

Abstract Submitted  
for the MAR16 Meeting of  
The American Physical Society

**Interfacial slip in nano filled polymer blends** JOHN MIKHAIL, DI XU, JOSEPH ORTIZ, DILIP GERSAPPE, Stony Brook University — The ability to control the interfacial slip in polymer blends is key to strengthening the material. Here, we look at how nano fillers can be used to strengthen the interface. By designing nano fillers with the appropriate surface energy we show how nano fillers can localize at the interface between the two polymer blends. We examine the role that the aspect ratio of the nano filler has on its ability to reduce the interfacial slip, and look to understand the mechanisms by which the slip is reduced. We look for network formation near the interface as a possible strengthening mechanism.

Di Xu  
Stony Brook University

Date submitted: 06 Nov 2015

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