Special Issue

Ultrasound and Microwave-Assisted Organic Synthesis

Message from the Guest Editor

High-value product synthesis can be reached by means of alternative energy sources, such as ultrasound irradiation. Synthesis of organic molecules and nanoparticles for use in organic synthesis, catalyst preparation are important domains in the fine chemical and pharmaceutical industries, and ultrasound irradiation provides a source of mechanical energy which can be used to improve reaction rate, yield, and selectivity in a wide range of chemical processes. This Special Issue of the journal is devoted to chemical reactions induced or promoted by ultrasonic waves, namely, sonochemistry to provide an alternative to other enabling technologies with the aim to access new synthetic pathways, new mechanisms, and catalyst and nanoparticle preparation. Sonochemistry covers a multidisciplinary approach integrating chemistry, physics, and process technology, and therefore, the Special Issue is also addressed to the reactor design and to the development of a hybrid reactor in which synergistic effects of ultrasound combined with other technologies are studied for intensified chemical syntheses in terms of energy and resource efficiency.

Guest Editor

Dr. Katia Martina

Dipartimento di Scienza e Tecnologia del Farmaco, Università di Torino, Via P. Giuria 9, 10125 Torino, Italy

Deadline for manuscript submissions

closed (30 June 2022)

Molecules

an Open Access Journal by MDPI

Impact Factor 5.1
CiteScore 10.3
Indexed in PubMed

mdpi.com/si/83770

Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

mdpi.com/journal/molecules

Molecules

an Open Access Journal by MDPI

Impact Factor 5.1
CiteScore 10.3
Indexed in PubMed

mdpi.com/journal/molecules

MDPI

About the Journal

Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 30th 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 15.6 days after submission; acceptance to publication is undertaken in 3.4 days (median values for papers published in this journal in the first half of 2026).