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Nota di contenuto	Mechanical Properties and Performance of Engineering Ceramics and Composites V; Contents; Preface; Introduction; PROCESSING; The Effects of Heating Rate on Magnesia Doped Alumina Prepared by SPS; Effect of Coke Calcination Temperature on the Processing of Reaction Bonded Silicon Carbide; Pressureless Sintering of Mullite-Ceria-Doped Zirconia-Silicon Carbide Composites; The Role of Carbon in Processing Hot Pressed Aluminium Nitride Doped Silicon Carbide; CHARACTERIZATION; Microstructure and High-Temperature Properties of Si-B-C-N MA-Powders and Ceramic Influence of Water Quality on Corrosion of Multi-Oxide Engineering CeramicsThe Effect of Load and Temperature on Hardness of ZrB2 Composites; Nano-Indentation Hardness Measurements as a Characterization Technique of SiC and Pyrolytic Carbon Layers of

Experimental PBMR Coated Particles; High Temperature Mechanical Loss of Nanostructured Ytria Stabilized Zirconia (3Y-TZP) Reinforced with Carbon Nanotubes; The Influence of Nanosize Carbon Concentration on Mechanical Properties of RBSiC; Si/SiC and Diamond Composites: Microstructure-Mechanical Properties Correlation Mechanical Properties and Failure Criterion of Silicon-Based Joints Effect of Various SnAgTi-Alloys and Laser Induced Texturing on the Shear Strength of Laser Brazed SiC-Steel-Joints; Characterization of Poled Single-Layer PZT for Piezo Stack in Fuel Injection System; Thermal Tomographic Imaging for Nondestructive Evaluation of Ceramic Composite Materials; A More Comprehensive NDE: PCRT for Ceramic Components; FIBER REINFORCED COMPOSITES; Microstructure and Thermodynamic Descriptions of SiC-Based Ceramic Fibers; Static Fatigue of Multifilament Tows at High Temperatures above 900°C 3D Multiscale Modeling of the Mechanical Behavior of Woven Composite Materials Mode I Interlaminar Fracture Toughness Testing of a Ceramic Matrix Composite; Comparative Study of Tensile Properties of Uni-Directional Single-Tow SiC-Matrix Composites Reinforced with Various Near-Stoichiometric SiC Fibers; Foreign Object Damage in an N720/Alumina Oxide/Oxide Ceramic Matrix Composite; Static Contact Damage in an N720/Alumina Oxide/Oxide Ceramic Matrix Composite with Reference to Foreign Object Damage Effects of Environment on Creep Behavior of NEXTELTM720/ Alumina-Mullite Ceramic Composite with  $\pm 45^\circ$  Fiber Orientation at 1200° CFatigue Behavior of an Oxide/Oxide CMC under Combustion Environment; EROSION AND WEAR; Particle Erosion Wear Behavior of New Conceptual SiC/SiC Composites; Threshold of Ring Crack Initiation on CVD-SiC under Particle Impact; Advanced Ceramic-Steel Pairings under Permanent Slip for Dry Running Clutch Systems; Development and Validation of Lubricated Multi-Disk Clutch Systems with Advanced Ceramics; MODELING Virtual Testing and Simulation of Multiple Cracking in Transverse Tows of Woven CMCs

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Sommario/riassunto

This volume is a compilation of papers presented in the Mechanical Behavior and Performance of Ceramics & Composites symposium during the 34th International Conference & Exposition on Advanced Ceramics and Composites (ICACC) held January 24-29, 2010, in Daytona Beach, Florida. The Mechanical Behavior and Performance of Ceramics & Composites symposium was one of the largest symposia in terms of the number (>100) of presentations at the ICACC'10. This symposium covered wide ranging and cutting-edge topics on mechanical properties and reliability of ceramics and composites and their correlati

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