consumers purchase millions of electronic devices, such as televisions, computers, and cell phones, and are faced with what to do with their used electronics. Recycling can recover a variety of materials, including precious metals, and many electronics can be reused or contain reusable components. Yet, the Environmental Protection Agency (EPA) and industry data show that tens of millions of used electronics are thrown away each year. Moreover, because used electronics often contain toxic substances, such as lead and mercury, their end-of-life management raises concerns about the potential adverse impacts on human health and the environment, particularly when used electronics are exported to countries that lack a safe recycling and disposal capacity. This book examines the EPA's current efforts to facilitate the environmentally sound management of used electronics, with a focus on the view of manufacturers, retailers, recyclers, state and local governments, and other stakeholders.

Emissions of Methane and Nitrous Oxide from Natural Sources
Anderson T. Scott and Baylee L. Campbell
Methane (CH4) and Nitrous Oxide (N2O) are “greenhouse gases,” meaning that they trap infrared radiation (heat) from the earth's surface and increase the temperature of the earth. Without this natural “greenhouse effect,” temperatures would be about 33 degrees Celsius (60 degrees Fahrenheit) lower than they are now, and life as we know it would not be possible. During the past century, humans have substantially added to the amount of greenhouse gases in the atmosphere through activities such as burning fossil fuels and deforestation. The added gases are enhancing the natural greenhouse effect, and very likely contributing to an increase in global average temperature and related climate changes. This book summarizes the latest research and provides global estimates of current and future emissions of CH4 and N2O from natural sources, including emissions from newly identified sources.

Environment, Ecology and Exergy: Enhanced Approaches to Environmental and Ecological Management
Marc A. Rosen (UOIT, Oshawa, ON, Canada)
In series: Environmental Remediation Technologies, Regulations and Safety

Environmental Research Biographical Sketches and Research Summaries

Danila S. Melekhin and Mikolai F. Dolukhanov
In series: Environmental Research Advances
Case: 978-1-62257-598-5. $195.00.
This book is a continuation of the book Environmental Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of environmental research, as well as research summaries from a number of different focuses in this important field.

Environmental Research Summaries. Volume 1

Danila S. Melekhin and Mikolai F. Dolukhanov
In series: Environmental Research Advances
Case: 978-1-62257-598-5. $195.00.
This book is a continuation of the book Environmental Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of environmental research, as well as research summaries from a number of different focuses in this important field.

Environmental Research Summaries. Volume 2

Danila S. Melekhin and Mikolai F. Dolukhanov
In series: Environmental Research Advances
Case: 978-1-62257-599-2. $195.00.
This book is a continuation of the book Environmental Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of environmental research, as well as research summaries from a number of different focuses in this important field.

Environmental Research Summaries. Volume 3

Danila S. Melekhin and Mikolai F. Dolukhanov
In series: Environmental Research Advances
Case: 978-1-62257-600-5. $195.00.
This book is a continuation of the book Environmental Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of environmental research, as well as research summaries from a number of different focuses in this important field.

Environmental Research Summaries. Volume 4

Danila S. Melekhin and Mikolai F. Dolukhanov
In series: Environmental Research Advances
Case: 978-1-62257-601-2. $195.00.
e-book: 978-1-62257-605-0. $195.00.
This book is a continuation of the book Environmental Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of environmental research, as well as research summaries from a number of different focuses in this important field.

Environmental Review in Highways Projects

Todd L. Griffin and Carol E. Harrison
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
This book identifies issues relevant to the debate over the role of the environmental review process in transportation project delivery. It identifies social and environmental issues that led Congress to enact the range of requirements that now make up the environmental review process, as well as selected requirements applicable to its implementation. Also discussed are the complexities in tying the environmental review process to federal-aid highway project delivery time. Issues that make it difficult to determine the time it takes to complete the project development, in general or individual stages of development (e.g., activities related explicitly to environmental reviews); or to identify root causes of project delays tied to specific elements of the environmental review process, are also explored.

Evapotranspiration: Processes, Sources and Environmental Implications

Salah Er-Raki, (Laboratoire de Procédés, Métrologie et des Matériaux pour l'Energie et l'Environnement, Département de Physique Appliquée Faculté des Sciences et Techniques Guéliz, Université Cadi Ayyad, Guéliz Marrakech, Maroc)
In series: Environmental Science, Engineering and Technology
2013. 221 pp.
Case: 978-1-62417-138-3. $150.00.
Evapotranspiration (ET) is the total amount of water lost by plant transpiration and soil evaporation. Since about 90% of precipitation received in semi-arid and sub-humid climates is lost to the atmosphere through evapotranspiration, accurate estimations of ET are of crucial need for climate studies, weather forecasts, hydrological surveys, ecological monitoring, and water resource management. This book reviews research on new developments in all areas of evapotranspiration application. It examines the evapotranspiration processes under different environmental and climatic conditions as well as the different methods for modeling and measurement of evapotranspiration at both local and regional scales.

Evergreens: Types, Ecology and Conservation

Adriano D. Bezerra and Tadeu S. Ferreira
In series: Environmental Science, Engineering and Technology
Case: 978-1-61942-177-6. $150.00.
e-book: 978-1-61942-207-0. $150.00.
In this book, the authors present current research in the study of the types, ecology and conservation of evergreens. Topics discussed in this compilation include evergreen conifer forests in Hokkaido and Sakhalin, Japan; light responses and gender issues in the domestication process of Yerba-Mate evergreen; spatio-temporal variation in edge effects on the herpetofauna of a Mexican tropical rain forest; conservation of the Chinese cathay silver fir; ecological significance of leaf longevity of the cerrado woody species; and temperature and transpiration effects of selective cutting of large trees in a broad-leaved evergreen forest in central Cambodia.
Federal Control of Air Emissions: Select Types and Considerations
Harrison M. Graham and Todd E. Lee
In series: Environmental Remediation Technologies, Regulations and Safety
In series: Environmental Science, Engineering and Technology
2012. 188 pp.
Case: 978-1-62081-808-4. $110.00.
This book examines select types of considerations in the federal control of air emissions. Topics discussed in this compilation include controlling air emissions from outer continental shelf sources; the EPA's Boiler MACT standards to control emissions of hazardous air pollutants; tall smokestacks and their contribution to interstate transport of air pollution; the revisions and associated issues relating to the National Ambient Air Quality Standards for Particulate Matter; and a summary of the Clean Air Act and its major requirements.

Fishery Management
Janice S. Intilli
In series: Fish, Fishing and Fisheries
Case: 978-1-61209-682-7. $129.00.
Fisheries management draws on fisheries science in order to find ways to protect fishery resources so sustainable exploitation is possible. This new book presents topical research in the study of fisheries management including coral reef fisheries under threat from overfishing; implementing population viability analysis into fisheries management; machine learning analysis for fisheries research; the marine fisheries policy in Nigeria and evaluating the recovery plan for European hake fishery.

Forest Management of Mediterranean Forests under the New Context of Climate Change: Building Alternatives for the Coming Future
Manuel Esteban Lucas-Borja (Castilla La Mancha University, School of Advanced Agricultural Engineering, Department of Agroforestry Technology and Science and Genetics, Albacete, Spain)
In series: Climate Change and its Causes, Effects and Prediction
In series: Environmental Science, Engineering and Technology
2013. 197 pp.
Mediterranean forests provide a diversity of products such as wood, non-wood forest products including cork, fodder for livestock and aromatic plants and game, all of which are important for socio-economic or cultural development and contribute to food security and poverty alleviation in rural areas. But Mediterranean forests also are facing a mix of threats such as climatic change, agricultural expansion, tourism, urban development and other land use practices that are contributing to forest area losses. Mediterranean forests will be one of the most affected forest ecosystems in the near future as temperatures will increase and rain will decrease. This book aims to provide scientific knowledge for researchers, students, local managers and policy makers. The book is divided into eleven chapters covering not only ecological, but also economic and social perspectives on climate change and Mediterranean forest management. The authors provide information about different research projects and examples related to climate change and forest natural regeneration, genetic aspects of forest ecosystems, forest fires, environmental services, traditional markets and social perspectives on adaptation in forest management.

Geostationary and Polar-Orbiting Weather Satellites: Background and Assessments
Judd Kamisch and Simon F. Jenkins
In series: Environmental Science, Engineering and Technology
In series: Space Science, Exploration and Policies
Case: 978-1-62257-649-4. $110.00.
e-book: 978-1-62257-650-0. $110.00.
This book provides an overview of The Joint Polar Satellite System (JPSS) and the Geostationary Operational Environmental Satellite-R (GOES-R) programs, which are meant to replace current operational satellites. Both are considered critical to the United States' ability to maintain the continuity of data required for weather forecasting. Since the 1960s, the United States has used both polar-orbiting and geostationary satellites to observe the earth and its land, oceans, atmosphere, and space environments. Polar-orbiting satellites constantly circle the earth in an almost north-south orbit, providing global coverage of conditions that affect the weather and climate. As the earth rotates beneath it, each polar-orbiting satellite views the entire earth's surface twice a day. In contrast, geostationary satellites maintain a fixed position relative to the earth from a high orbit of about 22,300 miles in space. Both types of satellites provide a valuable perspective of the environment and allow observations in areas that may be otherwise unreachable.

Global Climate Change and U.S. Security Interests
Angelo C. DiStefano and Mary Hurley
In series: Climate Change and its Causes, Effects and Prediction
In series: Defense, Security and Strategies
Case: 978-1-62081-288-4. $110.00.
Changes in climate patterns and their impact on the physical environment can create profound effects on populations in parts of the world and present new challenges to global security and stability. Failure to anticipate and mitigate these changes increases the threat of more failed states with the instabilities and potential for conflict inherent in such failures. Because of the increasing importance of climate change on U.S. security, this book examines the need to adapt, manage, and mitigate these consequences. An overview of the impacts of climate change over recent decades is discussed with a focus on the political consequences of climate change as it relates to national and international security, with special attention to the African continent due to the vulnerability of African nations with high potential to intersect with U.S. national interests.

Greenhouse Gas Emissions: Drivers of Intensity and Country Variances
Michael Knox and Jonathan D. Mark
In series: Environmental Remediation Technologies, Regulations and Safety
In series: Climate Change and its Causes, Effects and Prediction
Case: 978-1-62081-287-7. $110.00.
The interaction of three variables underlie debates on the issue of climate change and what responses might be justified: the magnitude and rates of change of (1) population, (2) incomes, and (3) intensity of
greenhouse gas emissions relative to economic activities. This book examines the interrelationships of the variables to explore their implications for policies that address climate change. Both internationally and domestically, initiatives are underway both to better understand climate change and to take steps to slow, stop, and reverse the overall growth in greenhouse gas emissions, the most important of which is carbon dioxide (CO₂), emitted by the combustion of fossil fuels.

**Handbook of Wastewater Treatment: Biological Methods, Technology and Environmental Impact**

*Cesar J. Valdez and Enrique M. Maradona*

In series: *Water Resource Planning, Development and Management*

In series: *Waste and Waste Management*


Case: 978-1-62257-591-6. $150.00.


Wastewater treatment represents a continuous challenge for engineers, environmental scientists and regulators. Today, an increasing number of new contaminants are being found such as pharmaceuticals, personal care products, and nanomaterials. In this book, the authors present current research in the study of the biological methods, technology and environmental impact of wastewater treatment processes. Topics include anaerobic membrane bioreactors for wastewater treatment; ecotoxicological approaches to assess wastewater's environmental impact to saltwater; EBPR for wastewater treatment; innovative sequencing batch reactors for industrial wastewater treatment; PAHs in the water environment; and cationic tannins as a coagulant/floculant agent.

**Indoor Pollution: Types, Risks, and Federal Policies**

*Mariel Hartley and Evan T. Sasser*

In series: *Environmental Health - Physical, Chemical and Biological Factors*

In series: *Air, Water and Soil Pollution Science and Technology*


Case: 978-1-62257-983-9. $110.00.


The health risks posed by indoor pollutants have concerned scientists for many years. Because people spend a high percentage of their time indoors, and concentrations of pollutants often are higher in indoor air than outdoor air, the risks due to exposure can be higher than many other environmental risks. Many indoor environmental quality problems might get worse if adaptations to climate change are made without better information and programs aimed at pollution prevention. This book describes common indoor pollutants, discusses federal statutes that have been used to address indoor pollution, and analyzes key issues surrounding some general policy options for federal policy makers, with a focus on chemical contaminants.

**Irrigation Management, Technologies and Environmental Impact**

*Hossain Ali* (Agricultural Engineering Division, Bangladesh Institute of Nuclear Agriculture, BAU Campus, Mymensingh, Bangladesh)

In series: *Water Resource Planning, Development and Management*

In series: *Environmental Science, Engineering and Technology*


Case: 978-1-62417-862-7. $150.00.


Today’s irrigation management faces challenges and competition with other sectors (i.e., household, industry, and environmental), quality degradation, and uncertain climatic conditions. To cope with these situations, the irrigation managers need precise estimation/determination of irrigation needs for crops, advance/water-saving techniques for water application, water conservation approaches, economic considerations in irrigation, and potentials for using marginal quality water in irrigation (such as saline water, and waste-water). This book focuses on all of the above issues: starting with irrigation management strategies for field crops – to suitability of saline and wastewater as irrigation water. The book is useful to identify the need and adopt emerging technologies for irrigation management, as well as to identify appropriate methodologies for social, economic, and environmental benefits of improved irrigation management.

**Land Management**

*Surendra Suthar* (School of Environment & Natural Resources, Doon University, Ajabpur, India)

In series: *Environmental Remediation Technologies, Regulations and Safety*


Case: 978-1-62081-421-5. $150.00.


This book addresses the issues and problems related with land resources degradations and its meaningful solution using local tool and technological interventions at regional as well as global scale. A variety of subjects has been covered in this edited volume dealing issues of current interest – national policy frameworks for land restoration, land improvements through inputs quality management, geomorphic dynamic assessment, conceptual models in land restoration plans, agro-forestry practices and its reliability in land restoration programmes etc. This edited volume will serve as an interesting reference text for a wide range of stakeholders from land managers to policy makers, farmers, environmentalist, researchers, and decision makers.

**Landfills: Waste Management, Regional Practices and Environmental Impact**

*Gustavo B. C. Cabral and Beatriz A. E. Botelho*

In series: *Environmental Remediation Technologies, Regulations and Safety*

In series: *Waste and Waste Management*


Case: 978-1-62257-121-5. $150.00.


Although several countries have been introducing more stringent laws to reduce the amount of waste to be landfilled, in an attempt to maximize recycling and materials recovery, landfilling is still the most generalized practice for municipal solid waste treatment. In this book, the authors discuss waste management in landfills, regional practices and its environmental impact. Topics include the reduction of environmental impact of municipal landfill leachate during oxidative treatment; polymers recycling; management of electronic waste in the Basque Country; and toxicity of landfills by plant cyto genetic and mutagenic effects.

**Macro and Micro Green- Celebrating the International Year of Forests**

*Adriana Galvani* (University of Bologna (IT), Member of Major Groups of UN, Department of History, Anthropology, Geography, Bologna, Italy)

In series: *Environmental Research Advances*

2013.
Mediterranean mountain ecosystems by rural abandonment. Protection and management of forest fragments in changing semiarid management and conservation of Mediterranean ecosystems. Also this new book presents topical research in the Earth Sciences in the 21st Century.

Mangroves of the South China Sea: Ecology and Human Impacts on Indonesia’s Forests
Sukristijono Sukardjo (Indonesian Institute of Sciences, Jakarta, Indonesia), Daniel M. Alongi (Australian Institute of Marine Science, Queensland, Australia)
In series: Environmental Health - Physical, Chemical and Biological Factors
Case: 978-1-61470-558-1. $75.00.
Mangrove forests along the vast expanses of Indonesia’s 95,180 kilometers of shoreline have long attracted man’s curiosity for some time. These unique tidal forests have developed luxuriantly along the low-gradient, passive-margins of the wide continental shelf of Indonesia. No books concerning Indonesia’s mangroves have been published previously by the Research Centre for Oceanography of the Indonesian Institute of Sciences (LIPI), despite the fact that these forests are areas of amazing beauty, exceptionally high biodiversity, and are the home and basis for the sociocultural and economic livelihoods of millions of Indonesians. This book highlights a particular problem regarding our 13 provinces that border the South China Sea — we have insufficient information about the vast coastal tracts of Indonesia’s South China Sea region.

Mediterranean Ecosystems: Dynamics, Management and Conservation
Gina S. Williams
In series: Earth Sciences in the 21st Century
In series: Environmental Science, Engineering and Technology
Case: 978-1-61209-146-4. $129.00.
This new book presents topical research in the study of the management and conservation of Mediterranean ecosystems. Also discussed in this compilation is conserving biodiversity through the protection and management of forest fragments in changing semiarid Mediterranean landscapes and the implications of land use changes in Mediterranean mountain ecosystems by rural abandonment.

Monitoring of Water Quality (Scientific and Applied Aspects)
Anatoly Maximovich Nikanorov (The Russian Academy of Sciences, Hydrochemical Institute, Rostov-on-Don, Russia)
In series: Environmental Science, Engineering and Technology
In series: Water Resource Planning, Development and Management
2013.
In this book a brief description of monitoring systems of the most developed countries of the world (the USA, Canada, European states) and Global Environment Monitoring System (GEMS/WATER) is given. A structure of a state monitoring system of inland surface waters of the Russian Federation including the subsystems of surveillance, operational and special types of monitoring is considered in detail. A large section of the book is dedicated to the results of full-scale ecological modelling and a study of intrabasin processes as a basis for ecological standardization. A methodology for complex assessment of water quality is analyzed and the most recognized and official method in Russia for complex assessments of ISW pollution level is described.

Nature Science and Sustainable Technology Compendium. Volume 2
M. R. Islam (Dalhousie University, Canada)
In series: Environmental Science, Engineering and Technology
Case: 978-1-62257-513-8. $150.00.
Nature thrives on diversity and flexibility, gaining strength from heterogeneity, whereas the quest for homogeneity seems to motivate much of modern engineering. Nature is non-linear and inherently promotes multiplicity of solutions. Modern applied science, however, continues to define problems as linearly as possible, promoting “single”-ness of solution, while particularly avoiding non-linear problems. Nature is inherently sustainable and promotes zero-waste, both in mass and energy. Engineering solutions today start with a “safety factor” while promoting an obsession with excess (hence, waste). Nature is truly transient, never showing any exact repeatability or steady state. Engineering today is obsessed with standards and replicability, always seeking “steady-state” solutions. This book promotes the approach that breaks out of the traditional path of linearizing natural phenomena and accepting research that is inherently pro-nature. This book offers the best hope of finally emulating nature rather than deviating from it.

Oil Spill Governance and Proposals after Deepwater Horizon
Kody E. Powell and Landon D. Webb
In series: Environmental Remediation Technologies, Regulations and Safety
In series: Environmental Science, Engineering and Technology
Case: 978-1-62081-924-1. $110.00.
The impacts of an oil spill depend on the size of the spill, the rate of the spill, the type of oil spilled, and the location of the spill. Depending on timing and location, even a relatively minor spill can cause significant harm to individual organisms and entire populations. Oil spills can
cause impacts over a range of time scales, from days to years, or even decades for certain spills. On April 20th, 2010, an explosion occurred at the Deepwater Horizon drilling platform in the Gulf of Mexico, resulting in 11 fatalities. The incident led to approximately 206 million gallons of oil released, before it was contained on July 15th. The 2010 Gulf oil spill generated considerable interest in oil spill governance issues. This book provides background information regarding oil spills in the U.S. coastal waters and identifies the legal authorities governing oil spill prevention, response, and cleanup.

**Ozone and Ozone Depletion: Sources, Environmental Impact and Health**
*Dr. Rajat Sethi (Chief Editor), Shubham Manchanda and Vishal Sethi (Co-Editors) (Texas A&M Health Science Center-College of Nursing, Bryan, Texas, US)*

In series: Environmental Health - Physical, Chemical and Biological Factors

In series: Environmental Research Advances


Case: 978-1-62100-039-6. $150.00.
e-book: 978-1-62257-613-5. $150.00.

In recent years, several new concepts have emerged in the field of ozone science, creating a need for an in-depth publication covering the various ozone related issues. This book fills that void in the literature by providing a unique collection of our understanding of the “good” and “bad” of ozone gas. The one-of-a-kind compilation of chapters written by leading experts in the field from all over the world will serve world scientists, teachers, students, and regulators as a single reference to a global perspective on: What are the various sources for Ozone? What is happening to the good Ozone layer? How does the depletion of good Ozone affect human health and the environment? What is being done about the depletion of good Ozone? What causes bad Ozone? How does bad Ozone affect human health and the environment? There is an enormous amount of information coming out of the scientific and political arenas concerning Ozone. This book’s objective is to try and give the ‘overall picture’ to the readers on different topics in the field of Ozone.

**Precipitation: Prediction, Formation and Environmental Impact**
*Henry Dohring and Jeremy Dixon*

In series: Environmental Science, Engineering and Technology


Case: 978-1-62100-447-9. $95.00.
e-book: 978-1-62100-553-7. $95.00.

In this book, the authors present current research in the study of the prediction, formation and environmental impact of precipitation. Topics discussed in this compilation include the precipitation of anions in aqueous systems; inter-decadal trend turnings of climate modes and dynamic/thermodynamic structures associated with a series of winter precipitation events over China; stochastic modeling and simulation of daily precipitation for weather generation; anion intercalation during Mg-Al LDH precipitation and main water-soluble ions in precipitation of the central Mediterranean region.

**Regional EIA and Risk Assessment in a Fast Developing Country**
*Tasneem Abbasi (Podicherry University), E. V. Ramasamy (Mahatama Gandhi University), F. I. Khan (University of Newfoundland), S. A. Abbasi (Podicherry University, India)*

In series: Environmental Research Advances

In series: Environmental Remediation Technologies, Regulations and Safety


Case: 978-1-61942-234-6. $140.00.

This book presents in graphic detail what is arguably the first-ever regional environmental impact assessment and risk assessment done in India, perhaps the first-ever of its kind in the third world. More importantly the book is archetypal; its utility value and message goes well beyond its immediate context because the story of the Manali Industrial Complex that it narrates can very easily be a story of any other industrial cluster in the third world.

**Soil Fertility: Characteristics, Processes and Management**
*Bolanle Adewuyi and Kayin Chukwu*

In series: Biotechnology in Agriculture, Industry and Medicine

In series: Agriculture Issues and Policies


Soft: 978-1-62081-087-3. $65.00.
e-book: 978-1-62081-094-1. $65.00.

This book presents topical research in the study of the characteristics, processes and management of soil fertility in agriculture. Topics discussed include agricultural management changes in Pampean soils related to rotation and tillage; agroforestry systems in the Eastern Amazon; soil and crop management practices in bioenergy cropping systems; evaluation of the potassium supplying abilities of animal manures; nitrogen fertilization in the modern sustainable farming systems of Moldova; and soil fertility enhancing microorganisms and their application as biofertilizers.

**Soil Organic Matter: Ecology, Environmental Impact and Management**
*Pedro A. Björklund and Frederick V. Mello*

In series: Environmental Science, Engineering and Technology


Case: 978-1-62100-272-7. $150.00.
e-book: 978-1-62100-399-1. $150.00.

Soil organic matter (SOM) is a key constituent of soil as it is a “revolving nutrient fund” and improves soil structure, maintains crop production and minimizes erosion. In semiarid environments, the major problem for sustainable farming systems is the continuous decline of SOM towards levels too low for agricultural purposes. In this book, the authors present topical research in the study of the ecology, environmental impact and management of soil organic matter. Topics include soil organic carbon stocks and changes due to modifications on land use and management practices in Brazil; the preservation of SOM in semiarid Mediterranean environments; effects of SOM on the transport of non-aqueous phase liquid in soils and soil organic carbon stocks in relation to different land-use types in a mountainous watershed.

**Soot: Sources, Formation and Health Effects**
*Manosh C. Paul (Lecturer in Thermofluids, Adviser of Studies Systems, Power and Energy, UK)*

In series: Environmental Health - Physical, Chemical and Biological Factors

In series: Environmental Science, Engineering and Technology


Case: 978-1-61942-941-3. $140.00.
During combustion of fossil fuels soot particles form as a byproduct when a sufficient amount of oxygen is not present to yield a complete conversion of fuel into major combustion products such as carbon dioxide and water vapour. The soot particles (unburnt carbon) significantly affect the performance and durability of many engineering systems such as gas turbines and diesel engines and are the cause of significant human health problems associated with the respiratory system. Environmentally, the emissions of soot particles from combustion systems are also harmful as they contribute to the global warming. This book covers the important technological issues related to the formation, nanostructure, modelling, health effects, reduction and impact of soots.

**Syngas: Production, Applications and Environmental Impact**

*Antonius Indarto (Università di Torino, Turin, Italy)*

*Jelliarko Palguandi (University of Kyunghee, South Korea)*

In series: *Environmental Science, Engineering and Technology* 2012. 388 pp.

Case: 978-1-62100-870-5. $165.00.

The production and purification technology of syngas has received huge attention from researchers and industries for the last few years because its development represents one of the major efforts toward more efficient, sustainable, and environmentally benign use of the fossil hydrocarbon resources. The decline of global fossil fuels – petroleum, natural gas, and coal supplies and the need for clean and alternative energy have become major motivos of research worldwide for sustainable energy development. The energy supply of the world today still heavily relies on combustion of fossil fuels for stationary systems, domestic use, and transportation vehicles. Alternative fuels, are needed to fill the supply gap that will continue to grow. This book focuses on syngas technology as well as its production, applications and impact on the environment.

**The European Union's Emissions Trading Scheme: Climate and Aviation Considerations**

*Anthony R. Moore and Mia F. Ryan*


Soft: 978-1-62081-955-5. $52.00.

Climate change is generally viewed as a global issue, but proposed responses typically require action at the national level. With the 1997 Kyoto Protocol now in force and setting emissions objectives for 2008-2012, countries that ratified the protocol are implementing strategies to begin reducing their emissions of greenhouse gases. The European Union's (EU) Emissions Trading Scheme (ETS) is a cornerstone of the EU's efforts to meet its obligation under the Kyoto Protocol. It covers more than 10,000 energy intensive facilities across the 27 EU Member countries; covered entities emit about 45% of the EU's carbon dioxide emissions. This book examines the European Union's Emissions Trading Scheme (ETS) with a focus on climate and aviation considerations.

**Theory and Application for Warning and Prediction of Disastrous Weather Downstream from the Tibetan Plateau**

*Xiangde Xu, Xiaohui Shi, and Chungu Lu (Chinese Academy of Meteorological Sciences, Beijing, China)*

In series: *Climate Change and its Causes, Effects and Prediction* 2012. 126 pp.

Soft: 978-1-62100-433-2. $47.00.

The dramatic rise of the Tibetan Plateau's land surface exerts a particular thermal and mechanical force on air flows above and surrounding this highland, which gives rise to many unique weather patterns and climate environments. A case in point is the Asian summer monsoon, the largest monsoonal system on Earth. Apart from its special role in the Asian summer monsoon, the Tibetan Plateau also imposes significant influences on global and regional weather and climate systems. This book unravels several aspects of land-water-atmosphere interaction over the plateau, and describes most recent advances in scientific research and technological developments related to the Tibetan Plateau.

**U.S. Carbon Dioxide Emissions and Intensities: Trends Across Economic Sectors**

*Jayden T. Miller and Brittany O. Harris*


Soft: 978-1-62081-533-5. $52.00.
e-book: 978-1-62081-569-4. $52.00.

Greenhouse gas emissions have increased markedly since the pre-industrial era and are increasing at such a rate that their concentration in the atmosphere is producing a warming influence on the global climate. In order to make well-informed decisions on ways to reduce greenhouse gas emissions, it is important to understand how the different economic sectors contribute to the production of greenhouse gases, which sectors are relatively carbon dioxide (CO2) intensive, and how these patterns have evolved over time. This book analyzes energy-related CO2 emissions and intensities for 349 industries, Government (Federal, state and local), and Households. The 349 industries cover the entire economy, providing information on detailed subsectors within the aggregate sectors of Agriculture, Forestry and Fisheries, Mining, Construction, Manufacturing, Transportation Services, and all other services.

**U.S. Forest Service Research and Development Assessments**

*Vincent J. Degraw*

In series: *Environmental Science, Engineering and Technology* 2012. 120 pp.

Soft: 978-1-62100-639-8. $47.00.

In recent decades, managing the nation's public and private forests and rangelands has become increasingly complex, requiring a sound understanding of science and science-based tools to address these complexities. The Department of Agriculture's Forest Service maintains a research and development program (FS R&D) to help provide scientific information and tools. This book examines the scope
of research and development carried out by FS R&D and some of its resulting accomplishments; trends in resources used in performing FS R&D work and the effects of those trends on its research efforts and priorities and recent steps FS R&D has taken to improve its ability to fulfill its mission and the challenges it faces in doing so.

Waste Management: New Research
Ademir S. F. Araújo (Universidade Federal do Piauí, Campus da Socopo – Departamento de Engenharia Agrícola e Solos, Teresina - Piauí - Brazil)

In series: Environmental Remediation Technologies, Regulations and Safety
Case: 978-1-62081-995-1. $120.00.
e-book: 978-1-62257-109-3. $120.00.
Rapid urbanization coupled with increasing populations has brought to new socio-economic and environmental problems in the world, particularly for third world countries. One such issue that requires urgent attention is the mounting waste problem, which has grown from being an annoyance for regional and local governments to an issue of national importance in many developing countries. Solid wastes are produced after wastewater treatment and their characteristics are influenced by anthropogenic activities. This book brings important information and results of new research with waste management in all of the world. In this volume there are contributions of experts from different countries. Each one of them shows interesting views about this fascinating and important subject.

Water Pollution Controls: Effluent Guidelines, Total Maximum Daily Loads (TMDLs) and Stormwater Permits
Julia Crawford

In series: Environmental Remediation Technologies, Regulations and Safety
In series: Water Resource Planning, Development and Management
2013. 128 pp.
Case: 978-1-62417-441-4. $110.00.
e-book: 978-1-62417-442-1. $110.00.
Forty years after the Clean Water Act set a national goal of eliminating the discharge of pollutants into navigable U.S. waters, the Environmental Protection Agency (EPA) has made significant progress in reducing pollution from industrial facilities; nevertheless, pollution from these facilities continues to cause concern. EPA’s actions to reduce this pollution have included establishing national technology-based regulations, or effluent guidelines, for separate industrial categories, such as petroleum refining, fertilizer manufacturing, coal mining, and metal finishing. Relatively few effluent guidelines have been revised or created in recent years and environmental advocacy groups continue to raise concerns because industrial facilities annually discharge hundreds of billions, and perhaps trillions of pounds of pollutants to U.S. waters. This book examines water pollution controls with a focus on effluent guidelines, total maximum daily loads and stormwater permits.

Water Quality: Indicators, Human Impact and Environmental Health
You-Gan Wang, (Centre for Applications in Natural Resource Mathematics (CARM), School of Mathematics and Physics, The University of Queensland, Queensland, Australia)

In series: Water Resource Planning, Development and Management
In series: Environmental Health - Physical, Chemical and Biological Factors
Case: 978-1-62417-111-6. $175.00.
Water quality is fundamental for our health and affects the environment we share with other animals including marine, freshwater and terrestrial species. Water quality is often managed based on indicators for levels of bacteria and other chemical/physical contents. To assist in better management and monitoring of water quality, this book provides an overview of state of the art assessments of water quality; with an understanding how water quality is affected, and improving water quality for irrigation, drinking and recreation activities.

Water Supply Systems, Distribution and Environmental Effects
Shane Quinn and Vaughn O’Neill

In series: Environmental Science, Engineering and Technology
In series: Water Resource Planning, Development and Management
Case: 978-1-61470-367-9. $140.00.
This book presents current research in the study of water supply systems and their distribution and environmental effects. Topics discussed in this compilation include water resources and technologies in Sudan and Costa Rica; adapting water supply systems in a changing climate; pollutants in groundwater supply systems in Sao Paulo, Brazil, as well as water supply for agricultural, environmental and urban uses in California's borderlands.

Watersheds: Processes, Management and Impact
Gavyn L. Kuhn and Jason R. Emery

In series: Water Resource Planning, Development and Management
In series: Environmental Science, Engineering and Technology
Case: 978-1-62081-574-8. $95.00.
e-book: 978-1-62081-574-5. $95.00.
This book examines the management and impacts of watersheds on the ecosystem process. The authors present topics including the effects of thinning on material transformation in a stand of Cryptomeria japonica in a watershed in eastern Japan; natural and human influences on the inorganic water chemistry of the northern Xinjiang rivers in China; current land use within the Conecuh/Escambia River watershed in the Gulf of Mexico; factors affecting farmers’ adoption of best management practices in Ontario’s Grand River watershed; and the adaptation of national elevation dataset to estimate depression storage in a glaciated watershed.

Wetlands: Ecology, Management and Conservation
András Baranyai and Dionysius Benkó

In series: Environmental Remediation Technologies, Regulations and Safety
In series: Environmental Research Advances
Case: 978-1-62100-918-4. $140.00.
Wetlands have already been recognized to hold the capacity for efficiently reducing or removing large amounts of pollutants from point sources (e.g. municipal and certain industrial effluents) as well as non-
point sources (e.g. mining, agricultural and urban runoff) including organic matter, suspended solids, excess of nutrients, pathogens, metals and other micropollutants. This pollutant removal is accomplished by the interdependent action of several physical, chemical and biological processes which include sedimentation, filtration, chemical precipitation, sorption, biodegradation, and plants uptake among others. In this book, the authors present studies on the ecology, management and conservation of these valuable wetlands.

**FOOD SCIENCE**

**Beta-Carotene: Functions, Health Benefits and Adverse Effects**

*Maxime Lefevre*

In series: *Food Science and Technology*  
Soft: 978-1-62417-173-4. $69.00.  
In this book, the authors present current research in the study of the functions, health benefits and adverse effects of beta-carotene. Topics include the role of carotenoids and its metabolites in adipocyte biology; B-carotene and peroxisome proliferator-activated receptor gammas; beta-carotene's effects on human health and its applications in food; the different formulations and techniques useful for beta-carotene stabilization and administration; and the effects of dietary beta-carotene on lung function, respiratory symptoms and chronic obstructive pulmonary disease.

**Cheese Ripening: Quality, Safety and Health Aspects**

*Cinzia Lucia Randazzo, Cinzia Caggia (University of Catania, Italy) and Erasmo Neviani (University of Parma, Italy)*  
In series: *Advances in Food Safety and Food Microbiology*  
Edited by: *Dr. Anderson de Souza Sant’Ana and Dr. Bernadette D.G.M. Franco*  
Case: 978-1-62417-032-4. $150.00.  
This book provides detailed information on the influence of milk production conditions on cheese quality and cheese ripening; on biochemical reactions that occur during the ripening of the cheese as well as on the microbial population involved in cheese ripening. In particular, the book proposes a review of the main biochemical events that occur during cheese ripening, covering the different aspects related to the enzymatic synthesis of compounds derived from milk fat, their role and importance in cheese flavor and the enzymology and genetics of the main pathway responsible for the catabolism of free amino acids under hostile environmental conditions during cheese ripening.

**Cost Realities of Healthy Foods**

*Regina Snyder and Robert P. Wagner*  
In series: *Food and Beverage Consumption and Health*  
Most Americans consume diets that do not meet Federal dietary recommendations. This perception may be influenced by studies that found healthy foods to cost more per calorie than less healthy foods. This is one way, but not the only way, to measure the cost of a healthy diet. For a balanced assessment, this book compares the price of healthy and less healthy foods using three metrics: the price per calorie, per edible gram, and per average portion. These studies conclude that the higher prices of healthy foods present barriers to consumer ability to buy recommended amounts of foods like fruits and vegetables.

**Finger Millet: A Valued Cereal**

*K.S. Premavalli (Project Coordinator, Head, Food Preservation Division, Defence Food Research Laboratory, Siddharthanagar, Karnataka, India)*  
In series: *Food and Beverage Consumption and Health*  
In series: *Nutrition and Diet Research Progress*  
2012. 194 pp.  
Case: 978-1-62081-224-2. $85.00.  
Finger millet though a small cereal grain is a most promising millet for its strength of calcium, iron, dietary fibre and polyphenols. These compounds provide better skeletal health and the cereal possess antidiabetic properties. But the information documented so far on finger millet refers more to varieties and cultivation practices. This book covers the global information within 9 chapters in a methodological way, the finger millet strength, history and cultivation of varieties, nutrients, non-nutrients, the finger millet processing methods, processed products development and their health benefits evaluation which creates a scientific evidence for the benefits.

**Food as Medicine**

*M. Mohamed Essa (Sultan Qaboos University, Oman) and Mushtaq A. Memon (Washington State University, Pullman, WA, USA)*  
In series: *Nutrition and Diet Research Progress*  
In series: *Food Science and Technology*  
2013.  
There is currently a growing body of evidence that supplementing the human diet with natural products is of major benefit for human health and well-being. Nowadays, the use of complementary or alternative medicine, functional food and especially the consumption of natural products, has been increasing rapidly worldwide, mostly because of their supposed less frequent side effects. Both in conventional and traditional medicines, food and natural products continue to provide valuable therapeutic agents. The issues regarding the efficacy and safety of currently available modern medicine agents have prompted the search for safer and more effective alternatives. This book contains a comprehensive collection of the beneficial features of fruits, vegetables, nuts and medicinal plants and herbs, against various diseases and how they should be utilized to obtain all their qualities and benefits.

**Food Chemistry**

*Dongfeng Wang (Qingdao, P. R. China), Hong Lin (Ocean University of China, P. R. China), Jianqian Kan, (Southwest University, P. R. China), Linwei Liu, Xiaoxing Zeng and Shengrong Shen*  
In series: *Food Science and Technology*  
In series: *Food and Beverage Consumption and Health*  
Case: 978-1-61942-125-7. $165.00.  
This book introduces the chemistry and properties of six essential nutrients contained in foods, including water, carbohydrates, lipids, proteins, vitamins, and minerals and special attention is given to their changes undergone during processing and storage and the effects of these changes on the quality of foods. Food additives and toxic
substances in foods are also included in this book. Tables and illustrations will be widely employed in the book to offer readers with in-depth insight into food chemistry. These features make the book a valuable tool for food chemists, food technologists, engineers, biochemists, nutritionists, and analytical chemists for food and agricultural research, food control and other related purposes. The book can also be used as a textbook for university students and teachers for leaning and teaching Food Chemistry.

**Food Intake: Regulation, Assessing and Controlling**
*Jane L. Morrison*
In series: *Food Science and Technology*
In series: *Nutrition and Diet Research Progress*
Case: 978-1-61324-183-7. $95.00.
Food intake is affected by many internal biological stimuli such as hormones and neuropeptides, and by social factors such as commercial standards, food palatability and composition. This book presents current research in the regulation and control of food intake. Topics discussed include understanding food intake regulation in chicks; indigenous fermented foods and beverages produced in Latin America; dopaminergic regulation of food intake; peptidergic regulation of food intake and its relation to age and body composition and food-borne carcinogens.

**Food Packaging: Procedures, Management and Trends**
*Michael G. Kontominas (Laboratory of Food Chemistry and Food Technology, Department of Chemistry, University of Ioannina, Ioannina, Greece)*
In series: *Progress in Food Science and Technology*
Case: 978-1-62257-310-3. $150.00.
e-book: 978-1-62257-319-6. $150.00.
The primary objective of food packaging is to contain and protect foodstuffs from physical, chemical and mostly microbiological spoilage. At the same time food packaging serves as a powerful marketing tool attracting the consumer with features such as easy opening and handling, information on the nutrient and caloric content of the contained product, instructions on the preparation and use of the package contents etc. It is difficult to imagine modern society without packaged goods. The authors/contributors of this book volume come from a variety of different backrounds and are well respected each one in their own field of research. Their contributions have made the objective of the book possible. Professionals such as food scientists, packaging technologists and engineers as well as students engaging in food packaging and seeking to update their knowledge will find the contents of this book useful.

**Food Safety: Developments, Policies, Programs, and Research. Volume 1**
*Garvin Agnew and Douglas Yokley*
In series: *Food Safety: Developments, Policies, Programs, and Research*
Case: 978-1-62417-061-4. $110.00.
Numerous federal, state, and local agencies share responsibilities for regulating the safety of the U.S. food supply. Federal responsibility for food safety rests primarily with the Food and Drug Administration (FDA) and the U.S. Department of Agriculture (USDA). The combined efforts of the food industry and government regulatory agencies are often credited with making the U.S. food supply among the safest in the world. This book provides an overview of the organization, regulatory tools, and resources in place to adequately monitor food safety in the United States.

**Fructose: Synthesis, Functions and Health Implications**
*Brandon M. Johnston and Aaron B. Collins*
In series: *Nutrition and Diet Research Progress*
In series: *Food Science and Technology*
Case: 978-1-62081-126-9. $150.00.
Fructose is a carbohydrate found in plants and humans. It was isolated in 1947 from sugar cane, where it is a component of sucrose. In this book, the authors discuss the synthesis, functions and health implications of fructose. Topics include high-fructose consumption and metabolic disease; detrimental neuroendocrine and metabolic effects of fructose during peri-natal and adult periods; fructose and non-alcoholic fatty liver disease; and fructose ingestion effects on brain functions.

**Functional Foods: Sources, Biotechnology Applications and Health Challenges**
*Aron Robinson and Dominick Emerson*
In series: *Nutrition and Diet Research Progress*
In series: *Food Science and Technology*
Case: 978-1-62417-435-3. $150.00.
e-book: 978-1-62417-436-0. $150.00.
In this book, the authors discuss the sources, biotechnology applications and health challenges of functional foods. Topics discussed include the health potential of pulses and their bioactivity; health promoting phytonutrients and lactic acid bacteria in olives; health benefits of the Mediterranean diet; European consumers acceptance of healthy food products; fermentation of tomato juice with the probiotic yeast saccharomyces cerevisiae boulardii; and market strategies to maximize consumer acceptance of functional dairy-based foods and beverages.

**Healthy Down Home Cooking and Diversity Cookbook**
*Louis M. Capitanelli*
In series: *Food and Beverage Consumption and Health*
2012. 89 pp.
Case: 978-1-60692-849-3. $55.00.
e-book: 978-1-62081-870-1. $55.00.
Healthy Down Home Cooking and Diversity Cookbook is two cookbooks in one. In the first, Healthy Down Home Cooking, recipes and nutritional information developed by the National Cancer Institute are provided. Consideration is given to preparing meals for African Americans who suffer from higher rates of serious diseases like high blood pressure, Type 2 diabetes, heart disease and some types of cancer. In the second cookbook, a Diversity Team from the National Cancer Institute has provided a sampling of recipes exploring different countries and cultures from around the globe. Please note, this second cookbook is meant to provide flavorful dishes and makes no health claims.

**Honey: Current Research and Clinical Applications**
*Juraj Majtan (Institute of Zoology SAS, Bratislava, Slovakia)*
In series: *Food and Beverage Consumption and Health*
Case: 978-1-61942-656-6. $140.00.
In the last few years, with increasing frequency, modern medicine directs attention to natural products with biological and therapeutic properties and their use in clinical practice. The major arguments for implementing natural products, such as honey, are low cost and the absence of antimicrobial resistance risk. This book presents original current research and clinical results on the leading edge of honey research. Topics discussed include the antimicrobial and anti-biofilm properties of honey; possible anticancer and anti-diabetic properties of honey; immunomodulatory effects of honey on cutaneous and immune cells during wound healing process; topical applications of honey and the use of honey in the treatment of burns, non-healing wounds and eye diseases.

Local Food Systems: Markets, Trends and Federal Programs
William H. Gibson and Danielle J. Cole
In series: Agriculture Issues and Policies
In series: Food Science and Technology
2012. 130 pp.
Soft: 978-1-62081-248-8, $52.00.
e-book: 978-1-62081-256-3, $52.00.
Sales of locally produced foods comprise a small, but growing, part of U.S. agricultural sales. The U.S. Department of Agriculture (USDA) estimates that farm-level value of local food sales totaled about $4.8 million in 2008, about 1.6% of the U.S. market for agricultural products. An estimated total of 107,000 farms were engaged in local food systems, about 5% of all U.S. farms. This book provides background on local and regional food systems, focusing on available data on direct-to-consumer sales, farmers’ markets, farm-to-school programs, community-supported agriculture, and community gardens. Also discussed are the available resources within existing federal programs administered by USDA and other agencies that may be applied to support local food systems as well as the legislative options and proposals that will be part of the next farm bill debate.

Molecular Typing Methods for Tracking Foodborne Microorganisms
Steven L. Foley and Rajesh Nayak (National Center for Toxicological Research, Jefferson, AR), Timothy J. Johnson (University of Minnesota, St. Paul, MN), Sanjay K. Shukla (Marshfield Clinic Research Foundation, Marshfield, WI)
In series: Advances in Food Safety and Food Microbiology
Edited by: Dr. Anderson de Souza Sant’Ana and Dr. Bernadette D.G.M. Franco
Case: 978-1-62100-643-5, $195.00.
Foodborne illness remains a major problem throughout the world. In the United States, for example, it is estimated that there are over 48 million illnesses each year associated with the consumption of contaminated foods. Of those with known etiologies, approximately 39% are associated with bacterial pathogens. These bacterial infections often tend to be more severe than their viral counterparts resulting in approximately 64% of hospitalizations and deaths each year from foodborne pathogens. Thus, being able to get to the source of the contamination of foods is an important endeavor to begin to develop strategies to lessen the burden of bacterial foodborne illness on the human population. This book is a useful reference to students, practitioners and food safety scientists who desire to gain a fundamental understanding of the different options available for molecular typing of foodborne pathogens.

New Trends in Marine and Freshwater Toxins: Food and Safety Concerns
Ana G. Cabado and Juan Manuel Vieites (ANFACO-CECOPESCA, Spanish National Association of Sea Food Producers, Vigo-Spain)
In series: Advances in Food Safety and Food Microbiology
Edited by: Dr. Anderson de Souza Sant’Ana and Dr. Bernadette D.G.M. Franco
2013. 413 pp.
Case: 978-1-61470-324-2, $140.00.
Marine and freshwater biotoxins are a well-known problem in food safety, mainly for filter-feeding mollusks and for freshwater aquaculture. This is a challenging matter since, in recent years, toxic algal blooms seems to grow in frequency and duration, leading to longer closure of harvesting areas, disruption in trade, mortality in farmed fish and a growing concern in producers, consumers and health authorities. Unfortunately, in recent years toxins from far latitudes are emerging, leading to new human health problems. Research and exhaustive knowledge of a problem makes it easier to draw a scenario where the best management strategies are gathered. This book combines information related to food-borne illness associated with marine or freshwater biotoxins, the anthropogenic and environmental factors that cause the appearance of toxic episodes and all available analytical procedures for phycotoxins detection.

Onion Consumption and Health
Candelario B. Aguirre and Leticia M. Jaramillo
In series: Food Science and Technology
In series: Nutrition and Diet Research Progress
Case: 978-1-62100-836-1, $95.00.
Flavonoids and organosulfur compounds are the two major classes of secondary metabolites found in onions that are believed to play a role as health-promoting, disease-preventing dietary supplements, including antioxidant activity. In this book, the authors present topical research in the study of onion consumption and health effects. Topics include an overview on the bioactivity of onions; an ultrasound-assisted flavonoid extraction from onions; and the physiological attributes of GST, Gly I, Gly II and allinase in onion bulbs and cultured cells.

Phytochemicals: Occurrence in Nature, Health Effects and Antioxidant Properties
Hai-Xue Kuang (Key Laboratory of Chinese Materia Medica (Heilongjiang University of Chinese Medicine), Ministry of Education, Harbin, China)
In series: Progress in Food Science and Technology
In series: Botanical Research and Practices
Case: 978-1-62417-354-7, $195.00.
Early people confronted with illness and disease, discovered a wealth of useful therapeutic agents in the plant kingdoms. The term “phytochemicals” that occur naturally refers to a wide variety of compounds with biological significance produced by plants. They are found in fruits, vegetables, beans, grains, and other plants. Scientists have identified thousands of phytochemicals, although only a small fraction have been studied closely, which have the potential to affect diseases such as cancer, stroke or metabolic syndrome. This book is devoted to the publication of original articles concerning
sometimes called saccharose. The Sucrose is the organic compound commonly known as table sugar and is white, odorless, crystalline powder with a sweet taste, it is best known for its nutritional role, but its applications cover a wide array of disciplines. This book examines how sucrose plays an important role in different scientific areas. The research on sucrose represents important scientific challenges, whose solution has wide impact on a variety of issues. From a conceptual point of view, this research stands at the crossroads of many scientific sectors, such as physics, chemistry, biology and food science and has implications in several disciplines, e.g., pharmacology, toxicology, nanotechnology and medicine.

**Progress on Quantitative Approaches of Thermal Food Processing**
*Vasilis P. Valdramidis (Faculty of Health Sciences, University of Malta, Msida, Malta) Jan F. M. Van Impe (Katholieke Universiteit Leuven, BioTeC, Belgium)*

In series: *Advances in Food Safety and Food Microbiology*

Edited by: Dr. Anderson de Souza Sant’Ana and Dr. Bernadette D.G.M. Franco

Case: 978-1-62100-842-2. $165.00.

Heat treatment is one of the most common practices used to produce safe and shelf stable foods or otherwise stated, to reduce the probability of survival and/or growth of the microorganisms in a particular food to a tolerable level. This book covers the advances in thermobacteriology, including technological and engineering aspects of thermal processes targeting on the production of food safe products. Overall the objective of this book is to provide a comprehensive overview of innovations in assessing thermal processes while considering integrated information from the field of microbiology of thermal processes and engineering of these processes. The book has a strong focus on statistical and mathematical methods in order to be a useful reference for food microbiologists, food technologists and engineers.

**Soy: Nutrition, Consumption and Health**
*Aamir Ahmad (Karmanos Cancer Institute, Department of Pathology, School of Medicine, Detroit, MI, USA)*

In series: *Food and Beverage Consumption and Health*

In series: *Food Science and Technology*


This book is a collection of articles detailing the very diverse roles of soy-derived compounds. Many cultures around the world have realized the importance of soy in diet. Through a total of 20 chapters, this book showcases the very diverse chemistry, biology and functions of soy. In view of the many reported effects of soy-derived compounds against diverse human cancers, this book concludes with few chapters on the anticancer activity of soy-derived compounds. Thus, through a collection of articles authored by renowned experts from across the globe, this book is an attempt to touch upon and highlight the importance of soy in diet with emphasis on its various health beneficial effects.

**Sucrose: Properties, Biosynthesis and Health Implications**
*Salvatore Magazù (Department of Physics, University of Messina, Messina, Italy)*

In series: *Biochemistry Research Trends*

In series: *Food Science and Technology*

Case: 978-1-62417-984-6. $85.00.

Sucrose is the organic compound commonly known as table sugar and sometimes called saccharose. The molecule is a disaccharide composed of glucose and fructose with the molecular formula C12H22O11. A white, odorless, crystalline powder with a sweet taste, it is best known for its nutritional role, but its applications cover a wide array of disciplines. This book examines how sucrose plays an important role in different scientific areas. The research on sucrose represents important scientific challenges, whose solution has wide impact on a variety of issues. From a conceptual point of view, this research stands at the crossroads of many scientific sectors, such as physics, chemistry, biology and food science and has implications in several disciplines, e.g., pharmacology, toxicology, nanotechnology and medicine.

**The Federal Food Safety Working Group: Progress and Assessments**
*Richard S. Jaynes and Selena Darlington*

In series: *Food Science and Technology*

2013. 89 pp.
Soft: 978-1-62417-059-1. $52.00.

American consumers deserve to trust the safety of the food they purchase for themselves and their families. While we enjoy one of the safest food supplies in the world, it requires constant monitoring. We need to be able to rapidly identify and address risks to our food supply as a result of new disease agents, new food technologies, changes in U.S. demographic and dietary patterns, and an abundance of food imports resulting from an increasingly globalized food supply. The federal government has taken important steps to protect an increasingly complex food supply. In March 2009, President Obama created the Food Safety Working Group (FSWG), a central coordinating mechanism for the federal government's food safety activities that is led by the Department of Health and Human Services and the USDA. This book provides an overview of the progress and assessments of the Federal Food Safety Working Group with a focus on results oriented goals and performance measures for food safety oversight.

**Tomatoes: Cultivation, Varieties and Nutrition**
*Tadahisa Higashide (NARO Institute of Vegetables and Tea Science, National Agriculture and Food Research Organization, Ibaraki, Japan)*

In series: *Agriculture Issues and Policies*

In series: *Food Science and Technology*

2013. 347 pp.
Case: 978-1-62417-915-0. $150.00.
e-book: 978-1-62417-976-1. $150.00.

Tomato industries and researchers have advanced tremendously in recent years, however, because of the rapid progress, tomato specialists are sometimes ignorant of fields outside of his/her specialty. Some molecular biologists have little knowledge of climate control in a greenhouse, and some plant physiologists don’t know much about how lycopene of tomatoes influences the human body. This book consists of recent topics written by tomato experts in a wide range of fields. The book describes the physiology of tomatoes, such as yield components and photosynthate translocation, cultivation techniques such as sensing and control in a greenhouse and in tomato diseases; effects of cultivation methods on the end-product, and conditions of the international trade of tomatoes. Also discussed is the nutritional contents of tomato fruits, especially antioxidants such as lycopene; the effects of ripening and processing on these contents, and on human health.

**Wine: Types, Production and Health**
*Arthur S. Peeters*

In series: *Food Science and Technology*

In series: *Food and Beverage Consumption and Health*

Case: 978-1-61470-635-9. $325.00.
This book presents topical research from across the globe in the study of the types, production and health issues relating to wine. Topics discussed in this compilation include the microbiological, chemical and health aspects of wines from tropical plants; the effect of winemaking techniques on bioactive compounds in white and red wine; micro-oxygenation of red wine; effects of wine consumption on the cardiovascular system; the use of inactive dry yeast preparations to improve fermentation and the organoleptic characteristics of wine; analytical methods for the detection of Ochratoxin A in wines; wine and neurodegenerative diseases; Madeira wine composition; controlling the alcohol content in wine; wine quality through the use of oak barrels and non-saccharomyces yeasts in wine.

**GENETICS**

**Genetic Diversity: New Research**  
*Julian A. Cervantes Amaya and Miguel M. Franco Jimenez*  
In series: *Genetics - Research and Issues*  
In series: *Environmental Science, Engineering and Technology*  
Case: 978-1-62081-598-4. $150.00.  

Genetic diversity plays a very important role in survival and adaptability of a species because when a species’s environment changes, slight gene variations are necessary to produce changes in the organisms’ anatomy that enables it to adapt and survive. A species that has a large degree of genetic diversity among its population will have more variations from which to choose the most fit alleles. In this book, the authors discuss topics that include genetic diversity of human and animal papilloma viruses; conservation genetics of the lion; genetic diversity for quality traits in wild and ancient wheats; the genetic history of Morocco; different approaches to assess structure and genetic diversity in forest species; new genetic provisions for the reinstatement of ginseng natural populations; genetic and epigenetic variations in disease and drug response; genetic diversity and genetic rescue within wildlife populations; and genetic variability and advances in taxonomy.

**Genetics Researcher Biographical Sketches and Research Summaries**  
*Lyndsay E. Hewitt and John W. O’Neil*  
In series: *Genetics - Research and Issues*  
In series: *Environmental Science, Engineering and Technology*  
Case: 978-1-61942-857-7. $150.00.  

This book compiles biographical sketches of top professionals in the field of genetics research, as well as research summaries from a number of different focuses in this important field.

**INTERNATIONAL TRADE**

**Intellectual Property Rights: Protections and Enforcement**  
*Harold E. Price and Linda S. Cox*  
In series: *Business Issues, Competition and Entrepreneurship*  
In series: *Trade Issues, Policies and Laws*  
2012. 139 pp.  
Soft: 978-1-62257-233-5. $52.00.  

Intellectual property rights (IPR) traditionally have been matters of national concern. Individual nation states have developed IPR regimes reflecting their domestic needs and priorities. Over time, intellectual property protection and enforcement have come to the forefront as a key international trade issue for the United States, figuring prominently in the multilateral trade policy arena and in regional and bilateral U.S. free trade agreements (FTAs). This book reflects the Administration’s resolve to encourage and maintain adequate and effective IPR protection and enforcement worldwide. It identifies a wide range of concerns, including troubling “indigenous innovation” policies that may unfairly disadvantage U.S. rights holders in China, the continuing challenges of copyright piracy over the Internet in countries such as Canada, Italy, and Russia, and other ongoing, systemic IPR enforcement issues presented in many trading partners around the world.

**INTERNET**

**Security in Cyberspace: Select Assessments and Policy Considerations**  
*Martin E. Owens and Deborah R. Simpson*  
In series: *Internet Policies and Issues*  
Case: 978-1-62257-349-3. $110.00.  

Today, the Internet is at a crossroads. Protecting security of consumers, businesses and the Internet infrastructure has never been more difficult. Cyber attacks on Internet commerce, vital business sectors and government agencies have grown exponentially. In the first quarter of this year, security experts were seeing almost 67,000 new malware threats on the Internet every day. This means more than 45 new viruses, worms, spyware and other threats were being created every minute. As these threats grow, security policy, technology and procedures need to evolve even faster to stay ahead of the threats. This book explores a new framework for addressing internet security issues for companies outside the orbit of critical infrastructure or key resources. While securing energy, financial, health and other resources remain vital, the future of innovation and the economy will depend on the success of Internet companies, and ensuring that these companies are trusted and secure is essential.

**GEORGIAN STUDIES**

**David Kakabadze: Georgian Modern Artist and Inventor**  
*Ketevan Kintsurashvili (Georgian State University of Theatre and Film, Georgia)*  
In series: *Fine Arts, Music and Literature*  
Case: 978-1-61942-850-8. $150.00.

This book is dedicated to the great Georgian modern artist David Kakabadze (1889-1952). This book compares the importance of David Kakabadze’s creative work against the background of world avant-garde art of the beginning of the 20th century. This book is of interest for art historians and other experts, studying Georgian and Soviet art/culture, modern art and, especially, abstract art.
Social Networking and the Libraries in the New Millennium: An Annotated Bibliography
Deva Eswara Reddy (Associate Professor of Library Science, Texas A&M University, College Station, Texas)
In series: Social Issues, Justice and Status
2012. 70 pp.
Soft: 978-1-62081-758-2. $52.00.
e-book: 978-1-62081-792-6. $52.00.
This publication documents the role of social networking sites in all types of libraries such as school, college, university, public, special, and community libraries in the New Millennium covering the period 2000-2011. Each analyzed entry highlights the usefulness of the article. Highlighted aspects of social networks include teens and young adults, privacy and trust, behavioral and social sciences, health sciences, and the role of Congress. This handy reference work and the literature it covers would enable libraries and decision makers to decide on how libraries can adapt social networks and for what ends, how much time and effort one should invest in these platforms, and how to monitor their success. Title, author, and subject indexes are an added pathway to the users of this book.

MANUFACTURING

Advanced Manufacturing in America: Opportunities and Strategies
Brandon Cullerne and Michael Laston
In series: Economic Issues, Problems and Perspectives
In series: Manufacturing Technology Research
Case: 978-1-62257-932-7. $195.00.
This book is a study on the developments of a strategic plan to guide Federal programs and activities in support of advanced manufacturing research and development. Advanced manufacturing is a matter of fundamental importance to the economic strength and national security of the United States. Analysis of patterns and trends in U.S. advanced manufacturing reveals both opportunities for Federal policy to accelerate the development of this vital sector and challenges to its continuing health. The acceleration of innovation for advanced manufacturing requires bridging a number of gaps in the present U.S. innovation system, particularly the gap between research and development (R&D) activities and the deployment of technological innovations in domestic production of goods. The strategic plan discussed in this book lays out a robust innovation policy that would help to close these gaps and address the full lifecycle of technology.

Refrigeration Systems, Design Technologies and Developments
Donatus Alda and Davide Ciarlo
In series: Manufacturing Technology Research
2013. 199 pp.
Case: 978-1-62417-229-8. $95.00.
This book examines the design technologies and developments in refrigeration systems. Topics discussed include sorption refrigeration systems; improving the performance of heat pumps in air-conditioning plants by using membrane contactor dehumidification/regeneration systems; the correct size of the condenser as one of the significant issues for the optimal performance of refrigerating and air conditioning systems; prototyping and experimental evaluation of an air filtration system; and irreversible estimation possibilities of an absorption refrigeration cycle.

MARINE BIOLOGY

Clam Fisheries and Aquaculture
Fiz da Costa González (Centro de Cultivos Marinos de Rihadeo- CIMA, Muelle de Porcillán, Lugo, Spain)
In series: Marine Biology
Case: 978-1-62257-518-3. $195.00.
Mollusca is one of the largest phyla in the animal kingdom, over 50,000 species having been described, thus comprising more than a half of the marine species. Molluscs are scientifically and economically important invertebrates, representing 8% of all captured marine species. One of the six molluscan classes is Bivalvia, which is composed of both marine and freshwater animals enclosed in shells with two valves. Among these, the groups of greatest economic importance are oysters, scallops, mussels and clams. This book deals with clams in the broad sense of the term, since there are several bivalve families falling into the “clam” category. The selection of the families is primarily based on their respective economic importance, in terms of fisheries and aquaculture production. These selected families are Veneridae (venus shells), Mactridae (surf clams), Donacidae (wedge shells), Myidae (softshell clams), Phairidae and Solenidae (razor clams). It must be remarked that, in some chapters or sections within them, species belonging to other families of clams are cited.

Deep-Sea: Marine Biology, Geology, and Human Impact
Dennis R. Bailey and Susan E. Howard
In series: Oceanography and Ocean Engineering
In series: Marine Biology
Case: 978-1-62257-173-4. $150.00.
The deep-sea ecosystems include waters and sediments at the lowest layer in the ocean, existing below the thermocline and above the seabed, at a depth of 1000 fathoms (1800 m) or more. They represent the world's largest biome, covering more than 65% of the world surface and including more than 95% of the global biosphere. This book examines the marine biology, geology and human impact of the deep-sea environment. Topics discussed include the stratigraphical distribution and evolutionary classification of the schackoinid planktic foraminifera; the biological characteristics of the skilfish, erilepis zonifer in the North Pacific Ocean; protein degradation at deep-sea sediment; primary production and carbon cycling in the deep-sea; and biodiversity and ecosystem function in the deep-Mediterranean Sea.

MATERIALS SCIENCE

Advances in Materials Science Research. Volume 9
Maryann C. Wythers
In series: Advances in Materials Science Research
Case: 978-1-61324-485-2. $95.00.
Materials science encompasses four classes of materials, the study of each of which may be considered a separate field: metals, ceramics, polymers and composites. This volume gathers important research from around the globe in this dynamic field including research on scanning acoustic correlation microscopy; analytical applications of borates; mechanical behavior of masonry structures; use of isocyanate as a primer for synthetic rubber; fatigue of high temperature polymer
matrix composites; efficiency analysis for multi-junction PV heterostructures and high electrical field effect in the copper-zinc-phosphate glasses.

**Amorphous Materials: New Research**  
Shivani Bhardwaj Mishra (Department of Chemical Technology, University of Johannesburg, Johannesburg, South Africa)  
In series: *Materials Science and Technologies*  
2013. 175 pp.  
Case: 978-1-62417-678-4. $150.00.  
Amorphous materials play a significant role in uplifting the value of different applications based on physical sciences. Amorphous materials exist in nature in different forms and have been an integral part of all naturally occurring organic and inorganic materials as well as engineered systems. These materials can be in solid or liquid phases. Some examples are thin film lubricants, polymers, colloids, emulsions, window glass, granular fault gouge in earthquake faults, lignin as a cementing agent of cellulose network in plants, and biological tissues. This book provides an insight into the fundamental knowledge and various applications of new and novel amorphous materials. It also highlights the specific properties that have been recently investigated for research and development purposes.

**Anisotropy Research: New Developments**  
Hirpa Lemu (University of Stavanger, Norway)  
In series: *Mechanical Engineering Theory and Applications*  
Case: 978-1-62081-977-7. $150.00.  
Anisotropy is a term used to indicate the directional dependence of a biological, chemical, geometrical, mechanical or physical property of a system that develops in different ways along different spatial axes. This material behavior is observed in many engineering disciplines, computer graphics, geology and geophysics, medicine, neurosciences and natural sciences. Thus the research approaches within those disciplines accordingly varies. This book has collected contributions of new research developments and the corresponding research results from different disciplines with particular focus on experimental, numerical and theoretical studies of material property variations. Thus, the materials in this book indicate significant directions on new research progresses and are expected to give future research perspectives in anisotropy behavior.

**Antimony: Characteristics, Compounds and Applications**  
Manijeh Razeghi (Northwestern University, Evanston, IL, USA)  
In series: *Materials Science and Technologies*  
2013. 343 pp.  
Case: 978-1-62100-598-8. $140.00.  
e-book: 978-1-62100-651-0. $140.00.  
This book is a collection of diverse research activities on antimony where 12 groups of prominent authors from different part of the worlds presented their latest achievement on antimony-related materials. In the past, despite being widely known and utilized by many countries and cultures, antimony's status as an alchemical substance and its high toxicity have obscured understanding of the material, resulting in controversial usage of antimony, especially in medicine. Today, knowledge about antimony compounds has tremendously increased, and the application range of antimony has become much wider. Due to the diversity of the applications of antimony, researchers may stay focused on their own field while lacking familiarity with antimony-related activities in other fields.

**Benzene and its Derivatives: New Uses and Impacts on Environment and Human Health**  
Giovanna Tranfo (INAIL Research, Department of Occupational Medicine, Rome, Italy)  
In series: *Materials Science and Technologies*  
Case: 978-1-62100-202-6. $140.00.  
Benzene, one of the main building blocks of the petrochemical industry today, is used mainly as an intermediate to make other chemicals. Smaller amounts of benzene are used to make some types of rubbers, lubricants, dyes, detergents, drugs, explosives, napalm and pesticides. Due to the concerns and increasing restrictive legislation, our knowledge on benzene must stick to a changing scenario: the uses and industrial processes are changing, environmental and occupational exposure limits are decreasing and the scientific community is currently engaged in deeper understanding of the toxicity mechanism that impact on human health and in studying technologies to reduce its impact as a water and air pollutant. This book presents new uses of benzene and its derivatives.

**Cerium: Molecular Structure, Technological Applications and Health Effects**  
Aleksey Izyumov and Gulnaz Plaksin  
In series: *Materials Science and Technologies*  
Case: 978-1-62257-670-8. $150.00.  
Cerium is the most abundant of the rare earth elements, making up about 0.0046% of the Earth's crust by weight. It is found in a number of minerals, the most important being monazite and bastnasite. Commercial applications of cerium include catalysts, additives to fuel to reduce emissions and to glass and enamels to change their color. In this book, the authors study the molecular structure, technological applications and health effects of cerium. Topics include the synthetic and structural features of ceriopolyoxotungstates; cerium-based corrosion inhibitors; tetravalent cerium chemistry; comparative toxicity of cerium and other rare earth elements (REEs) in plant and invertebrate test systems; cerium-based catalysts for the selective catalytic reduction of NOx with NH3; cerium oxide and its reduction in industrial processes are changing, environmental and occupational exposure limits are decreasing and the scientific community is currently engaged in deeper understanding of the toxicity mechanism that impact on human health and in studying technologies to reduce its impact as a water and air pollutant. This book presents new uses of benzene and its derivatives.

**Characterization and Development of Novel Materials Research Compendium**  
Rafiq Islam  
In series: *Nanotechnology Science and Technology*  
2013. 400 pp.  
This book compiles articles from the Journal of Characterization and Development of Novel Materials. Topics discussed include the perspectives of polymer nanocomposites applications as engineering materials; polymeric nanocomposites based on the organomodified layered silicates; structural analysis of nanocomposites polymer/organoclay microhardness and kinetics and mechanism of emulsion copolymerization of methyl acrylate with hydrophilic monomers.
With advancements in the electronic world almost occurring on a day-to-day basis and increased availability of products to the public, it is not surprising to see a staggering increase in the generation of electronic wastes over the past decade. This book explores the management, types and challenges related to e-waste. Topics discussed include the processing of plastic materials from e-waste; challenges and opportunities of e-waste management in developing countries; an e-waste quantification study of the People’s Republic of China; e-waste environmental contamination and public health effects; and recovery of valuable metals from flat panel displays of spent liquid crystal and plasma televisions.

**Encyclopedia of Materials Science Research (2 Volume Set)**

Batukan B. Chinbat and Sora H. Mori

In series: Materials Science and Technologies


Case: 978-1-61942-954-5. $295.00.

This new book presents and discusses current research in the study of materials science. Topics discussed include constitutive models for shape memory alloys; structure and properties of a monocrystalline alloy; the shape-memory effect in antiferromagnetic alloys; micromechanical modeling of shape memory alloy composites; computer modeling of amorphous metals; novel amorphous and nanocrystalline soft magnetic materials; fundamentals and technological applications of hydrogen absorbing Mg amorphous alloys and amorphous superconducting structures.

**Engineered Metal Matrix Composites: Forming Methods, Material Properties and Industrial Applications**

Luca Magagnin (Dip. Chimica, Materiali e Ingegneria Chimica “Gio1o Natta”, Politecnica di Milano, Milano, Italy)

In series: Nanotechnology Science and Technology

In series: Materials Science and Technologies


Case: 978-1-62081-719-3. $195.00.

Metal-Matrix Composites MMCs are being used or considered for use in a variety of applications in the automotive, aerospace and many other industries, together with applications in many areas of daily life. These materials open up unlimited possibilities for modern material science and engineering, tailoring the design and the characteristics on any usage. This book contains fifteen chapters, all written by experts in the field, which focus on forming methods, material properties and industrial applications of a wide variety of metal matrix composites.

This book surveys the latest results and development possibilities for MMCs as engineering and functional materials, making it an utmost source of knowledge to all materials scientists and engineers on the potentials these materials can offer in research, development and design engineering.

**Fatigue Crack Growth: Mechanisms, Behavior and Analysis**

Ping Tang and Jim Leor Zhang

In series: Mechanical Engineering Theory and Applications

In series: Engineering Tools, Techniques and Tables


Case: 978-1-62081-599-1. $150.00.

In this book, the authors present current research in the study of the mechanisms, behavior and analysis of fatigue crack growths. Topics discussed in this compilation include the unified fatigue crack growth rate model; practical tools for statistical fatigue design; probabilistic algorithms performance evaluation and application in multi-fractured structures; three dimensional effects in the fracture mechanics of bi-dimensional specimens; fatigue crack propagation mechanism in porous open pore metal foams; lifetime predictions for short fatigue crack’s initiation-propagation by basic mechanical properties; variable amplitude fatigue crack growth in selected aluminum alloys; fatigue threshold R-curves for analysis of short fatigue cracks; and multiaxial fatigue life prediction for lateral notched round bars made of high strength steel.

**Gelatin: Production, Applications and Health Implications**

Gökhan Boran (Yüzüncü Yıl University College of Engineering and Architecture, Department of Food Engineering, Van, Turkey)

In series: Protein Biochemistry, Synthesis, Structure and Cellular Functions

In series: Materials Science and Technologies


Case: 978-1-62417-627-2. $150.00.

Gelatin has been the focus of many scientific studies recently published, as it is widely used not only in foods, cosmetics, and pharmaceuticals but also in paints, fertilizers, and photographs. In this book, a discussion of the chemistry and cross-linking of gelatin is explored, in addition to the methods used for determination of gelatin quality. This book also discusses the applications of gelatin in neurosurgery, laboratory methods, and forensic applications; gelatin as a carrier matrix for drug delivery applications; recently developed techniques for improving the mechanical strength of gelatin-based films; alternative raw material used in gelatin production; and current discussions on the religious status of gelatin and religious requirements for kosher and halal gelatin production.

**Granite: Occurrence, Mineralogy and Origin**

Miroslava Blasik and Bogdashka Hanika

In series: Earth Sciences in the 21st Century


Case: 978-1-62081-566-3. $150.00.

In this book, the authors gather and present topical research in the study of the occurrence, mineralogy and origin of granite. Topics discussed in this compilation include the occurrence of Th, U, Y, Zr and REE-bearing accessory minerals in granites and their petrogenetic significance; contrasting petrological attributes of granites in Nigeria; nonlinear acoustic phenomena in granite; experimental methods of determining thermal properties of granite; and the mineralogy of the rare-earth element-bearing granites from Central India.
Lithium Use in Batteries: Demand and Supply Considerations

Donald R. Taylor and Ryan I. Young

In series: Energy Science, Engineering and Technology

In series: Materials Science and Technologies

2012. 90 pp.

Soft: 978-1-62257-037-9. $52.00.

Lithium has a number of uses but one of the most valuable is a component of high energy-density rechargeable lithium-ion batteries. Because of concerns over carbon dioxide footprint and increasing hydrocarbon fuel cost (reduced supply), lithium may become even more important in large batteries for powering all-electric and hybrid vehicles. Estimates of future lithium demand vary, based on numerous variables. Some of those variables include the potential for recycling, widespread public acceptance of electric vehicles, or the possibility of incentives for converting to lithium-ion-powered engines. This book addresses some of the issues raised by the increased focus on lithium, including the context of the lithium market into which future lithium-based large batteries must fit, the projected effect of electric and hybrid cars on lithium demand, various estimates for future lithium demand, and obstacles to reaching the more optimistic estimates.

Materials Science Research Summaries

Satomi Matsumoto and Ueda Iwate

In series: Materials Science and Technologies


Case: 978-1-62257-639-5. $195.00.

This book is a continuation of the book Materials Science Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of materials science research, as well as research summaries from a number of different focuses in this important field.

Materials Science Researcher Biographical Sketches and Research Summaries

Satomi Matsumoto and Ueda Iwate

In series: Materials Science and Technologies


Case: 978-1-61942-153-0. $140.00.

This new book compiles biographical sketches of top professionals in the field of materials science, as well as research summaries from a number of different focuses in this important field.

Mechanics of Functionally Graded Materials and Structures

Zheng Zhong, Linzhi Wu and Weiiju Chen (Tongji University, Shanghai, China)

In series: Engineering Tools, Techniques and Tables


Case: 978-1-61668-920-9. $145.00.
e-book: 978-1-61728-824-1. $145.00.

This new book reviews research results in the field of mechanics research. Also discussed herein are the most important areas in the mechanics of functionally graded materials and structures, including the analytical and the semi-analytical solutions of functionally graded beams, plates and shells as well as their simplified theories, fracture analysis of functionally graded materials, a micro-element method for the macro-micro scale analysis and the optimal design of functionally graded structures.
Polymers, natural or synthetic, have been widely applied in various areas. This new book is dedicated to related research on calculating, preparing polymers and characterizing the morphology of them, involving polymers from inorganic to organic materials including natural macromolecules. It contains a considerable amount of information on the techniques and methods used for the characterization and analysis of polymer morphology. Various techniques covered include but not limited to electron microscopy and atomic force microscopy.

**Polymers as Natural Composites**

*Abdulakh K. Mikitaev; Georgii V. Kozlov and Gennady E. Zaikov*

In series: *Nanotechnology Science and Technology* 2012. 95 pp.

A polymer is a large molecule (macromolecule) composed of repeating structural units typically connected by covalent chemical bonds. Due to the extraordinary range of properties accessible in polymeric materials, they have come to play an essential and ubiquitous role in everyday life—from plastics and elastomers to natural biopolymers such as DNA and proteins. This new book examines the role polymers play as natural nanocomposites.

**Polypropylene: Synthesis, Applications and Environmental Concerns**

*Luciano Paulino Silva and Eduardo Fernandes Barbosa, (Laboratory of Mass Spectrometry - NTBIO Embrapa - Genetic Resources and Biotecnology, Brazilian Agricultural Research Corporation, Brasil, Brazil)*


Polypropylene (PP) is one of the most largely used man-made polymeric materials. This synthetic stereo-regular polymer has a high tensile strength combined with a low cost, which could explain its wide usage and application. This book presents recent advances in PP research, including its synthesis, characterizations, modifications, and applications. A thorough understanding of propylene polymerization, mainly concerning its physical and chemical features, as crystalline morphology, for instance, is useful to understand how it could influence PP mechanical properties and heat resistance. These characteristics are directly related to PP rheology and consequently the tendencies to form composites or blends. PP hybrid materials amplify the possibilities of obtaining new useful supplies, and also allow recycling or reusing wastes or low cost resources, as ashes, besides increasing its value.

**Polyurethane: Properties, Structure and Applications**

*Luís Inácio Cavaco and Joana Almeida Melo*

In series: *Polymer Science and Technology* 2012. 173 pp.

Polyurethanes (PUs) are an important class of thermoplastic and thermoset polymers obtained by polycondensation reactions among different polyols, isocyanates and chain extenders, leading to a wide variety of polymers with many different properties and applications. In this book, the authors present current research in the study of the properties, structure and applications of polyurethane. Topics include polyurethanes in analytical chemistry applications from sorbent foams to conductive materials and sensors; biomedical polyurethane-based materials and blocked polyurethanes in x-ray shielding and electrically conductive adhesives.

**Properties of Fluorite Structure Materials**

*Peter Vajda and Jean-Marc Costantini (Laboratoire des Solides Irradiés, Ecole Polytechnique, CNRS-CEA, Palaiseau, France)*


The present work focuses on two fluorite-structured groups of materials: the hydrides of the rare earths (and actinides) and several specific metal oxides, and is authored by researchers among the most competent and active in the field. By contrast to the classical "historic" alkaline-earth halides, non-stoichiometry appears as a key issue for both groups treated here. The former group has attracted particularly close attention because of its possible candidature as hydrogen storage material within the vast prospect of the clean energy economy. In addition, the amazing property of transitioning from the metallic to the semiconducting state and back by simply changing the hydrogen concentration between dihydride and trihydride had led to the development of the so-called "switchable mirrors" evolving between the opaque or the reflecting and optically transparent.

**Pyrite: Synthesis, Characterization and Uses**

*Noel Whitley and Piers T. Vinsen*


Pyrite is a widely spread natural mineral and important organic material. It participates in numerous geochemical processes, including oxidation reactions that cause acid mine drainage. In this book, the authors discuss pyrites synthesis, characterization and uses. Topics include the use of pyrite as a concentrator of gold in laboratory and natural systems; oxidative degradation of organic pollutants by fenton reaction in pyrite suspension; potentiometric characterization and analytical application of pyrite mineral for the assay of weak organic acids; the non-aqueous media; sorption of mercury(II) to synthesized pyrite (FES2) and stabilization via surface reaction; the pyritization of fossils from the cretaceous period of the Langerstatte Araripe Basin, in Northeast Brazil; and pyrite phases as high pressure polymorphs of dioxides and other compounds.

**Recent Advances in Ceramic Materials Research**

*Joan Josep Rovira and Merce Segarra Rubí (Centre National De La Recherche Scientifique (Cnrs) INSTITUT Pprime, Départ. Physique et Mécanique des Matériaux (SP2MI), Cedex France)*


Ceramic materials are usually considered as most brittle since they are full of defects, sometimes difficult to determine, that affect all their properties, from functional to mechanical. This book presents the most recent advances in the synthesis, processing and characterization of some ceramic materials. Hybrid organoceramics, lead-free piezoelectric ceramics, dental zirconia, raw clays and scintillator materials are presented, as well as different methods to evaluate their suitability for certain applications, such as a new approach based on the response surface methodology, the instrumented nanoindentation, or...
the use of thermal phonons. The relationship between functional characteristics of these materials and the manufacturing technology used to obtain them is also discussed in some chapters. A full review of a novel processing method to fabricate ceramic nanocomposites using SPS is also included.

Recent Trends in Fracture Mechanics

Yunan Prawoto (University Technology Malaysia, Johor, Malaysia)

In series: Materials Science and Technologies
In series: Mechanical Engineering Theory and Applications
Case: 978-1-61470-615-1. $140.00.

Since the development of linear elastic fracture mechanics (LEFM) decades ago, its limitations have been discussed extensively. Methods of manipulation on how to overcome the problems have been proposed by many enthusiasts. This book also highlights the limitation and at the same time proposes solutions. The effect of fracture on the structure of nano-catalyst and diamond-like carbon coating de-lamination are some of the microscopical research covered in this book. The format of this book is such that the reader can use each chapter independently. It starts with the first chapter outlining the classical review that traces back to early fracture mechanics. It is then continued to broader ranges from experimental and commercial software implementation, to the formulation and implementation of XFEM and piezoelectricity problems.

Research Advances in Magnetic Materials

Carson Toulson and Damien Marwick

In series: Materials Science and Technologies
Soft: 978-1-62417-913-6. $45.00.

In this book, the authors present current research in the study of magnetic materials. Topics discussed include the principles of creating devices for magneto-laser therapy with a high magnetic field strength within the optical radiation coverage zone; magnetic nanostructures by nano-imprint lithography; photomagnetic organic-inorganic hybrid materials; and spin-preference rules for conjugated polyradicals.

Simulation of Deposition Processes with PECVD

Apparatus: Theory and Applications

Jürgen Geiser and Meraa Arab (Humboldt University of Berlin, Germany)

In series: Materials Science and Technologies
Case: 978-1-62100-365-6. $75.00.

This book discusses the study of simulating the growth of a thin film by chemical vapor deposition (CVD) processes. In recent years, due to the research in producing high-temperature films by depositing low pressures, the processes have increased and understanding the control mechanism of such processes has become very important. An underlying hierarchy of models for low-temperature and low-pressure plasma is presented in order to discuss the processes that can be used to implant or deposit thin layers of important materials. Due to the multi-scale problem of the flow and reaction processes, the authors propose multi-scale problems which are divided into near-field and far-field models.

Spinel: Occurrences, Physical Properties and Applications

Lucien Maingy and Mathis Dupont

In series: Materials Science and Technologies
2013. 188 pp.
Case: 978-1-62417-183-3. $150.00.
e-book: 978-1-62417-184-0. $150.00.

In this book, the authors discuss the occurrences, physical properties and applications of spinels. Topics include optical spectroscopy of transition metals in a-ZnAl2S4 wide band gap semiconductors; development of spinel NiZn ferrites for power field applications; spinel ferrites as catalysts for light alkanes combustion; application of magnesium spinel nanometric coating on aluminum oxide as an ionizing radiation sensor for personal and environmental dosimetry; chromium spinel oxides in high magnetic fields; the structural behavior of natural Cr-bearing spinels compared with synthetic ones; negative temperature coefficient thermistors based on spinel-type ceramics; and synthesis of high surface area MgAl2O4 spinel particles by a new method.

Superconductivity: Recent Developments and New Production Technologies

Muralidhar Miryala (Railway Technical Research Institute (RTRI), Tokyo, Japan)

In series: Superconductivity Research and Applications
Case: 978-1-62257-137-6. $150.00.

This book consists of thirteen chapters each of them defining in depth the chapter subject and surveying recent developments in the field. The main objective of this book is to summarize the recent advances in material science of high-Tc superconductors, specify their properties, processing, and applications. New and challenging issues appear in this book, like superconducting nano wires, low cost RE-123, infiltration growth, processing of single domain porous Y-123, novel cold seeding method for the production of LRE-123 materials, flux pinning, magnetic shielding, and innovation in synthesis of MgB2. Further, it also covers large scale applications of bulk materials, HTS Maglev systems with bulk superconducting parts, development of superconducting permanent magnet system, pulsed field magnetization and its application, and production and characterization of HTS roebel cable.

Tribology of Composite Materials

J. Paulo Davim (University of Aveiro, Aveiro, Portugal)

In series: Materials and Manufacturing Technology
Edited by: Professor J. Paulo Davim (University of Aveiro, Portugal)
2012. 221 pp.
Case: 978-1-61668-319-1. $130.00.
Soft: 978-1-62100-999-3. $69.00.

Recently, the use of composite materials has increased in various areas of science and technology due to their special properties, with applications in biomedical, aircraft, automotive, defence and aerospace, as well other advanced industries. Tribology is defined as the “science and technology of interacting surfaces in relative motion”. It includes the research and application of principles of friction, wear and lubrication. This book reviews research on the tribology of composite materials.
Wood and Wood Products

_J. Paulo Davim (University of Aveiro, Department of Mechanical Engineering Campus, Santiago, Portugal)_

In series: _Materials and Manufacturing Technology_

Edited by: _Professor J. Paulo Davim (University of Aveiro, Portugal)_


Case: 978-1-62081-973-9, $52.00.

e-book: 978-1-62081-986-9, $52.00.

Wood as an engineering material can be technically defined “as a hygroscopic, orthotropic, biological, and permeable material having extreme chemical diversity and physical complexity with structures, that vary extensively in their shape, size, properties and function”. Therefore, using wood to its best advantage and most efficiency in engineering and technology applications, specific characteristics or chemical, physical and mechanical properties must be considered. This book aims to provide the research and review studies on wood and wood products with special emphasis in machining aspects. The present research book can be used for final undergraduate engineering course (for example, wood, materials, mechanical, manufacturing, etc) or as a subject on wood and wood products at the postgraduate level. Also, this book can serve as a useful reference for academics, wood researchers, mechanical, manufacturing and materials engineers, professionals in areas related to the wood and wood products.

MATHEMATICS

_A Treatise of Biological Models_

_Farai Nyabadza, M. Kgosimore, E.M. Lungu (Department of Mathematical Sciences University of Stellenbosch, Maiteland, South Africa)_


Case: 978-1-62257-390-5. $150.00.


This book is a compendious collection of papers designed to expose the current trends in mathematical modeling. It details current research on models of in-host dynamics, epidemics, population dynamics and psycho-social dynamics. The chapters are written in a simple and concise way for readers who are familiar with basic mathematical modeling offered in undergraduate courses. The main objective of this book is to detail various applications of mathematics in biomedical sciences, resources management and social settings. Many of the book chapters contain current contentious issues in mathematical modeling and as such, the book can be used to generate projects for bio-mathematical students. Graduate students wishing to acquire and consolidate knowledge in mathematical modeling will find this an excellent text for their research.

Advanced Mathematics for Engineers with Applications in Stochastic Processes

_Aliakbar Montazer Haghighi, Jian-ao Lian, Dimitar P. Mishev (Prairie View A&M Univ., Prairie View, Texas)_


Case: 978-1-60876-880-6. $110.00.

Soft: 978-1-62257-610-4, $59.00.


Topics in advanced mathematics for engineers, probability and statistics typically span three subject areas, are addressed in three separate textbooks and taught in three different courses in as many as three semesters. Due to this arrangement, students taking these courses have had to shelf some important and fundamental engineering courses until much later than is necessary. This practice has generally ignored some striking relations that exist between the seemingly separate areas of statistical concepts, such as moments and estimation of Poisson distribution parameters. On one hand, these concepts commonly appear in stochastic processes - for instance, in measures on effectiveness in queueing models. On the other hand, they can also be viewed as applied probability in engineering disciplines - mechanical, chemical, and electrical, as well as in engineering technology. There is obviously, an urgent need for a textbook that recognizes the corresponding relationships between the various areas and a matching cohesive course that will see through to their fundamental engineering courses as early as possible. This book is designed to achieve just that. Its seven chapters, while retaining their individual integrity, flow from selected topics in advanced mathematics such as complex analysis and wavelets to probability, statistics and stochastic processes.

Advances in Mathematics Research. Volume 16

_Albert R. Baswell_


Case: 978-1-61324-928-4. $140.00.


“Advances in Mathematics Research” presents original studies on the leading edge of mathematics. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include Blackwell's ordering on the set of monotone transition matrices; symplectic polynomials; new results concerning the Bernstein-Nikol'skii inequality theory; approximation theory by neural networks; torsion fields, quantum geometrics, Brownian motions and statistical thermodynamics and the harmonic analysis of finite groups, number theory and efficient quantum cryptographic algorithms.

Advances in Mathematics Research. Volume 18

_Albert R. Baswell_

In series: _Advances in Mathematics Research_ 2013.

Case: 978-1-62417-930-3. $150.00.

e-book: 978-1-62417-931-0. $150.00.

“Advances in Mathematics Research” presents original studies on the leading edge of mathematics. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics discussed include a non-standard practical variational approach via fractional calculus to the optimal control of fractional stochastic systems driven by white noises; metrology for additive manufacturing; computer algorithms and laser metrology; role of metrology on current food safety issues in China; symmetric random vectors whose joint quantum operators span a lie algebra; pseudo regularity in commutative banach algebras; dynamics of viscous barotropic fluid on a rotating sphere; a numerical method for the solution of nonlinear diffusion equations on a sphere; and a mathematical modeling approach to the slug flow problem in oil production.

Boundary Value Problems for Analytic and Harmonic Functions in Nonstandard Banach Function Spaces

_Vakhtang Kokilashvili, Vakhtang Paatashvili (A. Razmadze Mathematical Institute, I. Javakhishvili Tbilisi State University, Tbilisi, Georgia)_


Case: 978-1-61942-301-5. $140.00.
Classification and Application of Fractals: New Research
Eric W. Mitchell and Scott R. Murray
In series: Mathematics Research Developments
Case: 978-1-62618-014-7. $150.00.
This new book presents current research in the study of the classification and application of fractals. Topics discussed include the fractal model application for nanocomposite polymer/organoclay structures; generalized Rauzy fractals and quasiperiodic tilings; the fractal characterization of zooplankton motion; fractal space-time theory; Higuchi's fractal dimension method in neurophysiological studies; fractal based classification of brain tumors angiography and fractal analysis in clinical screening and investigation.

Deterministic and Random Evolution
Jens Lorenz (Dept. of Mathematics and Statistics, The University of New Mexico, Albuquerque, NM, USA)
In series: Mathematics Research Developments
Case: 978-1-62417-165-9. $69.00.
This book is concerned with the geometric theory of computation. We describe the computing dynamical system, a configuration space enrichment of the latter process is performed by some dynamical system. If for the description of the computing dynamical system, a configuration space

Focus on Nonlinear Analysis Research
Gualtiero Padovani and Manuel Occhino
In series: Mathematics Research Developments
In this book, the authors present current research on nonlinear analysis, from across the globe. Topics include modelling of the characteristics of inelastic members of reinforced concrete structures in seismic nonlinear analysis; automatic estimation of the apnea-hypopnea index from oxygen saturation recordings using non-linear regression analysis; nonlinearity in bridge structural analysis; nonlinear analysis of spontaneous MEG activity in Alzheimer's disease; mesh free-enriched finite element methods for nonlinear analysis of path-independent and path-dependent problems in solids; nonlinear analysis research in biomedical engineering; and nonlinear evolution analysis for flow during alloy crystallization.

Frontiers of Combinatorics and Number Theory, Volume 2
Zhi-Wei Sun
In series: Mathematics Research Developments
Case: 978-1-61942-918-5. $140.00.
This book is a collection of articles in the second volume of the Journal of Combinatorics and Number Theory. As scheduled this volume consists of three issues and it contains nineteen contributed papers from eminent experts or active young mathematicians which cover various important topics in number theory and combinatorics.

Fuzzy Logic: Applications, Systems and Technologies
Dinko Vukadinovic (Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture, University in Split, Split, Croatia)
In series: Mathematics Research Developments
Case: 978-1-62417-151-2. $52.00.
In this book, the authors present current research in the study of the economics, theoretical concepts and finance applications of game theory. Topics discussed include the comparison of the game theories of Stackelberg and Bertrand and which price model is practically applicable; two cooperative solution concepts compared from a game theoretic point of view; the concept of subgame perfection; applications of game theory and evolutionary game theory in auditing; smart regulation of city cross-roads on the basis of game theory application; and game theory as applied to rights arbitration and bankruptcy.

Game Theory: Economics, Theoretical Concepts and Finance Applications
Franc Meunier and James Carre
In series: Mathematics Research Developments
Case: 978-1-62417-165-9. $69.00.
In this book, the authors present current research in the study of the economics, theoretical concepts and finance applications of game theory. Topics discussed include the comparison of the game theories of Stackelberg and Bertrand and which price model is practically applicable; two cooperative solution concepts compared from a game theoretic point of view; the concept of subgame perfection; applications of game theory and evolutionary game theory in auditing; smart regulation of city cross-roads on the basis of game theory application; and game theory as applied to rights arbitration and bankruptcy.

Geometry of Quantum Computation
Gia Giorgadze (Department of Mathematics, Faculty of Exact and Natural Sciences, Ivane Javakhishvili Tbilisi State University 2, Tbilisi, Georgia)
In series: Computational Mathematics and Analysis Series
Case: 978-1-62257-325-7. $150.00.
This book is concerned with the geometric theory of computation. We have in mind the known paradigm according to which the computation is the combination of an algorithm and a computation process. The latter process is performed by some dynamical system. If for the description of the computing dynamical system, a configuration space
with nontrivial-geometry or topology is chosen, one can talk about the
game character of the computation. The book examines the known
holonomic and topological models of quantum computation and the
new monodromic model of quantum computation is discussed in detail.

Global Optimization: Theory, Developments and Applications
Angelika Michalski
In series: Computational Mathematics and Analysis Series
In series: Mathematics Research Developments
Case: 978-1-62100-496-7, $75.00.

Global optimization is an important area of applied mathematics that
has shown fast and growing development during the last few decades,
and deals with the optimization of a function or a set of functions
according to some criteria. In this book the authors discuss the theory,
developments and applications of global optimization including:
particle swarm optimization with re-initialization strategies for
continuous global optimization; particle swarm global optimization for
orbital maneuvers; float-encoded genetic algorithms used for the
inversion processing of well-logging data; particle collision algorithms;
classifier-assisted frameworks for computationally expensive
optimization problems; and the cutting box strategy as an algorithmic
framework for improving metaheuristics for continuous global
optimization.

Heuristics: Theory and Applications
Patrick Siarry (Université de Paris, Créteil, France)
In series: Engineering Tools, Techniques and Tables
In series: Mathematics Research Developments
Case: 978-1-62417-637-1, $195.00.

Many advances have recently been made in metaheuristic methods,
from theory to applications. The community of researchers claiming
the relevance of their work to the field of metaheuristics is growing
faster and faster, despite the fact that the term itself has not been
precisely defined. This book discusses theoretical developments in
metaheuristics, adaptation of discrete metaheuristics to continuous
optimization, performance comparisons of metaheuristics, cooperative
methods combining different approaches, parallel and distributed
metaheuristics for multiobjective optimization, software
implementations, and real-world applications.

Information Theory: New Research
Pierre Deloumeaux and Jose D. Gorzalka
In series: Mathematics Research Developments
In series: Engineering Tools, Techniques and Tables
2012. 293 pp.
Case: 978-1-62100-325-0, $150.00.

Information theory is a branch of applied mathematics and engineering
involving the quantification of information. In this book, the authors
present topical research in the study of the new developments in
information theory, including information theory as applied to the
analysis of biological sequences; information theory based on
fractional calculus via modified Riemann-Liouville derivatives;
two-phase flows entropy in gravity cascade separation; the role of
information theory in gene regulatory network inference; Quantum
Information Processing (QIP) and the link between information
processing and physics.

Mathematics, Game Theory and Algebra
Compendium. Volume 3
Jacob H. Mathias
In series: Mathematics Research Developments
Case: 978-1-62257-749-1, $150.00.

This book is devoted to new advances in all branches of mathematics,
game theory and applications, and pure and applied algebra and
gometry including mathematical formulation of NMR experimental
parameters for diffusion magnetic resonance imaging; optimization of
Kalman Filtering performance in received signal strength based mobile
positioning; ORE extensions over near pseudo valuation rings; subset
selection of treatments; rigorous kinetic analysis of the racket flick-
motion in tennis for generating topspin and backspin and linear versus
nonlinear human operator modeling.

Mechanics of the Continuous Environment Issues:
Dedicated to the 120th Birth Anniversary of
Academician Nikoloz Muskhelishvili
Ivane Gorgidze (Georgian Technical University,
Tbilisi, Georgia)
In series: Mathematics Research Developments
In series: Physics Research and Technology
Case: 978-1-62100-496-7, $75.00.
e-book: 978-1-62417-750-7, $75.00.

This book is dedicated to the 120th birthday of the famous
Georgian Academician Nikoloz Muskhelishvili. Works of academician
N. Muskhelishvili had a great impact in the further development of the
elasticity theory and deferential and integral equations of
mathematical-physics. Works of N. Muskhelishvili represents a basis
of the numerous scientific researches in number of fields, which are
used in order to solve technical problems. In the represented book, the
following problems are considered: non-classical mathematical models
describing pollution transfer and diffusion of various mixtures in the
water streams; a non-stationary magneto hydrodynamic flow of
conducting fluid between two infinite rotating porous discs lying from
each other at a distance-h and the problem of wave propagation in an
orthotropic half-plane.

Volume 1
Zhijun Qiao (University of Texas, Edinburg, TX,
USA)
In series: Pacific Journal of Applied Mathematics
Yearbook
Case: 978-1-61470-737-0, $215.00.

This book presents current research in the field of applied mathematics.
Topics discussed include nongauge invariant cubic nonlinear
Schrodinger equations; geometric aspects of sturm-liouville problems;
soliton perturbation theory for the generalized equal width equation;
general nonlinear variational-like inequality in reflexive banach spaces;
traveling wave solitons of the generalized BBM equation and quarter-
plane problems for the kawahara equation.
mathematics and mechanics are the basis of modern technological improvements and, therefore, interest towards them are increasingly important. This book presents the latest works of outstanding Georgian scientist and mathematician, academician Nikoloz Muskhelishvili. Together with the works of N. Muskhelishvili, his book includes the recent works of a number of modern Georgian scientists who work in the fields of mathematics and mechanics.

Tensor Operators and their Applications
Arif Salimov (Ataturk University, Faculty of Science, Dep. of Mathematics, Erzurum, Turkey)
Case: 978-1-62257-021-8. $110.00.
e-book: 978-1-62257-104-8, $110.00.
The notion of derivation of tensor fields is one of the central concepts and tools of mathematics. The author believes that differential geometric applications of tensor operators is a very fruitful research domain and provides many new problems in the study of modern differential geometry. This book is intended to provide a systematic introduction to the theory of tensor operators. This book is suitable for researchers, and will complement the Mathematics Research Developments Series, which will focus on research-level monographs. This book will also serve as a useful classroom resource for graduate students as well as final year undergraduate students on geometry, algebra, topology and physics.

Wavelets: Classification, Theory and Applications
Manel del Valle (Universitat Autònoma de Barcelona, Bellaterra, Spain), Roberto Muñoz Guerrero and Juan Manuel Gutierrez Salgado (CINVESTAV, Mexico City, Mexico)
Case: 978-1-62100-252-9. $165.00.
This book presents an integrated view of the current use of wavelets in science and engineering. This tool has been used substantially in many different application fields, especially for identification or classification purposes. Various authors from around the world have collaborated in this edited collection. The book opens with an introduction of the involved theoretical concepts, starting with the applications related to image processing. Applications in the fields of biology, food, agriculture and environment are included, as well as the medical and chemical uses of wavelets.

MEDIA AND COMMUNICATIONS

Bluetooth and Wireless Local Area Networks: Security Guides
Rene I. Jenkins
Soft: 978-1-62417-259-5, $52.00.
Bluetooth is an open standard for short-range radio frequency communication. Bluetooth technology is used primarily to establish wireless personal area networks (WPANs), and it has been integrated into many types of business and consumer devices. This book provides information on the security capabilities of both Bluetooth technologies and wireless local networks and gives recommendations to organizations on securing them effectively.
Communication Technologies: Societal Perspectives, Strategic Management and Impact on Business
Alonsa J. Salazar and Cedro Jimenez
In series: Media and Communications - Technologies, Policies and Challenges
2013. 146 pp.
Soft: 978-1-62257-768-2. $69.00.
Information and Communications Technology (ICT) stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to create, access, store, transmit, and manipulate information. In this book, the authors examine the societal perspectives, strategic management and impact on business of communications technology. Topics include information and communication technologies in world class universities; ICT used by businesses on purchasing orientation; ICT and their impact on customer patronizing behavior; the using of and attitudes toward ICT in different age groups; optoelectronic switch arrays for communication networks; and factors affecting eco-driving through a web-based information provision system.

Online Video Distributors: An Exploration of Legal and Regulatory Issues
Iver K. Borello
In series: Media and Communications - Technologies, Policies and Challenges
Case: 978-1-62417-324-0. $110.00.
Digital and Internet protocol technologies have spawned a number of online video distributors (OVDs) whose "over-the-top" video services are in some ways akin to, and in some ways different from, traditional cable and satellite video programming distribution services. However, most of the statutory and regulatory framework for video predates the commercial Internet and was developed within a policy debate that could not consider digital technology and online services. As a result, many statutory provisions apply only to cable companies or satellite carriers, or only to "multichannel video programming distributors" (MVPDs)—a category that includes cable and satellite operators, but as currently interpreted by the Federal Communications Commission(FCC) excludes online video distributors. This book explores the legal and regulatory issues and challenges of online video distributors today, with a reexamination of the Cable Act of 1992.

Research of New Trends in Informational Technologies
Tamar Lominadze and Ivane Gorgidze (Georgian Technical University, Tbilisi, Georgia)
In series: Media and Communications - Technologies, Policies and Challenges
Soft: 978-1-62081-458-1. $52.00.
e-book: 978-1-62081-461-1. $52.00.
This book aims to represent the research results in the field of Informational Technology. This book presents new approaches and innovative solutions to the problems, which are urgent and of key importance nowadays. The content of this book will be helpful from both scientific and practical points of view. This book deals with the wide variety of different problems in the field of Informational Technology, namely: Informational and Communication technology, Automated Control Systems, Modeling, Decision-making problems and etc. Modern Informational technology is one of the most dynamic scientific fields. Changes occur continuously in this sphere and, therefore, the interest towards the subjects discussed in this book are very high.

Technology Horizons in the U.S. Military: Unmanned Systems and Air Force Science and Technical Endeavors
Ethan J. Johnson and Gabrielle L. Rodriguez
In series: Defense, Security and Strategies
Case: 978-1-62081-364-5. $195.00.
Air Force warfighting capabilities have a proud heritage of being born from the very best science and technology our Nation can create; indeed, the very history of the United States Air Force is closely intertwined with the development of advances in science and technology. Yet today, "flattening" of the world is making it increasingly challenging for the U.S. to maintain technology superiority over potential adversaries. A growing number of nations soon will have the ability to transform science and technology advances into militarily significant capabilities. Over the next decades, we will increasingly face potential adversaries having peer or near-peer capabilities. This book examines the key areas of science and technology that the Air Force must focus on over the next two decades to enable technologically achievable capabilities that can provide it with the greatest U.S. Joint force effectiveness by 2030.

Advanced Computational Techniques in Nanoscience
A.K. Haghi, F. Naghiyev, and S. Abdullayeva, (University of Guilan, Iran)
In series: Nanotechnology Science and Technology
Soft: 978-1-62257-791-0. $52.00.
e-book: 978-1-62417-269-4. $52.00.
In this book, the results of investigation of liquid dynamics in carbon nanotubes are presented. The analysis of liquid structures and the character of its flow plus the results of experiments show that the simulation of fluid flow for nanoscale systems should be based on the continuum hypothesis taking into account the quantized character of...
the liquid in the length scale of intermolecular distances. Consideration of the flow characteristics allows analogy of the behavior of the liquid in a nanotube with a flow of a viscoelastic Bingham fluid. A model of mass transfer of liquid in a nanotube is introduced. It is based on the possibility of forming an empty interlayer between the moving fluid particles and the particles of the wall of the nanotube.

**Advanced Nanotube and Nanoﬁber Materials**

**A.K. Haghi (University of Guilan, Iran), G.E. Zaikov (N.M. Emanuel Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia)**

In series: *Materials Science and Technologies*

**In series: Nanotechnology Science and Technology**

Soft: 978-1-62081-170-2. $52.00.  
e-book: 978-1-62081-201-3. $52.00.

This book presents the tools of nanotechnology that can build, image, and manipulate nanostructures to build materials and devices. It bridges the gap between detailed technical publications that are beyond the grasp of non-specialists and popular science books, which may be more science fiction than fact. It provides a fascinating, scientifically sound treatment, accessible to engineers and scientists outside the field and even to students at the undergraduate level. This book concludes with a look at some cutting-edge applications and prophecies for the future. It builds a solid background in characterization and fabrication methods while integrating the physics, chemistry, and biology facets. It focuses on applications and examining engineering aspects of nanotube and nanoﬁber materials.

**Advances in Nanotechnology. Volume 10**

**Zacharie Bartul and Jérôme Trenor**

In series: *Advances in Nanotechnology*

Case: 978-1-62100-150-8. $140.00.  
e-book: 978-1-62100-203-1. $140.00.

Nanotechnology is the study of the controlling matter on an atomic and molecular scale and is also very diverse, ranging from extensions of conventional device physics to completely new approaches based upon molecular self-assembly. This book gathers and presents data on nanotechnology, including fine structure characterization of nanorod materials using neutron scattering and synchrotron radiation techniques; nanomedicine advancements in burn therapy; nanowire meshes; manganese oxide nanorods; superhydrophobic inorganic nanostructures and low-temperature fabrication of 1-dimensional metal nanostructure arrays by ion irradiation.

**Applications of Carbon Nanotubes**

**Ajay Kumar Mishra (Department of Chemical Technology, University of Johannesburg, Johannesburg, South Africa)**

In series: *Nanotechnology Science and Technology*

**In series: Materials Science and Technologies**

Case: 978-1-62081-918-0. $195.00.  

The discovery of carbon nanotubes has opened new windows for numerous applications in many disciplines of nanoscience and nanotechnology. Carbon nanotubes consist of graphene sheets in the form of sp2 hybridized carbon atoms. These materials have gained the interest of researchers from various disciplines due to their fascinating physico-chemical properties. This book describes the applications of carbon nanotubes in various areas including environmental science such as remediation and speciation, water research, medicine including sensors, targeted drug delivery and therapeutics. The application of carbon nanotubes in waste water research which includes organic, inorganic and microbial pollutants is also discussed as is its applications in material science and polymer science.

**Carbon Nanotubes: Properties, Performance and Applications**

**A.K. Haghi (University of Guilan, Iran)**

In series: *Nanotechnology Science and Technology*

2012. 149 pp.  
Soft: 978-1-62081-881-7. $52.00.  
e-book: 978-1-62081-966-1. $52.00.

Carbon nanotubes (CNTs) have attracted particular interest because they are predicted, and indeed observed, to have remarkable mechanical and other physical properties. The combination of these properties with very low densities suggests that CNTs are ideal candidates for high performance polymer composites. This book builds a solid background in characterization and fabrication methods while integrating the physics, chemistry, and biology facets. This book focuses on applications and examining engineering aspects.

**Carbon Nanotubes: Synthesis and Properties**

**Ajay Kumar Mishra (Department of Chemical Technology, University of Johannesburg, Doornfontein, Johannesburg, South Africa)**

In series: *Nanotechnology Science and Technology*

Case: 978-1-62081-914-2. $195.00.  

Carbon nanotubes possess unusual fascinating properties which have attracted the scientific world. This book covers a very wide domain of research and development where the synthesis and properties of carbon nanotubes are discussed. This book describes the carbon nanotube general introduction, various synthesis procedures and properties. This book is going to be beneficial to the researchers who are working for their postgraduate degree in nanomaterials and nanotechnology. This book also provides a platform for all the academics and researchers as it covers a vast background for the recent literature, abbreviations, and summaries. This book will be worth reading for the researchers who are more interested in the general overview of carbon nanotubes, fundamentals concepts and various synthetic procedures in the multidisciplinary areas. This book contains the fundamental knowledge with the recent advancements for the research and development in the field of nanomaterials and nanotechnology.

**Development of Nanotechnology in Textiles**

**A.K. Haghi (University of Guilan, Iran), G.E. Zaikov (Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia)**

In series: *Nanotechnology Science and Technology*

**In series: Materials Science and Technologies**

2012. 188 pp.  
e-book: 978-1-62081-052-1. $47.00.

Nano and textile applications are more intensive in the last decade. Nanotechnology is about the possibility of manipulating and rearranging individual atoms and molecules to create useful materials. "Nano" textiles are those designed and engineered on the nanoscale to create specific functions. These nano functions are very diverse and range from UV protection and antibacterial functions to moisture management. This book summarizes the recent development of nanotechnology in textile areas.
Gold Nanoparticles: Synthesis, Optical Properties and Applications for Cancer Treatment
Abagail Jarnagin and Logan Haushauser
In series: Nanotechnology Science and Technology
In series: Materials Science and Technologies
Case: 978-1-62257-927-3. $95.00.
e-book: 978-1-62257-928-0. $95.00.
In this book, the authors present current research in the study of the synthesis, optical properties and applications for cancer treatment of gold nanoparticles. Topics discussed include the use of gold nanoparticles in cancer treatment and biomedical applications to target tumors and provide detection, drug carriers, gene silencing and radiotherapy; gold nanoparticle fabrication by laser ablation technique and their optical and morphological study; gold nanoparticles for metabolite imaging; formation of gold nanoparticles inside the corona of amphiphilic triblock copolymer micelles; and the intracellular delivery of gold nanoparticles and their application in nanomedicine.

Handbook of Research on Nanomaterials, Nanochemistry and Smart Materials
A. K. Haghi (University of Guilan, Iran, Quebec, Canada) and G. E. Zaikov (N. M. Emmanuel Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia)
In series: Biochemistry Research Trends
In series: Nanotechnology Science and Technology
Case: 978-1-61942-525-5. $165.00.
The collection of topics in this book aims to reflect the diversity of recent advances in nanomaterials, nanochemistry and smart materials with a broad perspective which may be useful for scientists as well as for graduate students and engineers. The book offers scope for academics, researchers, and engineering professionals to present their research and development works that have potential for applications in several disciplines of engineering and science. Contributions range from new methods to novel applications of existing methods to gain understanding of the material and/or structural behavior of new and advanced systems. This book presents leading-edge research from around the world in these dynamic fields.

Introduction to Nanocomposite Science of Layered and Tubular Materials
Grażyna Simha Martynková and Karla Čech Barabaszová (VŠB-Technical University of Ostrava, Nanotechnology Centre, Ostrava - Puruba, Czech Republic)
In series: Nanotechnology Science and Technology
Soft: 978-1-60741-739-2. $52.00.
The field of nanocomposites involving organic or inorganic materials is a rapidly rising area of research and application development. In general nano-composites can be broadly defined as a mix of dissimilar components that can be zero-dimensional, one dimensional, two dimensional or three dimensional that are mixed at the nanoscale. The promise driving nano-composites over more traditional composites lies in taking advantage of the new and often exciting properties afforded by nano-structures. Moreover, these properties are often tunable and so significant effort is being focused on our ability to control the properties of the nanostructures and their merging into composites. Thus a significant amount of research is being targeted to understanding the properties both for the individual nano-materials as well as the composite itself, e.g. interfacial interactions. This is an ideal book for new entrants in the field whether they are master’s students, post graduate students or postdoctoral fellows entering the field for the first time.

Microfluidics: Control, Manipulation and Behavioral Applications
Stefano Panzarella and Walter Maroni
In series: Nanotechnology Science and Technology
In series: Recent Trends in Biotechnology
Case: 978-1-62417-345-5. $150.00.
In this book, the authors discuss the control, manipulation and behavioral applications of microfluidics. Topics include dielectrophoresis based droplet microfluidic devices for on-chip bioassays; microfluidic biosensor systems for cell biology and drug discovery; controllable microfluidic generation of monodisperse multiple emulsion droplets; an alternative method to predict wettability for microfluidics; integration of capacitive micromachined ultrasound transducers to microfluidic devices; selection of easily accessible PCR-and bio-compatible materials for microfluidic chips; and electrokinetic manipulation of biomolecules.

Modern Nanochemistry Volume 2: Synthesis, Properties, and Applications
A.K. Haghi (University of Guilan, Iran) and M. R. Saboktakin (Baku State University, Azerbaijan)
In series: Nanotechnology Science and Technology
In series: Chemistry Research and Applications
2013.
Case: 978-1-62257-794-1. $150.00.
Nanotechnology employs knowledge from the fields of physics, chemistry, biology, materials science, health sciences, and engineering. It has immense applications in almost all the fields of science and human life. People and scientists argue that nanotechnology is likely to have a horizontal impact across an entire range of industries and great implications on human health, environment, sustainability, and national security. The impact of nanotechnology is felt by everyone. It is observed that many facets of the science are impacted and people are revisiting many research areas with a nanoview to understand how the same thing can work at the nano level. This phenomenon is revolutionizing pharmaceutical sciences, and many drugs are again being relooked at for the possibilities of delivery as a nanosystem. The objective of the present book is to address formulation and characterization properties of novel and intelligent nanoparticulate drug delivery systems (NPDDS) for effective cancer therapy.

Nanofibers: Synthesis, Properties, and Applications
Wei Dong Li and Xue Ping Wang
In series: Nanotechnology Science and Technology
In series: Materials Science and Technologies
Case: 978-1-62257-085-0. $150.00.
Due to their one-dimensional structures and novel physical properties, nanofibrous materials have been extensively investigated and hold promising applications in various fields, including electronic, optical, semiconductors, sensors, polymer fillers and nonwoven porous membranes. This book presents current research in the study of the synthesis, properties and application of nanofibers. Topics include the functionalization and activation of carbon nanofibers; fabrication of aligned polymer and metal oxide nanofibers by electrospinning; inorganic nanofibers for novel separation membranes; the physics
behind the vapor-liquid-solid route and carbon nanofiber formation; preparation and modification of chitin nanofibers; and the synthesis of composite carbon nanofibers with macroscopic shaping.

**Nanotechnology: Select Assessments of the National Nanotechnology Initiative**
*Steven M. Goldfarb and Hugh Morgan*

In series: *Nanotechnology Science and Technology*  
Case: 978-1-62257-596-1. $110.00.  

This book provides an overview of the National Nanotechnology Initiative (NNI) which was launched in 2001, with an initial budget of $500 million. The NNI is a crosscutting Federal program designed to coordinate U.S. investment in research and development (R&D) activities in nanoscale science, engineering, technology, and related efforts. The NNI has four broad objectives: (1) to advance world-class nanotechnology research and development; (2) to foster the transfer of new technologies into products for commercial and public benefit; (3) to develop and sustain educational resources, a skilled workforce, and the supporting infrastructure and tools to advance nanotechnology; and (4) to support the responsible development of nanotechnology. The NNI has had a “catalytic and substantial impact” on the growth of the U.S. nanotechnology industry and as a result, the United States is today, the global leader in this exciting and economically promising field of research and technological development.

**Quantum-Chemical Calculations of Molecular Systems as the Basis of Nanotechnologies in Applied Quantum Chemistry. Volume 5**
*V.A. Babkin (State Architect-Build University, Sebrykov Department, Michailovka, Volgograd region; Russia) G.E. Zaikov (N.E. Emanuel Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia)*  
In series: *Nanotechnology Science and Technology*  
Case: 978-1-61470-882-7. $165.00.  

This book is one of many volumes which presents current research in the study of quantum-chemical calculations of various molecular systems. The research results presented suggest that the development of nanotechnologies will offer new and more effective advancements for the improvement of penicillins, vitamins and catalysts. The results of quantum-chemical calculations of various molecular systems presented here are the first step toward the development of new nanotechnologies.

**Quantum-Chemical Calculations of Molecular Systems as the Basis of Nanotechnologies in Applied Quantum Chemistry. Volume 6**
*G.E. Zaikov (N.M. Emanuel Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia) V.A. Babkin (Volgograd State Architect-Build University, Michailovka, Volgograd region; Russia)*  
In series: *Nanotechnology Science and Technology*  
Case: 978-1-61470-885-8. $165.00.  
e-book: 978-1-61470-922-0. $165.00.

This book is one of many volumes which presents current research in the study of quantum-chemical calculations of various molecular systems. The research results presented suggest that the development of nanotechnologies will offer new and more effective advancements for the improvement of penicillins, vitamins and catalysts. The results of quantum-chemical calculations of various molecular systems presented here are the first step toward the development of new nanotechnologies.

**Remote Sensing: Techniques, Applications and Technologies**
*Enner Alcântara, (Sao Paulo State University (UNESP), Department of Cartography - Presidente Prudente, Brazil)*  
In series: *Nanotechnology Science and Technology*  
Case: 978-1-62417-140-6. $95.00.  
e-book: 978-1-62417-145-1. $95.00.

In this book, the authors present current research in the study of the techniques, applications and technologies of remote sensing. Topics discussed include the techniques used to investigate the surface dynamics of coastal areas using radar remote sensing; technologies to understand crop status from different sensors including multispectral camera, spectrometer, laser range finder and light quantum sensors; hydrological modeling, flood forecasting, water conservation and efficiency in irrigation; the horizontal transport and dispersion in large hydroelectric reservoirs through the use of satellite tracked drifters; imaging cameras as an intelligent device for extracting relative attitude information needed for attitude control; and techniques to study the urban growth over time, combining unsupervised, supervised classifications and the spectral mixture analysis.

**Research Progress in Nanoscience and Nanotechnology**
*A.K. Haghi (University of Guilan, Iran)*  
In series: *Nanotechnology Science and Technology*  
Soft: 978-1-62081-904-3. $52.00.  

This book provides innovative chapters on the growth of educational, scientific, and industrial research activities among engineers and provides a medium for mutual communication between international academia and the industry. This book publishes significant research reporting new methodologies and important applications in the different fields of nano as well as includes the latest
coverage of chemical databases and the development of new experimental methods.

**Smart Nanocomposites Research Compendium. Volume 1**

*Kirill Levine*

In series: *Nanotechnology Science and Technology*  
Case: 978-1-62257-336-3. $150.00.  
e-book: 978-1-62257-337-0. $150.00.

This book compiles articles from the Smart Nanocomposites Journal. Topics discussed include two different chemical routes to obtain graphene or few-layer graphite; gas sensors based on multiwall carbon nanotubes decorated with different metal oxides nanoparticles; mechanism of multi-wall nanotube nucleation based on Mullins-Sekerka instability; self-assembly of silicon nanowalls on crystalline silicon under a photostable layer; and synthesis of light emitting SiOx layers with scalable optical properties.

**TiO2 Nanoparticles by Flame CVD Method: Synthesis, Characterization, Simulation and Application**

*Hongyong Xie (Shanghai Second Polytechnic University, Shanghai), Shi Chen (Dalian University of Technology, Dalian)*

In series: *Nanotechnology Science and Technology*  
Case: 978-1-61470-262-7. $150.00.  

The scientific and technological issues of nanostructured particles and materials are currently attracting considerable attention. The reason for this is that nanostructured particles and materials, and the physical or chemical combination of substances at the nanometer or subnanometer scale, can lead to innovative materials with improved or even unexpected properties. Applications which could have a great impact can be anticipated in fields like catalysis, technical ceramics, membrane technology, optoelectronics and solid-state ionics with emphasis on systems for clean energy conversion and storage. However, progress in these fields will largely depend on the pace of advance of the fundamental research on nanostructured particles and materials in solid-state chemistry, solid-state physics and materials science. This book presents current research in the study of TiO2 nanoparticles by flame CVD method.

**EARTHQUAKES: TRIGGERS, ENVIRONMENTAL IMPACT AND POTENTIAL HAZARDS**

*Kostas Konstantinou (Dept of Earth Sciences, National Central University, Taoyuan County, Taiwan)*

In series: *Natural Disaster Research, Prediction and Mitigation*  
Case: 978-1-62081-883-1. $175.00.  

Earthquakes represent a natural phenomenon that throughout human history has caused destruction of man-made structures and dramatic loss of life. The study of earthquake phenomena has seen a rapid growth over the past few decades and has contributed significantly towards mitigating the effects of large earthquakes. This edited volume consists of a collection of ten chapters that address three topical areas related to earthquake research. The contributed chapters in this volume will be of use to a range of professionals such as Earth scientists, engineers and civil protection officers.

**Tsunami Hazard Assessment at U.S. Nuclear Power Plants**

*Roger F. Goldman*

In series: *Natural Disaster Research, Prediction and Mitigation*  
Case: 978-1-61470-865-0. $95.00.  

This book examines the tsunami phenomenon with the focus on its relevance for hazard assessment at nuclear power plant sites. Three tsunami-mechanistic mechanisms (earthquakes, landslides, and volcanoes) are considered. Also discussed are offshore and onshore modeling of tsunami waves and their effects on nuclear power plant structures, systems, and components. Identification of the repository of historic tsunami data and ways to approach site safety assessment for tsunamis by a Nuclear Regulatory Commission is also reviewed.

**NUCLEAR MATERIALS AND DISASTER RESEARCH**

*Nuclear Oversight, Planning and Safety Efforts: Select Assessments**

*Lance Oliver and Mathew T. Weber*

In series: *Nuclear Materials and Disaster Research*  
Case: 978-1-62257-428-5. $110.00.  

This book examines nuclear oversight, planning and safety efforts at U.S. nuclear power reactors across the United States. The U.S. Nuclear Regulatory Commission (NRC), an independent federal agency headed by five commissioners, licenses commercial nuclear power reactors and regulates and oversees their safe operation and security. An NRC task force has reviewed the Fukushima Daiichi disaster in Japan and determined that the continued operation of existing U.S. nuclear power reactors and the licensing of new reactors do not pose an imminent risk to public health and safety. The disaster in Japan, caused by a tsunami, was more severe than the plant was designed to withstand, and has
raised questions about whether a similar event could happen here. These questions were further highlighted by natural hazards that affected the sites of several U.S. commercial nuclear power plants and their reactors in 2011, including flooding near two power plants in Nebraska, severe storms at a plant in Alabama, and an earthquake at a plant in Virginia.

NUTRITION

Apples: Nutrition, Consumption and Health
Sancho J. Cordoba and Fernando A. Delgado
In series: Nutrition and Diet Research Progress
2012. 228 pp.
Case: 978-1-61942-709-9. $140.00.
In this book, the authors present current research in the study of the nutrition, consumption and health effects of apples. Topics discussed in this compilation include the microbiology of apples and apple products and related health hazards; apple pomace as a substrate for industrial and biotechnological applications; non-destructive measurements of the quality parameters of fresh apples; apple polyphenols are their effect of cardiovascular disease, obesity, metabolic syndrome and diabetes; and apple contamination risks.

OPTICS AND LASERS

Advances in Laser and Optics Research. Volume 10
William T. Arkin
In series: Advances in Laser and Optics Research
2013. 419 pp.
Case: 978-1-62257-795-8. $150.00.
e-book: 978-1-62257-796-5. $150.00.
This book gathers the latest research from around the globe on the subject of lasers and optics research. Topics discussed include polarization dependent effects in optical waveguides containing bragg grating structures; bacterial cell interactions with optical fiber surfaces; passively mode-locked fiber lasers with nonlinear optical loop mirrors; optical breakdown in gases induced by high-power ir co2 laser pulses and towards shaping of pulsed plane waves in the time domain via chiral sculptured thin films.

Advances in Laser and Optics Research. Volume 9
William T. Arkin
In series: Lasers and Electro-Optics Research and Technology
Case: 978-1-61470-940-4. $140.00.
e-book: 978-1-62100-018-1. $140.00.
This book gathers the latest research from around the globe on the subject of lasers and optics research. Topics discussed include advanced CO2 laser-induced plasma processing; excimer laser annealing of dielectrics with ion-synthesized metal nanoparticles; ultra-short pulse laser on hole drilling; laser-induced breakdown spectroscopy and its applications in mineral and pollution analyses; high power optical coatings; lasers in implant dentistry; Q-switched laser applications and electromagnetically induced transparency in optical frequency metrology.

Laser Technology, Applications and Future Prospects
Detlef Ebersbach and Felix Gottschalk
In series: Lasers and Electro-Optics Research and Technology
In series: Physics Research and Technology
Soft: 978-1-62417-088-1. $150.00.
In this book, the authors present current research in laser technology applications and future prospects. Topics include the problems and solutions of ultra high power and intensity lasers; laser technologies applied for semiconductor HgCdTe and Chalcogenide thin films; prediction and analytical description of single laser tracks geometry and 316L stainless steel microstructure; and the laser induced transfer of organic materials.

New Developments in Optics Research
Matthew P. Germanno
In series: Lasers and Electro-Optics Research and Technology
Case: 978-1-61324-505-7. $95.00.
This book presents current research in the study of optics, with a particular focus on sensors and fibers. Topics discussed include optical current sensors; evanescent field tapered fiber optic biosensors; new challenges in raman amplification for fiber communication systems; fiber bragg gratings in high birefringence optical fibers and optics research applied to the turin shroud.

Optical Imaging: Technology, Methods and Applications
Akira Tanka and Botan Nakamura
In series: Lasers and Electro-Optics Research and Technology
In series: Biomedical Devices and their Applications
Case: 978-1-62081-800-8. $150.00.
e-book: 978-1-62081-835-0. $150.00.
Optical imaging describes the behavior of visible, ultraviolet, and infrared radiation used in imaging techniques based on optical principles. Reflection, refraction, interference, scattering, transmission, polarization and/or luminescence/fluorescence processes are involved in the optical study of different materials, organic, inorganic, natural or synthetic. In this book, the authors discuss optical image analysis and determination of dispersed multi-phase flow for simulation and control; optical imaging applications for the study of cultural heritage artifacts; atomic and magnetic force microscopy of semiconductor and semimagnetic nanocrystals; imaging, spectroscopy and sensing with single and coupled metallic nanoparticles; methods for suppressing random and nonrandom noise in fluorescence imaging; and optical coherence tomography.

PHARMACOLOGY

Encyclopedia of Pharmacology Research (2 Volume Set)
Derek Cheng and George Liu
In series: Pharmacology - Research, Safety Testing and Regulation
This book presents current research in the study of pharmacology. Topics discussed include antidepressant therapy; monitoring antidepresant therapy by using heart rate variability; tianeptine and sertraline; gender differences in response to antidepresants; organotin polyethers as anticancer drugs; geldanamycin derivatives as promising anticancer drugs; design of novel anticancer drugs utilizing busulfan for optimizing pharmacological properties; advances in drug discovery to assess cholinergic neurotransmission; models of intestinal drug permeability and pharmacopoeial quality of antimicrobial and antiviral formations.

PHILOSOPHY

Scepticism: Hero and Villain
Sir Roy Calne (University of Cambridge, National University of Singapore, Cambridge, UK) and William O'Reilly (University Lecturer, Cambridge, UK)

In series: World Philosophy Series
Case: 978-1-62081-866-2. $195.00.
Soft: 978-1-62417-783-5. $59.00.

Scepticism was a central topic in the culture of ancient Greece, the source of Western civilization. Over some three thousand years scepticism remains an important tool with which to hone new ideas. With the advent of science and the opportunity for independent verification of concepts, scepticism has assumed a more central role in contemporary culture, requiring constant modification and updating. This volume has attempted to discuss scepticism in the context of both science and the humanities with 33 chapters covering a wide range of subjects without any attempt at being comprehensive. The authors come from different disciplines, though all have focused on the role of scepticism in their subjects. The editors have contributed short introductory and linking texts in an attempt to provide a smooth continuity between some chapters that are aimed at aiding the reader's transition between sections.

PHYSICAL SCIENCE

The Law of Science and the Science of Law: Cases in Forensic Science
Hyman Davidson Gesser and A. Burton Bass (University of Manitoba, Canada); Bradley Myers (University of North Dakota)

In series: Laws and Legislation
Case: 978-1-60876-807-3. $89.00.

The popular media is rife with examples of scientists delivering the telling evidence in a police investigation or court case. Often the computer will show a “positive match” or the investigator states that the “physical evidence does not lie,” usually with the suspect immediately confessing the wrong doing. The reality, however, is that science is replete with errors, mistakes and misinterpretations. Courts must deal with these limitations while trying to deliver justice to all involved. Jurors, expecting to have one person who can stroll in and tell them exactly what happened, generally have to deal with multiple experts testifying to the horrible mistakes made by the other side. This book presents seven examples to illustrate the legal and court procedures in which one of the authors, a chemist, acted as an expert witness. The examples of the cases chosen include drunk driving, house fires, poison products, floods, and slip and fall. The cases are presented in a both legal and “scientific” manner intended to provide professionals (lawyers and judges), as well as the general public, insight into the practical application of science in real court cases. Included are the original scientific reports and, where possible, the judgments of the courts interpreting the data. Examples of both Canadian and American cases are used. The introductory chapter of the book and the final two chapters deal with the role of the expert witness and the laws that determine their evidence and its consideration by the court.

Advanced High Te Ferroelectrics
Jingzhong Xiao (Universidade de Coimbra, Coimbra, Portugal)

In series: Physics Research and Technology
2013.
Case: 978-1-62618-002-4. $150.00.

Micro-Electro-Mechanical Systems (MEMS) is the integration of mechanical elements, sensors, actuators, and electronics on a common silicon substrate through microfabrication technology. Electro mechanical actuators directly transform input electrical energy into mechanical energy. Piezoelectric and electrostrictive ceramics are widely used in applications requiring high generative force, high frequency operation, accurate displacement, quick response time, or small device size. This book presents important progress in growth and structure-property studies in ferroelectrics with a high Curie temperature (Tc).

Basis of Nonsymmetrical Hydromechanics
Andrey Nikolaevich Volobuev (Samara State Medical University, Samara, Russia)

In series: Physics Research and Technology
Case: 978-1-61942-696-2. $150.00.

On the basis of N.E. Zhukovsky’s ideas, it is shown that stress tensor and speeds of deformation tensor only approximately describe a force’s condition in a liquid. This book presents the new vector form of the Newton’s law for a viscous liquid and considers the method of calculation of a flow of bodies by a viscous liquid on the basis of “a hypothesis of replacement”. This book can be useful to scientists and engineers working in areas connected with hydrodynamics.

Clouds: Classification, Microbiology and Environmental Effects
Marta Thelin and Julienne Maheux

In series: Environmental Health - Physical, Chemical and Biological Factors

In series: Physics Research and Technology
2013.
Soft: 978-1-62417-856-6. $69.00.

The authors of this book present current research in the study of the classification, microbiology and environmental effects of clouds. Topics discussed include cloud microorganisms and their potential implication in atmospheric chemistry; cloud classification by water vapor and cloud budgets; radial systems of dark globules in our galaxy; studies on clouds and spherical harmonics decomposition; and heteronuclear diatomics in diffuse and translucent clouds.
Crystallography: Research, Technology and Applications
Misao Hokkaido and Eiko Nagano
In series: Materials Science and Technologies
In series: Physics Research and Technology
Case: 978-1-62081-574-8. $150.00.
The science of the arrangement of atoms in solids is known as crystallography. In single crystals, the effects of the crystalline arrangement of atoms is often easy to see macroscopically, because the natural shapes of crystals reflect the atomic structure. In addition, physical properties are often controlled by crystalline defects. The understanding of crystal structures is an important prerequisite for understanding crystallographic defects. Topics discussed in this new book include in situ protein crystal diffraction screening; structures and properties of 3D-4F and 3D chiral Schiff base complexes; crystal dehydration techniques; case studies on crystal structure determination involving H atoms; and cleavage fracture crystallography.

Density Functional Theory: Principles, Applications and Analysis
Joseph Morin and Jean Marie Pelletier
In series: Physics Research and Technology
2013.
Case: 978-1-62417-954-9. $150.00.
Density Functional Theory (DFT) is a quantum mechanical modelling method, used in physics and chemistry to investigate the electronic structure (principally the ground state) of many-body systems, in particular atoms, molecules, and the condensed phases. This book provides current research in the study of the principles, applications and analysis of Density Functional Theory (DFT). Topics discussed include density functional treatment of interactions and chemical reactions at interfaces; applications of DFT calculations to lithium carbeneoids and magnesium carbeneoids; thermoelectric properties of low-dimensional materials by DFT; using DFT computations on the radical scavenging activity studies of natural phenolic compounds; polarizability of C60/C70 fullerene [2+1]- and [1+1]-adducts; DFT application to the calculation of properties of di- and trimethylnaphthalenes; transport calculations of organic materials; the evolution of DFT; the capabilities of DFT for materials design of alloys; and the fundamentals of energy density functionality in nuclear physics.

Einstein and Hilbert: Dark Matter
Valeriy V. Dvoeglazov (Universidad de Zacatecas, Mexico)
In series: Contemporary Fundamental Physics
Edited by: Valeriy V. Dvoeglazov (Univ. de Zacatecas, Zacatecas, Mexico)
Case: 978-1-61324-840-9. $150.00.
This book presents interesting mathematical questions of relativity theory and relations to modern astrophysics, as well as various conceptual foundations. Topics discussed include the generalized Lorentz transformations and the velocity transformation; fundamental physics; non-Newtonian gravity effect; dark matter and dark energy concepts; pseudo-complex variables and antisymmetric tensor fields. This book will be useful for academic professors, professional researchers in physics and mathematics, postgraduate students and all remaining people interested in theoretical physics and astrophysics.

Electromagnetic Fields: Principles, Engineering Applications and Biophysical Effects
Myung-Hee Kwang and Sang-Ook Yoon
In series: Physics Research and Technology
2013. 452 pp.
Case: 978-1-62417-063-8. $195.00.
In this book, the authors gather and present current research in the study of the principles, engineering applications and biophysical effects of electromagnetic fields. Topics discussed include the thermodynamics of surface electromagnetic waves; exposure to magnetic fields produced by power lines; microwave heating for metallurgical engineering; the effect of electromagnetic fields exposure on cytokines production; high frequency induction heating for high quality injection molding; electromagnetic techniques for non-invasive detection of malignancies in biological tissue; the entropy production rate in a cell under electromagnetic field; studies of cerebral activity in humans and in animal models after exposure to modulated radio frequency of mobile phones; electromagnetic induction data sets in archaeology; and single and two-photon interactions of radiators with electromagnetic bath.

Encyclopedia of Physics Research (3 Volume Set)
Nancy B. Devins and Jillian P. Ramos
In series: Physics Research and Technology
2012. 1042 pp.
Case: 978-1-61470-119-4. $345.00.
This book presents current research in the field of physics, with a particular focus on atomic molecular and optical physics, as well as cryogenics and photonic crystals. Topics discussed include pulse structuring in laser-light dynamics; excitation of atoms and ions by electron impact; fiber Bragg Gratings and their applications as temperature and humidity sensors; liquid oxygen magnetohydrodynamics; cryogenic treatment and fatigue resistance; cryogenic grinding; fabrication and applications of polymer photonic crystals; physics of photonic crystal couplers and their applications and a photonic band gap for quasicrystal-related structures.

Gamma Rays: Technology, Applications and Health Implications
Istvan Bikit (Department of Physics, University of Novi Sad, Novi Sad, Serbia)
In series: Physics Research and Technology
Case: 978-1-62257-697-5. $195.00.
Gamma-rays originate from the decay of excited states of the atomic nuclei in a similar manner as the visible light originates from the decay of the atom itself. Gamma rays belong to the class of ionizing radiation, together with alpha rays (doubly ionized atoms of helium) and beta rays (electrons). The spectroscopy of gamma rays, having the unique feature that by photoeffect transform their total energy to the energy of electrons in the detection material, contributed decisively to the establishing of the decay schemes of atomic nuclei. Strong sources of gamma radiation are widely used in contemporary technologies for cancer treatment, material modification, medical imaging, and food sterilization. The main goal of this book is to present to the non-specialist reader the contemporary applications of gamma rays by selected chapters on that issue. This book has 16 selected chapters from basic application of gamma rays to applied issues like food sterilization and polymer modification.
This book presents original research results on the leading edge of physics. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics included in this compilation include spectroscopic analysis and temporal evolution of laser-induced plasma; structural heterogeneity of the physical vacuum; elastoplastic response of TCO/Si coated systems to local loading; experimental methods for the determination of superlight velocities in gravitation; recreation of the ground state by the repulsive mean-field nonlinearity in three and two-dimensional quantum gases and the singularity problem in gravitational physics and music.

Horizons in World Physics. Volume 278

Albert Reimer

In series: Horizons in World Physics

Case: 978-1-61942-537-8. $140.00.

This book presents original research results on the leading edge of physics. Each article has been carefully selected in an attempt to present substantial research results across a broad spectrum. Topics included in this compilation include complex radio zebra patterns escaping from the solar corona; an accurate value of the supernova Ia rate for the local (z<0.1) universe; the quantum cloning process; geometry-based finite element modeling in biomechanics; galactic and extragalactic supernovae occurrences and standard model fermions as excitations of an ether.

Horizons in World Physics. Volume 279

Albert Reimer

In series: Horizons in World Physics

Case: 978-1-62257-134-5. $150.00.

This book presents original research results on the leading edge of physics. Each article has been carefully selected in an attempt to present substantial research across a broad spectrum. Topics included in this compilation include hydrodynamic modeling of the dielectric barrier discharges in Xe and Xe-C12 mixtures; plasma and ion beam sputtering processes; fractional field theory and high-energy physics; lie groups and Cantorian space-time theory in connection with high-energy physics; quarks and fractionally quantized vortices in superconductors; supersymmetry and 3-algebra model of M-theory; new alternative methods to determine distances to celestial bodies; and the general dynamics of the bulk tilted cosmological model.

Horizons in World Physics. Volume 280

Albert Reimer

In series: Horizons in World Physics


This book presents original research results on the leading edge of physics. Each article has been carefully selected in an attempt to present substantial research across a broad spectrum. Topics include the theoretical study of the superconducting phase in metallic complexes; monolithic phosphor-free white emission by InGaN/GaN quantum wells; intra-band electron raman scattering in semiconductor quantum wells and laser applications; a role of zero point energy in the universe expansion; gravitational communication; nonlinear optical effects in intersubband transitions of semiconductor quantum wells; dark matter cluster generated by Moon's motion; and entangled single purely quantum universe in the multiverse.

Interstellar Medium: New Research

Brian M. Cancicelli and Vladimir G. Mamedov

In series: Physics Research and Technology

Case: 978-1-61470-807-0. $150.00.

The interstellar medium (ISM) is the matter that exists in the space between the star systems in a galaxy. This matter includes gas in ionic, atomic, and molecular form, dust, and cosmic rays. It fills interstellar space and blends smoothly into the surrounding intergalactic space. This book presents topical research in the study of interstellar medium, including explosive processes in the interstellar medium as sources of ultrahigh-energy cosmic rays; heteronuclear diatomics in diffuse and translucent clouds; far ultraviolet observations of the Large Magellanic Cloud; MDH simulations of Parker instability undergoing cosmic-ray diffusion; deuterium in the interstellar medium and interaction of planetary nebulae, Eta-Carinae and supernova remnants with the interstellar medium.

Molecular Dynamics: Theory, Kinetics and Implementation

Daniel E. Garcia and Paige J. Green

In series: Chemical Engineering Methods and Technology

In series: Computer Science, Technology and Applications

Soft: 978-1-62081-545-8. $69.00.

Molecular dynamics (MD) is a computer simulation of physical movements of atoms and molecules. The atoms and molecules are allowed to interact for a period of time, giving a view of the motion of the atoms. This book presents current research on the theory, kinetics and implementation of molecular dynamics. Topics discussed in this compilation include the molecular dynamics of proteins; molecular dynamics simulations on the extraction of fluid transport properties at the nanoscale; investigation of structural properties of drug-metabolizing enzymes using molecular dynamics simulation; double-pulse laser control of ultrafast optical Kerr effect in liquid; ZnO nanostructures for biosensing; and molecular dynamics simulations of liquid and ionic solvation of carbon tetrachloride.

Neutron Stars: The Aspect of High Density Matter, Equations of State and Observables

Hirosi Uechi (Osaka Gakuin University, Osaka, Japan), Schun T. Uechi (Osaka University, Osaka, Japan), Brian D. Serot(Indiana University, Bloomington, Indiana, USA)

In series: Space Science, Exploration and Policies

In series: Physics Research and Technology

Case: 978-1-62081-123-8. $165.00.

This book illustrates observed values and properties of neutron stars, field theoretical approaches of hadrons to high density matter, such as nuclear and hyperonic matter, signals of dynamical phenomena, hadronic and hadron-quark neutron stars, radiations from high density matter and supernova phenomena. However, it is not intended to report facts and results at front-line research fields, because numerous conference reports suffice the objectives. The purpose of editing the
book is to review related areas of nuclear physics and astrophysics in terms of equations of state of high density matter so as to promote mutual understandings and their consistent progresses. It is focused on theoretical relations between equations of state (EOS) and observables. These topics of high density matter, which extend across many fields of physics, should be frequently reviewed for researchers and people in general.

New Developments in Hydrodynamics Research
Maximiano J. Ibragimov and Miroslava A. Anisimov
In series: Engineering Tools, Techniques and Tables
In series: Physics Research and Technology
Case: 978-1-62081-223-5. $150.00.
The concept of fluid is a highly successful model, used to describe the dynamics of many-particle systems. In this book, the authors present new developments in hydrodynamics research. Topics discussed include numerical methods for multi-physical magnetohydrodynamics; hydrodynamic flows and geodesic motions in contemporary astrophysics and cosmology; fractal hydrodynamics model and its implications; laws of bubble coalescence and modeling; nuclear hydrodynamics in heavy-ion collisions; and fluid flow in nanotubes.

New Developments in Low-Energy Physics Research
Tao Zeong and Meng Ngaï
In series: Physics Research and Technology
Case: 978-1-62257-668-5. $150.00.
In this book, the authors present current research in the study of low-energy physics. Topics discussed in this compilation include nano-structured reflectors for slow neutrons; the low-energy Yang-Mills Gravitational Gauge Theory and its application to astrophysics and cosmology; quantum hall fluids in the presence of topological defects; analytic formulas for small systems of electrons at odd denominator filling factors of the lowest Landau level; application of sapphire in low-energy neutron physics; and a low-energy phenomenological theory of Yang-Mills formulation of gravitation.

New Developments in the Standard Model
Ryan J. Larsen
In series: Physics Research and Technology
Case: 978-1-6209-9987-7. $150.00.
e-book: 978-1-62257-880-1. $150.00.
The Standard Model of particle physics is one of the most important successful results of the work of the last century physicists. In this new book, the authors present topical research in the study of new developments in the Standard Model. Topics discussed include non-equilibrium theory, fractional dynamics and the physics of the terascale sector; unexplored regions in QFT and the conceptual foundations of the Standard Model; supersymmetric Standard Model, Branes and Del Pezzo surfaces; fermion condensate as Higgs substitute and Lepton flavor violation shedding light on CP-violation.

New Steps in Physical Chemistry, Chemical Physics and Biochemical Physics
Gennady E. Zaikov, (N.M. Emanuel Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia) Eli M. Pearce, Gerald Kirshenbaum (Brooklyn Polytechnic University, New York, NY)
In series: Nanotechnology Science and Technology
In series: Physics Research and Technology
This book includes information about the modern experimental and theoretical analysis methods of particulate-filled nanocomposites structure, fiber reinforced antibacterial laminated nanostructured material for filtration of toxic particles, prediction of nanofiber diameter for optimization of laminated nanostructured material for filtration of toxic particles, intensification desalting of the gas distillate in turbulent flows, theoretical analysis of macromolecular coil connectivity degree influence on autohesion strength, carbon nanotubes geometry and reinforcement degree of polymer nanocomposites, the structure of butadiene–nitride rubbers: paramagnetic-probe study, the temperature dependence of autohesive bolding strength for miscible polymer pairs, nanostructured energy characteristics of hydrocarbon hydrogen containing fuels.

Photoluminescence: Applications, Types and Efficacy
Merle A. Case and Bradford C. Stout
In series: Physics Research and Technology
In series: Chemical Engineering Methods and Technology
Case: 978-1-61942-426-5. $140.00.
In this book, the authors present topical research in the study of the applications, types and efficacy of photoluminescence. Topics discussed include internal quantum efficiency of photoluminescence in wide-bandgap semiconductors; the structural ferroelectric and photoluminescent properties in perovskites; photoluminescence emission in ZnO single crystals and the photoluminescence properties of anodic alumina.

Photonic Crystals: Features and Applications
Narendra Kumar, Khem B. Thapa and Bhuneshwar Suthar,(FASC, Mody Institute of Technology & Science, Deemed University, Sikar, India)
In series: Physics Research and Technology
Case: 978-1-62417-668-5. $150.00.
The present book is focused on the study of unprecedented control and manipulation of light by photonic crystals (PCs) and their applications. These are micro- or usually nano-structures composed of periodic indexes of refraction of dielectrics with high refractive index contrast. They exhibit optical frequency band gaps in analogy to electronic bands for a periodic potential of a semiconductor crystal lattice. The gemstone opal and butterfly’s feathers colors are already referred to as natural examples of photonic crystals. The characteristics of such supper-lattices were first reported by Yablonovitch in 1987. The exploitation of photonic crystals is a promising tool in communication, sensors, optical computing, and nanophotonics. Discussed are the various features of one-dimensional (1D) and two-dimensional (2D) photonic crystals, photonic quasi crystals, heterostructures and PC fibers under a variety of conditions using several materials, and metamaterials. It also focuses on the applications of PCs in optical computing.

Physics and Logic of Life
Abir Igamberdiev (Department of Biology, Memorial University of Newfoundland, Canada)
In series: Physics Research and Technology
Case: 978-1-61942-664-1. $140.00.
This book discusses the basic foundations of theoretical biology. Contrary to the objects of theoretical physics, the biological object contains a kind of ontological duality and refers to a fundamental wholeness of a living system. The rational interpretation of wholeness is considered by the author as a true basis for fundamental principles of development of theoretical biology and for understanding its link to physics, to psychology, and to semiotics. The rational holistic approach in application to theoretical biology can be substantiated through the clarification of internal logic of organization and description of biological systems. This logic will provide an understanding of the place of life in the Universe. The main goal of this book is to introduce the view that in the potentially infinite system of human knowledge, a proper clarification of the place of Man in the Universe is possible only via understanding of the phenomenon of life.

Physics of the Zero Point Field and its Applications to Advanced Technology
Takaaki Musha (Technical Research and Development Institute, Advanced Science-Technology Research Organization, Yokohama, Japan)
In series: Physics Research and Technology
Case: 978-1-62257-278-6. $150.00.
e-book: 978-1-62257-283-0. $150.00.
Space-time in a vacuum has generally been viewed as a transparent and ubiquitous empty continuum within which physical events take place. However quantum field theory and quantum electrodynamics views the vacuum as the sum total of all zero-point fluctuations of the vacuum electromagnetic field, arising from the continuous creation and annihilation of virtual particle pairs. It is this latter more contemporary view that is, for the first time, more fully explored in text form with Physics of the Zero Point Field. The scope of applications in this book range from the Casimir effect, the variation in zero-point energy at the boundaries of a region observable in nano-scale devices, to ideas for a proposed inertial drive as first described by Puthoff.

Physics Research Summaries
Zachariah L. Ratcliff and Owen D. McKay
In series: Physics Research and Technology
Case: 978-1-62257-719-4. $195.00.
e-book: 978-1-62257-720-0. $195.00.
This book is a continuation of the book Physics Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of physics research, as well as research summaries from a number of different focuses in this important field.

Physics Researcher Biographical Sketches and Research Summaries
Zachariah L. Ratcliff and Owen D. McKay
In series: Physics Research and Technology
2013.
Case: 978-1-61942-635-1. $230.00.
This new book compiles biographical sketches of top professionals in the field of physics research, as well as research summaries from a number of different focuses in this important field.

Plasmons: Structure, Properties and Applications
Anton E. Turenn and Johannes O. Niemi
In series: Physics Research and Technology
Case: 978-1-62100-060-0. $150.00.
In physics, a plasmon is a quantum of plasma oscillation. The plasmon is a quasiparticle resulting from the quantization of plasma oscillations just as photons and phonons are quantizations of light and mechanical vibrations, respectively. In this book, the authors present current research in the study of the structure, properties and applications of plasmons. Topics discussed include plasmonic biosensors for sensitive measurements in complex biological matrices; generation of surface plasmon resonance for sub-wavelength nano-photolithography; applications of gold nanorods based on localized surface plasmon resonance; the study of living cells by infrared surface plasmon spectroscopy and interface plasmon polaritons in uniaxial biaxial isotropic structures.

Progress in Relativity, Gravitation, Cosmology
V.V. Dvoeglazov, A. Molgado (Universidad de Zacatecas, Mexico)
In series: Contemporary Fundamental Physics
Edited by: Valeriy V. Dvoeglazov (Univ. de Zacatecas, Zacatecas, Mexico)
This book examines themes ranging from space time symmetries and Lorentz invariance, to cosmology and quantum gravity, and includes such varied mathematical tools as non-commutativity, superconformal symmetries, gauge theories, higher-order terms and spinor equations to name a few. In particular, this book deals with the problem of form-invariance of the non-commutative parameters arising in the context of field theories in non-commutative space times.

Quantum Dots and Quantum Cellular Automata: Recent Trends and Applications
Debashis De, Sitanshu Bhattacharaya and K. P. Ghatak (Department of Computer Science and Engineering, West Bengal University of Technology, Salt Lake City, Kolkata, India)
In series: Nanotechnology Science and Technology
In series: Physics Research and Technology
Case: 978-1-62257-920-4. $150.00.
This book investigates the electronic properties of QDs of non-linear optical, III-V, II-IV, n-GaP, n-Ge, Te, Graphite, PtSb2, zero gap, II-V, GaSb, stressed materials,Bi, IV-IV, Lead germanium telluride, Zinc and Cadmium diphosphides, Bi2Te3, Antimony, III-V,II-VI,IV-VI compounds, III-V,II-VI,IV-VI, HgTe/CdTe and strained layer Quantum Dot Superlattices (QDSL) with graded interfaces and the QD effective mass superlattices of the aforementioned materials together with their heavily doped counter parts on the basis of newly formulated electron dispersion laws. The book considers the structures in which a layer of QD is inserted in the QW (Dots-in-Well) in the base and examines theoretically if there is improvement in the performance over the usual QW structure.

Quantum Dots: Applications, Synthesis and Characterization
Orion Ciftja (Department of Physics, Prairie View A&M University, Prairie View, TX, USA)
In series: Nanotechnology Science and Technology
Case: 978-1-61942-968-0. $140.00.
Nanoscience and nanotechnology is continuously moving forward enabling the precise, controlled fabrication of structures and devices at
atomic and molecular scales. Quantum dots are typically semiconductor nanocrystals that have gained tremendous attention due to their unique electronic, magnetic, chemical and optical properties. They have proven very useful in applications in many fields across the physical, engineering, chemical, biological and medical sciences. In this book, the authors give an overview of the progress and major research developments in the field of quantum dots over the past two decades. They specifically focus on discussing the cutting-edge applications in the fields of information technology, electronics, biotechnology, energy, medicine, cellular imaging and diagnostic biosensing.

Quantum Mechanics in Spaces of Constant Curvature

V. M. Redkov, E. M. Ovsiyuk (National Academy of Sciences of Belarus, Minsk, Republic of Belarus)

In series: Contemporary Fundamental Physics
Edited by: Valeriy V. Dvoeglazov (Univ. de Zacatecas, Zacatecas, Mexico)


Quantum mechanics had been started with the theory of the hydrogen atom, so when considering the quantum mechanics in Riemannian spaces it is natural to turn first to just this simplest system. A common quantum-mechanical hydrogen atom description is based materially on the assumption of the Euclidean character of the physical 3-space geometry. In this context, natural questions arise: what in the description is determined by this special assumption, and which changes will be entailed by allowing for other spatial geometries. The questions are of fundamental significance, even beyond their possible experimental testing. In the present book, detailed analytical treatment and exact solutions are given to a number of problems of quantum mechanics and field theory in simplest non-Euclidean spacetime models. The main attention is focused on new themes created by non-vanishing curvature in classical physical topics and concepts.

Recent Advances in Cosmology

Anderson Travena and Brady Soren

In series: Space Science, Exploration and Policies
In series: Physics Research and Technology

2013. 231 pp.
Case: 978-1-62417-943-3. $150.00.
e-book: 978-1-62417-944-0. $150.00.

In this book the authors gather and present current research in the study of cosmology. Topics discussed include the mysteries of the geometry of the universe; Einstein’s theory of general relativity; the inflationary universe model; the structure and evolution of the universe; the detection of cosmic microwave background radiation; and the future of cosmology. The book will be of interest to researchers and graduate students in physics and astronomy.

Recent Advances in Quarks Research

Haruki Fujikage and Kyou Hyobashi

In series: Physics Research and Technology

Case: 978-1-62257-970-9. $95.00.
e-book: 978-1-62257-971-6. $95.00.

In this book, the authors present current advances in quarks research. Topics discussed in this compilation include the self-interaction mass formula relating all leptons and quarks to the electron; dirac model extension for finite size leptons and quarks in (10+1)-D spacetime; quark confinement mechanisms for baryons; thermodynamical description of hadron-quark phase transition and its implications on compact-star phenomena; and the quark confinement analogy with baryonic bound states in superconductors.

Recent Developments in Bosons Research

Ignace Tremblay

In series: Physics Research and Technology

2013. 175 pp.
Case: 978-1-61942-386-2. $75.00.

The book is a collection of excellent articles representing recent research in Quantum Gravity. Aspects of path-integral quantization, black hole physics, causal set theory, asymptotic safety program are discussed in depth making this collection an asset to reference books in Quantum Gravity. Beginning researchers, graduate students and established researchers will find this book useful.

Revised Quantum Electrodynamics

Bo Lehnert (Plasma Physics and Fusion Research, Royal Institute of Technology, Stockholm, Sweden)

In series: Contemporary Fundamental Physics
Edited by: Valeriy V. Dvoeglazov (Univ. de Zacatecas, Zacatecas, Mexico)

Case: 978-1-62081-484-0. $85.00.

The underlying ideas of the present treatise originate from some speculations by the author in the late 1960s on the possible existence of a nonzero electric field divergence in the electromagnetic equations of the vacuum state. From these speculations an extended electromagnetic theory with fundamental applications was gradually developed, and finally debouching into the present updated and revised quantum electromagnetic approach. This book collects the various and separately published parts of the theory into one systematic entity.

Riemann Surface Approach to Natural Modes. Exotic Resonant States

Nicolae Grama, Cornelia Grama, Ioan Zamfirescu (Horia Hulubei National Institute, Physics and Nuclear Engineering, Magurele, Romania)

In series: Physics Research and Technology

Case: 978-1-62081-063-7. $165.00.

The purpose of this book is to provide a reference for researchers and postgraduates. The problems are taken from quantum physics, but the method has important applications in any field of science involving the natural modes. The reader is assumed to be familiar with the elements of the quantum theory of scattering and the elements of the analytic
functions theory. The described method can be applied in electromagnetism, atomic and molecular physics, nuclear physics, particle physics, solid state physics with application in nanoscience and electronic devices, chemical physics, and optics.

Selected Topics of an Infinite-Dimensional Classical Analysis
Gogi Pantsulaia (Georgian Technical University, Tbilisi, Georgia)
In series: Physics Research and Technology
Case: 978-1-61942-717-4. $95.00.
e-book: 978-1-61942-718-1. $95.00.
This book explores a new concept of T-s sets in Radon metric groups which is an extension of the concepts of null sets introduced by J.R. Christensen, J. Mycielski and B. R. Hunt, T. Sauer and J. A. Yorke for Polish groups. This book considers various interesting applications of the theory of infinite-dimensional cellular matrices for a solution of various initial condition problems. It also includes several direct generalizations of well-known classical results (Lebesgue theorem, Weyl theorem, Rademacher theorem, etc) in terms of infinite-dimensional “Lebesgue measures”.

Skyrmions: A Great Finishing Touch to Classical Newtonian Philosophy
Maricel Agap and Nicolae Mazilu (“Gheorghe Asachi” Technical University, Romania)
In series: Physics Research and Technology
In series: World Philosophy Series
Case: 978-1-62081-628-8. $150.00.
This book continues the classical Newtonian theory in both its initial spirit and the spirit of general relativity. It throws a bridge between classical Newtonian theory of forces and some contemporary concepts of the atomic, nuclear and particle theories. This book takes the Skyrmion theory of nuclear matter mainly from the point of view that it allows the initial analogy between the atomic edifice and the solar system in all details. Especially important is the detail that the atomic nucleus works exactly like the Sun, and they can be described in the same way. Based on this unitary description, the authors go further on, in showing that the Skyrmion theory is the only theory naturally suited for the explanation of structure of nuclear matter. Thus it should be actually a classical theory, inasmuch as it simply carries over into microcosmos the very Newtonian theory of forces extracted from the planetary Keplerian synthesis of celestial motions. By this the problem of structure of the nucleus becomes actually a problem of classical physics.

Solar Wind: Emission, Technologies and Impacts
Carlos Daniel Escaropa Borrega and Angela Fernanda Beivós Cruz
In series: Energy Science, Engineering and Technology
In series: Physics Research and Technology
Soft: 978-1-62081-979-1. $69.00.
e-book: 978-1-62081-984-5. $69.00.
The continuous stream of particles flowing outward from the Sun is called solar wind. It mostly consists of electrons and protons with energies usually between 1.5 and 10 keV. The stream of particles varies in temperature and speed over time. These particles can escape the Sun’s gravity because of their high kinetic energy and the high temperature of the corona. In this book, the authors present current research in the study of the emission, technologies and impact of solar wind. Topics include the possible impact of the astronomical aspects of the violent cyclonic motions in the Earth’s atmosphere; planetary beat, solar wind and terrestrial climate; historical background on Eugene Parker and his conception and formulation of solar wind; solar wind influences on atmospheric processes in winter Antarctica; and experimental and modeling evidences of solar wind energy on the Earth’s atmosphere.

Synchrotron: Design, Properties and Applications
Dao Ming Chua and Huang Fu Toh
In series: Engineering Tools, Techniques and Tables
In series: Physics Research and Technology
Case: 978-1-62081-202-0. $150.00.
A synchrotron is a particular type of cyclic particle accelerator in which the magnetic field and the electric field are carefully synchronized with the traveling particle beam. In this book, the authors discuss the design, properties and applications of synchrotrons. Topics include synchrotron radiation as a tool to study fragmentation of chlorine containing molecules; undulator radiation in multiple magnetic fields; molecular clustering and molecular imaging to study biomolecules and biopolymers in heterogeneous biological tissues; nanoscale diffusion and solid state reaction in layered structures; in-situ real-time synchrotron x-ray scattering; and synchrotron-based Fourier transform infrared spectroscopy.

The Big Challenge of Gravitational Waves: A New Window in the Universe
Christan Corda and Herman J. Mosquera Cuesta (Centre of Science Naturali de Prato, Italy)
In series: Physics Research and Technology
Case: 978-1-61470-373-0. $75.00.
e-book: 978-1-61470-399-0. $75.00.
The aim of this Collection Book is to obtain a tapestry of various important issues of theory and experiments concerning GWs.

Theory of Conventional and Unconventional Superconductivity in the High-Tc Cuprates and Other Systems
Dzhumanov Safarali (Institute of Nuclear Physics, Uzbekistan Academy of Sciences, Uzbekistan)
In series: Physics Research and Technology
Case: 978-1-62081-554-0. $230.00.
The study of superconductivity in solids was initiated in 1911 after the discovery of this phenomenon in ordinary metals by Kamerlingh-Onnes. This book presents the fundamentals of the modern microscopic theory of conventional and unconventional superconductivity in high-Tc cuprates and other systems.

Turbulent Flows: Prediction, Modeling and Analysis
Zied Driss (Laboratory of Electro-Mechanic Systems (LASEM), National Engineering School of Sfax (ENIS), University of Sfax (US), Sfax, Tunisia)
In series: Engineering Tools, Techniques and Tables
In series: Physics Research and Technology
Case: 978-1-62417-742-2. $150.00.
Turbulent flow means fluid flow in which the fluid undergoes irregular fluctuations. Understanding the turbulent behavior in flowing fluids is
one of the most intriguing and important problems that have been the focus of research for decades due to its great importance in a variety of engineering applications. Common examples of turbulent flow include atmospheric and ocean currents, flow through turbines and pumps, blood flow in arteries, oil transport in pipelines, lava flow, and the flow in boat wakes and around aircraft wing tips, etc. In the present book, we focus on areas of current turbulence research. Recent progress on modeling and analysis of turbulent flows is reviewed, and likely directions for future research on these topics are indicated. This text is unusual in as much as it provides both general commentaries as well as recent specialized developments in the field of turbulence modeling.

**PLASMA PHYSICS**

Inductively Coupled Plasma Atomic Emission Spectrometry: A model multi-elemental technique for modern analytical laboratory

George Zachariadis (Aristotle University of Thessaloniki, Greece)

In series: Chemistry Research and Applications


Case: 978-1-61942-693-1. $140.00.

The principle of the use of Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES) in current analytical chemistry is the effective atomization and excitation of sample analytes in the powerful plasma conditions and the subsequent determination of them by monitoring their emitted characteristic atomic spectra. This book presents the principles and the operational aspects of the techniques and capabilities of ICP-AES in the analysis of a variety of sample matrices by a selection of applications. This book is useful for institutional researchers, academics and post-graduate students, analysts working in routine analysis in industrial, state or private analytical laboratories, and to anyone interested in the atomic spectrometry field.

**POLYMERS**

Degradable Polymers: Production, Properties, Applications

Tatiana G. Volova, Ekaterina I. Shishatskaya, Anthony J. Sinskey (Institute of Biophysics, Siberian Branch of the Russian Academy of Sciences; Siberian Federal University, Massachusetts Institute of Technology)

In series: Materials Science and Technologies

In series: Polymer Science and Technology

2013.

Case: 978-1-62257-832-0. $175.00.

In this book, the authors discuss the production, properties and applications of degradable polymers. Topics discussed in this compilation include the increasing production and utilization of synthetic polymer materials and the global environmental problem caused by their accumulation in natural systems; biodegradable plastics as an alternative to chemical polymers; polyhydroxyalkanoates (PHAs) polymers of hydroxyalkanoic acids synthesized by bacteria; the biochemical pathways of synthesis of various PHAs; substrates for PHA synthesis; PHA production and the physicochemical properties of PHA; biodegradation of polyhydroxyalkanoates in natural environments; potential areas for PHA application; PHA as a platform for drug delivery; PHA matrices for cell and tissue engineering; and the biomedical potential of PHA.

**Hydrogels: Synthesis, Characterization and Applications**

Fabricio Vitor Câmara and Leandro J. Ferreira

In series: Biochemistry Research Trends

In series: Pharmacology - Research, Safety Testing and Regulation


Case: 978-1-61942-842-3. $185.00.

Hydrogels are polymeric networks with three-dimensional configurations capable of imbibing high amounts of water or biological fluids. The application of hydrogels technology is being widely used in the pharmaceutical industry as drug delivery systems. In this book, the authors present current research in the study of the synthesis, characterization and applications of hydrogels. Topics include the synthesis of protein-based hydrogels for biomedical applications; the role of hydrogels in the development of artificial bone substitutes; protein-based hydrogels from fish industrialization wastes; silk fibroin hydrogels; PVP-Based hydrogels; and the tribological properties of polyvinyl alcohol hydrogels as artificial articular cartilage.

**Principles of Polymers - An Advanced Book**

Dibyendu Sekhar Bag (Scientist of Polymer Materials, Defence Materials & Stores Research & Development Establishment, DRDO, India)

In series: Polymer Science and Technology


Case: 978-1-62081-408-6. $230.00.

This book has been written in a concise manner to include all fundamental aspects of polymer science including recent inventions in polymerizations and polymers. It covers atom transfer radical polymerization (ATRP), reversible addition-fragmentation chain transfer (RAFT), nitroxide-mediated polymerization (NMP), click chemistry as well as stereopolymerization, ring opening metathesis polymerization (ROMP), group transfer polymerization (GTP), plasma polymerization etc. in addition to the usual polymerization mechanisms such as radical, ionic and step polymerizations. It also includes new developments of polymer science which are considered as hot topics of functional polymers like smart or intelligent polymers, light emitting polymers, conducting polymers, magnetic polymers, optically active and/or chiral polymers, liquid crystalline polymers, self-healing polymers, polymers for biomedical applications, dendritic polymers and polymer nanocomposites etc.

**PSYCHOLOGY AND PSYCHIATRY**

Handbook of Technology in Psychology, Psychiatry and Neurology: Theory, Research, and Practice

Luciano L’Abate (Georgia State University, Atlanta, GA), David A. Kaiser (Churchville, NY)

In series: Psychology Research Progress

In series: Psychiatry - Theory, Applications and Treatments


Case: 978-1-62100-004-4. $215.00.

Our world is changing and changing quickly. One can be certain that the impact of technology will only become more pervasive in the
decades to come and we cannot ignore how it will impact our profession. The juggernaut of technological development has and will continue to dramatically alter how we as health professionals in the neurosciences pursue our efforts in research, training and treatment. This book provides a rare and needed analysis of the history of technology in our field, the current state-of-the-art as well as a vision for the future. The contributors of this book critically examine how recent technological developments can contribute to advances in a range of topics including educational technology, assessment and treatment. These advances include a wide range of new approaches to communication and extend to advances in clinical care such as Diffusion Tensor Imaging and Transcranial Magnetic and Deep-brain stimulation.

Psychology of Rewards
Michela Balconi (Department of Psychology, Catholic University of Milan, Milan, Italy)
In series: Psychology of Emotions, Motivations and Actions
In series: Neuroscience Research Progress
2012. 177 pp.
Case: 978-1-62257-479-7. $120.00.
e-book: 978-1-62257-520-6. $120.00.
Reward mechanisms are recently debated and explored by different perspectives. Psychology, neuroscience and clinical domain pointed out the main relevance of reward behavior for subjective and social contexts. The present book highlights the role that reward plays in our life, taking into account the more recent contributions in the research field. Summarizing the most relevant and intriguing scientific contributions on the topic of reward and punishment dichotomy, this book offers an ample overview of the psychological and neurobiological keys to comprehend the complex human mind and its behavior, correlated in response to opposite reward-punishment situations. Topics discussed include the contribution of reward mechanisms in facial expression processing as in the case of supraliminal/subliminal stimulation; new measures of generalized expectancies about reward and punishment; addictive behavior is analyzed taking into account the intervention of dysfunctional mechanisms; the emotional stimulus processing (aversive vs. appetitive) in relationship with BIS/BAS behavioral systems and ERP (electrophysiological) measures; and the feedback elaboration (mismatching feedback) as a function of reward-punishment contribution.

The Psychology of Problem Solving: An Interdisciplinary Approach
Sebastien Helie (Department of Psychological Sciences, Purdue University, West Lafayette, IN)
In series: Psychology Research Progress
Case: 978-1-62257-589-3. $150.00.
This book compiles a series of chapters on theoretical, methodological, and practical advances in problem solving research that aim at identifying how participants build problem representations and search problem spaces. Each chapter has been carefully selected to represent the state-of-the-art in problem solving research, with a focus on applications through the analysis of verbal and graphical protocols of naive and expert solvers working on well- and ill-defined problems. The work presented in this book suggests that building and searching the problem space are highly interactive activities that cannot be decoupled and studied in isolation. As a result, a highly interdisciplinary approach was adopted, including research from fields as diverse as linguistics, psychology, ethology, design, and cognitive science. Hence, this book should be of interest to the problem solving community in general.

Video Game Play and Consciousness
Jayne Gackenbach (Department of Psychology Grant MacEwan University, Edmonton, Alberta, Canada)
In series: Computer Science, Technology and Applications
In series: Perspectives on Cognitive Psychology
The most widely-used, interactive and fully-immersive experience of virtual worlds is in video game play. Needless to say, video game play has left the sofa in the basement where a teen boy sat, and is now front and center in the family living room. Gaming has crossed all demographics; indeed, the most rapidly growing market is the casual gaming genre, played by middle-aged women. This engagement in interactive virtual worlds is not only limited to video game play, as life online takes various forms. But common to all these are increasing, and at times problematic, play patterns. The idea that such pervasive and ever-growing immersion in virtual play affects consciousness seems obvious and is the focus of this book.

PUBLIC HEALTH

Cell Phone Use and Health Risks: Assessments and State of Research
Cynthia Kempson and Eugene Rahm
In series: Media and Communications - Technologies, Policies and Challenges
In series: Public Health in the 21st Century
Case: 978-1-62257-948-8. $110.00.
Mobile phone use in the United States has risen dramatically over the last 20 years, and Americans increasingly rely on mobile phones as their sole or primary means of telephone communication. The rapid adoption of mobile phones has occurred amidst controversy over whether the technology poses a risk to human health. Like other devices that transmit radio signals, mobile phones emit radio-frequency (RF) energy. At high power levels, RF energy can heat biological tissue and cause damage. Though mobile phones operate at power levels well below the level at which this thermal effect occurs, the question of whether long-term exposure to RF energy emitted from mobile phones can cause other types of adverse health effects, such as cancer, has been the subject of research and debate. This book examines what is known about the health effects of RF energy from mobile phones, with a focus on the FCC and FDA's regulatory responsibilities; and other scientific research.

Contemporary Athletics Compendium, Volume 4
Daniel Drane
In series: Contemporary Athletics Compendium
2013.
Case: 978-1-62417-086-7. $150.00.
Athletics plays a role in the lives of many throughout the world. Some people compete in organized athletic competition while others take part in more recreational forms of athletics. Maintaining an active lifestyle seems to be even more important today with all of the stresses of everyday life. Therefore, research related to athletics and sport has an important place in our society. This book seeks to add to this body of
knowledge by providing 16 chapters that deal with different components of athletics and sport. The first 7 chapters provide research on business related aspects of athletics while the final 9 chapters revolve around psycho-social aspects of athletics.

**Cosmetics and FDA Regulation**

*Adam Garcia and Rose DiBartolo*

In series: *Advertising: Media, Marketing and Consumer Demands*

In series: *Government Procedures and Operations*

2013. 112 pp.

Soft: 978-1-62257-892-4. $52.00.

e-book: 978-1-62257-893-1. $52.00.

The 1938 Federal Food, Drug, and Cosmetic Act (FFDCA) granted the Food and Drug Administration (FDA) the authority to regulate cosmetic products and their ingredients. The statutory provisions of the FFDCA that address cosmetics include adulteration and misbranding provisions. Cosmetics are arguably more self-regulated than other FDA-regulated products. The manner in which a cosmetic product could or should be regulated, however, is not always clear. FDA’s guidelines in the Cosmetic Standards Handbook provide the cosmetic industry with considerable flexibility for product development and claims. The question remains as to whether that flexibility and the extent of government oversight of cosmetic products are still appropriate. This book provides an overview of the cosmetics industry and FDA regulation.

**Safe Drinking Water and Sanitation Aid: U.S. and International Programs**

*Emil N. Raleigh*

In series: *Water Resource Planning, Development and Management*

In series: *Public Health in the 21st Century*


Case: 978-1-62417-207-6. $135.00.


According to a 2012 report released by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), roughly 780 million people around the world lack access to clean drinking water and an estimated 2.5 billion people (roughly 40% of the world's population) are without access to safe sanitation facilities. The United States has long supported efforts to improve global access to clean water, sanitation, and hygiene (WASH). In 2000, for example, the United States signed on the Millennium Development Goals, one of which includes a target to halve the proportion of people without access to safe drinking water and basic sanitation by 2015. This book focuses on the bilateral WASH programs authorized by the Water for the Poor Act. These programs are monitored and reported by the Department of State and implemented primarily by USAID and the Millennium Challenge Corporation (MCC).

**SCIENCE AND TECHNOLOGY**

**Landsat and Its Valuable Role in Satellite Imagery of Earth**

*Ryan K. McHale*

In series: *Environmental Science, Engineering and Technology*

In series: *Earth Sciences in the 21st Century*


Case: 978-1-62100-186-7. $95.00.


The U.S. Landsat Mission has collected remotely sensed imagery of the Earth's surface for more than 35 years. At present two satellites, Landsat-5 and Landsat-7, are in orbit and continuing to supply images and data for the many users of the information, but they are operating beyond their designed life and may fail at any time. Landsat has been used in a wide variety of applications, including climate research, natural resources management, commercial and municipal land development, public safety, homeland security and natural disaster management. This book presents information on Landsat and its valuable role in satellite imagery of Earth.

**New Developments in Anthropology Research**

*Oberto J. Schulz and Bega E. Koch*

In series: *Anthropology Research and Developments*


Case: 978-1-62081-898-5. $95.00.

e-book: 978-1-62081-949-4. $95.00.

In this book, the authors present current research in anthropology research. Topics discussed in this compilation include the recent developments in Christian theological anthropology; dental age as a biological indicator to estimate chronological age; the role of design ethnography in the development of corporate anthropology; mind-group identity and social alchemy; the evidence for sociality in fossil primates; and mountain studies in anthropology.

**Restoring American Competitiveness and Innovation**

*Amber J. Thomas and Nelson R. Ramirez*

In series: *Business Issues, Competition and Entrepreneurship*

In series: *Economic Issues, Problems and Perspectives*


Case: 978-1-62081-509-0. $110.00.


The U.S. economy reigned supreme in the 20th century, becoming the largest most productive, and most competitive in the world; amazing new technologies were invented and commercialized; the workforce became the most educated in the world; and incomes soared while a large middle class emerged and thrived. As the 21st century approached, however, alarms began to sound about the U.S. economy's ability to remain in this preeminent position. Incomes stagnated and job growth slowed. Other countries became better educated and our manufacturing sector lost ground to foreign competitors. Observers have expressed concern that the scientific and technological building blocks critical to our economic leadership have been eroding at a time when many other nations are actively laying strong foundations in these same areas. This book provides an overview of the restoration of American innovation which is the key driver of competitiveness, wage and job growth, and long-term economic growth.

**STEM (Science, Technology, Engineering and Mathematics) Workforce Trends and Policy Considerations**

*Clark Martin Garcia and Scott Cook*

In series: *America in the 21st Century: Political and Economic Issues*

In series: *Economic Issues, Problems and Perspectives*


Soft: 978-1-62257-818-4. $52.00.

e-book: 978-1-62257-819-1. $52.00.

Science, technology, engineering and mathematics (STEM) workers drive our nation's innovation and competitiveness by generating new ideas, new companies and new industries. However, U.S. businesses frequently voice concerns over the supply and availability of STEM workers. Over the past 10 years, growth in STEM jobs was three times as fast as growth in non-STEM jobs. STEM workers are also less likely
to experience joblessness than their non-STEM counterparts. Science, technology, engineering and mathematics workers play a role in the sustained growth and stability of the U.S. economy, and are a critical component to helping the U.S. win the future. This book explores workforce trends and policy considerations for STEM students and workers.

**Systems Design: Developments, Analysis and Applications**

*Jane E. Lynch and Wilbert I. Mitchell*

In series: *Mechanical Engineering Theory and Applications*

In series: *Engineering Tools, Techniques and Tables*

2012. 192 pp.

Case: 978-1-62081-770-4. $150.00.


The process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements is known as systems design. In this book, the authors present topical research examining the development, analysis and applications of systems design. Topics include the application of mathematical tools to screen, model and control variability in laboratory systems; the optimization of haulage systems in an underground small scale mine using fuzzy sets; a new face recognition method using QR decomposition; development of wireless automatic checking systems for emergency lights via the internet; design and modeling of a series hybrid propulsion system for light urban vehicles; and lubrication systems for spacecraft applications.

**U.S. National Science Foundation: Functions, Funding, and Programs**

*James O. Thompson and Madison I. Smith*

In series: *Education in a Competitive and Globalizing World*

In series: *Grants and Funding*


Case: 978-1-62257-007-2. $110.00.

e-book: 978-1-62257-043-0. $110.00.

The National Science Foundation’s (NSF’s) primary responsibility is to maintain the health and vitality of the U.S. academic science and engineering enterprise. In addition to ensuring the nation’s supply of scientific and engineering personnel, the NSF promotes academic basic research and science and engineering education across many disciplines. The NSF provides support for investigator-initiated, merit-reviewed, competitively selected awards, state-of-the-art tools, instrumentation, and facilities. NSF receives approximately 45,000 proposals for research, graduate, and postdoctoral fellowships, and science, mathematics, and engineering projects annually, and makes about 11,500 new funding awards. Support is provided to academic institutions, industrial laboratories, private research firms, and major research facilities and centers. This book provides an overview of the funding issues, functions and programs relating to the U.S. National Science Foundation, with a focus on STEM education funding; EPSCoR; performance and financial highlights.

**United States Manufacturing: Perspectives and Prospects**

*Vance Murphy and Jillian E. Walker*

In series: *Economic Issues, Problems and Perspectives*

In series: *Manufacturing Technology Research*


The health of the U.S. manufacturing sector has long been of great concern to Congress. The decline in manufacturing employment since the start of the 21st century has stimulated particular congressional interest. Members have introduced hundreds of bills intended to support domestic manufacturing activity in various ways. The proponents of such measures frequently contend that the United States is by various measure falling behind other countries in manufacturing, and they argue that this relative decline can be mitigated or reversed by government policy. This book informs the debate over the health of U.S. manufacturing through a series of charts and tables that depict the position of the United States relative to other countries according to various metrics. Understanding which trends in manufacturing reflect factors that may be unique to the United States and which are related to broader changes in technology or consumer preferences may be helpful in formulating policies intended to aid firms or workers engaged in manufacturing activity.

**SCIENCE, EVOLUTION AND CREATIONISM**

**Modern Concepts of Natural Science**

*Mark D. Goldfain and Alexei V. Ivanov (Saratov State University, Saratov, Russia)*

In series: *Science, Evolution and Creationism*


Case: 978-1-62417-607-4. $175.00.


This book explores both general and specific ideas of the formation and development of modern natural sciences. Some basic problems characteristic of natural science development are discussed. Integrative—general scientific trends are considered where natural—scientific knowledge is of highest value, in particular, solving global universal problems and the world community’s transition to sustainable development. The book contents includes the universal laws of preservation in nature, the concept of continuous—discrete properties of matter, the foundations of the special and general theory of relativity, the laws of thermodynamics, the problem of relation of the reactivity of substances with their structure and properties, the concepts of molecular and genetic biology, the idea of the origin, structure and evolution of the Universe and Earth, the concepts of general and applied ecology, and features of self-organization processes in both inanimate and animate nature.

**Natural Selection: Biological Processes, Theory and Role in Evolution**

*Jay R. Lynch and Derek T. Williamson*

In series: *Science, Evolution and Creationism*


Case: 978-1-62257-467-4. $150.00.


In evolution, natural selection is the gradual, non-random, process by which biological traits become either more or less common in a population as a function of differential reproduction of their bearers. In this book, the authors present current research in the biological processes, theory and role in evolution of natural selection. Topics include evolutionary transitions in mathematical modeling complexity using evolutionary systemic modeling; natural selection applications for algorithmic computation; allozymes, and DNA and natural selection in the mollusk population.
Internet Policies And Issues. Volume 5
Kutais, B.G. (Editor)
In series: Internet Policies and Issues
2013.
Case: 978-1-59033-640-3. $69.00.
In the ever-changing realm of the Internet, lawmakers face a steady stream of new areas potentially requiring regulation and oversight. This book is part of a series exploring the dynamic universe of the 21st century. Collected here are papers discussing the wide range of topics impacting tax collection, internet access, internet privacy and copyright. Such a selection makes this volume important to developing an overview of the key issues in the dynamic and wired world.

Black Holes: Evolution, Theory and Thermodynamics
Alois J. Bauer and Diethelm G. Eiffel
In series: Space Science, Exploration and Policies
Case: 978-1-61942-929-1. $150.00.
In this book, the authors present current research in the study of the evolution, theory and thermodynamics of black holes. Topics discussed include the effective theory of a matter field near the event horizon of a black hole; dilatonic black holes in 4D Gauss-Bonnet gravity; the relationship between the tunneling rate of a rotating black hole and the first law of black hole thermodynamics; alternative theories of gravity without black holes; exotic smoothness structures for the application of standard Einstein equations to black hole structures; and lower dimensional quantum black holes.

Commercial Space Industry: Manufacturing, Suborbitals and Transportation
Steve O. Freeman and Kimberly I. Butler
In series: Space Science, Exploration and Policies
Case: 978-1-62257-303-5. $135.00.
The space industry refers to economic activities related to the manufacture and delivery of components that go into Earth's orbit or beyond. The space industry is a subset of the U.S. aerospace industry and U.S. strength in aerospace has helped to provide U.S. strength in space. Bolstered by a large research and development establishment, the commercial space industry has a manufacturing component and a services component. This book focuses on the global commercial space manufacturing sector (launch vehicles, spacecraft, satellites, and parts and equipment). The space industry also builds space ports, ground stations, and ground equipment. Together, the space and ground infrastructure enables a much larger space services sector that includes satellite telecommunications and broadcasting services and satellite remote sensing. The space industry, broadly defined, is an important part of the U.S. industrial and technology base.

Cosmic Rays: Climate, Weather and Applications
Ho-Ming Mok (Radiation Health Unit, Saiwanho Health Centre, Sai Wan Ho, Hong Kong)
In series: Space Science, Exploration and Policies
Case: 978-1-62257-300-4. $150.00.
Cosmic rays are energetic particles originated from sources outside the Earth. Recently, there is a growing interest in studying the relationship between cosmic rays and climate, particularly under the context of global warming. This book provides a concise introduction on the topics at a level appropriate to graduate students and researchers. In this book, plasma physics, solar physics, cosmic rays physics as well as atmospheric physics are introduced. The historical relationship between the solar activity and climate as well as the recently observed relationship between cosmic rays and cloud formation are presented. The meteorological effects on cosmic rays and the measurements of atmospheric temperature profile by cosmic rays with its potential application to weather forecasting are discussed.

Dark Energy: Theory, Implications and Roles in Cosmology
Carmelo A. Del Valle and Diego F. Longoria
In series: Space Science, Exploration and Policies
Case: 978-1-62257-077-5. $150.00.
At the end of the 20th century, it was discovered that the expansion of the Universe is speeding up. This acceleration is attributed to dark energy, which seems to be distributed uniformly almost everywhere and thus essentially influences the Hubble parameter H = H(t) characterizing this expansion. In this book, the authors present current research in the study of the theory, implications and roles in cosmology of dark energy. Topics include gravitational aberration and the origin of dark energy; the role of dark energy in the evolution of the universe; the importance of supernova observations for exploring the nature of dark energy; and deformed quantum field theory, thermodynamics at low and high energies, and the dark energy problem.

Encyclopedia of Space Science Research (3 Volume Set)
Raúl Lajara and Javier Barón
In series: Space Science, Exploration and Policies
Case: 978-1-61470-386-0. $450.00.
This book presents current research in the field of space science. Topics discussed in this compilation include supernovae as probes for dark energy; structure and transport of the Martian surface material; the study for black hole in m-theory; origin of the Saturn rings; space science applications of aerogels; dynamics and disruption mechanisms of asteroids; primordial black holes, formation and evolution; black holes in higher order curvature gravity; scalar potential model of galaxies; the dark energy scale in superconductors and constraints on dark energy and dark matter from supernovae and gamma ray burst data.

Environmental Satellites: Features and Acquisition Plans
James E. Davis and Gregory F. Thompson
In series: Environmental Science, Engineering and Technology
Operational geostationary environmental satellites play a critical role in our nation's weather forecasting. These satellites - which are managed by the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) - provide critical information on atmospheric, oceanic, climatic, and solar conditions that help meteorologists observe and predict global and local weather events. They also provide a means to identify severe storm conditions, such as hurricanes and tornadoes, and to track the movement and intensity of these storms once they develop. This book examines the state of the Geostationary Operational Environmental Satellite-R (GOES-R) acquisition; with a focus on the improvements needed in continuity planning and involvement of key users.

**Galaxies: Evolution, Morphology and Dynamics**
*Abran Guerrero Sanchez and Rutilio E. Delgado Marquez*
Case: 978-1-62081-185-6, $150.00.
e-book: 978-1-62081-335-5, $150.00.
In this book, the authors present current research in galactic study including its evolution, morphology and dynamics. Topics included in this compilation include the nature of motion in quiet and active galaxies with a satellite companion; empirical age-metallicity relation and empirical metallicity distribution of long-lived stars of different populations; radio quiet AGN properties vs. spin paradigm; and turbulent formation of protogalaxies at the end of the plasma epoch.

**Meteorites and Asteroids: Classification, Geology and Exploration**
*Akilina Dementieva and Danilo Ostrogorsky*
Case: 978-1-61942-115-8, $95.00.
e-book: 978-1-61942-119-6, $95.00.
In this book, the authors present current research in the study of the classification, geology and exploration of asteroids and meteorites. Topics discussed include meteorites and their asteroidal parent bodies; the diversion and exploitation of rich-NEOs using the solar collector; radar characteristics of asteroid 33342 (1998 WT24); asteroid dimensions and the truncated pareto distribution; Hilda asteroids in the Jupiter neighborhood; and asteroid Apophis and 1950 DA.

**Neutron Star Crust**
*Carlos Bertulani (Texas A&M University Commerce, TX), Jorge Piekarzewicz (Florida State University, FL)*
Case: 978-1-62081-902-9, $175.00.
Neutron stars are gold mines for the study of nuclear systems under extreme conditions of density and isospin asymmetry. Spanning many orders of magnitude in density and pressure, neutron stars display exotic phases that cannot be realized under normal laboratory conditions. Whereas the most common perception of a neutron star is that of a uniform system of neutrons packed to densities that may exceed that of normal nuclei, the reality is far more complex and much more interesting. To illustrate this more exciting reality, the editors of this book contacted leaders in the field of neutron-star physics with expertise ranging from nuclear structure to stellar dynamics. They asked each expert to communicate the successes of the past and the challenges of the future in a way that will continue to foster dialogue and promote collaborations between the astrophysics and the nuclear physics communities.

**Primordial Space – Point-free Space and Logic Case**
*Bernd Schmeikal (University of Vienna, R&D., Vienna, Austria)*
Case: 978-1-62257-186-4, $150.00.
In this volume of Primordial Space it is explained how unpredictable quanta of the strong and electroweak force can bring forth both a macro-space-time as we perceive it and a pattern of material phenomena with which we have been familiarized by the standard model of particle physics. However, there is a price we have to pay for this. The Heisenberg uncertainty relation discloses itself in the fancy dress of a set of irregular locations: the deadlock singularity for particle fields at rest and the topological defect structure of the boson field where the zero norm signifies a turnover of the time-like base unit into a nilpotent isotropic direction field. Time does not go without saying. But where the time-arrow is created within the strong force, there emerge anti-reflexive neighbourhoods in the multivector fields of space-time. Hyperbolic neighbourhood systems of primordial phenomena carry those waves that decompose time and energy. Primordial space helps you to look at events with a fresh mind without entirely destroying traditional physics.

**Recent Advances in Satellite Research and Development**
*Samuel Gardiner and Kenneth P. Olsen*
Case: 978-1-62417-443-8, $150.00.
In this book, the authors present new satellite development research. Topics discussed include satellite-linked GPS collars deployed on elephants in Tsavo ecosystems in Kenya; enhancing resiliency of broadband satellite communication emergency networks through propagation impairment mitigation techniques; satellite applications for very short range weather forecasting systems in Southern African developing countries; eliminating ionospheric effects in multifrequency global navigation satellite systems; attitude control systems for arc-second stabilization of 30-kg micro astronomy satellites; and third generation GPS systems.

**Solar System: Structure, Formation and Exploration**
*Matteo de Rossi*
Case: 978-1-62100-057-0, $95.00.
e-book: 978-1-62100-081-5, $95.00.
In this book, the authors present topical research in the study of the structure, formation and exploration of the solar system. Topics discussed in this compilation include a quantum-like model to search the origin of the solar system structure; close binaries, eccentric exojupiters, and the solar system; harnessing energy from the sun by splitting water using Mn-oxo or Co-based catalytic systems to mimic photosynthesis; a relativistic positioning system exploiting pulsating sources for navigation across the solar system and the role of solar wind dynamics on interstellar dust in the solar system.
Space Robotics Supporting Exploration Missions: Vision, Force Control and Coordination Strategies
*Enrica Zereik (University of Genoa, Italy)*
Case: 978-1-62417-894-8. $110.00.
In recent years, interest in space science has grown more and more and there are future space exploration plans that include human missions to the Moon and Mars. The return to the Moon will rely on a large robotic presence to support exploration and, later, to assist the building of the lunar base. These plans will thus require the availability of intelligent, interactive and cooperative robotic systems since, on space missions, astronaut time is valuable and very scarce (they have to focus on research requiring their expertise rather than on routine procedures). Therefore, there is the need of developing skills, capabilities and operational experience for working in space and on the surface of the Moon (and Mars later) with machines and people, in preparation of further destinations exploration. To this aim, this book examines the future vision, force control and coordination strategies of space robotics supporting exploration missions.

The Precious Gift of Meteorites and Meteorite Impact Processes
*Aly A. Barakat (Director of the Egyptian Geological Museum, Geological Survey fo Egypt, Greater Cairo, Egypt)*
Case: 978-1-62100-939-9. $150.00.
This book intends to provide readers an open invitation to liberate themselves and leave aside caution from meteorites threat, which is widely spread over media to survey one of the brightness sides of meteorites; their offering to humans from the economic point of view.

Thermonuclear Processes of the Universe
*Sergey Borisovich Dubovichenko (V.G. Fesenkov Astrophysical Institute (APHI), National Center Space Research Technology, National Space Agency of the Republic of Kazakhstan ("NCSRT" NSA RK), Kazakhstan)*
Case: 978-1-61942-552-1. $150.00.
In this book, the authors consider briefly and simply all the major thermonuclear reactions which may take place in the stars at different stages of their formation and evolution. The authors provide an overview of possible reactions in three major thermonuclear cycles for stable stars of the Main Sequence and then indicate which processes will be considered and which ones will be analyzed in the nearest future.

**TERRORISM**

Chemical, Biological, Radiological, and Nuclear Threats: Countermeasure Preparation
*Anna J. Clemens and Marcel P. Nielsen*
In series: *Terrorism, Hot Spots and Conflict-Related Issues*

Case: 978-1-61942-519-4. $125.00.
e-book: 978-1-61942-533-0. $125.00.
The United States remains vulnerable to terrorist and other threats posed by chemical, biological, radiological, and nuclear (CBRN) agents. Medical countermeasures such as drugs, vaccines, and diagnostic devices, can prevent or treat the effects of exposure, but few are currently available. This book examines the federal efforts needed to develop and acquire countermeasures to threats from terrorists and other sources, primarily through the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE).

**TRANSPORTATION**

Aviation and Weather: Meteorological Services and Winter Safety
*William F. Ottone and Olivia A. Roberts*
Soft: 978-1-62081-892-3. $52.00.
e-book: 978-1-62081-981-4. $52.00.
The National Weather Service (NWS) plays a significant role in providing weather services to the aviation community. NWS's weather products and data are vital components of the Federal Aviation Administration's (FAA) air traffic control system, providing weather information to local, regional, and national air traffic management, navigation, and surveillance systems. NWS aviation weather products include forecasts and warnings of meteorological conditions that could affect air traffic, including thunderstorms, air turbulence, and icing. This book examines options for enhancing the efficiency of aviation weather services provided at en route centers, with a focus on meteorological services and winter safety.

Bridge Vibration and Controls: New Research
*H. Xia (Beijing Jiaotong University, Beijing, China) G. De Roeck (Catholic University of Leuven, Belgium) Jose M. Goicoechea (Technical University of Madrid, Spain)*
Case: 978-1-62100-868-2. $165.00.
With the continuous raise of train speed and vehicle load, the extensive application of high performance materials, and the ever increasing span length of bridges, the problem of bridge vibrations becomes more prominent. This book contains the fundamental theory as well as numerical calculations and field experiments of many practical engineering projects. It contains many case studies concerning various types of real bridges such as long-span suspension bridges, cable-stayed bridges, truss bridges, multi-span simply supported bridges and continuous bridges. This book is intended to be a reference for solving vehicle-structure dynamic interaction problems that have to be considered in the design of railway bridges and other transport structures. Moreover, results of recent scientific research are presented which are of interest for researchers active in studying bridge vibration and control.
Traffic Congestion and Road Pricing: Issues, Impacts and Project Reviews
Steven Manwarren and Patricia Oliver
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
In series: Transportation Issues, Policies and R&D
Case: 978-1-62257-956-3. $135.00.
e-book: 978-1-62257-957-0. $135.00.

Many Americans spend frustrating hours each year stuck in congested traffic, a situation that costs the country billions of dollars annually and influences people's decisions about where to live and work. As traffic has risen dramatically over the past 3 decades with population and economic growth, congestion now extends to more times of the day, more roads, and more cities and towns--thus affecting more people than ever before. Estimates of the cost of congestion vary; according to the Department of Transportation (DOT), congestion costs America an estimated $200 billion each year in lost travel time and fuel, and drivers in metropolitan areas spent more than one-quarter of their total travel time in congested conditions. This book examines current issues, impacts and project reviews relating to traffic congestion and road pricing.

U.S. Transit, Transportation and Infrastructure: Considerations and Developments. Volume 2
Jordan G. Clark and Ian R. Rodriguez
In series: U.S. Transit, Transportation and Infrastructure: Considerations and Developments
Case: 978-1-62257-958-7. $110.00.

Policymakers at all levels of government are debating a wide range of options for addressing the nation's faltering economic conditions. One option that is once again receiving attention is accelerated investments in the nation's public infrastructure - that is, highways, mass transit, airports, water supply and wastewater, and other facilities - in order to create jobs while also promoting long-term economic growth. This book discusses policy issues associated with using infrastructure as a mechanism to benefit economic recovery. Discussed are the projects to improve bus rapid transit service which can contribute to economic development; improved DOT collaboration and communication could enhance the use of technology to manage congestion; and the efforts in surface transportation to address highway congestion through real-time traffic information systems.
AFRICA

Biogeography, Environmental History and Sustainability in Coastal Ghana
Michael O’Neal Campbell (Kamloops, BC, Canada)
In series: African Political, Economic, and Security Issues
In series: Environmental Science, Engineering and Technology
2013. 142 pp.
Case: 978-1-62257-953-2. $85.00.
The critical appraisal of deforestation and the methods for such investigations have recently become important issues internationally. This book examines the socio-environmental relations and environmental changes in the African savanna. Socio-environmental relations in sub-Saharan Africa: the externalities of deforestation, floods, droughts, fires, socio-political upheavals, diseases and tribally, regionally relevant wars; still capture the headlines of the global media. However, Africa is still a continent dominated by farming and the socio-environmental externalities of this include forest border change and fragmentation, reactions to rainfall and associated results, urban markets and the implications of population change. These issues may be described as perennially relevant and under-investigated.

Conservation Research in Uganda's Forests: A Review of Site History, Research, and Use of Research in Uganda's Forest Parks and Budongo Forest Reserve
William Olupot and Andrew J. Plumptre (Wildlife Conservation Society (Uganda Program), Kampala, Uganda)
In series: Wildlife Protection, Destruction and Extinction
2012. 185 pp.
Case: 978-1-60876-577-5. $110.00.
Soft: 978-1-62257-263-2. $59.00.
In recent decades, there has been increased interest in understanding ecosystems in order to be able to manage and conserve them. Yet examples of how research directly supports conservation are rare. Protected area managers and policy makers need scientific information from protected areas for policy development and to effectively devise, revise, and implement management strategies. Researchers seek a clear understanding of what types of research can directly support conservation efforts to guide them in the design of such projects. A variety of perspectives of what constitutes ‘conservation’ or ‘applied’ wildlife research may exist, and indeed conservation priorities do differ between sites so that ultimately, what we describe here is from one perspective and designing projects that directly support site conservation depends on a prior understanding of issues at the site. This book is intended to encourage thinking about what constitutes conservation research to be able to better develop projects that directly support conservation. The aim of this book is to support research that directly benefits conservation by reviewing applied research and providing examples in which it has been used for conservation purposes.

William Olupot, Luke Parry, Michelle Gunness and Andrew J. Plumptre (Wildlife Conservation Society (Uganda Program), Kampala, Uganda)
In series: Wildlife Protection, Destruction and Extinction
2012. 150 pp.
Case: 978-1-60876-575-1. $110.00.
In recent decades, there has been increased interest in applying science to the management of ecosystems. However, designing research programs that directly support conservation is never straightforward especially for research intended to support protected area conservation. A good understanding of the intensity of threats, their ramifications, and the impacts of conservation is central to conservation. This book and its complement for forests, is intended to increase understanding of what constitutes conservation research in protected areas and how it is applied.

Globalization and English in Africa: Evidence from Nigerian Hip-Hop
Akinmade Timothy Akande (Department of English, Albert-Ludwigs University, Rem Huntington, Germany)
In series: Languages and Linguistics
Case: 978-1-62081-452-9. $150.00.
This book focuses on the sociolinguistics of English in relation to globalization. The pattern of migration and linguistic flows that have become more prominent in this century seem to teach us one major lesson: that we need a sociolinguistics that places less emphasis on territorialization of English but accounts for the complex situations, patterns of mobility of people and challenges that have come with globalization. This book addresses the spread of English through hip-hop to other parts of the world and how other varieties of English around the world especially African American Vernacular English and Jamaican English have influenced Nigerian English through this genre of music.

Kenya: Political, Social and Environmental Issues
James W. Adoyo and Cole I. Wangai
In series: African Political, Economic, and Security Issues
In series: Global Political Studies
2012. 194 pp.
Case: 978-1-62081-085-9. $95.00.
e-book: 978-1-62081-097-2. $95.00.
In this book, the authors examine Kenya's current political, social and environmental issues. Topics discussed in this compilation include the mitigation and impacts of forest degradation in Kenya; fish biomanipulation of Kenyan lakes; the political and social dimensions associated with biotechnology regulation in Kenya; the developmentally disabled population in Kenya; status of Kenya's environmental management and protection challenges; and economic development and food security in Kenya.

Libya: Transition and State Building
Tony A. Wasileski
In series: African Political, Economic, and Security Issues
In series: Politics and Economics of the Middle East
2013. 95 pp.
Soft: 978-1-62417-714-9. $52.00.
The September 11, 2001 terrorist attacks on the U.S. diplomatic mission in Benghazi underscored the serious security challenges facing Libya's citizens, their newly elected leaders, and U.S. diplomats. U.S. Ambassador Christopher Stevens and three other U.S. personnel were killed after armed individuals attacked and burned buildings on the main mission compound and subsequently attacked a second annex site where U.S. personnel had been evacuated. Libyan officials and citizens have condemned the murder of U.S. personnel and investigations have begun. Libya's post-conflict transition is underway, as Libyans work to consolidate change from the 40-year dictatorship of Muammar al Qadhafi to a representative government based on democratic and Islamic principles. This book explores Libya's transition and state building efforts with a focus on political developments and challenges; and domestic and regional security issues.

Moroccan Culture in the 21st Century: Globalization, Challenges and Prospects
Mohamed Dellal and Amar Sellam (Mohamed I University, Oujda, Morocco)
In series: African Political, Economic, and Security Issues
In series: Focus on Civilizations and Cultures
Case: 978-1-62417-676-0. $150.00.
e-book: 978-1-62417-720-0. $150.00.
What does Moroccan culture mean to a group of Moroccan academics at this decisive juncture and turning point of the 21st Century characterized by the advent and the shaking impact of the Arab Spring? How does culture, broken down in terms of intergenerational values, cultural identity related to language, language behavior, socio-political debate, the meaning of space and place, and the meaning of ancient festivals fare in today's Moroccan socio-cultural and socio-political contexts? Marrying theory and fieldwork, the authors in the six chapters that constitute the present book volume have tackled the above themes insightfully and discussed them by using in-depth analysis and investigation. They have given a firsthand, autochthonous account of aspects of Moroccan culture in the wake of the recent and still reverberating events that have swept across much of North Africa and part of the Middle East.

Power of Oil in Angola
José-León García Rodríguez, Francisco J. García Rodríguez and Carlos Castillo Gutiérrez (University of La Laguna, Canary Islands, Spain)
In series: African Political, Economic, and Security Issues
2013.
Case: 978-1-62417-162-8. $150.00.
Angola is the seventh largest country in Africa, divided in 18 provinces and situated in the southwest of the continent, in the tropical zone of the southern hemisphere. It has a wealth of natural resources, fertile albeit scarce farming lands, rich mineral deposits of diamonds, iron, bauxite, gold, manganese, uranium and natural gas, in addition to a considerable volume of oil reserves with a highly valuable production. Oil exploration in Angola was initially carried out onshore by state-owned company Sonangol, but later on production moved offshore, to the continental platform - far from war operations - and is currently carried out by numerous foreign companies, both European and North American, such as British Petroleum, Fina Total, Shell, Chevron and Texaco, Exxon Mobil, Statoil and AGIP, by means of oil rigs authorized by the State through production sharing agreements. This concession system has increased the search for oilfields, which in turn has enabled findings and crude oil production to increase in the last few decades, going from some 100,000 barrels per day in 1976 to 2.1 million barrels per day in 2009, which is 2.3% of world oil production at present.

Rural Development in Northern Angola
Joseph Awetori Yaro (Department of Geography and Resource Development, University of Ghana, Accra, Ghana)
In series: African Political, Economic, and Security Issues
In series: Environmental Science, Engineering and Technology
Case: 978-1-62417-102-4. $175.00.
Rural development is still an important policy goal in most developing countries where a high proportion of the population lives and works in rural areas. This book provides in-depth empirical discussions of contemporary development issues of rural development in northern Ghana with wider applicability in terms of the processes, needs, strategies, and recommendations for policy for most of the savannah ecological zone of Africa. Although the rest of Ghana is developing much faster than northern Ghana, its people perceive substantial positive changes in their conditions of life as prosperity trickles, albeit slowly down and out to them. Environmental change and economic globalization is rendering ineffective the adaptive strategies of poor farmers in northern Ghana. This book is an important resource for students, researchers, policy makers and NGOs with interest in rural development, dry land areas, marginalized areas and general development. The descriptions and discussions of contemporary challenges of rural development issues using vivid case studies are of relevance for comparison to different and similar country situations.

South Sudan: Challenges and Opportunities for Africa's New Nation
Paul F. Hartley and Ronald Bland
In series: African Political, Economic, and Security Issues
In series: Global Political Studies
Soft: 978-1-61942-276-6. $47.00.
In January 2011, South Sudan held a referendum to decide between unity or independence from the central government of Sudan as called for by the Comprehensive Peace Agreement that ended the country's decades-long civil war in 2005. According to the South Sudan Referendum Commission (SSRC), 98.8% of the votes cast were in favor of separation. In February 2011, Sudanese President Omar Hassan al-Bashir officially accepted the referendum result, as did the United Nations, the African Union, the European Union, the United States, and other countries. On July 9, 2011, South Sudan officially declared its independence. This new book examines the opportunities and challenges for Africa's newest country; The Republic of South Sudan.
The Fight for an Egalitarian South Africa/Azania: Towards Politics of Racial Harmony and Equity
Tsaoledi Daniel Thobejane (University of Venda, Thohoyandou, South Africa)
In series: African Political, Economic, and Security Issues

In series: Global Political Studies
Case: 978-1-62257-435-3. $150.00.

The aim of this book is to highlight the role that the Black Consciousness Movement played in the transformation of South Africa from racial oppression to participatory democracy. The book also sheds some light on the plight of those political detainees who suffered under dictatorial regimes around the world. Chief amongst these are those who were tortured in prisons for their political beliefs and particularly in South Africa. Cultural and political patterns of thinking as well as intransigence resulting from fixed mental attitudes about one’s culture, religion, ideology, sentiment and collective memory play a predominant role in the conflicts that have become anathema in our modern world.

The Political Ecology of Agricultural History in Ghana
Michael O’Neal Campbell (Thompson Rivers University, Kamloops, BC, Canada)
In series: African Political, Economic, and Security Issues

In series: Agriculture Issues and Policies
Case: 978-1-62417-276-2. $150.00.

This book takes an incisive, political ecology perspective of the development of agriculture in the West African nation of Ghana (formerly the British colony of the Gold Coast), focusing on agricultural, socio-cultural, economic, political and environmental issues during the pre-colonial (pre-16th century), colonial and post colonial periods (after 1957, up until 1992, the start of the last Republic). This integrated approach for the study of agricultural development and environmental change is very relevant to the Ghanaian context. Here, complex historical, political and socio-cultural factors have been combined, within a fairly short period, to contribute to an environmental metamorphosis. A complicated mosaic of indeterminate vegetation climaxes, such as depleted and secondary forests, derived savanna and savanna woodland, has gradually replaced the primeval rain forest, deciduous forest and savanna. Problems include soil erosion and desertification risk. This, largely due to human agency, is explainable by examining the political and economic relations behind the resource exploitation methods devised by the different actors in the political, economic and social system.

The Political Ecology of Soil Erosion in West Africa: an Historical and Contemporary Perspective
Michael O’Neal Campbell (Thompson Rivers University, Department of Geography, Kamloops, BC, Canada)
In series: African Political, Economic, and Security Issues

In series: Environmental Research Advances
2013. 194 pp.
Case: 978-1-62417-258-8. $85.00.
e-book: 978-1-62417-973-0. $85.00.

This book looks at theories of nature-society relations and development, applied to soil erosion and environmental change in West Africa, and Ghana. Acknowledging the importance of power relations for environmental management, the book begins with an examination of the field of political ecology, alternately the “political economy of the environment.” It assesses the role of this sub-discipline within geography and anthropology, and its role in practical conservation planning and the management of soil erosion. Political ecology tilts towards a structuralist approach, hence social theories (actor oriented studies and structuration theory) sensitive to actor analysis are examined as complementary frameworks. Structuration theory is discussed as attempting to tie the concepts of structure and actor together and provide a basis for the study of political, economic, socio-cultural and environmental contexts. These theories connect to the issues of livelihood and household analysis, gender relations and the economic, ecological and Green political variants of the paradigm of sustainable development.

The Urbanisation Process in Cameroon: Process, Patterns and Implications
Lawrence Fombe Fon and Sounders Nghu Balgh (University of Buea Cameroon, Faculty of Social and Management Sciences, Department of Geography, Buea, SW Region, Cameroon)
In series: African Political, Economic, and Security Issues

Soft: 978-1-61942-472-2. $95.00.

This book begins with an introduction to urban studies and urbanization. It provides an analysis of the patterns of urbanization which are essential for an understanding of the internal structure and development of towns in Cameroon. Furthermore, the spatial distribution and growth strength of towns in Cameroon is examined followed by discussions on urban hierarchy and the sub-urbanization process of the country since 1976. The focus turns to the features linked to urbanization in Cameroon and the growth prospects of selected towns in the country. This book concludes with a discussion on sustainable urbanization in Cameroon in order to address some of the concerns of the development goals for the millennium.

Trade in the East African Community: Facilitation Measures and Potential Benefits
Juan R. Mezyenski
In series: African Political, Economic, and Security Issues

In series: Trade Issues, Policies and Laws
2013. 201 pp.
Case: 978-1-62417-179-6. $110.00.

Trade is growing rapidly among the countries of the East African Community (EAC) - (Burundi, Kenya, Rwanda, Tanzania, and Uganda), expanding the volumes of goods crossing their borders. Members of the EAC, together with other African countries, have recognized the importance of improving these aspects of trade. This book outlines recent efforts by the EAC countries to improve trade facilitation measures. It also describes the potential benefits to EAC countries of improved trade facilitation, based on a review of empirical studies and the experiences of other developing countries.

Tunisia: Transition and Challenges
Howard Sanchez and Russell Freeman
In series: African Political, Economic, and Security Issues
In series: Global Political Studies
2013. 86 pp.
Soft: 978-1-62417-755-2. $32.00.
The departure of longtime President Zine el Abidine Ben Ali in January 2011, in the face of massive anti-government protests, was greeted with euphoria within Tunisia and sparked opposition and reform movements across the region. Yet despite significant accomplishments since that time, Tunisians today face a wide range of challenges, including economic hardship, relatively impoverished interior, and the security implications of events in neighboring Libya. Domestic tensions between Islamists and secularists have also burgeoned. This book explores Tunisia's transition and the future of the country and the region, with a focus on: the struggle between reformists and entrenched forces carried over from the former regime; the potential shape of the new political system; the role and influence of Islamism in the government and society; the question of how to transform the formerly repressive security services; and the difficult diplomatic balance, for the U.S. and other actors, of encouraging greater democratic openness while not undermining other foreign policy priorities.

Why Real Estate Ownership Security Cannot be Assured Via Land Registration in Sub-Saharan Africa
Raymond T. Abdulai and Daniel Domeher (School of the Built Environment, Liverpool John Moores University, Liverpool, UK)
In series: African Political, Economic, and Security Issues
2012. 120 pp.
Case: 978-1-61942-688-9. $75.00.
e-book: 978-1-61942-687-0. $75.00.
It is often argued that land registration is the answer to insecurity of real estate ownership in sub-Saharan Africa. This argument is based on the presumption that there is ownership security in the advanced world because every real estate is registered. However, a lot of studies conducted in the developing world have established that ownership security cannot be assured via land registration. This book critically analyzes the theoretical principles that underpin land registration systems in order to provide more insights as to why land registration cannot guarantee ownership security. It also examines the nexus between security of ownership and investment.

AGING

Abuse, Exploitation, and Neglect of Seniors and Incapacitated Adults
Sam F. Buecker and Evan Fink
In series: Aging Issues, Health and Financial Alternatives
In series: Social Issues, Justice and Status
Each day, news reports cite instances of older adults across the United States being abused, denied needed care, or financially exploited, often by those they depend on. The most recent study of the extent of elder abuse estimated that 14.1 percent of noninstitutional older adults had experienced physical, psychological, or sexual abuse; neglect; or financial exploitation in the past year. Elder abuse has also been associated with negative effects on the victims' health and longevity. This book contains information on existing estimates of the extent of elder abuse and their quality; factors associated with elder abuse and characteristics and challenges of state Adult Protective Services for addressing elder abuse.

Aging, Gender and Crime
Jason L. Powell (University of Central Lancashire, UK)
In series: Social Perspectives of Aging
Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)
2012. 82 pp.
This book explores the issue of crime and its relationship to gender and aging. This is a forgotten area of analysis in disciplines of criminology, gerontology and even in Feminist theorizing. This book begins by exploring the relationships between crime, aging and victimization. The book then moves to assess the main issues associated with understanding imprisonment for older people. The book focuses its attention on gender and its relationship to mental health and institutional psychiatric care. The final part of the book explores the issue of theorizing aging and relationship to crime.

Challenges for Unemployed Older Workers
Earl J. Curtis and Stanley L. Olson
In series: America in the 21st Century: Political and Economic Issues
Case: 978-1-62257-368-4. $110.00.
The number of workers age 55 and over experiencing long-term unemployment has grown substantially since the recession. This raises concerns about how long-term unemployment will affect older workers' reemployment prospects and future retirement income. In light of these developments, this book examines how older workers' employment status has changed since the recession; what risks unemployed older workers face and what challenges they experience in finding reemployment; how long-term unemployment could affect older workers' retirement income; and what other policies might help them return to work and what steps the Department of Labor has taken to help unemployed older workers.

China, Aging and Theory
Jason L. Powell (University of Central Lancashire, UK)
In series: Social Perspectives of Aging
Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)
Soft: 978-1-62100-915-3. $47.00.
e-book: 978-1-62100-924-5. $47.00.
This book provides a theoretical critique and analysis of the development and consolidation of power in China as it applies to aging. In seeking to deal with this increased proportion of elderly people, Chinese state policy seeks to introduce ways of reducing the fiscal burden of aging upon the state, and indeed upon those many families who have been markedly affected by the modernization process. This book, however, fundamentally questions the assumption that populational policies in the Chinese state are unbiased in their social practices with older people. The book explores new topics of aging in China grounded in and drawing from developments in social theory, (ie), Foucauldian theory and postmodernism.
Financial Exploitation of Elders: Challenges and Prevention Efforts
Maxime Faubert
In series: Aging Issues, Health and Financial Alternatives
In series: Social Issues, Justice and Status
Soft: 978-1-62417-904-4, $52.00.
e-book: 978-1-62417-905-1, $52.00.

Elder financial exploitation is the illegal or improper use of an older adult’s funds or property. It has been described as an epidemic with society-wide repercussions. While combating elder financial exploitation is largely the responsibility of state and local social service, criminal justice, and consumer protection agencies, the federal government has a role to play in this area as well. This book describes the challenges states face in preventing and responding to elder financial exploitation, as well as the actions some federal agencies have taken to help states address these challenges.

Life Settlements: Issues and Analyses of Insurance Markets and Policies
Lucienne Rezac
In series: Aging Issues, Health and Financial Alternatives
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62417-486-5, $110.00.

A life settlement is a transaction in which an insurance policy owner sells a life insurance policy to a third party for an amount that exceeds the policy’s cash surrender value, but is less than the expected death benefit of the policy. Reports indicate that the life settlements market has experienced robust growth up until 2007 when it was estimated that $12 billion in face amount, or stated benefit, amount, of life insurance was sold in life settlement transactions. More recently, the amount sold has declined. This book outlines the Life Settlements Task Force’s findings about the life settlement market and recommends that the Commission consider certain actions to improve market practices and regulatory oversight.

Understanding Aging: A Short Tour
Jason L. Powell (University of Central Lancashire, UK)
In series: Social Perspectives of Aging
Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)
2013. 71 pp.
Soft: 978-1-62417-196-3, $52.00.

This book explores specific theories on aging grounded through examination of several issues in social welfare. The book will review different understandings of becoming and being old and how these have been reflected in society in general and social policy in particular. The text aims to explore current debates about aging populations as well as to understand issues affecting individual older people. A key focus is the crucial relationship between old age and the welfare state, to a large extent concerned with the provision of support to older people. It attempts to understand and evaluate these important welfare issues by exploring conceptual coverage derived from both macro and micro theories of aging.

Agriculture

Agricultural Labor in the United States: Considerations and Select Research
Carroll T. Hart and Virginia M. Armstrong
In series: Agriculture Issues and Policies
Case: 978-1-62257-471-1, $110.00.

This book explores the possible economic implications of large shifts in the supply of foreign-born, hired farm labor that could result from substantial changes in U.S. immigration laws or policies. Hired labor is an important input to U.S. agricultural production, accounting for about 17 percent of variable production expenses and about 40 percent of such expenses for fruit, vegetables, and nursery products. Over the past 15 years, roughly half of the hired laborers employed in U.S. crop agriculture have lacked the immigration status needed to work legally in the United States. Thus, changes in immigration laws or policies could lead to markedly different economic outcomes in the agricultural sector and the market for hired farm labor. The same is generally true for other economic sectors that rely on large numbers of unauthorized workers.

Black Farmers in America: Historical Perspective, Cooperatives and the Pigford Cases
Richard L. Cohen and Clifford Horton
In series: Social Justice, Equality and Empowerment
In series: Agriculture Issues and Policies
2012. 76 pp.
Soft: 978-1-62081-250-1, $52.00.
e-book: 978-1-62081-274-7, $52.00.

Farming as a family-owned and independent business has been an important part of the social and economic development of the United States. But for many black farmers it was more often than not a losing struggle. The end of slavery was followed by about 100 years of racial discrimination in the South that limited, although it did not entirely prevent, opportunities for black farmers to acquire land. Enforcement of civil rights in the 1950s–60s removed many overt discriminatory barriers, although by that time increased technology had significantly reduced the demand for farmers in agricultural production. Nevertheless, cooperatives, while having some limited application in earlier decades, emerged as a significant force for black farmers during the civil rights movement. This book examines the historical background of black farmers in America, with a focus on cooperatives and the Pigford cases.

Brazilian Agricultural Competitiveness and Trade
Lisa M. Griffin and Robert J. Sanders
In series: Agriculture Issues and Policies
In series: Trade Issues, Policies and Laws
Case: 978-1-62257-741-5, $275.00.

This book describes and analyzes competitive factors in Brazil affecting U.S. and Brazilian sales of agricultural goods, including grains, soybeans, and meats, in third-country markets. It provides an overview of Brazil’s agricultural imports, exports, consumption, and production during 2006–11; an overview of Brazilian government programs and regulations relating to agricultural production and exports; an analysis of the growth of Brazilian agribusiness firms and their impact on global supply chains; a description of competitive factors affecting Brazil’s agricultural sector; and special focus chapters surveying the soybean, grains, poultry, beef, and pork sectors, with an emphasis on important third-country markets where U.S. and Brazilian exports directly compete.
Farm Payment Programs: Analyses and Reduction Proposals
Robert Oddosh and Chris Vinova
In series: Agriculture Issues and Policies
In series: Laws and Programs
Case: 978-1-62257-905-1. $110.00.
From 2006 through 2010, the U.S. Department of Agriculture (USDA) spent about $13 billion annually on federal programs to support farm income. Assist farmers after disasters, and conserve natural resources. Through one facet of this farm safety net, USDA provides farmers and other producers with fixed annual payments, called direct payments, based on their farms’ historical crop production. USDA makes these payments regardless of whether these producers grow crops, as long as they and their farms meet certain eligibility criteria. Amounting to nearly $5 billion annually since 2002, direct payments do not vary with crop prices, crop yields, or producers’ incomes. This book examines current farm payment programs and reduction proposals, with a focus on the direct payments program, the future of environmental compliance incentives in U.S. agriculture, and changing farm structure and the distribution of farm payments and federal crop insurance.

Farming and Farmland in the United States: Changes and Trends
Calvin Iglehart and Grant J. Zsofka
In series: Agriculture Issues and Policies
Case: 978-1-62257-907-5. $110.00.
This book examines the changes and trends in farming and farmland in the United States. Innovations in farm organization, business arrangements, and production practices have allowed farmers to produce more with less. Fewer labor hours and less land are used today than 30 years ago, and practices such as the use of genetically engineered seeds and no-till have dampened increases in machinery, fuel, and pesticide use. Likely aided by the increased use of risk management tools such as contracts and crop insurance, U.S. agricultural productivity has increased by nearly 50 percent since 1982. Future innovations will be necessary to maintain, or boost, current productivity gains in order to meet the growing global demands that will be placed upon U.S. agriculture.

Feed Market Dynamics and U.S. Livestock Implications
Aaron Stewart and Keith Gray
In series: Agriculture Issues and Policies
2012. 95 pp.
Soft: 978-1-61942-272-8. $47.00.
This book provides a review of the current feed market dynamics including the major emerging issues and their implications for the U.S. livestock sector and Congress and background information on the market structure of the U.S. feed grain sector.

Livestock Marketing and Competition and The USDA’s "GIPSA" Rule
Benjamin R. Perry and Jeremy E. Henderson
In series: Agriculture Issues and Policies
In series: Animal Science, Issues and Professions
2012. 98 pp.
Soft: 978-1-62257-253-3. $52.00.
Farmers and ranchers have had to adjust to significant changes in the structure and business methods of the livestock and meat sectors in recent decades. At the farm level, animal production in general and hog production in particular have undergone significant consolidation since 1980. Beef and pork packing (slaughtering) and processing have consolidated rapidly since 1980 into fewer and larger plants. As an industry consolidates, it can become highly concentrated, with a relatively small number of firms accounting for most of the production or sales. This book examines the USDA’s "GIPSA Rule" on livestock and poultry marketing practices and competition issues.

ANIMAL SCIENCE

Gray Wolves and the Endangered Species Act
Chase Ewing and Roger H. Cooley
In series: Wildlife Protection, Destruction and Extinction
In series: Animal Science, Issues and Professions
Soft: 978-1-61942-476-0. $47.00.
e-book: 978-1-61942-482-1. $47.00.
Second only to humans in adapting to climate extremes, gray wolves once ranged from coast to coast and from Alaska to Mexico in North America. By the early 20th century, government-sponsored predator control programs and declines in prey brought gray wolves to near extinction in 48 states. This new book examines the Endangered Species Act as it applies to gray wolves, with a focus on the gray wolf population, recovery, and biology in the United States today.

ARCTIC

Arctic Assessments: U.S. Plans for Future Presence
Jason M. Wilson and Santiago M. Rodriguez
In series: Defense, Security and Strategies
In series: Government Procedures and Operations
Case: 978-1-62081-109-2. $95.00.
e-book: 978-1-62081-137-5. $95.00.
The gradual retreat of polar sea ice in the Arctic region, combined with an expected increase in human activity - shipping traffic, oil and gas exploration, and tourism - could eventually increase the need for a U.S. military and homeland security presence in the Arctic. In recognition of increasing strategic interest in the Arctic, the United States has developed national level policies that guide the actions of the Department of Defense (DOD), the U.S. Coast Guard, and other stakeholders in the region. This book provides an overview of the policies that indicate that the United States has an enduring interest in working collaboratively with other nations to address the emerging challenges arising from the impacts of climate change and globalization in the Arctic. Also discussed, are Arctic national security needs including protecting the environment, managing resources, and supporting scientific research.

ASIA

Asia Pacific Life Sciences Compendium
Bandit Chumworathayi
In series: Asian Political, Economic and Security Issues
In series: Public Health in the 21st Century
Case: 978-1-62257-338-7. $150.00.
This book compiles articles from the Asia Pacific Journal of Life Sciences. Topics discussed include clinical colposcopic practive guideline for colposcopists consulted by cervical-cancer-prevention via providers; knowledge increased after training via cryotherapy clinical-training-skill course of the Thai department of health; and benchmarking a novel linear regression model for evaluating the relationship between AHI and height in senior sleep apneics.

**Asian Migration Policy: South, Southeast and East Asia**  
*Md. Mizanur Rahman (National University of Singapore (NUS)) and AKM Ahsan Ullah (American University in Cairo, CMRS, Ne Cairo, Egypt)*  
In series: *Asian Political, Economic and Security Issues*  
Case: 978-1-62257-020-1. $175.00.  
This book includes chapters that investigate the development of international migration policy in major emigrant countries in Asia; and that in today’s highly mobile world, migration has become an increasingly complex area of governance, inextricably interlinked with other key policy areas including economic and social development, national security, human rights, public health regional stability and inter-country cooperation. Role of institutions in facilitating or de-facilitating migration, the potential impact of environmental degradation on population displacement are key contents of the book. This book recommends that migration policy be aligned in a way so as to incorporate migrants’ rights. Migrants, wherever they move on and whatever their status is must not be stripped of their human rights. Due to the fact that migrants, especially female migrants are more vulnerable at the destination point to multiple abuses than at their original location, migration policy has to take this into account.

**Association of Southeast Asian Nations (ASEAN) and U.S. Interests**  
*Margaret E. Stamlin*  
In series: *Asian Political, Economic and Security Issues*  
2013. 270 pp.  
Case: 978-1-61209-580-6. $170.00.  
Soft: 978-1-62417-982-1. $69.00.  
e-book: 978-1-62618-061-1. $69.00.  
The Association of Southeast Asian Nations (ASEAN) is Southeast Asia’s primary multilateral organization. Established in 1967, it has grown into one of the world’s largest regional fora, representing a strategically important group of 10 nations that spans critical sea lanes and accounts for 5% of U.S. trade. This new book examines U.S. diplomatic, security, trade and aid ties with ASEAN, analyzes major issues affecting Southeast Asian countries and U.S.-ASEAN relations, and explores ASEAN’s relations with other regional powers with a focus on multilateral diplomacy.

**Australia, Japan and Southeast Asia: Early Post-War Initiatives in Regional Diplomacy**  
*David Walton (University of Western Sydney, Australia)*  
In series: *Asian Political, Economic and Security Issues*  
Case: 978-1-61470-811-7. $140.00.  
Japan has loomed large in post-war Australian foreign and economic policies. At the regional level, the relationship with Japan has become since the 1960s Australia’s longest, arguably most important and trouble-free bilateral relationship. The rapid improvement in bilateral relations by 1965, especially given the level of general hostility and suspicion towards Japan in Australia that had existed immediately after the Pacific War, represented a remarkable shift in policy thinking in Canberra. Yet surprisingly little has been written about the political dimension of the relationship and in particular, the level of dialogue between Australia and Japan from 1952 to 1965 on regional matters. This book examines the relationship between Australia, Japan and Southeast Asia in relation to early post-war initiatives in regional diplomacy.

**Burma (Myanmar): Developments and United States’ Interests**  
*Jesse F. Gordon and Leonard Dixon*  
In series: *Asian Political, Economic and Security Issues*  
In series: *Global Political Studies*  
Case: 978-1-62257-341-7. $135.00.  
Current U.S. policy towards Burma (Myanmar) can be characterized as the balancing of bilateral engagement and an assortment of political and economic sanctions, an approach sometimes referred to as “pragmatic engagement.” In addition, the Obama Administration is attempting to convince other nations to adopt a similar policy towards Burma. The stated intent of U.S. policy is to persuade and/or pressure Burma’s military junta, the State Peace and Development Council (SPDC), to release all political prisoners from detention and transfer power to a representative, democratically elected civilian government that will respect the human rights of the people of Burma, including its ethnic minorities. This book explores new developmental change in Burma with a focus on parliamentary by-elections; Burma's political prisoners; and U.S. policy and sanctions.

**Capital Market and Rating Agencies in Asia: Structuring a Credit Risk Rating Model**  
*Yoshitaka Kurosawa (Nihon University, Japan)*  
In series: *Asian Economic and Political Issues*  
Case: 978-1-61942-121-9. $140.00.  
“Credit Rating” originated in the USA has spread out to the world since the 1980s. Credit risk is a risk that a borrower either through bonds or bank loans bears a possibility of being unable to pay interest and principal repayments in accordance with its agreement. Credit Rating influences not only corporate bonds and structured finance, but sovereign countries such as Greek economy, Japan’s government bonds and even emerging country’s economic performance. This book focuses on the activities of credit rating agencies in Asia of ten countries other than Japan including China, Korea, India, Thailand, Malaysia, Philippines, Pakistan, Bangladesh and Uzbekistan.

**Central Asia: Regional Affairs and U.S. Interests and Policies**  
*Justin Morse and Brian I. Howe*  
In series: *Russia, China and Eurasia: Social, Historical and Cultural Issues*  
Case: 978-1-62081-275-4. $135.00.  
U.S. policy toward the Central Asian states has aimed at facilitating their cooperation with U.S. and NATO stabilization efforts in Afghanistan and their efforts to combat terrorism, proliferation, and trafficking in arms, drugs, and persons. Other U.S. objectives have included promoting free markets, democratization, human rights, energy development, and the forging of East-West and Central Asian-South Asian trade links. Such policies aim to help the states become what various U.S. administrations have considered to be responsible
members of the international community rather to degenerate into xenophobic, extremist, and anti-Western regimes that contribute to wider regional conflict and instability. This book examines the recent developments in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan with a focus on the emerging importance of the U.S.-Central Asia partnership.

Life Sciences of the Asia Pacific Region
Bandit Chumworoathayi (Khon Kaen University)
In series: Public Health in the 21st Century
Case: 978-1-61470-117-0, $140.00.
This book presents current research in all areas of biomedical, pharmaceutical and public health sciences in the Asia Pacific region. The scope is wide-ranging, including descriptive and analytical, laboratory and clinical, pharmaceutical and public health, preventive and therapeutic, epidemiology and health education, and also any bioinformation-related issues. Topics discussed include cervical cancer screening in Thailand; efficacy of medical education on abnormal uterine bleeding; cervical cancer prevention research implementation; the relationship between sleep disturbance and body mass index the causes of metabolic syndrome.

Maritime Territorial Disputes Involving China
Yuan Sun
In series: Asian Political, Economic and Security Issues
In series: China in the 21st Century
Case: 978-1-62417-694-4, $110.00.
This book presents policy and oversight issues for Congress arising from (1) maritime territorial disputes involving China in the South China Sea (SCS) and East China Sea (ECS) and (2) an additional dispute over whether China has a right under international law to regulate U.S. and other foreign military activities in its 200-nautical-mile exclusive economic zone ZEE). China is a party to multiple maritime territorial disputes in the SCS and ECS, including, in particular, disputes over the Paracel Islands, Spratly Islands, and Scarborough Shoal in the SCS, and the Senkaku Islands in the ECS. Maritime territorial disputes involving China in the SCS and ECS date back many years, and have periodically led to incidents and periods of increased tension. The disputes have again intensified in the past few years, leading to numerous confrontations and incidents, and heightened tensions between China and other countries in the region, particularly Japan, the Philippines, and Vietnam.

Mongolia: Profiles, Foreign Relations and U.S. Interests
James J.L. Vang and Isaías F. Noel
In series: Asian Political, Economic and Security Issues
Case: 978-1-61942-654-2, $110.00.
This book provides an overview and discussion of the sparsely populated young democracy of Mongolia, which is located in a remote part of Asia, sandwiched between two powerful large neighbors, China and Russia. It made its transition to democracy peacefully in 1990, after nearly 70 years as a Soviet satellite state. Congress has shown a strong interest in Mongolia's development since, through the funding of assistance programs, ratification of a bilateral investment treaty, legislation to extend permanent normal trade relations, and passage of six resolutions commending Mongolia's progress and supporting strong U.S.-Mongolia relations. Discussed are Mongolia's democratic development, economic issues and engagement with the world.

North Korea: Foreign Relations and Economic Ties
Petr G. Lasserson
In series: Asian Political, Economic and Security Issues
In series: Global Political Studies
Case: 978-1-62100-333-5, $95.00.
e-book: 978-1-62100-400-4, $95.00.
This book explores current relations and economic ties with North Korea. Topics discussed in this compilation include foreign assistance to North Korea including energy aid and food assistance; China-North Korea relations including PRC objectives and policy issues for the United States; the legislative basis for U.S. economic sanctions; imports from North Korea including existing rules, implications of the KORUS FTA and the Kaesong Industrial Complex and non-governmental organizations' (NGOs) activities in North Korea.

Thailand: Economic, Political and Social Issues. Volume 2
Randle C. Zebioli
In series: American Political, Economic, and Security Issues
2012. 194 pp.
Case: 978-1-61942-855-3, $95.00.
e-book: 978-1-61942-892-8, $95.00.
This book examines the economic, political and social issues facing Thailand today. The authors present topical research including an examination of the waste treatment system in metropolitan Bangkok; the competitive behavior of commercial banks in Thailand; visual impairment and quality of life issues amongst elderly persons living in northeast Thailand; exchange rate volatility and the demand for money in Thailand; S-curve dynamics of commodity trade between Thailand and the U.S.; the post-Asian financial crisis experience in Thailand; and insurgency in the Muslim changwat of Thailand.

The Transformation of Asia in a Global Changing Environment
Bernadette Andreosso-O'Callaghan (University of Limerick, Limerick, Ireland) Peter Herrmann (University College Cork, County Cork, Ireland)
In series: Global Economic Studies
In series: Asian Economic and Political Issues
Case: 978-1-61470-873-5, $150.00.
e-book: 978-1-61470-919-0, $150.00.
The current global environment is profoundly marked by an economic crisis that started manifesting itself most startlingly with the collapse of the US Lehman Brothers bank in the Autumn 2008, and that, at the time of writing, still does not show any signs of abating. It is, therefore, a crisis which suggests a turning point, or a radical break, with the past. This book proposes to study the current economic global settings with reference to two meanings of the word crisis, and to analyse the extent to which the current crisis might lead to a (profound) transformation of the world (economic) system, and in particular of the Asian system.

United States-Japan Economic Relations: Prospects and Policies
Nathaniel M. Torres
In series: Asian Political, Economic, and Security Issues
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62417-132-1, $110.00.
This book examines the significance, prospects, and policy options of U.S.-Japan economic relations. Japan and the United States are the two largest economic powers. Together they account for over 30% of world domestic product, for a significant portion of international trade in goods and services, and for a major portion of international investment. This economic clout makes the United States and Japan potentially powerful actors in the world economy. Economic conditions in the United States and Japan have a significant impact on the rest of the world. The U.S.-Japan bilateral economic relationship can influence economic conditions in other countries. The two economies are highly integrated via trade in goods and services with large markets for each others exports and important sources of imports.

**Vietnam: Service Sector Growth**

*Rhett R. Murphy*

Case: 978-1-62417-549-7. $110.00.

This book provides an overview and examination of the Vietnamese services sector. Vietnam is growing rapidly as it transitions from a state-planned economy to a hybrid economy with an expanded private sector. Besides broadening its international trade relationships, in recent years Vietnam has committed to liberalizing its industries and strengthening its intellectual property laws through bilateral treaties, regional associations, and accession to the World Trade Organization. Service industries account for a growing share of Vietnam's economy, as new businesses seek services like banking and logistics while consumers with rising income demand education, retail, and telecommunication services. Liberalization and foreign investment have increased the supply of services in Vietnam, but many industries are still hampered by shortages of skilled workers and good infrastructure, and by a weak business environment in which regulations impede commerce and state-owned enterprises have many advantages.

**Behavior**

*Cognitive Deficit in Mental and Neurological Disorders*

*Hana Kucerova (Medical Faculty Masaryk and University Hospital Brno); Marek Preiss (Prague Psychiatric Center)*

Case: 978-1-60741-957-0. $79.00.

Clinical neuropsychology is a sub-specialty of clinical psychology that specializes in the diagnostic assessment and treatment of patients with brain injury or neurocognitive deficits. This book comprises contributions from different clinical domains, in particular neurology, psychology and psychiatry and summarizes significant theoretical and above all, practically usable information regarding a variety of disorders that a clinical neuropsychologist comes across in practice. This book explores etiology of cognitive deficit, history of its examination, variables that are concerned with cognitive functions and rehabilitation possibilities. All chapters were written by experienced clinicians who are used to prevailing, typical problems of their patients that overlap cognitive functions to domains such as emotions and everyday difficulties of problem solving. This book is useful for individuals interested in neuropsychological diagnostics and rehabilitation, students of psychology and alike-oriented professions.

**Business**

*Advances in Business and Management. Volume 4*

*William D. Nelson*

In series: *Advances in Business and Management* 2013. 231 pp.
Case: 978-1-61324-705-1. $140.00.
Soft: 978-1-62417-981-5. $69.00.
e-book: 978-1-61324-822-5. $140.00.

This book presents topical research in the study of business and management techniques from across the globe. Topics discussed include new business models for the tooling industry; improving innovation in low-tech manufacturing based small firms; small business social responsibility; total factor productivity change of the Thailand banking sector during the post-Asian financial crisis; Exchange Traded Funds and regulatory and market forces in controlling bank risk-taking.

*Business Jet Industry: Structure and Competition*

*Richard J. Claudio and Brent Canterbury*

Case: 978-1-62257-647-0. $195.00.

This book describes and analyzes factors shaping the competitiveness of the U.S. business jet industry during 2006-11, as well as the industry's structure worldwide. The United States has been the leading player in the industry since its inception in the 1960s. Three of the six global business jet producers are headquartered in the United States, while the other producers maintain at least one U.S.-based production activity. However, competition is strong, frequent cutting-edge updates are necessary, and demand is cyclical. During the recent economic downturn, deliveries dropped 57 percent. This decline largely reflected customers' lower profits and the scarcity of credit, which especially weighed on potential buyers. U.S. industry officials also indicated that sales and developments of business jets were affected by the availability of financing, continued investment in research and development to maintain innovation capability, and the timely certification of business jets to provide state-of-the-art aircraft to the market.

*Business Taxation: Organizational Choices and Federal Considerations*

*James C. Teague and Karly Fawner*

In series: *Business Issues, Competition and Entrepreneurship* 2013. 120 pp.
Soft: 978-1-62257-998-3. $52.00.
e-book: 978-1-62257-999-0. $52.00.

In the United States, how a business is taxed at the federal level is partly dependent on how it is organized. Publicly traded corporations known as subchapter C corporations are taxed once at the corporate level according to the corporate tax system, and then a second time at the individual-shareholder level according to the individual tax system when corporate dividend payments are made or capital gains are realized. This leads to the so-called "double taxation" of corporate profits. Businesses that choose any other form of organization are, in general, taxed only once at the individual level. That is, the income of certain businesses passes through to the individual business owners and is taxed according to the individual income tax system. Examples of these alternative "pass-through" forms of organization include sole
proprietorships, partnerships, subchapter S corporations, and limited liability companies. This book summarizes the general tax treatment of corporate and pass-through businesses and analyzes the most recent business data from the Internal Revenue Service (IRS).

Business, Finance and Economics Research Summaries

**Michael J. Richards and Tommy O'Brien**
In series: *Business Economics in a Rapidly-Changing World*
Case: 978-1-62417-342-4. $120.00.
e-book: 978-1-62417-344-8. $120.00.
This new book compiles biographical sketches of top professionals in the field of business, finance and economics research, as well as research summaries from a number of different focuses in these important fields.

Business, Finance and Economics Researcher Biographical Sketches and Research Summaries

**Michael J. Richards and Tommy O'Brien**
In series: *Business Economics in a Rapidly-Changing World*
Case: 978-1-62257-567-1. $230.00.
This new book compiles biographical sketches of top professionals in the field of business, finance and economics research, as well as research summaries from a number of different focuses in these important fields.

Competitiveness: Psychology, Production Impact and Global Trends

**Alexander M. Beckford and Julianne P. Larsen**
In series: *Business Issues, Competition and Entrepreneurship*
Case: 978-1-61324-415-9. $150.00.
Changing industry dynamics, increased competition, globalization and organizational restructuring are putting managers in dire need to understand what can and cannot help them attain competitive advantage. In this book, the authors present current research in the study of the psychology, production impact and global trends of competitiveness in the business and economic spectrum. Topics discussed include the cost of economic and environmental integration between the EU and Turkey; impact of social networks in firm competitiveness; the role and significance of HRM in organizational competitiveness; competition in technology advancement and the co-existence of intra-firm competition and cooperation.

Consumer Privacy in the 21st Century: Best Practices for Businesses and Policymakers

**Larry A. Schwartz**
In series: *Business Issues, Competition and Entrepreneurship*
Case: 978-1-62417-252-6. $135.00.
In today's world of smart phones, smart grids, and smart cars, companies are collecting, storing, and sharing more information about consumers than ever before. Although companies use this information to innovate and deliver better products and services to consumers, they should not do so at the expense of consumer privacy. This book provides an overview for how companies can act now to implement best practices to protect consumers' private information. These best practices would include making privacy the "default setting" for commercial data practices and give consumers greater control over the collection and use of their personal data through simplified choices and increased transparency. Implementing these best practices will enhance trust and stimulate commerce.

Federal Contracting and Subcontracting with Small Businesses: Aspects and Considerations

**Jay M. Guthrie**
In series: *Business Issues, Competition and Entrepreneurship*
Case: 978-1-62417-241-0. $150.00.
Congress has broad authority to impose requirements upon the federal procurement process, or the process whereby agencies obtain goods and services from the private sector. One of the many ways in which Congress has exercised this authority is by enacting measures intended to promote contracting and subcontracting with "small businesses" by federal agencies. This book describes and analyzes measures that Members of the 112th Congress have enacted or proposed in response to particular issues pertaining to small business contracting and subcontracting with a focus on legal authorities; contract "bundling"; small business set-aside programs; and "preference contracts".

Federal Tax Benefits for Business and the Research Tax Credit

**Harlan Vitagliano**
In series: *Business Issues, Competition and Entrepreneurship*
In series: *Economic Issues, Problems and Perspectives*
2013. 100 pp.
e-book: 978-1-62417-335-6. $52.00.
This book examines a key element of current federal support for manufacturing: tax benefits. More specifically, it identifies and describes current federal tax preferences that offer significant benefits for small and large manufacturing firms. Additionally, technological innovation is a major driving force in long-term economic growth, and research and development (R&D) serves as the lifeblood of innovation. The federal government encourages business R&D in a variety of ways, including a tax credit for a company's increases in spending on qualified research above a base amount. The current status of the tax credit is described, as is its legislative history, the policy issues it raises and legislation in the 112th Congress to modify or extend it.


**Irene Ratzloff and Edward J. Majors**
In series: *Business Issues, Competition and Entrepreneurship*
In series: *Economic Issues, Problems and Perspectives*
Case: 978-1-62417-069-0. $230.00.
Innovation benefits consumers through the development of new products, processes and services that improve lives and address unmet needs. It is key to meeting society's greatest challenges in areas as diverse as energy production, communications and health care, and it is essential to sustained economic growth and global competitiveness.
But innovation is a complex process. It involves a series of steps from idea to invention through development to commercialization, each of which can be expensive, risky, and unpredictable. The goal of the patent system is to promote innovation in the face of that expense and risk. This book begins by examining the role of technology markets and patent markets in innovation today. Chapter 1 discusses collaboration and technology transfer which have become increasingly important pathways to innovation with significant benefits for consumers. Chapter 2 describes the increasing activity and complexity of business models in markets for patents that do not involve technology transfer, and Chapters 3-8 make recommendations for adjustments to the legal rules and practices governing notice and remedies to better align them with competition policy without undermining patent law's support for innovation.

Knowledge Management: Technology, Applications and Impact

Etienne Perrault

In series: Business Issues, Competition and Entrepreneurship

In series: Management Science - Theory and Applications

2013. 208 pp.

Case: 978-1-62257-828-3. $150.00.
e-book: 978-1-62257-829-0. $150.00.

This book examines the technology, applications and impact of knowledge management. Topics include supporting knowledge maturing with integrated information systems; a process model of agile portfolio management; learning effects of environmental management systems on the performance of enterprises; measuring communities of practice performance by means of scenario analysis; the impacts of knowledge management on business decision making; and knowledge management in construction project management.

Labor Markets: Dynamics, Trends and Economic Impact

Samir Amine (University of Quebec, Quebec, Canada)

In series: Business Economics in a Rapidly-Changing World


Case: 978-1-61470-825-4. $140.00.

This book focuses on the views of the NAIRU (Non-Accelerating Inflation Rate of Unemployment) concept. It introduces unemployment in economic growth models. It presents empirical studies which analyze and discuss the labor market evolution in several countries and regions such as the European Union and the United States. The unemployment benefits and its effects on unemployment in the United States is also evaluated. An empirical study is presented which analyzes the evolution of regional labor market dynamics in Taiwan.

Mergers and Acquisitions: Practices, Performance and Perspectives

Etienne Perrault

In series: Business Issues, Competition and Entrepreneurship

In series: Business Economics in a Rapidly-Changing World


Case: 978-1-62417-950-1. $120.00.
e-book: 978-1-62417-951-8. $120.00.

In this book the authors research the practices, performance and perspectives relating to mergers and acquisitions. Topics discussed include the revolutionary restructuring process of regional and local banks in Spain; strategic context, deal execution, integration and results in mergers and acquisitions; the economic synergy goal and acquisition implementation implications; the role of corporate culture in mergers and acquisitions; transferring organizational resources and capabilities in cross-border mergers and acquisitions; and the impacts of mergers and acquisitions on employment and labor productivity in Japan.

Monetary Policy: Roles, Forecasting and Effects

Yasuo Nishiyama (School of Business, Woodbury University, Burbank, CA)

In series: Business Economics in a Rapidly-Changing World

In series: Progress in International Economics Research


Case: 978-1-61942-181-3. $150.00.

This book is a unique collection of recent research on monetary policy. Various critical issues related to monetary policy are investigated in this book. How often, and why, do firms in Canada reset their prices? How does monetary policy in Japan, the United States, and the United Kingdom influence inflation expectations? What would the policy interest rates have been if the European Central Bank were to set the rates of individual member countries by responding to each member country’s economic conditions? What is the monetary transmission mechanism in Papua New Guinea? What is the monetary transmission mechanism in Bulgaria under the currency board? Has monetary policy in China contributed to a decline in inflation and output volatility? These and other important issues are thoroughly examined in this book.

Multilateral Development Banks: U.S. Policies and Contributions

Gregory F. Smith and Timothy D. Ross

In series: Business Economics in a Rapidly-Changing World

In series: Economic Issues, Problems and Perspectives


Soft: 978-1-62100-930-6. $47.00.
e-book: 978-1-62100-954-2. $47.00.

The multilateral development banks (MDBs) include the World Bank and four smaller regional development banks: the African Development Bank (AfDB), the Asian Development Bank (AsDB), the European Bank for Reconstruction and Development (EBRD), and the Inter-American Development Bank (IDB). The United States is a member of each of the MDBs. This book analyzes how the United States establishes policies towards the multilateral development banks (MDBs) and identifies ways by which Congress can shape U.S. policy and influence the activities of the banks themselves.

Noise and Ergonomics in the Workplace

PauloHenrique Trombetta Zannin (Environmental and Industrial Acoustics and Acoustical Comfort, Department of Mechanical Engineering, Federal University of Paraná, Brazil)

In series: Business Issues, Competition and Entrepreneurship


Case: 978-1-62417-573-2. $150.00.

This book addresses two extremely important aspects of workplaces, namely, noise and ergonomics. Its thirteen chapters present and discuss theoretical and practical issues involving noise and/or ergonomics,
covering a wide and diverse spectrum of working environments that directly affect thousands of workers around the world. The design of the environment is discussed through the relationship between ergonomics and architecture, revealing that the efficient integration between these factors allows us to outline boundaries in the search for solutions to the various specificities of the organization and its different workplaces. The analytical techniques used throughout the book are widely diverse and include in-situ acoustic measurements, computer simulations and analysis of noise perception. The various working environments evaluated herein include schools, universities, health care facilities, fitness centers, factories, open plan offices, and urban buses.

Private and Public Sector Workers: Select Characteristics
Frederick Jacobs and Luther Harvey
In series: Government Procedures and Operations
In series: Economic Issues, Problems and Perspectives
Soft: 978-1-61942-322-0. $47.00.
An issue for Congress and state and local governments is whether the pay and benefits of public workers are comparable to those of workers in the private sector. To deal with budget deficits, many policymakers are looking at the pay and benefits of public sector employees as a way to reduce government spending. This book provides a comparison of selected characteristics, including age, education, and occupation, of public and private sector workers.

Small Business Administration Investment and Loan Programs
Alan R. Connoly
In series: Small Business Considerations, Economics and Research
In series: Business Issues, Competition and Entrepreneurship
Case: 978-1-62417-674-6. $135.00.
The Small Business Administration’s (SBA’s) Small Business Investment Company (SBIC) Program is designed to enhance small business access to venture capital by stimulating and supplementing “the flow or private equity capital and long term loan funds which small business concerns need for the sound financing of their business operations and for their growth, expansion, and modernization, and which are not available in adequate supply.” Facilitating the flow of capital to small businesses to stimulate the national economy was, and remains, the SBIC program’s primary objective. This book examines small business administration investment and loan programs with a focus on the SBIC; SBA New Markets Venture Capital program; Small Business Administration 7(a) Loan Guaranty Program; the Small Business Administration 504/CDC Loan Guaranty Program; and the microloan program.

Small Business Administration Programs: Overview and Considerations
Walter Janikowski
In series: Small Business Considerations, Economics and Research
In series: Business Issues, Competition and Entrepreneurship
Case: 978-1-62417-992-1. $195.00.
The Small Business Administration (SBA) administers several programs to support small businesses, including loan guarantee programs to enhance small business access to capital; contracting programs to increase small business opportunities in federal contracting; direct loan programs for businesses, homeowners, and renters to assist their recovery from natural disasters; and small business management and technical assistance training programs to assist business formation and expansion. This book provides an overview of these programs, with a focus on stimulating economic activity, creating jobs, and assisting in the national economic recovery.

Small Business Considerations, Economics and Research. Volume 2
Peter R. Bennett and Margaret O. Myers
In series: Small Business Considerations, Economics and Research
This series examines issues and economic matters particular to small businesses. The term Small Enterprise (or Small Organization) is sometimes used for this same category of business or organization. A small enterprise/organization may also be a nonprofit organization. This volume covers several topics including: the current law and economic justification of small business tax benefits; the poverty alleviation aspect of entrepreneurship through microenterprise development; the tool and die industry's contribution to U.S. manufacturing and federal policy considerations; the Hollings Manufacturing Partnership (MEP) program of regional centers that assist smaller, U.S.-based manufacturing companies in identifying and adopting new technologies; the role of small firms in the labor market; the SBA Surety Bond Guarantee Program; and the SBA's definitions of small business guide.

Small Business Considerations, Economics and Research. Volume 3
Peter R. Bennett and Margaret O. Myers
In series: Small Business Considerations, Economics and Research
Case: 978-1-62417-243-4. $110.00.
e-book: 978-1-62417-244-1. $110.00.
This series examines issues and economic matters particular to small businesses. The term Small Enterprise (or Small Organization) is sometimes used for this same category of business or organization. A small enterprise/organization may also be a nonprofit organization. This volume covers several topics including: the increasing importance of credit unions in small business lending; an analysis of small business innovation in green technologies; and understanding small business activity at the state level.

Small Business Health Insurance: Coverage and Tax Incentive Analyses
Ibrahim N. McCormick
In series: Business Issues, Competition and Entrepreneurship
In series: Health Care Issues, Costs and Access
2013. 185 pp.
Case: 978-1-62417-239-7. $110.00.
This book offers an overview of the issues and status of small business health insurance in the United States and examines the question of whether existing tax incentives at the Federal and State level provide
sufficient inducement to small businesses to adopt health insurance plans for their employees. Also discussed is the small business health insurance tax credit which was adopted as part of the Federal health care reform legislation and the factors contributing to its low use and complexity.

**Small Business Lending: Credit Availability and Market Conditions**  
*Barbara Schwartz*  
In series: *Small Business Considerations, Economics and Research*  
In series: *Business Issues, Competition and Entrepreneurship*  
Soft: 978-1-62417-480-3. $52.00.  
e-book: 978-1-62417-481-0. $52.00.  
This book details the extent of small business lending by all creditors and identifies factors that give policymakers insight into the small business credit market, including the demand for credit by small businesses; the availability of credit; the range of credit options available; the types of credit products used; the credit needs of small businesses; and the risks of lending to small businesses.

**System Thinking in the Control of Organizational and Technical Problems**  
In series: *Management Science - Theory and Applications*  
2012. 188 pp.  
Case: 978-1-61470-809-4. $75.00.  
e-book: 978-1-61470-838-4. $75.00.  
The term “systems thinking” generates from systems theory, in particular the theory of living systems, which appeared in cybernetics and computer sciences in the 1940s and 1950s. Systemic view is the point of view with which the world is understood in terms of relationship and integration. This book presents the results of long-term research of Georgian scientists in the field of automated information management systems and automated databases. The management efficiency depends on the management theory, initial information adequacy and managerial mechanisms of corporative systems.

**Taxation of Internet Sales**  
*Keith Joyner and Carl Sawhill*  
In series: *Internet Theory, Technology and Applications*  
In series: *Economic Issues, Problems and Perspectives*  
2012. 147 pp.  
Case: 978-1-62257-974-7. $110.00.  
As more and more purchases are made over the Internet, states are looking for new ways to collect taxes on these sales. While there is a common misperception that states cannot tax Internet sales, the reality is that they may impose sales and use taxes on such transactions, even when the retailer is outside of the state. However, if the seller does not have a constitutionally sufficient connection (“nexus”) to the state, then the seller is under no enforceable obligation to collect a use tax. While the purchaser is still generally responsible for paying the use tax, the rate of compliance is low. Recent laws, often called “Amazon” laws in reference to the large Internet retailer, represent fresh attempts by the states to capture taxes on Internet sales. This book provides a constitutional analysis of “Amazon” laws and taxation of Internet sales; state taxation of Internet transactions; and testimony on the bearing on the constitutional limitations on states’ authority to collect sales taxes in E-commerce.

**The Small Business Lending Fund**  
*Joshua A. Bell and Carl M. Richardson*  
In series: *Business Economics in a Rapidly-Changing World*  
In series: *Business Issues, Competition and Entrepreneurship*  
Case: 978-1-62257-212-0. $110.00.  
This book examines the Small Business Lending Fund, with a focus on the supply and demand for small business loans. Congressional interest in small businesses reflects, in part, concerns about economic growth and unemployment. Small businesses, defined as having fewer than 500 employees, have played an important role in net employment growth during previous economic recoveries. However, recent data show that net employment growth at small businesses is not increasing at the same rate as in previous economic recoveries. Some have argued that current economic conditions make it imperative that the federal government provide additional resources to assist small businesses in acquiring capital necessary to start, continue, or expand operations and create jobs. Others worry about the long-term adverse economic effects of spending programs that increase the federal deficit.

**The State Small Business Credit Initiative (SSBCI)**  
*Marcus Powell*  
In series: *Small Business Considerations, Economics and Research*  
In series: *Business Issues, Competition and Entrepreneurship*  
Case: 978-1-62417-482-7. $110.00.  
The SSBCI provides funding to states, territories, and eligible municipalities to expand existing or to create new state small business investment programs, including state capital access programs, collateral support programs, loan participation programs, loan guarantee programs, and venture capital programs. This book examines the SSBCI and its implementation, including Treasury's response to initial program audits conducted by the U.S. Government Accountability Office and Treasury's Office of Inspector General. These audits suggested that SSBCI participants were generally complying with the statute's requirements, but that some compliance problems existed, in that, the Treasury's oversight of the program could be improved; and performance measures were needed to assess the program's efficacy.

**Theory of Control in Organizations**  
*Dmitry Novikov (Moscow Institute of Physics and Technology (MIPT), Moscow, Russian Federation)*  
In series: *Business Issues, Competition and Entrepreneurship*  
Case: 978-1-62417-794-1. $150.00.  
The theory presented in the book deals with methodological and mathematical foundations of control in organizations. It extends the traditional approach of management science by introducing the optimization and game-theoretical tools for systematic accounting of the special nature of human beings as a control object (e.g.
opportunism, selfish behavior, information manipulation). Formal methods are used to construct robust and efficient decision-making procedures (the, so called, mechanisms), to support all aspects and stages of management activity (planning, organization, motivation, and monitoring), over all decision horizons, from operational to strategic management. This book reflects modern state of the art theory of control in organizations and is intended for advanced graduate students specializing in management sciences and in applications of control theory and operations research in business administration.

**Topics in Entrepreneurship: Select Research**

**Benjamin D. Cardenas**
In series: *Business Issues, Competition and Entrepreneurship*
Case: 978-1-62417-237-3. $110.00.
e-book: 978-1-62417-238-0. $110.00.
This book examines select research topics in the study of entrepreneurship. Technological growth, entrepreneurship, and unemployment influence each other in numerous ways, forming a trio of inter-related components. This book empirically explores the interrelationship between entrepreneurship, unemployment, and growth in a dynamic context using vector autoregression (VAR) with panel data across sectors of the U.S. economy. Also discussed are immigrant entrepreneurs and small business owners and their access to financial capital; factors affecting entrepreneurs among veterans; and an assessment as to whether the U.S. bankruptcy system is effective in providing small businesses a “fresh start” after a bankruptcy filing.

**CHILDREN**

**Amber Alerts: Best Practices and Program Technology**

**Amber C.K. Young and Linda E. Smith**
In series: *Children's Issues, Laws and Programs*
2013. 86 pp.
Soft: 978-1-62257-045-4. $52.00.
Amber Alerts (also referred to as AMBER plans) were created to disseminate information about child abductions in a timely manner. Research has found that most abducted children murdered by their kidnappers are killed within three hours of the abduction. Prompt response to child abductions is therefore deemed critical by many. Amber Alert plans are voluntary partnerships including law enforcement agencies, highway departments, and companies that support emergency alerts. This book discusses best practices and program technology for Amber alerts.

**Child Abuse: Indicators, Psychological Impact and Prevention**

**Raymond A. Turner and Henry O. Rogers**
In series: *Psychology of Emotions, Motivations and Actions*
In series: *Children's Issues, Laws and Programs*
Case: 978-1-62257-113-0. $150.00.
e-book: 978-1-62257-168-0. $150.00.
In this book, the authors present current research in the study of child abuse indicators, psychological impact and prevention. Topics discussed in this compilation include the link between mistreatment and obesity in childhood; child maltreatment prevalence and consequences of victimization; bone disease and fractures in early childhood and their relation to child abuse; managing the risk of child sexual abuse including prevention and intervention strategies; addressing childhood trauma in Malta; the role of child sexual abuse in the development of psychopathology and borderline personality disorder.

**Child Fatalities Due to Maltreatment: The Role of Quality Data**

**Vernon Chapman and Allan Burton**
In series: *Children's Issues, Laws and Programs*
In series: *Social Issues, Justice and Status*
Soft: 978-1-61942-342-8. $47.00.
Children’s deaths from maltreatment are especially distressing because they involve a failure on the part of adults who were responsible for protecting them. Questions have been raised as to whether the federal National Child Abuse and Neglect Data System (NCANDS), which is based on voluntary state reports to the Department of Health and Human Services (HHS), fully captures the number of circumstances of child fatalities from maltreatment. This book examines the extent to which HHS collects and reports comprehensive information on child fatalities from maltreatment and looks to strengthen data quality, expand available information, improve sharing, and estimate better the costs and benefits of collecting national data on near fatalities.

**Child Welfare: Current Issues, Practices and Challenges**

**Alex Powell and Jenna Gray-Peterson**
In series: *Children's Issues, Laws and Programs*
In series: *Social Issues, Justice and Status*
Case: 978-1-62257-826-9. $150.00.
In this book, the authors present topical research in the study of the current issues, practices and challenges related to child welfare today. Topics include mental health oversight for children and adolescents in child welfare custody; children in foster care and excessive medications; youth sexuality and health conditions; secondary traumatic stress in child welfare professionals; transforming mental health practices in child-serving systems; educational vulnerability of children and youth in foster care; developing a child welfare and child protection system in China; and mindfulness training for addressing the needs of child welfare system children and families.

**Child Welfare: Funding Approaches and Program Objectives**

**Charles T. Stewart and Ronald O. Roberts**
In series: *Children's Issues, Laws and Programs*
In series: *Social Issues, Justice and Status*
Case: 978-1-62257-142-0. $110.00.
Child welfare services are intended to prevent the abuse or neglect of children; ensure that children have safe, permanent homes; and promote the well-being of children and their families. The largest amount of federal child welfare funding is provided to states for assistance to children who have been removed from their homes (due primarily to abuse or neglect). In the past decade, the share of this support provided for children who remain in foster care has been on the decline, while the share provided for those who leave foster care for permanent homes (e.g., via adoption) has increased. This book examines recent and proposed federal funding issues for child welfare with a focus on services authorized under Title IV-B of the Social Security Act, and The Child and Family Services Improvement and Innovation Act (P.L.112-34).
Defending Children Exposed to Violence: Scope and Recommendations
Darryl Karalis
In series: Children’s Issues, Laws and Programs
Case: 978-1-62618-007-9. $110.00.
e-book: 978-1-62618-008-6. $110.00.
We are facing one of the most significant challenges to the future of America’s children that we have ever known. Our children are experiencing and witnessing violence on an alarming scale. This exposure to violence is not limited to one community or one group of children. It occurs among all ethnic and racial groups; in urban, suburban, and rural areas; in gated communities and on tribal lands. Advances in neuroscience and child development have taught us that the trauma children experience when they are exposed to physical, sexual, and emotional violence harms their ability to mature cognitively and emotionally, and it scars them physically and emotionally well into their adult lives. We pay astronomical costs to the healthcare, child welfare, justice and other systems because we have not yet done what we know works to prevent and treat childhood exposure to violence. This book focuses on protecting children from exposure to violence and to healing those who were exposed, and calls for action by the federal government, states, tribes, communities and the private sector.

Education Aid for Disadvantaged Children: ESEA Title I-A Allocation Formulas and Reauthorization
Michelle Johnson and Samantha L. Rothman
In series: Education in a Competitive and Globalizing World
In series: Social Issues, Justice and Status
Case: 978-1-62081-313-3. $135.00.
Title I, Part A, of the Elementary and Secondary Education Act (ESEA) authorizes federal aid to local educational agencies (LEAs) for the education of disadvantaged children. Title I-A grants provide supplementary educational and related services to low-achieving and other pupils attending pre-kindergarten through grade 12 schools with relatively high concentrations of pupils from low-income families. In recent years, they have also become a “vehicle” to which a number of requirements affecting broad aspects of public K-12 education for all pupils have been attached as a condition for receiving Title I-A grants. This book examines the formulas used to allocate Title I-A funds to states, LEAs, and schools. These formulas are used to allocate funds not only under the largest federal K-12 education program, but also several other ESEA and non-ESEA programs under which grants are made in proportion to ESEA Title I-A allocations.

Medicating Foster Care Children with Psychotropic Drugs: An Examination
Robert L. Ray and Mackenzie A. Watkins
In series: Children’s Issues, Laws and Programs
In series: Social Issues, Justice and Status
Case: 978-1-61942-889-8. $95.00.
Foster children, often being removed from neglectful or abusive homes, are one of the country’s most vulnerable populations. With the often traumatic circumstances that define their early lives, it is no wonder studies show their tendency for more mental health conditions than other children. Facing these and other significant challenges surrounding foster care programs, state authorities, caseworkers, and parents, are given few options on appropriate treatments. These options often include prescribing heavy-duty psychotropic drugs such as antidepressants and, in some cases, even antipsychotics - drugs which have little research available supporting their use in children. This book examines the practice of medicating America’s foster children with a focus on the financial and societal costs.

Positive Youth Development: A New School Curriculum to Tackle Adolescent Developmental Issues
Hing Keunag Ma (Hong Kong Baptist University, Hong Kong, PRC), Daniel TL Shek (The Hong Kong Polytechnic University, Hunghom, Hong Kong, PRC), Joav Merrick (Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)
In series: Pediatrics, Child and Adolescent Health
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62081-384-3. $150.00.
e-book: 978-1-62081-385-0. $150.00.
A team of researchers from five universities in Hong Kong have constructed a comprehensive positive youth development package for junior secondary school students in Hong Kong. This project is called P.A.T.H.S. (Positive Adolescent Training through Holistic Social Programs) and the package focuses on various aspects of positive youth development used by more than 250 secondary schools in Hong Kong. Research has been performed on the effectiveness and educational implications of the teaching package, which opened a new page of study in the field of whole-person education and youth education in Chinese societies. In view of the data collected so far, the teaching package is well received by students, teachers and educators in Hong Kong. The new curriculum covered in this book is closely related to the emerging adolescent developmental issues in Hong Kong and the global contexts.

Positive Youth Development: Theory, Research and Application
Daniel TL Shek (The Hong Kong Polytechnic University, Hong Kong, China), Rachel CF Sun (The University of Hong Kong, Hong Kong, China), Joav Merrick (Medical Director, Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs, Jerusalem)
In series: Pediatrics, Child and Adolescent Health
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)
Case: 978-1-62081-305-8. $150.00.
In the prevention science approach, focus is put on identifying risk and protective factors in adolescent risk behavior. Based on this approach, many research and prevention programs have been generated in the past few decades. Nevertheless, over-emphasis of adolescent developmental problems has been criticized as focusing too much on adolescent developmental problems and pathologies. In response to this criticism, an alternative approach highlighting the importance of positive youth development has been proposed.
Research Methods for Children
Laura Anne Nabors (School of Human Services, University of Cincinnati, Department of Human Services, Cincinnati, Ohio)
In series: Children's Issues, Laws and Programs
In series: Laboratory and Clinical Research
2013. 149 pp.
Case: 978-1-62257-825-2. $110.00.
Research with children is an invaluable way to tell their story in their own words. Research documenting ideas about children from parent and teacher perspectives is valuable, but in itself, does not tell the story from the child’s point of view. Thus, the purpose of this book is to develop a book for those interested in conducting research with children, to document their voices and perceptions. Each chapter in this book is intended to provide a summary of ideas that will help the reader in thinking about research for children, from their perspective and telling their story. The author spent time during graduate school wondering why so much information about children was presented from the adult perspective. This observation has lead to a research track for this author, wherein she has tried to focus the “knowledge camera” if you will on children’s perspectives of their development and their world. This is the foundational idea for the development of this book.

Siblings: Social Adjustments, Interaction and Family Dynamics
Maison Dupont and Jean-Pierre Renaud
In series: Children’s Issues, Laws and Programs
In series: Family Issues in the 21st Century
Case: 978-1-62257-057-7. $120.00.
e-book: 978-1-62257-064-5. $120.00.
This book provides a look at the social adjustments, interaction and family dynamics of siblings. The authors present current research including parent-child attachments; the influence of familial factors on child trauma symptoms in children exposed to intimate partner violence; sibling interactions and pro-social skills and antisocial behaviors during different stages of child development; birth order and risk preferences; twin and higher order multiple pregnancies in medically assisted reproduction; support for siblings of children with intellectual disabilities; and communicative functions of emotions in sibling relationships.

Welfare of Children in Foster Care: Health Care Needs and Social Security Benefits
Cooper Mitchell and Mark E. Parker
In series: Children’s Issues, Laws and Programs
In series: Social Issues, Justice and Status
Soft: 978-1-62257-143-7. $52.00.
e-book: 978-1-62257-158-1. $52.00.
Approximately 662,000 children spend some time in foster care each year. Most enter care because they have experienced neglect or abuse by their parents. Between 35% and 60% of children entering foster care have at least one chronic or acute physical health condition that needs treatment. As many as one-half to three-fourths show behavioral or social competency problems that may warrant mental health services and substance abuse counseling. As many as 24,000 (about 6%) receive Supplemental Security Income (SSI) or other Social Security benefits. Some research suggests that a greater number of children in foster care might be eligible for SSI benefits if this assistance was sought. This book examines the health care needs and social security benefit issues facing children in the foster care system with a focus on medicare benefits; private health insurance reforms; and possible legislative changes.

Youth in America: Transitions to Adulthood and Disconnected Youths
Olive F. Nelson and Mace R. Davies
In series: Social Issues, Justice and Status
Case: 978-1-62081-884-8. $195.00.
The transition to adulthood in the United States has changed in recent decades as many of the traditional milestones that mark adulthood, such as household establishment and marriage, have changed or been delayed. Among these changes are increased participation and attainment in education; extenuation of educational completion and subsequent delayed participation in the labor force; and delays in child rearing. This book examines numerous aspects of the lives of youth and young adults, ages 14 to 24 in the United States over the last several decades. Discussed are the status and trend data from multiple surveys on the distribution of youth and their family structure; on school, employment, health-related factors and future plans.

Youth in the Labor Force: Context, Trends, and Job Training Programs
Bradley Meyer and Joel A. Rice
In series: Children’s Issues, Laws and Programs
In series: Social Issues, Justice and Status
e-book: 978-1-62257-405-6. $52.00.
Congress has indicated a strong interest in ensuring that today’s young people, those age 16 through 24, attain the education and employment experience necessary to make the transition to adulthood as skilled workers and taxpayers. In the wake of the December 2007–June 2009 recession, questions remain about the employment prospects of youth today and the possible effects on their future earnings and participation in the labor market. This book provides context for policymakers on the youth employment situation. It includes data on labor force participation, employment, and unemployment in the post-World War II period, with a focus on trends since 2000. This discussion compares rates based on age, gender, race/ethnicity, and income, where applicable and also explores the factors that influence youth participation in the labor force and their prospects for employment.

CHINESE STUDIES
Child Protection in Chinese Societies: Challenges and Policies
Edward Ko Ling Chan (Department of Social Work & Social Administration, The University of Hong Kong, Hong Kong)
In series: Children’s Issues, Laws and Programs
In series: China in the 21st Century
Case: 978-1-61942-879-9. $165.00.
This book introduces the current situations of child victimization in the Chinese populations to readers, discusses the relevant political and legal systems as well as health and social services, and puts forward some recommendations for effective child protection with an emphasis on the unique cultural values and situations in the Chinese populations. Grounded in the recent and contemporary research and scholarly inquiry, this is a vital book for understanding trends and current situations in China, as well as an essential read for those who work,
research, teach or study in the area. This book is the only one available to date to present a comprehensive and critical review of child maltreatment and victimization in China whilst promoting a multi-disciplinary collaboration to child protection.

China 1966-1976, Cultural Revolution Revisited – Can It Happen Again?  
Guang Wu (DreamSciTech Consulting, Guangxi, China)  

In series: China in the 21st Century  
Case: 978-1-61209-337-6. $85.00.  
Soft: 978-1-62257-760-6. $59.00.  

In many ways, this book is very different from almost all other books on this topic, not because this book does not depend on any individual case, personal sufferings, anecdotes and secret documents, but because its analyses and conclusions are different. For example, the analysis shows that Mao Zedong had no need to launch the Cultural Revolution to defeat Liu Shaoqi because Mao Zedong had many options; the Cultural Revolution was well-designed, well-prepared, well-organized, and well-controlled because . . . Why the Cultural Revolution was so brutal because . . . Most surprisingly, the analysis suggests that Mao Zedong and Deng Xiaoping might co-design the Cultural Revolution because . . Finally, this book discusses the pros and cons against the reoccurrence of Cultural Revolution in the future.

China: Politics, U.S. Relations and the Chen Guangcheng Affair  
Damian A. Vallier  

In series: Asian Political, Economic and Security Issues  
Case: 978-1-62417-156-7. $110.00.  

This book provides an overview on the contemporary political system of China, the world's second largest economic power, one of five permanent members of the United National Security Council, and the only Communist Party-led authoritarian state in the G-20 grouping of major economies. By introducing some of the distinct features and governance challenges of China's political culture, this book aims to help Congress understand the ways in which political actors in China interact, or in some cases, fail to interact, with implications for China's relationship with its neighbors and the world. Also discussed is China's formal political structures; and the diplomacy and human rights implications of Chinese legal advocate Chen Guangcheng.

China's Banking System, Currency Policy and Economic Conditions  
Jake J. Chapman and Upton N. Marshall  

In series: Asian Economic and Political Issues  
Case: 978-1-62081-637-0. $110.00.  

China's banking system has been gradually transformed from a centralized, government-owned and government-controlled provider of loans into an increasingly competitive market in which different types of banks, including several U.S. banks, strive to provide a variety of financial services. Additionally, China's policy of intervening in currency markets to limit or halt the appreciation of its currency, the renminbi (RMB), against the U.S. dollar and other currencies has become an issue of concern for many in Congress. Critics charge that China's currency policy is intended to make its exports significantly less expensive, and its imports more expensive, than would occur if the RMB were a freely-traded currency. Since opening up to foreign trade and investment in 1979, China has been one of the world's fastest-growing economies and has emerged as a major economic and trade power. This book takes a comprehensive look at China's banking system, currency policy and current economic conditions.

Chinese Military Modernization: Select Analyses and Implications  
Roger Cooperman and Alexander J. Foster  

In series: Defense, Security and Strategies  
2012. 185 pp.  
Case: 978-1-62257-623-4. $110.00.  

This book explores the question of how the United States should respond to China's military modernization effort, including its naval modernization effort, which has emerged as a key issue in U.S. defense planning. China's naval modernization effort, which began in the 1990s, encompasses a broad array of weapon acquisition programs, including anti-ship ballistic missiles, submarines, and surface ships. Observers believe that the near-term focus of China's military modernization effort has been to develop military options for addressing the situation with Taiwan. Potential oversight issues for Congress include whether the U.S. Navy in coming years will be large enough to adequately counter improve Chinese maritime anti-access forces while also adequately performing other missions of interest to U.S. policymakers around the world; the Navy's ability to counter Chinese anti-ship ballistic missiles and submarines; and whether the Navy, in response to China's maritime anti-access capabilities, should rip over time to a more distributed fleet architecture.

Developmental Issues in Chinese Adolescents  
Daniel TL Shek (The Hong Kong Polytechnic University, Hong Kong) Rachel CF Sun (The University of Hong Kong, Hong Kong, China) Joav Merrick (Medical Director, Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)  

In series: Pediatrics, Child and Adolescent Health  
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)  
Case: 978-1-62081-262-4. $150.00.  

Young people are regarded as future assets of the society. Hence, adolescent prevention programs are commonly developed to tackle adolescent risk behavior and positive youth development programs are designed to promote holistic development in adolescents. However, a survey of the literature shows that research on adolescents is mainly confined to the Western societies. For Chinese psychologists, pediatricians, psychiatrists, and allied human service workers, knowledge about adolescent development is largely developed in the Western culture. To what extent is Western knowledge on adolescent development applicable to Chinese young people? Are Chinese adolescent risk behaviors similar to those in Western societies? To what extent are intervention programs, such as adolescent prevention programs, applicable to Chinese people? These are important questions to be addressed by human service professionals working with Chinese adolescents and their families.

Going Green in China: Policy and Potential  
Spencer B. Talscott  

In series: China in the 21st Century
This book examines China's greenhouse gas emissions and mitigation policies. Debate on potential climate change legislation in the United States has been influenced by China's surging GHG emissions, and uncertainty over whether, how, and when China might alter that trend. There is concern that strong U.S. domestic action taken without Chinese reciprocity would unfairly advantage China in global trade, and fail to slow significantly the growth of atmospheric concentrations of GHGs. The governments of both China and the United States have indicated some closure of their gap on future actions to address climate change by agreeing on national pledges to GHG targets and mitigation actions rather than binding international obligations. China is also engaged with many other countries in bilateral programs to build its governance and technological capacities to abate its GHG emissions.

Handbook of Contemporary Marketing in China: Theories and Practices
Cheng Lu Wang (University of New Haven, West Haven, CT, USA)
In series: Management Science - Theory and Applications
Soft: 978-1-62257-643-2. $79.00.
This book provides state-of-the-art reviews of various current marketing research areas in China. It also features empirical (both qualitative and quantitative) studies that investigate marketing issues with conceptual significance and managerial importance. This new book provides a useful and comprehensive resource for academicians, professionals and practitioners who are interested in contemporary China’s markets, marketing research and marketing practices.

Internet Censorship and Freedom in China: Policies and Concerns
Casey M. Boyden
In series: Internet Policies and Issues
In series: China in the 21st Century
2013. 120 pp.
Soft: 978-1-62417-559-6. $52.00.
e-book: 978-1-62417-560-2. $52.00.
The People's Republic of China (PRC) has the world's largest number of Internet users, estimated at 500 million people. Despite government efforts to limit the flow of online news, Chinese Internet users are able to access unprecedented amounts of information, and political activists have utilized the Web as a vital communications tool. In recent years, Twitter-like microblogging has surged, resulting in dramatic cases of dissident communication and public comment on sensitive political issues. However, the Web has proven to be less of a democratic catalyst in China than many observers had hoped. The PRC government has one of the most rigorous Internet censorship systems, which relies heavily upon cooperation between the government and private Internet companies. This book examines the development of the Internet and its use in China which has raised Congressional concerns, including those related to human rights, trade and investment, and cybersecurity.

Computers
Data Security, Data Mining and Data Management: Technologies and Challenges
Serge O'Byrne
In series: Computer Science, Technology and Applications
2013. 92 pp.
Soft: 978-1-62417-582-4. $72.00.
e-book: 978-1-62417-583-1. $72.00.
In this book, the authors discuss the new technologies and challenges of data security, data mining and data management. Topics include clustering algorithms in radiobiology and DNA damage quantification; data mining for searching genomic information; data management in the semantic web; and how fragile data security can be when the system architecture, authorization and validation is founded on a personal identification number (PIN).

Crime
Body Armor: Ballistic and Stab Resistance Standards with a Guide to Selection
Luis E. Sandoval and Clifford J. Stanley
In series: Law, Crime and Law Enforcement
Case: 978-1-62257-439-1. $195.00.
This book is an examination of the minimum performance standard developed in collaboration with the Office of Law Enforcement Standards to determine the requirements and test methods for the ballistic resistance of personal body armor intended to protect against gunfire. The standard discussed specifies the minimum performance requirements that equipment must meet to satisfy the requirements of criminal justice agencies and the methods that shall be used to test this performance. Body armor manufacturers and purchasers may use this standard to help determine whether specific armor models meet the minimum performance standards and test methods. The National Institute of Justice standards are subject to continued research, development, testing, review, and revision and are re-evaluated and modified as necessary.

Criminal Justice Support for American Indians: Select Considerations
Gary N. Cook and Anna Maria Reed
In series: Criminal Justice, Law Enforcement and Corrections
In series: Law, Crime and Law Enforcement
Case: 978-1-62257-182-6. $110.00.
This book examines the new technologies and challenges of data security, data mining and data management. The Department of Justice (DOJ) has reported from the last available data that the crime rates experienced by American Indians nationwide are two a half times higher than those experienced by the general population in the United States. The Tribal Law and Order Act of 2010 recognizes that Indian tribes have faced significant increases of burglary, assault, child abuse, and domestic violence as a direct result of increased methamphetamine use on Indian reservations. Further, it is estimated that 39 percent of American Indian and Alaskan Native women will be subjected to domestic violence during their lifetime. Such crime levels have a devastating effect on the quality of life for tribal communities and signal a public safety crisis in Indian country. This book reviews the challenges facing select tribal justice systems in
adjudicating crime in Indian country as well as federal agencies' efforts to coordinate their activities to support tribal justice systems.

**Cybercrime: Conceptualized and Codified**

*Kendrick S. Larson and Hugh Williamson*

In *series: Law, Crime and Law Enforcement*


Case: 978-1-62257-509-1. $135.00.

This book examines the conceptual issues for Congress and U.S. law enforcement as it relates to cybercrime. Twenty-first century criminals increasingly rely on the Internet and advanced technologies to further their criminal operations. These criminals can easily leverage the Internet to carry out traditional crimes such as distributing illicit drugs and sex trafficking. In addition, they exploit the digital world to facilitate crimes that are often technology driven, including identify theft, payment card fraud, and intellectual property theft. Cybercrimes have economic, public health, and national security implications. For over three decades, Congress has been concerned about cybercrime and its related threats. Today, these concerns often arise among a larger discussion surrounding the federal government’s role in ensuring U.S. cyber security.

**Federal Control of Guns and Firearms: Developments and Considerations**

*Korrgan A. Shaw and Rudy E. White*

In *series: Laws and Legislation*


Case: 978-1-62081-744-5. $135.00.

Congress has debated the efficacy and constitutionality of federal regulation of firearms and ammunition, with strong advocates arguing for and against greater gun control. Since March 2011, much of the gun control debate in the 112th Congress has swirled around allegations that the Department of Justice and the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) mishandled a Phoenix, AZ-based gun trafficking investigation known as “Operation Fast and Furious.” The tragic shootings in Tucson, AZ, on January 8, 2011, in which six people were killed and 13 wounded, including Rep. Gabrielle Giffords, have also generated attention. This book examines the developments and considerations in the federal control of guns and firearms, with a focus on gun control legislation; an overview of District of Columbia v. Heller and McDonald v. City of Chicago; DC gun laws and proposed amendments; and firearms commerce in the US.

**Federal Mandatory Minimum Sentencing: Sexual Offenses and Aggravated Identity Theft**

*Michael J. Davis and Abigail M. White*

In *series: Law, Crime and Law Enforcement*

2012. 86 pp.

Case: 978-1-62081-988-3. $52.00.

Sex offenses are usually hate crimes. Federal law, however, outlaws sex offenses when they occur on federal lands or in federal prisons, when they involve interstate or foreign travel, or when they involve child pornography whose production or distribution is associated in some way with interstate or foreign commerce. Mandatory minimum terms of imprisonment attend conviction for any of several of these federal sex crimes. Aggravated identity theft is punishable by a mandatory minimum sentence of imprisonment for two years or by imprisonment for five years if it relates to a terrorism offense. The two-year offense occurs when an individual knowingly possesses, uses, or transfers the means of identification of another person, without lawful authority to do so, during and in relation to one of more than 60 predicate federal felony offenses. This book provides an overview of federal mandatory minimum sentencing law with regard to sexual offenses and aggravated identity theft, specifically.

**Federal Prison Populations: Inmate Crowding and Bureau of Prisons Policies**

*Triston S. Schofield*

In *series: Law, Crime and Law Enforcement*

2013. 133 pp.

Case: 978-1-62417-189-5. $110.00.
e-book: 978-1-62417-190-1. $110.00.

This book examines the federal prison population in the United States with a focus on growing inmate crowding and the eligibility and capacity impact to reduce inmates' time in prison. Issues discussed include the effects of a growing federal prison population on operations within the Bureau of Prisons (BOP) facilities and the extent to which BOP has taken actions to mitigate these effects. Also discussed is the extent to which BOP utilizes its authorities to reduce a federal prisoner's period of incarceration.

**Money Laundering: An Analysis of Federal Law**

*Carlyle M. Bennett and Carlson D. Turner*

In *series: Laws and Legislation*


Case: 978-1-62081-614-1. $52.00.

Money laundering is commonly understood as the process of cleansing the taint from the proceeds of crime. In federal criminal law, however, it is more. In the principal federal criminal money laundering statutes, 18 U.S.C. 1956 and 1957, and to varying degrees in several other federal criminal statutes, money laundering involved the flow of resources to and from several hundred other federal, state, and foreign crimes. Money laundering in some forms is severely punished, sometimes more severely than the underlying crime with which it is associated. The penalties frequently include not only long prison terms, but the confiscation of the property laundered, involved in the laundering, or traceable to the laundering. In this book, an overview of the elements and other legal attributes and consequences of a violation of Sections 1956 and 1957 are discussed, as are select related federal criminal statutes.

**Scholarly Influence in Criminology and Criminal Justice**

*Ellen G. Cohn (Florida International University, Miami, FL) and David P. Farrington (Institute of Criminology, Cambridge University, MA)*

In *series: Criminal Justice, Law Enforcement and Corrections*


Case: 978-1-62081-357-7. $150.00.

This is the first book to trace scholarly influence in criminology and criminal justice over a twenty-year time period. It is based primarily on the analysis of citations in major journals, but it also includes studies of publication productivity. This book shows that, over a twenty-year time period, the most influential topics in major criminology and criminal justice journals were either concerned with developmental/life course or longitudinal/criminal career research, or were expositions of major theories. Because of its identification of the most-cited scholars, the most-cited books and articles, and the most prolific publishers, this book will be of interest to all scholars and students in criminology and criminal justice and allied fields. In addition, its conclusions about the
most influential theories and research should be of interest to policy makers, practitioners, and funding agencies.

**Criminal Justice and Law Enforcement**

Crime Victims' Rights Act and Department of Justice Assistance Guidelines
*Jeff C. Harris and Elizabeth King*
In series: *Environmental Remediation Technologies, Regulations and Safety*
In series: *Law, Crime and Law Enforcement*
Case: 978-1-62417-041-6. $110.00.
Within the United States Code, is a statutory bill of rights for victims of crimes committed in violation of federal law or the laws of the District of Columbia. It defines victims as anyone directly and proximately harmed by such an offense, individuals and legal entities alike. Section 3771 of Title 18 directs the courts and law enforcement officials to see to it that the rights it creates are honored. Both victims and prosecutors may assert the rights and seek review from the appellate courts should the rights be initially denied. The section vests no rights in the accused nor does it create cause of action damages in any instance where a victim is afforded less than the section’s full benefits. This book discusses the crime victims’ rights act and also provides assistance guidelines from the Department of Justice.

Gun Control: States’ Concealed Carry Permits and Background Check Progress
*Martin Sanders and Louis J. Ramirez*
In series: *Criminal Justice, Law Enforcement and Corrections*
In series: *Law, Crime and Law Enforcement*
Case: 978-1-62257-806-1. $110.00.
According to state reporting to the Government Accountability Office (GAO), there were at least 8 million active permits to carry concealed handguns in the United States as of December 31, 2011. States and local authorities control the issuance of concealed carry permits. Applicants who wish to obtain such permits are required to meet certain state eligibility requirements, such as minimum age and the lack of a felony conviction. States also decide which other states’ permits to honor. Typically, states enter into reciprocity agreements that establish which out-of-state permit holders can carry concealed firearms within each state. This book provides an overview of the extent to which states allow concealed carry permits, and how select states’ eligibility requirements and recognition of other states’ permits differ.

Indigent Defense: Federal Support and International Perspectives
*Betty Nichols and Jeff Weaver*
In series: *Criminal Justice, Law Enforcement and Corrections*
In series: *Law, Crime and Law Enforcement*
Case: 978-1-62257-441-4. $135.00.
Pursuant to the Sixth Amendment to the U.S. Constitution, every person accused of a crime is afforded the right to have counsel in his or her defense, even if unable to afford such representation. Individuals accused of a crime but unable to afford representation, referred to as indigent defendants, often rely on entities such as public defender offices for the provision of counsel. Several organizations, including the National Legal Aid and Defender Association, conducted national studies of indigent defense, pointing out many challenges in providing counsel across the country, including inadequate funding of defense programs as a whole, inadequate compensation for assigned counsel, lack of investigative resources, inexperienced counsel, and understaffing of public defense offices. In affording indigent defendants their right to counsel, both state and local governments generally decide the type of indigent defense programs to employ and how to fund them. This book provides a look at federal support and international perspectives of indigent defense.

Inmate Release, Reintegration and Reentry: Elements and Analysis
*Chris Homesley*
In series: *Law, Crime and Law Enforcement*
2013. 120 pp.
Soft: 978-1-62417-996-9. $52.00.
The prison population in the United States has been growing steadily for more than 30 years. The Bureau of Justice Statistics reports that since 2000 an average of 680,000 inmates have been released from state and federal prisons and almost 5 million ex-offenders are under some form of community-based supervision. Offender reentry can include all the activities and programming conducted to prepare ex-convicts to return safely to the community and to live as law-abiding citizens. Some ex-offenders, however, eventually end up back in prison. This book examines the key elements in inmate release and offender reentry, with a focus on correctional statistics, reintegration into the community, and recidivism.

Modern Policing: New Paradigms and Perspectives
*Pierce Vertucci*
In series: *Criminal Justice, Law Enforcement and Corrections*
Case: 978-1-62618-017-8. $135.00.
Effective police leaders become adept at responding to challenge. Like other organizations, police agencies must balance constancy and predictability with adaptation and change. Even as they strive to standardize operations, most police leaders recognize the fluid context in which their agencies operate. They also understand that there are forces to which police organizations must adapt and evolve in order to remain effective in a changing world. It is those forces that drive organizational change and create new models for conducting the business of policing. This book examines the new paradigms and perspectives of modern policing.

Prisons and Prison Systems: Practices, Types and Challenges
*Johan Fuhrmann and Stefan Baier*
In series: *Criminal Justice, Law Enforcement and Corrections*
Case: 978-1-62417-850-4. $150.00.
In this book, the authors present current research in the study of the practices, types and challenges in prisons and prison systems. Topics discussed include the Chinese prison system for female offenders; a study of solitary confinement; an exploratory study on child care in
prisons; the challenges of re-entry from prison to society; offence paralleling behaviours in incarcerated offenders; women offenders and the criminal justice system; conducting treatment in the prison system and rehabilitation research; violence prevention booster programs and the effects on knowledge; attitude and recidivism; and an assessment of HCV and HIV within correctional institutions.

**Tasers and Conducted Energy Devices: Safety and Use by Law Enforcement**

*Leroy R. Elliott and Alex W. Riley*

In series: *Law, Crime and Law Enforcement*  
Case: 978-1-62257-463-6. $110.00.  

Today, more than 12,000 law enforcement agencies in the United States use conducted energy devices (CEDs) as an alternative to conventional physical control tactics or other means of subdue. A National Institute of Justice (NIJ)-sponsored expert panel, convened to evaluate the safety and effectiveness of CEDs and concluded that law enforcement officers need not refrain from using CEDs to place uncooperative and combative subjects in custody provided that the CEDs are used in accordance with accepted national guidelines and an appropriate use-of-force policy. The panel also concluded that field use of CEDs is safe in the vast majority of cases and creates less risk of injury to officers and suspects alike, than other options of subduing uncooperative persons. This book examines the safety and use by law enforcement officers of force, tasers and other less lethal weapons with a focus on a study also of deaths following electro muscular disruption.

**The Persistence of Human Trafficking**

*Perry Simmons Foster and Kayla Brady*

In series: *Criminal Justice, Law Enforcement and Corrections*  
Case: 978-1-62257-773-6. $135.00.  

Trafficking in persons, or human trafficking, refers to the subjection of men, women, and children to exploitative conditions that can be tantamount to slavery. Reports suggest that human trafficking is a global phenomenon, victimizing millions of people each year and contributing to a multi-billion dollar criminal industry. It is a centuries-old problem that, despite international and U.S. efforts to eliminate it, continues to occur in virtually every country in the world. Human trafficking is also an international and cross-cutting policy problem that bears on a range of major national security, human rights, criminal justice, social, economic, migration, gender, public health, and labor issues. This book examines the international dimensions and foreign policy issues for Congress of human trafficking.

**The Violence Against Women Act: Elements and Considerations**

*Joshua Abrahamsen and Roger T. Cantrell*

In series: *Criminal Justice, Law Enforcement and Corrections*  
In series: *Women's Issues*  

In the early 1990's, Congress passed the Violence Against Women Act (VAWA). The act was intended to change attitudes toward domestic violence, foster awareness of domestic violence, improve services and provisions for victims, and revise the manner in which the criminal justice system responds to domestic violence. This legislation created new programs within the Department of Justice and Health and Human Services that aimed to both reduce domestic violence and improve response to and recovery from domestic violence incidents. VAWA primarily addresses certain types of violent crime through grant programs to state, tribal, and local governments; nonprofit organizations; and universities. VAWA programs target the crimes of intimate partner violence, dating violence, sexual assault, and stalking.

This book provides a brief legislative history of VAWA and an overview of the crimes addressed with a focus on legislation and funding issues.

**Youth in the Adult Criminal Justice System**

*Nathaniel Dudziak*

In series: *Criminal Justice, Law Enforcement and Corrections*  
In series: *Children's Issues, Laws and Programs*  
Sof: 978-1-62618-009-3. $52.00.  

Since the world's first juvenile court was founded in Chicago, our legal system has recognized a separate mandate to rehabilitate youth with an approach that is different than adults. Today, all 50 states and the District of Columbia and the federal government have two distinct systems for dealing with adults and juveniles, and corrections systems kept pace by developing different systems for dealing with the youth. While the majority of youth arrested for criminal acts are prosecuted in state juvenile justice systems, a significant proportion of youth are handled by adult criminal justice agencies. This book examines the issues, impacts and options facing corrections when they manage youth in the adult system, with a focus on raising awareness of these issues, and finding the best ways to curb juvenile delinquency in correctional settings.

**DEFENSE AND SECURITY**

**21st Century Defense Strategy Guidance and Defense Reduction Considerations**

*Betsey J. Robertson and Barlow E. Morris*

In series: *Defense, Security and Strategies*  
2012. 121 pp.  
Case: 978-1-62081-801-5. $110.00.  

On January 5th, 2012, President Obama announced a new defense strategic guidance entitled "Sustaining U.S. Global Leadership: Priorities for 21st Century Defense." This new guidance is significant because it is explicitly intended to reshape future Department of Defense (DOD) priorities, activities, and budget requests for the next decade. While the guidance is intended to steer DOD decision-making as it reduces defense spending by about $487 billion over the next 10 years, to meet the initial budget caps set in the Budget Control Act (BCA) of 2011, it does not account for the possibility of sequestration, further significant, across-the-board cuts that could be required pursuant to implementation of the BCA. This book highlights and analyzes key strategic-level issues raised by the new guidance.

**An Anthology of Contending Views on International Security**

*David Walton (University of Western Sydney, Australia), Michael Frazier (Howard University, Washington D.C.)*

In series: *Defense, Security and Strategies*  
Case: 978-1-61942-808-9. $165.00.  
This book considers contending views on security ten years after the terrorist attacks on New York and Washington in September 2001. In this context the editors have endeavored to offer a diverse range of perspectives on security with the intention of contributing to existing literature and understanding of what security means in the first decade after 9/11. The editors have invited perspectives from Asia, Europe, Australia, Africa, as well as the United States. Traditional and non-tradition approaches towards security are examined. The diversity of views in this volume is indicative of the range of complex and challenging security issues that exist in the new international environment. This book’s main focus is to showcase important themes in the discourse on broader post-9/11 security debates.

Biosurveillance and BioWatch Generation-3 Acquisition
Wyatt E. Fletcher
In series: Defense, Security and Strategies
2013. 91 pp.
Soft: 978-1-62417-219-9, $52.00.
According to Homeland Security Presidential Directive 10 (HSPD-10): Biodefense for the 21st Century, a national bioawareness capability providing early warning, detection, or recognition of a biological weapon attack is an essential component of biodefense. To contribute to this national capability, the Department of Homeland Security (DHS) operates the BioWatch program, which uses routine laboratory testing designed to detect an aerosolized biological attack for five specific biological agents considered high risk for use as biological weapons. The BioWatch program is a federally-managed, locally operated system with collectors deployed primarily in outdoor locations in more than 30 major metropolitan areas. This book provides an overview of the BioWatch Generation-3 Acquisition program with a focus on meeting mission needs for effective biosurveillance.

Chemical Facility Security: Considerations for Congress
Marlin J. Flores and Nicholas J. Washington
In series: Defense, Security and Strategies
Soft: 978-1-61942-925-3, $47.00.
e-book: 978-1-61942-958-1, $47.00.
Even before September 11, 2001, congressional policymakers have expressed concern about the safety and security of facilities possessing certain amounts of hazardous chemicals. The sudden release of hazardous chemicals from facilities storing large quantities might potentially harm many people living or working nearby the facility. Chemical facilities engaged in security activities on a voluntary basis. Following September 11, 2001 some states enacted laws requiring additional consideration of security at chemical facilities. Congress debated whether the federal government should regulate such facilities for security purposes to reduce the risk they pose. This book provides a brief overview of the existing statutory authority to regulate chemical facilities with a focus on policy issues and options for congressional consideration.

Civil Air Patrol: Organization and Homeland Security Role
Henri S. Galiena
In series: Defense, Security and Strategies
2013. 100 pp.
Soft: 978-1-62417-632-6, $52.00.
The Civil Air Patrol (CAP) is a federally chartered non-profit corporation that may be utilized as a civilian volunteer auxiliary of the Air Force. The Secretary of the Air Force can employ the services of CAP in lieu of or to supplement Air Force resources to fulfill the non-combat programs and missions of the Air Force. Such services may include Air Force-assigned missions in support of homeland security operations, consequence management, support to civilian law enforcement, and other civil support. This book provides an overview of the organization and function of the Civil Air Patrol, detailing the procedures, standards, and responsibilities of Air Force organizations that support and employ CAP.

Coast Guard Cutters and Polar Icebreakers: Procurement Plans and Issues
Roy M. Schulz
In series: Defense, Security and Strategies
2013. 156 pp.
Case: 978-1-62417-555-8. $110.00.
This book provides background information and potential oversight issues for Congress on the Coast Guard's programs for procuring eight National Security Cutters, 25 Offshore Patrol Cutters, and 58 Fast Response Cutters. These 91 planned cutters are intended as replacements for 90 aging Coast Guard cutters and patrol craft. Additionally discussed is the sustainment and modernization of the Coast Guard's polar icebreaker fleet, which performs a variety of missions supporting U.S. interests in polar regions. The issue for Congress is whether to approve, reject, or modify Coast Guard funding and modernization requests and acquisition strategies. Congressional decisions could affect the Coast Guard's capabilities and funding requirements, the performance of polar missions and the U.S. shipbuilding industrial base.

Comprehensive Nuclear-Test-Ban Treaty: Elements, Arguments, and Analyses
Marcela N. Rodriguez and Joan O. Walker
In series: Defense, Security and Strategies
2012. 177 pp.
Case: 978-1-62417-036-2. $135.00.
The Comprehensive Nuclear-Test-Ban Treaty would ban all nuclear explosions. It was opened for signature in 1996. As of March 2008, 178 nations had signed it and 144 had ratified. To enter into force, 44 specified nations must ratify it; 35 have done so. The Senate rejected the treaty in 1999; the Bush Administration opposes it. The United States has observed a nuclear test moratorium since 1992. This book discusses elements, arguments and analyses on the comprehensive nuclear-test ban treaty.

Countering Violent Extremism: Training Efforts and Guidance
Peter M. Tavares
In series: Defense, Security and Strategies
In series: Law, Crime and Law Enforcement
Case: 978-1-62417-691-3. $110.00.
e-book: 978-1-62417-692-0. $110.00.
State and local law enforcement and homeland security officials, in partnership with local community members, are the first line of defense against the evolving threat posed by violent extremism—ideologically motivated violence to further political goals. In recent history, the United States has faced violent extremist plots by neo-Nazis and other anti-Semitic hate groups, racial supremacists, and international and domestic terrorist groups. Given the critical role state and local law enforcement officers play in countering violent extremism (CVE), it is important that they receive high-quality CVE-related training. This book provides an assessment of the Department of Homeland Security (DHS) and Department of Justice's (DOJ) efforts to ensure the quality
of violent extremism training that the departments provide or fund for state and local partners.

**Cybersecurity and Related Federal Laws: Revision Proposals**  
*James R. Henderson and David I. Cox*  
In series: *Defense, Security and Strategies*  
In series: *Internet Policies and Issues*  
Case: 978-1-62257-743-9. $110.00.  

For more than a decade, various experts have expressed increasing concerns about cybersecurity, in light of the growing frequency, impact, and sophistication of attacks on information systems in the United States and abroad. Consensus has also been building that the current legislative framework for cybersecurity might need to be revised. This book discusses cybersecurity and proposals to amend related federal laws, while also examining relevant legal issues.

**Data Security Breaches: Notification Laws, Legislation and Identity Theft**  
*Patricia Diaz and William C. Long*  
In series: *American Political, Economic, and Security Issues*  
Case: 978-1-62257-735-4. $110.00.  

A data security breach occurs when there is a loss or theft of, or other unauthorized access to, sensitive personally identifiable information that could result in the potential compromise of the confidentiality or integrity of data. This book provides an overview of state security breach notification laws applicable to entities that collect, maintain, own, possess, or license personal information. This book describes information security and security breach notification requirements in the Office of Management and Budget’s “Breach Notification Policy,” the Health Insurance Portability and Accountability Act (HIPAA), the Health Information Technology for Economic and Clinical Health Act (HITECH), and the Gramm-Leach-Bliley Act (GLBA).

**Electronic Warfare: Select Assessments of Military Capabilities and Strategies**  
*Mason Boyd and Pierce T. Chapman*  
In series: *American Political, Economic, and Security Issues*  
Case: 978-1-62257-792-7. $110.00.  

According to the DOD, the U.S. military’s access to and use of the electromagnetic spectrum is facing rapidly evolving challenges and increased vulnerabilities due to the increasing quality and availability of electronic warfare capabilities to both state and non-state actors. Also, DOD has reported that electronic warfare capabilities, which play a critical and potentially growing role as an enabler for military operations, are currently stressed and will remain so in the future. Moreover, near-peer competitors, primarily Russia and China, have fully recognized the critical nature of electromagnetic spectrum control in military operations and cyberspace operations, which includes computer network operations. This book examines select assessments of military capabilities and strategies with regard to electronic warfare, with a focus on management and oversight, as well as airborne electronic attacks.

**Employee Morale and Department of Homeland Security**  
*Leone A. Mantegna*  
In series: *Defense, Security and Strategies*  
2013. 128 pp.  
Case: 978-1-62417-639-5. $110.00.  

The Department of Homeland Security (DHS) is the third largest cabinet-level department in the federal government, employing more than 200,000 staff in a broad range of jobs. Since it began operations in 2003, DHS employees have reported having low job satisfaction. DHS employee concerns about job satisfaction are one example of the challenges the department faces implementing its missions. The Government Accountability Office (GAO) has designated the implementation and transformation of DHS as a high risk area, including its management of human capital, because it represents an enormous and complex undertaking that will require time to achieve in an effective and efficient manner. This book examines how DHS’s employee morale compared with that of other federal employees; the extent to which DHS and selected components have determined the root causes of employee morale; and the targeted action plan objectives.

**Energy Initiatives and Strategies in the Department of Defense**  
*Tracy Cooke and Darrell T. Bolton*  
In series: *Energy Policies, Politics and Prices*  
In series: *Defense, Security and Strategies*  
Case: 978-1-62257-501-5. $135.00.  

This book provides background information and identifies issues for Congress on Department of Defense (DOD) energy initiatives. The Department of Defense (DOD) spends billions of dollars per year on fuel, and is pursing numerous initiatives for reducing its fuel needs and changing the mix of energy sources that it uses. DOD’s energy initiatives pose several oversight issues for Congress, and have been topics of discussion and debate at hearings on DOD’s proposed FY2013 budget. Congress’ decisions on DOD energy initiatives could substantially affect DOD capabilities, funding requirements, and U.S. energy industries.

**Federal Cybersecurity: Legal Considerations and Assessments**  
*Ryan I. Brooks and Dorothy E. Kelly*  
In series: *American Political, Economic, and Security Issues*  
In series: *Defense, Security and Strategies*  
Case: 978-1-62257-213-7. $110.00.  

The federal government’s role in protecting U.S. citizens and critical infrastructure from cyber attacks has been the subject of recent congressional interest. This book discusses selected legal issues that frequently arise in the context of recent legislation to address vulnerabilities of critical infrastructure to cyber threats, efforts to protect government networks from cyber threats, and proposals to facilitate and encourage sharing of cyber threat information amongst private sector and government entities.

**Guantanamo: Facility, Security and Legal Considerations**  
*Dominique Vannier*  
In series: *Defense, Security and Strategies*
Case: 978-1-62417-864-1. $110.00.
Since 2002, the United States has operated military detention facilities at its Naval Station in Guantanamo Bay, Cuba, to hold individuals detained during overseas counterterrorism operations. In 2009, the President directed the closure of these facilities within one year. Since then, a number of statues have prohibited the transfer of Guantanamo Bay detainees to the United States. This book describes the current Guantanamo Bay detention facilities and infrastructure; examines the DoD corrections facilities and factors to be considered if these facilities were used to hold the detainees; and discusses other security and legal considerations.

Pilot Training and Safety: Considerations and Assessments
David M. Fontenelle
In series: Safety and Risk in Society
2013. 103 pp.
Soft: 978-1-62417-400-1. $52.00.
The United States' aviation transportation system is an important component of the U.S. economy and one of the safest and most efficient systems in the world. However, the continued integrity of this system depends in part on the roughly 3.400 U.S. pilot schools providing well-trained pilot candidates for airlines. This is particularly true for regional airlines, which hire and train pilots from these schools, whereas large mainline airlines tend to hire and train pilots who already have experience at regional airlines. Although the large mainline airlines have an unprecedented safety record, in recent years regional airlines, which account for about 53% of the nation's commercial flights, have experienced a number of fatal accidents; specifically the last six fatal commercial airline accidents involved regional airlines. This book discusses the various types of U.S. pilot training organizations, how they compare, and issues associated with training. Also discussed is to what extent the FAA carries out its oversight role of pilot training and certification.

Port Resilience and Security
Elia Ramazotti
In series: American Political, Economic, and Security Issues
In series: Defense, Security and Strategies
2013. 121 pp.
Case: 978-1-62417-656-2. $110.00.
U.S. Ports are a part of an economic engine handling more than $700 billion in merchandise annually, and a disruption to port operations could have a widespread impact on the global economy. The Department of Homeland Security (DHS) has broad responsibility for protection and resilience of critical infrastructure. Within the DHS, the Coast Guard is responsible for the maritime environment, and port safety and security, and the Office of Infrastructure Protection (IP) works to enhance critical infrastructure resilience. This book provides an overview of the implementation strategies in development to leverage existing tools and resources to assess port resilience.

Precision and Global Strike Weapons: Considerations and Developments
Norman Holmes and Vincent Boyd
In series: Defense, Security and Strategies
In series: American Political, Economic, and Security Issues
Soft: 978-1-61942-618-4. $52.00.
e-book: 978-1-62257-382-0. $52.00.
This book provides background information and considers issues related to the worldwide proliferation of "precision strike" capabilities. Precision strike systems utilize projectiles, bombs, missiles, torpedoes, and other weapons that can actively correct for initial-aiming or subsequent errors by homing their targets or aiming points after being fired, released, or launched. Some analysts state that "the United States took an early lead in exploiting the promise of precision-strike systems and the use of precision weaponry has given the United States a battlefield edge for twenty years. However, these weapons are now spreading; other countries, and non-state actors, are acquiring them and developing countermeasures against them." The fact that this ability of the U.S. to project power could also diminish possibly leaving U.S. forces, and the U.S. itself, increasingly vulnerable to precision weapons in the hands of its adversaries, raises serious considerations for Congress.

Prevention of Nuclear Smuggling and Terrorist Travel: U.S.-Foreign Partnership Efforts
Valere Pruitt
In series: Defense, Security and Strategies
Soft: 978-1-62417-907-5. $52.00.
This book examines the U.S.-foreign partnership efforts to prevent nuclear smuggling and terrorist travel. The National Nuclear Security Administration (NNSA) established the Megaports Initiative in 2003 to deter, detect, and interdict nuclear or other radiological materials smuggled through foreign seaports. The Initiative funds the installation of radiation detection equipment at select seaports overseas and trains foreign personnel to use this equipment to scan shipping containers entering and leaving these seaports, regardless of destination. Additionally, the U.S. government has identified four key gaps in foreign countries' capacity to prevent terrorist travel overseas. This book evaluates how U.S. capacity-building efforts address those gaps and assesses the extent to which the U.S. government is measuring progress in its efforts to close those gaps.

The F-22A Fighter Jet: Modernization Program Analyses
George D. Borsari
In series: Defense, Security and Strategies
In series: Military and Veteran Issues
2013. 72 pp.
Soft: 978-1-62417-326-4. $52.00.
e-book: 978-1-62417-327-1. $52.00.
The Air Force currently plans to spend $11.7 billion to modernize and improve reliability of the F-22A, its fifth generation air superiority fighter. Originally designed to counter air threats posed by the former Soviet Union, the post-Cold War era spurred efforts to add new missions and capabilities to the F-22A, including improved air-to-air and robust air-to-ground attack capabilities. This book provides an analysis of the modernization program for the F-22A fighter jet, with a focus on cost, technical and sustainment risks; and a comparison with the Legacy fighter modernization program.

The National Guard's State Partnership Program
Dave Pruitt and Peter J. Lozanno
In series: American Political, Economic, and Security Issues
In series: Defense, Security and Strategies
2012. 90 pp.
Soft: 978-1-62257-482-7. $52.00.
The State Partnership Program (SPP) is a Department of Defense security cooperation program run by the National Guard. It also serves
as a mechanism for training National Guard personnel. Since the program began in 1992, it has expanded to the point where nearly every state National Guard participates, including Guam, Puerto Rico, the U.S. Virgin Islands, and the District of Columbia. The SPP relates to several areas of potential interest to Congress, including improving the capabilities of partner nations to protect their citizens; strengthening relationships with partners to facilitate cooperation, access, and interoperability; improving cultural awareness and skills among U.S. military personnel; and fostering the integration of reserve and active component forces into a "total force." This book provides an overview of the origin and development of the program; summarizes its unique aspects; and outlines its statutory basis, funding mechanisms, organization, and activities; with a focus on recent legislative and executive branch actions.

The Safe School Initiative: Attack Prevention and Threat Management
Michelle L. Erickson
In series: American Political, Economic, and Security Issues
In series: Safety and Risk in Society
Case: 978-1-62417-429-2. $110.00.
Following the attack at Columbine High School in April 1999, the Secret Service and the Department of Education initiated a study of thinking, planning, and other pre-attack behaviors engaged in by attackers who carried out school shootings. That study, the Safe School Initiative, was pursued under a partnership between the Secret Service and the Department of Education. This book examines the Safe School Initiative, whose objective is to attempt to identify information that could be obtained, or "knowable," prior to an attack. That information would then be analyzed and evaluated to produce a factual, accurate knowledge based on targeted school attacks. This knowledge could be used to help communities across the country to formulate policies and strategies aimed at preventing school-based attacks.

Training and Assistance of Foreign Police in U.S. Stability Efforts
David F. Jackson and Diana R. Reimanns
In series: Defense, Security and Strategies
In series: Foreign Policy of the United States
2012. 76 pp.
Soft: 978-1-62100-983-2. $47.00.
e-book: 978-1-62100-985-6. $47.00.
Over the past few years, the United States has increased its emphasis on training and equipping foreign police as a means of supporting a wide range of U.S. foreign-policy goals, including countering terrorists overseas and stopping the flow of narcotics to the United States. This book provides estimates of funding that the U.S. government has provided for activities to train and equip foreign police. Also discussed are the observations that establishing an effective local police force is critical to successful stability operations. An effective police force is a key component to security sector reform, justice sector reform, and the successful transition to the host nation's security sector.

Transforming the Security Classification System and Improving Declassification
Mitchell Bertolini
In series: Defense, Security and Strategies
Case: 978-1-62417-843-6. $52.00.
e-book: 978-1-62417-844-3. $52.00.
A democratic society is grounded on the informed participation of the citizenry, which in turn requires access to Government information. If officials are to be accountable for their actions and decisions, secrecy must be kept to the minimum necessary to meet legitimate national security considerations. An open documentary record of official decisions is essential to educate and inform the public and enable it to assess the policies of its elected leaders. While agencies need to modernize and improve overall records management performance, classified records pertaining to our nation's security demand particular attention. Current practices for handling classification, declassification, and management of these records are outdated, unsustainable, and keep too much information from the public. This book takes a look at transforming the security classification system and improving declassification efforts across government agencies.

United States National Preparedness: Goals and Assessments
Harry I. James and Ralph E. Long
In series: American Political, Economic, and Security Issues
Case: 978-1-62257-247-2. $135.00.
Presidential Policy Directive 8: National Preparedness (PPD-8) describes the Nation's approach to preparing for the threats and hazards that pose the greatest risk to the security of the United States. National preparedness is the shared responsibility of our whole community. Every member contributes, including individuals, communities, the private and nonprofit sectors, faith-based organizations, and Federal, state, and local governments. This book examines the goals and assessments of the U.S. national preparedness challenge with a focus on the core capabilities contained in the National Preparedness Goal report which are the distinct critical elements necessary for our success. These capabilities are highly interdependent and will require use to use existing preparedness networks and activities, improve training and exercise programs, promote innovation, and ensure that the administrative, finance, and logistics systems are in place to support these goals.

Unmanned Drones and the National Airspace System: Challenges and Considerations
Miles E. O'Brien
In series: Defense, Security and Strategies
2013. 185 pp.
Case: 978-1-62417-213-7. $110.00.
Growing interest in the use of unmanned aerial vehicles (UAVs), particularly for homeland security and law enforcement applications, has spurred considerable debate over how to accommodate these unmanned aircraft and keep them safely separated from other air traffic. Additionally, the use of these pilotless aircraft, popularly referred to as drones, for aerial surveillance and law enforcement purposes has raised specific concerns regarding privacy and Fourth Amendment rights and potential intrusiveness. These issues have come to the forefront in policy debate in response to provisions in the FAA Modernization and Reform Act of 2012 that require the Federal Aviation Administration (FAA) to begin integrating unmanned aircraft into the national airspace system by the end of FY2015. This book examines the challenges, privacy implications and potential intrusiveness of drone operations which have emerged as a significant issue before Congress.
DISABILITY STUDIES

Technology’s Impact on Employment Opportunities for People with Disabilities: Analysis and Recommendations

Carl DeGeorge and Milton Kramer
In series: Disability and the Disabled-Issues, Laws and Programs
e-book: 978-1-62257-577-0. $135.00.
This book examines the importance of social media and other information technologies in connecting people to job opportunities. Not surprisingly, digital barriers to our networked economy can reinforce rather than break down disproportionately low employment among people with disabilities. Delivering on the commitment to improve the performance of America’s students in science, technology, engineering, and mathematics (STEM) through the "Educate to Innovate" program, requires that all Americans, including people with disabilities, have the necessary digital tools to pursue careers in STEM. The ongoing transition to an economy based largely on the manipulation of information has sweeping implications for job creation for people with disabilities. New technologies create opportunities for people with disabilities to work alongside our non-disabled colleagues. However, the employment rate of people with disabilities still remains disproportionately low and we have yet to see evidence of real progress in increasing employment of people with disabilities.

DRUGS

Adult Drug Courts: Brief Overview and Assessments
Joan B. Calahan
In series: Law, Crime and Law Enforcement
Soft: 978-1-62417-163-5. $52.00.
e-book: 978-1-62417-164-2. $52.00.
Drug court programs were established beginning in the late 1980s as a local response to increasing numbers of drug-related cases and expanding jail and prison populations nationwide. A drug court is a specialized court-based program that targets criminal offenders who have alcohol and other drug addiction and dependency problems. Drug courts have implemented deferred prosecution or post-adjudication case-processing approaches, or have blended both in their organizational structures. In drug courts, using deferred prosecution, defendants waive rights to a trial and enter a treatment program shortly after being charged; those who subsequently fail to complete the treatment program have their charges adjudicated, while those who complete the program are not prosecuted further. This book provides an overview and assessment of the adult drug court system, with a focus on the rate of recidivism and performance measure revision efforts.

ECOLOGY

Climate Change Programs and Activities: Analyses of Federal Funding
Andre H. Anderson and Derrick J. Thomas
In series: Climate Change and its Causes, Effects and Prediction
In series: Environmental Science, Engineering and Technology
Case: 978-1-61942-760-0. $95.00.
Climate change is a complex, crosscutting issue that poses risks to many existing environmental and economic systems, including agriculture, infrastructure, ecosystems, and human health. A 2009 assessment by the United States Global Change Research Program found that climate-related changes, such as rising temperature and sea level, will combine with pollution, population growth, urbanization, and other social, economic and environmental stresses to create larger impacts than from any of these factors alone. Funding for climate change activities is spread across the federal government. This book provides an analysis of federal funding for climate change activities and how these activities are organized.

Oak: Ecology, Types and Management
Cláudio Afonso Chuteira and Abrahan Bispo Grão
In series: Environmental Science, Engineering and Technology
Case: 978-1-61942-492-0. $195.00.
This book presents current research in the study of the ecology, types and management of oak. Topics discussed include oak wood characterization with regard to chemical, physical and mechanical
wood properties; the diversification of cork oak; the use of oak wood in the manufacture of barrels for preparing and aging wines; oaks and mycorrhizal fungi and the physico-chemical characterization and microbial adhesion of oak wood with other wood species.

ECONOMICS

A Bioeconomy Blueprint for the United States: Objectives and Select Elements
Lawrence Gibson and Marshall A. Reynolds
In series: Biotechnology in Agriculture, Industry and Medicine
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62257-273-1. $110.00.
A bioeconomy is one based on the use of research and innovation in the biological sciences to create economic activity and public benefit. The U.S. bioeconomy is all around us: new drugs and diagnostics for improved human health, higher-yielding food crops, emerging biofuels to reduce dependency on oil, and bio-based chemical intermediates. The public benefit gained through biological research can be seen through the eyes of a patient who received a critical medication that did not exist a decade ago, a farmer whose higher-yield crops are turned into fuels, food, and intermediate chemicals, and a small-business owner whose innovative bio-based products are breaking new ground in manufacturing. Increased societal needs for food and energy, combined with new knowledge/discoveries in biology and new methods for harnessing biological processes, have dramatically increased the economic potential for the bioeconomy. This book explores the background, objectives and impacts of the U.S. bioeconomy to generate economic growth and address societal needs.

A Compendium of International Real Estate and Construction Issues
Raymond Abdulai (Liverpool John Moores University, Liverpool, UK)
In series: Economic Issues, Problems and Perspectives
In series: Global Economic Studies
2013. 182 pp.
Case: 978-1-62417-084-3. $150.00.
e-book: 978-1-62417-100-0. $150.00.
In the global economy, real estate and construction issues are constantly changing and the dynamic nature of these issues accelerates the rate at which the changes take place. This process has far-reaching implications for stakeholders (practitioners, academics and policy makers) in the real estate and construction sectors. There is thus the need for cutting edge research that would continuously identify, monitor, and evaluate the dynamics of these changes in order to assist stakeholders to improve upon practice, policy formulation, teaching and learning. Real estate and construction issues are interconnected. However, they are often treated as if they are not. To remedy this misrepresentation, there is the need for research that engages with these issues to be conducted in an integrated manner. This book, which is the first of a series on these issues, is in response to that need. This book integrates research in these interrelated disciplines from an international perspective.

Bank Regulation and the Use of Prompt Corrective Action
David Garcia and Mark J. Hall
In series: Financial Institutions and Services

Central Banking: Economic Considerations and Policy Goals
Betty F. Vang and Raphael H. Pate
In series: Economic Issues, Problems and Perspectives
In series: Banking and Banking Developments
Case: 978-1-62081-019-4. $95.00.
Keeping an economy growing over the long run at rates sufficient to provide full employment for labor and capital with low inflation or a stable price level has been an important goal for economic policy. Money and monetary policy have figured importantly in achieving this goal. Currently, it is argued, central bank independence is important to achieving this end. This book examines various indices of central bank independence to see how closely independence is related to such important performance characteristics of an economy as the rate of inflation, the growth of output, investment, and real interest rates.

Charitable Giving, Donor Advised Funds and Supporting Organizations: Select Analyses
Leonel Arrick
In series: Economic Issues, Problems and Perspectives
In series: Financial Institutions and Services
Case: 978-1-62417-990-7. $52.00.
e-book: 978-1-62417-991-4. $52.00.
Donor advised funds allow individuals to make a gift to a fund in a sponsoring organization. Sponsoring organizations are charities that are allowed to receive tax-deductible donations. The gift is irrevocable, as in the case of a gift to a foundation or any other charity. The donor does not legally oversee the payment of grants to charities from the fund, which is determined by the sponsoring organizations. Donors make recommendations for grants (hence donor advised), and there is general agreement that these recommendations determine, with few exceptions, the contributions. This book provides select analysis on charitable giving, donor advised funds and supporting organizations, with a focus on minimum distribution requirements and imposing tighter restrictions.

Collapse and Bankruptcy of MF Global
Tao Zhu
In series: Business Economics in a Rapidly-Changing World
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62417-710-1. $110.00.
On October 31, 2011, MF Global, a large brokerage firm registered with the Securities and Exchange Commission (SEC) as a broker-dealer and with the Commodity Futures Trading Commission (CFTC)
as a futures commission merchant (FCM), filed for bankruptcy. It appears that the firm failed as a result of losses from investments related to European sovereign debt. Normally, brokerage customers are protected from brokerage failure. On the securities side, investors may receive up to $500,000 from the Securities Investor Protection Corporation (SIPC) if the failed brokerage's assets are insufficient to meet customer claims. In futures markets, there is no insurance scheme comparable to SIPC, but customers are supposed to be protected by strict segregation rules. In the MF Global case, however, more than $900 million in customer funds were reported missing. This book provides information about MF Global, the rules for handling of customer funds, the enforcement of those rules, and the bankruptcy proceeding.

Computational Optimization in Economics and Finance Research Compendium

Constantin Zopounidis (Technical University of Crete, Greece)
In series: Studies in Financial Optimization and Risk Management
Edited by: Prof. Constantin Zopounidis (Technical University of Crete)
Case: 978-1-62081-928-9. $150.00.
During the last decades the globalization of financial markets, the intensifying competition as well as the rapid economic, social and technological changes, have led to an increasing uncertainty and instability in the financial and business environments. This new context has given a new rise to the role of economics and finance for the operation of firms and organizations. The contents of this volume cover a wide range of topics, including among others stock market applications, banking management, corporate performance, as well as macroeconomic issues.

Deficit Reduction and Fiscal Policy: Considerations and Options

Donovan M. Kurt and Vern E. Witt
In series: Economic Issues, Problems and Perspectives
In series: Monetary, Fiscal and Trade Policies
Case: 978-1-62081-033-0. $125.00.
The federal budget has been in deficit since 2002, but became significantly larger in 2009. That year, the deficit topped $1 trillion for the first time ever. Relative to the overall size of the economy, budget deficits from 2009 to 2011 have been significantly larger than in any other year since World War II. This book examines and discusses the size of the projected budget deficit; how much the deficit would need to be reduced to return to long-term sustainability; President Obama's fiscal commission and other initiatives; and business investment and employment tax incentives to stimulate the economy.

Development Management in the Twenty-First Century

Kartik Roy (Research Professor, Auckland Institute of Studies, St. Helens, Auckland, New Zealand), Sandip Kar (International Institute for Management Science (IIMS), India)
In series: Global Economic Studies
In series: Management Science - Theory and Applications

Economic Activity: Teleological Analysis
Paata Leiashvily (Tbilisi State University, Department of Economics, Tbilisi, Republic of Georgia)
In series: Caucasus Region Political, Economic, and Security Issues
In series: Global Economic Studies
Case: 978-1-61942-940-6. $95.00.
e-book: 978-1-61942-964-2. $95.00.
This book investigates the essence of economic activity and the form of its display in conditions of natural, market and regulated economy. The dialectic and teleological analysis of economic activity allows the authors to reveal the reflective relations between such fundamental economic categories such as, production and consumption, supply and demand, product and resource, cost and utility, profit and saving, expansion and recession, etc. The revealing of the interdependence between specified categories allows the authors to understand more deeply the essence of economic processes, logic of formation of business cycles, and to create adequate model of economy. This book is intended for lecturers and students of economic profile, as well as experts interested in problems of economic theory.

Economic Conditions Impact on Participation in Nutrition Assistance Programs
Oscar Gutierrez
In series: Economic Issues, Problems and Perspectives
In series: Nutrition and Diet Research Progress
2013. 112 pp.
Soft: 978-1-62417-520-6. $52.00.
The U.S. Department of Agriculture (USDA) administers 15 domestic nutrition assistance programs. The five largest programs are: the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program), Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), National School Lunch Program (NSLP), School Breakfast Program (SBP), and Child and Adult Care Food Program (CACFP). Although SNAP's reputation as one of the Nation's primary counter-cyclical assistance program, expanding during economic downturns and contracting during periods of economic growth, is well established, there has been little analysis of the effect of the economy on other programs. This book examines the relationship between U.S. economic conditions and participation in the U.S. Department of Agriculture's nutrition assistance programs and how changes in program policy may have influenced this relationship.

Guy Boscarino and Derek Notte
In series: Economic Issues, Problems and Perspectives
In series: Global Economic Studies
In this book, the authors present current research in the study of the global practices, strategies and challenges of global economic development and emerging markets in the 21st century. Topics discussed include the role of social sciences in global economic development; parametric control of economic growth processes and characteristics of short-term cycles; development of the world economy in the system of continental-oceanic polarization; green economies in rural areas through geotourism and geoparks; perspectives on poverty alleviation through community-based enterprise, innovation capabilities and vertical integration mindsets; U-City development for economic competitiveness in an advanced ICT era; EU low-carbon revolution's influence on China and its countermeasures; risk management of floodwater utilization based on water utilities IOT; and poverty, inequality and socio-economic development in Colombia.

Economic Performance
Richard K. Benson
In series: Economic Issues, Problems and Perspectives
Case: 978-1-61324-702-0, $95.00.
In this book, the authors present current research from across the globe in the study of economic performance. Topics discussed include systematic monitoring of the functioning of key goods and services markets; the links between internal migration and financial performance of local authorities; an evaluation of the ECB policy response to changing economic conditions in Euro area member states; environmental management accounting to support economic and environmental improvement; the world economic crisis of 2008 and its impact on housing development in sub-Saharan Africa and transportation as an integrative part of market growth economies.

Economics of Commodities and Commodity Markets
Alexander G. Tvalchrelidze
Tbilisi, Georgia
In series: Economic Issues, Problems and Perspectives
Case: 978-1-61668-553-9, $275.00.
Soft: 978-1-62257-786-6, $89.00.
e-book: 978-1-61728-102-0, $89.00.
This book gives a detailed monographic description of the main commodities: crude oil, natural gas, coal, uranium, iron, manganese, aluminum, chromium, nickel, cobalt, titanium, copper, lead, zinc, gold, silver, platinum group metals, rare metals including molybdenum, tungsten and tin, industrial minerals, diamond and gems, food commodities and livestock. This book includes characteristics of the world's crude oil and natural gas network, information on crude oil, LNG, and coal ports and terminals, tanker and LNG fleet, new world pipeline projects, etc. Information on geopolitics and geo-economy of commodities as well as comparative and correlation analysis of commodity prices are also given.

Economics of Competition
Georg Leismuller and Elias J. Schimpf
In series: Economic Issues, Problems and Perspectives
In series: Global Economic Studies
Case: 978-1-62257-416-2, $95.00.
According to conventional economic wisdom, it is believed that the beneficial functioning of competition is not secured spontaneously but must be supported by state action, i.e., specific antitrust laws and agencies. Hence, competition is regarded as an instance in which the visible hand of the state is believed to be needed in order to enable the invisible hand of the market to function more effectively. Topics discussed in this book include the competition and antitrust policy in the Austrian economic perspective; competition in the pharmaceutical market in Austria; a study of the greed factor in capitalism; consumption behaviors in a vertical differentiation model; the effects of mergers in the retail sector; and market competition with irrational agents.

Economics of Innovation, Incentives and Uncertainty
Patrick E. Simmons and Samuel T. Jordan
In series: Economic Issues, Problems and Perspectives
In series: Global Economic Studies
Case: 978-1-62257-251-9, $150.00.
The authors have gathered research from across the globe in the study of the economics of innovation, incentives and uncertainty. Topics include incentives for SMEs in the European Union; technology innovation and economic success in Japanese manufacturing firms; nonpoint pollution policy in the presence of uncertainty; the use of DEA-DA for corporate value assessment; the impact of system of trade preferences (non-reciprocal) on development outcomes in beneficiary economies; the innovation and export activity causal link; uncertainty in the labor and financial markets and the sluggish U.S. macroeconomic performance; the implications of strategic delegation in a mixed oligopoly model; monetary uncertainty and the demand for money in the U.S.; and bonus/promotion schemes as incentives.

Economics of Regulation and Outsourcing
Fabiano E. Molinelli and Leonardo S. Paccagnella
In series: Economic Issues, Problems and Perspectives
In series: Global Economic Studies
Case: 978-1-62257-248-9, $150.00.
In this book, the authors present current research from across the globe in the study of the economics of regulation and outsourcing in the global economic perspective. Topics discussed in this compilation include how bank market power and market structure affect economic volatility; alternatives to traditional regulation, such as commitments on a voluntary basis, which may encourage companies to innovate and respond to environmental challenges; CO2 mitigation instruments in the transport sector; outsourcing and administrative models in Western Europe; bilateral oligopoly in the wholesale electricity market; regulating informational imperfections and market failures in the insurance market; the economics of good communication in outsourced and off-shore call centers; the role of power and dependence in outsourcing; and the movement to outsourcing operations in industrial environments.

Economics of Taxation: Normative and Positive Theories
Emanuele Canegrati
Vanzago (MI) Italy
In series: Economic Issues, Problems and Perspectives
2012. 146 pp.
Case: 978-1-61209-839-5, $69.00.
Taxation is a very broad field of research in economics. Taxes have an impact on economic agents in every-day life and modify their behaviors and choices. Consumers are influenced by consumption taxes when they have to decide which product to buy, firms must evaluate the effects of taxation on their financial choices in order to choose the right source of financing, and the decision about where to locate their production. Politicians bring topics such as the road pricing and the parking tariffs into their electoral campaigns. Finally, governments are worried about the effects of harmful tax competition, caused by capital outflows and by the escape of tax base towards tax
heavens. This new book presents and discusses the topic of the economics of taxation.

Emerging macroeconomics. Case studies - Central and Eastern Europe
Socol Cristian (University of Economics Bucharest, Bucharest, Romania)
In series: Business Economics in a Rapidly-Changing World
In series: European Economic and Political Issues
2013. 228 pp.
Case: 978-1-62257-354-7. $150.00.
The book is intended both for specialists from the economic sciences field and also for the persons interested in the macroeconomic evolution and in that of the capital markets from the emerging economies of the European Union. The empirical studies included in this book are based on the inter-disciplinary models adjusted to the specific emerging economies, constituting an instrument which is useful for the students interested in the applied macroeconomic, mathematic and econometric analyses.

Employment-Based Immigration: Economic Considerations
Clark M. Butler and Warren E. Rogers
In series: American Political, Economic, and Security Issues
2012. 133 pp.
Soft: 978-1-62081-496-3. $52.00.
The Immigration and Nationality Act (INA) specifies a complex set of numerical limits and preference categories that include economic priorities among the criteria for admission. The INA allocates 140,000 visas annually for employment-based legal permanent residents (LPRs), and they were 14.2% of the total 1.0 million LPRs in 2010. The INA further specifies that each year, countries are held to a numerical limit of 7% of the worldwide level of U.S. immigrant admissions, known as per-country limits or country caps. Even as U.S. unemployment levels remain high, some employers assert that they continue to need the "best and the brightest" workers, regardless of the country of birth, to remain competitive in a worldwide market and to keep their firms in the United States. While support for the option of increasing employment-based immigration may be dampened by economic conditions, proponents argue it is an essential ingredient for economic growth. This book provides an overview of employment-based immigration and its economic considerations.

Externality: Economics, Management and Outcomes
Srinivasan Sundarasan (Economist, Verduros Solutions Private Limited, Mysore, India)
In series: Business Economics in a Rapidly-Changing World
Case: 978-1-61942-249-0. $150.00.
This compilation of geographically dispersed case studies and experiences is designed as a singular blend of real world situations laced with conceptual structures and relevant theoretical background to provide readers with a comprehensive picture of the economics of externalities. It is hoped that this collection would help researchers and practitioners alike examine externalities in a new light, and to help structure suitable policy to bring investments into shared-services to socially optimal levels.

Federal Budget Breakdowns by Superfunctions and Subfunctions: Select Analyses
Simon F. Mathis and Ivory B. Hewitt
In series: Economic Issues, Problems and Perspectives
2012. 71 pp.
Soft: 978-1-62081-048-4. $47.00.
Discussions about the appropriate levels of spending for various policy objectives of the federal government have played an important role in congressional deliberations over funding measures for FY2011, and are expected to play a central role as Congress considers decisions affecting the FY2012 budget. This book provides a graphical overview of historical trends in discretionary budget authority from 1976-2010, with estimates for 2011 spending, and the levels consistent with President Obama's proposals for 2012-2016.

Federal Credit: Concepts, Budgetary Treatment, and Reform Proposals
Ethan A. Kelly
In series: Financial Institutions and Services
2013. 96 pp.
Soft: 978-1-62417-553-4. $52.00.
e-book: 978-1-62417-554-1. $52.00.
The U.S. government uses federal credit (direct loans and loan guarantees) to allocate capital to a range of areas including home ownership, student loans, small business, agriculture, and energy. A direct loan is "a disbursement of funds by the government to a nonfederal borrower under a contract that requires the repayment of such funds with or without interest." A loan guarantee is "a pledge with respect to the payment of all or part of the principal or interest on any debt obligation of a non-federal borrower to a non-federal lender." At the end of FY2011, outstanding federal direct loans totaled $838 billion and outstanding guaranteed loans totaled $2.017 billion. This book describes the concepts, budgetary treatment and reform proposals of federal credit.

Federal Deficit Reduction: Choices and Considerations
Carl Frankel and Dan Ighelhart
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62417-779-8. $110.00.
The United States is facing fundamental budgetary challenges. Federal debt held by the public exceeds 70 percent of the nation's annual output or GDP, a percentage not seen since 1950, and a continuation of current policies would boost the debt further. Although debt would decline to 58 percent of GDP in 2022 under the current-law assumptions that underlie the CBO's baseline projections, those projections depend heavily on significant increases in taxes and decreases in spending that are scheduled to take effect at the beginning of January. If, instead, lawmakers maintained current policies by preventing most of those changes from occurring, what the CBO refers to as the alternative fiscal scenario, debt held by the public would increase to 90 percent of GDP 10 years from now and continue to rise rapidly thereafter. This book reviews the scale and sources of the federal government's budgetary imbalance, various options for bringing spending and taxes into closer alignment, and criteria that lawmakers and the public might use to evaluate different approaches to deficit reduction.
Federal Tax Debts: Reporting Proposals and the IRS Collection Process
Coreen Vanderveen
In series: American Political, Economic, and Security Issues
In series: Economic Issues, Problems and Perspectives
2013. 103 pp.
Soft: 978-1-62417-450-6. $52.00.
Millions of individual and business taxpayers owe billions of dollars in unpaid federal tax debts, and the IRS expends substantial resources trying to collect these debts. Other federal agencies that are owed nontax debts report such debts to credit bureaus, in part as a tool to encourage debtors to pay. However, the IRS is not allowed to directly report tax debts to credit bureaus because long-standing federal law protects the privacy of taxpayers’ information. This book examines the inventory of tax debts and the characteristics that may be relevant to a potential proposal to report tax debts to credit bureaus.

Financial Crises: Causes, Management and Economic Impact
Kari Farmer (University of Graz, Department of Economics, Germany)
In series: Business Economics in a Rapidly-Changing World
Case: 978-1-62257-296-0. $150.00.
Financial crises aggravated by high-leveraged financial institutions and/or heavily indebted private agents occur rarely but their economic impacts are severe: firms go bankrupt, credit crunch emerges, unemployment rises dramatically and sovereign debts sour. Like severe natural disasters their forecast is difficult if not impossible. Nonetheless, the literature on financial crises, in particular on the global financial crisis 2007-2009, is already voluminous. The overall picture this literature is painting regarding the emergence and propagation of the latest crisis is rather well researched and main insights are broadly accepted. However, there are some specific aspects of crisis causation, crisis management and the economic impacts of severe financial crises which are not well addressed so far. This book discusses the topics of contagion in emerging stock markets during the Asian and Latin American crisis and the relationship between the executive compensation structure and the banks’ riskiness of asset portfolios.

Fiscal Impacts of Foreign-Born Residents in the United States
Jake F. Wong and Andrea E. Love
In series: America in the 21st Century: Political and Economic Issues
In series: Economic Issues, Problems and Perspectives
2012. 185 pp.
Case: 978-1-62081-047-7. $125.00.
e-book: 978-1-62081-059-0. $125.00.
This book examines estimates of fiscal impacts to the federal, state, and local governments of the foreign born who reside in the United States. It examines the academic and policy literature on fiscal impacts of two populations: all U.S. foreign born and unauthorized aliens. Computing such fiscal impacts involves numerous methodological and conceptual challenges, and resulting estimates vary considerably according to the assumptions used, including those about the time frame considered, the treatment of U.S.-born children, the unit of analysis used, and which costs and revenues are included.

Globalisation, Governance and Ethics: New Managerial and Economic Insights
Jacques-Marie Aurifeille, Christopher J. Medlin, Clement A. Tisdell, Jaime Gil Lafuente and Jaime Gil Aluja (University of French Polynesia, France)
In series: Economic Issues, Problems and Perspectives
In series: Global Economic Studies
Case: 978-1-62109-123-5. $275.00.
The globalisation of commerce and science means that new structures of governance are required to handle new and novel situations, such as across state and institutional boundaries. Sound governance, including elements that encourage foresight, is an important ingredient of managing global and local crisis situations. These crises are ever more apparent as a result of interdependence between consumer, firms and states across the world, especially with the ever increasing advent of instantaneous and low cost communication. This book examines the role of governance in local and multi-national businesses and in local, national and international political forums and organisations.

Governance Risks in Organizations: A Clinical Approach with Tools for Decision-Making
Rodolfo Apreda (Universidad del Cema (Ucema), Buenos Aires, Argentina)
In series: Government Procedures and Operations
In series: Global Economic Studies
Case: 978-1-62100-412-7. $150.00.
The purpose of this book is to get the reader acquainted with the basic features that run through the fields of corporate, public and global governance; to introduce the new subject of Governance Risks, within the context of organizations in a global economy; to provide a set of tailor-made tools and make them operational, so as to cope with governance risks. It also provides a clinical approach to diagnose and treat governance failures, the incremental cash-flow model that strongly articulates with the clinical approach, the index of governance performance, from which the metrics of governance risks evolves eventually. This book conveys a self-contained treatment based on step-by-step learning, from the basics of the subject through building blocks that deal with tools for decision-making, and ending up with the Governance-Risk Scoreboard.

High Unemployment: Select Analyses
Leslie Sandidge and Victor Irby
In series: America in the 21st Century: Political and Economic Issues
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62257-994-5. $52.00.
The rate of unemployment in the United States has exceeded 8 percent since February 2009, making the past three years the longest stretch of high unemployment in this country since the Great Depression. Such persistently high unemployment has wide-ranging repercussions. It places financial, psychological, and even physical strains on people who are unable to find work and on their families as well; it places budgetary pressures on the federal government and on state and local governments, as tax revenues decline and expenditures increase; and it results in a long-term erosion of skills that will reduce the nation’s productivity and people’s income in the future. This book examines a broad array of policy approaches designed to reduce unemployment.
Some of those policies would aim to boost the economy and demand for goods and services, reflecting the fact that the increase in unemployment in particular in general and long-term unemployment in particular is primarily attributable to weak demand for labor, which in turn, is the result of weak aggregate demand.

**Income and Wealth Distribution: Perspectives and Considerations**

*Fred J. West and Adam L. Ellis*

In series: *America in the 21st Century: Political and Economic Issues*

In series: *Economic Issues, Problems and Perspectives*


Case: 978-1-62257-295-3. $110.00.
e-book: 978-1-62257-308-0. $110.00.

Approaching three years into the recovery from the 2007-2009 recession, the unemployment rate remains over 8%. The persistent difficulty of many of the workers who lost jobs to find reemployment has meant reduced incomes for them and their families. A historically slow rebound in the labor market appears to be partly responsible for some groups' focus on the distribution of the benefits of economic growth and for some policymakers' interest in redistributing income through the tax code. Varying perceptions about a trade-off between economic growth and income equality appear to underlie longstanding congressional deliberations about such policy issues as the progressivity of income tax rates, the tax treatment of capital gains, and the adjustment of the federal minimum wage. This book presents recent analysis of the distribution of income and the extent of income mobility in the United States over time and in comparison with other advanced economies.

**International Economic Cooperation: Institutions, Funds, and Banks**

*Holden J. Murray and Eston E. Baker*

In series: *Financial Institutions and Services*

In series: *Economic Issues, Problems and Perspectives*


Case: 978-1-62081-842-8. $135.00.

The Group of Twenty, or G-20, is a forum for advancing economic cooperation among 20 major advanced and emerging-market countries. The G-20 was originally established to facilitate discussions among the G-20 finance ministers. The prominence of the G-20 increased with the onset of the global financial crisis in the fall of 2008, and the G-20 started meeting at the leader level. In September 2009, the G-20 leaders announced that, henceforth, the G-20 would be the "premier" forum for international economic cooperation. This book examines the major G-20 commitments that could influence or shape the policy and legislative agenda for international economic coordination; background and issues of the International Monetary Fund (IMF); the Paris Club and international debt relief; multilateral development banks; international climate change financing; international environmental financing; and The World Bank Group energy sector strategy.

**Labor Issues and Policies in the U.S.**

*John E. Harrisson*

In series: *Professions - Training, Education and Demographics*

In series: *Economic Issues, Problems and Perspectives*

2012. 194 pp.

Case: 978-1-61122-689-8. $110.00.

This book presents and discusses information on a variety of labor issues and policies. Topics discussed include (among others) outsourcing and insourcing jobs in the U.S. economy; immigration of foreign workers; trade adjustment assistance for workers; project labor agreements; and employment assistance for veterans.

**Labor Market Inequality and Public Policies**

*Samir Amine (University of Quebec and Senior Research Fellow at The Interuniversity Center of Public Policies (CIRANO), Montreal, Canada)*

In series: *Economic Issues, Problems and Perspectives*

In series: *Global Economic Studies*


Soft: 978-1-62081-299-0. $52.00.

This book discusses the equity versus efficiency approach emphasizing the importance of incentives that would predict a positive relationship between inequality and economic growth. This view was challenged in the 1990s by the incomplete markets and political outcomes theories, because of increasing empirical evidence of an inverse relationship between income inequality and economic growth.

**Life Insurance: Select Programs and Analyses**

*Errol Eddington*

In series: *Economic Issues, Problems and Perspectives*

In series: *Military and Veteran Issues*


Case: 978-1-62417-489-6. $110.00.

This book provides an analysis of select programs relating to life insurance. Topics include the Federal Employees' Group Life Insurance program (FEGLI) and the retirement benefit and retained asset account disclosures that could be improved; Veteran's benefits and current life insurance programs; and the insurance and tax issues of Corporate-Owned Life Insurance (COLI).

**Municipal Securities: Markets, Regulation, and Disclosure**

*Adam Harper and Franklin G. Lawson*

In series: *Economic Issues, Problems and Perspectives*

In series: *Monetary, Fiscal and Trade Policies*


Case: 978-1-62257-820-7. $110.00.

Municipal securities are debt instruments that state and local governments typically issue to finance diverse projects. Individual investors, through direct purchases or investment funds, own 75% of the estimated $3.7 trillion in municipal securities in the U.S. market. In the secondary market, where these securities are bought and sold after issuance, trading largely occurs in over-the-counter markets that are less liquid and less transparent than the exchange-traded equity securities market. The Dodd-Frank Wall Street Reform Act required GAO to review several aspects of the municipal securities market, including the mechanisms for trading, price discovery, and pricing transparency. This book examines municipal security trading in the secondary market and the factors that affect the prices investors receive and the SEC and self regulatory organizations' enforcement of rules on fair pricing and timely reporting.

**National Infrastructure Bank: Concept and Proposals**

*Jonathan M. Moore and Thomas J. Lee*

In series: *Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit*
In series: Government Procedures and Operations
Case: 978-1-62081-108-5, $95.00.
The central policy objective of a national infrastructure bank is to increase investment in infrastructure. Greater investment is desired because high-quality, well-maintained infrastructure is believed to increase private-sector productivity and improve public health and welfare. The magnitude of the increased productivity, however, is not settled, as empirical analysis does not always support the conjecture that greater infrastructure investment uniformly generates productivity gains. The type of infrastructure and the type of investment are critical elements in such an assessment. This new book provides an overview of the infrastructure bank concept and some examples of existing infrastructure financing mechanisms. Discussed also are select legislative proposals for infrastructure banks, and the federal role in financing these proposals.

Non-Nested Regression Models
M. Ishaq Bhatti (IBF Programme, School of Economics and Finance, Faculty of Business, Economics & Law, La Trobe University, Melbourne, Australia) and Mahmood Ahmad Bodla (COMSATS, Institute of Information Technology, Lahore, Pakistan)
In series: Economic Issues, Problems and Perspectives
2013.
Soft: 978-1-62417-770-5, $52.00.
e-book: 978-1-62417-781-1, $52.00.
This book addresses two interrelated problems in economics modelling: non-nested hypothesis testing in econometrics, and regression models with stochastic/random regressors. The primary motivation for this book stems from the nature of econometric models. As an abstraction from reality, each statistical model consists of mathematical relationships and stochastic, behavioural assumptions. In practice, the validity of these assumptions and the adequacy of the mathematical specifications is ascertained through a series of diagnostic and specification tests. Conventional test procedures, however, fail to recognize that economic theory generally provides more than one distinct model to explain any given economic phenomenon.

Public Debt, Financial Development and Economic Growth
Natia Kutivadze (University of Milan, Italy and Analyst at Transparency International Georgia, Tbilisi, Georgia)
In series: Economic Issues, Problems and Perspectives
In series: Global Economic Studies
2013.
Soft: 978-1-62417-980-8, $52.00.
e-book: 978-1-62618-012-3, $52.00.
The goal of every nation's economic policy is to ensure a high and stable level of economic growth. The importance of a financial system in promoting economic growth and reducing poverty has been demonstrated by a number of empirical studies. It is also well known that a country's public borrowing and its nature are important determinants of its economic performance. Moreover, the broader economic consequences of public debt buildup is a topic that is receiving substantial attention in academic and policy circles. Such analysis becomes even more relevant in light of the recent meltdown of the world financial system followed by the incidence of public debt. This book investigates the relationship between public debt composition, financial development, and economic growth by controlling the macro and institutional factors in which the debt was issued in countries grouped by income levels. Different features of these issues and their mutual implications are examined through the application of empirical and theoretical approaches.

Real Estate Appraisals: Oversight and Improvement Opportunities
Paul I. Patterson and Maria L. Hayes
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62257-715-6, $110.00.
Real estate valuations, which encompass appraisals and other estimation methods, have come under increased scrutiny in the wake of the recent mortgage crisis. This book discusses the regulation of appraisers and provides information on related statutes and rules.

Recovery after Recession: Select Research and Analyses
Drew Symmes and Amanda Zulpo
In series: Global Recession - Causes, Impacts and Remedies
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62417-777-4, $135.00.
The 2007-2009 recession was long and deep, and according to several indicators was the most severe economic contraction since the 1930s (but still much less severe than the Great Depression). The slowdown of economic activity was moderate through the first half of 2008, but at that point the weakening economy was overtaken by a major financial crisis that would exacerbate the economic weakness and accelerate the decline. Economic recovery began in mid-2009. Real gross domestic product (GDP) has been on a positive track since then, although the pace has been uneven and slowed significantly in 2011. The stock market has recovered from its lows, and employment has increased moderately. On the other hand, significant economic weakness remains evident, particularly in the balance sheet of households, the labor market, and the housing sector. This book provides select research and analyses pertaining to the economic recovery and sustaining U.S. economic growth in a post-crisis economy.

Regional and Urban Developments in Portuguese-Speaking Countries
Márcio Moraes Vlenaça (Universidade Federal do Rio Grande do Norte, Campus Universitario- Logoa Nova, Brazil) Fernanda Cravidão, Jose Alberto Rio Femandes (CEGOT – Universidad do Porta)
In series: Urban Development and Infrastructure
Case: 978-1-61470-876-6, $215.00.
In this book, a number of concepts and understandings about 'development' intertwine. Scales, times and human activities are projected onto territories, as to interpret realities. The future of population, the territorial (in)balances and complexity of managing spaces are recurring themes. Regional, sustainable, tourism and historical developments are the major headings under which chapters are organized. Under these headings and in the chapters, a number of themes are treated, including those of economic integration; flows of foreign investments; regional integration; border areas; urbanization; infrastructure provision; mobility; transports; urban sprawl; deprivation and health; poverty; environmental degradation; quality of life; housing; second homes; land use management and heritage.
Stocks and Securities: Developments and Trends in the United States
Colin G. Allard and David Elvin
In series: Economic Issues, Problems and Perspectives
In series: Financial Institutions and Services
Case: 978-1-62257-666-1. $110.00.
This book provides an overview of new developments and trends in the stock and securities markets in the United States. Topics discussed include the STOCK Act, insider trading, public financial reporting by federal officials, employee stock options, securities transaction tax; U.S. initial public stock offerings and the JOBS Act, and foreign investment in U.S. securities.

Subprime Mortgage Models
Mark A. Petersen, M.C. Senosi and J. Mukuddem-Petersen (North-West University, South Africa)
In series: Banking and Banking Developments
Case: 978-1-61728-694-0. $129.00.
The subprime mortgage and financial crisis has shaken the foundations of the financial industry by causing the failure of many iconic Wall Street investment banks and several prominent depository institutions. This crisis has stymied credit extension to households and businesses thus creating credit crunches and, ultimately, a global recession. This text describes some of the most important aspects of the subprime mortgage crisis (SMC) such as residential mortgage loan (RML) extension, RML securitization, subprime risks, bank bailouts as well as Basel capital regulation in a stochastic dynamic setting. In particular, the SMC has highlighted the fact that funding sources, credit risk, profit and valuation as well as capital are important financial economic factors. The main hypothesis of the book is that the SMC was primarily caused by design and complexity issues associated with subprime RML lending and securitization that, in turn, led to the loss of information and subprime risk opaqueness. The text also contains appropriate examples, discussions, timelines as well as appendices about the main results on the aforementioned topics. Numerous references point to the material not covered in the book, and indicate some avenues for further research. A working knowledge of discrete-time stochastic modeling and optimization is required in order to understand the key results. This text is one of the first to approach the SMC from a theoretical- rather than a numerical-quantitative viewpoint and is mainly intended for financial industry role players, researchers as well as university students and staff.

Sustainable Development: New Research
Jose Manuel Prado-Lorenzo and Isabel Maria Garcia Sanchez (University of Salamanca, Spain)
In series: Economic Issues, Problems and Perspectives
In series: Environmental Science, Engineering and Technology
Case: 978-1-62081-903-6. $230.00.
e-book: 978-1-62081-963-0. $230.00.
The concept of sustainable development refers to doing what is necessary to try and guarantee that future generations will also be able to satisfy their needs. Taking this idea as a reference, the different areas of public administration, the business world and society as a whole are trying to spread the idea of respect for our natural resources as widely as possible. This book analyzes the importance of sustainable development in optimizing our future, discussing and proposing new paradigms, procedures and techniques addressed on the one hand to improving lifestyles, well-being or quality of life, and sustainable business practices, among other things, and on the other to preserving natural resources and ecosystems.

Tax Gaps: Reduction Strategies, Compliance Efforts and Legislative Proposals
Rondell Meinke
In series: American Political, Economic, and Security Issues
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62417-452-0. $110.00.
Recent and projected large federal budget deficits have generated congressional and executive branch interest in increasing revenue by reducing the tax gap. Specific methods for lowering the tax gap may also be used as revenue offsets under the Pay-As-You-Go Act (PAYGO). Other motivations for reducing tax gaps include adverse effects on (1) public trust in the fairness of the tax system, which may adversely affect voluntary compliance with tax laws, and (2) economic efficiency, by providing an incentive for inputs of labor and capital to shift to those sectors of the economy with greater opportunities to evade taxes. This book defines tax gap concepts, explains the methodology used to estimate the tax gap, discusses the relationship between the tax gap and enforcement, explains the Internal Revenue Service’s (IRS) strategic priorities, examines the IRS return preparer initiative, and describes proposed legislation in the 112th Congress.

Territorial Taxes: Proposals and Perspectives
Charlotte Ecton and Sam Hamlin
In series: America in the 21st Century: Political and Economic Issues
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62257-978-5. $135.00.
Tax reform is a perennial issue before Congress. One area of increasing attention is the taxation of U.S. companies on the income they earn abroad. Business leaders have been urging a movement toward a territorial tax, which would generally eliminate U.S. income taxes on active foreign source income. Tax on the income of foreign subsidiaries is deferred until repatriated and tax can be avoided by not repatriating income. Economists have traditionally analyzed the foreign tax system in terms of economic efficiency. Economic theory tends to support, on efficiency grounds, a worldwide system in which income is taxed in the same country whether earned abroad or not. Tax reform is a perennial issue before Congress. One area of increasing attention is the taxation of U.S. companies on the income they earn abroad. Business leaders have been urging a movement toward a territorial tax, which would generally eliminate U.S. income taxes on active foreign source income. Tax on the income of foreign subsidiaries is deferred until repatriated and tax can be avoided by not repatriating income. Economists have traditionally analyzed the foreign tax system in terms of economic efficiency. Economic theory tends to support, on efficiency grounds, a worldwide system in which income is taxed in the same country whether earned abroad or not. Tax reform is a perennial issue before Congress. One area of increasing attention is the taxation of U.S. companies on the income they earn abroad. Business leaders have been urging a movement toward a territorial tax, which would generally eliminate U.S. income taxes on active foreign source income. Tax on the income of foreign subsidiaries is deferred until repatriated and tax can be avoided by not repatriating income. Economists have traditionally analyzed the foreign tax system in terms of economic efficiency. Economic theory tends to support, on efficiency grounds, a worldwide system in which income is taxed in the same country whether earned abroad or not. Tax reform is a perennial issue before Congress. One area of increasing attention is the taxation of U.S. companies on the income they earn abroad. Business leaders have been urging a movement toward a territorial tax, which would generally eliminate U.S. income taxes on active foreign source income. Tax on the income of foreign subsidiaries is deferred until repatriated and tax can be avoided by not repatriating income. Economists have traditionally analyzed the foreign tax system in terms of economic efficiency. Economic theory tends to support, on efficiency grounds, a worldwide system in which income is taxed in the same country whether earned abroad or not. Tax reform is a perennial issue before Congress. One area of increasing attention is the taxation of U.S. companies on the income they earn abroad. Business leaders have been urging a movement toward a territorial tax, which would generally eliminate U.S. income taxes on active foreign source income. Tax on the income of foreign subsidiaries is deferred until repatriated and tax can be avoided by not repatriating income. Economists have traditionally analyzed the foreign tax system in terms of economic efficiency. Economic theory tends to support, on efficiency grounds, a worldwide system in which income is taxed in the same country whether earned abroad or not. Tax reform is a perennial issue before Congress. One area of increasing attention is the taxation of U.S. companies on the income they earn abroad. Business leaders have been urging a movement toward a territorial tax, which would generally eliminate U.S. income taxes on active foreign source income. Tax on the income of foreign subsidiaries is deferred until repatriated and tax can be avoided by not repatriating income. Economists have traditionally analyzed the foreign tax system in terms of economic efficiency. Economic theory tends to support, on efficiency grounds, a worldwide system in which income is taxed in the same country whether earned abroad or not.

The Advanced Technology Vehicles Manufacturing (ATVM) Loan Program
Andrew M. Wright and Harrison R. Scott
In series: Congressional Policies, Practices and Procedures
In series: Energy Science, Engineering and Technology
2012. 84 pp.
Soft: 978-1-62081-175-7. $52.00.
Congress has supported a wide range of research, development, and production incentives for new domestic energy sources for several decades, as part of an overall commitment to reduce imported petroleum and, in the case of automobiles, raise fuel-efficiency levels.
The Advanced Technology Vehicles Manufacturing (ATVM) Loan Program is one such incentive program at the Department of Energy (DOE). This book discusses the history of the program, outlines the projects receiving loans, discusses some of the key issues, and reviews the U.S. motor vehicle industry's involvement.

The Changing Global Economic Landscape: Trends and U.S.-Centric Analyses

Stephanie J. Palmer and Hudson E. Fisher

In series: Economic Issues, Problems and Perspectives
In series: Global Economic Studies


Case: 978-1-62081-822-0. $110.00.

A small group of developing countries are transforming the global economic landscape. Led by China, India, and Brazil, these rising economic powers posed significant challenges and opportunities for U.S. economic interests and leadership of the global economy. They also raise significant policy issues for Congress, including the future direction of U.S. trade policy and negotiations, as well as for the multilateral economic institutions that have historically served as the foundation of an open and rules-based global economy. This book examines the ongoing shifts in global trade and finance and projects future trends resulting from the emergence of these economies.

The Construction Sector in the U.S. Economy:
Elements and Employment Analyses

Nelson M. McDonald and Claude A. Marshall

In series: Economic Issues, Competition and Entrepreneurship
In series: Economic Issues, Problems and Perspectives

2012. 102 pp.

Soft: 978-1-61942-893-5. $47.00.

The construction sector is a major component of the U.S. economy. During the past decade, construction was a prime beneficiary of low interest rates and the housing-led economic boom, but was also one of the largest casualties of the subsequent financial crisis. There are three major segments of the construction sector: residential, commercial, and industrial/heavy construction. The segments have unique market characteristics and are subject to cyclical economic forces, though in somewhat differing ways. This book outlines the structure of the construction industry and describes congressional initiatives that affect the sector.

The Dollar Bill Debate: Replacing Notes with Coins

Marcus T. Roth

In series: Monetary, Fiscal and Trade Policies

2013. 102 pp.

Soft: 978-1-62417-832-0. $52.00.

Since coins are more durable than notes and do not need replacement as often, many countries have replaced lower-denomination notes with coins to obtain a financial benefit, among other reasons. Six times over the past 22 years, the Government Accountability Office (GAO) has reported that replacing the $1 note with a $1 coin would provide a net benefit to the federal government of hundreds of millions of dollars annually. This book examines the net benefit to the government of replacing the $1 note with a $1 coin for the private sector and the public, and with a focus on the experiences of other countries doing so.

The Elusive Search for Job Security: A Historical Inquiry into Dismissals in the US Workplace

Matthias Beck (The York Management School, University of York, Heslington, York, United Kingdom)

In series: Economic Issues, Problems and Perspectives
In series: American Political, Economic, and Security Issues


Case: 978-1-62081-766-7. $150.00.

For the majority of employees in the US and elsewhere, their job is by far their most important property; with jobs providing not only a principal source of wealth, but also being a key source of social status and individual psychological well-being. While the US political system provides extensive protection to capital, it paradoxically offers only very limited protection to labor. This lack of protection is evidenced, above all, by the fact that the protection afforded to US workers against unfair, capricious or unnecessary dismissals is amongst the weakest of all industrialized nations. The primary agenda of this book is to map out the institutional choices, which have prevented the comprehensive, European-style, regulation of dismissal in the United States; and to explore how these choices have been supported, modified and maintained against attempts by US workers to secure greater job security. This book examines the issue dismissals and job security in a roughly historical order.

The Energy within Economics and the Bubble Envelope Theory for Human Prosperity

Carlos A. Rossi (Energy Economist and Author, University Professor and Energy Consultant Residencias Club Cigarral, Caracas, Venezuela)

In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices


Case: 978-1-61942-570-5. $140.00.
e-book: 978-1-61942-554-5. $140.00.

It is a scientific fact that primary energy has always been one of the principal drivers behind the growth of human prosperity; it is also a scientific fact that its most efficient source, fossil based petroleum, is finite and subject to depletion. The economic fact that this book proves beyond doubt is that the unprecedented economic and financial problems that the world, particularly the high oil consuming nations, are currently facing are a result of the decreasing physical ability of the World to increase its capacity to produce more oil to power the demands of rising economic growth and population. This book is about examining the overwhelming importance of energy within the production, consumption, costs, growth and monetary creation of our modern economic system and human prosperity.

The Federal Budget Process: An Introduction

Adele Wilkinson

In series: Economic Issues, Problems and Perspectives
In series: Government Procedures and Operations


Soft: 978-1-62417-838-2. $52.00.

Budgeting for the federal government is an enormously complex process. It entails dozens of subprocesses, countless rules and procedures, the efforts of tens of thousands of staff persons in the executive and legislative branches, millions of work hours each year, and the active participation of the President and the congressional leaders, as well as other members of Congress and executive officials. This book provides an introduction to the federal budget process with a
The Federal Reserve: Oversight and Transparency
Gerrie R. Conley and Adolf A. Sanford
In series: Economic Issues, Problems and Perspectives
In series: Monetary, Fiscal and Trade Policies
Case: 978-1-62081-034-7, $95.00.
e-book: 978-1-62081-037-8, $95.00.
Critics of the Federal Reserve (Fed) have long argued for more oversight, transparency, and disclosure. Critics intensified following the extensive assistance provided by the Fed during the financial crisis. More specifically, critics have focused on the Government Accountability Office (GAO) audits of the Fed and the disclosure of details on the identities of borrowers and the terms of those loans. This book examines oversight and disclosure issues relating to the Federal Reserve with a focus on the Dodd-Frank Wall Street Reform and Consumer Protection Act; QE 3; and Federal Reserve transparency.

The Municipal Securities Market: Overview, Concerns and Improvement Recommendations
Michal N. Wilson
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62417-295-3, $135.00.
The mission of the SEC is to protect investors, including investors in municipal securities, maintain fair, orderly, and efficient markets, and facilitate capital formation. This book provides an overview of the municipal securities market, the regulatory structure and the roles of key market participants, with a focus on two key areas of concern: disclosure and market structure.

"Too Big to Fail" or Systemically Important Financial Institutions
Barnett E. Harrison and Heathe Carter
In series: Financial Institutions and Services
In series: Business Economics in a Rapidly-Changing World
Case: 978-1-62081-688-2, $110.00.
Although "Too Big to Fail" (TBTF) has been a perennial policy issue, it was brought to the forefront by the near-collapse of several large financial firms in 2008. Financial firms are said to be TBTF when policymakers judge that their failure would cause unacceptable disruptions to the overall financial system. Financial firms can be TBTF because of their size or interconnectedness. In addition to fairness issues raised by preventing a TBTF firm from failing, economic theory suggests that TBTF causes a moral hazard problem. Moral hazard refers to the fact that if TBTF firms know that failure will be prevented, they have an incentive to take greater risks than they otherwise would because they are shielded from the negative consequences of those risks. This book discusses the economic issues raised by TBTF, the historical experience with TBTF before and during the recent crisis, an analysis of broad policy options, and policy changes made by the relevant Dodd-Frank provisions.

U.S. Import Restraints: Economic Effects
Walton I. Mason and Jace O. Russell
In series: Economic Issues, Problems and Perspectives
In series: Trade Issues, Policies and Laws
Case: 978-1-62081-623-3, $195.00.
The United States is one of the world's most open economies. In 2010, the average U.S. tariff on all goods remained near its historic low of 1.3 percent, on an import-weighted basis, essentially unchanged from the previous update in 2009. Nonetheless, significant restraints on trade remain in certain sectors. The U.S. International Trade Commission estimates that U.S. economic welfare, as defined by total public and private consumption, would increase by about $2.6 billion annually by 2015 if the United States unilaterally ended all significant restraints. Exports would expand by $9.0 billion and imports by $11.5 billion. This book measures the effects of unilateral liberalization of U.S. import restraints and the effects on the U.S. economy when both the United States and its trading partners engage in reciprocal liberalization.

Unemployment: Issues, Trends and Perspectives
He Ping Wang and Bao Yu Ma
In series: Economic Issues, Problems and Perspectives
In series: Global Economic Studies
Case: 978-1-62081-172-6, $120.00.
The global economic crisis has had numerous implications for individuals, businesses and policy makers, but none were as profound and as socially and economically damaging as the growth in unemployment. This book explores the current issues, trends and perspectives in unemployment including the topics of gender, unemployment and counseling in China; the pathology of free trade and the great recession; the relationship between unemployment and health; the Romanian labor market; the unemployed youth’s work commitment in Hong Kong; and unemployment and professional retraining in a multi-agent model of virtual economics.

Unemployment: Trends, Variables, and Assistance
Antone K. Hyde and Frederic A. Forbes
In series: Economic Issues, Problems and Perspectives
In series: America in the 21st Century: Political and Economic Issues
Case: 978-1-61942-643-6, $95.00.
The unemployment rate has greatly increased since the onset of the recession in December 2007, when it measured 5.0%. The rate peaked at 10.1% in October 2009, four months after the recession's official end. Almost two years into the economic recovery, the unemployment rate remains high, at just under 9.0%, and remains of concern to policymakers. This book assesses the relative magnitudes of cyclical and structural unemployment as they have different implications for policymakers. An analysis of changes between 2007 and 2010 in a variety of labor markets indicators across industries, finds patterns that strongly suggest most of the 5 percentage point increase in the U.S. unemployment rate is cyclical and due to depressed aggregate demand.

Vietnam: Economic, Political and Social Relations with the U.S
Phan Cam
In series: Asian Political, Economic and Security Issues
In series: Asian Economic and Political Issues
Case: 978-1-60456-460-0, $150.00.
Vietnam is the easternmost country on the Indochina Peninsula in Southeast Asia. It is bordered by China to the north, Laos to the
northwest, and Cambodia to the southwest. On the country's east coast lies the South China Sea. With a population of over 85 million, Vietnam is the 13th most populous country in the world. The country is listed among the "Next Eleven" economies; according to government figures, GDP growth was 8.17% in 2006, the second fastest growth rate among countries in East Asia and the fastest in Southeast Asia. Late 2007, the ministry of finance said the GDP growth was estimated to hit a ten-year high record at 8.44% in 2007.

EDUCATION

A Pedagogical Approach to Special Education in Africa
Morgan Chitiyo (Southern Illinois University Carbondale, Carbondale, IL, USA)
In series: African Political, Economic, and Security Issues
In series: Education in a Competitive and Globalizing World
2013. 121 pp.
Soft: 978-1-62417-615-9. $52.00.
e-book: 978-1-62417-672-2. $52.00.

The need for special education in Africa is uncontested. With extreme poverty, perennial hunger, severe malnutrition, rampant disease, conflict and frequent wars, Africa seems to possess all the ingredients that put children at risk for disability. Unfortunately, the general education curriculum is failing to meet the needs of this population. Special education is therefore, a necessity. However, special education is still quite underdeveloped in most of Africa. This book is intended to serve as a user-friendly guide and resource for everyone who is dedicated to both the education and social welfare of children with disabilities across Africa, particularly south of the Sahara. It is designed to help schoolteachers, caregivers, and families in their quest to provide the best education possible for children who are challenged by disability. The book is intended to promote the development of special education across the continent. It provides an overview of different types of mild to severe disabilities and provides a brief description of each disability from both an African and a Western perspective.

Advancement in Online Education: Exploring the Best Practices. Volume 2
Qiuyun Lin (Childhood Education, SUNY Plattsburgh, Plattsburgh, NY)
In series: Education in a Competitive and Globalizing World
Case: 978-1-61470-895-7. $140.00.

This two-volume book series on online education consists of a current collection of research contributed by authors from different nations in different disciplines. The book series takes a global perspective, examining the skills needed for online education and looking to see how people around the world view the concepts and components that make up an online learning environment. Most of the collections are research-based practices that have been done through the years. Volume Two shares some of the experiences that higher education faculty and administrators have explored or are currently exploring to take advantage of technology-enabled online learning, presents new approaches for implementing and evaluating these practices, and describes the unique learning opportunity brought by online education technologies. It represents a compendium of current practices and potentials on how to best manage and develop online distance courses and programs.

American Indian and Alaska Native Students: Education Assessments
Scott Fechner and Rina Thayer
In series: Education in a Competitive and Globalizing World
Case: 978-1-62257-968-6. $135.00.
This book provides an overview for educators, policymakers, and the public with information about the background and academic performance of fourth- and eighth-grade American Indian and Alaska Native (AI/AN) students in the United States. AI/AN students make up about 1 percent of the students at grades 4 and 8 nationally. Fourth- and eighth-grade students were identified as AI/AN based on school records and were sampled along with other students participating in the National Assessment of Education Progress (NAEP) subject-area assessments.

Continuing Professional Development and Lifelong Learning: Issues, Impacts and Outcomes
Greg J. Neimeyer (Department of Psychology, University of Florida) Jennifer M. Taylor (Department of Psychology, University of Florida)
In series: Education in a Competitive and Globalizing World
In series: Public Health in the 21st Century

Through a variety of diverse perspectives, the authors delve into critical issues related to lifelong learning and professional development and invite the reader to consider the roles and functions of continuing professional development, the problems and prospects associated with mandating it, and the continuing quest to translate effective learning into competent practice that is dedicated to the welfare of the consumer, on the one hand, and the generation of improved outcomes, at the other. Interested readers will range from current consumers to trenchant critics of the current health care system. Anyone interested in improving health care services and developing best practices will find ample food for thought in the pages of this book that can be applied to better evaluating and facilitating ongoing professional competence and health care outcomes.

Education in America: Issues, Analyses, Policies, and Programs. Volume 1
Veronica M. Thompson
In series: Education in America: Issues, Analyses, Policies and Programs
Case: 978-1-62417-305-9. $110.00.
This series provides an overview of education in America today, with a focus on the current issues, analyses, policies and programs being implemented and challenged. This volume discusses the Supreme Court's decisions regarding the range of topics that involve religious concerns in education; public aid to sectarian schools; a legal analysis of religious discrimination in public schools; the Student Non-Discrimination Act (SNDA); higher education and the disabled; and a review of federal programs focused on school construction and renovation.
Education in Australia: Cultural Influences, Global Perspectives and Social Challenges

Pavel Jelinek

In series: Education in a Competitive and Globalizing World

2013. 132 pp.

Soft: 978-1-62417-267-0. $95.00.

In this book, the authors discuss the cultural influences, global perspectives and social challenges of education in Australia. Topics include overeducation in the Australian graduate labor market; overseas workers and the role of professional associations in Australia; case studies of disadvantaged students' reading motivations; and the education and health literacy of aboriginal and Torres Strait Islander people in Australia.

Education Leadership, Management and Governance in South Africa

Vitalis Chikoko (University of KwaZulu-Natal, South Africa) Kenneth Mølbjerg Jørgensen (Aalborg University, South Africa)

In series: African Political, Economic, and Security Issues

In series: Education in a Competitive and Globalizing World


Case: 978-1-62100-853-8. $140.00.

This book contains chapters on education leadership, management and governance in relation to schools in South Africa supplemented with a chapter on gender issues in Zimbabwe. It has been fifteen years since a new Constitution dawned, which promised a society based on the people of South Africa, that recognized the injustices of the past and would be built on fundamental human rights and justice for all no matter their race, ethnicity, or economic power. South Africa has moved a long way in developing a democratic society. The emergence of this book is the result of a collaborative effort of people with diverse cultural, social and ethnic roots, who share a common belief in the development of a just and equal society, and who share a specific interest in developing schools as a fundamental element in developing this equal and just society.

Education of Students with Disabilities: Federal Issues and Policies

Harrison Garlach and Nathan Darst

In series: Disability and the Disabled-Issues, Laws and Programs

In series: Education in a Competitive and Globalizing World

2012. 192 pp.

Case: 978-1-62257-996-9. $110.00.

The largest sources of federal funding for elementary and secondary education are the Elementary and Secondary Act (ESEA), and the Individuals with Disabilities Education Act (IDEA). The ESEA provides funding and services for a broad population of students, including disadvantaged students, migrant students, neglected and delinquent students, and students with limited English proficiency. Approximately 6 million students with disabilities aged 6 through 21 attend elementary and secondary schools; however they are not afforded special services under the ESEA due to their disability status. Both the ESEA and IDEA aim to improve the educational outcomes for students with disabilities. The ways in which they do this sometimes differ, and when the laws are not fully or clearly aligned it can be difficult for educators to plan and execute an appropriate education for these students. This book highlights the federal issues and policies pertaining to the education of students with disabilities.

Education Research: Challenges, Training Techniques and Improvements

Benita Montaño and Aaron Chacón

In series: Education in a Competitive and Globalizing World


Case: 978-1-61470-315-0. $95.00.

This book presents current research in the study of education, with a particular focus on the training techniques for educators and educational improvements. Topics discussed include connecting ethnic minority parents to school; school development in Hong Kong early childhood education; examining students' attitudes to the mobile phone as an educational tool; relevant literature to the training of educators; instructional expenditures and accountability ratings; school and classroom diversity effects on cognitive and non-cognitive student outcomes; problem-solving as a component of the constructivist view of learning and the call for educational game design patterns.

Education, Human Capital and Development

Kartick Roy, Mike Roberts, Ershad Ali (Auckland Institute of Studies (AIS) St. Helens, Auckland, New Zealand)

In series: Readings in World Development

Edited by: K.C. Roy (University of Queensland, Australia)

2012. 201 pp.

Case: 978-1-62081-760-5. $85.00.

This book is the seventh title in the series Readings in World Development, edited by Kartik C. Roy. In this volume he is joined by co-editors Michael A. Roberts, Academic Director at AIS St Helens, Auckland, New Zealand, and Ershad Ali, Director of the Centre for Research in International Education at the same institution. Many developing nations are poor in mineral wealth, other natural resources and in financial investment infrastructure. Their most valuable resource is a large labour force – their population. Unfortunately, because of limited economic and technical ability, they are unable to engage their labour force in productive activity. Human capital is the ability of their population to engage in productive activity. Education can be considered as an investment in increasing the efficiency of human capital in much the same way that cultivation and fertiliser add to the effectiveness of land use. It adds value to the human capital of a nation, enabling it to be more efficient and effective in producing national wealth.

Educational Policy in the Twenty-First Century

Rosemary M. Caron (University of New Hampshire, Durham, NH, USA)

In series: Education in a Competitive and Globalizing World


Case: 978-1-62100-032-7. $165.00.

Education is a critical determinant for the continued success of industrialized countries and for the potential of developing countries to be realized and achieved. There are many determinants that are instrumental to the progression of societies and access to education is essential to this success. This book provides a global perspective on
selected areas of educational policies that address myriad aspects of how we, as a population, can achieve what is a basic human right in the twenty-first century. Educational policy is a dynamic field that many countries place as a top priority for action since an educated population is one that can be healthy and productive. This book highlights selected areas of research, action and recommendations for policy development that are applicable at all levels of education in many corners of the world.

**Effective Use of Visuals in Teaching in Higher Education**  
Ariane Jennifer Rourke, Zena O'Connor, Kathryn Coleman (College of Fine Arts, University of New South Wales, Paddington, Australia)  
In series: Education in a Competitive and Globalizing World  
Case: 978-1-62081-442-0. $150.00.  
e-book: 978-1-62081-455-0. $150.00.  
Research in recent years particularly in the realm of communication skills in computer technology has supported the argument that students should have multiple skills and forms of communication that encompass the capacity to comprehend and convey information in visual form. This book addresses this concern, by examining specifically how visuals can be utilised in higher education to promote meaningful enriched learning.

**Effectively Implementing Information Communication Technology in Higher Education in the Asia-Pacific Region**  
Jim Peterson (Monash University, Clayton, Victoria, Australia), Okhwa Lee (Chungbuk National University, Korea), Tofazzal Islam (Bangladesh Open University, Bangladesh), Matthew Piscioneri (Monash University, Clayton, Victoria, Australia)  
In series: Education in a Competitive and Globalizing World  
Over the last two decades, higher education in the Asia-Pacific region has witnessed a greater rate of expansion in terms of new institutions and numbers of students than any other region globally. In tandem with this expansion, the use of information communication technology as a central component in the higher education sector in the Asia-Pacific region has also grown exponentially. This book documents a range of policy, pedagogy and practice initiatives from countries such as Thailand, Malaysia, Bangladesh, Australia, China, Indonesia, the Philippines, Canada and Korea. It showcases innovation and investigation, success, and, in some cases, outcomes from trials that suggest the need to rethink and even revise a number of central assumptions in the field of implementing information communication technologies in higher education.

**Federal Education Programs and Grants for the Disadvantaged**  
Denis M. Rojers  
In series: Education in a Competitive and Globalizing World  
In series: Government Procedures and Operations  
2013. 143 pp.  
Case: 978-1-62417-309-7. $110.00.  
The TRIO programs are the primary federal programs providing support services to disadvantaged students to promote achievement in postsecondary education. The TRIO programs have been designed to prepare qualified individuals from disadvantaged backgrounds for postsecondary education and encourage their success throughout the educational pipeline from secondary school to undergraduate and graduate education. While the TRIO programs primarily serve low-income, first-generation college students, they also serve students with disabilities, veterans, homeless youth, foster youth, and individuals underrepresented in graduate education. This book provides a description of the TRIO programs, with a focus on education for homeless children and youth; and the federal Pell Grant program of the Higher Education Act.

**Fifteen Biggest Problems in Education and How to Solve Them**  
Ilghiz M. Sinagatullin (Department of Pedagogy and Methods of Elementary Education, Birsk State Socio-Pedagogical Academy, Birsk, Republic of Bashkortostan, Russian Federation)  
In series: Education in a Competitive and Globalizing World  
Case: 978-1-62417-599-2. $85.00.  
In Fifteen Biggest Problems in Education and How to Solve Them, Ilghiz M. Sinagatullin demonstrates his remarkable gift in revealing questions too often ignored, unnoticed or wrongly interpreted by educators, teacher educators, education policy makers, and parents. Simultaneously he proposes fresh and insightful recommendations and strategies about how to find optimal solutions to these unnoticed problems that impede the successful functioning of education. His practical suggestions in solving such dilemmas are full of professional ingenuity and foresight. He supports his theoretical implications by pertinent examples drawn from his personal experience and observations. This book is a good source for secondary school teachers, teacher educators, pre-service teachers as well as parents. Education policy makers and school district officials may equally benefit from getting acquainted with it.

**Handbook of Academic Performance: Predictors, Learning Strategies and Influences of Gender**  
Rolf Haumann and George Zimmer  
In series: Education in a Competitive and Globalizing World  
2013.  
Case: 978-1-62417-888-7. $150.00.  
In this book, the authors gather and present current research in the study of the predictors, learning strategies and influences of gender on academic performance. Topics discussed include the gender effect on academic results and whether personality is a factor; the consequences of evening preference of adolescents on school achievement; performance standards in higher education; developments in the measure of intelligence; disciplinary consequence effects on the achievement of students with disabilities; teacher and student ethnicity in Texas elementary schools; and a study of gender and ethnic differences and success in the enrollment of advanced placement courses.
Kindergartens: Teaching Methods, Expectations and Current Challenges

Henry Switzer and Dwayne Foulke
In series: Education in a Competitive and Globalizing World
Case: 978-1-62417-786-6. $150.00.
In this book, the authors discuss the teaching methods, expectations and current challenges in kindergarten education. Topics include designing educational material for early childhood mathematics education; additive bilingualism of immigrant children; evolution of graphomotor parameters in kindergartner’s handwriting; multisensory handwriting curriculum enhancing kindergarten skills; family environment as a predictor of behavioral competencies in early elementary years; an exploration of meaning in young children’s images and designs; and first aid training in the kindergarten.

Learning Strategies, Expectations and Challenges

Maxwell Edwards and Stephen O. Adams
In series: Education in a Competitive and Globalizing World
2012. 190 pp.
Case: 978-1-62081-752-0. $150.00.
e-book: 978-1-62081-797-1. $150.00.
In this book, the authors present current research in the study of learning strategies, expectations and challenges. Topics discussed in this compilation include an examination of the differences between an expert and a novice’s ability to recognize design prototypes using a Visual Prototype Identity Model (VPIM); self-regulated problem solving implementation in the school curriculum; effects of academic confidence and gender in the perception of the teaching-learning process at the university level; strategies for supporting reflection in online learning environments; and collaborative learning in teaching.

Learning Unbound: Select Research and Analyses of Distance Education and Online Learning

Jason M. Olson and Brian M. Carroll
In series: Education in a Competitive and Globalizing World
Case: 978-1-61942-884-3. $125.00.
While distance education can use a variety of technologies, it has grown most rapidly online with the use of the Internet. Online distance education is currently being offered in various ways to students living on campus, away from campus, and across state lines. School offerings in online learning range from individual classes to complete degree programs. This book provides select research and analyses on distance education and online learning.

National Quality of Teacher Preparation: Findings of Reported Data

Eva S. Morales
In series: Education in a Competitive and Globalizing World
Case: 978-1-62417-300-4. $110.00.
e-book: 978-1-62417-301-1. $110.00.
This book presents an overview of teacher preparation and initial state credentialling in America, with a focus on providing Congress, aspiring teachers, the education community, researchers and policymakers, and the general public with information that Congress has identified as important to a basic understanding.

New Perspectives in Music Education in Slovenia

Olga Denac (University of Maribor, Faculty of Education, Maribor, Slovenia)
In series: Education in a Competitive and Globalizing World
2012. 531 pp.
Case: 978-1-62100-846-0. $325.00.
This book brings an overview of the Slovene system of music education in general and music schools and compares it to the situation in some other European countries, through the entire vertical of music education. In particular, the focus is on the teaching and learning strategies applied in Slovene kindergartens, primary and secondary schools in the framework of modern curriculum planning which follows the objective-oriented and developmental models of planning as well as the holistic and global approach, taking into account the complexity of learning in cognitive, affective-social and motor dimensions of development. This book presents some models of culture and arts education in Slovenia, hoping that they would encourage a better systemic cooperation between educational and cultural institutions.

Pedagogy: New Developments in the Learning Sciences

Robyn M. Gillies (The University of Queensland, Brisbane, Australia)
In series: Education in a Competitive and Globalizing World
2012. 531 pp.
Case: 978-1-62100-846-0. $325.00.
This book brings together a diverse range of researchers to profile new pedagogical developments in teaching and learning. This includes pedagogies in the fields of mathematics and science education, literacy, computer supported learning, and specialist fields such as special education, indigenous education, music education and the learning processes and relationships that are evident in many of these fields. The emphasis in this book is on chapters that have a strong evidence-base for the work that is presented. While some will argue that the different fields have their own specific pedagogies, often referred to as pedagogical content knowledge (PCK) (Schulman, 1986), research also indicates that there are many pedagogies that are applicable across different disciplines. Teachers and educators need to be cognisant of how different pedagogies can be applied or used creatively in their own disciplines to promote understanding and learning.

Placed at Risk by the System: The Educational Vulnerability of Children and Youth in Foster Care

Andrea Zetlin and Lois Weinberg (California State University, Division of Special Education and Counseling, Los Angeles, CA, USA)
In series: Education in a Competitive and Globalizing World
In series: Children’s Issues, Laws and Programs
2013.
Soft: 978-1-62618-011-6. $52.00.
e-book: 978-1-62618-022-2. $52.00.
The book’s premise is that not only do children and youth in foster care comprise a population very much at risk for school failure but also that this group of youngsters is perhaps the most educationally vulnerable population in our schools. Much needs to be done, in a comprehensive and coordinated way, if we are to give these individuals the
opportunity for educational achievement. Case studies of very young children to young adults ready to emancipate from child protective services are interwoven throughout the volume to illustrate the significant barriers that put them at risk of educational failure. The chapters cover a wide range of topics, including specific issues associated with the educational plight of the birth through high school population, legislative efforts and efforts by the legal community to increase focus and oversight of the schooling experience, and strategic efforts by the schools, child welfare agencies, and other community partners to improve their practice and provide appropriate supports and services to enhance prospects for educational success and adult development.

**Progress in Education. Volume 28**

**Robert V. Nata**

In series: *Progress in Education*


Case: 978-1-62100-625-1. $95.00.
e-book: 978-1-62100-737-1. $95.00.

This series presents substantial results from around the globe in selected areas of educational research. The field of education is consistently on the top of priority lists of every country in the world, yet few educators are aware of the progress elsewhere. Topics discussed include teaching as integration of theory and practice; perspectives of Turkish pre-service mathematics teachers of elementary level on mathematics proofs; how effective are middle school teachers at improving student achievement; assessing teaching methods in undergraduate disciplines; motivation of German and U.S. teachers to become school principals and the art of science education.

**School Districts’ Use of Funds: Analyses of Expenditures and Income Factors**

**Richard I. James and Ryan A. Migne**

In series: *Education in a Competitive and Globalizing World*

2012. 139 pp.

Case: 978-1-62081-296-9. $110.00.

This book provides an analyses of expenditures and income factors relating to school districts use of funds. Title I of the Elementary and Secondary Education Act of 1965 (ESEA) requires that schools receiving funds under Title I receive state and locally-funded services. The purpose of this comparability requirement is to ensure that federal assistance is not compensating for an inequitable distribution of state and local funds that benefits more affluent schools. The Title I comparability requirement allows school districts to demonstrate compliance in a number of ways, including through a district-wide salary schedule, policies to ensure equivalence among schools in certain types of resources, student-instructional staff ratios, and other measures, and does not require districts to use school-level expenditures.

**School Dropout Rates and Prevention Services and Programs: Trends and Data**

**Byron F. Walker and Ross J. Hall**

In series: *Education in a Competitive and Globalizing World*


Case: 978-1-61942-871-3. $110.00.

Dropping out of high school is related to a number of negative outcomes. For example, the median income of persons ages 18 through 67 who had not completed high school was roughly $25,000 in 2009. By comparison, the median income of persons ages 18 through 67 who completed their education with at least a high school credential, including a General Educational Development (GED) certificate, was approximately $43,000. This book builds upon a series of National Center for Education Statistics (NCES) on high school dropout and completion rates that began in 1988. It examines trends in dropout and completion rates over the last nearly four decades (1972-2011), and explores the characteristics of high school dropouts and high school completers. Also discussed are the dropout prevention services and programs in public school districts.

**School History and the ‘Other’: It's Influence on Greek Pupils’ Perceptions of the ‘Other’**

**Chrysa Tamisoglu (Mezaria, Filiro, Thessaloniki, Greece)**

In series: *Education in a Competitive and Globalizing World*


Case: 978-1-62257-873-3. $175.00.

In recent years, issues related to the cultivation of national identity and the contribution of the ‘other’ to the construction of national self has assumed considerable significance. Additionally, the way the past should be narrated and presented to the younger generation through school history is beset by continual and not easily resolved debates. This book, focusing on the Greek context, reports how and to what extent school history and history education contribute to the formulation of Greek youngsters’ national identity and perceptions of the ‘other’. School history is conceived as a double-edge notion which includes official aspects (educational policies, history curricula and textbooks) and every day practice (implementation of official aspects and history teaching reality). Examining both edges, this book depicts the influence that school history has on pupils’ perceptions of the ‘other’ in ethnocentric educational settings and underlines the contribution of other parameters inside and out of these settings.

**Students and School-Based Physical Activity: Select Analyses**

**Edwin J. Rogers and Griffith L. Harvey**

In series: *Physical Fitness, Diet and Exercise*

2012. 133 pp.

Case: 978-1-62081-704-9. $110.00.

Physical activity is the most important strategy in any program aimed at preventing or reducing childhood obesity. In addition to its positive health benefits, research on physical activity among children also suggests a strong correlation between children’s fitness and their academic performance, as measured by grades in core subjects and scores on standardized tests. Moreover, some experts contend that physical activity provides both personal and social benefits, including the development of leadership skills and increased self-esteem. Schools are uniquely positioned to be an access point for students to engage in physical activity through physical education classes and sports teams. This book examines the association between school-based physical activity and academic performance, including indicators of cognitive skills and attitudes, academic behaviors, and academic achievement; and the corresponding health benefits.

**Tax-Based Higher Education Assistance: Benefits and Analyses**

**George Federocko and Alana Masuicca**

In series: *Education in a Competitive and Globalizing World*


Case: 978-1-62257-922-8. $110.00.
Since 1997, education tax benefits have become an increasingly important component of federal higher education policy. Fourteen tax benefits are currently available for college students and their parents to help pay for higher education. The available tax benefits are a mixture of credits, deductions, exclusions, and other incentives. The benefits can be placed into one of three general categories: incentives for current year expenses, preferential tax treatment of student loans, and incentives for saving for college. This book provides an overview and contrast of higher education tax benefits with traditional student aid; a brief history of higher education tax policy over the past 60 years; a summary of key features of the available tax benefits; and an estimate of revenue losses resulting from individual tax provisions.

**ENERGY**

**Department of the Interior: Reform, Reorganization and Offshore Energy Management**

*Stephanie Cannon and Andrea T. Zulpo*

In series: *Energy Policies, Politics and Prices*


Case: 978-1-62417-093-3. $110.00.


The Department of the Interior (DOI) manages ocean energy and mineral resources, including oil, natural gas, wind, and geothermal resources. Federally regulated offshore oil and gas projects currently account for 26% of the nation's domestic oil production and about 16% of domestic natural gas production. In addition to generating these domestic energy supplies, federally regulated offshore energy projects account for significant public receipts, including approximately $6.5 billion in 2011. This book provides an overview of the DOI's reform, reorganization and offshore energy management with a focus on ocean energy programs and oil and gas management.

**Energy Markets: Federal Financial Interventions, Subsidies and Tax Incentives**

*Ethen A. Tallie and Anita Burris*

In series: *Energy Policies, Politics and Prices*


Case: 978-1-61942-679-5. $95.00.

e-book: 978-1-61942-680-1. $95.00.

This book provides an analysis of direct federal financial interventions and subsidies in energy markets with a focus on subsidies to electricity production. The majority of energy produced in the United States is derived from fossil fuels. In recent years, however, revenue losses associated with tax incentives that benefit renewables have exceeded revenue losses associated with tax incentives benefiting fossil fuels. As Congress evaluates the tax code and various energy tax incentives, there has been interest in understanding how energy tax benefits under the current tax system are distributed across different domestic energy resources.

**Federal Loan Guarantees for Energy Projects: Elements and Considerations**

*Ronan Sampson and Cameron Lange*

In series: *Government Procedures and Operations*


Soft: 978-1-62417-116-1. $52.00.


The federal government has a number of policy tools available to encourage the development and deployment of innovative clean energy technologies. Some of these policy tools include: clean energy mandates, carbon taxes, carbon cap and trade, environmental regulations, loan guarantees, grants, and tax expenditures. In 2005 and 2009, Congress passed legislation that provided loan guarantee authority to the Department of Energy (DOE) for innovative clean energy technologies and clean energy projects. In 2011, the high-profile bankruptcy, and subsequent loan default, of Solyndra resulted in a congressional investigation and subjected DOE’s loan guarantee program to a high degree of scrutiny. This book provides analysis of goals for and concerns about the use of loan guarantees as a mechanism to support the deployment of innovative clean energy technologies.

**Oil Prices: Fundamentals, Fluctuations and Impacts**

*Jasper C. Mullen and Blaine M. Lynn*

In series: *Energy Policies, Politics and Prices*


Case: 978-1-61942-488-3. $95.00.

e-book: 978-1-61942-485-2. $95.00.

High oil prices affect nearly every household and business in the United States. During the course of 2008, oil prices doubled to more than $145 per barrel and then fell by 80%. In early 2011, there was a run-up of about 20%, sending gasoline prices to near 2008 highs. This book provides background on financial speculation in oil, the workings of oil derivatives markets, and the different types of firms that trade in those markets. Also discussed are the concepts of manipulation and excessive speculation, and the fundamental factors that affect oil prices.

**Residential Energy Efficiency: Insights and Strategies for Driving Demand**

*Patrick A. O’Neal*

In series: *Energy Science, Engineering and Technology*


Case: 978-1-62417-158-1. $195.00.


This book provides an overview of middle income households across the United States, which are under significant financial strain, and rising energy bills are a contributor to this stress. Energy efficiency improvements have the potential to provide significant benefits to these households, by lowering bills, increasing the structural integrity of homes, improving health and comfort, and reducing exposure to volatile, and rising, energy prices. Middle income households are also responsible for a third of U.S. residential energy use. Increasing the energy efficiency of their homes would deliver substantial public benefits: reducing power system costs, easing congestion on the grid, and avoiding emissions of greenhouse gases and other pollutants. To achieve those goals, utilities and governments are beginning to look beyond typical residential energy efficiency programs and are turning to programs that improve the energy efficiency of the entire house by sealing the leaks, reducing plug loads, adding insulation, and replacing inefficient heating and cooling systems.

**The Clean Energy Standard Act: Policy Proposal and Impacts**

*Aaron C. K. Kim and Louis R. Ramos*

In series: *Energy Science, Engineering and Technology*

2012. 98 pp.

Soft: 978-1-62257-327-1. $52.00.

U.S. policymakers have considered and deliberated on several policy designs that could potentially reduce energy-related carbon emissions. In his 2011 State of the Union address, President Obama proposed the concept of a Clean Energy Standard (CES) that would result in 80% of U.S. electricity generation from clean energy sources by 2035. In March of 2012, the Clean Energy Standard Act of 2012 (S.2146) was introduced in the Senate. The primary goal of S.2146 is to reduce carbon dioxide (CO2) emissions from the U.S. electricity sector, which represents approximately 41% of total U.S. CO2 emissions. Generally, the approach used to achieve this goal is to require certain utility companies to source a portion of their electricity generation from qualified clean energy generators. Utilities located in either Alaska or Hawaii are exempted from CES requirements. This book examines the policy proposals and impacts of the Clean Energy Standard Act with a focus on compliance requirements and clean energy credits.

The Low Income Home Energy Assistance Program ( LIHEAP)
Drew H. Henson and Lamare J. Teague
In series: Housing Issues, Laws and Programs
In series: Laws and Programs
Soft: 978-1-62081-056-9, $47.00.
e-book: 978-1-62081-081-1, $47.00.
This book describes the Low Income Home Energy Assistance Program, also known as LIHEAP, with a focus on funding, program rules and eligibility. LIHEAP was established in 1981 as part of the Omnibus Budget Reconciliation Act, and is a block grant program under which the federal government makes annual grants to states, tribes, and territories to operate home energy assistance programs for low-income households. States may use LIHEAP funds to help households pay for heating and cooling costs, for crisis assistance, weatherization assistance, and services (such as counseling) to reduce the need for energy assistance.

United States Energy Security
Brandon E. Mcdonald and Bobby R. Webb
In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices
Case: 978-1-62257-302-8, $110.00.
Energy plays a vital role in Americans' lives and in the U.S. economy as a whole, particularly in the provision of electricity, transportation, heating and cooling, and industrial processing - the four main energy-consuming sectors of the economy. This book examines the various commodities used to generate energy in the United States, focusing on the two largest energy-consuming sectors of the U.S. economy; electricity and transportation, and the differences in how they expose U.S. households and businesses to disruptions, either domestic or international, in the supply of energy.

ENVIRONMENT

Essays on Fundamental and Applied Environmental Topics
Dragutin Mihailovic (Faculty of Agriculture, University of Novi Sad, Novi Sad, Serbia)
In series: Environmental Remediation Technologies, Regulations and Safety
In series: Environmental Research Advances
Case: 978-1-61942-522-4, $165.00.
To preserve this world for future generations, we must strive for sustainable development that meets the needs of the present without compromising future options and resources. The objective of this book is to bring together scientists and engineers working in research institutions, universities and academia who engage in the study of the theoretical, modeling, measuring and software aspects of the environmental sciences. It is intended to provide a forum for participants to obtain up-to-date information and exchange new ideas and expertise through the presentation of recent achievements in this field. A combination of professionals from a wide spectrum of different areas focused on theoretical, modeling and experimental approaches, including software design and measurements, in the environmental sciences.

Land Use: Planning, Regulations, and Environment
Christoph Aubrecht, Sergio Freire, Klaus Steinnocher (AIT Austrian Institute of Technology, Vienna, Austria; Universidade Nova de Lisboa, Lisbon, Portugal)
In series: Environmental Science, Engineering and Technology
In series: Environmental Remediation Technologies, Regulations and Safety
Case: 978-1-62257-357-8, $150.00.
e-book: 978-1-62257-368-6, $150.00.
The edited book volume “Land Use: Planning, Regulations, and Environment” is a diverse compilation of ten chapters covering different facets of the field of land use research with a particular focus on planning aspects. The contributions were selected by the guest editors after passing a thorough peer review process involving selected international subject experts. Besides the planning component which is considered the central theme of the book volume, articles also address risk and climate change as well as local land use development and sustainable management aspects. Contributions include application-oriented case studies, as well as conceptual approaches and data simulation and modeling-driven elaborations. In terms of land use planning and its implications on society and the environment, recommendations are provided that show how proper strategies help in avoiding negative effects and provide improved decision support on multiple levels.

National Wildland Fire Management Strategy
Evan D. Hinkle and Michael J. Welsh
In series: Wildlife Protection, Destruction and Extinction
In series: Environmental Remediation Technologies, Regulations and Safety
Case: 978-1-62081-083-5, $95.00.
e-book: 978-1-62081-095-8, $95.00.
The challenges of fire management are formidable and growing more complex. The Nation has diverse landscapes, demographics, and social values; and because of this, a national strategy must address these differences. This new book addresses the wildland fire management challenges across America with a focus on providing the framework for a strategic effort to restore and maintain resilient landscapes, create fire-adapted communities, and respond to wildfires. Additionally, this book examines the general science available for a risk-based approach to fire and fuels management and suggests analysis that may be applied at multiple scales to inform decision-making and tradeoff analysis.
Oil: Production, Consumption and Environmental Impact

Shuangning Xiu (Department of Natural Resources and Environmental Design, North Carolina A&T State University (NCA&T), Greensboro, NC)

In series: Environmental Science, Engineering and Technology


Case: 978-1-61942-877-5. $150.00.

This book provides comprehensive discussions on current oil issues from authors across the globe, including petroleum oil, biodiesel, and biomass derived bio-oil. Readers will find themes including new green materials for petroleum spill cleanup; state-of-the-art studies on wax precipitation problems during petroleum transportation; vegetable oils in the biodiesel industry; biodiesel production from inedible oils; the production, application, and economy of bio-oil from biomass-based feed stocks; advanced bio-oil production techniques; opportunities for biomass-derived "bio-oil", and related waste treatment, emissions and environmental impacts. Bridging the gap between research and practical applications, this book is written for engineering professionals in the petroleum and biofuels industry, academic researchers working in bioenergy, bioprocessing technology and chemical engineering, as well as anyone interested in understanding this diverse and developing theme.

The Klamath River Basin: A Complex Case of Resources, Economics, Water Allocation and Species Management

Mabel A. Young and Jack O. Barnes

In series: Water Resource Planning, Development and Management

In series: Environmental Science, Engineering and Technology


Soft: 978-1-62081-355-3. $52.00.

The Klamath River Basin on the California–Oregon border is a focal point for local and national discussions on water allocation and species protection. Previously, water and species management issues have exacerbated competition and generated conflict among several interests: farmers, Indian tribes, commercial and sport fishermen, federal wildlife refuge managers, environmental groups, and state, local, and tribal governments. As is true in many regions in the West, the federal government plays a prominent role in the Klamath Basin’s waters. This role stems primarily from (1) operation and management of the Bureau of Reclamation’s Klamath Water Project; (2) management of federal lands, including six national wildlife refuges; and (3) implementation of federal laws such as the Endangered Species Act. This book provides an overview of the issues in the Klamath Basin, with a focus on the federal government’s role in the region.

The Lacey Act: Federal Regulation and Protection of Wildlife and Plants

Gilbert E. Morgan and Deavon Hill

In series: Environmental Science, Engineering and Technology

In series: Wildlife Protection, Destruction and Extinction


Case: 978-1-62081-615-8. $110.00.
e-book: 978-1-62081-661-5. $110.00.

The Lacey Act was enacted in 1900 to prevent hunters from killing game in one state and escaping prosecution by crossing state lines. It has evolved into a law that prohibits import, export, transport, purchase, or sale of species when that action would violate state, federal, tribal or foreign law. Congress amended the Lacey Act most recently in 2008, expanding the reach of the act to include timber and timber products. It also regulated the introduction of non-native species and prohibited shipment of wildlife without clear identification of the contents and shipper. This book examines the Lacey Act, with a focus on protecting the environment by restricting trade; compliance issues related to importing plants and plant products; the Lacey Act Amendment; and Lacey Act Primer.

The Station Fire: Lessons for Future Wildland Fire Management

Edgar L. Donahue and Dawn M. Elmore

In series: Environmental Remediation Technologies, Regulations and Safety

In series: Wildlife Protection, Destruction and Extinction


Case: 978-1-62081-084-2. $95.00.

In 2009, a wildland fire in the Angeles National Forest in California known as the Station Fire led to the death of two firefighters, destroyed 89 homes and dozens of other structures, and burned more than 160,000 acres. After escaping initial containment efforts, the Station Fire underwent periods of rapid growth and extreme fire behavior over the following several days, ultimately threatening thousands of homes in nearby communities. In response, the Forest Service and local agencies, deployed thousands of firefighters and hundreds of firefighting assets, including fire engines, helicopters, and air tankers. This book examines the key issues raised by firefighters, area residents, and others regarding the Forest Service’s response to the Station Fire over the adequacy of firefighting assets, strategies, and tactics used.

Toxic Substances Control Act: Summary, Challenges and Reform Proposals

Shannon M. McDonnery and Cindy L. Elroy

In series: Environmental Remediation Technologies, Regulations and Safety

In series: Chemical Engineering Methods and Technology


Case: 978-1-62100-783-8. $125.00.

Thirty-five years of experience implementing and enforcing the Toxic Substances Control Act (TSCA) have demonstrated the strengths and weaknesses of the law and led many to propose legislative changes to TSCA’s core provisions. The basic structure of the Toxic Substances Control Act (TSCA) of 1976 has never been amended, but recent legal, scientific, and technological changes are prompting some policy makers to reexamine the law. This book summarizes the Toxic Substances Control Act (TSCA) and the major regulatory programs dealing with chemical production and distribution in U.S. commerce.

Urban Developments in Brazil and Portugal

Mário Moraes Valença ( Universidade Federal do Rio Grande do Norte; Centro de Ciencias Humanas, Campus Universitario-Brasil) Fernanda Cravidão and José Alberto Río Fernandes (CEGOT – Universidade do Porto)

In series: Urban Development and Infrastructure

2012. 466 pp.

Several themes and perspectives are reunited under this collection of texts about urban developments in the Portuguese-speaking worlds of Brazil and Portugal. As each analyst tends to have a particular view on what the concept should refer to, the meaning attributed to the word ‘development’ in this book is also diverse. This is one of the reasons why it is written in its plural form: ‘developments’. The concept (or the word) is here used openly so that all efforts to define it are provisory, partial and elusive, considering the various national, regional, linguistic and scientific meanings pertaining to correlated facts and processes and according to the geo-historical context in which the term is used. In the title, the idea of ‘urban developments’ is also used to indicate evolution or novelty. The book is dedicated to discussing state-of-the-art urban research in Brazil and Portugal.

Wildfire Risk: Perceptions and Mitigation Options
Michael C. Marsh and Carla E. Zimmerman
In series: Environmental Remediation Technologies, Regulations and Safety
Soft: 978-1-62081-222-8, $52.00.
e-book: 978-1-62081-229-7, $52.00.

Various factors have emerged to increase the risk of catastrophic wildfires in our National Forests. Years of suppression of natural fires, an increase in human populations living in and around the forests, changes in climate such as prolonged droughts, and beetle infestations are just some of those factors. With the rising occurrence of devastating fires, managing risk has become critical. This book provides background information to examine the ways in which different groups or disaster subcultures develop the mentalities or perceived realities that affect their views and responses concerning risk and disaster preparedness. Four risk beliefs and attitudes of individuals and groups from four geographic areas in the Southwest, surrounding the Kaibab, Tonto, Santa Fe, and Lincoln National Forests are presented.

ETHICS

Ethics Research Compendium
Peter M. Roberts and Emily O. Perez
In series: Ethical Issues in the 21st Century
Case: 978-1-62257-747-7, $150.00.
e-book: 978-1-62257-748-4, $150.00.

This book presents research in ethics with topics including a step-by-step guide to students; wellbeing and disadvantage; ethical disposition of accounting and business management students; collegiality of journals and self-citation on annual bibliometric scorings; trends of tainted publications and their authors’ publication profiles; from bioethics to biopolitics and the limits of liberalism.

Human Subjects Research: Protecting Participants
Justin R. Ward and Larry O. Coleman
In series: Ethical Issues in the 21st Century
In series: Laboratory and Clinical Research
Case: 978-1-62257-206-9, $195.00.

Human research serves to ensure the safety of new medicines, establish tolerable exposure levels for environmental and workplace hazards, and determine the effectiveness of new interventions in public health, education, and countless other fields. Without volunteers, these studies would be impossible to conduct. Recognizing society’s responsibility to protect human subjects of research from avoidable harm and unethical treatment, the Presidential Commission for the Study of Bioethical Issues was asked to conduct a thorough review of current regulations and international standards to assess whether they adequately protect human subjects in federally supported scientific studies, no matter where they occur. This book explores the current policies and practices in places that ensure scientific research, health care delivery, and technological innovation conducted in a socially and ethically responsible manner.

EUROPE

Belarus: Developments, Relations and U.S. Interests
Alexander T. Gardner and Marcus Payne
In series: European Political, Economic, and Security Issues
Case: 978-1-62257-393-6, $110.00.

Belarusian President Aleksandr Lukashenko snuffed out Belarus's modest progress toward democracy and a free market economy and created an authoritarian regime shortly after being elected as president in 1994. His regime is a throwback to the Soviet era. Those advocating a stronger U.S. role in trying to bring democratic change to Belarus say that the country is important to the United States because Belarus is an obstacle to the U.S. goal of making Europe “whole and free.” Another concern is Belarus's support for pariah regimes, including through arms sales. Relations between Belarus and the EU and United States have been particularly poor since Lukashenko's brutal repression of the opposition after fraudulent presidential elections in December 2010. The EU and United States have imposed strengthened sanctions against key Belarusian leaders, businessmen, and firms. Russia has taken advantage of this situation to increase its political and economic influence. This book examines new developments, relations and U.S. interests in Belarus.

Eastern and Central Europe: Politics and Economics
Salvatore D. Emanuzi and Anthony V. Montrony
In series: European Political, Economic, and Security Issues
Case: 978-1-61470-471-3, $95.00.

This book presents current developments in the study of the politics and economics of Eastern and Central Europe. Topics discussed include recent developments and U.S. interests in Uzbekistan and Kazakhstan; reunification troubles in Cyprus; U.S. policy concerns in Belarus; current issues and U.S. policies in Bosnia, Serbia and Kosovo; Comprehensive Nuclear-Test-Ban Treaty; Poland's new government and issues for the United States and the April 2010 Coup in Kyrgyzstan.

Economic and Political Developments in Poland
Maureen P. Larsen
In series: European Political, Economic, and Security Issues
Case: 978-1-61209-951-4, $89.00.

This new book presents and discusses political and economic developments in Poland. Topics discussed include Polish industry in the transformation period; the economic base of the major cities in Poland in the political and economic restructuring period; foreign investment capital in Poland; regions and regionalism in Poland; privatisation of the Polish economy and Polish public opinion and the changing euro-debate.
Economic Crisis in the Eurozone: Overview, Outlook and Analyses

Ellen F. Young and Tye D. Murphy

In series: European Economic and Political Issues
In series: Global Economic Studies
Case: 978-1-62081-788-9. $110.00.
What started as a debt crisis in Greece in late 2009 has evolved into a broader economic crisis in the Eurozone that threatens economic stability in Europe and beyond. Many analysts consider the Eurozone crisis to be the biggest threat to the global economy, and some Members of Congress have expressed concern about the possible effects on the U.S. economic recovery. Analysts and investors are concerned that some Eurozone governments could default on their debt in a disorderly fashion; vulnerabilities in the European banking sector could trigger broad financial turmoil; the Eurozone could enter a protracted economic recession; and one or more countries could leave the Eurozone. The crisis has tested the solidarity of European Union (EU) member states and strained the capacity of EU leadership and institutional structures. This book provides a brief analysis of the Eurozone crisis and issues of particular congressional interest.

European Integration: Building Europe

David Ramiro Troitino (TTU Tallinn Estonia, Tallinn, Estonia)

In series: European Political, Economic, and Security Issues
The main objective of this publication is establishing an understanding of the process of European integration and hence the current European Union that has resulted from this process. As this is a complicated development that includes many different areas, this book will focus on the main fields in which the integration has been settled; politics, economy, law, and social aspects. Thus, a comprehensive approach to all these fields will provide both general and professional readers with sufficient knowledge to understand the process and form their own opinion about it. Each chapter has been developed independently, and hence can be read autonomously in order to understand a specific topic, policy, or problem in the European Union. Reading of the full book will provide a wide perspective of the process, as the chapters are connected; forming different groups based on similar themes, the combination of these wider groups providing the general approach to the whole process of European integration.

Financial and Macroeconomic Dynamics in Central and Eastern Europe: A Bayesian Approach

Petre Caraiani (Institute for Economic Forecasting, Romanian Academy, Bucharest)

In series: European Economic and Political Issues
In series: Global Economic Studies
2012. 177 pp.
Case: 978-1-62081-245-7. $150.00.
e-book: 978-1-62081-260-0. $150.00.
We approach the topic of financial and macroeconomic dynamics in Central and Eastern European economies using as an econometric paradigm the Bayesian methodology. This book consists of a selection of essays on relevant topics for current and future issues for Central and Eastern European economies.

How a Small State Expands: Grand Strategy and Greece's Territorial Expansion in the Balkans and Asia Minor

Efstatios T. Fakiolas (University of Peloponnese, Greece)

In series: European Political, Economic, and Security Issues
Case: 978-1-62100-604-6. $165.00.
e-book: 978-1-62100-648-0. $165.00.
How does a small state expand and secure territorial gains? Does its grand strategy merit concern? The conventional wisdom in international relations theory is that small states scarcely have autonomy in the choice of action, and that accommodation and compliance with great powers is the persistent pattern of their strategy in return for survival. This book takes issue with this understanding and sets itself to make sense of grand strategies that small states pursue to expand and consolidate the status quo. Combining the empirical originality and richness of archival evidence with a consistent framework for analysis, it brings the perspectives of grand strategy and the external-internal synthesis together in a theoretically-informed way to explore how the small Greek state between 1909 and 1920 was able to attain and consolidate a greater Greece of ‘the two continents and the five seas’.

Ireland: Economic, Political and Social Issues

Christopher Alan Lewis (Institute for Health, Medical Sciences and Society, Glyndwr University, Plas Coch Campus, Wales, United Kingdom)

In series: European Political, Economic, and Security Issues
2013. 166 pp.
Case: 978-1-62257-924-2. $150.00.
Ireland was once viewed as the ‘sick man’ of Europe, but over the course of a generation, it was transformed into the home of the ‘Celtic Tiger’. However, the prosperity of the ‘Celtic Tiger’ was short lived, and by 2008 the economic ‘miracle’ was over and the tiger’s roar was heard no more. The recession was soon felt across the whole country. This book examines some of the economic, political and social issues facing contemporary Ireland. Some of the issues examined clearly relate to the recession, while others have roots in Irish history. This book presents an in-depth analysis of a range of topical issues that are of both national and international significance. Each issue is presented by an expert drawn from a range of social science disciplines. In doing so the book seeks to provide a multi-disciplinary forum for the discussion of these issues, in the expectation that other scholars working both within and outside Ireland will use this work to further the collective understanding of these issues at home and abroad.

Nordic Countries: Economic, Political and Social Issues

Mathias L. Pedersen and Jakob Christoffersen

In series: European Political, Economic, and Security Issues
In series: Global Political Studies
Case: 978-1-61942-873-7. $150.00.
This book examines some of the economic, political and social issues facing the Scandinavian countries of Sweden, Finland, Norway and Denmark. Topics discussed in this compilation include Denmark’s energy sector transition toward agro-biomass; Sweden’s exchange-rate volatility trade with Germany; Norwegian quota reform in gender
corporate representation; legislation, culture and development of quality child care in Denmark; ethnic relations and intercultural learning among Danish international workers; the J-curve effect in commodity trade between Sweden and Germany; and occupational safety in Finland.

Portugal: Economic, Political and Social Issues
António José Bento Gonçalves (Geography Department, Institute of Social Sciences, University of Minho, Guimarães, Portugal), Antonio Avelino Bastista Vieira (Universidade do Minho, Instituto de Ciencias Sociais, Departamento de Geografia, Guimaraes, Portugal)
In series: European Political, Economic, and Security Issues
In series: Global Political Studies
Case: 978-1-62257-474-2. $150.00.
Portugal is a state of southern Europe, with Lisbon, the nation’s largest city, as its capital. The mainland is located in the extreme southwest of the Iberian Peninsula bordering the north and east with Spain, and to the west and south by the Atlantic Ocean. The Portuguese territory also encompasses two autonomous regions: the archipelagos of Madeira and the Azores in the Atlantic Ocean. One of the oldest nations in Europe, Portugal has changed immensely over the past 40 years. The revolution of 1974, which established democracy, the decolonization, the negotiation and finally accession to the European Union and, most recently, the adoption of the Euro, have profoundly marked the past four decades and changed the entire structure of the country. This book outlines the present Portuguese economic, political and social issues of the new millennium.

The Re-Education Experiment in Romania: A Survivor’s Views of the Past, Present, and Future
Daniel Teodorescu (Emory University, Atlanta, GA, USA) and Gheorghe Boldur-Latescu (Academy of Economic Studies, Bucharest, Romania)
In series: Central and Eastern Europe in Transition
2013. 264 pp.
Case: 978-1-62417-289-2. $150.00.
Very little is known--not only by the Western world but also by the Romanian youth--about the magnitude of the horrors the communist regime in Romania committed over its 40 years of dictatorship. This book is a collection of essays written between 1995 and 2011, chronicling the experiences and presenting the views of a former political prisoner about past and current events in Romanian history. A retired professor of operations research, Boldur-Latescu is one of the few survivors of the 'Pitesti Phenomenon,'* the experiment launched in the 1950's in communist prisons by the Romanian Securitate, which aimed at re-educating political prisoners through peer exerted torture. This book is a continuation of the analysis that started with "The Communist Genocide in Romania", published in 2005 by Nova Publishers) with a particular emphasis on the examination of the social, political, cultural, and economic evolution of Romania after the 1989 Revolution. Some of the essays go beyond the analysis of the Romanian context by tackling current challenges faced by Western democracies through a unique prism. The link between communism and terrorism, the lack of reference to Christian values in the EU Constitution, and the relevance of Tolstoy's work or the Testament left by Peter the Great to the current situation in world politics, are only a few examples of the author's unique interpretation of current world events.

FINANCE

401(K) Plans: Regulation and Oversight Issues
Jonah G. Belser and Kaiyre Grady
In series: Financial Institutions and Services
Recent volatility in financial markets highlights the need for prudent investment decisions if 401(k) plans are to provide an adequate source of retirement income. While plan sponsors and participants may receive help in assessing their investment choices, concerns have been raised about the impartiality of the advice provided. This book examines improved regulation of 401(k) sponsors to better protect participants from conflicts of interest; increased educational outreach and broader oversight of 401(k) plans to reduce plan fees; and investment into investment options and practices that could restrict withdrawals.

Encyclopedia of Finance Research (2 Volume Set)
Robert B. Gellat
In series: Financial Institutions and Services
In series: Business Economics in a Rapidly-Changing World
Case: 978-1-61209-958-3. $295.00.
This new book presents and discusses current research in the study of finance. Topics discussed include the role of foreign monetary authorities in the global economic crisis; volatility models; leader market indexes; the future of capital asset pricing models; corporate joint ventures; the relationship between business definition and corporate growth; accounting harmonization and financial pricing models; management accounting reforms and accounting, cyclical and financial stability.

Federal Deposit Insurance Corporation and National Credit Union Administration: Assessments and Actions
Joe M. Wallace and Keith R. Barnes
In series: Financial Institutions and Services
In series: Banking and Banking Developments
Case: 978-1-62257-271-7. $110.00.
The Federal Deposit Insurance Corporation (FDIC) was established as an independent government corporation under the authority of the Banking Act of 1933. The FDIC is funded through insurance assessments collected from its member depository institutions and held in what is now known as the Deposit Insurance Fund (DIF). The proceeds in the DIF are used to pay depositors if member institutions fail. The credit union system has undergone a period of financial turmoil since the financial crisis began in 2007, resulting in an estimated $5 billion to $10 billion in losses to the 7,400 credit unions and the institutions that support them, known as corporate credit unions of corporates. This book provides an overview of the FDIC, recent status of DIF, and efforts to reduce the loss exposure and total risk to the fund. Also discussed is the recent status of the National Credit Union Administration (NCUA) with a focus on assessments and actions undertaken to support the funds during the recent period of financial distress and other initiatives to maintain liquidity.

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Financial Literacy and the Retail Investor: Knowledge Levels and Information Needs
Dustin Osbourne and Philip Admise
In series: Economic Issues, Problems and Perspectives
In series: Financial Institutions and Services
2013. 163 pp.
Case: 978-1-62417-114-7. $195.00.
This book assesses the financial literacy of retail investors in the United States. Literacy involves the "ability and confidence to effectively apply or use knowledge related to personal finance concepts and products." Investor knowledge is particularly important in an age in which retirement programs in the United States have moved from defined-benefit plans, in which the employer bears investment responsibility, to defined-contribution plans, in which the responsibility has shifted to employees. If employees do not have the requisite knowledge, they will not be prepared to make informed decisions regarding the management of their financial affairs, including investing for a secure retirement. Studies have found that American investors repeatedly do not understand the most basic financial concepts, such as compound interest and inflation; the meaning of stocks and bonds; the role of interest rates in the pricing of securities; the function of the stock market; and the value of portfolio diversification, among others.

Financial Stability Oversight Council and Office of Financial Research: Elements and Assessments
Nolan S. Compton
In series: Business Issues, Competition and Entrepreneurship
In series: Financial Institutions and Services
2013. 120 pp.
Case: 978-1-62417-217-5. $110.00.
The 2007-2009 financial crisis focused attention on weaknesses in the U.S. regulatory structure, including the lack of an agency or mechanism responsible for monitoring and addressing risks across the financial system and a shortage of timely information to facilitate that oversight. In response to the crisis, Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) in July 2010, which provided a broad range of regulatory reforms. Among many other things, the act established the Financial Stability Oversight Council (FSOC) to monitor the stability of the U.S. financial system and take actions to mitigate risks that might destabilize the system. This book provides an overview of elements and assessments of the Financial Stability Oversight Council and Office of Financial Research with a focus on Frequently Asked Questions.

Progress in Financial Markets Research
Catherine Kyrisou (University of Macedonia, Thessaloniki, Greece), Costas Vorlow (Department of Economic Research & Forecasting, Athens, Greece)
In series: Financial Institutions and Services
Numerous empirical studies have analysed the identification and nature of the underlying process of an economic system, as well as the influence of information on financial time series. The standard financial theory of efficient markets assumes identical investors having rational expectations of future stock prices. This means that there are no opportunities for speculative profit, and both trading volume and price volatility are not serially correlated. This book presents information on financial markets and covers topics such as time series and asset pricing methods, data mining, non-linear analysis, chaos and wavelet-based techniques.

Shadow Banking and its Role in the Financial Crisis
Devin A. Jenkins and Martin I. Collins
In series: Global Recession - Causes, Impacts and Remedies
In series: Financial Institutions and Services
Case: 978-1-62081-703-2. $52.00.
Shadow banking refers to bank-like financial activities that are conducted outside the traditional commercial banking system, many of which are unregulated or lightly regulated. Many of the activities performed within the shadow banking system take funds from savers and investors and ultimately provide them to borrowers. Within this broad definition are investment banks, finance companies, money market funds, hedge funds, special purpose entities, and other vehicles that aggregate and hold financial assets. These entities are critical players in the markets for securitized products, structured products, commercial paper, asset-backed commercial paper, repurchase agreements, and derivatives. The activities of these firms financed substantial economic activity, albeit indirectly. This book examines the nature and scope of the shadowing banking system and its role in the financial crisis.

Tax-Preferred College Savings: Introduction and Analyses of 529 Plans
Harrison A. Prokopowicz
In series: Economic Issues, Problems and Perspectives
In series: Financial Institutions and Services
Case: 978-1-62417-934-1. $110.00.
In the face of the rising cost of higher education, families may consider a variety of ways to finance their children's college expenses. In order to make higher education more affordable, Congress enacted legislation that provides favorable tax treatment for college savings. Among the options families may choose to save for college, they may consider using tax-advantaged qualified tuition programs (QTPs), also known as 529 plans. This book provides an overview of the mechanics of 529 plans and examines the specific tax advantages that these plans offer.

The Community Development Financial Institutions Fund
Andre L. Wright
In series: Financial Institutions and Services
Case: 978-1-62417-551-0. $52.00.
e-book: 978-1-62417-552-7. $52.00.
As communities face a variety of economic challenges, some are looking to local banks and financial institutions for solutions that address the specific development needs of low-income and distressed communities. Community development financial institutions (CDFIs) provide financial products and services, such as mortgage financing for homebuyers and not-for-profit developers, underwriting and risk capital for community facilities; technical assistance; and commercial loans and investments to small, start-up, or expanding businesses. CDFIs include regulated institutions, such as community development banks and credit unions, and non-regulated institutions, such as loan and venture capital funds. This book describes the Fund's history, current appropriations, and each of its programs. A description of the Fund's process of certifying certain financial institutions to be eligible for the Fund's program award is discussed, as is the program's purpose,
use of award proceeds, eligibility criteria, and relevant issues for Congress.

The Consumer Financial Protection Bureau: Overview and Analyses

Paul J. Cerutti and Margaret Kolchak

In series: Economic Issues, Problems and Perspectives
In series: Financial Institutions and Services
2012. 192 pp.
Case: 978-1-62257-637-1. $110.00.

In the wake of the worst U.S. financial crisis since the Great Depression, Congress passed and the President signed into law sweeping reforms of the financial services regulatory system through the Dodd-Frank Wall Street Reform and Consumer Protection Act. This book provides an overview of the regulatory structure of consumer finance under existing federal law before the Dodd-Frank Act went into effect and examines arguments for modifying the regime in order to more effectively regulate consumer financial markets. Also analyzed is how the CFP Act changes the legal structure, with a focus on the Bureau's organization; the entities and activities that fall and do not fall under the Bureau's supervisory, enforcement, and rulemaking authorities; the Bureau's general and specific rulemaking powers and procedures; and the Bureau's findings.

The Lehman Brothers Bankruptcy: Analyses

Gary E. Walker and Lindel D. Clarke

In series: Financial Institutions and Services
In series: Banking and Banking Developments
Case: 978-1-62081-730-8. $135.00.
The bankruptcy filing of Lehman Brothers Holdings Inc. (LBHI) on September 15, 2008, was one of the signal events of the financial crisis. The disorderly and costly nature of the LBHI bankruptcy - the largest, and still ongoing, financial bankruptcy in U.S. history - contributed to the massive financial disruption of late 2008. This book examines how the government could have structured a resolution of Lehman under the orderly liquidation authority of Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) and how the outcome could have differed from the outcome under bankruptcy. Key figures surrounding this important financial event also provide their analysis.

The State of Community Banks and Credit Unions and the Potential Role of the Dodd-Frank Act

Jeffrey R. Holman

In series: Economic Issues, Problems and Perspectives
In series: Financial Institutions and Services
Case: 978-1-62417-227-4. $110.00.
e-book: 978-1-62417-228-1. $110.00.
The Dodd-Frank Act includes numerous reforms to strengthen oversight of financial services firms and consolidate consumer and community protection responsibilities within the Consumer Financial Protection Bureau (CFPB). To help minimize its regulatory burden on small institutions, including community banks and credit unions, the act exempts such institutions from several of its provisions. However, the act also contains provisions that impose additional requirements on small institutions. Historically, community banks and credit unions have played an important role in providing credit to small businesses and other local customers. This book examines the significant changes community banks and credit unions have undergone in the past decade and the factors that have contributed to such changes with a focus on the Dodd-Frank Act provisions that regulators, industry associations, and others expect to impact community banks and credit unions, including their small business lending.

 FOOD SCIENCE

Food Security: Quality Management, Issues and Economic Implications

Maddox A. Jones and Francisco E. Hernandez

In series: Food Science and Technology
In series: Agriculture Issues and Policies
Case: 978-1-62081-716-2. $150.00.
e-book: 978-1-62081-736-0. $150.00.
In this book, the authors present current research from across the globe in the study of the quality management, issues and economic implications of food security. Topics discussed in this compilation include women and food security in the Sudan; the impact of the vegetable breeding industry and intellectual property rights in biodiversity and food security; the Brazilian Popular Restaurant Program for food security and nutrition policy; food and water security in eThekwini Municipality, South Africa; aquaculture as an essential source of food security; environmental orientation in the Spanish food industry; Zambia's post-independent policies for food security and poverty reduction; and the role of the processing industry for food security in India.

 FOREIGN POLICY

Diplomatic Security Abroad and Protests in Muslim Countries

Lucien Goudreau

In series: Foreign Policy of the United States
2013. 163 pp.
Case: 978-1-62417-836-8. $110.00.
The deaths of Ambassador Christopher Stevens and three other U.S. personnel in Benghazi, Libya, on September 11, 2012, along with attacks on U.S. embassies in Egypt, Sudan, Tunisia, and Yemen, have drawn renewed attention to the challenges facing U.S. diplomats abroad, as well as to the difficulty in balancing concerns for their security against the outreach required of their mission. Congress plays a key role in shaping the response to these challenges, such as by providing resources for diplomatic security and examining security breaches overseas. The inability to provide perfect security, especially against the evident threat of mob violence, has focused particular scrutiny on the deployment of diplomatic personnel in high-threat environments. This book provides background information on the authorities, regulations, and procedures in place at the Department of State regarding diplomatic security with additional discussion on embassy security funding trends.

International Food Aid: Select Assessments

Robyn Langerford and Scott R. Fiorentino

In series: Nutrition and Diet Research Progress
In series: Foreign Policy of the United States
Case: 978-1-62257-877-1. $195.00.
For more than 50 years, the United States, which accounts for about half of global food aid supplies, has played an important role in alleviating malnutrition and hunger, especially during emergencies. In
fiscal year 2010, the United States spent about $1.5 billion on emergency food aid that reached about 46.5 million beneficiaries. To preserve the nutritional value of food aid, quality controls are in place throughout the supply chain. This book examines select assessments of international food aid with a focus on how better nutrition and quality control can further improve U.S. food aid; the extent to which U.S. agencies meet requirements to ensure that monetization does not cause adverse market impacts; and the USDA’s oversight of the McGovern-Dole Food for Education Program.

Organization of American States: Elements and Considerations

Craig Neilstad and Melissa Thayer
In series: Latin American Political, Economic, and Security Issues
In series: Foreign Policy of the United States
Case: 978-1-62257-950-1. $110.00.
The Organization of American States (OAS) is the oldest multilateral regional organization in the world. It was founded in 1948 by the United States and 20 Latin American nations to serve as a forum for addressing issues of mutual concern. Over time, the organization expanded to include all 35 independent countries of the Western Hemisphere (though Cuba currently is excluded from participation). The organization's areas of focus have also shifted over time, evolving in accordance with the priorities of its member states. Today, the OAS concentrates on four broad objectives: democracy promotion, human rights protection, economic and social development, and regional security cooperation. It carries out a wide variety of activities to advance these goals, often providing policy guidance and technical assistance to member states. This book provides an overview of the OAS history and issues for Congress, with a focus on illicit drug trafficking and terrorism issues.

The Attack in Benghazi, Libya: Review and Lessons

Garrett Savitt
In series: Foreign Policy of the United States
In series: Defense, Security and Strategies
2013. 144 pp.
Case: 978-1-62618-015-4. $52.00.
e-book: 978-1-62618-016-1. $52.00.
Secretary of State Hillary Rodham Clinton convened an Accountability Review Board for Benghazi to examine the facts and circumstances surrounding the September 11, 2012, killings of four U.S. government personnel, including the U.S. Ambassador to Libya, John Christopher Stevens, in Benghazi, Libya. A series of attacks involving arson, small-arms and machine-gun fire, and use of rocket-propelled grenades, focused on two U.S. facilities in Benghazi, as well as U.S. personnel en route between the two facilities. In addition, the attacks severely wounded two U.S. personnel, injured three Libyan contract guards and resulted in the destruction and abandonment of both facilities. This book examines whether the attacks were security related; whether security systems and procedures were adequate and implemented properly; the impact of intelligence and information availability; whether any other facts of circumstances in these cases may be relevant to appropriate security management of U.S. missions worldwide; and finally, whether any U.S. government employee or contractor, breached her of his duty.

The U.S. Defense Buildup on Guam

Rad E. Johnson and Allyssa M. Patel
In series: Defense, Security and Strategies
In series: Military and Veteran Issues
The U.S. government has increased its presence on Guam to help protect U.S. territories in the Asia-Pacific region. The defense buildup on Guam has been moderate. China still has concerns about Guam's buildup, suspecting it to be directed against China. There has been concern that China and North Korea could target Guam with missiles. Still, Guam's role increased in engaging with China's military. This book examines Guam's defense buildup on Guam with a focus on defense deployments; the costs and challenges in meeting construction timelines; and proposed military treatment facilities on Guam.

The U.S.-China Bilateral Relationship: Critical Issues and Developments

Karen Lasonde
In series: Foreign Policy of the United States
In series: China in the 21st Century
This book provides an overview of recent developments in the U.S.-China trade and economic relationship. The role of state-owned enterprises in China is discussed, as is the U.S.-China trade and investment relationship; recent developments in China's military; China's cyber capabilities; developments in China's nuclear and strategic abilities; China in the South China Sea, Taiwan, Hong Kong and Europe; China's demand and control of global resources; China's efforts to become a more innovative society; and the Chinese political transition.

Turkey and the U.S.: Alliances, Relations and Defense Cooperation

Samantha N. Boothe and Ryan Hickman
In series: Defense, Security and Strategies
In series: The Middle East in Turmoil
Case: 978-1-62081-276-1. $110.00.
Although Turkey still depends on the United States and other NATO allies for political and strategic support, growing economic diversification and military self-reliance allows Turkey to exercise greater leverage with the West. These trends have helped fuel continuing Turkish political transformation led in the past decade by Prime Minister Recep Tayyip Erdogan and the Justice and Development Party (AKP), which has Islamist roots. Future domestic political developments may determine how Turkey reconciles respect for democratic views that favor Turkish nationalism and traditional Sunni Muslim values with protection of individual freedoms, minority rights, rule of law, and the principle of secular governance. This book examines U.S. relations with Turkey, with a focus on domestic and foreign policy issues; the decline in Israel-Turkey relations; and ongoing change in the Middle East region.

U.S. and the Asia-Pacific Countries: Deepening Relations

Ferian A. Bell and Odam L. Richards
In series: Asian Political, Economic and Security Issues
In series: Global Political Studies
In the fall of 2011, the Obama Administration issued a series of announcements indicating that the United States would be expanding and intensifying its already significant role in the Asia-Pacific, particularly in the southern part of the region. The fundamental goal underpinning the shift is to devote more effort to influencing the development of the Asia-Pacific’s norms and rules, particularly as China emerges as an ever-more influential regional power. Given that one purpose of the “pivot” or “rebalancing” toward the Asia-Pacific is to deepen U.S. credibility in the region at a time of fiscal constraint, Congress’s oversight and appropriations roles, as well as its approval authority over free trade agreements, will help determine to what extent the Administration’s plans are implemented and how various trade-offs are managed. This book examines U.S. and Asia-Pacific countries relations with a focus on Australia, New Zealand, Japan, Indonesia, South Korea, the Philippines, Vietnam, Guam, Singapore and Taiwan.

United Nations Development System: Overview and Congressional Interests
Ellen Landers and Louis Davett
In series: Congressional Policies, Practices and Procedures
In series: Foreign Policy of the United States
2013. 146 pp.
Case: 978-1-62257-986-0. $110.00.

Members of Congress continue to demonstrate an ongoing interest in the efficiency and effectiveness of United Nations (U.N.) development activities, both in the context of U.N. reform and broader U.S. development and foreign assistance efforts. Thirty-two U.N. agencies, funds, programs, and offices play a role in development. These entities, collectively referred to as the U.N. development system (UNDS), are independent intergovernmental organizations with distinct mandates, rules, membership, and financial resources. They work to help countries achieve social and economic progress through a range of development activities, including program implementation, technical assistance, providing forums for intergovernmental cooperation, setting and facilitating international standards and norms, advocacy and awareness raising, and research and data collection. This book discusses the origins and evolving role of the UNDS and its perceived strengths and weaknesses, with a focus on the current UNDS structure, funding levels and trends.

GLOBAL AFFAIRS

Armenia, Azerbaijan, and Georgia: Politics, Profiles and United States’ Interests
Ronald J. Clark and William E. Rivera
In series: Caucasus Region Political, Economic, and Security Issues
2013. 150 pp.
Case: 978-1-62417-005-8. $110.00.
The United States recognized the independence of Armenia, Azerbaijan, and Georgia when the former Soviet Union broke up at the end of 1991. The United States has fostered these states’ ties with the West in part to end their dependence on Russia for trade, security, and other relations. This book provides profiles of Armenia, Azerbaijan and Georgia; examines political developments; and discusses the interests of the United States in these countries.

Azerbaijan: Profiles, Foreign Relations, and Human Rights
Julius P. Romano and Marc E. Richardson
In series: Caucasus Region Political, Economic, and Security Issues
Soft: 978-1-62417-016-4. $52.00.
e-book: 978-1-62417-017-1. $52.00.
Azerbaijan is an important power in the South Caucasus by reason of its geographic location and ample energy resources, but it faces challenges to its stability, including the unresolved separatist conflict involving Nagorno Karabakh (NK). This book discusses the profile, foreign relations and human rights of the European country of Azerbaijan.

Conflict Zones: Syria and Mali
Antoine Haney and Carter M. Nicholson
In series: Global Political Studies
Soft: 978-1-62417-054-6. $52.00.
Syria is now mired in an armed conflict between forces loyal to President Bashar al-Assad and rebel fighters opposed to his rule. Since major unrest began in March 2011, various reports suggest that between 22,000 and 25,000 Syrians have been killed. U.S. officials and many analysts believe that President Bashar al-Assad, his family members, and his other supporters will ultimately be forced from power, but few offer specific, credible timetables for a resolution to Syria’s ongoing crisis. The West African country of Mali is also mired in overlapping crises. A military coup overthrow Mali’s democratically elected government in March 2012 and insurgent groups seized its vast and sparsely populated northern territory. This book provides an overview on the conflict zones of Syria and Mali with a focus on U.S. and international responses.

Developing Countries: Political, Economic and Social Issues

Arthur Ramazzotti and Walther Gravina
In series: Countries, Regional Studies, Trading Blocks, Unions, World Organizations
In series: Global Political Studies
Case: 978-1-62417-231-1. $150.00.
In this book, the authors gather and present research from across the globe in the study of the political, economic and social issues of developing countries. Topics discussed include food security in Yemen; urban housing and social development in Nigeria; beef production in Southern Africa; NGOs partnering with universities to overcome evaluation challenges; colorectal cancer in relation to country development; social health protection and maternal health and the Millennium Development Goals; improving economic growth in South Africa; disparity in trauma burden between high-income countries and low- and middle-income countries; energy system transition research for developing countries; and skills and business cycle in Uruguay.

Economic Reforms in Post-Communist Georgia: Twenty Years After

Vladimer Papava (Georgian Foundation for Strategic and International Studies (GFISIS), Tbilisi, Republic of Georgia)
In series: Caucasus Region Political, Economic, and Security Issues
Case: 978-1-61942-542-2. $75.00.
Soft: 978-1-62417-449-0. $59.00.
e-book: 978-1-61942-559-0. $59.00.
This book provides insight into the compelling evolution of Georgia’s development and modern challenges. It analyzes the key tendencies that took place during the twenty years of reforming Georgia’s economy.

Georgian Athonites and Christian Civilization

David Muskhelishvili (Georgian Academy of Sciences, Tbilisi, Georgia)
In series: Religion and Spirituality
2013.
Case: 978-1-61942-500-2. $140.00.
This book is the collection of Georgian theologians’, historians’, art critics’, musicologists’ scientific works represented on the Fourth International Symposium which was organized by International Centre for Christian Studies at the Orthodox Church of Georgia on May, 2011. The collection represents the thought-out of Georgian, Italian, German, American, Lithuanian scientists, whose aim is to reveal the merit in cultural-enlightening activity of the Georgian monks on Mount Athos. Besides, the scientists aim to evaluate their merit in strengthening and development of Christian Civilization. The Collection is distinguished by a high scientific level.

Global Trends 2030: Transformational Trajectories and Their Implications

Catherine M. Chilcott
In series: Global Political Studies
Case: 978-1-62417-920-4. $135.00.
This book forecasts the world of 2030, which predictions estimate, will be radically transformed from our world today. By 2030, no country, whether the U.S., China, or any other large country, will be a hegemonic power. The empowerment of individuals and diffusion of power among states and from states to informal networks will have a dramatic impact, largely reversing the historic rise of the West since 1750, restoring Asia’s weight in the global economy, and ushering in a new era of “democratization” at the international and domestic level. In addition to individual empowerment and the diffusion of state power, two other megatrends will shape our world out to 2030: demographic patterns, especially rapid aging; and growing resource demands which, in the cases of food and water, might lead to scarcities. These trends, which are virtually certain, exist today, but during the next 15-20 years will gain much greater momentum. Underpinning the megatrends are tectonic shifts (ie, critical changes to key features of our global environment that will affect how the world “works”).

Nation State and Ethnic Diversity

Peter Herrmann and Hurriyet Babacan, (University College of Cork, School of Applied Social Studies and School of Asian Studies, Cork, Ireland)
In series: Focus on Civilizations and Cultures
In series: Global Political Studies
2013. 194 pp.
Case: 978-1-62257-967-9. $150.00.
e-book: 978-1-62417-113-0. $150.00.
With the processes of globalization, we are more than ever confronted with the paradoxes inherent in modern statehood. The characteristics of modern statehood are: (1) securing freedom from feudal oppression or despotism, (2) legislating for equality among citizens, (3) focusing on inclusion to incorporate the previously excluded into the system and finally (4), of the utmost importance, establishing the principle of individualism as a primary goal. The social construct of ethnicity gives rise to a second paradox. It develops as a material force if and when it grips the masses. Logically, any such construct as ethnicity is exclusive to the extent on which it depends on otherness. The erection of hegemonic structures to deal with these issues and also with the confrontation of shifting borders is at the core of this book.

New Zealand and Australia in Focus: Economics, the Environment and Issues in Health Care

Jason R. Barker and Rebecca Walters
In series: Health Care Issues, Costs and Access
In series: Global Economic Studies
Case: 978-1-62081-208-2. $150.00.
Relations between Australia and New Zealand, also sometimes referred to as Trans-Tasman relations due to the countries being on opposite sides of the Tasman Sea, are extremely close with both sharing British colonial heritage and being part of the Anglosphere. In this book, the authors gather and present current research in the study of the
economics, environmental, and health care issues in both New Zealand and Australia. Topics included in this compilation include pharmaceutical contaminants in the New Zealand environment; environmental sustainability in Australia; the electricity distribution industry in New Zealand; specialist medical care issues in New Zealand; fisheries management agencies in Australia; climate change and child health in Australia; and coalbed natural gas development and environmental implications in both Australia and New Zealand.

Victims and Executioners: American Political Discourses on the Holocaust from Liberation to Bitburg
Binoy Kampmark (Social Science and Planning, RMIT University, Melbourne, Australia)
In series: Global Political Studies
Soft: 978-1-62417-861-0, $52.00.
In recent years, much has been written on how the moral meaning and significance of the Holocaust has been appropriated in popular and political discourses in the United States. Authors such as Peter Novick and Norman Finkelstein have argued that the Holocaust has been “Americanized,” often detracting from its European origins and the problematic moral questions it poses. This work goes further by focusing on the particular framing of the Holocaust in U.S. official and public discourses with particular reference to foreign policy debate and how this contrasts with the “civil religion” of Holocaust commemoration in the United States. It traces the way in which such debates have been structured around various assumptions made about the victims on the one hand, and executioners on the other. It also traces how the relationship between the Jewish victims and German executioners in American public discourse has been affected by pragmatic and political considerations at various historical junctures, particularly those concerning the Federal Republic of Germany and the State of Israel.

GLOBALIZATION

Globalization: Trade Agreements, Global Health and United Nations Involvement
Marilyn G. Massari and Karl J. Lutz
In series: Global Economic Studies
Case: 978-1-61470-327-3, $140.00.
e-book: 978-1-61470-413-3, $140.00.

New Developments in Globalization: Agreements and Negotiations
Andreo Lamorena
In series: Global Economic Studies
Case: 978-1-61470-328-0, $140.00.
e-book: 978-1-61470-396-9, $140.00.
This book presents current research findings in the study of globalization. Topics discussed include foreign investment in U.S. securities; dispute settlement in the World Trade Organization (WTO); the Overseas Private Investment Corporation; the Trans-Pacific Strategic Economic Partnership Agreement; transatlantic regulatory cooperation; nuclear cooperation with other countries; status of the Copenhagen climate change negotiations; changes in the arctic and trafficking in persons.

GOVERNMENT

Citizenship: Practices, Types and Challenges
Dexter Petty and Clay MacFarland
In series: America in the 21st Century: Political and Economic Issues
Case: 978-1-61942-440-1, $150.00.
This book presents current research in the study of the practices, types and challenges of citizenship. Topics discussed include social exclusion, racism and citizenship in Australia; birthright citizenship of undocumented immigrants and the Dream Act; a path to citizenship for new immigrants; client-targeted citizenship behaviors among civil servants; citizenship and older people and the socialization of geoinformation for teaching purposes and promotion of citizenship.

Expedited Rescission Authority of Federal Funding: An Examination
Jonathan Leibowitz and Diane Hall
In series: Congressional Policies, Practices and Procedures
Soft: 978-1-62257-988-4, $52.00.
e-book: 978-1-62257-989-1, $52.00.
The Impoundment Control Act (ICA), established a new framework for congressional notification and review of rescissions requested by a President. The 1974 law requires the President inform Congress of all proposed rescissions in a special message, containing specified information on each proposed rescission. With regard to congressional oversight of presidential rescissions, the ICA provides that the funds must be made available for obligation unless both houses of Congress take action to approve a rescission request included in the message received from the President within 45 days of “continuous session”; days in which either chamber is in recess for more than three days are not counted. This book examines the expedited rescission authority of federal funding with testimony presented during the hearing on “Enhancing the President's Authority to Eliminate Wasteful Spending and Reduce the Budget Deficit”.

Paul L. Collins and Frank R. Peterson
In series: American Political, Economic, and Security Issues
In series: Congressional Policies, Practices and Procedures
2012. 65 pp.
Soft: 978-1-62257-123-9, $52.00.
A number of tax provisions have either expired in 2011 or are scheduled to expire at the end of this FY 2012. These include the Bush
tax cuts, the alternative minimum tax (AMT) patch, the temporary payroll tax cut, and other temporary expiring provisions, many of which are commonly referred to as "tax extenders." Aside from the payroll tax cut, which was extended by the Middle Class Tax Relief and Job Creation Act of 2012, the most recent law extending many of these provisions was the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010. This book provides an overview of these expiring provisions with a focus on past cost and cost of extension and a brief discussion of the current debate concerning the policy.

FDA Review of Drug Applications
Morris Cooperman and Richard J. Porter
In series: Government Procedures and Operations
2013. 95 pp.
Soft: 978-1-62257-771-2. $52.00.
In the late 1980s, the median time for FDA to approve a new drug application (NDA) was 29 months. Industry, consumer groups, and FDA agreed that the time from submission of a drug or biologics application to FDA's decision was unacceptably long. Patient advocates argued that a drug in review--and therefore not available for sale--could be the difference between life and death. Manufacturers argued that prolonged review times affected their ability to recoup the costs of research and development. This book examines the FDA's review of drug applications, with a focus on the Prescription Drug User Fee Act (PDUFA) and issues for reauthorization in 2012.

Federal Firefighter Funding and Fire Assistance
Mason L. Hill and Christopher F. Green
In series: Government Procedures and Operations
In series: Safety and Risk in Society
Soft: 978-1-62081-176-4. $52.00.
e-book: 978-1-62081-179-5. $52.00.
Firefighting activities are traditionally the responsibility of states and local communities. As such, funding for firefighters is provided mostly by state and local governments. During the 1990s, shortfalls in state and local budgets, coupled with increased responsibilities of local fire departments, led many in the fire community to call for additional financial support from the federal government. This book provides an overview on the distribution of fire grant funding; the SAFER Grant program; and federal funding for wildfire control and management.

Federal Funds: A Selection of Programs
Kieran Saccoccio
In series: Government Procedures and Operations
In series: Grants and Funding
2013. 201 pp.
Case: 978-1-62618-005-5. $52.00.
This book provides an overview of select programs using federal funds with a focus on: the Global Security Contingency Fund (GSCF); the history, administration and common usage of the Judgment Fund; the Crime Victims Fund; the Housing Trust Fund; background and options for reform for the Universal Service Fund; the Reclamation Fund; an overview, funding history and issues of the Land and Water Conservation Fund; the Drinking Water State Revolving Fund (DWSRF); and the International Species Conservation Fund.

Federal Grant Management: Governance and Funding Challenges
Vanessa N. Rowley
In series: Grants and Funding
Case: 978-1-62100-185-0. $95.00.
e-book: 978-1-62100-292-5. $95.00.
Grants play a significant role in implementing and funding federal programs. The federal government's use of grants to achieve national objectives and to respond to emerging trends, such as changing demographics and changing threats to homeland security, has grown significantly in the last two decades. While federal grant funding has been increasing, long-standing concerns remain about the federal government's grants management and the lack of effective oversight tools to reasonably assure that grants are used for their intended purposes and that risks of fraud, waste and abuse are minimized. This book presents the grant management process as well as ways to improve oversight and accountability of federal grants.

Federal Grants to State and Local Governments: Historical Perspective and Select Challenges
Andrew E. Fisher
In series: Government Procedures and Operations
Soft: 978-1-62417-293-9. $52.00.
Grants are a form of federal assistance consisting of payments in cash or in kind for a specified purpose and they represent an important tool for achieving national objectives. They vary greatly, including in the types of programs they fund, the methods they use to allocate funds to recipients, and the amount of discretion they give to the grant recipient on how the funds are spent. The Office of Management and Budget (OMB) has previously estimated that grants to state and local governments represent roughly 80 percent of all federal grand funding, with the balance going to recipients such as nonprofit organizations, research institutions, or individuals. This book provides an overview of federal funding levels in a time of fiscal constraint, with a focus on the challenge of continuing to support the current scope and breadth of federal grants to state and local governments.

Federal Land Ownership: Elements and Considerations
Gerald Rosenbaum and Nancy Erickson
In series: Rural America: Aspects, Outlooks and Development
In series: Government Procedures and Operations
2013. 144 pp.
Case: 978-1-62257-976-1. $110.00.
Today the federal government owns and manages roughly 635-640 million acres of land. Federal lands and resources have been important in American history, adding to the strength and stature of the federal government, serving as an attraction and opportunity for settlement and economic development, and providing a source of revenue for schools, transportation, national defense, and other national, state, and local needs. Ownership and use of federal lands have stirred controversy for decades. This book examines the conflicting public values concerning federal lands, including the extent to which the federal government should own land; whether to focus resources on maintenance of existing infrastructure and lands or acquisition of new areas; how to balance use and protection; and how to ensure the security of international borders along the federal lands of multiple agencies.

Federal Procurement: Policies and Considerations
Dale O. Porter and Ernest M. Shaw
In series: Government Procedures and Operations
In series: American Political, Economic, and Security Issues
Case: 978-1-62257-332-5. $135.00.
Federal Water Activities: Selected Authorities and Programs
Paul A. Pesci
In series: Water Resource Planning, Development and Management
2013. 190 pp.
Case: 978-1-62417-649-4. $110.00.
e-book: 978-1-62417-650-0. $110.00.
Congress has enacted hundreds of federal laws affecting the nation's water resources and continues to address numerous water-related issues annually. From responding to natural disasters such as droughts and floods, to improving water resources and water quality infrastructures and protecting fish and wildlife, many congressional committees are involved in legislating, funding, and overseeing the water-related activities of numerous federal agencies. Nearly two centuries of such activity have resulted in a complex web of federal involvement in water resource management and use. This book provides an overview of select federal water activities with a focus on agencies, authorities, and congressional committees.

Free Speech and the Supreme Court: Select Decisions from 2011
Oswald L. Knight and Timothy B. Lloyd
In series: American Political, Economic, and Security Issues
In series: Laws and Legislation
Case: 978-1-62081-878-7. $110.00.
This book explores select decisions from the Supreme Court relative to free speech. Topics discussed in this compilation include the Westboro Baptist Church (WBC) and its protests of military funerals. Also discussed is the constitutionality of restrictions on the use of health data for commercial purposes. Companies that collect, analyze, and sell this data have challenged the law, claiming that they were unconstitutionally restricted from their free speech rights under the First Amendment. The case of Sorrell v. IMS Health, Inc. is analyzed as well.

Freedom of Information Act: Elements, Policies and Agency Efforts
Robert R. Cooper
In series: American Political, Economic, and Security Issues
In series: Government Procedures and Operations
2013. 147 pp.
Case: 978-1-62417-134-5. $110.00.
The Freedom of Information Act (FOIA) enables any person to access, without explanation or justification, to certain existing, identifiable, unpublished, executive branch agency records. Pursuant to FOIA, the public has presumptive access to requested agency records unless the material falls within any of the FOIA's nine categories of exemption from disclosure. Disputes over the accessibility of requested records can be appealed administratively or ultimately settled in court. FOIA is a widely used tool of inquiry and information gathering for various sectors of American society, including the press, businesses, scholars, attorneys, consumers, and activists. This book discusses FOIA's history, examines its implementation, and provides potential policy approaches for Congress.

Governance: Is It For Everyone?
Anne Marie Bisessar (University of the West Indies, St. Augustine, Trinidad and Tobago)
In series: Global Political Studies
In series: Social Issues, Justice and Status
Case: 978-1-61942-289-6. $140.00.
The book aims to present a set of perspectives that are sound and useful and it seeks to stimulate scholars and students and at the same time to inform practitioners of the myth that governance is a perfect method of administration to be applied in all countries, irrespective of their levels of development or the impact and experience of globalization in various countries. This book will certainly bring a conclusion to the ongoing debate of whether “Governance Is for Everyone.”

Government Efficiency and the GPRA Modernization Act
Percy Zamora and Phil McNeil
In series: Government Procedures and Operations
In series: American Political, Economic, and Security Issues
Case: 978-1-61942-427-2. $95.00.
e-book: 978-1-61942-434-0. $95.00.
This book discusses the Government Performance and Results Act (GPRA) Modernization Act of 2010 as the administration begins its implementation. The act offers many important opportunities to focus attention on successfully improving the effectiveness of government programs and operations, and addresses significant fiscal, performance, and management challenges facing the federal government. The federal government is the world’s largest and most complex entity, with about $3.5 trillion in outlays in the fiscal year of 2010 that fund a broad array of programs and operations. Long-term simulations of the government’s financial condition underscore the need to begin addressing the long-term federal fiscal outlook.

Government Transparency and Secrecy: Measures, Access, and Policies
Grant Faulconer and Aiden Dashaw
In series: American Political, Economic, and Security Issues
In series: Government Procedures and Operations
Case: 978-1-62417-773-6. $110.00.
From the beginning of the American federal government, Congress has required executive branch agencies to release or otherwise make available government information and records. Some scholars and
statesmen, including James Madison, thought access to information -- commonly referred to in contemporary vernacular as “transparency”-- was an essential cornerstone of democratic governance. Today, the federal government attempts to balance access to information with the need to protect certain information (including national security information and trade secrets) in order to achieve transparency. As a consequence, access and protection are often in tension with one another. This book first assesses the meaning of transparency and subsequently examines the statutes, initiatives, requirements, and other actions that make information more available to the public or protect it from public release. Also discussed is whether existing transparency initiatives are effective in reaching their stated goals.

Intelligence and Information Sharing: Needs, Goals and Risks

Kevin M. Thomas and Douglas J. King

In series: Intelligence and Counterintelligence Studies

In series: Defense, Security and Strategies


Case: 978-1-62100-839-2. $95.00.

e-book: 978-1-62100-852-1. $95.00.

Unauthorized disclosures of classified intelligence are seen as doing significant damage to U.S. security. However, if intelligence is not made available to government officials who need it to do their jobs, enormous expenditures on collection, analysis, and dissemination are wasted. This book focuses on information acquired, analyzed, and disseminated by agencies of the U.S. Intelligence Community. Better information sharing throughout the Federal Government and especially among the agencies of the Intelligence Community has become a priority for both the Executive Branch and Congress.

Michelle Obama: The Report to the First Lady - 2009

Robert P. Watson (American Studies Program, Lynn University)

In series: Presidential Wives

2013.

Soft: 978-1-61761-842-0. $43.00.


This Report was developed as a non-partisan service for, and presented to, the First Lady of the United States and White House. It contains advice, resources, and useful information pertaining to the challenges of serving as First Lady. The essays in the Report were written by scholars of the first ladyship and presidency, former White House aides, and former first ladies, all of whom donated their services to this project. The essays cover such topics as the history and development of the first ladyship, advice on serving as first lady, recommended readings for the new first lady, biographies of recent first ladies, and more.

Modernization of the Government Performance and Results Act (GPRA)

Ray Hawkins and Travis P. Duncan

In series: Government Procedures and Operations


Soft: 978-1-62257-383-7. $52.00.

e-book: 978-1-62257-385-1. $52.00.

On January 4th, 2011, the GPRA Modernization Act of 2010 became law. The acronym refers to the Government Performance and Results Act. When GPRA 1993 was enacted, it was regarded as a watershed for the federal government. For the first time, Congress established requirements in statute for most agencies to set goals, measure performance, and report the information to Congress for potential use. Agencies submitted this information in three major products: multi-year strategic plans, annual plans, and annual reports. This book provides an overview and background on GPRA 1993 and its modernization changes in 2010. The law was especially intended to address the needs of Congress in its policy making, oversight, and budgeting work, and the needs of agency program managers.

National Interagency Cooperation and Reform: Building Effective Performance and Exercise of Power

Collin J. Bryant and Gibson E. Powell

In series: America in the 21st Century: Political and Economic Issues


Case: 978-1-62081-431-4. $150.00.

e-book: 978-1-62081-432-1. $150.00.

Interagency collaboration among federal agencies with overlapping jurisdictions and shared responsibilities is not a new phenomenon. Attempts to foster cooperation among agencies, reduce their number in particular policy areas, or clarify the division of labor among them date to the early days of the republic. Such arrangements are increasing in the contemporary era in number, prominence, and proposals across virtually all policy areas. This book focuses primarily on analyzing key issues that Members of Congress may wish to consider in evaluating existing or proposed NSP initiatives, including the fundamental purpose; the concept of integration; the scope of participation; practical modalities for making the program work; the role of centralized oversight; incentive structures for individuals and agencies; recruiting; and congressional oversight.

The Congressional Appropriations Process: Elements and Considerations

Jeremy F. Ellis and Dyllon A. Foster

In series: Congressional Policies, Practices and Procedures

In series: Government Procedures and Operations


Case: 978-1-62081-839-8. $110.00.


Congress annually considers several appropriations measures, which provide funding for numerous activities, for example, national defense, education, and homeland security, as well as general government operations. Congress has developed certain rules and practices for the consideration of appropriations measures, referred to as the congressional appropriations process. This book examines the procedural and legal issues associated with the authorization of appropriations; the limitations in appropriations measures; omnibus appropriations; history of the appropriations subcommittee structure; automatic continuing resolutions; locating an agency or program within appropriations bills; and the causes, processes and effects of the shutdown of the federal government.

The Federal Budget: 2013 and Beyond

Jacob E. Lambert and Isabella M. Johnson

In series: Congressional Policies, Practices and Procedures

In series: Economic Issues, Problems and Perspectives


Case: 978-1-62081-920-3. $110.00.

e-book: 978-1-62081-947-0. $110.00.

The federal budget is central to Congress’s ability to exercise its “power of the purse.” Federal budget decisions also express Congress’s priorities and reinforce Congress’s influence on federal policies. Making budgetary decisions for the federal government is a complex process and requires balancing competing goals. Recent economic turmoil has strained the federal budget as a result of declining revenues and increasing spending levels. As the economic recovery continues, the budget process will allow the President and Congress to negotiate...
priorities and refine spending plans. This book examines issues for the FY 2013 federal budget with a focus on the rising costs of entitlement programs, significant spending on overseas military operations, and low revenue levels. While the economy is growing again, unemployment remains elevated and government spending on “automatic stabilizers,” such as unemployment insurance and income security programs, remains higher than historical averages.

The Federal Employees’ Compensation Act (FECA)
Addison K. James and Filip E. Davis
In series: American Political, Economic, and Security Issues
In series: Social Issues, Justice and Status
Case: 978-1-62081-729-2. $110.00.
The Federal Employees’ Compensation Act (FECA) is the workers’ compensation program for federal employees. Like all workers’ compensation programs, FECA pays disability, survivors, and medical benefits, without fault, to employees who are injured or become ill in the course of their federal employment and the survivors of employees killed on the job. The FECA program is administered by the Department of Labor (DOL) and the costs of benefits are paid by each employee’s host agency. Employees of the U.S. Postal Service (USPS) currently comprise the largest group of FECA beneficiaries and are responsible for the largest share of FECA benefits. This book examines the key policy issues facing the FECA today, including the disproportionate share of claims and program costs attributed to postal workers, the payment of FECA benefits after retirement age, the overall generosity of FECA disability benefits as compared with those offered by the states, and the overall administration of the FECA program.

U.S. Visa Policies, Programs and Considerations
Aaron R. Miller
In series: American Political, Economic, and Security Issues
Case: 978-1-61470-333-4. $215.00.
The conventional wisdom is that the terrorist attacks on September 11th 2001 prompted a substantive change in U.S. immigration policy on visa issuances and the grounds for excluding foreign nationals from the United States. A series of laws enacted in the 1990s, however, may have done as much or more to set current U.S. visa policy and the legal grounds for exclusion. This book reviews the legislative developments in visa policy over the past 20 years and analysis of the statistical trends in visa issuances and denials provide a nuanced study of U.S. visa policy and the grounds for exclusion.

HEALTH CARE

Fraud Detection and Deterrence in Medicare and Medicaid
Anton Ferilli
In series: Health Care Issues, Costs and Access
2013. 175 pp.
Case: 978-1-62417-658-6. $110.00.
The Government Accountability Office (GAO) has designated Medicare and Medicaid as high-risk programs, in part due to their susceptibility to improper payments—estimated to be about $70 billion in fiscal year 2010. Improper payments have many causes, such as submissions of duplicate claims or fraud, waste, and abuse. As the administrator of these programs, the Centers for Medicare and Medicaid Services (CMS) is responsible for safeguarding them from loss. This book explores fraud detection and deterrence in Medicare and Medicaid, with a focus on fraud detection systems; screening providers and suppliers; and program integrity.

Health Care in the United States: Developments and Considerations. Volume 1
Leone Giangiulio
In series: Health Care in the United States: Developments and Considerations
Case: 978-1-62417-383-7. $110.00.
The health care reform debate in the United States, raises many complex issues including those of coverage, accessibility, cost, accountability, and quality of health care. Underlying these policy considerations are issues regarding the status of health care as a constitutional or legal right. This book series analyzes the constitutional and legal issues pertaining to the right of health care and the power of Congress to enact and fund health care programs. Other topics discussed in this volume include the constitutionality of the individual mandate; health insurance exchanges under the Patient Protection and Affordable Care Act (ACA); health care flexible spending accounts; tax-advantaged accounts for health care expenses; medical loss ratio requirements under the ACA; and an overview of health savings account rules.

Health Insurance Exchanges under the Affordable Care Act
Edward J. Volpicelli
In series: Health Care Issues, Costs and Access
In series: Health Care in Transition
2013. 111 pp.
Soft: 978-1-62417-367-7. $52.00.
e-book: 978-1-62417-368-4. $52.00.
The fundamental purpose of a health insurance exchange is to provide a structured marketplace for the sale and purchase of health insurance. The authority and responsibilities of an exchange may vary, depending on statutory or other requirements for its establishment and structure. The Patient Protection and Affordable Care Act (ACA) requires health insurance exchanges to be established in every state by January 1, 2014. ACA provides certain requirements for the establishment of exchanges, while leaving other choices to be made by the states. This book outlines the required minimum functions of exchanges, and explains how exchanges are expected to be established and administered under ACA. The coverage offered through exchanges is discussed, as are how the exchanges will interact with selected other ACA provisions.

Hospital Readmissions: Complexities, Reduction Efforts, and Analyses of Hospital-Acquired Conditions
Stephen R. Cox
In series: Health Care Issues, Costs and Access
2013. 150 pp.
Case: 978-1-62417-283-0. $110.00.
Nearly 20% of Medicare beneficiaries aged 65 and over who were admitted to a hospital in 2005 were readmitted within 30 days following their initial discharge. The Medicare Payment Advisory Commission estimated that these readmissions cost the Medicare program as much as $15 billion per year and that perhaps as much as two-thirds of these readmissions may be preventable. This book...
provides an overview on the subject of hospital readmissions with a focus on the complexities, reduction efforts and analyses of hospital-acquired conditions. Hospital readmissions are associated with a number of factors and are not necessarily attributable to problems with the quality of patient care, but strong evidence indicates specific interventions to better manage care transitions at the time of hospital discharge could reduce readmissions for certain conditions.

Medicare: Elements and Economics
Stan A. Bennett
In series: Health Care Issues, Costs and Access
Case: 978-1-62417-281-6. $195.00.
Medicare is a nationwide health insurance program for individuals aged 65 and over and certain disabled individuals. This book provides an overview of the elements and economics of Medicare. Topics discussed include the Medigap supplemental program; medicare hospital readmissions; Medicare’s skilled nursing facility benefit basics and issues; Medicare financing and triggers; Medicare Advantage risk adjustment and risk adjustment data validation audits; and Medicare physician payment updates and the sustainable growth rate (SGR) system.

The Federal Employees Health Benefits Program:
Essential Elements and Legislative History
Aldrich Smeriglio
In series: Government Procedures and Operations
In series: Health Care Issues, Costs and Access
Soft: 978-1-62417-381-3. $52.00.
e-book: 978-1-62417-382-0. $52.00.
The federal government is the largest employer in the United States, and the Federal Employees Health Benefits Program (FEHBP) is the largest employer-sponsored health insurance program. FEHBP covers about 8 million individuals, providing an estimated $43 billion annually in health care benefits. The participation rate among eligible enrollees is about 90% (85% of eligible individuals enroll in FEHBP as the primary policy holder, and another 5% are covered as a family member). This book examines the essential elements and legislative history of FEHBP with a focus on available health insurance options; laws affecting FEHBP; and health benefits for Members of Congress.

Housing

Homelessness: Federal Response and Considerations
Leonard Hayes and Jessica M. Cole
In series: Housing Issues, Laws and Programs
In series: Social Issues, Justice and Status
2012. 188 pp.
Case: 978-1-61942-270-4. $95.00.
The causes of homelessness and determining how best to assist those who find themselves homeless became particularly prominent, visible issues in the 1980s. The concept of homelessness may seem like a straightforward one, with individuals and families who have no place to live falling within the definition. However, the extent of homelessness in this country and how best to address it depend upon how one defines the condition of being homeless. This book describes existing federal programs that provide targeted assistance to homeless individuals and families and the current issues related to homelessness, including the economic downturn.

Homeowners and Taxes: Analyses of Tax Benefits and Energy Tax Credits
Richard I. Hart and Susan M. Cunningham
In series: Economic Issues, Problems and Perspectives
In series: Housing Issues, Laws and Programs
2012. 76 pp.
Soft: 978-1-61942-880-5. $47.00.
e-book: 978-1-61942-913-0. $47.00.
Concern has increased over the size and sustainability of the United States’ recent budget deficits and the country’s long-run budget outlook. This concern has brought the issues of the government’s revenue needs and fundamental tax reform to the forefront of congressional debates. Congress may choose to address these issues by reforming the set of tax benefits for homeowners. Reducing, modifying, or eliminating all or some of the current tax benefits for homeowners could raise a substantial amount of revenue, while simultaneously simplifying the tax code, increasing equity among taxpayers, and promoting economic efficiency. This book focuses on the mortgage interest deduction, the deduction for state and local property taxes and the residential energy tax credit.

Housing Choice Voucher Program
James E. Piles and Richard F. Conover
In series: Housing Issues, Laws and Programs
Case: 978-1-62557-702-6. $110.00.
The Section 8 Housing Choice Voucher (HCV) program is the federal government’s largest needs-based housing assistance program, in terms of both the number of families served and the cost to the federal budget. Under the program, the Department of Housing and Urban Development (HUD) provides funds to local public housing authorities (PHAs), which, in turn, provide subsidies to low-income households to use to rent private market apartments. Although the basic structure of the program is governed by federal law and regulations, PHAs have discretion to determine many important elements. This book discusses the key drivers of cost growth in the voucher program and the actions taken to control this growth and analyzes various options to cut costs or create efficiencies.

Housing Market Policy Options
Melissa O. Murray and Willie T. Cole
In series: Economic Issues, Problems and Perspectives
In series: Housing Issues, Laws and Programs
2012. 177 pp.
Case: 978-1-62557-294-6. $135.00.
The ongoing problems in the U.S. housing market continue to impede the economic recovery. House prices have fallen an average of about 33 percent from their 2006 peak, resulting in about $7 trillion in household wealth losses and an associated ratcheting down of aggregate consumption. At the same time, an unprecedented number of households have lost, or are on the verge of losing, their homes. The extraordinary problems plaguing the housing market reflect in part the effect of weak demand due to high unemployment and heightened uncertainty. But the problems also reflect three key forces originating from within the housing market itself: a persistent excess supply of vacant homes on the market, many of which stem from foreclosures; a marked and potentially long-term downshift in the supply of mortgage credit; and the costs that an often unwieldy inefficient foreclosure process imposes on homeowners, lenders, and communities. This book provides a framework for thinking about directions policymakers might take to help the housing market.
Mortgages: Policies, Proposals and Trends

*Foster Murphy and Owen C. Jensen*

In series: Economic Issues, Problems and Perspectives
In series: Housing Issues, Laws and Programs
Case: 978-1-62257-689-0. $110.00.

Congressional interest in residential mortgage markets has increased following the collapse of the housing bubble, government financial support to the mortgage market, and housing’s perceived importance to the broader economic recovery. Since 2008, the residential mortgage market has experienced some of the highest default and foreclosure rates since the Great Depression. This book provides an overview of the changing residential mortgage market, focusing on trends in housing prices, homeownership, mortgage characteristics, and financing. It also examines legislation and regulations designed to promote the efficient functioning of the mortgage market.

No One Home: Challenges and Costs of Vacant Properties

*Milton L. Jackson and Gene A. White*

In series: Housing Issues, Laws and Programs
In series: Social Issues, Justice and Status
Case: 978-1-61942-829-4. $95.00.
e-book: 978-1-61942-832-4. $95.00.

During the continuing foreclosure crisis and economic downturn, increased numbers of vacant residential properties are becoming vandalized or dilapidated, attracting crime, and contributing to neighborhood decline in many communities across the country. Even though homeowners whose properties are being foreclosed upon may continue to occupy their properties until after a foreclosure sale occurs, many leave their homes during the foreclosure process. In addition, properties for which a new entity has assumed ownership through foreclosure may be vacant until the property is resold. This book explores the concerns over the costs that foreclosed and unattended vacant homes are creating for local communities and the strategies state and local governments are using to address unattended vacant property problems and the challenges those governments face.

Public Housing and the Moving to Work Program

*Martin A. Robertson and Ronald G. Harper*

In series: Housing Issues, Laws and Programs
In series: Social Issues, Justice and Status
Case: 978-1-62257-687-6. $110.00.

The Moving to Work (MTW) demonstration program was created by Congress to give the U.S. Department of Housing and Urban Development (HUD) and local Public Housing Authorities (PHAs) the flexibility to test alternative policies for providing housing assistance through the nation’s two largest housing assistance programs: the Section 8 Housing Choice Voucher program and the public housing program. The alternative policies are meant to increase the cost-effectiveness of assisted housing programs, promote the self-sufficiency of assisted families, and increase housing choices for low-income families. This book provides an overview of the history and purpose of the MTW demonstration program, followed by a description of some of the policies adopted by participating PHAs, and policy options for the future.

Reverse Mortgages: Elements, Considerations and Market Developments

*Meghan Galloway and Richard Kantor*

In series: Economic Issues, Problems and Perspectives
In series: Housing Issues, Laws and Programs
Case: 978-1-62257-965-5. $195.00.

A reverse mortgage is a special type of home loan for older homeowners that requires no monthly mortgage payments. Borrowers are still responsible for property taxes and homeowner’s insurance. Reverse mortgages allow seniors to access the equity they have built up in their homes now, and defer payments of the loan until they die, sell, or move out of the home. The original purpose envisioned for reverse mortgages was to convert home equity into cash that borrowers could use to help meet expenses in retirement. Borrowers could choose between an income stream for everyday expenses, a line of credit for major expenses (such as home repairs and medical expenses), or a combination of the two. This book examines the changes that have taken place in the marketplace and in the consumers who use reverse mortgages, with a focus on consumer protection concerns.

Rural Housing Service: Analyses of Farm Labor Housing and Rental Assistance Payments

*Meredith Gourdine*

In series: Housing Issues, Laws and Programs
Case: 978-1-62417-484-1. $110.00.

Farmworkers play a critical role in the nation’s agricultural sector. However, according to the U.S. Department of Agriculture (USDA), farmworkers are among the most poorly housed people in the United States. To support the development of adequate, affordable housing for farmworkers, Congress enacted the Farm Labor Housing (FLH) Loan and Grant Program in the early 1960s. This program provides capital financing to buy, develop, improve, or repair housing for domestic farmworkers employed on farms or in agricultural or processing industries off-farm. The FLH program is the only federally assisted source of housing dedicated to farm labor, which is defined as services associated with the spectrum of farming activities, from cultivating the soil to delivering commodities to market. This book discusses the opportunities that exist to strengthen farm labor housing program management and oversight.

**HUMAN RIGHTS**

China, Tibet, Hong Kong, Macau: Human Rights Reports

*Seth Rollins and Kirk M. Branch*

In series: Human Rights: Background and Issues
In series: Global Political Studies
Case: 978-1-62257-535-0. $110.00.

This book on human rights practices chronicles dramatic changes and the stories of the people defending human rights in the countries and regions of China, Tibet, Hong Kong and Macau; with a focus on providing lawmaker’s decisions on foreign military and economic aid. Respect for human rights is not a western construct or a uniquely American ideal; it is the foundation for peace and stability everywhere. Universal human rights include the right of citizens to assemble peacefully and to seek to reform or change their governments, a central theme around the world.
Conflict Minerals: International Response and SEC Disclosure Rule
Jan A. Reed
In series: Economic Issues, Problems and Perspectives
In series: Human Rights: Background and Issues
2013. 166 pp.
Case: 978-1-62417-124-6. $110.00.
The term “conflict minerals” is used to describe metal ores that, when mined, sold or traded, are widely reported to play key roles in fueling armed conflict and human rights abuses in several far eastern provinces of the Democratic Republic of the Congo (DRC, formerly Zaire). Links between conflict, human rights abuses, and the mining of and trade in these minerals have been the subject of numerous investigations, research studies, and policy papers, as well as policy advocacy campaigns focused on a need to respond to the persistence of conflict and its large toll in lives and human rights abuses. This book provides an overview of the current international response and SEC disclosure rules and testimony pertaining to the issue of conflict minerals, with a focus on cutting links between the minerals trade and those involved in or abetting armed conflict in eastern DRC.

Human Rights: Theory, Developments and Ethical Issues
David J. Plevak (Department of Anesthesiology, College of Medicine, Mayo Clinic, Rochester, MN, USA)
In series: Social Justice, Equality and Empowerment
In series: Human Rights: Background and Issues
2013. 146 pp.
Case: 978-1-62417-351-0. $150.00.
The United Nations Universal Declaration of Human Rights (1945) was a response to the atrocities surrounding the Second World War. Many believe this Declaration resulted from a synthesis of three thousand years of Western (Judeo-Christian) philosophy, religion and culture. Now more than 60 years later, we ask, “have the principles outlined in the Declaration been realized in the way in which human rights are recognized and protected in today’s world?” Several authors have responded to the challenge of addressing this question. Their responses are contained in the seven chapters of this text. This book examines Islamic, secular, animist, etc. societies in its search for principles and testimony pertaining to the issue of conflict minerals, with a focus on cutting links between the minerals trade and those involved in or abetting armed conflict in eastern DRC.

Illicit Trade in Wildlife and the Economics of Agricultural and Wildlife Smuggling
Rolande Gagnier
In series: Wildlife Protection, Destruction and Extinction
In series: Trade Issues, Policies and Laws
Soft: 978-1-62417-877-1. $52.00.
Global trade in illegal wildlife is a growing illicit economy, estimated to be worth at least $5 billion and potentially in excess of $20 billion annually. Some of the most lucrative illicit wildlife commodities include tiger parts, caviar, elephant ivory, rhino horn, and exotic birds and reptiles. Demand for illegally obtained wildlife is ubiquitous, and some suspect that illicit demand may be growing. This book provides an overview of illegal wildlife crime with a focus on determining funding levels for U.S. wildlife trade inspection and investigation; evaluating the effectiveness of U.S. foreign aid to combat the wildlife trade; using trade sanctions to penalize foreign countries with weak enforcement of wildlife laws; incorporating wildlife trade provisions into free trade agreements; and addressing the domestic and international demand for illegal wildlife through public awareness campaigns and non-governmental organization partnerships.

International Trade
Emerging Markets for U.S. Trade: The Pacific, Middle East and North Africa
Petie J. Ward and Irving E. Ross
In series: Trade Issues, Policies and Laws
In series: Global Economic Studies
Case: 978-1-62081-601-1. $110.00.
The Trans-Pacific Partnership (TPP) is a proposed regional free trade agreement (FTA) currently under negotiation between Australia, Brunei, Chile, Malaysia, New Zealand, Peru, Singapore, the United States, and Vietnam. The negotiating partners have expressed an interest in allowing this proposed “living agreement” to cover new trade topics and to include new members that are willing to adopt the proposed agreement’s high standards. This book provides a comparative economic analysis of the (TPP) countries and their economic relations with the United States. It suggests that the TPP negotiating partners encompass great diversity in population, economic development, and trade and investment patterns with the United States. This economic diversity and inclusion of fast-growing emerging markets presents both opportunities and challenges for the United States in achieving a comprehensive and high standard regional FTA among TPP countries.

Foreign, Non-Tariff Trade Barriers to U.S. Exports: Specialized Reports
Mariano S. Chiatti
In series: Trade Issues, Policies and Laws
2013. 197 pp.
Case: 978-1-62417-130-7. $195.00.
This book provides an overview of the concerns of U.S. companies, farmers, ranchers, and manufacturers, who increasingly encounter non-tariff trade barriers in the form of product standards, testing requirements, and other technical requirements as they seek to sell products and services around the world. As tariff barriers to industrial and agricultural trade have fallen, standards-related measures of this kind have emerged as a key concern. Governments, market participants, and other entities can use standards-related measures as an effective and efficient means of achieving legitimate commercial and policy objectives. But when standards-related measures are outdated, overly burdensome, discriminatory, or otherwise inappropriate, these measures can reduce competition, stifle innovation, and create unnecessary technical barriers to trade.

The Dominican Republic-Central America-U.S. Free Trade Agreement
Juan M. Gonzales and Carlos O. L. Vasquez
In series: Latin American Political, Economic, and Security Issues
In series: Trade Issues, Policies and Laws
2012. 142 pp.
Soft: 978-1-62257-305-9. $52.00.
e-book: 978-1-62257-313-4. $52.00.
On August 5th, 2004, the United States entered into the Dominican Republic-Central American-United States Free Trade Agreement (CAFTA-DR). Congress passed the implementing bill on July 28th, 2005, and CAFTA-DR entered into force with El Salvador, Honduras, Nicaragua, Guatemala, the Dominican Republic and Costa Rica, thereafter. This permanent, comprehensive, and reciprocal trade agreement eliminates tariff and non-tariff barriers to two-way trade, building on unilateral trade preferences begun under the 1983 Caribbean Basin Initiative (CBI). It enhances rules and other standards for services, intellectual property rights, government procurements, investment, and other disciplines. It also reinforces Congress's historical support for trade as a foundation of broader foreign economic, political, and security policies in the region. This book provides an analysis of the trade and investment trends since CAFTA-DR entered into being.

The U.S.-South Korea Free Trade Agreement
Keddrick E. Barnes and Patton F. Barker
In series: Asian Economic and Political Issues
In series: Trade Issues, Policies and Laws
2012. 121 pp.
Soft: 978-1-62081-929-6. $52.00.
e-book: 978-1-62081-942-5. $52.00.
This book provides an overview of the U.S.-South Korea Free Trade Agreement (KORUS FTA) which covers a wide range of bilateral economic activities, including trade in manufactured goods, agricultural products and services; foreign investment; government procurement; intellectual property rights; and worker rights and environmental protection. The United States and South Korea entered into the KORUS FTA as a means to further solidify an already strong economic relationship by reducing barriers to trade and investment between them and to resolve long-standing troublesome economic issues. The United States specifically sought increased access to South Korean markets for agricultural products, services, and foreign investment. For South Korean leaders, the KORUS FTA is a mechanism to promote reform in its own economy and also to gain a competitive advantage in the U.S. markets for autos and other manufactured goods.

Trade in the United States: International Activities, Agreements and Data for 2011
Davis H. O'Neill
In series: Trade Issues, Policies and Laws
Case: 978-1-62417-120-8. $195.00.
U.S. foreign-trade zones (FTZs) are geographic areas declared to be outside the normal customs territory of the United States. This means that, for foreign merchandise entering FTZs and re-exported as different products, customs procedures are streamlined and tariffs do not apply. For products intended for U.S. consumption, full customs procedures are applied and duties are payable when they exit the FTZ. In 1934, in the midst of the Great Depression, Congress passed the U.S. Foreign-Trade Zones Act. It was designed to expedite and encourage international trade while promoting domestic activity and investment. The U.S. FTZ program offers a variety of customs benefits to businesses which combine foreign and domestic merchandise in FTZs. This book examines current issues relating to the U.S. FTZ program including whether U.S. FTZs encourage a misallocation of U.S. resources; data availability issues; the U.S. employment and global competitiveness impact of FTZs; and the effectiveness of trade zones worldwide as a tool for economic development.

INTERNET

Governance of Domain Names on the Internet
Randy O. Alexander and Michelle A. Stevens
In series: Media and Communications - Technologies, Policies and Challenges
In series: Internet Theory, Technology and Applications
Case: 978-1-62257-279-3. $110.00.
Currently, an important aspect of the Internet is governed by a private sector, international organization called the Internet Corporation for Assigned Names and Numbers (ICANN), which manages and oversees some of the critical technical underpinnings of the Internet such as the domain name system and Internet Protocol (IP) addressing. ICANN makes its policy decisions using a multistakeholder model of governance, whereby a "bottom-up" collaborative process is open to all constituencies of Internet stakeholders. This book examines the issues of internet governance and domain name system protocol, with a focus on how other aspects of the Internet may be governed in the future, especially in such areas as intellectual property, privacy, law enforcement, Internet free speech, and cybersecurity. Looking forward, the institutional nature of Internet governance could have far reaching implications on important policy decisions that will likely shape the future evolution of the Internet.
LANGUAGE

Language Learning: New Research
Jennifer S. Avery and Matthew H. Stewart
In series: Languages and Linguistics
In series: Education in a Competitive and Globalizing World
Case: 978-1-62100-631-2. $140.00.
In an increasingly global and mobile society, language learning has become critical. The authors of this book present new research in the study of language learning, including CALL technology for literacy and second language learning; the effect of biliteracy instruction on English reading achievement in bilingual South African children; vocabulary knowledge and reading ability in second language learning; multilingual learning; language learning through SMS and podcasts and the linguistic specializations of perceptual narrowing of speech and functional asymmetries.

Speech Processing and Auditory Processing Disorders: Causes, Diagnosis and Treatment
Taryn P. Long and Lillian R. Eifert
In series: Otolaryngology Research Advances
In series: Languages and Linguistics
Case: 978-1-61470-795-0. $150.00.
e-book: 978-1-61470-844-5. $150.00.
This book explores the causes, diagnosis and treatment of speech-language and auditory disorders. Topics presented include the auditory processing in youth and adults with learning disabilities; speech processing and memory in adult aging; affective and perceptual aspects in processing foreign languages; stress sensitivity, phonemic processing, and reading skill in children with and without dyslexia and speech technologies.

LATIN AMERICA

Chile: Environmental, Political and Social Issues
Diego Rivera Salazar (Department of Water Resources, Universidad de Concepción, Chillán, Chile)
In series: Latin American Political, Economic, and Security Issues
Case: 978-1-62257-184-0. $175.00.
Chile is recognized around the world for a strong economy, openness and political stability. There have been important advances in our economic model, educational system, and environmental regulation for sustainability, but further work needs to be done to improve Chilean competitiveness and, most importantly, citizens’ welfare. This book presents recent research on environmental, political and social issues in Chile. Each chapter provides diagnostic information and presents proposals and new ideas for sustainable development in Chile. This book explores the current situation of water resource management in Chile, as well as the implications of the exploitation of natural resources on the economic and social dimensions. The dynamics of urban expansion and structure in Chilean cities is also analyzed. Regarding the social dimension, immigration and gender issues are included, as well as a sound diagnosis of the higher education system.

Colombia: Social, Economic and Environmental Issues
Gregory Lavigne and Catherine Cote
In series: Latin American Political, Economic, and Security Issues
In series: Global Economic Studies
2013. 192 pp.
Soft: 978-1-62417-848-1. $72.00.
In this book, the authors present current research in the study of the social, economic and environmental issues facing Colombia today. Topics discussed include the major environmental issues confronting Colombia’s wetlands by analysis of their biodiversity, physicochemistry and eutrophication; elasmobranch biology and diversity in the marine and continental environments of Colombia; social and technological advances for people with disabilities in Colombia; and the climate and natural hazards of the Colombian Caribbean region.

Energy in Latin America and the Caribbean: The Current and Future Role of Renewable and Nuclear Energy Sources in the Regional Electricity Generation
Jorge Morales Pedraza (Consultant on International Affairs, Vienna, Austria)
In series: Latin American Political, Economic, and Security Issues
In series: Energy Science, Engineering and Technology
Case: 978-1-62257-980-8. $175.00.
It is certain that energy production and, particularly, the generation and sustained growth of electricity constitute indispensable elements for the economic and social progress of any country. Energy, undoubtedly, constitutes the motive force of civilization and it determines, to a high degree, the level of the future economic and social development of that country. This book examines energy power in Latin America and the Caribbean and the future role of renewable and nuclear energy sources in the region’s electricity generation.

Latin America as a National Security Threat: Analyses and Viewpoints
Jonathan Bartenstein and Michelle Carey
In series: Latin American Political, Economic, and Security Issues
In series: Defense, Security and Strategies
Case: 978-1-62417-082-9. $110.00.
Over the years, the United States has been concerned about threats to Latin American and Caribbean nations from various terrorist or insurgent groups that have attempted to influence or overthrow elected governments. Although Latin America has not been the focal point in the war on terrorism, countries in the region have struggled with domestic terrorism for decades and international terrorist groups have at times used the region as a battleground to advance their causes. This book examines Latin America as a national security threat with a focus on Iran’s increasing activities with Venezuela; drug-trafficking related violence in Mexico and Colombia; and Cuba’s lack of cooperation in antiterrorism efforts.
Mexican Migration to the United States: Policies and Trends
Luis Victorino and Oscar J. Lara
In series: Latin American Political, Economic, and Security Issues
Case: 978-1-62257-537-4. $110.00.
History and geography have given Mexico a unique status in the U.S. immigration system, and have made the Mexico-U.S. migration flow the largest in the world. Mexicans are the largest group of U.S. migrants across most types of immigration statuses - a fact that may have important implications for how Congress makes U.S. immigration policy. This book reviews the history of immigration policy and migration flows between the countries and the demographics of Mexicans within the United States. It also analyzes contemporary issues in U.S. immigration policy and the impact Mexico may have on U.S. immigration outcomes.

Progress in Panama: Politics, Economics, and Free Trade with the United States
Charles Bolitno
In series: Latin American Political, Economic, and Security Issues
Soft: 978-1-62417-932-7. $52.00.
e-book: 978-1-62417-933-4. $52.00.
This book examines the close relations between the United States and Panama, stemming in large part from the extensive linkages developed when the Canal was under U.S. control and Panama hosted major U.S. military installations. The current relationship is characterized by extensive counternarcotics cooperation; support to promote Panama's economic, political, and social development; and a bilateral free trade agreement (FTA) that entered into force at the end of October 2012.

The Economy of Cuba after the VI Party Congress
Alberto Gabriele (Palais des Nations, Geneva, Switzerland)
In series: Latin American Political, Economic, and Security Issues
Case: 978-1-62257-449-0. $85.00.
This book is the product of collaborations between Cuban and European social scientists. Without ignoring the devastating impact of the US embargo, it shows that Cuba’s grave economic impasse is endogenously rooted in the contradictions of its peculiar version of state socialism. These contradictions led to a strongly idealistic and egalitarian bias in economic and social policies, implying a severe underestimation of the objective constraints imposed by the relevance of the law of value in the domain of social relations of production and exchange. Two of their most severe manifestations of the crisis of Cuba’s traditional state socialist model are the parlous state of the agricultural sector and the emergence of multiple and novel forms of income inequality.

The Violent Crossroads of Central America
Thomas J. O’Callaghan and Louis Bellandi
In series: Latin American Political, Economic, and Security Issues
In series: Global Political Studies
2013. 120 pp.
Case: 978-1-62257-886-3. $110.00.
e-book: 978-1-62257-887-0. $110.00.
Violence in Central America has reached crisis levels. Throughout Central America, Mexican drug trafficking organization, local drug traffickers, transnational youth gangs, and other illegal criminal networks are taking advantage of weak governance and underperforming justice systems. This book outlines a series of concrete steps that the United States can take to support the seven countries of Central America as they try to improve security.

Trafficking Troubles in Latin America: Drugs and Humans
Bennett Jenkins and Hugh G. Paterson
In series: Drug Transit and Distribution, Interception and Control
In series: Latin American Political, Economic, and Security Issues
Case: 978-1-62257-753-8. $110.00.
This book explores the trafficking of persons for the purpose of exploitation and illicit drug trafficking in Latin America and the Caribbean. Trafficking in persons (TIP) is a lucrative criminal activity that is of major concern to the United States and the international community. Countries in Latin America serve as source, transit, and destination countries for trafficking victims. Drug trafficking is viewed as a primary threat to citizen security and U.S. interests in Latin America and the Caribbean despite decades of anti-drug efforts by the United States and partner governments. The production and trafficking of popular illicit drugs--cocaine, marijuana, opiates, and methamphetamine--generate a multi-billion dollar black market in which Latin American criminal and terrorist organizations thrive.

Venezuela: Profiles, Foreign Relations, and Human Rights
Tyler M. Rutledge
In series: Latin American Political, Economic, and Security Issues
In series: Global Political Studies
Case: 978-1-62417-192-5. $110.00.
This book profiles Venezuela with a focus foreign relations and human rights issues. Under the rule of populist President Hugo Chavez, first elected in 1998 and reelected to a six-year term in December 2006, Venezuela has undergone enormous political changes, with a new constitution and unicameral legislature, and even a new name for the country, the Bolivarian Republic of Venezuela. Human rights organizations have expressed concerns about the deterioration of democratic institutions and threats to freedom of expression under the Chavez government. Venezuela is scheduled to hold its next presidential election on October 7, 2012, with President Chavez running against Henrique Capriles Radonski, the unified opposition candidate. While Chavez's continued popularity and use of state resources bode well for his reelection, high rates of crime, inflation, and other economic problems could erode his support. Looking ahead, however, Chavez's health status, after recovering from two bouts of an undisclosed form of cancer, raise questions about Venezuela's political future.
A Selection of Federal Acts: Summaries and Analyses
*Patricia Brown and Kevin M. Mitchell*
In series: *Government Procedures and Operations*
In series: *Laws and Legislation*
Case: 978-1-62257-047-8. $135.00.
This book presents a selection of federal acts including the Posse Comitatus Act; the Foreign Corrupt Practices Act (FCPA); the Arsenal Act; the Emergency Planning and Community Right-to-Know Act (EPCRA); the Toxic Substances Control Act (TSCA); the Fair Credit Reporting Act and the Combating Autism Act.

Affirmative Action and Preferential Treatment: Laws and Developments
*Pamela L. Medina and Jimmy E. Patel*
In series: *Laws and Legislation*
Case: 978-1-62257-465-0. $110.00.
This book examines a survey of federal laws containing preferences based on race, gender, or ethnicity. Affirmative action remains a subject of public debate as the result of legal and political developments at the federal, state, and local levels. In recent years, federal courts have reviewed minority admissions programs to state universities; scrutinized the constitutional status of racial diversity policies in public elementary and secondary schools; ruled on minority preferences in public and private employment as a remedy for violation of civil and constitutional rights; and considered federal, state, and local efforts to increase minority participation as contractors and subcontractors on publicly financed construction projects. Also discussed is affirmative action in the workplace; diversity in public education; race discrimination and the Supreme Court; and pay discrimination claims of the Civil Rights Act.

Border Security and Illegal Immigration Enforcement
*Richard M. Taylor and Louis O. Walker*
In series: *American Political, Economic, and Security Issues*
In series: *Defense, Security and Strategies*
Case: 978-1-62081-157-3. $110.00.
Border enforcement is a core element of the Department of Homeland Security’s (DHS’s) effort to control illegal migration, with the U.S. Border Patrol (USBP) within the Bureau of Customs and Border Protection (CBP) as the lead agency along most of the border. Border enforcement has been an ongoing subject of congressional interest since the 1970s, when illegal immigration to the United States first registered as a serious national problem; and border security has received additional attention in the decade following the terrorist attacks of 2001. This book reviews border enforcement efforts in the 25 years since the Immigration Reform and Control Act of 1986 (IRCA) initiated the modern era in migration control with a focus on appropriations and resources dedicated to border enforcement, indicators of enforcement outcomes, and possible secondary and unintended consequences of border enforcement.

Budget Control and Sequestration: Considerations and Potential Impacts
*Eric M. Radmacher and Alaina Sabin*
In series: *Economic Issues, Problems and Perspectives*
In series: *Laws and Legislation*
Case: 978-1-62257-913-6. $110.00.
Sequestration is a process of automatic, largely across-the-board spending reductions to meet or enforce certain budget policy goals. In the 1990s, sequestration was used to enforce statutory limits on discretionary spending and a pay-as-you-go (PAYGO) requirement on direct spending and revenue legislation. In general, sequestration entails the permanent cancellation of budgetary resources by a uniform percentage. This book examines the new considerations and potential impacts of budget control and sequestration with a focus on select program exemptions and special rules; the Budget Control Act of 2011; and the potential impact of automatic spending reduction procedures on health reform spending.

Constitution, Arbitration and Courts
*Georgios I. Zekos (University of Peloponnesus, Legal Advisor-Economist, OGA, OHE & Naupliou, Tripolis, Greece)*
In series: *Laws and Legislation*
2013.
Case: 978-1-62241-967-9. $250.00.
In "Constitution, Arbitration and Courts", arbitration is examined as it began, as an extrajudicial mechanism for resolving disputes. Private arbitration predates the public court system. The ancient Sumerians, Persians, Egyptians, Greeks, and Romans all had a tradition of arbitration. Communities introduced arbitration systems intended to resolve their communal conflicts in accordance with custom, equity and internal law. Arbitration threatened a momentous basis of judicial business, as well as judicial jobs linked to the courts’ caseloads. Courts perceived the growing status of arbitration as a favored means for resolving business disputes and as a threat to their power. Courts have managed to get in the way of the arbitration process and to gain a role in arbitration. Thus, courts have taken the role of the guardian of public policy in a state, and so arbitration is considered not to be a safe, independent and fully alternative dispute mechanism.

Copyright Restoration and the Supreme Court's Golan v. Holder Decision
*Nicholas A. Hernandez and Amy King*
In series: *Congressional Policies, Practices and Procedures*
In series: *Laws and Legislation*
2012. 78 pp.
Soft: 978-1-62081-174-0. $52.00.
e-book: 978-1-62081-177-1. $52.00.
This book examines the Golan v. Holder Supreme Court Case, which discussed whether Congress has the power to grant copyright protection to creative works that have already entered the public domain. A group of orchestra conductors, educators, performers, film archivists, and motion picture distributors, who had relied on the free and unrestricted availability of these artistic works in the public domain for their livelihoods, filed a lawsuit against the federal government challenging the constitutionality of the URAA.
Driver's License Security and the REAL ID Act
Filip Scott Ortiz
In series: American Political, Economic, and Security Issues
2013. 88 pp.
Soft: 978-1-62417-261-8, $52.00.
e-book: 978-1-62417-262-5, $52.00.
Driver's license fraud is a crime that can have significant financial and domestic security consequences. Because drivers' licenses have become a widely accepted form of identification, identity thieves may try to obtain a license under someone else's name—with forged or stolen Social Security cards or other documents—and use it to commit financial fraud. By one estimate, in 2010 over 8 million Americans were victims of identity theft and such crimes cost victims a total of $37 billion. In 2005, after the National Commission on Terrorist Attacks Upon the United States recommended enhanced security for licenses, Congress passed the REAL ID Act of 2005, which, sets minimum national standards for drivers' license security. This book examines the REAL ID Act to prevent driver's license security fraud with a focus on procedures for states to follow when verifying the identity of license applicants; and how effective these procedures have been.

Drug- and Crime-Related Restrictions in Federal Assistance Programs
Andrew R. Allen and Jennifer I. Flores
In series: Government Procedures and Operations
Case: 978-1-62257-127-7, $135.00.
Throughout the history of social assistance programs, administrators have attempted to limit access only to those families considered "worthy" of assistance. Policies about worthiness have included both judgments about need, generally tied to income, demographic characteristics, or family circumstances, and judgments about moral character, often as evidenced by behavior. Past policies evaluating moral character based on family structure have been replaced by today's policies, which focus on criminal activity, particularly drug-related criminal activity. This book provides an overview of the history and evolution of policies establishing drug- and crime-related restrictions in federal assistance programs with a focus on TANF, SNAP, and three primary federal housing assistance programs (the public housing program, the Section 8 Housing Choice Voucher program, and the project-based Section 8 rental assistance program).

Extraterritorial Application of U.S. Criminal Law: Policies and Proposals
Darla A. Garcia and Grant T. Coleman
In series: Law, Crime and Law Enforcement
Case: 978-1-62081-445-1, $110.00.
e-book: 978-1-62081-446-8, $110.00.
Criminal law is usually territorial. It is a matter of the law of the place where it occurs. Nevertheless, a number of American criminal laws apply outside of the United States. Application is generally a question of legislative intent, expressed or implied. In either case, it most often involves crimes committed aboard a ship or airplane, crimes condemned by international treaty, crimes relating to government employees or property overseas, or crimes that have an impact in this country even if planned or committed in part elsewhere. This book discusses the laws and policy surrounding extraterritorial jurisdiction and proposals for furthering accountability.

Federal Government and the REINS Act: Major Regulations
Lisa Matthews and Jason Fanning
In series: Laws and Legislation
Case: 978-1-62100-346-5, $95.00.
e-book: 978-1-62100-405-9, $95.00.
Under the Congressional Review Act, a covered agency regulation takes effect as provided by law unless Congress disapproves the rule with a joint resolution of disapproval. In contrast, the Regulations from the Executive In Need of Security (REINS) Act would generally require the enactment of a joint resolution of approval before any "major rule" could take effect. This book provides information on the types of "major rules" that may be covered by the REINS Act, if enacted. Specifically, it identifies how many major rules have been issued in recent years, and which agencies have issued them along with identifying why certain rules published during calendar year 2010 were considered to be major rules under the CRA.

Holocaust-Era Insurance Claims: Compensation and Legislation
Randy Kligg and Terry McGinn
In series: Laws and Legislation
Case: 978-1-61942-139-4, $110.00.
e-book: 978-1-61942-144-8, $110.00.
This book provides background on Holocaust-Era compensation and restitution issues; an overview of ICHEIC, including criticism and support of its claims process and Administration policy on ICHEIC and an overview of litigation on Holocaust-Era insurance claims and the proposed legislation.

Immigration Enforcement: Overstays and Student and Exchange Visitor Program
Bryant Ellis and Oliver Fuller
In series: Laws and Programs
Case: 978-1-62257-808-5, $110.00.
Approximately 4 million to 5.5 million unauthorized immigrants in the U.S. entered the country legally on a temporary basis but then overstayed their authorized periods of admission, referred to as overstays. This book examines the extent to which the Department of Homeland Security (DHS) takes action to address overstays and its reported results. Additionally, as of January 2012, more than 850,000 active foreign students were in the U.S. enrolled at over 10,000 U.S. schools. The U.S. Immigration and Customs Enforcement agency (ICE) is responsible for managing the Student and Exchange Visitor Program (SEVP) and certifying schools to accept foreign students. This book also examines ICE's fraud prevention and detection procedures for SEVP, and the extent to which ICE has identified and assessed risks and developed policies and procedures to prevent and detect fraud during the initial school certification process and once schools begin accepting foreign students.

Jurisdiction: Select Analyses, Considerations and Cases
Audrey E. Stewart and Dereck A. Washington
In series: Criminal Justice, Law Enforcement and Corrections
2012. 150 pp.
Case: 978-1-62081-429-1, $110.00.
In the realm of jurisprudence, the issue of jurisdiction can be quite complicated. The select analyses provided in this book examine some of the myriad elements and considerations that arise in matters of jurisdiction. Included are: an overview of Congress’s ability to participate in litigation before Article III courts; the interplay of borders, turf, cyberspace and jurisdiction; Indian tribal civil jurisdiction’s reach over non-Indians; Supreme Court appellate jurisdiction over military court cases; federal jurisdiction in copyright registration; and challenges to “large” orders under federal contracts.

**Labor Relations: Major Laws and a Guide to the National Labor Relations Act**
*Allen Daniels and Ruth J. Hoffman*
In series: *Congressional Policies, Practices and Procedures*
In series: *Laws and Legislation*
Case: 978-1-62257-420-9, $135.00.
Since 1926, Congress has enacted three major laws that govern labor-management relations for private sector and federal employees. An issue for Congress is the effect of these laws on employers, workers, and the nation’s economy. The Bureau of Labor Statistics estimates that, nationwide, 9.2 million employees are represented by unions. In the 112th Congress alone, more than 30 bills have been introduced to amend federal labor relations statutes. The proposals range from making union recognition without a secret ballot election illegal to further modifying runoff election procedures. This legislative activity, and the significant number of employees affected by federal labor relations laws, illustrate the current relevance of labor relations issues to legislators and their constituents. The three major labor relations statutes in the U.S. are the Railway Labor Act, the National Labor Relations Act, and the Federal Service Labor-Management Relations Statute. Each law governs a distinct population of the U.S. workforce. This book provides a brief history and overview of the aims of each of these statutes and discusses key statutory provisions for each statute.

**Legalities of GPS and Cell Phone Surveillance**
*Emily M. Johnson and Michael J. Rodriguez*
In series: *Law, Crime and Law Enforcement*
In series: *Laws and Legislation*
Soft: 978-1-62257-026-3, $52.00.
e-book: 978-1-62257-045-4, $52.00.
As technology continues to advance, what was once thought novel, even a luxury, quickly becomes commonplace, even a necessity. Global Positioning System (GPS) technology is one such example. Generally, GPS is a satellite-based technology that discloses the location of a given object. This technology is used in automobiles and cell phones to provide individual drivers with directional assistance. Just as individuals are finding increasing applications for GPS technology, state and federal governments are as well. State and federal law enforcement use various forms of GPS technology to obtain evidence in criminal investigations. For example, federal prosecutors have used information from cellular phone service providers that allows real-time tracking of the locations of customers’ cellular phones. This book discusses the basics of GPS technology, society’s reliance on it, and some of the related legal and privacy implications, with a focus on the legislative and judicial responses on both the federal and state levels.

**Legislative Approaches to Online Piracy and Copyright Infringement**
*Donnell A. Russell and Trent E. Griffin*
In series: *Internet Policies and Issues*
Case: 978-1-61942-974-1, $95.00.
e-book: 978-1-61942-975-8, $95.00.
Technological developments related to the Internet benefit consumers who want convenient ways to view and hear information and entertainment content on a variety of electronic devices. The global nature of the Internet offers expanded commercial opportunities for intellectual property (IP) rights holders but also increases the potential for copyright and trademark infringement. Piracy of the content created by movie, music, and software companies and sales of counterfeit pharmaceutical drugs and consumer products negatively impact the American economy and can pose risks to the health and safety of U.S. citizens. This book discusses legislative approaches to online piracy and copyright infringement.

**Obama Administration Proposals for Cybersecurity Legislation**
*Matthew N. Merlotte and Jody S. Simmons*
In series: *Law, Crime and Law Enforcement*
2012. 120 pp.
Soft: 978-1-62100-759-3, $47.00.
e-book: 978-1-62100-794-4, $47.00.
Responding to ongoing concerns over the state of U.S. cybersecurity, the Obama Administration released a report containing a proposal for significant cybersecurity legislation on May 12, 2011. The Administration’s proposal contains seven sections and addresses many different subject areas. This book examines the first section of the Administration’s proposal, dealing with criminal law. That section would supplement the Computer Fraud and Abuse Act (CFAA) by adding a mandatory three-year minimum penalty for damaging certain critical infrastructure computer, increase the penalties for most violations of the CFCA, modify the conspiracy and forfeiture provisions of the CFCA, and make felony violation of the CFCA a racketeering predicate offense.

**Privacy: Management, Legal Issues and Security Aspects**
*Tobias K. Buckner and Bertram L. Knowles*
In series: *Law, Crime and Law Enforcement*
In series: *Safety and Risk in Society*
Case: 978-1-61942-653-5, $95.00.
In this book, the authors present current research in the study of the management, legal issues and security aspects relating to privacy. Topics discussed include the monitoring of privacy in the automobile insurance market; automated support for the auditing of personal data based on requirements cataloging; the crisis of diminishing privacy; the ethical issues corresponding to privacy protection and privacy preserving data mining (PPDM).

**Right to Work Laws and Federal Labor Relations Statutes: An Overview**
*Morgan N. Broderick*
In series: *Laws and Legislation*
2013. 94 pp.
Soft: 978-1-62417-918-1, $52.00.
e-book: 978-1-62417-919-8, $52.00.
The National Labor Relations Act (NLRA) establishes most private-sector workers’ rights to unionize and collectively bargain over wages, benefits, and working conditions. Enacted in 1935, the NLRA also permits collective bargaining contracts between employers and labor organizations that require every individual covered by the collective bargaining contract to pay dues to the negotiating labor organization. These contract provisions are known as union security agreements. Since the NLRA was amended by the Taft-Hartley Act in 1947,
individual states have been permitted to supersede the union security provisions of the NLRA by enacting laws that prohibit union security agreements. These state laws are known as right to work (RTW) laws. This book provides a brief legislative history on RTW laws and on the federal role in the regulation of unions; a summary of the origin and developments of RTW laws, recent events at the state level, and federal labor relations statutes.

**Select Supreme Court Decisions: Analyses and Implications**
*Darrell R. George and Joyce M. Watkins*
In series: *Laws and Legislation*
Case: 978-1-62257-444-5. $135.00.
This book analyzes recent Supreme Court decisions and their implications. Legislative decisions examined include: sex discrimination developments; retroactivity and the Good-Faith exception to the exclusionary rule; warrantless, police-triggered exigent searches; official immunity and material witnesses before the Supreme Court; the Confrontation Clause after Michigan v. Bryant and Bullcoming v. New Mexico; federal preemption of state tort law regarding medical devices with FDA premarket approval; an overview of the National Childhood Vaccine Injury Act; implications for innovation policy in Microsoft v. i4i; duty to disclose shareholders in Matrixx Initiatives v. Siracusano; the Supreme Court’s pre-enforcement review of the Clean Water Act; and judicial and legislative developments in the Law of Deinstitutionalization.

**Sex Discrimination and Harassment: Legal Developments and Proposals**
*Herbert D. Andrews and Sean O. Spencer*
In series: *Laws and Legislation*
Case: 978-1-62257-466-7. $110.00.
This book examines the legal developments and proposals concerning sexual discrimination and sexual harassment in federal law. Gender-based discrimination, sexual harassment, and violence against women in the workplace, schools, and society at large are continuing topics of legislative and judicial concern. Legal doctrines condemning the extortion of sexual favors as a condition of employment of job advancement and other sexually offensive workplace behaviors resulting in a "hostile environment" have evolved from judicial decisions under Title VII of the 1964 Civil Rights Act and other federal equal employment opportunity laws. In recent years, the U.S. Supreme Court has addressed a range of sexual harassment issues, from the legality of same-sex harassment to the vicarious liability of employers and local school districts for monetary damages as a result of harassment by supervisors and teachers. These and other significant Supreme Court cases regarding sexual harassment and violence against women are also discussed.

**The Buy American Act and Other Domestic Content Legislation**
*Kenneth Darrigan and Juliette Ogden*
In series: *Congressional Policies, Practices and Procedures*
In series: *Laws and Legislation*
Soft: 978-1-62417-056-0. $52.00.
Congress has broad authority to place conditions on the purchases made by the federal government or with federal dollars. One of the many conditions that it has placed on direct government purchases is a requirement that they be produced in the United States. The most well known of these requirements is the Buy American Act, which is the major domestic preference statute governing procurement by the federal government. The Buy American Act applies to direct purchases by the federal government of more than $3,000, providing their purchase is consistent with the public interest, the items are reasonable in cost, and they are for use in the United States. The act requires that "substantially all" of the acquisition be attributable to American-made components. Regulations have interpreted this requirement to mean that at least 50% of the cost must be attributable to American content. This book provides an overview of domestic content legislation with a focus on the Buy American Act; the Berry Amendment; and the Specialty Metal Clause.

**The Legislative Process in the United States Congress: An Introduction**
*John Castellano*
In series: *Congressional Policies, Practices and Procedures*
In series: *Laws and Legislation*
Case: 978-1-62417-840-5. $110.00.
This book introduces the main steps through which a bill (or other item of business) may travel in the legislative process—from introduction to committee and floor consideration to possible presidential consideration. However, the process by which a bill can become law is rarely predictable and can vary significantly from bill to bill. In fact, for many bills, the process will not follow the sequence of congressional stages that are often understood to make up the legislative process. This book presents a look at each of the common stages through which a bill may move, though complications and variations abound in practice.

**U.S. Border Security: Progress and Challenges**
*Joseph A. White and Jeffrey Clark*
In series: *American Political, Economic, and Security Issues*
In series: *Defense, Security and Strategies*
Case: 978-1-62081-156-6. $110.00.
e-book: 978-1-62081-164-1. $110.00.
As part of its mission, the Department of Homeland Security (DHS), through its U.S. Customs and Border Protection (CBP) component, is to secure U.S. borders against threats of terrorism; the smuggling of drugs, humans and other contraband; and illegal migration. At the end of fiscal year 2010, DHS investments in border security had grown to $11.9 billion and included more than 40,000 personnel. To secure the borders, DHS coordinates with federal, state, local, tribal, and Canadian partners. This book examines DHS progress and challenges in securing the U.S. Southwest and Northern borders with a focus on enhancing measures to protect against the entry of terrorists, inadmissible aliens, and contraband; improving interagency coordination; and strengthening technology acquisition and deployment plans.

**Whistleblower Protections: Select Provisions and Assessments**
*Daryl R. Arcelloni*
In series: *Law, Crime and Law Enforcement*
In series: *Laws and Legislation*
Case: 978-1-62417-211-3. $110.00.
e-book: 978-1-62417-212-0. $110.00.
Legal protection for employees who report illegal misconduct by their employers have increased dramatically since the late 1970s when such protections were first adopted for federal employees in the Civil Service Reform Act of 1978. Since that time, with the enactment of the Whistleblower Protection Act of 1989, Congress has expanded such protections for federal employees. Congress has also established whistleblower protections for individuals in certain private-sector employment through the adoption of whistleblower provisions in at least 18 federal statutes. Among these statutes is the Sarbanes-Oxley Act, the FDA Food Safety Modernization Act, and the Dodd-Frank Wall Street Reform and Consumer Protection Act. This book provides an overview of key aspects of the 18 selected federal statutes applicable to individuals in certain private-sector industries. It focuses on the protections provided to employees who believe they have been subject to retaliation, rather than on how or where alleged misconduct should be disclosed.

Wiretaps and Electronic Eavesdropping: Federal Law and Legal Ethics

Laurel Jennings and Richard M. Eastman
In series: Privacy and Identity Protection
In series: Law, Crime and Law Enforcement
2012. 185 pp.
Case: 978-1-62257-992-1. $110.00.
It is a federal crime to wiretap or to use a machine to capture the communications of others without court approval, unless one of the parties has given his prior consent. It is likewise a federal crime to use or disclose any information acquired by illegal wiretapping or electronic eavesdropping. Violations can result in imprisonment for not more than five years; fines up to $250,000; in civil liability for damages, attorney's fees and possibly punitive damages; in disciplinary action against any attorneys involved; and in suppression of any derivative evidence. This book provides an overview of federal law governing wiretapping and electronic eavesdropping under the Electronic Communications Privacy Act (ECPA).

MEDI A A ND COMMUNICATIONS

Food Prices, Discount Stores and Private Labels: Analyses and Trends

Julie S. Epstein and Ted Kramer
In series: Advertising: Media, Marketing and Consumer Demands
In series: Food Science and Technology
2013. 92 pp.
Soft: 978-1-62257-872-6. $52.00.
e-book: 978-1-62257-874-0. $52.00.
Food prices vary across different parts of the United States. One factor that may lead to differences in food prices is the types of stores in a given market or neighborhood. Nontraditional discount retailers, including supercenters, mass merchandisers, wholesale club stores, and dollar stores, have gained a substantial portion of the retail food market over the past 15 years. Previous studies have shown that prices for some items are lower in nontraditional than in traditional stores. But those earlier studies were generally limited in the number of items compared, the detail level of comparison, and the geographic areas studied. This book compares prices for a wide range of foods at a finer level of detail than earlier studies, at both the national and geographic market levels, in order to quantify the difference in food prices across store formats. Also discussed is the relationship between private label and national brand product prices and in-store promotions.

Future of Audio and Video Markets as Presented to Congress

Carter Powell Long and Fisher McDonald
In series: Media and Communications - Technologies, Policies and Challenges
Case: 978-1-62257-764-4. $110.00.
This book examines the future of today's audio and video markets as presented in testimony to Congress. Testimony is provided by the chairman of the DISH network; SkyMidd; National Cable and Telecommunications Association; National Music Publishers Association; Recording Industry Association of America; and Pandora, to name a few.

Public Safety Broadband and Communication Networks: Plans and Considerations

Thomas Giordano
In series: Media and Communications - Technologies, Policies and Challenges
In series: Computer Networks
Soft: 978-1-62417-524-4. $52.00.
e-book: 978-1-62417-527-5. $52.00.
Since September 11, 2001, when communication failures contributed to the tragedies of the day, Congress has passed several laws intended to create a nationwide emergency communications capability. The United States has continued to strive for a solution that assures seamless communications among first responders and emergency personnel at the scene of a major disaster. To address this problem, Congress included provisions in the Middle Class Tax Relief and Job Creation Act of 2012, for planning, building, and managing a new, nationwide broadband network for public safety communications, and assigned additional spectrum to accommodate the new network. This book explores public safety broadband and communication networks with a focus on new policies for spectrum management and wireless innovation that would facilitate the transition to IP-enabled networks. Acceleration of innovation in next-generation wireless technologies would likely benefit not only public safety communications but also all consumers of wireless service and the American economy.

Social Media and Disasters: Uses, Options, Considerations

Trent F. Sykes and Emmanuel A. Travis
In series: Natural Disaster Research, Prediction and Mitigation
In series: Social Issues, Justice and Status
2012. 98 pp.
Soft: 978-1-61942-461-6. $47.00.
The development of new technologies that have emerged since the mid-1990s has led to Internet-based applications known as "social media" that enables people to interact and share information through media that were non-existent or widely unavailable 15 years ago. Examples of social media include blogs, chat rooms, discussion forums, wikis, YouTube Channels, LinkedIn, Facebook, and Twitter. Social media can be accessed by computer, tablets, smart and cellular phones, and mobile phone text messaging. This new book explores how social media has been used by emergency management officials and agencies with a focus on examining the potential benefits, as well as implications, of using social media in the context of emergencies and disasters.
**MIDDLE EAST**

**Afghanistan in Transition: Before and After the Surge**
*James K. Buck and Meredith J. Hinton*

In series: *Global Political Studies*
In series: *The Middle East in Turmoil*
Case: 978-1-62081-289-1. $110.00.

Stated U.S. policy is to ensure that Afghanistan will not again become a base for terrorist attacks against the United States. Following policy reviews in 2009, the Obama Administration asserted that it was pursuing a well-resourced and integrated military-civilian strategy intended to pave the way for a gradual transition to Afghan leadership from July 2011 until the end of 2014. To carry out U.S. policy, a total of 51,000 additional U.S. forces were authorized by the two 2009 reviews, which brought U.S. troop numbers to a high of about 99,000, with partner forces adding about 42,000. The U.S. official view is that security gains achieved by the surge could be at risk from weak Afghan governance and insurgent safe havens in Pakistan, and that Afghanistan will still need direct security assistance after 2014. This book examines Afghanistan's post-Taliban governance and security, with a focus on U.S. policy and increasing emphasis on the need for a negotiated settlement to the Afghan conflict.

**Bypassing Iran: Petroleum Production and the Strait of Hormuz**
*Ordwin I. Wright and Kalen M. Stewart*

In series: *Petroleum Science and Technology*
In series: *The Middle East in Turmoil*
2012. 82 pp.
Soft: 978-1-62081-665-3. $52.00.
e-book: 978-1-62081-695-0. $52.00.

Some officials of Iran have recently renewed threats to close or exercise control over the Strait of Hormuz. Iran's threats appear to have been prompted by the likely imposition of new multilateral sanctions targeting Iran's economic lifeline - the export of oil and other energy products. In the past, Iranian leaders have made similar threats and comments when the country's oil exports have been threatened. However, as in the past, the prospect of a major disruption of maritime traffic in the Strait risks damaging Iranian interests, U.S. and allied military capabilities in the region remain formidable. This makes a prolonged outright closure of the Strait appear unlikely. Nevertheless, such threats can and do raise tensions in global energy markets and leave the United States and other global oil consumers to consider the risks of another potential conflict in the Middle East. This book examines the Iranian threats to the Strait of Hormuz and analyzes the implications of some scenarios for potential U.S. or international conflict with Iran.

**Change in the Middle East: Implications and U.S. Policies**
*Oliver Wheeler*

In series: *Politics and Economics of the Middle East*
2013. 312 pp.
Case: 978-1-62417-751-4. $230.00.

The political change and unrest that have swept through the Middle East and North Africa since early 2011 are likely to have profound consequences for the pursuit of long-standing U.S. policy goals in the region with regard to regional security, global energy supplies, U.S. military access, bilateral trade and investment, counter-proliferation, counterterrorism, and the promotion of human rights. The profound changes in the region may alter the framework in which these goals are pursued and challenge the basic assumptions that have long guided U.S. policy. This book assesses some of the policy implications of recent and ongoing events in the region, with a focus on Egypt, Iran, Syria, Libya, Israel, Tunisia, and Bahrain.

**Iran’s Ballistic Missile and Space Launch Programs: Elements and Considerations**
*Steven Wietman*

In series: *Politics and Economics of the Middle East*
In series: *Global Political Studies*
Case: 978-1-62417-988-4. $52.00.
e-book: 978-1-62417-989-1. $52.00.

Why does Iranian acquisition of ballistic missiles or Iran's pursuit of a space launch capability matter, especially to the Congress? For decades, most in Congress have viewed Iran with concern because of its nuclear program and its support of anti-U.S. and anti-Israel militant movements in the region. Although it is not certain that Iran has made the decision to develop a nuclear weapon, it is taking steps to drastically reduce the time needed to obtain nuclear weapons should a decision be made to do so. It is the prospect of an Iranian nuclear weapon mated to an effective missile delivery capability that is especially worrisome to most. This book examines the current and prospective Iranian capabilities that challenge U.S. national security interests, with a focus on its ballistic missile and space launch programs.

**Iraq Under Nuri al-Maliki: Developments and Dysfunctions**
*Ray C. Tran and Francis E. Cunningham*

In series: *Politics and Economics of the Middle East*
In series: *Global Political Studies*
Case: 978-1-62257-460-5. $110.00.

Relations among major political factions have worsened substantially since late 2011, threatening Iraq's stability and the perception of the achievements of the long U.S. intervention in Iraq. Sunni Arabs, always fearful that Prime Minister Nuri al-Maliki would seek unchallenged power for Shiite factions, accused him of an outright power grab as he seeks to purge the highest-ranking Sunni Arabs from government and to cripple attempts by Sunni-inhabited provinces to achieve greater autonomy. Iraq's Kurds have also become increasingly distrustful of Maliki over territorial, political, and economic issues, and similarly accused him of authoritarian practices. More recently, the Shiite faction of Moqtada al Sadr joined the other groups to put pressure on Maliki to share power. This book examines the politics, governance and human rights challenges of Iraq under Nuri al-Maliki.

**Israel’s Security, the Iranian Nuclear Threat and U.S. Relations**
*Marschall E. Holmes and Suzanne F. Matthews*

In series: *The Middle East in Turmoil*
In series: *Global Political Studies*
Case: 978-1-62081-818-3. $110.00.

Several published reports indicate that top Israeli decision-makers now are seriously considering whether to order a military strike on Iran's nuclear facilities. Israeli officials generally view the prospect of a nuclear-armed Iran as an unacceptable threat to Israeli security, with some viewing it as an existential threat. This book analyzes key factors that may influence current Israeli political decisions relating to a possible strike on Iranian nuclear facilities. These include, the views of
and relationships among Israeli leaders; the views of the Israeli public; U.S., regional, and international stances and responses as perceived and anticipated by Israel; Israeli estimates of the potential effectiveness and risks of a possible strike; and responses Israeli leaders anticipate from Iran and Iranian-allied actors, including Hezbollah and Hamas, regionally and internationally.

Pakistan: U.S. Relations and Foreign Assistance
DeAndre K. Whitley and Kieht E. Noel
In series: Asian Political, Economic and Security Issues
In series: Global Political Studies
2012. 149 pp.
Case: 978-1-62081-020-0. $95.00.
e-book: 978-1-62081-028-6. $95.00.
This book summarizes important recent developments in Pakistan and in Pakistan-U.S. relations. The Obama Administration's engagement with Pakistan has been seriously disrupted by recent events. A brief analysis of the current state of Pakistan-U.S. relations illuminates the main areas of contention and uncertainty. Vital U.S. interests related to links between Pakistan and indigenous American terrorism, Islamist militancy in Pakistan and Islamabad's policies toward the Afghan insurgency, Pakistan's relations with historic rival India, nuclear weapons proliferation and security, and the troubled status of Pakistan's domestic setting are reviewed. Ongoing human rights concerns and U.S. foreign assistance programs for Pakistan are also discussed.

Perspectives on Kurdistan’s Economy and Society in Transition
Almas Heshmati (College of Life Sciences and Biotechnology, Korea University, Seoul, Korea), Alan Dilani (International Academy for Design and Health, Stockholm, Sweden), Serwan M J. Baban (The University of Kurdistan-Hawler, Federal Region of Kurdistan)
In series: Politics and Economics of the Middle East
Case: 978-1-62257-934-1. $175.00.
The First World Kurdistan Congress was held in October 2011 at Rotterdam with the theme of researching science and culture towards increased progress in Kurdistan. The papers presented focused on various important aspects of health, education, economy, culture and political science in Kurdistan. The objective was to create a network of academicians to exchange and develop knowledge on how to further enhance the progress within the Kurdish society. This book is a collection of 20 studies presented at the Congress. The presentation topics are diverse, covering several areas pertinent to the current Kurdish situation. The studies are divided into eight areas including: human rights and freedom; greater Kurdistan, education and nation building; diaspora; politics and international relations; corruption; health care and trauma; and economy, business and science and technology.

Rivalry in the Middle East: Saudi Arabia and Iran
Mackenzie Tyler and Anthony M. Boone
In series: The Middle East in Turmoil
Case: 978-1-62081-266-2. $110.00.
The Middle East is undergoing an era of revolutionary change that is challenging the foreign policies of the United States and virtually all regional states. One of the most important rivalries defining the strategic landscape of the Middle East is between Iran and Saudi Arabia. The competition between these two states is long-standing, but is especially important now. This book examines how the successor presidency of Mahmoud Ahmadinejad has damaged relations in the Saudi-Iranian relationship along with the Saudi-led intervention into Bahrain.

Testing EU-NATO Relations through the Case of Afghanistan (2001-2011)
Kübra Türk (International Strategic Research Organization (USAk), Turkey)
In series: Politics and Economics of the Middle East
In series: Global Political Studies
Case: 978-1-62417-792-7. $85.00.
This book provides an overview of the relations of the EU and NATO through the case of Afghanistan. It examines the role of the International Security Assistance Force (ISAF) in conjunction with Provincial Reconstruction Teams (PRTs) and the European Union Police Mission (EUPOL) to evaluate the relations between the EU and NATO. The involvement of the ISAF and EUPOL missions from their establishment to evolution and the limitations of both missions in accordance with the management of the U.S. in the “War on Terror” are examined. The implications of U.S. policies for the missions of both parties are explored, from the first term of George W. Bush to the Obama administration. The book argues that while there has been cooperation between the EU and NATO without it being structural, thus being ad hoc cooperation, the U.S. has been benefiting from this cooperation from the second term of the Bush administration to the Obama administration, thereby rehabilitating the tense relations between the EU and the U.S. In the final analysis, it may be said that this cooperation did not result in a success story in the case of Afghanistan.

The Sanctions Squeeze on Iran and Syria
Mitch H. Rocha and Ricky L. Puckett
In series: The Middle East in Turmoil
In series: Global Political Studies
2012. 139 pp.
Soft: 978-1-62081-015-6. $47.00.
This book examines the broad international support for imposing progressively strict economic sanctions on Iran to try to compel it to verifiably confine its nuclear program to purely peaceful times. Additionally, this book analyzes the current unrest in Syria and the U.S. response to the Syrian government's crackdown against demonstrators, providing background information on U.S. sanctions against the Asad regime and its supporters.

To Build an Afghan Nation
Victor H. Wells and Craig E. Tucker
In series: Politics and Economics of the Middle East
Case: 978-1-62257-311-0. $195.00.
In aiming to create a "democratic, well-governed state" in Afghanistan, the United States chose an extremely difficult candidate for nationhood or nation-building assistance. At its most basic level, a modern nation must be comprised of people, a functioning government, a recognized territory, and an economic base. Even when compared against that modest standard, the case of Afghanistan is problematic. Considering Afghanistan's history, as well as its geography, demographics, tribalism, warlordism, existing political cultural norms, drug trade, crime, and history of ineffective governance and corruption, it becomes abundantly clear that there are major obstacles standing in the way of the North Atlantic Treaty Organization's (NATO) ambitious goals of effective democratic governance and nationhood. This book examines
Afghanistan’s post-Taliban governance, security, U.S. policy and future struggles to nationhood.

Tomorrow's Players: The Israeli Palestinian Case
Alean Al-Krenawi (Professor and Dean, School of Social Work, Memorial University of Newfoundland and Ben-Gurion University of the Negev)

In series: Politics and Economics of the Middle East
Case: 978-1-62081-754-4. $150.00.
This book examines the influence of exposure to political violence on the psychological, social and familial functioning of adolescents aged 14-18 from Israel and from Palestine. The authors’ research provides powerful, self-reported data of how youth evaluate a variety of phenomena: their psychological functioning, their family’s economic status, their family’s functioning, and their experiences of domestic, political, and school violence. The authors highlight differences and similarities between four groups of young people: between Israeli and Palestinian youth, between Palestinian adolescents in the West Bank and Gaza, between Palestinians within Israel and from other areas, and between Jewish-Israelis and Arab-Israelis.

MILITARY

Arlington National Cemetery: Management, Burial and Contracting Challenges
Jacob M. Brown and Mace I. Kelly
In series: Military and Veteran Issues
Case: 978-1-62081-365-2. $110.00.
The Army's management of Arlington National Cemetery has come under scrutiny following the discovery of burial errors and the identification of serious management deficiencies affecting cemetery operations. Established during the Civil War, Arlington contains the remains of more than 330,000 military service members, family members, and other individuals, including two U.S. Presidents. Arlington conducts an average of 27 funerals each day, hosts hundreds of ceremonies throughout the year, and has approximately 4 million visitors annually. This book examines the Army's efforts to address and improve management deficiencies at Arlington; the process for providing information and assistance to families regarding efforts to detect and correct burial errors; and factors affecting the feasibility and advisability of transferring jurisdiction for the Army's national cemeteries to the Department of Veterans Affairs (VA).

Congressional Limits on Military Operations
Violet L. Turner and Maddox M. Watson
In series: Congressional Policies, Practices and Procedures
Soft: 978-1-62081-398-0. $52.00.
e-book: 978-1-62081-418-5. $52.00.
Controversy continues over the appropriate role that Congress should play in regulating U.S. military operations against foreign entities. U.S. action against Libya reignited consideration of long-standing questions concerning the President’s constitutional authority to use military force without congressional authorization, as well as congressional authority to regulate or limit the use of such force. As Congress considers defense authorization and appropriate bills, there may be renewed focus on whether or to what extent Congress has the constitutional authority to legislate limits on the President’s authority to conduct military operations in Afghanistan, Iraq, Libya, or other locations. This book discusses the constitutional provisions allocating war powers between Congress and the President, and presents a historical overview of relevant court cases, and other considerations which may inform congressional decisions on war powers.

Military Personnel: Select Policies and Developments
Albert B. Foster and Wendy Phillips
In series: Military and Veteran Issues
Case: 978-1-62081-374-4. $110.00.
e-book: 978-1-62081-403-1. $110.00.
Military personnel issues typically generate significant interest from many Members of Congress and their staffs. Recent military operations in Iraq and ongoing operations in Afghanistan, along with the operational role of the Reserve Components, further heighten interest in a wide range of military personnel policies and issues. This book provides an overview of select policies and developments with regard to military personnel including: reserve component personnel issues; military pay and benefits; military retirement reform; military justice and court-martial review; military funeral honors and military cemeteries; the repeal of "Don't Ask, Don't Tell"; and military base closures.

Military Uniforms: Assessments and Procurement
Gerard F. Perry and Michael E. Williams
In series: Military and Veteran Issues
2012. 76 pp.
Soft: 978-1-62081-375-1. $52.00.
e-book: 978-1-62081-402-4. $52.00.
The Defense Logistics Agency (DLA), an agency of the Department of Defense (DOD), supplies more than 8,000 different items ranging from uniforms and body armor to tents and canteens. Military uniforms are procured through competitive contracts. This book provides an overview of military uniform assessment and procurement.

Navy Amphibious Ships: Procurement and Deployment
Timothy L. Roberts and Stephen Turner
In series: American Political, Economic, and Security Issues
Case: 978-1-61942-735-8. $95.00.
The Navy’s latest 30-year shipbuilding plan has a force of 33 amphibious warfare ships as its objective. The primary purpose of those ships in wartime is to carry Marine Corps units overseas and to support and sustain them as they deploy ashore. In peacetime, amphibious ships perform various missions, such as engaging in routine patrols overseas, reassuring allies, responding to crises, and providing humanitarian relief. This book provides an overview of the size, missions, and use of the Navy’s amphibious warfare ships and related expeditionary forces under the Navy’s “2012 shipbuilding plan”.

Navy Ship Names: Elements, Rules and Shipbuilding Plans
Clay P. Shaw and Vance E. Cruz
In series: Congressional Policies, Practices and Procedures
2012. 82 pp.
Pain Management and Opioid Therapy Guidelines from the Veterans Administration and Department of Defense
Lewis Agnor and Mark O'Connor
In series: Public Health in the 21st Century
In series: Military and Veteran Issues
The VA/DoD published the first Clinical Practice Guideline for management of opioid therapy for chronic pain in 2003. This original publication was intended to improve pain management, quality of life, and quality of care for veterans. The focus of the guideline has been to provide education and guidance to primary care clinicians, researchers and other health professionals as they encounter patients with persistent pain and its complications. This book aims to update the evidence base of the 2003 Guideline. It is focused, as was the original CPG, on chronic opioid therapy (opioid therapy for more than one month). It is directed to the clinician who is interested in knowing more about this approach to the management of chronic pain.

Recovering Servicemembers and Veterans: Assessments of Care and Benefits Management
Ira Wachtel and Gina Nutting
In series: Health Care Issues, Costs and Access
In series: Military and Veteran Issues
Case: 978-1-62417-775-0. $110.00.
Deficiencies exposed at Walter Reed Army Medical Center in 2007 served as a catalyst compelling the Departments of Defense (DoD) and Veterans Affairs (VA) to address a host of problems for wounded, ill, and injured servicemembers and veterans as they navigate through the recovery care continuum. This continuum extends from acute medical treatment and stabilization, through rehabilitation to reintegration, either back to active duty or to the civilian community as a veteran. In spite of 5 years of departmental efforts, recovering servicemembers and veterans are still facing problems with this process and may not be getting the services they need. This book provides an overview and assessment of the care and benefit management system for recovering servicemembers and veterans.

Andy M. Tarnow
In series: Military and Veteran Issues
Case: 978-1-62417-689-0. $110.00.
Congress, through the U.S. Department of Veterans Affairs (VA), provides a variety of benefits and services to veterans and to certain members of their families. These benefits include disability compensation and pensions, education benefits, survivor benefits, medical treatment, life insurance, vocational rehabilitation, and burial and memorial benefits. In order to receive these benefits, a veteran (or an eligible family member) must apply for them by submitting the necessary information to a local VA office. The local VA office will make an initial determination on the application for benefits. Any veteran who is not satisfied with the local VA's determination is permitted to appeal the decision. This book provides a step-by-step breakdown of the appeal process for veterans' claims.

The United States Military Abroad: Instances and Select Deployments
Vance Ziegler and Richard T. Ahlstedt
In series: Defense, Security and Strategies
In series: Military and Veteran Issues
Soft: 978-1-62417-094-2. $52.00.
This book provides an overview of instances in which the United States has used its armed forces abroad in situations of military conflict or potential conflict or for other than normal peacetime purposes. A survey of past U.S. military ventures abroad, without reference to the magnitude of the given instance is discussed with a focus on military deployments in multinational operations associated with NATO or the United Nations; U.S. military presence in Okinawa and the Futenma base controversy; and U.S. defense deployments in Guam.

United States Army Drawdown and Restructuring: Assessments and Implications
Jacob E. Black and Danny F. Gardner
In series: American Political, Economic, and Security Issues
In series: Defense, Security and Strategies
Soft: 978-1-62257-483-4. $52.00.
e-book: 978-1-62257-486-5. $52.00.
This book examines the strategic risk posed by a smaller and restructured Army; the “health” of the Army given the impending downsizing; the drawdown and restructuring of the U.S. Army, including the role of the National Guard and Reserves. On January 26, 2012, senior DOD leadership unveiled a new defense strategy based on a review of potential future security challenges, current defense strategy, and budgetary constraints. This new strategy envisions a smaller, leaner Army that is agile, flexible, rapidly deployable, and technologically advanced. This strategy will rebalance the Army’s global posture and presence, emphasizing where potential problems are likely to arise, such as the Asia-Pacific region and the Middle East. The proposals to drawdown and restructure the Army have a number of strategic implications, including the capability to conduct stability and counterinsurgency operations, the ability to fight two simultaneous wars, shifting strategic emphasis to the Asia-Pacific region, and how the Army will maintain presence in the Middle East.

Veteran Injuries, Disorders and Medical Care Services
Jessica Michaels and Jesse E. Levine
In series: Military and Veteran Issues
Case: 978-1-62081-302-7. $135.00.
e-book: 978-1-62081-327-0. $135.00.
A broad range of medical care services and benefits are offered to veterans of the U.S. Armed Forces. This book examines a variety of medical conditions which afflict veterans, basic eligibility criteria for VA administered veterans' benefits, types of medical care offered and
social policy considerations. Topics include suicide and VA prevention efforts; PTSD and substance use among Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) veterans; traumatic brain injury among veterans; veterans' mental health; VA community living centers; outpatient clinics; and veterans' medical care appropriations.

Veterans and Employment: Trends and Programs
Frank S. Dudziak
In series: Economic Issues, Problems and Perspectives
In series: Military and Veteran Issues
2013. 144 pp.
Veterans' employment outcomes in the civilian sector are an issue of ongoing congressional interest that has received particular attention during the current period of relatively high unemployment. A number of programs currently exist to assist veterans in obtaining or training for civilian employment. There is regular congressional debate about expanding or otherwise amending these programs to better serve veterans. This book discusses veterans' employment trends and programs with a focus on leveraging military service and experience to put veterans and military spouses back to work; veterans benefits; the Vocational Rehabilitation and Employment Program for veterans; and the SBA Veterans Assistance Program.

Women in Combat and the Armed Forces: Policies and Perceptions
Redmond F. Hunt and Vaughn W. Mills
In series: Military and Veteran Issues
2012. 68 pp.
Soft: 978-1-62081-922-7. $52.00.
In approximately 10 years of combat operations in Iraq and Afghanistan, over 283,000 female members have been deployed, over 800 have been wounded and over 130 have died. On numerous occasions women have been recognized for their heroism, two earning Silver Star medals. This outcome has resulted in a renewed interest in Congress, the Administration, and beyond in reviewing and possibly refining or redefining the role of women in the military. This book examines the role of women in combat with a focus on the laws, policies and regulations restricting the service of female members in the U.S. Armed Forces and the perceptions and current operational environment.

Women Veterans: Housing and Health Care Concerns
Jason F. Baker and Philip M. Roberts
In series: Women's Studies
In series: Women's Issues
Case: 978-1-62081-212-9. $110.00.
As more women serve in the military, the number of women veterans has grown substantially, doubling from 4 percent of all veterans in 1990 to 8 percent, or an estimated 1.8 million, today. The number of women veterans will continue to increase as servicemembers return from the conflicts in Iraq and Afghanistan. Some of these women veterans, like their male counterparts, face challenges readjusting to civilian life and are at risk of becoming homeless. Additionally, as more women veterans are seeking care at VA facilities, Congress and others have raised concerns about how well VA's health care system is prepared to meet the unique physical and mental health needs of these women. This book examines the issues of women veterans health care and the key policies needed to improve oversight processes and the necessary actions that need to be taken to ensure safe and appropriate housing upon their return.

NUTRITION

Americans and Food Choices: Select Research on Time and Diet
Daniel Schneiderman and Jon Kowalski
In series: Nutrition and Diet Research Progress
Case: 978-1-62257-875-7. $110.00.
Examining the eating patterns of the U.S. population is a key factor to improving our understanding of the determinants of Americans' nutrition and health. Analyzing the time Americans spend in various activities, and in particular food-related activities, may provide some insight into why nutrition and health outcomes vary over time and across different segments of the population. A better understanding of these factors could improve programs and policies targeted at reducing obesity and improving overall nutrition. This book examines select research on American's food choices, with a focus on how Americans rate their diet quality; new food choices free of trans fats; and the taxing of caloric sweetened beverages and its potential effect on beverage consumption, calorie intake and obesity.

PHILOSOPHY

Philosophy of Mind
Russell J. Jenkins and Walter E. Sullivan
In series: World Philosophy Series
Case: 978-1-62257-215-1. $120.00.
e-book: 978-1-62257-229-8. $120.00.
In this book, the authors present current research in the study of the philosophy of the mind. Topics discussed in this compilation include the concepts of hope and belief; how consciousness builds the subject through relating and human behavior; analyzing the neurophysiological mechanism of qigong on the mind and brain activity; the conscious and unconscious mind and implications for society, religion, and disease; how the mind is shaped by culture; and the power of computational mathematics to explore some of the universal ways by which each human mind builds its image of the world.

Structural Reality
Mark Burgin (U.C.L.A)
In series: Mathematics Research Developments
Case: 978-1-62081-641-7. $150.00.
In this attractive and very accessible new book, Mark Burgin, acclaimed author of Neoclassical Analysis: Calculus Closer to the Real World and Theory of Named Sets, examines the deep mysteries of structures, exploring different faces of reality, explicating the structure of the world’s existence and explicating fundamental issues of symbols, signs and concepts. This book is aimed at a wide audience of readers who want to better understand the world in which they live. That is why the author tried to write the main body of the book, that is, all its chapters, without mathematical formulas and formal constructions. However, for a mathematician, it is impossible even to imagine such an important topic as structural reality without a mathematical theory. So, formal constructions, exact definitions,
mathematical formulas and examples of advanced mathematical structures are given in the Appendix.

**POLITICAL SCIENCE**

Biopolitics: The Political Potential of the Life Sciences  
*Alexander V. Oleskin (Biology Department, Moscow State University, Moscow, Russia)*  
In series: *Ethical Issues in the 21st Century*  
In series: *Global Political Studies*  
Case: 978-1-62081-088-0. $165.00.  
e-book: 978-1-62081-116-0. $165.00.  
In the 21st century, the life sciences exert a considerable influence on the humanities and social sciences. People around the world pin their hopes on biology (which can help overcome the ecological crisis and produce new kinds of cheap food) and are concerned about possible risks associated with its developments (such as the possible creation of genetic mutants and cloned humans). Biological knowledge is being increasingly applied to issues related to ethics, linguistics, esthetics, history, and politics. Biology is currently making a significant contribution to the development of new guidelines concerning the economic and cultural progress of humankind. This book concentrates on an important aspect of the biological mission in the present-day world—on its social and political implications. Taken together, they are referred to as biopolitics in this book.

Congressional Contempt Power: History, Practice and the Holder Finding  
*Todd C. Jennison and Bradley Horowitz*  
In series: *Congressional Policies, Practices and Procedures*  
In series: *Government Procedures and Operations*  
2012. 188 pp.  
Case: 978-1-62417-065-2. $110.00.  
Congress’s contempt power is the means by which Congress responds to certain acts that in its view obstruct the legislative process. Contempt may be used either to coerce compliance, to punish the contemnor, and/or to remove the obstruction. Although any action that directly obstructs the effort of Congress to exercise its constitutional powers may constitute a contempt, in recent times the contempt power has most often been employed in response to non-compliance with a duly issued congressional subpoena—whether in the form of a refusal to appear before a committee for purposes of providing testimony, or a refusal to produce required documents. This book examines the source of the contempt power, reviews the historical development of the early case law, outlines the statutory and common law basis for Congress’s contempt power, and analyzes the procedures associated with inherent contempt, criminal contempt, and the civil enforcement of subpoenas.

Essays on Regulatory Governance  
*Noralv Veggeland (Lillehammer University College, Lillehammer, Norway)*  
In series: *Global Political Studies*  
In series: *Government Procedures and Operations*  
Case: 978-1-62417-793-4. $85.00.  
“Essays on Regulatory Governance”, is an ambitious study of the regulatory state and represents a timely and apposite analysis. It incisively analyzes the regulatory top-down regimes that are currently dominant and in crisis. Taking a critical perspective, the book offers an account of inherent vulnerability of regulatory governance caused by one-sided economic thinking and the predominance of steering without rowing. From this thinking it has become common to derive a suggestion that regulatory governance is a universal solution to most problems nationally and internationally. It is not. Rich with contemporary cases it will contribute to a better understanding of recent policy trends in western democracy. This state-of-the-art book will be invaluable for students, researchers and scholars of political science, sociology and political economy and will also provide an engaging read for civil servants and policymakers around the world.

Nonlinear Estimation and Applications to Industrial Systems Control  
*Gerasimos Rigatos (Unit of Industrial Automation, Industrial Systems Institute, Rion Patras, Greece)*  
In series: *Social Issues, Justice and Status*  
In series: *Global Political Studies*  
Case: 978-1-61942-898-0. $175.00.  
This book reexamines conservatism, the dominant ideology, politics, and discourse in America since the 1980s through the 2010s. This book investigates and uncovers what conservatism has so successfully and cleverly kept as its best secret and mystery, its initial roots and its ultimate outcome, especially in America in contrast to Europe where it has not been so successful in this respect. This book rediscovers the point of origin or genesis and the destination or end point of conservatism. It reveals medievalism, including feudalism, despotism, and medieval theocracy, as the point of origin, “golden past” of conservatism. It diagnoses and anticipates fascism, including Nazism and neo-fascism, as the destination, “bright’ future of conservatism. This book exposes conservatism as the “child” of the Dark Middle Ages and the “parent” of fascism as the “New Dark Ages.” By uncovering its long journey from medievalism to fascism the book renders conservatism’s best kept secret into the worst kept.

**PRESIDENCY**

George W. Bush: Life of Privilege, Leadership in Crisis  
*Luke A. Nichter (Texas A&M University – Central Texas)*  
In series: *First Men, America’s Presidents Series*  
Edited by: Peterson, Barbara Bennett (Oregon State University)  
2012. 185 pp.  
Case: 978-1-62081-213-6. $85.00.  
While George W. Bush has been out of office for only a few years, an early historical assessment is much needed. This is very difficult for a historian, and especially when one’s subject is George W. Bush. He no longer has a legislative or political career against which to measure his presidency. There are virtually no public records available for the first two-thirds of his life. He is too recently out of office to have a presidential library, or records from his administration declassified. Even his papers as governor remain officially closed and await transfer to the campus of Southern Methodist University where his presidential papers will be prepared for eventual release. Despite these
shortcomings in methodology, this book is an attempt at such a historical assessment.

**John F. Kennedy: The New Frontier President**

David L. Snead (Liberty University, Lynchburg, VA) and Barbara Bennett Peterson  

In series: *First Men, America’s Presidents Series*  

Edited by: Peterson, Barbara Bennett (Oregon State University)  


Case: 978-1-61668-925-4. $49.00.  

Soft: 978-1-62257-579-4. $42.00.  

President of the United States of America is an official title sought by many and won by only a few individuals. The series entitled First Men, America’s Presidents, contains a book length biography of each President of the United States of America. Every book contains information on the President’s early education, professional career, military or political service prior to the presidency, interpretative discussion of both domestic and foreign policies during each presidency, and the conclusion of their political lives in public service. The two major themes of this series are the character traits marking success in the presidency, and the changes in the office of presidents throughout America’s history. This new book is in celebration of John F. Kennedy, our 35th president, and his major contribution to our country before his untimely, tragic death.

**President in the United States. Volume 3**

Gabriel L. Carreiro  

In series: *Presidency in the United States*  


This series gathers and presents original research in the study of the Presidency of the United States. Each article has been carefully selected in an attempt to present substantial topical data across a broad spectrum. Topics discussed in this compilation include contemporary developments in presidential elections; the presidential nominating process and the national party conventions for 2012; midnight rulemaking; nominations to U.S. circuit and district courts by President Obama during the 111th and 112th congresses; and regular vetoes and pocket vetoes.

**President or King? Evaluating the Expansion of Executive Power from Abraham Lincoln to George W. Bush**

Meena Bose (Hofstra University, New York, USA)  

In series: *White House Studies*  


Case: 978-1-61324-655-9. $185.00.  

Soft: 978-1-62081-935-7. $69.00.  

With the expansion of the federal government since the 1930s and the rise of the United States as a global power in the twentieth century, the need for a powerful president to direct American priorities and policies is clear. In times of national crisis, domestic and international focus on the president becomes even greater, with the widespread expectation that executive leadership is necessary to combat the challenge. The need for checks on that power by other institutions of American government, namely Congress and the courts, also is evident, though the balancing of presidential power typically has not developed in conjunction with its expansion. This edited volume analyzes the growth of presidential power from the Civil War era to the present, examining both emergency situations in wartime and developments in non-crisis periods.

**PSYCHOLOGY AND PSYCHIATRY**

**Advances in Relational Competence Theory: With Special Attention to Alexithymia**

Mario Cusinato (Dipartimento di Psicologia Generale, University of Padova, Italy) and Luciano L’Abate (Atlanta, GA)  

In series: *Psychology of Emotions, Motivations and Actions*  


Case: 978-1-62100-599-5. $165.00.  


This book updates and expands on Relational Competence Theory developed originally by Dr. Luciano L’Abate since 1976. Over the years, this theory has received various updates and expansions, especially after being produced according to a hierarchical flowchart, as common in most complex human organizations. The present book concentrates particularly on a condition called Alexithymia, similar but not the same as the Asperger Syndrome, the inability to experience feelings and to express them emotions. Most chapters in this book expand on the first model of RCT about how feelings are experienced and expressed using an expanded revision of the Relational Answers Questionnaire. Self-presentation was evaluated with a new scale, and Selfhood was expanded with a widely revised and expanded Self-Other Profile Chart.

**Encyclopedia of Abnormal Psychology (2 Volume Set)**

Aleksei Maksimov  

In series: *Psychology Research Progress*  


Case: 978-1-61470-245-0. $345.00.  


This book presents current research in the field of abnormal psychology. Topics discussed include self-harm in adolescence and young adulthood; depression and a parenting intervention; a hermeneutic approach to culture and psychotherapy; psychotic symptoms in children and adolescents; treatment approaches to aggressive behavior in schizophrenia; fetal origins of antisocial personality disorder; neurobiology of borderline personality disorder; patterns of interpersonal behaviors and borderline personality characteristics; the psychology of body image and borderline personality and sexual impulsivity.

**Encyclopedia of Cognitive Psychology (2 Volume Set)**

Carla E. Wilhelm  

In series: *Psychology Research Progress*  


Case: 978-1-61324-546-0. $325.00.  

e-book: 978-1-62618-074-1. $325.00.  

This book presents current research in the field of cognitive psychology. Topics discussed include a new perspective on human consciousness; cognitive rehabilitation in middle-aged alzheimer patients; cognitive theory of obsessions; the cognitive effects of anxiety consciousness; social cognitive rehabilitation in middle-aged alzheimer patients; cognitive theory of obsessions; the cognitive effects of anxiety consciousness; Social Science.
This book presents topical research in the study of the psychology of motivation. Topics discussed include motivation in the field of tourism; new perspectives in the psychology and economics of donating; commercial weight-loss programs and motivation; motivation for creativity in design and architecture; cognitive and motivational factors for reading; motivation to learn, self-regulation and academic achievement and the implicit theories of intelligence, effort beliefs, and achievement goals as antecedents of learning motivation and engagement.

**Handbook on Psychology of Self-Esteem**

*Stefan De Wals and Katerina Meszaros*

In series: *Psychology of Emotions, Motivations and Actions*


Case: 978-1-62100-410-3. $325.00.

Self-esteem is a term used in psychology to reflect a person’s overall evaluation or appraisal of his or her own worth. Self-esteem encompasses beliefs and emotions such as triumph, despair, pride and shame. Topics discussed in this handbook include negative intergroup discrimination and private collective self-esteem, learning about non-dogmatic thinking; associations of pride with bullying and helping in young people; the epidemiology of sex difference in self-esteem, individualism-collectivism; self-esteem and obesity; development of the ideal, ought and fantasy self-images; detecting acquiescence underlying Rosenberg’s self esteem scale using the Rasch partial credit model; the extended informational model of self-esteem and self-esteem and attachment in individuals from intact vs. divorced families.

**Human Development: Biology from a Holistic Point of View**

*Soren Ventegodt (Research Clinic for Holistic Medicine and Sexology, Copenhagen), Tyge Dahl Hermansen (Wollongong, Australia), Joav Merrick (Ministry of Social Affairs, Jerusalem, Israel)*

In series: *Health and Human Development*

Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)


Case: 978-1-61470-441-6. $140.00.

How can we understand and explain human behavior? This is a basic question that is asked by students taking courses in psychology, medicine and health studies as well as colleagues in human services. Generally speaking, human behavior is understood in terms of three broad perspectives – biology, psychology and sociology. Under the biological perspective, human behavior is seen as a product of biological structures and mechanisms. Under the psychological perspective, human behavior is seen as a result of mental processes, which may or may not have biological bases. Finally, sociologists believe that external social structures and processes determine human behavior. External environmental factors such as poverty, income inequality and alienation contribute to substance abuse and will be addressed in this intriguing book on human development.
Modeling of Parenting Style, Achievement Variables, and Learning Approaches – Hong Kong Chinese and Anglo-Australian Perspectives

Chi Hung Leung (Department of Psychological Studies, The Hong Kong Institute of Education, Hong Kong)

In series: Social Issues, Justice and Status

Case: 978-1-61942-308-4. $75.00.

This book investigates relationships between parenting practices and achievement variables for students from both Confucian Heritage Cultures and non-Confucian Heritage Cultures.

New Developments in Personality Disorders Research

Amelie Morel and Michelle Durand

In series: Psychology of Emotions, Motivations and Actions

Soft: 978-1-62417-118-5. $69.00.

In this book, the authors discuss new research on personality disorders including grandiose and vulnerable narcissism and the nature of Narcissistic Personality Disorder (NPD); an examination of personality pathology with the five factor model and personality psychopathology; forensic and non-forensic mental health nurses' perceptions in relation to their clinical or management focus; and a diagnostic label of personality-psychopathic disorder; and the Million Clinical Multiaxial Inventory-III (MCMI-III) and the Personality Disorder Questionnaire-4+ (PDQ-4+). A wide range of topics was collected under the “Psychology of Personality Disorders Research” header. The 8 chapters in this edited book do not represent all the topics in the psychology of gaming, however, this book includes a variety of topics in this field: game theory, emotional engagement, fantasy world, game designs and development, and gambling with online games. This book discusses the psychological impact of games shaping gamer’s self-perception and self-concept, socio-psychological implications of gaming, design criteria in games, educational uses, the role of fantasy in game play, psychological treatment of gambling-related behaviors, psychological factors of collaborative learning, and gaming as a means of gaining empathy and understanding for another culture.

Psychology of Priming

Nobuaki Hsu and Zacharias Schütt

In series: Perspectives on Cognitive Psychology
In series: Psychology Research Progress

Case: 978-1-62100-364-9. $140.00.

Priming is the implicit memory effect in which exposure to a stimulus influences response to a later stimulus. It can occur following perceptual, semantic or conceptual stimulus repetition. In this book, the authors present topical research on the psychology of priming. Some of the topics discussed include empirical investigations on priming or word-stem completion; neural correlates of repetition priming; lexical and syntactic priming in language comprehension; exploring the contradictory results on the cross-modal priming effect in normal aging; facilitation of content-specific prior memory procedures; nonword stimuli and the effect of adult aging on episodic priming; rime priming effects in the auditory word recognition and priming in visual search.

Psychology of Stress: New Research

Leandro Cavalcanti and Sofia Azevedo

In series: Psychology of Emotions, Motivations and Actions

Case: 978-1-62417-109-3. $150.00.

In this book, the authors study the psychology of stress. Topics discussed include the integration of psychological factors and the metaphysical representation of the skin in cutaneous homeostasis under stress influence and its effect on skin wound healing; the use of the Dundee Stress State Questionnaire (DSSQ) in the investigation of task-induced stress; stress in adoptive parenthood; cognitive deficit and immune alterations after chronic stress exposure; stress and homosexuality; the psychological factors influencing inter-individual variation in carbon dioxide-induced stress response; and chronic psychosocial work stress in teachers.

Recovery and Resilience of Persons with Mental Problems: Conceptual Interpretation and Interaction

Kam-shing Yip (The Hong Kong Polytechnic University, Kowloon, Hong Kong)

In series: Psychology Research Progress

Case: 978-1-61470-557-4. $110.00.

Recovery has been the most important concept and ideology in working with clients with mental problems. In 2004, recovery was adopted by the United States Federal government as the guiding principles in mental health services and intervention. Resilience has also been an uprising concept in working with children, adolescents and families which are facing hardships, sufferings and traumas. Comparing these two crucial definitions, one may easily discover that recovery and resilience both focus on the individuals’ ability to actualize their potentials, to work through difficulties and hardships. Also, both concepts stress that individuals’ struggle and journal of healing can help them live with and cope with obstacles in the environment. Finally, this book examines how these two concepts emphasize that individuals can live fully according to their own views and life.

Studies of Grief and Bereavement

Shulamith Kreitler (Department of Psychology, Tel Aviv University, Israel) and Henya Shanun-Klein (The Thanatology Program, Continuing Education Department, Faculty of Education, Haifa University, Israel)

In series: Psychology of Emotions, Motivations and Actions

Case: 978-1-62417-648-7. $150.00.
Death and Grief are inseparable constituents of our life. Nevertheless, the fear of dying and death is one of the fundamental fears of our existence. This book deals with the varied faces of grief. As such, it includes 'cutting edge' theoretical models and research in a variety of fields from the more general, such as the Staging Model - a new conceptualization of grief; the politicization of grief, Positive Psychology; post-traumatic growth; survivor's guilt; death education; rescue transphoration and psychic communication, to the more specific, such as the normalization of parental bereavement; child and adolescent traumatic grief, and an understanding of what is loneliness, human alienation, and separation. Covered are definitions and an experience which we all try to avoid. This book reviews the experiences: loneliness, and belonging. There have been other books about how they interact and influence one another, in one possible and an integrated volume. Loneliness is an existential and basic human experience that all those who ever walked on this earth have experienced. Loneliness is always painful, subjective, all consuming, and an experience which we all try to avoid. This book reviews the most updated literature, research, and experimentation involving loneliness, human alienation, and separation. Covered are definitions and an understanding of what is loneliness, loneliness in philosophy, literature and the Bible, loneliness of marginalized populations, the difference between essential and transient loneliness, loneliness of the seriously ill and the dying, what causes loneliness, and how can we cope with it successfully. Addressing humans’ great desire to belong, the book covers that overwhelming wish and need to be part of a community, a family and a romantic dyad, to belong and be valuable.

The Psychology of Prejudice: Interdisciplinary Perspectives on Contemporary Issues
Dale W. Russell (Uniformed Services University of the Health Sciences, Bethesda, Maryland) and Cristel Antonia Russell (American University, Washington DC)

In series: Psychology Research Progress
Case: 978-1-62081-606-6. $175.00.

Is prejudice hard-wired or socially acquired? Is stigmatizing the Other inevitable? Do we purposefully draw on stereotypes to provoke prejudice from others? Can we confront and correct our biases? From the judicial system to the marketplace, from women’s intentional self-sexualization to prison exoneress’ stigma-by-association, this book offers a compelling and wide-ranging discussion and review of the latest scientific evidence of what prejudice is, how it emerges, what it does, and how the discrimination and stigma that ensue can be reduced.

Together and Lonely: Loneliness in intimate relationships – Causes and Coping
Ami Rokach and Ami Sha’ked (School of Psychology, The Centre for Academic Studies, Or Yehuda, Israel)

In series: Psychology of Emotions, Motivations and Actions

In this book, the authors discuss two of the most fundamental of human experiences: loneliness, and belonging. There have been other publications, over the years, about each of these topics separately, but none about how they interact and influence one another, in one integrated volume. Loneliness is an existential and basic human experience that all those who ever walked on this earth have experienced. Loneliness is always painful, subjective, all consuming, and an experience which we all try to avoid. This book reviews the most updated literature, research, and experimentation involving loneliness, human alienation, and separation. Covered are definitions and an understanding of what is loneliness, loneliness in philosophy, literature and the Bible, loneliness of marginalized populations, the difference between essential and transient loneliness, loneliness of the seriously ill and the dying, what causes loneliness, and how can we cope with it successfully. Addressing humans’ great desire to belong, the book covers that overwhelming wish and need to be part of a community, a family and a romantic dyad, to belong and be valuable.

Young, Violent, and Dangerous to Know
Michael Fitzgerald (Dept. of Psychiatry, Trinity College, Dublin, Ireland)

In series: Psychiatry - Theory, Applications and Treatments
Case: 978-1-60876-952-0. $130.00.

While murder is a matter of serious concern to the community, serial killing is a matter of even greater concern. Serial killers have baffled the public and professionals for hundreds of years. This book attempts to increase our understanding of serial killers. Fitzgerald suggests that Autistic Psychopathy may underlie some of these serial killers. He suggests a new diagnostic Criminal Autistic Psychopathy, which he identifies as a subcategory of Asperger’s syndrome. This has had a far greater explanatory power than previously realised. Persons with callous, unemotional traits - often called empathy deficits - are very much associated with Autistic Psychopathy. This book offers insight of the dynamics associated with this pathological personality and how the individual’s criminality affects our society and its victims.

PUBLIC HEALTH

National Suicide Prevention Strategy: Goals, Objectives, Resources
Paul McNeill

In series: Public Health in the 21st Century
2013. 192 pp.
Case: 978-1-62417-811-5. $135.00.

The effects of suicide are not limited to those who die. Suicide is a serious public health problem that has shattered the lives of millions of people, families, and communities nationwide. This book examines the strategies that are available for individuals and organizations across the United States to help prevent suicide.

Public Health Yearbook 2010
Joav Merrick (Ministry of Social Affairs and Social Services, Jerusalem, Israel)

In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)

Case: 978-1-61209-971-2. $195.00.

The 2010 Public Health Yearbook compiles articles published in the International Public Health Journal, a peer-reviewed journal which provides an international multidisciplinary forum with a holistic approach to public health issues, health and medicine, health and social policy, service aspects, developmental aspects, epidemiology, rehabilitation, family and social issues, quality of life and all other aspects of public health over the whole age spectrum.

Smoking: Health Effects, Psychological Aspects and Cessation
Itsuki Hayashi

In series: Public Health in the 21st Century
2012. 159 pp.
Case: 978-1-61470-643-4. $95.00.
This book presents current research in the study of the health effects, psychological aspects and cessation techniques of smoking. Topics discussed in this compilation include the vascular morphological changes related to smoking; the physiological consequences of smoking cessation benefits for the respiratory and cardiovascular systems; how weather might affect smoking related health behaviors; adolescent smoking and health research and predictors of smoking cessation in a population of pregnant smokers.

The Lessons of Chernobyl: 25 Years Later
Elena B. Burlakova and Valeria I. Naydich (Russian Academy of Sciences, Moscow, Russia)
In series: Nuclear Materials and Disaster Research
2012. 347 pp.
Case: 978-1-61324-516-3. $165.00.
It has been twenty-five years now since the accident occurred at the Chernobyl nuclear power plant. In the early days after the disaster, it was difficult to assume that its aftermath would make itself felt after a quarter of a century. Numerous studies in Ukraine, Belarus and Russia have shown that the morbidity of a number of diseases among the exposed population, liquidators and children residing in the contaminated areas has increased several times after the accident. Particular attention is drawn to health conditions of the children who were exposed to radiation and the children of liquidators who also demonstrate ill health. This book examines the need for further development of radiobiological and radiocological research, increase in the availability of methods, development of novel theoretical risk models and new approaches to investigating into the complex processes that occur at present and are expected in the future.

RELIGION

Religion and Ethics
Gloria Simpson and Spencer Payne
In series: Ethical Issues in the 21st Century
In series: Religion and Spirituality
Case: 978-1-62257-813-9. $120.00.
e-book: 978-1-62257-814-6. $120.00.
In this book, the authors present current research in the study of women and religion, ethics, and the science of religion. Topics discussed include the influence of Christianity on society and ethical practice; female Shamanism in Peru; the everlasting conflict of evolution and science vs. religiosity; the ecological model in genetics and religion; religious affiliation among the Kassena-Nankana of Northern Ghana; and religion versus culture.

RUSSIA

Economic and Political Issues of Russia
Tomáš Novotný and Lars Jørgensen
In series: Russian Political, Economic, and Security Issues
Case: 978-1-61470-464-5. $140.00.
This book presents current developments in the study of economic and political issues of Russia. Topics discussed include foreign direct investments distribution in the Russian Federation; Russian energy policy toward neighboring countries; Russia's economic performance, policies and their implications for the US; nonproliferation and threat reduction assistance; strategic arms control after START; the New START Treaty; the foreign policy concept of the Russian Federation and limit strategic cooperation and strategic competition between China, Russia and America in Central Asia.

Russia and Georgia: A Post-Conflict Assessment and Change in the Russian Airborne Forces
Nathaniel M. James and Noah E. Wilson
In series: Russian Political, Economic, and Security Issues
In series: Global Political Studies
Case: 978-1-62081-354-6. $110.00.
In the early 1990s, Georgia and its breakaway South Ossetia region had agreed to a Russian-mediated ceasefire that provided for Russian “peacekeepers” to be stationed in the region. Moscow extended citizenship and passports to most ethnic Ossetians. Simmering long-time tensions escalated on the evening of August 7, 2008, when South Ossetia and Georgia accused each other of launching intense artillery barrages against each other. Georgia claims that South Ossetian forces did not respond to a ceasefire appeal but intensified their shelling, “forcing” Georgia to send in troops. This book provides a post-conflict assessment of the Russian-Georgian conflict of August 2008, with a focus on the implications for U.S. interests and the organizational change in the Russian airborne forces.

Russia: Developments and United States' Interests
Gerald R. Watson and Jack O. Nguyen
In series: Russian Political, Economic, and Security Issues
In series: Global Political Studies
Case: 978-1-62257-249-6. $135.00.
This book examines the current political, economic, security, and U.S. interest issues facing Russia today. Although Russia may not be as central to U.S. interests as was the Soviet Union, cooperation between the two is essential in many areas. Russia remains a nuclear superpower and still has a major impact on U.S. national security interests in Europe, the Middle East, and Asia. Russia has an important role in the future of arms control, the nonproliferation of weapons of mass destruction and the fight against terrorism. Russia is an important trading partner and is the only country in the world with a greater range and scope of natural resources than the United States, including vast oil and gas reserves. Many of Russia’s needs - food and food processing, oil and gas extraction technology, computers, communications, transportation, and investment capital - are in areas which the United States is highly competitive, although bilateral trade remains relatively low.

SOCIAL JUSTICE

Afghanistan and Pakistan: Human Rights Reports
Clarence J. Peters and Marshall Hansen
In series: Global Political Studies
In series: Human Rights: Background and Issues
This book on human rights practices chronicles dramatic changes and the stories of the people defending human rights in the countries of
Afghanistan and Pakistan: with a focus on providing lawmaker's decisions on foreign military and economic aid. Respect for human rights is not a western construct or a uniquely American ideal; it is the foundation for peace and stability everywhere. Universal human rights include the right of citizens to assemble peacefully and to seek to reform or change their governments, a central theme around the world.

Algeria, Egypt, Libya, Syria, Tunisia: Human Rights Reports
Seth Rollins and Kirk M. Branch
In series: Global Political Studies
In series: Human Rights: Background and Issues
Case: 978-1-62257-408-7. $110.00.
This book on human rights practices chronicles dramatic changes and the stories of the people defending human rights in the countries of Algeria, Egypt, Libya, Syria and Tunisia; with a focus on providing lawmaker's decisions on foreign military and economic aid. Respect for human rights is not a western construct or a uniquely American ideal; it is the foundation for peace and stability everywhere. Universal human rights include the right of citizens to assemble peacefully and to seek to reform or change their governments, a central theme around the world.

Belarus, Russia, Ukraine: Human Rights Reports
Marcus J. Blevins and Helen Blanchard
In series: Human Rights: Background and Issues
Case: 978-1-62257-410-0. $110.00.
This book on human rights practices chronicles dramatic changes and the stories of the people defending human rights in the countries of Belarus, Russia and Ukraine, with a focus on providing lawmaker's decisions on foreign military and economic aid. Respect for human rights is not a western construct or a uniquely American ideal; it is the foundation for peace and stability everywhere. Universal human rights include the right of citizens to assemble peacefully and to seek to reform or change their governments, a central theme around the world.

Iran and Iraq: Human Rights Reports
Kyle T. Hunt and Alfred Ferguson
In series: Human Rights: Background and Issues
2012. 149 pp.
Case: 978-1-62257-418-6. $110.00.
This book on human rights practices chronicles dramatic changes and the stories of the people defending human rights in the countries of Iran and Iraq; with a focus on providing lawmaker's decisions on foreign military and economic aid. Respect for human rights is not a western construct or a uniquely American ideal; it is the foundation for peace and stability everywhere. Universal human rights include the right of citizens to assemble peacefully and to seek to reform or change their governments, a central theme around the world.

SOCIAL SCIENCE
Pedagogy of Power, Oppression and Empowerment: A Chinese Cultural Articulation
Kam-shing YIP (The Hong Kong Polytechnic University, Hong Kong, China)
In series: Asian Political, Economic and Security Issues
Case: 978-1-61728-507-3. $195.00.
The postmodern articulation of power brought along a change from structural view to a genealogy of power by stressing the circular, capillary and exercise of power implementation. The over arching frame of power implies a different kind of oppression in postmodern world. People are oppressed and depowered by an internalization of a distorted view of right, truth and knowledge in which they unconsciously adapt a way of living and thinking that meet the needs and control of the governing bodies. This book addresses the ways in which power affects a particular culture, keeping its population in oppression.

SOCIAL TOPICS
Bullying: Analyses of State Laws and School Policies
Donna M. Rose and Vincent L. Pierce
In series: Education in a Competitive and Globalizing World
In series: Social Issues, Justice and Status
Bullying in schools has become widely viewed as an urgent social, health, and educational concern that has moved to the forefront of public debate on school legislation and policy. Increasingly, elected officials and members of the school community have come to view bullying as an extremely serious and often neglected issue facing youths and local school systems. The focus on youth bullying has intensified over the past 12 years as a catalyzed reaction to school violence that is often linked explicitly or by inference to bullying. This book examines the need for more comprehensive information about bullying and the current status of state legislation, as well as how information on how existing laws and policies translate into practice within elementary and secondary school systems.

Defined Contribution Plans for Retirement: Fee Considerations and Country Comparisons
Bruce E. Patterson and Eugene J. Kennedy
In series: Retirement Issues, Plans and Lifestyles
In series: Financial Institutions and Services
Case: 978-1-62257-272-4. $110.00.
Over the past 25 years, defined contribution plans, including 401(k) plans, have become the most prevalent form of employer-sponsored retirement plan in the United States. The majority of assets held in these plans are invested in stocks and stock mutual funds, and the decline in the major stock market indices in 2008 greatly reduced the value of many families' retirement savings. The effect of stock market volatility on families' retirement savings is just one issue of concern to Congress with respect to defined contribution retirement plans. This book examines fee considerations and country comparisons relating to defined contribution plans for retirement with a focus on increasing access to employer-sponsored plans, raising participation and contribution rates, helping participants make better investment choices, requiring clearer disclosure of fees charged to plan participants, preserving retirement savings when workers face economic hardship or change jobs, and promoting life annuities as a source of retirement income.
Food Assistance Programs and Measures of Food Security in the United States
Eugene Marshall and Drake McClure
In series: Public Health in the 21st Century
In series: Laws and Programs
Case: 978-1-62257-849-8. $110.00.

Over the years, Congress has authorized and the federal government has administered programs to provide food to the hungry and to other vulnerable populations in this country. This book provides an overview of hunger and food insecurity along with the related network of programs. Evaluating trends in hunger and in our nation is crucial to understanding if the efforts to prevent hunger are working and in recognizing if there are particular vulnerable populations that need assistance.

Low-Income Assistance Programs
Xavier A. Kerr and Rod K. Phipps
In series: Social Issues, Justice and Status
In series: Laws and Programs
Soft: 978-1-62081-054-5. $47.00.

The high current and projected federal budget deficits, and debate over the size and scope of federal spending, have raised interest in how federal dollars are spent. This book focuses on federal outlays for major "need-tested" programs - programs targeted toward families and individuals with limited income. The major need-test programs discussed in this book provide cash, food, housing, and medical assistance to families and individuals with limited financial resources with collective FY2010 federal outlays of $602 billion. These programs represented 17.4% of all federal outlays and 4.2% of the Gross Domestic Product (GDP).

Marriage: Psychological Implications, Social Expectations, and Role of Sexuality
Piero E. Esposito and Cristoforo I. Lombardi
In series: Family Issues in the 21st Century
In series: Social Issues, Justice and Status
Case: 978-1-62257-157-4. $120.00.
e-book: 978-1-62257-194-9. $120.00.

In this book, the authors explore the psychological implications, social expectations and role of sexuality in marriage today. Topics presented from across the globe include the nature of the sexual relationship in marriage and during transition to parenthood; gender attitudes in marriage and the division of unpaid family work; health concerns of transnational marriage of immigrant women in Taiwan; couple generativity in relation to familial and social bonds; the marriage and health association; and the social structures that influence marriage and divorce.

Masculinity and Femininity: Stereotypes/Myths, Psychology and Role of Culture
Jacob M. Aston and Estela Vasquez
In series: Social Issues, Justice and Status
Case: 978-1-62417-185-7. $150.00.

In this book, the authors discuss the stereotypes and myths, psychology and role of culture in masculinity and femininity gender issues. Topics include student teachers' changing perceptions of gender advantages and disadvantages in the New Zealand primary school environment; the performance of black masculinity in Michael Jackson's "Bad" video; masculinity among Latino men in the wake of Arizona's 1070 Senate bill; changing masculinity norms in China and India from advertising-based observations; "Mulan" and western military mothers; gendered attitudes, beliefs and behaviors of Latino and Caucasian men; the effect of culture and gender on the relationship between justice and organizational outcomes in Korea and Malaysia; measuring gender myths and gender-sensitive research in experimental psychology; and the influence of perceived masculinity upon college males' health and wellness.

Minority Policies: Legal and Business Issues in the United States
Brandon K. March
In series: Social Justice, Equality and Empowerment
Case: 978-1-6122-750-5. $95.00.
e-book: 978-1-61942-536-1. $95.00.

A minority is a sociological group that does not constitute a politically dominant voting majority of the total population of a given society. This book focuses on a variety of issues which threaten minorities in the United States, as well as the policies put in place by the government to ensure the protection of these people. Topics discussed herein include discrimination cases brought against the USDA; Indian Trust Fund Litigation; federal taxation of Indian tribes and members; disadvantaged small businesses; and others.

Parenting: Challenges, Practices and Cultural Influences
Peter Barberis and Stelios Petrakis
In series: Family Issues in the 21st Century
In series: Children's Issues, Laws and Programs
Case: 978-1-62257-881-8. $150.00.

In this book, the authors present current research on the challenges, practices and cultural influences of parenting. Topics discussed in this compilation include young maternal age along with preterm birth and the transition to motherhood; parents' perceptions of their child's mental health problems; Asian-American parenting; culture and parenting; parental influence on children's mate choice; gay and lesbian parenting; and parenting practices in a global world.

Social Capital: Theory, Measurement and Outcomes
C. Douglas Johnson (Georgia Gwinnett College, Lawrenceville, GA, USA)
In series: Social Issues, Justice and Status
2013.
Case: 978-1-62417-822-1. $230.00.

If relationships are the foundation on which social capital is built, then individuals are the stars at the center of the construct. From there, the linkages are made to either bond or bridge individuals in an interconnected fashion. As connections form, the depth and breadth of one's social capital changes, this may prompt a shift in perspective that offers new and unique "illuminations" or experiences. While most would agree that social capital emerged out of sociology, it has been extended and has become a core concept in many other disciplines, such as economics, business, political science, social work, health, etc. This collection, "Social Capital: Theory, Measurement and Outcomes", is illustrative of that growth as the contributions represent a range of disciplines, methodologies, samples of diverse backgrounds, and conclusions. Taking an "eye of the beholder" approach in conceptualizing social capital can be problematic, and caution should be exercised in ensuring that the construct does not become so divergent that its relative importance is lost. Using seminal works that
have had a major impact on the construct development and popularity, the beauty of the book is its multidisciplinary, multilevel, mixed-methods, global approach to examining social capital.

Social Policy and Religion
Peter Herrmann and Sibel Kalaycioglu (University College of Cork, School of Applied Social Studies, Cork, Ireland)
In series: Social Issues, Justice and Status
In series: Religion and Spirituality
2013.
Case: 978-1-62417-053-9. $150.00.

Today’s society is marked by a fundamental ambiguity: On the one hand we find the loss in old values and systems, in particular what is called secularization, and the loss of the stronghold of religious institutions. However, at the same time we find the opposite: rather than the loss of confidence in religion, the loss of confidence in citizenship and the institutions of the welfare state. As a conservative answer, policies based in family and religion are constructed and offered as new doctrines as well as for new social policies. The borders between different traditional positions are blurred in this process: conservative and progressive positions claim the turn to communitarian values. This book is a valuable contribution to current debates, looking at the background of faith systems, their understanding and claims, and the limitations in answering the challenges of modernizing societies.

Sociology Research Summaries
Ali T. Landry and Emmett F. Duran
In series: Social Justice, Equality and Empowerment
In series: Social Issues, Justice and Status
Case: 978-1-62257-640-1. $150.00.

This book is a continuation of the book Sociology Researcher Biographical Sketches and Research Summaries which compiles biographical sketches of top professionals in the field of sociology research, as well as research summaries from a number of different focuses in this important field.

Supplemental Nutrition Assistance Program (SNAP): A Primer and Profile
Leonard Ramsey and Gillian Cummings
In series: Nutrition and Diet Research Progress
In series: Social Issues, Justice and Status
Soft: 978-1-62257-859-7. $52.00.

The Supplemental Nutrition Assistance Program (SNAP), formerly called the Food Stamp Program, is designed primarily to increase the food purchasing power of eligible low-income households to help them buy a nutritionally adequate low-cost diet. This book describes the rules related to eligibility for SNAP benefits as well as their redemption.

SOCIETY

Accidents: Risk Factors, Health Outcomes and Safety Measures
Carlo Giacomo Prato (Department of Transport, Technical University of Denmark, Lyngby, Denmark)
In series: Safety and Risk in Society
Case: 978-1-62257-010-2. $150.00.

This book emerges from the interest in enriching the body of knowledge about accident characteristics, examining health outcomes and proposing measures to overcome societal and economic consequences of accidents. Contributions from different disciplines compose a collection that provides answers to prominent questions from various perspectives. The three parts of the book offer a comprehensive overview of the new state-of-the-practice knowledge about accident characteristics, risk factors, consequences and safety interventions. Combining knowledge from both road and occupational safety, and extending through various disciplines such as engineering, economics, medicine, and statistics, this collection stimulates readers in looking for enhanced solutions to safety problems that are a major threat to human life and cost millions to our society.

Advances in Sociology Research. Volume 12
Jared A. Jaworski
In series: Advances in Sociology Research
Case: 978-1-61470-848-3. $140.00.

This continuing series presents original leading edge research results in the field of sociology. Each chapter has been carefully selected in an attempt to present substantial advances across a broad spectrum. Included in this compilation are topics such as recommendations to help the advancement of scientific research in the Sudanese society; the social work education curriculum’s international focus; legal and ethical challenges of corporate social networking; social status and the disclosure of traumatic life events; societal conditions of child care in 19th century France and the U.S.; the societal effects of uneven economic growth and violence in modern-day Brazil and social work education in Ghana.

Advances in Sociology Research. Volume 13
Jared A. Jaworski
In series: Advances in Sociology Research
2012. 192 pp.
Case: 978-1-61942-246-3. $150.00.

This continuing series presents original leading edge research results in the field of sociology. Each chapter has been carefully selected in an attempt to present substantial advances across a broad spectrum. Included in this compilation are topics such as Italy and the aging society; child malnutrition and mortality; social responsibility in the media; urban planning and transport policies for greater social cohesion and individual social capital.

Baudrillard and Postmodernism
Jason L. Powell (University of Central Lancashire, UK)
In series: Social Perspectives in the 21st Century
Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)
2012. 89 pp.
This innovative book locates the historical emergence of postmodernism and what it is a reaction against. One of the key theorists of postmodernism, is Jean Baudrillard. He has had an enormous impact on contemporary social theory and social philosophy. This text locates his key concepts, locates empirical examples and importantly maps out the key influences of Baudrillard's work. There is critical engagement with Baudrillard's postmodernism in an assessment of its strengths and weaknesses.

Building Community Capacity: Minority and Immigrant Populations

Rosemary M Caron (University of New Hampshire, Durham, New Hampshire) and Joav Merrick (Medical Director, Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem, Israel)

In series: Health and Human Development
Edited by: Joav Merrick (National Institute of Child Health and Human Development, Ministry of Social Affairs, Jerusalem)

Case: 978-1-62081-022-4. $150.00.
For all of our advances in health care and achievements in public health that have contributed to an increased life expectancy, there still remain persistent problems in one’s community that are public health in origin. These persistent public health problems are well-studied from an academic standpoint, yet they evade a solution that is practical, economical, and socially just. These are complex, community-based, public health problems that disproportionately impact minority and immigrant populations. This book explores this topic in greater detail. Specifically, what have we, as public health academicians and practitioners learned when partnering with minority and immigrant community members to help them address persistent public health issues that affect them and their families on a daily basis? These are lessons that need to be shared so disadvantaged populations can build their capacity to address and solve persistent public health problems in their communities.

Cross-Cultural Interaction and Understanding: Theory, Practice, & Reality

Yuma Iannotti Tomes (Director, Doctorate of School Psychology Program, Philadelphia College of Osteopathic Medicine, Philadelphia, PA, USA)

In series: Focus on Civilizations and Cultures

Case: 978-1-62417-618-0. $175.00.
Despite the unprecedented numbers of immigrants (legal/illegal) and the multicultural explosion experienced in the most diverse country of the world, the United States of America; racist and prejudicial ideology still permeates. In order to thwart the expansion of prejudicial beliefs based on ethnic classification, it is important to create a venue for open, honest, and direct communication about what binds every human.
Culture is the backdrop that undergirds life practices. It is through this framework that both thoughts and actions are filtered as individuals go about daily routines. The genesis of “Cross-Cultural Interaction & Understanding: Theory, Practice, and Reality” emphasizes making culture palpable and explainable. Through understanding culture and its relationship to psychological processes, educational attainment, interpersonal interactions, and healthcare practices, the ability to help and serve others is clearly defined.

Cults, Violence and Sex: The Social Construction of Deviance in Post-Modern Israel

Gabriel Cavaglion and Efrat Shoham (Ashkelon Academic College, Israel)

In series: Social Issues, Justice and Status

2012. 177 pp.
Case: 978-1-61942-991-8. $75.00.
e-book: 978-1-61942-990-0. $75.00.
Sociological objectivism argues that what defines social deviance is the existence of areal, concrete, damaging or threatening state of affairs. In other words, what turns a state of affairs into a problem is that it actually harms or endangers human life and well-being. Politicians, educators, social workers, law enforcement agents and mental health specialists may claim that an increase in cases of crime, for example, reflects a genuine rise in the behavior itself. Sharper rises in such rates can naturally lead to stronger societal reactions. Functionalis who adhere to this view, as exemplified by Talcott Parsons and others, considered that customs and institutions that persist over time tend to be those that are good for society because they prohibit harmful activities and encourage beneficial ones that maximize societal preservation. This book explores the dynamics of this social and complex problem.

Filling the Credibility Gap

Algis Mickunas (Ohio University, Department of Philosophy, Athens, OH), John Murphy (University of Miami, Department of Sociology, Miami, FL)

In series: Contemporary Cultural Studies

Edited by: Joseph J. Pilotta (The Ohio State University), John Murphy (University of Miami, Florida), Algis Mickunas (Ohio University)

Case: 978-1-61942-990-1. $75.00.
The front page of The Economist, November 5th-11th 2001 announces “The Missing Middle; The woeful gap in America’s Politics, is one among many indications of a major issue, not only in the United States, but globally. This book constitutes an attempt to offer alternatives that could fill this gap. The credibility gap appears in various guises: politically there is no serious public debate concerning global and national issues. Attempts at filling the gap of credibility are equally “magical” in the sense that the rhetoric used offers “prayers” to reestablish the middle class, provide jobs and correct the economy. Indeed, the use of such rhetoric is deemed above the constitution, and the latter should become subservient to a higher authority.

Foucault: Issues and Legacy

Jason L. Powell (University of Central Lancashire, UK)

In series: Social Perspectives in the 21st Century

Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)

2012. 95 pp.
Soft: 978-1-62257-539-8. $52.00.
This book explores the biography, issues and legacy of French social theorist and philosopher Michel Foucault. Arguably, Foucault was the greatest scholar of the 20th century and has left a huge legacy. The issues that emanate from his work will be discussed and evaluated especially in relation to applied social science as a discipline of study as well as empirical examples from contemporary social research. In
particular, the book explores examples drawing from helping professions to illuminate the legacy of Michel Foucault and his influential concepts and theories.

**Friendships: Cultural Variations, Developmental Issues and Impact on Health**

*Sarah Kaufmann and Viktor Meyer*

*In series: Social Issues, Justice and Status*

Case: 978-1-62257-539-8. $150.00.

In this book, the authors present current research in the study of the cultural variations, developmental issues and impact on health of friendships. Topics include the psychological factors of friendship relationships during adolescence; support networks and their social and cultural affects in Taiwan; psychosocial adjustment and friendship quality; the influence of social networks on adolescent obesity; relationship of overall life satisfaction and psychological well-being; friendship relationships and formation of groups among university students; and peer relationships in youth disability sports.

**Habermas**

*Jason L. Powell (University of Central Lancashire, UK)*

*In series: Social Perspectives in the 21st Century*

Edited by: *Jason L. Powell (Dean of Faculty, University of Liverpool)*

Soft: 978-1-62257-542-8. $52.00.

This book explores the work of German philosopher and social theorist Jurgen Habermas. It provides a context for the emergence of his critical theory and key influences. The text explores Habermas's key aspirations of the enlightenment project and the possibilities for emancipatory action. Whilst there are several important strategies Habermas claims we should adhere to such as a reconstruction of the aspirations of the enlightenment project and the possibilites of emancipatory action, there are several implications that need to be engaged with.

**Intensive Cognitive Behavior Therapy for Eating Disorders**

*Riccardo Dalle Grave (Villa Garda Hospital (Vr) Italy)*

*In series: Eating Disorders in the 21st Century*

In series: *Psychology Research Progress*

Case: 978-1-61942-034-2. $165.00.

The book describes a novel model of intensive treatment for eating disorders, one that is entirely cognitive behavioural in orientation. In this book the treatment program will be described in detail, and with numerous clinical vignettes. The book explains how to adapt the CBT-E for an intensive “real world” settings (intensive outpatient therapy, inpatient treatment) and for severe eating disorder patients. It also explains how a multidisciplinary team can apply a single psychotherapeutic treatment. Readers will gain knowledge on the use of a “manualized” treatment in a real world intensive setting. The book is suitable for all professionals working with eating disorders (e.g. psychologists, psychiatrists, physicians, dietitians, and educators), and particularly for those working in a multidisciplinary team at an intensive level of care.

**Migration: Practices, Challenges and Impact**

*Huynh Truong Huy (School of Business Administration, Can Tho University, Can Tho, Vietnam)*

*In series: Social Issues, Justice and Status*

2013. 201 pp.
Case: 978-1-62257-645-6. $150.00.

The links between migration – both internally and internationally – and its effects have been increasing at regional and international policy levels. According to the official statistics from the International Organization for Migration (IOM), about 214 million people moved and worked abroad in 2010, compared with 150 million in 2000. It is worth noting that remittances transferred from migrants to their home country have increased by 3.5 times in the same period, estimated from USD 132 billion in 2000 to 440 billion in 2010, especially nearly 80% remittances sent by migrants to developing countries. This book consists of eight survey-based papers prepared by a team of contributing authors on various aspects and in an internationally collaborative effort. The aim of this book is to provide potential readers with a richer understanding of the current situation of migration, particularly from the developing world.

**Preserving National Unity: Culturometric Rapid Appraisals of Ethnic Inequalities**

*Beatrice Boufoy-Bastick (University of the West Indies, Department of Liberal Studies, St. Augustine, Trinidad and Tobago)*

*In series: Social Issues, Justice and Status*

2012. 87 pp.
Soft: 978-1-61942-410-4. $47.00.

Modern developing multi-cultural countries claim their status as progressive democracies by promulgating policies of civic cohesion engendering ethnic equity within a national unity. However, what is promulgated through government mission statements, public speeches and the sentiments of national anthems might not successfully align with realities of citizen concern. This book introduces a Culturometric application for evaluating these claims to progressive democracy within multi-cultural developing countries.

**Psychology of Culture**

*Graham R. Hayes and Michael H. Bryant*

*In series: Psychology of Emotions, Motivations and Actions*

Case: 978-1-62257-274-8. $150.00.

In this book, the authors present current research from across the globe in the study of the psychology and influence of culture. Topics discussed in this compilation include the influence of culture in psychological functioning; culture change and adaptation through a comparative study of two cultures on the island of Guam; assessing and fostering the ability of Alzheimer's patients to take part in cultural activities; the psychological processes of biculturalism; examining children's cultural perspectives on the human-nonhuman animal relationship; Black American's cultural perspective on mental health treatment; black students and campus culture; developing gender- and race-based categories in infants; symbolic representations and the construction of cultural reality; the role which culture plays in affecting the development of autobiographical memory; and the possible link between the cultural support of violence and suicide risk.
Regulation of the Death Care Industry and a Consumer Guide to Funerals
William B. Jones and Anthony F. Griffin
In series: Social Issues, Justice and Status
Case: 978-1-62081-447-5. $110.00.
The extent to which the federal and state governments regulate the death care industry—funeral homes, cemeteries, crematories, pre-need funeral plans, and third party sales of funeral goods—varies. The Federal Trade Commission (FTC) continues to annually conduct undercover shopping at various funeral homes to test compliance with the Funeral Rule. This book discusses the need for further federal involvement in the death care industry and also provides a consumer guide to funerals.

Socialization: Theories, Processes and Impact
Ethan L. Anderson and Sophia Thomas
In series: Social Issues, Justice and Status
In series: Social Justice, Equality and Empowerment
Case: 978-1-62081-877-0. $150.00.
Socialization is known to be a process through which an individual forms a relationship to other individuals, commonly of the same species. The process of socialization is characteristic of different mammal communities including human society. In this book, the authors discuss the theories, processes and impact of socialization. Topics include the early experience of tactile stimulation and its behavioral consequences related to socialization in mammals; classroom processes of gender socialization in four Chinese kindergartens; parenting and family socialization within a cultural context; socialization and the self-identity differentiation model; social psychology of action and social change; ethnic-racial socialization and its implications for ethnic minority children; gender organizational socialization processes; and socialization processes that contribute to body image problems.

Sociology Researcher Biographical Sketches and Research Summaries
Alias T. Landry and Emmett F. Duran
In series: Social Issues, Justice and Status
In series: Social Justice, Equality and Empowerment
Case: 978-1-61942-390-9. $140.00.
This new book compiles biographical sketches of top professionals in the field of sociology, as well as research summaries from a number of different focuses in this important field.

The Sociology of Care: Exploring Theory, Policy and Practice – The Case of Aging
Jason L. Powell (University of Central Lancashire, UK)
In series: Social Perspectives of Aging
Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)
Soft: 978-1-62100-697-8. $47.00.
e-book: 978-1-62100-718-0. $47.00.
This book explores the contested concept and theorization of care and its relationship to aging. The book analyses the different and complex ways care has been colonised by bi-medical sciences, social policies, and how professional experts have managed it. It also explores the issue of bio-ethics and care and how ethics plays a key role in how individuals may be given access to care or denied due to ethical considerations. The analysis moves to a social account of care in highlighting how recent social policy positions how movements to personalised care can be managed by individuals which raises questions about the nature of power in contemporary society.

Understanding Foucault: For Beginners
Jason L. Powell (Manchester Metropolitan University, UK)
In series: Social Perspectives in the 21st Century
Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)
2013. 78 pp.
Soft: 978-1-62417-195-6. $52.00.
This book is an introduction to the key concepts of the social philosopher and social theorist Michel Foucault. The text is written with clear examples to illustrate the relevance of Foucault’s analysis of modern society. In particular, the book explores concepts of power, subjectivity and body. It highlights how Foucault’s methods to investigate social issues of society such as mental illness and crime are derived from archaeology and genealogical analysis and also explores the strengths and limitations of Foucault’s approach to social theory.

Understanding Power and Emotion: An Introduction
Jason L. Powell (University of Central Lancashire, UK)
In series: Social Perspectives in the 21st Century
Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)
2013. 72 pp.
Soft: 978-1-62417-200-7. $52.00.
This book explores the concept of power and emotion. The book begins by examining the conceptual problems and issues associated with theorizing power drawing from classical, modern and contemporary social science perspectives. It moves to assess the issues of power elites and relationship to how society is governed. To further examine, this attention moves to global power and the impact that has on power, politics and decision making processes. The book explores power and communication drawing from critical theory and the possibilities for social change. Finally, the book explores the power of emotion and its differential and contested understanding requires a new appropriation of linking what C. Wright Mills calls ‘personal troubles’ and ‘public issues’.

Understanding Risk and Trust: A Short Conceptual Examination
Jason L. Powell (University of Central Lancashire, UK)
In series: Social Perspectives in the 21st Century
Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)
Soft: 978-1-62417-202-1. $52.00.
This book explores the concepts of ‘risk’ and ‘trust’ that are theoretical tools and arguably major facets of late modernity. New conceptions of trust and risk are rapidly changing theoretical knowledge bases of social science disciplines. A sociologically informed understanding of risk and trust illustrates the interconnectedness of an aging population
and social welfare. From this perspective, risk and trust are more than a calculation of costs and benefits; they are theoretical mechanisms for weighing different sets of political and economic orientations. Drawing from comparative examples, the text assesses the implications of risk and trust for how people in general, and older people in particular, are made welfare subjects in contemporary society.

Urban Development: Strategies, Management and Impact
Michael J. Williams and Jesse J. Anderson
In series: Environmental Remediation Technologies, Regulations and Safety
In series: Urban Development and Infrastructure
Case: 978-1-62081-114-6. $95.00.
e-book: 978-1-62081-129-0. $95.00.
In this book, the authors present current research in the study of the strategies, management and impacts of urban development. Topics included in this compilation include public housing strategies in Ogun State, Nigeria; the major sport events strategy environment in Shanghai, China; strategic environmental assessment of two urban plans in Italy and the United Kingdom; assessing the growth pole phenomenon in Venezuela; geoprocessing technologies in the evaluation of sustainable urban development in Parma, Brazil; and the globalization and urban development of Harlem in New York City, USA.

SPORTS

Athletic Insight's Writings in Sport Psychology
Robert Schinke (Laurentian University, Canada)
In series: Sports and Athletics Preparation, Performance, and Psychology
In series: Psychology Research Progress
e-book: 978-1-62081-286-0. $195.00.
This book provides a forum for discussion of topics that are relevant to the field of sport psychology. The subjects covered will include theory, research, and practice of sport psychology, as well as social issues related to the field of athletics. Topics discussed include a primer on the development of SEP in North American vs. Europe; comparing the effects of different self-instructions on thought and content and tennis performance; technical fouls predict performance outcomes in the NBA; sports-related pain; moderators of the links between shyness and gold performance; and the athlete life quality scale.

Perspectives on Anabolic Androgenic Steroids (AAS) and Doping in Sport and Health
Fergal Grace and Julian S. Baker (Health and Exercise Science, School of Science, University of the West of Scotland, Hamilton, Lanarkshire, Scotland)
In series: Sports and Athletics Preparation, Performance, and Psychology
In series: Substance Abuse Assessment, Interventions and Treatment
Case: 978-1-62081-243-3. $85.00.
Anabolic androgenic steroids (AAS) remain the most used/abused drugs in the athlete and recreational gym user. However, there are some new drugs such as human growth hormone and insulin that are being used by athletes in order to gain a competitive advantage. This book presents separate and multi-disciplinary perspectives of anabolic androgenic steroids and other current drugs of use in sport. The perspectives discussed in this book range from those of sports medicine research scientists, a medical practitioner and sports physician, behavioral scientists and molecular physiologists. There are further contributions from experts in the sociology and ethics of sports doping.

Psychological skills in sport: Training and application
Boris Blumenstein and Iris Orbach (Ribstein Center for Sport Medicine Sciences & Research, Wingate Institute Netanya, Israel)
In series: Sports and Athletics Preparation, Performance, and Psychology
In series: Psychology Research Progress
2012. 71 pp.
Soft: 978-1-62081-640-0. $52.00.
This book is a practical manual rather than theoretical. The main goal of this book is to provide professional tools for improving psychological preparation in sport, using real-life examples. Topics discussed include describing different elements of athletic training programs, as well as various preparations via periodization concept. Psychological preparation is discussed in terms of its role as an integral part of the sport training program. Moreover, approaches for improving psychological preparation are being analyzed. Based on scientific research and personal experience from five summer Olympic Games, authors have presented recommendations for sport psychology consultants, coaches, and athletes.

The Champion in You: Lessons from Professional Boxing about How to Succeed in Life and Work
Robert J. Schinke (Canada Research Chair Multicultural Sport and Physical Activity, School of Human Kinetics, Laurentian University, Sudbury, Ontario)
In series: Professions - Training, Education and Demographics
2012. 146 pp.
Case: 978-1-62081-612-7. $85.00.
From this book, the reader, much like the world championship boxer, will exceed their potential and become a performer to contend with. The skills you gain from this book will formalize you as a championship performer with a systematic approach for battle preparation and delivery. Each chapter is authored as a condensed installment with summary points. This book is written for professionals striving to perform in the workplace. The metaphors and lessons borrowed from the elite boxing world are provided to the reader in an easily accessible series of steps.

TERRORISM

Al Qaeda: Perspective and a Path to Delegitimization
Stanley Burton and Dean L. Lynch
In series: Terrorism, Hot Spots and Conflict-Related Issues
In series: Defense, Security and Strategies
Al Qaeda has evolved into a significantly different terrorist organization than the one that perpetrated the September 11, 2001, attacks. At the time, Al Qaeda was composed mostly of a core cadre of veterans of the Afghan insurgency against the Soviet Union, with a centralized leadership structure made up mostly of Egyptians. Most of the organization’s plots either emanated from the top or were approved by the leadership. Some would argue that the Al Qaeda of that period no longer exists. Out of necessity, due to pressure from the security community, in the ensuing years it has transformed into a diffuse global network and philosophical movement composed of dispersed nodes with varying degrees of independence. Understanding the origins of Al Qaeda, its goals, current activities, and prospective future pursuits is key to developing sound U.S. strategies, policies, and programs. The focus of this book is on the history of Al Qaeda, known (or attributed) actions and suspected capabilities of the organization and non-aligned entities, and an analysis of select regional Al Qaeda affiliates.

**Domestic Terrorism**

*Anna Hudson and Edwin Davidson*

In series: *Terrorism, Hot Spots and Conflict-Related Issues*

In series: *Law, Crime and Law Enforcement*


Case: 978-1-62257-430-8, $195.00.

The emphasis of counterterrorism policy in the United States since Al Qaeda’s attacks of September 11, 2001 (9/11) has been on jihadist terrorism. However, in the last decade, domestic terrorists, people who commit crimes within the homeland and draw inspiration from U.S.-based extremist ideologies and movements, have killed American citizens and damaged property across the country. In this respect, domestic terrorists are a widely divergent lot, drawing from a broad array of philosophies and worldviews. These individuals can be motivated to commit crimes in the name of ideas such as animal rights, white supremacy, and opposition to abortion. The expression of these worldviews, as opposed to violence in support of them, involves constitutionally protected activities. This book provides background regarding domestic terrorists, detailing what constitutes the domestic terrorism threat as suggested by publicly available U.S. government sources and potential issues for Congress.

**Focus on Terrorism. Volume 13**

*Joshua B. Morgan*

In series: *Focus on Terrorism*

In series: *Terrorism, Hot Spots and Conflict-Related Issues*


Case: 978-1-62417-025-6, $350.00.

Terrorism, sadly, seems here to stay and to stay with a vengeance. It turns out that the United States was not prepared for it and now must play catch-up. In doing so, even agreement on how to define terrorism is in doubt and what to do about it seems beyond comprehension at the moment. This book presents various topics including Lal Masjid and it’s aftermath; closing the Guantanamo detention center; and also with a focus on Afghanistan.

**Fusion Centers: Counterterrorism Information Sharing Concerns and Deficiencies**

*Art M. Gerardi*

In series: *Intelligence and Counterintelligence Studies*  
In series: *Defence, Security and Strategies*


Case: 978-1-62417-336-3, $135.00.

In this book, the authors discuss the control, manipulation and behavioral applications of microfluidics. Topics include dielectrophoresis based droplet microfluidic devices for on-chip bioassays; microfluidic biosensor systems for cell biology and drug discovery; controllable microfluidic generation of monodisperse multiple emulsion droplets; an alternative method to predict wettability for microfluidics; integration of capacitive micromachined ultrasound transducers to microfluidic devices; selection of easily accessible PCR- and bio-compatible materials for microfluidic chips; and electrokinetic manipulation of biomolecules.

**TOURISM**

***More Than Simply Corporate Social Responsibility: Implications of Corporate Social Responsibility for Tourism Development and Poverty Reduction in Developing Countries: A Political Economy Perspective***

*Christina Koutra (Economic and Social Research Council (ESRC) and Bournemouth University, UK)*

In series: *Hospitality, Tourism and Marketing Studies*

In series: *Hunger and Poverty: Causes, Impacts and Eradication*


Case: 978-1-62257-543-5, $175.00.

Freedom of poverty is a universal human prerogative and right. Hence the tackling of poverty in developing countries is a social obligation for governments, MNCs and MNOs at a national, intergovernmental and supra-national level especially with its institutionalisation within the Millennium Development Goals (MDGs). Tourism was a sector that was actively promoted by the above mentioned institutions in order to act as a catalyst for development and poverty reduction. Nevertheless in the course of times tourism did not deliver the expected result: poverty reduction. Hence this book embarks on exploring, by adopting a participatory approach to research, the extent to which the various ‘controlling interests’, external (development agencies) and internal (government institutions), dictate and influence tourism development in the ex-colonial geographical areas under investigation and their relationships with various community constituents - mainly those in the local communities at the grassroots level.

***New Trends Towards Mediterranean Tourism Sustainability***

*Luís Miguel Rosalino, Alexandra Silva, António Abreu (Laboratório de Ecologia, Turismo e Sustentabilidade, ISLA-Lisboa - Instituto Superior de Línguas e Administração, Lisboa, Portugal)*

In series: *Hospitality, Tourism and Marketing Studies*


Case: 978-1-62257-627-2, $150.00.

Tourism has been identified as a major sector of economic activity since the latter part of the twentieth century. Its importance has been growing and the diversification of tourism products and destinations has led to the increase in demand for tourism associated with natural and man-shaped landscapes, most of which are highly susceptible to anthropic impacts. This book deals with different sustainable tourism approaches, as the main pathways for the economic development in the Mediterranean region. The topics that are discussed in this book
encompass a differentiated and detailed overview of the Mediterranean tourism destinations from a sustainable perspective. It will present study cases of traditional and new touristic options as the adaptation of long lasting activities, as hunting and nautical, to the needs of nowadays touristic markets, and new touristic approaches to the Mediterranean landscape, such as golf.

**Tourism and Developments – Issues and Challenges**
*Tanja Mihalic (Faculty of Economics, University of Ljubljana, Ljubljana, Slovenia, EU) and William C. Gartner (University of Minnesota, Minnesota, USA)*

In series: *Tourism and Hospitality Development and Management*

Case: 978-1-62257-304-2. $230.00.

This book explores the relation between tourism and development and covers an array of diverse issues in a contemporary economic, socio-cultural and political context. The book offers a critical debate regarding the existing understanding of a global tourism system and warns against generalizations about the impact of tourism on the global economy. It provides overall insights into the trends affecting tourism development including where we are headed, what are the new tourism markets, and what new tourist types are appearing. Also discussed are new ventures in tourism development and how climatology and climate change relation to tourism, how web based geographic information services (WebGIS) are changing tourism and what kind of new growth opportunities space tourism will bring. This book is intended to give the reader some insights into new paradigms, new issues, and old problems that are affecting our understanding of the global tourism system, the quality of life for host communities and the experiential nature of tourism.

**Travel and Tourism in the United States: Strategies and Considerations**
*Daniel Barnes and Elliot Godfrey*

In series: *Tourism and Hospitality Development and Management*

2013. 150 pp.
Case: 978-1-62257-655-5. $110.00.

This book examines the travel and tourism industry in the United States which are critical to the American economy. This growing industry offers significant potential for job creation across all regions of the country. Federal policies on matters ranging from national security to transportation and from trade to natural resources management affect travel and tourism, and its potential for growth. In a global economy, a range of businesses depend on travel and tourism policies to enable clients, customers, and colleagues to conduct business in the United States. In addition, ensuring that international visitors have a positive experience in America is an essential component of our public diplomacy and U.S. foreign policy.

**TRANSPORTATION**

**Airports and the Automotive Industry: Security Issues, Economic Efficiency and Environmental Impact**
*Michal Zajac and Roman Nowacek*

In series: *Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit*

Case: 978-1-62417-126-0. $120.00.
e-book: 978-1-62417-127-7. $120.00.

In this book, the authors gather and present current research in the study of the automotive and airport industries. Topics discussed include estimating airport efficiency; intelligent automotive braking technology and performance; shareholder value of European airports; the economic affects of air transportation; fuzzy LARG index model to assess the automotive supply chain; international financial and crisis impacts to the automotive industry; and microbial contamination of aviation fuel as a potential hazard for flight safety.

**Airports and the Environment: Impacts and Improvements**
*Nico L. Bullock*

In series: *Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit*

In series: *Environmental Health - Physical, Chemical and Biological Factors*

2013. 111 pp.
Case: 978-1-62417-225-0. $110.00.

Balancing the capacity enhancing needs of the national airspace system with the need to protect the environment can be challenging. The FAA estimates that the annual number of passengers traveling by air in the United States will grow from 750 million in 2012 to over 1 billion by 2023. It also forecasts a corresponding 20 percent increase in the number of flights, which could add to existing flight delays and air traffic congestion. Even while the aviation system has grown and continues to grow, airports have sought to limit the environmental impacts generated by their construction and operations—such as noise, water, air, and waste pollution—in part, to meet applicable legal requirements. However, airports' environmental impacts have been a source of friction with neighboring communities. This book addresses the actions that airports have taken to reduce the environmental impacts of airport operations and development; and the strategies they can adopt to mitigate delays in implementing capital projects and operational changes.

**Aviation Safety: Emerging Topics in U.S. Oversight**
*Gerrard J. Browning and Dawn M. Fulkner*

In series: *Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit*

2012. 147 pp.
Case: 978-1-61942-598-9. $95.00.

Takeoffs, landings, and movement around the surface areas of airports (the terminal area) are critical to the safe and efficient movement of air traffic. The nation's aviation system is arguably the safest in the world, but close calls involving aircraft or other vehicles at or near airports are common, occurring almost daily. This book examines the recent actions the FAA has taken to improve safety in the terminal area including enhanced oversight and improved availability of risk-based data which could further improve safety.
Commercial Drivers License Holders with Medical Conditions: Safety Controls
Sofia L. Vasilyev
In series: Transportation Issues, Policies and R&D
In series: Safety and Risk in Society
2013. 73 pp.
Soft: 978-1-62417-815-3. $52.00.
e-book: 978-1-62417-816-0. $52.00.
Commercial vehicles such as tractor trailers and school buses must be operated by skilled drivers who are mentally and physically capable of performing their jobs safely. Prior Governmental Accountability Office (GAO) work has shown weaknesses in the Department of Transportation's (DOTs) oversight of Commercial Drivers License (CDL) holders, such as inadequate medical certifications for commercial drivers, which potentially put the public at risk. This book examines key controls designed to prevent medically unfit or impaired commercial drivers from operating commercial vehicles.

Congestion Pricing: A Primer On Efficient Roadway Management
Alexander Davis and Geoffrey M. Long
In series: Transportation Issues, Policies and R&D
2012. 190 pp.
Case: 978-1-62081-480-2. $110.00.
States and local jurisdictions are increasingly discussing congestion pricing as a strategy for improving transportation system performance. This book provides an overview on congestion pricing; non-toll pricing; technologies that enable congestion pricing; technologies that complement congestion pricing; transit and congestion pricing; and income-based equity impacts of congestion pricing.

Emergency Relief Programs for U.S. Highways and Roads: Elements and Considerations
Cody O. Harrison and Ted J. Gibson
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
In series: Transportation Issues, Policies and R&D
Case: 978-1-61942-858-4. $185.00.
In recent years, many states have experienced natural disasters, such as hurricanes, floods, and storms, which have caused catastrophic damage to transportation infrastructure and overwhelmed the capacity of state and local governments to respond and recover. Reconstruction after these events can cost taxpayers billions of dollars. As part of the continuing federal role in responding to and recovering from natural disasters and similar events, the Federal Highway Administration (FHWA), within the U.S. Department of Transportation (DOT), administers the Emergency Relief Program which provides funding to repair or reconstruct federal-aid highways and roads on federal lands damaged or destroyed by natural disasters and other catastrophic events. This book provides an overview of emergency relief programs for U.S. highways and roads with a focus on strengthening oversight of project eligibility decisions.

Federal Programs and Policies for Highways: Select Aspects and Roles
Evan D. Campbell and Edward Sanchez
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
In series: Transportation Issues, Policies and R&D
Case: 978-1-62257-755-2. $110.00.
This book examines select aspects and the role of federal programs and policies for highway infrastructure. Issues discussed include the federal excise tax on gasoline and the Highway Trust Fund; the role of the Environmental Review Process in federally funded highway projects; the emergency relief program and federal-aid highway assistance for disaster-damaged roads and bridges; tolling of interstate highways; broadband telecommunications as vital for improving state and local systems for traffic management and public safety; revised federal standards for traffic signs; and a legislative history of federal aid to roads and highways since the 18th century.

Highways: Federal-State Partnerships and Practices
Barbara E. Allen and Jason G. Gray
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
Case: 978-1-62257-733-0. $110.00.
The U.S. Department of Transportation (DOT) provides about $40 billion to the states annually to build and maintain highways and bridges through the federal-aid highway program. This book describes the process and factors that could affect highway project time frames; examines state DOTs' views on the benefits and challenges of the provisions to expedite highway projects established in SAFETEA-LU and describes additional initiatives that state DOTs and FHWA have implemented to expedite the completion of highway projects.

Managed Motorways: Traffic Optimization and Road Pricing Approaches in Europe and Singapore
Elvis L. Duncan and Michael J. Snyder
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
Case: 978-1-61942-881-2. $135.00.
Finding cost-effective options to mitigate recurrent and non-recurrent congestion on freeway facilities is one of the most significant challenges State and regional transportation organizations face. Several countries are implementing managed motorway concepts to move higher traffic volumes on their highways more efficiently without acquiring more land and constructing large-scale infrastructure projects. This book explores managed motorway concepts and traffic optimization technologies being implemented in Europe and Singapore.

Maritime Infrastructure: Transportation Opportunities and Considerations
Aaron R. Hickmann
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
2013. 189 pp.
Case: 978-1-62417-704-0. $110.00.
The Maritime Transportation System (MTS) is integral to the efficient movement of the nation's freight. The MTS includes navigable waterways, ports, and port connectors, such as roads and railways that provide access to the interstate highway system and the national rail network. According to DOT, approximately 90 percent of America's overseas imports and exports by tonnage move by ship. Consequently, the continued maintenance and improvement of the MTS is essential to sustaining the nation's competitive position in the global economy. This book examines the opportunities that exist to improve the
effectiveness of federal efforts to support the marine transportation system.

Modernization of U.S. Ports and Inland Waterways: Post-Panamax Preparations

Charles Groban and John Kulicki
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
In series: U.S. Transit, Transportation and Infrastructure: Considerations and Developments
2013. 152 pp.
Case: 978-1-62417-757-6. $110.00.
The United States is a maritime nation. From its origin as 13 former colonies to its place as the preeminent world power today, our Nation's success has been dependent on our coastal ports and inland waterways to conduct trade. Recognizing the importance of transportation to trade, the Nation had made a strong intergenerational commitment to develop its transportation networks. These networks of highways, railways and inland waterways connect the interior of our country to our ports, which connect us to the rest of the world. These transportation networks have contributed to our success by providing a cost-efficient and environmentally sustainable means to transport large quantities of cargo over long distances and across oceans, keeping this Nation competitive in world trade. This book provides an analysis of the broad challenges and opportunities presented by the increasing deployment of post-Panamax vessels and outlines options on how Congress could address the port and inland waterway infrastructure modernization issues needed to accommodate those vessels.

Motorcycle Crashes and State Safety Efforts

Bruce M. Howard
In series: Transportation Issues, Policies and R&D
2013. 132 pp.
Case: 978-1-62417-708-8. $110.00.
According to the National Highway Traffic Safety Administration (NHTSA), per vehicle mile traveled in 2010, motorcyclists were about 30 times more likely to die in a traffic crash than passenger car occupants. States have implemented various strategies to address the factors contributing to motorcycle crashes and fatalities, and NHTSA has assisted these efforts through guidance, grants, and research. This book examines motorcycle crashes and state safety efforts.

Railroads in the United States: Considerations and Development Prospects

Charles E. Russel and Carol M. Wood
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
Pressure is building for greater passenger use of freight railroad services. Freight railroad rights of way are owned by private, for-profit corporations, and the routes potentially most useful for passenger service are typically the busiest with freight traffic. In many cases, states or commuter rail authorities have reached agreement with freight railroads to share either their track or right of way. However, unlike Amtrak, which has eminent domain power over freight facilities and can appeal to a federal agency to determine the terms of its access to freight track, other would-be passenger rail operators do not have any statutory leverage when negotiating with freight railroads. This likely increases the price public authorities pay for access and leaves them with no apparent recourse when freight railroads reject their offers.

Railways: Types, Design and Safety Issues

Cacilie Reinhardt and Klaus Shroeder
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
In series: Mechanical Engineering Theory and Applications
Case: 978-1-62417-139-0. $95.00.
e-book: 978-1-62417-141-3. $95.00.
In this book, the authors present current research on the types, design and safety issues of railways. Topics discussed include the acoustic characteristics of noise in train stations; monitoring railway structure conditions and opportunities to use wireless sensor networks as tools to improve the monitoring process; hydraulic absorbers as dampers to dissipate the energy of oscillations in railway electric equipment; development of train fare calculation and adjustment systems using VDM++; efficient development and verification of safe railway control software; and evolution of the connectivity of the Portuguese broad gauge railway network (1948-2012).

Securing General Aviation: Overview and Assessments

Randy Freeman and Erin McCoy
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
In series: Defense, Security and Strategies
Case: 978-1-62257-833-7. $110.00.
General aviation (GA) is a catch-all category that includes about 54% of all civilian aviation activity within the United States and encompasses a wide range of airports, aircraft, and flight operations. Because GA plays a small but important role in the U.S. economy, improving upon GA security without unduly impeding air commerce or limiting the freedom of movement by air remains a significant challenge. While some recent high-profile breaches of GA security point to persisting vulnerabilities and limited intelligence information suggest a continued terrorist interest in using GA aircraft, it is evident that GA airports, aircraft, and operations vary considerably with regard to security risk. This book examines security assessments at select airports with a focus also on the TSA's processing of foreign flight students and security threats.

Surface Transportation: MAP-21 Provisions and TIFIA Credit Assistance

Donna Neil
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
In series: Transportation Issues, Policies and R&D
2013. 139 pp.
Case: 978-1-62417-431-5. $110.00.
On July 6, 2012, President Barack Obama signed the Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141). The act authorized spending on federal highway and public transportation programs, surface transportation safety and research, and some rail programs and activities through September 30, 2014. MAP-21 authorized roughly $105 billion for FY2013 and FY2014 combined. This book examines the MAP-21 Act and the Transportation Infrastructure Finance and Innovation Act (TIFIA) program, which is designed to fill market gaps and leverage substantial nonfederal investment by providing federal credit assistance to help finance surface transportation projects including highway, transit, rail, and intermodal projects.
Tires: Select Research on Pre-Crash Problems and Tire Pressure Monitoring
Charles E. Rabuse
In series: Transportation Issues, Policies and R&D
2013. 94 pp.
Soft: 978-1-62417-706-4. $52.00.
e-book: 978-1-62417-707-1. $52.00.
Proper tire inflation is important for several reasons. Underinflated tires experience a greater amount of sidewall flexion than properly inflated tires, resulting in decreased fuel economy, sluggish handling, longer stopping distances, increased stress to tire components, and heat buildup that can lead to catastrophic failure of the tire, such as cracking, component separation, or blowout. Such catastrophic failures can cause loss of vehicle control and may result in a crash. This book presents an analysis of the data collected through the Tire Pressure Monitoring System-Special Study (TPMS-SS) as it pertains to the effectiveness of TPMS in promoting proper tire inflation.

Traffic Bottlenecks: Challenges and Reduction Strategies
Alex L. Sloan and Connie F. Dorsey
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
Case: 978-1-62081-180-1. $110.00.
Much of recurring congestion is due to physical bottlenecks - potentially correctable points on the highway system where traffic flow is restricted. While many of the nation’s bottlenecks can only be addressed through costly major construction projects or costly transportation alternative solutions (i.e., high occupancy vehicle or toll lanes, dynamic pricing, investments in transit alternatives, etc.), there is significant opportunity for the application of operational and low-cost “fixes” at spot-specific locations. This book provides guidance to state and local transportation personnel on how to overcome barriers and challenges with reference to the implementation of localized congestion relief projects.

Transportation Accessibility: Disadvantaged Populations and Paratransit for Disabled Riders
Tristan Graves
In series: Disability and the Disabled-Issues, Laws and Programs
In series: Transportation Issues, Policies and R&D
2013. 120 pp.
Soft: 978-1-62417-763-7. $52.00.
Millions of Americans are unable to provide their own transportation or have difficulty accessing public transportation. Such transportation-disadvantaged individuals may include those who are elderly, have disabilities, or have low income. This book examines the federal programs that are authorized to use federal funds for transportation services to assist these "transportation-disadvantaged" individuals in accessing human service programs.

Transportation Policies, Issues, and Technology
Joshua D. Bernard
In series: Transportation Issues, Policies and R&D
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
2013.
Case: 978-1-61122-352-1. $89.00.
This book discusses and presents topical data in the study of transportation policies and issues. Topics discussed herein include EPA regulations of greenhouse gases from mobile sources; accelerated vehicle retirement for fuel economy; waste, fraud, and abuse in agency travel card programs; harbor maintenance trust fund expenditures; public transit program funding issues; and the role of federal gasoline excise taxes in public policy.

U.S. Freight Facts, Figures, and Air Quality Issues
Alec L. Russel and Sylvester F. Cox
In series: Transportation Issues, Policies and R&D
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
Case: 978-1-62081-472-7. $135.00.
The ability of our nation’s transportation system to provide for and maintain the efficient movement of freight is important to the continuing economic health of the United States. U.S. domestic freight tonnage is anticipated to approximately double — and international freight tonnage expected to nearly triple — by 2035. This book provides facts and figures on the flow of U.S. freight while examining the physical network, economic conditions and transportation system responsible for the movement of freight. It then explores the growing need to find new ways to address air quality concerns and greenhouse gas emissions associated with freight movements.

U.S. Transit, Transportation and Infrastructure: Considerations and Developments, Volume I
Jordan G. Clark and Ian R. Rodriguez
In series: Transportation Infrastructure - Roads, Highways, Bridges, Airports and Mass Transit
Case: 978-1-61942-843-0. $95.00.
e-book: 978-1-61942-846-1. $95.00.
Policymakers at all levels of government are debating a wide range of options for addressing the nation’s faltering economic conditions. One option that is once again receiving attention is accelerated investments in the nation’s public infrastructure - that is, highways, mass transit, airports, water supply and wastewater, and other facilities - in order to create jobs while also promoting long-term economic growth. This book discusses policy issues associated with using infrastructure as a mechanism to benefit economic recovery. Discussed are the roles of infrastructure investment in economic growth generally and in contributing to bolstering a faltering economy. Key issues include the potential role of traditional and “green” infrastructure in creating jobs, timing and setting priorities.

UNITED STATES

A New Energy Vision for the U.S. Virgin Islands
Williard Lawson and Terrence Wheeler
In series: Energy Science, Engineering and Technology
In series: Energy Policies, Politics and Prices
Case: 978-1-61942-325-1. $215.00.
With high energy costs, isolated grids, and abundant renewable energy resources, island communities around the world are exploring alternatives to fossil fuels. Many small island states have set ambitious targets to reduce oil consumption. The U.S. Virgin Islands (USVI) has emerged as a leader in the effort to reduce oil imports and stabilize electricity costs via the deployment of energy efficiency and renewable
energy technology. This book explores the strategy envisioned by the stakeholders in the USVI, Department of Energy and Department of the Interior, to achieve this ambitious goal within the electricity sector.

Amending the Constitution by an Article V Convention
Scott J. Hill and Adam Wright
In series: American Political, Economic, and Security Issues
In series: Government Procedures and Operations
2012. 93 pp.
Soft: 978-1-62257-762-0. $52.00.
Article V of the U.S. Constitution provides two methods of amendment for the nation’s fundamental charter. In the first, Congress, by a two-thirds vote of both chambers, proposes amendments to the states, which then consider the proposal; if three-fourths approve the amendment, it is ratified, and becomes part of the Constitution. Beginning with the Bill of Rights of 1789, this method has been used to propose 33 amendments, 27 of which have been ratified. This book provides a comprehensive analysis of congressional issues, including information on the contemporary resumption of interest in the convention alternative and the authority of Congress to call a convention; provide a framework and procedures for an Article V Convention; and submit proposed amendments to the states for ratification. Also discussed is the President’s role; the operation of checks and balances in the convention alternative; questions concerning a convention’s composition and method of voting; and the function of the District of Columbia and U.S. territories.

American Indians: Developments, Policies and Research. Volume 1
Albert O. Hughes and Eric A. Sanders
In series: American Indians: Developments, Policies and Research
Case: 978-1-61122-351-4. $135.00.
e-book: 978-1-62257-241-0. $135.00.
This book presents current research on new developments and policies in the American Indian population in the United States. Topics discussed in this compilation include a brief history of federal Indian education programs, the students served by these programs and their funding; the Indian Education Formula Grant Program of the Elementary and Secondary Education Act; the Indian Child Welfare Act (ICWA); addressing child hunger and obesity in Indian country; unique factors that may affect economic activity on tribal lands; gaming on newly acquired lands and the Indian Gaming Regulatory Act (IGRA); and Indian reserved water rights under the Winters Doctrine.

American Jobs Act: Outline and Select Provisions
John Miller and Phillip M. Jackson
In series: America in the 21st Century: Political and Economic Issues
In series: Economic Issues, Problems and Perspectives
Soft: 978-1-62081-110-8. $47.00.
e-book: 978-1-62081-135-1. $47.00.
In response to continuing high rates of unemployment and a weak economy, President Obama announced his American Jobs Act on September 8, 2011. As stated by the President, the proposal aims to “put more people back to work and more money in the pockets of those who are working.” This book describes provisions of the American Jobs Act which fall into three major categories: promote hiring and prevent layoffs among teachers, law enforcement officers, firefighters, veterans, and the long-term unemployed; assist unemployed workers through unemployment compensation and reemployment services; and expanding workforce opportunities for low-income adults and youth.

Federal Proposals for Tax Reform
Steven G. Hannaford and Emily Wallace
In series: America in the 21st Century: Political and Economic Issues
In series: Economic Issues, Problems and Perspectives
Soft: 978-1-62257-960-0. $52.00.
The President and leading Members of Congress have stated that fundamental tax reform is a major policy objective for the 112th Congress. Some Members have said that fundamental tax reform is needed in order to raise a large amount of additional revenue, which is necessary to reduce high forecast budget deficits and the sharply rising national debt. Congressional interest has been expressed in both a major overhaul of the U.S. tax system and the feasibility of levying a consumption tax. Some proponents of reform argue that the tax base should be broadened by reducing or eliminating many tax expenditures. An alternative to increasing tax revenues is cutting spending. Thus, Members are faced with considering the best mix of tax increases and spending cuts in order to reduce deficits and slow the growth of the national debt. This book examines major fiscal reform proposals for tax reform with a focus on business tax reform and the extension of the “Bush Tax Cuts”.

Immigration: Policies, Challenges and Impact
Eugene Tartakovsky (Tel-Aviv University, The Bob Shapell School of Social Work, Tel Aviv, Israel)
In series: American Political, Economic, and Security Issues
Case: 978-1-62417-030-0. $350.00.
This collected volume presents immigration research from an interdisciplinary perspective. It includes chapters written by psychologists, sociologists, anthropologists, economists, educators, and lawyers. The book’s chapters focus on both immigrants and the host societies, reflecting different narratives of immigration. The studies presented in the book use a wide array of methodologies: quantitative and qualitative research, longitudinal studies, and analyses of macro-level data. They also provide a broad time perspective on immigration processes that span from the pre-migration period, and include second and third generation immigrants. Finally, the book includes studies conducted in different parts of the world: in Australasia, Eastern and Western Europe, the Middle East, and both Americas.

Members of Congress: Trends in Characteristics and Terms of Service
Teresa Thompson and Erwin J. Patterson
In series: Congressional Policies, Practices and Procedures
In series: Government Procedures and Operations
Soft: 978-1-62081-490-1. $52.00.
Questions about the characteristics of Members of Congress, including their age, education, previous occupations, and other descriptors, are of ongoing interest to Members, congressional staff, and constituents. Some of these questions may be asked in the context of representation, in efforts to evaluate the extent to which Members of Congress reflect
their constituencies and the nation at large. In other instances, questions arise about how the characteristics of Members have changed over time, which may speak in part to the history of Congress. This book provides profiles of Senators and Representatives in selected Congresses since 1945, with a focus on service tenure and patterns of member service.

**Rural America: Aspects, Outlooks and Development. Volume 1**

*Clifford L. Lewis and Eric M. Jackson*

In series: *America in the 21st Century: Political and Economic Issues*

In series: *Rural America: Aspects, Outlooks and Development*

2012. 192 pp.
Case: 978-1-61761-975-5. $110.00.

Rural development researchers and practitioners have argued in recent years that investing in a broad range of assets is a critical component of long-term economic growth in rural communities. Wealth can contribute to people’s welfare in many ways beyond increasing income, such as providing economic resilience in adverse circumstances or enhancing one’s power and prestige. Understanding the distribution of wealth across and within rural communities is critical. Additionally, population loss is a longstanding concern among rural development practitioners. Nearly half of today’s nonmetropolitan counties lost population through net outmigration over the past 20 years. Population loss tends to increase tax burdens, reduce property values, and reduce both the demand for and supply of local goods and services. Rural outmigration is also troublesome because it is highly concentrated among young adults, especially those possessing or acquiring education and skills. This book examines rural America, with a focus on rural wealth, outmigration, population and transportation issues.

**Rural America: Aspects, Outlooks and Development. Volume 2**

*Clifford L. Lewis and Eric M. Jackson*

In series: *America in the 21st Century: Political and Economic Issues*

In series: *Rural America: Aspects, Outlooks and Development*

Case: 978-1-62257-641-8. $135.00.

Our rural communities are home to some of the most hard-working and fiercely self-reliant Americans in the United States. Strong and secure rural communities are essential to creating an economy built to last that rewards hard work and responsibility—not outsourcing, loopholes, and risky financial deals. While the security of the middle class has been threatened by the irresponsible financial collapse and the worst economic downturn since the Great Depression, rural Americans continue to come together to work hard and make ends meet. The values that have helped hard-working, responsible families weather the storm continue to move our economy forward. This book lays out the economic landscape rural America faces today and presents some of the Administration’s many efforts to promote economic growth and job creation in rural communities with a focus on broadband loan and grant programs in the USDA’s rural utilities service; and rural water infrastructure, water supply and sewer systems.

**Rural America: Development Policies and Programs**

*Ollie R. Carpenter and Dirk E. Weaver*

In series: *American Political, Economic, and Security Issues*

In series: *Economic Issues, Problems and Perspectives*

Case: 978-1-61942-945-1. $125.00.
e-book: 978-1-61942-955-0. $125.00.

Rural areas are home to about 50 million Americans and are an essential part of the overall economy. This book surveys the current state of rural America and describes the Obama Administration’s policies for strengthening the rural economy. This book also provides an overview of the various programs administered by the four USDA agencies, their authorizing legislation, program objectives, eligibility criteria, and FY2005-FY2011 funding for each program.

**Social Security’s Special Minimum Benefit Provision**

*Hanna M. Clarke and Jordon E. Hughes*

In series: *American Political, Economic, and Security Issues*

In series: *Retirement Issues, Plans and Lifestyles*

2012. 98 pp.
Soft: 978-1-61942-697-9. $47.00.
e-book: 978-1-61942-728-0. $47.00.

This book provides an overview of the current Social Security special minimum benefit provision workings; explains how the Retirement Earnings Test works under current law; and examines the windfall elimination provision (WEP) which reduces the Social Security benefits of workers who also have pension benefits from employment not covered by Social Security.

**Taxes in the United States: Developments, Analysis, and Research. Volume 1**

*Sarah Brackman*

In series: *Taxes in the United States: Developments, Analysis, and Research*

2013.
Case: 978-1-62417-834-4. $135.00.

This book examines the most recent developments, analysis and research concerning taxation in the United States. Topics discussed in this compilation include the constitutionality of retroactive tax legislation; tax provisions to assist with disaster recovery; the impact of the federal estate tax on state estate taxes; effective marginal tax rates for low- and moderate-income workers; and the taxation of capital and labor through the self-employment tax.
The U.S. Constitution: Interpretations, Court Decisions and Analyses
Aart J. Roberts and Perry E. Hughes
In series: American Political, Economic, and Security Issues
In series: Government Procedures and Operations
Case: 978-1-62081-856-5. $195.00.
The United States Constitution, as amended, is a complex legal document which sets out the structure of the federal government, the legal authorities of that government (and, to a lesser extent, state governments), and, finally, a series of legal disabilities on the exercise of those authorities (such as protections for individual rights). The document also addresses the complicated legal relationship between the federal government, state governments, and the persons subject to their respective jurisdictions. Judicial interpretation of some of the Constitution's provisions, however, has varied over the last two centuries, leading to concerns regarding the ultimate validity of these decisions. This book examines the historical basis for theories of constitutional interpretation, and the role of judicial precedent and pragmatism. Also discussed are the theories relating to the identification and justification of heightened constitutional protections for fundamental rights.

The United States Research Enterprise: Enhancements for the Future
Daniel S. Rosser
In series: America in the 21st Century: Political and Economic Issues
Case: 978-1-62417-916-7. $110.00.
No country in the history of the world has more readily, or more fruitfully, embraced innovation through science and technology than the United States. The products of our basic and applied scientific research not only provide us with high-quality jobs and support our high-tech and knowledge economies, but they also define us as a nation; as an inventive, entrepreneurial society. The benefits from scientific advances, and the need for such advances to continue, are evident in virtually every aspect of modern life. The United States is in the midst of a profound reorganization of how research is done, where it is done, who does it, and how its results find their way to the marketplace. This confluence of circumstances threatens the Nation's world-leading position in innovation and technology and the benefits it brings. This book examines the importance of what is at stake, and what has been the response to date of the U.S. science and technology enterprise, and discusses the kinds of actions that could create positive opportunities for the United States in the future.

Gale A. Lewis and Norah M. Scott
In series: Defense, Security and Strategies
Case: 978-1-62081-427-7. $110.00.
As part of the conflict with Al Qaeda and the Taliban, the United States has captured and detained numerous persons believed to have been part of or associated with enemy forces. Over the years, federal courts have considered a multitude of petitions by or on behalf of suspected belligerents challenging aspects of U.S. detention policy. Although the Supreme Court has issued definitive rulings concerning several legal issues raised in the conflict with Al Qaeda and the Taliban, many others remain unresolved, with some the subject of ongoing litigation.

This book analyzes the existing law and authority to detain U.S. persons, who are suspected of being members, agents or associated of Al Qaeda or possibly other terrorist organizations as "enemy combatants." This book also offers a brief background of the salient issues raised by the detainee provisions of the FY2012 NDAA and provides a section-by-section analysis; and discusses major judicial opinions concerning suspected enemy belligerents detained in the conflict with Al Qaeda and the Taliban.

U.S. Tax Reform: Challenges and Considerations
Stephen R. Morris and Barbara M. Morgan
In series: American Political, Economic, and Security Issues
In series: Economic Issues, Problems and Perspectives
Case: 978-1-62257-183-3. $135.00.
This book examines current proposals in the 112th Congress relating to tax reform. The President and leading members of Congress have stated that fundamental tax reform is a major policy objective. These policymakers have said that fundamental tax reform is needed in order to raise a large amount of additional revenue, which is necessary to reduce high forecast budget deficits and the sharply rising national debt. Congressional interest has been expressed in both a major overhaul of the U.S. tax system and the feasibility of levying a consumption tax. Some proponents of reform argue that the tax base should be broadened by reducing or eliminating many tax expenditures. An alternative to increasing tax revenues is cutting spending. Thus, Members are faced with considering the best mix of tax increases and spending cuts in order to reduce deficits and slow the growth of the national debt.

WOMEN

Feminism
Jason L. Powell (University of Central Lancashire, UK)
In series: Social Perspectives in the 21st Century
Edited by: Jason L. Powell (Dean of Faculty, University of Liverpool)
2012. 81 pp.
Soft: 978-1-62257-540-4. $52.00.
e-book: 978-1-62257-551-0. $52.00.
This book explores the history and contemporary rise and consolidation of Feminism. Mainstream social theory is said to represent a partial and incomplete view of society and social relations. Such is the power of this critique that any theory which seeks to chart the contemporary terrain of society itself will itself be incomplete without due consideration being given to Feminism and its main themes and ideas. A Feminism has had a major impact on social science. This text engages with conceptual development, historical formation, contemporary relevance and uses several examples from research to assess the strengths and weaknesses of Feminisms.

Making Our Voices Heard: Women of Color in Academia
Harriet Curtis-Boles, Diane M. Adams, Valata Jenkins-Monroe (Alliant International University, San Francisco, California)
In series: Social Justice, Equality and Empowerment
In series: Women's Issues
This book provides a compelling and informative look into the experiences of women of color in academia. Using personal and scholarly narrative the women in the book convey a poignant and richly descriptive account of the challenges they faced, the strategies they employed for survival and thriving, and the contributions they made to transform their institutions. From the seasoned faculty member and academic administrator to the entering graduate student, it is a must read book for women of color in academia. They will resonate to the voices of the women in the book, and hear their needs articulated in perceptive and practical ways. In the tradition of critical race theory, this book also fulfills the purpose of providing White professionals and students a new perspective of the personal and professional world of women of color in academia as represented through their eyes and realities.

**Pay Equity: Gender Differences and Legislation**
*Claire Yarbrough and Tyrell J. Bankston*
In series: *Economic Issues, Problems and Perspectives*
In series: *Women's Issues*
Soft: 978-1-62257-943-3. $52.00.
e-book: 978-1-62257-944-0. $52.00.

The term “pay equity” originates from the fact that women as a group are paid less than men. In recent years, for example, women with a strong commitment to the workforce earned about 77 to 80 cents for every dollar earned by men. As women’s earnings as a percentage of men’s earnings have narrowed by less than 20 percentage points over the past 40-plus years, some members of the public policy community have argued that current anti-discrimination laws should be strengthened and that additional measures should be enacted. Others, in contrast, believe that further government intervention is unnecessary because the gender wage gap will narrow on its own as women's labor market qualifications continue to more closely resemble those of men. This book explores the trend in the male-female wage gap and examines the explanations that have been offered for its enduring presence. Also discussed are the major laws directed at eliminating sex-based wage discrimination as well as relevant federal court cases and pay-equity legislation.

**Women’s Retirement Security: Challenges and Trends**
*Ray McCoy and Oliver Hubbard*
In series: *Retirement Issues, Plans and Lifestyles*
In series: *Women's Issues*
Case: 978-1-62257-894-8. $110.00.

Elderly women, who comprise a growing portion of the U.S. population, have historically been at greater risk of living in poverty than elderly men. Several factors contribute to the higher rate of poverty among elderly women including their tendency to have lower lifetime earnings, their taking time out of the workforce to care for family members, and outliving their spouses. Other factors affecting older women’s financial insecurity include the economic downturn and changing trends in pension plan offerings. This book examines how women's access to and participation in employer-sponsored retirement plans compare to men's and how they have changed over time; how women's retirement income compares to men's and how the composition of their income—the proportion of income coming from different sources—has changed with the economic conditions and trends in pension design; and what policy options are available to help increase women's retirement income security.
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* Quoted prices include the cost of standard shipping and handling to destinations worldwide. Prepayment is required. Currency is U.S. dollars.

### 2013 E-package Information

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