Special Issue

Functional Polymers and Composites in Electrochemical and Optical Sensing Systems

Message from the Guest Editors

In recent years, polymer-based composites have emerged as a key class of functional materials due to their tuneable physicochemical properties, high surface area, and versatile fabrication strategies. These advanced materials play a pivotal role in the development of next-generation biosensing platforms, offering enhanced sensitivity, selectivity, and real-time detection capabilities. This Special Issue aims to compile innovative research and comprehensive reviews on the synthesis, processing, characterization, and application of polymer composites in the field of biosensors. The scope of this Special Issue includes, but is not limited to, the following topics:

- Advanced fabrication methods for polymer-based nanocomposites;
- Functionalization strategies for targeted sensing;
- Electrochemical, optical, and piezoelectric biosensors;
- Biocompatibility and stability of sensing materials;
- Integration of nanocomposites into flexible or wearable biosensing devices;
- Real-world applications and challenges in sensor deployment.

We look forward to receiving your contributions and hope that this Special Issue fosters innovation and interdisciplinary collaboration.

Guest Editors

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Dr. Vildan Şanko

Deadline for manuscript submissions

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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 4.9.

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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