

## Special Issue

# Homologation Reactions in Organic Synthetic Chemistry

### Message from the Guest Editors

Homologation reactions—defined as synthetic operations that transform a given reactant into the next member of a homologue series—constitute powerful and versatile tools for preparative chemistry. In recent years, carbenoids have emerged as suitable reagents for accomplishing homologations. They are organometallic compounds containing a metal atom (e.g., Li, Mg, Zn) and at least one heteroatom-containing element (e.g., halogen, N, O) linked to the same carbon. This feature makes them unique entities in the synthetic panorama, in primis for their constitutive ambiphilicity, enabling them to manifest nucleophilic or electrophilic behaviour, depending on the reaction conditions. This Special Issue aims to cover the general field of homologations, focusing on the development and synthetic uses of these techniques in synthesis. Researchers active in the fields are, therefore, warmly invited to propose original research articles, as well as relevant state-of-the-art reviews or perspectives, to be published in this Special Issue of *Molecules*.

### Guest Editors

Prof. Dr. Vittorio Pace

Department of Chemistry, University of Turin, Turin, Italy

Dr. Laura Castoldi

Department of Pharmaceutical Sciences, General and Organic Chemistry Section "A. Marchesini", University of Milan, Via Venezian 21, 20133 Milan, Italy

Dr. Margherita Miele

Department of Chemistry, University of Turin, Turin, Italy

### Deadline for manuscript submissions

closed (30 September 2023)



## Molecules

an Open Access Journal  
by MDPI

Impact Factor 4.6  
CiteScore 8.6  
Indexed in PubMed



[mdpi.com/si/161675](https://mdpi.com/si/161675)

*Molecules*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[molecules@mdpi.com](mailto:molecules@mdpi.com)

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





# Molecules

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.6  
CiteScore 8.6  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th 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 all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

---

### Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

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

---

### Author Benefits

#### 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)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.1 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).