

# Special Issue

## Symmetry in Advanced Materials and Nanotechnology

### Message from the Guest Editor

Symmetry is a physical feature that is preserved under transformation; in fact, practically all natural rules originate from symmetry. Hence, breaking the symmetry of layered materials, such as graphene, can amend their electrical, optical, magnetic and topological properties. The typical symmetries are inversion, rotational, time-reversal and gauge, which can be broken by electric and magnetic fields, interlayer twisting, crystal phase control, band and strain engineering, and so on. We invite you to submit your work to this Special Issue “Symmetry in Graphene and Nanotechnology”. This Special Issue is seeking high-quality contributions related to the symmetry breaking behaviors of graphene and graphene-based moiré superlattices (and others). Moreover, studies on nanotechnology-related topics, especially atomic force, scanning tunneling and scanning transmission electron microscopy, are also welcome.

---

### Guest Editor

Dr. Yuhao Li

School of Electronic Science and Engineering, Nanjing University, Nanjing 210023, China

---

### Deadline for manuscript submissions

closed (28 February 2025)



# Symmetry

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 5.2



[mdpi.com/si/194084](https://mdpi.com/si/194084)

*Symmetry*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[symmetry@mdpi.com](mailto:symmetry@mdpi.com)

[mdpi.com/journal/  
symmetry](https://mdpi.com/journal/symmetry)





# Symmetry

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 5.2



[mdpi.com/journal/  
symmetry](https://mdpi.com/journal/symmetry)



## About the Journal

### 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.

---

### Editor-in-Chief

Prof. Dr. Sergei Odintsov  
ICREA, 08010 Barcelona and Institute of Space Sciences (IEEC-CSIC),  
C. Can Magrans s/n, 08193 Barcelona, Spain

---

### Author Benefits

#### Open Access:

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

#### High Visibility:

indexed within SCIE (Web of Science), Scopus, CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

#### Journal Rank:

JCR - Q2 (Multidisciplinary Sciences) / CiteScore - Q1  
(General Mathematics)