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Application of New Nanoparticle Structures as Catalysts

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Message from the Guest Editors

Dear Colleagues,

Catalysts are made of nanoparticles of metals, metal oxides, and other compounds that may act as active phases, support the latter, or a combination of both. Nowadays, the interest in nanocatalyst developments has shifted to an emphasis on improving the selectivity of catalysts, allowing one to obtain desirable reactions in more complex synthetic processes. Thus, new generations of nanocatalysts should be designed at the molecular level to display well-defined structural characteristics, in terms of size, shapes, hierarchical porosity, and morphologies, as well as with controlled chemical composition.

This Special Issue welcomes contributions dealing with the design, characterization, and application of new nanocatalysts for relevant challenging processes, such as those specially developed to enable the insertion of new energy resources, or those related to the sustainable synthesis of chemicals.



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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.

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