

“Synthesis of Lewis adduct based Indenophenanthridine and their study of Tunable Optoelectronic properties and Amine sensor”

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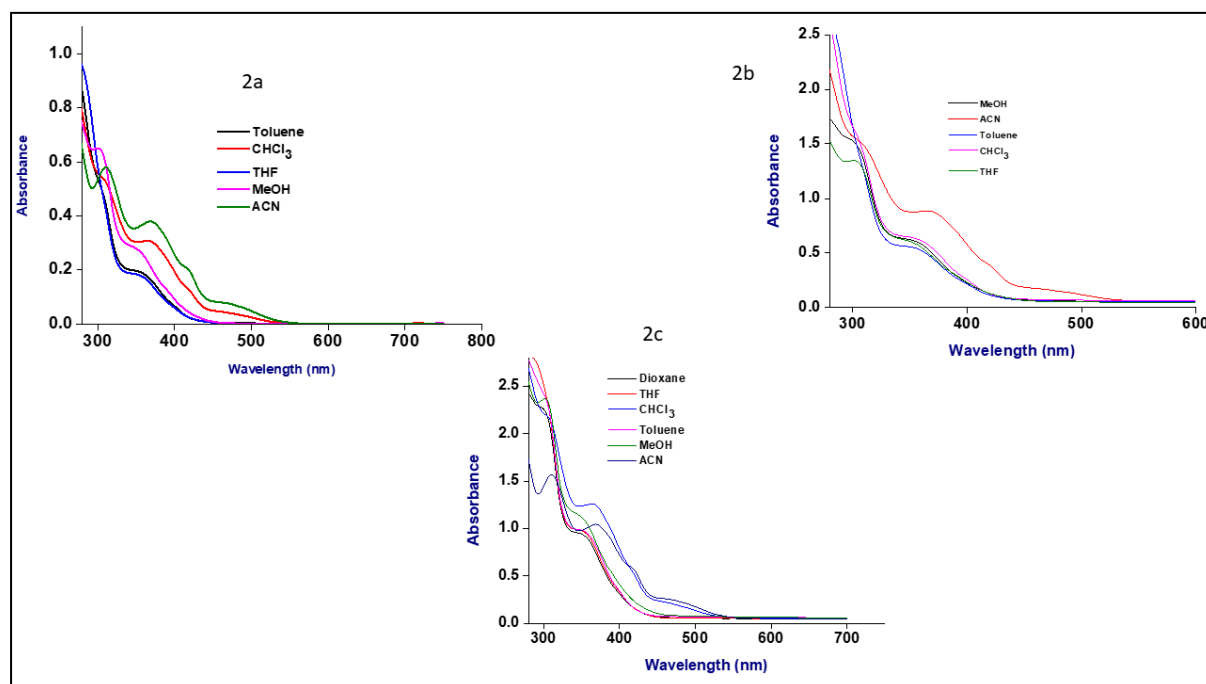


Figure S.I.1 : UV-Vis spectral changes for boron adducts 2a-2c 5×10^{-5} M in different solvents.

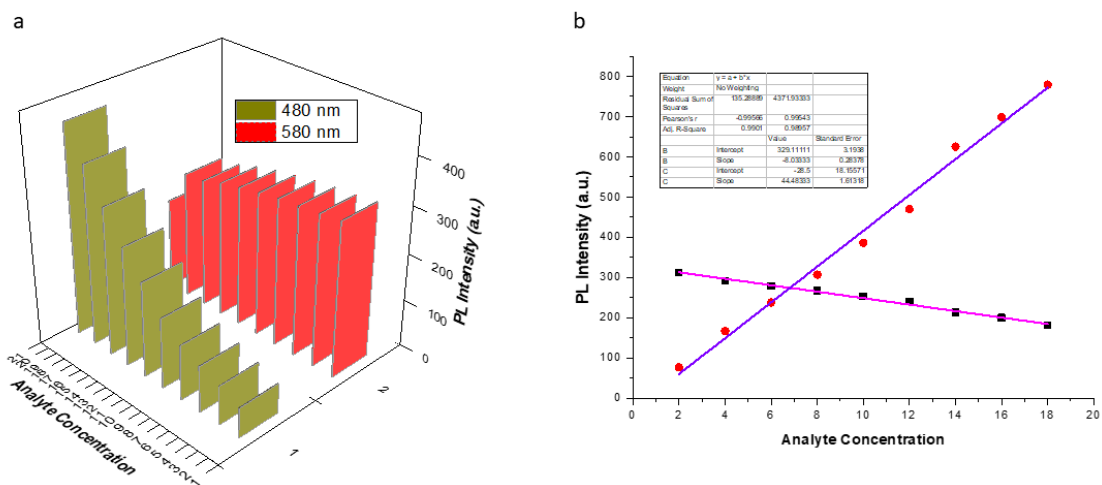


Figure S.I.2: (a) UV-Vis spectral changes for boron adducts 2a 5×10^{-5} M in different concentration of ammonia (0-100 μ L) (b) UV-Vis spectral changes for boron adducts 2a 5×10^{-5} M in different concentration of isopropylamine (0-100 μ L).

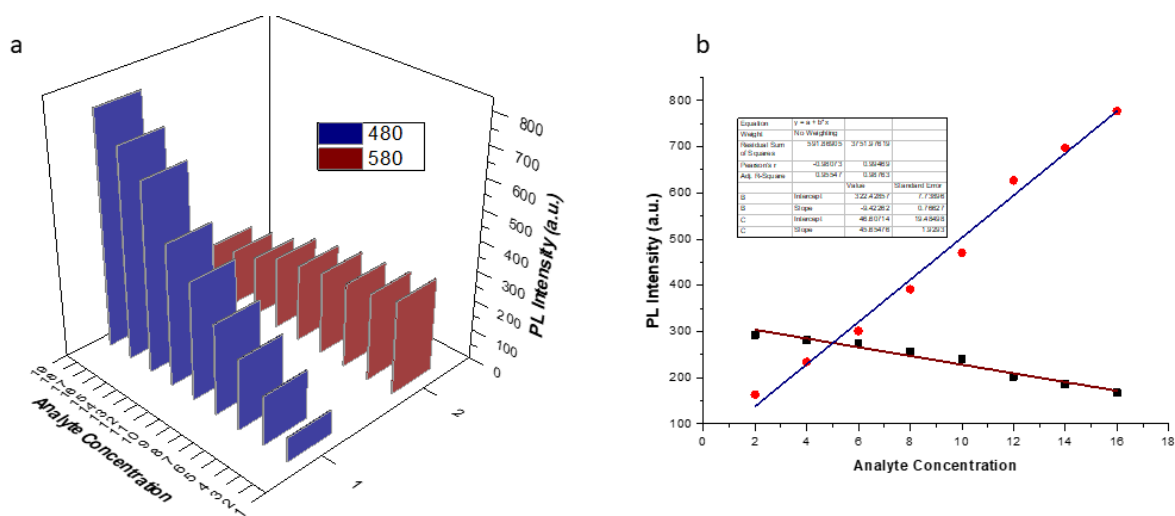


Figure S.I.3: (a) Emission responses of probe with different concentration of Ammonia in ACN (0-100 μ L) (b) Emission responses of probe with different concentration of Ammonia in ACN (0-100 μ L).

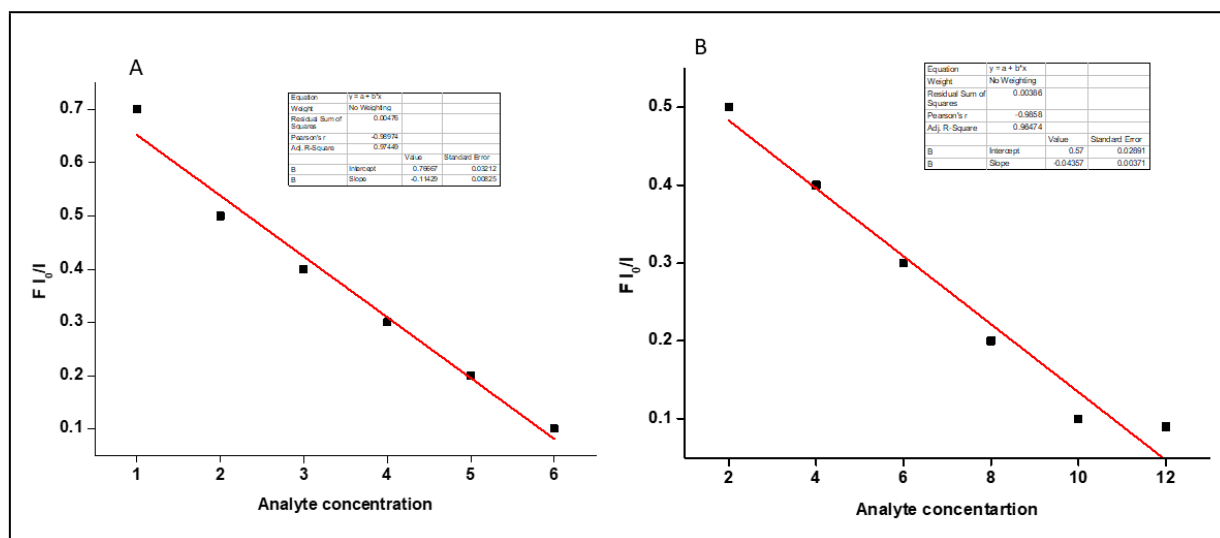


Figure S.I.4: Stern-Volmer plots (A) Ammonia sensitivity (B) Iso propylamine sensitivity in ACN

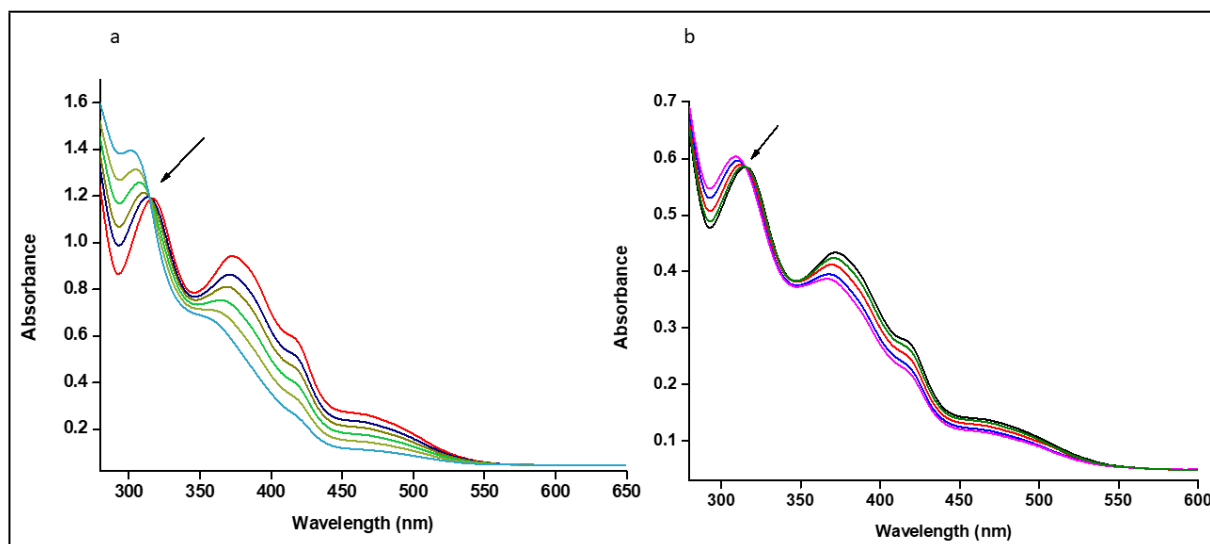


Figure S.I.5: (a) UV-Vis responses of probe with different concentration of Iso propylamine (0-100 μ L) in ACN (b) different concentration of Ammonia (0-100 μ L) in ACN.

Dye	τ_1 (ns)	A	B	τ_{average} (ns)	χ^2
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2a	2.45	1.2	0.07	2.45	1.23
2b	2.4	3.4	0.072	2.38	1.28
2c	2.4	3.4	0.073	2.4	1.20

Table S.I.1: Fluorescence lifetime Parameters of compound 2a-c

Dye	HOMO (eV)	LUMO (eV)	ΔE (eV)
2a	-6.5740	-3.0825	3.4915
2b	-6.5759	-3.0937	3.4822
2c	-6.6037	-3.1078	3.4958

Table S.I.2: Calculated HOMO and LUMO energy levels in dyes 2a-2c by DFT calculation

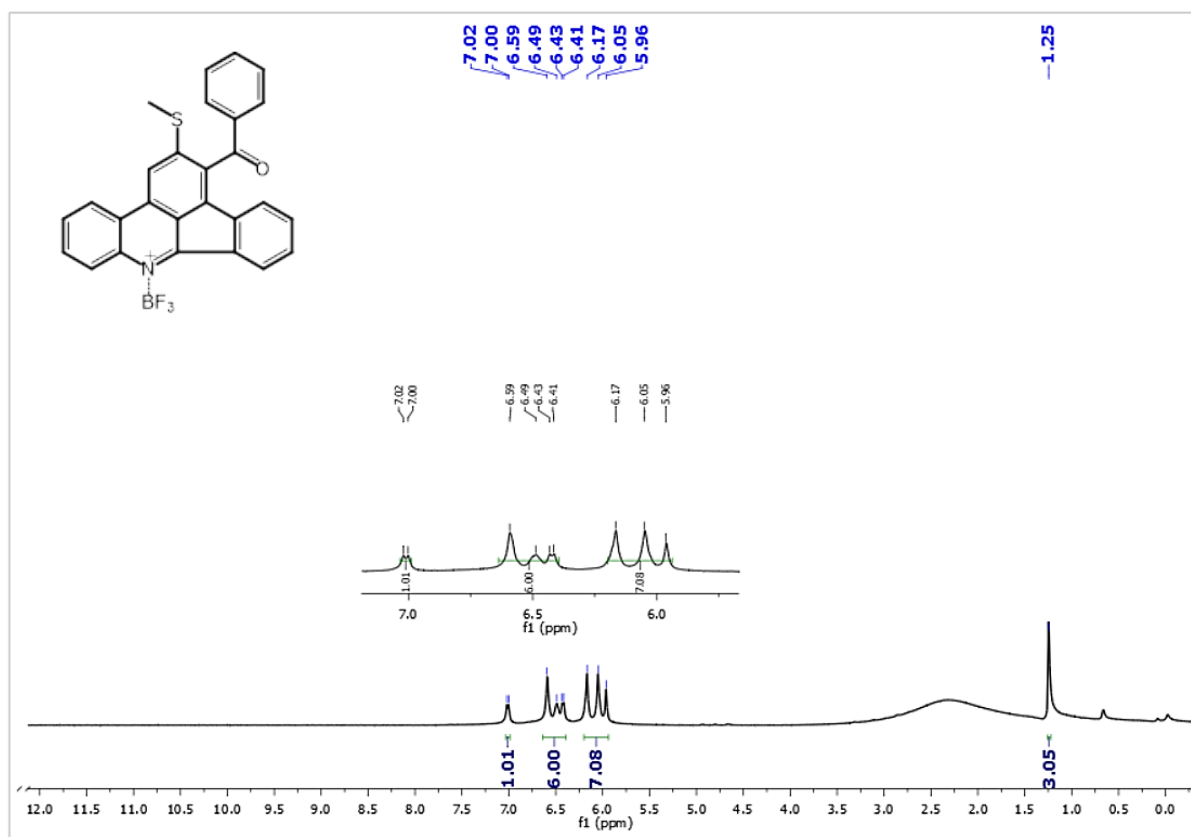


Figure S.I.6 : ¹H NMR spectrum of compound 2a

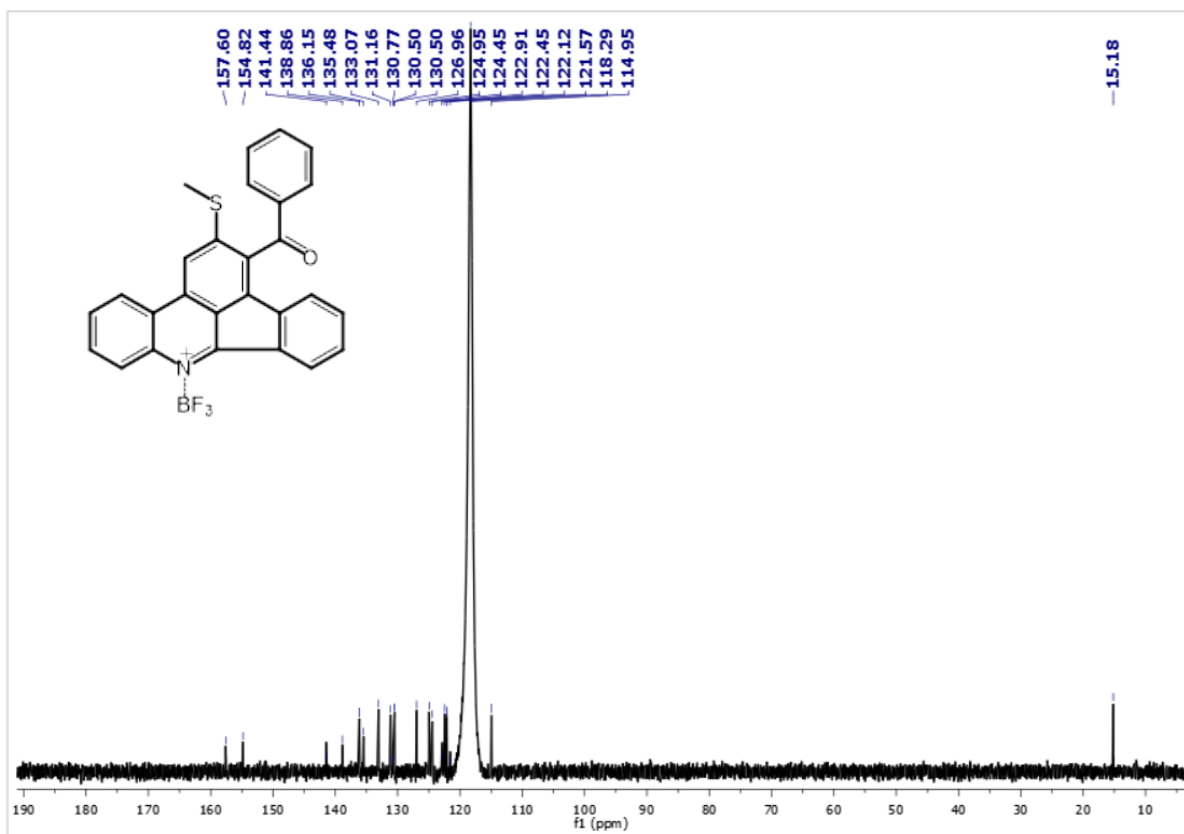


Figure S.I.7 : ^{13}C NMR spectrum of compound 2a

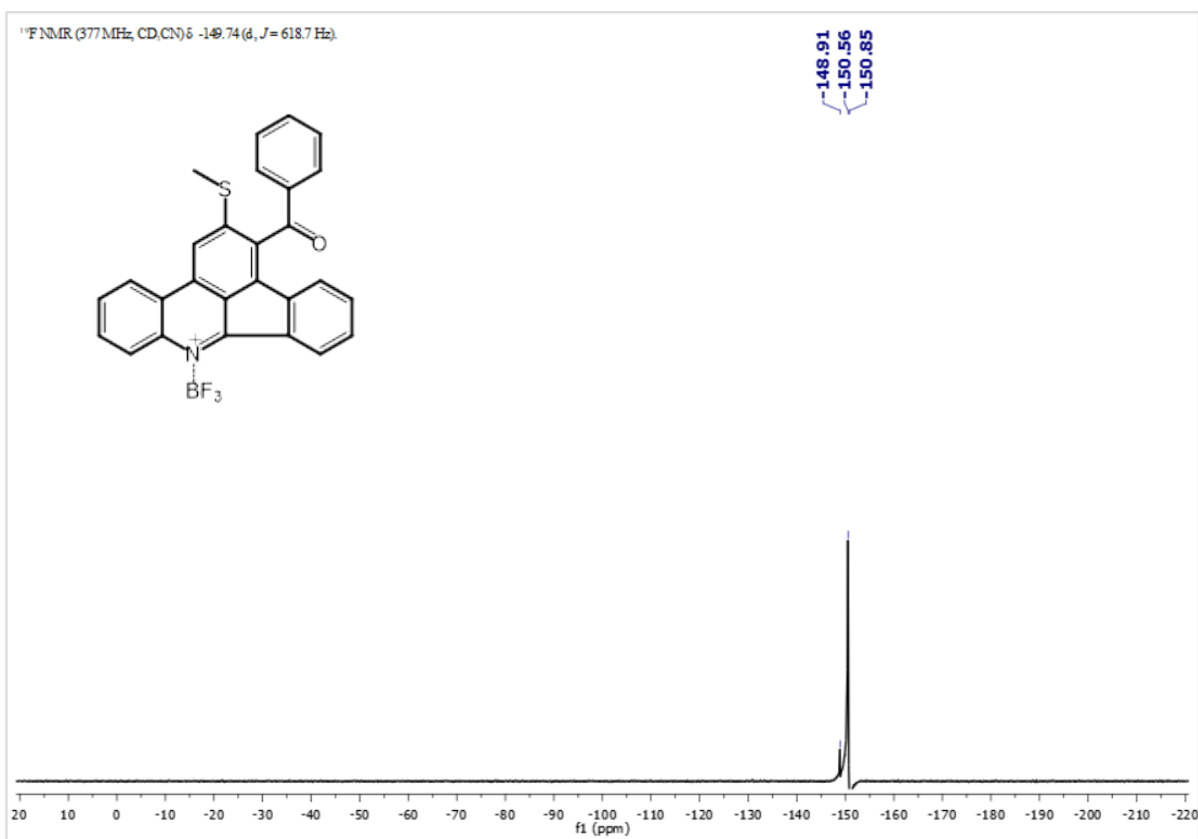


Figure S.I.8: ^{19}F NMR spectrum of compound 2a

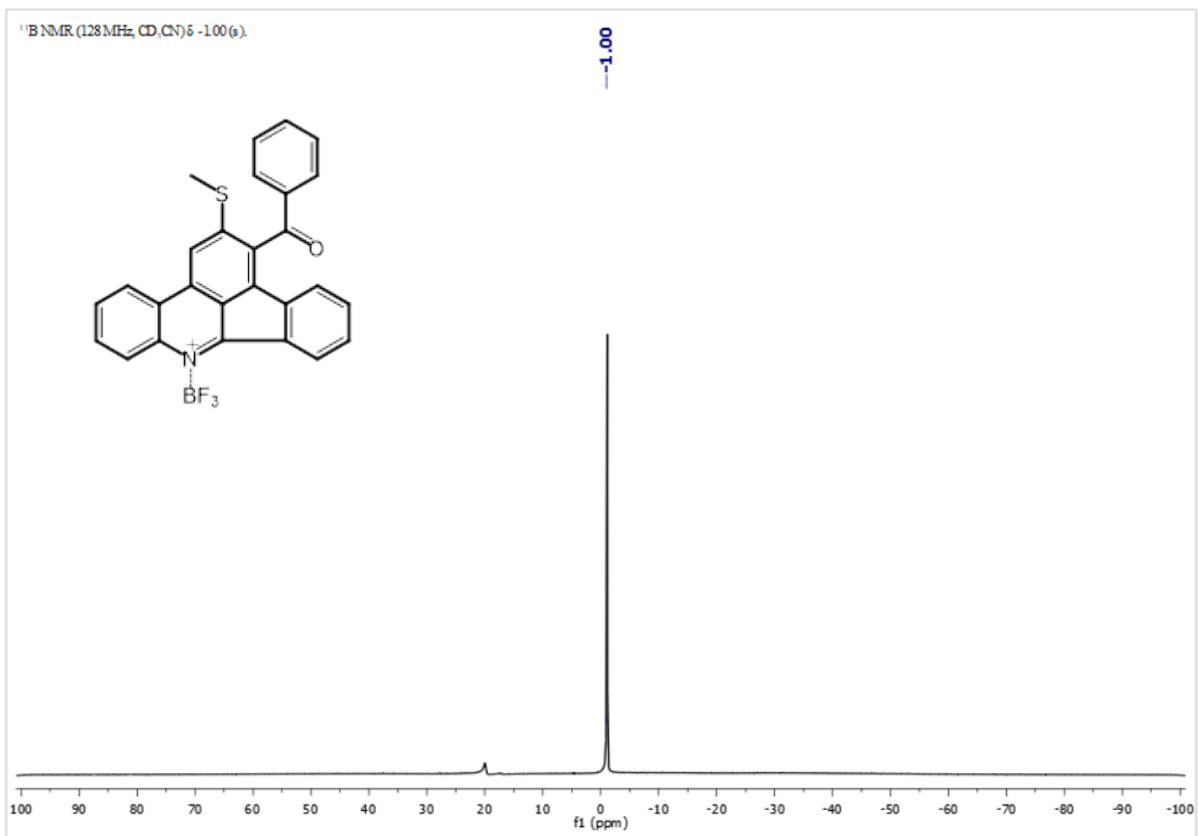


Figure S.I.9: ^{11}B NMR spectrum of compound 2a

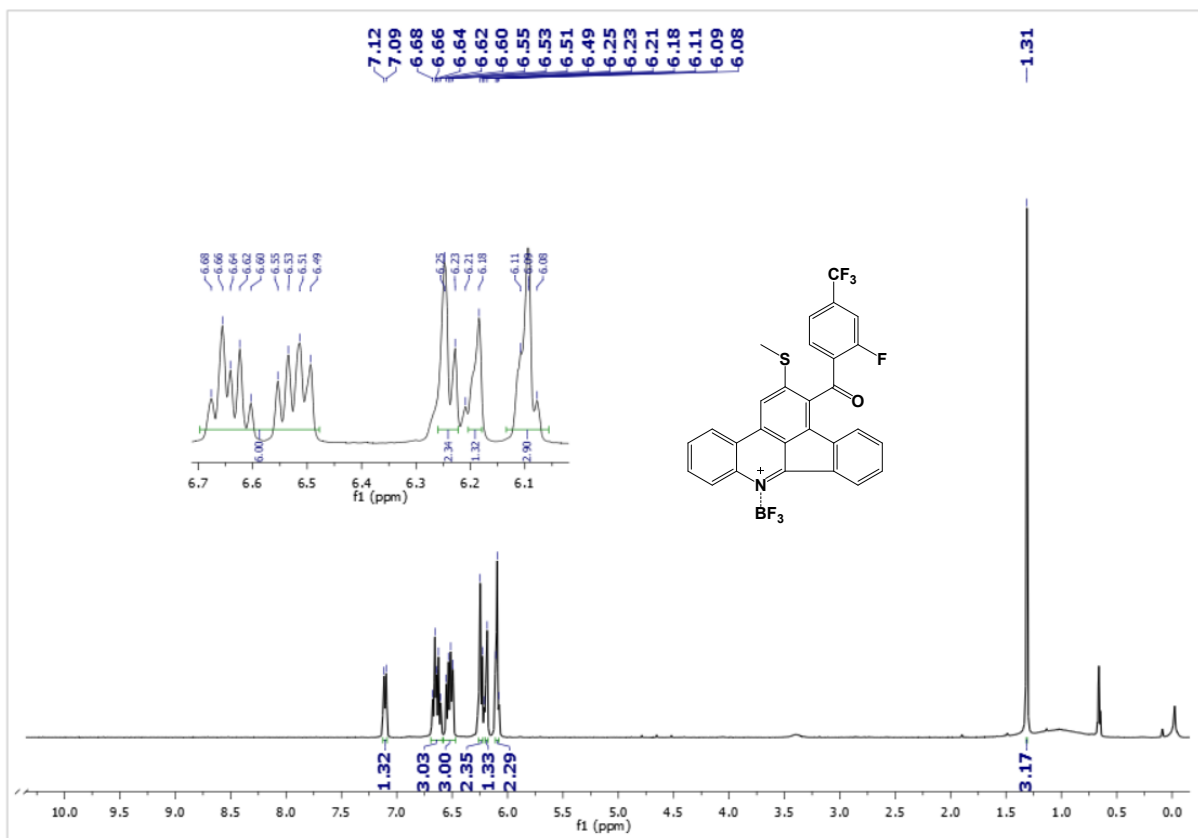


Figure S.I.10 : ^1H NMR spectrum of compound 2b

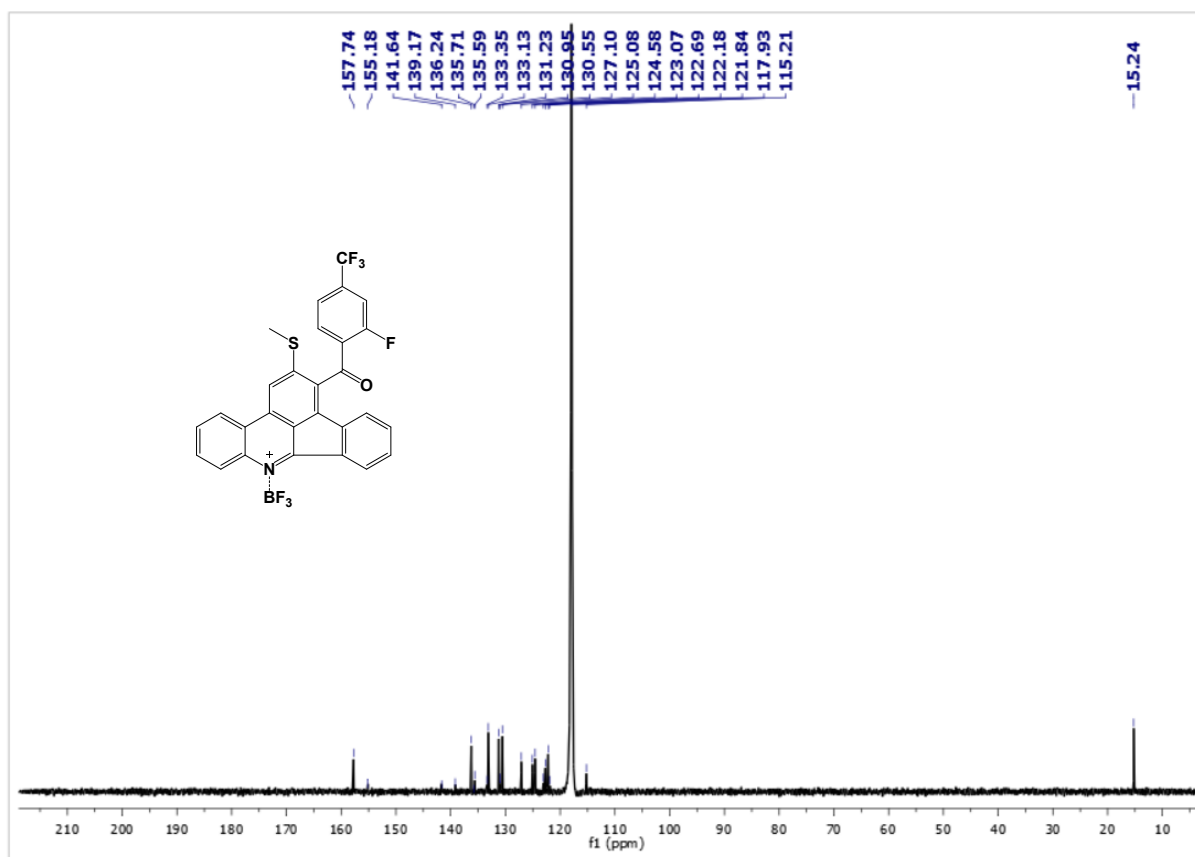


Figure S.I.11 : ^{13}C NMR spectrum of compound 2b

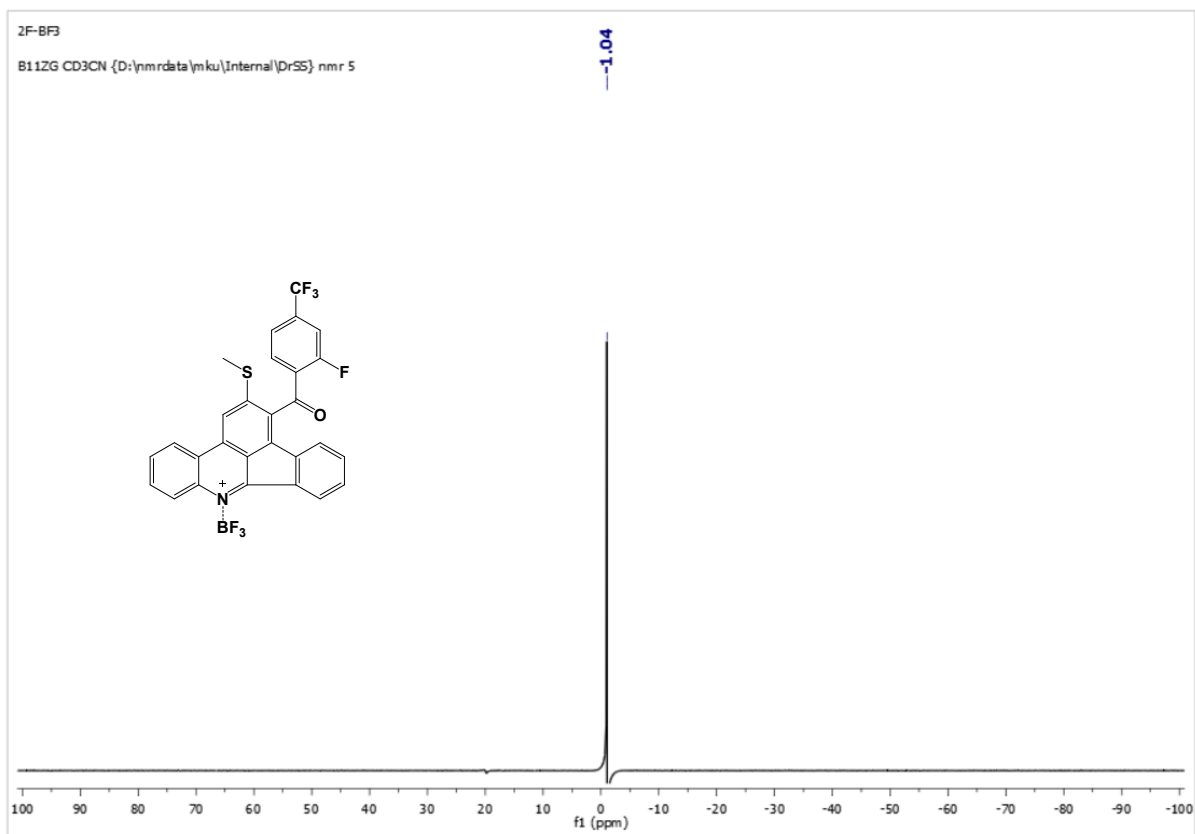


Figure S.I.12: ^{11}B NMR spectrum of compound 2b

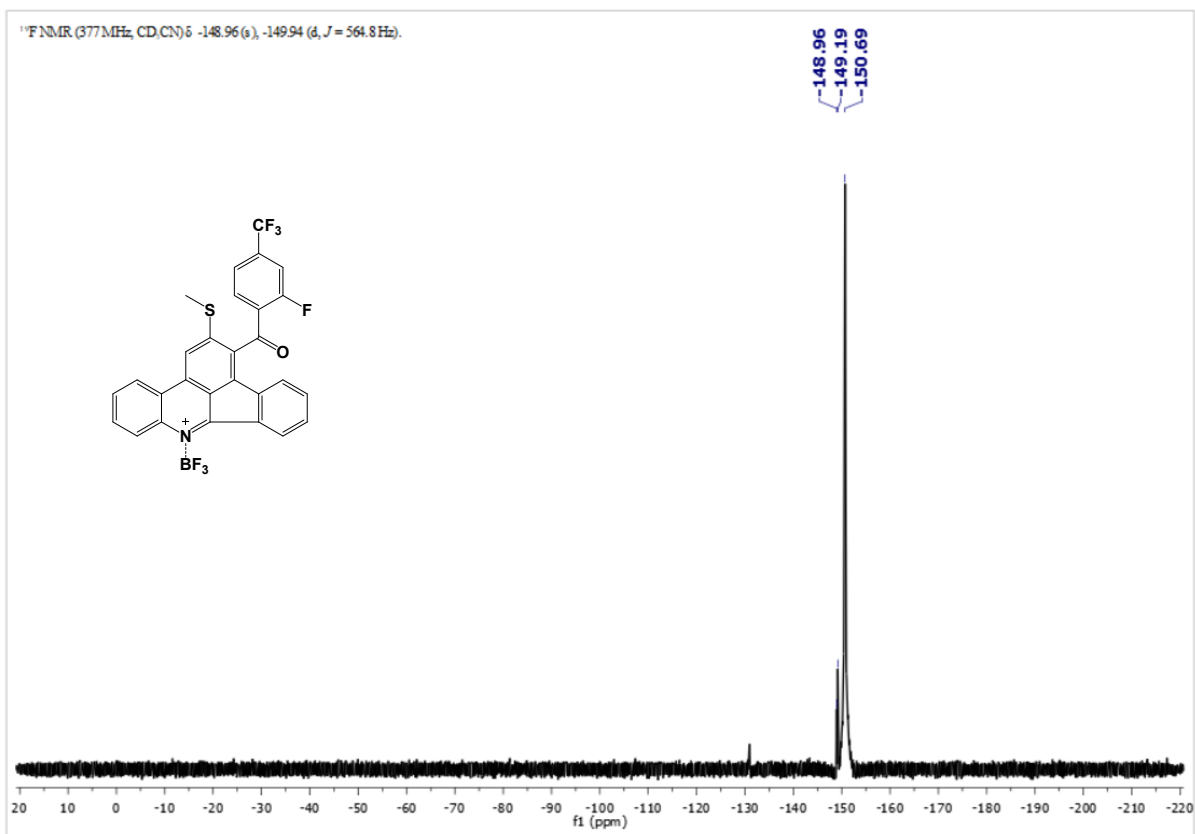


Figure S.I.13: ^{19}F NMR spectrum of compound 2b

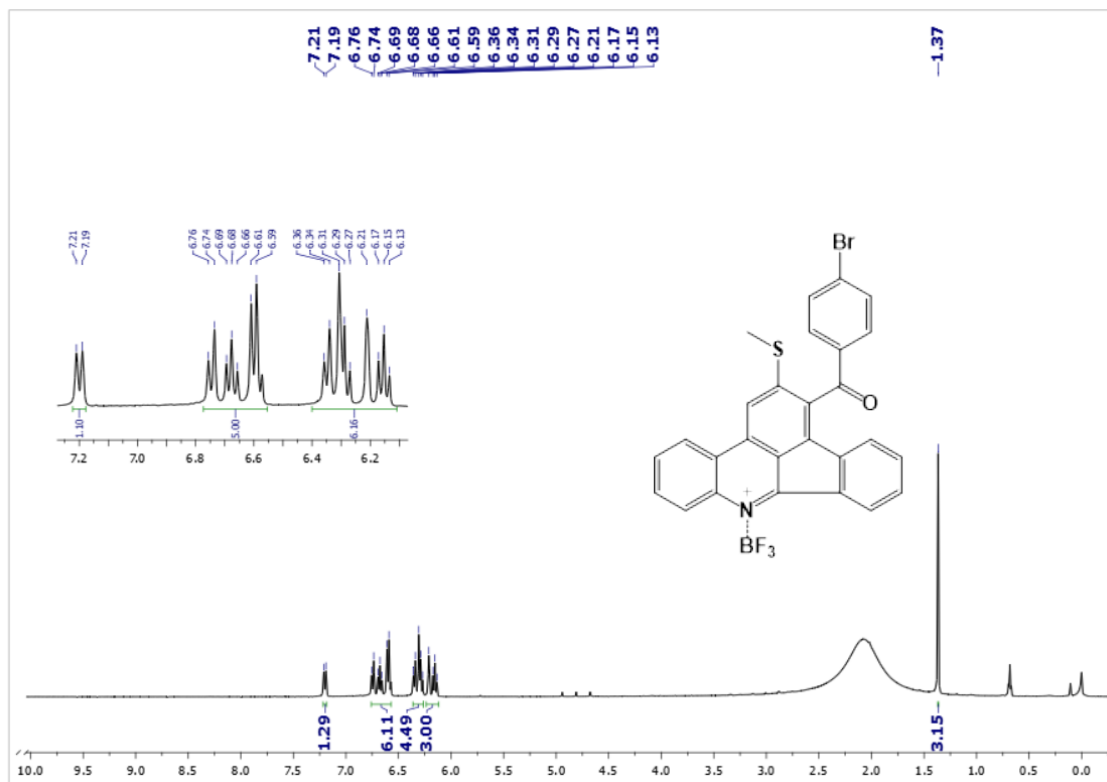


Figure S.I.14 : ^1H NMR spectrum of compound 2c

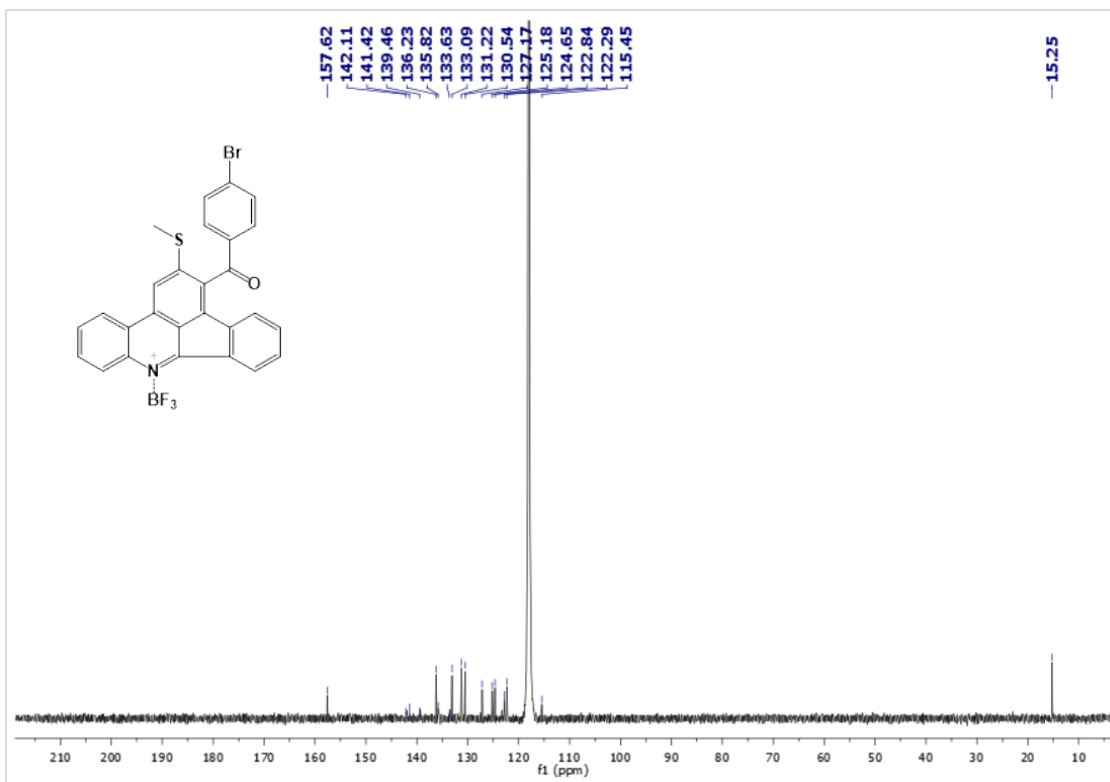


Figure S.I.15 : ¹³C NMR spectrum of compound 2c

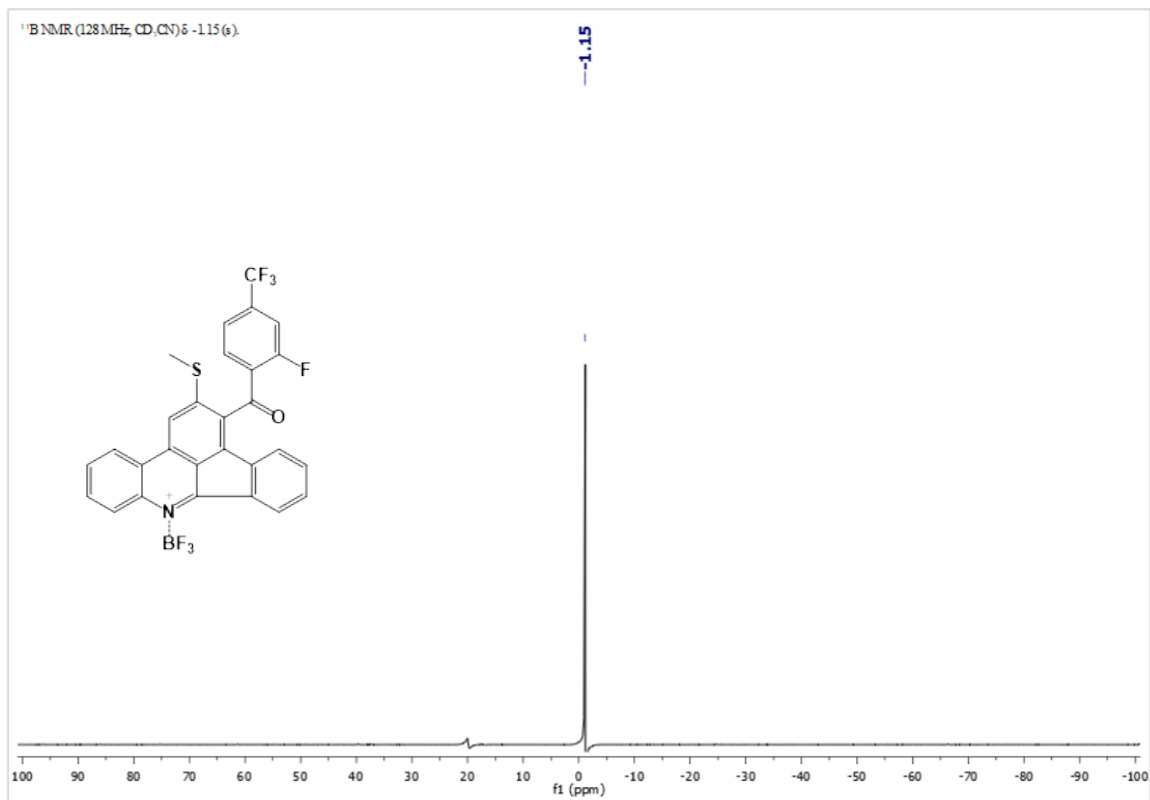


Figure S.I.16: ¹¹B NMR spectrum of compound 2c

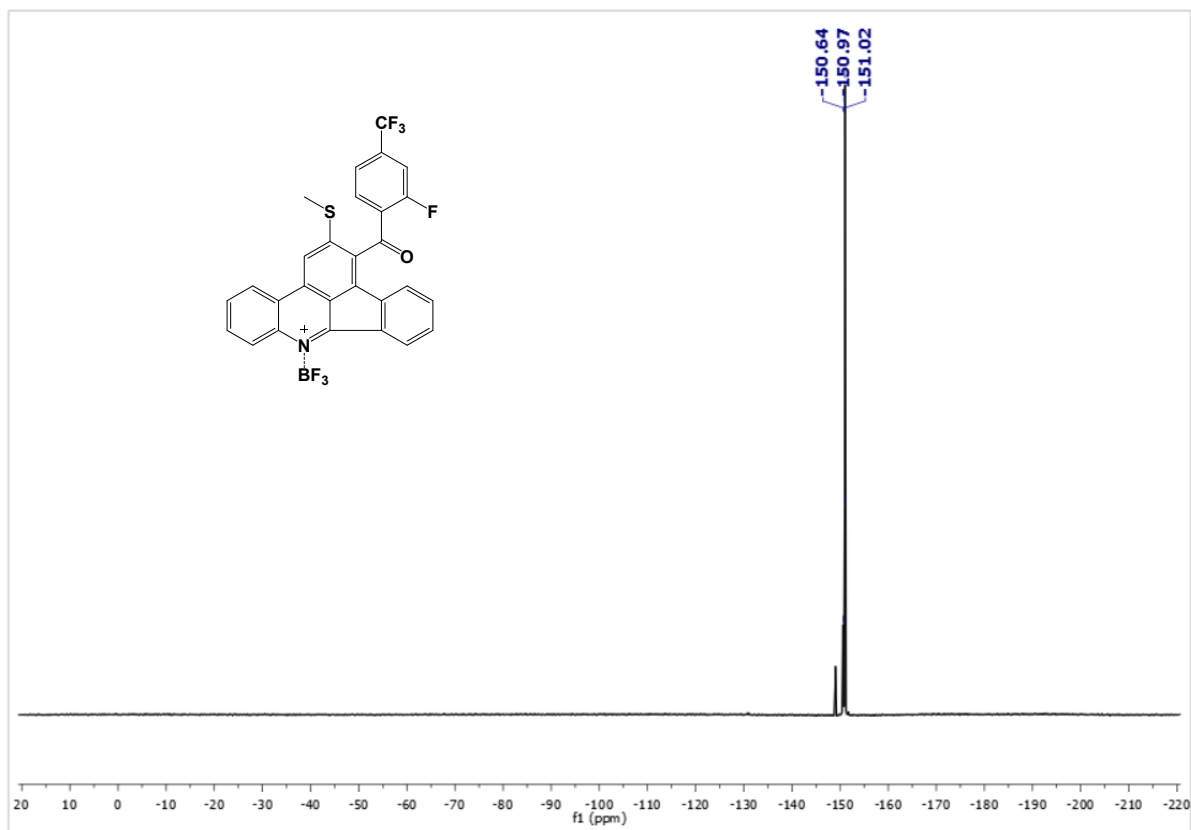


Figure S.I.17: ^{19}F NMR spectrum of compound 2c

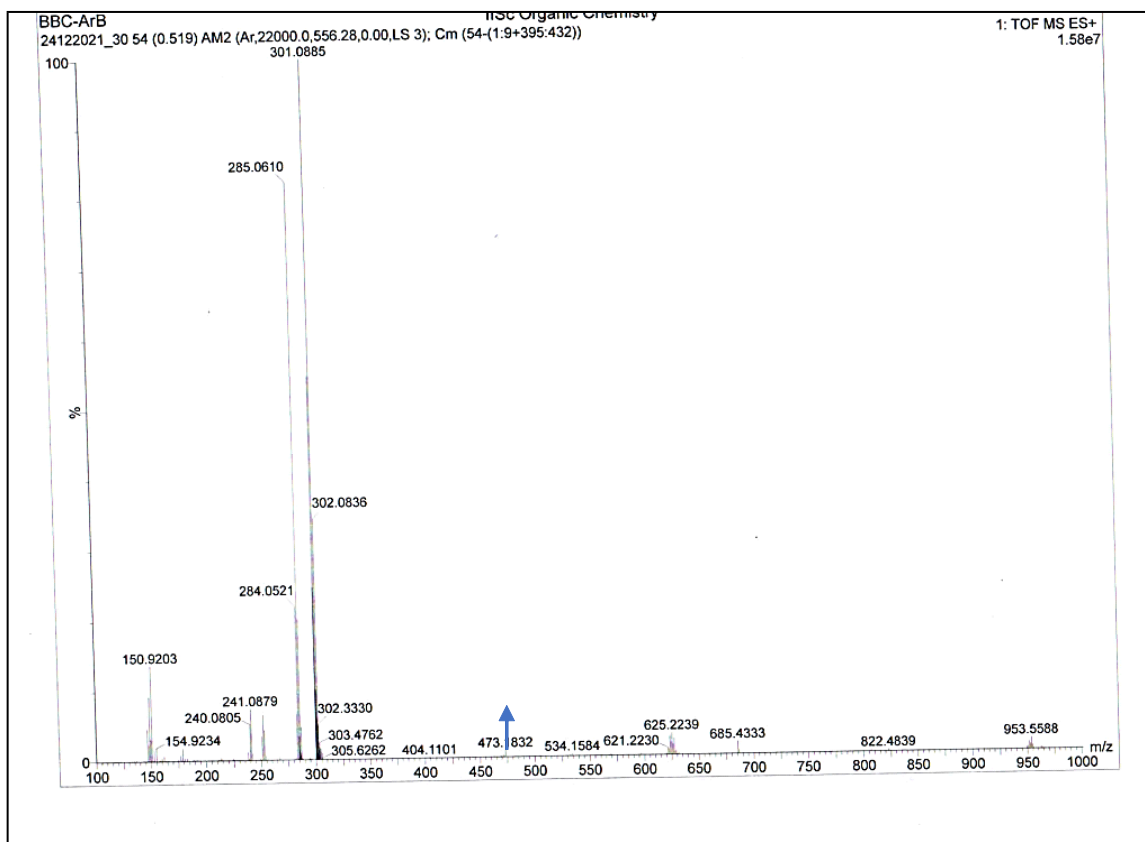


Figure S.I.18: HRMS spectrum of compound 2a.

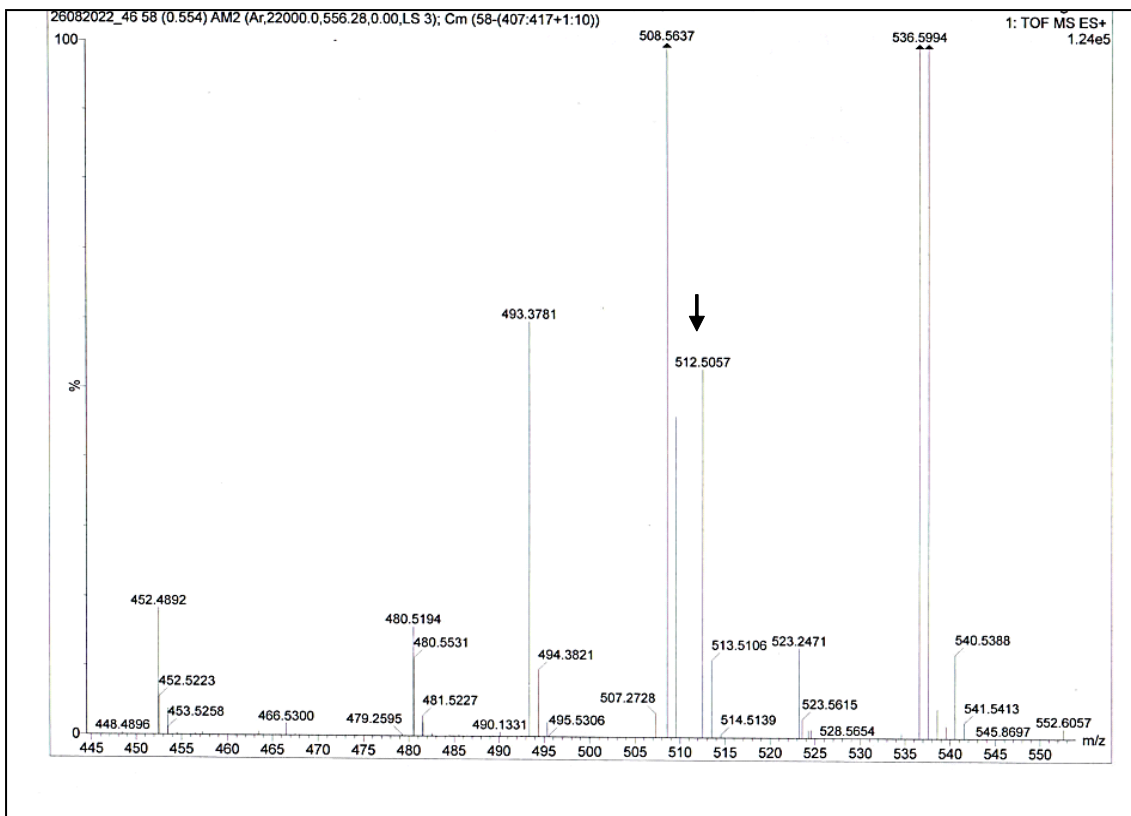


Figure S.I.19: HRMS spectrum of compound 2b

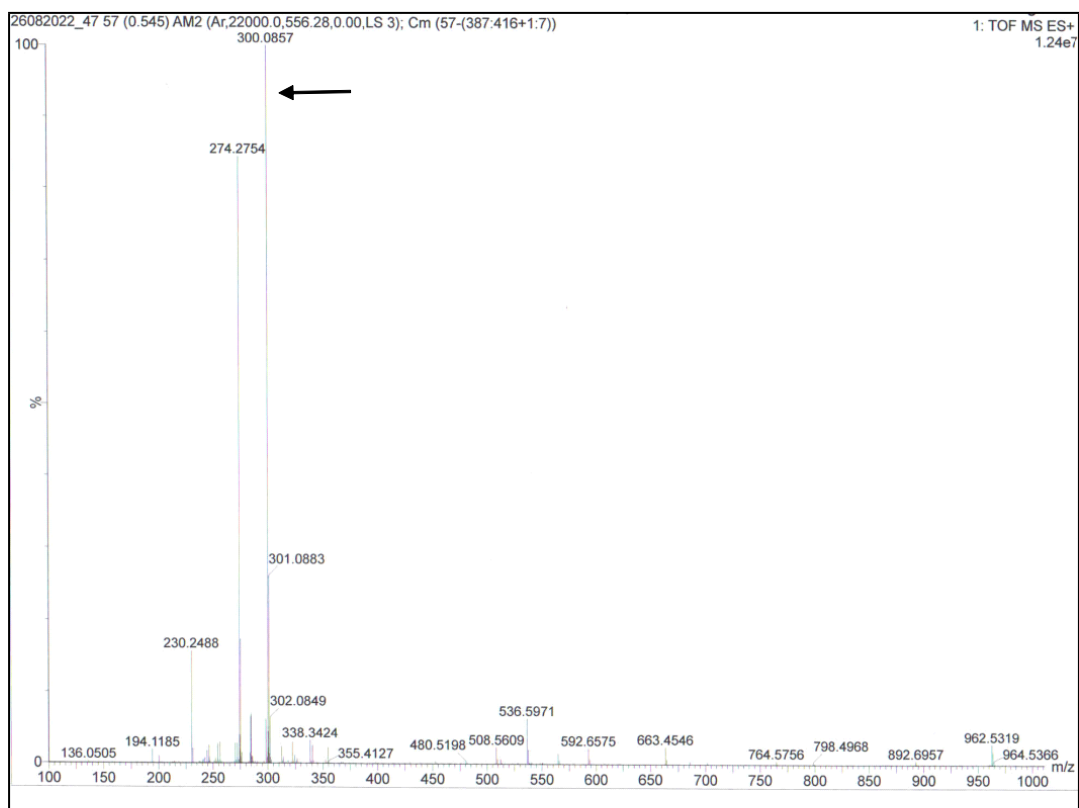


Figure S.I.20: LCMS spectrum of compound 2c