

Evaluation of Perovskites as Robust Electrocatalysts for the Oxygen Evolution Reaction in Alkaline Media

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Abstract

Global warming is the important issue. There are many technologies applied to overcome the problem. The electrochemical water splitting is one of the promising routes for renewable energy generation. As a half reaction of water splitting, the oxygen evolution reaction (OER) is also an important process in the technologies. OER is a multistep electron-proton transfer coupled reaction. Therefore, the OER process has been extensively studied and many novel designs has been developing for enhance to increase the reaction rate and decrease the over potential. Recently, many perovskite transition-metal oxides (ABO_3) have been developed. Herein, we design the crystal structural and compositional parameters that enhance the OER activity.

Keywords – Catalysts, Perovskites, Oxygen Evolution Reaction

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