

Supporting Information

for

Copper(II) complexes as turn on fluorescent sensors for nitric oxide

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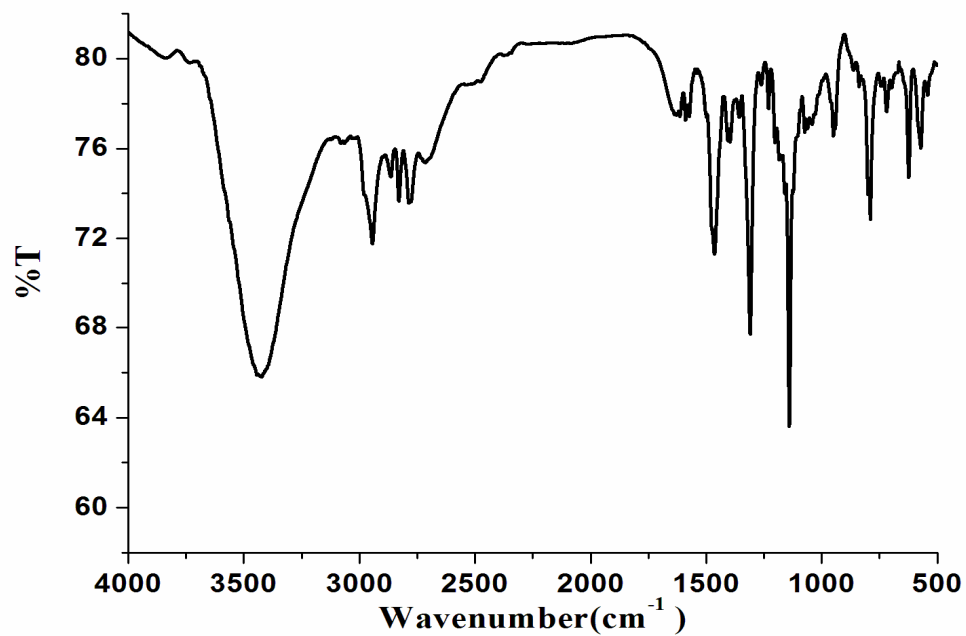


Figure S1. FT-IR spectrum of **L**₁ in KBr pellet

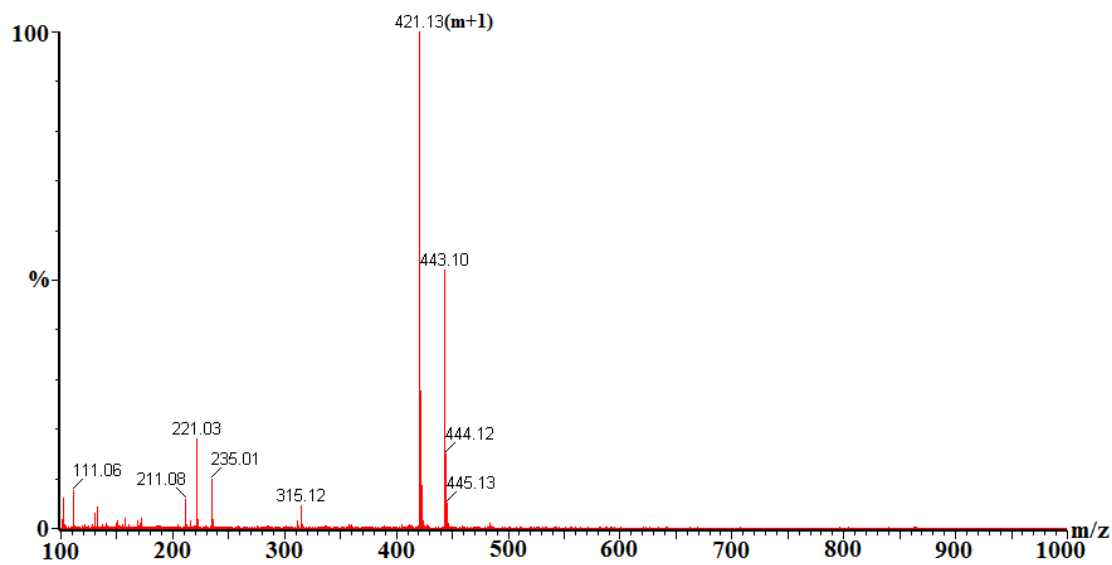


Figure S2. ESI-Mass spectrum for **L**₁ in methanol.

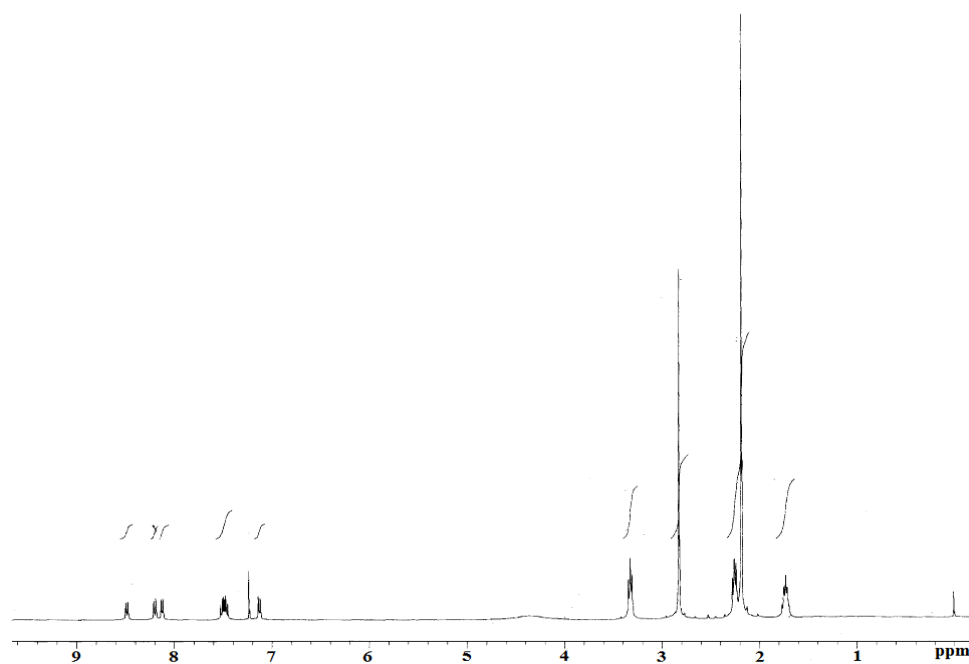


Figure S3. ^1H -NMR spectrum of L_1 in CDCl_3

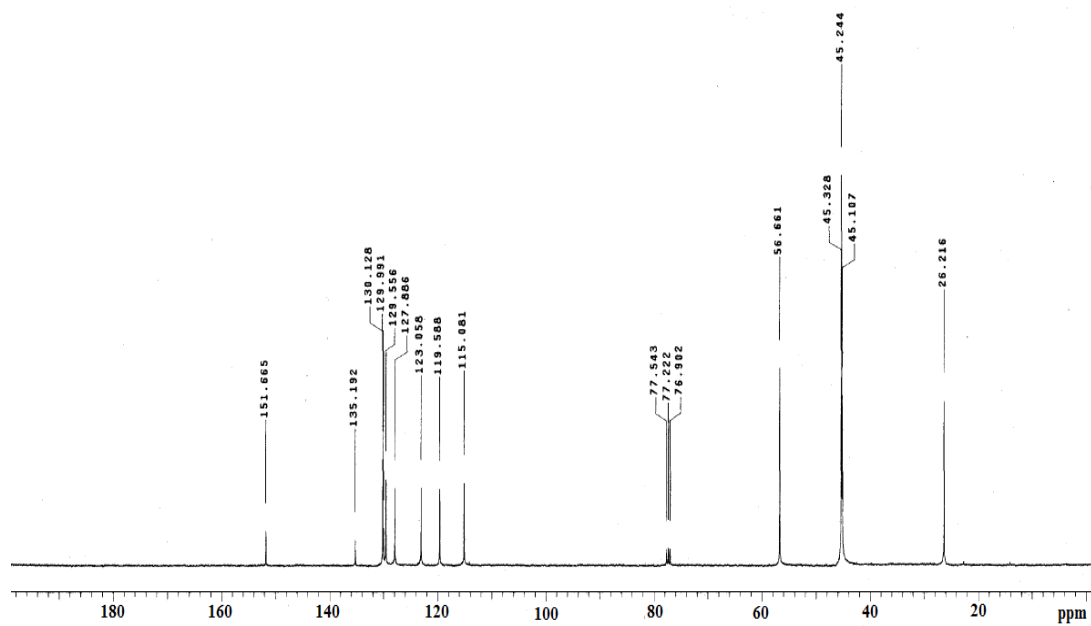


Figure S4. ^{13}C -NMR spectrum of L_1 in CDCl_3

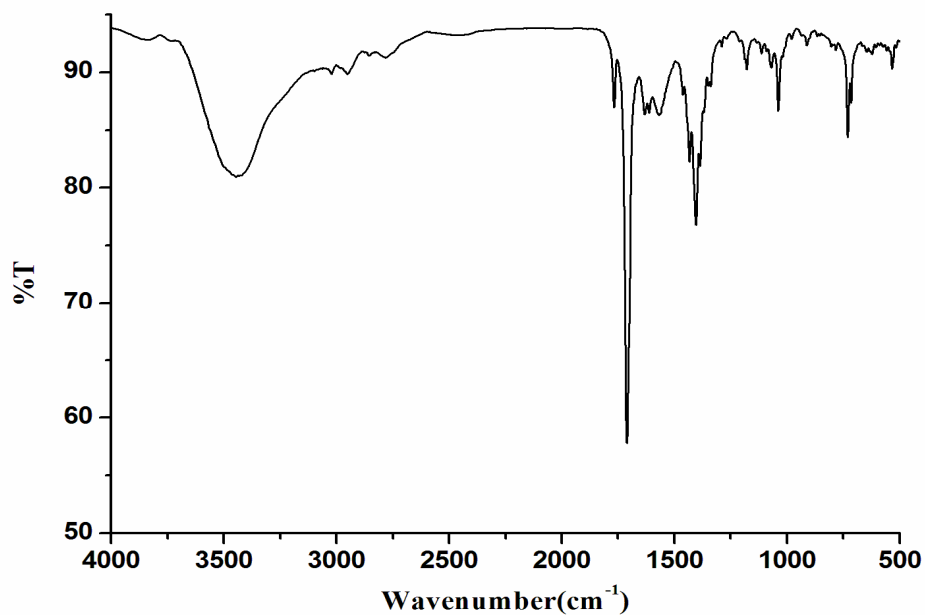


Figure S5. FT-IR spectrum of L_2' in KBr pellet

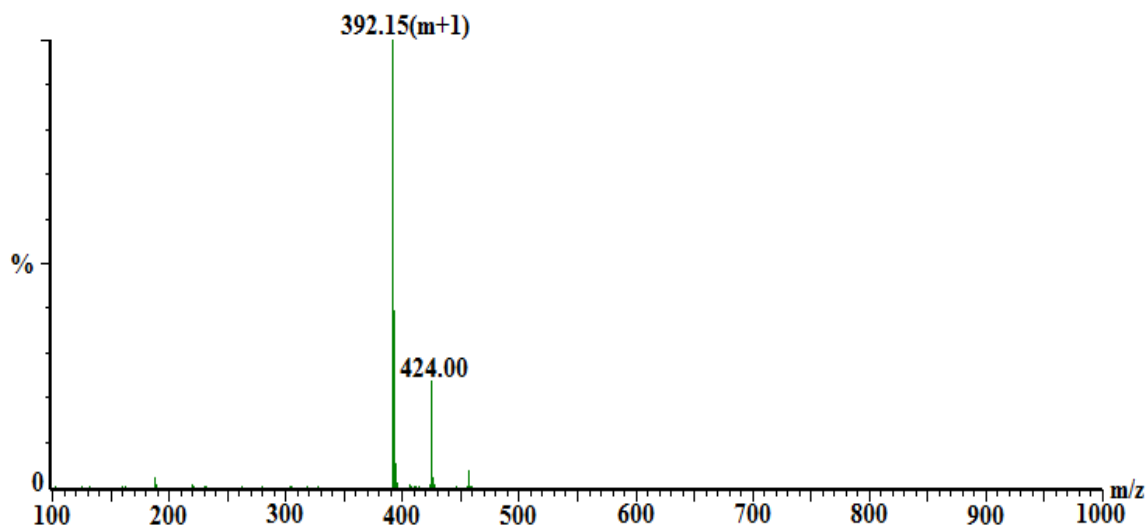


Figure S6. Mass spectrum for L_2' in methanol

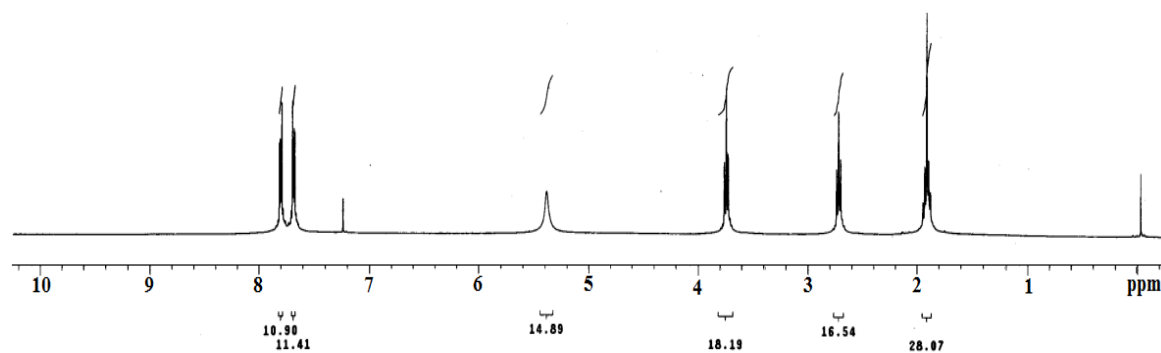


Figure S7. ¹H-NMR spectrum of **L**₂' in CDCl₃

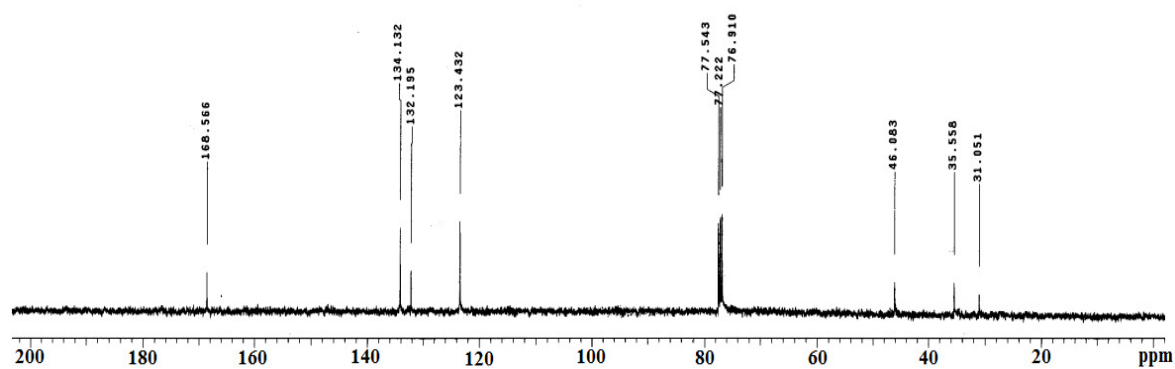


Figure S8. ¹³C-NMR spectrum of **L**₂' in CDCl₃

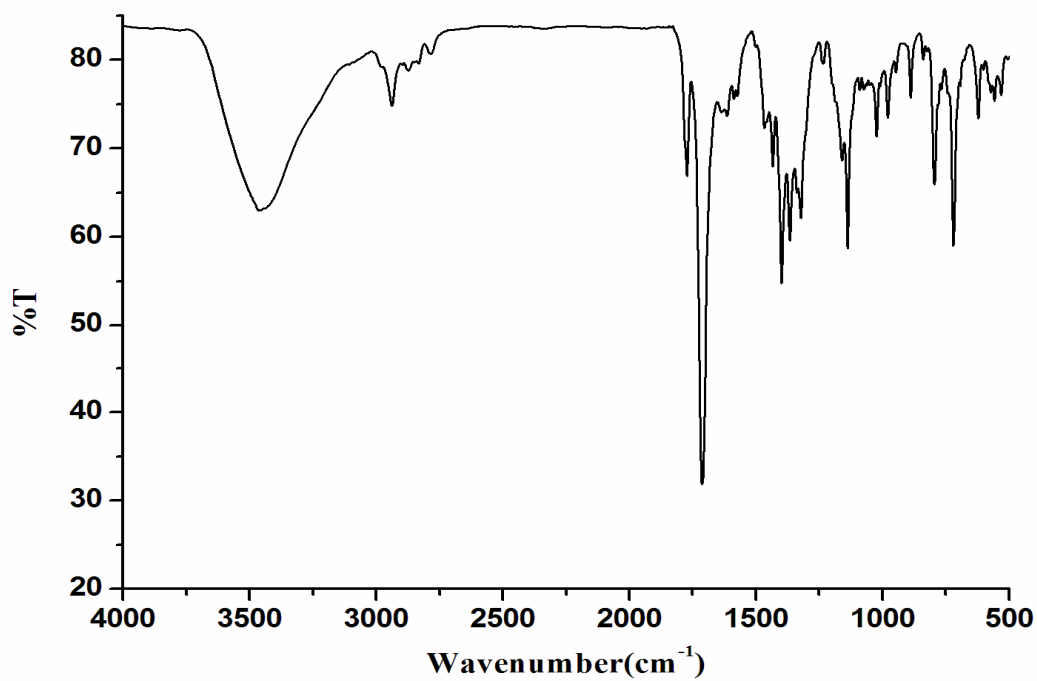


Figure S9. FT-IR spectrum of **L₂''** in KBr pellet

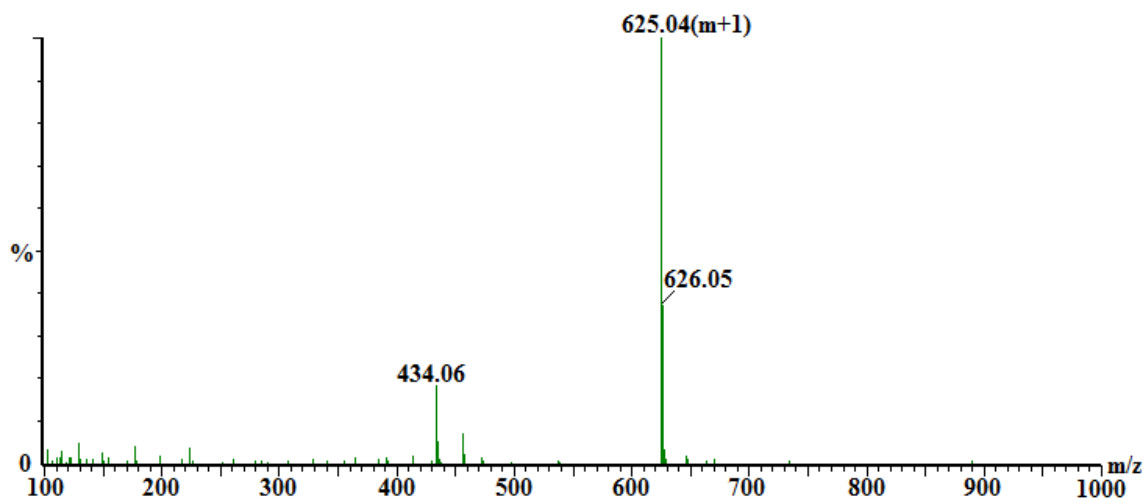


Figure S10. Mass spectrum for **L₂''** in methanol

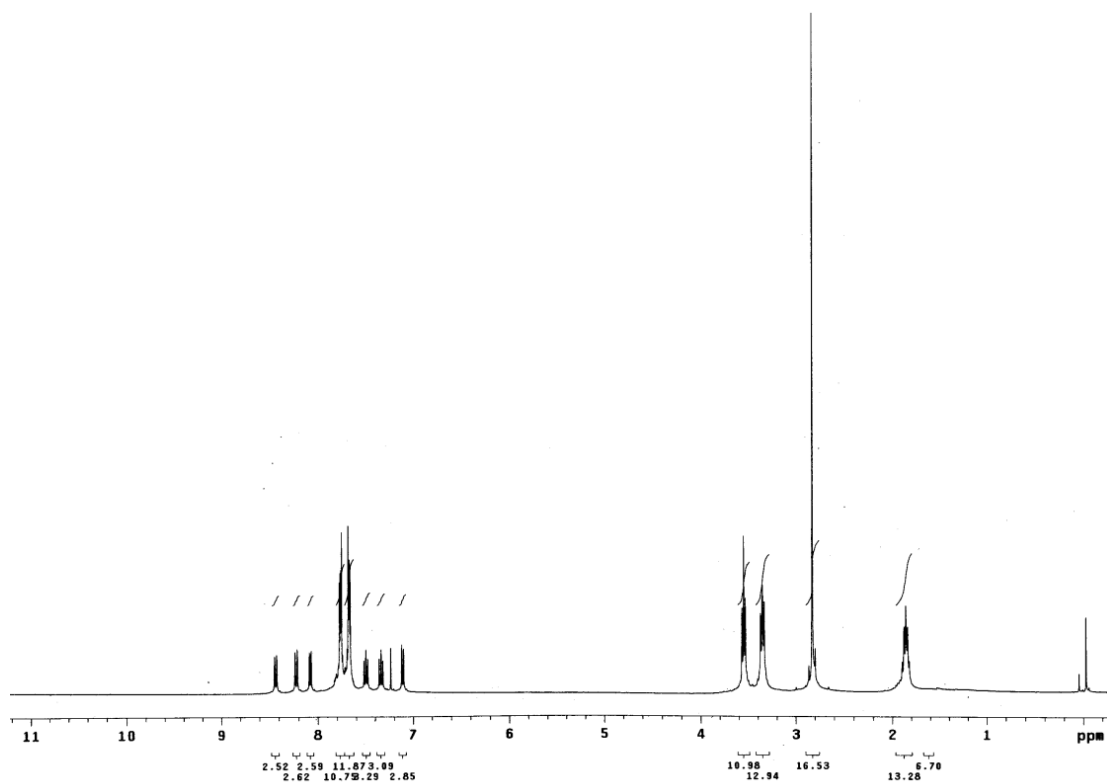


Figure S11. ^1H -NMR spectrum of L_2'' in CDCl_3

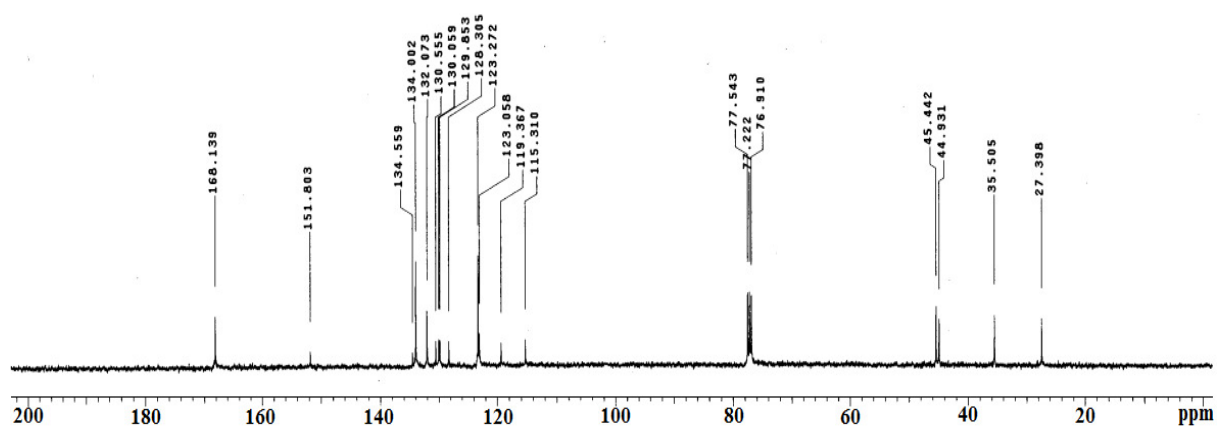


Figure S12. ^{13}C -NMR spectrum of L_2'' in CDCl_3

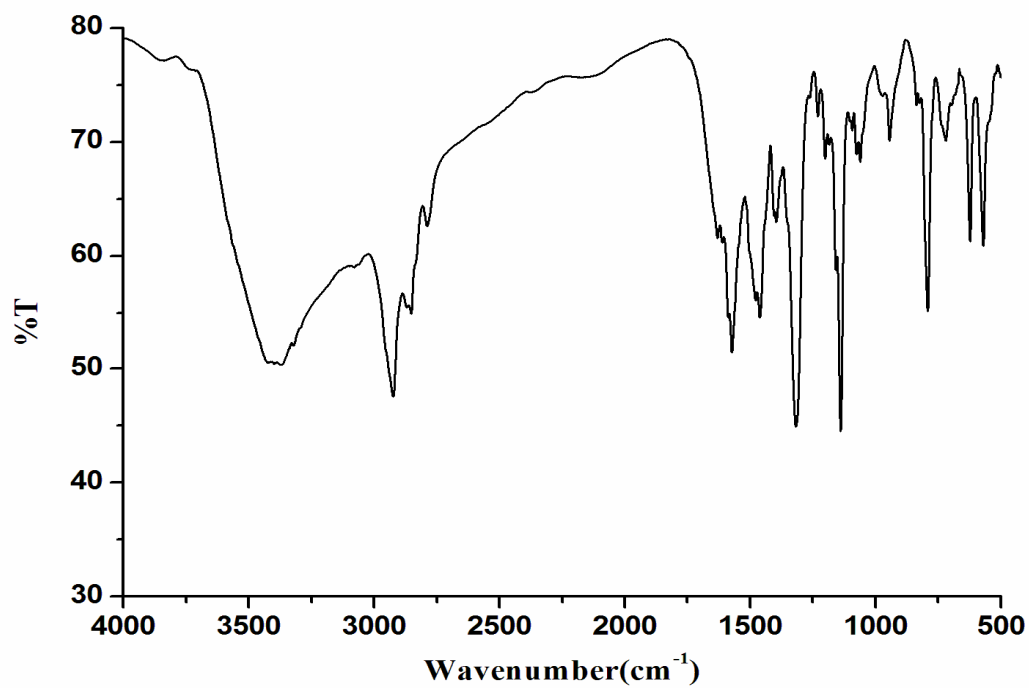


Figure S13. FT-IR spectrum of **L₂** in KBr pellet

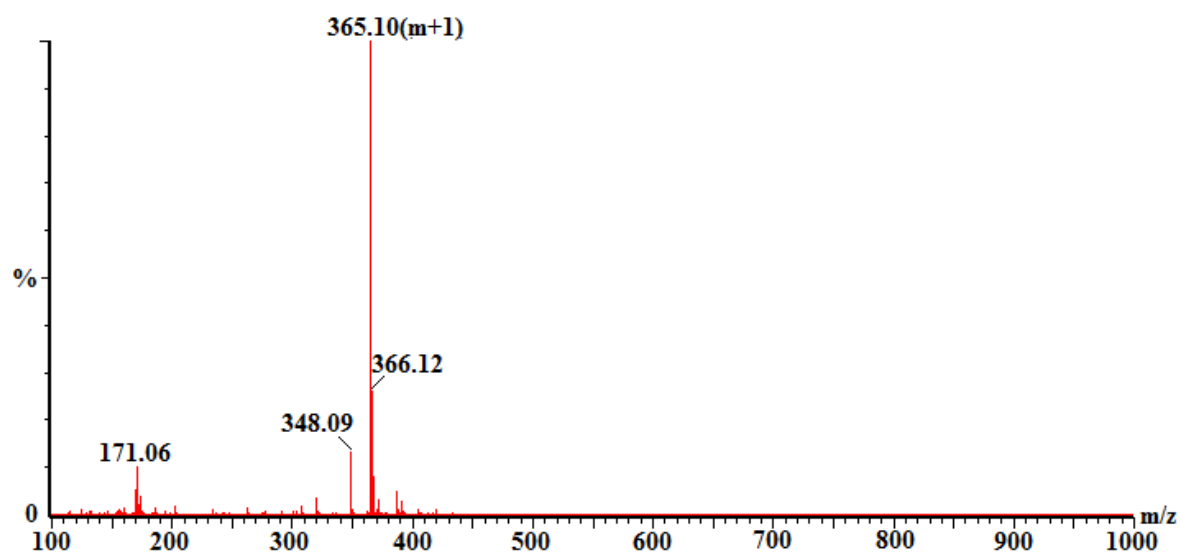


Figure S14. ESI- Mass spectrum for **L₂** in methanol

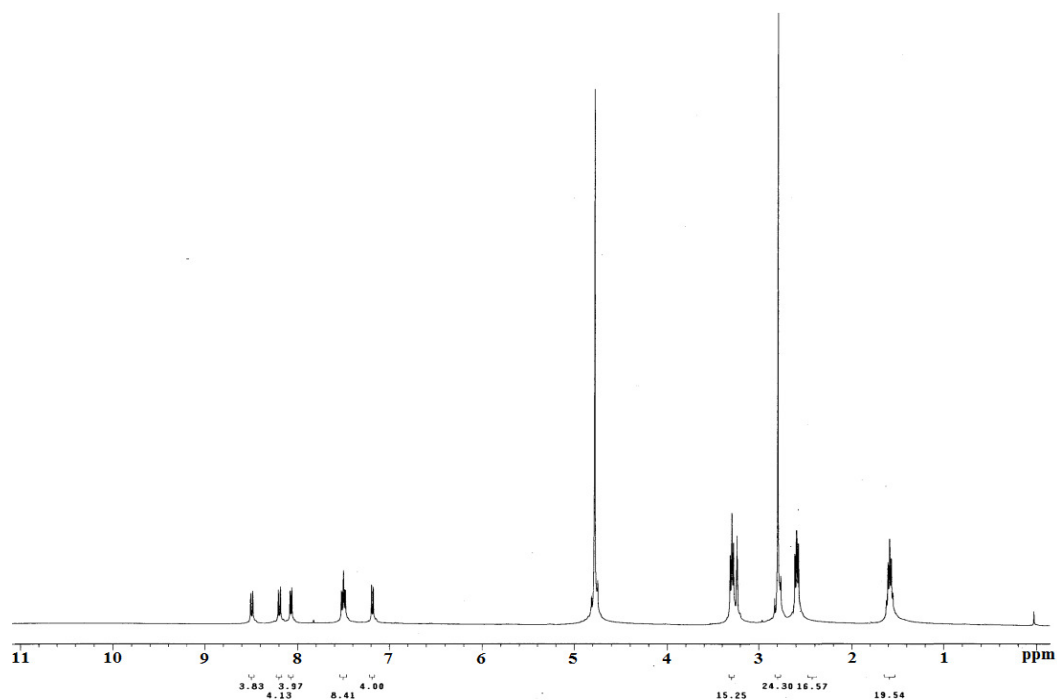


Figure S15. ^1H -NMR spectrum of L_2 in CD_3OD

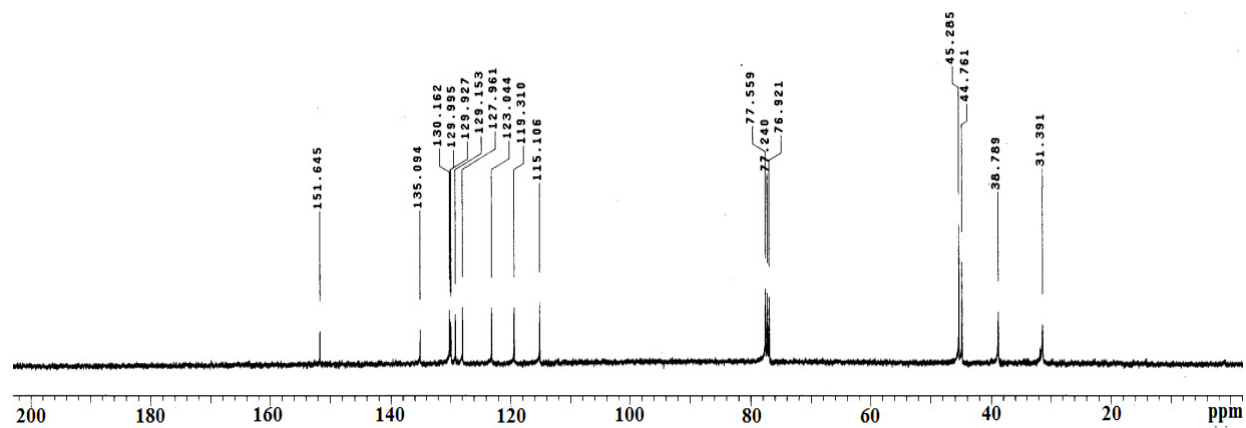


Figure S16. ^{13}C -NMR spectrum of L_2 in CDCl_3

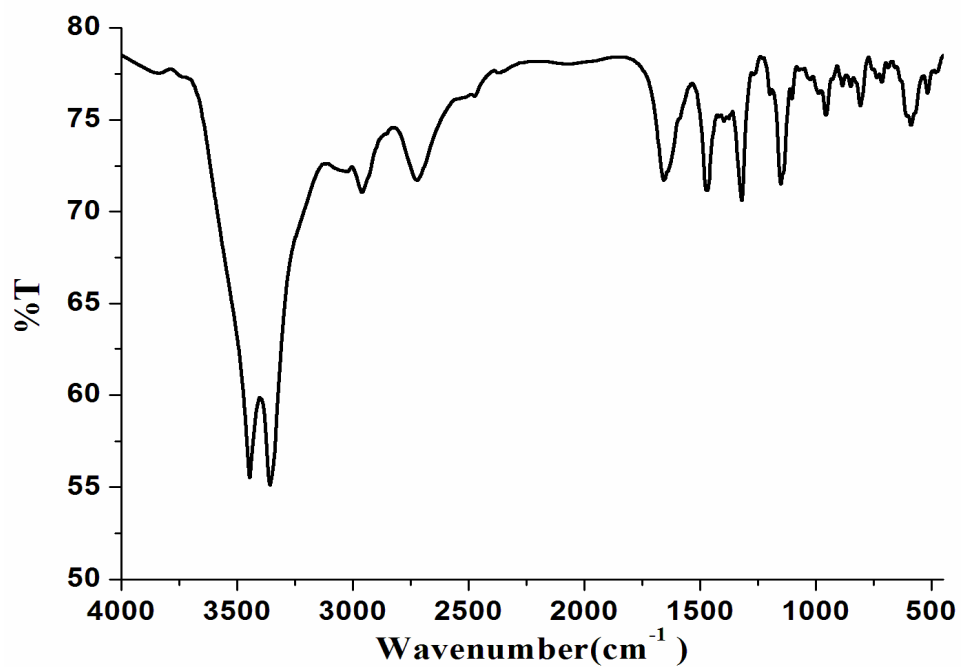


Figure S17. FT-IR spectrum of complex **1** in KBr pellet

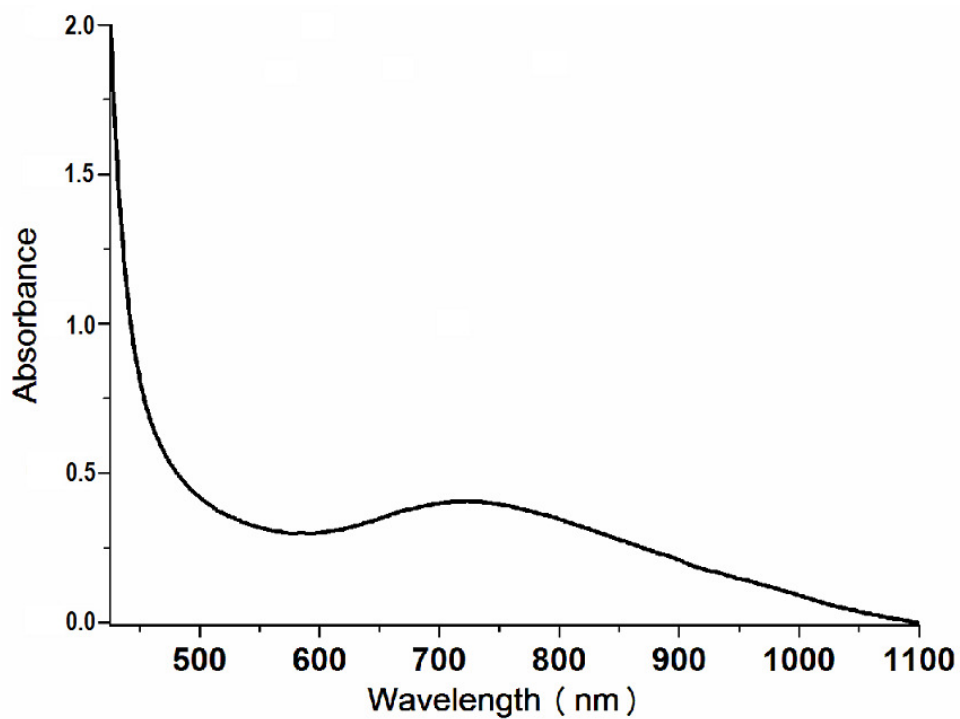


Figure S18. UV-visible spectrum of complex **1** in methanol.

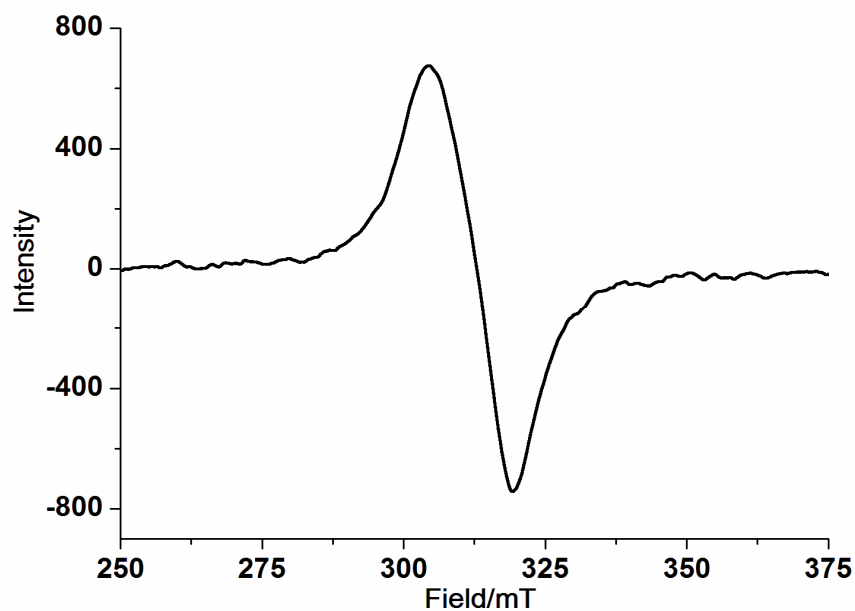


Figure S19. X-Band EPR spectrum of complex **1** in methanol at 298K

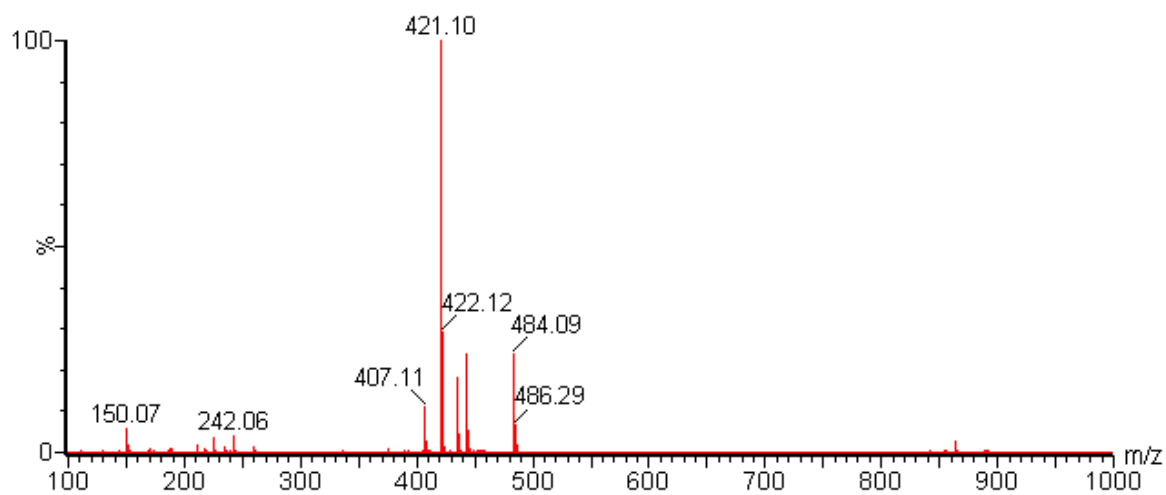


Figure S20. ESI- Mass spectrum for complex **1** in methanol.

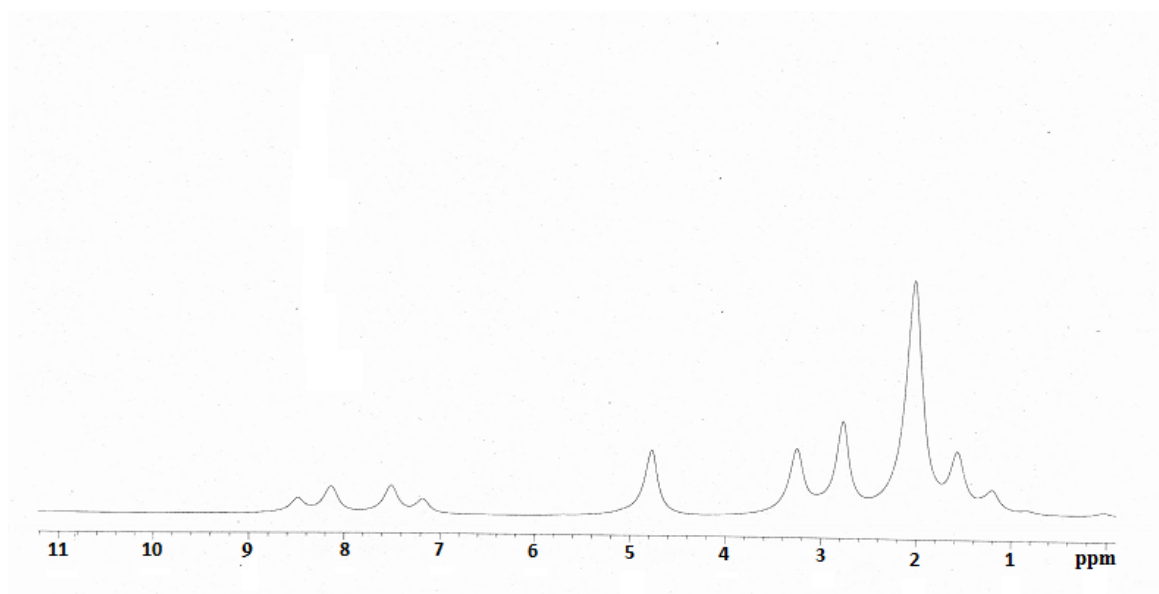


Figure S21. ^1H -NMR spectrum of complex **1** in CD_3OD .

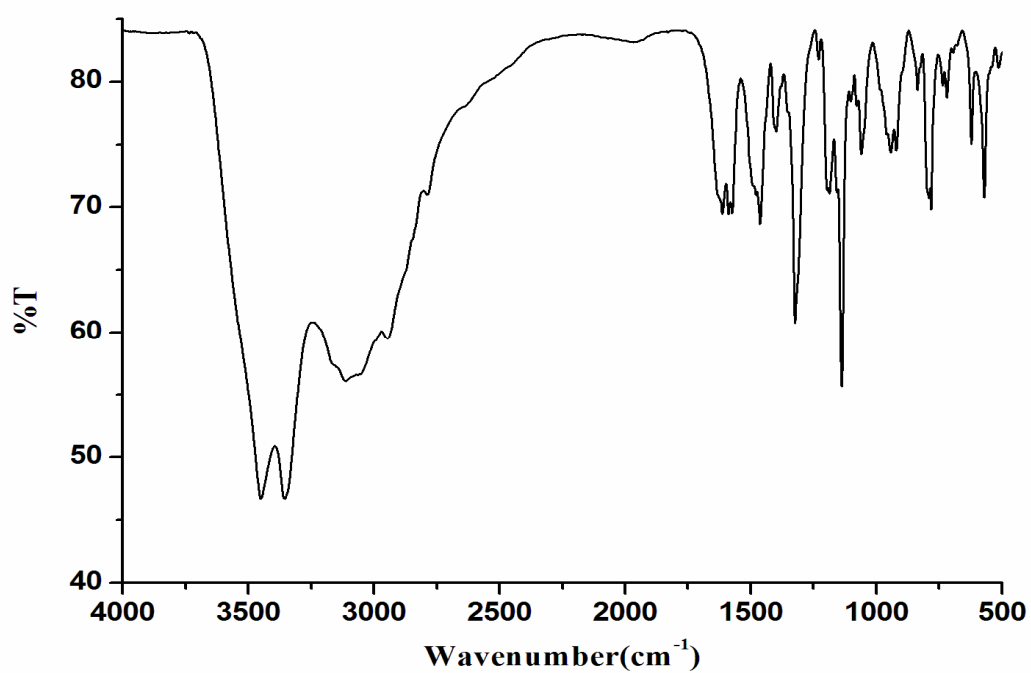


Figure S22. FT-IR spectrum of complex **2** in KBr pellet

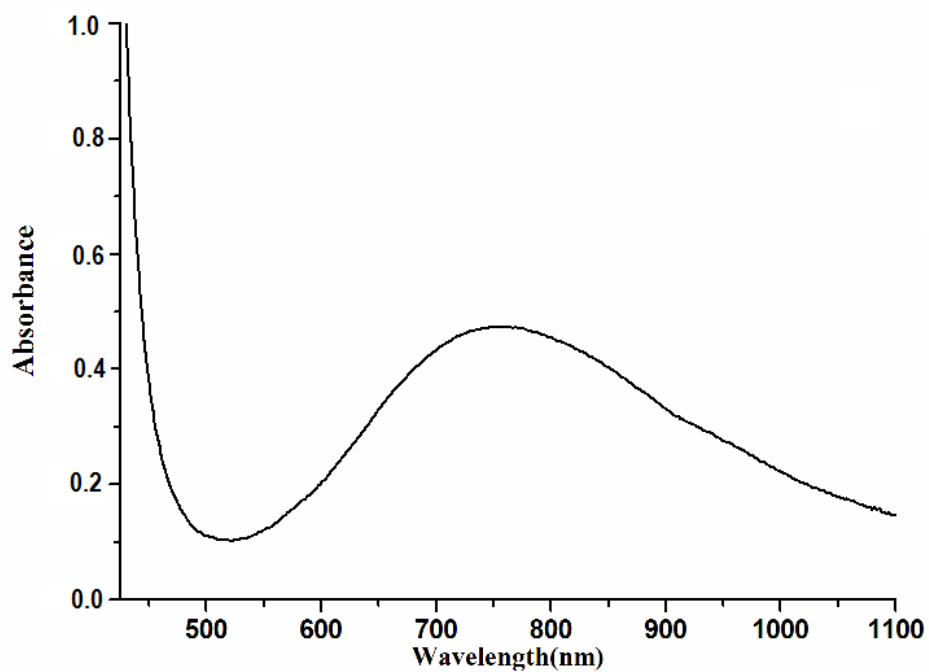


Figure S23. UV-visible spectrum of complex **2** in methanol

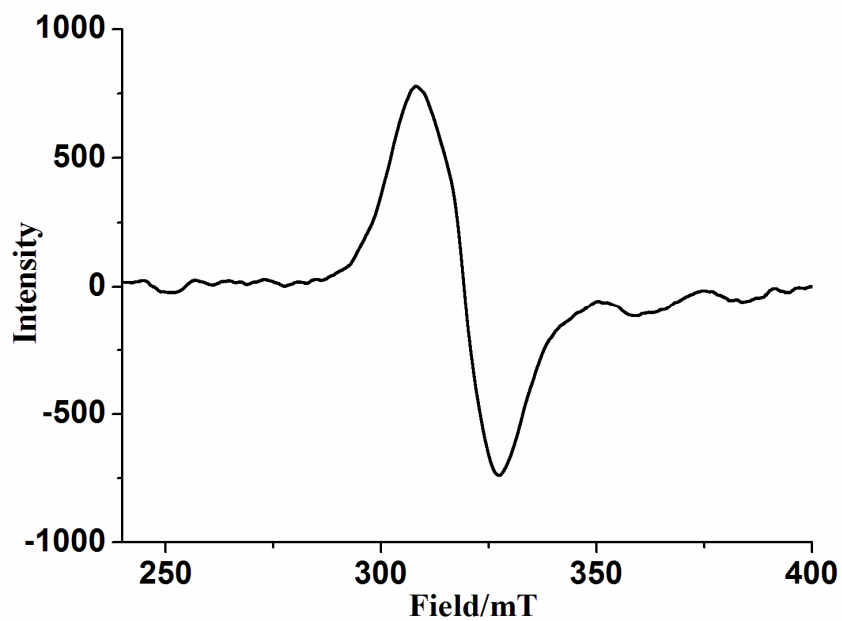


Figure S24. X-Band EPR spectrum of complex **2** in methanol at 298K

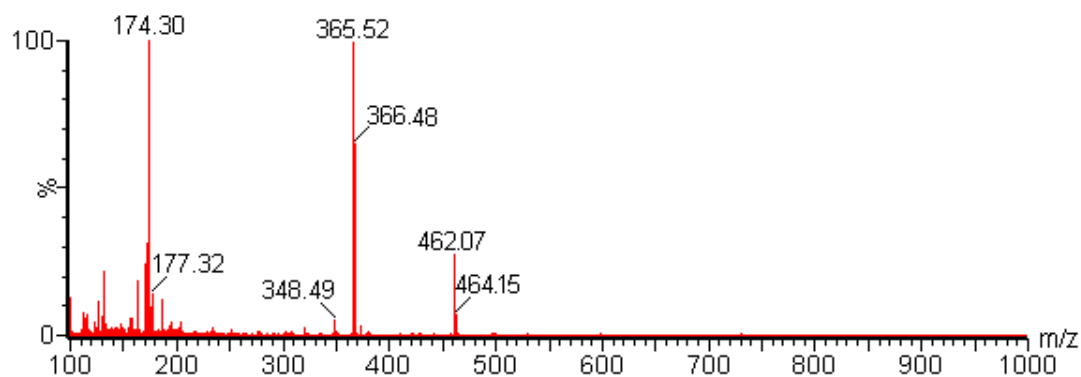


Figure S25. Mass spectrum for complex **2** in methanol

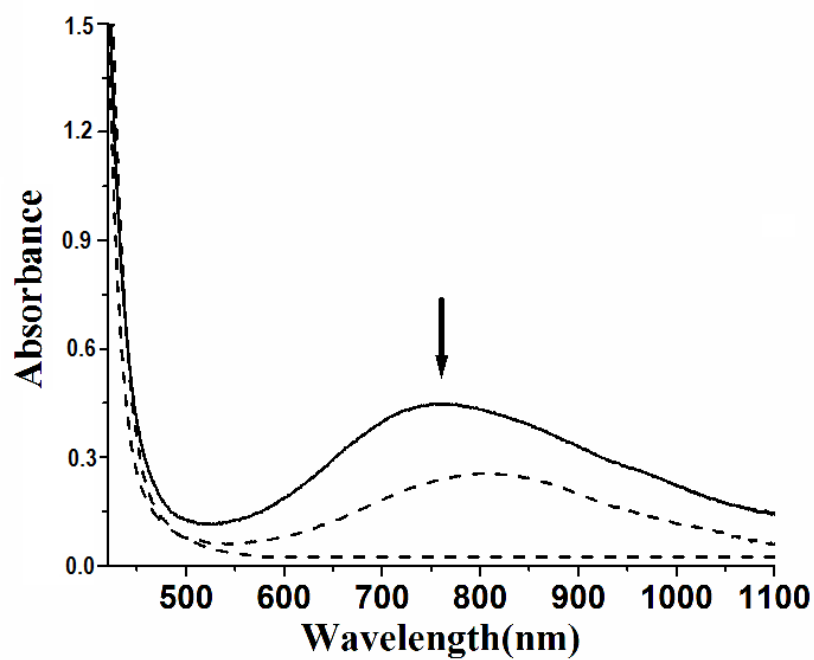


Figure S26. UV-visible spectra of complex **2** in methanol before (solid line) and after the reaction with nitric oxide (dashed line) in methanol.

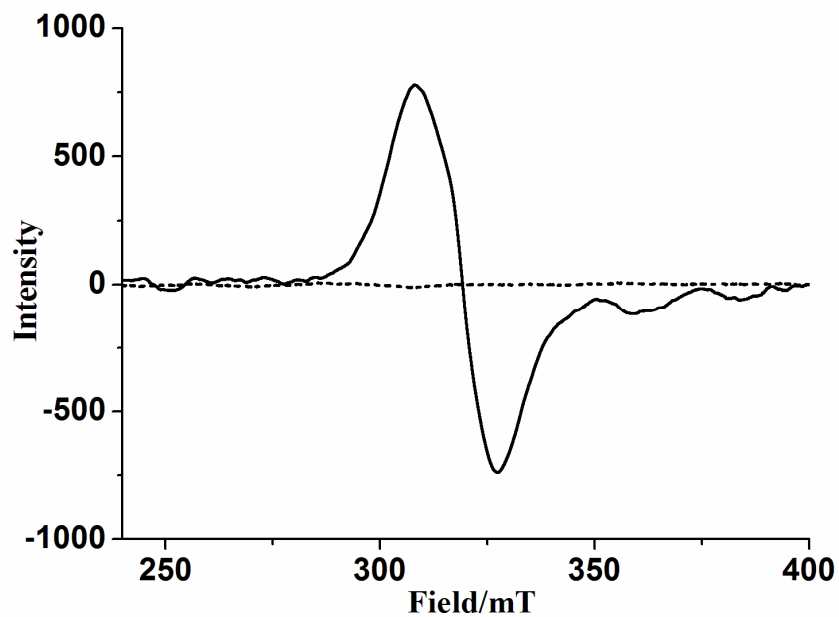


Figure S27. X-Band EPR spectra of complex **2** before (solid line) and after (dashed line) the reaction with nitric oxide in methanol at 298K.

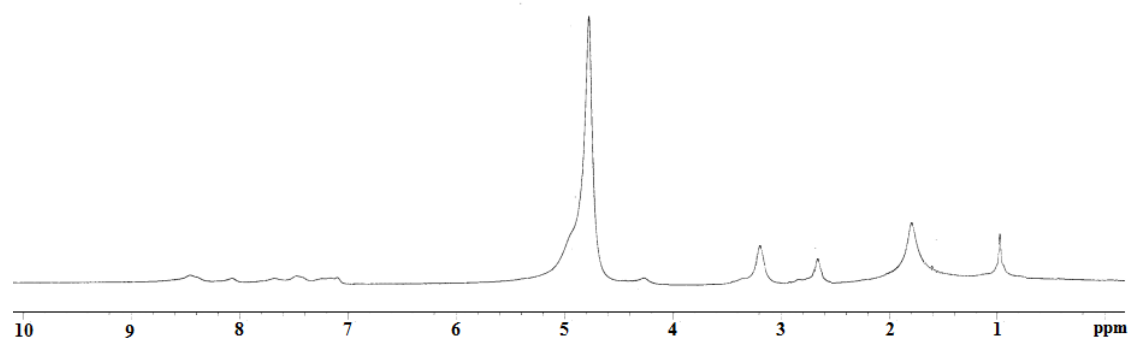


Figure S28. ¹H-NMR spectrum of complex **2** in CD₃OD.

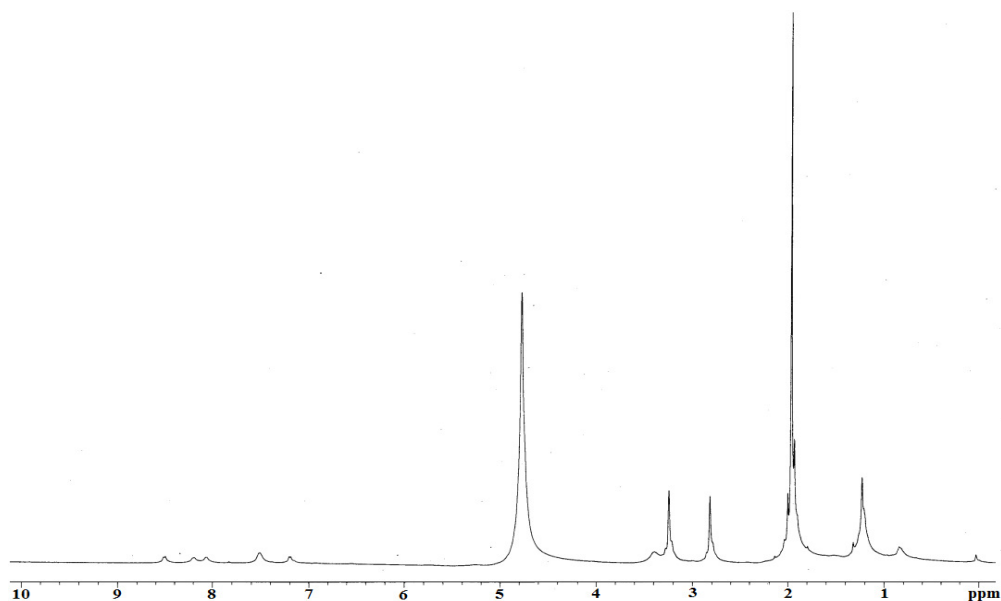


Figure S29. ^1H -NMR spectrum of complex **2** after purging nitric oxide in CD_3OD

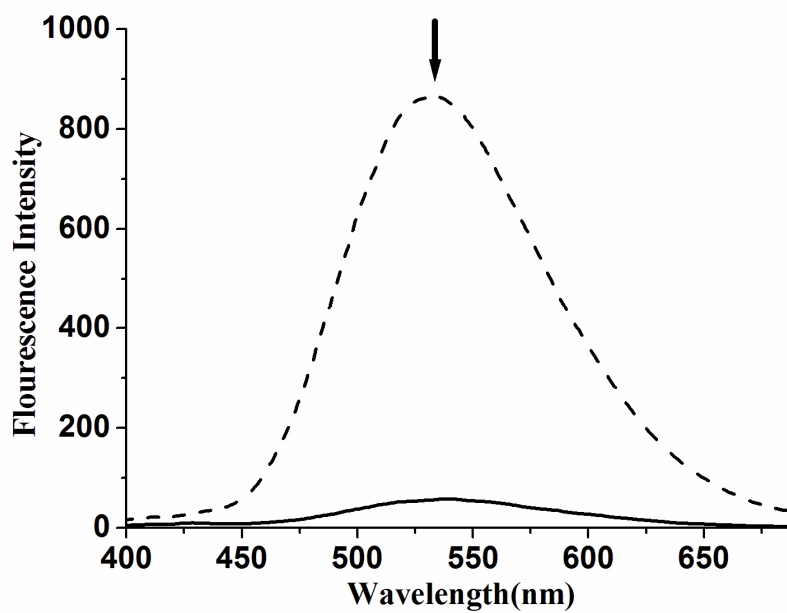


Figure S30. Fluorescence responses (λ_{ex} , 340 nm) of 20 μM solution of free ligand, **L**₂ (dashed line) and after addition of one equivalent of CuCl_2 in methanol (solid line).

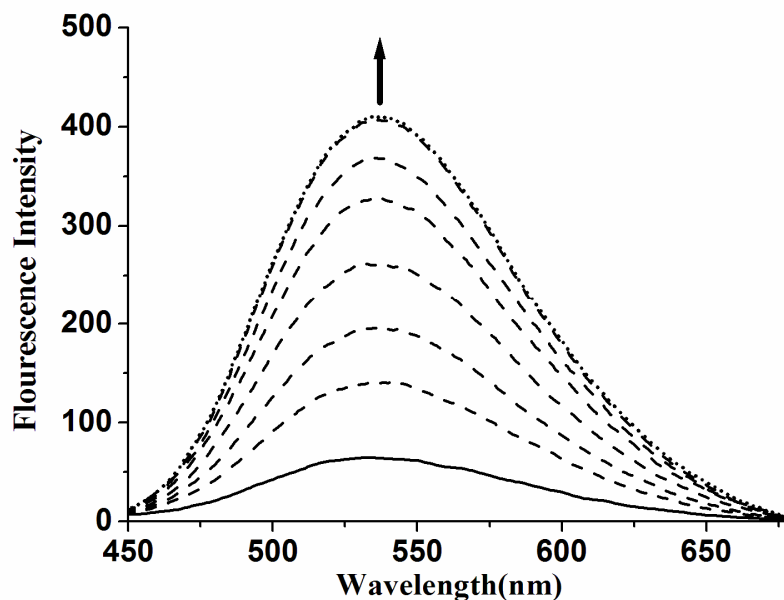


Figure S31. Fluorescence responses (λ_{ex} , 340 nm) of 20 μM deoxygenated methanol solution of complex **2** before (solid line) and after purging of 10 equivalent of nitric oxide (dotted line) at 1, 2, 3, 4, 5, 7 and 10 minutes at 298 K.

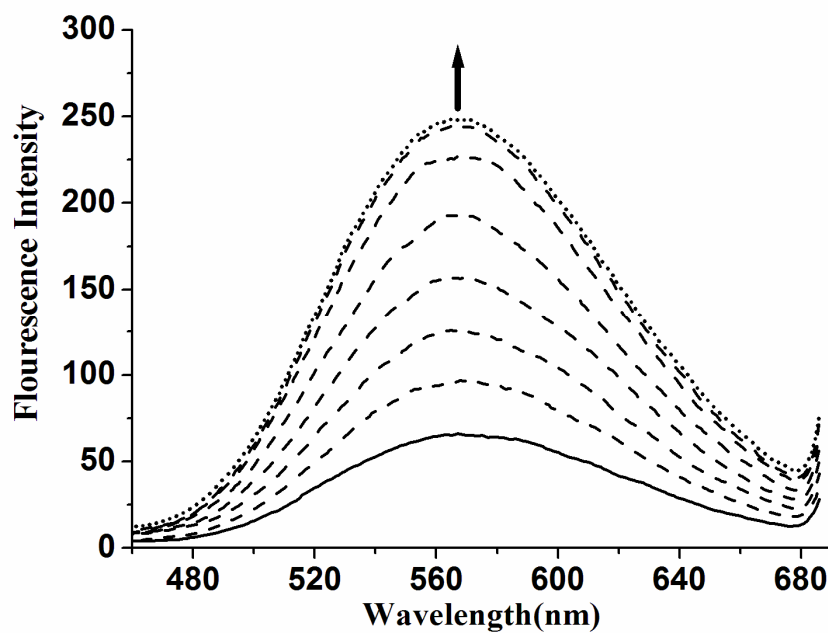


Figure S32. Fluorescence responses (λ_{ex} , 340 nm) of 20 μM of complex **2** in pH 7.2 Tris-buffer before (solid line) and after purging of 10 equivalent of nitric oxide (dotted line) at 1, 2, 3, 5, 7, 10 and 15 minutes at 298 K.

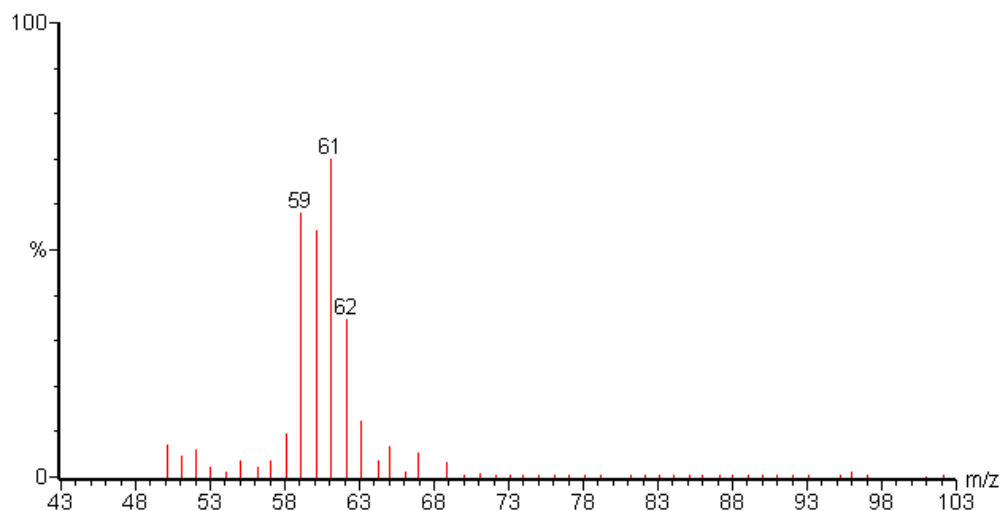


Figure S33. Gas chromatographic mass spectrum of complex **1** after the reaction with nitric oxide in methanol. The peak at m/z, 61 indicates the formation of CH_3ONO .

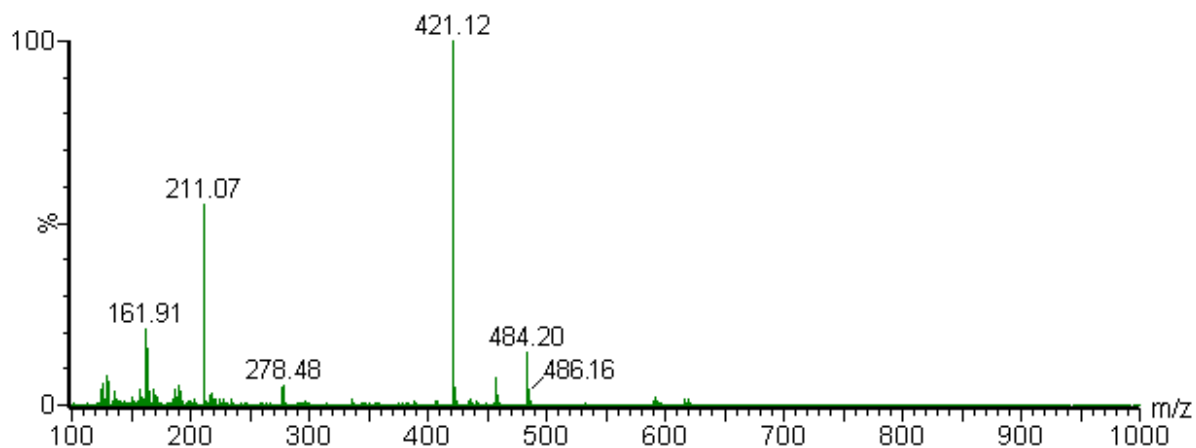


Figure S34. ESI-Mass spectrum of the reaction mixture after reaction of complex **1** with nitric oxide in methanol

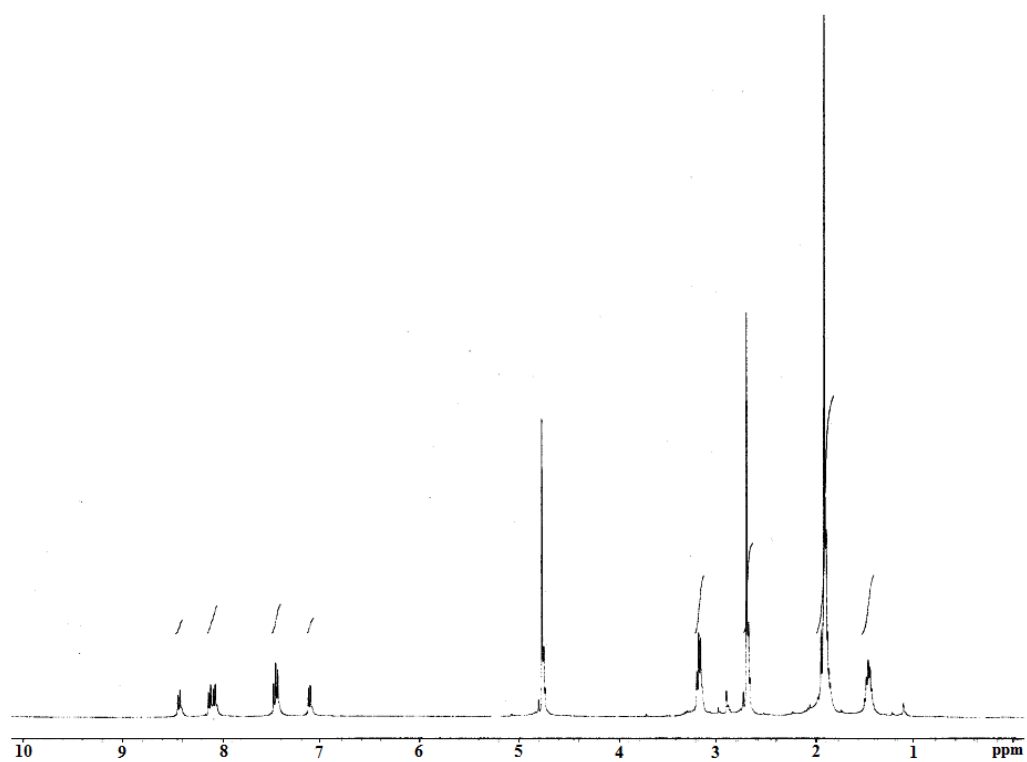


Figure S35. ¹H-NMR spectrum of **L**₁ in CD₃OD

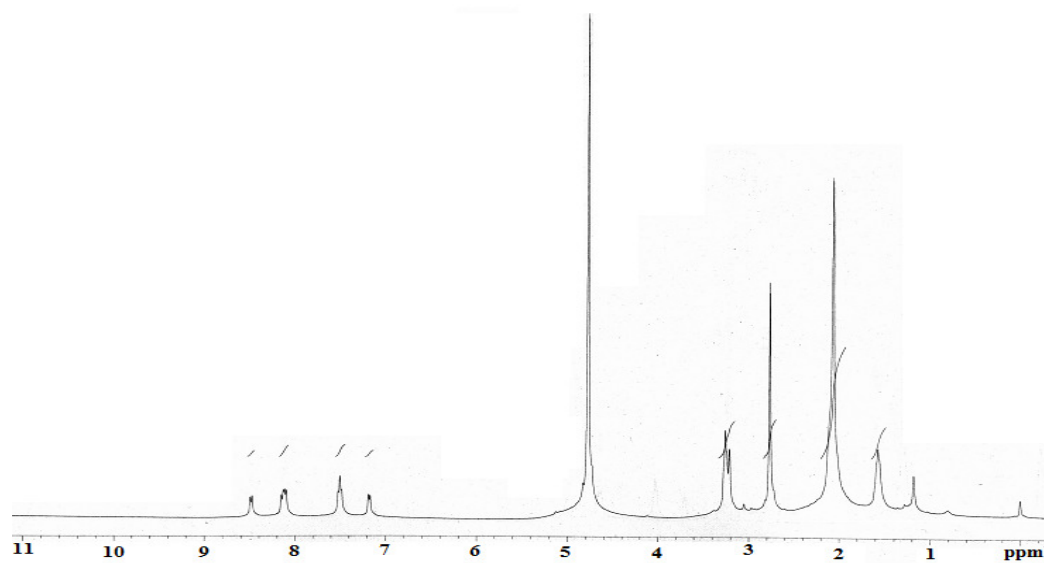


Figure S36. ¹H-NMR spectrum of complex **1** after reaction with nitric oxide in CD₃OD.

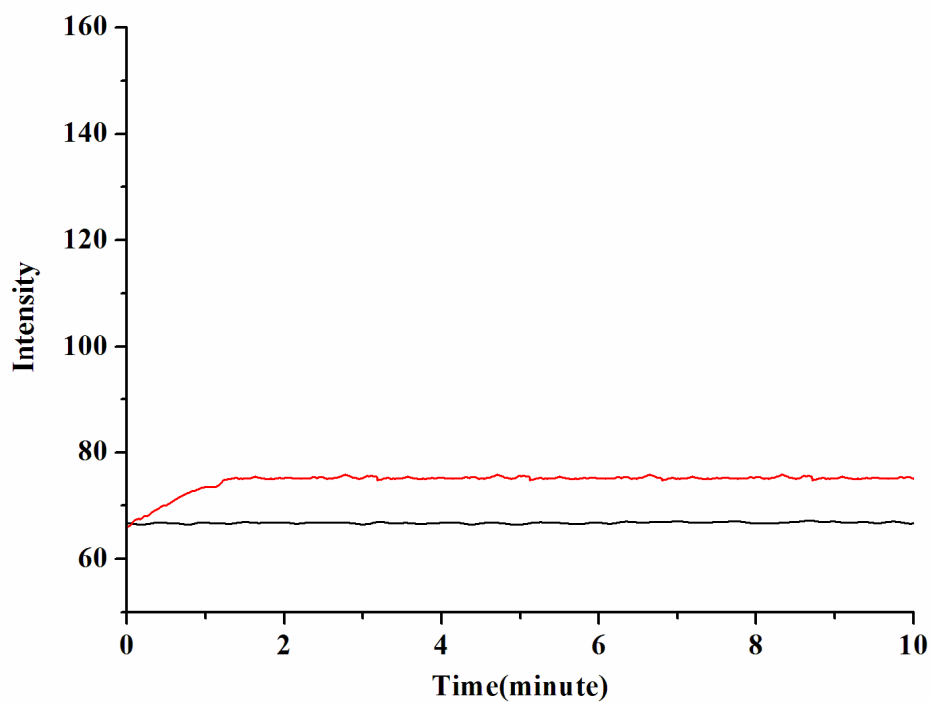


Figure S37. Time scan plot (λ_{ex} , 340 nm) of 20 μM deoxygenated methanol solution of complex **1** (black line) before and (red line) after purging of 1 μM of nitric oxide at 298K.

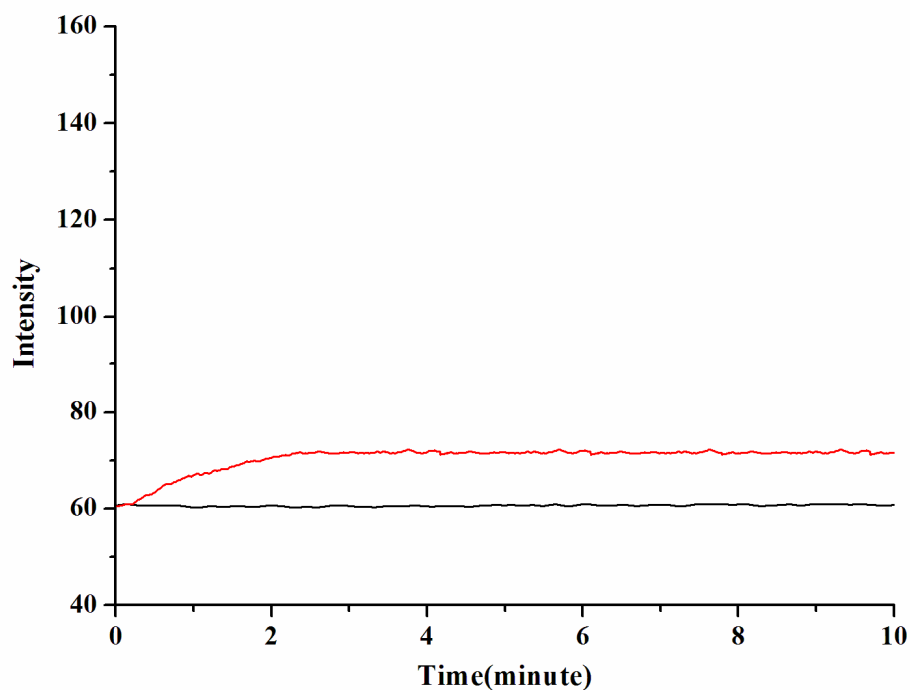


Figure S38. Time scan plot (λ_{ex} , 340 nm) of 20 μM deoxygenated methanol solution of complex **2** (black line) before and (red line) after purging of 1 μM of nitric oxide at 298K.