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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	Tensile Properties of Dyneema SK76 Single Fibers at Multiple Loading Rates Using a Direct Gripping Method -- Statistical Characterization of Single PPTA Fiber Tensile Properties From High Strain Rate Tests -- Static and Dynamic Thermo-mechanical Behavior of Ti2AlC MAX Phase and Fiber Reinforced Ti2AlC Composites -- Effects of Spherical Nanoparticle Addition on Dynamic Properties of Polyamide 11 -- Latest Results in Novel Inertial High Strain Rate Tests -- DIC in Dynamic Punch Testing -- Specimen Design to Study the Dynamic Response of an Amorphous Polymer -- Micro-Raman Spectroscopic Evaluation of Residual Microstresses in Reaction Bonded Boron Carbide Ceramics -- Dynamic Response of Human Wisdom Teeth and Temporary Fillers -- In-situ and Postmortem Measures of Damage in Polymers at High Strain-rates -- Application of High Speed Imaging in Particle Dynamics Study With Explosives -- Damage Assessment in Metal Plates by Using Laser Vibrometer Measurements -- Uncertainty of Strain Gage Measurements on Kolsky Bars -- Full-Field Displacement Observation of Polymer Foam Subjected to Shock Loading -- Explosive Blast Loading of Biosimulants Through Ballistic Protective Materials -- The Hugoniot

Relationships for Nonlinear Elastic Substances -- Blast Performance of Foam Filled Sandwich Panels under Extreme Temperatures -- Dynamics and Shock Waves in Media with Second Order Phase Transformations -- Structural Changes in Lipid Vesicles Generated by the Shock Waves: Dissipative Particle Dynamics Simulation -- Effect of Threaded Joint Preparation on Impact Energy Dissipation Using Frequency-based Kolsky Bar Analysis -- Experimental Observation of Slip Pulses During Onset of Sliding Friction -- Observation of Dynamic Deformation Behavior Around Interface of bi-material Using DIC -- Experimental and Analytical Investigation of Carbon Fiber Cable Damping -- Volume Damageability According to Criteria of Mechanical and Rolling Fatigue -- Developments in the Characterization of Metallic Adhesion -- Stress Initiation and Propagation in Glass During Ring-on-ring Testing -- Investigation of Cavitation Using a Modified Hopkinson Apparatus -- Characterization of Structural Epoxy Adhesives -- Rate Dependent Response of Cross-linked Epoxy Networks -- Dynamic Crack Propagation in Layered Transparent Materials Studied Using Digital Gradient Sensing Method -- Fracture Toughness Testing of Advanced Silicon Carbide Ceramics Using Digital Image Correlation -- Fracture of Pre-Stressed Woven Glass Fiber Composite Exposed to Shock Loading. -A Miniature Tensile Kolsky Bar for Thin Film Testing -- High Temperature Tension HSB Device Based on Direct Electrical Heating -- Dynamic Flow Stress Measurements for Machining Applications -- Thermo-Mechanical Behavior of AA-2219 and AA-2195 at High Strain Rates -- Rigid Angular Impact Responses of a Generic Steel Vehicle Front Bumper and Crush Can: Correlation of Two Velocity-Measurement Techniques -- Force-Time History Assessment of a Generic Steel Vehicle Front Bumper and Crush Can Subjected to a Rigid Center Pole Impact -- Damage of Two Concrete Materials due to Enhanced Shaped Charges -- Influence of Free Water and Strain-rate on the Behaviour of Concrete Under High Confining Pressure -- Numerical Investigation of Impact Condition Effects on Concrete Penetration -- On the Damage Mechanisms Involved in Different Geomaterials Subjected to Edge-on Impact Experiments -- Effect of Boundary Conditions on the Thermo-mechanical Response of Hastelloy® X Plates Subjected to Shock Loading -- Experimental Studies of the Matrix Detonating Cord Charge -- The Characterization of Ammonium Nitrate Mini-Prills -- High-strain Rate Compressive Behavior of Dry Mason Sand Under Confinement -- Scale Bridging Interactions During Penetration of Granular Materials -- Experimental Investigation on Material Dynamic Behaviors Using Ultra-high-speed Cameras -- Application of 3-D Digital Image Correlation Technique to Study Underwater Implosion -- Dynamic Analysis of a Plate Loaded by Explosively Driven Sand -- Simulating the Planar Shock Response of Concrete -- Mesoscale Simulations of Dry Sand -- Perforation of 6082-T651 Aluminum Plates with 7.62mm APM2 Bullets at Normal and Oblique Impacts.

Sommario/riassunto

Dynamic Behavior of Materials, Volume 1: Proceedings of the 2014 Annual Conference on Experimental and Applied Mechanics, the first volume of eight from the Conference, brings together contributions to this important area of research and engineering. The collection presents early findings and case studies on fundamental and applied aspects of Experimental Mechanics, including papers on:

- General Dynamic Materials Response
- Novel Dynamic Testing Techniques
- Dynamic Fracture and Failure
- Dynamic Behavior of Geomaterials
- Dynamic Behavior of Composites and Multifunctional materials
- Dynamic Behavior of Low-Impedance materials
- Dynamic Modeling and Simulation of Dynamic Behavior of Materials
- Quantitative Visualization of Dynamic Behavior of

