Special Issue

Hybrid Materials for Oxygen Electrocatalysis

Message from the Guest Editor

The increase concern in climate change resulting from the use of fossil fuels, has led to researchers over the world to search for sustainable energy conversion and storage technologies, such as metal-air batteries. polymer electrolyte water electrolyzers and polymer electrolyte fuel cells, is of great importance. The oxygen reduction reaction (ORR) and oxygen evolution reaction (OER) are the key processes that drive these technologies. However, both suffer from complex multielectron transfer steps. Currently, expensive noble metals such as Ir, Ru (for OER) and Pt (for ORR) are applied as electrocatalysts, making their large-scale implementation extremely challenging. This Special Issue of Catalysts on "Hybrid Materials for Oxygen Electrocatalysis" is devoted to new materials for oxygen electrocatalysis, with a special focus on hybrid materials and advanced new methods, including in situ and operando techniques, which can lead to a better understanding of structure-performance relationships. It is therefore my pleasure to invite you to contribute to this Special Issue with your research article, communication, or review.

Guest Editor

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