

Special Issue

Advances in Biomimetic Micro/Nanostructured Surfaces and Interfaces

Message from the Guest Editors

With the advancement of micro/nanotechnology and biomimetics and by drawing inspiration from the unique wetting properties of biological surfaces with special microstructures, researchers have successfully designed and fabricated microstructured surfaces with specific functionalities. As research progresses, a deeper understanding of the intrinsic relationship between microstructures and interfacial behaviors is crucial to refining the theoretical framework of biomimetic superwetting systems. This Special Issue is dedicated to the fabrication, regulation, and performance optimization of biomimetic microstructured surfaces, as well as to external field-responsive smart surfaces and the function of interfaces. It aims to fully explore the mechanisms of interaction between microstructures and interfaces in order to promote their innovative use in emerging fields such as novel liquid transport technologies, functional microfluidic devices, and biomedicine, which could contribute cutting-edge research to the field of biomimetic interfacial science. We are accepting all types of papers, from original research articles to reviews.

Guest Editors

Prof. Dr. Dongliang Tian

Dr. Xiaofang Zhang

Dr. Qiuya Zhang

Dr. Yan Li

Deadline for manuscript submissions

20 December 2025



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/239547

Nanomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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)