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Nota di contenuto	Mechanical Properties of Solids XI; Foreword; Committees; Table of Contents; I. Invited Talks; Superplasticity in Ceramics: Applications and New Trends; Structural Effect on the Plastic Behavior in Highly Porous Glasses; Grain Size Strengthening in Microcrystalline Copper: A Three-Dimensional Dislocation Dynamics Simulation; II. Ceramics; Study of Erosion Behaviour of Conventional and Nanostructured WC-12Co Coatings Sprayed by Atmospheric Plasma; Influence of Thermal Effects Produced by Laser Treatment on the Tribological Behavior of Porcelain Ceramic Tiles Wear Resistance of Metal Oxide Sol-Gel Coatings Deposited over Ceramic GlazesEffect of the Crystalline Phase on the Brittleness Index of Glass Ceramic Surfaces; On the High-Temperature Plasticity of Ceria-Doped Zirconia Nanostructured Polycrystals; Spark Plasma Sintering and Microstructural Characterization of Additive-Free Polycrystalline -SiC; III. Composites and Models; A Method for Elasticity Modulus Calculation in Porous Media with Known Geometry Using the Monte Carlo Technique; High Temperature Mechanical Properties of Ti(C,N)-Co-Mo ₂ C Cermets High-Temperature Mechanical Spectrometer for Internal Friction MeasurementsIV. Metals; Influence of the Martensitic Transformation on the Fatigue Life of Austenitic Stainless Steels ; Tensile Behaviour of

6082 Aluminium Alloy Sheet under Different Conditions of Heat Treatment, Temperature and Strain Rate; Influence of Cold Work in the Elastic Modulus of the Ti-16.2Hf-24.8Nb-1Zr Alloy Characterized by Instrumented Nanoindentation; Influence of the Milling Time on Mechanical and Magnetic Properties of Cu₉₀Co₅Ni₅ Alloy Obtained by Mechanical Alloying
Sliding Wear Behavior of a Duplex Stainless Steel Creep Behaviour of Closed Cell Aluminium Foams from Stress Relaxation Tests ; A Study of the Mechanical Properties and Recrystallization of Two Types of Foil of Aluminium 1050 A; Hall-Petch Relationship of a TWIP Steel; V. Polymers; Mechanical Properties of Bioactive Hybrid Organic/Inorganic Aerogels; Mechanical Properties of Organic-Inorganic Hybrid Black Coating of Silica and Polyurethane; Creep and Stress Relaxation of Hybrid Organic-Inorganic Aerogels; Keywords Index; Authors Index

Sommario/riassunto

This special collection on the Mechanical Properties of Solids gives an accurate picture, of the distribution of current research, from the viewpoint of the mechanical properties of solids. The topics are presented in traditional form: Ceramics, Composites and models, Metals and Polymers, and the six invited talks attempt to cover the most currently important areas, such as superplasticity and superelasticity, nanostructured materials, shape-memory alloys, viscoelasticity in polymers, microcrystalline metals, mechanical behaviour of bioactive materials, etc.
