

## Special Issue

# Biomaterials Tailoring at the Nanoscale for Tissue Engineering and Advanced Therapies

### Message from the Guest Editors

The control of matter at the nanoscale has demonstrated an enormous potential in the development of engineered devices in several applications such as energy, paintings and coatings, electronics, and textiles. In the medical field, the design of materials and structures with nanometric precision has demonstrated its enormous potential in controlling cellular processes such as adhesion, proliferation, and differentiation, while nanosized carriers have shown enhanced efficacy and precision in delivering therapeutic or diagnostic payloads to specific living environments. After an exciting decade of research in the fascinating, supradisciplinary field of bionanotechnology, times are now mature for transferring the results of this research to a higher technology-readiness level and to evaluate their real potential to be translated from the bench to the bedside. On the other hand, further research is needed to understand the mechanisms (including topographical, mechanical, and (bio)chemical cues) underlying the interaction of living environments with nanostructured materials and surfaces.

### Guest Editors

Prof. Dr. Gianluca Ciardelli

Department of Mechanical and Aerospace Engineering, Politecnico di Torino, 10129 Torino, Italy

Dr. Monica Boffito

Department of Mechanical and Aerospace Engineering, Politecnico di Torino, 10129 Torino, Italy

### Deadline for manuscript submissions

closed (31 December 2020)



## Nanomaterials

an Open Access Journal  
by MDPI

Impact Factor 4.3  
CiteScore 9.2  
Indexed in PubMed



[mdpi.com/si/37115](https://mdpi.com/si/37115)

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

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





# Nanomaterials

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.3  
CiteScore 9.2  
Indexed in PubMed



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



## 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.

---

### Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

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

---

### 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, CAPIus / SciFinder, Inspec, and other databases.

#### Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General  
Chemical Engineering)