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Advances in Bioenergy and Waste-to-Energy Technologies

Guest Editor:

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Deadline for manuscript submissions:
closed (5 December 2025)

Message from the Guest Editor

Dear Colleagues,

Dependency on non-renewable resources represents a problem from environmental, economic, and social perspectives.

In the context of second-generation (2G) biorefinery, waste biomasses represent a valuable resource for conversion into bioenergy.

The biorefinery process allows the conversion of biomass into a spectrum of high-value products, including chemical compounds and energy. Second-generation biorefinery processes are classified into three main categories: chemical, thermo-chemical, and biological processes.

Original research papers concerning the study of Advances in Bioenergy and Waste-to-Energy Technologies are of particular interest to this Special Issue. Topics of interest include, but are not limited to:

- Waste biomass conversion into renewable energy;
- Thermochemical and biochemical waste biomass conversion;
- Bio-H_2 and bio-CH_4 production from waste biomass conversionl;
- Environmental and economic sustainability assessments concerning the conversion of waste biomass into bioenergy.

Dr. Francesca Demichelis
Guest Editor

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Special Issue

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Editor-in-Chief

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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.

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