

Electronic Supplementary Information for

Oxidation Responsive Mono-Cleavable Amphiphilic Di-block Polymer Micelles Labeled with Single Diselenide

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1. ¹H NMR spectra for intermediates in the synthesis process of MPEG-IPDI-SeSe-IPDI-PPG

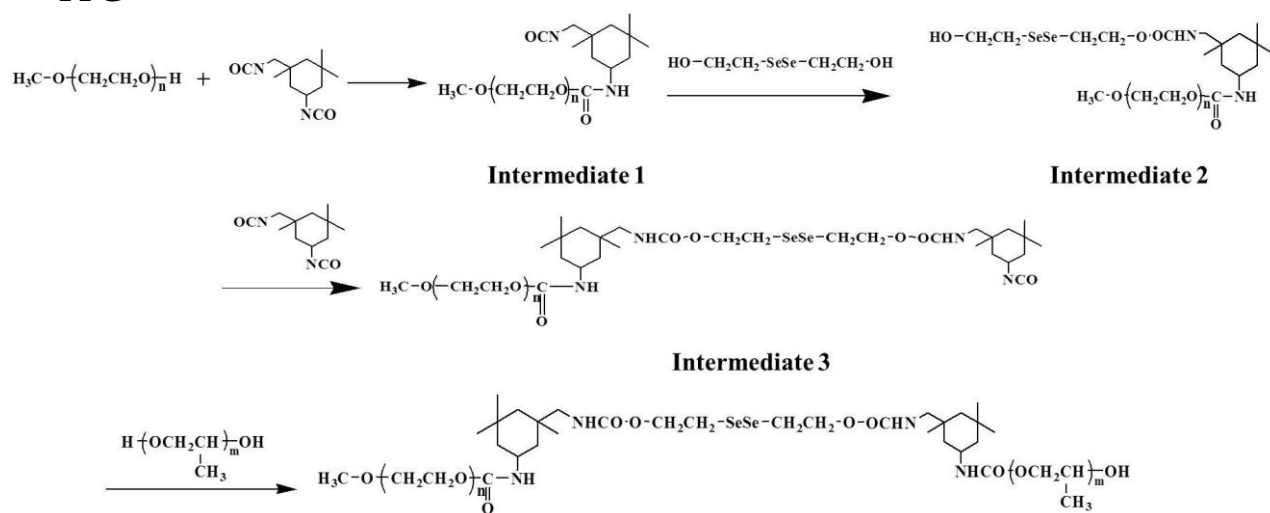


Figure S1. Synthetic route for the MPEG-IPDI-SeSe-IPDI-PPG di-block polymer.

¹H NMR (300 MHz, CDCl₃) δ (ppm): 0.77-0.89 (6H, s, hexamethylene-CH₃), 0.91-1.06 (5H, s, -CH₂- of hexamethylene), 3.30-3.36 (3H, m, CH₃-O- of MPEG), 3.50-3.75 (106H, m, -O-CH₂CH₂- of MPEG), 4.13-4.20 (2H, s, hexamethylene-CH₂-NH).

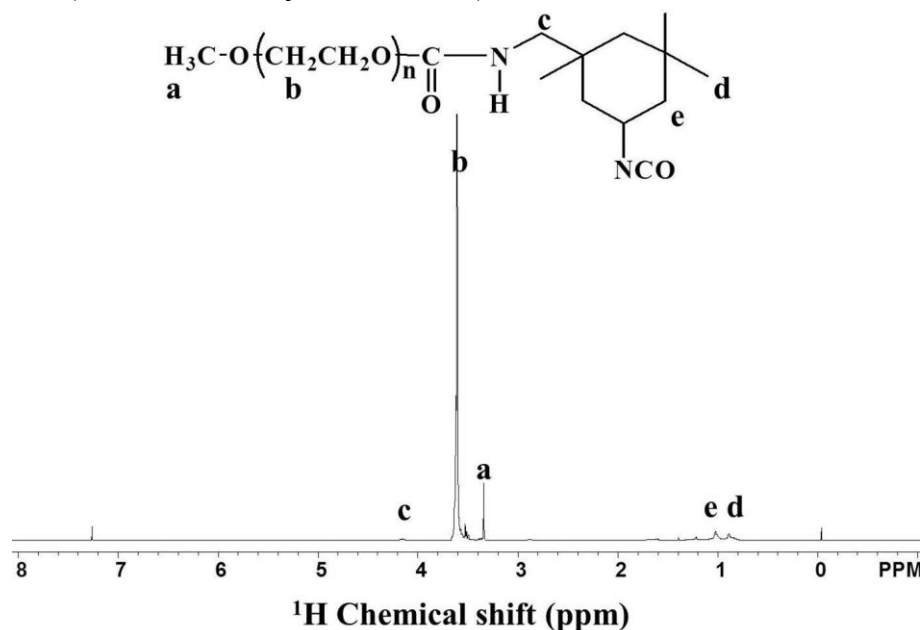


Figure S2. ¹H NMR spectra of intermediate 1 (CDCl₃).

¹H NMR (300 MHz, CDCl₃) δ (ppm): 0.75-0.88 (6H, s, hexamethylene-CH₃), 0.95-1.08 (5H, s, -CH₂- of hexamethylene), 3.04-3.10 (4H, t, -CH₂-CH₂-SeSe-), 3.32-3.40 (3H, m, CH₃-O- of MPEG), 3.48-3.74 (104H, m, -O-CH₂CH₂- of MPEG), 3.80-3.92 (4H, t, -O-CH₂-CH₂-SeSe-), 4.13-4.20 (2H, s, hexamethylene-CH₂-NH).

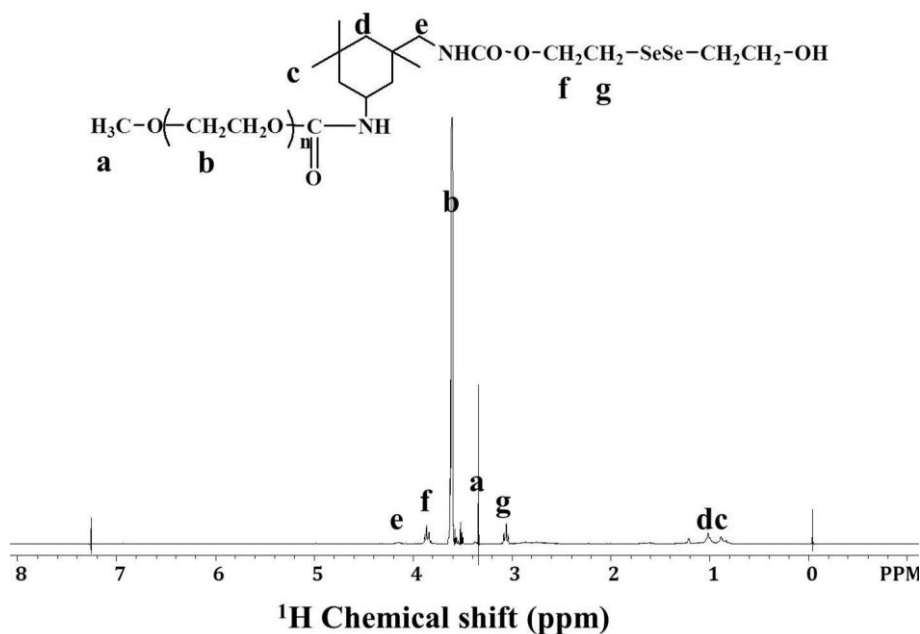


Figure S3. ¹H NMR spectra of intermediate 2 (CDCl₃).

¹H NMR (300 MHz, CDCl₃) δ (ppm): 0.75-0.90 (12H, m, hexamethylene-CH₃), 1.02-1.12 (10H, s, -CH₂- of hexamethylene), 3.04-3.14 (4H, t, -CH₂-CH₂-SeSe-), 3.31-3.42 (3H, m, CH₃-O- of MPEG), 3.55-3.75 (108H, m, -O-CH₂CH₂- of MPEG), 3.80-3.92 (4H, t, -O-CH₂-CH₂-SeSe-), 4.13-4.20 (2H, s, hexamethylene-CH₂-NH).

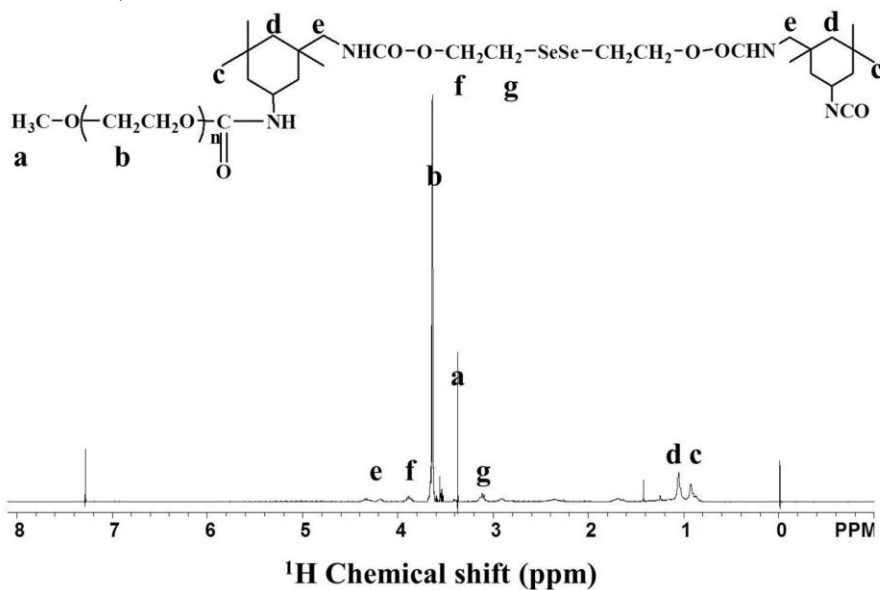


Figure S4. ¹H NMR spectra of intermediate 3 (CDCl₃).

2. GPC of MPEG-IPDI-SeSe-IPDI-PPG

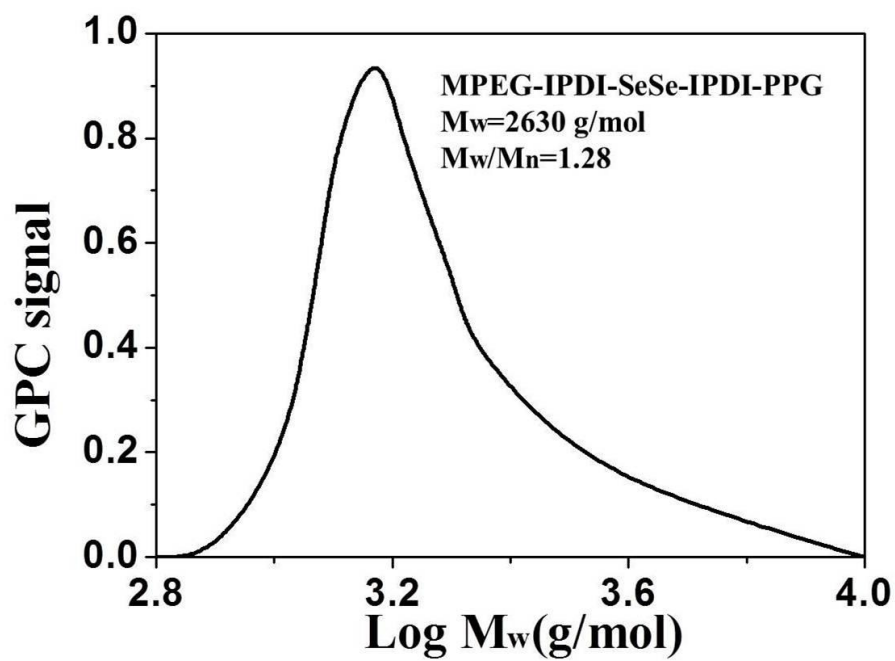


Figure S5. GPC trace of MPEG-IPDI-SeSe-IPDI-PPG.