Supplementary material

For

A coumarin-based sensitive and selective fluorescent sensor for copper(II) ion

Jiun-Ting Yeh, Wei-Chieh Chen, Shi-Rong Liu, Shu-Pao Wu*

Department of Applied Chemistry, National Chiao Tung University, Hsinchu, Taiwan 300, Republic of China

Contents:

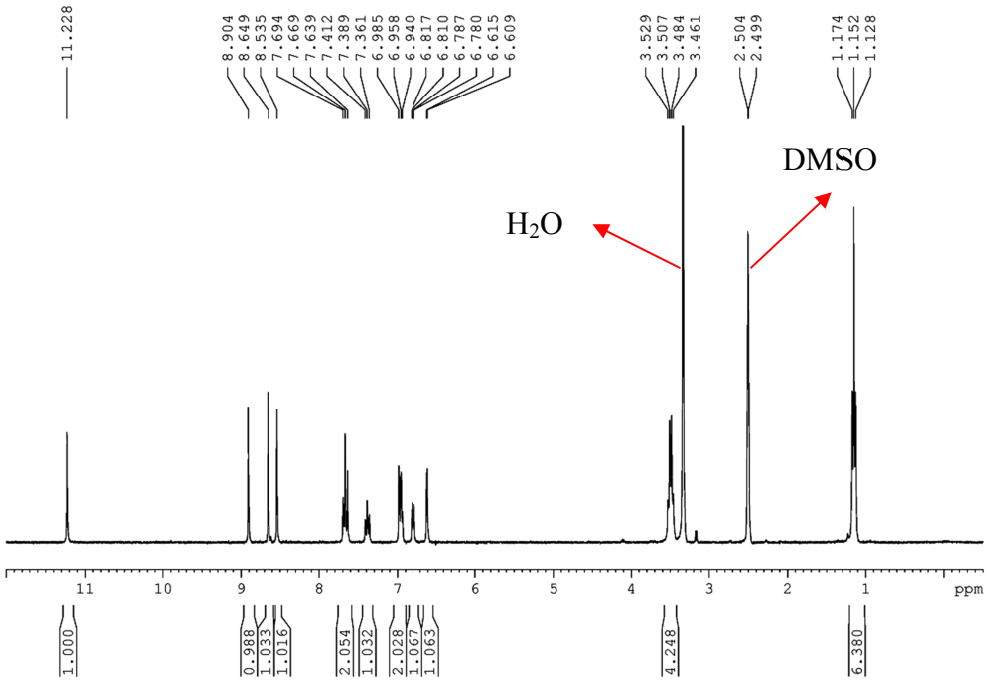

Figure S1. ^{1}H NMR spectra (300 MHz) of **1** in DMSO-d_6.

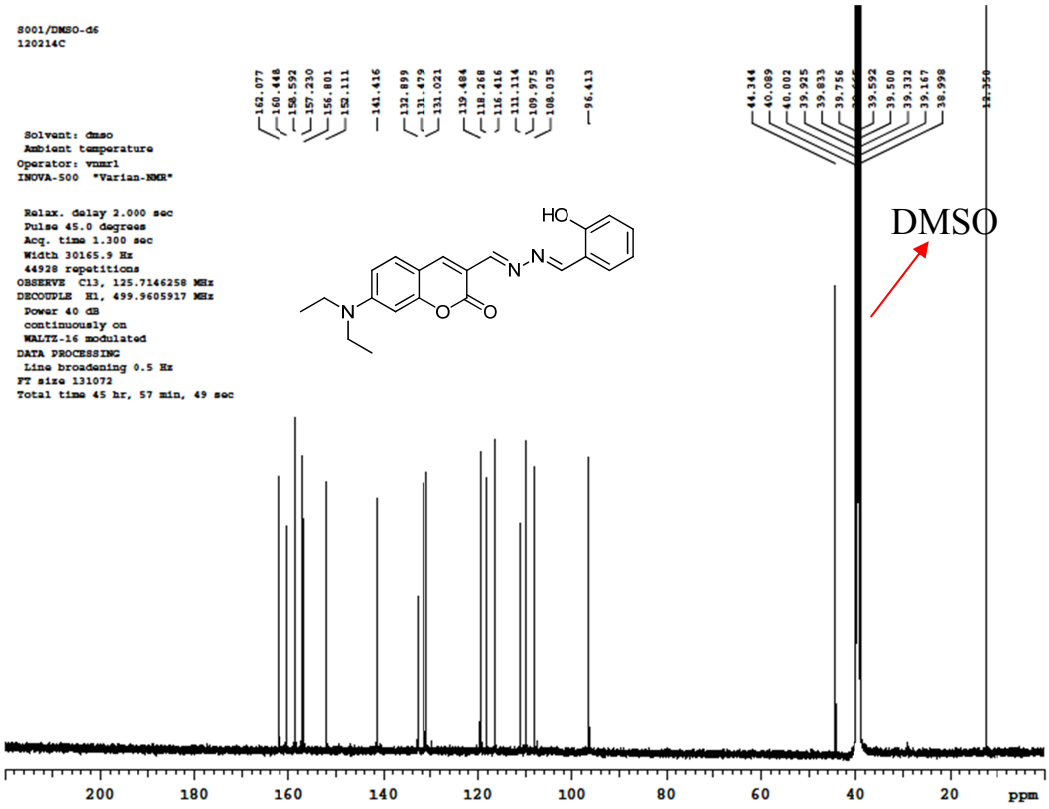

Figure S2 ^{13}C NMR spectra (125 MHz) of **1** in DMSO-d_6

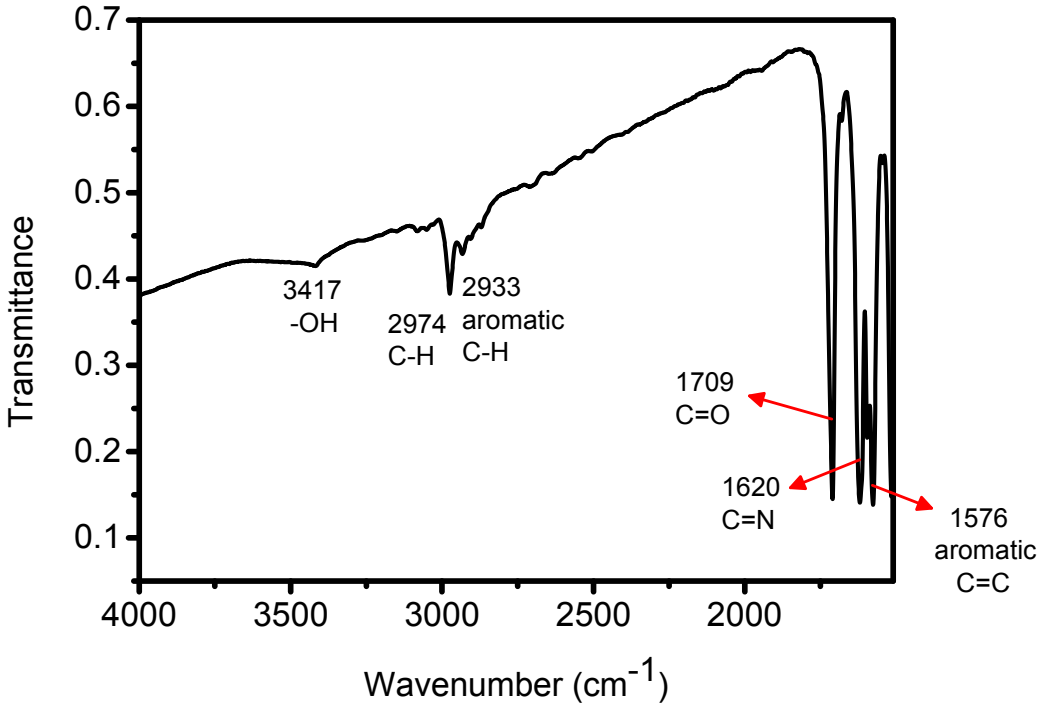

Figure S3. FTIR spectrum of **1**.

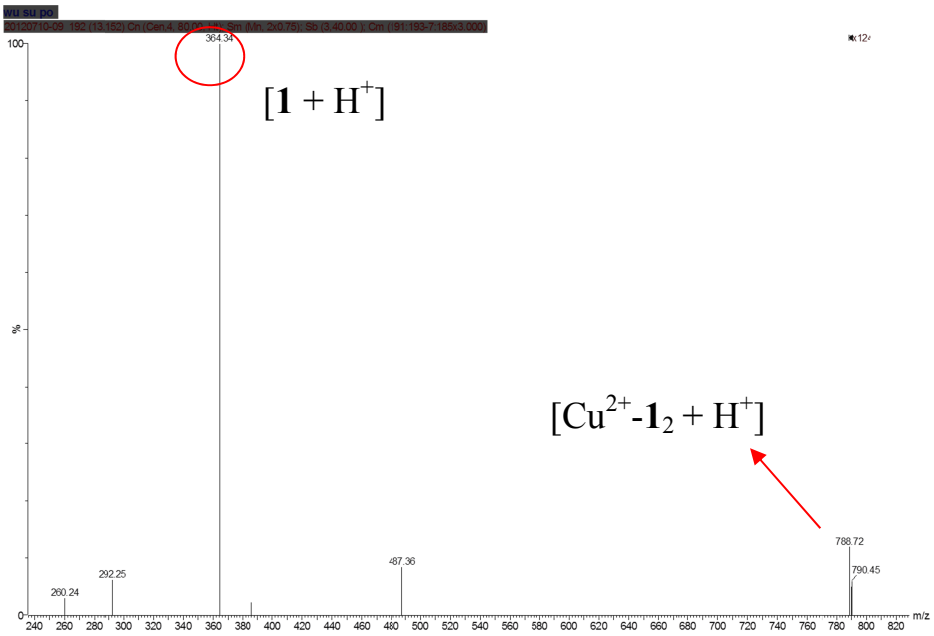

Figure S4. ESI Mass spectra of chemosensor **1** in the presence of Cu^{2+} in methanol.

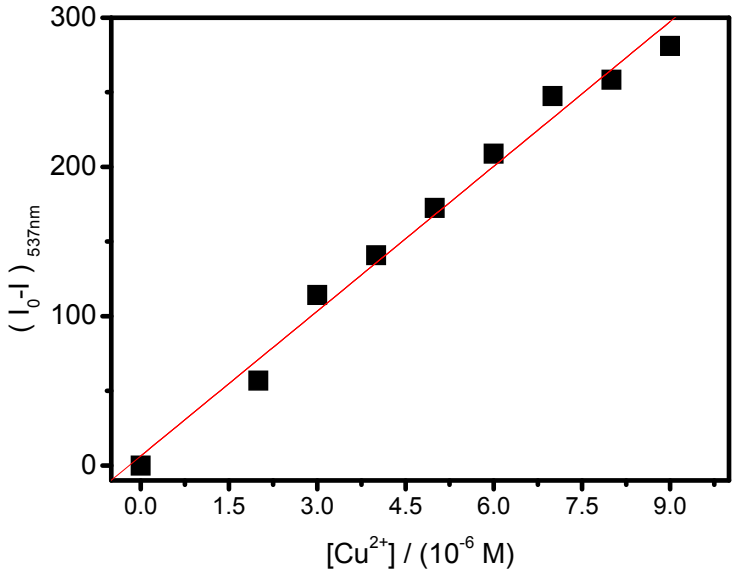

Figure S5. Calibration curve of **1**-Cu^{2+} (10 μM) in a methanol-water (v/v = 1:1, 10 mM hepes, pH 7.0). The excitation wavelength was 467 nm, and the monitored emission wavelength was 537 nm.

Linear Regression Data:

Y = A + S * X

Parameter	Value	Error	R	SD	N	P
A	4.66084	6.4795	0.99349	9.57366	9	<0.0001
S	2.66164E7	1.15346E6				

The detection limit (DL) of Cu^{2+} ions using chemosensor **1** was determined from the following equation:

$DL = K * S_b / S$

Where K = 3: S_b is the standard deviation of the blank solution; S is the slope of the calibration curve. $DL = 3 * 2.432854 / 2.66164*10^7 = 2.74* 10^{-7}$ M.