# Special Issue

# Development in Carbon-Fiber-Reinforced Polymer Composites

## Message from the Guest Editor

The widespread use of carbon-fiber-reinforced composite materials is a prominent feature of the structural design of aircraft. The biggest problem faced by using composite laminates is their susceptibility to delamination when subjected to impact loads. The damage evolution between adjacent layers can lead to material stiffness and strength degradation, ultimately leading to catastrophic failure of composite structures. By introducing toughening phases represented by nanofibers between adjacent layers, the goal of inhibiting delamination can be achieved. To promote the industrial development of new composite laminates, it is necessary to comprehensively evaluate the interlayer fracture characteristics and structural reliability of toughened composite materials in extreme environments.

This special issue focuses on the mechanics of nanofiber toughening carbon-fiber-reinforced polymer composites towards extreme environments, especially high temperatures, extreme cold, humidity, and high strain rate.

## Guest Editor

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## Deadline for manuscript submissions

closed (25 April 2025)

**Polymers**

**an Open Access Journal by MDPI**

**Impact Factor 4.9**
**CiteScore 9.7**
**Indexed in PubMed**

mdpi.com/si/180314

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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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