10.1071/CH14495_AC

Australian Journal of Chemistry 2015, 68 (6), 946-955

Supplementary Material

Host–Guest Inclusion System of Scutellarin with Polyamine-β-Cyclodextrin: Preparation, Characterisation, and Anti-Cancer Activity

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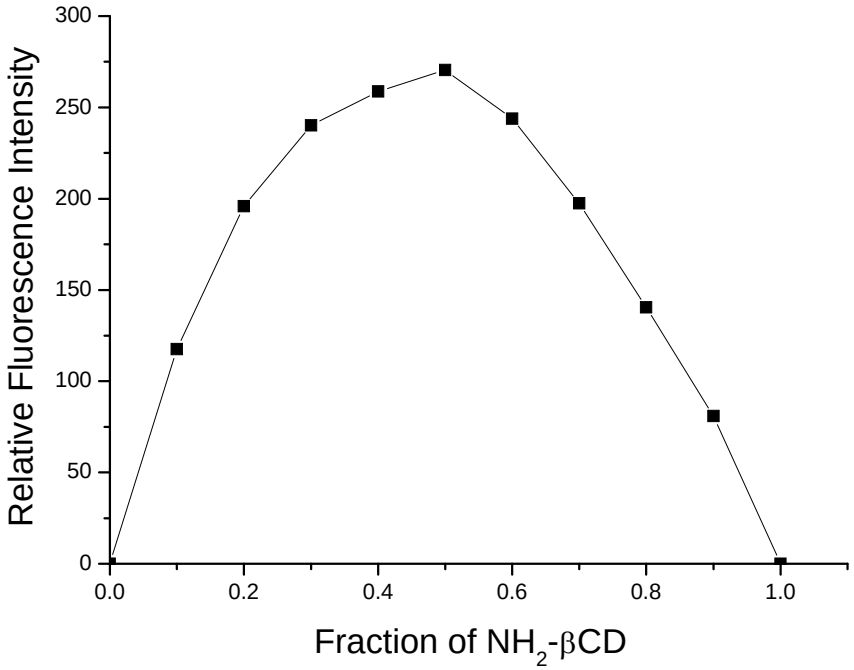

Fig.S1. Job plot for the SCU/NH_2-βCD system at λem: 474nm ([SCU]+[NH_2-βCD]=3.0×10^{-5}M) in pH 10.5 buffer.

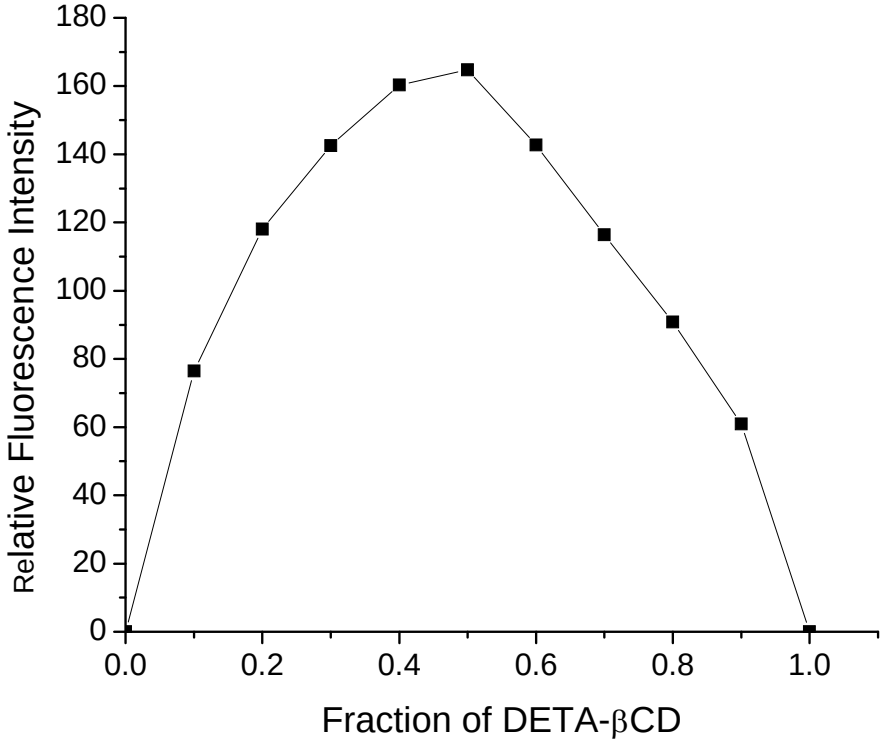

Fig.S2. Job plot for the SCU/DETA-βCD system at λem: 474nm ([SCU]+[DETA-βCD]=3.0×10^{-5}M) in pH 10.5 buffer.

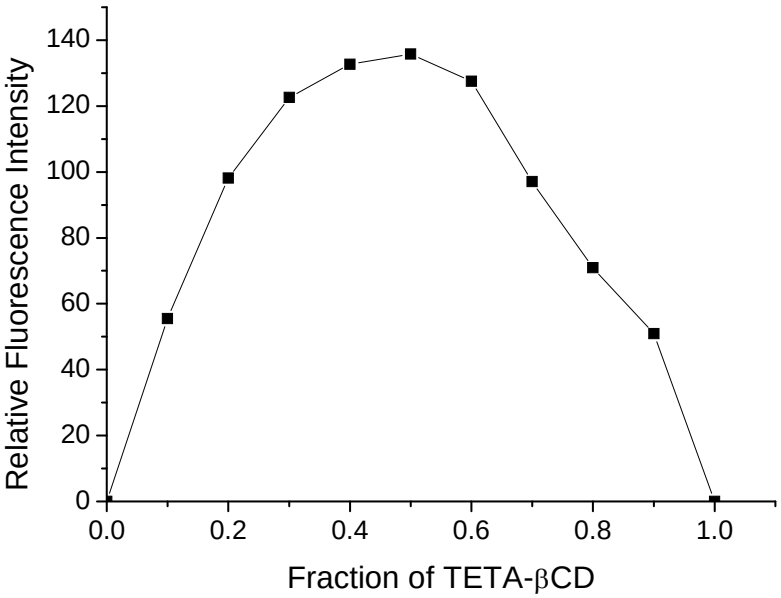

Fig.S3. Job plot for the SCU/TETA-βCD system at λem: 474nm ([SCU]+[TETA-βCD]=3.0×10^{-5}M) in pH 10.5 buffer.

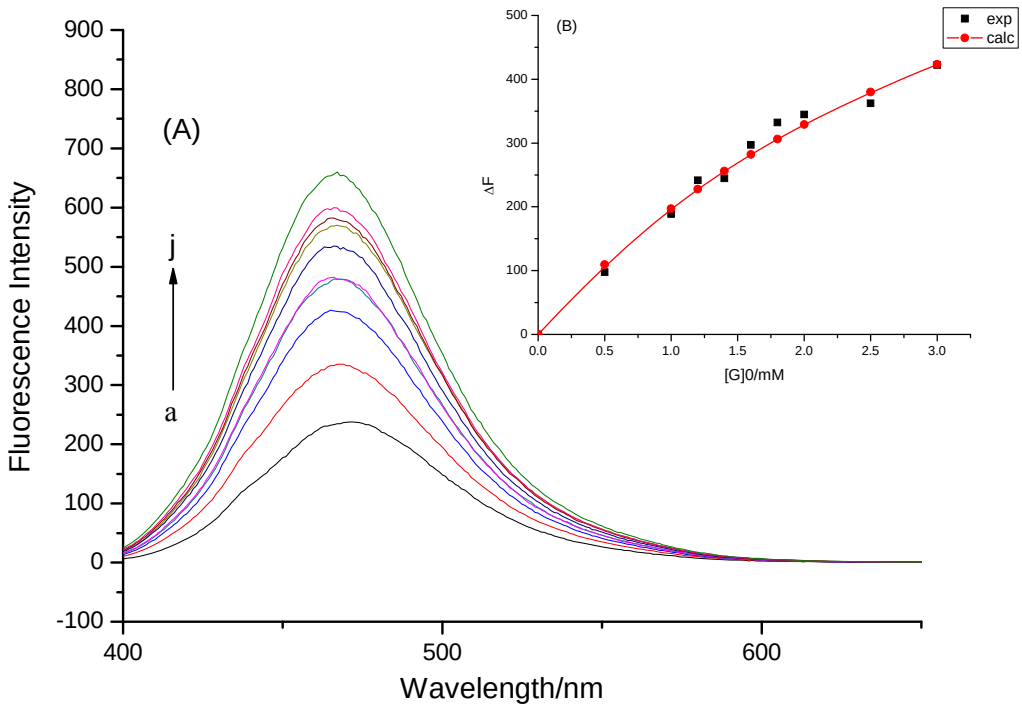

Fig.S4. (A) Fluorescence emission spectra of SCU (3.0×10^{-5} mol/L) containing various concentrations of NH_2-βCD (from a to j: 0.0×10^{-3}, 0.5×10^{-3} ,1.0×10^{-3}, 1.2×10^{-3}, 1.4×10^{-3}, 1.6×10^{-3}, 1.8×10^{-3}, 2.0×10^{-3}, 2.50×10^{-3} and 3.0×10^{-3} mol/L of NH_2-βCD); emission at 474 nm. (B) Nonlinear least-squares curve-fitting analyses for the inclusion complexation.

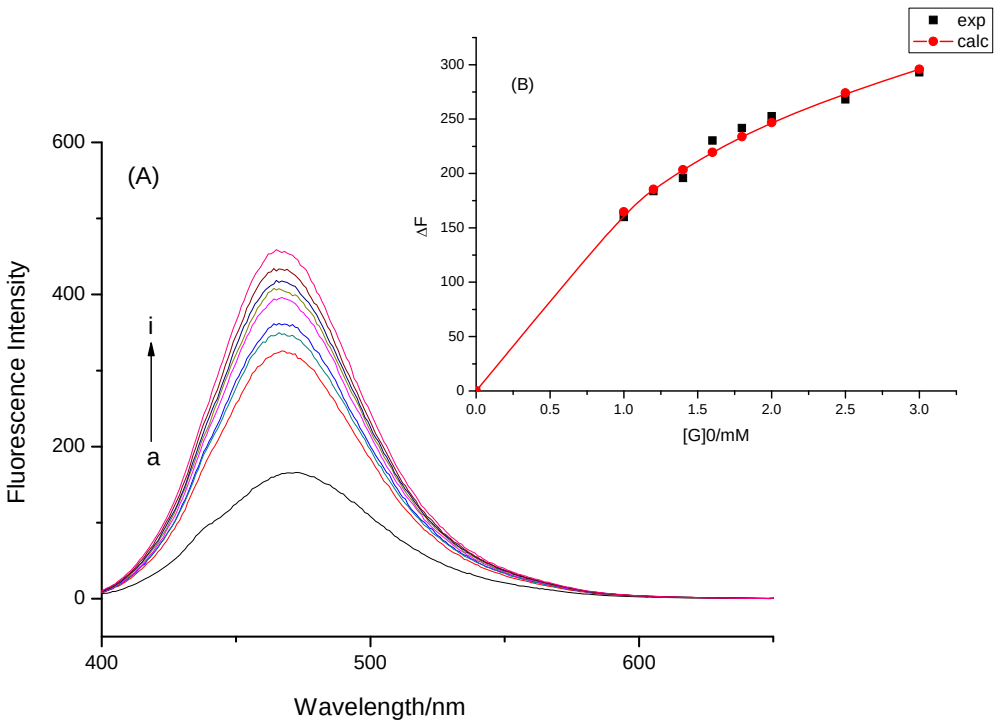

Fig.S5. (A) Fluorescence emission spectra of SCU (3.0×10^{-5} mol/L) containing various concentrations of βCD (from a to i: 0.0×10^{-4}, 1.0×10^{-3} ,1.2×10^{-3}, 1.4×10^{-3}, 1.6×10^{-3}, 1.8×10^{-3}, 2.0×10^{-3}, 2.5×10^{-3}, 3.0×10^{-3} mol/L of βCD); emission at 474 nm. (B) Nonlinear least-squares curve-fitting analyses for the inclusion complexation

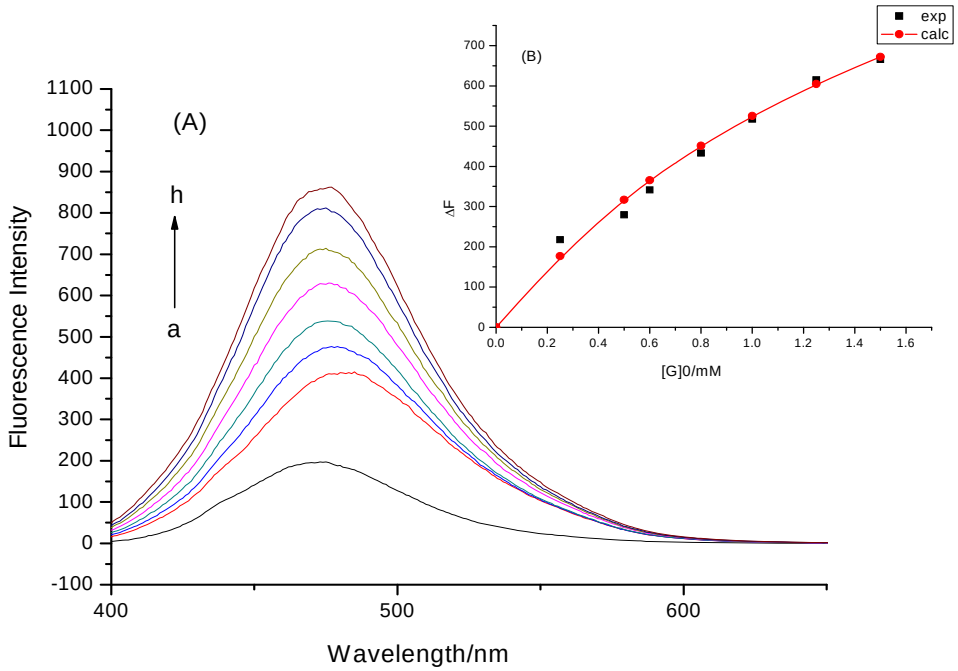

Fig.S6. (A) Fluorescence emission spectra of SCU (3.0×10^{-5} mol/L) containing various concentrations of EN-βCD (from a to h: 0.0×10^{-4}, 0.25×10^{-3} ,0.5×10^{-3}, 0.6×10^{-3}, 0.8×10^{-3}, 1.0×10^{-3}, 2.0×10^{-3}, 1.25×10^{-3}, 1.5×10^{-3} mol/L of EN-βCD); emission at 474 nm. (B) Nonlinear least-squares curve-fitting analyses for the inclusion complexation.

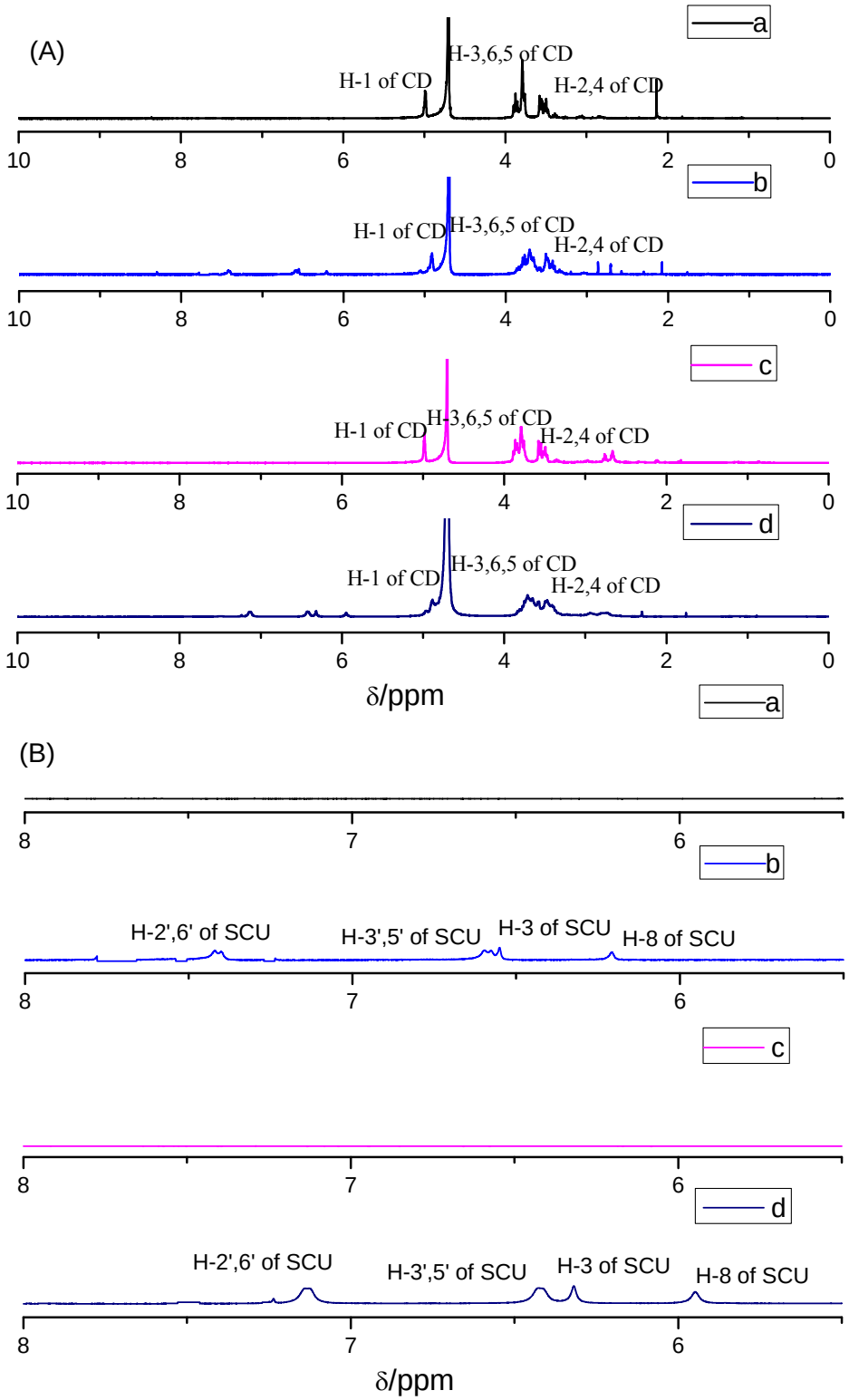

Fig.S7. ^{1}H NMR spectra of SCU in the absence and presence of NH_2-βCD and DETA-βCD in D2O at25 °C, respectively. a: NH_2-βCD, b: SCU/NH_2-βCD complex, c: DETA-βCD, d: SCU/DETA-βCD complex(it shows the enlarged NMR spectrum from approximately 5.5–8 ppm in the left box.).