

Special Issue

Fabrication and Applications of Nanomaterials Facilitated by Freeze-Drying/Ice Templating

Message from the Guest Editor

Ice templating is a versatile technique via which porous materials, nanofibers, nanoparticles, and nanocomposite materials can be prepared. The ice template is commonly removed via a freeze-drying process, which has also been extensively employed when dealing with thermal-labile molecules and materials (particularly proteins and biological therapeutics). Its efficacy has also been proven in the process of reducing material shrinkage/structural collapse and enhancing nanoporosity and pore connectivity. This Special Issue focuses on the utilization of ice templating/freezing drying for the preparation and application of various types of nanomaterials. We welcome the submission of manuscripts that employ ice templating/freezing drying and attend to the following topics: the preparation of nanofibers, nanoparticles, nanoporous materials, and nanocomposites; enhanced nanoporosity; enhanced properties and applications with nanosized features; and the utilization of nanomaterials in functional/advanced materials and applications.

Guest Editor

Dr. Haifei Zhang

Department of Chemistry, University of Liverpool, Liverpool, UK

Deadline for manuscript submissions

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Nanomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
nanomaterials@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of
Birmingham, Birmingham B15 2TT, UK

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