

Special Issue

Photocatalytic Water Splitting and Pollutant Degradation: Recent Progress and Emerging Trends

Message from the Guest Editor

This Special Issue focuses on cutting-edge advancements in photocatalysis, with dual emphasis on (1) solar-driven hydrogen production via water splitting and (2) environmental remediation through pollutant degradation, particularly targeting emerging contaminants. By curating high-quality research and reviews, we aim to address critical challenges in designing efficient, stable, and scalable photocatalytic systems. These processes involve the use of photocatalysts to convert sunlight into chemical energy, remove pollutants, and use them. This Special Issue invites researchers from different fields to discuss the latest developments and challenges, addressing these hurdles through innovative material and photocatalyst design and synthesis, advanced characterization, process optimization, photoinduced carrier dynamics at the interfaces of photocatalysts, synergistic processes (e.g., photo-Fenton, photoelectrocatalysis), and the integration of photocatalytic systems into practical applications.

Guest Editor

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