

## Special Issue

# Development and Application of Heterogeneous Solid-State Photocatalysis

### Message from the Guest Editor

Heterogeneous solid-state photocatalysis is a field that harnesses the power of solid materials to drive photochemical reactions through light absorption. It encompasses the development, characterization, and application of solid-state photocatalysts, with a focus on environmental remediation and sustainable energy production. Solid-state photocatalysts, including semiconductors, metal oxides, and hybrid composites, efficiently absorb light and generate charge carriers for catalytic reactions. Nanomaterials, with their unique properties and high surface-area-to-volume ratios, are promising photocatalysts, advancing the field. In this context, researchers and engineers are dedicated to improving the efficiency, stability, and selectivity through strategies like doping, surface modification, and nanostructuring, pushing the boundaries to maximize catalytic performance and optimize materials for specific applications.

In this Special Issue, we invite contributions related to the synthesis and optimization of novel solid-state photocatalysts, exploring the understanding of photocatalytic mechanisms and investigating photocatalytic materials for emerging applications.

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### Guest Editor

Prof. Dr. Chunxu Pan

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### Deadline for manuscript submissions

closed (20 January 2024)



## Materials

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### Message from the Editor-in-Chief

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