



Novel Photocatalysts for Environmental and Energy Applications 2021

Guest Editor:

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Deadline for manuscript submissions:

closed (31 May 2022)

Message from the Guest Editor

Recently, numerous photocatalyst materials have been studied for their remarkable applications in photocatalytic degradation of toxic pollutants, photocatalyst adsorbents for wastewater treatment, hydrogen production, conversion of solar energy into electric energy, and reduction of CO₂ to organic fuels (e.g., methane, methanol, formate, or carbon monoxide).

This Special Issue is dedicated to a wide range of strategies that are used due to the free availability of solar radiation and its significant benefits in terms of several applications, such as environmental remediation, synthesis of chemicals, green energy generation, and energy storage. This covers the design, preparation, and characterization of novel photocatalytic materials produced through cost-effective and fully scalable synthesis approaches with controllable dimensions and properties suitable for a wealth of applications in photocatalysis and energy. The synthesis of novel materials with a set of unique and exclusive advantages, such as high catalytic activity, impressive selectivity, long-term durability, and environmental sustainability, are of profound and immediate interest.





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Message from the Editor-in-Chief

ChemEngineering is to consolidate its position as a high-quality, open access journal that not only disseminates excellent research but also sets the agenda for future directions in chemical engineering. We will continue to highlight core areas such as catalysis, process intensification, and the circular economy, while also opening the door to emerging topics such as multi-energy systems that integrate light, heat, and electricity, etc., as well as digital tools, modelling, and artificial intelligence applied to chemical engineering.

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