

## Supplementary Information

# Fluorinated Iron(II) Clathrochelate Units in Metalorganic Based Copolymers: Improved Porosity, Iodine Uptake, and Dye Adsorption Properties

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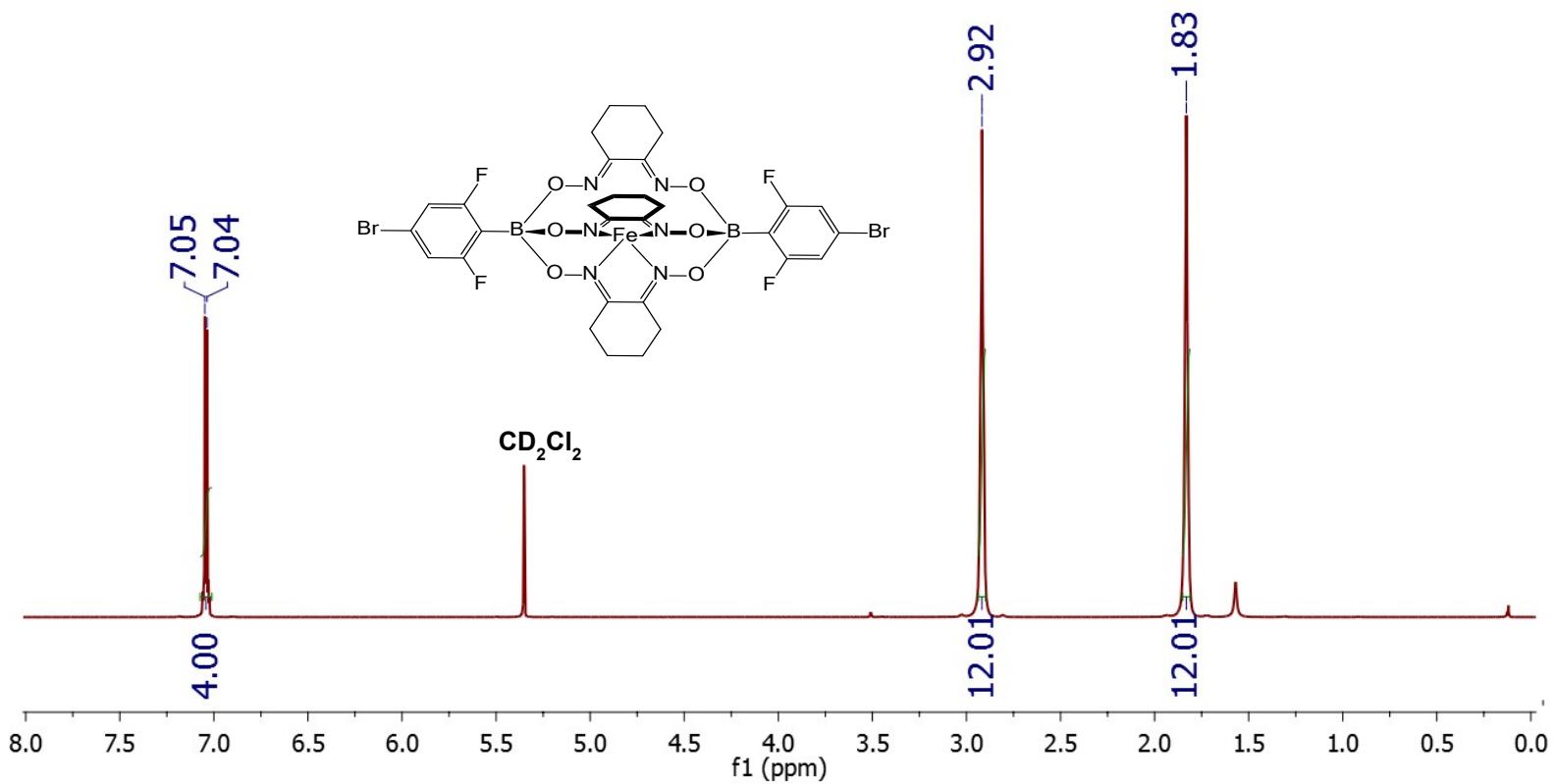
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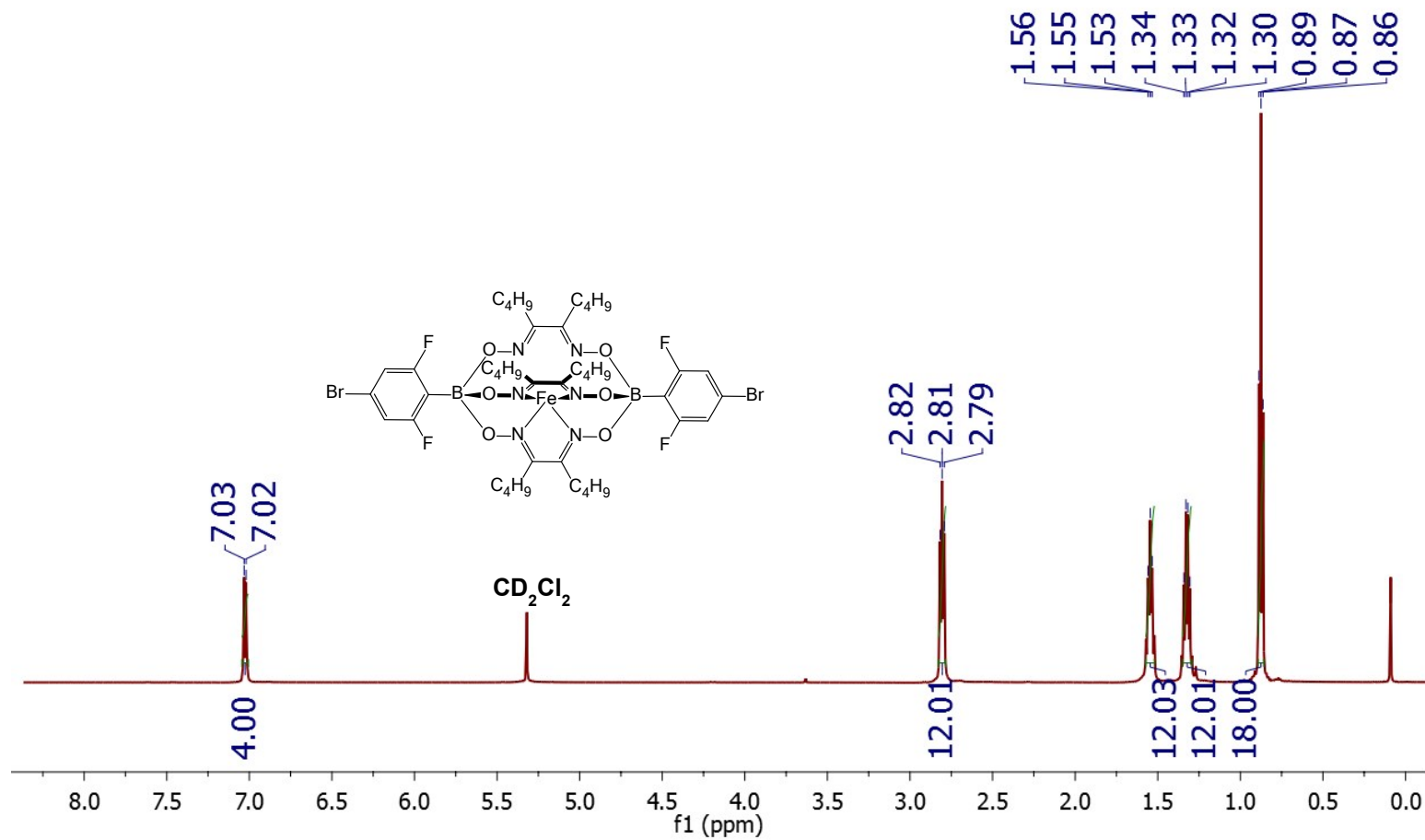
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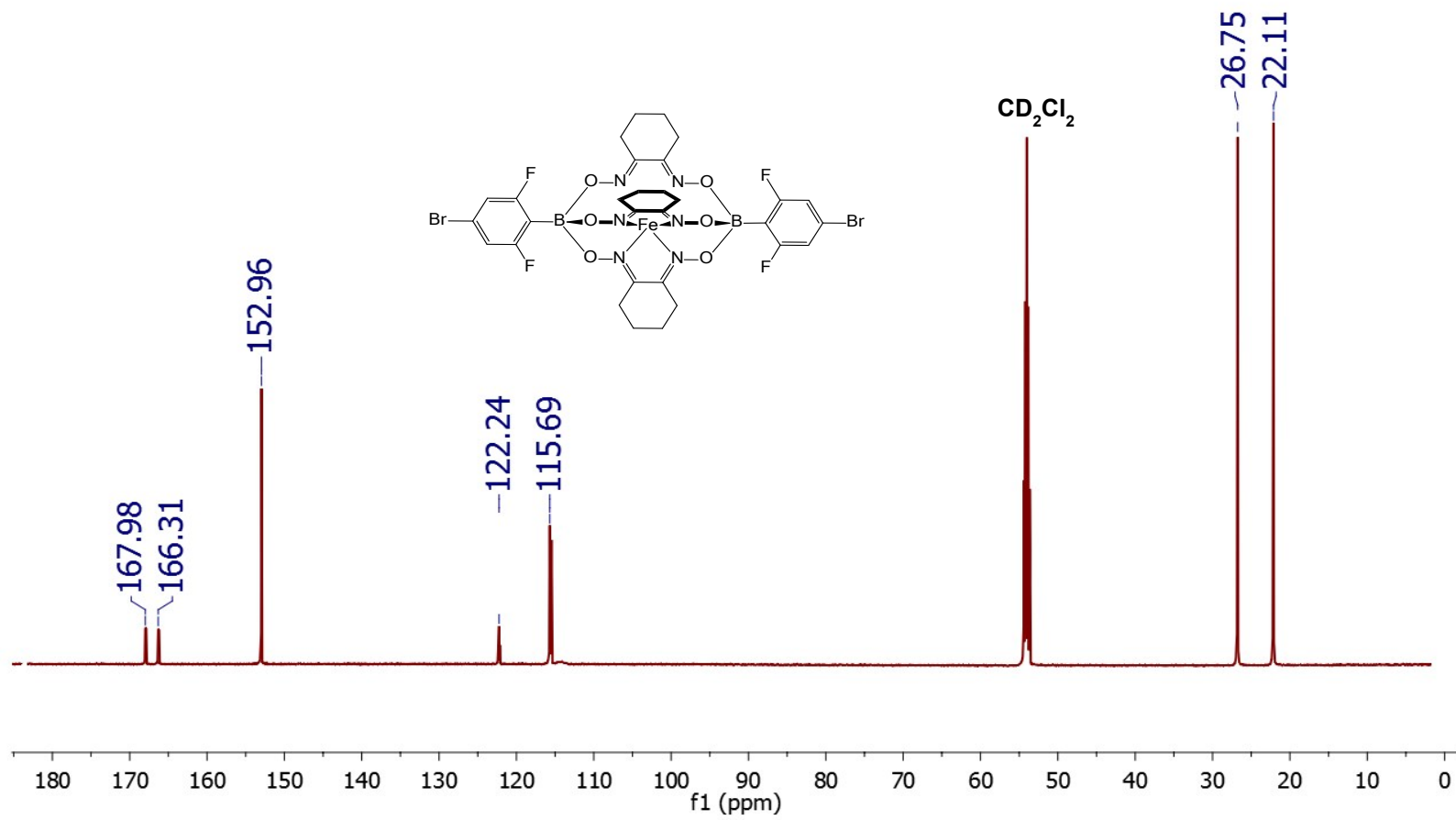
\*Corresponding author. *E-mail address*: [alameddine.b@gust.edu.kw](mailto:alameddine.b@gust.edu.kw)



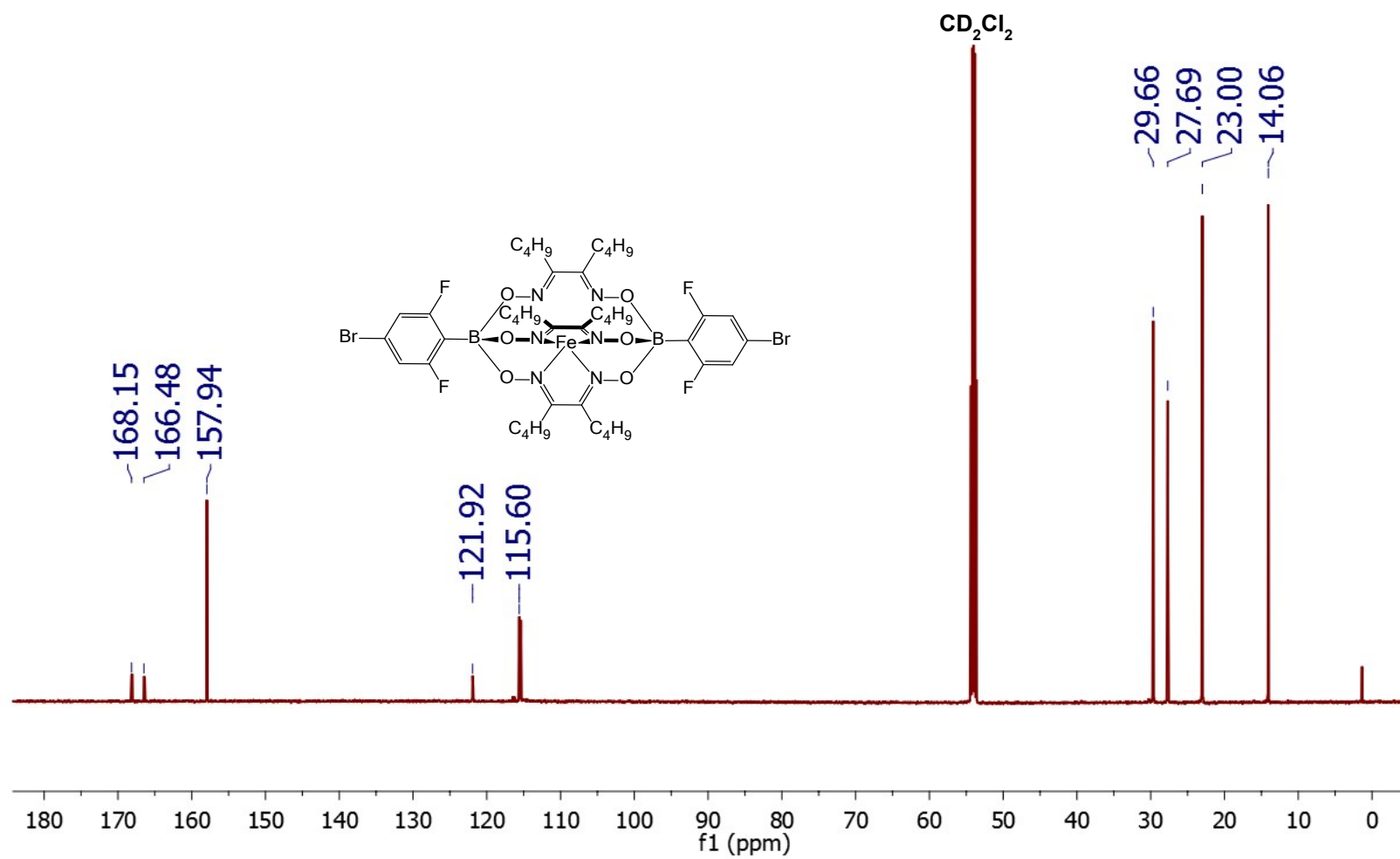
**Fig. S1.**  $^1\text{H}$  NMR spectrum of **CC2** recorded in  $\text{CD}_2\text{Cl}_2$



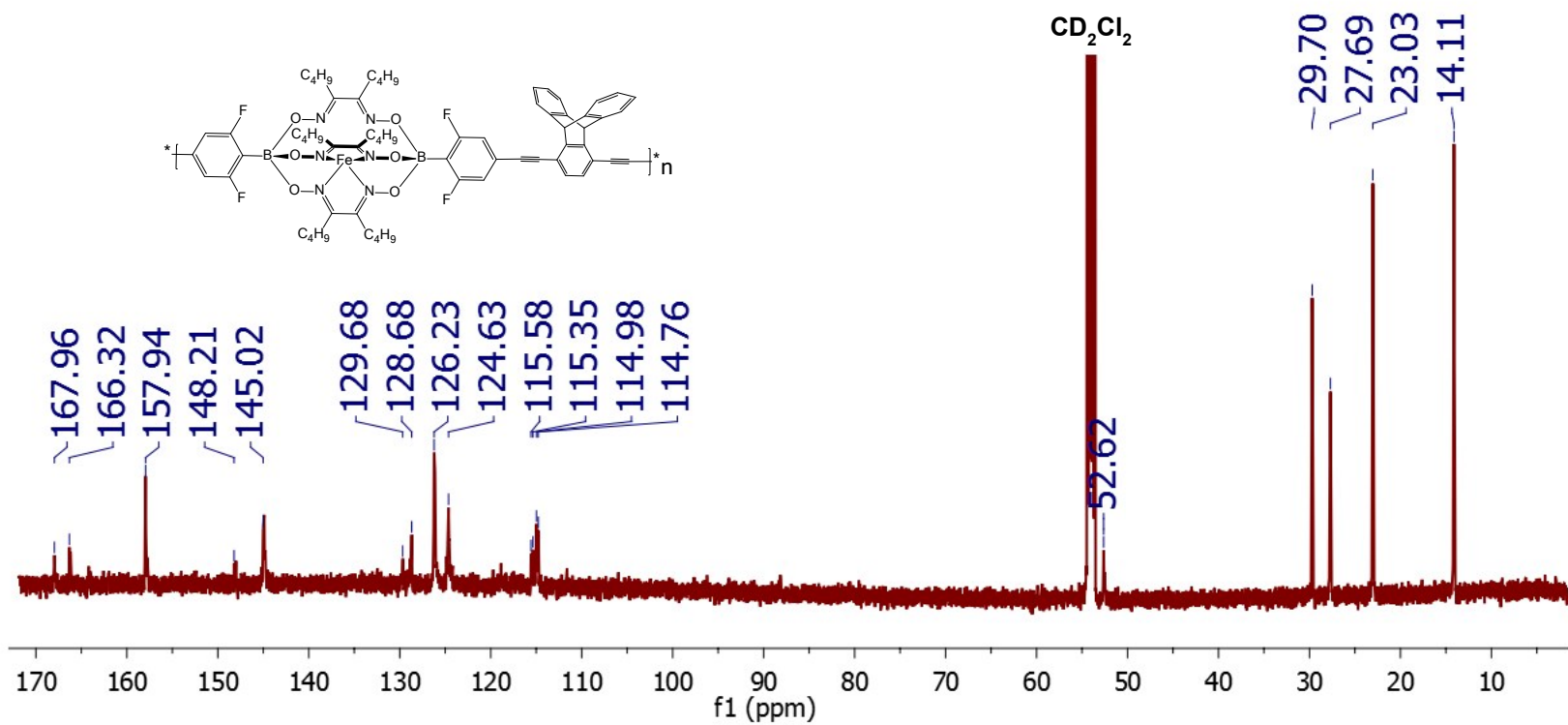
**Fig. S2.**  $^1\text{H}$  NMR spectrum of **CC3** recorded in  $\text{CD}_2\text{Cl}_2$



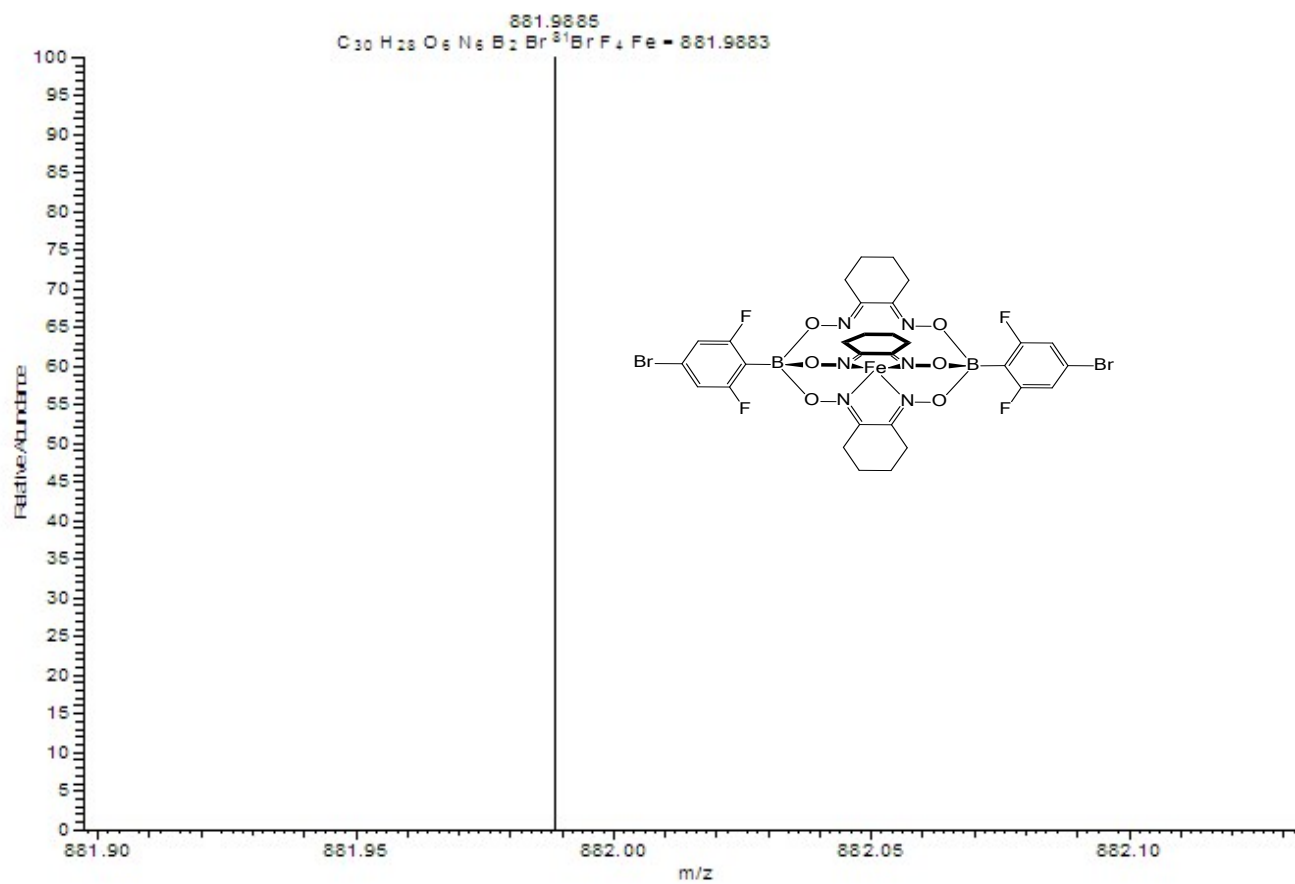
**Fig. S3.**  $^{13}\text{C}$  NMR spectrum of **CC2** recorded in  $\text{CD}_2\text{Cl}_2$



**Fig. S4.**  $^{13}\text{C}$  NMR spectrum of **CC3** recorded in  $\text{CD}_2\text{Cl}_2$



**Fig. S5.**  $^{13}\text{C}$  NMR spectrum of **CCP3** recorded in  $\text{CD}_2\text{Cl}_2$



**Fig. S6.** EI-HRMS spectrum of **CC2**

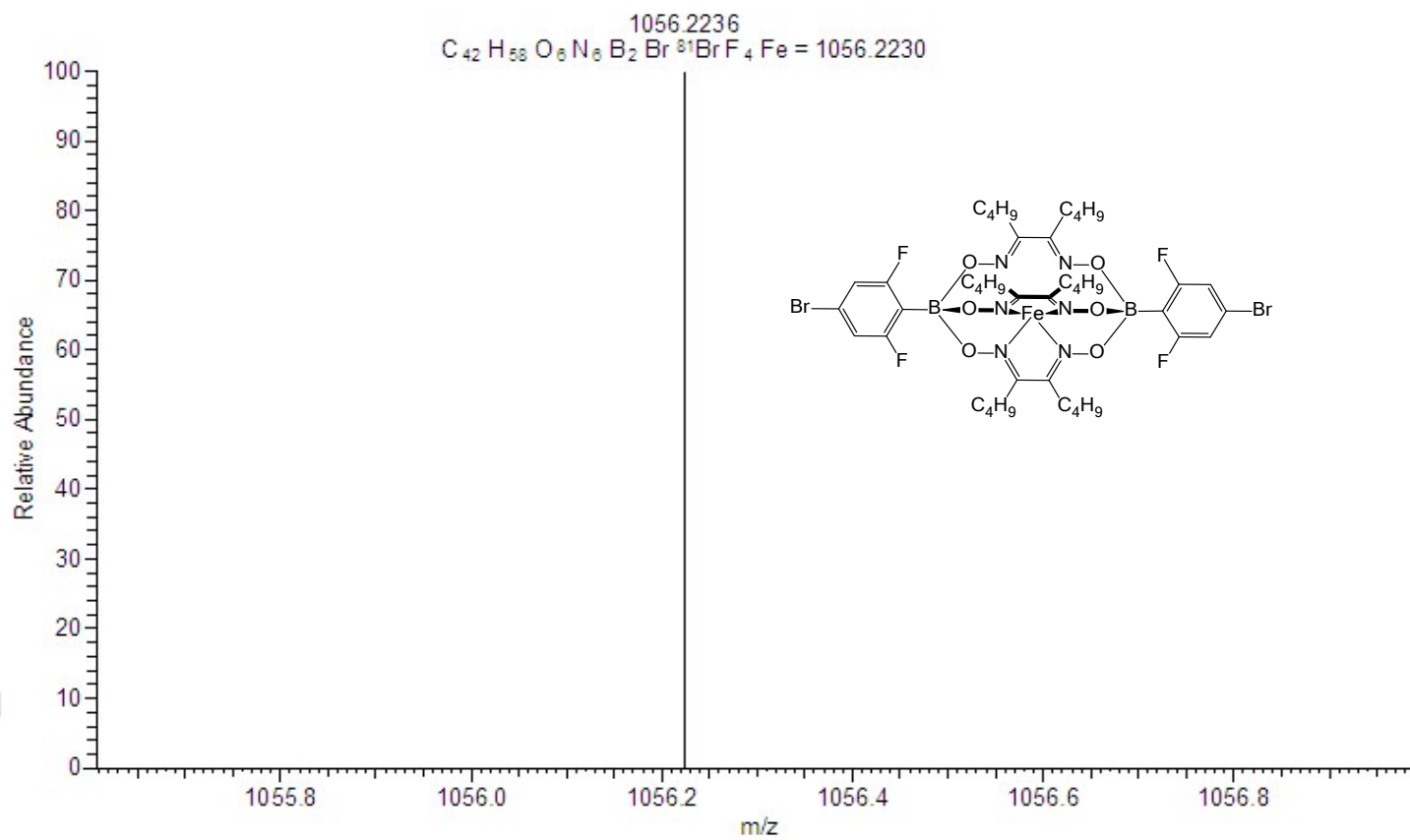


Fig. S7. EI-HRMS spectrum of **CC3**



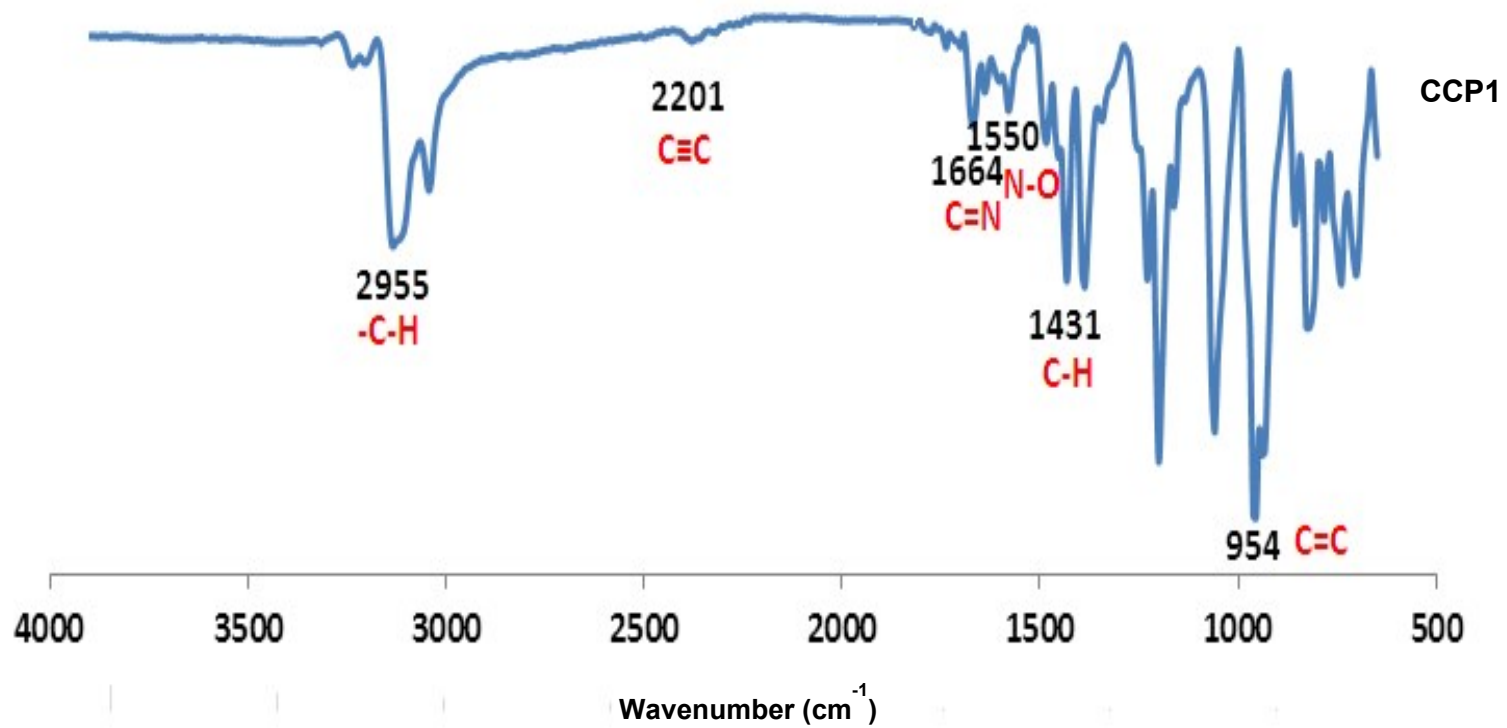
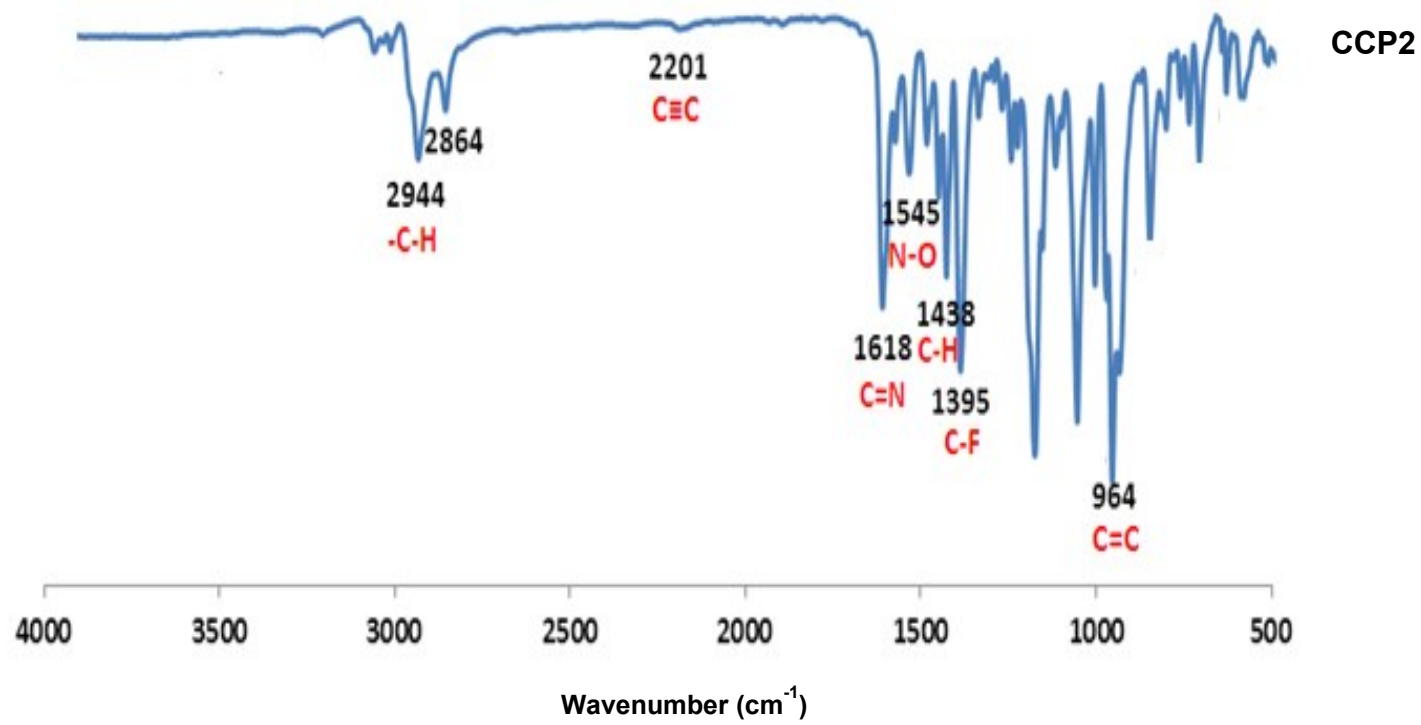
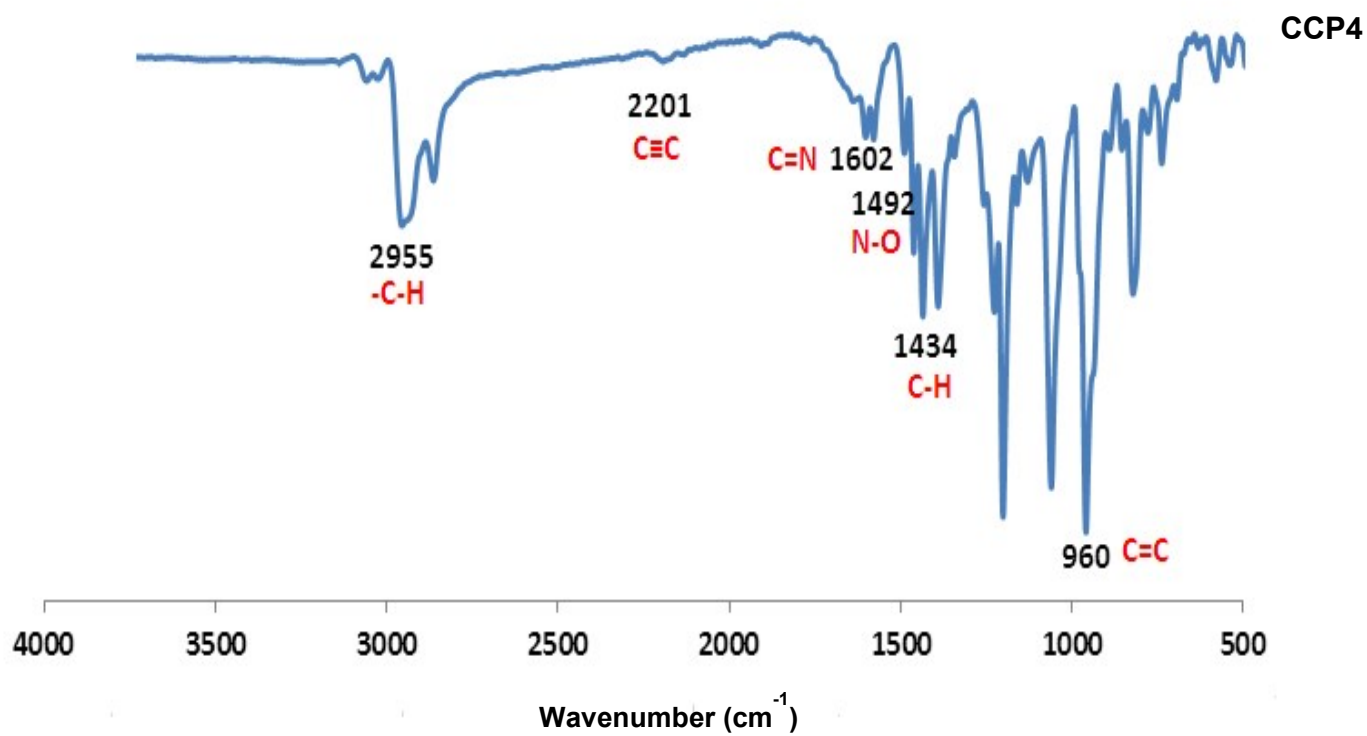


Fig. S8. FTIR spectrum of CCP1



**Fig. S9.** FTIR spectrum of **CCP2**



**Fig. S10.** FTIR spectrum of **CCP4**

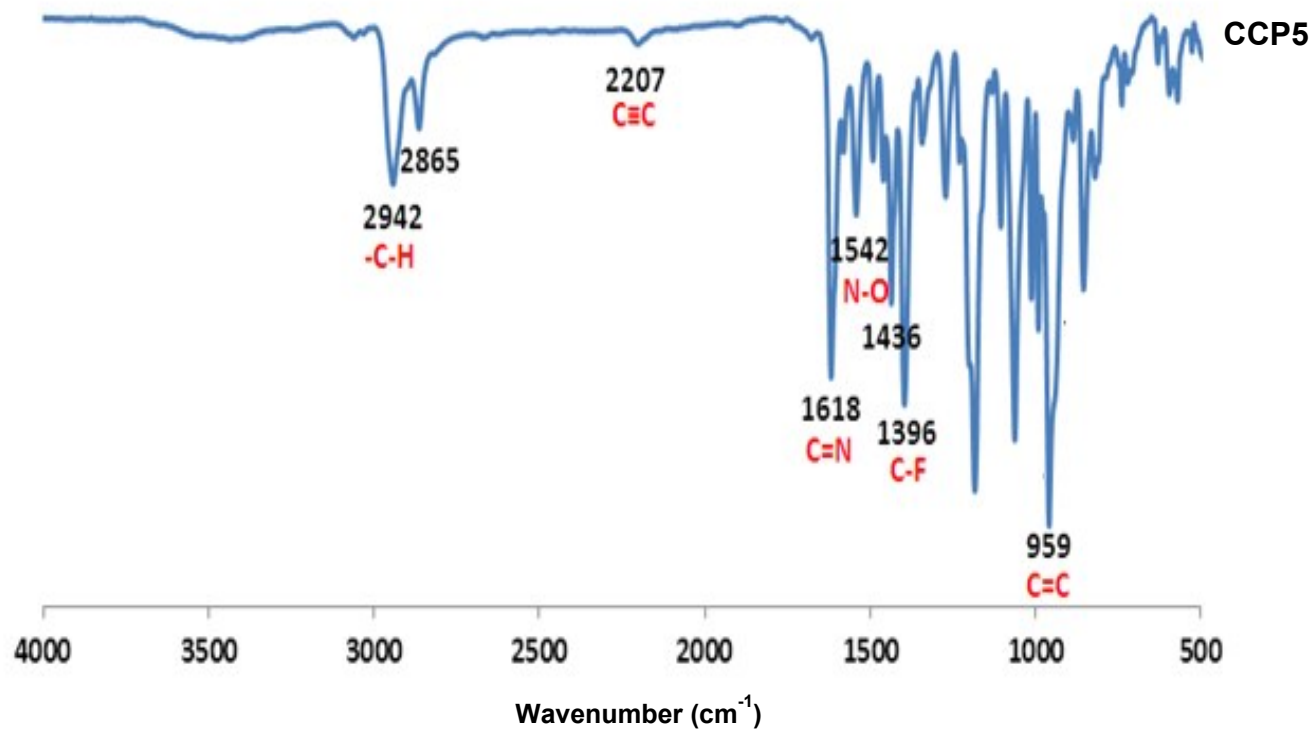
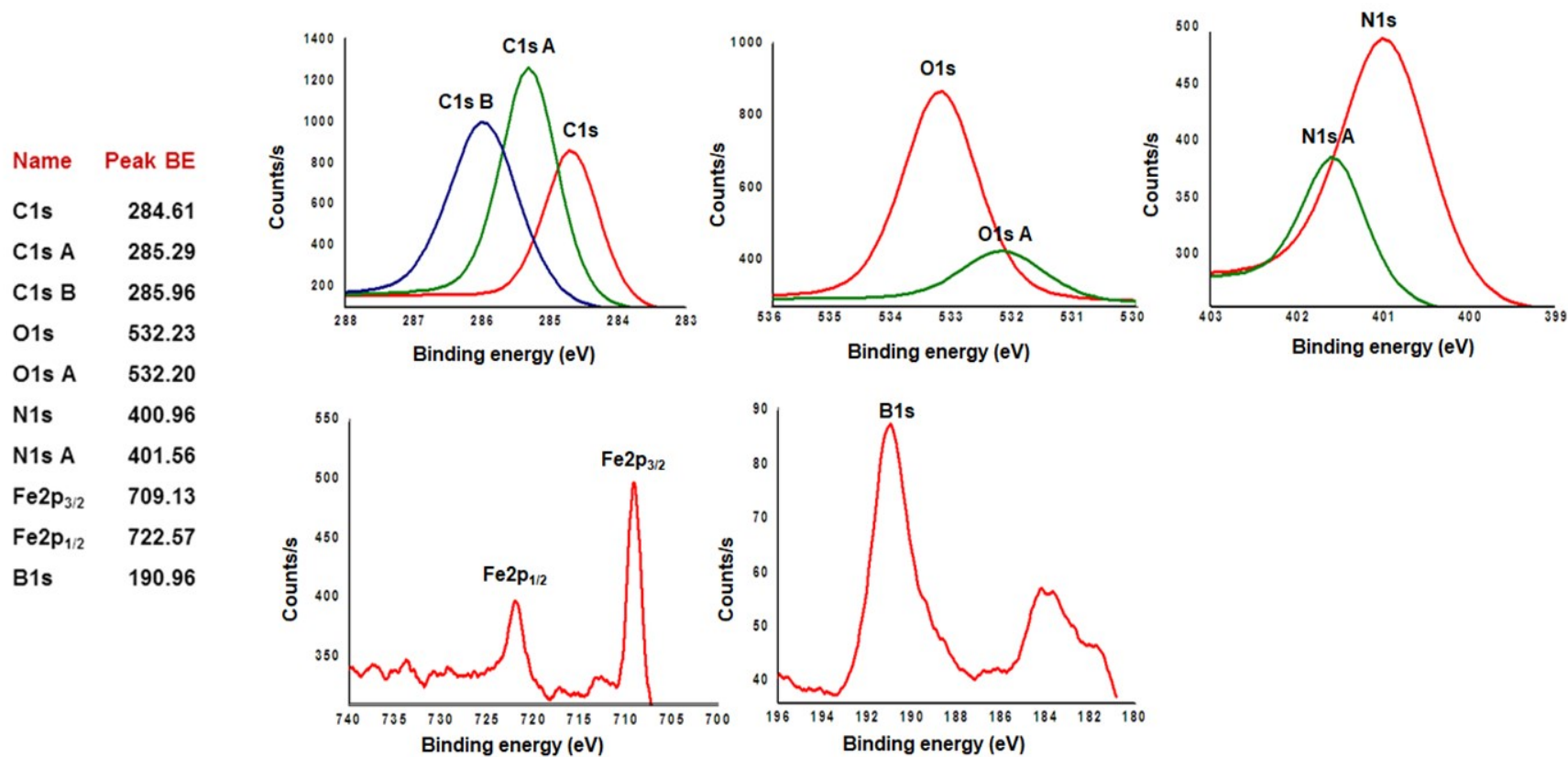
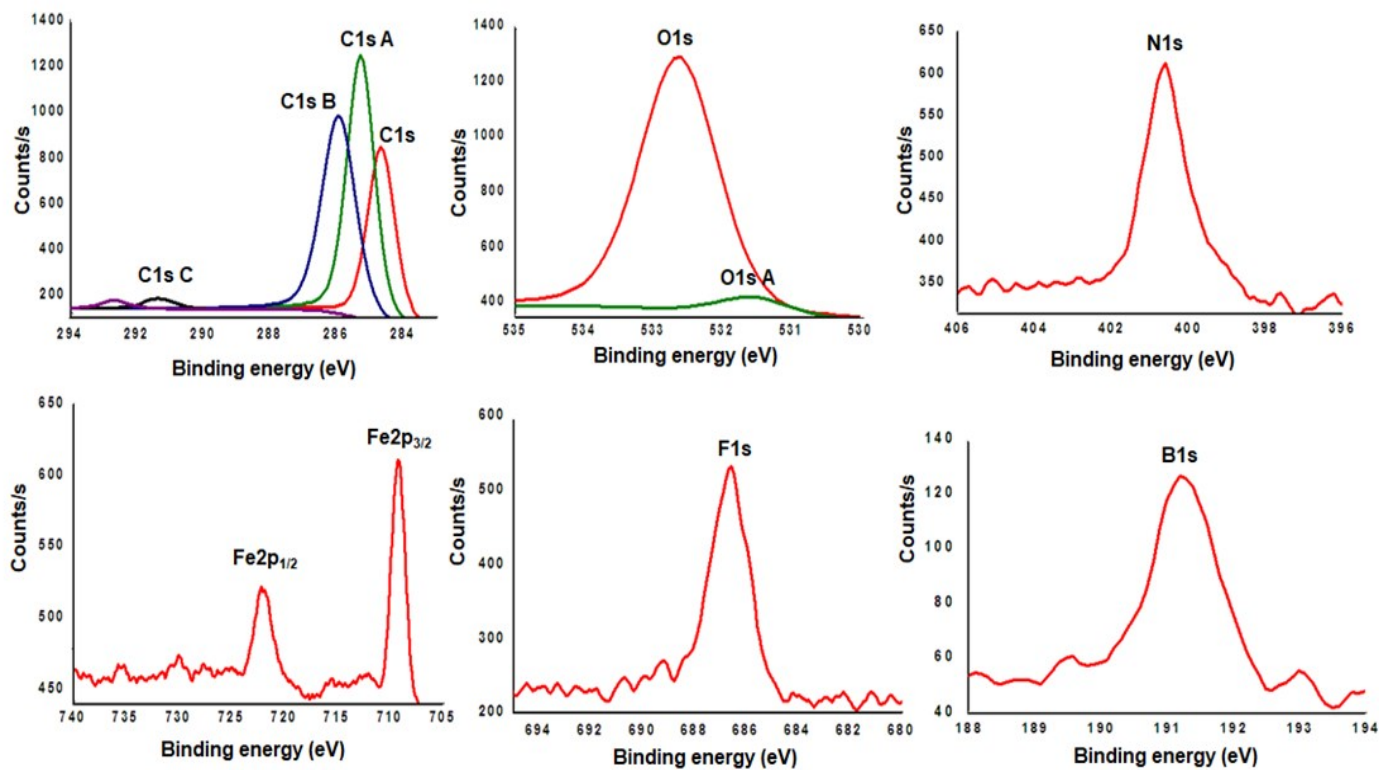


Fig. S11. FTIR spectrum CCP5



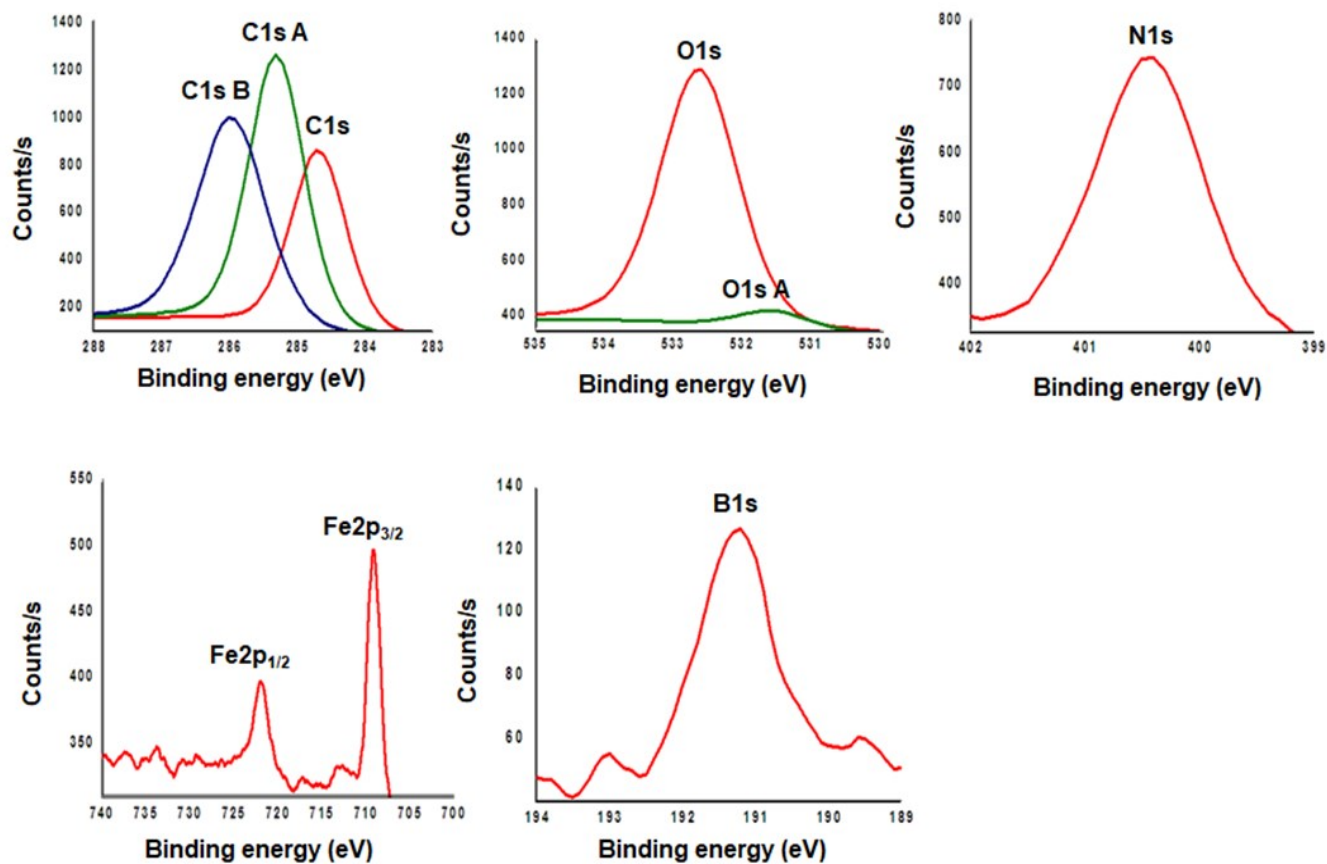
**Fig. S12.** High-resolution XPS spectra of C1s, O1s, N1s, Fe2p and B1s of **CCP1**.

Name	Peak BE
C1s	284.64
C1s A	285.30
C1s B	285.96
C1s C	291.37
O1s	532.96
O1s A	532.22
N1s	400.61
Fe2p <sub>3/2</sub>	709.23
Fe2p <sub>1/2</sub>	722.55
F1s	686.63
B1s	191.21



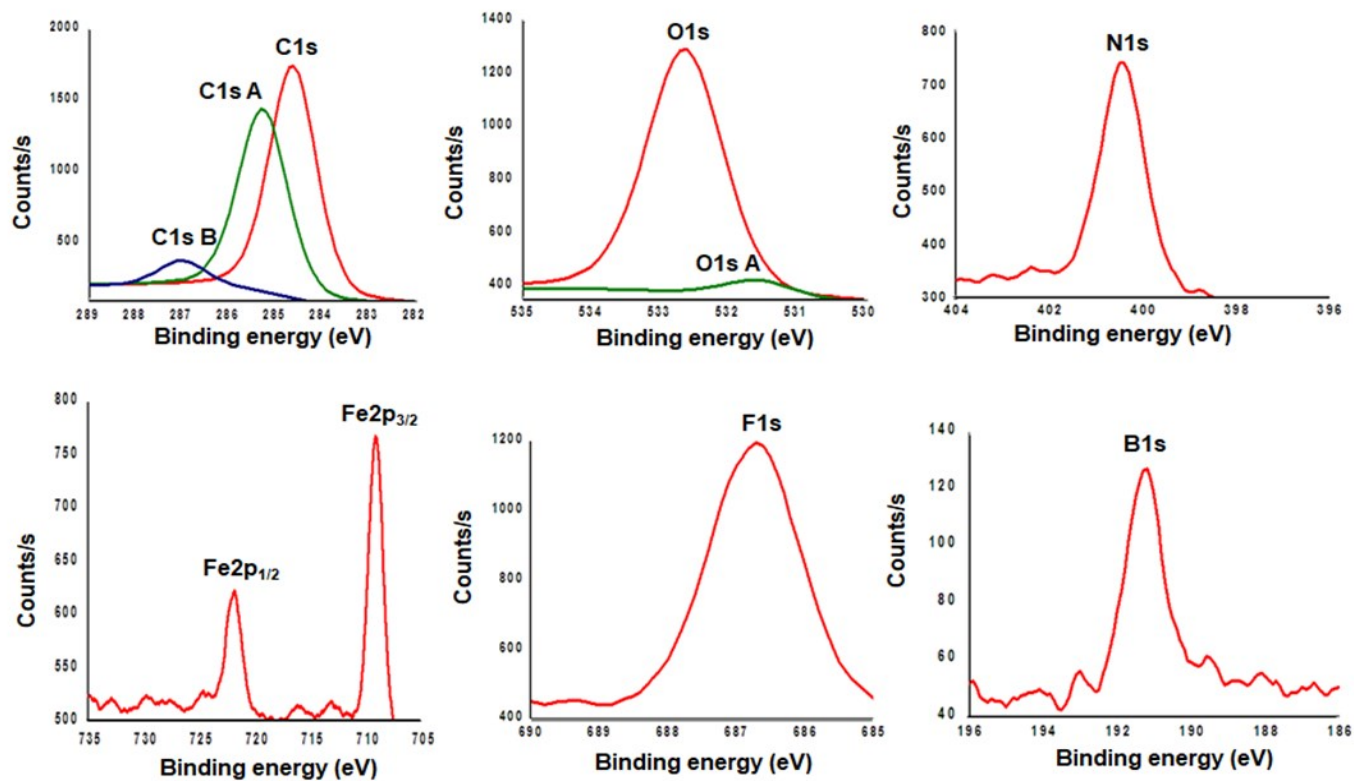
**Fig. S13.** High-resolution XPS spectra of C1s, O1s, N1s, Fe2p, F1s and B1s of **CCP2**.

Name	Peak BE
C1s	284.59
C1s A	285.31
C1s B	285.99
O1s	532.85
O1s A	532.25
N1s	400.61
Fe2p <sub>3/2</sub>	709.31
Fe2p <sub>1/2</sub>	722.55
B1s	191.25



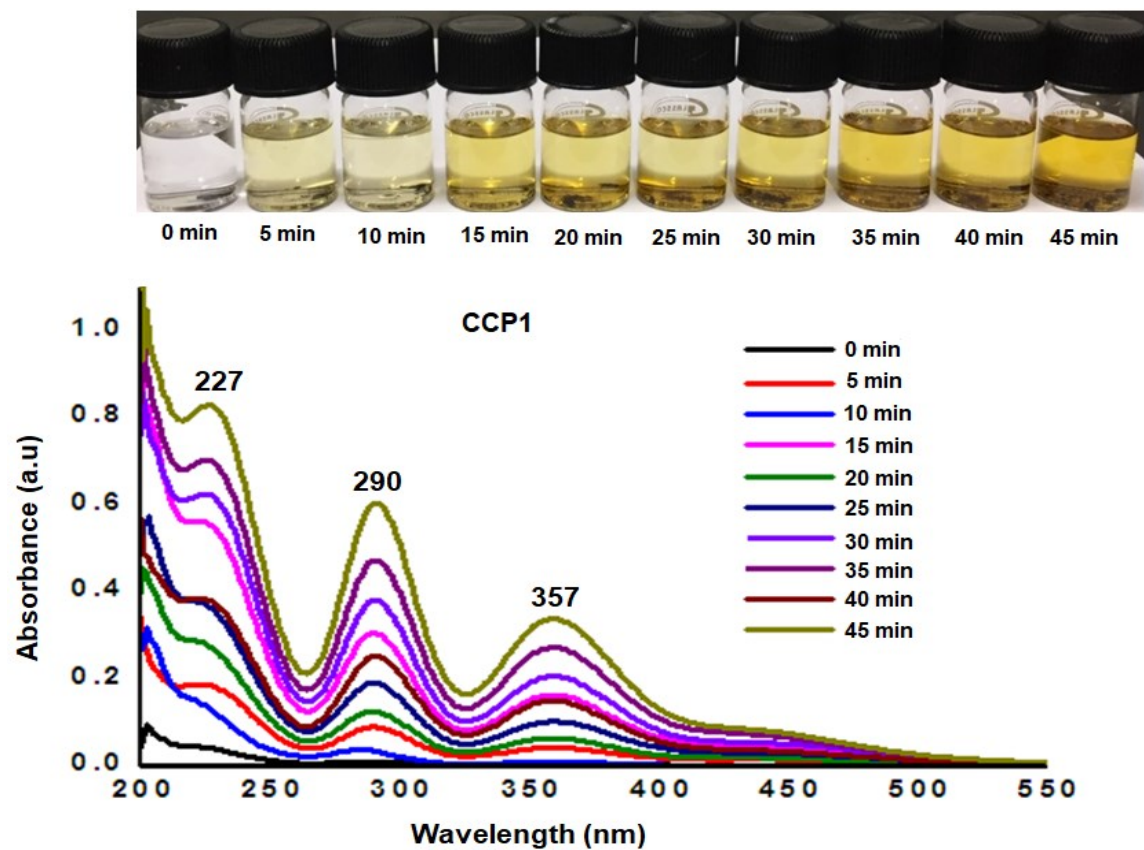
**Fig. S14.** High-resolution XPS spectra of C1s, O1s, N1s, Fe2p and B1s of **CCP4**

Name	Peak BE
C1s	284.67
C1s A	285.27
C1s B	287.01
O1s	532.40
O1s A	531.57
N1s	400.42
Fe2p <sub>3/2</sub>	709.27
Fe2p <sub>1/2</sub>	722.01
F1s	686.72
B1s	191.23

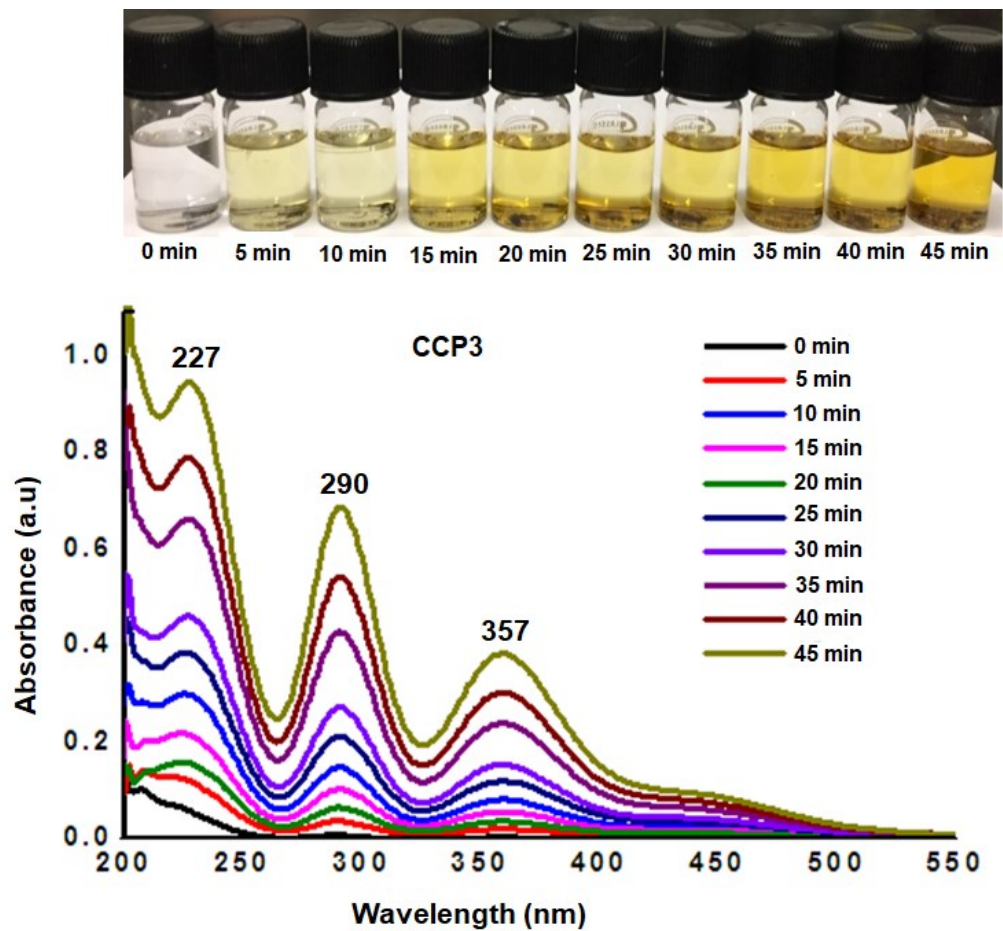


**Fig. S15.** High-resolution XPS spectra of C1s, O1s, N1s, Fe2p, F1s and B1s of **CCP5**

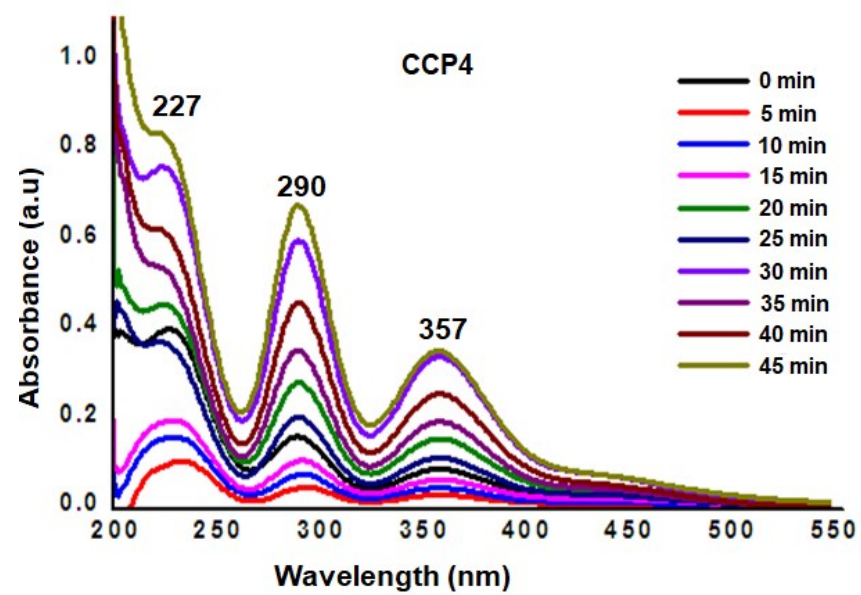
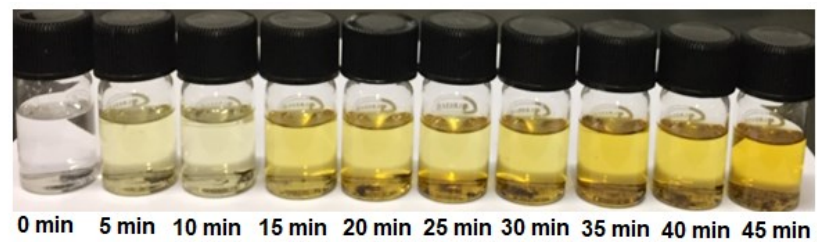




**Fig. S16.** UV-Vis absorption spectra upon immersion of I2@CCP1 in ethanol.



**Fig. S17.** UV-Vis absorption spectra upon immersion of I2@CCP3 in ethanol.



**Fig. S18.** UV-Vis absorption spectra upon immersion of I2@CCP4 in ethanol

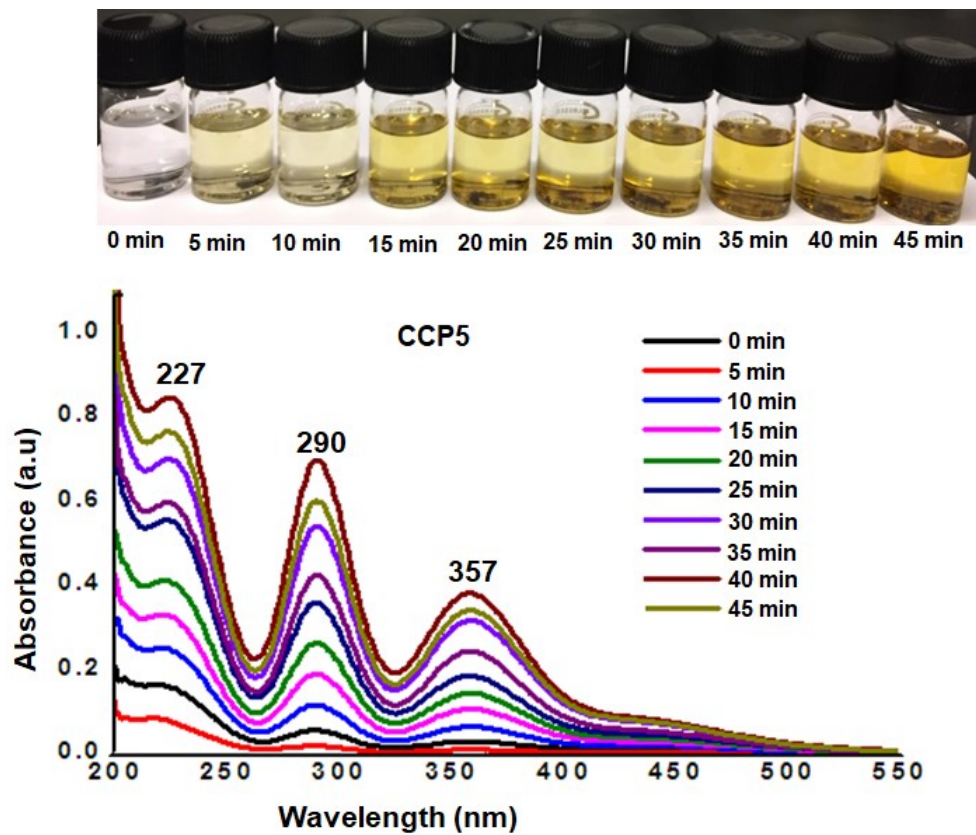
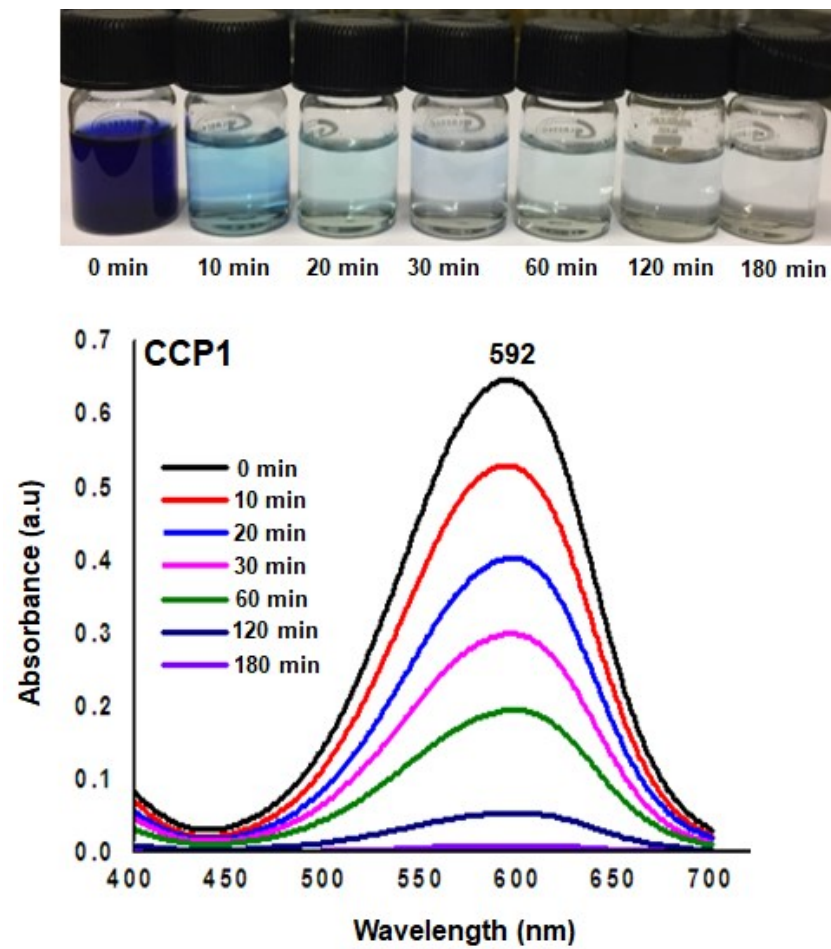
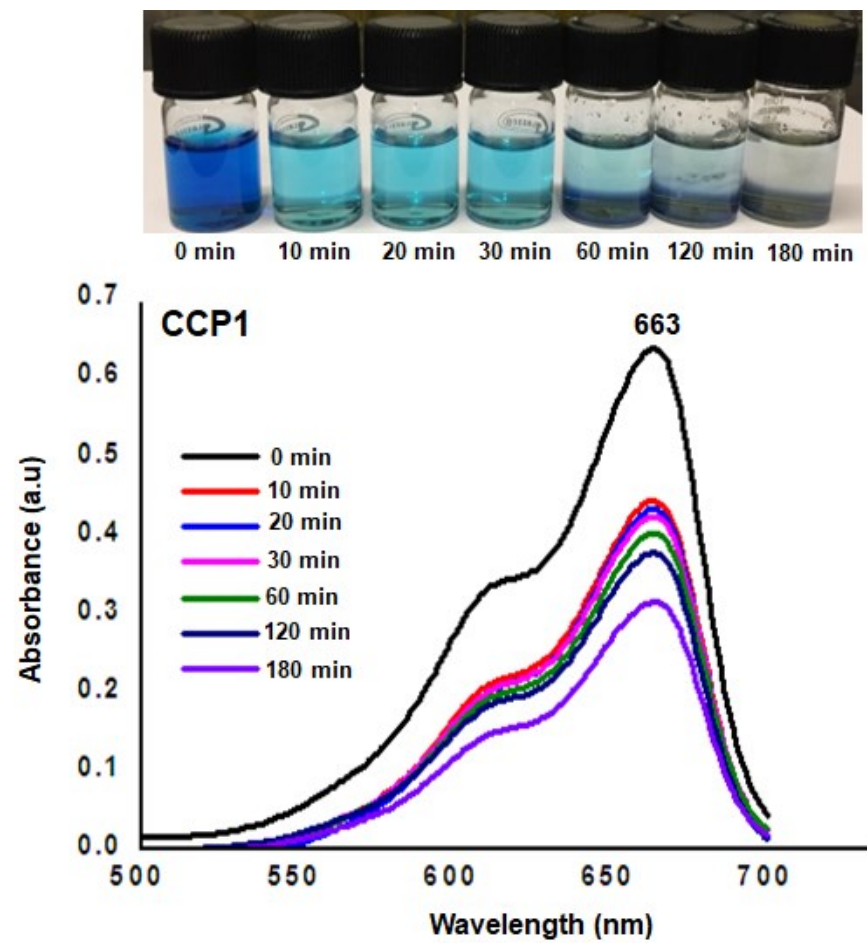


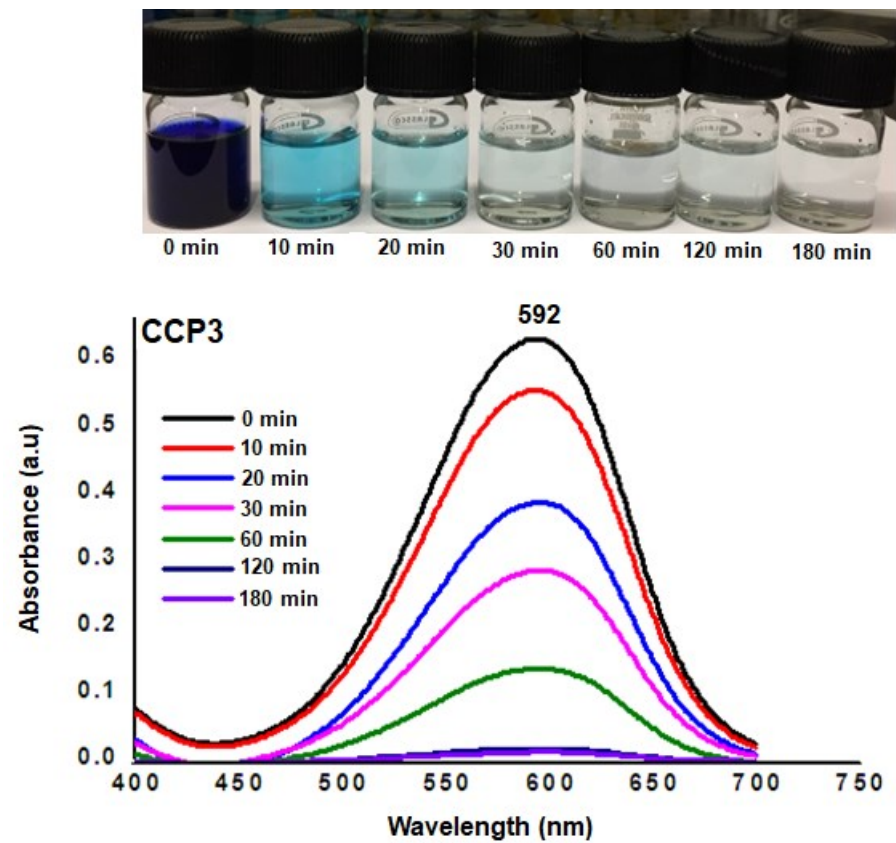
Fig. S19. UV-Vis absorption spectra upon immersion of I2@CCP5 in ethanol



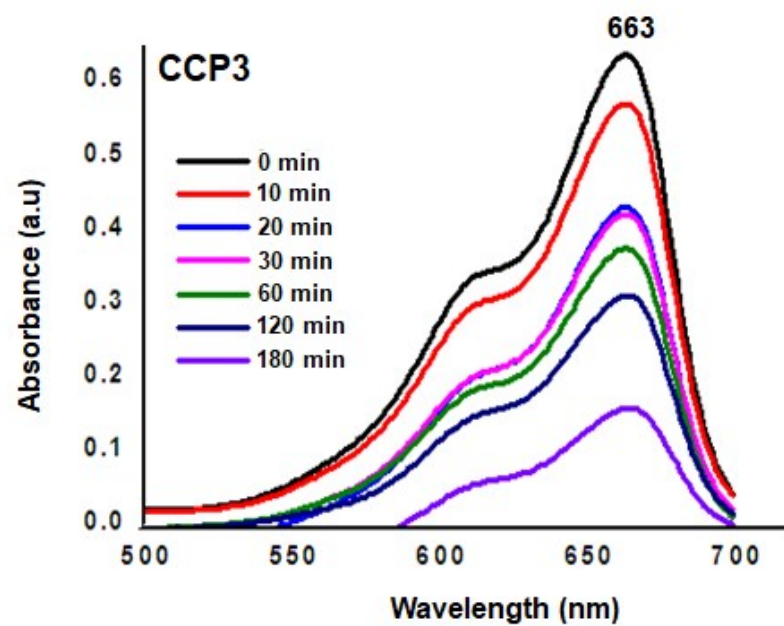
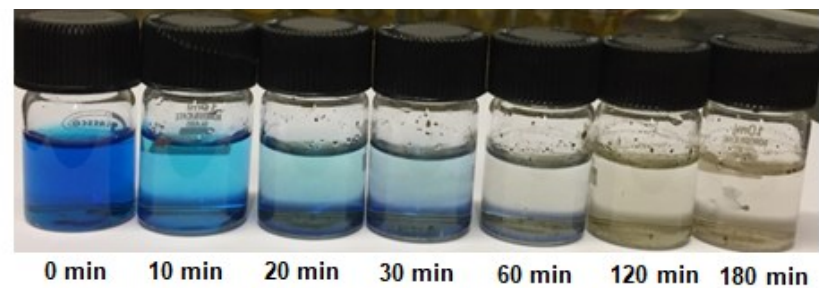
**Fig. S20.** UV-Vis absorption spectrum of aqueous solution MB in the presence of **CCP1** at various time intervals



**Fig. S21.** UV-Vis absorption spectrum of aqueous solution MEB in the presence of **CCP1** at various time intervals

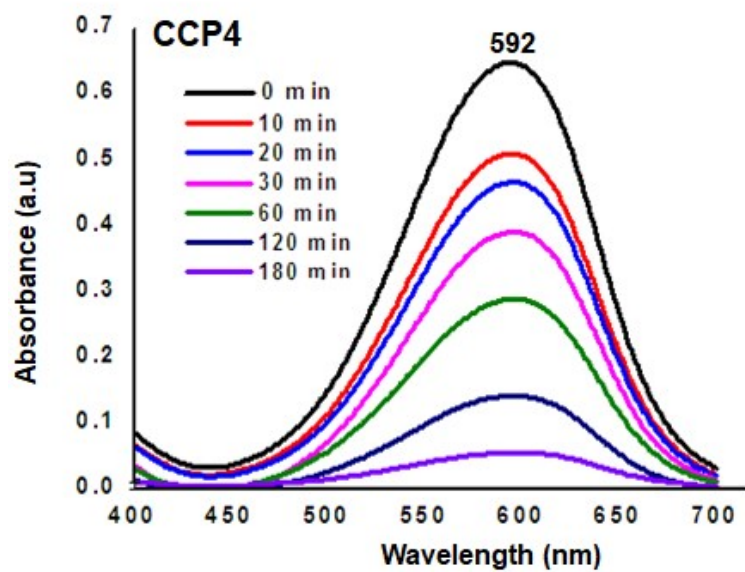
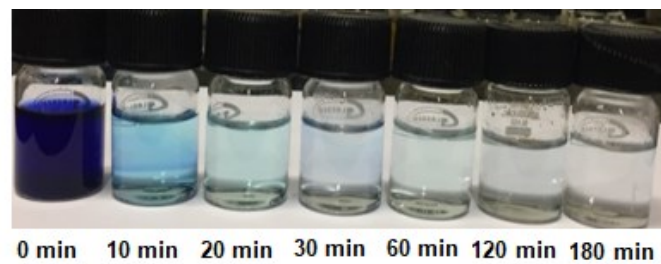


**Fig. S22.** UV-Vis absorption spectrum of aqueous solution MB in the presence of **CCP3** at various time intervals

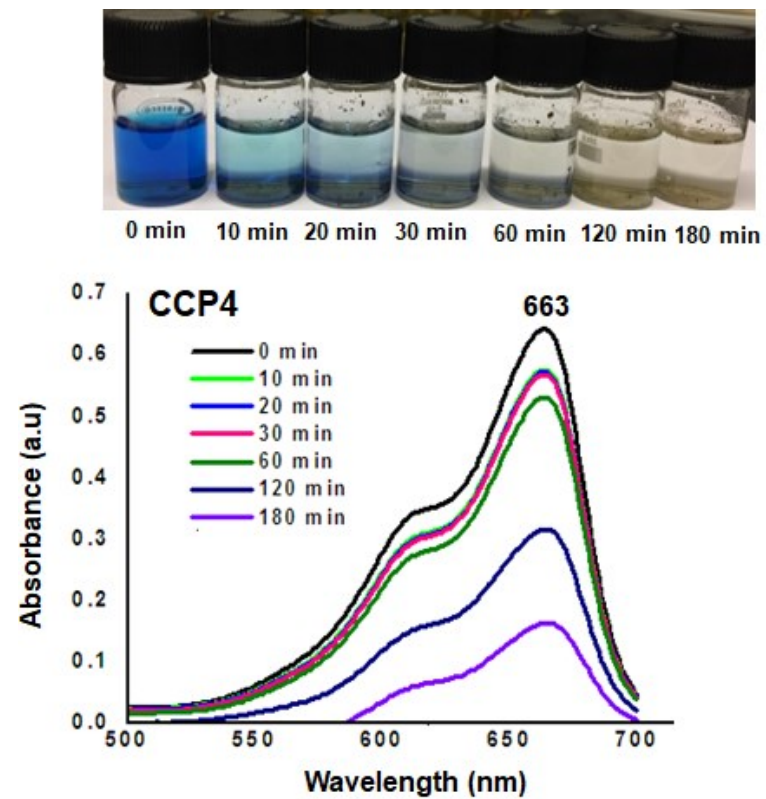


**Fig. S23.** UV-Vis absorption spectrum of aqueous solution MEB in the presence of **CCP3** at various time intervals

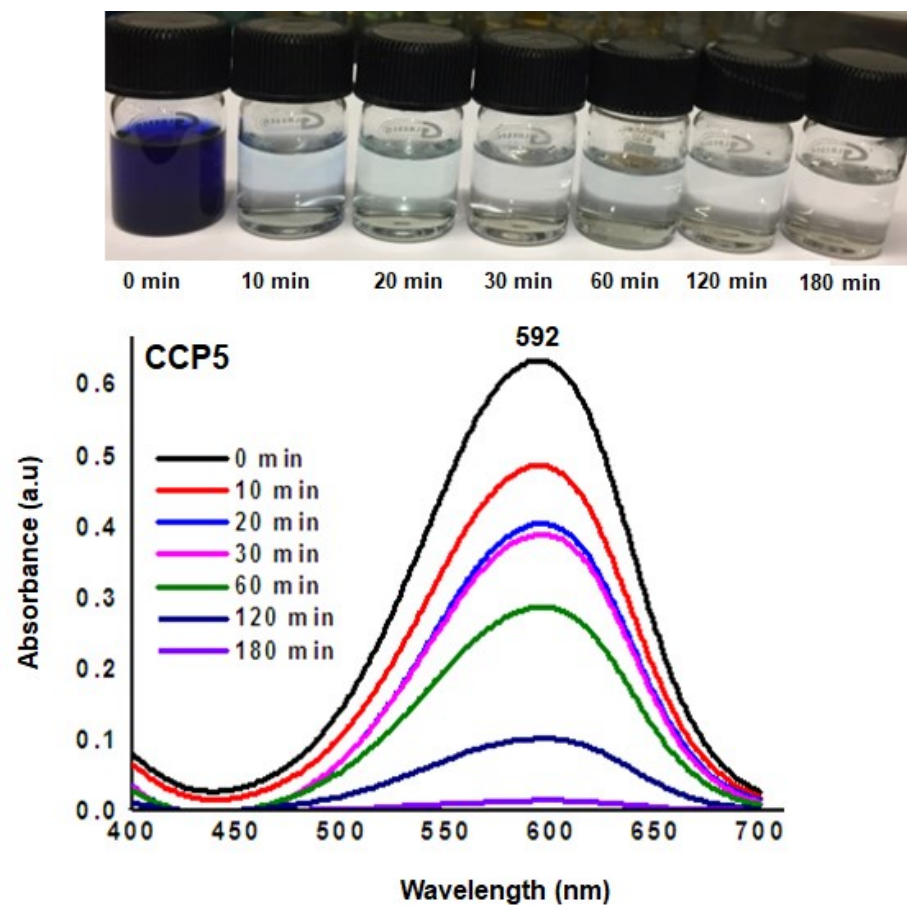




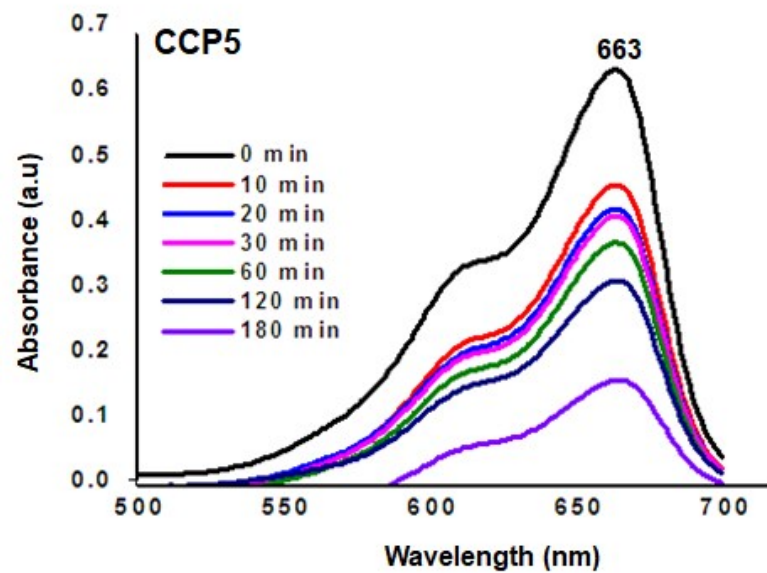
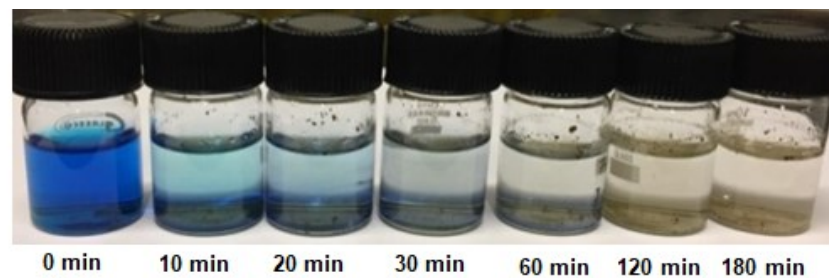
**Fig. S24.** UV-Vis absorption spectrum of aqueous solution MB in the presence of **CCP4** at various time intervals



**Fig. S25.** UV-Vis absorption spectrum of aqueous solution MEB in the presence of **CCP4** at various time intervals



**Fig. S26.** UV-Vis absorption spectrum of aqueous solution MB in the presence of **CCP5** at various time intervals



**Fig. S27.** UV-Vis absorption spectrum of aqueous solution MEB in the presence of **CCP5** at various time intervals