Special Issue

Experimental and Numerical Simulation of Composite Materials and Structures for Extreme Loading Conditions

Message from the Guest Editor

Composite materials have shown outstanding performance in structural applications due to their highly customizable mechanical properties. Presently these materials have been increasingly utilized for primary structures and recognised to be effective under service loading conditions. However, one major criticality of composite material is their susceptibility to exteme loding conditions that may provoke complex degradation mechanisms. Extreme loading conditions include unforeseen events, conditions that far exceed original design or very demanding requirements that are not included in the standard approaches like, but not limited to impacts (at different velocitie) and blasts. These conditions may provoke complex failure patterns that depnds on the peculiarityy of the composite materials themselves; these pose challenges in experimental tecnique and modelling aproaches. This special issue is therefore aimed to collect original research articles and comprehensive reviews that consider experimental and modelling aproaches focused on the topic of Composite Materials and Structures for Extreme Loading Conditions.

Guest Editor

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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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