Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information For:

Mechanofluorochromic Behaviors of β-Iminoenolate Boron Complexes Functionalized with Carbazole

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Table S1. Photophysical data of **CB** and **TCB**.

	solvent	E_T (30) (kcal/mol)	λ_{abs} (ε^a) (nm)	λ_{em} (nm)	Stokes shift (cm^{-1})	$\Phi_F{}^b$
CB	cyclohexane	30.9	292 (19784), 392 (26211)	426, 450	2036	0.16
	toluene	39.9	293 (27396), 392 (36512)	442, 455	2886	0.34
	THF	37.4	384 (35970)	458	4208	0.42
	DCM	40.7	293 (21363), 386 (32655)	472	4720	0.58
	DMF	43.2	292 (21232), 384 (32848)	486	5466	0.67
	DMSO	45.1	381 (42320)	496	6085	0.44
TCB	cyclohexane	30.9	296 (29896), 401 (36897)	434, 460	1896	0.35
	toluene	39.9	297 (27474), 399 (34461)	454	3036	0.62
	THF	37.4	294 (26671), 391 (36764)	478	4655	0.64
	DCM	40.7	297 (33969), 397 (41782)	511	5619	0.65
	DMF	43.2	296 (25282), 390 (33906)	527	6666	0.25
	DMSO	45.1	297 (29760), 391 (35813)	533	6814	0.15

[a]$M^{-1}cm^{-1}$; [b]The fluorescence quantum yield (Φ_F) of **CB** and **TCB** using 9,10-diphenylanthracene in benzene (Φ_F = 0.85) as standard.

Figure S1. Photos of **CB** in cyclohexane, toluene, THF, DCM, DMF and DMSO (from left to right), respectively, under UV light.

Figure S2. Photos of **TCB** in cyclohexane, toluene, THF, DCM, DMF and DMSO (from left to right), respectively, under UV light.

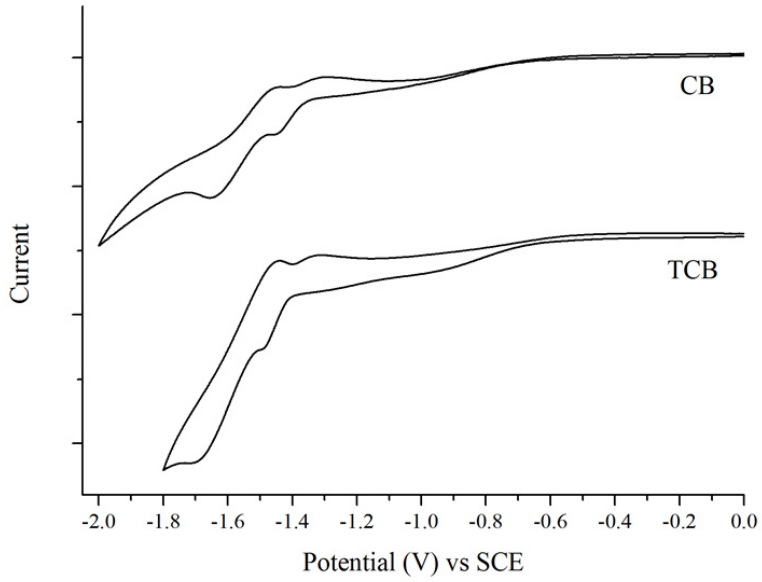

Figure S3. Cyclic voltammograms of **TB** and **TCB** measured in DCM with Bu_4NBF_4 (0.1 M) as electrolyte at a scan rate of 50 mV/s .

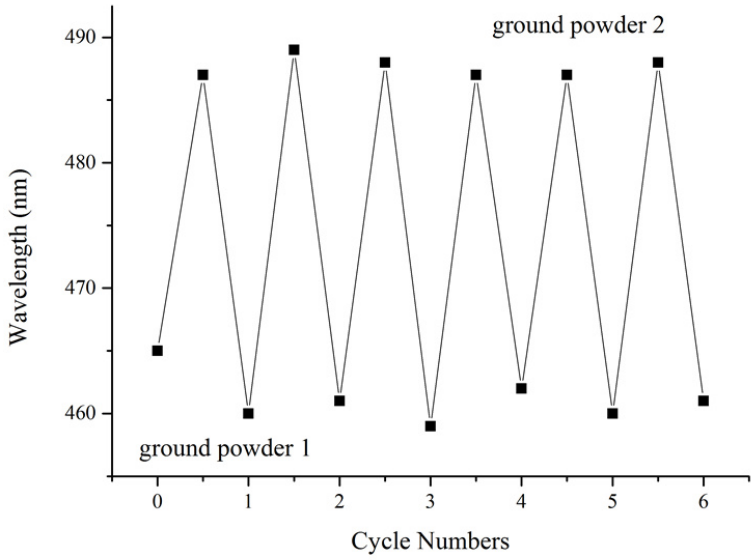

Figure S4. Maximum fluorescent emission of **CB** upon repeating treated by grinding and fuming with DCM.

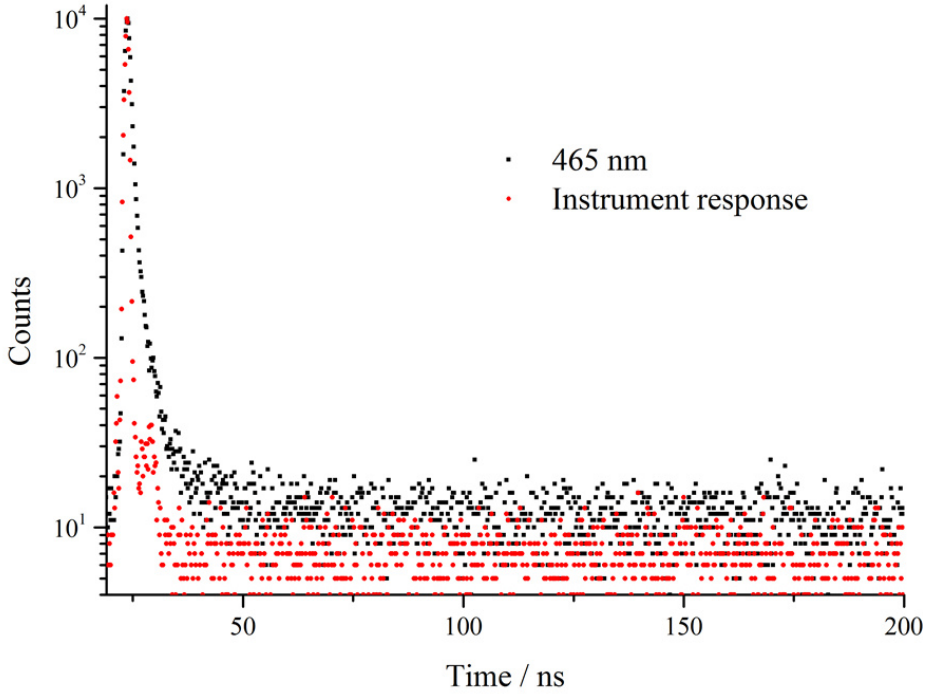

Figure S5. Time-resolved emission decay curve of **CB** in the as-synthesized crystal monitored at 465 nm (λ_{ex} = 400 nm).

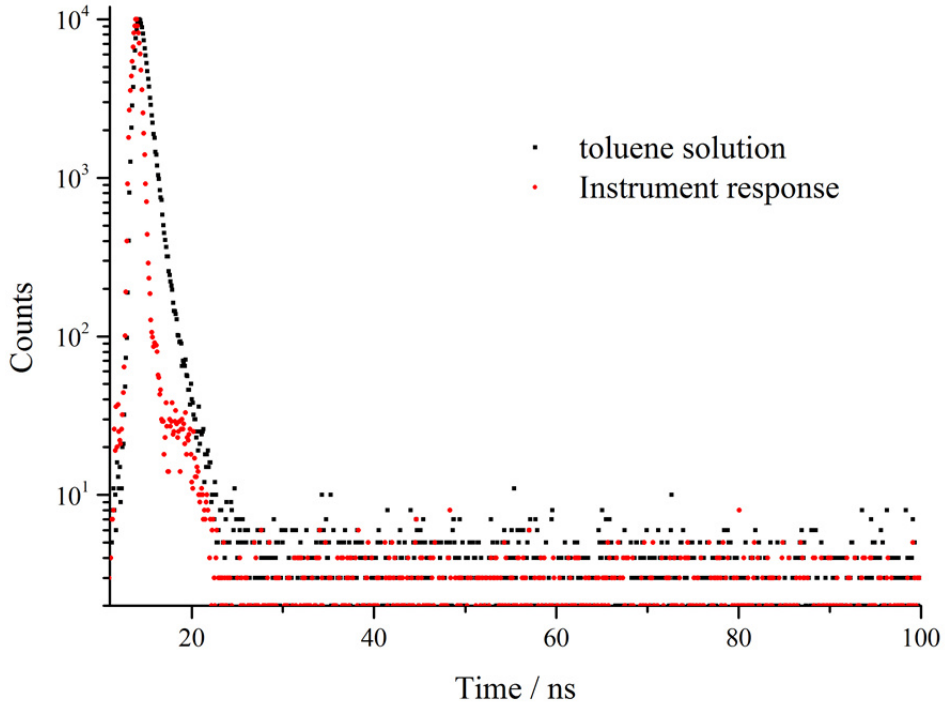

Figure S6. Time-resolved emission decay curve of **CB** in toluene monitored at 470 nm (λ_{ex} = 400 nm, 1 × 10^{-5}mol/L).

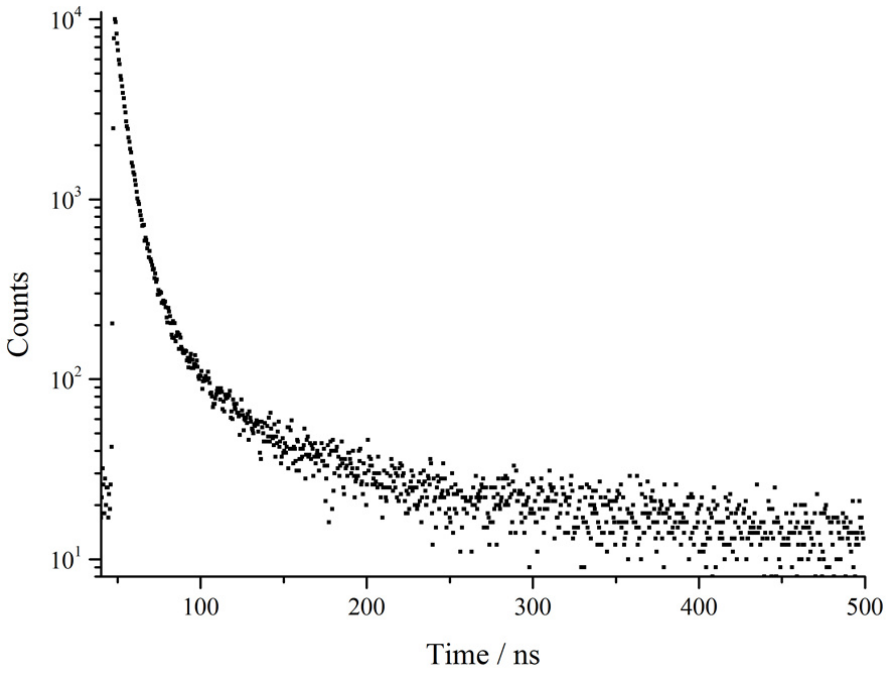

Figure S7. Time-resolved emission decay curve of **CB** in the as-synthesized crystal monitored at 553 nm (λ_{ex} = 400 nm).

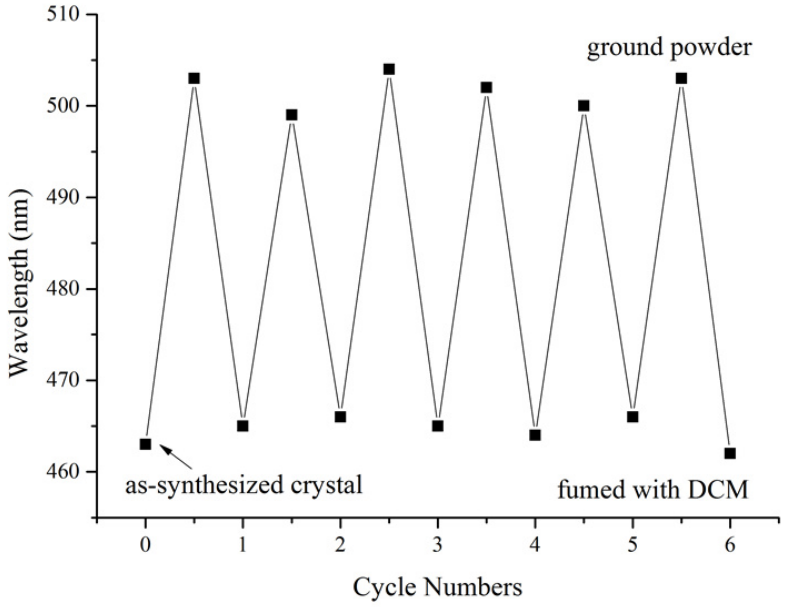

Figure S8. Maximum fluorescent emission of **TCB** upon repeating treated by grinding and fuming with DCM.

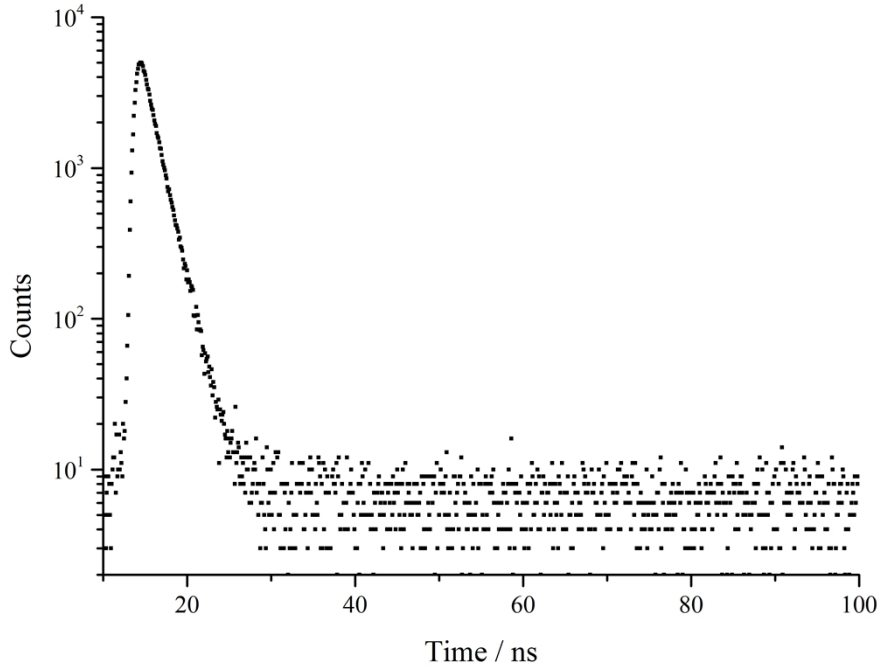

Figure S9. Time-resolved emission decay curve of **TCB** in toluene monitored at 454 nm (λ_{ex} = 400 nm, 1 × 10^{-5}mol/L).

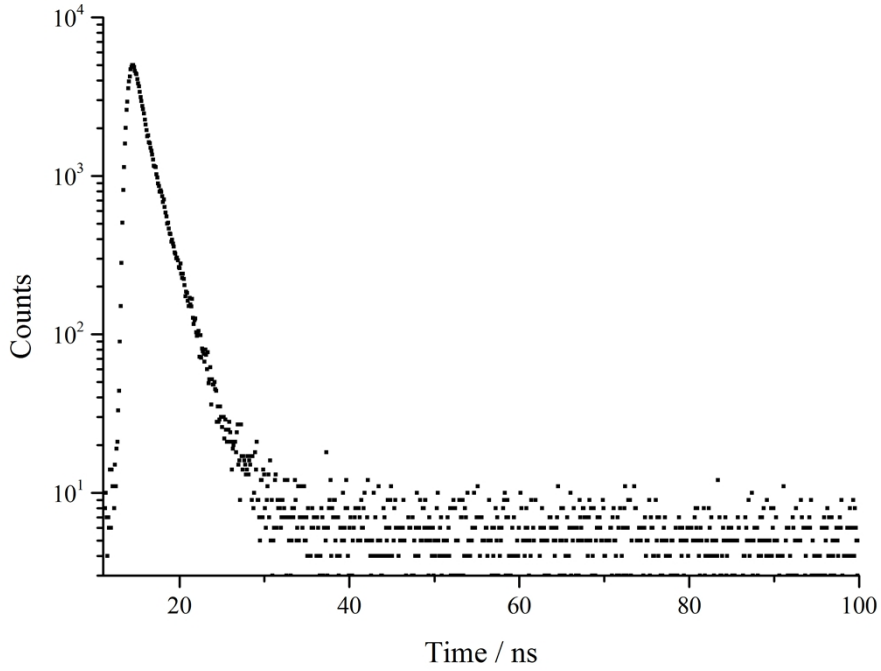

Figure S10. Time-resolved emission decay curve of **TCB** in the as-synthesized crystal monitored at 462 nm (λ_{ex} = 400 nm).

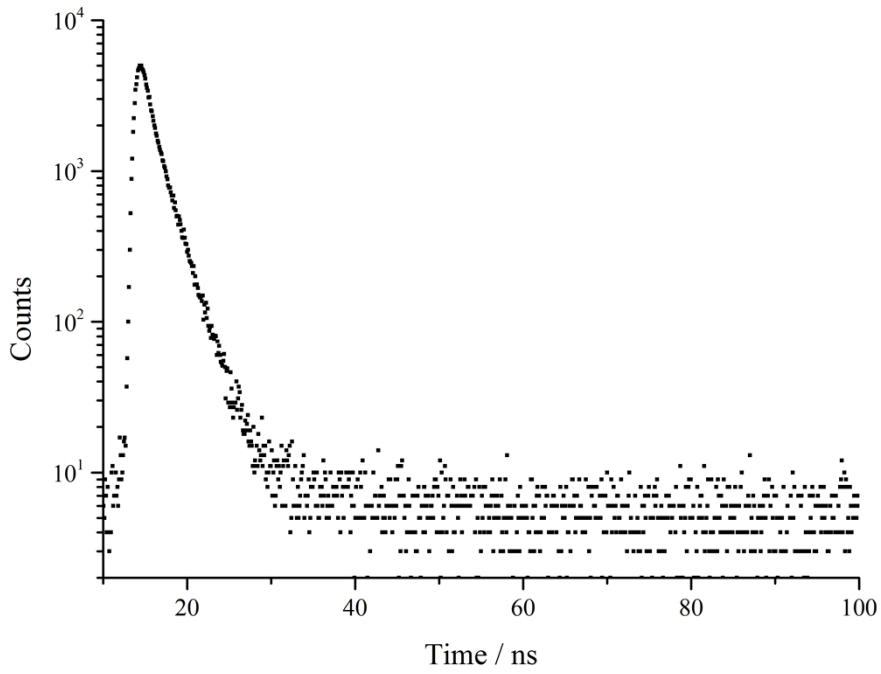

Figure S11. Time-resolved emission decay curve of **TCB** in the as-synthesized crystal monitored at 480 nm (λ_{ex} = 400 nm).

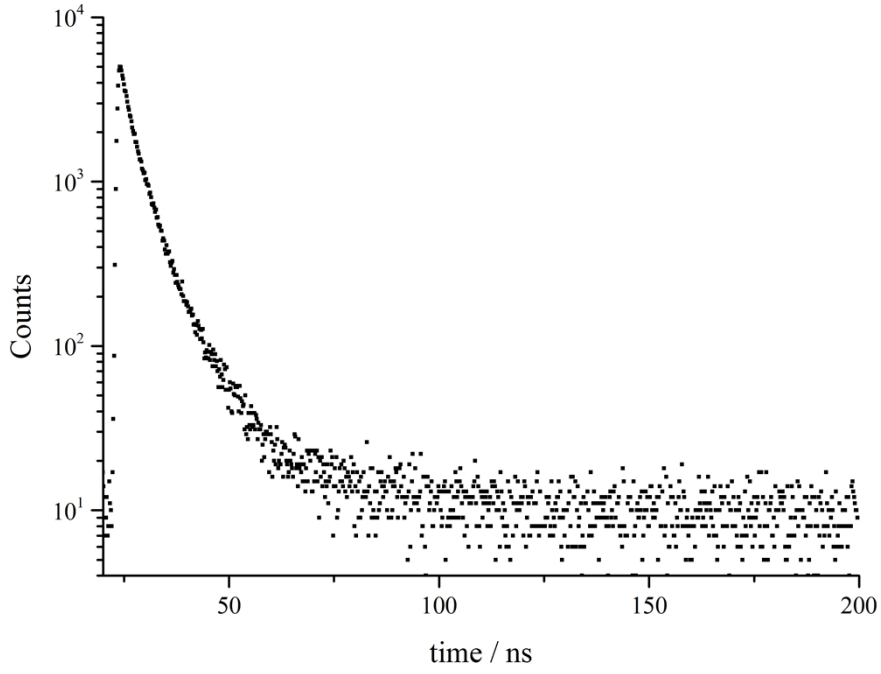

Figure S12. Time-resolved emission decay curve of **TCB** in the ground powder monitored at 501 nm (λ_{ex} = 400 nm).

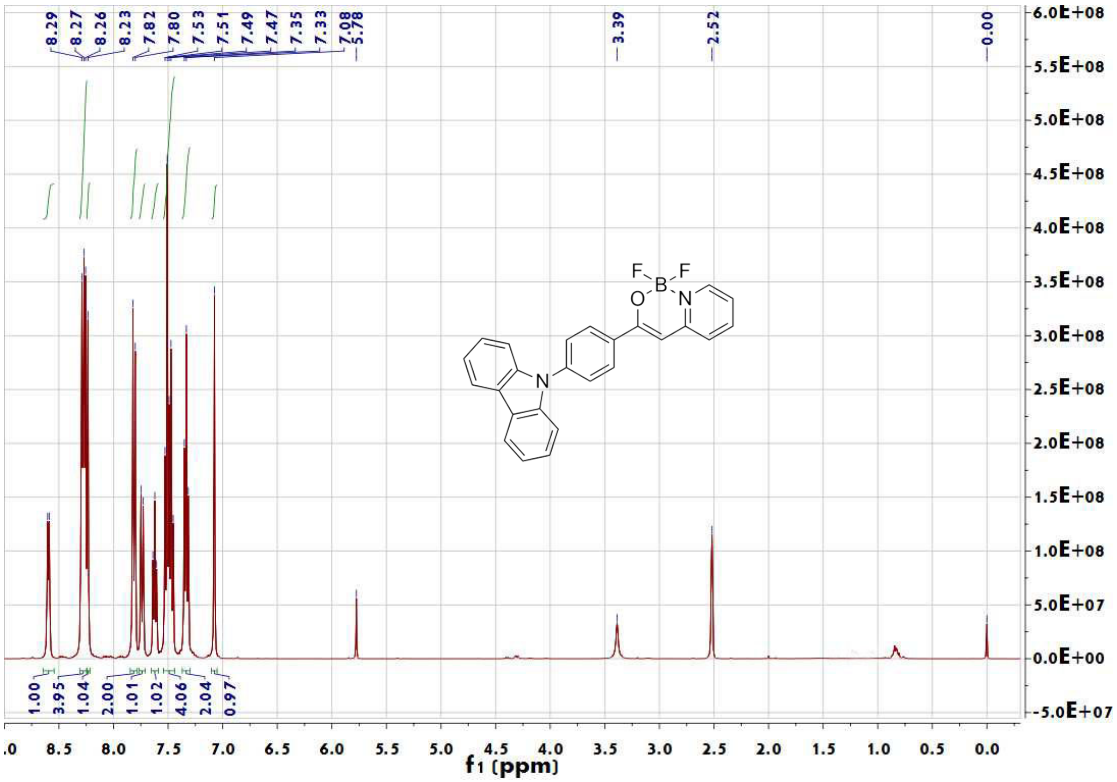

Figure S13. ^{1}H NMR (400 MHz) spectrum of compound **CB** in DMSO-d_6.

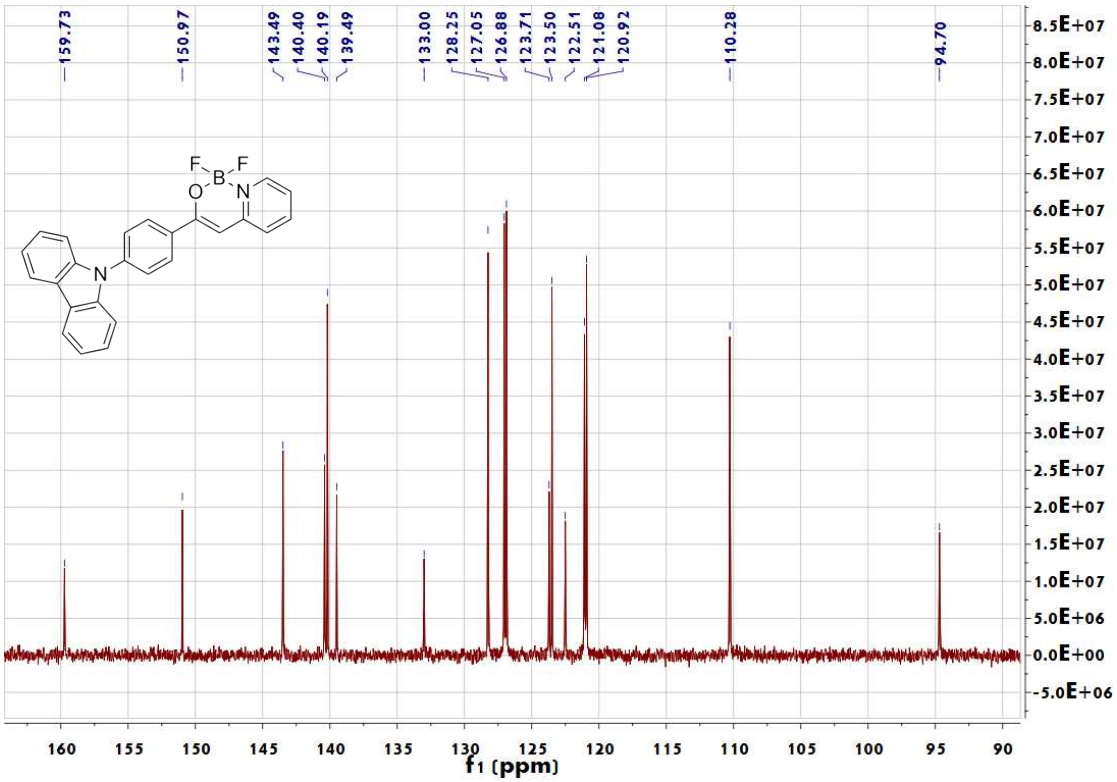

Figure S14. ^{13}C NMR (100 MHz) spectrum of compound **CB** in DMSO-d_6.

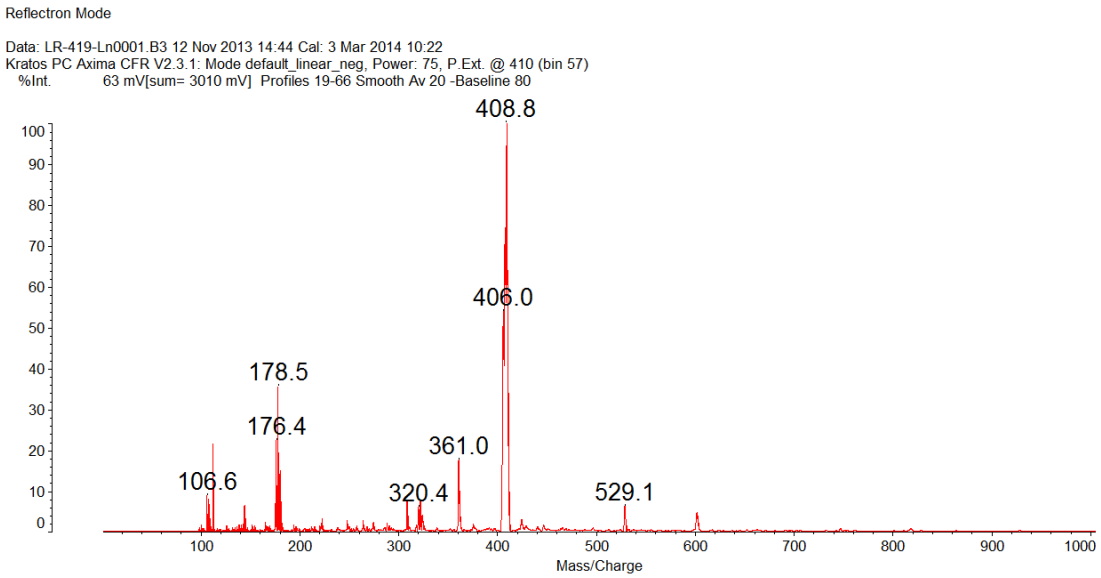

Figure S15. MALDI/TOF MS spectrum of compound **CB**.

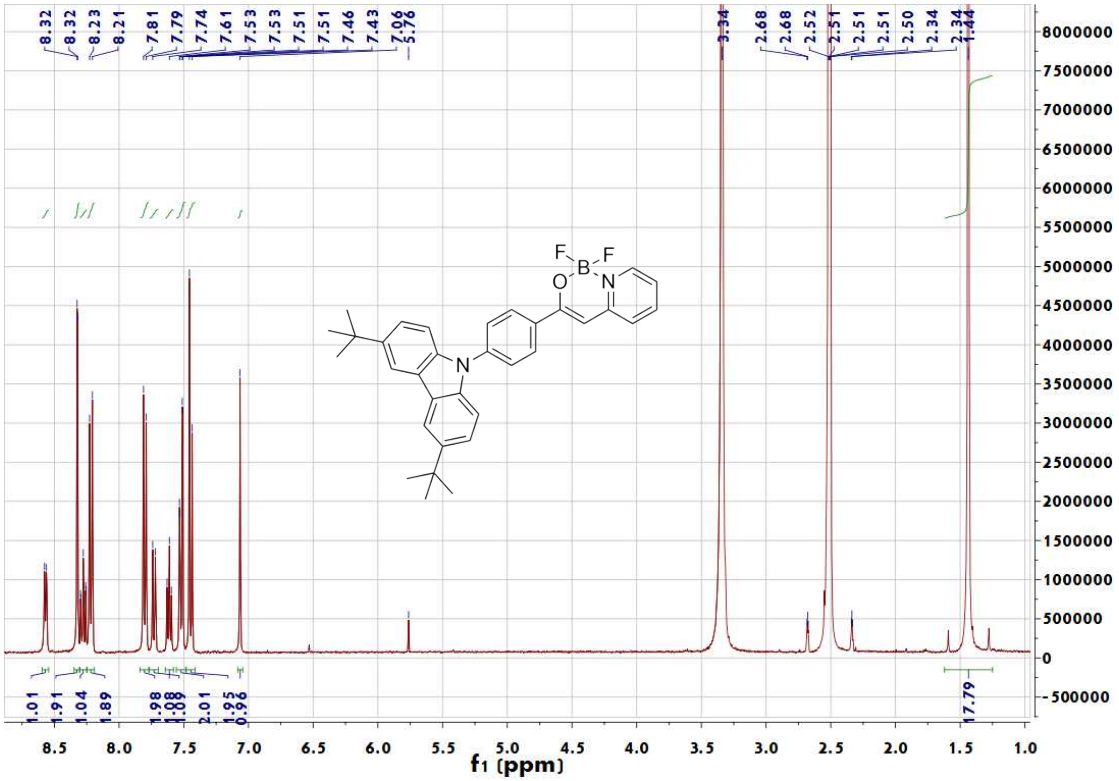

Figure S16. ^{1}H NMR (400 MHz) spectrum of compound **TCB** in DMSO-d_6.

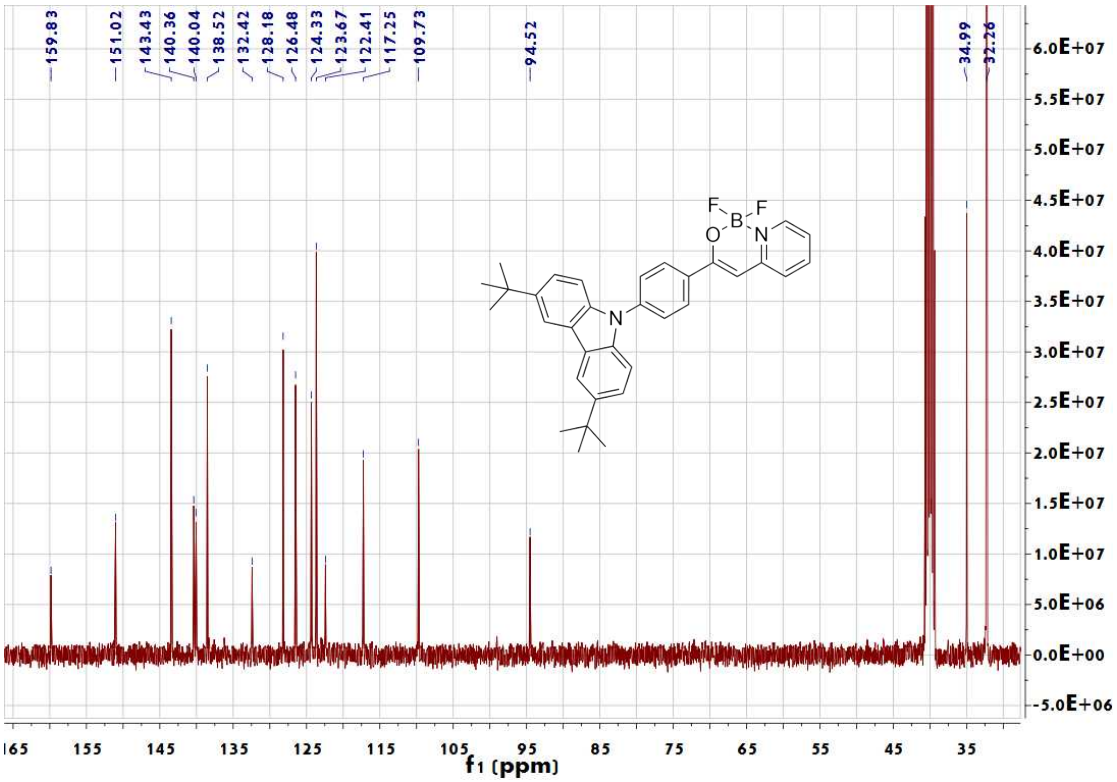

Figure S17. ^{13}C NMR (100 MHz) spectrum of compound **TCB** in DMSO-d_6.

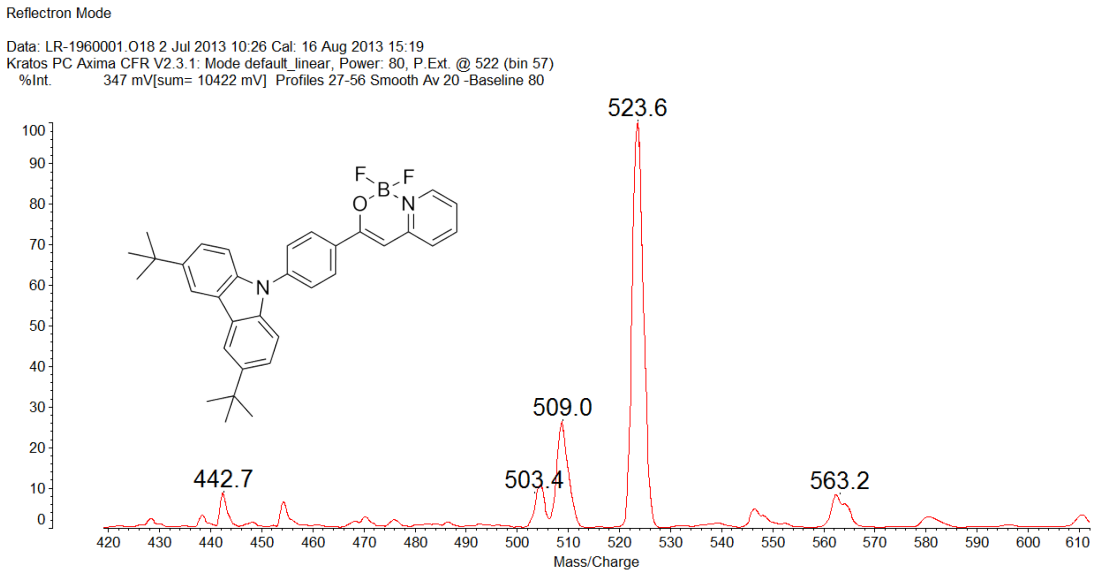

Figure S18. MALDI/TOF MS spectrum of compound **TCB**.