

D-D-A dyes with phenothiazine-carbazole/triphenylamine as double donors in photopolymerization under 455 nm and 532 nm laser beams

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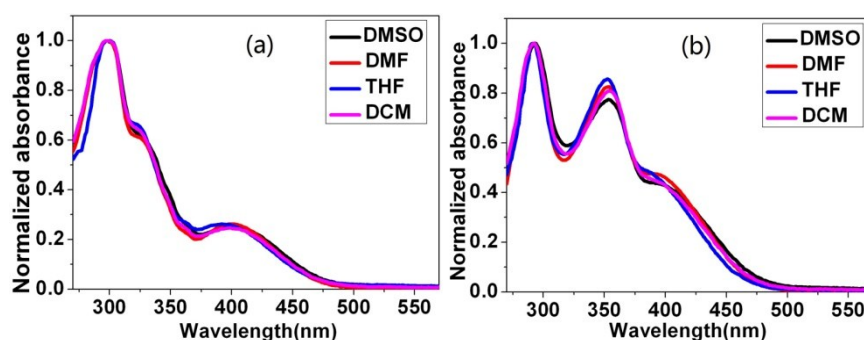


Fig.S1. The Normalized UV-vis absorption spectra of (a) CPC and (b) TPC in different solvents (1×10^{-5} M).

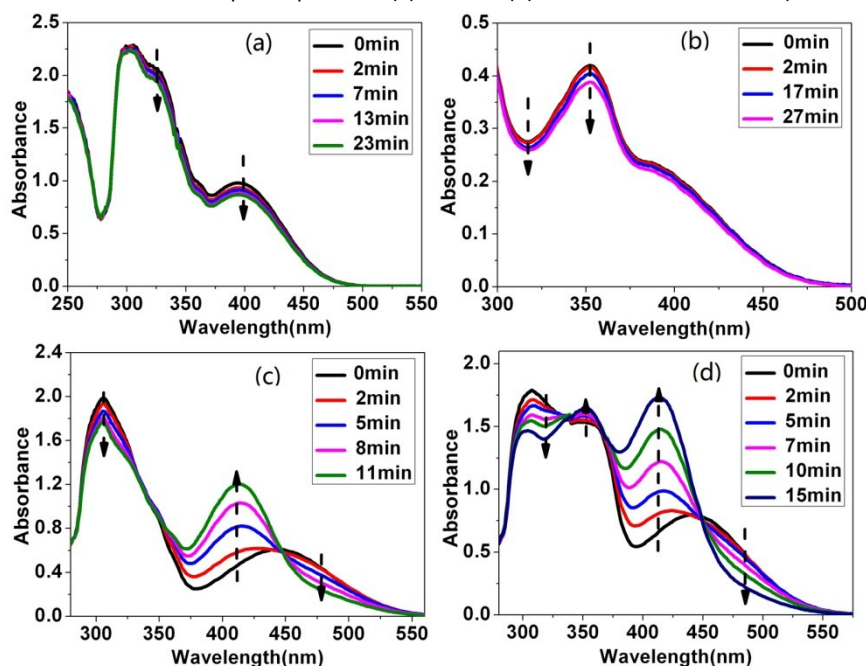


Fig.S2. Absorption of (a) CPC/ONI, (b) TPC/ONI, (c) CPN/ONI and (d) TPN/ONI in THF solution upon the a laser

diode at 532 nm exposure ($M_{DA} = 5 \times 10^{-6}$ mol/L, $M_{ONI} = 1 \times 10^{-3}$ mol/L, $m_{dye}:m_{ONI} = 10:1$); UV-vis spectra were recorded at different irradiation times.

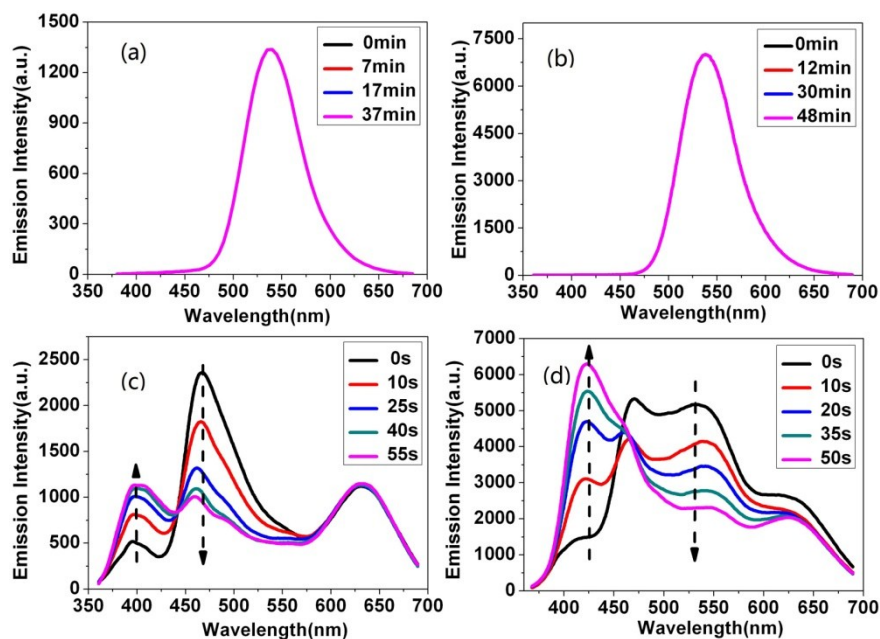
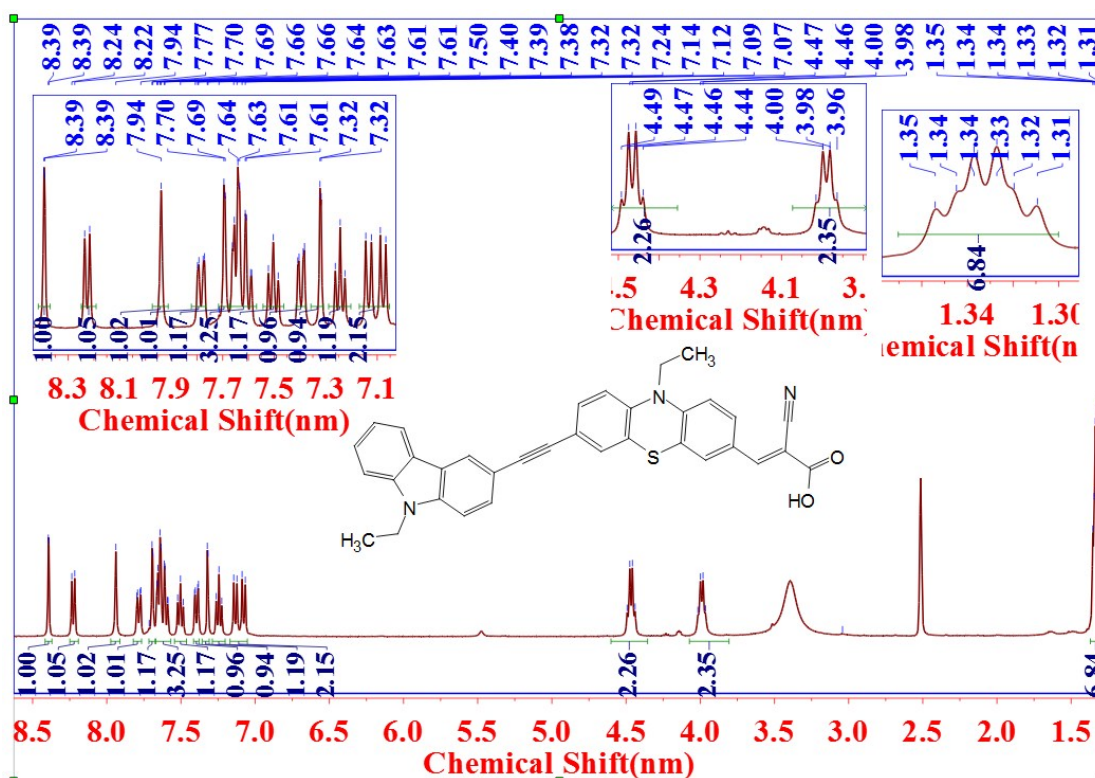
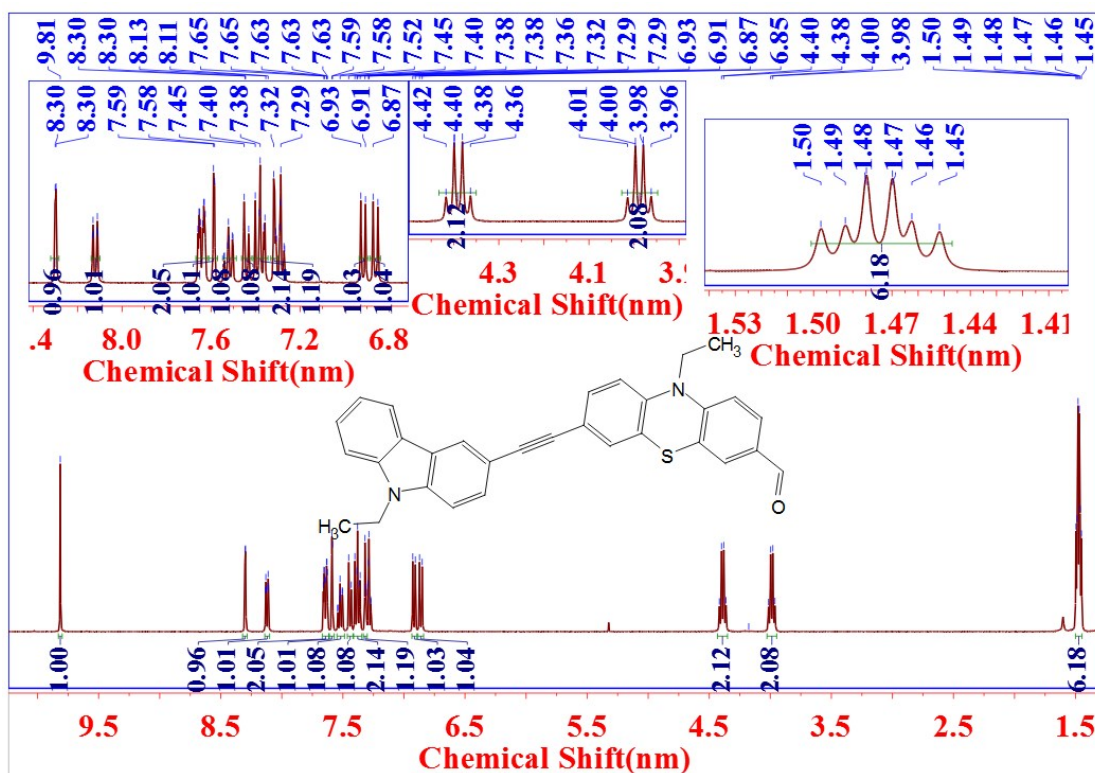


Fig.S3. Intensity of (a) CPC/ONI, (b)TPC/ONI, (c)CPN/ONI and (d)TPN/ONI in THF solution upon the a laser diode at 532 nm exposure ($M_{DA} = 5 \times 10^{-6}$ mol/L, $M_{ONI} = 1 \times 10^{-3}$ mol/L, $m_{dye}:m_{ONI} = 10:1$); Fluorescence spectra were recorded at different irradiation times.



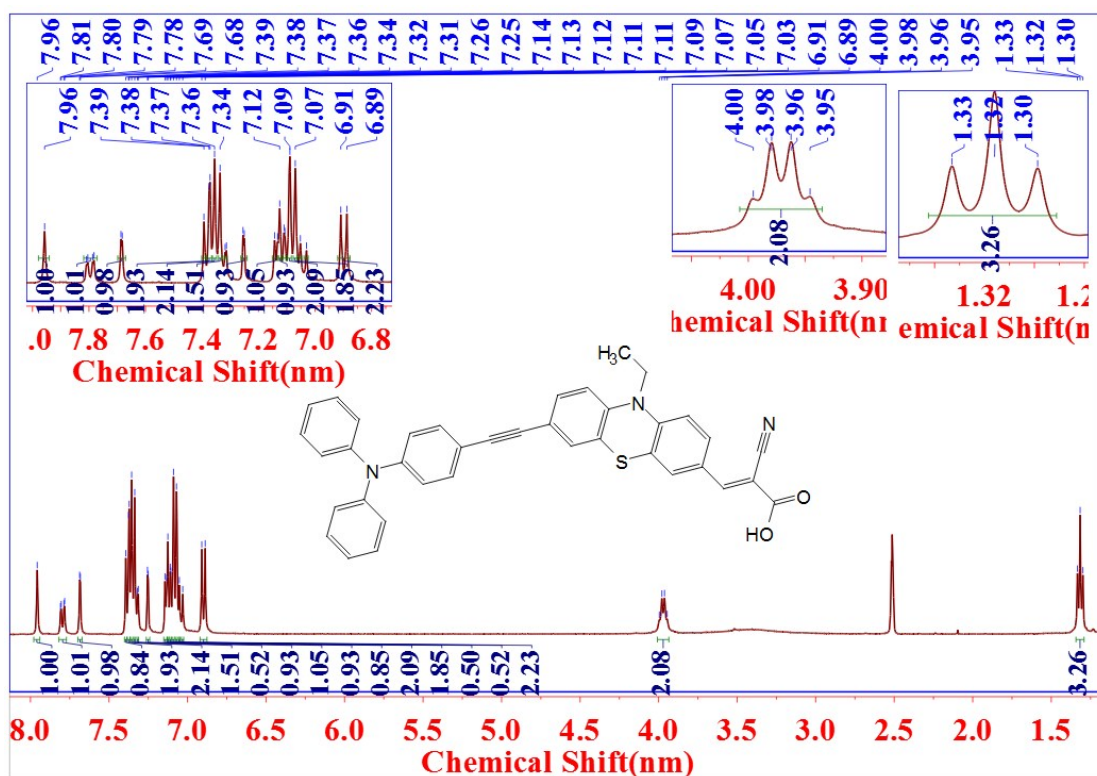
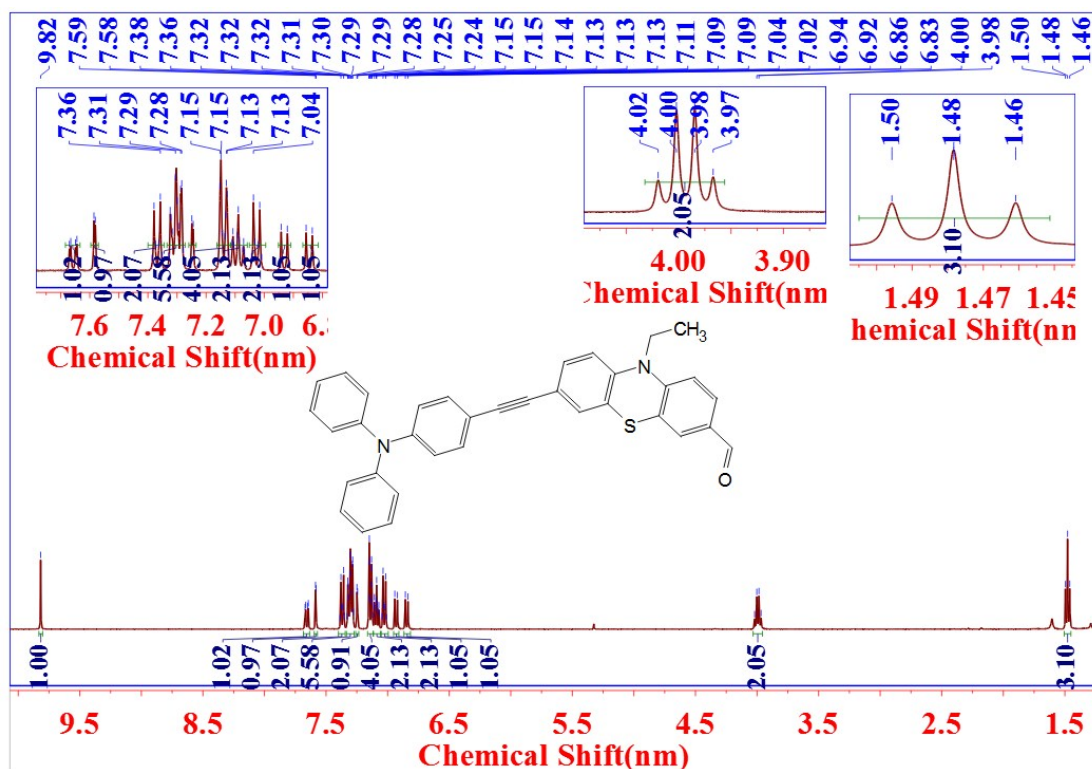
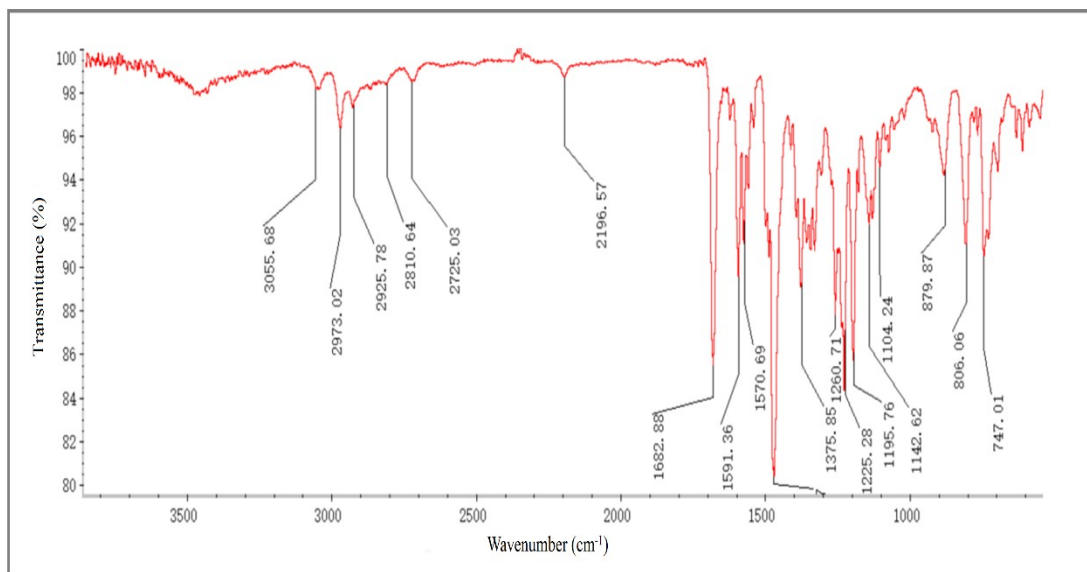
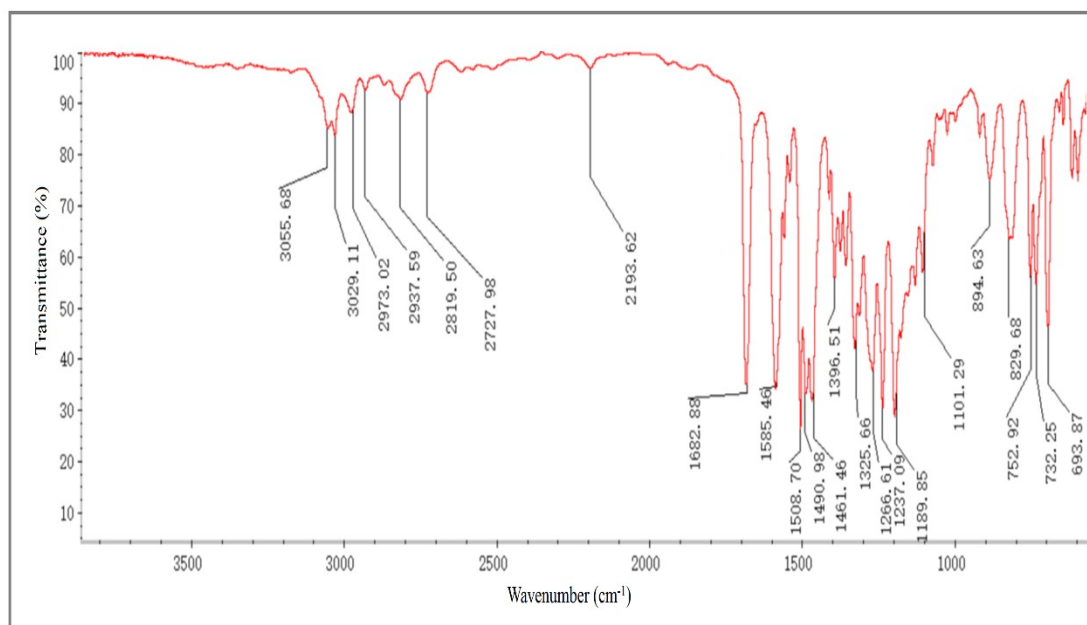


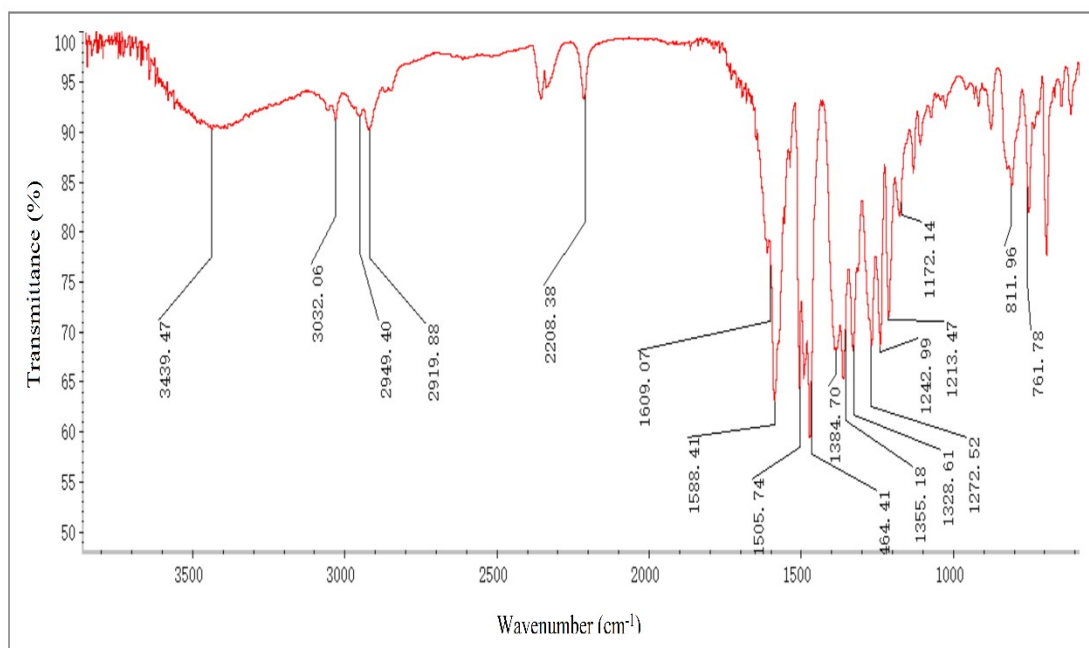
Fig. S4 The ^1H NMR spectra of four dyes



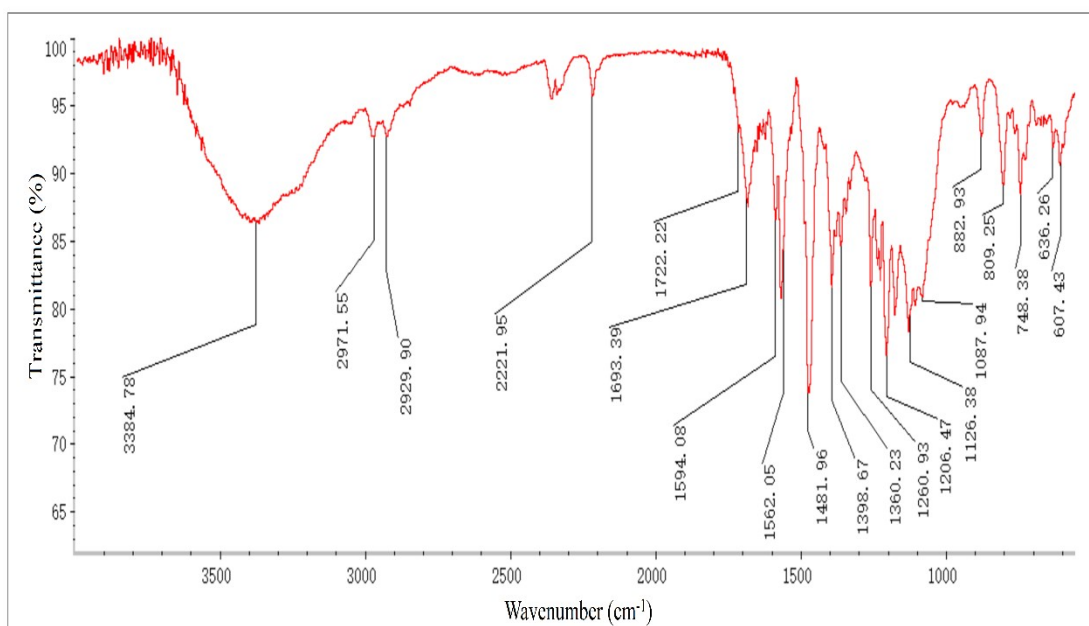
IR of CPC



IR of TPC



IR of CPN



IR of TPN

Fig. S5 The IR spectra of four dyes