Special Issue

Nanostructured Electronic Components and Devices

Message from the Guest Editor

Nanostructured electronic components represent the pinnacle of miniaturization, where the manipulation of matter at the nanoscale bestows electronic devices with unprecedented performance and capabilities. These components, featuring meticulously engineered nanomaterials and architectures, offer a new frontier in electronics, promising advancements that were once considered beyond our reach. The impact of nanoscale design on electronic components is profound. Nanostructured materials, such as quantum dots, nanowires, and two-dimensional materials, introduce unique properties, enabling faster and more efficient devices. Moreover, their utilization in transistors, sensors, energy storage, etc., opens doors to innovations with far-reaching consequences. From nanoelectronics to nanophotonics, interplay between nanoscience and electronics promises to shape the future of technologies such as solar cells, and this collection of papers will offer invaluable insights into the state-of-the-art developments in this exciting domain.

Guest Editor

Prof. Dr. Ming-Cheng Kao

Department of Information and Communication Engineering, Chaoyang University of Technology, Taichung, Taiwan

Deadline for manuscript submissions

closed (31 May 2024)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/189609

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

mdpi.com/journal/nanomaterials

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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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