

Multifunctional Polymer Nanocomposites

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This presentation will show an overview of EB's research effort, driven by the vision to apply nanotechnology to polymers. The aim is twofold: i) advancing fundamental understanding of polymer physics and processing and ii) provide polymers with a host of new functionalities, including electrical and thermal conductivity, sensing, gas barrier, fire retardancy, etc., for the benefit of different industries.

Selected papers presented: i) Ren et al. Nano Energy (2020) 104662. ii) Meng et al. Nature Communications (2019) 10, 4535. iii) Santagiuliana et al. ACS Nano (2018) 12, 9040. iv) Taroni et al. Advanced Functional Materials (2018) 28, 1704285. v) Liu et al. Advanced Functional Materials (2017), 27, 1702253. vi) Li et al. ACS Applied Materials & Interfaces (2016), 8, 24112