Special Issue

Advances in the Pyrolysis of Lignocellulosic Biomass

Message from the Guest Editors

Lignocellulosic biomass is one of the most abundant and renewable energy sources in the world. Thermochemical processing of lignocellulosic biomass, including incineration, gasification, and pyrolysis, provide multiple benefits such as energy production and densification, production of activated carbon precursors and soil amendment materials, reduction of greenhouse gas emissions, etc. Pyrolysis, which involves the thermal decomposition of organic matter under inert conditions, enables the production of biochars and bio-oils, as well as energy from lignocellulosic biomass. With current global challenges such as depleting fossil resources, increasing global population, and global warming, the need for sustainable chemical and energy production is increasingly critical. This Special Issue aims to survey the recent advances in the pyrolysis of lignocellulosic biomass. Review articles are invited on pyrolysis processes including torrefaction, slow pyrolysis, intermediate pyrolysis and fast pyrolysis, catalytic pyrolysis, pyrolysis kinetics, energy production, pyrolysis feedstocks, and the valorization of biochars, bio-oils, and pyrolysis volatiles.

Guest Editors

Dr. Ali Umut Sen
Dr. Andrei Longo
Dr. Catarina Nobre

Deadline for manuscript submissions

30 June 2026

Processes

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.5

mdpi.com/si/259067

Processes
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
processes@mdpi.com

mdpi.com/journal/processes

Processes

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.5

mdpi.com/journal/processes

About the Journal

Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Giancarlo Cravotto
Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, 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, Inspec, AGRIS, and other databases.

Journal Rank:

CiteScore - Q2 (Chemical Engineering (miscellaneous))