

Special Issue

Isotope Effects in Studies of Chemical and Enzymatic Reactions

Message from the Guest Editor

Isotope effects have proven to be an invaluable tool in studies of the mechanisms of different (bio)chemical and physical phenomena. Initially, only “primary” isotope effects, i.e., those associated with bond-making/bond-breaking events, were amenable to experimental scrutiny. In recent years, analytical methodologies have also permitted studies of much smaller isotope effects that originate from noncovalent interactions, such as hydrogen bonding, electrostatics, and confinement. They are widely used in environmental, material, and biochemical studies. This Special Issue aims to provide information on the recent developments in the application of isotope effects in all (new and traditional) areas of mechanistic studies, as well as on the theoretical methods of their calculations and developments in new techniques of their experimental determination.

Guest Editor

Prof. Dr. Piotr Paneth

Faculty of Chemistry, Institute of Applied Radiation Chemistry, Lodz University of Technology, Lodz, Poland

Deadline for manuscript submissions

closed (20 June 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/208981

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

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)