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Soggetti	Microbiologically influenced corrosion Tribology Corrosion and anti-corrosives Coatings Biochemical engineering Mechanics Mechanics, Applied Microbiology Tribology, Corrosion and Coatings Biochemical Engineering Solid Mechanics
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	A Short Journey to the Realm of Corrosion -- Technical Mitigation of Corrosion: Corrosion Management -- Non-technical Mitigation of Corrosion: Corrosion Knowledge Management -- Microbiologically Influenced Corrosion (MIC) -- How Does a System Become Vulnerable to MIC? -- How Is MIC Detected and Recognised? -- Examples of Some Systems Vulnerable to MIC -- Examples of Some Materials Vulnerable to MIC -- How Is MIC Treated?.

Sommario/riassunto

Significantly extended from the first edition, this book presents the basics of microbiologically influenced corrosion (MIC) in an accessible and concise manner. It explores strategies for recognizing, understanding, mitigating and preventing this type of corrosion, and investigates this topic from the point of view of an engineer. Chapters cover issues including stress corrosion cracking and microbial corrosion, the pros and cons of biocides, the involvement of magnetic bacteria in microbial corrosion, and cathodic protection based on recent research in microbial environments. The 2nd Edition provides new material examining the following topics: *The corrosion-related bacteria clostridia *Mathematical modelling of MIC, in particular fuzzy logic *A comparison of culture-independent methods with culture-dependent methods *Further practical strategies for dealing with MIC *Natural biocides This book has provided course material for the author’s microbial corrosion workshops around the world, and it presents an invaluable resource to corrosion and integrity professionals working in a wide range of industries including power generation, oil and gas, marine, and mining. It is also intended for students and academics of corrosion engineering, materials science, microbiology, chemical engineering and welding.