

Special Issue

Advances in Phosphorus-Based Polymers

Message from the Guest Editor

Phosphorus-based polymers derive their distinct and appealing properties from the chemistry of the phosphorus atom, which make them attractive for a broad range of materials. The most prominent naturally occurring phosphorus-based polymers are DNA and RNA, which are high molecular weight polyphosphonates. Synthetic phosphorus-based polymers feature phosphorus either in the pendant groups of the macromolecule, or in the main chain of the polymer, making it an integral part of the backbone. For the latter, specifically designed chemistry is required for the polymerization, unlike for organic polymers, where the polymerization techniques can be simply adapted. The most prominent synthetic phosphorus main chain polymers are polyphosphoesters and polyphosphazenes, which find a broad range of applications, such as non-halogenated alternatives for flame retardants, fuel cell membranes, and catalyst agents. Phosphorus main chain polymers are of sizable interest for biomedical applications, such as drug and vaccine delivery, or tissue engineering. I hereby invite you to join me in highlighting some of the most interesting advances in the field of phosphorus-based polymers.

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 4.7.

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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