

1. Record Nr.	UNINA9910139864803321
Titolo	Processing of nanoparticle structures and composites [[electronic resource]] : a collection of papers presented at the 2008 Materials Science and Technology Conference (MS&T08) October 5-9, 2008, Pittsburgh, Pennsylvania / / edited by Tom Hinklin, Kathy Lu
Pubbl/distr/stampa	Hoboken, N.J., : J. Wiley & Sons, c2009
ISBN	1-282-68942-8 9786612689420 0-470-55152-6 0-470-55151-8
Descrizione fisica	1 online resource (153 p.)
Collana	Ceramic transactions ; ; v. 208
Altri autori (Persone)	HinklinTom LuKathy
Disciplina	620.118 621.38152
Soggetti	Semiconductors Nanostructured materials Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"From the Controlled Processing of Nanoparticle Structures and Composites symposia held during the 2008 Materials Science and Technology Conference (MS&T08), a joint meeting between ACerS, AIST, ASM International, and TMS"--Introd., p. vii.
Nota di bibliografia	Includes bibliographical references and author index.
Nota di contenuto	Processing of Nanoparticle Structures and Composites; Contents; Introduction; Nanoparticle-Based Bulk Material Templating; Controlling the Processing Parameters for Consolidation of Nanopowders into Bulk Nanostructured Material; Large-Scale (>1 GM) Synthesis of Single Grain Two-Phase BaTiO3-MnO 5ZnO 5Fe2O4 Nano-Composites with Controlled Shapes; Properties of Alumina Dielectrics via Ink Jet Process; Formation of Electrodeposited Ni-Al2O3 Composite Coatings; Characterization of Structures Grown Hydrothermally on Titanium Metal for Solar Application Role of Lattice Vibrations in a Nanoscale Electronic DeviceModification of Quartz Fabric with Multi-Walled Carbon Nanotubes for

Multifunctional Polymer Composites; Fabrication of Silicon-Based Ceramic Synthesized from Mesoporous Carbon-Silica Nanocomposites; Synthesis and Characterization of Mesoporous Nanostructured TiO₂-Al₂O₃ Photocatalytic System; Monodispersed Ultrafine Zeolite Crystal Particles by Microwave Hydrothermal Synthesis; The Structure of Nanoparticulate Aggregates of Titania as a Function of Shear Hierarchical Assembly of Hybrid Nanoapatites: Implications for Oral Drug Delivery and Implant-Biological Interfaces Ni-B Nanolayer Evolution on Boron Carbide Particle Surfaces at High Temperatures; Author Index

Sommario/riassunto

This volume features papers from the Controlled Processing of Nanoparticle Structures and Composites symposia held during the 2008 Materials Science and Technology conference (MS&T08). It provides a useful one-stop resource for understanding the most important issues in controlled processing of nanoparticle structures and composites. Logically organized and carefully selected articles give insight into controlled processing of nanoparticle structures and composites, covering topics such as nanoparticle-based bulk material templating, the structure of nanoparticulate aggregates of titania as a
