

1. Record Nr.	UNINA9910827459103321
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Titolo	Inorganic membrane reactors : fundamentals and applications // Xiaoyao Tan, Kang Li
Pubbl/distr/stampa	Chichester, England : , : Wiley, , 2015 ©2015
ISBN	1-118-67255-0 1-118-67274-7 1-118-67283-6
Descrizione fisica	1 online resource (307 p.)
Disciplina	660/.2832
Soggetti	Membrane reactors
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 at the end of each chapters.
Nota di contenuto	Inorganic Membrane Reactors: Fundamentals and Applications; Copyright; Contents; Preface; Chapter 1 Fundamentals of Membrane Reactors; 1.1 Introduction; 1.2 Membrane and Membrane Separation; 1.2.1 Membrane Structure; 1.2.2 Membrane Separation; 1.2.3 Membrane Performance; 1.3 Inorganic Membranes; 1.3.1 Types of Inorganic Membranes; 1.3.2 Fabrication of Inorganic Membranes; 1.3.3 Characterization of Inorganic Membranes; 1.3.4 Applications of Inorganic Membranes; 1.4 Inorganic Membrane Reactors; 1.4.1 Basic Principles of Membrane Reactors; 1.4.2 Incorporation of Catalyst in Membrane Reactors 1.4.3 Configuration of Membrane Reactors 1.4.4 Classification of Membrane Reactors; References; Chapter 2 Porous Membrane Reactors; 2.1 Introduction; 2.2 Gas Permeation in Porous Membranes; 2.2.1 Types of Porous Membranes; 2.2.2 Transport Mechanisms; 2.2.3 Gas Permeation Flux through Porous Membranes; 2.3 Preparation of Porous Membranes; 2.3.1 Dip-Coating Method; 2.3.2 Sol-Gel Method; 2.3.3 Chemical Vapor Deposition Method; 2.3.4 Phase Inversion Method; 2.3.5 Other Preparation Methods; 2.4 Porous Membranes for Chemical Reactions; 2.4.1 Membrane Materials; 2.4.2 Membrane Functions 2.5 Catalysis in Porous Membrane Reactors 2.5.1 Catalyst in Membrane

Reactors; 2.5.2 Catalyst Deposition in Porous Membranes; 2.6 Operation of Porous Membrane Reactors; 2.6.1 Packed Bed Membrane Reactors; 2.6.2 Catalytic Membrane Reactors; 2.6.3 Coupling of Membrane Functions; 2.6.4 Non-uniform Distribution of Membrane Permeability; 2.7 Applications of Porous Membrane Reactors; 2.7.1 Dehydrogenation Reactions; 2.7.2 Reforming Reactions for Hydrogen Production; 2.7.3 Partial Oxidation Reactions; 2.7.4 Gas-Liquid-Solid Multiphase Reactions; 2.7.5 Other Reactions; 2.8 Prospects and Challenges
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Sommario/riassunto

Membrane reactors combine membrane functions such as separation, reactant distribution, and catalyst support with chemical reactions in a single unit. The benefits of this approach include enhanced conversion, increased yield, and selectivity, as well as a more compact and cost-effective design of reactor system. Hence, membrane reactors are an effective route toward chemical process intensification. This book covers all types of porous membrane reactors, including ceramic, silica, carbon, zeolite, and dense metallic reactors such as Pd or Pd-alloy, oxygen ion-conducting, and proton-conducting
