

Supporting Information

Differential Metal Ion Sensing By An Antipyrine Derivative In Aqueous And β -Cyclodextrin Media: Selectivity–Tuning By β -Cyclodextrin

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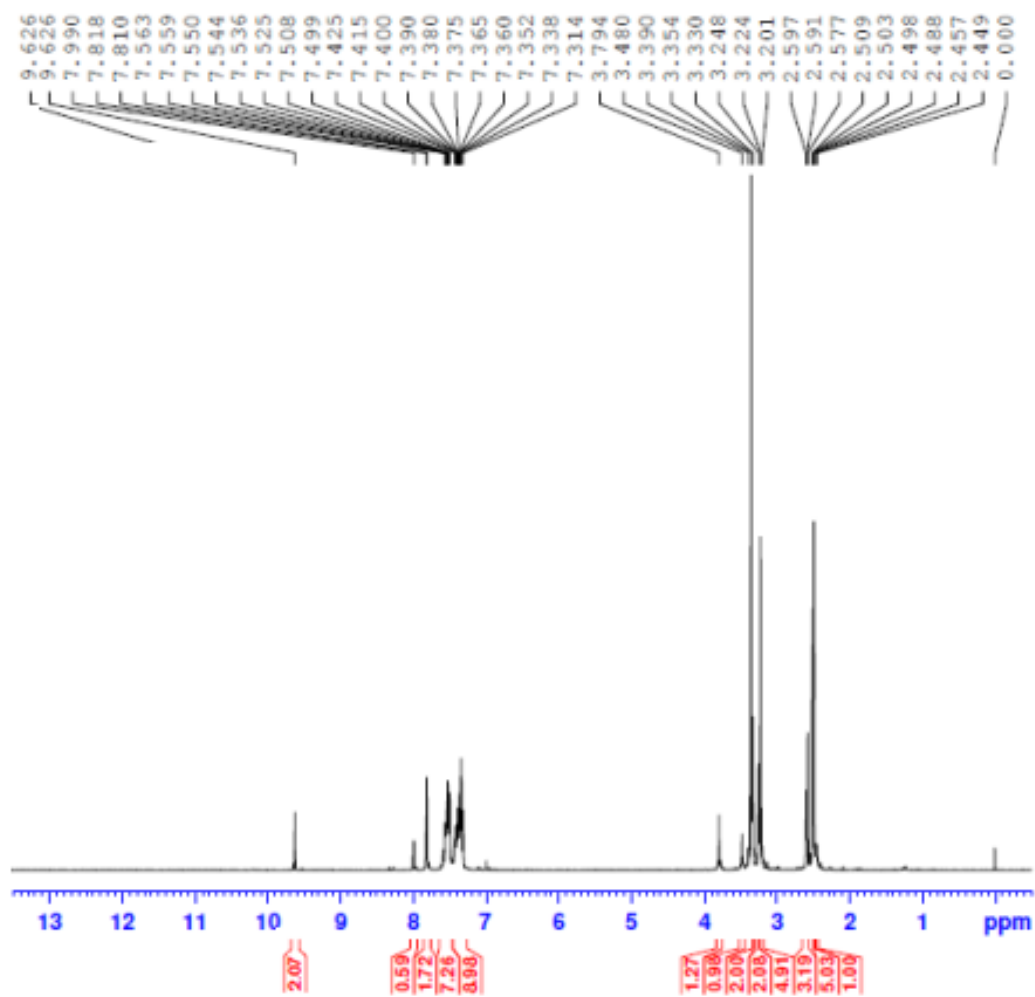


Figure S1. ¹H NMR Spectrum of Compound 1

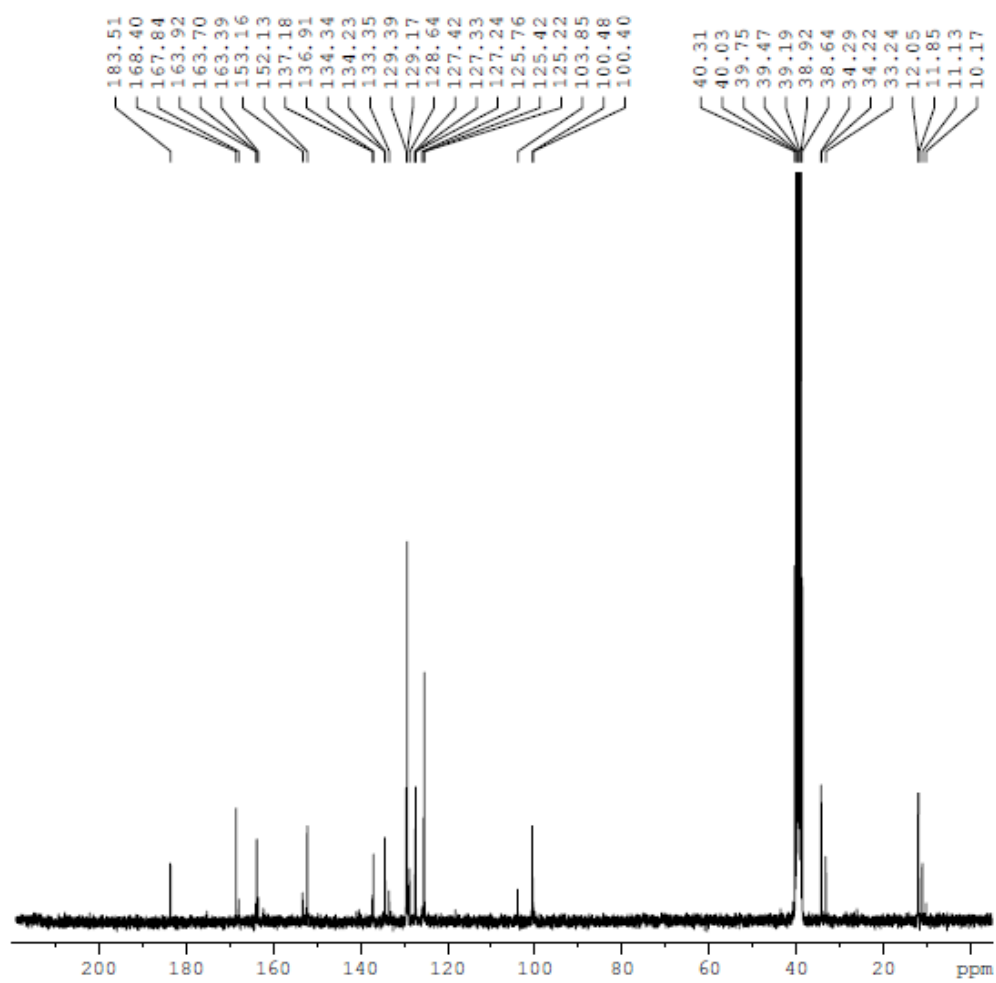


Figure S2. ¹³C NMR Spectrum of Compound 1

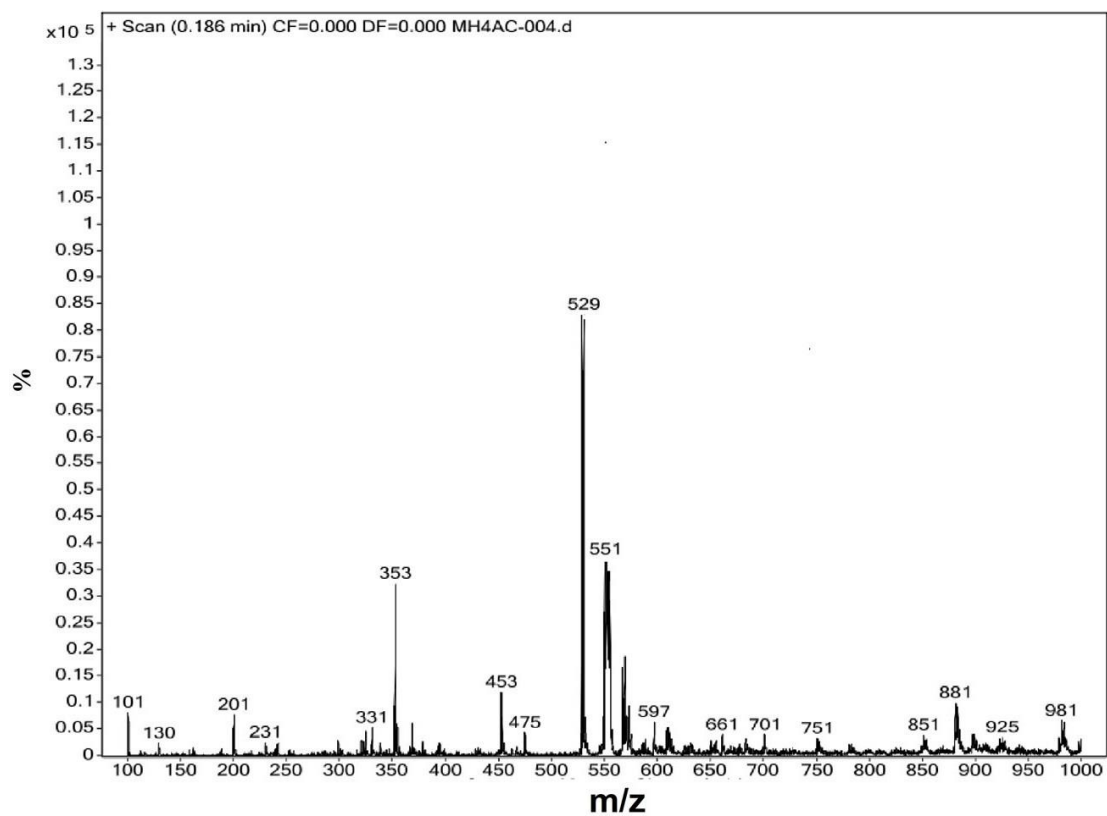


Figure S3. Mass Spectrum of Compound 1

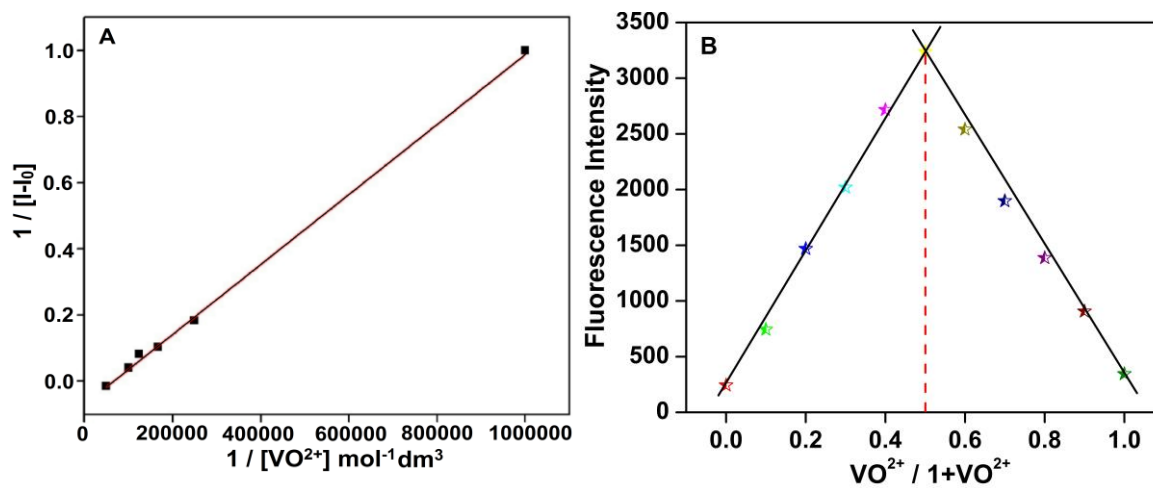


Figure S4. (A) Benesi–Hildebrand plot of **1**–VO²⁺ 1:1 complex. (B) Jobs plot, of the **1**–VO²⁺ complex formation, made using fluorescence intensities.

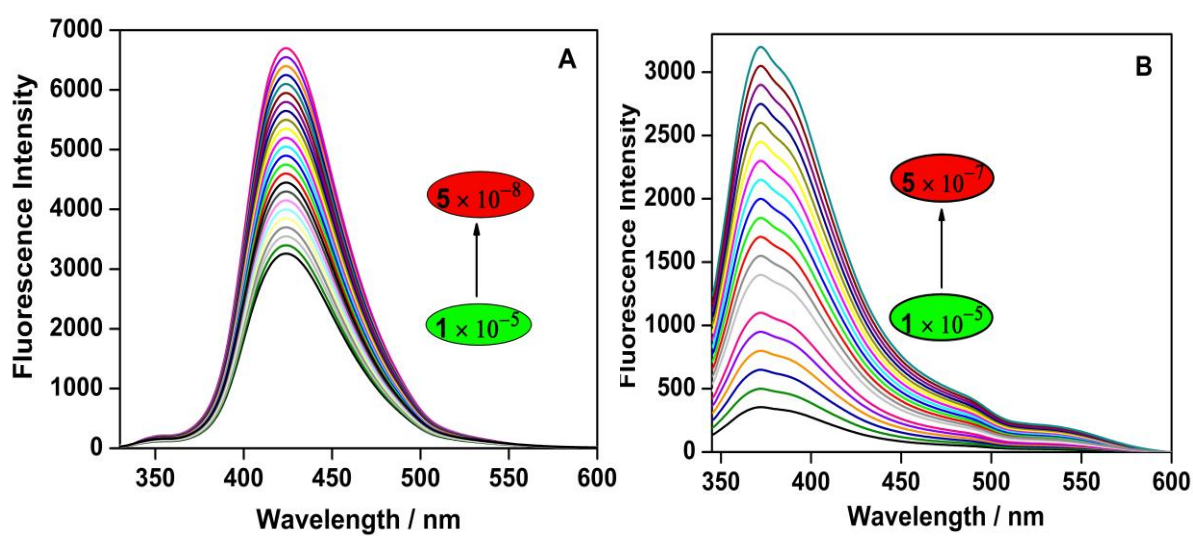


Figure S5. (A) Fluorescence spectra used for the determination of detection limit of Compound **1** with VO^{2+} Metal ion sensing (B) Compound **1** in $\beta\text{-CD}$ solution with Al^{3+} Metal ion sensing.

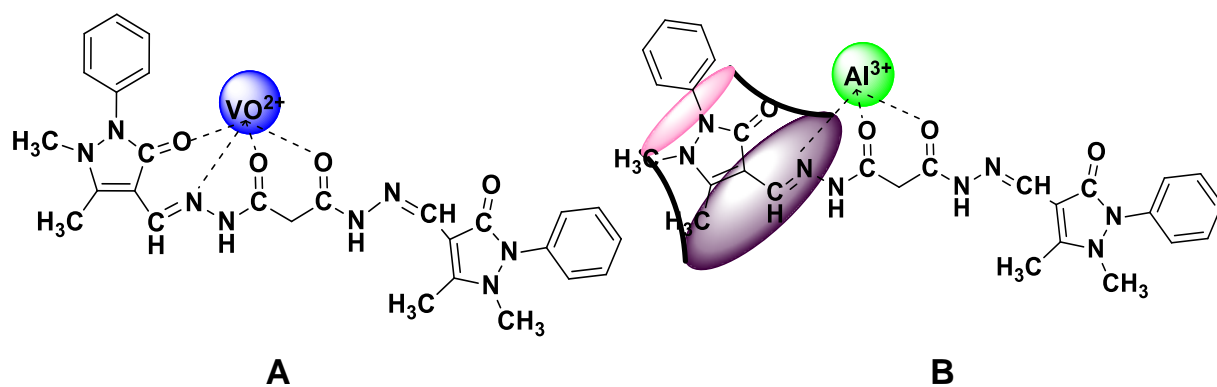


Figure S6. Structure of the metal complexes of Compound **1** in open and β -CD-bound forms.

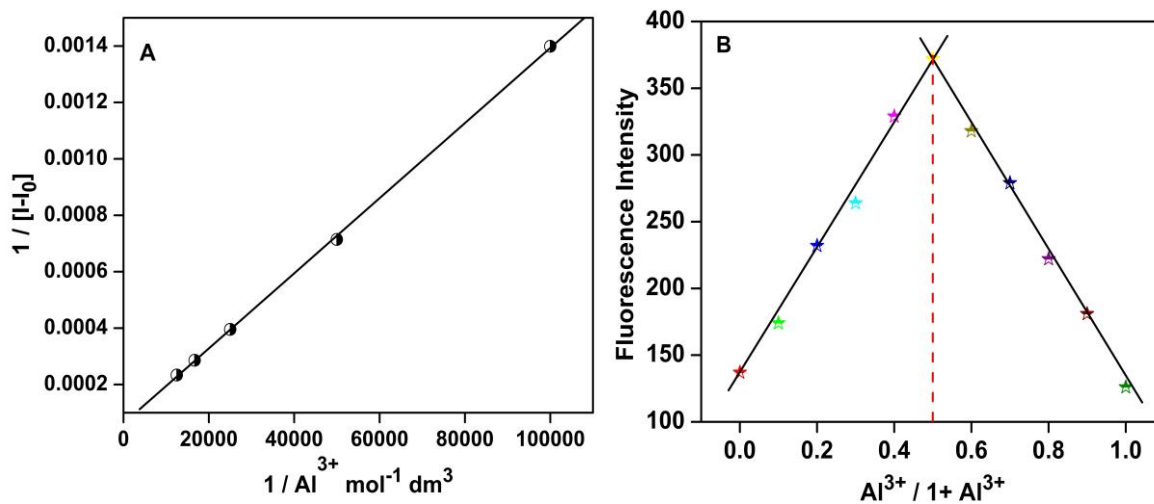


Figure S7. (A) Benesi-Hildebrand plot of $1-\beta\text{-CD}$ complex solution assuming 1:1 binding with Al^{3+} ion pH =7.4 (B) Jobs plot, of the $1-\beta\text{-CD}-\text{Al}^{3+}$ complex formation, made using fluorescence intensities.

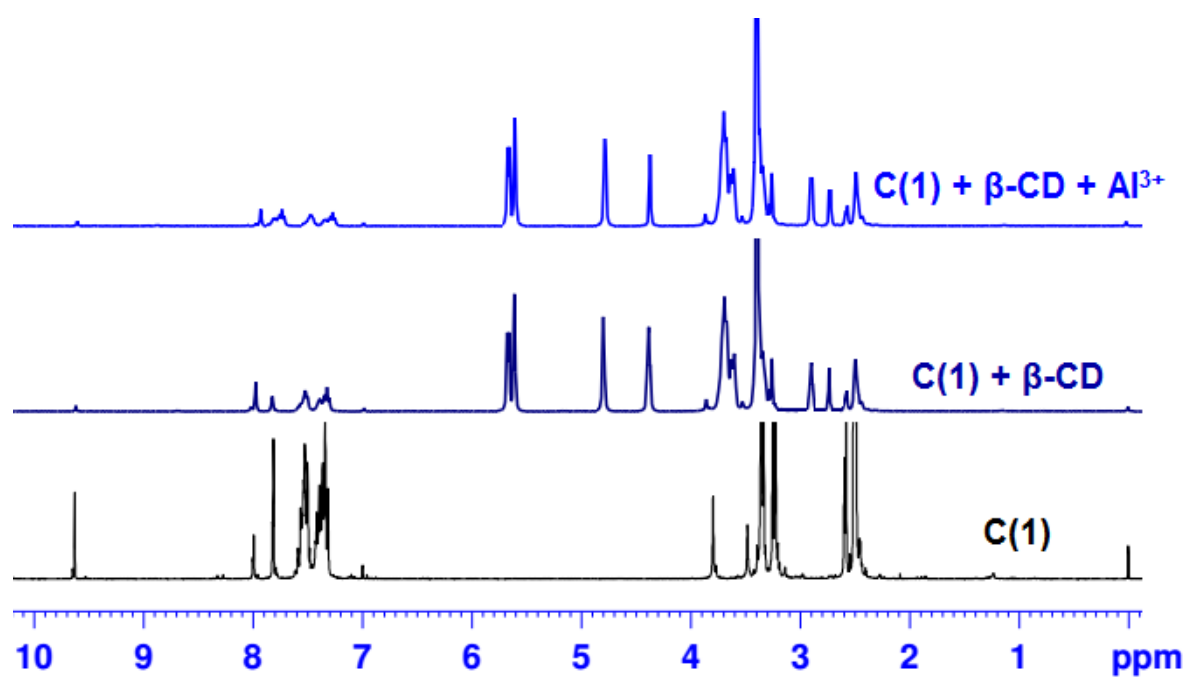


Figure S8. ¹H NMR Spectrum of Compound **1**, 1-β-CD and 1-β-CD with Al³⁺ ion.