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# Supporting Information

## Significant differences in biological activity of mononuclear Cu(II) and Ni(II) complexes with polyquinolinyl ligand

**Jun-Ling Li[a, b, d], Lin Jiang[a, b, c], Bi-Wei Wang[a, b, c], Jin-Lei Tian[a, b, c, d*], Wen Gu[a, b], Xin Liu[a, b, c*] and Shi-Ping Yan[a,b]**

[a] *Department of Chemistry, Nankai University, Tianjin 300071, People's Republic of China*

[b] *Tianjin Key Laboratory of Metal and Molecule Based Material Chemistry, Tianjin 300071, People's Republic of China*

[c] *Key Laboratory of Advanced Energy Materials Chemistry (MOE), Tianjin 300071, People's Republic of China*

[d] *Collaborative Innovation Center of Chemical Science and Engineering (Tianjin)*

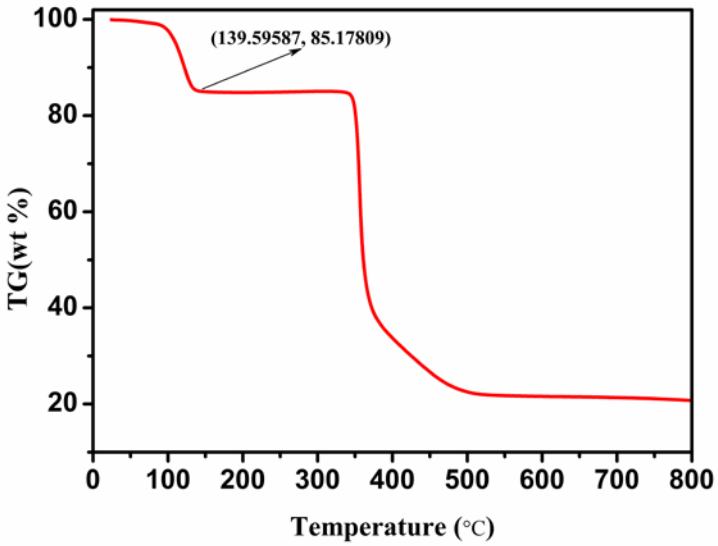



**Fig. S1** Thermogravimetric analysis for complex **2**.

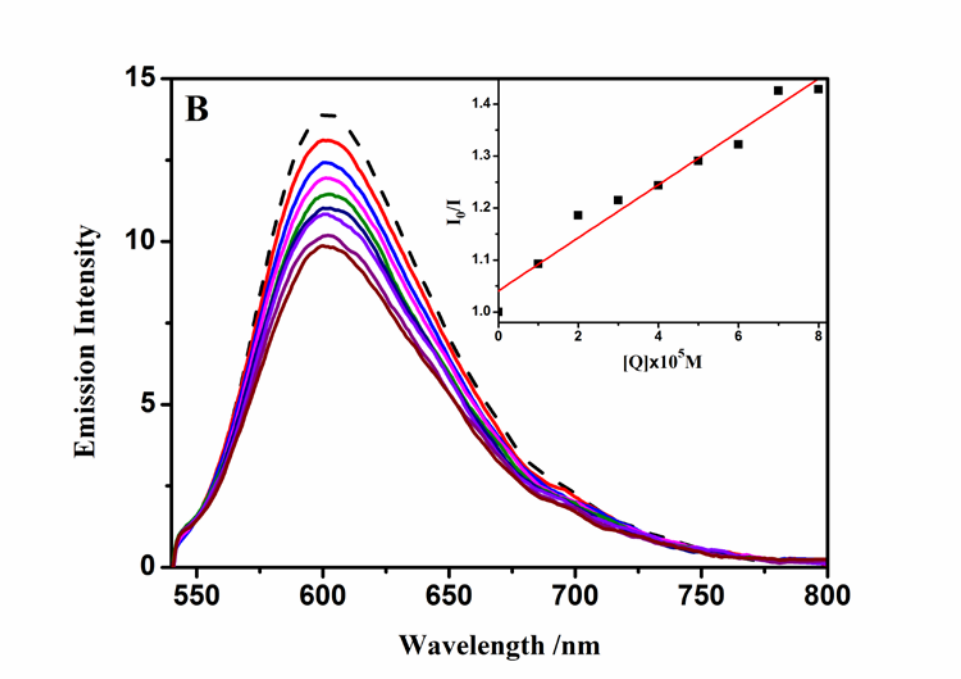



**Fig. S2** Emission spectra of EB bound to CT-DNA in the absence (dashed line) and presence (solid lines) of complex **2** (0-80 μM) in (5 mM Tris, 50 mM NaCl pH = 7.2). Inset: the plot of $I_0$ / $I$ versus the complex concentration.

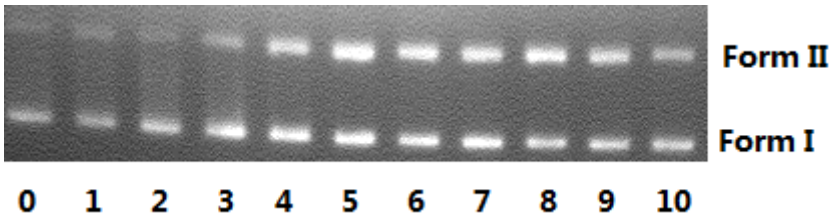



**Fig. S3** Cleavage of plasmid pBR322 DNA (0.1 μg/μL) at different concentration of complex **2** after 3h incubation at 37 °C; Line 0: DNA control; Line 1: DNA +0.25 mM $H_2O_2$; Line 2-10: DNA +0.25mM $H_2O_2$+ complex **2** (5, 20, 35, 50, 55, 60, 65, 70, 75 μM).

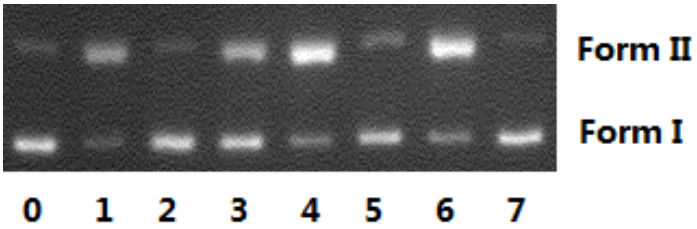



**Fig. S4** Cleavage of plasmid pBR322 DNA (0.1 μg/μL) in the presence of 50 μM complex **1** and different inhibitors after 3h incubation at 37 °C; Line 0: DNA control; Line 1: DNA+ complex **1(**50 μM); Line 2-7: DNA + complex **1**+(10 mM KI, 10 mM $NaN_3$, 20 u/mL SOD, Methyl Green, SYBR Green, 10 mM EDTA)

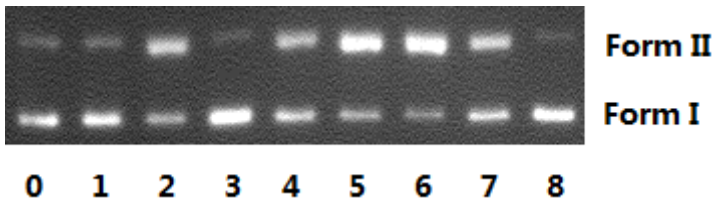



**Fig. S5** Cleavage of plasmid pBR322 DNA (0.1 μg/μL) in the presence of 50 μM complex **2** and different inhibitors after 3h incubation at 37 °C; Line 0: DNA control; Line 1: DNA+ 0.25 mM $H_2O_2$. Line 2: DNA+ 0.25 mM $H_2O_2$ +complex **2(**50 μM); Line 3-8: DNA + 0.25mM $H_2O_2$ +complex **2**+(10 mM KI, 10 mM $NaN_3$, 20 u/mL SOD, Methyl Green, SYBR Green, 10 mM EDTA)

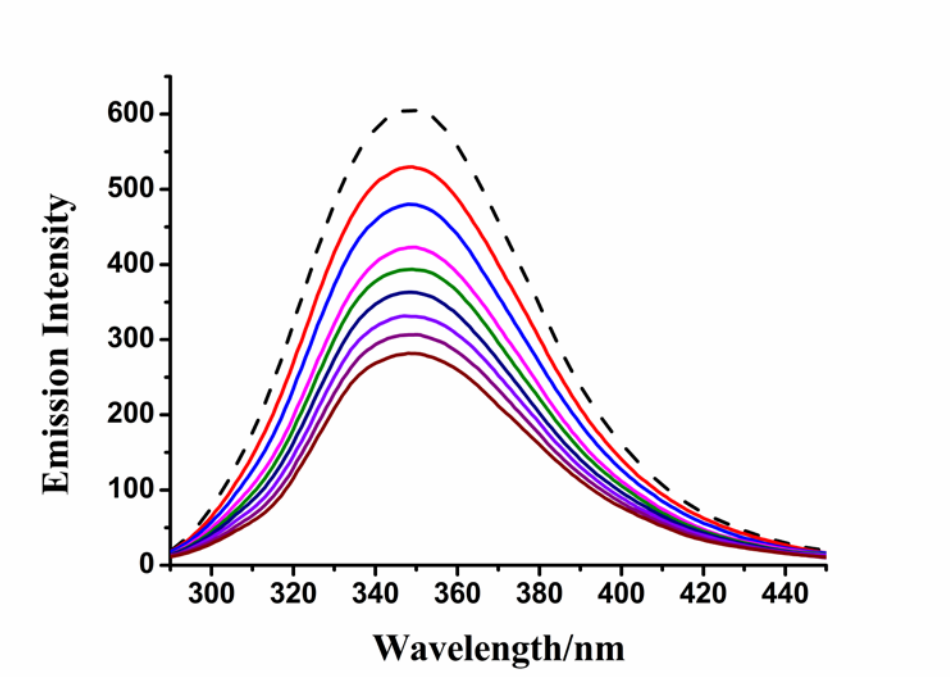
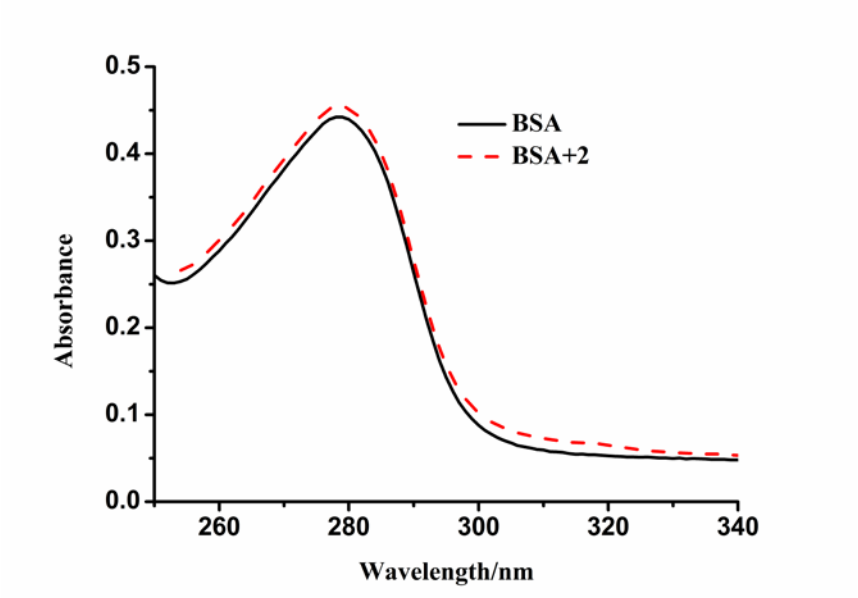
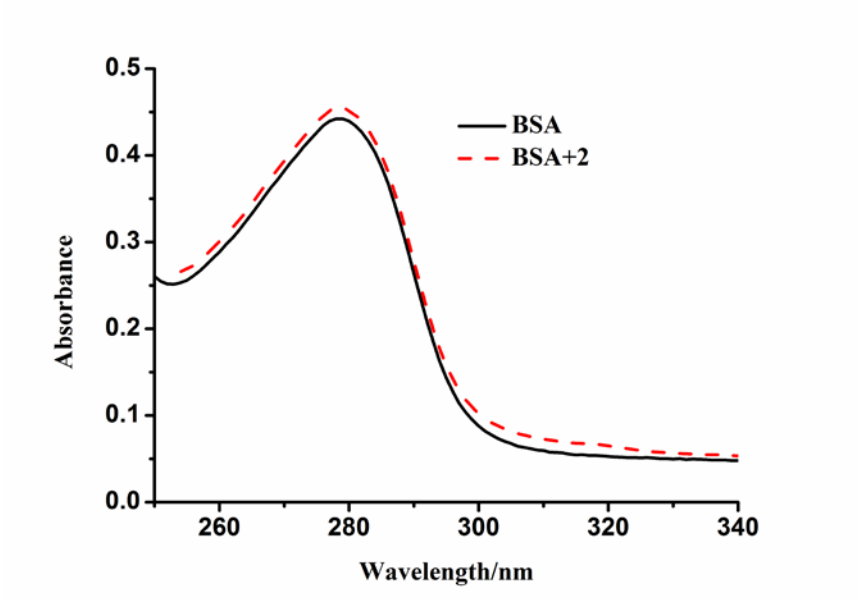



**Fig. S6** Fluorescence emission spectra of the BSA (29.4 μM) system in the absence (dashed line) and presence (solid lines) of complex **2** (0-40 μM).




**(a)**




**(b)**

**Fig. S7(a-b)** Absorption spectra of BSA (15 μM) and BSA with complex **1** and **2** (1 μM).