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Nota di contenuto	1. Agroindustrial wastes: Environmental toxicology, risks and biological treatment approaches -- 2. Remediation and management of petrochemical polluted sites under climate change conditions -- 3. Phycoremediation: Role of algae in waste management -- 4. Aspects of CO2 injection in geological formations and its risk assessment -- 5. Microbial degradation of polyaromatic hydrocarbons (PAHs) -- 6. Splendid role of nanoparticles as antimicrobial agents in wastewater treatment -- 7. Metagenomics for novel enzymes: A Current Perspective -- 8. Cyanobacteria: The ecofriendly tools for the treatment

of industrial wastewaters -- 9. Constructed wetlands: a green technology for industrial wastewaters treatment -- 10. Microplastics: A Snapshot on Emerging Environmental Pollutant and their Environmental Impact -- 11. Biosorption of heavy metals: potential and applications of yeast cells for cadmium removal -- 12. Toxic elements in Bangladesh's drinking water -- 13. Bacterial conversion of waste products into degradable plastics: An inexpensive yet eco-friendly approach -- 14. Treatment of leather industry wastewater and recovery of valuable substances to solve waste management problem in Environment.

Sommario/riassunto

As we know, rapid industrialization is a serious concern in the context of a healthy environment. Various physico-chemical and biological approaches for the removal of toxic pollutants are available, but unfortunately these are not very effective. Biological approaches using microorganisms (bacterial/fungi/algae), green plants or their enzymes to degrade/detoxify environmental contaminants such as endocrine disrupting chemicals, toxic metals, pesticides, dyes, petroleum hydrocarbons and phenolic compounds are eco-friendly and low cost. This book provides a much-needed, comprehensive overview of the various types of contaminants, their toxicological effects on the environment, humans, animals and plants as well as various eco-friendly approaches for their management (degradation/detoxification). As such it is a valuable resource for a wide range of students, scientists and researchers in microbiology, biotechnology, environmental sciences.