Topical Collection

Photocatalytic Water Splitting

Message from the Collection Editors

As a sustainable energy production method, photocatalytic water splitting has attracted considerable attention. At present, scientists are working to design more efficient and stable catalysts to improve the efficiency of photocatalytic water splitting. Recently, significant progress has been made in the introduction of new catalysts such as nanomaterials and transition metal compounds, which not only increase the photocatalysis reaction rate but also enhance the light absorption efficiency, and these innovations will further promote the practical application of photocatalytic water splitting technology. This Special Issue aims to bring together the latest research in the field of photocatalytic water splitting, including, but not limited to the following:

- Photocatalytic H2 evolution;
- Photothermal effect-assisted photocatalysis for water splitting;
- 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;
- Effect on reaction kinetics during photocatalytic water splitting process.

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