



Semiconductor Photocatalysts

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Message from the Guest Editors

Photocatalysts based on semiconductors are a rapidly progressing field of catalytic science, attracting a large number of chemists and physicists from all around the world. Although semiconductor materials have recently gained enormous interest in photocatalysis, more heterostructures with p–i–n-structure-based semiconductors are still rare in this field, especially for photocatalysts of CO₂, H₂O, H₂, and N₂. Under the great pressure of environmental pollution and the ongoing energy crisis, the development of low-cost devices based on semiconductors is vital to decompose water into hydrogen and oxygen, carbon dioxide into carbon and oxygen, and to obtain ammonia, decomposing nitrogen and hydrogen. Here, we focus on the works of heterostructures with the p–i–n structure for this Special Issue on Semiconductor Photocatalysts.

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