

Electronic Supplementary Information:

Changing the shape of chromophores from “H-type” to “Star-type”: increasing the macroscopic NLO effects in a large degree

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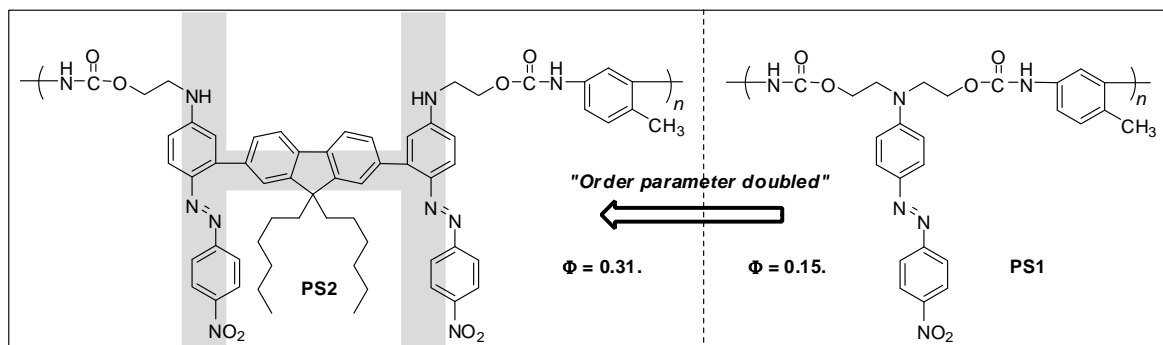


Chart S1. The structure of polyurethanes embedded with “H-type” chromophores.

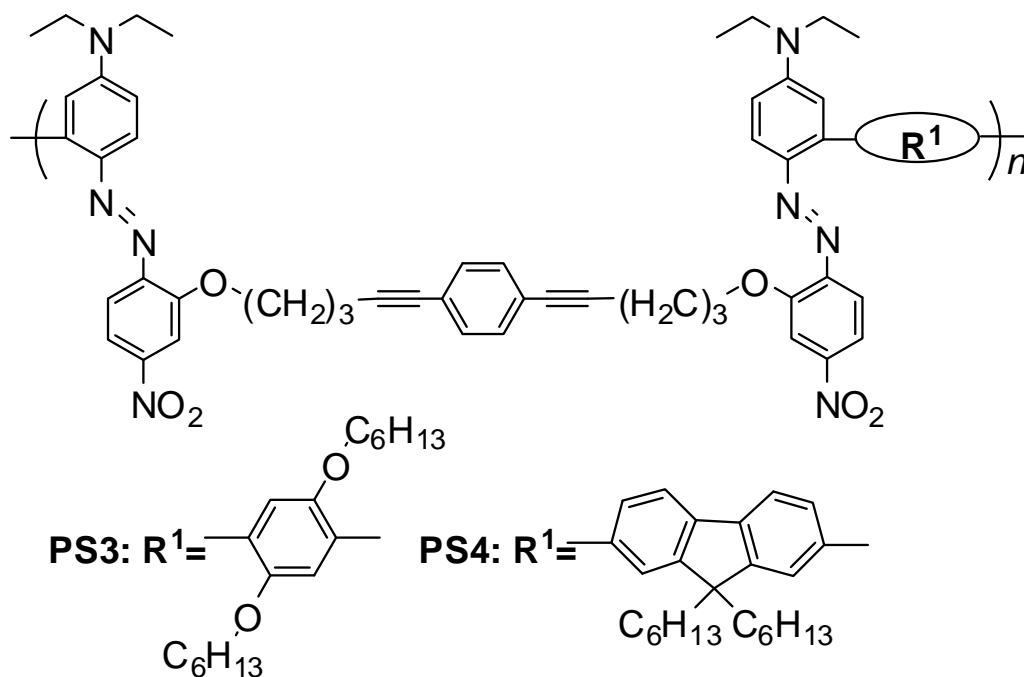


Chart S2. The structure of “H-sharp” NLO polymers PS3 and PS4.

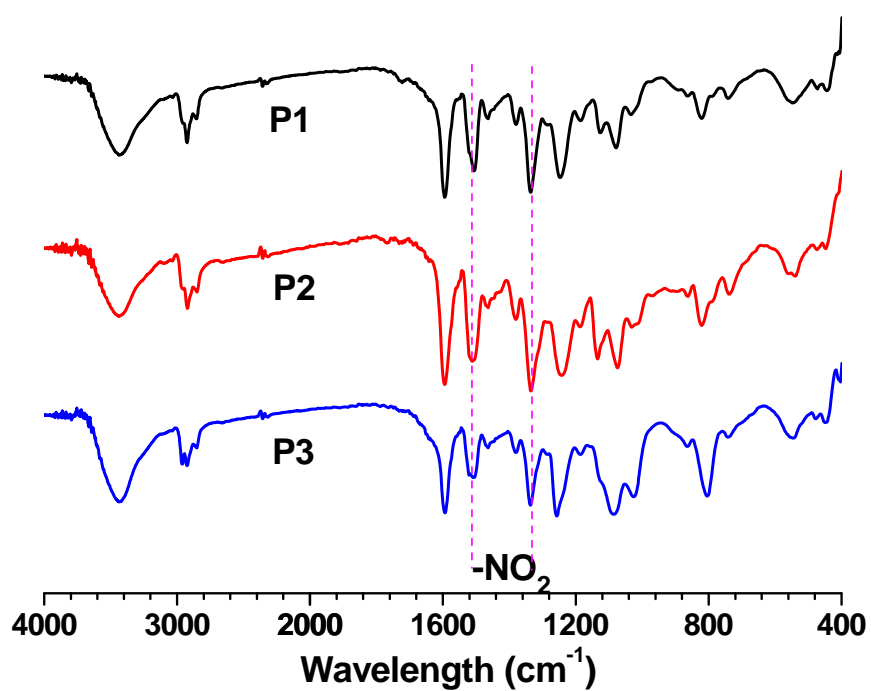


Fig. S1. The FT-IR spectra of polymers P1-P3.

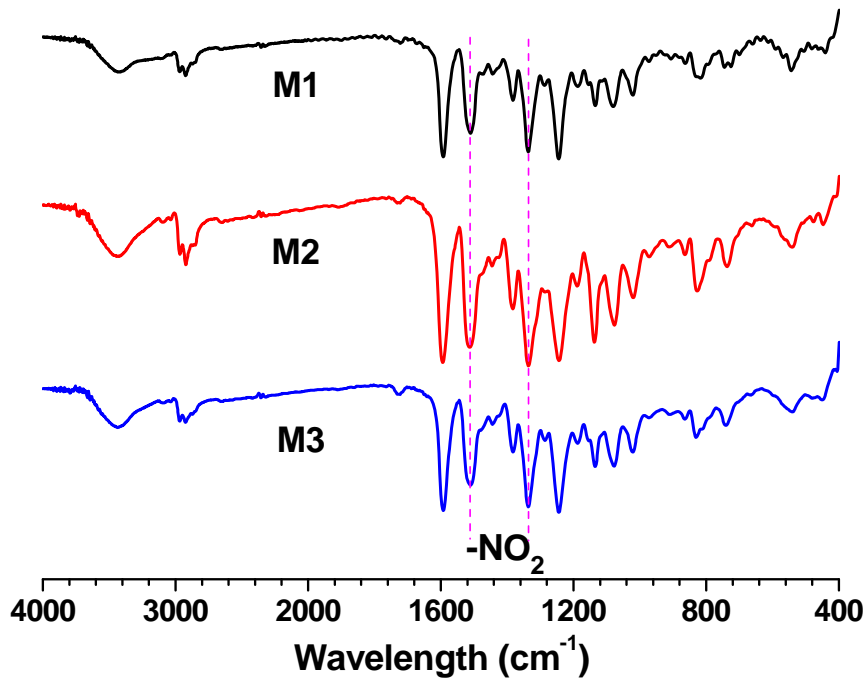


Fig. S2. The FT-IR spectra of monomers M1-M3.

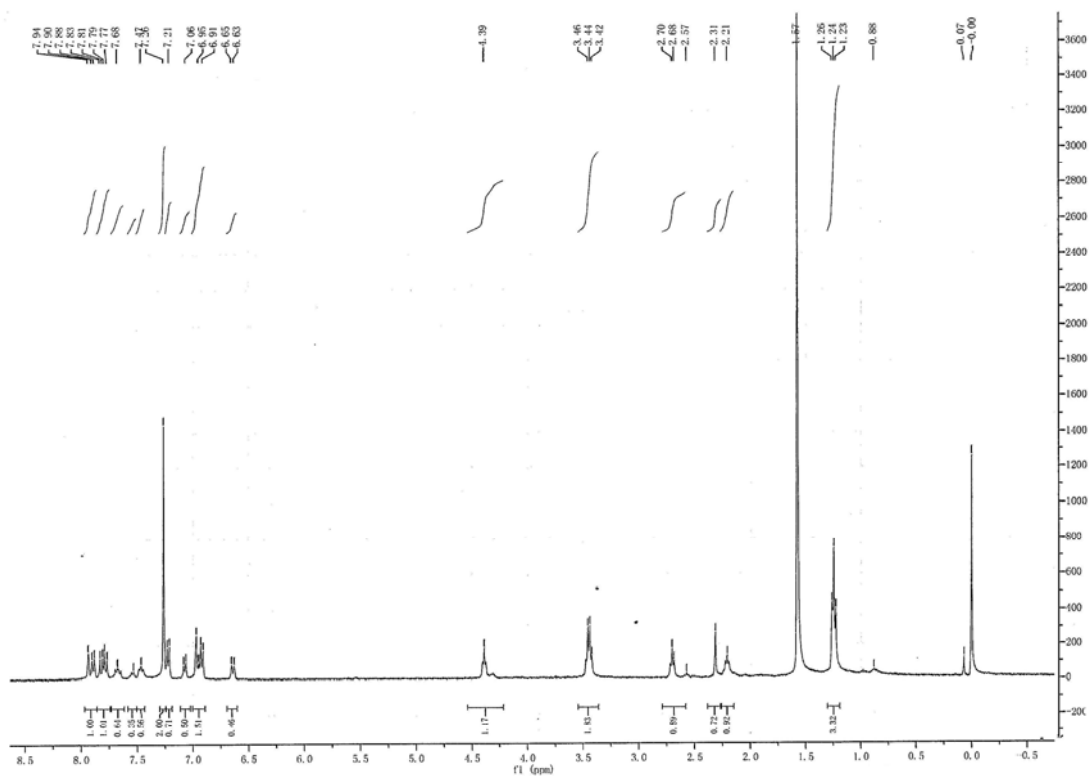


Fig. S3. ^1H NMR spectrum of monomer **M1** in chloroform-*d*.

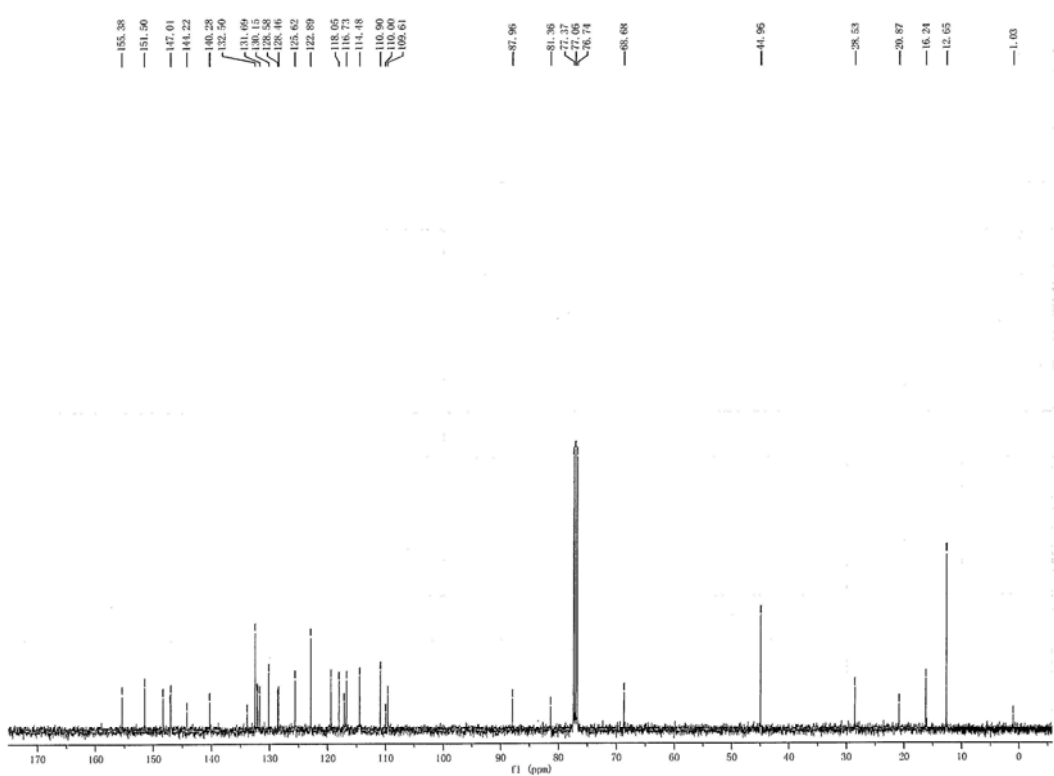


Fig. S4. ^{13}C NMR spectrum of monomer **M1** in chloroform-*d*.

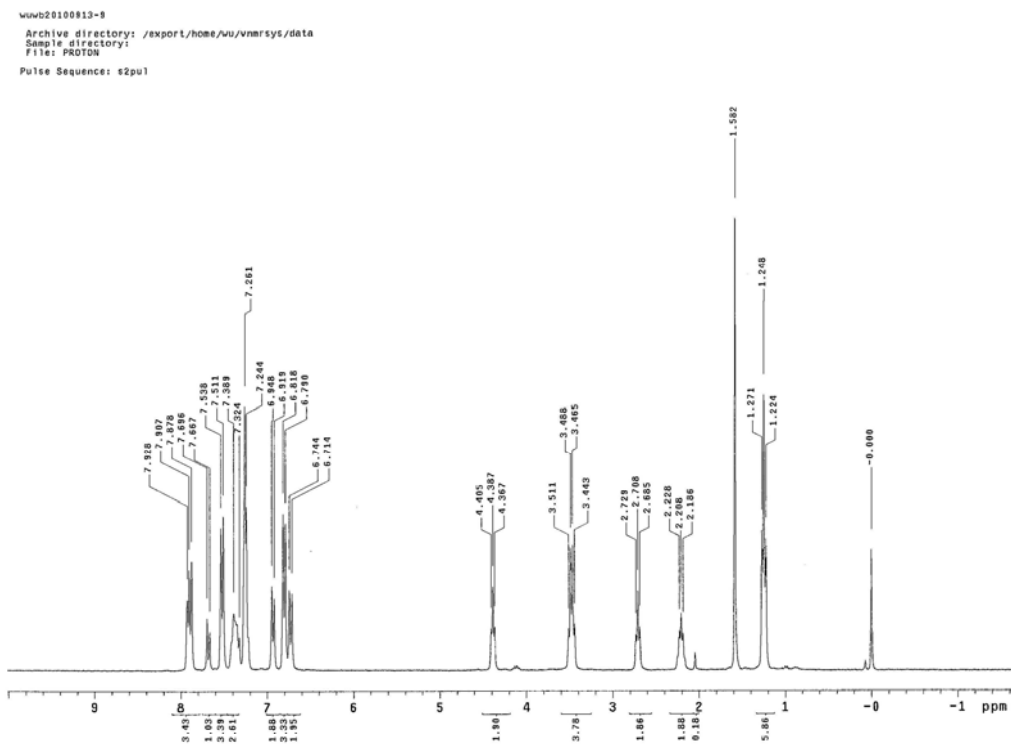


Fig. S5. ^1H NMR spectrum of chromophore **S5** in chloroform-*d*.

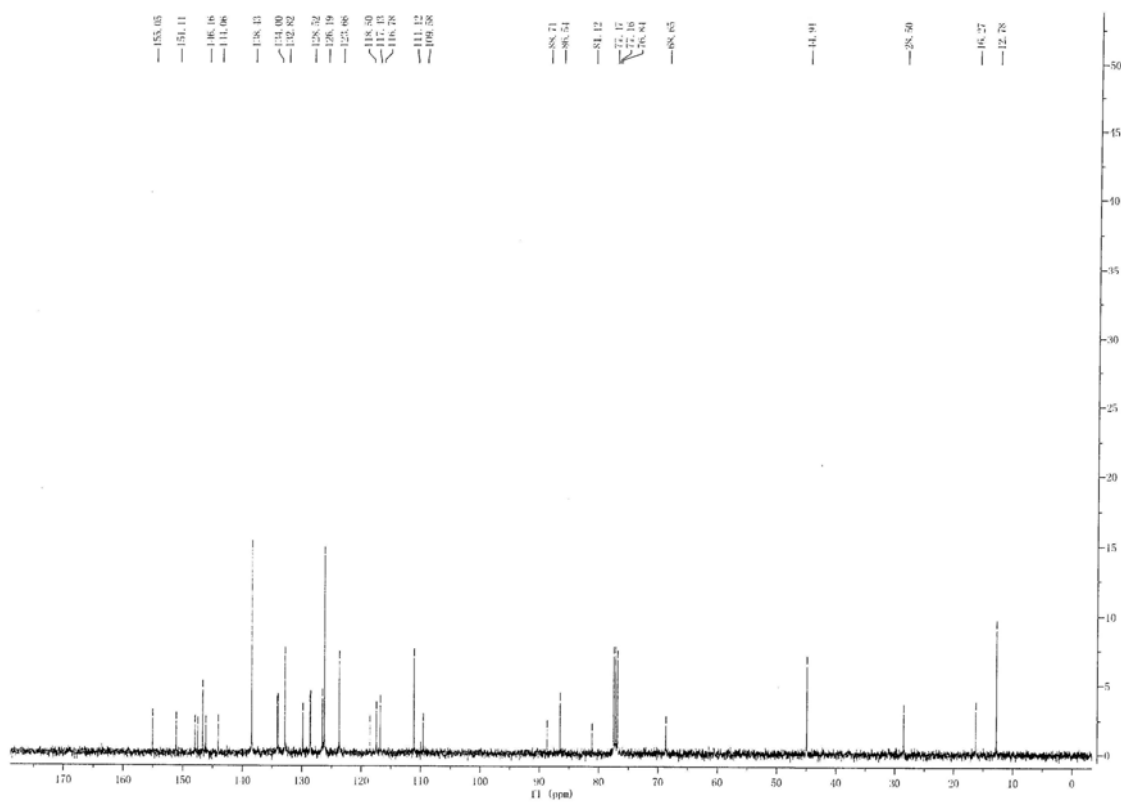


Fig. S6. ^{13}C NMR spectrum of chromophore **S5** in chloroform-*d*.

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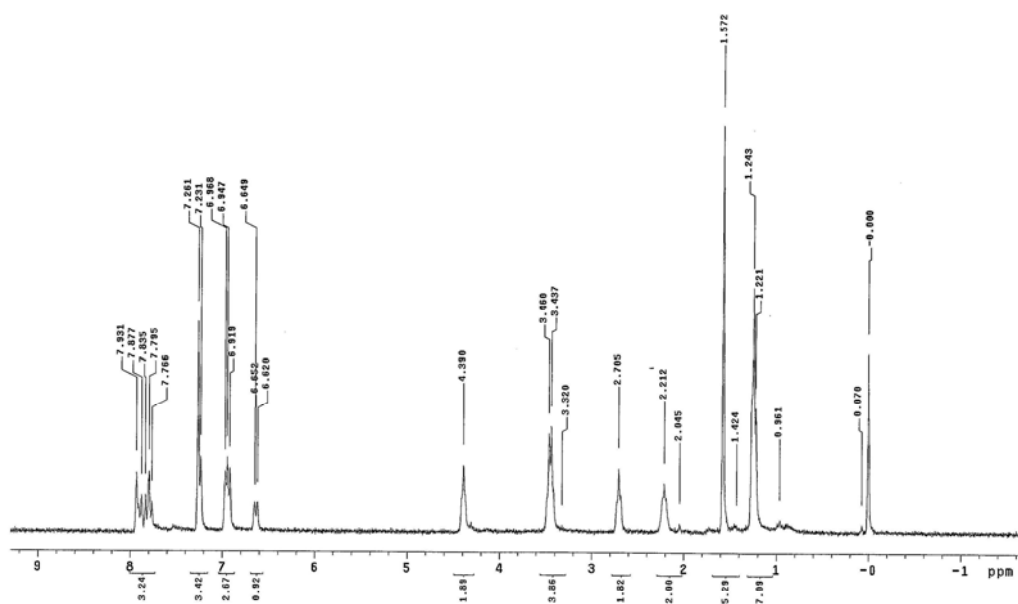


Fig. S9. ^1H NMR spectrum of monomer **M3** in chloroform-*d*.

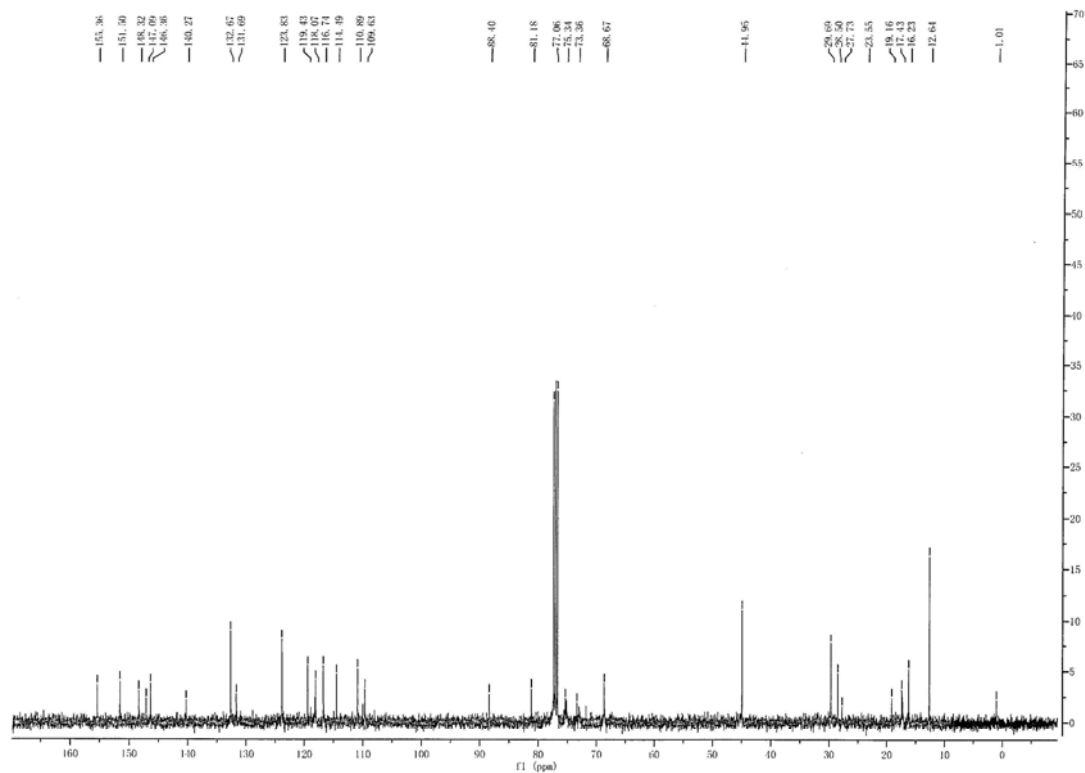


Fig. S10. ^{13}C NMR spectrum of monomer **M3** in chloroform-*d*.

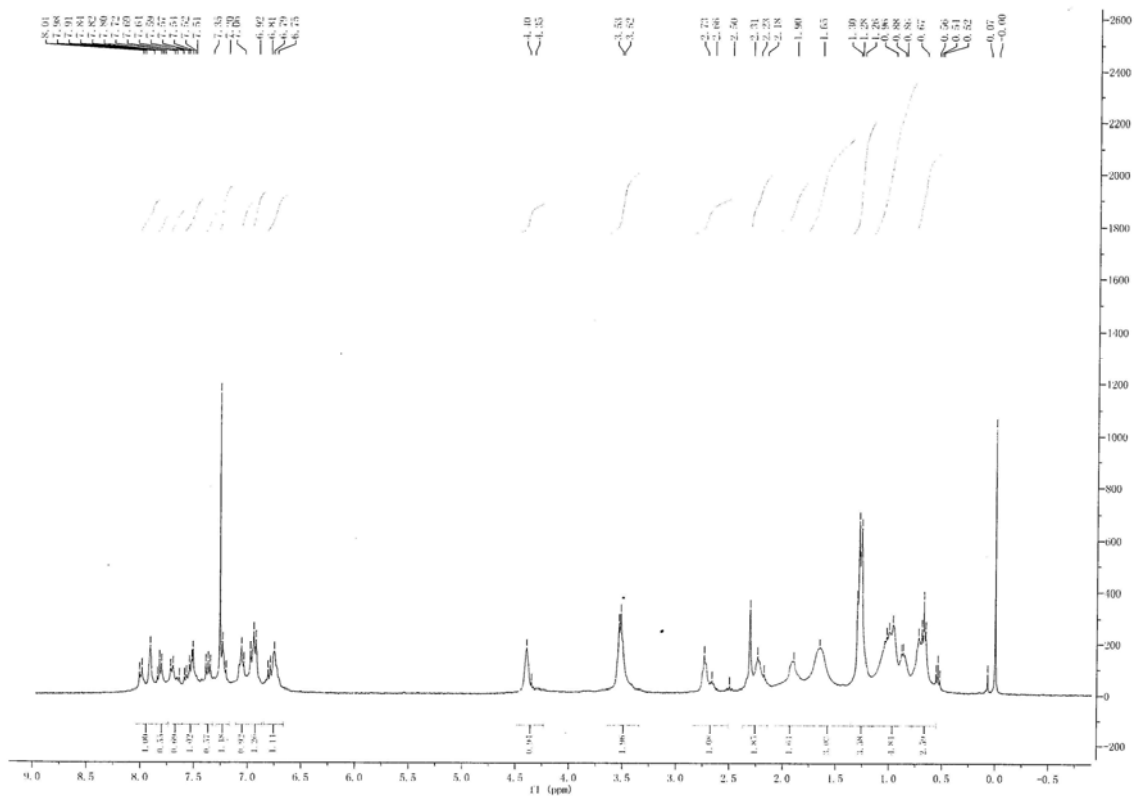


Fig. S13. ^1H NMR spectrum of polymer **P1** in chloroform-*d*.

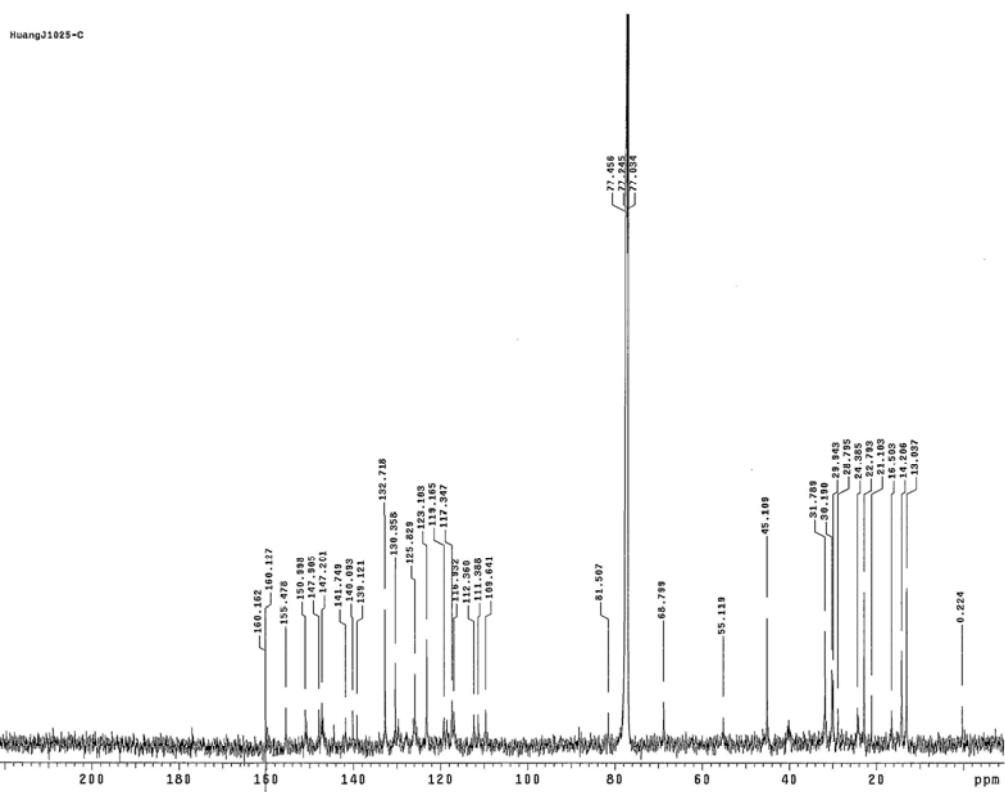


Fig. S14. ^{13}C NMR spectrum of polymer **P1** in chloroform-*d*.

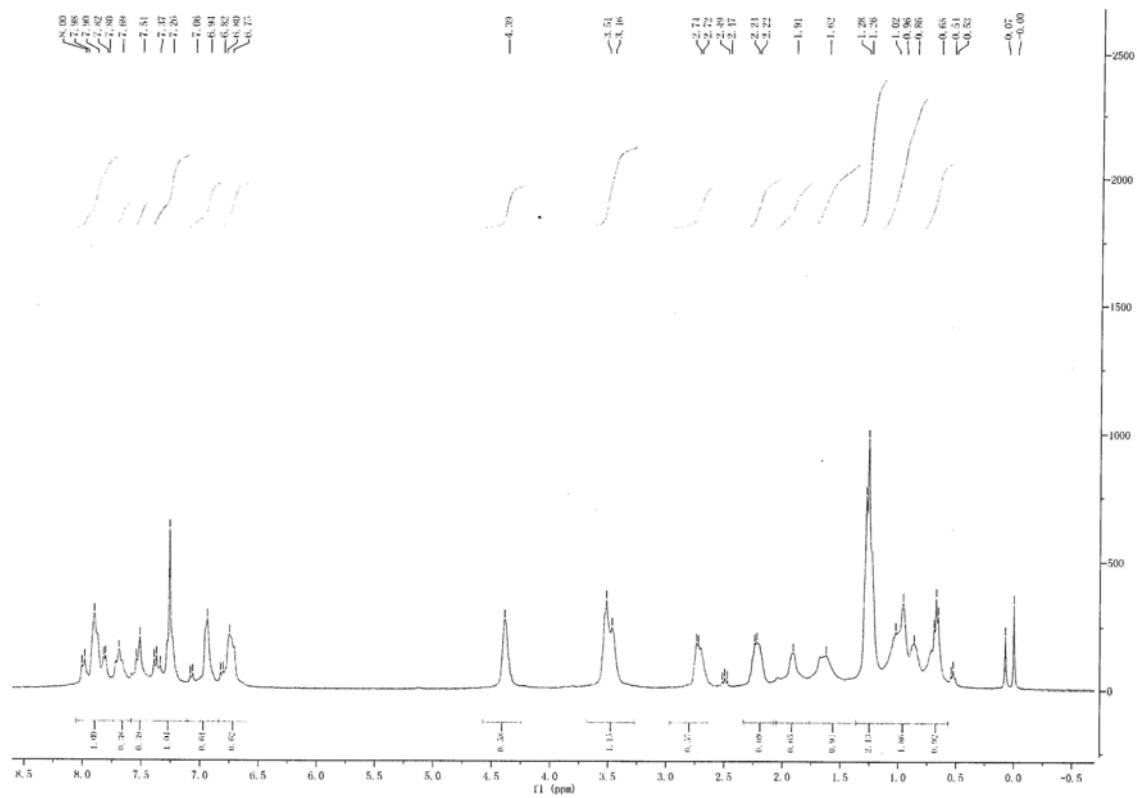


Fig. S15. ^1H NMR spectrum of polymer **P2** in chloroform-*d*.

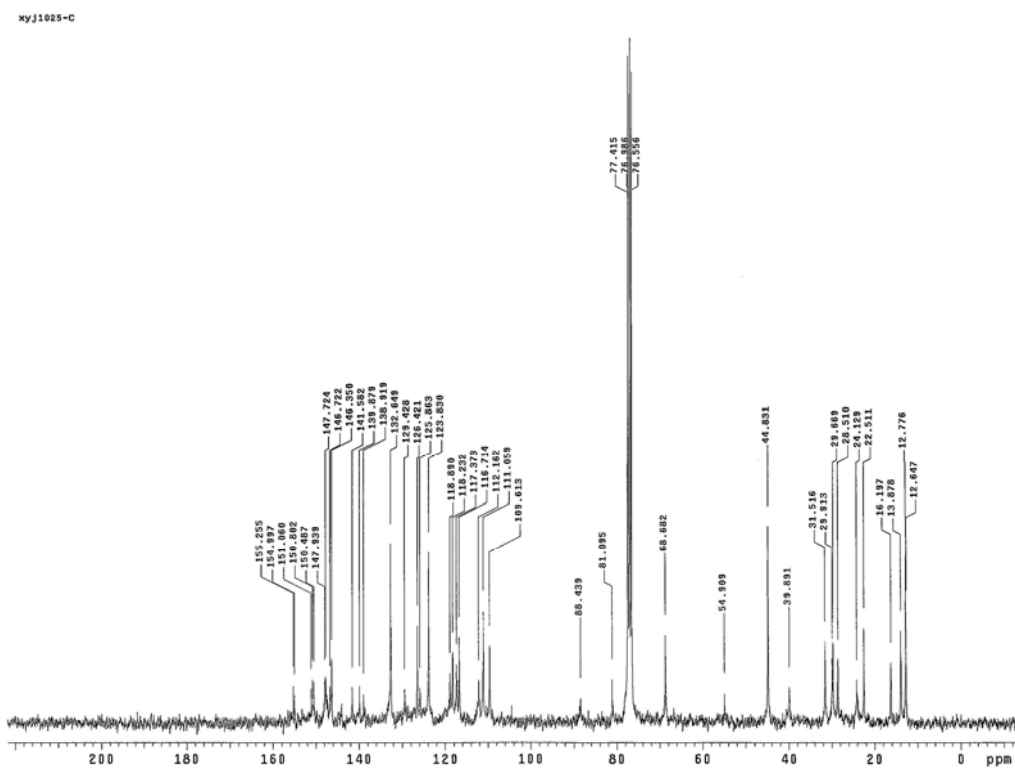


Fig. S16. ^{13}C NMR spectrum of polymer **P2** in chloroform-*d*.

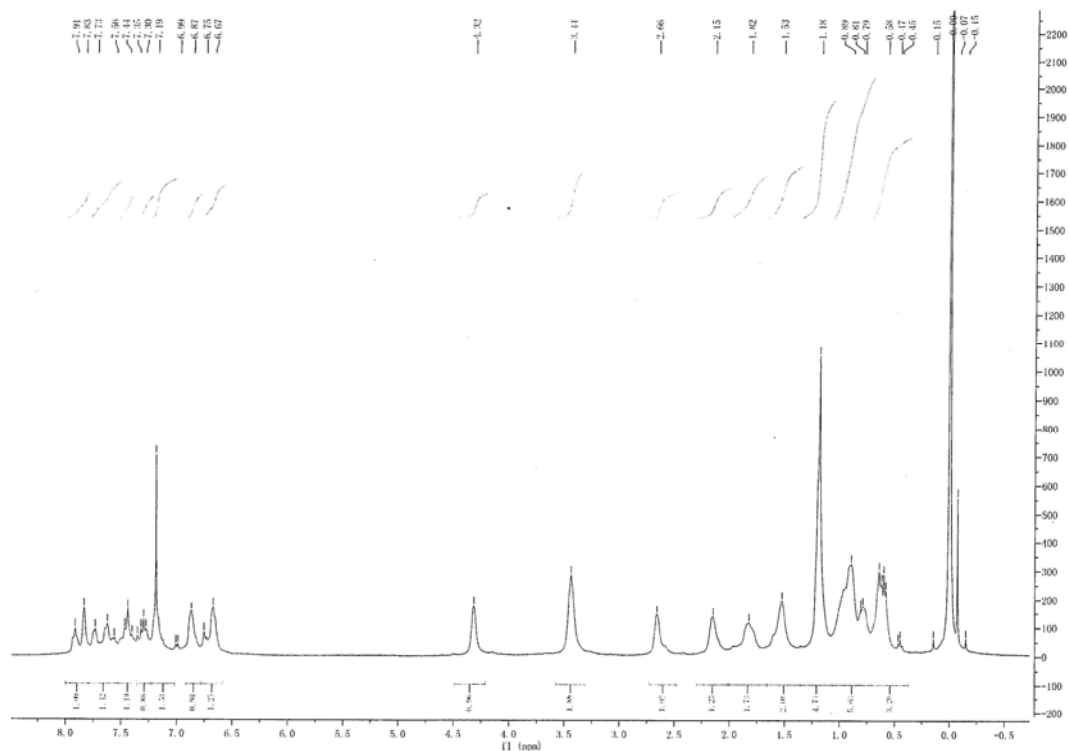


Fig. S17. ^1H NMR spectrum of polymer **P3** in chloroform-*d*.

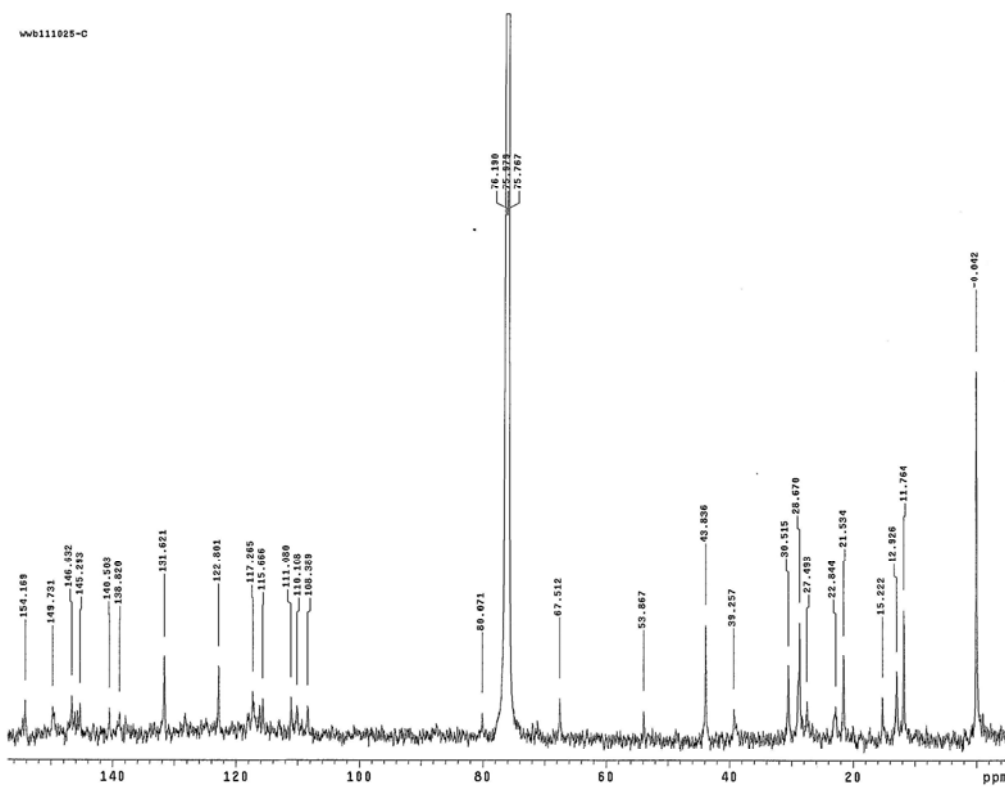


Fig. S18. ^{13}C NMR spectrum of polymer **P3** in chloroform-*d*.

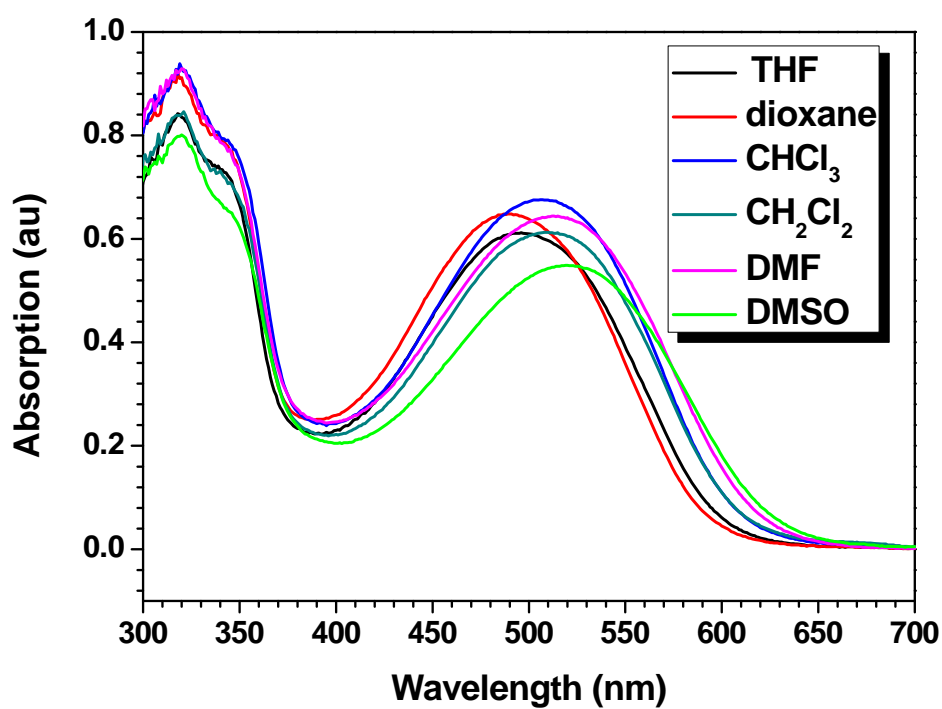


Fig. S19. UV-Vis spectra of P1 in different solutions. (0.02 mg/mL).

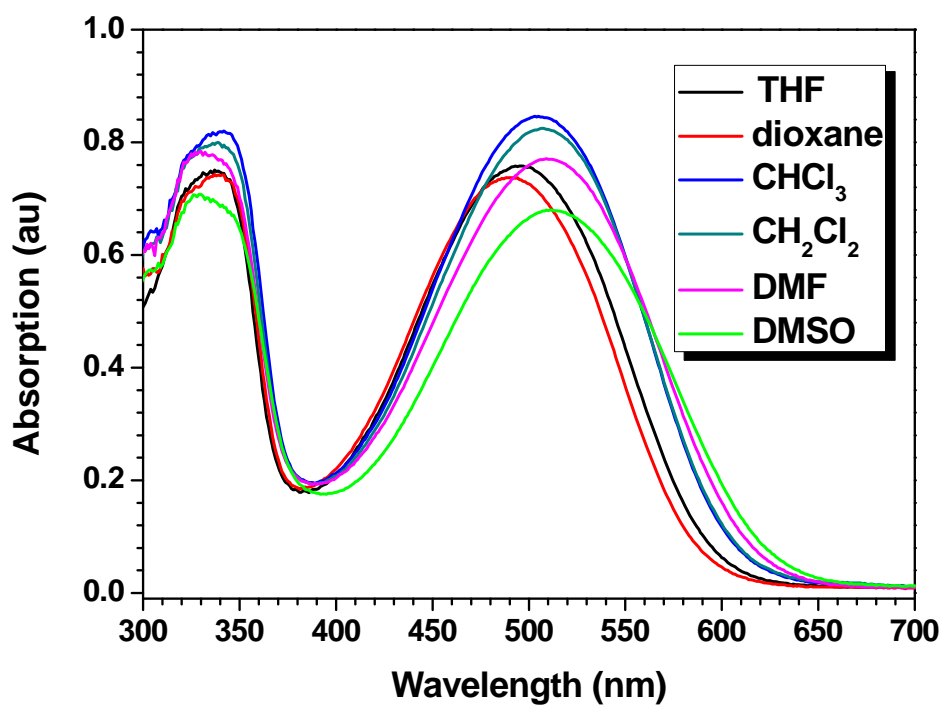


Fig. S20. UV-Vis spectra of P2 in different solutions. (0.02 mg/mL).

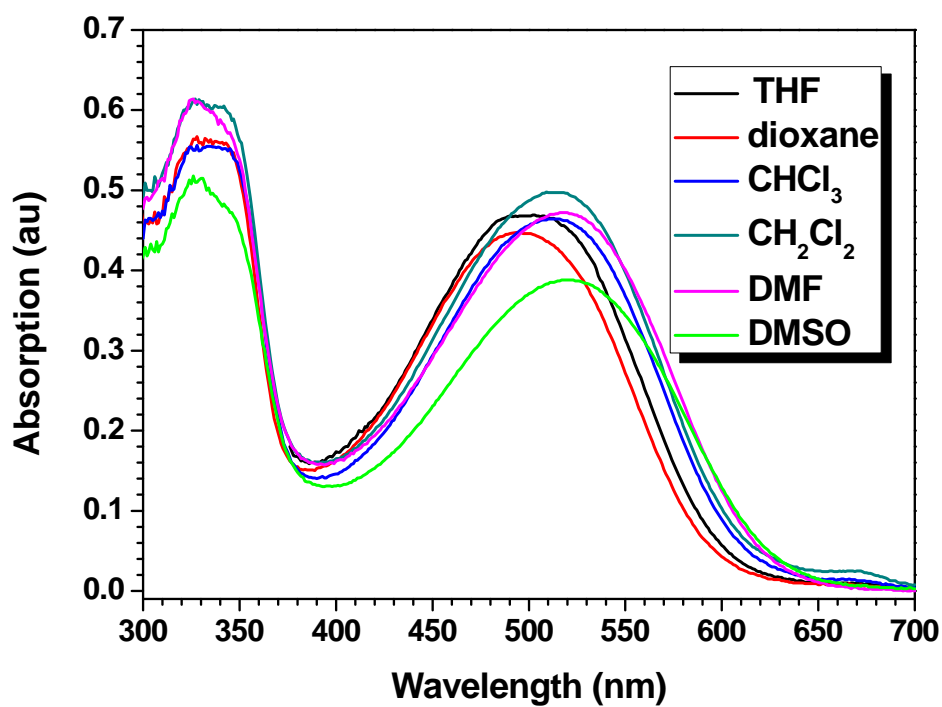


Fig. S21. UV-Vis spectra of **P3** in different solutions. (0.02 mg/mL).

Table S1. The maximum absorption of polymers (λ_{\max} , nm).^a

	THF	1,4-dioxane	chloroform	dichloromethane	DMF	DMSO	film
P1	496	487	508	507	512	520	509
P2	496	487	507	505	509	511	500
P3	502	495	509	512	516	519	510

^a The maximum absorption wavelength of polymer solutions with the concentrations fixed at 0.02 mg/mL.

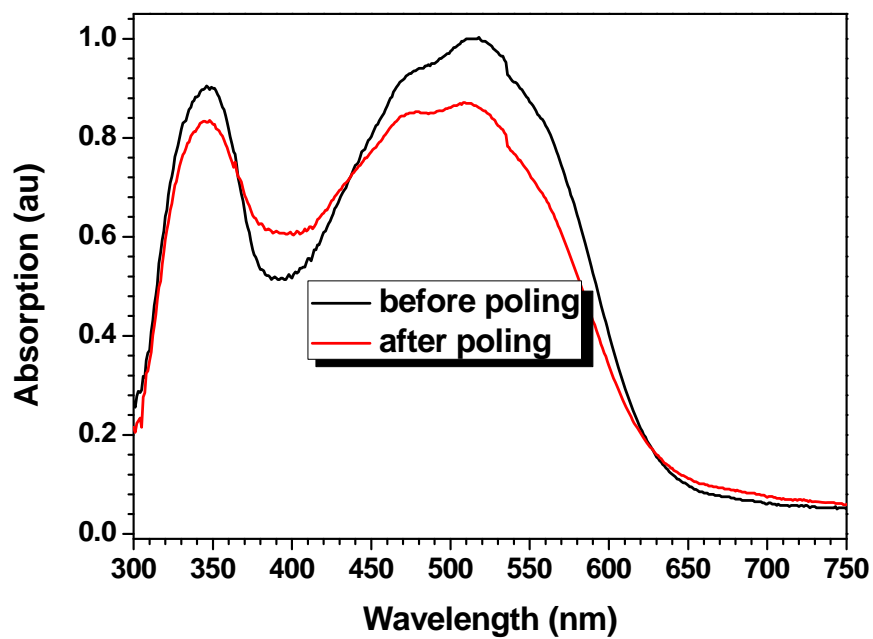


Fig. S22. Absorption spectra of the film of **P3** before and after poling.