

Electronic Supplementary Information

Synthesis, Characterization, DNA/BSA interactions and Anticancer Activity of achiral and chiral copper complexes

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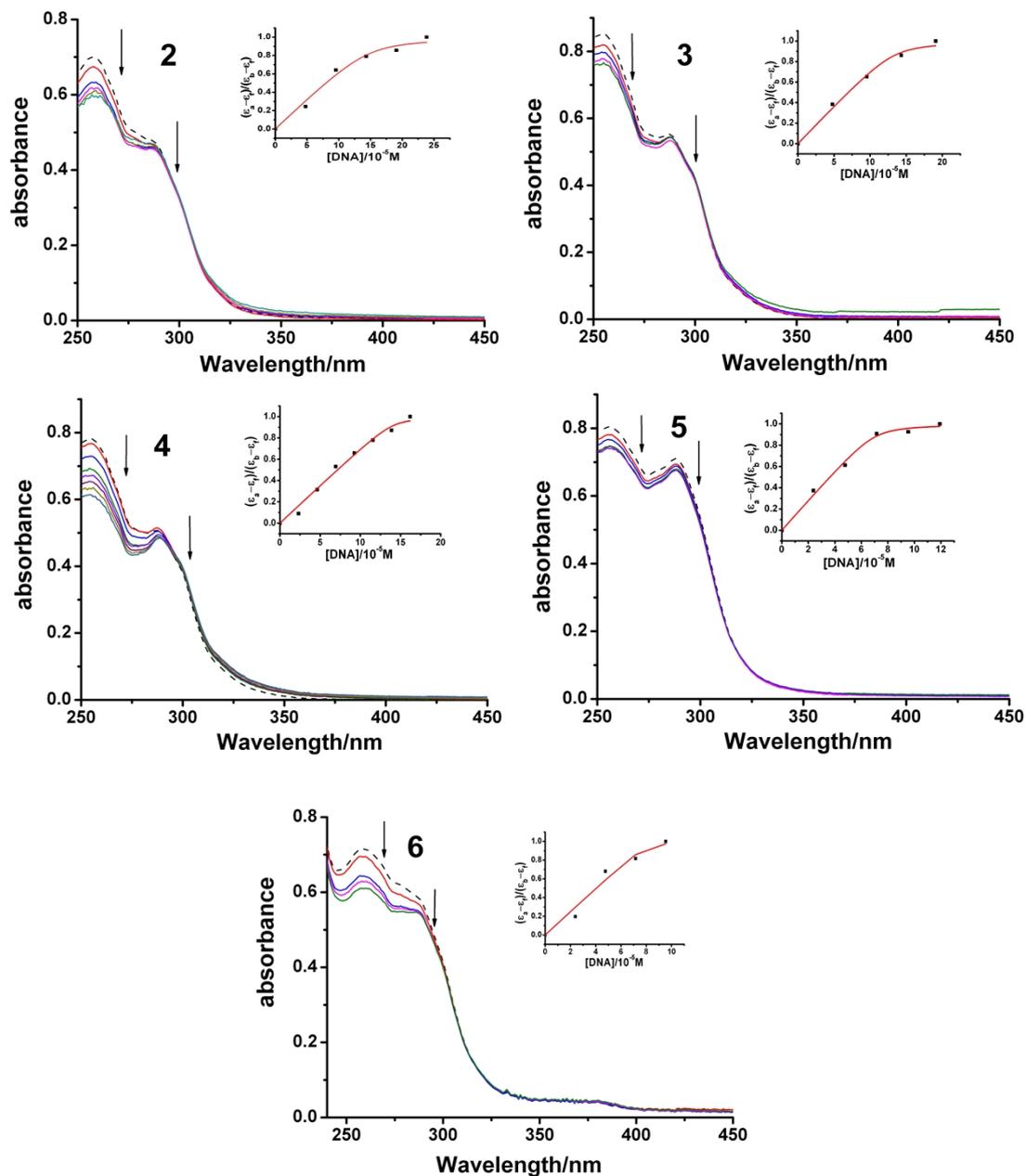


Fig. S1 Absorption spectra of complexes 2-6 (50 μM) in the absence (dashed line) and presence (solid line) of increasing amounts of CT-DNA at room temperature in 5mM Tris-HCl/50mM NaCl buffer (pH=7.2). The arrow shows the absorbance changes on increasing CT-DNA concentration. Inset shows the plot of $(\epsilon_a - \epsilon_f) / (\epsilon_b - \epsilon_f)$ vs. [DNA].

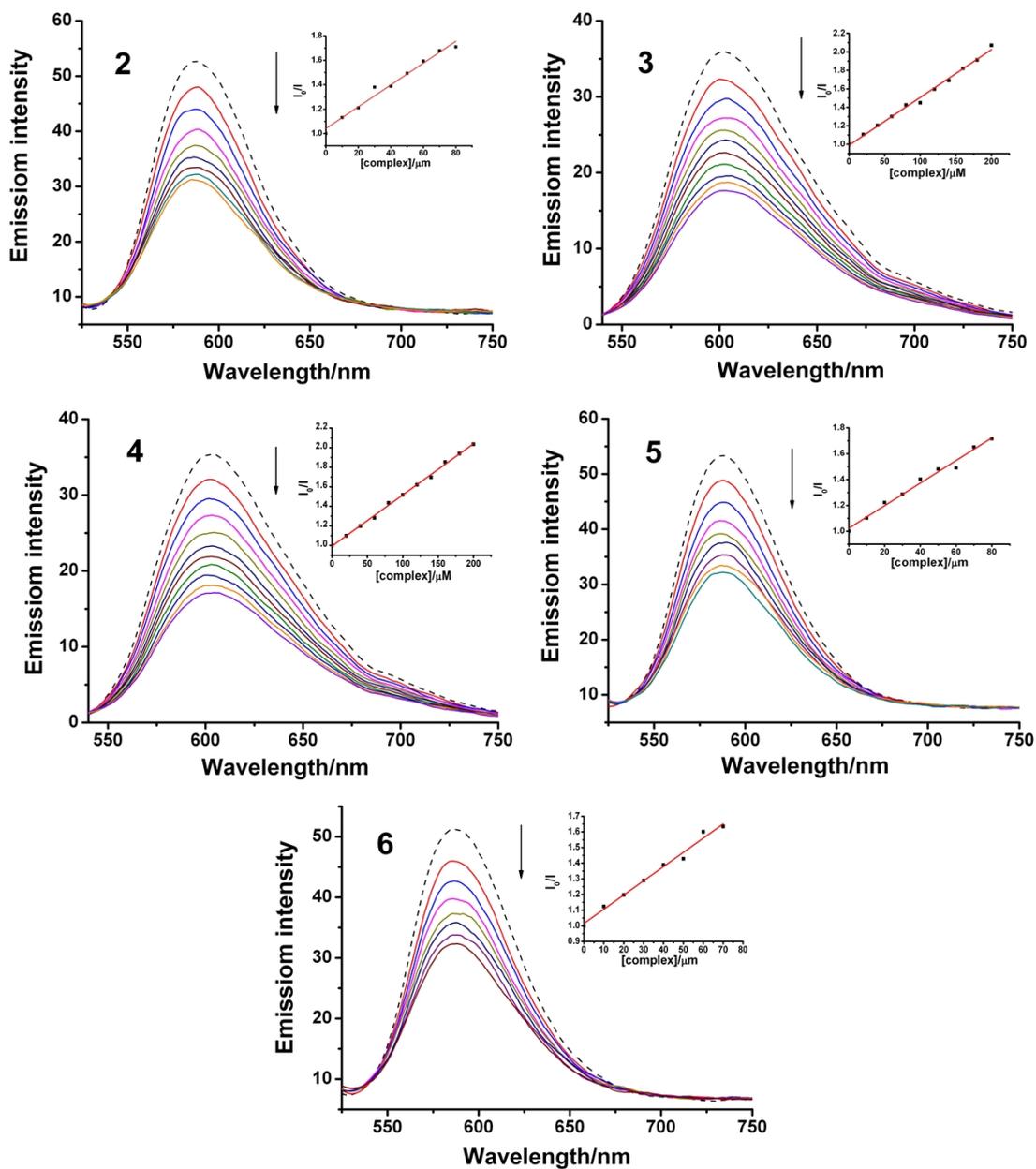


Fig. S2 Effect of addition complexes 2-6 on the emission intensity of EB bound to CT-DNA at different concentrations in 5Mm Tris-HCl/50mM NaCl buffer (pH 7.2), inset: plot of I_0/I vs. [complex].

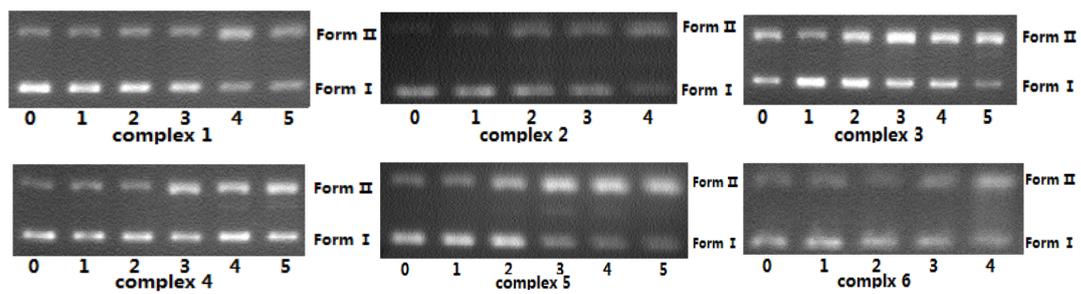


Fig. S3 Cleavage of plasmid pBR322 DNA (0.1 $\mu\text{g}/\mu\text{L}$) in the presence of 5 μM complexes 1-6 and different incubation time at 37 $^{\circ}\text{C}$. Lane 0, DNA control (180min); lane 1~5, DNA + H_2O_2 (0.25mM)+ complex(5 μM)(45, 90, 135, 180min), respectively.

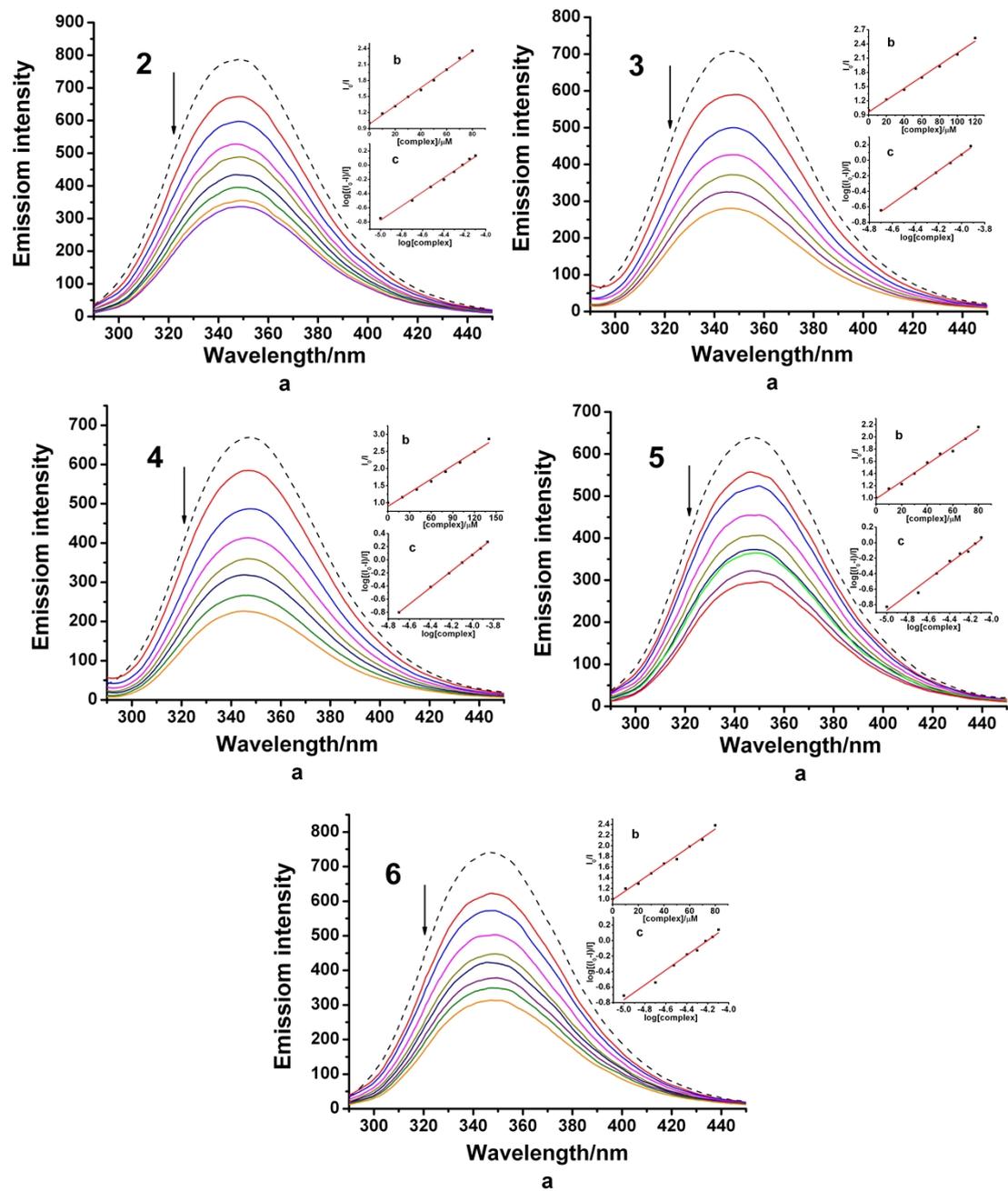


Fig.S4 The emission spectrum of BSA (30 μM ; $\lambda_{\text{exi}} = 290 \text{ nm}$; $\lambda_{\text{emi}} = 345 \text{ nm}$) in the presence of increasing amounts of compounds 2-6. The dash line shows the intensity in the absence of complexes. The arrow shows the fluorescence quenching upon increasing the concentrations of the compound (a). The inset shows the Stern-Volmer plots (b) and Scatchard plots (c) of the complex with BSA.