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Carbon-Based Nanomaterials for High-Performance Supercapacitors

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Deadline for manuscript submissions:
closed (31 May 2023)

Message from the Guest Editors

Dear Colleagues,

As a result of the fast technology development and rapid increment in world population, a constant increase in energy consumption is observed. Supercapacitors, as one of the most important power devices, exhibit great potential for advanced high-performance future nanotechnologies. However, the essential issue is to constantly develop advanced electrode materials with improved charge storage capability. Therefore, the research on novel nanomaterials for applications in supercapacitor electrode technology becomes a key issue. Among studied materials, different types of carbon-based electrode nanomaterials have been reported and showed that their unquestionable advantages allow them to be emergent candidates for various electrochemical applications.

We are pleased to invite authors to submit original communications, articles, and reviews on the carbon-based nanomaterials applied in supercapacitors. The topic of this Special Issue includes but is not limited to advanced carbon-based nanomaterials and their fabrication methods for supercapacitors devices, showing recent developments in this area, as well as future implications and challenges.

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Editor-in-Chief

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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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