**Supporting Information**

# Deep-Red Fluorophore Based on Naphthothiadiazole as Emitter with HLCT, AIE and Ambipolar Transporting Properties for Electroluminescent Device

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**Figure S1.** 1H NMR spectrum of **2** in CDCl3 (600 MHz), 25 ºC.



**Figure S2.** 13C NMR spectrum of **2** in CDCl3 (151 MHz), 25 ºC.



**Figure S3.** APCI-TOF mass spectrum [M+H]+ of **2**.



**Figure S4.** APCI-TOF mass spectrum [M+H]+ of the crude product from the NBS bromination the synthesis of **3**.



**Figure S5.** 1H NMR spectrum of **3** in CDCl3 (600 MHz), 25 ºC.



**Figure S6.** 13C NMR spectrum of **3** in CDCl3 (151 MHz), 25 ºC.



**Figure S7.** APCI-TOF mass spectrum [M+H]+ of **3**.



**Figure S8.** 1H NMR spectrum of **TPECNz** in CDCl3 (600 MHz), 25 ºC.



**Figure S9.** 13C NMR spectrum of **TPECNz** in CDCl3 (151 MHz), 25 ºC.



**Figure S10.** MALDI-TOF mass spectrum [M]+ of **TPECNz**.