

Special Issue

Advanced Zeolite Catalysts in Sustainable Industrial Processes

Message from the Guest Editor

The growing demand for sustainable chemical processes has driven remarkable innovations in zeolite catalyst technology. This Special Issue will highlight cutting-edge research on advanced zeolite catalysts that enable greener industrial applications while maintaining high efficiency and selectivity. Zeolites, with their well-defined microporous structures, have long been indispensable in petrochemical refining and bulk chemical production. Recent breakthroughs in synthetic methods, characterization techniques, and computational modeling have unlocked new possibilities for these versatile materials. The contributions in this issue will demonstrate how tailored zeolite frameworks can address critical challenges in renewable energy, carbon capture, biomass conversion, and emission control. The issue will also cover fundamental advances in the understanding of active sites and reaction mechanisms through advanced spectroscopy and theoretical calculations. We hope that this Special Issue stimulates further innovation at the intersection of materials design, reaction engineering, and environmental stewardship.

Guest Editor

Dr. Zhongpan Hu

National Engineering Research Center of Lower-Carbon Catalysis Technology, Dalian National Laboratory for Clean Energy, iChEM (Collaborative Innovation Center of Chemistry for Energy Materials), Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China

Deadline for manuscript submissions

17 February 2026



Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.5



mdpi.com/si/248153

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))