



Bio-Based Polymer Adhesives and Materials

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Message from the Guest Editors

Dear Colleagues,

Adhesives play an important role in the wood industry. Formaldehyde-based resin adhesives are still the main ones for the preparation of wood panels for their good mechanical properties and low cost. They are also known for their unsustainability and potential hazards to human beings. Therefore, the development of adhesives based on natural and renewable materials has attracted an increasing amount of interest in recent decades, with some adhesives seeing significant success in industry, such as tannin- and soy-protein-based adhesives. However, many disadvantages over synthetic wood adhesives have been reported, for example, low mechanical strength, low flexibility, poor water resistance, too high viscosity, etc.

This Special Issue aims to present updated knowledge relating to adhesives and composites using renewable resources or materials, to report on progress in the enhancement of bio-based adhesives' and materials' mechanical properties by means of different treatments, to demonstrate the relationships between the structure and the mechanical performances, and to report novel bio-based wood adhesives and materials.





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