

## Special Issue

# Multifunctional Nanomaterials for Energy Applications

### Message from the Guest Editors

Dear colleagues, In the last few decades, global energy requirements have grown exponentially, and increased demand is expected in the upcoming decades.

Nanomaterials exhibit properties very different from their bulk counterparts due to their significant surface boundary and quantum confinement characteristics. Furthermore, the structure (or nanophase assembly) is also relevant to explain various novel and interesting properties, notably when energy applications are taken into consideration. Remarkably, the aggregation and interface properties of nanostructures, even at lower dimensionality, are expected to boost energy applications. This Special Issue aims to highlight the latest energy advances in the field of materials, in particular low-dimensional materials. Various topics related to synthesis and characterization methods, properties, and energy application uses are covered.

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### Guest Editors

Prof. Dr. Federico Cesano

Dr. Simas Rackauskas

Dr. Mohammed Jasim Uddin

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### Deadline for manuscript submissions

closed (31 December 2021)



## Nanomaterials

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## About the Journal

### 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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### Editor-in-Chief

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