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   Soggetti   Materials - Fatigue
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   Lingua di pubblicazione   Inglese

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   Note generali   Description based upon print version of record.

   Nota di bibliografia   Includes bibliographical references and index.

   Nota di contenuto   Cover; Fatigue of Materials and Structures; Title Page; Copyright Page;
                                   Table of Contents; Foreword; Chapter 1. Introduction to Fatigue:
                                   Fundamentals and Methodology; 1.1. Introduction to the fatigue of
                                   materials; 1.1.1. Brief history of fatigue: its technical and scientific
                                   importance; 1.1.2. Definitions; 1.1.3. Endurance diagrams; 1.2.
                                   Mechanisms of fatigue damage; 1.2.1. Introduction/background; 1.2.2.
                                   Initiation of fatigue cracks; 1.2.3. Propagation of fatigue cracks; 1.3.
                                   Test systems; 1.4. Structural design and fatigue; 1.5. Fatigue of
                                   polymers, elastomers and composite materials
                                   1.6. Conclusion1.7. Bibliography; Chapter 2. Modeling of Fatigue
                                   Strength and Endurance Curve; 2.1. Introduction; 2.2. Nature and
                                   aspect of the scatter of fatigue test results; 2.3. Determination of the
                                   endurance limit; 2.4. Estimation methods of fatigue resistance and
                                   standard deviation with N cycles; 2.4.1. Probit method; 2.4.2. Staircase
                                   method; 2.4.3. Iteration method; 2.4.4. Non-failed specimen method;
                                   2.4.5. Choice of test method; 2.5. Mathematical representations and

Sommario/riassunto	Fatigue and fracture result in billions of dollars of damage each year.? This book examines the various causes of fatigue including crack growth, defects, temperature, environmental, and corrosion.?