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Titolo	Microbial polymers : applications and ecological perspectives // Anukool Vaishnav, Devendra Kumar Choudhary, editors
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Descrizione fisica	1 online resource (XI, 710 p. 134 illus., 73 illus. in color.)
Disciplina	572.29
Soggetti	Microbial polymers Biopolímers Bacteris Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1. The production and applications of microbial derived polyhydroxy butyrates -- Chapter 2. Fungal exopolysaccharides: types, production and application -- Chapter 3. Isolation and purification of microbial exopolysaccharides and their industrial applications -- Chapter 4. A review on properties and application of xanthan gum -- Chapter 5. Biosynthesis and characterization of poly-(3)-hydroxyalkanoic acid by Bacillus megaterium SF4 using different carbohydrates -- Chapter 6. Mushroom mycelia-based material: an environmental friendly alternative to synthetic packaging -- Chapter 7. An overview of microbial derived polyhydroxy butyrate (PHB): production and characterization -- Chapter 8. Insight of Biopolymers and applications of Polyhydroxyalkanoates -- Chapter 9. Microbial pigments and their application -- Chapter 10. Extracellular polymeric substances from agriculturally important microorganisms -- Chapter 11. Significance of bacterial polyhydroxy alkanoates in rhizosphere -- Chapter 12. Role of microbial biofilms in agriculture: perspectives on plant and soil health -- Chapter 13. Biological soil crusts to keep soil alive, rehabilitate degraded soil, and develop soil habitats -- Chapter 14. Fungal chitosan :the importance and beneficiation of this

biopolymer in industrial and agriculture process -- Chapter 15. Role of microbial extracellular polymeric substances in soil fertility -- Chapter 16. Microbes derived exopolysaccharides play role in salt stress alleviation in plants -- Chapter 17. Microbial exopolysaccharides: structure and therapeutic properties -- Chapter 18. Microbial biopolymers: pharmaceutical, medical & biotechnological applications -- Chapter 19. Mycobacterium Biofilms synthesis, ultra structure and their perspectives in drug tolerance, environment and medicine -- Chapter 20. A comprehensive review on different microbial derived pigments and their multipurpose activities -- Chapter 21. Microbial polysaccharides with potential industrial applications: diversity, synthesis and their applications -- Chapter 22. Eco friendly microbial biopolymers: recent development, biodegradation and applications -- Chapter 23. Microbial biopolymers as an alternative construction binder -- Chapter 24. Genetic engineering approaches for high end application of biopolymers:Advances and future prospects -- Chapter 25. Microbial pigments: secondary metabolites with multifaceted roles -- Chapter 26. Bio-fermentative production of xanthan gum biopolymer and its application in petroleum sector -- Chapter 27. A comparative study on biodegradable packaging materials: current status and future prospects -- Chapter 28. Environmental implications of microbial bioplastics for a sustainable future.

Sommario/riassunto

This book cover all types of microbe based polymers and their application in diverse sectors with special emphasis on agriculture. It collates latest research, methods, opinion, perspectives, and reviews dissecting the microbial origins of polymers, their production, design, and processing at industrial level, as well as improvements for specific industrial applications. Book also discusses recent advances in biopolymer production and their modification for amplifying the value. In addition, understanding of the microbial physiology and optimal conditions for polymer production are also explained. This compilation of scientific chapters on principles and practices of microbial polymers fosters the knowledge transfer among scientific communities, industries, and microbiologist and serves students, academicians, researchers for a better understanding of the nature of microbial polymers and application procedure for sustainable ecosystem.

2. Record Nr.	UNINA9910144177603321
Titolo	Indian journal of chemistry . Section A Inorganic, bio-inorganic, physical, theoretical & analytical chemistry
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ISSN	0975-0975
Descrizione fisica	1 online resource
Disciplina	546.05
Soggetti	Chemistry Analytical chemistry Chemistry, Inorganic Chemistry, Physical and theoretical Chemistry Techniques, Analytical Chemistry, Physical Periodical
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Refereed/Peer-reviewed