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Phase Contents by the Prima-DCP Process

Biomorphic Sic-Ceramic Manufactured by Gas Phase Infiltration of Pine WoodSolid Freeform Fabrication; Robocasting and Cofiring of Functionally Graded Si3N4-W Materials; Laminated Object Manufacturing of Functional Ceramics; Porous Materials; Porous Silicon Nitride from a Finelcoarse Powder Mixture; Fabrication of Highly Porous Silicate Ceramics by Freeze-Drying; Porous Ceramics with Controlled-Aligned Pores Synthesized by the Freeze-Drying Process; Porous Silicon Nitride Synthesized by Using Seed Crystals; The Manufacture of Porous Ceramics Using Supercritical CO2

Anisotropic Porous Silicon Nitride Fabricated by partial forging TechniquePorous Ceramics with Fine Uni-Directionally-Aligned Continuous Pores; Effects of Carbon Addition on Densification and Mechanical Properties of Porous Si3N4 Ceramics; Fabrication of Porous Materials with High Fracture Strength; Grain Boundary Issues in Porous Structural Ceramics; Processing of Porous CaZrO,IMgO/Pt Composites Via in titu Reactions; Cellular Ceramic Composites from Preprocessed Paper Structures; Effect of Grain Size on the Fracture Behavior of Porous Alumina Made by Partial Sintering of Powder Compacts

Evaluation of Mechanical Properties of Porous Silicon Nitride Produced by Partial Hot-PressingThe Effect of Porosity on the Cracking of Materials in High-Temperature Applications; Diesel Particulate and PFBC Candle Filters: Two Examples of Porous Components Working in Harsh Conditions; Pore Structure Characterization of Ceramic Hot Gas Filters; Fabrication of a Continuous Alumina Fiber-Reinforced Mullite Composite Filter; Corrosion Behavior of Porous Silicon Nitride and SiAlON Ceramics; Wear-Resistant and Protective Coatings; Wear of Diamond-Like Carbon Film-Coated Blades

Mechanical and Tribological Characterization of TiO2 Based Multilayer Coatings on Light Metals

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.