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Titolo	Engineering Applications of Nanotechnology [[electronic resource]] : From Energy to Drug Delivery / / edited by Viswanatha Sharma Korada, Nor Hisham B Hamid
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ISBN	3-319-29761-9
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (VI, 334 p. 87 illus.)
Collana	Topics in Mining, Metallurgy and Materials Engineering, , 2364-3293
Disciplina	620.5
Soggetti	Nanotechnology Tribology Corrosion and anti-corrosives Coatings Engineering—Materials Energy harvesting Nanotechnology and Microengineering Tribology, Corrosion and Coatings Materials Engineering Energy Harvesting
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Stability of nanofluids -- Influence of Certain Parameters on Properties of Nanofluids Dispersed with Spherical Particles -- Heat transfer enhancement with nanofluids for automotive cooling -- to Ionanofluids Applications and Challenges Nanofluids to Ionanofluids: Applications and Challenges Transparent Carbon nanotubes (CNTs) as antireflection and self-cleaning solar cells coating -- Nanofluids For Enhanced Solar Thermal Energy Conversion -- Thin film hydrodynamic bearing analysis using nanoparticle additive lubricants -- Mechanism of Heat Transfer with Nanofluids for the Application in Oil Wells -- Zinc Oxide Nanoparticles for Enhanced Oil Recovery -- Conclusions -- References.
Sommario/riassunto	This book focuses on the use of nanotechnology in several fields of engineering. Among others, the reader will find valuable information as

to how nanotechnology can aid in extending the life of component materials exposed to corrosive atmospheres, in thermal fluid energy conversion processes, anti-reflection coatings on photovoltaic cells to yield enhanced output from solar cells, in connection with friction and wear reduction in automobiles, and buoyancy suppression in free convective heat transfer. Moreover, this unique resource presents the latest research on nanoscale transport phenomena and concludes with a look at likely future trends.