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Temperature and Stress Field Evolution Applied to Spark Plasma Sintering; An Integrated Virtual Material Approach for Ceramic Matrix Composites; A New Anisotropic Constitutive Model for Ceramic Materials Failure; Studies of Gas-Phase Reactivity during Chemical Vapor Deposition of Boron Carbide; Image-Based 2D Numerical Modeling of Oxide Formation in Self-Healing CMCS Combining X-Ray Diffraction Contrast Tomography and Mesoscale Grain Growth Simulations in Strontium Titanate: An Integrated Approach for the Investigation of Microstructure Evolution Calculation of Growth Stress in SiO₂ Scales Formed by Oxidation of SiC Fibers; ADVANCED MATERIALS AND PROCESSING FOR PHOTONICS AND ENERGY; Effect of Chromium-Doping on the Crystallization and Phase Stability in Anodized TiO₂ Nanotubes; Frontiers in Nanomaterials and Nanotechnology and Impact on Society; THERMAL MANAGEMENT MATERIALS AND TECHNOLOGIES Measurement of Thermal Conductivity of Graphitic Foams Kevin Drummond and Khairul Alam Examination of the Interconnectivity of SiC in a Si:SiC Composite System; Author Index

Sommario/riassunto

Exploring the latest findings, new materials, and applications, this issue keeps readers current with some of the most important developments in strategic materials and the computational design of ceramics and composites. It features select contributions from one symposium and three focused sessions that took place in January 2012 during the 36th International Conference and Exposition on Advanced Ceramics and Composites (ICACC). This issue represents one of nine CESP issues published from the 36th ICACC meeting.
