



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

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