

Special Issue

Recent Advances in Damage Mechanics of Composite Materials

Message from the Guest Editor

This Special Issue calls for publications on recent advances surrounding the damage mechanics of composite materials. Advances in this field are focused on improving the ways that we understand, predict, and mitigate damage initiation, progression, and failure mechanisms. In this Special Issue, we plan to include the latest discoveries associated with the following: (a) multi-scale computational simulations and models of damage processes; (b) refined progressive damage models; (c) advanced experimental characterization techniques that enable a detailed characterization of damage initiation and growth; (d) the integration of sensors and smart materials into composite structures, providing early warnings; (e) results from efforts focused on developing self-healing mechanisms to autonomously repair damage and extend service life; (f) tailored design for damage tolerance based on advanced manufacturing techniques; (g) research results on the impact of environmental factors on damage behavior and long-term durability; (h) machine learning and data-driven approaches, leading to more accurate and efficient damage prediction models.

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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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