



Homologation Reactions in Organic Synthetic Chemistry

Guest Editors:

Prof. Dr. Vittorio Pace

Department of Chemistry,
University of Turin, Turin, Italy

Dr. Laura Castoldi

Department of Pharmaceutical
Sciences, University of Milan,
Milan, Italy

Dr. Margherita Miele

Department of Chemistry,
University of Turin, Turin, Italy

Deadline for manuscript
submissions:

closed (30 September 2023)

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*.





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 (*Chemistry, Multidisciplinary*) / CiteScore - Q1 (*Chemistry (miscellaneous)*)

Contact Us

Molecules Editorial Office
MDPI, St. Alban-Anlage 66
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/X@Molecules_MDPI)