



Development of g-C₃N₄-Based Photocatalysts: Environmental Purification and Energy Conversion

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Message from the Guest Editors

Photocatalysis is regarded as a promising environmentally friendly technology to address the energy crisis and environmental pollution due to its low energy input and carbon footprint. Graphitic carbon nitride (g-C₃N₄) is a typical organic–nonmetallic semiconductor photocatalyst, which has become a research hotspot due to its appropriate energy band gap (2.7 eV) and outstanding thermal stability and chemical stability. This Special Issue aims to collect recent advances in g-C₃N₄-based photocatalysts in energy conversion and environmental protection fields. We welcome original research, review, and perspective within the following scopes:

- The photocatalytic pollutant degradation under different water environments;
- Photocatalytic water splitting;
- Photocatalytic CO₂ reduction;
- Photothermal effect-assisted catalytic performance;
- g-C₃N₄-based S-scheme heterojunctions;
- New fabrication and modification methods of active photocatalysts;
- Widening the light response of semiconductors to the solar spectrum;
- Enhancing the utilization of photo-generated carriers;
- New analytical techniques to probe the reaction intermediates during photocatalysis.

