

1. Record Nr.	UNINA9910784557803321
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Titolo	Bio-based polymers and composites [[electronic resource] /] / Richard P. Wool, Xiuzhi Susan Sun
Pubbl/distr/stampa	Amsterdam ; ; Boston, : Elsevier Academic Press, c2005
ISBN	1-280-62173-7 9786610621736 0-08-045434-8
Descrizione fisica	1 online resource (641 p.)
Altri autori (Persone)	SunXiuzhi Susan
Disciplina	620.1/92
Soggetti	Plant polymers Biopolymers Plants - Composition
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	front cover; copyright; table of contents; front matter; Preface; About the Authors; body; 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; 2. Plant Materials Formation and Growth; 2.1 plant material synthesis; 2.2 plant growth; 2.3 transgenic plants; 3. Isolation and Processing of Plant Materials; 3.1 oil extraction and refining; 3.2 starch wet milling 3.3 protein isolation 4. Polymers and Composite Resins from Plant Oils; 4.1 introduction; 4.2 synthetic pathways for triglyceride- based monomers; 4.3 polymers from plant oils; 4.4 properties of plant oil resins; 4.5 castor oil- based polymer properties; 4.6 summary of plant oil- based polymer properties; 5. Composites and Foams from Plant Oil-Based Resins; 5.1 triglyceride- based composite materials; 5.2 manufacturing of glass fiber- reinforced composites; 5.3 composite properties; 5.4 sheet molding compound; 5.5 bio- based polymeric foams; 5.6 summary of bio- based composites 6. Fundamentals of Fracture in Bio-Based Polymers 6.1 fracture of

polymers: fundamental theory; 6.2 applications of fracture theory; 6.3 microscopic to macroscopic fracture relations; 6.4 polymer-polymer interfaces; 6.5 polymer-solid interfaces; 6.6 summary of fractures in bio- based polymers; 7. Properties of Triglyceride-Based Thermosets; 7.1 introduction; 7.2 distribution of fatty acids and unsaturation sites in triglycerides; 7.3 distribution of functional groups on triglycerides; 7.4 cross- link density; 7.5 tensile properties
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10.5 natural straw composites with soy protein adhesives

Sommario/riassunto

Bio-Based Polymers and Composites is the first book systematically describing the green engineering, chemistry and manufacture of biobased polymers and composites derived from plants. This book gives a thorough introduction to bio-based material resources, availability, sustainability, biobased polymer formation, extraction and refining technologies, and the need for integrated research and multi-disciplinary working teams. It provides an in-depth description of adhesives, resins, plastics, and composites derived from plant oils, proteins, starches, and natural fibers in terms of struc
