Special Issue

New Trends of Nanostructured Materials for Organic Light-Emitting Diodes (OLED)

Message from the Guest Editor

Organic light-emitting diodes (OLEDs), as one of the most competitive candidates for future display and illumination technologies, are attractive due to their ability to achieve high efficiency and their lightweight design, superior color quality, wide viewing angle, ultrafast response rate, and true black color in display applications. Significant efforts have been made in the past decade to develop high-performance materials for organic luminescent materials. The breakthrough of thermally activated delayed fluorescence (TADF) materials in 2012 by Adachi and co-workers provided an alternative route to reach equally efficient OLEDs without the use of these scarce metals. The forthcoming Special Issue will present comprehensive research elucidating the advancements in utilizing nanostructures to enhance the performance of OLEDs. This encompasses the application of organic luminescent materials, optimization of OLED device's functional layer, and development of high-performance OLED designs. We cordially invite authors to contribute original research articles and review articles encompassing the current progress on employing nanomaterials in OLED technology.

Guest Editor

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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.

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