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Preparation and Sintering of Al2O3 - Doped Magnesium Aluminate SpinelPolished Spinel Directly from the Hot Press; In Depth Study of Cone Cracks in Multi-Layered Transparent Panel Structures by X-Ray Computed Tomography; Nondestructive Characterization of Low Velocity Impact Damage in Transparent Laminate Systems; XCT Diagnostics of Ballistic Impact Damage in Transparent Armor Targets; OPAQUE MATERIALS; Opportunities in Protection Materials Science and Technology for Future Army Applications; Surface Preparation of Alumina for Improved Adhesive Bond Strength in Armor Applications Discrimination of Basic Influences on the Ballistic Strength of Opaque and Transparent CeramicsQuantifying the Homogeneity of Ceramic Microstructures through Information Entropy; Effect of Boron Carbide Additive Size and Morphology on Spark Plasma Sintered Silicon Carbide; Submicron Boron Carbide Synthesis Through Rapid Carbothermal Reduction; Improved Modeling and Simulation of the Ballistic Impact of Tungsten-Based Penetrators on Confined Hot-Pressed Boron Carbide Targets; Development of Reaction Bonded B4C-Diamond Composites; Author Index

Sommario/riassunto

The manuscripts contained in this issue of Ceramic Engineering and Science Proceedings were selected from among the more than seventy presentations at the Armor Ceramics Symposium. The discussions are divided into three sections: Modeling and dynamic behavior, Transparent materials, and Opaque materials. Conducted during the 36th annual International Conference on Advanced Ceramics and Composites (ICACC), this event is one of the premier global conferences for the latest developments in the fabrication, characterization, and application of ceramic materials to meet the needs of t