

Special Issue

Photoluminescence: Advances and Applications

Message from the Guest Editor

Photoluminescence (PL) is a powerful phenomenon that underpins a wide range of modern technologies, including optoelectronic devices, biomedical imaging, sensing, and energy conversion. In recent years, significant advances have been made in tailoring the structural, compositional, and morphological properties of materials to achieve controlled and enhanced PL emission. Furthermore, the integration of photoluminescent materials into real-world applications –has become an active area of research, driven by the demand for sustainable and high-performance technologies. This Special Issue aims to provide a platform for showcasing state-of-the-art research on PL fundamentals, material design strategies, and application-oriented studies. Contributions may include experimental, theoretical, and computational works addressing emission mechanisms, defect engineering, energy transfer processes, and advanced characterization techniques. By gathering interdisciplinary insights, this Special Issue seeks to highlight current challenges and future opportunities in photoluminescence research and its applications.

Guest Editor

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You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

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