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ZACHARIAS VOULGARIS, PHD

# DATA SCIENCE

MINDSET, METHODOLOGIES, AND MISCONCEPTIONS



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Clinical Press

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Nova Science  
Publishers

Scitus Academics

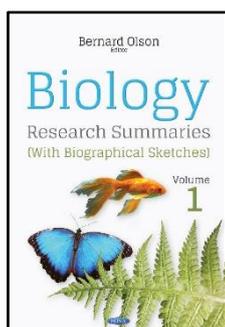
Studentlitteratur AB

Technics  
Publications

**Titles Received in September 2017**

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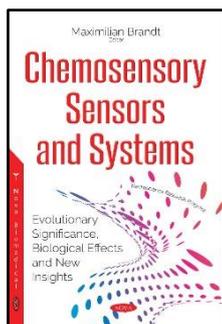


### **Biology Research Summaries (with Biographical Sketches) Volume 1 (Biology Research Summaries Series)**

Edited by Bernard Olson

This book provides research summaries from a number of different focuses in biology, and compiles biographical sketches of top professionals in this important field.

HB 9781536122626 £219.50 July 2017 Nova Science Publishers 405 pages

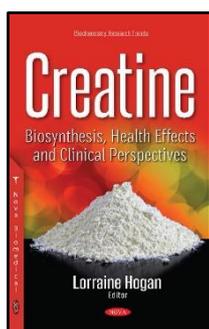


### **Chemosensory Sensors & Systems Evolutionary Significance, Biological Effects & New Insights (Neuroscience Research Progress Series)**

Edited by Maximilian Brandt

Chemical sensor is a self-contained analytical device that can provide information about the chemical composition of its environment, that is, a liquid or gas phase. Chapter One attempts to integrate past and current models of oxygen sensing and review their evolutionary importance as they relate to adaptations within the oxygen transport cascade. Chapter Two reports on improved electrochemical performances such as higher sensitivity, limit of detection; linear dynamic range, response time, and long-term stability towards hydrazine that were achieved using the modified chemical sensor. Chapter Three is a précis of modern olfactometer techniques across research disciplines in order to collate their growing complexity and utility.

PB 9781536124064 £90.50 July 2017 Nova Science Publishers 150 pages

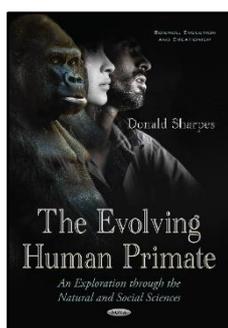


### **Creatine Biosynthesis, Health Effects & Clinical Perspectives (Biochemistry Research Trends Series)**

Edited by Lorraine Hogan

Creatine (p-N-methylguanidino acetic acid) is a naturally occurring nitrogenous organic acid synthesised in the kidneys, liver, pancreas and brain (in less quantity), or obtained from a regular diet or as ergogenic nutritional supplement. Creatine is a popular and widely used form of protein supplementation due to its efficacy in improving performance in healthy athletic populations via increased muscle mass and enhanced adenosine triphosphate (ATP) energy regeneration.

HB 9781536124149 £152.50 September 2017 Nova Science Publishers 173 pages

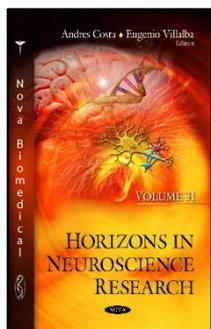


### **Evolving Human Primate An Exploration Through the Natural & Social Sciences (Science, Evolution & Creationism Series)**

John S Geddes, Ronald D Stewart & Thomas F Baskett

The theme of this book is our primate biology, or who we are as a continuum of our animal ancestors. Professor Sharpes first uses comparative animal studies and recent finds in archaeology to outline this argument and theme, and thus provides evidence for human animal origins. He then reveals how our emotions and behaviors influence our lives as demonstrated through the major social sciences -- the philosophy of our cognitive functioning, our psychology, and our religious beliefs as consumers (the economy), as national citizens (political science, government), and as world citizens (climate change). The idea is to examine the human condition from more than one discipline, and to synthesise research studies that analyse human behavior that is socially similar to other primate behaviour. What makes this book unique is its interdisciplinary investigation of human primates from the variety of the social sciences.

PB 9781536122428 £84.99 July 2017 Nova Science Publishers 250 pages

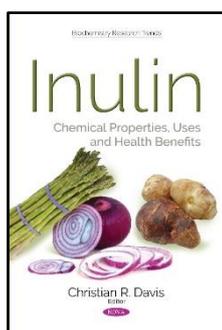


## Horizons in Neuroscience Research Volume 31

Edited by Andres Costa & Eugenio Villalba

The human brain deals, at every instant, with a huge amount of visual stimuli. Besides that, the problem of treating all this information becomes even more complex if we consider that each component of a given stimuli needs to be compared to a set of known signals stored in memory. In Chapter One a numerical solution of Hodgkin Huxley equations is presented to describe the behavior of a neuron and the solution is illustrated by a graphical chart interface to finely tune the behavior of the neuron visually programmed in Java. Chapter Two explores the connection between visual attention algorithms and the recognition of objects by computers in digital images. Chapter Three reviews research and provides original data asserting that bias in legal judgment persists despite the inclusion of visual evidence partly because decision-makers' perceptions of visual evidence may be swayed by subjective factors. The preference for a product is usually influenced by the visual appearance of the product image. Chapter Four proposes a new content-based approach, denominated CBAS, that combines textual attributes, visual features and visual attention to compose the products profile. Chapter Five uses electroencephalography (EEG) to investigate the brain activations of visual attention in production designers.

HB 9781536123753 £238.50 July 2017 Nova Science Publishers 143 pages



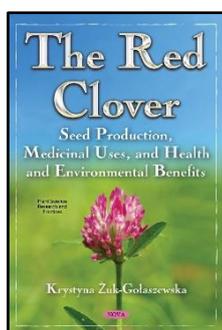
## Inulin

### Chemical Properties, Uses & Health Benefits (Biochemistry Research Trends Series)

Edited by Christian R Davis

In the food industry, inulin is widely used as ingredient in food stuff, due to its technological and functional properties. Chapter One describes inulin as an ingredient that provides low caloric intake and is a source of fibre itself. The authors argue that inulin gathers beneficial characteristics to enhance health, when added to many different products. Chapter Two discusses the history, development, and application of preclinical and clinical vaccines that contain inulin formulations. Chapter Three covers the performance of inulin as a fat replacer in dairy products, giving an overview of the influence of inulin addition on the textural, rheological, prebiotic and sensory properties of the dairy products.

PB 9781536123012 £78.50 July 2017 Nova Science Publishers 120 pages



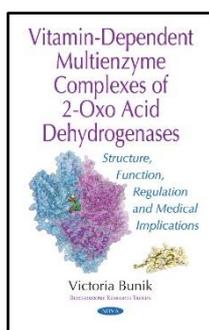
## Red Clover

### Seed Production, Medicinal Uses, & Health & Environmental Benefits (Plant Science Research & Practices Series)

Chris McGillion & Damian Grace

Red clover (*Trifolium pratense* L.) is one of the many species belonging to the genus *Trifolium*, which are widely cultivated around the world. It is a perennial plant and offers permanence that determines its uses as well as environmental and agronomic requirements. Red clover is grown mainly for seeds and biomass. The most important environmental factors that affect red clover yield are soil conditions, temperature and precipitation during the growing season. Key agronomic factors include sowing date, cultivation regime, fertilization, plant protection and harvesting date. The species can be grown in pure and mixed stands (with alfalfa, cereals and various grass species). Newly bred triploid varieties of red clover are characterized by desirable growth habit traits and yield components as well as high yield. Red clover has many applications. It is currently experiencing a revival of interest as a traditional folk remedy. The species acts as a rich source of compounds with expectorant, analgesic and antiseptic properties.

PB 9781536117875 £78.50 July 2017 Nova Science Publishers 70 pages

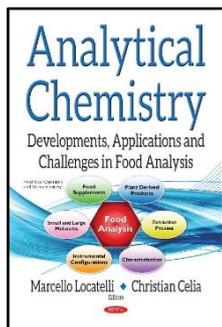


## Vitamin-Dependent Multienzyme Complexes of 2-Oxo Acid Dehydrogenases Structure, Function, Regulation & Medical Implications (Biochemistry Research Trends Series)

Mitchell Kalpakjian

The main parts of this book consist of three long articles that have previously been published by the Galilean Electrodynamics journal during three succeeding years as summer special issues, while the rest of the information concerns a new theory of ether that has been developed. This version of ether is compatible with special relativity theory (SRT), and thus it cannot be considered as an absolute frame of reference. One of the virtues of this book is that many of the novel predictions can be tested in high-tech laboratories; moreover, the book includes some new and strange physical concepts which make the proposed claims rational and plausible.

HB 9781536121667 £90.50 July 2017 Nova Science Publishers 160 pages

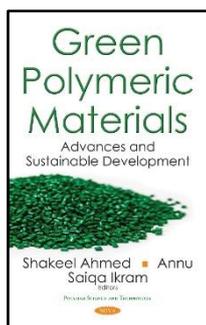


**Analytical Chemistry**  
**Developments, Applications & Challenges in Food Analysis**  
**(Analytical Chemistry & Microchemistry Series)**

Edited by Marcello Locatelli & Christian Celia

This book represents a collection of book chapters showing the validation and instrumental set up of analytical methods that are used to analyse foods and their ingredients. The different chapters include several topics discussing the validation of analytical methods, extraction procedures, and other multidisciplinary approaches for the analysis of foods, particularly supplements originated from raw plant materials. In these book chapters, we would like to collect different methods and tools to provide a multidisciplinary approach for the analysis of foods, their ingredients, natural and synthetic supplements. The book includes preliminary approaches used to validate analytical methods and a detailed description of the various matrix effects that disturb the analysis by using the hyphenated techniques, sample preparations, and a complete overview of principal phenolic constituents.

HB 9781536122671 £219.50 July 2017 Nova Science Publishers 385 pages

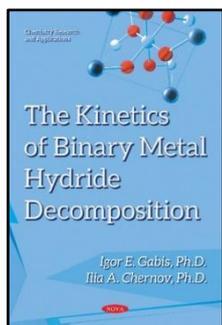


**Green Polymeric Materials**  
**Advances & Sustainable Development (Polymer Science & Technology Series)**

Edited by Shakeel Ahmed Annu & Saiqa Ikram

This book is a comprehensive introduction to “green polymeric materials,” which are developed by using natural resource-based polymers. This book also summarises various techniques used for their synthesis and application in different areas. This book is a useful reference not only for academic activities, but also for researchers working in this area. Key features: This is a unique book focused on the study of green polymeric materials; This book acts as a reference for undergraduate and graduate students; This book helps to guide researchers and scientists working in allied areas that incorporate green polymeric materials;

PB 9781536122404 £152.50 September 2017 Nova Science Publishers 130 pages

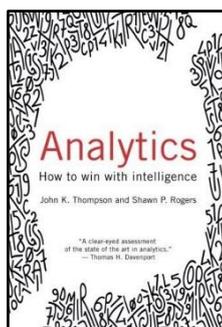


**Kinetics of Binary Metal Hydride Decomposition**  
**(Chemistry Research & Applications Series)**

Alan Cadwallader

From the point of view of hydrogen, desorption metal hydrides are extremely complex and interesting. Various metal hydrides differ so much, range in terms of decomposition temperatures and pressures and look like materials from separate classes. Many research articles are devoted to metal hydrides; many of them study the kinetics of dehydriding. However, there is still no complete understanding of the processes that govern kinetics. The reason is for the high number of factors that influence the rate of hydride decomposition and hydrogen desorption. First of all, properties of metal hydrides are diverse. The number of hydride phases, decomposition rates and ranges of absorbed energy are very different. The rates of hydrogen desorption, diffusion and phase transition also can influence the kinetics of dehydriding. The aim of this book is to summarise the authors’ research of dehydriding kinetics with electronic structures of the materials taken into account, and to determine which processes influence the decomposition rates.

PB 9781536119879 £78.50 July 2017 Nova Science Publishers 95 pages

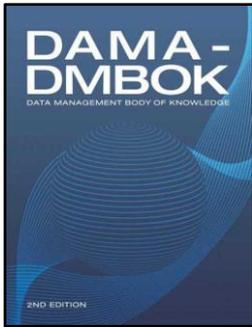


**Analytics**  
**How to Win with Intelligence**

Norman Habel

Learn how big data and other sources of information can be transformed into valuable knowledge -- knowledge that can create incredible competitive advantage to propel a business toward market leadership. Learn through examples and experience exactly how to pick projects and build analytics teams that deliver results. Know the ethical and privacy issues, and apply the three-part litmus test of context, permission, and accuracy. Without a doubt, data and analytics are the new source of competitive advantage, but how do executives go from hype to action? That’s the objective of this book -- to assist executives in making the right investments in the right place and at the right time in order to reap the full benefits of data analytics.

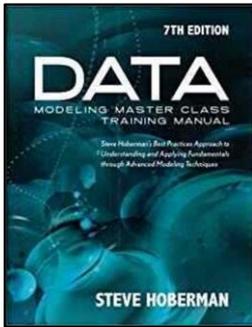
PB 9781634622370 £28.99 July 2017 Technics Publications 170 pages



**DAMA-DMBOK**  
**Data Management Body of Knowledge**  
 Gail Freyne

Defining a set of guiding principles for data management and describing how these principles can be applied within data management functional areas; Providing a functional framework for the implementation of enterprise data management practices; including widely adopted practices, methods and techniques, functions, roles, deliverables and metrics; Establishing a common vocabulary for data management concepts and serving as the basis for best practices for data management professionals. DAMA-DMBOK2 provides data management and IT professionals, executives, knowledge workers, educators, and researchers with a framework to manage their data and mature their information infrastructure, based on several principles.

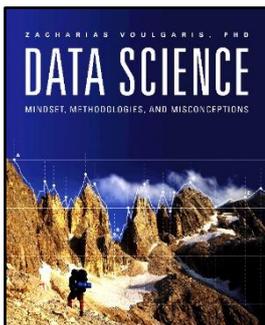
PB 9781634622349 £76.50 August 2017 Technics Publications 626 pages



**Data Modeling Master Class Training Manual**  
**Steve Hoberman's Best Practices Approach to Understanding & Applying**  
**Fundamentals Through Advanced Modeling Techniques**  
 DAMA International

The 7th edition of the training manual for the Data Modeling Master Class that Steve Hoberman teaches onsite and through public classes. This text can be purchased prior to attending the Master Class, the latest course schedule and detailed description can be found on Steve Hoberman's website, [stevehoberman.com](http://stevehoberman.com). The Master Class is a complete data modeling course, containing three days of practical techniques for producing conceptual, logical, and physical relational and dimensional and NoSQL data models. After learning the styles and steps in capturing and modelling requirements, you will apply a best practices approach to building and validating data models through the Data Model Scorecard®. You will know not just how to build a data model, but how to build a data model well. Two case studies and many exercises reinforce the material and will enable you to apply these techniques in your current projects.

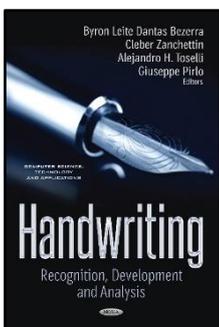
PB 9781634621946 £185.99 July 2017 Technics Publications 346 pages



**Data Science**  
**Mindset, Methodologies & Misconceptions**  
 Steve Hoberman

Master the concepts and strategies underlying success and progress in data science. From the author of the bestsellers, Data Scientist and Julia for Data Science, this book covers four foundational areas of data science. The first area is the data science pipeline including methodologies and the data scientist's toolbox. The second are essential practices needed in understanding the data including questions and hypotheses. The third are pitfalls to avoid in the data science process. The fourth is an awareness of future trends and how modern technologies like Artificial Intelligence (AI) fit into the data science framework. Targeted towards data science learners of all levels, this book aims to help the reader go beyond data science techniques and obtain a more holistic and deeper understanding of what data science entails. With a focus on the problems data science tries to solve, this book challenges the reader to become a self-sufficient player in the field.

PB 9781634622561 £42.99 August 2017 Technics Publications 300 pages

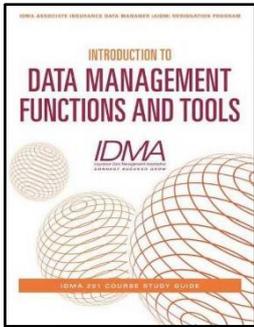


**Handwriting**  
**Recognition, Development & Analysis**  
**(Computer Science, Technology & Applications Series)**

Edited by Byron Leite Dantas Bezerra, Cleber Zanchettin, Alejandro H Toselli & Giuseppe Pirlo

This book has the primary goal of presenting and discussing some recent advances and ongoing developments in the Handwritten Text Recognition (HTR) field, resulting from works done on different HTR-related topics for the achievement of more accurate and efficient recognition systems. Nowadays, there is an enormous worldwide interest in HTR systems, which is mostly driven by the emergence of new portable devices incorporating handwriting recognition functions. Others interests are the biometric identification systems employing handwritten signatures, as well as the requirements from cultural heritage institutions like historical archives and libraries in order to preserve their large collections of historical (handwritten) documents.

HB 9781536119374 £219.50 July 2017 Nova Science Publishers 395 pages

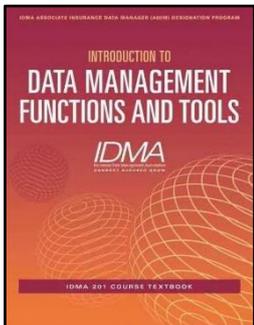


## **Introduction to Data Management Functions & Tools IDMA 201 Course Study Guide (IDMA Associate Insurance Data Manager (AIDM) Designation Program Series)**

Bill Ashcroft, Frances Devlin-Glass & Lyn McCredden

This study guide is for the IDMA 201 course in the IDMA Associate Insurance Data Manager (AIDM) designation program. This course defines data management, describes the functions of data managers, provides the business case for data management and introduces the student to concepts and tools used by data managers. Whether you are an actuary, a claims professional, business analyst, or almost any of the other key functions, knowledge of data management can help you do your job better and help you prepare, understand, and protect the raw material-the data-so critical to your organisation. IDMA courses, workshops, and forums are highly recommended for a broad audience including new hires, IT and data modeling professionals who want to broaden their knowledge of the business side of insurance data management, anyone who manages and governs data in the industry (statistical, or management information data), and anyone who needs to use or communicate good quality data/information -- from actuaries to underwriters, and claims and analytics professionals. Students who complete the four IDMA-developed courses and successfully pass the examinations are awarded an Associate Insurance Data Manager (AIDM) designation. The IDMA courses may be taken in any order; there are no prerequisites. However, the courses are numbered to indicate a recommended sequence. For details on the designation requirements, please refer to the IDMA Website at [www.IDMA.org](http://www.IDMA.org).

PB 9781634622493 £76.50 July 2017 Technics Publications 166 pages



## **Introduction to Data Management Functions & Tools IDMA 201 Course Textbook (IDMA Associate Insurance Data Manager (AIDM) Designation Program Series)**

Insurance Data Management Association (IDMA)

This textbook is for the IDMA 201 course in the IDMA Associate Insurance Data Manager (AIDM) designation program. This course defines data management, describes the functions of data managers, provides the business case for data management and introduces the student to concepts and tools used by data managers. Whether you are an actuary, a claims professional, business analyst, or almost any of the other key functions, knowledge of data management can help you do your job better and help you prepare, understand, and protect the raw material -- the data -- so critical to your organisation. IDMA courses, workshops, and forums are highly recommended for a broad audience including new hires, IT and data modeling professionals who want to broaden their knowledge of the business side of insurance data management, anyone who manages and governs data in the industry (statistical, or management information data), and anyone who needs to use or communicate good quality data/information -- from actuaries to underwriters, and claims and analytics professionals. Students who complete the four IDMA-developed courses and successfully pass the examinations are awarded an Associate Insurance Data Manager (AIDM) designation. The IDMA courses may be taken in any order; there are no prerequisites. However, the courses are numbered to indicate a recommended sequence. For details on the designation requirements, please refer to the IDMA Website at [www.IDMA.org](http://www.IDMA.org).

PB 9781634622424 £138.50 July 2017 Technics Publications 270 pages

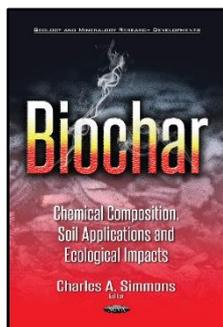


## **Pattern Recognition Techniques, Technology & Applications (Artificial Intelligence Series)**

Edited by Danel Jaso

This book highlights recent advances and new ideas in promoting the techniques, technology and applications of pattern recognition. It provides a comprehensive overview of the developments of techniques and approaches on pattern recognition. Pattern recognition is the science of making inferences from perceptual data, using tools from statistics, probability, computational geometry, machine learning, signal processing, and algorithm design. A wealth of advanced pattern recognition algorithms are emerging from the interdisciplinary between technologies of effective visual features and the human-brain cognition process. Effective visual features are made possible through the rapid developments in appropriate sensor equipments, novel filter designs, and viable information processing architectures. While the understanding of human-brain cognition process broadens the way in which the computer can perform pattern recognition task. Pattern recognition is the imposition of identity on input data, such as speech, images, or a stream of text, by the recognition and delineation of patterns it contains and their relationships. Stages in pattern recognition may involve measurement of the object to identify distinguishing attributes, extraction of features for the defining attributes, and comparison with known patterns to determine a match or mismatch.

HB 9781681174648 £141.50 January 2017 Scitus Academics 298 pages

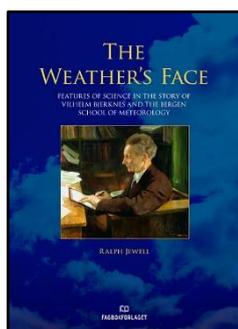


**Biochar**  
**Chemical Composition, Soil Applications & Ecological Impacts**  
**(Geology & Mineralogy Research Developments Series)**

Edited by Charles A Simmons

Biochar is the solid product obtained from thermal chemical conversion of biomass under inert or anoxic atmosphere. The application of biochar into soil can produce many beneficial effects on soil (eg: the abundant pore structures in biochar) can increase the porosity and water retention capacity of the soil, the rich functional groups on biochar surface can increase the cation exchange capacity of the soil, the stable polycyclic aromatic compounds in biochar structures can enhance the carbon sequestration of soil, potassium, calcium, magnesium contained in biochar can improve the soil for the growth of plants.

PB 9781536122992 £78.50 July 2017 Nova Science Publishers 80 pages

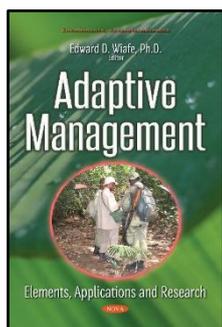


**Weather's Face**  
**Features of Science in the Story of Vilhelm Bjerknes & the Bergen School of**  
**Meteorology**

Barbara N McLennan

Philosopher Ralph Jewell creates a fascinating and compelling portrait of Vilhelm Bjerknes, an internationally prominent Norwegian physicist, who today is largely remembered for developing the Bergen School of Meteorology. Drawing copiously on Bjerknes's letters and writings – most of them translated into English for the first time – Jewell's telling of the Bjerknes story has a poetic immediacy that enthral the reader. Through Bjerknes's experiences and thoughts, as well as Jewell's own reflections derived from a profound understanding of the history and philosophy of science, the reader learns about the making and living of science in the late nineteenth and early twentieth centuries, crucial aspects that are now often neglected or underestimated: the role of the individual, of personality and creative inspiration, of communicative style spoken and written, of community and team-building, and of mediating intellectual leadership. In all these aspects Vilhelm Bjerknes embodied special qualities and abilities that enabled him (and his co-workers) to achieve remarkable scientific successes, most especially a method of viewing and understanding weather behaviour, which laid the groundwork for scientific prediction of that intractable natural phenomenon.

PB 9788245014419 £70.00 September 2017 Fagbokforlaget 516 pages



**Adaptive Management**  
**Elements, Applications & Research (Environmental Research Advances Series)**

Edited by Edward D Wiafe

The goal of an adaptive management approach is to reduce uncertainty over time by systematically incorporating learning into management. Managers of natural resources are required to design their actions as scientific experiments, monitor the outcomes, and adjust management direction in light of what the experiments revealed. This is a modern management concept that facilitates the achievement of resource management objectives. This book has enumerated cases of adaptive management elements, applications and experiments to test the efficacy of the concept in addressing resource management problems. The complexity of the conditions in which the natural resources occur (ie: biophysical coupled with social, political and economic) -- warrant the application of natural resources. In the era of change in the economy, climate, population and lifestyles, the utilisers of the renewable natural resources are taken more than the supply. It is therefore necessary to apply the concept in order to ensure sustainability and efficient utilisation. This book serves as a source of knowledge and experiences from renowned practitioners in the sector of entomology, zoology, fisheries, forestry and so on. This book is recommended for natural resource managers, wildlife managers, forest managers, fishery managers, graduates and undergraduate students. For the effective management of the forest, wildlife and fishery resources, the application of adaptive management is necessary.

PB 9781536122718 £78.50 July 2017 Nova Science Publishers 100 pages

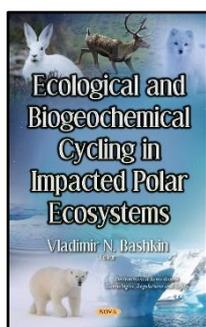


### **Advances in Environmental Research Volume 57 (Advances in Environmental Research Series)**

Edited by Justin A Daniels

Chapter One explores these conflicts and disputes focusing on the Harapan Rainforest Project, and weighs the relevance of ERCs for German development cooperation. Chapter Two discusses Cambodia, where land use has been changing increasingly as dry evergreen forests are being converted into rubber plantations. Based on the case of Slovenia, Chapter Three shows that social irresponsibility is a factor more responsible than climate change for the “catastrophic” consequences of natural disasters. In Chapter Four, a variety of optical methods is used to investigate the flicker patterns of light in small waterfalls and their splash zones. Chapter Five discusses the Chandrabhaga river basin, where to release partial pressure from ground water, delineation of the alternative surface water irrigation potential zone is necessary for agricultural sustenance. Chapter Six examines the spatial patterns of urban runoff and occurrences of droughts using Geographic Information System and spatial statistics. Chapter Seven seeks to highlight use of innovative and digital tools for improving design process and comfort in the built environment.

HB 9781536122756 £238.50 October 2017 Nova Science Publishers 180 pages

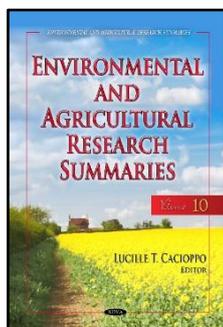


### **Ecological & Biogeochemical Cycling in Impacted Polar Ecosystems (Environmental Remediation Technologies, Regulations & Safety Series)**

Edited by Vladimir N Brovkin

This volume is devoted to one of the most popular topics of modern ecological and environmental sciences. This book focuses on the alterations in ecological and biogeochemical cycling in impacted polar land and water ecosystems, where a significant part of natural gas and oil production is developing both in Russia and in many other countries. In the near future, these will make great progress. Founded on the field monitoring of various biogeochemical cycle parameters of polar ecosystems and relevant changes in ecological indexes and indicators, the authors suggest new biogeochemical technologies for assessing and managing environmental and geoenvironmental risks in severe climate conditions. This issue is meant for a wide range of scientists, specialists and practitioners in ecological science, biogeochemistry and energy sectors, and may be quite useful to undergraduate and postgraduate students who study the fundamental principles of ecosystem sustainability and anthropogenic impact.

HB 9781536120813 £219.50 September 2017 Nova Science Publishers 200 pages



### **Environmental & Agricultural Research Summaries (with Biographical Sketches) Volume 10**

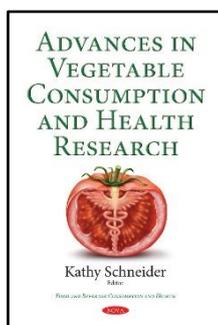
(Environmental & Agricultural Research Summaries Series)

Edited by Lucille T Cacioppo

This book compiles research summaries from a number of different focuses in the important field of environment and agriculture.

HB 9781536114171 £219.50 June 2017 Nova Science Publishers 440 pages

## **Industrial Chemistry & Manufacturing Technologies**

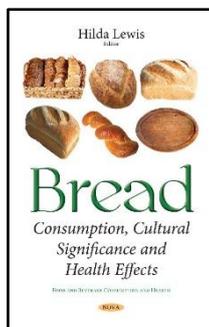


### **Advances in Vegetable Consumption & Health Research (Food & Beverage Consumption & Health Series)**

Edited by Kathy Schneider

Vegetable consumption is important for a variety of health reasons, yet intakes are typically lower than recommended. In Chapter One, the bibliographic evidence to research on the relationship between the consumption of fruits and vegetables and the risk of cancer of the digestive tract is discussed. In Chapter Two, the recent control activity carried out by the Italian National Reference Center for the Detection of Radioactivity in Feed and Foodstuff, relating to the determination of 90Sr in foods of plant origin, is reported. Chapter Three details the interventions currently available that focus specifically on improving vegetable intakes.

PB 9781536122732 £78.50 September 2017 Nova Science Publishers 105 pages



## **Bread**

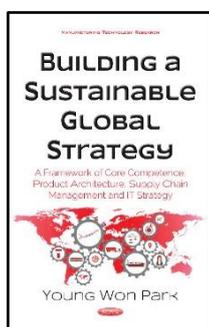
### **Consumption, Cultural Significance & Health Effects**

#### **(Food & Beverage Consumption & Health Series)**

Edited by Hilda Lewis

Bread is a pivotal food in many cultures around the world. Besides energy, it provides some nutritional benefits, being an important source of dietary fibres and vitamins. Chapter One highlights some of the valences which the bread has been endowed for as a foodstuff and symbol. Chapter Two points out the current trends on bread consumption with respect to healthier lifestyles. Chapter Three discusses the purchasing habits and the level of knowledge about bread in the centre of Portugal. Chapter Four investigated the combination of durum wheat flour and soft (*Triticum durum*) in sponge cake, concha type and muffins. Chapter Five covers the use of Brazilian “cerrado” fruits, and their potential to increase the nutritional value of foods. Chapter Six discusses how elaborate new breads enhance the traditional nutritional value by increasing the intake of vitamins, fibre and bioactive compounds. Chapter Seven presents several alternatives for fibre enrichment of bread with a focus on the technological and functional effect of fibre addition on bread quality. Chapter Eight evaluates the influence of the partial replacement of wheat flour. Chapter Nine gives an overview of the influence of the addition of prebiotic components on the technological and sensory properties and on the health benefits of bread.

HB 9781536122749 £152.50 July 2017 Nova Science Publishers 200 pages



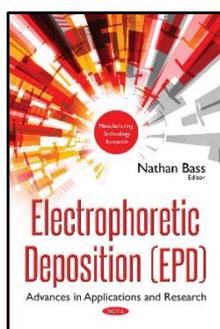
## **Building a Sustainable Global Strategy**

### **A Framework of Core Competence, Product Architecture, Supply Chain Management & IT Strategy (Manufacturing Technology Research Series)**

Jason L Smith

Understanding the modern complexity of doing business in a globalised market has become an absolute necessity for the survival of a company today. This book is a must have guide to navigate through the sea of overwhelming information and sometimes fuzzy variables in the business world. This book analyses the success and the failures of prominent firms with track records as global leaders. It also presents the proven strategies for success in today's competitive environment. The case studies in this book act as invaluable tools. This book is a must-have resource for understanding and achieving success in today's globalised market. This book addresses the issues that firms are desperately trying to solve. In the forefront, firms are striving to effectively respond to the dynamic global market and the intense competition that exists. Strategies for establishing competitive advantage are presented through in-depth research and case studies. Furthermore, an extensive analysis of the methods for penetrating the emerging markets (China, India and Brazil in particular), as well as their responsiveness to the needs of the local market are also presented. In addition, satisfying customers' constantly changing needs drive firms to seek ways to be adaptive and responsive. The author's field research provided here aids firms in establishing flexible business production and service processes.

HB 9781536119428 £152.50 September 2017 Nova Science Publishers 145 pages



## **Electrophoretic Deposition (EPD)**

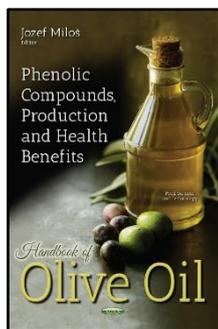
### **Advances in Applications & Research**

#### **(Manufacturing Technology Research Series)**

Edited by Nathan Bass

Electrophoretic deposition (EPD) is attracting many researchers' attention nowadays because of its numerous advantages, such as simple deposition apparatus, fast deposition rate, and the ease of deposition with a controlled thickness, compared to the other processing techniques. Chapter One reports the effectiveness of AC-EPD for the deposition and infiltration of various ceramic nanoparticles in an aqueous suspension. In Chapter Two, the authors discuss the functionalization of SnO<sub>2</sub> thick films prepared by electrophoretic deposition. Chapter Three concludes that despite being a wet process, EPD offers easy control of the thickness and morphology of a deposited film through simple adjustments to the deposition time and the applied potential.

PB 9781536123029 £78.50 July 2017 Nova Science Publishers 65 pages

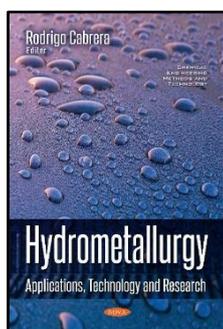


## **Handbook of Olive Oil Phenolic Compounds, Production & Health Benefits (Food Science & Technology Series)**

Edited by Jozef Miloš

This book examines the latest research in olive oil. Topics included in this book include biomedical activities of olive oil phenolic compounds, including antioxidant, anti-inflammatory, antimicrobial, cardiovascular, endocrine, anticancer and central nervous system effects. Also, some insights related to bioavailability and synergistic activities are presented; a summary and critical analysis of the available information about phenolic compounds in VOO; the beneficial effects of phenolic compounds, contained in extra virgin olive oil, which have been reported in the last few years; an overview of different analytical approaches, including the most recent advances, and the difficulties regarding phenolic compounds determination in olive oil; olive oil wastes (OMW) characteristics, bio-valorisation potentialities and treatment options with regard to the economic feasibility, environmental regulations and challenges of existing waste disposal practices in olive-growing countries are discussed; the health effects of olive oil, including for the liver; a summary of the knowledge of the in vitro and in vivo effects of oleocanthal comparing, where available; the determinant factors that affect Japan's olive oil imports; research on oleocanthal and its promising applications as a preventive and/or therapeutic agent for several diseases; and an examination of the organic olive oil sector, demonstrating its importance in terms of wealth and economic impact.

HB 9781536123562 £257.50 September 2017 Nova Science Publishers 480 pages

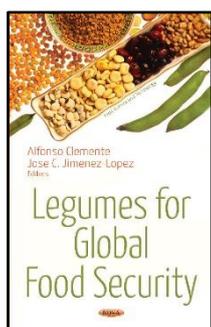


## **Hydrometallurgy Applications, Technology & Research (Chemical Engineering Methods & Technology Series)**

Edited by Rodrigo Cabrera

Hydrometallurgy is one of the main routes for obtaining metals that are needed for society development and for our everyday life. Chapter One presents the basics of hydrometallurgy, namely its main stages leaching, purification and/or concentration of pregnant leach solutions (PLSs), and metals' recovery. Chapter Two focuses on the gold extraction processes that involve the use or addition of industrial grade oxygen to optimise the processes. In particular, it looks at how oxygen can be used to increase the throughput and/or gold recovery and make the processes more flexible. Chapter Three gives an overview of the microbially-mediated metal transformations in which iron oxides potentially provide an applicable biotechnological method for efficient removal of pollutants from ground waters and wastewaters. Chapter Four assesses the hydrometallurgical process based on leaching, deionisation, and purification of bis(trifluoromethylsulfonyl)amide salt including RE components.

PB 9781536124170 £78.50 September 2017 Nova Science Publishers 129 pages

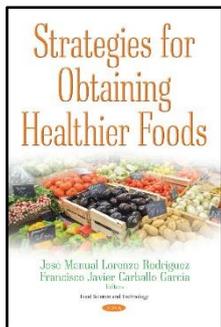


## **Legumes for Global Food Security (Food Science & Technology Series)**

Edited by Jose C Jimenez-Lopez & Alfonso Clemente

Legumes are an essential food crop and a relevant source of plant-based proteins for humans around the globe, and particularly in developing countries. Grain legumes are highly nutritious and have excellent nutraceutical properties; these are affordable foods contributing to household food safety and, as a result, offer great hope and opportunity for achieving future global feed and food security. There is no doubt that facing an increasing world population over the next 50 years, the implementation of future research strategies and programs on legume productivity by harnessing scientific expertise and emerging molecular tools is of great importance to develop high-yielding legume varieties with enhanced multiple beneficial qualities and to tackle human diseases, using both traditional breeding and biotechnology methods. Grain legumes enhance the sustainability of cropping systems by increasing soil fertility through biological nitrogen fixation. They are adapted to diverse climates, thus providing solutions to climate change. Improved varieties having heat and drought tolerance are able to overcome abiotic stresses, offering even more hope for crop stability in vulnerable regions as well as against pests and diseases that cause significant production losses, making them a central component of sustainable intensification efforts on millions of small and poor farms. This book provides an innovative contribution for people working with legumes in different fields such as agriculture, crop improvement, health promoting aspects, pest and disease fighting, and the overall scientific community, giving them an updated and global vision about the importance of legumes for the world's greatest challenge in global feed and food future under a sustainable agriculture.

HB 9781536122657 £152.50 July 2017 Nova Science Publishers 220 pages



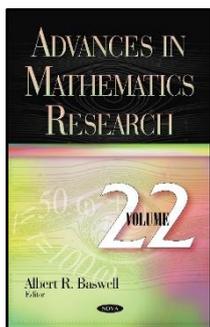
## Strategies for Obtaining Healthier Foods (Food Science & Technology Series)

Edited by Jose Manuel Lorenzo Rodriguez & Javier Carballo Garcia

A diversity of methodological approaches has been used in ecology to generate species distribution models (SDMs) and their amount has increased significantly during the last decades. In Chapter One, the authors evaluate three different techniques of SDMs, such as hierarchical Bayesian spatial models, classification trees globally optimised with evolutionary algorithms and random forests, dealing with fishery-dependent data of two elasmobranch species. Chapter Two evaluates the effects of tourism on eight fishing communities by comparing a number of ecological and economic indicators. Chapter Three presents a brief review of offshore wind technology and describes the most frequently used types of turbines, transmission systems and support structures in Europe.

HB 9781536121599 £257.50 July 2017 Nova Science Publishers 460 pages

## Mathematics

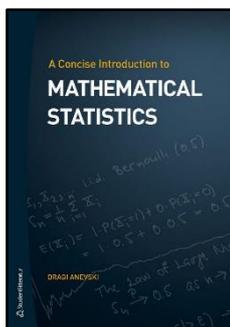


## Advances in Mathematics Research Volume 22 (Advances in Mathematics Research Series)

Edited by Albert R Baswell

This book is a comprehensive, contemporary examination of a single psychiatric illness, delirium, which has significant implications for all areas of medical practice. Given the increasing age of the population as well as the associated increased risk of a major neurocognitive disorder (formerly dementia), which is the major risk factor for delirium, such a book on the complexities of delirium is timely and needed; there is currently no clinical guidebook for the assessment and management of delirium. Delirium is seen in all medical settings, though the risk is higher in the ICU, medical/surgical wards, and the emergency department. Less commonly, delirium is seen in primary care and in the community, but those places are in need of delirium awareness, surveillance, and prevention. The authors take various approaches to the problem of delirium.

HB 9781536123715 £238.50 September 2017 Nova Science Publishers 221 pages

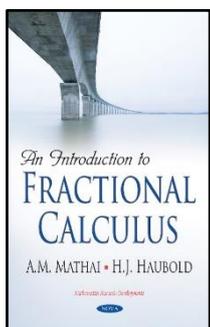


## Concise Introduction to Mathematical Statistics

Geoff Wilson

This book gives a thorough introduction to mathematical statistics. The text is unique as an introductory text, mainly by the use of the Riemann-Stieltjes integral. This enables a unified treatment of basic concepts in probability and inference theory, in a mathematically rigorous manner, without the use of measure theory.

PB 9789144115757 £65.00 August 2017 Studentlitteratur AB 420 pages

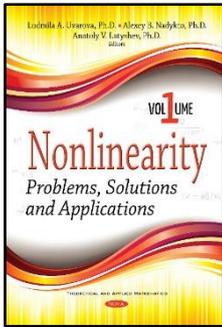


## Introduction to Fractional Calculus (Mathematics Research Developments)

Insurance Data Management Association (IDMA)

This is a modified version of Module 10 of the Centre for Mathematical and Statistical Sciences (CMSS). CMSS modules are notes prepared on various topics with many examples from real-life situations and exercises so that the subject matter becomes interesting to students. These modules are used for undergraduate level courses and graduate level training in various topics at CMSS. Aside from Module 8, these modules were developed by Dr A M Mathai, Director of CMSS and Emeritus Professor of Mathematics and Statistics, McGill University, Canada. Module 8 is based on the lecture notes of Professor W J Anderson of McGill University, developed for his undergraduate course (Mathematics 447). Professor Dr Hans J Haubold has been a research collaborator of Dr A M Mathai's since 1984, mainly in the areas of astrophysics, special functions and statistical distribution theory. He is also a lifetime member of CMSS and a Professor at CMSS. A large number of papers have been published jointly in these areas since 1984.

HB 9781536120424 £152.50 September 2017 Nova Science Publishers 240 pages



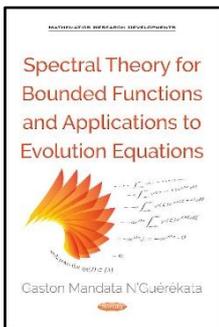
## Nonlinearity

### Problems, Solutions & Applications -- Volume 1 (Theoretical & Applied Mathematics Series)

Edited by Ludmila A Uvarova, Alexey B Nadykto & Anatoly V Latyshev

The book has two volumes and consists of forty-four chapters, which are divided into five sections: (i) Mathematical treatment of non-linear problems, including the differential equations, numerical methods, algorithms and solutions; (ii) theoretical and computational studies dedicated to the physics and chemistry of advanced materials, nanostructured systems and fractal systems; (iii) articles dedicated to non-linear processes in complex biological processes, systems and objects; (iv) theoretical and modeling studies of kinetics, dynamics and thermochemistry of micro-, meso- and macro-scale systems; and (v) multidisciplinary research focused on forecasting, control and management problems.

HB 9781536120325 £295.50 September 2017 Nova Science Publishers 320 pages



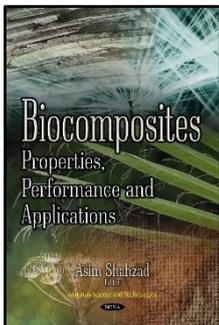
## Spectral Theory for Bounded Functions & Applications to Evolution Equations (Mathematics Research Developments Series)

Jacques Arnould

One of the central questions in the qualitative theory of difference and differential equations is to find the conditions of existence and asymptotic behavior of bounded solutions. For equations with almost periodic coefficients, the problem concerns Favard and Perron. A remarkable theory has been developed in harmonic analysis with outstanding contributions by Loomis, Arendt, Batty, Lyubic, Phong, Naito, Minh and many others, when the Carleman spectrum of the functions is countable. Uniform continuity in this case plays a key role. In the absence of this condition, the theory does not apply. This led to the introduction over the last decade of new types of spectrum functions which helped solve the problem, especially in the case of almost automorphic functions by using the theory of commuting operators. This monograph presents a unique and unified manner of recent developments in the theory of bounded continuous functions, including the space of (Bohr) almost periodic functions and some of their generalisations, and the spaces of (Bochner) almost automorphic functions and almost automorphic sequences.

PB 9781536121124 £78.50 July 2017 Nova Science Publishers 110 pages

## Mechanical Engineering



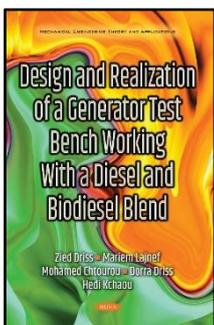
## Biocomposites

### Properties, Performance & Applications (Agricultural Issues & Policies Series)

Edited by Asim Shahzad

Biocomposites are exciting, "new" materials which have experienced a renaissance in the 21st century in response to the societal concerns regarding global warming and environmental pollution, shifting the focus towards materials made from renewable, biodegradable and recyclable resources. As a consequence, research and development of these materials has increased in recent years, which is reflected in their applications in various industries, particularly the automotive and construction industries. These materials are estimated to experience a compound annual growth rate of 11.7% in the next five years, which is almost double that of conventional composite materials over the same time period. This book attempts to increase the knowledge base of these materials, particularly in terms of their properties, performance and applications. It contains precisely referenced chapters, complete with illustrations and tables that maximise the reader's insight into the current state-of-the-art applications on biocomposites.

HB 9781536121209 £357.50 July 2017 Nova Science Publishers 655 pages

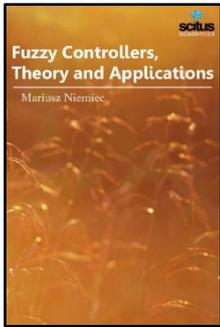


## Design & Realization of a Generator Test Bench Working with a Diesel & Biodiesel Blend (Mechanical Engineering Theory & Applications Series)

Nancy Edith Ochoa Guevara

In this book, the authors are interested in the design and the implementation of a generator test bench that works with a diesel-biodiesel mixture. The goal is to introduce and test the effect of biodiesel addition in carburant. To do this, the authors started their work through the development of an appropriate design. After completing the preparation of the test bench, the authors installed all the necessary instruments. With this equipment, the overall characteristics of the generator running for the first time with diesel and then with different proportions of biodiesel, capping at 50% were studied. This work is of great importance because it solves the ecological problems mainly related to the toxic rejection of conventional fuels.

PB 9781536122077 £78.50 July 2017 Nova Science Publishers 75 pages

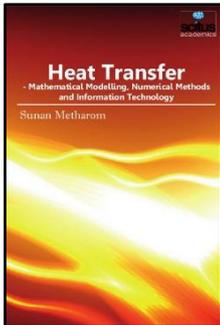


## **Fuzzy Controllers, Theory & Applications (Mechanical Engineering Series)**

Evangelos Matsinos

In the last few years the applications of artificial intelligence techniques have been used to convert human experience into a form understandable by computers. Advanced control based on artificial intelligence techniques is called intelligent control. Fuzzy logic is a way to make machines more intelligent enabling them to reason in a fuzzy manner like humans. This book is envisioned for researchers, engineers, and postgraduate students studying in fuzzy systems, control engineering and robotics, but also to the people who want to become familiar with the control concepts based on fuzzy techniques.

HB 9781681174785 £141.50 January 2017 Scitus Academics 294 pages



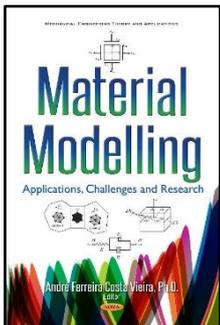
## **Heat Transfer**

### **Mathematical Modelling, Numerical Methods & Information Technology (Mechanical Engineering Series)**

Leonard Laskow

The last couple of decades have seen a significant growth in the use of mathematical methods for modelling in natural and engineering sciences. Among a great variety of engineering problems that have successfully been dealt with, the heat transfer problems belong to the most challenging. They can be considered as separate type of engineering problems offering information how industrial objects should be heated or cooled. This book addresses modelling, numerical methods, simulation and information technology with modern concepts and methods to investigate and enhance heat transfer for single and multiphase systems. The combination of fundamental approach with several imperative practical applications of current interest will make this book useful to researchers, scientists, engineers and graduate students in many disciplines, who make use of mathematical modelling, inverse problems, implementation of recently developed numerical methods in this wide-ranging field along with experimental and theoretical researchers in the field of heat and mass transfer.

HB 9781681175171 £160.99 January 2017 Scitus Academics 330 pages



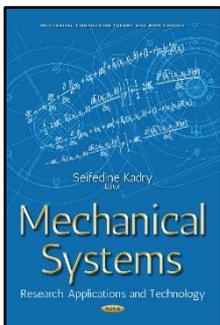
## **Material Modelling**

### **Applications, Challenges & Research (Mechanical Engineering Theory & Applications Series)**

Edited by André Ferreira Costa Vieira

As the demand for space availability in marine environments increases due to the upward trend and intensity of human activities, Marine Spatial Planning (MSP) becomes the key response for accommodating sectoral policies in a way that is both compatible and ecosystem friendly. The book is addressed to people involved in coastal and marine spatial planning and management, such as administrators, planners, decision makers at different political levels, engineers, stakeholders as well as academic staff. It can also provide a sound background to post-graduate and PhD students working in relevant studies. The reader will be able to find information on the legal framework, the methods used so far, the ecosystem oriented approach and the current views as they have been implemented in some marine areas of the world.

HB 9781536121612 £152.50 July 2017 Nova Science Publishers 565 pages



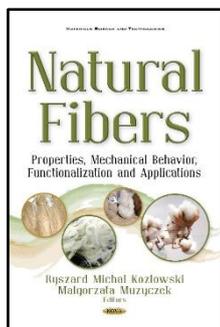
## **Mechanical Systems**

### **Research, Applications & Technology (Mechanical Engineering Theory & Applications Series)**

Edited by Kadry Seifedine

This book deals with the topic of mass customisation in sports and focuses on the sneaker market. In this context, this well known marketing tool is examined from the consumer's point of view. Moreover, a short consideration from the producer's point of view has been implemented. The main subject areas are the willingness to pay by consumers and the consumer's confusion as well as the topic brand loyalty in combination with mass customisation in the sneaker market. For this reason, the literature on individualisation and mass customisation is firstly analysed to subsequently discuss the market for mass customised sneakers. A total of 23 research hypotheses are proposed and empirically tested. To achieve this goal, an online-based quantitative research study including 254 questionnaires was conducted. On top of this, a comparison between the consumer's and producer's point of view has been addressed. Results reveal that creating individuality is an important intention for consumers to purchase customised sneakers.

HB 9781536123708 £219.50 September 2017 Nova Science Publishers 339 pages

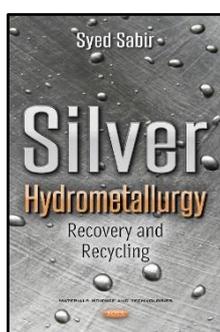


## **Natural Fibers** **Properties, Mechanical Behavior, Functionalization & Applications** **(Materials Science & Technologies Series)**

Edited by Ryszard Michal Kozlowski & Malgorzata Muzyczek

Natural fibres -- both lignocellulosic and protein -- are renewable and biodegradable. They are characterised by good air permeability, hygroscopicity, and do not release harmful substances. They have been well-known to mankind for more than 9,000 years. Most of the lignocellulosic fibres from plants and animals such as cotton, flax, hemp, jute, kenaf, sisal, ramie, curaua, pineapple, bamboo, coir, sheep, alpaca wool and silk can be extracted, processed, modified, functionalised, and used in the production of textiles (woven, knitting, nonwoven, technical, and 3D textiles), and as reinforcement for more environmentally friendly composites. Special treatment and functionalisation methods such as degumming, enzymes, ultrasounds, plasmas, coronas, liquid ammonia, flame retardant treatments and protection against biodeterioration provide new promising features and properties for all natural fibres. The production of natural fibres is expected at the level of about 40 million tons/year in the middle of the 21st century. Global fibre production was 95 million tons in 2015 and it is estimated to grow 3% annually, reaching 122 million tons in 2025. Some natural fibres are susceptible to dyeing by natural dyestuffs, UV resistant and can be easily protected against flammability.

HB 9781536120714 £219.50 September 2017 Nova Science Publishers 300 pages

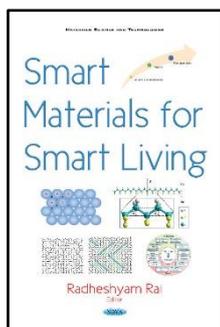


## **Silver Hydrometallurgy** **Recovery & Recycling (Materials Science & Technologies Series)**

G Satyanarayana

The main impression of this book is to draw attention to the most advance technologies in silver recovery and recycling from various sources. The state-of-the-art in silver recovery from different sources by hydrometallurgical and bio-metallurgical processing, and varieties of leaching, cementing, reducing agents, peeling, electro-coagulants, adsorbents, electro-dialysis, solvent extraction, ion exchange resins and bio-sorbents are highlighted in this book. It is shown that the major economic driver for the recycling of depleted sources is for the recovery of silver. In order to develop a nature-friendly technique for the recovery of silver from diverse sources, a critical comparison of existing technologies is analysed for both economic viability and environmental impact were made in this amendment, and silver ion toxicity is highlighted in this book. This book comprises four chapters, each of which is further divided into sections and subsections for the proper convenience and understanding of the work, though extensive work has been reported on silver hydrometallurgy.

PB 9781536122060 £78.50 September 2017 Nova Science Publishers 85 pages

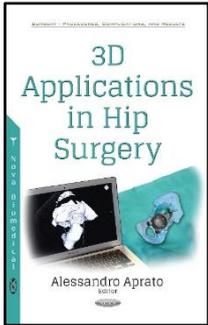


## **Smart Materials for Smart Living** **(Materials Science & Technologies Series)**

Edited by Radheshyam Rai

Smart Materials for Smart Living has a wide range of materials that are involved in the things that govern our day to day lives. Applications of SMNFs are used in different areas such as filtration media, gas sensing and a great deal of biomedical applications too. The treatment of heart blockage and brain hemorrhage has been significantly affected by these materials. Due to their extremely small pore size, large surface volume ratio and being light in weight, they prove to be better materials in solar cells, batteries and many other transducer applications. In today's modern world where everyone is moving towards advancement, humanity forgets to keep up with sustainable development. Hence, the responsibility rests on the shoulders of researchers to make materials that not only keep us updated with the modern world, but also help us keep the environment clean. Keeping this point of view in mind, this book consists of chapters that deal with lead free and non-toxic materials. Population, industrialisation and agricultural development are a few factors that led to the degradation of environment. This book helps us to know how different species are connected with each other. There are different technologies used for the conservation of biodiversity and life. All chapters will help readers understand what the role of materials for different applications are and how to sustain biodiversity; the different sustainable approaches; and the various steps adopted by global bodies for conservation. "A healthy life can only be achieved by a proper balance of materials in the body as well as surroundings".

HB 9781536122695 £219.50 September 2017 Nova Science Publishers 405 pages

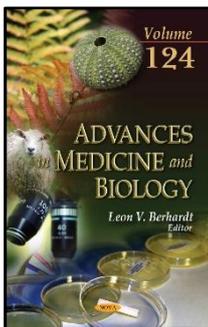


**3D Applications in Hip Surgery  
(Surgery -- Procedures, Complications, & Results Series)**

Edited by Alessandro Aprato

Recent studies demonstrated the utility of advanced imaging techniques including 3D CT collision modelling, MRI 3D reconstruction and 3D fluoroscopy in hip surgery. Collision modelling including software based on a CT scan and 3D fluoroscopy are able to predict the specific zone of femoral-acetabular impingement and are useful tools to plan the bone resection in preserving hip surgery. Furthermore, they may be helpful for the evaluation of acetabular coverage in hip dysplasia and may predict the amount of correction needed during a periacetabular reorientation osteotomy. On the other hand, CT based prototyping and the custom 3D-printed implants have emerged as new options to address severe bone loss or compromised anatomy. Although, there is little published literature so far, the interest for this technology in hip arthroplasty is growing. Patient and defect-specific implants are designed from CT images and then may be printed via a 3D model or may generate into a one-piece product.

PB 9781536122923 £152.50 August 2017 Nova Science Publishers 145 pages

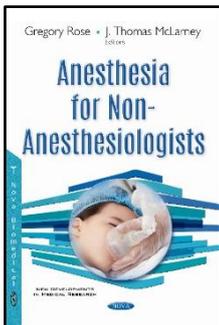


**Advances in Medicine & Biology  
Volume 124 (Advances in Medicine & Biology Series)**

Edited by Leon V Berhardt

The chapters in this volume present the latest developments in medicine and biology. The overuse and everyday abuse both in humans and animals, in conjunction with the decreased production of new antimicrobial drugs during the last years, have led to the limitation of the treatment choices and the development of antibiotics resistance.

PB 9781536124002 £238.50 July 2017 Nova Science Publishers 225 pages

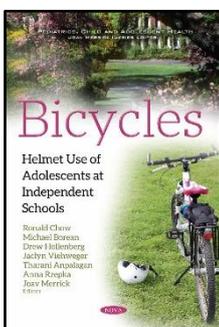


**Anesthesia for Non-Anesthesiologists  
(New Developments in Medical Research Series)**

Edited by Gregory Rose & J Thomas McLarney

Anesthesiology is one of the least understood medical specialties. The drugs and equipment are specialized to a point where physicians in other fields have little knowledge of how they work. Moreover, the specific techniques and concerns of anesthesiologists regarding patient care are scarcely known outside of the specialty. Most physicians have had a paltry amount of training in anesthesia, if any at all. Within many medical schools, there is no requirement to rotate in anesthesiology; if required, the rotation is seen sometimes as a means to practice intubations and place IVs for a period of two to four weeks, instead of actually learning anesthesia techniques and practices. As their role in patient care has stretched outside of the operating room, anesthesiologists have found that there is often frustration and even conflict in dealing with other specialties that do not understand the concerns and necessities that accompany this practice.

PB 9781536110982 £78.50 July 2017 Nova Science Publishers 115 pages

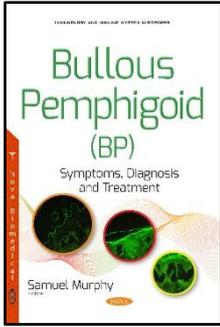


**Bicycles  
Helmet Use of Adolescents at Independent Schools  
(Pediatrics, Child & Adolescent Health Series)**

Edited by Ronald Chow, Michael Borean, Drew Hollenberg, Jaclyn Viehweger, Tharani Anpalagan & Anna Rzepka

Helmet use can substantially reduce the risks associated with bicycle injuries, as these protective devices can prevent an array of serious facial injuries. A meta-analysis was carried out looking to summarise studies into the helmet use of adolescents and young adults, where the authors found a U-trend between age and helmet use, with the proportion of individuals regularly wearing a helmet declining first and then rising with reference to the progression of age. The increasing trend in young adults has been well-documented in the literature, but few studies have looked into helmet use among adolescents. In this book, produced in collaboration with the Bicycle Safety and Awareness Club in Ontario, the authors present survey studies conducted in independent schools in North America, looking into bicycle and helmet use of adolescents.

PB 9781536124583 £78.50 September 2017 Nova Science Publishers 94 pages

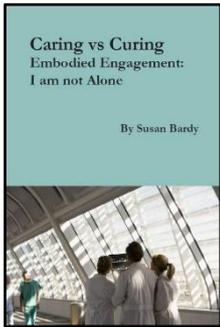


## **Bullous Pemphigoid (BP) Symptoms, Diagnosis & Treatment (Immunology & Immune System Disorders Series)**

Edited by Samuel Murphy

Direct immunofluorescence (DIF) microscopy on perilesional skin is still considered the gold standard for the diagnosis of BP. However, a rich armament of laboratory techniques is necessary for establishing an accurate diagnosis which, in its turn, is crucial for the choice of treatment modalities and determination of the disease prognosis. The disease is rarely diagnosed in childhood. However, there is an increasing number of BP reports in children. It is challenging to differentiate childhood BP from the other subepidermal blistering diseases of childhood. Physical agents, capable of inducing BP, are thermal or chemical burns, radiotherapy and ultraviolet (UV) radiation. Direct trauma to the skin has also been described as a potential trigger. Bullous pemphigoid (BP) is an acquired subepidermal autoimmune blistering disease in which there are humoral and cellular responses against the BP180 and BP230 antigens.

PB 9781536118285 £78.50 June 2017 Nova Science Publishers 80 pages

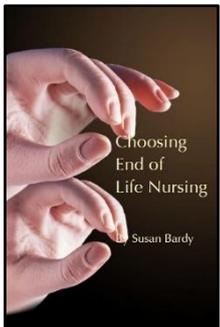


## **Caring vs Curing**

Henry Beissel

In this volume the personal journey of why a nurse chose to leave Acute Care nursing to be involved in Palliative Care nursing connect with a broader culture of Palliative Care nursing by interviewing those who chose palliative care nursing and examine the reasons for changes in careers from acute, curing based, nursing to Palliative Caring for those in end of life nursing. The longest section of the study travels the world of Palliative nursing with participant observers. It is about the actively working nurse and includes extensive analytical discussion of an attempt to understand the sense of professional change, and the significance of beliefs for the reasoning behind vocational transformation. The second section examines the interviews, the third addresses the heart of the research question and examines nursing moving from a curing model to a caring only approach when death of the patient is inevitable. The volume ends with a letter written by the author to her sons asking them to be there when her time comes at the end of life through a life limiting illness and requests her sons and the Palliative Care professionals observe her final wishes.

HB 9781925309317 £34.50 July 2016 ATF Press 112 pages

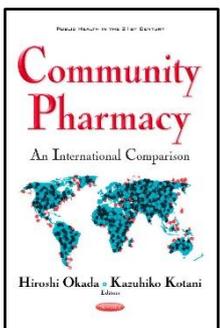


## **Choosing End of Life Nursing**

Winifred Wing Han Lamb

"Death is inevitable -- none of us will escape it. Ending life with a terminal illness is a slow and rather lonely process. I am interested in the question of why some nurses choose to work in the field of palliative care. I am one who willingly stepped into the role of being with patients at their most vulnerable time -- when death became inevitable. My nursing history has spanned fifty years, of which the last twenty were in palliative care of terminally ill and dying patients. What was it that influenced me to move from a curing model to comfort caring only? My work is an account of how I discovered palliative care nursing after thirty years in the acute-care setting. I migrated to Australia at the age of seventeen and it seemed that taking on nursing was the best way to settle into a new life. I was happy with general nursing but had a feeling that there was more I could contribute to my patient care. My mother's unexpected death with cancer was responsible for showing the way. She died in the hospice unit of the hospital where I was employed. Sitting by her side showed me another aspect of nursing that attracted me to a career change. I transferred to the Hospice after mother died and remained there for twenty years." -- Susan Bardy

HB 9781925309263 £34.50 July 2016 ATF Press 120 pages



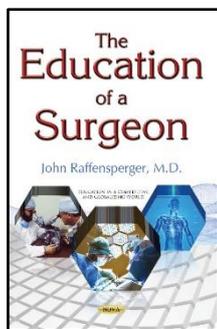
## **Community Pharmacy**

### **An International Comparison (Public Health in the 21st Century Series)**

Edited by Hiroshi Okada & Kazuhiko Kotani

This book is for all pharmacists and students of pharmaceutical science around the world. Specifically, it is intended for those who wish to understand how roles of the community pharmacist are expanding year by year in developed countries. It is also for anyone (including physicians, public health practitioners, home care providers, pharmaceutical manufacturers, students, and researchers in pharmacy, medicine, and public health) who would like to expand their understanding of community pharmacies and the roles they can play in improving community care. There are many examples, tips, and pieces of advice in this book that can be used or implemented immediately. The role of community pharmacies on community care has been increasing while considerations of their roles and activities are just beginning.

PB 9781536101997 £78.50 December 2016 Nova Science Publishers 60 pages

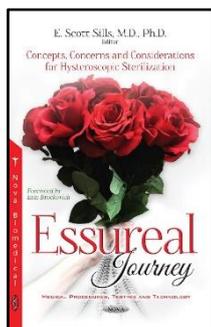


## **Education of a Surgeon (Professions -- Training, Education & Demographics Series)**

Sami Moubayed

The author, who graduated from medical school in 1953, has in "The Education of a Surgeon" narrated 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.

PB 9781536124811 £90.50 September 2017 Nova Science Publishers 290 pages

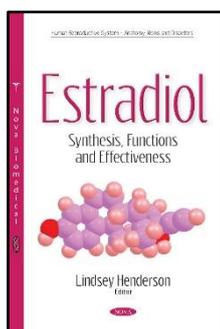


## **Essureal Journey Concepts, Concerns & Considerations for Hysteroscopic Sterilization (Medical Procedures, Testing & Technology Series)**

Edited by E Scott Sills

Hysteroscopic sterilisation (HS) is the most important, and perhaps most revolutionary, advancement in female sterilisation over the past 100 years. Soon after receiving FDA approval in 2002, the Essure® system became the "preferred, non-incisional alternative" to standard tubal ligation. Even as this innovative birth control technique continues to be offered to hundreds of thousands of women worldwide, the method is not without controversy. At present, no single work of reference summarises the full HS picture, from its clinical trials to approval, its entry into the global medical market, and its post-marketing activity. This book fills an immediate niche as an essential reference for anyone interested in HS and its place in modern contraceptive practices. It is particularly well-suited for primary care physicians, reproductive surgeons, GPs, family nurse practitioners, gynecologists, women's healthcare providers, counselors, attorneys, reproductive ethicists, public health policy advocates, as well as patients and their partners.

HB 9781536122046 £90.50 July 2017 Nova Science Publishers 155 pages

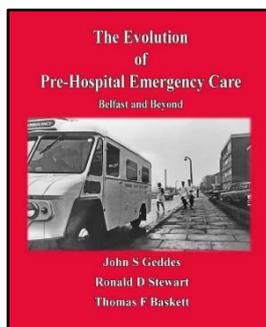


## **Estradiol Synthesis, Functions & Effectiveness (Human Reproductive System -- Anatomy, Roles & Disorders Series)**

Edited by Lindsey Henderson

Oestrogens comprise a group of structurally related and hormonally active molecules derived from cholesterol. 17 $\beta$ -estradiol (E2) is the most potent member of this group. In Chapter One, the authors summarize various aspects of oestradiol signalling, with special emphasis in the fast action of the hormone. Chapter Two discusses oestradiol signalling pathways and how deficiency of oestrogen, in the postmenopausal period, would cause CVS diseases and the potential therapeutic effect of oestrogen for preventing cardiovascular diseases in postmenopausal women. Chapter Three covers a project that was undertaken to obtain an unbiased survey of differential gene expression in the liver in response to oestrogen, TAM, and RAL.

PB 9781536122985 £78.50 July 2017 Nova Science Publishers 90 pages

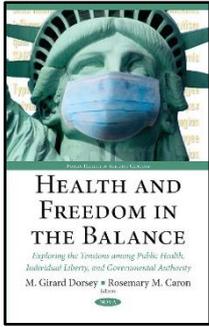


## **Evolution of Pre-Hospital Emergency Care Belfast & Beyond**

Anis H Bajrektarevic & Giuliano Luongo

This volume covers the early development of mobile coronary care within the context of major societal and scientific changes, leading to pre-hospital emergency intensive care, cardiopulmonary resuscitation (CPR) and defibrillation. The success of the Belfast Cardiac Ambulance stimulated the development of broader pre-hospital emergency services and the concomitant growth of related expertise and paramedical personnel. This book celebrates the origins and early development of out-of-hospital resuscitative care. There is much to celebrate: Resuscitation, particularly from ventricular fibrillation, is commonplace. The science of resuscitation is well defined. Effective training programmes for basic and advanced skills are in place. Public training in CPR and use of automated external defibrillators (AEDs) are widespread.

PB 9781854570932 £20.00 September 2017 Clinical Press 208 pages

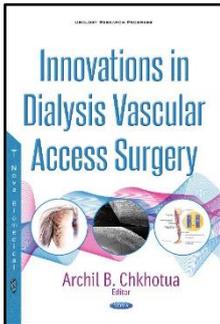


**Health & Freedom in the Balance**  
**Exploring the Tensions Among Public Health, Individual Liberty, & Governmental Authority (Public Health in the 21st Century Series)**

Edited by Molly Dorsey & Rosemary M Caron

The clash between individual liberties and the protection of the greater population is an ongoing conflict between principles held dear by Americans for centuries. One of the nexus points occurs in the application of public health measures by governmental authorities to defeat deadly germs, perhaps on an epidemic scale, in ways that can erode individual decisions about healthcare, privacy, bodily integrity, and personal liberty in the name of the greater good of community health. People may approve and appreciate protective measures enacted by the government when influenza breaks out or when there is a food recall, but may also feel wary simultaneously. How has this conflict played out throughout history, and how has this clash progressed today? Almost every individual will find himself or herself engaged with public health measures of some kind on an individual, familial, or community level, so we should all be aware of the issues involved.

HB 9781536122015 £152.50 July 2017 Nova Science Publishers 205 pages

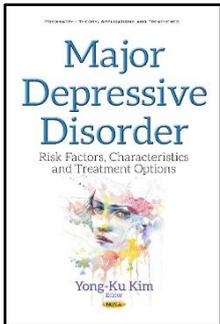


**Innovations in Dialysis Vascular Access Surgery**  
**(Urology Research Progress Series)**

Edited by Archil B Chkhotua

This monograph deals with the health-related quality of life deficit (QOL) of people with severe mental disorders, focusing on issues related to its concept, characteristic profile, on developing the Distress/Protection Vulnerability Quality of Life Model including vulnerability (neurobiological and genetic), primary, and secondary factors, as well as on challenges for research and practice. The aim of this book is to provide a state of the art overview for QOL of people with severe mental disorders such as schizophrenia, schizoaffective disorders, major depressive disorder and bipolar disorder. In addition to a comprehensive overview of the latest achievements in the study of QOL, the book contains a detailed analysis of the following factors using comprehensive data from the Sha'ar Menashe Quality of Life Projects.

HB 9781536121582 £219.50 September 2017 Nova Science Publishers 450 pages

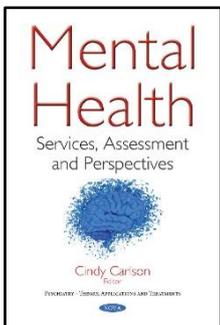


**Major Depressive Disorder**  
**Risk Factors, Characteristics & Treatment Options**  
**(Psychiatry -- Theory, Applications & Treatments Series)**

Edited by Yong-Ku Kim

This book focuses on risk factors, clinical and biological characteristics, and treatment options for depression. The aim of this book is to provide readers with an up-to-date understanding of the clinical and neurobiological underpinnings of depression as well as promising treatment for depression. The book is divided into five sections, the first of which examines the clinical heterogeneity of depression. Section II highlights bio-psychosocial factors in depression. Section III focuses on biomarkers of depression. Section IV covers neurobiology and management for treatment-resistant depression. Section V highlights new perspectives of depression. The book provides a better understanding of clinical and biological features and the management of depression.

HB 9781536119800 £219.50 July 2017 Nova Science Publishers 330 pages

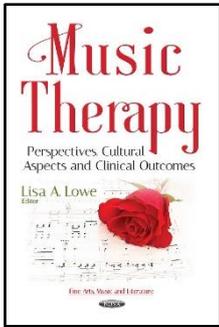


**Mental Health**  
**Services, Assessment & Perspectives**  
**(Psychiatry -- Theory, Applications & Treatments Series)**

Edited by Cindy Carlson

Research from health psychology and medical science has shown that a considerable number of cancer patients tend to rely on meaning while coping with stress caused by their illness. Chapter One examines the relationships between meaning structures embedded in meaning in life and coping strategies. Chapter Two discusses the need to develop a dedicated psychological approach. Chapter Three presents an approach to the psychoeducation of parents and siblings. Chapter Four reviews the literature that establishes Attention-Deficit/Hyperactivity Disorder (ADHD) as a major developmental precursor to Oppositional Defiant Disorder (ODD). Chapter Five discusses the measurement error of self-reported outcome measures in depression. Chapter Six aims at validating the Arabian version of Beck Depression Inventory- Fast Screen (BDI-FS-Ar) in war conditions. Chapter Seven summarises the current knowledge regarding structural and functional brain alterations associated with dissociation.

PB 9781536122091 £78.50 July 2017 Nova Science Publishers 130 pages

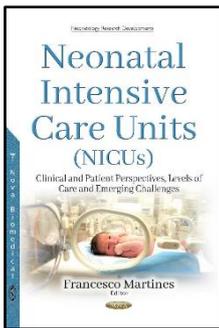


**Music Therapy  
Perspectives, Cultural Aspects & Clinical Outcomes  
(Alternative Medicine, Health & Wellness Series)**

Edited by Lisa A Lowe

Music Therapy is making its way into the field of health sciences with evidence of its effectiveness in different disciplines. Chapter One presents considerations about social and cultural interactions that permeated the music therapy activities developed along an eight-year project hosted by a Brazilian university. Chapter Two covers a research study on the influence of 15-minute sessions of classic music therapy on physiological parameters of hospitalised premature newborns and discusses the use of music as a therapeutic tool for this population in neonatal care units. Chapter Three reviews and contrasts the results of scientific studies of music therapy made on the grounds of improving pain, physical wellness, anxiety, relaxation, mood and quality of life in cancer patients. In Chapter Four, the authors describe recent studies that have investigated the acute influence of musical auditory stimulus on autonomic heart rate control. Chapter Five considers the importance of including Music Therapy in rehabilitation programs.

PB 9781536122411 £78.50 July 2017 Nova Science Publishers 85 pages

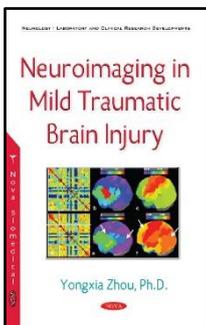


**Neonatal Intensive Care Units (NICUs)  
Clinical & Patient Perspectives, Levels of Care & Emerging Challenges  
(Neonatology Research Developments Series)**

Edited by Francesco Martines

From World Health Organization data, the prevalence of hearing impairment among infants varies between 0.5 and 3.0 cases per thousand, but in children hospitalised in the Newborn Intensive Care Unit (NICU) and in those with other risk factors (ie: anatomically small for gestational age, craniofacial abnormalities, intrauterine infections, family history of hearing loss, ototoxic drugs, mechanical ventilation , etc.), the prevalence is 10-20 times greater. Newborn Intensive Care Unit (NICU) can be defined as an intensive care unit for sick newborns who need specialised treatment. NICU combines equipment and advanced technology with medical staff specially trained in newborn care. The Joint Committee on Infants Hearing (JCIH) identified many risk factors in NICU infants like prolonged mechanical ventilation, asphyxia, low birth weight and ototoxic medication, and so it also considers intensive care as a whole a risk factor.

PB 9781536120363 £78.50 July 2017 Nova Science Publishers 100 pages

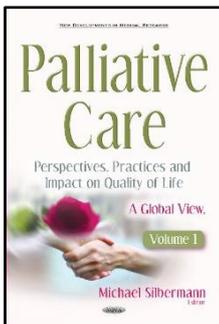


**Neuroimaging in Mild Traumatic Brain Injury  
(Neurology -- Laboratory & Clinical Research Developments Series)**

Jarl E Fossum

Mild traumatic brain injury (MTBI) is a significant public health problem representing 75% of traumatic brain injury (TBI) cases. There are several advanced techniques available for the investigation of changes in thalamic functions and structures, including a functional MRI using a blood oxygen level-dependent (BOLD) technique as well as diffusion tensor imaging (DTI), including higher-order diffusion kurtosis imaging (DKI) to characterise non-Gaussian water molecular movement with better sensitivity in grey matter, morphological shape, thickness and volumetry as well as a micro-structural level magnetic field correlation (MFC) technique to quantify iron deposition in the brain. Each of these techniques provides important insights into the pathophysiology due to head injury that may not be available in a conventional MRI. This book introduces readers with some perspectives using multi-modality imaging for MTBI disease detection and diagnosis, including imaging hallmarks: functional, morphological, and microstructural metrics.

HB 9781536122961 £152.50 September 2017 Nova Science Publishers 155 pages

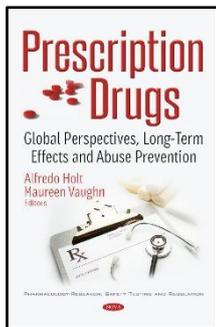


**Palliative Care -- Perspectives, Practices & Impact on Quality of Life  
A Global View: Volume 1 (New Developments in Medical Research Series)**

Edited by Michael Silbermann

This book provides a new outlook on the practice of palliative care worldwide. All five continents are represented in this book by global leaders in this relatively new subspecialty. The chapters in the book re-emphasise the fact that in the 21st century, most patients in the world still lack this elementary tool to alleviate suffering – physical, and even more so, emotional and spiritual – which are so critical to people, especially when patients conditions become fatal. An issue that comes up again and again from almost all parts of the world, regardless of religion and traditional backgrounds, ethnicities, beliefs or faith, refers to the critical lack of basic and advanced training for physicians, nurses, volunteers and the public at large. Healthcare professionals are currently not equipped with the principles of communication with both the patient and his/her relatives.

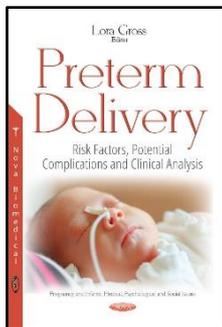
HB 9781536120844 £295.50 July 2017 Nova Science Publishers 525 pages



**Prescription Drugs**  
**Global Perspectives, Long-Term Effects & Abuse Prevention**  
**(Pharmacology - Research, Safety Testing & Regulation Series)**  
Edited by Alfredo Holt & Maureen Vaughn

By the nature of its use, the intrathecal baclofen pump is frequently implanted in children and adults with either an advanced spinal, pelvic or hip deformity who suffer from muscle spasticity. These deformities often lead to additional surgical procedures either simultaneously or after the implantation of the baclofen pump and intrathecal catheterisation.

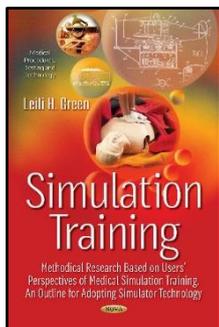
PB 9781536123463 £78.50 July 2017 Nova Science Publishers 104 pages



**Preterm Delivery**  
**Risk Factors, Potential Complications & Clinical Analysis**  
**(Pregnancy & Infants -- Medical, Psychological & Social Issues Series)**  
Edited by Lora Gross

Preterm birth (PTB) is defined as delivery before 37 weeks of gestation. Chapter One focuses on important aspects regarding potential risk factors, potential complications, and clinical analyses of PTB. Chapter Two summarizes the basic confounders that may indeed affect prolongation interval based on findings of both prospective and large retrospective series of tertiary centres. Chapter Three offers new approaches to diminish the deleterious impacts of preterm birth, such as neonatal death and the development of cerebral palsy. Chapter Four discusses the burden of late foetal mortality (LFM) in perinatal assistance.

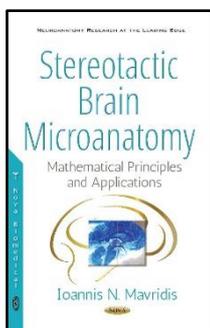
PB 9781536123036 £78.50 September 2017 Nova Science Publishers 90 pages



**Simulation Training -- Methodical Research Based on Users' Perspectives of Medical Simulation Training**  
**An Outline for Adopting Simulator Technology**  
**(Medical Procedures, Testing & Technology Series)**  
Syed Sabir

Users play a key role in many training strategies, yet many organisations, which are directly or indirectly involved in training those who design and implement training programs, often fail to understand the users' perception after a simulation training implementation. In addition, there exists a lack of significant motivation to understand users' attitudes about acceptance, rejection, or integration of emerging simulation technology in training. Several factors are considered to contribute to the acceptance level of simulation training by the users, including cost, the existing training, certification policies, technical issue, and realism of training. Other contributing factors that shape users' attitudes about the use of simulators in training include, but are not limited to: values, concerns, effectiveness to teach the required skill, and the effect on the training outcome. In this research-based book, the author shares and discusses the lived experiences of medical simulation training users in decision making and non-decision making roles who had been involved in simulation training at least for one year.

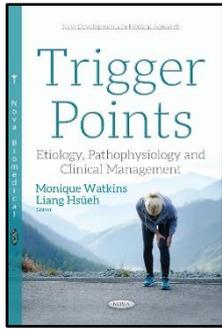
PB 9781536123951 £78.50 September 2017 Nova Science Publishers 123 pages



**Stereotactic Brain Microanatomy**  
**Mathematical Principles & Applications**  
**(Neuroanatomy Research at the Leading Edge Series)**  
Philip Roy

Imagine the use of mathematical formulas for brain targeting in neurosurgery. Research results of the 21st century have brought about the beginning of stereotactic anatomy evolution into stereotactic microanatomy, which is primarily based on applied mathematics. The purpose of this book is to present the mathematical principles and applications of stereotactic brain microanatomy in a concise and comprehensive manner. The robust mathematical principles of stereotactic microanatomy of the human brain are explained in detail, as well as its main clinically significant applications to modern stereotactic and functional neurosurgery. Stereotactic space of the human brain is defined in terms of its appropriate mathematical basis, where the principles of analytic geometry are strictly followed. Rigid adherence to these principles can further enable the safe application of mathematical formulas to the processing and use of stereotactic microanatomy data in clinical practice.

HB 9781536123661 £152.50 September 2017 Nova Science Publishers 210 pages

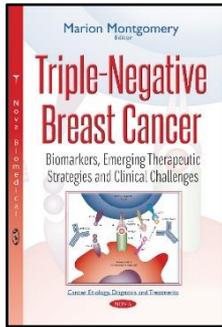


**Trigger Points**  
**Etiology, Pathophysiology & Clinical Management**  
**(New Developments in Medical Research Series)**

Edited by Monique Watkins & Liang Hsueh

Pain is considered one of the most relevant symptoms of musculoskeletal disorders (MSD). Myofascial pain with taut bands and trigger points (TrPs) of muscles involved is common in the medical practice. Myofascial pain arises by overuse, strain and exhaustion of muscle and after precision work. Chapter One conjectures that these factors cause sustained activity of intrafusal gamma motor units, adjusting the sensitivity of muscle spindles. Chapter Two evaluates the usefulness of deep dry needling and intratissue percutaneous electrolysis in the treatment of temporomandibular myofascial pain. Chapter Three describes the perception of pain and quantifies its intensity among office workers.

PB 9781536124026 £78.50 July 2017 Nova Science Publishers 73 pages



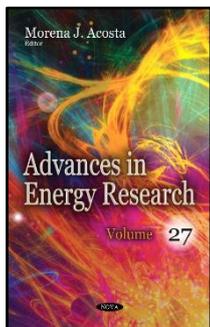
**Triple-Negative Breast Cancer**  
**Biomarkers, Emerging Therapeutic Strategies & Clinical Challenges**  
**(Cancer Etiology, Diagnosis & Treatments Series)**

Edited by Marion Montgomery

Electrospinning is a simple and efficient process in producing nanofibers. The use of an electrospinning process in fabricating tissue engineering scaffolds has received great attention in recent years due to its simplicity and ability to fabricate ultrafine nanofibers. Chapter One investigates the process of formation of ultrafine fibers and nonwoven membranes by electrospinning from natural degradable polymers. Chapter Two gives an insight into the use of this interesting class of polymers in electrospinning. Chapter Three reveals the fundamental working principles of electrospinning process. Chapter Four provides detailed information on the background of electrospinning. Chapter Five focuses on the fabrication and characterisation of electrospun PVDF, PVDF/PLA (50/50 wt %) and PVDF/G (99.5/0.5 wt %) membranes. Chapter Six presents the main results of recent experimental investigation of the electrodeposition and characterisation of Fe/TiO<sub>2</sub> composite coatings.

PB 9781536123722 £78.50 July 2017 Nova Science Publishers 94 pages

## Physics

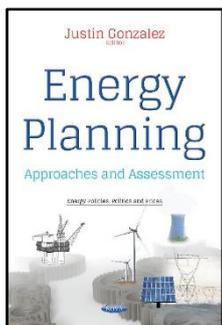


**Advances in Energy Research**  
**Volume 27 (Advances in Energy Research Series)**

Edited by Morena J Acosta

Chapter One reviews the environmental impact -- on human health, natural systems and resources -- in physical units and outlined the limitations and the challenges that are derived from an ecosystem service valuation based on monetary values. Chapter Two is focused on the analysis of TES technologies that provide a way of valorising solar heat and reducing the energy demand of buildings. Chapter Three investigates the prospects of a key enabling technology for large-scale injection of wind turbine energy to the electric power grid. Chapter four discusses how simple wet acid surface texturing methods for green energy-silicon solar energy are marked aim to provide the vital information about the growing field in solar energy with an environmental friendly nature. Chapter Five verifies the improvement performance by various components of the Enhance PSO, the ICA and the Wavelet in the forecasting frameworks. Chapter Six presents predictive current control(PCC) strategy for back-to-back connected voltage source converter employed in PMSG wind energy conversion systems.

HB 9781536123050 £90.50 September 2017 Nova Science Publishers 180 pages

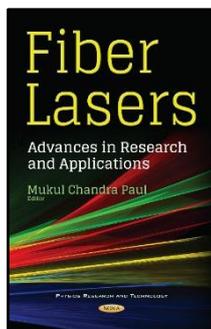


**Energy Planning**  
**Approaches & Assessment (Energy Policies, Politics & Prices Series)**

Edited by Justin Gonzalez

In this book, Chapter One proposes new tools for energy planning under sustainable development paradigm through models, procedures and methodologies. Chapter Two focuses on Home Energy Planning Systems applied to the residential sector. In Chapter Three, the possibilities to use geothermal technologies in Spain and whether they can reach generation objectives is examined. Chapter Four focuses on the impact that the grid regulatory framework, in force in several islands has had both from the technical and economical point of view, regarding their renewable energy development.

PB 9781536123005 £78.50 September 2017 Nova Science Publishers 105 pages



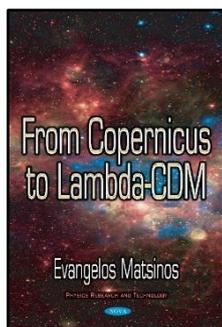
## Fiber Lasers

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

Edited by Mukul Chandra Paul

The study of fibre lasers is an advanced field of modern science entering all branches of science. This field continues to vastly expand with state-of-the-art developments across the entire spectrum of scientific, military, medical, industrial and commercial applications ranging from spectroscopy to material cutting, welding and marking. This book is a self-contained collection of scholarly papers targeting an audience of practicing researchers, academics, Ph.D. students and other scientists. The book describes advanced research and applications of the developing field of fibre laser technology filling the very important role of providing students, researchers, and technology managers with valuable, timely, and unbiased information on the subject. The objective of the book is to highlight recent progress and trends in fibre laser technology.

HB 9781536121629 £185.99 July 2017 Nova Science Publishers 255 pages



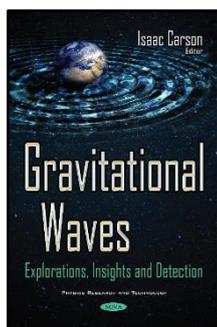
## From Copernicus to Lambda-CDM

### (Physics Research & Technology Series)

Christine Burke

The importance of gravitational interaction in the evolution of the Universe as a whole, as well as of the various structures it contains, is paramount and multi-faceted. Despite the fact that electromagnetic phenomena are also involved in our daily activities and that our environment is warmed up by the nuclear interaction to representative temperatures exceeding the average temperature of the Universe by a factor of about 100, the Universe (as far as the spatial distribution of its large-scale structures is concerned) is shaped by gravitational interaction. To start with, the attractive nature of gravitational interaction enables matter to form molecular clouds, and molecular clouds to form protostars (ie: objects which are held together by their own gravity). Some of these objects are massive enough to squeeze themselves to the level of igniting thermonuclear fusion, transforming the hydrogen in their cores into helium, and thus becoming stars, as was the case with the sun billions of years ago. The gravitational interaction will squeeze some stars to the level of igniting helium and producing higher elements, which is the only way such elements can be formed in the universe.

HB 9781536120349 £219.50 July 2017 Nova Science Publishers 370 pages



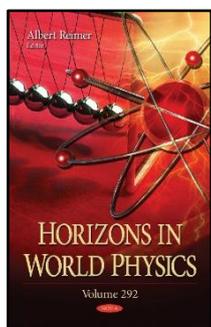
## Gravitational Waves

### Explorations, Insights & Detection (Physics Research & Technology Series)

Edited by Isaac Carson

Chapter One reports on numerical solutions of Hawking's equations for gravitational waves in evolutionary universe, which includes wave-matter interaction. Chapter Two presents an overview of various options of direct including of SQUID into a system for registering effects of super weak elongation or very little force. Chapter Three reviews previous work on constraining gravitational radiation from elliptically deformed pulsars with terrestrial nuclear laboratory data in light of the recent gravitational wave detection, and estimates the maximum gravitational wave strain amplitude, using an optimistic value for the breaking strain of the neutron star crust. Chapter Four explores the LIGO signal GW150914 within the braneworld scenario. Future space flight propelled by artificially-generated Gravitational Wave (GW) beam is discussed within the framework of the General Relativity theory in the final chapter of this book.

PB 9781536122466 £78.50 July 2017 Nova Science Publishers 105 pages



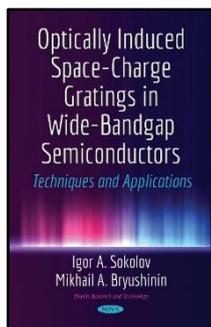
## Horizons in World Physics

### Volume 292 (Horizons in World Physics Series)

Edited by Albert Reimer

Chapter One reviews the dynamics of an apokamp and its parent discharge. In Chapter Two, a stratigraphic and structural interpretation of the seismic profiles recorded in the northern Ischia Island is presented. Chapter Three covers Ga2O3, a promising wide bandgap semiconductor for applications including power electronics and photodetectors and is available in large diameter, high quality bulk crystalline form. Chapter Four contests the big bang theory, showing the manifold of the hyperbolic Universe is complete with no singular points. Chapter Five shows that the structure of nuclei determines the structure of chemical compounds. Chapter Six discusses the current state of research of artificial atoms (superatoms) (quasiatomic nanoheterostructures) and more complex nanostructures based on them-synthetic molecules. Chapter Seven discusses how fire in microgravity can create flamelets and flameballs. In Chapter Eight, an analogous (dual) concept of measurability is defined in thermodynamics. Chapter Nine is devoted to a pedagogical synthesis of the mathematical formalism employed in this analysis.

HB 9781536123074 £90.50 July 2017 Nova Science Publishers 185 pages

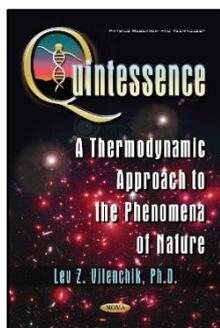


## **Optically Induced Space-Charge Gratings in Wide-Bandgap Semiconductors Techniques & Applications (Physics Research & Technology Series)**

Antony F Campbell

This book deals with the so-called non-steady-state photo-EMF effect and its applications for material characterization and adaptive interferometry. The first part of the book discusses the theory of the non-steady-state photo-EMF effect. The second part of the book describes the application of the non-steady-state photo-EMF effect for the investigation of wide-bandgap semiconductors and nanostructured materials, including photorefractive sillenites grown in the air and argon atmosphere, molecular crystal SnS<sub>2</sub>, boron nitride crystals, nano-sized GaN and Se within porous matrices, SiC, AlN and Ga<sub>2</sub>O<sub>3</sub> crystals. The third part of the book presents a theoretical analysis and experimental investigation of the non-steady-state photoelectromotive force and two-wave mixing in photorefractive crystals under frequency-modulated illumination. The final part of the book describes adaptive interferometers using the effect of the non-steady-state photo-EMF. This book has been written to be accessible to specialists working in solid state physics, semiconductor physics and adaptive interferometry, laser-based ultrasound.

HB 9781536119442 £90.50 June 2017 Nova Science Publishers 175 pages



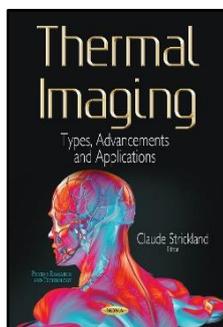
## **Quintessence**

### **A Thermodynamic Approach to the Phenomena of Nature (Physics Research & Technology Series)**

M J Nicholls

Describes a fundamentally novel approach to understanding the phenomena of nature from the standpoint of classical, relativistic, quantum physics, and cosmology. Regularities of the living and inanimate worlds, as well as the interaction between these two worlds and within each of them are described. It is shown that for every phenomenon (even seemingly supernatural), one can find a scientific interpretation. In the words of Albert Einstein: "The scientific search is a constant race away from magic." Also discussed are how the conditions for the emergence and development of organic life on the Earth were created. Why was the chosen set of approximately 100 global constants that govern our lives presented to us by nature? Are there planets in the Universe where there is also intelligent life? And if so, how can contact be established?

PB 9781536122435 £75.50 July 2017 Nova Science Publishers 185 pages



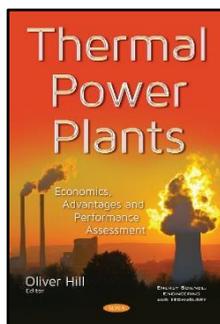
## **Thermal Imaging**

### **Types, Advancements & Applications (Cell Biology Research Progress Series)**

Edited by Claude Strickland

Thermal images are essential to deal with situations in dark environments, as the thermal imaging theory is based on capturing the objects' temperature. In Chapter One, the authors extract different features from images, which capture various characteristics of the images. Chapter Two discusses the use of hand held thermal imaging cameras for the use in Missing Persons searches. Chapter Three aims to review various infrared thermographic methods, viz., dynamic and steady state, passive and active methods for the detection of malignant lesion in breast and skin. Chapter Four is a review of literature regarding the relations between body composition and skin surface temperature (SST), measured with infrared thermography. Chapter Five discusses the use of infrared thermography in the medical field, and how the technique has the advantages of being non-invasive, fast, reliable, capable of producing multiple recordings in short intervals, and absolutely safe for patients and clinicians.

PB 9781536121285 £78.50 July 2017 Nova Science Publishers 80 pages



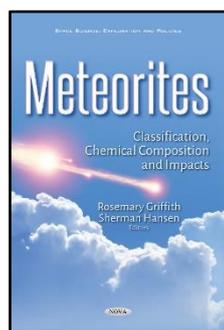
## **Thermal Power Plants**

### **Economics, Advantages & Performance Assessment (Energy Science, Engineering & Technology Series)**

Edited by Oliver Hill

In order to further understand the transfer processes of radionuclides from soil and air to plants in tropical areas affected by coal mining and burning, the absorption of <sup>234</sup>U, <sup>238</sup>U and <sup>210</sup>Po by ferns, lichens, mosses, soybean, wheat, pine and eucalyptus cultivated around a coal-fired power plant and coal mining area in southern Brazil was evaluated in Chapter One. In Chapter Two, the authors show how biomethanisation of biogas by primary and secondary treatment of activated sludge from a wastewater treatment plant (WWTP) can be used as an alternative to fossil fuels. Chapter Three applies a statistical methodology in order to distribute the consumption during the production cycle so that it is affected as less as possible.

PB 9781536123043 £78.50 July 2017 Nova Science Publishers 90 pages



### **Meteorites** **Classification, Chemical Composition & Impacts** **(Space Science, Exploration & Policies Series)**

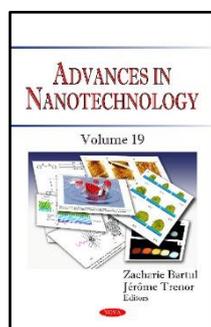
Edited by Rosemary Griffith & Sherman Hansen

Shock impact alterations influence the structure, mineralogy, chemistry and the mechanical properties of many meteorites. The first chapter overviews the features and observing methods of shock impacts' results from several examples from various analysed meteorites. In the second chapter, a laboratory based analysis of meteorites provides insight to the readers

Chapter 3 explores the number of meteorite finds in Northwest of Africa (Morocco, Algeria, Mauritania and Mali) which has seen a considerable increase since 1999. Their work leads to the creation of a new database of meteorites stemming from the Northwest of Africa. In the last chapter, the authors examine a minimally contaminated material, which can be used for the analysis of the possible relations between Itokawa and the parent body of the Chelyabinsk meteorite.

PB 9781536123449 £78.50 July 2017 Nova Science Publishers 130 pages

## Technology

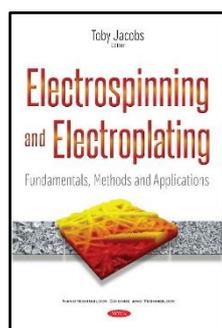


### **Advances in Nanotechnology** **Volume 19 (Advances in Nanotechnology Series)**

Edited by Zacharie Bartul & Jérôme Trenor

This book gathers and presents data on nanotechnology. Major obstacles, drawbacks and challenges were analysed, and optimum solutions were provided / recommended for each individual nanomaterial in Chapter One, which also covers some technical analysis and sustainable uses of these materials in different industries. Chapter Two summarises recent advances in the fabrication, characterisation, properties, and applications of CB nanoparticles in various industries. The (simultaneous) twin polymerisation using diverse main-group and transition metal compounds are studied in Chapter Three. Several nanocomposites and products available in the market were studied in detail in Chapter Four to understand the EoI concepts of these materials and structures used for numerous product developments. Chapter Five summarises recent advances in the fabrication of nanoparticles, especially carbon nanoparticles (CNPs) and their inherent failure mechanism under various external loading conditions. Chapter Six utilises thermal performance-illumination experiment with intelligent dimensional analysis to study the green-energy device characteristics in high power heating sources. Chapter Seven presents a summary of the fabrication of soft nanostructure by molecular self-assembly of synthetic peptides.

HB 9781536124156 £238.50 July 2017 Nova Science Publishers 181 pages

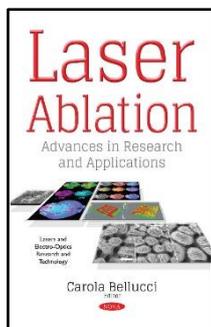


### **Electrospinning & Electroplating** **Fundamentals, Methods & Applications** **(Nanotechnology Science & Technology Series)**

Edited by Toby Jacobs

Electrospinning is a simple and efficient process in producing nanofibers. The use of an electrospinning process in fabricating tissue engineering scaffolds has received great attention in recent years due to its simplicity and ability to fabricate ultrafine nanofibers. Chapter One investigates the process of formation of ultrafine fibres and nonwoven membranes by electrospinning from natural degradable polymers -- polyhydroxyalkanoates (PHAs); physical, mechanical, and biological properties of the products have been included. Chapter Two aims to give an insight into the use of this interesting class of polymers in electrospinning as well as to explore the wide range of possible applications. Chapter Three reveals the fundamental working principles of electrospinning process and the effect of electrospinning process parameters towards the nanofibers morphology. Chapter Four provides detailed information on the background of electrospinning, fundamental principles and theory, investigation on parameters involved in nanofibers' structural/ biological/mechanical characteristics, advantages of superb properties and biomedical applications of electrospun nanofibres, particularly in tissue engineering heart valves. Chapter Five focuses on the fabrication and characterisation of electrospun PVDF, PVDF/PLA (50/50 wt %) and PVDF/G (99.5/0.5 wt %) membranes. Chapter Six presents the main results of recent experimental investigation of the electrodeposition and characterisation of Fe/TiO<sub>2</sub> composite coatings obtained from an environmentally friendly methanesulfonate iron plating bath containing colloidal TiO<sub>2</sub> particles.

HB 9781536123630 £185.99 July 2017 Nova Science Publishers 212 pages



## **Laser Ablation** **Advances in Research & Applications**

Edited by Carola Bellucci

Due to their unique flexibility and high reproducibility, lasers have been traditionally used in processes such as cutting, drilling, machining, welding or cladding. In recent years, with the development of ultrafast laser sources, (ie: laser sources emitting pulses with durations ranging from picoseconds to femtoseconds), lasers also emerged as a new and promising tool for the texturing of virtually all kinds of surfaces. In Chapter One, a brief overview of the lasers and techniques utilised in micro- and nano-surface modifications is presented, followed by a detailed discussion of the surface chemistry and topography effect on bacteria aggregation and adhesion. Also, the role of the laser-induced superficial patterns on the response and sensitivity of bio-implants will be explored in depth. Chapter Two reports on cardiovascular laser application by using the open-irrigated ELMA catheter RytmoLas as an intriguing alternative for catheter ablation of arrhythmias. Chapter Three describes a novel feature designed for ELAI in which different colouration codes for the different metals are applied, enabling a good regional allocation of a specific metal within the tissues. Chapter Four focuses on laser ablation processing of metallic and polymeric thin films used in microelectromechanical systems technology for the fabrication of microfluidic devices with integrated electrodes on printed circuit boards (PCB-MEMS). Chapter Five presents typical micro and nanotextured surfaces created by direct irradiation under stationary and non-stationary conditions and the mechanisms behind their development and growth are discussed. Chapter Six describes a novel three-dimensional (3-D) fabrication process of micro-scale shell resonator made of single-crystal diamond (SCD). Chapter Seven discusses the data about structural and morphological characteristics of nano-sized transition-metal oxides of zirconium and molybdenum produced by laser ablation in water.

PB 9781536124057 £152.50 July 2017 Nova Science Publishers 147 pages





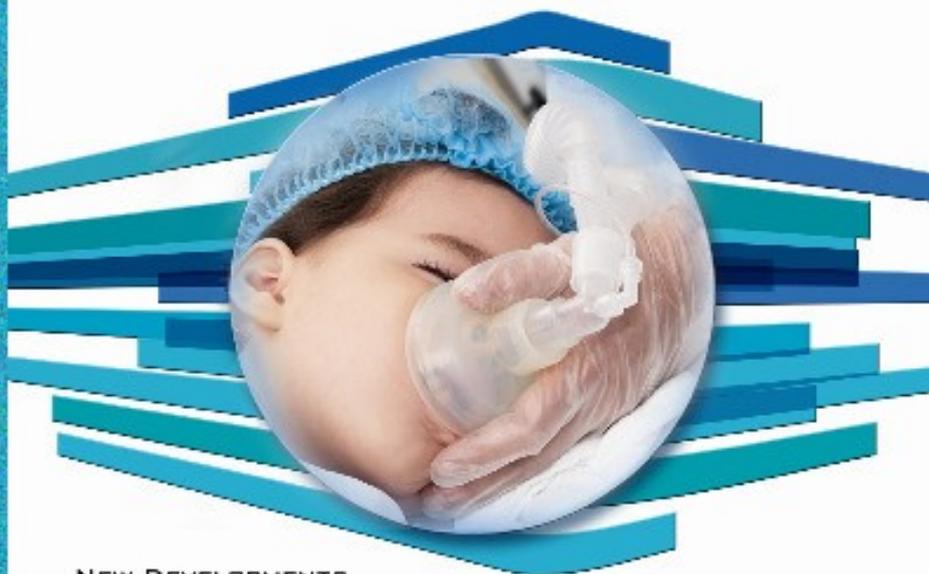
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