

Special Issue

Optoelectronic Devices: From Fundamental Research to Applications

Message from the Guest Editors

Optoelectronics is based on the light-matter interactions that convert photons into electrons or vice versa. As shown by the fundamental research and applications of optoelectronic materials in sensing, display, lighting and photon harvesting, optical communicating devices have made rapid progress over the past few decades, owing to the emerging classes of materials, including organic semiconductors, perovskites, and low-dimensional nanomaterials and so on. For these devices, their industrial applications have put forward higher requirements. This Special Issue aims to showcase research papers, short communications, and review articles that focus on exploring the fundamental properties of emerging optoelectronic materials and potential applications in optoelectronic devices. This research topic spans a wide variety of subjects in optoelectronic devices (photodetectors, light-emitting diodes, laser, solar cells, etc.) and integrated systems. It also focuses on the fundamental understanding of the photo-physical or chemical properties of the involved materials and light-matter interactions.

Guest Editors

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