

Tentative Outline

Special/Thematic Issue for "Current Microwave Chemistry"

Title of the Thematic Issue: Microwave-assisted synthesis of bioactive heterocycles

Section Editor: Dr. Bubun Banerjee

Scope of the Thematic Issue:

Heterocyclic scaffolds are very common in naturally occurring bioactive scaffolds as well as in the commercially available drug molecules. Many synthetic heterocycles are reported to possess a wide range of biological activities. On the other hand, to save our 'Mother Nature' from the ever increasing chemical pollution, scientists are continuously modifying their chemical processes to make them sustainable. As a result, last decade has shown a tremendous outburst to carry out the synthesis of bioactive heterocycles under greener conditions. Application of microwave in organic synthesis sometimes fulfills the goal of sustainable developments. In many occasions it was found that the microwave-irradiated pathway is much more advantageous than the conventional processes. This thematic issue intends to highlight the current progress on the synthesis of various biologically promising scaffolds with special emphasis on microwave irradiated pathway. The submitted Review Article/Mini-review/Current Frontier should consist of novel approaches and related to recent advances based on the sustainable developments.

Keywords: Microwave, organic synthesis, bioactive heterocycles, sustainable synthesis, fast reactions, green chemistry

Subtopics:

- Microwave-assisted synthesis of bioactive *N*-heterocycles
- Microwave-assisted synthesis of bioactive *O*-heterocycles
- Microwave assisted synthesis of bioactive *S*-heterocycles
- Microwave-assisted synthesis of bioactive *N,O*-heterocycles
- Microwave-assisted synthesis of bioactive *N,N*-heterocycles
- Microwave-assisted synthesis of bioactive *N,N,N*-heterocycles
- Microwave-assisted synthesis of bioactive heterocycles *via* click reaction
- Microwave-assisted synthesis of bioactive heterocycles *via* domino reactions
- Microwave-assisted synthesis of bioactive fused heterocycles
- Microwave-assisted synthesis of bioactive heterocycles *via* multicomponent reactions
- Microwave-assisted catalyst-free synthesis of bioactive heterocycles
- Microwave-assisted solvent-free synthesis of bioactive heterocycles

Tentative titles of the articles:

- Microwave activated synthetic route to various biologically important heterocycles involving transition metal catalysts
- Microwave-assisted synthesis of biological active heterocyclic compounds in ionic liquids
- Progress in the microwave-assisted synthesis of *N*-heterocycles
- Microwave-Assisted Synthesis of Biologically Relevant Six-Membered *N*- heterocycles
- Microwave-assisted synthesis of Biginelli adducts: A Mini review
- Microwave-assisted synthesis of heterocycles and anti-cancer activities-An approach toward sustainability
- Microwave-assisted synthesis of *N,N*-heterocycles
- Microwave-assisted organocatalyzed synthesis of bioactive heterocycles
- Microwave assisted synthesis of bioactive heterocycles in non-conventional solvents

Schedule:

- ✧ Manuscript submission deadline: 30.6.2023
- ✧ Peer Review Due: 30.7.2023
- ✧ Revision Due: 30.8.2023
- ✧ Announcement of acceptance by the Guest Editors: 10.9.2023
- ✧ Final manuscripts due: 30.10.2023

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