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Electronic Supplementary Information

Bipolar Host Materials for High Efficiency Phosphorescent Organic Light Emitting Diodes: Tuning the HOMO/LUMO Levels without Reducing the Triplet Energy in Linear System

Lin-Song Cui, Yuan Liu, Xiao-Dong Yuan, Qian Li, Zuo-Quan Jiang,* and Liang-Sheng Liao*

Jiangsu Key Laboratory for Carbon-Based Functional Materials & Devices, Institute of Functional Nano & Soft Materials (FUNSOM), Soochow University, Suzhou, Jiangsu 215123, People's Republic of China.

CONTENT

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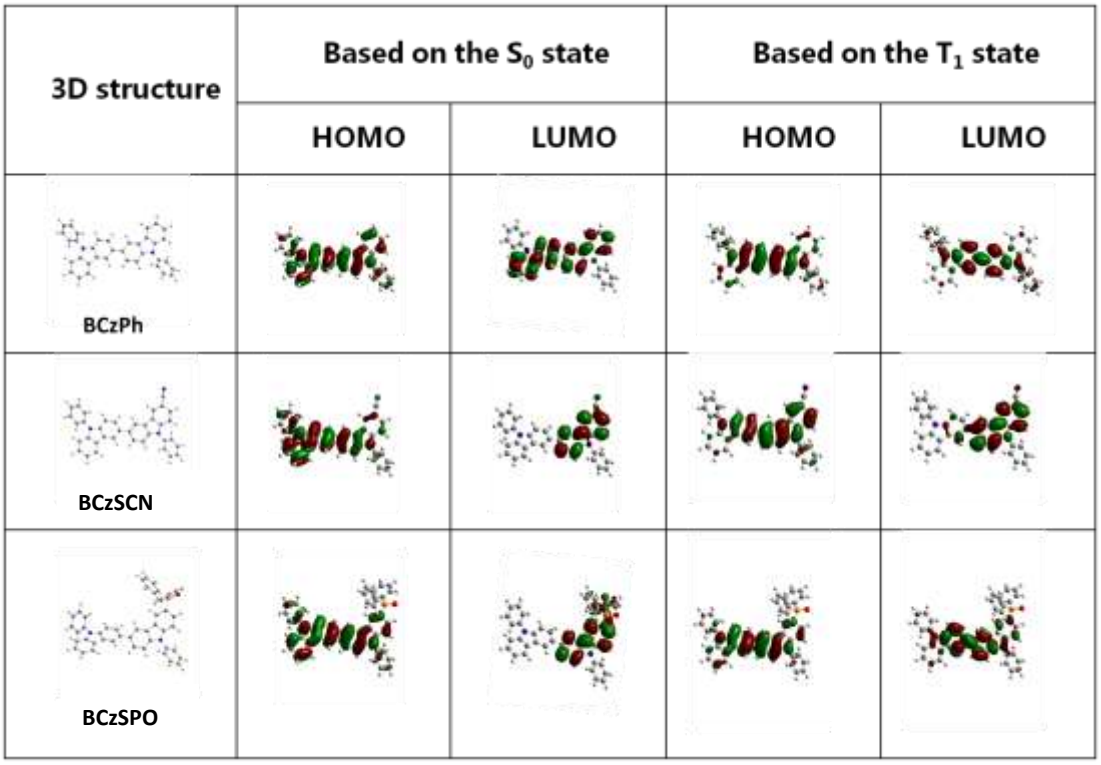

Firgure S1. Optimized geometry and spatial distributions of the HOMO and LUMO levels for BCz derivatives.

Table S1. Simulated HOMO/LUMO energies of S_0 and T_1 state for BCz derivatives.

Compound	HOMO (eV)	LUMO (eV)	E_T (eV)
BCzPh	4.96	0.67	3.02
BCzSCN	5.21	1.12	3.04
BCzSPO	5.11	0.92	3.02

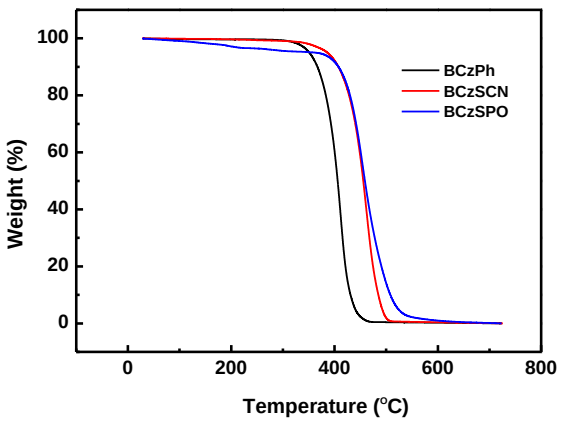

Figure S2. TGA thermograms of BCz derivatives.

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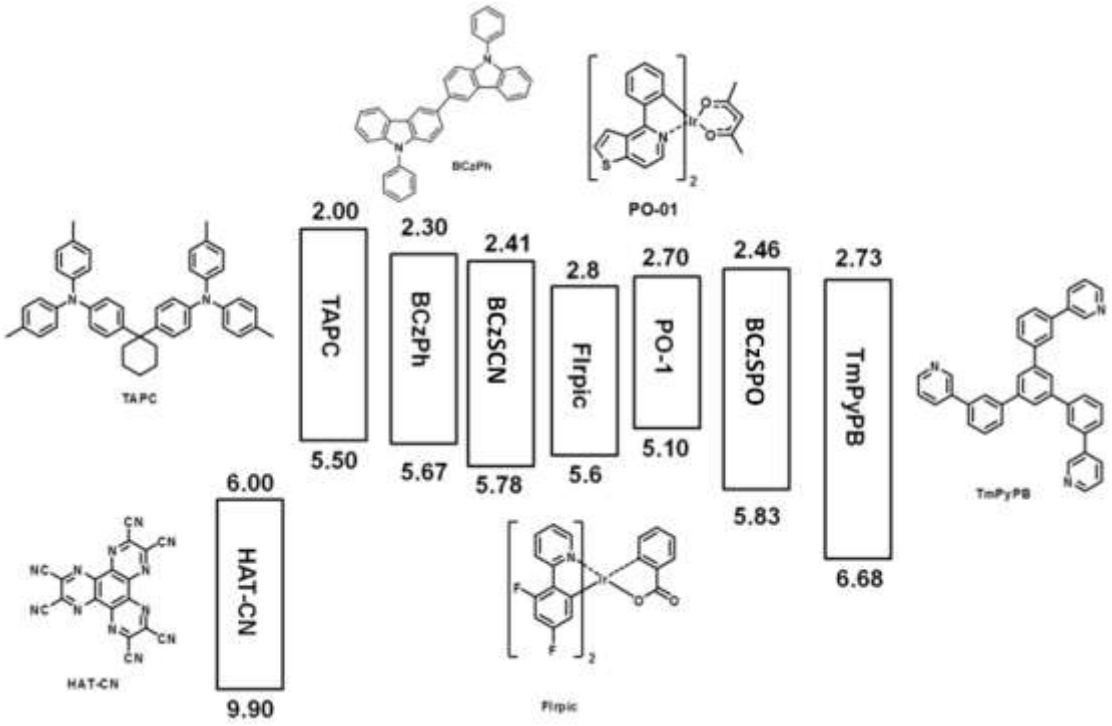

Figure S2. Energy levels of the materials employed in the devices.

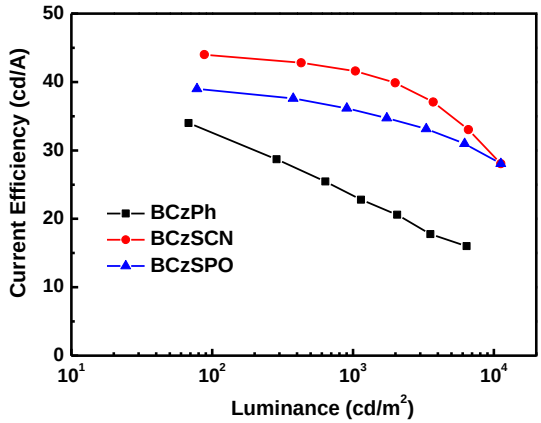

Figure S3. Power efficiency versus luminescence curves of devices BA-BC.

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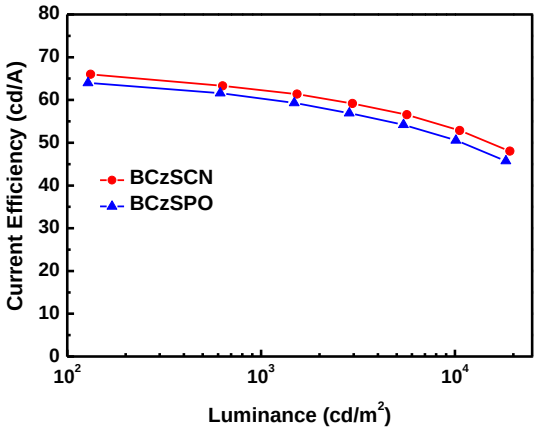
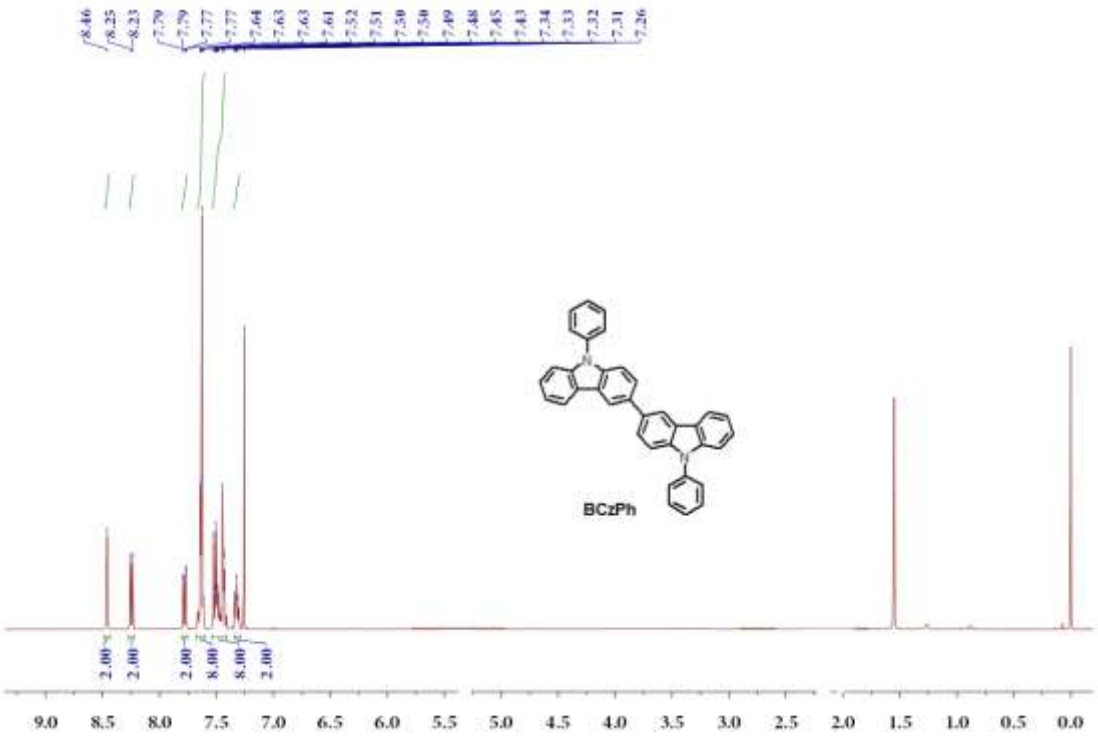


Figure S4. Power efficiency versus luminescence curves of devices WA and WB.



400 MHz ^{1}H NMR spectrum of BCzPh in $CDCl_3$

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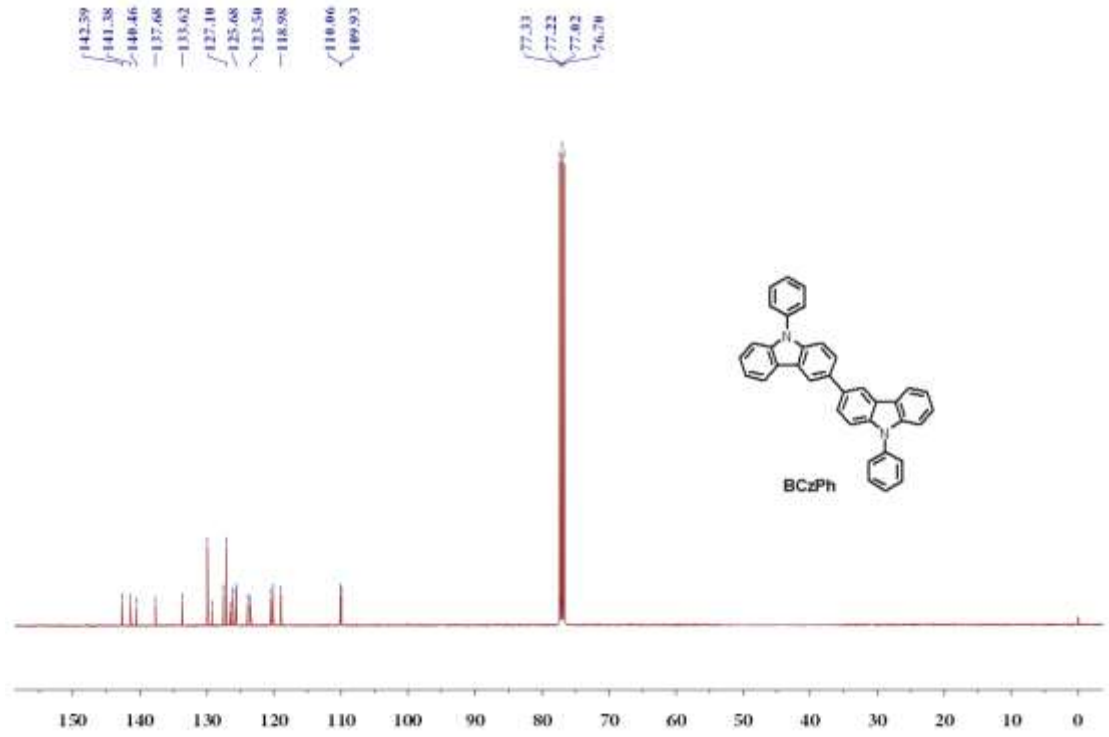
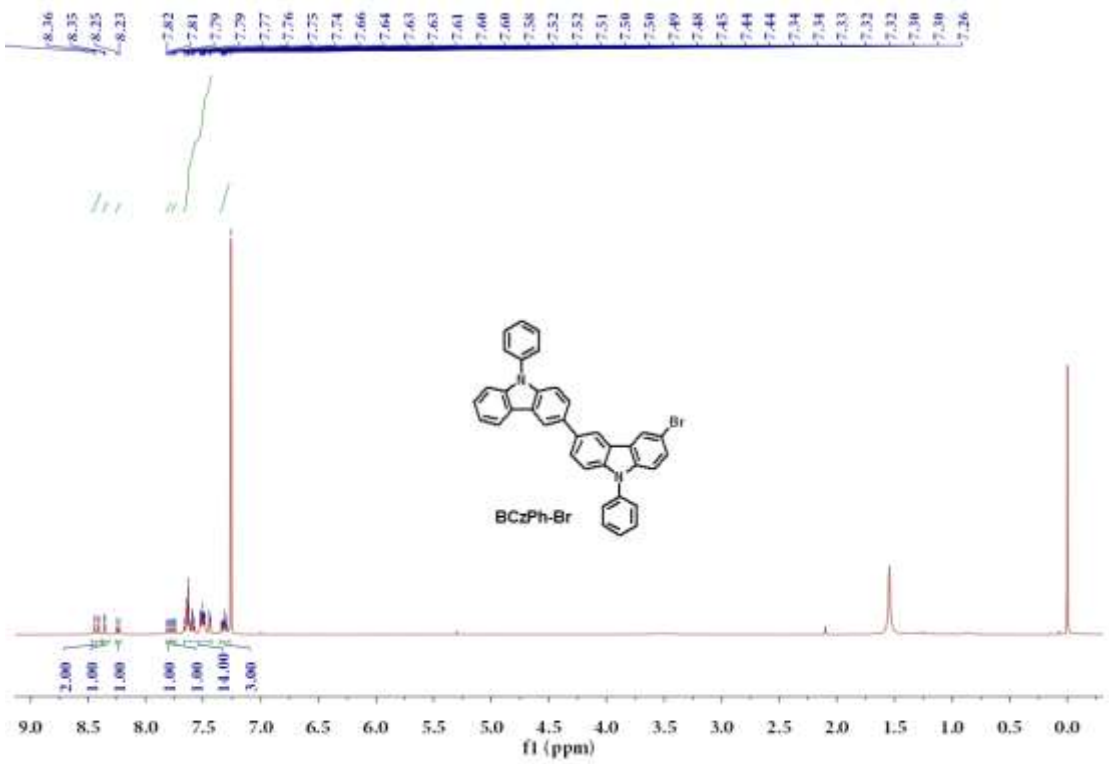


100 MHz ^{13}C NMR spectrum of BCzPh in $CDCl_3$



400 MHz ^{1}H NMR spectrum of BCzPh-Br in $CDCl_3$

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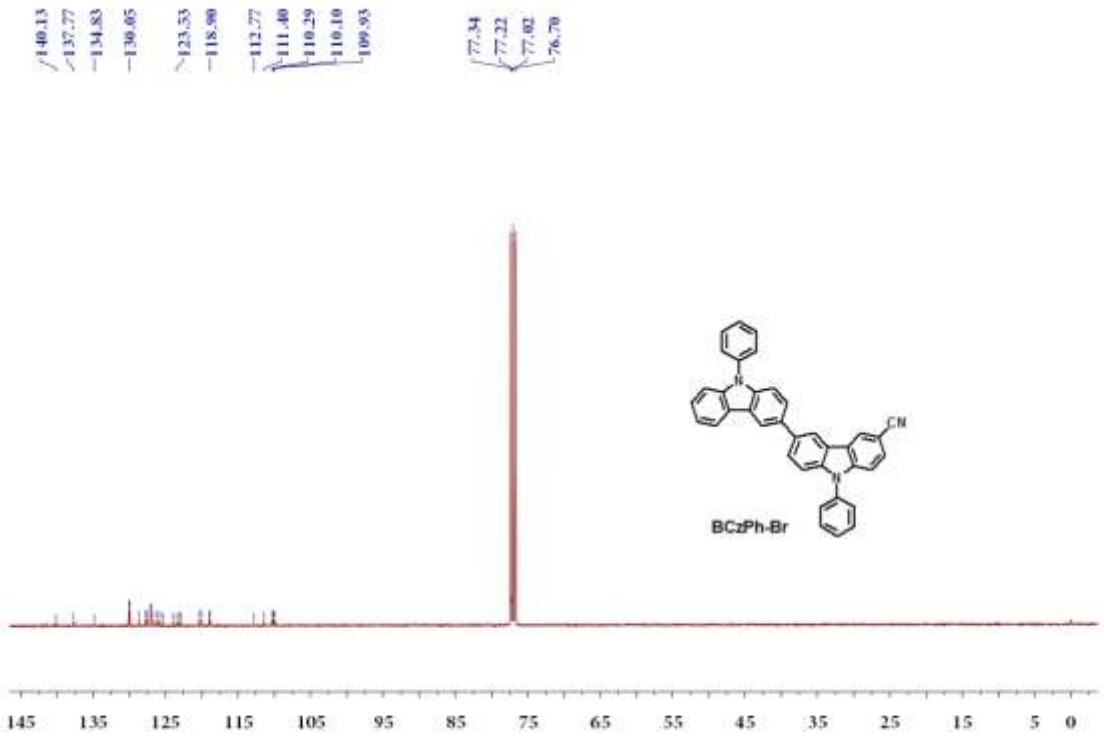
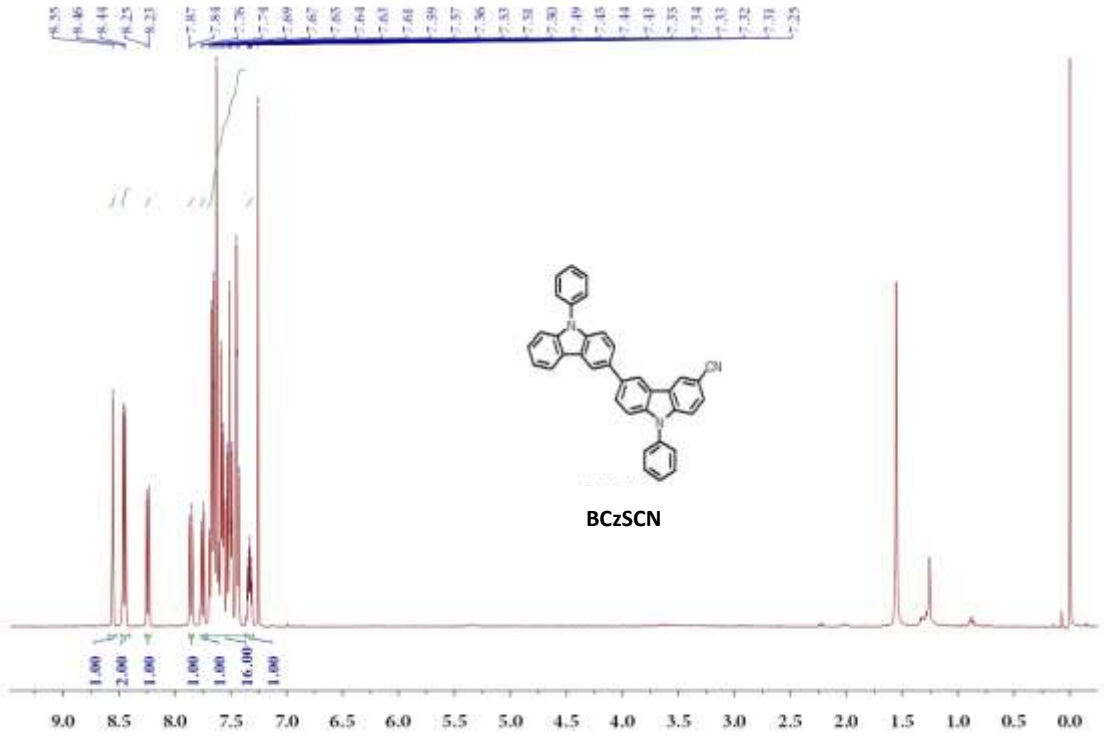


100 MHz ^{13}C NMR spectrum of BCzPh-Br in $CDCl_3$



400 MHz ^{1}H NMR spectrum of BCzSCN in $CDCl_3$

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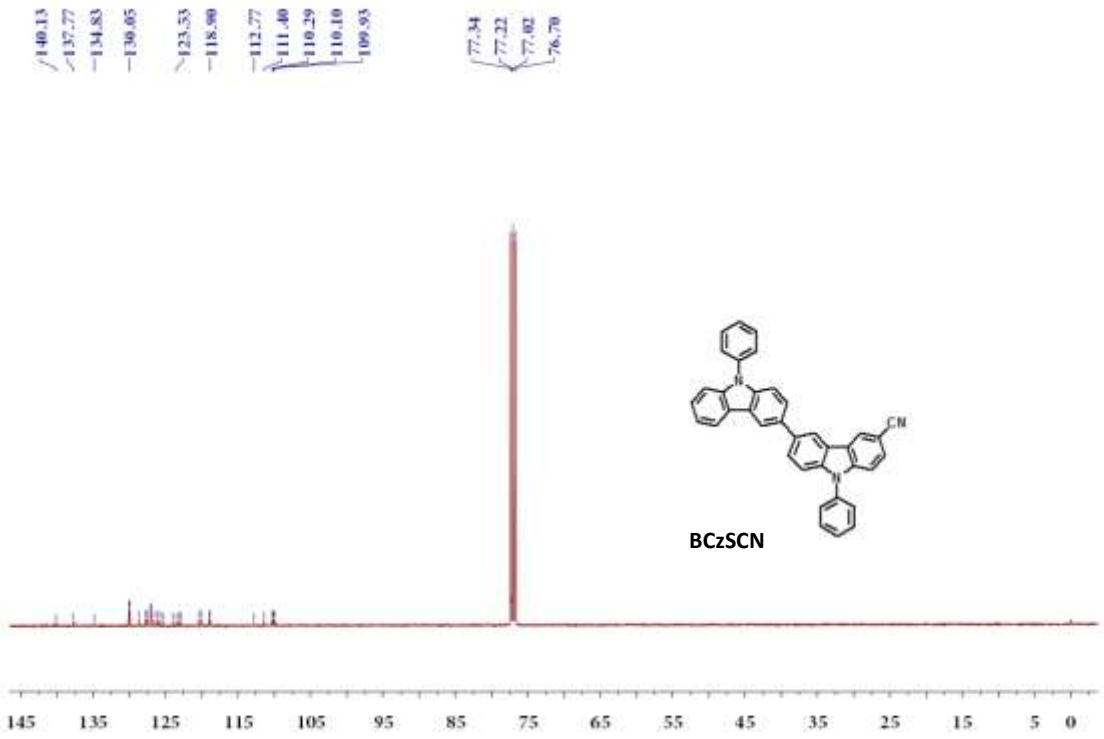
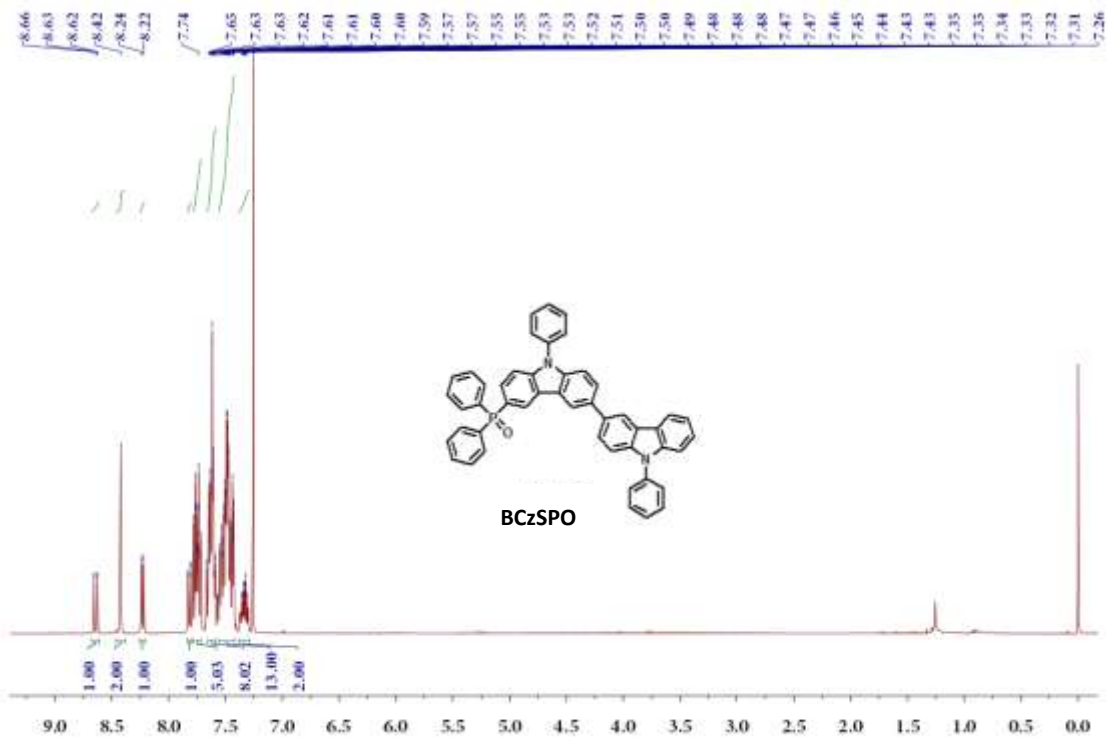


100 MHz ^{13}C NMR spectrum of BCzSCN in $CDCl_3$



400 MHz ^{1}H NMR spectrum of BCzSPO in CDCl3

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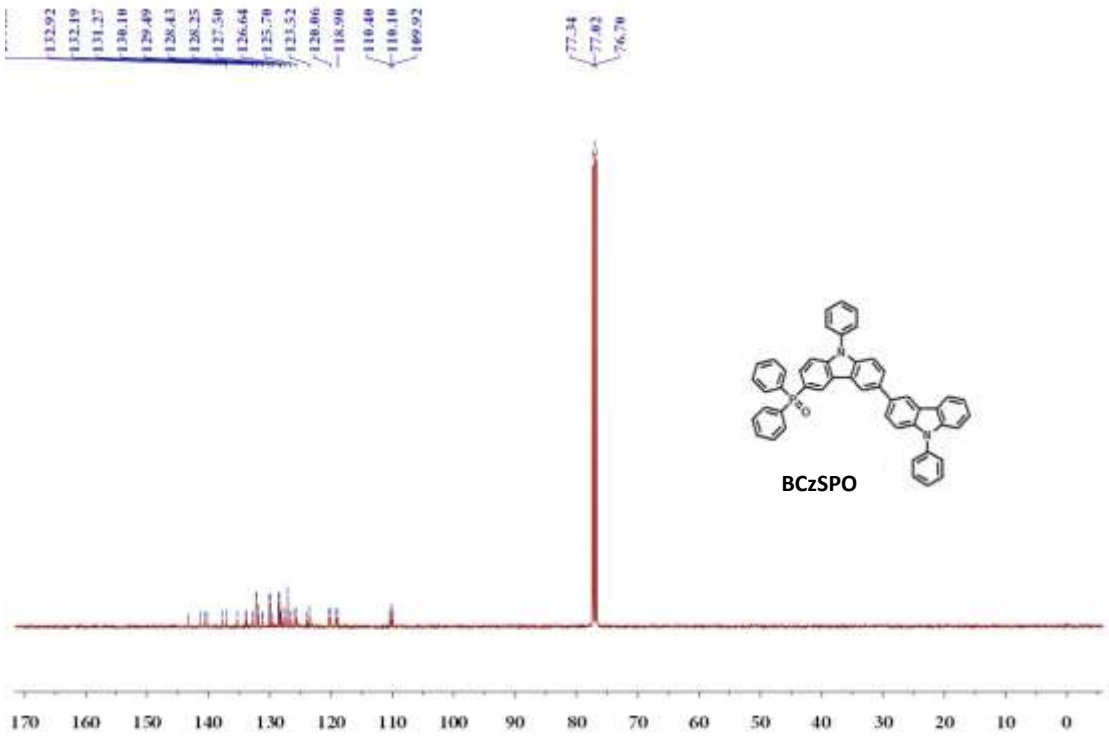

100 MHz ^{13}C NMR spectrum of BCzSPO in CDCl3

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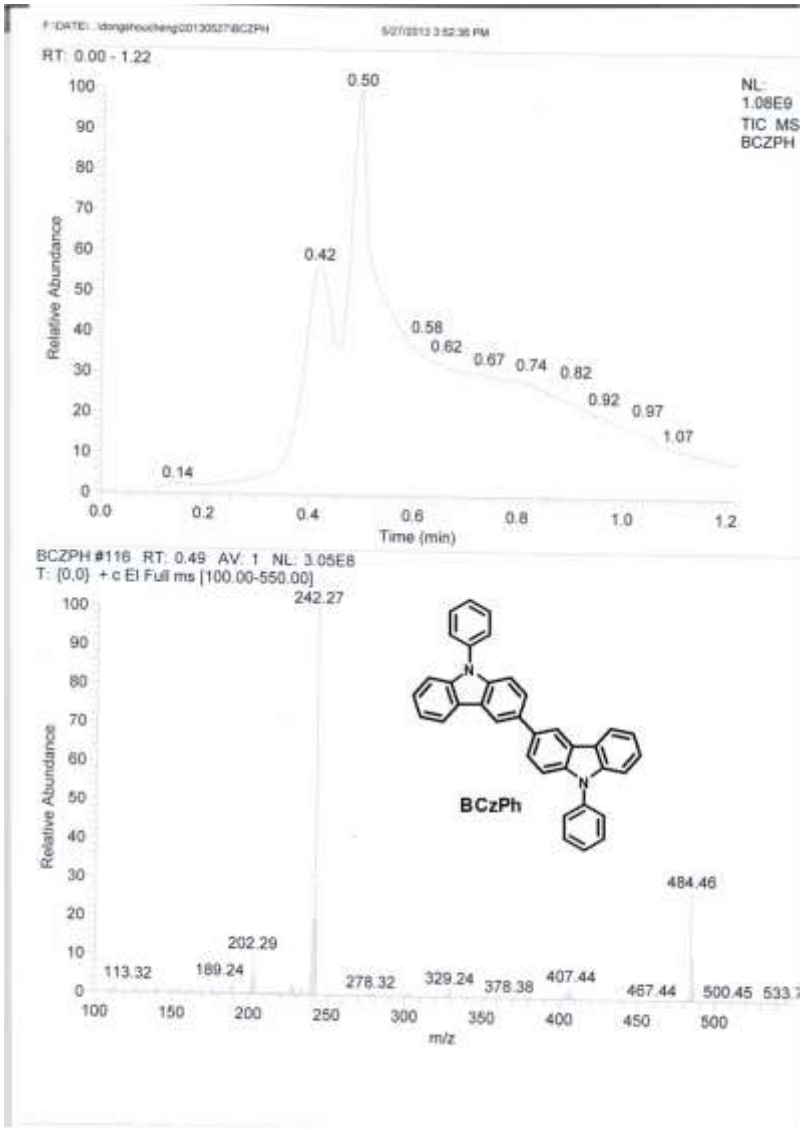

MS spectrum of BCzPh

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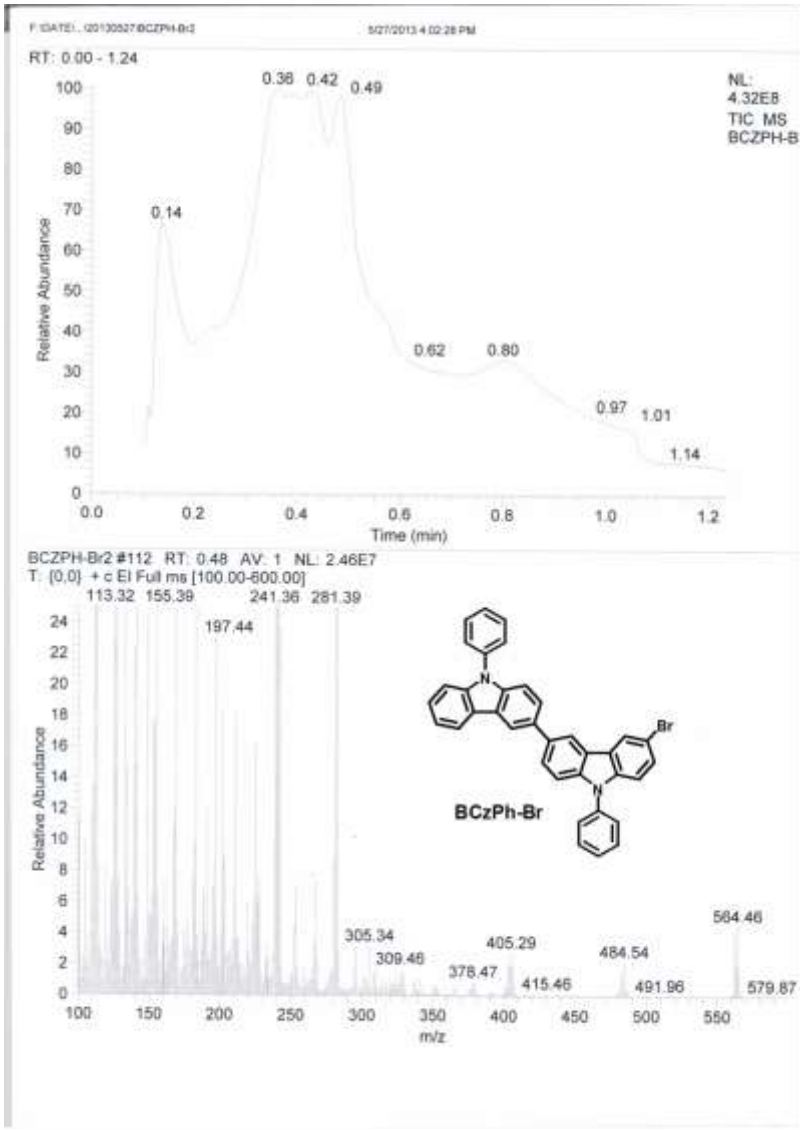

MS spectrum of BCzPh-Br

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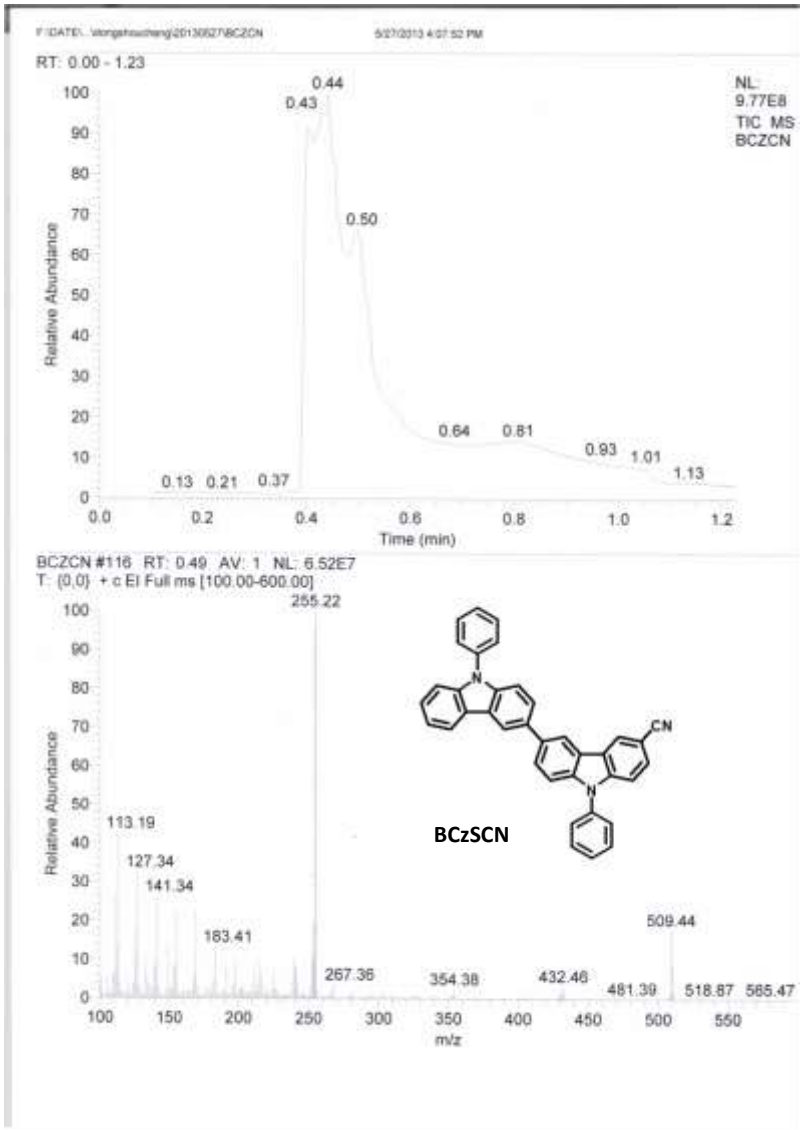

MS spectrum of BCzSCN

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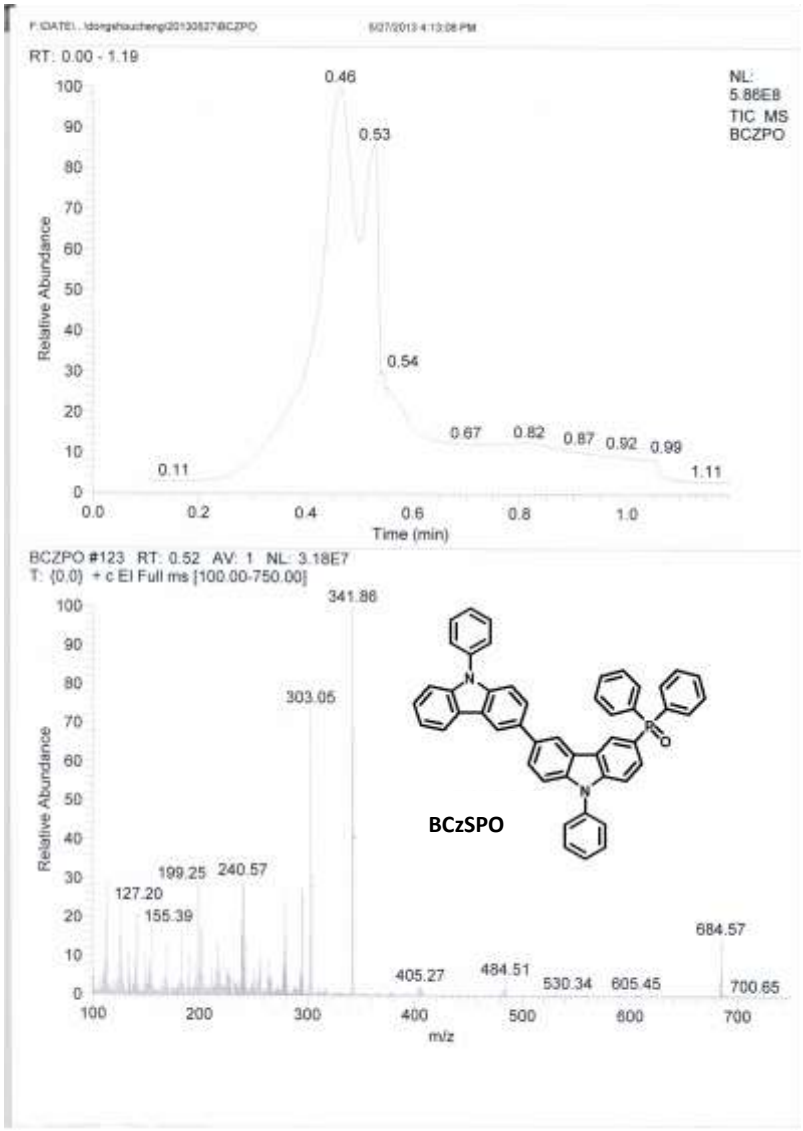

MS spectrum of BCzSPO