Special Issue

Functional Micro-/Nanostructures: Advanced Fabrication and Application

Message from the Guest Editors

Micro/nanofunctional structures have shown promising applications in many fields, such as energy, catalysis, the environment, optoelectronics, and microelectromechanical systems (MEMS), due to their excellent physicochemical properties. In the past few decades, intensive efforts have been devoted to developing micro-/nanofunctional structures from 0D to 3D, which feature a superior surface-to-volume ratio, extraordinary electronic properties, and intriguing electrochemical activity. This Special Issue aims to present recent progress in novel micro-/nanostructure design, fabrication, advanced characterization techniques, and functional device applications. The format of articles includes full papers, communications, and reviews. Potential topics include but are not limited to:

- Design and processing of novel micro/nanofunctional structures;
- Advanced characterization of micro/nanofunctional structures;
- Electrochemical energy conversion and storage applications;
- Multifunctional optoelectronic device applications;
- Environmental catalysis applications;
- Microelectromechanical system applications;
- Highly efficient electromagnetic shielding applications.

Guest Editors

Dr. Guanhua Zhang

College of Mechanical and Vehicle Engineering, Hunan University, Changsha 410082, China

Dr. Peng Cao

Department of Chemical and Materials Engineering, University of Auckland, Private Bag 92019, Auckland 1142, New Zealand

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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 nanometerscale 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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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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