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Oxidative Degradation Behavior of Polycarbosilane-Derived Silicon Carbide Fibers; On the Way to Cost-Effective Oxidation Protection Techniques of CMCs. Case Study of Tyranno-Hex Materials
Investigation of Microwave Behavior of Silicon Carbide/ High Alumina Cement Composites
Microwave-Induced Combustion Synthesis of Tic-Al₂O₃ Composites; Methods for Joining Silicon Carbide Composites for High-Temperature Structural Applications; Coatings Development; Formation of Interface Coatings on SIC and Sapphire Fibers Using Metal Doped Carboxylate-Alumoxanes; The Growth and Structure of Nanocrystalline ZrO₂:Y Thin Films; Protective Coatings for Inframed Materials; Grain Growth and Tensile Strength of 3M Nextel 720TM after Thermal Exposure
Sol-Gel Synthesis of Zircon-Carbon Precursors and Coatings of Nextel 720TM Fiber Tows
Dissolution, Reactions, and Diffusion in the SiC/CiTiB, and SiC/C/TiB₂ + Liquid Silicon Systems at 1450°C; Microstructural Assessment; Evaluation of Microstructure for SiC/SiC Composites Using Mercury Intrusion Method; Mechanical and Microstructural Properties of NextelTM 720TM Relating to Its Suitability for High-Temperature Application in CMCs; Effect of Dopants on Anisotropic Grain Growth in Oxide-Matrix Materials
Advanced Materials Partnership: Gelcast Silicon Nitride Turbomachinery Technology to Commercialization
Cost Modeling and Analysis for Advanced Structural Silicon Nitride Turbomachinery Ceramics; Gelcasting Advancement for Manufacturing Scale-up; Gelcasting Automation for High-Volume Production of Silicon Nitride Turbine Wheels; Gelcast Slurry Enhancement; Improved Gelcasting Systems; Structure-Property Relationships; Mechanical Behavior of a Hi-NicalonTM Sic Composite Having a Polycarbosilane Derived Matrix
Comparison of the Tensile, Creep and Rupture Strength Properties of Stoichiometric Sic Fibers

Sommario/riassunto

This volume is part of the Ceramic Engineering and Science Proceeding (CESP) series. This series contains a collection of papers dealing with issues in both traditional ceramics (i.e., glass, whitewares, refractories, and porcelain enamel) and advanced ceramics. Topics covered in the area of advanced ceramic include bioceramics, nanomaterials, composites, solid oxide fuel cells, mechanical properties and structural design, advanced ceramic coatings, ceramic armor, porous ceramics, and more.
