Special Issue

Application of New Technologies in Bioenergy and Biofuel Conversion

Message from the Guest Editors

The development of bioenergy and biofuel conversion technology will play a critical role in the production and utilization of renewable and sustainable energy sources in the future. However, the complex and heterogeneous nature of bioenergy and biofuel conversion systems makes it difficult to build models based on experience or theory for accurate predictions. Recent advancements in data science and machine learning (ML) can provide new opportunities. More research is needed to utilize ML in bioenergy and biofuel conversion research, especially in the areas of prediction accuracy, the validity domain and model reliability. This Special Issue will provide an overview of the most recent advancements in applying ML tools to bioenergy and biofuel conversion research in diverse areas. Potential topics include, but are not limited to:

- Machine learning in biomass characterization;
- Machine learning in biomass pretreatment;
- Machine learning in biomass thermochemical conversion;
- Machine learning in biomass biochemical conversion;
- Machine learning in bioenergy and biofuel conversion supply chain management.

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About the Journal

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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