Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information for

Strong blue emissive nanofibers constructed from benzothizole modified *tert*-butyl carbazole derivative for the detection of volatile acid vapors

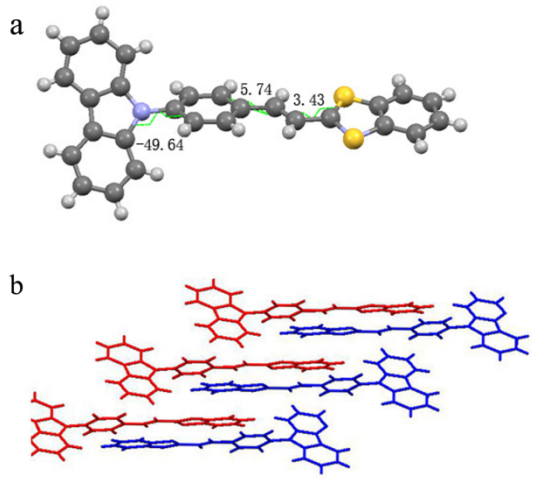

Figure S1. a) Molecular configuration of **CBT** and b) molecular packing model of **CBT** in single crystal.

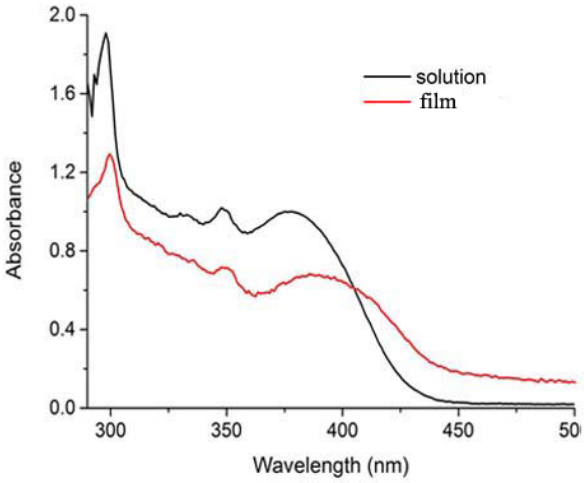

Figure S2. UV-vis absorbance spectra of **TCBT** in cyclohexane (2×10^{-5} M) and in nanofibers-based films.

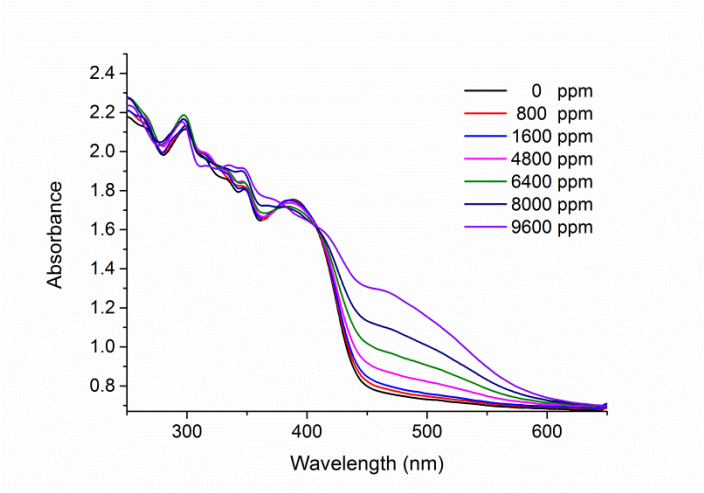

Figure S3. UV-vis absorption spectra of **TCBT** in xerogel-based film upon exposed to different amount of TFA vapor.

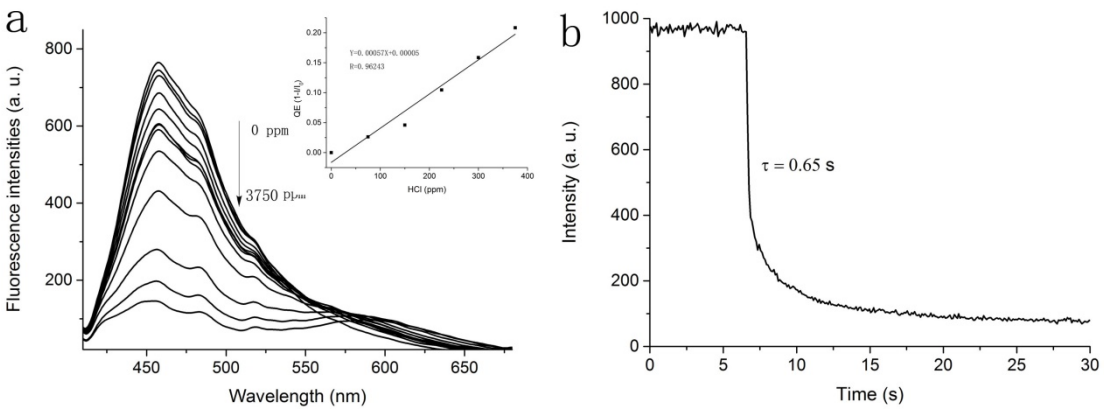

Figure S4. Emission spectra of the **TCBT** xerogel film based on different concentration of gaseous HCl. Insets: the concentration-dependent fluorescence quenching efficiency of the film exposed to the HCl vapor for 2 s.

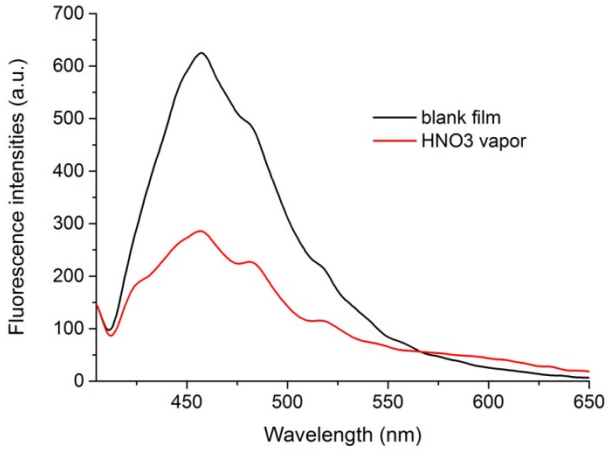

Figure S5. Fluorescence spectral change of the **TCBT** xerogel film upon exposure to saturated HNO_3 vapor.

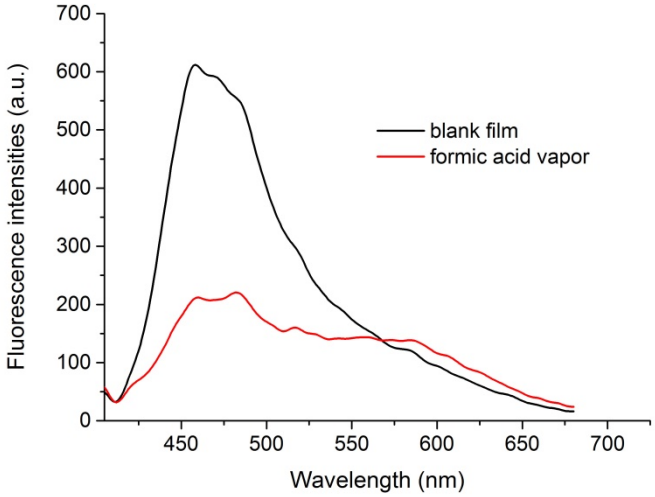

Figure S6. Fluorescence spectral change of the **TCBT** xerogel film upon exposure to saturated formic acid vapor.

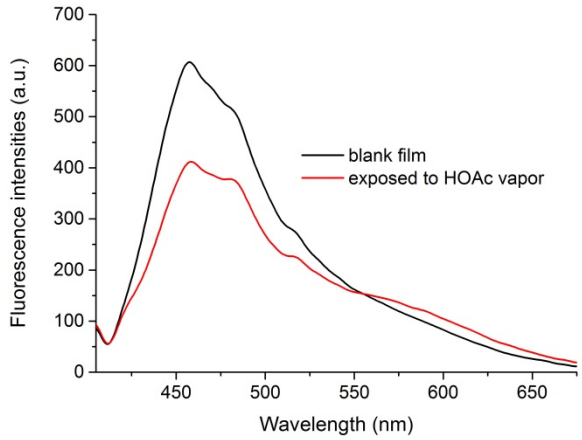

Figure S7. Fluorescence spectral change of the **TCBT** xerogel film upon exposure to saturated HOAc vapor.

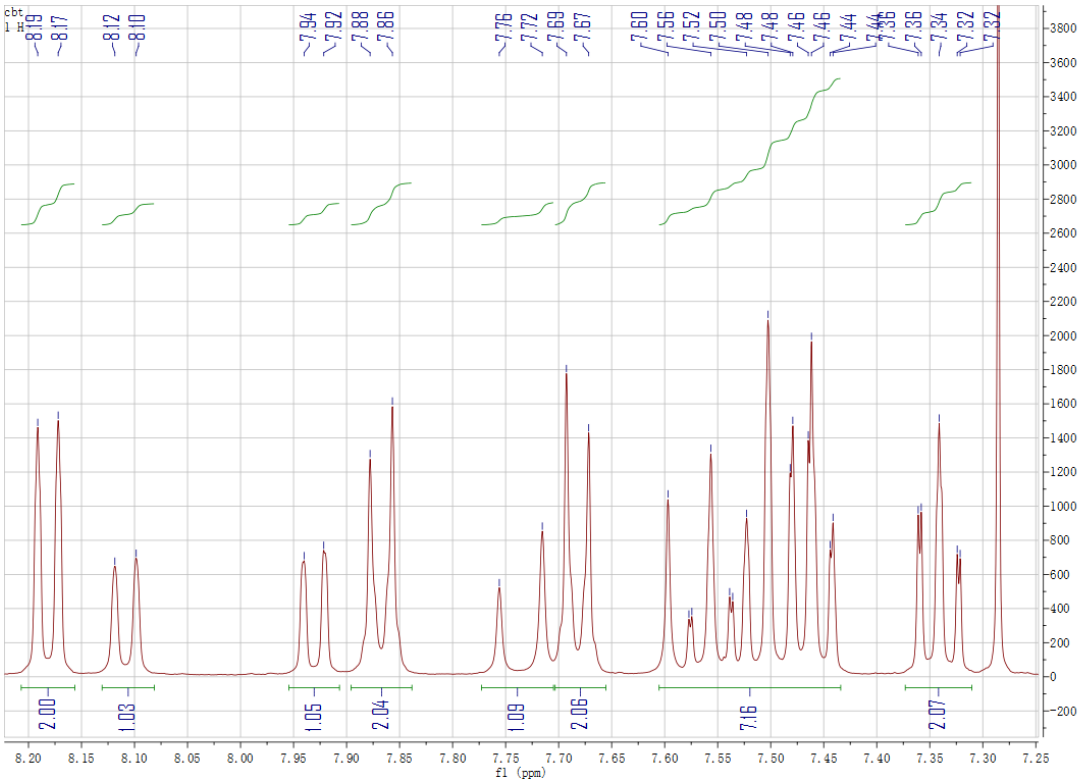

Figure S8. ^{1}H NMR (400 MHz, CDCl3) spectrum of compound **CBT**.

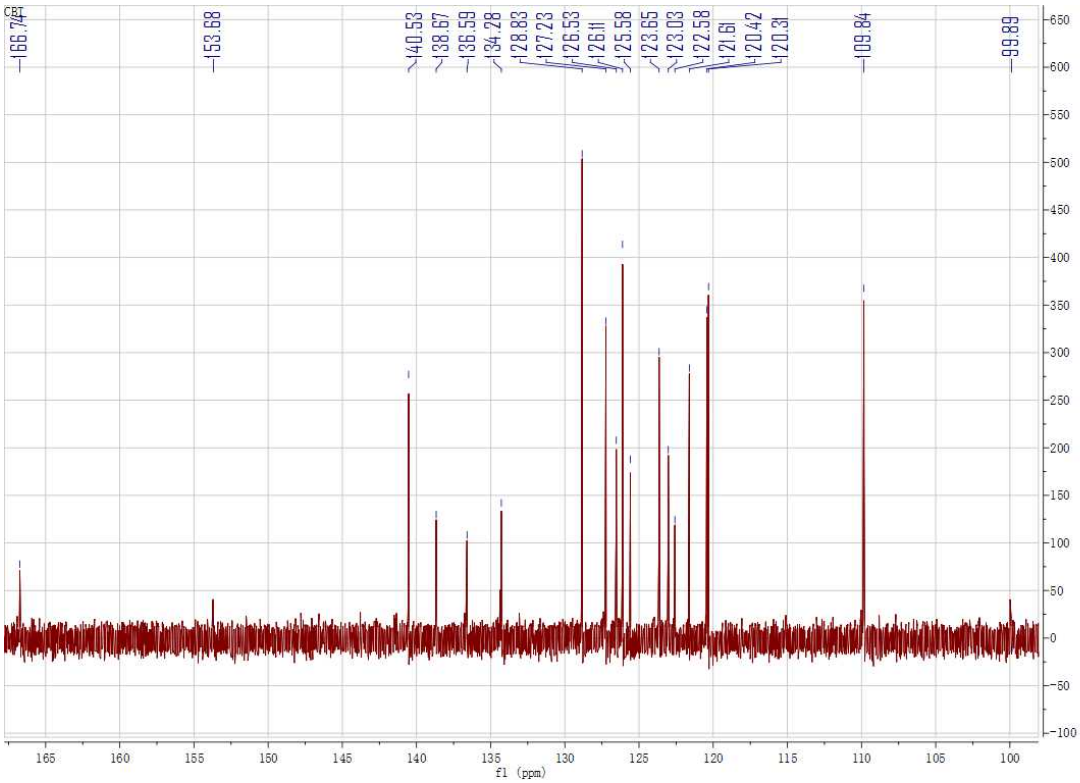

Figure S9. 13C NMR (125 MHz, CDCl3) spectrum of compound **CBT**.

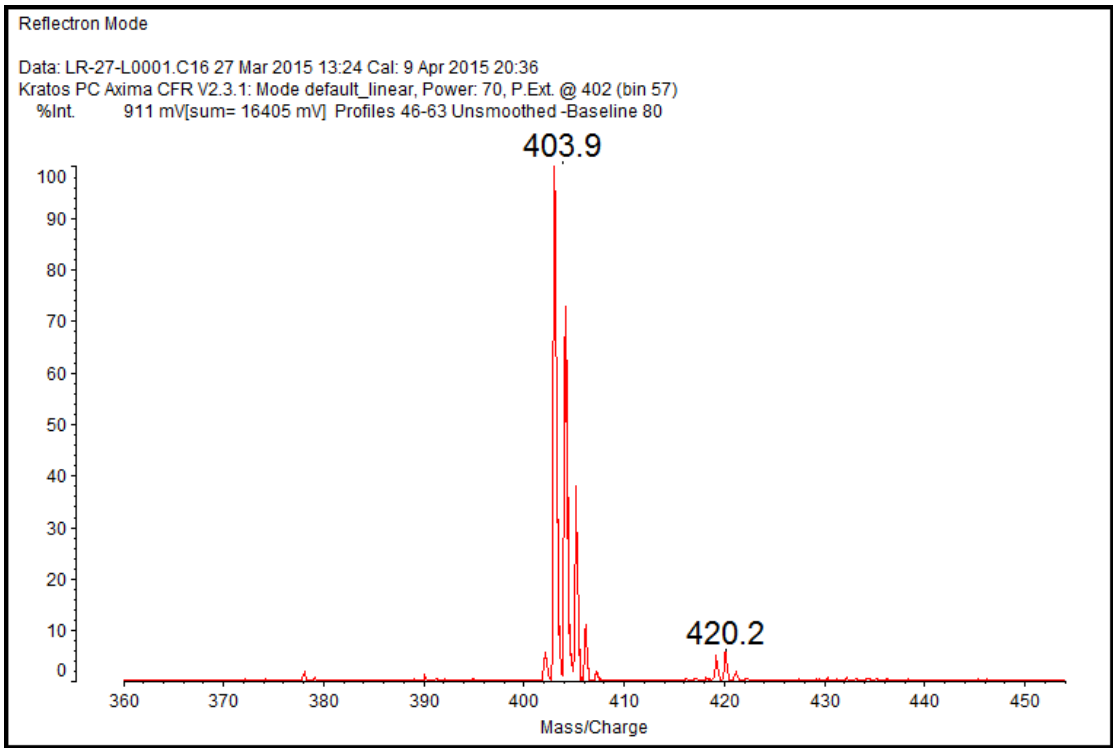

Figure S10. MALDI/TOF MS spectrum of compound **CBT**.

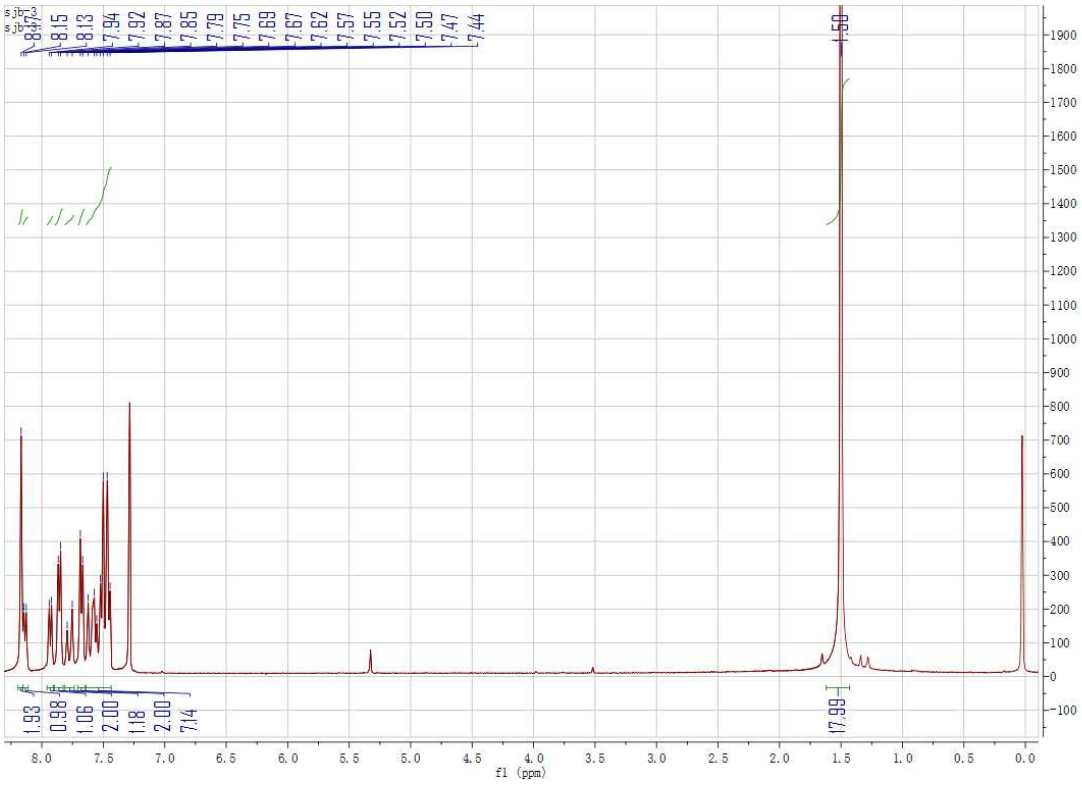

Figure S11. ^{1}H NMR (400 MHz, CDCl3) spectrum of compound **TCBT**.

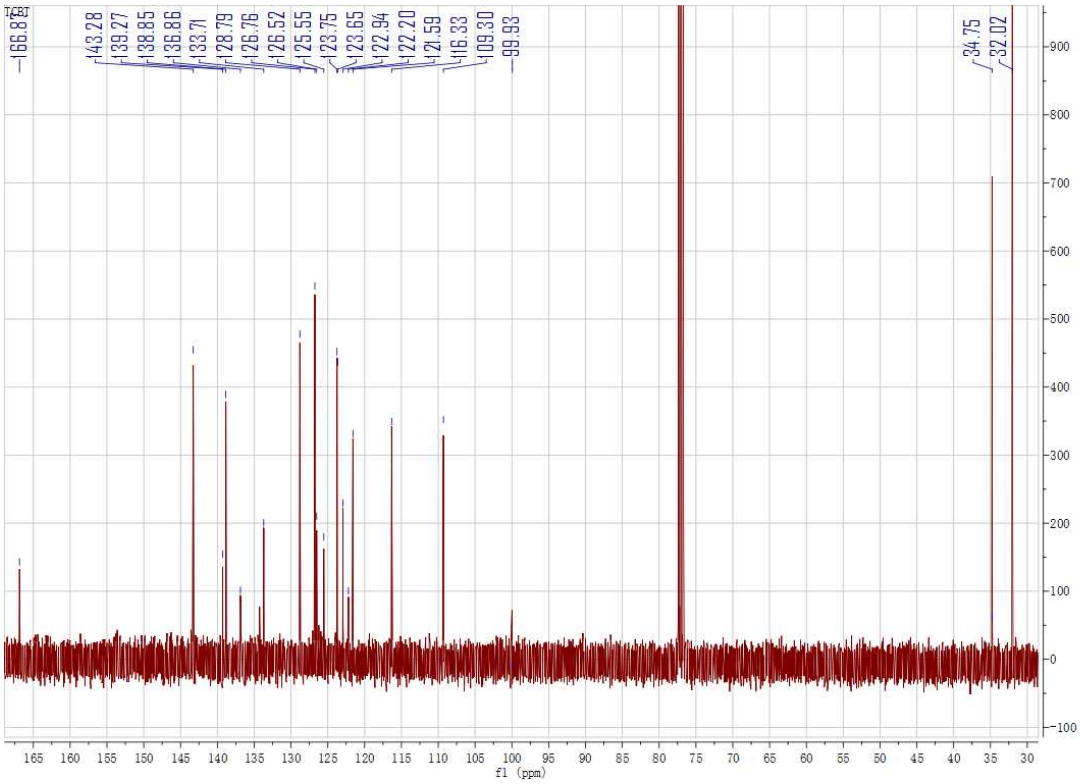

Figure S12. 13C NMR (125 MHz, CDCl3) spectrum of compound **TCBT**.

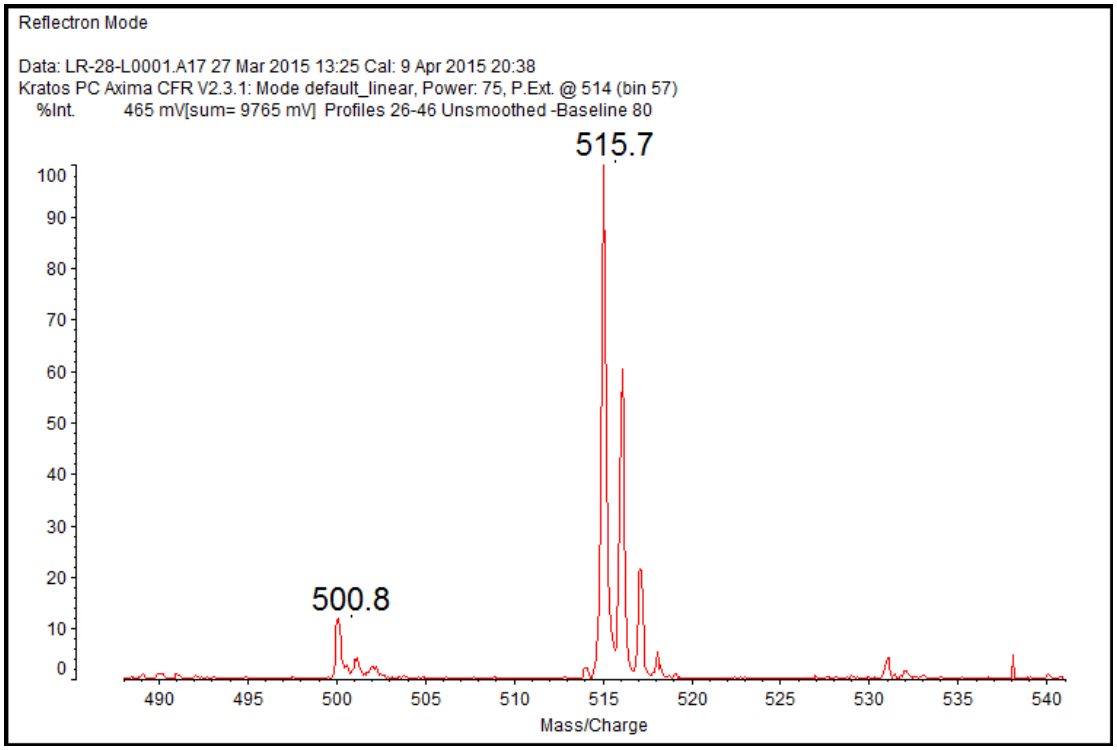

Figure S13. MALDI/TOF MS spectrum of compound **TCBT**.