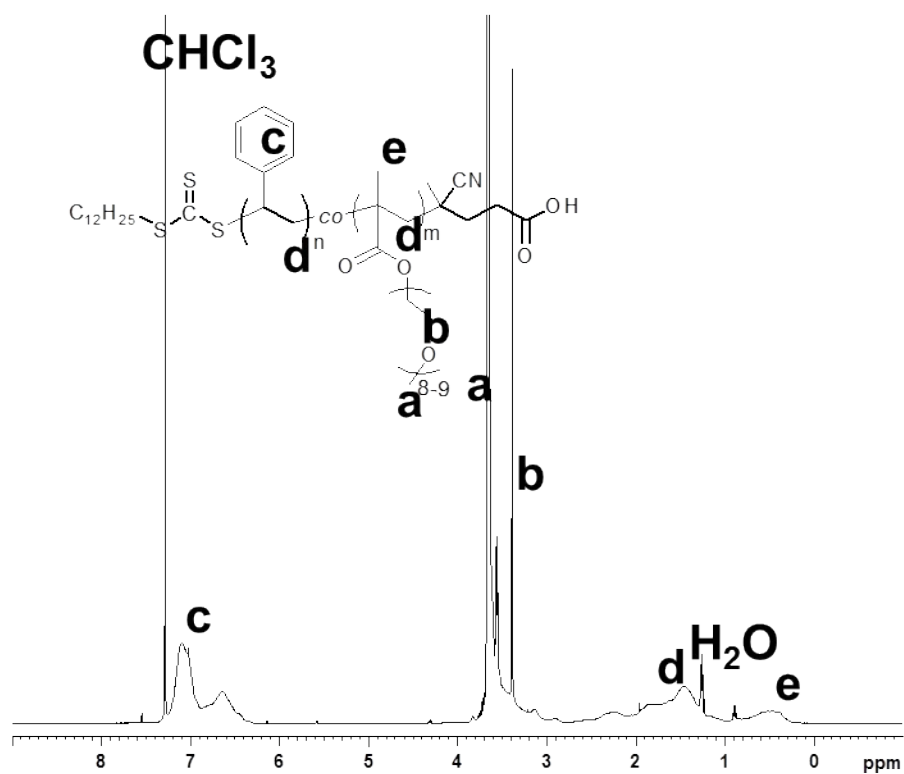


## Supporting information

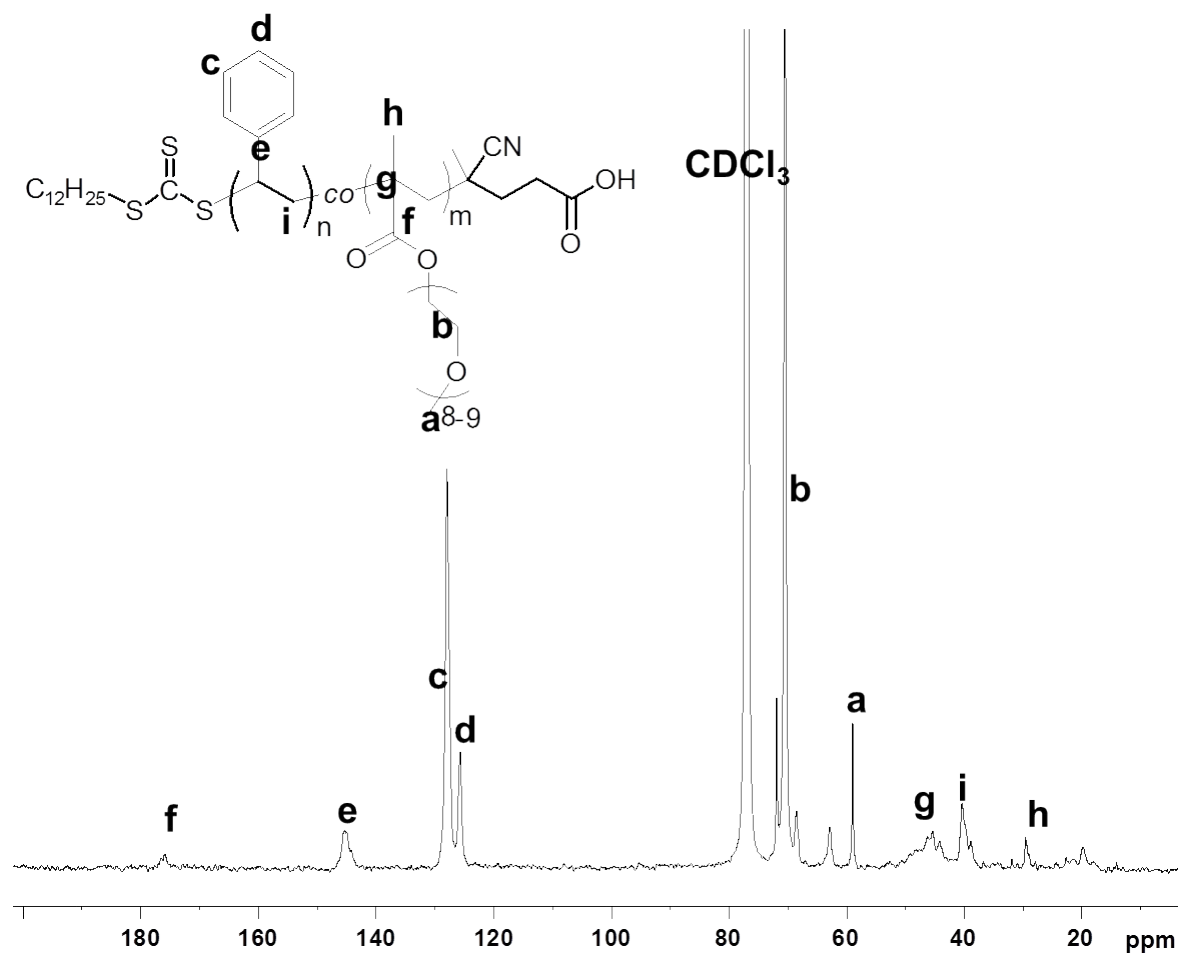
### Aqueous Solution Behaviour of Novel Water-Soluble Amphiphilic Copolymers with Elevated Hydrophobic Unit Content

*Zhen Jiang, Blakey Idriss and Andrew K. Whittaker*

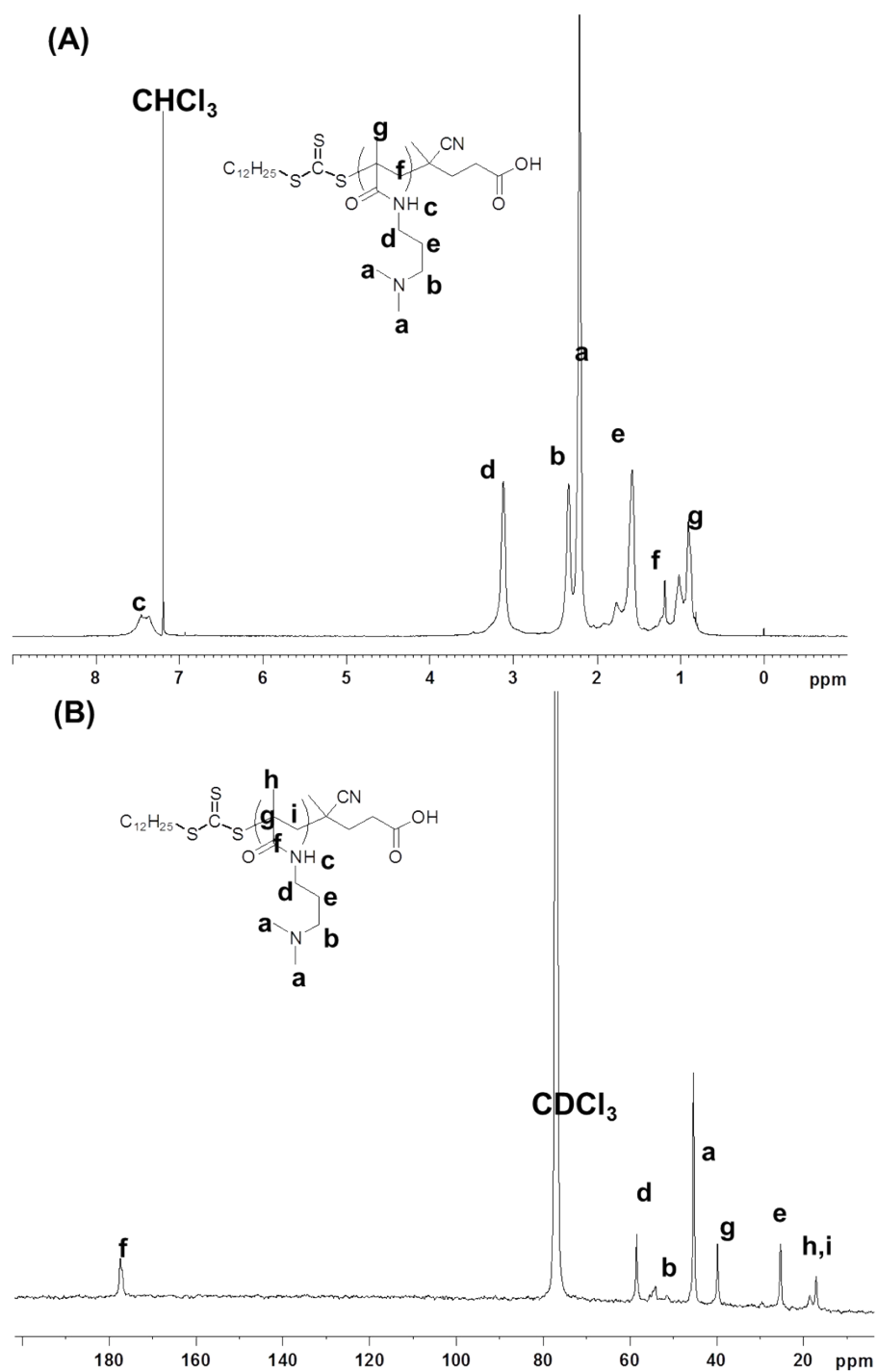
Australian Institute of Bioengineering and Nanotechnology, Centre for Advanced Imaging, The  
University of Queensland, St. Lucia, Queensland 4072, Australia.



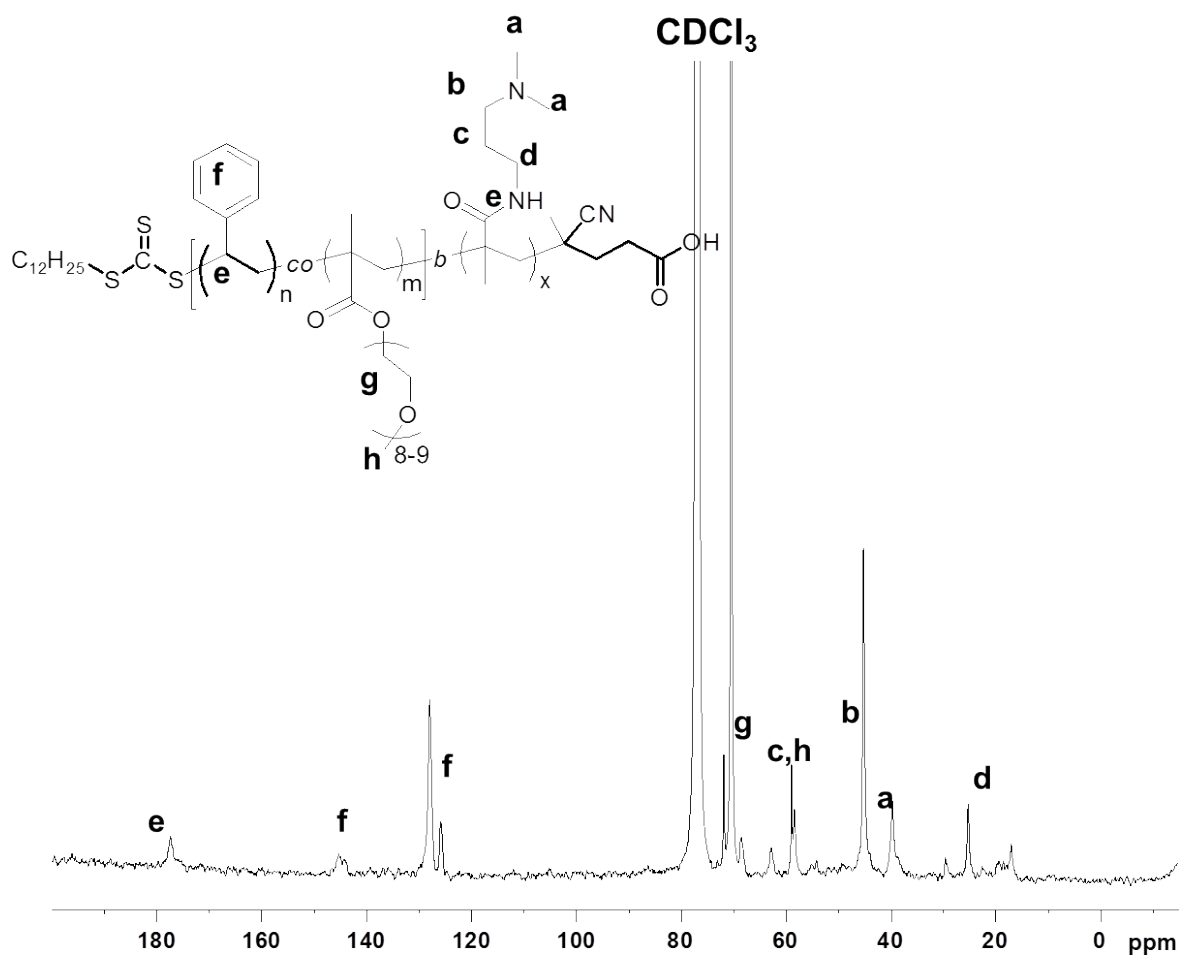
**Figure S1.**  $^1\text{H}$  NMR spectrum of copolymer STAT1 recorded in  $\text{CDCl}_3$ .



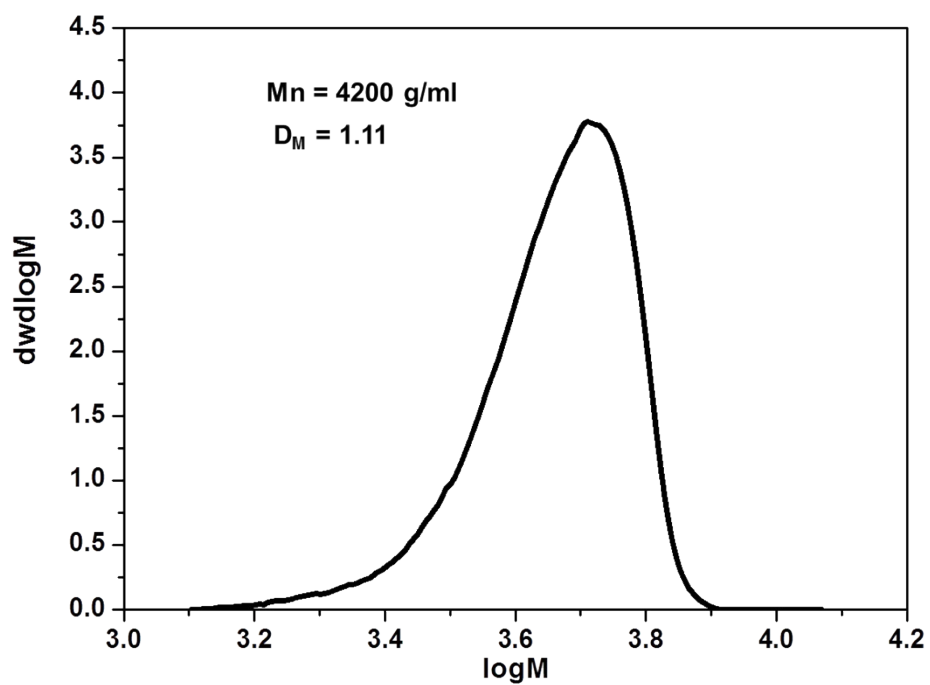
**Figure S2.**  $^{13}\text{C}$  NMR spectrum of poly(OEGMA-*stat*-styrene) in  $\text{CDCl}_3$ .



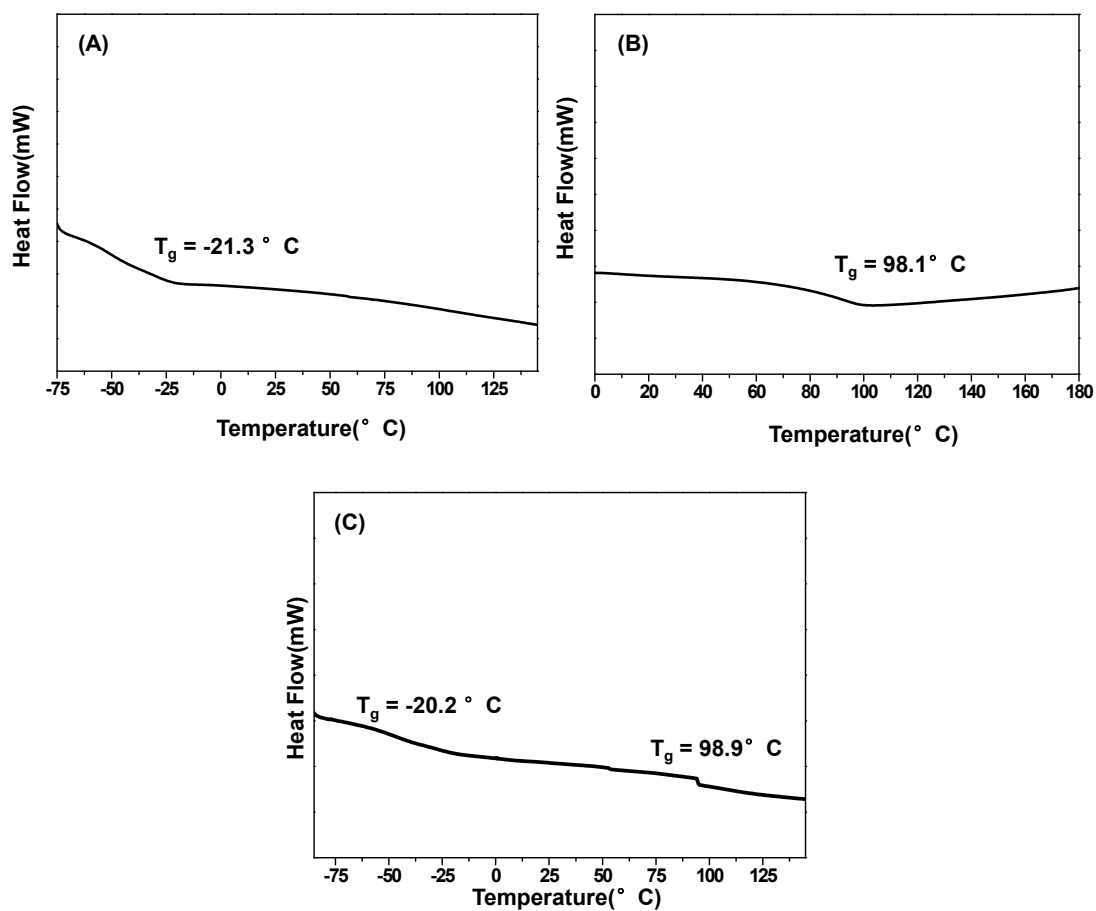
**Figure S3.**  $^1\text{H}$  NMR (A) and  $^{13}\text{C}$  NMR (B) spectra of P(DMAPMA) in  $\text{CDCl}_3$ .



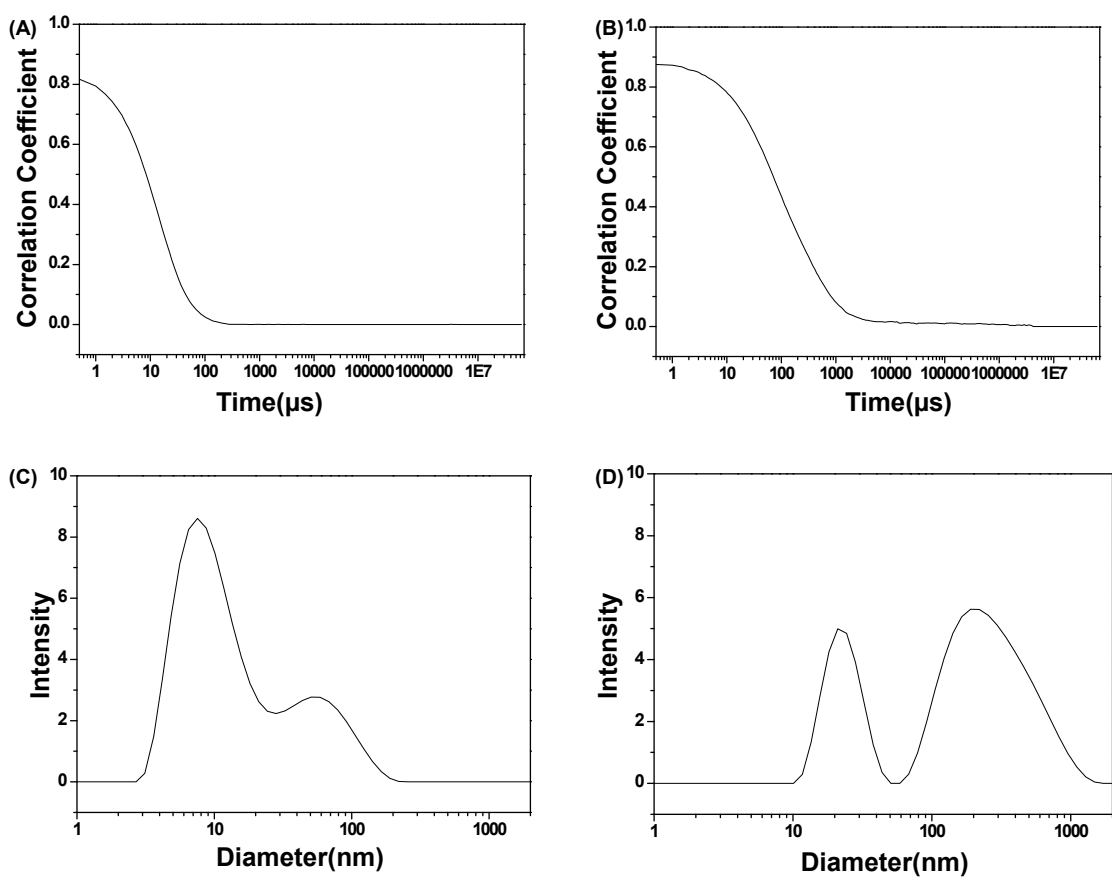
**Figure S4.**  $^{13}\text{C}$  NMR spectrum of poly(OEGMA475-*stat*-styrene)-*b*-(DAPMA) in  $\text{CDCl}_3$ .



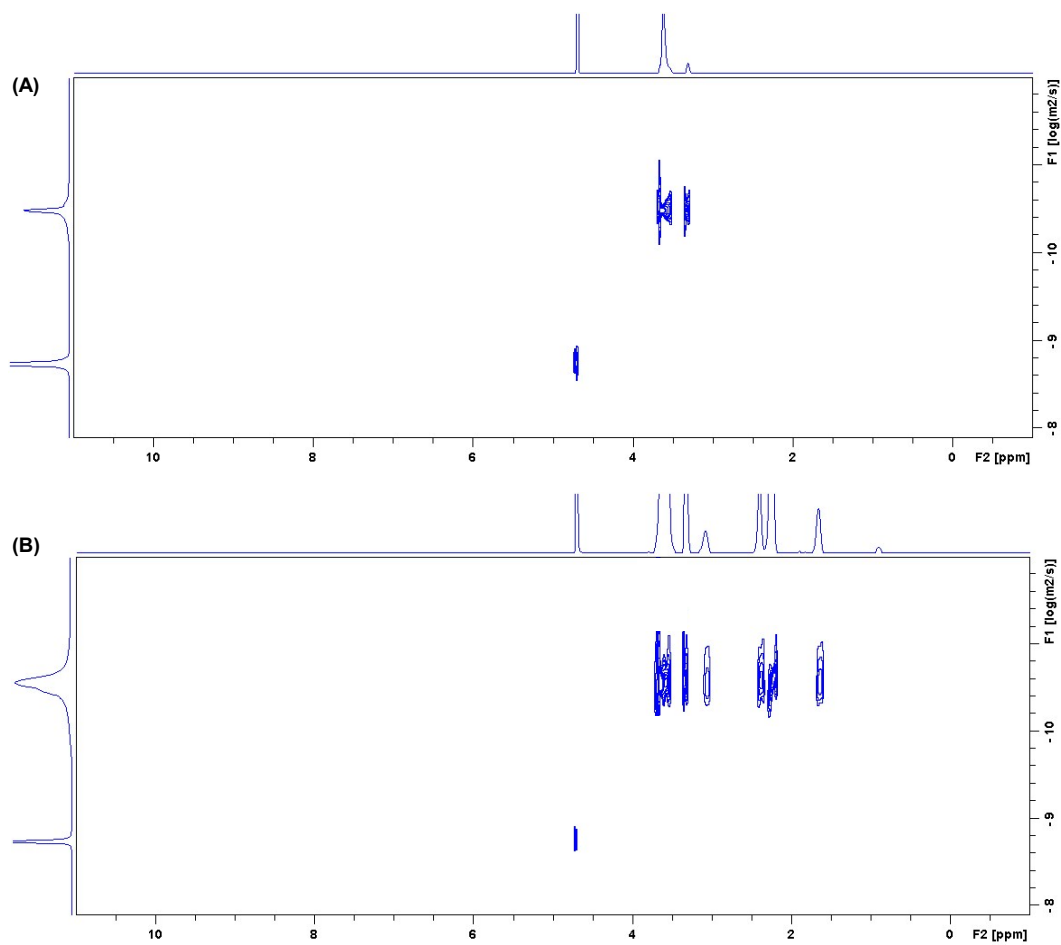
**Figure S5.** Aqueous SEC chromatogram showing molecular-weight distribution of P(DMAPMA).



**Figure S6.** DSC traces for the STAT1 (A), P(DMAPMA) homopolymer (B) and BCP1 (C).

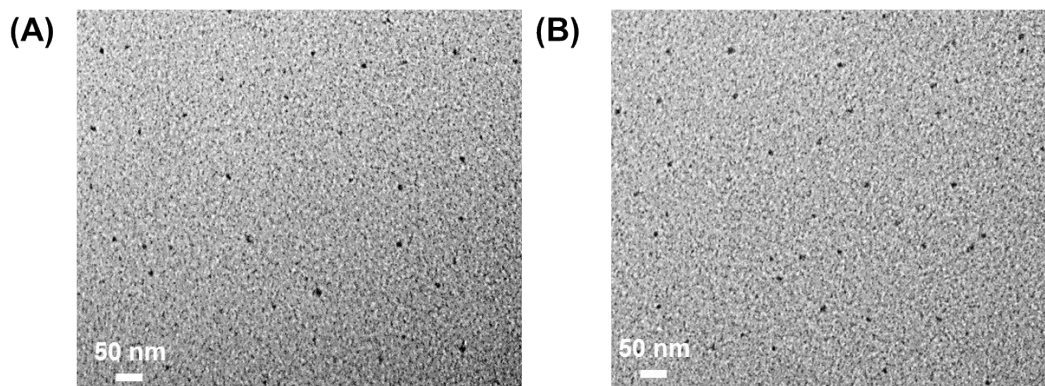


**Figure S7.** Autocorrelation function for STAT1(A) and BCP1(B) and intensity size distributions for STAT1 (C) and BCP1 (D) measured by DLS.

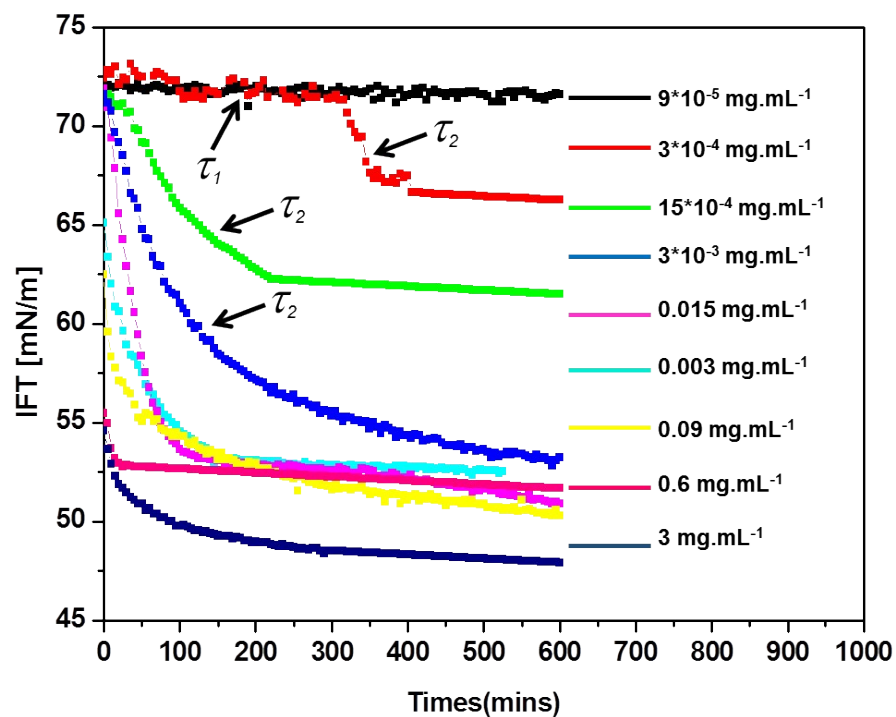


**Figure S8.**  $^1\text{H}$  DOSY NMR spectra of STAT1(A) and (B) BCP1 in  $\text{D}_2\text{O}$ .





**Figure S9.** TEM images (0.1 mg/ml at 25 °C) of self-assembled aggregates of polymers for BCP2 (A), BCP3 (B).



**Figure S10.** Dynamic surface tension of solutions of varying concentration in water of copolymer BCP1 as a function of time.