

—Supporting Information—

The synthesis and aqueous solution properties of sulfobutylbetaine
(co)polymers: Comparison of synthetic routes and tuneable upper critical
solution temperatures

Yicheng Zhu,[†] Janina-Miriam Noy,[†] Andrew B. Lowe,^{†,‡} Peter J. Roth^{†,‡,*}

[†] Centre for Advanced Macromolecular Design (CAMD), School of Chemical Engineering, University of New South Wales, Kensington, Sydney NSW 2052, Australia

[‡] *present address*: Nanochemistry Research Institute (NRI), Department of Chemistry, Curtin University, Bentley, Perth WA 6102, Australia

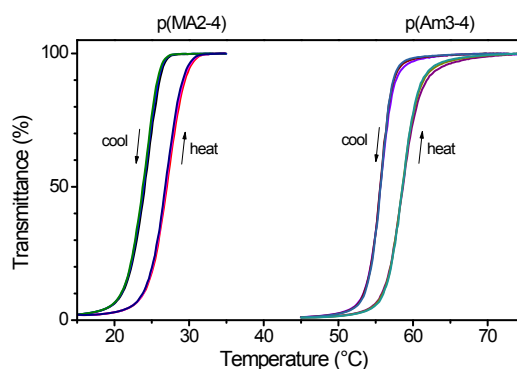


Figure S1. Representative cycling turbidity measurement showing good reproducibility and a hysteresis of ~ 3 °C during three consecutive heating and cooling cycles for RAFT-made **p(MA2-4)** (left) and pPFPA-derived **p(Am3-4)** (right).

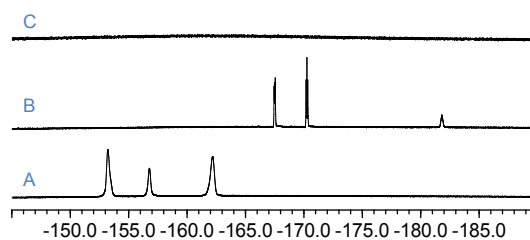


Figure S2. ^{19}F NMR spectra of (A) precursor pPFPA; (B) after reaction with **amine3-4** before purification showing the signals of free pentafluorophenol, and (C) of the resulting **p(Am3-4)** polymer after purification indicating complete removal of pentafluorophenol by dialysis.