

Special Issue

Lignin from Agri-Food Wastes: From Chemistry/Biochemistry towards Its Industrial Applications

Message from the Guest Editors

Lignin is a complex and irregular phenolic macromolecule. Phenolic and aliphatic hydroxyl and methoxyl groups are the primary functional groups in lignin structures and their diversity affects the reactivity and chemical properties of lignin. Several industrial methods have been developed to convert lignin directly into heat or electricity, bio-oil, or combustible biogas. Drug delivery vehicles, scaffolds for tissue engineering, materials for dressing wounds, and lignin-based nanoparticles and hydrogels are just a few examples of biomedical uses for lignin composites.

We invite researchers to contribute either original research or review articles focusing on, but not limited to, i) the chemical functionalization of lignin; ii) depolymerization approaches towards the synthesis of new building blocks; iii) biosynthetic pathways; iv) new applications for lignin fractions obtained from agri-food wastes; and v) bioactivity (enzymes inhibition, anti-proliferative, and anti-bacterial activities) and probiotics.

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