

## Special Issue

# Polymer Physics: From Theory to Experimental Applications

### Message from the Guest Editors

Polymer processing techniques are of paramount importance in the manufacture of plastic parts. The main concern is producing parts with the desired quality, which usually refers to mechanical performance, dimensional accuracy, and appearance. To maximize the overall efficiency of polymer processing techniques, new constitutive models and advanced modeling codes are needed along with experimental measurements to simulate, compare, and optimize processes. Thus, this Special Issue will welcome contributions which develop theories for new rheological constitutive equations and implementation of efficient algorithms to describe polymer physics. In addition, experimental studies for the preparation and characterization of new polymeric materials are also welcomed. Topics include but are not limited to the following:

- Viscoelastic flow modeling;
- Molecular simulation;
- Heat transfer problems;
- Machine learning techniques;
- New materials, additives, and fillers;
- Additive manufacturing and 3D printing;
- Polymer rheology and mechanical properties.

### Guest Editors

Dr. Célio Pinto Fernandes

Dr. Luís Lima Ferrás

Dr. Alexandre M. Afonso

### Deadline for manuscript submissions

closed (15 September 2024)



## Polymers

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Impact Factor 4.7  
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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.

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### Editor-in-Chief

Prof. Dr. Alexander Böker

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