



## **Ion and Molecule Transport in Membrane Systems 3.0**

Guest Editor:

**Prof. Dr. Victor V. Nikonenko**

Department of Physical  
Chemistry, Kuban State  
University, 149 Stavropolskaya  
st., 350040 Krasnodar, Russia

Deadline for manuscript  
submissions:

**closed (15 March 2022)**

### **Message from the Guest Editor**

A description of ion and molecule transportation through all kinds of membranes, similarities in the behavior of biological and artificial membranes; biomimetic structural features of artificial membranes and their impact on membrane properties and performance for separation processes; the physico-chemical and chemico-physical aspects of ion and molecule transportation; the equilibriums and kinetics of transportation processes in membrane systems; the coupling of ion and molecule transportation with chemical reactions and catalysis; the impact of forced and natural convection on ion and molecule transportation; the mechanisms of electric current-induced convection and their impact on ion and molecule transportation across membranes; concentration polarization and the coupled effects occurring in membrane systems under the action of external pressure and electric driving forces (external pressure and electric potential gradients applied to a membrane); and the physico-chemical and chemico-physical aspects of transportation, separation, purification, and fractionation of organic acids, bioactive compounds, ampholytes, and nutrients, in membrane systems.





an Open Access Journal by MDPI

## 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

## 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.

## 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 & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

## Contact Us

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/ijms  
ijms@mdpi.com  
X@IJMS\_MDPI