



Advanced Materials for Efficient Electrocatalytic Applications

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Message from the Guest Editors

The growing demand for energy, over-consumption of limited fossil fuel as well as their associated negative environmental impacts have driven researchers to delve into green and sustainable energy systems, such as water electrolyzers, fuel cells and metal–air batteries. Electrochemical reactions, such as hydrogen evolution reaction (HER), oxygen evolution reaction (OER), oxygen reduction reaction (ORR), carbon dioxide reduction reaction (CO₂RR) and nitrogen reduction reaction (NRR), are of great importance to energy-related technologies. Therefore, the synthesis, characterization, and electrocatalytic applications of advanced materials in energy conversion techniques, including noble-metal and non-noble-metal materials, will be further explored. This Special Issue will focus on, but is not limited to, developments and applications of advanced materials for: hydrogen evolution, oxygen evolution, water splitting, oxygen reduction, hydrozine oxidation, CO₂ reduction reaction, nitrogen reduction reaction, metal–air batteries, fuel cells and other renewable energy devices.





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Message from the Editor-in-Chief

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