



Nanocatalysts for Electrochemical Reactions: Design, Synthesis, and Fundamental Understanding

Guest Editors:

Dr. Wei Liu

School of Chemical Engineering,
Dalian University of Technology,
Dalian 116024, China

Dr. Feng Hu

College of Materials Science and
Technology, Nanjing University of
Aeronautics and Astronautics,
Nanjing 210016, China

Dr. Danyang Wu

School of Science, Dalian
Maritime University, Dalian
116026, China

Deadline for manuscript
submissions:

31 August 2024

Message from the Guest Editors

Dear Colleagues,

The concept of nanocatalysts opens up a new avenue in the field of electrochemistry research and have experienced highly productive decades since the consolidation of this topic. The featuring fine-tuned morphology and microscopic structure were elaborately exploited to access fascinating strain effects, ensemble effects and electronic structure modulations, which demonstrated great potential in diverse electrochemical transformations with distinctive reactivities. Besides, the combined experimental and theoretical studies substantially enriched fundamental understanding of molecular behaviors on surfaces, yielding a framework to understand catalytic trends that can ultimately offer rational guidance toward the development of improved catalysts.

This Special Issue is dedicated to providing a broad survey of the most recent advances in Nanocatalysts for Electrochemical Reactions. Original research articles or reviews that discuss methodologies for synthesis and functionalization of nanocatalysts, structural aspects, catalytic mechanism and properties, and profound perspectives in electrocatalysis fields are welcome.

Dr. Wei Liu

Dr. Feng Hu

Dr. Danyang Wu

Guest Editors





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical
Biology and Phytochemistry,
University of Münster,
Corrensstrasse 48, D-48149
Münster, Germany

Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Reaxys](#), [CaPlus / SciFinder](#), [MarinLit](#), [AGRIS](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Chemistry, Multidisciplinary*) / CiteScore - Q1 (Chemistry (miscellaneous))

Contact Us

Molecules Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/molecules
molecules@mdpi.com
[X@Molecules_MDPI](#)