

Differences Benson Microbiological Applications 11th 12th Edition

"...a number of chapters provide excellent summaries of the modern methods available for studying fungal ecology, along with those more traditional methods that are still extremely valuable...overall it is a hugely valuable compendium of fungal ecology research. It is a must for the library shelf." -Lynne Boddy, Cardiff University, UK, Mycological Research, 2006
*These 44 chapters are an excellent starting point for anyone interested in fungal communities, in the broadest sense of the term. It is a book for dipping into...may be the last comprehensive treatment of fungal communities before the molecular revolution." -Meriel Jones, University of Liverpool, UK, Microbiology Today "...the scope of the work is tremendous... .Excellent chapters providing overviews of methods ... provide a snap shot of the current approaches used to understand fungal communities at several levels of organization. This book should probably be on the shelf of every student of mycology, and many ecologists too. For all students, this book should be a valuable resource and source of inspiration." -Daniel Henk, Imperial College Faculty of Medicine, London, in Inoculum, Vol. 59, No. 3, May 2008
*Thorough taxonomic and subject indices further aid the reader in navigating through multiple authors' treatments of subjects of interest." - Anthony Amend, Department of Botany, University of Hawaii at Manoa in Economic Botany, V. 61
In all subjects in science, new findings and the use of new technologies allow us to develop an ever-greater understanding of our world. Expanded and updated coverage in the fourth edition includes: Adds new sections on Integrating Genomics and Metagenomics into Community Analysis, Recent Advances in Fungal Endophyte Research, Fungi in the Built Environment, and Fungal Signaling and Communication Includes a broader treatment of fungal communities in natural ecosystems with in-depth coverage of fungal adaptations to stress and conservation Expands coverage of the influence of climate change on fungi and the role of fungi in polluted ecosystems Includes contributions from 20 nations to illustrate a true global approach for bridging gaps between ecological concepts and mycology
The Manual of Commercial Methods in Clinical Microbiology 2nd Edition, International Edition reviews in detail the current state of the art in each of the disciplines of clinical microbiology, and reviews the sensitivities, specificities and predictive values, and subsequently the effectiveness, of commercially available methods – both manual and automated. This text allows the user to easily summarize the available methods in any particular field, or for a specific pathogen – for example, what to use for an Influenza test, a Legionella test, or what instrument to use for identification or for an antibiotic susceptibility test. The Manual of Commercial Methods in Clinical Microbiology, 2nd Edition, International Edition presents a wealth of relevant information to clinical pathologists, directors and supervisors of clinical microbiology, infectious disease physicians, point-of-care laboratories, professionals using industrial applications of diagnostic microbiology and other healthcare providers. The content will allow professionals to analyze all commercially available methods to determine which works best in their particular laboratory, hospital, clinic, or setting. Updated to appeal to an international audience, The Manual of Commercial Methods in Clinical Microbiology, 2nd Edition, International Edition is an invaluable reference to those in the health science and medical fields. This book reviews the consequences of improper disposal of greywater into the environment and the most appropriate treatment technologies for developing countries, focusing on the potential to reuse greywater as a production medium for biomass and bio-products. It also describes the quantities and qualitative characteristics, as well as the common practice of discharging greywater in developing countries, and highlights the associated health risks. Further, it compares the management of greywater in developed and developing countries and explores the advantages and disadvantages of various treatment technologies, discussing the reuse of greywater for irrigation purposes in arid and sub-arid countries, especially in the Middle East. The book shows the benefits of greywater and introduces low-cost technologies based on the available local facilities can be used to discharge, reuse, and recycle it.

Volume 2. Soil & Agroecosystems

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Cornea E-Book

Processes in Microbial Ecology

Manual of Commercial Methods in Clinical Microbiology

A Laboratory Manual in General Microbiology

Soil harbours a wide range of microorganisms with biotic potentials which can be explored for social benefits. The book Frontiers in Soil and Environmental Microbiology comprises an overview of the complex inter-relationship between beneficial soil microbes and crop plants, and highlights the potential for utilisation to enhance crop productivity, bioremediation and soil health. The book focusses on important areas of research such as biocide production, pesticide degradation and detoxification, microbial decay processes, remediation of soils contaminated with toxic metals, industrial wastes, and hydrocarbon pollutants. Features Presents the state of the art of microbial research in environmental and soil microbiology Discusses an integrated and systematic compilation of microbes in the soil environment and its role in agriculture and plant growth and productivity Elucidates microbial application in environmental remediation Explores advanced genomics topics for uncultivable microbes of soil

Includes entries for maps and atlases.

A systems reference that presents both up-to-date research and the far-reaching applications of marine biotechnology Featuring contributions from 100 international experts in the field, this five-volume encyclopedia provides comprehensive coverage of topics in marine biotechnology. It starts with the history of the field and delivers a complete overview of marine biotechnology. It then offers information on marine organisms, bioprocess techniques, marine natural products, bioenergy, and algal biotechnology. The encyclopedia also covers marine food and biotechnology applications in areas such as pharmaceuticals, cosmetics, and nutraceuticals. Each topic in Encyclopedia of Marine Biotechnology is followed by 10-30 subtopics. The reference looks at algae cosmetics, drugs, and fertilizers; biodiversity; chitins and chitosans; aerolysin-in-1, toluquinol, astaxanthin, and fucoxanthin; and algal and fish genomics. It examines neuro-protective compounds from marine microorganisms; potential uses and medical management of neurotoxic phycotoxins; and the role of metagenomics in exploring marine microbiomes. Other sections fully explore marine microbiology, pharmaceutical development, seafood science, and the new biotechnology tools that are being used in the field today. One of the first encyclopedic books to cater to experts in marine biotechnology Brings together a diverse range of research on marine biotechnology to bridge the gap between scientific research and the industrial arena Offers clear explanations accompanied by color illustrations of the techniques and applications discussed Contains studies of the applications of marine biotechnology in the field of biomedical sciences Edited by an experienced author with contributions from internationally recognized experts from around the globe Encyclopedia of Marine Biotechnology is a must-have resource for researchers, scientists, and marine biologists in the industry, as well as for students at the postgraduate and graduate level. It will also benefit companies focusing on marine biotechnology, pharmaceutical and biotechnology, and bioenergy.

Microbial Metagenomics, Metatranscriptomics, and Metaproteomics

Omics and Systems Approaches to Study the Biology and Applications of Lactic Acid Bacteria

Frontiers in Soil and Environmental Microbiology

Environmental Chemistry

Agricultural and Environmental Applications

Microbial Diversity in Ecosystem Sustainability and Biotechnological Applications

The classic resource for undergraduate microbiology laboratory courses just keeps getting better. The self-contained, clearly illustrated exercises and four-color format make Microbiological Applications: A Laboratory Manual in General Microbiology the ideal lab manual. Appropriate for either a majors or non-majors lab course, this lab manual assumes no prior organic chemistry course has been taken.

Crop disease management strategies revolve around the principles of exclusion, eradication and immunization. Cultural practices are aimed at preventing or reducing the accumulation of pathogen population (inoculum). Development of cultivars with genetic resistance or biotechnological techniques is the most effective and acceptable strategy, as it is environment-friendly and does not need any additional cost to the grower. Assessment of different grades of resistance of cultivars or genotypes to soilborne microbial pathogens has been possible by quantifying pathogen populations or their DNA contents in the test plants by applying biological and molecular methods. This second volume of a two-volume set focuses on the soilborne microbial plant pathogens and the diseases caused by them. The book provides information on ecology and epidemiology of soilborne microbial plant pathogens and various strategies applicable for effective management of diseases. Chapters cover exclusion and prevention strategies; improvement of host plant resistance; biological management; application of chemicals; and integration of these disease management strategies. Features Discusses various aspects of soilborne microbial plant pathogens to develop effective methods of managing diseases. Presents information on epidemiology and ecology of soilborne microbial plant pathogens. Facilitates the application of management strategies alone or in combination with others for effective suppression of disease development. Features information on application of biotic and abiotic biological control agents (BCAs) to suppress pathogen development either by directly acting on the pathogen(s) or indirectly by enhancing host resistance to the pathogens. Employs biotic and abiotic biocontrol agents either to replace or reduce the use of chemicals is an achievable approach for managing the soilborne microbial pathogens.

The economic importance of lactic acid bacteria (LAB) for the food industry and their implication in health and disease has rendered them attractive models for research in many laboratories around the world. Over the past three decades, molecular and genetic analysis of LAB species provided important insights into the biology and application of starter and probiotic LAB and in the virulence of LAB pathogens. The knowledge obtained prepared LAB researchers for the forthcoming opportunities provided by the advent of microbial genomics. Today, developments in next-generation sequencing technologies have rocketed LAB genome research and the sequences of several hundreds of strains are available. This flood of information has revolutionized our view of LAB. First of all, a detailed picture has emerged about the evolutionary mechanisms allowing LAB to inhabit the very diverse ecological niches in which they can be found. Adaptation of LAB to nutrient-rich environments has led to degenerative evolution processes that resulted in shortening of chromosomes and simplified metabolic potential. Gene acquisition through horizontal transfer, on the other hand, is also important in shaping LAB gene pools. Horizontally acquired genes have been shown to be essential in technological properties of starters and in probiosis or virulence of commensals. Progress in bioinformatics tools has allowed rapid annotation of LAB genomes and the direct assignment of genetic traits among species/strains through comparative genomics. In this way, the molecular basis of many important traits of LAB has been elucidated, including aspects of sugar fermentation, flavor and odor formation, production of textural substances, stress responses, colonization of and survival in the host, cell-cell interactions and pathogenicity. Functional genomics and proteomics have been employed in a number of instances to support *in silico* predictions. Given that the costs of advanced next-generation methodologies like RNA-seq are dropping fast, bottlenecks in the *in silico* characterization of LAB genomes will be rapidly overcome. Another crucial advancement in LAB research is the application of systems biology approaches, by which the properties and interactions of components or parts of a biological system are investigated to accurately understand or predict LAB behavior. Practically, systems biology involves the mathematical modeling of complex biological systems that can be refined iteratively with wet-lab experiments. High-throughput experimentation generating huge amounts of data on the properties and quantities of many components such as transcripts, enzymes and metabolites has resulted in several systems models of LAB. Novel techniques allow modeling of additional levels of complexity including the function of small RNAs, structural features of RNA molecules and post-translational modifications. In addition, researchers have started to apply systems approaches in the framework of LAB multispecies ecosystems in which each species or strain is considered as a part of the system. Metatranscriptomics, metaproteomics and metametabolomics offer the means to combine cellular behavior with population dynamics in microbial consortia.

Environmental Microbiology and Microbial Ecology

National Union Catalog

Volume 1: Microbial Diversity and Application in Agroindustry

Cumulated Index Medicus

Soilborne Microbial Plant Pathogens and Disease Management, Volume Two

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An authoritative overview of the ecological activities of microbes in the biosphere Environmental Microbiology and Microbial Ecology presents a broad overview of microbial activity and microbes' interactions with their environments and communities. Adopting an integrative approach, this text covers both conventional ecological issues as well as cross-disciplinary investigations that combine facets of microbiology, ecology, environmental science and engineering, molecular biology, and biochemistry. Focusing primarily on single-cell forms of prokaryotes and cellular forms of algae, fungi, and protozoans this book enables readers to gain insight into the fundamental methodologies for the characterization of microorganisms in the biosphere. The authors draw from decades of experience to examine the environmental processes mediated by microorganisms and explore the interactions between microorganisms and higher life forms. Highly relevant to modern readers, this book examines topics including the ecology of microorganisms in engineered environments, microbial phylogeny and interactions, microbial processes in relation to environmental pollution, and many more. Now in its second edition, this book features updated references and major revisions to chapters on assessing microbial communities, community relationships, and their global impact. New content such as effective public communication of research findings and advice on scientific article reviews equips readers with practical real-world skills. Explores the activities of microorganisms in specific environments with case studies and actual research data Highlights how prominent microbial ecologists address significant microbial ecology issues Offers guidance on scientific communication, including scientific presentations and grant preparation Includes plentiful illustrations and examples of microbial interactions, community structures, and human-bacterial connections Provides chapter summaries, review questions, selected reading lists, a complete glossary, and critical thinking exercises Environmental Microbiology and Microbial Ecology is an ideal textbook for graduate and advanced undergraduate courses in biology, microbiology, ecology, and environmental science, while also serving as a current and informative reference for microbiologists, cell and molecular biologists, ecologists, and environmental professionals.

The classic resource for undergraduate microbiology laboratory courses just keeps getting better. The self-contained, clearly illustrated exercises and four-color format make Benson's Microbiological Applications: A Laboratory Manual in General Microbiology the ideal lab manual. Appropriate for either a majors or non-majors lab course, Benson assumes no prior organic chemistry course has been taken.

This book presents chemical analyses of the most pressing waste, pollution, and resource problems for the undergraduate or graduate student. Its distinctive holistic approach provides a solid introduction to theory as well as a practical laboratory manual detailing beginning and advanced experimental applications. It presents laboratory procedures at microscale conditions, for minimum waste and maximum economy.

Withtháyan Kasétsárt

Nanobiotechnology: Emerging Trends in Microbial Synthesis of Nanomaterials and Their Applications

Microscale Laboratory Experiments

The Fungal Community

Encyclopedia of Microbiology

This volume comprehensively reviews recent advances in our understanding of the diversity of microbes in various types of terrestrial ecosystems, such as caves, deserts and cultivated fields. It is written by leading experts, and highlights the culturable microbes identified using conventional approaches, as well as non-culturable ones unveiled with metagenomic and microbionic approaches. It discusses the role of microbes in ecosystem sustainability and their potential biotechnological applications. The book further discusses the diversity and utility of ectomycorrhizal and entomopathogenic fungi and yeasts that dwell on grapes, it examines the biotechnological applications of specific microbes such as lichens, xylan- and cellulose-saccharifying bacteria and archaea, chitinolytic bacteria, methanogenic archaea and pathogenic yeasts.

The third edition of Introduction to Environmental Forensics is a state-of-the-art reference for the practicing environmental forensics consultant, regulator, student, academic, and scientist, with topics including compound-specific isotope analysis (CSIA), advanced multivariate statistical techniques, surrogate approaches for contaminant source identification and age dating, dendroecology, hydrofracking, releases from underground storage tanks and piping, and contaminant-transport modeling for forensic applications. Recognized international forensic scientists were selected to author chapters in their specific areas of expertise and case studies are included to illustrate the application of these methods in actual environmental forensic investigations. This edition provides updates on advances in various techniques and introduces several new topics. Provides a comprehensive review of all aspects of environmental forensics Coverage ranges from emerging statistical methods to state-of-the-art analytical techniques, such as gas chromatography-combustion-isotope ratio mass spectrometry and polytopic vector analysis Numerous examples and case studies are provided to illustrate the application of these forensic techniques in environmental investigations

Encyclopedia of Microbiology, Fourth Edition gathers both basic and applied dimensions in this dynamic field that includes virtually all environments on Earth. This range attracts a growing number of cross-disciplinary studies, which the encyclopedia makes available to readers from diverse educational backgrounds. The new edition builds on the solid foundation established in earlier versions, adding new material that reflects recent advances in the field. New focus areas include 'Animal and Plant Microbiomes' and 'Global Impact of Microbes'. The thematic organization of the work allows users to focus on specific areas, e.g., for didactical purposes, while also browsing for topics in different areas. Offers an up-to-date and authoritative resource that covers the entire field of microbiology, from basic principles, to applied technologies Provides an overview that is useful to academic teachers and scientists from different backgrounds Includes chapters that are enriched with figures and graphs, and that can be easily consulted in isolation to find fundamental definitions and concepts

Laboratory Manual in General Microbiology

Cornea, E-Book

Role of Bifidobacteria in Human and Animal Health and Biotechnological Applications

Microbes and Microbial Technology

A Sourcebook for the Biological Sciences

Recent Developments in Applied Microbiology and Biochemistry

Omics Technologies and Bio-Engineering: Towards Improving Quality of Life, Volume 2 is a unique reference that brings together multiple perspectives on omics research, providing in-depth analysis and insights from an international team of authors. The book delivers pivotal information that will inform and improve medical and biological research by helping readers gain more direct access to analytic data, an increased understanding on data evaluation, and a comprehensive picture on how to use omics data in molecular biology, biotechnology and human health care. Covers various aspects of biotechnology and bio-engineering using omics technologies Focuses on the latest developments in the field, including biofuel technologies Provides key insights into omics approaches in personalized and precision medicine Provides a complete picture on how one can utilize omics data in molecular biology, biotechnology and human health care

This volume is a ready reference on sustainable agriculture and reinforce the understanding for its utilization to develop environmentally sustainable and profitable food production systems. It describes ecological sustainability of farming systems, present innovations for improving efficiency in the use of resources for sustainable agriculture and propose technological options and new areas of research in this very important area of agriculture.

This only reference available that synthesizes this vast subspecialty into a single trustworthy resource. Cornea, 5th Edition, provides state-of-the-art coverage of the expanding range of contemporary corneal surgery, new diagnostic and imaging technologies, and medical management of corneal and external disease as well as ocular surface disease. Drs. Mark J. Mannis, Edward J. Holland, and a team of more than 200 global experts keep you up to date with both common and more obscure diseases and disorders and the best route to effective treatment and management, making this two-volume text a must-have resource for residents and fellows, general ophthalmologists, and seasoned cornea specialists. Features more than 2,300 exceptionally clear illustrations, diagnostic images, and step-by-step surgical photographs that offer superb visual guidance. Contains 14 new chapters, including Nanotch DSAEK, Aqueous Deficiency Dry Eye Syndrome, Evaluation of Recurrent Corneal Erosions, Evaluation of the Corneal Ulcer, Contemporary Approaches to the Biosynthetic Cornea, and Topography Guided Photorefractive Keratectomy, and more. Includes more than 80 video clips of current corneal surgery techniques, including new clips of the application of cryopreserved amniotic membrane in the treatment of acute Stevens , penetrating keratoplasty, DM rupture management in STALK and in the keratoconus patient, and KAMRA corneal inlay implantation. Covers the latest developments in ocular surface transplantation, including new chapters on Conjunctival Limbal Autograft (CLAU); Living Related Conjunctival Limbal Allograft (Lr-CLAL); Keratolimbal Allograft; Cultivated Limbal Epithelial Transplantation; Simple Limbal Epithelial Transplantation; and Outcomes of Ocular Surface Transplantation. Provides key point overviews in each chapter that offer easier access to crucial information.

Viscosity Solutions and Applications

Energy Research Abstracts

Volume 7

Alternative Practices, Treatment and Potential for Reuse and Recycling

Microbiological Applications

Management of Crop Diseases

This new volume of Methods in Enzymology continues the legacy of this premier serial with quality chapters authored by leaders in the field. This volume covers microbial metagenomics, metatranscriptomics, and metaproteomics, and includes chapters on such topics as in-solution FISH for single cell genome preparation, preparation of BAC libraries from marine microbial community DNA, and preparation of microbial community cDNA for metatranscriptomic analysis in marine plankton. Metaproteomics Contains chapters on such topics as in-solution fluorescence in situ hybridization (FISH) for single cell genome preparation, preparation of BAC libraries from marine microbial community DNA, and preparation of microbial community cDNA for metatranscriptomic analysis in marine plankton

Most ecosystem services and goods human populations use and consume are provided by microbial populations and communities. Indeed, numerous provisioning services (e.g. food and enzymes for industrial processes), regulating services (e.g. water quality, contamination alleviation and biological processes such as plant-microbial symbioses), and supporting services (e.g. nutrient cycling, agricultural production and biodiversity) are mediated by microbes. The fast development of metagenomics and other meta-omics technologies is expanding our understanding translates into the emergence of new applications in an unlimited variety of areas across all microbial ecosystem services and goods. The varied topics addressed in this Research Topic include the development of innovative industrial processes, the discovery of novel natural products, the advancement of new agricultural methods, the amelioration of negative effects of productive or natural microbiological processes, as well as food security and human health, and archeological conservation. The articles compiled follow an updated, high-quality overview of current microbial ecosystem services, and expand the horizon for finding and developing new and more efficient biotechnological applications.

Highly praised in its first three editions, Cornea has become a market-leading cornerstone text and the immediate go-to resource for anyone working in this hugely popular and evolving sub-specialty. Offered over two volumes and featuring the knowledge of over 200 experts worldwide, it presents state-of-the-art coverage of the expanding range of contemporary corneal surgery, new diagnostic technology, and medical management of corneal and external disease as well as ocular surface disease. This updated edition includes 20 brand-new chapters, while a new chapter on keratoconus is added. Includes more than 2,300 clear illustrations – 670 of which are new to this edition. Presents a detailed expert overview of the latest developments in the management of ocular surface disease. Key point overviews in each chapter offer easier access to crucial information.

Laboratory Manual in General Microbiology, Short Version

Volume 2 Lectures given at the 2nd Session of the Centro Internazionale Matematico Estivo (C.I.M.E.) held in Montecatini Terme, Italy, June, 12 - 20, 1995

Applied and Environmental Microbiology

Benson's Microbiological Applications

Its Organization and Role in the Ecosystem, Fourth Edition

Current Developments in Biotechnology and Bioengineering: Production, Isolation and Purification of Industrial Products provides extensive coverage of new developments, state-of-the-art technologies, and potential future trends, focusing on industrial biotechnology and bioengineering practices for the production of industrial products, such as enzymes, organic acids, biopolymers, and biosurfactants, and the processes for isolating and purifying them from a production medium. During the last few years, the tools of molecular biology and genetic and metabolic engineering have rendered tremendous improvements in the production of industrial products by fermentation. Structured by industrial product classifications, this book provides an overview of the current practice, status, and future potential for the production of these agents, along with reviews of the industrial scenario relating to their production. Provides information on industrial bioprocesses for the production of microbial products by fermentation Includes separation and purification processes of fermentation products Presents economic and feasibility assessments of the various processes and their scaling up Links biotechnology and bioengineering for industrial process development This book series focuses on current progress in the broad field of medical microbiology, and covers both basic and applied topics related to the study of microbes, their interactions with human and animals, and emerging issues relevant for public health. Original research and review articles present and discuss multidisciplinary findings and developments on various aspects of microbiology, infectious diseases, and their diagnosis, treatment and prevention.

The volume comprises five extended surveys on the recent theory of viscosity solutions of fully nonlinear partial differential equations, and some of its most relevant applications to optimal control theory for deterministic and stochastic systems, front propagation, geometric motions and mathematical finance. The volume forms a state-of-the-art reference on the subject of viscosity solutions, and the authors are among the most prominent specialists. Potential readers are researchers in nonlinear PDE's, systems theory, stochastic processes.

A Comparison of Chlorhexidine Gluconate Irrigations as Adjuncts to Periodontal Maintenance Therapy

Fundamentals of, and Applications Based on, Quorum Sensing and Quorum Sensing Interference

Microbiological Applications, Complete Version

Books in Print

Omics Technologies and Bio-engineering

Encyclopedia of Marine Biotechnology

Microbial ecology is the study of interactions among microbes in natural environments and their roles in biogeochemical cycles, food web dynamics, and the evolution of life. This book presents the basic principles of microbial ecology using examples from aquatic (freshwater and marine) and terrestrial ecosystems.

This book focuses on successful application of microbial biotechnology in areas such as medicine, agriculture, environment and human health.

Background Bacteria use quorum sensing (QS) circuits to coordinate various activities (among which biofilm formation and the expression of virulence factors) based on the presence of signaling molecules. Different families of signal molecules have been identified in Gram positive and Gram negative bacteria (e.g. autoinducer peptides and acyl homoserine lactones). Similarly, different

quorum sensing antagonists interfering with these system have been found in nature, promoting a new and promising field of research, quorum sensing interference. One of the most intensively studied applications of quorum sensing interference is its use as an alternative or synergically with antibiotics to fight (antibiotic-resistant) bacterial pathogens. Many studies have been published claiming quorum sensing inhibitory activity of natural and synthetic compounds. However, after decades of research, several questions regarding the suitability of this approach to fight bacterial pathogens remain unanswered, including the risk that pathogens will develop resistance against quorum quenching. Meanwhile, the interest in quorum sensing has increased considerably, and this has broadened the fields where it can find biotechnological, environmental and industrial applications, such as anti biofouling, steering fermentations, bioremediation and wastewater treatment. Goal and scope The goal of this Research Topic is to broaden the knowledge of the phenotypes regulated by quorum sensing and the advances in quorum sensing interference. Deciphering microorganism language and the different phenotypes regulated by microbial signalling systems is a frontier for the development of new tools for the management of microorganisms to fulfil human needs with a broad application in different areas such as medicine, environmental sciences and industry.

Volume 2: Towards Improving Quality of Life

Current Developments in Biotechnology and Bioengineering

Innovations in Sustainable Agriculture

Advances in Agricultural and Industrial Microbiology

Introduction to Environmental Forensics

Advances in Microbiology, Infectious Diseases and Public Health

Recent Developments in Applied Microbiology and Biochemistry, Vol. 2, provides a comprehensive treatment and understanding on application oriented microbial concepts, giving readers insights into recent developments in microbial biotechnology and medical, agricultural and environmental microbiology. Discusses microbial proteome analyses and their importance in medical microbiology Explores emerging trends in the prevention of current global health problems, such as cancer, obesity and immunity Shows recent approaches in the production of novel enzymes from environmental samples by enrichment culture and metagenomics approaches Guides readers through the status and recent developments in analytical methods for the detection of foodborne microorganisms

Using Genomics, Metagenomics and Other 'Omics' to Assess Valuable Microbial Ecosystem Services and Novel Biotechnological Applications

Production, Isolation and Purification of Industrial Products

Management of Greywater in Developing Countries