

Special Issue

Multiscale Modeling and Mechanical Behavior of Carbon Fiber-Reinforced Composites

Message from the Guest Editors

It is widely known that the performance and service life of fiber-reinforced resin–matrix composites are closely related to intrinsic material properties, fabrication processes, structural design, and environmental application. But how do these factors influence the static load-bearing capacity and service life of fiber-reinforced resin–matrix composites? How can numerical analysis be employed to identify the key influencing factors, and how do these factors affect the mechanical behavior of composite structures? These are the key issues explored in this Special Issue. We welcome the submission of original research articles and reviews that discuss areas including (but not limited to) the following:

- The Numerical Investigation of Mechanical Properties of Novel Composite Materials
- Composite manufacturing monitoring and process optimization
- Composite structure optimization design and reliability analysis
- Applications of advanced composite materials in extreme environments
- Deformation reconstruction and load identification of composite structures

We look forward to receiving your contributions.

Guest Editors

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Deadline for manuscript submissions

20 January 2026



Materials

an Open Access Journal
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Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



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About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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