Electronic Supplementary Material (ESI) for Analytical Methods.

A novel coumarin-based Ligand: A turn-off and highly selective fluorescent chemosensor for Cu^{2+} in water

Jean Marie Vianney Ngororabanga*, Cyprian Moyo, Eric Hosten, Neliswa Mama and Zenixole R. Tshentu

Department of Chemistry, Nelson Mandela Metropolitan University, Port Elizabeth, 6031, South Africa

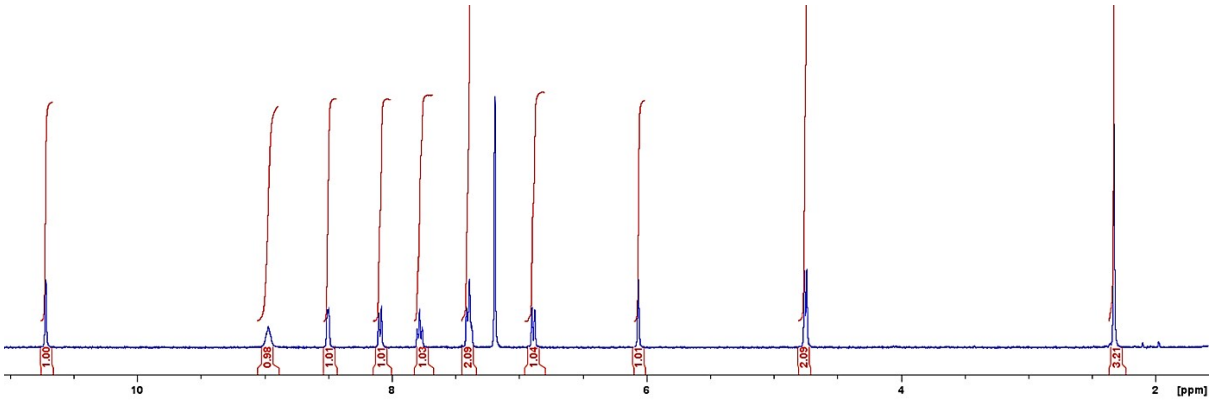

Figure S1: ^{1}H NMR of chemosensor **L**

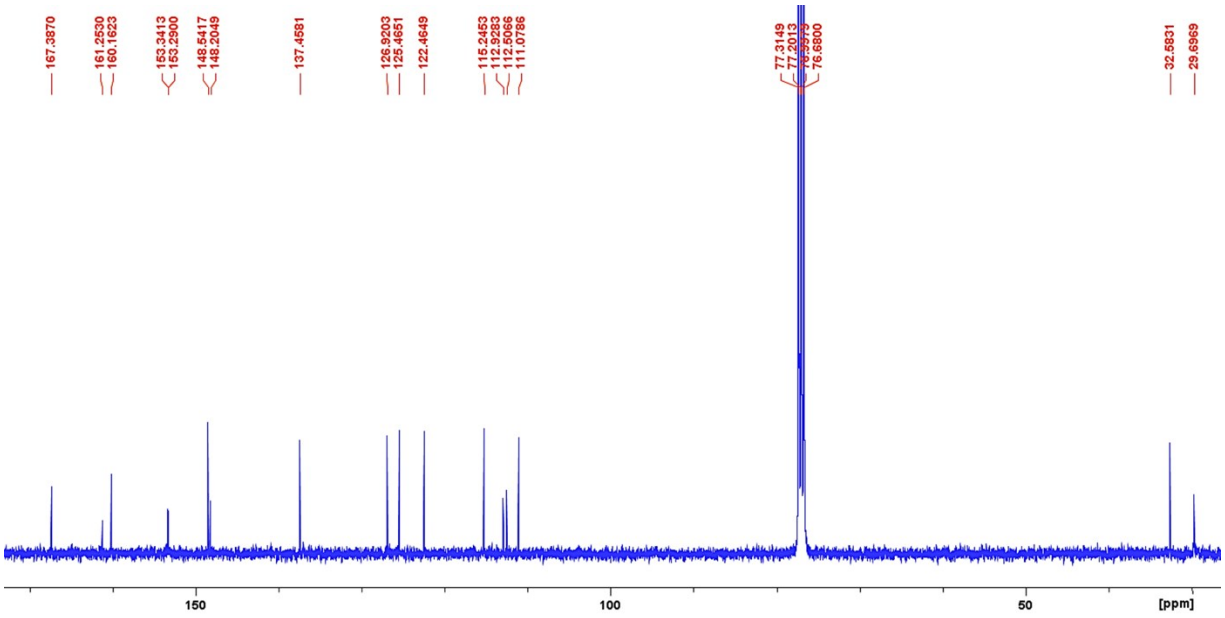

Figure S2: ^{13}C NMR of chemosensor **L**

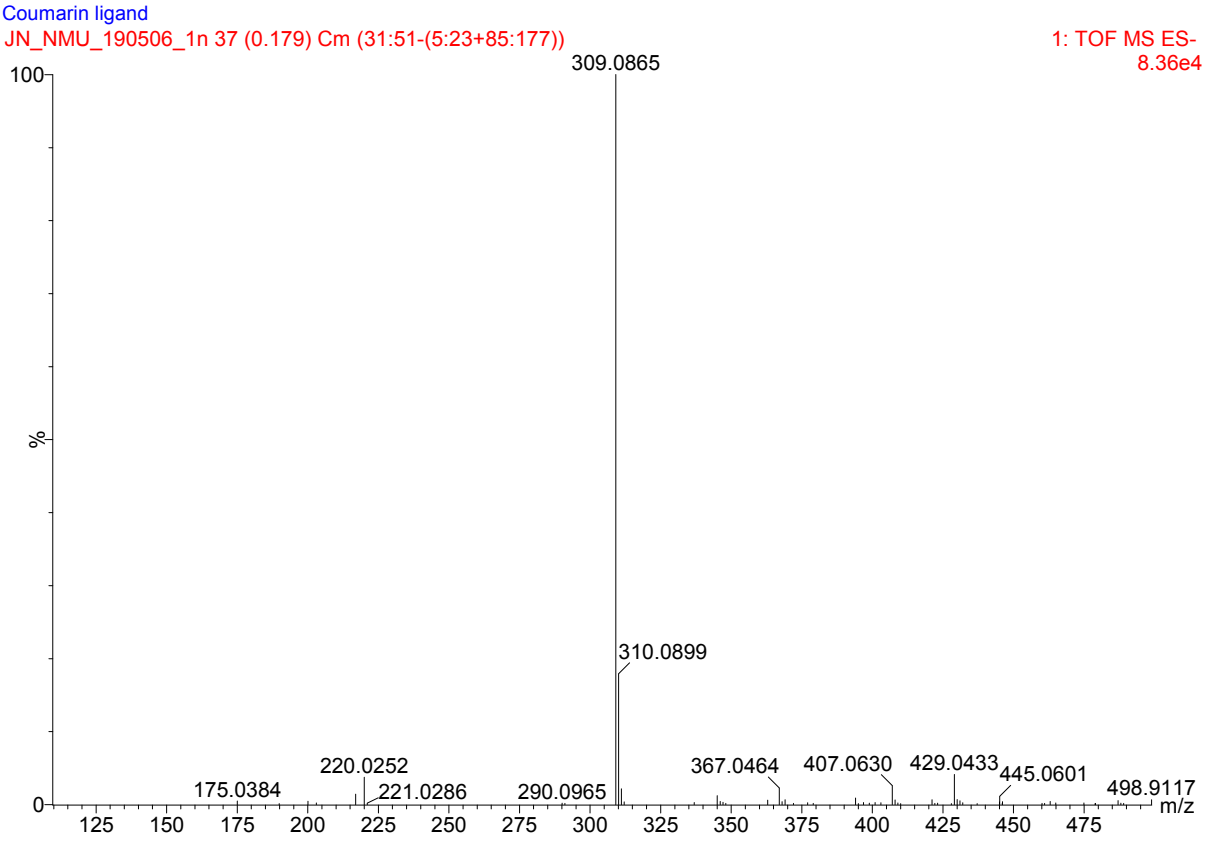

Figure S3: HRMS (TOF MS ES) spectrum of **L** ([M-H]$^-$)

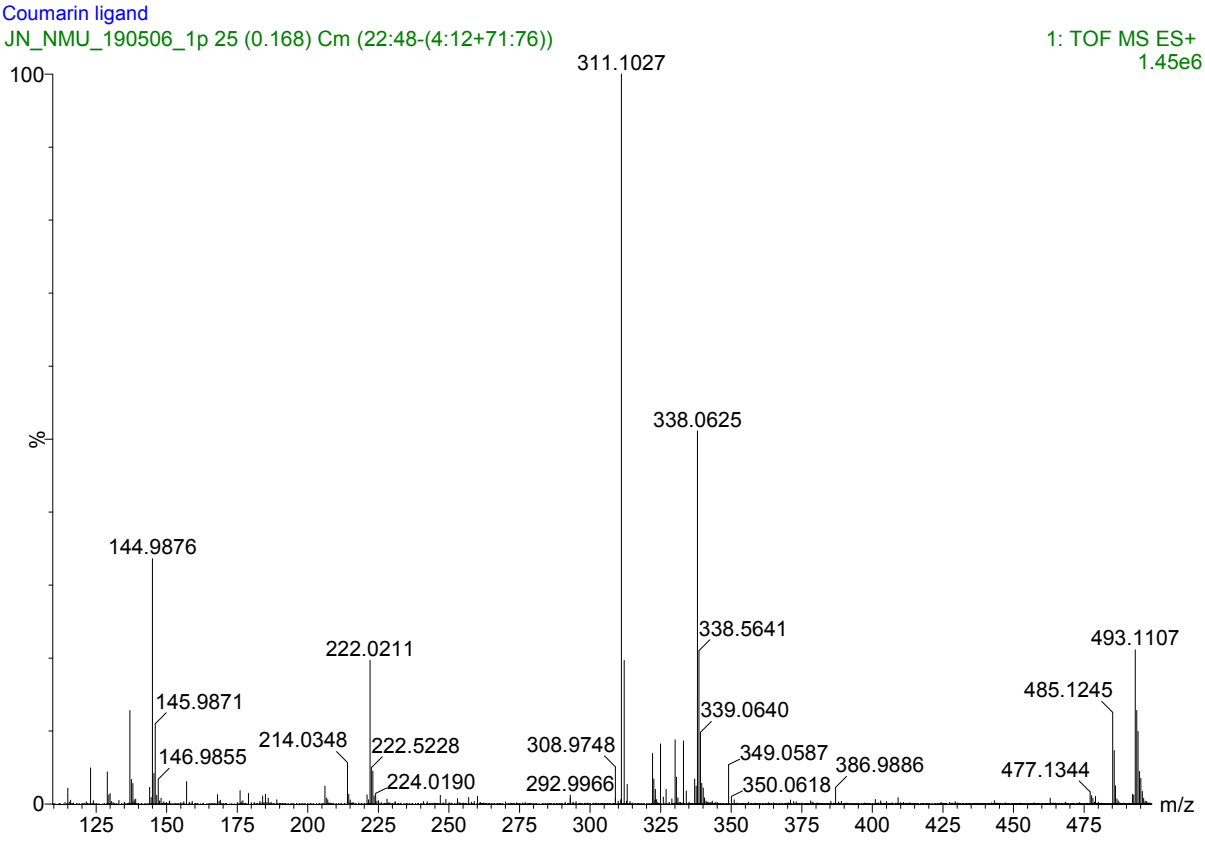

Figure S4: HRMS (TOF MS ES) spectrum of **L** ([M-H]$^+$)

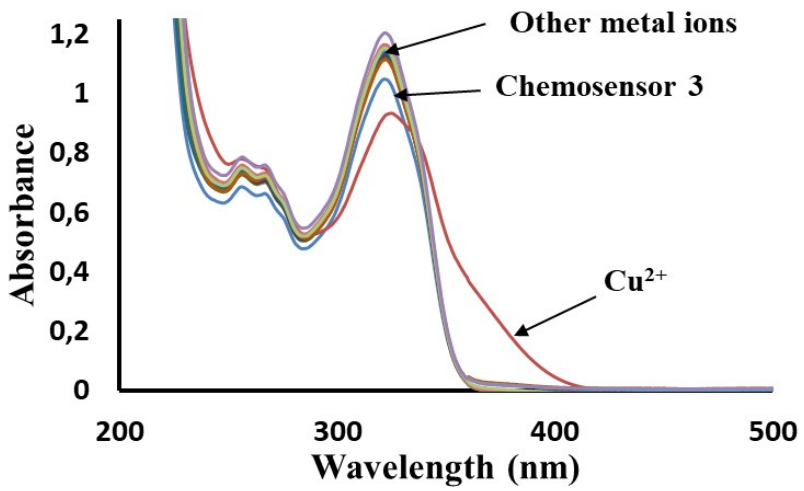

Figure S5: Absorption spectra of **L** (6 x 10^{-5} M) in the presence various metal ions (0.01 M aliquots) in water.

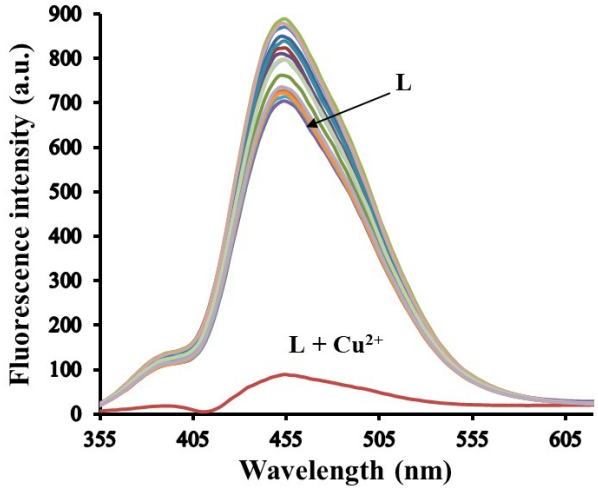

Figure S6: Emission spectra of **L** (5 x 10^{-7} M) in the presence various metal ions (10 µl of 0.01 M solution) in Water. Excitation was performed at 330 nm.

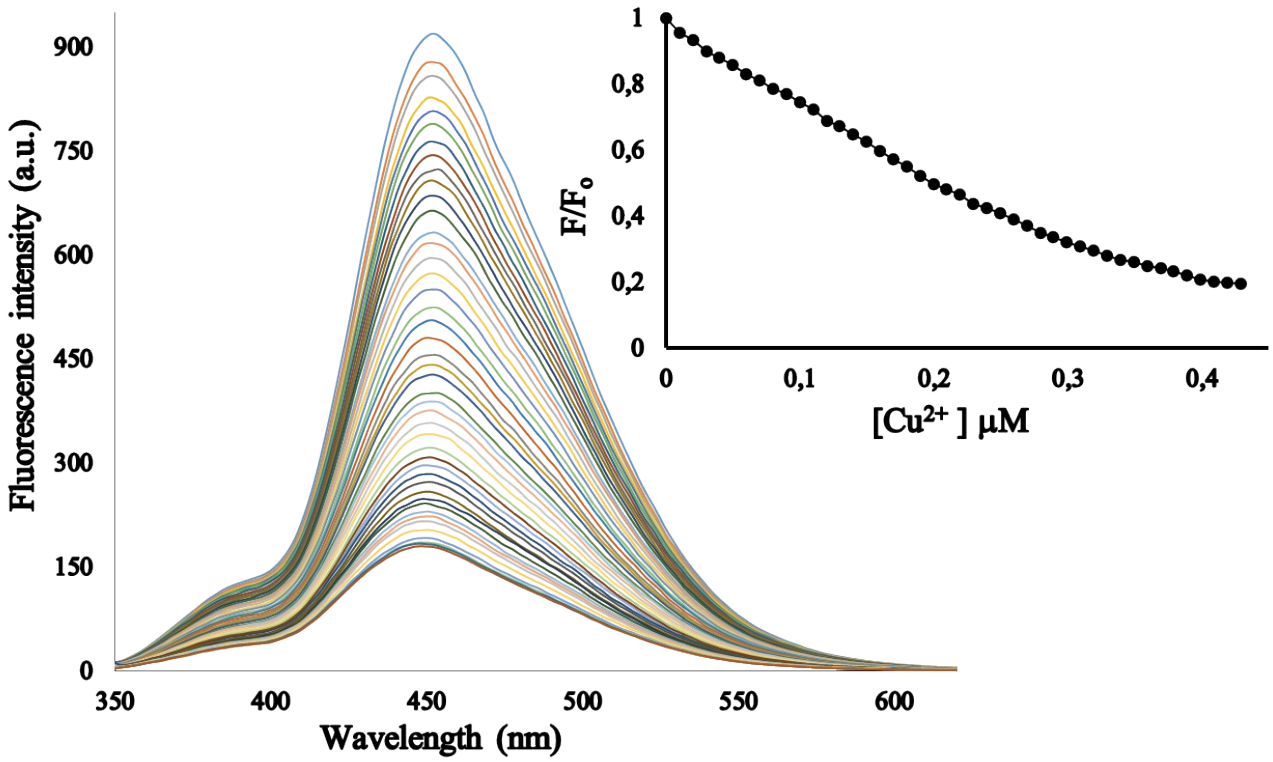

Figure S7: Fluorescent titration of **L** (6 x 10^{-7} M) in water with Cu^{2+} aliquots (from 0 to 0.41 µM) at the excitation wavelength of 330 nm.

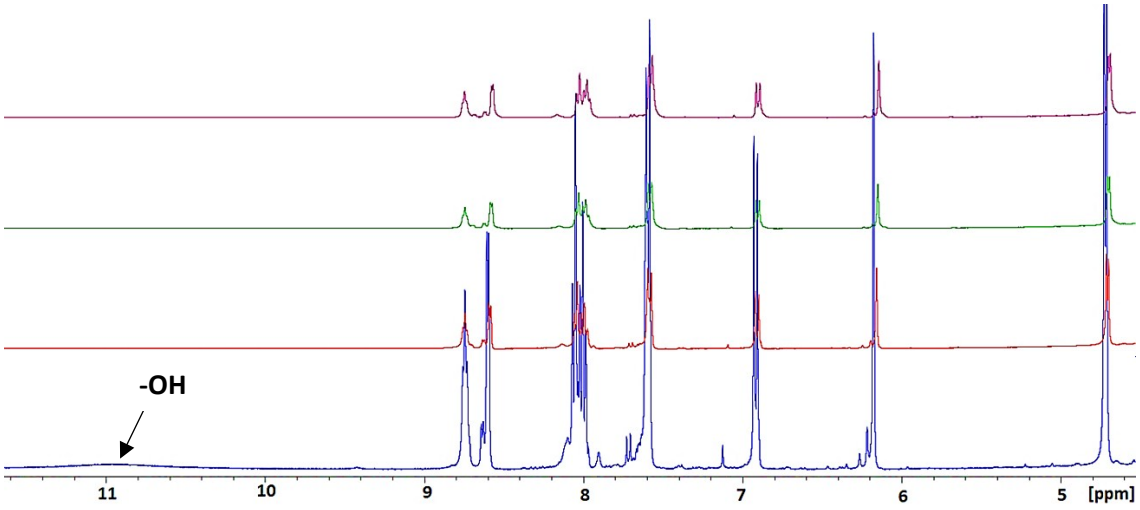

Figure S8: ^{1}H NMR of chemosensor **L** in the presence of increasing amount of Cu^{2+} (2 µL aliquots)