Special Issue

Advances in Carbon Fiber Reinforced Plastics

Message from the Guest Editors

Carbon-fiber-reinforced plastic composites feature extraordinary mechanical and physical properties, such as high specific strength, high specific modulus, and corrosion resistance. High-performance manufacturing and assembly of these CFRP components are primarily needed to meet the requirements of high bearing capacity, extremely complex and harsh environments, as well as long service life. Defects frequently occur in their forming (such as curing, molding, 3D printing), machining (drilling, milling, turning), and joining (mechanical connection, bonding connection, welding connection) processes.

- Curing control method and technology for CFRPs and their stack;
- 3D printing trajectory planning and defect control technology for CFRPs;
- 3D printing performance prediction for CFRPs;
- Mechanical-thermal behavior of machining CFRPs and their stack;
- Low-defect cutting tool and processing method for CFRPs and their stack;
- Mechanical-thermal behavior of direct-heat joining of CFRPs and their stack;
- Joining performance prediction of CFRPs and their stack.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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