

## Special Issue

# Functional Polymers in 3D Printing

### Message from the Guest Editors

Additive manufacturing (AM), or 3D printing, has revolutionized the design and fabrication of polymer-based components. Advances in polymer chemistry, materials science, and AM technologies have enabled the development of functional polymers—materials that not only provide structural support but also offer properties such as electrical conductivity, biodegradability, self-healing, thermal responsiveness, and antimicrobial activity. This Special Issue invites original research and reviews on the development, processing, and application of functional polymers in AM. Topics include, but are not limited to:

- Synthesis and characterization of functional polymers tailored for AM;
- Smart, stimuli-responsive, or bioactive polymer systems;
- Conductive polymers for printed electronics and sensors;
- Biodegradable and bio-based materials for sustainable AM;
- Photopolymers for digital light processing (DLP), stereolithography (SLA), and other vat photopolymerization techniques;
- Nanocomposites with enhanced functionalities;
- Functional inks for direct ink writing (DIW);
- Structure–property relationships in printed parts;
- Applications in biomedical, aerospace, soft robotics, wearables, and energy devices.

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### Guest Editors

Dr. Sofiane Guessasma  
Dr. Darshil U. Shah  
Prof. Dr. Ahmed Koubaa

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### Deadline for manuscript submissions

closed (31 March 2026)



## Polymers

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## About the Journal

### 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 4.9.

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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