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Advances in Heterocatalysis by Nanomaterials

Guest Editors:

Prof. Dr. Ioannis V. Yentekakis

Physical Chemistry and Chemical Processes Laboratory, School of Environmental Engineering, Technical University of Crete (TUC), 73100 Chania, Crete, Greece

Prof. Dr. Wei Chu

Key Laboratory of Green Chemistry and Technology of Ministry of Education (MOE), College of Chemical Engineering, Sichuan University, Chengdu 610065, China

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Message from the Guest Editors

Heterogeneous catalysis played, and will continue to play, a major key role in industrial processes for large-scale synthesis of commodity chemicals of global importance, and in catalytic systems that possess a critical role in energy generation and environmental protection approaches. Numerous eco-friendly and cost-efficient applications of heterogeneous catalysis involve, for example, De-NO_x, De-N₂O and VOCs emission control systems, waste treatment, photocatalytic, bio-refinery, CO₂ utilization and fuel cells applications, as well as hydrocarbon processing for H₂, added-value chemicals and liquid fuels production, among many others. The Special Issue aims to cover current experimental and/or computational (e.g., DFT calculations) studies, in the field of heterogeneous catalysis by nanomaterials. Advanced synthesis routes, characterizations, activity/stability evaluation and fundamental understanding of structure-activity relationships or possible metal-metal and metal-support interactions under desired reactions, are very welcome.



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Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science,
University of Birmingham,
Birmingham B15 2TT, UK

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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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Nanomaterials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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