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Nota di contenuto	22nd Annual Conference on Composites, Advanced Ceramics, Materials, and Structures: B; Table of Contents; Preface; CVD-SiC Manufacturing Process Reproducibility; Environmental Effects; The Effect of High-Temperature Soaking on the Microstructure and Properties of a Sintered Silicon Nitride; Environmentally Induced Time-Dependent Failure Mechanisms in CFCCs at Elevated Temperatures; High-Temperature Oxidation and Corrosion of a Porous Si ₂ N ₂ O-ZrO ₂ Composite Material; Low-Damage, High-Productivity Abrasive Grinding of Advanced Ceramics Effect of Crystallization on Creep of Clay Bonded Sic Filters Wear Performance of Monolithic and Composite Mixing Tubes for Abrasive Water Jet Cutting of Ceramics; Reliability and Life Prediction; Reliability Modeling of Brittle, Anisotropic Materials; A Strain-Based Methodology

for High-Temperature lifetime Prediction; Investigations of the Weibull Modulus as a Function of Stressing Rate; Exploration of the Weibull Modulus as a Function of Surface Preparation and Flexure Testing Conditions; Lifetime Prediction for Ceramic Components Subjected to Time-Dependent Loading
Prediction of the Load-Bearing Capabilities Based on the First Matrix-Cracking Criterion for Plain-Weave Multilayered Nicalon/SiC Composites with Lay-Ups of [0/20/60] and [0/40/60]Life Prediction Tool for Ceramic Matrix Composites at Elevated Temperatures; Experimental Study and Modeling of a Novel Ceramic Composite Hot Gas Candle Filter Material; Theoreticul Modeling; Bridging Behavior at Creep Regime; Oxygen Diffusion and Reaction Kinetics in Continuous Fiber Ceramic Matrix Composites; Prediction of Tension Failure of Textile Composites Using Micromechanics and Statistical Analysis
The Effects of Load, Grain Size, and Grain Boundaries on the Hardness of AluminaComputational Analysis of Residual Stress in Ceramics Having Heterogeneous Microstructure; Finite Element Modeling of Thermal Residual Stress in Tungstenmungsten-Carbide Composites; Finite Element Analysis of the Stress Distribution in Silicon Nitride Bearing Balls; Finite Element Analysis of Crack Wake Tractions in Chevron-Notched Bend Bar; Analysis of the Bridging Zone Contribution to the R-Curve Behavior of Sic-Platelet-Reinforced Alumina Using the Chevron-Notched Bend Bar Specimen
Structural Analysis and Component DesignFabrication of NZP Ceramic-Metal Composite Diesel Engine Exhaust Port Liners Using Finite Element Analysis as a Guiding Tool; Finite Element Modelling and Analysis of a Ceramic Matrix Composite Combustor; Joint Integrity Issues in a Novel Piezoceramic Actuator Design; Manufacturing of Ceramic Matrix Composite Rotor for Advanced Gas-Generator; Design and Analysis of a CMC Turbine Blade Tip Seal for a Land-Based Powerturbine; Degradation of SiC/Bn/SiC Composites in the Burner Rig; Rudimentary CFCMC Design and Mechanical Behavior Prediction
Alumina Single-Crystal Fiber Reinforced Alumina Matrix for Combustor Tiles

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.
