

Special Issue

Bifunctional Oxygen Electrocatalysts

Message from the Guest Editor

The increasing demand for the clean forms of energy has motivated researchers to search for new sustainable energy resources and the corresponding energy conversion and storage devices, such as electrolyzers, fuel cells, and metal–air batteries. Hence, developing efficient bifunctional (oxygen evolution reaction and oxygen reduction reaction) electrocatalysts is vital to the new generation of electrochemical energy storage and conversion devices, including metal–air batteries. Efforts have also to be made to develop of bifunctional catalysts based on both noble and non-noble metals with low cost and high activity and stability. In the pursuit of efficient bifunctional oxygen electrocatalysts, both experimental and theoretical calculations have important roles to play in the rational design and analysis of electrocatalysts as well as their performance, including reaction mechanisms both in alkali and acidic media for the OER/ORR reactions. The utilization of any of the above phenomena in oxygen electrocatalysts is of interest to this Special Issue, and such contributions are invited.

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