Special Issue

Synthesis and Applications of Polymer-Based Nanocomposites

Message from the Guest Editors

Polymer nanocomposites are gaining increasing interest and applications due to their superior properties compared to conventional polymers. They can be defined as materials in which nanoscale particles, in at least one dimension, are dispersed in an organic polymer matrix to improve their performance properties. These include mechanical strength and toughness, the ability to create a developed inner surface, adjustable thermal and electrical conductivity, and many others. Improvement of the synthesis parameters of such systems in order to customize the properties and adapt composites for a particular use is attracting more and more researchers. The materials created can have a wide variety of applications, for example, biomimetic materials and technologies, smart materials, renewable energy sources, various sensors and biosensors, packaging etc. This Special Issue focuses on the synthesis, characterization, properties, modeling, and applications of various polymer-based nanocomposites. We invite researchers to share their latest investigations in the form of articles, reviews, and academic articles.

Guest Editors

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Deadline for manuscript submissions

closed (5 February 2025)



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Message from the Editor-in-Chief

Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.7.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Alexander Böker

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