Record Nr. UNINA9910144845703321 Synthesis and processing of nanostructured materials [[electronic **Titolo** resource]]: a collection of papers presented at the 29th and 30th International Conference on Advanced Ceramics and Composites, January 2005 and 2006, Cocoa Beach, Florida / / editor, William M. Mullins; general editors, Andrew Wereszczak, Edgar Lara-Curzio Hoboken, NJ,: Wiley, c2007 Pubbl/distr/stampa **ISBN** 1-282-31439-4 9786612314391 0-470-29137-0 0-470-29179-6 Descrizione fisica 1 online resource (150 p.) Collana Ceramic engineering and science proceedings, , 0196-6219; ; v. 27/8 Altri autori (Persone) MullinsWilliam M WereszczakAndrew Lara-CurzioEdgar <1963-> Disciplina 620.14 620.5 Soggetti Nanostructured materials Nanostructured materials - Design and construction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Synthesis and Processing of Nanostructured Materials; Contents; Preface; Introduction; Nanoparticle Colloidal Suspension Optimization

Synthesis and Processing of Nanostructured Materials; Contents; Preface; Introduction; Nanoparticle Colloidal Suspension Optimization and Freeze-Cast Forming; Synthesis, Characterization and Measurements of Electrical Properties; Synthesis and Characterization of Nanocrystalline Barium Strontium Titanate Ceramics; Nanoparticle Hydroxyapatite Crystallization Control by using Palyelectrolytes; Synthesis of Carbon Nanotubes and Silicon Carbide Nanofibers as Composite Reinforcing Materials 3-D Microparticles of BaTiO3 and Zn2SiO4 via the Chemical (Soi-Gel.

Acetate, or Hydrothermal) Conversion of Biological (Diatom)
TemplatesPolymer Fiber Assisted Processing of Ceramic Oxide Nano
and Submicron Fibers; Phase Development in the Catalytic System
V205/Ti02 under Oxidizing Conditions; Synthesis and Characterization

of Cubic Silicon Carbide (-Sic) and Trigonal Silicon Nitride (-Si3N4) Nanowires; High Energy Milling Behavior of Alpha Silicon Carbide; Synthesis of Boron Nitride Nanotubes for Engineering Applications; Comparison of Electromagnetic Shielding in GFR-Nano Composites Densification Behavior of Zirconia Ceramics Sintered UsingManufacturing of Doped Glasses Using Reactive ElectrophoreticDeposition (REPD); Shaping of Bulk Glasses and Ceramics with Nanosized Particles; Author Index

## Sommario/riassunto

Advances in nanotechnology offer great new promise in new multifunctional systems that experts predict to be a major economic force within the next decade. Ceramic materials enable new developments in such areas as electronics and displays, portable power systems and personnel protection. This issue will present the results of current basic and applied research and potential commercial applications. This book is comprised of papers from the Proceedings of the 30th International Conference on Advanced Ceramics and Composites, January 22-27, 2006, Cocoa Beach, Florida. Organized and spons