



Design and Synthesis of Nanostructured Materials for Catalytic Applications

Guest Editor:

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submissions:

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Message from the Guest Editor

Dear Colleagues,

The design and systematic synthesis of various nanostructured materials have afforded new opportunities in many applications, including catalysis, optics, energies and even healthcare. The catalytic opportunities for nanostructured materials are the focus of this Special Issue, which aims to cover the design of various nanostructured materials, such as metal nanoparticles, nanoporous crystals (i.e., metal oxides, zeolites, and metal–organic frameworks), and nanoporous carbons, for application in heterogeneous catalysis to control chemical reactions. We welcome the submission of communications, original research papers, and reviews on the following, or related, topics:

- developments in the design and synthesis of nanostructured catalytic materials;
- control of the size, shape, and components of metal nanoparticles for catalytic applications;
- synthesis of crystalline nanoporous materials;
- nanostructured materials for heterogeneous catalysis, including thermochemical, electrochemical, and photochemical reactions; and
- theoretical studies on the design of nanostructured materials and prediction of their abilities.





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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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