

Color The Secret Influence Jamroz

3D printing is forecast to revolutionise the pharmaceutical sector, changing the face of medicine development, manufacture and use. Potential applications range from pre-clinical drug development and dosage form design through to the fabrication of functionalised implants and regenerative medicine. Within clinical pharmacy practice, printing technologies may finally lead to the concept of personalised medicines becoming a reality. This volume aims to be the definitive resource for anyone thinking of developing or using 3D printing technologies in the pharmaceutical sector, with a strong focus on the translation of printing technologies to a clinical setting. This text brings together leading experts to provide extensive information on an array of 3D printing techniques, reviewing the current printing technologies in the pharmaceutical manufacturing supply chain, in particular, highlighting the state-of-the-art applications in medicine and discussing modern drug product manufacture from a regulatory perspective. This book is a highly valuable resource for a range of demographics, including academic researchers and the pharmaceutical industry, providing a comprehensive inventory detailing the current and future applications of 3D printing in pharmaceuticals. Abdul W. Basit is Professor of Pharmaceutics at the UCL School of Pharmacy, University College London. Abdul's research sits at the interface between pharmaceutical science and gastroenterology, forging links between basic science and clinical outcomes. He leads a large and multidisciplinary research group, and the goal of his work is to further the understanding of gastrointestinal physiology by fundamental research. So far, this knowledge has been translated into the design of new technologies and improved disease treatments, many of which are currently in late-stage clinical trials. He has published over 350 papers, book chapters and abstracts and delivered more than 250 invited research presentations. Abdul is also a serial entrepreneur and has filed 25 patents and founded 3 pharmaceutical companies (Kuecept, Intract Pharma, FabRx). Abdul is a frequent speaker at international conferences, serves as a consultant to many pharmaceutical companies and is on the advisory boards of scientific journals, healthcare organisations and charitable bodies. He is the European Editor of the International Journal of Pharmaceutics. Abdul was the recipient of the Young Investigator Award in Pharmaceutics and Pharmaceutical Technology from the American Association of Pharmaceutical Scientists (AAPS) and is the only non-North American scientist to receive this award. He was also the recipient of the Academy of Pharmaceutical Sciences (APS) award. Simon Gaisford holds a Chair in Pharmaceutics and is Head of the Department of Pharmaceutics at the UCL School of Pharmacy, University College London. He has published 110 papers, 8 book chapters and 4 authored books. His research is focused on novel technologies for manufacturing medicines, particularly using ink-jet printing and 3D printing, and he is an expert in the physico-chemical characterisation of compounds and formulations with thermal methods and calorimetry.

The world's population is growing rapidly and consequently, there is an increasing demand for high-quality and safe food. At the same time, agricultural areas are diminishing due to industrialization, among other factors. Therefore, the efficiency of animal production needs to be improved. This book examines animal nutrition and ways to improve it. Topics covered include the use of feed additives in poultry nutrition, silage in dairy cattle nutrition, plant-origin feed additives in water buffalo nutrition, microbial inoculation in dairy cow nutrition, and more.

This volume focuses on the (de)canonization processes in children's literature, considering the construction and cultural-historical changes of canons in different children's literatures. Chapters by international experts in the field explore a wide range of different children's literatures from Great Britain, Germany, Scandinavia, the Low Countries, Eastern and Central Europe, as well as from Non-European countries such as Australia, Israel, and the United States. Situating the inquiry within larger literary and cultural studies conversations about canonicity, the contributors assess representative authors and works that have encountered changing fates in the course of canon history. Particular emphasis is given to sociological canon theories, which have so far been under-represented in canon research in children's literature. The volume therefore relates historical changes in the canon of children's literature not only to historical changes in concepts of childhood but to more encompassing political, social, economic, cultural, and ideological shifts. This volume's comparative approach takes cognizance of the fact that, if canon formation is an important cultural factor in nation-building processes, a comparative study is essential to assessing transnational processes in canon formation. This book thus renders evident the structural similarities between patterns and strategies of canon formation emerging in different children's literatures.

This collection addresses the recent rebirth of interest in immigrant letters. As these letters are increasingly seen as key, rather than incidental, documents in the interpretations of gender, age, social class, and ethnicity/nationality, the scholars gathered here demonstrate a diversity of new approaches to their interpretation.

Tropical Glaciers

Recommended Guidelines for Curb and Curb-barrier Installations

GaN and Related Materials

Advanced Studies in the 21st Century Animal Nutrition

Constitution, Rules and By-laws

The Human Factor in the Settlement of the Moon

Gastronomy and Food Science fills the transfer knowledge gap between academia and industry by covering the interrelation of gastronomy and food and culinary science in one integral reference. Coverage of the holistic cuisine, culinary textures with food ingredients, the application of new technologies and gastronomy in shaping a healthy diet, and the recycling of culinary by-products using new is also covered in this important reference. Written for food scientists and technologists, food chemists, and nutritionists, researchers, academics, and professionals working in culinary science, culinary professionals and other food industry personnel, this book is sure to be a welcomed reference. Discusses the role of gastronomy and new technologies in shaping healthy diets Describes a toolkit to capture diversity and drivers of food choice of a target population and to identify entry points for nutrition interventions Presents the experiential value of the Mediterranean diet, elaiogastronomy, and bioactive food ingredients in culinary science Explores gastronomic tourism and the senior foodies market

This volume on Krzysztof Penderecki provides a comprehensive overview of the prolific writings about the composer and his music.

Almost all welding technology depends upon the use of concentrated energy sources to fuse or soften the material locally at the joint, before such energy can be diffused or dispersed elsewhere. Although comprehensive treatments of transient heat flow as a controlling influence have been developed progressively and published over the past forty years, the task of uniting the results compactly within a textbook has become increasingly formidable. With the comparative scarcity of such works, welding engineers have been denied the full use of powerful design analysis tools. During the past decade Dr Radaj has prepared to fulfil this need, working from a rich experience as pioneer researcher and teacher, co-operator with Professor Argyris at Stuttgart University in developing the finite element method for stress analysis of aircraft and power plant structures, and more recently as expert consultant on these and automotive structures at Daimler Benz. His book appeared in 1988 in the German language, and this updated English language edition will significantly increase the availability of the work.

South American Camelids are receiving increased interest not only in South America but also on a worldwide scale. They possess some unique features such as their fine fibre and their high adaptivity to many climatic regions across the world. Apart from the important productive aspects, their physical attractiveness also makes them popular as pet animals. However there are still many gaps in the scientific literature with regard to South American Camelids. This collection of papers brings experience of both South American and European experts together. It considers current trends in reproduction, nutrition, health, fibre morphology and genetics and discusses as new topic aspects of the potential of meat production and commercialization in South America. The particular advantages of South American Camelids for the sustainable use of fragile ecosystems with native pastures are outlined. Round tables discussions focus on the interaction between wild and domestic species, the management of alpaca populations outside of South America and health aspects under European conditions. South American Research is aimed at scientists and animal breeders as well as students studying veterinary, animal and applied biological sciences.

Fighting Multidrug Resistance with Herbal Extracts, Essential Oils and Their Components

Biochirality

Lung Injury

Handbook of Herbs and Spices

The Artist Project

Letters across Borders

Since the publication of earlier editions, there has been The new edition has a number of new contributors, a considerable increase in research activity in a number who have written on the nervous system, sense organs, of areas, with each succeeding edition including new muscle, endocrines, reproduction, digestion and immu chapters and an expansion of knowledge in older chap nophysiology. Contributors from previous editions ters. have expanded their offerings considerably. The fourth edition contains two new chapters, on The authors are indebted to various investigators, muscle and immunophysiology, the latter an area journals and books for the many illustrations used. Indi where research on Aves has contributed significantly vidual acknowledgement is made in the legends and to our general knowledge of the subject. references. Preface to the 'Third Edition Since the publication of the first and second editions, pathways of birds and mammals. New contributors in there has been a considerable increase of research activ clude M. R. Fedde and T. B. Bolton, who have com ity in avian physiology in a number of areas, including pletely revised and expanded the chapters on respira endocrinology and reproduction, heart and circulation, tion and the nervous system, respectively, and J. G. respiration, temperature regulation, and to a lesser ex Rogers, Jr. , W. J. Mueller, H. Opel, and D. e. Meyer, who have made contributions to Chapters 2,16, 17, tent in some other areas. There appeared in 1972-1974 a four volume treatise and 19, respectively. This book brings together reviews by internationally renowed experts on quantum optics and photonics. It describes novel experiments at the limit of single photons, and presents advances in this emerging research area. It also includes reprints and historical descriptions of some of the first pioneering experiments at a single-photon level and nonlinear optics, performed before the inception of lasers and modern light detectors, often with the human eye serving as a single-photon detector. The book comprises 19 chapters, 10 of which describe modern quantum photonics results, including single-photon sources, direct measurement of the photon's spatial wave function, nonlinear interactions and non-classical light, nanophotonics for room-temperature single-photon sources, time-multiplexed methods for optical quantum information processing, the role of photon statistics in visual perception, light-by-light coherent control using metamaterials, nonlinear nanoplasmonics, nonlinear polarization optics, and ultrafast nonlinear optics in the mid-infrared.

Klassen brings them to light and life by focusing on an unusual oasis of tolerance in the midst of a Europe convulsed by the wars of religion.

Together with its companion volume, Handbook of herbs and spices: Volume 2 provides a comprehensive and authoritative coverage of key herbs and spices. Chapters on individual plants cover such issues as description and classification, production, chemical structure and properties, potential health benefits, uses in food processing and quality issues. Authoritative coverage of more than 50 major herbs and spices Provides detailed information on chemical structure, cultivation and definition Incorporates safety issues, production, main uses, health issues and regulations

3D Printing of Pharmaceuticals

Temperature Field, Residual Stress, Distortion

Quantum Photonics: Pioneering Advances and Emerging Applications

Composting for Sustainable Agriculture

Natural Concepts to Optimize Gut Health and Performance

Volume 1

This book uncovers stakes and possibilities offered by Computational Intelligence and Predictive Analytics to Medical Science. The main focus is on data technologies, classification, analysis and mining, information retrieval, and in the algorithms needed to elaborate the informations. A section with use cases and applications follows the two main parts of the book, respectively dedicated to the foundations and techniques of the discipline.

Early History of the Recognition of Molecular Biochirality, by Joseph Gal, Pedro Cintas Synthesis and Chirality of Amino Acids Under Interstellar Conditions, by Chaitanya Giri, Fred Goesmann, Cornelia Meinert, Amanda C. Evans, Uwe J. Meierhenrich Chemical and Physical Models for the Emergence of Biological Homochirality, by son E. Hein, Dragos Gherase, Donna G. Blackmond Biomolecules at Interfaces: Chiral, Naturally, by Arántzazu González-Campo and David B. Amabilino Stochastic Mirror Symmetry Breaking: Theoretical Models and Simulation of Experiments, by Celia Blanco, David Hochberg Self-Assembly of Dendritic Dipeptides as a Model of Chiral Selection in Primitive Biological Systems, by Brad M. Rosen, Cécile Roche, Virgil Percec Chirality and Protein Biosynthesis, by Sindrila Dutta Banik, Nilashis Nandi

The book presents the latest advances and research findings in the fields of computational science and communication. The areas covered include smart innovation; systems and technologies; embedded knowledge and intelligence; innovation and sustainability; advanced computing; and networking and informatics. It also focuses on the knowledge-transfer methodologies and the innovation strategies employed to make these effective. This fascinating compilation appeals to researchers, academics and engineers around the globe.

Artists have long been stimulated and motivated by the work of those who came before them—sometimes, centuries before them. Interviews with 120 international contemporary artists discussing works from The Metropolitan Museum of Art's collection that spark their imagination shed new light on art-making, museums, and the creative process. Images of works from The Met collection appear alongside images of the contemporary artists' work, allowing readers to discover a rich web of visual connections that spans cultures and millennia.

Principles of Nanomedicine

Phytogenics in Animal Nutrition

A Pragmatic Approach

Hilgeford V. Peoples Bank

South American camelids research

Tempeh Production

The scope of nanotechnology in medical applications has expanded fast in the last two decades. With their unprecedented material properties, nanoscale materials present with unorthodox opportunities in a wide range of domains, including drug delivery and medical imaging. This book assembles the various facets of nanomedicine while discussing key issues such as physicochemical properties that enhance the appeal of nanomedicine. The book is an excellent resource for physicians, PhDs, and postdocs involved in nanomedicine research to learn and understand the scope and complexity of the subject. It begins with a short history of nanotechnology, followed by a discussion on the fundamental concepts and extraordinary properties of nanoscale materials, and then slowly unfolds into multiple chapters illustrating the uses of various nanomaterials in drug delivery, sensing, and imaging.

This book provides an analysis of the reaction mechanisms relevant to a number of processes in which CO₂ is converted into valuable products. Several different processes are considered that convert CO₂ either in specialty chemicals or in bulk products or fuels. For each reaction, the mechanism is discussed and the assessed steps besides the dark sites of the reaction pathway are highlighted. From the insertion of CO₂ into E-X bonds to the reduction of CO₂ to CO or other C₁ molecules or else to C₂ or C_n molecules, the reactions are analysed in order to highlight the known and obscure reaction steps. Besides well known reaction mechanisms and energy profiles, several lesser known situations are discussed. Advancing knowledge of the latter would help to develop efficient routes for the conversion of CO₂ into valuable products useful either in the chemical or in the energy industry. The content of this book is quite different from other books reporting the use of CO₂. On account of its clear presentation, "Reaction Mechanisms in Carbon Dioxide Conversion" targets in particular researchers, teachers and PhD students.

Woodhead Publishing in Food Science, Technology and Nutrition '... a good reference book for food processors and packers of herbs and spices.' Food Technology (of Volume 1) '... a standard reference for manufacturers who use herbs and spices in their products.' Food Trade Review (of Volume 2) The final volume of this three-volume sequence completes the coverage of the main herbs and spices used in food processing. The first part of the

book reviews ways of improving the safety of herbs and spices. There are chapters on detecting and controlling mycotoxin contamination, controlling pesticide and other residues, the use of irradiation and other techniques to decontaminate herbs and spices, packaging and storage, QA and HACCP systems. Part two reviews the potential health benefits of herbs and spices with chapters discussing their role in preventing chronic diseases such as cancer and cardiovascular disease and promoting gut health. The final part of the book comprises chapters on twenty individual herbs and spices, covering such topics as chemical composition, cultivation and quality issues, processing, functional benefits and uses in food. Herbs and spices reviewed range from asafoetida, capers and carambola to perilla, potato onion and spearmint. The final volume will consolidate the reputation of this three-volume series, providing a standard reference for R&D and QA staff using herbs and spices in their food products. The final volume of this three-volume sequence completes the coverage of the main herbs and spices used in food processing Incorporates safety issues, production, main uses and regulations Reviews the potential health benefits of herbs and spices

The aim of this Special Issue is to publish high quality papers concerning poultry nutrition and the interrelations between nutrition, metabolism, microbiota and the health of poultry. Therefore, I invite submissions of recent findings, as original research or reviews, on poultry nutrition, including, but not limited to, the following areas: the effect of feeding on poultry meat and egg quality; nutrient requirements of poultry; the use of functional feed additives to improve gut health and immune status; microbiota; nutraceuticals; soybean meal replacers as alternative sources of protein for poultry; the effects of feeding poultry on environmental impacts; the use of feed/food by-products in poultry diet; and feed technology.

Integrated Uncertainty Management and Applications

The Epistolary Practices of International Migrants

Diagnosis and Treatment of Diseases in Āyurveda

Canon Constitution and Canon Change in Children's Literature

A Bio-bibliography

Smart Innovations in Communication and Computational Sciences

3D Printing of Pharmaceuticals Springer

"Research sponsored by the American Association of State Highway and Transportation Officials in cooperation with the Federal Highway Administration."

Glaciers in the tropics and their environmental consequences.

This book analyses the concept of patriotism and the contestation over its meaning in key public debates in Poland over the last twenty-five years. It focuses on the strategies used to define, re-shape and «bend» the notion of patriotism, which during this period has become a central issue in Polish political discourse.

Contemporary Polish society is characterized by a growing polarization of the public sphere. Rivalry between former communists and former dissidents has been progressively replaced by internal opposition within the ranks of once-dissident allies, now divided into civic-minded «critical» patriots and nationalist-oriented «traditional» patriots. This division re-emerges regularly during key moments in Polish public life - most recently in the aftermath of the highly contested 2015 parliamentary elections. By tracing the evolution of the debate over patriotism since 1989, this book provides crucial insights into the current political situation.

An Interdisciplinary Approach

Polish Patriotism After 1989

Krzysztof Penderecki

Reaction Mechanisms in Carbon Dioxide Conversion

Origins, Evolution and Molecular Recognition

Based on Āyurveda Saukhyam of Ṭoḍarānanda

The dramatic worldwide increase in agricultural and industrial productivity has created severe environmental problems. Soil and groundwater reservoirs have been polluted with pesticides, xenobiotics and agro-chemicals. The global consensus to reduce inputs of chemical pesticides and agrochemical fertilizers, which are perceived as being hazardous by some consumers, has provided opportunities for the development of novel, benign sustainable crop management strategies. The future of agriculture depends upon our ability to enhance the productivity without damage to their long-term production potential. One of the strategies is the application of effective microbial products beneficial for both farmers and ecosystems. This kind of approach can ensure both ecological and economic sustainability. Soil microbial populations are immersed in framework of interactions, which are known to affect plant fitness and soil quality. For betterment of life of human being, improved quality and variety of products are formed due to versatile action of different group of microorganisms, Microbes are able to degrade solid waste material into compost which is a mixture of decayed organic matter, manure etc. Incomplete microbial degradation of organic waste where the microbial process varies aerobic to anaerobic form is stated as compost, if added to soil improves plant growth and development. The biological activities and microbial metabolism in the soil contribute to alter its mixture and fertility. Incorporation of organic remain in the form of compost is known to influence favourably the physio-chemical and biological properties of soil. The beneficial activities bestowed upon plants by compost utilization are multifaceted, hence most promising alternatives for achieving sustainable agricultural production. An increased awareness on compost has led to their use in agricultural concern. Contents in the present book will comprised various chapters on the role of beneficial bacteria in the composting process. The application is depicted to achieve the attainable productivity besides, in disease management and suppressiveness of organisms of phytopathogenic in nature. Significance of the compost elicits certain responses e.g. soil reclamation, soil fertility, soil health and disease management exhibit due to quality compost amendment in soil. It serves as low cost prospective option for

sustainable crop production and protection.

Focusing on gut health in animals, his accessible study provides an overview of the potential benefits of phytogetic substances and plant-based feed additives to animal nutrition. This up-to-date and well-researched exploration focuses on the latest scientific knowledge regarding these additives and their potential use as flavoring agents and growth promoters in different animals worldwide, from pigs and poultry to ruminant mammals and aquatic species. It also highlights results from in vitro experiments as well as in vivo trials and shows how these tests have practical implication of phytogetic feeding concepts. Recognizing that the mechanisms in these additives are versatile and still need additional elucidation and scientific proof, this examination intends to help scientists and the feed industry further develop the group of feed additives.

Solving practical problems often requires the integration of information and knowledge from many different sources, taking into account uncertainty and impreciseness. The 2010 International Symposium on Integrated Uncertainty Management and Applications (IUM ' 2010), which takes place at the Japan Advanced Institute of Science and Technology (JAIST), Ishikawa, Japan, between 9th–11th April, is therefore conceived as a forum for the discussion and exchange of research results, ideas for and experience of application among researchers and practitioners involved with all aspects of uncertainty modelling and management.

The material world is made of atoms, and the majority of chemical elements has two or more stable isotopes. The existence of isotopes and their applications are well known. Yet, there is little appreciation of isotopic diversity as a singular phenomenon of nature. This book discusses aspects of isotopic diversity in terms of a singular principle: "isotopicity".

Computational Intelligence and Predictive Analysis for Medical Science

Mennonites in Early Modern Poland and Prussia

Proceedings of ICSICCS-2018

In Physics, Biology, Nanotechnology, and Digital Informatics

Plasma Spectrochemistry

Isotopic Randomness and Self-Organization

Presents views on current developments in heat and mass transfer research related to the modern development of heat exchangers. Devotes special attention to the different modes of heat and mass transfer mechanisms in relation to the new development of heat exchangers design. Dedicates particular attention to the future needs and demands for further development in heat and mass transfer. GaN and related materials are attracting tremendous interest for their applications to high-density optical data storage, blue/green diode lasers and LEDs, high-temperature electronics for high-power microwave applications, electronics for aerospace and automobiles, and stable passivation films for semiconductors. In addition, there is great scientific interest in the nitrides, because they appear to form the first semiconductor system in which extended defects do not severely affect the optical properties of devices. This series provides a forum for the latest research in this rapidly-changing field, offering readers a basic understanding of new developments in recent research. Series volumes feature a balance between original theoretical and experimental research in basic physics, device physics, novel materials and quantum structures, processing, and systems.

Fighting Multidrug Resistance with Herbal Extracts, Essential Oils and their Components offers scientists a single source aimed at fighting specific multidrug-resistant (MDR) microorganisms such as bacteria, protozoans, viruses and fungi using natural products. This essential reference discusses herbal extracts and essential oils used or under investigation to treat MDR infections, as well as those containing antimicrobial activity that could be of potential interest in future studies against MDR microorganisms. The need to combat multidrug-resistant microorganisms is an urgent one and this book provides important coverage of mechanism of action, the advantages and disadvantages of using herbal extracts, essential oils and their components and more to aid researchers in effective antimicrobial drug discovery Addresses the need to develop safe and effective approaches to coping with resistance to all classes of antimicrobial drugs Provides readers with current evidence-based content aimed at using herbal extracts and essential oils in antimicrobial drug development Includes chapters devoted to the activity of herbal products against herpes, AIDS, tuberculosis, drug-resistant cancer cells and more

Progressing from general scientific principles and concepts to in-depth topical discussions of current research and treatment methods, this comprehensive reference defines the cellular and molecular mechanisms contributing to inflammatory lung injury and repair. Extensive coverage is provided on key mediators and pathways important in acute and chronic pulmonary inflammation and lung injury, as well as the mechanistic pathophysiology of related diseases ranging from clinical acute lung injury (ALI) and the acute respiratory distress syndrome (ARDS) to idiopathic pulmonary fibrosis (IPF) and other subacute and chronic conditions. Additional chapters also address vascular dysfunction, surfactant dysfunction, reactive oxygen/nitrogen species, and cell and animal models of acute and chronic lung injury.

A Craft and Technical Manual

Poultry Nutrition

Gastronomy and Food Science

The Progressive Grocer

Light Scattering from Polymers

Mechanisms, Pathophysiology, and Therapy