Access Free Advanced Wastewater Solutions

If you ally infatuation such a referred **Advanced Wastewater Solutions** book that will manage to pay for you worth, acquire the agreed best seller from us currently from several preferred authors. If you desire to funny books, lots of novels, tale, jokes, and more fictions collections are next launched, from best seller to one of the most current released.

You may not be perplexed to enjoy all books collections Advanced Wastewater Solutions that we will categorically offer. It is not in the region of the costs. Its about what you craving currently. This Advanced Wastewater Solutions, as one of the most on the go sellers here will unquestionably be in the midst of the best options to review.

KEY=ADVANCED - ROBERTS NATHANAEL

Advanced Onsite Wastewater Systems Technologies

CRC Press *Drawing on the authors' combined experience of more than 30 years, Advanced Onsite Wastewater Systems Technologies explores use of these technologies on a wide-scale basis to solve the problems associated with conventional septic tank and drain field systems. The authors discuss a regulatory and management infrastructure for ensuring long-term, reliable applications of onsite systems for wastewater management. The book and its supporting web-site (www.advancedonsitesystems.com) are an information catalog for advanced onsite wastewater technologies. This combination offers tools that will help onsite wastewater professionals communicate effectively with each other and their clients, thus minimizing the confusion and misunderstandings often related to the use of advanced onsite systems. The authors provide an overview of advanced onsite systems technologies and compare them to conventional onsite systems and centralized wastewater systems. They present key concepts for decentralized wastewater solutions and information on advanced onsite wastewater treatment and effluent dispersal technologies currently available. The book delineates a management, regulatory, and planning framework for adopting the use of advanced onsite systems technologies as alternatives to conventional septic systems and centralized collection and treatment plants. It concludes with an exploration of the future of advanced onsite systems technologies and their uses. A toolbox for service professionals, regulators, and community planners, the book highlights objective methods to assess the performance of technologies and examples of real-world applications. The authors detail a solution-driven and performance-based regulatory*

framework for the use of advanced onsite systems as a true alternative to centralized collection and treatment plants and offer guidance on how to plan for future growth with such systems. They answer the age-old question of "what to do when the land doesn't perc and sewer isn't coming?"

Advanced Water Supply and Wastewater Treatment: A Road to Safer Society and Environment

Springer Science & Business Media *Stable, safe, secure and readily available water supply is one of the key factors in ensuring a good level of the public health and a stable society. Scientific assessments show that about 80 % of diseases and one-third of the total death toll in the developing countries are caused by the low quality of the drinking water. Other countries are also suffering from water shortages and insufficient quality of the drinking water. Many rivers in Europe and in other parts of the world are significantly polluted by insufficiently treated or untreated wastewater discharge. This book is based on the discussions and papers prepared for the NATO Advanced Research Workshop that took place in Lviv, Ukraine, and addressed recent advances in water supply and wastewater treatment as a prerequisite for a safer society and environment. The contributions critically assess the existing knowledge on urban water management and provide an overview of the current water management issues, especially in the countries in transition in Central and Eastern Europe and in the Mediterranean Dialogue countries.*

Onsite Wastewater Treatment Systems Manual

"This manual contains overview information on treatment technologies, installation practices, and past performance."--Intro.

Wastewater Engineering: Advanced Wastewater Treatment Systems

IJSR Publications *As the global population grows and many developing countries modernize, the importance of water supply and wastewater treatment becomes a much greater factor in the welfare of nations. Clearly, in today’s world the competition for water resources coupled with the unfortunate commingling of wastewater discharges with freshwater supplies creates additional pressure on treatment systems. Recently, researchers focus on wastewater treatment by difference methods with minimal cost and maximum efficiency. This volume of the*

Wastewater Engineering: Advanced Wastewater Treatment Systems is a selection of topics related to physical-chemical and biological processes with an emphasis on their industrial applications. It gives an overview of various aspects in wastewater treatments methods including topics such as biological, bioremediation, electrochemical, membrane and physical-chemical applications. Experts in the area of environmental sciences from diverse institutions worldwide have contributed to this book, which should prove to be useful to students, teachers, and researchers in the disciplines of wastewater engineering, chemical engineering, environmental engineering, and biotechnology. We gratefully acknowledge the cooperation and support of all the contributing authors.

Design Manual

Onsite Wastewater Treatment and Disposal Systems

Advanced Materials and Technologies for Wastewater Treatment

CRC Press *Advanced Materials and Technologies for Wastewater Treatment discusses the methods and technologies of physical, chemical, biological, and thermo-catalytic treatment techniques. It includes the treatment of waste generated by municipal, agro-industry, and other industries including chemical, biomedical, pharmaceutical, textile, and other sectors. FEATURES Covers implementation of advanced water and wastewater treatment techniques, with a focus on pollutant or pathogen removal Includes qualitative and quantitative analyses Focuses on physical, chemical, and biological treatment technologies Discusses the advancements of materials and technologies applicable to both potable water and wastewater from industrial and municipal sources Explores future challenges and viable solutions This book is aimed at chemical and environmental engineers and researchers seeking a thorough treatment of innovative water treatment materials and techniques for practical applications.*

Eco-Engineered Bioreactors

Advanced Natural Wastewater Treatment

CRC Press *This book provides a comprehensive understanding of a highly innovative method of natural wastewater treatment using advanced in-groundbioreactors called Eco-Engineered Bioreactors (EEBs), and traces their evolution from the earliest aerated gravel bed versions once known as Engineered Wetlands (EWs) and now known as BREW Bioreactors (BBRs) all the way to today's wide slate of aerobic and anaerobic varieties. Treatment using EEBs involves passing wastewaters through excavated basins in which they contact fixed films of microbial consortia on permeable substrate media. Written from the perspective of ecological engineers designing EEBs, this guide covers updated information on the state-of-the-art for EEBs, covering their morphologies, testing methods, designs, operations, and microbiology.*

Advanced Water Treatment

Advanced Oxidation Processes

Elsevier *Advanced Water Treatment: Advanced Oxidation Processes reviews the most recent research findings and discusses new photocatalysts (such as TiO2, etc.) and their performance under different conditions. Furthermore, the book includes the use of UV LEDs (with H2O2) for the decomposition of organic pollutants and bacteria in various conditions and water samples. Advanced oxidation processes (AOPs) have widely been used in water and wastewater treatment. This book highlights their work towards improving energy-efficient and environmentally friendly technology for growing needs in water treatment. Includes most recent research on advanced water treatment using photocatalysis Covers novel photocatalysts for water purification Presents the use of sulphide materials in water purification*

Advanced Wastewater Treatment for Separation and Removal of Pharmaceutical Residues and Other Hazardous Substances

Needs, Technologies and Impacts : a Government-commissioned Report

Advanced Treatment Techniques for Industrial Wastewater

IGI Global *A heavy backlog of gaseous, liquid, and solid pollution has resulted from a lack of development in pollution control. Because of this, a need for a collection of original research in water and wastewater treatment, industrial waste management, and soil and ground water pollution exists. Advanced Treatment Techniques for Industrial Wastewater is an innovative collection of research that covers the different aspects of environmental engineering in water and wastewater treatment processes as well as the different techniques and systems for pollution management. Highlighting a range of topics such as agriculture pollution, hazardous waste management, and sewage farming, this book is an important reference for environmental engineers, waste authorities, solid waste management companies, landfill operators, legislators, environmentalists, and academicians seeking research on waste management.*

Wastewater Treatment

Advanced Processes and Technologies

CRC Press *Due to the heterogeneous nature of water streams from diverse domestic and industrial sources, and the equally diverse nature of pollutants that can be physical, chemical, and biological in nature, their treatment methods also must be varied in nature. Responding to this complex situation, Wastewater Treatment: Advanced Processes and Technologies p*

Advanced Design of Wastewater Treatment Plants: Emerging

Research and Opportunities

Emerging Research and Opportunities

IGI Global *With the advancement of new technologies, existing wastewater treatment units need to be reexamined to make them more efficient and to release the load currently placed on them. Thus, there is an urgent need to develop and adopt the latest design methodology to determine and remove harmful impurities from water sources. Advanced Design of Wastewater Treatment Plants: Emerging Research and Opportunities is a critical scholarly resource that explores the design of various units of wastewater treatment plants and treatment technologies that can produce reusable quality water from wastewater. The book covers topics that include the basic philosophy of wastewater treatment, designing principles of various wastewater treatment units, conventional treatment systems, and advanced treatment processes. It is an integral reference source for engineers, environmentalists, waste authorities, solid waste management companies, landfill operators, legislators, researchers, and academicians.*

Development in Wastewater Treatment Research and Processes

Removal of Emerging Contaminants from Wastewater through Bio-nanotechnology

Elsevier *Removal of Emerging Contaminants from Wastewater through Bio-nanotechnology showcases profiles of the nonregulated contaminants termed as "emerging contaminants, which comprise industrial and household persistent toxic chemicals, pharmaceuticals and personal care products (PPCPs), pesticides, surfactants and surfactant residues, plasticizers and industrial additives, manufactured nanomaterials and nanoparticles, microplastics, etc. that are used extensively in everyday life. The occurrence of "emerging contaminants in wastewater, and their behavior during wastewater treatment and production of drinking water are key issues in the reuse and recycling of water resources. This book focuses on the exploitation of Nano-biotechnology inclusive of the state-of-the-art remediate strategies to degrade/detoxify/stabilize toxic and hazardous contaminants and restore contaminated sites, which is not as comprehensively*

discussed in the existing titles on similar topics available in the global market. In addition, it discusses the potential environmental and health hazards and ecotoxicity associated with the widespread distribution of emerging contaminants in the water bodies. It also considers the life cycle assessment (LCA) of emerging (micro)-pollutants with suitable case studies from various industrial sources. Provides natural and ecofriendly solutions to deal with the problem of pollution Details underlying mechanisms of nanotechnology-associated microbes for the removal of emerging contaminants Describes numerous successful field studies on the application of bio-nanotechnology for eco-restoration of contaminated sites Presents recent advances and challenges in bio-nanotechnology research and applications for sustainable development Provides authoritative contributions on the diverse aspects of bio-nanotechnology by world's leading experts

Advanced Wastewater Treatment and Reclamation

Proceedings of the IAWPRC Conference Held in Cracow, Poland, 25-27 September 1989

Elements of biological wastewater treatment.- unit 2. Water and its impurities.- unit 3. Reactions in water solutions.- unit 4. Principles of advanced wastewater treatment.- unit 5. Dissolved oxygen.- unit 6. Organic pollutants.-

unit 7. Inorganic pollutants.- unit 8. pH and alkalinity

Industrial Wastewater Treatment, Recycling and Reuse

Butterworth-Heinemann *Industrial Wastewater Treatment, Recycling and Reuse is an accessible reference to assist you when handling wastewater treatment and recycling. It features an instructive compilation of methodologies, including advanced physico-chemical methods and biological methods of treatment. It focuses on recent industry practices and preferences, along with newer methodologies for energy generation through waste. The book is based on a workshop run by the Indus MAGIC program of CSIR, India. It covers advanced processes in industrial wastewater treatment, applications, and feasibility analysis, and explores the process intensification approach as well as implications for industrial applications. Techno-economic feasibility evaluation is addressed, along with a comparison of different approaches illustrated by specific case studies. Industrial Wastewater Treatment, Recycling and Reuse introduces you to the subject with specific reference to problems currently being experienced in different industry sectors, including the petroleum industry, the fine chemical industry, and the specialty chemicals manufacturing sector. Provides practical solutions for the treatment and recycling of industrial wastewater via case studies Instructive articles from expert authors give a concise overview of different physico-chemical and biological methods of treatment, cost-to-benefit analysis, and process comparison Supplies you with the relevant information to make quick process decisions*

Advanced Oxidation Processes for Wastewater Treatment

Emerging Green Chemical Technology

Academic Press *Advanced Oxidation Processes for Waste Water Treatment: Emerging Green Chemical Technology is a complete resource covering the fundamentals and applications of all Advanced Oxidation Processes (AOPs). This book presents the most up-to-date research on AOPs and makes the argument that AOPs offer an eco-friendly method of wastewater treatment. In addition to an overview of the fundamentals and applications, it details the reactive species*

involved, along with sections on reactor designs, thus helping readers understand and implement these methods. Presents in-depth coverage of all types of Advanced Oxidation Processes, including Super Critical Water Oxidation, Photo-Fenton and Like Processes Includes a fundamental review, applications, reactive species and reactor designs Reviews applications across waste types, including industrial waste, domestic and municipal sewage, and hospital wastes

Contaminants of Emerging Concern in Water and Wastewater

Advanced Treatment Processes

Butterworth-Heinemann *Contaminants of Emerging Concern in Water and Wastewater: Advanced Treatment Processes presents the state-of-the-art in the design and use of adsorbents, membranes, and UV/oxidation processes, along with the challenges that will need to be addressed to close the gap between development and implementation in water/wastewater treatment applications. Chapters cover adsorbent and membrane design and performance, direct comparison of performance data between new (inorganic and metal organic nanoporous materials) and classic adsorbents and membranes, a list of advantages, disadvantages, and challenges related to performance limitations, regenerability, and upscaling. In addition, users will find sections on the identification of potential site and off-site applications that are listed according to adsorbent and membrane types, transformation of CECs in low- and/or medium-pressure UV irradiation processes used for disinfection, the oxidation of CECs by chlorine and ozone, and a comparison of advanced oxidation processes for the treatment of a variety of CECs in water and wastewater. Addresses the advantages/disadvantages of select technologies, including energy resource needs and waste management issues of reverse osmosis, amongst other issues Presents information on the advancements of technology within the realm of Engineered Treatments of CECs Focuses on the inherent science and technology of advanced treatment processes*

Applications of New Concepts of Physical-Chemical Wastewater Treatment

Vanderbilt University, Nashville,

Tennessee September 18-22, 1972

Elsevier *Applications of New Concepts of Physical-Chemical Wastewater Treatment deals with novel concepts of physical-chemical wastewater treatment, with particular reference to their engineering applications. Topics covered range from ultrahigh rate filtration of municipal wastewater to the applicability of carbon adsorption in the treatment of petrochemical wastewaters, along with regeneration of activated carbon and dewatering of physical-chemical sludges. Comprised of 31 chapters, this volume begins with a discussion on the use of physical-chemical methods for the treatment of municipal wastes and for direct wastewater treatment. The following chapters focus on the interrelationships between biological treatment and physicochemical treatment; some problems associated with the treatment of sewage by non-biological processes; treatment of wastes generated by metal finishing and engineering industries; and the principles and practice of granular carbon reactivation. The precipitation of calcium phosphate in wastewaters is also considered, together with the use of surface stirrers for ammonia desorption from ponds. This book will be a valuable resource for chemists, engineers, government officials, and environmental policymakers.*

Advanced Wastewater Treatment

Physicochemical Methods for Water and Wastewater Treatment

Elsevier *Physicochemical Methods for Water and Wastewater Treatment*

Handbook of Advanced Wastewater Treatment

Van Nostrand Reinhold Company *Opisani so različni postopki čiščenja (bistrenje, filtracija, rekarbonacija, adsorpcija, dezinfekcija, demineralizacija) odpadnih vod.*

Wastewater Treatment

CRC Press *In an exhaustive compilation of current knowledge, Wastewater Treatment covers subjects that run the gamut from wastewater sources, characteristics, and monitoring to chemical treatments and nutrient removal. Thoroughly examining basic and advanced topics, this resource has it all. The wealth of easy-to-use tables and illustrations provides quick and clear references, making it indispensable. Schematic drawings of equipment and devices explain the technology and techniques. With the level of detail included, you can count on finding both introductory material and very technical answers to complex questions. It's seamless*

style clearly delineates what can and must be done to continue to improve the quality of our water. Wastewater Treatment is a valuable resource; appropriate for engineers and students but readable enough for anyone interested in the discipline. Béla G. Lipták speaks on Post-Oil Energy Technology on the AT&T Tech Channel.

Removal and Degradation of Pharmaceutically Active Compounds in Wastewater Treatment

Springer Nature *This book reviews water treatment technologies for the removal of pharmaceutically active compounds (PhACs). It provides the reader with an overview of state-of-the-art techniques and recent efforts to develop more sustainable approaches. After nearly two decades of research into the presence and impact of PhACs in the environment, they remain one of the hottest topics in the fields of environmental chemistry, toxicology and engineering. Accordingly, intensive research efforts are currently being devoted to water treatment technologies that can reduce the presence of these emerging contaminants in water bodies. This book examines various types of contaminated water from industry, hospitals and urban wastewater. It provides the reader with a range of potential solutions for water treatment and reuse, and addresses the advancement of analytical tools for evaluating the performance and efficiency of treatment technologies.*

Principles of advanced wastewater treatment

Simulation and Control of Advanced Wastewater Treatment Systems

Advanced Wastewater Treatment Using Powdered Activated Carbon in Recirculating Slurry Contractor-

clarifiers

Integrated and Hybrid Process Technology for Water and Wastewater Treatment

Elsevier *Tackling the issue of water and wastewater treatment nowadays requires novel approaches to ensure that sustainable development can be achieved. Water and wastewater treatment should not be seen only as an end-of-pipe solution but instead the approach should be more holistic and lead to a more sustainable process. This requires the integration of various methods/processes to obtain the most optimized design. Integrated and Hybrid Process Technology for Water and Wastewater Treatment discusses the state-of-the-art development in integrated and hybrid treatment processes and their applications to the treatment of a vast variety of water and wastewater sources. The approaches taken in this book are categorized as (i) resources recovery and consumption, (ii) optimal performance, (iii) physical and environmental footprints, (iv) zero liquid discharge concept and are (v) regulation-driven. Through these categories, readers will see how such an approach could benefit the water and wastewater industry. Each chapter discusses challenges and prospects of an integrated treatment process in achieving sustainable development. This book serves as a platform to provide ideas and to bridge the gap between laboratory-scale research and practical industry application. Includes comprehensive coverage on integrated and hybrid technology for water and wastewater treatment Takes a new approach in looking at how water and wastewater treatment contributes to sustainable development Provides future direction of research in sustainable water and wastewater treatment*

Wastewater Engineering: Treatment and Resource Recovery

McGraw-Hill Education *Wastewater Engineering: Treatment and Resource Recovery, 5/e is a thorough update of McGraw-Hill's authoritative book on wastewater treatment. No environmental engineering professional or civil or environmental engineering major should be without a copy of this book - describing the rapidly evolving field of wastewater engineering technological and regulatory changes that have occurred over the last ten years in this discipline, including: a new view of a wastewater as a source of energy, nutrients and potable water; more stringent discharge requirements related to nitrogen and phosphorus; enhanced understanding of the fundamental microbiology and physiology of the microorganisms responsible for the removel of nitrogen and phosphorus and other*

constituents; an appreciation of the importance of the separate treatment of return flows with respect to meeting more stringent standards for nitrogen removal and opportunities for nutrient recovery; increased emphasis on the treatment of sludge and the management of biosolids; increased awareness of carbon footprints impacts and greenhouse gas emissions, and an emphasis on the development of energy neutral or energy positive wastewater plants through more efficient use of chemical and heat energy in wastewater. This revision contains a strong focus on advanced wastewater treatment technologies and stresses the reuse aspects of wastewater and biosolids.

Aquaculture Systems for Wastewater Treatment

Seminar Proceedings and Engineering Assessment

Advanced Oxidation Processes (AOPs) in Water and Wastewater Treatment

IGI Global *Population growth and industrial development have increased the amount of wastewater generated by urban areas, and one of the major problems facing industrialized nations is the contamination of the environment by hazardous chemicals. Therefore, to meet the standards, suitable treatment alternatives should be established. Advanced Oxidation Processes (AOPs) in Water and Wastewater Treatment is a pivotal reference source that provides vital research on the current, green, and advanced technologies for wastewater treatment. While highlighting topics such as groundwater treatment, environmental legislation, and oxidation processes, this publication explores the contamination of environments by hazardous chemicals as well as the methods of decontamination and the reduction of negative effects on the environment. This book is a vital reference source for environmental engineers, waste authorities, solid waste management companies, landfill operators, legislators, environmentalists, and academicians seeking current research on achieving sustainable management for wastewater treatment.*

Advances in Wastewater Treatment

II

Materials Research Forum LLC *The book reviews advanced methods of wastewater treatments. Included are oxidation processes for the degradation of organic molecules; applications of nanomaterials and nanocomposites in membrane-based processes; design of adsorption columns; photocatalytic degradation processes; and the removal of dyes, pesticides and pharmaceutical compounds. Keywords: Degradation of Organic Molecules, Nano Filtration, Ultrafiltration, Microfiltration, Nanomaterial-based Membranes, Adsorption Columns, Nano Carbon Cage, Photocatalytic Degradation, Dyes, Pesticides, Pharmaceutical Compounds, Advanced Oxidation Processes, Complex Organic Molecules, Perfluorooctanoic Acid, Hydrolytic Acidification, Levofloxacin Degradation, Catalytic Degradation, Energy Storage.*

Recent Trends in Wastewater Treatment

Springer Nature *This volume discusses contemporary techniques, technologies, and solutions for industrial wastewater remediation and treatment. It covers biological, chemical, and physical aspects of wastewater treatment, with a background on the generation of wastewater associated with different industries, as well as a comparison of traditional treatment technologies with new advancements. The authors also describe the reuse and recovery of nutrients and precious metals from wastewater, and how such sustainable strategies can be incorporated into industrial wastewater planning and legislation. The book also contains practical and theoretical aspects of various industries and their wastewater management practices in a changing climate, with an emphasis on recent research examining the environmental impact of wastewater. The work will be of interest to students, teachers, and researchers studying wastewater pollution and remediation, wastewater management-based NGOs, and people involved in the planning and legislation of industrial operations.*

Nanotechnology in Water and Wastewater Treatment

Theory and Applications

Elsevier *Nanotechnology in Water and Waste Water Treatment: Theory and Applications explores the unique physicochemical and surface properties of nanoparticles and highlights the advantages they provide for engineering applications. Applications covered include the generation of fresh water from surface water and seawater, the prevention of the contamination of the environment, and the creation of effective and efficient methods for remediation of polluted waters.*

Each chapter covers a different nanotechnology-based approach and examines the basic principles, practical applications, recent breakthroughs and associated limitations. This book is ideal for researchers and professionals in the fields of nanotechnology, water treatment and desalination. In addition, it is also ideal for postgraduate students, industry and government professionals, managers and policymakers. Gathers together the latest research and developments in the field from journal articles and conference proceedings Discusses and evaluates the most economical and low cost treatment technologies Presents information from related fields on the applicability, strengths and weaknesses of particular nanomaterials in key applications, thus allowing for the continuation and expansion of research in a range of fields

Fundamentals of Wastewater Treatment and Engineering

CRC Press *The 2nd edition of Fundamentals of Wastewater Treatment and Design introduces readers to the fundamental concepts of wastewater treatment, followed by engineering design of unit processes for sustainable treatment of municipal wastewater and resource recovery. It has been completely updated with new chapters to reflect current advances in design, resource recovery practices and research. Another highlight is the addition of the last chapter, which provides a culminating design experience of both urban and rural wastewater treatment systems. Filling the need for a textbook focused on wastewater, it covers history, current practices, emerging concerns, future directions and pertinent regulations that have shaped the objectives of this important area of engineering. Basic principles of reaction kinetics, reactor design and environmental microbiology are introduced along with natural purification processes. It also details the design of unit processes for primary, secondary and advanced treatment, as well as solids processing and removal. Recovery of water, energy and nutrients are explained with the help of process concepts and design applications. This textbook is designed for undergraduate and graduate students who have some knowledge of environmental chemistry and fluid mechanics. Professionals in the wastewater industry will also find this a handy reference.*

Industrial Wastewater Treatment

Emerging Technologies for Sustainability

Springer Nature

Municipal wastewater treatment construction grants program

hearings before the Subcommittee on Environmental Pollution of the Committee on Environment and Public Works, United States Senate, Ninety-seventh Congress, first session, on S. 975 ... and S. 1274 ....

Wastewater Treatment Plants

Planning, Design, and Operation, Second Edition

Routledge *Step-by-step procedures for planning, design, construction and operation: * Health and environment * Process improvements * Stormwater and combined sewer control and treatment * Effluent disposal and reuse * Biosolids disposal and reuse * On-site treatment and disposal of small flows * Wastewater treatment plants should be designed so that the effluent standards and reuse objectives, and biosolids regulations can be met with reasonable ease and cost. The design should incorporate flexibility for dealing with seasonal changes, as well as long-term changes in wastewater quality and future regulations. Good planning and design, therefore, must be based on five major steps: characterization of the raw wastewater quality and effluent, pre-design studies to develop alternative processes and selection of final process train, detailed design of the selected alternative, contraction, and operation and maintenance of the completed facility. Engineers, scientists, and financial analysts must utilize principles from a wide range of disciplines: engineering, chemistry, microbiology, geology, architecture, and economics to carry out the responsibilities of designing a wastewater treatment plant. The objective of this book is to present the technical and nontechnical issues*

that are most commonly addressed in the planning and design reports for wastewater treatment facilities prepared by practicing engineers. Topics discussed include facility planning, process description, process selection logic, mass balance calculations, design calculations, and concepts for equipment sizing. Theory, design, operation and maintenance, trouble shooting, equipment selection and specifications are integrated for each treatment process. Thus delineation of such information for use by students and practicing engineers is the main purpose of this book.

Wastewater Treatment

Cutting-Edge Molecular Tools, Techniques and Applied Aspects

Elsevier *Wastewater Treatment: Cutting-Edge Molecular Tools, Techniques and Applied Aspects reports new findings in existing molecular biology strategies, including their limitations, challenges and potential application to remove environmental pollutants through advancements made in cutting edge tools. In addition, the book introduces new trends and advances in environmental bioremediation with thorough discussions on recent developments in this field. Describes the application of different omics tools in wastewater treatment plants (WWTPs) Describes the role of microorganisms in WWTPs Points out the reuse of treated wastewater through emerging technologies Includes the recovery of resources from wastewater Emphasizes the need for the use of cutting-edge molecular tools*

Petroleum Industry Wastewater

Advanced and Sustainable Treatment Methods

Elsevier *Petroleum Industry Wastewater: Advanced and Sustainable Treatment Methods discusses the status of different approaches and advanced processes involved in the treatment of petrochemical and petroleum industry wastewater. The book focuses on advanced, sustainable, and environmentally friendly technologies for removing toxic pollutants from contaminated waters. The book also explores the environmental aspects and impacts of the petroleum industry discharge wastewater, their effect on aquatic life, and possible ways to deal with these effects. Keeping the global water crisis and fast depletion of natural fresh water in mind, more immediate knowledge, information, implication, and effective utilization of available resources are required than we anticipated. The book brings a wide range of methodologies and perspectives under one roof in a comprehensive manner. Describes advanced strategies and methods involved in petroleum industry water treatment Deals with*

ways to treat discharged water through cutting-edge technologies Presents an overview of pollutant degradation in industrial wastewater Highlights advanced and technological know-how for a variety of applications