Interaction of Ru(II) polypyridyl complexes with DNA mismatches and Abasic Sites

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Hydrodynamic studies:

Viscometric experiments were carried out using an Ostwald type viscometer with 5mL capacity in a thermostated water bath maintained at 25°C. The flow rates of the buffer (10mM), DNA (200µM) and DNA in the presence of varying concentrations of complexes (10-100µM) were measured with a manually operated timer. The experiments were carried out in triplicate with the error limit of ±0.2 sec. The relative viscosity was calculated according to the equation,

$\eta = (t-t_0)/ t_0$

where t_0 is the flow time for the buffer and t is the observed flow time for DNA, in the presence and absence of the complexes. A plot of $(\eta/\eta_0)^{1/3}$ Vs 1/R, {R = [DNA]/[complex]} was constructed from viscosity measurements.
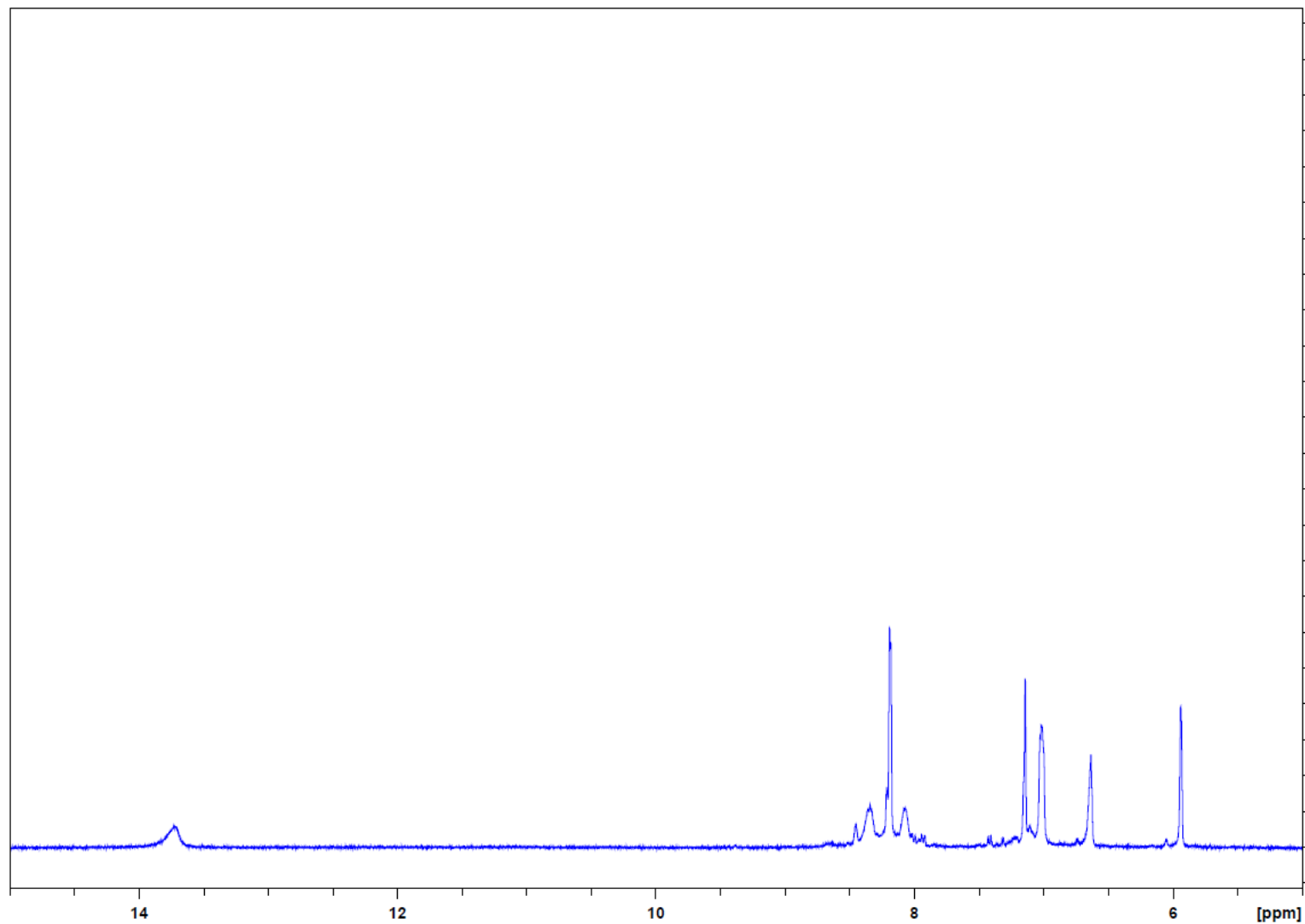
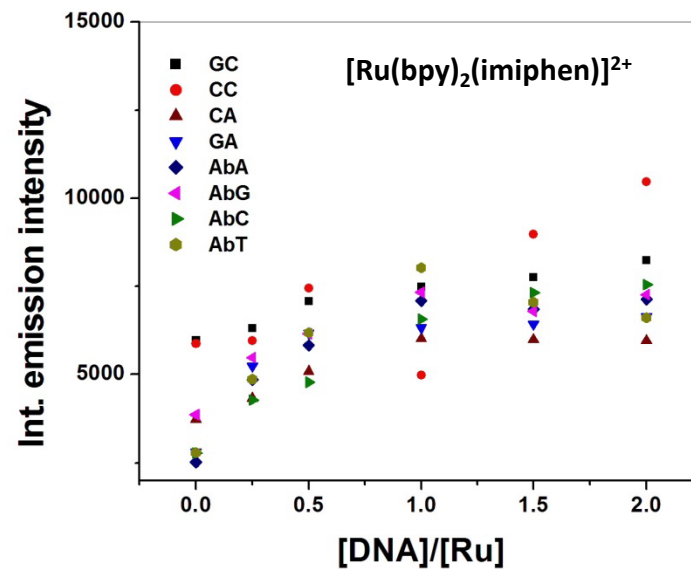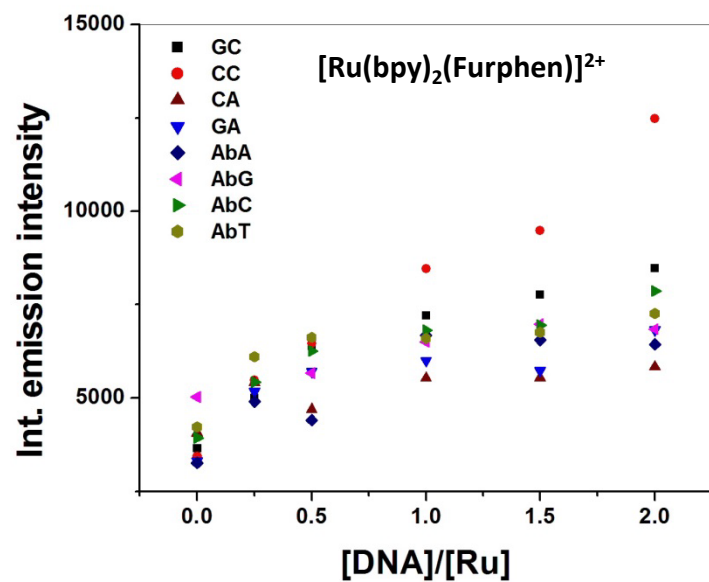**Fig. S1** ^{1}H NMR spectrum of Furphen (L1) in d^6-dmso

Fig. S2 Integrated emission intensities of Ru complexes (a) complex **1** and (b) complex **2** in the presence of match, mismatch and abasic sites. [Ru]: 1 μM; [Oligonucleotide]: 0-2 μM. Error limit: ±5 %
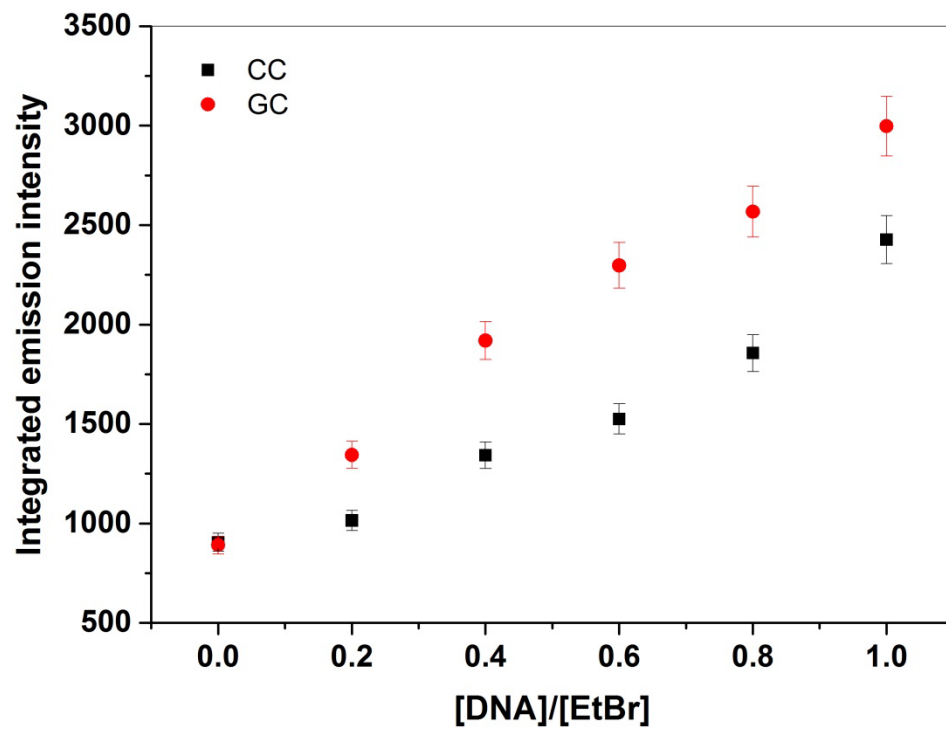
Fig. S3 Plot of integrated emission intensity of ethidium bromide (EtBr) with GC and CC mismatch
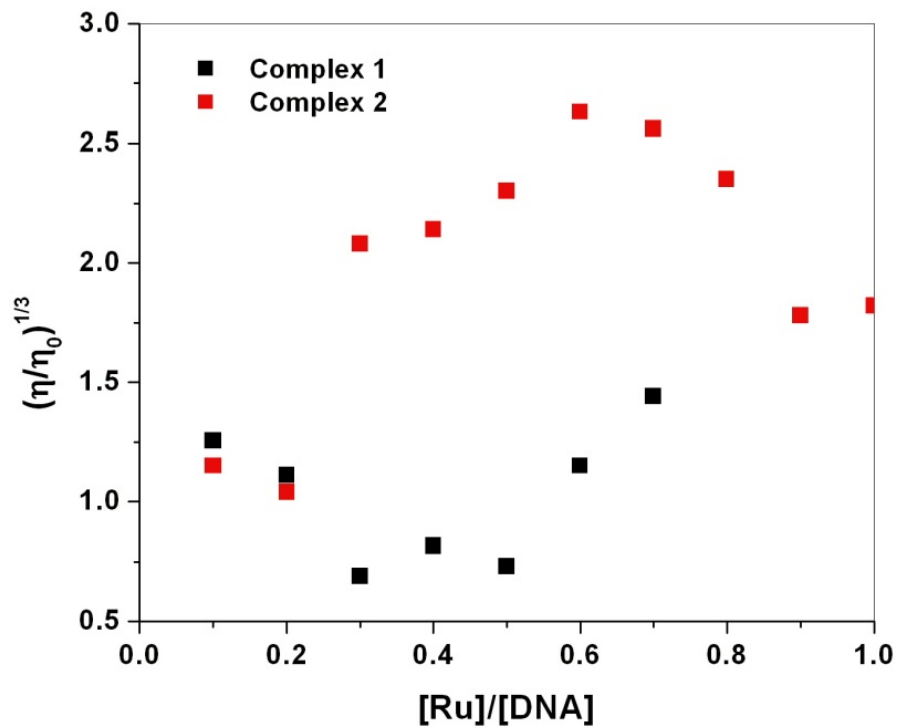
Fig. S4 Hydrodynamic studies of CT DNA in the presence of complexes **1** (black) and **2** (red). [DNA]: 100 μM; [Ru]: 0-100 μM