

Special Issue

Perovskite Nanomaterials for Solar Cells and Optoelectronic Applications

Message from the Guest Editor

In recent years, solar cells based on perovskites have attracted considerable attention. Consequently, thanks to the intensive research work carried out, the efficiencies of these cells have evolved very quickly to recently reach a record of 25.2%. Their hybrid character (organic and inorganic) endows this class of materials with interesting optoelectronic properties, such as high optical absorption, long diffusion length of charge carriers, as well as ease of solution and low-cost manufacturing. Nonetheless, among the challenges that remain for the industrialization of this technology, the problem of long-term stability is arguably one of the main ones. The present Special Issue aims to provide an overview of recent developments in solar cells based on perovskites.

Guest Editor

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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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