Using Soft Polymers to Regulate Friction Between Sliding Surfaces - PRF# 48911 - DNI 6

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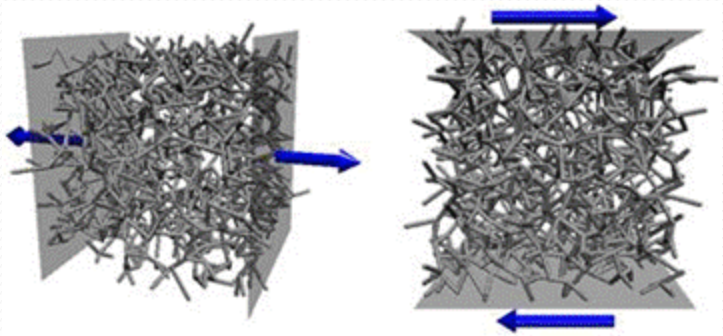
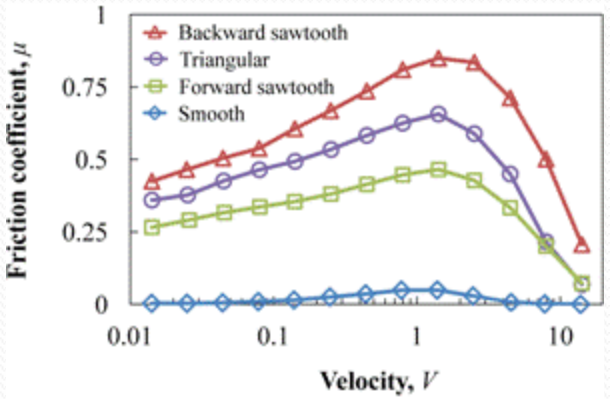
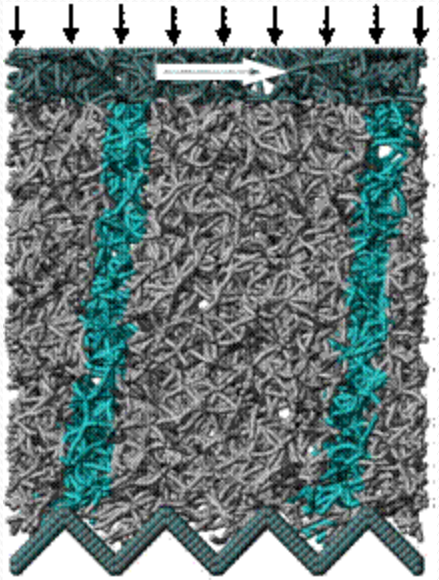


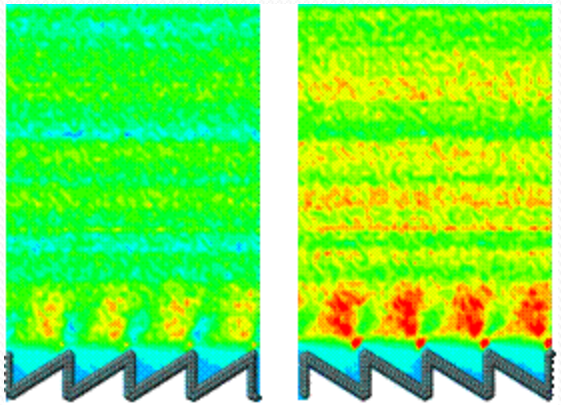
Mesoscale computational model for compliant polymer networks was developed and validated



We showed that anisotropic surfaces can be used to regulate friction forces



We examined sliding friction between polymer networks and surfaces with different micro-topography and on adhesive surfaces



Friction forces are controlled by internal stresses arising in sliding polymer networks

The results point to new approaches for regulating friction using compliant polymers and micro-structured surfaces