

Special Issue

Optical Molecular Systems: From Design to Applications

Message from the Guest Editor

Optical materials play a pivotal role in a wide range of scientific, technological, and industrial applications. This Special Issue delves into the intricate domain of molecular systems based on optical materials, tracing the path from molecular design to transformative applications. Special emphasis is placed on luminescent materials, including quantum dots, rare-earth luminescent materials, and photoluminescent organic materials, as well as chromic materials (such as photochromic, thermochromic, and electrochromic materials). Contributors will explore molecular architectures and processes, such as spectral conversion, energy transfer, dynamic responses, etc., with the aim of achieving desired optical properties. The collection highlights the diverse applications that arise from these optical molecular systems, spanning across energy harvesting, human-centric lighting, healthcare diagnostics, imaging and therapeutics, and monitoring and sensing, among other potential sectors.

Guest Editor

Dr. Amador Menéndez-Velázquez

Photoactive Materials Research Unit, IDONIAL Technology Center,
33417 Avilés, Asturias, Spain

Deadline for manuscript submissions

closed (20 July 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/193004

*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](https://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



[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)



About the Journal

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)