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Nota di contenuto	Ceramic Nanomaterials and Nanotechnology III; Contents; Preface; Synthesis and Functionalization of Nanoparticles; Liquid-Feed Flame Spray Pyrolysis of Single and Mixed Phase Mixed-Metal Oxide Nanopowders (Invited); Size and Morphology Control of Cerium-Titanium Oxide Nanoparticles Through Hydrothermal Synthesis (Invited); Transparent Nanocrystalline MgO by Low Temperature Spark Plasma Sintering (Invited); Controlled Fabrication of Nanometer-Sized Bushes on Insulator Substrates with Assistance of Electron Beam Irradiation (Invited) Formation of Nanocrystalline Anatase Coatings on Cotton Fabrics at Low TemperatureEffect of ZnO Doping in PZT Nanopowder; Preparation and Properties of Nanograin Polycrystalline Alumina; Synthesis of Nb and La Doped TiO2 for Gas Sensors; Nanostructured Membranes, Films,

Coatings, and Self-Assembly; Synthesis of Nanostructured Oxide Films via Chemical Solution Deposition, Molecular Design, and Self-Assembly (Invited); Grain Growth of Nanocrystalline Ru-Doped SnO2 in Sol-Gel Derived Thin Films; Self-Alignment of SiO2 Colloidal Particles on Physically and/or Chemically Patterned Surfaces
Titanium Dioxide Loaded Anodized Alumina Nano-TemplateFine-Grain Nanocrystalline Tungsten Oxide Films for Gas Sensor Applications; Processing and Characterization of Nanomaterials; Low Temperature Consolidation of Ceramic Nanoparticles via an Interfacial Adhesive Bonding by Plasma Polymerization; Plastic Densification and Grain Growth of Nanocrystalline Zirconia Powders; Fundamental Rheological Modeling Technique and Fracture Mechanics Principles of Diamond-Containing Nanocomposites; Characterization of FeAlN Thin Films with Nano Sized Particles
TEM Study of Nanostructured Magnesium Aluminate Spinel Phase FormationNanotubes and Nanorods; Growth of Carbon Nanotubes by Microwave Plasma Chemical Vapor Deposition (MPCVD); Heat Treatment Effect on the Structure of TiO2-Derived Nanotubes Prepared by Hydrothermal Method; Preparation of Titanate Nano-Rod Array on Titanium Substrates by Novel Microflux Method; Controlling the Structure of Aligned Carbon Nanotubes on Silicon-Carbide Wafers; Carburization of WC-Carbon Nanotube Composite Using C2H2 Gas; Environmental and Health Applications and the Future of Nanotechnology
Synthesis of a Barium Sulfate Nanoparticle Contrast Agent for Micro-Computed Tomography of Bone MicrostructureIncreased Surface Area and Roughness Promotes Osteoblast Adhesion on Hydroxyapatite/Titania/PLGA Composite Coatings; Improved Bone Cell Adhesion on Ultrafine Grained Titanium and Ti-6Al-4V; Improved Dispersion of Nanophase Titania in PLGA Enhances Osteoblast Adhesion; Nanostructured Sensor Materials for Selective Bio-Chemical Detection; Investigation of Ecological Safety in Using Nanosized and Ultrafine Powders; Panel Discussion: Nanotechnology-Past, Current, and Future; Author Index
Keyword Index

Sommario/riassunto

This volume contains papers on the synthesis and processing of inorgainc nanomaterials and nanocomposites; structure-property correlations at the nanoscale; understanding of fundamental phenomena in nanoscale systems and processes; applications of nanostructured materials; and industrial development of nanomaterials.