Special Issue

Advanced Understanding of Metal Nanoparticles in Catalysts

Message from the Guest Editor

Catalysis plays a key role in the energy transition, where decarbonization of the energetic sector, the integration of renewable energies, and the introduction of new production processes, such as electrocatalytic processes, are strongly required. However, the complexity of catalysts and the lack of knowledge of active sites, represent the main obstacles to the deployment of these technologies. In recent years, research has shown that during reactions, catalysts can face a series of such as restructuring phenomena, morphological modifications, and/or metal-support interaction effects. These have opened a range of research opportunities, focused on achieving a better understanding of catalytic systems.

This Special Issue has the objective of encompassing relevant studies in the field of catalysis, with special emphasis on metallic nanoparticles and the role they play during the reaction. The goal is to promote current knowledge about metal nanoparticles and about new techniques that can contribute to the state of the art of the discipline and future applications. See more information at https://www.mdpi.com/si/163361 Dr. Patricia Concepción

Guest Editor

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones
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