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Nota di contenuto	Innovative Processing and Manufacturing of Advanced Ceramics and Composites; Contents; Preface; Introduction; SYNTHESIS AND PROCESSING BY THE SPARK PLASMA METHOD; Simulation of Contact Resistances Influence on Temperature Distribution during SPS Experiments; Spark-Plasma-Sintering (SPS) Processing of High Strength Transparent MgAl <sub>2</sub> O <sub>4</sub> Spinel Polycrystals; Consolidation of Carbon with Amorphous-Graphite Transformation by SPS; Spark Plasma Sintering of Nanostructured Ceramic Materials with Potential Magnetoelectricity; Sintering and Properties of Nanometric Functional Oxides Spark Plasma Sintering Mechanisms in Si <sub>3</sub> N <sub>4</sub> -Based Materials Consolidation of SiC with BN through MA-SPS Method; Fabrication of Dense Zr-, Hf- and Ta-Based Ultra High Temperature

Ceramics by Combining Self-Propagating High-Temperature Synthesis and Spark Plasma Sintering; NOVEL, GREEN, AND STRATEGIC PROCESSING; Microwave Sintering of Mullite and Mullite-Zirconia Composites; Idle Time and Gelation Behavior in Gelcasting Process of PSZ in Acrylamide System; Characterization of the Mesoporous Amorphous Silica in the Fresh Water Sponge Cauxi Novel Chemistry-Modification Approach for Synthesis of SiAlON from Fly AshPatterning of Closed Pores Utilizing the Superplastically Foaming Method; The Research of Materials Life Cycle Assessment; Modeling Dual and MgO Saturated EAF Slag Chemistry; ADVANCED POWDER PROCESSING; Aqueous Processing of TiC Preforms for Advanced Cermet Preparation; The Effect of Precipitator Types on the Synthesis of La<sub>2</sub>Zr<sub>2</sub>O<sub>7</sub> Powders by Chemical Coprecipitation Method; The Study of Preparation of Blue V-Zircon Pigment by Using Zircon and Sulphuric Acid; Preparation of Blue-Ceramic Pigments by Reaction Bonding Colloidal Characterization and Aqueous Gel Casting of Barium Titanate CeramicsDispersion and Fluidity of Aqueous Aluminium Titanate Slurry by Addition of Titanate Aqueous Solution; Author Index

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**Sommario/riassunto**

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With continued discoveries and innovations, the field of materials synthesis and processing remains as it has been for many decades, a vibrant and fertile area for research and development. It comes, therefore, as no surprise that every Pac Rim conference has had considerable emphasis on this topic with many symposia devoted to various aspects of this field. This Ceramic Transactions volume represents selected papers based on presentations in four symposia during the 8th Pacific Rim Conference on Ceramic and Glass Technology, held in Vancouver, British Columbia, May 31-June 5, 2009.

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