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Didactics of Mathematics as a Scientific Discipline - Rolf Biehler 2006-04-11
Didactics of Mathematics as a Scientific Discipline describes the state of the art in a new branch of science. Starting from a general perspective on the didactics of mathematics, the 30 original contributions to the book, drawn from 10 different countries, go on to identify certain subdisciplines and suggest an overall structure or `topology' of the field. The book is divided into eight sections: (1) Preparing Mathematics for Students; (2) Teacher Education and Research on Teaching; (3) Interaction in the Classroom; (4) Technology and Mathematics Education; (5) Psychology of Mathematical Thinking; (6) Differential Didactics; (7) History and Epistemology of Mathematics and Mathematics Education; (8) Cultural Framing of Teaching and Learning Mathematics. Didactics of Mathematics as a Scientific Discipline is required reading for all researchers into the didactics of mathematics, and contains surveys and a variety of stimulating reflections which make it extremely useful for mathematics educators and teacher trainers interested in the theory of their practice. Future and practising teachers of mathematics will find much to interest them in relation to their daily work, especially as it relates to the teaching of different age groups and ability ranges. The book is also recommended to researchers in neighbouring disciplines, such as mathematics itself, general education, educational psychology and cognitive science.
Alternative Toxicological Methods - Harry Salem 2003-03-26
Bringing together the recent and relevant contributions of over 125 scientists from industry, government, and academia in North America and Western Europe, Alternative Toxicological Methods explores the development and validation of replacement, reduction, and refinement alternatives (the 3Rs) to animal testing. Internationally recognized scientist
Leadership in Higher Education - Jim Kouzes 2019-09-17
The authors of the classic bestseller The Leadership Challenge bring their expertise to higher education, offering five practices that can make any college or university leader into an exemplary leader. Drawing on the same pioneering research that formed the foundation of their classic bestseller The Leadership Challenge (over 2.7 million copies sold), James Kouzes and Barry Posner offer a set of leadership skills and practices that will make a significant difference in every area of higher education—faculty, administration, library services, career counseling, auxiliary services, campus safety, and more. It's about the behaviors that leaders, regardless of their position, use to transform values into actions, visions into realities, obstacles into innovations, segments into solidarity,

and risks into rewards. Kouzes and Posner tell the leadership story from the inside and move outward, describing it first as a personal journey and then as mobilizing others to want to do things they have never done before. The Five Practices of Exemplary Leadership is the operating system for this adventure. Leadership in Higher Education explains the fundamental principles that support these practices and provides case examples of people in higher education who demonstrate each one. A core theme that weaves its way through all the chapters is that, whether it's one to one or one to many, leadership is a relationship between those who aspire to lead and those who choose to follow. We need leaders who can unite us and ignite us. This book lights the way.

National Toxicology Program Annual Report for Fiscal Year ... - National Toxicology Program (U.S.) 1992

Translational Research in Traumatic Brain Injury - Daniel Laskowitz 2015-12-01

Traumatic brain injury (TBI) remains a significant source of death and permanent disability, contributing to nearly one-third of all injury related deaths in the United States and exacting a profound personal and economic toll. Despite the increased resources that have recently been brought to bear to improve our understanding of TBI, the development of new diagnostic and therapeutic approaches has been disappointingly slow. Translational Research in Traumatic Brain Injury attempts to integrate expertise from across specialties to address knowledge gaps in the field of TBI. Its chapters cover a wide scope of TBI research in five broad areas: Epidemiology Pathophysiology Diagnosis Current treatment strategies and sequelae Future therapies Specific topics discussed include the societal impact of TBI in both the civilian and military populations, neurobiology and molecular mechanisms of axonal and neuronal injury, biomarkers of traumatic brain injury and their relationship to pathology, neuroplasticity after TBI, neuroprotective and neurorestorative therapy, advanced neuroimaging of mild TBI, neurocognitive and psychiatric symptoms following mild TBI, sports-related TBI, epilepsy and PTSD following TBI, and more. The book integrates the perspectives of experts across disciplines to assist in the translation of new ideas to clinical practice and ultimately to improve the care of the brain injured patient.

Emergent Results of Artificial Economics - Sjoukje Osinga 2011-06-22

Artificial economics is a computational approach that aims to explain economic systems by modeling them as societies of intelligent software agents. The individual agents make autonomous decisions, but their actual behaviors are constrained by available resources, other individuals' behaviors, and institutions. Intelligent software agents have communicative skills that enable simulation of negotiation, trade, reputation, and other forms of knowledge transfer that are at the basis of economic life. Incorporated learning mechanisms may adapt the agents' behaviors. In artificial economics, all system behavior is generated from the individual agents' simulated decisions; no system level laws are a priori imposed. For instance, price convergence and market clearing may emerge, but not necessarily. Thus, artificial economics facilitates the study of the mechanisms that make the economy function. This book presents a selection of peer-reviewed papers addressing recent developments in this field between economics and computer science.

Brain Neurotrauma - Firas H. Kobeissy 2015-02-25

Every year, an estimated 1.7 million Americans sustain brain injury. Long-term disabilities impact nearly half of moderate brain injury survivors and nearly 50,000 of these cases result in death. Brain Neurotrauma: Molecular, Neuropsychological, and Rehabilitation Aspects provides a comprehensive and up-to-date account on the latest developments in the area of neurotrauma, including brain injury pathophysiology, biomarker research, experimental models of CNS injury, diagnostic methods, and neurotherapeutic interventions as well as neurorehabilitation strategies in the field of neurotraum research. The book includes several sections on neurotrauma mechanisms, biomarker discovery, neurocognitive/neurobehavioral deficits, and neurorehabilitation and treatment approaches. It also contains a section devoted to models of mild CNS injury, including blast and sport-related

injuries. Over the last decade, the field of neurotrauma has witnessed significant advances, especially at the molecular, cellular, and behavioral levels. This progress is largely due to the introduction of novel techniques, as well as the development of new animal models of central nervous system (CNS) injury. This book, with its diverse coherent content, gives you insight into the diverse and heterogeneous aspects of CNS pathology and/or rehabilitation needs.

Microplastic Pollution - Subramanian Senthilkannan Muthu 2021-03-14

This book addresses the emergent need to act on reducing or getting rid of micro plastic pollution, to achieve a sustainable environment. Microplastics are small plastic pieces, which are less than five millimeters long which can be harmful to our oceans and aquatic life. These predominantly include microfibers from clothing, microbeads, and plastic pellets. Microplastics impact aquatic creatures, turtles and birds. According to the first study on estimation of human ingestion of microplastic, on average a person consumes at least 50,000 particles of microplastic a year and breathes a similar quantity. Ingested microplastic particles can physically damage organs and also compromise immune function and stymie growth and reproduction. This book presents six informative chapters in order to alleviate the above mentioned issues.

Pharmacologic Therapy of Ocular Disease - Scott M. Whitcup 2017-06-05

There have been major advancements in the pharmacologic treatment of eye diseases over the past decade. With newly discovered disease targets and novel approaches to deliver therapeutic compounds to the eye, patients are seeing improved outcomes. Not only are there better treatments for diseases where treatments existed, we now have effective therapy for previously untreatable and blinding eye disorders. This volume will cover the pharmacologic treatment of eye diseases from the front of the eye including eyelids, conjunctiva and cornea all the way back to the retina and optic nerve. The first section of the volume reviews general principles of ocular pharmacology, pharmacokinetics, pharmaceutical sciences, and drug delivery. In addition, the volume provides an up to date guide to the pharmacologic approach to the key eye diseases that threaten sight or ocular function.

Antibacterial Drug Discovery to Combat MDR - Iqbal Ahmad 2019-11-09

This book compiles the latest information in the field of antibacterial discovery, especially with regard to the looming threat of multi-drug resistance. The respective chapters highlight the discovery of new antibacterial and anti-infective compounds derived from microbes, plants, and other natural sources. The potential applications of nanotechnology to the fields of antibacterial discovery and drug delivery are also discussed, and one section of the book is dedicated to the use of computational tools and metagenomics in antibiotic drug discovery. Techniques for efficient drug delivery are also covered. The book provides a comprehensive overview of the progress made in both antibacterial discovery and delivery, making it a valuable resource for academic researchers, as well as those working in the pharmaceutical industry.

Proceedings of International Conference on Artificial Intelligence, Smart Grid and Smart City Applications - L. Ashok Kumar 2020-03-12

Due to the complexity, and heterogeneity of the smart grid and the high volume of information to be processed, artificial intelligence techniques and computational intelligence appear to be some of the enabling technologies for its future development and success. The theme of the book is “Making pathway for the grid of future” with the emphasis on trends in Smart Grid, renewable interconnection issues, planning-operation-control and reliability of grid, real time monitoring and protection, market, distributed generation and power distribution issues, power electronics applications, computer-IT and signal processing applications, power apparatus, power engineering education and industry-institute collaboration. The primary objective of the book is to review the current state of the art of the most relevant artificial intelligence techniques applied to the different issues that arise in the smart grid development.

Protein Chromatography - Giorgio Carta 2020-06-02

An all-in-one practical guide on how to efficiently use chromatographic separation methods Based on a training course that teaches the theoretical as well as practical aspects of protein bioseparation to bioprocess professionals, this fully updated and revised new edition offers comprehensive coverage of continuous chromatography and provides readers with many relevant examples from the biopharmaceutical industry. Divided into two large parts, Protein Chromatography: Process Development and Scale-Up, Second Edition presents all the necessary knowledge for effective process development in chromatographic bioseparation, both on small and large scale. The first part introduces chromatographic theory, including process design principles, to enable the reader to rationalize the set-up of a bioseparation process. The second part illustrates by way of case studies and sample protocols how the theory learned in the first part may be applied to real-life problems. Chapters look at: Downstream Processing of Biotechnology Products; Chromatography Media; Laboratory and Process Columns and Equipment; Adsorption Equilibrium; Rate Processes; and Dynamics of Chromatography Columns. The book closes with chapters on: Effects of Dispersion and Rate Processes on Column Performance; Gradient Elution Chromatography; and Chromatographic Column Design and Optimization. -Presents the most pertinent examples from the biopharmaceutical industry, including monoclonal antibodies -Provides an overview of the field along with design tools and examples illustrating the advantages of continuous processing in biopharmaceutical productions -Focuses on process development and large-scale bioseparation tasks, making it an ideal guide for the professional bioengineer in the biotech and pharma industries -Offers field-tested information based on decades of training courses for biotech and chemical engineers in Europe and the U.S. Protein Chromatography: Process Development and Scale-Up, Second Edition will appeal to biotechnologists, analytical chemists, chromatographers, chemical engineers, pharmaceutical industry, biotechnological industry, and biochemists.

Mucosal T Cells - Thomas T. MacDonald 1998

There are more T cells in the gastrointestinal tract and lung than in the rest of the body combined. The aim of this book is to cover all the important aspects of the biology of these cells in animals and in man. Basic observations are described as well as disease states where aberrant activation of mucosal T cells causes tissue damage. The continuing discovery of features of mucosal T cells which make them different from T cells in the periphery is a consistent theme throughout the text. Topics discussed include new developments in understanding why the characteristic response of mucosal T cells to soluble antigens is tolerance, the role of the gut epithelium in intestinal immunity, the molecular basis by which T cells home to the gut mucosa, the functions of gammadelta T cells, the discovery of a new lymphoid organ - the cryptopatch - in the mouse gut, and the remarkable oligoclonality of the alphabeta and gammadelta T cells in the gut epithelium. In more disease-related sections, the way in which T cells play a role in asthma and protection from parasite infection, and how they cause inflammatory bowel disease in man and animals are described. Providing an excellent survey of the field, this book is a valuable resource for both basic scientists and clinicians interested in intestinal immunology and gastrointestinal disease.

The Handbook of Communication Skills - Owen Hargie 2018-07-16

The Handbook of Communication Skills is recognised as one of the core texts in the field of communication, offering a state-of-the-art overview of this rapidly evolving field of study. This comprehensively revised and updated fourth edition arrives at a time when the realm of interpersonal communication has attracted immense attention. Recent research showing the potency of communication skills for success in many walks of life has stimulated considerable interest in this area, both from academic researchers, and from practitioners whose day-to-day work is so dependent on effective social skills. Covering topics such as non-verbal behaviour, listening, negotiation and persuasion, the book situates communication in a range of different contexts, from interacting in groups to the counselling interview. Based on the core tenet that interpersonal communication can be conceptualised as a form of skilled

activity, and including new chapters on cognitive behavioural therapy and coaching and mentoring, this new edition also places communication in context with advances in digital technology. The Handbook of Communication Skills represents the most significant single contribution to the literature in this domain. Providing a rich mine of information for the neophyte and practising professional, it is perfect for use in a variety of contexts, from theoretical mainstream communication modules on degree programmes to vocational courses in health, business and education. With contributions from an internationally renowned range of scholars, this is the definitive text for students, researchers and professionals alike.

Histochemistry of Single Molecules - Carlo Pellicciari 2022-09-25
This volume details histochemical techniques for the detection of specific molecules or metabolic processes, both at light and electron microscopy. Chapters are divided into seven sections covering Vital histochemistry, Carbohydrate histochemistry, Protein histochemistry, Lipid histochemistry, Nuclear histochemistry, Plant histochemistry and Histochemistry for Nanoscience. Written in the successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible protocols, and notes on troubleshooting and avoiding known pitfalls. The volume also contains three discursive chapters on Histochemistry in advanced cytometry, Lectins and Detection of molecules in plant cell walls by fluorescence microscopy. Authoritative and cutting-edge, Histochemistry of Single Molecules: Methods and Protocols, Second Edition aims to be a useful practical guide for researchers to help further their study in this field.

Genetic Enhancement of Crops for Tolerance to Abiotic Stress: Mechanisms and Approaches, Vol. I - Vijay Rani Rajpal 2019-04-24
Abiotic stresses such as drought (water deficit), extreme temperatures (cold, frost and heat), salinity (sodicity) and mineral (metal and metalloid) toxicity limit productivity of crop plants worldwide and are big threats to global food security. With worsening climate change scenarios, these stresses will further increase in intensity and frequency. Improving tolerance to abiotic stresses, therefore, has become a major objective in crop breeding programs. A lot of research has been conducted on the regulatory mechanisms, signaling pathways governing these abiotic stresses, and cross talk among them in various model and non-model species. Also, various 'omics' platforms have been utilized to unravel the candidate genes underpinning various abiotic stresses, which have increased our understanding of the tolerance mechanisms at structural, physiological, transcriptional and molecular level. Further, a wealth of information has been generated on the role of chromatin assembly and its remodeling under stress and on the epigenetic dynamics via histones modifications. The book consolidates outlooks, perspectives and updates on the research conducted by scientists in the abovementioned areas. The information covered in this book will therefore interest workers in all areas of plant sciences. The results presented on multiple crops will be useful to scientists in building strategies to counter these stresses in plants. In addition, students who are beginners in the areas of abiotic stress tolerance will find this book handy to clear their concepts and to get an update on the research conducted in various crops at one place

Understanding the Well-Being of LGBTQI+ Populations - National Academies of Sciences, Engineering, and Medicine 2021-01-23
The increase in prevalence and visibility of sexually gender diverse (SGD) populations illuminates the need for greater understanding of the ways in which current laws, systems, and programs affect their well-being. Individuals who identify as lesbian, gay, bisexual, asexual, transgender, non-binary, queer, or intersex, as well as those who express same-sex or -gender attractions or behaviors, will have experiences across their life course that differ from those of cisgender and heterosexual individuals. Characteristics such as age, race and ethnicity, and geographic location intersect to play a distinct role in the challenges and opportunities SGD people face. Understanding the Well-Being of LGBTQI+ Populations reviews the available evidence and identifies future research needs related to the well-being of SDG populations across the life course. This report focuses on eight domains of well-being; the effects of various laws and the legal system on SGD populations; the effects of various public

policies and structural stigma; community and civic engagement; families and social relationships; education, including school climate and level of attainment; economic experiences (e.g., employment, compensation, and housing); physical and mental health; and health care access and gender-affirming interventions. The recommendations of Understanding the Well-Being of LGBTQI+ Populations aim to identify opportunities to advance understanding of how individuals experience sexuality and gender and how sexual orientation, gender identity, and intersex status affect SGD people over the life course.

Pathogenicity and Drug Resistance of Human Pathogens - Saif Hameed 2020-01-23

The book comprehensively discusses the mechanisms of pathogenesis and drug resistance; current diagnostics landscape of four key human pathogens; bacterial, fungal, protozoans and viral which are the causes of major infectious diseases. It also assesses the emerging technologies for the detection and quantification of these pathogens. Further, it discusses the novel opportunities to fight against these infectious diseases and to identify pertinent drug targets with novel methodologies. It also reviews the current and future insights into the control, elimination, and eradication of these infectious diseases. Importantly, the book discusses the epidemiological characteristics and various challenges in combating Ebola and Influenza diseases. Finally, the book highlights the growing role of nanotechnology and bioinformatics resources for combating the infectious diseases. In summary, the book provides the mechanistic insight of the pathogenicity, drug-resistance, therapeutic strategies and identification of the novel drug targets of Mycobacterium tuberculosis, Plasmodium, Candida, Hepatitis C and emerging viral infections.

Textbook of Allergy for the Clinician - Pudupakkam K. Vedanthan 2016-04-19

This well-illustrated book synthesizes all aspects of allergy, asthma, and related fields such as aerobiology and immunology. Appropriate for allergy practitioners and medical students seeking the latest information on allergy and asthma, it covers aeroallergens and their source plants all over the world.The book focuses on allergies caused by pollen and environmental pollution as well as skin disorders stemming from latex allergies. It contains the latest methods of diagnosis and treatment of allergy and asthma releveant to applied clinical immunology.

Diatom Nanotechnology - Dusan Losic 2017-10-30

Diatoms are single cell algae composed of silica. They represent one of the most outstanding natural materials with exceptional structural, mechanical, optical, photonic and chemical properties optimized through millions years of evolution. The unique nano and micro silica structures of the material combined with its availability as a low cost mineral from diatomaceous earth are attractive for solving many of today's environmental, energy and health problems. Diatom Nanotechnology provides a comprehensive overview of the material and its uses. The first part of the book looks at the distinctive porous silica structure of diatoms, the mechanism of their formation and their properties. Individual chapters then explore the broad range of their applications in nanotechnology including nanofabrication, optical biosensors, gas sensors, water purifications, photonics, drug delivery, batteries, solar cells, supercapacitors, new adsorbents and composite materials. With contributions from leading international experts, the book represents an important resource for academics, researchers, industry professionals, postgraduate and advanced level undergraduate students providing them with the latest developments on this emerging and dynamic field.

Contemporary Environmental Issues and Challenges in Era of Climate Change - Pooja Singh 2019-11-16

Over the last few decades, unprecedented global population growth has led to increased demand for food and shelter. At the same time, extraction of natural resources beyond the Earth's resilience capacity has had a devastating effect on ecosystems and environmental health. Furthermore, climate change is having a significant impact in a number of areas, including the global hydrological cycle, ecosystem functioning, coastal vulnerability, forest ecology, food security, and agricultural sustainability. According to the Intergovernmental Panel on Climate Change (IPCC), only immediate and sustained action will prevent climate

change causing irreversible and potentially catastrophic damage to our environment. This book presents various scientific views and concepts, research, reviews, and case studies on contemporary environmental issues in changing climate scenarios and highlights different adaptation measures. Increasing awareness of modern-day patterns of climate change, it addresses questions often raised by environmental scientists, researchers, policymakers and general readers.

Aerial Age Weekly - 1922

Immunotherapy – A Novel Facet of Modern Therapeutics - Sujata P. Sawarkar 2021-12-18

This book illustrates the significance and relevance of immunotherapy in modern-day therapeutics. Focusing on the application of immunotherapy in oncology, neurodegenerative and autoimmune diseases, it discusses the drug delivery systems, and pre-clinical and clinical methodologies for immunotherapy-based drugs. It also comprehensively reviews various aspects of immunotherapy, such as regulatory affairs, quality control, safety, and pharmacovigilance. Further, the book discusses the in vitro validation of therapeutic strategies prior to patient application and management of immunotherapy-related side effects and presents case studies demonstrating the design and development (pre-clinical to clinical) of immunotherapy for various diseases. It also describes various design considerations and the scale-up synthesis of immunotherapeutics and screening methods. Lastly, it explores the important aspect of cost-effectiveness and rational immunotherapy strategies.

Animation and Advertising - Malcolm Cook 2019-12-17

Throughout its history, animation has been fundamentally shaped by its application to promotion and marketing, with animation playing a vital role in advertising history. In individual case study chapters this book addresses, among others, the role of promotion and advertising for anime, Disney, MTV, Lotte Reiniger, Pixar and George Pal, and highlights American, Indian, Japanese, and European examples. This collection reviews the history of famous animation studios and artists, and rediscovers overlooked ones. It situates animated advertising within the context of a diverse intermedial and multi-platform media environment, influenced by print, radio and digital practices, and expanding beyond cinema and television screens into the workplace, theme park, trade expo and urban environment. It reveals the part that animation has played in shaping our consumption of particular brands and commodities, and assesses the ways in which animated advertising has both changed and been changed by the technologies and media that supported it, including digital production and distribution in the present day. Challenging the traditional privileging of art or entertainment over commercial animation, Animation and Advertising establishes a new and rich field of research, and raises many new questions concerning particular animation and media histories, and our methods for researching them.

Energy Systems, Drives and Automations - Afzal Sikander 2020-08-31

This book gathers selected research papers presented at the Second International Conference on Energy Systems, Drives and Automations (ESDA 2019), held in Kolkata on 28–29 December 2019. It covers a broad range of topics in the fields of renewable energy, power management, drive systems for electrical machines and automation. Also discussing a variety of related tools and techniques, the book offers a valuable resource for researchers, professionals and students in electrical and mechanical engineering disciplines.

Separation of Functional Molecules in Food by Membrane Technology - Galanakis Charis 2018-12-03

Separation of Functional Molecules in Food by Membrane Technology deals with an issue that is becoming a new research trend in the field of food and bioproducts processing. The book fills in the gap of transfer knowledge between academia and industry by highlighting membrane techniques and applications for the separation of food components in bioresources, discussing separation mechanisms, balancing advantages and disadvantages, and providing relevant applications. Edited by Charis Galanakis, the book is divided in 13 chapters written by experts from the meat science, food technology and engineering industries. Covers the 13 most relevant topics of functional macro and micro molecules separation

using membrane technology in the food industry Brings the most recent advances in the field of membrane processing Presents the sustainability principles of the food industry and the modern bioeconomy frame of our times

Antibiotics and Antimicrobial Resistance Genes in the Environment - Muhammad Zaffar Hashmi 2019-11-22

Antibiotics and Antimicrobial Resistance Genes (AMR) in the Environment summarizes and updates information on antibiotic producing organisms and their resistance and entry routes in soil, air, water and sediment. As antibiotic use continues to rise in healthcare, their fate, bioavailability and biomonitoring, and impacts on environment and public health are becoming increasingly important. The book addresses the impact of antibiotics and AMR to environment and public health and risk assessment. Moreover, it focused on the metagenomics and molecular techniques for the detection of antibiotics and antimicrobial genes. Lastly, it introduces management strategies, such as treatment technologies for managing antibiotics and AMR/ARGs-impacted environment, and bioremediation approaches. Summarizes and updates information on antibiotics and AMR/ARGs production and its fate and transport in the environment Includes phytoremediation and bioremediation technologies for environmental management Provides analysis of risk assessment of antibiotic resistance genes to help understand the environmental and socioeconomic impacts of antibiotics and AMR/ARGs

Nurse as Educator - Susan Bacorn Bastable 2008

Designed to teach nurses about the development, motivational, and sociocultural differences that affect teaching and learning, this text combines theoretical and pragmatic content in a balanced, complete style. --from publisher description.

The Connections Between Ecology and Infectious Disease - Christon J. Hurst 2018-08-30

This book summarizes current advances in our understanding of how infectious disease represents an ecological interaction between a pathogenic microorganism and the host species in which that microbe causes illness. The contributing authors explain that pathogenic microorganisms often also have broader ecological connections, which can include a natural environmental presence; possible transmission by vehicles such as air, water, and food; and interactions with other host species, including vectors for which the microbe either may or may not be pathogenic. This field of science has been dubbed disease ecology, and the chapters that examine it have been grouped into three sections. The first section introduces both the role of biological community interactions and the impact of biodiversity on infectious disease. In turn, the second section considers those diseases directly affecting humans, with a focus on waterborne and foodborne illnesses, while also examining the critical aspect of microbial biofilms. Lastly, the third section presents the ecology of infectious diseases from the perspective of their impact on mammalian livestock and wildlife as well as on humans. Given its breadth of coverage, the volume offers a valuable resource for microbial ecologists and biomedical scientists alike.

A Guide to Transgender Health: State-of-the-art Information for Gender-Affirming People and Their Supporters - Rachel Ann Heath Ph.D. 2019-06-30

Provides the most up-to-date information on transgender science and its applications, for gender-diverse people, their supporters, and the professionals who assist them to lead healthy, happy, and successful lives. • Covers the full spectrum of current knowledge on trans* health and issues • Surveys transgender history and defines transgender terminology • Addresses new developments for young and elder transgender people • Includes copious footnotes and references • Lists further resources available online and on social media

Public Health Genomics - Paul Lacaze 2019-10-17

The use of human genetic data has the potential to significantly improve healthcare, however a range of scientific, ethical and practical implementation barriers remain.

Integrated Pest and Disease Management in Greenhouse Crops - Ramon Albajes 2006-04-11

The International Centre for Advanced Mediterranean Agronomic

Studies (CIHEAM), established in 1962, is an intergovernmental organization of 13 countries: Albania, Algeria, Egypt, France, Greece, Italy, Lebanon, Malta, Morocco, Portugal, Spain, Tunisia and Turkey. Four institutes (Bari, Italy; Chania, Greece; Montpellier, France; and Zaragoza, Spain) provide postgraduate education at the Master of Science level. CIHEAM promotes research networks on Mediterranean agricultural priorities, supports the organization of specialized education in member countries, holds seminars and workshops bringing together technologists and scientists involved in Mediterranean agriculture and regularly produces diverse publications including the series Options Méditerranéennes. Through these activities, CIHEAM promotes North/South dialogue and international co-operation for agricultural development in the Mediterranean region. Over the past decade, the Mediterranean Agronomic Institute of Zaragoza has developed a number of training and research-supporting activities in the field of agroecology and sustainability of agricultural production systems. Some of these activities have been concerned with the rational use of pesticides and more particularly with the implementation of integrated control systems in order to gain in efficacy and decrease both the environmental impact and the negative repercussions for the commercialization of agricultural products.

Vision and Change in the Geosciences - the Future of Undergraduate Geoscience Education - Sharon Mosher 2021-04

Law, Public Policies and Complex Systems - Romain Boulet 2019

This book investigates how various scientific communities - e.g. legal scientists, political scientists, sociologists, mathematicians, and computer scientists - study law and public policies, which are portrayed here as complex systems. Today, research on law and public policies is rapidly developing at the international level, relying heavily on modeling that employs innovative methods for concrete implementation. Among the subject matter discussed, law as a network of evolving and interactive norms is now a prominent sphere of study. Similarly, public policies are now a topic in their own right, as policy can no longer be examined as a linear process; rather, its study should reflect the complexity of the networks of actors, norms and resources involved, as well as the uncertainty or weak predictability of their direct or indirect impacts. The book is divided into three main parts: complexity faced by jurists, complexity in action and public policies, and complexity and networks. The main themes examined concern codification, governance, climate change, normative networks, health, water management, use-related conflicts, legal regime conflicts, and the use of indicators.

Pharmacology of the Eye - M.L. Sears 2012-12-06

Roots of the theory and practice of ocular pharmacology may be traced to the ancient Mesopotamian code of Hammurabi and then to several papyri reflecting the clinical interests of the Egyptians. The evolution of its art and science was irregularly paced until the nineteenth century when Kohler, in 1884, proved the anesthetic effect of cocaine on the cornea, and when Fraser, Laquer, Schmiedeberg, Meyer, and others studied the pharmacology of the autonomic nervous system by way of observations of the pupil. Advances in the past few decades have been nothing short of explosive. How can the student, physician, or basic research scientist stay in touch with these electrifying studies? To help with the answer to this question, the authors set as their goal the development of increased understanding so that the student, research scientist, and ophthalmologist can cope with the latest discoveries. The authors want to narrow what appears to be an ever-increasing gap between basic science and ophthalmology. The basic aspects of pharmacology have been presented in light of the natural physiology. In this regard, while distinctions among endogenous mechanisms, drug effects, and the pathogenesis of disease are to be separately recognized, appreciation must be given to the concept that both the desirable and unwanted manifestations or functions caused by either disease or drugs must very often represent a quantitative change in normal metabolic pathways.

Freshwater Microplastics - Martin Wagner 2017-11-21

This book is open access under a CC BY 4.0 license. This volume focuses on microscopic plastic debris, also referred to as microplastics, which

have been detected in aquatic environments around the globe and have accordingly raised serious concerns. The book explores whether microplastics represent emerging contaminants in freshwater systems, an area that remains underrepresented to date. Given the complexity of the issue, the book covers the current state-of-research on microplastics in rivers and lakes, including analytical aspects, environmental concentrations and sources, modelling approaches, interactions with biota, and ecological implications. To provide a broader perspective, the book also discusses lessons learned from nanomaterials and the implications of plastic debris for regulation, politics, economy, and society. In a research field that is rapidly evolving, it offers a solid overview for environmental chemists, engineers, and toxicologists, as well as water managers and policy-makers.

Modern Topics in the Phototrophic Prokaryotes - Patrick C. Hallenbeck 2017-04-18

This book offers authoritative contributions by world experts actively working on different aspects of phototrophic prokaryotes. Providing up-to-date information in this rapidly advancing field, it covers the range of topics that are currently the focus of research with this group of organisms. As essentially single-celled organisms, phototrophic prokaryotes process many environmental signals and use this information to optimize their metabolism, growth rate, DNA replication and cell division. Phototrophic prokaryotes are collectively of great interest for a number of different fundamental and applied perspectives and have long served as models for understanding such basic fundamental biological processes as photosynthesis and respiration. On an ecological/environmental level they are extremely important, being the most abundant photosynthetic organisms on earth and responsible for the majority of the primary productivity in the oceans. They also hold great promise as biotechnological catalysts, being able to couple solar energy conversion through photosynthesis and carbon fixation to the production of biofuels, commodity chemicals and neutraceuticals. The book is recommended to advanced students and scientists dealing with life sciences, especially in genetics, microbiology and molecular biology.

Freshwater Algae - Edward G. Bellinger 2011-09-20

Freshwater Algae: Identification and Use as Bioindicators provides a comprehensive guide to temperate freshwater algae, with additional information on key species in relation to environmental characteristics and implications for aquatic management. The book uniquely combines practical material on techniques and water quality management with basic algal taxonomy and the role of algae as bioindicators. Freshwater Algae: Identification and Use as Bioindicators is divided into two parts. Part I describes techniques for the sampling, measuring and observation of algae and then looks at the role of algae as bioindicators and the implications for aquatic management. Part II provides the identification of major genera and 250 important species. Well illustrated with numerous original illustrations and photographs, this reference work is essential reading for all practitioners and researchers concerned with assessing and managing the aquatic environment.

Outer Continental Shelf Oil & Gas Leasing Program, 2012-2017 - 2012

Describes the potential environmental impacts of the Proposed Final 2012-2017 Outer Continental Shelf (OCS) Oil and Gas Leasing Program (PFP), which establishes a schedule that is used as a basis for considering where and when oil and gas leasing might be appropriate over a 5-year period.

Neuroglia in Neurodegenerative Diseases - Alexei Verkhratsky 2019-10-03

This book provides a comprehensive overview of the role of neuroglia in neurodegenerative diseases. Neuroglia are the most abundant cells in the nervous system and consist of several distinct cell types, such as astrocytes, oligodendrocytes,and microglia. Accumulating evidence suggests that neuroglia participate in the neurodegenerative process, and as such are essential players in a variety of diseases, including Alzheimer’s, Parkinson’s, and Huntington’s. Intended for researchers and students, the book presents recent advances concerning the biology of neuroglia as well as their interaction with neurons during disease progression. In addition, to highlight the function of neuroglia in

different types of neurodegenerative disease, it also discusses their mechanisms and effects on protecting or damaging neurons.