

Special Issue

Application of Artificial Intelligence in Polymer Composites

Message from the Guest Editor

The integration of artificial intelligence (AI) and machine learning (ML) in polymer composites has revolutionized material design, manufacturing, and performance assessment. This Special Issue focuses on AI-driven advancements in the design, characterization, structural health monitoring (SHM), prognostics and health management (PHM), and modeling of polymer composites. Topics include AI-assisted modeling, defect detection, failure prediction, digital twins, and the real-time monitoring of polymer composites. We welcome original research and review articles exploring AI applications that enhance accuracy, efficiency, and automation in polymer-based composite materials. Contributions demonstrating novel techniques, experimental validations, and interdisciplinary approaches are highly encouraged.

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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