

1. Record Nr.	UNINA9911019975003321
Titolo	Progress in nanotechnology Applications
Pubbl/distr/stampa	Hoboken, N.J., : John Wiley & Son, 2010
ISBN	9786612481840 9780470588260 0470588268 9781282481848 1282481843 9780470588253 047058825X
Descrizione fisica	1 online resource (351 p.)
Collana	Progress in ceramic technology
Disciplina	620.1/4
Soggetti	Ceramic materials Nanotechnology Nanostructured materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Progress in Nanotechnology; Contents; Introduction; MARKET OVERVIEWS; Rolling Nanotech Out of the Lab and Into the Market; Ceramic Revolution May Yet Arrive via Nanotechnology; Powder Market Update: Nanoceramic Applications Emerge; BIOMEDICAL TECHNOLOGY; Fabrication of Nano-Macro Porous Soda-Lime Phosphosilicate Bioactive Glass by the Melt-Quench Method; Biological Response Mechanisms to Microparticulate and Nanoparticulate Matter; Alumina/Zirconia Micro/Nanocomposites: A New Material for Biomedical Applications With Superior Sliding Wear Resistance Creation of Nano-Macro-Interconnected Porosity in a Bioactive Glass-Ceramic by the Melt-Quench-Heat-Etch Method Processing and Properties of Nano-Hydroxyapatite(n-HAp)/Poly(Ethylene-Co-Acrylic Acid)(EAA) Composite Using a Phosphonic Acid Coupling Agent for Orthopedic Applications; Hydroxyapatite-Carbon Nanotube Composites for Biomedical Applications: A Review; Synthesis and Structural

Characterization of Nanoapatite Ceramics Powders for Biomedical Applications; High-Frequency Induction Heat Sintering of Mechanically Alloyed Alumina-Yttria-Stabilized Zirconia Nano-Bioceramics
Merging Biological Self-Assembly with Synthetic Chemical Tailoring: The Potential for 3-D Genetically Engineered Micro/Nano-Devices (3-D GEMS)CONSTRUCTION AND MANUFACTURING; Effect of Nanosilica Additions on Belite Cement Pastes Held in Sulfate Solutions; Effect of Nano-Size Powders on the Microstructure of Ti(C,N)-xWC-Ni Cermets; In Situ Preparation of Si₃N₄/SiC Nanocomposites for Cutting Tools Application; How Nanotechnology Can Change the Concrete World, Part One; How Nanotechnology Can Change the Concrete World, Part Two; ELECTRONIC AND OPTICAL DEVICES; Will Silicon Survive Moore's Law? Nanosize Engineered Ferroelectric/Dielectric Single and Multilayer Films for Microwave ApplicationsEffect of Calcination on Crystallinity for Nanostructured Development of Wormhole-Like Mesoporous Tungsten Oxide; Mg-Cu-Zn Ferrites for Multilayer Inductors; Microwave Dielectric Properties of Sintered Alumina Using Nano-Scaled Powders of Alumina and TiO₂; PbZr0.4Ti0.6O₃-Based Reflectors with Tunable Peak Wavelengths; Morphologies-Controlled Synthesis and Optical Properties of Bismuth Tungstate Nanocrystals by a Low-Temperature Molten Salt Method
Synthesis of High Density and Transparent Forsterite Ceramics Using Nano-Sized Precursors and Their Dielectric PropertiesDesign and Nanofabrication of Superconductor Ceramic Strands and Customized Leads; Built-in Nanostructures in Transparent Oxides for Novel Photonic and Electronic Functions Materials; ENERGY AND THE ENVIRONMENT; Preparation and Characterization of Samaria-Doped Ceria Electrolyte Materials for Solid Oxide Fuel Cells; Design of High-Quality Pt-CeO₂ Composite Anodes Supported by Carbon Black for Direct Methanol Fuel Cell Application
Rapid Formation of Active Mesoporous TiO₂ Photocatalysts via Micelle in a Microwave Hydrothermal Process

Sommario/riassunto

This edition of the *Progress in Ceramic Technology* series is a select compilation of articles on nanotechnology applications and markets previously published in ACerS publications, including *The American Ceramic Society Bulletin*, *Journal of the American Ceramic Society*, *International Journal of Applied Ceramic Technology*, *Ceramic Engineering and Science Proceedings* (CESP) and *Ceramic Transactions* (CT). The American Ceramic Society contributes to the progress of nanotechnology by providing forums for information exchange during its various meetings and by publ
