

Special Issue

Creating a Light Source with Nanomaterials and Nanophotonic Strategies

Message from the Guest Editor

Lighting and display are two major applications closely related to our daily life. Using nanomaterials and nanophotonic strategies, highly efficient light sources with unique optical properties can be acquired. In this Special Issue, we invite worldwide researchers to share their experience and latest research progress in advanced optoelectronic applications, such as LEDs, lasers, and LCDs. This Special Issue focuses on but is not limited to exceptional nanomaterials of the following categories: nanocrystals, nanowires, quantum dots, and quantum wells. Insight into both fundamental physical understandings and high-performance device applications will be included. Discussions on special mechanisms, e.g., light-matter interaction, photon management, plasmonics, nonlinear absorption process, and so on, are also encouraged. Particularly, we urge more discussions on the device operational stability issues of novel materials such as perovskites, along with their high external quantum efficiencies. We sincerely hope this Special Issue will trigger more research interest in creating light sources with nanomaterials and nanophotonic strategies.

Guest Editor

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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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