

# Azide-Alkyne Cycloaddition *en route* towards 1*H*-1,2,3-triazole-tethered $\beta$ -lactam-ferrocene and $\beta$ -lactam-ferrocenylchalcone conjugates: Synthesis and *In vitro* Anti-tubercular Evaluation

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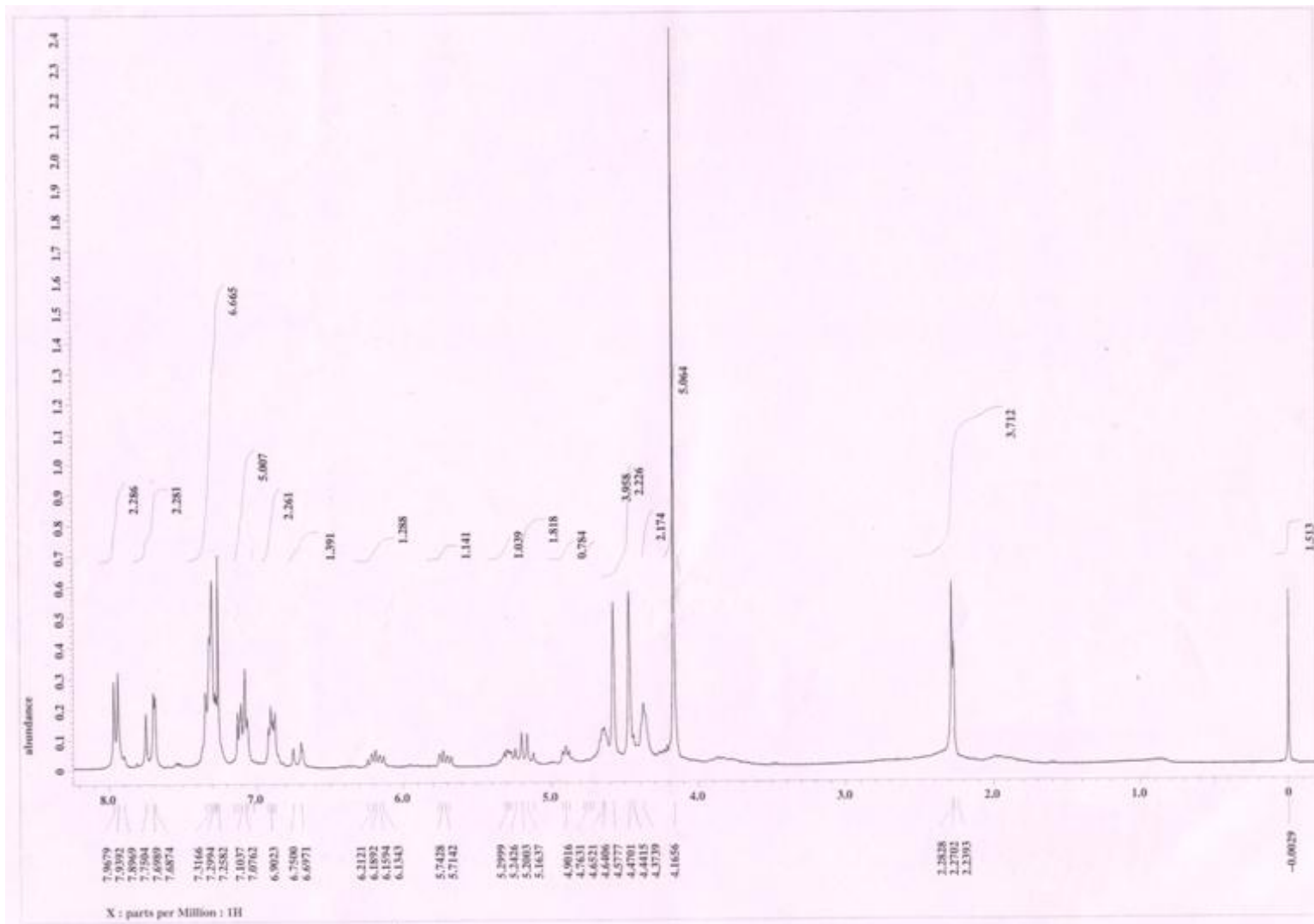
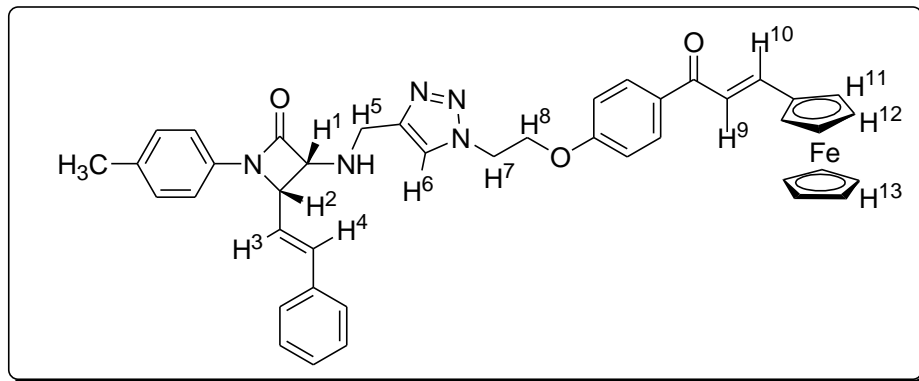
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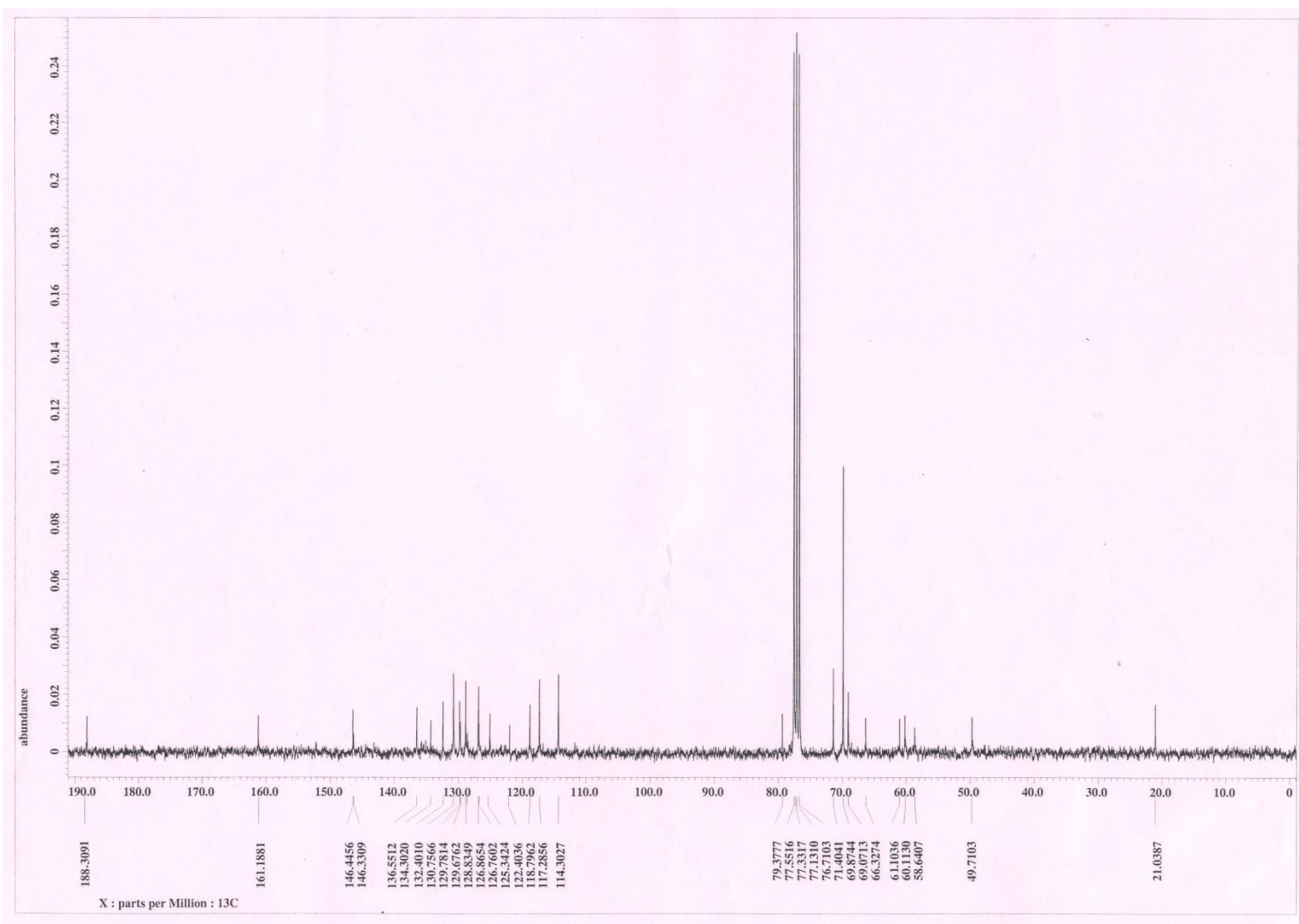
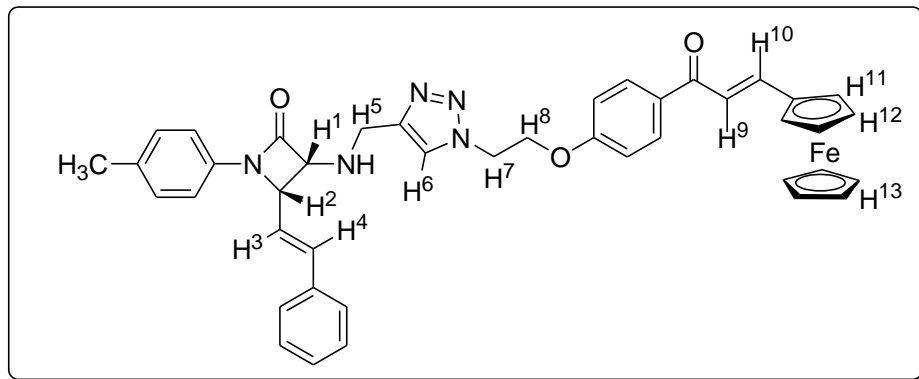
**Supplementary Information:**

### $^1\text{H}$ and $^{13}\text{C}$ NMR spectra of representative compounds:

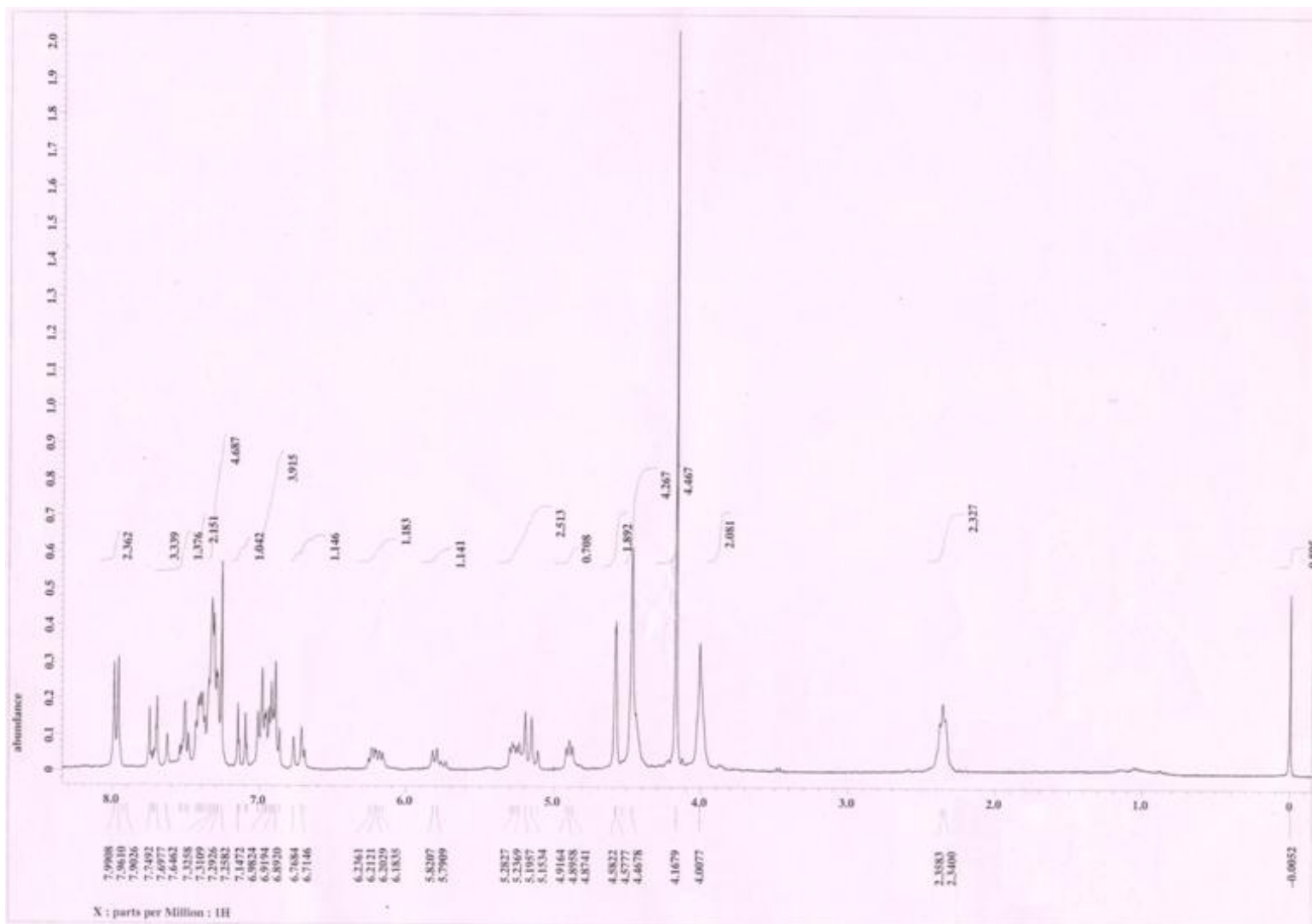
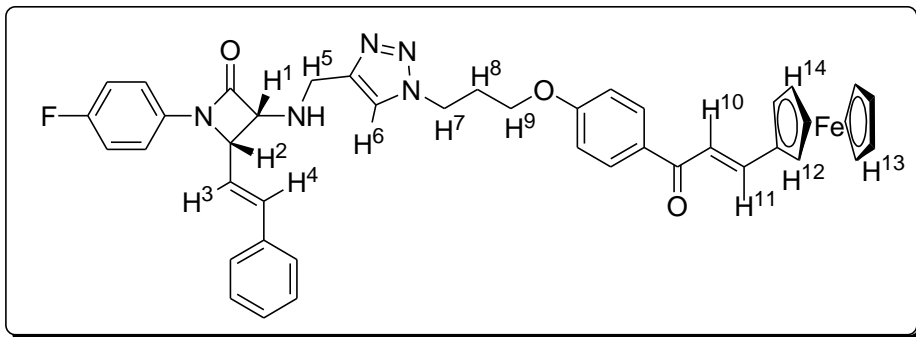
$^1\text{H}$  NMR spectrum of 3-[(1-{2-[4-(3-ferrocenyl-acryloyl)-phenoxy]-ethyl}-1H-[1,2,3]triazol-4-ylmethyl)-amino]-4-styryl-1-p-tolyl-azetidin-2-one (**10b**).



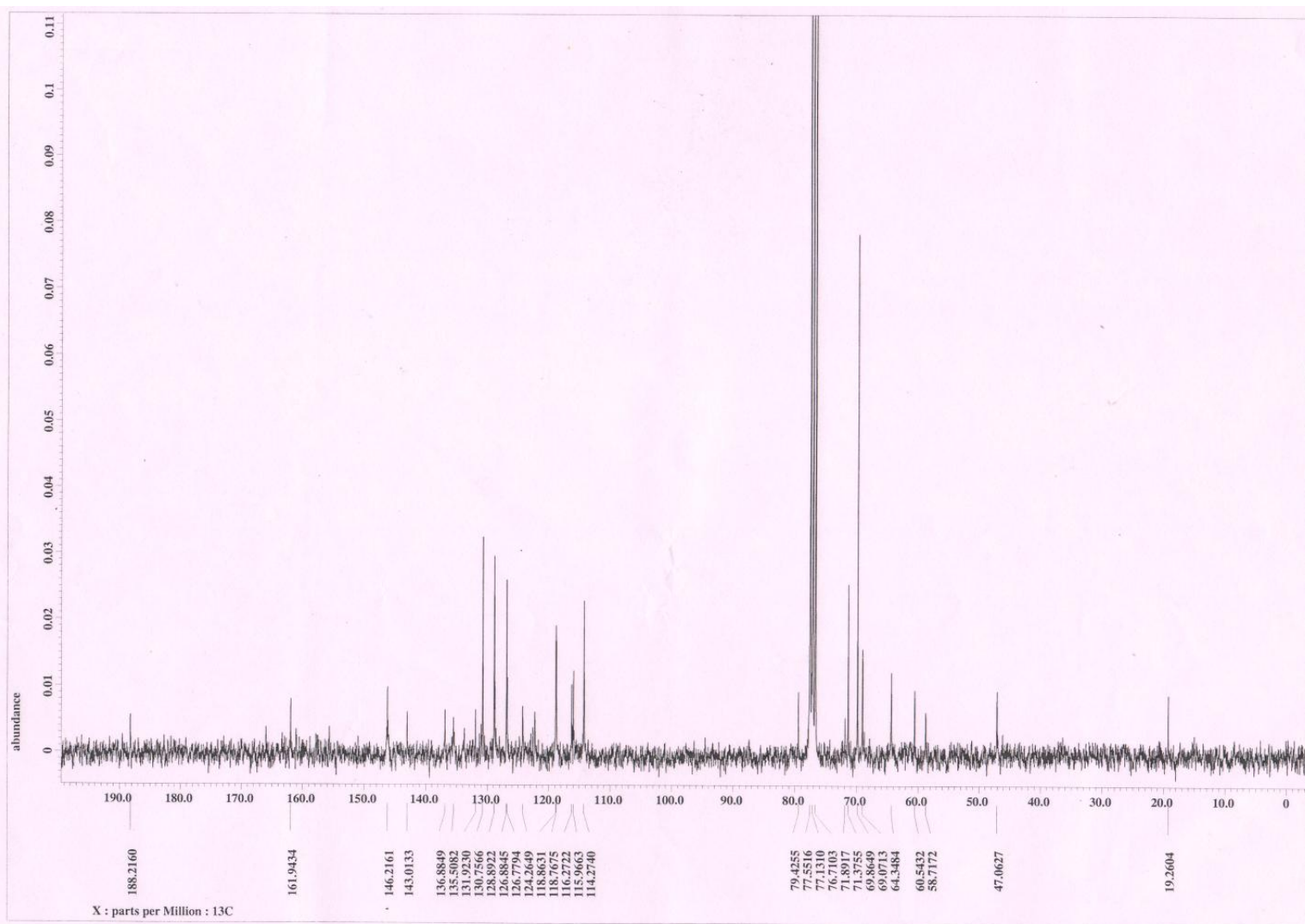
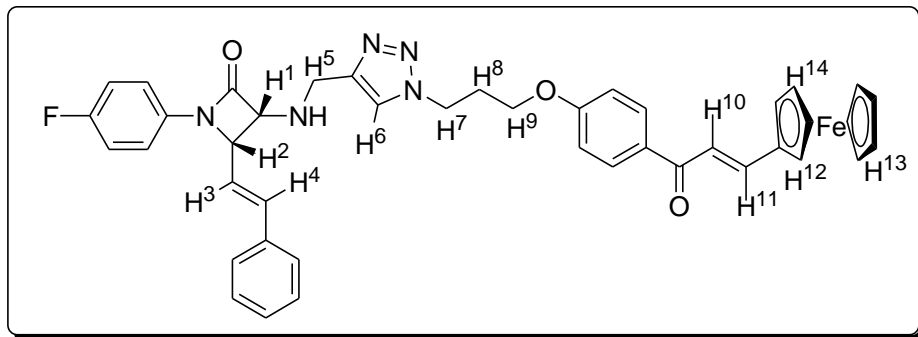
$^{13}\text{C}$  NMR spectrum of 3-[(1-{2-[4-(3-ferrocenyl-acryloyl)-phenoxy]-ethyl}-1H-[1,2,3]triazol-4-ylmethyl)-amino]-4-styryl-1-p-tolyl-azetidin-2-one (**10b**).



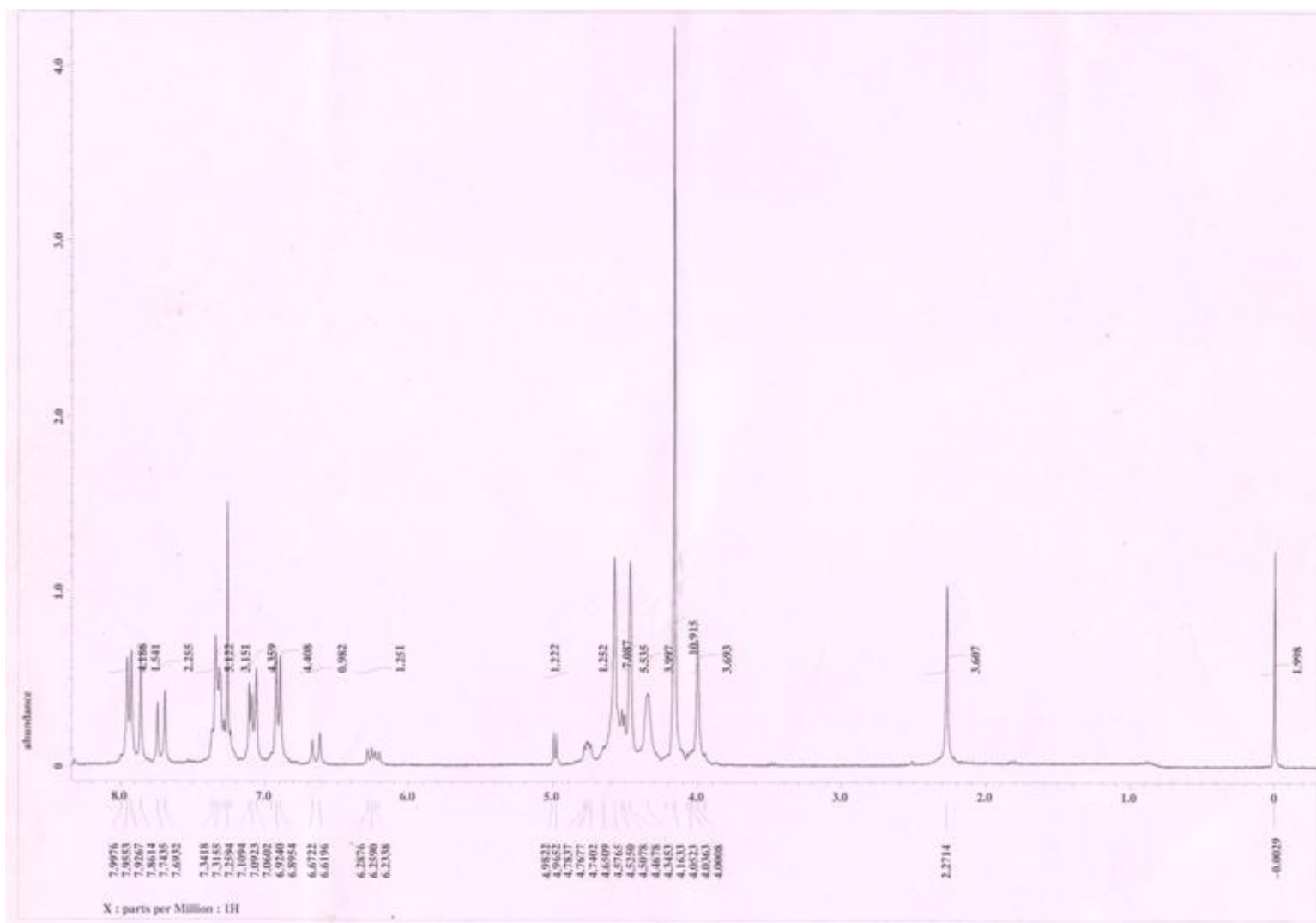
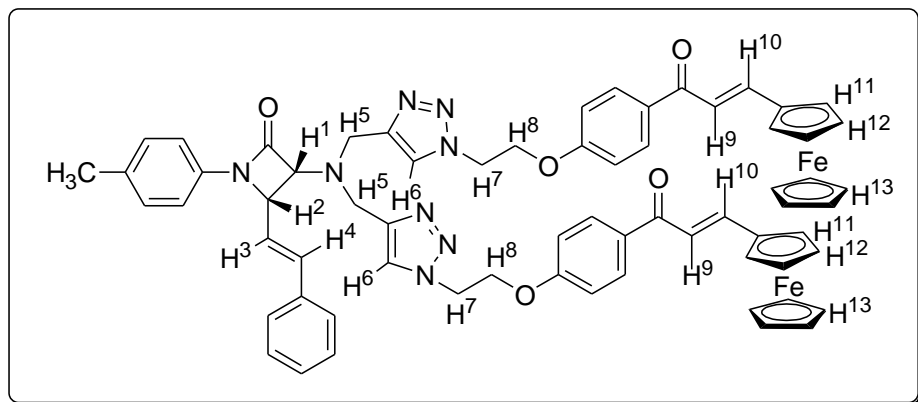
$^1\text{H}$  NMR spectrum of 3-[(1-{3-[4-(3-ferrocenyl-acryloyl)-phenoxy]-propyl}-1H-[1,2,3]triazol-4-ylmethyl)-amino]-1-(4-fluoro-phenyl)-4-styryl-azetidin-2-one (**10g**).



$^{13}\text{C}$  NMR spectrum of 3-[(1-{3-[4-(3-ferrocenyl-acryloyl)-phenoxy]-propyl}-1H-[1,2,3]triazol-4-ylmethyl)-amino]-1-(4-fluoro-phenyl)-4-styryl-azetidin-2-one (**10g**).



$^1\text{H}$  NMR spectrum of 3-[Bis-(1-{2-[4-(3-ferrocenyl-acryloyl)-phenoxy]-ethyl}-1H-[1,2,3]triazol-4-ylmethyl)-amino]-4-styryl-1-p-tolyl-azetidin-2-one (**11b**).



$^{13}\text{C}$  NMR spectrum of 3-[Bis-(1-{2-[4-(3-ferrocenyl-acryloyl)-phenoxy]-ethyl}-1H-[1,2,3]triazol-4-ylmethyl)-amino]-4-styryl-1-p-tolyl-azetidin-2-one (**11b**).

