

Nanofibers Enhanced Strain Hardening of Linear Polymer (*New - Fall 2018*)

Faculty advisor: Prof. Patrick Lee

Strain hardening has important roles in understanding material structures and polymer processing methods, such as foaming, film forming, and fiber extruding. A common method to improve strain hardening behavior is to chemically branch polymer structures, which is costly, thus preventing the users from controlling the degree of behavior. A smart nanofiber blending technology, however, would allow cost-efficient tuning of the degree of strain hardening. In our previous study, we hypothesized and proved that compounding polymers with heat-shrinking fibers enhances the strain hardening of a polymer. In this study, we want to explore nanofiber enhanced structures for various applications.

Contact:

Prof. Patrick Lee, patricklee@mie.utoronto.ca