



## Nanotechnology and Renewable Energy

Guest Editor:

**Prof. Dr. Irfan Anjum  
Badruddin Magami**

Mechanical Engineering  
Department, King Khalid  
University, Abha 61421, Saudi  
Arabia

Deadline for manuscript  
submissions:

**closed (19 February 2023)**

### Message from the Guest Editor

The ever-increasing energy demand and depleting sources of conventional energy have forced policymakers and researchers to contemplate efficient use of available resources as well as to explore renewable forms of energy. In this context, nanotechnology can be said to have emerged as a blessing for engineers and scientists who have successfully explored its applicability in enhancing the efficiency of numerous devices. The last decade has seen enormous efforts being devoted to investigating heat transfer behavior assisted by nanofluid. The research in this particular field is progressing in a new direction with hybrid nanofluids. The recent trend has shown promising outcomes when nanotechnology is coupled with renewable energy extraction. To provide but a few examples, nanotechnology has been successfully applied to enhance photovoltaic efficiency, solar-assisted desalination, and biofuels.

This Special Issue is devoted to exchanging the latest information with respect to nanotechnology as applied to energy transport in the form of heat transfer and its use in renewable energy.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Eugenia Valsami-Jones**

School of Geography, Earth and Environmental Science,  
University of Birmingham,  
Birmingham B15 2TT, UK

## 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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

**Journal Rank:** JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)

## Contact Us

---

*Nanomaterials* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/nanomaterials](http://mdpi.com/journal/nanomaterials)  
[nanomaterials@mdpi.com](mailto:nanomaterials@mdpi.com)  
[X@nano\\_mdpi](https://twitter.com/nano_mdpi)