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Functional Applications of Nanomaterials in the Fields of Energy and Photonics

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Deadline for manuscript submissions:
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Message from the Guest Editor

Dear Colleagues,

Since their first appearance on the scientific scene, nanomaterials held great promises to perform novel functions or to increase the performances of devices in several technological key sectors, and particularly those related to light-matter interaction. More recently, novel concerns and sensibilities have sprouted, such as those related to nanomaterials' safety, as well as the importance of replacing toxic or rare materials with ecofriendly and sustainable ones. The aim of this Special Issue is to contribute to the assessment of nanomaterials' functionalities in the fields of energy harvesting and conversion and in the adjoining field of photonics, as well as to display the most recent advancements in these fields, from both experimental and theoretical points of view. Given the strong interconnection and interplay between components in modern energy plants, also energy storage will be addressed. Contributions from both the academic and industrial worlds are welcome to emphasize the necessity of a common approach in such socially relevant themes. See more information in

<https://www.mdpi.com/si/54956>

Dr. Mauro Falconieri
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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