1. Record Nr. UNINA9910829089203321

Titolo	Developments in strategic materials and computational design II : a collection of papers presented at the 35th international conference on advanced ceramics and composites, January 23-28, 2011 , Daytona Beach, Florida / / edited by Waltraud M. Kriven, Andrew Gyekenyesi, Jingyang Wang
Pubbl/distr/stampa	Hoboken, NJ, : John Wiley, 2011
ISBN	9786613337542 9781283337540 1283337541 9781118095393 1118095391 9781118172360 1118172361 9781118172377 111817237X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (262 p.)
Collana	Ceramic Engineering and Science Proceedings
Altri autori (Persone)	KrivenWaltraud M GyekenyesiAndrew WangJingyang
Disciplina	620.14 666.05
Soggetti	Ceramic materials Strategic materials
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	Developments in Strategie Materials and Computational Design II; Contents; Preface; Introduction; GEOPOLYMERS AND OTHER INORGANIC POLYMERS; Effect of External and Internal Calcium in Fly Ash on Geopolymer Formation; Synthesis and Thermal Properties of Fly-Ash Based Geopolymer Pastes and Mortars; Mechanical Response of Discontinuous Filament PVA Fiber Reinforced Geopolymers; Microwave Enhanced Drying and Firing of Geopolymers; Geopolymerization of Red

Mud and Rice Husk Ash and Potentials of the Resulting Geopolymeric Products for Civil Infrastructure Applications
The Effect of Addition of Pozzolanic Tuff on Geopolymers Bottom Ash-Based Geopolymer Materials: Mechanical and Environmental Properties; Production of Geopolymers from Untreated Kaolinite; Phosphate Geopolymers; THERMAL MANAGEMENT MATERIALS AND TECHNOLOGIES; 3-Dimensional Modeling of Graphitic Foam Heat Sink Adrian Bradu and Khairul Alam; Enhancement of Heat Capacity of Molten Salt Eutectics using Inorganic Nanoparticles for Solar Thermal Energy Applications; Enhancement of Heat Capacity of Nitrate Salts using Mica Nanoparticles; Enhanced Viscosity of Aqueous Silica Nanofluids
Pumping Power of 50/50 Mixtures of Ethylene Glycol/Water Containing SiC Nanoparticles COMPUTATIONAL DESIGN; Characterization of Non Uniform Veneer Layer Thickness Distribution on Curved Substrate Zirconia Ceramics using X-Ray Micro-Tomography; Computational Study of Wave Propagation in Second-Order Nonlinear Piezoelectric Media; Impact of Material and Architecture Model Parameters on the Failure of Woven CMCS via the Multiscale Generalized Method of Cells; Kinetic Monte Carlo Simulation of Oxygen and Cation Diffusion in Yttria-Stabilized Zirconia; ADVANCED SENSOR TECHNOLOGY Nano-Calorimeter Platform for Explosive Sensing Polyaniline-Silica Nanocomposite: Application in Electrocatalysis of Acetylthiocholine; Electrochemical Sensing of Dopamine over Polyindole-Composite Electrode; Author Index

Sommario/riassunto

This book is a collection of papers from The American Ceramic Society's 35th International Conference on Advanced Ceramics and Composites, held in Daytona Beach, Florida, January 23-28, 2011. This issue includes papers presented in the Thermal Management Materials and Technologies; Advanced Sensor Technology; Geopolymers; and Computational Design, Modeling, and Simulation of Ceramics and Composites symposia.