

## Special Issue

# Advances in Biomass Conversion and Valorization: from Conventional to Emerging Technologies

### Message from the Guest Editor

This Special Issue aims to provide a comprehensive platform for showcasing recent developments in the field. It invites contributions from across the scientific and engineering communities working on the transformation of biomass—whether lignocellulosic, algal, agricultural, or industrial residues—into energy-related (e.g., biofuels, biogas, biodiesel, etc.) and valuable products or increasing their energy content.

The scope of the issue encompasses both well-established processes, such as thermochemical (combustion, pyrolysis, and gasification), biochemical (fermentation and enzymatic hydrolysis), and physico-chemical methods, as well as cutting-edge and hybrid technologies, including photocatalysis, electrocatalysis, supercritical processing, plasma-assisted conversion, and AI-driven process optimization. Emphasis will also be placed on novel reactor designs, advanced materials (e.g., catalysts, membranes, and sorbents), and integrated biorefinery concepts (for biofuels, biochemicals, or biopower production) that enhance biomass energy utilization and conversion efficiency and enable product diversification.

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### Guest Editor

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### Deadline for manuscript submissions

15 January 2026



## Energies

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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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### Editor-in-Chief

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