Supporting Information

Starburst 4,4’,4’’-Tris(carbazol-9-yl)-triphenylamine-Based Deep-Blue Fluorescent Emitters with Tunable Oligophenyl Length for Solution-Processed Undoped Organic Light-Emitting Diodes


[a] State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, P. R. China
[b] University of the Chinese Academy of Sciences, Beijing 100049, P. R. China
Figure S1. $^1$H NMR spectrum of 2P-TCTA.

Figure S2. $^{13}$C NMR spectrum of 2P-TCTA.
**Figure S3.** MALDI mass spectrum of 2P-TCTA.

**Figure S4.** $^1$H NMR spectrum of 3P-TCTA.
**Figure S5.** $^{13}$C NMR spectrum of 3P-TCTA.

**Figure S6.** MALDI mass spectrum of 3P-TCTA.
Figure S7. $^1$H NMR spectrum of 4P-TCTA.

Figure S8. $^{13}$C NMR spectrum of 4P-TCTA.
Figure S9. MALDI mass spectrum of 4P-TCTA.

Figure S10. $^1$H NMR spectrum of 5P-TCTA.
Figure S11. $^{13}$C NMR spectrum of 5P-TCTA.

Figure S12. MALDI-TOF mass spectrum of 5P-TCTA.
Figure S13. The architecture of the devices and the chemical structure of 1,3,5-tris(1-phenyl-1H-benzimidazol-2-yl)benzene (TPBI).

Figure S14. The power efficiency — current density characteristics of the devices.

Figure S15. The external quantum efficiency — current density characteristics of the devices.