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of a Constrained Ceramic Film; Long-Term Temperature Gradient Stress Relaxation Testing and Modeling of Ceramic Insulation Materials; From Conventional to Fast Sintering of Zirconia Toughened Alumina Nanocomposites
Fatigue Characterization of a Melt-Infiltrated Woven HI-NIC-S/BN/SIC Ceramic Matrix Composite (CMC) Using a Unique Combustion Test FacilityEffect of SiC Content and Third Phase Metal Additions on Thermal and Mechanical Properties of Si/SiC Ceramics; Compressive Strength Degradation in ZrB2-SiC AND ZrB2-SiC-C Ultra High Temperature Composites; SiC Nanometer Sizing Effect on Self Healing Ability of Structural Ceramics; Creep and Fatigue Behavior of MI SIC/SIC Composites at Temperature; Self-Crack-Healing Behavior Under Combustion Gas Atmosphere
Selection of a Toughened Mullite for a Miniature Gas Turbine EngineComparison in Foreign Object Damage between SiC/SiC and Oxide/Oxide Ceramic Matrix Composites; Ti3(Si,Al)C2 for Nuclear Application: Investigation of Irradiation Effects Induced by Charged Particles; Heavy Ions Induced Damages in Ti3SiC2: Effect of Irradiation Temperature; Titanium Carbide and Silicon Carbide Thermal Conductivity Under Heavy Ions Irradiation; Corrosion Resistance of Ceramics in Vaporous and Boiling Sulfuric Acid
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Consolidated Geo-Materials from Sand or Industrial Waste

Sommario/riassunto

Gain insight into the mechanical properties and performance of engineering ceramics and composites. This collection of articles illustrates the Mechanical Behavior and Performance of Ceramics & Composites symposium, which included over 100 presentations representing 10 countries. The symposium addressed the cutting-edge topics on mechanical properties and reliability of ceramics and composites and their correlations to processing, microstructure, and environmental effects.