

1. Record Nr.	UNINA9910140871403321
Titolo	Strategic materials and computational design : a collection of papers presented at the 34th International Conference on Advanced Ceramics and Composites, January 24-29, 2010, Daytona Beach, Florida // edited by Waltrud M. Kriven, Yanchun Zhou, Miladin Radovic ; The American Ceramic Society
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2010 ©2010
ISBN	1-282-94385-5 9786612943850 0-470-94410-2 0-470-94409-9
Descrizione fisica	1 online resource (206 p.)
Collana	Ceramic Engineering and Science Proceedings ; ; v.538
Disciplina	620.1 S898 620.14
Soggetti	Ceramic materials Composite materials Inorganic polymers Ceramic materials - Computer simulation Composite materials - Computer simulation Carbides Nitrides 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 at the end of each chapters and index.
Nota di contenuto	Strategie Materials and Computational Design: A Collection of Papers Presented at the 34th International Conference on Advanced Ceramics and Composites January 24-29, 2010 Daytona Beach, Florida; Contents; Preface; Introduction; GEOPOLYMERS AND OTHER INORGANIC POLYMERS; Geomaterial Foam to Reinforce Wood; Effect of Curing Conditions on the Porosity Characteristics of Metakaolin-Fly Ash

Geopolymers; New Insights on Geopolymerisation using Molybdate, Raman, and Infrared Spectroscopy
Transformation of Polysialate Matrixes from Al-Rich and Si-Rich Metakaolins: Polycondensation and Physico-Chemical Properties
Effect of High Tensile Strength Polypropylene Chopped Fiber Reinforcements on the Mechanical Properties of Sodium Based Geopolymer Composites; Properties of Basalt Fiber Reinforced Geopolymer Composites; Novel Applications of Metal-Geopolymers; Making Foamed Concretes from Fly Ash Based on Geopolymer Method; Preparation of Electrically Conductive Materials Based on Geopolymers with Graphite
Effect of Synthesis Parameters and Post-Cure Temperature on the Mechanical Properties of Geopolymers Containing Slag
COMPUTATIONAL DESIGN, MODELING, SIMULATION AND CHARACTERIZATION; Electronic Structure and Band-Gaps of Eu-Doped LaSi₃N₅ Ternary Nitrides; First Principle Molecular Dynamic Simulations of Oxygen Plasma Etching of Organosilicate Low Dielectric Materials; Kinetic Monte Carlo Simulation of Cation Diffusion in Yttria-Stabilized Zirconia; Dynamic Neutron Diffraction Study of Thermal Stability and Self-Recovery in Aluminium Titanate; NANOLAMINATED TERNARY CARBIDES AND NITRIDES
Titanium and Aluminium Based Compounds as a Precursor for SHS of Ti₂AlN
Investigations on the Oxidation Behavior of Max-Phase Based Ti₂AlC Coatings on 7-TiAl; Study of High-Temperature Thermal Stability of Max Phases in Vacuum; Detection of Amorphous Silica in Oxidized Maxthal Ti₃SiC₂ at 500-1000°C; Author Index

Sommario/riassunto

Contributions from three Focused Sessions that were part of the 34th International Conference on Advanced Ceramics and Composites (ICACC), in Daytona Beach, FL, January 24-29, 2010 are presented in this volume. The broad range of topics is captured by the Focused Session titles, which are listed as follows: FS1 - Geopolymers and other Inorganic Polymers; FS3 - Computational Design, Modeling Simulation and Characterization of Ceramics and Composites; and FS4 - Nanolaminated Ternary Carbides and Nitrides (MAX Phases). The session on Geopolymers a
