Special Issue

Semiconductor Nanocrystals as Heterogeneous Photocatalysts for Organic Transformations

Message from the Guest Editors

In the past decades, semiconductor materials were primarily developed for applications in harnessing visible light to generate electricity. Building on the success of solar cell technology, chemists have explored the potential of semiconductor nanocrystals as highly effective heterogeneous photocatalysts for a range of photocatalytic reactions. Despite significant progress in leveraging semiconductor nanocrystals for photocatalysis, the application of nanocrystals in photocatalyzed organic transformations for selective target compound synthesis remains relatively nascent. This area holds immense potential to capture the interest of chemists worldwide. The concept of utilizing an outstanding solar cell material directly for catalysis under light irradiation to produce complex organic molecules is particularly compelling. This Special Issue aims to gather high-quality original research, reviews, and perspectives focused on the application of semiconductor nanocrystal-based photocatalysts for light-induced organic transformations. Topics of interest include, but are not limited to, photocatalytic complex organic molecule synthesis, functionalization, and cooperative catalysis.

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

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