Special Issue

Polymer Brushes: Synthesis, Characterization and Applications

Message from the Guest Editor

Polymer brushes have emerged as a focal point in polymer research, addressing the demand for facile and versatile surface modifications. The advent of controlled radical polymerization from surfaces, coupled with advanced theoretical models, simulations, and characterization tools, has empowered researchers to precisely manipulate brush density and thickness, thereby exerting unprecedented control over surface properties and functionality. Elevated brush density induces a stretched brush conformation, impacting molecular interactions with the brush surface. The resulting residual stress imparts distinctive properties to polymer brushes compared to equivalent layers of coated polymer chains. Owing to these remarkable characteristics, interest in polymer brushes has developed due to their significance for applications in various fields, such as tribology, controlled drug/gene delivery, tissue engineering, imaging, and the design of stimuli-responsive materials.

Guest Editor

Prof. Dr. Costas H. Vlahos
Chemistry Department, University of Ioannina, 45110 Ioannina, Greece

Deadline for manuscript submissions

closed (20 June 2025)

Polymers

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed

mdpi.com/si/193530

Polymers
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
polymers@mdpi.com

mdpi.com/journal/polymers

Polymers

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed

mdpi.com/journal/polymers

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.

Editor-in-Chief

Prof. Dr. Alexander Böker
Fraunhofer-Institut für Angewandte Polymerforschung, Lehrstuhl für Polymermaterialien und Polymertechnologie, Universität Potsdam, Geiselbergstraße 69, 14476 Potsdam-Golm, Germany

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubMed, PMC, FSTA, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q1 (Polymer Science) / CiteScore - Q1 (General Chemistry)

MDPI