Electronic Supplementary Material (ESI) for Soft Matter.

Tuning the Through-Space Charge Transfer Emission in Triarylborane and Triarylamine Functionalized Dipeptide Organogels

Supporting Information

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Table of Contents

S1. Gelation Properties

Table S1. Results of the gelation studies with **B1** and **N1** in alphatic and aromatic solvents. [a] (All compounds were heated to completely dissolve and then cooled to room temperature.)

Solvent	Status	
	N1 (MGC)[b]	**B1** (MGC)[b]
Benzene	G (20%)	S
Toluene	G (20%)	S
o-xylene	G (20%)	S
m-xylene	G (20%)	S
p-xylene	G (20%)	S
Mesitylene	G (20%)	S
Trichloromethane	G (20%)	S
Ether	G (20%)	I
acetone	G (20%)	S

[a] G : gel; S : solution; I : insoluble; [b] MGC : minimum gelation concentration

Table S2. Results of the gelation studies with **B2** and **N2** in alphatic and aromatic solvents.[a] (All compounds were heated to completely dissolve and then cooled to room temperature.

Solvent	Status	
	N2 (MGC)[b]	**B2** (MGC)[b]
Trichloromethane	S	S
Ether	I	I
Acetone	S	S
Benzene	G (1.5 %)	S
Toluene	G (1.5 %)	S
o-xylene	G (1.5 %)	G (1.5 %)
m-xylene	G (1.0 %)	G (2.0 %)
p-xylene	G (1.0 %)	G (1.0 %)
Mesitylene	G (1.0 %)	G (0.5 %)

[a] G : gel; S : solution; I : insoluble; [b] MGC : minimum gelation concentration

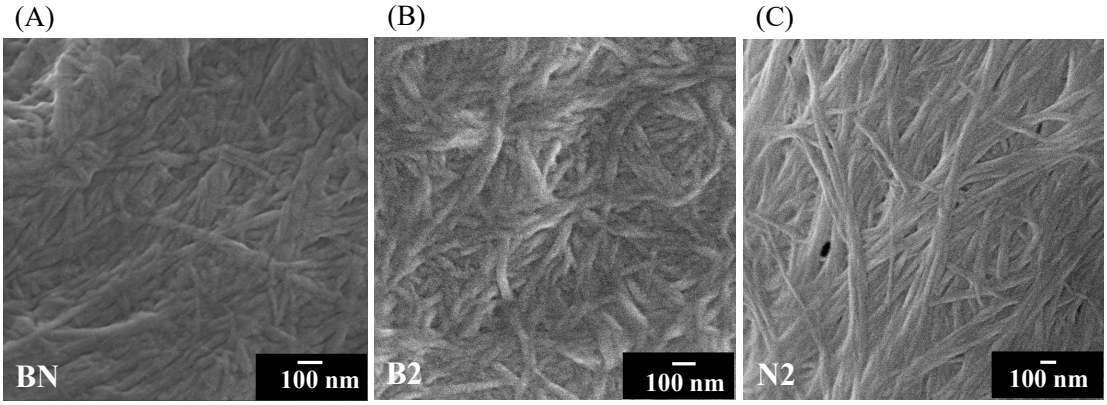

Figure S1. SEM images of the single gels in mesitylene (wt.% = 2%): (A) **BN**, (B) **B2** and (C) **N2**.

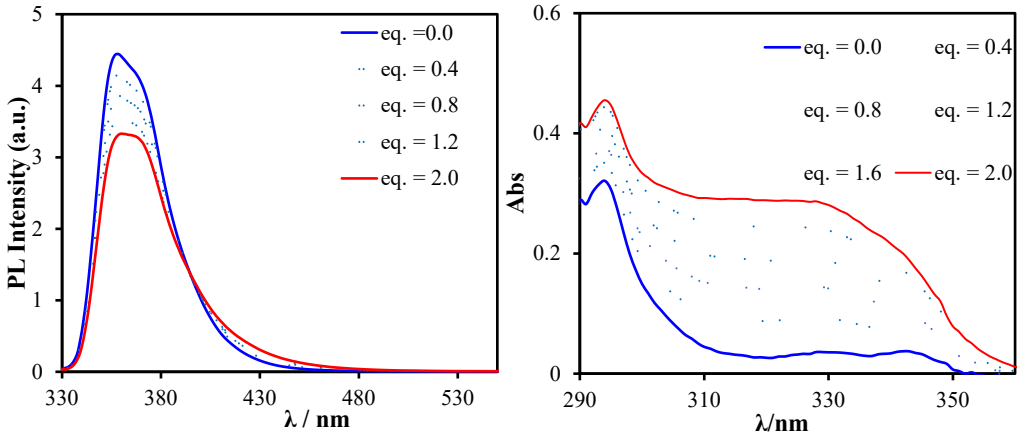

Figure S2. Emission (left) and Absorption (right) spectral change of **N2** with the addition of **B2** in mesitylene (1.0 x 10^{-5} M).

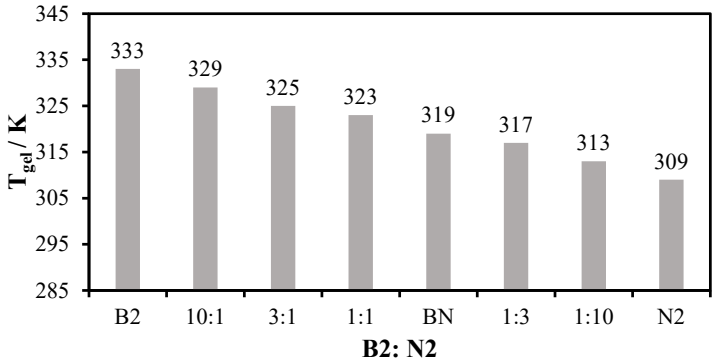

Figure S3. Sol-gel transition temperature (T_{gel}) of binary gels with different **B2** to **N2** ratios in mesitylene (wt.% = 2%) (Single component $\mathbf{B2}_{(gel)}$, $\mathbf{N2}_{(gel)}$ and $\mathbf{BN}_{(gel)}$ are included as controls).

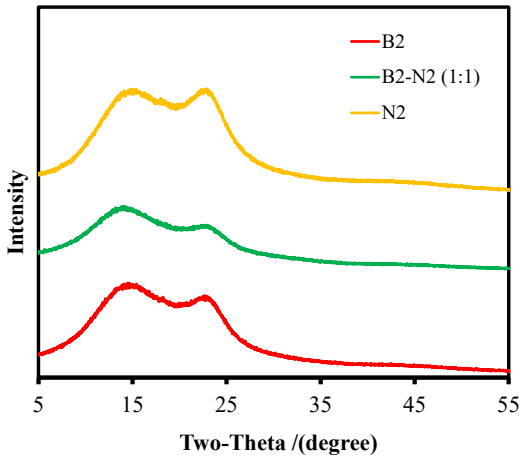

Figure S4. XRD patterns of xerogels in the region of 1-55°.

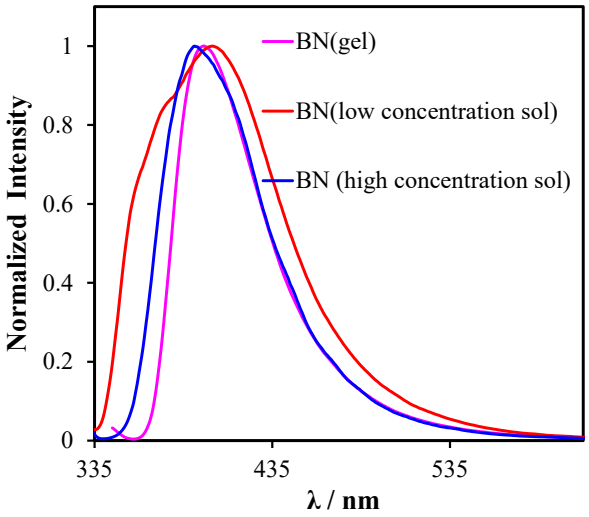

Figure S5. Emission spectra of **BN** in mesitylene at different concentrations (pink: gel state; red: C = 10^{-5} M; blue: c = 10^{-3} M).

S2. NMR and HRMS Spectra

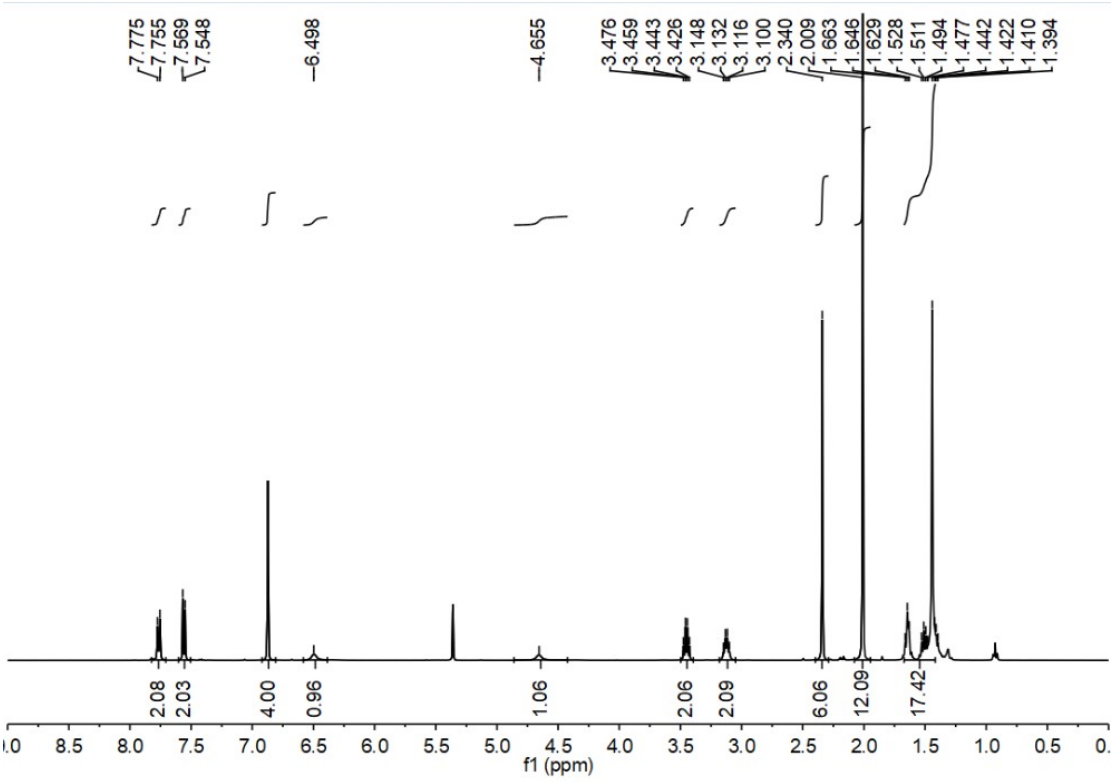

Figure S6. ^{1}H NMR (400 MHz, CD_2Cl_2) spectrum of **1-2**.

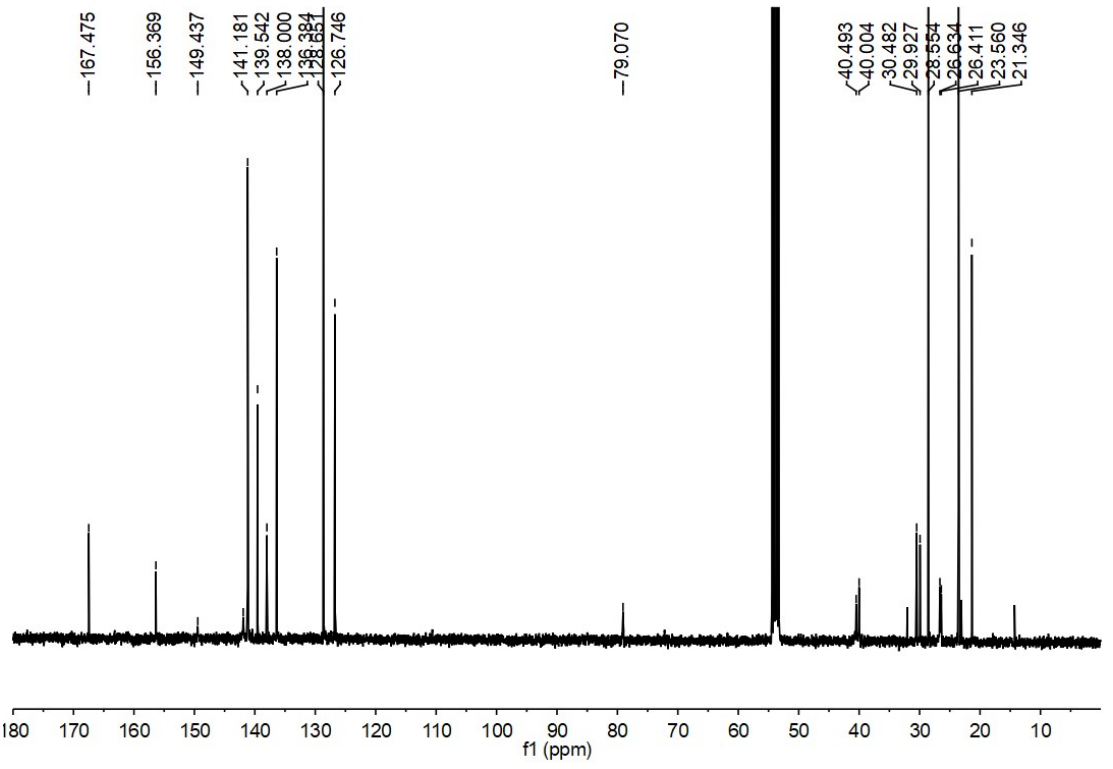

Figure S7. ^{13}C NMR (101 MHz, CD_2Cl_2) spectrum of **1-2**.

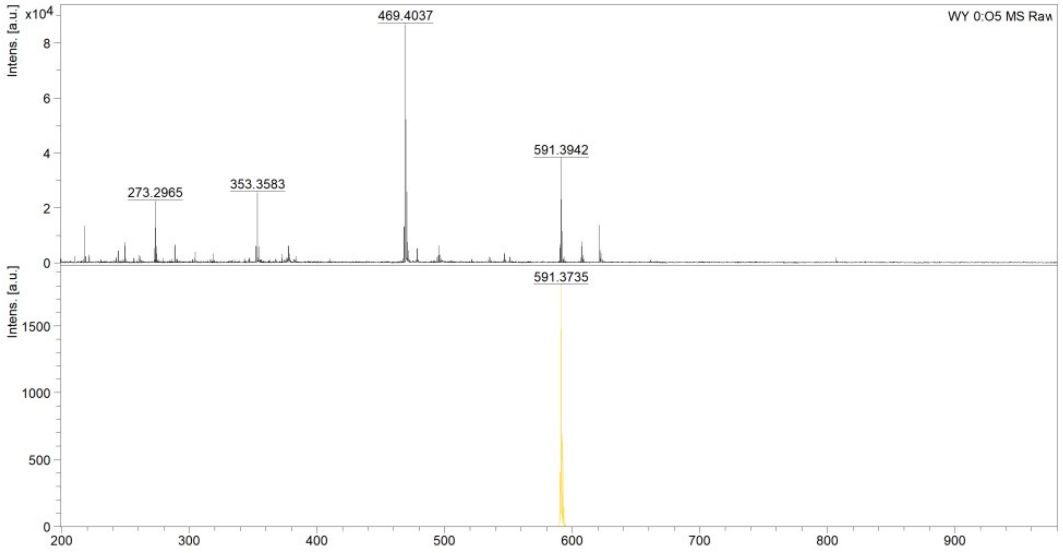

Figure S8. HRMS spectrum for **1-2**.

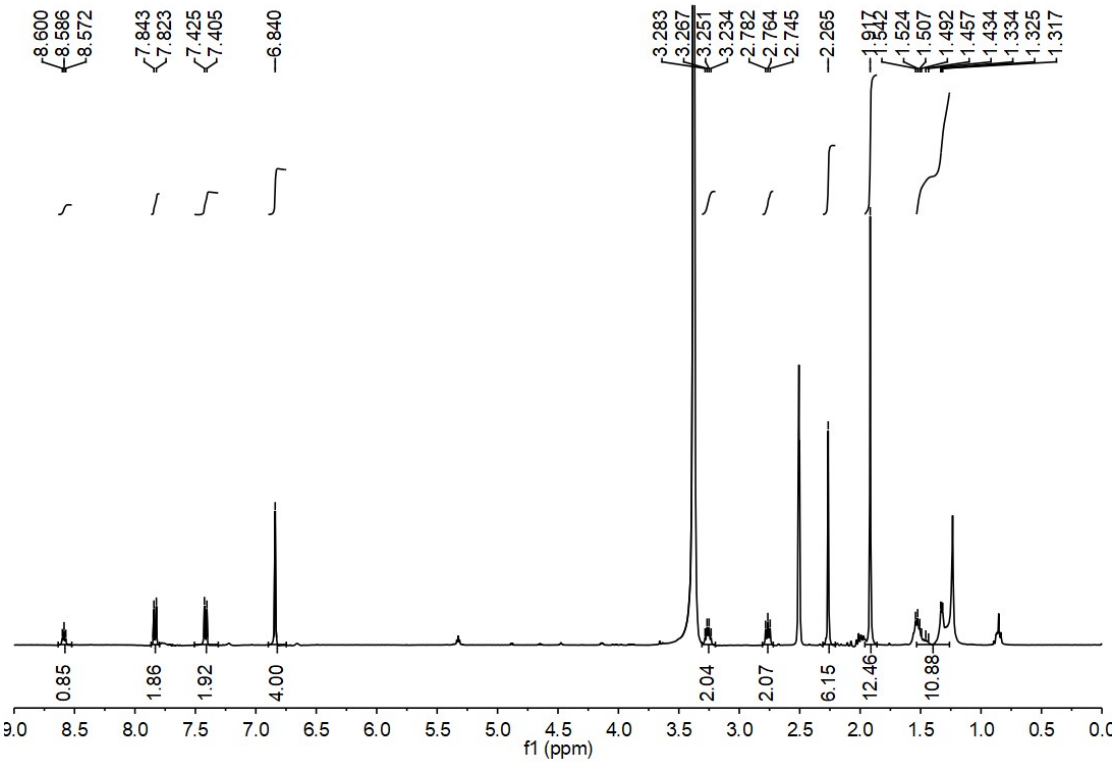

Figure S9. ^{1}H NMR (400 MHz, DMSO) spectrum of **C6B**.

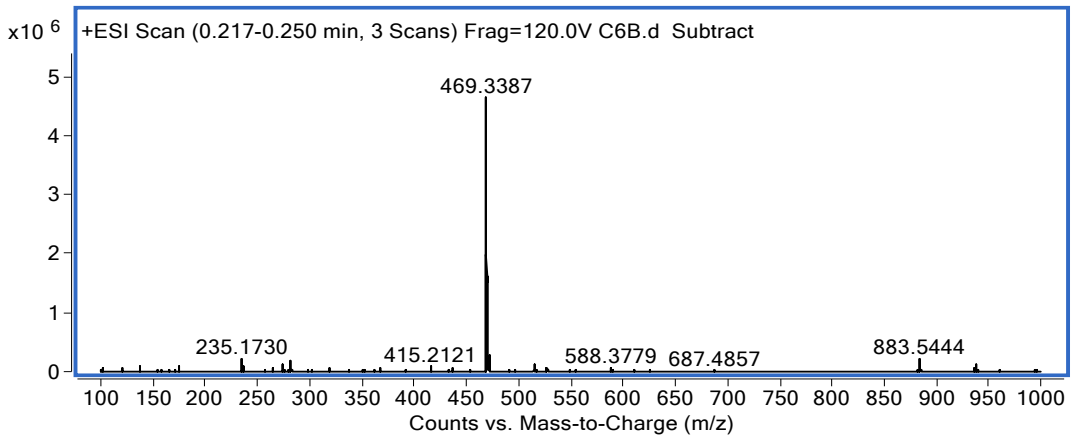

Figure S10. HRMS spectrum for **C6B**.

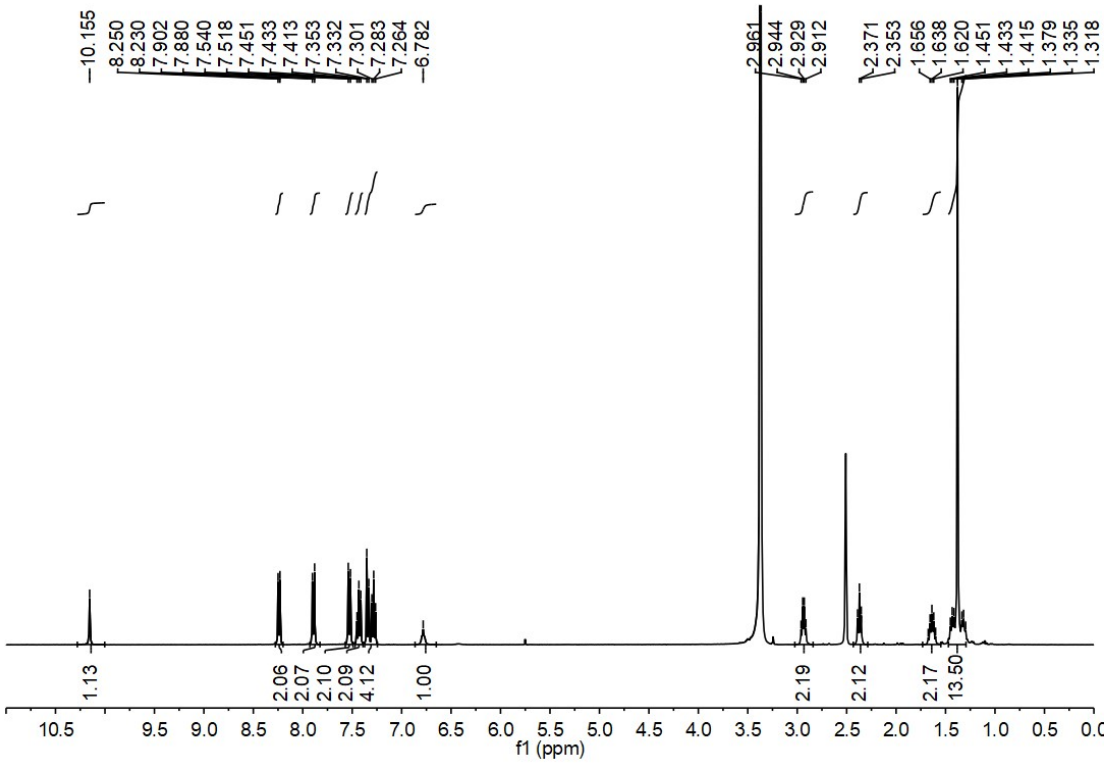

Figure S11. ^{1}H NMR (400 MHz, DMSO) spectrum of **2-2**.

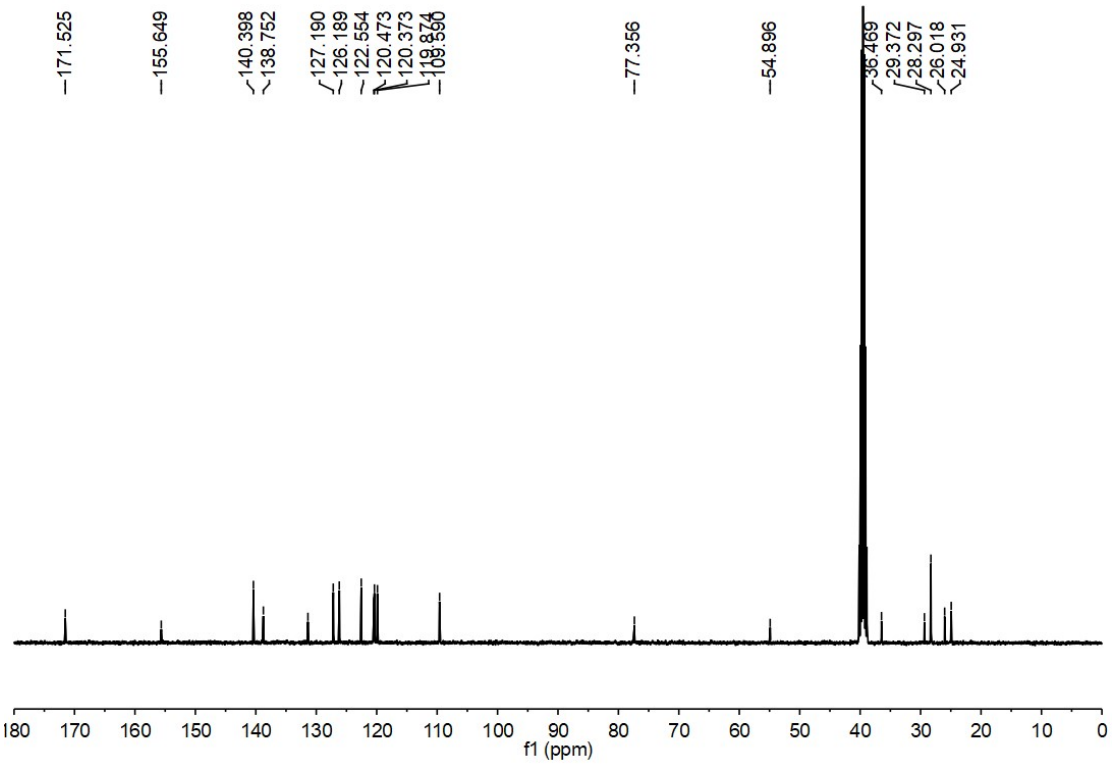

Figure S12. ^{13}C NMR (101 MHz, DMSO) spectrum of **2-2**.

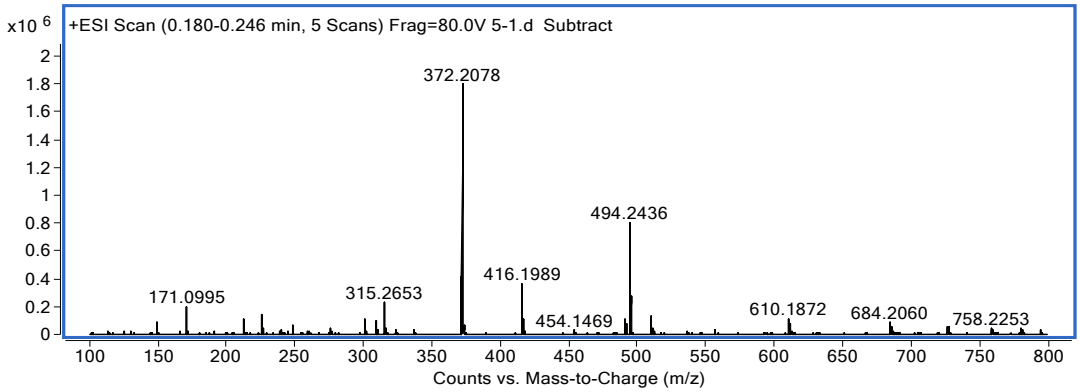

Figure S13. HRMS spectrum for **2-2**.

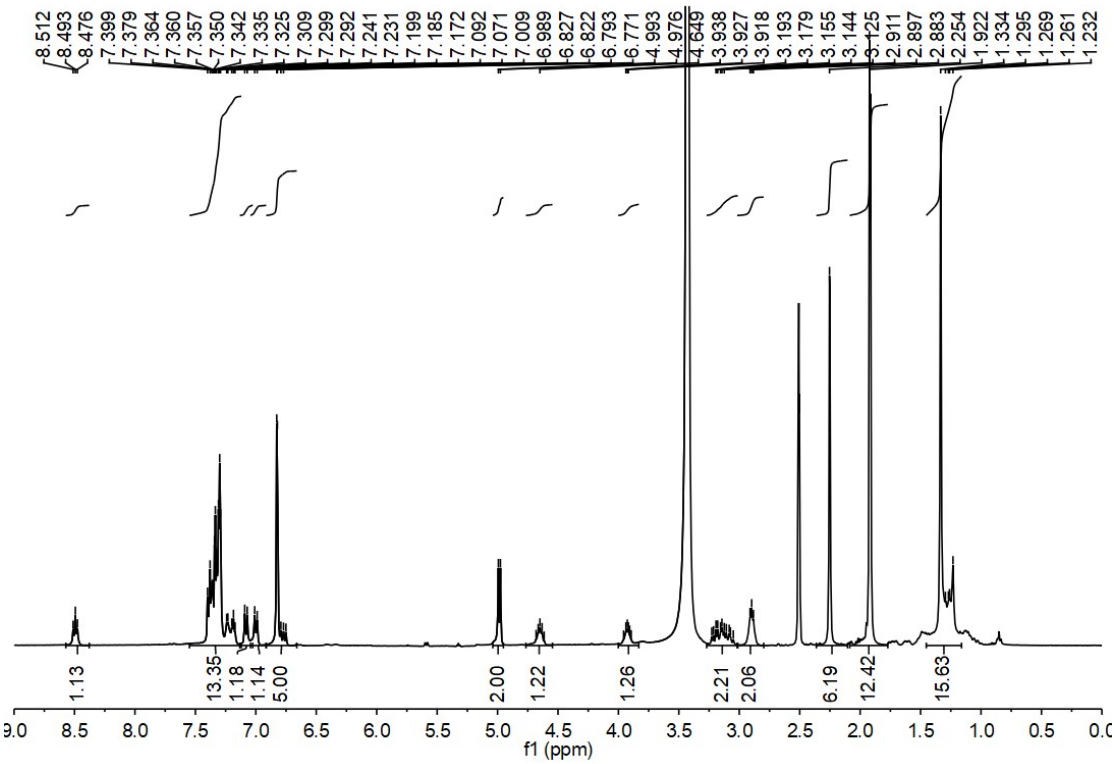

Figure S14. ^{1}H NMR (400 MHz, DMSO) spectrum of **B1**.

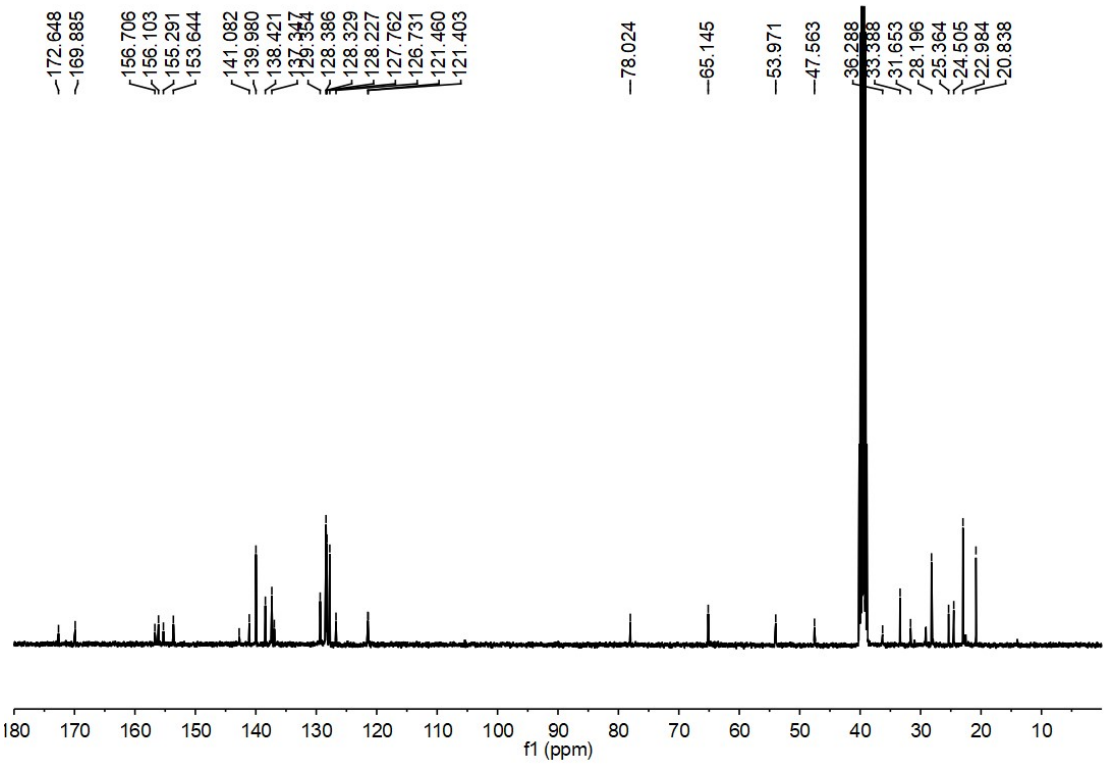

Figure S15. ^{13}C NMR (101 MHz, DMSO) spectrum of **B1**.

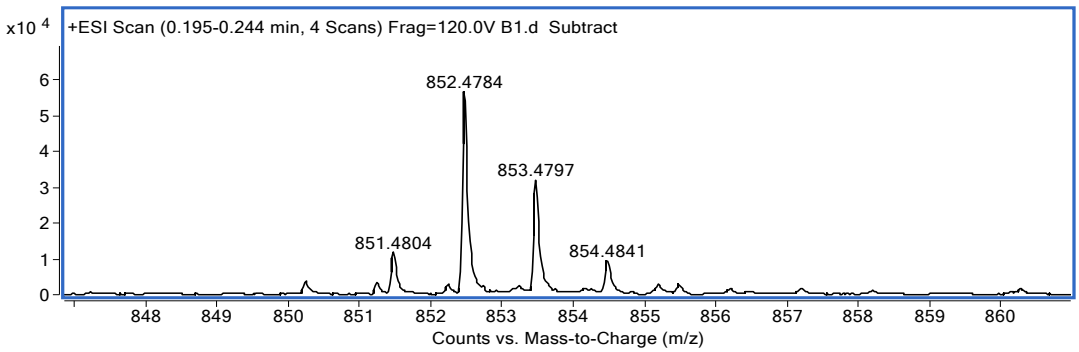

Figure S16. HRMS spectrum for **B1**.

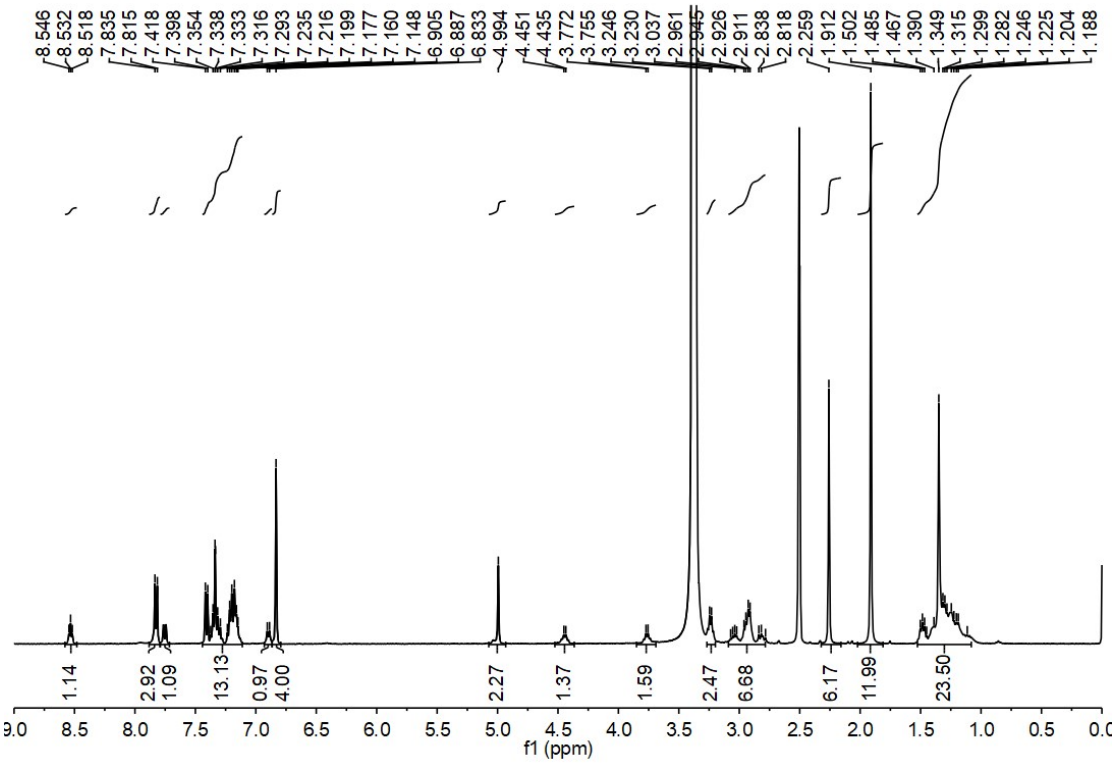

Figure S17. ^{1}H NMR (400 MHz, DMSO) spectrum of **B2**.

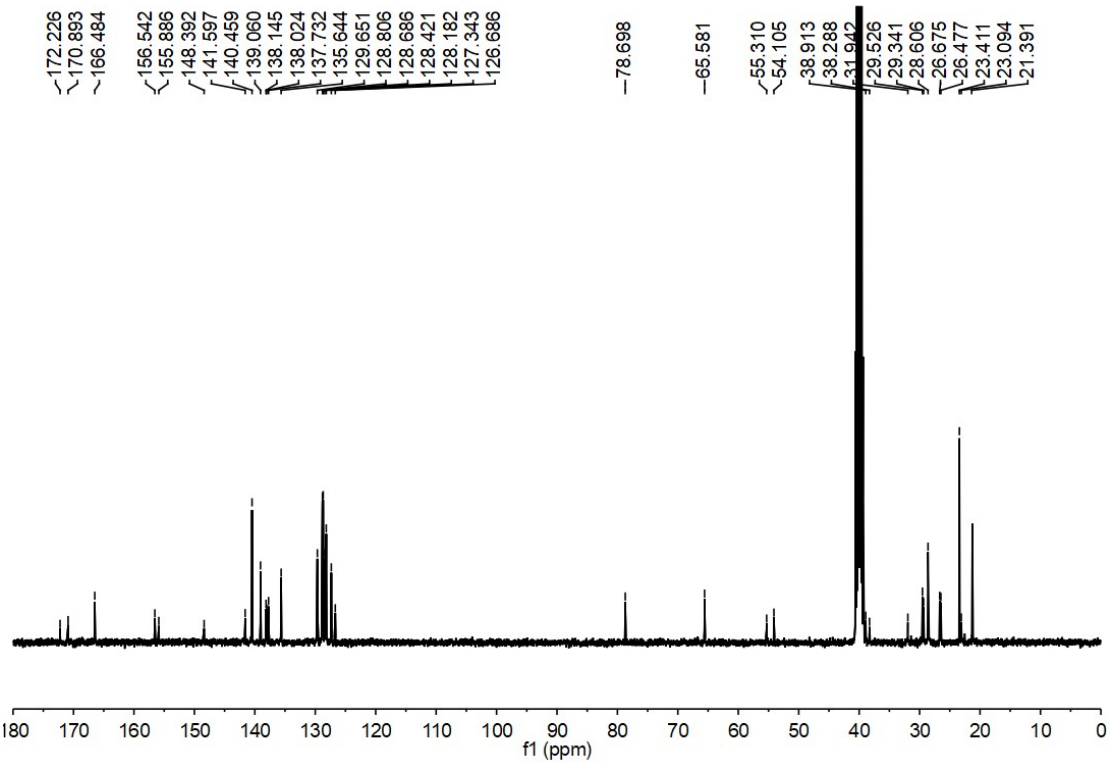

Figure S18. ^{13}C NMR (101 MHz, DMSO) spectrum of **B2**.

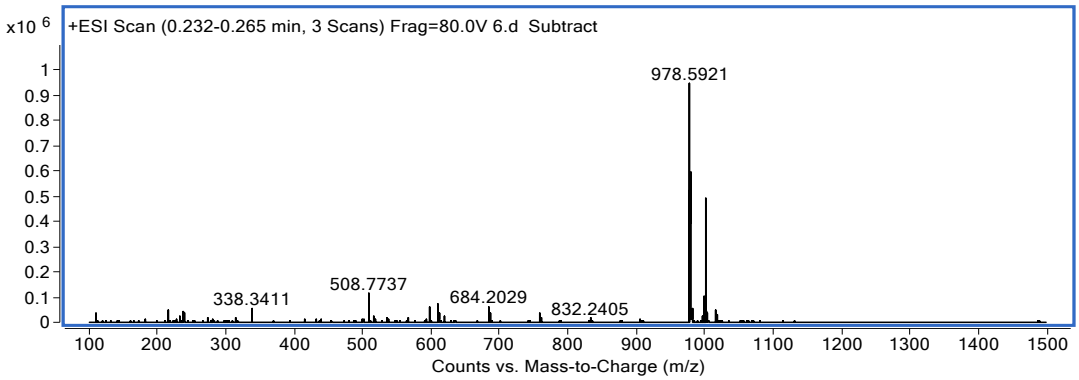

Figure S19. HRMS spectrum of **B2**.

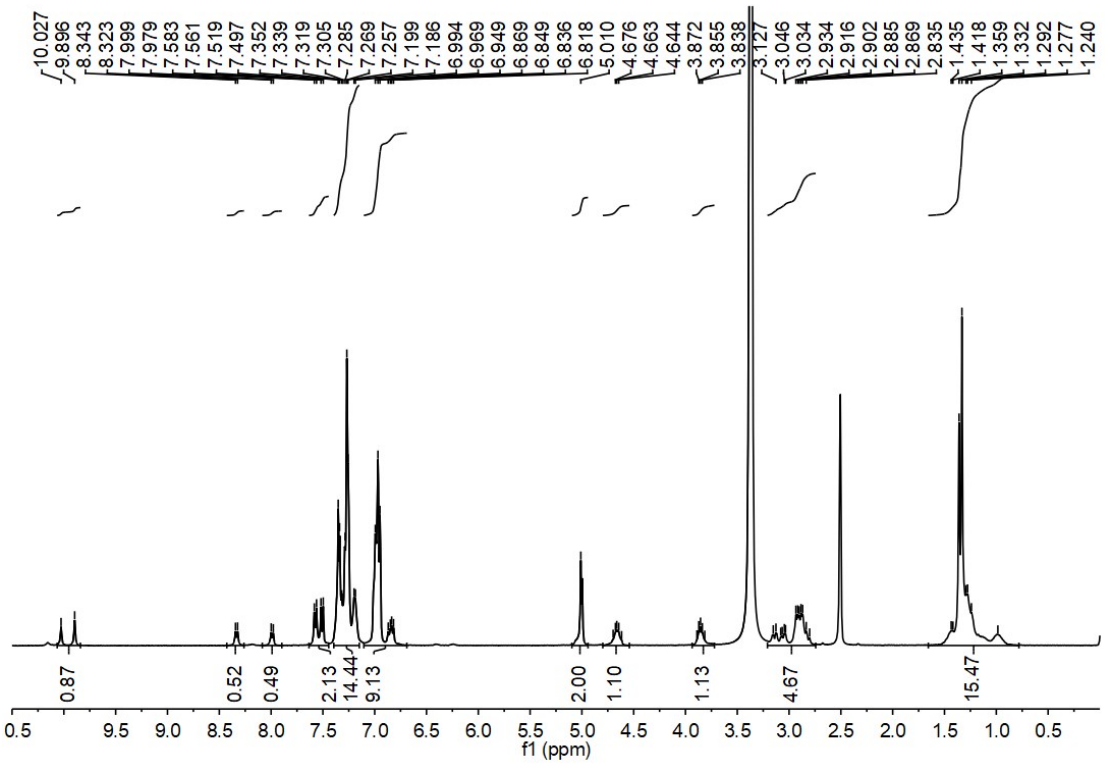

Figure S20. ^{1}H NMR (400 MHz, DMSO) spectrum of **N1**.

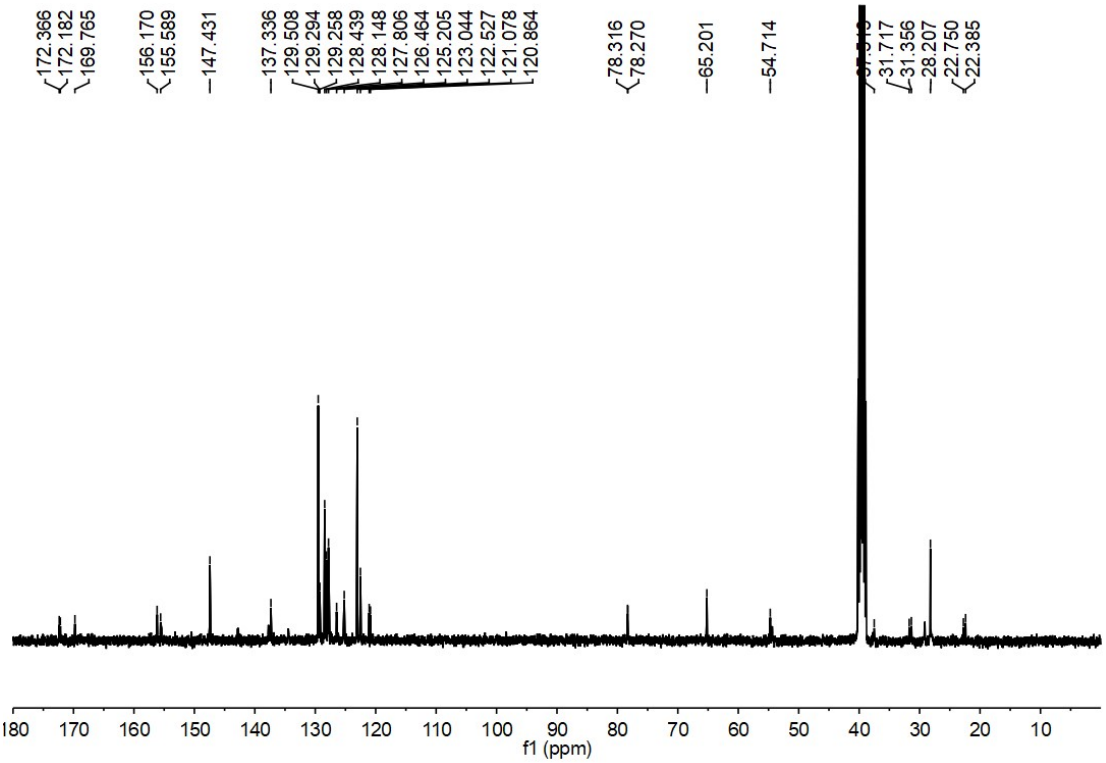

Figure S21. ^{13}C NMR (101 MHz, DMSO) spectrum of **N1**.

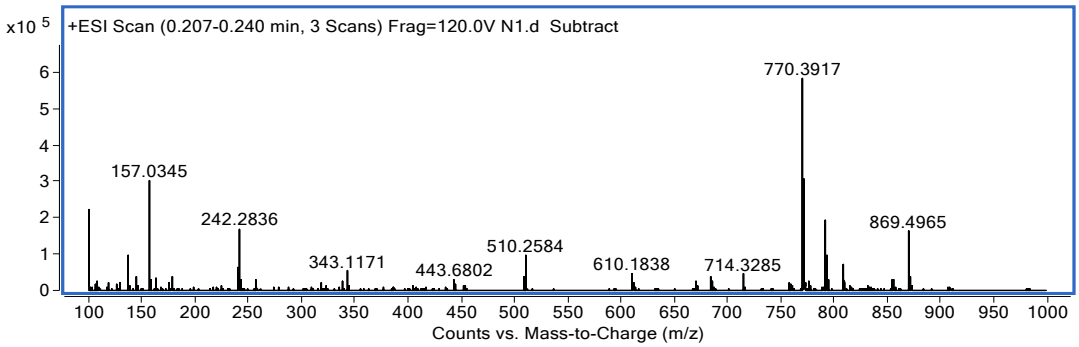

Figure S22. HRMS spectrum of **N1**.

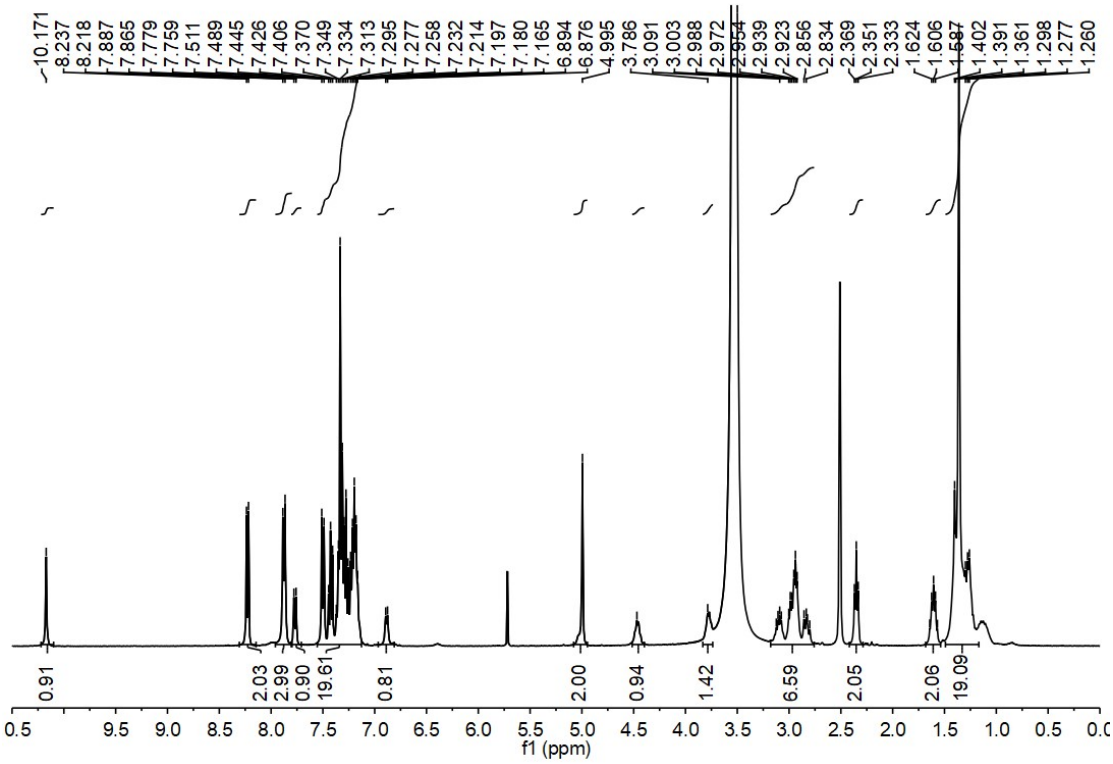

Figure S23. ^{1}H NMR (400 MHz, DMSO) spectrum of **N2**

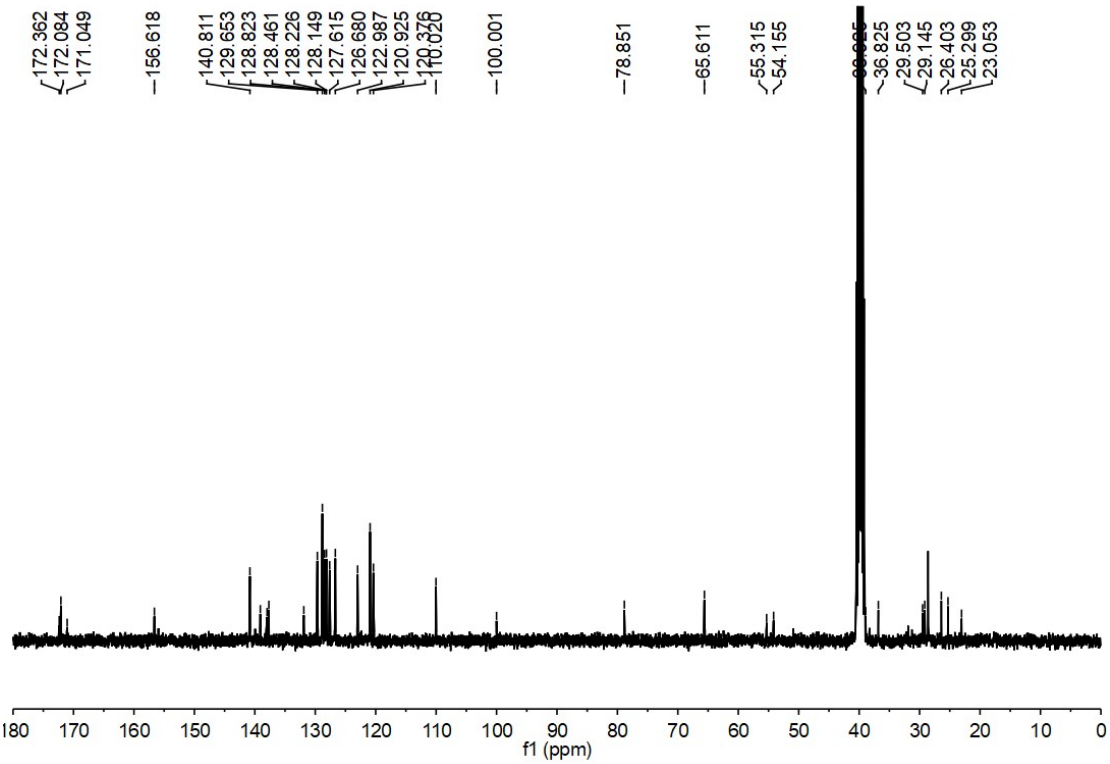

Figure S24. ^{13}C NMR (101 MHz, DMSO) spectrum of **N2**.

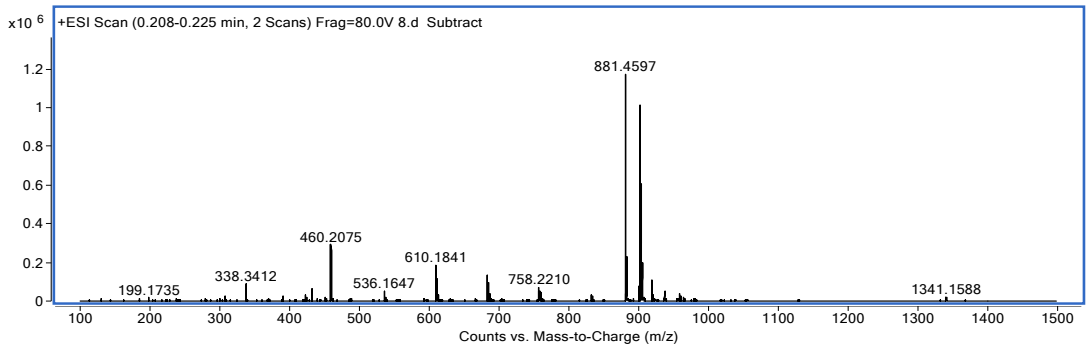

Figure S25. HRMS spectrum of **N2**.

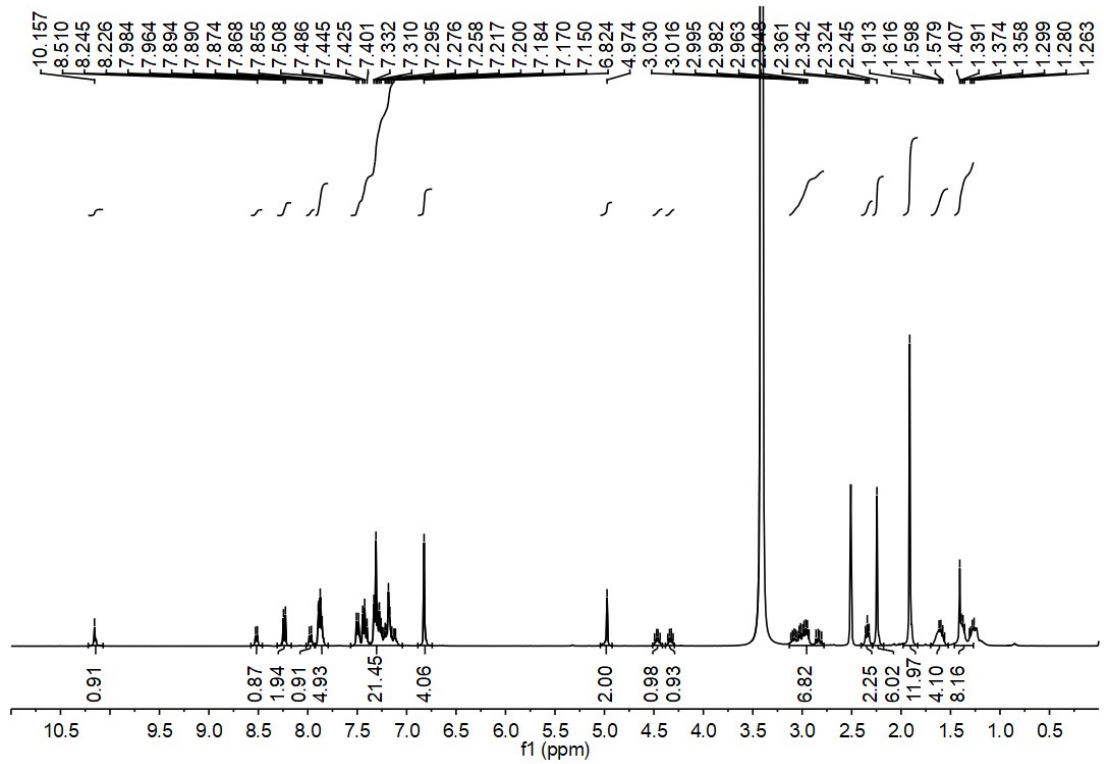

Figure S26. ^{1}H NMR (400 MHz, DMSO) spectrum of **BN**.

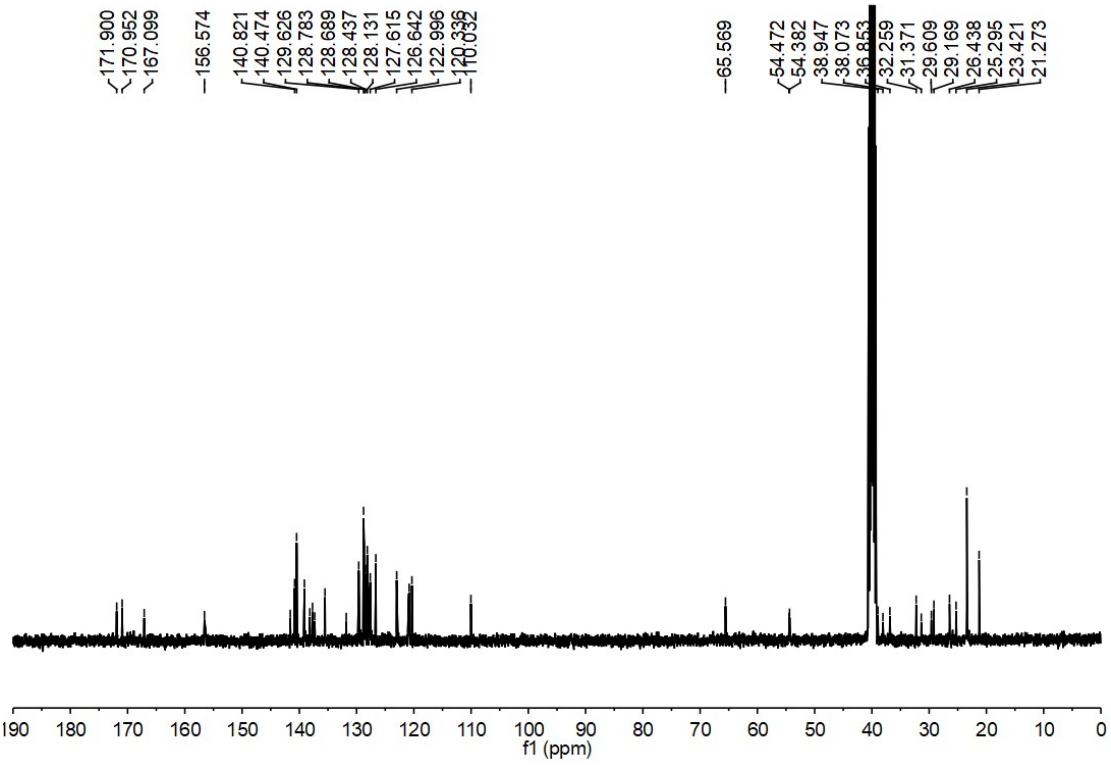

Figure S27. ^{13}C NMR (101 MHz, DMSO) spectrum of **BN**.

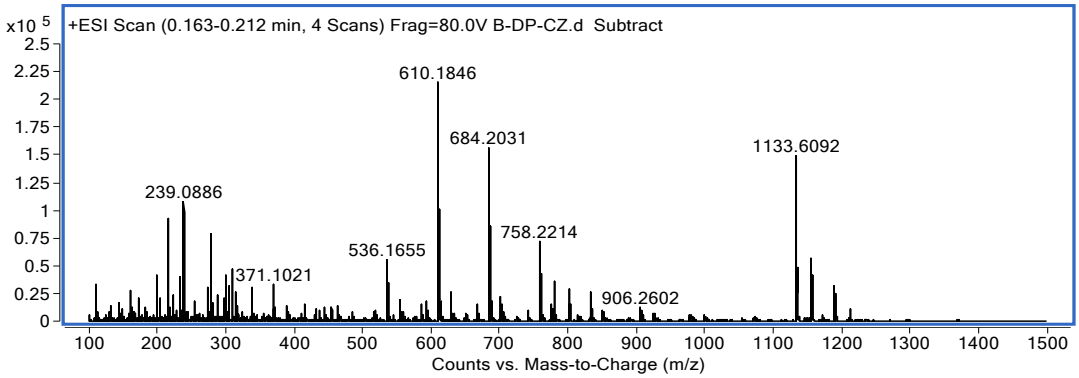

Figure S28. HRMS spectrum for **BN**.