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 ($1 \times 10^{-3}$M) in CH$_2$Cl$_2$ (0.1M Bu$_4$NPF$_6$). Working electrode: platinum disk, diameter 1 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 °C at a heating rate of 20 °C 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