DESCRIPTION

A detailed look at the most recent developments in sustainable membrane technology for use in energy, water, and the environment

A collection of twenty-seven groundbreaking papers on important ideas about the development of membrane science and technology, Sustainable Membrane Technology for Energy, Water, and Environment brings together contributions from leading international experts in one comprehensive volume. Covering the latest developments and most innovative ideas in the field, this book is a unique resource for understanding the growing interest in using membranes across several industries.

Divided into six chapters that cover new membrane materials and membrane development; membrane applications for gas and vapor separation; membrane applications in water treatment; environmental applications of membranes; energy applications of membranes; and other industrial membrane applications, the book looks at the current and emerging applications for membrane science and technology in detail. As the Association of Southeast Asian Nations (ASEAN) and the Middle East emerge as the next generation of membrane research and development centers, in part due to their need for water and natural gas production technology, this book provides invaluable insights into the cutting-edge work taking place in these regions. Additional topics covered also include new membrane materials, membrane applications for food processing, and much more.

Designed for engineers, scientists, professors, and graduate students who are engaged in membrane R&D activities, as well as for anyone interested in sustainable development, Sustainable Membrane Technology for Energy, Water, and Environment is a cutting-edge look at membrane applications.
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Takeshi Matsuura is a Distinguished Visiting Professor at UTM and a Professor Emeritus in the Department of Chemical and Biological Engineering at the University of Ottawa, Canada. He is also a former member of the National Research Council of Canada. Prof. Matsuura is one of the prominent scientists in membrane science and technology for his enormous contributions in the field. He is one of the pioneers of nanofiber membrane applications for water treatment. His work has inspired an entire generation of membrane scientists and process engineers to apply fundamental scientific engineering principles in order to develop and deploy fouling and scaling monitoring and prevention methods. Prof. Matsuura has published over 350 papers in refereed journals.

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