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Nota di contenuto	Mechanical Properties and Processing of Ceramic Binary, Ternary, and Composite Systems; Contents; Preface; Introduction; BINARY AND TERNARY CERAMICS; Synthesis and Phase Development in the Cr-Al-N System; Phase Evolution and Properties of Ti ₂ AlN Based Materials, Obtained by SHS Method; Synthesis of Ti ₃ SiC ₂ by Reaction of TiC and Si Powders; Toughening of a ZrC Particle-Reinforced Ti ₃ AlC ₂ Composite; Microstructure and Properties of the Cermets Based on Ti(C,N); Scratch-Induced Deformation and Residual Stress in a Zirconium Diboride-Silicon Carbide Composite Finite Element Modeling of Internal Stress Factors for ZrB ₂ -SiC Ceramics Effects of Microstructural Anisotropy on Fracture Behavior of Heat-Pressed Glass-Ceramics and Glass-Infiltrated Alumina Composites for Dental Restorations; SILICON CARBIDE, CARBON AND OXIDE BASED COMPOSITES; Mechanical Properties of Hi-NICALON S and

SA3 Fiber Reinforced SiC/SiC Minicomposites; The Effect of Holes on the Residual Strength of SiC/SiC Ceramic Composites; Through Thickness Modulus (E33) of Ceramic Matrix Composites: Mechanical Test Method Confirmation

The Effects of Si Content and Sic Polytype on the Microstructure and Properties of RBSCIn-Situ Reaction Sintering of Porous Mullite-Bonded Silicon Carbide, Its Mechanical Behavior and High Temperature Applications; Study on Elasto-Plastic Behavior of Different Carbon Types in Carbon/Carbon Composites; Effects of Temperature and Steam Environment on Creep Behavior of an Oxide-Oxide Ceramic Composite; Characterization of Foreign Object Damage in an Oxide/Oxide Composite at Ambient Temperature

Processing and Properties of Fiber Reinforced Barium Aluminosilicate Composites for High Temperature RadomesAuthor Index

Sommario/riassunto

This book provides a one-stop resource with current research on advanced ceramics. It is a collection of papers from The American Ceramic Society's 32nd International Conference on Advanced Ceramics and Composites, January 27-February 1, 2008. Topics include Processing-Microstructure-Mechanical Properties Correlations; Mechanical Performance of Ternary Compounds; Mechanical Performance of Ultra-High Temperature Ceramics; and more. Articles are logically organized to provide insight into various aspects of ceramic materials and advanced ceramics. This is a valuable, up-to-date resource for rese
