



The Application of Nanosensors in Energy and Environment

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Information flow in the central nervous system consumes little energy; the human brain, as a typical highly integrated iontronic center processing unit enabled by nanoconfined quantum superfluid, consumes only about 12 W. From the ubiquitous Internet of Things (IoT) to highly integrated human brains, energy efficiency plays a critical role in the flow of information. Nanomaterials, nanostructures and nanointerfaces play essential roles in highly efficient energy and information flow, offering possibilities for novel sensors.

The present Special Issue of *Nanomaterials* presents the current state of the art in the use of nanomaterials, nanostructures, or nanointerfaces to generate new sensors, including approach perception sensors, gesture sensors, touch sensors, electronic tongues, self-powered sensors, etc. We also welcome work on new nanomaterials and nanostructures, for example nanofluidic materials and iontronic materials, for novel sensing technology and systems.

We invite contributions from leading groups in the field with the aim of giving a balanced view of the current state of the art in this discipline.

Prof. Dr. Di Wei
Guest Editor





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Editor-in-Chief

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

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