Special Issue

Methodology of the Design and Testing of Composite Structures

Message from the Guest Editors

Compared to common homogeneous materials, composites exhibit better thermal, electrical, tribological or mechanical properties. This is due to the fact that in composite materials, the best features of the matrix (e.g., ductility, fracture toughness, low specific weight) and the particles embedded therein (e.g., high strength, high elastic modulus, wear resistance, desired thermal or electrical conductivity) are combined. It should be noted that a change in even one of the above-mentioned factors impacts the effective properties of the composite. Thus, there is a well-reasoned need to determine such properties before implementing and manufacturing newly engineered composite materials. The scope of this Special Issue will provide a forum for reports on the following topics:
Manufacturing of composite materials;
Analytical and numerical modelling of composite materials;
Test methods for composite materials and structures;
Experimental procedures for establishing averaged mechanical and physical properties of composites;
Analytical and numerical models for predicting averaged mechanical and physical properties of composites;
New trends in composite materials.

Guest Editors

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Deadline for manuscript submissions

closed (20 September 2024)

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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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