# Supporting Information

## Polycyclic Motifs Engineering in Cynaostilbene Based Donors Towards Highly Efficient Modulable Emission Properties in Two-Component System

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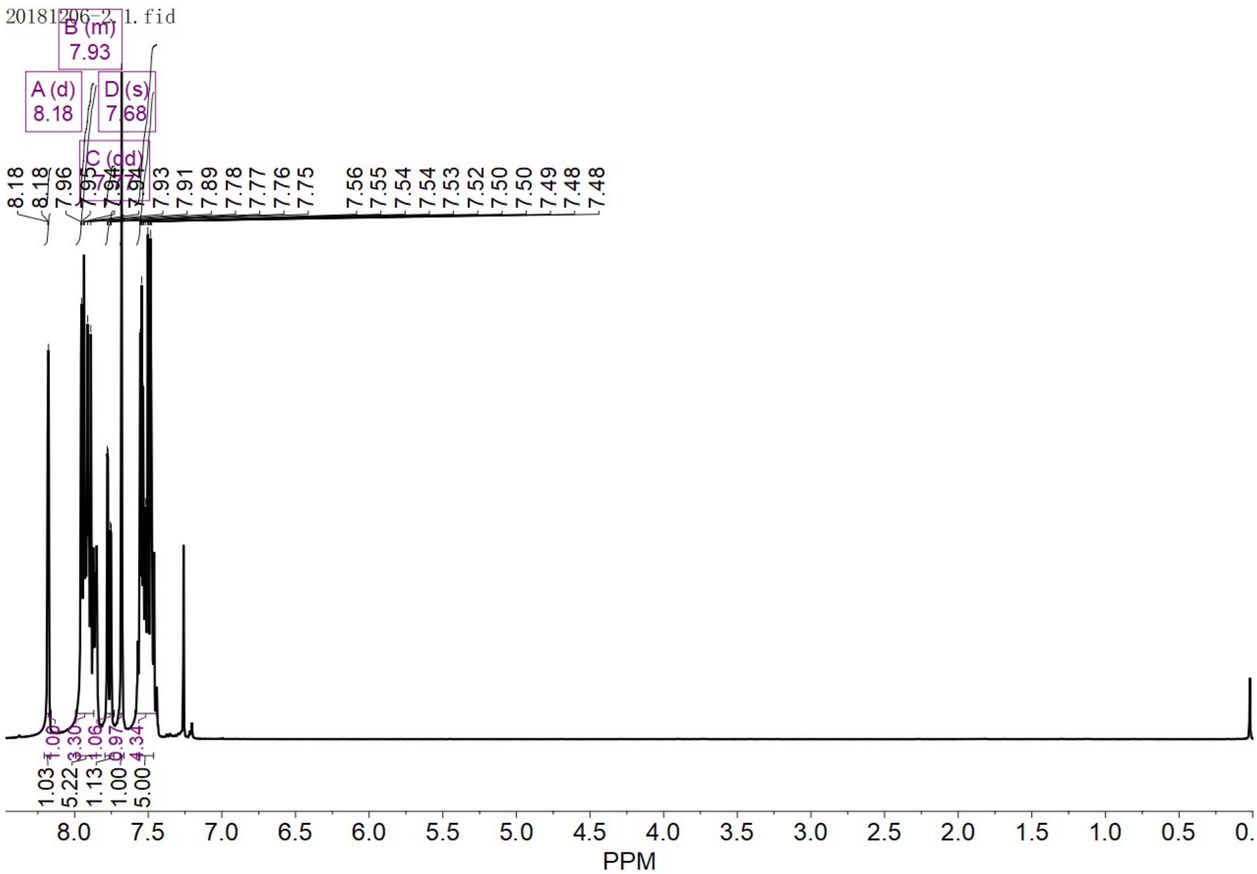


**Figure S1.** $^{1}$HNMR of **NPN**

$^{1}$H NMR (400 MHz, Chloroform-*d*) δ 8.18 (d, *J* = 2.0 Hz, 1H), 7.99 – 7.87 (m, 5H), 7.77 (dd, *J* = 8.7, 2.0 Hz, 1H), 7.68 (s, 1H), 7.59 – 7.44 (m, 5H).

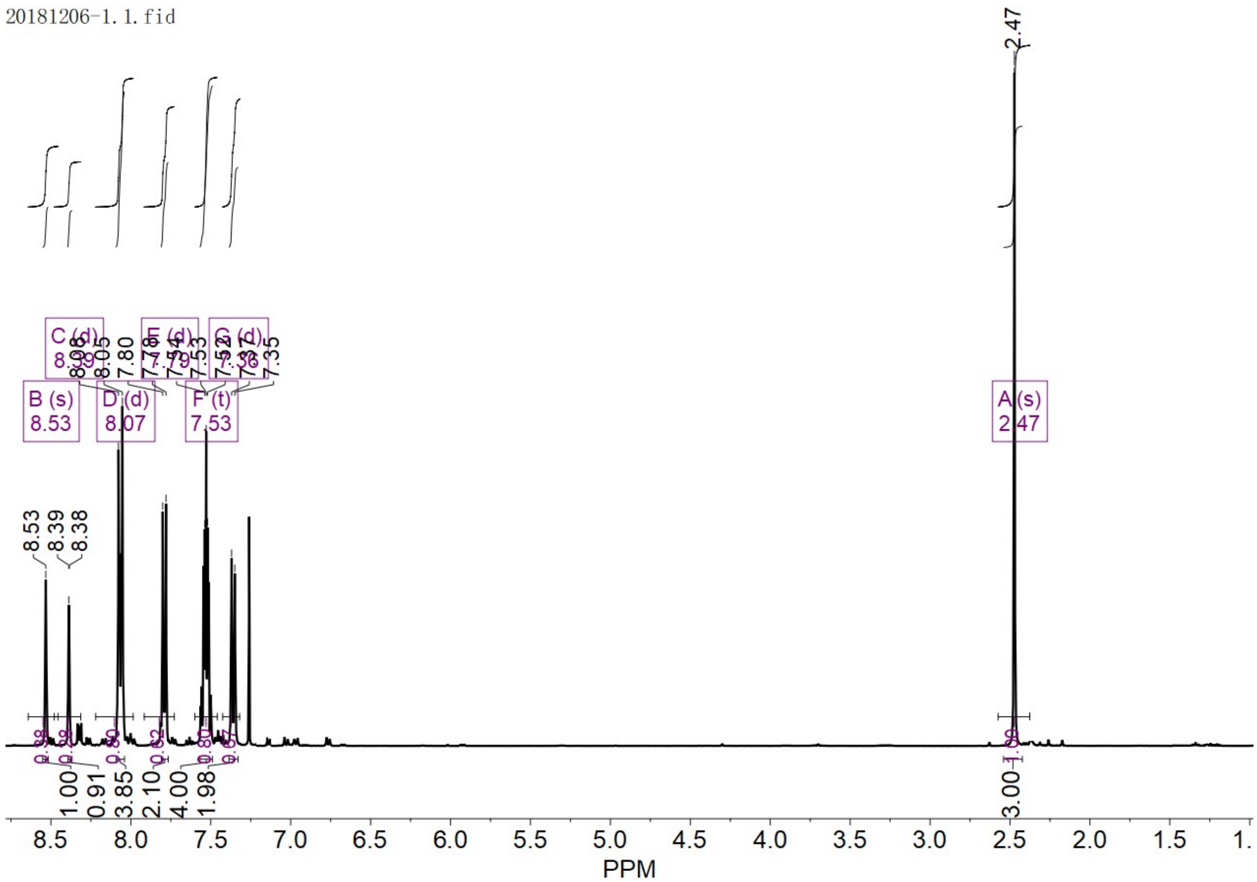


**Figure S2.** $^{1}$HNMR of **ATN**

$^{1}$H NMR (400 MHz, Chloroform-*d*) δ 8.53 (s, 1H), 8.39 (d, $J$ = 1.5 Hz, 1H), 8.07 (d, $J$ = 9.8 Hz, 3.85H), 7.79 (d, $J$ = 8.3 Hz, 2H), 7.53 (t, $J$ = 3.3 Hz, 4H), 7.36 (d, $J$ = 8.0 Hz, 2H), 2.47 (s, 3H).

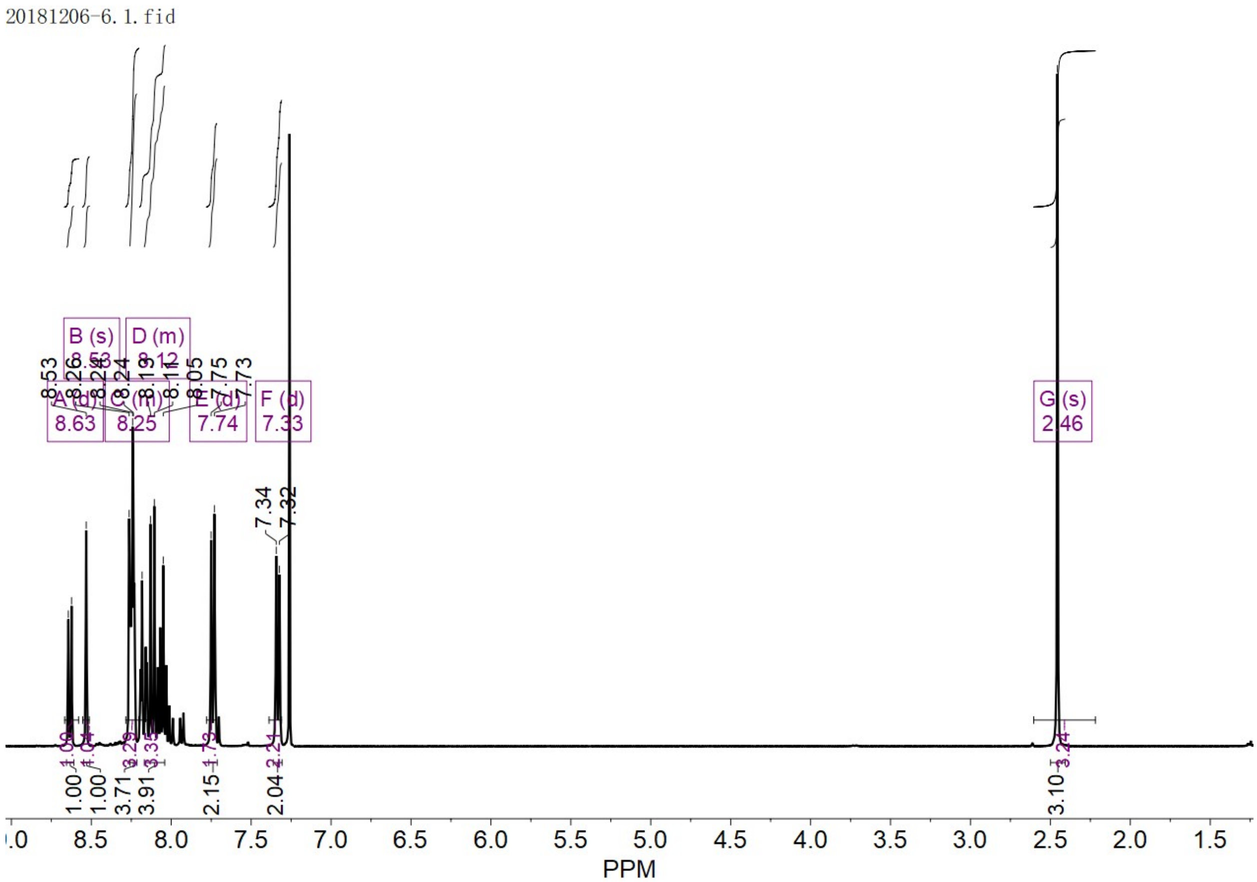


**Figure S3.** $^{1}$HNMR of **PTN**

$^{1}$H NMR (400 MHz, Chloroform-*d*) δ 8.63 (d, *J* = 8.1 Hz, 1H), 8.53 (s, 1H), 8.28 – 8.20 (m, 4H), 8.20 – 8.04 (m, 4H), 7.74 (d, *J* = 8.2 Hz, 2H), 7.33 (d, *J* = 8.0 Hz, 2H), 2.46 (s, 3H).

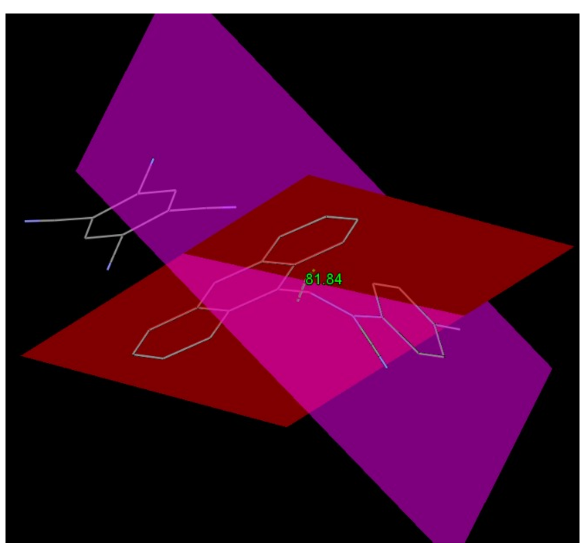

**Figure S4.** Twisted angle between two planes of anthracene and phenyl planes are 81.84 for **1b** co-crystal.

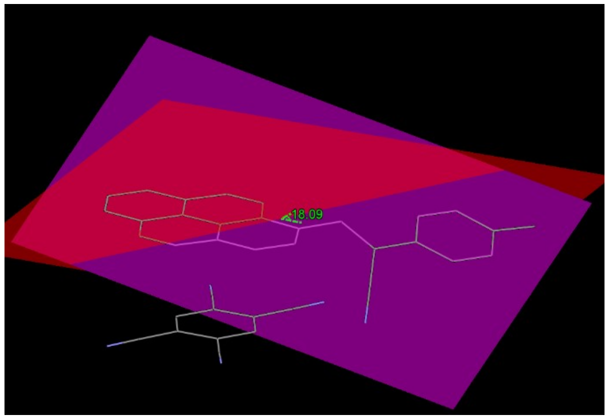


**Figure S5.** Twisted angle between two planes of anthracene and phenyl planes are 18.09 for **1c** co-crystal

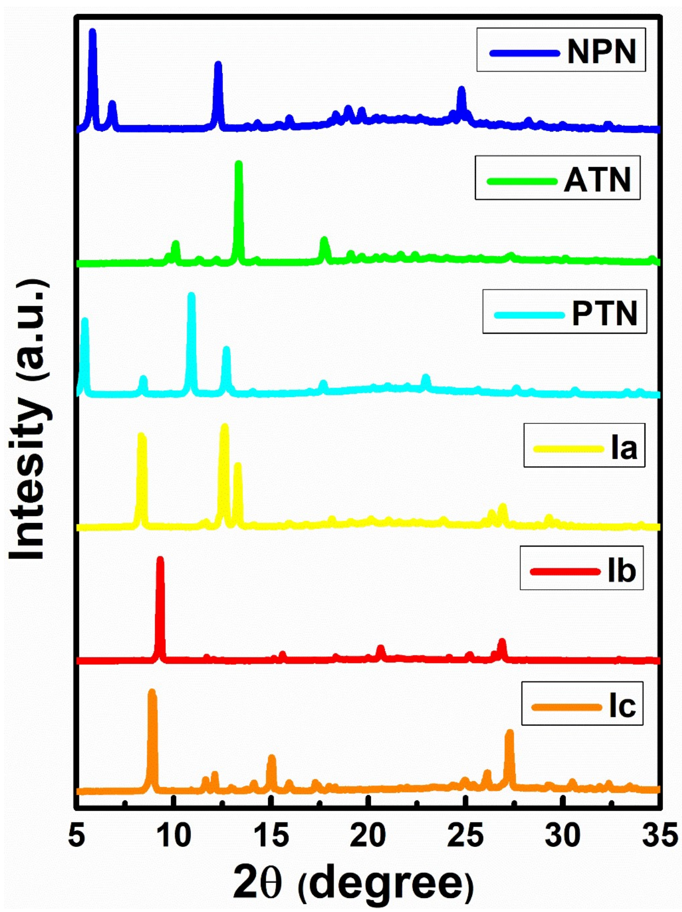


**Figure S6**. Comparison of experimental PXRD patterns of the cocrystals and the corresponding starting materials

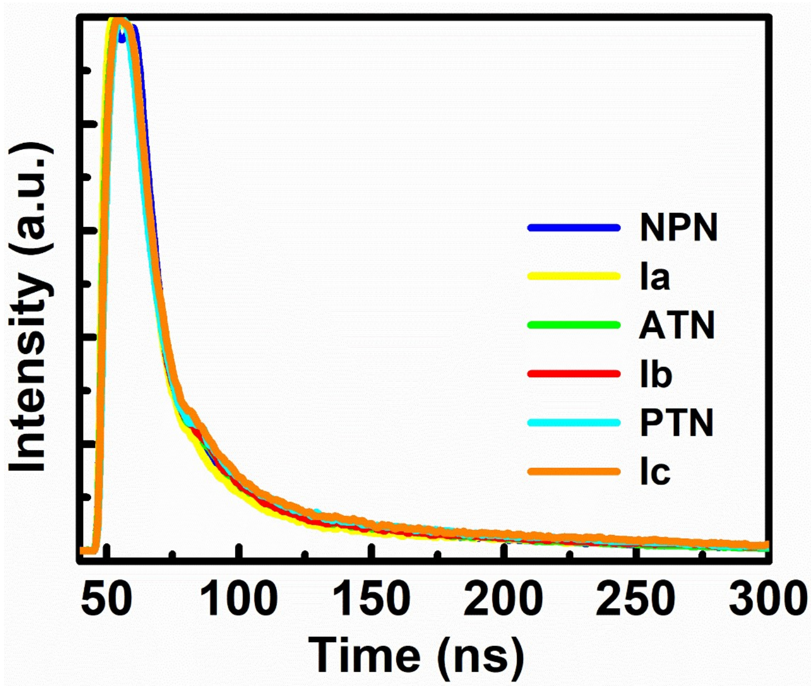


**Figure S7.** Fluorescence decay curves for solid-state CS-based products

**Table S1.** QY and life time values of the physical mixture

| Code | **Ia (1:1)** | **Ib (1:2)** | **Ic (1:2)** |
|---|---|---|---|
| PLQY $\Phi_F$ (%) for physical mixture | 6.04 | 4.04 | 6.42 |
| Fluorescence lifetime $\tau_F$ (ns) | 10.05 | 8.26 | 10.18 |