## Supporting Information

# TCNQ-based organic cocrystal integrated red emission and n-type charge transport

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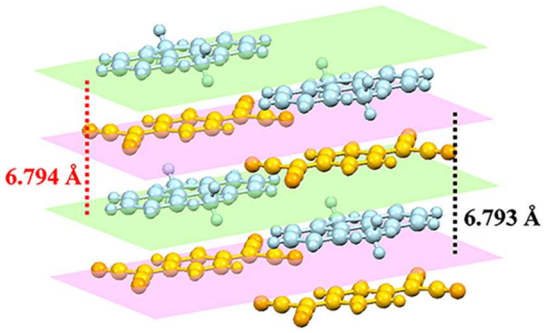


**Fig. S1** Distance between donor and acceptor molecules was calculated by $l = \frac{L_{\text{donor}}+L_{\text{acceptor}}}{4}$ ($L_{\text{donor}}$: the distance between two adjacent donor molecules; $L_{\text{acceptor}}$: the distance between two adjacent accepotors molecules.).

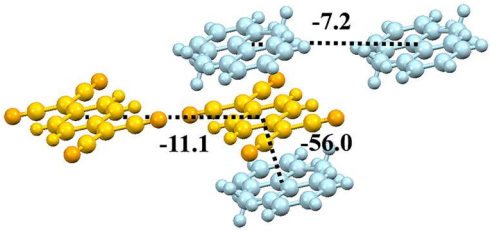


**Fig. S2** Intermolecular potential energy of Flu-TCNQ cocrystal.

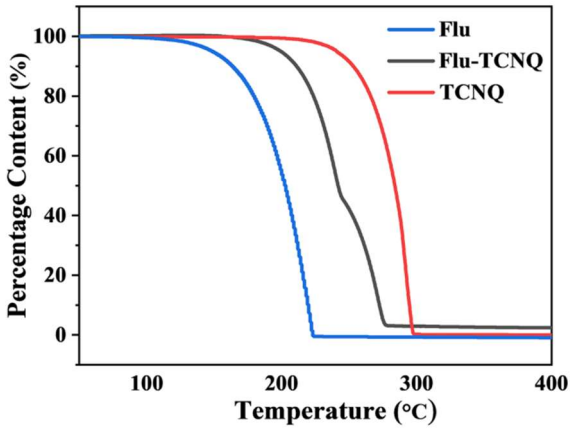


**Fig. S3** TGA measurements of Flu, TCNQ, Flu-TCNQ.

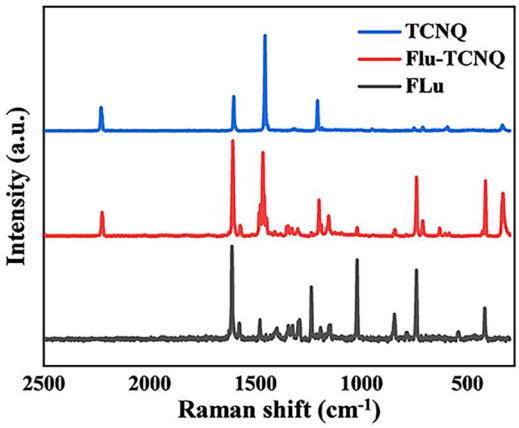


**Fig. S4** Raman spectra of Flu, TCNQ, Flu-TCNQ.

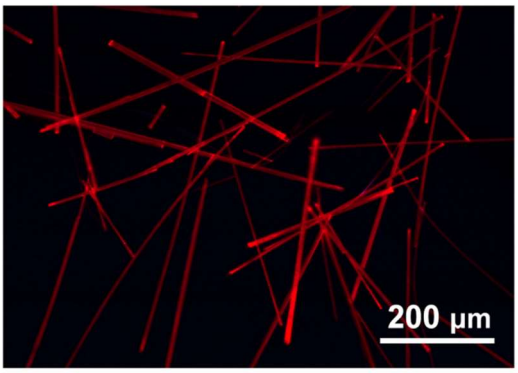


**Fig. S5** Fluorescence microscopy image of Flu-TCNQ microwires.

**Table S1** Single crystal structure of Flu-TCNQ cocrystal.

| **Crystal** | **Flu-TCNQ** |
|---|---|
| Empirical formula | $C_{25}H_{14}N_4$ |
| Formula weight | 370.40 |
| Temperature/K | 300.15 |
| Crystal system | Monoclinic |
| Space group | C2/m |
| *a*/Å | 11.0097 (6) |
| *b*/Å | 13.1035 (6) |
| *c*/Å | 6.7937 (3) |
| *α*/(° ) | 90 |
| *β*/(° ) | 103.545 (5) |
| *γ*/(° ) | 90 |
| Volume/Å$^3$ | 952.84 (8) |
| *Z* | 2 |
| $\rho_{calcg}$/cm$^3$ | 1.291 |
| $\mu$/mm$^{-1}$ | 0.619 |
| F (000) | 384.0 |
| Crystal size/mm$^3$ | 0.12 × 0.11 × 0.10 |
| Reflections collected | 4572 |
| Independent reflections | 1019 [$R_{int}$ = 0.0250, $R_{sigma}$ = 0.0166] |
| Goodness-of-fit on $F^2$ | 1.127 |
| Final *R* indices [*I*>2sigma(*I*)] | $R_1$ = 0.0575, $wR_2$ = 0.1777 |
| *R* indices (all data) | $R_1$ = 0.0641, $wR_2$ = 0.1892 |