

1. Record Nr.	UNINA9910820561203321
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Titolo	The chemistry of bio-based polymers // Johannes Karl Fink ; cover design by Russell Richardson
Pubbl/distr/stampa	Hoboken, New Jersey ; ; Salem, Massachusetts : , : Scrivener Publishing : , : John Wiley & Sons, , 2014 ©2014
ISBN	1-118-83728-2 1-118-83721-5 1-118-83726-6
Descrizione fisica	1 online resource (358 p.)
Classificazione	TEC009010
Disciplina	620.1/92323
Soggetti	Biodegradable plastics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title Page; Copyright Page; Contents; Preface; 1 An Overview of Methods and Standards; 1.1 History of Biodegradable Plastics; 1.2 Green Chemistry; 1.2.1 Genetic Engineering; 1.3 Commercial Situation; 1.4 Environmental Situation; 1.4.1 Problems with Biobased Composites; 1.4.2 Biodegradation; 1.5 Properties of Biodegradable Polymers; 1.6 Special Methods of Synthesis; 1.6.1 Conventional Methods; 1.6.2 Click Chemistry; 1.6.3 Enzymatic Polymerization; 1.6.4 Chemoenzymatic Polymerization; 1.6.5 Vine-twining Polymerization; 1.6.6 Bacterial Synthesis; 1.7 Biodegradability Standards 1.7.1 Guidelines for the Development of Standards 1.7.2 Specifications for Compostable Plastics; 1.7.3 Ultimate Anaerobic Biodegradability; 1.7.4 Aerobic Biodegradability; 1.7.5 Biodegradability of Plastics in Sea water; 1.8 Test of the Biological Origin; References; Part I Bio-based Polymers Degradation and Chemistry; 2 Vinyl Based Polymers; 2.1 Polyolefins; 2.1.1 Degradability; 2.1.2 Degradation Mechanism; 2.1.3 Pro-degradants; 2.2 Poly(styrene) Elastomers; 2.3 Poly(vinyl alcohol); 2.3.1 Plasticized Compositions; 2.3.2 Hydrogels; 2.4 Poly(vinyl butyral) 2.4.1 Blends with Poly(3-hydroxybutyrate) 2.4.2 Blends with Poly(lactic acid); 2.4.3 Paper coatings; 2.4.4 Fibers; 2.4.5 Membranes; 2.4.6 Solar Cells; 2.4.7 Adhesive for Safety Glass; References; 3 Acid and Lactone

Polymers; 3.1 Poly(lactic acid); 3.1.1 Production Processes for Poly(lactic acid); 3.1.2 Surface Modification of Fibers; 3.1.3 Influence of Fabrication Methods and Kenaf Fiber Length; 3.1.4 Kenaf fibers for Reinforcement of PP; 3.1.5 Reinforced Composites; 3.1.6 Laminated Composites from Kenaf Fiber; 3.1.7 Copolyesters; 3.1.8 Transparent Crystalline Poly(lactic acid)
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4.1.9 Poly(butylene succinate)
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5.1.1 Starch Modification

Sommario/riassunto

"Because of the recent explosion of interdisciplinary research in renewable polymers, the knowledge base is scattered and it is now timely to have an overview from a respected chemist and successful author. The book focuses on biopolymers as well as low molecular compounds that can be synthesized from renewable polymers. After introducing general aspects of the field, the subsequent chapters then look at the chemistry of biodegradable polymeric types sorted by their chemical compounds, including the synthesis of low molecular compounds. The factors influencing degradation and biodegradation of polymers for food packaging in various environments is detailed at length. The medical applications covered concentrate on controlled drug delivery, temporary prostheses, and scaffolds for tissue engineering. The author then turns his attention to renewable resources for fabricating biofuels and argues for localized biorefineries as biomass feedstocks are more efficiently handled locally"--
