



Sustainable Biofuel and Biochemical Production from Lignocellulosic Biomass

Guest Editors:

Dr. Nenad Marđetko

Faculty of Food Technology and
Biotechnology, University of
Zagreb, Zagreb, Croatia

Dr. Antonija Trontel

Faculty of Food Technology and
Biotechnology, University of
Zagreb, Zagreb, Croatia

Dr. Mario Novak

Faculty of Food Technology and
Biotechnology, University of
Zagreb, Zagreb, Croatia

Deadline for manuscript
submissions:

30 June 2025

Message from the Guest Editors

The terms *lignocellulosic materials* and *lignocellulosic biomass* refer to plant biomass that can originate from various sources. Lignocellulose makes up about 60% of the biomass produced by plants on Earth, and there are numerous possibilities for its biotechnological applications. Lignocellulose consists of cellulose, hemicellulose, and lignin, which can be broken down into simpler components through different pretreatment methods. This conversion turns the biomass into a valuable feedstock for various biotechnological processes. The resulting biofuels (e.g., bioethanol) and biochemicals offer a more sustainable and environmentally friendly option, reducing greenhouse gas emissions and dependence on non-renewable resources. It is essential to develop new efficient processes in which these materials can be used as renewable raw materials while simultaneously creating opportunities for the production of high-value products. Thus, lignocellulose can become the foundation of production processes that are justified from both ecological and economic standpoints.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Patricia Luis Alconero
Materials & Process Engineering,
UCLouvain, Place Sainte Barbe 2,
1348 Louvain-la-Neuve, Belgium

Message from the Editor-in-Chief

Clean Technologies (ISSN 2571-8797) is an international, open access journal of novel scientific research on technology development aimed at reducing the environmental impact of human activities. *Clean Technologies* publishes reviews, regular research papers, communications and short notes which show a significant advance in the development of sustainable technology that reduces energy consumption, environmental pollution and/or the use of water and nonrenewable resources. Our aim is to encourage scientists to publish their experimental and theoretical research in detail as open access, serving a trustable base of advance for the scientific community.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [ESCI \(Web of Science\)](#), [Inspec](#), [AGRIS](#), [RePEc](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Engineering, Environmental*) / CiteScore - Q1 (Environmental Science (miscellaneous))

Contact Us

Clean Technologies Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/cleantechnol
cleantechnol@mdpi.com
[X@Cleantech_MDPI](#)