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Nota di contenuto	Interaction between Defects and Anelastic Phenomena in Solids; Committees; Photos; Preface; Table of Contents; Computer Simulation of the Interaction of Junction Disclinations in Nanomaterials with Grain Boundary Vacancies; Nonlinear Correlated Interaction of Mesodefects and Transition to Macrofracturing; Recent Advances in Determination of the Logarithmic Decrement and the Resonant Frequency in Low-Frequency Mechanical Spectroscopy ; High-Temperature Mechanical Relaxation due to Dislocation Motion inside Dislocation Networks High Temperature Mechanical Loss Spectrum of 3Y-TZP Zirconia Reinforced with Carbon Nanotubes or Silicon Carbide WhiskersLow Temperature Kinetics of In-Cd Solid Solution Decomposition; Effect of Heat Treatment on Acoustic Properties of Chromium Polycrystals at Low Temperatures; Analysis of Internal Friction Peaks in High Purity Molybdenum by a Viscoelastic Procedure Independent of the Relaxation

Strength; Structure and Anelasticity of Fe-Ge Alloys; Snoek-Type and Zener Relaxation in Fe-Si-Al Alloys; Room-Temperature Short-Range Ordering in Fe-Si Alloys Observed by Internal Friction
Mechanical Spectroscopy and Neutron Diffraction Studies in Fe-Al-Si AlloysMechanical Spectroscopy of the Fe-25Al-Cr Alloys in Medium Temperature Range; On the Formation of High Damping State in Fe-Al and Fe-Cr Alloys; On the Formation of High Damping State and Optimization of Structure of Industrial Damping Steels; Influence of Heat Treatment on Magnetic and Damping Properties of Fe-11 at.% Al Alloys; Influence of Thermal Cycling and Equivalent Heat Treatment on Amplitude Dependence of Internal Friction in Cu-Al-Mn Shape Memory Alloys
Mechanical and Fatigue Properties of Cu-Al-Mn Shape Memory Alloys with Influence of Mechanical Cycling on Amplitude Dependence of Internal Friction at Room TemperatureEffect of Cold Rolling on the Damping of As Cast Cu-Al-Mn Shape Memory Alloys; In Situ Neutron Diffraction Study of Internal Stresses in 60% Mn-40% Cu Alloy Introduced by Ageing; Change of Structure and Properties of 51CrV4 Shaft Caused by Thermo-Mechanical Treatment; Damping in AZ31 ECAP-Processed Alloy; Study of PPV Polymer Layers on Si Substrates by Mechanical Spectroscopy
Do Electromagnetic Pulses Induce the Relaxation or Activation of Microcracking Rate in Loaded Rocks?Phase Heterogeneities of Lipidic Aggregates; Mechanical Spectroscopy of Oil Films on Metallic and Neutral Substrates ; On the History of the Russian School of Anelasticity in Solids; Keywords Index; Authors Index

Sommario/riassunto

The principal purpose of assembling this special volume was to create a truly international body of peer-reviewed contributions on ""Interaction between defects and anelastic phenomena in solids"". The topics cover various aspects of elastic energy dissipation in solids due to the presence and evolution of crystal defects including: fundamental aspects, experimental methods, technological applications, non-destructive testing and complementary techniques. This makes it a possibly unique guide to this specialized subject.