Special Issue

Innovations in Biomass Conversion, Biorefinery, and Energy Utilization: Modeling, Optimization, and Industrial Applications

Message from the Guest Editors

This Special Issue aims to provide a comprehensive overview of the latest innovations in biomass conversion, biorefinery, and energy utilization, with a particular focus on modeling, optimization, and industrial applications. It seeks to highlight the importance of developing more accurate and efficient modeling paradigms, as well as the potential of biomass as a direct source of energy for industry. The topics of interest for publication include, but are not limited to, the following:

- Novel biomass conversion techniques in all levels of technological development;
- Biorefinery systems and processes, including the production of biofuels, biochemicals, and biopower;
- Modeling and simulation of biomass conversion and biorefinery processes;
- Optimization techniques for biomass utilization, including machine learning, artificial intelligence, and process intensification;
- Industrial applications of biomass as a direct source of energy, including power generation, heat production, and industrial processes;
- Case studies and reviews of commercial-scale biomass conversion and biorefinery projects.

Guest Editors

Dr. Frederico G Fonseca

Institute of Low-Carbon Industrial Processes, German Aerospace Center, Cottbus, Germany

Prof. Dr. Ana Paula Soares Dias

CERENA, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal

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Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

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