Special Issue

Frontiers in Bio-Energy Production and Applications

Message from the Guest Editors

The high demand for energy as well as the greenhouse gas emission due to the combustion of fossil fuels promotes the development of bioenergy. Bioenergy is a type of sustainable energy resource that is derived from renewable biomass.

Bio-oil is a liquid form of bioenergy produced from the thermochemical conversion of biomass, and it shows great potential as an alternative to petroleum oils. Since 2012, a few industrial-scale demonstration plants have been under operation to produce bio-oil from woody biomass via fast pyrolysis. The produced crude bio-oils are mostly used as fuel oils to produce heat rather than being directly applied as transportation fuels because of the significant amount of heteroatoms. Without any doubt, it is of utmost significance to remove heteroatoms, especially O and N content, from pyrolysis bio-oil prior to its use as drop-in fuels. Aside from liquid bio-oil, bio-hydrogen has been regarded as a clean and inexhaustible energy carrier. To date, bio-hydrogen can be produced via thermochemical, biological, and electrochemical conversion routes.

This Special Issue will focus on the above topics and will accept original work.

Guest Editors

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Deadline for manuscript submissions

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I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

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