

Supporting Information

for

Synthesis and characterization of the cyanobenzene-ethylenedithio-TTF donor

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**NMR (¹H and ¹³C), infrared spectra, UV–vis absorption spectra and
short contact list of CNB-EDT-TTF**

NMR spectra (^1H and ^{13}C) of CNB-EDT-TTF

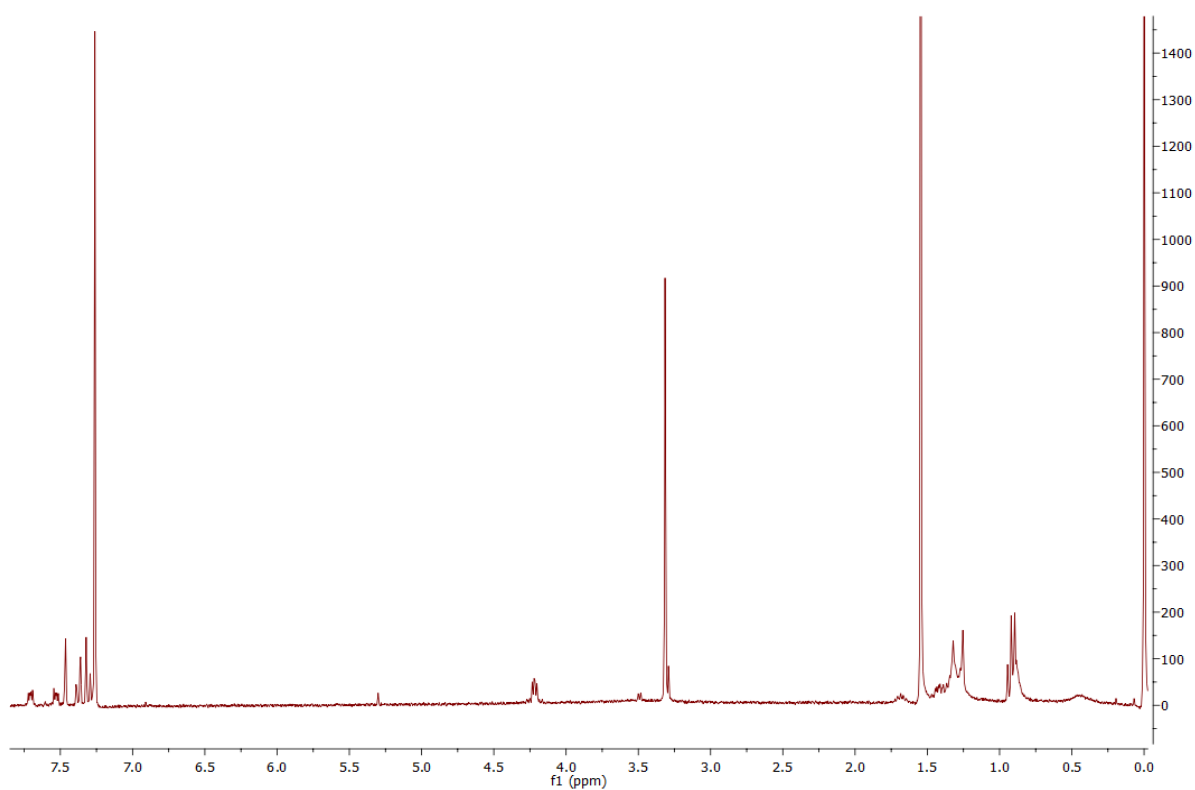


Figure S1: ^1H NMR spectra of compound **3**.

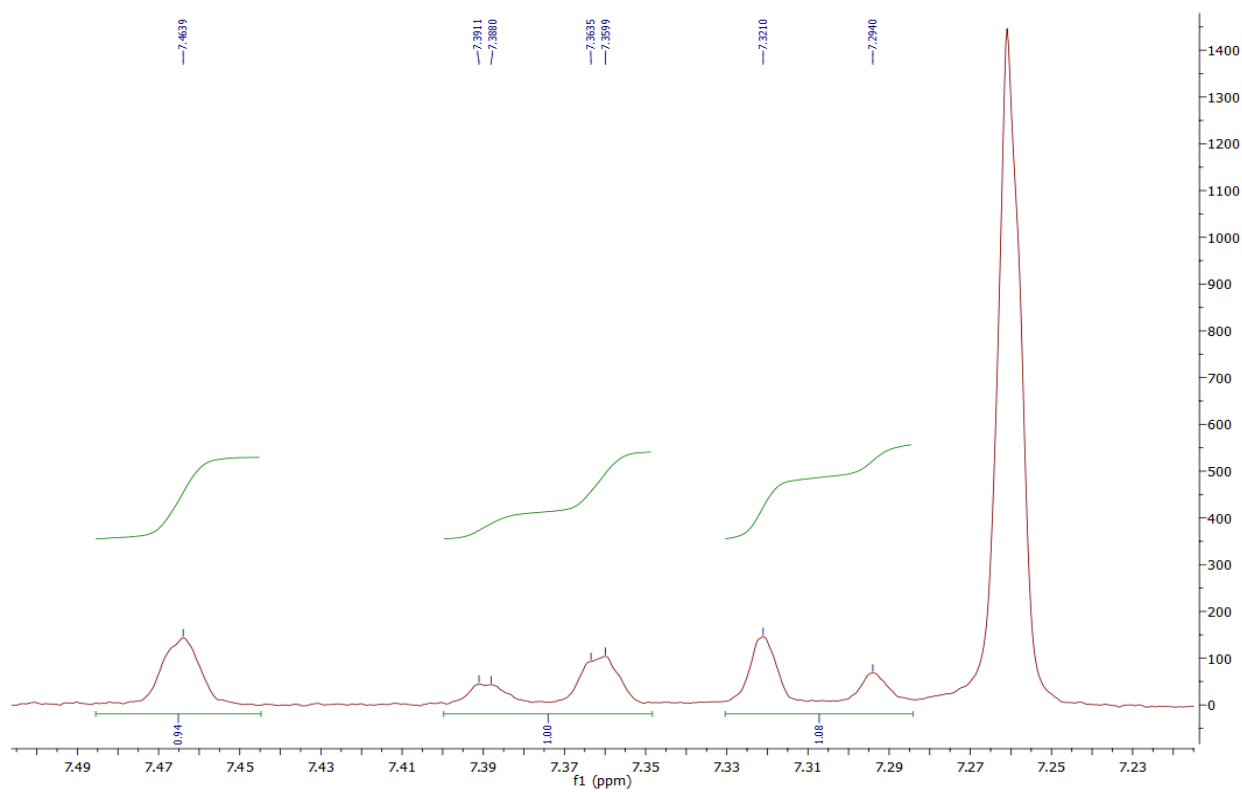


Figure S2: Zoom between 7.5 and 7.2 ppm.

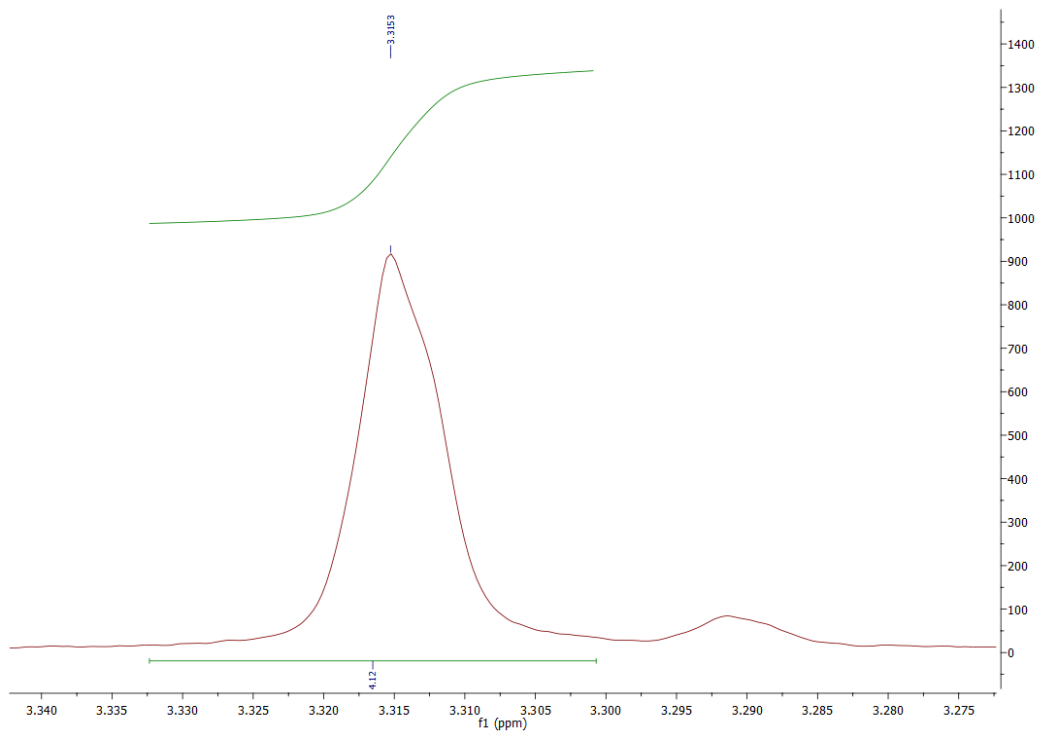


Figure S3: Zoom between 3.34 and 3.27 ppm.

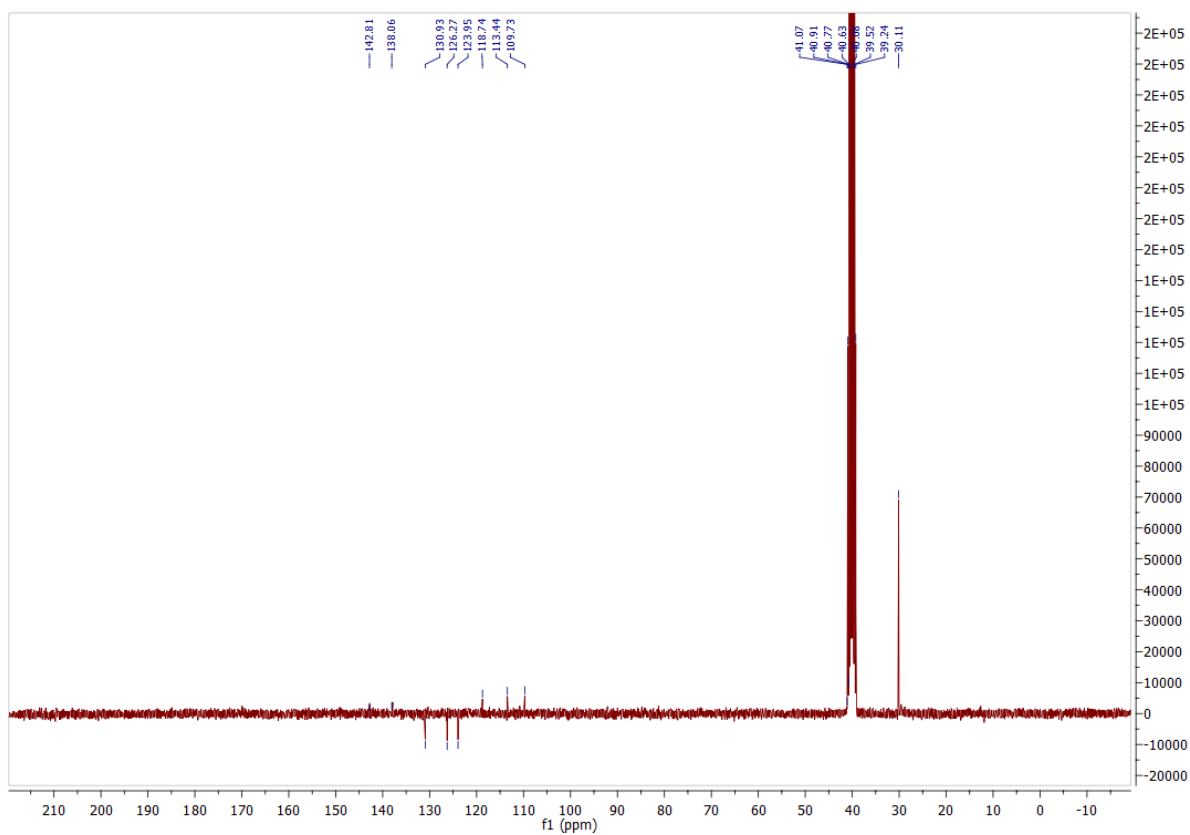


Figure S4: ^{13}C NMR spectra APT of compound **3**. APT spectra is presented “upside-down” with CH and CH_3 peaks “down” and quaternary and CH_2 peaks “up”.

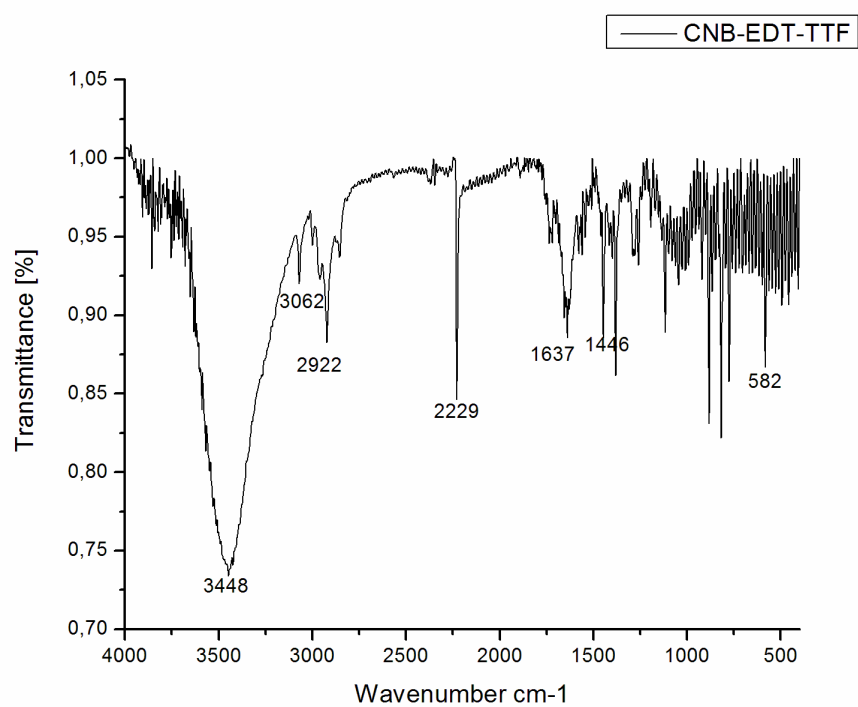


Figure S5: Infrared spectra of compound **3**.

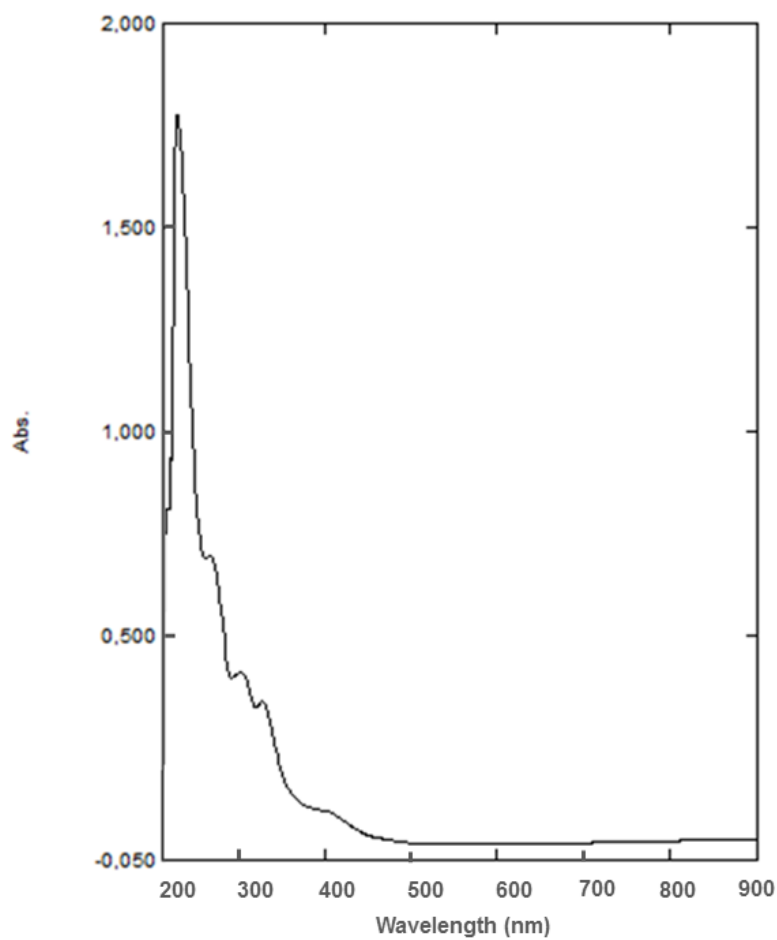


Figure S6: UV-vis absorption spectra in DCM of compound **3**.

Table S1: Short Contact list of compound **3**

Short contact	Symmetry operation	Length (Å)	Length- Σ VdW (Å)
S1...H1B	$x, -1+y, z$	2.751	-0.249
H2B...S4	$x, -1+y, z$	2.824	-0.176
S4...H2B	$x, 1+y, z$	2.824	-0.176
H1B...S1	$x, 1+y, z$	2.751	-0.249
S2...S3	$1/2-x, -1/2+y, 1/2-z$	3.596	-0.004
H9...S2	$1/2-x, -1/2+y, 1/2-z$	2.911	-0.089
S2...H9	$1/2-x, 1/2+y, 1/2-z$	2.911	-0.089
S3...S2	$1/2-x, 1/2+y, 1/2-z$	3.596	-0.004
S5...H10	$1.5-x, -1/2+y, 1/2-z$	2.956	-0.044
S6...H10	$1.5-x, -1/2+y, 1/2-z$	2.980	-0.020
H10...S5	$1.5-x, 1/2+y, 1/2-z$	2.956	-0.044
H10...S6	$1.5-x, 1/2+y, 1/2-z$	2.980	-0.020
H1A...N1	$-1/2+x, 1/2-y, -1/2+z$	2.590	-0.160
C1...N1	$-1/2+x, 1.5-y, -1/2+z$	3.231	-0.019
N1...H1A	$1/2+x, 1/2-y, 1/2+z$	2.590	-0.160
N1...C1	$1/2+x, 1.5-y, 1/2+z$	3.231	-0.019