Special Issue

Recent Advancements in Mesoporous Nanomaterials: Synthesis, Characterization and Catalytic Applications (2nd Edition)

Message from the Guest Editor

This Special Issue will focus on recent advancements in the following mesoporous nanomaterials: synthesis, characterization, and catalytic applications. A special emphasis will be given to new mesoporous nanomaterials, such as modified oxide supports, metal-incorporated oxide supports, transition metals oxides, composites, and hybrid materials. A variety of novel synthetic strategies, advanced characterization techniques, and new catalytically active species that may modify and justify the activity and selectivity of mesoporous oxides in catalytic reactions of interest performed in either the gas or liquid phase can be directions of interest. The addition of some synergistic components on mesoporous supports (mixed oxides, composite, or hybrid materials) is desirable to accurately tune the interactions with the local environment, leading to improved catalytic performance. The interaction between active sites and support with their electronic structure modulation, as well as a significant promoting effect on the activity and selectivity can be another topic of interest that can be approached, along with others.

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

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