Special Issue

Research and Application of Hydrogen Energy Materials

Message from the Guest Editor

Hydrogen is emerging as a new energy source beyond its traditional role and is gaining global recognition as a potential fuel pathway due to its advantages over synthetic carbon-based fuels. Unlike these fuels, hydrogen can be truly carbon neutral or even negative on a life cycle basis, making it an appealing option for reducing environmental impact. Hydrogen can be generated from various sources, including fossil fuels, biomass, and renewable energy such as solar and wind power through methods such as water electrolysis and steam reforming. We invite original research articles and review articles related to the design, preparation, application, and analysis of materials for hydrogen energy. Specifically addressing electrolyte materials, catalyst materials, hydrogen storage materials, membrane materials, structural materials, semiconductor materials, etc., research on these materials aims to improve their efficiency, durability, cost-effectiveness, and safety for the widespread adoption of hydrogen as a clean energy source.

Guest Editor

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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