

Supporting Information

Thiol-responsive block copolymer nanocarriers exhibiting tunable release with morphology changes

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Figure S1. First-order kinetic plot (a) and evolution of molecular weight and molecular weight distribution with conversion (b) for ATRP of HMssEt in the presence of PEO-Br in anisole at 50 °C. Conditions: [HMssEt]₀/[PEO-Br]₀/[CuBr]₀/[PMDTA]₀ = 60/1/0.35/0.45; HMssEt/anisole = 0.4/1 wt/wt. The solid line in (b) is the theoretically predicted molecular weight over conversion.

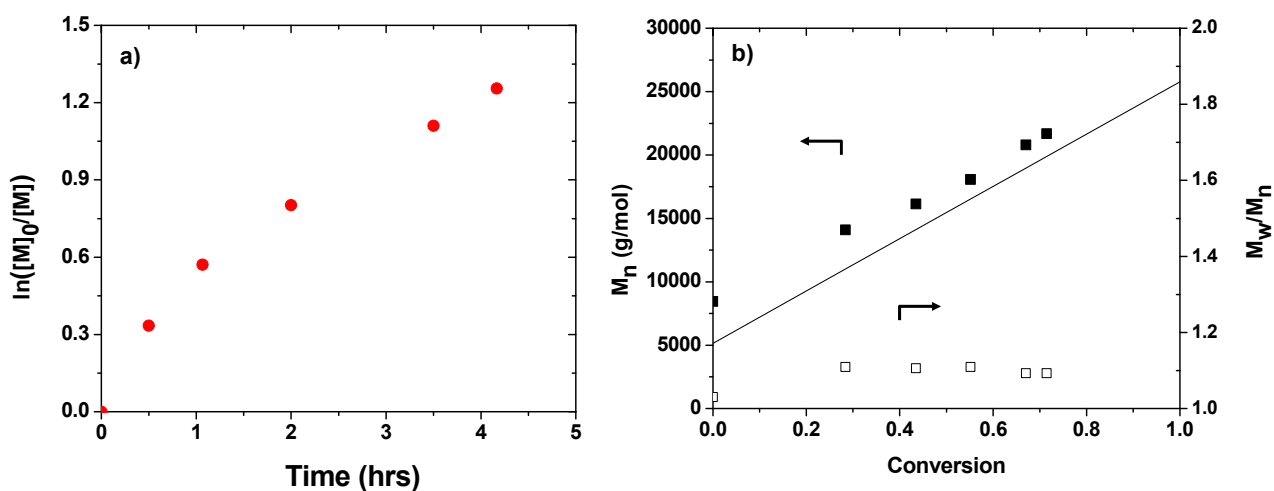


Figure S2. Evolution of GPC trace over conversion for ATRP of HMssEt in the presence of PEO-Br in anisole at 50 °C. Conditions for ATRP: $[\text{HMssEt}]_0/[\text{PEO-Br}]_0/[\text{CuBr}]_0/[\text{PMDETA}]_0 = 60/1/0.35/0.45$; HMssEt/anisole = 0.4/1 wt/wt.

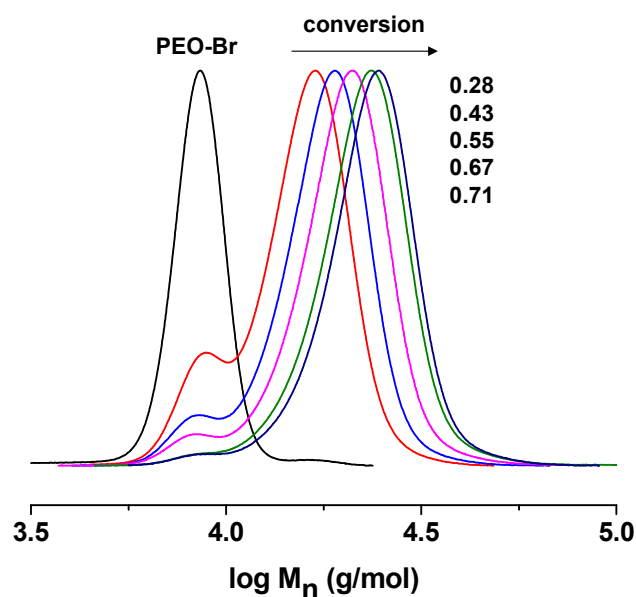


Figure S3. Surface pressure vs concentration of POE-b-PHMssEt to determine CMC using tensiometry.

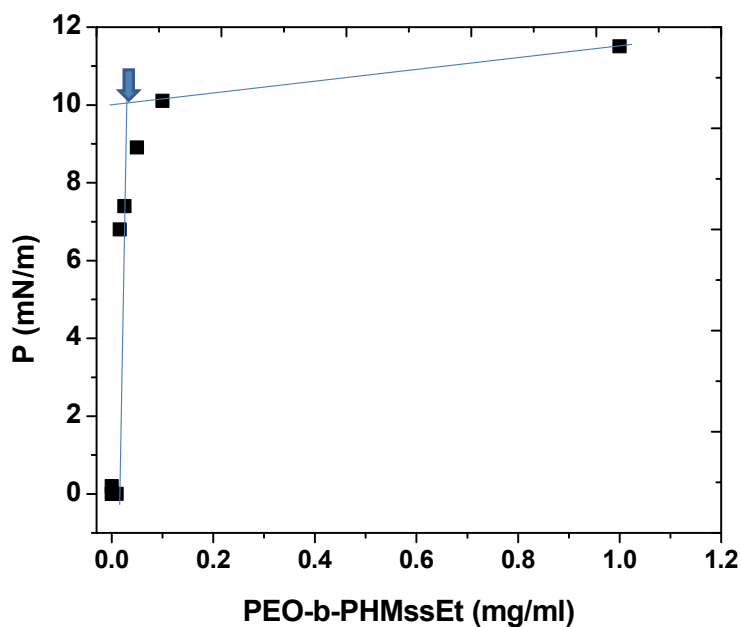


Figure S4. DLS diagrams by volume % of micelles mixed with and without 0.2 equivalent DTT in DMF.

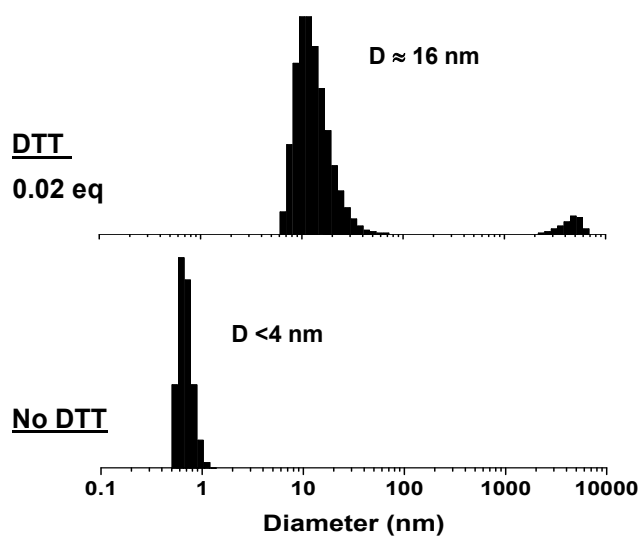


Figure S5. DLS diagrams of NR-loaded micelles freshly-prepared in aqueous solutions.

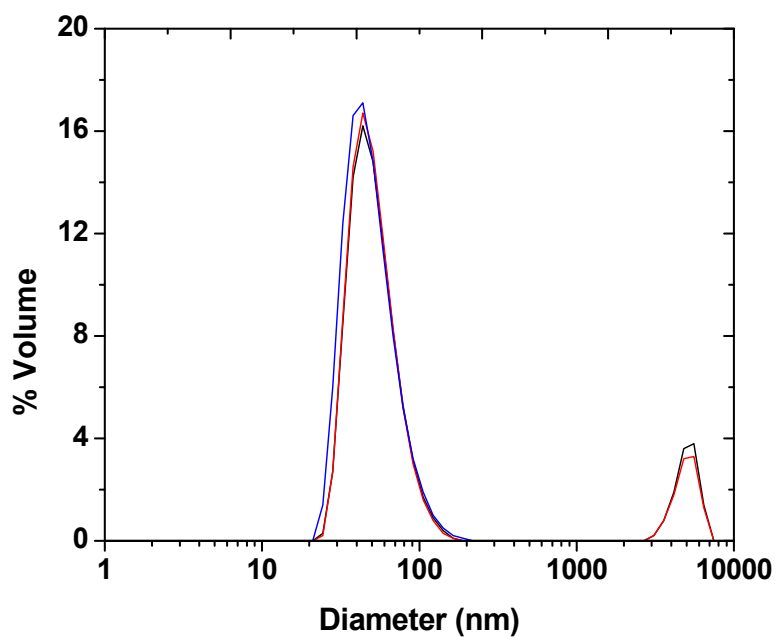


Figure S6. Overlaid fluorescence spectra of NR in mixtures of PEO-b-PHMssEt micelles without (A) and with DTT whose amount is defined as the mole equivalents of DTT/pendent disulfides = 0.2/1 (b) and 5/1 (c) in water.

