Financial Accounting 1 2012 Edition Valix

The Science and Technology of Rubber *Conversion of Large Scale Wastes into Value-added Products* Electronic Waste **Adventures in Kavosava** TMS 2019 148th Annual Meeting & Exhibition Supplemental Proceedings **Microbial Diversity in Ecosystem Sustainability and Biotechnological Applications** Plasma Remediation Technology for Environmental Protection **Biomass for Sustainable Applications Environment at Crossroads Challenges and Green Solutions Green Chemistry for Dyes Removal from Waste Water** *Financial Accounting and Reporting* **Porous Carbons – Hyperbranched Polymers – Polymer Solvation 6th International Symposium on High-Temperature Metallurgical Processing Phytoremediation Environmental Microbiology and Biotechnology Energy Technology 2018 Environmental Microbial Biotechnology Handbook of Petroleum Geoscience Coal and Coalbed Gas Layered Double Hydroxides** Handbook of Clean Energy Systems, 6 Volume Set **Combined Application of Physico-Chemical & Microbiological Processes for Industrial Effluent Treatment Plant** Gas Capture Processes **Waste Bioremediation** Development of Unconventional Reservoirs 8th International Symposium on High-Temperature Metallurgical Processing *Geomicrobiology and Biogeochemistry* Ni-Co 2021: The 5th International Symposium on Nickel and Cobalt Bioresources and Bioprocess in Biotechnology **Current Developments in Biotechnology and Bioengineering** Xenobiotics in the Soil Environment *Recent advances in Applied Microbiology* Sustainable Heavy Metal Remediation **Chemistry, a Sustainable Bridge from Waste to Materials for Energy and Environment Iron Ore Green Adsorbents to Remove Metals, Dyes and Boron from Polluted Water Microbial Rejuvenation of Polluted Environment** *The Motherless Oven Intermediate Accounting Bioenergy and Land Use Change*

Recognizing the artifice ways to get this book **Financial Accounting 1 2012 Edition Valix** is additionally useful. You have remained in right site to start getting this info. get the Financial Accounting 1 2012 Edition Valix associate that we have the funds for here and check out the link.

You could purchase guide Financial Accounting 1 2012 Edition Valix or acquire it as soon as feasible. You could quickly download this Financial Accounting 1 2012 Edition Valix after getting deal. So, similar to you require the books swiftly, you can straight get it. Its fittingly definitely simple and fittingly fats, isnt it? You have to favor to in this song

The Science and Technology of Rubber Oct 29 2022 The 4e of The Science and Technology of Rubber provides a broad survey of elastomers with special emphasis on materials with a rubber-like elasticity. As in previous editions, the emphasis remains on a unified treatment of the material, exploring chemical aspects such as elastomer synthesis and curing, through recent theoretical developments and characterization of equilibrium and dynamic properties, to the final applications of rubber, including tire engineering and manufacturing. Updated material stresses the continuous relationship between ongoing research in synthesis, physics, structure and mechanics of rubber technology and industrial applications. Special attention is paid to recent advances in rubber-like elasticity theory and new processing techniques for elastomers. Exciting new developments in green tire manufacturing and tire recycling are covered. Provides a complete survey of elastomers for engineers and researchers in a unified treatment: from chemical aspects like elastomer synthesis and curing to the final applications of rubber, including tire engineering and manufacturing Contains important updates to several chapters, including elastomer synthesis, characterization, viscoelastic behavior, rheology, reinforcement, tire engineering, and recycling Includes a new chapter on the burgeoning field of bioelastomers

Conversion of Large Scale Wastes into Value-added Products Sep 28 2022 Concern about the fate of waste products produced by a wide range of industrial processes has led to the realization that they may have potential uses and, therefore, value. In an effort to develop more sustainable processes and reduce waste storage, the use of waste as a resource has been gaining attention worldwide. Consequently, there have been a large number of studies aimed at utilizing such wastes. Conversion of Large Scale Wastes into Value-added Products discusses various selected classes of large-scale waste and their current applications and potential future applications. This book provides a snapshot of a continually evolving field, which includes both well-established processes and a drive toward developing strategies for new applications of wastes. The first chapter provides a general introduction to the area of large-scale waste utilization, including drivers for waste recovery, and secondary processes and products for waste reuse. Subsequent chapters discuss applications and potential applications in specific classes of large-scale waste: Various types of waste generated from different metal processing operations Waste generated by coal combustion, a major source of power generation that produces enormous quantities of waste Waste electrical and electronic equipment, important for recycling finite resources and reducing health and environmental risks Food waste, a significant and diverse waste stream with economic and environmental impacts The final chapter presents a general conclusion to the broad subject of waste utilization, summarizing the topics and addressing future trends in waste research.

Financial Accounting and Reporting Dec 19 2021 Financial Accounting and Reporting is the most up to date text on the market. Now fully updated in its fourteenth edition, it includes extensive coverage of International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS). This market-leading text offers students a clear, well-structured and comprehensive treatment of the subject. Supported by illustrations and exercises, the book provides a strong balance of theoretical and conceptual coverage. Students using this book will gain the knowledge and skills to help them apply current standards, and critically appraise the underlying concepts and financial reporting methods.

Current Developments in Biotechnology and Bioengineering Apr 30 2020 Current Developments in Biotechnology and Bioengineering: Solid Waste Management provides extensive coverage of new developments, state-of-the-art technologies, and potential future trends, reviewing the latest innovative developments in environmental biotechnology and bioengineering as they pertain to solid wastes, also revealing current research priority areas in solid waste treatment and management. The fate of solid wastes can be divided into three major areas, recycling, energy recovery, and safe disposal. From this foundation, the book covers such key areas as biotechnological production of value added products from solid waste, bioenergy production from various organic solid wastes, and biotechnological solutions for safe, environmentally-friendly treatment and disposal. The state of the art situation, potential advantages, and limitations are discussed, along with proposed strategies on how to overcome limitations. Reviews available bioprocesses for the production of bioproducts from solid waste Outlines processes for the production of energy from solid waste using biochemical conversion processes Lists various environmentally friendly treatments of solid waste and its safe disposal

Recent advances in Applied Microbiology Feb 27 2020 This book is a one-stop reference resource, presenting recent research in various emerging areas of microbiology, including microbial biotechnology, microbes in health, microbial interactions, agricultural microbiology and computational approaches. Recent discoveries in microbiology have created a great deal of interest among researchers around the globe, and as as such the book discusses a number of important research topics, such as microbial enzymes and nanoparticles, bacterial polyhydroxyalkanoates, biosurfactant aided bioprocessing, autophagy and microbial pathogenesis, multidrug resistant bacteria, probiotics, rhizosphere, metal tolerant bacteria, plant- beneficial environmental bacteria and therapeutic applications of fungal chondroitinase. It serves as a valuble resource for masters, doctoral and postdoctoral researchers in life sciences, as well as scientists involved in various interdisciplinary research areas. It also provides useful material for higher-level graduate courses in microbiology and biotechnology.

Bioresources and Bioprocess in Biotechnology Jun 01 2020 This book is a compilation of detailed articles on various products and services that can be derived from bioresources through bioprocess. It offers in-depth discussions and case studies on commercially and therapeutically important enzymes, antimicrobials, anti-cancer molecules and anti-inflammatory substances. It also includes a separate section on emerging trends in bioactive substances research. This unique book is a valuable source of information for biotechnologists and bioprocess experts as well as academics and researchers who are actively involved in product and process development.

Phytoremediation Sep 16 2021 This text details the plant-assisted remediation method, “phytoremediation”, which involves the interaction of plant roots and associated rhizospheric microorganisms for the remediation of soil contaminated with high levels of metals, pesticides, solvents, radionuclides, explosives, crude oil, organic compounds and various other contaminants. Each chapter highlights and compares the beneficial and economical alternatives of phytoremediation to currently practiced soil removal and burial practices. This book covers state of the art approaches in Phytoremediation written by leading and eminent scientists from around the globe. Phytoremediation: Management of Environmental Contaminants, Volume 1 supplies its readers with a multidisciplinary understanding in the principal and practical approaches of phytoremediation from laboratory research to field application.

Adventures in Kavosava Jul 26 2022 Four brothers embark on a journey,takes them to a world that they have never heard of before. They become more and more intrigued, especially when they find that the citizens of Kavosava already know who they are, and treat them like royalty. After travelling to different parts of the land, they realize they have returned to Kavosava to assist the people in ridding themselves of the evil Lord Whipstein and his minions.

Gas Capture Processes Dec 07 2020 This book introduces the recent technologies introduced for gases capture including CO2, CO, SO2, H2S, NOx, and H2. Various processes and theories for gas capture and removal are presented. The book provides a useful source of information for engineers and specialists, as well as for undergraduate and postgraduate students in the fields of environmental and chemical science and engineering.

6th International Symposium on High-Temperature Metallurgical Processing Oct 17 2021 The analysis, development, and/or operation of high temperature processes that involve the production of ferrous and nonferrous metals, alloys, and refractory and ceramic materials are covered in the book. The innovative methods for achieving impurity segregation and removal, by-product recovery, waste minimization, and/or energy efficiency are also involved. Eight themes are presented: 1: High Efficiency New Metallurgical Process and Technology 2: Fundamental Research of Metallurgical Process 3: Alloys and Materials Preparation 4: Direct Reduction and Smelting Reduction 5: Coking, New Energy and Environment 6: Utilization of Solid Slag/Wastes and Complex Ores 7: Characterization of High Temperature Metallurgical Process

Environmental Microbial Biotechnology Jun 13 2021 This book provides a timely review of strategies for coping with polluted ecosystems by employing bacteria, fungi and algae. It presents the vast variety of microbial technologies currently applied in the bioremediation of a variety of anthropogenic toxic chemicals, mining and industrial wastes and other pollutants. Topics covered include: microbe-mineral interactions, biosensors in environmental monitoring, iron-mineral transformation, microbial biosurfactants, bioconversion of cotton gin waste to bioethanol, anaerobe bioleaching and sulfide oxidation. Further chapters discuss the effects of pollution on microbial diversity, as well as the role of microbes in the bioremediation of abandoned mining areas, industrial and horticultural wastes, wastewater and sites polluted with hydrocarbons, heavy metals, manganese and uranium.

Energy Technology 2018 Jul 14 2021 This collection focuses on energy efficient technologies including innovative ore beneficiation, smelting technologies, recycling and waste heat recovery. The volume also covers various technological aspects of sustainable energy ecosystems, processes that improve energy efficiency, reduce thermal emissions, and reduce carbon dioxide and other greenhouse emissions. Papers addressing renewable energy resources for metals and materials production, waste heat recovery and other industrial energy efficient technologies, new concepts or devices for energy generation and conversion, energy efficiency improvement in process engineering, sustainability and life cycle assessment of energy systems, as well as the thermodynamics and modeling for sustainable metallurgical processes are included. This volume also includes topics on CO2 sequestration and reduction in greenhouse gas emissions from process engineering, sustainable technologies in extractive metallurgy, as well as the materials processing and manufacturing industries with reduced energy consumption and CO2 emission. Contributions from all areas of non-nuclear and non-traditional energy sources, such as solar, wind, and biomass are also included in this volume.Papers from the following symposia are presented in the book:Energy Technologies and CO2 ManagementAdvanced Materials for Energy Conversion and Storage Deriving Value from Challenging Waste Streams: Recycling and Sustainability Joint SessionSolar Cell SiliconStored Renewable Energy in Coal

Combined Application of Physico-Chemical & Microbiological Processes for Industrial Effluent Treatment Plant Jan 08 2021 In recent decades, scientific insight into the chemistry of water has increased enormously, leading to the development of advanced wastewater and water purification technologies. However, the quality of freshwater resources has continually deteriorated worldwide, both in industrialized and developing countries. Although traditional wastewater technologies focus on the removal of suspended solids, nutrients and bacteria, hundreds of organic pollutants occur in wastewater and urban surface waters. These new pollutants are synthetic or naturally occurring chemicals that are not often monitored in the environment but have the potential to enter the environment and cause known or suspected adverse ecological and / or human health effects. Collectively referred to as the "emerging contaminants," they are mostly derived from domestic use and occur in trace concentrations ranging from pico to micrograms per liter. Environmental contaminants are resistant to conventional wastewater treatment processes and most of them remain unaffected, leading to the contamination of the receiving water. As such, there is a need for advanced wastewater treatment process that is capable of removing environmental contaminants to ensure safe fresh water supplies. This book explains the biological and chemical wastewater treatment technologies. The biological wastewater treatment processes presented include: (1) bioremediation of wastewater such as aerobic and anaerobic treatment; (2) phytoremediation of wastewater using engineered wetlands, rhizofiltration, rhizodegradation, phytodegradation, phytoaccumulation, phytotransformation and hyperaccumulators; and (3) mycoremediation of wastewater. The chemical wastewater treatment processes discussed include chemical precipitation, ion exchange, neutralization, adsorption and disinfection. In addition, the book describes wastewater treatment plants in terms of plant size, layout and design as well as installation location. Also presenting the latest, innovative effluent water treatment processes, it is a valuable resource for biochemical and wastewater treatment engineers, environmental scientists and environmental microbiologists.

Handbook of Clean Energy Systems, 6 Volume Set Feb 09 2021 The Handbook of Clean Energy Systems brings together an international team of experts to present a comprehensive overview of the latest research, developments and practical applications throughout all areas of clean energy systems. Consolidating information which is currently scattered across a wide variety of literature sources, the handbook covers a broad range of topics in this interdisciplinary research field including both fossil and renewable energy systems. The development of intelligent energy systems for efficient energy processes and mitigation technologies for the reduction of environmental pollutants is explored in depth, and environmental, social and economic impacts are also addressed. Topics covered include: Volume 1 - Renewable Energy: Biomass resources and biofuel production; Bioenergy Utilization; Solar Energy; Wind Energy; Geothermal Energy; Tidal Energy. Volume 2 - Clean Energy Conversion Technologies: Steam/Vapor Power Generation; Gas Turbines Power Generation; Reciprocating Engines; Fuel Cells; Cogeneration and Polygeneration. Volume 3 - Mitigation Technologies: Carbon Capture; Negative Emissions System; Carbon Transportation; Carbon Storage; Emission Mitigation Technologies; Efficiency Improvements and Waste Management; Waste to Energy. Volume 4 - Intelligent Energy Systems: Future Electricity Markets; Diagnostic and Control of Energy Systems; New Electric Transmission Systems; Smart Grid and Modern Electrical Systems; Energy Efficiency of Municipal Energy

Systems; Energy Efficiency of Industrial Energy Systems; Consumer Behaviors; Load Control and Management; Electric Car and Hybrid Car; Energy Efficiency Improvement. Volume 5 - Energy Storage: Thermal Energy Storage; Chemical Storage; Mechanical Storage; Electrochemical Storage; Integrated Storage Systems. Volume 6 - Sustainability of Energy Systems: Sustainability Indicators, Evaluation Criteria, and Reporting; Regulation and Policy; Finance and Investment; Emission Trading; Modeling and Analysis of Energy Systems; Energy vs. Development; Low Carbon Economy; Energy Efficiencies and Emission Reduction. Key features: Comprising over 3,500 pages in 6 volumes, HCES presents a comprehensive overview of the latest research, developments and practical applications throughout all areas of clean energy systems, consolidating a wealth of information which is currently scattered across a wide variety of literature sources. In addition to renewable energy systems, HCES also covers processes for the efficient and clean conversion of traditional fuels such as coal, oil and gas, energy storage systems, mitigation technologies for the reduction of environmental pollutants, and the development of intelligent energy systems. Environmental, social and economic impacts of energy systems are also addressed in depth. Published in full colour throughout. Fully indexed with cross referencing within and between all six volumes. Edited by leading researchers from academia and industry who are internationally renowned and active in their respective fields. Published in print and online. The online version is a single publication (i.e. no updates), available for one-time purchase or through annual subscription.

TMS 2019 148th Annual Meeting & Exhibition Supplemental Proceedings Jun 25 2022 This collection features papers presented at the 148th Annual Meeting & Exhibition of The Minerals, Metals & Materials Society.

Intermediate Accounting Jul 22 2019

8th International Symposium on High-Temperature Metallurgical Processing Sep 04 2020 This collection features contributions covering the advances and developments of new high-temperature metallurgical technologies and their applications to the areas of: processing of minerals; extraction of metals; preparation of metallic, refractory, and ceramic materials; treatment and recycling of slag and wastes; conservation of energy; and environmental protection. The volume will have a broad impact on the academics and professionals serving the metallurgical industries around the world by providing them with comprehensive coverage of a wide variety of topics.

Development of Unconventional Reservoirs Oct 05 2020 The need for energy is increasing and but the production from conventional reservoirs is declining quickly. This requires an economically and technically feasible source of energy for the coming years. Among some alternative future energy solutions, the most reasonable source is from unconventional reservoirs. As the name “unconventional” implies, different and challenging approaches are required to characterize and develop these resources. This Special Issue covers some of the technical challenges for developing unconventional energy sources from shale gas/oil, tight gas sand, and coalbed methane.

Porous Carbons – Hyperbranched Polymers – Polymer Solvation Nov 18 2021 The series Advances in Polymer Science presents critical reviews of the present and future trends in polymer and biopolymer science. It covers all areas of research in polymer and biopolymer science including chemistry, physical chemistry, physics, material science. The thematic volumes are addressed to scientists, whether at universities or in industry, who wish to keep abreast of the important advances in the covered topics. Advances in Polymer Science enjoy a longstanding tradition and good reputation in its community. Each volume is dedicated to a current topic, and each review critically surveys one aspect of that topic, to place it within the context of the volume. The volumes typically summarize the significant developments of the last 5 to 10 years and discuss them critically, presenting selected examples, explaining and illustrating the important principles, and bringing together many important references of primary literature. On that basis, future research directions in the area can be discussed. Advances in Polymer Science volumes thus are important references for every polymer scientist, as well as for other scientists interested in polymer science - as an introduction to a neighboring field, or as a compilation of detailed information for the specialist. Review articles for the individual volumes are invited by the volume editors. Single contributions can be specially commissioned. Readership: Polymer scientists, or scientists in related fields interested in polymer and biopolymer science, at universities or in industry, graduate students.

Environment at Crossroads Challenges and Green Solutions Feb 21 2022 The global environment has significantly changed due to a number of factors such as industrial pollution, expansion of agricultural land way beyond the fringe forest zones, destruction of virgin forests, loss of quality agricultural lands due to soil erosion, loss of global wildlife and biodiversity, climate change, global warming, devastating forest fires, floods, draughts, melting of glaciers to mention a few. Human or anthropogenic impacts are in turn devastating the planet with our attention being shifted only to the shinning aspect of our civilizations. The most alarming fact about this hidden factor is that they are all directly or indirectly impacted by human activities in some way or other. The present work, Environment at Crossroads deals with various environmental problems like climate change, global warming, food security, bioremediation of waste, oil spills, and problems of heavy metal toxicity, control strategies like use of gene therapy, conservation of mangroves, revival of river Vishwamitri and role of plant and animals in biodiversity conservation is discussed.

Xenobiotics in the Soil Environment Mar 30 2020 This book describes the vast variety of xenobiotics, such as pesticides, antibiotics, antibiotic resistance genes, agrochemicals and other pollutants, their interactions with the soil environment, and the currently available strategies and techniques for soil decontamination and bioremediation. Topics covered include: transport mechanisms of pollutants along the Himalayas; use of earthworms in biomonitoring; metagenomic strategies for assessing contaminated sites; xenobiotics in the food chain; phyto-chemical remediation; biodegradation by fungi; and the use of enzymes and potential microbes in biotransformation. Accordingly, the book offers a valuable guide for scientists in the fields of environmental ecology, soil and food sciences, agriculture, and applied microbiology.

Electronic Waste Aug 27 2022 This book presents an overview of the characterization of electronic waste. In addition, processing techniques for the recovery of metals, polymers and ceramics are described. This book serves as a source of information and as an educational technical reference for practicing scientists and engineers, as well as for students.

Microbial Diversity in Ecosystem Sustainability and Biotechnological Applications May 24 2022 This book discusses microbial diversity in various habitats and environments, its role in ecosystem maintenance, and its potential applications (e.g. biofertilizers, biocatalysts, antibiotics, other bioactive compounds, exopolysaccharides etc.). The respective chapters, all contributed by renowned experts, offer cutting-edge information in the fields of microbial ecology and biogeography. The book explains the reasons behind the occurrence of various biogeographies and highlights recent tools (e.g. metagenomics) that can aid in biogeography studies by providing information on nucleic acid sequence data, thereby directly identifying microorganisms in various habitats and environments. In turn, the book describes how human intervention results in depletion of biodiversity, and how numerous hotspots are now losing their endemic biodiversity, resulting in the loss of many ecologically important microorganisms. In closing, the book underscores the importance of microbial diversity for sustainable ecosystems.

Plasma Remediation Technology for Environmental Protection Apr 23 2022 This book introduces a new technology for environmental protection, namely plasma cleaning. It brings together technological advances and research on plasma generators and their application in environmental science and engineering, including contaminated soil remediation, waste water degradation, metal recovery from waste solution, sterilization and polluted air remediation. It provides a balanced and comprehensive discussion of the core principles, novel plasma reactors and diagnostics, and state-of-the-art environmental applications of plasma. As such, it represents a valuable reference guide for scientists, engineers and graduate students in the fields of environmental science and plasma physics.

Sustainable Heavy Metal Remediation Jan 28 2020 This book covers the principles, underlying mechanisms, thermodynamic functions, kinetics and modeling aspects of sustainable technologies, particularly from the standpoint of applying physical, chemical and biological processes for the treatment of wastewater polluted with heavy metals. Particular emphasis has been given to technologies that are based on adsorption, electro-coagulation, bio-precipitation, bio-solubilization, phytoremediation and microbial electrolysis. Metal contamination in the

environment is one of the persisting global issues. The adverse health effects of heavy metals on human beings and its impact on the environment has been well-documented. Several physico-chemical and biological technologies have been successfully implemented to prevent and control the discharge of industrial heavy metal emissions. On the contrary, metal resource depletion has also accelerated dramatically during the 20th century due to rapid advances in industrial engineering and medical sciences, which requires large amount of raw materials. To meet the global metal demand, in recent years, novel research lines have started to focus on the recovery of metals from metal contaminated waste streams. In order to conflate both metal removal and recovery, new technologies have been successfully tested, both at the lab and pilot-scale. The target audience of this book primarily comprises of research experts, practicing engineers in the field of environmental/chemical technology and graduate students.

The Motherless Oven Aug 23 2019 Forced from his routine with just three weeks until his deathday, Scarper Lee, along with friends Vera and Castro, travels to the motherless oven, where children create their parents, to search for his missing brass sculpture father.

Chemistry, a Sustainable Bridge from Waste to Materials for Energy and Environment Dec 27 2019

Geomicrobiology and Biogeochemistry Aug 03 2020 Over the past 4 billion years, microorganisms have contributed to shaping the earth and making it more habitable for higher forms of life. They are remarkable in their metabolic diversity and their ability to harvest energy from oxidation and reduction reactions. Research on these microbiological processes has led to the newly evolving fields of geomicrobiology and biogeochemistry, linking the geosphere and the biosphere. This volume of the Soil Biology series provides an overview of the biogeochemical processes and the microorganisms involved, with an emphasis on the industrial applications. Topics treated include aspects such as bioremediation of contaminated environments, biomining, biotechnological applications of extremophiles, subsurface petroleum microbiology, enhanced oil recovery using microbes and their products, metal extraction from soil, soil elemental cycling and plant nutrition.

Microbial Rejuvenation of Polluted Environment Sep 23 2019 Pollution is one of the most serious issues facing mankind and other life forms on earth. Environmental pollution leads to the degradation of ecosystems, loss of services, economic losses, and various other problems. The eco-friendliest approach to rejuvenating polluted ecosystems is with the help of microorganism-based bioremediation. Microorganisms are characterized by great biodiversity, genetic and metabolic machinery, and by their ability to survive, even in extremely polluted environments. As such, they are and will remain the most important tools for restoring polluted ecosystems / habitats. This three-volume book sheds light on the utilization of microorganisms and the latest technologies for cleaning up polluted sites. It also discusses the remediation or degradation of various important pollutants such as pesticides, wastewater, plastics, PAHs, oil spills etc. The book also explains the latest technologies used for the degradation of pollutants in several niche ecosystems. Given its scope, the book will be of interest to teachers, researchers, bioremediation scientists, capacity builders and policymakers. It also offers valuable additional reading material for undergraduate and graduate students of microbiology, ecology, soil science, and the environmental sciences.

Waste Bioremediation Nov 06 2020 This book discusses the bioremediation of both solid and liquid waste, including regional solutions for India as well as globally relevant applications. The topics covered include pollutant reduction through composting, solutions for petroleum refinery waste, use of microorganisms in the bioremediation of industrial waste and toxicity reduction, microbial fuel cells, and microbial depolymerisation. The book also explores the biosorption of metals and the bioremediation of leachates, especially with regard to soil and groundwater remediation. It is a valuable resource for researchers, professionals, and policy makers alike.

Biomass for Sustainable Applications Mar 22 2022 Sustainable sources of energy and a supply of good quality water are two major challenges facing modern societies across the globe. Biomass from cultivated plants may be used to generate energy, but at the cost of contaminated surface waters from pesticide and fertiliser use. This two-volume set examines the potential use of biomass as both a source of sustainable energy and a resource to tackle contaminated soils and wastewaters. Consideration is given to non-food crops, bacteria ,and fungi as sources of biomass and the book enables the reader to identify the best local bioresources according to the desired application. With contributions from across the globe, this is an essential guide to meeting the demand for energy and pollution remediation by exploiting local and renewable resources. The example scenarios given will inspirational to policy makers and local officers, while chemical engineers and environmental scientists in both academia and industry will benefit from the comprehensive review of current thinking and application.

Green Adsorbents to Remove Metals, Dyes and Boron from Polluted Water Oct 25 2019 This book reviews adsorption techniques to clean wastewater, with focus on pollution by dyes and heavy metals. Advanced adsorbents include carbon nanomaterials, biomass, cellulose, polymers, clay, composites and chelating materials.

Handbook of Petroleum Geoscience May 12 2021 HANDBOOK OF PETROLEUM GEOSCIENCE This reference brings together the latest industrial updates and research advances in regional tectonics and geomechanics. Each chapter is based upon an in-depth case study from a particular region, highlighting core concepts and themes as well as regional variations. Key topics discussed in the book are: Drilling solutions from the Kutch offshore basin Geophysical studies from a gas field in Bangladesh Exploring Himalayan terrain in India Tectonics and exploration of the Persian Gulf basin Unconventional gas reservoirs in the Bohemian Massif This book is an invaluable industry resource for professionals and academics working in and studying the fields of petroleum geoscience and tectonics.

Iron Ore Nov 25 2019 Iron Ore: Mineralogy, Processing and Environmental Sustainability, Second Edition covers all aspects surrounding the second most important commodity behind oil. As an essential input for the production of crude steel, iron ore feeds the world's largest trillion-dollar-a-year metal market and is the backbone of the global infrastructure. The book explores new ore types and the development of more efficient processes/technologies to minimize environmental footprints. This new edition includes all new case studies and technologies, along with new chapters on the chemical analysis of iron ore, thermal and dry beneficiation of iron ore, and discussions of alternative iron making technologies. In addition, information on recycling solid wastes and P-bearing slag generated in steel mills, sustainable mining, and low emission iron making technologies from regional perspectives, particularly Europe and Japan, are included. This work will be a valuable resource for anyone involved in the iron ore industry. Provides an overall view of the entire value chain, from iron ore to metal Includes specific information on process/stage/operation in the value chain Discusses challenges and developments, along with future trends in the iron ore and steel industries Incorporates new, sustainable mining techniques

Coal and Coalbed Gas Apr 11 2021 Bridging the gap in expertise between coal and coalbed gas, subfields in which opportunities for cross training have been nonexistent, Coal and Coalbed Gas sets the standard for publishing in these areas. This book treats coal and coalbed gas as mutually inclusive commodities in terms of their interrelated origin, accumulation, composition, distribution, generation, and development, providing a balanced understanding of this energy mix. Currently considered a non-renewable energy resource, coalbed gas, or coalbed methane, is a form of natural gas extracted from coal beds. In recent years, countries have begun to seek and exploit coal for its clean gas energy in an effort to alleviate environmental issues that come with coal use, making a book on this topic particularly timely. This volume takes into account processes of coalification, gasification, and storage and reservoir characterization and evaluation and looks at water management and environmental impacts as well. Covers environmental issues in the development of coalbed gas Includes case studies, field guides and data, examples, and analytical procedures from previous studies and investigations Accessible by a large multidisciplinary market by one of the world's foremost experts on the topic

Bioenergy and Land Use Change Jun 20 2019 Although bioenergy is a renewable energy source, it is not without impact on the environment. Both the cultivation of crops specifically for use as biofuels and the use of agricultural byproducts to generate energy changes the landscape, affects ecosystems, and impacts the climate. Bioenergy and Land Use Change focuses on regional and global assessments of land use change related to bioenergy and the environmental impacts. This interdisciplinary volume provides both high

level reviews and in-depth analyses on specific topics. Volume highlights include: Land use change concepts, economics, and modeling Relationships between bioenergy and land use change Impacts on soil carbon, soil health, water quality, and the hydrologic cycle Impacts on natural capital and ecosystem services Effects of bioenergy on direct and indirect greenhouse gas emissions Biogeochemical and biogeophysical climate regulation Uncertainties and challenges associated with land use change quantification and environmental impact assessments Bioenergy and Land Use Change is a valuable resource for professionals, researchers, and graduate students from a wide variety of fields including energy, economics, ecology, geography, agricultural science, geoscience, and environmental science. Read an interview with the editors to find out more: https://eos.org/editors-vox/bioenergys-impacts-on-the-landscape

Layered Double Hydroxides Mar 10 2021 Very few materials have attracted so much attention in recent years, both from researchers and industry, as layered double hydroxides (LDHs) have. LDHs, which are also referred to as anionic clays or hydrotalcites, are a wide class of inorganic ionic lamellar clay materials consisting of alternately stacked positively charged metal hydroxide layers with intercalated charge-balancing anions in hydrated interlayer regions. Their unique properties, such as their extremely high versatility in chemical composition and intercalation ability, extraordinary tuneability in composition as well as morphology, good biocompatibility and high anion exchangeability, have triggered immense interdisciplinary interest for their use in many different fields of chemistry, biology, medicine, and physics. Indeed, the applications of LDHs are constantly growing: LDHs, in the form of aggregated lamellar clusters, exfoliated single-layer nanosheets, or hierarchical films of interconnected nanoplatelets, can be effectively used as nanoscale vehicles in drug delivery, heterogeneous catalysts and supports for molecular catalysts, ion exchangers and adsorbents, solid electrolytes or fillers in electrochemistry, for the fabrication of superhydrophobic surfaces, water treatment and purification, and the synthesis of functional thin films. This book gathers the contributions to the Special Issue “Layered Double Hydroxides” of Crystals, which includes two review articles and seven research papers.

Green Chemistry for Dyes Removal from Waste Water Jan 20 2022 The use of synthetic chemical dyes in various industrialprocesses, including paper and pulp manufacturing, plastics, dyeingof cloth, leather treatment and printing, has increasedconsiderably over the last few years, resulting in the release ofdye-containing industrial effluents into the soil and aquatic ecosystems. The textile industry generates high-pollutingwastewaters and their treatment is a very serious problem due tohigh total dissolved solids (TDS), presence of toxic heavy metals,and the non-biodegradable nature of the dyestuffs in theeffluent. The chapters in this book provide an overview of the problem andits solution from different angles. These problems and solutionsare presented in a genuinely holistic way by world-renownedresearchers. Discussed are various promising techniques to removedyes, including the use of nanotechnology, ultrasound, microwave,catalysts, biosorption, enzymatic treatments, advanced oxidationprocesses, etc., all of which are “green.” Green Chemistry for Dyes Removal from Wastewatercomprehensively discusses: Different types of dyes, their working and methodologies andvarious physical, chemical and biological treatment methodsemployed Application of advanced oxidation processes (AOPs) in dyeremoval whereby highly reactive hydroxyl radicals are generatedchemically, photochemically and/or by radiolytic/ sonolytic means.The potential of ultrasound as an AOP is discussed as well. Nanotechnology in the treatment of dye removal types ofadsorbents for removal of toxic pollutants from aquaticsystems Photocatalytic oxidation process for dye degradation under bothUV and visible light, application of solar light and solarphotoreactor in dye degradation

Ni-Co 2021: The 5th International Symposium on Nickel and Cobalt Jul 02 2020 In this volume, operators, engineers, and researchers present information about all aspects of current processing technologies for nickel and cobalt, as well as emerging technologies for both metals. Contributions from industry and academia encompass metallurgical aspects of metals commonly associated with nickel and cobalt, such as copper and platinum group metals (PGMs). Specific focus areas of the collection include, but are not limited to mineral processing, metallurgy of nickel and cobalt ores, battery materials, recycling, recovery of associated byproducts and PGMs, and sulfide and laterite processing.

Environmental Microbiology and Biotechnology Aug 15 2021 This book provides up-to-date information on the state of the art in applications of biotechnological and microbiological tools for protecting the environment. Written by leading international experts, it discusses potential applications of biotechnological and microbiological techniques in solid waste management, wastewater treatment, agriculture, energy and environmental health. This first volume of the book “Environmental Microbiology and Biotechnology,” covers three main topics: Solid waste management, Agriculture utilization and Water treatment technology, exploring the latest developments from around the globe regarding applications of biotechnology and microbiology for converting wastes into valuable products and at the same time reducing the environmental pollution resulting from disposal. Wherever possible it also includes real-world examples. Further, it offers advice on which procedures should be followed to achieve satisfactory results, and provides insights that will promote the transition to the sustainable utilization of various waste products.