SAMPE Technical Conference and Exposition

18-21 May 2015. Baltimore, MD. Keep the date!

Symposium: Multifunctional Composites

Chair: Ever J. Barbero, West Virginia University, http://barbero.cadec-online.com
Co-chair: Erik Thostenson, University of Delaware, http://research.me.udel.edu/thostens

Multifunctional Composite Materials refers to composites that are specifically made, or modified, to provide more than one functionality. Composite's main functionality is to provide structural stiffness and strength with the lowest possible weight.

Although polymer matrix composites have many additional advantages such as corrosion resistance and so on, they also have shortcomings such as relatively poor acoustic damping, damage tolerance under impact, erosion resistance, and so on. Therefore, one aspect of multifunctional composites is to provide enhanced properties, i.e., functionalities, without adversely affecting the inherently high stiffness- and strength-densities for which composites are most notable. Furthermore, by the nature of their processing and fabrication, composites offer the potential for adding functionalities such as self-healing, microvascular permeability, energy harvesting, and so on. Added functionalities could be active (e.g., active vibration control) or passive (e.g., constrained layer damping).

Thus, the aim of this symposium is to provide a forum for discussion and dissemination of modern approaches for improving or adding functionalities to composite materials.

Abstracts due: TBA

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> TBA

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