Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Biological Promiscuity of a binuclear Cu(II) complex of aminoguanidine Schiff base: DNA binding, Anticancer Activity and Histidine sensing ability of the complex

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SUPPORTING INFORMATION

.

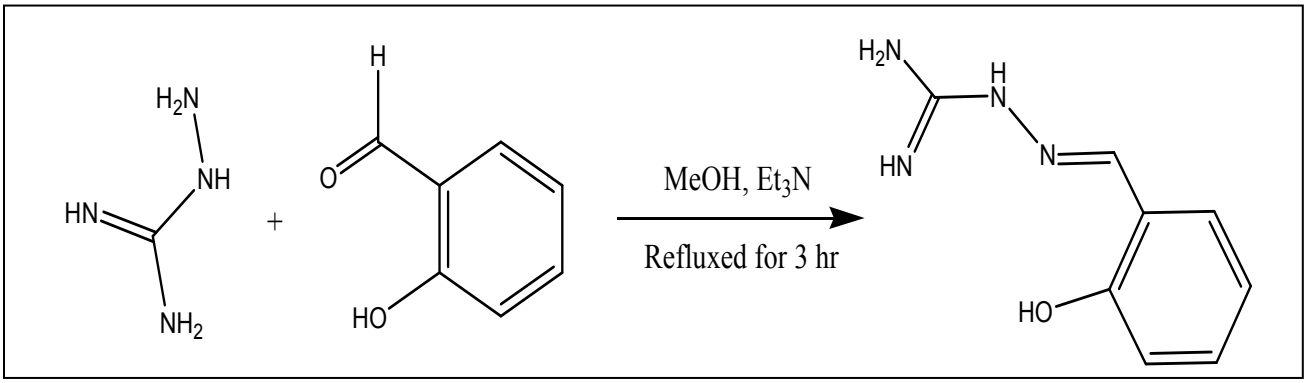


Fig S1: Synthetic route for the preparation of the ligand.

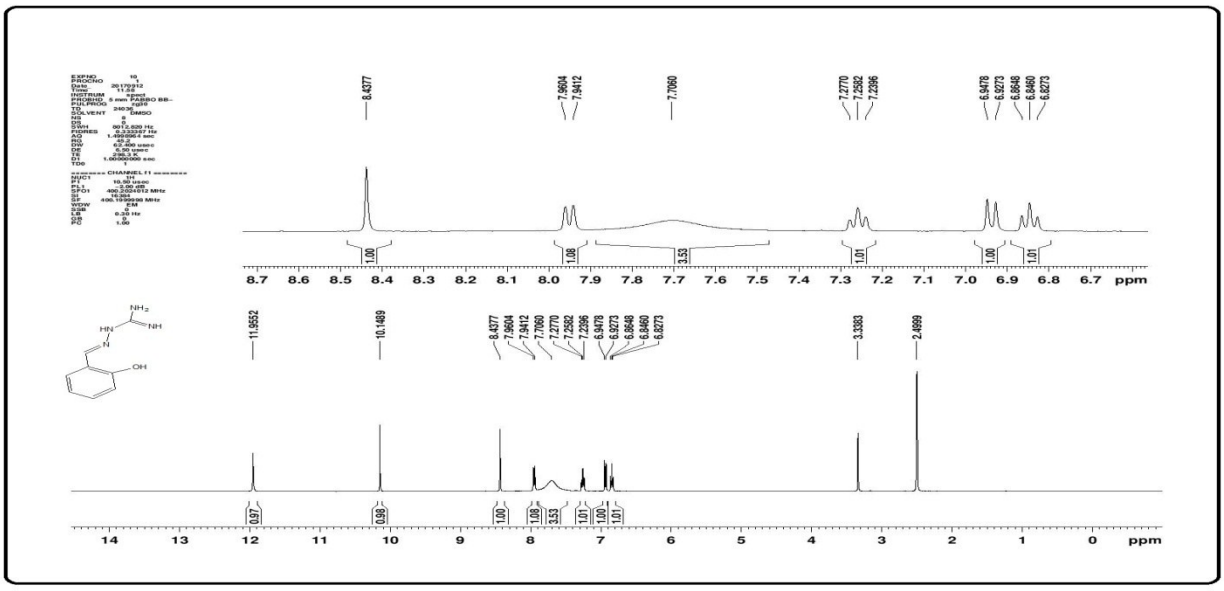


Fig S2: NMR spectrum of ligand.

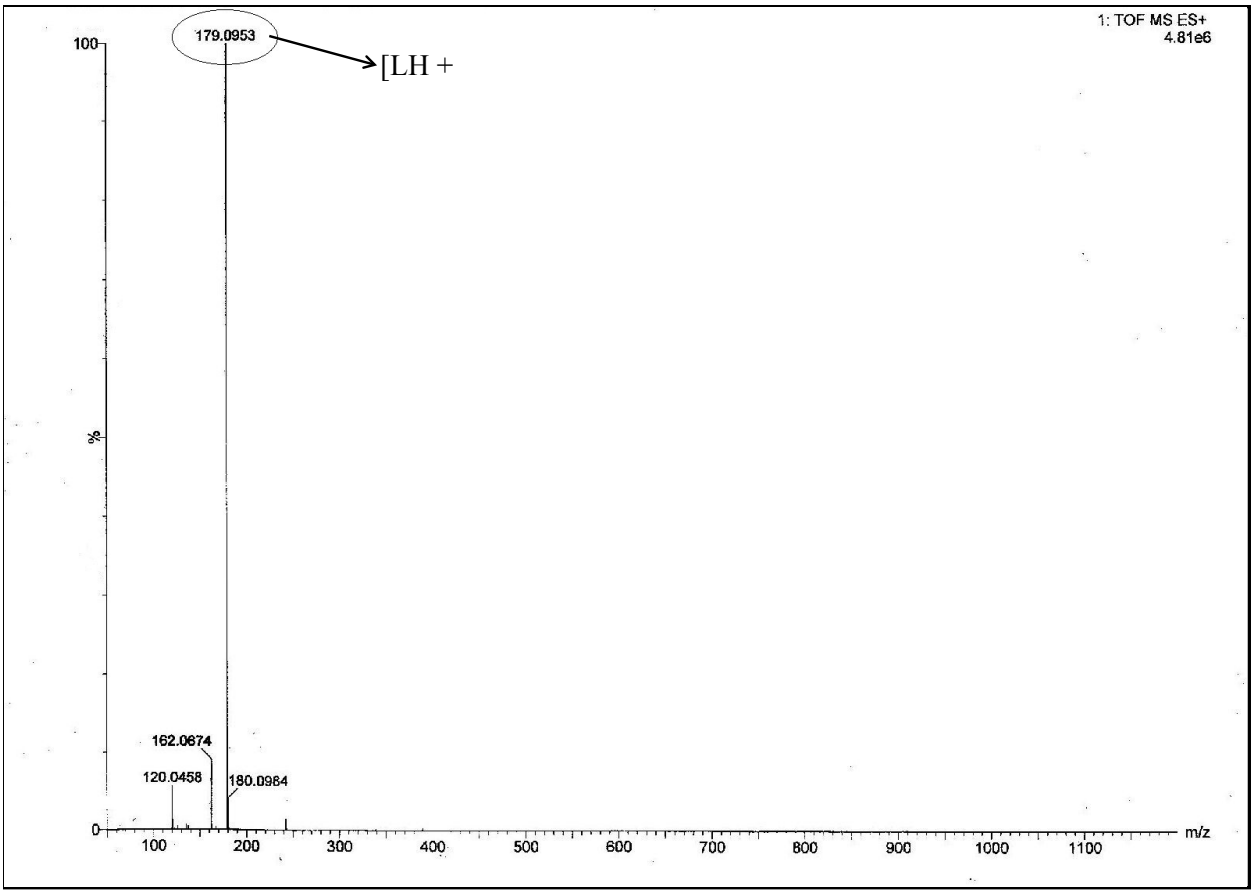


Fig S3: Mass spectrum of ligand.

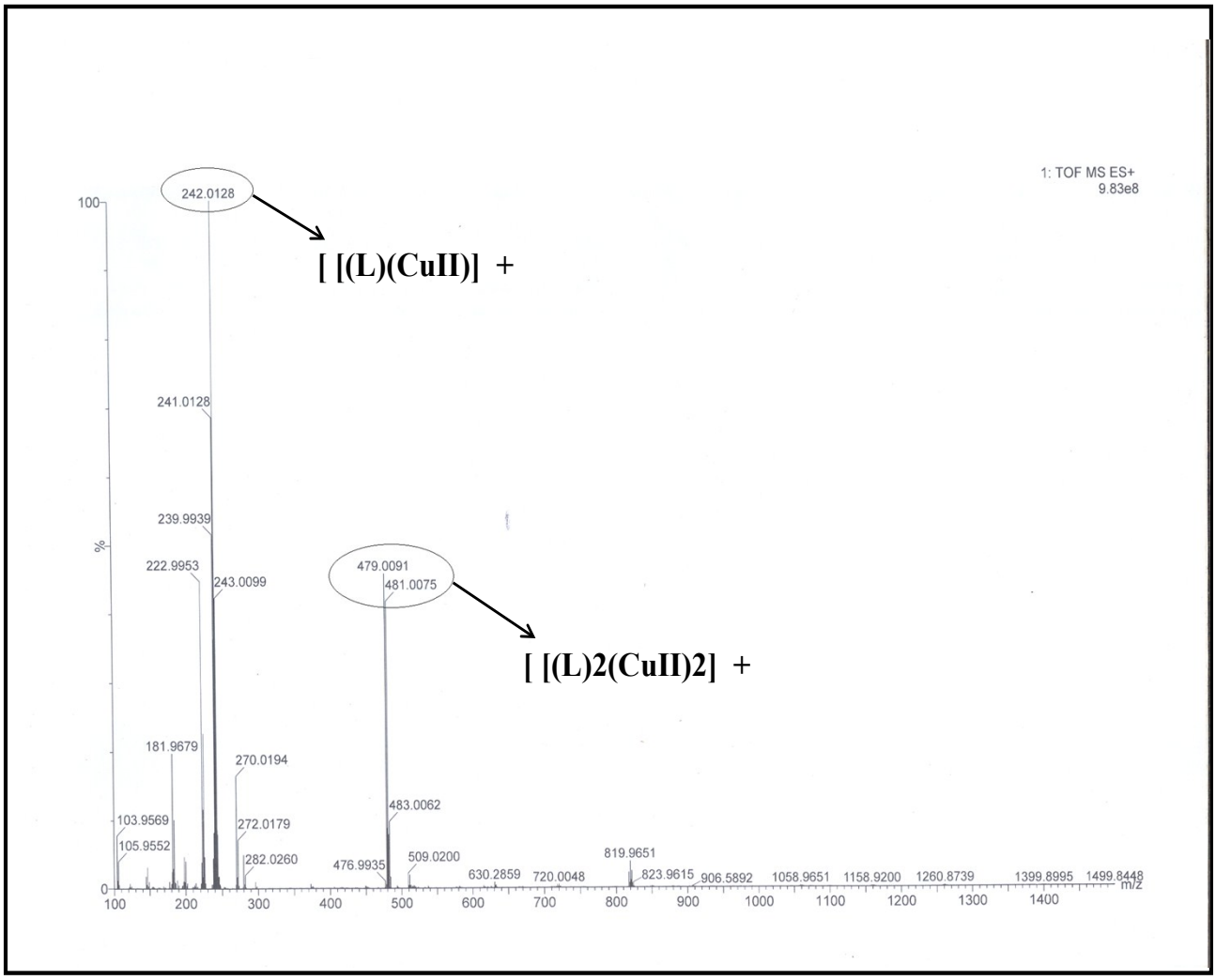


Fig S4: Mass spectrum of Complex **1**.

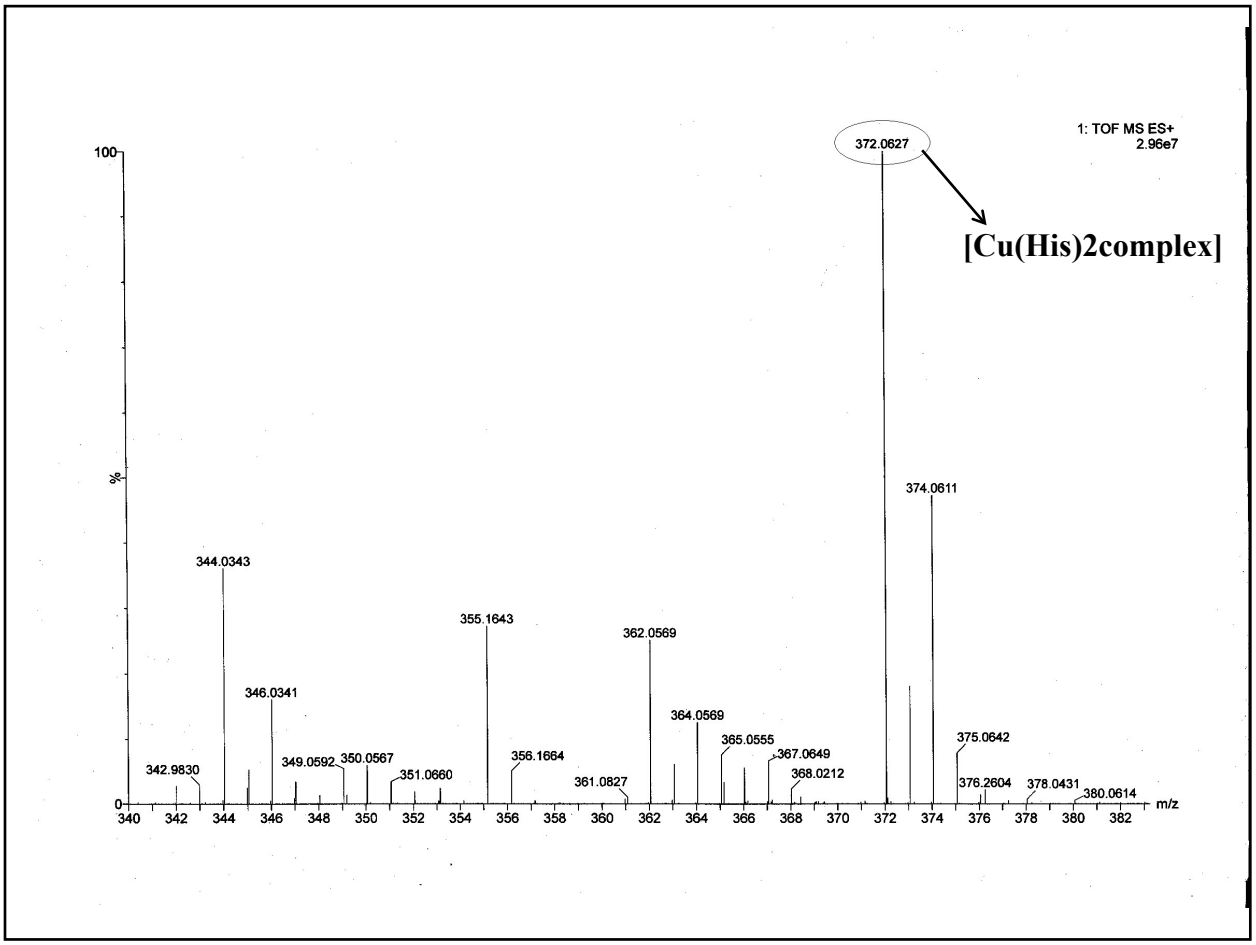


Fig. S5**.** Mass spectrum of reaction mixture of complex **1** with excess histidine.

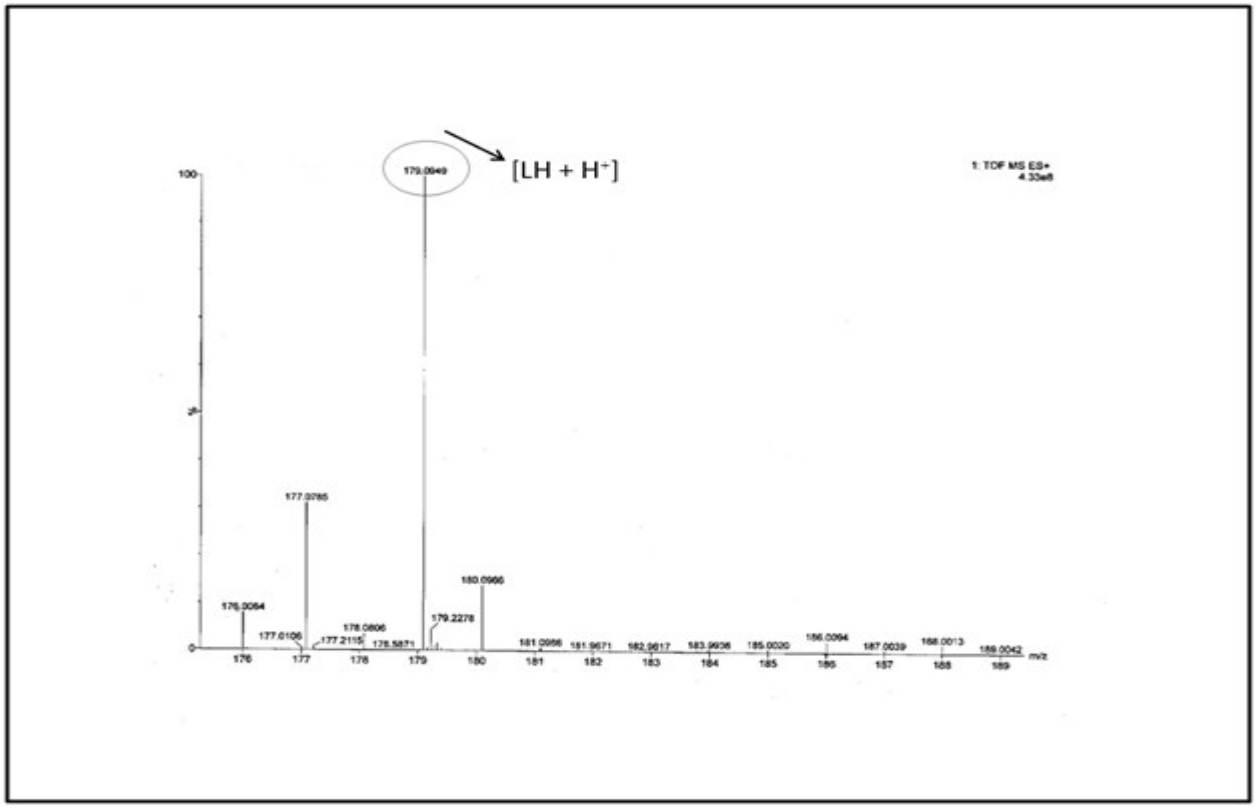
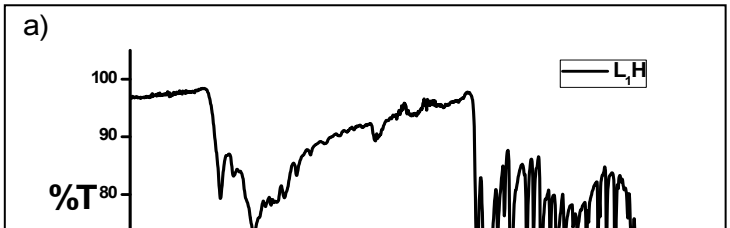


Fig. S6. Mass spectrum of the free ligand, observed in the reaction mixture of complex **1** with excess histidine.



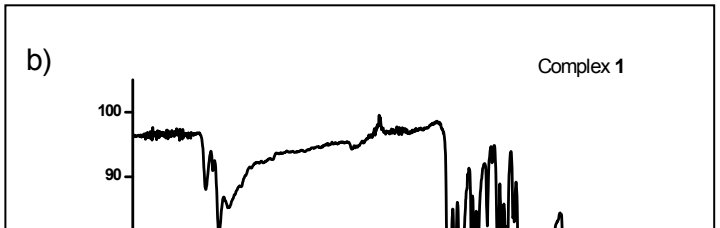


Fig S7. IR spectra of a) ligand and b) complex.

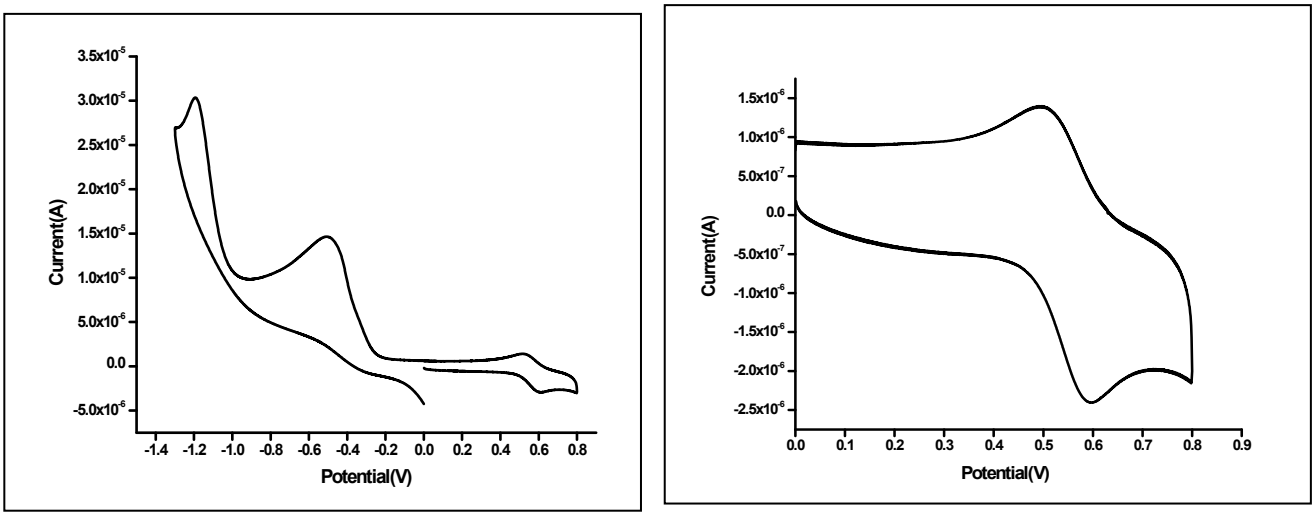


Fig S8. Cyclic voltammograms of the complex **1** in DMF.

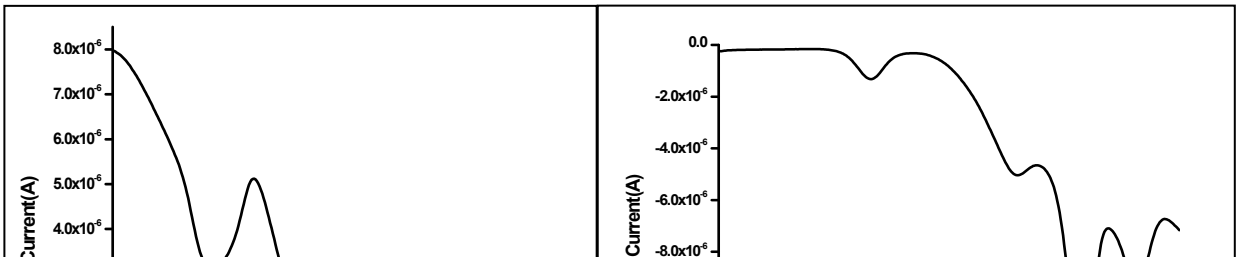


Fig S9. Differential pulse voltammograms of the complex **1** in DMF.

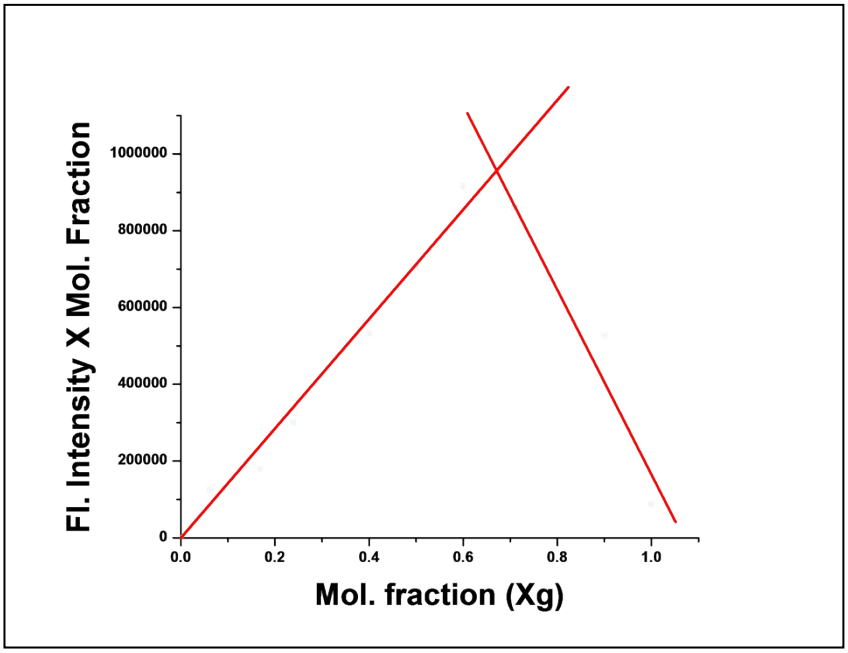


Fig S10. Job plot diagram of complex **1** with histidine(where X_g is the mole fraction of the guest).

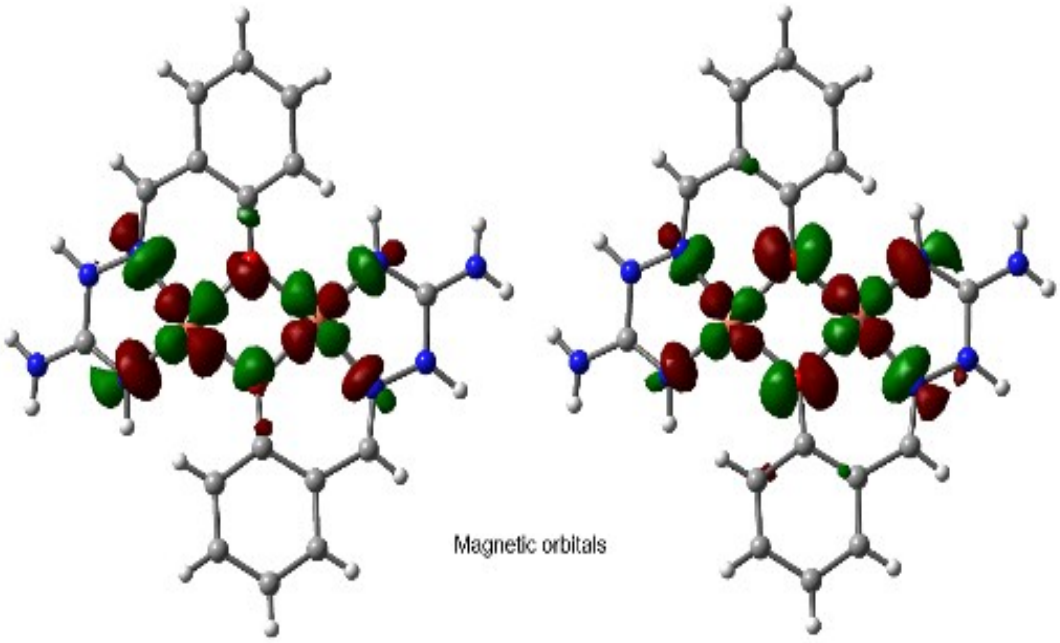


Fig S11. Magnetic spin orbitals (isovalue = 0.04 e $Å^{-3}$) of the complex.

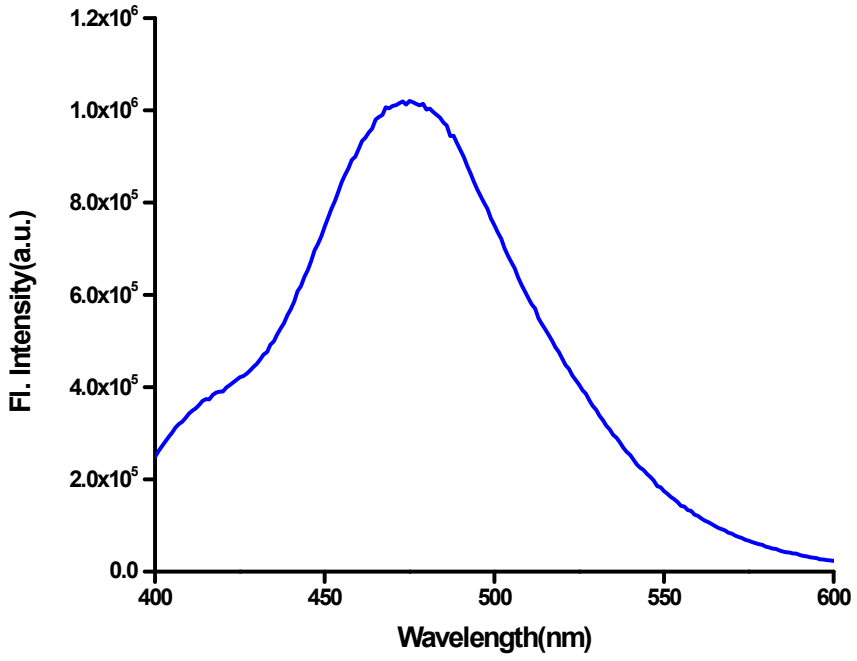


Fig S12. Fluorescence spectrum of the ligand.

Table S1. Comparison of detection limit with previously reported methods for L-histidine.

LOD	COMPOUND	REFERANCE	SOLVENT
0.26 μM	CAQA–Cu^{2+}	Chem. Commun., 2014, 50, 6207	20% ACN-HEPES (20 mM, pH 7.4)
3.1 μM	Coumarin–DPA–Cu(II)	Org. Biomol. Chem., 2013, 11, 717	HEPES (20 mM, pH = 7.4, containing 0.5% DMSO as cosolvent)
0.265 μM	$[Ru(bpy)_2(phen\text{-}DPA)Ni](PF_6)_4$	Dalton Trans., 2015,44, 18671	EtOH/HEPES bu□er (50 mM, pH 7.2, 2:3, v/v).
0.3 μM	Ni^{2+}-modulated Hcy-capped CdTe QDs	Biosens Bioelectron, 2010, 26, 485	Tris–HCl buffer (10 mM, pH 9.0)
1.6 μM	SAACQ–Cu^{2+}	Analyst, 2014, 139, 3360	Tris–HCl buffered aqueous solution (pH 7.5, 50 mM) at RT
3.1 μM	Coumarin–DPA–Cu(II)	Org. Biomol. Chem., 2013,11, 717	HEPES (20 mM, pH = 7.4, containing 0.5% DMSO as cosolvent)
1.90 μM	$Cu(pydxsemicarbazide)Cl_2$	Inorg. Chim. Acta, 2018, 482, 292	aqueous HEPES buffer (pH 7.4)