

Supplementary Material

Diketopyrrolopyrrole-Based Low-bandgap Conjugated Polymers with Siloxane Side Chains for Electrochromic Applications

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1 NMR of Monomers and Polymers

2 GPC and TGA Plots of Polymers

NMR Spectra

2,5-di(hex-5-en-1-yl)-3,6-di(thiophen-2-yl)-2,5-dihydropyrrolo[3,4-c]pyrrole-1,4-dione

szg-C-48 1H

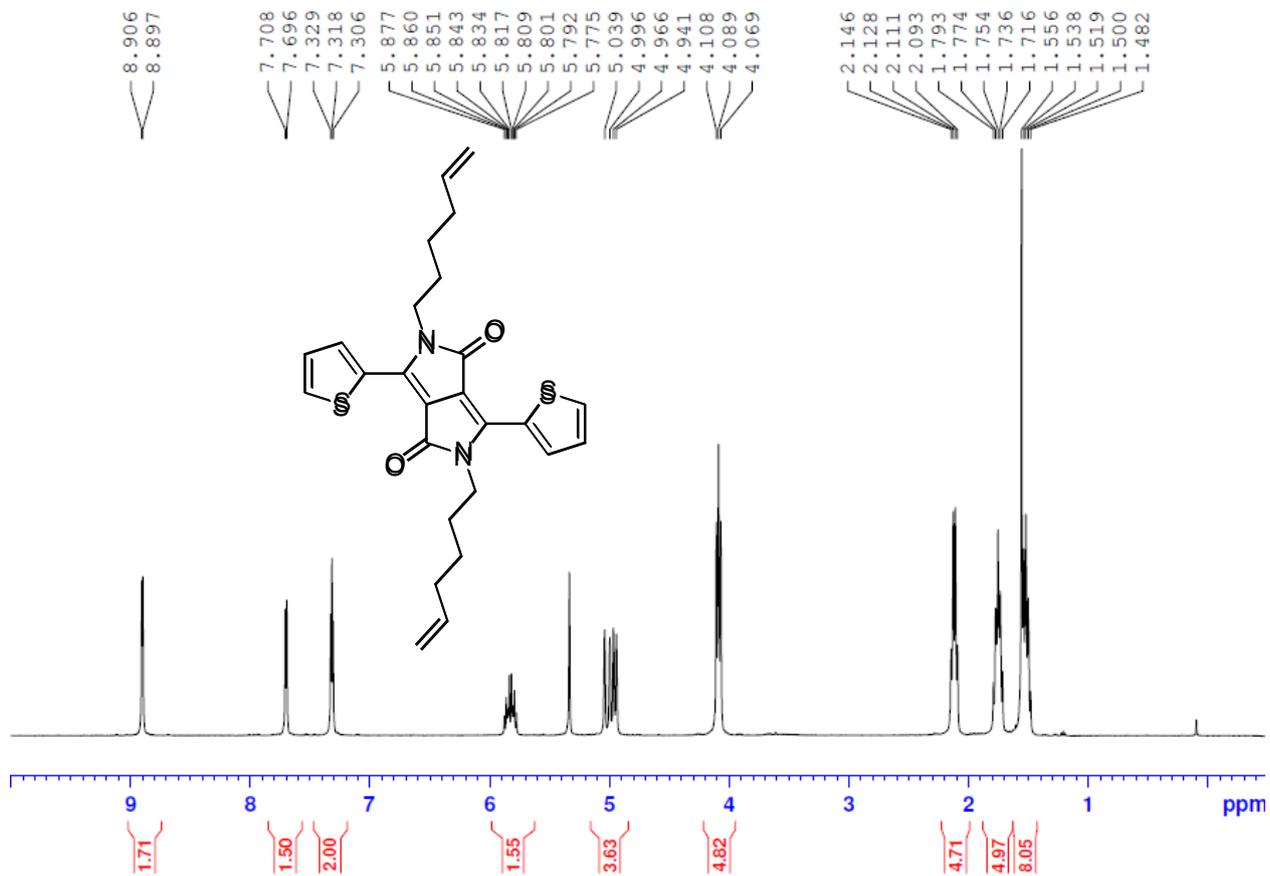


Figure S1 ¹H NMR spectrum of 2

2,5-bis(6-(1,1,1,3,5,5,5-heptamethyltrisiloxan-3-yl)hexyl)-3,6-di(thiophen-2-yl)-2,5-dihydropyrrolo[3,4-c]pyrrole-1,4-dione

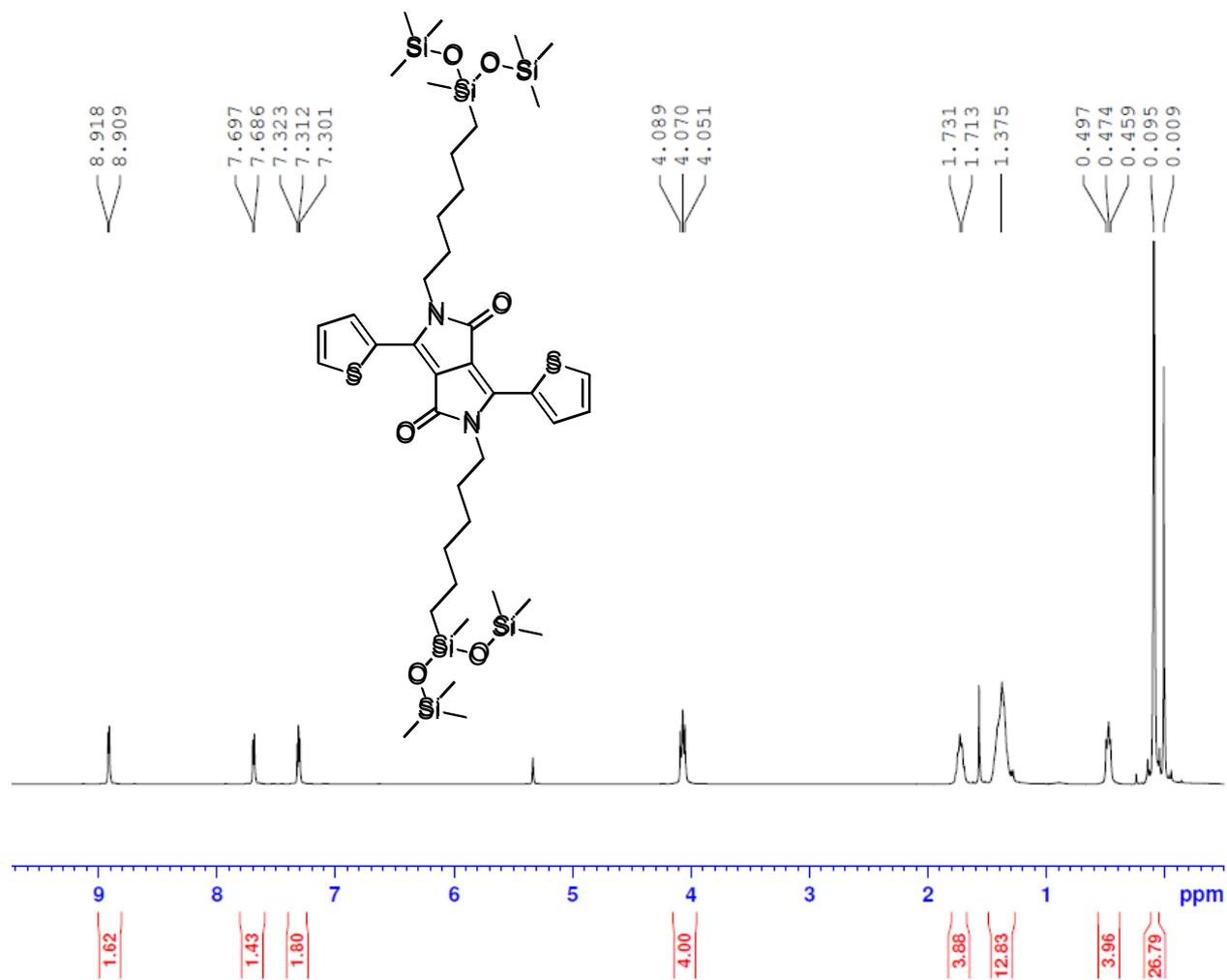


Figure S2 ¹H NMR spectrum of **3**

3,6-bis(5-bromothiophen-2-yl)-2,5-bis(6-(1,1,1,3,5,5,5-heptamethyltrisiloxan-3-yl)hexyl)-2,5-dihydropyrrolo[3,4-c]pyrrole-1,4-dione

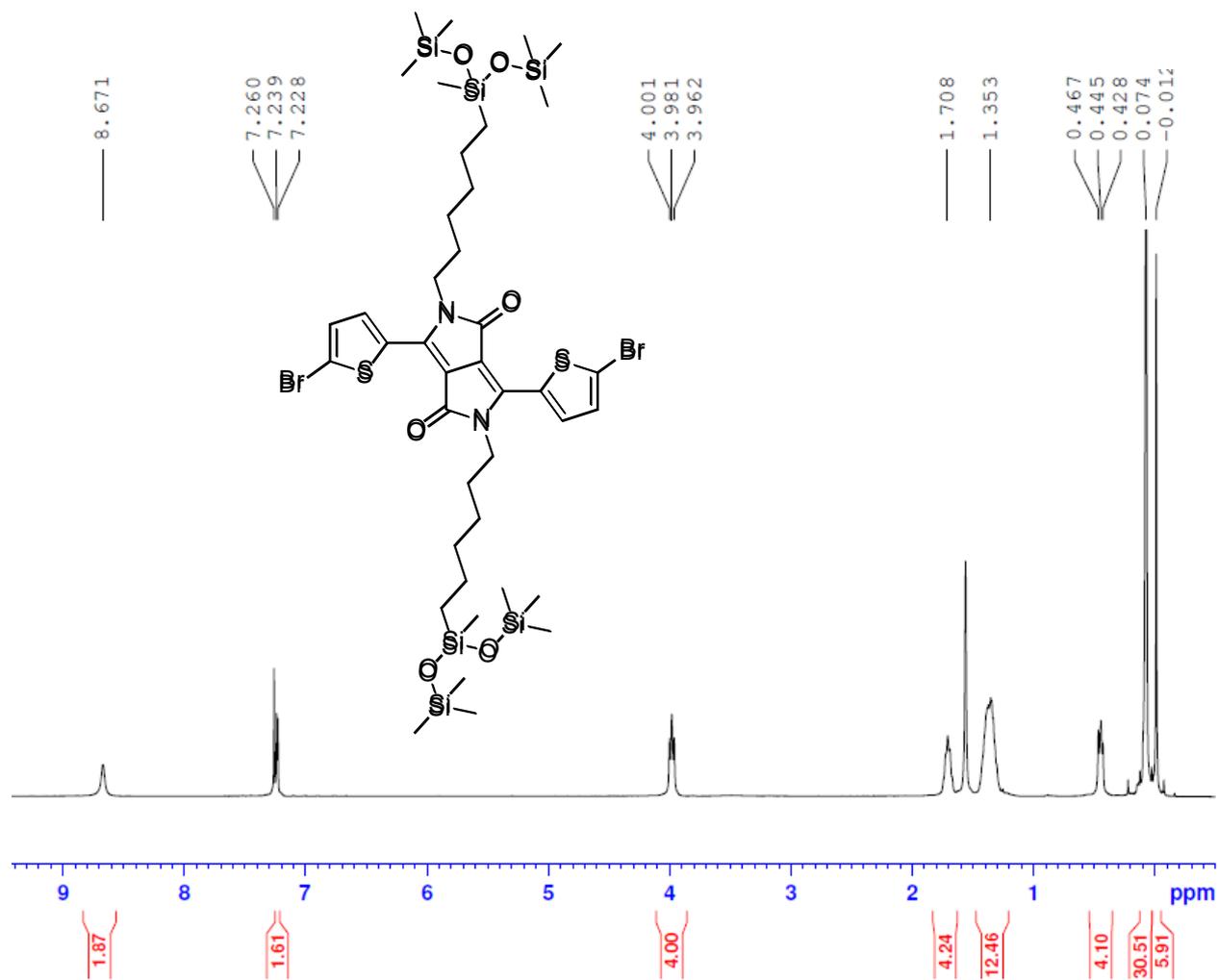


Figure S3 ¹H NMR spectrum of **4**

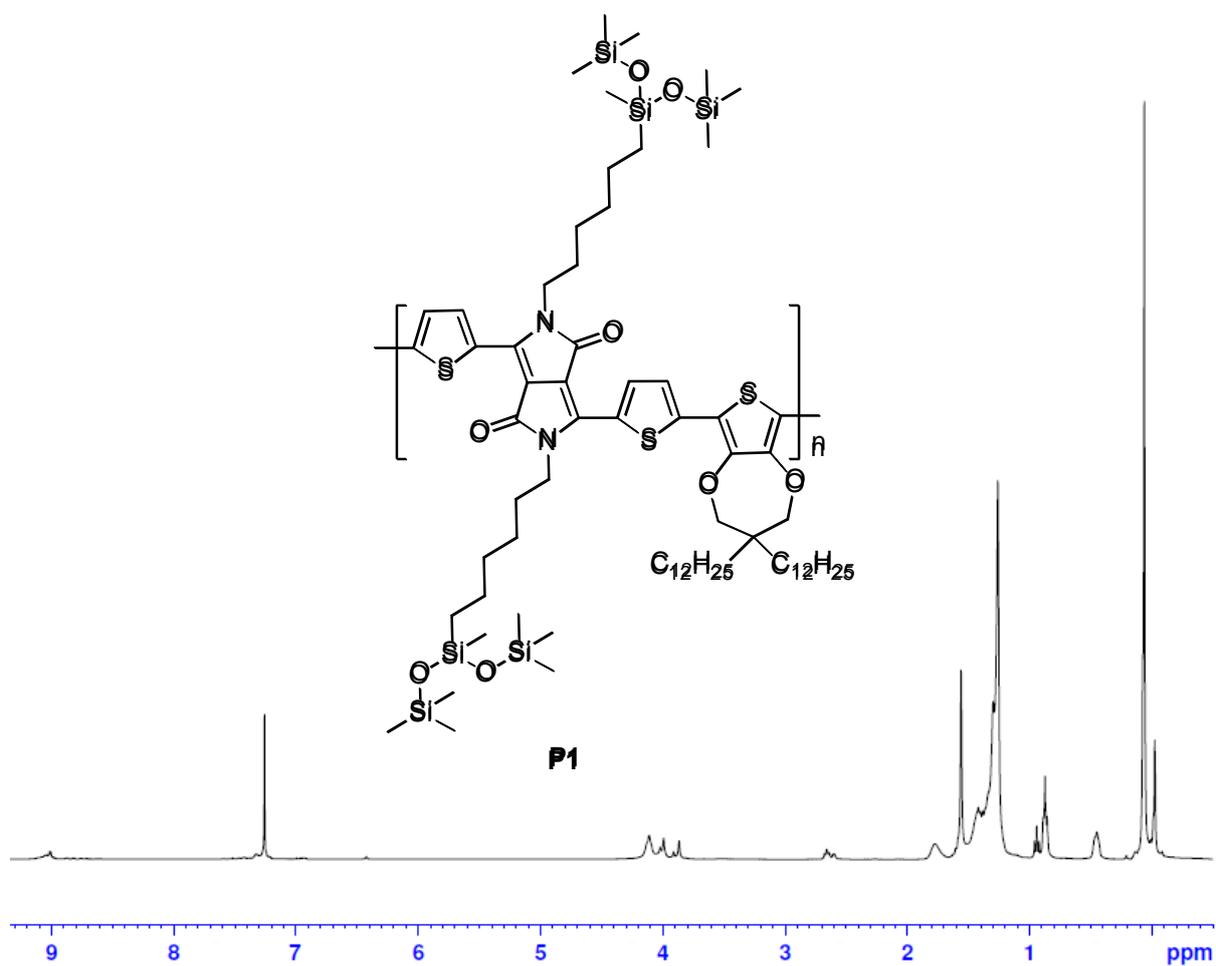


Figure S4 ^1H NMR spectrum of **P1**

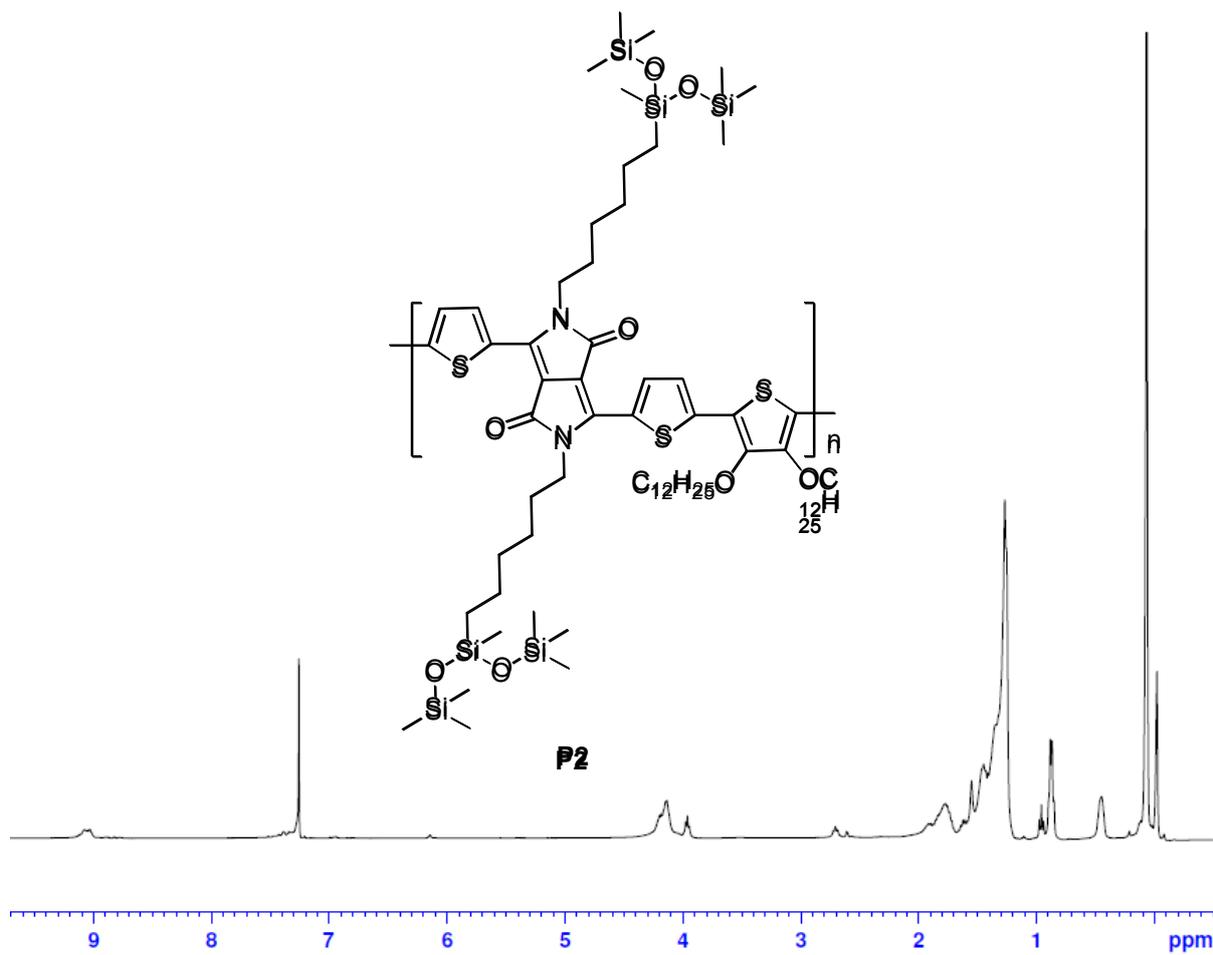


Figure S5 ^1H NMR spectrum of **P2**

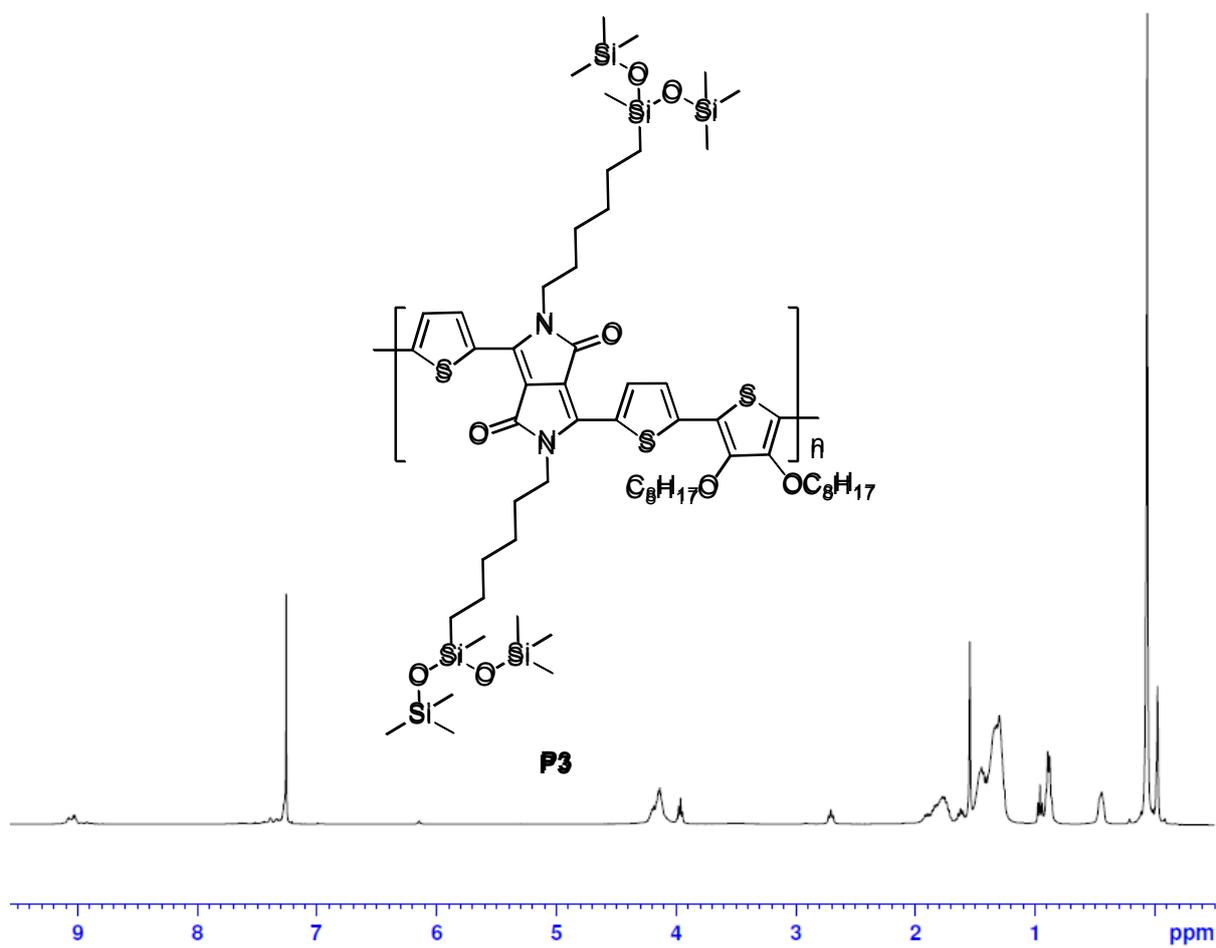
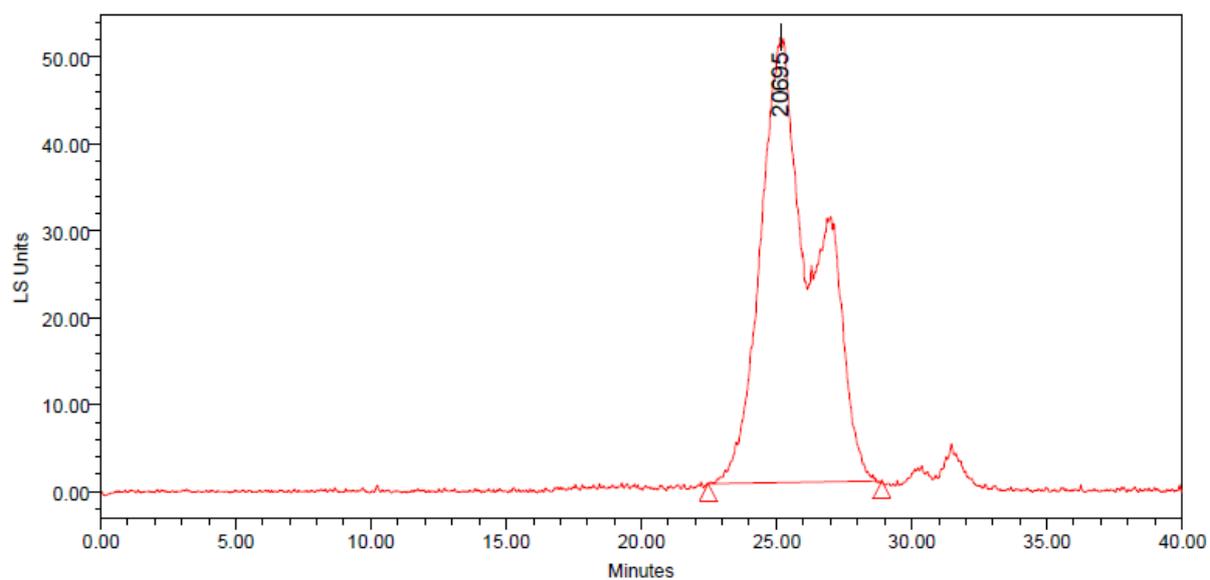


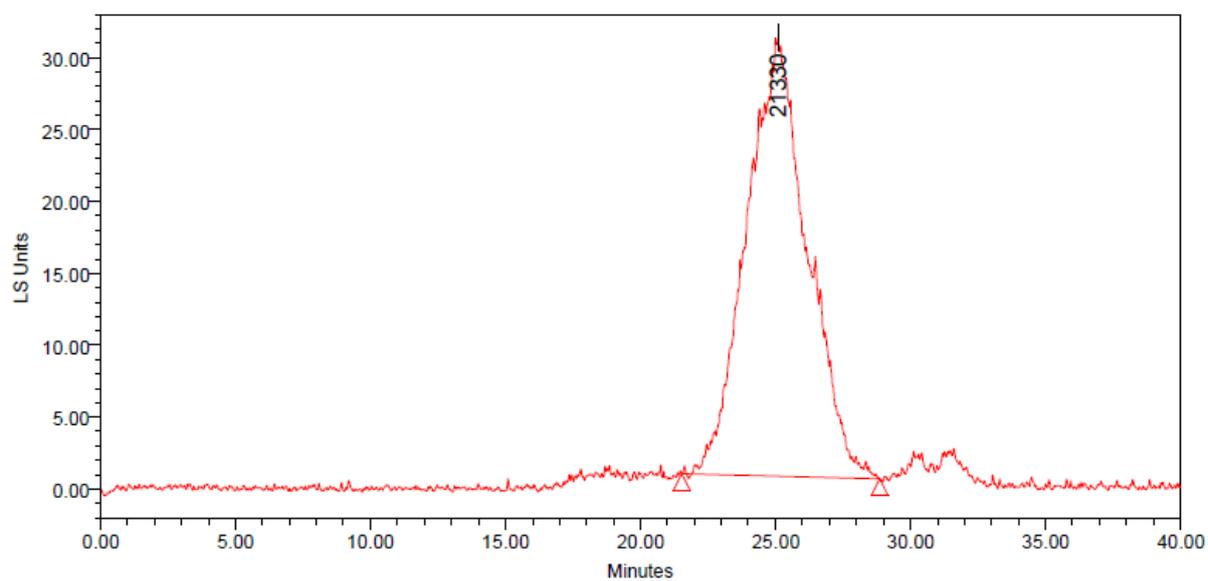
Figure S6 ^1H NMR spectrum of P3



GPC Results

	Mn	Mw	MP	Mz	Mz+1	Polydispersity	Retention Time (min)
1	12799	18434	20695	24945	31656	1.440267	25.149

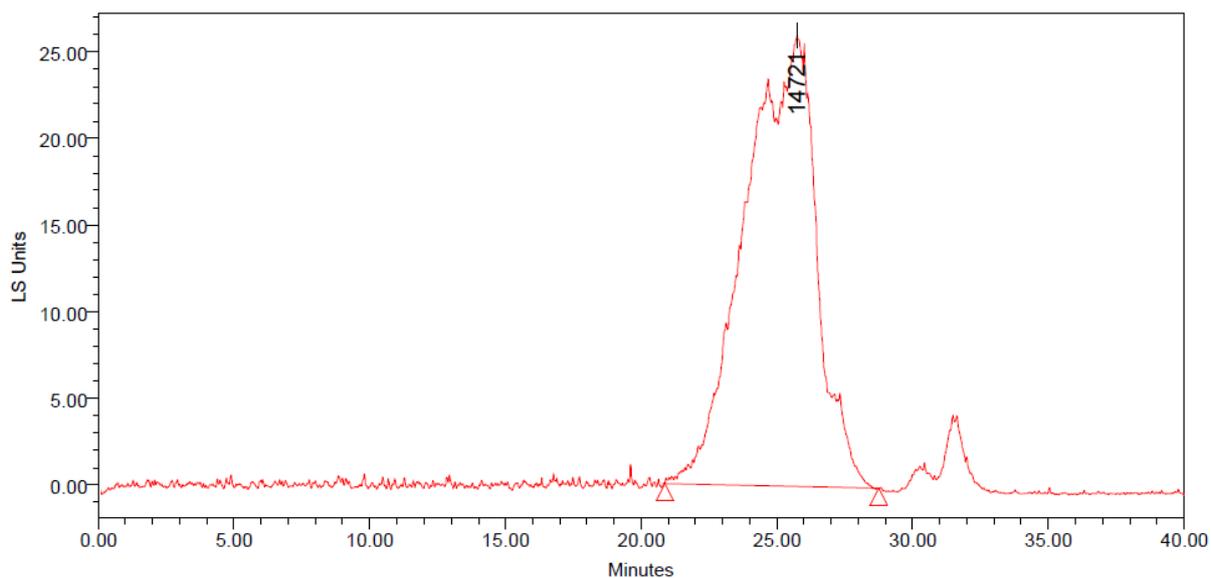
Figure S7 GPC chromatogram of **P1**.



GPC Results

	Mn	Mw	MP	Mz	Mz+1	Polydispersity	Retention Time (min)
1	17292	26185	21330	38412	53505	1.514299	25.096

Figure S8 GPC chromatogram of **P2**.



GPC Results

	Mn	Mw	MP	Mz	Mz+1	Polydispersity	Retention Time (min)
1	18048	30179	14721	54907	97016	1.672200	25.752

Figure S9 GPC chromatogram of **P3**.

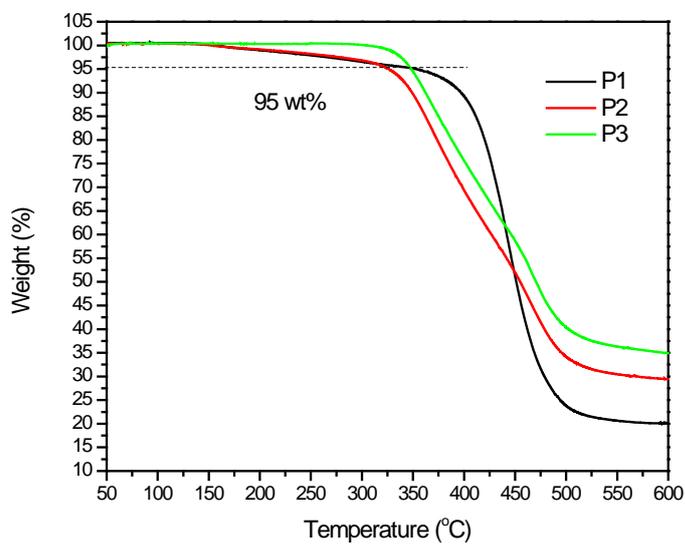


Figure S10 Thermograms of **P1-P3**.