

Special Issue

Direct Z-Scheme Photocatalysts

Message from the Guest Editors

This Special Issue on “Direct Z-Scheme photocatalysts” (DZSP) is devoted to the latest progress and developments in the field of heterostructured nanoparticles and thin films, particularly for the processes of visible light energy conversion to chemical bonds inspired by artificial photosynthesis. Works on measurement techniques providing insight to the mechanisms of investigated photoprocesses are encouraged, too. A true Z-scheme mechanism shall be demonstrated and verified. Reports on applications of DZSPs for conversion and storage of energy into chemical bonds utilizing visible (solar) light will be highly appreciated. Synthesis strategies for heterostructure photocatalysts; Theoretical and experimental investigations of mechanisms of photoprocesses; Characterization techniques suitable for studies in DZSP; Extension of the photocatalytic activity to the visible light region; Application of advanced oxidation processes (AOP); Hydrogen production, fuel generation; CO₂ reduction, N₂ photofixation.

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