

Special Issue

Development of Innovative Devices Using New-Emerging Nanotechnologies

Message from the Guest Editor

We are pleased to present a new edition of our previous Special Issue, which was entitled “Development of Innovative Devices Using New-Emerging Nanotechnologies”. The constant downscaling of nanoelectronic and optoelectronic technologies drives the need for scientific breakthroughs in novel nanodevices. Advancing this field requires not only the design of next-generation devices but also the development of optimized fabrication processes to achieve complex material architectures with tailored properties and reliability. This Special Issue aims to focus on, but is not limited to, the exploration of the mechanism of interface effects, charge transport, and optical processes in these nanoelectronic devices, as well as further improvements in the electrical performance of these devices via material and device design and fabrication process optimization. We aim to present developments in the current state-of-the-art nanodevices. We invite authors from leading groups in the field to submit their original research and review articles focused on the current progress made within nanotechnologies.

Guest Editor

Prof. Dr. Tongbiao Wang

School of Physics and Materials Science, Nanchang University,
Nanchang, China

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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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