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DESIGN AND MECHANICS OF MUTIFUNCTIONAL COMPOSITES AND STRUCTURES

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MINISYMPOSIUM

This minisymposium aims to bring together researchers to share new understanding on design and mechanics of composites and structures with multiple functions. The next generation of materials and structures will require unprecedented mechanical properties and multifunctionality. Composites and structures that possess multiple functions or the ability to sense and respond to various environmental conditions or stimuli will have a wide range of application prospects in aerospace, naval, vehicle engineering, flexible electronics, robotics and other fields. Issues related to the optimization design, properties tunning, multifunctional mechanisms, mechanical methods, and applications of composite materials and structures are welcome to be discussed in the conference. Structural functions include mechanical properties like strength, stiffness, fracture toughness, and damping, while non-structural functions include electrical and/or thermal conductivity, sensing and actuation, energy harvesting/storage, self-healing capability, electromagnetic interference (EMI) shielding, recyclability and biodegradability.