

1. Record Nr.	UNINA9910254231203321
Titolo	Dynamic Behavior of Materials, Volume 1 : Proceedings of the 2015 Annual Conference on Experimental and Applied Mechanics // edited by Bo Song, Leslie Lamberson, Daniel Casem, Jamie Kimberley
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-22452-2
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (265 p.)
Collana	Conference Proceedings of the Society for Experimental Mechanics Series, , 2191-5652
Disciplina	620.1123
Soggetti	Materials - Analysis Mechanics, Applied Solids Characterization and Analytical Technique Solid Mechanics
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 at the end of each chapters.
Nota di contenuto	1. Impact Response of Coquina -- 2.Experimental Investigation of the Dynamic Fragmentation Process in a Transparent Ceramic Under Impact Loading -- 3.Effects of Chain Extender on Dynamic Properties of PLLA/PBSL Blends -- 4. Observation and Modeling of Cone Cracks in Ceramics -- 5.Tensile Behavior of Granite at High Strain Rates -- 6. Dynamic Crack Propagation in Layered Transparent Materials Studied Using Digital Gradient Sensing Method -- 7.Measurement of the Dynamic Fracture Toughness of Alumina Ceramic -- 8.Shock and High Strain Rate Characterization of HTPB With Varying Plasticizer -- 9. Modified Hopkinson Apparatus to Investigate Fluid Cavitation as a Potential Source of Injury -- 10. Dynamic Energy Absorption of Eco-Core and Other Commercial Core Materials -- 11.Harmonic Vibration Test for the Analysis of the Dynamic Behaviour of Polyurethane Foams -- 12.Statistical Characterizations for Tensile Properties of Co-polymer Aramid Fibers: Loading Rate Effects -- 13.Longitudinal Wave Propagation Including High Frequency Component in Viscoelastic Bars -- 14. Quasistatic To Dynamic Behavior Of Particulate Composites For

Different Temperatures -- 15. A Kolsky Bar for High-rate Micro-compression - Preliminary Results -- 16. Multi-scale Mechanical Performance of High Strength-high Ductility Concrete -- 17. PZT Experimental Detection of Natural Frequencies for Compressed Thin-walled Beams -- 18. On the use of Piezoelectric Sensors for Experimental Modal Analysis -- 19. Characterization of Vibrational Mechanical Properties of Polyurethane Foam -- 20. High Strain-Rate Ductile to Brittle Transition in Nanoporous Zeolite -- 21. Dynamic High-Temperature Tensile Characterization of an Iridium Alloy -- 22. Dynamic friction properties of stainless steels -- 23. Dynamic Tensile Behavior of a Quenched and Partitioned High Strength Steel Using a Kolsky Bar -- 24. Dynamic Flow Response of a Rigid Polymer Foam Subjected to Direct Impact -- 25. Differences in the Hydrostatic Implosion of Metallic and Composite Tubes Studied Using Digital Image Correlation -- 26. Novel Protection Mechanism of Blast and Impact Waves by Using Nanoporous Materials -- 27. Response of Materials Under Blast Loading -- 28. Using Richtmyer-Meshkov Instabilities to Estimate Metal Strength at Very High Rates -- 29. Study of Energy Contributions in Granular Materials during Impact -- 30. Ballistic Perforation of Double Reinforced Concrete as a Function of Energy -- 31. Identification Of The Dynamic Tensile Behavior Of Geomaterials Based on the Virtual Fields Method and a new Generation-Ultra-High-Speed Camera -- 32. Particle Size Reduction in Granular Materials During Rapid Penetration -- 33. Experimental Techniques to Characterize the Mechanical Behaviour of Ultra-high-strength-concrete Under Extreme Loading Conditions -- 34. Highly Stretchable Miniature Strain Sensor for Large Strain Measurement -- 35. Clamping-force Application for Kolsky bar Tension Grips -- 36. An Improved Technique for Reducing the Load Ringing Phenomenon in Tensile Tests at High Strain Rates -- 37. Experimental and Numerical Analysis of Pressure Waves Propagation in a Viscoelastic Hopkinson Bar -- 38. An Innovative Instrumented Projectile for Dynamic Testing and Material Characterization.

Sommario/riassunto

Dynamic Behavior of Materials, Volume 1 of the Proceedings of the 2015 SEM Annual Conference & Exposition on Experimental and Applied Mechanics, the first volume of nine 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 Material Response Fragmentation & Dynamic Fracture Large Scale Collaborative Facilities Dynamic Fracture and Failure Dynamic Behavior of Geo-materials Shock & Blast Novel Testing Techniques .
