

## Special Issue

# Next-Generation Polymer Nanocomposites for Coatings

### Message from the Guest Editors

This Special Issue focuses on recent advancements in polymer nanocomposites synthesized through modern polymerization techniques, including single electron transfer-living radical polymerization (SET-LRP), atom transfer radical polymerization (ATRP), and other polymerization methods. It highlights how the incorporation of nanomaterials such as nanoparticles, nanoclays, nanotubes, and graphene significantly enhances key polymer properties, including mechanical strength, thermal stability, and biological functionality. The Issue emphasizes diverse advanced applications in coatings, including superhydrophobic and self-cleaning coatings, smart self-healing polymer coatings, UV-responsive photochromic coatings, thermochromic coatings for temperature sensing, anti-scratch and hard coatings, anti-corrosion nanocomposite coatings, and polymer coatings for advanced battery electrode protection. The primary goal is to spotlight innovative strategies and sustainable practices that are shaping the future of high-performance polymer nanocomposites.

### Guest Editors

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### Deadline for manuscript submissions

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## Polymers

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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.

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### Editor-in-Chief

Prof. Dr. Alexander Böker

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