

# Supplementary Materials: Preparation of Well-defined Propargyl-terminated Tetra-arm Poly(*N*-isopropylacrylamide)s and Their Click Hydrogels Crosslinked with $\beta$ -cyclodextrin

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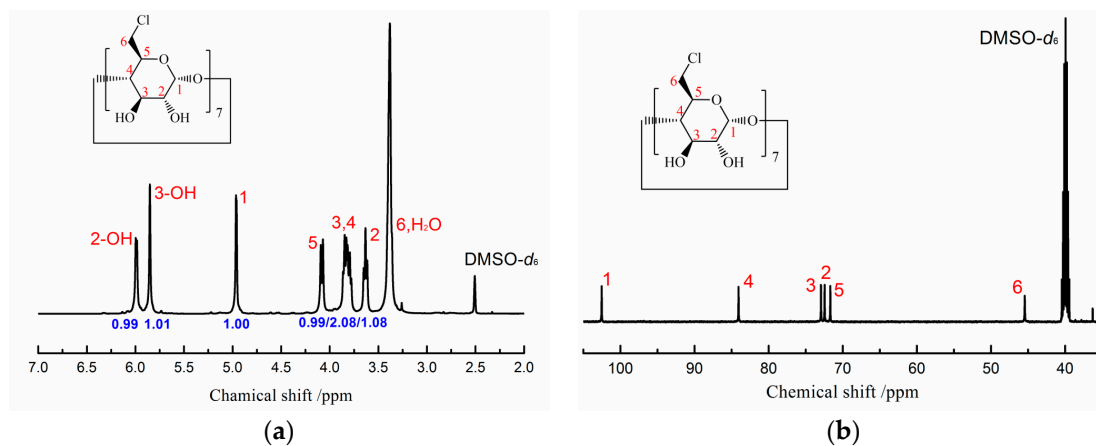


Figure S1.  $^1\text{H}$  NMR (a) and  $^{13}\text{C}$  NMR (b) spectra of  $\beta$ -CD-Cl $_7$ .

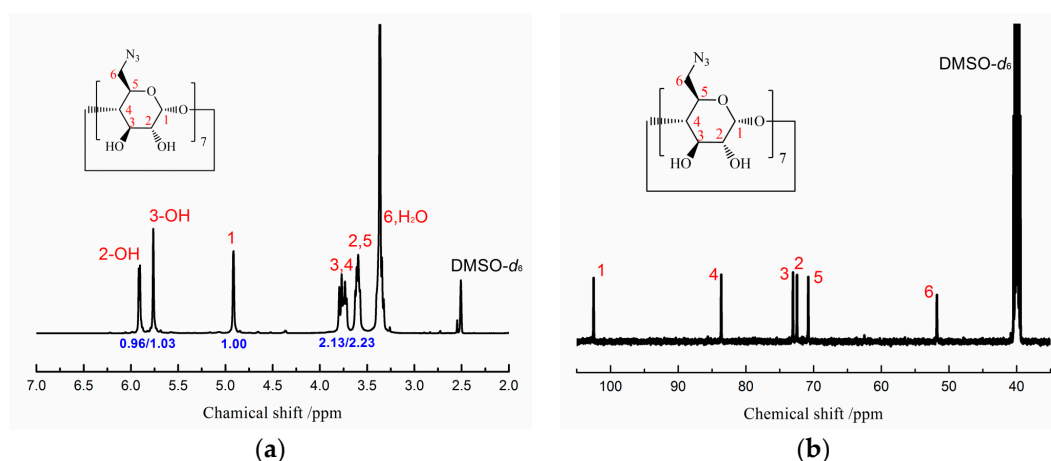


Figure S2.  $^1\text{H}$  NMR (a) and  $^{13}\text{C}$  NMR (b) spectra of  $\beta$ -CD-(N $_3$ ) $_7$ .

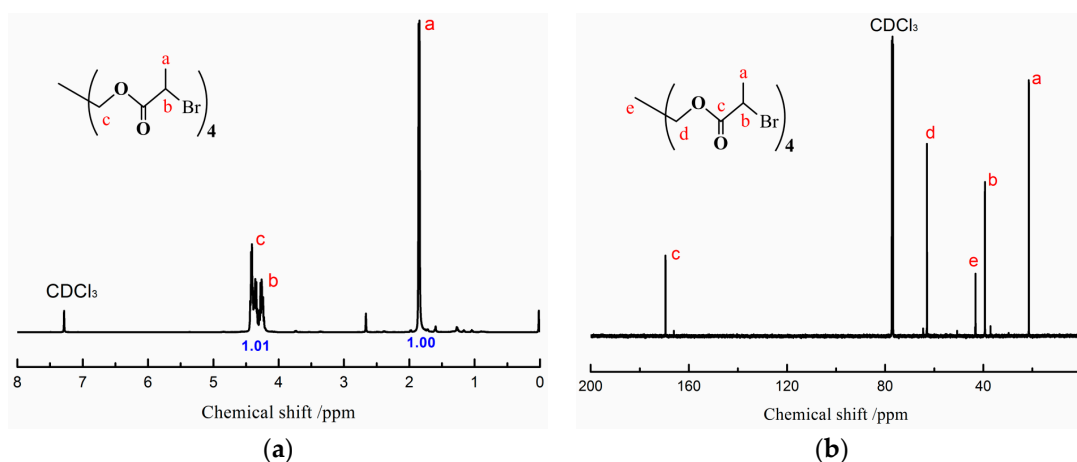


Figure S3.  $^1\text{H}$  NMR (a) and  $^{13}\text{C}$  NMR (b) spectra of PTB.

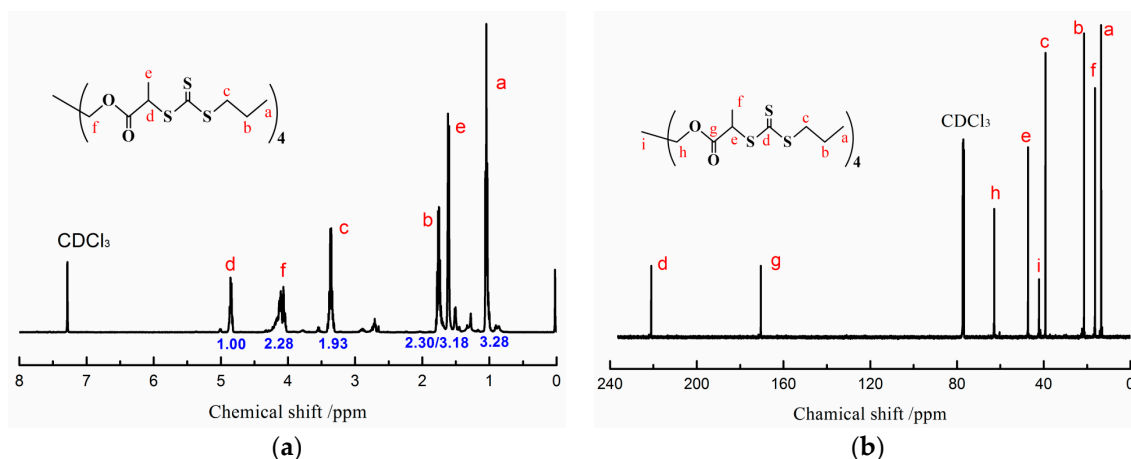


Figure S4.  $^1\text{H}$  NMR (a) and  $^{13}\text{C}$  NMR (b) spectra of star-CTA.

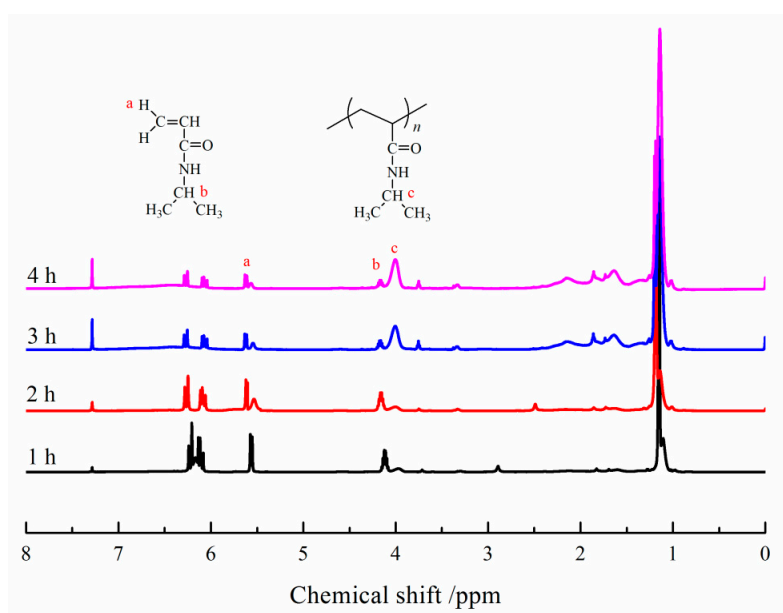


Figure S5.  $^1\text{H}$  NMR spectra of NIPA polymerization systems at different times, which was used to calculate monomer conversion. The polymerization condition is as follows:  $[\text{NIPA}]/[\text{star-CTA}]/[\text{AIBN}] = 167/1/0.2$ , the monomer concentration in THF is 25 wt %, polymerization temperature is  $70^\circ\text{C}$ .

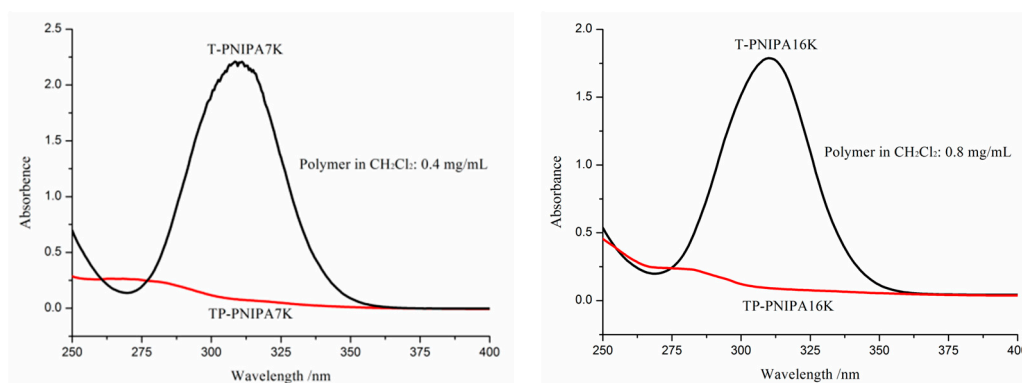
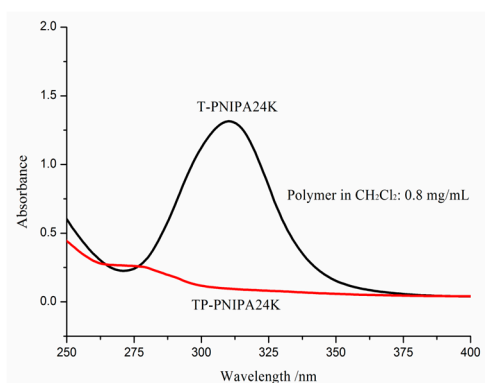
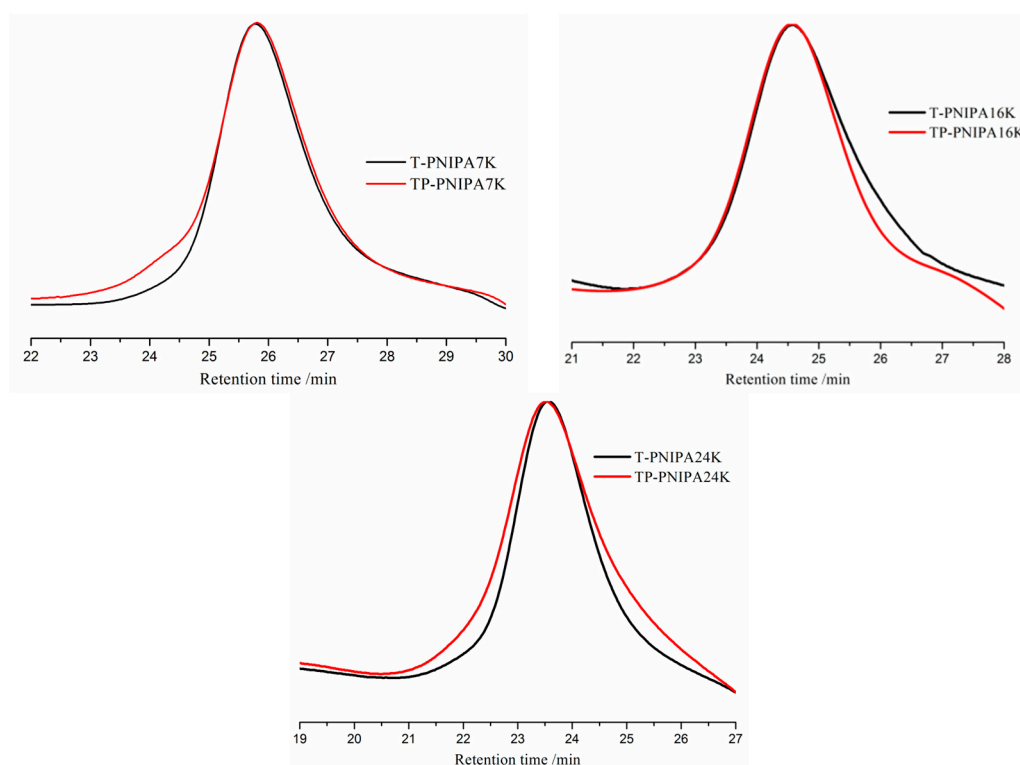


Figure S6. Cont.



**Figure S6.** UV traces of PNIPAs before and after modification.



**Figure S7.** GPC traces of PNIPAs before and after modification.



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