1. Record Nr. UNINA9911020466803321 Autore Kumar Sunil Titolo Electronic Waste Management: Policies, Processes, Technologies, and **Impact** Pubbl/distr/stampa Newark:,: John Wiley & Sons, Incorporated,, 2024 ©2024 **ISBN** 9781119891543 111989154X 9781119891529 1119891523 Edizione [1st ed.] Descrizione fisica 1 online resource (360 pages) Altri autori (Persone) KumarVineet Soggetti Electronic waste Environmental impact analysis Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Electronic Waste Management -- Contents -- Preface --Acknowledgment -- About the Editors -- List of Contributors -- 1 Electronic Waste Management in Developing Countries—The Sub-Saharan Africa Experience -- 2 Contextualizing Electronic Waste for Effective Management in Ghanaian Cities: Local Perspectives and Experiences -- 3 Multiomics Approaches on Extremophiles and Their Application in the Biological Management of E-waste -- 4 Worldwide Ewaste Management Models: Delving into Pros and Cons and the Way Forward -- 5 Electronic Waste Management Strategy in a Circular/Control Economy -- 6 A Global Perspective on E-waste: From Cradle to Grave -- 7 The Impact of Electronic Waste and Its Implications for Soil, Air, and Water -- 8 The Environmental Fate of E-waste: Its Impact on Environmental Samples (Soil, Water, and Air) -- 9 Reuse and Recycling of Electronic Waste from a Global Solution Perspective -- 10 Circular Economy and the Development of Sustainable Products Through the Application of E-waste -- 11 Recovery of Non-precious

Metals from WEEE Using Emerging Leachants -- 12 Waste Reduction

Strategy: E-waste Recycling and Reuse Protocol -- 13 Effective

Utilization of E-waste in Advanced Energy Technology Processes -- 14 Mechanical Effects of Recycling Plastics from Electronic Waste in Concrete: A Detailed View -- 15 Recovery of Rare Earth Elements and Critical Metals from Electronic Waste -- 16 Finite Element Analysis of Mortars with Recycled PC from Electronic Waste -- 17 Gamma Radiation Effects on Recycled e-PC: Bisphenol A Leaching -- 18 Hydrometallurgical Processing of Electronic Waste -- 19 Influence of Recycled e-Polycarbonate on Mortar Composites Mechanical and Thermal Study -- 20 Generation, Collection, and Recycling Policies of E-waste Across the Asian Region -- 21 Recent Innovations in Green Recycling Technologies of E-waste Management -- 22 Electronic Waste Recycling in Maintaining a Circular Economy -- 23 The E-waste Scenario: Analytical Techniques for Effective Management -- Index

## Sommario/riassunto

This book addresses the escalating issue of electronic waste (e-waste) and its global implications. It explores various policies, processes, and technologies for effective e-waste management, focusing on environmental and health impacts. The book emphasizes innovative solutions to mitigate the adverse effects of e-waste on ecosystems and human health. It is intended for researchers, policymakers, and industry professionals seeking a comprehensive understanding of e-waste challenges and strategies for sustainable management. The editors, Sunil Kumar and Vineet Kumar, compile insights from experts to provide a multidisciplinary perspective on e-waste management in both developing and developed regions.