



Advanced Research on Lignin and Nanostructured Lignin: Biodegradation, Properties and Applications

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Message from the Guest Editors

The design of novel processes for the valorization of lignin plays a key role in circular economy and green chemistry. Among them, the biodegradation of lignin is an important tool for the transformation of the starting material in order to produce high added fine chemicals, facilities, and commodities. In addition, present-day innovative nanotechnology has increased the chemical potentiality of biodegraded lignin by opening the way for the preparation of nanostructures characterized by improved chemophysical, rheological, and electrochemical properties.

This Special Issue focuses on the following topics:

- frontiers in the production of added value compound by microbial degradation of lignin (including biofuel);
- role of redox enzymes or lignin-degrading auxiliary enzymes for the production of commodities and aromatic compounds;
- fractionation process of biodegraded lignin and successive nanotechnology and nano-biotechnology applications;
- application of biodegraded lignin in material sciences and biosensors;
- application of biodegraded lignin in biocatalysis and biomedical devices.





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