Special Issue

Electrocatalysis and Photocatalysis in Redox Flow Batteries

Message from the Guest Editor

Redox flow batteries (RFBs) are a strong player in the large-scale energy storage of green grids due to their decoupling of energy and power, decade-long cycle life, and low risk of fire. However, the electrode kinetics are usually slow, limiting their wide deployment.

Electrocatalytic materials are needed to reduce the reaction barrier. The RFBs can be further combined with photoelectrochemical cells to directly convert and store solar energy in soluble redox species, rather than the hard-to-store gaseous products in solar water splitting cells. We hope that this Special Issue will provide useful information for researchers and encourage their involvement in this field.

Guest Editor

Dr. Penghui Ding

Department of Chemistry, Stanford University, Stanford, CA 94305, USA

Deadline for manuscript submissions

closed (31 July 2025)



Catalysts

an Open Access Journal by MDPI

Impact Factor 4.0 CiteScore 7.6



mdpi.com/si/209445

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).

