Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Supporting Information

Dynamic evolution of vesicle formed by comb-like block copolymers tethered nanoparticles: a dissipative particle dynamics simulation study

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The two vesicles formed of comb-like block copolymers tethered nanoparticles are shown in Fig. S1 (a) and the diameters of which are $20r_c$ and 22 r_c respectively. We can clear see that the fusion mechanism is consistent with that of equal vesicles. However, this fusion process last about 6000 DPD time units, which is faster than that of equal ones observed in our simulations.

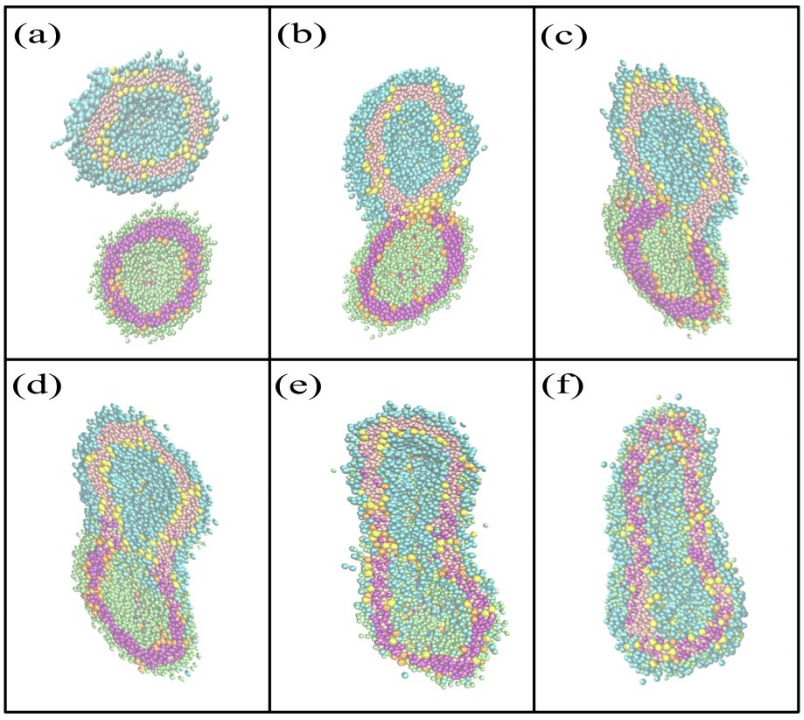

Fig S1 Spontaneous fusion process for vesicles formed by comb-like block polymer tethered nanoparticles $PA_{10}(B_2)_5$ and $QC_{10}(D_2)_5$. Part (a) is the initiate state, and the snapshots are selected at (b) 36000; (c) 40000;（b) 42000; (e) 70000; (f) 90000 DPD time. Water beads are not shown for clarity.

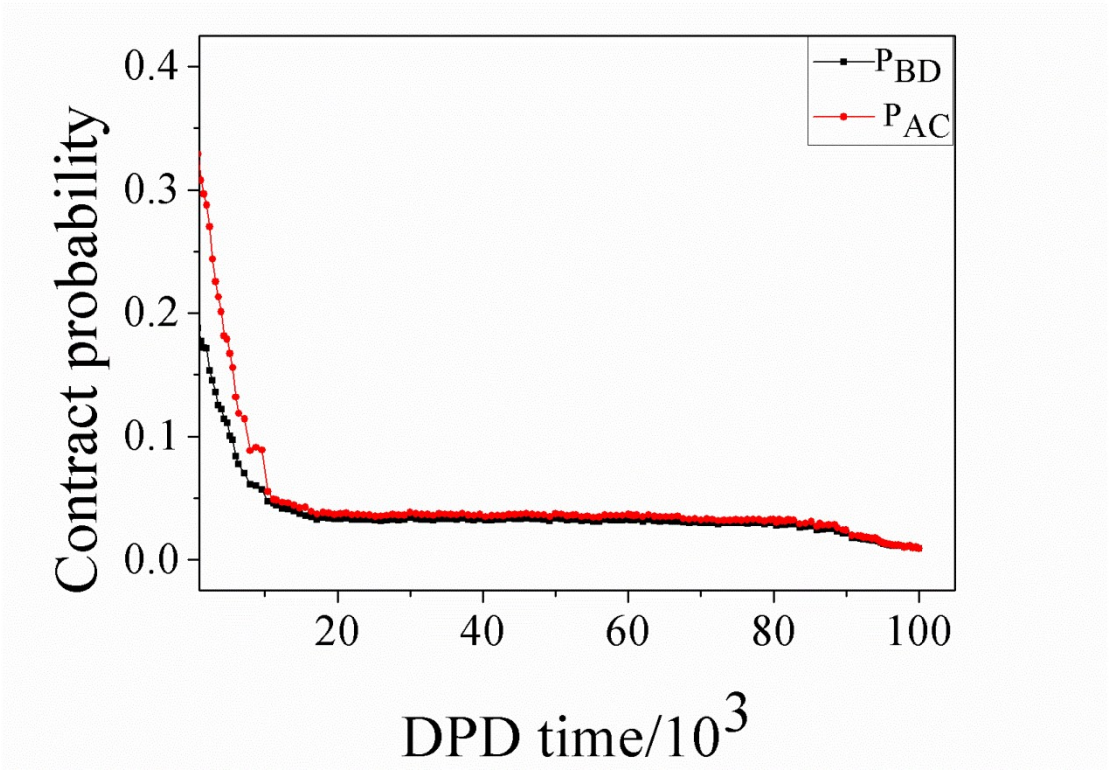

Fig. S 2: The variation of contract probability as a function of time in the fission process.