Record Nr. UNINA9910818406703321 Nanoporous materials: synthesis and applications / / edited by Qiang **Titolo** Pubbl/distr/stampa Boca Raton, FL,: CRC London, : Taylor & Francis [distributor], 2013 **ISBN** 0-429-08636-9 1-4398-9207-5 Edizione [1st ed.] Descrizione fisica 1 online resource (371 p.) Altri autori (Persone) XuQiang Disciplina 620.116 Soggetti **Nanopores** Nanostructured materials Porous materials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di contenuto Front Cover: Contents: Preface: Editor: Contributors: Chapter 1 -Nanoporous Polymers; Chapter 2 - Design, Synthesis, and Functions of Conjugated Microporous Polymers; Chapter 3 - Nanoporous Metal-Organic Frameworks; Chapter 4 - Ordered Mesoporous Carbons Prepared by a Soft-Templating Method; Chapter 5 - Dealloyed Nanoporous Metals; Chapter 6 - Synthesis of Mesoporous Metal Oxides and Metals and Their Applications; Chapter 7 - Preparation of Nanoporous Semiconductor-Based Materials for Photocatalytic Applications; Chapter 8 - Layered Zeolites: Structure Modification and Application Chapter 9 - Applications of Pore Voids of Mesoporous Silica to Acid Catalysts and Controlled ReleaseChapter 10 - Nanopore Glass: Chapter 11 - Open-Framework Germanates and Related Materials; Back Cover In the past two decades, the field of nanoporous materials has Sommario/riassunto undergone significant developments. As these materials possess high specific surface areas, well-defined pore sizes, and functional sites, they show a great diversity of applications such as molecular adsorption/storage and separation, sensing, catalysis, energy storage and conversion, drug delivery, and more. Nanoporous Materials:

Synthesis and Applications surveys the key developments in the synthesis of nanoporous materials in a broad range from soft porous materials-such as porous organic and metal-organic frameworks-to hard po