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Sommario/riassunto

The book equips professionals with essential insights into corrosion science, practical techniques for diagnosis and prevention, and access to the latest advancements in the field, making it an invaluable resource for enhancing industry practices and safeguarding assets. Industrial Corrosion: Fundamentals, Failure, Analysis and Prevention offers an in-depth look at the science behind corrosion and its impact on industries worldwide. Covering both theoretical and practical aspects, this volume provides a clear understanding of corrosion mechanisms, materials degradation, and the reasons behind common industrial failures. It explores advanced techniques for diagnosing corrosion issues and presents effective solutions to mitigate and prevent them. The book not only delves into traditional corrosion control methods but also highlights the latest advancements in corrosion inhibitors and smart coatings, showcasing cutting-edge technologies that can revolutionize industry practices. With practical case studies, real-world examples, and expert insights, this comprehensive guide serves as a crucial resource for engineers, researchers, and professionals seeking to enhance their knowledge and apply corrosion prevention techniques in their work. Provides a detailed exploration of corrosion fundamentals, failure mechanisms, and prevention strategies, perfect for professionals and students alike Includes practical case studies and examples to help readers apply corrosion prevention methods in various industries Highlights the latest innovations in corrosion inhibitors and smart coatings for enhanced industrial protection Audience Engineers, materials scientists, chemists, academics, researchers, and professionals in corrosion prevention, oil and gas, manufacturing, transportation, and infrastructure, where corrosion control is critical.