Special Issue

Advancements in Polymeric Material Characterization for Industrial Applications: From Properties to Performance

Message from the Guest Editors

The characterization of polymeric materials is essential in advancing innovation across academia and industry, offering critical insights into structure–property–performance relationships. Recent technological advancements, including 3D printing, artificial intelligence (AI), and computational modelling, have revolutionized material analysis, enabling greater precision, efficiency, and scalability. Understanding mechanical, physical, thermal, and chemical properties is especially fundamental for optimizing functionality and ensuring industrial applicability. This Special Issue focuses on advanced characterization techniques and their integration with emerging technologies to address challenges in material design and application. It emphasizes exploring the microstructure and performance of polymers under operational conditions. Contributions showcasing innovative methodologies, interdisciplinary approaches, and industrial applications are encouraged. This Special Issue aims to deepen our understanding of polymeric materials, enhancing the development of more efficient, durable, and sustainable solutions for diverse industries.

Guest Editors

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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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