Record Nr.	UNINA9910788023003321
Titolo	Heat transfer enhancement with nanofluids / / editors, Vincenzo Bianco, Oronzio Manca, Sergio Nardini, and Kambiz Vafai
Pubbl/distr/stampa	Boca Raton : , : CRC Press, , [2015] ©2015
ISBN	0-429-17183-8 1-138-74948-6
Descrizione fisica	1 online resource (473 p.)
Disciplina	621.402/2 621.4022
Soggetti	Heat exchangers - Fluid dynamics Nanofluids Microfluidics
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 at the end of each chapters.
Nota di contenuto	Front Cover; Contents; Preface; Contributors; Chapter 1: Properties of Nanofluid; Chapter 2: Exact Solutions and Their Implications in Anomalous Heat Transfer; Chapter 3: Mechanisms and Models of Thermal Conductivity in Nanofluids; Chapter 4: Experimental Methods for the Characterization of Thermophysical Properties of Nanofluids; Chapter 5: Nanofluid Forced Convection; Chapter 6: Experimental Study of Convective Heat Transfer in Nanofluids; Chapter 7: Performance of Heat Exchangers Using Nanofluids; Chapter 8: Thermal Nanofluid Flow in Microchannels with Applications Chapter 9: Use of Nanofluids for Heat Transfer Enhancement in Mixed ConvectionChapter 10: Buoyancy-Driven Convection of Enclosed Nanoparticle Suspensions; Chapter 11: Modeling Convection in Nanofluids; Chapter 12: Convection and Instability Phenomena in Nanofluid-Saturated Porous Media; Chapter 13: Nanofluid Two-Phase Flow and Heat Transfer; Chapter 14: Heat Pipes and Thermosyphons Operated with Nanofluids; Chapter 15: Entropy Generation Minimization in Nanofluid Flow; Chapter 16: Gas-Based Nanofluids (Nanoaerosols); Color Insert; Back Cover

1.

Properties of NanofluidSamuel Paolucci and Gianluca PolitiExact Solutions and Their Implications in Anomalous Heat TransferWenhao Li, Chen Yang and Akira NakayamaMechanisms and Models of Thermal Conductivity in NanofluidsSeung-Hyun Lee and Seok Pil JangExperimental Methods for the Characterization of Thermophysical Properties of NanofluidsSergio Bobbo and Laura FedeleNanofluid Forced ConvectionGilles RoyExperimental Study of Convective Heat Transfer in NanofluidsEhsan B. Haghighi, Adi T. Utomo, Andrzej W. Pacek and Björn E. PalmPerformance of Heat Exchangers Using NanofluidsBengt Sundén and Za