

Special Issue

Advances in Metal Catalyst: Synthesis and Application

Message from the Guest Editors

This Special Issue on 'Advances in Metal Catalyst: Synthesis and Application' is dedicated to recent advances in the design, synthesis, and application of metal catalysts, with a particular focus on innovative synthetic strategies and system integration in diverse catalytic processes. Topics include, but are not limited to, the following:

- Novel synthesis methods for metal catalysts (e.g., templated growth, self-assembly, atomic layer deposition, confinement strategies).
- Tailoring of nanostructured, bimetallic, alloyed, and single-atom catalysts.
- Advanced characterization to correlate structure with performance.
- System-level integration of catalysts into thermal, electrochemical, and photochemical processes.
- Scalable reactor and process design involving metal catalysts.
- Catalytic applications in energy, environmental, and industrial transformations.
- Mechanistic and kinetic studies supporting catalyst design and application.
- Catalyst regeneration and long-term durability in integrated systems.

Guest Editors

Dr. Mengyang Fan

College of Carbon Neutrality Future Technology, Sichuan University, Chengdu 610000, China

Dr. Qifan Li

School of Materials and Energy, University of Electronic Science and Technology of China, Chengdu 611731, China

Deadline for manuscript submissions

30 November 2025



Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.5



mdpi.com/si/238814

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))