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Nota di contenuto 23rd Annual Lonterence on Composites, Advanced Ceramics, Materials,

> and Structures: B; 23rd Annual Conference on Composites, Advanced Ceramics, Materials, and Structures: B; Contents; Preface; DARPA's Low Cost Ceramic Composite (LC3) Program; Characterization of in situ BN

Interface Formed by Nitridation of Nextel 312; Simulation of

Progressive Damage for High-Temperature Woven Composites; Device

Design; Surface Finish and Composition Dependence of Valvetrain Friction with Silicon Nitride Tappet Inserts; Functionally Graded Materials for Gun Barrels; Development of a CMC Thrust Chamber Design and Characterization of a Co-ExtruderScale-Up of APCVD Uniform Ceramic Coating of Tubular Inner Surfaces via Process Modeling; Joining Techniques for Fiber-Reinforced Ceramic Matrix

Composites; Microwave Joining of Al2O3-ZrO2 Composites;

Transparent Armor Ceramics: AION and Spinel; Service Environment

Effects; Modeling the Oxidation Kinetics of Continuous Carbon Fibers in a Ceramic Matrix; Mechanisms of low-Temperature Environmental Effects on Transformation-Toughened Zirconia Ceramics Oxidative Pest Degradation of Hi-Nicalon/BN/SiC Composite as a Function of Temperature and Time in the Burner RigInterphase Oxidation in SiC/SiC Composites at Varying Partial Pressures or Oxygen; Effects of Particulate Debris Morphology on the Rolling Wear Behavior of All-Steel and Si3N4-Steel Bearing Element Couples; A Comparative Study of the Tensile, Fatigue and Creep Properties of Sintered (SNW- 1000 and GS-44) and HIPed (PY-6) Silicon Nitride Ceramics; Modeling Ceramic Composite Hot Gas Candle Filter Material Using Energy Method

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MaterialEnvironmental Effects of Microstructural Stability in SiC/SiC
Composites; Strength of Mansonry Mortars under Field Exposure
Conditions; Advanced Synthesis and Processing: Materials Behavior
Under Extreme Conditions; Fields: Electric/Magnetic/RF; Fields:
RF/Gravitational; Research Programs on Material Processing in High
Magnetic Fields at Tsukuba Magnet Laboratory (invited); Powder
Consolidation Using Dynamic Magnetic Compaction (DMC) Process;
Microwave Induced Combustion Synthesis of Ultrafine Barium
Hexaferrite Powders

A Comparison of Annealing Treatments of an Oxide CeramicSynthesis of Crystalline Materials with High Quality Under Short-time Microgravity (invited); Auto Ignition Synthesis and Microwave Sintering of ZrO2-CaO; Reactive Synthesis of Dense FGMS in the Ti-B Binary System; Flight-and Ground-Based Materials Science Programs at NASA; Zero Gravity Sol-Gel Glass-Metal Composite Production; Temperature: High Flux, High Rates; Thermal Shock Behavior of Single Crystal Oxide Refractive Concentrators for High-Temperature Solar Thermal Propulsion; Inviscid Melt Spinning of Mullite Fibers

Growth and Diameter Control of Al2O3/Y3Al5O12 Eutectic Fiber by Micro-Pulling-Down Method and Its High-Temperature Strength and Thermal Stability

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.