

Special Issue

Mechanical Properties and Structures of High Performance Polymer Composites

Message from the Guest Editor

Composites are defined as materials consisting of two or more chemically and physically distinct phases separated by an interface. The different materials are combined to provide a system with more useful structural or functional properties that cannot be achieved by any of the constituents alone. At present, there is a growing interest in the introduction of high-performance reinforced polymer composite materials for structural applications in fundamental industrial sectors such as automotive, aerospace, robotics and medicine. The universal feature of the applications for these industrial sectors is the lightweight design approach, which is responsible for weight reduction while maintaining high mechanical structural performance. In this Special Issue, we aim to publish full research papers, short communications, and review articles describing the relationship between structure and properties, as well as current trends and technologies for the synthesis, modification, and processing of high-performance polymer composites. The focus of the articles is on improving the properties (particularly the mechanical properties) of polymer composites.

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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