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Nota di contenuto	Innovative Processing and Synthesis of Ceramics, Glasses and Composites VIII; Contents; Preface; Combustion Synthesis; Combustion Synthesis (SHS) of BN/AlN Ceramic Composite Powders; Combustion Synthesis of Ceramic Composites and Solid Solutions from Nanoreactants; Microwave Processing; Susceptor Investigation for Microwave Heating Applications; A Comparison of the Electrical

Properties of Yttria-Stabilized Zirconia Processed Using Conventional, Fast-Fire, and Microwave Sintering Techniques; Sol-Gel Synthesis; Biomorphic (Si, Ti, Zr) - Carbide Synthesized Through Sol-Gel Process Preparation of Monodispersed Silica Colloids Using Sol-Gel Method: Cosolvent Effect Colloidal Processing; Definitive Replacement of Organic Solvents by Water in the Colloidal Processing of Aluminum Nitride; Pre-ceramic Polymer Processing; Al<sub>2</sub>O<sub>3</sub>-SiC Nanocomposites by Infiltration of Alumina Matrix with a Liquid Polycarbosilane; High-Yield Ceramic Inks for Ink-Jet Printing with Pre-ceramic Polymers; Plasma Synthesis; Effect of Particle Size on the Characteristics of Mullite-ZrO<sub>2</sub> Ceramics Produced by Spark Plasma Reaction Sintering; Composites Synthesis and Characterization of Al<sub>2</sub>O<sub>3</sub>-SiC Composite Powders from Carbon Coated Precursors Cellular β-SiALON/SiC Composite Ceramics from Cardboard; Thin Films; Titanium Oxide Thin Film Preparation via Low Temperature Spin-Coating Process; Synthesis of C and N Based Thin Films by Microwave Plasma Chemical Vapor Deposition; Effect of Nitrogen on Morphology and Electrical Properties of Polycrystalline Diamond Thin Films; Porous Ceramics; Manufacturing of Highly-Porous SiC-Ceramics from Si-Filled Cellulose Fiber Papers; Kinetics and Mechanism High Temperature Forming of Ceramic Shapes Without Applying External Pressure The Influence of Binder Degradation Kinetics on Rapid Binder Removal Cycles; Computational Modeling and Analysis; Stress-Deformation Analysis by FEM-Based Computational Modeling of Fracture Mechanics of Carbon Hard Inclusions and Reinforced Composite Materials; Author Index; Keyword Index

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Sommario/riassunto

The latest developments in ceramic, glass, and composites processing and characterization are covered in this volume. Included are papers from industry, academia, and research laboratories on the advances in basic science and technology and how these can be used to address technological issues faced by the industry.

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