



Tailored Textile-Reinforced Composite Materials

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Message from the Guest Editor

Textile-reinforced composites offer great advantages for lightweight structures, since their properties can be tailored on different length scales. The variety of design options with regard to their constituents, multiaxial fiber arrangements, and near-net-shape semifinished product configurations is an essential feature of high-performance textiles. Despite being investigated for decades, textile composites are still an extremely interesting research area, spanning from manufacturing technologies via multiscale modeling and experimental testing to multifunctional applications.

This Special Issue will focus on recent progress in the field of tailoring composite properties. Topics can include but are not limited to:

- Advanced textile manufacturing technologies;
- Damage-tolerant textile composites;
- Tailored properties using scale-bridging approaches;
- Virtual design and digital twins;
- Multifunctional composite application.

Keywords

- textile composites
- tailored properties
- virtual material design
- advanced manufacturing





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Message from the Editor-in-Chief

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