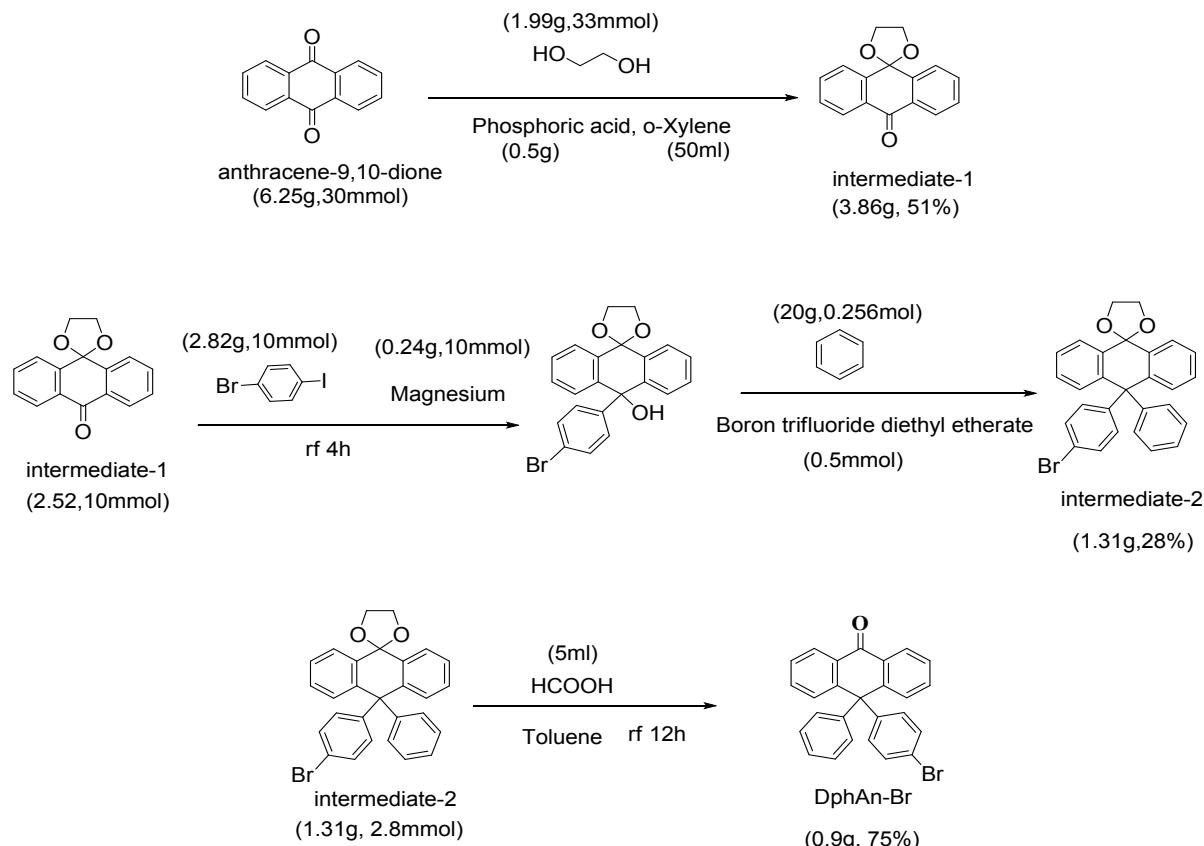


## Low energy consumption phosphorescent organic light-emitting diodes using phenyl anthracenone derivatives as host featuring bipolar and thermally activated delayed fluorescence

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Scheme. S1 The synthetic route of DphAn-Br.

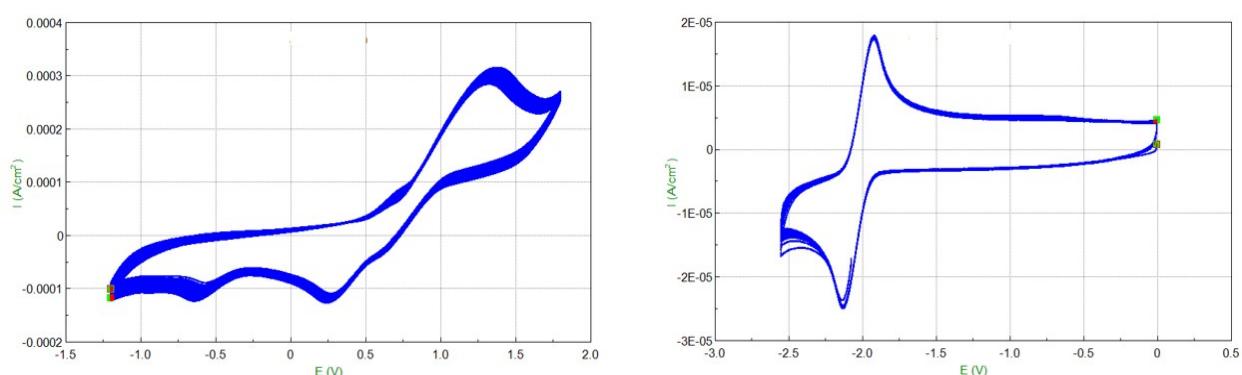


Fig. S1 Cyclic Voltammograms curves of DphAn-5BzAc: Oxidation potential (left) and Reduction potential(right).

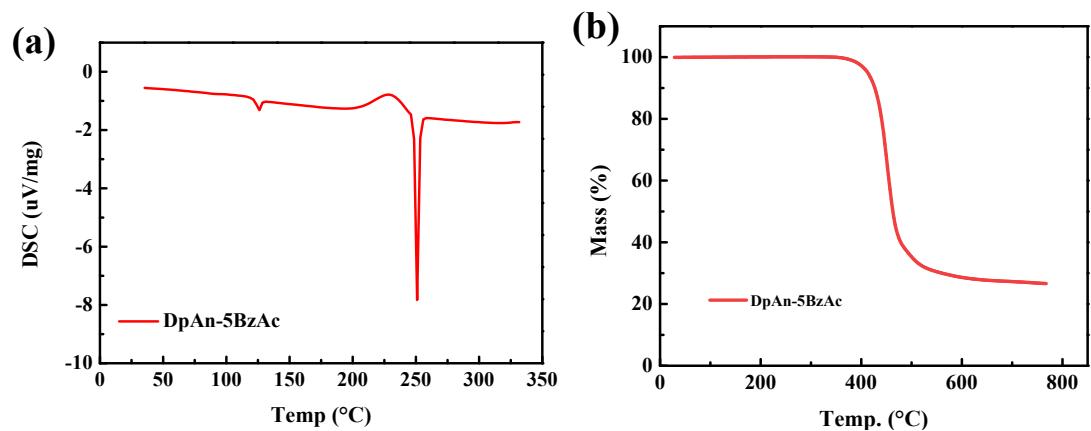


Fig. S2 Differential scanning calorimeter (DSC) curve and thermal gravimetric analysis (TGA) curve of DphAn-5BzAc.

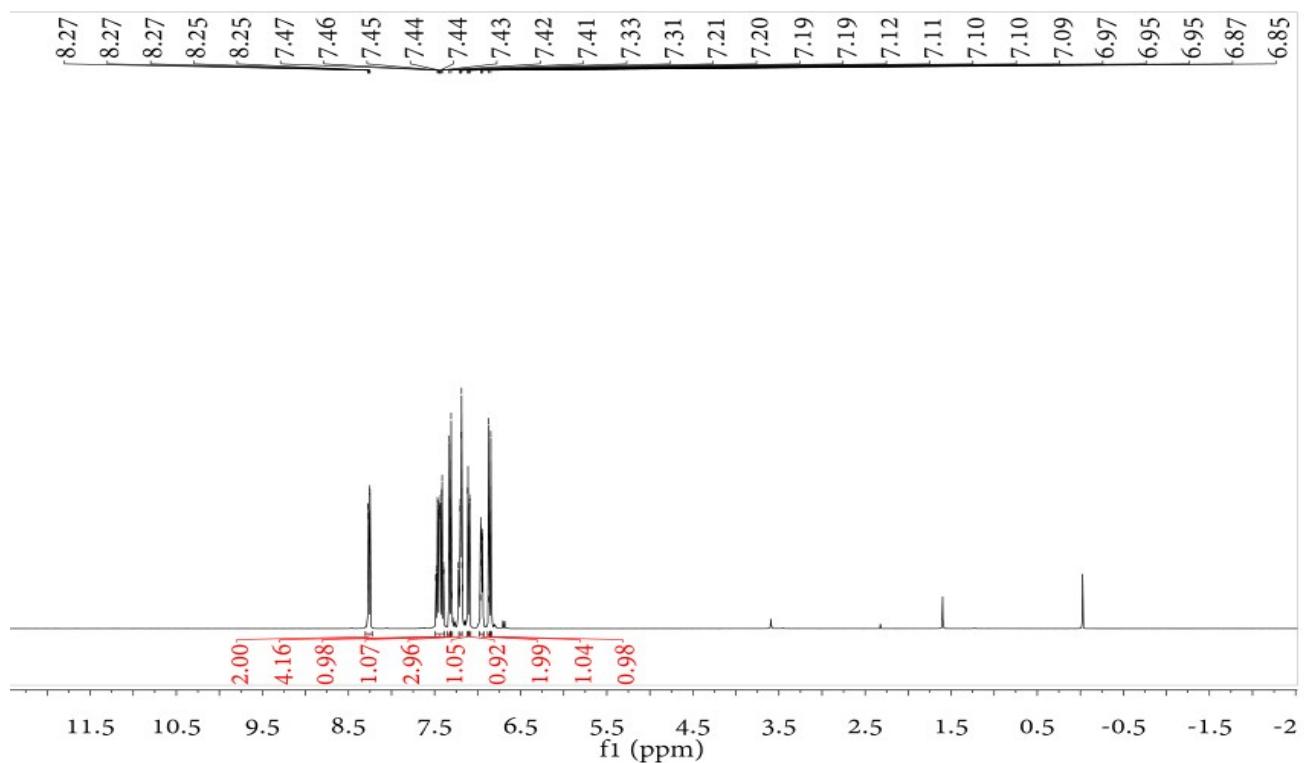


Fig. S3 The <sup>1</sup>H NMR spectra of DphAn-Br.

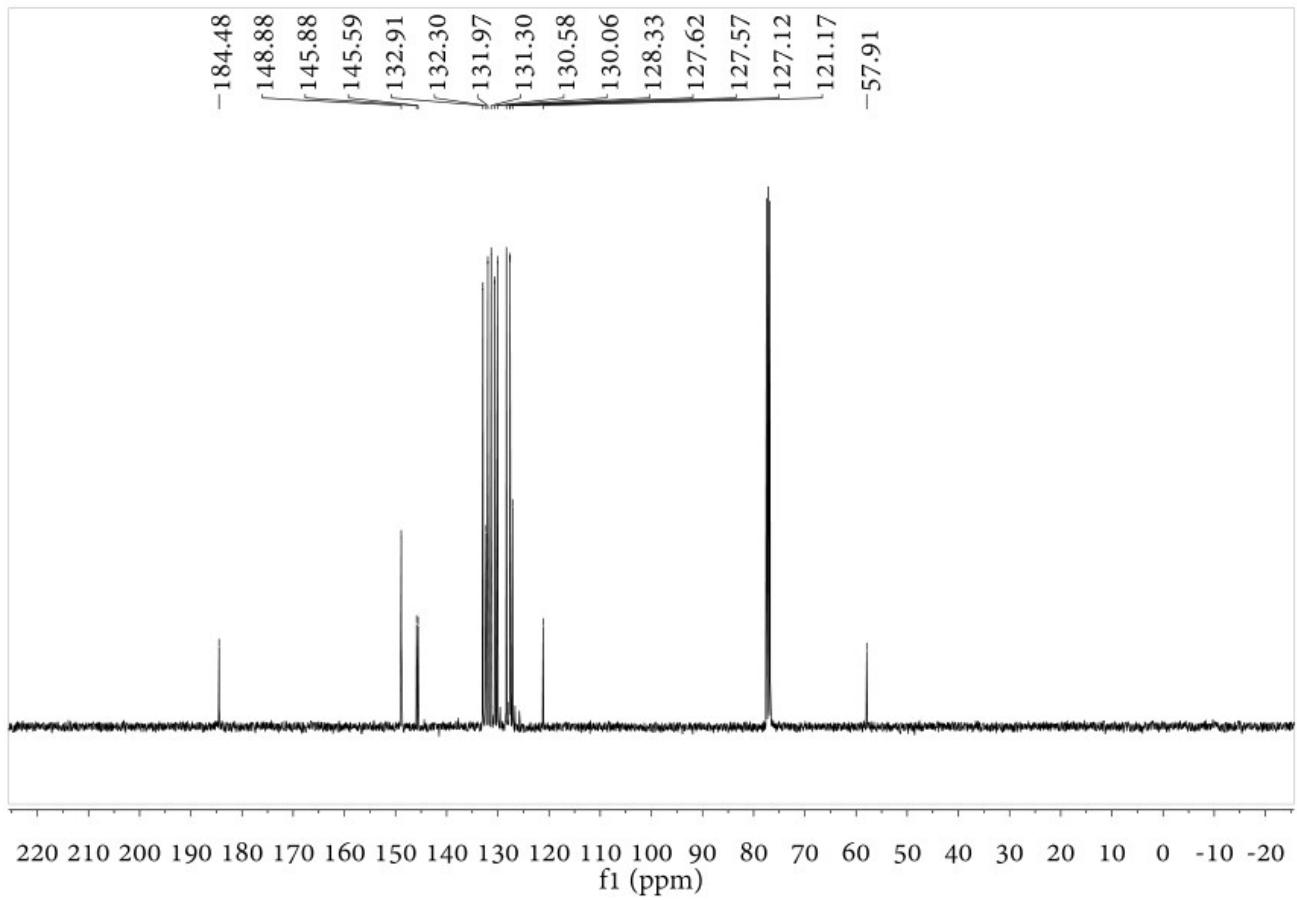


Fig. S4. The  $^{13}\text{C}$  NMR spectra of DphAn-Br.

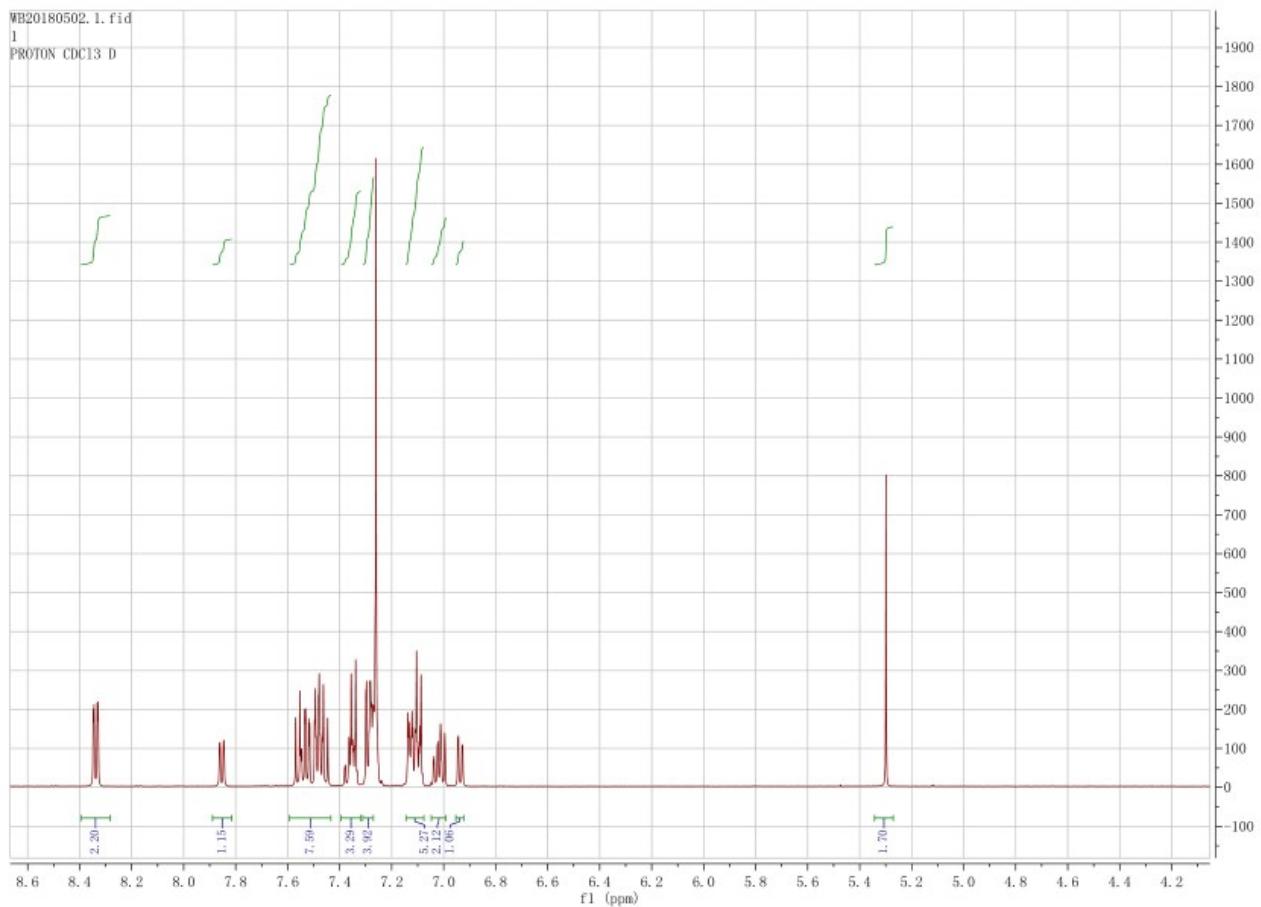


Fig. S5. The <sup>1</sup>H NMR spectra of DphAn-5BzAc.

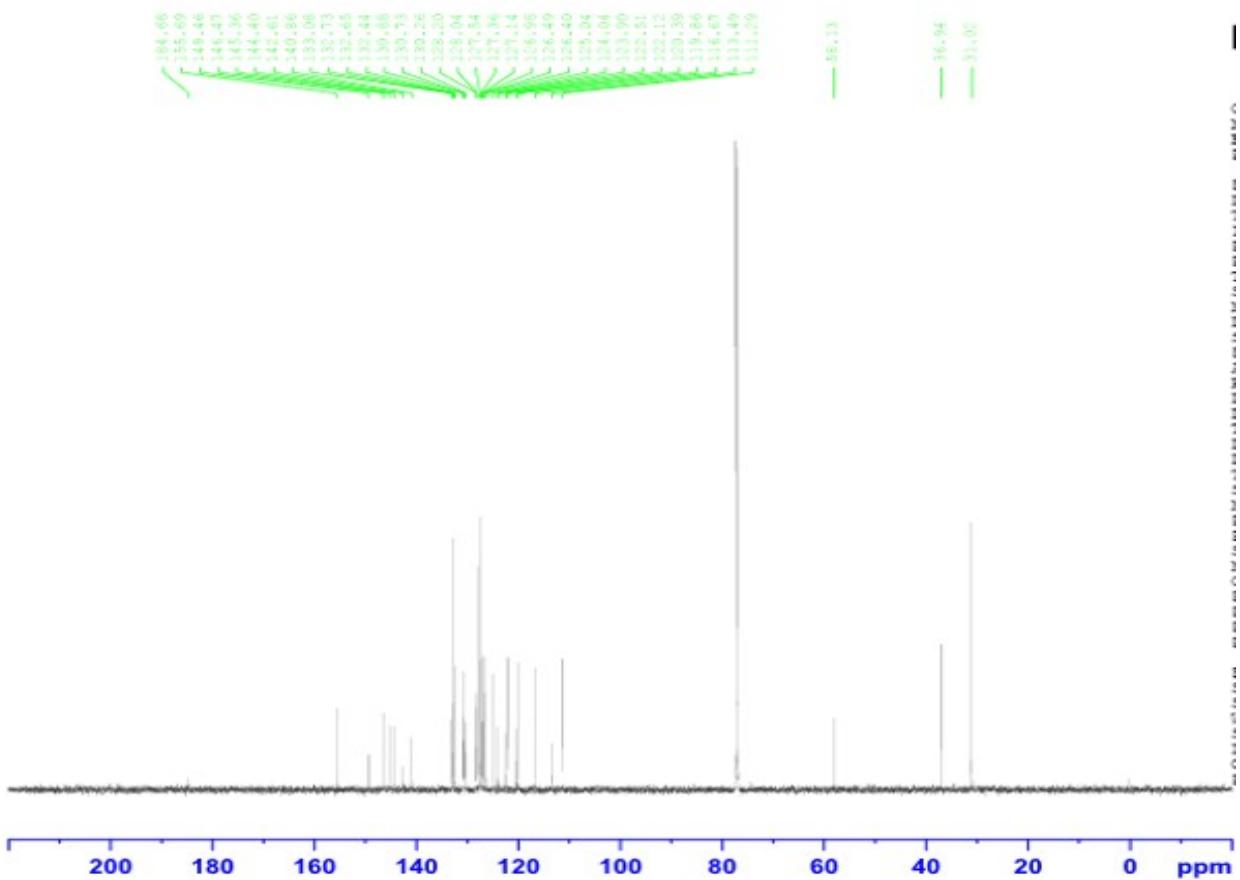


Fig. S6. The  $^{13}\text{C}$  NMR spectra of DphAn-5BzAc.