Special Issue

Defects in Photocatalysis and Advanced Oxidation

Message from the Guest Editor

Photocatalysis and advanced oxidation are considered important technologies for solving global energy and environmental problems, but the easy recombination of photogenerated carriers and low thermodynamic and kinetic factors limit the development and application of advanced oxidation technologies such as photocatalysis. An appropriate amount of surface defects can lead to significant electron delocalization, which can enhance the transport of charge carriers along the defect conductive channel to participate in water splitting and free radical generation reactions, as well as improve the adsorption and activation of water and organic molecules on the catalyst surface. Therefore, defects have great potential in photocatalysis and advanced oxidation.

Guest Editor

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