1. Record Nr. UNINA9910785545703321 Handbook of biopolymers and biodegradable plastics [[electronic Titolo resource]]: properties, processing and applications / / edited by Sina Ebnesajjad Oxford.: William Andrew. 2013 Pubbl/distr/stampa **ISBN** 1-283-58417-4 9786613896629 1-4557-3003-3 Descrizione fisica 1 online resource (473 p.) Collana PDL handbook series Altri autori (Persone) EbnesajjadSina Disciplina 668.9 Soggetti Biodegradable plastics Biopolymers Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Front Cover: Series Page: Handbook of Biopolymers and Biodegradable Plastics: Properties, Processing, and Applications: Copyright: Contents: Preface; Chapter 1 - Overview of Plant Polymers: Resources, Demands, and Sustainability; 1.1 Plant Proteins; 1.2 Plant Oils; 1.3 Plant Starches; 1.4 Agricultural Fibers and Cellulose; 1.5 Market Potential for Plant Polymers; 1.6 Sustainable Agriculture Industry of the Future; 1.7 Conclusion: Acknowledgment: References: Chapter 2 - Overview of Poly (lactic Acid); 2.1 Background to Biodegradable Polymers; 2.2 Market Potential of Biodegradable Polymers and PLA 2.3 General Properties and Applications of PLA 2.4 Environmental Profile of PLA; 2.5 Eco-profile of PLA in Mass Production; 2.6 Environmental Impact of PLA at the Postconsumer Stage; 2.7 Conclusion; References; Chapter 3 - Applications of Poly(lactic Acid); 3.1 Introduction; 3.2 Poly(lactic Acid) for Domestic Applications; 3.3 Poly(lactic Acid) for Engineering and Agricultural Applications; 3.4 Poly (lactic Acid) for Biomedical Applications; 3.5 Conclusion; References; Chapter 4 - The State of the Art of Polymers from Renewable Resources; 4.1 The Context; 4.2 Vegetable Resources

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Sommario/riassunto

Biopolymers and Biodegradable Plastics are a hot issue across the Plastics industry, and for many of the industry sectors that use plastic, from packaging to medical devices and from the construction industry to the automotive sector. This book brings together a number of key biopolymer and biodegradable plastics topics in one place for a broad audience of engineers and scientists, especially those designing with biopolymers and biodegradable plastics, or evaluating the options for switching from traditional plastics to biopolymers. Topics covered include preparation, fabrication