Special Issue

Wood-Based Bioenergy and Byproducts

Message from the Guest Editor

Bioenergy derived from wood is among the most important renewable energy options. Wood-based bioenergy is established on two main conversion routes: thermochemical and biochemical conversion. The first route is the biochemical process by which cellulose and hemicellulose in the wood are converted to ethanol, butanol, and platform chemicals; however, the fermentation process always leaves about 15–30% of the input biomass mass as unconverted lignin. Lignin poses either a potential disposal liability or a byproduct opportunity. Thermochemical conversion technology can be routed to gasification and pyrolysis processes. Both gasification and pyrolysis processes produce biochar as their byproducts. Like other carbonaceous solid fuels, lignin and biochar can be sources for energy and fuels. Thus, the valorization of lignin/biochar is also a subject of intense research in the field of energies. This Special Issue aims to address the new trends in the use of wood for bioenergy through thermochemical and biochemical conversion, specifically the utilization of bioenergy byproducts—lignin and biochar for chemicals, energy/fuels, and materials.

Guest Editor

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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