Supporting Information

A novel phthalazine based highly selective chromogenic and fluorogenic chemosensor for Co^{2+} in semi-aqueous medium: Application in cancer cell imaging.

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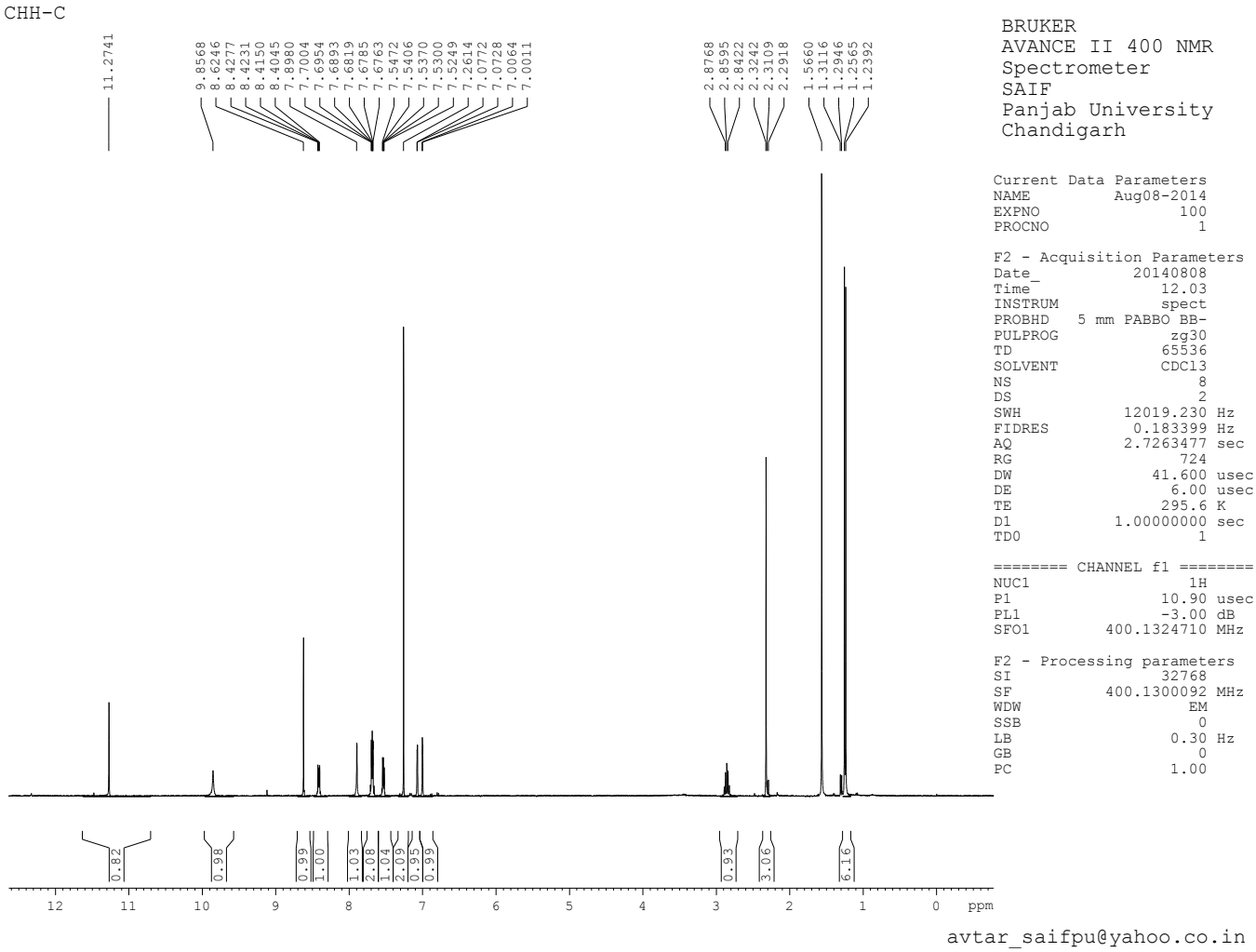

Figure S1: ^{1}H-NMR of receptor **3**

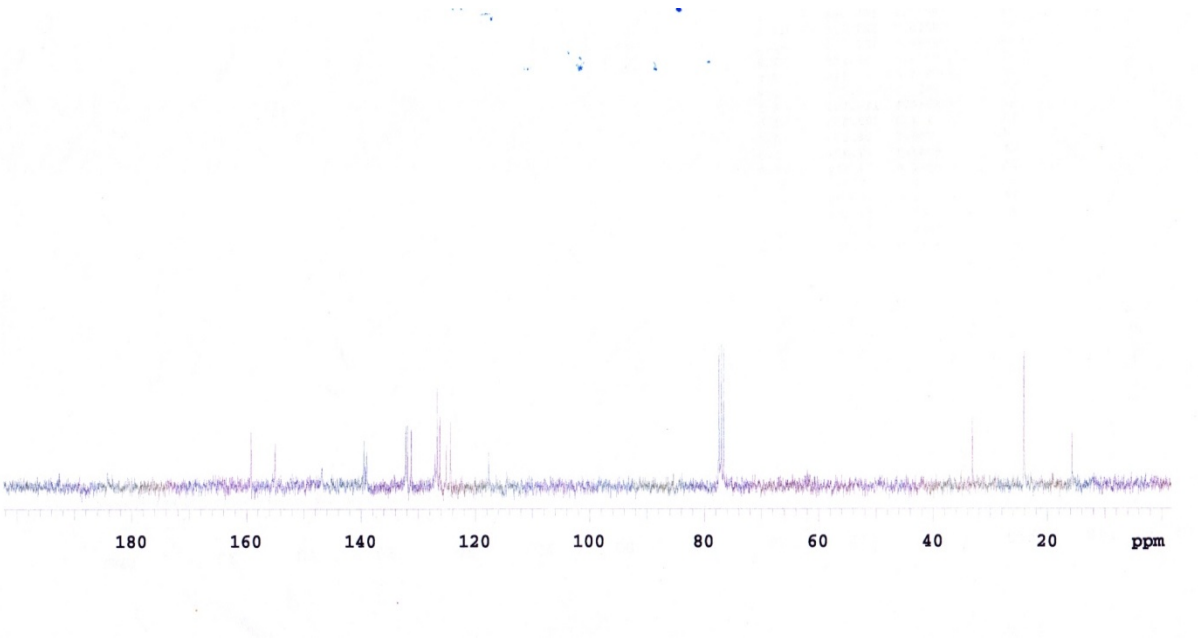

Figure S2: ^{13}C-NMR of receptor **3**

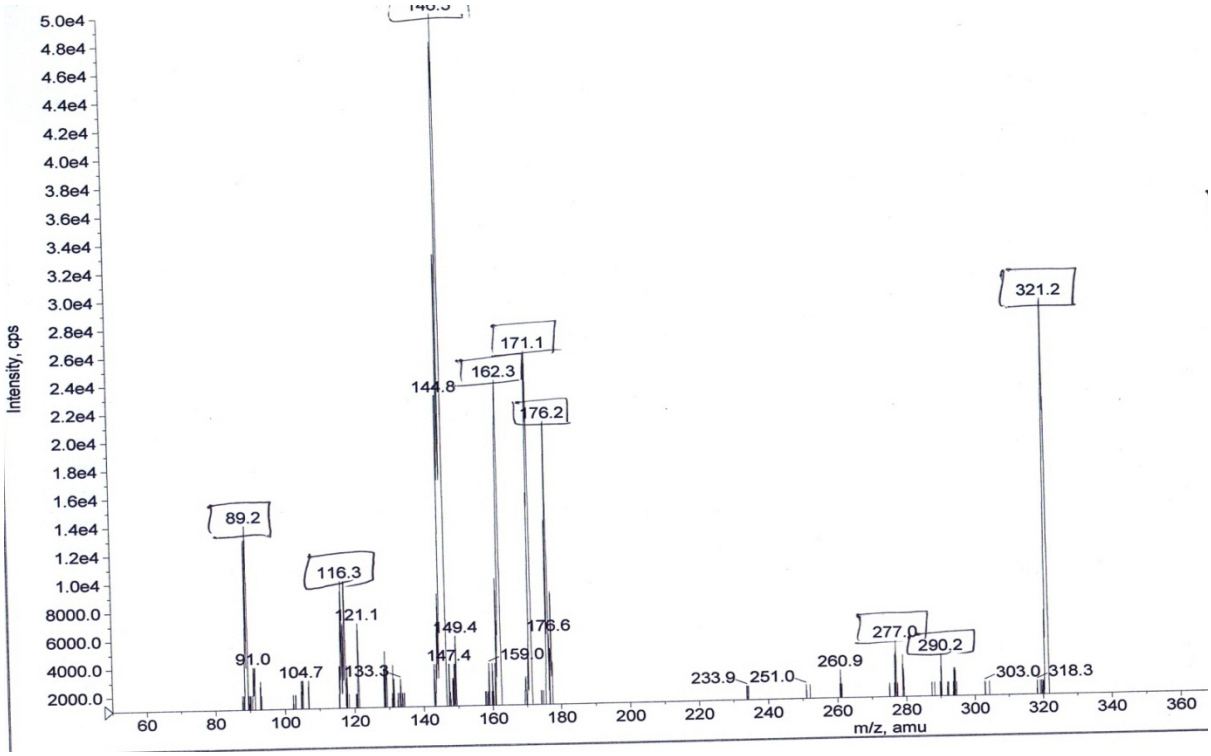

Figure S3: LC-MS of receptor **3**

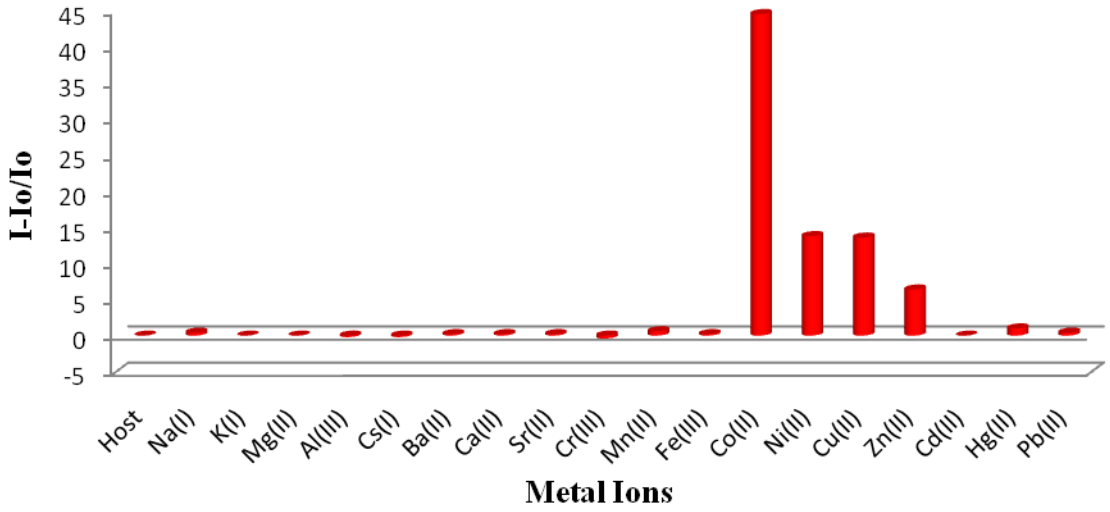

Figure S4 Absorption ratiometric response ($I-I_0 / I_0$) of receptor **3** (10 μM) upon the addition of a particular metal salt (100 μM) in CH_3CN/H_2O (1:1, *v/v*).

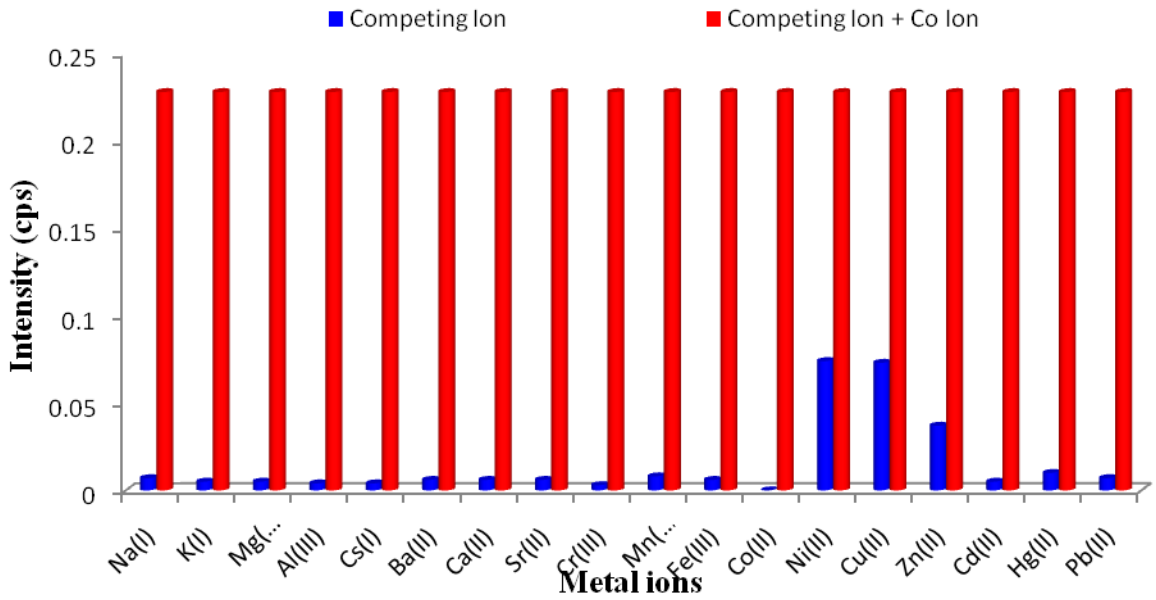

Figure S5 Relative absorbance of receptor **3** (10 μM), absorbance intensity at 450 nm) with 1 equiv. of Co^{2+} and 1 equiv. of the metal ion stated.

Determination of the detection limit

The detection limit DL of 3 for Co^{2+} was determined[1] from the following equation:

$$Dl = K * S.D.\frac{1}{Slope}$$

Where K = 3; S. D. = 316 is the standard deviation of the blank solution; S is the slope of the Calibration curve.

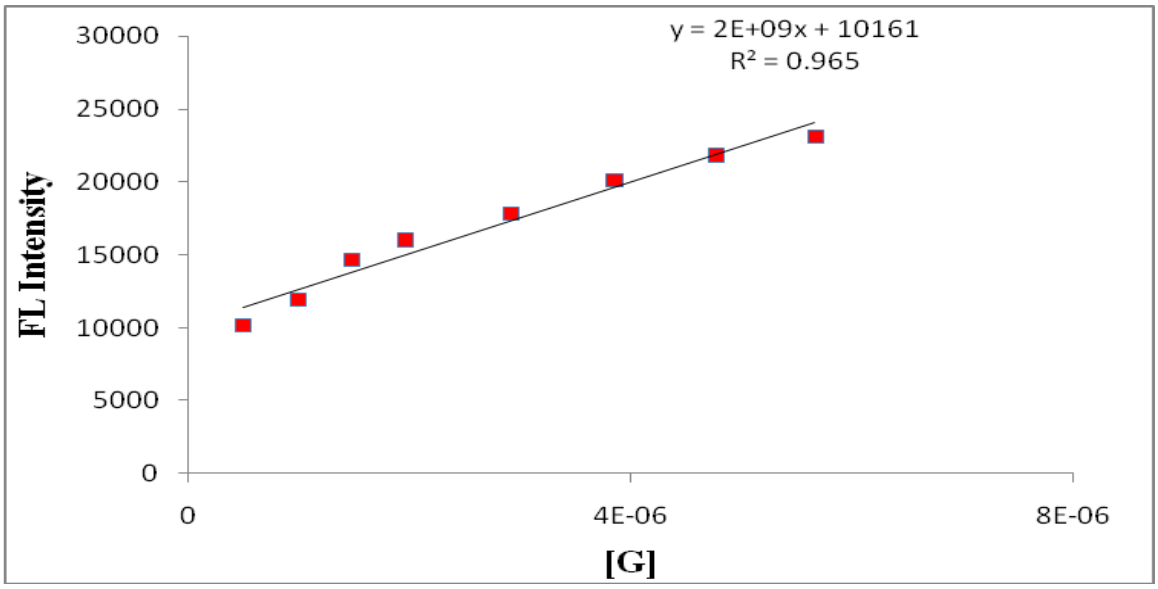

Figure S6 Fluorescence intensity Vs guest concentration for finding the limit of detection.

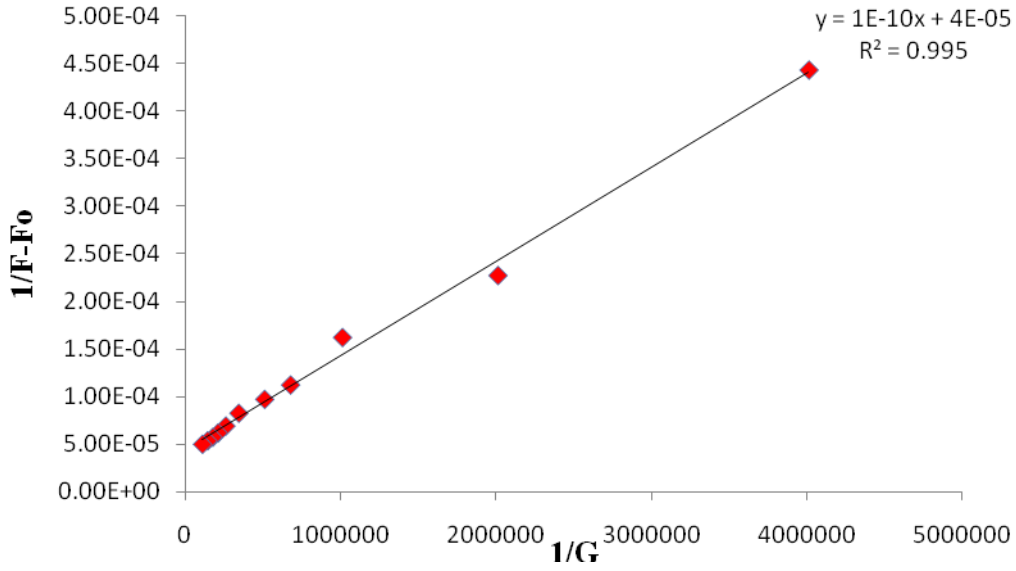

Figure S7 Benesi-Hildebrand Plot receptor **3** (adjusted equation: $1/F\text{-}F_0$ = 1E-10x+4E-05 1/[G], R=0.9951) at the K value 400000 M^{-1}.

Reference

1. M. Zhu, MJ. Yuan, XF. Liu, JL. Xu, J. Lv, CS. Huang, HB. Liu, YL. Li, S. Wang, DB. Zhu, Org. Lett. 2008, 10, 1481−1484.