



*symmetry*



an Open Access Journal by MDPI

## Symmetry/Asymmetry in Advanced Nanotechnologies

Guest Editors:

**Dr. Ruoxing Wang**

School of Industrial Engineering,  
Purdue University, West  
Lafayette, IN 47906, USA

**Dr. Xuegang Chen**

Institutes of Physical Science and  
Information Technology, Anhui  
University, Hefei 230601, China

**Dr. Yixiu Wang**

Zhejiang Lab, Hangzhou 311121,  
China

Deadline for manuscript  
submissions:

**closed (31 July 2023)**

### Message from the Guest Editors

Nature gives us a wonderful world with symmetric and asymmetric structures, which present different functions in our life. People always utilize the gifts of nature (symmetric or asymmetric) to realize the facilitation of our work in various fields. Symmetry and asymmetry play an important role in designing advanced nanodevices, opening a vast and highly interdisciplinary area that includes physics, chemistry, electrical engineering, etc. The study of the symmetric features of nanocrystals is essential for helping to obtain fundamental knowledge in nanoscience. In addition, symmetry breaking has enabled breakthroughs with unprecedented properties and performance. The exploration of intrinsic and artificial symmetries inspires new strategies in designing advanced nanotechnologies and provides a platform for the further development of state-of-the-art nanotechnologies. This Special Issue invites researchers to submit original research papers and review articles on symmetry- or asymmetry-related phenomena, the characterization of symmetries in nanosystems, and the design and preparation of symmetric and asymmetric structures in nanotechnologies.



[mdpi.com/si/102472](https://mdpi.com/si/102472)

# Special Issue



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Sergei D. Odintsov

1. Institució Catalana de Recerca  
i Estudis Avançats (ICREA),  
Passeig Luis Companys, 23,  
08010 Barcelona, Spain  
2. Institute of Space Sciences  
(ICE-CSIC), C. Can Magrans s/n,  
08193 Barcelona, Spain

## Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

## 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), CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

**Journal Rank:** JCR - Q2 (*Multidisciplinary Sciences*) / CiteScore - Q1 (General Mathematics)

## Contact Us

---

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

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/symmetry  
symmetry@mdpi.com  
X@Symmetry\_MDPI