

Special Issue

Ionic Liquid Applications in Sustainable Biomass Processing

Message from the Guest Editors

Central to our discussion is the innovative use of ionic liquids in the pretreatment and fractionation of lignocellulosic biomass. Ionic liquids, highly tunable solvents known for their unique properties such as low volatility and recyclability, have revolutionized the field of biomass processing. Over the past decade, the technology surrounding ionic liquids offers more efficient, environmentally friendly, and economically viable solutions for biomass pretreatment. This has opened new horizons in biomass processing, enhancing the efficiency of converting biomass into valuable biofuels and biochemicals. This Special Issue welcomes high-quality studies regarding the most recent advances in sustainable biomass processing with ionic liquid. Topics include, but are not limited to, the following:

- Biomass pretreatment and/or fractionation with ionic liquids;
- Fermentation products from ionic liquid biomass processing (ethanol, butanol, lactic acid, etc.);
- Pyrolysis products from ionic liquid biomass processing (furfural, levoglucosan, etc.);
- Lignin-derived products from ionic liquid biomass processing;
- Cellulose-derived products from ionic liquid biomass processing.

Guest Editors

Dr. Pedro Y. S. Nakasu

Department of Chemical Engineering, Imperial College London,
Exhibition Road, London SW7 2AZ, UK

Dr. Jason P. Hallett

Department of Chemical Engineering, Imperial College London,
Exhibition Road, London SW7 2AZ, UK

Deadline for manuscript submissions

31 August 2025



Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.5



mdpi.com/si/195005

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

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





Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.5



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