Special Issue

Meso-/Nanoporous Materials for Catalytic Applications

Message from the Guest Editors

Meso-/nanoporous materials (including zeolites, MOF, COF, ZIF, polymers, etc.) have been widely used as catalysts. The exceptional catalytic performances of these materials are closely related to their well-defined pore structure, tunable acid–base property and high thermal and chemical stability, which can be controllably regulated by altering the crystallization conditions and synthesis parameters. In addition, the large surface area and regular pore structure of meso-/nanoporous materials are conducive to promoting the high dispersion of metal sites and improving the resistance of metal sites to sintering and agglomeration through strong metal–support interactions. All these advantages mean that meso-/nanoporous materials play an increasingly important role in not only the traditional petrochemical and coal chemistry industry, but also in biomass conversion, fuel cell and renewable energy storage. This Special Issue aims to present the recent progress in the synthesis, characterization and catalytic applications of meso-/nanoporous materials. Original research articles (full papers and communications) and reviews are welcome.

Guest Editors

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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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