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Nota di contenuto	Design, Development, and Applications of Engineering Ceramics and Composites; Contents; Preface; Introduction; DEVELOPMENTS IN ENGINEERING CERAMICS; Elastic and Vibration Properties of Diamond-Like B-C Materials; Towards Simulation-Based Predictive Design of Glasses; Dynamic Behavior of Thick Alumina Plates with Tunneled Interfaces; Deposition Phase Diagrams for Chemical Vapor Deposition of BCl <sub>3</sub> -CH <sub>4</sub> -H <sub>2</sub> System; The Relation between Optical Properties and Lattice Defects of Translucent Aluminum Nitride Ceramics Fabricated by the Novel Annealing Process Thermodynamic Calculations of ZrC-SiC System for Chemical Vapor Deposition Applications from SiCl <sub>4</sub> -ZrCl <sub>4</sub> -CH <sub>4</sub> -H <sub>2</sub> Debinding of Non Oxide Ceramics under Protective Atmosphere; Softening of Rare Earth Orthophosphates by Transformation Plasticity: Possible Applications to

Fiber-Matrix Interphases in Ceramic Composites; Influence of Fiber Architecture on Impact Resistance of Uncoated SiC/SiC Composites; Oxidation Kinetics and Strength versus Scale Thickness for Hi-NICALON TM-S SiC Fiber; Ceramic Matrix Composites Densification by Active Filler Impregnation Followed by a P.I.P. Process  
 High Potential of Composites with Carbon Fibers and a Self-Sealing Ceramic Matrix in Moist Environments under High Pressures at 600°  
 Quantification of Higher SiC Fiber Oxidation Rates in Presence of B<sub>2</sub>O<sub>3</sub> under Air; Overview on the Self-Sealing Process in the SiC/[Si, C, B] Composites under Wet Atmosphere at High Temperature; NDE for Characterizing Oxidation Damage in Reinforced Carbon-Carbon; Silicon Nitride and Silicon Carbide Components as Enabling Tools in Avionics, Space and Dispersing Technology; / SiAlON Based Composites Incorporated with MoSi<sub>2</sub> for Electrical Applications  
 Microstructure Characteristics and High-Temperature Performance of In-Situ Reinforced -SiAlON Ceramics  
 Synthesis Process and Microstructure for Al<sub>2</sub>O<sub>3</sub>/TiC/Ti Functionally Gradient Materials; Brazing of MIEC Ceramics to High Temperature Metals; ADVANCED CERAMIC COATINGS; Thermodynamic Data for Y-O-H(g) from Volatilization Studies; From the Volatility of Simple Oxides to that of Mixed Oxides: Thermodynamic and Experimental Approaches; Nanolaminated Oxide Ceramic Coatings in the Y<sub>2</sub>O<sub>3</sub>-Al<sub>2</sub>O<sub>3</sub> System; Thermochemical Stability of Rare Earth Sesquioxides under a Moist Environment at High Temperature  
 Manufacture of P-Type ZNO Thin Film by CO-Sputtering of ZN and Li<sub>2</sub>CO<sub>3</sub> Targets Simultaneously  
 Synthesized Zircon and Zircon Composite from Liquid Chemical Process; ZrO<sub>2</sub>-Environmental Barrier Coatings for Oxide/Oxide Ceramic Matrix Composites Fabricated by Electron-Beam Physical Vapor Deposition; GEOPOLYMERS; Development of Geopolymers from Plasma Vitrified Air Pollution Control Residues from Energy from Waste Plants; Synthesis of Zeolite-X from Waste Porcelain Using Alkali Fusion; The Ageing Process of Alkali Activated Metakaolin  
 Testing of Geopolymer Mortar Properties for Use as a Repair Material

## Sommario/riassunto

This compilation of proceedings covering the latest scientific and technological developments in design, development, and applications of engineering ceramics and composites provides a useful one-stop resource for understanding the most important issues in design, development, and applications of engineering ceramics and composites. Logically organized and carefully selected articles give insight into design, development, and applications of engineering ceramics and composites and incorporates the latest developments related to design, development, and applications of engineering ceramics and