1. Record Nr. UNINA9910422647703321

Titolo	Environmental microbiology and biotechnology . Volume 1 Biovalorization of solid wastes and wastewater treatment / / Anoop Singh [and three others] (editors)
Pubbl/distr/stampa	Singapore : , : Springer, , [2020] ©2020
ISBN	981-15-6021-8
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (xx, 371 pages) : 73 illustrations, 47 illustrations in color
Disciplina	628.5
Soggetti	Bioremediation Environmental science, engineering & technology Microbial ecology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Perspectives of Environmental Microbiology and Biotechnology -- Chapter 2. Towards waste valorization: A promising and sustainable approach of waste management -- Chapter 3. Bioplastics: A Green Approach toward Sustainable Environment -- Chapter 4. Microbial procession during decomposition of organic wastes -- Chapter 5. Electronic waste management: Challenges and opportunities -- Chapter 6. Heavy metal pollution: An insight towards its infiltration, impact and remediation -- Chapter 7. Biotransformation of Chitinous Waste into Value-added Products -- Chapter 8. Utilization and management of agricultural wastes for bioenergy production, weed control and soil improvement through microbial and technical processes -- Chapter 9. Plant Tissue Culture: Beyond being a Tool for genetic engineering -- Chapter 10. Microbial and Biotechnological approaches in the production of biofertilizer -- Chapter 11. A prelude of plant strategies to deal with the peril of salinity: an archive of regulatory responses -- Chapter 12. Prime techniques for Pre-and post-treatments of anaerobic effluents and solids -- Chapter 13. Nanoscale Materials and Their Potential Application in Potable Water and Waste Water Treatment -- Chapter 14. Efficiency of Graphene-

based Forward Osmosis Membranes -- Chapter 15. Constructed Wetland: A Green Technology for Wastewater Treatment. .

Sommario/riassunto

This book provides up-to-date information on the state of the art in applications of biotechnological and microbiological tools for protecting the environment. Written by leading international experts, it discusses potential applications of biotechnological and microbiological techniques in solid waste management, wastewater treatment, agriculture, energy and environmental health. This first volume of the book “Environmental Microbiology and Biotechnology,” covers three main topics: Solid waste management, Agriculture utilization and Water treatment technology, exploring the latest developments from around the globe regarding applications of biotechnology and microbiology for converting wastes into valuable products and at the same time reducing the environmental pollution resulting from disposal. Wherever possible it also includes real-world examples. Further, it offers advice on which procedures should be followed to achieve satisfactory results, and provides insights that will promote the transition to the sustainable utilization of various waste products. .