

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 Applications Effect 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; PbZr_{0.4}Ti_{0.6}O₃-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 Properties Design 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
