Record Nr. UNINA9911006522003321 Handbook of environmental degradation of materials / / edited by Myer **Titolo** Kutz Pubbl/distr/stampa Norwich, NY,: William Andrew Pub., c2005 **ISBN** 9786612253010 9781282253018 1282253018 9780080947075 0080947077 9780815517498 0815517491 978-0-8155-1749-9 9780815517499 Descrizione fisica 1 online resource (xii, 598 pages): illustrations KutzMyer Altri autori (Persone) 620.1/122 Disciplina Soggetti Materials - Effect of environment on Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front Cover; Handbook of Environmental Degradation of Materials; Copyright Page: Contents; PART 1: DEGRADATION ECONOMICS: Chapter Cost of Corrosion in the United States; PART 2: ANALYSIS; Chapter 2. Analysis of Failures of Metallic Materials Due to Environmental Factors; Chapter 3. Laboratory Assessment of Corrosion; Chapter 4. Lifetime Predictions of Plastics; PART 3: TYPES OF DEGRADATION; Chapter 5. Electrochemical Corrosion; Chapter 6. High Temperature Oxidation; Chapter 7. Chemical and Physical Aging of Plastics; Chapter 8. **Environmental Degradation of Reinforced Concrete** Chapter 9. Biofouling and Prevention: Corrosion, Biodeterioration and Biodegradation of Materials Chapter 10. Material Flammability; PART 4: PROTECTIVE MEASURES: Chapter 11. Cathodic Protection; Chapter 12.

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## Sommario/riassunto

Industry pays an enormous price for material degradation. The Handbook of Environmental Degradation of Materials outlines these costs, but more importantly, explains how to measure, analyze, and prevent environmental degradation for a wide range of industrial materials. Experts from around the world share how a diverse set of industries cope with the degradation of metals, polymers, reinforced concrete, clothing, and wood under adverse environmental conditions such as weather, seawater, and fire. Case studies show how organizations from small consulting firms to corporate giants design and man