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Nota di contenuto	Front Cover; Contents; Preface; Editors; List of Contributors; Chapter 1: Polymeric Membranes; Chapter 2: Electrospinning : A Practical Approach for Membrane Fabrication; Chapter 3: Control of Crystallization of Poly(Lactic Acid) Membranes; Chapter 4: Innovative Methods to Improve Nanofiltration Performance through Membrane Fabrication and Surface Modification Using Various Types of Polyelectrolytes; Chapter 5: Polysaccharides : A Membrane Material; Chapter 6: Cellulose and Its Derivatives for Membrane Separation Processes; Chapter 7: PVDF Hollow-Fiber Membrane Formation and Production Chapter 8: PVDF Membranes for Membrane Distillation : Controlling Pore Structure, Porosity, Hydrophobicity, and Mechanical StrengthChapter 9: Membrane Contactor for Carbon Dioxide Absorption and Stripping; Chapter 10: Microstructured Ceramic Hollow-Fiber Membranes : Development and Application; Chapter 11: Ceramic Hollow-Fiber Support through a Phase Inversion-Based Extrusion/Sintering Technique for High-Temperature Energy Conversion Systems Chapter 12: Development of Large-Scale Industrial Applications of

Novel Membrane Materials : Carbon Nanotubes, Aquaporins, Nanofibers, Graphene, and Metal-Organic Frameworks
Chapter 13: Pd-Based Membranes and Membrane Reactors for Hydrogen Production; Chapter 14: Current Progress of Nanomaterial/Polymer Mixed-Matrix Membrane for Desalination; Chapter 15: Fabrication of Polymeric and Composite Membranes; Chapter 16: Strategies to Use Nanoparticles in Polymeric Membranes; Chapter 17: Surface Modification of Inorganic Materials for Membrane Preparation

Sommario/riassunto

<P>Bringing together experts from the fields of inorganic, polymeric, and composite membranes, this book discusses how different membranes can be fabricated and tailored for specific applications. The book details the effects of different fabrication conditions on the three types of membranes and how these fabrication conditions can be controlled to optimize membrane construction and the subsequent application of the membrane system.</P>