Special Issue

Carbon Fibers and Their Composite Materials

Message from the Guest Editor

Carbon fiber is synonymous with high performance. It is a key material in the reduction of CO2 emissions via light-weighting mass transport vehicles, often thought of as an alternative to traditional structural materials, such as metals. Despite being around for decades, carbon fibers themselves and their composites are still an extremely active area of research, spanning from fiber production through to their large-scale application in the aerospace industry. The study and characterization of the fibers, resins, fiber-matrix interactions, nano-fillers, and novel resins all contribute to a larger tapestry of understanding towards the factors defining the performance of composite materials. This Special Issue will focus on recent work that focuses on advancing the performance of carbon fiber composites. Topics can include, but are not limited to:

- Fiber characterization using novel techniques
- Interface analysis and fiber-to-matrix adhesion
- Chemical Modifications of resins, sizings, or fibers and effect on performance
- Non-structural applications of carbon fiber

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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