

## Special Issue

# The Design of Advanced Functional Nanomaterials via Carbon-Based Precursors—From Molecular Design and Assembly to Applications

### Message from the Guest Editor

With exciting progress in molecular design, recognition, and self-assembly, a new stage of advanced materials design has arisen from the primary utilization of biomass, which could provide an effective solution for the sustainable development of human society in the future. Advanced functional materials design via bio-based precursors continues to make disruptive innovations and breakthroughs. Future aims include improving raw material conversion technology, enhancing technological feasibility, economy, and sustainability, and producing value-added and high-performance products. The main content of this Special Issue includes but not limited to the following area: Bio-inspired materials design; Bio-materials for energy and environmental applications; Carbon-inspired materials design; Carbon-based functional nanomaterials; Bio-materials in flexible electronics and devices; Multiple stimuli-responsive bio-material systems; Self-assembly of bio-based polymers; Bio-based supramolecular functional adhesives and coatings. Please see more details at the following link: <https://www.mdpi.com/si/179178>

### Guest Editor

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### Deadline for manuscript submissions

closed (4 March 2024)



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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 nanometer-scale 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.

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### Editor-in-Chief

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