

Movie S1:

Name: stars\_semidilute\_intermediate\_shear.avi

Title: Star-polymer solution at intermediate shear rate

Legend:

Simulation animation of a solution of star polymers with functionality  $f=10$ , arm length  $N_m=30$ , concentration  $c/c^*=0.75$ ,

and intermediate shear rate with concentration-dependent Weissenberg number  $Wi_c=15$ .

Keywords:

star polymers, ultra-soft colloids, semi-dilute solution, hydrodynamics, mesoscale simulations, shear flow

Movie S2:

Name: stars\_semidilute\_high\_shear.avi

Title: Star-polymer solution at high shear rate

Legend:

Simulation animation of a solution of star polymers with functionality  $f=10$ , arm length  $N_m=30$ , concentration  $c/c^*=0.75$ ,

and high shear rate with concentration-dependent Weissenberg number  $Wi_c=153$ .

Keywords:

star polymers, ultra-soft colloids, semi-dilute solution, hydrodynamics, mesoscale simulations, shear flow