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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 Pozzolanitic 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

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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.

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