

Electronic Supplementary Information

Rational bridging affording luminogen with AIE feature and high field effect mobility

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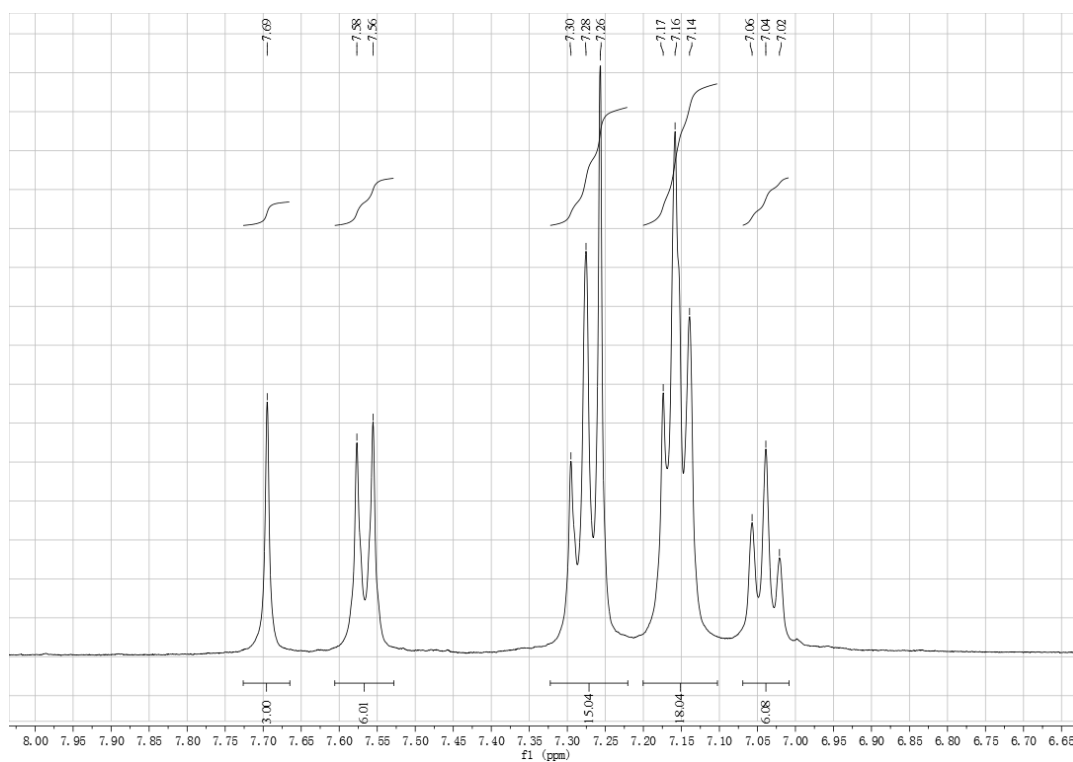


Fig. S1 ^1H NMR spectrum of 3TPAB in CDCl_3 .

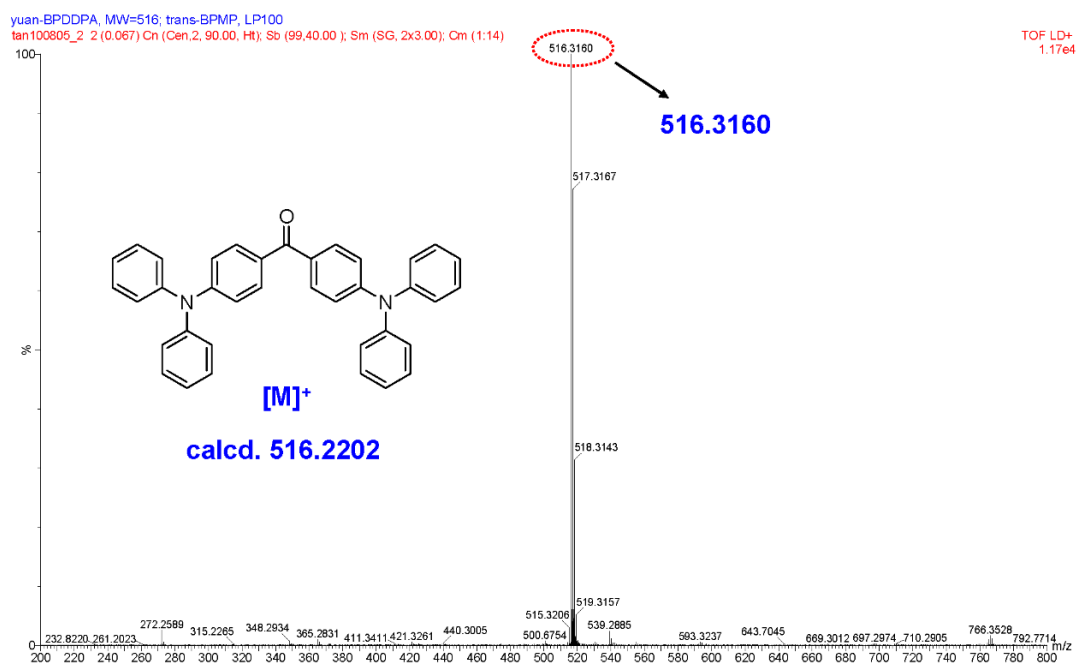


Fig. S2 HRMS of compound **5**.

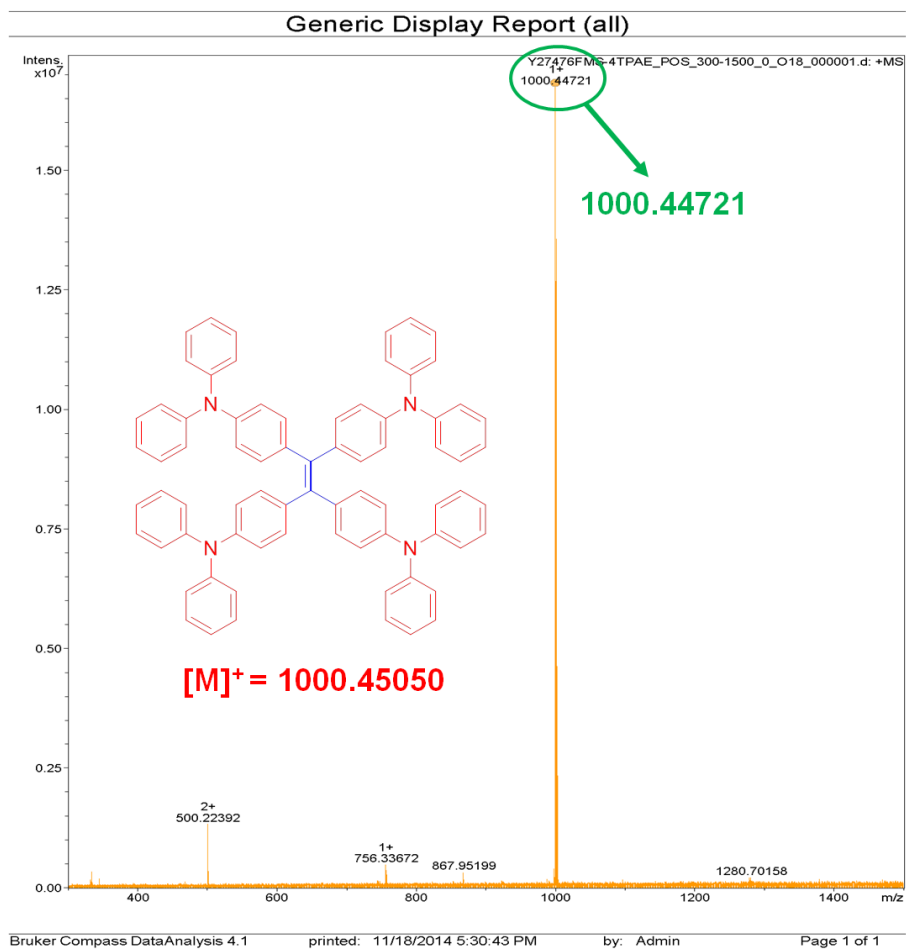


Fig. S3 HRMS of 4TPAE.

Table S1 Single crystal data of 4TPAE.

Compound reference	4TPAE
Chemical formula	C ₇₄ H ₅₆ N ₄
Formula Mass	1001.23
Crystal system	
<i>a</i> /Å	10.6440(18)
<i>b</i> /Å	14.262(4)
<i>c</i> /Å	18.828(3)
α /°	94.179(17)
β /°	95.469(14)
γ /°	108.415(19)
Unit cell volume/ Å ³	2683.4(9)
Temperature/K	173
Space group	<i>P</i> -1
No. of formula units per unit cell, <i>Z</i>	2
No. of reflections measured	13790
No. of independent reflections	8815
<i>R</i> _{int}	0.1467
Final <i>R</i> _{<i>I</i>} values (<i>I</i> > 2σ(<i>I</i>))	0.0606
Final <i>wR</i> (<i>F</i> ²) values (<i>I</i> > 2σ(<i>I</i>))	0.1111
Final <i>R</i> _{<i>I</i>} values (all data)	0.2160
Final <i>wR</i> (<i>F</i> ²) values (all data)	0.1574

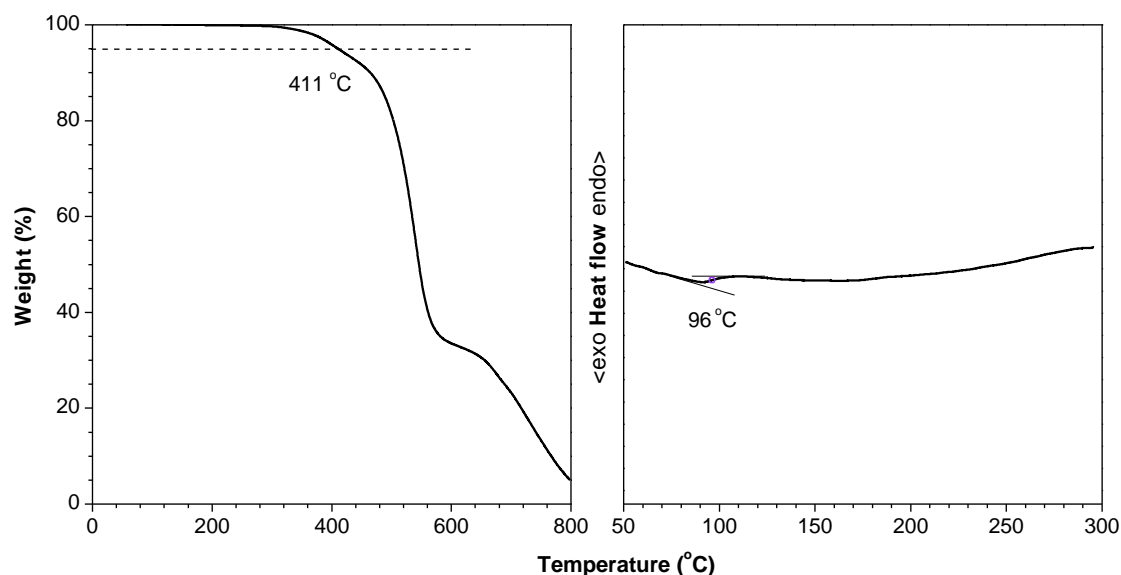


Fig. S4 (A) TGA and (B) DSC thermograms of 4TPAE recorded under nitrogen at a scan rate of 20 °C min⁻¹. The DSC curve was recorded during the first cooling cycle.

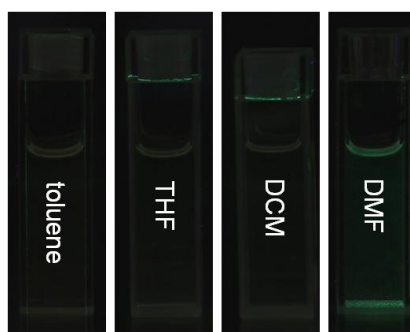


Fig. S5 Photographs of 4TPAE in toluene, THF, DCM and DMF taken under 365-nm UV light irradiation. Concentration = 5 μ M.

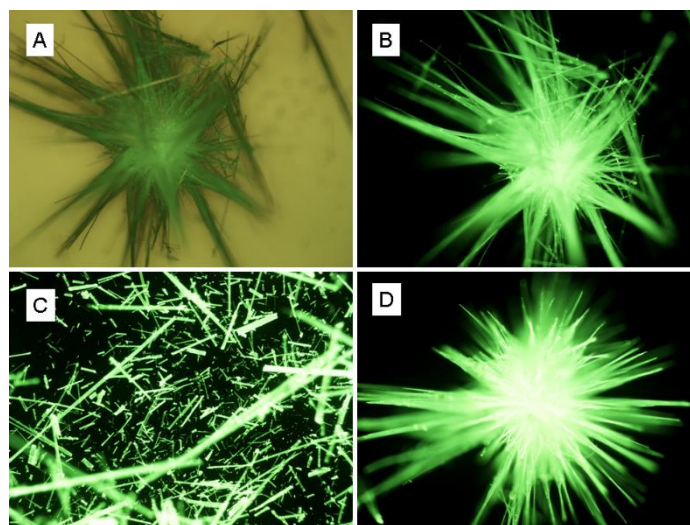


Fig. S6 Photographs of the crystals of 4TPAE.

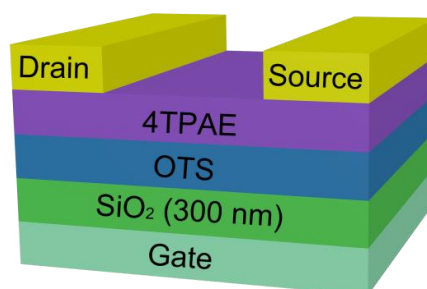


Fig. S7 OFET device structure based on 4TPAE.

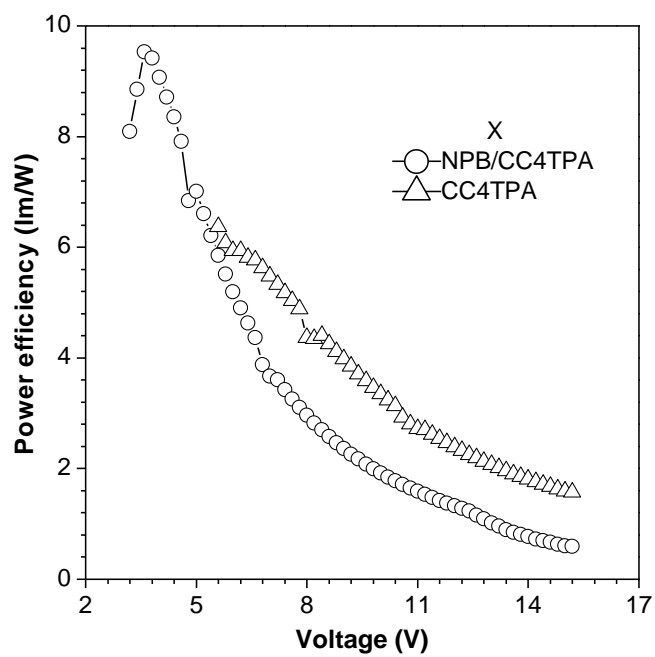


Fig. S8 Power efficiency-voltage plots of the OLED devices of 4TPAE with a general configuration of ITO/X/TPBi/LiF/Al.