Electronic Supplementary Material (ESI) for RSC Advances

ELECTRONIC SUPPLEMENTARY INFORMATION

Binding of alkaloids berberine, palmatine and coralyne to Lysozyme: a combined structural and thermodynamic study†

Chandrima Jash and Gopinatha Suresh Kumar*
Biophysical Chemistry Laboratory, Chemistry Division
CSIR- Indian Institute of Chemical Biology
Kolkata 700 032, India

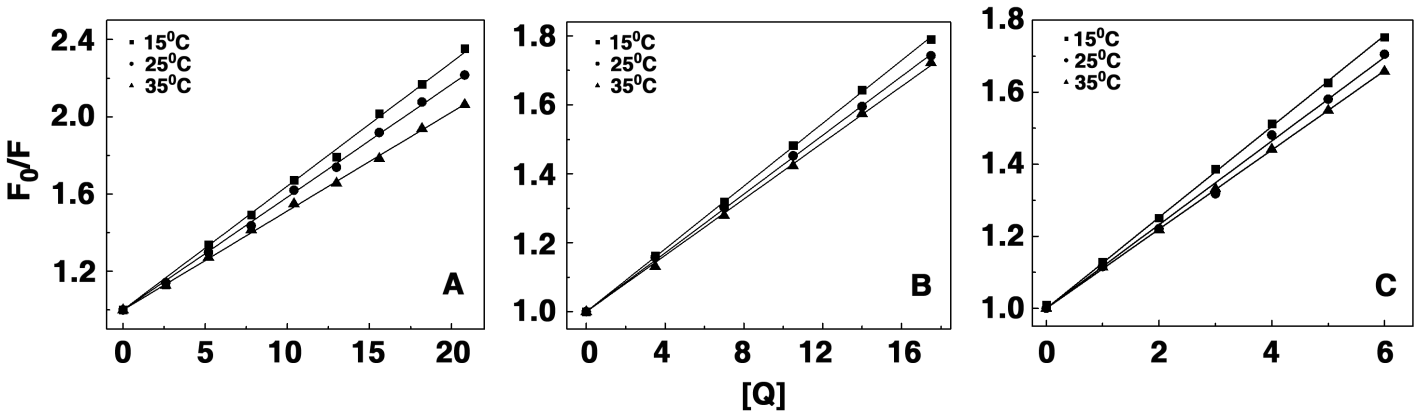

Fig. S1 Stern–Volmer plots for the quenching of Lyz fluorescence by (A) Berberine, (B) palmatine and (C) coralyne at different temperatures.

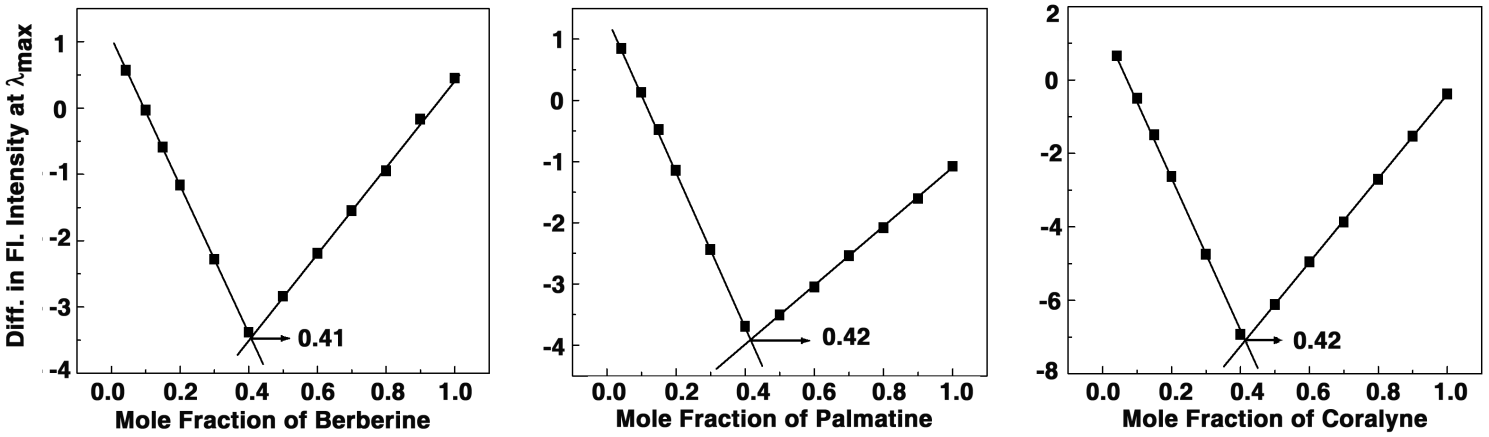

Fig. S2 Job plot for the complexation of Berberine, Palmatine and Coralyne with Lyz.

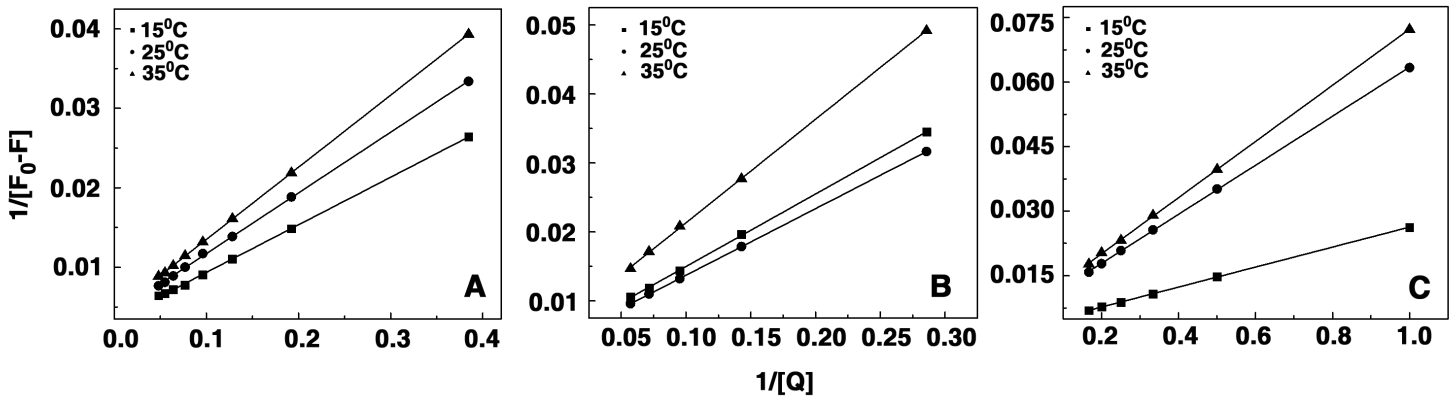

Fig. S3 Lineweaver-Burk plots for the quenching of Lyz fluorescence by (A) Berberine, (B) palmatine and (C) coralyne at different temperatures.

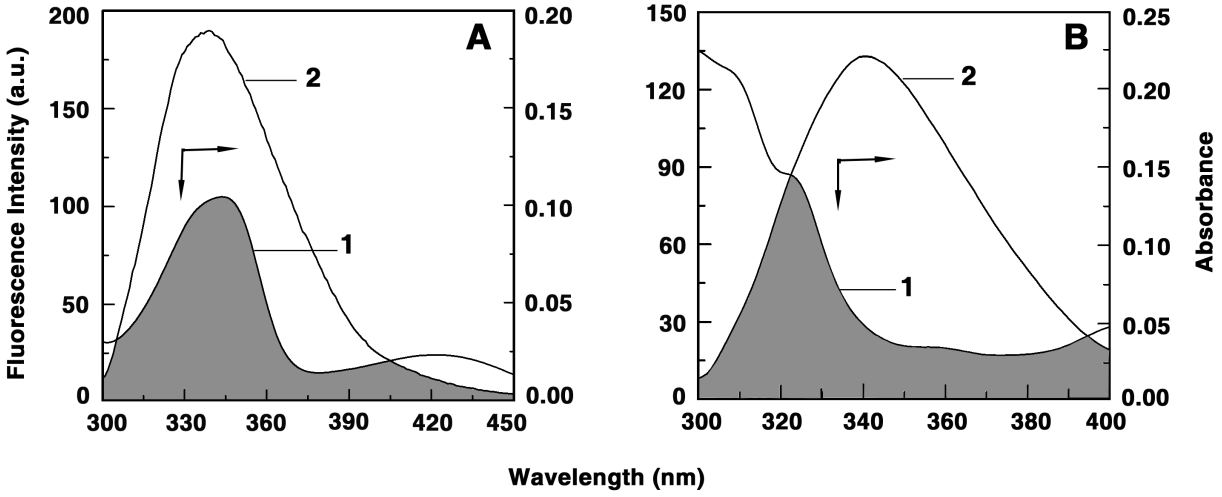

Fig. S4 Overlap (shaded portion) of Lyz fluorescence spectrum and absorption spectra of (A) berberine and (B) coralyne. In panel (A) and (B) curve 1 represent absorption spectra of (A) berberine and (B) coralyne and curve 2 represent the fluorescence spectrum of Lyz. The excitation of Lyz was done at 295 nm. The ratio of the concentration of [Lyz]:[alkaloids] = 1:1.

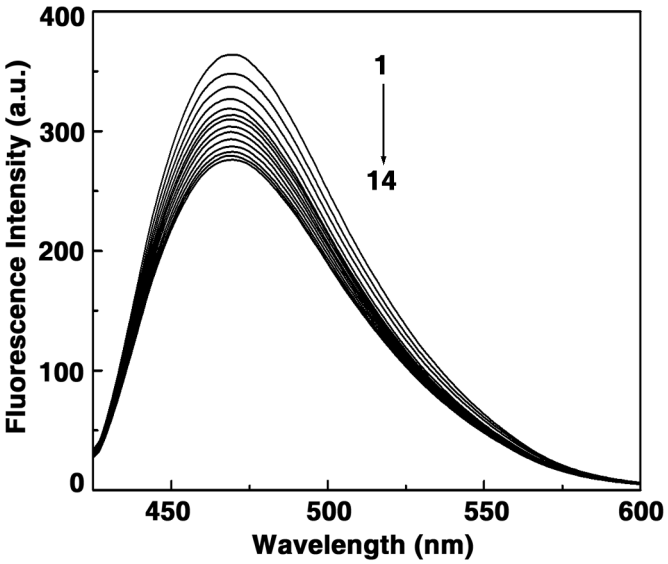

Fig. 5 Steady state fluorescence emission spectra of coralyne (1μM) treated with various concentrations of Lyz in 10 mM Na-Phosphate buffer, pH = 7.2. The curves (1-14) denote 0, 0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6 and 6.5 μM of Lyz.