

Special Issue

Carbon-Based Nanomaterials for Visible-Light Photocatalysis and Photoelectrocatalysis

Message from the Guest Editors

In recent years, the use of carbonaceous solids in photocatalysis and photoelectrocatalysis has attracted many researchers around the world due to their availability, good stability, reliable preparation, and the wide diversity of possible structures. One of the fundamental reasons to employ carbon-based solids for photocatalysis is their fast electron mobility, large surface area, high physicochemical stability, and viable synthetic strategies from different precursors. On the other hand, the photocatalytic activity of the carbonaceous solids is very much influenced by doping, the presence of defects, confinement, and morphology. Some of the most widely used carbonaceous materials for the development of photocatalysts/photoelectrocatalysts are activated carbons, carbon dots, carbon nanotubes, nanofibers, graphene-based solids, graphitic carbon nitrides, fullerenes, and three-dimensional structured carbons. This Special Issue aims to show the breadth of the field and the potential for various applications of carbon based materials.

Guest Editors

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Deadline for manuscript submissions

closed (31 August 2023)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/114167

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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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