Special Issue

Applications of Quantum Dots

Message from the Guest Editor

Quantum-confined semiconductor nanocrystals (quantum dots) are among the most interesting and important nanomaterials due to the range of their current and potential applications. These fascinating light-emitting nanomaterials are used in optoelectronics and photonics, including solar cells, solar concentrators, light emitting diodes (LEDs), displays, photodetectors and elements for quantum computing. Quantum dots have also found very important biomedical applications, such as biosensors, biolabels, assays for biological imaging and medical diagnostics and other uses. In addition the combination of quantum dots with other nanomaterials (e.g., plasmonic nanoparticles, graphene and other 2D nanomaterials) and various polymers resulted in many new hybrid composite materials with diverse potential applications. This Special Issue will be focused on current and prospective applications of quantum dots in materials science, chemistry, physics, biology, medicine and other fields.

Guest Editor

Prof. Dr. Yurii K. Gun'ko
School of Chemistry, Trinity College Dublin, D02 PN40 Dublin 2, Ireland

Deadline for manuscript submissions

closed (31 January 2019)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/16174

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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