

Special Issue

Advances in Electrocatalysis and Photoelectrocatalysis

Message from the Guest Editors

Solar-driven conversion systems, such as photocatalysts suspension and photoelectrochemical (PEC) devices, serve as sustainable and environmentally benign platforms for the synthesis of solar fuels and fine chemicals, especially from the conversion of biomass and waste chemicals. Interfacing the light-absorbing material with a catalytic layer is essential to efficiently expedite the kinetics of reactions of interest and selectively convert the feedstocks into desired products. This Special Issue aims to cover the recent advances in the development of photoelectrodes and electrocatalysts for efficient and selective photo-(electro-)catalysis. This includes but is not limited to (i) the design, synthesis, and characterization of photoelectrocatalytic and electrocatalytic materials, (ii) the fundamental study of the mechanism behind the photo-(electro-)catalysis process, and (iii) the niche applications of PEC devices, including solar fuels generation and reforming of biomass and waste chemicals.

Guest Editors

Prof. Dr. Yi-Hsuan Lai

Department of Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan

Dr. Chia-Yu Lin

Department of Chemical Engineering, National Cheng Kung University, Tainan City, Taiwan

Deadline for manuscript submissions

closed (30 April 2022)



Catalysts

an Open Access Journal
by MDPI

Impact Factor 4.0
CiteScore 7.6



mdpi.com/si/92292

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).