

Electronic Supplementary Information:

Using low generation dendrimers as monomers to construct dendronized hyperbranched polymers with high nonlinear optical performance

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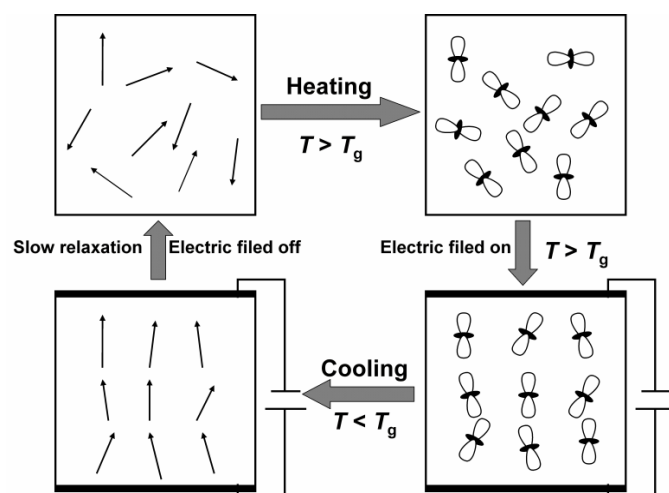


Chart S1. Graphical illustration of poling procedure for NLO polymers.

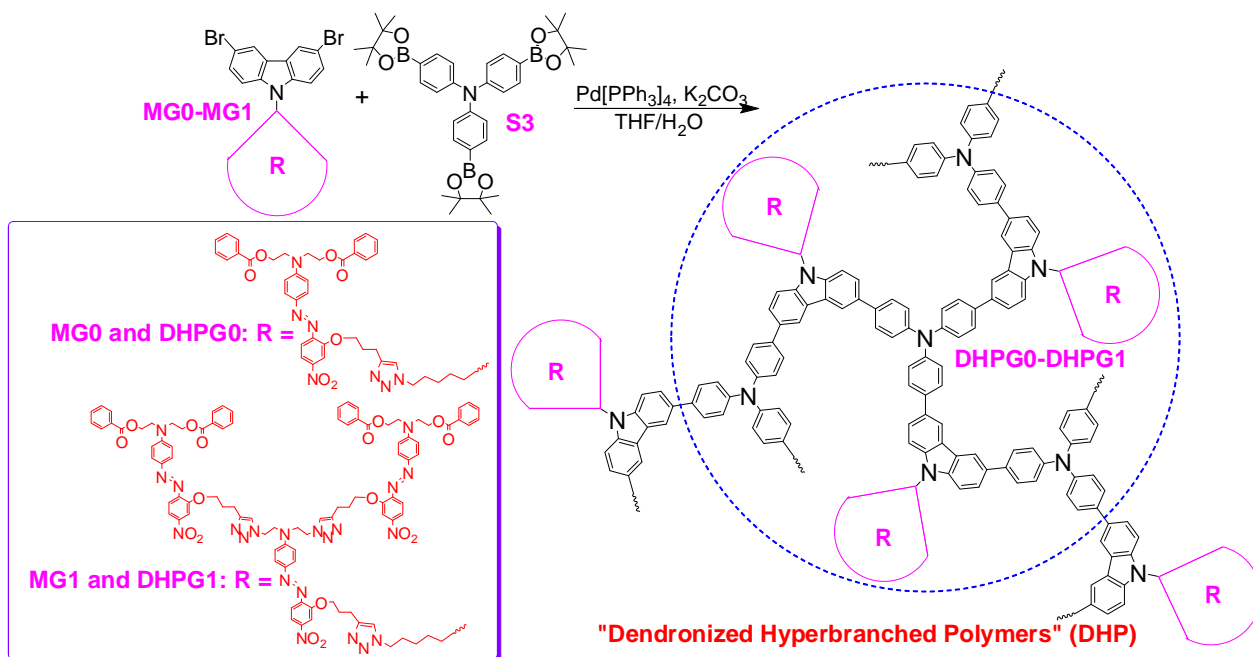
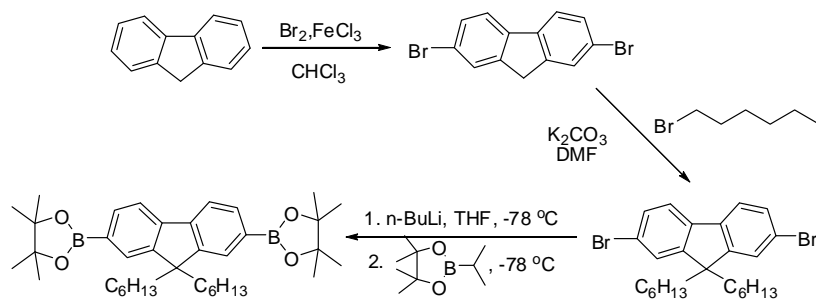


Chart S2. The structure of dendronized hyperbranched polymers DHPG0 and DHPG1.



Scheme S1. The synthetic route to the 9,9-dihexyl-2,7-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborate).

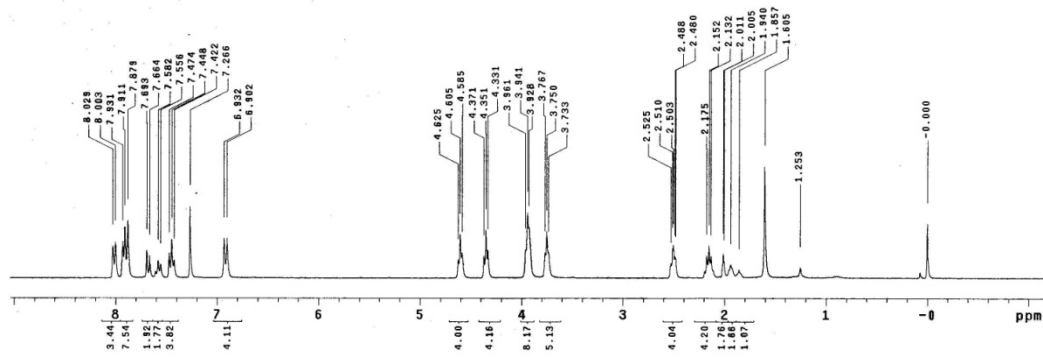


Fig. S1 ^1H NMR spectrum of S3 in chloroform-*d*.

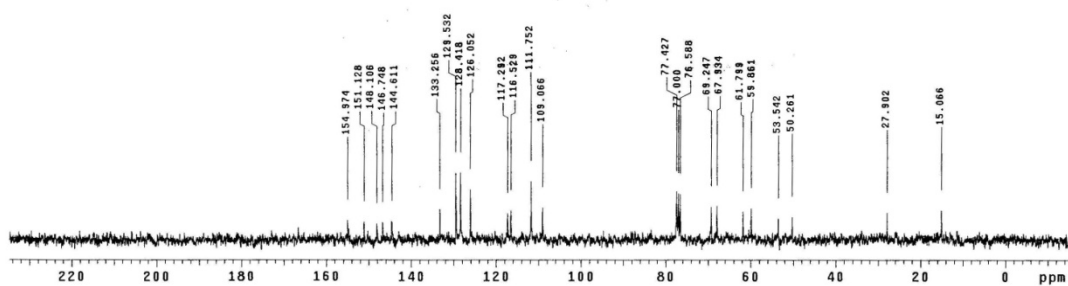


Fig. S2 ^{13}C NMR spectrum of S3 in chloroform-*d*.

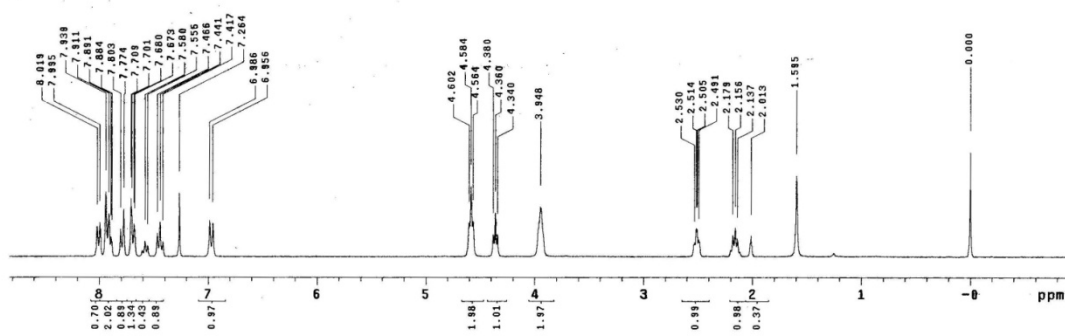


Fig. S3 ^1H NMR spectrum of G0≡ in chloroform-*d*.

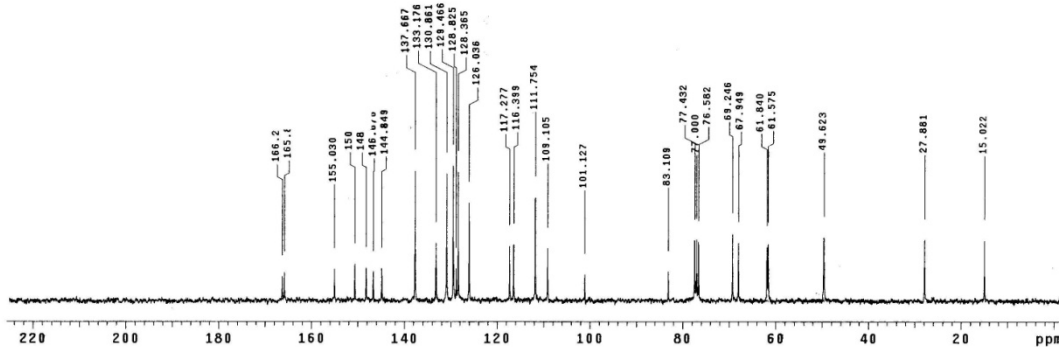


Fig. S4 ^{13}C NMR spectrum of $\text{G0}\equiv$ in chloroform- d .

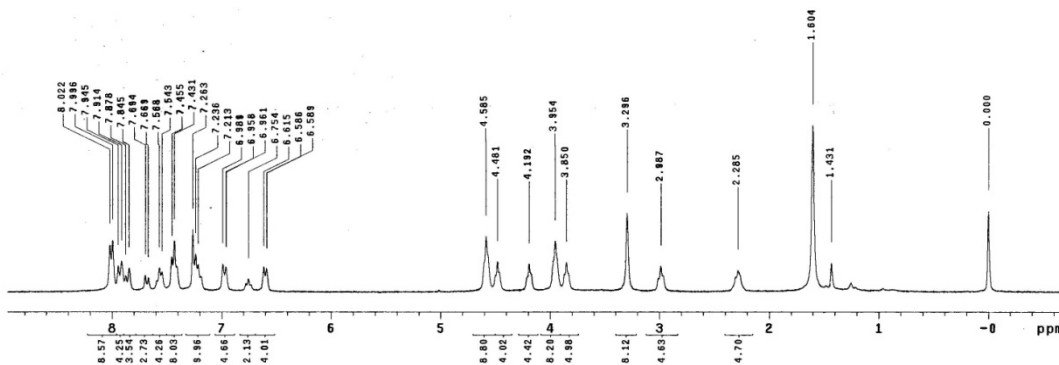


Fig. S5 ^1H NMR spectrum of S7 in chloroform- d .

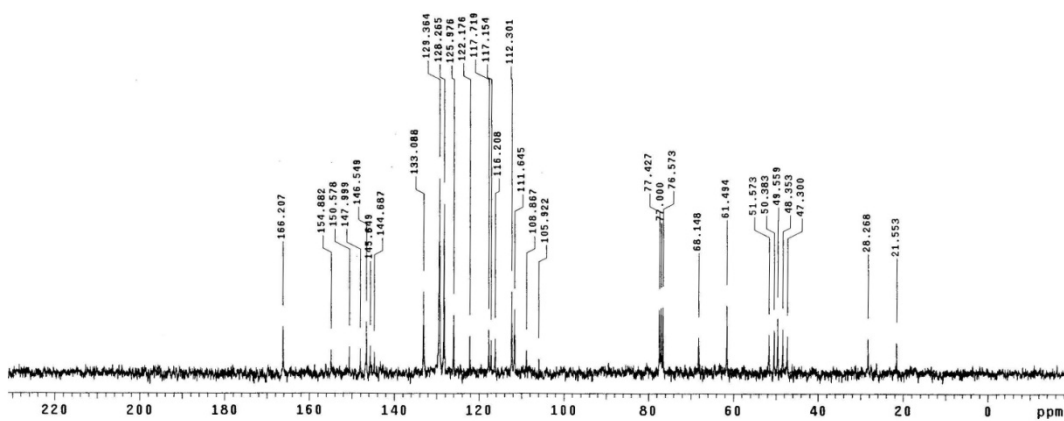


Fig. S6 ^{13}C NMR spectrum of S7 in chloroform- d .

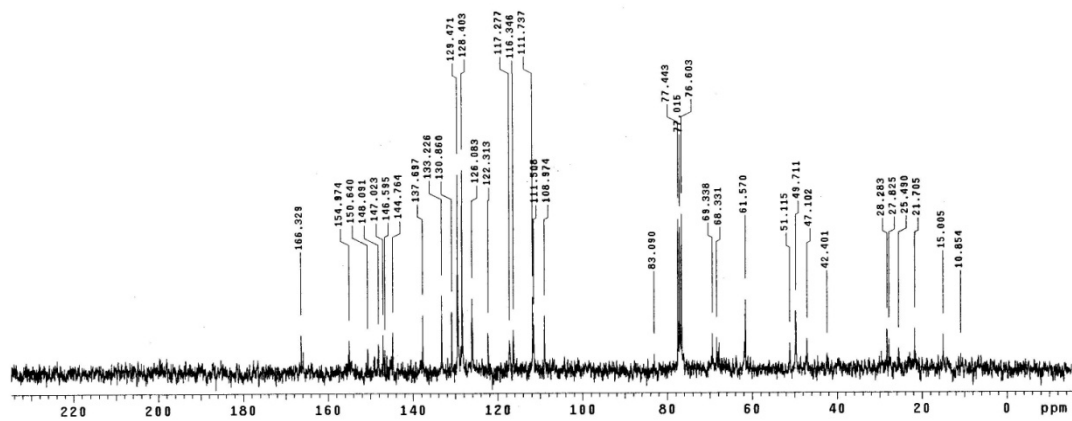


Fig. S10 ^{13}C NMR spectrum of **G1**≡ in chloroform-*d*.

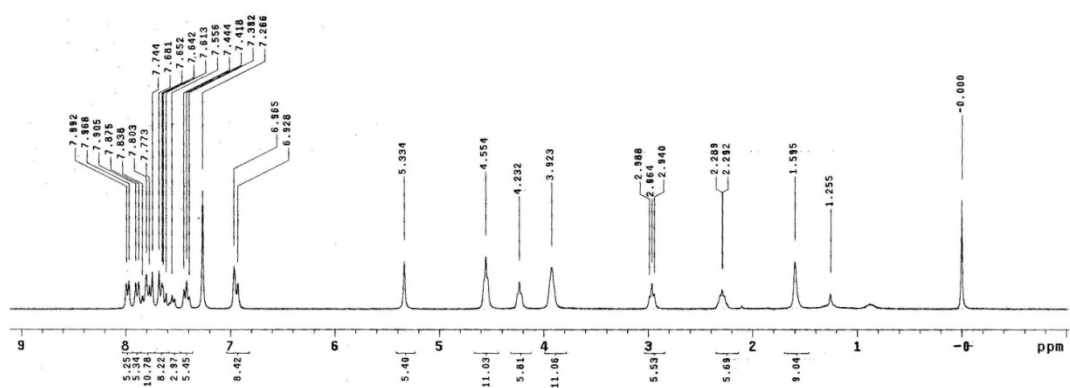


Fig. S11 ^1H NMR spectrum of **MG1** in chloroform-*d*.

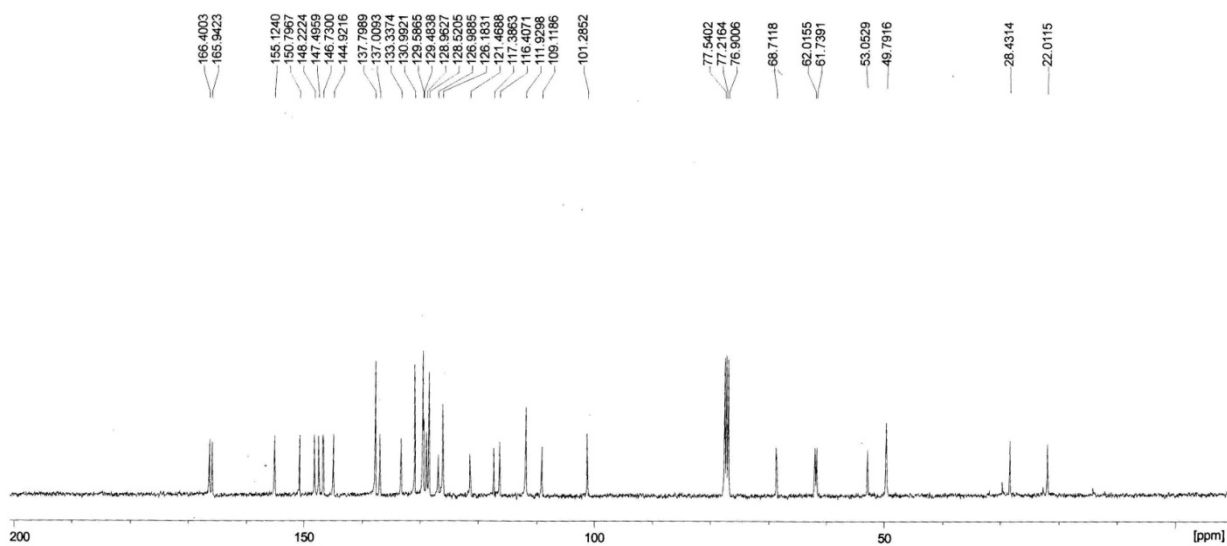


Fig. S12 ^{13}C NMR spectrum of **MG1** in chloroform-*d*.

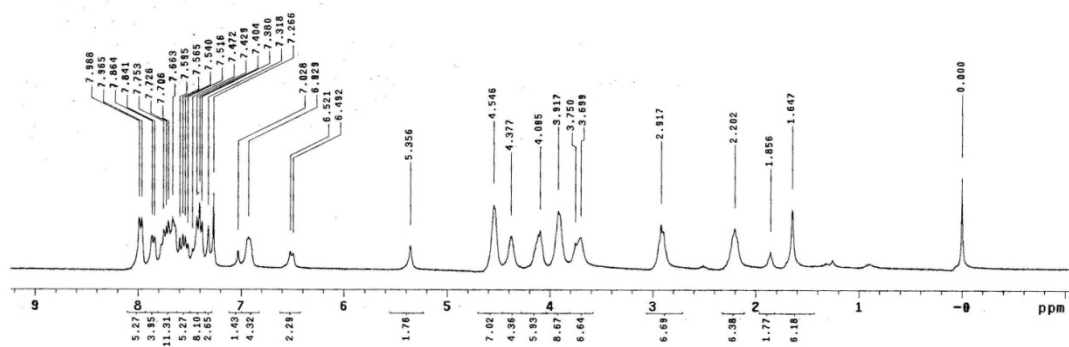


Fig. S13 ^1H NMR spectrum of MG2 in chloroform-*d*.

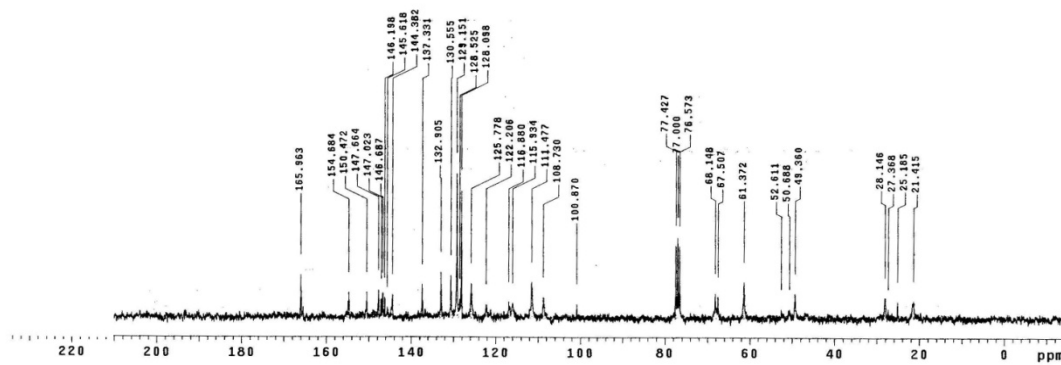


Fig. S14 ^{13}C NMR spectrum of MG2 in chloroform-*d*.

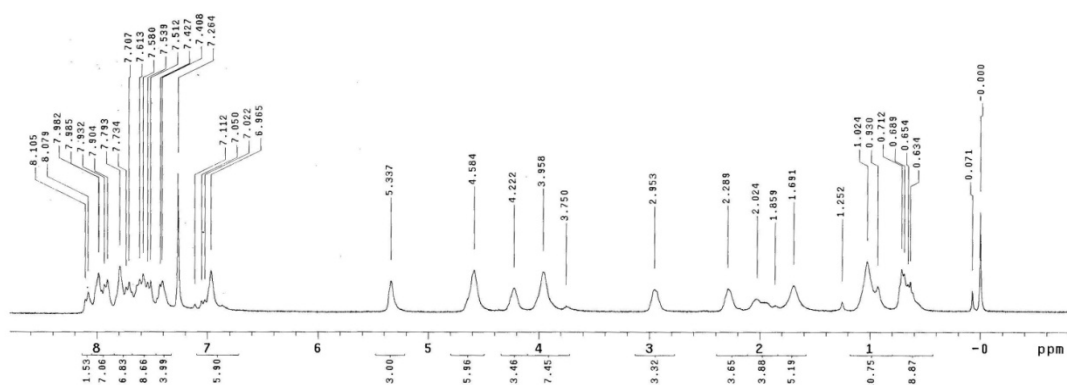


Fig. S15 ^1H NMR spectrum of PG1 in chloroform-*d*.

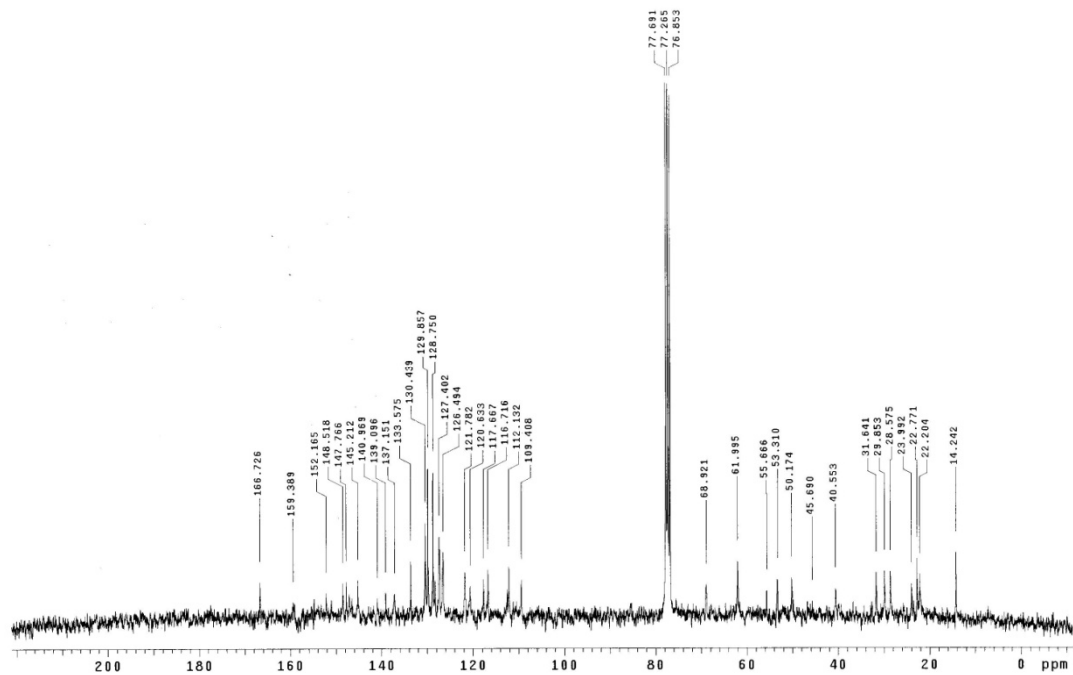


Fig. S16 ^{13}C NMR spectrum of PG1 in chloroform-*d*.

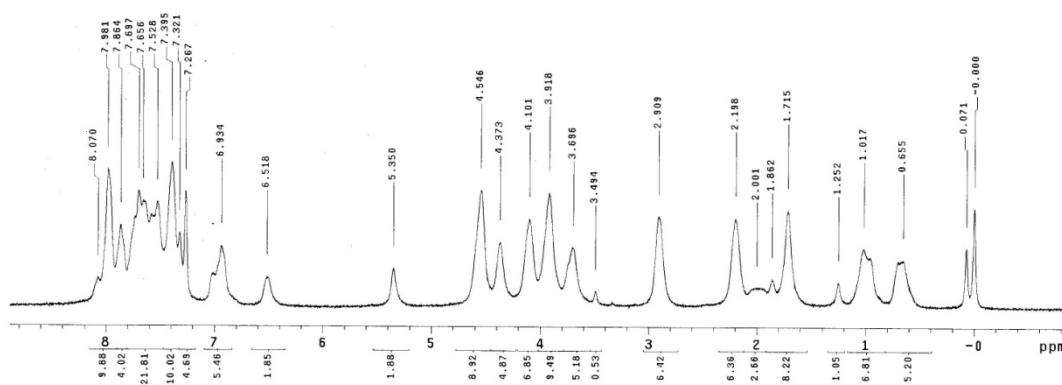


Fig. S17 ^1H NMR spectrum of PG2 in chloroform-*d*.

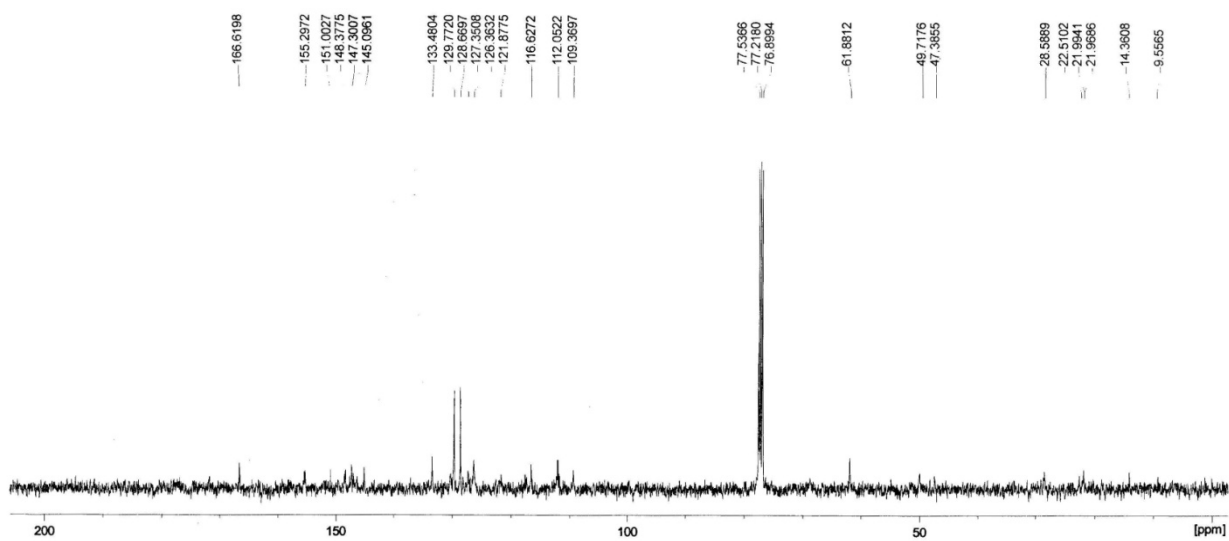


Fig. S18 ^{13}C NMR spectrum of PG2 in chloroform-*d*.

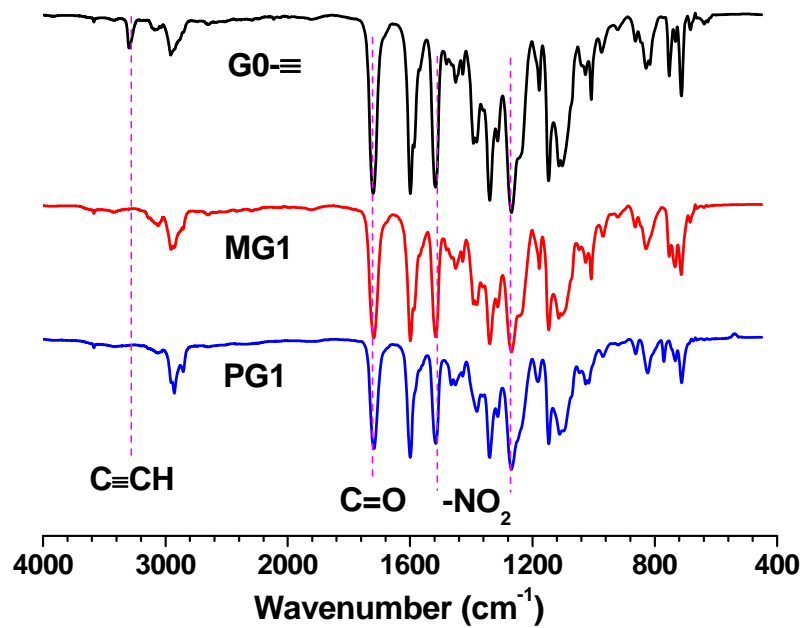


Fig. S19 The FT-IR spectra of PG1 and its corresponding monomer.

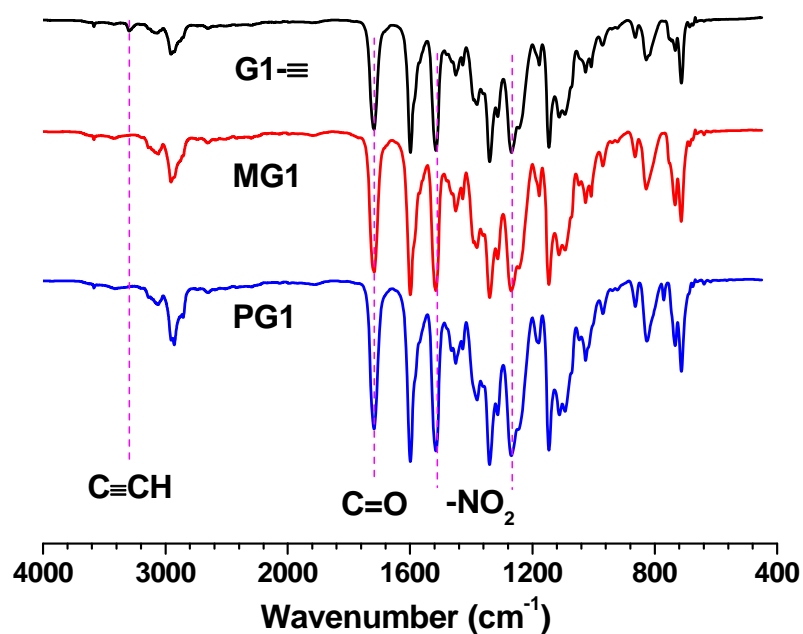


Fig. S20 The FT-IR spectra of PG2 and its corresponding monomer.

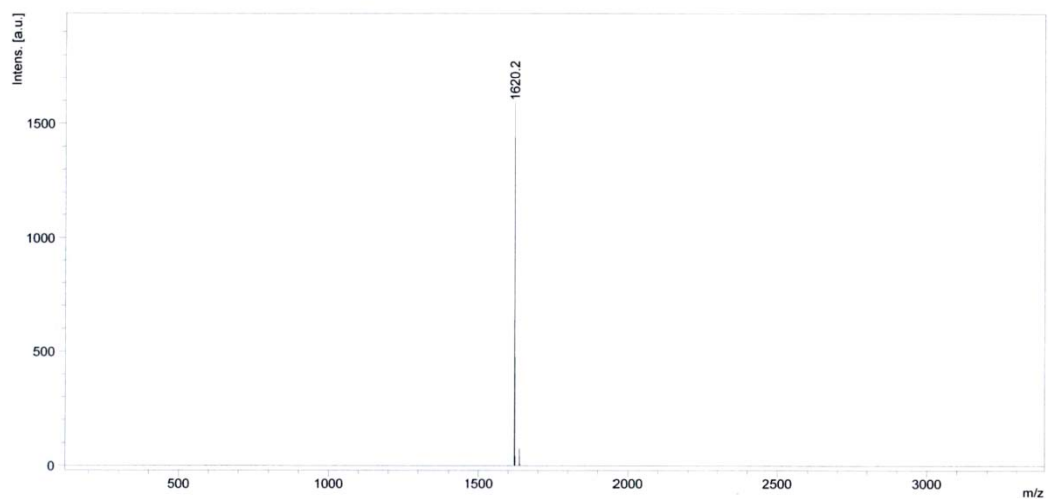


Fig. S21 The MALDI-TOF mass spectrum of **S8**.

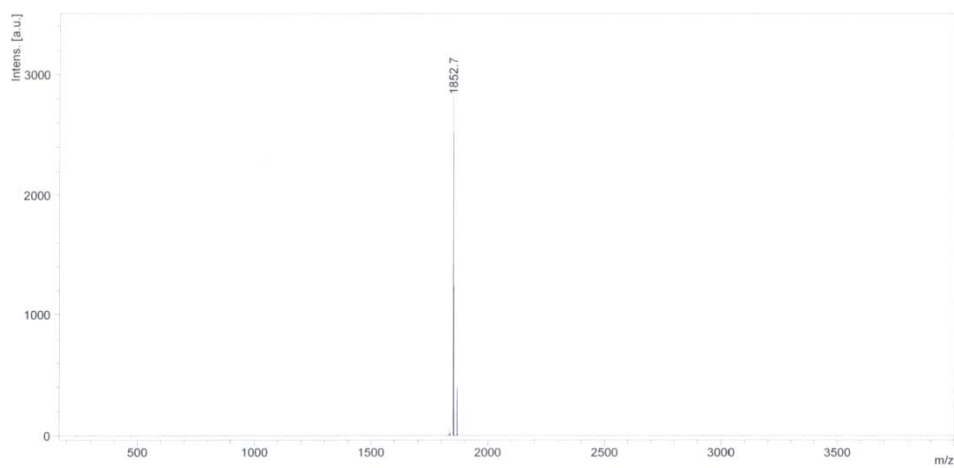


Fig. S22 The MALDI-TOF mass spectrum of **G1-≡**.

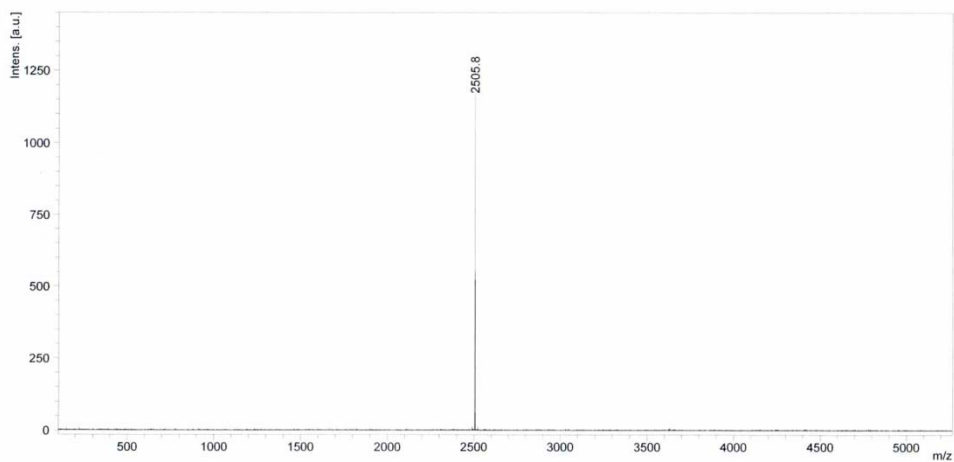


Fig. S23 The MALDI-TOF mass spectrum of **MG1**.

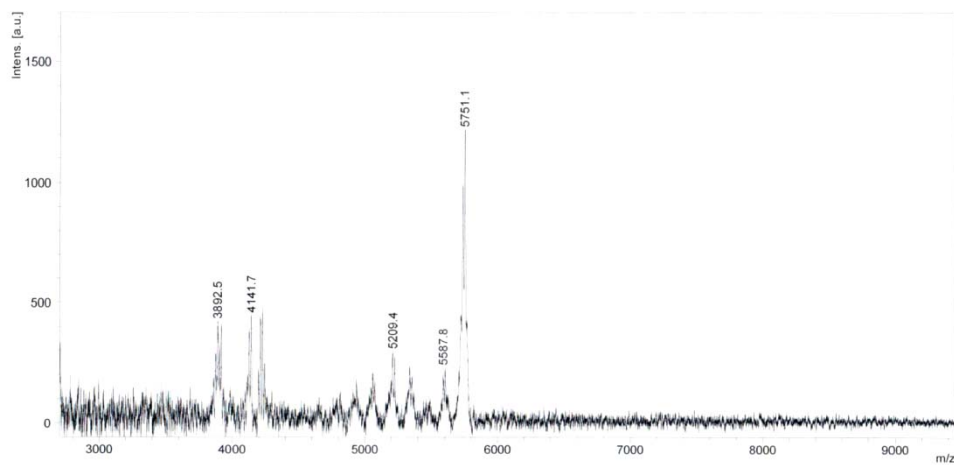


Fig. S24 The MALDI-TOF mass spectrum of **MG2**.

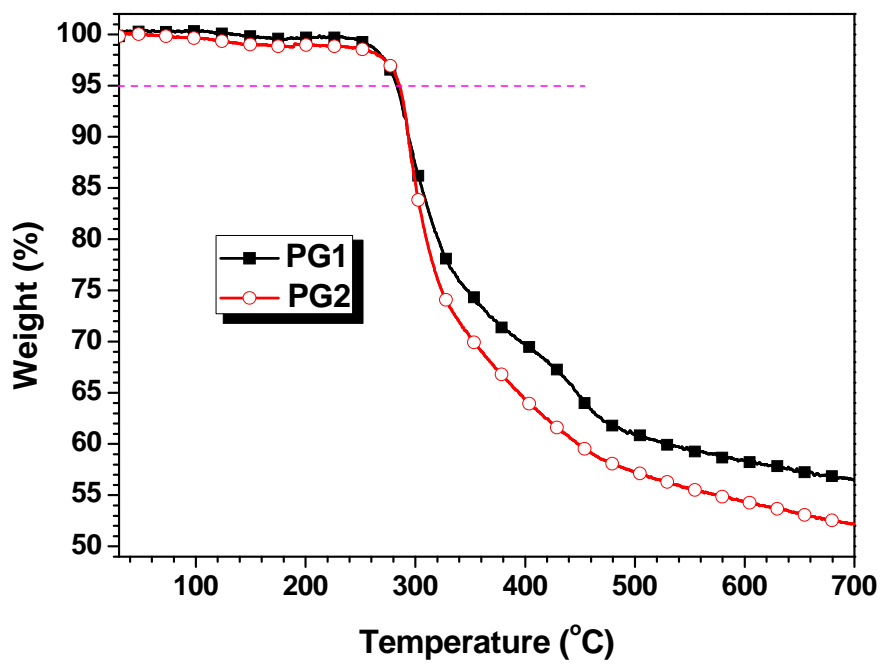


Fig. S25 TGA thermograms of hyperbranched polymers, measured in nitrogen at a heating rate of 10 °C/min.

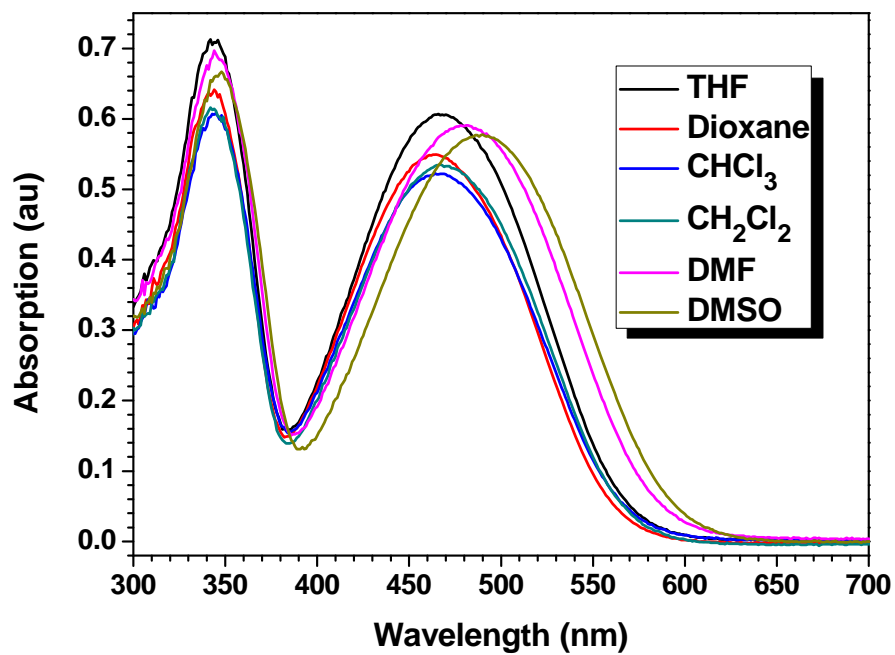


Fig. S26 UV-Vis spectra of **PG1** in different solutions. (0.02 mg/mL).

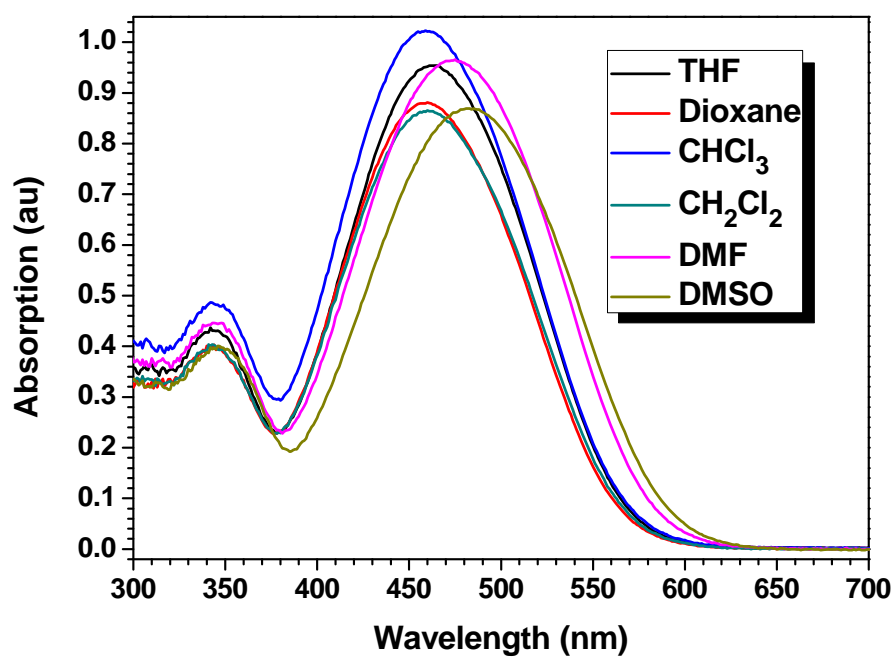


Fig. S27 UV-Vis spectra of **PG2** in different solutions. (0.02 mg/mL).

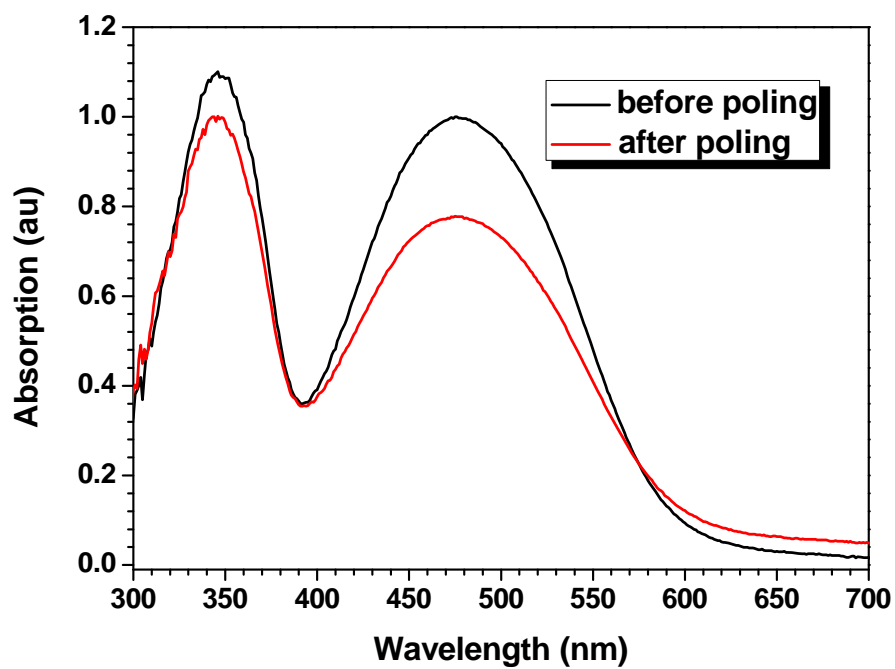


Fig. S28 Absorption spectra of the film of PG1 before and after poling.

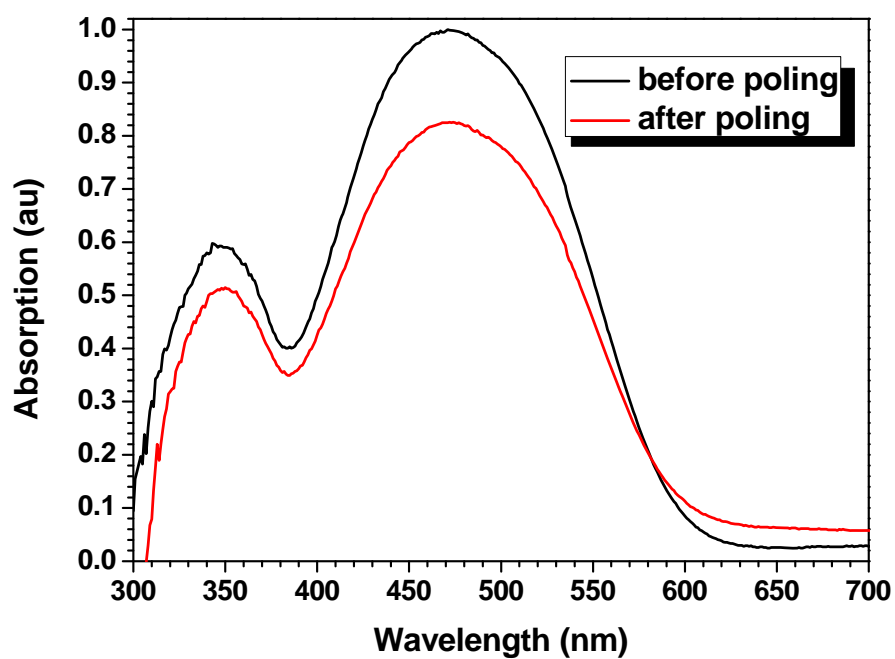


Fig. S29 Absorption spectra of the film of PG2 before and after poling.