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Thermal Treatment of Wood and Wood-Based Composites: Processes, Properties, and Environmental Impacts

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Deadline for manuscript submissions:

closed (27 February 2024)

Message from the Guest Editor

Wood modification is relied upon to enhance the physical, mechanical, and aesthetic properties of wood and wood composites. There are some modification techniques, such as thermal treatment, alkali treatment, grafting/coupling agents, and anhydride treatment. The surface of the wood particles will be more hydrophobic, increasing their compatibility with the surface of the polymer matrix. However, chemical modification techniques generally use chemical additives that are not environmentally friendly. Among the modification techniques, thermal treatment, generally varying from 150 to 220 °C, is one of the most commonly used environmentally friendly techniques in the wood and wood composite industry because no chemicals are used in this technique, and it is a simpler method than others. This special issue focuses on improving wood products using thermal modification processes, applications, and their properties.



mdpi.com/si/122191

Special Issue



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