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Titolo	Inelastic Behavior of Materials and Structures Under Monotonic and Cyclic Loading // edited by Holm Altenbach, Michael Brünig
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Descrizione fisica	1 online resource (261 p.)
Collana	Advanced Structured Materials, , 1869-8441 ; ; 57
Disciplina	620.11232
Soggetti	Mechanics, Applied Solids Materials - Analysis Building materials Solid Mechanics Characterization and Analytical Technique Building Materials
Lingua di pubblicazione	Inglese
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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	Creep Behavior Modeling of Polyoxymethylene (POM) Applying Rheological Models -- Experiments and Numerical Simulations on Stress-State-Dependence of Ductile Damage Criteria -- Constitutive Modeling of Dissipative Phenomena in Austenitic Metastable Steels at Cryogenic Temperatures -- Modeling of Continuous Damage Deactivation Accompanying Low Cycle Fatigue of Al-2024 Under Complex Loading -- Computational Multiscale Modeling of Nickel-based Superalloys Containing Gamma-Gamma' Precipitates -- Homogenized Elastic-Viscoplastic Behavior of Thick Perforated Plates with Pore Pressure -- Experimental and Numerical Investigations of the Effects Associated to Complex Loading Combinations -- Fracture of Cortical Bone Tissue -- A Nonlocal Model of Plasticity and Damage with Different Internal Lengths -- Hysteresis Loop Analysis in Cyclically Strained Materials -- Creep, Plasticity and Fatigue of Single Crystal Superalloys: Physics-Based Life Prediction for Turbine Components in Severe Operating Environments -- Ratchetting of Snake Skin:

Experiments and Viscoelastic-plastic Constitutive Model.

Sommario/riassunto

This book presents studies on the inelastic behavior of materials and structures under monotonic and cyclic loads. It focuses on the description of new effects like purely thermal cycles or cases of non-trivial damages. The various models are based on different approaches and methods and scaling aspects are taken into account. In addition to purely phenomenological models, the book also presents mechanisms-based approaches. It includes contributions written by leading authors from a host of different countries.