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Water, Hydrophobic Interactions, and Polymer Collapse

THOMAS TRUSKETT, The University of Texas at Austin

The collapse of a hydrophobic polymer in water is a basic model for many-body hydrophobic interactions, and it holds promise of providing fundamental insights into biomolecular folding transitions. Here, we discuss simulations that probe the effects of monomer length scale along with the strength of monomer-monomer and monomer-water interactions on the thermodynamics of the hydrophobic polymer collapse transition.