Special Issue

Electrochemistry of Carbon Nanomaterials: Fundamentals and Their Emerging Applications

Message from the Guest Editor

Recent advances in material design and synthesis, particularly nanomaterials, has led to robust electrochemical research for a broad range of emerging applications. Carbon nanomaterials, including carbon nanotube/fibers, graphene, porous carbon, nanodiamonds, and so on, are the forefront for use in electrochemistry, owning to their advantages of their electrical conductivity and electrochemistry of sp2 carbon, and their high specific surface area. In order to improve the electrochemical reactivity and performance, there are several synthetic strategies, including the modification or functionalization, dope, and hybridization of carbon nanomaterials with other materials. This Special Issue of *Nanomaterials* is proposed to highlight a variety of topics, such as the synthesis, functionalization, and characterization of carbon nanomaterials for efficient electrochemical applications. With in-depth discussions ranging from electrochemistry fundamentals to the engineering fabrication of devices for electrochemical sensing, biosensing, and energy storage system.

Guest Editor

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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