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	Nota di contenuto	1 Cracking and Durability of Composites in a Marine Environment -- 2 Analyses of Nanoscale to Microscale Strength and Crack-tip Stresses Using Nanomechanical Raman Spectroscopy in In 617 -- 3 High Creep Resistance of Titanium Aluminides Sintered by SPS -- 4 An Investigation of the Temperature and Strain-Rate Effects on Strain-to-Failure of UHMWPE Fibers -- 5 Keynote Life Prediction of CFRP Laminates based on Accelerated Testing Methodology -- 6 Rate Dependent Interfacial Properties Using the JKR Experimental Technique -- 7 Bio-based Composites as Thermorheologically Complex Materials

-- 8 Viscoelastic Properties of Longitudinal Waves in a Hollow Cylinder -- 9 Evaluation of Viscoelastic Characteristics Under High Strain Rate by Impact Test -- 10 Phase Changes in Embedded HMX in Response to Periodic Mechanical Excitation -- 11 Effect of Crystal Density on Dynamic Deformation Behavior of PBX -- 12 Strain Rate Dependent Failure of InterfacesExamined via Nanoimpact Experiments -- 13 A Theory of Coupled Anisothermal Chemomechanical Degradation for Finitely-deforming Composite Materials with Eshelbian Interactive Forces -- 14 Effect Of Temperature And Moisture on the Mechanical Properties of Fiber Reinforced Nylon 6 Composites -- 15 Using Hydrostatic Pressure to Maximize Frequency Dependent Damping Properties of Thermoplastic Polyurethane -- 16 Impact Of Hydro-Mechanical Loadings On Rupture Process In Wood Material -- 17 2D Transient Viscoplastic Model for Dislocation Generation of SiC by PVT Method -- 18 Temperature-Dependent Small Strain Plasticity Behavior of 304L Stainless Steel -- 19 Time and Temperature Creep Behaviour Measurement of Al and Al-Mg Alloy Thin Films Using Pressure Bulge Tests -- 20 Multifunctional Wings with Flexible Batteries and Solar Cells for Robotic Birds -- 21 Rate-Dependent Constitutive Model Development of PC/ABS Material -- 22 Comprehensive Viscoelastic Properties Characterization of EMC Using FBG Sensor -- 23 Back Stress in Modeling the Response of PEEK and PC -- 24 Dynamic Testing and Constitutive Modelling of NBR Rubbers -- 25 A New Temperature-dependent Storage Modulus Model of Epoxy Resin -- 26 Identification of Plastic Behaviour of Sheet Metals in High Strain Rate Tests -- 27 Characterization of Fiber Composites at Lower Strain Rates.

Sommario/riassunto

Challenges in Mechanics of Time-Dependent Materials, Volume 2 of the Proceedings of the 2016 SEM Annual Conference& Exposition on Experimental and Applied Mechanics, the second volume of ten 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 in the following general technical research areas: Extreme Environments & EnvironmentalEffects Structure-Function of Performance of PE Effects of Inhomogeneities & Interfaces Characterization Across Scales Mechanics of Energy & Energetic Materials Metallic Materials Viscoelasticity & Viscoplasticity.