

Special Issue

Silicon-Based Polymers: From Synthesis to Applications

Message from the Guest Editor

Some scientists and engineers refer to the current era as the "Silicon Age". The bond enthalpy of Si–O is much larger than that of the C–O bond, rendering the thermal stability of Si–O polymers, and its larger bond angle and longer bond length provide bond flexibility. In addition, uncondensed OH groups (silanol) of siloxane polymers facilitate effective bonding with other materials.

This Special Issue explores the synthesis, properties, and various applications of silicon-based polymers. Investigations on their applications in sensors, semiconductors, displays, photoactive materials, filters, anodes in lithium-ion batteries, drug delivery systems, catalysts, and biocompatible materials have been conducted.

This Special Issue will cover, but will not be limited to, the following aspects of silicon-based polymer chemistry and technology: novel preparation methods for polymers containing Si–O, Si–C, and/or Si–C bonds; the mechanism of the formation of silicon-based polymers; novel chemical and physical properties of silicon-based polymers; and applications of silicon-based polymers.

Guest Editor

Prof. Dr. Hyeon Mo Cho
University College, Yonsei University, Incheon 21983, Republic of Korea

Deadline for manuscript submissions

30 June 2026



Polymers

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed



mdpi.com/si/220984

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

[mdpi.com/journal/
polymers](https://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](https://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, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

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