



Biological and Biomedical Applications of Graphene-Based Materials

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Deadline for manuscript
submissions:

closed (30 September 2024)

Message from the Guest Editor

Dear Colleagues,

Graphene, a single layer of carbon atoms in a closely packed honeycomb two-dimensional structure, is a new kind of carbon nanostructure material that was first produced in 2004. It has been widely utilized in various applications, with a rapidly growing presence in the biomedical field. Recent years have seen a significant increase in graphene-based biomedical research, owing to their captivating physical and chemical properties. The remarkable versatility of graphene-based nanomaterials, allowing conjugation with a variety of active compounds and biological entities, makes them highly desirable for advanced biotechnological applications. Graphene derivatives are designed for drug and gene delivery and antibacterial scaffolds for human stem cell growth. Moreover, graphene's capability to confine light enables the development of ultrasensitive biosensors and can be utilized for therapeutic and imaging purposes. Given its versatility across biomedical disciplines, this Special Issue aims to showcase promising areas and identify future challenges.





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Message from the Editor-in-Chief

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