Special Issue

Nanocatalysis-Experimental Investigations and Computational Simulations

Message from the Guest Editor

It is well known that nanotechnology is a rapidly developing, yet relatively young, discipline. Nanomaterials exhibit unique and extraordinary properties, warranting their development for potential widespread applications. Among these, one may conceptually distinguish the performance of catalytic reactions caused by a relatively high amount of unsaturated chemical bonds on the surfaces of nanomaterials from others. This opens a new perspective in catalysis, which is important in term of solving many real-life problems such as environmental pollution and the synthesis of chemicals of industrial importance. Nanocatalytsts and nanocatalytic processes may be investigated both experimentally and computationally, and studies merging both approaches are of special value. This Special Issue welcomes novel reports and reviews concerning both experimental and computational investigations in the field of nanocatalysis.

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.

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