

1. Record Nr.	UNINA9911019635803321
Titolo	Nanostructured materials and nanotechnology [[electronic resource]] . II : a collection of papers presented at the 32nd International Conference on Advanced Ceramics and Composites, January 27- February 1, 2008, Daytona Beach, Florida // editors Sanjay Mathur, Mrityunjay Singh ; volume editors, Tatsuki Ohji, Andrew Wereszczak
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, c2009
ISBN	9786612368394 9781282368392 1282368397 9780470456248 0470456248 9780470456231 047045623X
Descrizione fisica	1 online resource (268 p.)
Collana	Ceramic engineering and science proceedings ; ; v. 29, issue 8
Classificazione	ZM 6100
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Disciplina	620.5
Soggetti	Nanostructured materials Nanotechnology
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	Nanostructured Materials and Nanotechnology II; Contents; Preface; Introduction; One-Dimensional Nanostructured Ceramics for Healthcare, Energy and Sensor Applications; What Makes a Good TiO ₂ Photocatalyst?; Manufacturing of Ceramic Membranes Consisting of ZrO ₂ with Tailored Microporous Structures for Nanofiltration and Gas Separation Membranes; Electrical, Mechanical, and Thermal Properties of Multiwalled Carbon Nanotube Reinforced Alumina Composites; Microstructure and Dielectric Properties of Nanostructured TiO ₂ Ceramics Processed by Tape Casting

The Simulation in the Real Conditions of Antibacterial Activity of TiO₂ (Fe) Films with Optimized Morphology; Polyethylene/Boron Containing Composites for Radiation Shielding Applications; Synthesis and Optical Properties of SiCnc/SiO₂ Nanocomposite Thin Films; Strength and Related Phenomenon of Bulk Nanocrystalline Ceramic Synthesized via Non-Equilibrium Solid State P/M Processing; Properties of Nanostructured Carbon Nitride Films for Semiconductor Process Applications; Applying Nickel Nanolayer Coating onto BB4BC Particles for Processing Improvement
Effect of Carbon Nanotubes Addition on Matrix Microstructure and Thermal Conductivity of Pitch Based Carbon-Carbon Composites
Microstructure and Properties of Carbon Nanotubes Reinforced Titania Matrix Composites Prepared under Different Sintering Conditions; Elaboration of Alumina-YAG Nanocomposites from Pressureless Sintered Y-Doped Alumina Powders; Nanoscale Pinning Media in Bulk Melt-Textured High-TC Superconductors and their Importance for Super-Magnet Applications; Novel Nano-Material for Opto-Electrochemical Application; Kaolinite-Dimethylsulfoxide Nanocomposite Precursors
Raman Spectroscopy of Anatase Coated Carbon Nanotubes
Structural and Optical Properties of Sol-Gel Derived Hydroxyapatite Films in Different Stages of Crystallization and Densification Processes; Evaluation of Aggregate Breakdown in Nanosized Titanium Dioxide via Mercury Porosimetry; Enrichment and Vacuum-Sintering Activity of Colloidal Carbon Submicro-Spheres; Nitrogen Doped Diamond Like Carbon Thin Films on PTFE for Enhanced Biocompatibility; Nanostructured Nitride Surface via Advanced Plasma Nitriding and Its Applications; Author Index

Sommario/riassunto

A collection of papers from The American Ceramic Society's 32nd International Conference on Advanced Ceramics and Composites, held in Daytona Beach, Florida, January 27-February 1, 2008. Topics include basic and applied research in nanomaterials such as synthesis, functionalization, processing, and characterization; structure-property correlations; bio- and magnetic nanomaterials; nanostructured materials for chemical mechanical planarization, display, health, and cosmetic applications; nanotubes and nanowires; and industrial development.
