



Fundamental Aspects of Chemical Bonding

Guest Editor:

Dr. Demeter Tzeli

Laboratory of Physical Chemistry,
Department of Chemistry,
National and Kapodistrian
University of Athens, 157 84
Zografou, Greece

Deadline for manuscript
submissions:

closed (31 December 2023)

Message from the Guest Editor

The editorial board of *Molecules* invites you to submit an article to a Special Issue entitled "Fundamental Aspects of Chemical Bonding".

The chemical bond is one of the most fundamental concepts in chemistry. It explains why atoms are attracted to each other or why chemical reactions occur. There are two main categories of chemical bond based on their strength, namely, primary or strong bonds, i.e., covalent, metallic and ionic bonds, and secondary or weak bonds, i.e., dipole–dipole interactions, hydrogen bonds, etc. Different approaches are used for describing chemical bonding, i.e., molecular–orbital (MO), valence–bond (VB), electron localization function (ELF), quantum theory of atoms in molecules (QTAIM), etc.

Molecules is indexed by the Science Citation Index Expanded (Web of Science), MEDLINE (PubMed) and other databases, and has an Impact Factor of 4.927 (2021).





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical
Biology and Phytochemistry,
University of Münster,
Corrensstrasse 48, D-48149
Münster, Germany

Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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](#), [MEDLINE](#), [PMC](#), [Reaxys](#), [CaPlus / SciFinder](#), [MarinLit](#), [AGRIS](#), and [other databases](#).

Journal Rank: JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

Contact Us

Molecules Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/molecules
molecules@mdpi.com
[X@Molecules_MDPI](https://twitter.com/Molecules_MDPI)