

## **2-aminofluorene based triazole cocktailed with organosilane as UV-Visible and fluorescence sensor for highly selective detection of Fe(III) ion and its anti-leishmanial activity**

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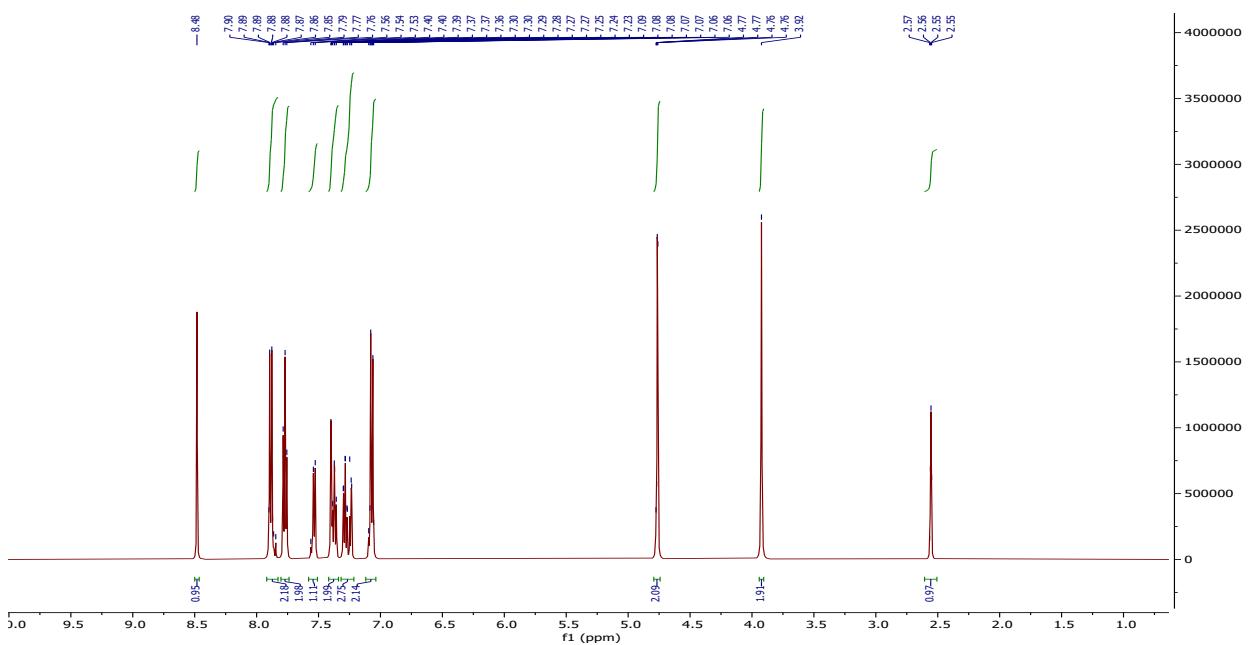
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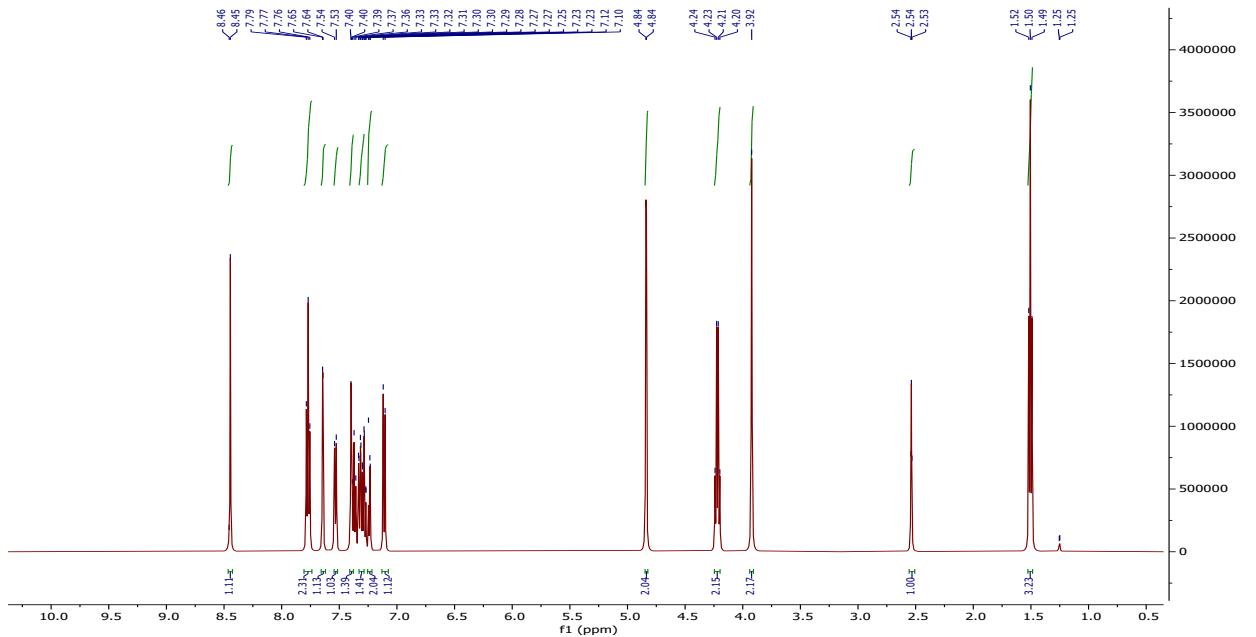
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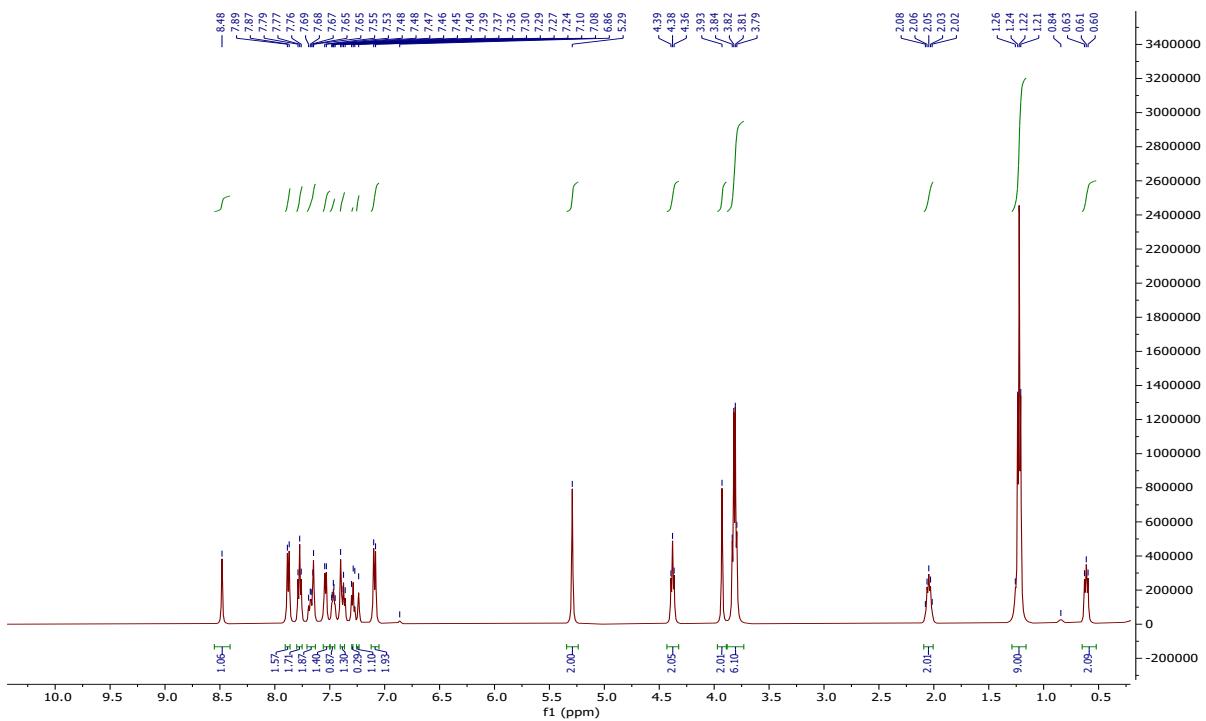
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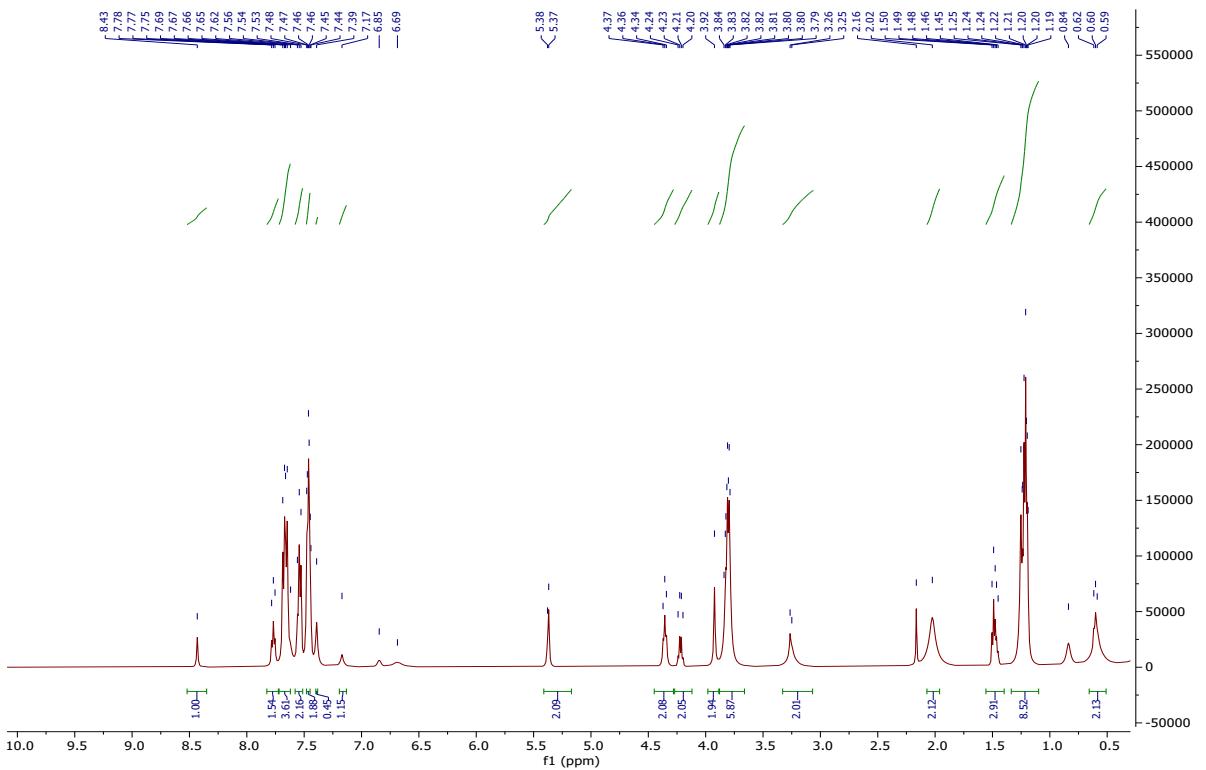
**Fig.S1:**  $^1\text{H}$  NMR spectrum of compound **5a**



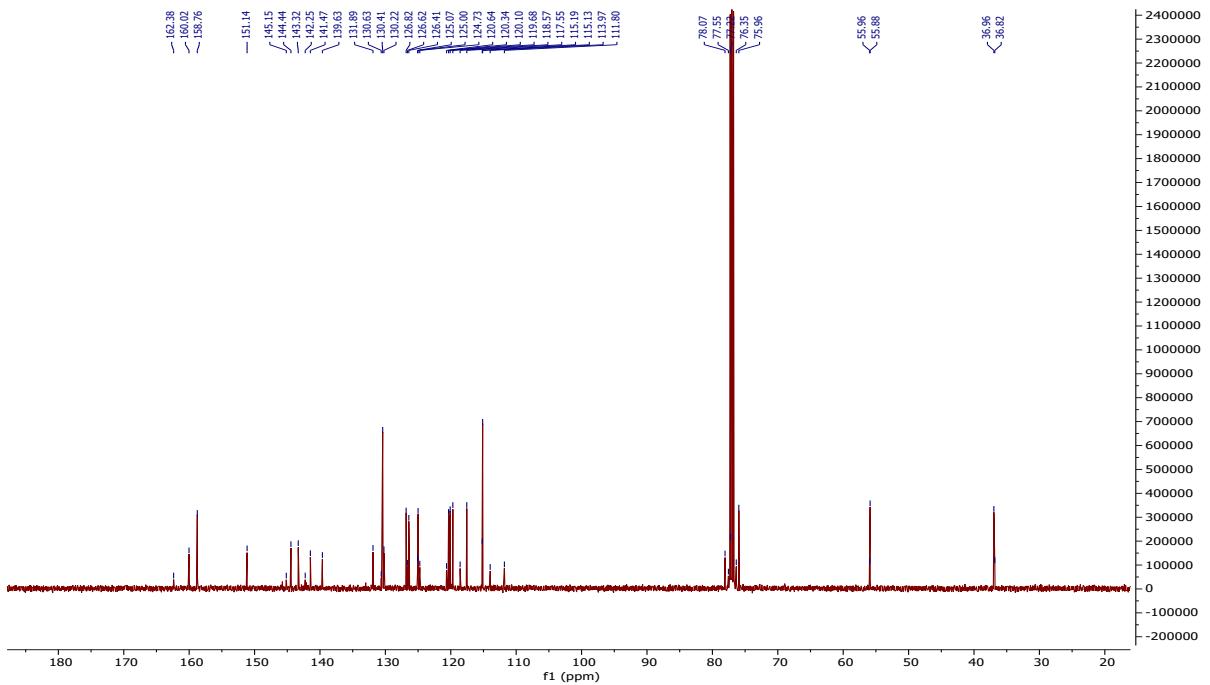
**Fig.S2:**  $^1\text{H}$  NMR spectrum of compound **5b**



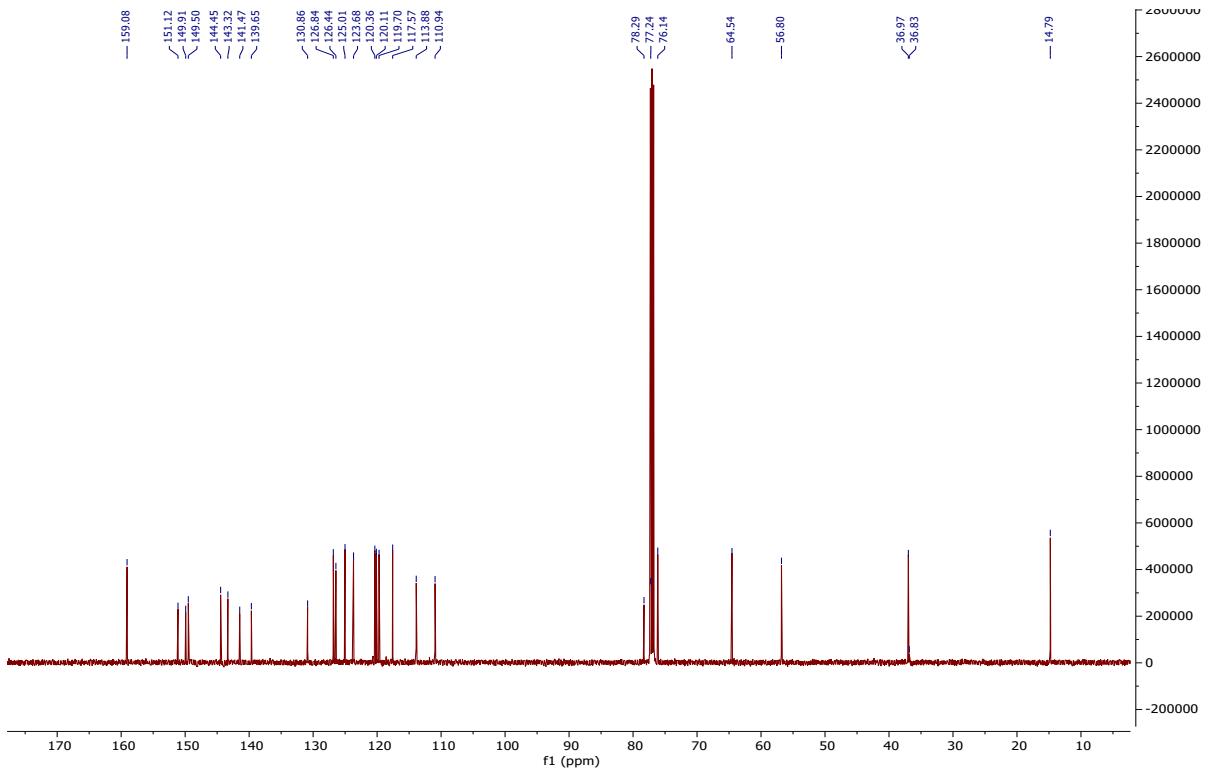
**Fig.S3:** <sup>1</sup>H NMR spectrum of compound 6a



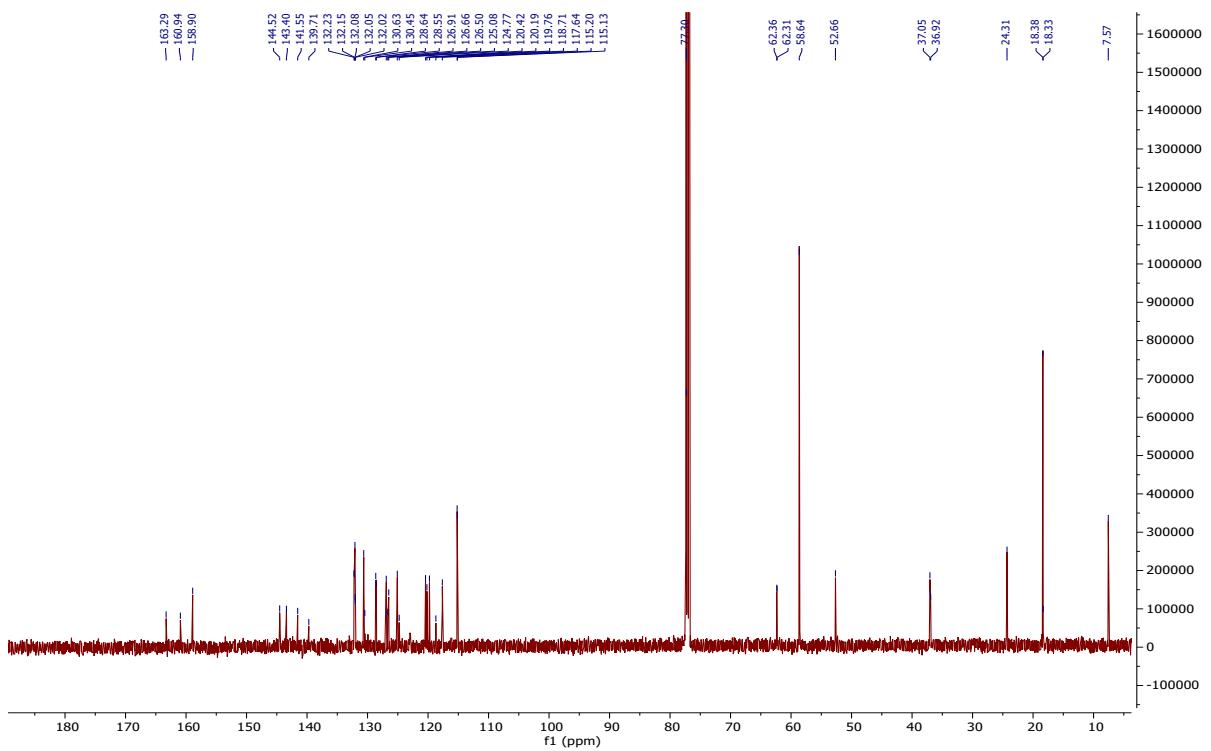
**Fig.S4:** <sup>1</sup>H NMR spectrum of compound 6b



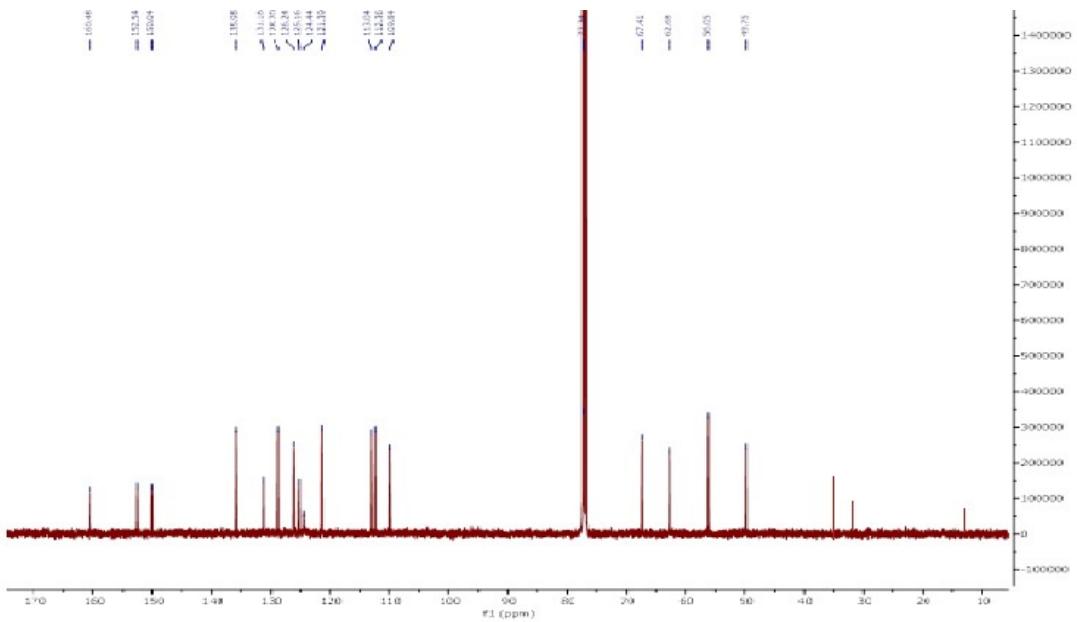
**Fig.S5:**  $^{13}\text{C}$  NMR spectrum of compound **5a**



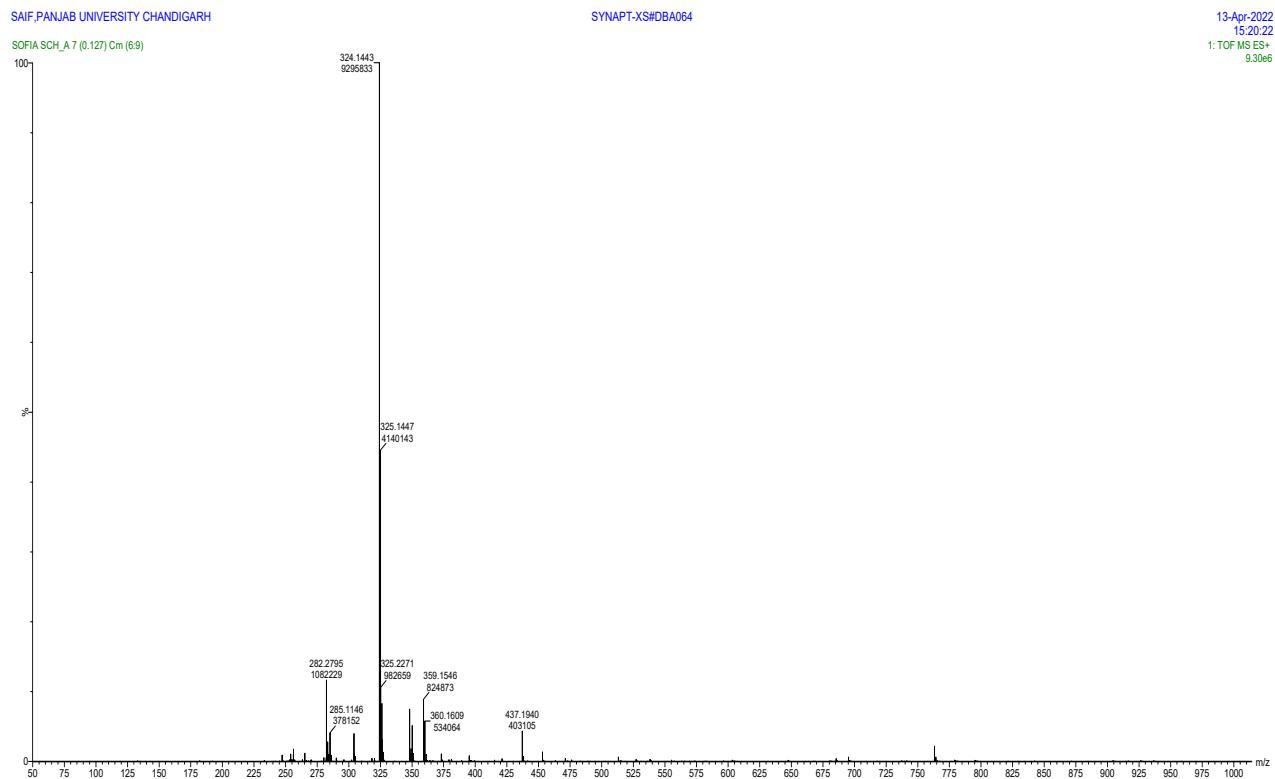
**Fig.S6:**  $^{13}\text{C}$  NMR spectrum of compound **5b**



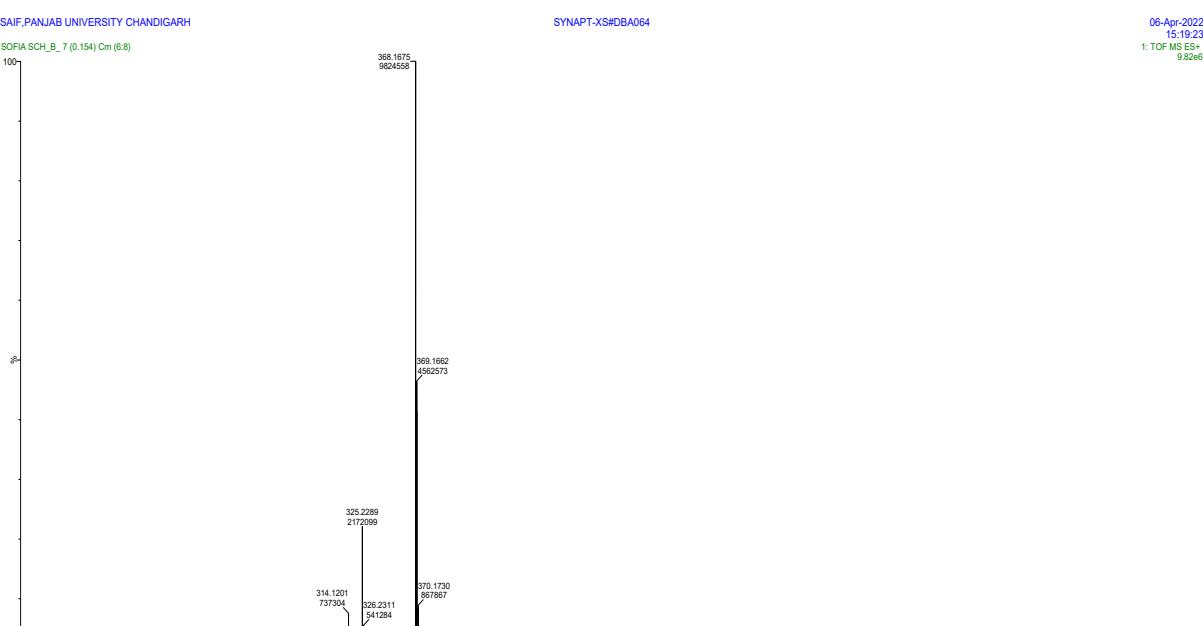
**Fig.S7:**  $^{13}\text{C}$  NMR spectrum of compound **6a**



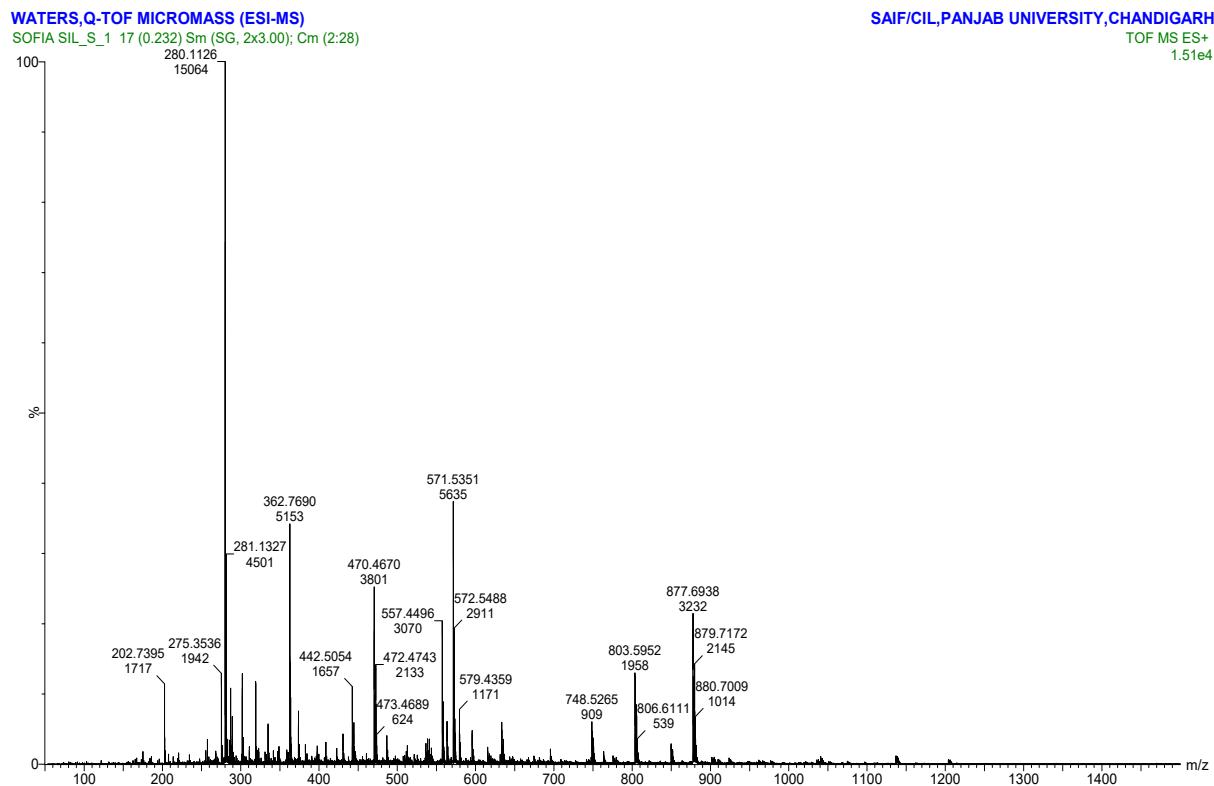
**Fig.S8:**  $^{13}\text{C}$  NMR spectrum of compound **6b**



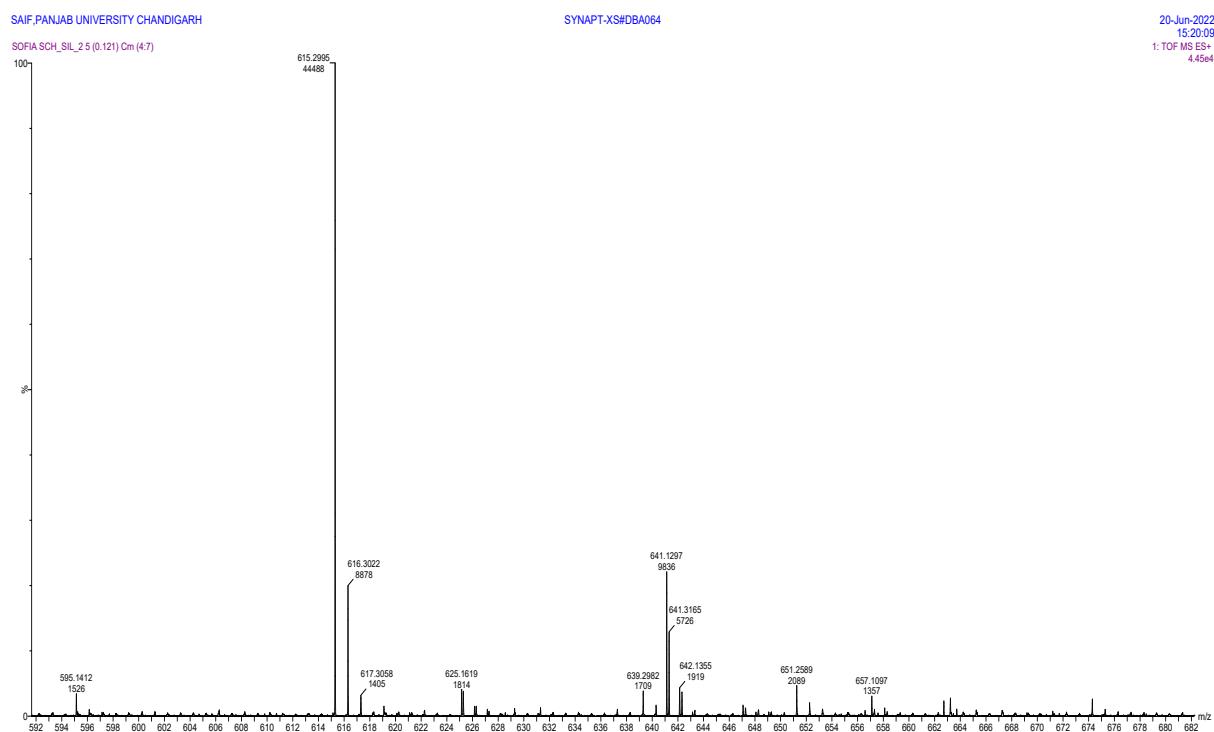
**Fig.S9:** Mass spectrum spectrum of compound 5a



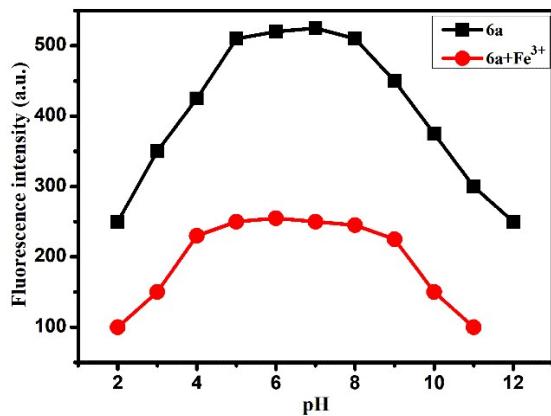
**Fig.S10:** Mass spectrum spectrum of compound 5b



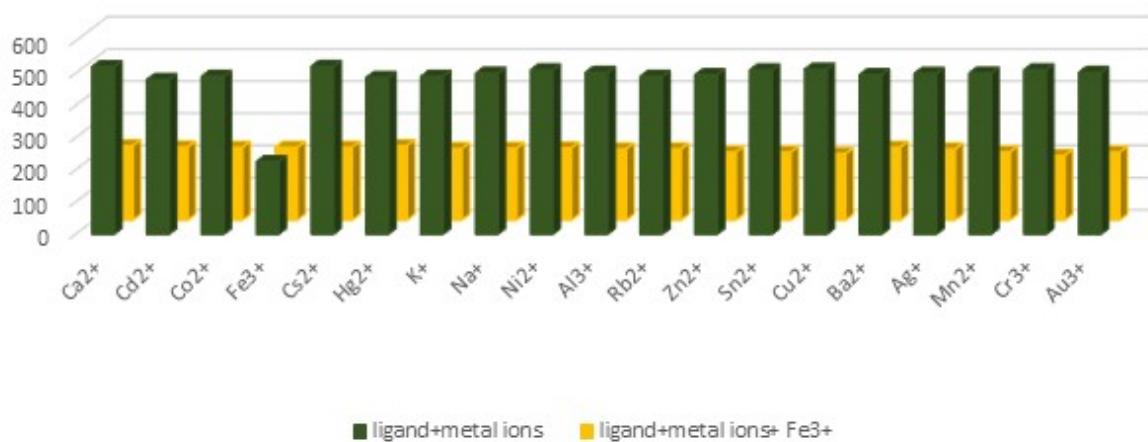
**Fig.S11:** Mass spectrum spectrum of compound **6a**



**Fig.S12:** Mass spectrum spectrum of compound **6b**



**Fig.S13:** pH effect



**Fig.S14:** Selectivity studies

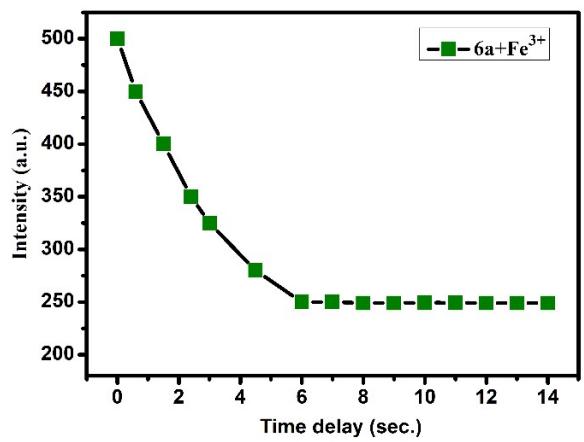


Fig.S15: Response time studies

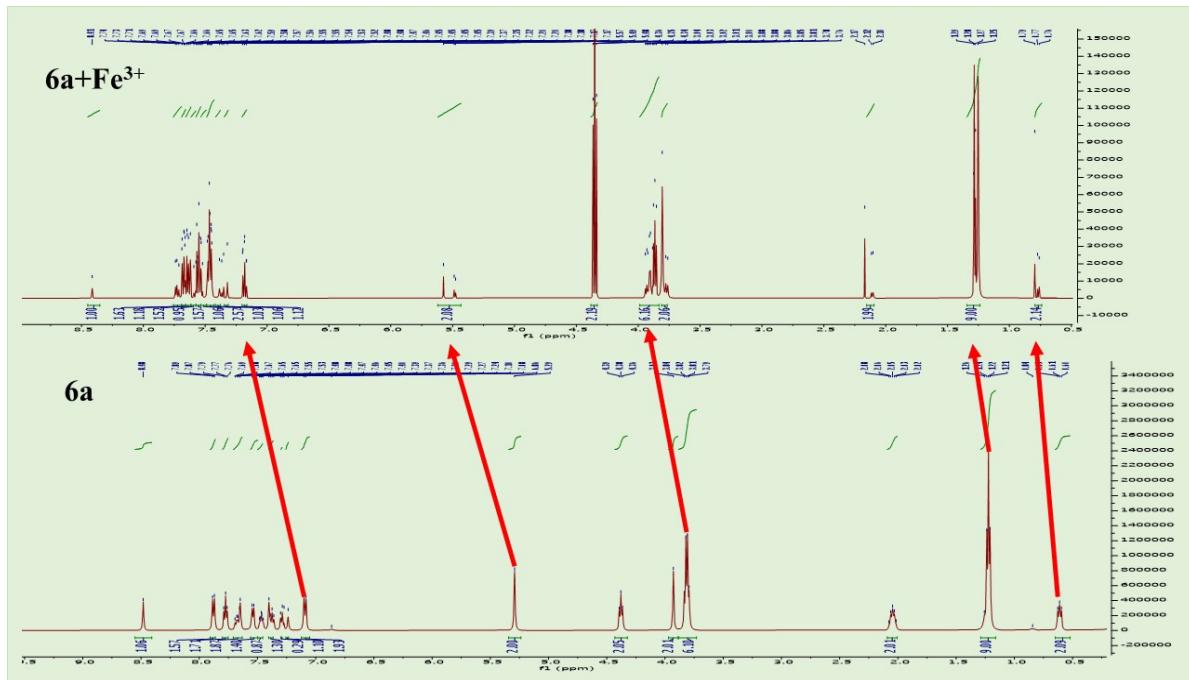
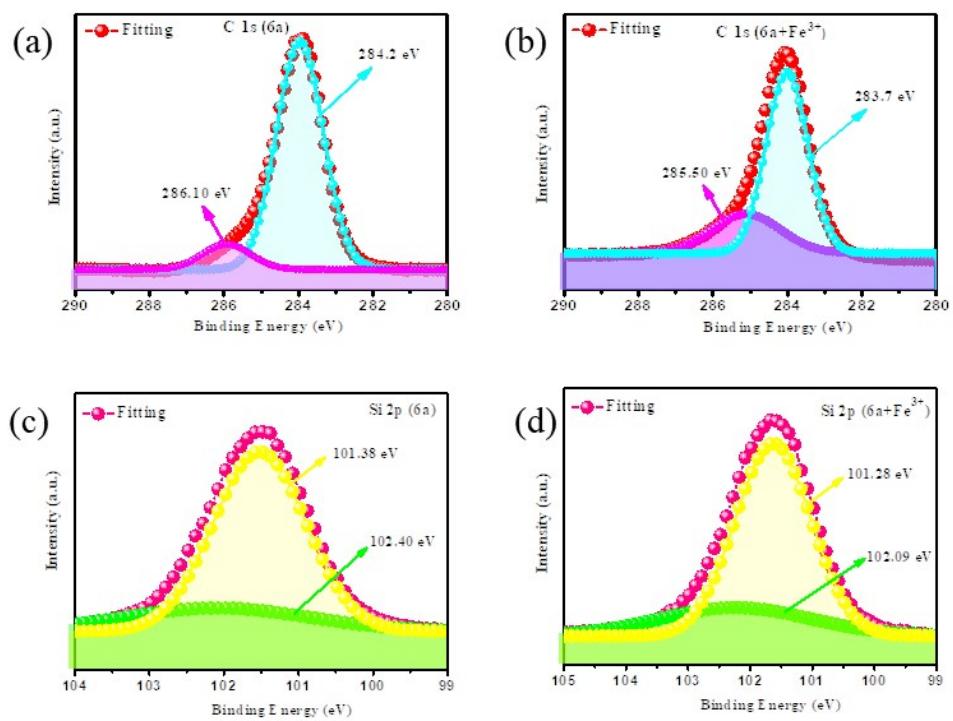


Fig.S16  $^1\text{H}$  NMR spectra of compound **6a** and its complex with  $\text{Fe}^{3+}$  ions.



**Fig.S17** XPS spectra of **6a** and **6a+Fe<sup>3+</sup>**. (a) C 1s spectra of **6a**, (b) C 1s spectra of **6a+Fe<sup>3+</sup>**, (c) Si 2p spectra of **6a**, and (d) Si 2p spectra of **6a+Fe<sup>3+</sup>**.