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Nota di contenuto	Chapter 1: Bio-Revolution: Turning Waste Into Wealth With Cutting-Edge Biotechnologies For Sustainable Waste Management -- Chapter 2: Biotechnology For Waste Disposal And Alternative Bioenergy Generation -- Chapter 3: Biodegradable Polymers: A Green Solution To Environmental Plastic Pollution -- Chapter 4: Nanobiotechnology: An Approach To Climate Resilience And Sustainability -- Chapter 5: Innovative Biotechnologies For The Generation & Application of Value-Added Products From Agro-Industrial Wastes -- Chapter 6: From Plastics To Biodegradable Polymers: A Path Toward Environmental Sustainability -- Chapter 7: Harnessing Organic Waste For Biodegradable Polymer Production: A Green Alternative To Conventional Plastics -- Chapter 8: Sustainable Bioenergy: A Green Waste Conversion Strategy For Cost-Effective Feedstock And Economic Waste-To-Wealth Solutions -- Chapter 9: The Role of Nanobiotechnology In Environmental Sustainability -- Chapter 10: Advancing Environmental Sustainability Through Nano Biotechnology: Challenges And Future

Prospects -- Chapter 11: Biodegradable Polymer: An Eco-Friendly Approach To Combat Plastic Pollution -- Chapter 12: Harnessing Nanobiotechnology For Environmental Sustainability -- Chapter 13: Emerging Approach For Managing Organic Waste Through Advanced Biotechnological Methods -- Chapter 14: Overview of Microbial Waste Management of Organic Waste Through Industrial Biotechnology -- Chapter 15: Zero-Waste Manufacturing: A Green Chemistry Approach -- Chapter 16: The Role of Nanobiotechnology In Environmental Sustainability -- Chapter 17: Leveraging The Catalytic Microbial Organic Waste To Sustainable Diverse Valuable Benefit -- Chapter 18: Microbial Fermentation Strategy For Converting Organic Waste To Value-Added Product -- Chapter 19: The Role of Green Chemistry In Achieving Sustainability Goals -- Chapter 20: Microbial Genomics For A Stable Future: Tackling Strategies For Heavy Metal And Organic Pollutant Remediation.

Sommario/riassunto

This book offers a variety of case studies focusing on the production of platform chemicals from organic waste. It explores how microbial processes can transform organic waste into valuable chemicals, offering sustainable solutions to the global challenges of waste disposal and resource scarcity. By marrying innovative biotechnological methods with practical applications, this book serves as a resource for researchers, practitioners, and policymakers aiming to turn waste into wealth through biotechnology. The book highlights how biotechnological innovations can be integrated into production systems, addressing environmental, economic, and industrial needs.