

1. Record Nr.	UNINA9910346844003321
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Titolo	Transport of Fluids in Nanoporous Materials / Suresh K. Bhatia, David Nicholson, Xuechao Gao, Guozhao Ji
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2019 Basel, Switzerland : , : MDPI, , 2019
ISBN	9783038975304 3038975303
Descrizione fisica	1 electronic resource (260 p.)
Soggetti	Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Fluid transport in narrow pores is central to the design and optimization of nanoporous materials in industrial applications, such as catalysis, nanofluids, electrochemical batteries, and membrane separation. However, due to the strong potential field in nanopores, conventional models and methods have become inadequate for predicting the transport behavior of molecules confined in the pore space. In addition, the inherent complexity of the pore structure in nanomaterials requires consideration of local or nanoscale transport at the single pore level, and averaging over the macroscale, which further impedes the application and validation of the formulated mechanical models. To solve the problem of fluid transport in narrow nanopores beyond Knudsen limits, experimental characterizations should be combined to molecular simulations in order to probe the fluid movement under realistic conditions. This book provides comprehensive perspectives on the current research in the investigation of fluid transport processes in nanomaterials. The articles from leading scholars in this field are conveniently arranged according to three categories based on the approaches used in the papers: modeling and simulation, nanomaterial manipulation and characterization, and practical application. The 14 contributions not

only demonstrate the importance of fluid behavior in different applications but also address the main theories and simulations to model the fluid transport behavior in nanoporous materials. This collection shows that "fluid transport in nanomaterials" remains a versatile and vibrant topic in terms of both theories and applications.
