Special Issue

Study on Biomass Gasification and Pyrolysis Process

Message from the Guest Editors

Biomass is a renewable energy carrier that is considered to be environmentally advantageous. Biomass gasification is a rather mature technology that utilizes controlled process conditions involving heat, oxygen and/or steam to produce a high-hydrogen-content gas without complete combustion. Considering that growing biomass removes carbon dioxide from the atmosphere, the net emissions can be ultra-low, especially if coupled with carbon capture, its utilization, and storage. The other key process, pyrolysis, which is considered as one of the most prevalent methods in biomass thermal conversion, allows three crucial components to be obtained: biochar, bio-oil, and pyrolysis gas. These components are increasingly being used in energy sectors and industry. The Special Issue aims to present, disseminate, and standardize the most recent and innovative advances in biomass gasification, biomass plasma gasification, and biomass pyrolysis, focusing on theory, experimental research, and numerical research. Both research articles and reviews are welcome.

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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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