# **Special Issue**

# Metal-Oxygen Interfaces in Catalysis and Surface Chemistry: Interactions, Reactivity, and Modeling

## Message from the Guest Editors

Metal-oxygen interfaces lie at the heart of many catalytic transformations, providing unique reactivity through complex electronic, geometric, and chemical interactions. These interfaces govern key processes such as oxygen activation, redox cycling, and selective bond breaking or formation, yet their diverse and complex nature hinders our molecular-level understanding of them. This Special Issue will compile cutting-edge experimental and theoretical advances that probe the structure, dynamics, and reactivity of metal-oxide systems at the atomic level. We welcome contributions that explore the fundamental principles of these interfaces and emerging practical opportunities, with the goal of promoting novel strategies related to catalyst design and mechanistic understanding. Dr. Nicholas R. Jaegers

### **Guest Editors**

Dr. Nicholas Jaegers

Chemical and Biological Engineering, The University of New Mexico, Albuquerque 87131, Mexico

Dr. Hougian Li

Chemical and Materials Engineering, New Mexico State University, Las Cruces, NM 88001, USA

### Deadline for manuscript submissions

31 January 2026



# **Molecules**

an Open Access Journal by MDPI

Impact Factor 4.6 CiteScore 8.6 Indexed in PubMed



mdpi.com/si/247849

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

mdpi.com/journal/ molecules





## **Molecules**

an Open Access Journal by MDPI

Impact Factor 4.6 CiteScore 8.6 Indexed in PubMed



## **About the Journal**

### Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th 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 all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of 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

#### **Author Benefits**

### **High Visibility:**

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Reaxys, CaPlus / SciFinder, MarinLit, AGRIS, and other databases.

### **Journal Rank:**

JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

### **Rapid Publication:**

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.1 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

