

Special Issue

Advances in Nanostructured Catalysts

Message from the Guest Editor

For the past few decades, nanostructured catalysts have seen rapid development in energy-based technologies and an increasing demand for sustainable fuel production and utilization. Interestingly, the nanostructure of catalysts with a designed shape, pore, modified surface, and so on affects various steps for catalytic reaction pathways, including adsorption, desorption, diffusion, separation, charge transfer, and so on. Therefore, nanostructured materials find important applications in all catalysis. This Special Issue will focus on state-of-the-art catalysis with an emphasis on contributions on nanostructures. For example, a research topic to be covered in this Special Issue is new technologies or novel approaches to prepare nanostructured materials, both experimentally and theoretically. Furthermore, applications in catalysis using nanostructured materials will be covered. The potential applications include energy storage, including supercapacitors, batteries, and flow batteries, energy conversion, including fuel cells and solar cells, sustainable fuel production via (photo)electrolysis, and other catalytic processes.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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