

## Special Issue

# Advances in Water-Splitting Activity of Highly Efficient Cocatalyst/Photocatalyst Composites

### Message from the Guest Editor

The development of highly efficient photocatalytic water splitting through an advanced cocatalyst and photocatalyst system has attracted considerable interest. First, the photocatalysts should possess a band gap to match not only an efficient light absorption wavelength but also suitable conduction band and valence band levels for water-splitting redox reactions. Then, loading cocatalysts on to the surface of a photocatalyst to provide active sites accelerates the photocatalytic reaction and consequently improves the efficiency of overall water splitting. It should be emphasized that the processes of charge separation and surface catalytic reactions are synergistically correlated. In addition, the heterostructures, nanostructures, and nanosheets of photocatalysts can improve light absorption characteristics and shorten electron and hole migration paths to the surface of photocatalysts. This Special Issue aims to cover the most recent progress and the advances in the field of cocatalyst and photocatalyst composites.

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### Guest Editor

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### Deadline for manuscript submissions

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