

Special Issue

Fluorescent Carbon Dots and Their Sensing Applications

Message from the Guest Editors

In recent years, carbon dots (CDs) have attracted considerable attention for their potential applications in photonics, lasing, photocatalysis, chemical and biological sensing, and bioimaging. CDs exhibit photochemical stability, low toxicity, and exceptional optical properties, such as high quantum yield and tunable photoluminescence. The mentioned properties and applications depend on the precursors and the synthesis process, which, in turn, govern the structure of the final products. This Special Issue will present the different aspects of CDs, namely synthesis and structural and optical properties, with a particular focus on the sensing mechanisms through fluorescence. These main topics can be addressed both experimentally and theoretically. Review articles on both optical properties and applications of CDs are also welcome. Keywords:

- carbon dots
- fluorescence
- sensing
- synthesis of carbon nanostructures
- carbon-based nanomaterials
- fluorophores

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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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