

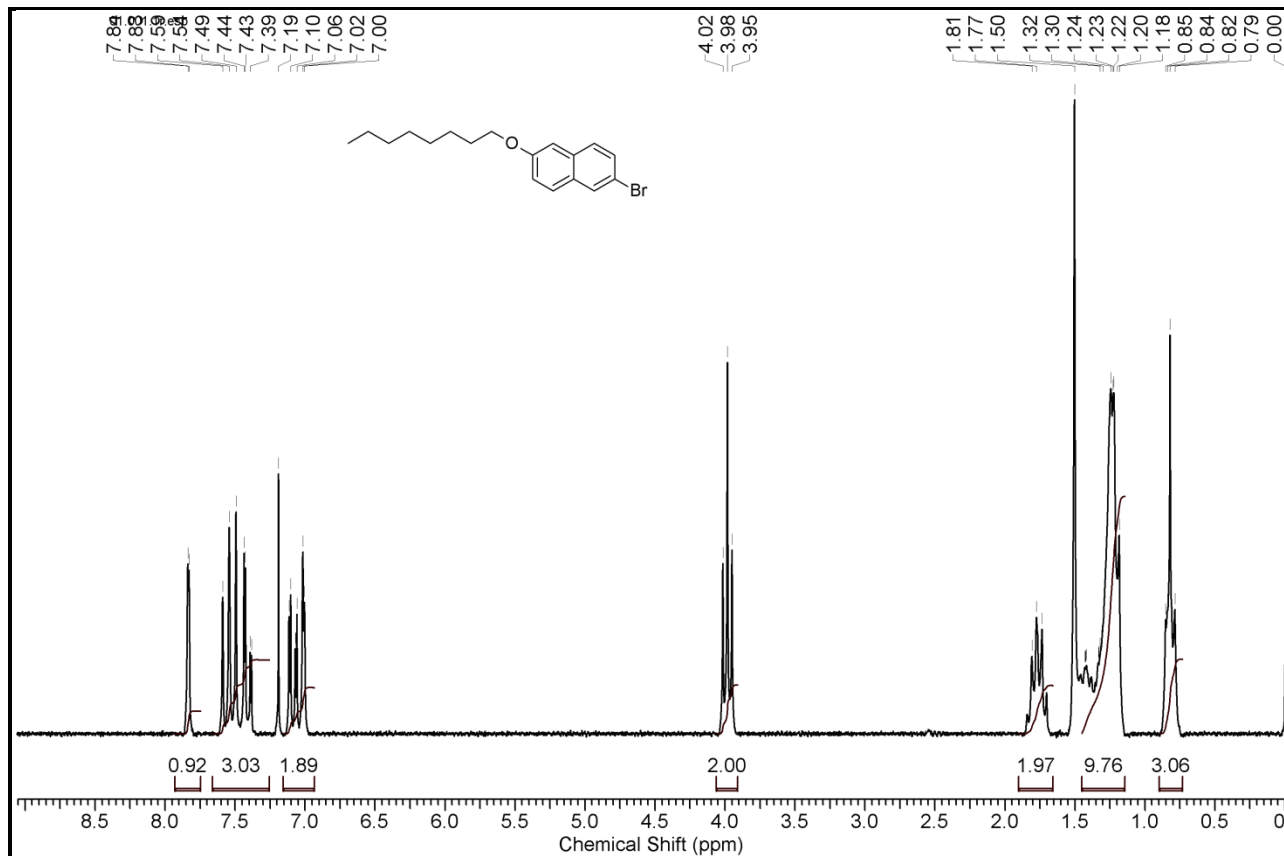
Supporting Information

Pyrene Based Conjugated Materials: Synthesis, and Characterization and Electroluminescent Properties

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j-1(a)



j-1 (b)

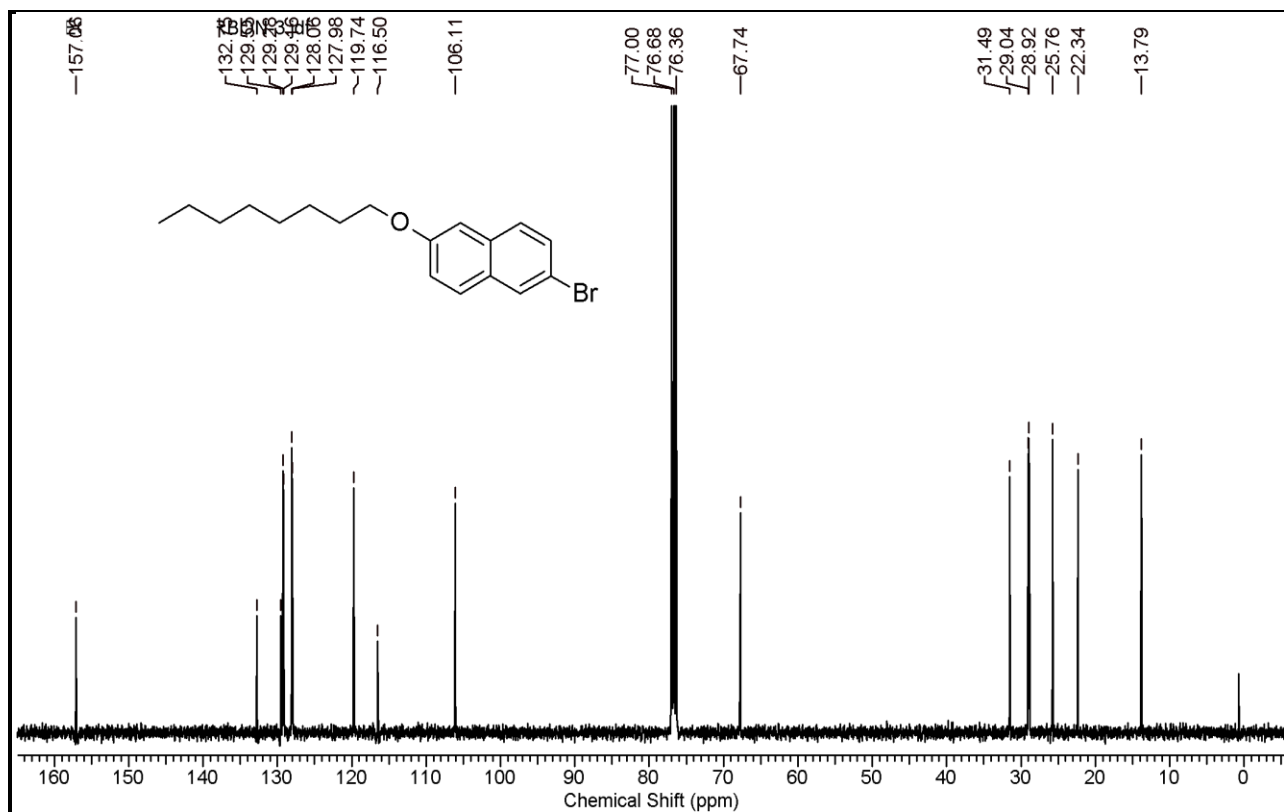
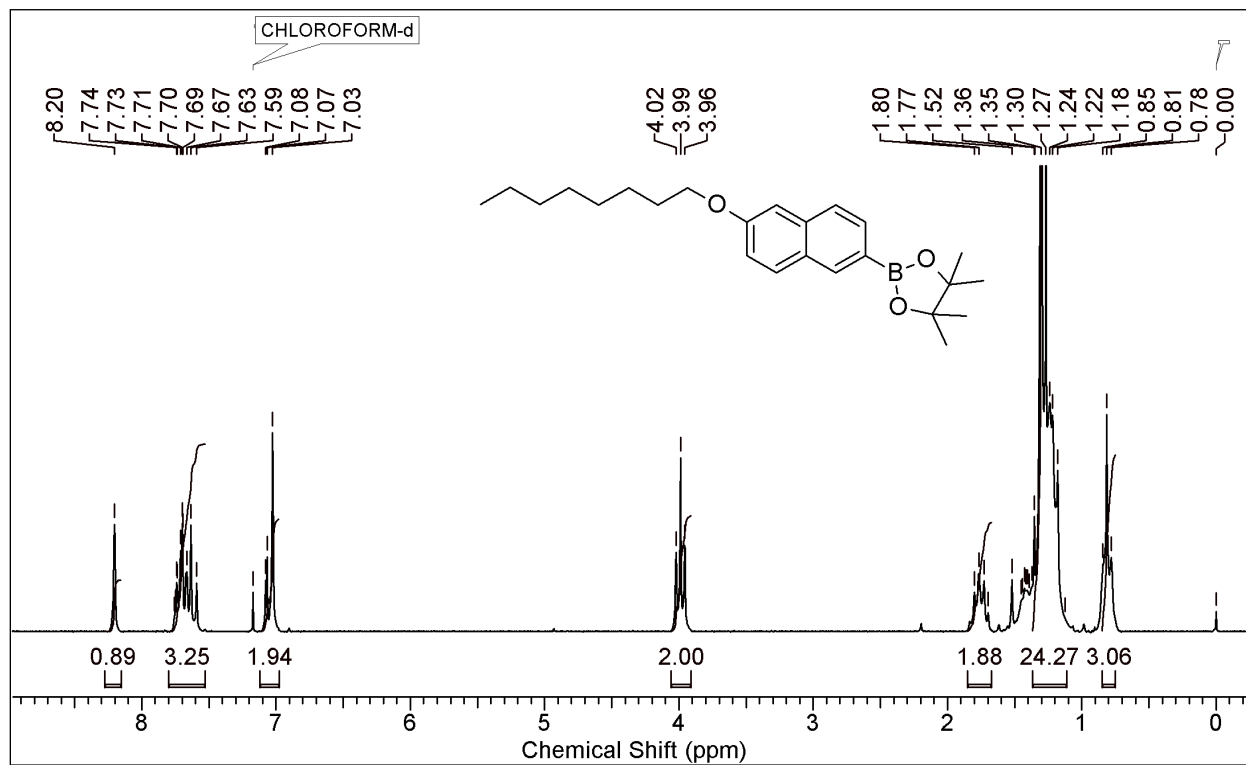


Figure S1 (a) ¹H and (b) ¹³C NMR spectra of j-₂(1).

j-2 (a)



j-2 (b)

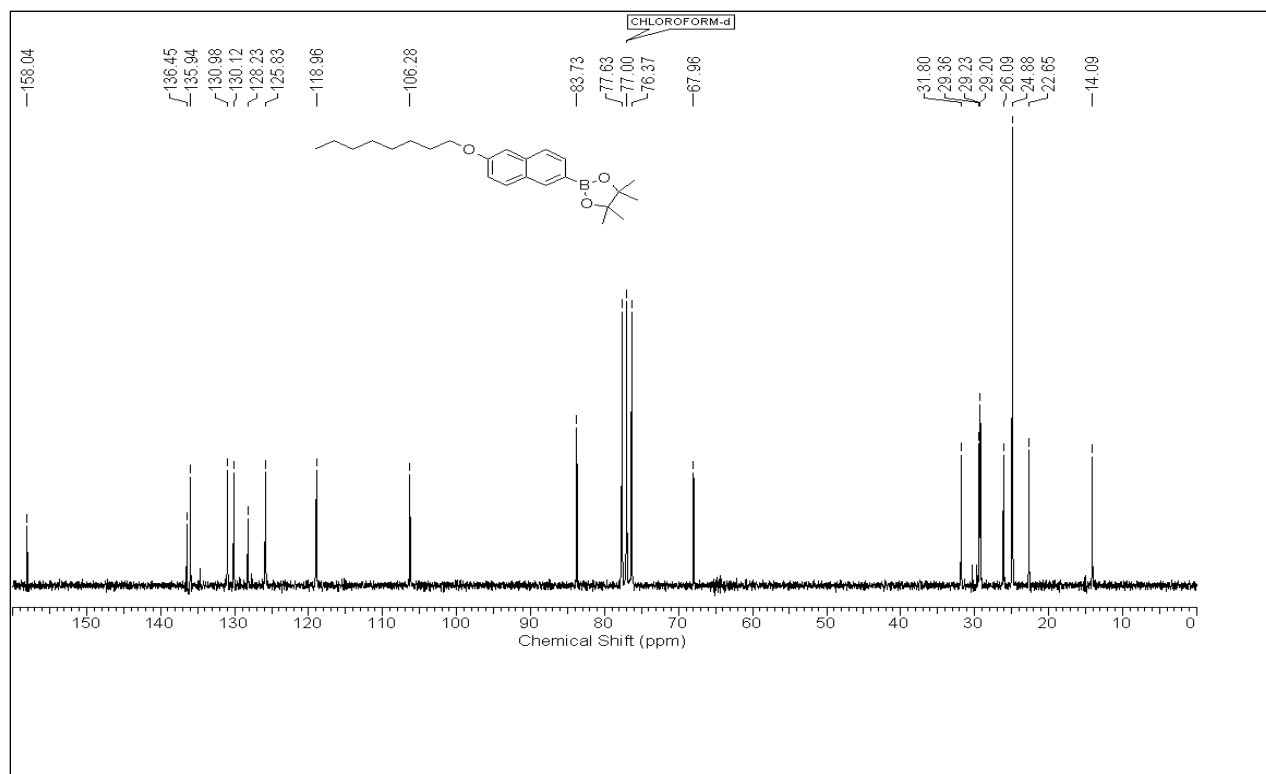
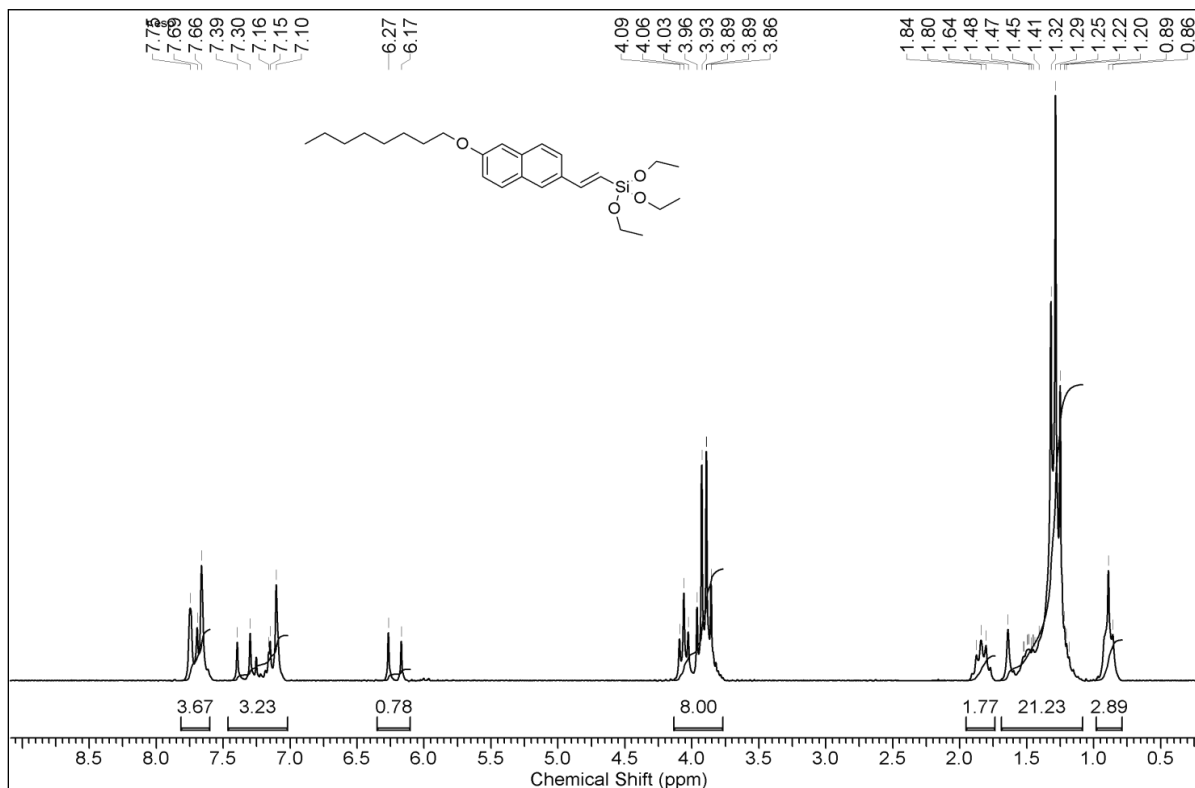


Figure S2 (a) ^1H and (b) ^{13}C NMR spectra of j-(2).

j-3 (a)



j-3 (b)

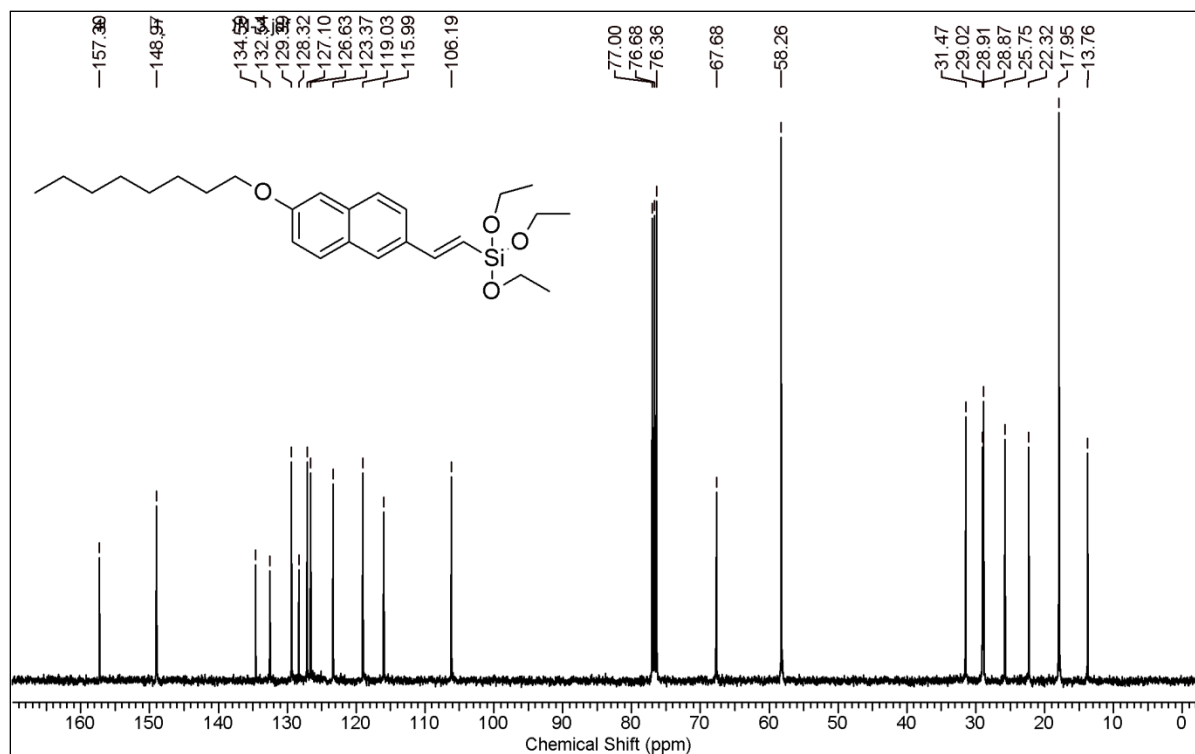
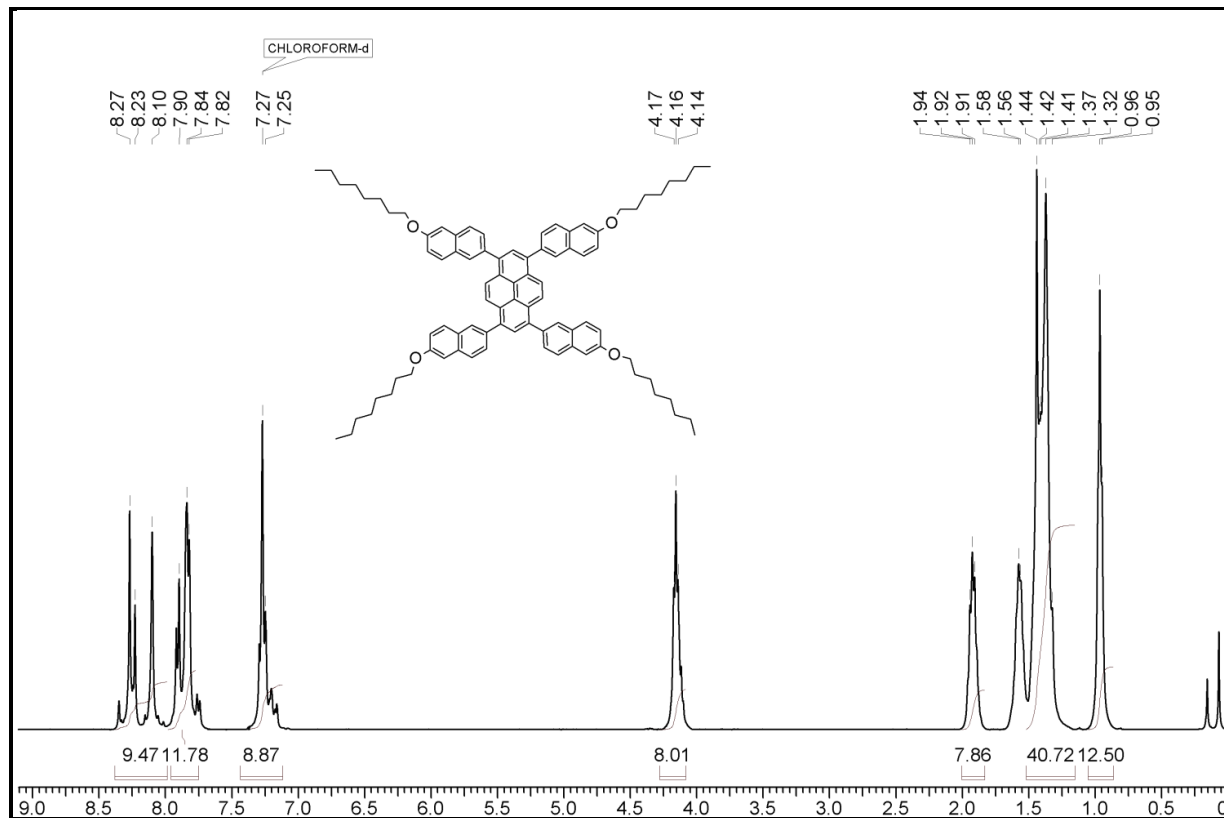


Figure S3 (a) ¹H and (b) ¹³C NMR spectra of j-(3).

PY-1(a)



PY-1(b)

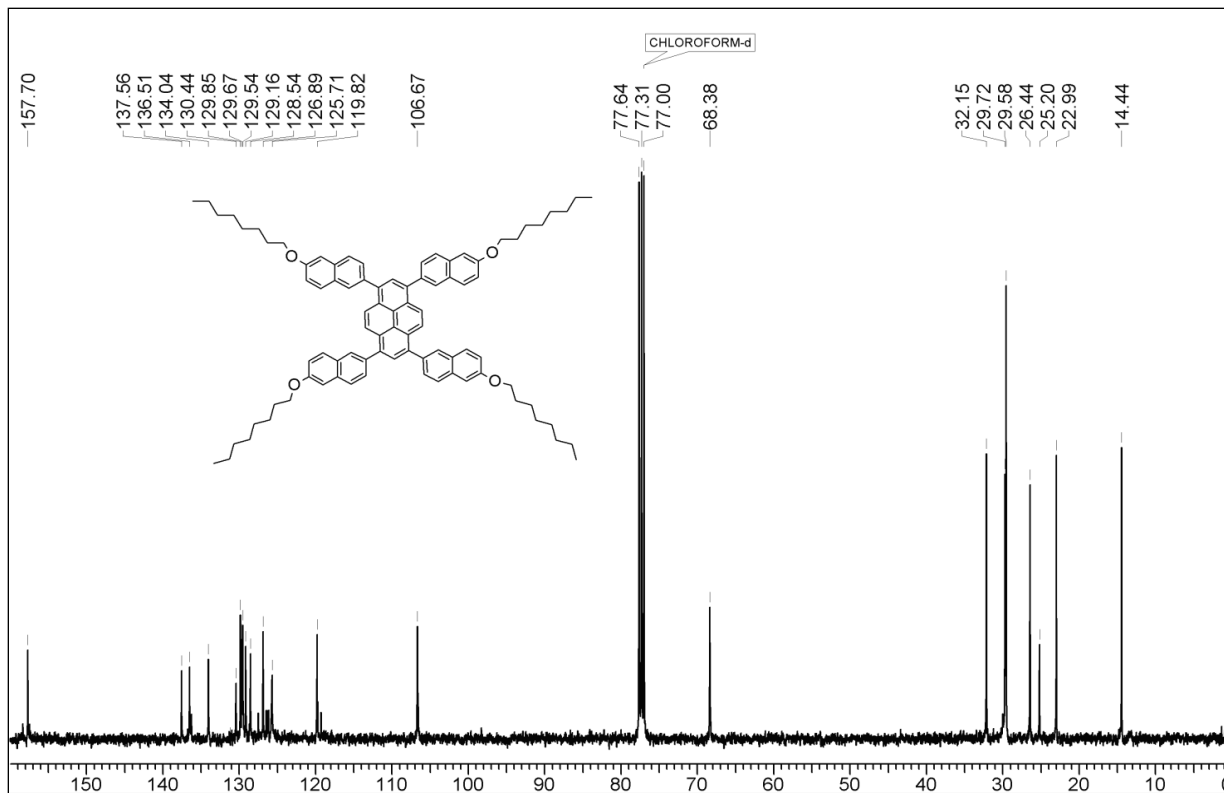
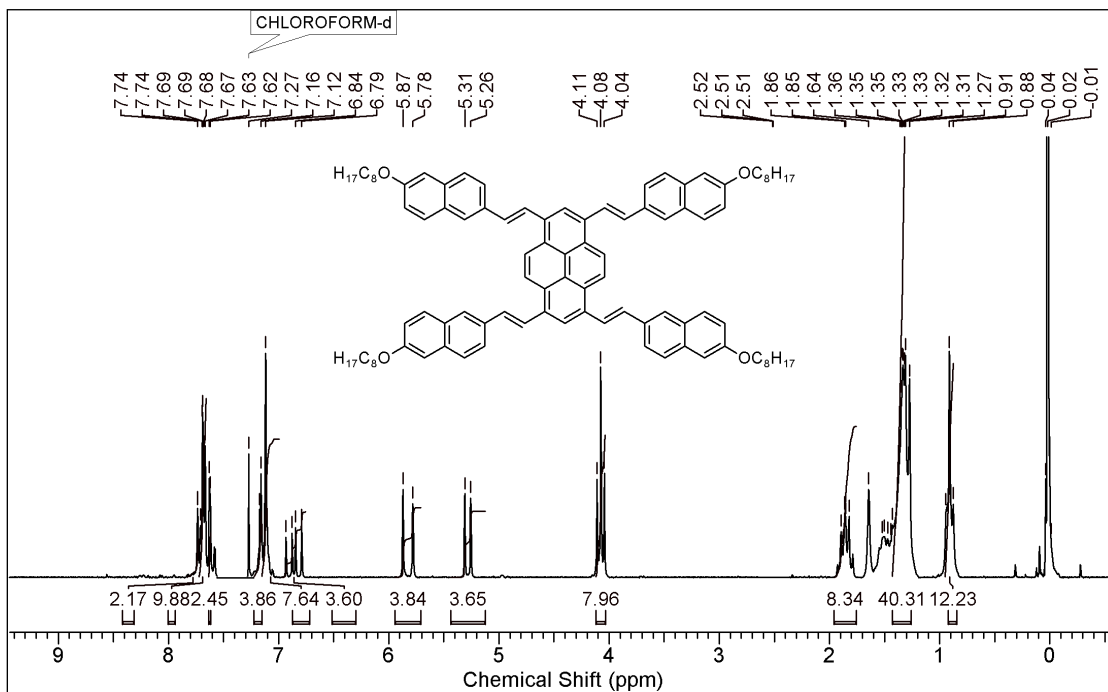


Figure S4 (a) ^1H and (b) ^{13}C NMR spectra of **PY-1**.

PY-2(a)



PY-2(b)

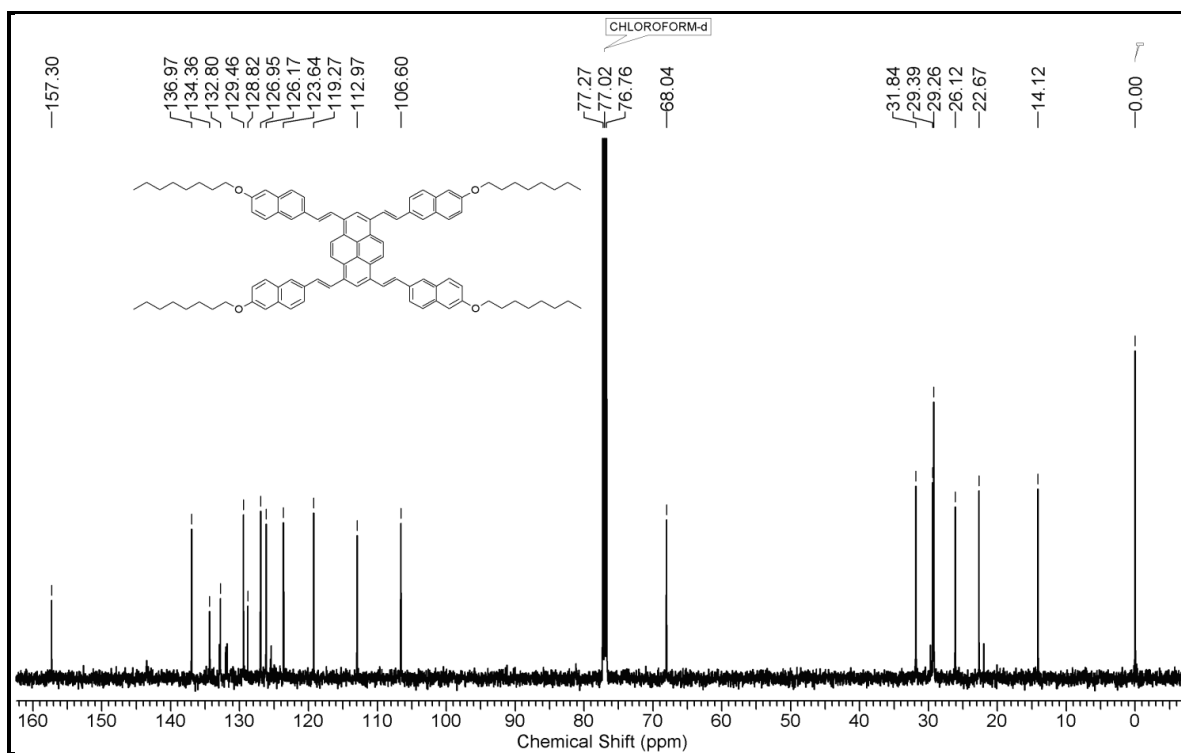
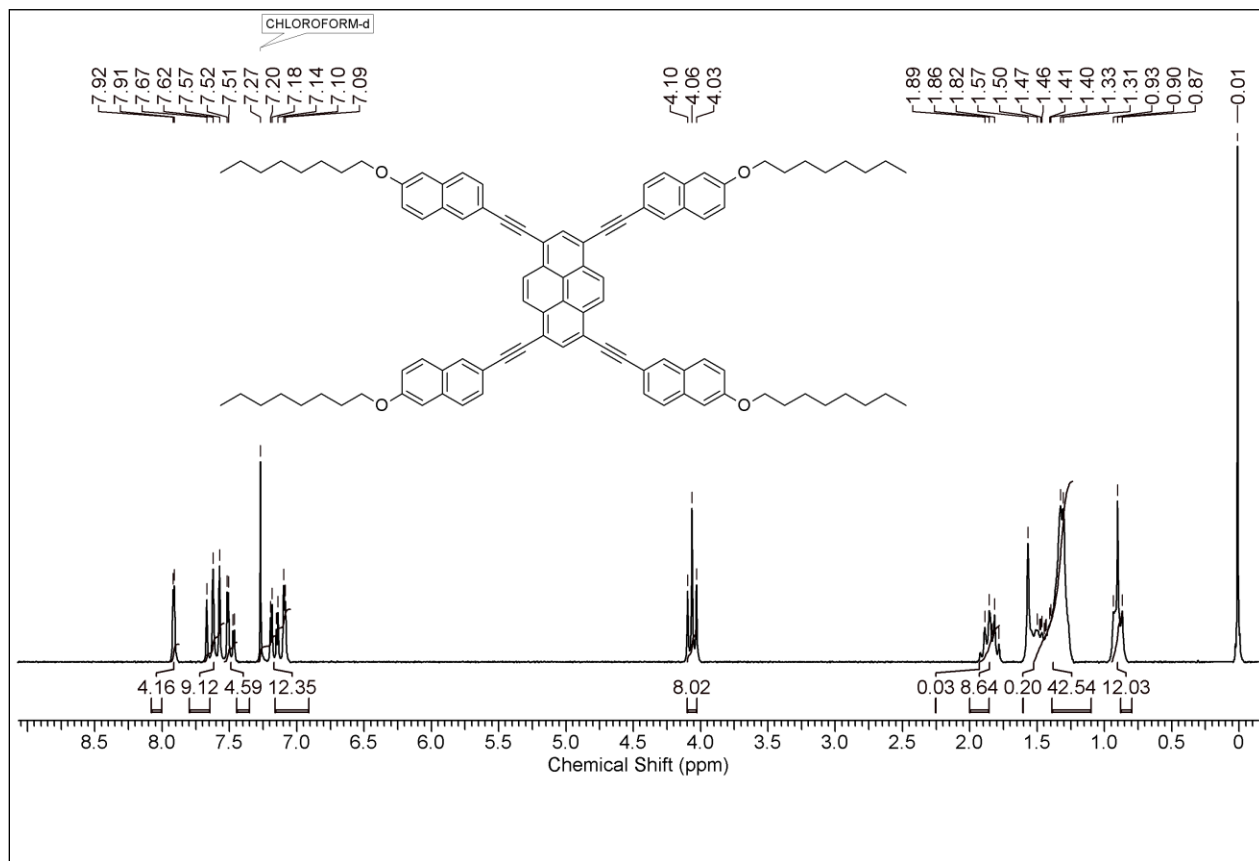


Figure S5 (a) ¹H and (b) ¹³C NMR spectra of PY-2.

PY-3(a)



PY-3 (b)

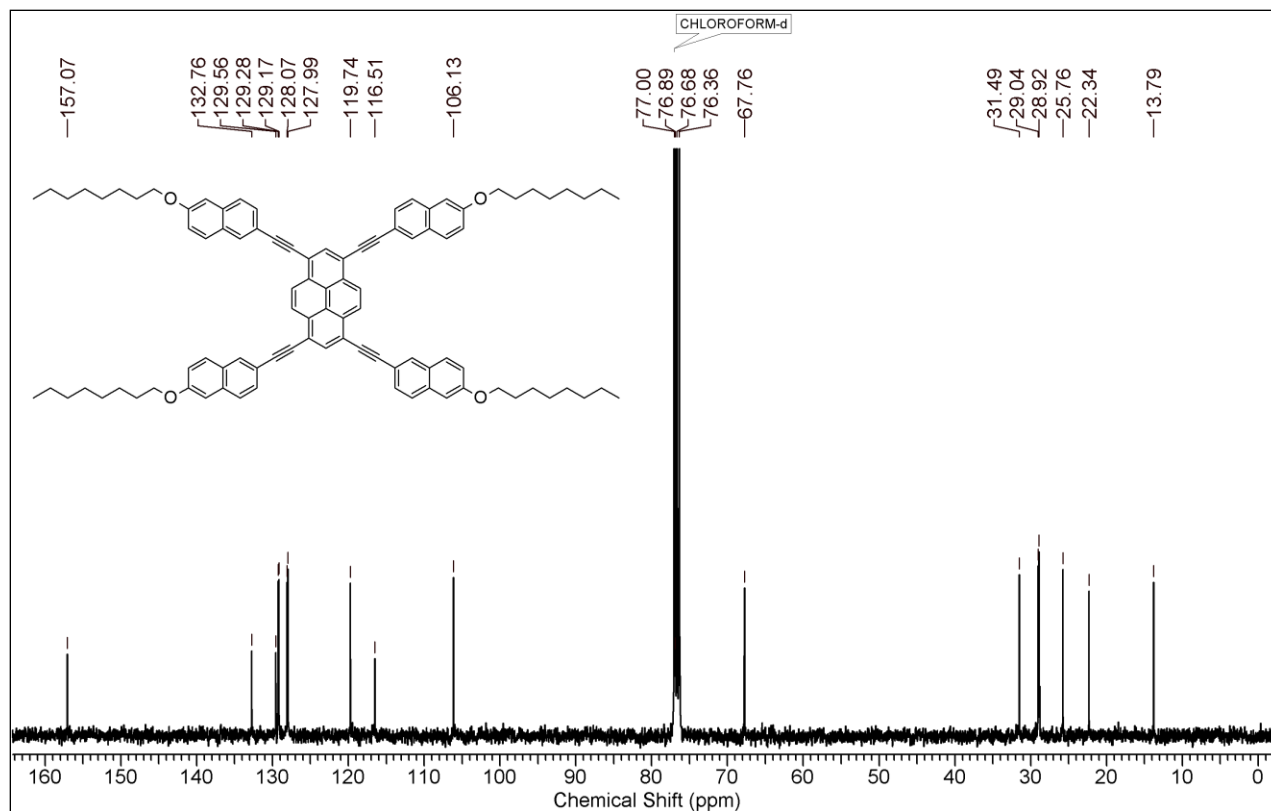
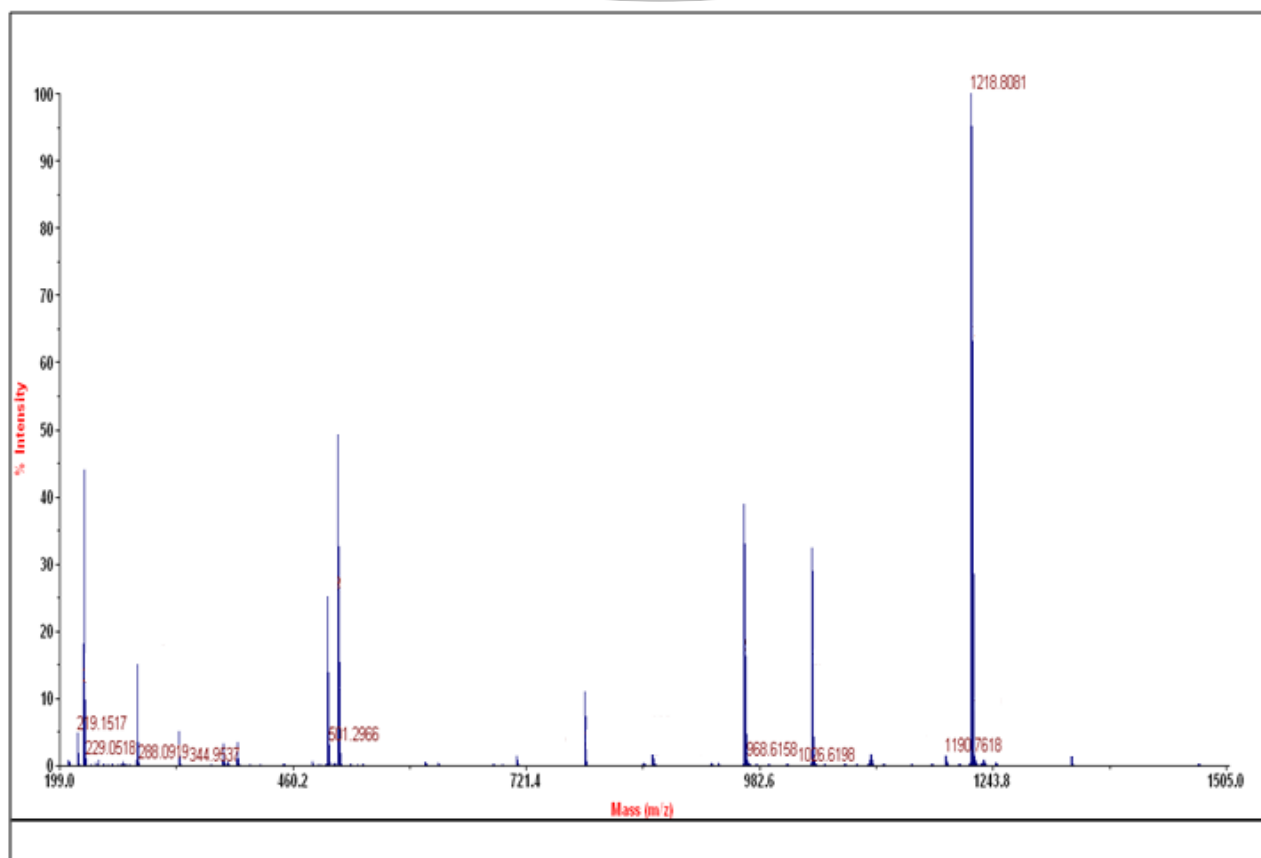
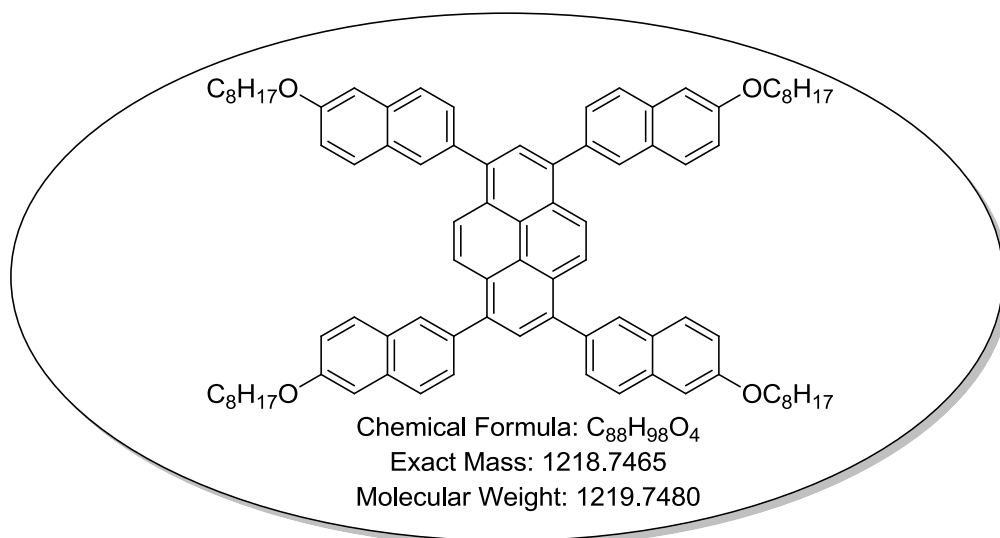
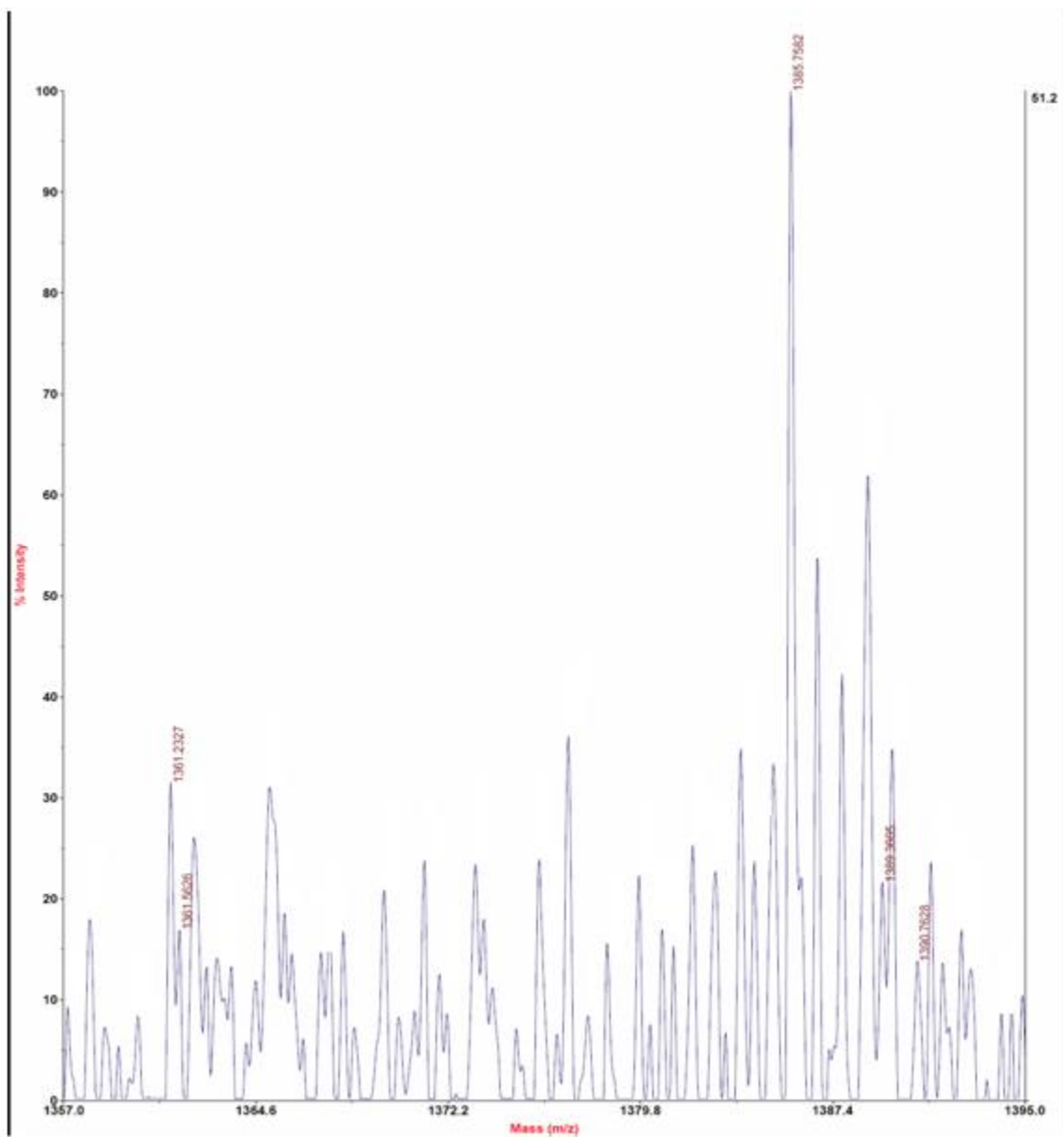
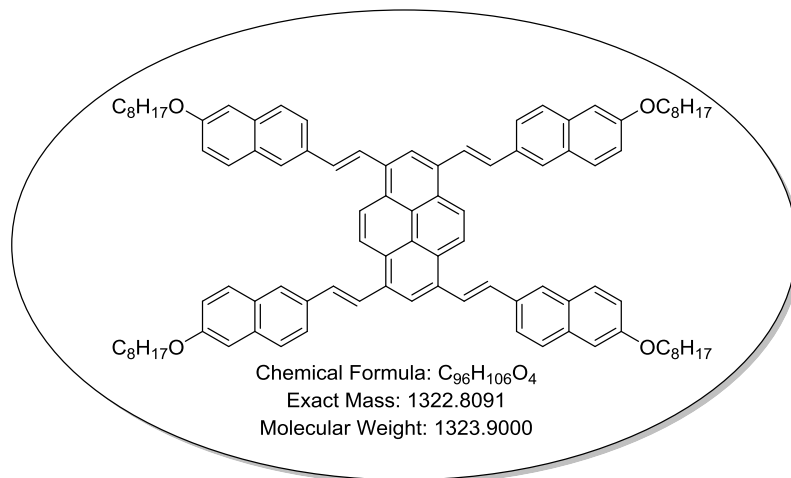


Figure S6 (a) ^1H and (b) ^{13}C NMR spectra of **PY-73**.

PY-1





PY-3

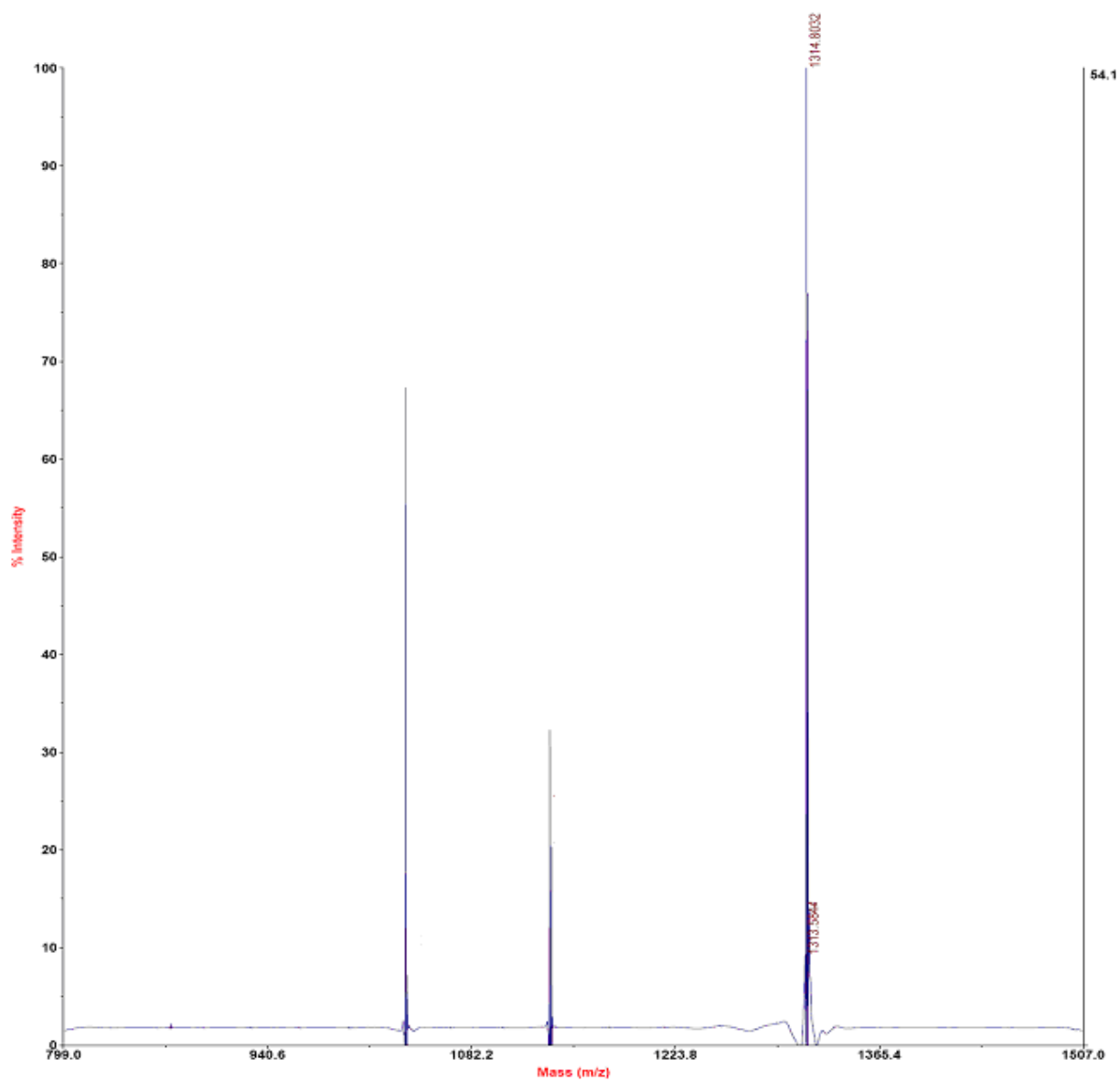
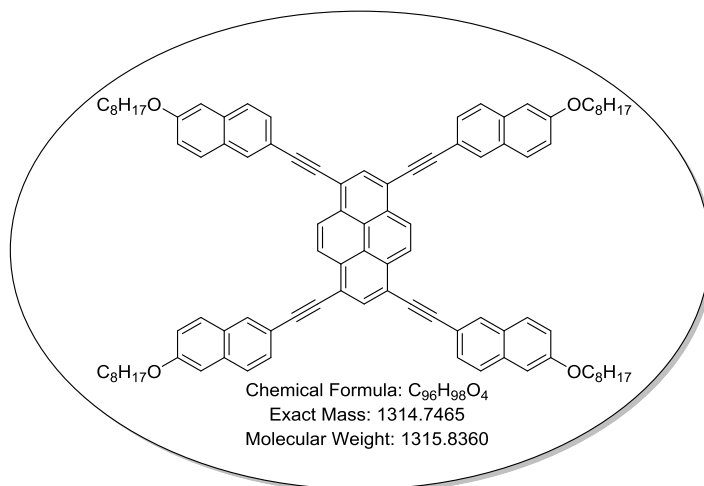
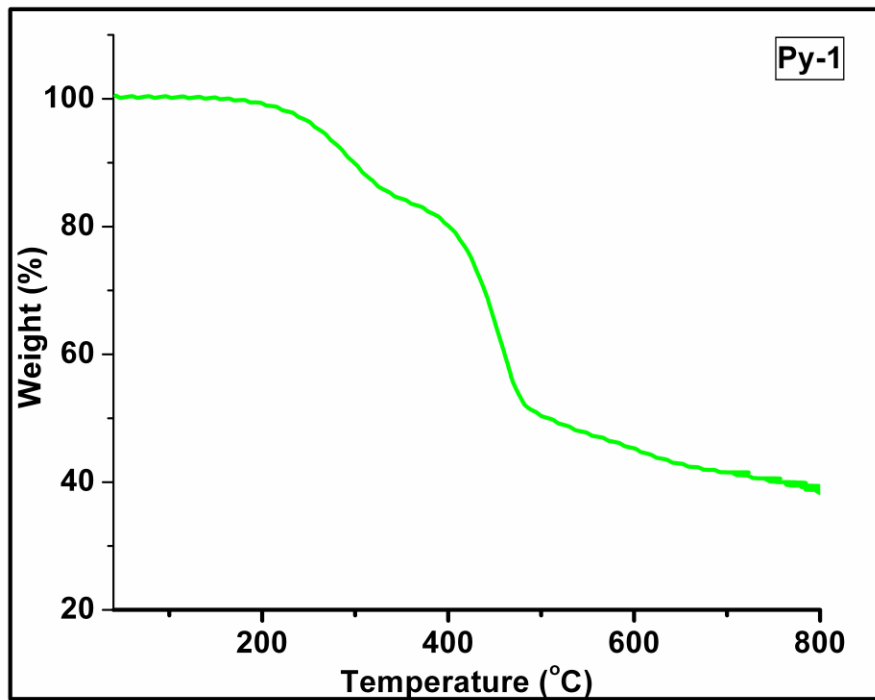
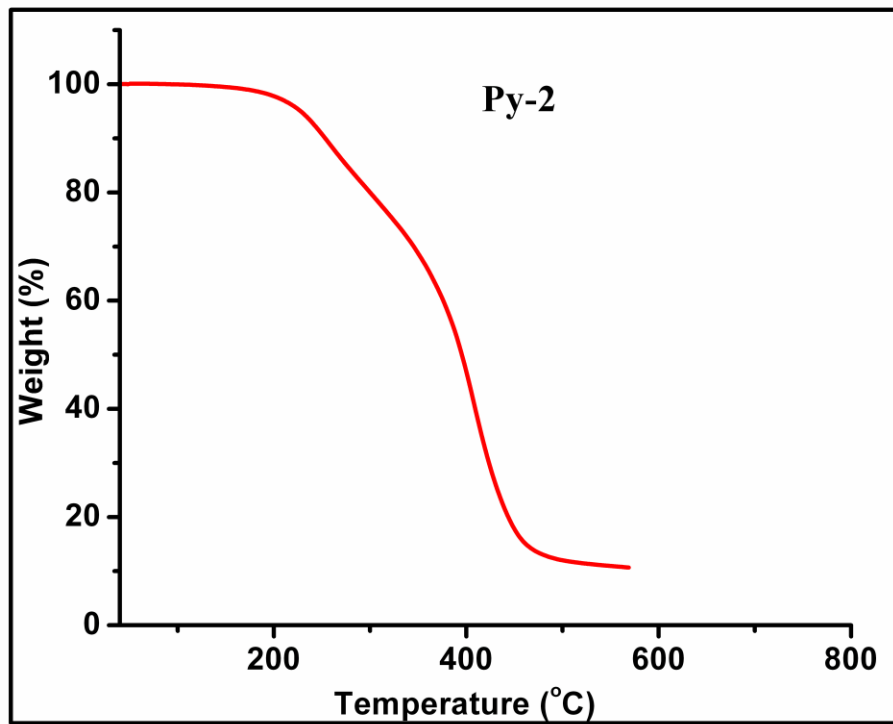


Figure S7. MALDI-TOF spectrum of PY-1, PY-2 and PY-3.

TGA (PY-1)



TGA (PY-2)



TGA (PY-3)

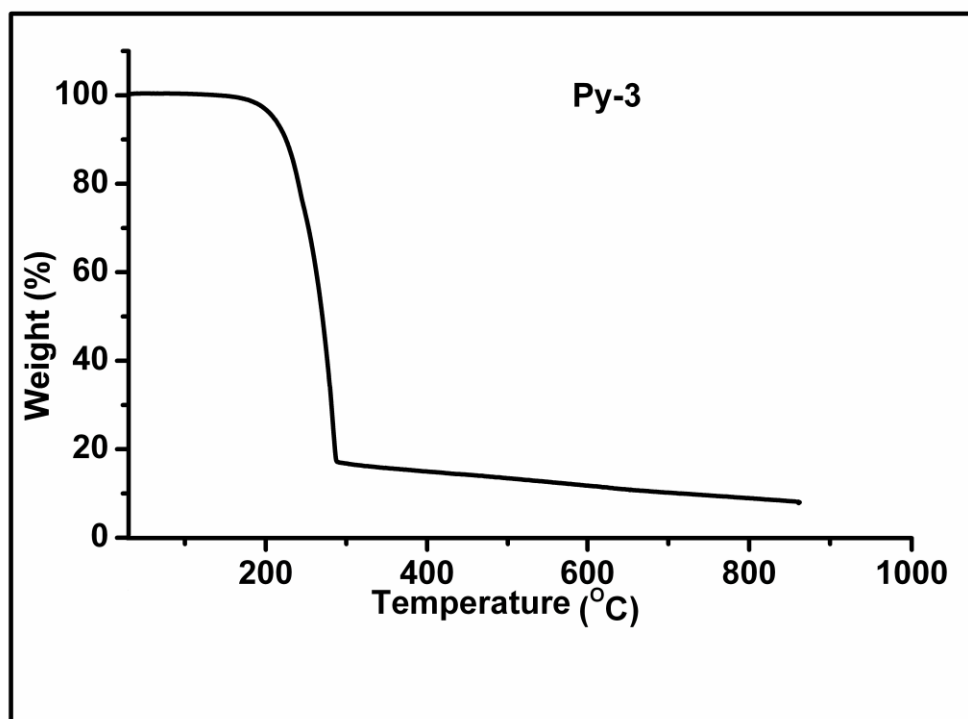


Figure S8. TGA thermograms of PY-1, PY-2 and PY-3.

Table 1. Electroluminescent quantum yield (ELQY) of PY-1, PY-2 and PY-3 based OLED devices using various conditions.

Device	Max. ELQY (%)
PY-1 (5 %)	2
PY-1 (10 %)	2
PY-1 (15 %)	0.7
PY-2 (40 nm)	0.04
PY-2 (45 nm)	0.06
PY-2 (50 nm)	0.02
PY-3 (40 nm)	0.1
PY-3 (45 nm)	0.07
PY-3 (50 nm)	0.1