



# Lignin and Lignans as Renewable Raw Materials: Chemistry, Technology and Applications (Wiley Series in Renewable Resource)

Francisco G. Calvo-Flores, José A. Dobado, Joaquín Isac-García, Francisco J. Martínez-Martínez

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As naturally occurring and abundant sources of non-fossil carbon, lignin and lignans offer exciting possibilities as a source of commercially valuable products, moving away from petrochemical-based feedstocks in favour of renewable raw materials. Lignin can be used directly in fields such as agriculture, livestock, soil rehabilitation, bioremediation and the polymer industry, or it can be chemically modified for the fabrication of specialty and high-value chemicals such as resins, adhesives, fuels and greases.

Lignin and Lignans as Renewable Raw Materials presents a multidisciplinary overview of the state-of-the-art and future prospects of lignin and lignans. The book discusses the origin, structure, function and applications of both types of compounds, describing the main resources and values of these products as carbon raw materials.

Topics covered include:

- Structure and physicochemical properties
- Lignin detection methods
- Biosynthesis of lignin
- Isolation methods
- Characterization and modification of lignins
- Applications of modified and unmodified lignins
- Lignans: structure, chemical and biological properties
- Future perspectives

This book is a comprehensive resource for researchers, scientists and engineers in academia and industry working on new possibilities for the application of renewable raw materials.

For more information on the Wiley Series in Renewable Resources, visit [www.wiley.com/go/rrs](http://www.wiley.com/go/rrs)



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