

Thematic Issue Proposal for Current Green Chemistry

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Title: Synthesis of biologically active heterocycles via multicomponent reaction in unconventional solvents

Aims & Scope:

Biologically active heterocyclic compounds lie at the heart of medicinal chemistry. Owing to the wide applications, it is hard to find any complex drug without a heterocyclic system and the importance is unquestionable. Organic solvents such as DMSO is an essential part of pharmaceutical syntheses and are employed in an extensive range of material for pharmaceutical products. Due to the intensified environmental pollutions originated from conventional organic solvents, the challenge for chemists from academia and industry is to invent natural, biodegradable, and efficient green reaction media. To realize the perspective, it is necessary to consider both the environmental and economic metrics in the design and synthesis of the neoteric solvents. The simplest and direct way to apply green chemistry in pharmaceuticals is to utilize eco-friendly, nonhazardous, reproducible, and efficient solvents.

Innovative strategies on chemistry are the core of the pharmaceutical business and strategies that utilize reactions that enable the rapid assembly of the skeletal framework of heterocyclic compounds via simple and green synthetic procedures are thus especially attractive. In this context, multicomponent reactions offers a straightforward route to generate complexity and diversity in a single operation and is a great tool in pharmaceutical chemistry.

Lastly, the coupling of two or more green technologies (MCR and unconventional solvents) within a single process is a better approach to sustainability than reliance on a single technological opportunity. The goal can be achieved by developing new multicomponent reactions in unconventional solvents in biological heterocyclic compounds.

With this background, the aim of this proposal is to provide the reader with a concise update of the recent papers of MCRs in unconventional solvents in the synthesis of biologically active heterocyclic chemistry.

Schedule:

Please find the suggested schedules:

Manuscript Submission deadline: July 2019

Peer Review Due: September 2019

Revision Due: October 2019

Notification of acceptance by the Guest Editor: November 2019

Final manuscripts due: December 2019