

1. Record Nr.	UNISA996212927803316
Titolo	Advances in ceramic matrix composites IX [[electronic resource]] : proceedings of the Ceramic Matrix Composites Symposium, held at the 105th Annual Meeting of the American Ceramic Society, April 27-30, 2003, in Nashville, Tennessee / / edited by Narottam P. Bansal ... [et al.]
Pubbl/distr/stampa	Westerville, Ohio, : American Ceramic Society, c2003
ISBN	1-280-67378-8 9786613650719 1-118-40689-3 1-118-40690-7
Descrizione fisica	1 online resource (360 p.)
Collana	Ceramic transactions, , 1042-1122 ; ; v. 153
Altri autori (Persone)	BansalNarottam P
Disciplina	620.1/4 620.14
Soggetti	Ceramic-matrix composites
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 and index.
Nota di contenuto	Advances in Ceramic Matrix Composites IX; Contents; Preface; Ceramic Fibers; Fine Ceramic Fibers: From Microstructure to High Temperature Mechanical Behavior; Fabrication and Grain Growth In YAG and Mullite Fibers; Raman and Rayleigh Imaging of the Corrosion Process of SiC Fibers; Processing and Design; The Use of Electrophoretic Deposition for the Fabrication of Ceramic and Glass Matrix Composites; Fabrication of Reaction Sintered SiC Based Materials with Nanosize Particle Infiltration; Production of Al <sub>2</sub> O <sub>3</sub> -Ti <sub>3</sub> Al Cermets by the Pressureless Reaction Sintering Process Production of Multilayer Ceramic Laminates with Improved Mechanical PropertiesDesigning with C/C-SiC Composites; Preparation and Characterization of La-In-Mg-O and La-In-Ca-O Ceramic Matrix Composites; Oxide Matrix Composites; Development of Si <sub>3</sub> N <sub>4</sub> /BAS Ceramic Matrix Composite for Engineering Applications; Interfacial Behavior of Two Oxide/Oxide Composites; Geopolymers and Geopolymer Matrix Composites; What are These Things Called

Geopolymers? A Physicochemical Perspective; Effect of Blast Furnace Slag Addition on Microstructure and Properties of Metakaolinite Geopolymeric Materials

Characterization of Zirconium Diboride-Molybdenum Disilicide Ceramics; Sliding Wear Characteristics and Processing of MoSi<sub>2</sub> Composites; Enhanced Wetting of Carbon-Coated Alumina Substrates by Aluminum Alloys; Thermal/Environmental Barrier Coatings; Thermal Conductivity and Stability of HfO<sub>2</sub>-Y<sub>2</sub>O<sub>3</sub> and La<sub>2</sub>Zr<sub>2</sub>O<sub>7</sub> Evaluated for 1650°C Thermal/Environmental Barrier Coating Applications; Index

---

**Sommario/riassunto**

---

Ceramic-matrix composites are strong, tough, environmentally stable, light in weight, and have the ability to withstand high operating temperatures. These characteristics make them viable candidate materials for high temperature structural applications. Twenty three are included in this volume describing the latest developments in the areas of ceramic fibers, processing and fabrication, oxide and non-oxide composites, carbon-carbon composites, geopolymer composites, mechanical behavior, corrosion and environmental effects, characterization, fiber-matrix interface, design of composites, and the

---