

Electronic Supplementary Information

Highly Emissive Carbazole-Functionalized Homopoly(spirobifluorene) for Deep-Blue Polymer Light- Emitting Diodes

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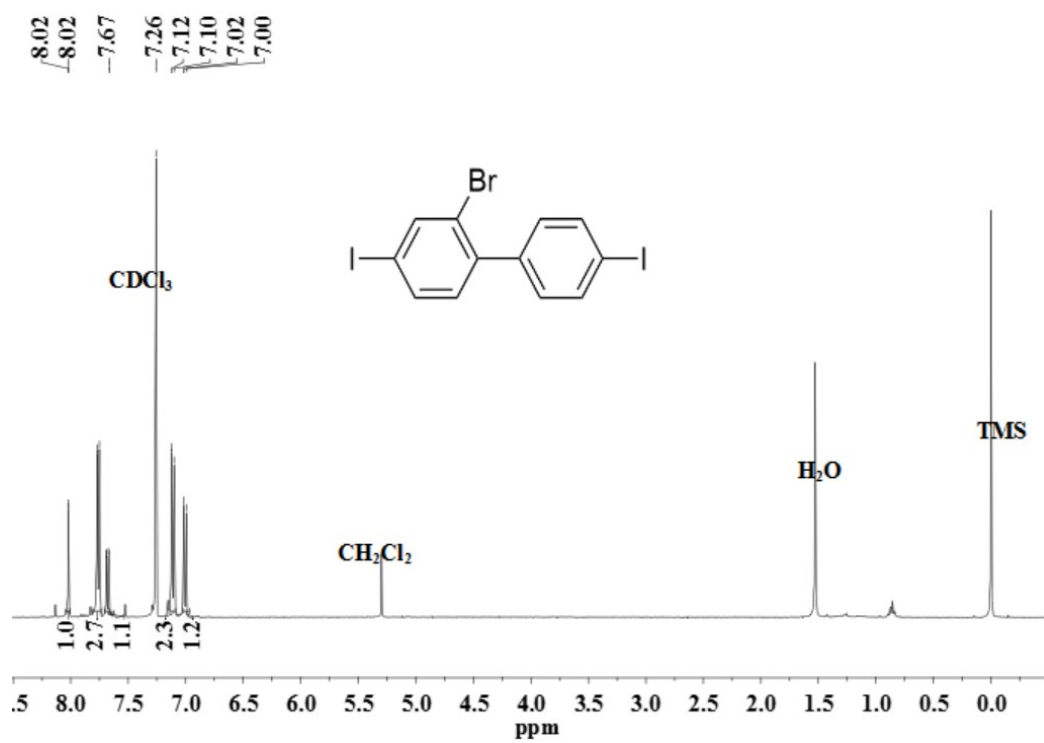


Figure S1. ^1H NMR spectrum of the intermediate **1**.

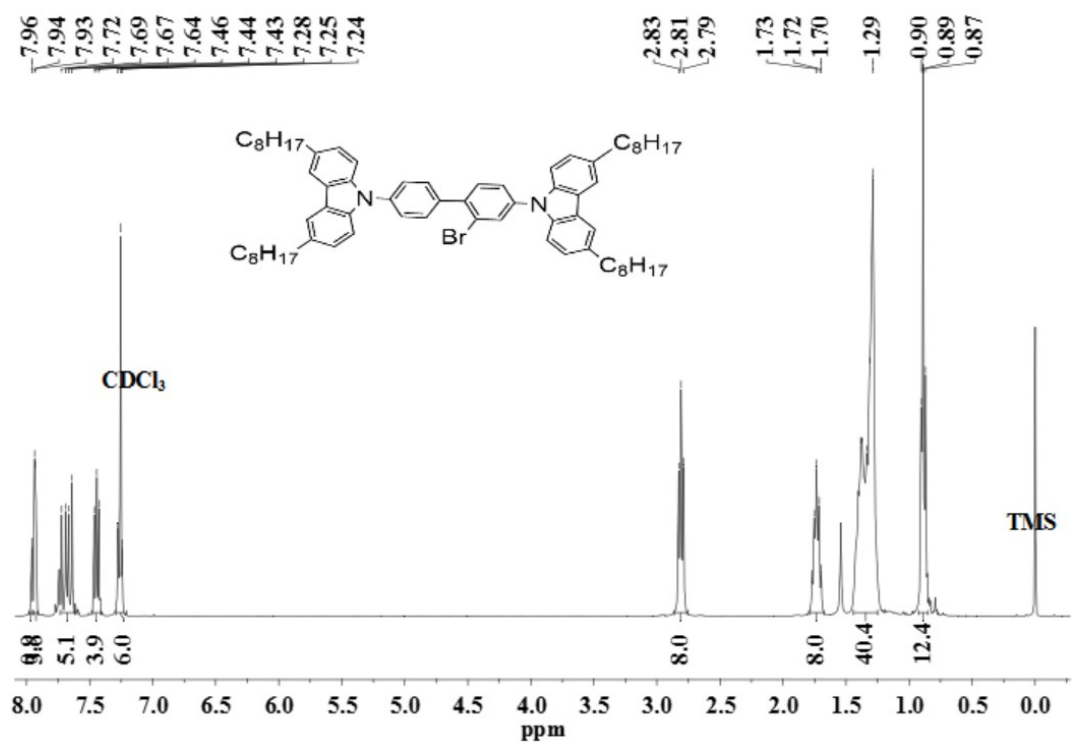


Figure S2. ¹H NMR spectrum of the intermediate 2.

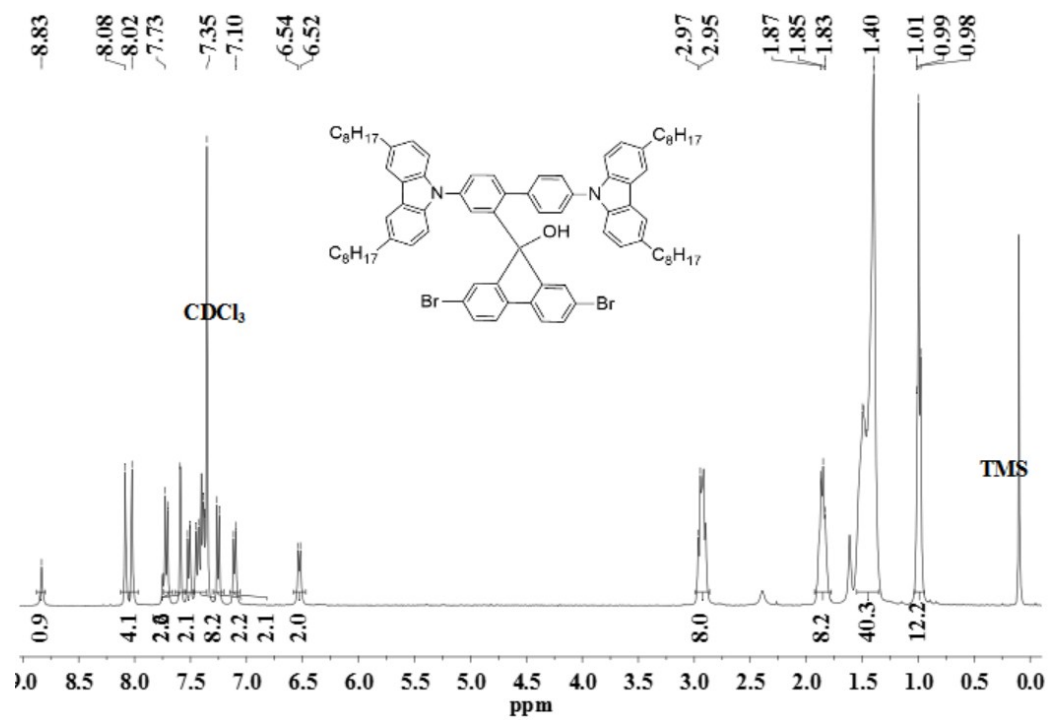


Figure S3. ^1H NMR spectrum of the intermediate 3.

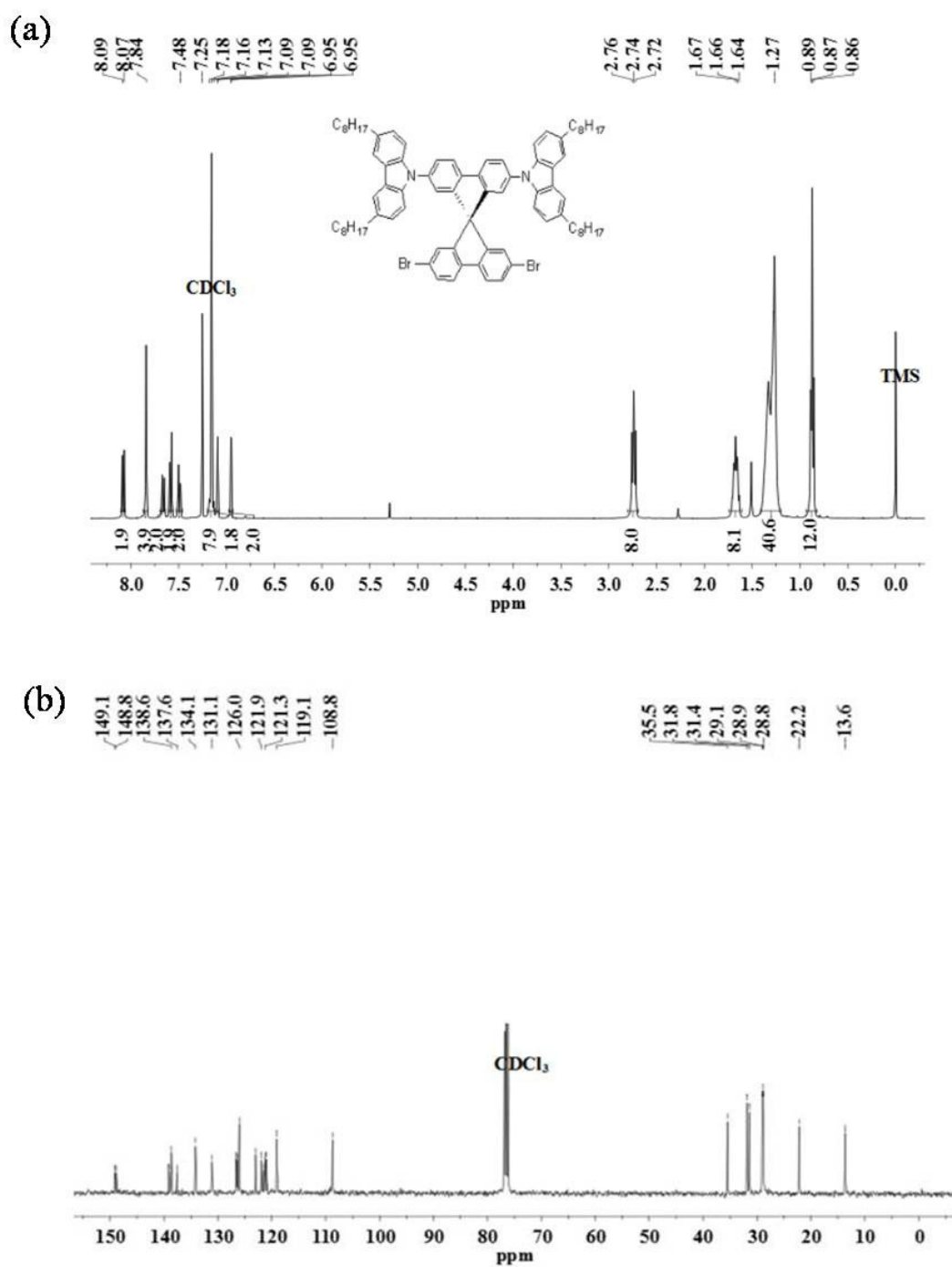


Figure S4. ¹H and ¹³C NMR spectra of the bromo-containing monomer 4.

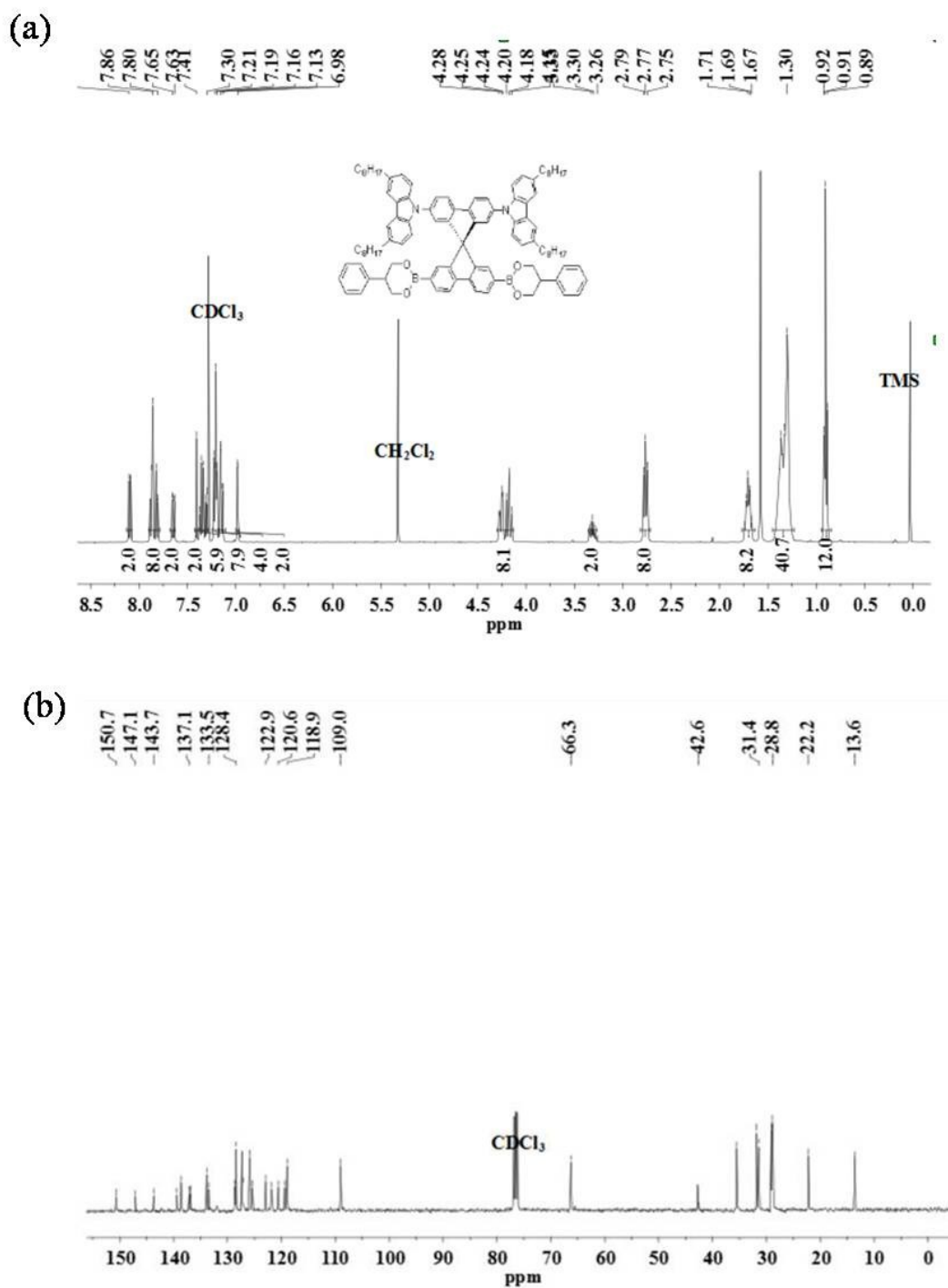


Figure S5. ^1H and ^{13}C NMR spectra of the boronic ester-containing monomer **6**.

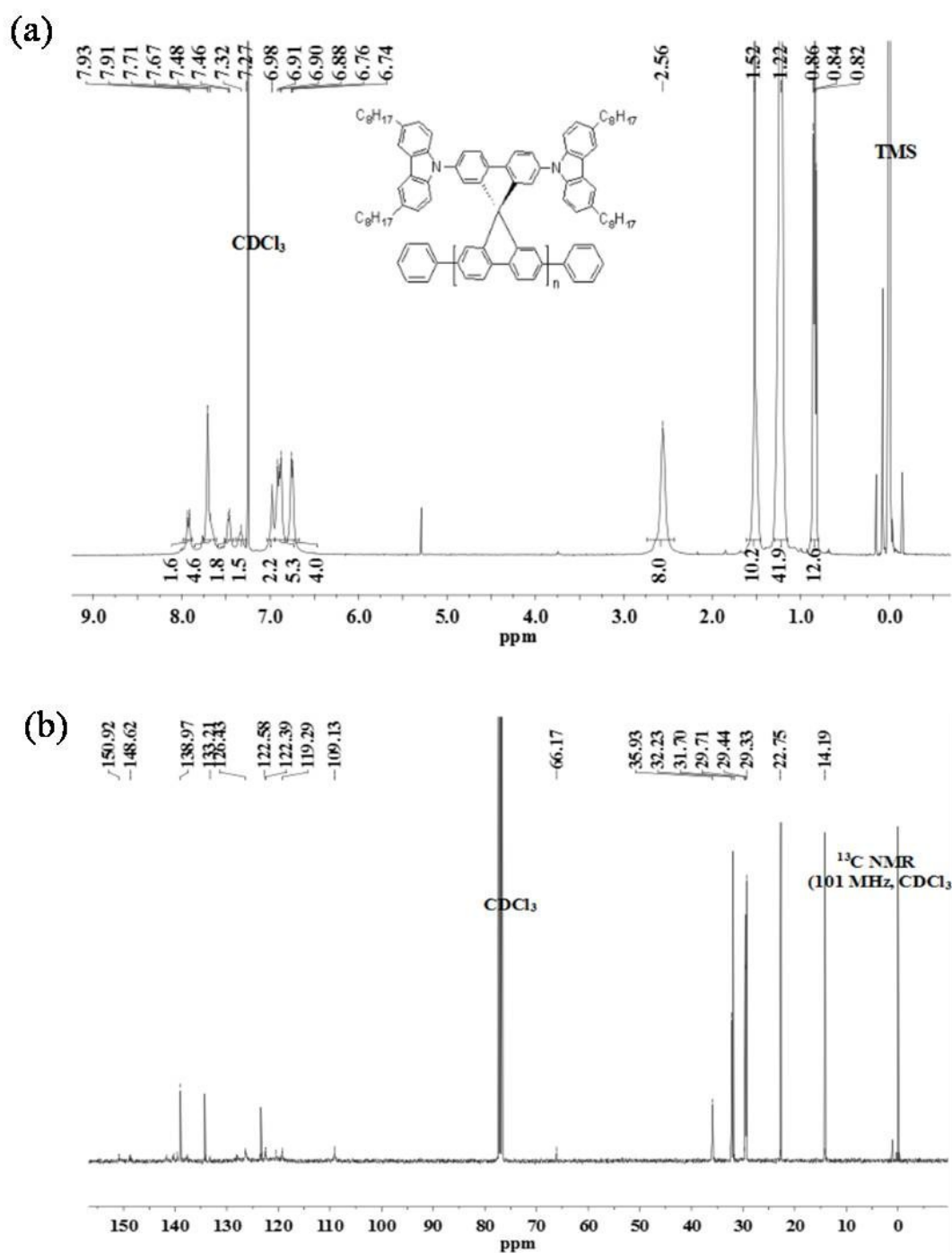


Figure S6. ^1H and ^{13}C NMR spectra of the homopolymer P(Cz-SF).

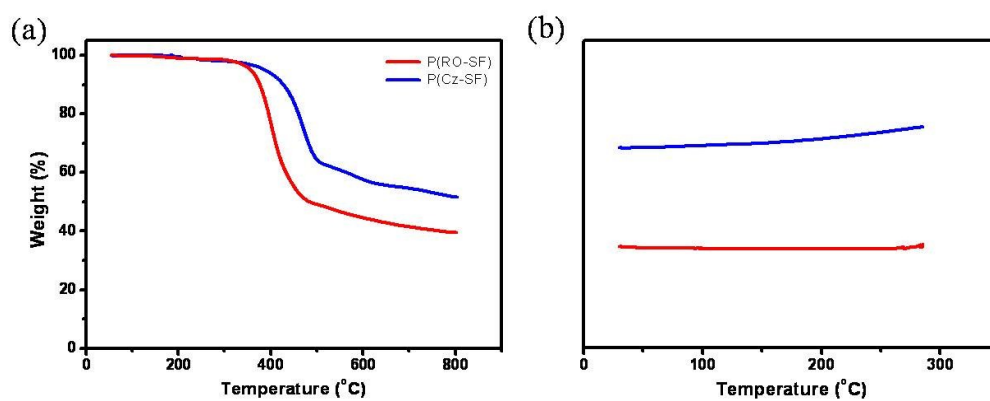


Figure S7. TGA (a) and DSC curves (b) for the homopolymer P(Cz-SF) compared with P(RO-SF).

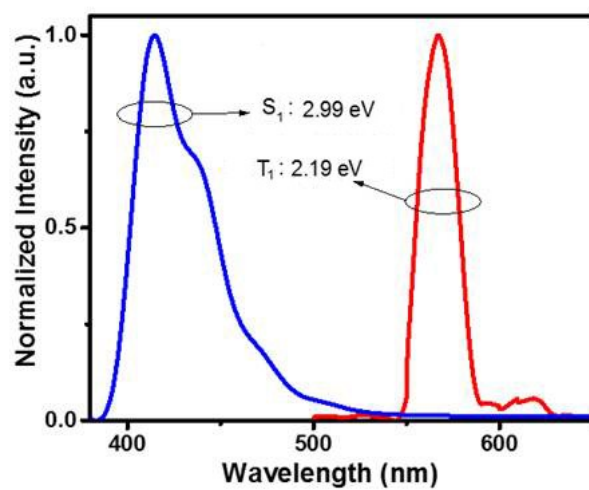


Figure S8. Fluorescent spectrum at 298 K and phosphorescent spectrum at 77 K in toluene for the homopolymer P(Cz-SF).

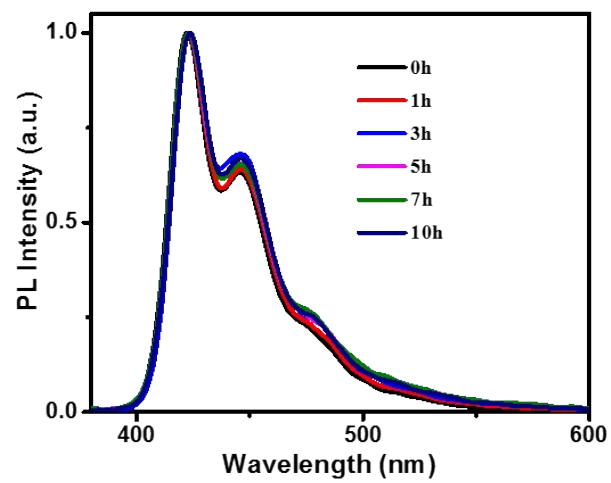


Figure S9. Normalized PL spectra of the homopolymer P(Cz-SF) in films after thermal annealing at 120 °C under air atmosphere.

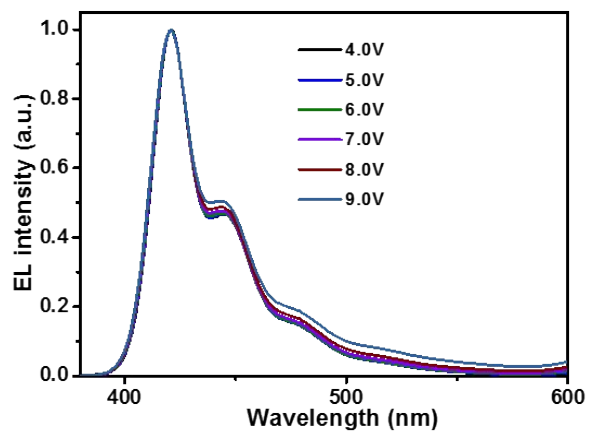


Figure S10. EL spectra for the homopolymer P(Cz-SF) at different driving voltages.

Table S1. Molecular weights and thermal properties of polymers.

polymer	M_n^a (kDa)	PDI a	T_d^b (°C)	T_g (°C)
P(RO-SF)	121	1.82	357	n.d.
P(Cz-SF)	81	1.86	388	n.d.

a Determined by GPC in THF using polystyrene as a standard; b Decomposition temperature corresponding to a 5% weight loss.