Special Issue

Recent Progress in Flame-Retardant Polymeric Materials and Coating

Message from the Guest Editor

Polymeric materials and textiles play indispensable roles in modern society, yet most of their inherent flammability limits their applications in safety-critical sectors. To address these limitations, extensive efforts have been devoted to developing advanced flame-retardant strategies.

The field is undergoing a paradigm shift toward environmentally benign solutions. Emerging halogen- and antimony-free systems are gaining momentum. Concurrently, recyclable flame-retardant materials and nanostructured hybrids demonstrate potential through synergistic mechanisms. These innovations align with global demands for circular economy principles and reduced environmental footprints.

We welcome original articles and reviews covering the following:

- Novel flame-retardant additives/synergists.
- Intrinsically flame-retardant polymer design.
- Bio-based/biomass-derived flame-retardant systems.
- Flame-retardant coating technologies for textiles and composites.
- Fire behavior characterization and mechanistic studies.
- Mitigation of smoke/toxic emissions and environmental impact assessments.

Guest Editor

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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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