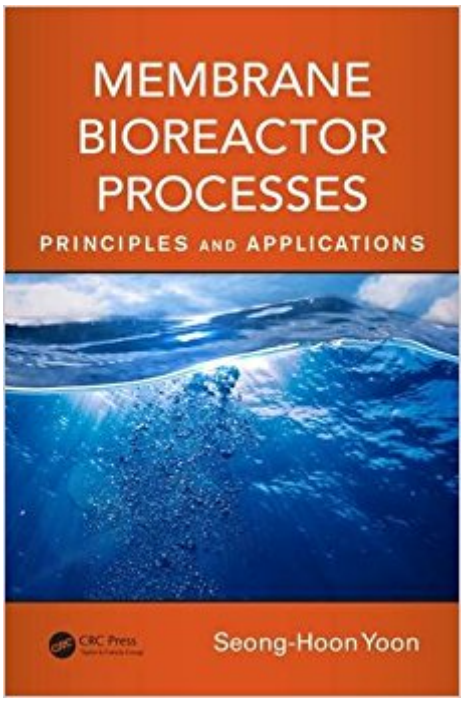
Membrane Bioreactor Processes: Principles And Applications (Advances In Water And Wastewater Transport And Treatment)



Synopsis

Grasp the Essential Principles of Membrane Bioreactor Processes Evolved from the conventional activated sludge (CAS) process, membrane bioreactor (MBR) processes have become the next-generation solution for municipal and industrial wastewater treatment and recycle. Membrane Bioreactor Processes: Principles and Applications explores nearly all the theoretical and practical aspects of membrane bioreactor technologies. Using the authorâ ™s expertise obtained from academia and industry, this book provides the crucial details on MBR technology that that you need toÂ know. The book detailsÂ the theoretical and practical backgrounds of current practices involved with membrane module design, biological and membrane system design, system optimization, and system operation. Outlines the State of the Art of the Membrane Bioreactor Technology The text discusses the fundamentals of membrane filtration, emphasizing the principles of submerged membrane filtration. It also explores the complex interaction among key design and operating parameters, offers comprehensive explanations on the interconnectivity between biological and membrane systems, and covers new findings discovered in recent years. This book clearly explains how small-scale systems perform differently from larger-scale systems and its implications in data interpretation. Using this book as a platform, the technology can be developed further and quickly applied in future processes.

Book Information

Series: Advances in Water and Wastewater Transport and Treatment
Hardcover: 452 pages
Publisher: CRC Press; 1 edition (June 23, 2015)
Language: English
ISBN-10: 1482255839
ISBN-13: 978-1482255836
Product Dimensions: 7.1 x 1.1 x 10 inches
Shipping Weight: 2.2 pounds (View shipping rates and policies)
Average Customer Review: 5.0 out of 5 stars 1 customer review
Best Sellers Rank: #1,681,595 in Books (See Top 100 in Books) #108 inÂ Books > Engineering & Transportation > Engineering > Chemical > Unit Operations & Transport Phenomena #365 inÂ Books > Engineering & Transportation > Engineering > Civil & Environmental > Environmental > Waste Management #454 inÂ Books > Science & Math > Nature & Ecology > Water Supply & Land Use

Customer Reviews

"â | bridges the gap between academic research and the practical know-how obtained from the field. It is a must-read for anybody that wants to understand the state of the art of the membrane bioreactor process and gain insight into the fundamental science behind it."â •Dr. Pierre CÃ´tÃ©, COTE Membrane Separation Ltd "Seong-Hoon Yoonâ ™s strong academic background, coupled with his many years of practical experience in industry, are evident in this very informative book. I think that this will become essential reading for anyone involved in MBR applications and research."â •Professor A.G. (Tony) Fane, Singapore Membrane Technology Centre, Nanyang Technological University, Singapore "â | spans the range of knowledge needed, beginning with the fundamental principles of membrane systems and continuing through to practical aspects of the design and operation of complete systems. Throughout, the combination of in-depth and practical knowledge of the author, along with his ability to convey this knowledge in a clear and compelling fashion, shines through â |"â •Dr. Glen T. Daigger, One Water Solutions "This book provides by far the most comprehensive information to academic researchers and industry practitioners who wish to study and practice membrane bioreactor technology. I cannot wait to use this book as a reference for my undergraduate and graduate courses at Yale University."â •Jaehong Kim, Professor of Environmental Engineering, Yale University

Seong-Hoon Yoon is a senior staff engineer of Nalco, an Ecolab company, located in Illinois, USA, where he has served since 2001. He received his BS, MS, and PhD degrees in chemical technology from Seoul National University in 1991, 1994, and 1998, respectively. Dr. Yoon was a research engineer at the LG group in Seoul, Korea, before joining Nalco. Throughout his career, Dr. Yoon has been dedicated to advancing water treatment processes with an emphasis on membrane separation. His interests include water reuse and recycle; chemical, biological, and physical water treatment; gas transfer membranes; and information and communication technologies for remote monitoring and control.

Membrane Bioreactor Processes: Principles and Applications (Advances in Water and Wastewater Transport and Treatment)I am a field engineer working for a water related service company. I bought this book after reading the editorial reviews . As reviewer said, it was indeed well written book with great details on MBR technology. This book provides a great deal of information on the principles of membrane filtration and membrane module design, which are hardly found in other MBR books I have, It is very impressive that the author explains why MBR is operated at the current

conditions based on the theory and his experiences. I haven't read all of the contents, but I am exited to have this book that will be my reference book for the years to come.

Membrane Bioreactor Processes: Principles and Applications (Advances in Water and Wastewater Transport and Treatment) Pure Water: The Science of Water, Waves, Water Pollution, Water Treatment, Water Therapy and Water Ecology Fair, Geyer, and Okun's, Water and Wastewater Engineering: Water Supply and Wastewater Removal The Principles of Ion-Selective Electrodes and of Membrane Transport (Studies in Analytical Chemistry) Water-Quality Engineering in Natural Systems: Fate and Transport Processes in the Water Environment ASTNA Patient Transport: Principles and Practice, 4e (Air & Surface Patient Transport: Principles and Practice) ASTNA Patient Transport - E-Book: Principles and Practice (Air & Surface Patient Transport: Principles and Practice) Advanced Transport Phenomena: Fluid Mechanics and Convective Transport Processes (Cambridge Series in Chemical Engineering) Spellman's Standard Handbook for Wastewater Operators: Fundamentals, Volume I (Spellman's Standard Handbook for Wastewater Operators Series) (Volume 1) Environmental Engineering: Water, Wastewater, Soil and Groundwater Treatment and Remediation (v. 1) Theory and Practice of Water and Wastewater Treatment Handbook of Water and Wastewater Treatment Plant Operations Handbook of Water and Wastewater Treatment Technologies Wetlands for Tropical Applications: Wastewater Treatment by Constructed Wetlands Water Clarity Secrets for Ponds and Water Gardens: The Quick and Easy Way to Crystal Clear Water (Water Garden Masters Series Book 5) Fruit Infused Water - 80 Vitamin Water Recipes for Weight Loss, Health and Detox Cleanse (Vitamin Water, Fruit Infused Water, Natural Herbal Remedies, Detox Diet, Liver Cleanse) Water Quality & Treatment: A Handbook on Drinking Water (Water Resources and Environmental Engineering Series) An Introduction to Modeling of Transport Processes: Applications to Biomedical Systems (Cambridge Texts in Biomedical Engineering) The Definitive Guide To Well Water Treatment: Effective Treatment for Problem Well Water Transport Processes and Separation Process Principles (Includes Unit Operations), 4th Ed.