Special Issue

Application of Nanomaterials in Fuel Cells

Message from the Guest Editor

A Special Issue of *Nanomaterials* called **Nanomaterials for Fuel Cells** has been launched**.** Fuel cells either based on ceramic or polymer-conducting electrolytes (SOFCs or PEMFCs) are multi-physic and multi-scale green energy conversion systems that are very efficient and are already on the commercial market for specific applications. However, for large-scale dissemination, these systems still need to be improved in terms of performance, lifetime, and production costs. The necessary electro-catalysts are nanoparticles dispersed in thick electrodes. They require contact with the reactant gases and the electron and ion conductive materials and stability for long-term operation. The nanoscale structure is also crucial in solid electrolytes to insure transport properties. This Special Issue is open original research on new developments of nanostructured materials and a better understanding of the fuel cell operation especially at a molecular scale including operando experiments and modeling the field. Degradation and recycling studies and also developments of new efficient alternative materials for fuel cells and water electrolyzers will also be included.

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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