

Supporting Information for

Self-Association of Amphiphilic Statistical Copolymers of Sodium 2-(Acrylamido)-2-methylpropanesulfonate and *n*-Hexyl Methacrylate in Aqueous Media

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Preparation of 1-Cyano-1-methylethyl Dithiobenzoate (CMEDTB). CMEDTB was prepared by a slight modification of the procedure of Thang et al.¹

2,2'-Azobisisobutyronitrile (AIBN) (7.0 g, 43 mmol) and di(thiobenzoyl)disulfide (9.0 g, 29 mmol), prepared according to the procedure of Mitsukami et al.,² were dissolved in benzene (100 mL). The reaction solution was heated under an argon atmosphere at 65 °C for 24 h and then at 80 °C for 12 h to complete the decomposition of AIBN. After evaporation of the solvent under reduced pressure, a red viscous oil was obtained. CMEDTB was purified by column chromatography (silicagel 60 Å, 70 – 230 mesh) using a THF/hexane mixed solvent (1/30, v/v) as eluent three times. Fractions that were red in color were combined and the solvent was evaporated to obtain CMEDTB; yield 7.0 g, 54 %; mp 29.1 – 29.6 °C. ¹H NMR (CDCl₃, 400 MHz): δ 1.94 (s, 6H, CH₃), 7.39 (m, 2H, ortho), 7.56 (m, 1H, para), 7.92 (m, 2H, meta). ¹³C

NMR (CDCl₃, 100 MHz): δ 26.6 (CH₃), 41.8 ((CH₃)₂CCN), 119.8 (C \equiv N), 126.5 (meta), 128.4 (ortho), 132.7 (para), 144.4 (ipso), 222.8 (C=S). Anal. Calcd for C₁₁H₁₁NS₂: C, 59.69; H, 5.01; N, 6.33. Found: C, 59.65; H, 4.95; N, 6.70.

References

- (1) Thang, S. H.; Chong, Y. K.; Mayadunne, R. T. A.; Moad, G.; Rizzardo, E. *Tetrahedron Lett.* **1999**, *40*, 2435-2438.
- (2) Mitsukami, Y.; Donovan, M. S.; Lowe, A. B.; McCormick, C. L. *Macromolecules* **2001**, *34*, 2248-2256.