

## Effect of bond length fluctuations on crystal nucleation of hard bead chains Supplementary Material

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## I. DIFFUSION COEFFICIENT OF THE HARD-SPHERE POLYMERS

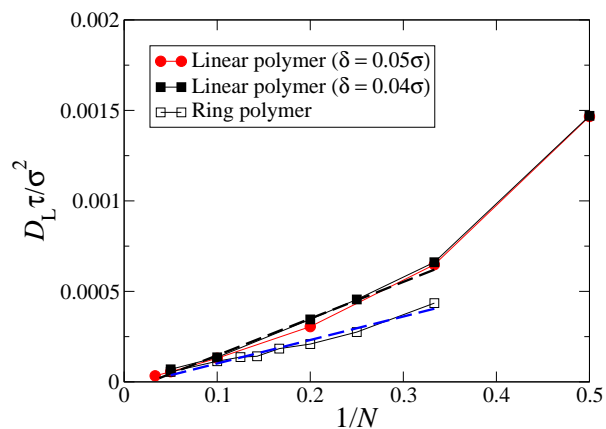


FIG. 1. Long-time diffusion coefficients  $D_L \tau / \sigma^2$  of linear hard-sphere polymers with bond length  $\delta = 0.04\sigma$  (solid squares) and  $\delta = 0.05\sigma$  (solid circles) and of ring-like hard-sphere polymers with bond length  $\delta = 0.05\sigma$  (open squares) as a function of  $1/N$  where  $N$  is the chain length. Here  $\tau = \sigma \sqrt{m/k_B T}$  with  $m$  and  $\sigma$  the mass and diameter of the spheres, respectively.