1. Record Nr. UNINA9910778809603321

Titolo	Membrane technologies and applications / / [edited by] Kaustubha Mohanty and Mihir K. Purkait
Pubbl/distr/stampa	Boca Raton : , : CRC Press, , 2011
ISBN	0-429-07548-0 1-280-12157-2 9786613525437 1-4398-0527-X
Descrizione fisica	1 online resource (504 p.)
Classificazione	SCI013060TEC001000TEC010000
Altri autori (Persone)	MohantyKaustubha PurkaitMihir K
Disciplina	660/.28424
Soggetti	Membrane separation Membranes (Technology)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Dedication; Contents; Preface; Editors; Contributors; Chapter 1: New Materials, New Devices, New Solutions: How to Prepare a Membrane; Chapter 2: Asymmetric Polyethersulfone Membranes: Preparation and Application; Chapter 3: Preparations and Applications of Inorganic-Organic Charged Hybrid Membranes: A Recent Development and Perspective; Chapter 4: Preparation and Applications of Zeolite Membranes: A Review; Chapter 5: Technological Applications of Composite Membranes; Chapter 6: Treatment of Kraft Black Liquor Using Membrane-Based Separation Process Chapter 7: Treatment of Refinery Wastewater Using Membrane ProcessesChapter 8: Advanced Oxidation Process and Nanofiltration for Treatment of TextilePlant Effluent: A Brief Review; Chapter 9: Micellar-Enhanced Ultrafiltration and Its Applications; Chapter 10: Membrane Hybrid Systems in Wastewater Treatment; Chapter 11: Membrane Emulsification: Current State of Affairs and Future Challenges; Chapter 12: Emerging Membrane Technologies and Applications for Added-Value Dairy Ingredients; Chapter 13: Membrane-Based Separation Process for Juice Processing

Chapter 14: Fouling in Membrane Processes Used for Water and Wastewater TreatmentChapter 15: Fundamentals of Liquid Membrane; Chapter 16: Applications and Advances with Supported Liquid Membranes; Chapter 17: Ionic Liquid-Based Supported Liquid Membranes; Chapter 18: Solving Challenging Industrial Separation Problems through Electrodialysis; Chapter 19: Hemodialysis Membranes: History, Properties, and Future Development; Chapter 20: Separation of Homogeneous Liquid Mixtures by Pervaporation; Chapter 21: Carbon Dioxide-Selective Membranes
Chapter 22: Gas Absorption of CO2 and H2S Using Membrane ContactorsChapter 23: Membrane Reactor: Concept, Applications, and Prospects; Chapter 24: Enzymatic Membrane Reactors in Applications of Membrane Separations Technology: Recent Advances; Chapter 25: Membranes for Fuel Cell Application: Hybrid Organic and Inorganic Membranes

Sommario/riassunto

Membrane technologies play an increasingly important role in unit operations for resource recovery, pollution prevention, and energy production, as well as environmental monitoring and quality control. They are also key component technologies of fuel cells and bioseparation applications. Membrane Technologies and Applications provides essential data and background information on various dimensions of membrane technologies, with a major focus on their practical application. Membranes of inorganic materials offer cost-effective solutions for simple to complex separation problems. This book is designed for anyone interested in water and wastewater treatment, membrane suppliers, as well as students and academics studying the field. --
This book is written to provide in one place the essential data and background materials on various aspects of membrane technology with a major coverage on application. It is intended for the following technologists so they do not need to gather scattered information from the current and past literature: industrial as well as situational researchers, application scientists and engineers with an interest in membrane technologies and students pursuing advanced separation studies--