



Journal of Nanomaterials

Special Issue on

Mesoporous Materials for Emerging Applications

CALL FOR PAPERS

Porous materials are the materials that have pores in them and they can be categorized in three categories depending on the porous material morphology ranges from spongy microporous (pore size < 2 nm) and mesoporous (pore size 2–50 nm) to the classical macroporous (pore size 50 nm–20 μ m) materials. Many natural substances (e.g., rocks, soil, zeolites, biological tissues, and manmade materials such as porous silicon, porous alumina, cements, and ceramics) can be considered as porous media. A lot of research is being done because of both fundamental importance and the rapid growing emerging applications such as biosensor, drug delivery, gas separation and filtration, energy storage, fuel cell technology, nanocatalysis, microelectronic devices, and photonics. They also offer new opportunities in studying basic phenomena (e.g., capillary condensation, transport mechanism, guest-host chemistry and synthesis, molecular manipulations and reaction in the nanoscale for making nanoparticles, nanowires, and other quantum nanostructures). The emerging applications offer exciting new research opportunities for scientists to develop new strategies and techniques for the synthesis and applications of these materials.

In this special issue, we invite researchers and authors to submit original research and review articles on exploring interdisciplinary coverage of mesoporous materials that bring together the work of chemists, physicist, materials scientists, ceramists, biologists, and electronic engineers.

Potential topics include, but are not limited to:

- ▶ Gas sensor based on mesoporous materials
- ▶ Chemical separations and isolation media using nanoporous materials
- ▶ Transport mechanism in porous materials
- ▶ Confinement of materials in porous membrane
- ▶ Energy transfer process in host-guest systems
- ▶ Nanostructures material synthesis using porous materials
- ▶ Nanoporous metal-organic frameworks

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jnm/mpm/>.

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