

# Special Issue

## Application of Nanocomposite in Biomaterials

### Message from the Guest Editors

The aim of this Special Issue is to collate research articles on the current advancements in nanocomposites for biomedical applications. For biomedical applications, polymer nanocomposites are fabricated by combining different types of nanofillers that are uniformly distributed in a polymer matrix. This special type of composite provides a unique opportunity to customise the material properties in different biomedical fields, such as replacing body parts, tissue engineering, antimicrobial resistance and drug delivery, to address many of the challenges that are present in the healthcare sector. Nanomaterials come in different shapes, such as nanoparticle, nanoflake, nanotube, nanosheet, nanorod, nanowhiskers, etc. On the other hand, the matrix materials include mainly two types of polymers: natural bio-based materials (e.g., chitosan) and synthetic polymer (e.g., PMMA). Nanofillers can play key role in improving physical, chemical, optical or biological properties of the composite material. Biomimetic polymer composites for improved mechanical properties and advances in 3D printing fabrication of nanocomposites are also welcome.

### Guest Editors

Prof. Dr. Nikolaos Silikas

Division of Dentistry, The University of Manchester, Oxford Rd, Manchester M13 9PL, UK

Dr. Julfikar Haider

Department of Engineering, Manchester Metropolitan University, Manchester M1 5GD, UK

### Deadline for manuscript submissions

closed (31 July 2023)



# Symmetry

an Open Access Journal  
by MDPI

Impact Factor 2.2  
CiteScore 5.3



[mdpi.com/si/84526](https://mdpi.com/si/84526)

*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 5.3



[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

1. ICREA, 08010 Barcelona, Spain

2. 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, CAPus / SciFinder, Inspec, Astrophysics Data System, and other databases.

#### Journal Rank:

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