

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

Dr. Muhammad Muzammil Azad

Department of Mechanical Engineering, Dongguk University-Seoul, 30 Pildong-ro 1-gil, Jung-gu, Seoul 04620, Republic of Korea

Deadline for manuscript submissions

closed (30 August 2025)



Polymers

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed



mdpi.com/si/232418

Polymers
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
polymers@mdpi.com

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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

Prof. Dr. Alexander Böker

Fraunhofer-Institut für Angewandte Polymerforschung, Lehrstuhl für Polymermaterialien und Polymertechnologie, Universität Potsdam, Geiselbergstraße 69, 14476 Potsdam-Golm, Germany

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