A high-efficiency Salamo-based copper(II) complex double-channel fluorescent probe

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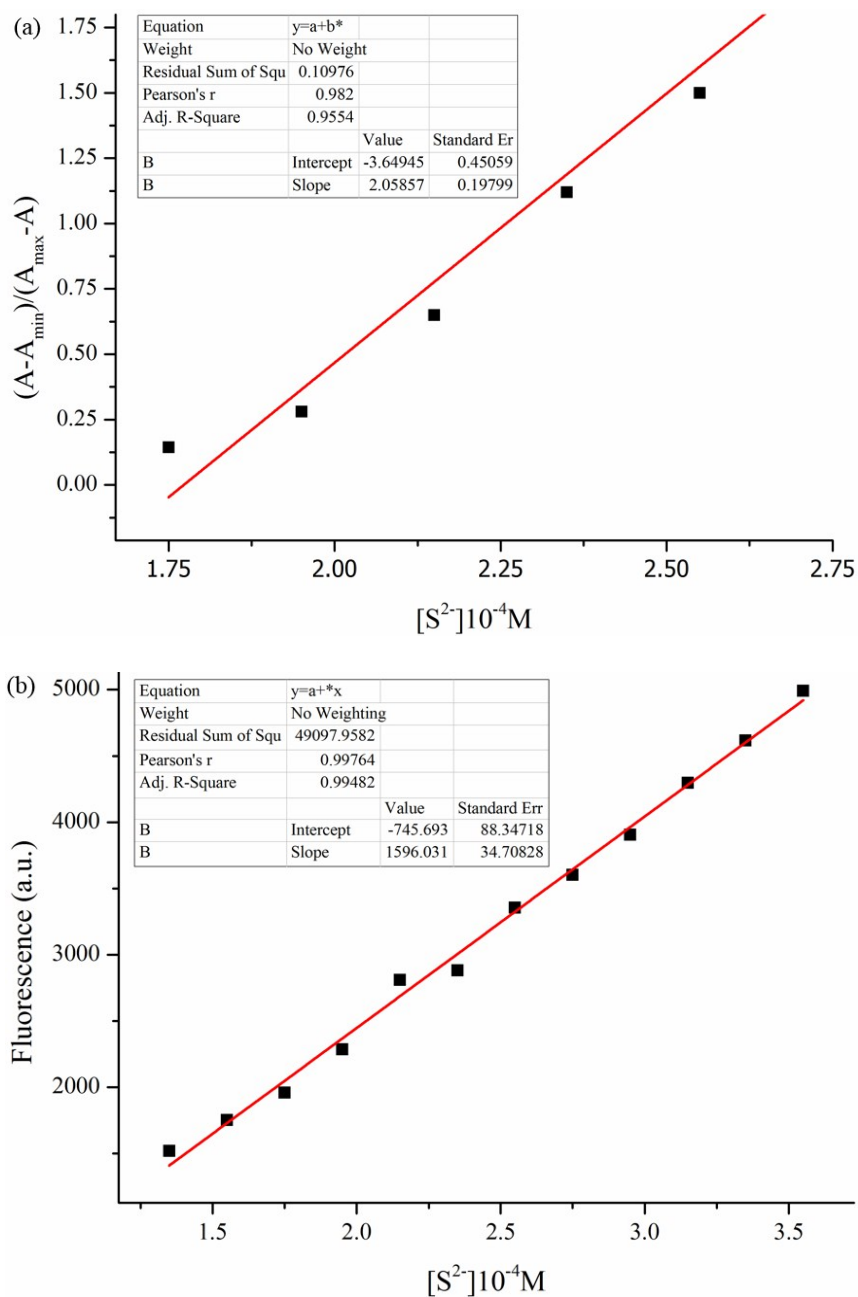*School of Chemical and Biological Engineering, Lanzhou Jiaotong University, Lanzhou, Gansu 730070, China*

2.1. Materials and Measurements

All the reagents used are analytical pure (A.R.) and can be used without further purification. The water used is deionized water; the salts used are NaCl, NH_4ClO_4, NaCN, Na_2CO_3, K_2HPO_4, $NaHCO_3$, $NaHPO_4$, NaHS, KI, $NaNO_2$, $NaNO_3$, CH_3COONa, $Na_4P_2O_7$ ·$10H_2O$, Na_2SiO_3, NaBr and Na_2S. Elemental analyses were obtained using a GmbH VarioEL V3.00 automatic elemental analysis instrument. Melting points were obtained by use of a microscopic melting point apparatus made in Beijing Taike Instrument Limited Company and were uncorrected. The fluorescence spectra were measured by F-7000 fluorescence spectrometer. 1H NMR spectra were determined by German Bruker AVANCE DRX-400 spectrometer. UV–vis absorption spectra were recorded on the Shimadzu UV-2550 spectrometer and fluorescence spectra were recorded on the Hitachi F-7000 spectrometers. All pH measurements were made with a pH-10C digital pH meter. ESI-MS spectra were measured on the Bruker Daltonics Esquire 6000 mass spectrometer.
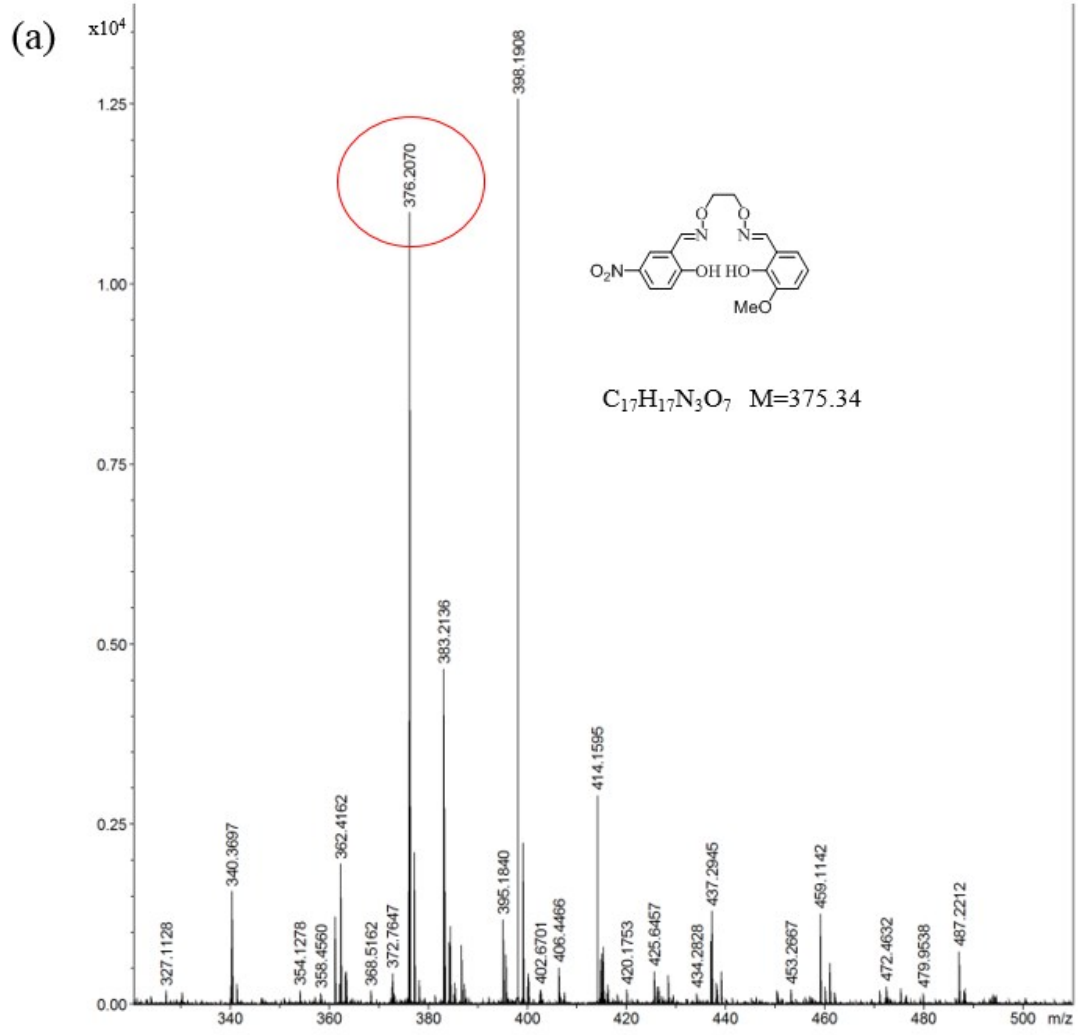
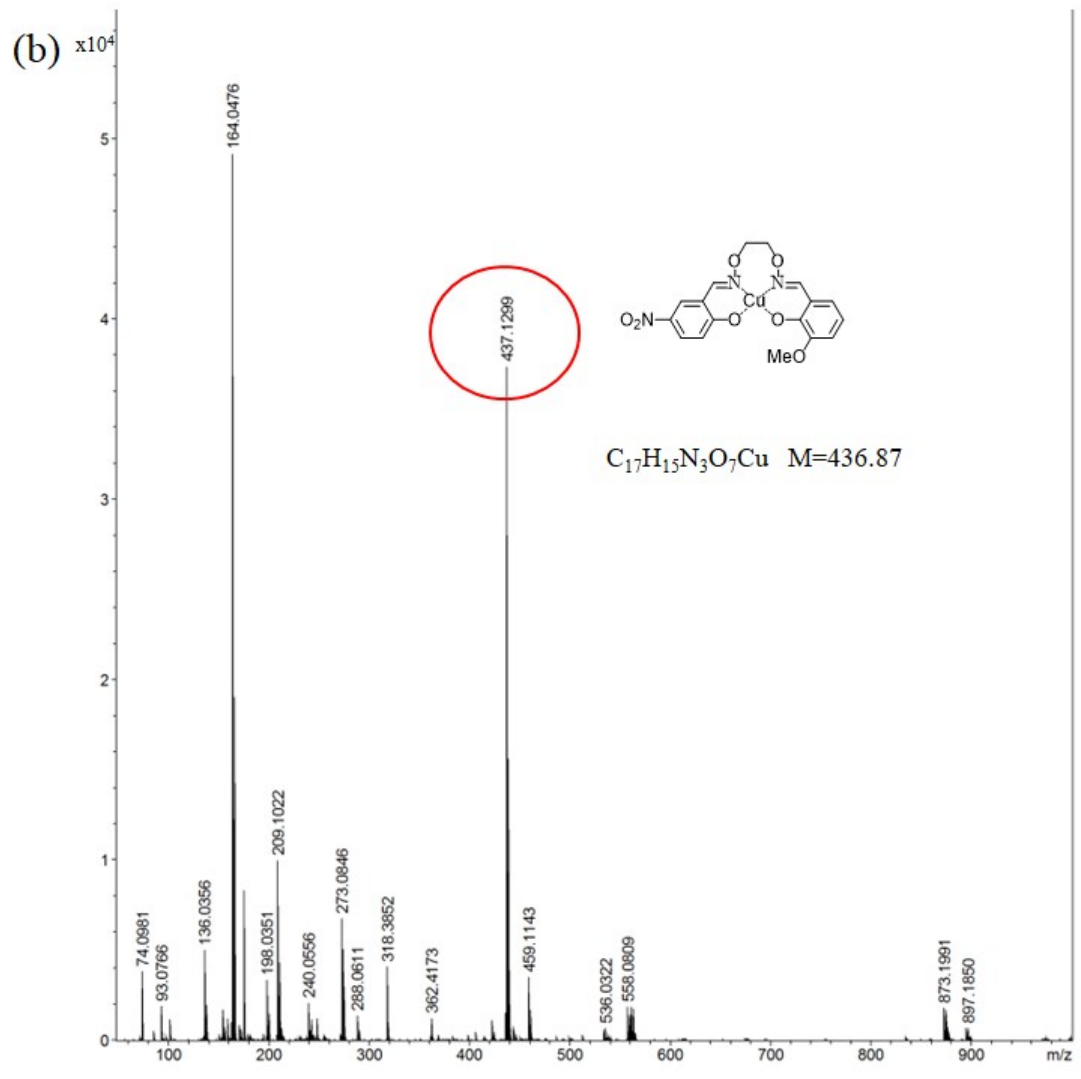*Corresponding author.
E-mail addresses: dongwk@126.com (W.-K. Dong).

(b)

Equation	y=a+*x	
Weight	No Weighting	
Residual Sum of Squ	49097.9582	
Pearson's r	0.99764	
Adj. R-Square	0.99482	
	Value	Standard Err
B	Intercept	-745.693	88.34718
B	Slope	1596.031	34.70828

Figure S1. (a) Benesi-Hilderbrand plot for sensor **L-Cu^{2+}** to determine the association constant for S^{2-} in ethanol solvent. (b) Linear fit between the fluorescence intensity of L-Cu and the addition of S^{2-}.
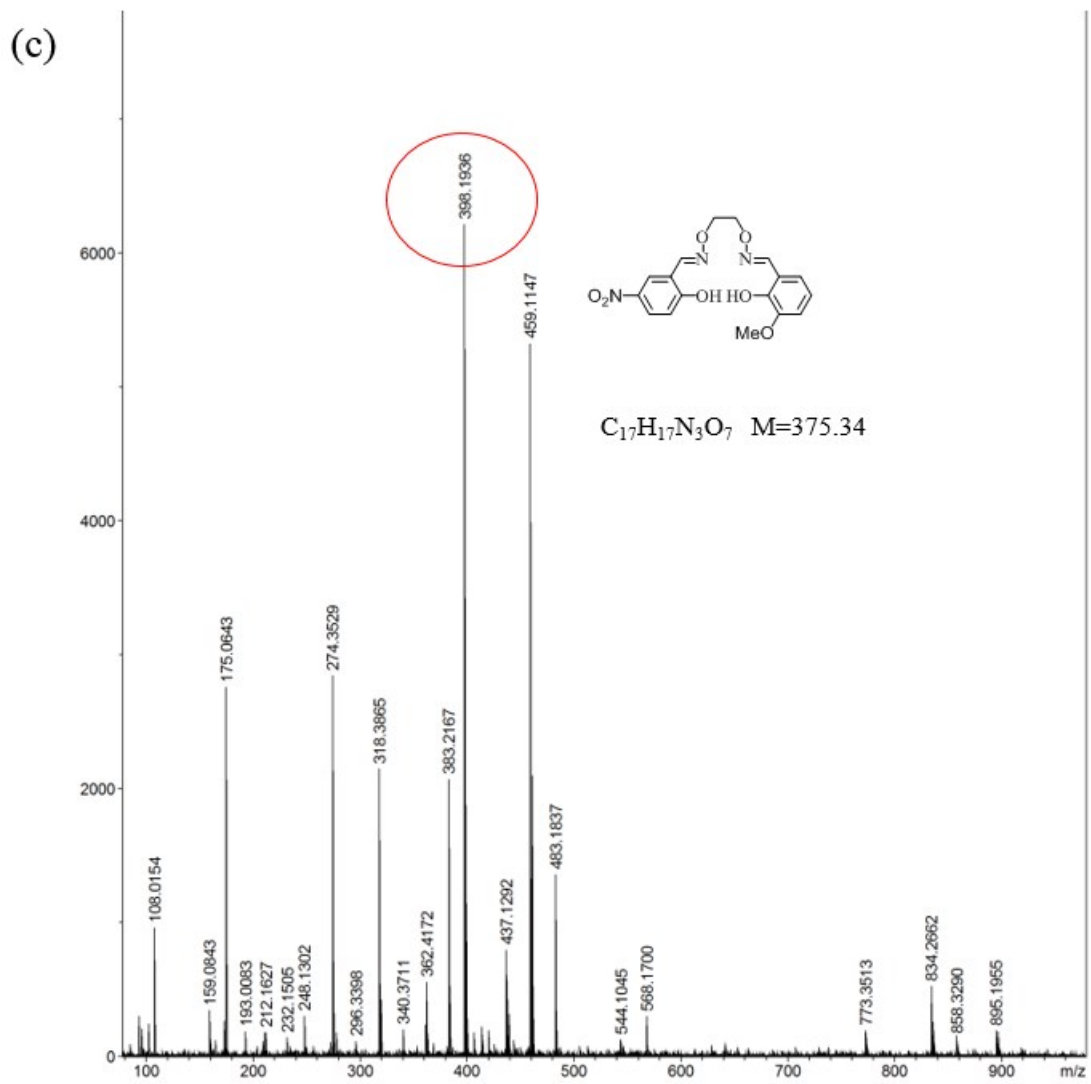
(a)

C$_{17}$H$_{17}$N$_3$O$_7$ M=375.34

(b)

$C_{17}H_{15}N_3O_7Cu$ M=436.87

Figure S2. ESI-MS of sensor **L-Cu²⁺**.