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High Temperature Stiffness and Damping to Qualitatively Assess the Amorphous Intergranular Phase in Sintered Silicon Nitride and CarbideHigh-Temperature Deformation of Silicon Nitride and its Composites; Improved Properties; SiAlON Ceramics: Processing, Microstructure and Properties; Fracture Behavior of Porous Si3N4 Ceramics with Random and Aligned Microstructure; Liquid Phase Sintering of SiC with AlN and Rare-Earth Oxide Additives; Effect of Additives on Microstructural Development and Mechanical Properties of Liquid-Phase-Sintered Silicon Carbide during Annealing
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Sommario/riassunto

This volume focuses on recent scientific and technological developments in silicon-based (i.e., silicon nitride, SiAlONs, silicon carbide, silicon oxynitride) structural ceramics. Authors from academia and industry assess the current state of the art in slilicon-based structual ceramics. Industrial case studies are advocated to highlight the development and application of these materials in real engineering environments.