



Electrocatalytic Energy and Resource Conversion

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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.





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Message from the Editor-in-Chief

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