1. Record Nr. UNINA9910595075703321 Autore Chen Jian Titolo Corrosion and Degradation of Materials Basel, : MDPI Books, 2022 Pubbl/distr/stampa Descrizione fisica 1 electronic resource (474 p.) Technology: general issues Soggetti Chemical engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Studies on the corrosion and degradation of materials play a decisive role in the novel design and development of corrosion-resistant materials, the selection of materials used in harsh environments in designed lifespans, the invention of corrosion control methods and procedures (e.g., coatings, inhibitors), and the safety assessment and prediction of materials (i.e., modelling). These studies cover a wide range of research fields, including the calculation of thermodynamics, the characterization of microstructures, the investigation of mechanical and corrosion properties, the creation of corrosion coatings or inhibitors, and the establishment of corrosion modelling. This Special Issue is devoted to these types of studies, which facilitate the understanding of the corrosion fundamentals of materials in service,

the development of corrosion coatings or methods, improving their

durability, and eventually decreasing corrosion loss.