Supporting information for the manuscript B813363H for Dalton Transactions.

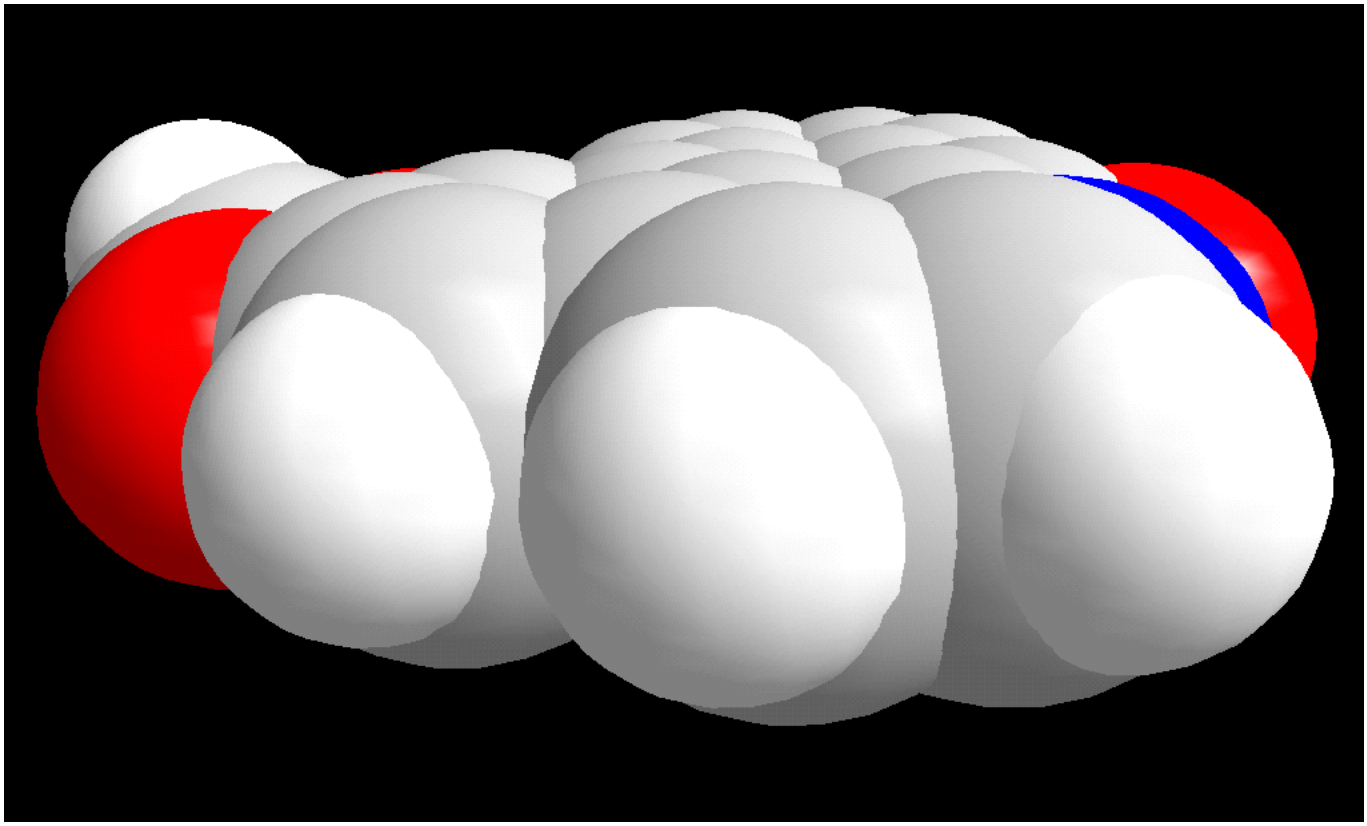


Figure S1 Space filling drawing of Liriodenine.

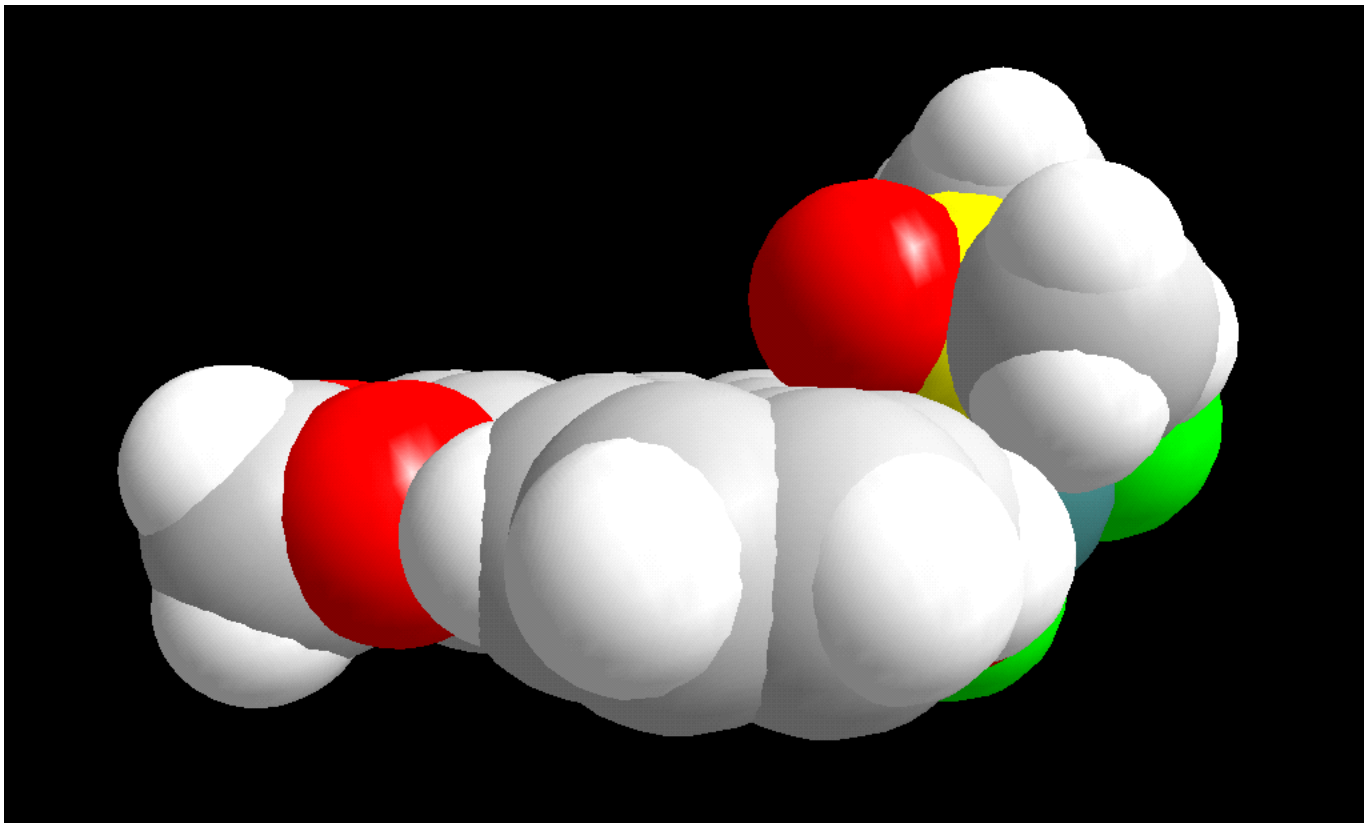


Figure S2 Space filling drawing of *cis*-[Pt(L)(DMSO)Cl_2] (**2**).

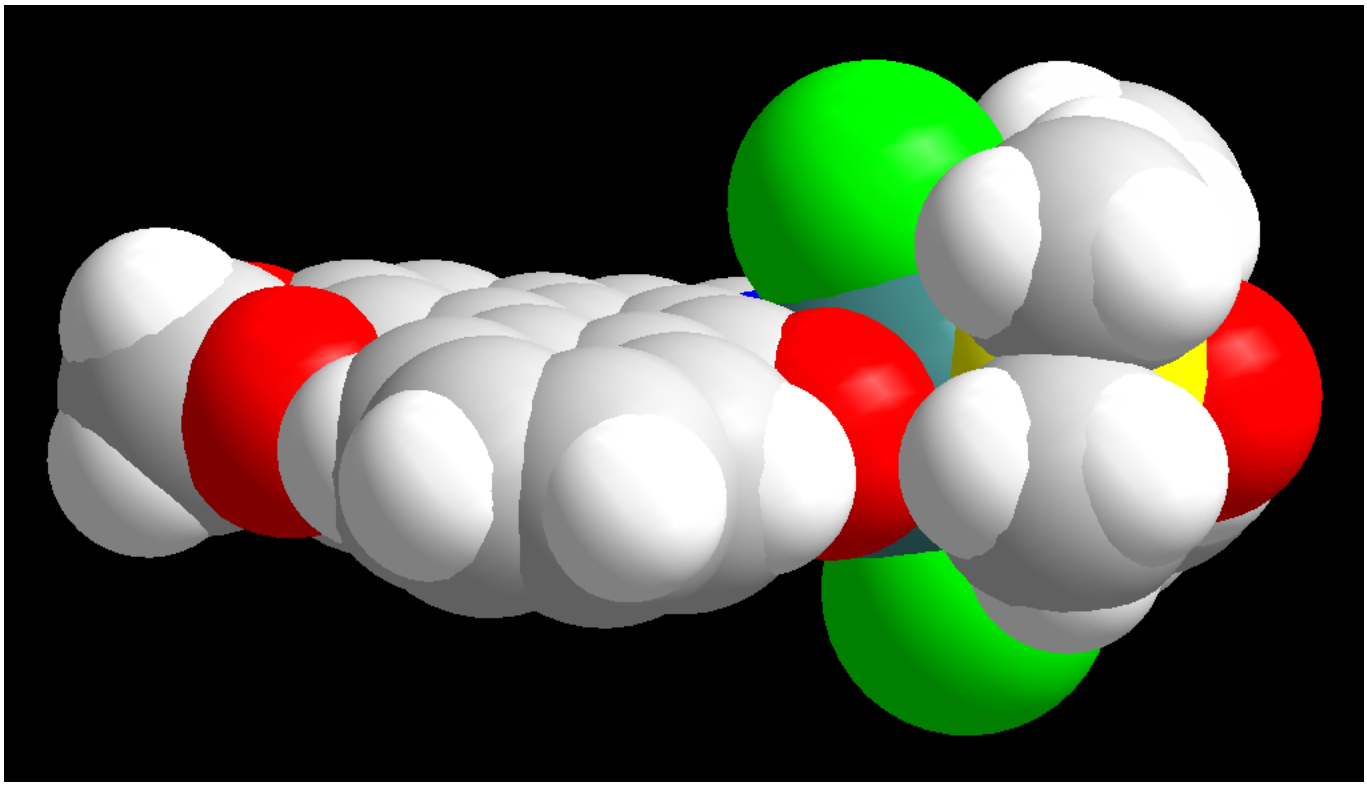
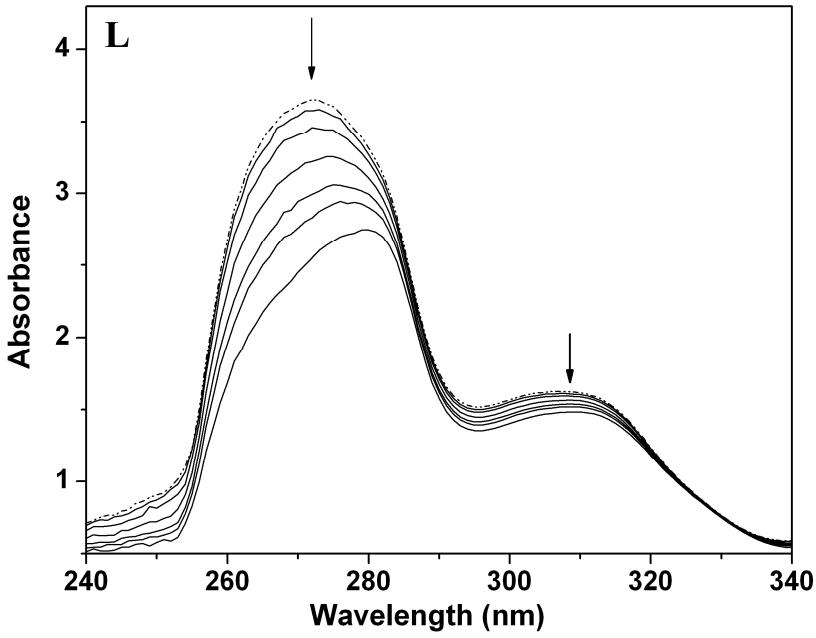


Figure S3 Space filling drawing of *cis*-[Ru(L)(DMSO)Cl_2]·1.5H_2O (**3**).



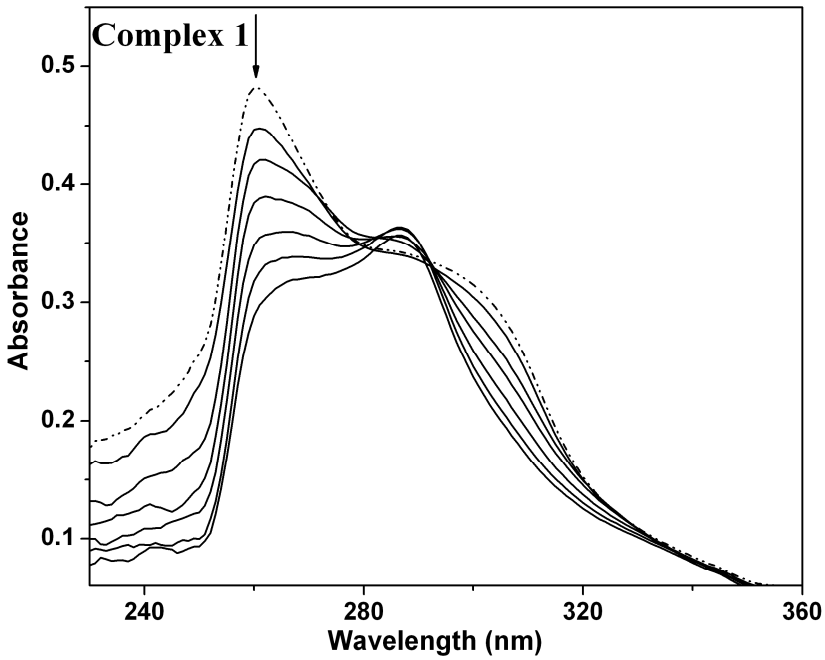
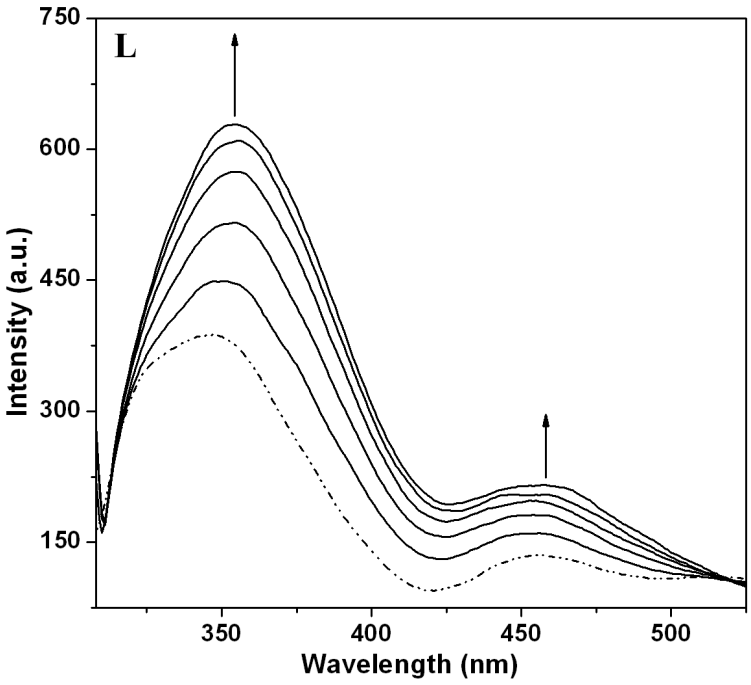


Figure S4 UV-Vis absorption spectra of **L** and complex **1** in DMSO by titration with increasing concentration of ct-DNA.

(a)



(b)

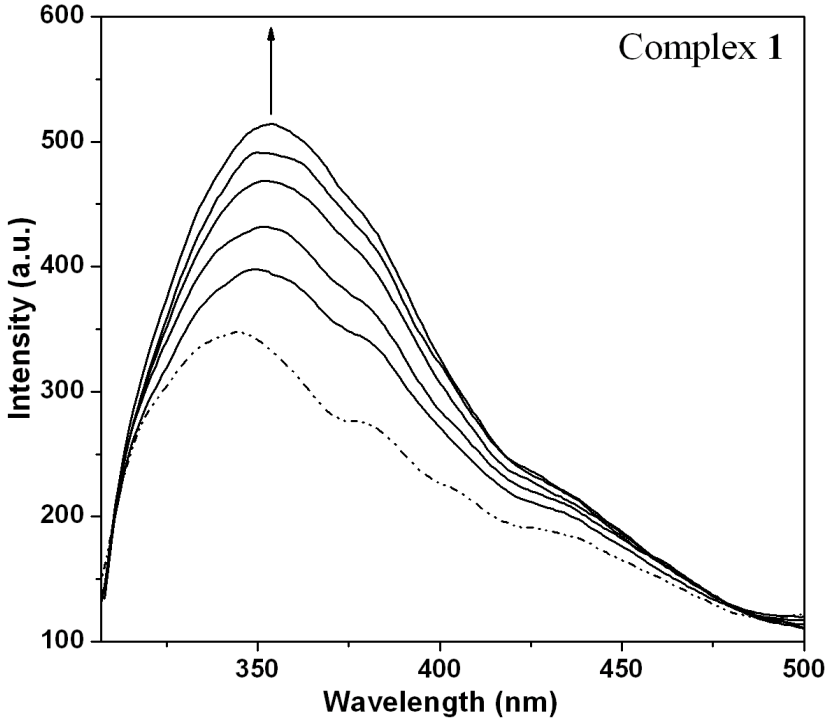
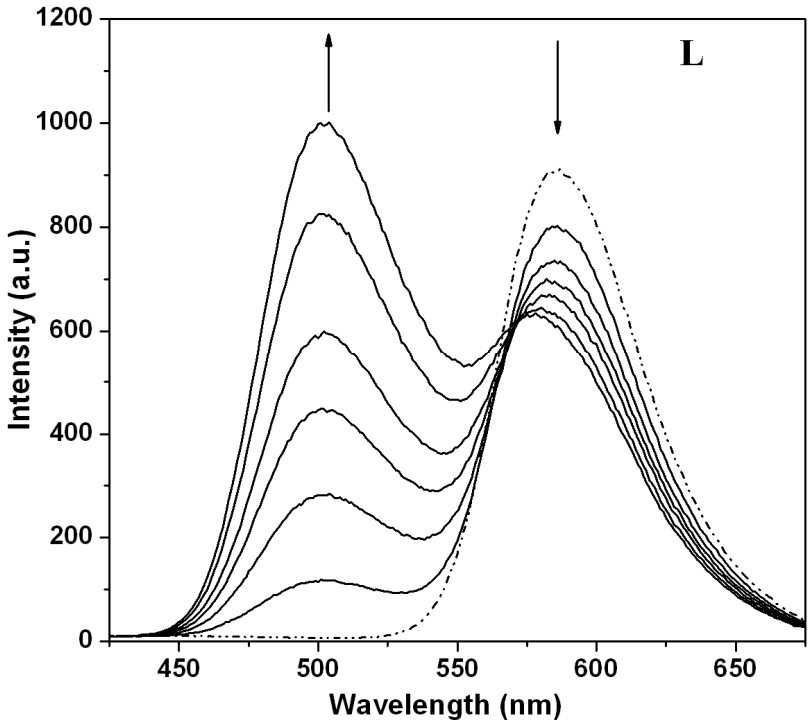


Figure S5. Fluorescence emission spectra of **L** and complex **1** in DMSO by titration with increasing concentration of ct-DNA. In each graph, the single dashed line (---) was the original emission curve of complex in the absence of ct-DNA. The solid lines (—) corresponded to emission curves of complex binding with ct-DNA of increasing concentration.

(a)



(b)

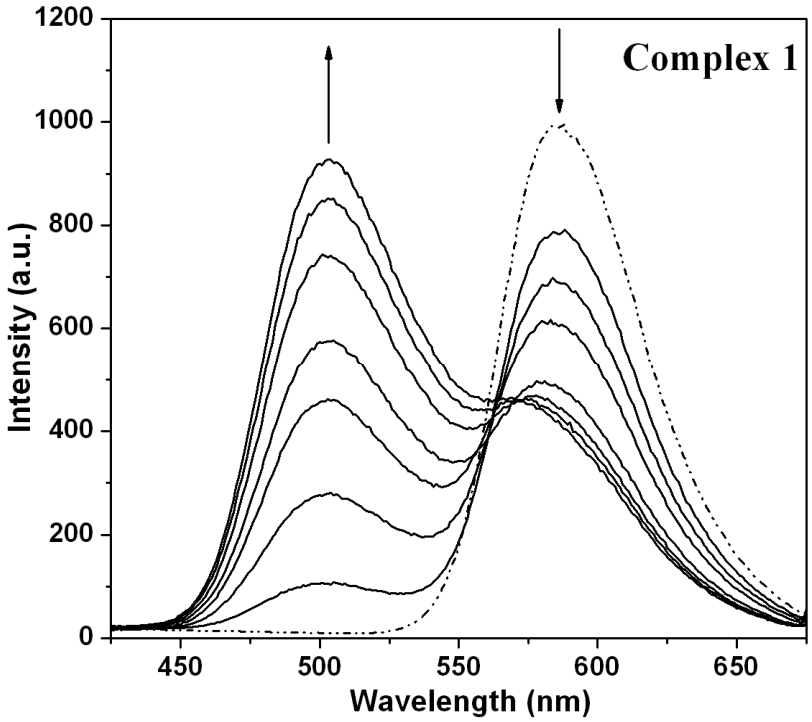
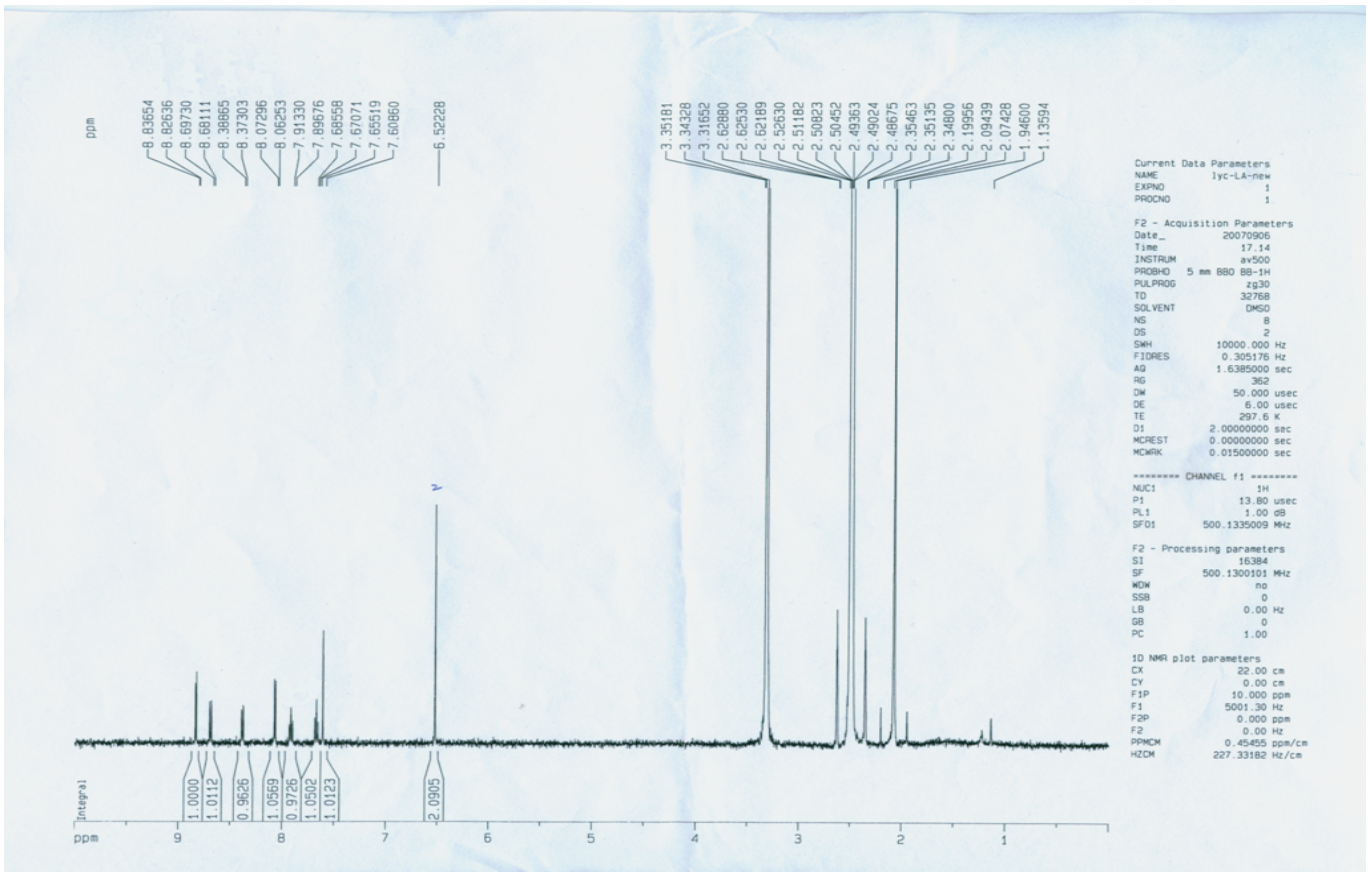
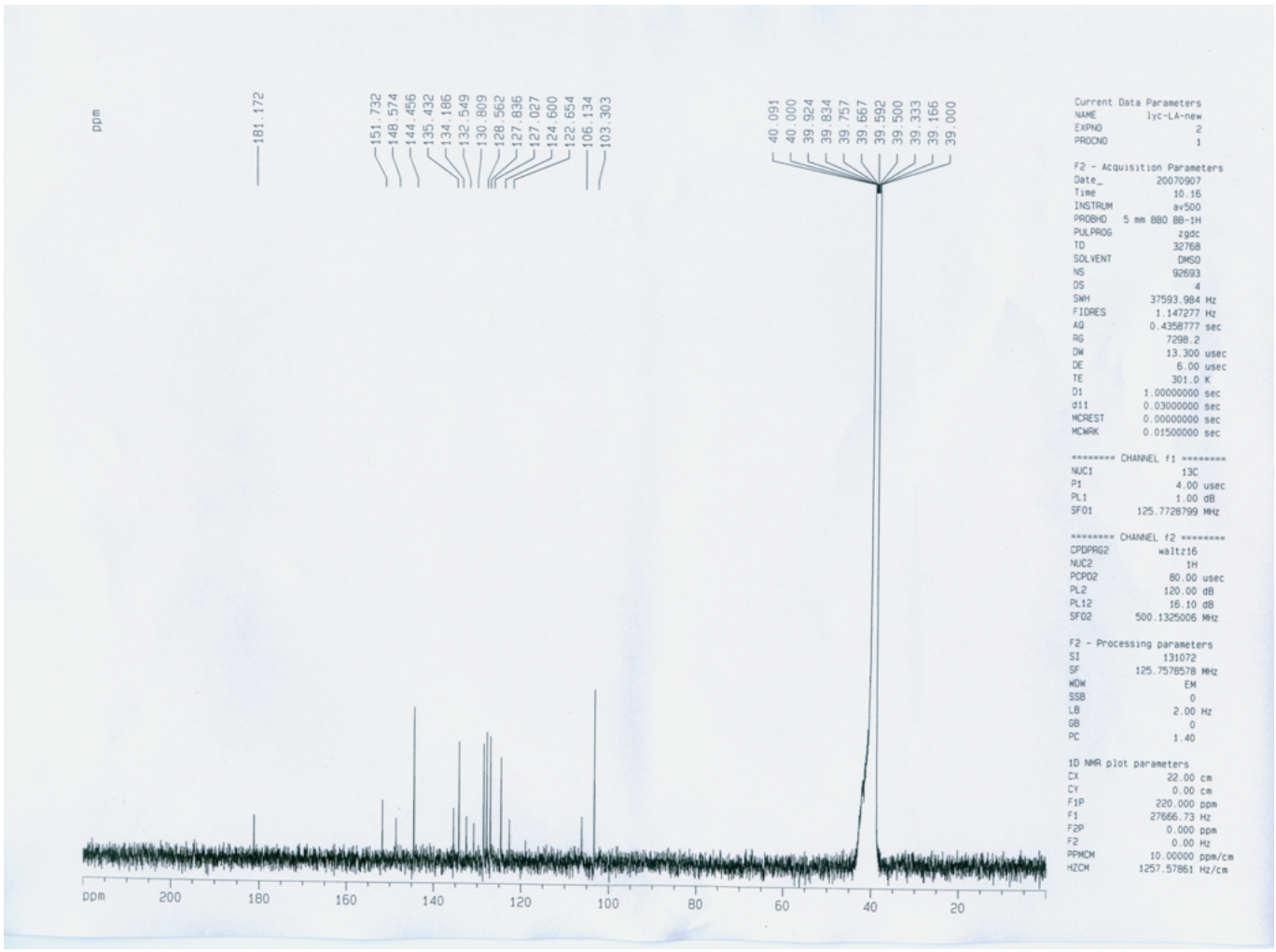


Figure S6. Emission quenching spectra of the EB-DNA system by titration with **L** or complex **1** with increasing concentration. In each graph, the single dashed line (---) was the original characteristic emission of EB-DNA system. The solid lines (—) corresponded to emission spectra of decreasing intensity by titration of complexes with increasing concentration. Total [EB]/[compound] ratios are: 1:3.3 for L, 1:5 for 1.

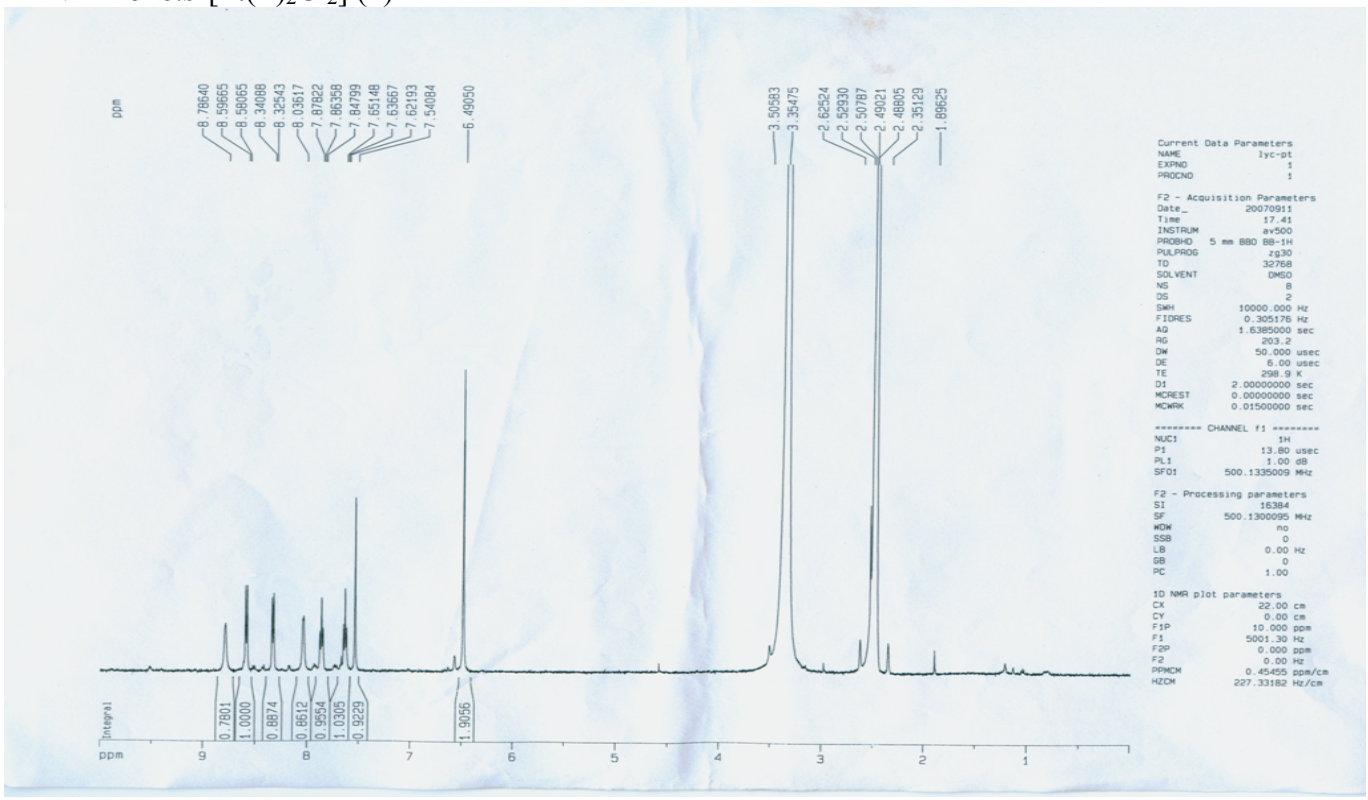
^{1}H NMR of Liriodenine



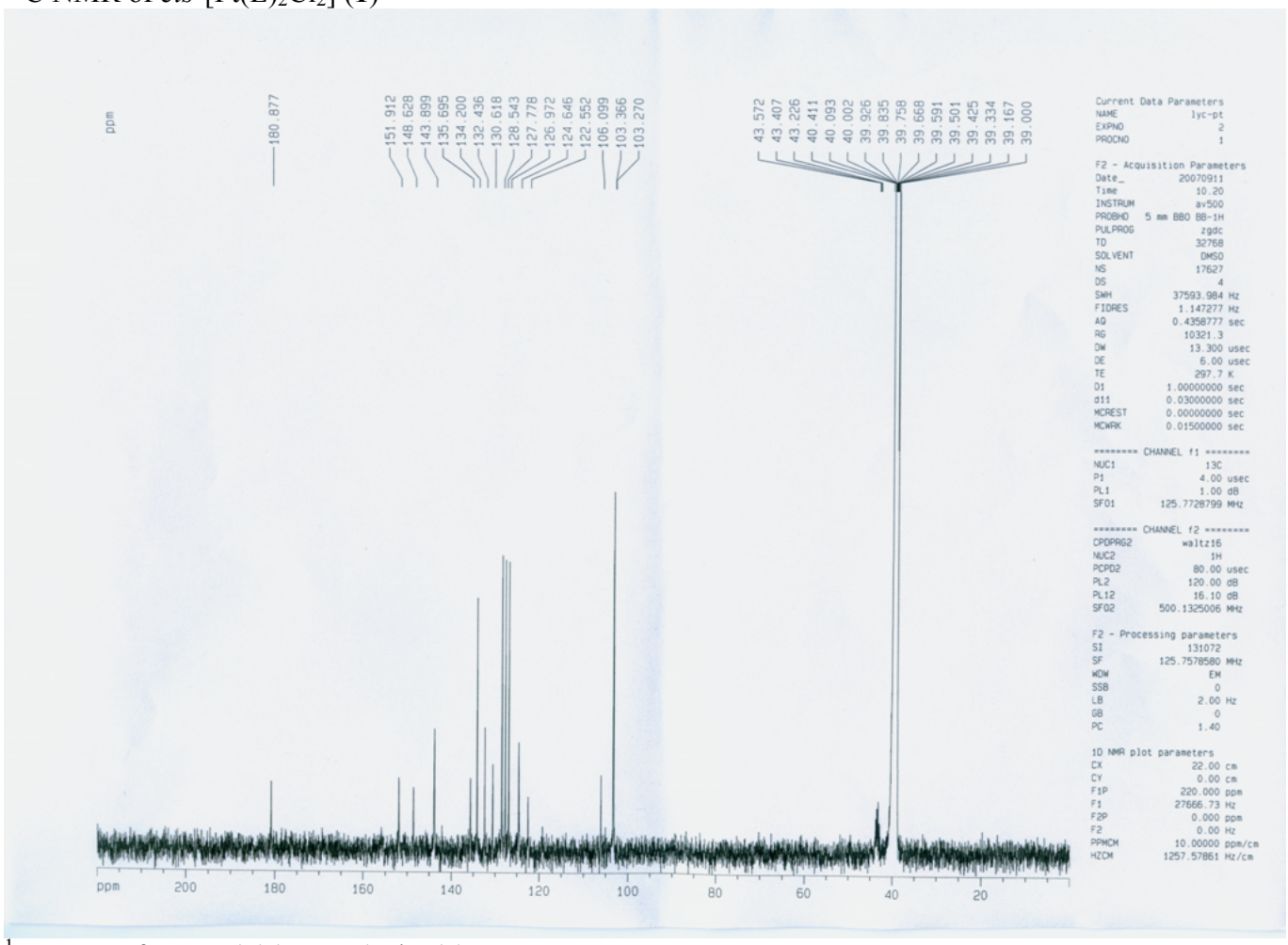
^{13}C NMR of Liriodenine



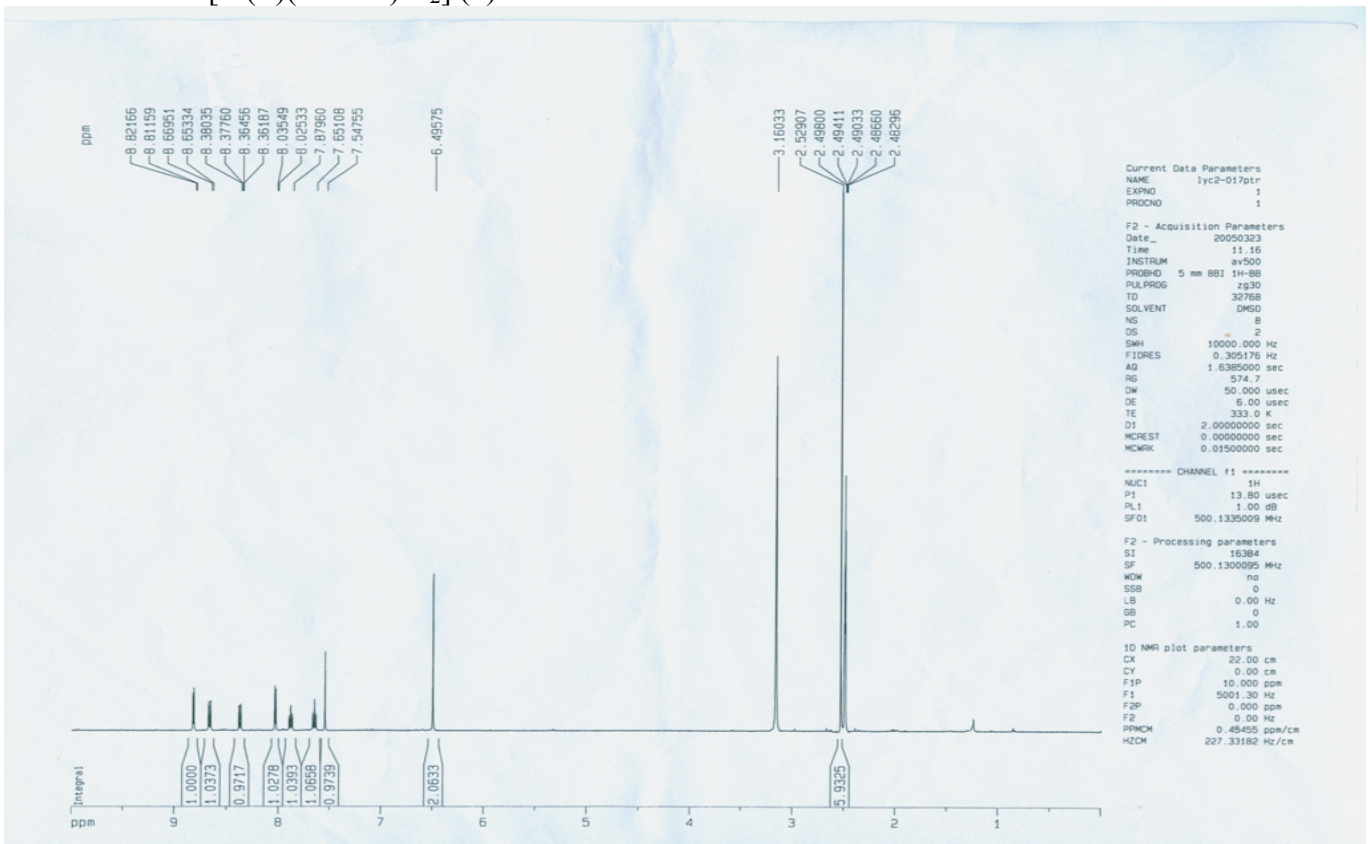
^{1}H NMR of *cis*-[Pt(L)$_2$Cl$_2$] (**1**)



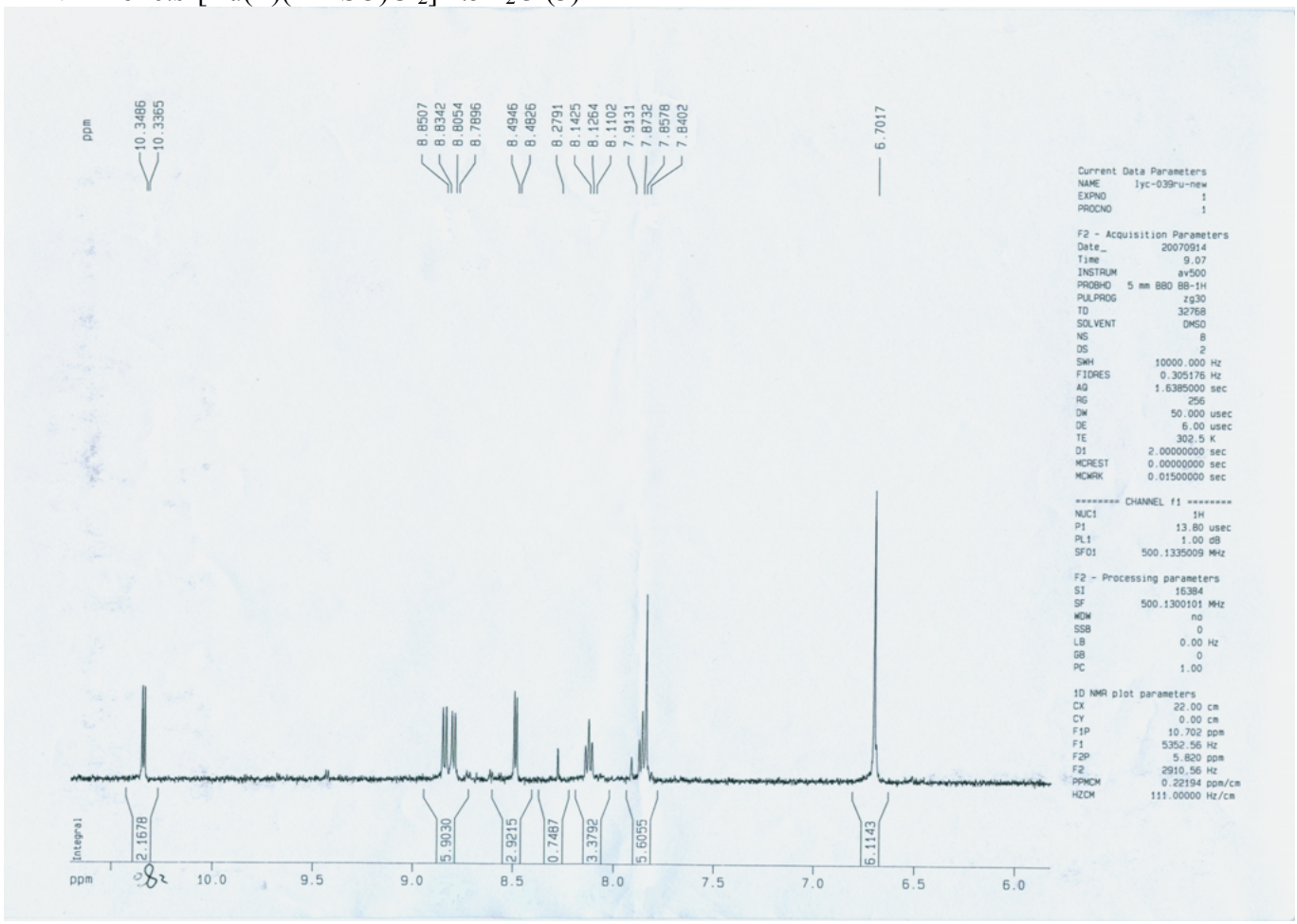
^{13}C NMR of *cis*-[Pt(L)$_2$Cl$_2$] (**1**)



^{1}H NMR of *cis*-[Pt(L)(DMSO)Cl$_2$] (**2**)



^{1}H NMR of *cis*-[Ru(L)(DMSO)Cl_2]·1.5H_2O (**3**)



Cooments on the 670188.cif (for *cis*-[Ru(L)(DMSO)Cl_2]·1.5H_2O (**3**)):

1. The hydrogen atoms on the water molecules can not be located because the diffraction of H atom is very weak and the single crystal X-ray diffraction method can not accurately locate the position of H atom. In this case, we can not find the hydrogen atoms on the water molecules from the successive difference Fourier synthesis.

2. The short contact O6···O7 (the distance of O6···O7 is 2.70Å is normal) mainly results from one of two water molecules is disorder, only has 0.5 occupancy, which position is not been determined accurately. In addition, the distance of O6···O7 is 2.70Å is normal range for hydrogen bond involving water molecules.