Special Issue

Carbon Nanostructures in Biofuel Cells

Message from the Guest Editors

Thanks to their unique properties, carbon nanostructures such as carbon nanotubes (CNTs), nanohorns, nanoonions, graphene derivatives, 3D porous structures, nanodiamonds, their properties include well-developed surface area, high mechanical strength, specific electrical properties, and tailored chemical properties. The combination of these features makes them very attractive for a wide range of applications. Biological fuel cells transform chemical energy into electrical energy and, among other things, employ enzymes as catalysts, and available compounds (e.g., glucose or ethanol) as fuels. The important expected field of application of enzymatic biofuel cells is the creation of implantable medical devices that are able to work in living organisms/bodies for several years. These devices convert the chemical energy of glucose oxidation into electric power and are intended to feed other implantable devices. The present Special Issue of Nanomaterials is aimed at presenting the current state-of-the-art and drawing attention to the need for standardization and fine-tuning of both laboratory preparation and design for technical production.

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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.

Editor-in-Chief

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