

Special Issue

Advances in Novel Materials for Aerospace Engineering

Message from the Guest Editor

In recent years, much progress has been made on the development of aerospace materials for structural applications. Alloys, such as Al-based alloys, have been developed for the aerospace industry with outstanding advantages. Composite materials have thus started to take on more and more important roles in aircrafts; however, these still face some major issues, such as delamination. Functionally graded materials (FGMs) have been conceived to overcome this limitation.

On the other hand, smart materials are gaining importance continuously in the aerospace industry because of their unique features, such as self-sensing, self-adaptability, memory capabilities, and manifold functions. Finally, a new research field has emerged in the last decade to study metamaterials, among these, acoustic metamaterials are attracting aerospace researchers for the development of lightweight acoustic insulation treatments.

This Special Issue focuses on the following topics: (1) recent advances in the development of aerospace materials, (2) challenges faced by recent aerospace materials, and (3) advances in modelling of innovative aerospace materials.

Guest Editor

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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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