

## Special Issue

# Fatigue and Fracture in Composite Materials

### Message from the Guest Editors

Fatigue loading and fracture failure are major concerns in composite materials, as they are driven by complex, interacting damage mechanisms that evolve under service conditions. As composite materials continue to replace traditional metals, understanding their behavior under both cyclic and static loading is essential. However, the heterogeneous and anisotropic nature of composites presents unique challenges for accurately characterizing and modeling their failure behavior across multiple length scales, necessitating advanced experimental techniques and high-fidelity numerical approaches. This Special Issue aims to provide an in-depth understanding of damage mechanisms in composite materials under fatigue and fracture loading, aligning with the journal's scope on material behavior, structural performance, and reliability. We particularly encourage contributions that bridge experimental investigations and computational simulations, as well as studies involving novel materials, hybrid systems, or sustainability-driven composites. High-quality articles that explore new theories, modeling approaches, testing methods, or design strategies for improving durability are highly welcome.

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### Guest Editors

Dr. Jie Zhi

Dr. Jinzhao Huang

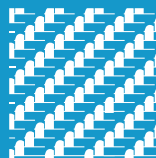
Dr. Kailong Xu

Dr. Kun Tian

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### Deadline for manuscript submissions

1 February 2026



## Journal of Composites Science

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#### Editor-in-Chief

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