Special Issue

Radiation-Induced Modifications in Polymers and Graft Copolymerization: Mechanisms and Applications

Message from the Guest Editors

Ionizing radiation is a versatile tool for the synthesis and functional modification of polymeric materials. Exposure to high-energy radiation sources, such as gamma rays, X-rays, or electron beams, induces the formation of reactive species within the polymer matrix promoting a series of chemical reactions that modify the polymer's molecular structure.

Ionizing radiation induces key modifications in polymers, including crosslinking, which enhances mechanical, thermal, and chemical stability; degradation, which reduces molecular weight and can facilitate recycling or biodegradability; and grafting, which introduces functional groups or polymer chains to tailor surface properties for specific applications such as biomedical or environmental use.

This Special Issue welcomes original research articles and reviews on (but not limited to) the polymer modification induced by ionizing radiation. Researchers from academia and industry are encouraged to share their latest investigations regarding effects on polymer properties, potential applications in various sectors, and associated technological innovations.

Guest Editors

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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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