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PENETRATION AND MATERIAL MODELING: Fragmentation of Ceramics in

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Hot-Pressed Boron Carbide; Characterization of Microstructural Damage in Silicon Carbide Processed via Modified Chemical Vapor

Deposition; MATERIAL CONCEPTS, PROCESSES AND CHARACTERIZATION

Effects of Grain Size, Shape and Second Phases on Properties of Sintered SicIndenter Elastic Modulus and Hertzian Ring Crack Initiation;

High Frequency Ultrasound of Alumina for High Strain-Rate

Applications; The Effect of Particle Size, Particle Loading and Thermal

Processing Conditions on the Properties of Alumina Reinforced Aluminum Metal Matrix Composites; Pressureless Sintering of B4C-Sic Composites for Armor Applications; APPLICATIONS OF NDE; A Portable Microwave Interference Scanning System for Nondestructive Testing of Multi-Layered Dielectric Materials

Destructive Testing and Nondestructive Evaluation of Alumina Structural CeramicsNondestructive Evaluation of as Fabricated and Damaged Encapsulated Ceramics; Microstructural Study of Sintered SiC via High Frequency Ultrasound Spectroscopy; Impact Damage Analysis in a Level III Flexible Body Armor Vest Using XCT Diagnostics; TRANSPARENT ARMOR; Impact onto Glass and Glass Ceramic Bars; Numerical Study of the Effect of Surface Stresses of Transparent Ceramics of Laminated Targets for Military Armor Applications Analyses of Various Damage Mechanisms in Transparent Armor Subject to Projectile ImpactPressureless Reaction Sintering of AlON Using Aluminum Orthophosphate as a Transient Liquid Phase; ALON® Transparent Armor; Author Index

Sommario/riassunto

The Armor Ceramics Symposium provides an annual forum for the presentation and discussion of unclassified information and ideas pertaining to the development and incorporation of ceramic materials for armor applications. This collection of articles from the seventh edition of this symposium focused on Impact, Penetration and Material Modeling, Material Concepts, Processes and Characterization, the Application of NDE, and Transparent Armor.