

Special Issue

Polymer Mechanochemistry: From Fundamentals to Applications

Message from the Guest Editor

This Special Issue, titled "Polymer Mechanochemistry: From Fundamentals to Applications", seeks to delve into the intricate relationship between mechanical forces and chemical processes in polymer systems.

Mechanochemistry, particularly in the context of single-molecule force chemistry, has emerged as a pivotal area of research, revealing how mechanical stimuli can induce significant chemical transformations at the molecular level. Furthermore, this Special Issue will encompass a broad spectrum of topics, including the fundamental principles of mechanochemical reactions, the role of mechanical stress in polymer behavior, mechanochemistry in biomolecules, polymer mechanochemistry in responsive materials and additive manufacturing, and advancements in experimental techniques that probe single-molecule interactions. We welcome submissions of original research articles and reviews that explore both theoretical and practical aspects of polymer mechanochemistry.

Guest Editor

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Deadline for manuscript submissions

closed (25 July 2025)



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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.

Editor-in-Chief

Prof. Dr. Alexander Böker

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