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Altri autori (Persone)	GunjalAparna B ShameemNewsheen HaghiA. K
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Nota di contenuto	Chapter 1 Microplastics detection in municipal water systems: An introduction -- Chapter 2 Sustainable technologies for the removal of microplastics from pharmaceutical industrial wastewater -- Chapter 3 Applications of nonwoven electrospun nano-membranes for removal of microplastic from drinking water -- Chapter 4 Microplastics removal from wastewater using activated carbon adsorbent: A case study microplastics pollution control in water system -- Chapter 5 Novel laboratory experiments for microplastics removal from water -- Chapter 6 Metal organic framework based remediation of microplastic for environment sustainability -- Chapter 7 Polymer analysis for

effective assessment of microplastic pollution in urban water bodies -- Chapter 8 Application of artificial intelligence to improve microplastic identification -- Chapter 9 Effect of land use patterns on soil microplastics pollution -- Chapter 10 Meta analysis and characterization of microplastics in the mangrove forests - A case study.

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## Sommario/riassunto

This book covers advanced solutions for managing water systems pollution caused by microplastics. It provides a comprehensive overview of microplastic contamination, spanning detection in municipal water systems, removal from wastewater using sustainable technologies, and monitoring methods in natural environments. The book also discusses the impacts of microplastics on water bodies and the limitations of current treatment processes, presenting complementary methods to address microplastic contamination. In this book, particular attention is given to practical insights into dealing with microplastic pollution, and readers will find several case studies such as the application of nonwoven electrospun nano-membranes and activated carbon adsorbents for microplastics removal, alongside novel laboratory experiments and field methods like the invertebrate kick-netting technique. The book also offers a forward-looking approach, discussing cutting-edge topics like the application of artificial intelligence for microplastic identification, and the impact of land use patterns on soil microplastic pollution. The book concludes with a chapter devoted to smart management solutions, providing a glimpse into future trends and perspectives in the field. Given its breadth and coverage, the book appeals not only to academics and researchers in the fields of environmental chemistry and environmental sciences but also to professionals and policymakers dealing with microplastic pollution and research.

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