Special Issue

Advances in Sustainable Electrocatalytic Processes using Carbon and Metal Oxide Nanomaterials

Message from the Guest Editors

Electrocatalysis deals with the catalysis of redox reactions and plays a key role in a proposed human-made sustainable future.The field of electrocatalysis has grown notably, mainly driven by the urgent need for advanced catalytic materials in several research fields, namely corrosion science, electroanalytical sensors, wastewater treatment, and mainly electrochemical energy conversion and storage technologies and electrosynthesis. Some electrocatalytic processes have a prominent position today considering the future switch to a carbon□neutral economy, as is the case with hydrogen evolution, oxygen evolution and oxygen reduction reactions, CO2 and nitrogen electroreduction, and biomass upgrading. This Special Issue aims to cover the latest advances in electrocatalytic-related applications, including the preparation and characterization of promising electrocatalysts, evaluation of their performances, and theoretical studies about the electrocatalytic mechanisms involved.

Guest Editors

Dr. Marta Susete da Silva Nunes

Dr. Diana M. Fernandes

Dr. Mariana Rocha

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
catalysts@mdpi.com

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Prof. Dr. Keith Hohn
Carl R. Ice College of Engineering, Kansas State University, Manhattan, KS, USA

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