

Special Issue

Physical–Mechanical Characteristic Analysis of Wood and Wood-Based Composites

Message from the Guest Editors

In the current age of global warming, the rational use of sustainable materials is more important than ever, and wood is, in certain cases, an ideal example of a sustainable material. However, the anisotropic properties of wood, which, in some cases, can be described as orthotropic, often complicate the use of wood for various purposes as well as its mechanical processing. In addition, new wood modifications are being developed to improve certain properties, but, unfortunately, these can have unwanted additional effects. The aim of this Special Issue is to stimulate additional research publications on the physical and mechanical properties of wood, focusing on modern wood processing, treatment and testing methods, and the analysis of the data obtained, such as using the principles of the design of experiments, artificial neural networks, the finite element method, etc. High-quality contributions are expected, covering a variety of topics on the physical, chemical, and mechanical properties, such as classical static and dynamic elastomechanical properties as well as strength and fracture properties, of both natural and modified solid wood and wood-based composites.

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