

Supplementary material for

Synthesis of novel heterobimetallic copper(I) hydrazone Schiff base complexes: A comparative study on the effect of heterocyclic hydrazides towards interaction with DNA/protein, free radical scavenging and cytotoxicity

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Figures

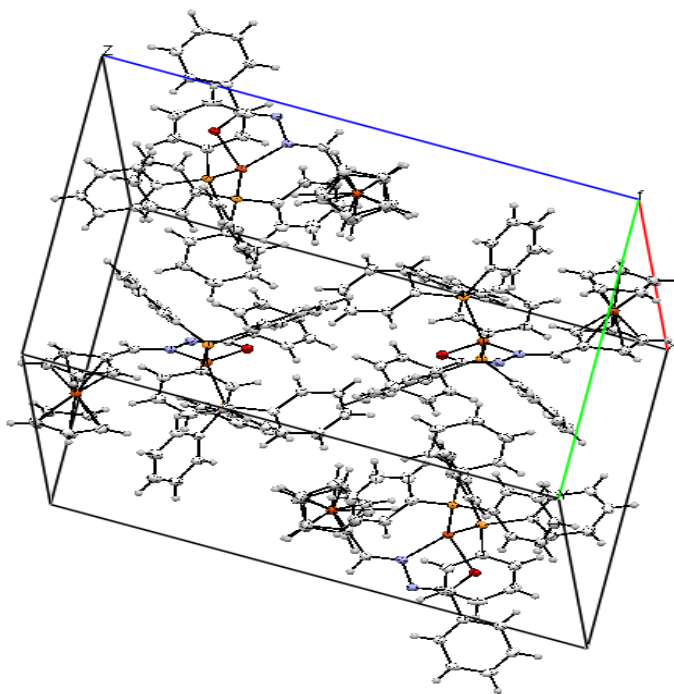


Figure S1. Unit cell packing diagram of the complex **4**.

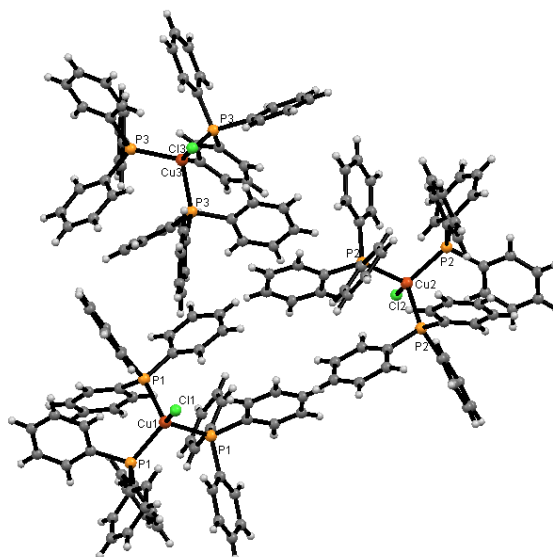


Figure S2. Molecular structure of the complex **4a** showing the atom-numbering scheme with thermal ellipsoids at 25% probability level.

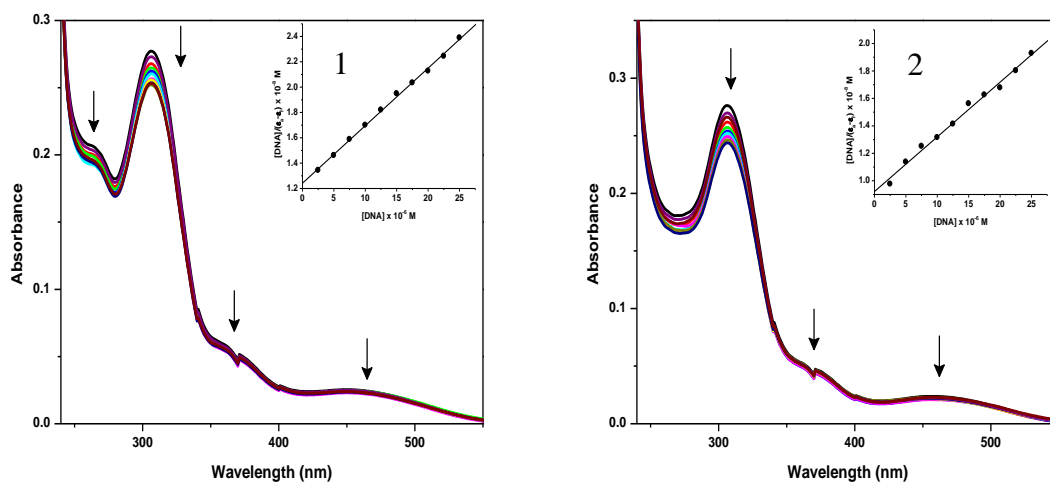


Figure S3. Electronic absorption spectra of ligands **1** and **2** (25 μM) in the absence and presence of increasing amounts of CT DNA (2.5, 5.0, 7.5, 10.0, 12.5, 15.0, 17.5 and 20.0, 22.5 and 25 μM). Arrows show the changes in absorbance with respect to an increase in the DNA concentration.

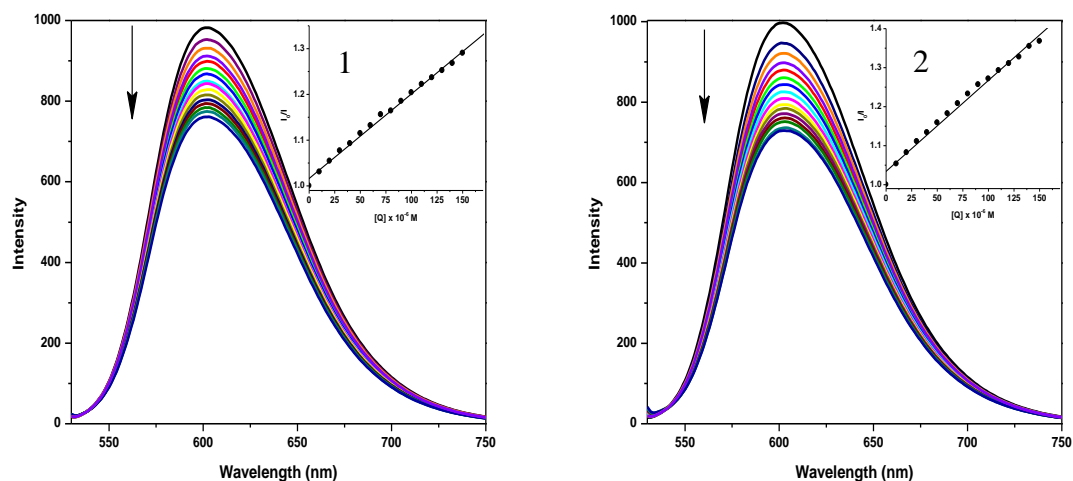


Figure S4. Emission spectra of DNA-EB (5 μM), in the presence of 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 149 and 150 μM of ligands **1** and **2**. Arrow indicates the changes in the emission intensity as a function of compound concentration. Inset: Stern-Volmer plot of the fluorescence titration data corresponding to the compounds.

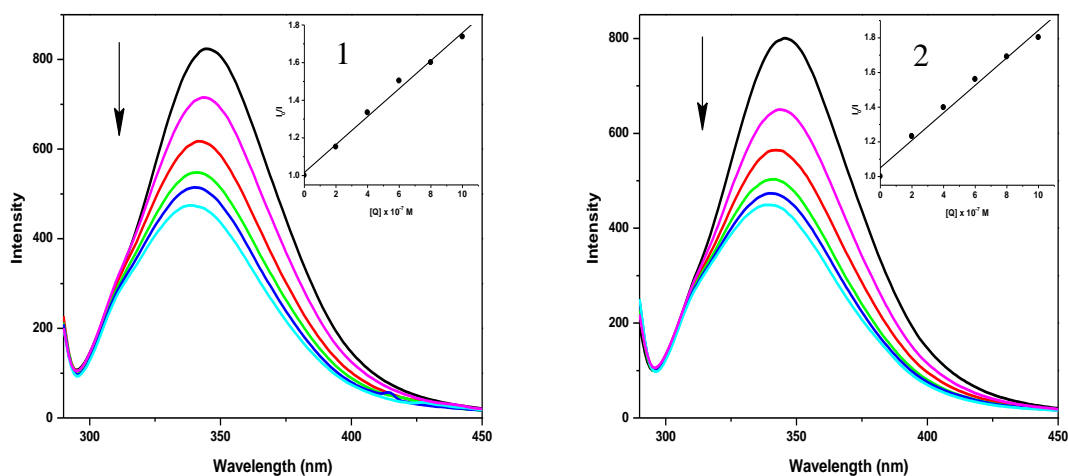


Figure S5. Emission spectra of BSA (1×10^{-6} M; $\lambda_{\text{exi}} = 280$ nm; $\lambda_{\text{emi}} = 345$ nm) as a function of concentration of ligands **1** and **2** ($0, 2, 4, 6, 8$ and 10×10^{-7} M). Arrow indicates the effect of ligands on the fluorescence emission of BSA

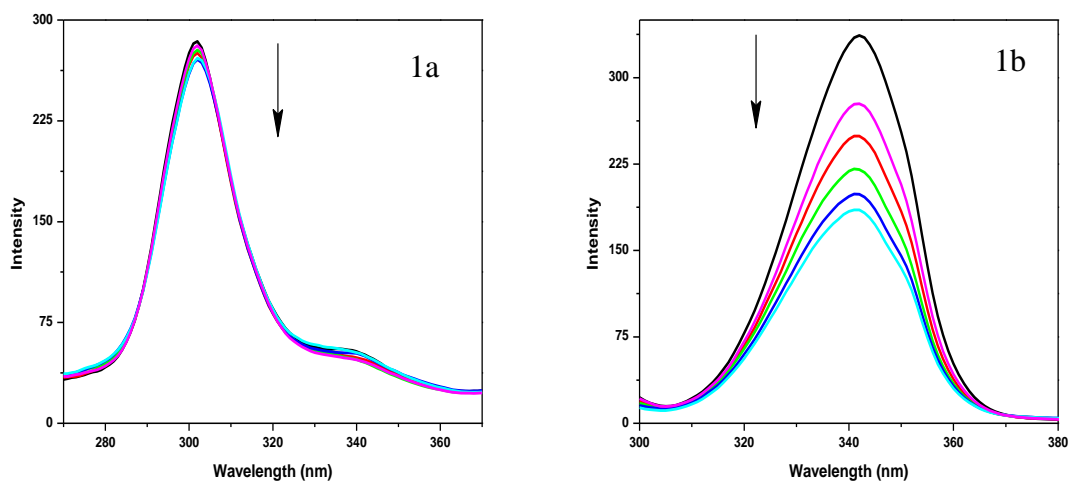


Figure S6. Synchronous spectra of BSA (1×10^{-6} M) as a function of concentration of the ligands **1** ($0, 2, 4, 6, 8$ and 10×10^{-7} M) with wavelength difference of $\Delta\lambda = 15$ nm (a) and $\Delta\lambda = 60$ nm (b). Arrow indicates the changes in emission intensity w.r.t various concentration of ligand.

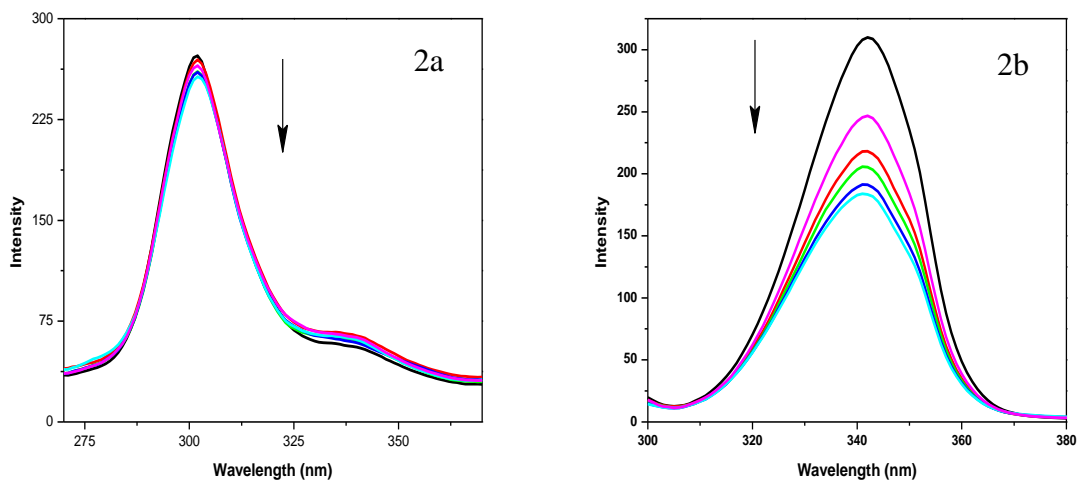


Figure S7. Synchronous spectra of BSA (1×10^{-6} M) as a function of concentration of the ligand **2** (0, 2, 4, 6, 8 and 10×10^{-7} M) with wavelength difference of $\Delta\lambda = 15$ nm (a) and $\Delta\lambda = 60$ nm (b). Arrow indicates the changes in emission intensity w.r.t various concentration of ligand.