

Special Issue

Latest Advances and the Prospects of Photo(electro)catalytic Application of Nanomaterials

Message from the Guest Editor

Nanomaterials are receiving increasing interest for their potential photo(electro)catalytic applications in areas such as solar water splitting, carbon dioxide reduction, nitrogen reduction reaction, hydrogen evolution reaction, organic matter degradation, etc. Compared to conventional catalysis, photo(electro)catalysis has proven itself to be a fast, facile and environmentally friendly approach for catalytic reaction. Despite the growing interest in photo(electro)catalysis for energy and environmental applications, the photo(electro)catalytic reaction mechanism of nanomaterials remains obscure due to the complicated physical and chemical processes involved. A major effort is needed from across the whole scientific community to enhance our understanding of the controllable preparation and involved mechanisms of photo(electro)catalysis, and to widen its application scope in energy and environmental fields. This Special Issue aims to collect the original research papers or short reviews covering the synthesis and application of nanomaterials for photo(electro)catalysis.

Guest Editor

Dr. Jiale Xie
School of New Energy and Materials, Southwest Petroleum University,
Chengdu 610500, China

Deadline for manuscript submissions

closed (15 October 2023)



Catalysts

an Open Access Journal
by MDPI

Impact Factor 4.0
CiteScore 7.6



mdpi.com/si/168309

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

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





Catalysts

an Open Access Journal
by MDPI

Impact Factor 4.0
CiteScore 7.6



[mdpi.com/journal/
catalysts](https://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 15.9 days after submission; acceptance to publication is undertaken in 3.5 days (median values for papers published in this journal in the second half of 2025).