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Damping Properties and Mechanism of 0-3 PMN/CB/EP CompositesField-Assisted Isothermal Oriented Crystallization of SrO-TiO2-SiO2 Polar Glass-Ceramics; Structure and Property of Ti-Al-C/TiB2 Composite Ceramics; Synthesis, Characterization and Catalytic Properties of La4BaCu5-xNixO13+ (x=0, 1, 2, 3, 4, 5); Oxidation of ZrB2/ZrO2 and ZrB2/ZrO2/SiC Ceramics; Molten Salt Synthesis and Photoluminescence of YVO4:Eu Microcrystalline Phosphors; Synthesis, Characterization and Electromagnetic Wave Absorption Properties of Z-Type Hexaferrites Prepared by Molten Salt Method
Carbothermal Reduction and Nitridation Synthesis of -AlON Powder under High Heating RateSynthesis of Ultra-Fine ZrB2 Powder by Borothermal Reaction under High Heating Rate; Microstructure and Properties of Mulite-FeCr Multifunctional Composite; Effect of Sintering Temperature on the Properties of Porous Silicon Nitride Ceramics; Effects of Coated Nano-BN Particles on Microstructure and Properties of BN-AlN Composite ; Erosion Resistance of Al2TiO5/Al2O3 Composites to Molten Aluminum; Fabrication of Indium Tin Oxide Targets by Spark Plasma Sintering and Hot-Pressing Sintering
Superfast Sintering of Nanocrystalline Y2O3 CeramicsLow-Temperature Sintering and Microwave Dielectric Properties of the Zn2SiO4 Ceramics; Thermal Shock-Resistance Performance of Al2TiO5/Al2O3 Composites ; Effect of LaCl3 on the Properties of LAS Ceramics; Preparation of Fine Mullite Powder in a SHS Chemical Furnace System; Low Dimensional Materials; Investigation of Bipolar Resistance Switching Properties in SrTiO3 Thin Films with Symmetric Electrodes Structure; The Effect of Oxygen Annealing on the Resistance Switching Properties of the La0.7Ca0.3MnO3 Films
Fabrication and Resistance-Switching Behaviors of NiO Thin Films by Thermal Oxidation of Evaporated Ni Films

Sommario/riassunto

This special collection of 73 papers covers the intriguing topic of the synthesis and processing of inorganic materials using non-traditional technologies such as SHS, SPS, mechanical alloying, wet chemistry and aerosol deposition; as well as techniques involving laser, microwave, plasma, electron beam and high-field magnetron exposure. It is divided into chapters covering: Ceramics, Low-Dimensional Materials and Materials with Designed Structure and provides an authoritative and useful introduction to the subject.