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Supporting Information

Blue Thermally Activated Delayed Fluorescence Emitters with δ-Pyridoindole Donor Moiety

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Contents

1. Analysis of new TADF materials

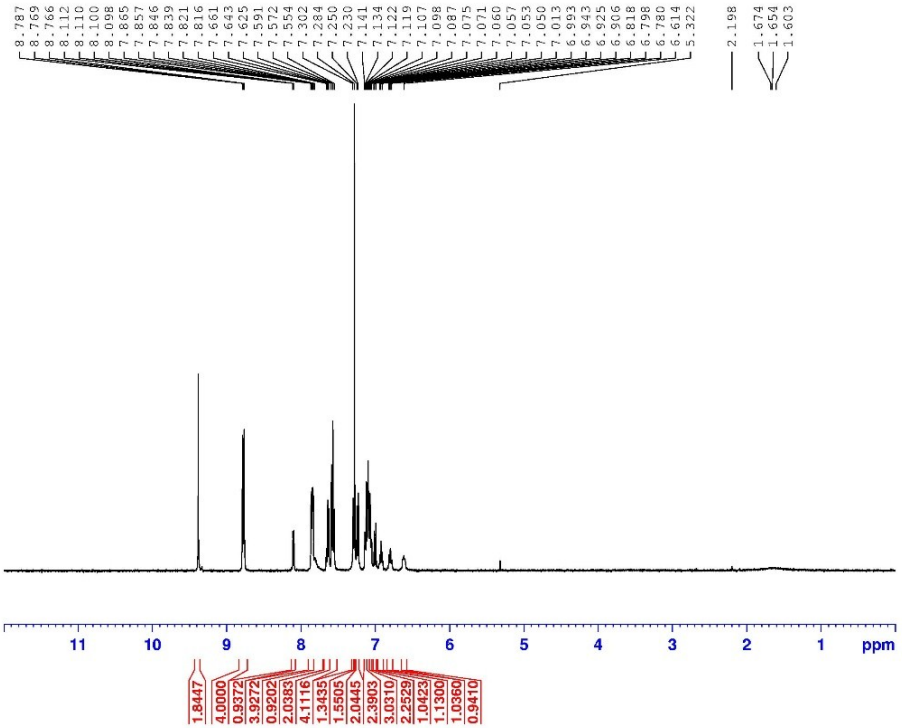

Fig. S1. ^{1}H NMR of DCzCbTrz.

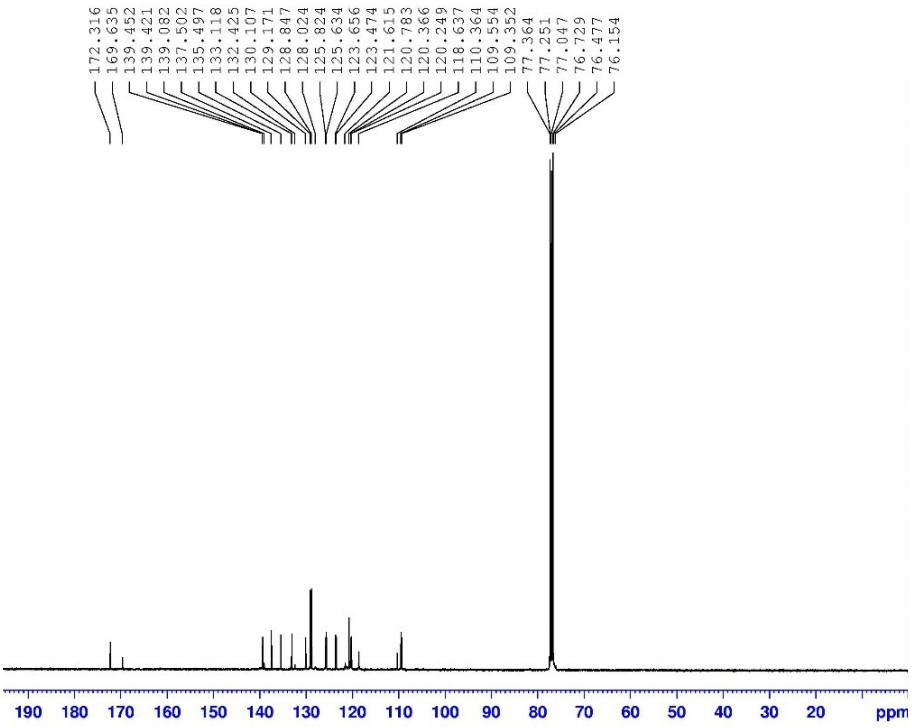

Fig. S2. ^{13}C NMR of DCzCbTrz.

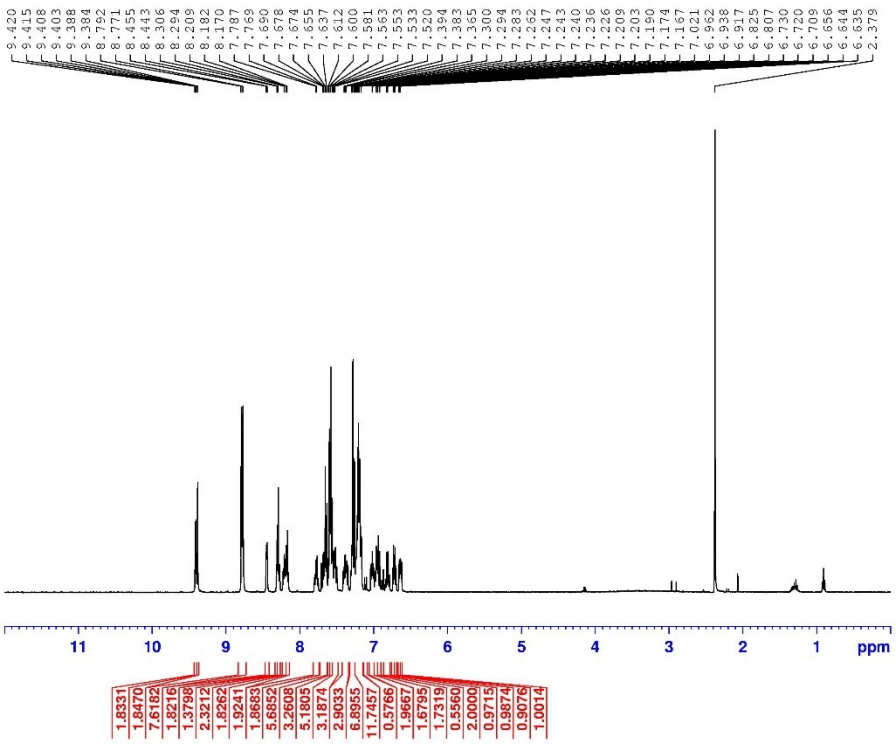

Fig. S3. [1]H NMR of TCbTrz.

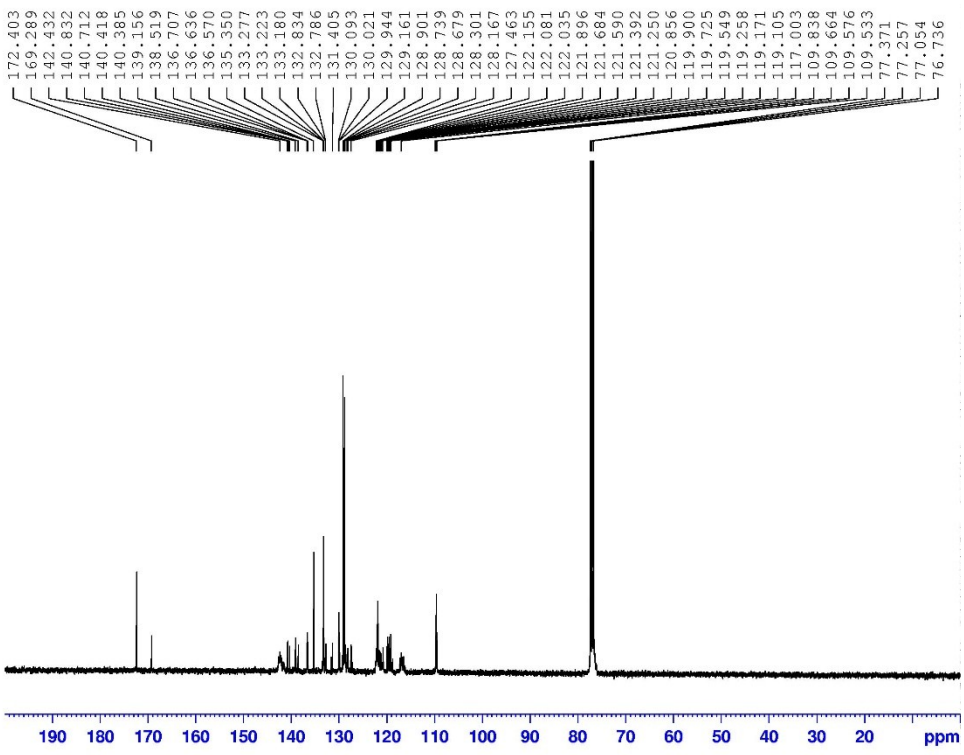

Fig. S4. [13]C NMR of TCbTrz.

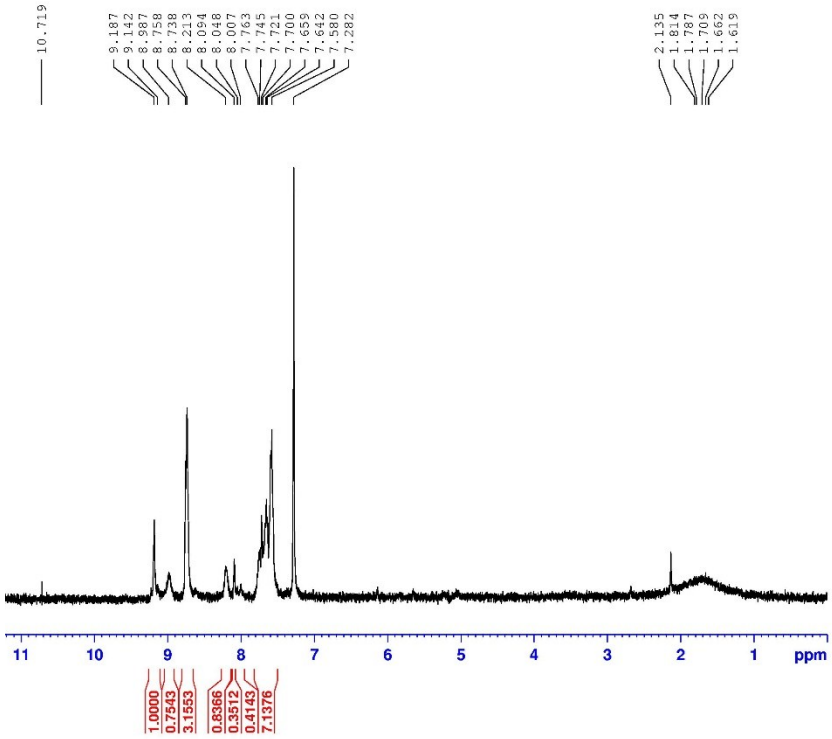

Fig. S5. ^{1}H NMR of DCbTrz.

2. Solvatochromic effects

Their solvatochromic effect was also found depending on various polarity solvents. Bathochromic shift of representative molecule, DCzCbTrz was in Fig. S6.

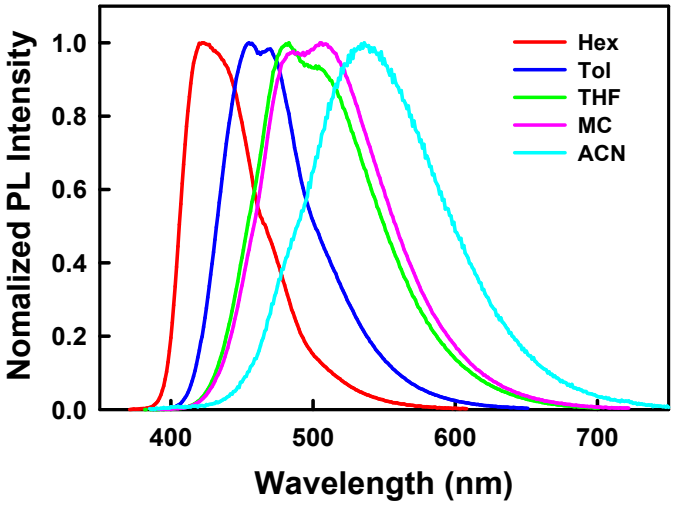

Fig. S6. Solvatochromic effect of DCzCbTrz

3. Cyclic voltammograms of new TADF materials

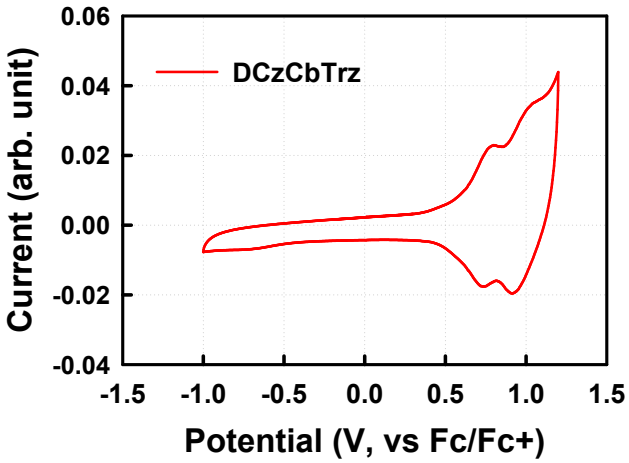

Fig. S7. Cyclic voltamogarm of DCzCbTrz.

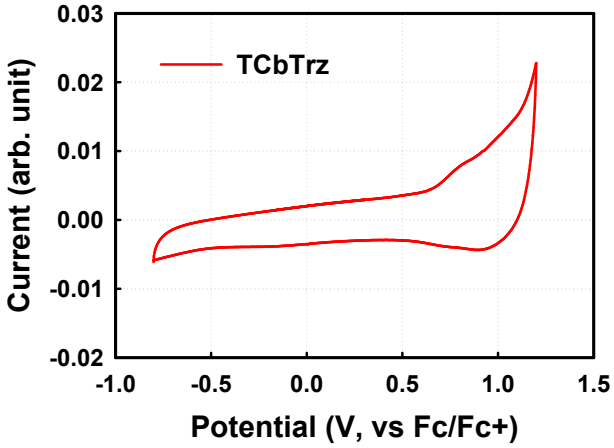

Fig. S8. Cyclic voltamogarm of TCzTrz.

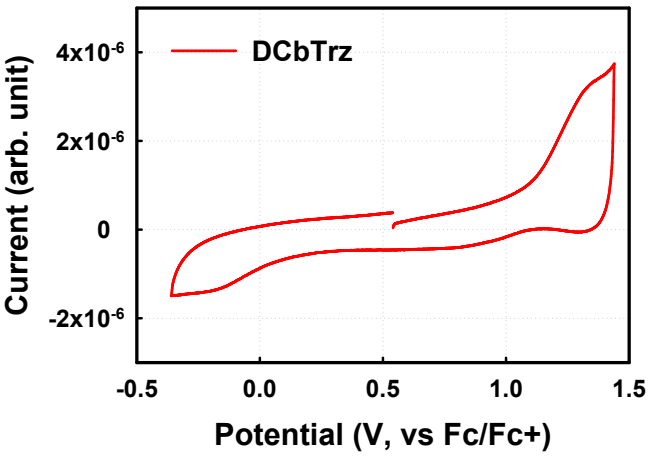

Fig. S9. Cyclic voltamogarm of DCbTrz.

4. Transient PL analysis

Their transient PL spectrum of thin film 40 % doped in high triplet host material, 2,8-bis(diphenylphosphine oxide)dibenzofuran (DBFPO) showed strong TADF characters and exciton lifetime were calculated 2.9 to 15.6 μs. (Fig. S10)

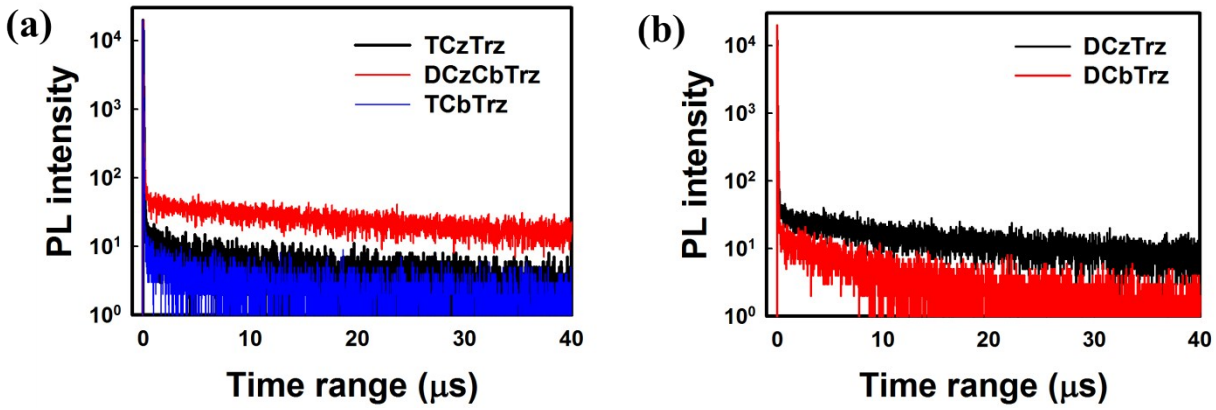

Fig. S10. Transient PL decay measured from (a) DBFPO : 40% emitter film. Black line for TCzTrz, red line for DCzCbTrz and blue line for TCbTrz, (b) DBFPO : 40% emitter film. Black line for DCzTrz and red line for DCbTrz.