

Special Issue

Solar Cells Based on Titanium Dioxide Nanomaterials

Message from the Guest Editor

Titanium dioxide (TiO₂) nanomaterials are known for their numerous and diverse applications, which range from common products such as sunscreens, to advanced devices such as photovoltaic cells, and include, among others, a series of environmental and biomedical applications. This Special Issue aims to present a comprehensive and up-to-date overview of TiO₂ nanomaterials for solar cell applications, which can act both as an introduction for newcomers to this field and as a valuable resource for experienced researchers at the forefront of the field. This Special Issue will especially focus on the synthesis and analysis of 0D- (cluster, single atom, etc.), 1D- (nanowire, nanorod, nanotube etc.), 2D- (nanoplate etc.), and 3D (nanoparticle, nanoflower, etc.)-structured nanomaterials for electrochemical energy conversion systems such as solar cells, including the development of computational material design and identifying reaction mechanisms. Other topics not on the list of specified topics are also welcomed if they are related to the theme of the Special Issue. We look forward to receiving your contributions.

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.

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