

Special Issue

Polymer Nanocomposites: State of the Art and Future Prospects

Message from the Guest Editors

Recently, a revolutionary new class of materials, known as polymer nanocomposites, has emerged. These combine the desirable properties of polymers with the exceptional properties of nanomaterials. Significant advances have been made in synthesizing and modifying nanomaterials, as well as a deeper understanding of how polymers and nanofillers interact. Polymeric nanocomposites are hybrid materials in which a polymer matrix is reinforced with nanoparticles, nanotubes, nanofibers, or other nanomaterials. Due to their unique characteristics, nanofillers can manipulate material properties on a molecular level, resulting in materials with superior performance and innovative features. The purpose of this Special Issue, Polymer Nanocomposites: State-of-the-Art and Future Prospects, is to provide a comprehensive overview of the state-of-the-art polymer nanocomposites research and development, addressing scientific advancements and prospects. A wide range of topics will be discussed, including nanocomposite synthesis and characterization and their applications in packaging, electronics, sensors, biomedicine, energy, and others.

Guest Editors

Dr. Michael Jones Silva

Dr. Renivaldo José Dos Santos

Prof. Dr. Leonardo Paim

Deadline for manuscript submissions

20 August 2025



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/211693

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

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





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



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



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

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), Ei Compendex, Inspec, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)