

Special Issue

Electrocatalytic Energy and Resource Conversion

Message from the Guest Editors

The use of electricity powered by renewable energy is a promising method to produce fuels and chemicals of global importance while reducing carbon dioxide emissions. For example, the electrochemical conversion of atmospheric molecules (e.g., oxygen, water, carbon dioxide, and nitrogen) into higher-value fuels/chemicals (e.g., hydrogen peroxide, hydrogen, hydrocarbons, oxygenates, and ammonia) by coupling renewable energy is now an appealing concept; it will possibly revolutionize traditional chemical production processes. Electricity conversion is a highly interdisciplinary research area, from materials science, chemical engineering, and equipment technology to theoretical modeling, etc. Therefore, this Special Issue aims to present and disseminate the most recent advancements related to the title, “Electrocatalytic Energy and Resource Conversion”. Topics of interest for publication include, but are not limited to:

- Electrocatalysis;
- Electrosynthesis;
- Electrochemical reactor design;
- Catalysts;
- Electrochemical interface;
- Fuel cell;
- Flow cell;
- Characterization techniques for energy materials;
- Computational simulations of electrochemical reaction mechanism.

Guest Editors

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About the Journal

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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