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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Simulation of Arbitrary Mixed-Mode Crack Growth Using an Energy-Based Approach -- Experimental and Predicted Crack Paths in Al-2024-T351 under Mixed-Mode I/II Fatigue -- On Numerical Evaluation of Mixed Mode Crack Propagation Coupling Mechanical and Thermal Loads in Wood Material -- Curvilinear Fatigue Crack Growth Under Out-of-phase Loading Conditions -- Fracture Surface Transition for Notched Bars in Torsion -- Mixed Mode Evaluation of Different Grinding Depths in FRPC Repairs -- Through Thickness Fracture Behavior of Transversely Graded Ti/TiB Material -- Coalescence and Growth of Two Semi-Elliptical Coplanar Cracks in API-5L Grade B Steel -- Measurement of Crack Tip Displacement Field in Desiccating Paste -- Characterization of Fracture Behavior of Multi-walled Carbon Nanotube Reinforced Cement Paste Using Digital Image Correlation -- Characterization of Structural Scale Ductile Fracture of Aluminum Panels Using Digital Image Correlation -- Creep Damage Quantification and Residual Strength Evaluation of 5083 Aluminum Alloy -- Nanoindentation Measurements on Rocks -- Anelasticity in Al-alloy

Thin Films: A Micro-mechanical Analysis -- Oxide Driven Strength Degradation on (111) Silicon -- Impact of Speckle Pattern Parameters on DIC Strain Resolution Ealculated From In-situ SEM Experiments -- Very High-cycle Fatigue Resistance of Shot Peened High-strength Aluminium Alloys: Role of Surface Morphology -- Experimental Characterization of Semi-rigidity of Standardized Lattice Beam Using the Grid Method -- Characterization of Martensitic Transformation Morphology in Wide Hysteresis Shape Memory Alloys -- Analysis of Phase Transformation Intermittency In SMA Using the Grid Method -- In-situ X-Rays Diffraction and Multiscale Modeling of Shape Memory Alloys -- Failure Mode Transition in Fiber Composite Fatigue -- Fracture Toughness and Impact Damage Resistance of Nanoreinforced Carbon/Epoxy Composites -- Fatigue Behavior of Glass-bubbles Modified Adhesively Bonded Composite Joints -- Experimental Observations of Dynamic Delamination in Curved [0] and[0/90] Composite Laminates -- Fatigue Failure of Polyethylene Electrofusion Joints Subject to Contamination -- Creep Crack Growth in High-temperature Impure Helium Environments -- High-Frequency Resonance Phenomena in Materials Subjected to Mechanical Stress -- Electromagnetic Emission as Failure Precursor Phenomenon for Seismic Activity Monitoring -- Wireless Acoustic Emission Monitoring of Structural Behavior -- Acoustic Emission Monitoring in Rock Specimen During Fatigue Test -- Crack Propagation Monitoring In Aluminum Samples by Means of Acoustic Emissions and Thermography.

Sommario/riassunto

Fracture, Fatigue, Failure and Damage Evolution, Volume 5: Proceedings of the 2014 Annual Conference on Experimental and Applied Mechanics, the fifth 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 a wide range of areas, including: Mixed Mode Fracture I: Emphasis on Modeling Mixed Mode Fracture II: Emphasis on Experimental Measurements Full-Field Measurements of Fracture Microscale & Microstructural Effects on Mechanical Behavior I: Nanoscale Effects Microscale & Microstructural Effects on Mechanical Behavior II: MEMS Microscale & Microstructural Effects on Mechanical Behavior III: Microstructure Microscale & Microstructural Effects on Mechanical Behavior IV: Shape Memory Alloys Fracture & Fatigue of Composites Fracture & Fatigue for Engineering Applications Wave-Based Techniques in Fracture & Fatigue I Wave-Based Techniques in Fracture & Fatigue II: Acoustic Emissions.