

1. Record Nr.	UNINA9911020145403321
Titolo	Advances in nanomaterials and nanostructures // edited by Kathy Lu ... [et al.]
Pubbl/distr/stampa	Hoboken, N.J., : American Ceramic Society, : Wiley, 2011
ISBN	9786613298799 9781283298797 1283298791 9781118144596 1118144597 9781118144602 1118144600 9781118144572 1118144570
Descrizione fisica	1 online resource (208 p.)
Collana	Ceramic transactions, , 1042-1122 ; ; v. 229
Altri autori (Persone)	LuKathy
Disciplina	620.1/15 620.115
Soggetti	Nanostructured materials Nanostructures
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.
Nota di contenuto	Advances in Nanomaterials and Nanostructures; Contents; Preface; CONTROLLED PROCESSING OF NANOPARTICLE-BASED MATERIALS AND NANOSTRUCTURED FILMS; Effect of Focused Ion Beam Patterning on Enlarging Anodization Window and Interpore Distance for Ordered Porous Anodic Alumina; Thin Films of TiO2 with Au Nanoparticles for Photocatalytic Degradation of Methylene Blue; New Entropic Routes for Nano-Bands and Nano-Particles; Photoinduced Shape Evolution of Silver Nanoparticles: From Nanospheres to Hexagonal and Triangular Nanoprisms; Synthesis of CdS Nanocrystals Stabilized with Sodium Citrate Freezing Behavior and Properties of Freeze Cast Kaolinite-Silica Porous NanocompositeControlling the Size of Magnetic Nanoparticles for Drug

Applications; Chemical Growth and Optoelectronic Characteristics of TiO₂ Thin Film; Synthesis of Manganese Oxides Nanocompounds for Electrodes in Electrochemical Capacitors; NANOTECHNOLOGY FOR ENERGY, HEALTHCARE AND INDUSTRY; Finite Element Modeling of Sapphire Photonic Crystal Fibers; Magnetically-Driven Release Media Comprising of Carbon Nanotube-Nickel/Nickel Oxide Core/Shell Nanoparticle Heterostructures Incorporated in Polyvinyl Alcohol Single-Walled Carbon Nanotube Dispersion Structures for Improved Energy Density in Supercapacitors; The Mechanochemical Formation of Functionalized Semiconductor Nanoparticles for Biological, Electronic and Superhydrophobic Surface Applications; Synthesis of ZnO Nanostructures and Their Influence on Photoelectrochemical Response for Solar Driven Water Splitting to Produce Hydrogen; Capped CoFe₂O₄ Nanoparticles: Non-Hydrolytic Synthesis, Characterization, and Potential Applications as Magnetic Extractants and in Ferrofluids; Nanomaterial Fiber Optic Sensors in Healthcare and Industry Applications; Plasmonic Silver Nanoparticles for Energy and Optoelectronic Applications; NANOLAMINATED TERNARY CARBIDES; Tribofilm Formation using Ti₂AlC Material; Author Index

Sommario/riassunto

This book contains 17 papers from the Controlled Processing of Nanoparticle-based Materials and Nanostructured Films; Nanotechnology for Energy, Healthcare, and Industry; and Nanolaminated Ternary Carbides and Nitrides (MAX Phases) symposia held during the 2010 Materials Science and Technology (MS&T'10) meeting, October 17-21, 2010, Houston, Texas. Topics include: Direct Manufacturing; Low Dimension Nanomaterials; Processing and Sintering; Thin Films; Nanolaminated Ternary Carbides and Nitrides (MAX Phases); and Novel Nanomaterial Approaches.
