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Plasmonic Photocatalysts

Guest Editor:

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Message from the Guest Editor

Although desirable photoabsorption properties of plasmonic photocatalysts can be easily achieved by preparation of nanoparticles of different sizes and shapes, their photocatalytic activities are still low and must be improved for commercial usage. Therefore, various studies have been performed to get stable and highly active materials. Moreover, the mechanism of plasmonic photocatalysis has not been clarified yet, i.e., charge versus energy transfer. It is thought that the mechanism depends directly on the morphology of plasmonic photocatalysts and reaction conditions.

Despite the novelty and unclear mechanism, plasmonic photocatalysts have already proved to be highly efficient for environmental purification, solar energy conversion and synthesis of organic compounds. Therefore, it is believed that plasmonic photocatalysts have the potential to be efficient solar photocatalysts for commercial application.

This Special Issue of *Catalysts* will be a collaborative effort to combine current research on plasmonic photocatalysis. Contributions on photocatalyst preparation and characterization, reaction mechanism, theoretical modeling and applications are all welcome.



