

Special Issue

Functionalized Polymer Nanocomposites

Message from the Guest Editor

Polymer nanocomposites (PNCs) are cutting-edge materials consisting of a polymer matrix embedded with nanoscale fillers, offering enhanced properties such as improved strength, stability, and functionality.

Functionalization—modifying the polymer or filler surface—enables tailored interactions and applications, making PNCs a versatile platform for advanced technologies.

This special issue focuses on **functionalized polymer nanocomposites** for key applications in **biocatalysis, pharmaceuticals, and biosensors**. In biocatalysis, functionalized PNCs immobilize enzymes or catalysts, enhancing their activity and reusability for industrial and biomedical processes. In pharmaceuticals, they are pivotal for drug delivery systems, offering controlled release, targeted delivery, and biocompatibility, as well as scaffolds for tissue engineering. In biosensors, PNCs provide high sensitivity and specificity, enabling next-generation devices for medical diagnostics and environmental monitoring.

Guest Editor

Dr. Zichao Wei

Saint-Gobain North America Research and Development Center,
Northborough, MA 01532, USA

Deadline for manuscript submissions

closed (20 April 2026)



Biophysica

an Open Access Journal
by MDPI

Impact Factor 1.4
CiteScore 2.3



mdpi.com/si/236479

Biophysica
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biophysica@mdpi.com

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





Biophysica

an Open Access Journal
by MDPI

Impact Factor 1.4
CiteScore 2.3



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



About the Journal

Message from the Editorial Board

Editors-in-Chief

Prof. Dr. Victor Muñoz

Director NSF-CREST Center for Cellular and Biomolecular Machines (CCBM), University of California Merced, 5200 North Lake Road, Merced, CA 95340, USA

Prof. Matthias Buck

Department of Physiology and Biophysics, School of Medicine, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106, USA

Author Benefits

High Visibility:

indexed within ESCI (Web of Science), Scopus, EBSCO, and other databases.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.7 days after submission; acceptance to publication is undertaken in 3.3 days (median values for papers published in this journal in the second half of 2025).

Recognition of Reviewers:

APC discount vouchers, optional signed peer review and reviewer names are published annually in the journal.