

Special Issue

Fatigue Properties and Damage Mechanisms of Polymers and Polymer Composites

Message from the Guest Editors

Recent progress has been made in the understanding of fatigue behaviour and damage mechanisms in polymer composites—materials that are increasingly essential in structural and engineering applications due to their exceptional strength-to-weight ratio and adaptability. Emphasizing experimental, theoretical, and computational approaches, this Special Issue will explore fatigue performance, life prediction and failure analysis in both fibre-reinforced and nano-reinforced composites, with particular attention given to the effects of multiaxial loading and environmental conditions. This Special Issue aims to foster cross-disciplinary insights by bridging materials science, mechanics, and engineering design. We welcome both original research and comprehensive reviews that advance the understanding and development of fatigue resistance in polymer composites across diverse applications.

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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