Special Issue

Advanced Materials for Photocatalytic and Photoelectrocatalytic Water-Splitting

Message from the Guest Editor

This Special Issue focuses on recent advances in materials design for photocatalytic and photoelectrocatalytic water splitting. Emphasis is placed on novel semiconductors, hybrid composites, and heterostructures that enhance light absorption, charge separation, and catalytic efficiency. Potential topics include synthesis strategies, mechanistic insights, and the performance optimization of materials for hydrogen and oxygen evolution reactions. Contributions addressing solar-to-hydrogen conversion, band engineering, and innovative catalyst-support architectures are encouraged, as well as those promoting sustainable energy solutions through next-generation water-splitting technologies.

Guest Editor

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Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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