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Nota di contenuto	Composite Materials V; Acknowledgements; Committees & Preface; Table of Contents; Microstructure Characteristics of Spray-Formed and Melt-Spun Al85Nd5Ni10 and Al89La6Ni5 Bulk Hybrid Composites; High Energy Planetary Ball Milling of SiC Powders; Thermomechanical Properties of Nanosilica Reinforced PEEK Composites; Design and Experimental Investigation of Laminated Ceramic Composites with High Strength; Microstructure and Properties of Vacuum Hot-Pressing SiC/ Ti-Cu-Ni-Sn Bulk Metallic Glass Composites Materials Characterization in Continuous Fiber-Reinforced Ceramic Composites Served in Simulating EnvironmentFabrication of Ceramic-Metal Composites by Melt Infiltration of Moso-Bamboo-Derived Porous SiC; Oxidation Behavior of Carbon Phase in 3D C/SiC Composites; Microstructure Evolution and Microwave Dielectric Properties of Multi-Phase Ba(Ti1-xMx)O3 Ceramics; Wettability and its Improvement at Al/SiC Interfaces; Novel Composite Anode Containing Tin Compounds and Carbonaceous Materials for Li-Ion Batteries

Deformation and Fracture Behavior of 7039 Al Reinforced with B4C Particles at Elevated TemperatureDevelopment and Photoluminescence of ZnO-ZnS Core-Shell Nanotube and Nanorod Arrays; Fretting Wear of SiC and Ni3Al Particles Reinforced Al Alloy Matrix Composites; Characterization on Microstructure Homogeneity of -Al2O3 Powder Systems During Phase Transformation; Densification Mechanism of SnO2 Ceramics Doped with 5.0 mol% MnO2; Investigation of Hot-Pressed Al2O3-Cr2O3/ Cr3C2 Nanocomposite; Consolidation and Properties of Tungsten Carbide Target with Low Cobalt Content by Hot-Press Sintering
Hot Workability of the Mg65Cu20Y10Ag5 Amorphous/ NanoZrO2 Composite Alloy within Supercooled Temperature RegionStructures of Ceramics/Metal and Ceramics/Ceramics Core/Shell Particles by Hybridization; Microstructure and Mechanical Properties of Nano-ZrO2 and Nano-SiO2 Particulate Reinforced AZ31-Mg Based Composites Fabricated by Friction Stir Processing; Preparation and Conductivity of TiO2-Doped Y2O3-Stabilized ZrO2 Ceramic; Determining Interface Strength of Glass-Metal Bi-Layer Laminates Using Cross-Push Method Effects of Particle Size on the Thermal Physical Properties of SiCp/Al CompositesHigh Temperature Mechanical Property of Al2O3 Coated Quartz-Fiber Reinforced Methyl Silicon Resin Composites; Preparation and Flame Ablation/Oxidation Behavior of ZrB2/SiC Ultra-High Temperature Ceramic Composites; Friction and Wear Properties of Aluminum Matrix Composites and its Application; Fabrication and Formation Mechanism of In Situ AlN and Mg2Si Particles-Reinforced Mg Matrix Composites; Prediction of the Effect of Alloying Elements on In Situ Reaction in Synthesizing (AlN+Mg2Si)/Mg Composites Thermodynamics of the Effect of Alloying Additions on In-Situ Reaction to Synthesize TiC/Mg Composites

Sommario/riassunto

Composites have long held the center-stage of research and development in the materials community. The concept of combining metals, ceramics and polymers - having various types, shapes and properties - into a single material exhibiting properties that none of its individual components possess, has created endless scope for the imagination of scientists and engineers. It has ignited numerous fields of research and development, and revolutionized many applications. However, in spite of the many advantages of composite materials, there remain troubling underlying problems arising from the complex