Special Issue

When CO_2 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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