

Analytik Jena Toc

El tratamiento de lixivados de vertedero es muy complicado debido a la variabilidad de su composición, toxicidad y facilidad de filtración al subsuelo e incluso al agua superficial. En la actualidad, aunque los vertederos están equipados para eliminar o minimizar los efectos adversos de los residuos en el medio ambiente que los rodea, la generación de lixivados de vertedero es una consecuencia inevitable. Además, se ha estudiado la eficiencia de diferentes tecnologías de tratamiento y su combinación para eliminar los contaminantes de los concentrados generados durante el tratamiento de un lixiviado de vertedero por ósmosis inversa. Estas técnicas incluyen electrocoagulación, oxidación Fenton y precipitación de cal. The treatment of landfill leachates is very difficult due to the variability of its composition, toxicity and ease of percolating into subsurface and even superficial water. At present, although landfills are equipped to eliminate or minimize the adverse effects of waste on the environment around them, the generation of landfill leachates is an inevitable consequence. The efficiency of different treatment technologies and their combination to remove the contaminants from the concentrates generated during the treatment of a landfill leachate by reverse osmosis has been studied. These techniques includes electrocoagulation, Fenton oxidation and lime precipitation. The role of biochar in improving soil fertility is increasingly being recognized and is leading to recommendations of biochar amendment of degraded soils. In addition, biochars offer a sustainable tool for managing organic wastes and to produce added-value products. The benefits of biochar use in agriculture and forestry can span enhanced plant productivity, an increase in soil C stocks, and a reduction of nutrient losses from soil and non-CO2 greenhouse gas emissions. Nevertheless, biochar composition and properties and, therefore, its performance as a soil amendment are highly dependent on the feedstock and pyrolysis conditions. In addition, due to its characteristics, such as high porosity, water retention, and adsorption capacity, there are other applications for biochar that still need to be properly tested. Thus, the 16 original articles contained in this book, which were selected and evaluated for this Special Issue, provide a comprehensive overview of the biological, chemicophysical, biochemical, and environmental aspects of the application of biochar as soil amendment. Specifically, they address the applicability of biochar for nursery growth, its effects on the productivity of various food crops under contrasting conditions, biochar capacity for pesticide retention, assessment of greenhouse gas emissions, and soil carbon dynamics. I would like to thank the contributors, reviewers, and the support of the Agronomy editorial staff, whose professionalism and dedication have made this issue possible.

This book collects the peer-reviewed contributions accepted for the publication in the Special Issue “Advances in In Situ Biological and Chemical Groundwater Treatment” of the MDPI journal Water. As such, the contributions refer to a variety of widespread pollutants (chlorinated ethenes, chlorinated phenols, chromium, copper, nickel, and arsenic phenols) and new remediation approaches (bioremediation, bioelectrochemical systems, and sorption), covering lab and field studies.

Interest in biochar among soil and environment researchers has increased dramatically over the past decade. Biochar initially attracted attention for its potential to improve soil fertility and to uncouple the carbon cycle, by storing carbon from the atmosphere in a form that can remain stable for hundreds to thousands of years. Later it was found that biochar had applications in environmental and water science, mining, microbial ecology and other fields. Beneficial effects of biochar and its environmental applications cannot be fully realised unless the chemical, physical, structural and surface properties of biochar are known. Currently many of the analytical procedures used for biochar analysis are not well defined, which makes it difficult to choose the right biochar for an intended use and to compare the existing data for biochars. Also, in some instances the use of inappropriate procedures has led to erroneous or inaccurate values for biochars in the scientific literature. Biochar: A Guide to Analytical Methods fills this gap and provides procedures and guidelines for routine and advanced characterisation of biochars. Written by experts, each chapter provides background to a technique or procedure, a stepwise guide to analyses, and includes data for biochars made from a range of feedstocks common to all presented methods. Discussion about the unique features, advantages and disadvantages of a particular technique is an explicit focus of this handbook for biochar analyses. Biochar is primarily intended for researchers, postgraduate students and practitioners who require knowledge of biochar properties. It will also serve as an important resource for researchers, industry and regulatory agencies dealing with biochar.

Advances in In Situ Biological and Chemical Groundwater Treatment

Linkages Between Hydrology and Biogeochemistry on Amazonian Pastures and Forested Headwater Catchments

Global Prospects

Theory and Applications

American Laboratory

Forever Chemicals

This collection of proceedings from one of the most popular TMS symposia explores the current progress in the characterization of materials. Addressing technologies, applications, and innovative research, these papers cover definations of ferrous and nonferrous metals and alloys, minerals, advanced and soft materials, and inorganic materials. Extraction and environmental applications, as well as surface, joint, and processing of metals. This is a valuable reference for scientists and engineers working with materials in the minerals, metals, and materials industry.

Evaluating traditional and recent analytical methods according to speed, sensitivity, and cost-efficiency, this reference supports specialists in the selection of effective analytical techniques and equipment for the study of soils, soil contaminants, and environmental samples. Updated and revised, this Third Edition illustrates the advantages, limitations, range, and challenges of the major analytical approaches utilized in modern research laboratories. It includes new chapters and expanded discussions of the measurement of organic pollutants in the environment and gas fluxes between the land surface and atmosphere, and an extensive range of environmental materials.

Soil Management and Climate Change: Effects on Organic Carbon, Nitrogen Dynamics, and Greenhouse Gas Emissions provides a state of the art overview of recent findings and future research challenges regarding physical, chemical and biological processes controlling soil carbon, nitrogen dynamic and greenhouse gas emissions from soils. This book is for students and academics in soil science and environmental science, land managers, public administrators and legislators, and will increase understanding of organic matter preservation in soil and mitigation of greenhouse gas emissions. Given the central role soil plays on the global carbon (C) and nitrogen (N) cycles and its impact on greenhouse gas emissions, there is an urgent need to increase our common understanding about sources, mechanisms and processes that regulate organic matter mineralization and stabilization, and to identify those management practices and processes which mitigate greenhouse gas emissions, helping increase organic matter stabilization with suitable supplies of available N. Provides the latest findings about soil organic matter stabilization and greenhouse gas emissions Covers the effect of practices and management on soil organic matter stabilization Includes information for readers to select the most suitable management practices to increase soil organic matter stabilization

The book deals with the latest research on membrane distillation. New membrane and module designs, low-temperature applications, integration with other membrane units and pilot scale investigations are presented and discussed.

Soil Management and Climate Change

Advances in Energy, Environment and Materials Science

Role of Microbes in Climate Smart Agriculture

Functions of Natural Organic Matter in Changing Environment

Environmental, Economic, and Social Equity Concerns with PFAS in the Environment

This collection focuses on the characterization of minerals, metals, and materials as well as the application of characterization results on the processing of these materials. Papers cover topics such as clays, ceramics, composites, ferrous metals, non-ferrous metals, minerals, electronic materials, magnetic materials, environmental materials, advanced materials, and soft materials. In addition, papers covering materials extraction, materials processing, corrosion, welding, solidification, and method development are included. This book provides a current snapshot of characterization in materials science and its role in validating, informing, and driving current theories in the field of materials science. This volume will serve the dual purpose of furnishing a broad introduction of the field to novices while simultaneously serving to keep subject matter experts up-to-date.

The content selected in **Herbicides, Theory and Applications** is intended to provide researchers, producers and consumers of herbicides an overview of the latest scientific achievements. Although we are dealing with many diverse and different topics, we have tried to compile this "raw material" into three major sections in search of clarity and order - Weed Control and Crop Management, Analytical Techniques of Herbicide Detection and Herbicide Toxicity and Further Applications. The editors hope that this book will continue to meet the expectations and needs of all interested in the methodology of use of herbicides, weed control as well as problems related to its use, abuse and misuse.

Biomass is the only renewable carbon source that can be converted into high value-added carbon products. This book presents a collection of studies on the conversion of catalytic biomass to renewable biofuels and biomaterials by chemical conversion, co-combustion technology, and biological conversion technology. The fundamentals and mechanisms of catalytic materials design, process optimization, product development, and by-product utilization are outlined. All articles were contributed by experts in catalysis and bioenergy fields to provide readers with a broad range of perspectives on cutting-edge applications. This book is an ideal reference guide for academic researchers and engineering technicians in the fields of catalytic material synthesis, biomass energy conversion, enzyme catalysis, pyrolysis, combustion, vaporization, and fermentation. It can also be used as a comprehensive reference source for university students in renewable energy science and engineering, agricultural engineering, thermal engineering, chemical engineering, material science, and environmental engineering. This book contains 12 articles: (1) “Catalytic Biomass to Renewable Biofuels and Biomaterials”; (2) “Experimental Design to Improve Cell Growth and Ethanol Production in Syngas Fermentation by Clostridium carboxidivorans”; (3) “Glycerol Acetylation Mediated by Thermally Hydrolysed Biosolids-Based Material”; (4) “Influence of Base-Catalyzed Organosolv Fractionation of Larch Wood Sawdust on Fraction Yields and Lignin Properties”; (5) “Ca-based Catalysts for the Production of High-Quality Bio-Oils from the Catalytic Co-Pyrolysis of Grape Seeds and Waste Tyres”; (6) “Synthesis of Diesel and Jet Fuel Range Cycloalkanes with Cyclopentanone and Furfural”; (7) “Gel-Type and Macroporous Cross-Linked Copolymers Functionalized with Acid Groups for the Hydrolysis of Wheat Straw Pretreated with an Ionic Liquid”; (8) “Role of Humic Acid Chemical Structure Derived from Different Biomass Feedstocks on Fe(III) Bioreduction Activity: Implication for Sustainable Use of Bioresources”; (9) “Selective Production of Terephthalonitrile and Benzonitrile via Pyrolysis of Polyethylene Terephthalate (PET) with Ammonia over Ca(OH)2/Al2O3 Catalysts”; (10) “Experimental Studies on Co-Combustion of Sludge and Wheat Straw”; (11) “Carbonate-Catalyzed Room-Temperature Selective Reduction of Biomass-Derived 5-Hydroxymethylfurfural into 2,5-Bis(hydroxymethyl)furan”; (12) “Clostridium sp. as Bio-Catalyst for Fuels and Chemicals Production in a Biorefinery Context”.

Functions of Natural Organic Matter in Changing Environment presents contributions from the 16th Meeting of the International Humic Substances Society (IHSS 16) held in Hangzhou, China on September 9-14, 2012. It provides a comprehensive and updated research advance in the field of characterization, function, application of humic substances (HS) and natural organic matter (NOM) in environment, agriculture, and industry. A broad range of topics are covered: i) formation, structure and characteristics of HS and NOM; ii) HS/NOM and carbon sequestration; iii) HS/NOM and biogeochemical cycling of nutrients; iv) HS/NOM and the environmental processes of toxic elements and anthropogenic organics; v) HS/NOM, naturally occurring and engineered nanoparticles; vi) HS/NOM, biodiversity and ecosystem health; vii) HS/NOM in water and water treatment; viii) characterization and function of biochar in the environment; and ix) industrial products and application of HS. The book will be an invaluable reference for chemists, biologists, environmental scientists, ecologists, soil scientists, water scientists, agronomists, global change researchers and policy makers. Jianming Xu is Professor and Director at the Institute of Soil and Water Resources and Environmental Science, Zhejiang University, Hangzhou, China. Jianjun Wu is Professor at the Institute of Soil and Water Resources and Environmental Science, Zhejiang University, Hangzhou, China.

Modern Instrumental Techniques

Geomechanical and Petrophysical Properties of Mudrocks

Effects on Organic Carbon, Nitrogen Dynamics, and Greenhouse Gas Emissions

Aquananotechnology

Salt Tolerant Rhizobacteria: For Better Productivity And Remediation Of Saline Soils

Advances in Chemical, Material and Metallurgical Engineering

Several species of Dinophysis produce one or two groups of lipophilic toxins: okadaic acid (OA) and its derivatives; or the dinophysistoxins (DTXs) (also known as diarrhetic shellfish poisons or DSP toxins) and pectenotoxins (PTXs). DSP toxins are potent inhibitors of protein phosphatases, causing gastrointestinal intoxication in consumers of contaminated seafood. Forty years after the identification of Dinophysis as the causative agent of DSP in Japan, contamination of filter feeding shellfish exposed to Dinophysis blooms is recognized as a problem worldwide. DSP events affect public health and cause considerable losses to the shellfish industry. Costly monitoring programs are implemented in regions with relevant shellfish production to prevent these socioeconomic impacts. Harvest closures are enforced whenever toxin levels exceed regulatory limits (RLs). Dinophysis species are kleptoplastidic dinoflagellates; they feed on ciliates (Mesodinium genus) that have previously acquired plastids from cryptophycean (genera Teleaulax, Plagioselmis, and Geminigera) nanoflagellates. The interactions of Dinophysis with different prey regulate their growth and toxin production. When Dinophysis cells are ingested by shellfish, their toxins are partially biotransformed and bioaccumulated, rendering the shellfish unsuitable for human consumption. DSP toxins may also affect shellfish metabolism. This book covers diverse aspects of the abovementioned topics—from the laboratory culture of Dinophysis and the kinetics of uptake, transformation, and depuration of DSP toxins in shellfish to Dinophysis population dynamics, the monitoring and regulation of DSP toxins, and their impact on the shellfish industry in some of the aquaculture regions that are traditionally most affected, namely, northeastern Japan, western Europe, southern Chile, and New Zealand.

Methane Emissions from Unique Wetlands in China: Case Studies, Meta Analyses and Modelling is a landmark volume in the development of studies about methane emission from wetlands. Although there are books about methane emissions from rice paddies, natural wetlands and reservoirs, this book is the first one that provides information about methane emission from wetlands in China. Moreover, the book picks up very unique wetlands, alpine wetlands on the eastern edge of the Qinghai-Tibetan Plateau, and Three Gorges Reservoir (the world’s largest hydroelectric reservoir) as cases to study methane emissions. It reviews and meta-analyses methane emissions from rice paddies, natural wetlands and lakes in China during the past twenty years. Furthermore, this book acts as bridge to connect microbial ecology and modelling: it both describes methane-producing bacteria dynamics and methane emission modelling.

Volume is indexed by Thomson Reuters CPSCI-S (WoS). The 5 volumes set contains selected, peer reviewed papers from the 2012 2nd International Conference on Chemical, Material and Metallurgical Engineering (ICCCME 2012), December 15–16, 2012, Kunming, P.R. of China. The ICCME series provide the most up-to-date and authoritative knowledge from both industrial and academic worlds, sharing best practice in the field of Chemical Engineering, Chemistry, Materials and Materials Processing and Metallurgical Engineering. The meeting provided an opportunity to highlight recent developments and to identify emerging and future areas of growth in these exciting fields.

This book brings together and integrates contributions on water quality modeling, monitoring and assessment techniques; wastewater treatment technologies; and sociological approaches in a single text. Divided into twenty chapters, it offers a comprehensive reference for students, professionals and researchers working on various aspects of water environment technology. The papers published in this book – selected from those presented at the 1st International Forum on Asian Water Environment Technology, held in 2013 in New Delhi, India – highlight the water environmental problems in Asia and respective countermeasures. This book addresses water quality requirements, emphasizing the factors that affect the water environment. Treated wastewater as a new source of water is also examined, introducing readers to important aspects of water reuse. Selecting the most effective and proper wastewater treatment approach is actually the most essential part of generating a new water resource, as well as protecting the receiving water environments. Thus, the fundamental principles of wastewater treatment and monitoring are a major focus in this book, which is intended to help readers effectively address various water environmental problems in Asian countries.

Bio-Geo Interactions in Metal-Contaminated Soils

Soil and Environmental Analysis

Case Studies, Meta Analyses and Modelling

Environmental Toxicology and Chemistry

Biochar as Soil Amendment

The Interactions Between Sediments and Water

This book focuses on sediments as a pollutant in natural freshwater and marine habitats, and sediments as a vector for the transfer of chemicals such as nutrients and contaminants. The selected papers cover three main topics: assessment and/or restoration of disturbed watersheds; sediment-water linkages in terrestrial and aquatic environments; evaluation of sediment and ecological changes in marine and freshwater habitats.

Chapter 1 presents the concept of hydrologic double-funneling by trees, a two-stage process in which nutrients and carbon (C) are first concentrated in stemflow fluxes as a function of tree canopy architecture. Stemflow fluxes are then routed through the soil along root-induced preferential flow paths, resulting in enhanced soil heterogeneity. In Chapter 2, the use of fire as a pasture-management strategy is shown to induce soil water repellency on pasture soils. Soil water repellency (hydrophobicity) was the strongest on recently burned pastures. Increasing soil water repellency was found be associated with lower nutrient status for the forage grass Brachiaria brizantha (Hochst.), indicating that soil water repellency and pasture productivity are inversely related. Chapter 3 focuses on C cycling in forested Amazonian headwater catchments in Mato Grosso, Brazil. At the soil surface, litterfall represents 95% of the C flux arriving at the soil surface, while C in streamflow is exported predominantly (59%) as dissolved organic C (DOC). Particulate organic C (FPOC, 2 mm) and coarse particulate organic C (CPOC, 2mm) are exported primarily in storm flow, but account for only 37% and 4% of annual C exports in stream water, respectively. Large litterfall pulses during the dry season and early part of the rainy season correspond to high DOC concentrations in throughfall and overland flow, which decrease over the course of the rainy season. The DOC concentrations of streamflow track the seasonal patterns of DOC concentrations in surface and near-surface these flow paths. In Chapter 4, rainfall-runoff responses of an Ultisol-dominated catchment are shown to be more rapid and with larger quick flow volumes than for an Oxisol-dominated catchment due to lower subsurface hydraulic conductivities of the Ultisol. DOC concentrations were found to be an order of magnitude higher in quick flow related flow paths compared to DOC in groundwater. Groundwater concentrations of dissolved inorganic C (DIC) were found to be much greater than groundwater DOC. Groundwater flow paths, which comprise 96% of stream flow for the headwater catchments, are

important DIC conduits at the terrestrial-aquatic interface, while quick flow contributes pulses of relatively unprocessed DOC to streams.

We cordially invite you to attend 2013 International Conference on Frontiers of Environment, Energy and Bioscience (ICFEEB 2013), which will be held in Beijing, China during October 24–25, 2013. The main objective of ICFEEB 2013 is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Environment, Energy and Bioscience. This conference provides opportunities for the delegates to exchange new ideas and experiences face to face, to establish business or research relations and to find global partners for future collaboration. ICFEEB 2013 received over 400 submissions which were all reviewed by at least two reviewers. As a result of our highly selective review process four hundred papers have been retained for inclusion in the ICFEEB 2013 proceedings, less than 40% of the submitted papers. The program of ICFEEB 2013 consists of invited sessions, and technical workshops and discussions covering a wide range of topics. This rich program provides all attendees with the opportunities to meet and interact with one another. We hope your experience is a fruitful and long lasting one. With your support and participation, the conference will continue its success for a long time. The conference is supported by many universities and research institutes. Many professors play an important role in the successful holding of the conference, so we would like to take this opportunity to express our sincere gratitude and highest respects to them. They have worked very hard in reviewing papers and making valuable suggestions for the authors to improve their work. We also would like to express our gratitude to the external reviewers, for providing extra help in the review process, and to the authors for contributing their research result to the conference. Special thanks go to our publisher DEStech Publications. At the same time, we also express our sincere thanks for the understanding and support of every author. Owing to time constraints, imperfection is inevitable, and any constructive criticism is welcome. We hope you will have a technically rewarding experience, and use this occasion to meet old friends and make many new ones. Do not miss the opportunity to explore in Beijing, China. And do not forget to take a sample of the many and diverse attractions in the rest of the China. We wish all attendees an enjoyable scientific gathering in Beijing, China. We look forward to

seeing all of you next year at the conference. The Conference Organizing Committees October 24–25, 2013 Beijing, China

Soil and Environmental AnalysisModern Instrumental TechniquesCRC Press

Plants and Microbial Communities: Diversity, Pathogens and Biological Control

A Guide to Analytical Methods

Characterization of Minerals, Metals, and Materials 2013

Nanofiltration

INTERNATIONAL CONFERENCE on FRONTIERS of ENVIRONMENT, ENERGY and BIOSCIENCE

Trends in Asian Water Environmental Science and Technology

This book systematically investigates the nitrogen removal characteristics of two screened aerobic denitrifying bacteria and their applications in nitrogen oxides emissions reduction. It reveals that Pseudomonas stutzeri PCN-1 possesses excellent capacity for aerobic nitrogen removal, regardless of whether nitrate, nitrite or N2O were taken as denitrification substrates. It also demonstrates that the rapid N2O reduction is due to the coordinate expression of denitrification genes. Further, the book discusses the bioaugmentation experiments conducted in denitrifying SBR and a pilot-scale Carrousel oxidation ditch, which confirmed that the strain could significantly enhance denitrification performance, reduce N2O emission and improve system stability. The second strain, P.aeruginosa PCN-2 accumulated negligible NO during aerobic nitrate and nitrite removal and efficiently removed NO from flue gas. This study is of great significance for potential applications of aerobic denitrification in mitigating nitrogen oxides emissions from biological nitrogen removal systems.

The world's fresh water supplies are dwindling rapidly-even wastewater is now considered an asset. By 2025, most of the world's population will be facing serious water stresses and shortages. Aquananotechnology: Global Prospects breaks new ground with its informative and innovative introduction of the application of nanotechnology to the remediation

A surge of interest in the geomechanical and petrophysical properties of mudrocks (shales) has taken place in recent years following the development of a shale gas industry in the United States and elsewhere, and with the prospect of similar developments in the UK. Also, these rocks are of particular importance in excavation and construction geotechnics and other rock engineering applications, such as underground natural gas storage, carbon dioxide disposal and radioactive waste storage. They may greatly influence the stability of natural and engineered slopes.

Mudrocks, which make up almost three-quarters of all the sedimentary rocks on Earth, therefore impact on many areas of applied geoscience. This volume focuses on the mechanical behaviour and various physical properties of mudrocks. The 15 chapters are grouped into three themes: (i) physical properties such as porosity, permeability, fluid flow through cracks, strength and geotechnical behaviour; (ii) mineralogy and microstructure, which control geomechanical behaviour; and (iii) fracture, both in laboratory studies and in the field.

This book deals with colloidal systems in technical processes and the influence of colloidal systems by technical processes. It explores how new measurement capabilities can offer the potential for a dynamic development of scientific and engineering, and examines the origin of colloidal systems and its use for new products. The future challenges to colloidal process engineering are the development of appropriate equipment and processes for the production and obtainment of multi-phase structures and energetic interactions in market-relevant quantities. The book explores the relevant processes and for controlled production and how they can be used across all scales.

Catalytic Biomass to Renewable Biofuels and Biomaterials

Colloid Process Engineering

Trends in Catalytic Wet Peroxide Oxidation Processes

Proceedings of the International Conference on Energy, Environment and Materials Science (EEMS 2015), Guangzhou, P.R. China, August 25-26, 2015

Impact on Soil Properties and Sustainable Resource Management

Marine & Freshwater Research

Anaerobic digestion (AD) is one of the oldest biotechnological processes and originally referred to biomass degradation under anoxic conditions in both natural and engineered systems. It has been used for decades to treat various waste streams and to produce methane-rich biogas as an important energy carrier, and it has become a major player in electrical power production. AD is a popular, mature technology, and our knowledge about the influencing process parameters as well as about the diverse microbial communities involved in the process has increased dramatically over the last few decades. To avoid competition with food and feed production, the AD feedstock spectrum has constantly been extended to waste products either rich in recalcitrant lignocellulose or containing inhibitory substances such as ammonia, which requires application of various pre-treatments or specific management of the microbial resources. Extending the definition of AD, it can also convert gases rich in hydrogen and carbon dioxide into methane that can substitute natural gas, which opens new opportunities by a direct link to traditional petrochemistry. Furthermore, AD can be coupled with emerging biotechnological applications, such as microbial electrochemical technologies or the production of medium-chain fatty acids by anaerobic fermentation. Ultimately, because of the wide range of applications, AD is still a very vital field in science. This Special Issue highlights some key topics of this research field.

The nanofiltration technique lies between ultrafiltration and reverse osmosis techniques, and it is considered a low-cost process and is capable of removing pesticides, organic matter, desalination of sea water, oil process and pollutants from industrial wastewater. However, the main challenge in implementation of nanofiltration membrane is its ability towards fouling and low performance at high temperature. The use of nanoparticles in the manufacturing of membranes allows for a high degree of control over membrane fouling. Nanoparticle-based membranes can be developed by assembling engineered nanoparticles into porous membranes or blending them with polymeric or inorganic membranes. This book covers topics from multiple ranges from manufacturing of nanofiltration membranes and their applications in wastewater treatment, drinking water treatment, and removal of pollutants, to addressing the fouling issues.

The eBook is the product of a partnership between the Norwegian Eurasia Program and the China Silk Road Program. At the present, our knowledge on microbiology and biogeochemistry from Eurasian (hyper)saline and thermal ecosystems is limited. Such information is essential to the field and contributes to a comprehensive understanding of microbial metabolic pathways and functions involved in biogeochemical processes in extreme ecosystems. This eBook includes a series of recent progress in microbial diversity, ecological functions, and biogeochemistry in Eurasian (hyper)saline and thermal ecosystems with the use of next generation sequencing, omics technologies and interdisciplinary collaboration. We hope that this eBook would serve as a model for international cooperation and as a source of inspiration for more achievements in Eurasian (hyper)saline and thermal ecosystems in the future. The complete list of authors and co-authors includes 68 highly-qualified specialists from 9 countries. All chapters in the eBook were edited by authoritative experts. We would like to emphasize the great goodwill, esteem and cooperation extended to each other among the authors, reviewers and editors who contributed to the successful completion of this eBook.

Extensively revised and updated, Handbook of Water Analysis, Third Edition provides current analytical techniques for detecting various compounds in water samples. Maintaining the detailed and accessible style of the previous editions, this third edition demonstrates water sampling and preservation methods by enumerating different ways to measure c

TRATAMIENTO DE AGUAS RESIDUALES INDUSTRIALES

Thermophilic and Halophilic Extremophiles in Eurasian Environments

2001/2002

Dinophysis Toxins: Distribution, Fate in Shellfish and Impacts

Industrial Electrochemistry and Electrochemical Engineering (General) - 220th ECS Meeting

Characterization of Minerals, Metals, and Materials 2015

Metal contamination is an increasing ecological and eco-toxicological risk. Understanding the processes involved in metal mobilization, sorption and mineralization in soils are key features for soil bioremediation. Following an introduction to the physical, chemical and biological components of contaminated soils, various chapters address the interactions of soil, microorg and transfer metals into biological systems. These include topics such as potential hazards at mining sites; rare earth elements in biotic and abiotic acidic systems; manganese redox reactions; biomineralisation, uranium in seepage water; metal-resistant streptomycetes; mycorrhiza in re-forestation; metal (hyper)accumulation in plants; microbial metal uptake; and their po soil biologists, geologists and chemists, researchers and graduate students, as well as consulting companies and small enterprises involved in bioremediation.

The International Conference on Energy, Environment and Materials Science (EEMS2015) was held in Guangzhou, China, from August 25 - 26, 2015. EEMS2015 provided a platform for academic scientists, researchers and scholars to exchange and share their experiences and research results within the fields of energy science, energy technology, environmental science and electrical engineering, material science and engineering, the discovery or development of energy, and environment and materials science.

These are the proceedings of the 3rd International Conference on Advanced Micro-Device Engineering (AMDE 2011), organized by the Advanced Technology Research Center, Gunma University, which was held on the 8th December 2011 in Kiryu, Japan. The scope of the conference covered: Materials Science, Chemical Science and Technology, Nano-Science and Technolo Measurement and System Technology, Information and Communication Engineering and Medical Engineering. Volume is indexed by Thomson Reuters CPCI-S (WoS).

Forever Chemicals: Environmental, Economic, and Social Equity Concerns with PFAS in the Environment provides the reader with an understanding of the complex and interwoven issues associated with per- and polyfluorinated substances (PFAS) in our environment. The chapters provide in-depth perspective into various issues, including health, regulation, detection, clea together or as the reader's interests lead them, the variety of topics covered in the book present a balanced perspective on this complex topic. It will address the current state of PFAS and where indicators are pointing for future developments. The book is also a deeper investigation of the regulatory challenges, analytical hurdles, and toxicological progress to date fo that will affect future policy and regulatory decisions Looks holistically at 4000+ PFAS chemicals Includes PFAS risk assessments at contaminated sites and biomonitoring insights Provides in-depth discussions on remediation technologies Illustrates quality and diversified content Provides a balanced perspective on this complex topic

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Current Advances in Anaerobic Digestion Technology

Buyers' guide edition

Membrane Distillation Process

Advances in Environmental Engineering

Biochar

This book gives an overview of the state of the art in Catalytic Wet Peroxide Oxidation research for the treatment of industrial and urban wastewaters and provides novel solutions to overcome the current challenges of this technology. These solutions include tailoring of the catalysts to exploit the use of additional energy sources and oxidants. The collected papers illustrate the high versatility of this low-cost technology, easily adaptable to any kind of wastewater, either polluted by high-loaded recalcitrant organics in industrial wastewaters or by emerging pollutants at microconcentration levels in urban waters.

Handbook of Water Analysis

Nitrogen Removal Characteristics of Aerobic Denitrifying Bacteria and Their Applications in Nitrogen Oxides Emission Mitigation

ICFEEB 2013

Methane Emissions from Unique Wetlands in China

Herbicides