

## Supporting Information

### **Long chain–induced depletion effect for abnormal grafting in the preparation of bimodal bidisperse polymer-grafted nanoparticle**

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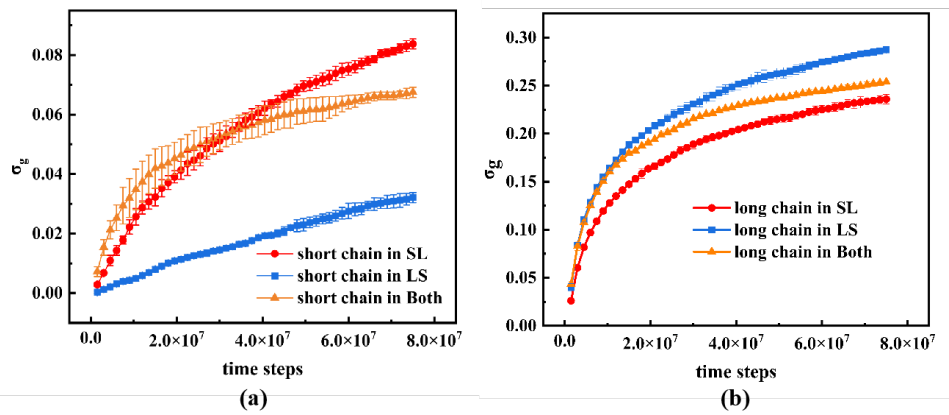
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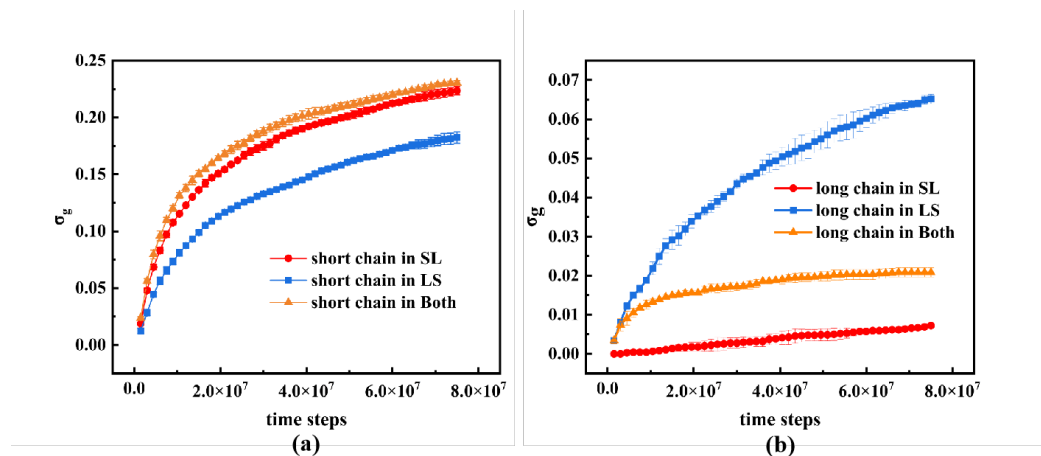
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**Figure.S1.** Variation of the average graft density  $\sigma_g$  of short chains (a) and long chains (b) of different grafting strategies (red lines for SL, orange lines for Both and blue lines for LS) with MD simulation time in the case of  $\lambda = 0.125$ . Three sets of parallel samples are used to calculate the average value and error bar.



**Figure S2.** Variation of the average graft density  $\sigma_g$  of short chains (a) and long chains (b) of different grafting strategies (red lines for SL, orange lines for Both and blue lines for LS) with MD simulation time in the case of  $\lambda = 0.875$ . Three sets of parallel samples are used to calculate the average value and error bar.