Fig. 2. An illustration of how conformations at a given state of the bin framework relate to the energy landscape of a given protein. $\hat{E}$ is the best solution quality found so far and serves as an estimate of the ground state energy, $\Delta E$ is the energy range of interest, and conformations within this range are binned. Each bin $i$ has energy threshold $E_i^+$, diversity threshold $HD_i$, and energy window $\Delta E_i$.

Fig. 3. Part (a) shows the lowest energy conformation of homopolymer of length 64 found by BINMC (total energy $-391$, short-range energy $-212$, long-range energy $-179$). A detailed description of this conformation is given in the supplementary material. Part (b) shows same conformation as seen from above.