



## Nanomaterials Applied to Fuel Cells and Catalysts

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### Message from the Guest Editor

Dear Colleagues,

The Special Issue "Nanomaterials Applied to Fuel Cells and Catalysts" focuses on the development, characterization and validation of new fuel cell components. Although fuel cells have relatively few key components, such as catalysts, membrane electrode assemblies, bipolar plates and gas diffusion layers, the materials science behind the development of these components is quite complex. Experts simultaneously have to pay attention to material transport, electrical as well as proton and oxide ion conductivity issues, electrocatalytic activity and selectivity and the processes that occur at the boundaries of different nanostructures and phases during operation, leading to changes in transport phenomena and generally to performance loss in time. Advanced operando techniques have to be developed in order to follow aging mechanisms under real-world conditions and in the presence of contaminants.

In this Special Issue, new solutions are explored to reduce costs, increase lifetime and more efficient operation of the fuel cells.

You can see more details at the following link: <https://www.mdpi.com/si/162683>

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Guest Editor



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# Special Issue



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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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