

1. Record Nr.	UNINA9910453740103321
Titolo	Composite materials V : selected, peer reviewed papers from the 5th China Cross-Strait Conference on Composite Materials, Shanghai, China, October 22-26, 2006 // edited by Di Zhang, Jingkun Guo, Chi Y.A. Tsao
Pubbl/distr/stampa	Stafa-Zurich, Switzerland ; ; Enfield, New Hampshire : , : Trans Tech Publications, , [2007] ©2007
ISBN	3-03813-133-4
Descrizione fisica	1 online resource (274 p.)
Collana	Key engineering materials, , 1013-9826 ; ; volume 351
Altri autori (Persone)	ZhangDi GuoJingkun TsaoChi Y. A
Disciplina	629.134/31 629.13431
Soggetti	Composite materials Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
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 Environment Fabrication 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 Temperature
Development 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 Region
Structures 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 Composites
High 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
