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Electronic Supplementary Information (ESI)

of

Synthesis and characterization of Pt(II) based potent anticancer agents with minimum normal cell toxicity: their bio-activity and DNA binding property

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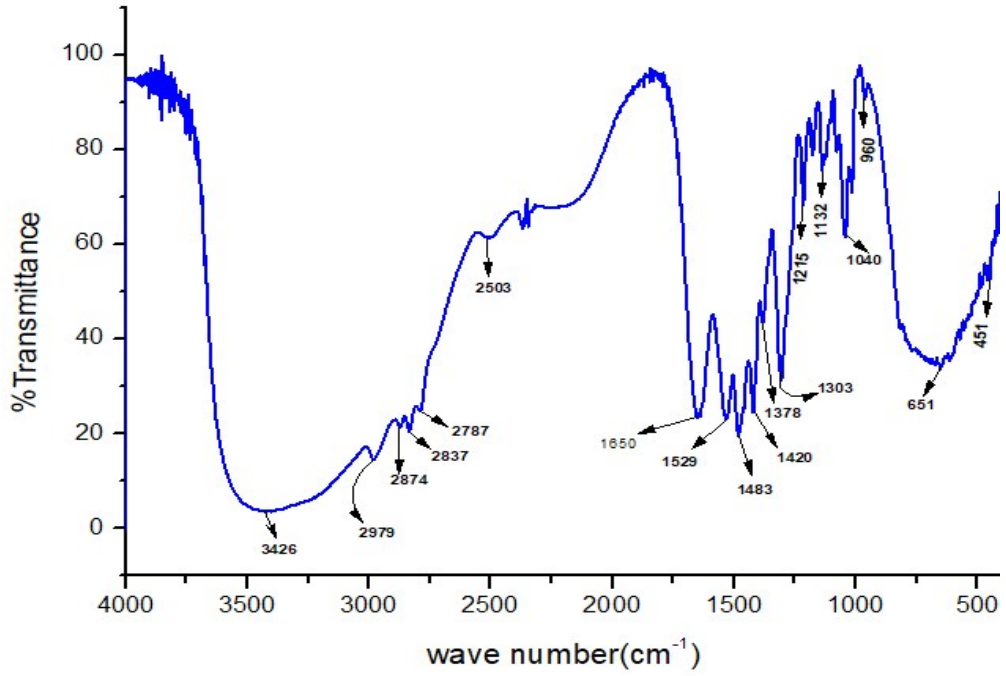
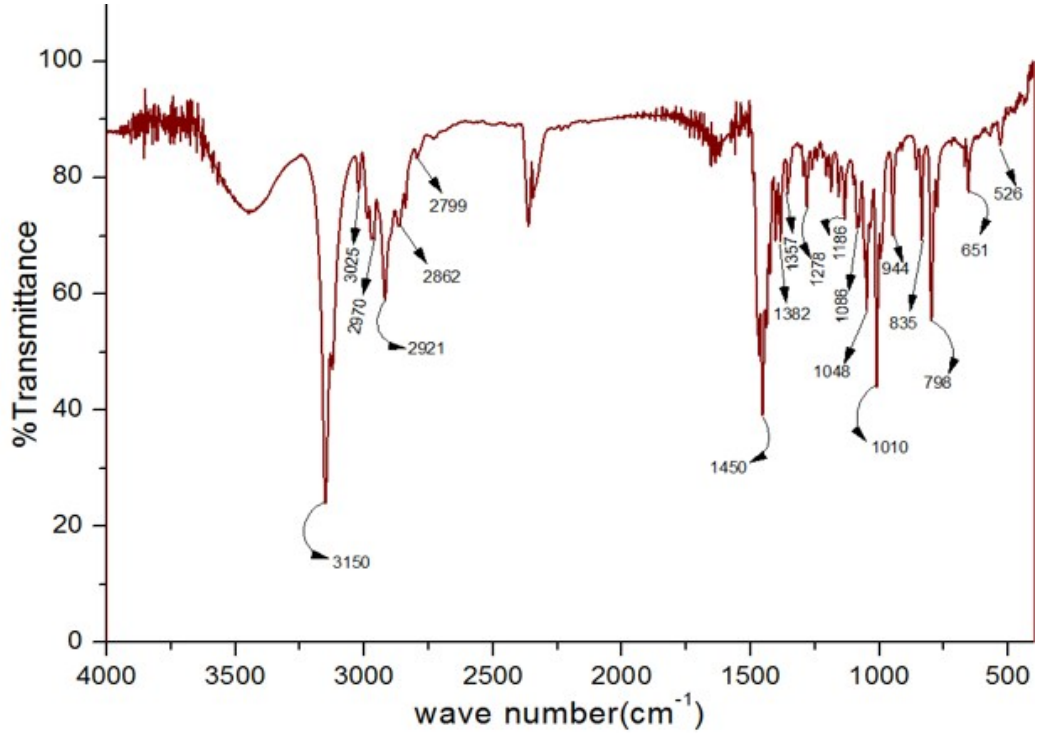
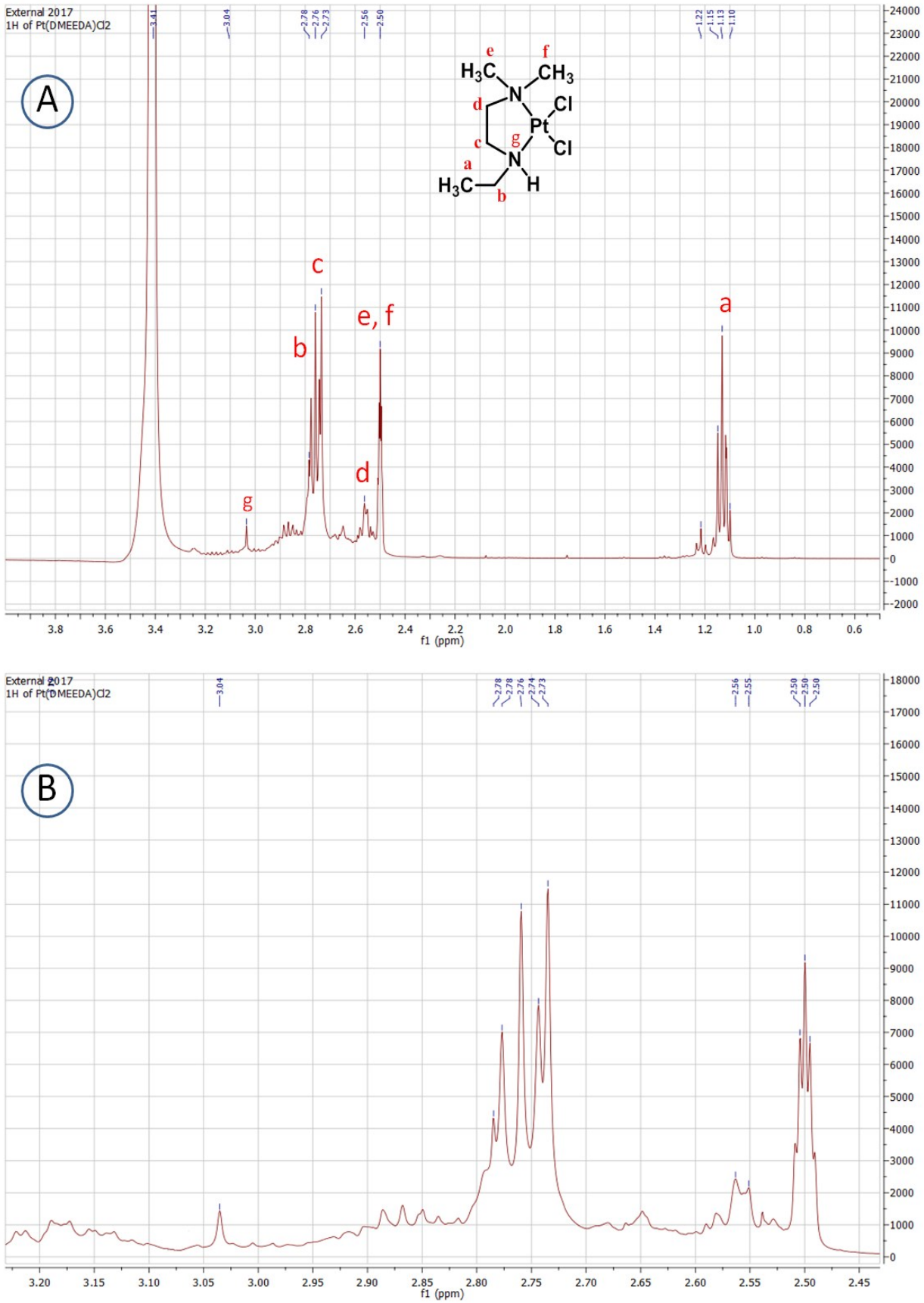


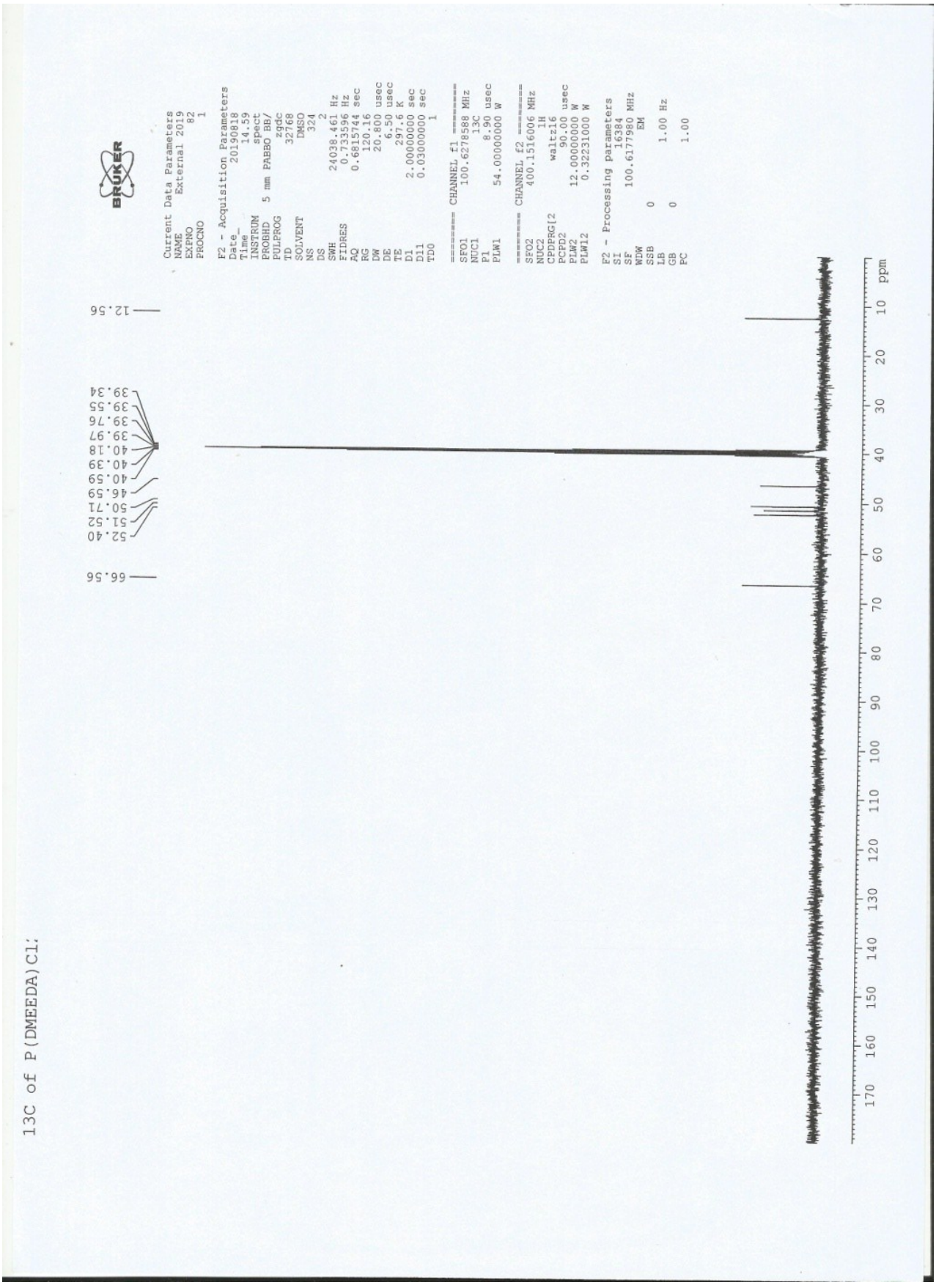
ESI Fig. S1: IR spectrum of DMEEDA layered over a NaCl disk.



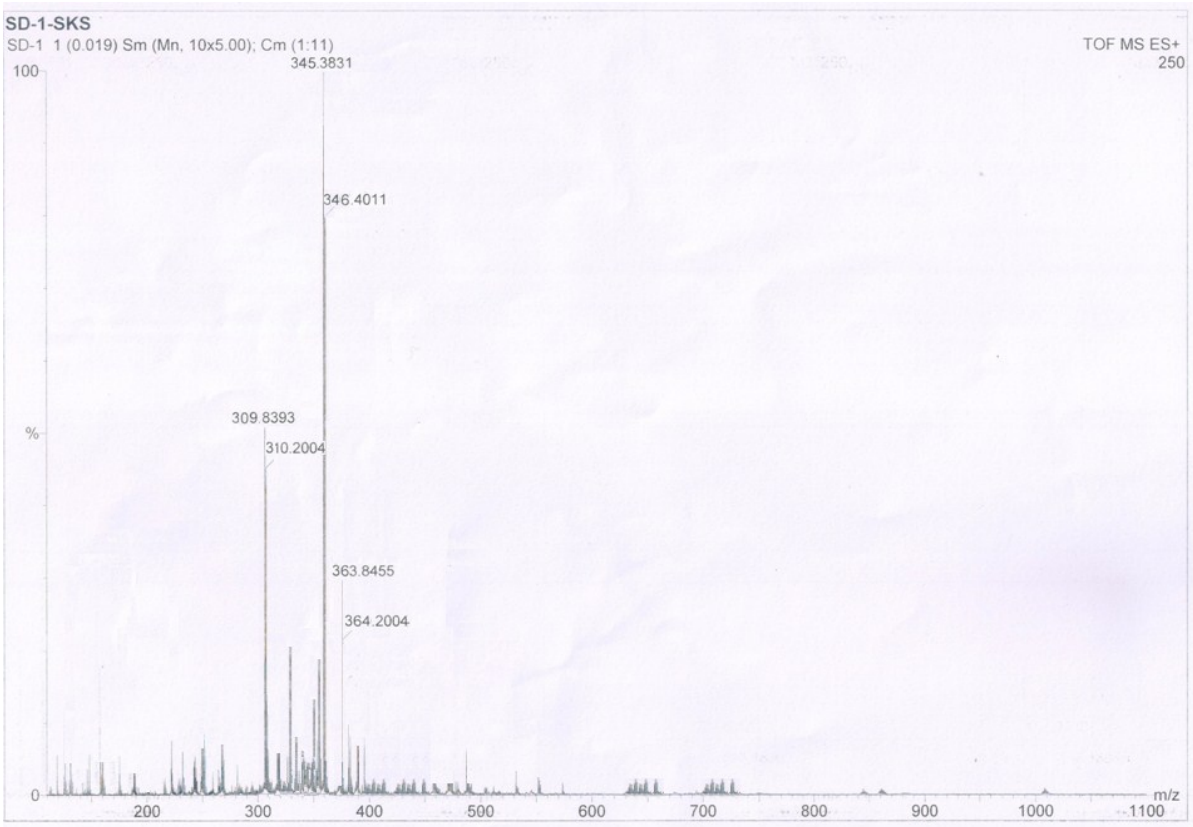
ESI Fig. S2. IR spectrum of Complex **1** in KBr disk.



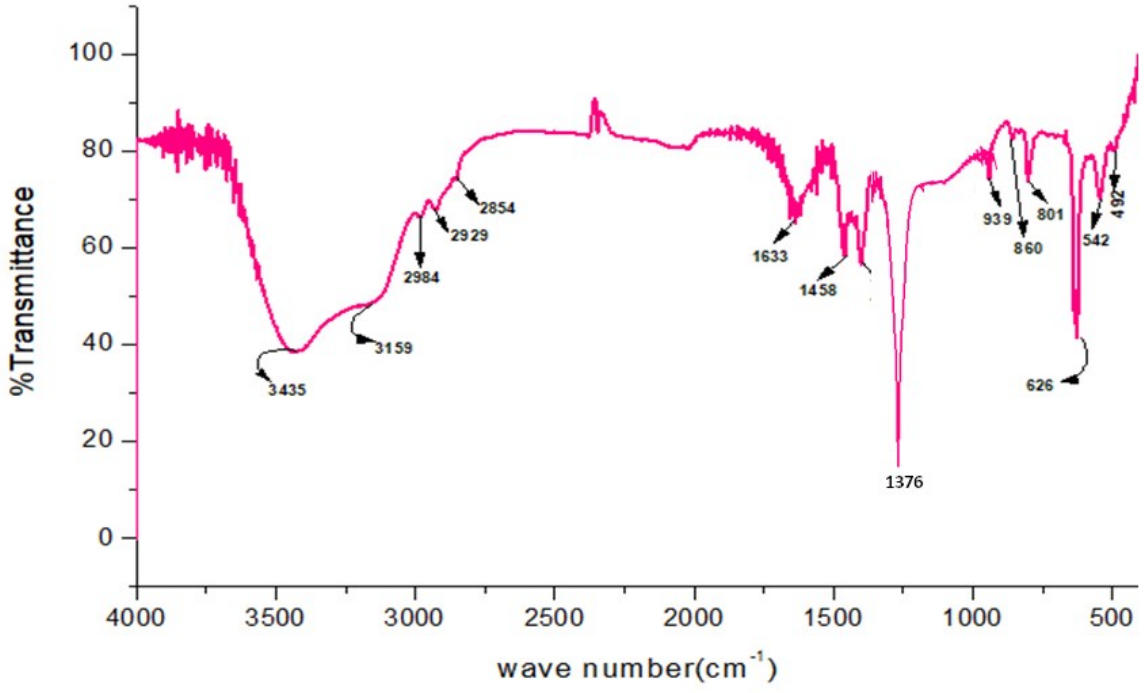
ESI Fig. S3. (A) ^{1}H NMR spectrum of complex **1** at 400 MHz in DMSO-d_6 and **(B)** its magnified view in the range 2.4 to 3.2 ppm.



ESI Fig. S4. ^{13}C NMR spectrum of complex **1** at 100 MHz in DMSO-d_6.

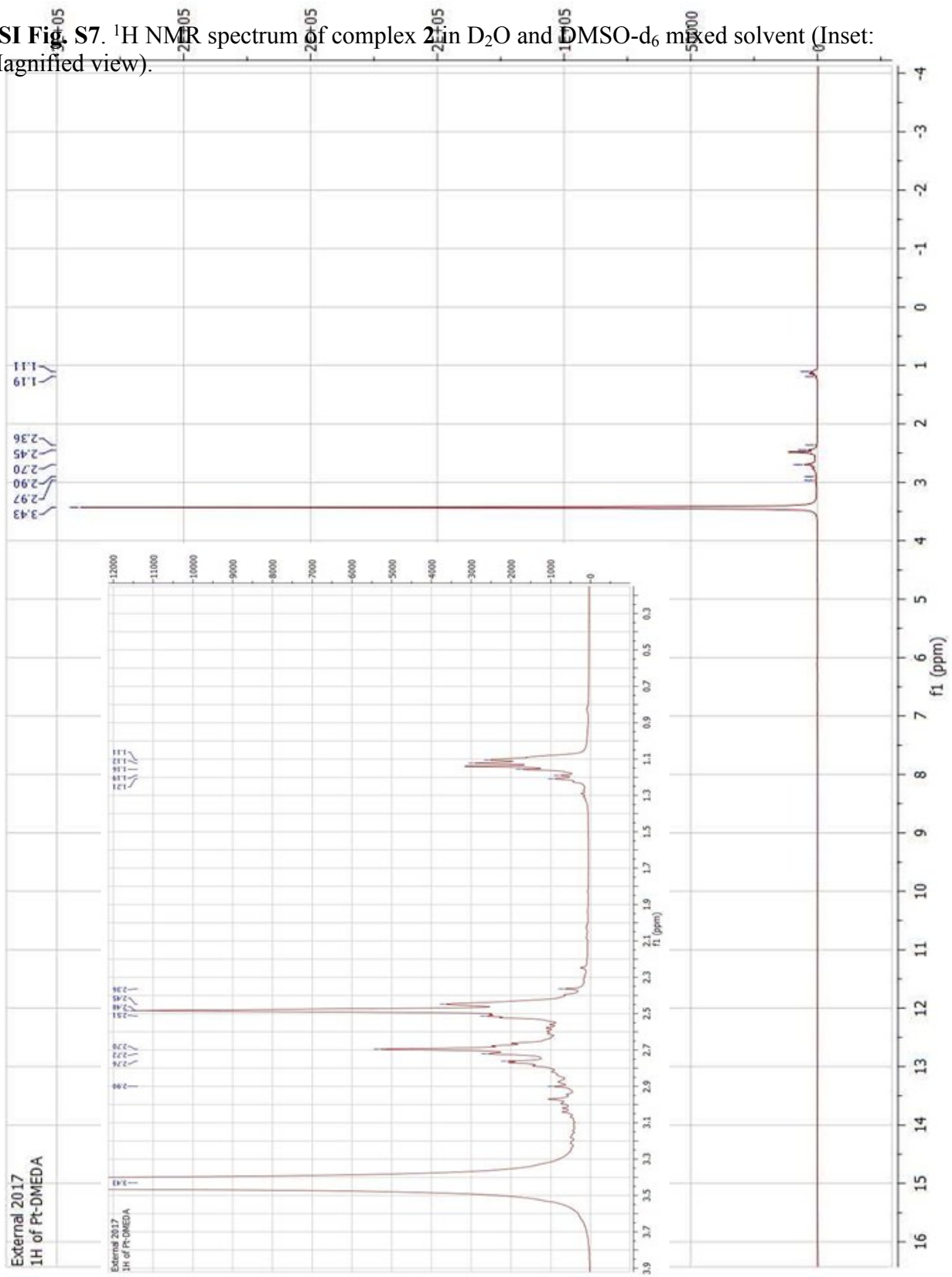


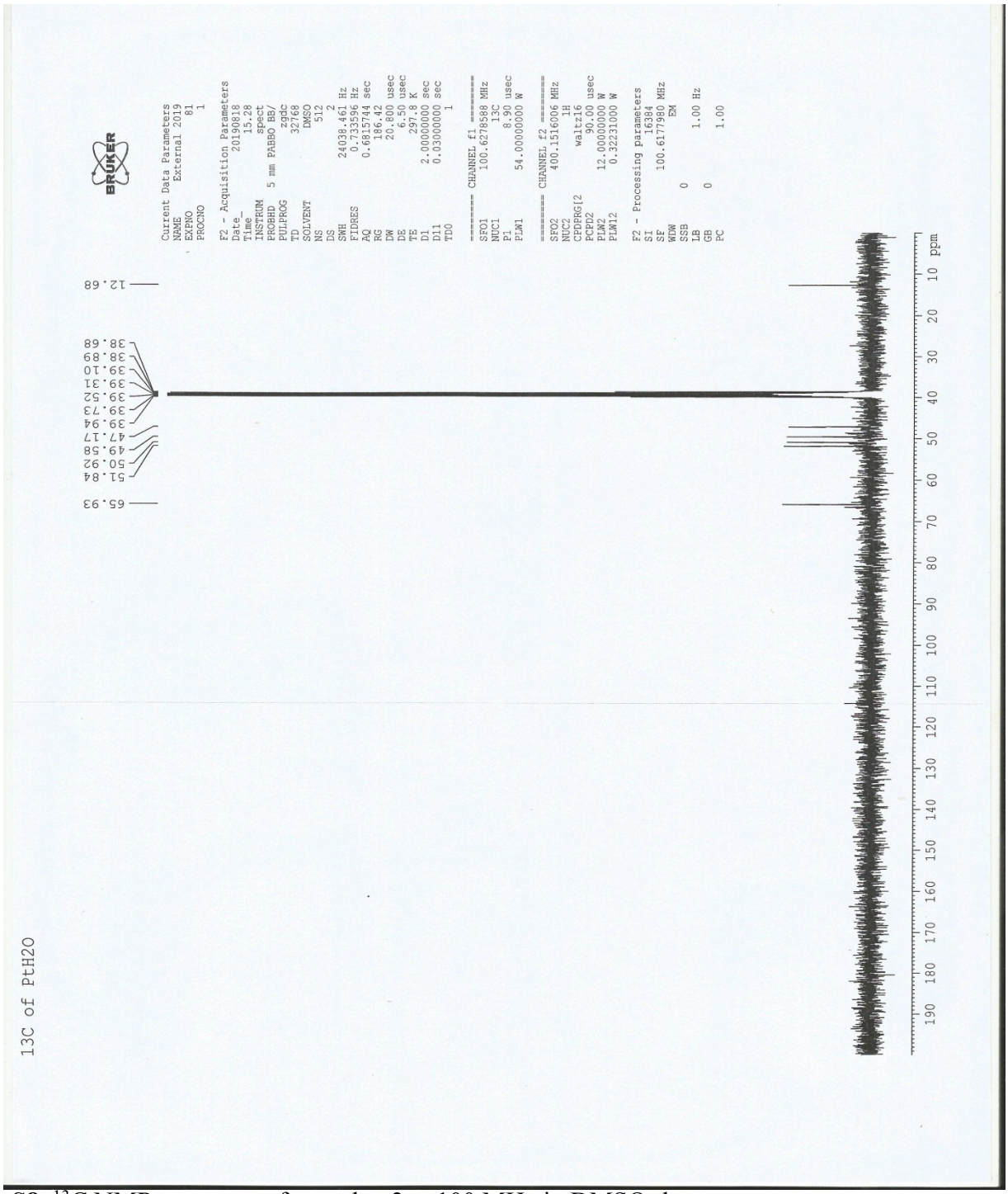
ESI Fig. S5. ESI-Mass spectrum of complex **1** mixed solvent (water in DMSO).



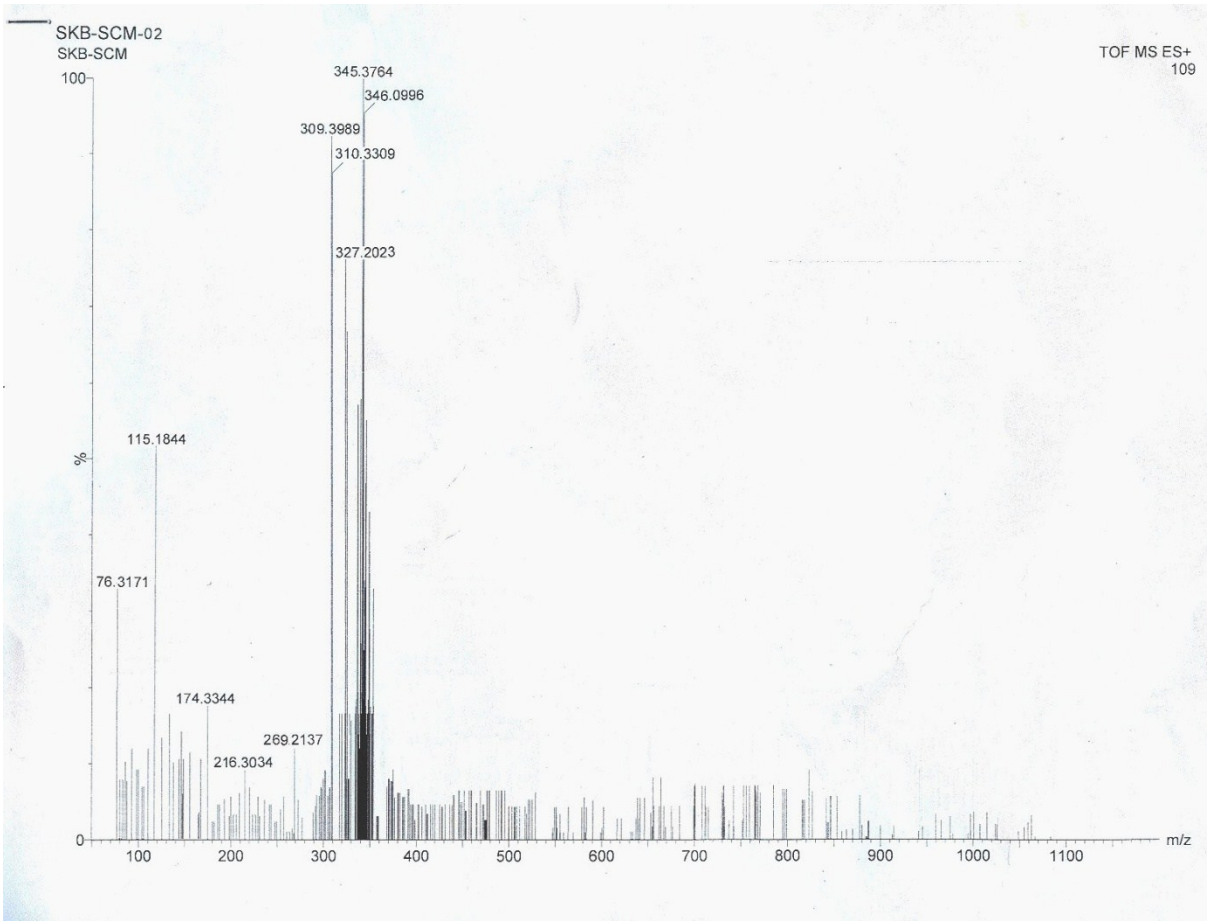
ESI Fig. S6. IR spectrum of complex **2** in KBr disk.

ESI Fig. S7. ^{1}H NMR spectrum of complex **2** in D_2O and DMSO-d_6 mixed solvent (Inset: Magnified view).

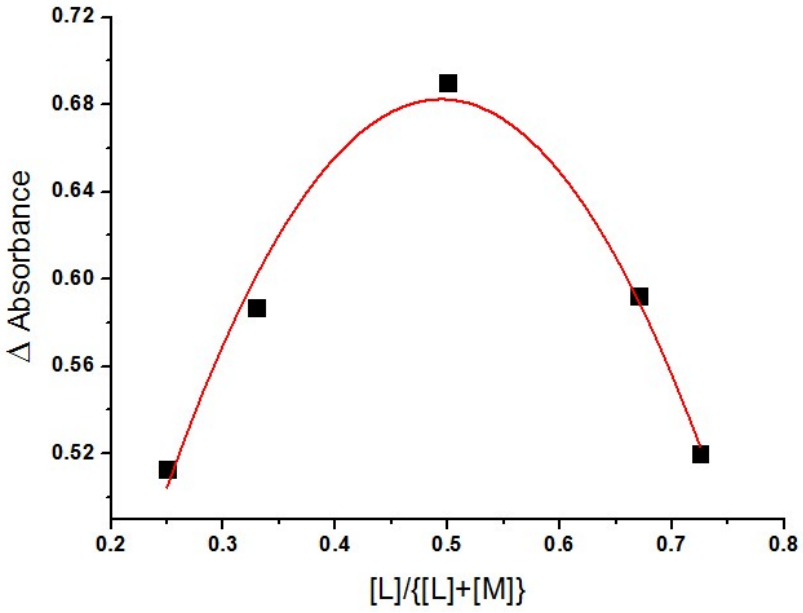




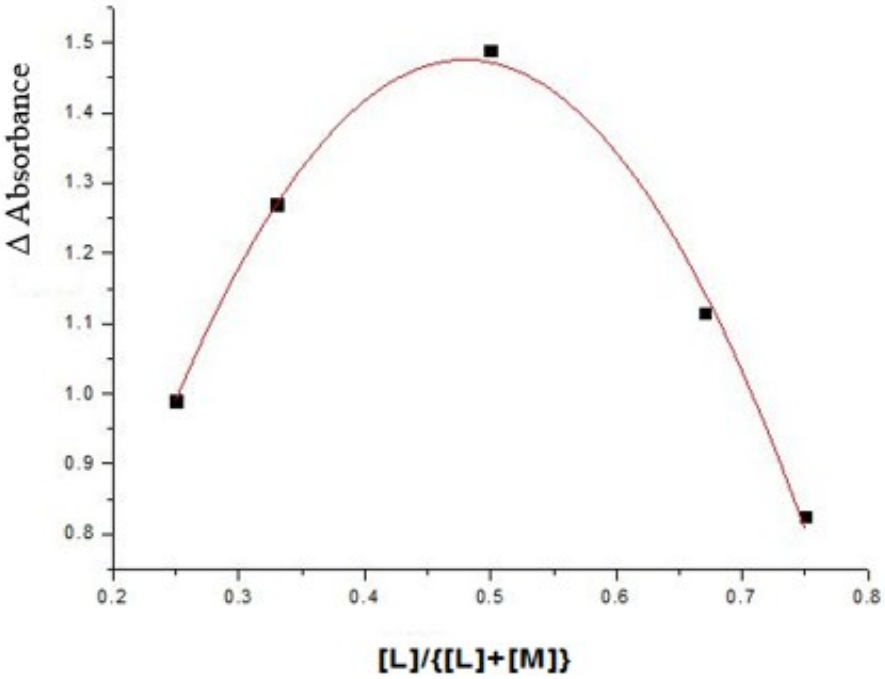
ESI Fig. S8. ^{13}C NMR spectrum of complex **2** at 100 MHz in DMSO-d_6.



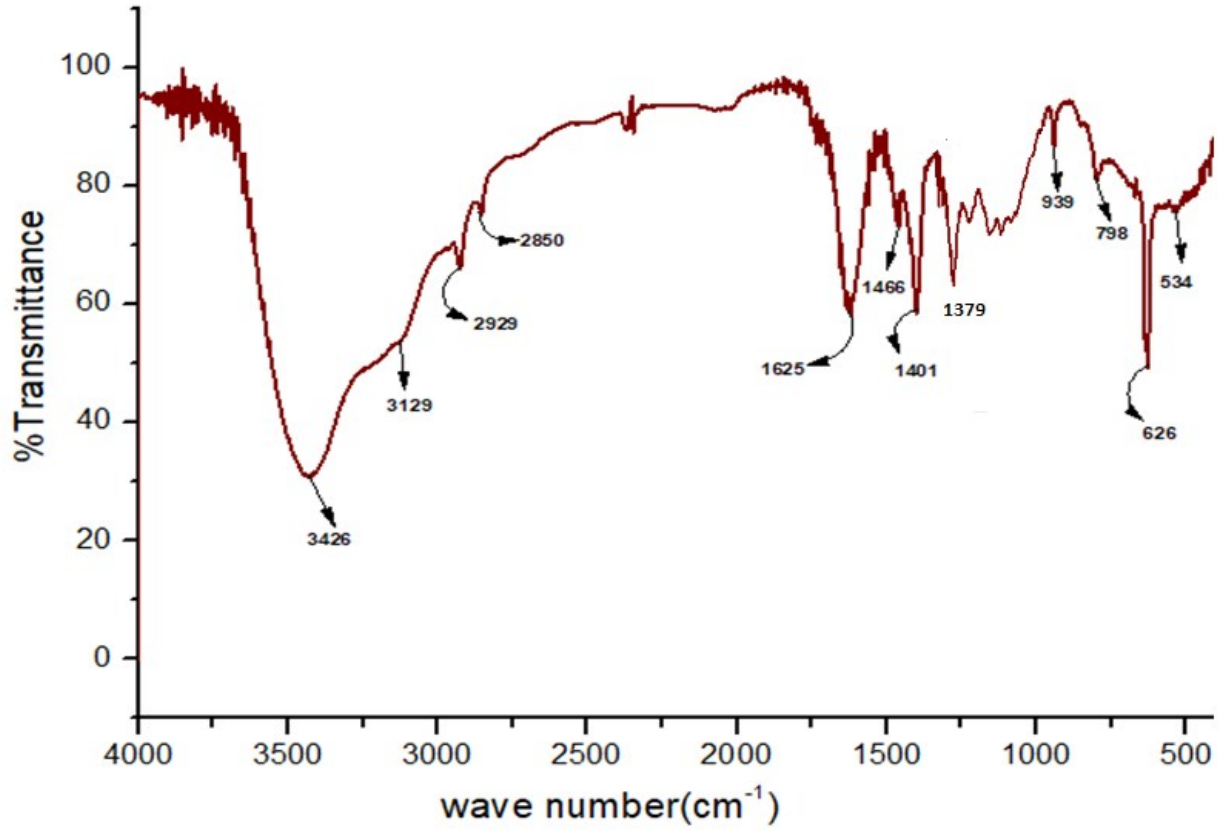
ESI Fig. S9. ESI-Mass spectrum of complex **2** in water.



ESI Fig S10. Job's plot for the formation of complex **3**.

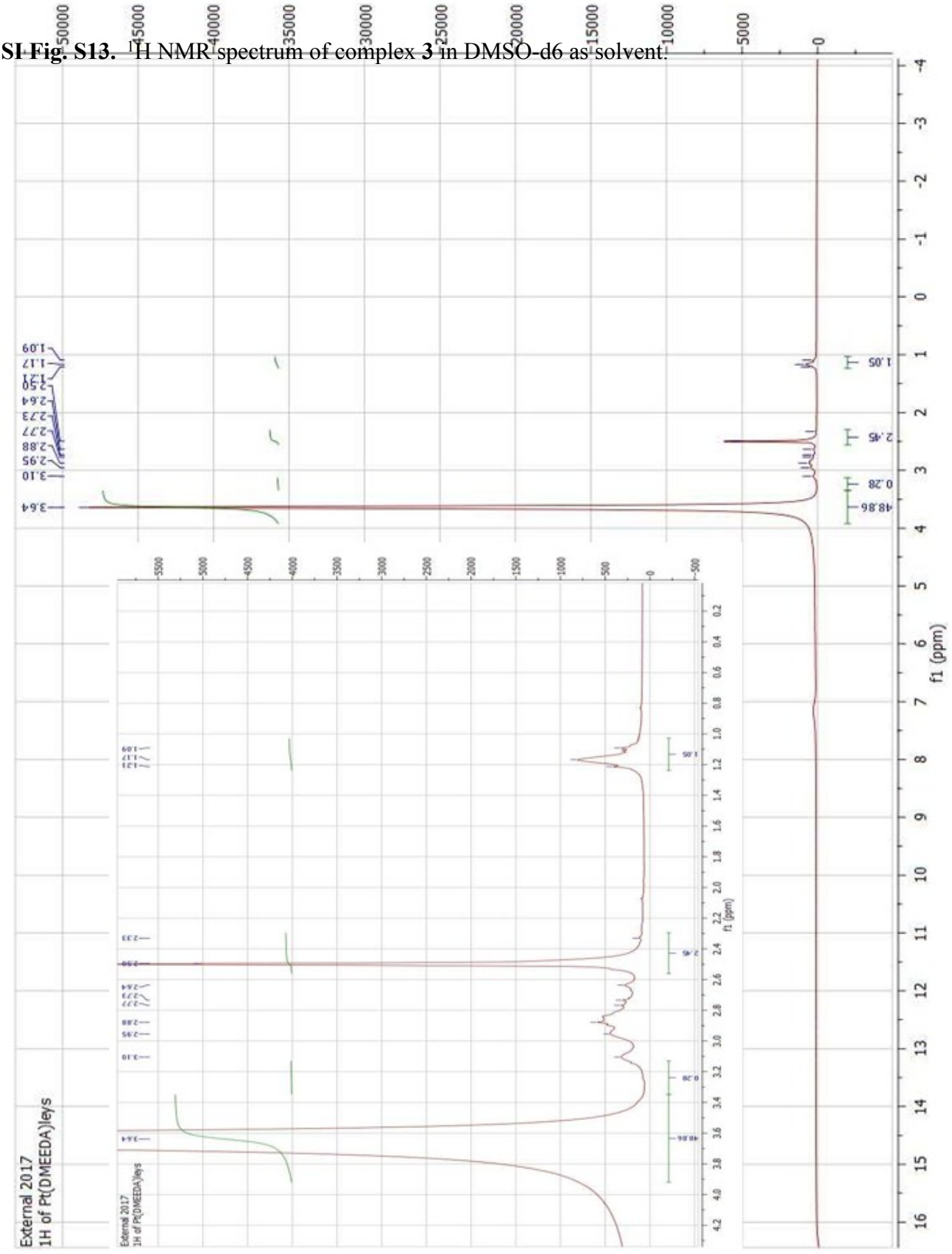


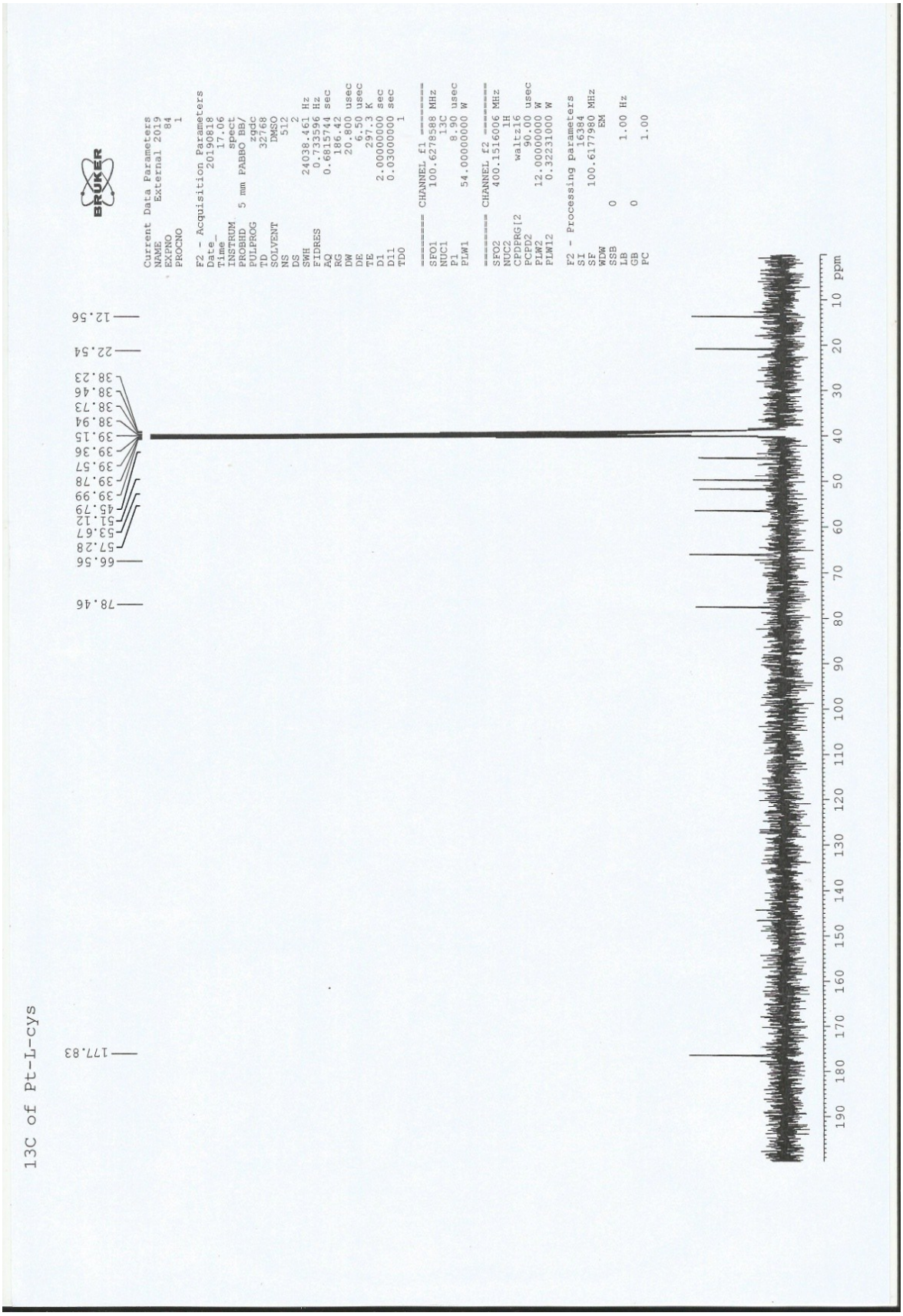
ESI Fig S11. Job's plot for the formation of complex **4**.



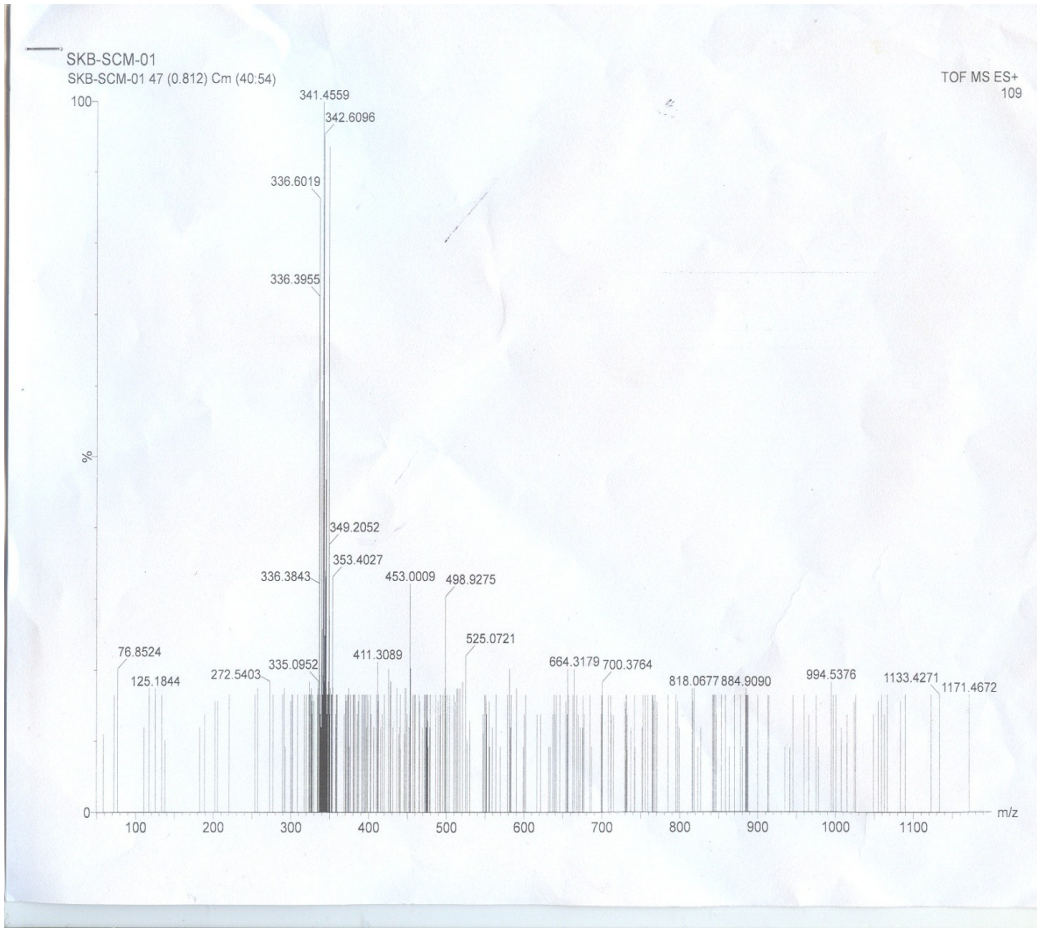
ESI Fig. S12. IR spectrum of complex **3** in KBr disk.

ESI Fig. S13. ^{1}H NMR spectrum of complex **3** in DMSO-d6 as solvent.

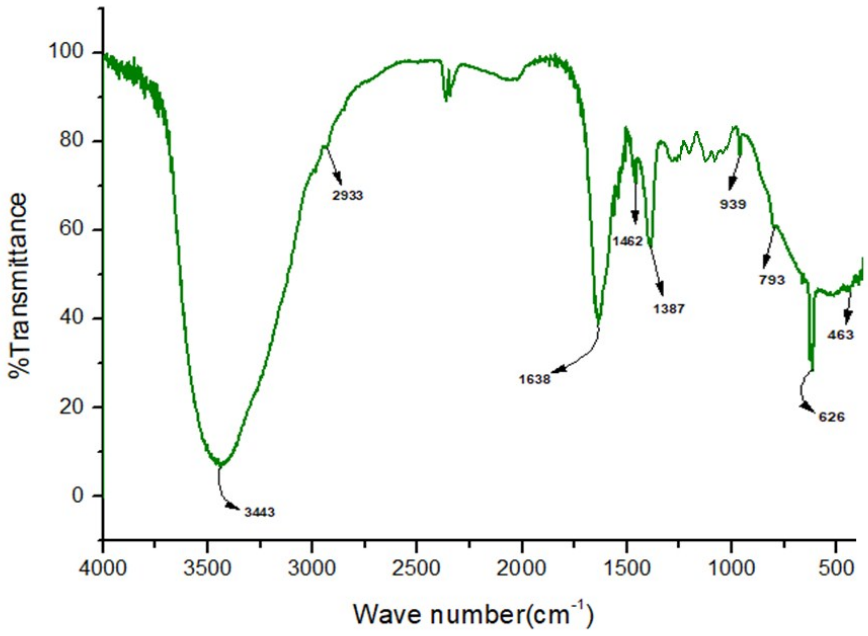




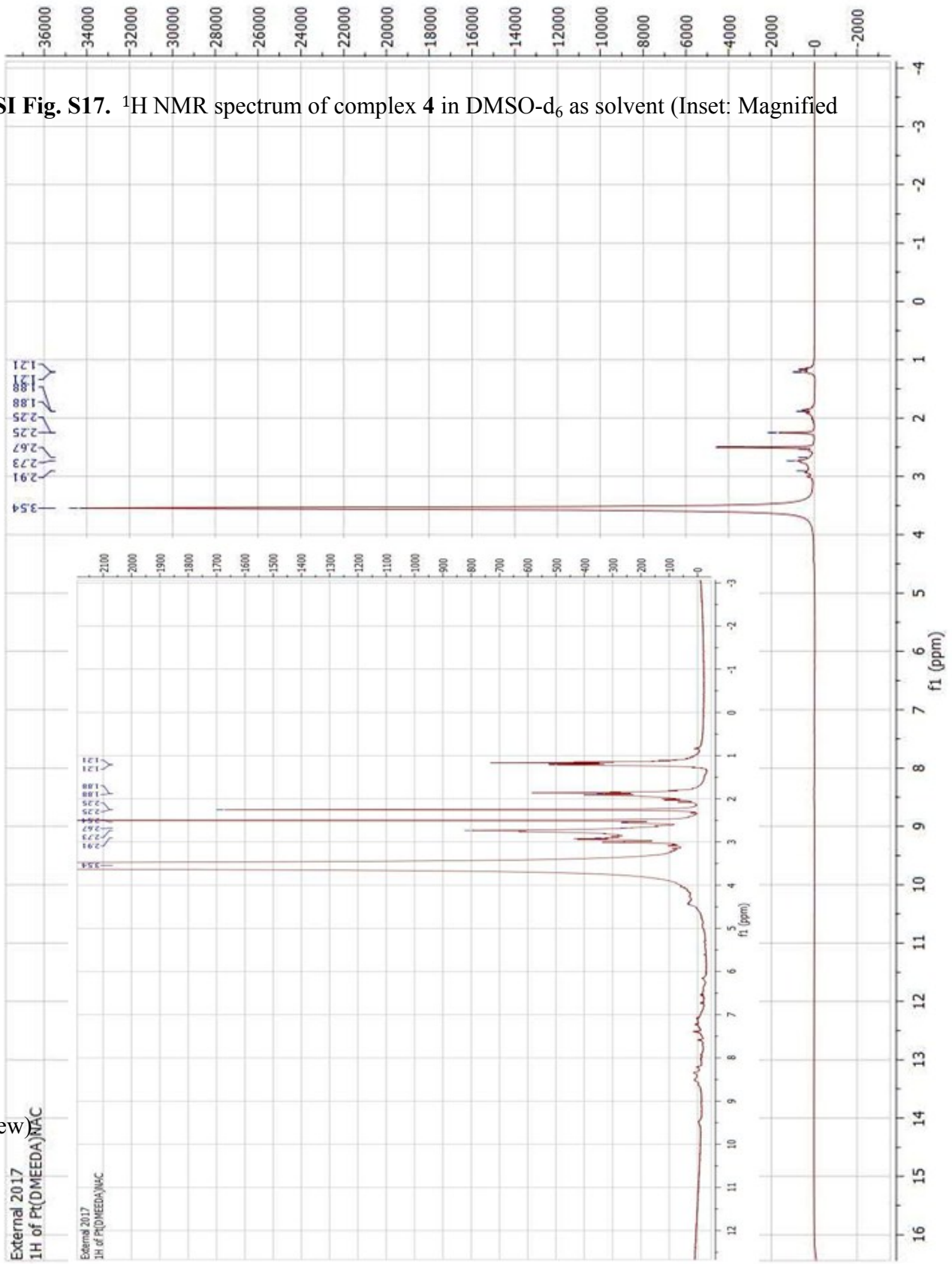
ESI Fig. S14. ^{13}C NMR spectrum of complex **3** at 100 MHz in DMSO-d_6.



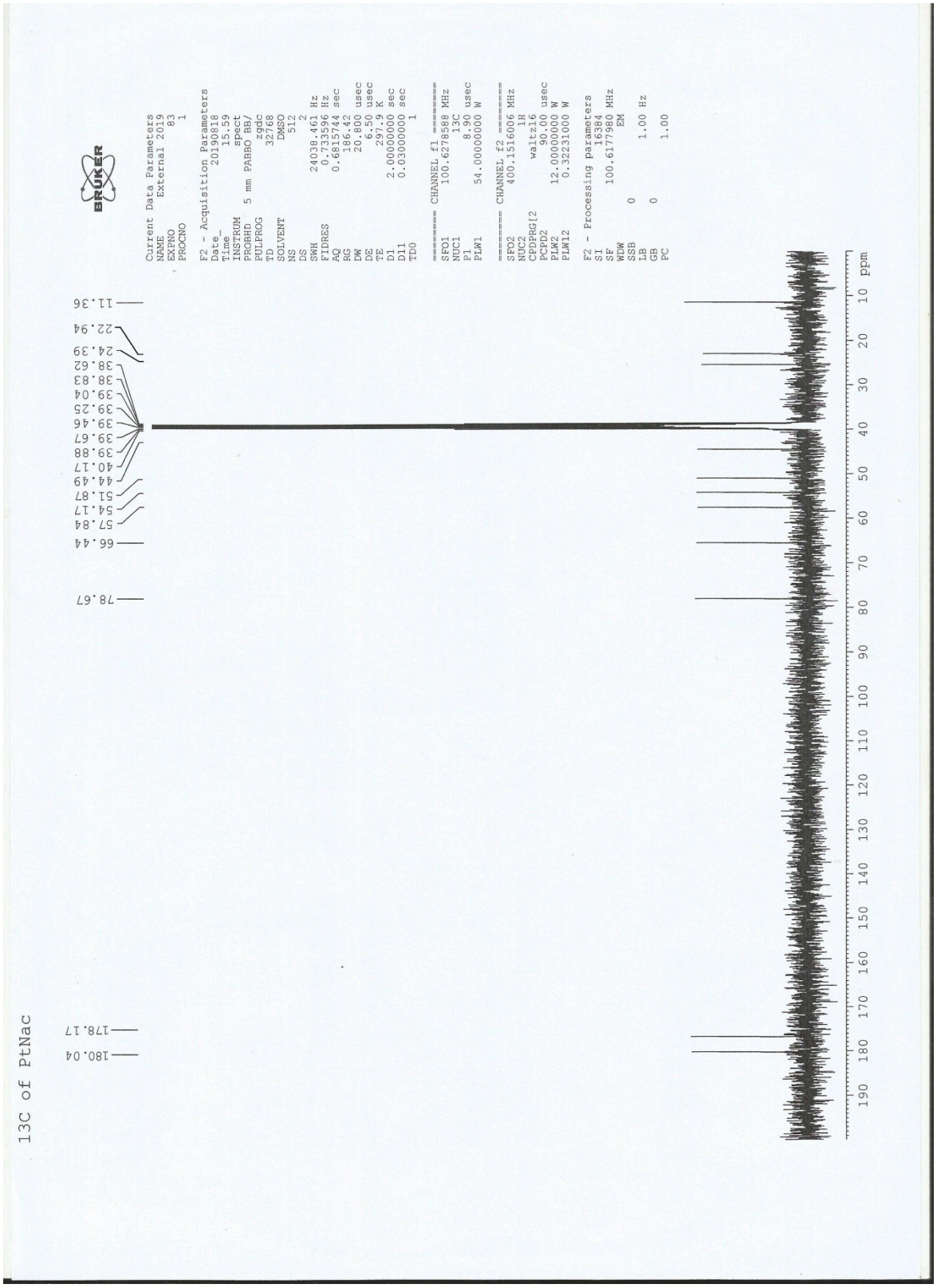
ESI Fig. S15. ESI-Mass spectrum of complex **3** in water.



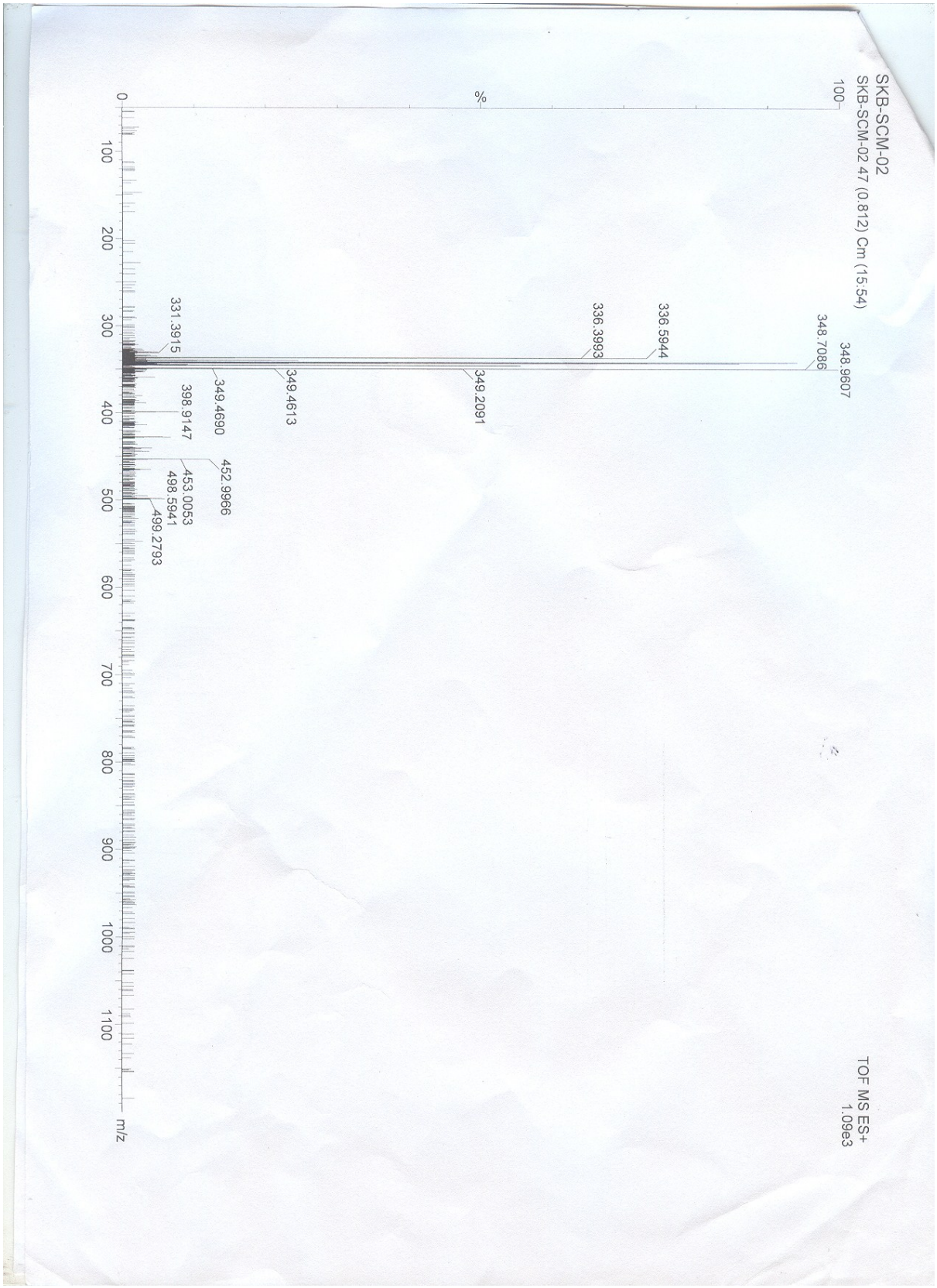
ESI Fig. S16. IR spectrum of complex **4** in KBr disk.



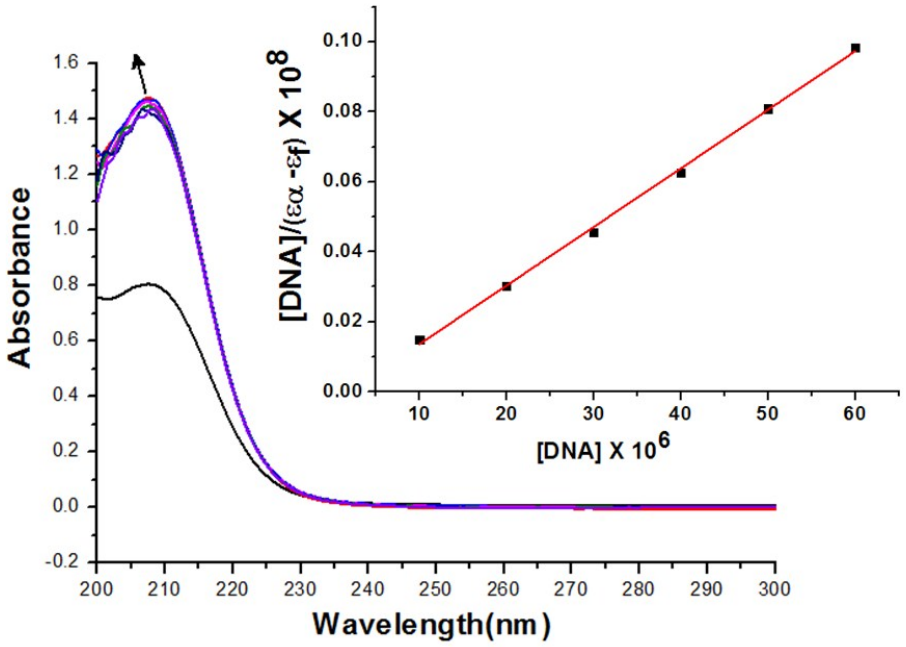
ESI Fig. S17. ^{1}H NMR spectrum of complex **4** in DMSO-d_6 as solvent (Inset: Magnified view)



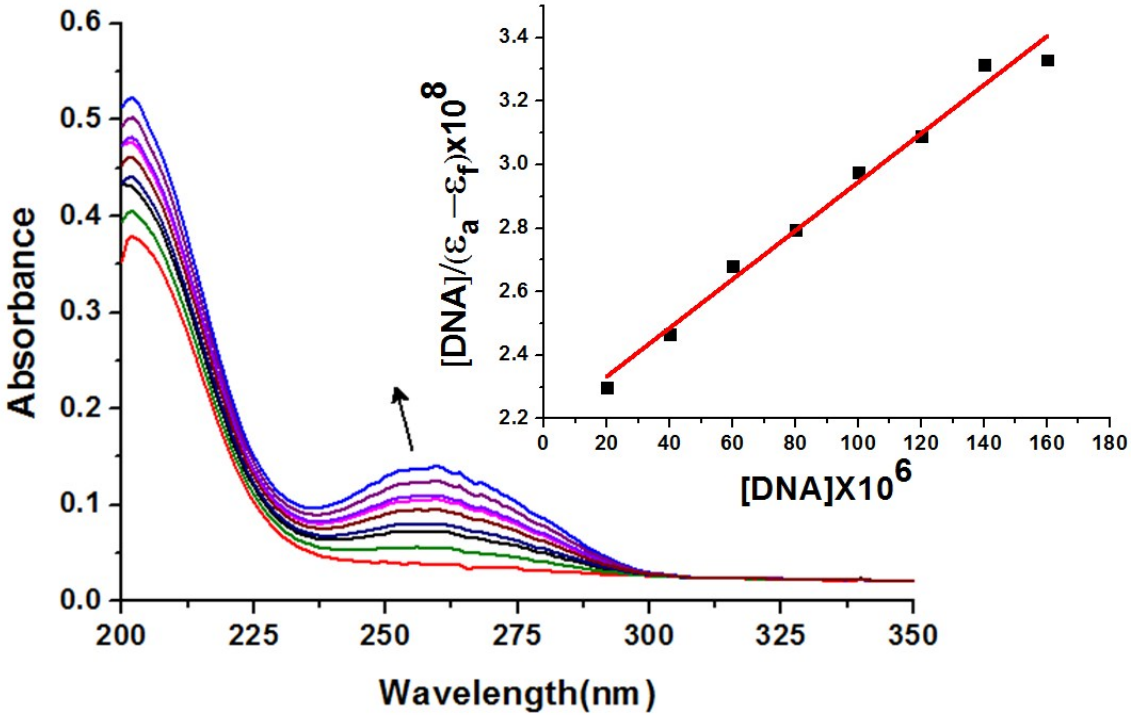
ESI Fig. S18. ^{13}C NMR spectrum of complex **4** at 100 MHz in DMSO-d_6.



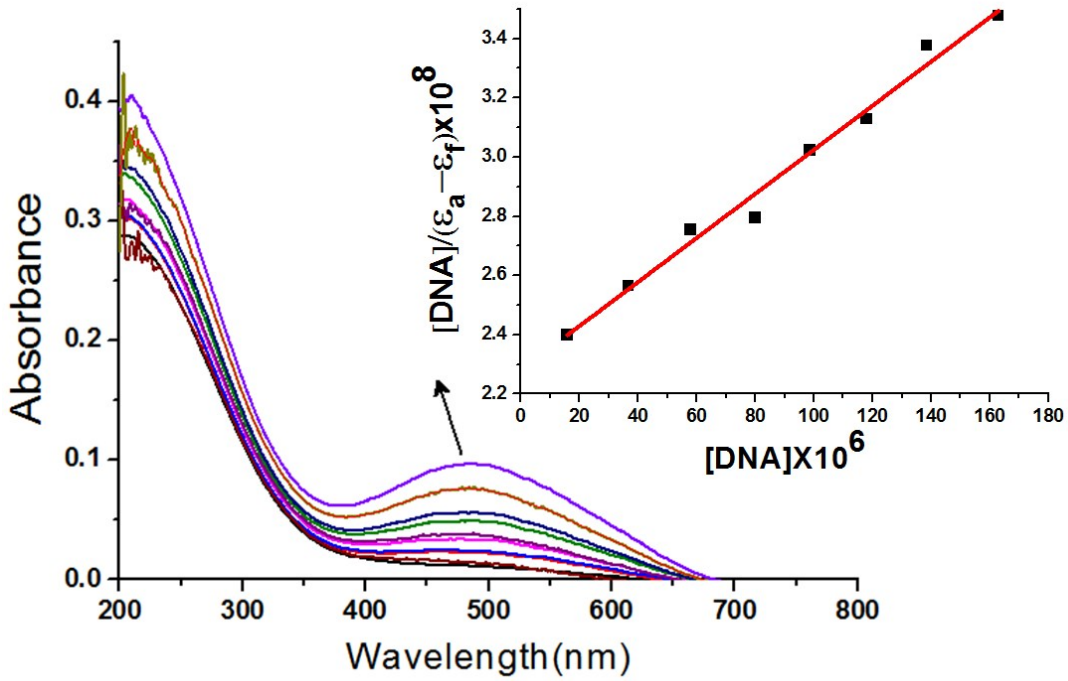
ESI Fig. S19. ESI-Mass spectrum of complex **4** in water.



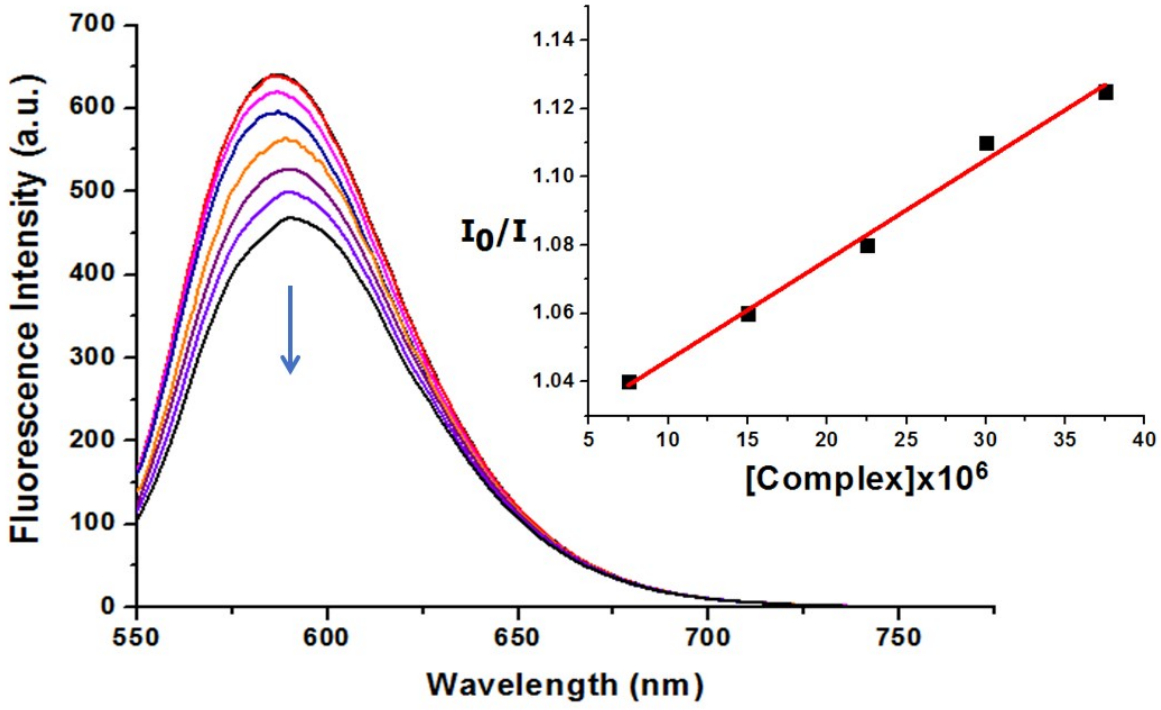
ESI Fig. S20. UV spectra of solutions containing complex **1** upon addition of CT-DNA. Arrow indicates the change in the absorbance on addition of DNA. Inset: Plots of [DNA]/[ε_a-$\varepsilon_{f,}$] vs. [DNA] for the titration of the complex **1** with DNA.



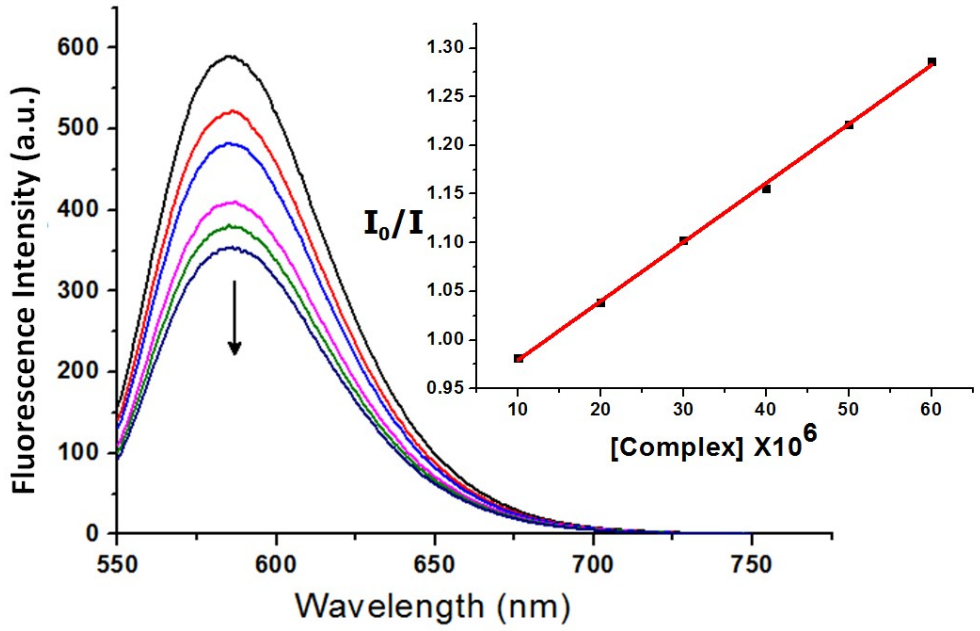
ESI Fig. S21. UV spectra of solutions containing complex **3** upon addition of CT-DNA. Arrow indicates the change in the absorbance on addition of DNA. Inset: Plots of [DNA]/[ε_a-$\varepsilon_{f,}$] vs. [DNA] for the titration of the complex **3** with DNA.



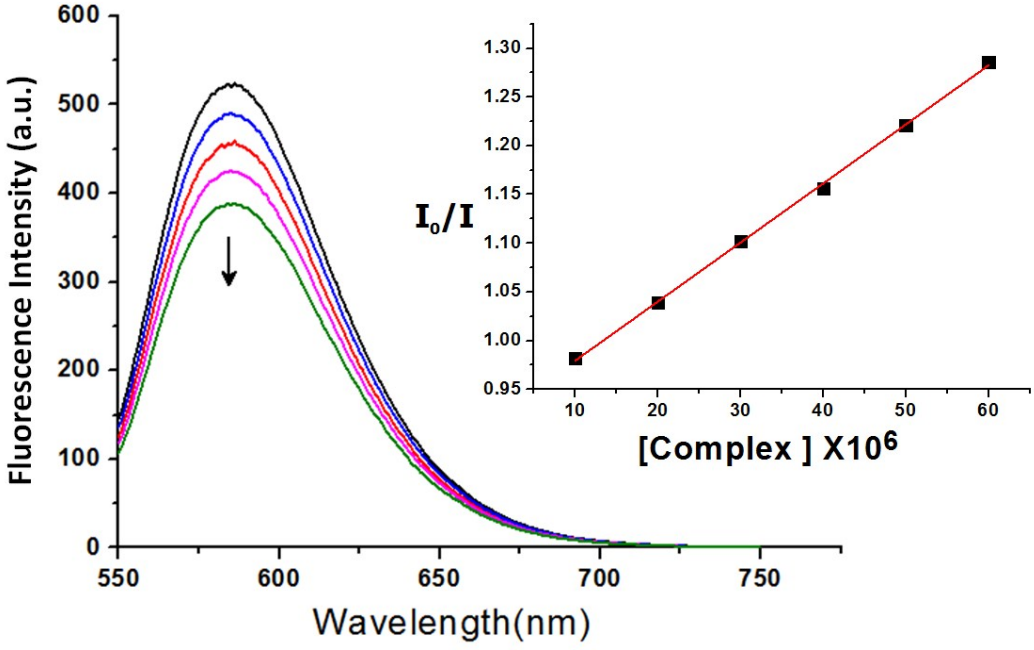
ESI Fig. S22. UV spectra of solutions containing complex **4** upon addition of CT-DNA: Inset: Plots of [DNA]/[ε_a-$\varepsilon_{f,}$] vs. [DNA] for the titration of the complex **4** with DNA.



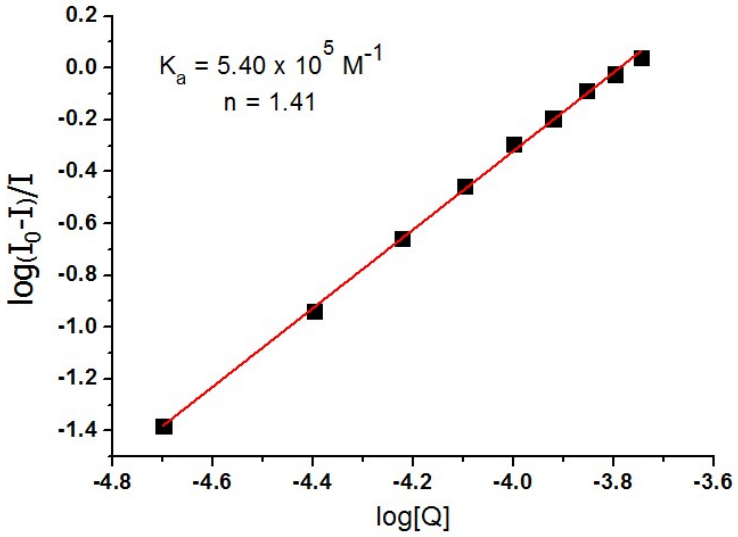
ESI Fig. S23. Emission spectra (λ= 537 nm) for EB–DNA ([EB] = 20 μM, [DNA] = 20 μM) in the absence and presence of increasing amounts of complex **2.** (Inset: Plot of I_0/I versus [complex **2**].



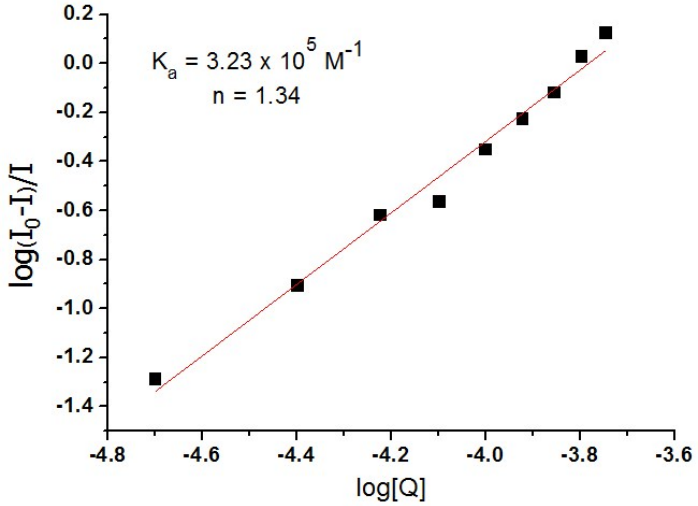
ESI Fig. S24. Emission spectra (λ= 537 nm) for EB–DNA ([EB] = 20 μM, [DNA] = 20 μM) in the absence and presence of increasing amounts of complex **3.** (Inset: Plot of I_0/I versus [complex **3**].



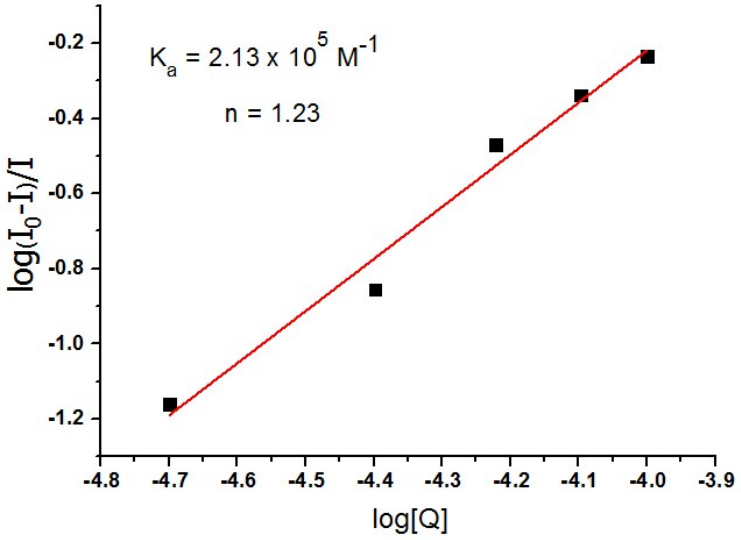
ESI Fig. S25. Emission spectra (λ= 537 nm) for EB–DNA ([EB] = 20 μM, [DNA] = 20 μM) in the absence and presence of increasing amounts of complex **4.** (Inset: Plot of I_0/I versus [complex **4**].



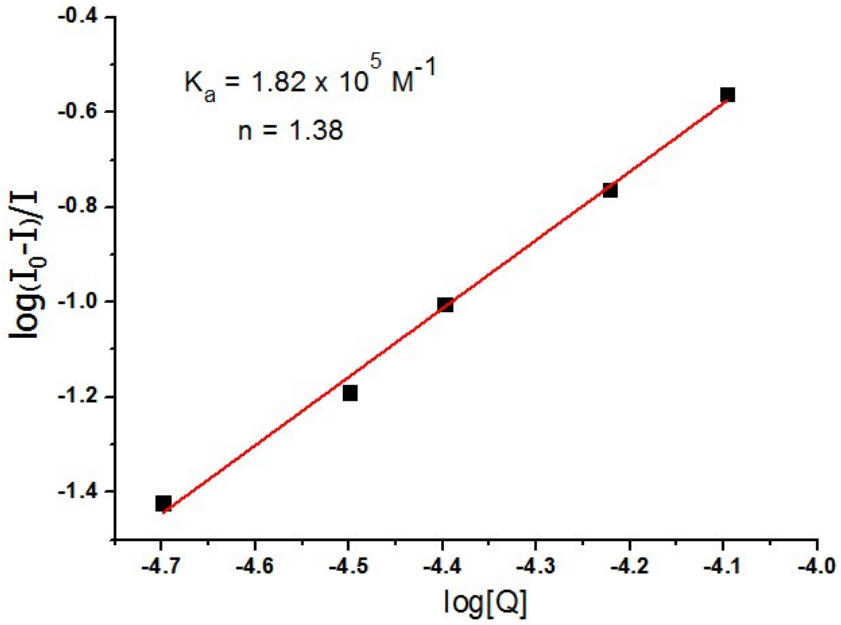
ESI Fig. S26. Scatchard plot of complex **1.**



ESI Fig. S27. Scatchard plot of complex **2.**



ESI Fig. S28. Scatchard plot of complex **3.**



ESI Fig. S29. Scatchard plot of complex **4.**

1. Cell lines and culture

Normal healthy Swiss albino mice were anesthetised, liver tissues perfused with sterile, chilled PBS (phosphate buffer saline, 10 mM, pH 7.4) were minced and digested in PBS containing 0.5 % trypsin for 45 min at 37°C. Cells were separated after tissue digestion by filtration through nylon mesh followed by several wash with PBS. Freshly isolated hepatocytes were kept in DMEM containing 2 % FBS (Gibco) and antibiotics, and finally resuspended in medium and plated in a 6 well plate, incubated in a humidified, 95 % O_2/ 5 % CO_2 atmosphere at 37 °C. Complex **1 - 4** were dissolved in sterile water and diluted with culture medium to obtain the desired concentrations. Cisplatin [Cisgland from Gland Pharma Limited] at the same concentrations was used as positive control. Control cells were cultured in medium alone and received equal volume of sterile distilled water only.