1. Record Nr. UNINA9910878089303321

Titolo	Advances in ceramic armor V : a collection of papers presented at the 33rd International Conference on Advanced Ceramics and Composites, January 18-23, 2009, Daytona Beach, Florida / / edited by by Jeffrey J. Swab; volume editors, Dileep Singh, Jonathan Salem
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, 2010
ISBN	1-282-46145-1 9786612461453 0-470-58433-5 0-470-58432-7
Descrizione fisica	1 online resource (248 p.)
Collana	Ceramic engineering and science proceedings ; ; 30/5
Classificazione	ZM 6100
Altri autori (Persone)	SwabJeffrey J SinghDilip SalemJ. A <1960-> (Jonathan A.)
Disciplina	620.14 623.7/4
Soggetti	Ceramic materials Armor - Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Advances in Ceramic Armor V; Contents; Preface; Introduction; IMPACT, PENETRATION AND MATERIAL MODELING; Fragmentation of Ceramics in the Ballistic Environment; Flow Behavior of Glass at the Tip of a Penetrator; Rheology of Powder and Porous Media in Modeling of Penetration into Porous Ceramic; Computer Modeling of Shock Wave Propagation in SiC-Sample; Ballistic Impact Damage Observations in a 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.