Supplementary Information

Hybrid host materials for highly efficient electrophosphorescence and thermally activated delayed fluorescence independent of the linkage mode

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Fig. S1 $^1$H NMR spectrum of $t$Bu-OXD-o-L-TPA in CDCl$_3$.

Fig. S2 $^{13}$C NMR spectrum of $t$Bu-OXD-o-L-TPA in CDCl$_3$. 
Fig. S3 HRMS spectrum of \textit{t}Bu-OXD-\textit{o}-L-TPA.

Fig. S4 \textit{1}H NMR spectrum of \textit{t}Bu-OXD-\textit{m}-L-TPA in CDCl$_3$. 
Fig. S5 $^{13}$C NMR spectrum of $t$Bu-OXD-$m$-L-TPA in CDCl$_3$.

Fig. S6 HRMS spectrum of $t$Bu-OXD-$m$-L-TPA.
Fig. S7 ¹H NMR spectrum of \( \text{tBu-OXD-} p \text{-L-TPA} \) in CDCl₃.

Fig. S8 \(^{13}\text{C}\) NMR spectrum of \( \text{tBu-OXD-} p \text{-L-TPA} \) in CDCl₃.
Fig. S9 HRMS spectrum of \( \text{tBu-OXD-} o \text{-L-TPA} \).

Fig. S10 UV–Vis absorption spectra of \( \text{tBu-OXD-} o \text{-L-TPA} \), \( \text{tBu-OXD} \), and TPA in dilute \( \text{CH}_2\text{Cl}_2 \) solutions.
Fig. S11 (a) Current density-voltage-luminance ($J-V-L$) characteristics, (b) external quantum efficiency and power efficiency *versus* luminance characteristics, and (c) the normalized EL spectra for TADF blue, phosphorescent blue and green OLEDs based on $t$Bu-OXD-$m$-L-TPA.