



Synthesis of Nanocomposites and Catalysis Applications

Guest Editor:

Dr. Evgeny Gerasimov

1. Boreskov Institute of Catalysis,
Novosibirsk 630090, Russia
2. Physical Department,
Novosibirsk State University,
Novosibirsk 630090, Russia

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Message from the Guest Editor

Dear Colleagues,

Catalytic technologies are required in various industries. Catalysts are involved in 70–80% of all chemical processes. To create new approaches in the synthesis of catalysts, it is necessary to understand the structure of effective centers, methods of regeneration, how to increase thermal stability, etc. One of the possibilities to significantly improve the characteristics of catalytic systems is to reduce the size of their components. The growing interest in nanostructured systems stimulated a significant surge in the activity of studying their structure. The most important characteristics affecting the physical and chemical properties of nanocomposites are the size, shape of the nanoparticles, their mutual orientation, etc.

This Special Issue of *Nanomaterials* “Synthesis of Nanocomposites and Catalysis Applications” will focus not only on the features of nanocomposite synthesis but also on methods for the characterization of material structure, the relationship between chemical structure and catalytic properties, and possible avenues for catalyst regeneration or decomposition.

Dr. Evgeny Yu. Gerasimov
Guest Editor





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Editor-in-Chief

Prof. Dr. Shirley Chiang

Department of Physics, University
of California Davis, One Shields
Avenue, Davis, CA 95616-5270,
USA

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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Nanomaterials Editorial Office
MDPI, St. Alban-Anlage 66
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