

1. Record Nr.	UNINA9910350360303321
Titolo	Biotechnological Applications of Polyhydroxyalkanoates [[electronic resource] /] / edited by Vipin Chandra Kalia
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2019
ISBN	981-13-3759-4
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XII, 420 p. 42 illus., 34 illus. in color.)
Disciplina	579
Soggetti	Microbiology Biomedical engineering Microbial ecology Biomedical Engineering/Biotechnology Microbial Ecology Applied Microbiology Regenerative Medicine/Tissue Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. The Dawn of Novel Biotechnological Applications of Polyhydroxyalkanoates -- Chapter 2. Strategy for biosynthesis of polyhydroxyalkanoates polymers/copolymers and their application in drug delivery -- Chapter 3. Applications of Polyhydroxyalkanoates and its metabolites as transporters for bioactive molecules -- Chapter 4. Polyhydroxyalkanoates applications in antimicrobial agents' delivery and wound healing -- Chapter 5. Polyhydroxyalkanoates applications in Drug Carriers -- Chapter 6. Applications of polyhydroxyalkanoate based nanovehicles -- Chapter 7. Memory enhancers -- Chapter 8. Novel Biocontrol Agents: Short Chain Fatty Acids And More Recently, Polyhydroxyalkanoates -- Chapter 9. Potential Therapeutic Applications of Polyhydroxyalkanoates and Their Composites as Anti-microbial Agents -- Chapter 10. Polyhydroxyalkanoates (PHA) – Applications in Wound Treatment and as Precursors for Oral Drugs -- Chapter 11. Exploiting Polyhydroxyalkanoates for Tissue Engineering -- Chapter 12. CH ₄ -based polyhydroxyalkanoate production: a step further towards a sustainable bioeconomy -- Chapter 13. Applications of PHA in

Agriculture -- Chapter 14. Polyhydroxyalkanoates in Packaging -- Chapter 15. Approaches for Enhancing Extraction of bacterial polyhydroxyalkanoates for Industrial Applications -- Chapter 16. Nanofibers from polyhydroxyalkanoates and their applications in tissue engineering.

Sommario/riassunto

This book presents the latest research on the uses of polyhydroxyalkanoates (PHA), introducing readers to these natural, biodegradable polyesters produced by microorganisms, their functions and applications. The individual chapters discuss the various potentials of these bioplastics, which offer an attractive alternative to non-biodegradable plastics. The book also describes the diverse medical and biomedical applications of PHAs, including their use as drug carriers, memory enhancers, and biocontrol agents, and examines their role in creating a more sustainable economy – which is the need of the hour. .
