Special Issue

Design and Application of Photoredox Catalysts

Message from the Guest Editors

Photoredox catalysis enables new reactivity through light-induced radical processes under mild conditions, using visible light as a sustainable energy source. It allows broad substrate scope, tunable selectivity, and access to challenging reactions. Developing new catalysts is crucial for expanding the scope, efficiency, and applicability of these reactions. This Special Issue aims to gather cutting-edge research on photoredox catalysts' design, synthesis, and application in organic synthesis, environmental remediation, energy conversion, etc. We welcome high-quality original research articles, reviews, and perspectives exploring novel catalysts, mechanistic insights, and practical implementations. Topics of interest include: • Design, synthesis, and characterization of novel photoredox materials. • Photoredox catalysis for fine chemical synthesis and environmental or energy-related applications. • Dual or cooperative catalysis involving photoredox processes. • Integration of photoredox catalysis with flow chemistry. • Mechanistic studies and spectroscopic characterization of photoredox processes.

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