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New Insights in Low-Dimensional Optoelectronic Materials and Devices

Guest Editor:

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Message from the Guest Editor

Since the first demonstration of a semiconductor laser in the early 1960s, optoelectronic devices have been produced in their millions, pervading our everyday lives. At present, the fundamental research and applications of lowdimensional optoelectronic materials in sensing, display, lighting, and photon harvesting devices are rising, mainly because of their distinctive photophysical properties and feasible tunability induced by size, shape, composition, including heterostructures and the addition of functional groups. This Special Issue aims to showcase research articles, short reports, and review papers that give new insights into the fundamental properties of emerging low-dimensional materials and their potential applications in optoelectronic devices. This research topic spans a wide variety of subjects in materials (1D quantum dots, 2D materials, etc.), devices (photodetectors, light-emitting diodes, lasers, solar cells, etc.), and integrated systems. We are inviting both research articles and review papers that are related to this fascinating topic. Further information can be found on the Special Issue website.



