

Supporting Information

Synthesis and DNA photocleavage study of $\text{Ru}(\text{bpy})_3^{2+}\text{-}(\text{CH}_2)_n\text{-MV}^{2+}$ complexes

Shiguo Sun,*^a Yanxia He,^a Zhigang Yang,^a Yi Pang,^{a,b} Fengyu Liu,^c Jiangli Fan,^a Licheng Sun^d and Xiaojun Peng*^a

^a State Key Laboratory of Fine Chemicals, Dalian University of Technology, No. 158-40, Zhongshanlu, Xigang District, 116012, Dalian, China

^b Department of Chemistry, The University of Akron, Akron, Ohio 44325, USA

^c Department of Chemistry and State Key Laboratory of Fine Chemicals, Dalian University of Technology, No. 2, Linggonglu, Ganjingzi District, 116024, Dalian, China

^d Department of Chemistry, Organic Chemistry, Royal Institute of Technology(KTH), Teknikringen 30, 100 44 Stockholm, Sweden

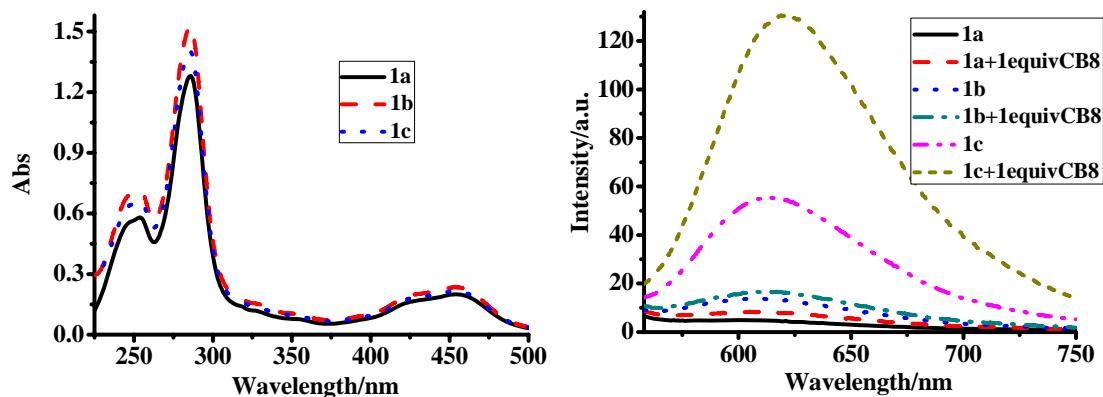


Fig. S1 The absorption and emission spectra of the ruthenium complexes **1** (20 μM) with and without the presence 1 equiv. of CB[8] in water

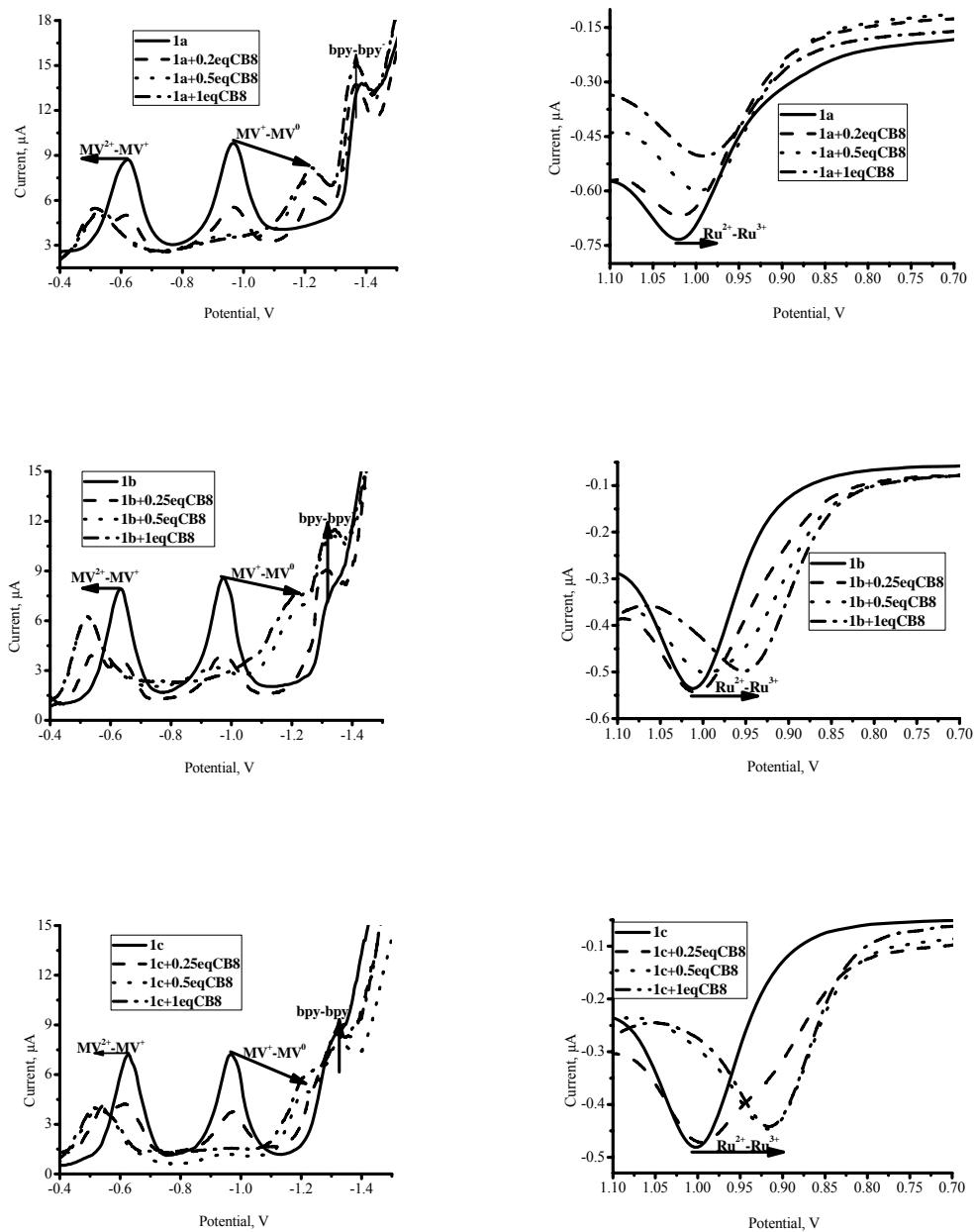


Fig. S2 Differential pulse voltammogram of complexes **1** with and without the presence of CB[8]

Table S1 The percentage of DNA cleavage in each lane

	%	lane										
		1	2	3	4	5	6	7	8	9	10	11
Fig. 1	Form I	97	81	63	60	70	53	40	60	4	8	
	Form II	3	19	37	40	30	47	60	40	96	92	
Fig. 2	Form I	97	53	31	15	8	0	1				
	Form II	3	47	69	85	92	100	99				
Fig. 3	Form I	97	0	17	0	38	29	89	29	18	73	1
	Form II	3	100	83	100	62	71	11	71	82	27	99

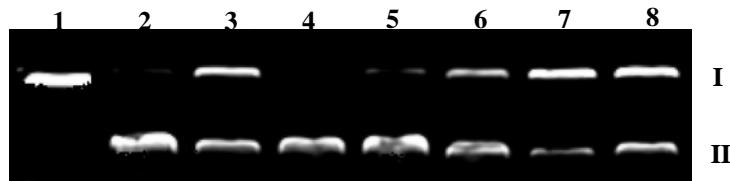


Fig. S3 Photocleavage of pBR322 DNA (10 μ L) and the percentage of cleavage in the presence of 3 μ M 1:1 inclusion complex **1c-CB[8]** with different inhibitors under irradiation of NEC NP60+ digital projector for 30 min. Lane 1, DNA alone (no light); Lane 2, DNA and **1c-CB[8]**; Lane 3-7, DNA and **1c-CB[8]** in the presence of SOD (1000 U/mL), histidine (5 mM), DMSO (200 mM), ethanol (1.7 M), HCOONa (100 mM); Lane 8, DNA and **1c-CB[8]** under Ar.