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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The Role of Microbial Activity in Sulfide Oxidation at Dumping Sites of Sulfidic Wastes and in Abandoned Mining Areas -- Microbe – Mineral Interactions: Exploring avenues towards development of a sustainable microbial technology for coal beneficiation -- Effect of pollution on aquatic microbial diversity -- Role of Biosensors in Environmental Monitoring -- Microbial bio surfactant for hydrocarbons and heavy metals bioremediation -- Anaerobic treatment of organic saline waste/wastewater: Overcome salinity inhibition by addition of compatible solutes -- Uranium Bioremediation: Approaches and Challenges -- Environmental Microbial Biotechnology inside mining operations from an engineering viewpoint based on LCA -- Neutrophilic Bacteria in Iron Mineral Transformation and their Applications -- Anaerobe Bioleaching by Acidophilic Bacterial Strains -- Microbial Processing for Valorization of Horticultural Wastes -- Microbial Interaction In Mining Soil -- A strategic scheme for resource recovery from sulfurous industrial wastes through plant microbe interaction -- Bioconversion of Cotton Gin Waste to Bioethanol -- Microalgae: Cultivation and Application -- Advances in Manganese pollution and its bioremediation.

Sommario/riassunto

This book provides a timely review of strategies for coping with polluted ecosystems by employing bacteria, fungi and algae. It presents the vast variety of microbial technologies currently applied in the bioremediation of a variety of anthropogenic toxic chemicals, mining and industrial wastes, and other pollutants. Topics covered include: microbe-mineral interactions, biosensors in environmental monitoring, iron-mineral transformation, microbial biosurfactants, bioconversion of cotton gin waste to bioethanol, anaerobe bioleaching, and sulfide oxidation. Further chapters discuss the effects of pollution on microbial diversity, as well as the role of microbes in the bioremediation of abandoned mining areas, industrial and horticultural wastes, wastewater and sites polluted with hydrocarbons, heavy metals, manganese and uranium.
