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| Nota di contenuto | 1. Introductory Chapter: Introduction to Structure Properties and Application of Lignin -- 2. Composition and Role of Lignin in Biochemicals -- 3. Perspective Chapter: Potential of Lignin Valorization with Emphasis on Bioepoxy Production -- 4. Emulsion Stabilization with Lignosulfonates -- 5. Fractionation of Lignin for Valorization -- 6. Perspective Chapter: Flaxseed (Linumusitatissimum L) - Chemical Structure and Health-Related Functions -- 7. Lignin as Feedstock for Nanoparticles Production. |
| Sommario/riassunto | Lignin, found in the cell walls of trees and plants, is the second-most naturally abundant biopolymer. It is composed of alkyl-aromatic polymer units. This book describes the composition and structure of lignin, strategies for its chemical modification, and studies of biopolymer lignin. It also discusses the synthesis and characterization of lignin, methods for degradation, applications in various materials, and prospects for further development. Other topics covered include the role of lignin in thermosetting and thermoplastic materials and its technical and economic potential for generating green biofuel as an energy source for industrial plants and in the manufacture of fine chemicals. |