

Electronic Supplementary Information

Binaphthol-based Chiral Host Molecules for Efficient Solution-processed Circularly Polarized OLEDs

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1 General information

Unless other noted, all reagents used in the experiments were purchased from commercial sources without further purification. For column chromatography, silica gel with 200 ~ 300 mesh was used.

In order to determine the structure of the compound, ^1H NMR and ^{13}C NMR spectra were acquired using a Bruker Dex-300/400/500 NMR instrument using CDCl_3 and DMSO as a solvent. Mass spectra (MS) were recorded on a Bruker Autoflex MALDI-TOF instrument using dithranol as a matrix.

Thermogravimetric analysis (TGA) was detected with a NETZSCH STA449 from 25°C to 800°C at a $20^\circ\text{C}/\text{min}$ heating rate under N_2 atmosphere. UV-vis absorption spectra were recorded on a Shimadzu UV-1650PC. Steady-state fluorescence/phosphorescence spectra PL spectra were carried out by using Edinburgh FLS1000 fluorescence spectrophotometer. The UPS measurements were performed by PHI 5000 VersaProbe III with a base pressure of the analyzer chamber in the lower 10^{-8} Pa range. CD and CPL spectra were measured on JASCO J-1500 and JASCO CPL-200 spectrophotometers, respectively.

Solution-processed device: Poly (styrene sulfonate) (PEDOT: PSS) was purchased from Xi'an Polymer Light Technology Corp. Tris[2-(p-tolyl)pyridine]iridium(III) ($\text{Ir}(\text{mppy})_3$), Bis(1-phenyl-isoquinoline)(acetylacetonato)iridium(III) ($\text{Ir}(\text{piq})_2(\text{acac})$), [bis(2-(diphenylphosphino) phenyl) ether oxide (DPEPO), (1,3,5-tri(m-pyrid-3-ylphenyl) benzene) (TmPyPB), and LiF were purchased from Lumtec. All commercially available reagents were used without further purification. In devices, PEDOT: PSS was used as hole injection material. $\text{Ir}(\text{mppy})_3$ and $\text{Ir}(\text{piq})_2(\text{acac})$ were chosen as emitter material and DPEPO was used as hole blocking materials. TmPyPB and LiF were used as electron transport and injection materials, respectively. ITO (Indium tin oxide) and Al (Aluminum) were used as anode and cathode materials, respectively.

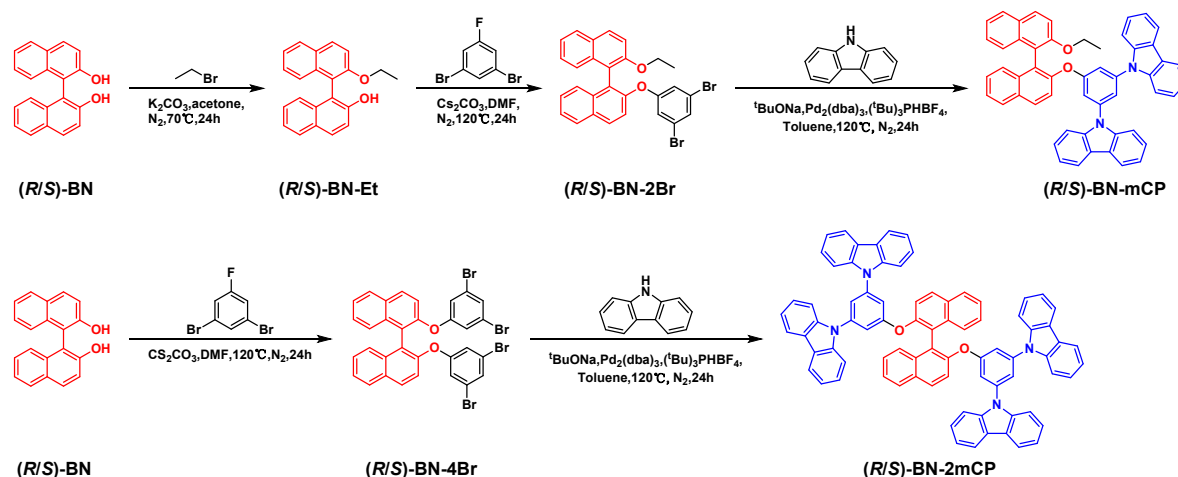
The substrates were successively cleaned with isopropyl alcohol, acetone, detergent, deionized water, and isopropyl alcohol in an ultrasonic bath and then dried overnight in the oven. The substrates pre-treated by oxygen plasma to increase the work function of the ITO film. Then, 40 nm-thick PEDOT: PSS was spin-coated onto the ITO substrates at 3200 rpm for 30 s and annealed at 150°C for 15 min. And then emissive layer was spin-coated and annealed at 60°C or 110°C for 30 min using a precursor containing different materials co-dissolved in chlorobenzene or toluene.

The films of DPEPO, TmPyPB, LiF and aluminum were prepared by thermal evaporation under a vacuum of 1×10^{-4} Pa. Each sample has an active area of 0.04 cm².

All the devices were encapsulated before characterization to prevent degradation and emission quenching caused by oxygen and water. The EL spectra and J–V–R curves were obtained with a PHOTORESEARCH Spectra Scan PR735 photometer and a KEITHLEY 2400 Source Meter constant current source at room temperature. The EQE values were calculated by assuming a Lambertian distribution. The circularly polarized electroluminescence (CPEL) spectra were measured on a Jasco CPL-200 spectrophotometer with „Standard“ sensitivity at 200 nm/min scan speed and respond time of 2.0 s employing “band” mode.

2 Synthetic procedures and characterized data

2.1 Synthetic procedures



Scheme S1 Synthetic route of *(R/S)*-BN-mCP and *(R/S)*-BN-2mCP

Preparation procedure for *(R)*-BN-Et

Acetone (8 mL) was added to a 25 mL two-neck flask charged with *(R)*-[1,1'-binaphthalene]-2,2'-diol (500 mg, 1.75 mmol), Bromoethane (158.54 mg, 1.46 mmol) and K₂CO₃ (1608.76 mg, 11.64 mmol) in nitrogen atmosphere. The mixture was stirred at 70 °C for 24 hours. After cooling down to room temperature, the acetone was removed by a rotatory evaporation and then the mixture was diluted with dichloromethane and washed with water and dried over MgSO₄. The solvent was removed by a rotatory evaporation and the crude product was purified by silica gel column chromatography (PE: DCM = 3:2) to give the product *(R)*-BN-Et as white sticky substance (366

mg, 80%). ¹H NMR (400 MHz, Chloroform-*d*) δ 8.00 (d, *J* = 9.1 Hz, 1H), 7.91 – 7.82 (m, 3H), 7.44 (d, *J* = 9.1 Hz, 1H), 7.38 – 7.16 (m, 6H), 7.05 (d, *J* = 8.4 Hz, 1H), 4.98 (s, 1H), 4.13 – 4.01 (m, 2H), 1.10 (t, *J* = 7.0 Hz, 3H). ¹³C NMR (126 MHz, Chloroform-*d*) δ 155.33, 151.33, 134.19, 133.89, 130.88, 129.73, 129.57, 129.16, 128.18, 128.13, 127.24, 126.33, 125.13, 125.03, 124.25, 123.20, 117.59, 116.45, 115.63, 115.32, 65.25, 14.92. (**Fig. S1, S2**).

Preparation procedure for (R)-BN-2Br

Dry N, N-Dimethylformamide (20 mL) was added to a 50 mL two-neck flask charged with **(R)-BN-Et** (1.2 g, 3.82 mmol), 1,3-dibromo-5-fluorobenzene (1.16 g, 4.58 mmol) and CS₂CO₃ (1.49 g, 4.58 mmol) in nitrogen atmosphere. The mixture was stirred at 120 °C for 24 hours. After cooling down to room temperature, the mixture was diluted with dichloromethane and washed with water and dried over MgSO₄. The solvent was removed by a rotatory evaporation and the crude product was purified by silica gel column chromatography (PE) to give the product **(R)-BN-2Br** as white solid (1.46 g, 69%). ¹H NMR (400 MHz, Chloroform-*d*) δ 7.95 – 7.77 (m, 4H), 7.41 (ddd, *J* = 8.1, 5.4, 2.6 Hz, 1H), 7.31 – 7.12 (m, 8H), 6.80 (d, *J* = 1.5 Hz, 2H), 3.96 (q, *J* = 7.0 Hz, 2H), 1.06 (t, *J* = 7.0 Hz, 3H). ¹³C NMR (126 MHz, Chloroform-*d*) δ 159.52, 154.18, 150.90, 134.34, 133.90, 131.35, 130.06, 130.00, 128.94, 128.16, 128.06, 127.61, 126.70, 126.65, 126.26, 125.45, 125.37, 125.10, 123.63, 122.62, 120.64, 119.94, 117.72, 114.19, 64.46, 15.08. (**Fig. S3, S4**).

Preparation procedure for (R)-BN-mCP

Dry toluene (10 mL) was added to a 50 mL two-neck flask charged with **(R)-BN-2Br** (366 mg, 0.66 mmol), 9H-carbazole (329.42 mg, 1.97 mmol), Pd₂(dba)₃ (48.12 mg, 0.05 mmol), ^tBu₃PHBF₄ (30.49 mg, 0.11 mmol) and ^tBuONa (252.44 mg, 2.63 mmol) in nitrogen atmosphere. The mixture was stirred at 120 °C for 24 hours. After cooling down to room temperature, the toluene was removed by a rotatory evaporation and then the mixture was diluted with dichloromethane and washed with water and dried over MgSO₄. The solvent was removed by a rotatory evaporation and the crude product was purified by silica gel column chromatography (PE: DCM = 8:1) to give the product **(R)-BN-mCP** as white solid (365 mg, 77%). ¹H NMR (400 MHz, Chloroform-*d*) δ 8.06 (dd, *J* = 18.1, 8.3 Hz, 5H), 7.96 – 7.88 (m, 3H), 7.61 (d, *J* = 8.9 Hz, 1H), 7.41 – 7.32 (m, 6H), 7.29 – 7.26 (m, 8H), 7.24 – 7.15 (m, 6H), 7.02 (d, *J* = 1.7 Hz, 2H), 3.71 – 3.49 (m, 2H), 0.48 (t, *J* = 7.0 Hz, 3H). ¹³C NMR (126 MHz, Chloroform-*d*) δ 154.13, 140.16, 139.28, 134.18, 133.59, 131.24, 129.96, 129.91, 128.91, 128.02, 127.86, 126.69, 126.44, 125.99, 125.19, 125.16, 124.98, 123.60,

123.44, 120.82, 120.27, 120.20, 117.96, 114.32, 109.84, 64.28, 14.25. TOF-MS (ESI) m/z calcd for C₅₂H₃₆N₂O₂ [M]⁺: 720.28; found:720.54. (**Fig. S5, S6, S15**).

Preparation procedure for (S)-BN-mCP

The synthesis method and procedure are the same as **(R)-BN-mCP**. ¹H NMR (400 MHz, Chloroform-d) δ 8.06 (dd, J = 18.1, 8.3 Hz, 5H), 7.96 – 7.88 (m, 3H), 7.61 (d, J = 8.9 Hz, 1H), 7.41 – 7.32 (m, 6H), 7.29 – 7.26 (m, 8H), 7.24 – 7.15 (m, 6H), 7.02 (d, J = 1.7 Hz, 2H), 3.71 – 3.49 (m, 2H), 0.48 (t, J = 7.0 Hz, 3H). ¹³C NMR (126 MHz, Chloroform-d) δ 154.13, 140.16, 139.28, 134.18, 133.59, 131.24, 129.96, 129.91, 128.91, 128.02, 127.86, 126.69, 126.44, 125.99, 125.19, 125.16, 124.98, 123.60, 123.44, 120.82, 120.27, 120.20, 117.96, 114.32, 109.84, 64.28, 14.25. TOF-MS (ESI) m/z calcd for C₅₂H₃₆N₂O₂ [M]⁺: 720.28; found:720.21. (**Fig. S7, S8, S16**).

Preparation procedure for (R)-BN-4Br

Dry N, N-Dimethylformamide (30 mL) was added to a 100 mL two-neck flask charged with **(R)-[1,1'-binaphthalene]-2,2'-diol** (1.02 g, 3.56 mmol), 1,3-dibromo-5-fluorobenzene (2 g, 7.88 mmol) and CS₂CO₃ (2.78 g, 7.88 mmol) in nitrogen atmosphere. The mixture was stirred at 120 °C for 24 hours. After cooling down to room temperature, the mixture was diluted with dichloromethane and washed with water and dried over MgSO₄. The solvent was removed by a rotatory evaporation and the crude product was purified by silica gel column chromatography (PE) to give the product **(R)-BN-4Br** as white solid (1.68 g, 63%). ¹H NMR (500 MHz, DMSO-*d*₆) δ 8.15 (d, J = 9.0 Hz, 2H), 8.07 (d, J = 7.9 Hz, 2H), 7.52 (t, J = 7.2 Hz, 2H), 7.48 – 7.31 (m, 6H), 7.09 (d, J = 8.5 Hz, 2H), 6.87 (d, J = 1.5 Hz, 4H). ¹³C NMR (126 MHz, DMSO-*d*₆) δ 158.24, 150.02, 133.27, 130.96, 130.67, 128.45, 127.73, 127.30, 125.64, 125.11, 122.84, 121.87, 119.64, 119.34. (**Fig. S9, S10**).

Preparation procedure for (R)-BN-2mCP

Dry toluene (25 mL) was added to a 50 mL two-neck flask charged with **(R)-BN-4Br** (900 mg, 1.19 mmol), 9H-carbazole (897.91 mg, 5.37 mmol), Pd₂(dba)₃ (87.46 mg, 0.09 mmol), ^tBu₃PHBF₄ (55.43 mg, 0.19 mmol) and ^tBuONa (458.79 mg, 4.77 mmol) in nitrogen atmosphere. The mixture was stirred at 120 °C for 24 hours. After cooling down to room temperature, the toluene was removed by a rotatory evaporation and then the mixture was diluted with dichloromethane and washed with water and dried over MgSO₄. The solvent was removed by a rotatory evaporation and the crude product was purified by silica gel column chromatography (PE: DCM = 7:1) to give the product **(R)-BN-2mCP** as white solid (559 mg, 43%). ¹H NMR (400 MHz, DMSO-*d*₆) δ 8.24 (dd, J

= 9.0, 5.0 Hz, 2H), 8.02 (dd, $J = 13.5, 8.2$ Hz, 10H), 7.76 (d, $J = 8.9$ Hz, 2H), 7.44 – 7.37 (m, 2H), 7.26 (t, $J = 7.6$ Hz, 8H), 7.15 (dt, $J = 24.8, 7.0$ Hz, 22H), 6.91 – 6.85 (m, 4H). ^{13}C NMR (126 MHz, DMSO- d_6) δ 159.62, 151.73, 139.99, 139.62, 133.73, 131.15, 128.83, 127.53, 126.57, 125.89, 125.56, 123.28, 122.66, 121.00, 120.78, 120.68, 119.14, 115.14, 109.89. TOF-MS (ESI) m/z calcd for $\text{C}_{80}\text{H}_{50}\text{N}_4\text{O}_2$ $[\text{M}]^+$: 1098.39; found:1098.45. (Fig. S11, S12, S17).

Preparation procedure for (S)-BN-2mCP

The synthesis method and procedure are the same as (R)-BN-2mCP. ^1H NMR (400 MHz, DMSO- d_6) δ 8.26 (d, $J = 8.8$ Hz, 2H), 8.09 – 7.98 (m, 10H), 7.77 (d, $J = 8.9$ Hz, 2H), 7.44 (s, 2H), 7.26 (t, $J = 7.6$ Hz, 8H), 7.15 (dt, $J = 25.7, 8.2$ Hz, 22H), 6.89 (s, 4H). ^{13}C NMR (126 MHz, DMSO- d_6) δ 159.62, 151.73, 139.99, 139.62, 133.73, 131.15, 128.83, 127.53, 126.57, 125.89, 125.56, 123.28, 122.66, 121.00, 120.78, 120.68, 119.14, 115.14, 109.89. TOF-MS (ESI) m/z calcd for $\text{C}_{80}\text{H}_{50}\text{N}_4\text{O}_2$ $[\text{M}]^+$: 1098.39; found:1098.25. (Fig. S13, S14, S18).

2.2 Characterization data

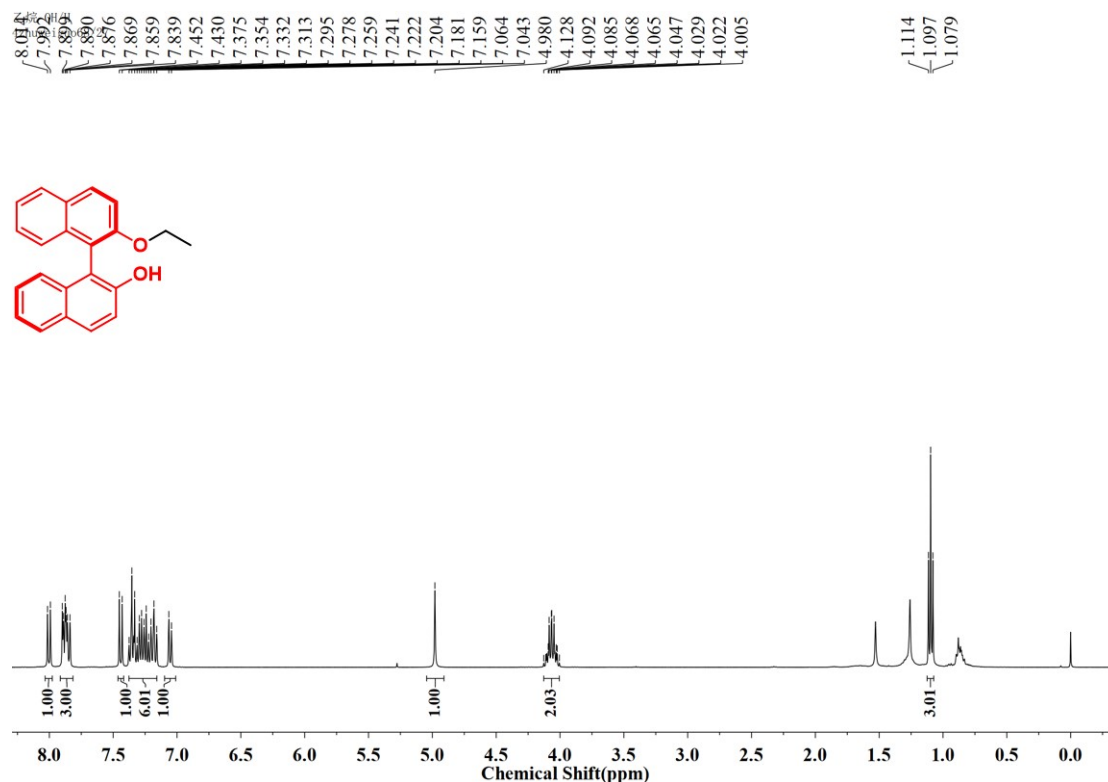


Fig. S1 ^1H NMR spectrum of (R)-BN-Et in CDCl_3 .

乙醇 OH/C
6

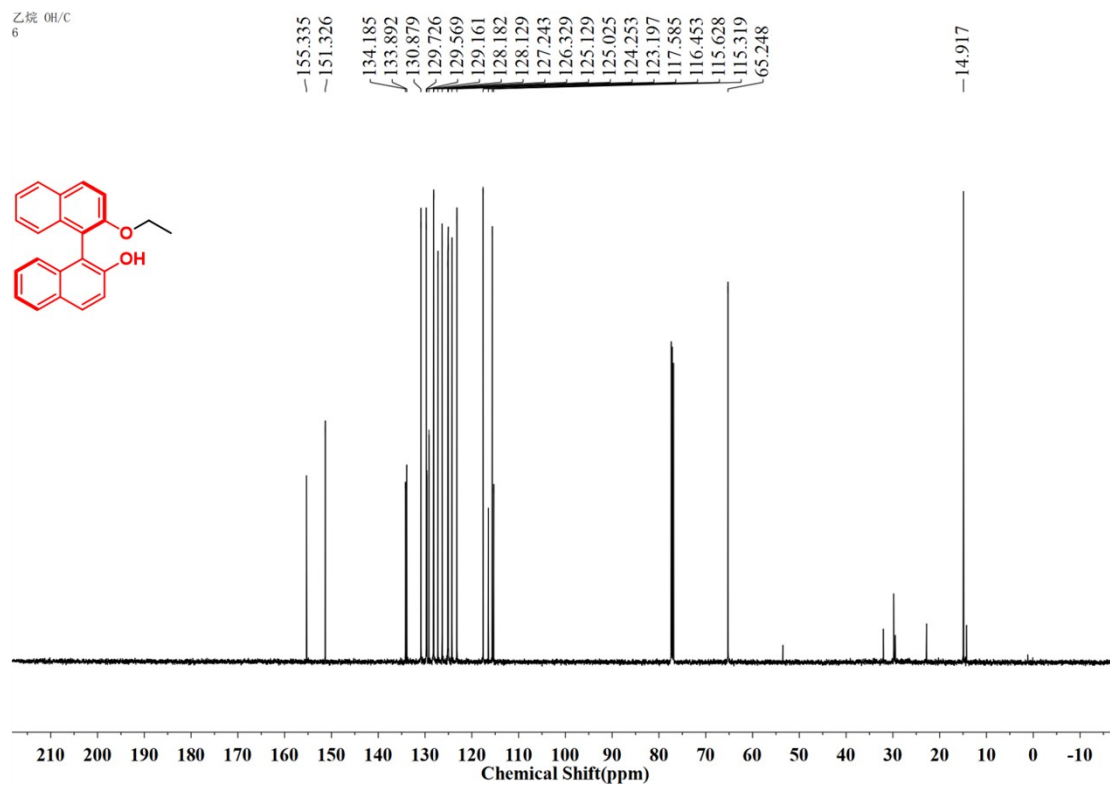


Fig. S2 ^{13}C NMR spectrum of (*R*)-BN-Et in CDCl_3 .

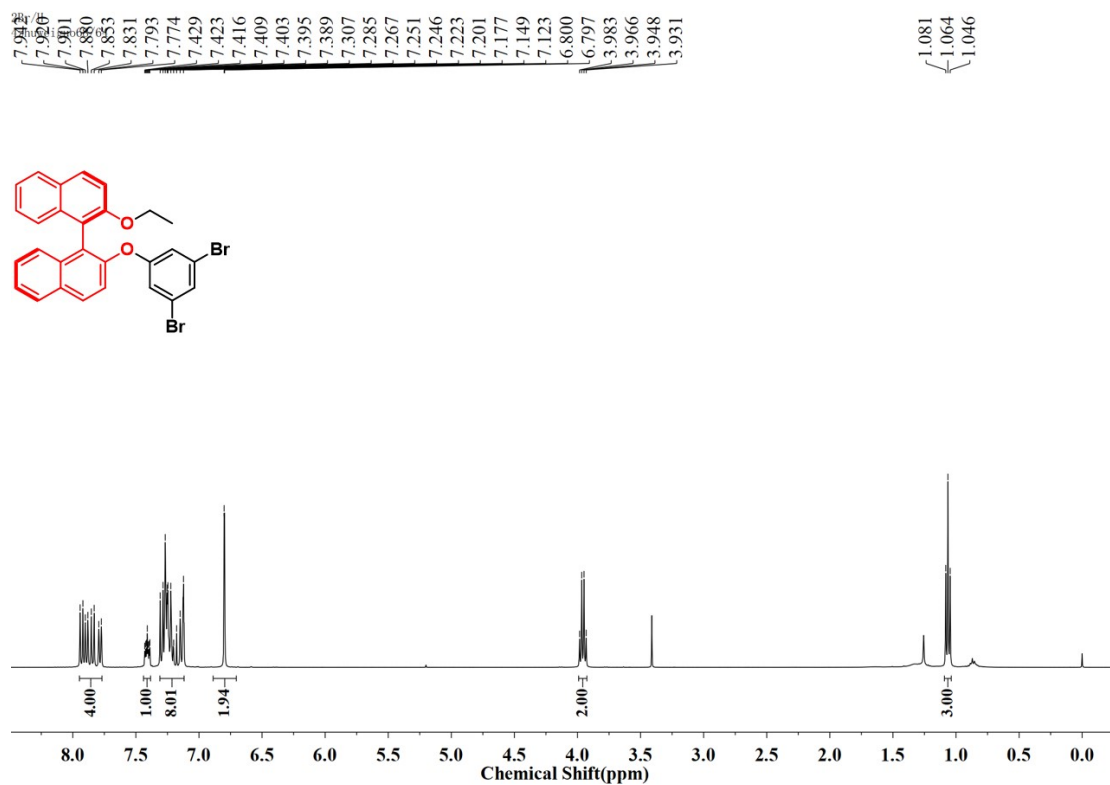


Fig. S3 ^1H NMR spectrum of (*R*)-BN-2Br in CDCl_3 .

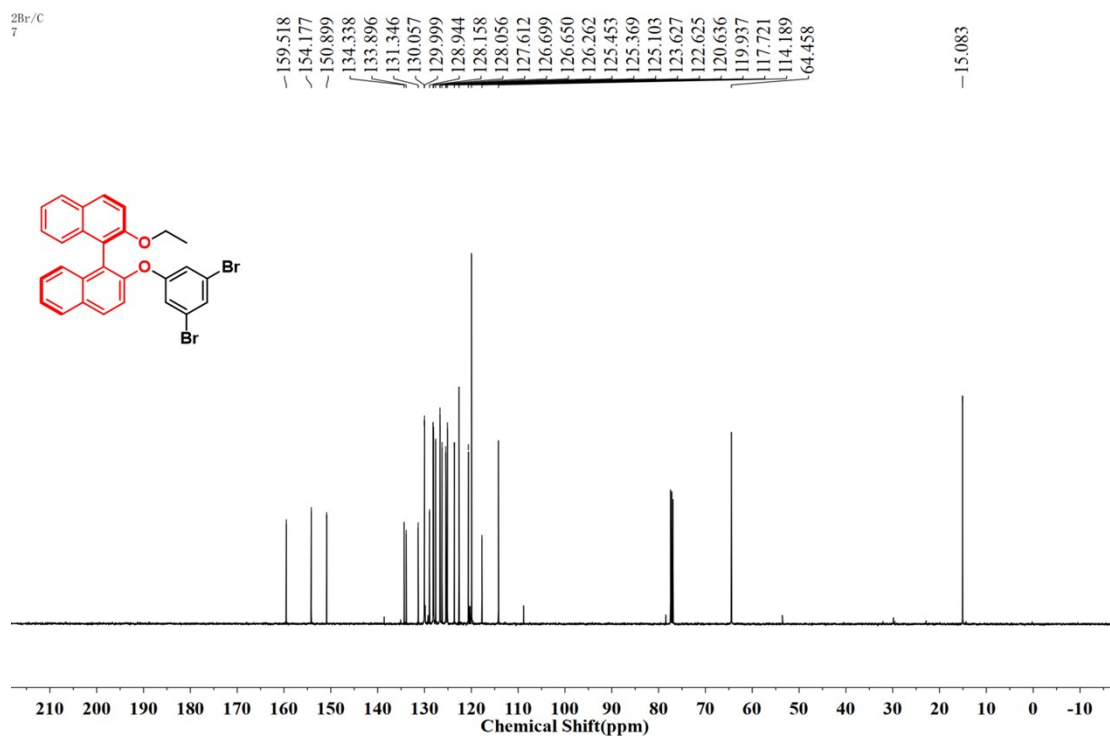


Fig. S4 ^{13}C NMR spectrum of (*R*)-BN-2Br in CDCl_3 .

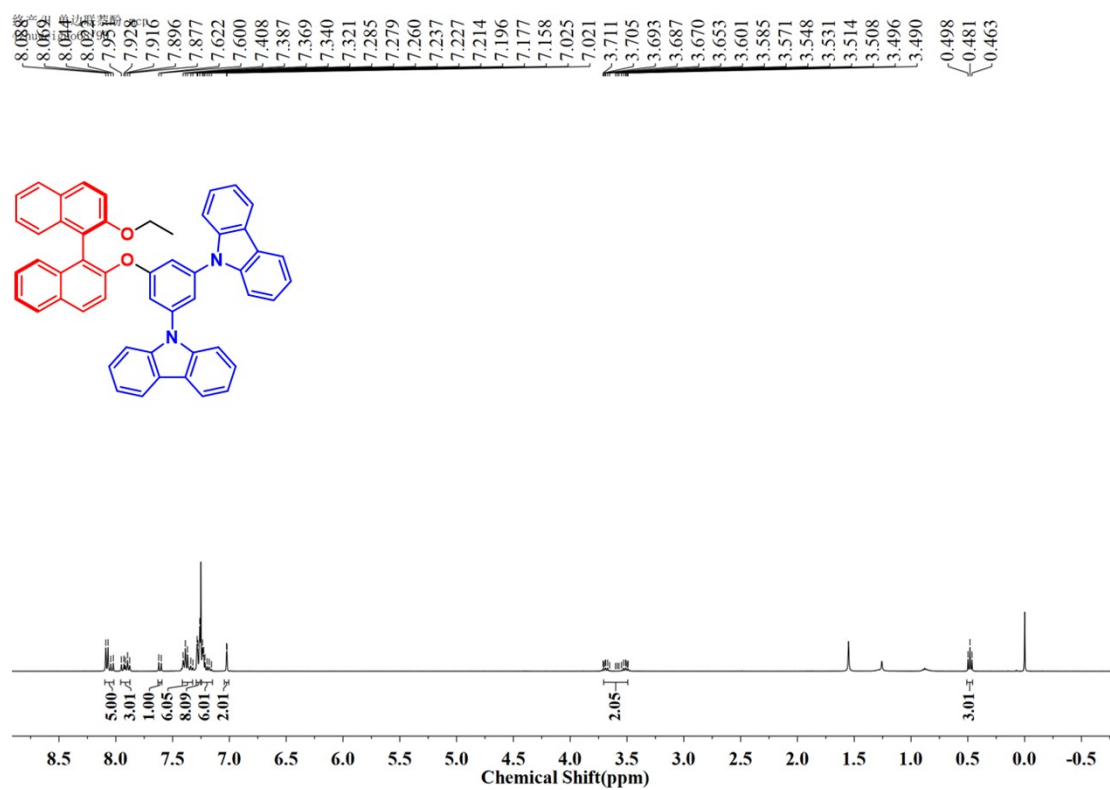


Fig. S5 ^1H NMR spectrum of (*R*)-BN-mCP in CDCl_3 .

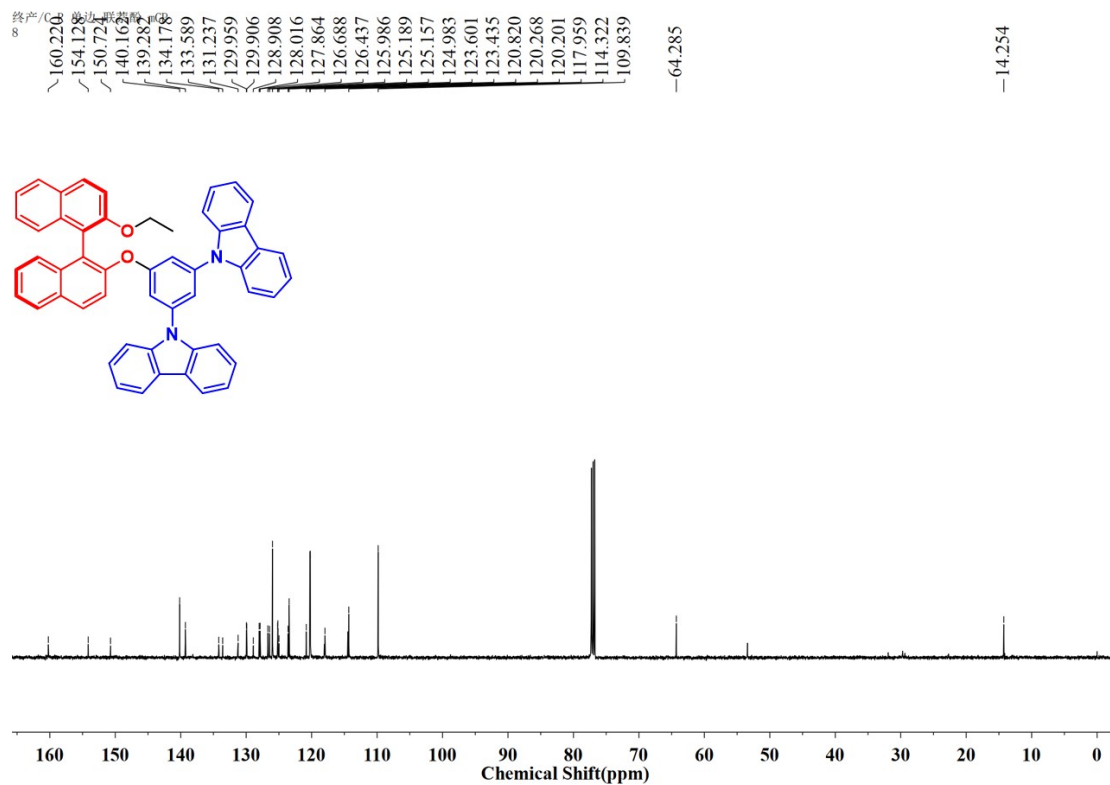


Fig. S6 ¹³C NMR spectrum of (*R*)-BN-mCP in CDCl₃.

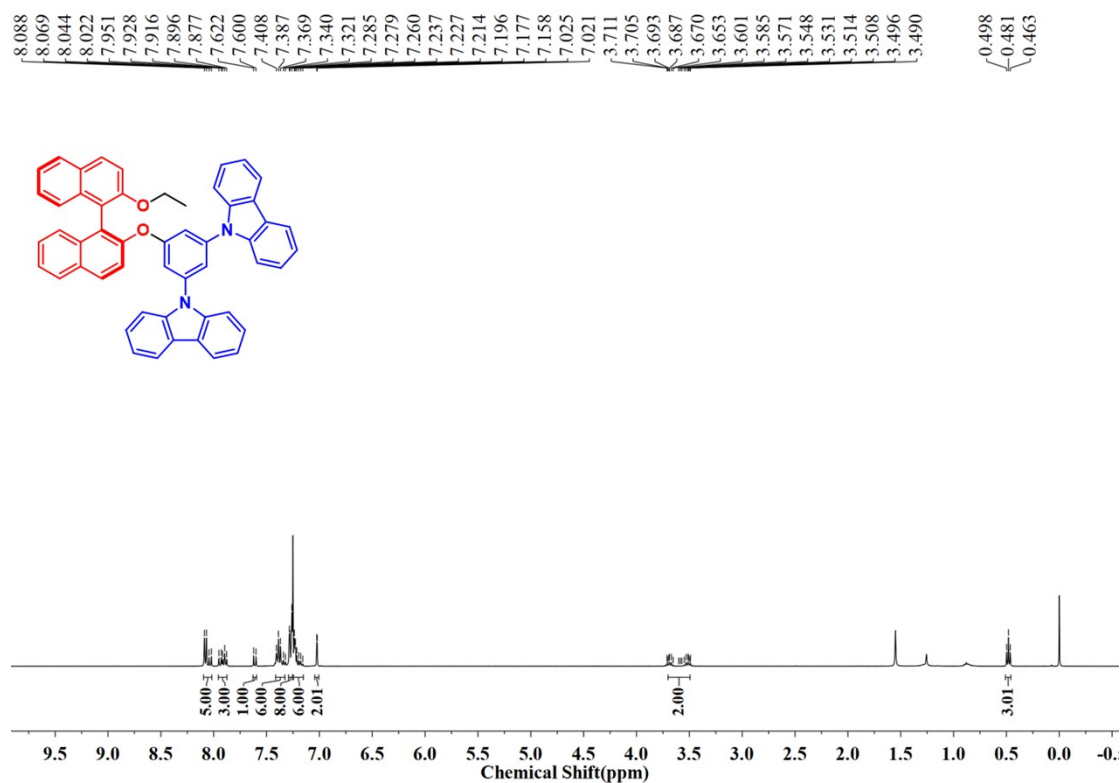
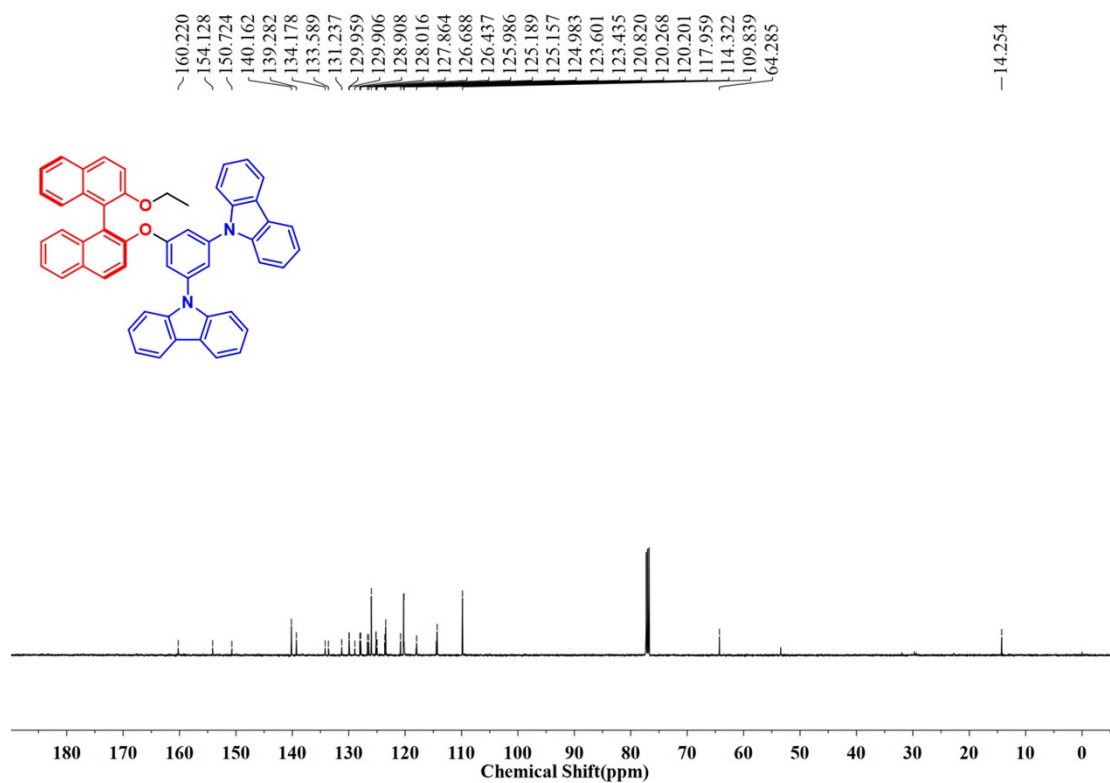


Fig. S7 ¹H NMR spectrum of (*S*)-BN-mCP in CDCl₃.



-14.254

Fig. S8 ¹³C NMR spectrum of *(S)*-BN-mCP in CDCl₃.

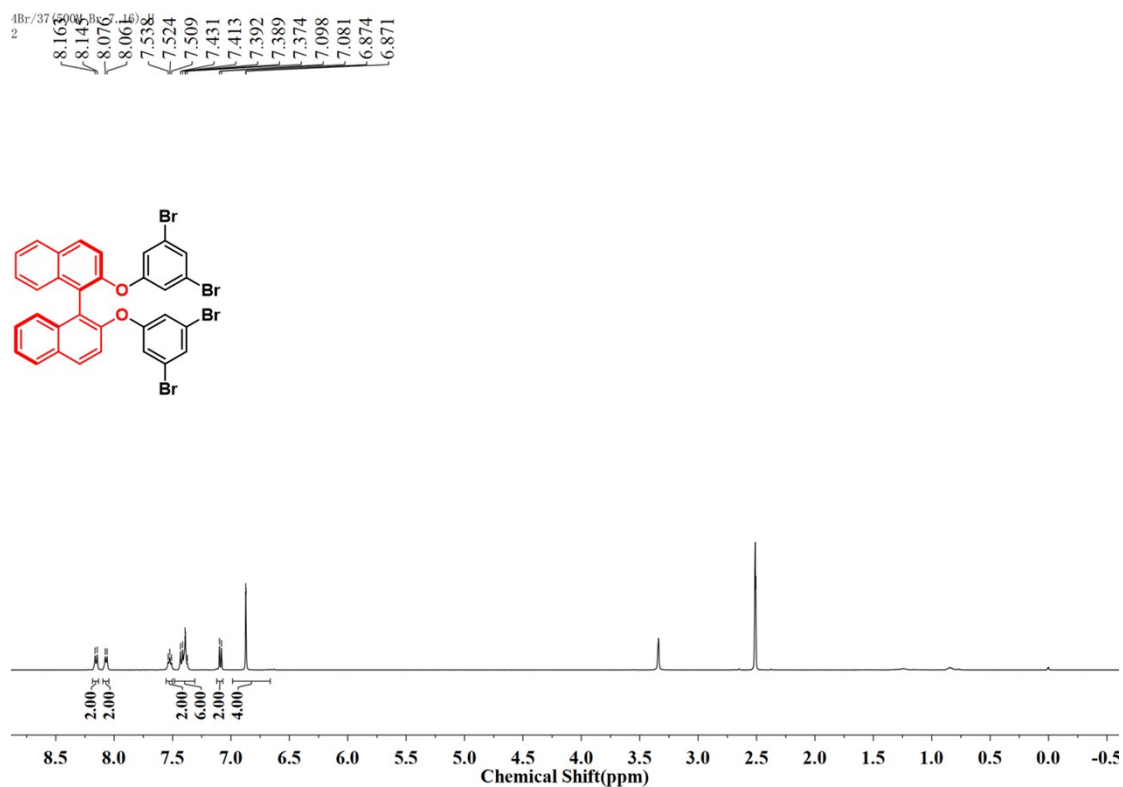


Fig. S9 ¹H NMR spectrum of *(R)*-BN-4Br in DMSO.

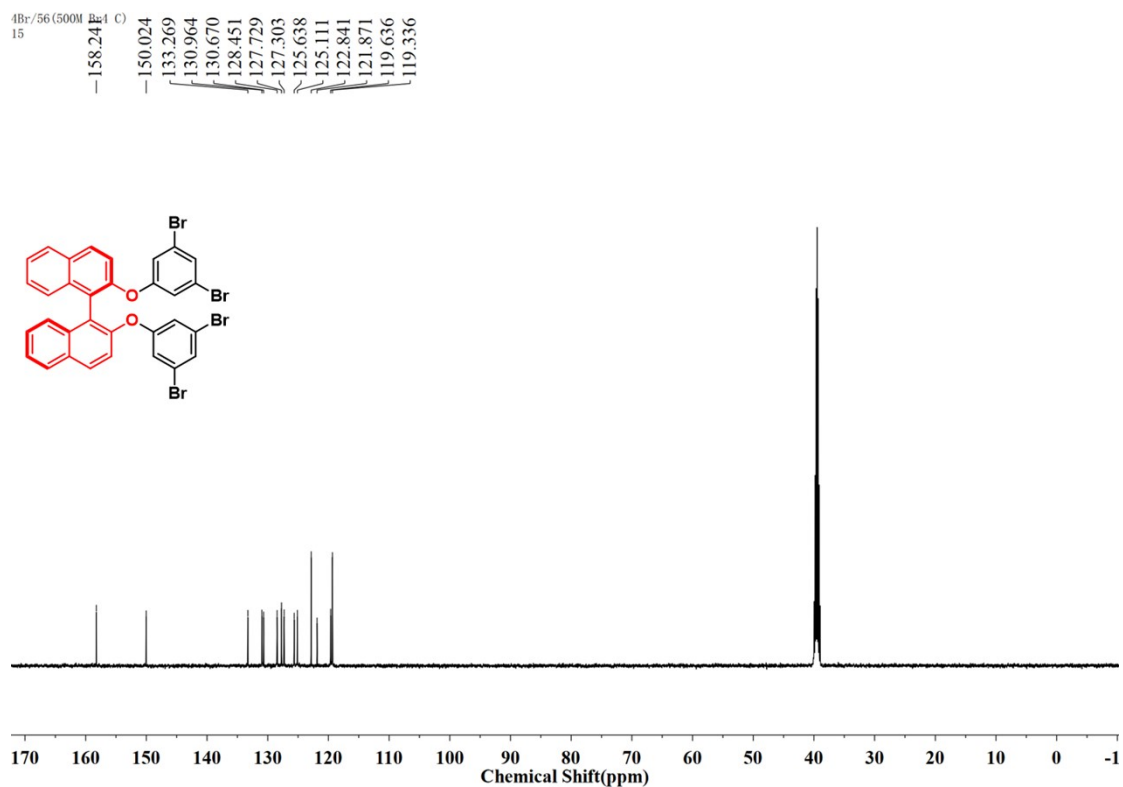


Fig. S10 ^{13}C NMR spectrum of (*R*)-BN-4Br in DMSO.

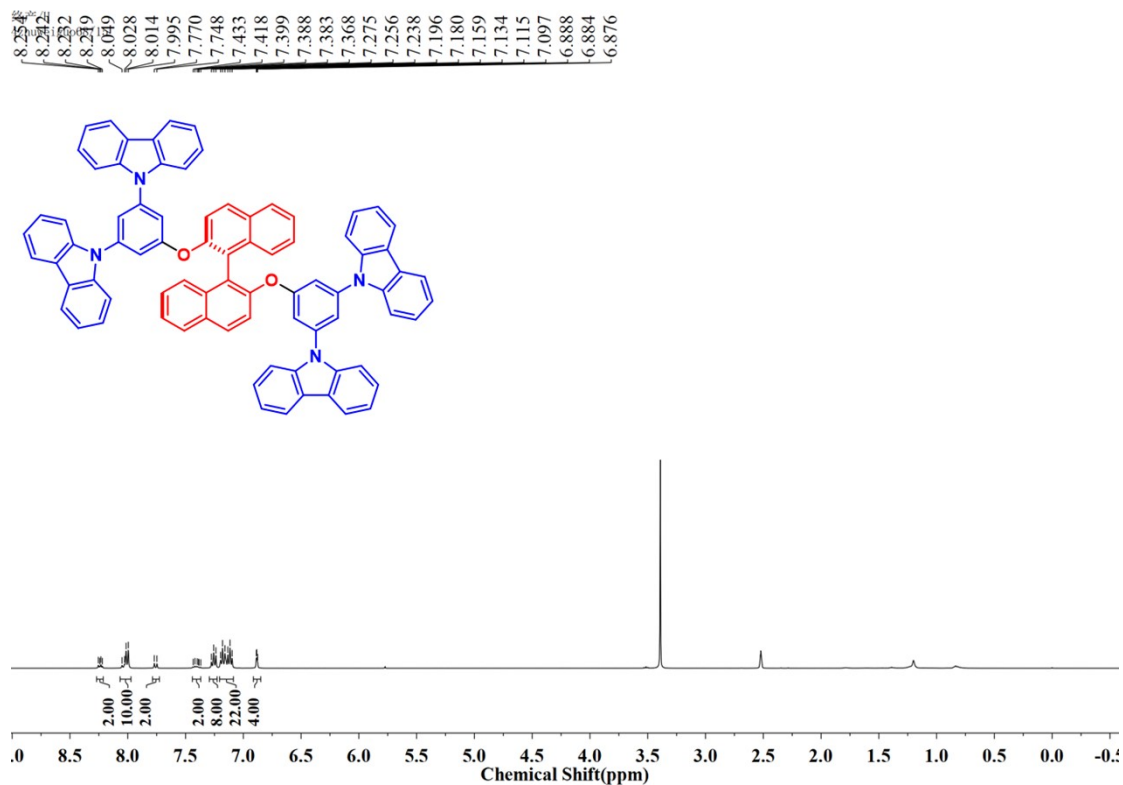


Fig. S11 ^1H NMR spectrum of (*R*)-BN-2mCP in DMSO.

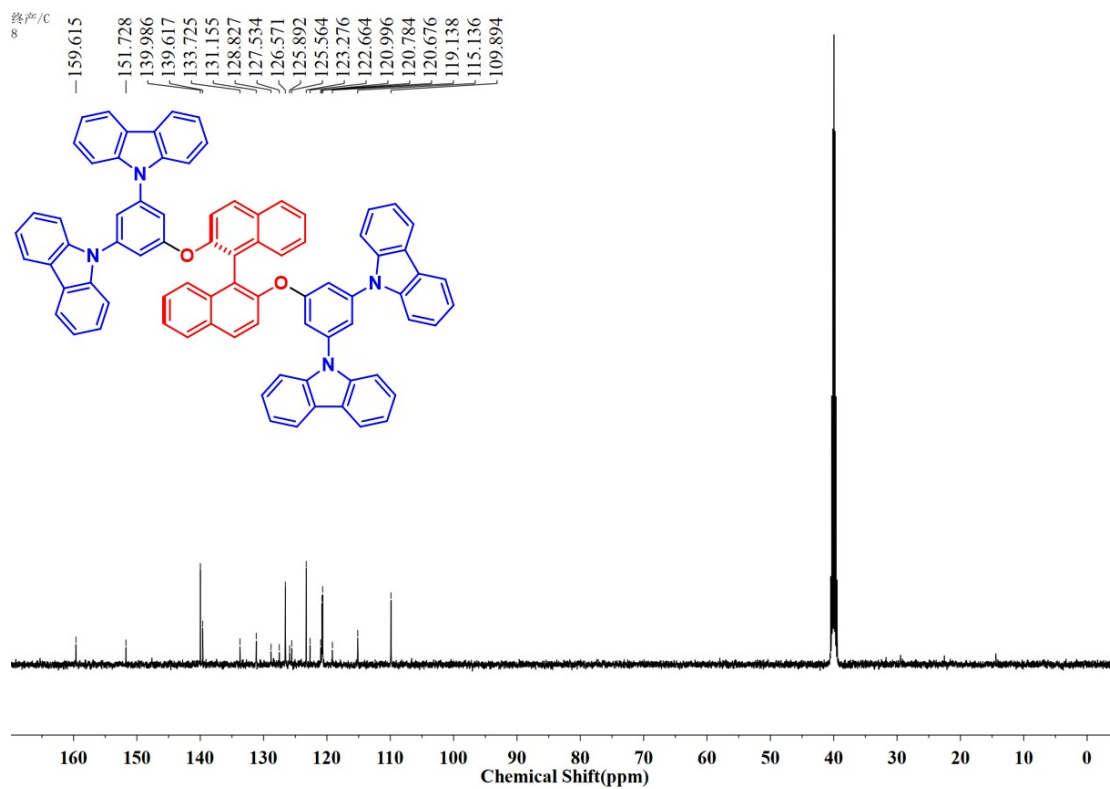


Fig. S12 ¹³C NMR spectrum of (R)-BN-2mCP in DMSO.

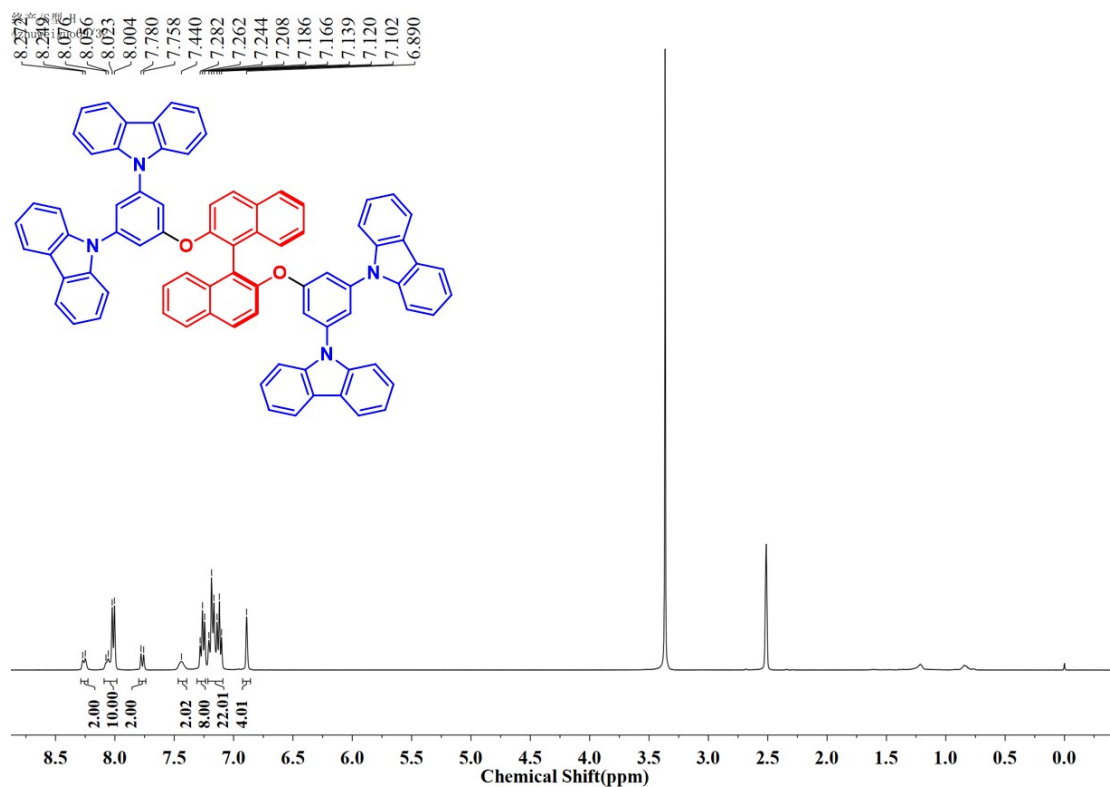


Fig. S13 ¹H NMR spectrum of (S)-BN-2mCP in DMSO.

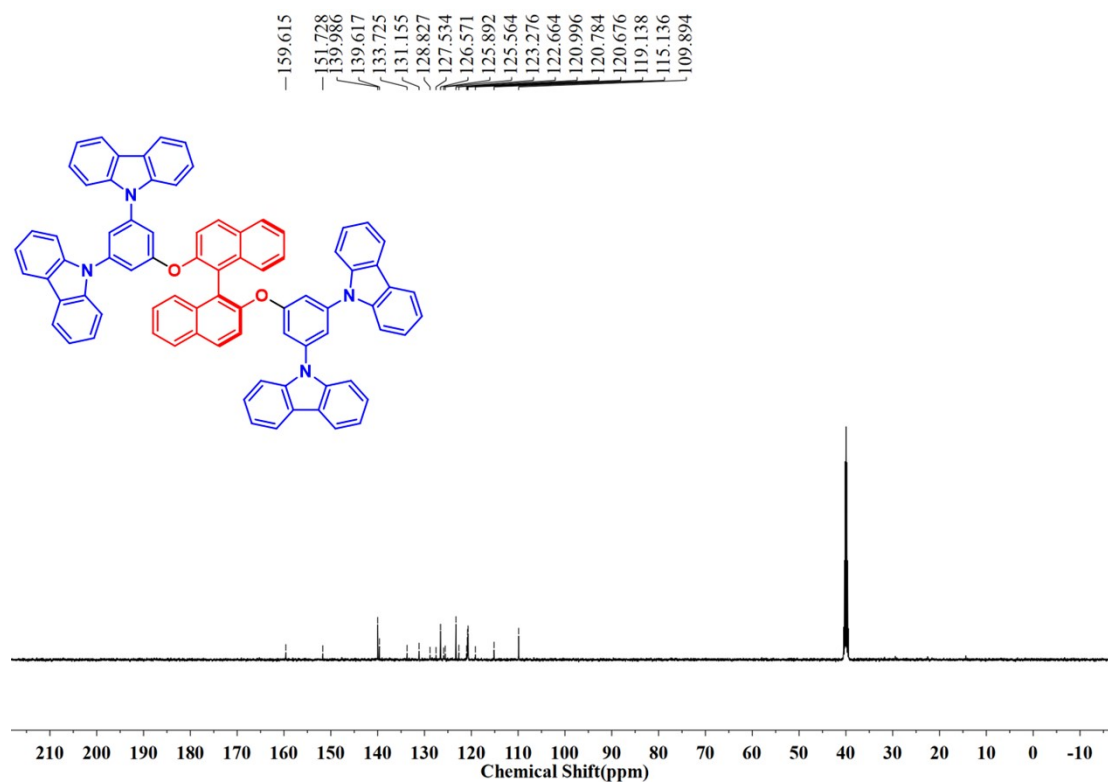


Fig. S14 ^{13}C NMR spectrum of (*S*)-BN-2mCP in DMSO.

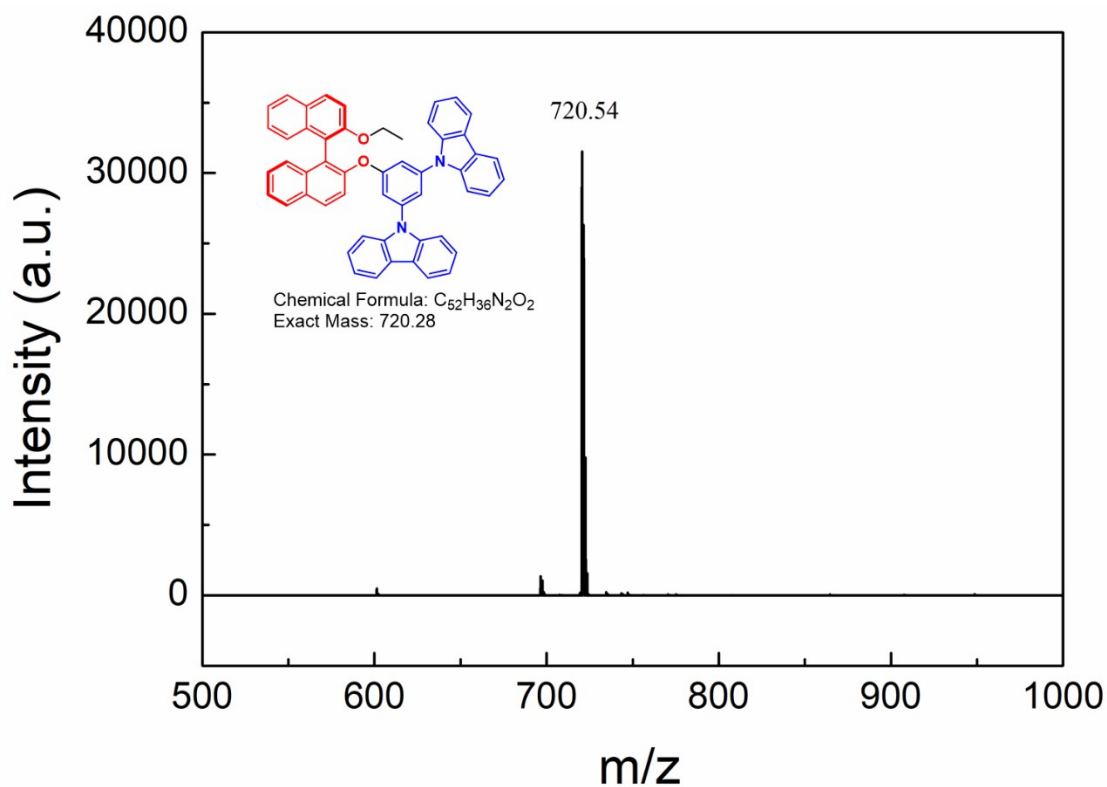


Fig. S15 Mass spectrum of (*R*)-BN-mCP.

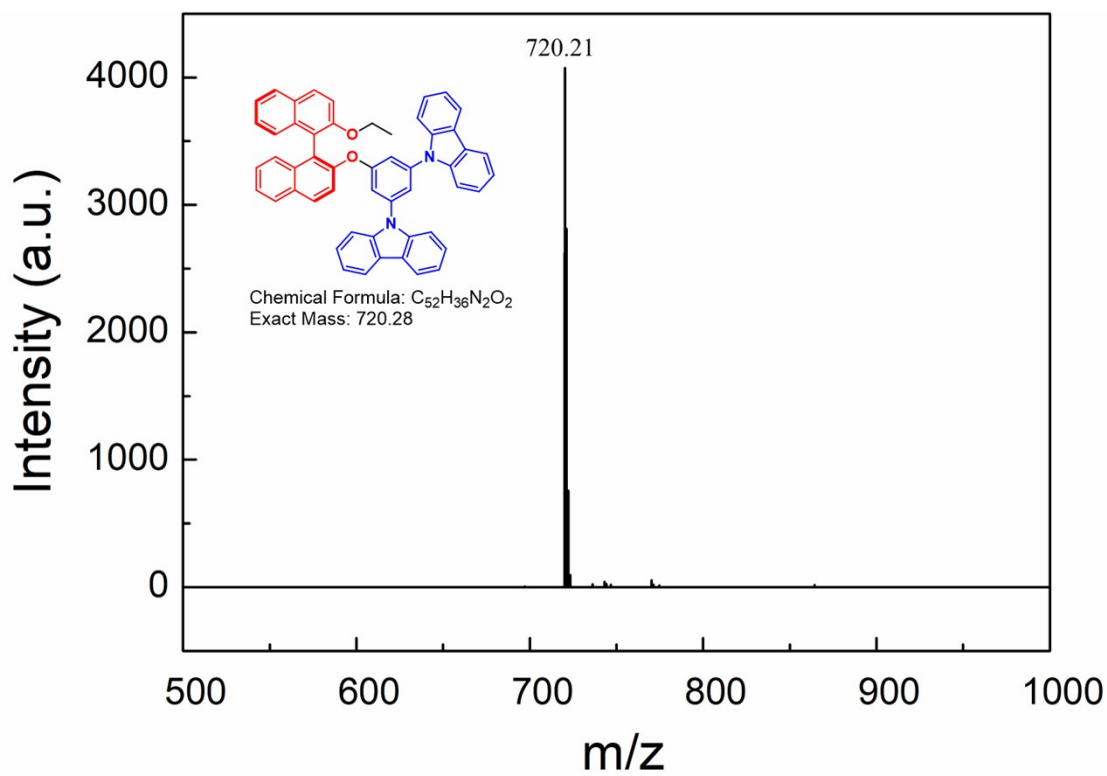


Fig. S16 Mass spectrum of (*S*)-BN-mCP.

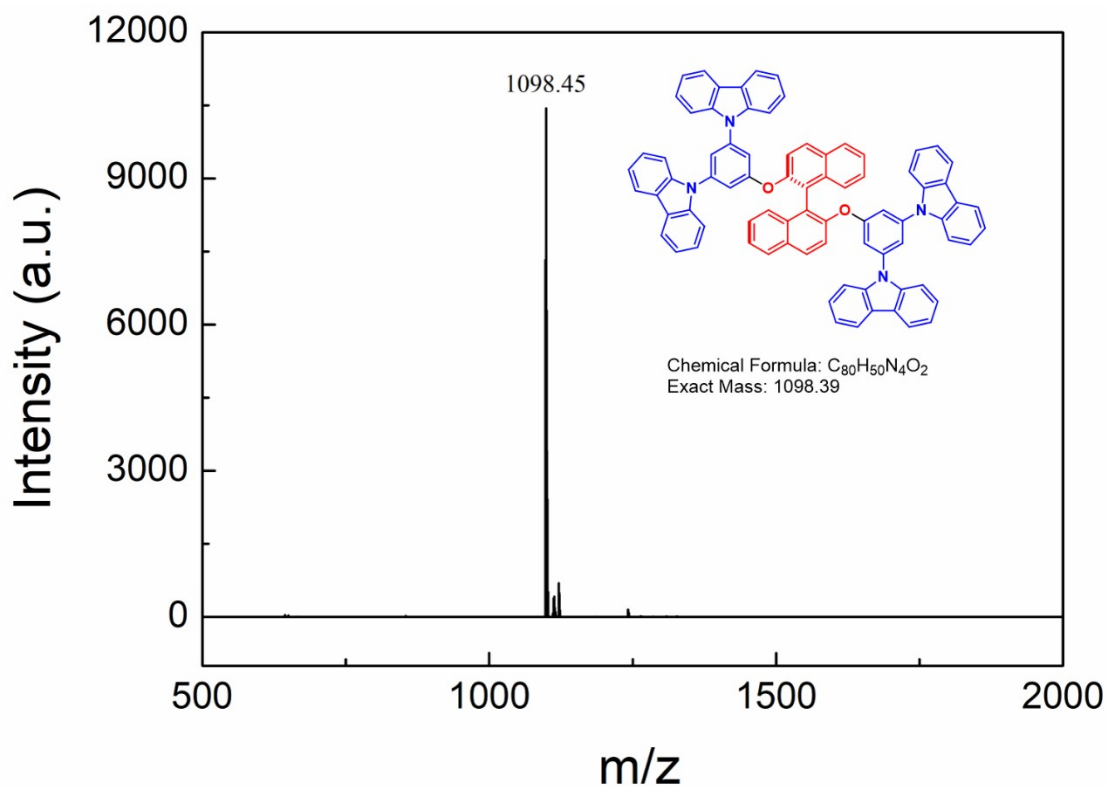


Fig. S17 Mass spectrum of (*R*)-BN-2mCP.

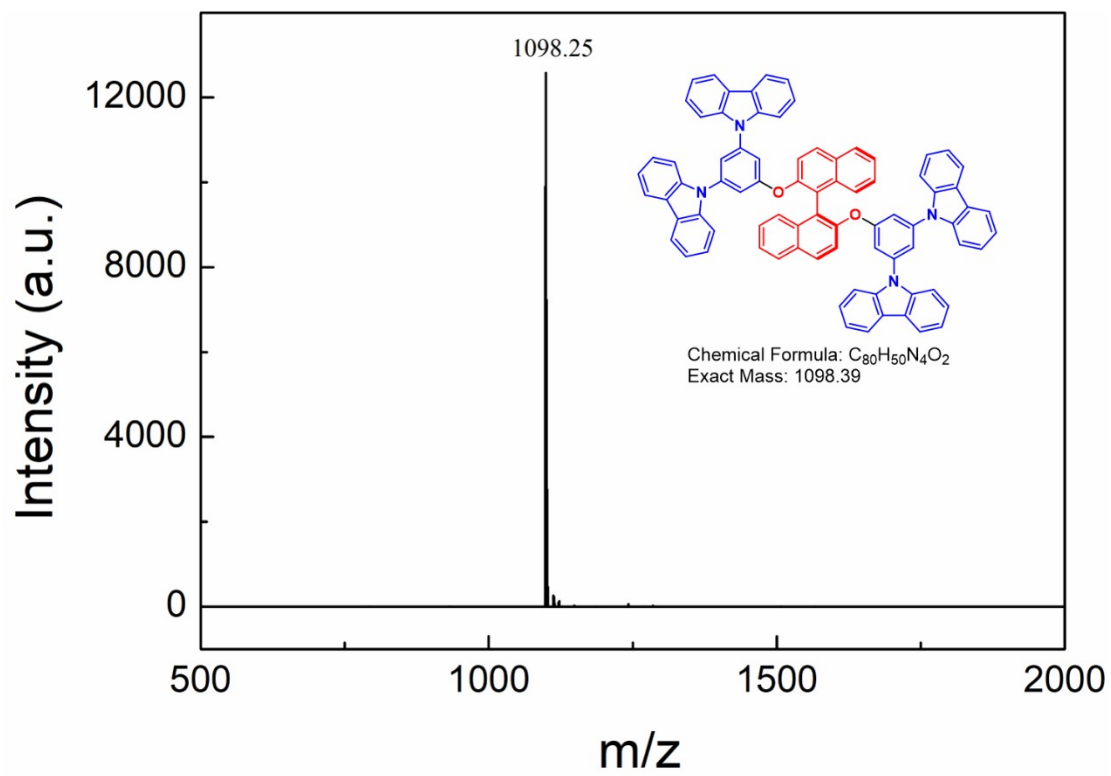
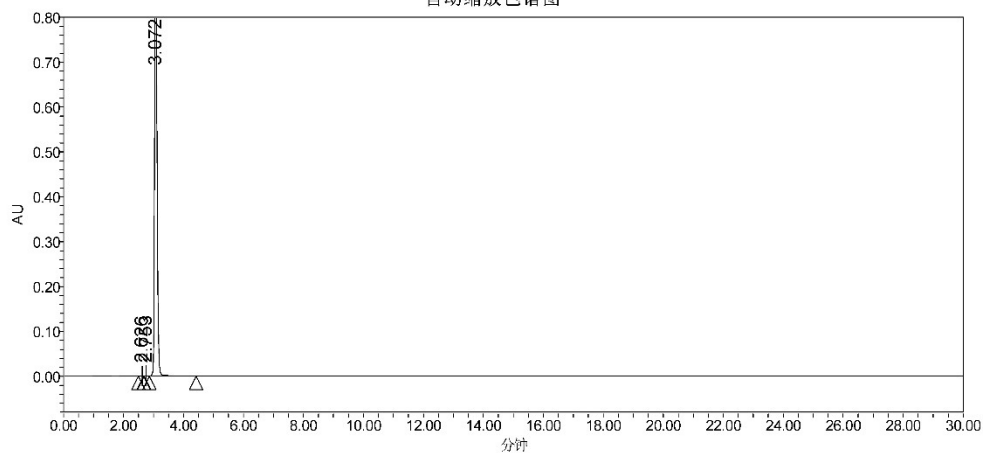


Fig. S18 Mass spectrum of (S)-BN-2mCP.

样品信息

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采集时间:	2022/12/15 10:39:41 CST		
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自动缩放色谱图



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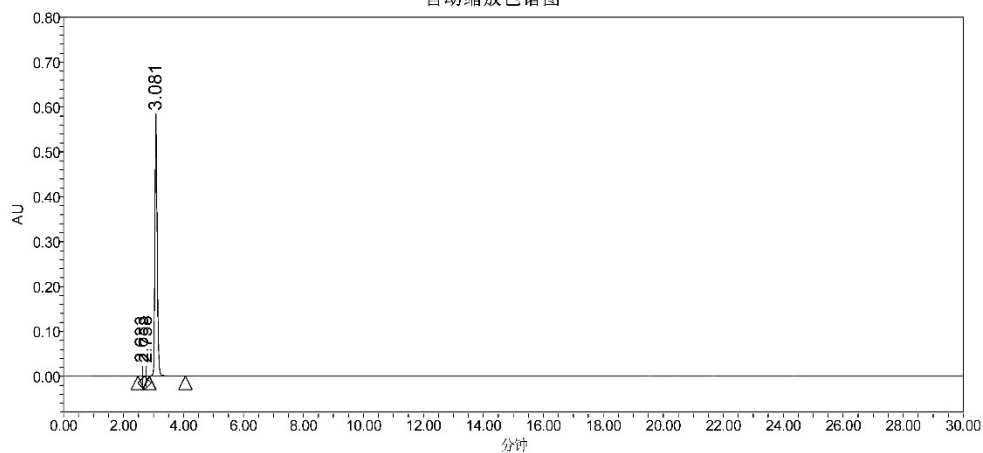
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Fig. S19 HPLC of (R)-BN-mCP.

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自动缩放色谱图



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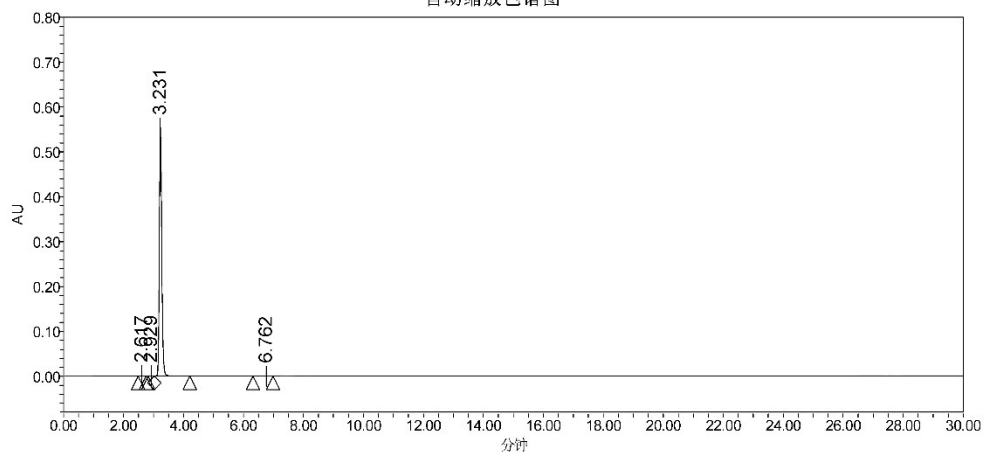
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Fig. S20 HPLC of (S)-BN-mCP.

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自动缩放色谱图



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2	2.929	560	3230	0.1025
3	3.231	554050	3141231	99.6511
4	6.762	83	1645	0.0522

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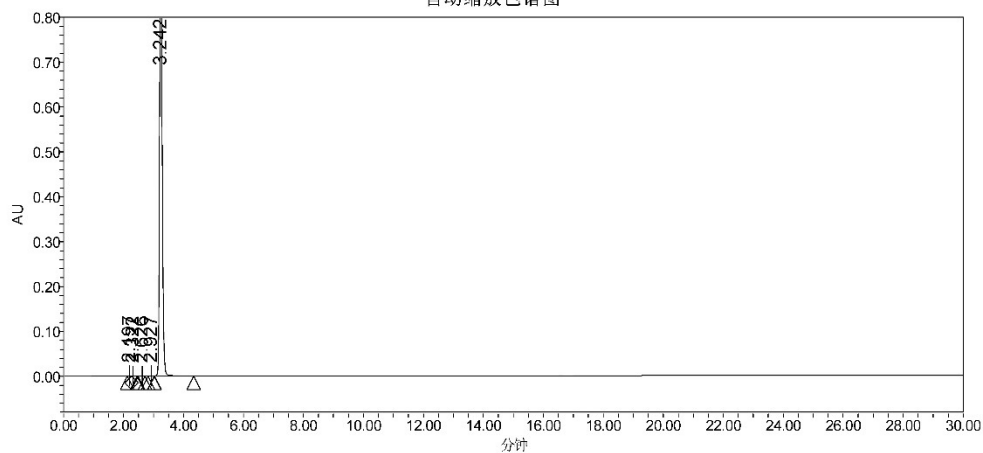
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Fig. S21 HPLC of (R)-BN-2mCP.

样品信息

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进样体积:	0.50 ul	通道名称:	W2489 ChA
运行时间:	30.0 Minutes	处理通道注释:	W2489 ChA 254nm
采集时间:	2022/12/15 10:08:49 CST		
处理时间:	2022/12/15 13:06:40 CST		

自动缩放色谱图



名称:

	保留时间 (分钟)	高度 (微伏)	面积 (微伏*秒)	% 面积
1	2.197	259	1253	0.0199
2	2.322	161	938	0.0149
3	2.626	210	1349	0.0214
4	2.927	278	1824	0.0289
5	3.242	1091323	6298378	99.9149

报告用户: System
报告方法: LC 报告
报告方法 ID: 3045 30451
页码: 1 (共计 1)

项目名称: CZCS_OLED_Defaults
打印日期:
2022/12/15
13:06:52 PRC

Fig. S22 HPLC of (S)-BN-2mCP.

3 Thermal properties

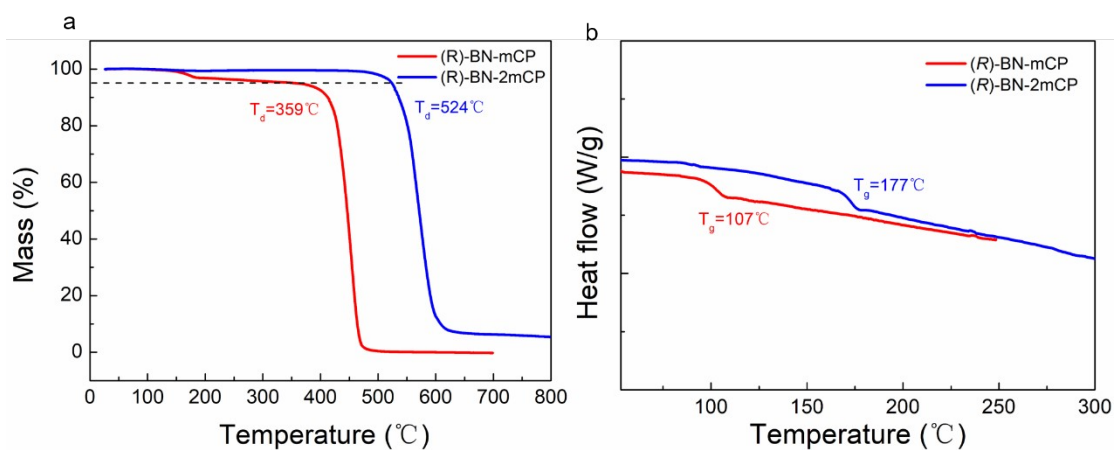


Fig. S23 (a) TGA curves of the hosts in N_2 with the heating rate of $20^\circ\text{C min}^{-1}$; (b) DSC traces of the hosts recorded at a heating rate of $10^\circ\text{C min}^{-1}$.

4 Theoretical Calculations

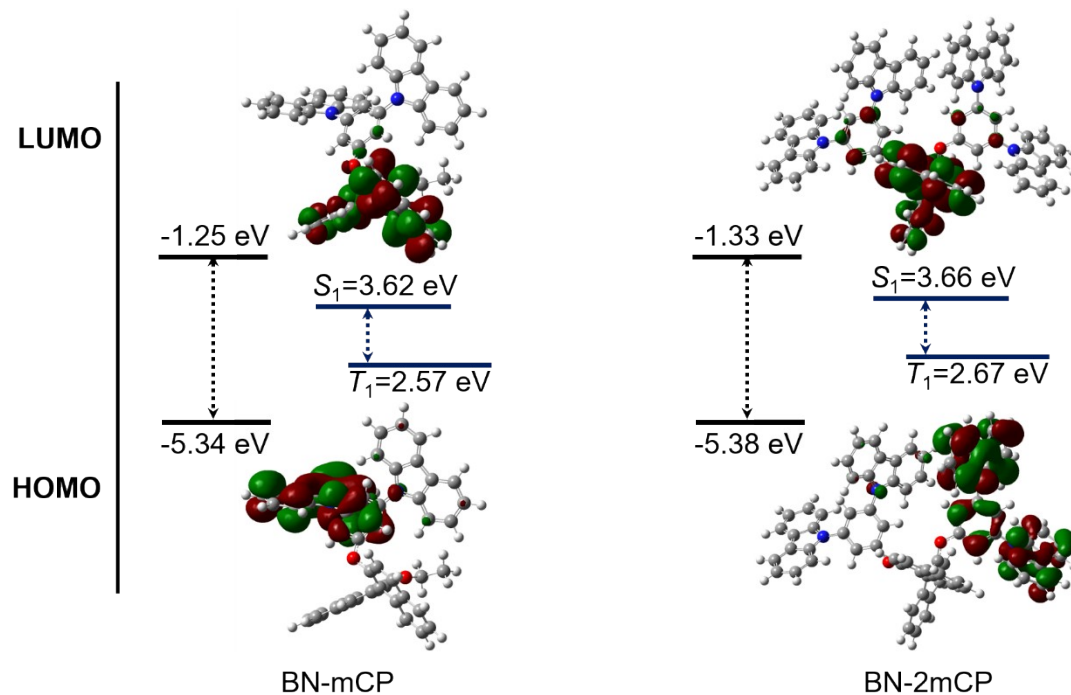


Fig. S24 HOMO and LUMO orbital distributions, calculated band gaps and S_1 and T_1 energy levels for compounds based on DFT at the B3LYP functional and 6-31G(d) basis set.

5 Ultraviolet Photoelectron Spectroscopy

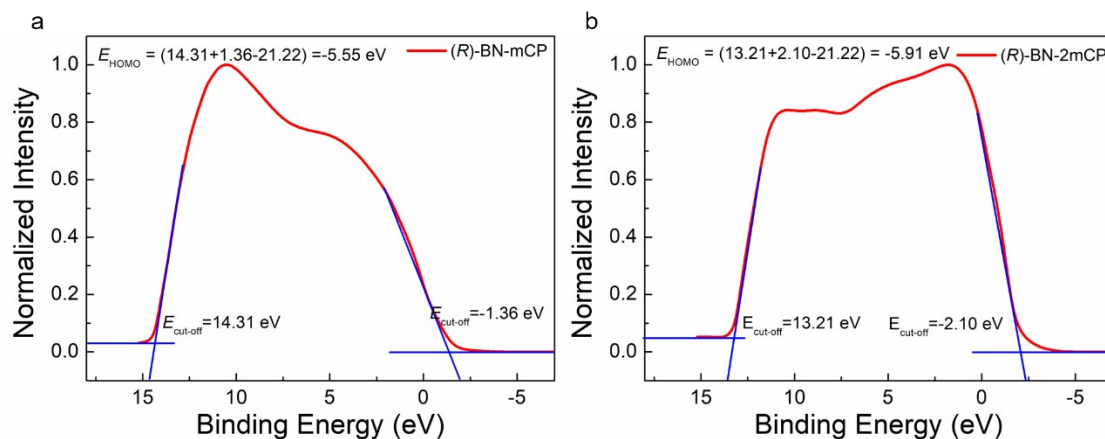


Fig. S25 Ultraviolet photoelectron spectra UPS spectra of (a) (R)-BN-mCP, (b) (R)-BN-2mCP.

6 Electrochemical properties

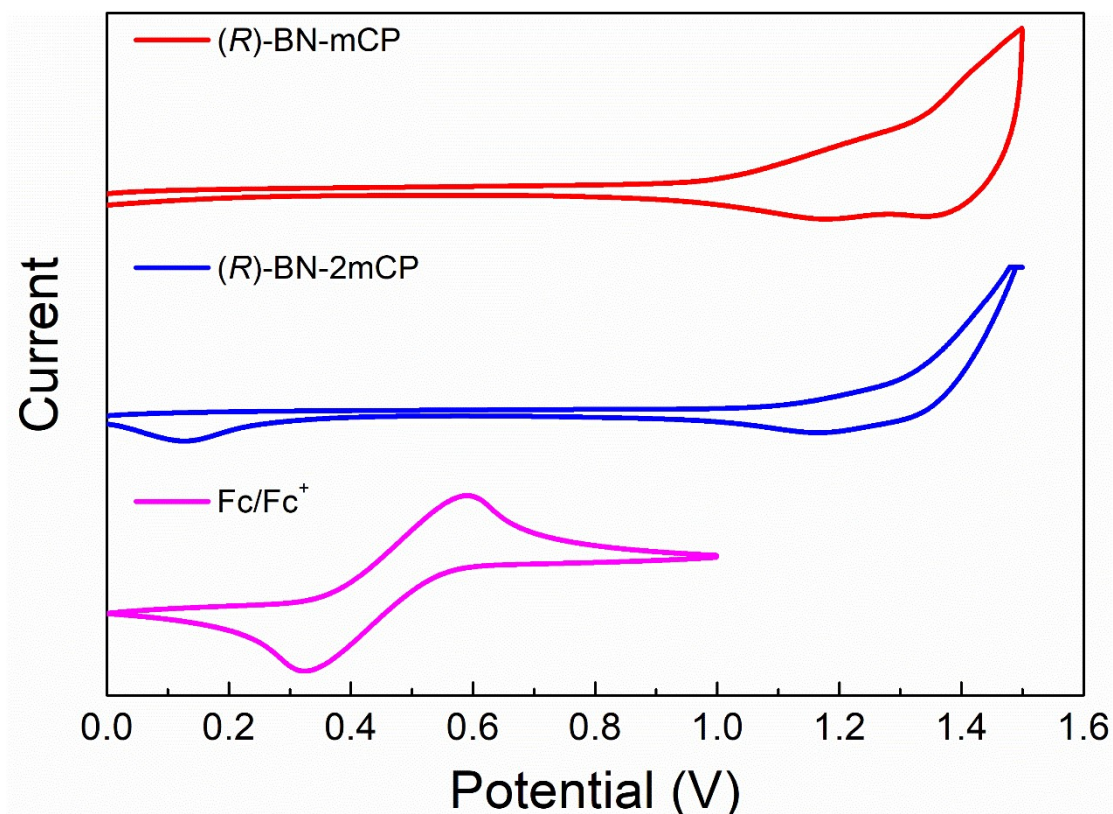


Fig. S26 CV curves of the (R)-BN-mCP and (R)-BN-2mCP in CH_3CN solution

The redox property of the (R)-BN-mCP and (R)-BN-2mCP was investigated by cyclic voltammetry (CV) measurement in acetonitrile solution. As shown in **Figure S26**, only irreversible oxidation (E_{ox}) waves were detected for the hosts in the range of 0~1.5 V. According to the oxidation onset, the E_{ox} are evaluated to be 1.22 for (R)-BN-mCP and 1.29 for (R)-BN-2mCP relative to ferrocenium/ferrocene (Fc/Fc^+ , $E_{\text{Fc}/\text{Fc}^+} = 0.48$ V). According to the empirical formulae of E_{HOMO}

$= -(E_{\text{ox}} - E_{\text{Fc/Fc}^+} + 4.8) \text{ eV}$ and $E_{\text{LUMO}} = -(E_{\text{HOMO}} + E_{\text{g}}) \text{ eV}$, the HOMO/LUMO energy level of (R)-BN-mCP and (R)-BN-2mCP are calculated to be $-5.54/-1.89$ and $-5.61/-1.85 \text{ eV}$.

7 Photophysical properties

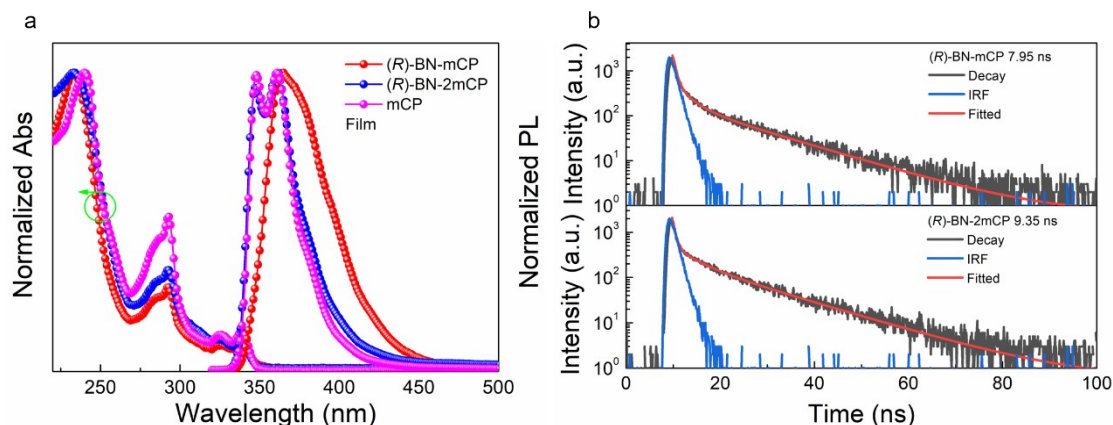


Fig. S27 (a) UV-vis spectra and PL spectra ($\lambda_{\text{ex}}=300 \text{ nm}$) in doped PMMA film (10%) at room temperature; (b) fluorescence lifetime in doped PMMA film (10%) at room temperature.

Table S1 Photophysical data of the three compounds.

Com poun ds	$^a\lambda_{\text{abs}}$	$^a\lambda_{\text{em}}$	$^b\lambda_{\text{abs}}$	$^b\lambda_{\text{em}}$	cS_1	cT_1	$^{d,e}E_{\text{H}}$	$^{d,e}E_{\text{LU}}$	$^fT_{\text{d}}$	$^gT_{\text{g}}$	$E_{\text{g}}^{\text{opt}}$
	/nm	/nm	/nm	/nm	/eV	/eV	OMO /eV	MO /eV	/°C	/°C	/eV
(R)- BN- mCP	293,3 26,33 9	364	233,2 93,32 6,339	365	3.72	2.61	-5.55^d -5.54^e	-1.90^d -1.89^e	359	107	3.65
(R)- BN- 2mC P	282,2 93,32 6,339	345,3 60	233,2 93,32 6,339	348,3 61	3.76	2.67	-5.91^d -5.61^e	-2.15^d -1.85^e	524	177	3.76
mCP	282,2 93,32 6,339	345,3 60	240,2 93,32 6,339	348,3 61	3.72	3.16	-5.90	-2.40			

a: Measured in 10^{-5}M toluene at room temperature ($\lambda_{\text{ex}}=300 \text{ nm}$); b: 10 wt% in PMMA at room temperature ($\lambda_{\text{ex}}=300 \text{ nm}$); c: calculated for the onsets of the low-temperature (77 K) fluorescence and phosphorescence ($\lambda_{\text{ex}}=300 \text{ nm}$); d: collected from UPS; e: collected from CV measurement f: in N_2 with the heating rate of $20^\circ\text{C min}^{-1}$. g: in N_2 with the heating rate of $10^\circ\text{C min}^{-1}$.

8 Chiroptical properties

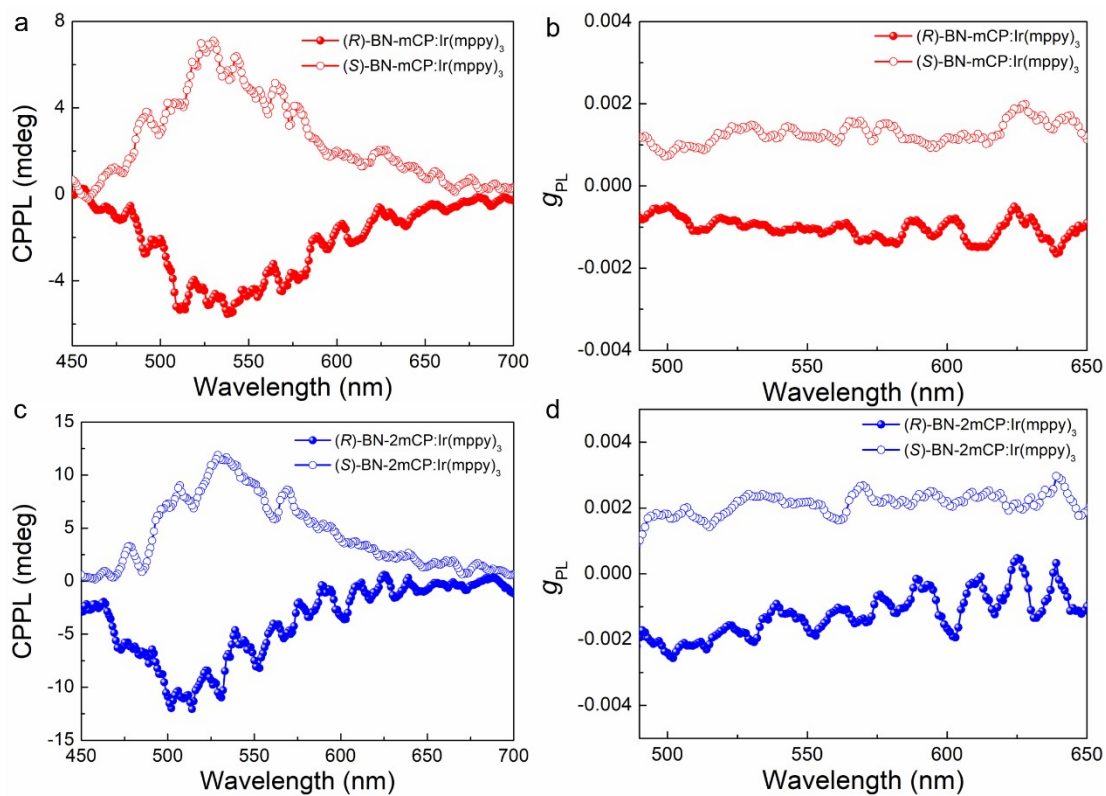


Fig. S28 (a) CPL spectra of the $\text{Ir}(\text{mppy})_3$ doped in (R/S) -BN-mCP host; (b) g_{PL} spectra of the $\text{Ir}(\text{mppy})_3$ doped in (R/S) -BN-mCP host; (c) CPL spectra of the $\text{Ir}(\text{mppy})_3$ doped in (R/S) -BN-2mCP host; (d) g_{PL} spectra of the $\text{Ir}(\text{mppy})_3$ doped in (R/S) -BN-2mCP host.

9 CP-OLEDs performances

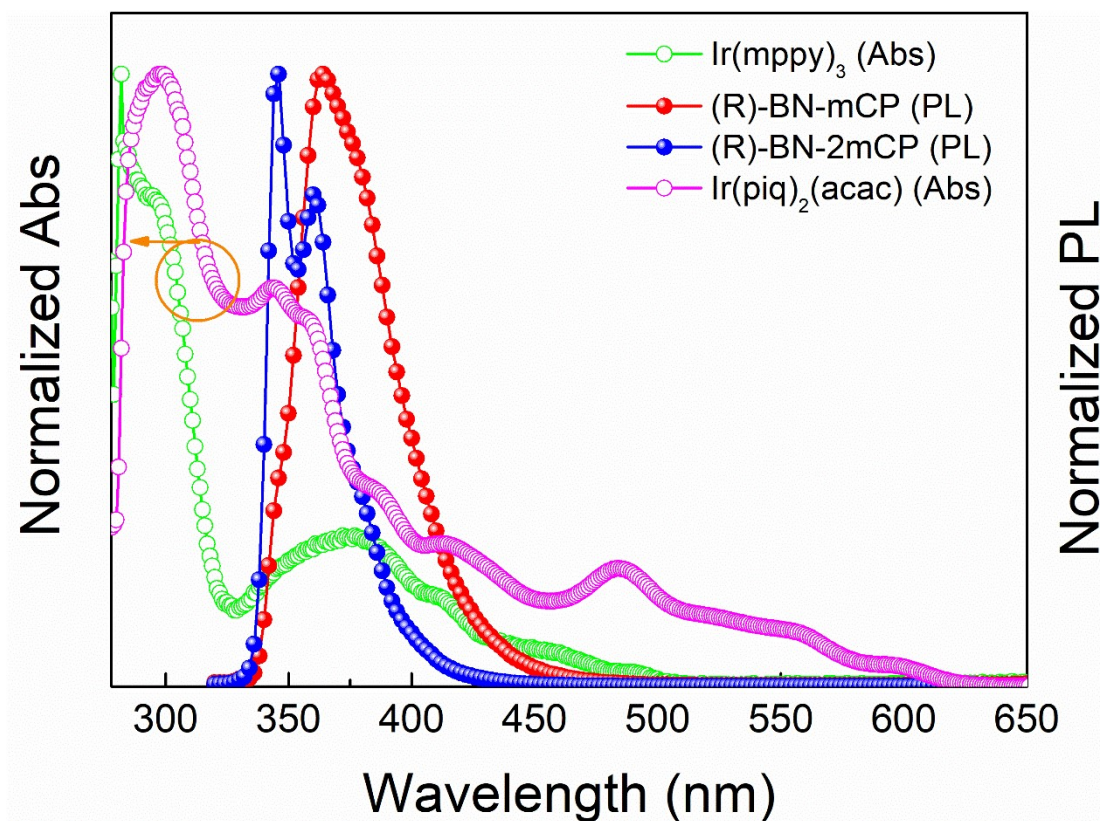


Fig. S29 UV-vis spectra (guest) and PL spectra (host) ($\lambda_{\text{ex}}=300$ nm) measured in toluene solution (10^{-5} M).

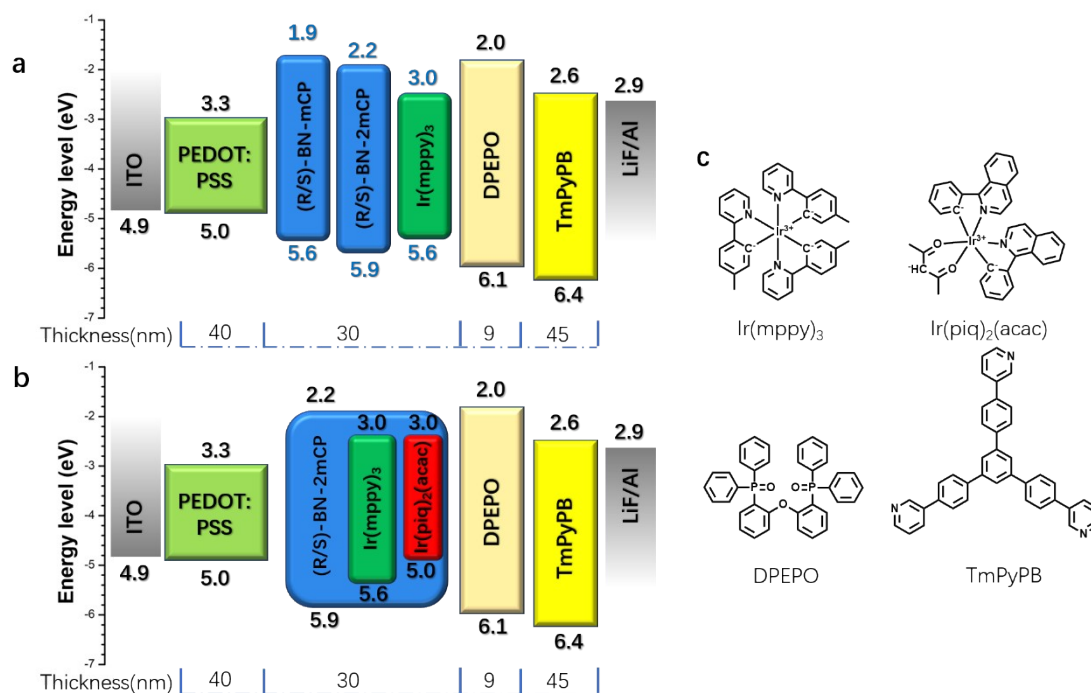


Fig. S30 Devices structures of (a) Green OLEDs, (b) two emitters OLEDs and (c) the molecular

structures in the devices.

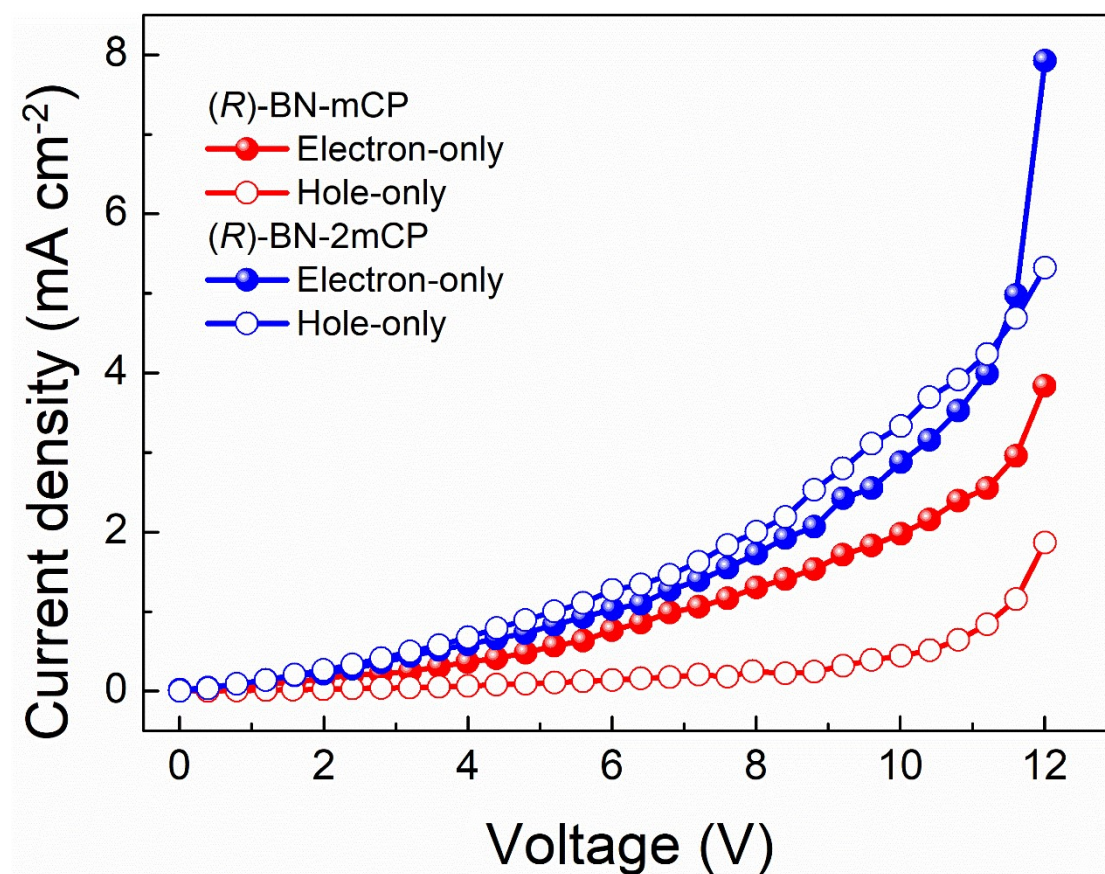


Fig. S31 The mobility of chiral hosts of (R)-BN-mCP and (R)-BN-2mCP.

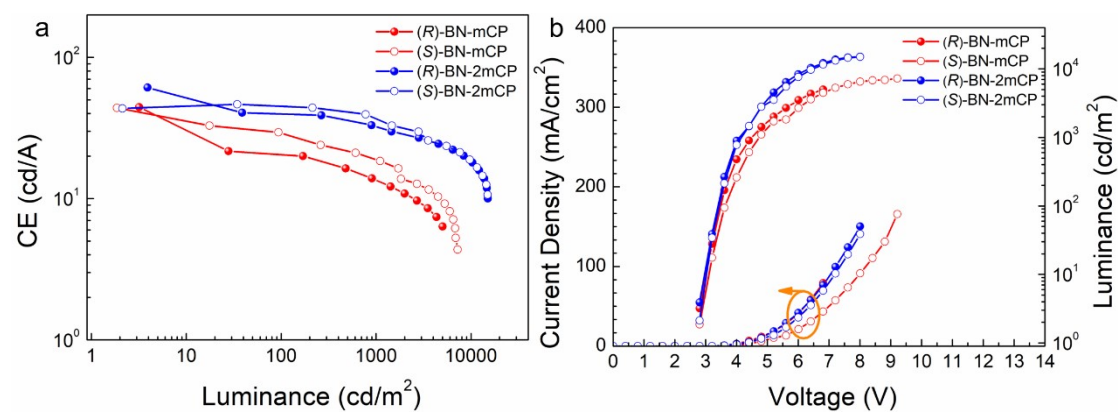


Fig. S32 EL properties of the green CP-OLEDs devices: a) CE-luminance curves; b) current density-voltage-luminance curves

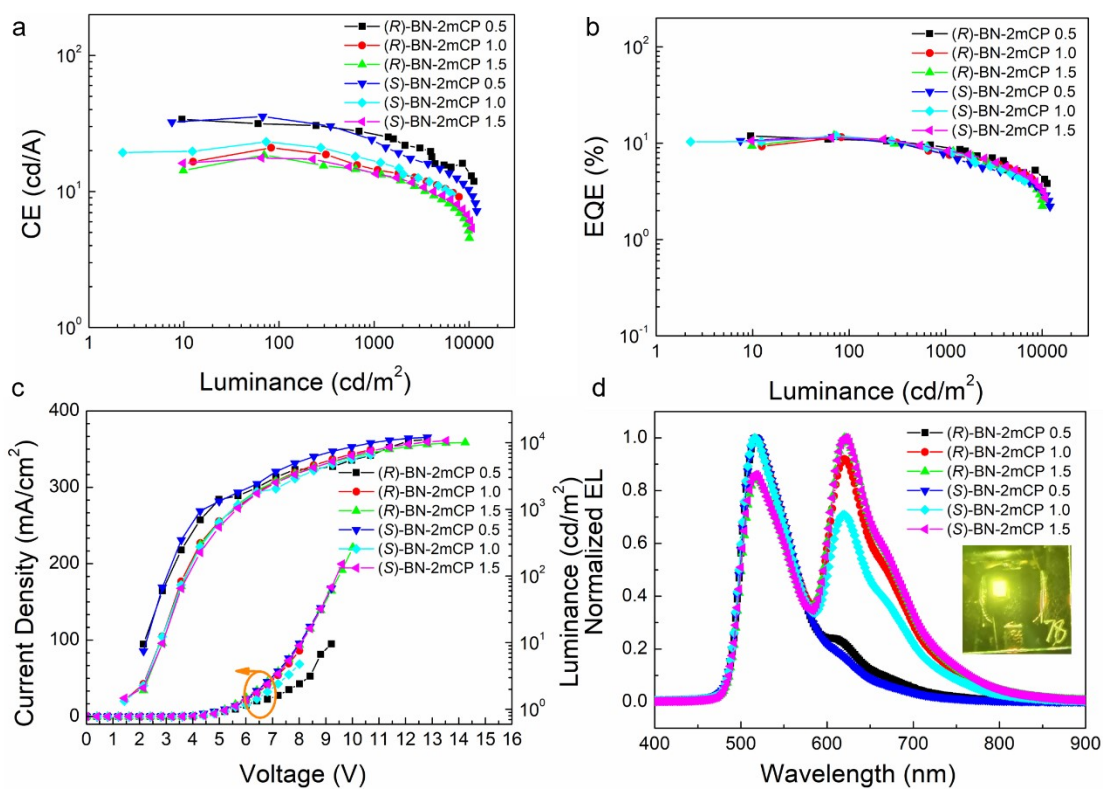


Fig. S33 EL properties of based on *(R/S)*-BN-2mCP: Ir(mppy)₃:Ir(piq)₂(acac) : a) CE-luminance curves; b) EQE-luminance curves; c) current density-voltage-luminance curves; d) normalized EL spectra (Inset: emission pictures of the devices).

Table S2 EL data for the green CP-OLEDs devices

Device		V_{ON}	L_{max}	CE_{max}	EQE_{max}	CIE	$Peak$	g_{EL}
EML : host: Ir(mppy) ₃		V	cd m ⁻²	cd A ⁻¹	%	(x, y)	nm	×10 ⁻³
(R)-BN-mCP	80:20	2.8	5022	44.37	12.7	(0.30,0.62)	518	□1.7
(S)-BN-mCP	80:20	2.8	7230	43.85	12.4	(0.30,0.62)	518	□1.3
(R)-BN-2mCP	80:20	2.8	15070	61.03	17.1	(0.30,0.63)	518	□1.3
(S)-BN-2mCP	80:20	2.8	15000	46.45	13.0	(0.30,0.62)	518	□2.1

Table S3 EL data for the CP-OLEDs devices

Device		V_{ON}	L_{max}	CE_{max}	EQE_{max}	CIE	g_{EL}
host: Ir(mppy) ₃ :Ir(piq) ₂ (acac)		V	cd m ⁻²	cd A ⁻¹	%	(x, y)	×10 ⁻³
(R)-BN- 2mCP	84.5:15:0.5	3.2	11260	33.93	11.9	(0.32,0.60)	
	84:15:1.0	3.2	7849	20.96	11.6	(0.43,0.52)	
	83.5:15:1.5	3.2	10060	18.56	12.1	(0.45,0.50)	□1.1
(S)-BN- 2mCP	84.5:15:0.5	3.2	12040	35.57	11.6	(0.31,0.61)	
	84:15:1.0	3.2	6577	23.18	12.0	(0.40,0.54)	
	83.5:15:1.5	3.2	10740	17.66	11.4	(0.43,0.51)	