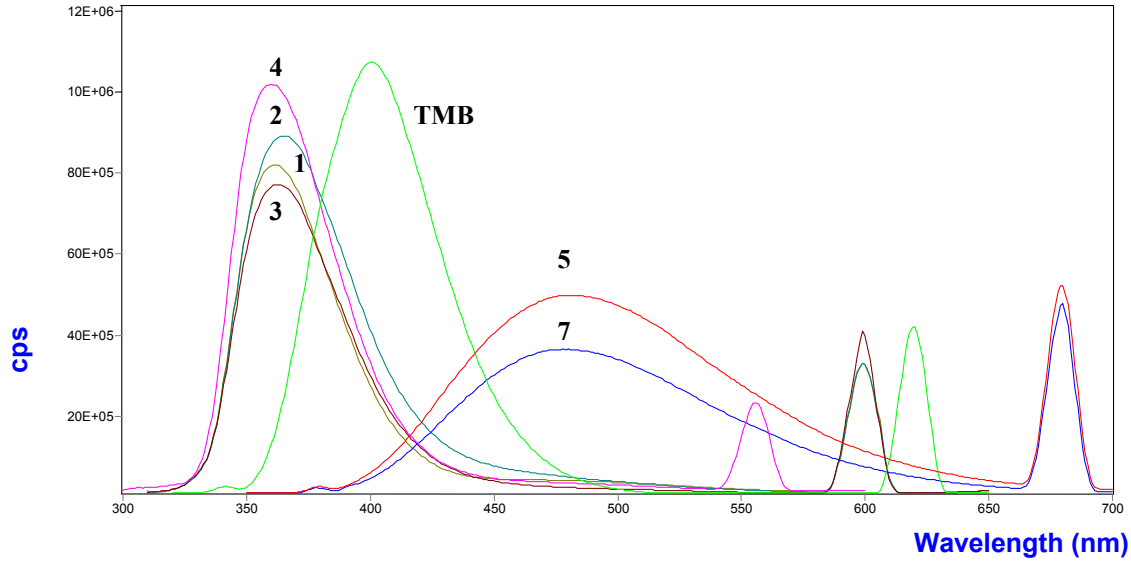
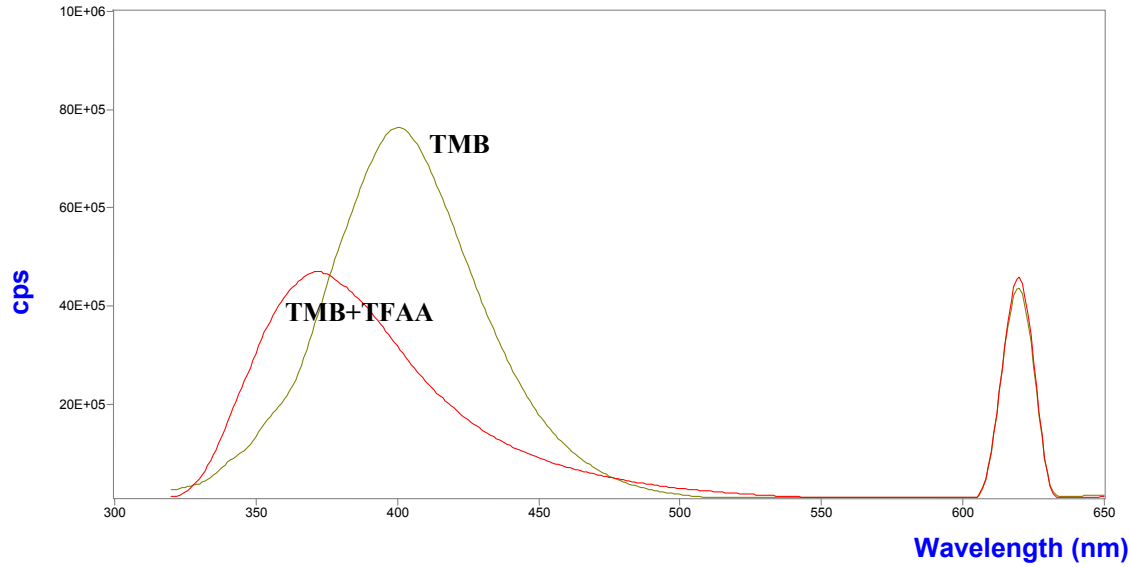
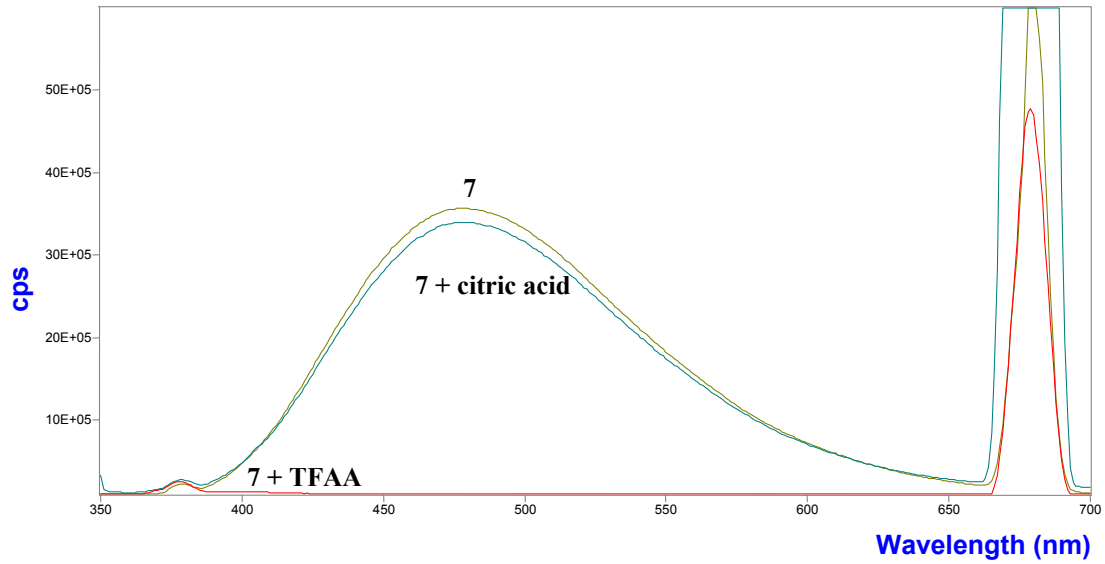


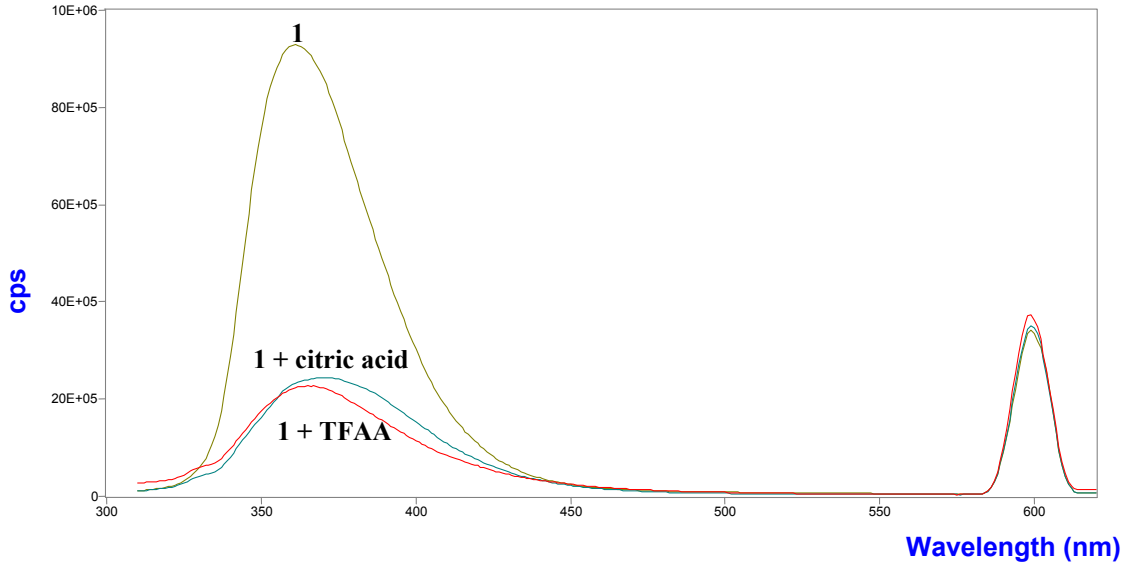
Fluorescence spectra of **1, 2, 3, 4, 5**, **7** and **TMB** in CH_3CN at 20ºC. λ_{exc}=300 nm (**1**, **2**, **3**), λ_{exc}=278 nm (**4**), λ_{exc}=340 nm (**5**, **7**), and λ_{exc}=310 nm (**TMB**).



Fluorescence spectra of **TMB** under different acid-base conditions at 20ºC, λ_{exc}=310 nm. Initial concentration of ligand was 6.51×10^{-7} M in CH_3CN. **TMB**: TMB in pure CH_3CN. **TMB + TFAA**: TMB in a large excess of trifluoroacetic acid in CH_3CN.

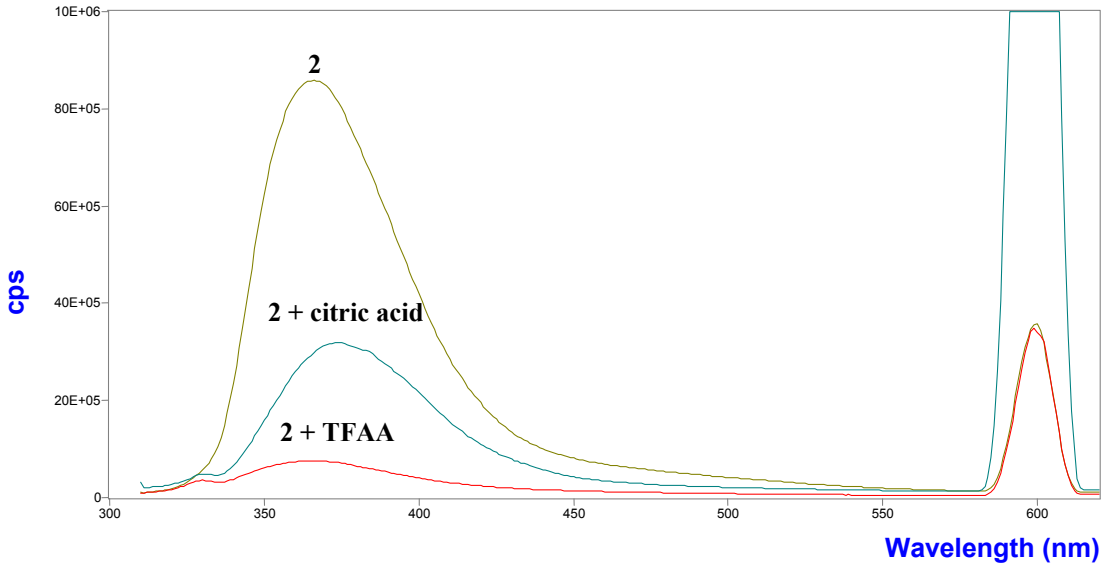


Fluorescence spectra of **7** under different acid-base conditions at 20ºC, λ_{exc}=340 nm and initial concentration of ligand of 4.42x10^{-6}M in CH_3CN. **7**: ligand in pure CH_3CN or in 1.54x10^{-4} M of Tetramethylammonium hydroxide in CH_3CN. **7 + citric acid**: ligand in 1.21x10^{-4} M of citric acid in CH_3CN. **7 + TFAA**: ligand in a large excess of trifluoroacetic acid in CH_3CN.

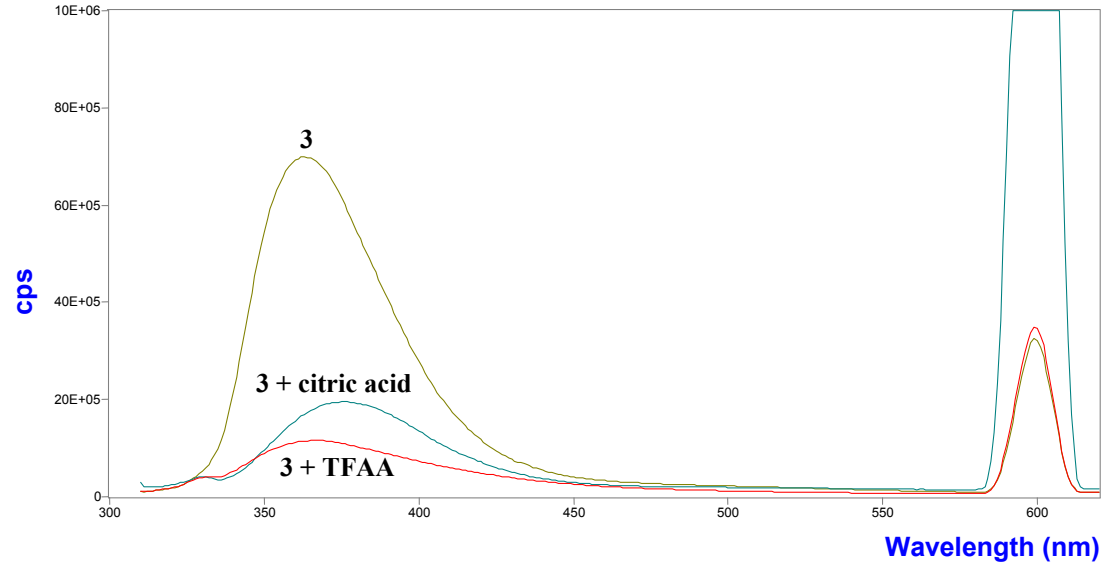


Fluorescence spectra of **1** under different acid-base conditions at 20ºC, λ_{exc}=300 nm and initial concentration of ligand of 5.88x10^{-6}M in CH_3CN. **1**: ligand in pure CH_3CN or in 1.31x10^{-4} M of Tetramethylammonium hydroxide in CH_3CN. **1 + citric acid**: ligand in

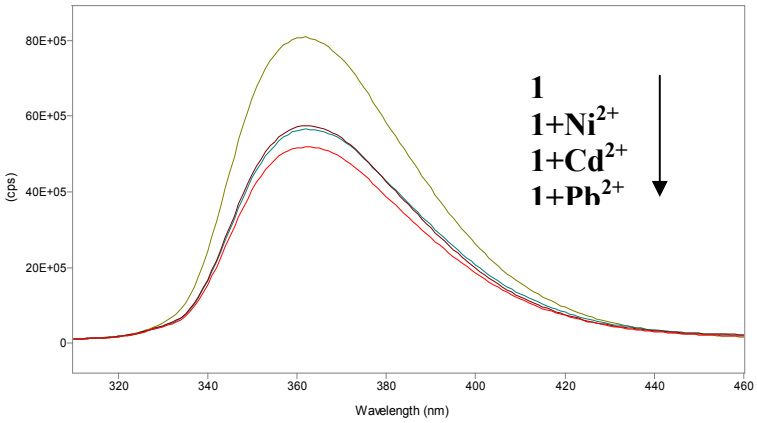
$3.27x10^{-4}$ M of citric acid in CH_3CN. **1** + **TFAA**: ligand in a large excess of trifluoroacetic acid in CH_3CN.



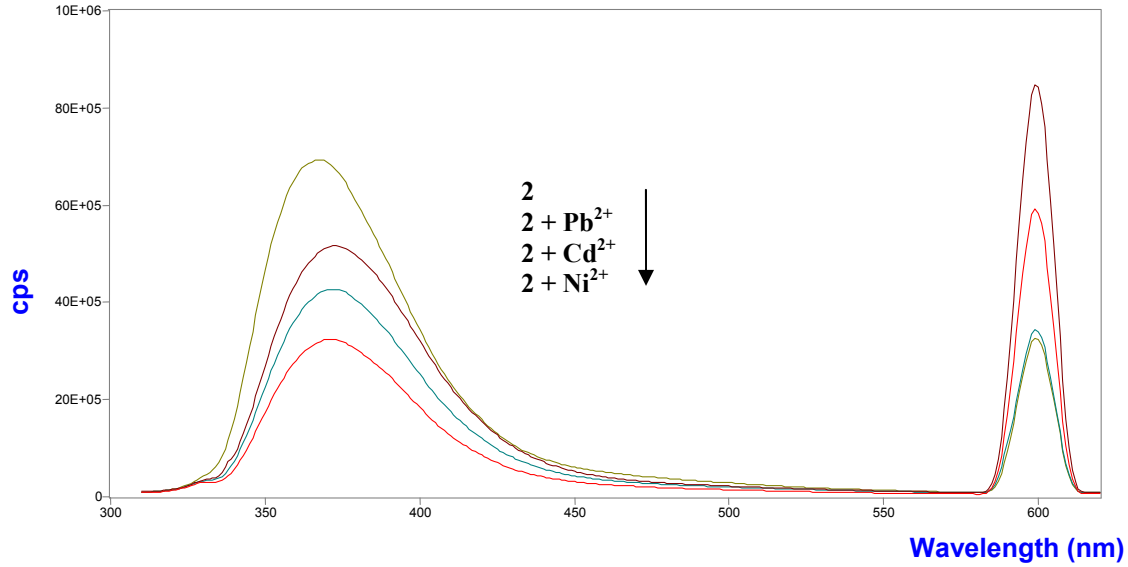
Fluorescence spectra of **2** under different acid-base conditions at 20ºC, λ_{exc}=300 nm and initial concentration of ligand of $7.34x10^{-6}$ M in CH_3CN. **2**: ligand in pure CH_3CN or in $3.85x10^{-4}$M of Tetramethylammonium hydroxide in CH_3CN. **2 + citric acid**: ligand in $1.66x10^{-4}$M of citric acid in CH_3CN. **2** + **TFAA**: ligand in a large excess of trifluoroacetic acid in CH_3CN.



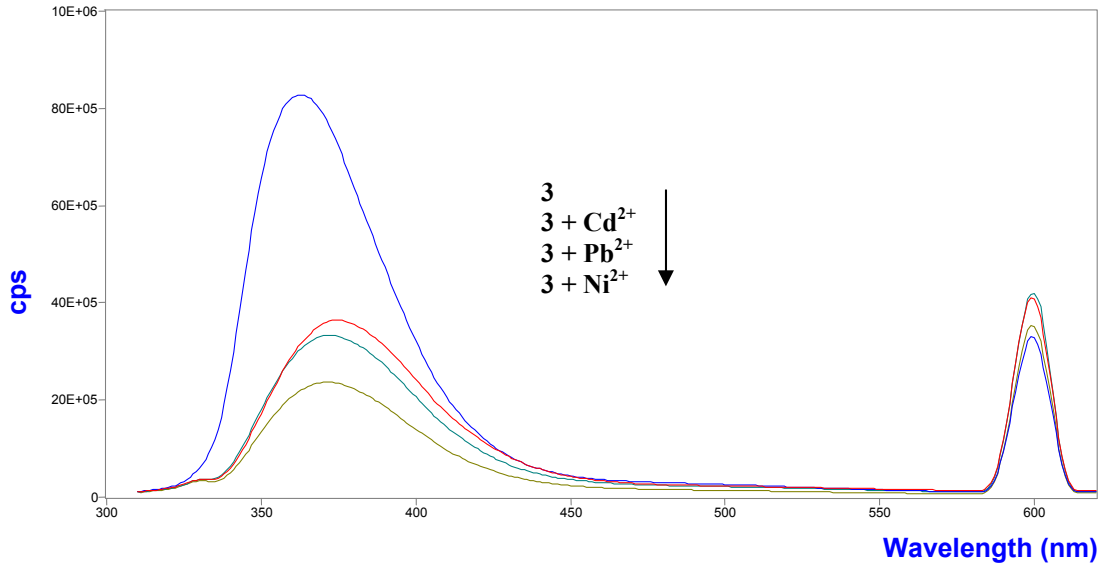
Fluorescence spectra of **3** under different acid-base conditions at 20ºC, λ_{exc}=300 nm and initial concentration of ligand of 5.13x10^{-6}M in CH_3CN. **3**: ligand in pure CH_3CN or in 5.49x10^{-4}M of Tetramethylammonium hydroxide in CH_3CN. **3 + citric acid**: ligand in 1.87x10^{-4} M of citric acid in CH_3CN. **3 + TFAA**: ligand in a large excess of trifluoroacetic acid in CH_3CN.



Fluorescence spectra of **1** after addition of *ca.* 4.5 equivalents of Ni^{2+}, Cd^{2+} and Pb^{2+} at 20ºC, λ_{exc}=300 nm. Initial concentration of ligand was *ca.* 5.6x10^{-6}M in CH_3CN.



Fluorescence spectra of **2** after addition of *ca.* 4.5equivalents of Ni^{2+}, Cd^{2+} and Pb^{2+} at 20ºC, λ_{exc}=300 nm. Initial concentration of ligand was *ca.*6.1x10^{-6}M in CH_3CN.



Fluorescence spectra of **3** after addition of *ca.* 5.5 equivalents of Ni^{2+}, Cd^{2+} and Pb^{2+} at 20ºC, λ_{exc}=300 nm. Initial concentration of ligand was *ca.* $5.8x10^{-6}$M in CH_3CN.

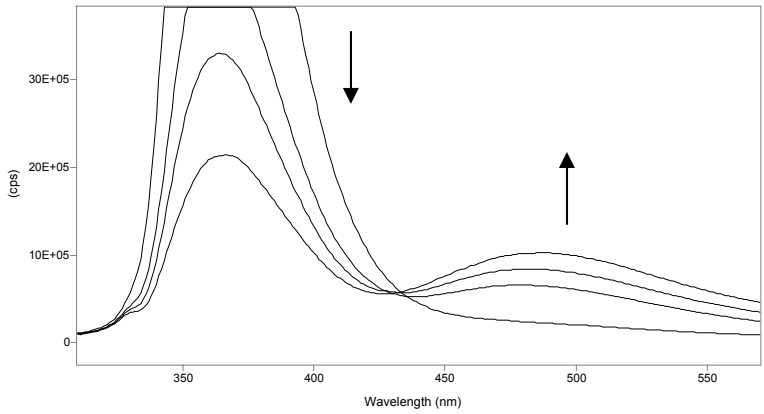
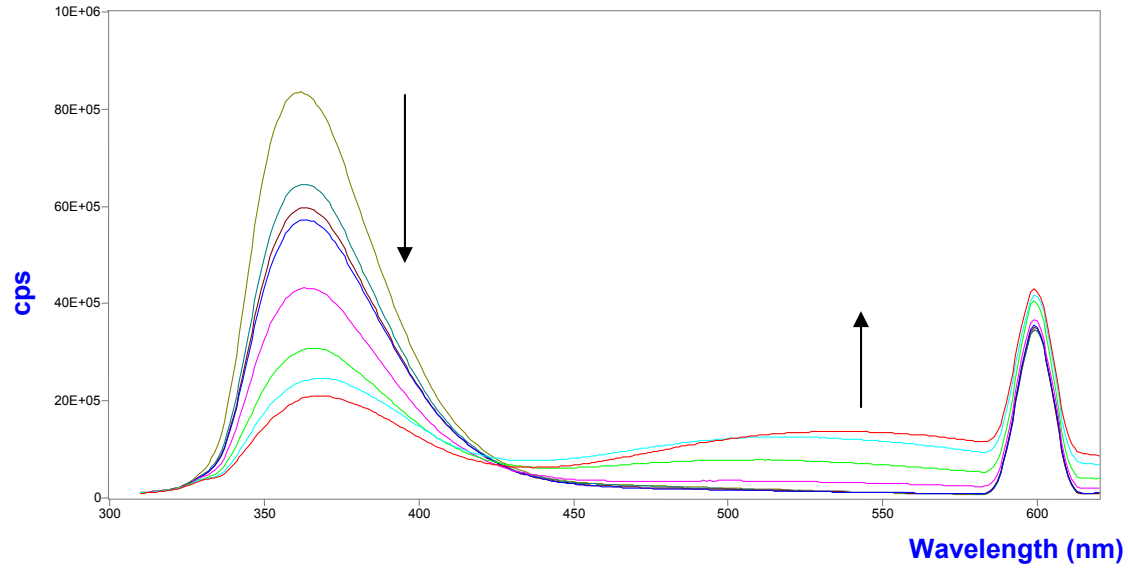
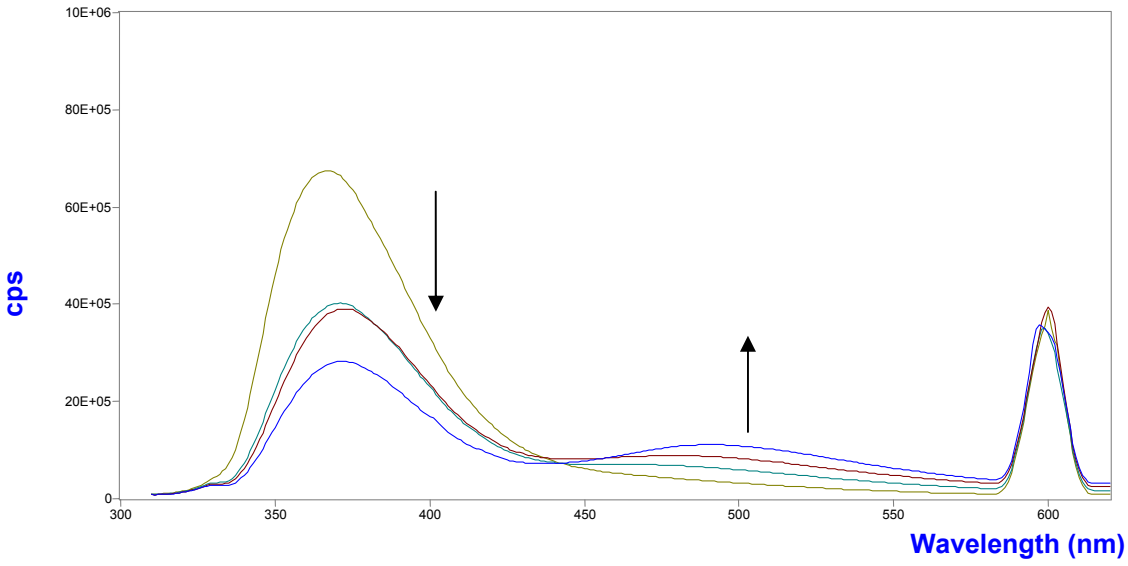


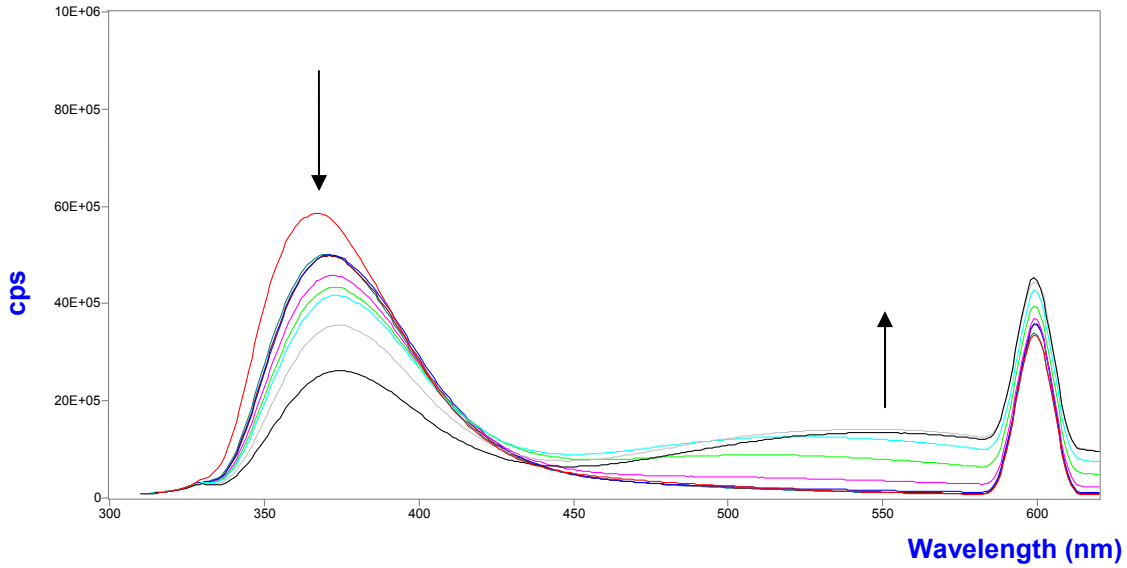
Fig.4 Fluorescence spectra of **1** after addition of Cu^2 at 20ºC, λ_{exc}=300 nm. Initial concentration of ligand was $5.71x10^{-6}$M in CH_3CN. Spectra correspond to additions of 0, 0.70, 1.40 and 2.10 eq. of Cu^{2+} respectively.



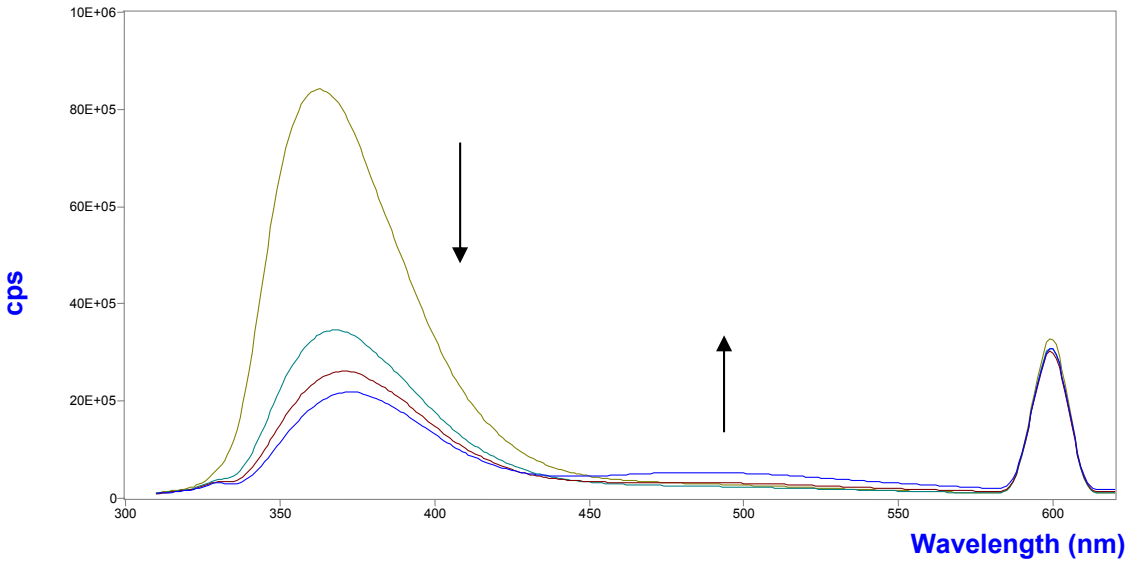
Fluorescence spectra of **1** after addition of Zn^{2+} at 20ºC, λ_{exc}=300 nm. Initial concentration of ligand was 5.65x10^{-6}M in CH_3CN. Spectra correspond to additions of 0, 0.71, 1.42, 2.12, 5.66, 9.20, 12.74, 16.27 and 23.22 eq. of Zn^{2+} respectively.



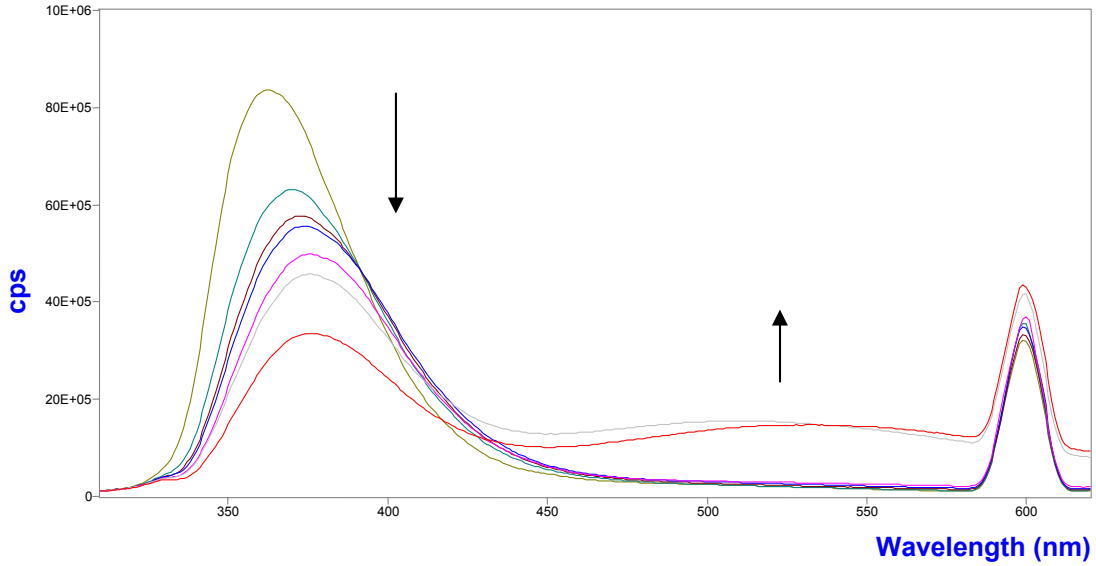
Fluorescence spectra of **2** after addition of Cu^{2+} at 20ºC, λ_{exc}=300 nm. Initial concentration of ligand was 5.46x10^{-6}M in CH_3CN. Spectra correspond to additions of 0, 0.73, 1.46 and 2.93 eq. of Cu^{2+} respectively.



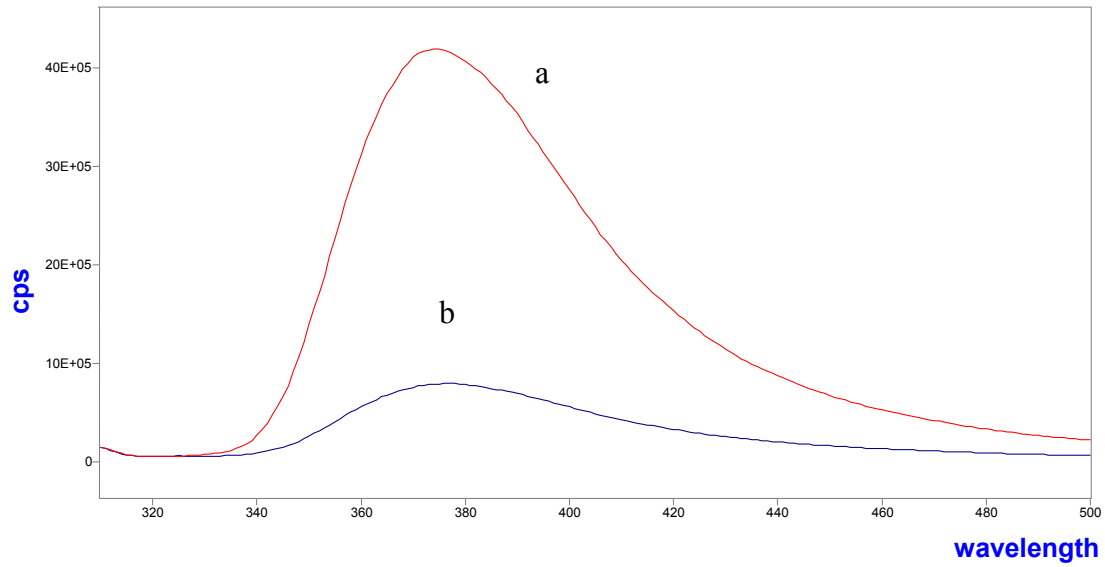
Fluorescence spectra of **2** after addition of Zn^{2+} at 20ºC, λ_{exc}=300 nm. Initial concentration of ligand was 5.25×10^{-6}M in CH_3CN. Spectra correspond to additions of 0, 0.76, 1.52, 3.04, 6.85, 10.65, 14.45, 18.25 and 22.05 eq. of Zn^{2+} respectively.



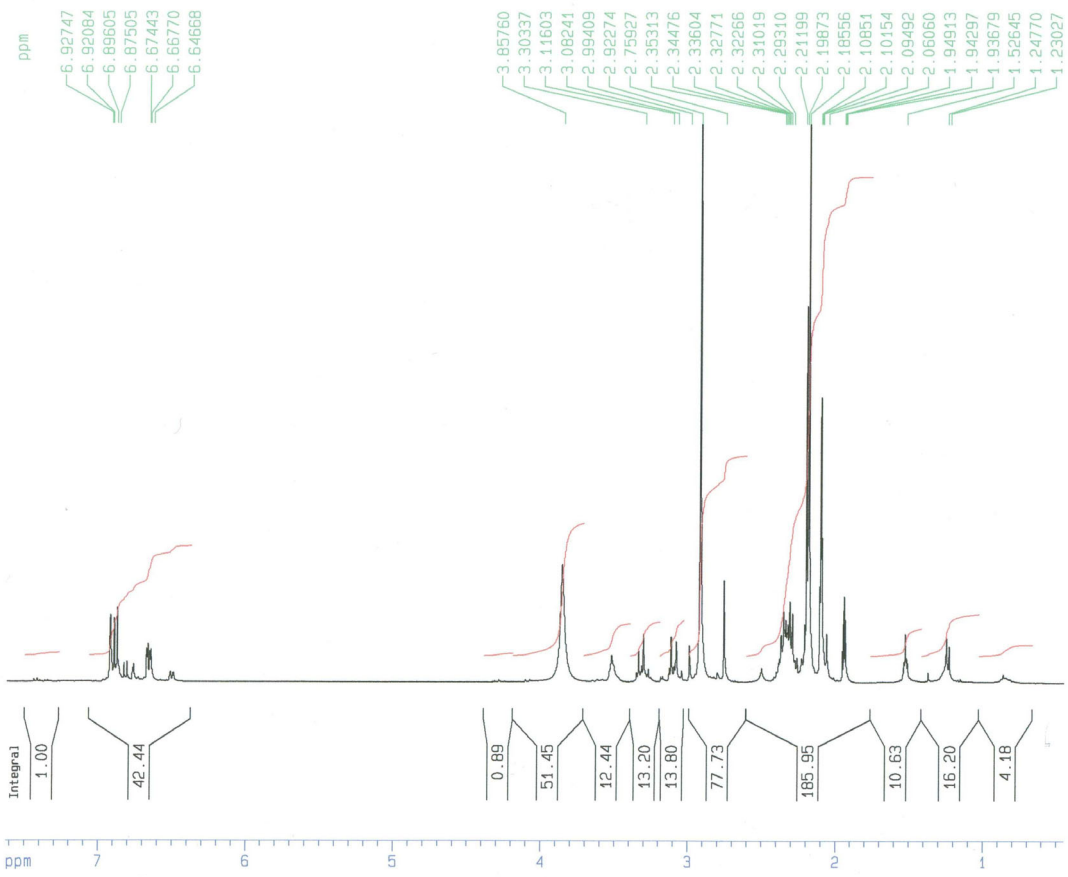
Fluorescence spectra of **3** after addition of Cu^{2+} at 20ºC, λ_{exc}=300 nm. Initial concentration of ligand was 5.74×10^{-6}M in CH_3CN. Spectra correspond to additions of 0, 0.70, 1.39 and 2.09 eq. of Cu^{2+} respectively.



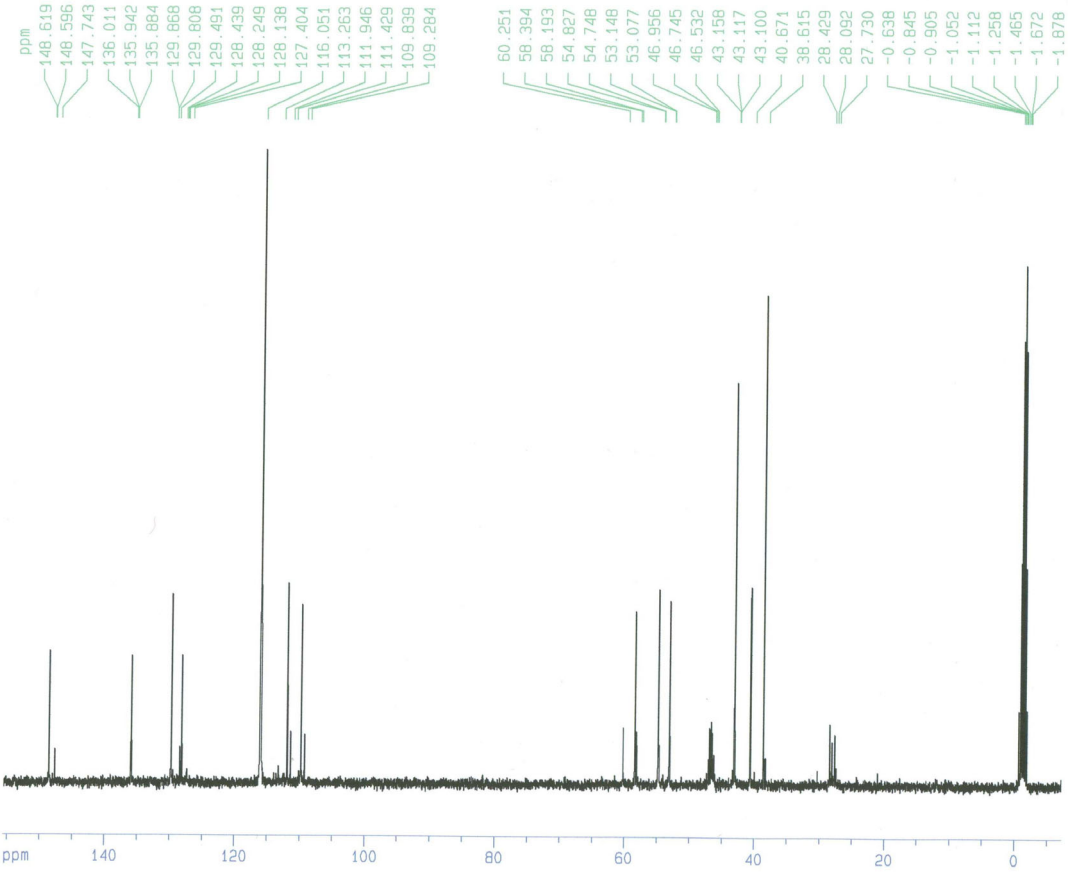
Fluorescence spectra of **3** after addition of Zn^{2+} at 20ºC, λ_{exc}=300 nm. Initial concentration of ligand was $5.52x10^{-6}$M in CH_3CN. Spectra correspond to additions of 0, 0.68, 1.37, 2.05, 5.47, 15.72 and 22.55 eq. of Zn^{2+} respectively.



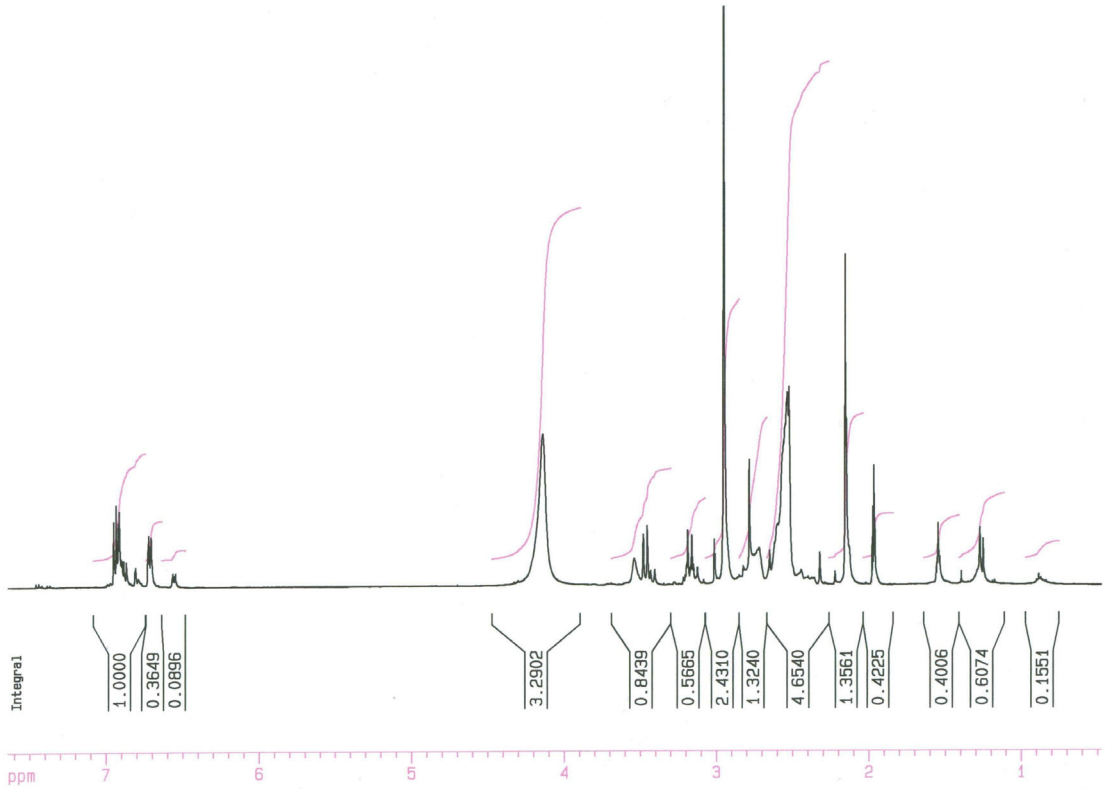
Fluorescence spectra of **1** at different pH at 20ºC, λ_{exc}=278 nm. Concentration of ligand was ca. 1 x 10^{-5} M in water. **a)** pH = 9.45. **b)** pH = 7.66.



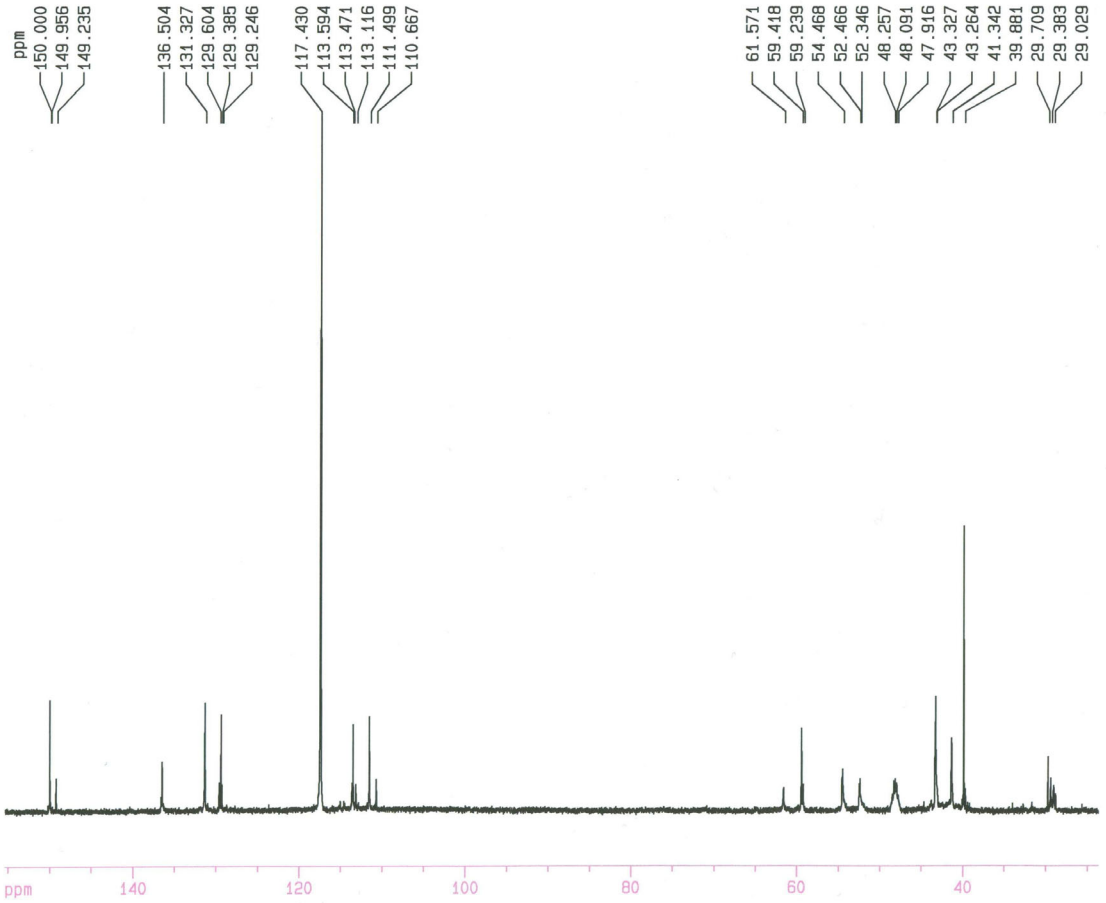
^{1}H NMR of ligand **1**, in CD_3CN, after addition of excess K_2CO_3.



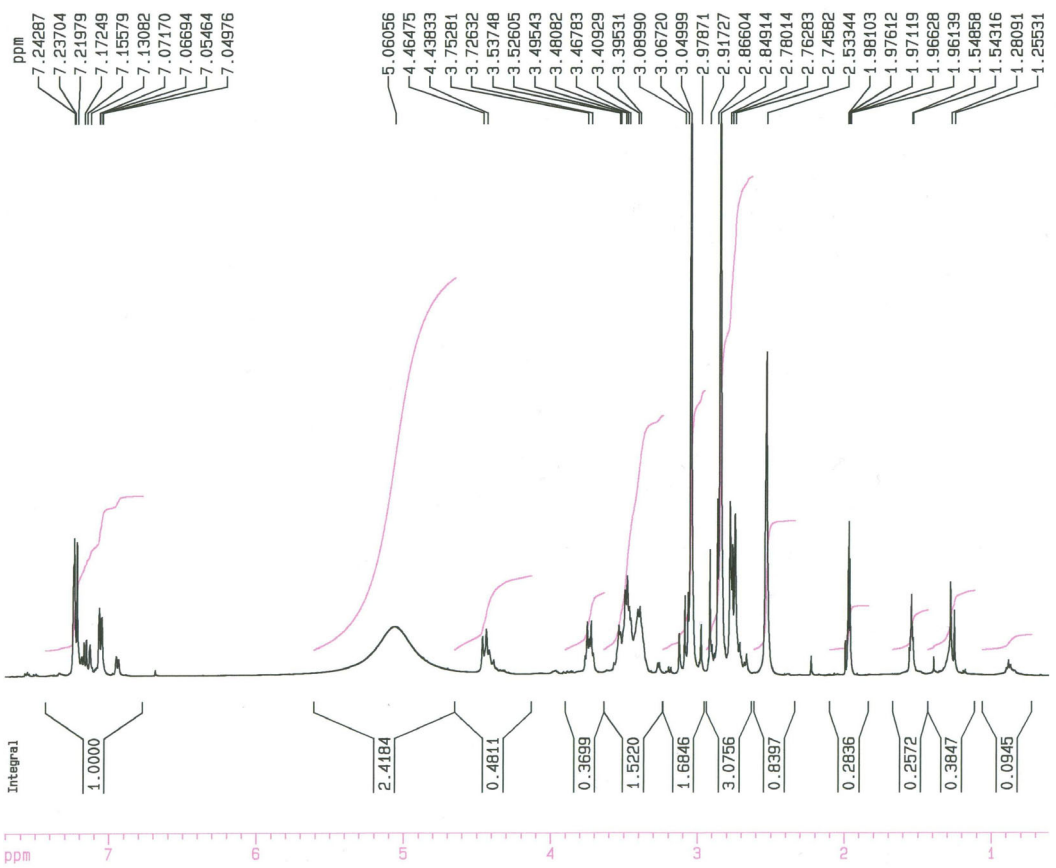
^{13}C NMR of ligand **1**, in CD_3CN, after addition of excess K_2CO_3.



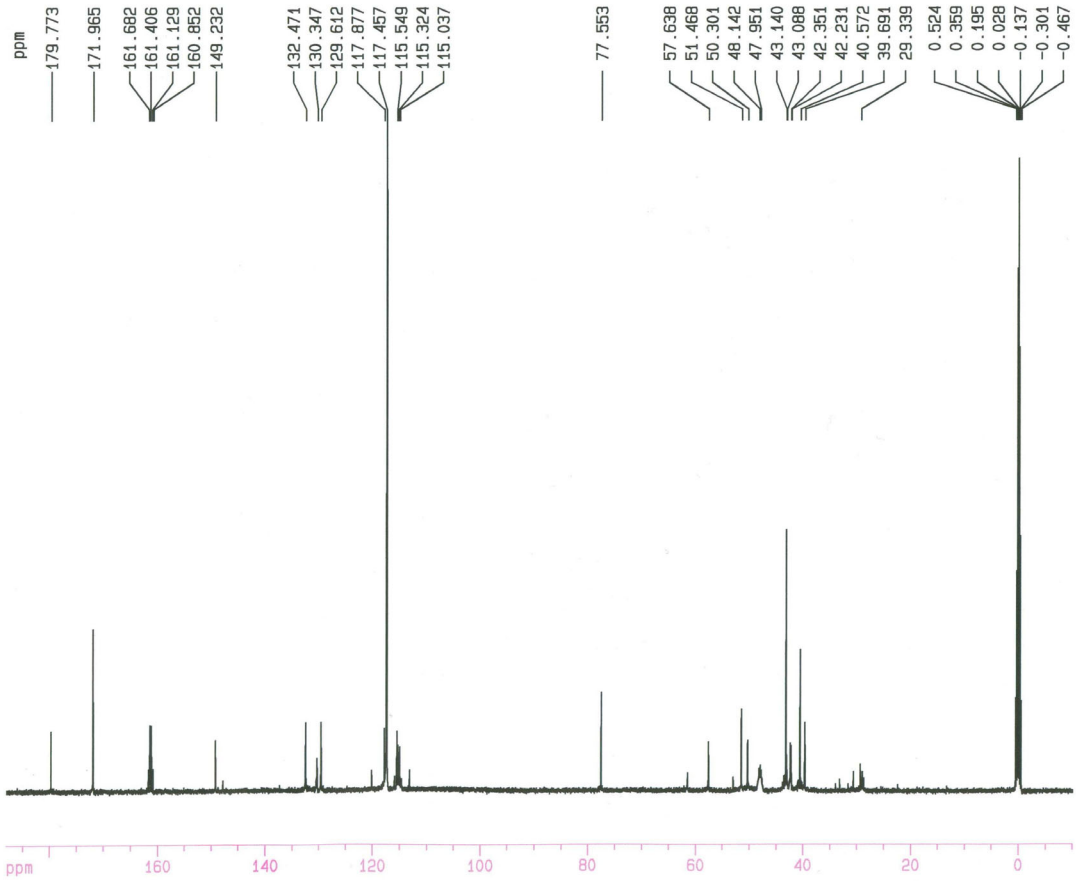
^{1}H NMR of ligand **1**, in CD_3CN, after addition of excess citric acid.



^{13}C NMR of ligand **1**, in CD_3CN, after addition of excess citric acid.



^{1}H NMR of ligand **1**, in CD_3CN, after addition of excess TFAA.



^{13}C NMR of ligand **1**, in CD_3CN, after addition of excess TFAA.