Special Issue

Novel Aspects of Heterogeneous Photocatalytic Reaction

Message from the Guest Editor

Photoredox catalysis has gained widespread attention due to its unique advantages of being energy-saving, highly efficient, and simple to handle. However, most of the photocatalytic reactions are dominated by homogeneous photocatalysts, such as Ru(II)- or Ir(III)-based transition metal complexes or organic dyes, for example, Eosin Y, Rhodamine 6G, 4CzIPN, and acridinium salts, whose photo properties are highlighted in the literature. Although these homogenous photocatalysts show excellent photocatalytic activity, they all encounter common imperfections, including high economic and environmental cost, easy decomposition, and poor reusability, which limit their large-scale and long-term use in pharmaceutical production. To address these issues, the development of recyclable, heterogeneous, photocatalyzed transformation is an attractive and practical strategy. The main objective of this Special Issue is to highlight the recent advances in heterogeneous photoredox catalysis that have brought it to the forefront of research and development in synthetic organic chemistry, which will be critical for the broader understanding and dissemination of this research field.

Guest Editor

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