

Supplementary Material

Multi-gram synthesis of precursors of *bibrachial* diaza-paracyclophanes. Complexes with Zn²⁺, Cu²⁺ and Co²⁺ ions

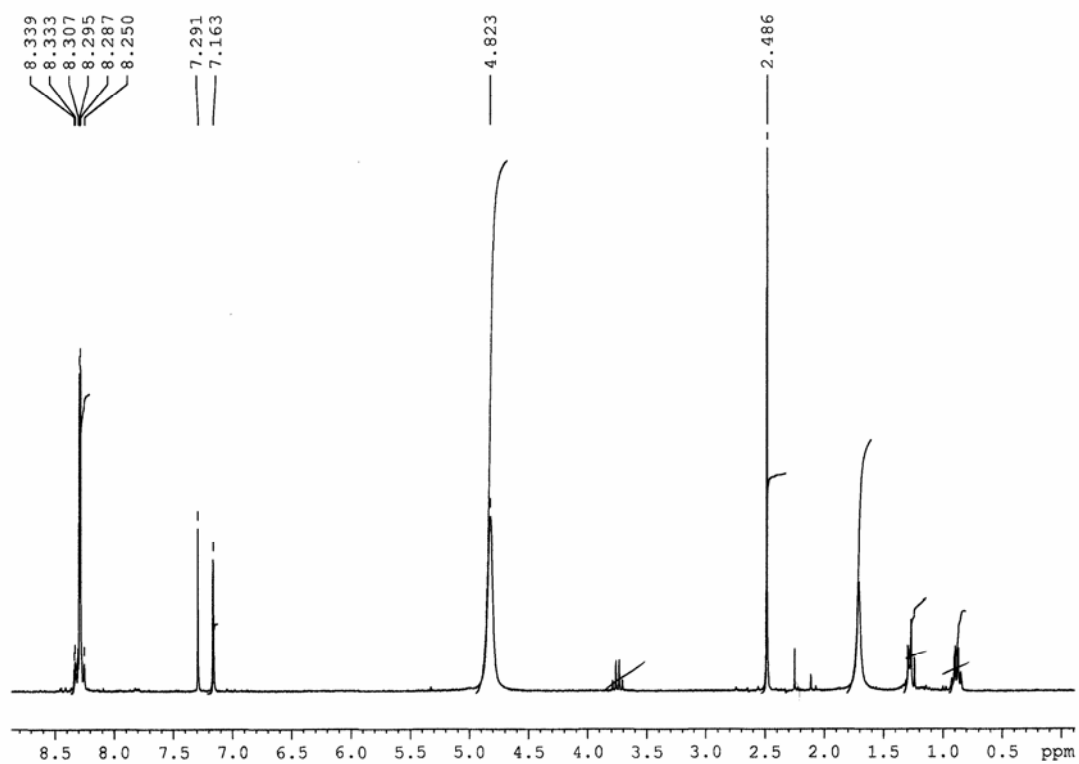
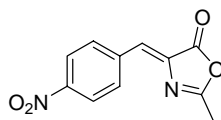
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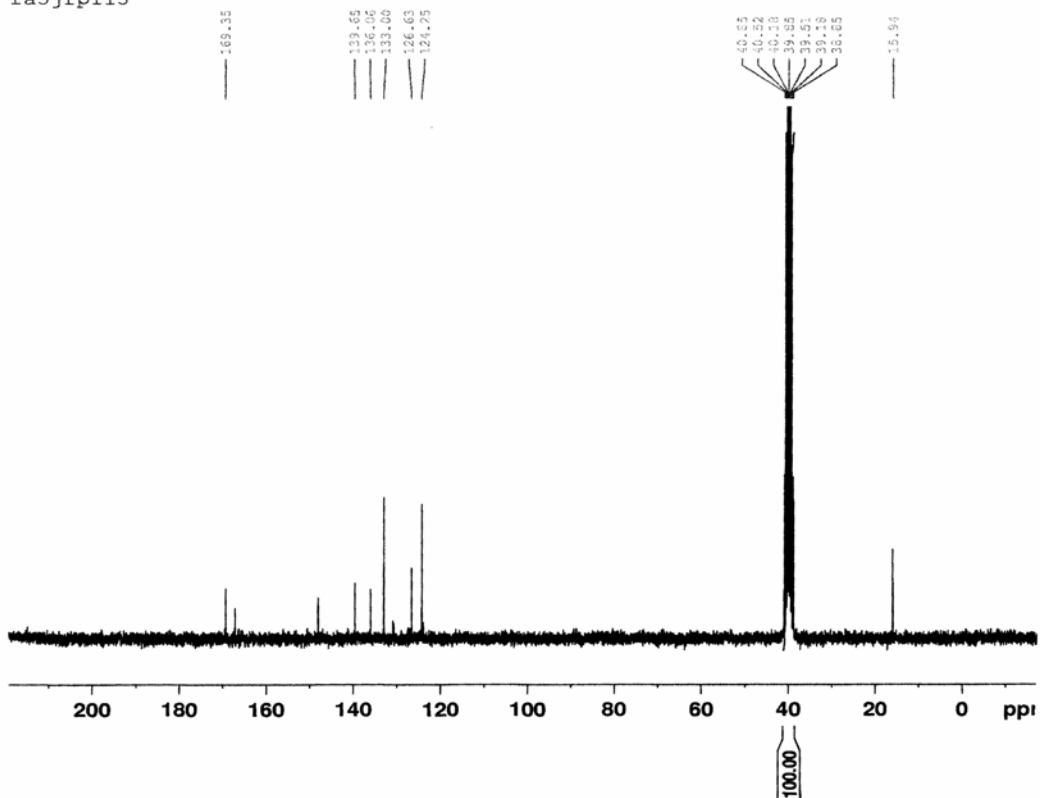
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Table of Contents

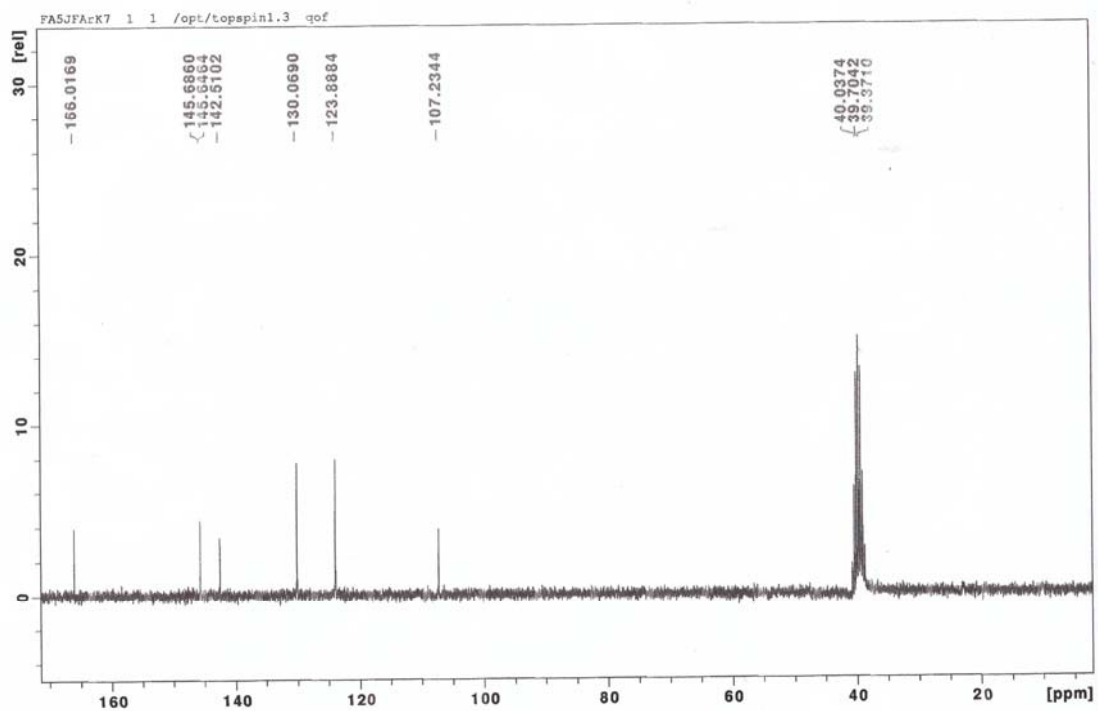
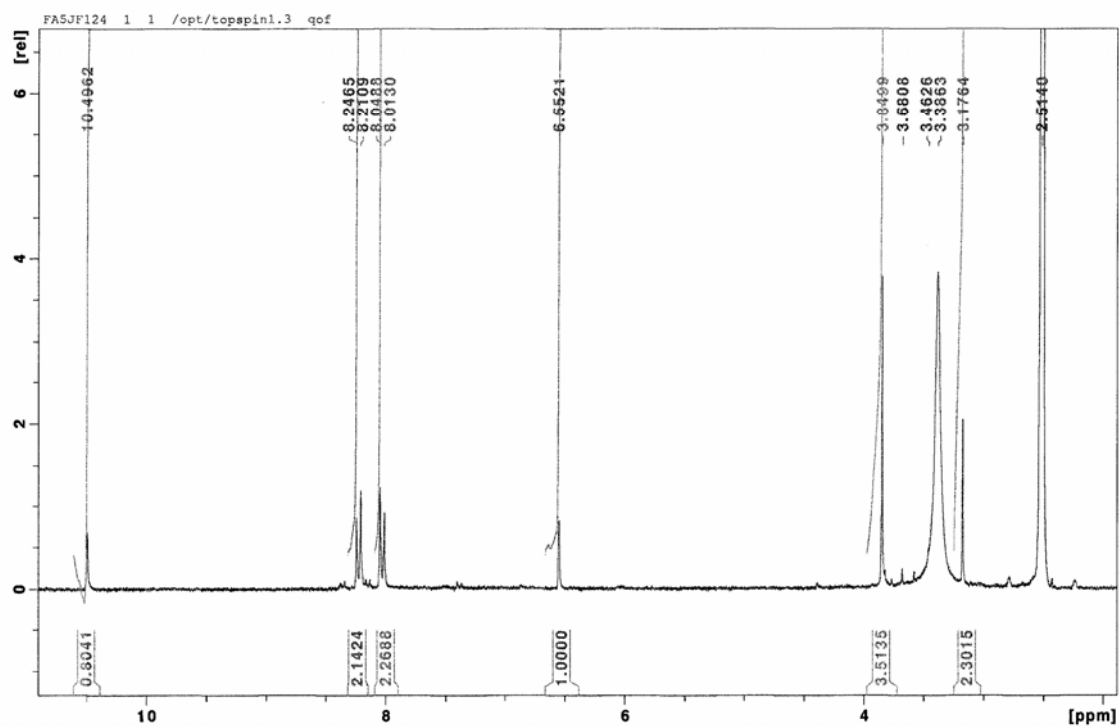
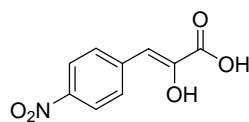
Compound 4 (¹ H NMR and ¹³ C NMR)	S2
Compound 5 (¹ H NMR and ¹³ C NMR)	S3
Compound 6 (¹ H NMR and ¹³ C NMR)	S4
Compound 7 (¹ H NMR and ¹³ C NMR)	S5
Compound 8 (¹ H NMR and ¹³ C NMR)	S6
Compound 9 (¹ H NMR and ¹³ C NMR)	S7
Compound 10 (¹ H NMR and ¹³ C NMR)	S8
Compound 11 (¹ H NMR and ¹³ C NMR)	S9
Compound 12 (¹ H NMR and ¹³ C NMR)	S10
Compound 13 (¹ H NMR and ¹³ C NMR)	S11
Compound 14 (¹ H NMR and ¹³ C NMR)	S12
¹ H NMR spectra of 14 in the absence and presence of Zn ²⁺	S13
¹ H NMR spectra of 14 in the absence and presence of Cu ²⁺	S14
UV/Vis spectrum titration with Cu ²⁺ and Co ²⁺	S15



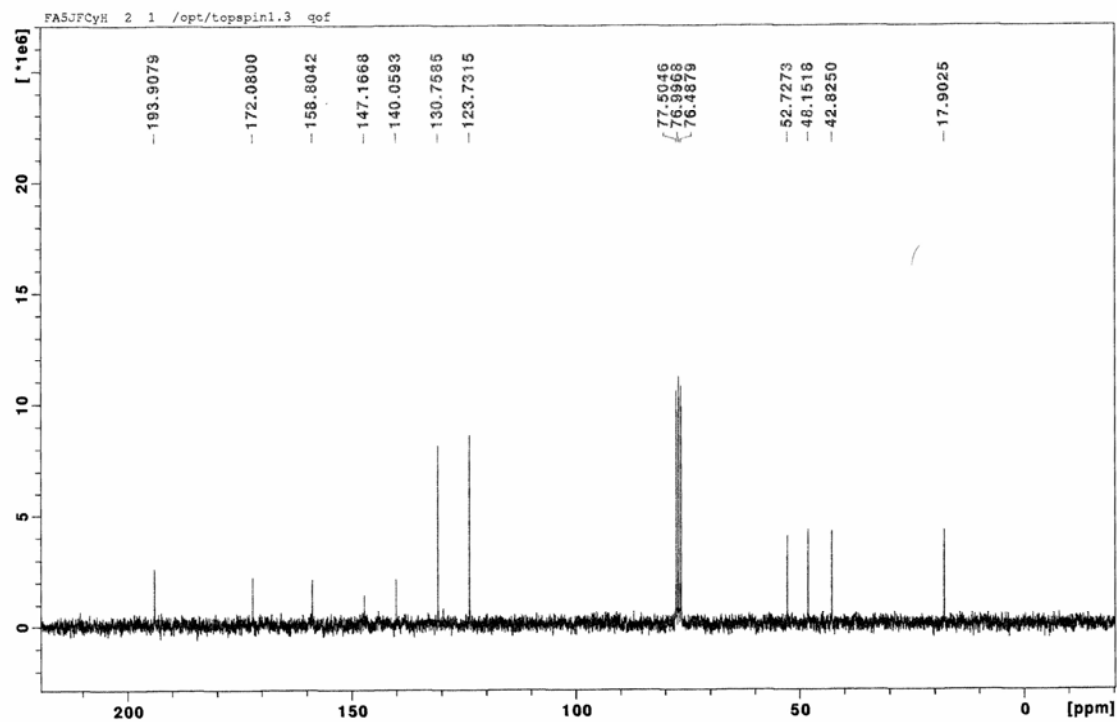
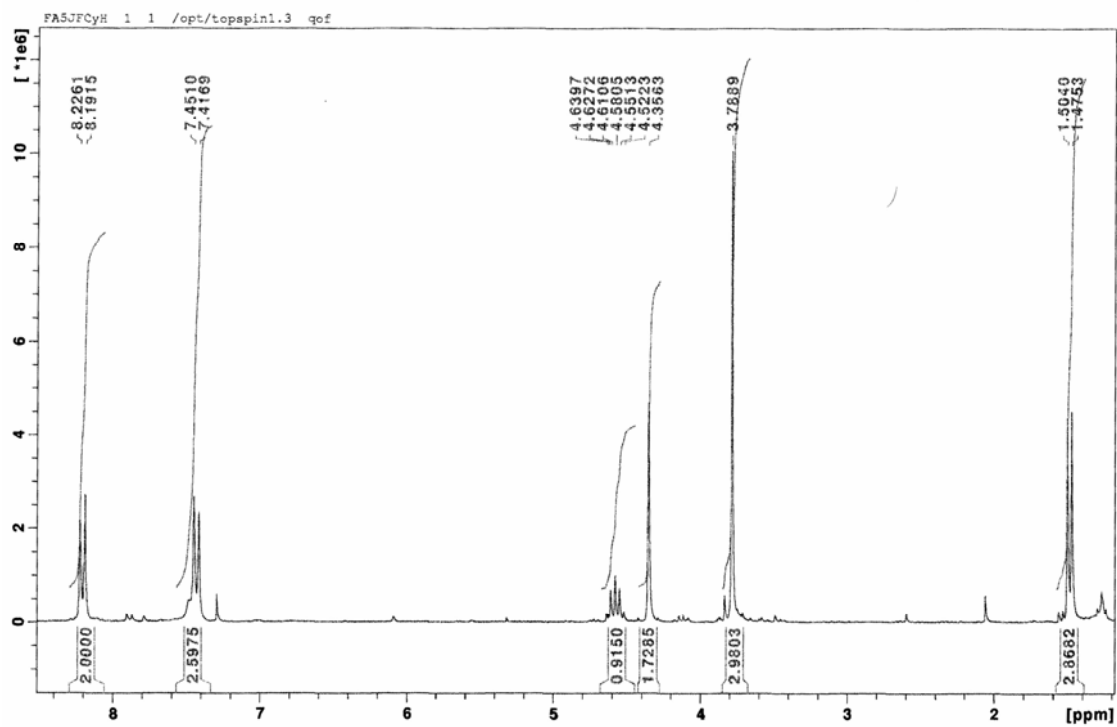
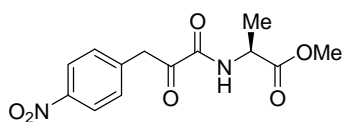
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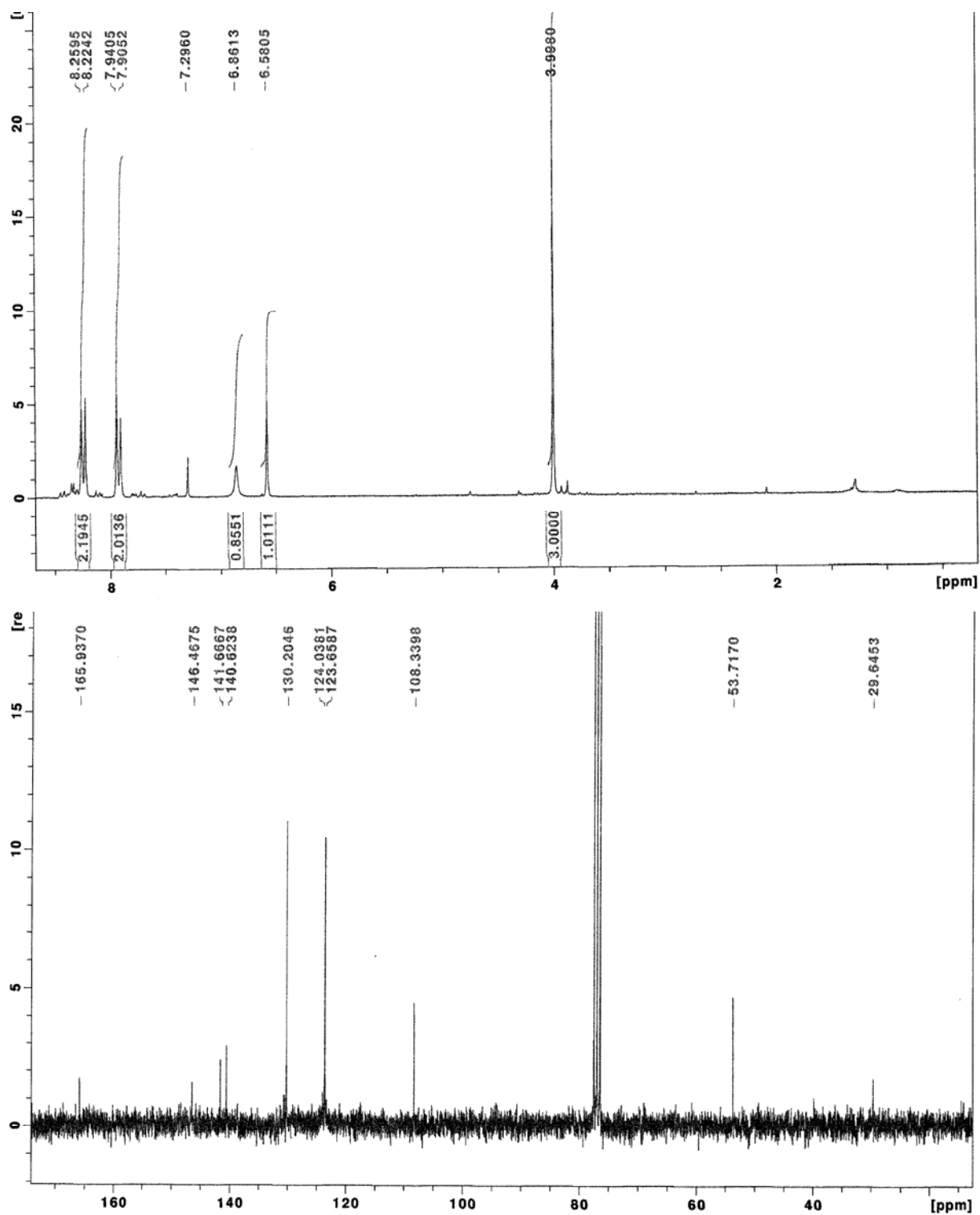
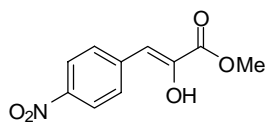
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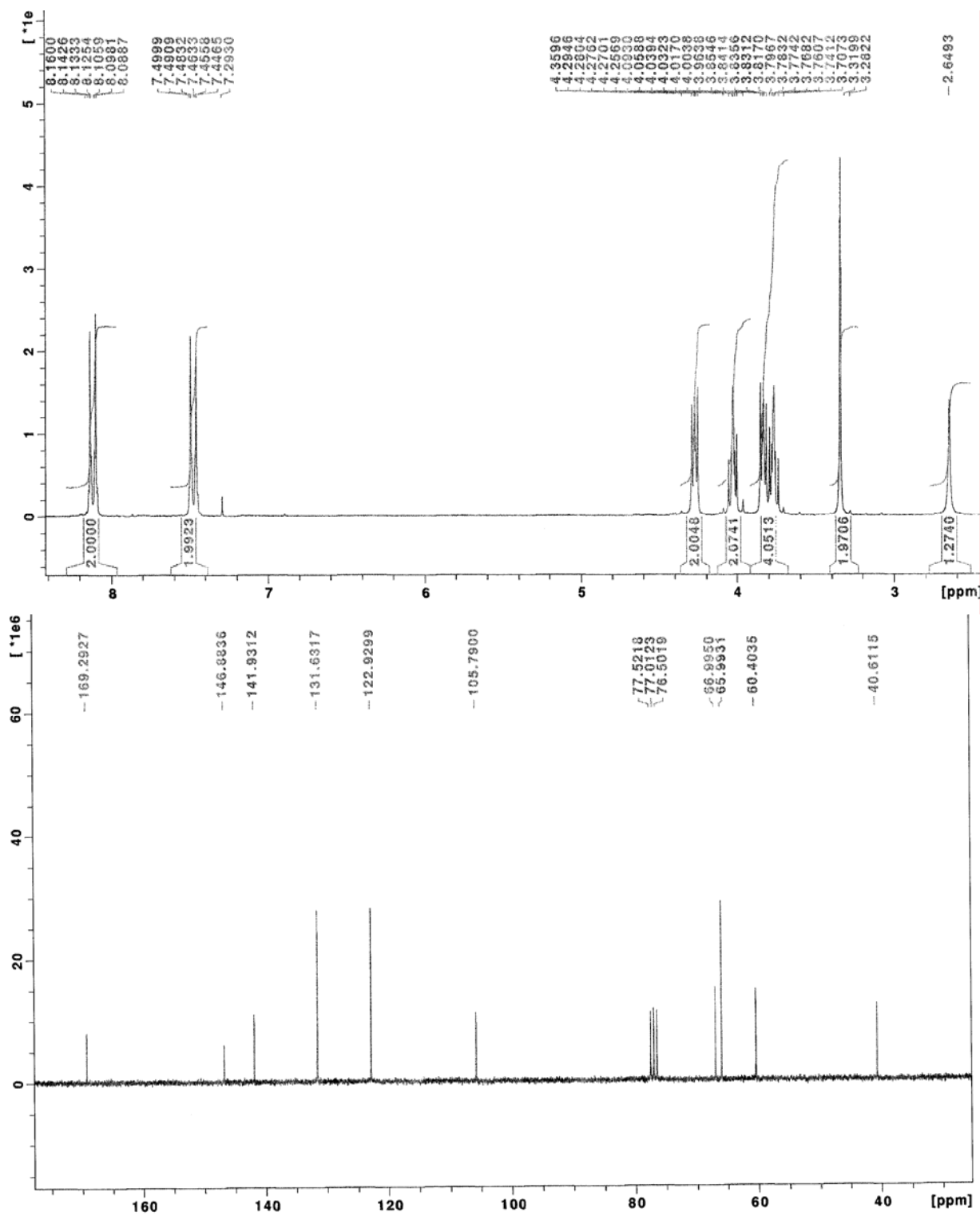
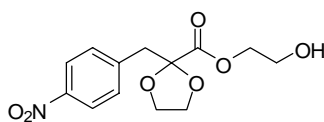
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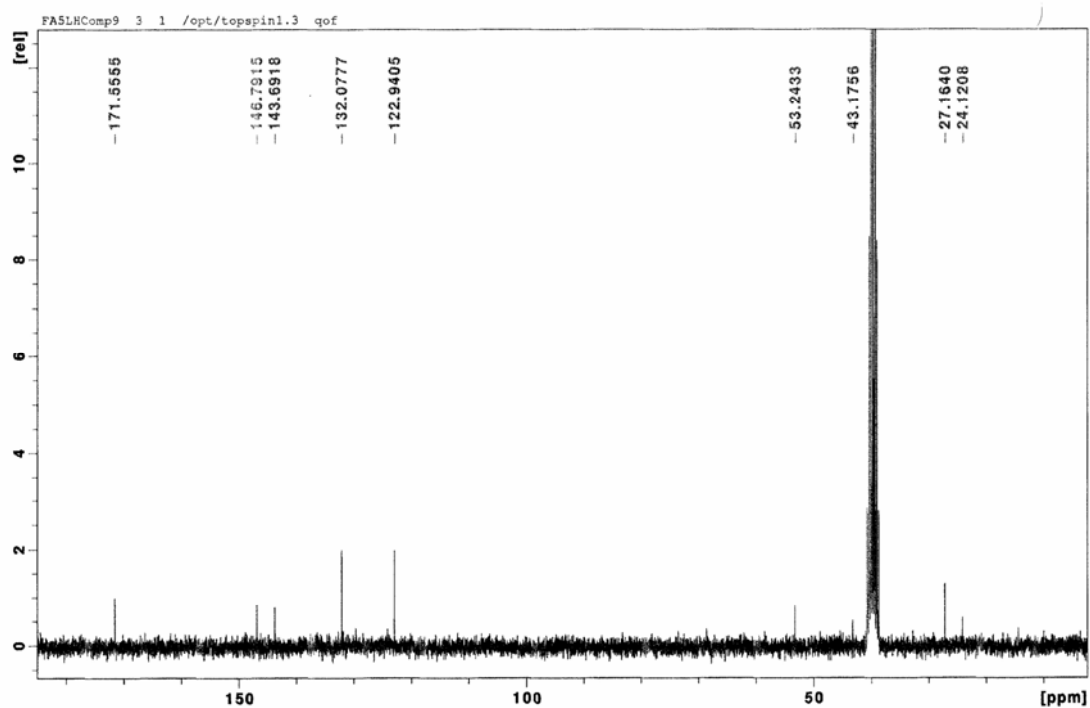
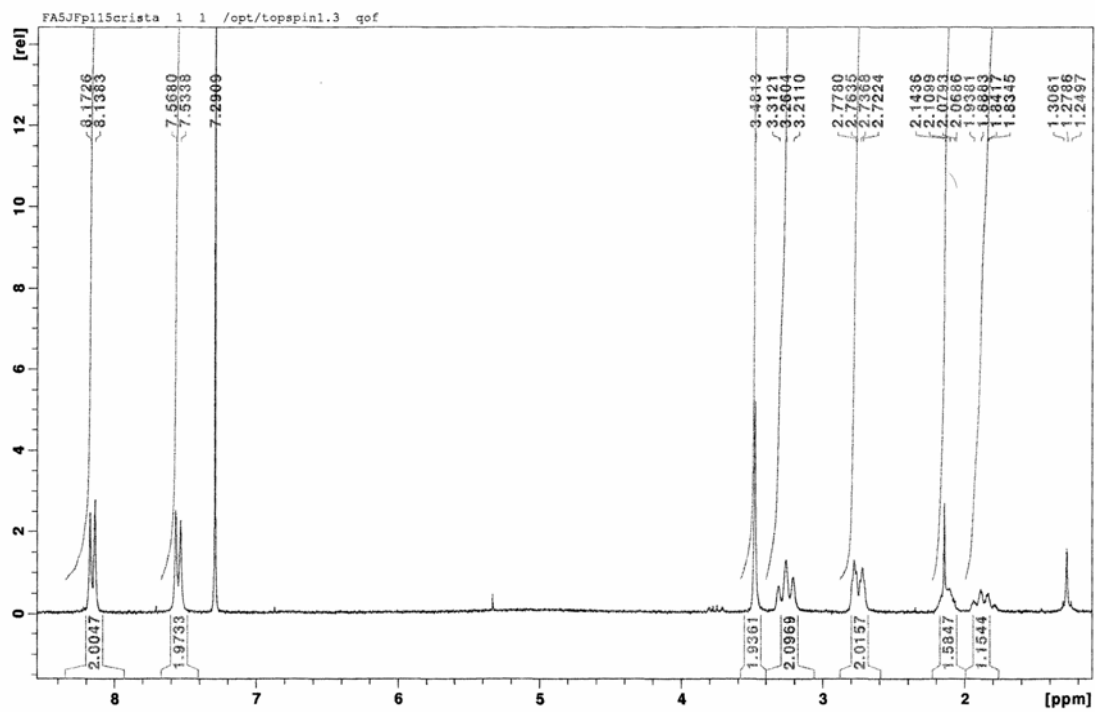
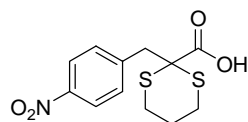
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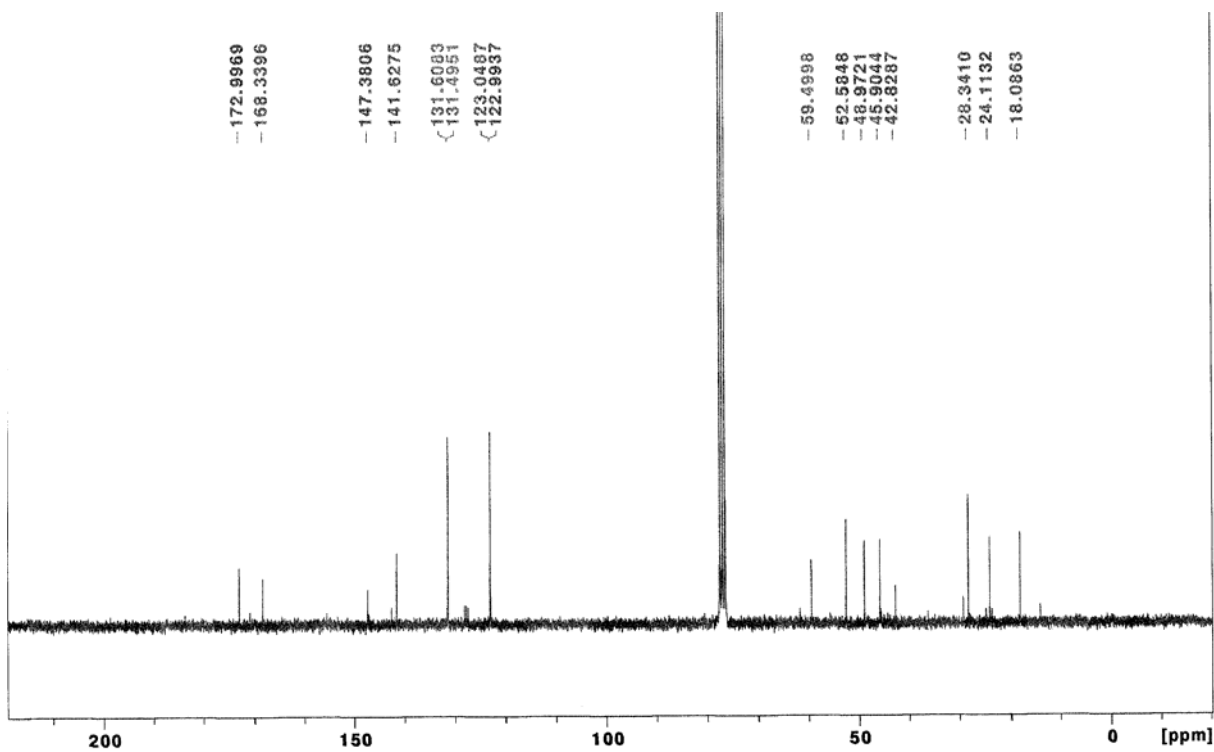
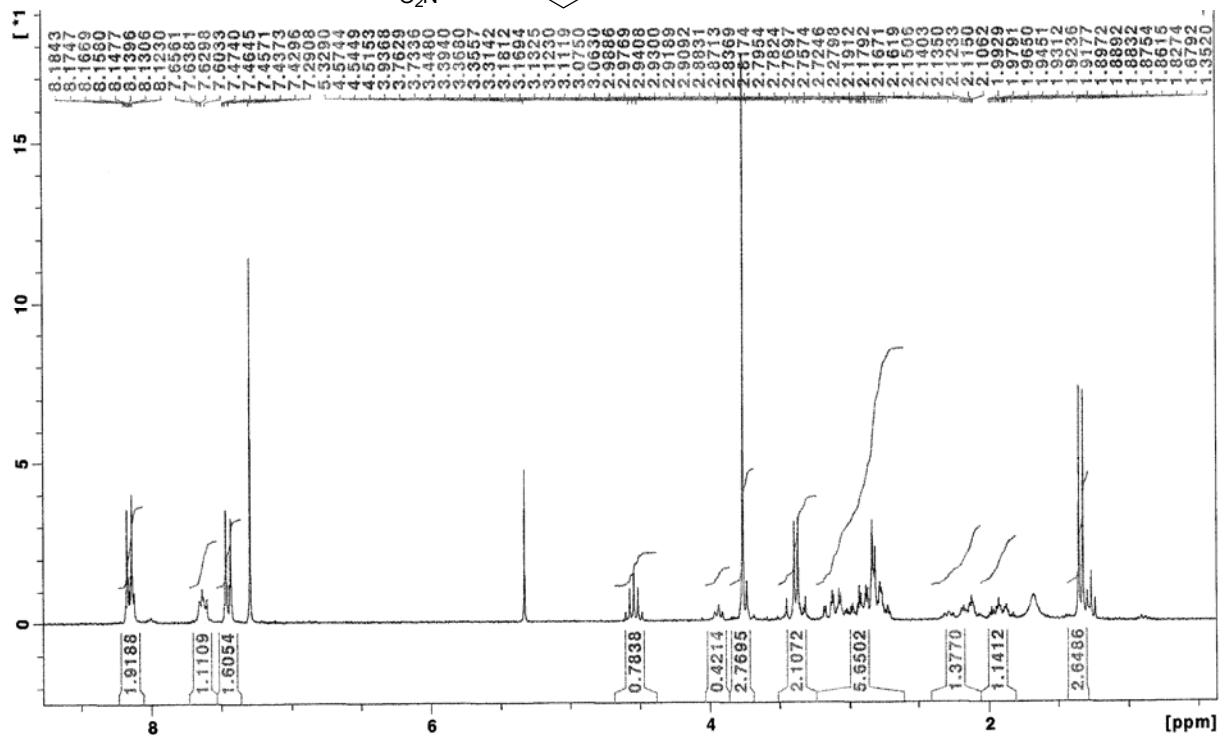
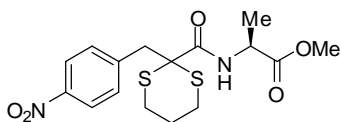
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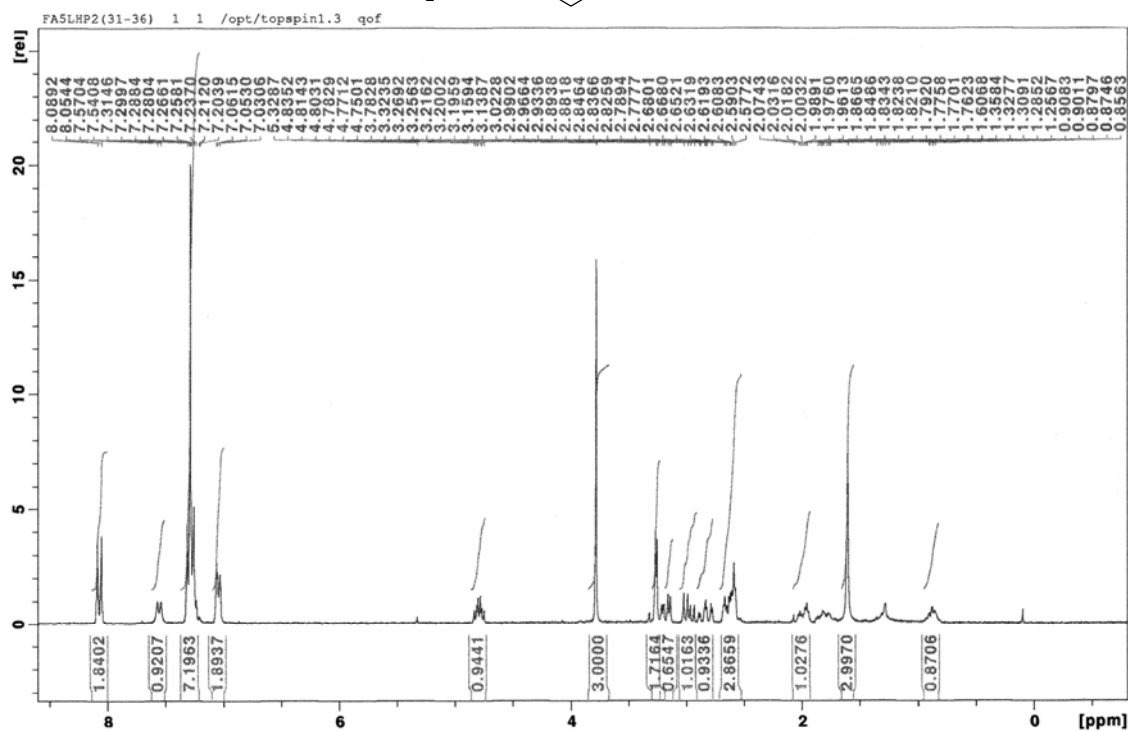
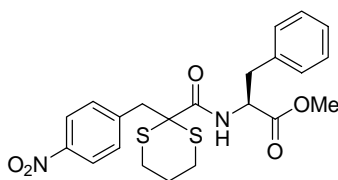
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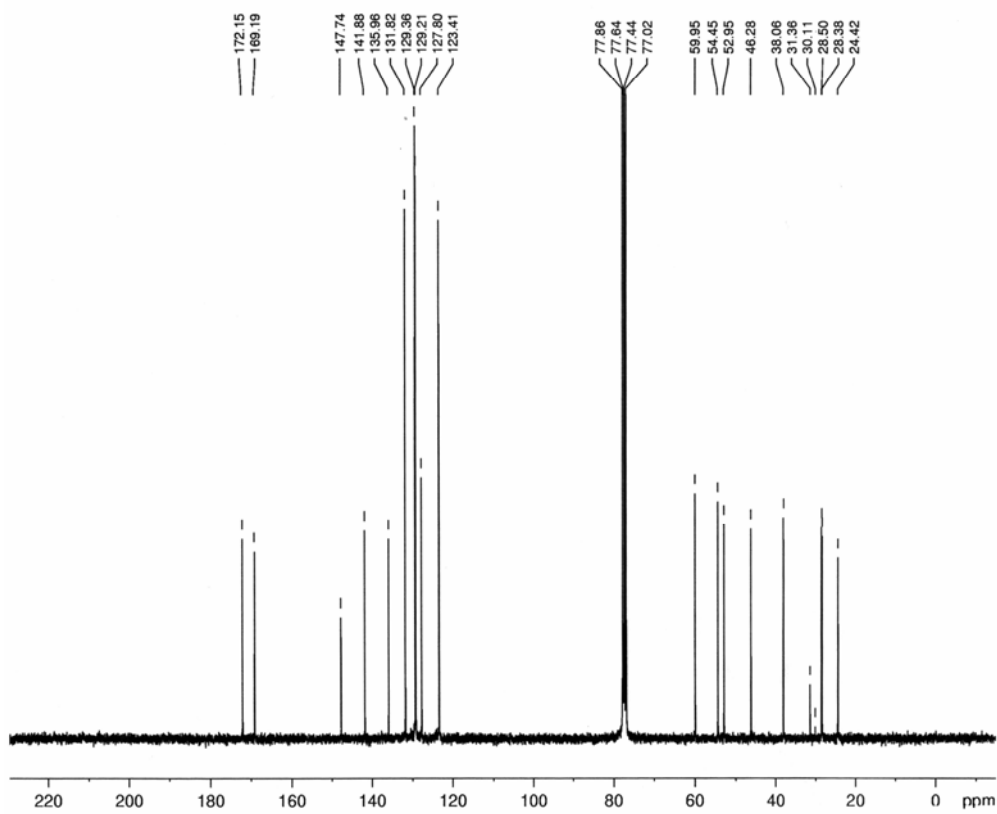
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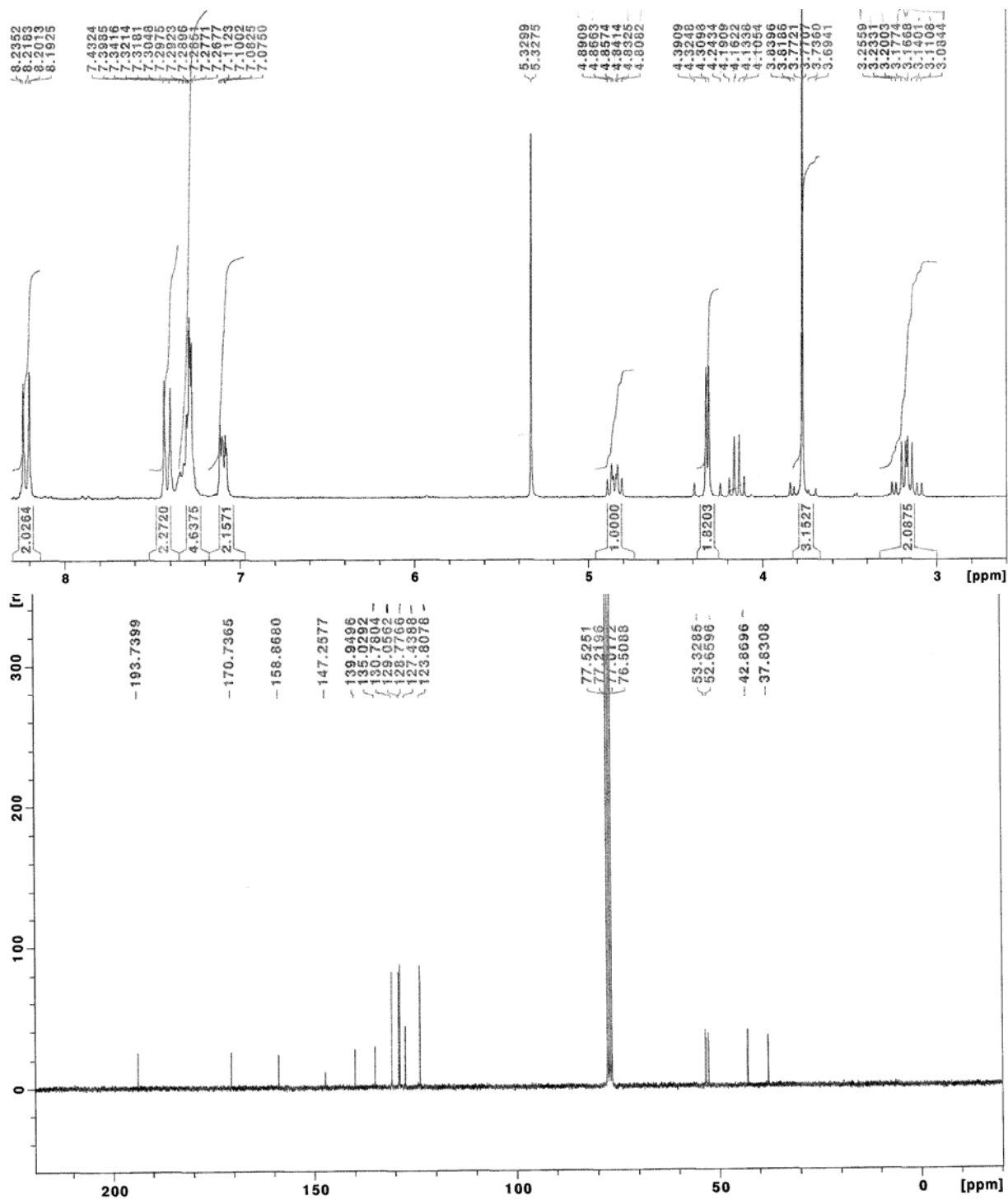
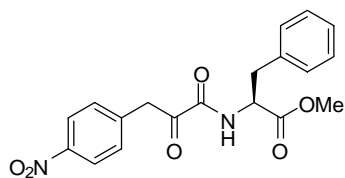
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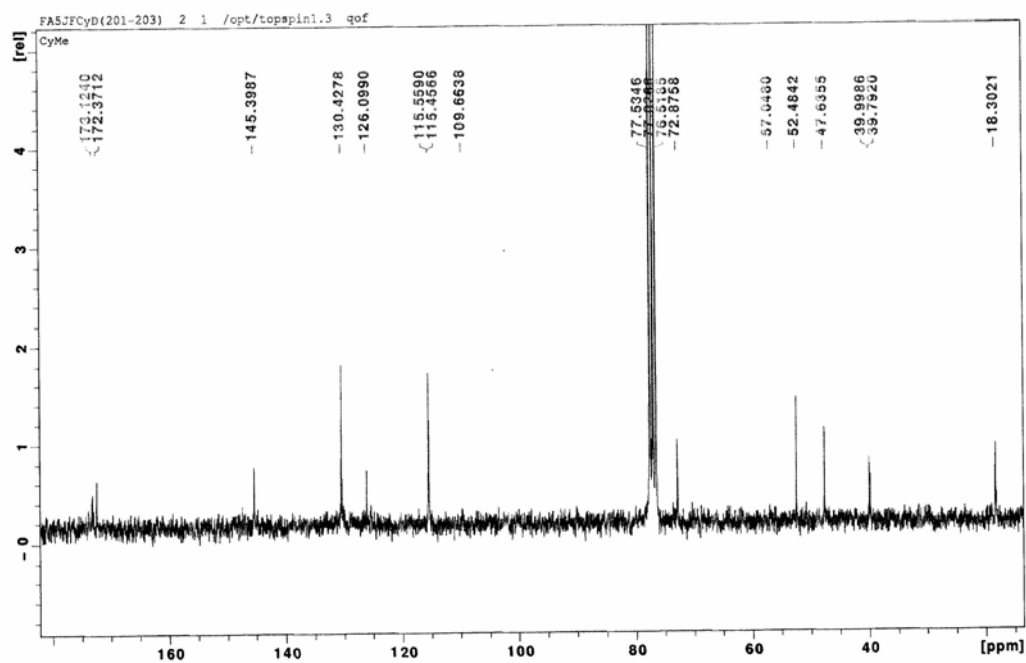
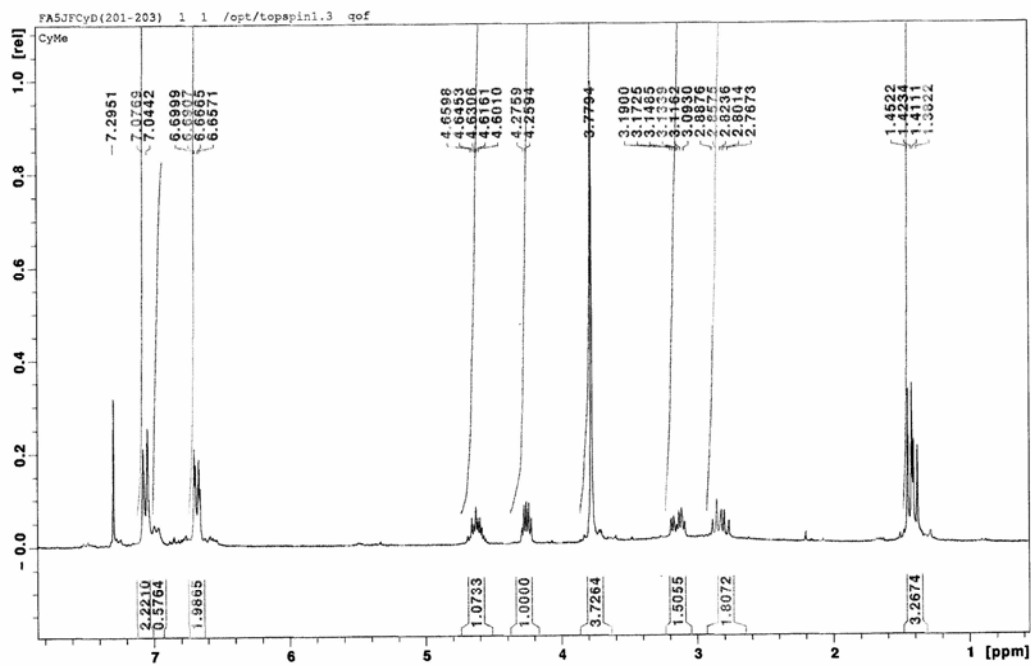
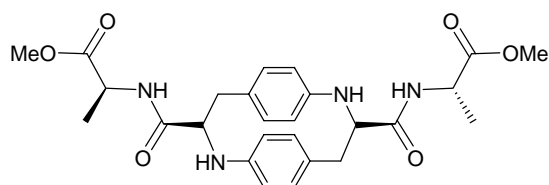
FA5-LHPI(28-30)



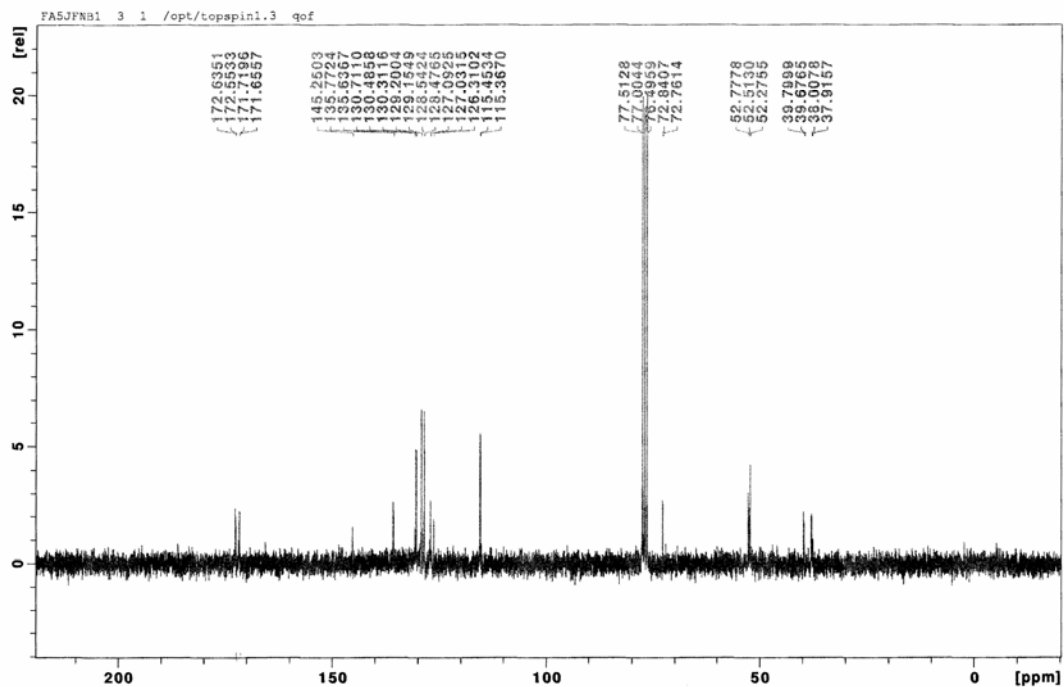
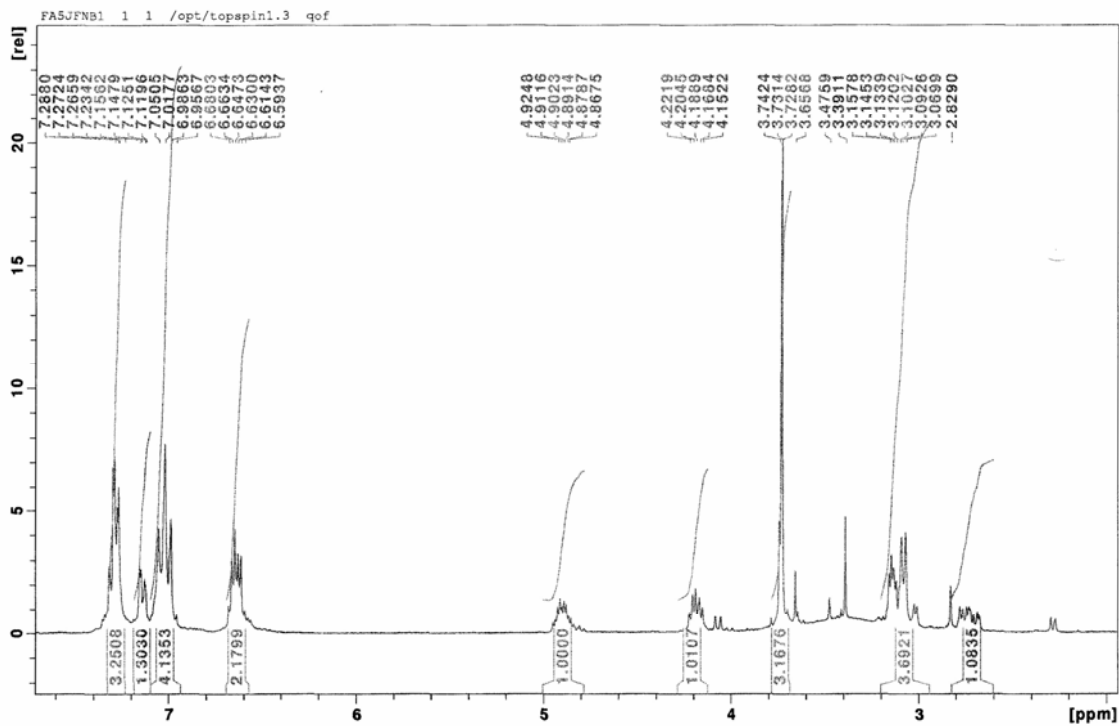
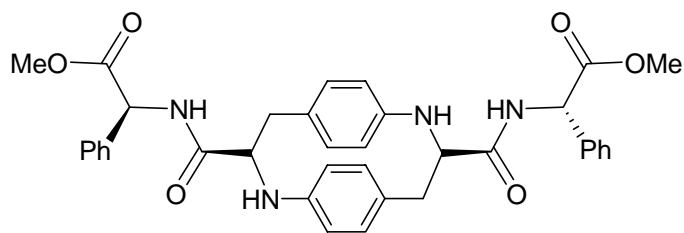
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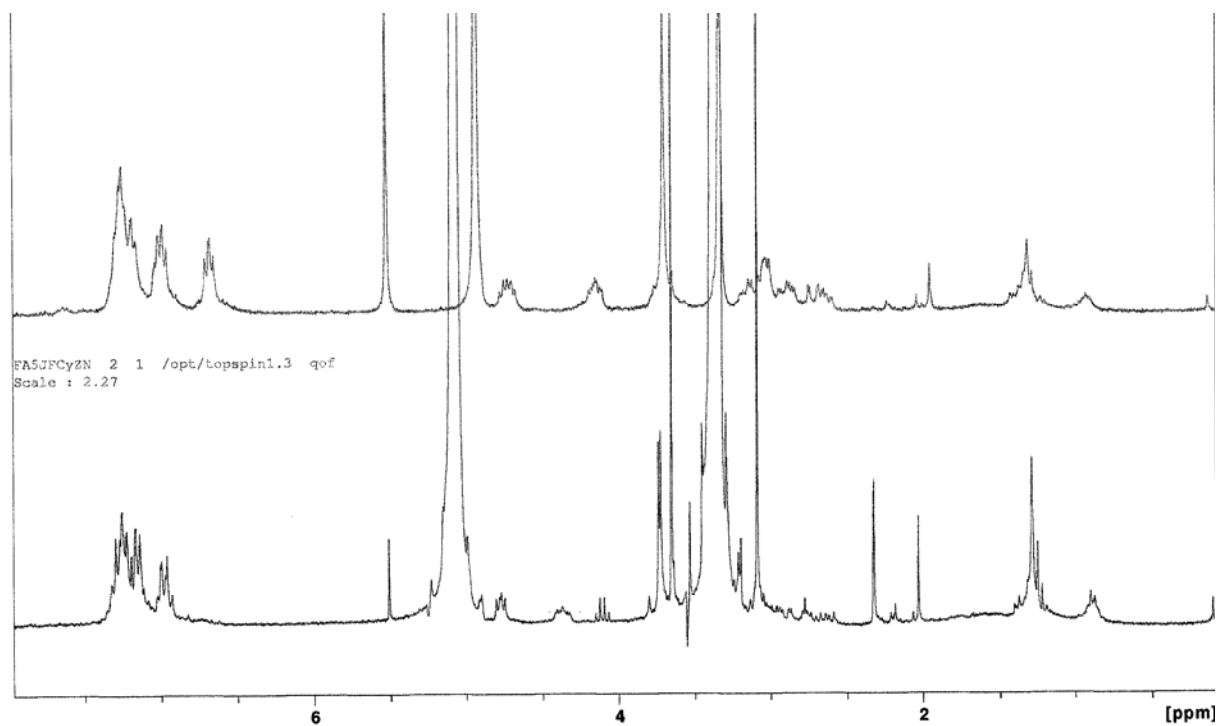
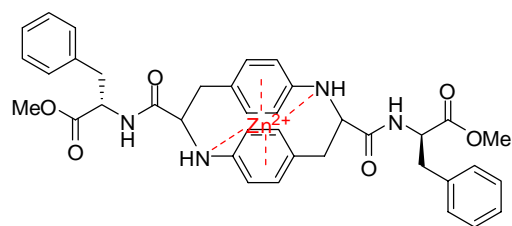
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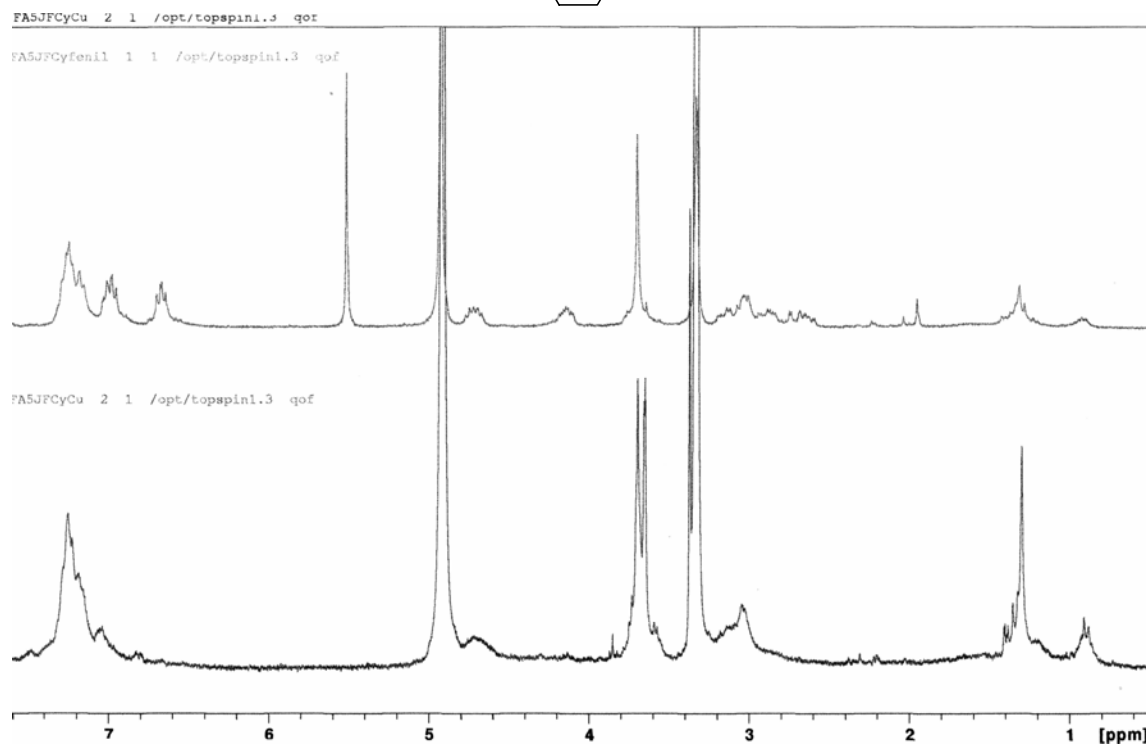
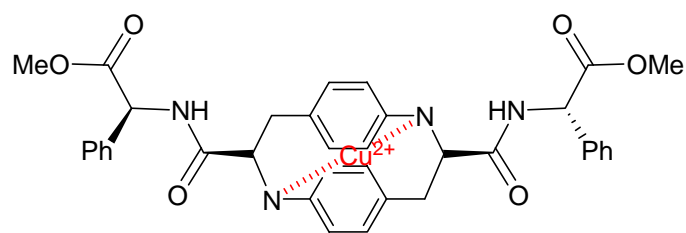
Compound 13



Compound 14

**Compound [Zn²⁺ 14]**

¹H NMR spectra of 14 in CD₃OD in the absence and presence of Zn²⁺

**Compound [Cu²⁺ 14]**

¹H NMR spectra of 14 in CD₃OD in the absence and presence of Cu²⁺

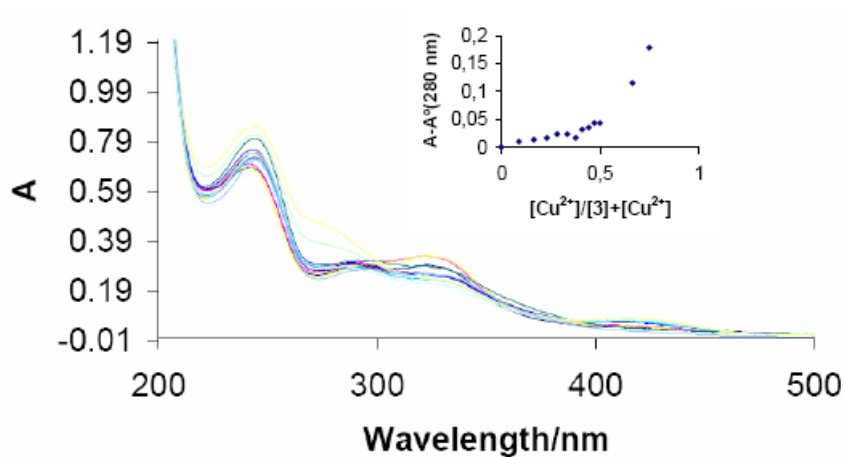
UV/Vis spectrum titration with Cu^{2+} and Co^{2+} 

Figure S. UV-vis spectral changes of ligand **3** (3.33×10^{-5} M in methanol) in response to addition of Cu^{2+} ion at 298 K. The concentrations of Cu^{2+} for curves were: 0, 0.33, 0.66, 1.00, 1.33, 1.66, 2.00, 2.33, 2.66, 3.00, 3.33, 6.66, and 9.99×10^{-5} M in methanol

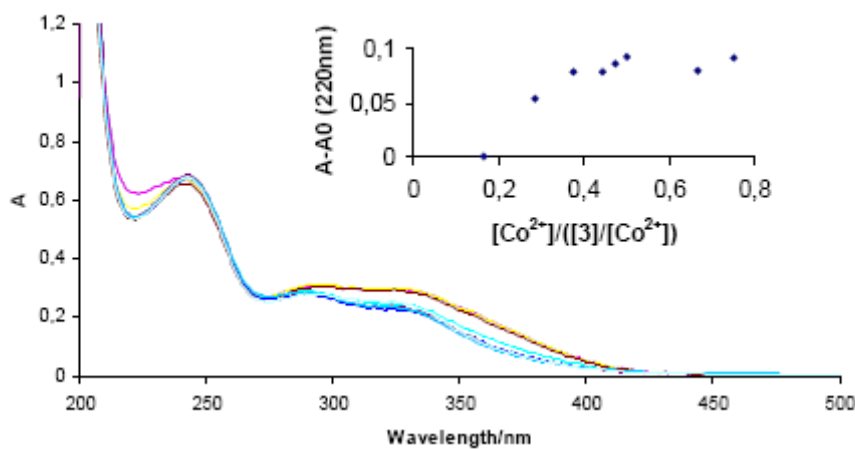


Figure S. UV-vis spectral changes of ligand **3** (3.33×10^{-5} M in methanol) in response to addition of Co^{2+} ion at 298 K. The concentrations of Co^{2+} for curves were: 0.0, 0.66, 1.33, 2.00, 2.66, 3.00, 3.33, 6.66, and 9.99×10^{-5} M in methanol