

Supplementary Information

Synthesis, characterization, DFT studies, molecular docking and *in vitro* anti-bacterial activity of pyrazolone *p*-fluorophenylhydrazone and its copper and manganese complexes

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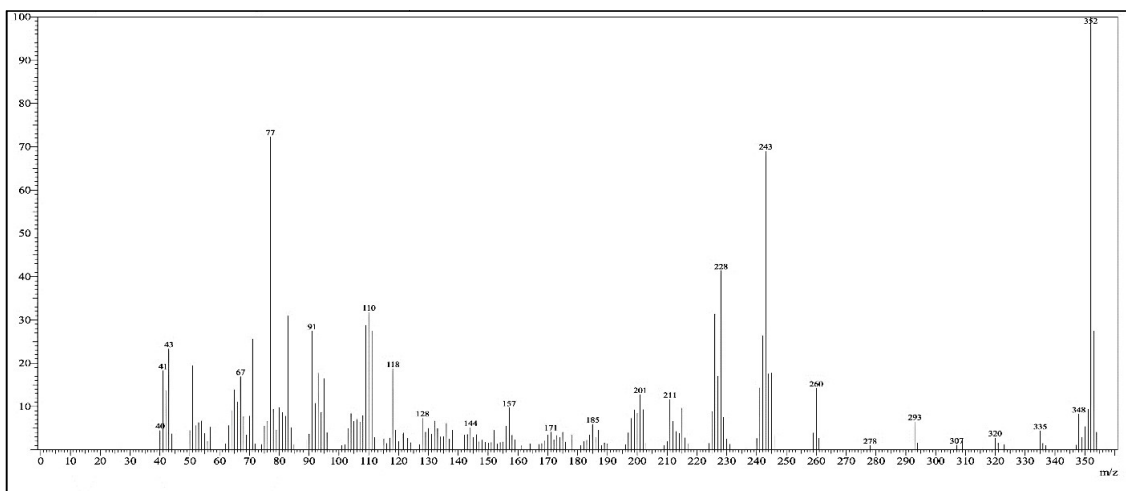
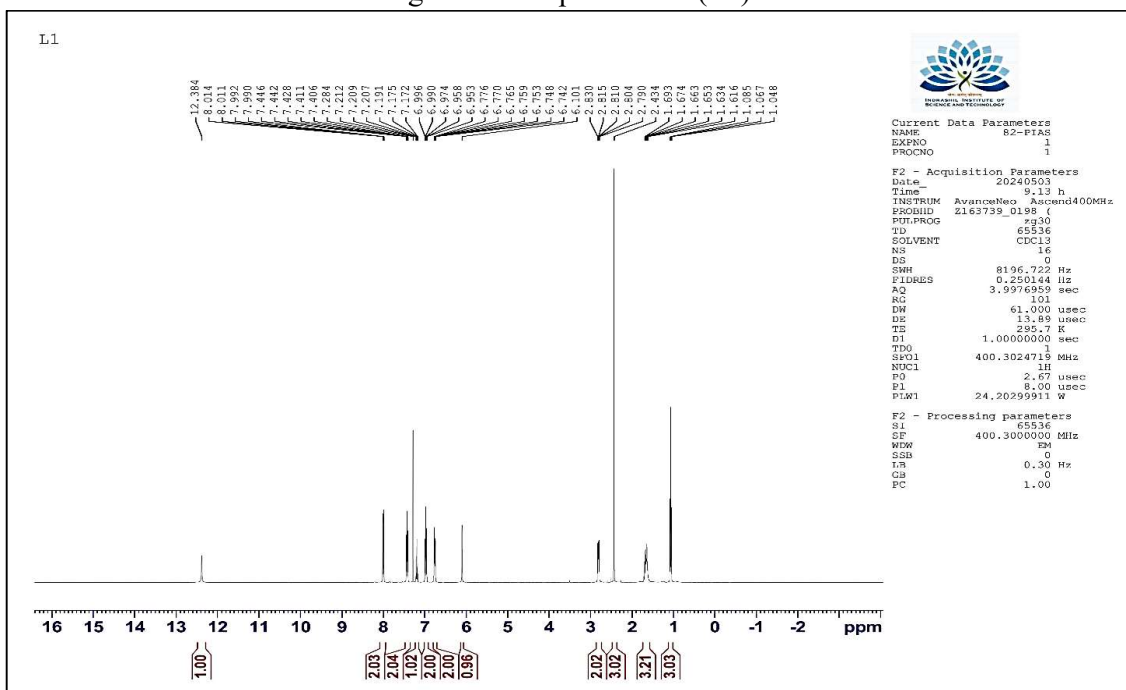


Fig. 1- Mass Spectrum of (L1)



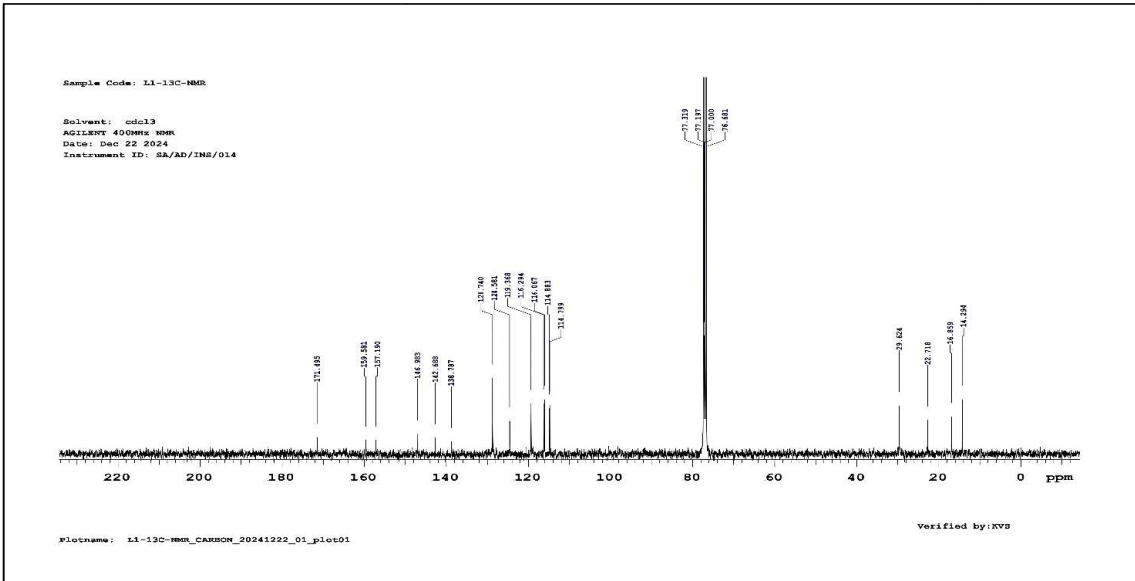


Fig. 3- 13C NMR of (L1)

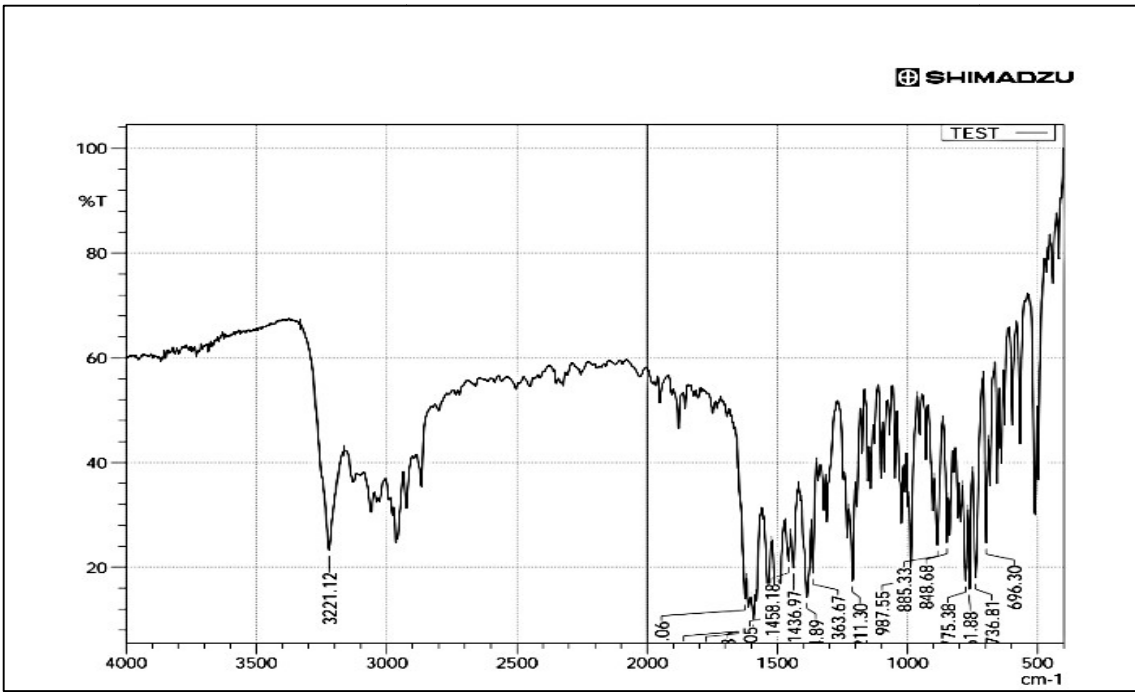


Fig. 4- FTIR of (L1)

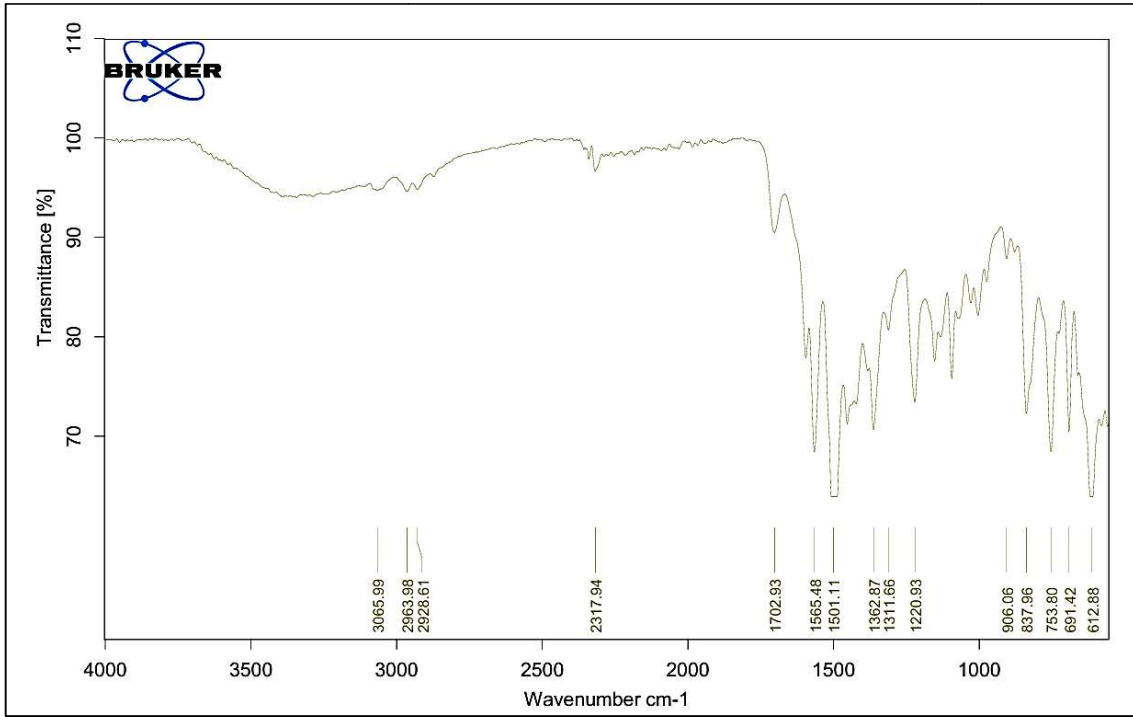


Fig. 5- FTIR of (CuL1)

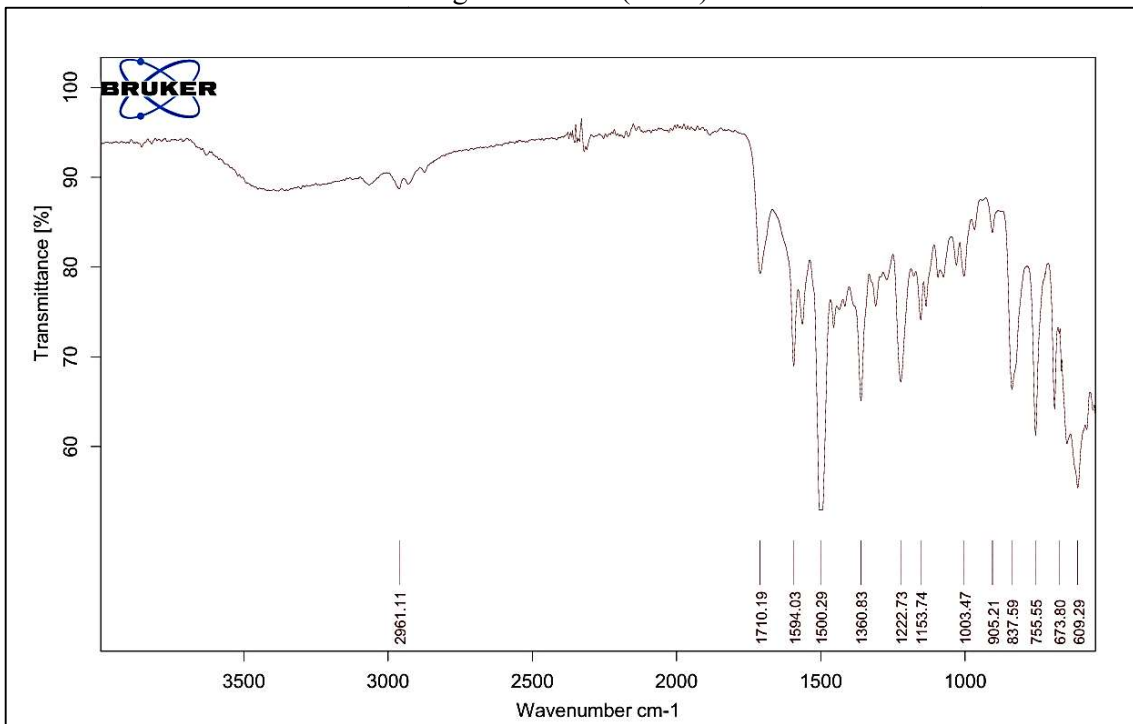


Fig. 6- FTIR of (MnL1)

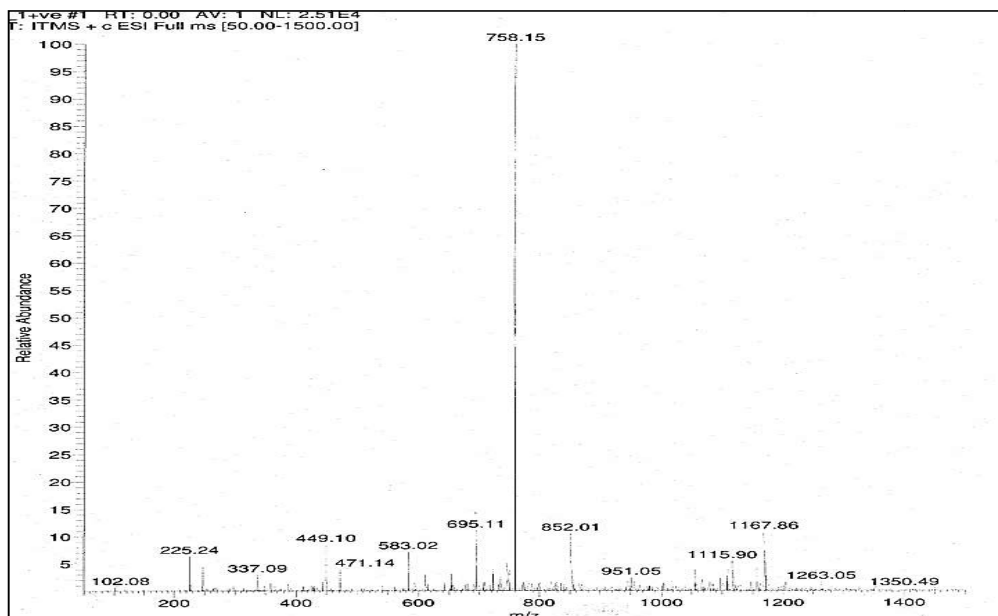


Fig. 7- ESI of CuL1