



Gazelle

STM NEW TITLES

Titles Received in March 2017

Down Syndrome (DS)

Perspectives, Challenges and Management



Thomas Mendez
Editor

GENETICS - RESEARCH AND ISSUES

NOVA

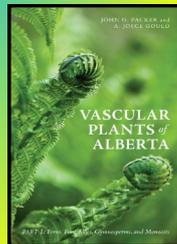
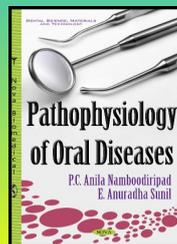
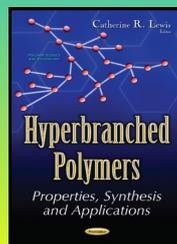
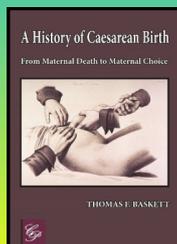
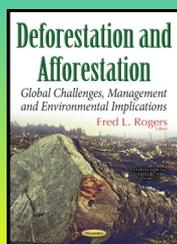
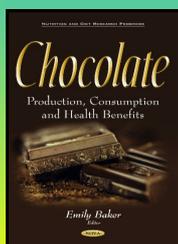
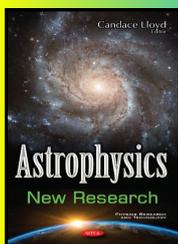
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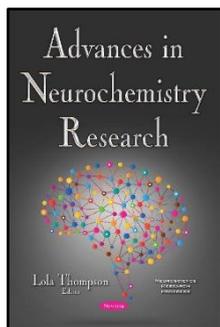
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Biomedical



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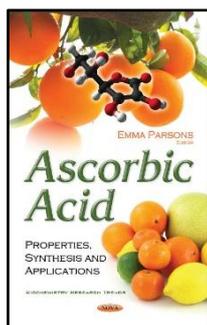


Advances in Neurochemistry Research (Neuroscience Research Progress Series)

Edited by Lola Thompson

This book presents new research on the leading edge of neurochemistry. Chapter One provides recent developments in understanding the neurochemistry of endogenous sulphur-containing amino acids as neuromodulators, metabolic intermediates and potential toxins. Chapter Two reviews the latest advances in the development of approaches for the qualitative and quantitative analysis of monomers and aggregates of β -amyloid peptides and encompasses separation methods such as chromatography, slab gel electrophoresis, capillary electrophoresis and lab on chip. In addition, it presents the authors' latest developments in a capillary electrophoresis with laser-induced fluorescence detection method for the analysis of aggregates of β -amyloid peptides. Chapter Three reviews the most significant improvements recently made in monoamines analysis and detection, using capillary and ultra-HPLC and will discuss the advantages and pitfalls of those approaches applied to brain monoamine monitoring.

PB 9781536105940 £78.50 February 2017 Nova Science Publishers 130 pages 155x230mm



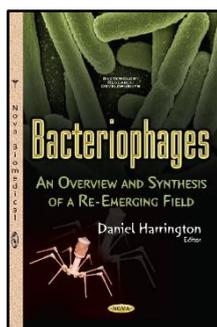
Ascorbic Acid

Properties, Synthesis & Applications (Biochemistry Research Trends Series)

Edited by Emma Parsons

Ascorbic acid (AsH-, vitamin C), an essential nutrient for both human health and animal health, participates in a wide range of important biochemical reactions, including the synthesis of collagen, carnitine, and the neurotransmitter norepinephrine. This book provides current research on several properties of ascorbic acid. It also reviews the synthesis and applications of this water-soluble vitamin.

HB 9781634858861 £185.99 December 2016 Nova Science Publishers 230 pages 155x230mm



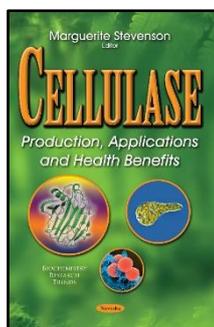
Bacteriophages

An Overview & Synthesis of a Re-Emerging Field (Bacteriology Research Developments Series)

Edited by Daniel Harrington

This current book provides an overview of current research on bacteriophages. Chapter One discusses bacteriophages of pathogenic vibrios, identification and differentiation. Chapter Two reviews recent literature about the application of phages for the biocontrol of microorganisms in meat and meat products, with a particular emphasis on chicken, beef and pork in order to shed light on the efficacy of such strategy for the prevention and/or eradication of spoilage and pathogenic microorganisms in foods and food processing environments. Chapter Three studies the synthesis of the divalent cation requirements for efficient adsorption of bacteriophage onto bacterial cells. Chapter Four focuses on the isolation and evaluation of the lytic spectrum of bacteriophages active against food-borne bacteria. Chapter Five presents data about the history and present-day of using bacteriophage preparations in treatment and prevention of various infectious diseases, in particular – of suppurative-inflammatory diseases of the respiratory organs. Chapter Six reviews phagebiotics in treatment and prophylaxis of healthcare-associated infections.

PB 9781634854559 £90.50 September 2016 Nova Science Publishers 104 pages 155x230mm



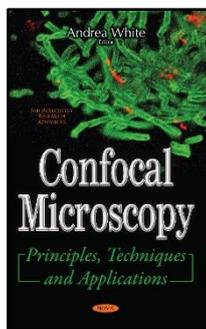
Cellulase

Production, Applications & Health Benefits (Biochemistry Research Trends Series)

Edited by Marguerite Stevenson

Enzymes such as cellulases have been applied as tools for research and development and in almost every industrial sector including agriculture, food, beverages and animal feed, pulp and paper, textile. Cellulases is a general term that encompasses multiple enzymes that work in synergism for cellulose degradation. This book examines the production, applications and health benefits of cellulase. Chapter One describes the isolation, screening, diversity and cellulase production of microorganisms including their applications. Chapter Two discusses the factors affecting production of cellulase enzyme by microorganisms, the potential of indigenous microorganism for the bio-augmentation process of biosolids and occurrence of catabolite repression phenomenon of cellulase production during the enzymatic degradation of biosolids. Chapter Three gives an overview on cellulase microorganism producers, cellulolytic components and mechanism of action, with a focus on fungal enzymes of *Trichoderma reesei*, since they are predominant on the commercial cocktails used for 2G ethanol production. Chapter Four addresses substrate factors related to enzymatic hydrolysis of cellulose and lignocellulosic materials.

PB 9781634857888 £90.50 September 2016 Nova Science Publishers 112 pages 155x230mm

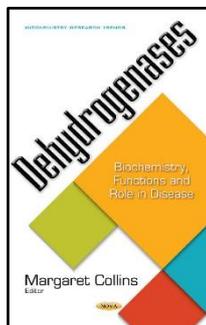


Confocal Microscopy **Principles, Techniques & Applications (Microbiology Research Advances Series)**

Edited by Andrea White

Confocal laser microscopy is a microscopic observation technique patented by Minsk in 1957. Its success is due to the undeniable advantages over traditional optical microscopy including improved image clarity and contrast, greater vertical and horizontal resolution, etc., and above all the possibility to take “optical sections” of the sample, which allows us to obtain a tridimensional study. This authors of this book provide and discuss new research on the principles, techniques and applications of confocal microscopy.

PB 9781536106275 £78.50 February 2017 Nova Science Publishers 140 pages 155x230mm

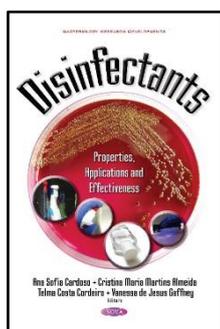


Dehydrogenases **Biochemistry, Functions & Role in Disease (Biochemistry Research Trends Series)**

Edited by Margaret Collins

Dehydrogenases are enzymes that play an important role in oxidation reactions. Dehydrogenases are involved in many metabolic pathways which maintain normal function and homeostasis of cells in the body. This book discusses the biochemistry of dehydrogenases, as well as their functions and roles in diseases.

HB 9781536105506 £90.50 January 2017 Nova Science Publishers 180 pages 155x230mm

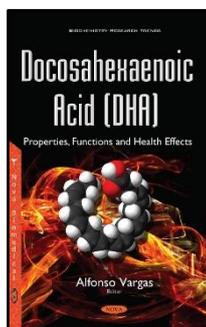


Disinfectants **Properties, Applications & Effectiveness (Bacteriology Research Developments Series)**

Edited by Ana Sofia Cardoso, Cristina Maria Martins Almeida, Telma Costa Cordeiro & Vanessa de Jesus Gaffney

Antiseptics and disinfectants are extensively used at home, in occupied buildings, recreational areas, industries (the water industry, food processing industry and pharmaceutical industry, among others), hospitals and other healthcare settings for a variety of topical and hard-surface applications. They play a critical role in controlling the spread of environmentally transmitted pathogens in healthcare and food-processing environments, as well as at home. A wide variety of active chemical agents are found in these products, many of which have been used for hundreds of years for antiseptics, disinfection, and preservation. Although its main purpose is to control human exposure to microorganisms through preventive action, its use should also be carefully controlled in order to prevent healthcare problems that may consequently emerge due to their toxicity. The problems regarding the use of disinfectants are not new, although unquestionably tangible and pertinent, due to its broad application in the referred economical activities, as well as due to the development and emerging of new compounds with this activity. This book aims to address the various scenarios regarding the use of disinfectants. Accordingly, through its eleven chapters it is possible to become aware of the wide range of disinfectant applications, as well as the concerning advantages and limitations of its use. This book is divided into two main sections. The first section, after an overview regarding the use of disinfectants in society, addresses questions related to its toxicology and health repercussions along with microbiological mechanisms. In the second section, a far-reaching exploration of the application of disinfectants in a set of specifically selected economic activities, alongside issues concerning their environmental impact and regulatory matters is addressed. This section also includes two case studies on novel disinfection methods.

HB 9781634859585 £219.50 December 2016 Nova Science Publishers 340 pages 180x260mm

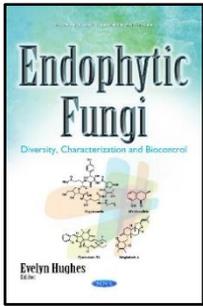


Docosahexaenoic Acid (DHA) **Properties, Functions & Health Effects (Biochemistry Research Trends Series)**

Edited by Alfonso Vargas

Docosahexaenoic acid (DHA) is an essential fatty acid of the omega-3 (n-3) series that has received substantial attention due to its pivotal roles in biological functions including brain and visual development, cognition, inflammatory responses and with decreasing risk or mortality with cardiovascular diseases. This book reviews the properties of DHA, as well as its functions and effects on health. Chapter One reviews the literature on the effects of DHA in bone health with a focus on the growth period. Chapter Two examines recent trends in research leading to the obtaining of bioactive lipids able to deliver DHA with a high bioavailability. Chapter Three discusses DHA's protective effect on organ function and inflammatory response in burns. Chapter Four considers the effects of dietary DHA on CVD risk factors, and in particular its actions on vascular endothelial cell dysfunction.

PB 9781634859660 £90.50 December 2016 Nova Science Publishers 125 pages 155x230mm

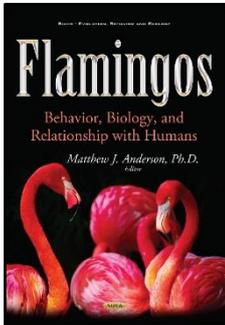


Endophytic Fungi
Diversity, Characterization & Biocontrol (Microbiology Research Advances Series)

Edited by Evelyn Hughes

Endophytic fungi are important biotechnological tools because they produce many secondary metabolites. However, to access this important source of bioactive molecules, it is essential to explore the diversity of endophytic fungi and catalog their species richness in different ecosystems. This book reviews the diversity, characterisation and biocontrol of endophytic fungi.

PB 9781536103410 £90.50 December 2016 Nova Science Publishers 115 pages 155x230mm

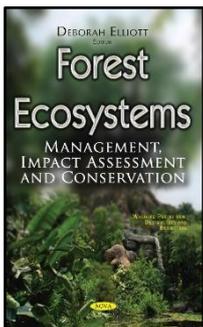


Flamingos
Behavior, Biology, & Relationship with Humans (Birds -- Evolution, Behavior & Ecology Series)

Edited by Matthew J Anderson

The world's six flamingo species are among the most beautiful and iconic animals on Earth. Indeed, the much beloved flamingo is a popular attraction at zoos around the globe, and has become a cultural phenomenon as well, being displayed proudly on the lawns of many suburban homes as well as being featured prominently in works of literature and art. While their physical characteristics have likely led to their iconic status, when one takes a moment to look beyond their long neck and legs and beautiful plumage, they will soon discover that the flamingo's behavioral patterns are equally as impressive and as fascinating as their appearance. Indeed, whether it be their highly gregarious and colonial nature, filter-feeding habits, ritualised group displays, the crèches of flamingo chicks, the construction of mud nests, or the answer to the age-old question, "Why do flamingos stand on one leg?", flamingo behavior/biology is thoroughly interesting, and at times peculiar. Moreover, our unique relationship with and fascination for the charismatic flamingos are an interesting phenomena in their own rights. This edited volume is devoted to flamingo behavior, biology and their relationships with humans. By thoroughly exploring and considering each of these topics together in one volume, this work is designed to encourage in the reader a greater understanding of and appreciation for these fascinating and iconic birds.

HB 9781536102369 £138.50 December 2016 Nova Science Publishers 440 pages 180x260mm

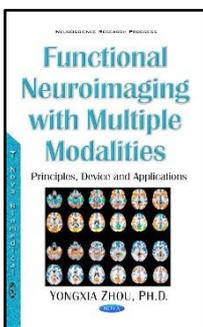


Forest Ecosystems
Management, Impact Assessment & Conservation (Wildlife Protection, Destruction & Extinction Series)

Edited by Deborah Elliott

This current book reviews and analyzes forest ecosystems. Chapter One begins with a discussion of radioactivity in forest ecosystems. Chapter Two discusses how litter chemistry has significant effects on soil biogeochemistry and looks into the relationships between litter chemistry, soil chemistry and microbial activity. Chapter Three summarizes information about short- and long-term study of the relationship between soil nematode communities as bioindicators of soil health and different types of disturbance forest soil (fallen trees, fire-damaged) and management (cleared and non-extracted windstorm plot). Chapter Four studies the organization of boreal forests in insular volcanic landscapes of the north-west Pacific. Chapter Five concludes the book with an analysis of the changes of snow moisture balance in logging areas in dark-needles forests of the Yenisei Ridge of Central Siberia.

PB 9781634857949 £90.50 September 2016 Nova Science Publishers 131 pages 155x230mm

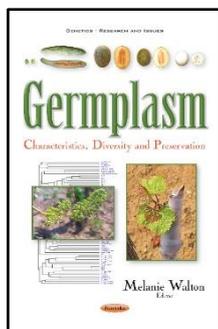


Functional Neuroimaging with Multiple Modalities
Device & Applications (Neuroscience Research Progress Series)

Yongxia Zhou

Searching for an objective and specific in vivo biomarker for normal physiology and early disease diagnosis has always been a major goal, but also one of the most challenging aspects in brain research. Possible earlier identification of the key pathological signature of diseases (for instance, Alzheimer's disease (AD)) is critical for efficient treatment and disease prevention. The concept of combined imaging features is based on the recent accumulating evidence that neither PET nor MRI alone is enough for characterising the earliest AD pathology. The results of this book will, for the first time, highlight in vivo the possibility to describe the early detection and multiple biomarkers based on combined imaging features using PET-MRI, which is the most ideal model for such studies. The newly-developed hybrid imaging technology combining PET and MRI (PET/MRI) for the past few years is emerging, and has drawn much attention in technical developments and clinical applications. PET-MRI opens new horizons in multi-parametric neuroimaging for clinical research that allows simultaneous imaging of multiple parametric changes, such as blood flow and metabolism at the same time. This integration significantly decreases the potential errors in image registration, the difficulty of interpreting underlying coexisting pathophysiological events, and most importantly, patient discomfort. This book will provide the most up-to-date and current status of multiple neuroimaging techniques. The most intriguing application of multi-modality neuroimaging lies in simultaneous interpretation and unique information that each modality can offer. Therefore, this book will present some forefront and interesting examples for the first time in this field of research.

HB 9781536103786 £90.50 December 2016 Nova Science Publishers 160 pages 155x230mm



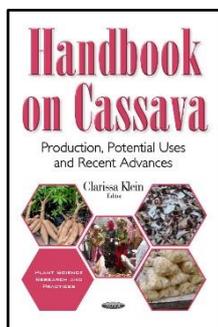
Germplasm

Characteristics, Diversity & Preservation (Genetics -- Research & Issues Series)

Edited by Melanie Walton

The need for germplasm banks that safeguard the vegetable genetic resources is more than justified by the genetic erosion aggravated in the last few decades, not only in the cultivars, but also in traditional landraces and wild relatives. Topics discussed in this book include the germplasm of melons, woodland grapes, sweet and sour cherries, soybean, and an alternative tool for the germplasm conservation in wild mammals.

PB 9781536103366 £78.50 December 2016 Nova Science Publishers 105 pages 155x230mm



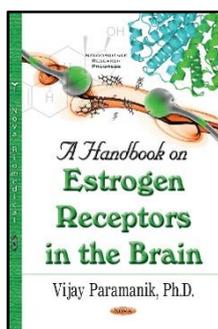
Handbook on Cassava

Production, Potential Uses & Recent Advances (Plant Science Research & Practices Series)

Edited by Clarissa Klein

Cassava produces about 10 times more carbohydrates than most cereals per unit area, and are ideal for production in marginal and drought prone areas. Cassava, which originated from tropical South America, is a perennial woody shrub with an edible root, which today is grown in tropical and subtropical regions of the world where it provides energy food and serves as a veritable source of food and income for over a billion people. This handbook provides new research on the production, consumption and potential uses of cassava.

HB 9781536102918 £295.50 December 2016 Nova Science Publishers 500 pages 180x260mm

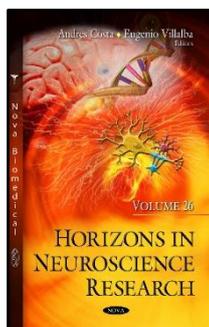


Handbook on Estrogen Receptors in the Brain (Neuroscience Research Progress Series)

Vijay Paramanik

The present book covers estrogen, its receptors and estrogen mediated gene regulation in the brain. Further, it explains the mechanism of estrogen action and dysfunction leading to diseases. Briefly, estrogen mediates its multiple functions in the brain through two well-characterised receptors: ER α and ER β . Upon binding with estrogen, ER recruits coregulators, which are responsible for tissue specific regulation. When coregulators activate the transcription of a particular gene, they become coactivators; when they repress the activity of particular gene, they are called corepressors. These coregulators make a bridge between the basal transcription machinery and the receptors by protein-protein interaction. Estrogen disrupters are also explained in this book. Furthermore, the role of estrogen and its receptors are explained in the context of aging. Taken together, this book shall be self-explanatory concerning estrogen action in the brain in various aspects. Therefore, it is intended for researchers interested in the aforementioned aspects.

PB 9781536100877 £78.50 December 2016 Nova Science Publishers 60 pages 155x230mm



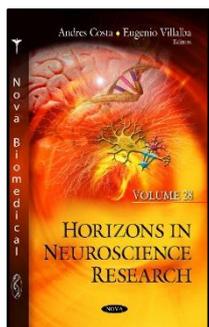
Horizons in Neuroscience Research

Volume 26 (Horizons in Neuroscience Research Series)

Edited by Andres Costa & Eugenio Villalba

This book provides readers with the latest developments in neuroscience research. Chapter One presents nonlinear features of EEG changes during auditory – verbal short-term memory task for words and nonwords. Chapter Two analyzes studies investigating the discriminative power of the Hopkins Verbal Learning Test to screen for dementia. Chapter Three reviews dementia with lewy bodies. Chapter Four examines the relationship between age and verbal working memory (WM) performance in healthy adults, ages 18 to 90. Chapter Five studies the differences in pointing versus performing a pathway in 4-5 year old childrens' topographical working memory. Chapter Six discusses the development of nicotine acetylcholine receptor imaging probes and their use for the functional analysis of nicotinic acetylcholine receptors in neuropathic pain. Chapter Seven reviews the dorsal raphe nucleus neurons as targets for the presynaptic effects of nicotine. Chapter Eight focuses on the contextual modulation of motion velocity.

HB 9781634859288 £180.99 December 2016 Nova Science Publishers 200 pages 155x230mm



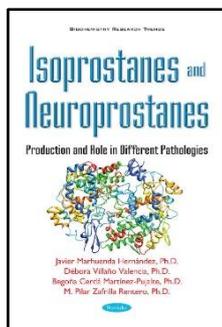
Horizons in Neuroscience Research

Volume 28 (Horizons in Neuroscience Research Series)

Edited by Andres Costa & Eugenio Villalba

This book provides readers with the latest developments in neurosciences research. Chapter One reviews the changes that occur in the muscle and neuromuscular junctions following nerve injury and discusses possible strategies to prevent muscle atrophy. Chapter Two focuses on the contribution of the anterior cingulate cortex in pain processing. Chapter Three discusses the role of the anterior cingulate cortex in the arising of awareness deficits in neurocognitive disorder, acquired brain injuries, mood disorders and psychosis. Chapter Four discusses the relationship between neuroplasticity and cognitive empowerment. Chapter Five investigates if cognitive empowerment through Eye Tracker technologies increases both neuropsychological and neurophysiological measures in patients with Rett Syndrome (RS).

HB 9781536106329 £238.50 February 2017 Nova Science Publishers 220 pages 155x230mm

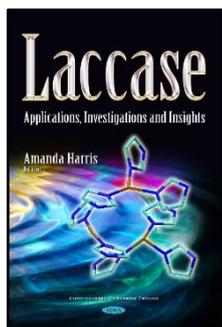


Isoprostanes & Neuroprostanes Production & Role in Different Pathologies (Biochemistry Research Trends Series)

Javier Marhuenda Hernández, Débora Villaño Valencia, Begoña Cerdá & Pilar Zafrilla Rentero

In recent years, scientific evidence supporting the relationship between diet and health has emerged. This has led to a growing interest in full and healthy food habits, in which fruits and vegetables are abundant (particularly in the Mediterranean diet) and act as sources of natural antioxidants as well as play major roles in preventing certain diseases. It is estimated that 80% of cardiovascular disease, 90% of type 2 diabetes mellitus cases and one third of cancerous processes, could be avoided including changes in lifestyle and diet improvements. Specifically, the increment on scientific reports relating the intake of antioxidant compounds and the maintenance of health has increased noticeably. The importance of dietary antioxidants lies in its ability to preserve foods containing them, and to perform the in vivo contribution of natural antioxidants. There are several scientific studies demonstrating the positive effect of exogenous and endogenous antioxidants against degenerative diseases, various cancers and diseases related to aging caused by oxidative attacks. Lipid peroxidation is thought to be an important factor in the pathophysiology of a number of diseases and in the process of ageing, but its measurement in vivo has been difficult. The aim of this thesis was to evaluate methods for measurement of lipid peroxidation in vivo that are suitable for clinical investigations, and to apply these methods in animal and human studies investigating basal conditions and situations associated with increased lipid peroxidation. Over the course of the past 25 years, more than 3800 articles have been published in the field of IsoP research by numerous investigators around the world. Numerous excellent reviews have been written describing the formation, chemical synthesis, and biological activities of IsoPs, as well as their potential use as biomarkers of diseases. This review will provide a brief historical perspective on the discovery of IsoPs with its primary focus on recent clinical research in the field. In conclusion, the simultaneous measurement of several biomarkers of lipid peroxidation is a promising approach for future studies investigating the possible role of lipid peroxidation in vivo under basal conditions and in the pathology of diseases.

PB 9781634852531 £90.50 December 2016 Nova Science Publishers 100 pages 155x230mm

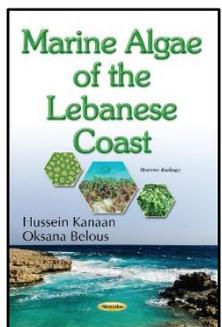


Laccase Applications, Investigations & Insights (Biochemistry Research Trends Series)

Edited by Amanda Harris

Laccases are multi-copper oxidase enzymes that catalyze the oxidation of a broad range of chemical substrates while reducing O₂ directly to water. They are typically found in fungal organisms and plants, and are part of the ligninolytic consortium together with other oxidative enzymes that degrade lignin. This book provides new research on the applications, investigations and research insights on laccase.

HB 9781536105568 £185.99 January 2017 Nova Science Publishers 270 pages 155x230mm

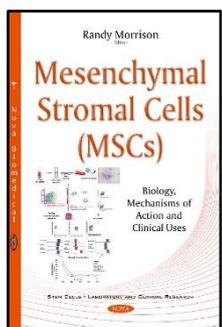


Marine Algae of the Lebanese Coast (Marine Biology Series)

Hussein Kanaan & Oksana Belous

The marine world is a universe in its own. It has its own rules of life and death, and many of its resources are still left undiscovered. Marine algae, although representing only a small part of the abundance of underwater species, contain important active ingredients which are becoming more and more exploited in medicine, pharmacology and nutrition. This book presents the results of a survey conducted along the Lebanese coast in order to determine the different algae species growing there. It gives a general overview of algae species, their modes of reproduction, contents in active ingredients and drying method importance as well as present medical, pharmaceutical and nutritional uses. It provides data on each of the discovered species, illustrated in high definition, along with information on locations and periods of growth. This book targets academics, researchers and curious readers, and it is still the only available reference on marine algae growing on the Lebanese coast.

PB 9781536102116 £78.50 December 2016 Nova Science Publishers 200 pages 155x230mm

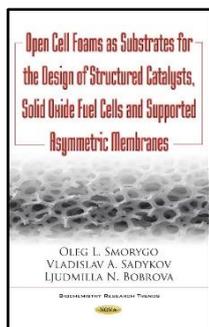


Mesenchymal Stromal Cells (MSCs) Biology, Mechanisms of Action & Clinical Uses (Stem Cells -- Laboratory & Clinical Research Series)

Edited by Randy Morrison

Mesenchymal stromal cells (MSCs) are considered an important tool in tissue engineering due to their multilineage potential in vitro as in vivo beyond their capacity to produce bioactive molecules involved in tissue regeneration. MSCs are essential elements of the microenvironment because they are the precursors of all stromal cells. MSCs influence HPC functions, such as proliferation, apoptosis, and clonogenic growth, directly via cell-cell contacts or indirectly via the secretion of soluble factors. This book reviews the biology, mechanisms of action and clinical uses of MSCs. Chapter One analyzes the modulation of adhesion molecules on MSCs to help in understanding their possible contribution to cancer initiation and progression. Chapter Two studies adipose derived MSCs in cancer therapy. Chapter Three discusses the improvement of clinical uses of MSCs by 3D scaffold-free constructs. Chapter Four reviews the application of MSCs in veterinary medicine.

PB 9781634856997 £78.50 September 2016 Nova Science Publishers 97 pages 155x230mm

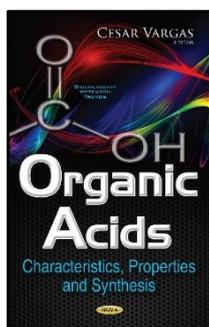


Open Cell Foams as Substrates for the Design of Structured Catalysts, Solid Oxide Fuel Cells & Supported Asymmetric Membranes (Biochemistry Research Trends Series)

Oleg Smorygo, Vladislav Sadykov & Ljudmila Bobrova

This monograph summarizes results from the international research devoted to the design of efficient structured catalysts for the transformation of fuels into syngas, intermediate-temperature solid oxide fuel cells and asymmetric supported oxygen separation/catalytic membranes based on new types of metal alloy/composite foam substrates. The comparative analysis of different porous permeable materials was performed in terms of the achievable pore size and relative density ranges, hydraulic permeability and transfer parameters. It was demonstrated that the open-cell foam provide a good combination of properties that can be advantageous in many catalytic applications.

HB 9781634854283 £180.99 December 2016 Nova Science Publishers 200 pages 155x230mm



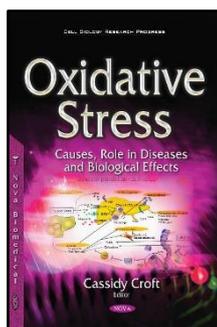
Organic Acids

Characteristics, Properties & Synthesis (Biochemistry Research Trends Series)

Edited by Cesar Vargas

Organic acids are compounds with acidic properties and occur naturally in a number of foods. They are mainly present in fermented products as a result of hydrolysis, biochemical metabolism, and microbial activity. This book provides research on the characteristics, properties and synthesis of organic acids. Chapter One reviews the application of organic acids in food preservation. Chapter Two provides a chromatographic analysis organic acids in food from animal origin. Chapter Three discusses the diversity of organic acids content in green and roasted Coffea arabica cultivars. Chapter Four studies the effects of organic acids and polysaccharides on the solubility of oyster-derived zinc digested in vitro. Chapter Five examines the evaporation of organic acids aqueous solutions through spread films of polyelectrolyte/surfactant complexes. Chapter Six discusses the influence of liquid absorption and the effect of downstream pressure on the separation performance of pervaporation of acetic acid aqueous solutions.

PB 9781634859318 £90.50 December 2016 Nova Science Publishers 110 pages 155x230mm



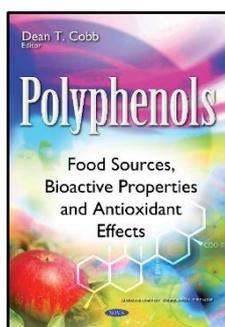
Oxidative Stress

Causes, Role in Diseases & Biological Effects (Cell Biology Research Progress Series)

Edited by Cassidy Croft

Active oxygen species are produced as inescapable by-products of a normal aerobic metabolism, and their production is further enhanced by exposure to certain environmental conditions, or as a result of some diseases. Oxidative stress is defined as an imbalance between the production of free radicals (FR) and antioxidant defences in favour of the former, which can result from an excess of prooxidant, antioxidant deficiency or both factors. There are many kinds of FR, but these can be grouped together under the name of reactive oxygen species (ROS) or reactive nitrogen species (RNS), determined by the ability of each species according to the four basic characteristics: reactivity, specificity, selectivity and diffusivity. This book aims to discuss the biological effects, role in diseases, and causes of oxidative stress. Some of the topics provided include oxidative stress in biofilms; age reaction to oxidative stress; controlling of oxidative stress in non-alcoholic steatohepatitis; and the role of nitric oxide toxicity and oxidative stress in graft versus host disease.

PB 9781536100402 £84.99 December 2016 Nova Science Publishers 218 pages 155x230mm



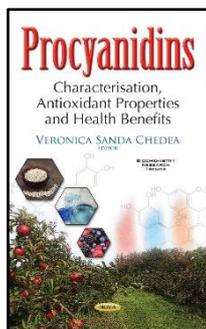
Polyphenols

Food Sources, Bioactive Properties & Antioxidant Effects (Biochemistry Research Trends Series)

Edited by Dean T Cobb

Polyphenols are secondary metabolites of plants. Dietary phenolics are not only classified as human nutrients, but also play important roles in human health and are therefore called nutraceuticals. Both epidemiological studies and controlled human studies have shown that regular intakes of diets rich in phenolics are inversely related to some chronic diseases such as certain cancers and coronary heart diseases. Types and contents of phenolics in different food system vary greatly and foods of plant origin including fruits, vegetables, legumes and some beverages are good sources of bioactive phenolics. Beside the edible part of plant foods, some agricultural by-products usually contain higher levels of polyphenols, particularly, flavonoids than products themselves. This book describes the major classes of dietary phenolics, and their occurrence in the commercially important agricultural by-products including peanuts skin, grape pomace, apples pomace, citrus processing by-products, and cranberry pomace. It also discusses the role of polyphenols in the prevention of ultraviolet light induced inflammation and immunosuppression; yerba mate; the Mediterranean diet; industrial apple pomace; the role of polyphenols in human diseases; and the influence of extraction methods on the stability of polyphenols.

PB 9781536100426 £84.99 December 2016 Nova Science Publishers 236 pages 180x260mm

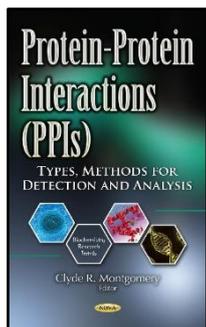


Procyanidins Characterisation, Antioxidant Properties & Health Benefits (Biochemistry Research Trends Series)

Edited by Veronica Sanda Chedea

Procyanidins are phenolic compounds from plants and they are abundant in our diet. Research studies on procyanidins have shown that they have many health benefits, especially as preventive agents for cancer, cardiovascular diseases and diabetes. High concentrations of procyanidins can be found in plants and foods such as red wine, grapes, grape seeds, cocoa, berries and apples. CONTENTS: Preface; Procyanidins: Structure & Occurrence; Analysis of Proanthocyanidins: Extraction, Liquid Chromatography & Mass Spectrometry Methods; Analysis of Highly Polymeric Proanthocyanidins from Seed Shells of Japanese Horse Chestnut & their Health Benefits; Procyanidins-Bioavailability & Metabolization; Procyanidins & their Effectiveness after Incorporation in Food Systems; Studies of Procyanidin Structure-Activity Relationship & Mechanisms on Cardiovascular Diseases; Index.

HB 9781536102826 £90.50 December 2016 Nova Science Publishers 150 pages 155x230mm

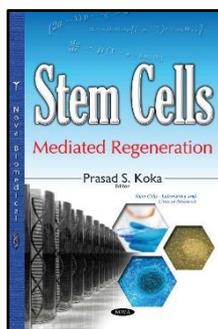


Protein-Protein Interactions (PPIs) Types, Methods for Detection & Analysis (Biochemistry Research Trends Series)

Edited by Clyde R. Montgomery

Protein-protein interactions (PPIs) play an important role in vital biological processes such as metabolic and signaling pathways, cell cycle control, and DNA replication and transcription. This book discusses types, methods for detection and the analysis of PPIs. Chapter One describes two key nuclear magnetic resonance (NMR) methods for the investigation of protein-protein interactions, chemical shift perturbation, and residual dipolar coupling, with practical tips on the preparation of samples, NMR measurement, and analysis. Chapter Two describes the basic principles and provides a practical description of the recent technological developments in solution NMR spectroscopy for examining protein-protein interactions. Chapter Three focuses on identifying PPIs via many learning methods based on protein sequence information. Chapter Four examines the thermodynamics of PPIs by isothermal titration calorimetry. Chapter Five describes the general microscopic features of amyloid fibril structures and then discusses the macroscopic properties of protein aggregate with conformations such as packing, hydration, and enthalpy using thermodynamic variables in combination with densitometry and isothermal titration calorimetry. Chapter Six reviews the special case of protein self-association as a modulator of protein function.

PB 9781634859707 £90.50 December 2016 Nova Science Publishers 130 pages 155x230mm

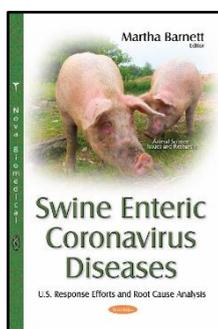


Stem Cells-Mediated Regeneration (Stem Cells -- Laboratory & Clinical Research Series)

Edited by Prasad S. Koka

Stem cells of varying potencies originating from the organ generating totipotent embryonic stem cells (ESCs) to terminally differentiated cells such as platelets formation, via pluripotent hematopoietic stem cells (HSCs), and their downstream multipotent mesenchymal stem cells (MSCs), have in general been well characterised. Thus majority of these different stem cell types and their differentiation "progeny" can be tracked for subjecting to further characterisations for clinical relevance and consequently needed biological modifications at the cellular and molecular levels, for patients' clinical treatments.

HB 9781536102512 £219.50 December 2016 Nova Science Publishers 310 pages 180x260mm

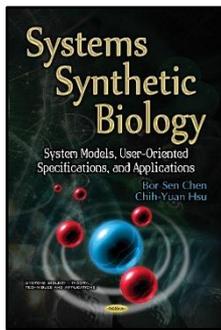


Swine Enteric Coronavirus Diseases U.S. Response Efforts & Root Cause Analysis (Animal Science, Issues & Research Series)

Edited by Martha Barnett

Pork is consumed more than any other meat worldwide, and there are numerous other products made with ingredients from pigs, including medical products, such as insulin to treat diabetes. The United States is the world's third-largest producer of pork products. The U.S. Department of Agriculture (USDA) estimated that U.S. pork exports in 2014 were valued at over \$6 billion. Two lethal, highly contagious diseases in pigs emerged in the United States in 2013 and 2014, causing the deaths of millions of pigs. The two emerging diseases are collectively known as Swine Enteric Coronavirus Diseases (SECD). This book examines the initial response to the SECD outbreaks, USDA's subsequent actions to manage SECD, and steps USDA has taken to improve its future response to emerging animal diseases. CONTENTS: Preface; Emerging Animal Diseases: Actions Needed to Better Position USDA to Address Future Risks (United States Government Accountability Office); Questions & Answers: Swine Enteric Coronavirus Diseases Monitoring & Control Program (Animal & Plant Health Inspection Service); Swine Enteric Coronavirus Introduction to the United States: Root Cause Investigation Report (Animal & Plant Health Inspection Service); Index.

PB 9781634857758 £90.50 September 2016 Nova Science Publishers 115 pages 155x230mm



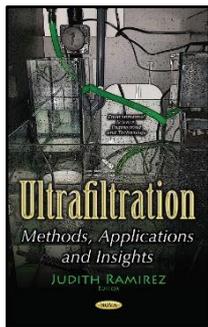
Systems Synthetic Biology

System Models, User-Oriented Specifications, & Applications (Systems Biology -- Theory, Techniques & Applications Series)

Bor-Sen Chen & Chih Yuan Hsu

In this book, the synthetic gene circuits are modeled by nonlinear stochastic systems to consider random genetic variations and random in vivo environmental disturbances. The authors' design purpose is to engineer a robust genetic circuit to achieve a desired behavior or product to tolerate intrinsic random fluctuation and environmental disturbance in the host cell. In this book, the authors first construct several promoter-RBS component libraries according to their regulatory strengths. Then, based on a stochastic system model, they use design biological filters, biological transistor biosensors, genetic lysis circuits, and a genetic transmitter and receiver by selecting adequate promoter-RBS components from their corresponding libraries to meet the prescribed design (user-oriented) specifications through the proposed library-based researching method. These synthetic gene circuits are also implemented by real experiments to confirm their design performance in this book. Based on the purposed synthetic design method, we could achieve these design specifications at one time, saving much trial time by the conventional methods. Therefore, the purposed systematic design methods in this book have many potential applications to more complex gene circuit design of systems synthetic biology in the future.

HB 9781536102109 £185.99 January 2017 Nova Science Publishers 280 pages 155x230mm



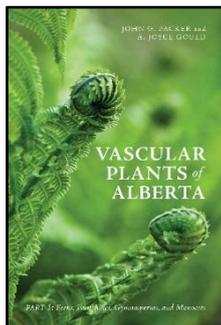
Ultrafiltration

Methods, Applications & Insights (Environmental Science, Engineering & Technology Series)

Edited by Judith Ramirez

Ultrafiltration technology has been widely used in many fields such as water purification, chemical separation, pharmaceutical production, food processing, seawater desalination pre-treatment, and more. This book provides new research on the processes and uses of ultrafiltration. Chapter One reviews the preparation and application of hollow fibre ultrafiltration membrane. Chapter Two details the ultrafiltration of surfactin (lipopeptide), one of the most well-known biosurfactants and suggests a similar process for mannosylerythritol lipids (glycolipid), one of the most prominent biosurfactants. Chapter Three provides an overview on ultrafiltration in food processing. Chapter Four addresses a suitable methodology for fouling control on an ultrafiltration membrane. Chapter Five discusses the effect of anions on the removal of mercury(II) using FeS-supported crossflow ultrafiltration.

PB 9781536105995 £90.50 February 2017 Nova Science Publishers 130 pages 155x230mm



Vascular Plants of Alberta

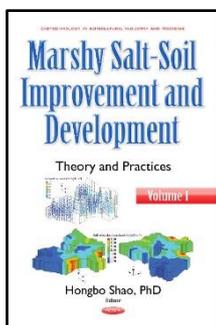
Part 1 -- Ferns, Fern Allies, Gymnosperms & Monocots

John Packer & A Joyce Gould

Packer and Gould have provided an invaluable service for anyone interested in western North American botany by creating a simple, user-friendly and portable key to the Alberta species found in the 30-volume set of Flora of North America. Designed to be carried into the field for handy reference and use, Part I incorporates the new names and taxonomical understandings that have accumulated over the years. Part 1 of a three-volume set containing the up-to-date classification of the ferns, fern allies, gymnosperms, and monocots found in Alberta according to the latest taxonomic findings.

PB 9781552386828 £26.99 January 2017 University of Calgary Press 282 pages 230x155mm illus

BIOTECHNOLOGY



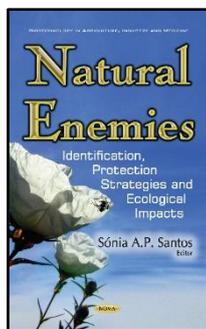
Marshy Salt-Soil Improvement & Development

Volume I -- Theory & Practices (Biotechnology in Agriculture, Industry & Medicine Series)

Edited by Hongbo Shao

Marshy salt-soil improvement and efficient use are a worldwide problem. As the global population increases and urbanisation accelerates, arable land will be the most serious challenge for human beings and is decreasing under global climate change and the pressure of various environmental issues. This case is especially true for China. Modern agriculture is facing a serious challenge which will extend into the future. Land is one of the most important resources for the survival of the human race. How to increase arable land capacity is the key for sustainable agriculture development. China has extensive marshy land that can be reclaimed for better potential land resources, which will be a good model for enlarging global arable land. Related studies have been conducted in China for the past 30 years, and now many results concerning economic efficiency have been obtained. For the purpose of summarising these results as an example of salt-soil improvement and efficient development and demonstration, the authors have kindly organised this book series. This volume is the extension of Salt Marshes: Ecosystems, Vegetation and Restoration Strategies, and so it will serve as a valuable reference and textbook for soil scientists, biologists, agricultural scientists, environmental scientists, ecologists, governmental policymakers and students who are interested in soil, agriculture and food.

HB 9781536104271 £152.50 January 2017 Nova Science Publishers 245 pages 155x230mm



Natural Enemies

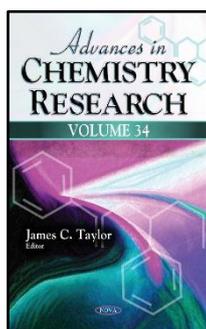
Identification, Protection Strategies & Ecological Impacts (Biotechnology in Agriculture, Industry & Medicine Series)

Edited by Sónia A P Santos

The community of natural enemies that inhabits agroecosystems is complex mainly due to multiple trophic interactions established among them and their target prey/hosts. Several factors can influence the efficiency of natural enemies as biological control agents, such as the occurrence of preferred food items, supplementary food resources, shelters, agricultural practices or landscapes. In this book, scientists present recent studies in regards to the identification, protection strategies and impacts of agricultural practices on important groups of natural enemies. This core focus includes specific studies on predatory species (e.g., mites, spiders, anthocorids, nabids, carabids, and coccinellids) as well as parasitoid species (hymenopterans). The different chapters present new approaches towards the conservation of natural enemies in agroecosystems, and discuss the effects of climate change and agricultural practices on biodiversity, life history and movement of natural enemies.

HB 9781634859219 £152.50 December 2016 Nova Science Publishers 153 pages 155x230mm

CHEMISTRY



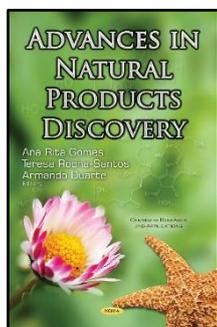
Advances in Chemistry Research

Volume 34 (Advances in Chemistry Research Series)

Edited by James C Taylor

The authors' of this latest volume discuss recent advances in chemistry research. Chapter One studies theoretical optimisation of the catalytic reaction of alcohols with dimethylcarbonate. Chapter Two provides a review of linalool, a key contributor to the aroma nuances in hoppy beers, cocoa liquors, wines and fermented tea beverages. Chapter Three provides a discussion of neurological studies on linalool and other fragrant compounds. Chapter Four focuses on the phytochemistry and biological activities of iridoids. Chapter Five presents the fragmentation pathways of different anthraquinone-based colorants utilised for structural determination of unknown red colorants obtained from various sources and analysed using HPLC-UV-VIS ESI MS/MS system. Chapter Six researches the process of synthesis, catalysis and mimetic properties obtained with the use of phthalocyanine, porphyrin and cyclodextrin complexes in the development of electrochemical sensors. Chapter Seven investigates first order chemical kinetics mechanisms and obtains general conclusions about the qualitative behavior of the concentrations curves. Chapter Eight discusses the effect of co-anions on perchlorate degradation using zero-valent titanium (ZVT) anode. Chapter Nine studies the use of poly(ethylene glycol)-supported ruthenium(II) polypyridyl complex as a novel and recyclable visible light photocatalyst for organic synthesis. Chapter Ten discusses the synthesis of radically deoxygenated sugars.

HB 9781536104684 £238.50 January 2017 Nova Science Publishers 240 pages 155x230mm

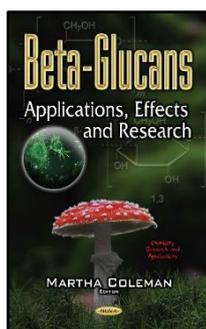


Advances in Natural Products Discovery (Chemistry Research & Applications Series)

Edited by Ana Rita Gomes, Teresa Rocha-Santos & Armando Duarte

The largely unexplored natural world harbours great biodiversity, and provides a unique and rich source of natural products with interesting pharmaceutical activities as well as potential applications for environmental protection. Over the last few years, much attention has been paid to unraveling the structural, compositional and sequential properties of bioactive compounds, but the exploration of new natural resources needs to be developed wisely while keeping sustainability principles in mind. With the help of some developed isolation techniques, researchers have been able to elucidate new extraction methods applicable to both aquatic and terrestrial organisms. Natural products have often been used in medicine, food, fragrances, and pest control. Most likely due to their easy accessibility, terrestrial plants have been the major source of medicinal products, especially for traditional or folk medicine. However, only 10% of over 250,000 plants have been investigated for biological activity. On the other hand, aquatic environments contain over 80% of world's plant and animal species. In recent years, several bioactive compounds have been extracted from various marine organisms, such as tunicates, sponges, starfish, soft corals, bryozoans, and sea cucumbers, among others. The search for new metabolites from marine organisms has resulted in the isolation of more than 10,000 metabolites, many of which are endowed with pharmacodynamic properties. These natural products are of high commercial value due to their natural source, complete biodegradable properties, lower or no toxicity, and in most cases lower cost compared to synthetic chemicals.

HB 9781536100884 £199.99 December 2016 Nova Science Publishers 300 pages 180x260mm



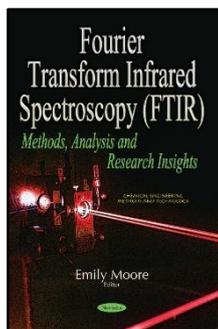
Beta-Glucans

Applications, Effects & Research (Chemistry Research & Applications Series)

Edited by Martha Coleman

Polysaccharides (β -D-glucans) are a group of compounds belonging to the class of agents known as biological response modifiers, and have a potential therapeutic role in atherosclerosis, inflammatory diseases, and cancer. β -(1 \rightarrow 3)-Glucans can be cellular structural polysaccharides or polysaccharides secreted on the surfaces of mushrooms or fungi. There are many types of β -glucans from different sources; some of them have been studied more precisely as potential therapeutic compounds for medical applications. The authors of this book review and discuss new research on the applications and effects of beta-glucans.

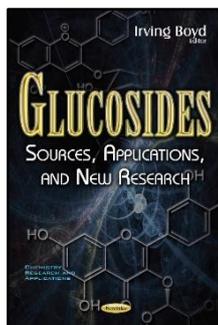
HB 9781536106282 £90.50 February 2017 Nova Science Publishers 150 pages 155x230mm



**Fourier Transform Infrared Spectroscopy (FTIR)
Methods, Analysis & Research Insights (Chemical Engineering Methods & Technology Series)**
Edited by Emily Moore

Fourier Transform Infrared (FTIR) spectroscopy applies the principle that molecular vibrations can absorb infrared radiation in the range of the electromagnetic radiation. This book discusses methods and provides new research on FTIR. Chapter One reviews the advances in the analysis of biological systems by means of FTIR spectroscopy. Chapter Two studies the last advances of infrared spectroscopy applied to the analysis of lignocellulosic materials. Chapter Three presents the Fourier transform infrared spectroscopic, coupled with chemometric tools, to characterize organic matter transformations during the composting process. Chapter Four focuses on applications of FTIR spectroscopy in the wine industry.

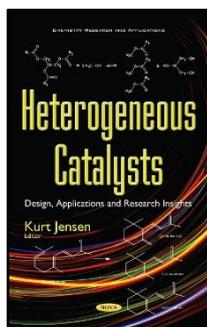
PB 9781536103830 £78.50 December 2016 Nova Science Publishers 92 pages 155x230mm



**Glucosides
Sources, Applications, & New Research (Chemistry Research & Applications Series)**
Edited by Irving Boyd

This book reviews sources, applications and new research of glucosides. Chapter One introduces the source (where and how mycotoxins are glucosylated), history (how the researchers recognise and identify mycotoxin glucosides), and recent research (screening of new mycotoxin glucosides conducted by the authors and risk assessment research of mycotoxin glucosides). Chapter Two summarises the information available on the field of sterol glycosides from different perspectives. Chapter Three examines recent developments in the phase behavior of n-Alkyl glucosides in arid systems.

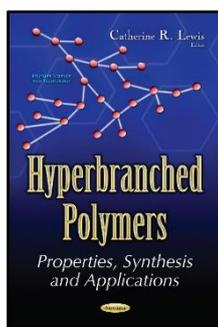
PB 9781634858410 £78.50 December 2016 Nova Science Publishers 90 pages 155x230mm



**Heterogeneous Catalysts
Design, Applications & Research Insights (Chemistry Research & Applications Series)**
Edited by Kurt Jensen

This book provides new research on the design, applications and research insights of heterogeneous catalysts. Chapter One discusses the assembly of nanocatalytic structures by the molecular layer epitaxy method. Chapter Two presents a comprehensive review of different solid acids used for biodiesel synthesis. Chapter Three examines process optimization of refined palm oil biodiesel production using calcium methoxide obtained from quick lime as a heterogeneous catalyst. Chapter Four studies the cyclization of pseudoionone over USY zeolites.

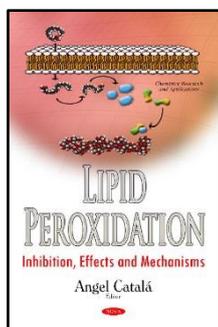
HB 9781536102888 £90.50 December 2016 Nova Science Publishers 160 pages 155x230mm



**Hyperbranched Polymers
Properties, Synthesis & Applications (Polymer Science & Technology Series)**
Edited by Catherine R Lewis

Hyperbranched polymers (HBPs) have attracted great interest due to their characteristics such as low viscosity, high solubility, numerous terminal groups, globular architecture and good capacity of encapsulating guest molecules. Nowadays HBPs have shown many applications in polymer science and engineering, owing to the merits of convenient synthesis and low cost. The authors of this book further review the properties, synthesis and uses of hyperbranched polymers.

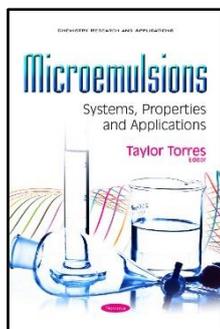
PB 9781536106312 £78.50 February 2017 Nova Science Publishers 80 pages 155x230mm



**Lipid Peroxidation
Inhibition, Effects & Mechanisms (Chemistry Research & Applications Series)**
Edited by Angel Catalá

This book presents an overview of lipid peroxidation: inhibition, effects and mechanisms. The topics analysed, cover a broad spectrum of functions played by lipid peroxidation and presents new information in this area of research. The topics analysed include: progress in the knowledge of lipid peroxidation, from the first evidences issued by Nicolas Theodore de Saussure in Paris 1804; fighting against lipid peroxidation: the unique story of docosahexaenoic acid in the brain; protective effects of melatonin and structurally-related molecules in reducing membrane rigidity due to lipid peroxidation; synergistic effects of antioxidant compositions during inhibited lipid autoxidation; lipid peroxidation and animal longevity; free radicals in health and disease; lipid peroxidation in autoimmune diseases; aldehydes derived from lipid peroxidation in cancer and autoimmunity; the role of reactive oxygen species and lipid peroxidation in the neurodegenerative process after spinal cord injury; kinetics and mechanisms of inhibited lipid autoxidation in presence of 4-substituted-coumarins; hypoxia and oxidative stress: cell signaling mechanisms and protective role of vitamin C and cilnidipine; characterisation of oxidative stress and antioxidant potency; paying attention to time and location; lipid peroxidation in aquatic organisms: ontogenetic, phylogenetic and ecological aspects; chemistry of lipid oxidation in edible oils; and menopause progression and oxidative stress: associated mechanisms and the importance of physical exercise.

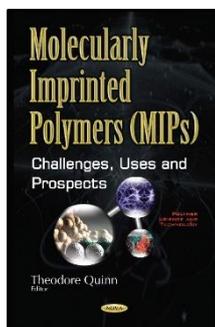
HB 9781536105063 £219.50 January 2017 Nova Science Publishers 376 pages 180x260mm



Microemulsions
Systems, Properties & Applications (Chemistry Research & Applications Series)
Edited by Taylor Torres

Chapter One summarises novel observations regarding physicochemical properties, physical and chemical stability, and drug delivery potential of microemulsion hydrogel drug delivery systems, based on comprehensive reviews of the research results from relevant scientific publications. Chapter Two discusses the synthesis and investigation of the properties of hexaferrites obtained by microemulsion techniques. Chapter Three focuses on manufacturing solid lipid nanoparticle dispersions using a microwave assisted microemulsion approach.

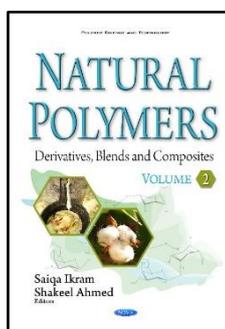
PB 9781634858908 £78.50 December 2016 Nova Science Publishers 92 pages 155x230mm



Molecularly Imprinted Polymers (MIPs)
Challenges, Uses & Prospects (Polymer Science & Technology Series)
Edited by Theodore Quinn

In the past years, there has been growing interest in the development of molecularly imprinted polymers (MIPs). Molecular imprinting technology have been widely used in different fields including pharmaceutical biotechnological and chemical industries, water purification and food and environment analysis. This book discusses the challenges, uses and prospects of MIPs. Chapter One provides an overview of the different applications of the molecularly imprinted polymers in the field of food science. Chapter Two highlights some of the examples of MIP synthesis and use, without covering the extensive literature available and providing a broad view of the field. Chapter Three analyzes trends in the molecular imprinting of small molecules.

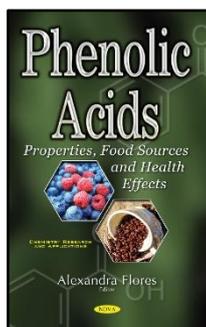
HB 9781634859226 £180.99 December 2016 Nova Science Publishers 200 pages 155x230mm



Natural Polymers
Derivatives, Blends & Composites -- Volume II (Polymer Science & Technology Series)
Edited by Saiqa Ikram & Shakeel Ahmed

The book Natural Polymers: Derivatives, Blends and Composites Volume II is an edited volume comprised of fifteen chapters from different experts working in the area of natural polymers. Natural polymers are finding applications in fields of packaging, medicine, pharmaceuticals, biomedicine, textiles and many others. This book gives detailed insight into all aspects of natural polymers to the latest trends in the development of new products. This book will hopefully be supportive to scientists, researchers, academicians and students in different disciplines. Key features: 1. Describes various derivatives of natural polymers (ie: composites, nanoparticles, hydrogels, etc.); 2. Self-contained chapters on starch, chitosan, alginate, bovine serum albumin, among others; 3. Covers a broad range of natural polymer applications, from packaging to biomedicine.

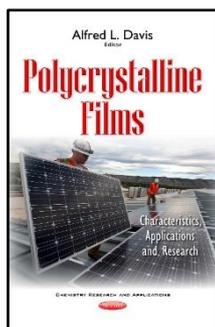
HB 9781536104264 £185.99 January 2017 Nova Science Publishers 300 pages 180x260mm



Phenolic Acids
Properties, Food Sources & Health Effects (Chemistry Research & Applications Series)
Edited by Alexandra Flores

Phenolic acids (PhAs), including hydroxybenzoic and cinnamic acids and their derivatives, are the products of secondary metabolism in plants and play important role in their growth and development. In this book, Chapter One discusses the phenolic acids during growth and development of xylem cells in *Pinus sylvestris* L. stems. Chapter Two evaluates the possible synergism or antagonism of several phenolic acids allowed to concomitantly react in an antioxidant capacity. Chapter Three evaluates the effect of different solvents on the extraction of major phenolic acids from aerial part of wild and greenhouse cultivated heather. Chapter Four focuses on quantification of the antioxidant activity on five varieties of mole produces in the Huichapan region in Mexico. Chapter Five examines antioxidant and cytotoxic activities of phenolic acids and their role in anticancer therapies. Chapter Six reviews the quantification and characterisation of phenolic acids in foods. Chapter Seven presents an overview on the physiological effects of phenolic acid in tea and coffee on human health.

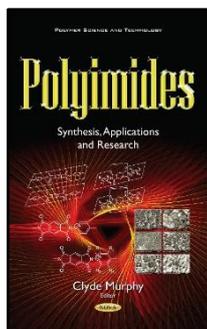
PB 9781536103892 £78.50 December 2016 Nova Science Publishers 130 pages 155x230mm



Polycrystalline Films
Characteristics, Applications & Research (Chemistry Research & Applications Series)
Edited by Alfred L. Davis

This book provides new research on polycrystalline films. Chapter One reviews the characterisation of polycrystalline $\text{Cu}_2\text{ZnSn}(\text{SxSe1-x})_4$ thin-films and solar-cells. Chapter Two explains the chemical vapor deposition process accelerated by the fragments of monomethylsilane. Chapter Three studies the regularities of formation of the nanostructured films of polycrystalline silicon doped with germanium as isovalent impurity.

PB 9781536107968 £78.50 February 2017 Nova Science Publishers 75 pages 155x230mm



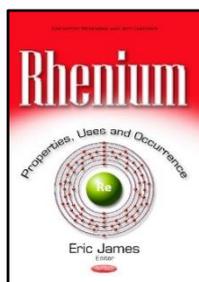
Polyimides

Synthesis, Applications & Research (Polymer Science & Technology Series)

Edited by Clyde Murphy

Polyimide (PI) is an engineering polymer material with advantages of high temperature resistance, low temperature tolerance, radiation resistance, flexibility and excellent dielectric properties. This book presents research on the properties, composites and uses of polyimides. Chapter One focuses on the synthesis and structure-property relationships of neat polyimides, and provides a list of the different methods available to improve the properties of neat PI for gas separation. Chapter Two presents a study aimed at clarifying the effect of fluorination time on surface charge and space charge behaviours of fluorinated PI film and PI/Al₂O₃ composites. Chapter Three focuses on the latest research and developments on PI aerogels, including crosslinkers synthesis chemistry, PI aerogels synthesis chemistry, and their engineering applications. Chapter Four summarizes the current fabrication methods of the polyimide aerogels and their composites.

PB 9781536105964 £90.50 February 2017 Nova Science Publishers 120 pages 155x230mm



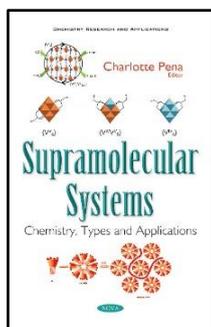
Rhenium

Properties, Uses & Occurrence (Chemistry Research & Applications Series)

Edited by Eric James

Rhenium (Re), a very scarce element in nature was the last naturally available element to be discovered in 1925. Re is one of the rarest metals, found in the Earth's crust. The authors of this book provide a review of the discovery of rhenium and its consequences. They also present an overview of the most significant applications of oxo-rhenium complexes as catalysts in organic chemistry, and the valorisation of mineral resources in Portugal.

PB 9781536106299 £78.50 February 2017 Nova Science Publishers 70 pages 155x230mm



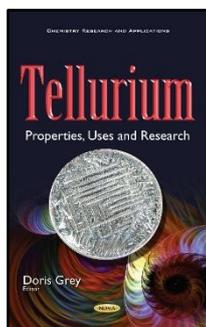
Supramolecular Systems

Chemistry, Types & Applications (Chemistry Research & Applications Series)

Edited by Charlotte Pena

Supramolecular chemistry provides ingenious strategies for the elaboration of functional systems from readily available molecular components. These methodologies have been used for the development of sensors, catalysts, energy or electron transfer systems, agents for photodynamic therapy and so forth. This book reviews the chemistry, types and applications of supramolecular systems. CONTENTS: Preface; Design & Applications of Supramolecular Systems Based on (THIA)Calixarene Ammonium Derivatives; The Lindqvist Hexavanadate: A Platform for Coordination-Directed Assembly; Supramolecular Metal-Organic Frameworks based on Metal-Nucleobase Entities; Biomimetic Studies of Porphyrin Self-Assembled Systems; Index.

PB 9781634858854 £90.50 December 2016 Nova Science Publishers 100 pages 155x230mm



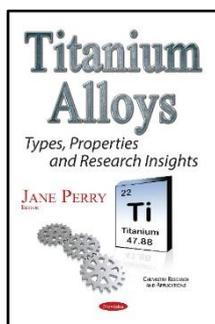
Tellurium

Properties, Uses & Research (Chemistry Research & Applications Series)

Edited by Doris Grey

This book discusses the chemical element tellurium's (Te) properties, uses and research. Chapter One summarizes the synthesis, properties and applications of tellurium nanostructures. Chapter Two studies the advances in the preparation and characterization of Te, N-containing heterocycles. Chapter Three discusses the current status of knowledge concerning toxicology and pharmacology of organotellurium compounds from different classes. Chapter Four focuses on electrochemical deposition of tellurium on n- and p-Si wafers, in porous SiO₂ layer on n-Si and in the barrierless template of nanoporous alumina.

HB 9781536105551 £90.50 January 2017 Nova Science Publishers 160 pages 155x230mm



Titanium Alloys

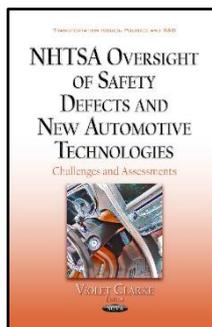
Types, Properties & Research Insights (Chemistry Research & Applications Series)

Edited by Jane Perry

Titanium and its alloys are among the most important materials with a wide range of applications. Titanium and its alloy offer a good combination of properties, such as low density, high strength-to-weight ratio, good biocompatibility, and excellent corrosion resistance. These excellent properties make Titanium and its alloys the favourite of many industries that ranges between, land, air and water applications. In this book, Chapter One provides a review of laser additive manufacturing of titanium and its alloys. Chapter Two presents some of these properties produced through research of laser metal deposition of Ti6Al4V. Chapter Three determines the effects of welding heat input on the high-temperature tensile properties, toughness, and microstructural features of titanium alloy. Chapter Four presents a commentary on the positive roles of hydrogen in titanium alloys in the aspects of microstructural refinement, hot workability, superplasticity, powder metallurgy, hydrogen storage, mechanical properties, wear resistance, welding, bonding, machining and deoxidation, with the purpose of helping readers to obtain a quick method of the special and effective hydrogen treatment technology of titanium alloys.

PB 9781536104370 £78.50 January 2017 Nova Science Publishers 102 pages 155x230mm

CIVIL ENGINEERING



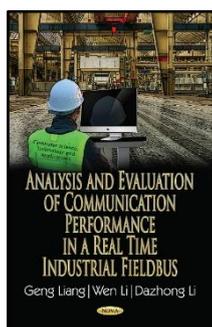
NHTSA Oversight of Safety Defects & New Automotive Technologies Challenges & Assessments (Transportation Issues, Policies & R&D Series)

Edited by Violet Clarke

The National Highway Traffic Safety Administration's (NHTSA) mission is to save lives, prevent injuries, and reduce the economic costs due to traffic crashes. As such, NHTSA is responsible for overseeing vehicle safety, a task made more challenging by the increasingly complex electronics and software used in today's vehicles. NHTSA's oversight faces greater scrutiny after a series of high-profile vehicle recalls that highlighted deficiencies with NHTSA's safety-defect investigation processes. This book addresses challenges identified for NHTSA's oversight of safety defects; NHTSA's implementation of a new IT system for safety-defect investigations; and how NHTSA is addressing new technologies in its oversight of vehicle safety, among other things.

HB 9781536103755 £119.50 December 2016 Nova Science Publishers 210 pages 155x230mm

COMPUTING

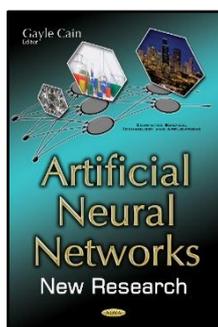


Analysis & Evaluation of Communication Performance in a Real Time Industrial Fieldbus (Computer Science, Technology & Applications Series)

Geng Liang, Wen Li & Dazhong Li

This book provides comprehensive research on the communication performance of a real time industrial fieldbus. Several important topics were investigated, such as how to ensure the transmission of real-time messages within a maximum bound time along the industrial fieldbus mentioned in this book. Profibus, FF, WorldFIP and CAN are all well-proved solutions for real-time communication systems, based on a simplified timed token (TT) protocol and bus scheduling. The following subjects dealing with the real-time communication performance of an industrial fieldbus were investigated and studied in this book. Features: 1) Concept and essentiality of timed-token MAC protocol with the effect of its parameter in real-time characteristics; 2) MAC mechanism in Profibus, timing analysis, optimization of acyclic bandwidth allocation, and the approaches to guarantee the real-time behaviour of the Profibus protocol; 3) Principles of acyclic data communication, and analysis of the delay performance of time-critical and time-available data in FF fieldbus data link layer token-passing service; 4) Communication models in WorldFIP network, Producer/Distributor/Consumer link concept, response time analysis for sporadic traffic and investigation of the worst-case response time issues; 5) Communication mechanism in CAN fieldbus with its performance analysis and evaluation in real-time applications. The academic level of this book is relatively high and professional. It is suitable as a reference for university graduates, lecturers and researchers.

HB 9781536106404 £185.99 February 2017 Nova Science Publishers 270 pages 155x230mm



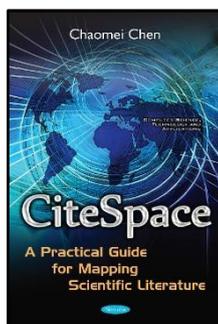
Artificial Neural Networks

New Research (Computer Science, Technology & Applications Series)

Edited by Gayle Cain

This current book provides new research on artificial neural networks (ANNs). Topics discussed include the application of ANNs in chemistry and chemical engineering fields; the application of ANNs in the prediction of biodiesel fuel properties from fatty acid constituents; the use of ANNs for solar radiation estimation; the use of in silico methods to design and evaluate skin UV filters; a practical model based on the multilayer perceptron neural network (MLP) approach to predict the milling tool flank wear in a regular cut, as well as entry cut and exit cut, of a milling tool; parameter extraction of small-signal and noise models of microwave transistors based on ANNs; and the application of ANNs to deep-learning and predictive analysis in semantic TCM telemedicine systems.

HB 9781634859646 £180.99 December 2016 Nova Science Publishers 221 pages 155x230mm



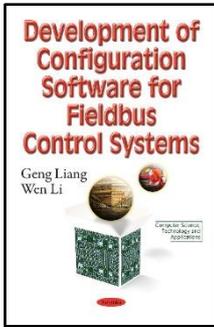
CiteSpace

A Practical Guide for Mapping Scientific Literature (Computer Science, Technology & Applications Series)

Chaomei Chen

CiteSpace is a freely available computer program written in Java for visualizing and analyzing literature of a scientific domain. A knowledge domain is broadly defined in order to capture the notion of a logically and cohesively organized body of knowledge. It may range from specific topics such as post-traumatic stress disorder to fields of study lacking clear-cut boundaries, such as research on terrorism or regenerative medicine. CiteSpace takes bibliographic information, especially citation information from the Web of Science, and generates interactive visualizations. Users can explore various patterns and trends uncovered from scientific publications, and develop a good understanding of scientific literature much more efficiently than they would from an unguided search through literature. The full text of many scientific publications can be accessed with a single click through the interactive visualization in CiteSpace. At the end of a session, CiteSpace can generate a summary report to summarize key information about the literature analyzed. This book practical – not only on how to operate the tool but also on why the tool is designed and what implications of various patterns that require special attention.

PB 9781536102802 £78.50 December 2016 Nova Science Publishers 167 pages 155x230mm

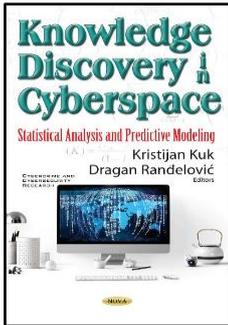


Development of Configuration Software for Fieldbus Control Systems (Computer Science, Technology & Applications Series)

Geng Liang & Wen Li

Since the beginning of the 1980s, configuration software has developed and evolved. It should be said that configuration software, as a kind of application software, rose with the development of personal computers. The development of configuration software is closely related to the development of the industrial control system. With the rapid development of modern industries, the production process continues to expand in scale, and its complexity is increasing. The process of industrial production is now being transformed from labour intensive, equipment intensive, and information intensive to a more knowledge intensive fashion. Configuration software as a product appeared in the early 80s, and was widely used in the late 80s. But before the mid-90s, the configuration software application was not universal. With the applications of industrial control systems widely used around the world, in the face of larger and more complex control systems, users have become gradually more aware of original host computer programming. This mode is time-consuming. The loss outweighs the gains.

PB 9781634858519 £78.50 February 2017 Nova Science Publishers 130 pages 155x230mm



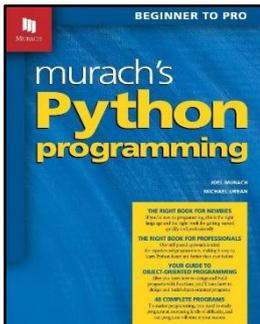
Knowledge Discovery in Cyberspace

Statistical Analysis & Predictive Modeling (Cybercrime & Cybersecurity Research Series)

Edited by Kristijan Kuk & Dragan Randjelovic

This book is a practical handbook of research on dealing with mathematical methods in crime prevention for special agents, and discusses their capabilities and benefits that stem from integrating statistical analysis and predictive modeling. It consists of a current collection of research with contributions by authors from different nations in different disciplines. After reading this book, the reader should be able to understand the fundamental nature of cyberspace; understand the role of cyber-attacks; learn analytical techniques and the challenges of predicting events; learn how languages and culture are influenced by cyberspace; and learn techniques of the cyberspace public opinion detection and tracking process. Understanding cyberspace is the key to defending against digital attacks. This book takes a global perspective, examining the skills needed to collect and analyze event information and perform threat or target analysis duties in an effort to identify sources for signs of compromise, unauthorised activity and poor security practices.

PB 9781536105667 £78.50 January 2017 Nova Science Publishers 140 pages 155x230mm

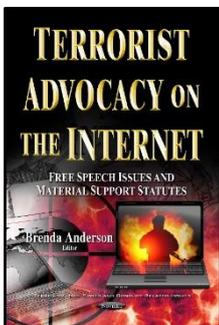


Murach's Python Programming

Joel Murach & Michael Urban

If you want to learn how to program but do not know where to start, this is the right book and the right language for you. From the first page, our unique self-paced approach will help you build competence and confidence in your programming skills. And Python is the best language ever for learning how to program because of its simplicity and breadth two features that are hard to find in a single language. But this is not just a book for newbies! Our self-paced approach also works for experienced programmers, helping you learn faster and better than you have ever learned a language before. By the time you are through, you will have mastered all of the Python skills that are needed on the job, including those for object-oriented, database, and GUI programming. To make all of this possible, section 1 of this book presents an 8-chapter course that will get anyone off to a great start. Section 2 builds on that base by presenting the other essential skills that every Python programmer should have. Section 3 shows you how to develop object-oriented programs, a critical skillset in today's world. And section 4 shows you how to apply all of the skills that you have already learned as you build database and GUI programs for the real world.

PB 9781890774974 £54.99 December 2016 Mike Murach & Associates 590 pages 205x255mm 232 illus



Terrorist Advocacy on the Internet

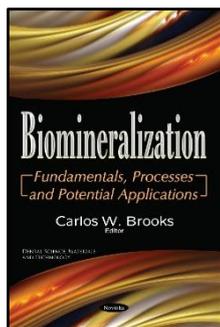
Free Speech Issues & Material Support Statutes (Terrorism, Hot Spots & Conflict-Related Issues Series)

Edited by Brenda Anderson

The development of the Internet has revolutionised communications. It has never been easier to speak to wide audiences or to communicate with people that may be located more than half a world away from the speaker. However, like any neutral platform, the Internet can be used to many different ends, including illegal, offensive, or dangerous purposes. Terrorist groups, such as the Islamic State (IS, also referred to as ISIS or ISIL), Al Qaeda, Hamas, and Al Shabaab, use the Internet to disseminate their ideology, to recruit new members, and to take credit for attacks around the world. Several U.S. policymakers, including some Members of Congress, have expressed concern about the influence that terrorist advocacy may have upon those who view or read it. The ease with which such speech may be disseminated over the Internet, using popular social media services, has been highlighted by some observers as potentially increasing the ease by which persons who might otherwise have not been exposed to the ideology or recruitment efforts of terrorist entities may become radicalised. These concerns raise the question of whether it would be permissible for the federal government to restrict or prohibit the publication and distribution of speech that advocates the commission of terrorist acts when that speech appears on the Internet. This book discusses relevant precedent concerning the extent to which advocacy of terrorism may be restricted in a manner consistent with the First Amendment's Freedom of Speech Clause.

PB 9781536104578 £59.50 January 2017 Nova Science Publishers 86 pages 155x230mm

DENTISTRY

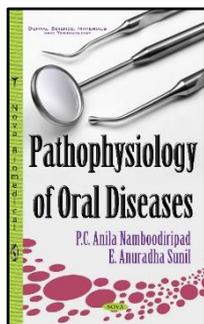


Biomaterialization Fundamentals, Processes and Potential Applications (Dental Science, Materials and Technology)

Edited by Carlos W Brooks

The biomaterialization process is the ability of living organisms to produce minerals to form tissues or to build hardened tissue. Generally, this process is performed by specialized cells, such as osteoblasts, odontoblasts, ameloblasts, among others, depositing minerals in a specific matrix. This process can take place in physiological form throughout the lifespan of an individual, in response to an injury to the tissue or via activation of specific materials called bioactive materials. This book reviews the fundamentals, processes and potential applications of biomaterialization.

PB 9781536103823 £78.50 December 2016 Nova Science Publishers 152x229mm



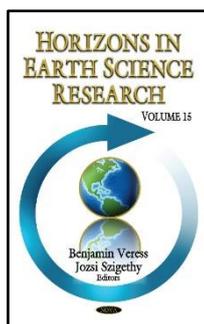
Pathophysiology of Oral Diseases (Dental Science, Materials & Technology Series)

P C Anila Nambodiripad & E Anuradha Sunil

Teaching a large number of ever-inspiring students for the past few years was the motivation for the author to compile this book. This book would not have seen the light of the day if it were not for them. Knowledge of the pathogenesis of the various diseases affecting the oral cavity offers a great help in understanding its clinical features, its radiographic features, and histological features as well as the treatment for the diseases. These are the reasons for the necessity to compile various pathophysiological causes of the diseases. Some of the diseases are still being explained by their old pathogeneses; however, some others are being attributed to new causes following the advent of new and innovative technologies, which identify genes and new knowledge about stem cell culturing. This book simplifies the subject of Oral Pathology by understanding the underlying causes of the various diseases.

HB 9781634852203 £180.99 May 2016 Nova Science Publishers 200 pages 180x260mm

EARTH SCIENCES



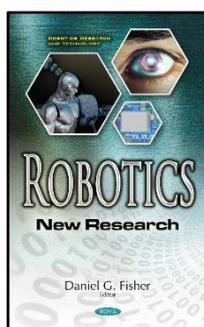
Horizons in Earth Science Research Volume 15 (Horizons in Earth Science Research Series)

Edited by Benjamin Veress & Jozsi Szigethy

This book explores the most recent developments in earth science research. Chapter One discusses the geologic and ancient history of Dahr Safra, Syria. Chapter Two reviews the geographical distribution and geological occurrence of diatom ooze to diatomaceous sediments (diatomite) around the Japanese Islands, the Bering Sea and the Pacific coastal side of Peru and Chile, South America. Chapter Three explores the nature of tectonics and of axial tilt of the Earth. Chapter Four examines the major defects in the Toledo Bend Dam. Chapter Five proposes a projected-Gradient method for joint nonnegative matrix factorization to pansharpener multispectral data. Chapter Six discusses the main types of uranium deposits formed in a variety of geological and tectonic environments. Chapter Seven studies the unmixing of geological events by Gaussian deconvolution on Th-U-Pb age multicomponent data of monazite crystals of granite from São Francisco Craton (Brazil). Chapter Eight focuses on the properties and uses of the lanthanide series. Chapter Nine discusses concurrent design optimization of satellites and reconfigurable constellations. Chapter Ten assesses and compares vegetation indices, surface emissivity models and split-window algorithms used to estimate surface temperature from satellite images.

HB 9781634856966 £238.50 September 2016 Nova Science Publishers 185 pages 155x230mm

ELECTRONICS & COMMUNICATIONS ENGINEERING

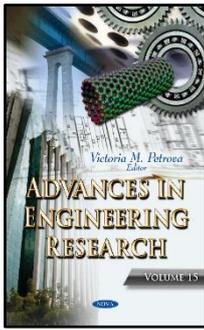


Robotics New Research (Robotics Research & Technology Series)

Edited by Daniel G Fisher

This book provides current research on robotics. The first chapter focuses on robot visual perception for object detection and recognition. Chapter Two discusses recent progress in vision-based robotics. Chapter Three examines portrait vision fusion. Chapter Four presents a preliminary design and experimental results of sex recognition. Chapter Five introduces the significance and application of health monitoring methods, and some of the traditional health monitoring methods are introduced. Chapter Six presents a systematic review of upper arm exoskeletons to find out under what clinical conditions use of such devices may be beneficial, what could be the technical requirements and what user interface must be provided to enhance their acceptability.

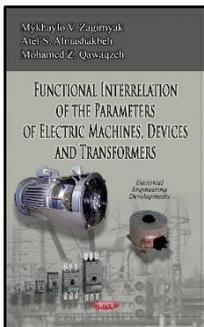
HB 9781634859677 £152.50 December 2016 Nova Science Publishers 170 pages 155x230mm



Advances in Engineering Research
Volume 15 (Advances in Engineering Research Series)
 Edited by Victoria M Petrova

This book focuses on the latest developments in the field of engineering. Chapter One reviews an extensive study on the design of experiment methods. Chapter Two presents controller designs using the traditional proportional integral derivative (PID) control algorithm to control a planar two-link flexible manipulator. Chapter Three presents an active vibration control (AVC) system for trailed two-wheeled implements (TTWI) avoiding instruments damage. Chapter Four reports on the kinematics of a series-parallel manipulator whose architecture is based on the topology of the 3RPS tangential parallel manipulator where R, P and S stand, respectively, for Revolute, Prismatic and Spherical joints. Chapter Five discusses the estimation of saturated hydraulic conductivity. Chapter Six proposes a new and robust model to predict the dynamical behavior of the Liquid Diffusion Phenomenon (LDP).

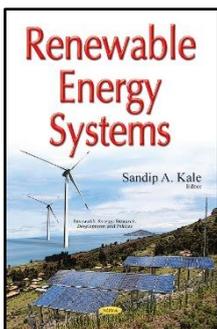
HB 9781536100570 £152.50 December 2016 Nova Science Publishers 181 pages 155x230mm



Functional Interrelation of the Parameters of Electric Machines, Devices & Transformers
(Electrical Engineering Developments Series)
 Mykhaylo V Zagirnyak, Atef Saleh Almashakbeh Mohamed Z Qawaqzeh

Modern tendencies to globalisation and openness of economics promote development of competitiveness in world production and trade. It essentially expands the possibilities for the choice of industrial electromechanical and electrotechnical equipment, including electric machines (EM), electric devices (ED) and transformers of various power and versions. Their correct choice is one of the most important stages mainly because it determines the cost and the functionality of the developed technological aggregates and systems. It is usually ambiguous and complicated due to availability in part by a large number of compared parameters of the analysed devices, and also because of the complexity and/or absence of unifying approach to these choices. Consequently, a topical scientific and applied problem consists in development of criteria for comparative assessment of EM, ED and transformers with the aim of their rational choice to meet the needs of the particular consumer. The purpose of the analysed devices is to take into consideration the quality of series design which includes these devices. In this case, not only are power and electromagnetic characteristics assessed, but the overall dimension parameters of the devices' masses are as well. The existing methods of generalised choice of electric machines, devices and transformers are analysed, and new methods based on the data of their catalogs are substantiated. Known theoretical and experimental dependences are considered, and specified (real) power and electromagnetic parameter dependencies on generalised linear dimensions are obtained for the main types and versions of the considered electrical equipment. The precision of the proposed relations is estimated. The criteria of rational choice of electric machines, devices and transformers and their series, which require only the data usually included into the relevant catalogues are developed and substantiated.

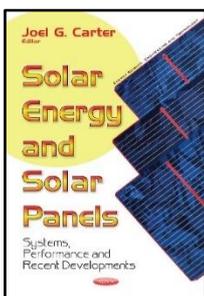
HB 9781536100532 £152.50 December 2016 Nova Science Publishers 200 pages 155x230mm



Renewable Energy Systems (Renewable Energy: Research, Development & Policies Series)
 Edited by Sandip A Kale

Renewable energy is contributing significantly to fulfill the continuously increasing energy demand of the world. Research in the field of renewable energy has to play a vital role if the potential of renewable energy is to be fully exploited. This book is intended to explore some recent developments in the field of these renewable energy sources. This book is comprised of four chapters on solar energy, four chapters on wind energy, two chapters on bio energy and two chapters on renewable energy. Chapters on solar energy include the basic concepts of photovoltaic cells, modules, array, modeling PV cell operation under Matlab/Simulink, alternative materials to conventional silicon based solar cells, recent transparent thin film materials and their performance characteristics. Chapters on wind energy present two new methods to predict wind power, a methodological approach for performance evaluation of wind farms, dynamic behavior of a weak hybrid power system and a structural analysis of multi-story vertical axis wind turbines. It also includes the impact of physical properties such as density and viscosity of biodiesels, as well as an investigation of performance of a low heat rejection engine using neem kernel oil and its methyl ester as fuel.

HB 9781536104233 £152.50 January 2017 Nova Science Publishers 225 pages 155x230mm

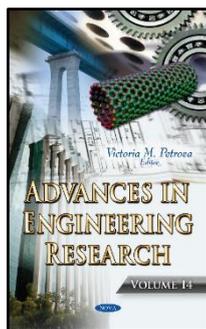


Solar Energy & Solar Panels
Systems, Performance & Recent Developments (Energy Science, Engineering & Technology Series)
 Edited by Joel G Carter

Indiscriminate extraction and increasing consumption of fossil fuel resources (crude oil, natural gas, and coal) are adversely affecting the major spheres of human activity. With the depletion of these fuels, efforts are being directed to the use of renewable sources such as solar, wind, and biomass. This book provides new research on the systems, performance and recent developments in solar energy.

HB 9781536103809 £90.50 December 2016 Nova Science Publishers 160 pages 155x230mm

ENGINEERING

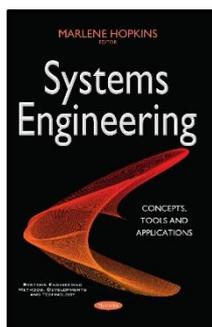


Advances in Engineering Research Volume 14 (Advances in Engineering Research Series)

Edited by Victoria M Petrova

This book focuses on the latest developments in the field of engineering. The first chapter presents software engineering and ontology development. Chapter Two discusses metal rapid prototyping technologies. Chapter Three presents a complete description of the Scalable High Efficiency Video Coding (SHVC) architecture and its application scenarios; comprehensively analyzes the recent efforts toward an improved SHVC compression efficiency; and introduces two novel SHVC improvement solutions, notably an improved SHVC Merge mode and a novel SHVC Joint Layer mode. Chapter Four examines a refined analytical-experimental modal testing method for polymeric damping materials. Chapter Five focuses on the recent published advances in biometrics to date, considering them not only in terms of their relative contributions but also in referral to relevant government and industry authentication frameworks and guidelines. Chapter Six discusses control of a class of 1D Bose-Einstein Condensate (BEC) condensate via linear-type feedback.

HB 9781634859301 £180.99 December 2016 Nova Science Publishers 200 pages 155x230mm



Systems Engineering Concepts, Tools & Applications (Systems Engineering Methods, Developments & Technology Series)

Edited by Marlene Hopkins

This book discusses the concepts, tools and applications of systems engineering. Chapter One presents the implementation of automated measuring system for measuring chromatic dispersion (CD). Chapter Two discusses the results regarding the optimisation of phase based EOM (electro optical modulator) as the most important component in CD measurement setup, then investigates the results of CD measurement characterisations based on different lengths of fiber, different wavelengths and different RF frequencies. Chapter Three provides a review on optical waveguide sensor using ion-exchange technology. Chapter Four examines silver nano particle ion-exchanged glass waveguide technology. Chapter Five highlights the major advantages of using graphical modelling languages in a Model-Based Systems Engineering (MBSE) context and describes the main features of SysML, the modeling language that the authors believe to be "the dialect" for MBSE. Chapter Six provides a complex system analysis for engineering of systemic failures.

PB 9781634857529 £90.50 September 2016 Nova Science Publishers 100 pages 155x230mm

ENVIRONMENT

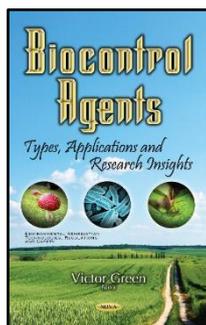


Advances in Environmental Research Volume 53 (Advances in Environmental Research Series)

Edited by Justin A Daniels

This book provides readers with the latest developments in environmental research. Chapter One provides information that can guide environmental public health education programs. Chapter Two focuses on advancement in understanding of global climate change effects on soils microbial dynamics, the role of soil microbes in enhancing resistance of plants to diverse stressful conditions and biochar as climate change mitigation. Chapter Three examines smectite-salt soil formations in Situ and Ex Situ. Chapter Four details the design, development and construction of an automated water treatment system, including the development of a water treatment chemical. Chapter Five discusses the coastal wetlands' integrated ecosystem management strategy using payment of environmental services in the Niger Delta Region of Nigeria. Chapter Six discusses urban dynamics with cellular automata. Chapter Seven provides a review of the antimicrobial and insecticidal activities of rhizome oils from *Cyperus distans* and *Cyperus rotundus*. Chapter Eight analyses how satellite imagery can help investigate the life of insects.

HB 9781536104691 £238.50 January 2017 Nova Science Publishers 211 pages 155x230mm

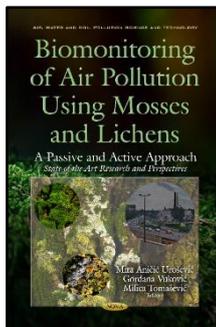


Biocontrol Agents Types, Applications & Research Insights (Environmental Remediation Technologies, Regulations & Safety Series)

Edited by Victor Green

This book provides a review of biocontrol agents. Chapter One discusses the biological control of bacterial pathogens in horticultural systems. Chapter Two focuses on the modes of action and applicability of the most used biological fungicides in vegetables and field crops. Chapter Three studies the biological control of fungal diseases of edible mushrooms. Chapter Four identifies different classes of biopesticides and more particularly, examines plant-based products/chemicals, discussing their integration in pest/vectors management programs. Chapter Five reviews the potential of phytoinsecticides, their action mechanisms, and their relative importance to integrated management strategies.

HB 9781536105537 £90.50 January 2017 Nova Science Publishers 172 pages 155x230mm



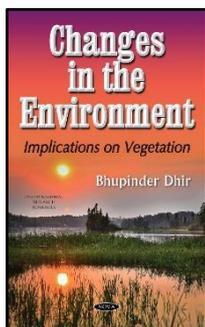
Biomonitoring of Air Pollution Using Mosses & Lichens

A Passive & Active Approach -- State of the Art Research & Perspectives (Air, Water & Soil Pollution Science & Technology Series)

Edited by Dr Mira Aničić Urošević, Gordana Vuković & Milica Tom

Air pollution has been recognised as the world's top problem in many strategic environmental policies. However, it is still inadequately corroborated by regulatory monitoring due to the balance between costs and practicable constraints. The variability in air pollution patterns additionally emphasises a need for feasible approaches to extensive screening of pollutants. To achieve highly temporally -- and spatially -- resolved measurements, biomonitoring (ie: the use of living organisms to determine changes in the environment has been utilised in the investigating of a complementary method to regulatory measurements). The book aims to give reviews of research over the last decade of the most recommended organisms for monitoring airborne inorganic and organic pollutants. Naturally growing mosses and lichens have been used as passive biomonitors of long-term atmospheric deposition of the pollutants across remote areas. To overcome scarcity of these biomonitors in anthropogenically devastated areas, an active biomonitoring approach has been investigated. Specifically, the use of moss and lichen bags represents a convenient technique for easily performed biomonitoring of short-term and small-scale pollutant distribution, especially in urban and industrial areas. As a new direction in biomonitoring, magnetic properties of the biomonitors have been investigated as a valuable proxy for ambient particle pollution.

HB 9781536100518 £180.99 December 2016 Nova Science Publishers 204 pages 155x230mm



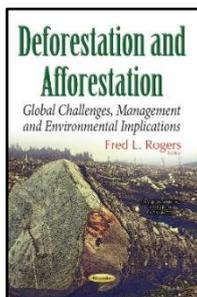
Changes in the Environment

Implications on Vegetation (Environmental Research Advances Series)

Bhupinder Dhir

The present book provides vast information about the very recent topic of plant responses to climate change. Climate change has emerged as a major environmental constraint affecting the growth and survival of fauna and flora all over the globe. Vegetation forms a vital component of the ecosystem, and so any change in the plant species can lead to serious consequences on other lifeforms and alter the ecosystem composition, leading to ecological imbalance. Climatic alterations such as global warming, increase in atmospheric carbon dioxide concentration, and changes in the water availability due to alterations in precipitation pattern adversely affect the growth and distribution of vegetation. The present book is a compilation of the information and available literature regarding the changes in the plant forms responding to climate change. The book covers seven chapters. Chapter One discusses the response of different types of vegetation ranging from forest communities, grasslands, crop plants, weeds and aquatic plants. Separate chapters are allocated to each vegetation type so that detailed information about the topic can be included. The information provided in this book will provide challenges to the scientific community to find out ways to counter the negative effects of climate change on vegetation and suggest measures to protect them, as well as ensure their sustenance for future generations.

HB 9781536105636 £90.50 January 2017 Nova Science Publishers 160 pages 155x230mm



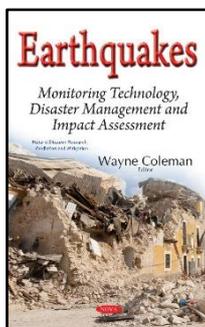
Deforestation

Global Challenges & Issues of the 21st Century (Environmental Research Advances Series)

Edited by Fred L. Rogers

Extirpation of forests is an essential part of human activity since prehistoric times. There are several reasons for this: the forest is an enemy environment hiding predators and other threats; the forest is a source for wood, which is used for firing and materials of construction; forest occupies land, which could be used for agriculture. Even now in spite of progress in ecological education, deforestation continuously accelerates everywhere. This book provides new research on the global challenges and issues on deforestation in the 21st Century.

PB 9781536104356 £78.50 January 2017 Nova Science Publishers 100 pages 155x230mm



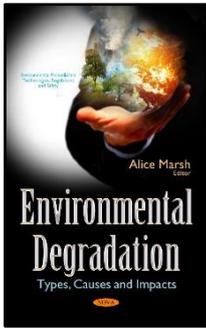
Earthquakes

Monitoring Technology, Disaster Management & Impact Assessment (Natural Disaster Research, Prediction & Mitigation Series)

Edited by Wayne Coleman

In recent years, a number of disasters caused by earthquakes have demonstrated the vulnerability of both the developing and the developed world. This book provides new research on earthquakes. Chapter One focuses on the behavior of a simple spring-block model from the viewpoint of nonlinear dynamics and seismology. Chapter Two employs a new technique based on Extreme Learning Machine (ELM) for determination of liquefaction susceptibility of soil based on Standard Penetration Test (SPT) and Cone Penetration Test (CPT) from the Chi-Chi earthquake. Chapter Three presents a review of earthquake phenomenon in Nigeria, the occurrence and available data. Chapter Four describes the behavior and failure mechanisms of unreinforced masonry buildings and different rehabilitation and strengthening techniques. Chapter Five presents the results related to the preferred sources of information related to Risk, Hazard and Natural disaster. Chapter Six presents results regarding urban and semi-rural schoolchildren's seismic risk perception, awareness and preparedness of a highly seismic region, in the state of Oaxaca, Mexico. Chapter Seven reviews the anomalous decrease in groundwater radon before the Taiwan large earthquakes.

HB 9781536103427 £152.50 December 2016 Nova Science Publishers 130 pages 155x230mm

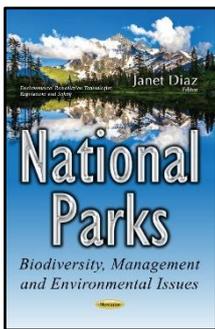


**Environmental Degradation
Types, Causes & Impacts (Environmental Remediation Technologies, Regulations & Safety Series)**

Edited by Alice Marsh

The earth is a dynamic arrangement of synergistic and interrelated systems that has throughout its existence experienced cataclysmic and devastating events. The earth has had long periods of ice and snow to mass extinctions and occasional hothouse loads of carbon dioxide into the atmosphere and the oceans. The main difference between then and now is that this latest dynamic period is primarily if not solely anthropogenic in nature. At the same time, we have put in place a global economic system that sees the earth as a cornucopia of infinite natural resources to be exploited with little regard for the environmental and social consequences of such actions. Modern society has witnessed an alienation from the natural world with consumers losing a sense of the relationship between the consumption of things and consequent environmental degradation. Chapter One summarizes the nature of urban environmental degradation, and its ideological and institutional roots. Chapter Two examines the relationship between cultures and environmental use within various adaptive strategies for exploiting natural resources. Chapter Three focuses on illegal dump sites as degraded landscape elements. Chapter Four evaluates the extract and translocate natural radionuclides by volunteer plants that grow under phosphogypsum stack as a potential phytoremediation technique. Chapter Five concludes with a review of an island biogeography of vultures and environmental variation in the Caribbean.

HB 9781634859325 £152.50 December 2016 Nova Science Publishers 161 pages 155x230mm

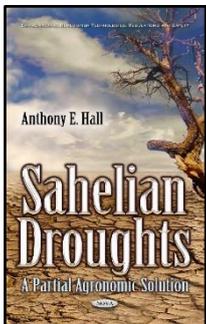


**National Parks
Biodiversity, Management & Environmental Issues (Environmental Remediation Technologies, Regulations & Safety Series)**

Edited by Janet Diaz

This book discusses biodiversity, management and environmental issues of several national parks around the world. The first chapter presents general principles of access to national parks for tourism and recreation under the provisions of the Nature Conservation Act. Chapter Two examines the contribution of Non-Timber Forest Products (NTFPs) exploitation to poverty alleviation in the Fako-Meme Forest region of Cameroon, as well as the nexus between NTFPs exploitation and forest conservation. Chapter Three studies the visitors' profile and travel motivations for the Peneda-Gerês National Park of Portugal. Chapter Four focuses on the welfare of captive breeding stock for reintroductions into Saudi Arabian national parks.

PB 9781536101393 £90.50 December 2016 Nova Science Publishers 105 pages 155x230mm

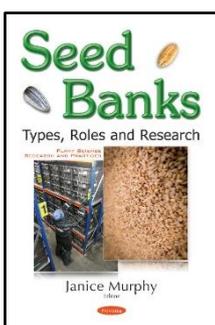


**Sahelian Droughts
A Partial Agronomic Solution (Environmental Remediation Technologies, Regulations & Safety Series)**

Anthony E Hall

The Sahelian zone stretches across Africa from Senegal and Mauritania in the west to Sudan in the east, passing through Mali, Burkina Faso, Niger and Chad. The Sahel transition zone is adjacent to the southern boundary of the Sahara Desert, and its agriculture usually is limited by droughts. Since 1970, the droughts have been even more extreme, and major food crops produced little food/forage for livestock for many years. Millions of people living in the Sahel have suffered from famine and hundreds of thousands of people have died. As of 1974, it was estimated that the livestock population had decreased by about 80%. In the early 1970s, while working as an agronomist/ Professor at the University of California in Riverside and conducting collaborative research in Senegal, Dr. Hall designed a partial agronomic solution to these droughts. In implementing this solution, he collaborated with African students and scientists to breed cowpea varieties that could withstand these droughts and provide food for people and livestock alike. Early-flowering cowpea varieties with resistance to drought, various pests and diseases were bred by researchers in California, Senegal, Sudan and Ghana. Cowpea varieties were released in Senegal, Sudan and Ghana that have produced significant amounts of food in years when traditional cowpea varieties and other staple food crops died out. Enhanced cowpea breeding and agronomy programs now are being conducted by African scientists in Senegal, Burkina Faso, Niger, Cameroon, Nigeria, Ghana and Sudan.

HB 9781536104295 £152.50 January 2017 Nova Science Publishers 200 pages 155x230mm



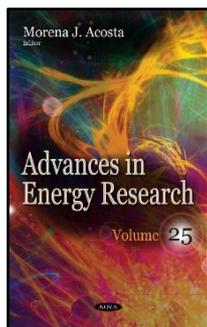
**Seed Banks
Types, Roles & Research (Plant Science Research & Practices Series)**

Edited by Janice Murphy

This book provides new research in the study on seed banks. Chapter One begins with an overview of seed bank research in Central European grasslands. Chapter Two focuses on the Caucasus Regional Seed Bank (CRSB). Chapter Three discusses Crofton weed invasion history and damages in China, seed characteristics, germination characteristics and light dependence of seed germination. Chapter Four provides a case study review of soil seed bank and rangeland conditions in North Patagonia.

PB 9781536103885 £78.50 December 2016 Nova Science Publishers 75 pages 155x230mm

ENVIRONMENTAL SCIENCE

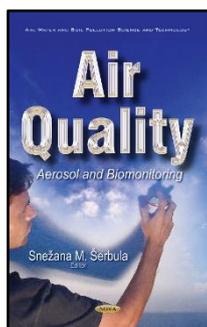


Advances in Energy Research Volume 25 (Advances in Energy Research Series)

Edited by Morena J Acosta

This latest volume includes contributions on the latest advances in energy research. Chapter One discusses stability assessment using direct methods. Chapter Two focuses on the geopolitical implications of the energy reserves in the Caspian Basin. Chapter Three reviews an investigation into the effect of various parameters on the evaporator performance. Chapter Four helps to understand the vapour compression cycle in which heat is absorbed from a low temperature region and released in a high temperature region. Chapter Five examines static voltage stability enhancements by incorporating voltage-sourced based converters in continuation power flow.

HB 9781536100129 £180.99 December 2016 Nova Science Publishers 200 pages 155x230mm

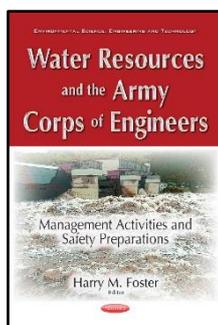


Air Quality Aerosol & Biomonitoring (Air, Water & Soil Pollution Science & Technology Series)

Snežana M Šerbula

The rapid development of industry and technology, the increased demand for using fossil fuels and exploitation of primary raw materials in recent years calls into question sustainability of progress in today's society. Air quality in the world has become one of the leading factors that affect human health, and also inevitably, the condition of the entire environment. For quite long, air pollution has not been just a local problem, whose solution requires a multidisciplinary approach. Uncontrolled emitted waste gases, suspended sludge particles and aerosols are the main substances that have a negative impact on air quality. For this reason, the results of research dealing with monitoring the presence and determining the nature and composition of gaseous, solid and liquid pollutants in the air are very important. Depending on the primary sources, chemical composition and size of aerosols differs, and which influences the deposition rate, the transmission and the ability to incorporate aerosols in the land and in living organisms. In addition, the behavior and the harmful impact of aerosols is determined by reactions with gases, moisture, and their mutual interactions in the troposphere, where the primary aerosols turn into secondary aerosols. In this book, the effects of aerosols on global climate change are also presented. Depending on nature, aerosols in the atmosphere also change the amount of energy reflected from the surface of the Earth, which leads to the greenhouse effect. Primary aerosols of anthropogenic origin, emitted from industrial plants, can contain toxic and carcinogenic substances, which tend to accumulate in the environment and enter the food chain of humans and animals. For that reason, this book describes the content of heavy metals and metalloids in plant material. The greatest contribution to this approach is reflected in identifying the plants which can be used for the purpose of biomonitoring air pollution in the vicinity of plants for pyrometallurgical copper production.

HB 9781536104288 £90.50 January 2017 Nova Science Publishers 175 pages 155x230mm



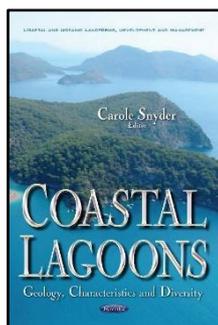
Water Resources & the Army Corps of Engineers Management Activities & Safety Preparations (Environmental Science, Engineering & Technology Series)

Edited by Harry M Foster

The U.S. Army Corps of Engineers (Corps) is the world's largest public engineering, design, and construction management agency, with water resources infrastructure in every state, authorized for various purposes including navigation, flood and coastal storm damage reduction, hydropower, and water supply. The Corps plans, designs, and operates water resources infrastructure projects, such as dams, levees, hurricane barriers, floodwalls, and floodgates, that may be affected by extreme weather events. This book discusses the Army Corps of Engineers and their water resource work in the areas of extreme weather events; levee safety; dam safety (cost sharing of repairs); and operations/water control manuals.

PB 9781536104202 £59.50 December 2016 Nova Science Publishers 114 pages 155x230mm

GEOGRAPHY

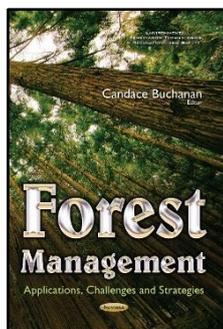


Coastal Lagoons Geology, Characteristics & Diversity (Coastal & Oceanic Landforms, Development & Management Series)

Edited by Carole Snyder

The term 'lagoon' is derived from the Italian laguna, which originally referred to the waters around Venice but currently denotes a variety of geomorphologically and ecologically defined systems, including atoll lagoons and coastal lagoons. While the former are restricted to tropical latitudes, coastal lagoons are common features of the coasts of all continents, occurring, as they do, along about 13 percent of the world's shorelines. This book reviews the geology, characteristics and diversity of coastal lagoons.

PB 9781536102864 £78.50 December 2016 Nova Science Publishers 105 pages 155x230mm



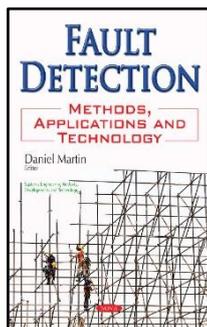
**Forest Management
Applications, Challenges & Strategies (Environmental Remediation Technologies, Regulations
& Safety Series)**

Edited by Candace Buchanan

This book discusses the applications, challenges and strategies of forest management. Chapter One reviews topics on the adaptation of forest management to climate change. Chapter Two focuses on the management of forests in Cameroon and in doing so, it exposes the fundamental problems arising from forest exploitation in the country, discusses the various challenges faced and proposes strategies to remedy the situation. Chapter Three studies the structure of understory plant communities in hinoki cypress plantation forests in Japan. Chapter Four introduces and discusses the basic principles behind the assessment of sustainability in forest management planning.

PB 9781634858830 £90.50 December 2016 Nova Science Publishers 132 pages 155x230mm

INDUSTRIAL CHEMISTRY & MANUFACTURING TECHNOLOGIES

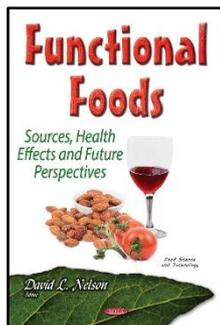


**Fault Detection
Methods, Applications & Technology (Systems Engineering Methods, Developments &
Technology Series)**

Edited by Daniel Martin

Fault detection and identification (FDI) play a fundamental role in most modern industrial systems and processes. They are essential in ensuring safe and reliable operation. In this book, Chapter One and Chapter Two discuss general systems and the use of linearisations for active fault detection in nonlinear differential algebraic equations. Chapter Three provides a comparative analysis and comprehensive review of the existing fault detection methods, including manual picking and computer-aided automatic/semi-automatic extraction. Chapter Four studies self-adaptive expert systems for process monitoring and fault detection. The final chapter provides a review of an integrated Fault Detection and Diagnostics (FDD) system for HVAC&R based on virtual sensors.

PB 9781536103458 £90.50 December 2016 Nova Science Publishers 100 pages 155x230mm

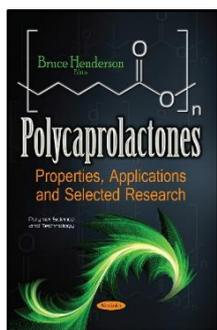


**Functional Foods
Sources, Health Effects & Future Perspectives (Food Science & Technology Series)**

Edited by David L Nelson

Food has significant societal, historical and religious roles, in addition to nutritional value. It represents cultures and customs, provides opportunities for sharing, giving and social interaction and offers nutrition, pleasure and satisfaction. Technically, all foods are functional, as they fulfill a basic human need and provide nutritive value. However, the term 'functional food' implies an additional physiological benefit beyond meeting basic nutritional needs. Functional food is not only a dietary product providing basic nutritional function of supplying nutrients but it is also known as a health-promoting and/or disease-preventing substance. Functional food has been recognised as a separate category in the food market and it is one of the world's most intensive areas of food product innovation. This book discusses the sources, health effects and future perspectives of functional foods.

HB 9781536104776 £219.50 January 2017 Nova Science Publishers 345 pages 180x260mm

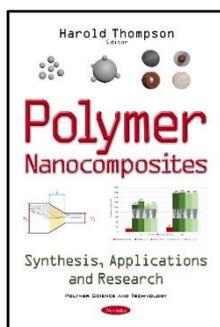


**Polycaprolactones
Properties, Applications & Selected Research (Polymer Science & Technology Series)**

Edited by Bruce Henderson

Polycaprolactone (PCL) is a thermoplastic biodegradable polyester, which has had biomedical application in the 1970s and 1980s as a long-term drug delivery systems, which then gained acceptance from the Food and Drugs Administration. However, due to very slow degradation, PCL was replaced by faster degrading polymers, such as polyglycolide, polylactides and their copolymers. The polymer gained popularity again in the 1990s, together with the development of tissue engineering. This book discusses the properties, applications and examines new research of polycaprolactones.

PB 9781536105520 £78.50 January 2017 Nova Science Publishers 90 pages 155x230mm

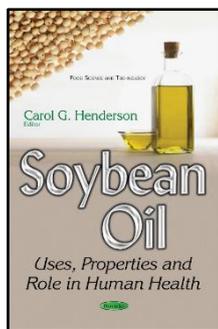


**Polymer Nanocomposites
Synthesis, Applications & Research (Polymer Science & Technology Series)**

Edited by Harold Thompson

This book provides research on the synthesis and applications of polymer nanocomposites. Chapter One discusses advances in injection moulding technology of polymer nanocomposites. Chapter Two reviews the functionalisation and applications of carbon/polymer nanocomposite (bio)sensors containing nanoparticles. Chapter Three focuses on polymer composites based on highly anisotropic cellulose nanocrystals. Chapter Four studies a novel nanocomposite specifically developed for chemical treatment of walls, floor, ceiling, roof, etc., to prevent or limit exposure to dangerous gases seeping into buildings through constructive materials.

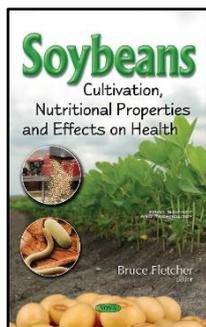
PB 9781536107487 £78.50 January 2017 Nova Science Publishers 155x230mm



Soybean Oil
Uses, Properties & Role in Human Health (Food Science & Technology Series)
Edited by Carol G Henderson

The soybean (*Glycine max* (L.) Merrill) has become one of the most used agricultural products in the world as an ingredient in human and animal nourishment. One important product obtained from soybean is its oil, considering that the grain contains around 18-21 wt% of oil. This book reviews the uses, properties and role in human health of soybean oil. Chapter One explores feasible spectroscopy procedures which could be handled through chemometric methods in the evaluation of soybean oils. Chapter Two describes the synthesis of plastic foams based on epoxidised soybean oil, which were further reinforced with short sisal fibers to yield completely biodegradable natural polymer foam composite material. Chapter Three reviews the uses and properties of soybean oil and describes the authors' clinical experience in this role in human health. Chapter Four discusses the effects of fresh and heated soybean oil on cardiovascular disease which includes dyslipidemia, hypertension, and coronary heart disease.

PB 9781634857468 £78.50 September 2016 Nova Science Publishers 86 pages 155x230mm



Soybeans
Cultivation, Nutritional Properties & Effects on Health (Food Science & Technology Series)
Edited by Bruce Fletcher

This book provides current research on the cultivation, nutritional properties and effects on health of soybeans. CONTENTS: Preface; Antioxidant Defense System in Foliar & Seed Extracts of Seven Soybean [*Glycine max* (L.) Merr.] Cultivars; A Survey of the Agronomic & End-Use Characteristics of Low Phytic Acid Soybeans; Soybean Response to Pest Attack; Soybean Exposed to Arsenic: A Possible Risk of Food Chain Contamination and/or a Problem of Crop Yield Loss?; Mycorrhizal Inoculation Improves the Performance of Soybean Subjected to Biotic & Abiotic Stresses; Effect of the Toxicogenic Ability of *Fusarium graminearum* on Physiological Quality of Soybean Seeds & Flours; Soy in Brazil: Past, Present & Future; Ecology, Diversity & Pathogenicity of the *Fusarium Graminearum* Species Complex in Soybean Agroecosystem in Argentina; Sustainable Chemical Control of Main Soybean Diseases in South America; Index.

HB 9781634858427 £180.99 December 2016 Nova Science Publishers 212 pages 155x230mm

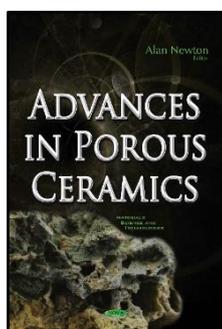
MATERIALS SCIENCE



Advances in Materials Science Research
Volume 27 (Advances in Materials Science Research Series)
Edited by Maryann C Wythers

This book provides readers with the latest developments in materials science research. Chapter One discusses the properties of functionally graded material produced with additive manufacturing technology. Chapter Two reviews synthetic smectite materials as catalyst precursors and solid base catalysts. Chapter Three reviews current literature on metallic bipolar plates for polymer electrolyte membrane fuel cells (PEMFC) focusing on the development of protective coatings for imparting both corrosion resistance and electrical conductivity to these components. Chapter Four examines layered hydrolyzed EVA films. Chapter Five focuses on the synthesis and characterization of polyphenylenes and their derivatives as well as their applications in direct methanol fuel cells (DMFCs). Chapter Six discusses the characterization of thermal conductivity and tool-part thermal resistance in composite processing. Chapter Seven examines the effect of biodeterioration on mechanical properties of hemp natural fiber reinforced composite. Chapter Eight provides a comparative study on the effective properties of equivalent fiber.

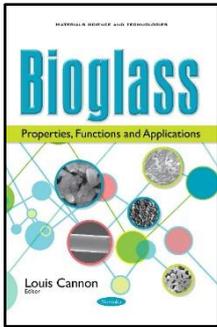
HB 9781536105582 £238.50 January 2017 Nova Science Publishers 173 pages 155x230mm



Advances in Porous Ceramics (Materials Science & Technologies Series)
Edited by Alan Newton

Porous materials are heterogeneous media with unique microstructures, leading to interesting effective properties on which many different applications are based. In particular, porous ceramics combine the generic performance features resulting from the geometry and topology of the porous microstructures with the intrinsic properties of ceramics as a specific class of materials. In this book, Chapter One reconsiders and clarifies traditional classification schemes for porous ceramics that are based on processing, microstructure, properties, and to some degree also applications, and proposes partly new classification schemes, including a curvature-based classification of microstructures that may be useful alternatives to the more traditional schemes. Chapter Two presents a comprehensive review of microstructure peculiarities, mathematical models, methods of fabrication and measurements, as well as systematic experimental data for different types of porous ceramics and piezocomposites. Chapter Three introduces the superplastically fabricated ceramics mainly focused on the combination of 3 mol% yttria stabilised zirconia (3YSZ) and a silicon carbide (SiC) as a matrix and foam agent, respectively. Chapter Four reviews direct foaming techniques used for the preparation of cellular ceramics. Chapter Five presents a derivation of the generalised relationship between the ultrasonic attenuation and dispersion based on linear response theory. Chapter Six studies optical phenomena in porous percolating systems.

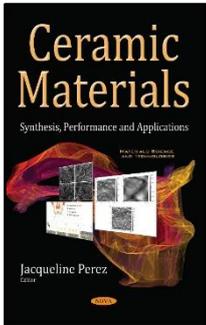
HB 9781634858397 £180.99 December 2016 Nova Science Publishers 230 pages 155x230mm



Bioglass
Properties, Functions & Applications (Materials Science & Technologies Series)
Edited by Louis Cannon

This book discusses properties, functions and applications of bioglass. Chapter One provides an overview and compares some glasses and glass ceramics obtained by different preparation methods by means of structural, morphological and textural properties in order to better understand the importance of selecting a certain type of biomaterial depending on its specific application. Chapter Two describes and discusses the concepts, trends and advances related to the preparation of highly textured bioglasses and the subsequent combination with biopolymers, as advanced biocomposites for tissue engineering. Chapter Three presents a new method of fabricating metal phosphates via interaction of metal oleates with tributylphosphate solution.

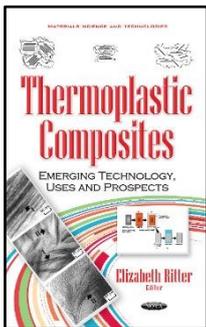
PB 9781634858878 £90.50 December 2016 Nova Science Publishers 101 pages 155x230mm



Ceramic Materials
Synthesis, Performance & Applications (Materials Science & Technologies Series)
Edited by Jacqueline Perez

This book discusses the synthesis, performance and applications of ceramic materials. Chapter One presents the recycling of biomass ashes in the obtaining of clay bricks for possible use as construction material. Chapter Two summarizes the use of nanostructured ceramics for the control of heat flows. Chapter Three deals with analytical modelling of thermal stresses in a multi-particle-matrix system with isotropic cylindrical particles which are periodically distributed in an isotropic infinite matrix. Chapter Four deals with analytical modelling of thermal stresses which originate during a cooling process of an elastic solid continuum. Chapter Five provides recent information on the use of zirconia in dentistry, its characteristics and indications, with a particular emphasis on surface conditioning methods to promote adhesion of resin-based materials to zirconia.

PB 9781634859653 £90.50 December 2016 Nova Science Publishers 125 pages 155x230mm

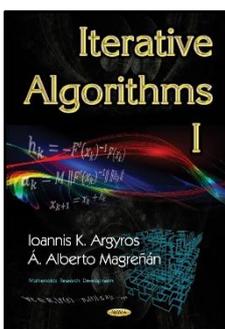


Thermoplastic Composites
Emerging Technology, Uses & Prospects (Materials Science & Technologies Series)
Edited by Elizabeth Ritter

Thermoplastics composites are widely used nowadays. Their matrices are characterised by their aptitude to be repeatedly melted by heating and solidified by cooling, and this in a reversible way. The reinforcement add rigidity and strength to the matrix, thus making a material combining the properties of both constituents. Thermoplastic composites have become an area of increased interest due to their relatively low cost, wide range of mechanical properties, toughness, problem free storage, resistance to chemical attack, ease of processability, and above all their better recyclability. This book reviews emerging technologies, uses and prospects of thermoplastic composites. Chapter One summarises the preparation, structure-property relationships and potential applications of thermoplastic polyurethane nanocomposites. Chapter Two discusses innovative thermoplastic PET powder coating in the telecommunications field. Chapter Three focuses on mechanical recycling of thermoplastic composites. Chapter Four provides a suggestion for standardising a traceable process for the determination of the mechanical properties of concrete containing thermoplastic polymers as aggregates.

HB 9781536107074 £90.50 January 2017 Nova Science Publishers 150 pages 155x230mm

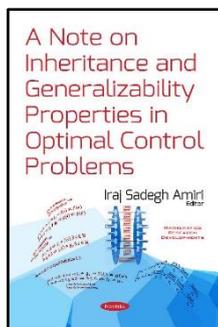
MATHEMATICS



Iterative Algorithms I (Mathematics Research Developments Series)
Ioannis K Argyros & A Alberto Magreñán

It is a well-known fact that iterative methods have been studied concerning problems where mathematicians cannot find a solution in a closed form. There exist methods with different behaviors when they are applied to different functions and methods with higher order of convergence, methods with great zones of convergence, methods which do not require the evaluation of any derivative, and optimal methods among others. It should come as no surprise, therefore, that researchers are developing new iterative methods frequently. Once these iterative methods appear, several researchers study them in different terms: convergence conditions, real dynamics, complex dynamics, optimal order of convergence, etc. These phenomena motivated the authors to study the most used and classical ones, for example Newton's method, Halley's method and/or its derivative-free alternatives. Related to the convergence of iterative methods, the most well-known conditions are the ones created by Kantorovich, who developed a theory which has allowed many researchers to continue and experiment with these conditions. Many authors in recent years have studied modifications of these conditions related, for example, to centered conditions, omega-conditions and even convergence in Hilbert spaces. In this monograph, the authors present their complete work done in the past decade in analysing convergence and dynamics of iterative methods. It is the natural outgrowth of their related publications in these areas. Chapters are self-contained and can be read independently. Moreover, an extensive list of references is given in each chapter in order to allow the reader to use the previous ideas. For these reasons, the authors think that several advanced courses can be taught using this book.

HB 9781634854061 £257.50 September 2016 Nova Science Publishers 490 pages 180x260mm



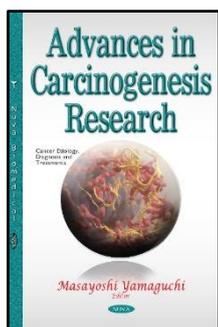
Note on Inheritance & Generalizability Properties in Optimal Control Problems (Mathematics Research Developments Series)

Edited by Iraj Sadegh Amiri

This research consists of two parts. The first part focuses on the development of the proposition that “if there exists a type of function, then there exists a functional with the same type” based on the proposition of the Inheritance and Generalizability properties of the function in a functional. This study presents the abstract convex, increasing positively homogeneous and convex-along-rays functionals via this proposition. The second part is on the investigation of the global search optimization algorithm use called the Cutting Angle Method (CAM) on Optimal Control Problems (OCP). Many algorithms are available for solving OCP, but they are basically local search algorithms. To overcome the problem associated with local searches, most OCP are modelled as Linear Quadratic Regulator (LQR) problems in the hope that the solution found estimates the true global solution of the original problem. However, in doing so, a lot of information carried by the original problem might be lost in its translation into LQR models. CAM being a global search algorithm is expected to overcome this problem. It can be used alone or in combination with a local search to find the global solution. CAM has been successfully used on functions; however, OCPs are functionals. To do this, a model has been introduced based on Inheritance and Generalizability properties to demonstrate that the optimization algorithms which are used for functions can also be extended for use in functionals. Based on these properties, the study discovered that with the Unit Vectors Combinations Technique (UVCT) proposed in this research, and CAM could successfully work on functionals in general and with OCP particularly. To help speed up the convergence of CAM, the literature proposed the use of local searches for the determination of the initial solution. In a case study done in the research, CAM was successfully combined with a local search named the Dynamic Integrated System Optimization and Parameter Estimation (DISOPE) algorithm. Moreover, the initial solution given by DISOPE algorithm has been verified as global by CAM.

PB 9781634857840 £90.50 September 2016 Nova Science Publishers 115 pages 155x230mm

MEDICINE

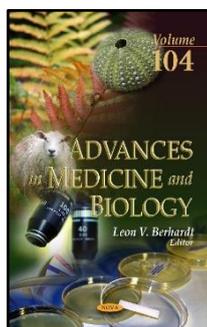


Advances in Carcinogenesis Research (Cancer Etiology, Diagnosis & Treatments Series)

Edited by Masayoshi Yamaguchi

This book introduces recent topics regarding carcinogenesis, including manifold findings of cell proliferation biology, abnormal cell division, pathophysiology, diagnosis, prevention and treatment implicated in the fields of cancer. Carcinogenesis is a multistep process initiated by external stimuli that lead to genetic changes in normal cells or stem cells, resulting in proliferation, apoptosis, dysplasia and neoplasia. The expression, post-translational processing, and targeting of the gene products are frequently altered in transformed and malignant cells. Currently, prognosis of advanced cancer remains poor in spite of the development of novel therapeutic strategies. Improved knowledge of the oncogenic processes and signaling pathways that regulate tumor cell proliferation, differentiation, angiogenesis, invasion and metastasis has led to the identification of several potential therapeutic targets, which have driven the development of molecularly targeted therapies. The target is “drugable”, as an enzyme (kinase) or cell surface molecule (membrane-bound receptors) that can be easily screened for small-molecule inhibitors or targeted by a specific antibody. New perspectives in cancer treatment have appeared with the advent of microRNAs, a novel class of noncoding small RNAs. Moreover, identification of the genes that are differentially expressed between sensitive and resistant cancer cells for chemotherapy and radiation is important in the ability to predict the clinical effectiveness of therapy and develop new therapeutic tools. This book provides recently discovered information concerning cancer biology as well as translational treatment for cancer patients.

PB 9781634858496 £78.50 January 2017 Nova Science Publishers 111 pages 155x230mm

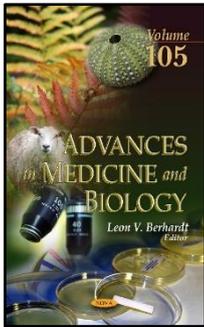


Advances in Medicine & Biology Volume 104 (Advances in Medicine & Biology Series)

Edited by Leon V. Berhardt

The chapters in this volume present the latest developments in medicine and biology. Chapter One provides an overview of the evolution, development and production of aquaculture vaccines. Chapter Two discusses chronic fungal rhinosinusitis. Chapter Three focuses on congenital disorders that cause ophthalmoplegia. Chapter Four discusses the roles of the inflammation amplifier and gateway reflexes in chronic inflammation. Chapter Five examines the clinical features, occurrence and treatment options of pyogenic granulomas. Chapter Six focuses on the biological aspects that is the effects of sex steroids and sex steroid-related changes, on biological responses to social stress. Chapter Seven reviews male and female diet compositions of elasmobranch species. Chapter Eight provides a review of the prevention and treatment of morbid obesity. Chapter Nine explores the mechanistic underpinnings of recently-identified centrosome functions and the consequences of their disruption in human disorders such as microcephaly, cancer, ciliopathies, inflammation, diabetes and obesity. Chapter Ten investigates the migration behavior of functional melanocytes (MCs) in extracellular matrix proteins after Nd:YAG laser irradiation, and demonstrates the relevant mechanisms involved in repigmentation.

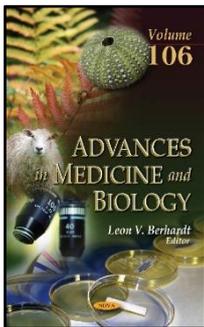
HB 9781634857857 £238.50 September 2016 Nova Science Publishers 175 pages 155x230mm



Advances in Medicine & Biology
Volume 105 (Advances in Medicine & Biology Series)
Edited by Leon V Berhardt

Chapter One reviews creatinine in obstetrics. Chapter Two studies urinary creatinine analysis by liquid chromatography tandem mass spectrometry. Chapter Three discusses hormonal and metabolic disorders as links between obesity and cancer risk in men and women. Chapter Four presents and discusses a review of intraocular pressure (IOP) fluctuations in diverse animal models and humans in the context of aqueous humor dynamics and glaucoma. Chapter Five discusses phytochemical and pharmacological properties of *Scabiosa L.* genus. Chapter Six discusses new candidate biomarkers, their role in pathogenesis and describes future directions in developing algorithms that will improve the ability to predict the development of clinically relevant graft versus host disease (GVHD). Chapter Seven presents a short review of the current situation of ecological-genetic research with the use of environmental DNA. Chapter Eight reviews the literature that informs our understanding on how trypanosomes monitor and respond to nutrients in their environment, with a focus on a key metabolite, glucose. The goal of this chapter is to address mechanisms that enable the parasites to respond to differences in availability of this critical nutrient in the suite of niches they occupy. Finally, Chapter Nine discusses bovine trypanosomosis prevalence and its vectors density in the major cattle rearing regions of Cameroon.

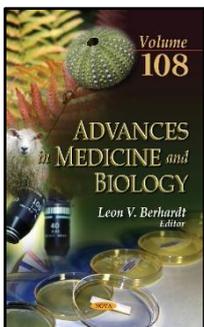
HB 9781634859295 £180.99 December 2016 Nova Science Publishers 200 pages 155x230mm



Advances in Medicine & Biology
Volume 106 (Advances in Medicine & Biology Series)
Edited by Leon V Berhardt

Chapter One provides an overview of various important sweat gland tumors. Chapter Two discusses different benign and malignant lesions of the sweat glands, their diagnosis and management along with the pertinent review of literature to guide the readers about this rare group of disorders. Chapter Three reviews strength exercise and cardiometabolic health. Chapter Four discusses the importance of muscle function and the role of exercise training in muscle performance. Chapter Five reviews results reported in different clinical studies and animal models to provide a comprehensive picture of the role of physical exercise in Parkinson's disease. Chapter Six provides updates on anticancer activity of triterpenoids, their activities in health benefit, as well as the current situation of the triterpenoids synthesis. Chapter Seven focuses on the improvement of defective cellular glucose uptake by the upregulation of estrogen signaling. Chapter Eight evaluates the effect of Cervical Intraepithelial Neoplasia (CIN) lesion excision to non-surgically treated women under 25 years old diagnosed with CIN-2. Chapter Nine discusses current and future directions for the risk factors of pregnancy-associated severe sepsis. Chapter Ten examines species-specific detection of adulterant in milk which will ultimately help in value addition to milk as well as milk products.

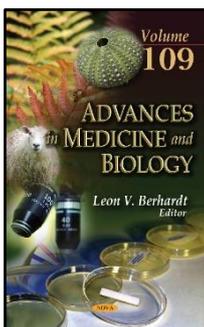
HB 9781634859608 £180.99 December 2016 Nova Science Publishers 211 pages 155x230mm



Advances in Medicine & Biology
Volume 108 (Advances in Medicine & Biology Series)
Edited by Leon V Berhardt

Chapter One provides an overview of normal variations of pigmentation and the most common pigment abnormalities. Chapter Two focuses on reviewing the clinical onset of ankylosing spondylitis (AS) and the most appropriate measures to manage the disease and its long-term outcomes. Chapter Three demonstrates that CO₂ emission is the indicator of metabolic processes that determine anesthesia adequacy. Chapter Four provides an up-to-date reflection upon the probable research applications of exocrine pancreatic cells generated from patient specific iPSC. Chapter Five discusses experimental factors that should be considered when imaging luciferase activity in live cells, including choosing among commercially available beetle luciferase enzymes based on their kinetic and bioluminescence properties. Chapter Six discusses ex vivo purging of residual iPSC cells for safer clinical applications. Chapter Seven discusses the role of scavenger receptors in macrophages and endothelial cells, and describes the protective effects of dietary components mediated by scavenger receptors. Chapter Eight considers a simple mathematical model to describe the behavior of both high pathogenic avian influenza (HPAI) and low pathogenic avian influenza (LPAI) strains in a domestic bird population with culling. Chapter Nine reviews the most important molecular mechanisms reported in the literature to underlie imidazole and triazole resistance in *Candida* species. Chapter Ten gives insight on developments of PET probes based on tetrapyrrolic structures for cancer detection.

HB 9781536101355 £180.99 December 2016 Nova Science Publishers 200 pages 155x230mm

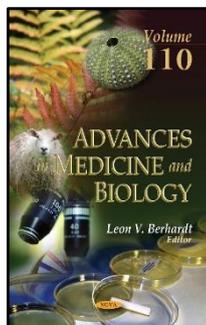


Advances in Medicine & Biology
Volume 109 (Advances in Medicine & Biology Series)
Edited by Leon V Berhardt

Chapter One reviews sialic acids in early life and their impact beyond infancy. Chapter Two examines how prolonged excitation of hypothalamic sympathetic center provokes preeclampsia by the stimulation of expanded pregnant uterus through uterus-brain nerve. Chapter Three reviews the genesis of the new and emerging field of synthetic biology. Chapter Four studies individuals' involvement in biobanking and new ways of doing research in bio-medicine. Chapter Five discusses the impact of IgG4-related sclerosing cholangitis after hepato-biliary-pancreatic resection in our population and identifies non-invasive diagnostic methods, IgG-IgG4 serum values, and magnetic resonance cholangiography (MRC) images to diagnose this entity in the early postoperative period.

in order to avoid aggressive and unnecessary treatment. Chapter Six examines and summarizes the available literature on burnout amongst emergency medicine physicians and provides recommendations for future work in this field. Chapter Seven provides microbiological and physicochemical characterizations of ground and spring waters associated with public health issues. Chapter Eight examines how abdominal vagal afferent nerves could be activated by nutrients and hormones via the mechanisms of molecular sensing, signal transduction and sensing regions and how they regulate food intake and metabolism. Chapter Nine discusses the major musculoskeletal manifestations found in diabetes mellitus. Chapter Ten elucidates important basic and clinical aspects of malignant otitis externa (MOE) and outlines an updated diagnostic workup and management of MOE in a clear and concise manner.

HB 9781536102079 £238.50 December 2016 Nova Science Publishers 175 pages 155x230mm

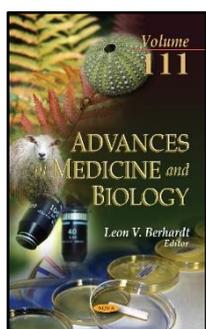


Advances in Medicine & Biology
Volume 110 (Advances in Medicine & Biology Series)

Edited by Leon V Berhardt

The chapters in this volume present the latest developments in medicine and biology. Chapter One reviews parkin and other proteins of Parkinson's Disease. Chapter Two discusses hyperlipidemia, its impact on the development of cardiovascular disease (CVD), and the use of statins, as well as both yeast polysaccharides and other miscellaneous newer and investigational non-statin agents, to treat hyperlipidemia. Chapter Three summarises the concept, pathogenesis, variables and treatment of mitochondrial dysfunction in severe hemorrhagic shock. Chapter Four reviews use of telomerase-targeted replicative adenoviruses for cancer treatment and diagnosis. Chapter Five evaluates the swelling and diffusional behavior of guar gum for the controlled release of bioactive agents. Chapter Six reviews both in vitro and in vivo studies that were carried out to check the activity of phytoestrogens used in topical products. Chapter Seven presents the potential application of phytoestrogens to alleviate the symptoms of climacteric. Chapter Eight provides preventive measure of developing osteonecrosis of the jaw in patients receiving bisphosphonate therapy. Chapter Nine investigates the possible mechanisms of the protective effect of glutamine on animal models and its use in the clinic. Chapter Ten presents relevant features of the glutamine role in immune pathways, energy metabolism and exercise, highlighting the relationships between glutamine supplementation and performance in adult subjects with different levels of activity.

HB 9781536104714 £238.50 January 2017 Nova Science Publishers 200 pages 155x230mm

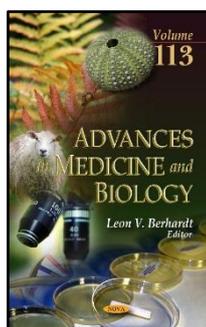


Advances in Medicine & Biology
Volume 111 (Advances in Medicine & Biology Series)

Edited by Leon V Berhardt

The chapters in this volume present the latest developments in medicine and biology. Chapters One and Two review the clinical uses, functionality, mechanisms of action and adverse reactions of *Andrographis Paniculata*. Chapter Three gives an overview of the chemical structure and biosynthesis of triacylglycerols in vegetables, and their health benefits. Chapter Four discusses long-chain fatty acids in triacylglycerol stores and physical performance. Chapter Five presents the different methods for determining skin color. Chapter Six discusses the imaging of chronic pancreatitis. Chapter Seven examines the influence of gingivitis on abdominal aortic aneurysms. Chapter Eight provides a review of the existing research on measurement, rates, correlates, and consequences of sedentary behavior in Multiple Sclerosis. Chapter Nine focuses on injury and recovery of the periodontal ligament.

HB 9781536105131 £238.50 January 2017 Nova Science Publishers 200 pages 155x230mm

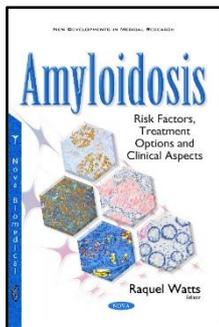


Advances in Medicine & Biology
Volume 113 (Advances in Medicine & Biology Series)

Edited by Leon V Berhardt

The chapters in this volume present the latest developments in medicine and biology. Chapter One reviews the epidemiology and molecular mechanisms of hepatocellular carcinoma, as well as methods for its diagnosis and treatments with a special emphasis on the latest advances. Chapter Two examines in vitro anti-cancer actions of progesterone on human melanoma cells based on recovery cell growth, adhesion and migration functions. Chapter Three reviews the medical uses, potential complications and advances in spinal anesthesia for ambulatory surgery. Chapter Four evaluates the effects of low dose spinal anesthesia on vital signs of patients for Cesarean Section (CS) and fracture repair. Chapter Five discusses Horner's syndrome after spinal and epidural anesthesia. Chapter Six studies the chronobiology and electrophysiology of the rat heart under pentobarbital anesthesia. Chapter Seven provides literature orientation and personal experiences to discuss patient-specific instrumentation of total knee arthroplasty. Chapter Eight reviews the involvement of the endocrine system in the pathogenesis and clinical course of Ménière's disease. Chapter Nine summarises recent research reporting several different effects of non-gluten members of the α -amylase/trypsin inhibitors and other nutritional food ingredients on the onset and severity of innate and/or adaptive immune responses.

HB 9781536106695 £235.50 January 2017 Nova Science Publishers 185 pages 155x230mm

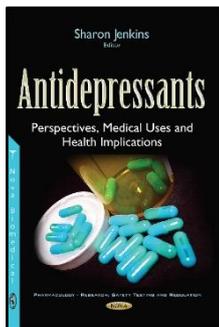


Amyloidosis
Risk Factors, Treatment Options & Clinical Aspects (New Developments in Medical Research Series)

Edited by Raquel Watts

Amyloidosis is a result of the abnormal deposition of 'amyloid' resulting in the disruption of organ and tissue function, which can be localised or systemic, with the kidney being most frequently affected. This book discusses the risk factors, treatment options and clinical aspects of amyloidosis. Chapter One explores amyloid cardiomyopathy. Chapter Two summarises current investigations utilising RNAi and immunotherapy to target the amyloid protein itself. Chapter Three reviews genetic counseling as an important component of the treatment algorithm for amyloidosis. Chapter Four discusses tissue examination in a diagnostic procedure. Chapter Five reviews protein studies in light-chain amyloidosis.

PB 9781634858847 £90.50 December 2016 Nova Science Publishers 132 pages 155x230mm

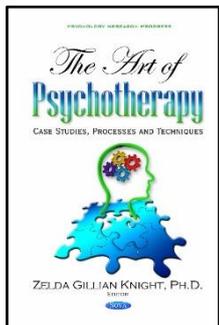


Antidepressants
Perspectives, Medical Uses & Health Implications (Pharmacology -- Research, Safety Testing & Regulation Series)

Edited by Sharon Jenkins

Depression is a common worldwide mental illness, and one of the leading causes of disability. It is not exclusive for an age, social or income level. Antidepressants are used as a pharmacological treatment for depression. Currently available antidepressants have several limitations including a long time lag for treatment response, modest rates of efficacy and the side effects associated with its use. This book examines the different perspectives, medical uses and health implications that antidepressants have on patients.

PB 9781536103816 £78.50 December 2016 Nova Science Publishers 135 pages 155x230mm

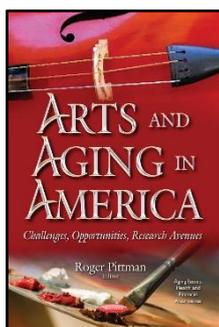


The Art of Psychotherapy
Case Studies, Processes & Techniques (Psychology Research Progress Series)

Edited by Zelda Gillian Knight

At some point, the therapeutic relationship takes on a certain shape that invites clients to 'speak their story' with all of its pain, hope and angst, and for therapists to become 'containers' of this emotional world of patient. In this light, psychotherapy is the art of emotional engagement or 'the art of feeling'. This book contains nine chapters, with a common binding thread that documents clinical case work. Chapter One is an excellent chapter for those readers who would never think about the door to the therapy room in such a way. From now on, the door will always be viewed as symbolic of the inside and outside, and what that means for the patient. Chapter Two is a fresh viewpoint to the autistoid personality organization, and the therapeutic encounter and treatment of such a character. Readers interested in how to manage difficult cases that concern this type of personality organization will find this chapter informative and educational. Chapter Three is an unusual topic and would appeal to all readers interested in this theme and its conceptualisation within Jungian psychotherapy. Chapter Four is an excellent read and gives the reader a chance to re-think issues about object, method and technique in psychoanalysis. Chapter Five is a worthwhile read and gives a new perspective on the psychology of the child and the process of therapeutically working with children in the context of being separate from, and yet a part of, the family dynamics. Chapter Six is valuable in that it brings into focus the processes of becoming a psychotherapist, and if it is agreed that psychotherapy is a relational practice, the story of becoming a psychotherapist becomes important. Chapter Seven will appeal to those readers who wish to understand that the art of psychotherapy is not always easy, straightforward and without disruptions. Chapter Eight is a comprehensive documentation of the case study of child sexual abuse and the therapeutic process with the child survivor. Readers interested in working with abused children will find this chapter fascinating and informative. Chapter Nine focuses on therapeutically treating sexually abused women, would appeal to readers who have had to encounter similar cases of gender-based violence in their therapy room, and gives a clear indication as to how this integrated model of therapy used can assist such traumatised people.

HB 9781536106374 £152.50 February 2017 Nova Science Publishers 210 pages 155x230mm

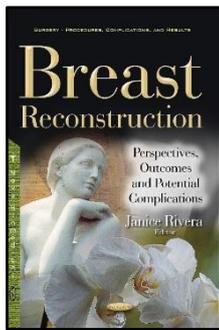


Arts & Aging in America
Challenges, Opportunities, Research Avenues (Aging Issues, Health & Financial Alternatives Series)

Edited by Roger Pittman

The United States is undergoing a major demographic shift, as older adults become a larger portion of the population. As people live longer and healthier lives, the perception of old age is changing, as are the capabilities, activities, and expectations of older adults. In preparation for addressing these changes this book looks at how the federal government can leverage the arts to foster healthy aging and inclusive design for this growing population. The book features recommendations from the May 2015 Summit on Creativity and Aging in America. It also presents a summary of a National Academies Workshop, "Research Gaps and Opportunities for Exploring the Relationship of the Arts to Health and Well-Being in Older Adults."

PB 9781536104127 £59.50 December 2016 Nova Science Publishers 81 pages 155x230mm



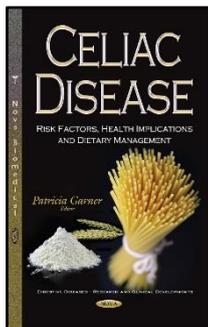
Breast Reconstruction

Perspectives, Outcomes & Potential Complications (Surgery -- Procedures, Complications, & Results Series)

Edited by Janice Rivera

This book provides new research in breast reconstruction surgery. Chapter One discusses the reconstruction of the nipple-areolar complex. Chapter Two examines the effect of post-mastectomy radiotherapy on the outcome of implant-based immediate breast reconstruction with or without a cellular collagen matrix. Chapter Three presents tips for safe maneuvering of deep inferior epigastric perforator (DIEP) flaps, as well as the implementation status of 3D imaging technology and its utility with regard to breast reconstruction using DIEP flaps. Chapter Four examines what to do after a free flap failure for breast reconstruction. Chapter Five highlights risk factors leading to higher rates of complications, early signs of complications, ways to monitor postoperative patients, and a systematic approach to treatment for breast reconstruction. Chapter Six reviews how to manage complications in free flap breast reconstruction.

PB 9781536102451 £78.50 December 2016 Nova Science Publishers 120 pages 155x230mm



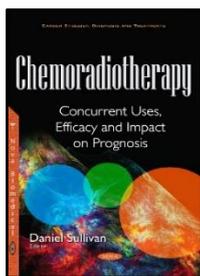
Celiac Disease

Risk Factors, Health Implications & Dietary Management (Digestive Diseases -- Research & Clinical Developments Series)

Edited by Patricia Garner

Celiac disease (CD) was once viewed as a rare disorder. Over the years, many adults with CD have been found to persist in having poor mental and physical health with poor quality-of-life, despite their adherence to a gluten-free diet. The reasons for the failure of a gluten-free diet to restore good general health are unsettled. Both genetic predisposition and environmental factors contribute to the pathogenesis of CD, which results in a small bowel inflammatory reaction that leads to tissue destruction. CD is characterised by a dysregulated immune response to gluten proteins. This book discusses risk factors, health implications and dietary management of CD.

HB 9781536103342 £90.50 December 2016 Nova Science Publishers 170 pages 155x230mm



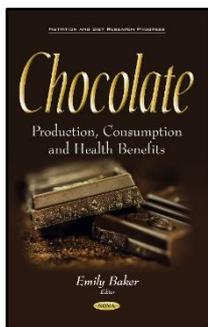
Chemoradiotherapy

Concurrent Uses, Efficacy & Impact on Prognosis (Cancer Etiology, Diagnosis & Treatments Series)

Edited by Daniel Sullivan

Chemoradiotherapy is the use of both chemotherapy and radiotherapy for the treatment of cancer. This book discusses its concurrent uses, efficacy in the medical field, and the impact it has on the prognosis of cancers.

PB 9781536107043 £78.50 January 2017 Nova Science Publishers 70 pages 155x230mm



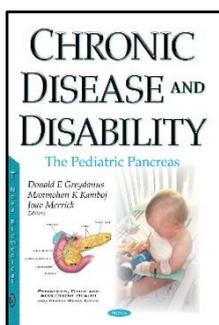
Chocolate

Production, Consumption & Health Benefits (Nutrition & Diet Research Progress Series)

Edited by Emily Baker

This book provides research on the production, consumption and health benefits of chocolate. Chapter One discusses chocolate as an important carrier of trace elements, and helps to overcome trace element deficiencies. Chapter Two shows the crystallisation characteristics of cocoa butter by presenting its thermal and polymorphic behaviors, as well as discusses the improvement on the physical properties of chocolate formulated with cocoa butter alternatives (CBAs) addition, and their compatibility attributes in the lipid network. Chapter Three discusses production of chocolate with soy milk in a ball mill. Chapter Four examines the sustainability of three strains of probiotics in milk chocolate. Chapter Five identifies the sensory profile consumer's preference of a typical Sicilian chocolate. Chapter Six provides a short overview of commonly used sweeteners and fat replacements. Chapter Seven focuses on a descriptive and hedonistic approach to chocolate cream spread. Chapter Eight provides an overview on the anti-inflammatory effects of cocoa flavanols observed in vitro and to judge the evidence for such effects from randomised controlled trials (RCT).

HB 9781536104332 £152.50 January 2017 Nova Science Publishers 200 pages 155x230mm



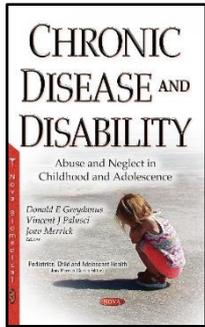
Chronic Disease & Disability

The Pediatric Pancreas (Pediatrics, Child & Adolescent Health Series Series)

Edited by Donald E. Greydanus, Manmohan K. Kamboj & Joav Merrick

This book is written for the primary care clinician to help update knowledge of pediatric endocrinology (with an emphasis on diabetes) from both ancient and modern times. The current and future shortage of pediatric endocrinologists necessitates steady, rejuvenated information on diabetes and other endocrine disorders for primary care clinicians as they care for the child and adolescent with complex endocrine dilemmas and disorders. In view of this shortage and the rapidly increasing knowledge in pediatric diabetes as well as understanding indications for referral to pediatric endocrinologists in the 21st century, a constant assiduous information aimed at primary care clinicians in these areas becomes increasingly important.

HB 9781536100556 £219.50 December 2016 Nova Science Publishers 321 pages 180x260mm



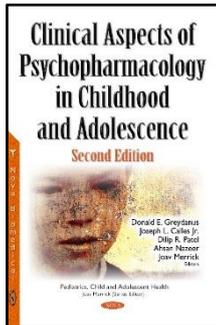
Chronic Disease & Disability

Abuse & Neglect in Childhood & Adolescence (Pediatrics, Child & Adolescent Health Series)

Edited by Donald E Greydanus, Vincent J Palusci & Joav Merrick

In the 19th century, a greater understanding of children's rights was acknowledged, and in the 20th century, child abuse was discovered in 1962 after many years of "turning a blind eye". The number of reported cases of child abuse worldwide has since exploded into a public health epidemic with a much higher incidence than better-funded diseases such as juvenile cancer. The evaluation of child abuse and neglect is complex, with many professionals and agencies involved to try and decrease these incidences. This can be one of the reasons why the field has not been able to attract appropriate resources for prevention, treatment, education and research. Child abuse must be looked upon as a major public health problem, and professionals must make the 21st century a "century for the child". In this book, the authors have given a short review of the field.

HB 9781536101294 £152.50 December 2016 Nova Science Publishers 140 pages 155x230mm

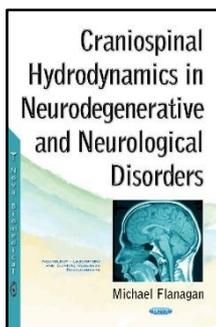


Clinical Aspects of Psychopharmacology in Childhood & Adolescence (Pediatrics, Child & Adolescent Health Series)

Edited by Donald E Greydanus, Joseph L Calles, Jr, Dilip R Patel, Ahsan Nazeer & Joav Merrick

The search for medicinal agents to improve emotional, behavioral, and psychiatric conditions of Homo sapiens has occurred for ages. The 20th century witnessed the development of psychopharmacologic agents, including stimulants in the 1930s (and 1950s), chlorpromazine in the 1950s, lithium, tricyclic antidepressants, benzodiazepines, SSRIs (1990s), and others. The proper use of these agents in the pediatric population continues to be an active study. Atypical antipsychotics have been approved by the FDA for children and adolescents though their safety and efficacy in the pediatric population but must be assiduously ascertained with ongoing research in the eternal iatric maxim of primum non nocere. The science of evidence-based pharmacotherapy for mental health disorders in children and adolescents is finally emerging. Exciting discoveries await the researchers of this still early 21st century lead by the crucial collaborative efforts of academicians, pharmaceutical scientists, and medical government authorities. Controversies regarding the use of various psychopharmacologic agents for the pediatric population continue in the 21st century, requiring further research and insightful judgment for its applications in this vulnerable population. Excessive and unnecessary psychopharmacologic agents should be avoided in the pediatric population with behavioral/emotional/psychiatric conditions/disorders. In this second edition, the authors present updated information about psychopharmacology in childhood and adolescence.

HB 9781536102413 £219.50 December 2016 Nova Science Publishers 310 pages 180x260mm

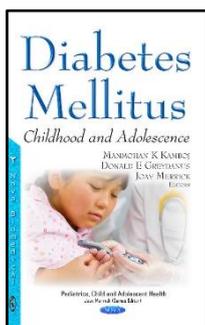


Craniospinal Hydrodynamics in Neurodegenerative & Neurological Disorders (Neurology -- Laboratory & Clinical Research Developments Series)

Michael Flanagan

This book is for students and doctors of chiropractic, osteopathy, neurology, neurosurgery, physical therapists, and researchers interested in finding the causes, new treatments, potential cures and prevention of neurodegenerative and neurological conditions related to faulty craniospinal hydrodynamics. This book proposes a completely new theory regarding the causative and contributory roles of faulty craniospinal hydrodynamics and morphology in neurodegenerative and neurological conditions. Relevant morphology includes malformations and misalignments in the craniocervical junction and spondylosis, stenosis, scoliosis and pelvic obliquity in the lower spine. Malformations of the craniocervical skeleton include: Chiari malformation, Dandy-Walker syndrome, mega cisterna magna, occipitalisation, malformations of the dens, platybasia, basilar invagination, hypoplasia of the posterior fossa, craniostynosis, craniofacial anomalies and more. Malformations of the lower spine include: Tarlov cysts, spina bifida cystica, tethered cord, short leg syndrome and others. A chapter on whiplash and traumatic brain and cord injuries is included, as well as a chapter on microgravity and hydrocephalus, and the latter's similarities to glaucoma. Finally, there is a chapter on treatment. Conditions include hydrocephalus, Chiari malformations, Dandy-Walker syndrome, Alzheimer's disease, Parkinson's disease, Parkinson's Plus, multiple sclerosis, amyotrophic lateral sclerosis, Huntington's disease, midbrain/Parinaud's syndrome, idiopathic intracranial hypertension, optic neuritis, transverse myelitis, migraines, epilepsy, silent strokes and more.

HB 9781536102833 £185.99 December 2016 Nova Science Publishers 250 pages 155x230mm



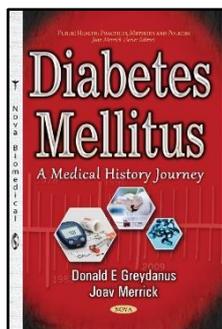
Diabetes Mellitus

Childhood & Adolescence (Pediatrics, Child & Adolescent Health Series)

Edited by Manmohan K Kamboj, Donald E Greydanus & Joav Merrick

About 29 million Americans (9.3% of the population) in 2012 had diabetes. Approximately 1.25 million American children and adults have type 1 diabetes, and almost all diabetes in children less than 10 years of age is type 1. About 208,000 people younger than 20 years (0.25 % of this age group) have been diagnosed with diabetes (type 1 or type 2). Diabetes care requires a collaborative approach with multi-disciplinary professionals involved from the health, nursing, social and educational fields in order to provide optimal service to the child or adolescent and their family. Early diagnosis, treatment and monitoring can prevent or delay the long-term complications in various organs of the body, and regular care and service to this population is therefore essential. In this book, we provide a short overview of issues involved in diabetes care for children and adolescents.

HB 9781536100952 £152.50 December 2016 Nova Science Publishers 130 pages 155x230mm



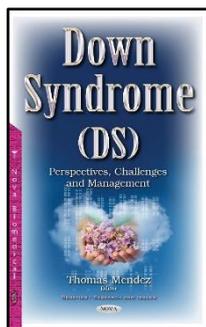
Diabetes Mellitus

A Medical History Journey (Public Health: Practices, Methods & Policies Series)

Donald E Greydanus & Joav Merrick

It is estimated that 86 million adult Americans have prediabetes and with that, a risk of developing T2DM (type 2 diabetes) within one in ten patients. About 29 million people have actual diabetes, most with T2DM. It was estimated in 2012 that about 208,000 people under the age of 20 have diabetes in the United States, but there is little data available on the prevalence of diabetes in the adolescent population. A recent study looking at 12-19 year olds from 2005-2014 found the prevalence of diabetes at 0.8%, with 28.5% undiagnosed and the prevalence of prediabetes 17.7%, more common among boys (22%) than girls (13.2%). With about 9% of the total US population having diabetes, this a public health issue of considerable proportions. In this book, the reader embarks on a journey through the medical history of the discovery and treatment of diabetes mellitus. It is the story of the human mind steadfastly seeking to understand its world — a story worth telling again and again — that has saved millions of lives from a premature death of misery in the 20th and now 21st century.

PB 9781536100945 £90.50 December 2016 Nova Science Publishers 100 pages 155x230mm



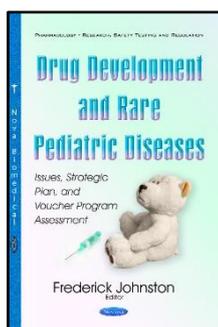
Down Syndrome (DS)

Perspectives, Challenges & Management (Genetics -- Research & Issues Series)

Edited by Thomas Mendez

Down syndrome (DS), also known as Trisomy 21, is a chromosomal disorder in which a third copy of the 21st chromosome affects both structural and behavioral development of one in every 800 live births in the United States. DS is a very common cause of mental impairment and children with DS present with a variety of medical issues, including cardiovascular defects, endocrine problems, neurodevelopment disorders, hematological problems, gastrointestinal and sleep dysfunctions, visual and hearing impairment. This book provides new research on the perspectives, challenges and management of DS. Chapter One examines the control of force and timing during finger tapping sequences of adolescents with DS. Chapter Two reviews the management of executive function following Assisted Cycling Therapy (ACT) in adolescents with DS. Chapter Three evaluates retrospectively the data of auxological and endocrinological parameters in patients with this genetic disorder.

HB 9781536104318 £152.50 January 2017 Nova Science Publishers 209 pages 155x230mm



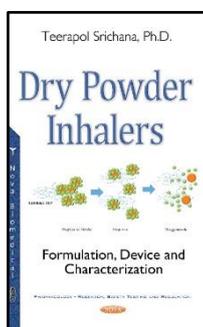
Drug Development & Rare Pediatric Diseases

Issues, Strategic Plan, & Voucher Program Assessment (Pharmacology -- Research, Safety Testing & Regulation Series)

Edited by Frederick Johnston

Over the past few decades, a number of legislative actions have been taken to encourage the development of therapies to treat people affected by rare diseases and to encourage therapies for pediatric patients. During this same time period, the Food and Drug Administration (FDA) has invested substantial effort in support of these same goals. As described in this book, recent legislative actions have prompted new initiatives. Continuing the response to the laws' specific requirements and FDA's commitment under PDUFA, this book includes input from the public and FDA and discusses the many complex issues involved in medical product development for people with rare diseases. Following a brief overview of both legislative and FDA efforts over the years to foster development of therapies for these patients, the book summarizes the three days of the public meeting and presents FDA's strategic plan for accelerating the development of the urgently needed therapies for pediatric rare diseases.

PB 9781536102277 £59.50 December 2016 Nova Science Publishers 122 pages 155x230mm



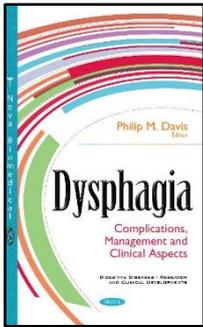
Dry Powder Inhalers

Formulation, Device & Characterization (Pharmacology -- Research, Safety Testing & Regulation Series)

Teerapol Srichana

This book is a compilation of most works published during 2000-2016 in the area of dry powder inhalers, especially related to the issues with formulation and device design. The dry powder inhalers aim to deliver the medication to the respiratory airways. It is suitable for postgraduate students and researchers who work in the areas of dry powder inhalers. It provides some background knowledge in size characterization, flow properties, forces, and interaction of air and particles. It also ends with in vitro quality control of dry powder inhalers. This book was finished in Hawaii where the author spent his time during April 2016. Thank you to Prince of Songkla University for the financial support. The author had to work very hard for one month without a holiday. Thank you to Professor Aran Pattanothi for overseeing this work to make sure that the researchers were on schedule all the time. Thanks to the author's staff at the Graduate School, Prince of Songkla University who had to work hard and be patient when the author was not in the office. Thanks to the author's wife and son who had to wait for him at home in Thailand. Thanks to Dr Tan Suwandecha and Dr Janwit Dechraksa for their great efforts in copy editing and compiling all the references. The author also thanks Dr Somchai Sawatdee and Dr Dhamodharan Bakkiyaraj for their comments, and Dr Padmavathi Alwar Ramanujam for her proofreading. The greatest help was from Professor Alan Coombes, Professor Pornanong Aramwit, and Dr Brian Hodgeson for their criticisms and comments to make this book readable.

PB 9781536106411 £78.50 February 2017 Nova Science Publishers 100 pages 155x230mm

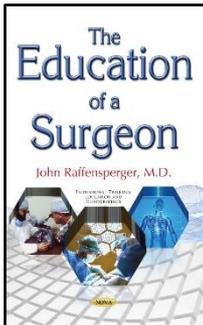


Dysphagia Complications, Management & Clinical Aspects (Digestive Diseases -- Research & Clinical Developments Series)

Edited by Philip M Davis

Dysphagia is the difficulty or improper swallowing of liquids, solids, or even saliva. This book provides new research on the complications, management and clinical aspects of dysphagia. Chapter One reviews the development of normal swallowing in infants and children and protective reflexes to prevent aspiration; the pathophysiologic events that occur due to aspiration and some of the disease processes in children associated with dysphagia; and current methods of diagnosis of dysphagia and its therapy in children. Chapter Two focuses on dysphagia after suffering a stroke. Chapter Three discusses the incidence, mechanism, and treatment of dysphagia and pneumonia in acute intracerebral hemorrhage. Chapter Four reviews the epidemiology of dysphagia in patients with Duchenne muscular dystrophy (DMD) and the method of evaluating their swallowing problems.

PB 9781536104325 £90.50 January 2017 Nova Science Publishers 130 pages 155x230mm

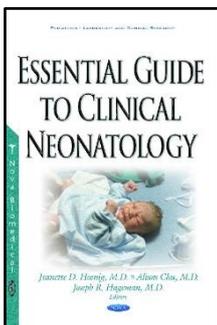


Education of a Surgeon (Professions -- Training, Education & Demographics Series)

John Raffensperger

The author, who graduated from medical school in 1953, narrates the changes in medicine over the past sixty-five years. He also tells of operations from appendectomies on ships at sea to the separation of Siamese Twins. In the mid-twentieth century, medical education and its practices had changed little since the end of the 19th century. Students learned medicine by dissecting cadavers, peering through microscopes, attending lectures and by direct study of patients at the bed side. The laboratory was an adjunct to the history and physical examination. By the end of the century, few doctors took the time to take a detailed history or to perform a complete physical examination. X-rays, scans and a distant, automated laboratory make the diagnosis. Since the time of Hippocrates, doctors cared for 'the whole patient'. Our professors, during the 1950's said we could not learn it all and urged us to specialize. My classmates learned to treat patients of all ages, deliver babies and fix broken bones but became surgeons, internists, paediatricians, obstetricians and psychiatrists. We thought of ourselves as doctors first. Now, there are 'super-specialists' who may care for only one organ. In 1950, there were isolation hospitals for contagious diseases such as measles and scarlet fever; there were special institutions for patients with tuberculosis, poliomyelitis and rheumatic fever. Within one decade, antibiotics and vaccination essentially banished these diseases. Morphine, aspirin, digitalis, insulin, atropine and Phenobarbital, were our most commonly used drugs; doctors were amazed at the miraculous efficacy of the sulfa drugs and penicillin and used antibiotics sparingly for specific indications. By the end of the century, physicians prescribed antibiotics and other drugs almost at the whim of a patient. The discoveries of anaesthesia aseptis during the 19th century laid the foundations for modern surgery. By the middle of the 20th century, surgeons operated on the brain, the lung and abdominal organs with great success. A few brave surgeons operated on the heart. At the end of the century, cardiac surgery and organ transplantation was commonplace and many operations were carried out through tiny incisions using micro-instruments and video screens. Until the end of World War II, patients either paid their doctor out of pocket or accepted charity care. Most physicians charged nominal fees; a few charged the wealthy high fees but often cared for patients in a local charity hospital or clinic. Doctors fought tooth and nail to avoid 'socialized medicine', but were engulfed by insurance companies and corporate medicine. This change has almost destroyed the physician-patient relationship and has enriched corporate executives in the insurance and pharmaceutical industries. Doctors should study the humanities, and ethics to better understand the human condition. Patients would fare better if doctors had a broad base of general medicine prior to specialisation.

PB 9781536106053 £90.50 February 2017 Nova Science Publishers 120 pages 155x230mm

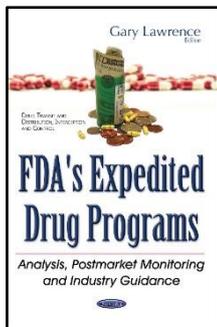


Essential Guide to Clinical Neonatology (Pediatrics -- Laboratory & Clinical Research Series)

Edited by Joseph R Hageman, Alison Chu & Jeanette D Hoening

The last handbook any neonatal care provider will need, providing a concise yet comprehensive review of essential topics. While it is handbook-sized, it provides in-depth descriptions of fundamental principles for didactic learning, balanced with practical management pointers. It covers common diagnoses in neonatology (from respiratory distress syndrome to congenital cardiac disease to anemia of prematurity), provides procedural guides (such as lumbar puncture and umbilical line placement), and includes nutritional guidelines for neonates, a comprehensive medication dosing guide, and more. The book is organised by organ systems, and chapters generally provide background didactic information covering basic physiology, diagnostic instruction, as well as management principles based upon evidence-based medicine. Therefore, it can be read from cover to cover to establish a foundation of knowledge for neonatal trainees, or each chapter can be read in isolation as needed for day-to-day practice. Chapters have been authored by a team of multi-disciplinary experts from physicians, to fellows, to respiratory and developmental therapists, to nutritionists, all of who have been recruited from across the US. Therefore, the content of this handbook is accessible at many levels of experience, across many of the disciplines that are essential for providing well-rounded neonatal care, and for any neonatal intensive care unit – from community NICUs to academic institutions. This textbook features: Reader-friendly tables and figures for quick reference; Intuitive chapter organisation, which provides evidence-based didactic and management information; A comprehensive range of topics covered, from basic physiology, to ethical issues, to how to write TPN; Practical medication dosing tables throughout the textbook; Detailed procedural instruction and rounding tips for trainees

HB 9781536101980 £219.50 December 2016 Nova Science Publishers 450 pages 180x260mm

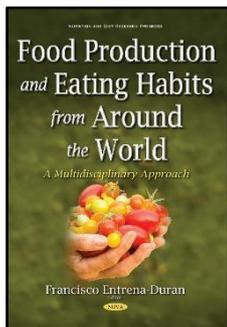


FDA's Expedited Drug Programs
Analysis, Postmarket Monitoring & Industry Guidance (Drug Transit & Distribution, Interception & Control Series)

Edited by Gary Lawrence

The Food and Drug Administration oversees the safety and effectiveness of drugs sold on the U.S. market. When there is an unmet need for the treatment of a serious condition, FDA may use one or more of its expedited programs, such as fast track and breakthrough therapy designation, which are intended to bring drugs to market more quickly. FDA is also responsible for monitoring the safety of drugs and reporting on those efforts. This book examines the number and types of requests for fast track or breakthrough therapy designation; the number and types of FDA-approved drug applications that used an expedited program; and the extent to which FDA's data on tracked safety issues and postmarket studies allowed the agency to meet reporting and oversight responsibilities.

PB 9781634857727 £90.50 September 2016 Nova Science Publishers 100 pages 155x230mm

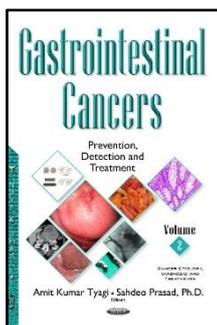


Food Production & Eating Habits from Around the World
A Multidisciplinary Approach (Nutrition & Diet Research Progress Series)

Edited by Francisco Entrena-Duran

This book brings together a selection of studies written by specialists from universities and/or research institutions from every continent. The processes of change in systems of production, commercialisation, and consumption of food, as well as the problems and nutritional habits analysed here, develop within the framework of the technological and socio-productive transformations experienced in many parts of the world as a consequence of the transition from traditional rural societies to the predominantly urban and industrial societies of our time. Many of these societies are affected by the fluctuations, questions, or socio-economic uncertainties caused principally by what is named globalisation. The authors involved in this volume are from a variety of backgrounds and their theoretical-analytical focuses regarding eating habits are quite diverse. However, independent of their different perspectives and scientific disciplines (Anthropology, Communication, Economy, Marketing, Medicine, Nursing, Psychology, Sociology), all of these authors are united in their concerns regarding similar food processes and problems, such as the industrialisation of food production, junk food, fast food, eating disorders, overeating, obesity, the impacts of ideal body images on eating behaviours, lifestyles and feeding, anorexia, bulimia, organic foods, healthy foods, functional foods, and so on. Moreover, in a time shaped by a worldwide standardisation of eating habits, the search for identity, specificity, or distinction through the acquisition and consumption of foods is commonplace in many chapters of the book. Likewise, these chapters show a generalised interest on the negative effects of the advertising and communications media that often drive patterns of food consumption and provoke desires for ideals of beauty and body forms prejudicial to health. As the editor states in the preface, all this occurs in an ever more modernised and globalised world in which artificial procedures of the production of industrial foods that are quite opaque to the general public become increasingly widespread. In such a world, while people's concerns over the healthiness of foods increase, we are witnessing a non-stop expansion of markets for organic food, as well as the repeated manipulation of growing consumers' preferences for certain foodstuffs that they believe are healthy or have specific natural qualities. This manipulation frequently takes place through a variety of advertisements that announce a series of industrial foods as supposedly possessing these qualities. Obviously, a priority objective of these and other advertising strategies is to increase sales in the agro-alimentary sector in a context of obvious over-production and over-supply, which in turn is translated into the stimulation of food consumption. This would help explain such developments in the current consumer society.

PB 9781536107753 £84.99 February 2017 Nova Science Publishers 316 pages 180x260mm

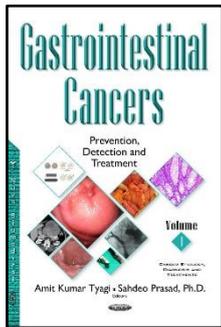


Gastrointestinal Cancers
Prevention, Detection & Treatment -- Volume 2 (Cancer Etiology, Diagnosis & Treatments Series)

Edited by Amit Kumar Tyagi & Sahdeo Prasad

Gastrointestinal cancer is the most frequently diagnosed type of cancer all around the globe. Gastrointestinal cancer is the cancer of different organs of the digestive system including the esophagus, stomach, liver, gallbladder, pancreas, small intestine, large intestine, rectum and anus. The common cause of gastrointestinal cancer may be microbial infection, smoking, alcohol consumption, high fat food, age, race, genetic pattern and geographical location. Gastrointestinal cancer accounts more than 20 percent of all newly diagnosed cancer cases in United States, where gastric cancer is the fourth-most-common type of cancer and the second-highest cause of cancer deaths. Pancreatic cancer is also a very lethal cancer and its symptoms appear when the cancer is in advanced stage. Other gastrointestinal cancers including Liver (hepatic), gallbladder, and colorectal cancer have received considerable attention due to the rising incidence in last few decades. Some other gastrointestinal cancers are not very common and usually associated with cancer of respective organs such as esophageal cancer, cholangiocarcinoma or bile duct cancer, carcinoid tumour, pancreatic islet cell cancer, and duodenal cancer. This book provides a summary of various gastrointestinal cancer history, present and future. In this book, numerous international experts of gastrointestinal cancer have involved, where authors have provided a complete view of the most common and widely used diagnostic methods, and also explaining the unusual techniques and the most innovative complementary methods not yet used in clinical practice. Contributors have also described the latest findings and the various clinical manifestations related to gastrointestinal cancer prevention and treatment. It covers numerous discoveries and inventions in the field of gastrointestinal cancer detection, and analysis.

HB 9781536101690 £219.50 December 2016 Nova Science Publishers 405 pages 180x260mm



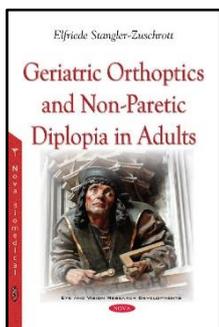
Gastrointestinal Cancers

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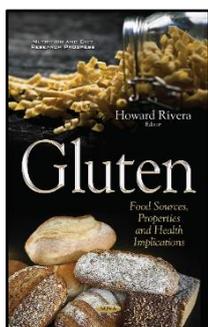


Geriatric Orthoptics & Non-Paretic Diplopia in Adults (Eye & Vision Research Developments Series)

Elfriede Stangler-Zuschrott

Elderly patients are often afflicted with the onset of a convergent strabismus as a sign of aging, without any other neurologic disorder. Unfortunately, physicians and even ophthalmologists are generally unaware of this fact. Consequently, such patients fail to find timely help for their double vision. In addition, there are other geriatric alterations (such as cataracts, glaucoma and age-related maculopathy), which are connected with binocularity disorders but do not always result in double vision. These masked diplopia are only perceptible as the closing of one eye and the patient's complaint of seeing clouds. Erroneous diagnoses have a dramatic outcome for many elderly people whose ability to read is vitally important for their quality of life. Studies on this topic and suggestions for improving the patients' situation are contained in this book. The book also covers intractable diplopia, or "horror fusionis", which is particularly difficult to understand. Examinations of the micromotility of the eyes could explain some of the puzzling observations. Although eye muscle palsies are generally outside the scope of this book's focus, connections between neuro-ophthalmology (e.g. in Parkinson's disease) and reading problems due to convergence insufficiency are discussed. Finally, this book examines what happens in adulthood to the numerous patients whose squints were operated on during childhood. Many of these patients later suffer problems such as double vision, which may be misinterpreted as eye muscle palsy. This book is not a textbook of orthoptics. It seeks to provide advanced training for ophthalmologists based on the author's personal experiences collected over fifty years of practice as an ophthalmologist and specialist for strabismology at the Medical University of Vienna's eye clinic and in her own office. As far as the author is aware, it is the first book to be published exclusively on this topic. The previously unpublished research and experiences it contains should provoke the interest of colleagues and orthoptists whose elderly patients present with binocularity, a condition which sadly remains underestimated.

PB 9781634852449 £90.50 September 2016 Nova Science Publishers 130 pages 155x230mm



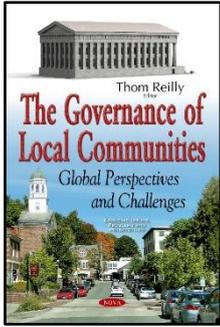
Gluten

Food Sources, Properties & Health Implications (Nutrition & Diet Research Progress Series)

Edited by Howard Rivera

Gluten and gluten-related proteins (prolamin and glutelin) may be present in several cereals, such as wheat, rye, barley, oat and the derivatives of these grains, including malt and brewer's yeast. Despite of some specific health implications, cereals are important carbohydrate and proteins source for human diet. Phenolic acids, vitamins, minerals and dietary fiber also can be found in wholegrains. Nowadays, cereals have been investigated about its potential use as ingredient in functional foods. Therefore, the development of food products with health benefits is a challenge for the food industry. This book provides new research on gluten's food sources, properties and health implications.

HB 9781536103861 £90.50 December 2016 Nova Science Publishers 175 pages 155x230mm

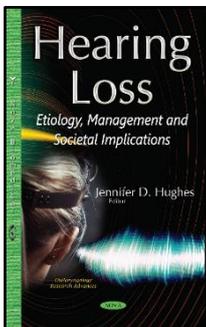


Governance of Local Communities
Global Perspectives & Challenges (Public Health in the 21st Century Series)

Edited by Thomas F Reilly

The quality of local governance matters more than ever before. To many citizens, their local government is the most tangible form of government, and it is also the layer of government with which they have most contact in their everyday life. The power of the local administration is that it represents ordinary citizens. People eat, drink, work, play and socialise with others in towns and cities. To be fully effective, local government management and service delivery capacity needs to be strong, and resources need to be adequate. Civil society and businesses are essential actors in ensuring local governments have the capacity to meet the needs of its citizens. There are a host of challenges that confront local government in the 21st century: delivering quality services; lack of finance and local fiscal autonomy; engaging citizens and communities in meaningful and authentic ways; forming effective partnerships which incentivize local actors to find solutions to the many complex and intractable issues facing communities; generating inclusive and sustainable development; implementing strategies for disaster risk reduction; managing transparent communications; and, rapidly evolving technologies and socio-economic demographics. The Governance of Local Communities: Global Perspectives and Challenges is about the role that ideas, institutions, and actors play in structuring how people govern local communities and, more specifically, the types of adaptations necessary in local government roles and responsibilities, structures, and processes to effectively respond to a changing local government environment. Global changes require that we rethink local governance. A wide net of international experts on local governance was assembled for this volume to stimulate frank conversations around the many contemporary challenges facing local government.

HB 9781536106381 £219.50 February 2017 Nova Science Publishers 345 pages 180x260mm



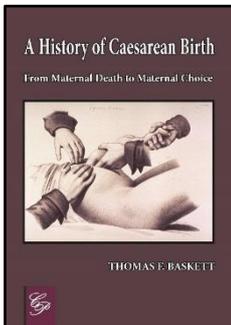
Hearing Loss

Etiology, Management & Societal Implications (Otolaryngology Research Advances Series)

Edited by Jennifer D Hughes

Hearing loss is the most frequent sensorial impairment in the world, especially in low and middle income countries. Almost 5% of the world population (360 million people) is affected by hearing loss. Hearing deficits are highly prevalent among older adults and are associated with declines in cognitive, physical, and mental health, especially in the geriatric population. Trauma situations, such as barotrauma and head trauma, can also lead to temporary or permanent conductive or sensorineural hearing loss, which can lead to quality of life impairment. This book provides new research in the etiology, management and societal implications of hearing loss.

HB 9781536103915 £90.50 December 2016 Nova Science Publishers 150 pages 155x230mm



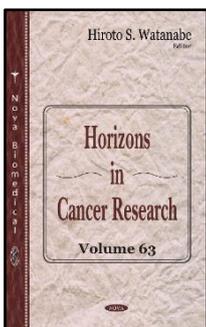
History of Caesarean Birth

From Maternal Death to Maternal Choice

Thomas F Baskettt

This book traces the evolution of caesarean delivery from postmortem ritual to the most commonly performed operation on women worldwide: from religious and legal edicts to the controversy of caesarean birth by maternal choice.

PB 9781854570659 £19.00 March 2017 Clinical Press 196 pages 175x250mm



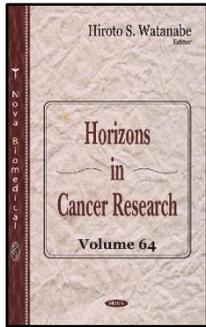
Horizons in Cancer Research

Volume 63 (Horizons in Cancer Research Series)

Edited by Hiroto S Watanabe

This book presents original results on the leading edge of cancer research. Chapter One reviews the most recent advances in the management, analyses the best possible treatment in each scenario, and discusses the future research direction on brain metastases from non-small cell lung cancer. Chapter Two discusses the positive effects of microscopic complete resection on controlling the local recurrence of a single brain metastasis. Chapter Three encapsulates the trends of the computer-aided diagnosis (CAD) development for the estimation of tumor malignancy. Chapter Four examines dendritic cells cross talk with cytomegalovirus pp65-specific cytotoxic T cells, $\gamma\delta$ T cells, and invariant NKT cells in patients with glioblastoma multiforme. Chapter Five addresses CD8+ T cell activation and regulation in the skin, paying special attention to what it is known about CD8+ T cell activity and its link with SCC development. Chapter Six discusses knowledge of the molecular basis of anti-cancer drug resistance and the mechanisms through which triterpenoids modulate ABC transporter-mediated multi drug resistance. Chapter Seven reviews cancer and heparan sulfate alterations. Chapter Eight focuses on Ganoderma lucidum targeting apoptosis. Chapter Nine examines the integrated model of cAMP-dependent DNA expression which reveals an inverse relationship between cancer and neurodegeneration. Chapter Ten studies the prognosis of male breast cancer.

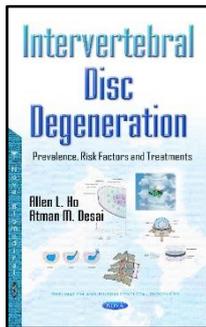
HB 9781536100136 £180.99 December 2016 Nova Science Publishers 200 pages 155x230mm



Horizons in Cancer Research
Volume 64 (Horizons in Cancer Research Series)
Edited by Hiroto S Watanabe

This book presents original results on the leading edge of cancer research. Chapter One presents an overview of the opportunities and challenges that influence the participation of personalised approach of giving the right drug at the right dose to the right patient. Chapter Two examines malignant mesothelioma. Chapter Three reviews the role of heat-shock proteins and chaperonins in the pathogenesis and progression of cancer. Chapter Four discusses the biosynthesis of LeX family glycosphingolipids and its gene regulation. Chapter Five summarises how chromosome segregation is accurately controlled and how spindle assembly checkpoint (SAC) monitors this process to maintain segregation fidelity. Chapter Six reviews significant novel findings and the early clinical development of a CD26-targeted therapy for malignant pleural mesothelioma (MPM), and advances that can lead to a more hopeful future for MPM patients. Chapter Seven reviews the pathophysiology and novel treatment strategies in management of peripheral T-Cell lymphoma. Chapter Eight discusses the confirmation behind a role for metformin in cancer therapy and its prospective molecular mechanisms of action. Chapter Nine highlights the role Ganoderma lucidum and its constituents in cancer signaling. Chapter Ten studies the footprint of Ganoderma lucidum in receptor tyrosine kinases.

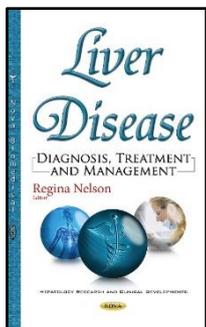
HB 9781536105124 £238.50 January 2017 Nova Science Publishers 180 pages 155x230mm



Intervertebral Disc Degeneration
Prevalence, Risk Factors & Treatments (Rheumatism & Musculoskeletal Disorders Series)
Edited by Allen Ho & Atman Desai

Degenerative disc disease is a significant component of spine disorders and lower back pain that now afflicts nearly one third of the adult population. This represents a significant morbidity and cost burden -- nearly a tenth of all health-care spending -- that is only increasing in prevalence as the elderly population continues to grow. While current treatment modalities, ranging from conservative approaches to surgical interventions, are continually evolving, new therapies for intervertebral disc disease are also in development. Increased research on the cellular mechanisms underlying DDD have led to novel cell-based treatments which aim to delay rates of degeneration. Intervertebral Disc Degeneration: Prevalence, Risk Factors and Treatments is a comprehensive text on all facets of the disease process that covers the pathophysiology, biomechanics, as well as the location specific pathology and treatment options for degenerative disc disease. Written by nationally renowned experts in neurosurgery and orthopedic surgery of the spine, each chapter is a thorough, cogent discussion of an essential topic related to intervertebral disc degeneration that includes many original, easy to understand figures and illustrations. Also included are overviews of the most cutting-edge and emerging surgical and biologic management options of disc disease at all levels of the spine.

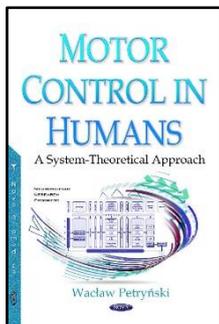
HB 9781634858298 £185.99 December 2016 Nova Science Publishers 214 pages 155x230mm



Liver Disease
Diagnosis, Treatment & Management (Hepatology Research & Clinical Developments Series)
Edited by Regina Nelson

This book discusses the diagnosis, treatment and management of liver disease. Chapter One reviews hepatic hydatidosis. Chapter Two explores the diagnosis, natural history, and management for patients with chronic hepatitis C (CHC). Chapter Three discusses scientific evidence that explains the relationship between metabolic syndrome, non- alcoholic fatty liver disease (NAFLD) and psoriasis and the treatment strategy for this co-morbid condition. Chapter Four examines the pathophysiology and treatment of liver cirrhosis. Chapter Five reviews surgical strategies to push up resection limits in liver disease and liver failure after surgery.

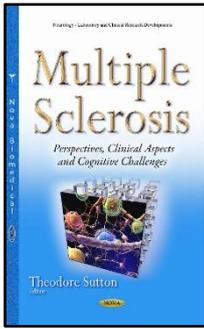
PB 9781634856973 £90.50 September 2016 Nova Science Publishers 120 pages 155x230mm



Motor Control in Humans
A System-Theoretical Approach (Neuroscience Research Progress Series)
Wacław Petryński Katowice

Through time, an organism gains the ability to actively control purpose and then transform it into inventiveness. With this transformation, the psyche is born. It is practically incomprehensible to direct experimental research and mathematical description. Hence, to transform rough knowledge into highly processed science, it seems reasonable to follow in the footsteps of evolution and to apply the systemic way of description of biological phenomena and processes. One might deduce that evolution has already made all the essential errors, so this path of scientific thinking is relatively free from "intellectual minds". The only observable manifestation of any psychical activity of the human mind is movement, which is the subject of interest of the scientific discipline termed "motor control". So, without psychology, motor control is mindless; yet, without motor control, psychology is also blind. Nevertheless, it seems that motor control may make a "window", enabling a view – with intellectual and not experimental methodology – into the human mind. Even the physical part of reality is too complex to be described in full. To understand this intricate idea somehow, it is necessary to create the simplified representations of reality, or "theories". As a result, science is not able to determine how reality is; it may only produce more or less useful descriptions of reality. This book makes an attempt at the creation of such a system-theoretical description of issues concerning the motor behavior of living beings, including humans.

HB 9781634850360 £295.50 April 2016 Nova Science Publishers 503 pages 180x260mm

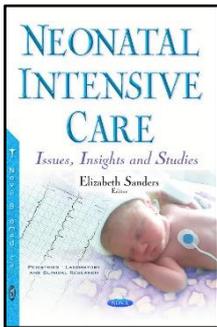


**Multiple Sclerosis
Perspectives, Clinical Aspects & Cognitive Challenges (Neurology -- Laboratory & Clinical
Research Developments Series)**

Edited by Theodore Sutton

Multiple sclerosis (MS) is an autoimmune inflammatory demyelinating disease of the central nervous system (CNS) and one of the leading causes of disability in young adults. This book discusses perspectives, clinical aspects and cognitive challenges of MS. Chapter One focuses on the analysis of the data on immunogenetic markers, cytokines, chemokines, adhesion molecules and autoantibodies known to play a role in disease progression and the associated cognitive dysfunction. Chapter Two presents an update of the existing literature on the subject of comorbid psychiatric disorders in MS. Chapter Three examines MS patients' awareness of the disease and compliance with pharmacological treatments.

HB 9781634858359 £152.50 December 2016 Nova Science Publishers 150 pages 155x230mm

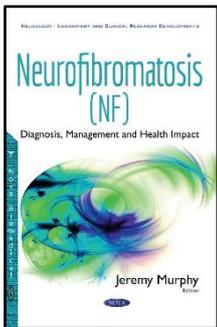


**Neonatal Intensive Care
Issues, Insights & Studies (Pediatrics -- Laboratory & Clinical Research Series)**

Edited by Elizabeth Sanders

Newborn infants, including term infants, who are admitted to the neonatal intensive care unit (NICU) usually have various perinatal unfavorable conditions or problems. Some of these problems may directly or indirectly affect or even damage the immature brain, including the brainstem. In this book, Chapter One provides new research on the functional impairment in the auditory brainstem in term infants in the NICU. Chapter Two discusses practices to reduce infant transfusions. Chapter Three reviews parents' perspectives on the hospitalization of preterm infants in NICU.

PB 9781536102857 £78.50 December 2016 Nova Science Publishers 100 pages 155x230mm

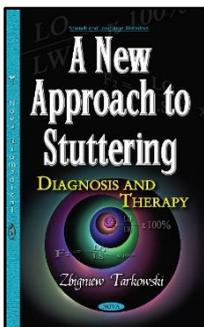


**Neurofibromatosis (NF)
Diagnosis, Management & Health Impact (Neurology -- Laboratory & Clinical Research
Developments Series)**

Edited by Jeremy Murphy

Neurofibromatosis 1 (NF1) is a neurocutaneous disorder with a heterogeneous presentation affecting 1 in 2500 to 1 in 3000 births. Our understanding of the pathogenesis of NF1 has increased dramatically since the discovery of the NF1 gene in 1990 and the role its product, neurofibromin, plays in tumor suppression. This book provides new research on the diagnosis, management and health impacts of NF.

PB 9781536107050 £78.50 January 2017 Nova Science Publishers 82 pages 155x230mm

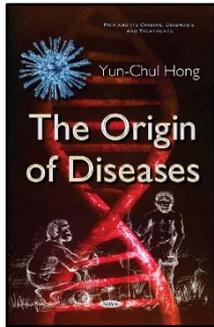


**New Approach to Stuttering
Diagnosis & Therapy (Speech & Language Disorders Series)**

Zbigniew Tarkowski

The author presents a new approach to the therapy of stuttering. Instead of accepting stuttering and trying to make it more fluent, he prefers to motivate a patient to effectively battle the condition. This book presents a theoretical basis for such an approach and offers diagnostic tools, including normalised and standardised scales as well as questionnaires for examining patients with stuttering in different age groups. While guest authors review research on the effects of pharmacotherapy, which is regarded as controversial by many, the author focuses on discussing the approach and achievements of Central and Eastern European therapists which have not been heard of in the USA and Western European countries. He supports systemic therapy which affects all the basic stuttering factors (ie: speech disfluency, logophobia, muscle tension and interpersonal communication in a comprehensive way). Speech disfluency is not regarded as a problem, but merely as an obstacle on the way to accomplish a patient's personal goals. The author presents particular methods for solving the problems of patients with stuttering and considers motivation to therapy important, though it is reduced due to the acceptance of the disorder. Although he supports using natural speech in the course of therapy, he does not reject other techniques. On the contrary, the author believes that therapeutic methods should be adjusted to the needs and abilities of a patient instead of forcing said patient to use a method simply because it is universal. The author believes therapies are subjective to the patient in question. Additionally, the author is optimistic and encourages both therapists and patients to share his optimism as well.

HB 9781634856409 £180.99 December 2016 Nova Science Publishers 205 pages 155x230mm

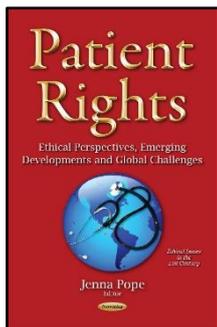


Origin of Diseases (Pain & its Origins, Diagnosis & Treatments Series)

Yun-Chul Hong

While covering human history, civilization, and diseases to reveal why humans are sick with many ailments, this book provides the answers to the questions: "When, why, and how did humans contract all kinds of infectious and chronic diseases?" The increasing occurrence of chronic diseases such as obesity, diabetes mellitus, asthma and cancer does not simply denote increment in the incidence of diseases, but a pathological phenomenon that reflects the condition of humanity's current environment. With humanity's graduation from the era of hunter-gatherers, infectious diseases and nutritional disorders started to appear at the beginning of the agricultural revolution. Humanity then shifted to an age of chronic diseases such as obesity, diabetes mellitus, asthma, and cancer, as they entered the era of affluence in the wake of the industrial revolution. Moreover, the disease pattern characterised by such chronic diseases is expected to change again soon to a new trend characterised by neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease. When contemplating the path of disease development and transition, we should simultaneously consider two aspects of humanity: as a biological being who adapts to his or her surrounding environment, and as a cultural creator who transforms and recreates the environment, because the changes in human behavior have as much impact on the direction of disease transition as our genes and environment do.

PB 9781634857819 £84.99 September 2016 Nova Science Publishers 293 pages 180x260mm



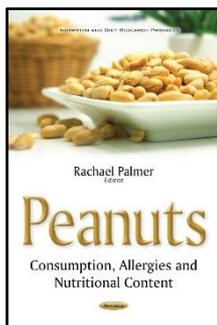
Patient Rights

Ethical Perspectives, Emerging Developments & Global Challenges (Ethical Issues in the 21st Century Series)

Edited by Jenna Pope

In the past 50 years, ethical concerns concerning human experimentation have arisen with the advancement of new medical research and technology. While the benefits of human experimentation are well known in the fields of biology, psychology, sociology, and medicine, the conditions of human subject research have been persistently controversial. This book discusses ethical perspectives, emerging developments and global challenges of patient rights. Topics include effective medical informed consent; rights to health and dental care; the ethics of HIV screening targeted to the seriously mentally ill; and problems in ethics for medical publication.

PB 9781536100419 £75.50 December 2016 Nova Science Publishers 119 pages 155x230mm



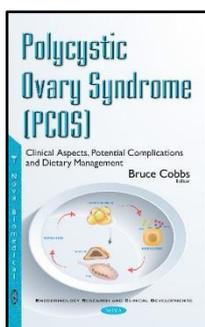
Peanuts

Consumption, Allergies & Nutritional Content (Nutrition & Diet Research Progress Series)

Edited by Rachael Palmer

Peanuts (*Arachis hypogaea*) are one of the most popular leguminous plants that originated in the Andean Cordilleras of South America, and they were spread all over the world in the Middle Ages. There are mainly four different cultivars of Virginia, Runner, Spanish, and Valencia. Peanuts contain lipids, protein, and carbohydrates as the major components as well as small amounts of pigment, aroma components, etc. In this book, Chapter One discusses the aroma active components in roasted peanuts. Chapter Two reviews the scientific research literature on the texture (both sensory and instrumental) of peanuts and peanut butter. Chapter Three thoroughly studies the biochemical properties of major peanut allergens. Chapter Four evaluates the quality and productivity of high oleic acid peanut cultivars. Chapter Five focuses on bioactive fatty acids and triacylglycerols found in cultivars and wild peanut species, underlying the importance of wild peanut species.

PB 9781536103380 £78.50 December 2016 Nova Science Publishers 80 pages 155x230mm



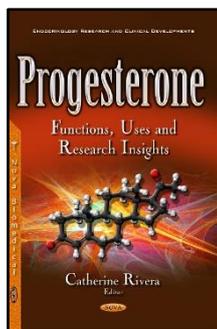
Polycystic Ovary Syndrome (PCOS)

Clinical Aspects, Potential Complications & Dietary Management (Obstetrics & Gynecology Advances Series)

Edited by Bruce Cobbs

Polycystic Ovary Syndrome (PCOS) is known as a common gynaecologic and endocrinology disease with multiple short and long-term consequences. It is one of the most common causes for hyperandrogenism and anovulation (therefore hirsutism, acne, menstrual dysfunction and infertility); increases the risk for metabolic syndrome, Type 2 diabetes and, still debated, cardiovascular disease. It represents a substantial psychological, social and economic burden for women's reproductive life span. In this book, Chapter One reviews the aetiology and pathogenesis of the Polycystic Ovary Syndrome, with the objective to set the ground for future research that could help elucidate which patients have risk of developing the disorder and what triggers this risk, so strategies to prevent it could be found. Chapter Two focuses on the most recent studies about PCOS and the current models of its genetic pathogenesis. In addition, it emphasizes the significance of genetic factors and the possibility of developing plausible candidate gene families for diagnosis and to improve therapeutic approaches for PCOS treatment. Chapter Three evaluates the available therapeutic strategies for the treatment of women with PCOS also focusing on diet in order to assess the possible impact on the clinical effects associated with it. Chapter Four reviews the most recent data regarding useful and promising adjuvant therapies in PCOS and its mechanisms of action, in order to expand its use on those patients who do not respond to conventional management. Chapter Five focuses on current existing markers of Insulin resistance (IR).

PB 9781634859240 £90.50 December 2016 Nova Science Publishers 117 pages 155x230mm



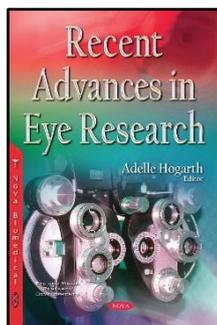
Progesterone

Functions, Uses & Research Insights (Endocrinology Research & Clinical Developments Series)

Edited by Catherine Rivera

This book provides an overview of the functions, uses and research insights of the progesterone hormone. Chapter One focuses on the effects of progesterone on B cells and antibody secretion. Chapter Two describes and summarizes the role of progesterone in targeting cell malignancy and recent treatments interfering in its proliferation. Chapter Three studies in vitro inhibition of melanoma cell growth and viability by progesterone. Chapter Four reviews the importance of both reproduction planning for production animals and the use of progesterone for estrus cycle control, describing its role, advantages and disadvantages of biodegradable and nonbiodegradable delivery devices and future trends in the field of progesterone delivery.

PB 9781536105544 £78.50 January 2017 Nova Science Publishers 115 pages 155x230mm

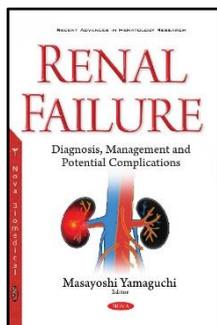


Recent Advances in Eye Research (Eye & Vision Research Developments Series)

Edited by Adelle Hogarth

Retinitis pigmentosa (RP) is a human disease characterised by loss of photoreceptor cells, especially rods, leading to visual disturbance and eventually blindness. Effective treatments for controlling RP remain unavailable. Infectious keratitis is a visual threatening eye condition of the cornea that can cause severe visual loss if not appropriately managed in a timely manner. Only 50% of the eyes will enjoy good visual recovery if antibiotic treatment is delayed. Causative pathogens include bacteria, virus, fungus, protozoa and parasites. A number of risk factors have been identified for microbial keratitis, including contact lens wear, recent ocular surgery or ocular trauma, ocular surface disease, dry eyes, eyelid deformities, corneal sensation impairment, chronic use of topical steroids and immunocompromised states. This book discusses the prevalence, symptoms and treatment options of eye disorders.

PB 9781536100433 £84.99 December 2016 Nova Science Publishers 168 pages 155x230mm



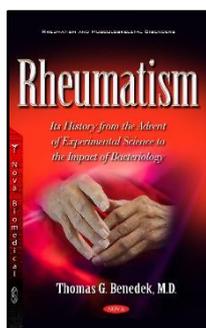
Renal Failure

Diagnosis, Management & Potential Complications (Recent Advances in Hematology Research Series)

Edited by Masayoshi Yamaguchi

This book introduces the advanced topics regarding renal failure including manifold findings of physiologic, pathophysiologic and clinical aspects in the kidney. The kidney plays a crucial physiologic role in the regulation of urinary formation, fluid balance, nutrition metabolism, blood pressure and other aspects in the living body. Renal failure is a condition of a decline or loss of kidney function due to deficiency of functioning nephrons. Acute renal failure is a syndrome, which is characterized by acute decline or loss of kidney function due to temporary disfunctioning or blocking of nephrons. Acute renal failure is a reversible condition and is a secondary manifestation, a complication of another underlying critical illness. Chronic renal failure is a condition of slow, gradual decline of kidney function due to irreversible destruction of nephrons. This book provides recent information concerning acute and chronic renal failure in clinical aspects, and is constituted in five chapters.

PB 9781536102840 £78.50 December 2016 Nova Science Publishers 85 pages 155x230mm



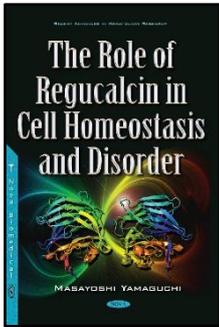
Rheumatism

It's History from the Advent of Experimental Science to the Impact of Bacteriology (Rheumatism & Musculoskeletal Disorders Series)

Thomas G Benedek

Rheumatism: From the Advent of Experimental Science to the Impact of Bacteriology follows Rheumatism: Its History from Paleo-pathology to the Advent of Experimental Science, which was published in 2015. The concept of the book is that, as bacteriology developed as a scientific discipline, it gradually replaced the vague pathophysiologic concepts that explained "rheumatism." Galen in about 200 CE displayed certainty about the basis of disease causation that remained satisfactory for 1700 years. The chronology wherein the existence of bacteria became recognised and eventually, over learned opposition became pathogens, is told in the introduction in excerpts from the writings of important participants. The main chapters of this book portray the historical development of the understanding of five rheumatic diseases. To facilitate access to the historically important references of contributors/investigators, biographical articles are inserted wherever possible. An index of these articles from both books is provided, as well as a glossary of terms with which some readers may be unfamiliar. Finally there is a bibliography of the author's publications that pertain to the history of rheumatology and historical aspects of so-called rheumatic diseases.

HB 9781536104301 £152.50 January 2017 Nova Science Publishers 200 pages 155x230mm

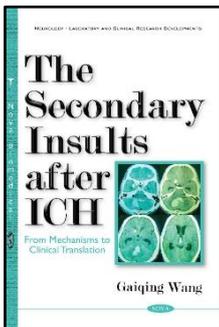


Role of Regucalcin in Cell Homeostasis & Disorder (Recent Advances in Hematology Research Series)

Masayoshi Yamaguchi

Cyclic AMP was a major molecule of interest, which played an important role as second messenger, contributing to signal transduction in the regulation of cellular function by peptide hormones. Afterwards, calmodulin and protein kinase C were discovered as modulator proteins of intracellular calcium signaling in hormonal action. After that, manifold proteins and their related molecules were demonstrated to participate in novel signaling pathways related to various cytokines in different types of cells. The author of this book discovered a novel protein known as "regucalcin", which suppresses manifold signaling pathways related to transcription activity. After subsequent studies, regucalcin has been established to play a pivotal role in maintaining cell homeostasis and protecting it from disorders in various types of cells and tissues. This book will provide information regarding regucalcin that plays a pivotal role in cell homeostasis and disorder. This book is composed of eighteen chapters. These chapters include the following content: the discovery of regucalcin (Chapter One); chemical property and structure of regucalcin (Chapter Two); the regucalcin gene and its translational regulation (Chapter Three); the role of regucalcin in intracellular calcium homeostasis (Chapter Four); the role of regucalcin in cell nuclear function (Chapter Five); the role of regucalcin in protein synthesis and proteolysis (Chapter Six); the suppressive role of regucalcin in cell proliferation (Chapter Seven); how regucalcin protects apoptotic cell death (Chapter Eight); the protective role of regucalcin in oxidative stress (Chapter Nine); the involvement of regucalcin in liver metabolic disorder (Chapter Ten); the role of regucalcin in kidney cell homeostasis: involvement in renal failure (Chapter Eleven); the role of regucalcin in heart calcium signaling: insight into cardiac disorder (Chapter Twelve); the role of regucalcin in brain calcium homeostasis: disorder with aging (Chapter Thirteen); the role of regucalcin in bone homeostasis and osteoporosis (Chapter Fourteen); the role of regucalcin in lipid metabolism and diabetes (Chapter Fifteen); the role of regucalcin as a suppressor protein in carcinogenesis (Chapter Sixteen); the clinical aspects of regucalcin as a biomarker for disease (Chapter Seventeen); and conclusive remarks (Chapter Eighteen). This book will provide information regarding regucalcin and its pivotal role in cell homeostasis and disorder.

HB 9781536105117 £219.50 January 2017 Nova Science Publishers 365 pages 180x260mm



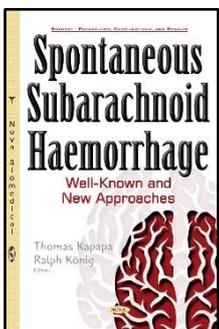
Secondary Insults After ICH

From Mechanisms to Clinical Translation (Neurology -- Laboratory & Clinical Research Developments Series)

Gaiqing Wang

This book mainly describes the clinical signs and biomarkers of the secondary insults following ICH. The recommendations for prevention and treatments of the targeted biomarkers and available clinical approaches are provided. This book is for professional experts and students of neurology and neurosurgery. Intracerebral hemorrhage (ICH) is an often fatal type of stroke. If the patient survives the ictus, the resulting hematoma within brain parenchyma triggers a series of adverse events causing secondary insults and severe neurological deficits. The secondary insults after ICH mainly result from hematoma component toxicity and hematoma expansion. So, treatment with blood toxicity, prevention from hematoma expansion and the timely removal of hematoma are essential to reduce deleterious pathological processes and improve clinical outcomes in patients suffering from ICH. The work is divided into three chapters. The authors try to illustrate how the endogenous garbage-cleaning system or scavenger receptors system in the brain work together to remove blood from the brain and reduce secondary brain insults, and presents potential clinically relevant molecular targets that could be harnessed to speed up this process via the endogenous phagocytosis. Meanwhile, guidelines of recommendations for clinical management of ICH are provided.

PB 9781634856423 £90.50 December 2016 Nova Science Publishers 100 pages 155x230mm



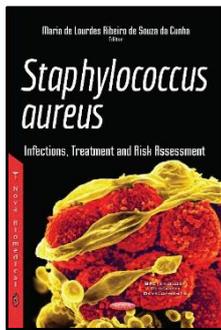
Spontaneous Subarachnoid Haemorrhage

Well-Known & New Approaches (Surgery -- Procedures, Complications, & Results Series)

Edited by Thomas Kapapa & Ralph König

Hippocrates of Cos was one of the first who described spontaneous subarachnoid haemorrhage without special knowledge about neuro-anatomy or neuro-physiology. This haemorrhage represented a life ending event of fate for him. Inventions like computed tomography or angiography gave better insight into the patterns of this life threatening disease. Progress in management was developed by new cranial approaches, new generations of clips and better intensive care modalities. The latter could be represented by the increasing use of nimodipine or the integration of the early sealing mode of an intracranial aneurysm after rupture within 72 hours. Endovascular therapies revolutionised aneurysm management, strengthening the interdisciplinary team-work of neuroradiologists, anesthesists and neurosurgeons. These changes in the past lead to a significant reduction in mortality, producing more survivors who suffer different stages of morbidity. Morbidity in this context is represented by physical handicaps and dependencies, but also mental, emotional and cognitive impairments. However, there are still some challenges to manage, like the cerebral vasospasm or delayed cerebral ischemia including spreading depolarisations, (prolonged) hydrocephalus, and cognitive long-term morbidity that may complicate a smooth and easy reintegration into daily life. Nevertheless, dealing with this long history and the aforementioned challenges, there is still the opinion that there is stagnation in the progress within this field of study. Scientists lack new ideas for surgical procedures or clips, endovascular devices do not always represent safe options, and medication providing protection for vasospasms still remains unknown. This book provides basic knowledge concerning this interesting disease pattern and introduces more intensive work in the field.

HB 9781634852708 £104.99 September 2016 Nova Science Publishers 188 pages 155x230mm

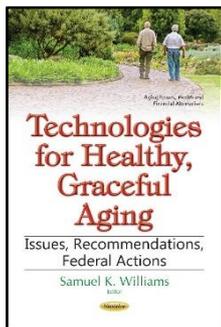


Staphylococcus aureus
Infections, Treatment & Risk Assessment (Bacteriology Research Developments Series)

Maria de Lourdes Ribeiro de Souza da Cunha

This book provides an overview of the different topics of staphylococcal research in recent years. Severe infections caused by methicillin-resistant *Staphylococcus aureus* (MRSA) have become a global health problem in the twenty-first century. Chapter One discusses MRSA as a major cause of healthcare or hospital-associated infections (HA-MRSA) in burn patients, indicated as a high-risk group for invasive staphylococcal infection. Types of MRSA, which have traditionally been tackled as exclusive agents of healthcare-associated infections, are now recognized as the causative agents of severe disease acquired in the community. The second chapter discusses these infections as they occur mainly in “special populations”. For example, we may cite people living with HIV/AIDS, older adults living in long-term care facilities and patients with chronic diseases, notably diabetes mellitus. In Chapter Three, a third epidemiological form of MRSA is discussed, which is known as livestock-associated MRSA (LA-MRSA). Chapter Four emphasizes the current scenario of highly adaptable clonal complexes. Among these strains, LA-MRSA belonging to clonal complex (CC) 398 are particularly important, and nosocomial infections caused by strains of CC398 are frequently reported. Confirmation of the presence of microorganisms in blood cultures is one of the most important roles of clinical microbiology laboratories. Blood culture testing - the gold standard for the diagnosis of sepsis - is able to elucidate the etiology of infection and to establish appropriate antibiotic treatment in order to improve the prognosis of septic patients and, consequently, to reduce morbidity and mortality; this is the subject discussed in Chapter Five. Nosocomial infections manifest more intensely and more frequently in newborns when compared to children or adults. *Staphylococcus aureus* infections in newborns is discussed in Chapter Six. *Staphylococcus* spp. are an important cause of peritonitis in peritoneal dialysis (PD), frequently requiring change of the dialysis technique and causing an important impact on the mortality of PD patients, another matter of great importance which is discussed in Chapter Seven. Finally, the epidemiology and experimental evidence that *S. aureus* and its products, the superantigens, are directly related to the development or exacerbation of autoimmune diseases, which are discussed in Chapter Eight. This book provides an excellent overview of the different applications of staphylococcal research for clinicians, researchers and students who intend to address these issues, and permits continued high-quality research involving these important pathogens.

PB 9781634859592 £90.50 December 2016 Nova Science Publishers 120 pages 155x230mm

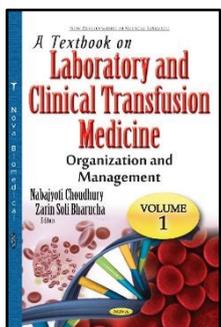


Technologies for Healthy, Graceful Aging
Issues, Recommendations, Federal Actions (Aging Issues, Health & Financial Alternatives Series)

Edited by Samuel K Williams

The U.S. population is getting older, and Americans are living longer, on average, than they ever have before. As they age, people are healthier and more active than the generations before them and have fewer functional limitations such as difficulty walking or blindness. Studies show that people are happier on average as they advance into their later decades and enjoy high levels of accumulated knowledge and experience. Getting older is a time of social, emotional, mental, and physical change. Retirement might change how a person interacts socially every day, affecting a person’s mood and well-being. Cognitive aging--the normal process of cognitive change as a person gets older--can begin, or a permanent change in physical function may arise. Technology offers a path for people who are navigating these changes potentially to prevent or minimise the risks associated with them and to enhance people’s ability to live their lives fully. The President’s Council of Advisors on Science and Technology (PCAST), seeks to identify technologies and policies that will maximise the independence, productivity, and engagement of Americans in their later years. This book focuses on four key changes older Americans often experience: hearing loss; loss of social engagement and connectivity; cognitive change; and physical change.

PB 9781536104165 £59.50 December 2016 Nova Science Publishers 90 pages 155x230mm

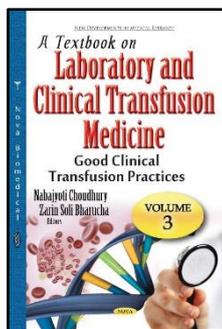


Textbook on Laboratory & Clinical Transfusion Medicine
Volume 1: Organization & Management (New Developments in Medical Research Series)

Edited by Nabajyoti Choudhury & Zarin Soli Bharucha

There have been very rapid advances in scientific, technical, clinical, and administrative areas of transfusion medicine since the beginning of this millennium. This book is a vital tool for managerial, technical, and clinical staff in understanding the specific issues in the subject, which provide information regarding the particular aspects in the three volumes of the book. The authors from developed and developing countries have contributed their knowledge in current technology, clinical support, and managerial issues. Editors have applied special attention to select authors who have practical experience on working the ground level of their specialties, especially in developing countries. A total of eighty authors across the globe have contributed fifty chapters in this three-volume textbook. Translating scientific advances to the patient creates an exciting environment for training. The textbooks in transfusion medicine are expensive for students and workers from developing countries. To achieve cost efficiency, this book is divided into three volumes. It is thus possible to procure/buy the volume required for a specific purpose from an interested person, either from transfusion medicine or from allied specialties. The chapters in all three volumes are concise and thorough in regards to the subject for the administrative, laboratory, and clinical practices. The compilation will serve as a textbook for graduate and post-graduate students in transfusion medicine, hematology (and transplantations), laboratory technology, biotechnology, clinical nursing, anesthesiology, internist, and management students in healthcare services.

HB 9781634849777 £257.50 April 2016 Nova Science Publishers 430 pages 180x260mm

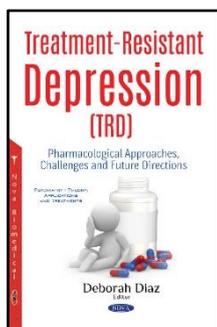


**Textbook on Laboratory & Clinical Transfusion Medicine
Volume 3: Good Clinical Transfusion Practices (New Developments in Medical Research Series)**

Edited by Nabajyoti Choudhury & Zarin Soli Bharucha

There have been very rapid advances in scientific, technical, clinical, and administrative areas of transfusion medicine since the beginning of this millennium, which need to be propagated among the workers in the field. This book is a vital tool for managerial, technical, and clinical staff in understanding the specific issues in the subject, which provide information regarding the particular aspects in the three volumes of the book. This publication was intended to provide a helpful resource to many workers in the technical and clinical fields as well as trainees and academia in the subject of transfusion medicine. The authors from developed and developing countries have contributed their knowledge in current technology, clinical support, and managerial issues. Editors have applied special attention to select authors who have practical experience on working the ground level of their specialties, especially in developing countries. A total of eighty authors across the globe have contributed fifty chapters in this three-volume textbook. Translating scientific advances to the patient creates an exciting environment for training. The textbooks in transfusion medicine are expensive for students and workers from developing countries. To achieve cost efficiency, this book is divided into three volumes: Organization and Management, Basics of Blood Bank Practices, and Good Clinical Transfusion Practices. It is thus possible to procure/buy the volume required for a specific purpose from an interested person, either from transfusion medicine or from allied specialties. The chapters in all three volumes are concise and thorough in regards to the subject for the administrative, laboratory, and clinical practices. The editors and authors have endeavored much to provide practical and instructive chapters from which readers will be able to find useful and detailed information on the subject. The editors have taken care to incorporate the necessary topics by inviting authors experienced in those subjects to write chapters providing up-to-date information. All three volumes are easily readable and full of stimulating and enlightening informative material described by these experienced authors.

HB 9781634849791 £257.50 April 2016 Nova Science Publishers 490 pages 180x260mm

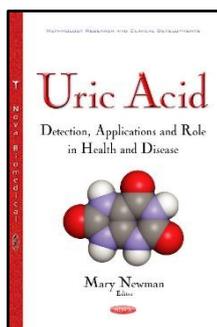


**Treatment-Resistant Depression (TRD)
Pharmacological Approaches, Challenges & Future Directions (Psychiatry -- Theory, Applications & Treatments Series)**

Edited by Deborah Diaz

Major Depressive Disorder (MDD) is a common and debilitating neuropsychiatric disorder with high economic and societal impact. Approximately 30% of subjects with MDD achieve full remission after treatment with conventional antidepressants resulting in a relevant percentage of patients suffering from treatment resistant depression (TRD). Treating TRD is a difficult challenge for psychiatrists due to the complexity of this disabling condition. In fact, TRD is generally associated with a poorer outcome, higher suicidal risk, more severe psychosocial impairment and physical disability when compared to MDD. This book provides new research on treatment options, challenges and the future directions for individuals with TRD.

PB 9781536108255 £78.50 February 2017 Nova Science Publishers 100 pages 155x230mm

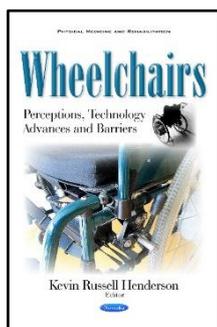


**Uric Acid
Detection, Applications & Role in Health & Disease (Nephrology Research & Clinical Developments Series)**

Edited by Mary Newman

Uric acid (UA) is an end-product of purine derivatives in human metabolism. Without further metabolism, it is excreted by kidneys and intestinal tract. Its serum concentration is controlled by the balance between production and excretion. High concentration of UA in human body has been discovered to be associated with various diseases, such as gout, hyperuricaemia, Lesch-Nyan disease, obesity, diabetes, high cholesterol, hypertension, kidney disease and heart disease. This book discusses the detection, applications and role in health and disease of uric acid.

PB 9781536102871 £78.50 December 2016 Nova Science Publishers 115 pages 155x230mm

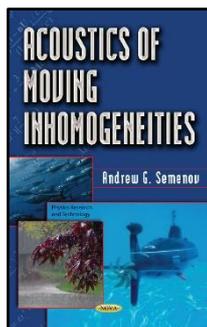


**Wheelchairs
Perceptions, Technology Advances & Barriers (Physical Medicine & Rehabilitation Series)**

Edited by Kevin Russell Henderson

Recent advances have dramatically improved the quality of life for wheelchair users, from accessibility to overall ride comfort. Many different types of wheelchairs are commercially available and these are an integral part of the lives of people with different kinds of motor impairments. This book provides new research on the perceptions, barriers and technological advancements of wheelchairs.

PB 9781536103908 £78.50 December 2016 Nova Science Publishers 96 pages 155x230mm

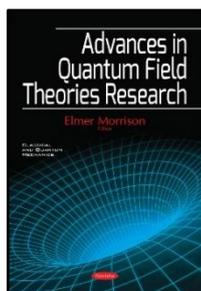


Acoustics of Moving Inhomogeneities (Acoustics Research & Technology Series)

Andrey Grigorievitch Semenov

A new approach to the theory of sound scattering, diffraction and propagation in slightly compressible media containing moving inhomogeneities is presented. The main concept of this approach lies in enriching the acoustic properties of the media by the consideration of the inhomogeneities' motion together with the contribution of media flow generated by them. Both factors are conventionally ignored in classic wave scattering theory. Inhomogeneous media are usually presented as continuous with supposed local statistical properties distribution while structural specifics and motion of medium components are ignored being 'excused' by their extremely small Mach numbers. However, this approximation is valid for electromagnetic wave scattering only. The analogy between sound and electromagnetic wave propagation in inhomogeneous moving media fails in acoustics of media with moving inhomogeneities. The presented conclusions are based on analytical solutions of sound scattering problems for the Lighthill equation related to a body moving in ideal or viscous media with an arbitrary relationship between sound wavelength and body dimension. The contribution of the ambient flow around moving scatterer to total sound scattering is shown to be at least comparable to the scatterer body motion contribution. Under certain conditions, such as for small moving particles in viscous media, the particle body contribution to scattering as a whole could be safely ignored with respect to the ambient flow contribution. As a result the classic Rayleigh law is to be modified and a few fundamental relationships substituting it are derived. The obtained results are important for a wide range of acoustic problems arising in moving inhomogeneous media, from sound scattering in atmosphere or ocean to sound decay in colloid particle solutions. The consideration of the contribution of the ambient flow to the sound diffraction by a large moving body is shown to be necessary as well. This is why a lot of known diffraction problems, for example such that are used for underwater acoustic system efficiency evaluation should be revised.

HB 9781536100068 £180.99 December 2016 Nova Science Publishers 205 pages 155x230mm

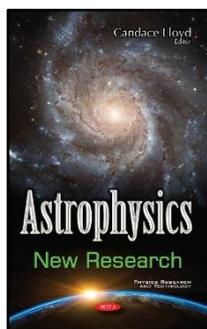


Advances in Quantum Field Theories Research (Classical & Quantum Mechanics Series)

Edited by Elmer Morrison

This book presents and discusses current research in the field of quantum physics. Chapter One reviews the impact of quantum field theory on the feasibility of local causal models of quantum theory. Chapter Two examines the uncertainty principle and minimal length at all energy scales and some of its implications. Chapter Three shows that the study of graphene physics is a versatile problem, from which we can extract important lessons on condensed matter and quantum field theory, ranging from the concept of emergent phenomenology to relativistic quantum fields and Feynman propagators.

PB 9781634857024 £90.50 September 2016 Nova Science Publishers 100 pages 155x230mm



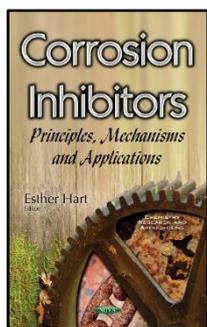
Astrophysics

New Research (Physics Research & Technology Series)

Edited by Candace Lloyd

In the last century, astronomy, astrophysics, and cosmology have evolved from observational and theoretical pursuits into more experimental science, with many stellar and planetary processes recreated in physics laboratories and extensively studied. This book provides new research in the field of astrophysics. Chapter One provides a review of theoretical and experimental nuclear reaction and decay data for stellar and explosive nucleosynthesis, as well as modern computation tools and methods. Chapter Two provides a brief overview of the Chelyabinsk meteorite which fell over the region of Chelyabinsk city nearby Southern Ural Mountains (West Siberia) on the February 15, 2013. Chapter Three discusses the local entropy equilibrium condition of an ideal gas in a static gravitational field, and its applications to some topics in astrophysics.

HB 9781536104721 £152.50 January 2017 Nova Science Publishers 200 pages 155x230mm



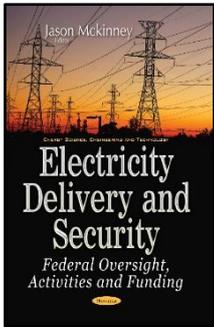
Corrosion Inhibitors

Principles, Mechanisms & Applications (Chemistry Research & Applications Series)

Edited by Esther Hart

This book discusses principles, mechanisms and applications of corrosion inhibitors. Chapter One focuses on organic corrosion inhibitors and their industrial applications. Chapter Two explores the application of polymer composites and nanocomposites as corrosion inhibitors for different metal substrates in different corrosive media. Chapter Three provides a review of corrosion inhibitors and a progress towards use of environmentally friendly corrosion inhibitors in the amine-based CO₂ absorption process for acid gas treatment and carbon capture. Chapter Four studies the effectiveness of copaiba oil loaded on microemulsion systems as green corrosion inhibitors. Chapter Five addresses the mechanism of corrosion for APMMCs, and discusses different methods of inhibition to corrosion for APMMCs. Chapter Six focuses on the electrochemical study of 1,3,4-triazolium-2-thiol as a corrosion inhibitor of mild steel in saline medium.

PB 9781634857918 £90.50 September 2016 Nova Science Publishers 122 pages 155x230mm

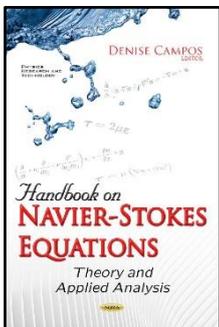


Electricity Delivery & Security
Federal Oversight, Activities & Funding (Energy Science, Engineering & Technology Series)

Edited by Jason McKinney

The federal government first supported a program for energy storage and electric power system technology during the 1970s, before the establishment of the Department of Energy (DOE). In the early days, the program was focused mainly on energy storage—especially to even out the variable power production from wind and solar technologies—but also to support large coal and nuclear power plants. The development of computer capacity and miniaturisation has expanded the ability of grid operators to monitor and control electric power flows. The subsequent increase in networking of computerised devices for grid data collection and control advanced the ability of operators to anticipate, avoid, and otherwise mitigate potential power crises, such as blackouts. However, in more recent years, the computerisation and networking have become vulnerable to unwanted computer-driven intrusions and disruptions, revealing a new cybersecurity challenge for electric power system technology. The nation's energy infrastructure is diverse and complex. It includes distributed networks, varied system structures (electricity, oil, and natural gas), an array of operating models (public and private), and different systems in both the physical space and cyberspace. The energy sector consists of thousands of electricity, oil, and natural gas assets¹ that are geographically dispersed and provide for all nationally important systems and networks. Thus, interdependency within the sector and across the nation's critical infrastructure sectors is significant. Coordinating the security and resilience of energy assets is complicated by the borderless nature of energy and reliance on predominantly privately owned infrastructure. This book examines the federal oversight of electricity delivery and security. It also discusses activities and funding of electricity delivery and security.

PB 9781536105377 £59.50 January 2017 Nova Science Publishers 130 pages 155x230mm

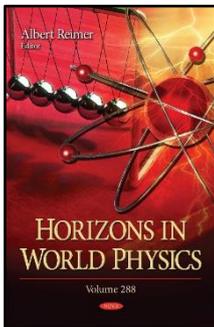


Handbook on Navier-Stokes Equations
Theory & Applied Analysis (Physics Research & Technology Series)

Edited by Denise Campos

Navier–Stokes equations describe the motion of fluids; they arise from applying Newton's second law of motion to a continuous function that represents fluid flow. If we apply the assumption that stress in the fluid is the sum of a pressure term and a diffusing viscous term, which is proportional to the gradient of velocity, we arrive at a set of equations that describe viscous flow. This handbook provides new research on the theories and applied analysis of Navier-Stokes Equations.

HB 9781536102925 £238.50 December 2016 Nova Science Publishers 600 pages 180x260mm

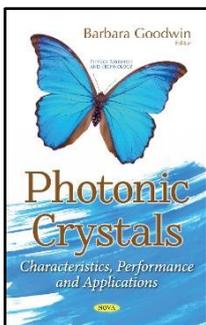


Horizons in World Physics
Volume 288 (Horizons in World Physics Series)

Edited by Albert Reimer

This book presents the latest developments in world physics, including chapters on the neoclassic approach to cosmology based on the invariant integral; the versatile approach to the study of cosmological models; the reexamination of the main method in astronomy; sarma superfluid state in a spin-orbit-coupled fermi gas in a two-dimensional optical lattice; low-cost, high-speed hydrophilic finishing of lightweight polypropylene nonwovens by ambient air plasma; extremely low frequency wave propagation; high harmonic generation and harmonic tuning in undulators for FEL with account for losses; Bose-Einstein-condensate built with focuses electron beam induced processing at room-temperature and novel applications; photodiodes based on thick Ge/Si(001) epilayers; and radiation shielding efficiency of lead zinc borate glasses.

HB 9781634858823 £180.99 December 2016 Nova Science Publishers 162 pages 155x230mm

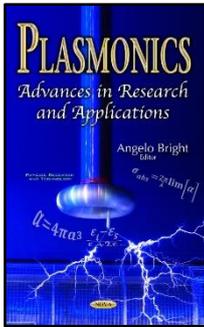


Photonic Crystals
Characteristics, Performance & Applications (Physics Research & Technology Series)

Edited by Barbara Goodwin

A photonic crystal fiber (also called microstructure fiber, holey fiber, holeassisted fiber, or micro-structured optical fiber, etc.) is a single material optical fiber which obtains its waveguide properties from an arrangement of very tiny and closely spaced airholes which go through the whole length of the fiber. Unlike the traditional fiber, both the core and cladding are made from the same material in PCFs and light can be well confined and guided properly through the fiber by the mechanism of either total internal reflection (TIR) or photonic band gap (PBG). This book discusses the characteristics, performance and applications of photonic crystals. Chapter One reviews the design characteristics and optical properties. Chapter Two studies band structure of metal/dielectric photonic crystals. Chapter Three describes the splitting method in multicore photonic crystal fiber (PCF). Chapter Four focuses on switches, isolators, circulators, and multifunctional components for optical and THz regions based on 2D photonic crystals with magneto-optical resonators.

HB 9781634859257 £152.50 December 2016 Nova Science Publishers 200 pages 180x260mm



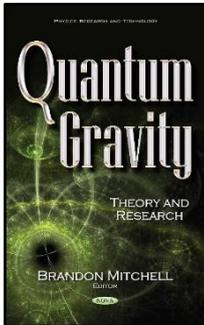
Plasmonics

Advances in Research & Applications (Physics Research & Technology Series)

Edited by Angelo Bright

This book discusses advances in research and applications of plasmonics. Chapter One examines the plasmonic interaction in enhanced luminescent down shifting layers for photovoltaic devices. Chapter Two presents a short review on a variety of coherent optical interactions in plasmonic nanostructures that are akin to certain quantum physics originally discovered in condensed-matter and electronic systems. Chapter Three reviews atomic-phase-coherence assisted surface plasmon resonance and negative optical parameters in multilevel media.

HB 9781536101744 £152.50 December 2016 Nova Science Publishers 190 pages 155x230mm



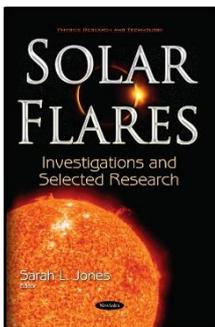
Quantum Gravity

Theory & Research (Physics Research & Technology Series)

Edited by Brandon Mitchell

This book provides new research on quantum gravity. Chapter One reviews the semi-classical corrections to the metric of a spherically symmetric static black hole space-time. Chapter Two discusses quantum entanglement in connection to black holes and nanotechnology. Chapter Three provides a particle-like description of Planckian black holes. Chapter Four analyses quantum gravity corrections to gauge theories with a cut-off regularisation.

HB 9781536107982 £90.50 February 2017 Nova Science Publishers 151 pages 155x230mm



Solar Flares

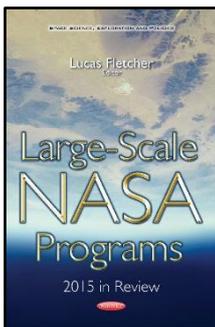
Investigations & Selected Research (Physics Research & Technology Series)

Edited by Sarah L Jones

Solar Flares refer to solar coronal mass ejections (CME), also known as geomagnetic storms. Solar flares are an important part of solar activity, associated with rapid and intense energy release in active regions of the solar atmosphere. In this book, Chapter One discusses the origin of solar flares and their threat to our civilization. Chapter Two presents a study of time and space variations of electron density characteristics during a solar X-ray flare influence. Chapter Three provides an analysis of the ionospheric D-region disturbances in response to the effects of solar X-ray flares. Chapter Four updates an analysis from January 2011 through July 2016 and discusses whether new research sheds any light on the ongoing Cycle 24 unusual structure and on its future. Chapter Five explores the latest news on zebra patterns in solar radio emissions.

PB 9781536102048 £78.50 December 2016 Nova Science Publishers 120 pages 155x230mm

SPACE SCIENCE



Large-Scale NASA Programs

2015 in Review (Space Science, Exploration & Policies Series)

Edited by Lucas Fletcher

In 2014, the United States Government Accountability Office (GAO) reported that the National Aeronautics and Space Administration's (NASA) major projects continued a general positive trend of limiting cost and schedule growth, maturing technologies, and stabilising designs, but that NASA faced several challenges that could affect its ability to effectively manage its portfolio, such as completing a series of complex and expensive projects within constrained budgets and competing priorities. This book assesses the current performance of NASA's portfolio of major projects; NASA's progress in developing and maturing critical technologies and stabilising design; and NASA's initiatives to reduce acquisition risk and work that remains to strengthen management of the agency's largest, most complex projects. It also provides data on past and current NASA appropriations as well as proposed NASA appropriations for FY2015 and proposed authorisations of NASA appropriations for FY2015 and FY2016.

PB 9781536103731 £59.50 December 2016 Nova Science Publishers 90 pages 155x230mm



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