

2, 2'-(hydrazine-1, 2-diylidenedimethylylidene) bis (6-isopropyl-3-methylphenol) Based Selective Dual Channel Chemosensor for Cu²⁺ in Semi-Aqueous Medium

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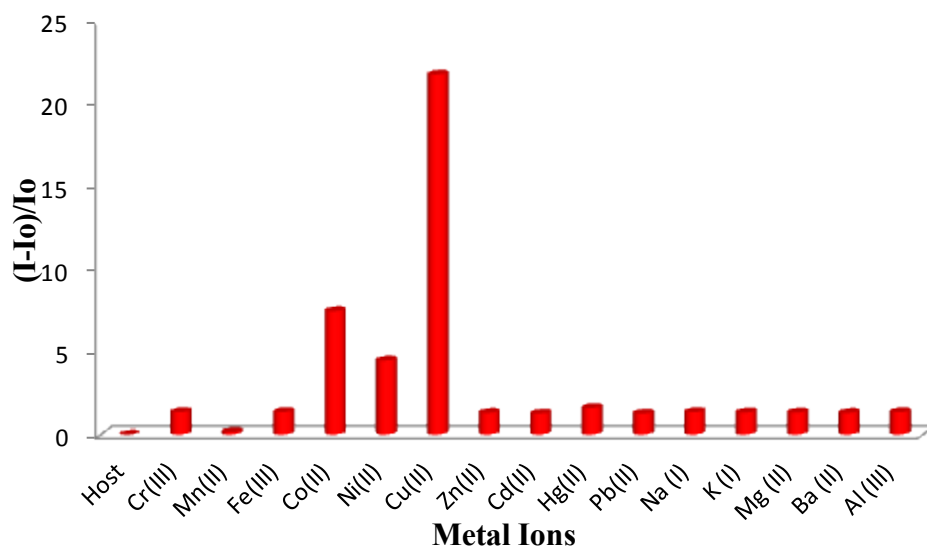


Figure S1. Fluorescence ratiometric response ($I-I_0/I_0$) of compound **1** ($c = 5 \times 10^{-6}$ M) upon the addition of a particular metal nitrates ($c = 5 \times 10^{-5}$ M) in methanol containing 40 % water.

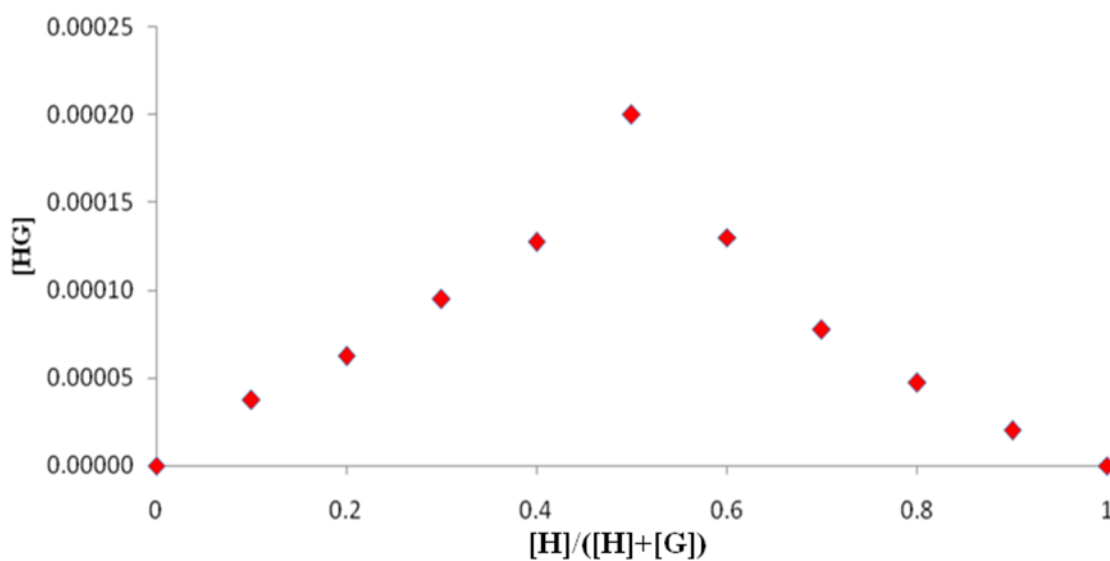


Figure S2 1:1 Stoichiometry of the host guest relationship was realized from the Job's plot.

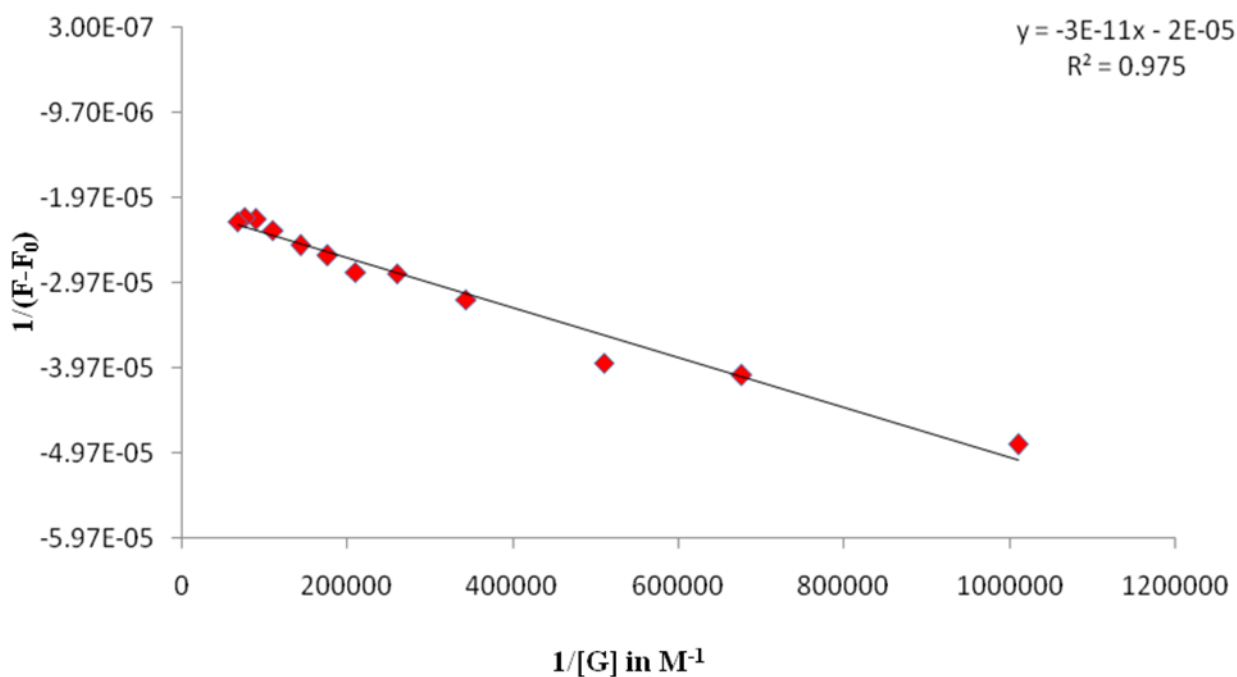


Figure S3 Benesi-Hildebrand Plot (adjusted equation: $1/F-F_0 = -3E-11x-2E-05 \ 1/[G]$, $R=0.975$) and the K value is $666667 \ M^{-1}$.

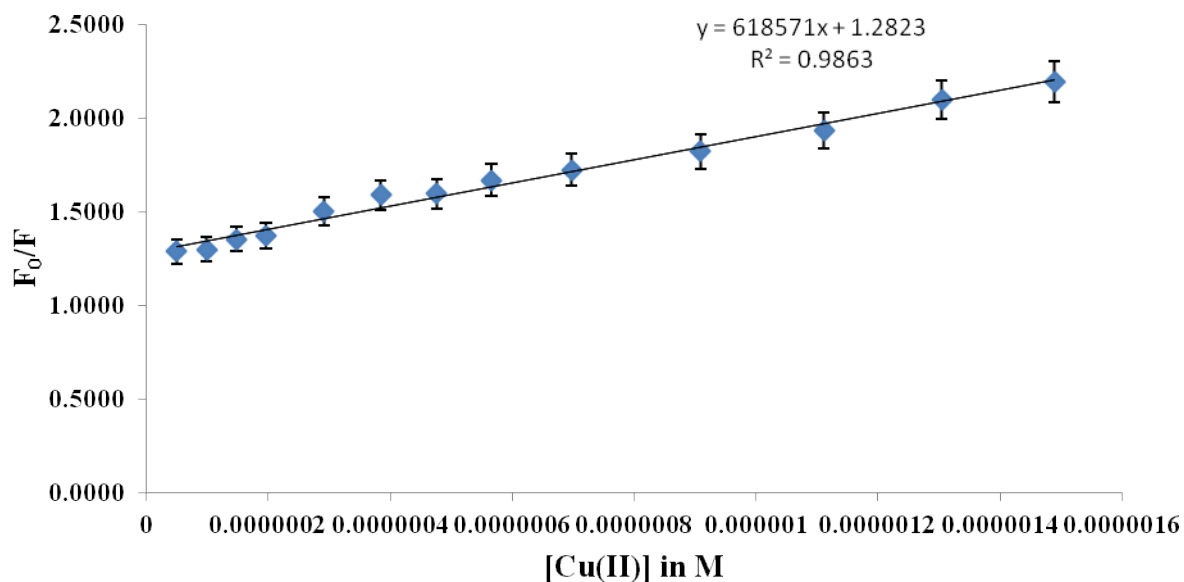


Figure S4 Stern-Volmer plots for titrations of receptor **1** with different concentrations of Cu^{2+} metal salt.

Table S2. A comparison of literature reported sensors with present work

Group	Technique	Solvent System	Detection Limit	Ref.
Wang <i>et al.</i>	Fluorescence	Acetonitrile-water	N.E	1
Reddy <i>et al.</i>	Fluorescence	Acetonitrile	3×10^{-8} M	2
Yu <i>et al.</i>	Fluorescence	Acetonitrile	2×10^{-7} M	3
Shellaiah <i>et al.</i>	Fluorescence	Acetonitrile	9.72×10^{-7} M	4
Li Shang <i>et al.</i>	Fluorescence	Water	8 nM	5
Present Work	Fluorescence	MeOH/H₂O (60:40, v/v)	50 nM	-

N.E. represent not evaluated

Reference

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