

Editorial – Organic Chemistry Under Visible Light: Photolytic and Photocatalytic Organic Transformations

In general, conventional organic reactions deploy toxic and hazardous reagents and solvents that lead to the generation of substantial amounts of waste (other than the desired product) thereby affecting human health and the environment. In a bid to alleviate these detrimental effects of organic reactions, sustainable organic synthesis is crucial as it promotes the use of novel reaction techniques for the efficient generation of products from renewable resources and energy that are environmentally and ecologically benign. Visible-light-mediated organic synthesis has opened a new domain in organic chemistry contributing to the sustainability of the organic reactions. Numerous photolytic and photocatalytic reactions have been reported demonstrating insertion, cycloaddition, cyclopropane formation, etc., to afford interesting building blocks and scaffolds with various applications as bioactive molecules. In this special issue on Organic Chemistry Under Visible Light: Photolytic

and Photocatalytic Organic Transformations we have carefully selected eighteen articles that depict novel usages of this strategy in eclectic organic reactions involving flow synthesis, radical generation, oxidation of borons, [2+2] cycloaddition and triangulenium ions to name a few. The scientists with diverse demography have subscribed to this issue thereby reflecting the importance of these reactions among the global scientific community. These new photolytic/ photocatalytic applications of visible light are environmentally sustainable and contribute as a new domain in the repertoire of organic reactions.

Prof. Subhabrata Sen and Prof. Ludovic Gremaud Guest Editors 2024