

1. Record Nr.	UNINA9910164328203321
Titolo	Advances in Fatigue Lifetime Predictive Techniques
Pubbl/distr/stampa	[Place of publication not identified], : American Society for Testing & Materials, 1992
ISBN	0-8031-5185-3
Descrizione fisica	1 online resource (495 pages) : illustrations
Collana	ASTM special technical publication ; ; 1122
Disciplina	620
Soggetti	Service life (Engineering) Materials - Fatigue Fracture mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	STP Individual Article Download Free -- Overview -- Fatigue Mechanics: An Assessment of a Unified Approach to Life Prediction -- A Fracture Mechanics Based Model for Cumulative Damage Assessment as Part of Fatigue Life Prediction -- Thermo-Mechanical Fatigue Life Prediction Methods -- Evaluation of the Effect of Creep and Mean Stress on Fatigue Life Using a Damage Mechanics Approach -- Cumulative Creep-Fatigue Damage Evolution in an Austenitic Stainless Steel -- Application of a Thermal Fatigue Life Prediction Model to High-Temperature Aerospace Alloys B1900 + Hf and Haynes 188 -- Thermomechanical and Bithermal Fatigue Behavior of Cast B1900 + Hf and Wrought Haynes 188 -- Elevated Temperature Crack Growth in Aircraft Engine Materials -- Near-Threshold Fatigue Crack Growth Prediction under Spectrum Loading -- Contribution of Individual Load Cycles to Crack Growth under Aircraft Spectrum Loading -- Fatigue Crack Growth from Narrow-Band Gaussian Spectrum Loading in 6063 Aluminum Alloy -- Modeling High Crack Growth Rates under Variable Amplitude Loading -- A Probabilistic Fracture Mechanics Approach for Structural Reliability Assessment of Space Flight Systems -- A Multiaxial Fatigue Life Estimation Technique -- Small Crack Growth in Multiaxial Fatigue -- Failure Modes in a Type 316 Stainless Steel under Biaxial Strain Cycling -- Nonproportional Fatigue of Welded Structures -- Damage Evaluation in Composite Materials Using Thermographic

Stress Analysis -- Fatigue Life Prediction and Experimental Verification for an Automotive Suspension Component Using Dynamic Simulation and Finite Element Analysis -- Plasticity and Fatigue Damage Modeling of Severely Loaded Tubing -- Electric-Potential-Drop Studies of Fatigue Crack Development in Tensile-Shear Spot Welds -- Life Prediction of Circumferentially Grooved Components under Low-Cycle Fatigue -- Reliability Centered Maintenance for Metallic Airframes Based on a Stochastic Crack Growth Approach -- On the Prediction of the Fatigue Propagation of Semi-Elliptical Defects -- Analytical and Experimental Investigation of Fatigue in Lap Joints -- Fatigue Lifetime Monitoring in Power Plants -- Fatigue Analysis Techniques for Vintage Steam Turbine/Generator Components -- Author Index Free -- Subject Index Free.

Sommario/riassunto

Twenty-seven papers from fatigue researchers and practitioners review in detail recent progress in the development of methods to predict fatigue performance of materials and structures and to assess the extent to which these new methods are finding their way into practice. The papers, from the ASTM.
