

Supporting Information

Halide-modulated bistate and tristate fluorescence switching for Cu(I) and Ag(I) complexes

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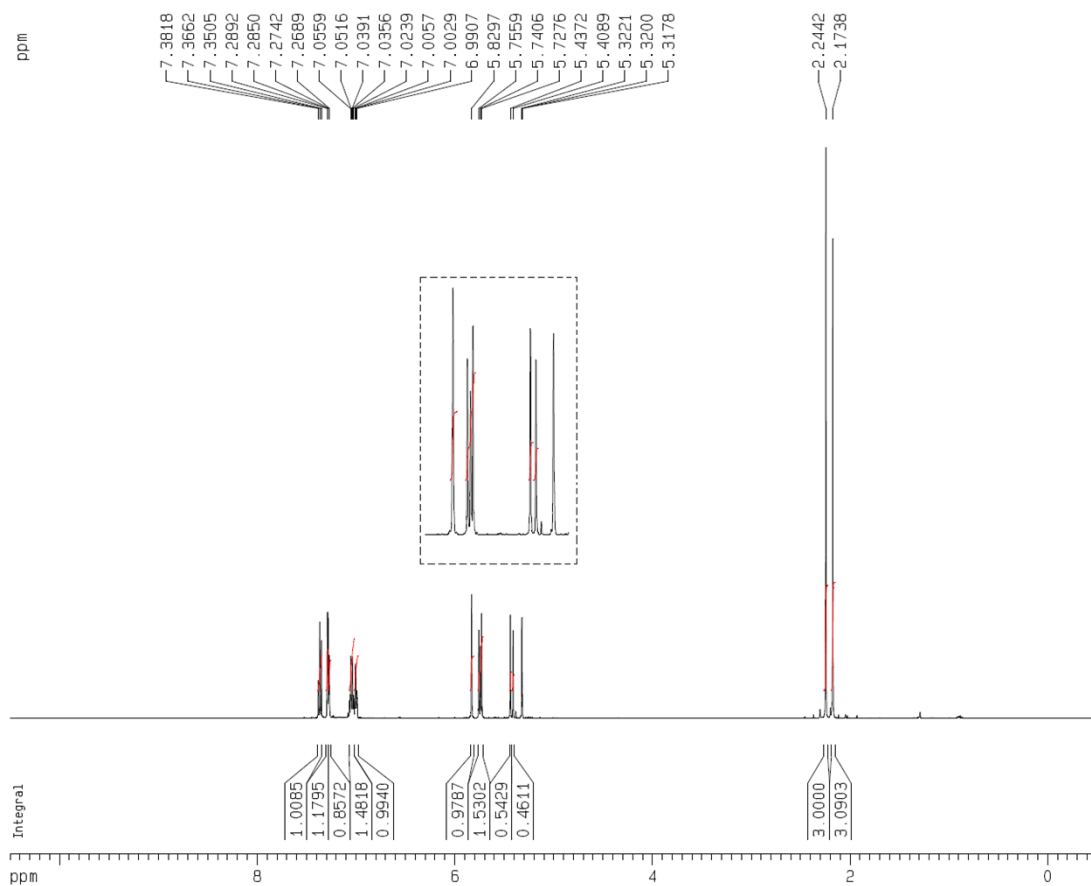


Fig. S1. ^1H NMR spectrum of L^{ph}

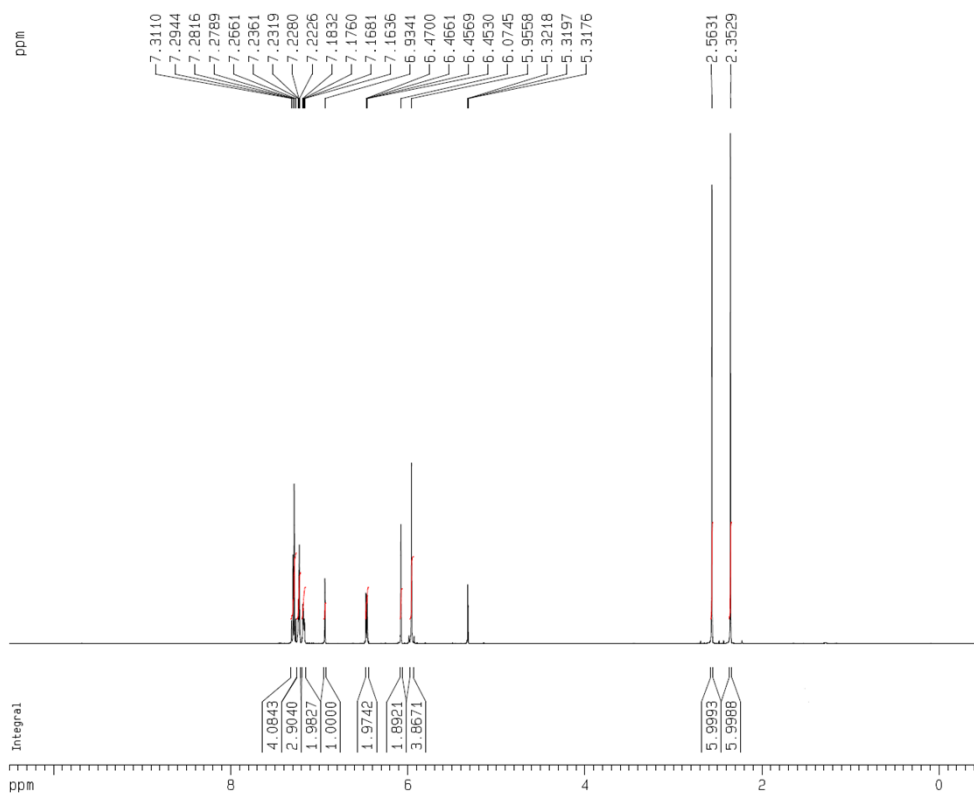


Fig. S2. ^1H NMR spectrum of $1 \cdot \text{ClO}_4$.

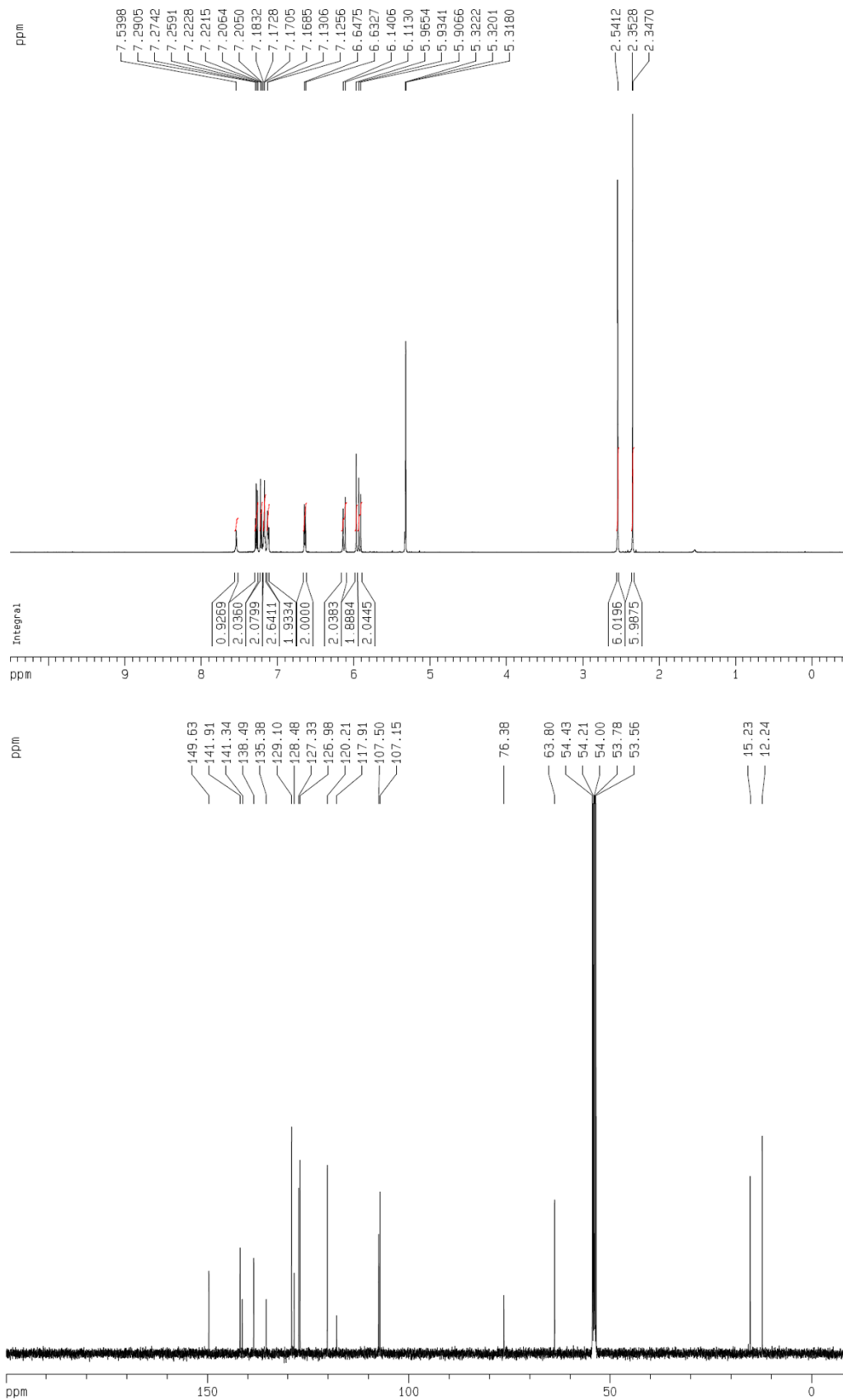


Fig. S3 ^1H & ^{13}C NMR spectra of 3.

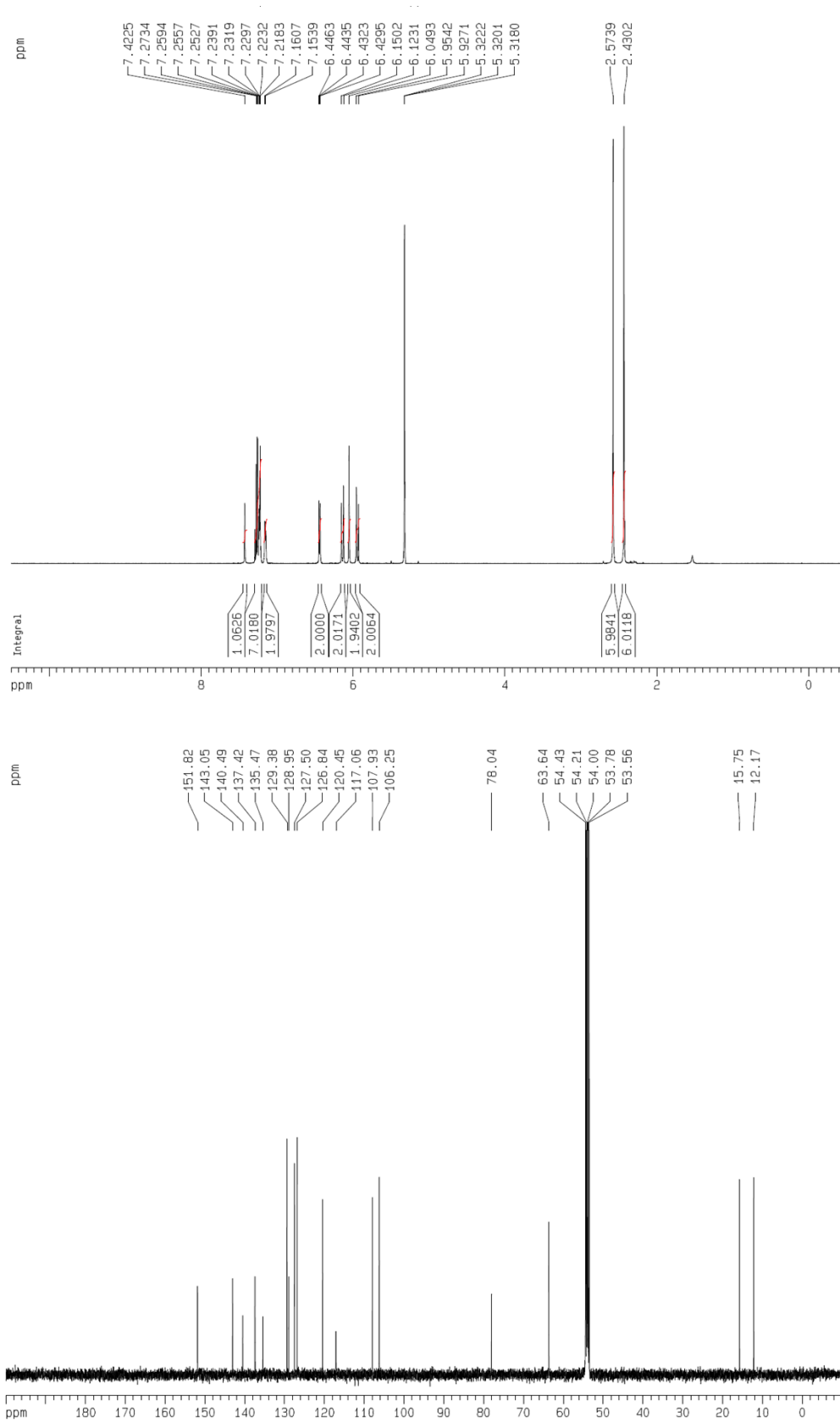


Fig. S4 ^1H & ^{13}C NMR spectra of $4 \cdot \text{CuCl}_2$.

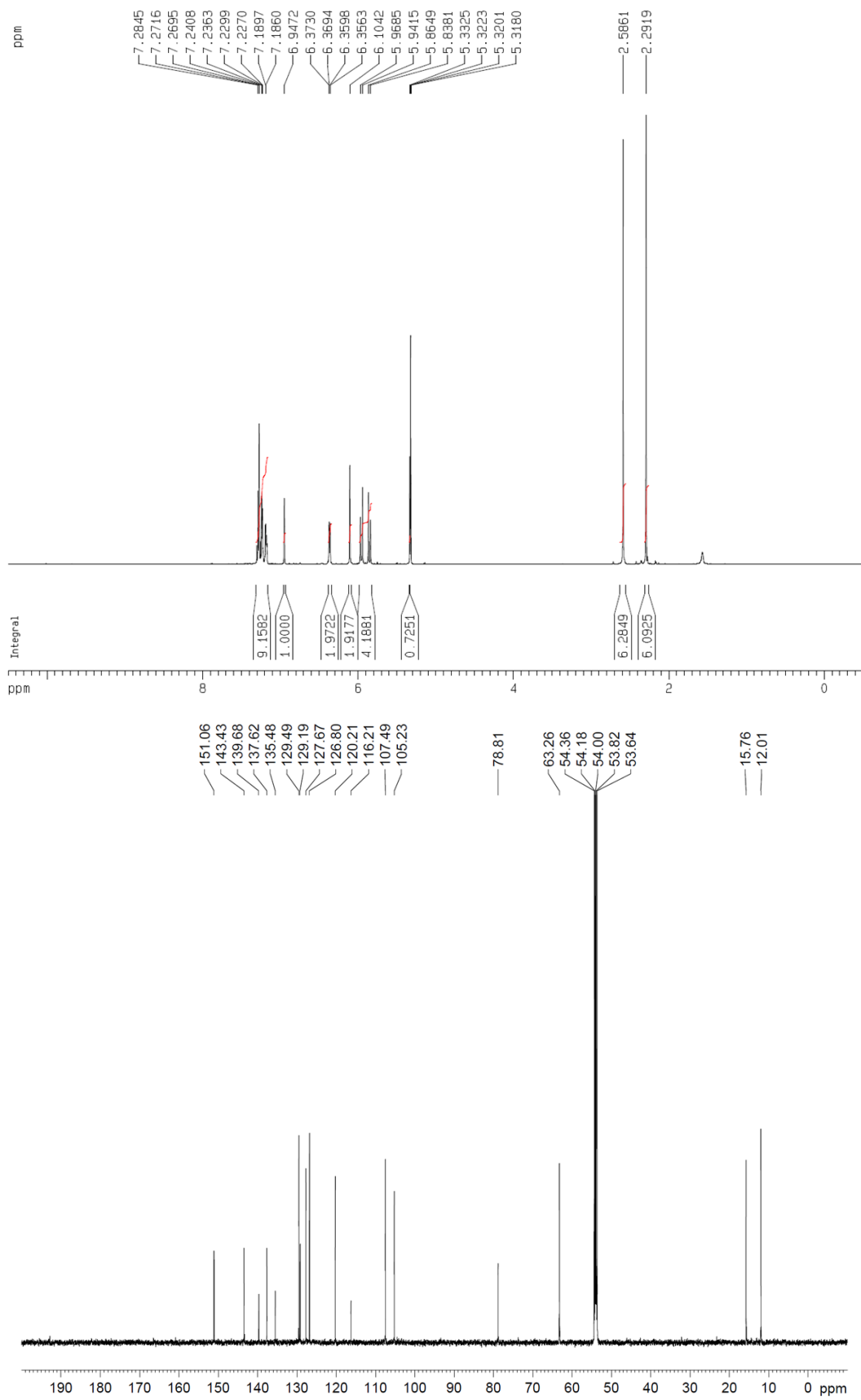


Fig. S5 ^1H & ^{13}C NMR spectra of $5 \cdot \text{ClO}_4$.

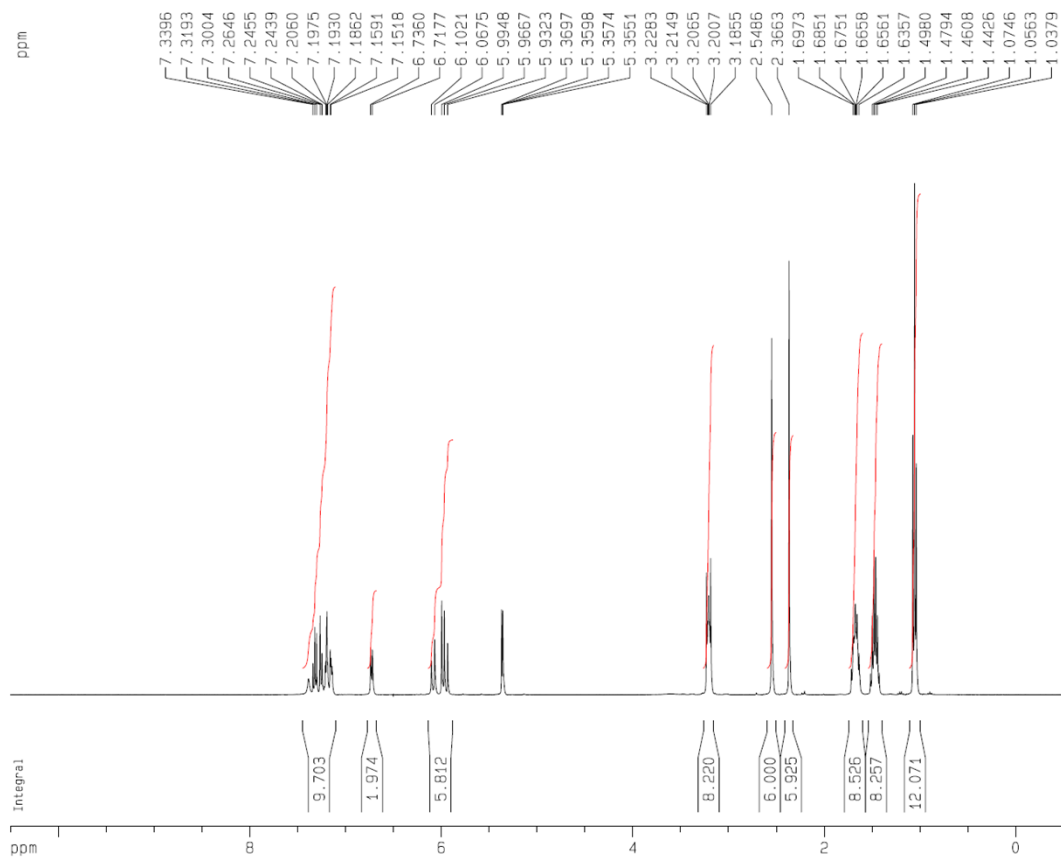


Fig. S6 ^1H NMR spectra of the reaction of **1**· ClO_4 with $n\text{-Bu}_4\text{NBr}$

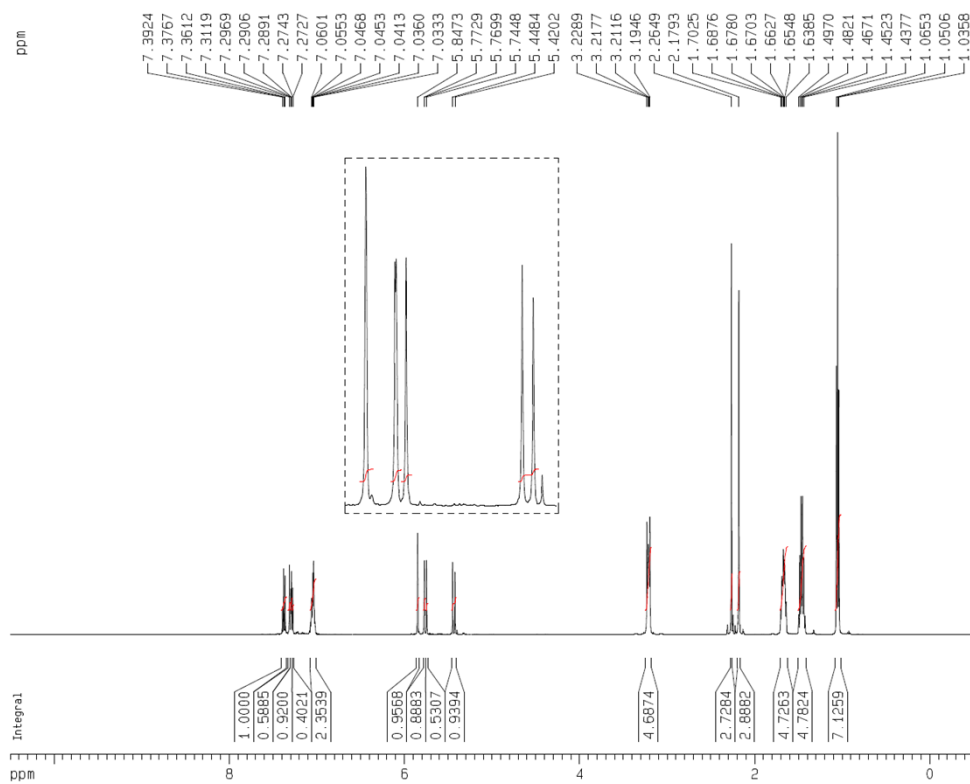


Fig. S7 ^1H NMR spectra of the reaction of **3** with $n\text{-Bu}_4\text{NF}$

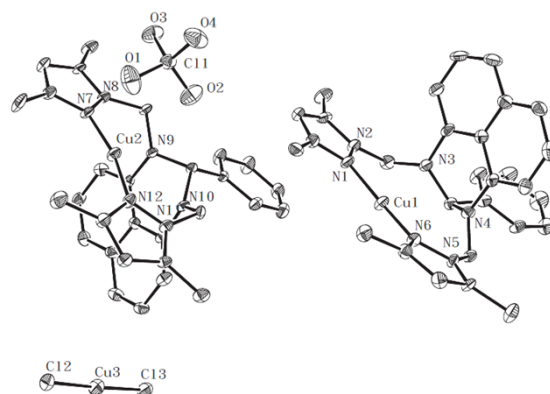


Fig. S8 ORTEP view of the cocrystals $\{1 \cdot \text{ClO}_4 + 4 \cdot \text{CuCl}_2\}$

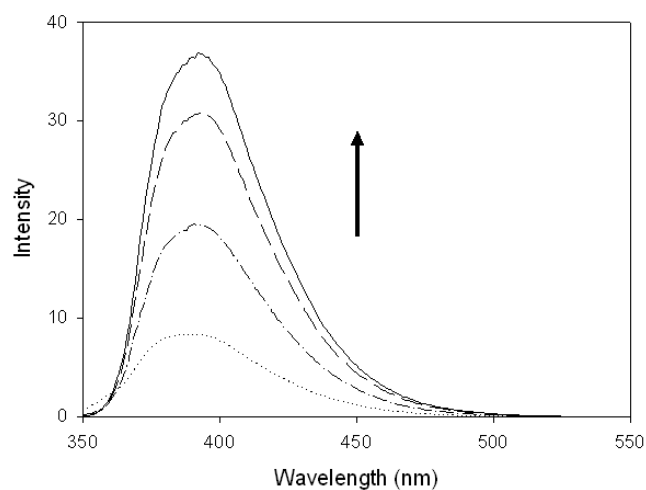


Fig. S9 The spectral change of fluorescence spectra upon an addition of $n\text{-Bu}_4\text{NBr}$ to complexes $1 \cdot \text{ClO}_4$ with a molar ratio of 1:0.2 (dotted line); 1:0.5 (dash-dot line); 1:0.8 (long dash line) and 1:1 (solid line) in CH_2Cl_2 excited at 340 nm at room temperature.

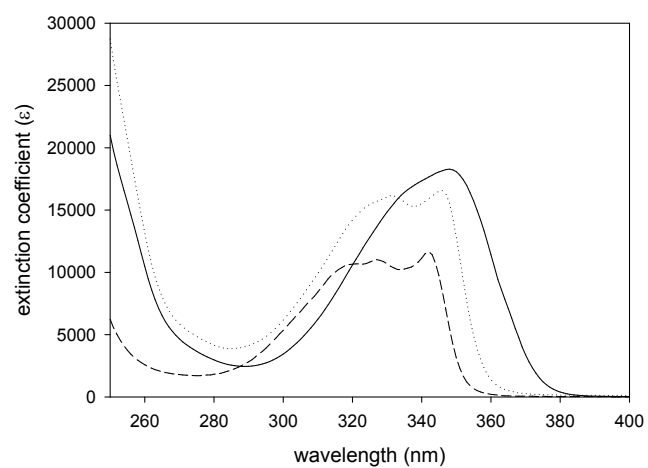


Fig. S10 UV-vis spectra of ligand L^{ph} (solid line), complexes 1·ClO₄ (dotted line) and 5·ClO₄ (medium dash line).