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Introduction; Seeds Innovation and Bearing Applications of Silicon
Nitride Ceramics; Comparison of Microwave and Conventionally
Sintered Yttria Doped Zirconia Ceramics and Hydroxyapatite-Zirconia
Nanocomposites; Recent Developments in High Thermal Conductivity
Silicon Nitride Ceramics
Microstructure Maps for Unidirectional Freezing of Particle
Suspensions Interactions of Si₃N₄-Based Ceramics in Water
Environment Under Sub-Critical Conditions; Smart Recycling of
Composite Materials; High Thermal Conductivity and High Strength
Sintered Reaction - Bonded Silicon Nitride Ceramics Fabricated by
Using Low Grade Si Powder; Electrical Conductive CNT-Dispersed Si₃N₄
Ceramics with Double Percolation Structure; Fabrication of CNT-
Dispersed Si₃N₄ Ceramics by Mechanical Dry Mixing Technique; Joining
of Silicon Nitride Long Pipe by Local Heating
Joining of Silicon Nitride with Pyrex® Glass by Microwave Local Heating
Mechanical Properties of Chemical Bonded Phosphate Ceramics with Fly
Ash as Filler; Ceramics Micro Processing of Photonic Crystals:
Geometrical Patterning of Tania Dispersed Polymer for Terahertz Wave
Control; Intergranular Properties and Structural Fractal Analysis of
BaTiO₃-Ceramics Doped by Rare Earth Additives; Development of
Numerical Method for Evaluating Microstructural Fracture in Smart
Materials; Fabrication of Ceramic Dental Crowns by Using
Stereolithography and Powder Sintering Process
Large-Sized Structural Ceramic Manufacturing by the Shaping of
Thixotropic Slurries Oriented Alumina Ceramics Prepared from Colloidal
Processing in Magnetic Field; Densification Mechanisms of Yttria-
Stabilized Zirconia Based Amorphous Powders by Electric Current
Assisted Sintering Process; Microstructure Control of Si₃N₄ Ceramics
Using Nanocomposite Particles Prepared by Dry Mechanical Treatment;
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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 5th International Symposium on Advanced Processing and Manufacturing Technologies for Structural and Multifunctional Materials and Systems on topics such as Design-Oriented Manufacturing and Novel Forming and Sintering. Papers from a special session held in honor of Katsutoshi Komeya of Yokohama National University, Japan are also included.
