

Special Issue

Development of Semiconductor-Based Materials for Photocatalysis

Message from the Guest Editors

The core of photocatalysis/photoelectrocatalysis is the development of efficient photocatalysts/photoelectrodes, and the most widely studied are semiconductor materials. To date, engineering band gaps and crystal facets, constructing semiconductor heterostructures and loading cocatalysts, were adopted to expand the absorbance range and improve the photocatalytic/photoelectrochemical performance of semiconductors. This Special Issue aims to collect recent advances in semiconductor-based photocatalysts/photoelectrodes in energy conversion and environmental protection fields. We welcome original research articles and reviews. Research areas may include (but are not limited to) the following:

- Photocatalytic/photoelectrochemical water splitting;
- Photocatalytic/photoelectrochemical CO₂ reduction;
- Photocatalytic/photoelectrochemical pollutant degradation;
- Design, modification and preparation of photocatalysts/photoelectrodes;
- Expanding the light response of semiconductors;
- Improving the charge transfer and separation of semiconductors;
- Accelerating surface reaction kinetics.

We look forward to receiving your contributions.

Guest Editors

Dr. Yingpeng Xie

Key Laboratory on Resources Chemicals and Materials of Ministry of Education, College of Chemical Engineering, Shenyang University of Chemical Technology, Shenyang 110142, China

Dr. Renzheng Jiang

College of Chemical Engineering, Shenyang University of Chemical Technology, Shenyang 110142, China

Deadline for manuscript submissions

closed (24 September 2023)



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/162567

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

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





Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



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



About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,
Columbus, OH 43210, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1
(Geography, Planning and Development)