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| 1. Record Nr. | UNINA9910999781003321 |
| Titolo | Bio-prospecting of Novel Microbial Bioactive Compounds for Sustainable Development : Management of Natural Resources Through Microbial Conversion into Valuable Products // edited by Kartika Sharma |
| Pubbl/distr/stampa | Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025 |
| ISBN | 3-031-82178-5 |
| Edizione | [1st ed. 2025.] |
| Descrizione fisica | 1 online resource (XI, 227 p. 53 illus., 37 illus. in color.) |
| Collana | Sustainable Landscape Planning and Natural Resources Management, IEREK Interdisciplinary Series for Sustainable Development, , 2948-1929 |
| Disciplina | 304.2 |
| Soggetti | Sustainability Biology - Technique Genetics Biochemical engineering Genetic Techniques Bioprocess Engineering |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | 1. Role of Microorganisms in Biosurfactant Production from agricultural and industrial wastes -- 2. Microbial Bio Plastic Production : Progress and Prospects -- 3. Exploring endophytes as a treasure house of bioprospecting compounds, emphasizing their significance in the agricultural and pharmaceutical fields -- 4. Microbial Pigments: Fermentative Production and Biological Activities -- 5. Microbial production of Herbicides, Fungicides and Insecticides -- 6. Microbial pigments production from agro-industrial waste -- 7. Sustainable Production of Microbial Biopolymer Utilizing Waste -- 8. Microbiological technology to extract bioactive molecules from agricultural and industrial waste -- 9. Microbial Production of Lipopeptides -- 10. Role of Algae in Microbial Fuel Cell and the Production of Value Added Products -- 11. Harnessing Microbes: Eco-Friendly Solutions for Waste Management -- 12. Microbial Secondary |

Metabolites Used Against Diabetes & Cancer - A Critical Appraisal -- 13. The Cyanobacterial Renaissance: Bioactive Discoveries and Future Prospects -- 14. Microbial Production of Biofuels: Technological Advancement and Perspectives -- 15. Microbial Bioactive Metabolites: Biochemical Interface for Diverse Interactions.

Sommario/riassunto

This book discusses current developments and upcoming trends in the microbial synthesis of various bioactive compounds from waste product which have a very good market worldwide. The extraction of biologically active compounds from microorganisms is still essential for the creation of novel pharmaceuticals and agricultural chemicals, and has underpinned their application as drugs and functional food ingredients. The demand of pharmaceuticals, nutraceuticals and agrochemicals is rising globally for the multi-billion dollar market of human disease prevention and treatment. However, the limitations and issues associated with the extraction of these bioactive compounds from natural resources, such as plants, animals, or fungi, limit the large-scale use of pharmaceuticals, nutraceuticals, and agrochemicals. The microbial production of agrochemicals, nutraceuticals, and pharmaceuticals by utilizing waste product is now thought to be an environmentally benign process. The major goal of this book is to draw attention to excellent original research and review articles that contain cutting-edge characterization techniques and novel bioactive chemicals production that make important contributions to the field with many prospective applications. In this book, the potential for using microbial bioactive compounds which have positive health effects in their entirety is highlighted. This book is written by eminent scientists from around the world and seasoned researchers, thoroughly discusses current developments and patterns in the microbial synthesis of bioactive compounds. Academicians, scientists, researchers, graduate and post-graduate students who work in the highly dynamic and competitive fields of pharmaceuticals, nutraceuticals, and agrochemicals discovery will find this book to be ideal.
