

1. Record Nr.	UNINA9910140872303321
Titolo	Mechanical properties and performance of engineering ceramics and composites V : a collection of papers presented at the 34th International Conference on Advanced Ceramics and Composites, January 24-29, 2010, Daytona Beach, Florida // edited by Dileep Singh [and three others] ; The American Ceramic Society
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2010 ©2010
ISBN	1-282-94386-3 9786612943867 0-470-94412-9 0-470-94411-0
Descrizione fisica	1 online resource (388 p.)
Collana	Ceramic Engineering and Science Proceedings ; ; v.526
Disciplina	600 666
Soggetti	Ceramic materials 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 at the end of each chapters and index.
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°C 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

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
