

Special Issue

Block Copolymer Nano-Objects

Message from the Guest Editor

The scope of possible applications for block copolymers is rapidly expanding, with multidisciplinary contributions involving the fields of chemistry, physics, and materials science, as well as biological and medical sciences. The self-assembly of block copolymers (BCPs) can lead to various nanoscopic structures of dimensions ranging from 10–100 nm depending on the composition and chain architecture in bulk and thin-film form. A detailed scientific and technical understanding is essential for self-assembly or microphase separation of block-copolymers, describing the thermodynamics of the process, the type of structures formed, the formation of regular thin films, and how the structures might be directed to define precise microdomain location, orientation and alignment, and the elimination of various defects during the process. These properties enable BCPs to be used as a general route for patterning a variety of materials into periodic structures. This issue will be focussed on experimental and theoretical aspects of the processing steps to fabricate different nanostructures using BCPs, studying their properties and applications.

Guest Editor

Dr. Tandra Ghoshal

School of Chemistry, AMBER and CRANN, Trinity College Dublin, D02 AK60 Dublin, Ireland

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/29383

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)