Supporting Information

A highly selective fluorescent chemosensor for Hg^{2+} based on a hydrazones derivative including phthalazin and their application in human cervical cancer HeLa cells

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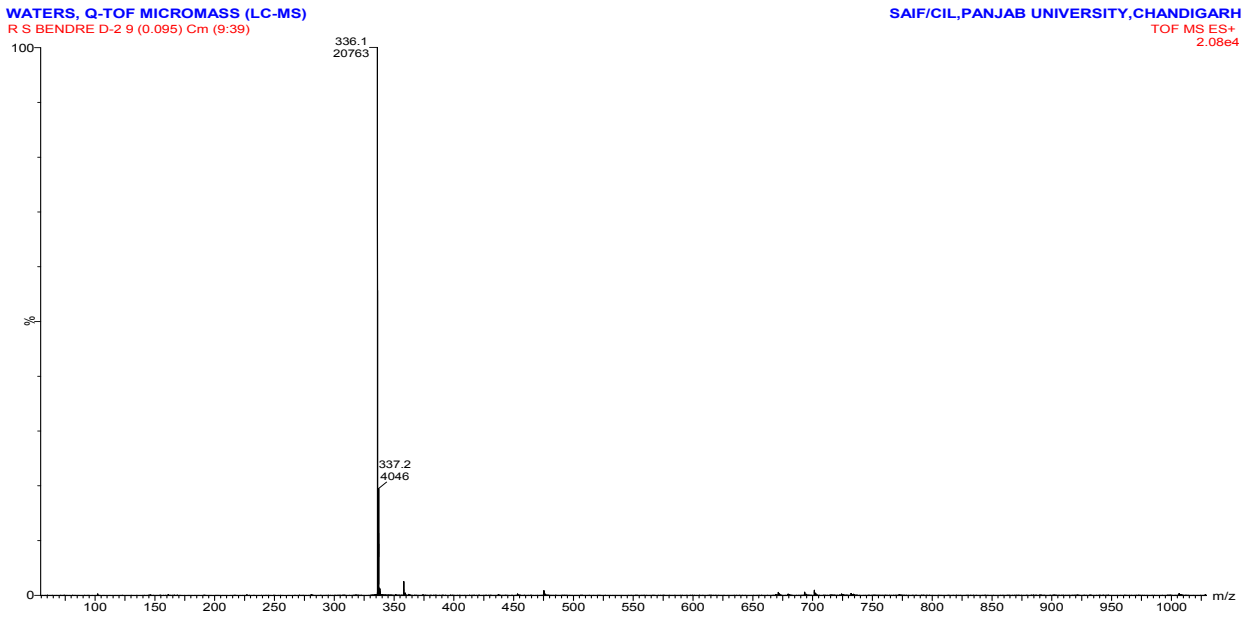

Figure S1: LC-MS Spectra of receptor **1**

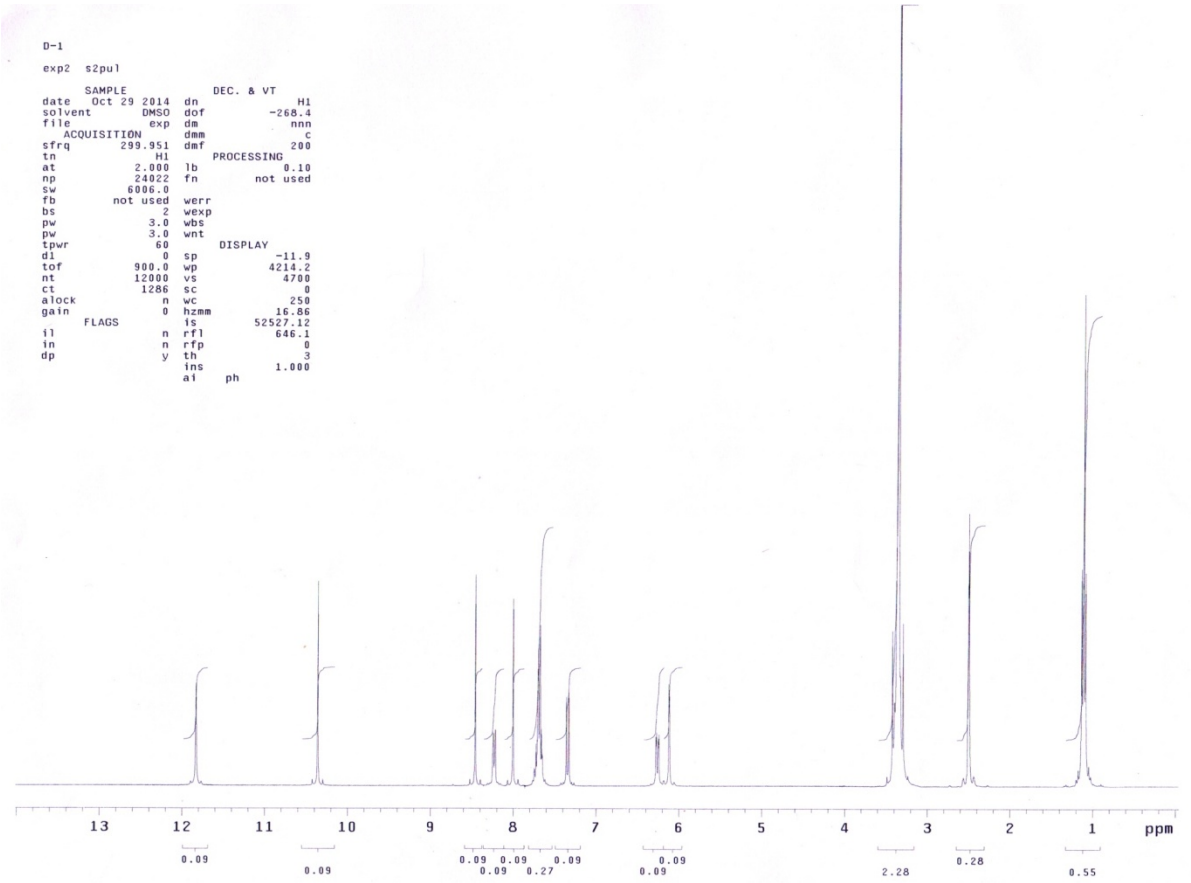

Figure S2: ^{1}H NMR Spectrum of receptor **1**

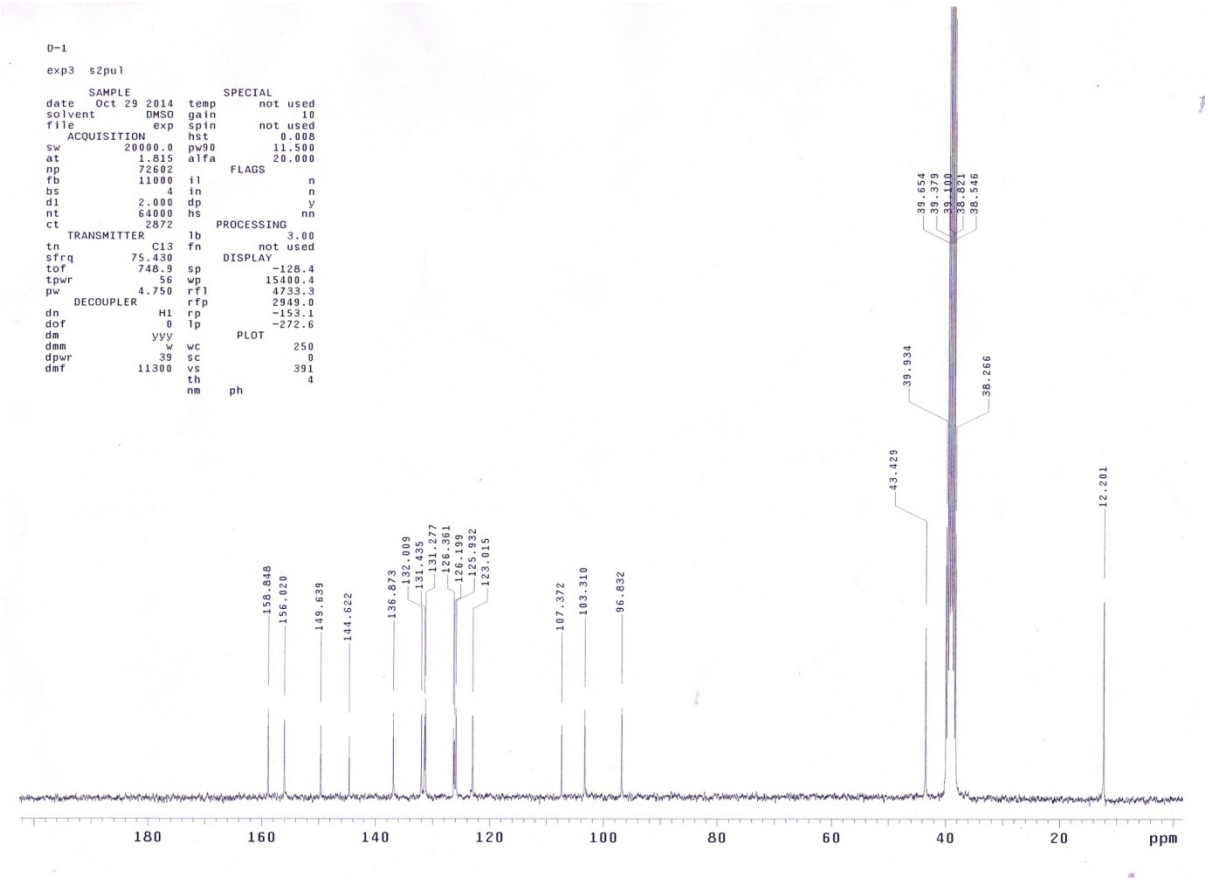

Figure S3: ^{13}C NMR Spectrum of receptor **1**

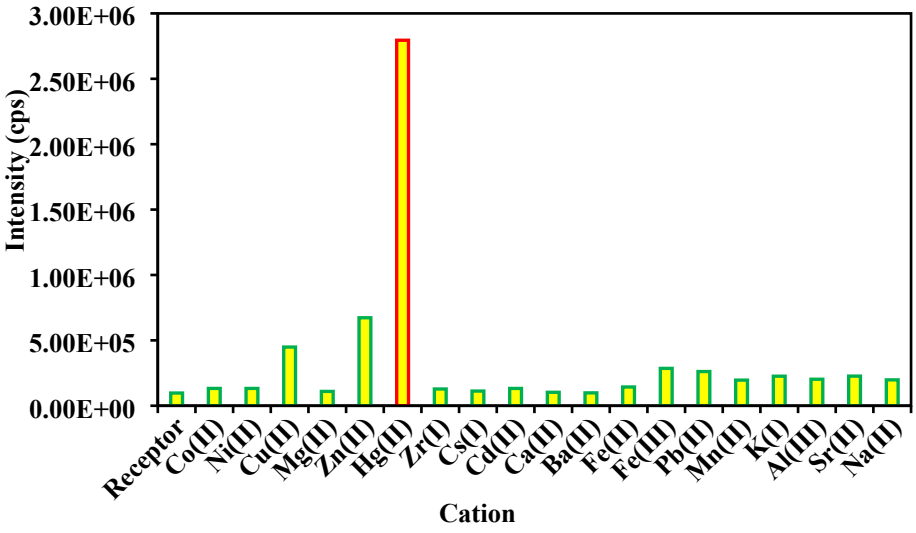

Figure S4:Bar diagram showing effect of 1 equivalents of different metal ions on the fluorescent intensity of **1** (10 μM) in DMSO/H_2O (80:20, *v/v*) solution.

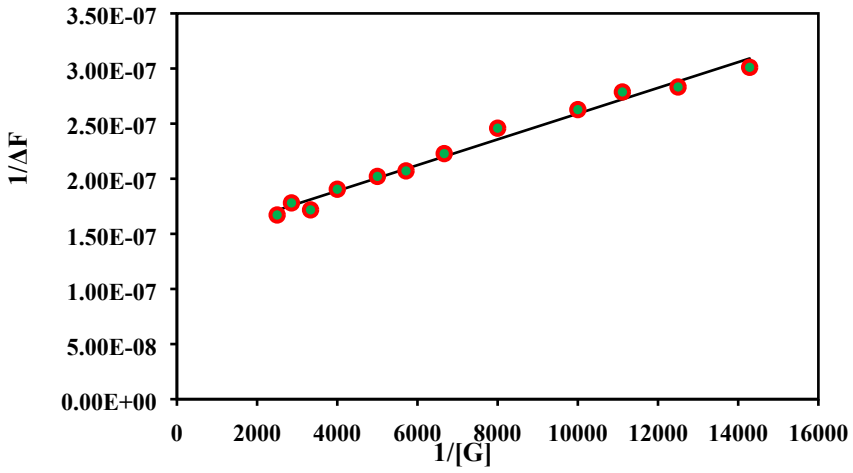

Figure S5. Benesi-Hildebrand plot for receptor **1**, 1/ΔF vs 1/[Hg^{2+}].

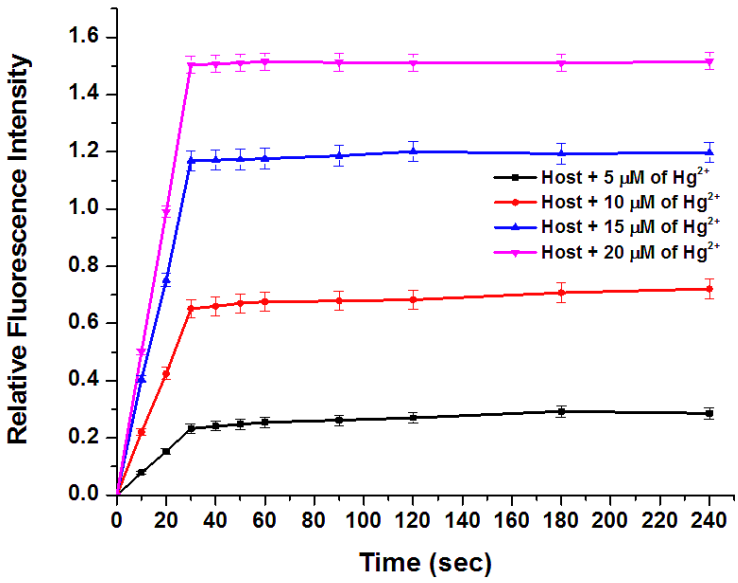

Figure S6: Plot of relative fluorescence intensity of **sensor1** and Hg^{2+} at different concentrations (5, 10, 15 and 20 μM) as a function of time (seconds).

Blank Maxima 460	**9.66E+04**	**9.79E+04**	**1.02E+05**	SD of Blank	Slope from Graph	LOD	LOQ
				2.60E+03	3.29E+00	2.61E-09	7.91E-09
						26.1 nM	**79.1 nM**

Table S1: Calculation of Detection limit using IUPAC 3σ method and LOQ measurement using 10σ method