Record Nr. UNINA9910719770203321 Corrosion and Mechanical Behavior of Metal Materials / / Ming Liu. **Titolo** editor [Place of publication not identified]:,: MDPI - Multidisciplinary Digital Pubbl/distr/stampa Publishing Institute, , 2023 **ISBN** 3-0365-7366-6 Descrizione fisica 1 online resource (212 pages) Disciplina 620.11223 Soggetti Metals - Corrosion fatigue Corrosion and anti-corrosives Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Many structural metal materials work under the coupling condition of Sommario/riassunto the load and corrosion environment. Therefore, it is very necessary to study the corrosion and mechanical behavior of metal structural materials. The corrosion behaviors of metals under the coupling condition of the mechanics and corrosion environment mainly include stress corrosion cracking, hydrogen-induced cracking, corrosion fatigue, erosion corrosion, wear corrosion, etc. From the macroscopic or microscopic point of view, these corrosion damages all involve the fracture process, and fractures are caused by environmental factors, also known as environmental fractures. Thus, this Special Issue, "Corrosion and Mechanical Behavior of Metal Materials", will focus on the environmental fracture behavior of metal materials, including but not limited to experimental, computational, or theoretical studies on

environmental corrosion fracture of high-strength metal materials.