

Special Issue

Graphene-based Nanocomposites

Message from the Guest Editor

Graphene Nanocomposites: Molecular Engineering for Advanced Technologies

Graphene-based nanocomposites (Gr-NCs) combine graphene's unmatched conductivity, transparency, and strength with tailored nanomaterials to revolutionize biosensors, catalysts, and optoelectronics. Molecular design of secondary components (e.g., biomolecules, polymers, 2D materials) enables programmable chemo-selectivity, catalysis, and optical control while optimizing scalable fabrication. This Special Issue seeks studies on molecular design principles across Gr-NC architectures:

- 0D: Nanoparticles, protein assemblies
- 1D: Polymers, nanotubes
- 2D: COFs, MXenes, hBN

We prioritize research revealing structure–property relationships to advance heterostructures, biomimetic interfaces, and high-performance devices.

Contributions spanning synthesis, modeling, and applications are encouraged.

Guest Editor

Prof. Dr. Oleksandr Ivasenko

Institute of Functional Nano and Soft Materials (FUNSOM), Soochow University, 199 Ren-Ai Road, Suzhou Industrial Park, Suzhou 215123, China

Deadline for manuscript submissions

20 October 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/240034

*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)