



Electrocatalysis and Electrode Materials for Energy Production

Guest Editors:

Dr. Vignesh Kumaravel

Department of Environmental
Science, School of Science,
Institute of Technology Sligo, Ash
Lane, F91 YW50 Sligo, Ireland

Prof. Dr. Misook Kang

Department of Chemistry,
College of Natural Sciences,
Yeungnam University,
Gyeongsan, Gyeongbuk 38541,
Korea

Deadline for manuscript
submissions:

closed (10 November 2021)

Message from the Guest Editors

In recent years, global warming has been realized in various aspects and non-fossil-fuel energy sectors are highly demanded. Electrocatalysis is one of the most attractive technologies to develop a sustainable infrastructure with clean energy. Recently, two/three-dimensional (2D/3D) materials, metal–organic frameworks (MOF), carbonaceous materials, core–shell nanoparticles, bioelectrodes, and molecular catalysts have been widely investigated. Moreover, a lot of theoretical studies have also been executed by density functional theory (DFT) calculations and molecular dynamics. The commercialization of various electrocatalytic technologies has also been focused on to address future energy demands.

We are pleased to invite submissions that reflect the theoretical/experimental aspects of novel electrode materials for hydrogen evolution reaction (HER), oxygen evolution reaction (OER), oxygen reduction reaction (ORR), carbon dioxide (CO₂) conversion, and other energy storage applications. This Special Issue also welcomes manuscripts on theoretical insights, latest achievements, challenges, and future opportunities of novel electrode materials for energy production/storage.

