Electronic Supplementary Material (ESI) for New Journal of Chemistry.

SUPPLEMENTARY INFORMATION

EFFECTS OF *N*,*N*-HETEROCYCLIC LIGANDS ON THE *IN VITRO* CYTOTOXICITY AND DNA INTERACTIONS OF COPPER(II) CHLORIDE COMPLEXES FROM AMIDINO-*O*-METHYLUREA LIGANDS

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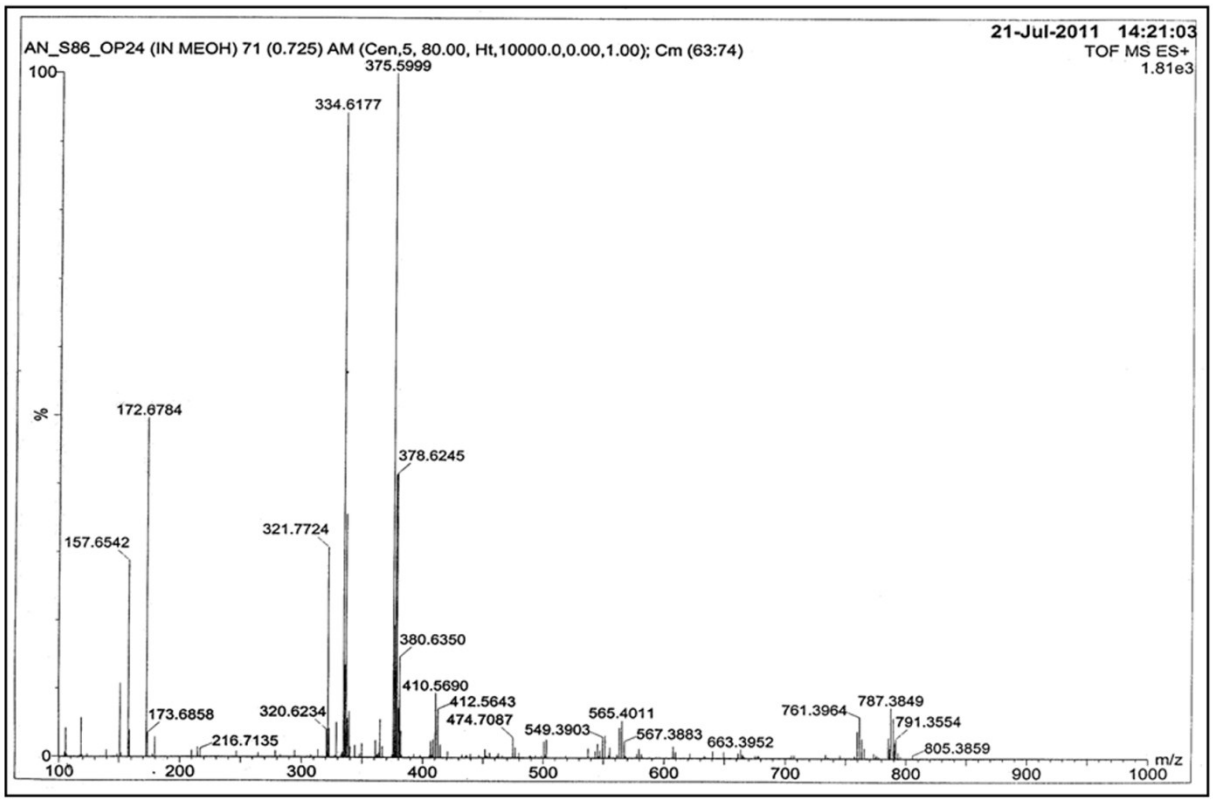

Fig. S1 ESI+ mass spectra of 1

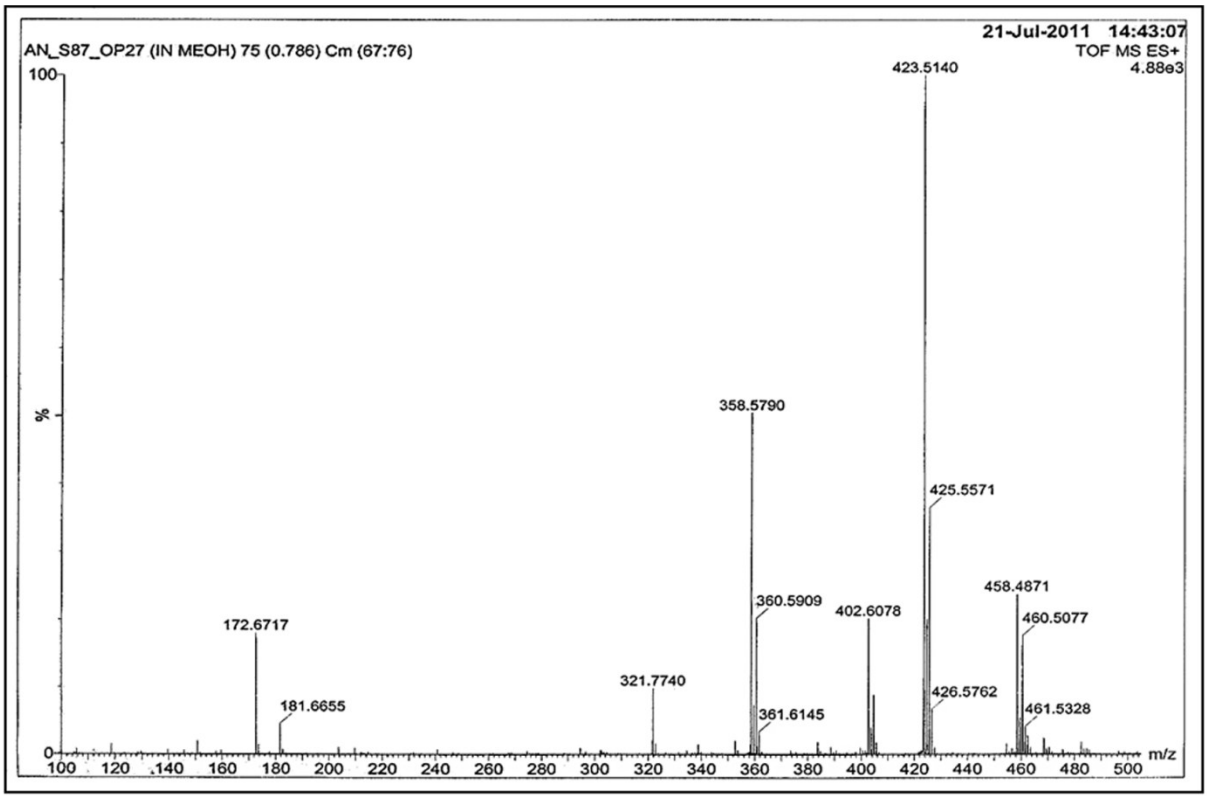

Fig. S2 ESI+ mass spectra of 2

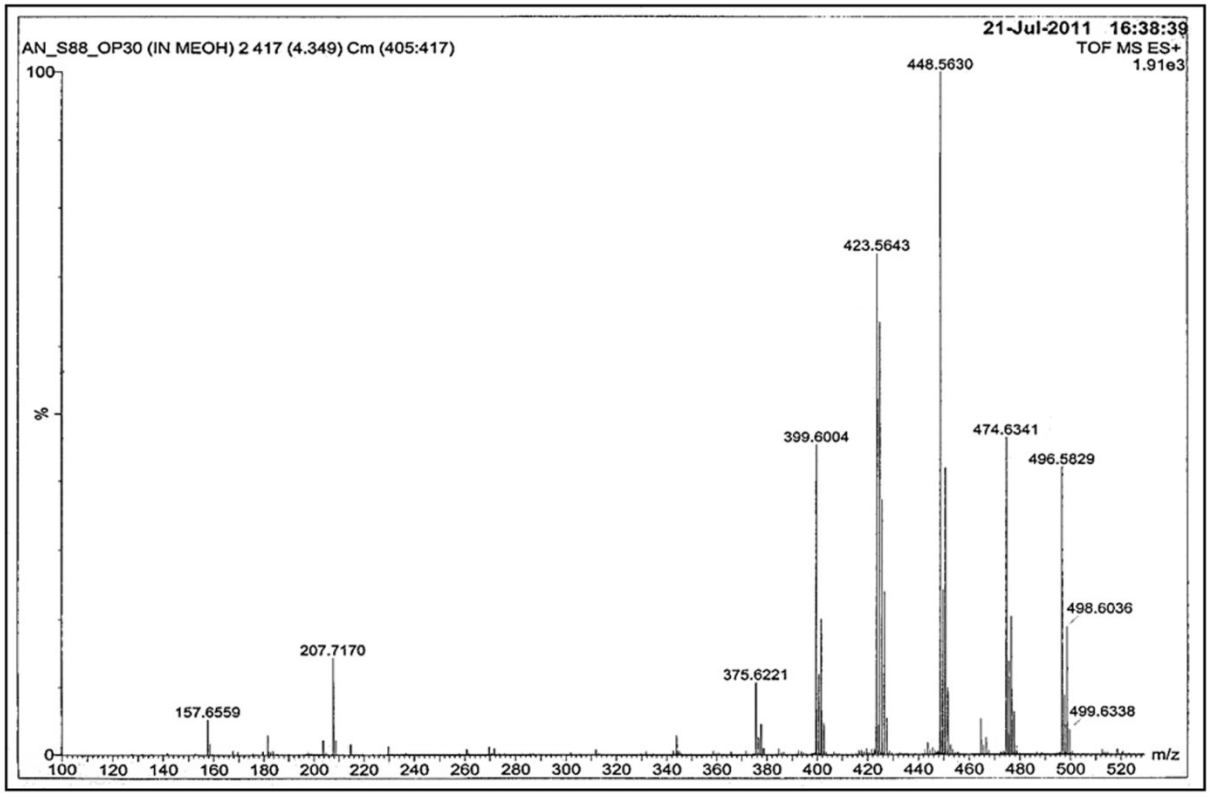

Fig. S3 ESI+ mass spectra of 3

Fig. S4 ESI+ mass spectra of 4

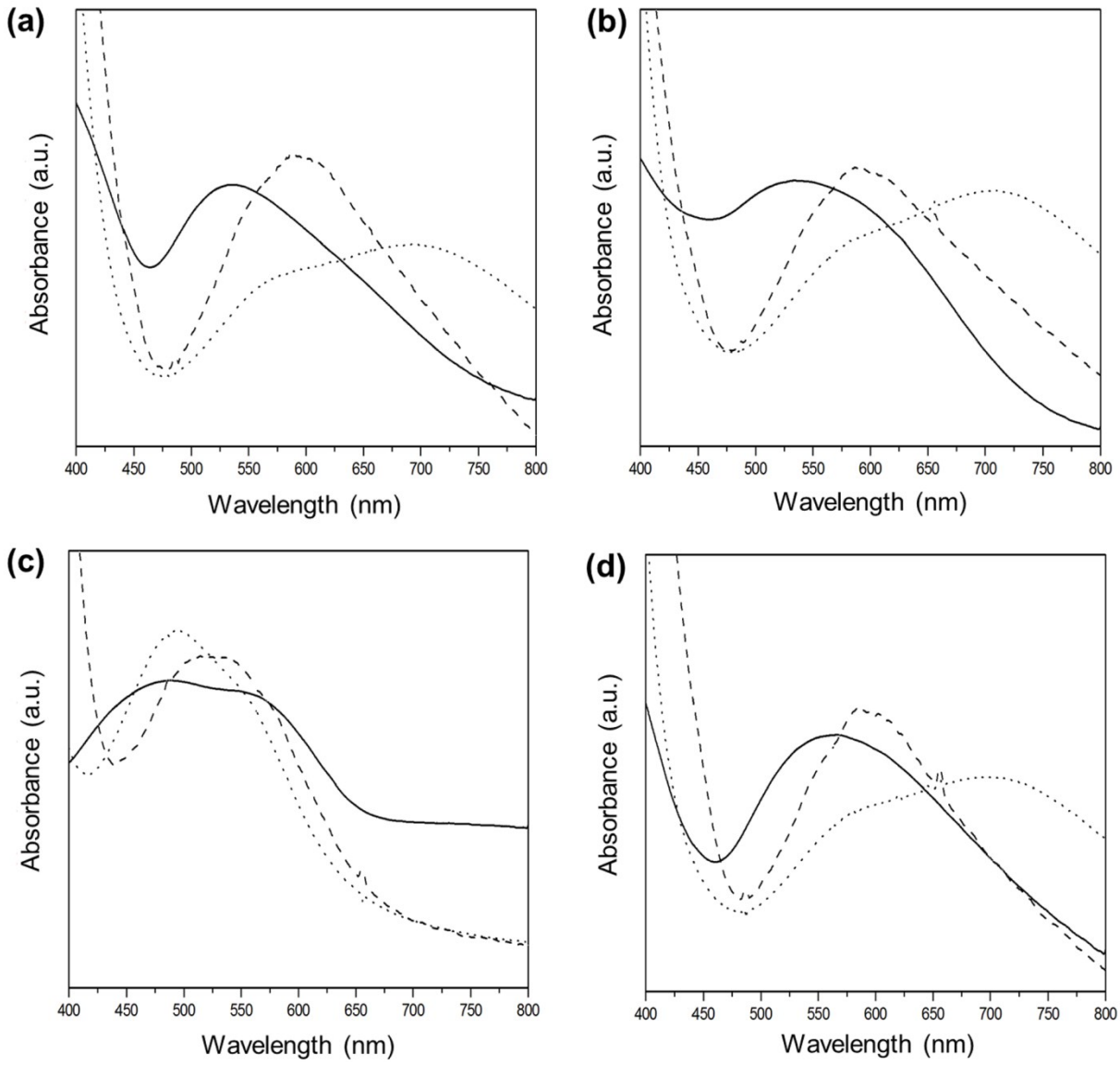

Fig. S5 Electronic absorption spectra of the copper(II) complexes; (a) 1, (b) 2, (c) 3 and (d) 4 in solid state (—), MeOH (----) and DMSO (····).

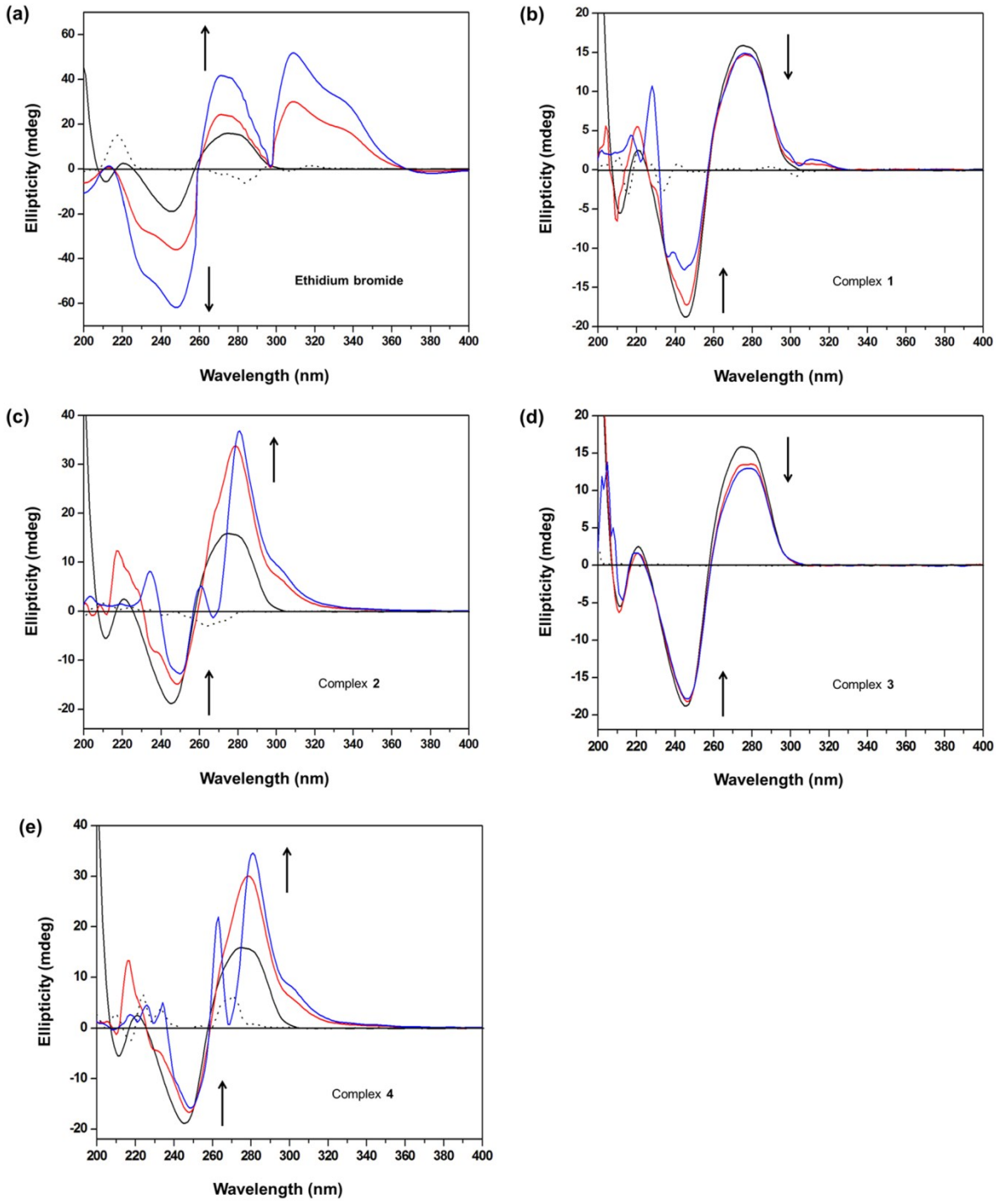

Fig. S6 Circular dichroism spectra of free CT-DNA (—) (200 μM), free complexes (200 μM) (····) and CT-DNA treated by ethidium bromide (a) and 1-4 (b-e) at the [Complex]/[DNA] ratios of 0.5 (—) and 1.0 (—), incubated at 37 °C for 24 h. Arrows indicate direction of the intensity changes of the positive and the negative bands.

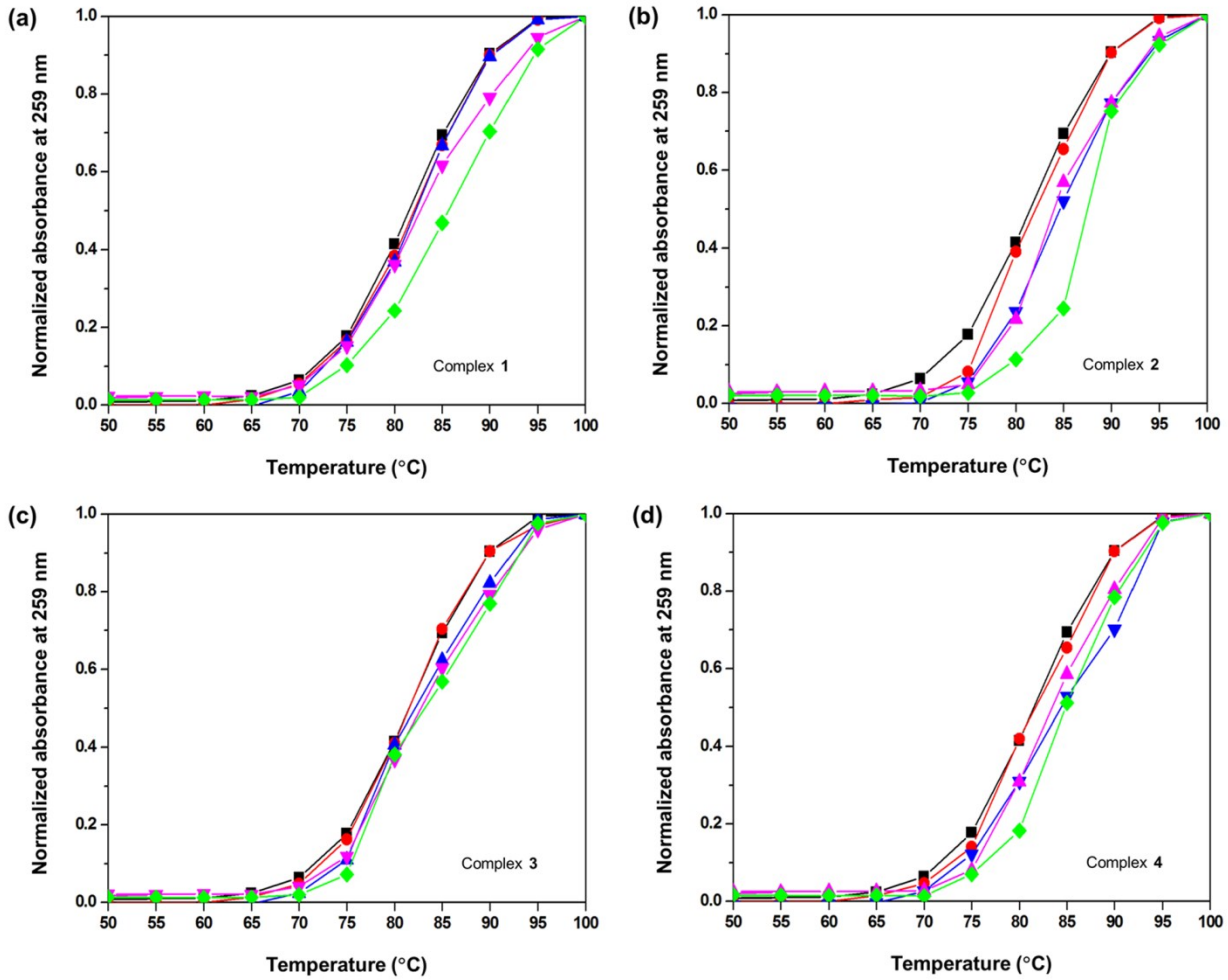

Fig. S7 Thermal denaturation profiles of CT-DNA (200 μM) in the presence of the complexes 1-4 at different [Complex]/[DNA] ratios of 0.0 (■), 0.5 (●), 1.0 (▲), 1.5 (▼) and 2.0 (♦) in 3% MeOH/Tris-buffer, pH = 7.2.

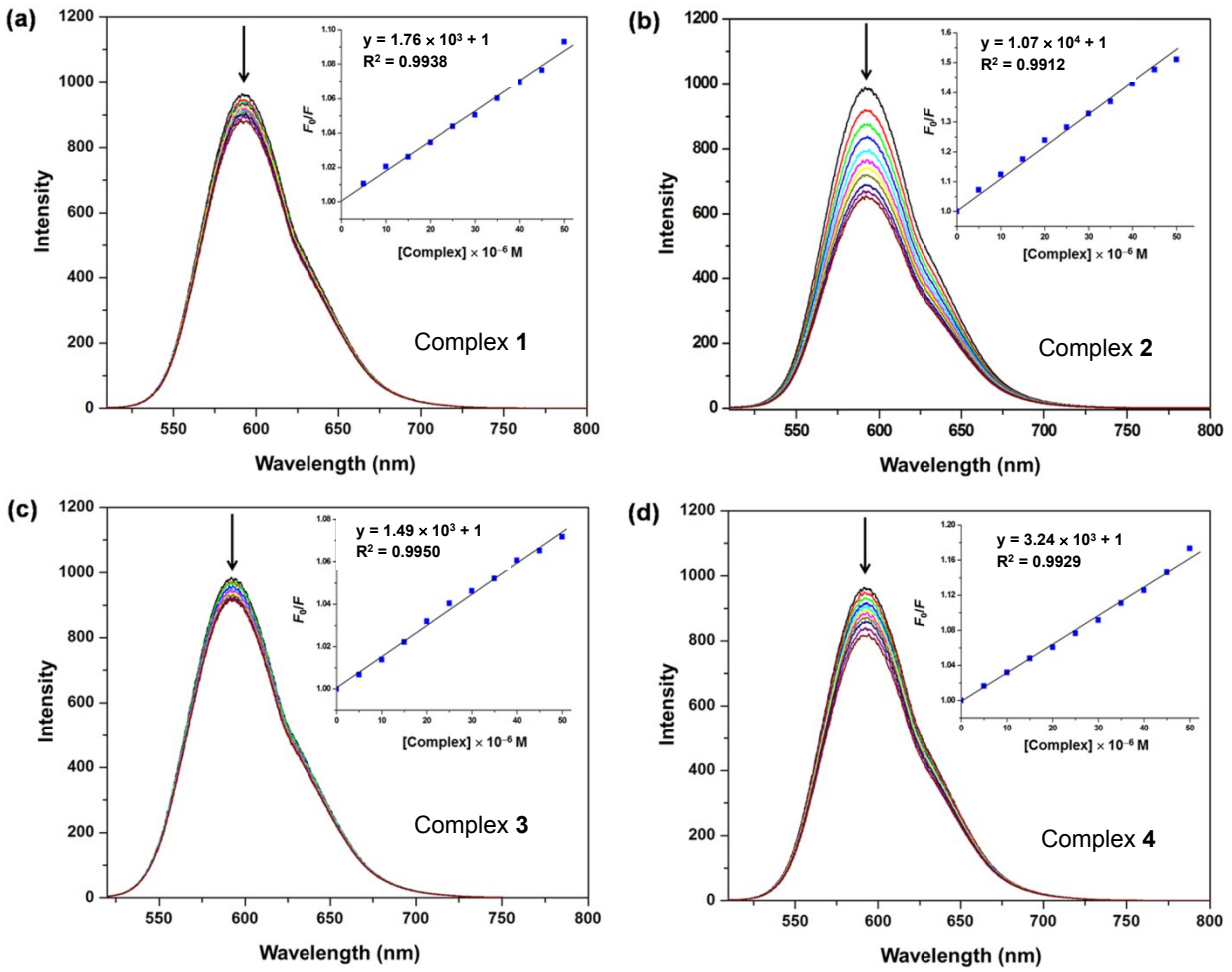

Fig. S8 Effect of the complexes 1-4 on the fluorescence emission spectra of the EB-DNA complex in 3% MeOH/Tris-buffer (5 mM Tris-HCl/ 50 mM NaCl at pH = 7.2) at 37 °C. [EB] = 25 μM, [DNA] = 50 μM, [Complex] = 0–50 μM, λ_{ex} = 500 nm and λ_{em} = 593 nm. Insets: the Stern-Volmer plots of fluorescence quenching of the EB-DNA at different complex concentrations.

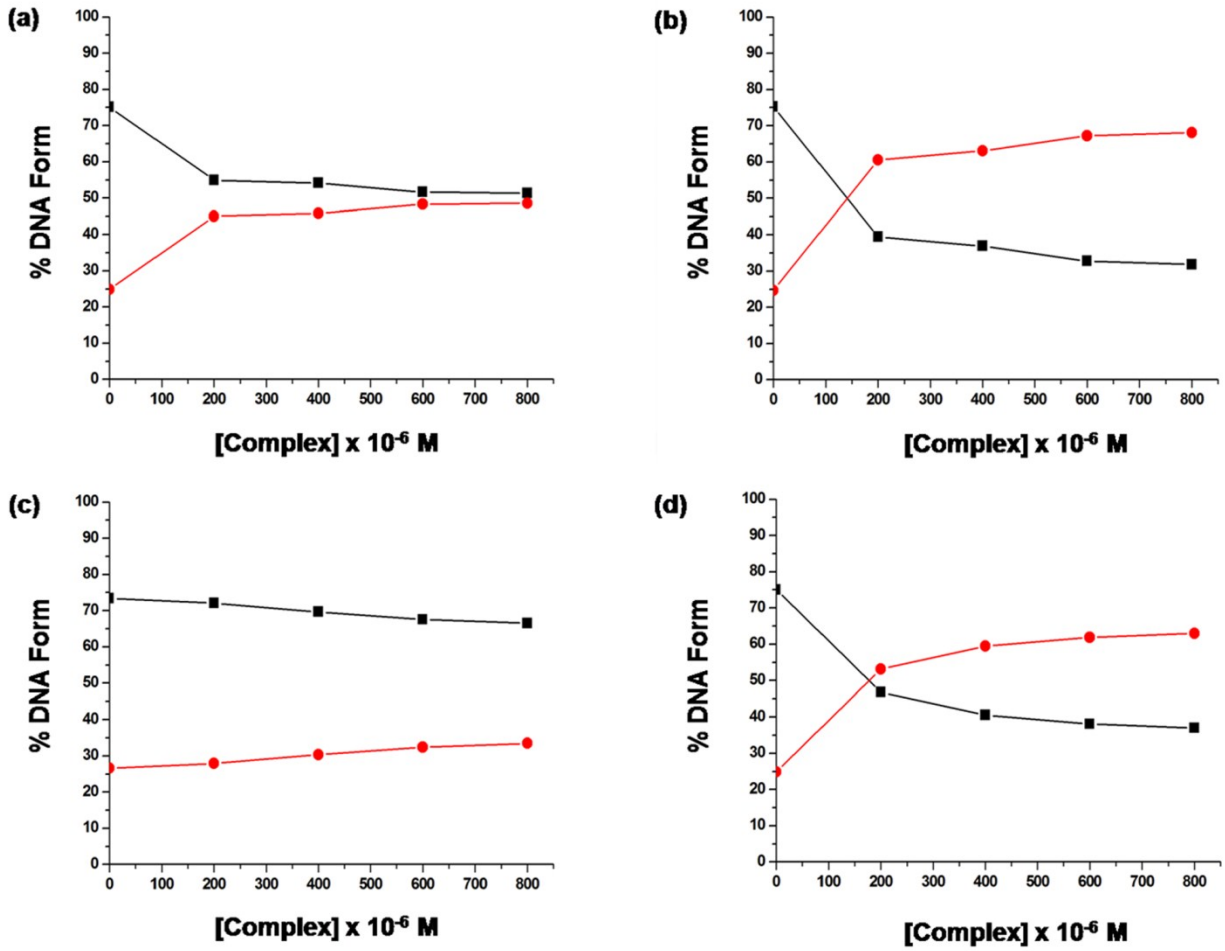

Fig. S9 Plots of % supercoiled DNA (Form I) (—■—) and circular nicked DNA (Form II) (—●—) *vs.* the concentration of the complexes (a) [Cu(L^1)(bipy)]Cl_2 (1); (b) [Cu(L^1)(phen)]Cl_2 (2); (c) [Cu(L^2)(bipy)Cl_2] (3) and (d) [Cu(L^2)(phen)]Cl_2 (4). Incubation in HEPES-buffer at 37 °C for 1 h.

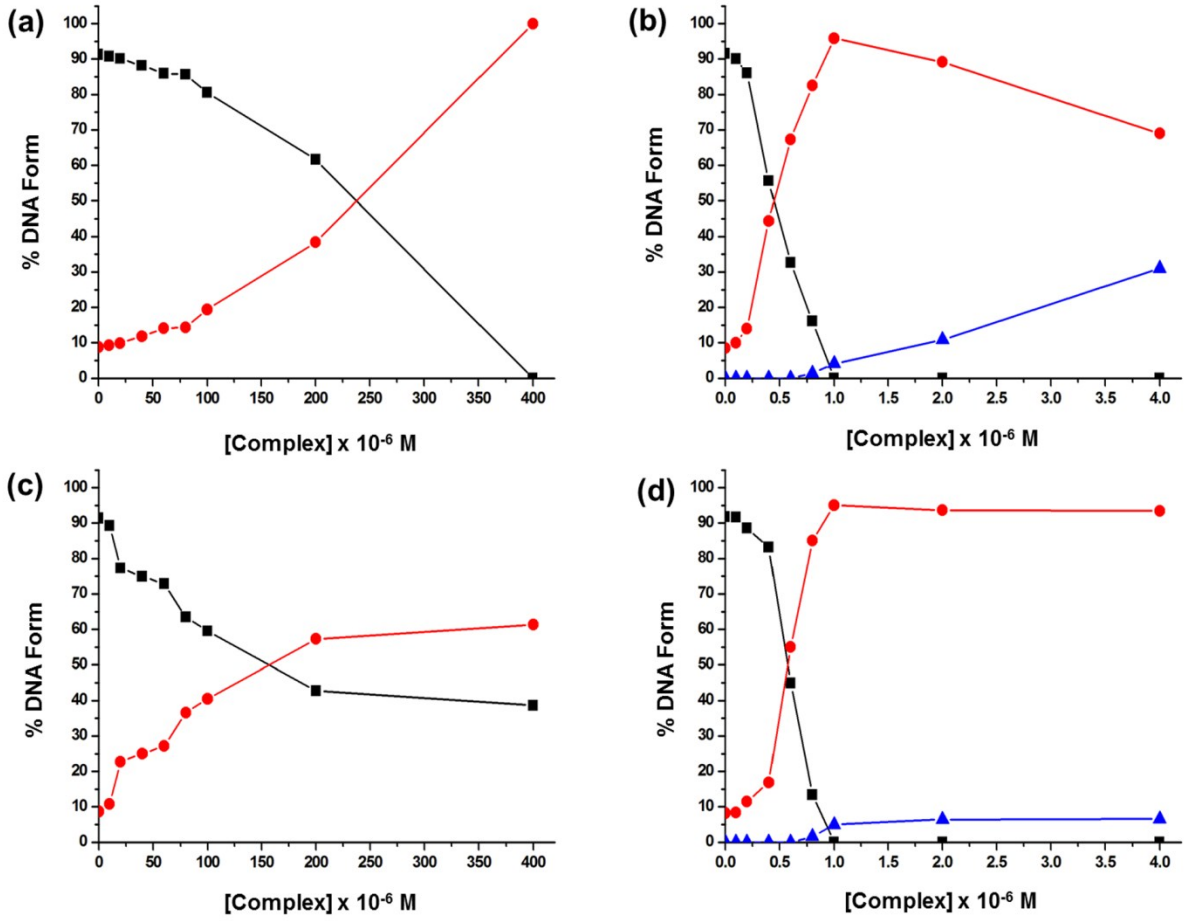

Fig. S10 Plots of % supercoiled DNA (Form I) (—■—), circular nicked DNA (Form II) (—●—) and linear DNA (Form III) (—▲—) *vs.* the concentration of the complexes (a) [Cu(L^1)(bipy)]Cl$_2$ (1); (b) [Cu(L^1)(phen)]Cl$_2$ (2); (c) [Cu(L^2)(bipy)Cl$_2$] (3) and (d) [Cu(L^2)(phen)]Cl$_2$ (4) in the presence of H$_2$ASC (100 μM). Incubation in HEPES-buffer at 37°C for 1 h.