Special Issue

Mechanical Properties and Crushed Damage of Composite Sandwich Materials

Message from the Guest Editors

Composite materials have complex failure mechanisms under quasi-static and impact loadings, which are essential for evaluating and optimizing mechanical properties. This Special Issue will focus on, but is not limited to, the following topics:

- Damage mechanisms and characterization
- Experimental and computational studies of failure modes; Advanced techniques for real-time damage monitoring;
- Mechanical properties under various loading conditions
- Effects of hybrid architectures and environmental conditions;
- Failure prediction modelling and simulation assisted with machine-learning approach
- Multiscale modelling of damage propagation; Machine learning approaches for predicting failure behaviour;
- Advanced materials and damage mitigation strategies
- Bio-inspired designs for improving impact performance; Self-healing composites and smart materials for damage recovery;
- Multi-functional applications and sustainability
- Recyclability and lifecycle analysis for sustainable development

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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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