

Special Issue

Catalytic and Electrocatalytic Applications of Nanomaterials

Message from the Guest Editors

The unusual size-/surface-dependent properties of nanomaterials open up new frontiers in materials science, allowing to design advanced catalysts and electrocatalysts. Several strategies are currently considered to improve catalytic activity, such as support change, morphology, size control or alloy catalysts, which modify chemical binding of reactive intermediates on the catalyst surface. Chemical functionality can also alter electronic structures to optimize the coordination environment of the active centers in the catalysts and improve the intermediate adsorption/desorption on the interface. The main focus of this Special Issue is to cover recent progress and trends in designing, synthesizing, characterizing, and evaluating advanced nanomaterials to generate catalysts and electrocatalysts for sustainable applications.

Guest Editors

Dr. Maria Victoria Martínez Huerta

Institute of Catalysis and Petrochemistry, Spanish National Research Council (CSIC), Madrid, Spain

Dr. María Olga Guerrero-Pérez

Departamento de Ingeniería Química, Universidad de Málaga, 29016 Málaga, Spain

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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
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