

Special Issue

Metalloenzyme Structure and Function

Message from the Guest Editors

Metalloenzymes are vital players in a wide range of biochemical reactions, coordinating metal ions to drive numerous essential biological processes. Understanding the intricate ways in which these enzymes function and how metal ions are precisely managed within their active sites is the key to unlocking their full potential in both natural and engineered systems. This Special Issue aims to highlight the recent advancements in metalloenzyme research, focusing on catalytic mechanisms, structure–function relationships and enzymatic applications. We welcome submissions of original research articles, reviews and perspectives that explore the structural biology, spectroscopy, molecular biology and enzyme kinetics of metalloenzymes. We are also interested in contributions that present innovative approaches to studying these enzymes, including discoveries of novel structures and functions, the engineering of metalloenzymes as biocatalysts, and explorations of their industrial and biomedical applications.

Guest Editors

Dr. Yifan Wang

Department of Chemistry, University of Georgia, Athens, GA, USA

Dr. Ian Davis

Department of Chemistry, The University of Texas at San Antonio, San Antonio, TX 78249, USA

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

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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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