Electronic Supplementary Information (ESI)

High performance organic light-emitting diodes based on *tetra*(methoxy)-containing anthracene derivatives as a hole transport and electron-blocking layer

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Experimental section:

1. The CV curves of target compounds

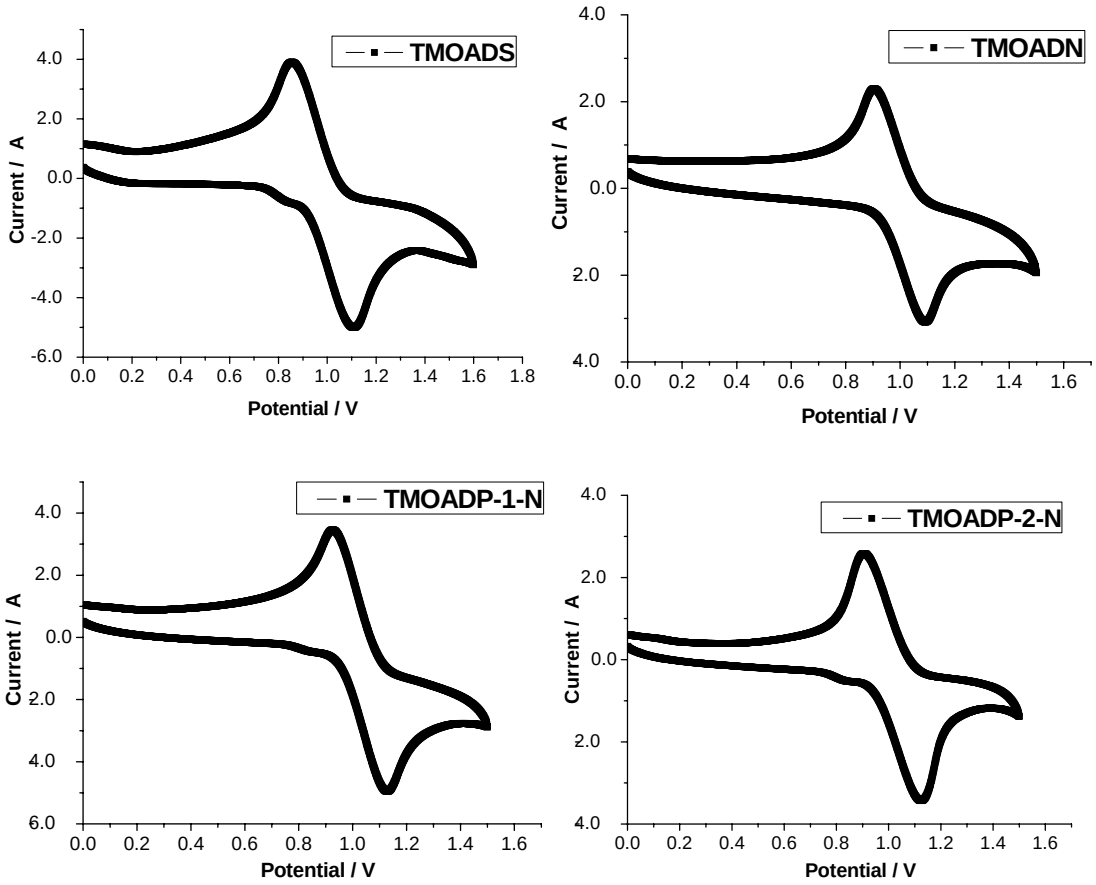

Fig. 1. CV traces of target compounds (1×10^{-3}M) in CH_2Cl_2 (0.1M Bu_4NPF_6). Working electrode: platinum disk, diameter1 mm; sweep rate 100 mV s^{-1}.

2. The TGA curves of target compounds

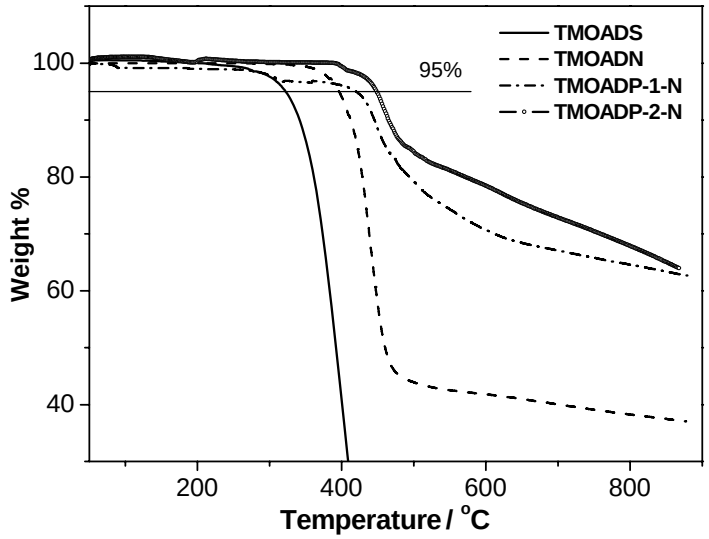

Fig. 2. The TGA (thermogravimetric analysis) curves of the target compounds (The samples were heated up to 900 ºC at a heating rate of 20 ºC min^{-1}).

3. The EL spectra of devices A-E

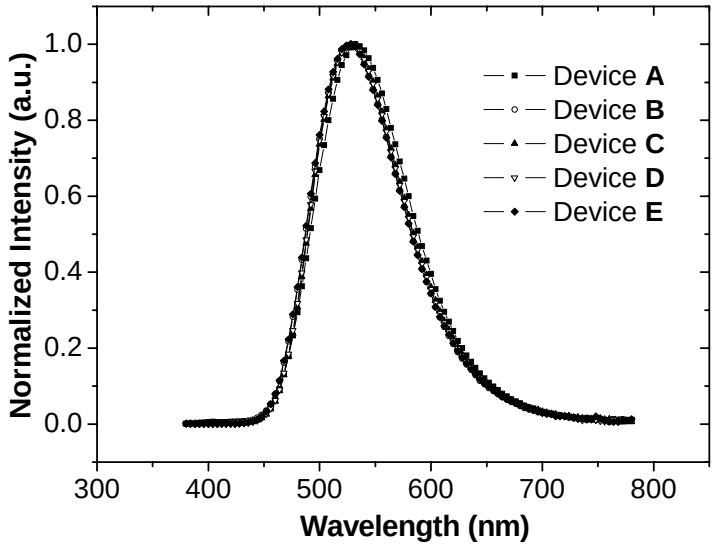

Fig. 3. The EL spectra of devices **A**-**E** at 20 mA cm^{-2}

4. ^{1}H NMR , ^{13}C NMR and High-Resolution Mass Spectra of target compounds:

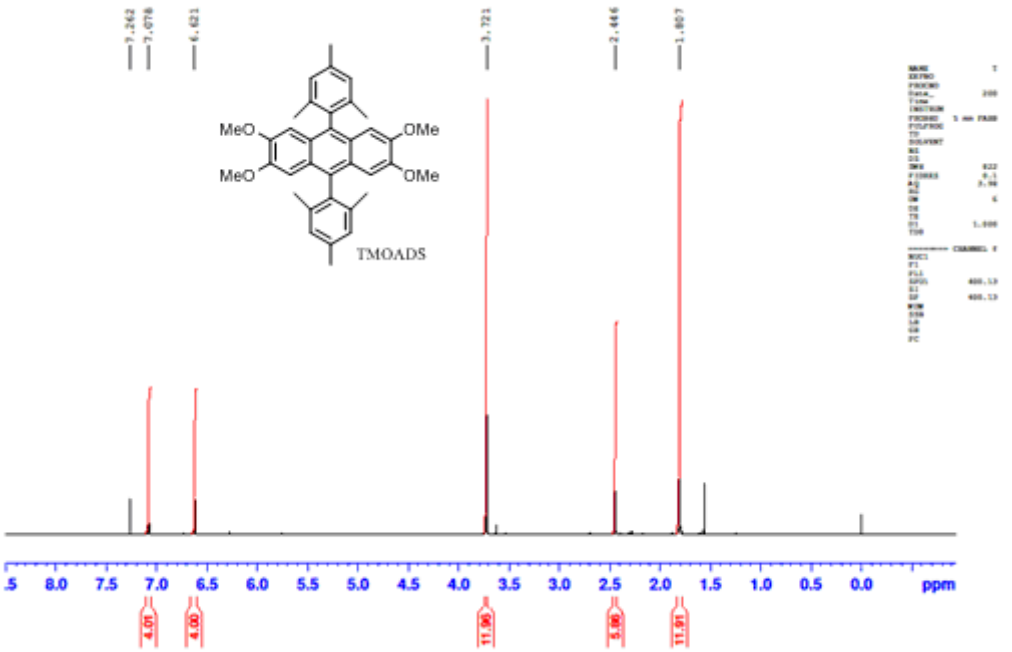

Fig. 4. ^{1}H NMR spectra of **TMOADS**

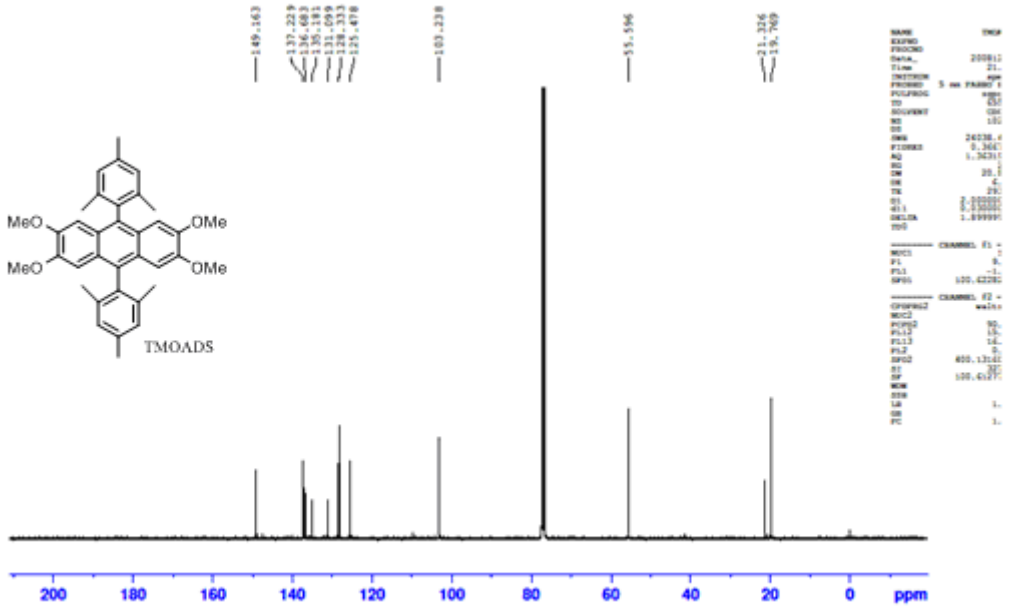

Fig. 5. ^{13}C NMR spectra of **TMOADS**

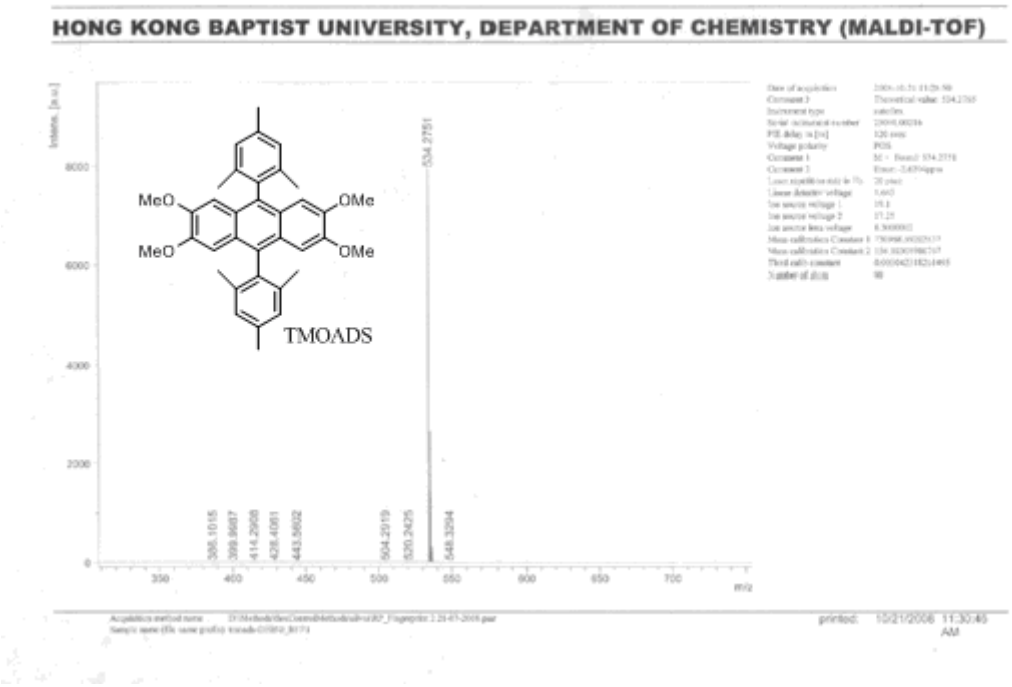

Fig. 6. High-resolution MALDI-TOF mass spectra of **TMOADS**

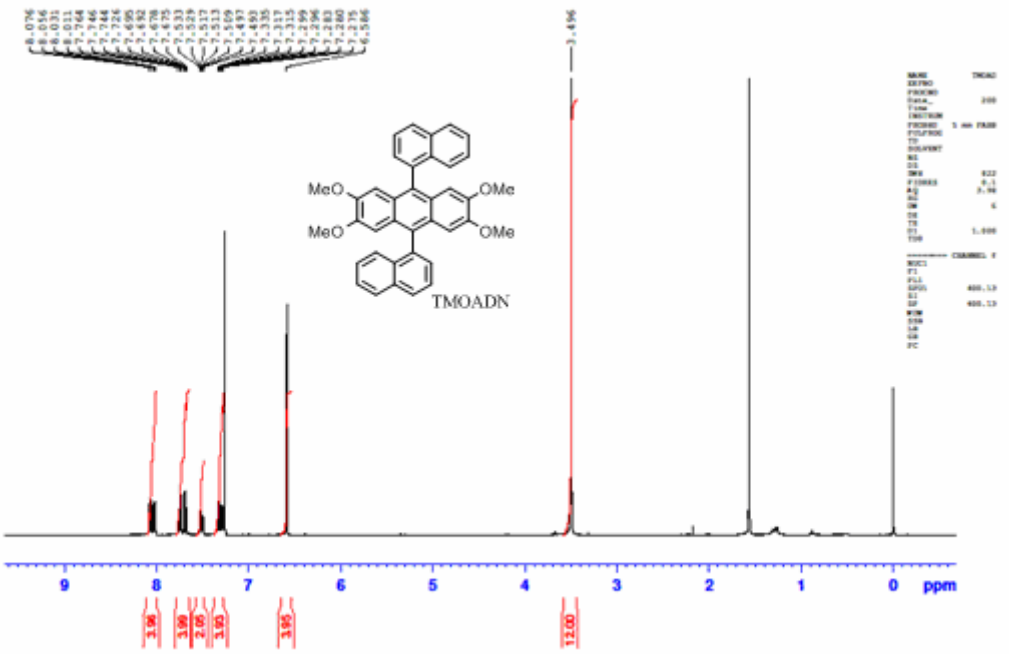

Fig. 7. ^{1}H NMR spectra of **TMOADN**

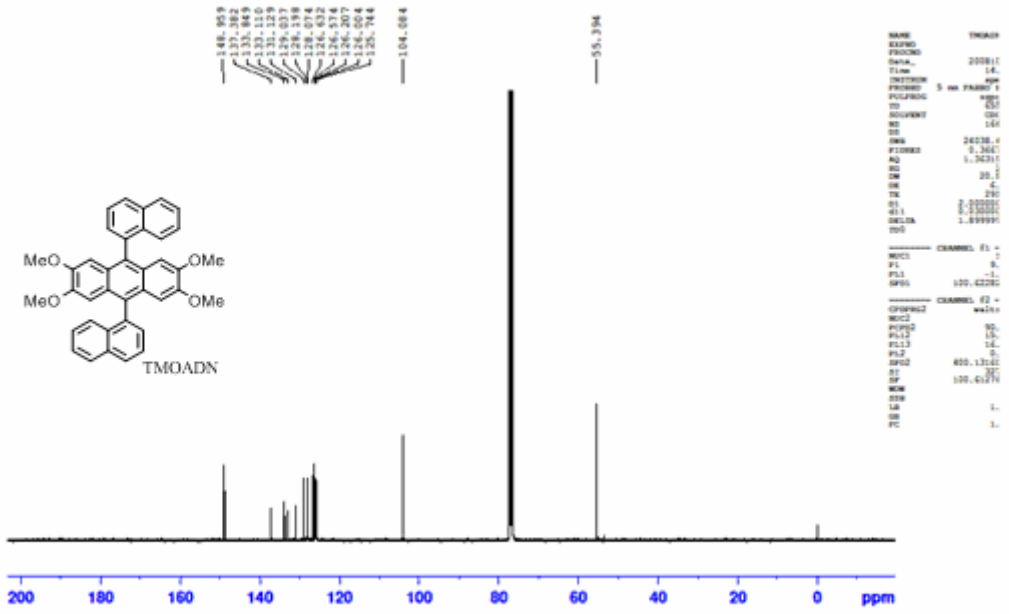

Fig. 8. ^{13}C NMR spectra of **TMOADN**

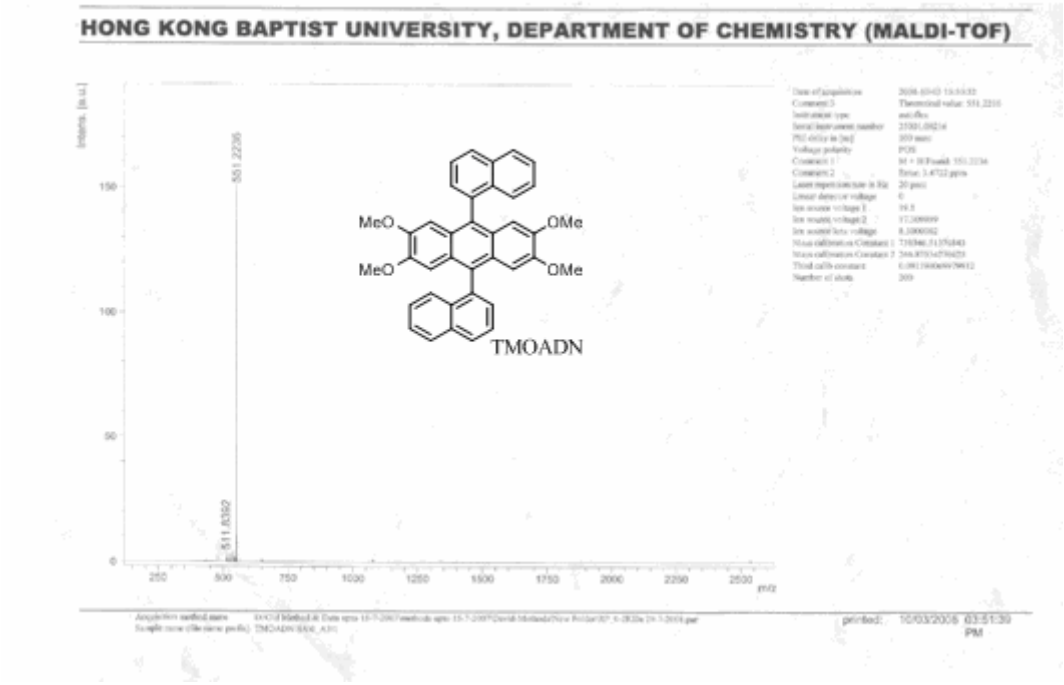

Fig. 9. High-resolution MALDI-TOF mass spectra of **TMOADN**

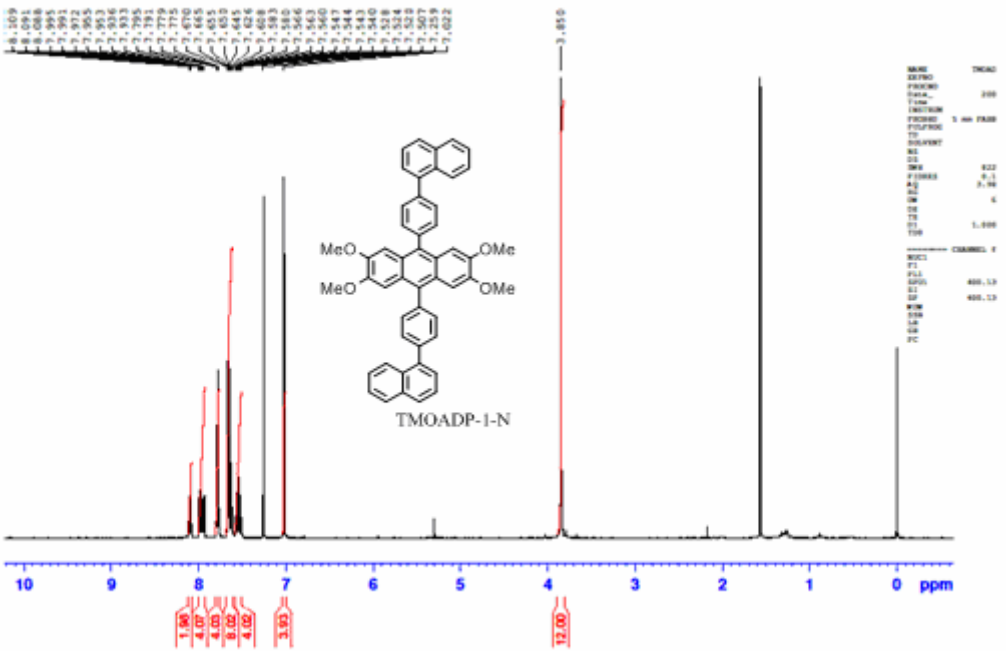

Fig. 10. ^{1}H NMR spectra of **TMOADP-1-N**

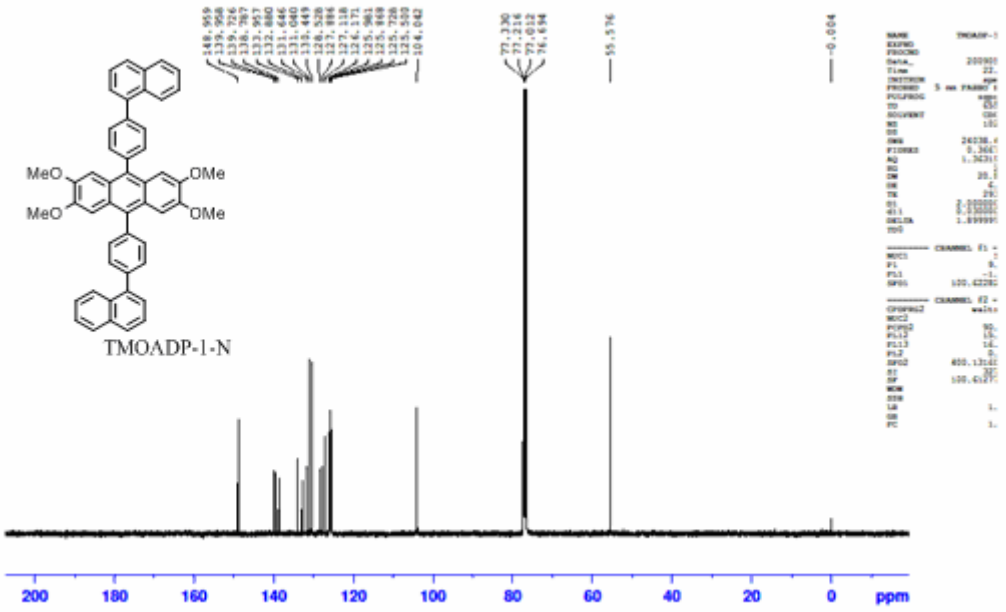

Fig. 11. ^{13}C NMR spectra of **TMOADP-1-N**

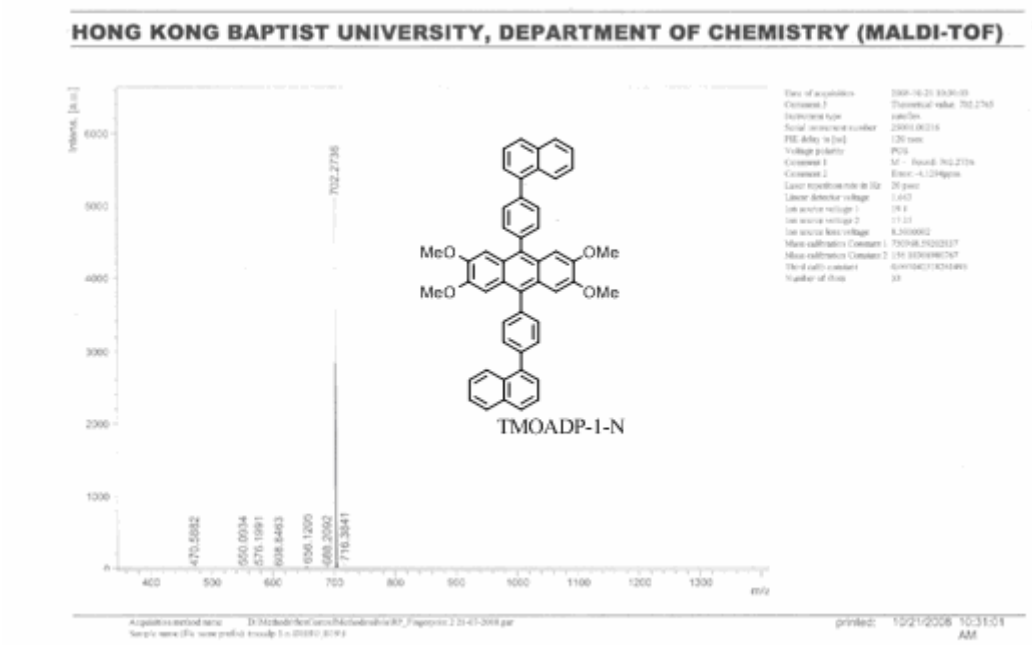

Fig. 12. High-resolution MALDI-TOF mass spectra of **TMOADP-1-N**

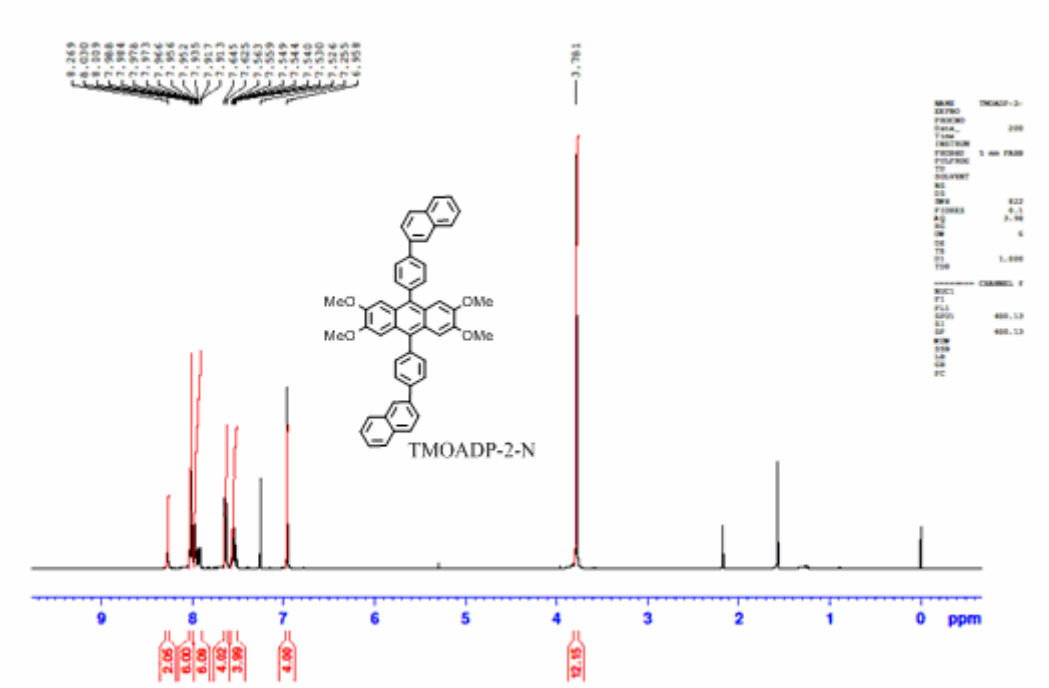

Fig. 13. ^{1}H NMR spectra of **TMOADP-2-N**

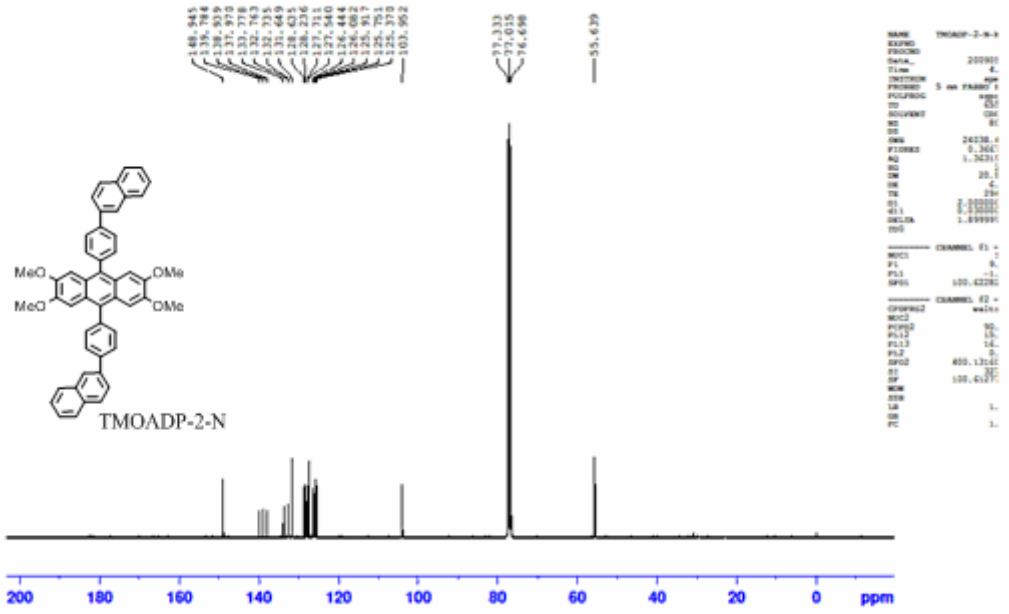

Fig. 14. ^{13}C NMR spectra of **TMOADP-2-N**

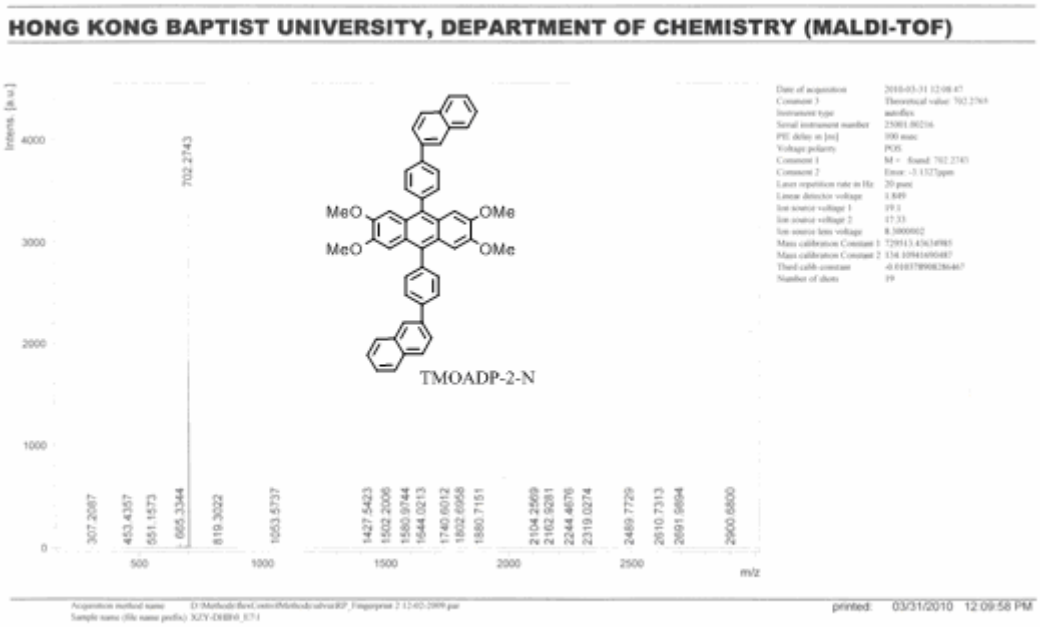

Fig. 15. High-resolution MALDI-TOF mass spectra of **TMOADP-2-N**