

Supplementary Information (ESI) for Dalton Transactions, 2009/12/10

Supporting Information

For

Colorimetric Sensing of Cu(II): Cu(II) Induced Deprotonation of an Amide Responsible for Color Changes

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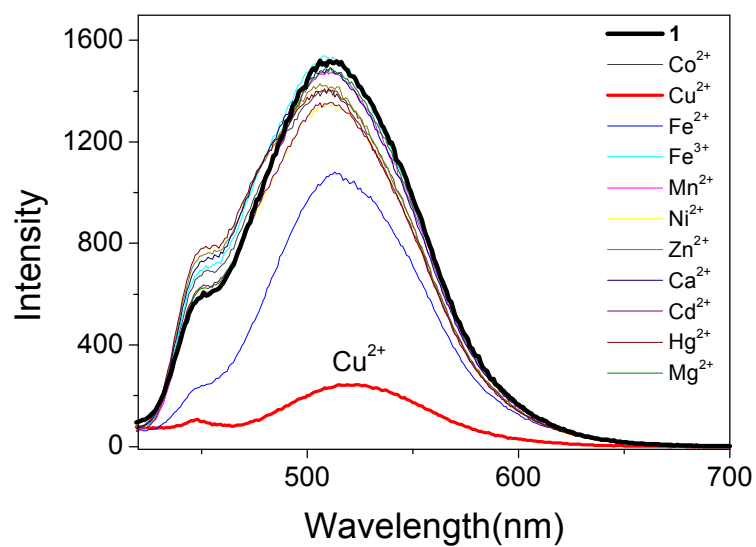


Figure S1. Fluorescence spectra of **1** (100 μM) in a methanol-H₂O solution (v/v = 4/1, 20 mM Hepes buffer, pH 7.0) in the presence of different metal ions (100 μM).

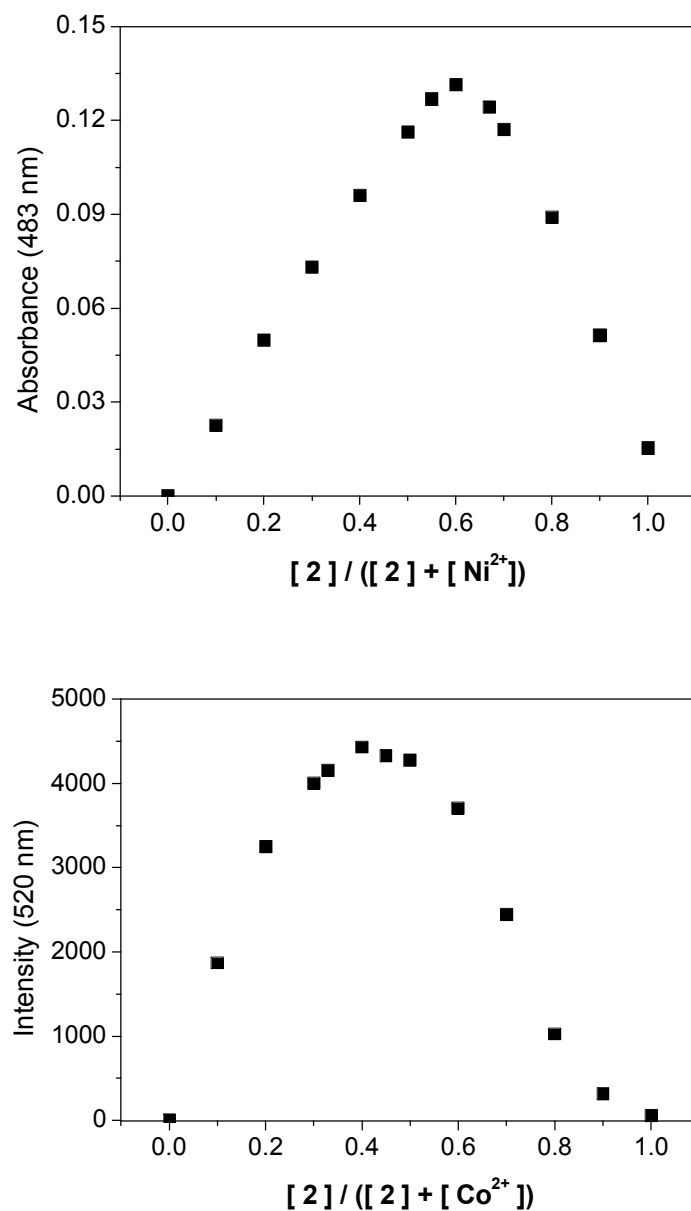


Figure S2. Job's plot of **2**-Ni²⁺ (top) and **2**-Co²⁺ (bottom) complexes, where the absorbance at 483 nm (**2**-Ni²⁺) or the fluorescence at 520 nm (**2**-Co²⁺) was plotted against the mole fraction of Ni²⁺ or Co²⁺ at a constant total concentration of 1.0×10^{-4} M in a methanol-H₂O solution (v/v = 4/1, 20 mM Hepes buffer, pH 7.0).

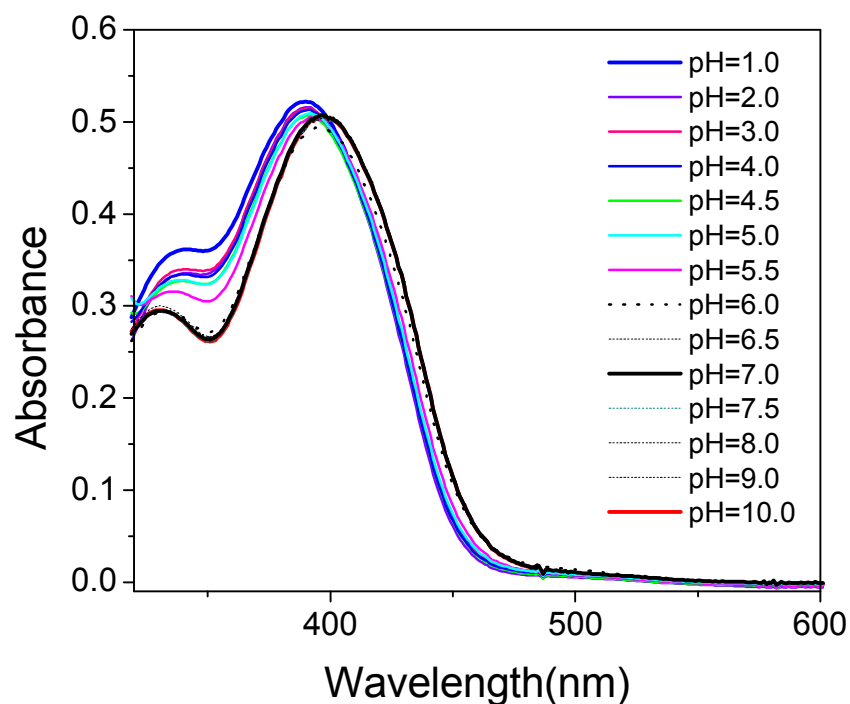


Figure S3. Absorption spectra of **1** (100 μM) at different pH values in a methanol-water solution (v/v = 4:1, 20 mM buffer).

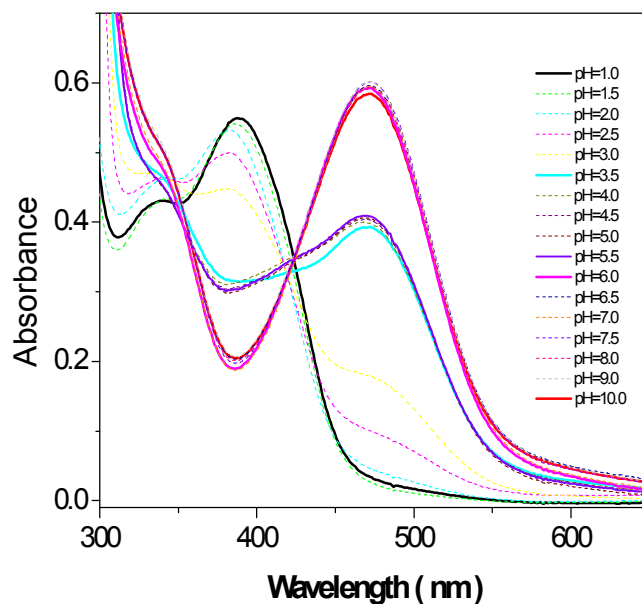


Figure S4. pH titration of Cu(II) binding with chemosensor **2** (10^{-4} M) in a methanol-H₂O solution (v/v = 4/1, 20 mM buffer). Both concentrations of Cu(II) was 10^{-4} M.

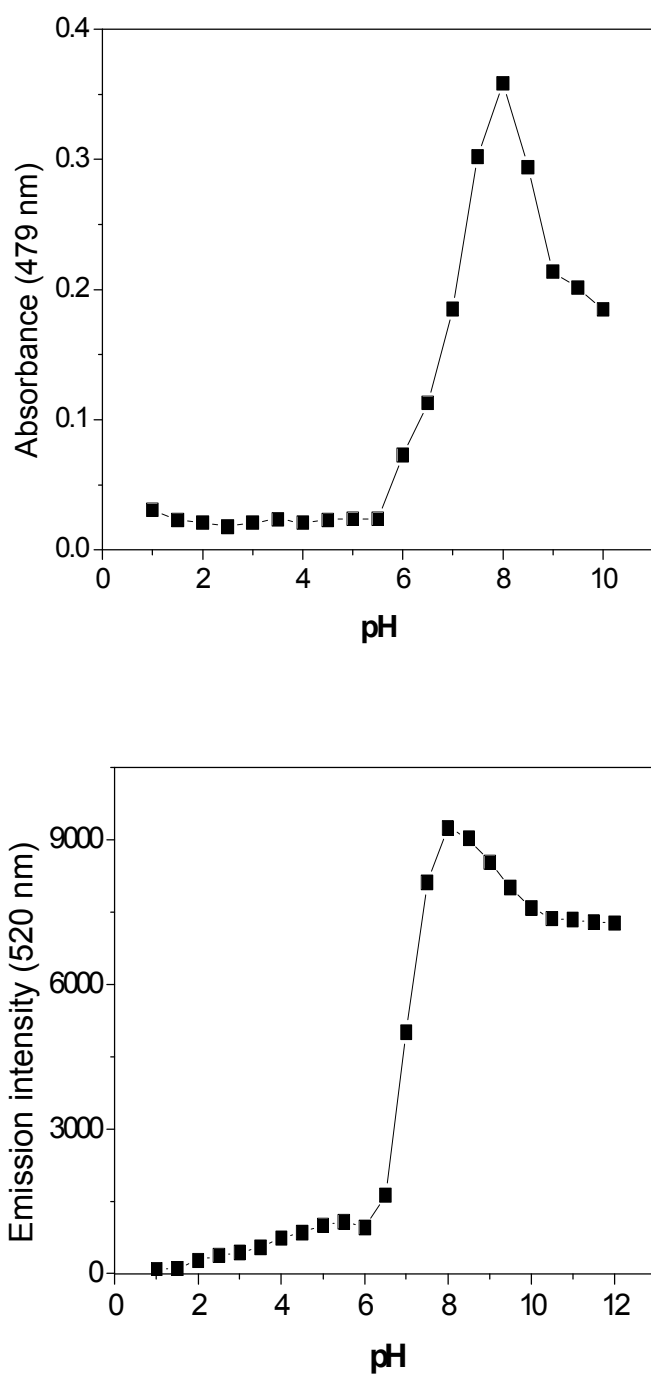


Figure S5. pH titration of Ni(II) (top) or Co(II) (bottom) binding with chemosensor **2** (10^{-4} M) in a methanol- H_2O solution ($v/v = 4/1$, 20 mM buffer). Both concentrations of Ni(II) (top) or Co^{2+} were 10^{-4} M.

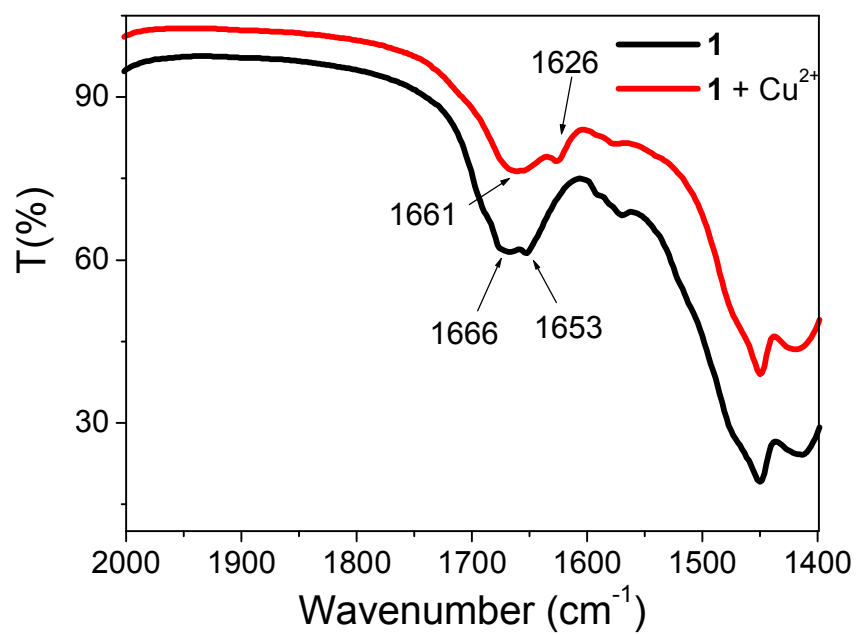


Figure S6. IR spectra of **1** and its mixture with Cu(II) in methanol.