SUPPORTING INFORMATION

The Wetting Behavior of Polymer Droplets: Effects of Droplet Size and Chain Length

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1. Equilibration during the Monte Carlo runs

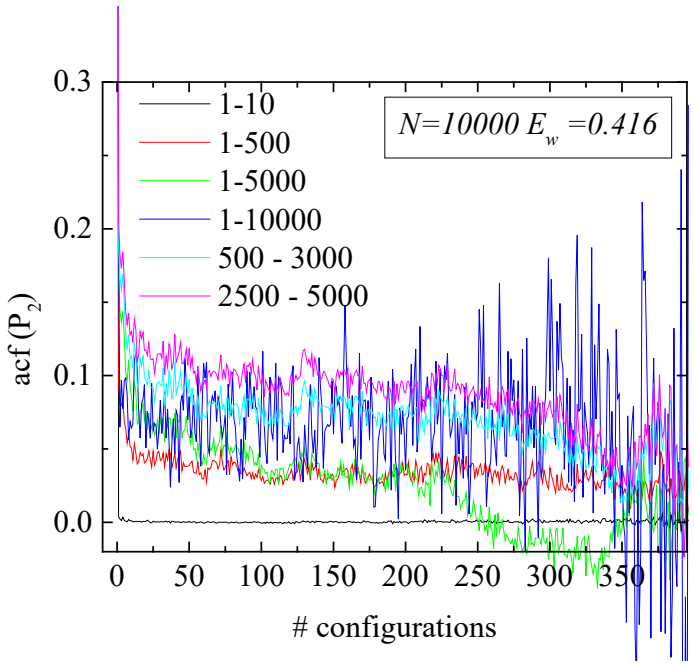

Figure 1s: The autocorrelation function of the second Legendre polynomial, $P_2(t) = \frac{3}{2}\langle \cos^2 \theta(t) \rangle - \frac{1}{2}$, for various vectors connecting monomers *i* and *j* along the longest polymer chain for the *N=10000*, E_w*=0.416* system, where *θ(t)* is the angle of the vector connecting monomers *i* and *j* at time *t* relative to its position at *t=0*.

We observe that all vectors connecting monomers along the chain have been decorrelated after the first almost *50* configurations (which correspond to *250.000.000* MCS). For vectors, which connect an end-monomer with another monomer of the chain (1-10, 1-500, etc. in graph) it is observed that the shorter vectors decorrelate faster whereas decorrelation is achieved even for the longest (end-to-end vector, *1-10.000*), following a decreasing order of decorrelation times (i.e., from the longest to the shortest one). Intermediate vectors (500-3000 and 2500-5000 in the graph) are somewhat slower but they also relax eventually during the simulation run, which is four times longer than the time window shown in Figure 1s.

2. Snapshots of Chain Conformations

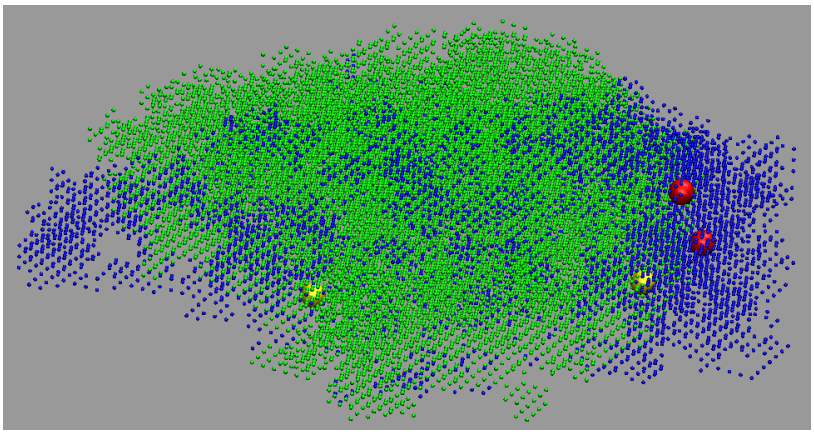

Figure 2s: Conformations of the chain at two different time points during the simulation (which are $2x10^9$ MCS apart) are shown and the positions of the chain ends are emphasized with bigger and different color points for the *N=10000, E_w=0.416* system. Blue with red ends: initial conformation. Green with yellow ends: final conformation.

3. Time evolution of the ratio R_{gz}/R_{gxy}

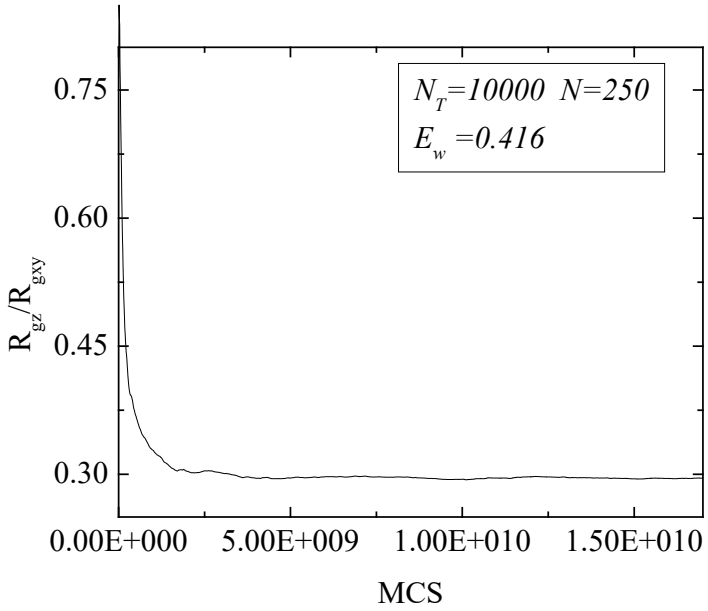

Figure 3s: The ratio Rg_z/Rg_{xy} as a function of time (MCS) for the N_T=10000, N= 250 at E_w=0.416 system.