1. Record Nr. UNINA9910357829003321

Autore	Gahlawat Geeta
Titolo	Polyhydroxyalkanoates Biopolymers : Production Strategies / / by Geeta Gahlawat
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-33897-5
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XV, 70 p. 11 illus.)
Collana	Biobased Polymers, , 2510-3407
Disciplina	541.2254 620.192
Soggetti	Polymers Environmental engineering Biotechnology Biochemical engineering Chemical engineering Polymer Sciences Environmental Engineering/Biotechnology Biochemical Engineering Industrial Chemistry/Chemical Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Polyhydroxyalkanoates: The Future Bioplastics -- Challenges in PHAs Production at mass scale -- Possible Solutions for commercialization of PHA -- Summary and Future Perspectives.
Sommario/riassunto	This book focuses on both production and extraction aspects of Polyhydroxyalkanoates (PHAs) for their commercialization purpose. PHAs have broad range of applications in packaging, food, agriculture and pharmaceutical industries. Until now literature reports have discussed either production strategies or extraction protocols. But for commercialization purpose both issues need to be addressed. This book highlights other copolymers of PHAs which have much better physico-mechanical properties such as elasticity and strength than polyhydroxybutyrate (PHB). Finally efficient product recovery protocols and process optimization strategies including renewable substrates,

high cell density cultivations, genetic engineering and mathematical modeling are discussed in detail in order to outline the progress made so far in the area of economic biopolymer production. The primary audience will be scholars, researchers and professors working in colleges, universities, research institutes and government organizations.