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Nota di contenuto	24th Annual Conference on Composites, Advanced Ceramics, Materials, and Structures:A; Contents; Preface; COMMERCIALIZATION; Future Opportunities and Critical Needs for Advanced Ceramics and Ceramic Matrix Composites in Aerospace Applications; Current Status and Future Prospects of CMC Brake Components and Their Manufacturing Technologies; Fabrication of Structural Ceramic Parts Using Mold SDM; Analysis of Thermal Power Plant Ashes and Their Reaction with Ceramic Filters; Advanced Hot Gas Filter Development; The Effects of Thermal Shock on the Mechanical Properties of a Hot Gas Candle Filter Refractory Performance in a High-Temperature Advanced Furnace for Power GenerationPayback for Diamond Film-Coated Blades; PERFORMANCE PREDICTION; Material Choracterizcrtion Techniques; Multiaxial Strength Testing of Brittle Single Crystals; Preloading Technique as a Tool to Identify Failure Mechanisms in Constant Stress-Rate Testing of Advanced Ceramics at Elevated Temperatures; Overall Properties of Ceramics Subjected to Compressive Loading; High-speed

Circular Microhole Milling Method for the Determination of Residual Stresses in Coatings and Composites
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Thermal Imaging Measurement of Lateral Thermal Diffusivity in Continuous Fiber Ceramic CompositesDetermination of Thermal Conductivity of Single Crystal Oxides Using a Steady-State Laser Heat Flux Approach; Behuviorul Modeling und Life Prediction; New FEM Analysis of Time-Dependent Crack Growth in SiC/SiC Composites; Analyzing the Failure Behavior of Thermal Barrier Coatings Using the Finite Element Method; Simulation of Microcrack Propagation Behavior in Polycrystalline Alumina Having Initial Residual Stress Field
Modeling the Environmental Effects on Carbon Fibers in a Ceramic Matrix at Oxidizing ConditionsAn Overview of Mechanical Property Literature with a Statistics Perspective; Life Prediction of Ceramic Composite Materials: The Influence of Sequence Effects; Interaction of Nuclear Waste Glass with Underground Water in Granite Repository; First-Principle Study of the Tensile Strength and Fracture of Sic Grain Boundaries; Machining Damage and Slow Crack Growth/Reliability Analysis of Glass Specimens
Application of Design of Experiments to Extrusion Freeform Fabrication (EFF) of Functional Ceramic Prototypes

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.