Special Issue

Synthesis, Characterization and Application of Metal and Metal Oxide Nanomaterials

Message from the Guest Editors

This Special Issue is dedicated to the synthesis, characterization, and application of metal and metal oxide nanostructures. Recently, the development of metal nanoparticles and nanoclusters capped with specific functionalization capabilities has enabled huge developments across many fields, such as sensing, biosensing, imaging, water filtering, and drug delivery, to name only a few. At the same time, the study and development of metal oxide nanomaterials and the possibility of fine-tuning their properties through innovative material synthesis or developing composites with better performances offer a great advantage. mainly, but not only, in the energy and environmental fields. In this Special Issue, we will attempt to cover the most recent advances in this huge field. Experimental and theoretical scientific research, together with potential or real applications, are warmly welcome.

Guest Editors

Dr. Paolo Prosposito

Industrial Engineering Department, University of Rome Tor Vergata, 00133 Rome, Italy

Dr. Luca Burratti

Faculty of Technological Sciences and Innovation, Universitas Mercatorum, 00186 Rome, Italy

Deadline for manuscript submissions

20 August 2025



International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/199981

International Journal of Molecular Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ijms@mdpi.com

mdpi.com/journal/ ijms





International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

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

