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Nota di contenuto	Mechanical Properties and Performance of Engineering Ceramics and Composites VI; Contents; Preface; Introduction; COMPOSITES: FIBERS, MATRICES, INTERFACES, AND APPLICATIONS; Oxide Fiber Coatings for Silicon Carbide Ceramic Matrix Composites; Transmission Electron Microscopy of Rare-Earth Orthophosphate Fiber-Matrix Interphases that Deform by Transformation Plasticity During Fiber Push-Out; Processing of Oxide/Oxide Composites for Gas Turbine Applications Based on Braiding Technique (OXITEXTM); ENVIRONMENTAL EFFECTS OF CERAMICS AND COMPOSITES

Relationships Between Fiber Strength, Passive Oxidation and Scale Crystallization Kinetics of Hi-NicalonTM-S SiC Fibers
FRACTURE MECHANICS, MODELING, AND MECHANICAL TESTING; Specimen Stress Equilibrium in Split Hopkinson Pressure Bar Tests of Ceramics at High Strain Rate; Residual Stress in Ceramic Zirconia-Porcelain Crowns by Nanoindentation; Design and Development Approach for Gas Turbine Combustion Chambers Made of Oxide Ceramic Matrix Composites; Effects of Preloading on Foreign Object Damage in an N720/Alumina Oxide/Oxide Ceramic Matrix Composite
Frequency and Hold-Time Effects on Durability of Melt-Infiltrated SiC/SiC
Mechanical and Microstructural Characterization of Reaction Bonded Silicon Carbide Processed with Petroleum Coke;
NONDESTRUCTIVE EVALUATION; Identification of Damage Modes in Ceramic Matrix Composites by Acoustic Emission Signal Pattern Recognition; An Indentation Based Non-Destructive Evaluation Technique for Thermal Barrier Coating Spallation Prediction; Determination of Apparent Porosity Level of Refractory Concrete Using Ultrasonic Pulse Velocity Technique and Image Analysis
PROCESSING-MICROSTRUCTURE-PROPERTIES CORRELATIONSSintering Behavior of Lithium-Titanate Pebbles: Modifications of Microstructure and Pore Morphology; Silicon Carbide Based Sandwich Structures: Processing and Properties; Chemically Bonded Phosphate Ceramics with Different Fiber Reinforcements; Preceramic-Polymer-Bonded SiC Preforms for High Volume Fraction SiCp/Al Composites; Novel High Temperature Wound Oxide Ceramic Matrix Composites Manufactured via Freeze Gelation; Effect of Reaction Time on Composition and Properties of SiC-Diamond Ceramic Composites
Pressureless Sintering of Boron Carbide Using Amorphous Boron and SiC as Additives
Effect of Reactive Heat Treatment on Properties of Al-Mg-B₄C Composites; Cohesive Strength of Dry Powders Using Rheology; Effect of Heat Treatment on Thermal Properties of Pitch-Based Carbon Fiber and Pan-Based Carbon Fiber Carbon-Carbon Composites; TRIBOLOGICAL PROPERTIES OF CERAMICS AND COMPOSITES; Ceramic Foam/Aluminium Alloy Interpenetrating Composites for Wear Resistance Applications; An Experimental Study on the Effects of SiC on the Sintering and Mechanical Properties of Cr₃C₂-NiCr Cermets
Increasing the Operating Pressure of Gasoline Injection Pumps via Ceramic Sliding Systems

Sommario/riassunto

This book is a collection of papers from The American Ceramic Society's 35th International Conference on Advanced Ceramics and Composites, held in Daytona Beach, Florida, January 23-28, 2011. This issue includes papers presented in the Mechanical Behavior and Performance of Ceramics & Composites Symposium on topics such as processing-microstructure properties correlations; fracture mechanics, modeling and testing; tribological properties; applications; and processing.
