

Special Issue

Green Catalytic Processes in Chemical Engineering Towards Sustainable Processes and Circular Economy

Message from the Guest Editors

Catalytic processes in chemical engineering are integrated to enhance sustainable process design. In conformity with green chemistry principles, catalysis provides a way to upgrade the efficiency of reactions while decreasing waste and energy. This Special Issue will focus on recent advances in catalytic systems and their use to enable sustainable processes inside industrial scenarios. For example, one might prioritize the creation of new catalysts and innovative catalysis strategies to implement cutting-edge technologies at the industrial scale, or they might address challenges related to process intensification by adopting advanced computational methods such as computationally fluent process optimization directly into a broader range of applications, including renewable energy production and storage (e.g., fuel cells, electrolyzes), efficiency (heat recovery system manufacture) waste valorization, carbon dioxide capture in mature industries like the cement industry, etc.

Guest Editors

Dr. Filipe Smith Buarque

CICECO-Aveiro Institute of Materials, Department of Chemistry,
University of Aveiro, Aveiro, Portugal

Dr. Rafael Farrapeira

Institute of Research and Technology (ITP), Tiradentes University,
Maceió, Brazil

Deadline for manuscript submissions

31 August 2025



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/215522

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

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





Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



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



About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Marc A. Rosen

Faculty of Engineering and Applied Science, University of Ontario
Institute of Technology, Oshawa, ON L1G 0C5, Canada

Author Benefits

Open Access:

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

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1
(Geography, Planning and Development)