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Semiconductor Photocatalysis and Quantum Dots Photocatalysis

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Message from the Guest Editor

Dear Colleagues,

Photocatalysis is a green technology that has been widely applied in the fields of environmental remediation, particularly to treat water and air pollutants. Different kinds of novel semiconductors have attracted widespread interest for photocatalytic applications due to modifications in various properties and parameters. In recent years, quantum dots (QDs) have demonstrated revolutionary and positive research outcomes to treat environmental pollutants. QDs have attracted significant attention due to their exceptional photocatalytic activity resulting from their tiny particle size. Moreover, the surface properties of semiconductor QDs hinder aggregation and improve the photocatalytic activity. QDs are highly favorable for integration with different kinds of other dimensional nanomaterials from 1D to 3D, for the enhancement of photocatalytic performance. Submissions to this Special Issue are welcome in the form of original research papers or short reviews that reflect state-of-the-art research on this important subject in the following topics: new synthesis methods of QDs, combinations of QDs with other 1D to 3D nanomaterials, and modification and doping of QDs.



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Special Issue