

Special Issue

Process Intensification towards Sustainable Biorefineries

Message from the Guest Editors

This Special Issue on “Process intensification towards sustainable biorefineries” has the objective to collect high-impact works focusing on the development of process intensification strategies for the production of biofuels, chemical building blocks and biomaterials.

Topics include, but are not limited to:

- Conceptualize processes using energy carriers such as electricity and hydrogen in order to decarbonize the chemical industry.
- Use of unconventional technologies (e.g., microwave, ultrasounds, microreactors, oscillatory reactors, plasma) for maximizing mass and heat transport effects.
- Maximize the use of matter (e.g., carbon, water) and energy by conceptualizing an efficient and sustainable process.
- Design of integrated processes with positive synergies for reaching the sustainability goals.
- Techno-economic assessment and life-cycle assessment providing figures (key performance indicator: KPI) that prove the benefits of process intensification.

Critical reviews summarizing the state of the art and challenges of process intensification in the biorefinery context.

Guest Editors

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closed (30 April 2025)



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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.

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