

Silver (I) coordination chemistry: From 1-D chains to molecular rectangles

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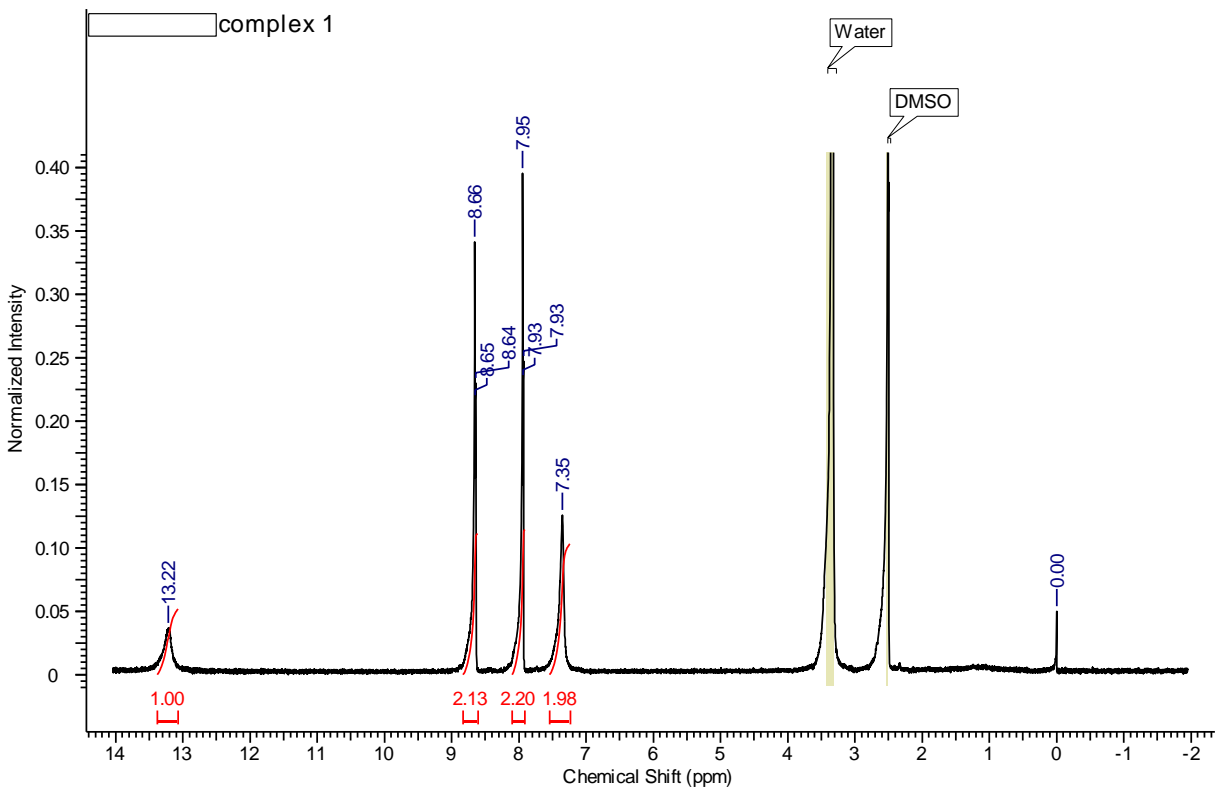
General experimental details

^1H NMR spectra were recorded on a Varian Unity plus 400 MHz spectrometer in DMSO- d_6 . Data is expressed in parts per million (ppm) downfield shift from tetramethylsilane or residual protiosolvent as internal reference and are reported as position (in ppm), multiplicity (s = singlet, d = doublet, t = triplet, m = multiplet), coupling constant (J in Hz) and integration (number of protons). Melting points were recorded on a Fisher-Johns melting point apparatus and are uncorrected. Infrared spectroscopy (IR) was done on a Nicolet 380 FT-IR. All the chemicals were purchased from Aldrich and used without further purification, unless otherwise noted.

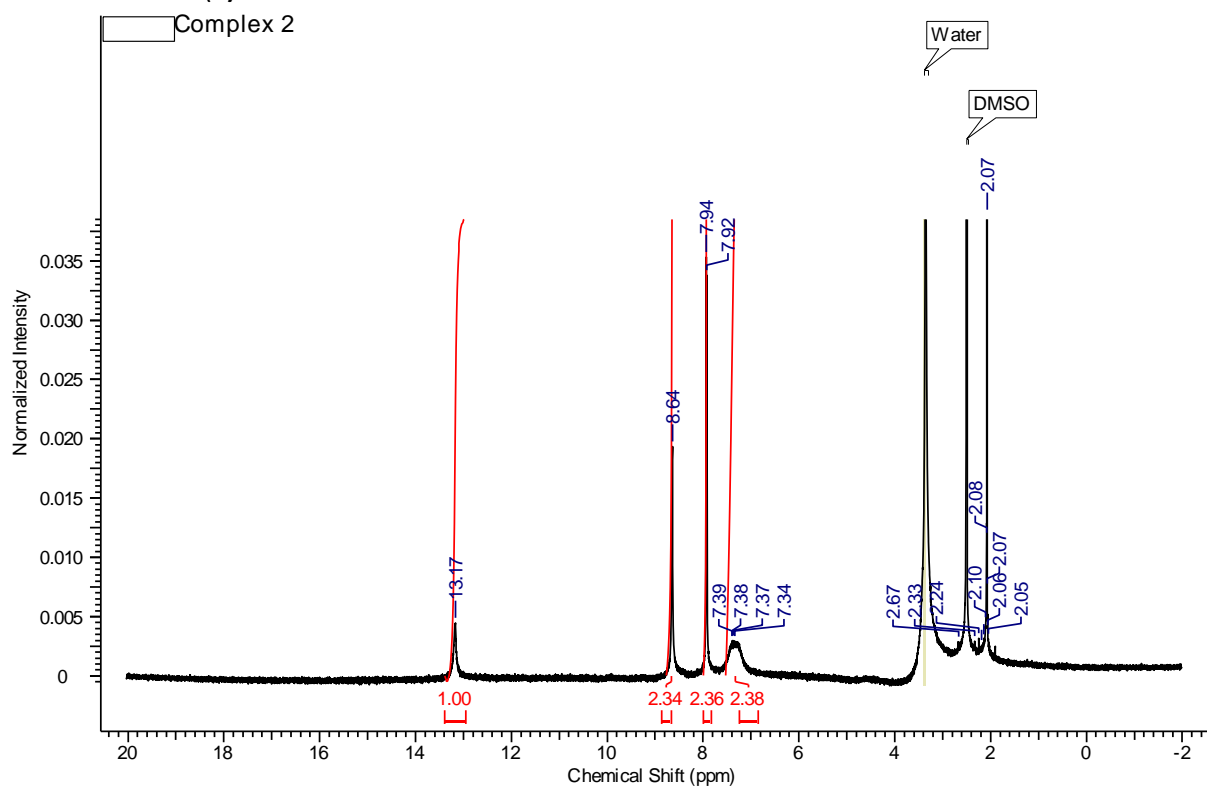
Synthesis of 2-(4-pyridyl)imidazole 4-PyIm

5.2 grams of 4-cyanopyrimidine (50 mmol) was added to 20 mL of methanol, 1.2 mL of 25% NaOCH_3 was added to the mixture and stirred for 8 hours at room temperature. 5.2 mL (1 equivalent) of aminoacetal was added followed by adding 5.5 mL of acetic acid dropwise. The mixture was refluxed for 30 minutes, cooled to room temperature, 30 mL of methanol and 25 mL of 6N HCl was added and refluxed for 3 hours. The solution was evaporated to dryness using rotavap at 50°C . A freshly prepared solution of 27.05 g of K_2CO_3 and 27.5 g of H_2O were added to bring pH to 10. The precipitate was filtered and recrystallized in 40 mL of boiling water, 5.6 grams of the 4PyIm was obtained (yield 77%). M.P ($208-210^\circ\text{C}$)

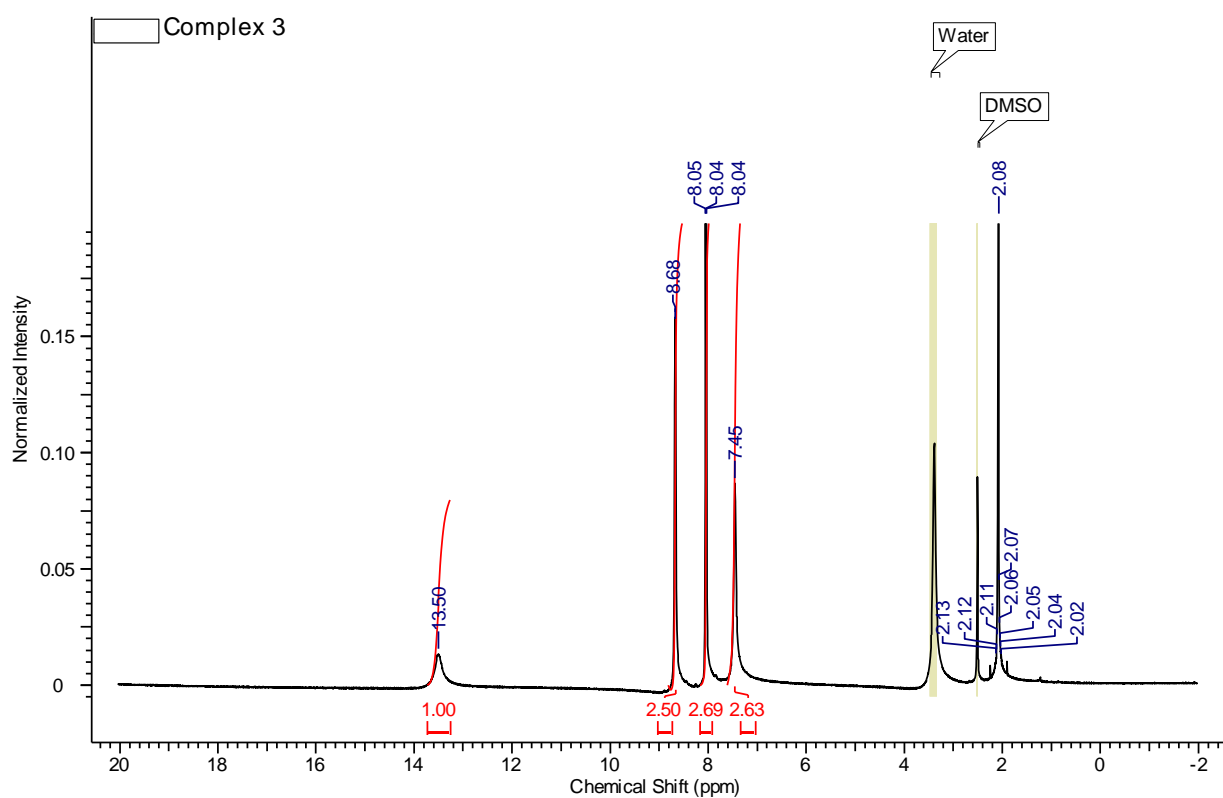
Proton NMR for (1)



Proton NMR for (2)



Proton NMR of (3)



Proton NMR for 4-PyIm

