

1. Record Nr.	UNINA9910410047703321
Titolo	Lignin : Biosynthesis and Transformation for Industrial Applications // edited by Swati Sharma, Ashok Kumar
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-40663-6
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (X, 298 p. 86 illus., 60 illus. in color.)
Collana	Springer Series on Polymer and Composite Materials, , 2364-1878
Disciplina	572.56682
Soggetti	Polymers Biomaterials Biotechnology Engineering—Materials Natural resources Polymer Sciences Materials Engineering Natural Resources
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Lignin as potent industrial biopolymer: An introduction -- Structure and characteristics of lignin -- Lignin synthesis and degradation -- Analysis of lignin using qualitative and quantitative methods -- Chemical modification of lignin by polymerization and depolymerisation -- Lignin composites for biomedical applications: status, challenges and perspectives -- Applications of lignin in the agri-food industry.
Sommario/riassunto	This book presents a comprehensive overview on origin, structure, properties, modification strategies and applications of the biopolymer lignin. It is organized into four themed parts. The first part focuses on the analysis and characterization of the second most abundant biopolymer. The following part is devoted to the biological aspects of lignin such as biosynthesis and degradation. In the third part, chemical modification strategies and the preparation of composites as well as nano- and microparticles are discussed. The final part addresses the

industrial application of lignin and its derivatives, as well as lignin materials. The usage for synthesis of biofuels, fine chemicals and in agriculture and food industry is covered. This book is a comprehensive source for researchers, scientists and engineers working in the field of biopolymers as well as renewable materials and sources.
