Special Issue

Advances in Textile-Based Composites and Polymers: Machine Learning Predictions, Structure Optimization and Smart Applications

Message from the Guest Editors

The Special Issue presents a comprehensive overview of the latest advances in the intersection of textiles, composites, and polymers. Focusing on the integration of machine learning, the issue explores predictive modeling in order to understand complex material behaviors. Researchers delve into the application of machine learning algorithms for the prediction and optimization of the structural designs of textile-based composites. Beyond theoretical discussions, the also Special Issue emphasizes practical implementations, demonstrating how smart textiles are deployed across various domains. From predicting material responses to optimizing structures and incorporating intelligent applications, this issue offers a holistic perspective on the developing landscape of textile-based composites and polymers. Specifically targeting researchers, engineers, and practitioners, this collection of articles serves as a valuable resource for the latest advancements in this dynamic and interdisciplinary field.

Guest Editors

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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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