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Nota di contenuto	12th Annual Conference on Composites and Advanced Ceramic Materials; Table of Contents; High Technology Ceramic Coatings-Current Limitations/Future Needs; Vapor Deposition of Crystalline Diamond; Sol-Gel-Derived Thin Films; Electrophoretic Alumina Sol-Gel Coatings on Metallic Substrates; Surface Modification of Alumina by Incorporation of Mullite as a Second Phase; A Perspective on Fiber Coating Technology; Advanced Porous Coating for Low Density Ceramic Insulation Materials; Ceramic Coatings Via PVD; Codeposition of Compounds by Chemical Vapor Deposition in a Fluidized Bed of Particles Thermal Wave Evaluation of CVD Sic Coatings Characterization of

Ceramic Coatings by Advanced Nondestructive Evaluation Methods; Residual Stress Calculations in Coating Configurations Using Finite Element Analysis; Thermal Stability of Ceramic Coated Thermal Protection Materials in a Simulated High-speed Earth Entry; Ceramic Coatings for Cutting Tool Applications; Low-Temperature CVD Tungsten Carbide Coatings for Wear/Erosion Resistance; Chemical Vapor Deposition of Oxidation Resistant HfB₂ + SiC Composite Coatings; Fabrication of Fiber-Reinforced Hot-Gas Filters by CVD Techniques

Ceramic Coatings for Corrosion Environments Microporous Conformal Coatings by the Sol-Gel Process; Ion Implantation of Silicon Nitride for Rolling Element Bearing Applications; Characterization of Commercial Zirconia Ceramics; Development of Low-Temperature Stabilized Sintered ZrO₂ Products; Characterization of PSZ by Fracture Mechanics; Microstructural Effects on the High Strain-Rate Behavior of Zirconia; Effects of Oxygen Non-Stoichiometry on the High Temperature Performance of a Yttria-Tetragonal Zirconia Polycrystal Material Investigation of Selected Silicon Nitride and Silicon Carbide Ceramics Process Improvement for Si₃N₄ for Heat Engine Applications; Crystallization and Characterization of Y₂O₃-SiO₂ Glasses; Microstructural Evolution on Crystallizing the Glassy Phase in a 66 Weight% Y₂O₃-Si₃N₄ Ceramic; The Influence of Microstructure Orientation on the Fracture Toughness of Si₃N₄ Based Materials; Cyclic Fatigue of Sintered Si₃N₄; Uniaxial Tensile Characteristics of Silicon Nitride at Room Temperature; The Role of Thermal Shock on Wear Resistance of Selected Ceramic Cutting Tool Materials

Wear Performance of Ceramics in Ring /Cylinder Applications Influence of Temperature and Sliding Speed on Friction and Wear of SiSiC and MgO-ZrO₂; The Effect of Surface Transformations on the Wear Behavior of Zirconia (TZP) Ceramics; Improved Contact Damage Resistance of a Si₃N₄/TiC/SiCwh Composite; Thermal Load Simulation by Laser-Beaming; Determination of Binder Distribution in Green-State Ceramics by NMR Imaging; Deblurring of Conventional Tomography Images with Applications to the NDE of Advanced Ceramics; Application of Magnification Xeroradiography to Advanced Ceramics

Computed Tomography and Neutron Scattering Study of Zirconia Toughened by Alumina

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.
