





Figure S1: Properties of the collapsed core/swollen shell case. (a) Volume of particle and its core (relative to their reference states), (b) stress, (c) stretch and (d) density of polymer.



Figure S2: PNIPAM core/PNIPMAM shell. Size of (a) core and (b) shell (relative to their reference states) with varying temperature and shell fraction. Transition temperature of one domain is affected by the presence of the other domain.



Figure S3: Radial density profiles of PNIPAM core/PNIPMAM shell particles at VPTT(core) < T < VPTT(shell). X = 15 % at the inner boundary and decreases quadratically. Total number of cross-links is as if *X* was constant at 5 %.