Special Issue

Functional Materials for Small Molecule Electrocatalysis

Message from the Guest Editors

Electrocatalysis plays a pivotal role in sustainable energy conversion and chemical synthesis, enabling the efficient transformation of small molecules such as H2O, CO2, and N2 into value-added fuels and chemicals. The development of advanced functional materials with high activity, selectivity, and stability is crucial for optimizing these electrochemical processes and addressing global energy and environmental challenges.

This Special Issue aims to highlight the latest advancements in electrocatalytic materials and their applications in water splitting, carbon dioxide reduction, and nitrogen fixation. Studies that explore novel catalyst architectures, interface engineering, and computational modeling to enhance catalytic efficiency are also encouraged.

By bringing together cutting-edge research in this field, this Special Issue seeks to provide a platform for the exchange of ideas and innovative approaches that drive the future of sustainable energy conversion. We invite researchers from diverse backgrounds to contribute original research articles, reviews, and perspectives that push the boundaries of small-molecule electrocatalysis.

Guest Editors

Dr. Feng Hu

Dr. Linlin Li

Dr. Qingxue Lai

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

mdpi.com/journal/molecules

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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.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt
Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

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