



## Ultrasound and Microwave-Assisted Organic Synthesis

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### 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.





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## 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.

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