Electronic Supplementary Material (ESI) for Polymer Chemistry.

Poly (aryl sulfone)s Containing 5,11-Dihydroindolo[3,2-b]carbazole Moieties in Main Chain: A Non-conjugated Blue Light-emitting Materials

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Content

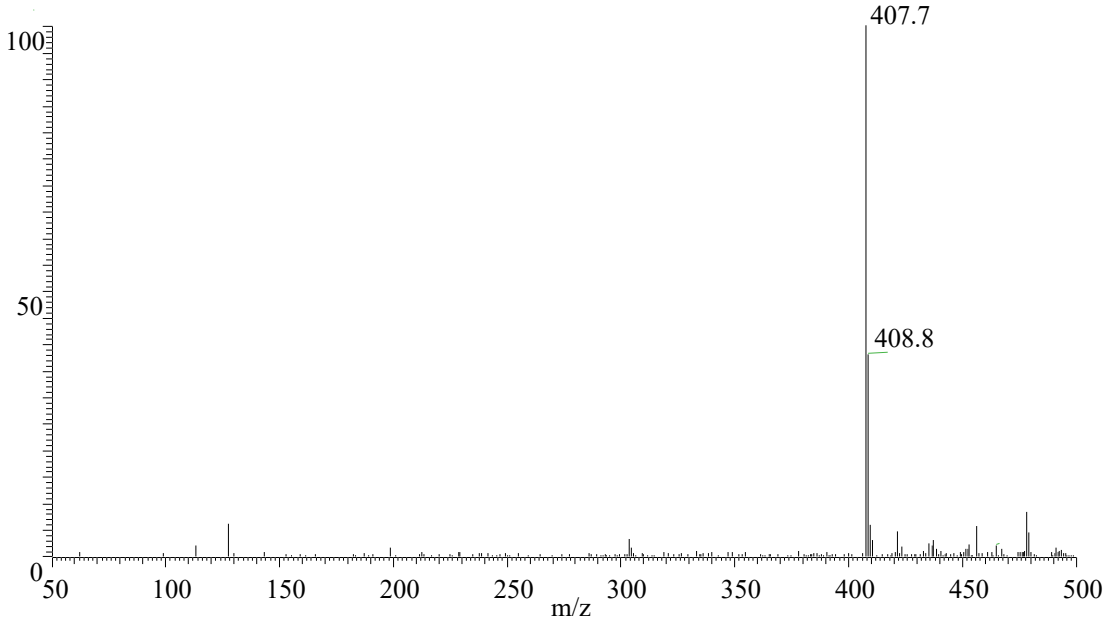


Figure S1. MS spectrum of monomer **1a.**

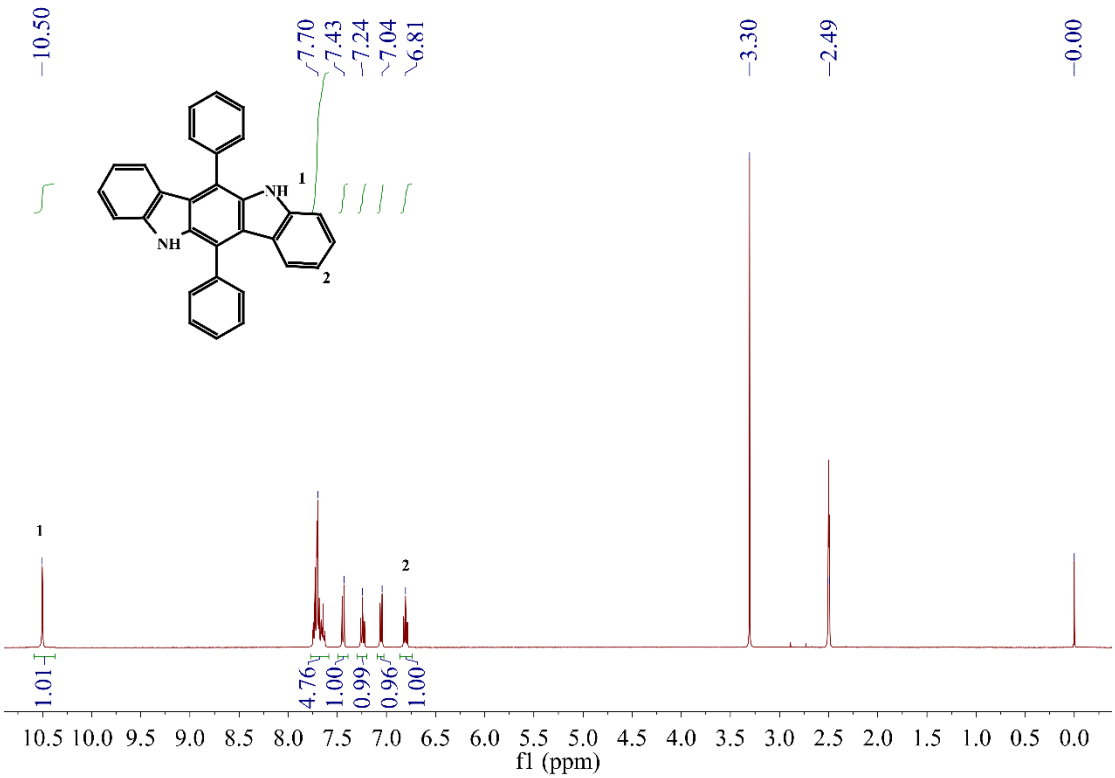


Figure S2. ^{1}H NMR spectrum (DMSO-d_6) of monomer **1a**.

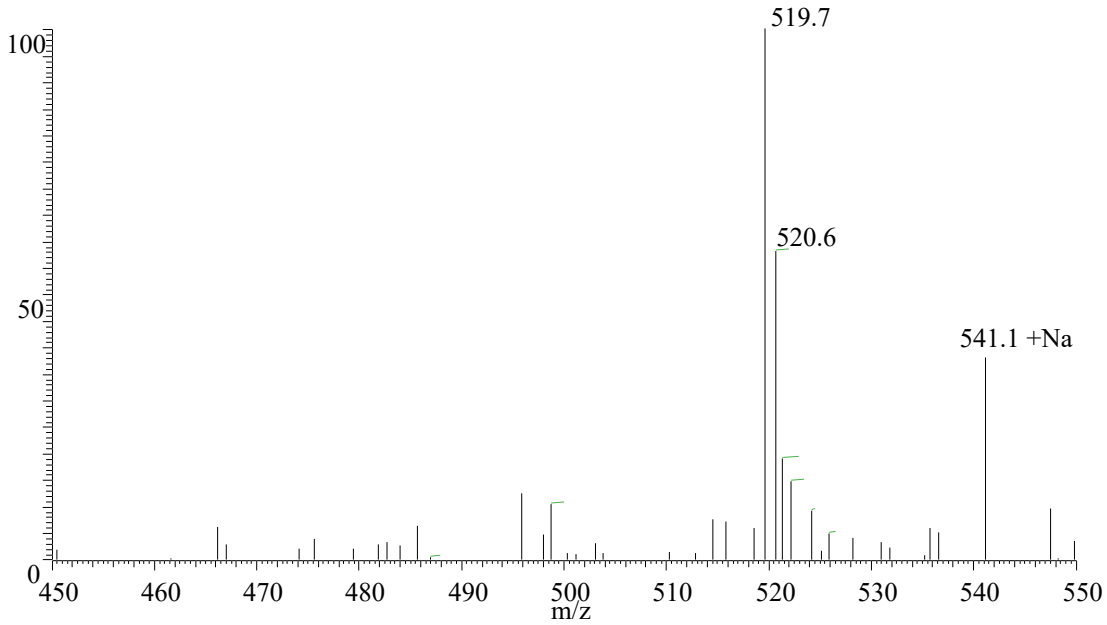


Figure S3. MS spectrum of monomer **1c.**

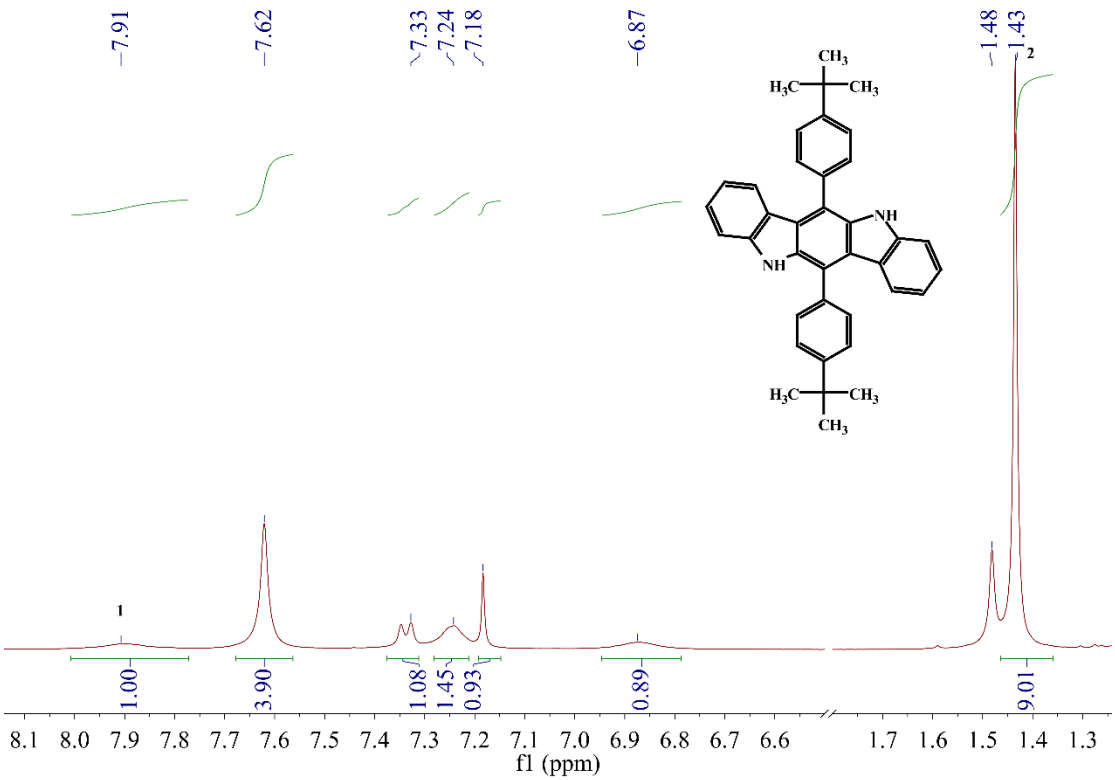


Figure S4. ^{1}H NMR spectrum ($CDCl_3$) of monomer **1c.**

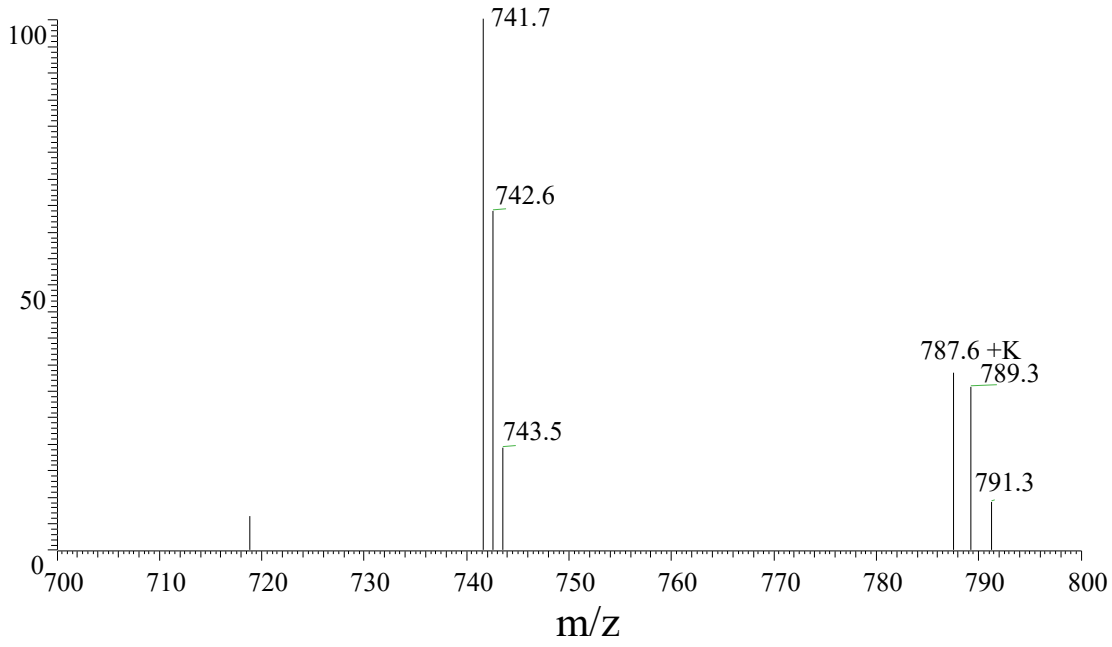


Figure S5. MS spectrum of monomer **1d.**

Fcox and Fcred

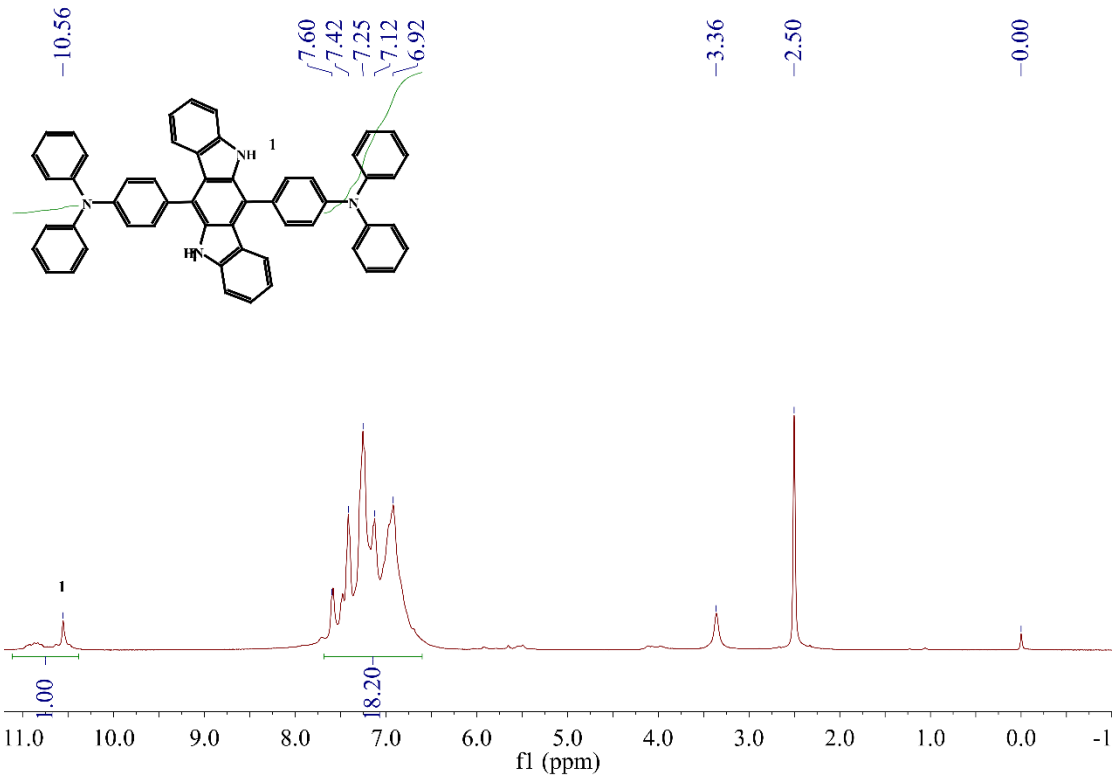


Figure S6. ^{1}H NMR spectrum (DMSO-d_6) of monomer **1d**.

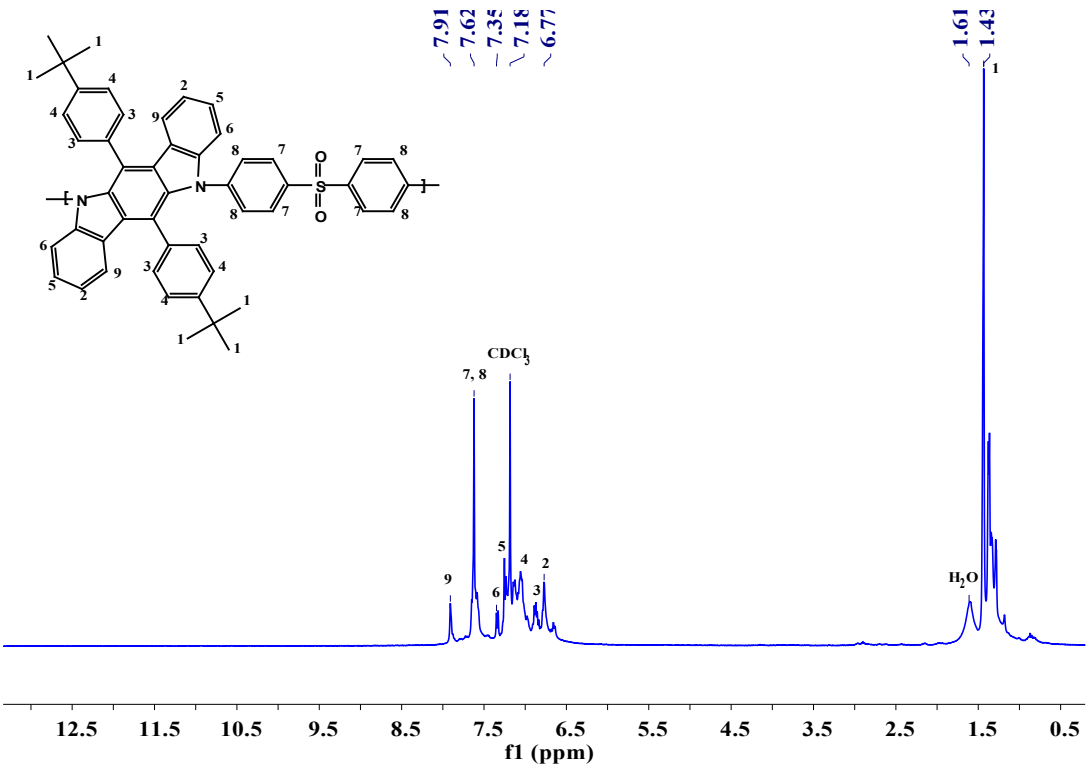


Figure S7. ^{1}H NMR spectrum ($CDCl_3$) of polymer **2c.**

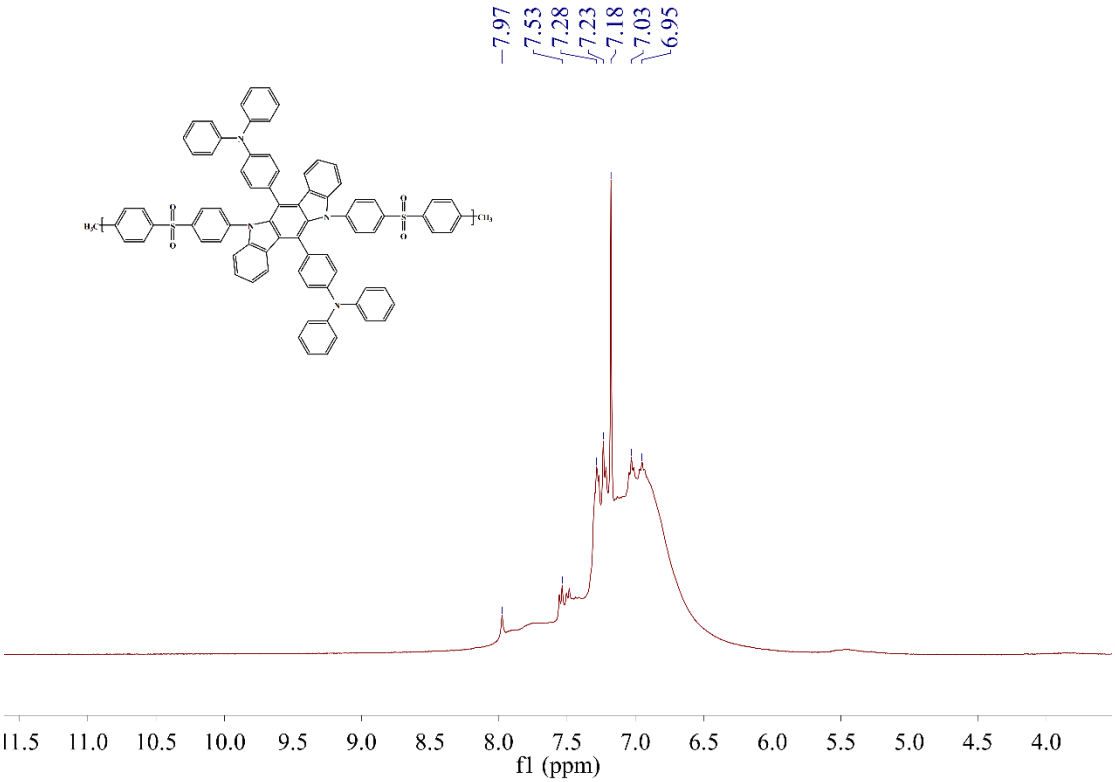


Figure S8. ^{1}H NMR spectrum ($CDCl_3$) of polymer **2d.**

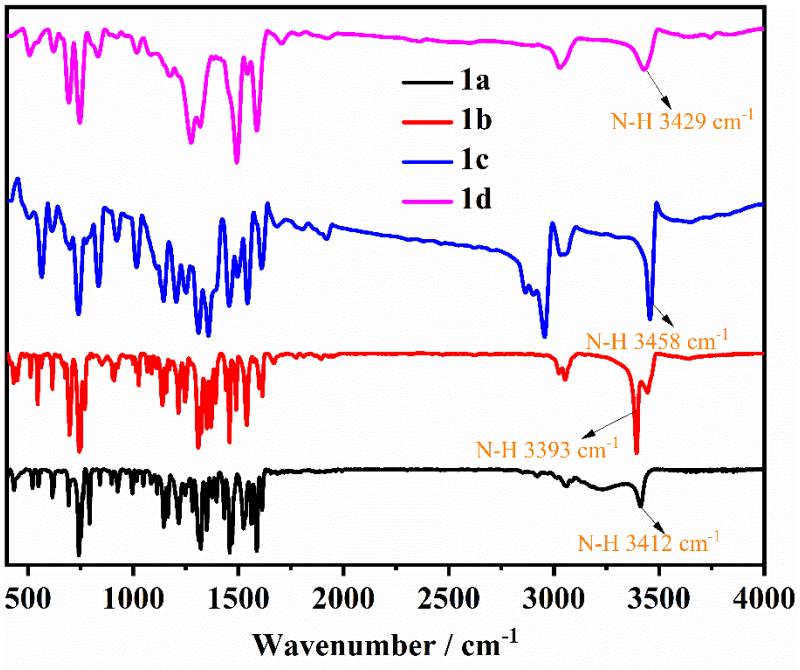


Figure S9. FT-IR spectrum of monomers.

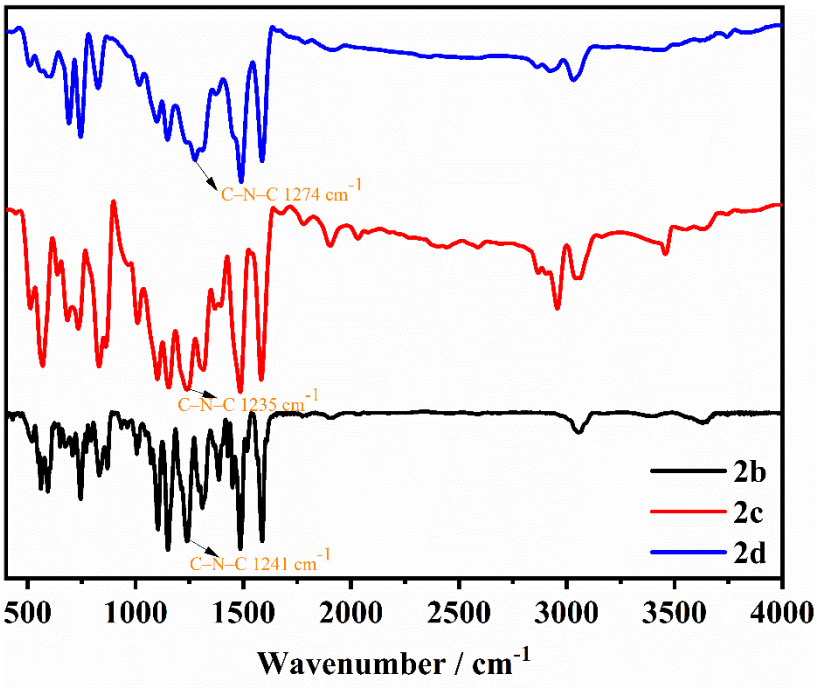


Figure S10. FT-IR spectrum of polymers.

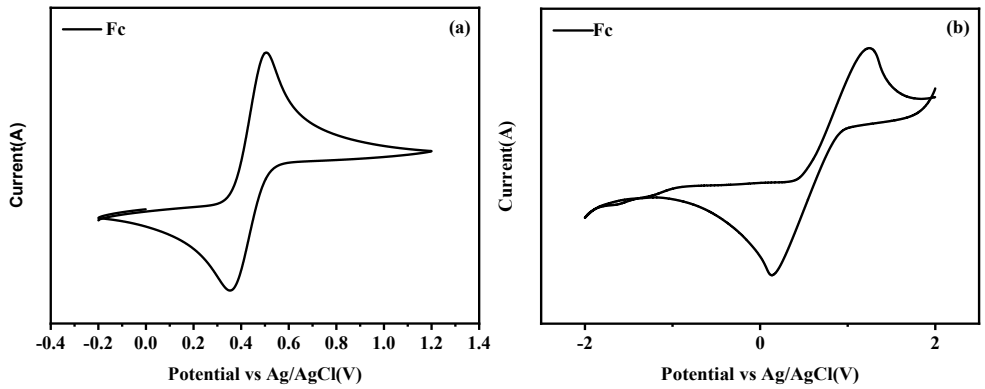


Figure S11. Cyclic voltammograms of Fc (a) in 0.1 mol/L Bu_4NPF_6, CH_3CN solution and Fc (b) in 0.1 mol/L Bu_4NPF_6, THF solution.

Fcox and Fcred represent the oxidation and reduction potentials of Ferrocene (Fc), which correspond to 0.51V and 0.35V in HTF and 1.23V and 0.12V in CH_3CN, respectively.

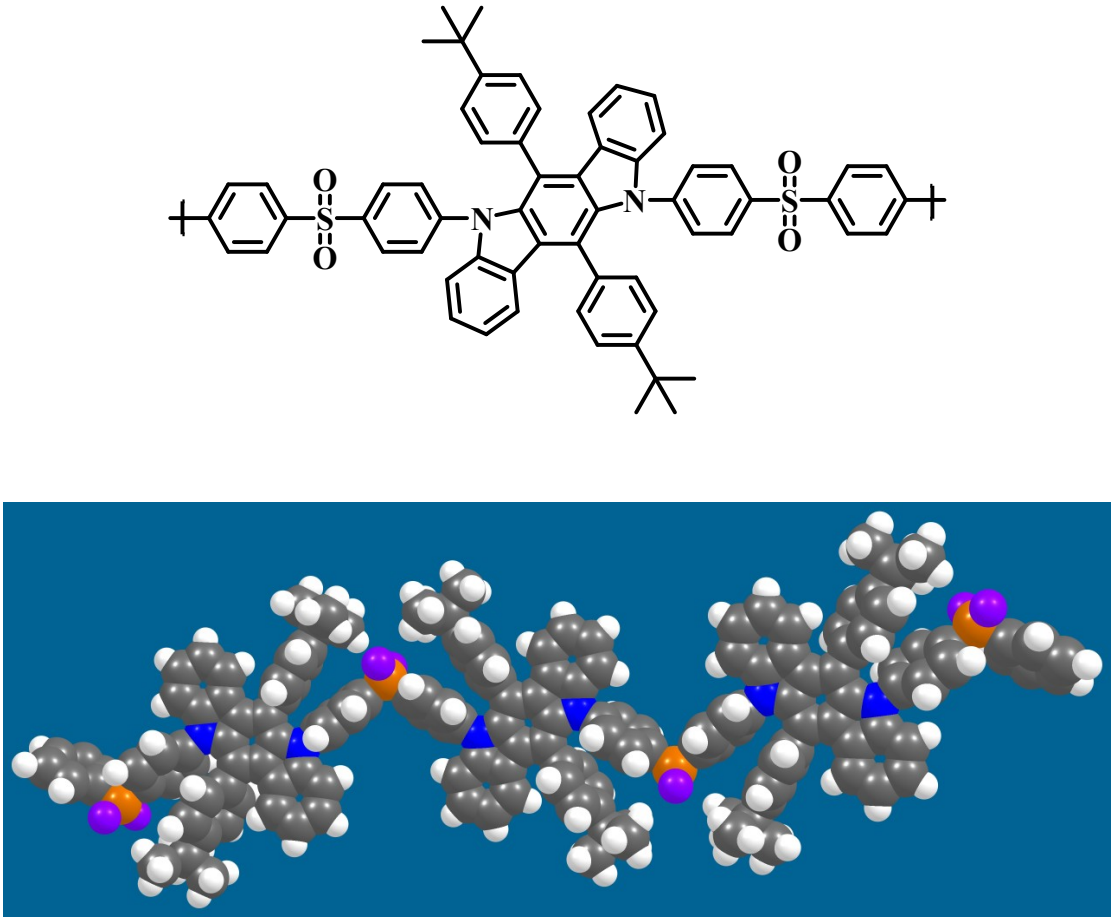
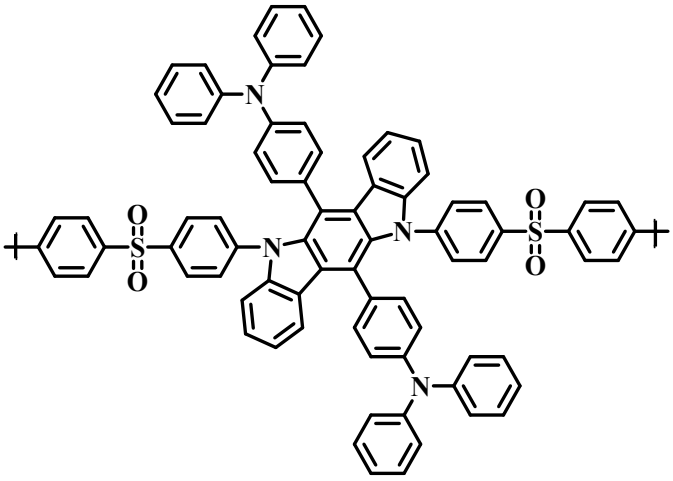


Figure S12. Molecular models of polymer **2c**.



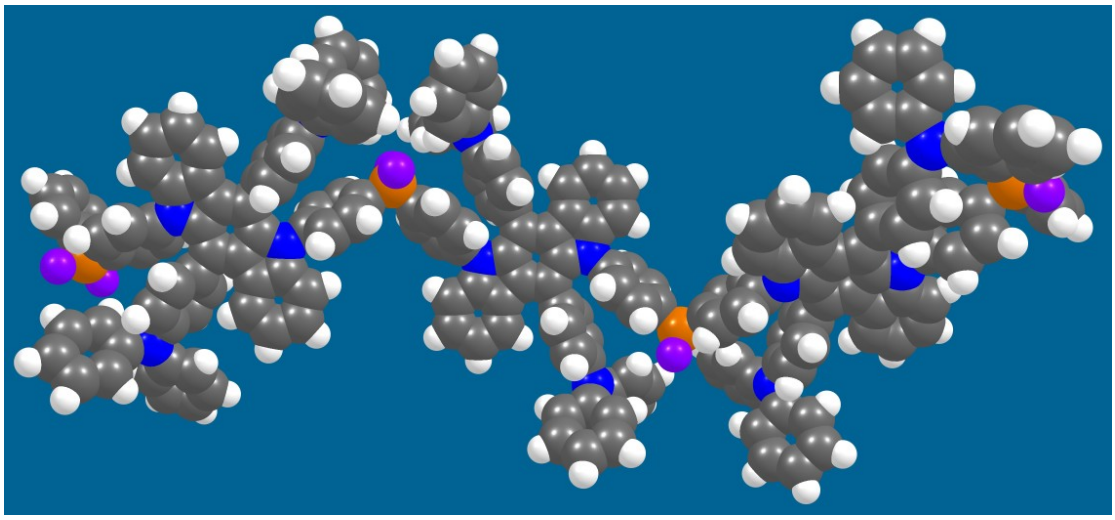


Figure S13. Molecular models of polymer **2d**.

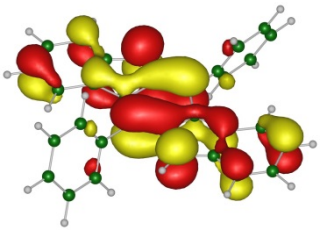
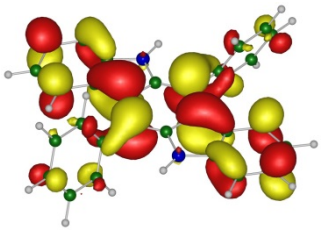
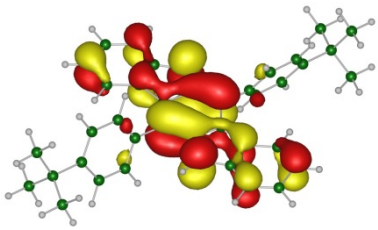
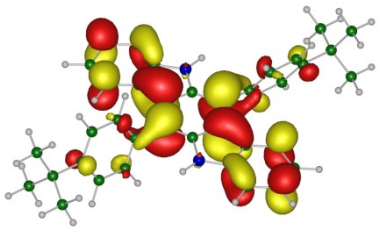
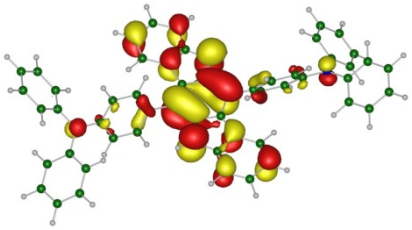
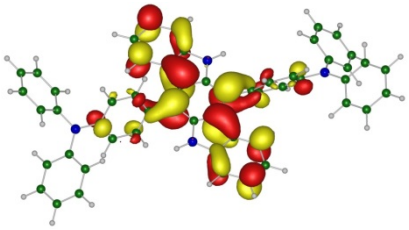
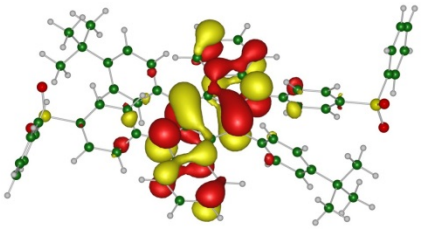
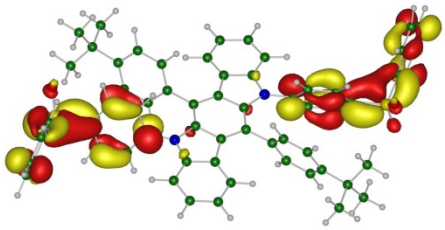
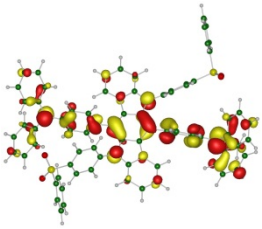
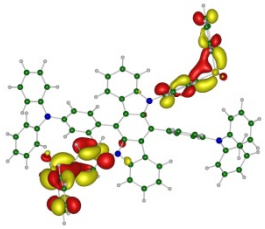
Compound	HOMO	LUMO
Monomer **1a**		
Monomer **1c**		
Monomer **1d**		
Polymer **2c**		
Polymer **2d**		

Figure S14. The HOMO and LUMO of monomers and polymers calculated at the def2-TZVP level.

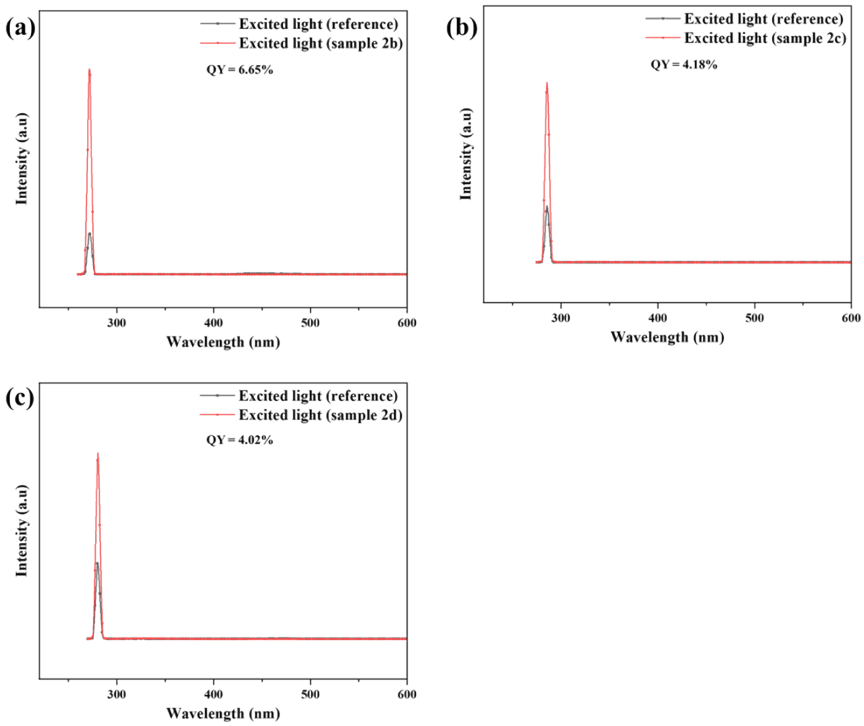


Figure S15. Quantum yield of polymer 2b (a), polymer 2c (b), polymer 2d (c).