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Autore Chapra, Steven C.

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Processing and Properties of Advanced Ceramics and Composites IV: Ceramic Transactions, Volume 234; Contents; Preface; SYNTHESIS AND PROCESSING; Effect of Particle Size and Temperature on the Sintering Behaviour of Glass Compacts; Investigation of Effective Parameters in Production of A356/ TiB2p Composite using TiB2p/CMC/PPS Mortar; Chemical Interaction of Sr4Al6O12SO4 with Liquid Aluminum Alloys; Effect of Temperature on the Hydration of Activated Granulated Blast Furnace Slag; In Situ Formation of WC Platelets during the Synthesis of WC-Co Nano-Powder

Synthesis, Shaped and Mechanical Properties of Hydroxyapatite-Anatase BiomaterialsCOMBUSTION SYNTHESIS AND SHS PROCESSING; Combustion Formation of Ti2AIC MAX Phase by Electro-Plasma Processing; Properties of Hot-Pressed Ti3AIC2 Obtained by SHS Process; SHS Die-Casting (SHS-DC) of Magnesium Metal Matrix Composites (MMCs); MICROWAVE AND MILLI-METER PROCESSING AND ITS FIELD EFFECTS; Evaluation of Microwave-Sintered Titanium and Titanium Alloy Powder Compacts; Microwave-Assisted Synthesis of TiC by Carbothermal Reduction

Effect of Microwave Plasma Process Conditions on Nanocrystalline Diamond Deposition on AlGaN/GaN HEMT and Si Device MetallizationsHigh Frequency Microwave Processing of Lithium Disilicate Glass-Ceramic; Microwave Sintering of a PZT/Fe-Co Nanocomposite Obtained by In Situ Sol-Gel Synthesis; Investigation on Microstructural Characterization of Microwave Cladding; Dilatometric Study and in Situ Resistivity Measurements during Millimeter Wave Sintering of Metal Powder Compacts; Roles of Electromagnetic Fields on Materials Processing and Performance-A Thermodynamic and Kinetic Perspective

COMPOSITESAlumina-Based Composites Reinforced with Titanium Nanoparticles; Fabrication of ZrO2-SiC Composites from Natural Zircon Ore by Carbothermal Reduction; Manufacture and Applications of C/C-SiC and C/SiC Composites; Laser Densification of Porous ZrB2-SiC Composites; Structural and Compositional Investigations of Ceramic-Metal Composites Produced by Reactive Metal Penetration in Molten Al and Al-Fe Alloy; Manufacture and Mechanical Characterization of Polymer-Composites Reinforced with Natural Fibers; FOREIGN OBJECT DAMAGE

Effects of the Mode of Target Supports on Foreign Object Damage in an MI SiC/SiC Ceramic Matrix CompositeForeign Object Damage (FOD) in Thermal Barrier Coatings; TESTING, EVALUATION, AND MICROSTRUCTURE-PROPERTY RELATIONSHIPS; High-Temperature Interlaminar Tension Test Method Development for Ceramic Matrix Composites; High Temperature Furnace Door Test for Wollastonite Based Chemically Bonded Phosphate Ceramics with Different Reinforcements; Microstructure and Properties of Al2O3 Ceramic Composite Toughened by Different Grain Sizes of LiTaO3 Effect of Composition of Boron on the Tribological Performance of Alumina Matrix Multifunctional Composites for Energy Efficient Sliding Systems

Sommario/riassunto

With contributed papers from the 2011 Materials Science and Technology symposia, this is a useful one-stop resource for understanding the most important issues in the processing and properties of advanced ceramics and composites. Logically organized and carefully selected, the articles cover the themes of the symposia: Innovative Processing and Synthesis of Ceramics, Glasses and

Composites; Advances in Ceramic Matrix Composites; Solution-Based Processing of Materials; and Microwave Processing of Materials. A must for academics in mechanical and chemical engineering, materials and or ceramics,