High Performance Structural Polymer-based Composites and Their Related Applications

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Abstract

High performance structural polymer-based composites are increasingly used in various key sectors such as aerospace, aeronautics, transport where weight saving and multi functionality are strongly targeted. The objective of this symposium is to gather scientists and engineers from both academia and industry for discussing and exchanging their current RDI activities in the field of High performance structural polymer-based composites. As this is a dynamic field, the scope of this symposium will cover a broad range of mechanical, physical and functional properties of composites. Both theoretical /analytical and experimental works on prediction of the performance of composites components are encouraged as well as challenging industrial applications

Topics include (but not limited):

- Multi functional materials
- Interfaces and Interphases
- Thermal and electrical conductivity, flame properties
- Advanced processing and characterization techniques for High performance structural polymer-based composites
- Assembly and joining
- Micro-mechanics
- Multi-scale modelling
- Fracture mechanics, Failure analysis, Fatigue, Impact
- Structural Health monitoring

Keywords: functional materials, Interfaces and Interphases, characterization, Multiscale modelling, • Structural Health monitoring

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