Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

for

A New Fluorescent Probe based on Styrylcyanine Dye Containing Pyridine: Dissimilar Fluorescent Response to Cu^{2+} and Pb^{2+}

Xiaodong Yang,[b] *Weifeng Zeng,*[b] *Lei Wang,*[b] *Xinwei Lu,*[a] *Yichen Yan,*[a] *Jinqing Qu,**[,b]

*Ruiyuan Liu**[,a]

a School of Pharmaceutical Science, Southern Medical University, Guangzhou 510515, P.R. China. Fax: 86-020-61648196; Tel: 86-020-61648196; E-mail: ruiyliu@smu.edu.cn
b School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou 510640, P.R.China. E-mail: cejqqu@scut.edu.cn

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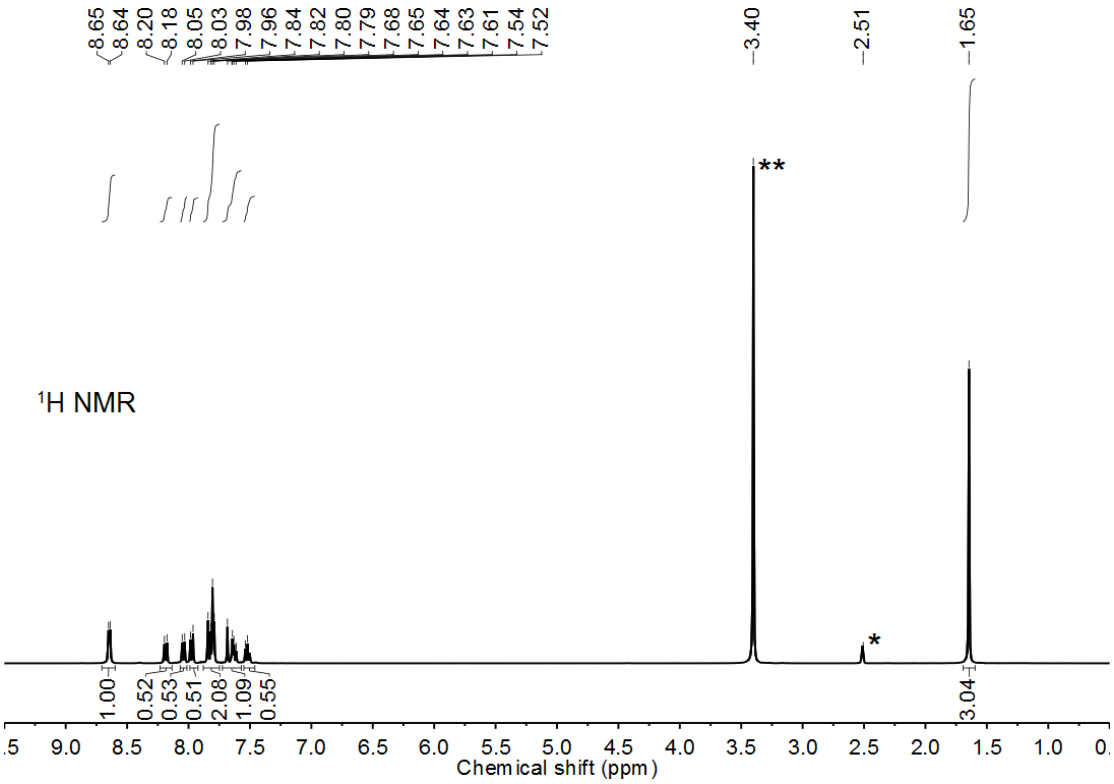

Figure S1. ^{1}H NMR spectrum of **1** in DMSO-d_6.

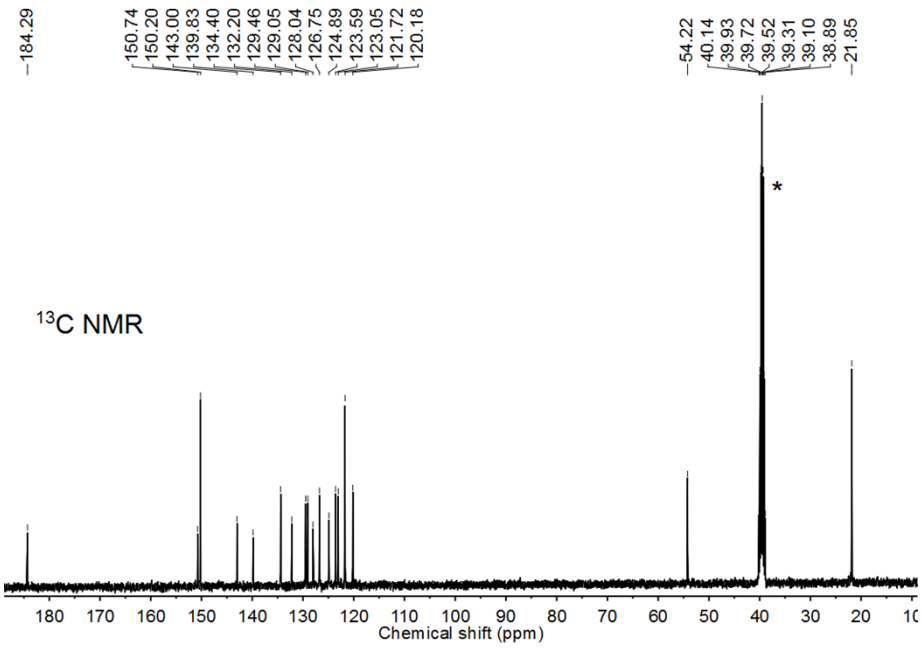

Figure S2. ^{13}C NMR spectrum of **1** in DMSO-d_6

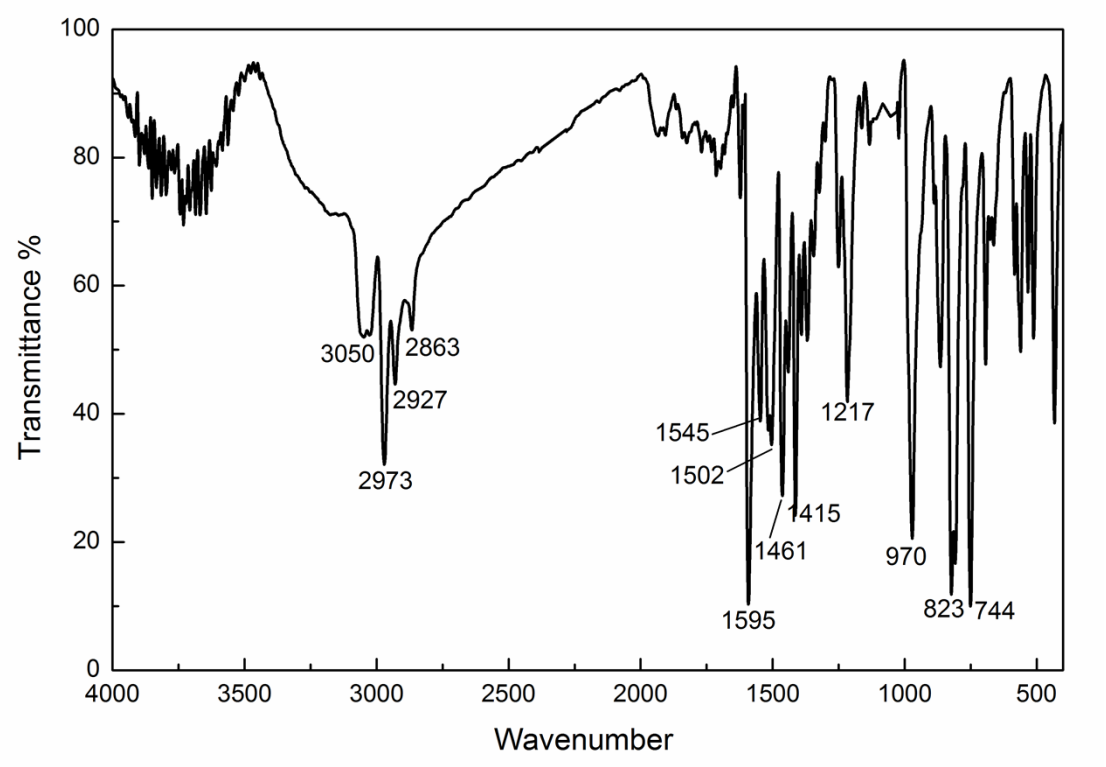

Figure S3. IR spectrum of **1**

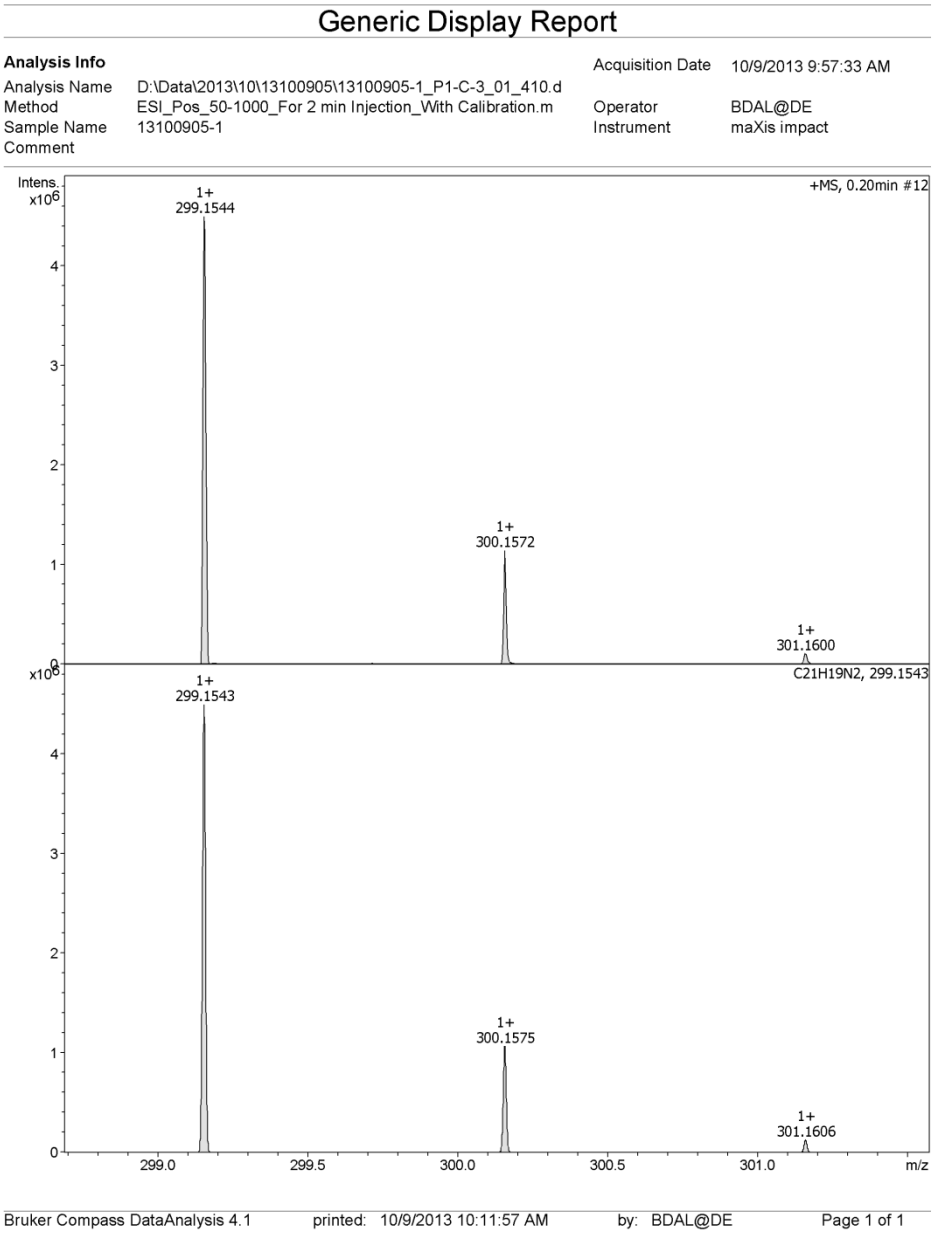

Figure S4. ESI-MS spectrum of **1**

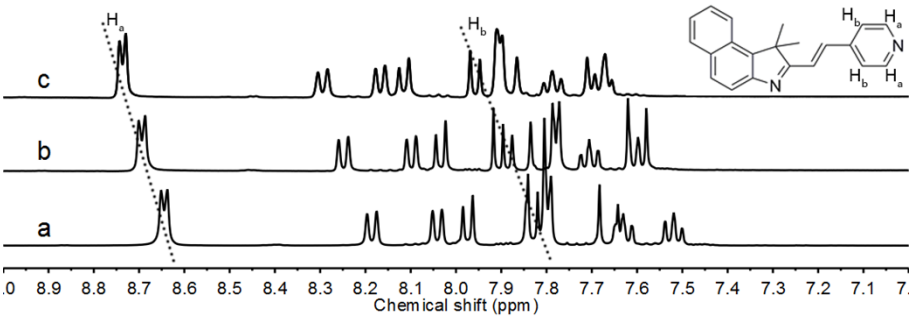

Figure S5. Partial ^{1}H NMR spectra of **1** upon addition of Pb^{2+} in DMSO-d_6.(a) $[Pb^{2+}]/[\mathbf{1}] = 0$, (b) $[Pb^{2+}]/[1] = 0.5$, $[Pb^{2+}]/[\mathbf{1}] = 1$.

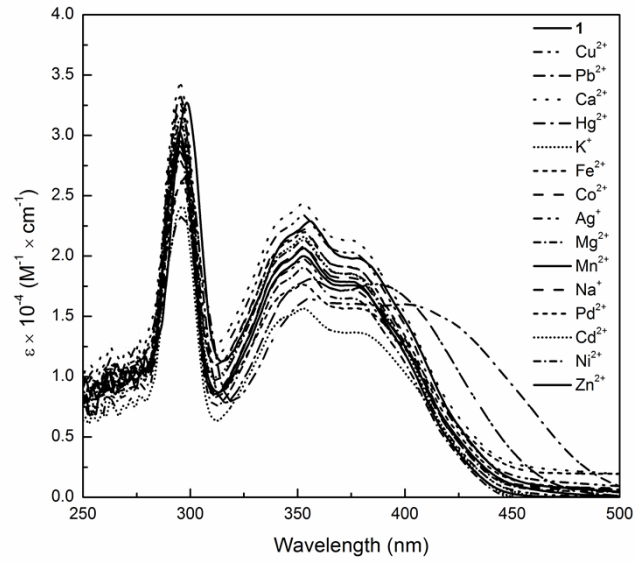

Figure S6. Absorption spectra of **1** (30 μM) after addition of various metal ions (Cu^{2+},Pb^{2+}, Ca^{2+}, Hg^{2+}, K^{+}, Fe^{2+}, Co^{2+}, Ag^{+}, Mg^{2+}, Mn^{2+}, Na^{+}, Pd^{2+}, Cd^{2+}, Ni^{2+}, Zn^{2+}) in CH_3CN/water mixture (9:1, v/v) ([metal ion] = 150 μM).

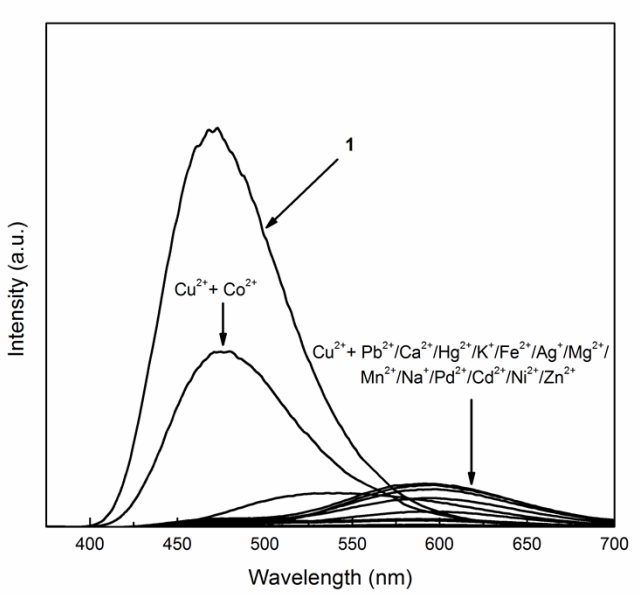

Figure S7. Fluorescent spectra of **1** (30 μM) containing Cu^{2+} upon addition of various competing metal ions (Pb^{2+}, Ca^{2+}, Hg^{2+}, K^{+}, Fe^{2+}, Co^{2+}, Ag^{+}, Mg^{2+}, Mn^{2+}, Na^{+}, Pd^{2+}, Cd^{2+}, Ni^{2+}, Zn^{2+}) in CH_3CN/water mixture (9:1, v/v) ([**1**] = 30 μM, [Cu^{2+}] = [other metal ion] = 150 μM).

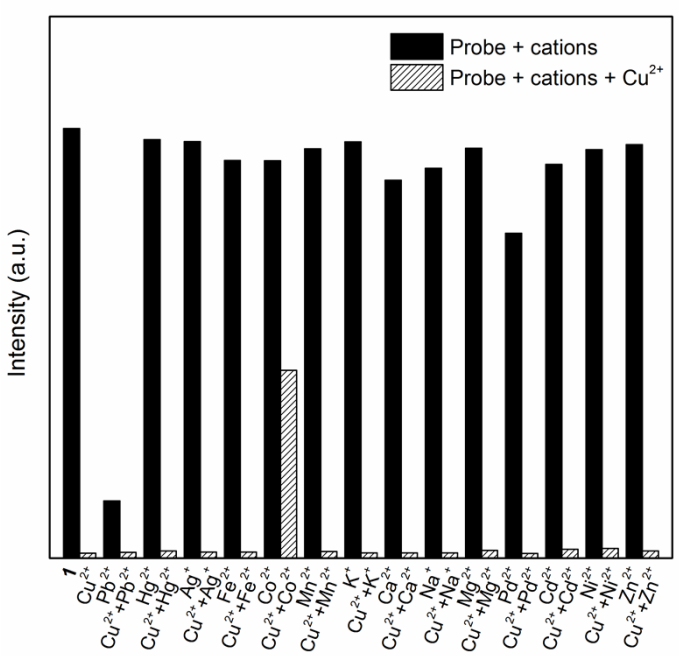

Figure S8. Fluorescence intensities of (a) **1** (30 μM) in CH_3CN/water mixture (9:1, v/v) with 150 μM Cu^{2+} in the presence of competing metal ions. Black bars; **1** (30 μM) in CH_3CN/water mixture (9:1, v/v) with 150 μM of stated metal ions. Slant bars; **1** (30 μM) in CH_3CN/water mixture (9:1, v/v) with 150 μM Cu^{2+} + 150 μM of stated metal ions.