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Nota di contenuto	Introduction -- 1. Absorptive removal and recovery of heavy metal ions from aqueous solution/effluents using conventional and non-conventional materials -- 2. Bioremediation of Oil-Spills from Shore Line Environment -- 3. Fabrication of polyaniline supported nanocomposites sensing applications for the detection of environmental pollutants -- 4. Graphene and its composites: Applications in Environmental Remediation -- 5. Nano-composite materials for wastewater decontamination Photocatalytic decontamination of organic pollutants using advanced materials (Recent advancement in waste water decontamination Removal and Recovery of Heavy Metal Ions Using Natural Adsorbents -- 6. Water

purification by nanotechnological approach: Challenges and future prospects -- 7. Green nanotechnology involvement in water and wastewater treatment -- 8. Advanced nanomaterial for metal ions removal from aqueous solutions -- 9. Graphene and carbon nanobased nanomaterials application wastewater treatment -- 10. Application of cellulose nanomaterials in water treatment technologies -- 11. Amorphous nanomaterial application in removal and recovery of heavy metals from water -- 12. Nanofiltration for water purification -- 13. Sewage treatment using nanotechnology and disposal of waste nanomaterials -- 14. The recent nano- and biotechnological advances to the removal of toxic contaminants from wastewater streams -- 15. Conclusions.

Sommario/riassunto

This book presents a picture of the advances in the research of theoretical and practical frameworks of wastewater problems and solutions. The book deals with a basic concept and principles of modern biological, chemical and technical approaches to remediate various hazardous pollutants from wastewater. The latest empirical research findings in wastewater treatment are comprehensively discussed. Examples of low-cost technologies are also included. The book is written for professionals, researchers, academics and students wanting to improve their understanding of the strategic role of environmental protection and advanced applied technologies.
