

Supporting information

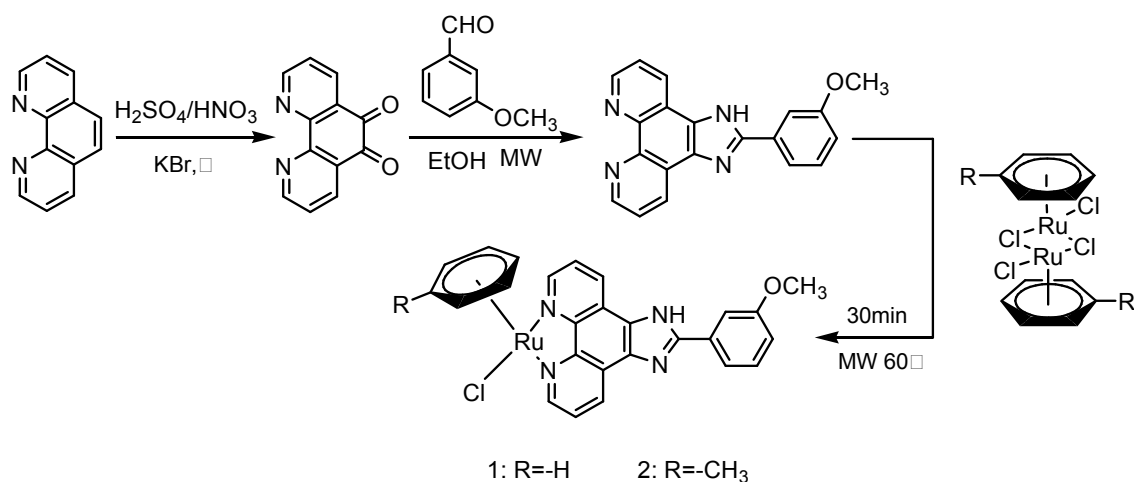
Microwave-assisted synthesis of arene ruthenium(II) complexes $[(\eta^6\text{-RC}_6\text{H}_5)\text{Ru}(m\text{-MOPIP})\text{Cl}]\text{Cl}$ (R= -H and -CH₃) as groove binder to *c-myc* G4 DNA

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Main contents

1. Microwave-assisted synthesis of arene Ru(II) complexes	S3
2. The X-ray structure of arene Ru(II) complexes	S3
3. ESI-MS spectra	S5
4. ^1H NMR spectra	S6
5. ^{13}C NMR spectra	S8
6. ^1H - ^1H COSY spectra	S10

1. Microwave-assisted synthesis of arene Ru(II) complexes



Scheme S1. Microwave-assisted synthesis of arene Ru(II) complexes.

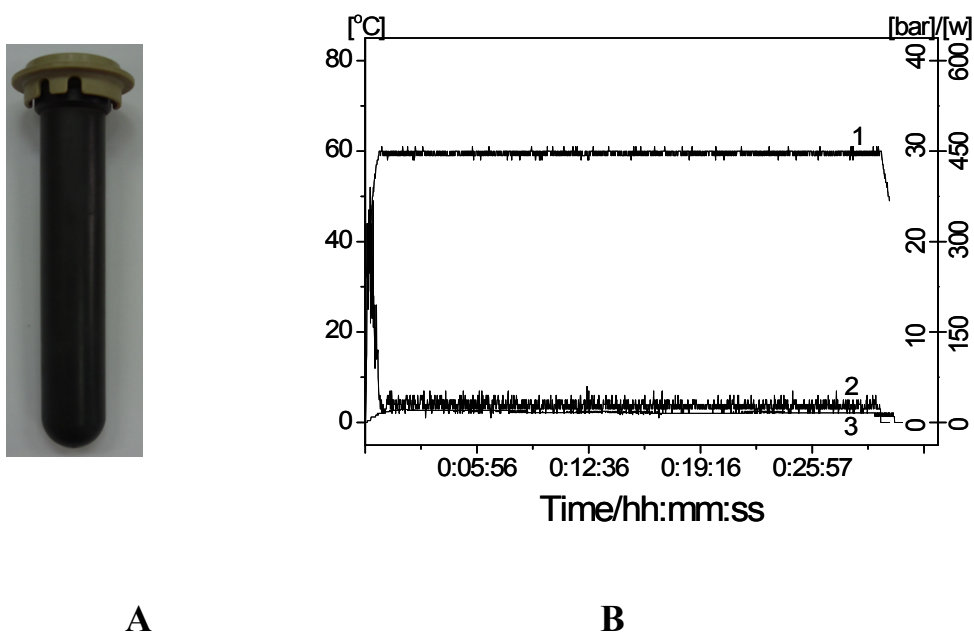


Figure S1. The picture of SiC vessel. (B) Reaction profile of $[(C_6H_5CH_3)RuCl_2]_2$ and *m*-MeOPIP in dichloromethane at 60 °C for 30 min in SiC vessel under microwave irradiation. Temperature (1), Power (2), and Pressure (3).

Table S1. The yield and reaction conditions of arene ruthenium(II) complexes **1** and **2** prepared under microwave irradiation in SiC vessel.

Comp.	MW in SiC vessel			Conventional		
	T / °C	t / h	Yield / %	T / °C	t / h	Yield / %
1	60	0.5	88.2	60	4	72.1
2	60	0.5	90.3	60	4	68.5

2. The X-ray structure of arene Ru(II) complexes

Table S2. Selected crystallographic data for **1** and **2**

Identification code	1	2
Temperature/K	293(2)	153(2)
Crystal system	Triclinic	monoclinic
Space group	P-1	P2 ₁ /n
a/Å	7.6148(10)	12.0937(10)
b/Å	12.5489(18)	7.7505(4)
c/Å	15.8363(18)	30.5757(13)
α /°	87.621(10)	90.00
β /°	82.199(10)	93.219(6)
γ /°	77.590(12)	90.00
Volume/Å ³	1464.1(3)	2861.4(3)
Z	2	4

Table S3. Selected bond lengths (nm) and angles (°) for complex 1 and 2

	Bond lengths (nm)			Bond angles (°)	
	1	2		1	2
Ru1-N1	0.2095(4)	0.208(5)	N2-Ru1-N1	77.15(16)	77.54(19)
Ru1-N2	0.2089(4)	0.208(5)	N1-Ru1-C21	91.6 (2)	92.9(4)
Ru1-C21	0.215(7)	0.218(9)	N1-Ru1-C22	105.5(3)	107.7(4)
Ru1-C22	0.219(7)	0.216(9)	N1-Ru1-C23	142.3(4)	141.0(4)
Ru1-C23	0.2184(7)	0.215(7)	N1-Ru1-C24	168.5(2)	168.7(3)
Ru1 C24	0.217(7)	0.219(7)	N1-Ru1-C25	133.8(3)	132.0(3)
Ru1-C25	0.2179(7)	0.220(7)	N1-Ru1-C26	103.8(2)	102.3(3)
Ru1-C26	0.2154(7)	0.219(8)	N1-Ru1-Cl1	86.02(14)	84.24(13)
Ru1-Cl1	0.2384(4)	0.241(16)	N2-Ru1-Cl1	84.51(14)	83.99(13)

3. ESI-MS spectra

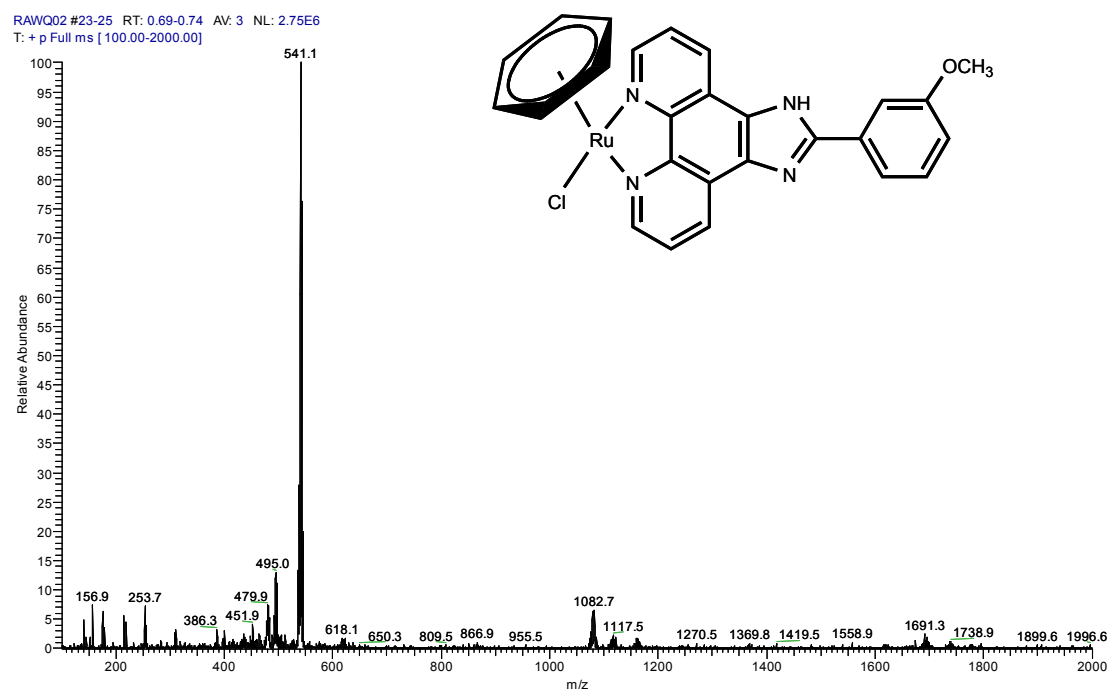


Figure S2. The ESI-MS spectra of 1

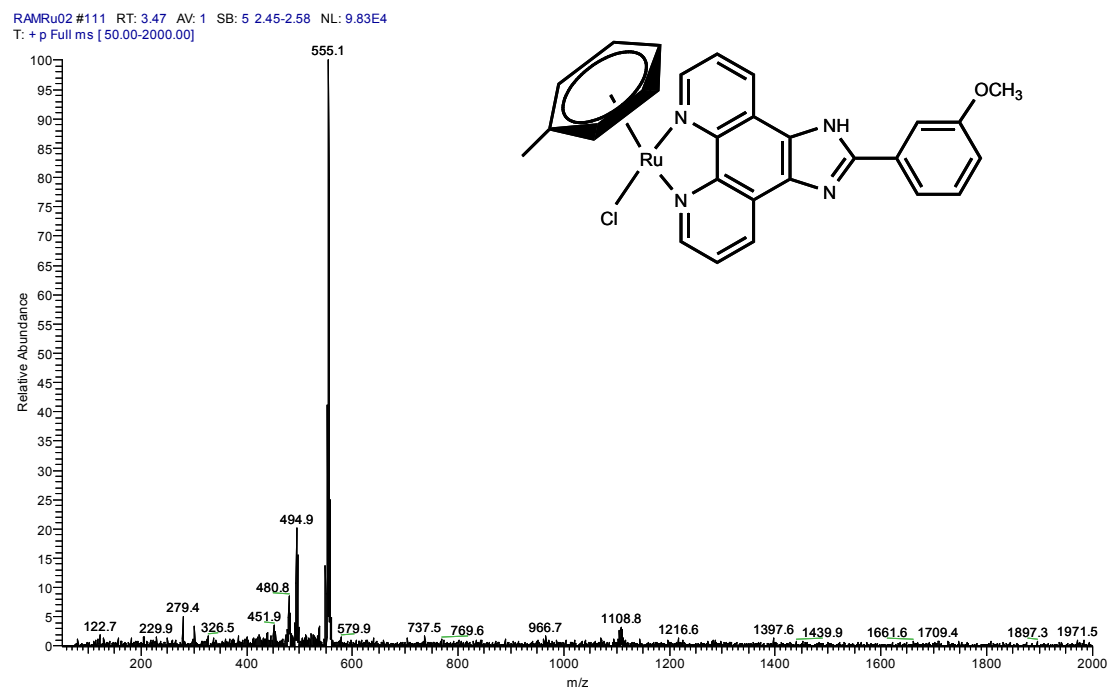


Figure S3. The ESI-MS spectra of **2**

4. ^1H NMR spectra

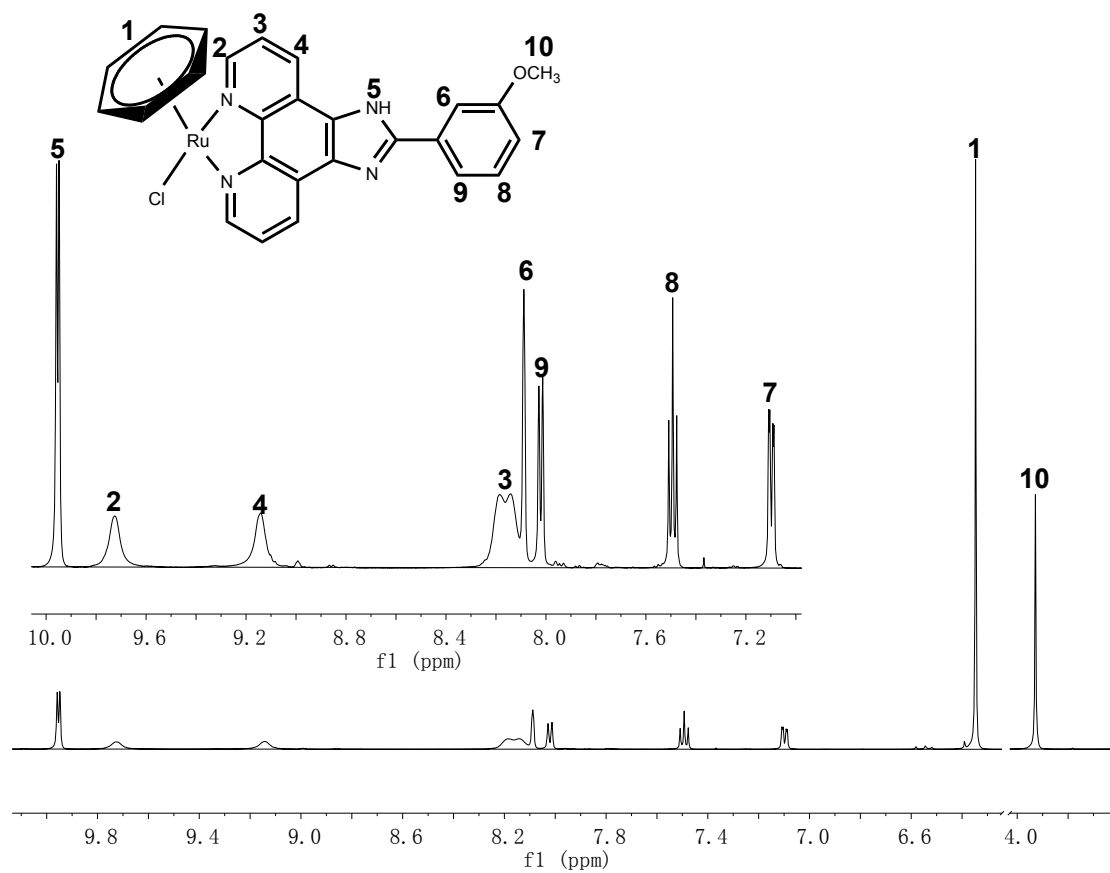


Figure S4. The ^1H NMR spectra of **1**

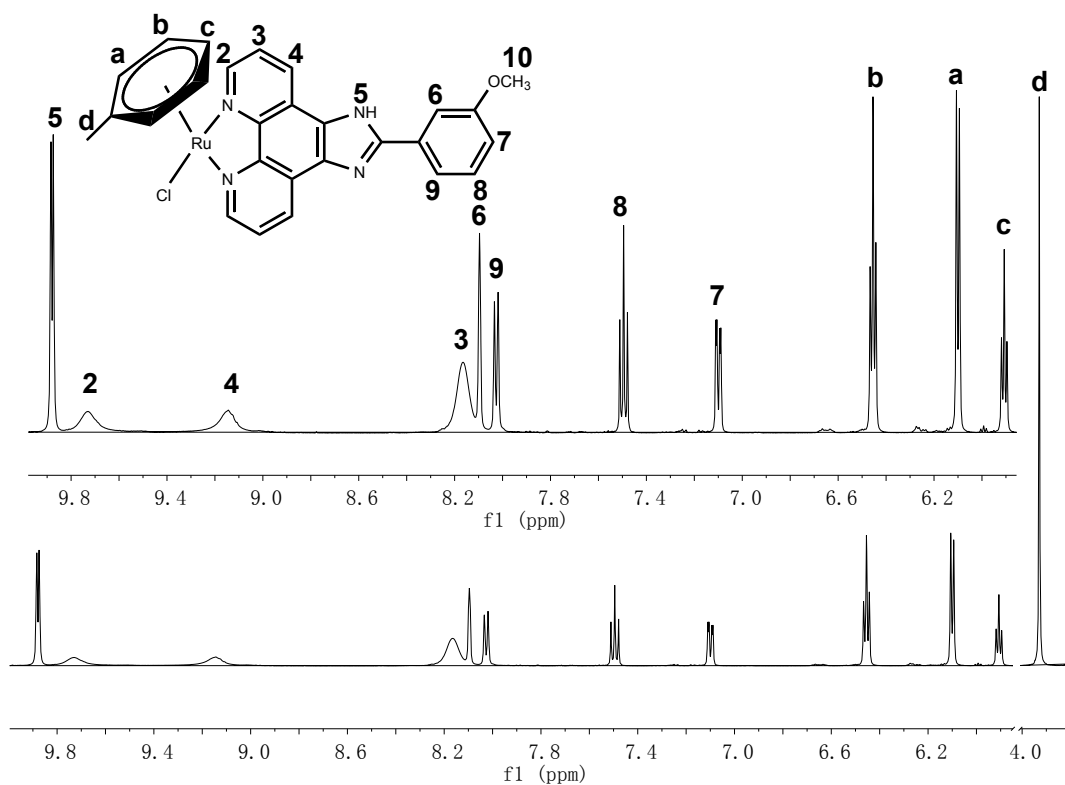


Figure S5. The ^1H NMR spectra of **2**

5. ^{13}C NMR spectra

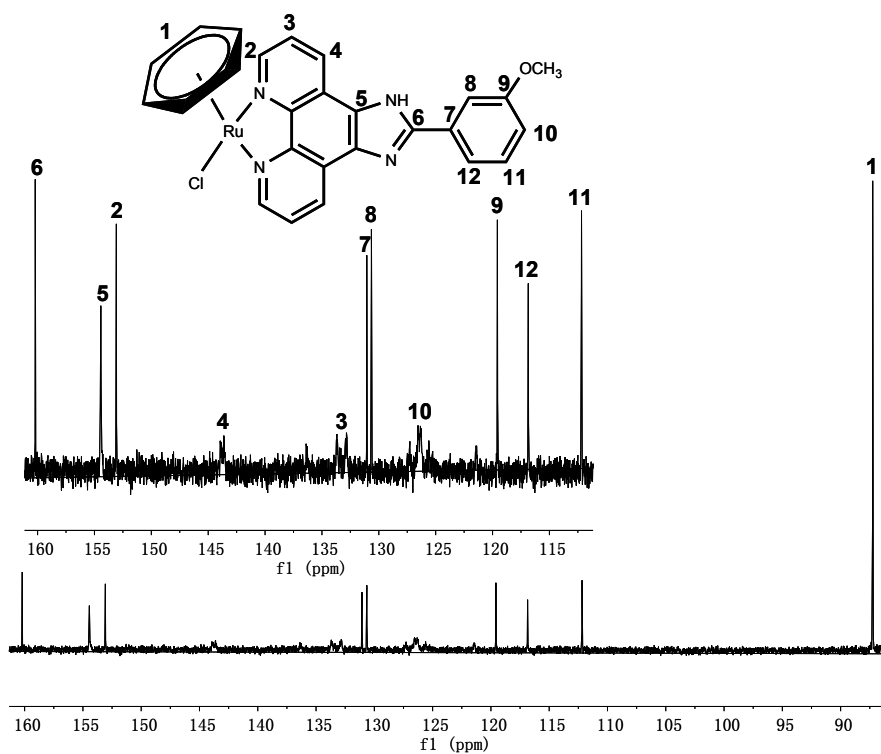


Figure S6. The ^{13}C NMR spectra of **1**

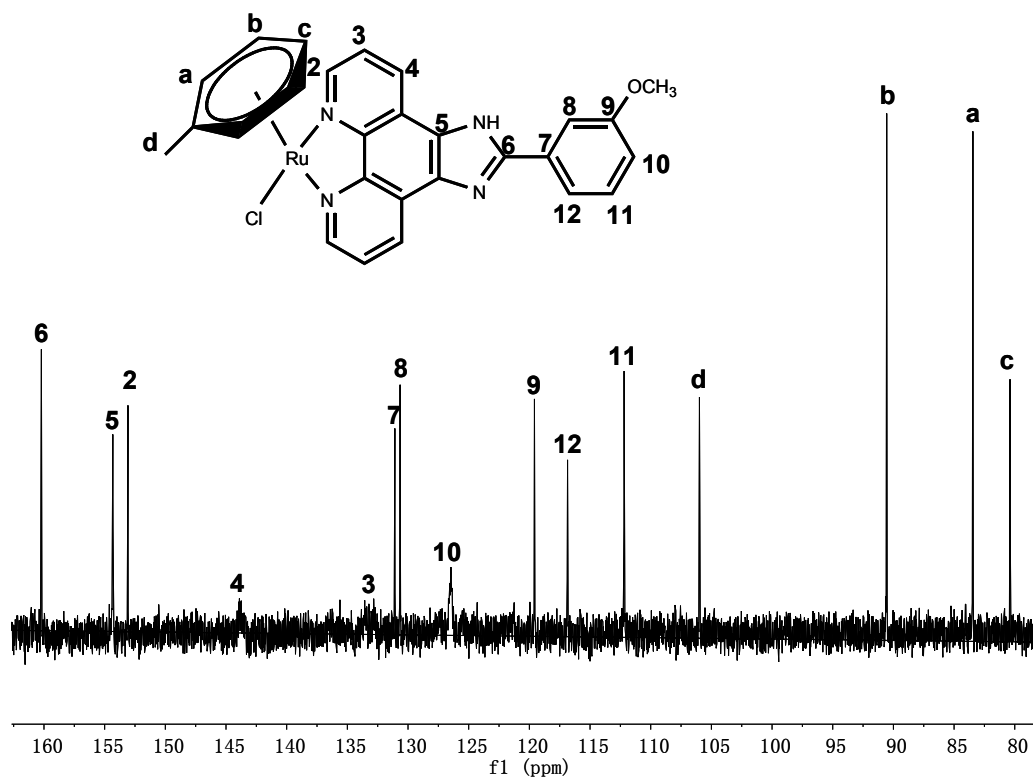


Figure S7. The ^{13}C NMR spectra of **2**

6. ^1H - ^1H COSY spectra

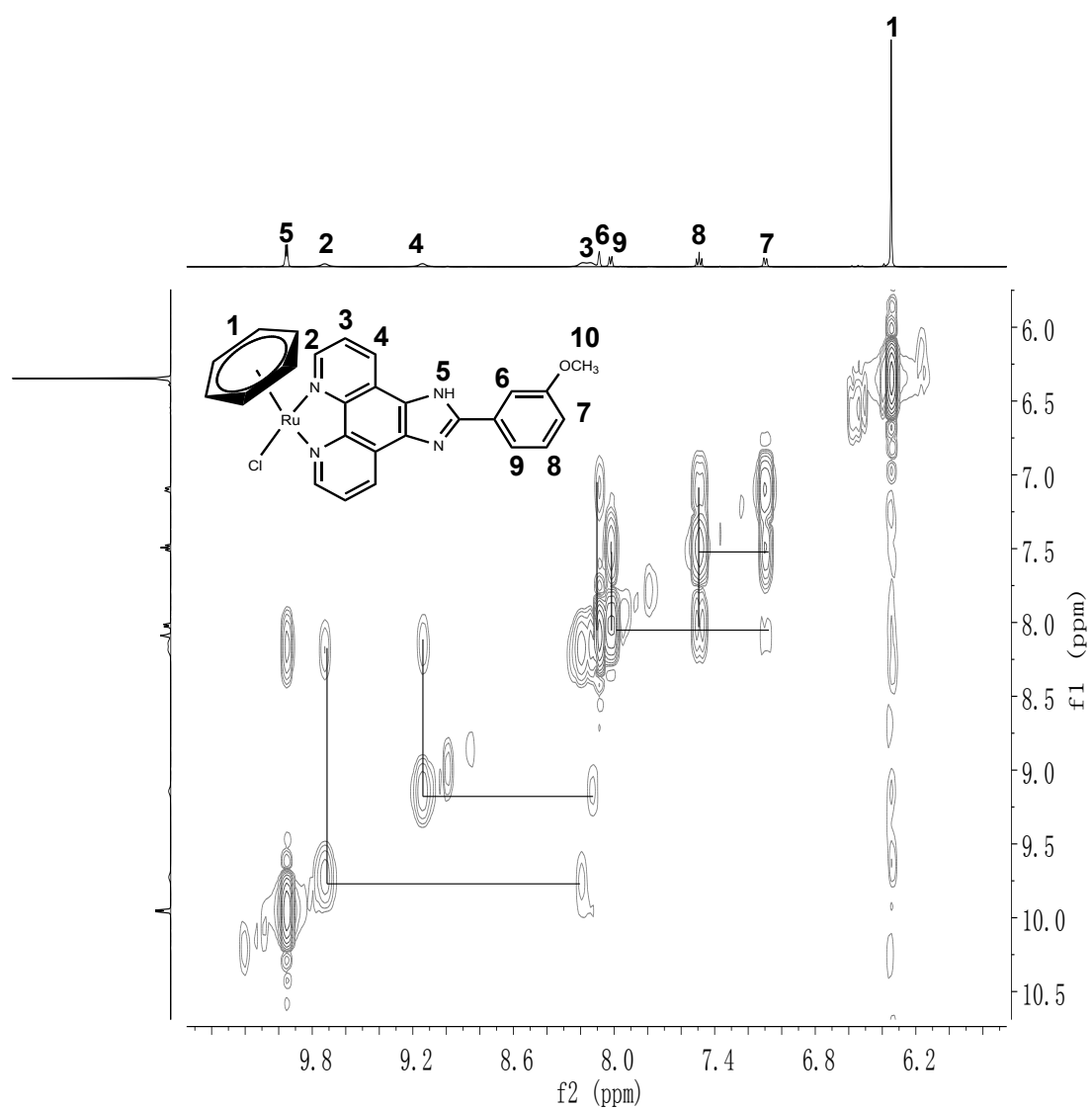


Figure S8. The ^1H - ^1H COSY spectra of **1**

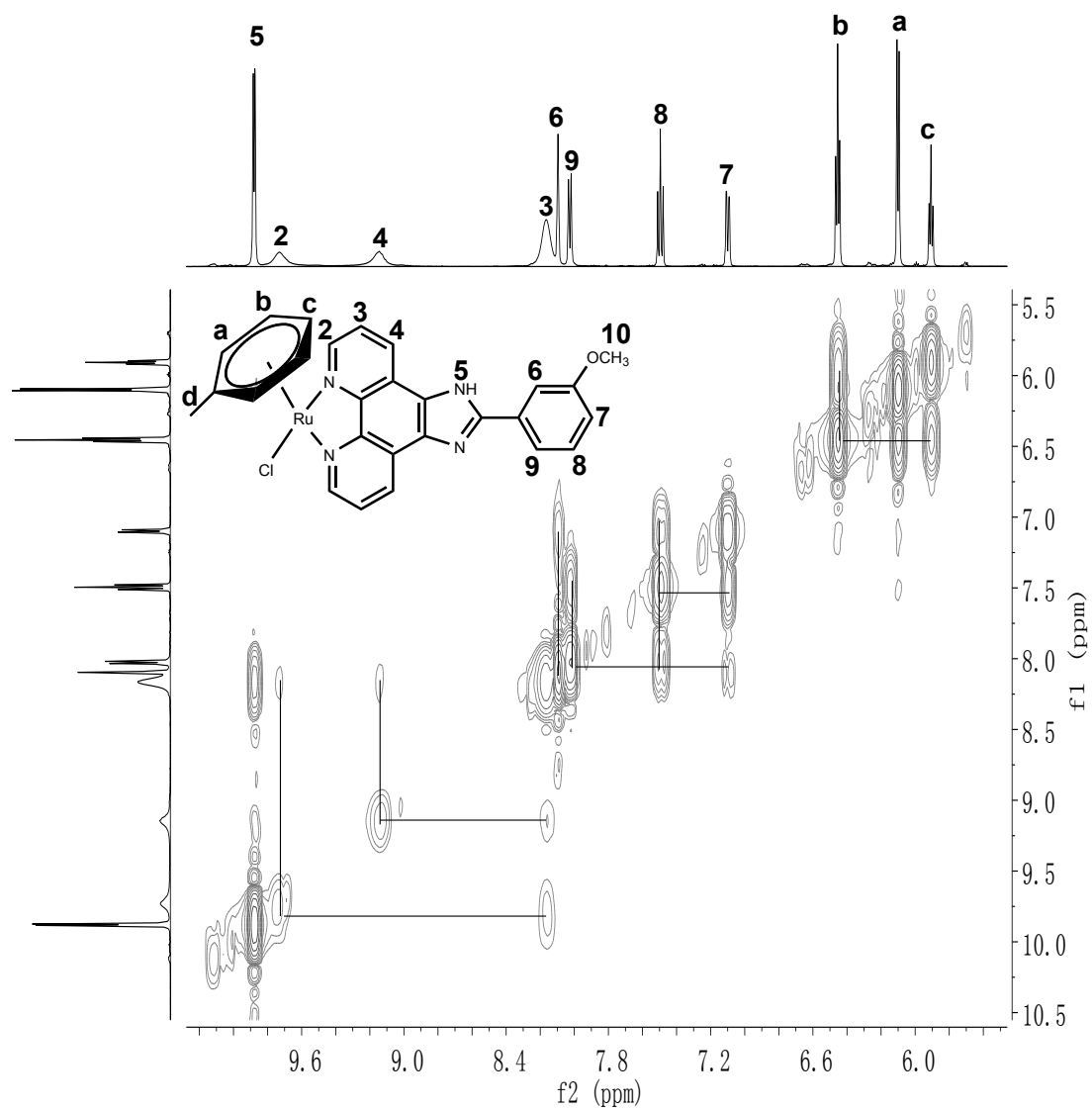


Figure S9. The ^1H - ^1H COSY spectra of **2**