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Soggetti	Pollution Refuse and refuse disposal Sustainability Waste Management/Waste Technology
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Nota di contenuto	An Introduction to Electronic Waste Pollution and Its Sustainable Management -- Source, transport, and accumulation of e-waste in the aquatic and terrestrial ecosystem -- In-depth coverage of e-waste sources, characteristics, and environmental impact -- A Review on Environmental Electronic Waste Sources and Their Impact on Human Health -- E-waste- An invisible threat to global health and ecosystem -- Impact of e-waste on Human Health and Environment -- Environmental impacts of e-waste and the challenges and opportunities for its effective management -- Review on E-Waste Plastics in Construction: A Circular Economy Solution -- Bioprospecting of Indigenous and Engineered Microbiome for Heavy Metals extraction from Electronic Wastes -- RECOVERY OF PRECIOUS METALS FROM E-WASTE USING CYANOGENIC MICROBES -- Bioleaching of Heavy Metals from Electronic Waste -- Lithium Bioleaching: A prospective technology for lithium recovery from spent mobile battery -- An Overview of Occurrence, Application, and Recovery of Rare Earth Metals from E-Waste -- Advancements in the recovery of Rare-earth metals from electronic waste -- Innovative Bioprocessing Techniques for Sustainable E-Waste Management -- Biotechnical method for recovery of precious minerals from e-waste -- Integrating circular economy

principles with fuzzy multi-criteria decision-making for sustainable e-waste management: A theoretical framework -- Impact of Electronic Waste on Environmental Pollution and Its Sustainable Management Through Circular Economy -- Challenges and opportunities for effective e-waste management in Odisha: A household level study -- Bio-Leaching as a Bio-circular Economy Approach for Recovery of Precious Minerals from E-Waste -- Nanoparticles, Microorganisms, and E-Waste: An Integrated Approach to Environmental Sustainability.

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### Sommario/riassunto

Electronic waste or E-waste is the term for expired and end-of-life electronics that have been dumped by their owners. Examples include televisions, laptops, freezers, generators, computers, and other electrical devices, which contains toxic metal like Ni, Pb, Sn, Al, Cu Mn, and Fe, along with many kinds of metal oxide, glass Fiber, plastics, and ceramics that are bonded to and covered in the waste. Improper waste management techniques of these e-waste may have a serious effect on living beings. The presence of these hazardous wastes in the environment will make vulnerable conditions to aquatic as well as terrestrial life. To date, several conventional techniques have been implemented to treat this hazardous e-waste but biological treatment is more efficient from all, basic economic and environmental points of view. Through the utilization of microorganisms like bacteria or archaea, the extraction technique known as "bio-recovery of metals" can remove valuable metals from low-grade ore. The purpose of this book is to discuss the challenges that have arisen due to e-waste, their harmful effects on the ecosystem, and limitations as well as the improvement of current biological techniques used for the management and recovery of e-waste. This book focuses on the role of advanced green engineering technologies for sustainable e-waste management in building an economically supportable society as a basic need of developing countries.

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