

Special Issue

When CO₂ Meets Photocatalysis: The Future of Sustainable Energy

Message from the Guest Editors

The massive amounts of CO₂ emissions caused by the combustion of fossil fuels pose a series of social and environmental problems. The light-driven CO₂ reduction into energy-rich chemicals, such as CO, HCOOH, CH₃OH, and CH₄, has attracted great amounts of attention considering its benefits as regards the utilization of CO₂ as a renewable and a green C1 building block, and the conversion of solar energy. This Special Issue plans to provide an overview of the most recent advances in the field of photocatalysts and their applications in CO₂ reduction areas. This Special Issue aims to publish selected contributions on advances in the synthesis, characterization, and applications of photocatalysts with regard to CO₂ reduction. Potential topics include, but are not limited to, the following:

- Heterogeneous photocatalysts;
- Composite photocatalysts;
- Mechanisms of photocatalysts;
- Photocatalytic CO₂ reduction involving C–C coupling;
- Challenges of photocatalytic CO₂ reduction;
- Future perspectives for photocatalytic CO₂.

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