Special Issue

Advanced Polymer-Matrix Composite and 3D Printed Materials

Message from the Guest Editors

In this Special Issue, we aim to explore the latest developments in the processing, characterization and utilization of advanced polymer matrix composites and 3D printed materials, with a focus on enhancing the mechanical performance of these materials. By critically evaluating the current 3D printing technologies, including the development and optimizations made to the printing methods, as well as the printed objects, we hope to gain a comprehensive understanding of the factors that influence the quality and mechanical performances of 3D printed parts. Particular emphasis is placed on damage and failure. Topics of interest include, but are not limited to, the following:

- Unreinforced and reinforced polymer matrix materials.
- Multi-scale simulation of damage and failure.
- Novel experimental techniques for characterization of mechanical properties.
- Advanced processing techniques for improving mechanical properties.
- Development and characterization of new materials.
- Optimization techniques for improvement of mechanical characteristics.
- Industrial applications of polymer matrix composites and 3D printed structures.

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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.

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