Supporting Information

Ratiometric Detection of Hg2+ ions: An Allosterically Synchronized Hg^{2+}/Li^{+} Switch Based on Thiacalix[4]crown

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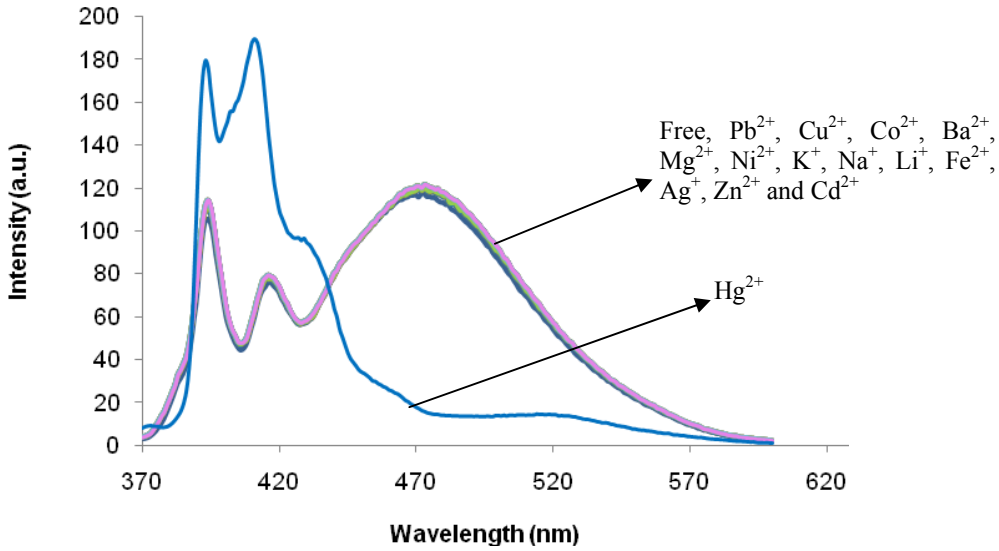


Figure S1. Fluorescence spectra of **1** (1 μM) in response to the presence of different metal ions (10 equiv. each) in THF, λ_{ex} = 343 nm.

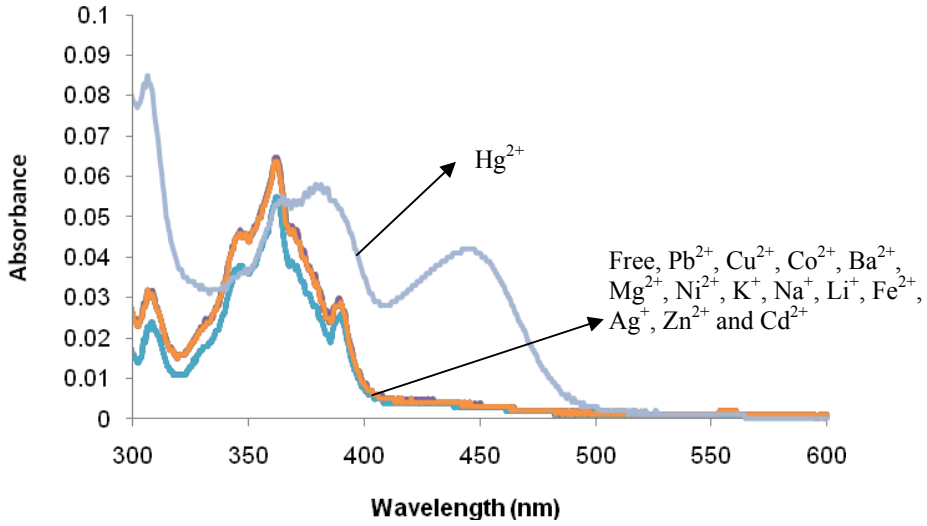
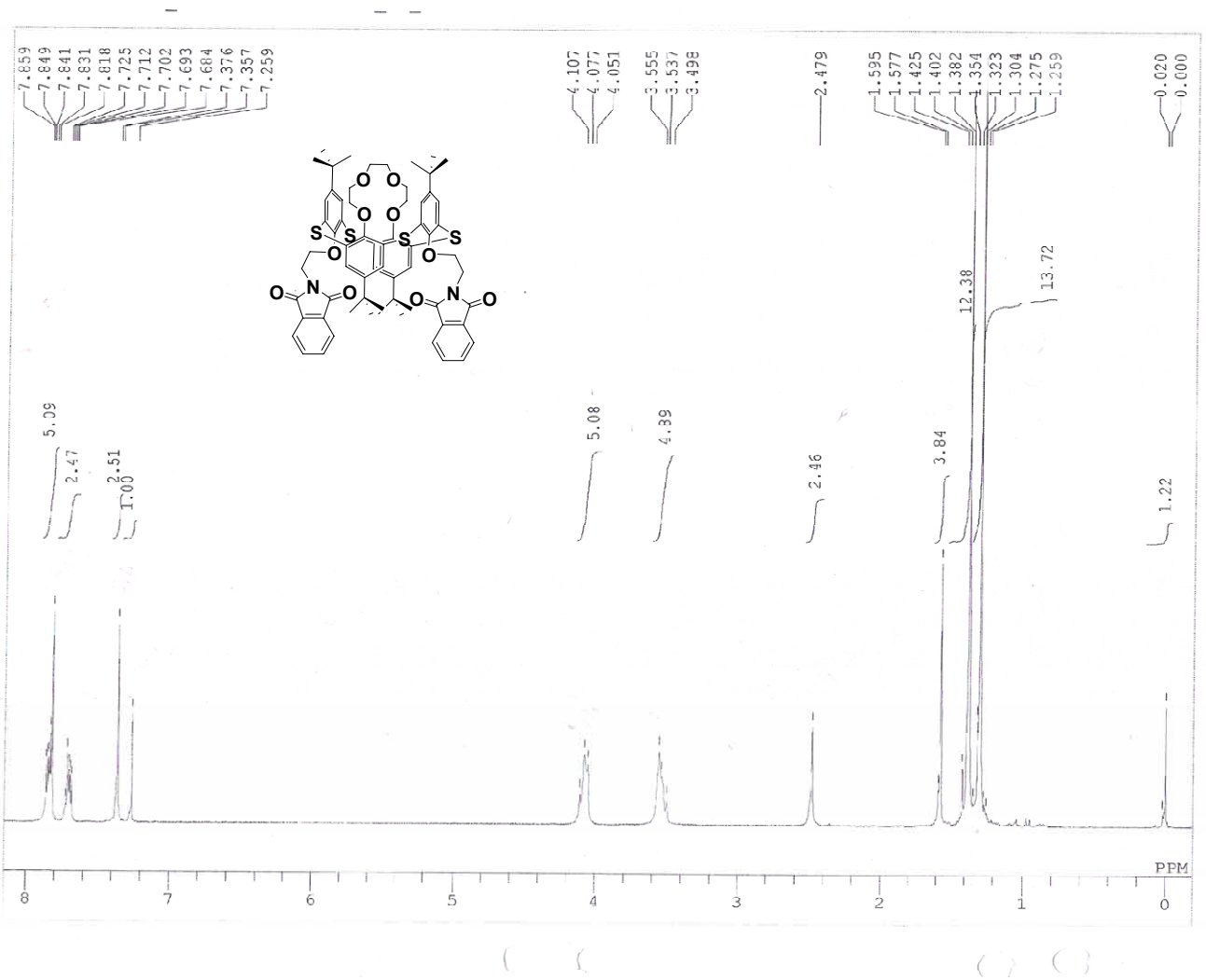
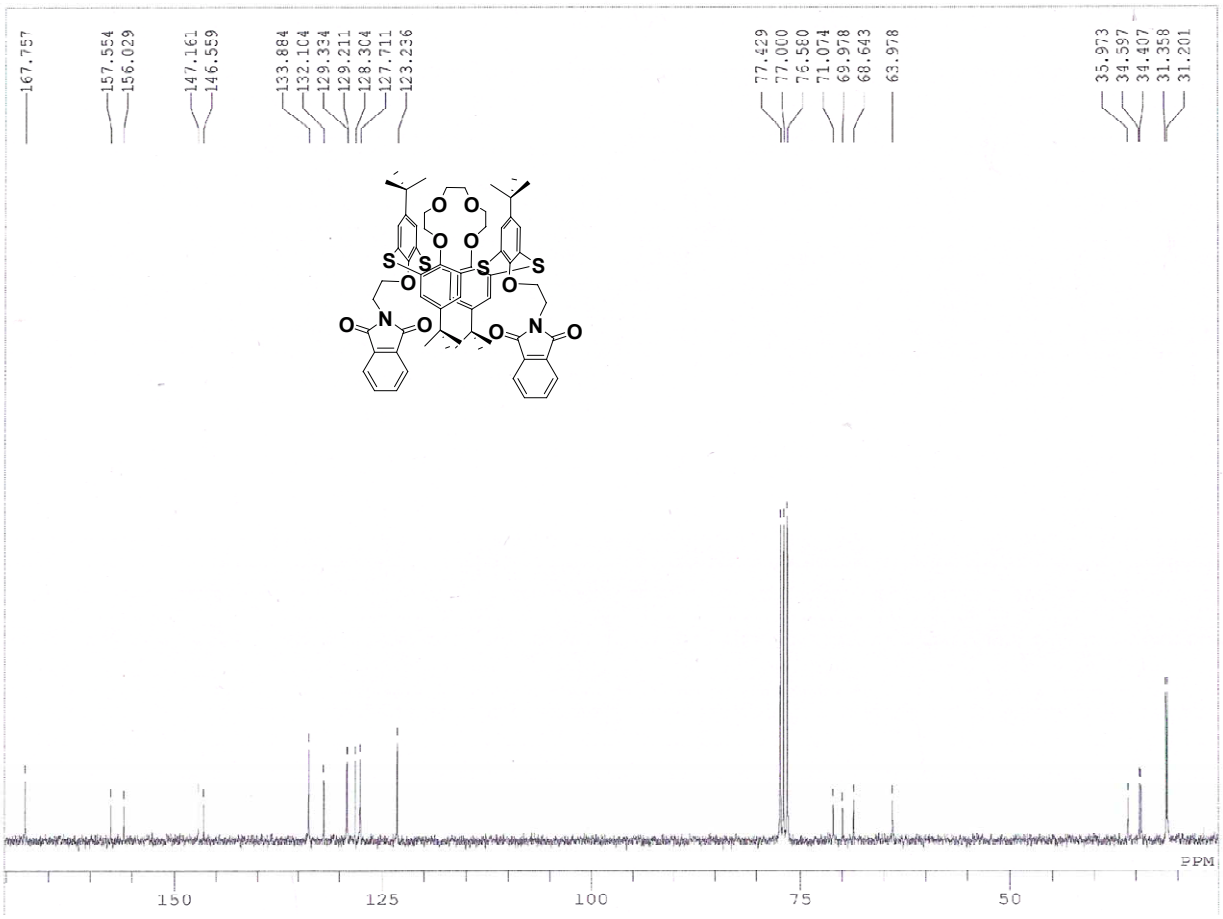


Figure S2. UV-vis spectra of **4** (1 μM) in response to the presence of different metal ions (30 equiv each) in THF.

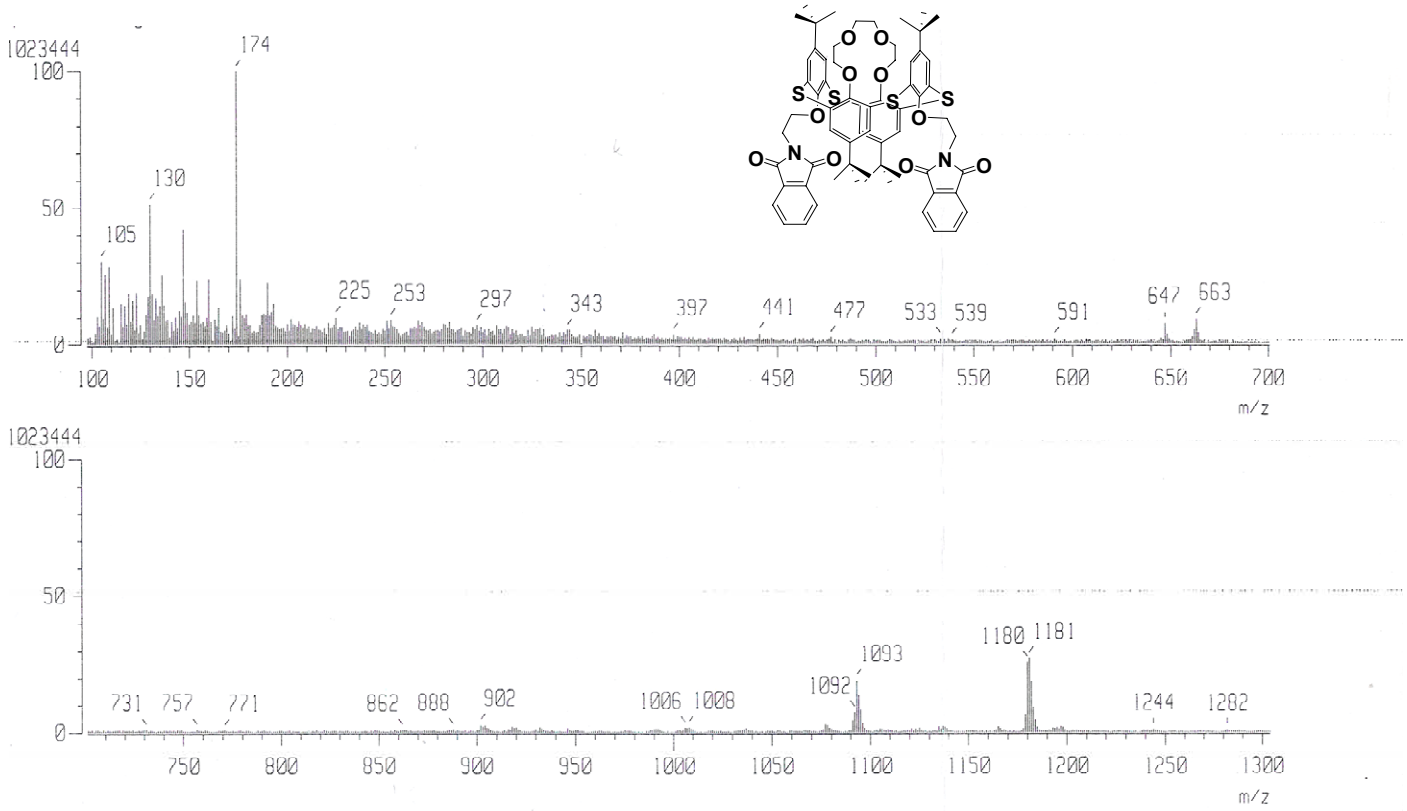
^{1}H NMR spectrum of compound **2**



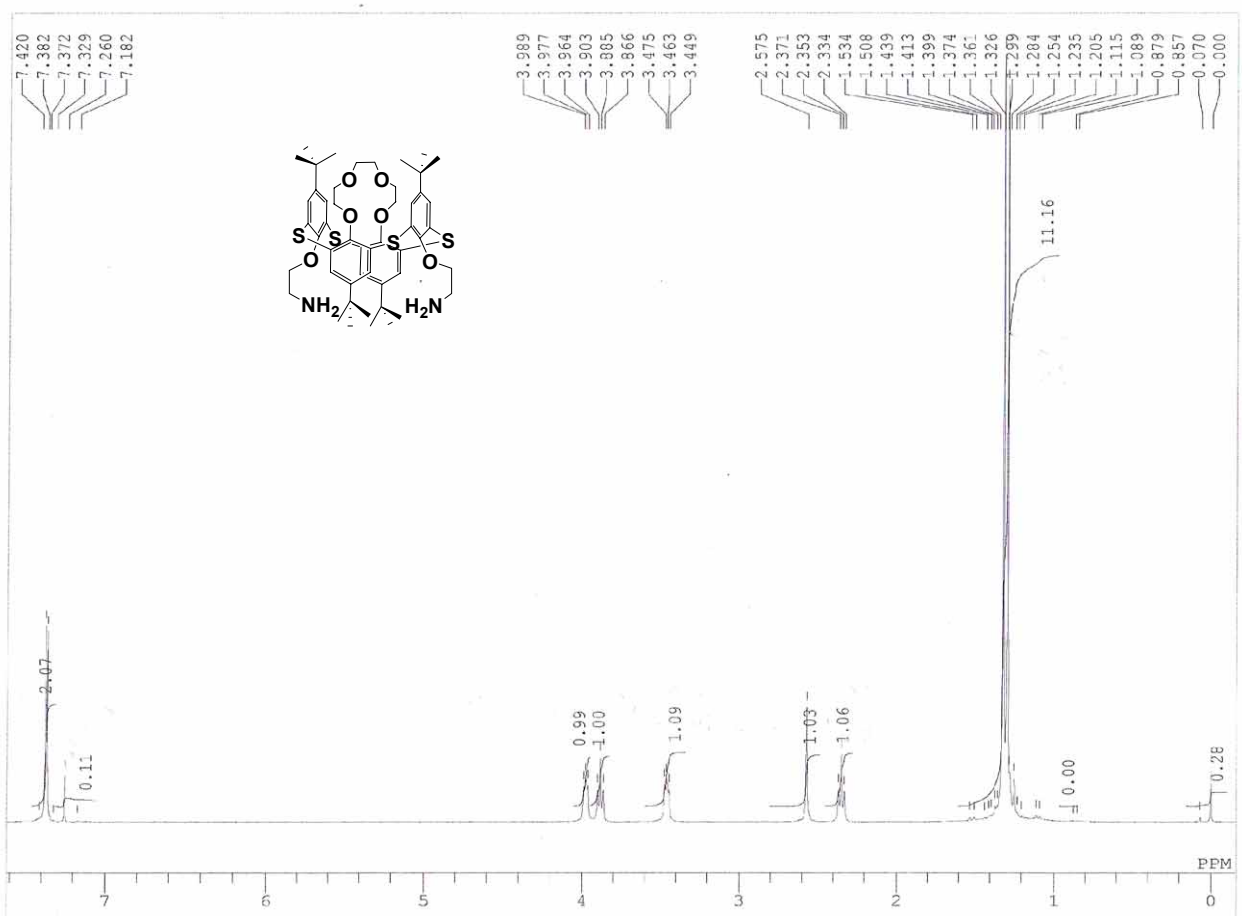
^{13}C NMR spectrum of compound **2**



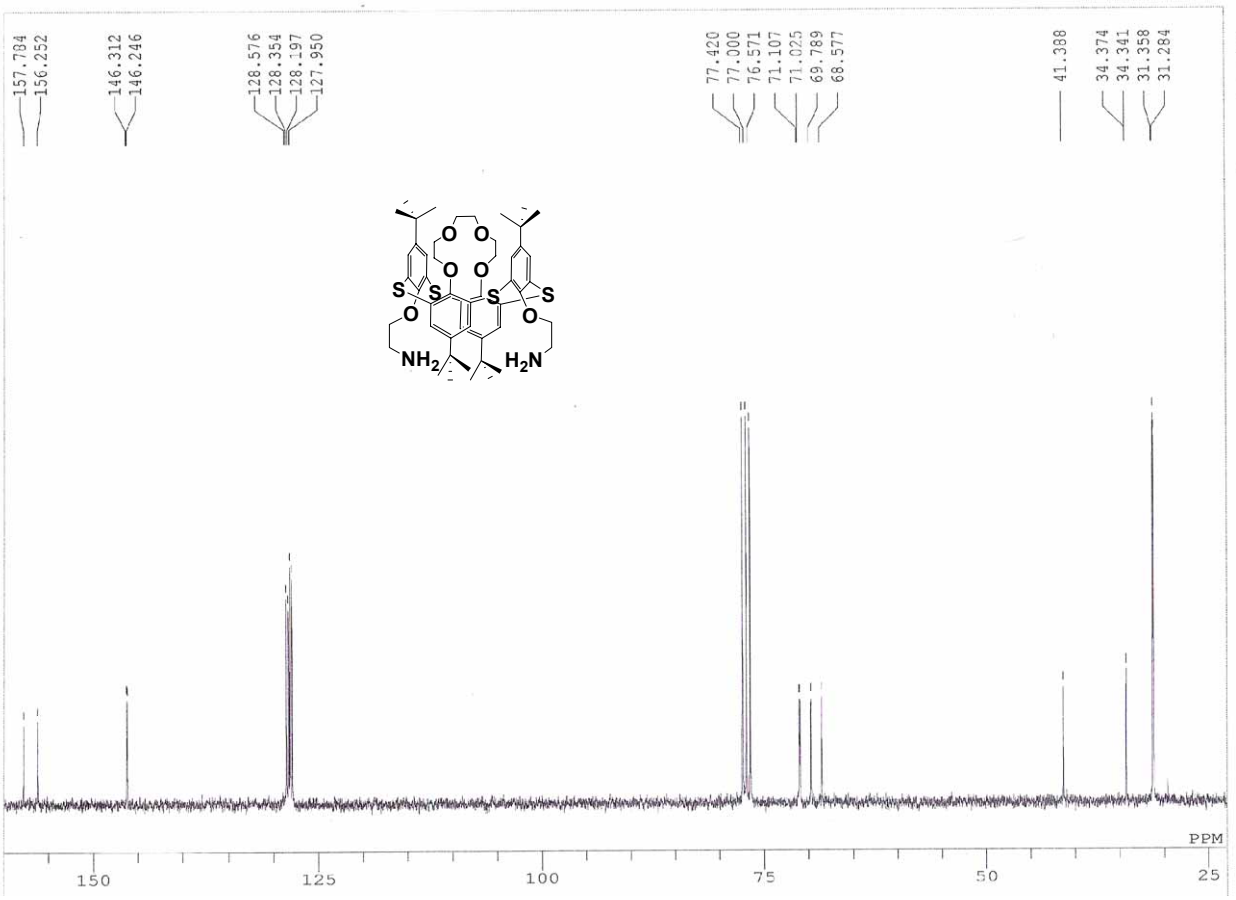
Mass spectrum of compound **2**



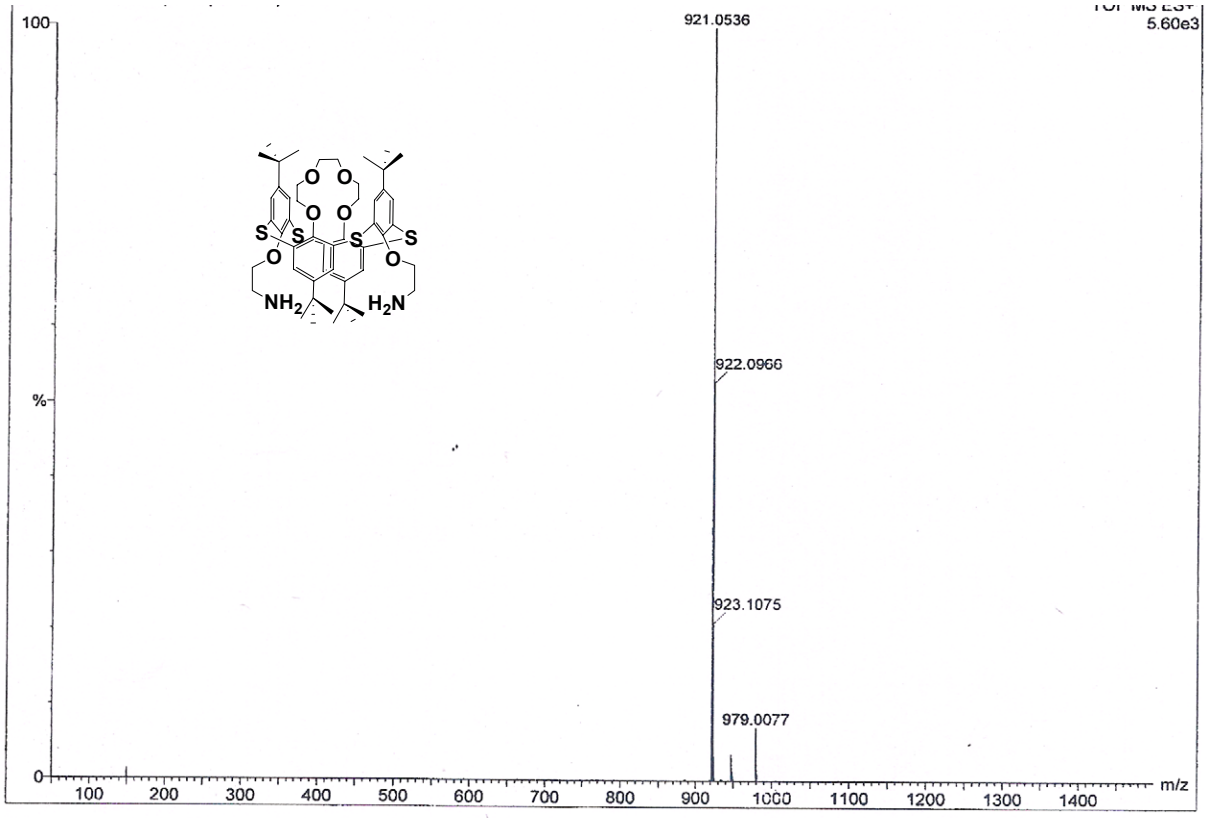
^{1}H NMR spectrum of compound **3**



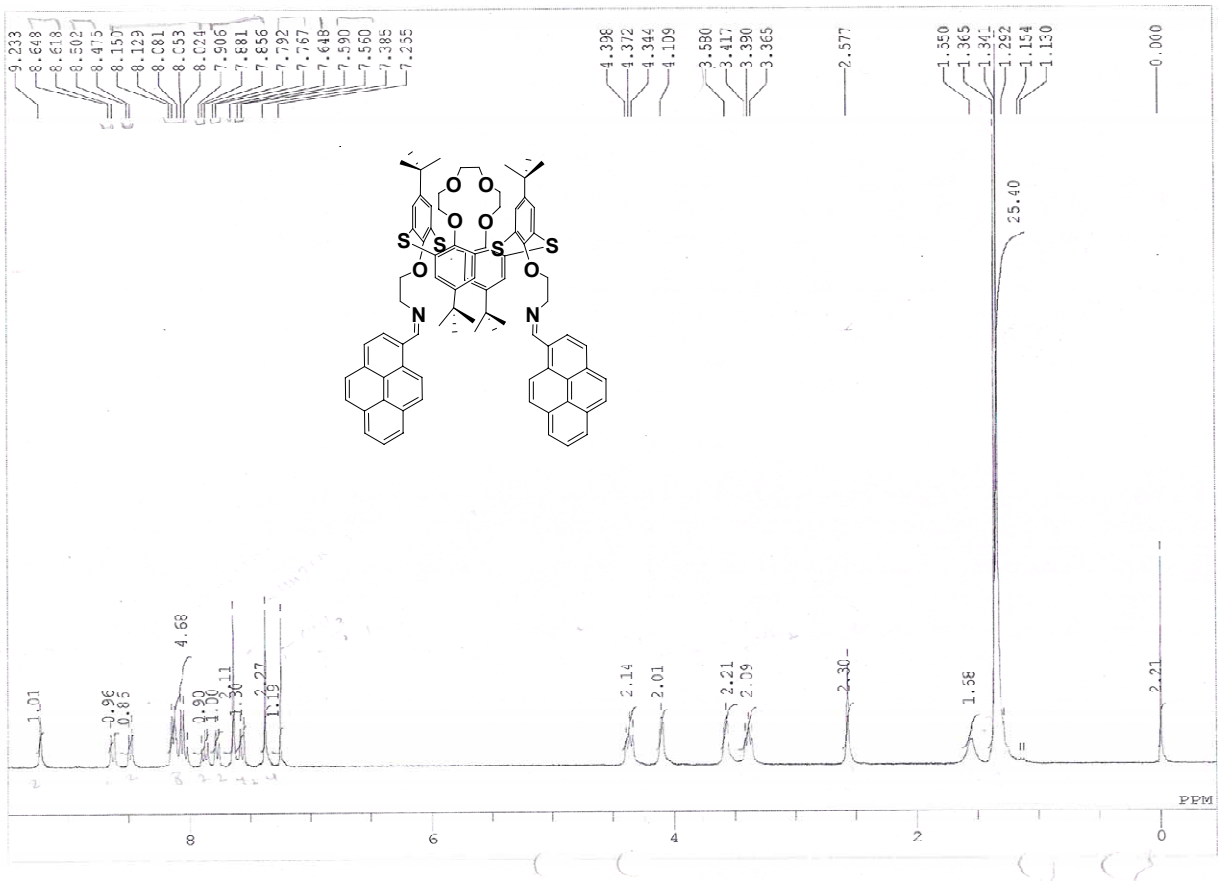
^{13}C NMR spectrum of compound **3**



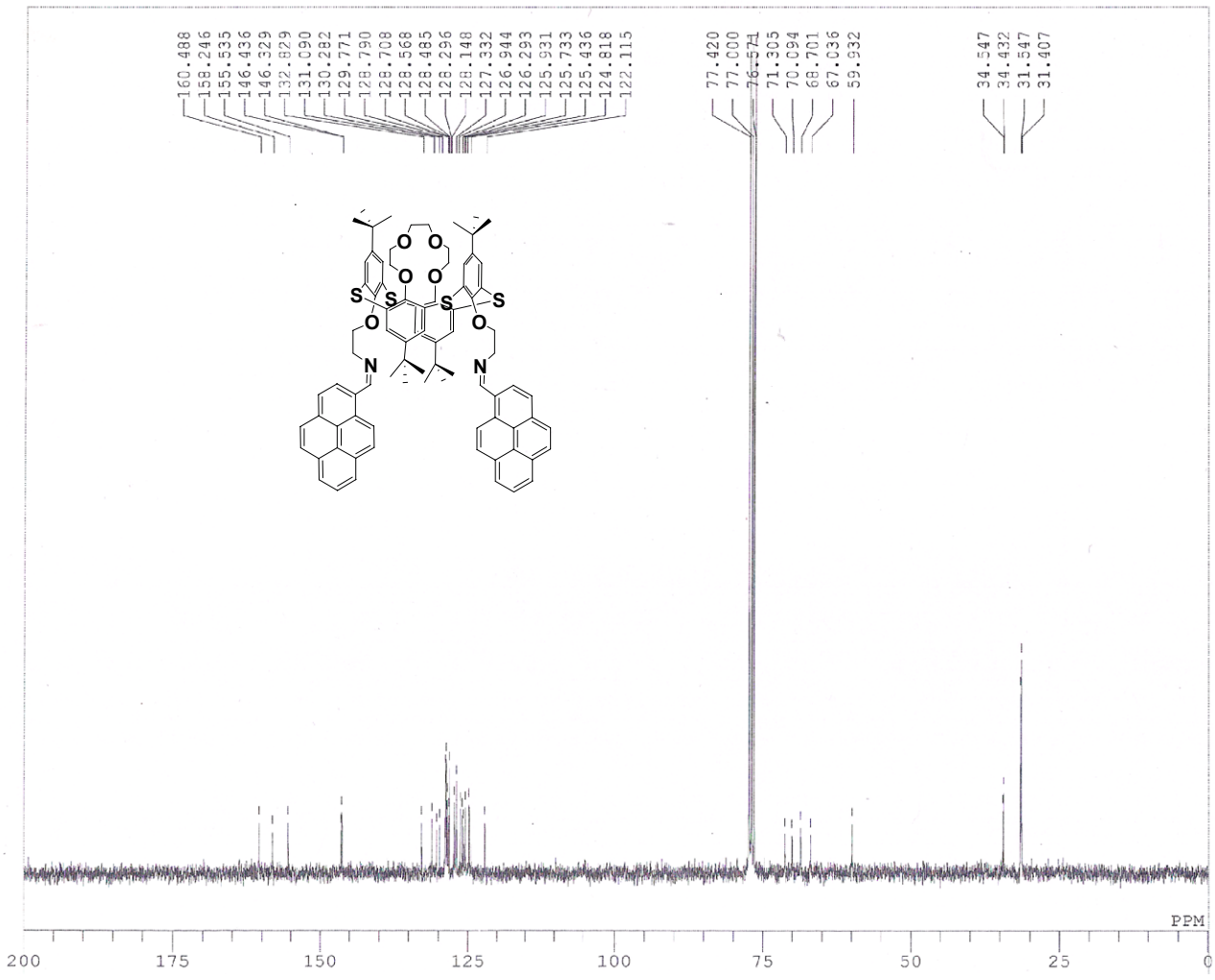
Mass spectrum of compound **3**



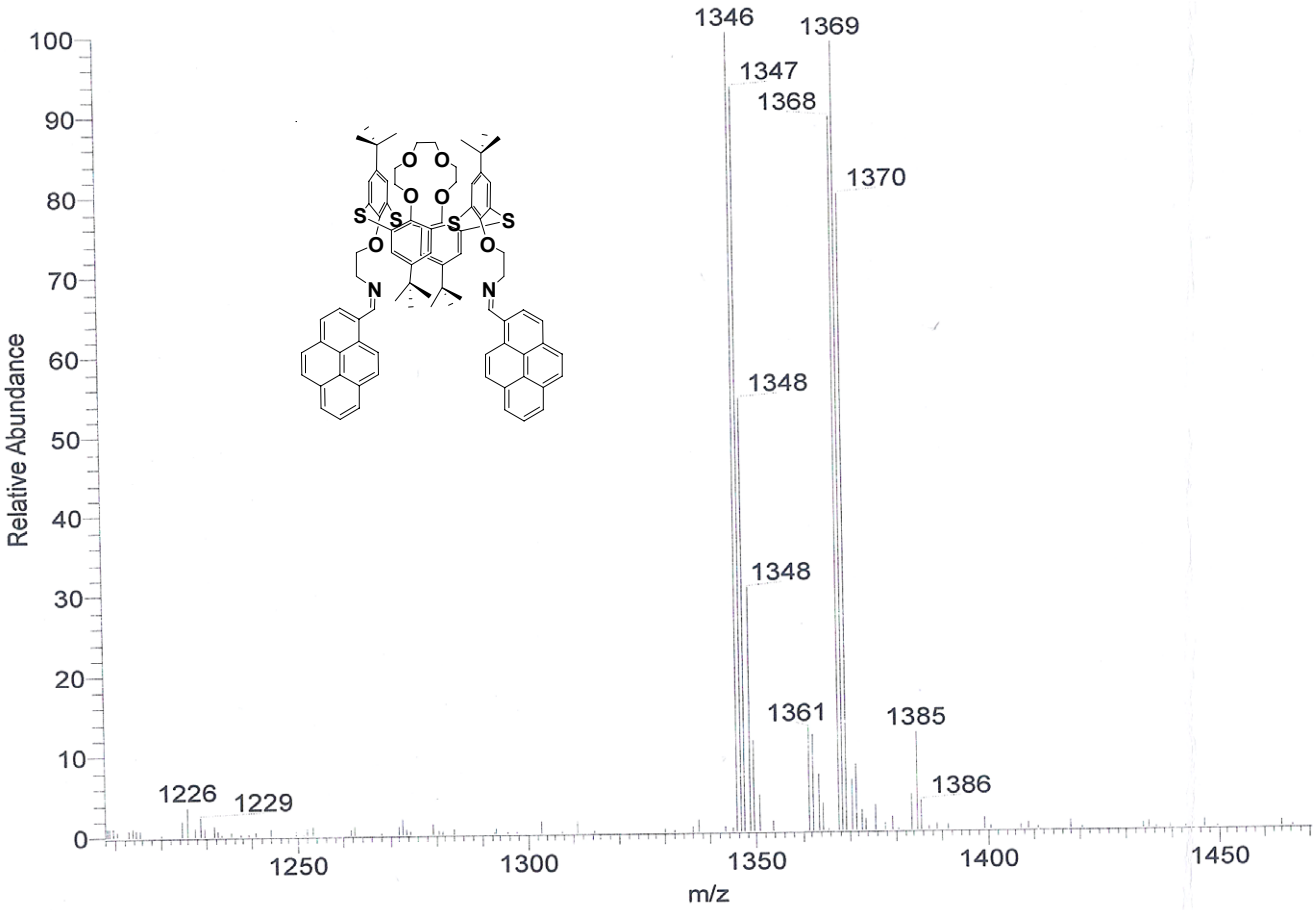
^{1}H NMR spectrum of compound **4**



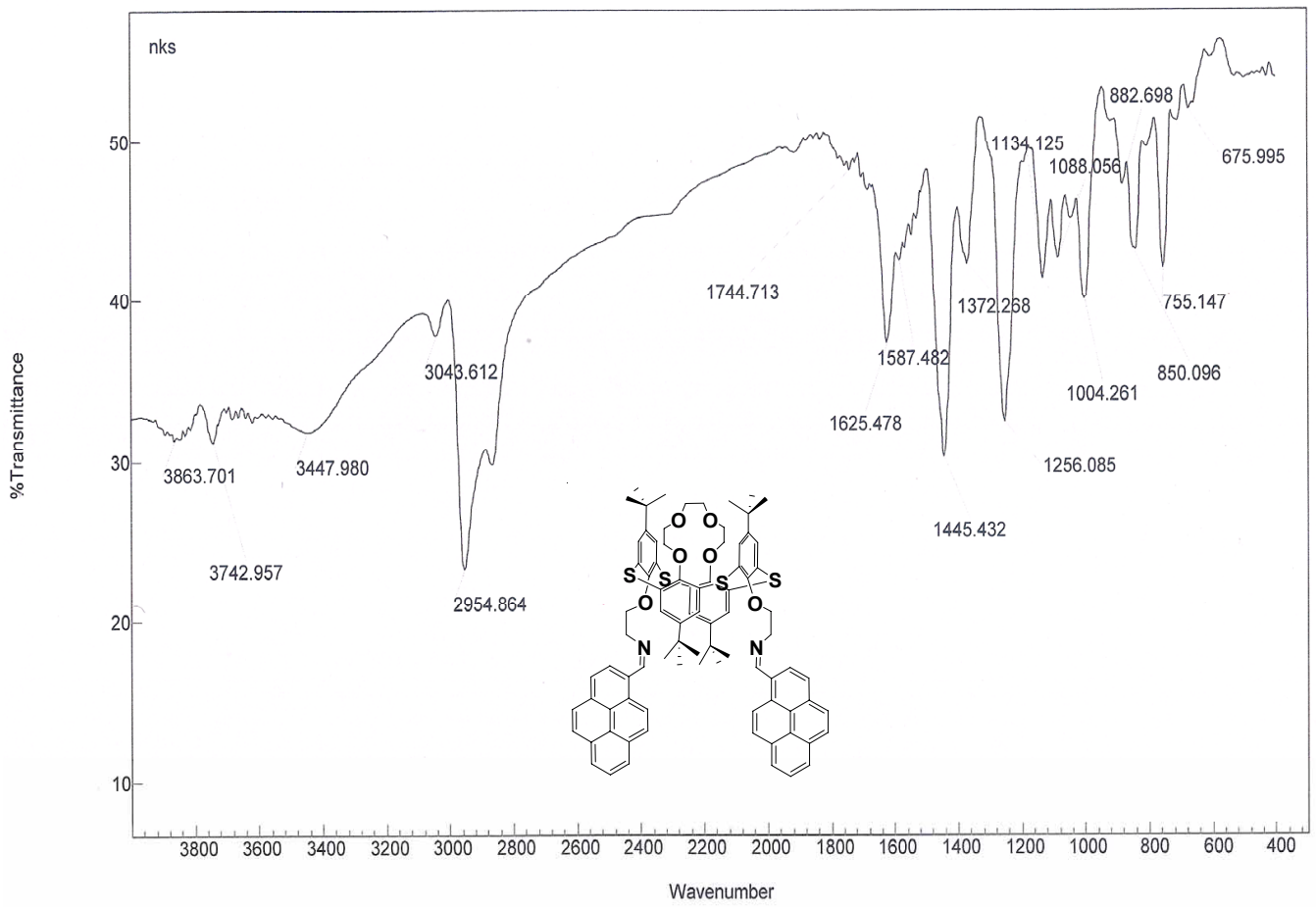
^{13}C NMR spectrum of compound **4**

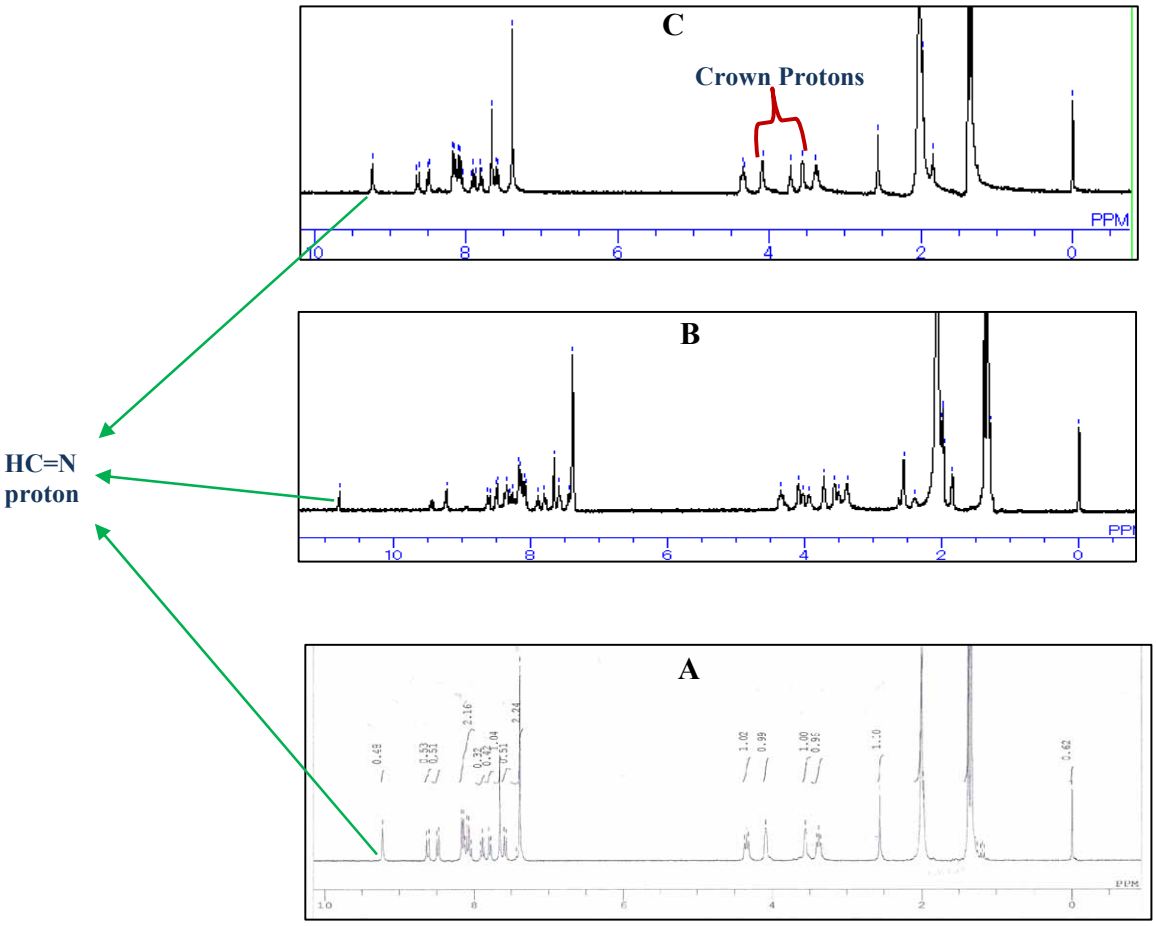


Mass spectrum of compound **4**



IR Spectrum of compound **4**





^{1}H NMR spectra of **4** in $CDCl_3/CD_3CN$ (8:2). **(A**) Free ligand **(B)** in presence of 1.0 equiv of mercury perchlorate; **(C)** in presence of 1.0 equiv of lithium perchlorate.