Special Issue

Advances in Flame-Retardant Polymer Composites

Message from the Guest Editors

As polymer composites become increasingly integral to the aerospace, automotive, and construction industries, enhancing their fire safety remains a critical challenge. This SI explores cutting-edge strategies to reduce flammability while maintaining or improving mechanical performance. Key topics include the development of bio-based flame retardants, the synergistic effects of nanofillers (such as graphene and carbon nanotubes), and the implementation of intumescent systems. By shifting away from halogenated additives toward sustainable, high-efficiency alternatives, this collection highlights innovative chemical treatments and structural designs that minimize heat release rates and reduce smoke production. Ultimately, this Special Issue aims to serve as a comprehensive resource for achieving a balance between high-performance functionality and stringent fire safety standards.

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Deadline for manuscript submissions

31 August 2026

Polymers

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed

mdpi.com/si/268436

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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

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