DESCRIPTION

Membrane Technology - a clean and energy saving alternative to traditional/conventional processes.

Developed from a useful laboratory technique to a commercial separation technology, today it has widespread and rapidly expanding use in the chemical industry. It has established applications in areas such as hydrogen separation and recovery of organic vapors from process gas streams, and selective transport of organic solvents, and it is opening new perspectives for catalytic conversion in membrane reactors. Membrane technology provides a unique solution for industrial waste treatment and for controlled production of valuable chemicals.

This book outlines several established applications of membranes in the chemical industry, reviews the available membranes and membrane processes for the field, and discusses the huge potential of this technology in chemical processes.

Each chapter has been written by an international leading expert with extensive industrial experience in the field.

ABOUT THE AUTHOR

S. P. Nunes is currently head of Polymer Technology at GKSS Research Center Geesthacht in Germany. She has been working on the development of polymeric materials and membranes for different applications for over 20 years, with over 65 papers in international journals and 100 contributions to congresses. In the last four years she has dedicated her time to the membrane
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K.-V. Peinemann is currently Senior Scientist at GKSS Research Center Geesthacht in Germany and has worked in the field of membrane science and technology for 25 years. He has organized numerous international workshops on membrane formation and has been lecturing since 1995 at the University of Hanover. From 2002 to 2004, Professor Peinemann served as President of the European Membrane Society and is co-founder of the membrane company GMT Membrantechnik in Rheinfelden, Germany. He has published some 80 papers in international journals and holds 15 membrane-related patents.

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part I: new chapter 6 on fuel cell membranes

part II: new chapter 4 on organic solvent nanofiltration

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