Supplementary material for

Variation in the biomolecular interactions of nickel(II) hydrazone complexes upon tuning the hydrazide fragment

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Figures

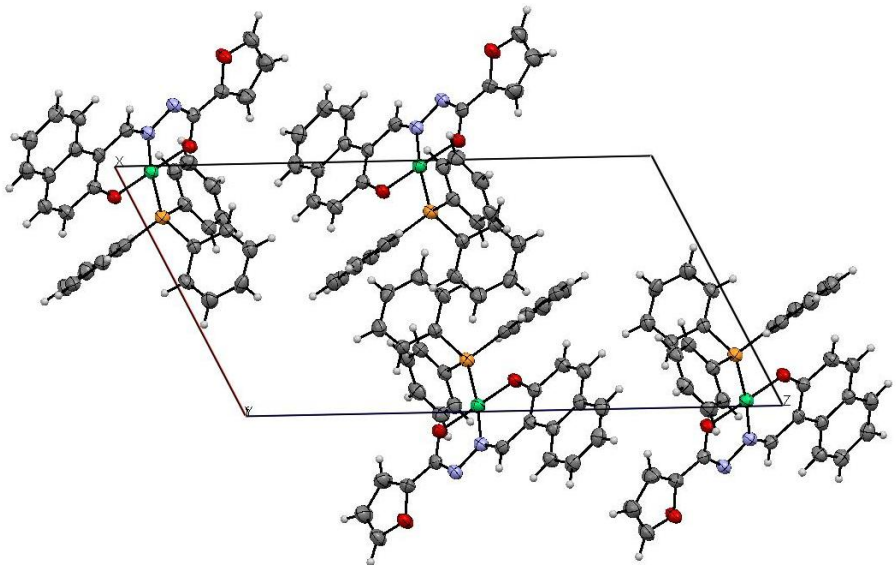

Figure S1. Unit cell packing diagram of the complex **4**.

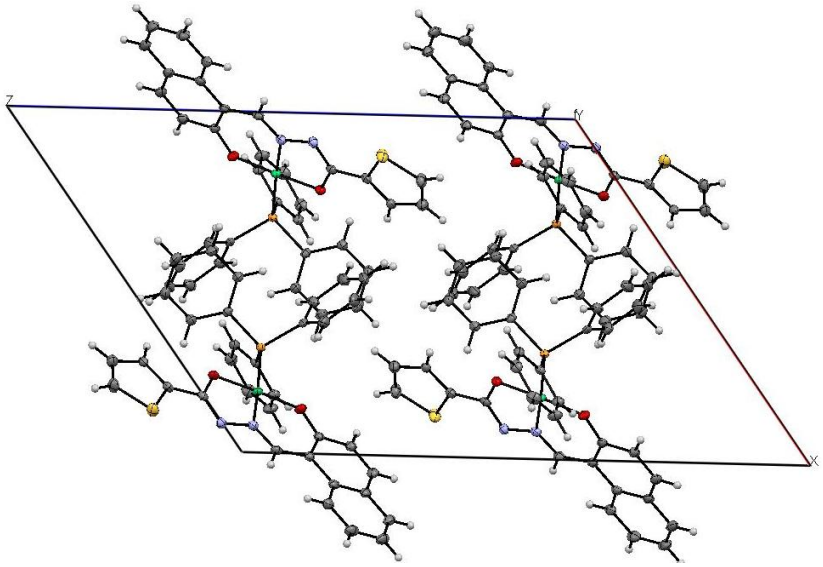

Figure S2. Unit cell packing diagram of the complex **5**.

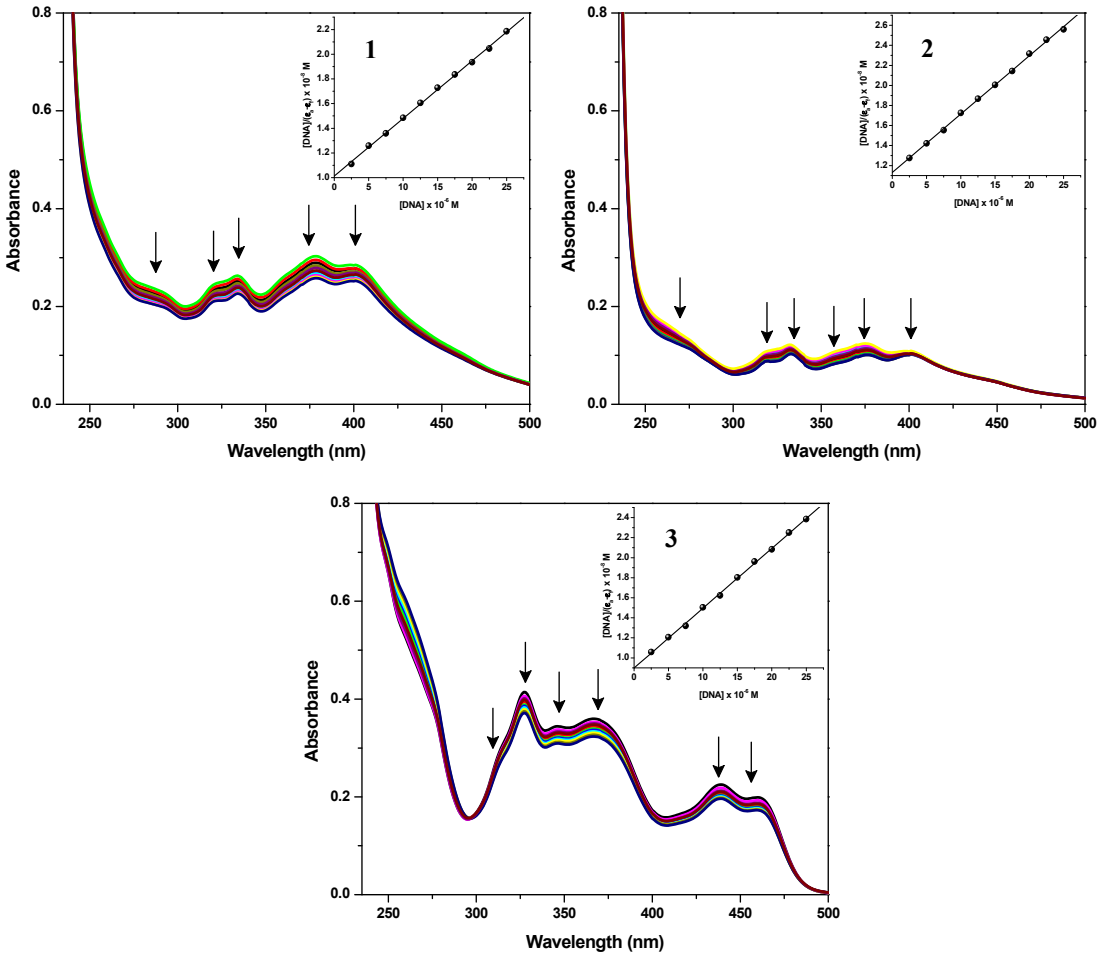

Figure S3. Electronic absorption spectra of ligands **1-3** (25 μM) in the absence and presence of increasing amounts of CT DNA (2.5, 5.0, 7.5, 10.0, 12.5, 15.0, 17.5 and 20.0, 22.5 and 25 μM). Arrows show the changes in absorbance as a function of increasing DNA concentration (Inset: Plot of [DNA] vs [DNA]/(ε_a-ε_f)).

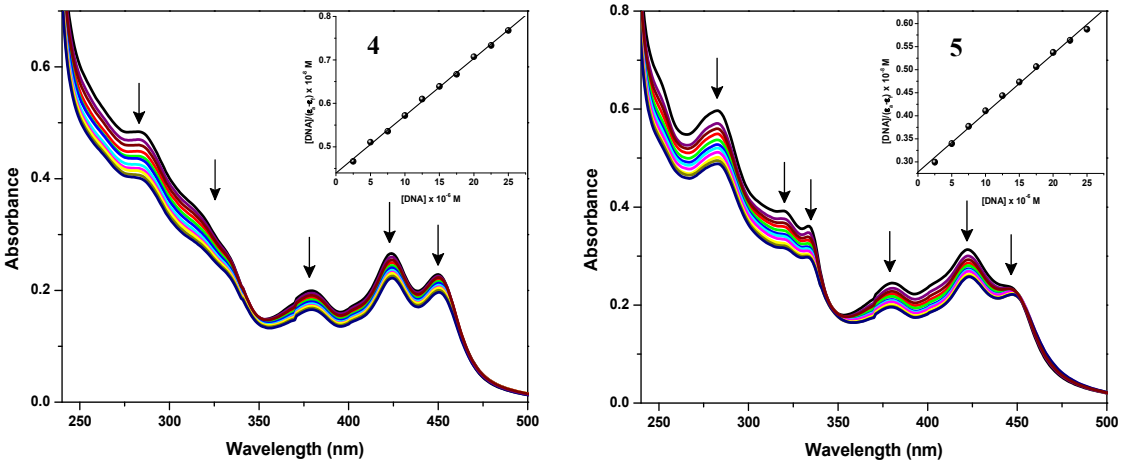

Figure S4. Electronic absorption spectra of complexes **4** and **5** (25 μM) in the absence and presence of increasing amounts of CT DNA (2.5, 5.0, 7.5, 10.0, 12.5, 15.0, 17.5 and 20.0, 22.5 and 25 μM). Arrows show the changes in absorbance as a function of increasing DNA concentration (Inset: Plot of [DNA] vs [DNA]/(ε_a-ε_f)).

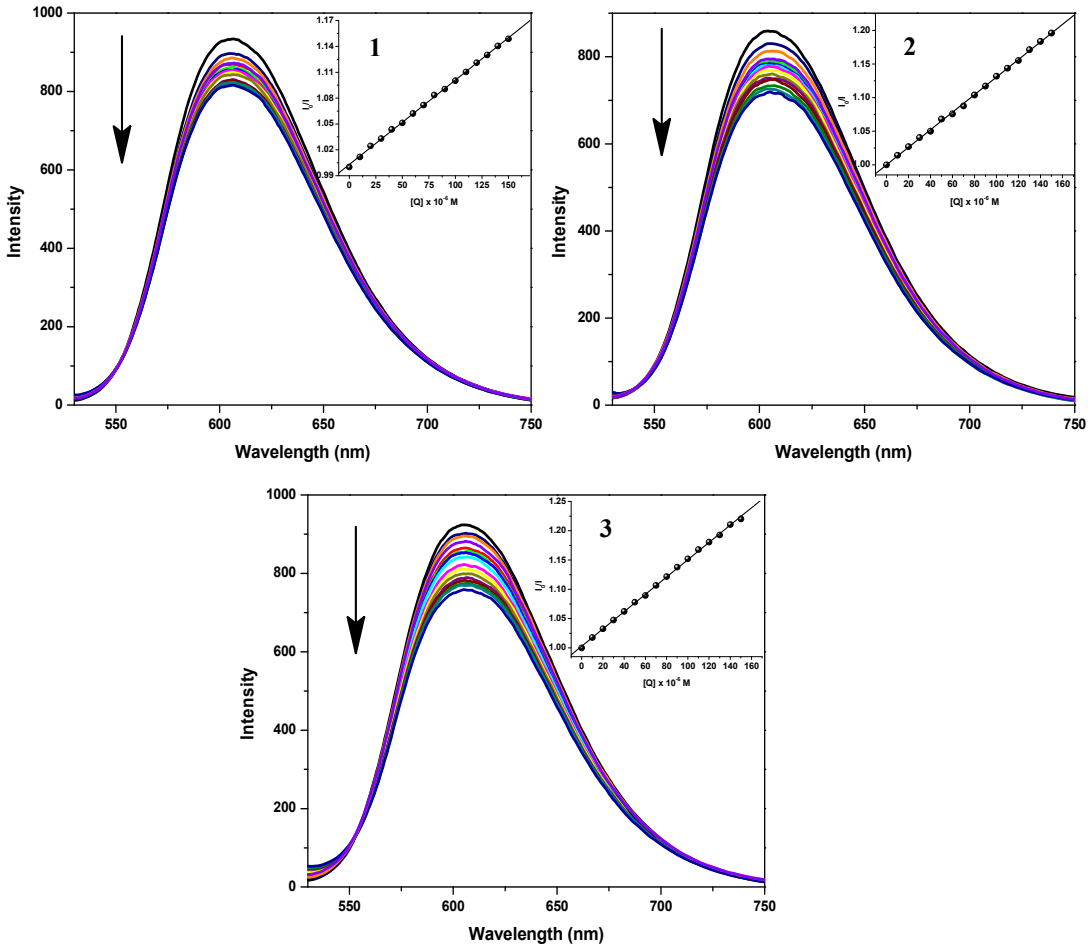

Figure S5. Emission spectra of DNA-EB, in the presence of 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130,140 and 150 μM of ligands **1**-**3**. Arrow indicates the change in the emission intensity as a function of ligand concentration (Inset: Stern-Volmer plot of the fluorescence titration data corresponding to the ligands).

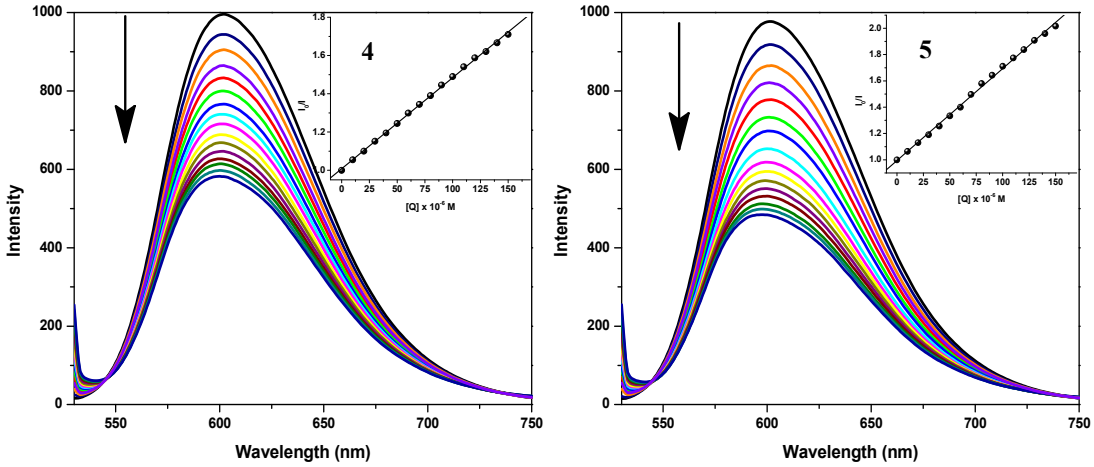

Figure S6. Emission spectra of DNA-EB, in the presence of 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130,140 and 150 μM of complexes **4** and **5**. Arrow indicates the change in the emission intensity as a function of complex concentration (Inset: Stern-Volmer plot of the fluorescence titration data corresponding to the complex).

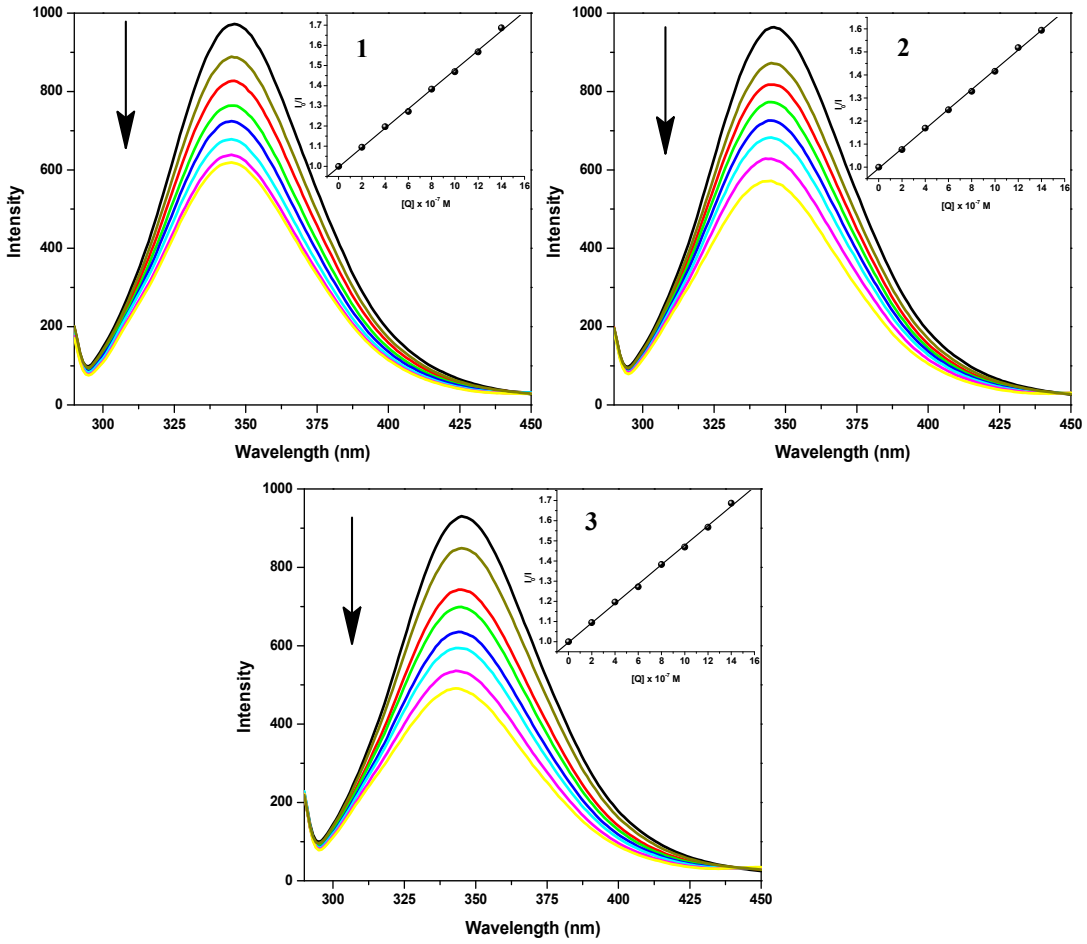

Figure S7. Emission spectra of BSA (1×10^{-6} M; λ_{exi} = 280 nm; λ_{emi} = 345 nm) as a function of concentration of the ligands **1**-**3** (0, 2, 4, 6, 8, 10, 12 and 14×10^{-7} M). Arrow indicates the effect of the ligands on the fluorescence emission of BSA (Inset: Plot between [Q] and I_0/I).

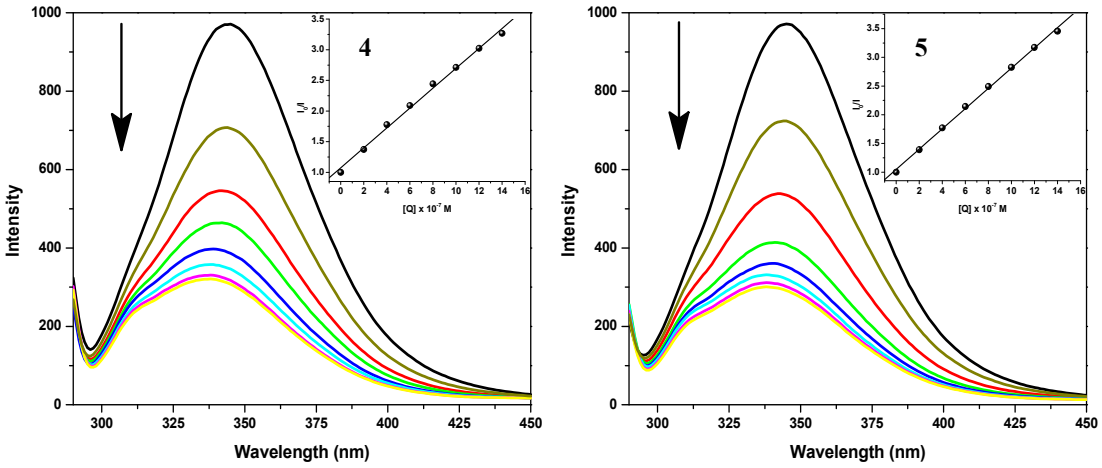

Figure S8. Emission spectra of BSA (1×10^{-6} M; λ_{exi} = 280 nm; λ_{emi} = 345 nm) as a function of concentration of the complexes **4** and **5** (0, 2, 4, 6, 8, 10, 12 and 14×10^{-7} M). Arrow indicates the effect of metal complexes **4** and **5** on the fluorescence emission of BSA (Inset: Plot between [Q] and I_0/I).

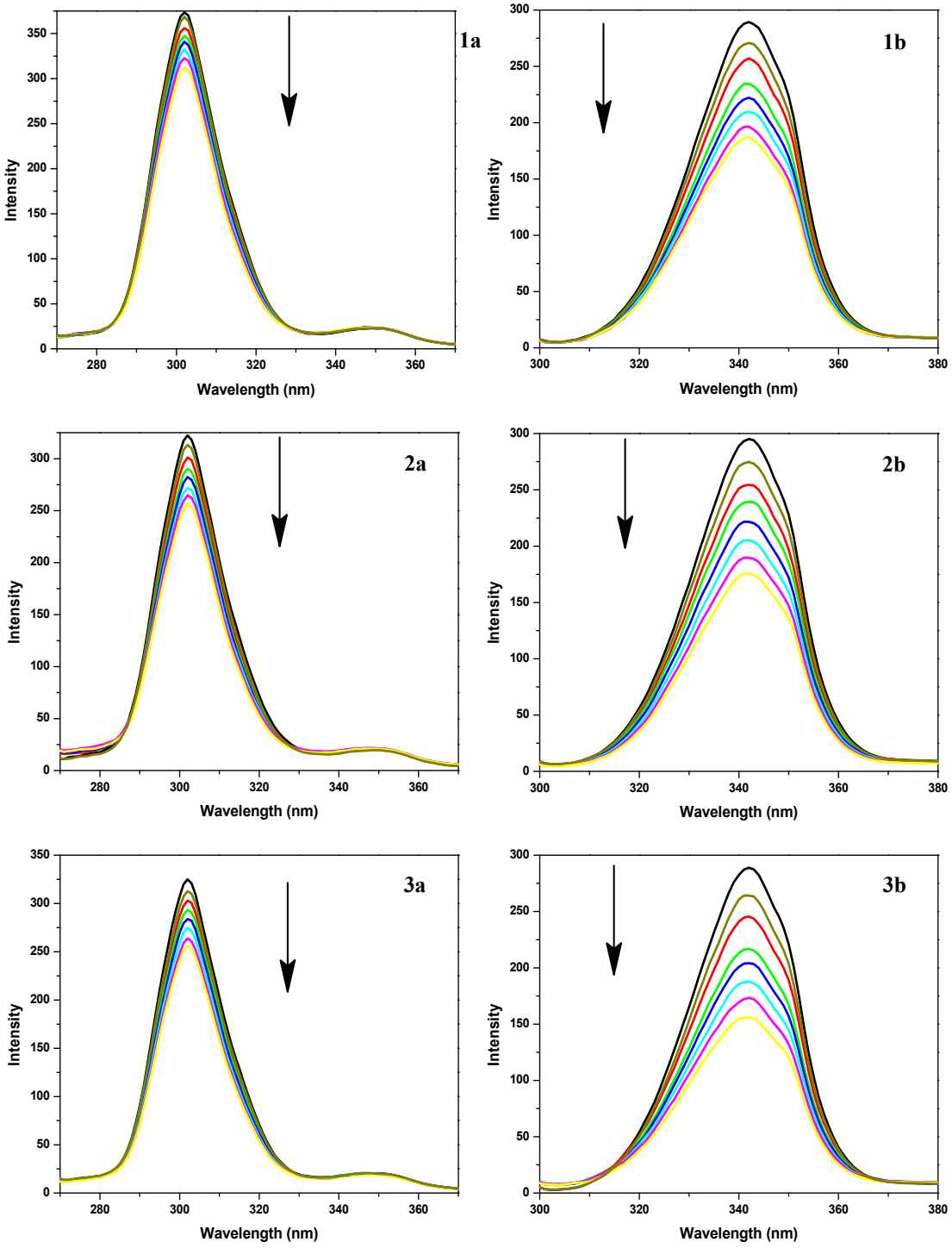

Figure S9. Synchronous spectra of BSA (1×10^{-6} M) as a function of concentration of the ligands **1-3** (0, 2, 4, 6, 8, 10, 12 and 14×10^{-7} M) with wavelength difference of $\Delta\lambda$ = 15 nm (a) and $\Delta\lambda$ = 60 nm (b). Arrow indicates the change in emission intensity w.r.t various concentration of the ligands.

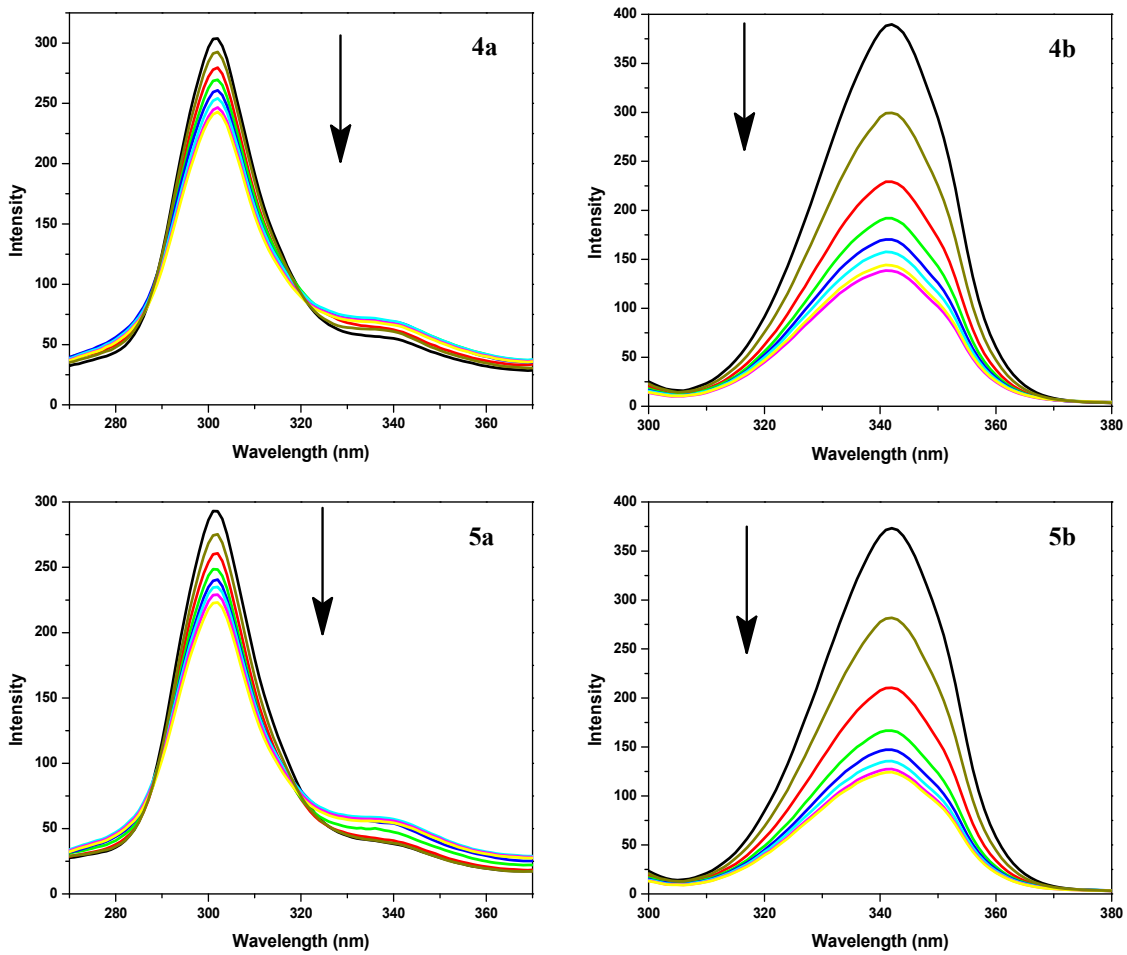

Figure S10. Synchronous spectra of BSA (1×10^{-6} M) as a function of concentration of the complexes **4** and **5** (0, 2, 4, 6, 8, 10, 12 and 14×10^{-7} M) with wavelength difference of $\Delta\lambda$ = 15 nm (a) and $\Delta\lambda$ = 60 nm (b). Arrow indicates the change in emission intensity w.r.t various concentration of the complexes.

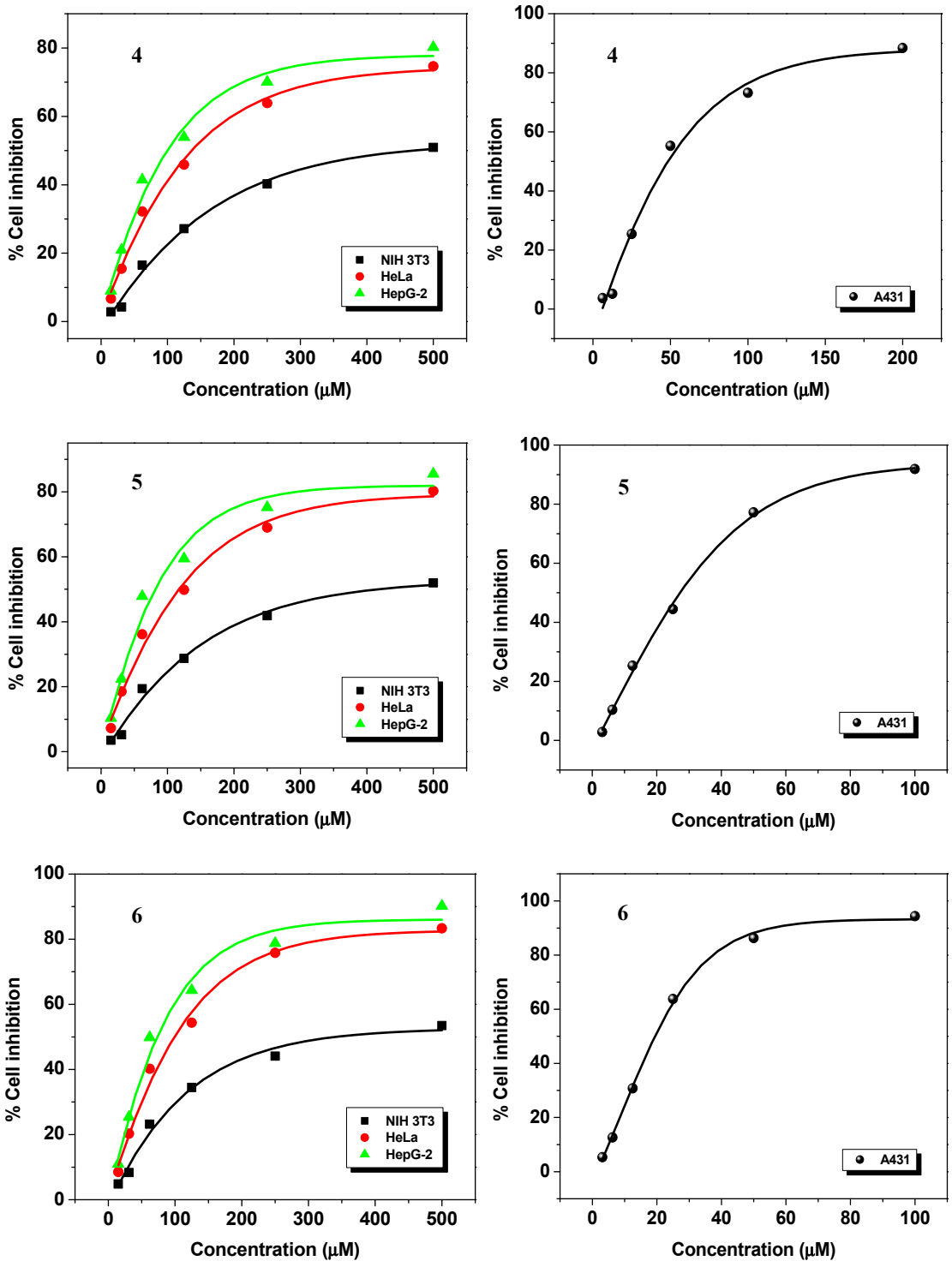

Figure S11. % Cell inhibition of NIH 3T3, HeLa, HepG-2 and A431 cell lines as a function of concentration of nickel hydrazones **4**, **5** and **6**.