Special Issue

Fabrication of Noble Metal-Based Heterogeneous Nanomaterials: Toward High-Efficiency Catalysis

Message from the Guest Editor

The Special Issue entitled "Fabrication of Noble Metal-Based Heterogeneous Nanomaterials: Toward High-Efficiency Catalysis" calls for papers on the design. synthesis and catalytic use of noble-metal nanostructures-hollow, core-shell, volk-shell, allov, high-entropy-alloy, metal-semiconductor and singleatom configurations—and their integration with OD-3D supports (oxide dots, CNTs, graphene, MOFs, mesoporous silica/carbon) for plasmon-enhanced photocatalysis, electrocatalysis (HER, OER, ORR, CO₂RR), fuel cells and thermocatalytic reactions. Emphasis is placed on morphology-, composition- and interface-directed activity/selectivity/stability, advanced operando characterization, theoretical calculations, and frontier topics such as single-atom catalysis. Original research, reviews, short communications and perspectives are welcome.

Guest Editor

Prof. Dr. Jianhui Yang

Key Laboratory of Synthetic and Natural Functional Molecule Chemistry of Ministry of Education, Shaanxi Key Laboratory of Physico-Inorganic Chemistry, College of Chemistry & Materials Science, Northwest University, Xi'an 710069, China

Deadline for manuscript submissions

5 March 2026



Catalysts

an Open Access Journal by MDPI

Impact Factor 4.0 CiteScore 7.6



mdpi.com/si/252637

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



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).

