

1. Record Nr.	UNINA9910144826603321
Titolo	Proceedings of the 15th annual Conference on Composites and Advanced Ceramic Materials [[electronic resource]] : a collection of papers presented at the 15th Annual Conference on Composites and Advanced Ceramic Materials, January 13-16, 1991, Cocoa Beach, FL // John J. Petrovic, program chair
Pubbl/distr/stampa	Westerville, OH, : American Ceramic Society, c1991
ISBN	1-282-31363-0 9786612313639 0-470-31383-8 0-470-31588-1
Descrizione fisica	1 online resource (682 p.)
Collana	Ceramic engineering & science proceedings, , 0196-6219 ; ; v. 12, no. 7/8
Altri autori (Persone)	PetrovicJohn J
Disciplina	666 666.05
Soggetti	Ceramic materials Ceramics Composite materials Electronic books.
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	Ceramic Engineering & Science Proceedings; Table of Contents; Current Status and Future Prospects for Engineering Ceramics; Transportation, Energy, and Ceramics; Air Force High Temperature Materials Program; Overview of Army Materials Programs; NIST Ceramics Program; Ceramic Matrix Composites: Reinforcements; Review of VLS Sic Whisker Growth Technology; High Temperature Continuous Sintered Sic Fiber for Composite Applications; Properties of the Low Oxygen Content Sic Fiber on High Temperature Heat Treatment; Silylene- Acetylene Polymers as Precursors to SIC Fibers Fiber Creep Evaluation by Stress Relaxation Measurements Inviscid Melt Spinning of Alumina Fibers: Jet Stabilization Mechanism; Continuous Fiber Coating System; Sol-Gel Coating of Fiber Tows; Novel Sol-Gel

Coating Techniques for Ceramic Tows: In-Situ Curing vs Reaction Bonding; Material Characterization of Chemical Vapor Deposited TiB₂ Fibers; Advanced Packing Theory Predicts Super Ceramic Composites; Ceramic Matrix Composites: Interfaces; Effect of Probe Geometry on Push-Out Test Results in Some SiC/Borosilicate Glass Composites A Protrusion Method for Measuring Fiber/Matrix Sliding Frictional Stresses in Ceramic Matrix Composites Ultrasonic Velocity Technique for Monitoring Property Changes in Fiber-Reinforced Ceramic Matrix Composites; Investigation of Interfacial Shear Strength in SiC/Si₃N₄ Composites; Ceramic Matrix Composites: Oxide Matrix; Evaluation of SiC Platelets as a Reinforcement for Oxide Matrix Composites; Microstructure and Properties of Alumina-Whisker- Reinforced Tetragonal Zirconia Polycrystal Matrix Composites; The Microstructure and Properties of Plasma- Sprayed Ceramic Composites Crystallization and Properties of Sr-Ba Aluminosilicate Glass-Ceramic Matrices Sintering of Amorphous Mullite with Crystalline Inclusions; Physical Properties of Alumina-Boron Carbide Whisker/Particle Composites; Ceramic Matrix Composites: Nonoxide Matrix; Gelcast Reaction Bonded Silicon Nitride Composites; Processing and Properties of SiC Whisker- and Particulate-Reinforced Reaction Bonded Si₃N₄; Polymeric Routes to Silicon Carbide and Silicon Oxycarbide CMC; Silicon Carbide/RBSN Composites; Evaluation of SiC(w)-Si₃N₄ Composites Containing Beneficiated/Heat-Treated SiC(w) Hot Isostatic Pressing of Sintered Si₃N₄ Ceramics Nano-Diamond Enhanced Silicon Carbide Matrix Composites; Ceramic Matrix Composites: Fracture; Finite Element Prediction of the Fracture Mechanisms of Short Fiber-Reinforced Ceramic Matrix Composites; Mathematical Modeling of the Strength and Toughness of Unidirectional Fiber- Reinforced Ceramics; Computational and Experimental Simulation of 3-D Fracture in Ceramic Fiber-Ceramic Matrix Composites; A Detailed Look at Microfailure Processes in a Brittle Matrix Fiber Composite; High-Temperature R-Curve Determination of an HIP'ed Silicon Nitride Influence of the Si₃N₄ Microstructure on Its R-Curve and Fatigue Behavior

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.
