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| Collana                 | Ceramic transactions ; ; v. 208                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Altri autori (Persone)  | HinklinTom<br>LuKathy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Disciplina              | 620.118<br>621.38152                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Soggetti                | Semiconductors<br>Nanostructured materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| 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<br>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 TiO<sub>2</sub>-  
Al<sub>2</sub>O<sub>3</sub> 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 InterfacesNi-B Nanolayer  
Evolution on Boron Carbide Particle Surfaces at High Temperatures;  
Author Index

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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

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