

Special Issue

Low-Dimensional Nanomaterials for Photonics and Optoelectronics

Message from the Guest Editor

Low dimensional materials are systems in which the electron wave function is confined at least in one of the three dimensions on the nanoscale range below approximately 100 nm. Hence, quantum size effects occur that significantly alter electronic and, consequently, optical properties. Effects and applications cover absorption, photoemission, scattering, nonlinear optics, ultrafast phenomena, photoconduction and photovoltaics, plasmonics, and lasing. This Special Issue will address all topics related to this rapidly developing field, including computational science, synthesis and preparation, optical characterization, and particularly existing and emerging applications in optical, optoelectronic, and photonic areas. Both original research and review papers are welcome for possible publication.

Guest Editor

Prof. Dr. Werner Blau

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About the Journal

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

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