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Application of Porous Nanomaterials in Energy Storage and Catalysis

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Deadline for manuscript submissions:

closed (20 January 2024)

Message from the Guest Editors

This Special Issue aims to present the latest experimental and theoretical developments in the synthesis of advanced porous materials and their application in energy storage, sorption, and catalysis. Authors are invited to submit their latest results; original research papers and reviews are welcome. Topics of interest include but are not limited to:

Developing chemical and physical methods to produce inorganic, organic, and hybrid organic/inorganic porous materials, including materials with hierarchical porous structure, ordered structure (zeolites, MCM-41, SBA-15, MOFs, 3DOM, etc.), materials with biomimetic structure or biomass-derived materials, carbon materials, etc.

Application of porous materials for sorption and catalysis, including environmental applications and processes combined with heat and/or energy storage or generation.

Promising porous materials for catalysis and energy storage; monoliths and granulated materials, hierarchical materials, composites, including hybrid materials and salts in matrices, MOFs, 3DOM, etc.

Methods to obtain promising nanostructured and composite porous materials.



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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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