Supporting Information for

RAFT synthesis of triply responsive poly[N-[2-(dialkylamino)ethyl]acrylamide]s and the N-substitute determined response

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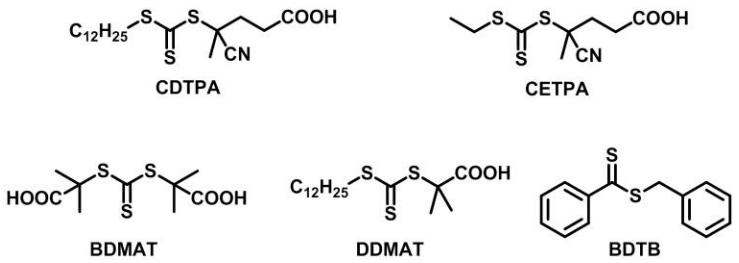


Scheme S1. The RAFT agents of CDTPA, CETPA, BDMAT, DDMAT, and BDTB.

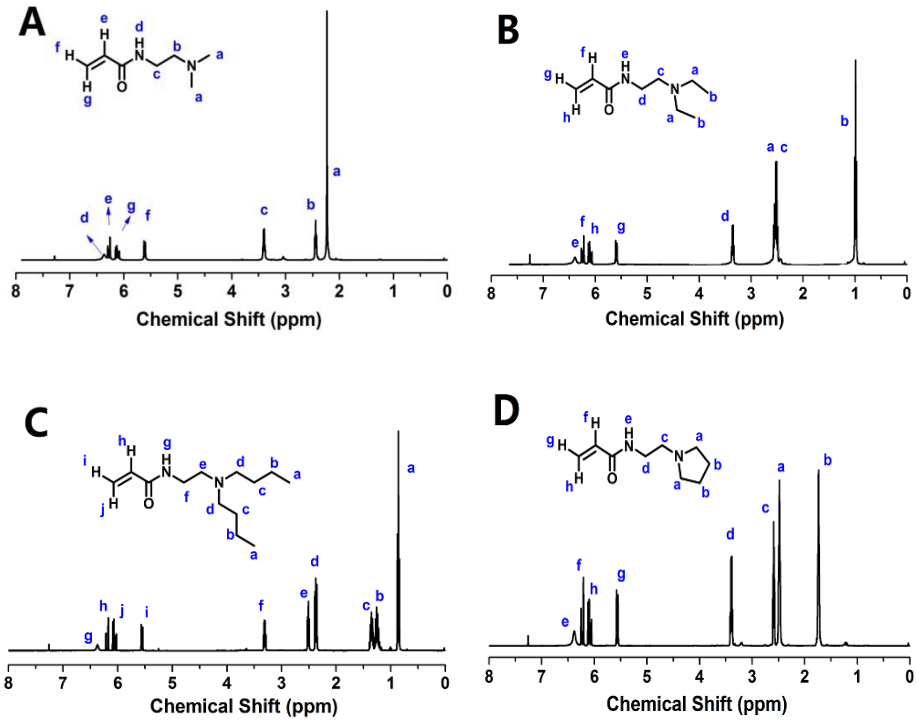


Figure S1. The ^{1}H NMR spectra of DMAEAM (A), DEAEAM (B), DBAEAM (C) and EPyAM (D) in $CDCl_3$.

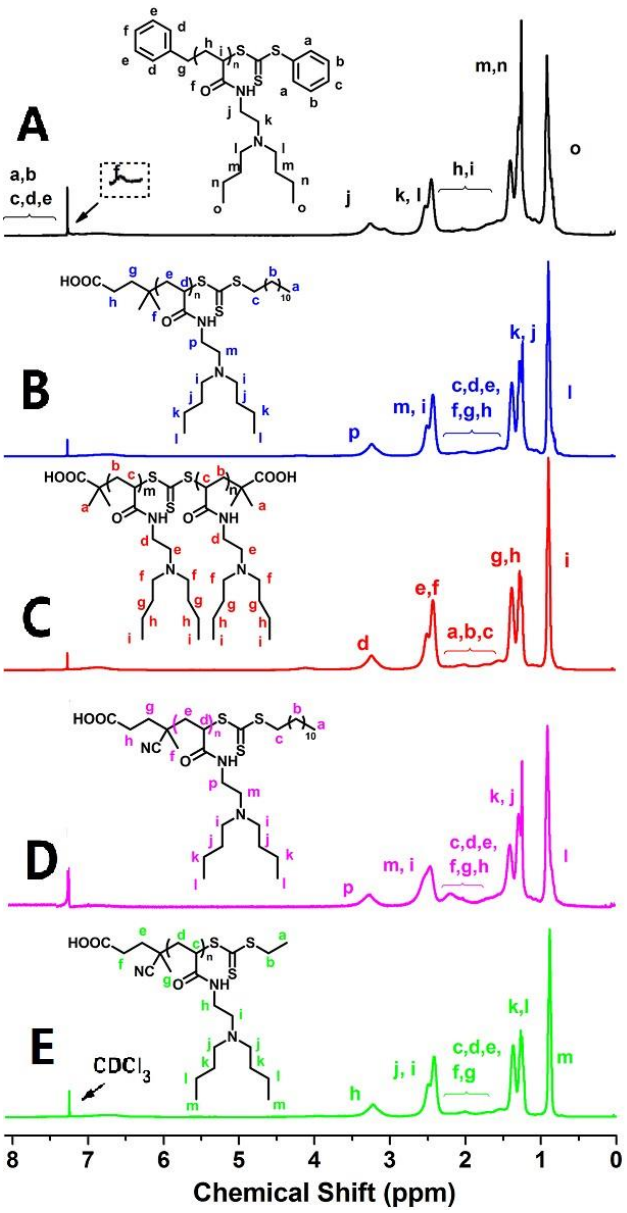
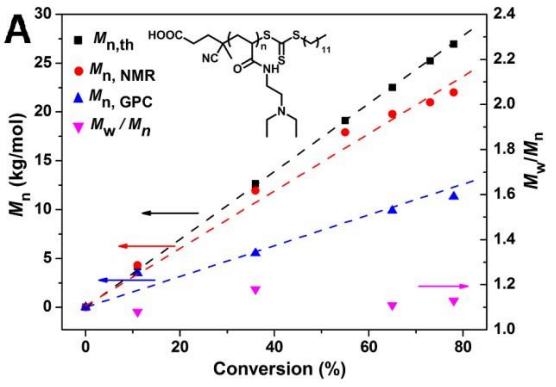


Figure S2. The ^{1}H NMR spectra of PDBAEAM-BDTB (A), PDBAEAM-DDMAT (B), PDBAEAM-BDMAT (C), PDBAEAM-CDTPA (D) and PDBAEAM-CETPA (E) in $CDCl_3$.



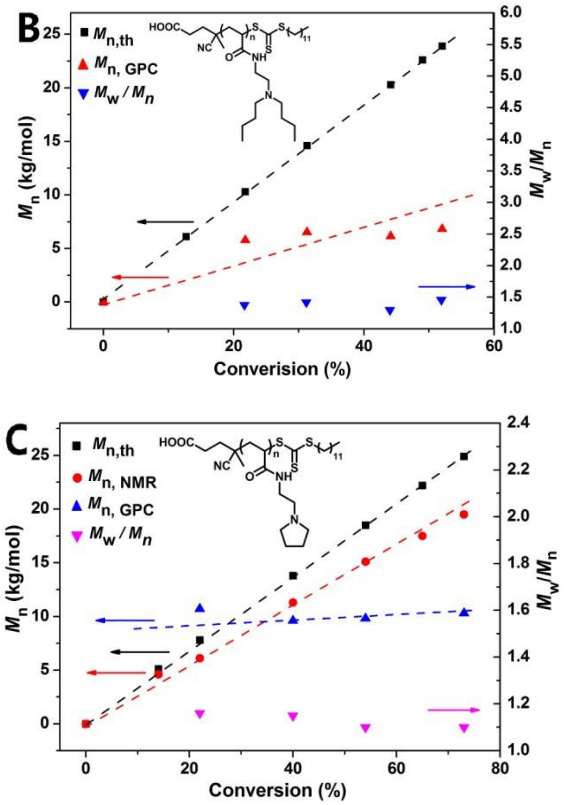


Figure S3. The evolution of the molecular weight and the *Đ* (M_w/M_n) value of PDEAEAM (A), PDBAEAM (B) and PEPyAM (C) with the monomer conversion in the solution RAFT polymerization.

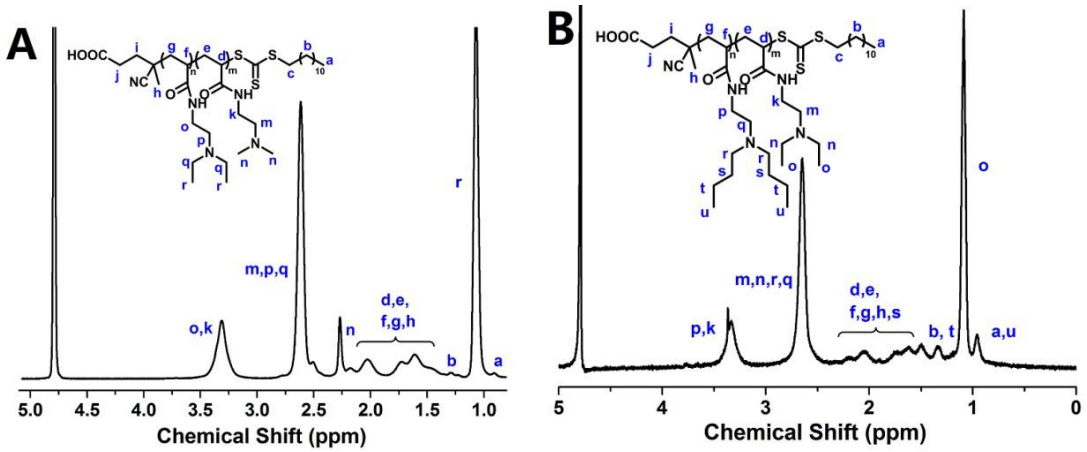


Figure S4. The ^{1}H NMR spectra of PDMAEAM-*co*-PDEAEAM (A) and PDBAEAM-*co*-PDEAEAM (B) in D_2O.