Special Issue

Research on Conversion Technology for Biofuel Production

Message from the Guest Editors

The urgent global need for sustainable energy is accelerating research into biomass conversion and bio-fuel production. This Special Issue seeks high-quality research and reviews on cutting-edge advances and solutions for turning diverse biomass into next-generation biofuels. We welcome multidisciplinary work that connects fundamental science with practical engineering to support a sustainable energy future. Topics of interest include:

- Advanced thermochemical conversion (e.g., pyrolysis, gasification, hydrothermal liquefaction) and AI/quantum chemistry applications.
- Biochemical conversion advances, including fermentation and metabolic engineering.
- Integrated biorefining systems for co-producing biofuels and chemicals.
- Novel catalyst design for efficient bio-fuel synthesis.
- Innovative feedstock pre-treatment and logistics.
- Sustainability assessments, LCA, and techno-economic analysis of bio-fuel pathways.

Guest Editors

Dr. Wenke Zhao

School of Energy Science and Engineering, Harbin Institute of Technology, Harbin 150001, China

Dr. Weijing Ding

School of Transportation and Vehicle Engineering, Shandong University of Technology, Zibo 255000, China

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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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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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