Special Issue

Recent Strategies for Synthesis of Zeolite Catalysts

Message from the Guest Editor

Zeolite catalysts are indispensable in modern chemical industries due to their unique structural properties, including a high surface area, uniform microporosity, and adjustable acidity. In recent years, substantial progress has been made in the synthesis of zeolites, aiming to overcome limitations related to diffusion constraints, selectivity, and environmental impact. This Special Issue focuses on the latest advancements in the synthesis strategies of zeolite-based catalysts, presenting a collection of original research and review articles that address both fundamental and application-driven innovations. The contributions examine various topics. Particular emphasis is given to the development of hierarchical zeolites, nano-sized crystals, and post-synthetic modifications to enhance catalytic efficiency and tailor physicochemical properties. The integration of metal species, the creation of bifunctional catalysts, and the design of zeolites for emerging applications such as biomass conversion and environmental remediation are also highlighted. Research on new methods of syntheses with a lower environmental impact is also welcome.

Guest Editor

Dr. Enrico Catizzone

ENEA, Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Research Centre of Trisaia, Rotondella, Italy

Deadline for manuscript submissions

15 February 2026

Catalysts

an Open Access Journal by MDPI

Impact Factor 4.0
CiteScore 7.6

mdpi.com/si/249335

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

mdpi.com/journal/catalysts

Catalysts

an Open Access Journal by MDPI

Impact Factor 4.0
CiteScore 7.6

mdpi.com/journal/catalysts

About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Keith Hohn
Carl R. Ice College of Engineering, Kansas State University, Manhattan, KS, USA

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, CAB Abstracts, and other databases.

Journal Rank:

JCR - Q2 (Chemistry, Physical) / CiteScore - Q1 (General Environmental Science)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.6 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).

MDPI