Special Issue

Polymers in Next-Gen Sensors: From Flexibility to AI Integration

Message from the Guest Editor

A rapidly developing and innovative field, smart polymers in micro- and nanosensor technologies offer unique advantages, including flexibility, versatility, lightweight properties, and economical large-scale production. Advances in various fields, including wearable technology, soft robotics, food safety etc. They are ideal candidates for next-generation sensors due to their compatibility with flexible substrates and the ability to accommodate functional fillers. Furthermore, the potential for intelligent detecting platforms has been further increased by recent developments in smart polymers, such as sustainable, self-healing, or stimuli-responsive polymers, especially when combined with artificial intelligence (AI) algorithms. With an emphasis on advancements in the design of material, methods of fabrication, device integration, and practical uses, this Special Issue attempts to compile the most recent studies and thorough reviews on sophisticated polymer-based sensors. Contributions that connect application development, engineering, and material science are particularly welcomed.

Guest Editor

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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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