

Special Issue

High-Valued Utilization of Agricultural and Forestry Polymer Residues

Message from the Guest Editors

Agricultural and forestry waste is a resource-rich biomass material, possessing characteristics such as renewability and environmental friendliness. Its high-value utilization is crucial for mitigating resource shortages and environmental pressures. Cellulose, hemicellulose, and lignin in agricultural and forestry waste are core components for high-value utilization. Cellulose can be enzymatically or chemically converted into glucose, which can be further processed into bio-based materials such as bioethanol and polylactic acid; it holds significant potential in replacing traditional fossil-based products. Hemicellulose can yield monosaccharides such as xylose and arabinose through hydrolysis, which are then converted into high-value-added chemicals including xylitol and biodiesel via fermentation. Lignin can be used to prepare biochar and aromatic compounds through pyrolysis or modified to serve as adsorption materials and rubber reinforcing agents; these processes can effectively rectify the low added value of lignin in traditional utilization. Employing these three components enhances resource utilization, transforming agricultural and forestry "waste" to "resources".

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Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.9.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Alexander Böker

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