Special Issue

Recent Advances in New Energy Electrolytic Hydrogen Production

Message from the Guest Editors

This Special Issue focuses on cutting-edge developments in the field of hydrogen production through electrolysis, as driven by renewable energy sources. As the global energy landscape shifts towards sustainable and low-carbon technologies, electrolytic hydrogen production stands out as a crucial component for achieving carbon neutrality. This Special Issue will bring together the latest research on innovative electrolytic processes, advanced materials, and system integration techniques that enhance efficiency, reduce costs, and improve the scalability of hydrogen production. Relevant topics include novel electrode and catalyst designs, the integration of renewable energy sources like wind and solar with electrolysis systems; advancements in electrolysis technologies such as PEM, AEM, and solid oxide electrolyzers; and challenges related to grid integration, energy management, and hydrogen storage. By presenting these advances, this Special Issue will contribute to the acceleration of green hydrogen adoption, supporting the transition to a sustainable energy future.

- electrolytic hydrogen production
- renewable energy
- converter
- electrolyzer
- coordinative control

Guest Editors

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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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