1. Record Nr. UNISA996202865303316

Titolo	25th Annual Conference on Composites, Advanced Ceramics, Materials, and Structures: A [[electronic resource]] : January 21-27, 2001, Cocoa Beach, Florida / / Mrityunjay Singh, Todd Jessen, editors
Pubbl/distr/stampa	Westerville, OH, : American Ceramic Society, c2001
ISBN	1-282-31353-3 9786612313530 0-470-29468-X 0-470-29514-7
Edizione	[3rd ed.]
Descrizione fisica	1 online resource (746 p.)
Collana	Ceramic engineering & science proceedings, , 0196-6219 ; ; v. 22, issue 3
Altri autori (Persone)	JessenTodd SinghM (Mrityunjay)
Disciplina	666
Soggetti	Ceramic materials Composite materials Structural analysis (Engineering)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	25th Annual Lonterence on Lomposites, Advanced Leramics, Materials, and Structures: A; Contents; Preface; Product Development and Commercialization; Commercial Applications for Advanced Ceramics in Diesel Engines; Ceramic Matrix Composites from Space to Earth: The Move from Prototype to Serial Production; Application of TyrannoTM Fiber/Si-Ti-C-0 Matrix Composite t o the Thermal Protection System of the Japanese Hope-X Space Vehicle; Will Pigs Fly before Ceramics Do?; Structural Ceramics with Complex Shape-Forming Methods; RBAO: From Materials Development to Commercial Components Molybdenum Disilicide Materials for Glass Melting Sensor SheathsSilicon Nitride Ceramics for Valve-Train Applications in Advanced Diesel Engines; Ceramic Coatings for Cylinder liners in Advanced Combustion Engines, Manufacturing Process, and Characterization; Porous Ceramic Preforms for Local Reinforcement of Light Metal Engine Components; Cermet Tool and Die Materials from

Metal Coated Powders; Novel Real-Time Method for Measuring the Densification Rate of Carbon-Carbon Fiber-Matrix Composites and Other Articles
Optimizations of Ceramic Core Manufacture Using Real-Time Monitoring and Process DesignThermomechanical Property Characterization; Mechanical Properties of Silicon Carbide Ceramics Densified with Rare-Earth Oxide and Alumina Additions; Creep-Resistant Biomorphic Silicon-Carbide Based Ceramics; Creep Mechanisms of Alumina/SiC Nanocomposites; Mechanical Behavior of Er2O3 Single Crystals; Long-Term Tensile Creep Behavior of Highly Heat-Resistant Silicon Nitride for Ceramic Gas Turbines; Tensile Creep in the Next-Generation Silicon Nitride
Evaluation of Creep Property of AS800 Silicon Nitride from As-Processed Surface RegionsOn the Mechanism of High-Temperature Strength Degradation of Low-Doped HlPed Silicon Nitride by In-Depth TEM-SEM Investigation; Nondiamond Finishing of Silicon Nitride for Low-Friction against Steel; Influence of Microstructure and Grain Boundary Phase on Tribological Properties of Si3N4 Ceramics; Effect of Microstructure on Wear Behavior of Silicon Nitride; Production and Characterization of Hexagonal Ceramic Packing; Mechanical Properties of Boron Carbide Ceramics; Oxidation of ZrB2-SiC
Indentation Damage of Silicon Carbide Deposited on Different SubstratesBehavioral Modeling and Life Prediction; Thermal Imaging Detection and Characterization of Normal Cracks; An Analysis of Crack-Growth Resistance of Microcracking Brittle Solids and Composites; Modeling of Fracture Resistance of a Ceramic Composite at Elevated Temperatures; Design Issues for Variable Mixed Mode I/II Testing; Influence of Crack Path on Crack Resistance of Brittle Matrix Composites; Compliance and Crack-Bridging Analysis for Alumina Ceramics; Slow Crack Growth of Sapphire
Microscopic Simulation of Microcrack Propagation in Al2O3-ZrO2 Ceramic Composites

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.