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Nanostructured Mesoporous and Zeolite-Based Materials

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Deadline for manuscript
submissions:

closed (20 November 2023)

Message from the Guest Editors

The unique properties of mesoporous and zeolite-based nanomaterials predetermine their wide range of applications, from catalytic and adsorption processes to the development of new drug delivery systems. Modified mesoporous silicas, nanosized metal oxides, and hierarchical zeolites are successfully applied in the processes for environmental protection, such as VOCs oxidation and water purification, biomass valorization, and CO₂ capture and utilization. The development of new nanostructured materials requires the application of a complex of routine and advanced physicochemical methods for their design.

This Special Issue aims to provide a forum for recent achievements in the synthesis and application of new nanomaterials. Experimental and theoretical studies on structure elucidation, adsorption, and catalytic processes in the presence of nanomaterials will be published.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following: synthesis, modification, and computational modeling of mesoporous silicas, nanosized metal oxides, zeolites, and their application.



mdpi.com/si/109483

Special Issue



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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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