Supporting Information for

S-nitrosothiol-modified hyperbranched polyesters

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Supporting Information

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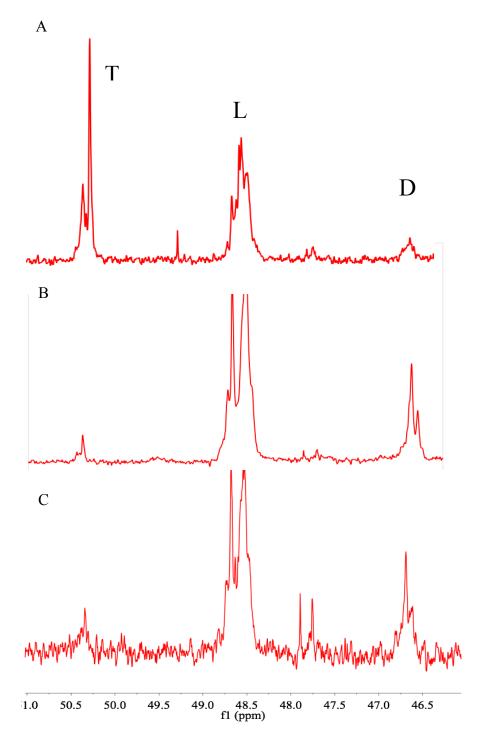


Fig. S1 Quantitative ¹³C-NMR spectra of hyperbranched polyesters: (A) G2-, (B) G3-, and (C) G4-HP.

Degree of branching (DB) was determined by the integration of distinct peaks in ¹³C NMR spectrum at 50.6 (T), 48.8 (L), and 46.8 (D) ppm, respectively, using equation S1.

$$DB = \frac{\sum D + \sum T}{\sum D + \sum T + \sum L}$$

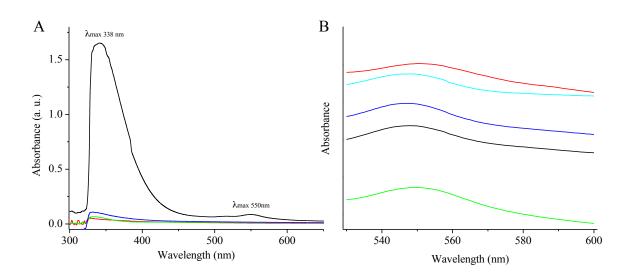


Fig. S2 UV-vis spectra of *S*-nitrosothiol-modified hyperbranched polyesters measured in acetone (0.1 mg mL⁻¹): A) G2-HP-DTT/NO (black), G2-HP-DTT (red), G2-HP-AC exposed to the nitrosation reaction conditions (green), and G2-HP-AC (blue), and B) characteristic *S*-nitrosothiol bands for G2-HP-ET/NO (black), G2-HP-BT/NO (red), G2-HP-DTT/NO (green), G3-HP-DTT/NO (blue), and G4-HP-DTT/NO (cyan).

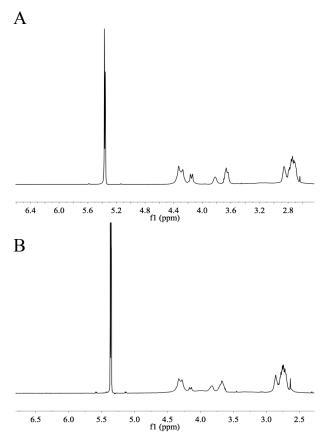


Fig. S3 ¹H NMR spectra of A) G3-HP-DTT and B) G4-HP-DTT.

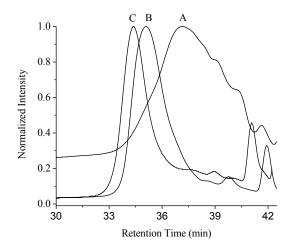


Fig. S4 GPC chromatograms of hyperbranched polyesters modified with DTT: A) G2-, B) G3-, and C) G4-HP-DTT.

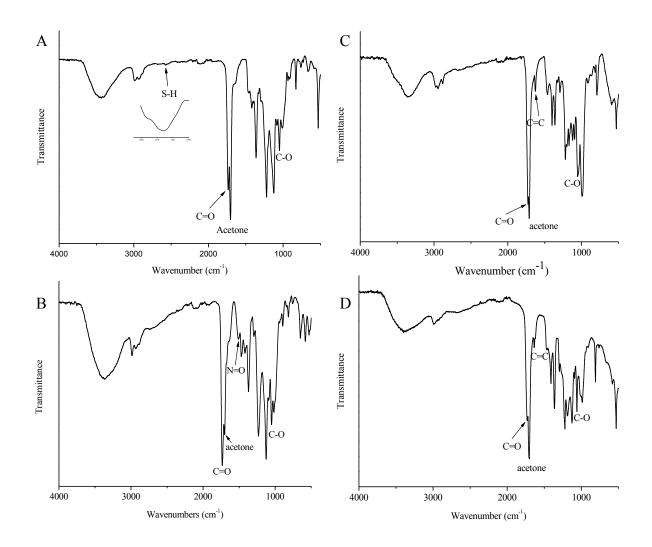


Fig. S5 FTIR spectra for: A) G3-HP-DTT, B) G3-HP-DTT/NO, C) G3-HP-AC, and D) G3-HP-AC exposed to the nitrosation reaction conditions. A droplet of highly concentrated polyesters acetone solution was added onto the ATR-FTIR stage, and the spectra were collected via ATR mode.

Table S1 Hydrodynamic size of hyperbranched polyesters modified with DTT suspensions.^a

Polyesters	Hydrodynamic size (nm) ^b	PDI
G2-HP-DTT/NO	1170 ± 160	0.12 ± 0.07
G3-HP-DTT/NO	1050 ± 180	0.10 ± 0.07
G4-HP-DTT/NO	987 ± 150	0.09 ± 0.06

 $^{^{}a}$ n ≥ 3 separate syntheses. b As determined by Dynamic Light Scattering. The concentration of NO-releasing scaffold in PBS solution for DLS measurement was the same with for NO analyzer measurement (0.33mg mL⁻¹).