

## Special Issue

# Advances in Bioenergy and Waste-to-Energy Technologies

### Message from the Guest Editor

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<sub>2</sub> and bio-CH<sub>4</sub> production from waste biomass conversion;
- Environmental and economic sustainability assessments concerning the conversion of waste biomass into bioenergy.

### Guest Editor

Dr. Francesca Demichelis

Department of Applied Science and Technology (DISAT), Politecnico di Torino, Corso Duca degli Abruzzi 24, 10129 Torino, Italy

### Deadline for manuscript submissions

5 December 2025



## Energies

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/si/193235](https://mdpi.com/si/193235)

*Energies*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[energies@mdpi.com](mailto:energies@mdpi.com)

[mdpi.com/journal/  
energies](https://mdpi.com/journal/energies)





# Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/journal/  
energies](https://mdpi.com/journal/energies)



## 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

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

CiteScore - Q1 (Control and Optimization)