

## Special Issue

# Manufacturing, Simulation and Process Optimization of High-Performance Polymers and Their Composites

### Message from the Guest Editors

The Special Issue presents cutting-edge research on innovative manufacturing techniques, such as advanced molding, additive manufacturing, and hybrid processes, all designed to enhance material performance and production efficiency. Additionally, it explores state-of-the-art numerical simulations that model the behavior of these complex materials under various processing conditions. The contributions also examine the integration of process optimization strategies, leveraging data-driven approaches and machine learning techniques to streamline production, reduce waste, and minimize energy consumption. Any reports and reviews covering the aspect of manufacturing techniques and multiscale modeling and simulations are welcomed, using methods including but not limited to the above-mentioned methods. **Keywords**

- polymer
- polymer-based composite
- manufacturing
- computational modeling
- process optimization

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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 4.7.

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.

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### Editor-in-Chief

Prof. Dr. Alexander Böker

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