Special Issue

Applications of Carbon Dots in Biological and Environmental Sciences

Message from the Guest Editor

Carbon dots (CDs) are a relatively recent entrant of carbon-based nanoparticles with sizes typically less than 10 nanometers. They have been linked to widespread interest and found diverse applications in biological and environmental sciences due to their exceptional optical, chemical, and biocompatible properties. This Special Issue aims to showcase the current state-of-the-art applications of CDs in biological and environmental sciences. We welcome interdisciplinary research that bridges nanotechnology, medicine, and environmental sustainability. Contributions may focus on, but are not limited to, areas such as bioimaging, biosensing, drug delivery, photodynamic therapy, pollutant detection, water purification, and photocatalysis for waste remediation. Submissions exploring recent advancements in the sustainable synthesis of CDs from green precursors, as well as studies on doped CDs and their enhanced functionalities, are highly encouraged.

Guest Editor

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Deadline for manuscript submissions

closed (30 July 2025)



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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 nanometerscale 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.

Editor-in-Chief

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