

SUPPORTING INFORMATION

For

Photoresponsive Dendronized Copolymers of Styrene and Maleic Anhydride Pendant with Poly(amidoamine) Dendrons as Side Groups

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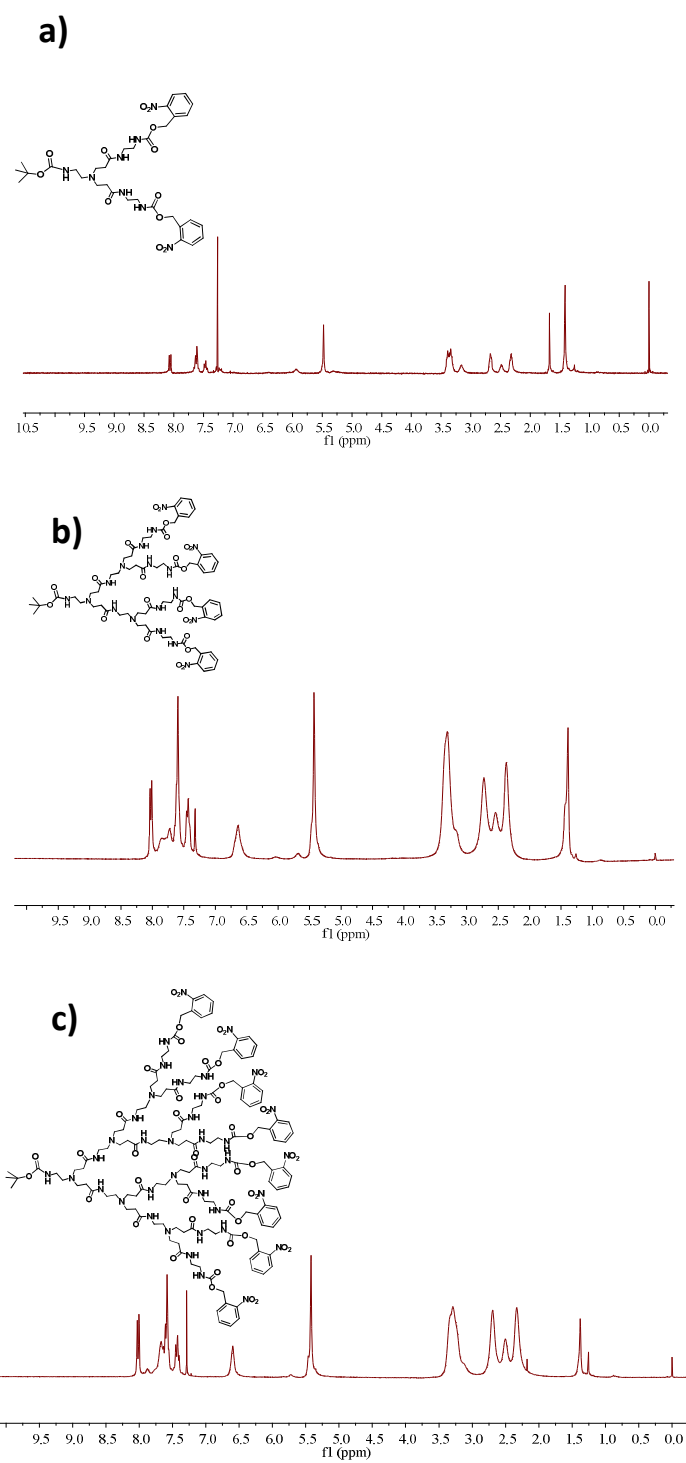


Figure S1. ^1H NMR spectra of (a) **G1**, (b) **G2** and (c) **G3** dendrons in CDCl_3 at room temperature

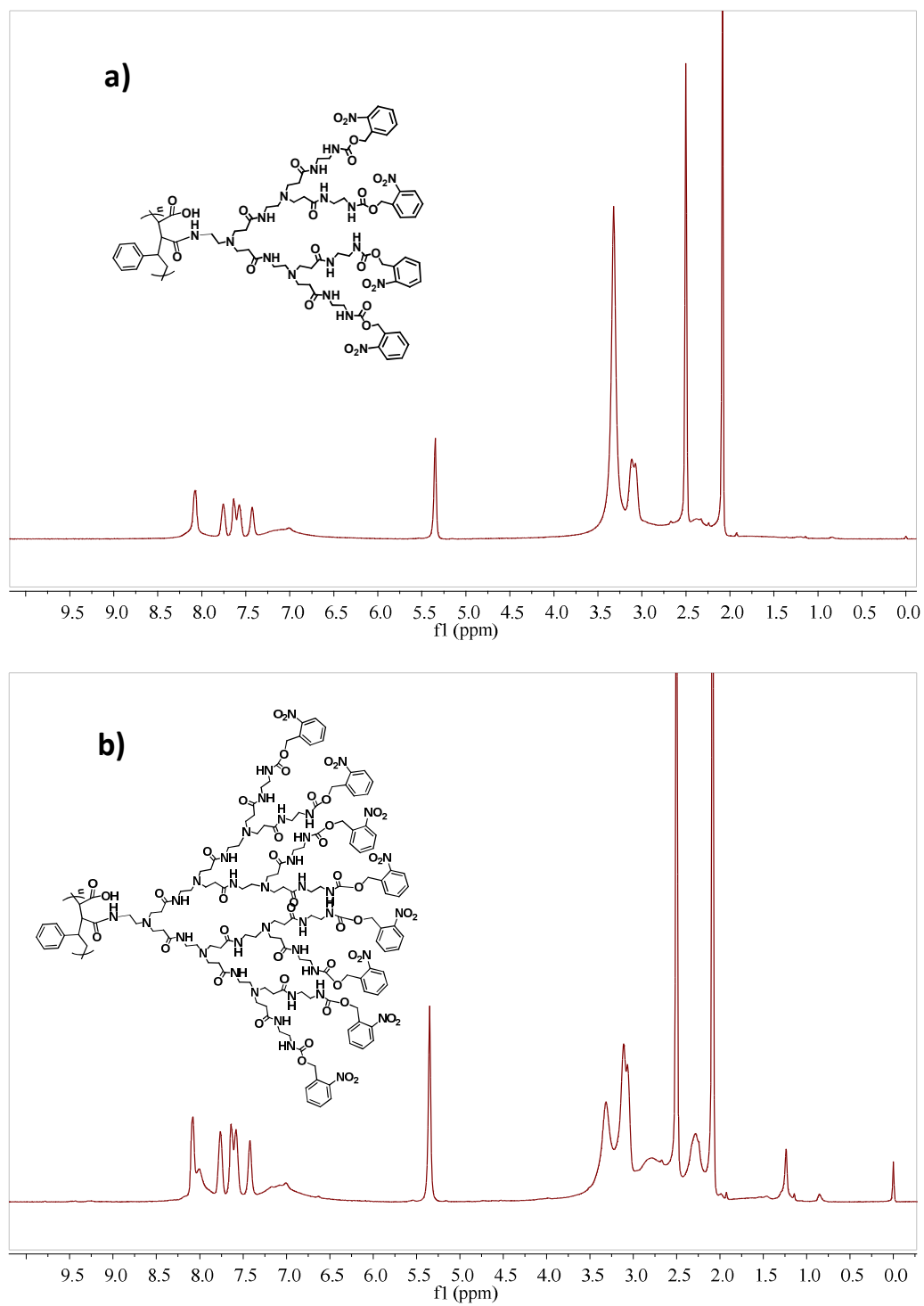


Figure S2. ^1H NMR spectra of (a) **PG2-NB** and (b) **PG3-NB** in $\text{DMSO-}d_6$ at room temperature

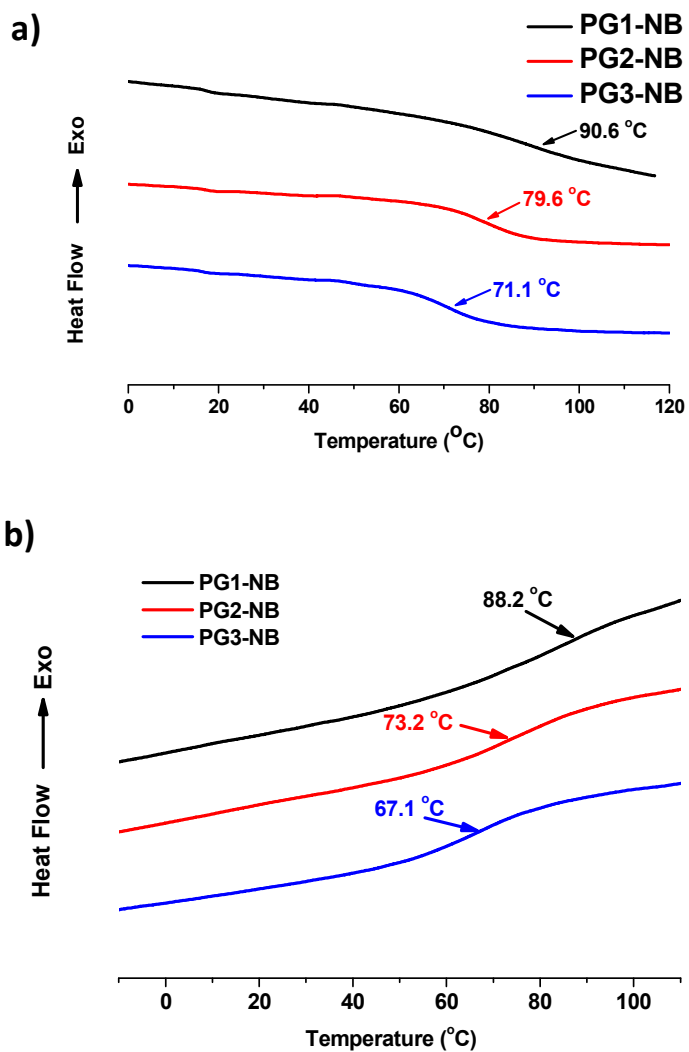


Figure S3. DSC thermograms of **PG n -NB** ($n = 1, 2, 3$) copolymers based on the (a) second heating scan at a heating rate of 10.0 °C /min and (b) first cooling scan at a cooling rate of 10.0 °C /min under nitrogen atmosphere. In the figure, the black, red, and blue curves represent **PG1-NB**, **PG2-NB**, and **PG3-NB**, respectively.

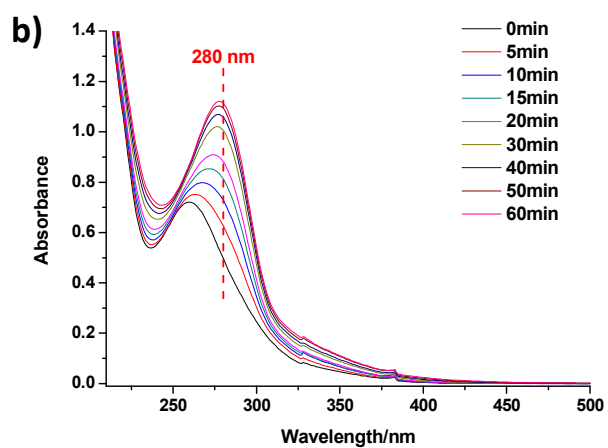
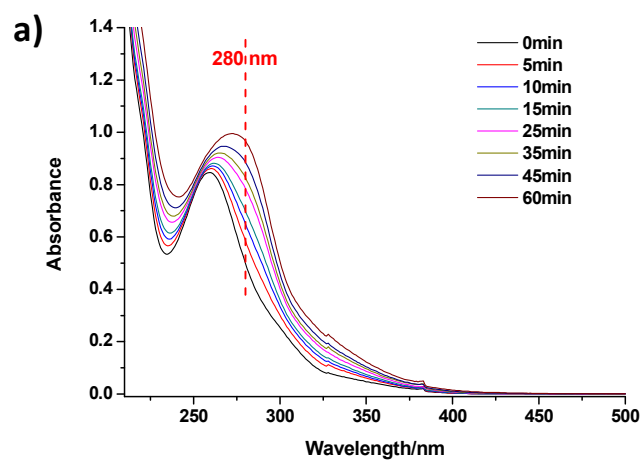


Figure S4. The UV-Vis spectra of (a) **G1** and (b) **G3 dendrons** in methanol solution with different irradiation time

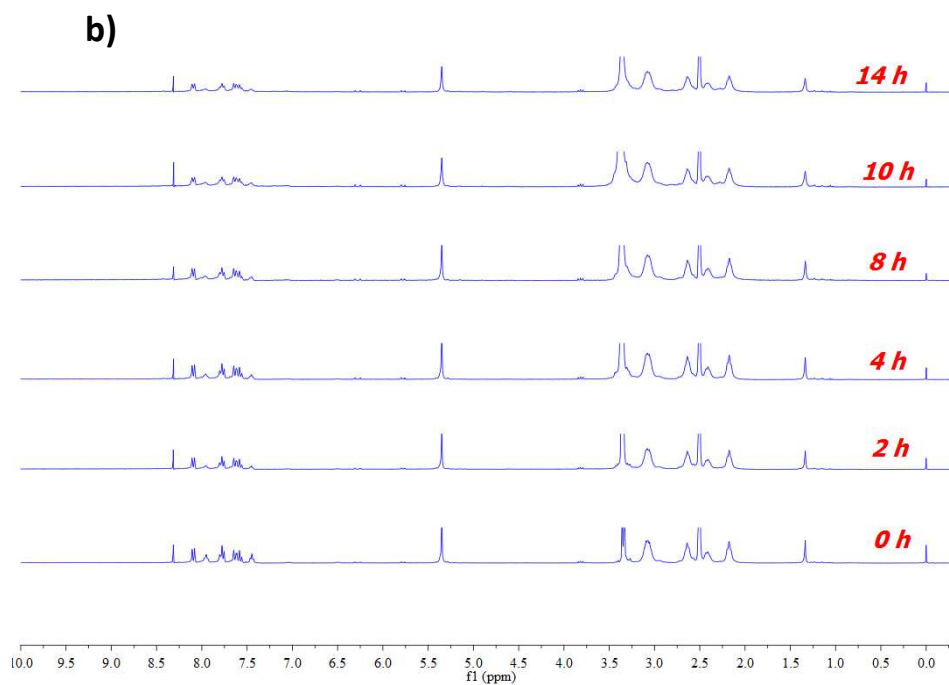
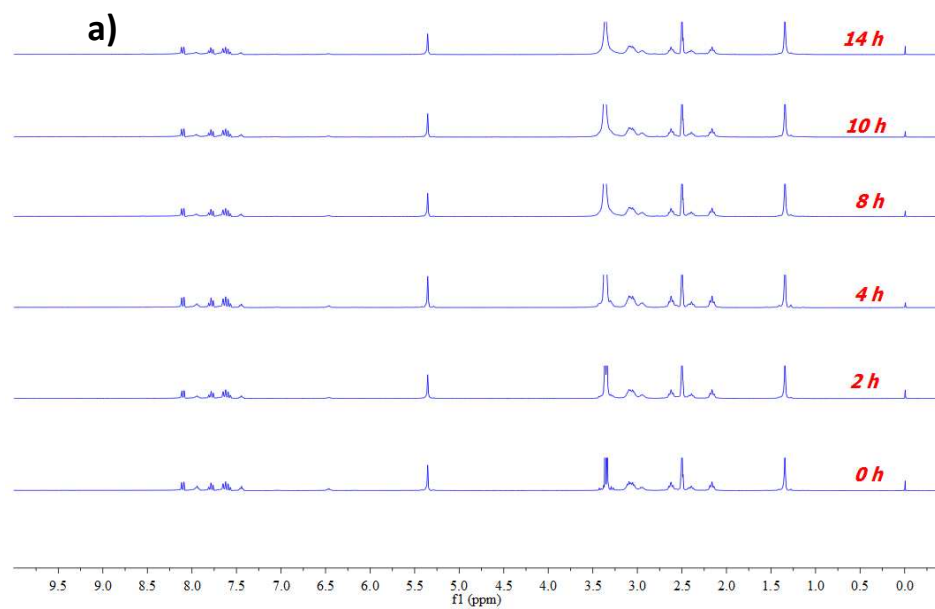


Figure S5. The ^1H NMR spectra of (a) **G1 dendrons** and (b) **G3 dendrons** in DMSO-d_6 with different irradiation time

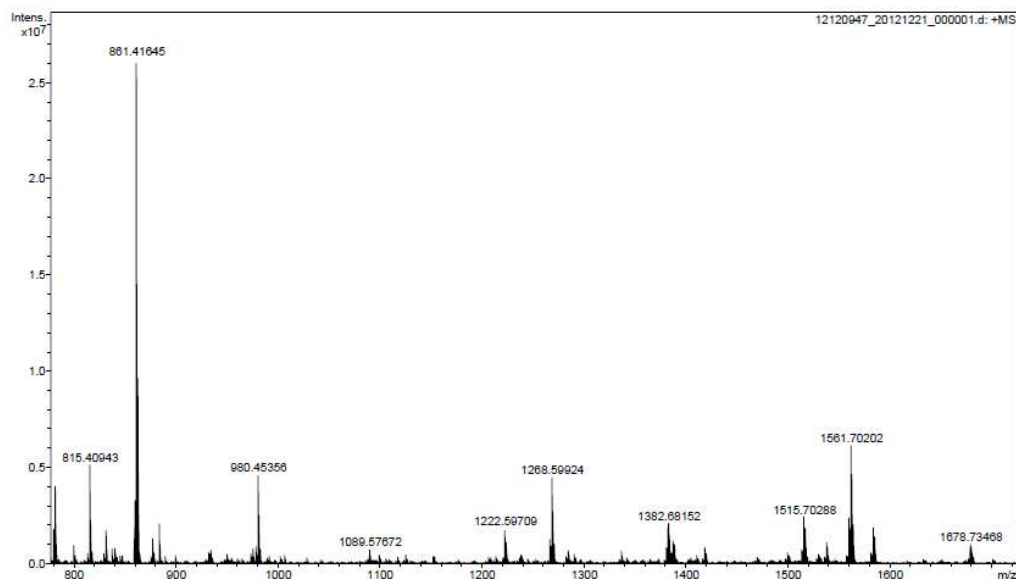


Figure S6. The ESI mass spectrum of **G2 dendrons** in methanol after UV irradiation for 10 hours

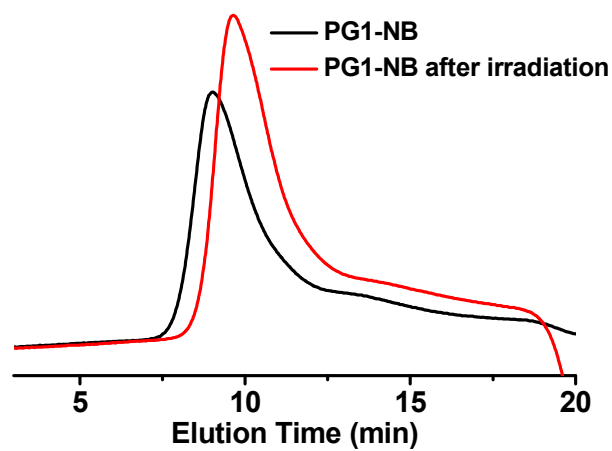


Figure S7. The GPC traces of **PG1-NB dendronized polymers** with DMF as the elution before (Black) and after (Red) UV irradiation for 10 hours

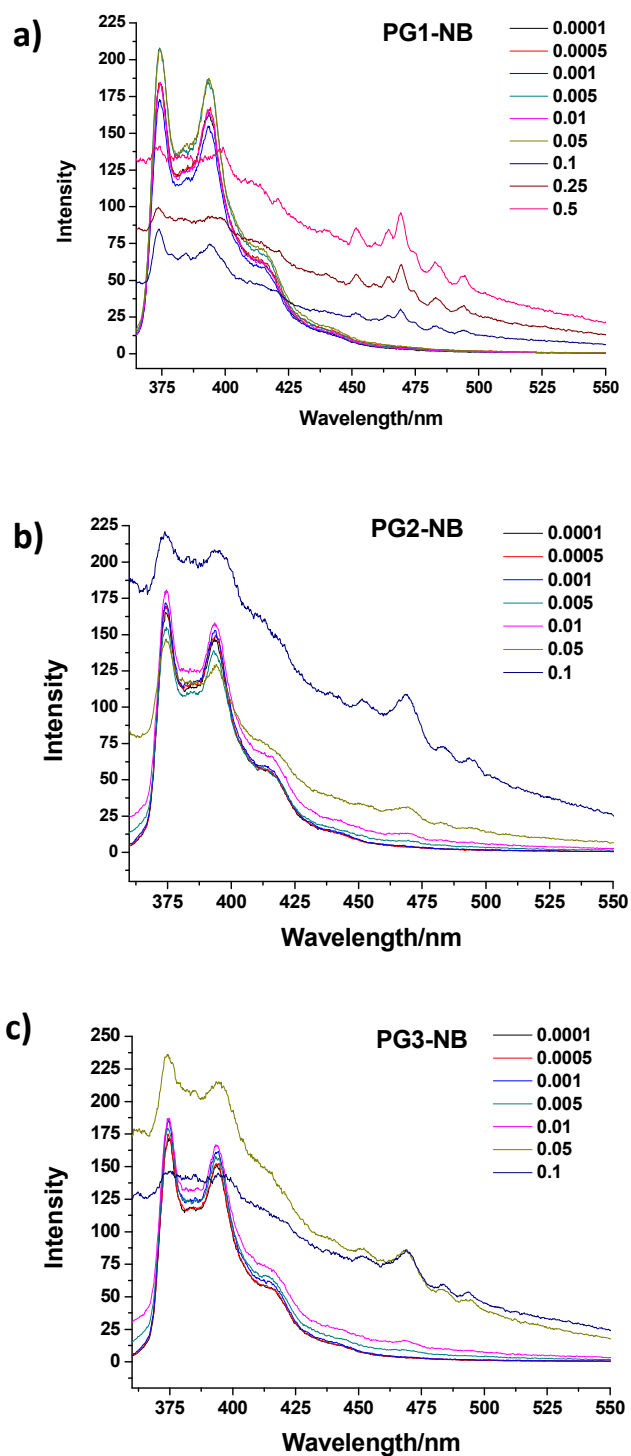


Figure S8. Emission spectra of pyrene in the solution of (a) **PG1-NB**, (b) **PG2-NB** and (c) **PG3-NB** in water at different concentrations (mg/mL). excitation wavelength = 339 nm, 25 °C

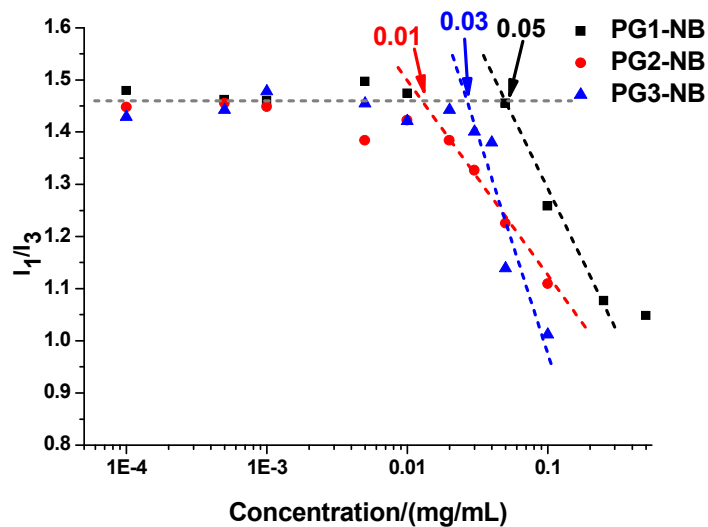


Figure S9. Dependence of the I_1/I_3 ratio of pyrene on the polymer concentration of the **PGn-NB** ($n=1, 2, 3$) in water at 25 °C

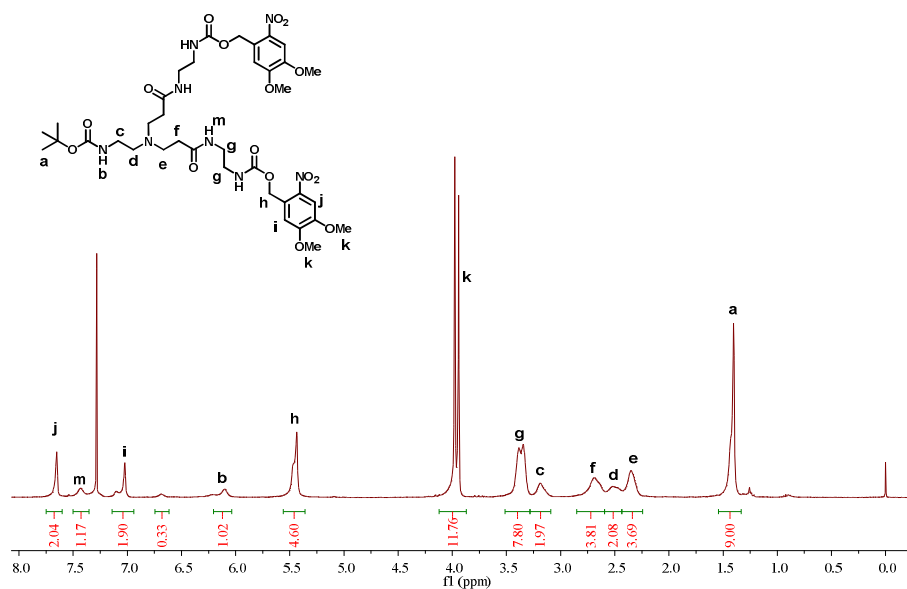


Figure S10. ^1H NMR spectrum of G1-2MeONB in CDCl_3 at room temperature

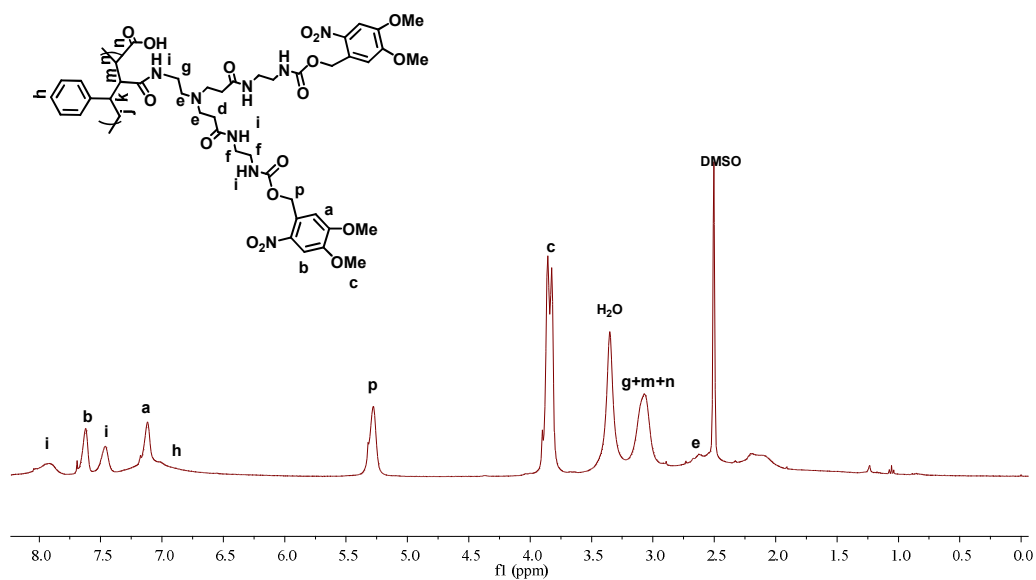


Figure S11. ^1H NMR spectrum of PG1-2MeONB in $\text{DMSO-}d_6$ at room temperature

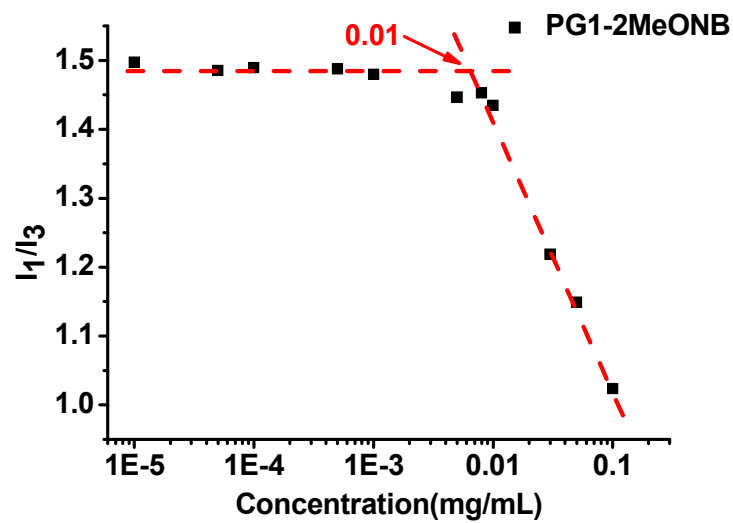


Figure S12. Dependence of the I_1/I_3 ratio of pyrene on the polymer concentration of the **PG1-2MeONB** in water at 25 °C □