Special Issue

Advancements in the Structural Integrity of Composite Materials

Message from the Guest Editors

The utilization of composite materials is progressively supplanting traditional materials such as metals due to their advantageous properties, including lightness, high strength, design flexibility, and extended service life. However, this transition presents challenges in designing composite structures, forecasting damage initiation and progression, and establishing safe operational limits to ensure structural integrity. Addressing these complexities, this Special Issue aims to furnish essential data, models, and tools crucial for understanding structural integrity and predicting the lifetimes of composite materials. This endeavor necessitates the use of sophisticated mathematical, computational, and experimental methodologies. Therefore, we invite scholars to contribute original research and review papers focusing on enhancing the reliability of structural integrity in composite materials through precise and efficient modeling, design, analysis, experimental validation, and other pertinent approaches.

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Deadline for manuscript submissions

20 September 2025



an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed



mdpi.com/si/202552

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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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