Special Issue

Advanced Functional Nanomaterials for Energy Conversion and Storage

Message from the Guest Editors

Energy plays crucial roles in the development of our economy and society. Fossil fuels consisting of coal, crude oil and natural gas were the major energy supply in the past decades. However, the consumption of fossil fuels also brought severe environmental pollution problems. Hence, researches on clean energy conversion and storage are becoming more and more attractive. Nanomaterials with unique mechanical, electrical, and optical properties are good candidates in this domain and have shown distinct advantages in energy-related applications. In this Special Issue, we aim to report the current progress on the preparation and utilization of nanomaterials for energy related applications. Original research articles or reviews that are related to novel nanomaterial synthesis, characterization, and the applications in sustainable energy-related thermal-, electro- and photocatalysis (e.g. carbon dioxide conversion, hydrogen evolution reaction, oxygen evolution reaction, and oxygen reduction reaction etc.) as well as electrochemical energy storage (e.g., Li-ion batteries and super-capacitors, Na-ion batteries, Zn-air batteries etc.) are welcome.

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As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th 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 multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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