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Atomic Catalyst for Photoreduction and Electroreduction

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Message from the Guest Editors

Dear Colleagues,

As the frontier in the field of catalysis, atomic catalysts (ACs) have attracted great attention due to their prominent advantages in high atomic utilization efficiency, outstanding activity, and selectivity, as compared to their bulk counterparts. The amount of studies on ACs has increased exponentially, reflecting the current boom in interest regarding this hot topic. To date, the developed ACs mainly include single-atom catalysts, atomic thickness materials, and nanoclusters, although, due to their distinct physical and chemical properties, they have been proved to be capable of promoting various catalytic reactions for energy conversion and storage, photoreduction, and electroreduction reactions driven by renewable energy sources particularly representing attractive approaches for converting useless molecules into valuable chemicals.

As such, there is definitely plenty of interesting work to conduct and experiences to share to continue the development of efficient ACs toward photoreduction and electroreduction.

For detailed information please see the Special Issue Webpage.

Dr. Xijun Liu
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Guest Editors



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Special Issue



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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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