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Development and Application of Heterogeneous Solid-State Photocatalysis

Guest Editor:

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Deadline for manuscript submissions:
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Message from the Guest Editor

Dear Colleagues,

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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Message from the Editor-in-Chief

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