

Supplementary Materials

Half-Sandwich Arene-Osmium(II) Complexes with Phosphinite Ligands

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Figures S1-S21: NMR spectra of the osmium complexes **4-5a-c** and **7**.

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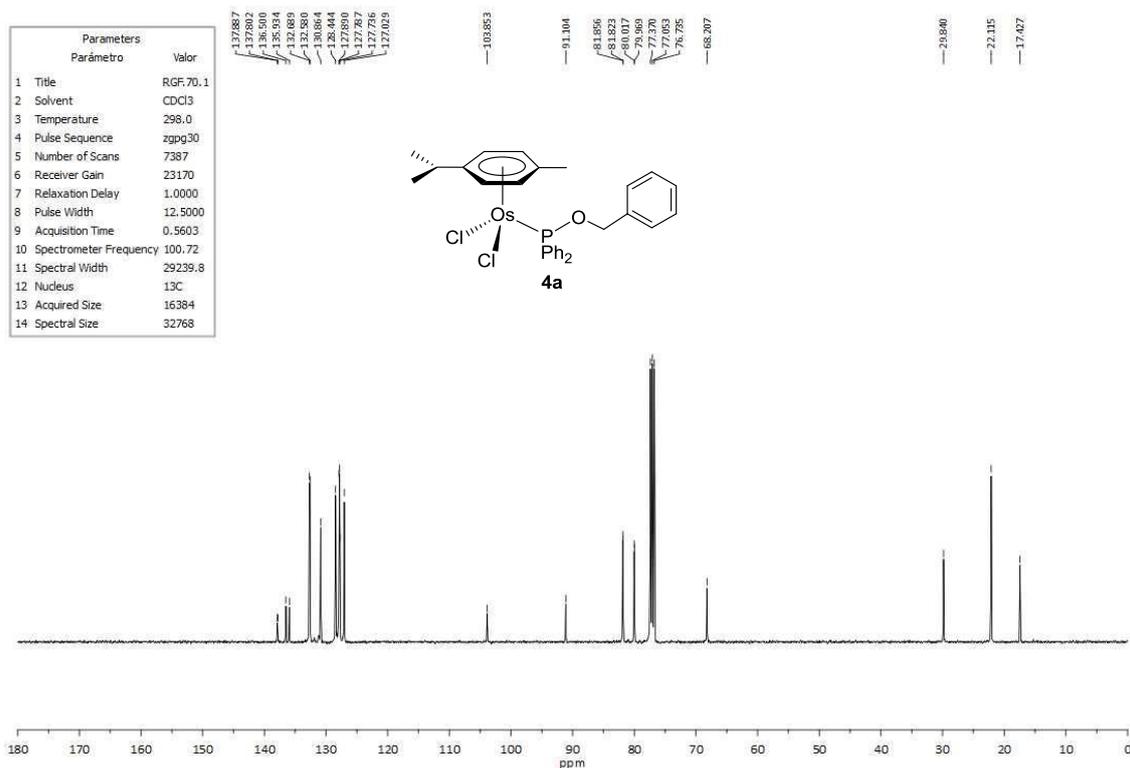


Figure S3: $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum (100 MHz, CDCl_3) of complex **4a**.

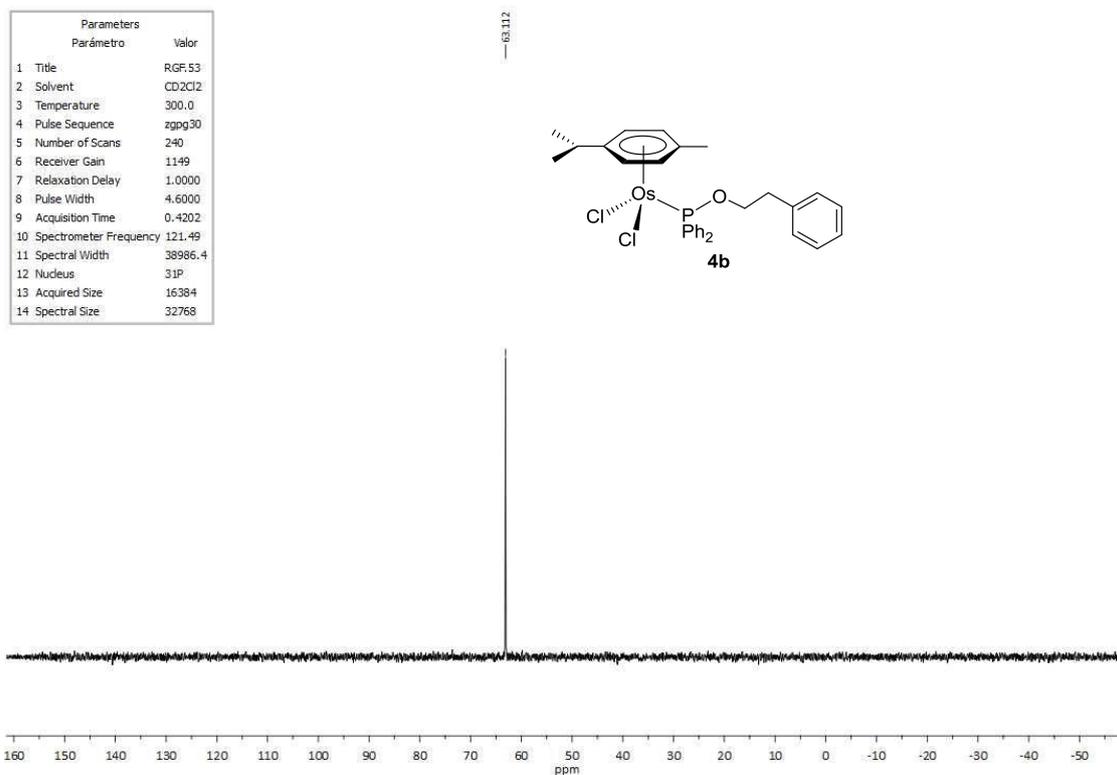


Figure S4: $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum (121 MHz, CD_2Cl_2) of complex **4b**.

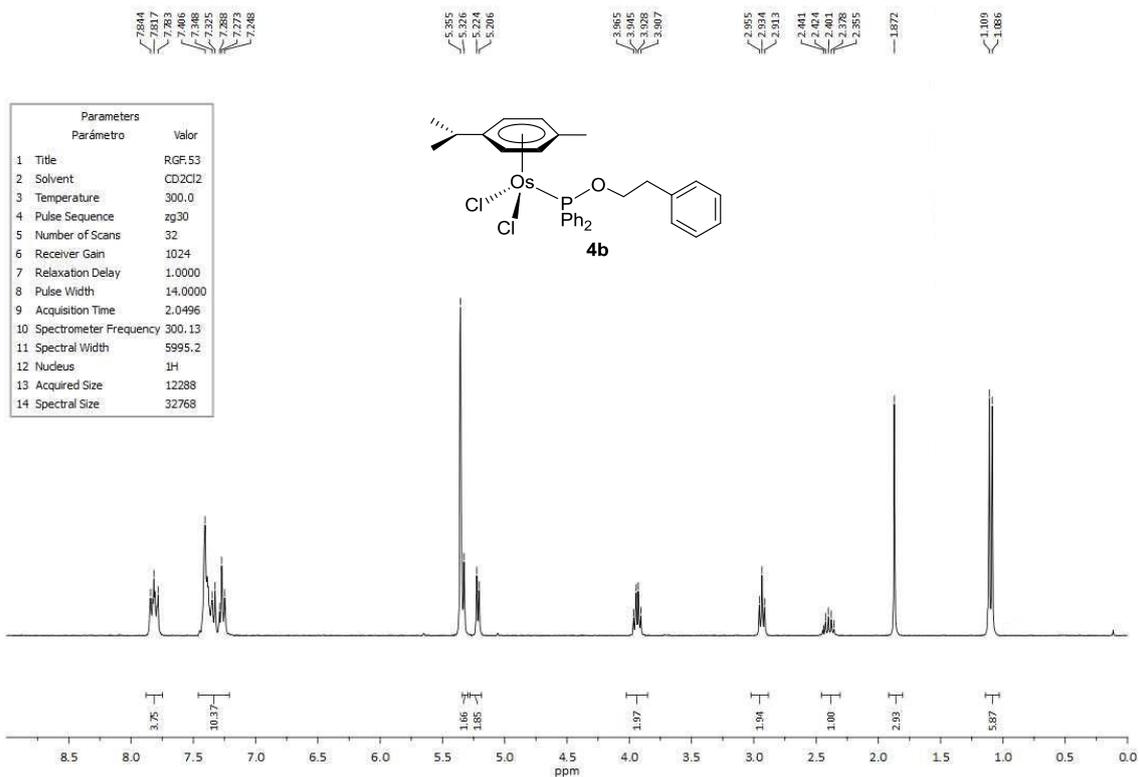


Figure S5: ¹H NMR spectrum (300 MHz, CD₂Cl₂) of complex **4b**.

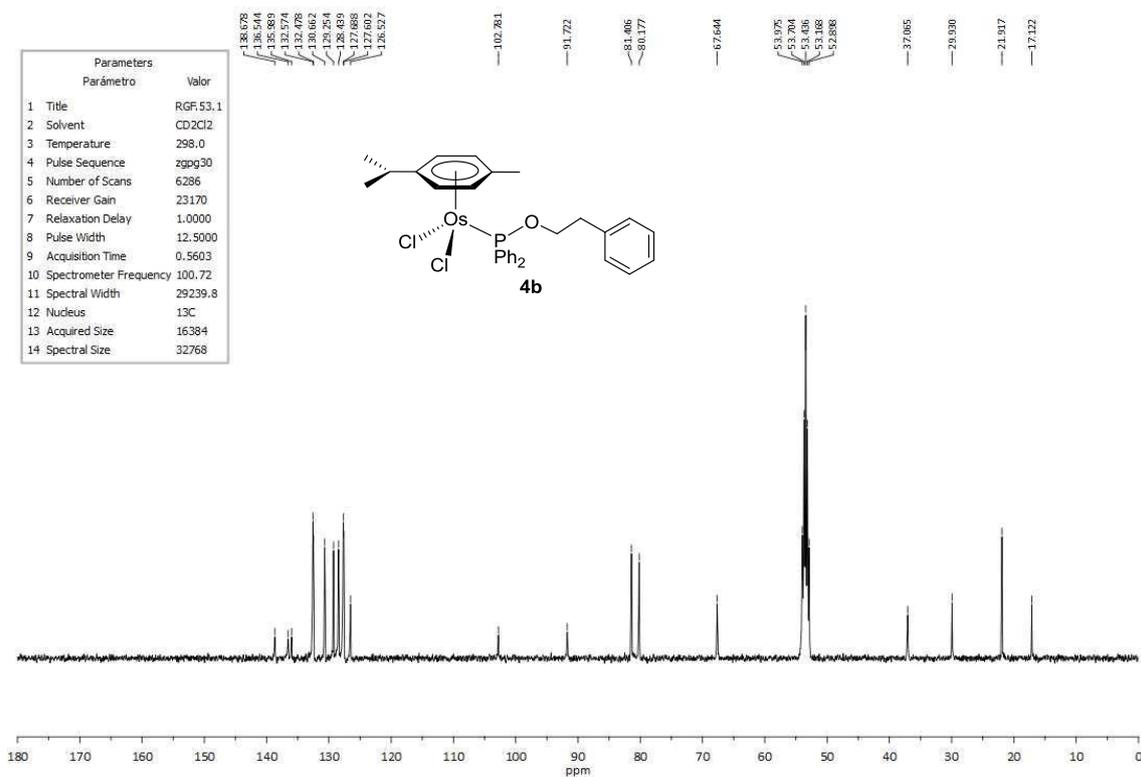


Figure S6: ¹³C{¹H} NMR spectrum (100 MHz, CD₂Cl₂) of complex **4b**.

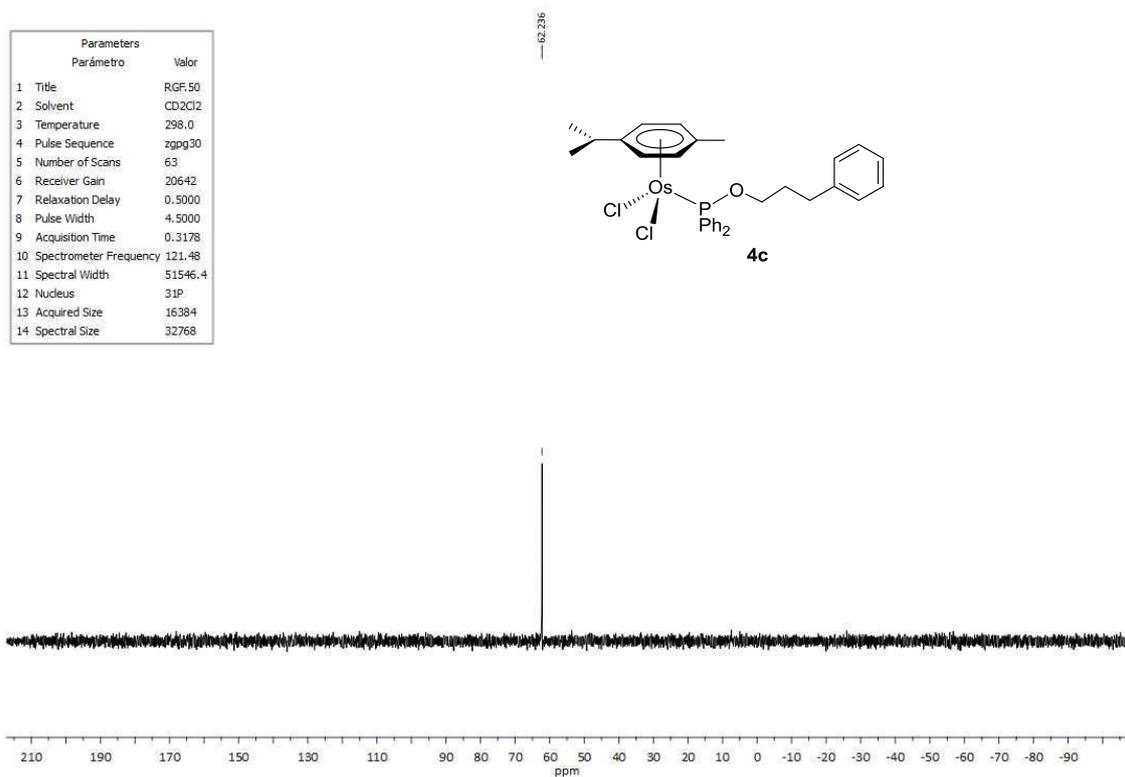


Figure S7: $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum (121 MHz, CD_2Cl_2) of complex **4c**.

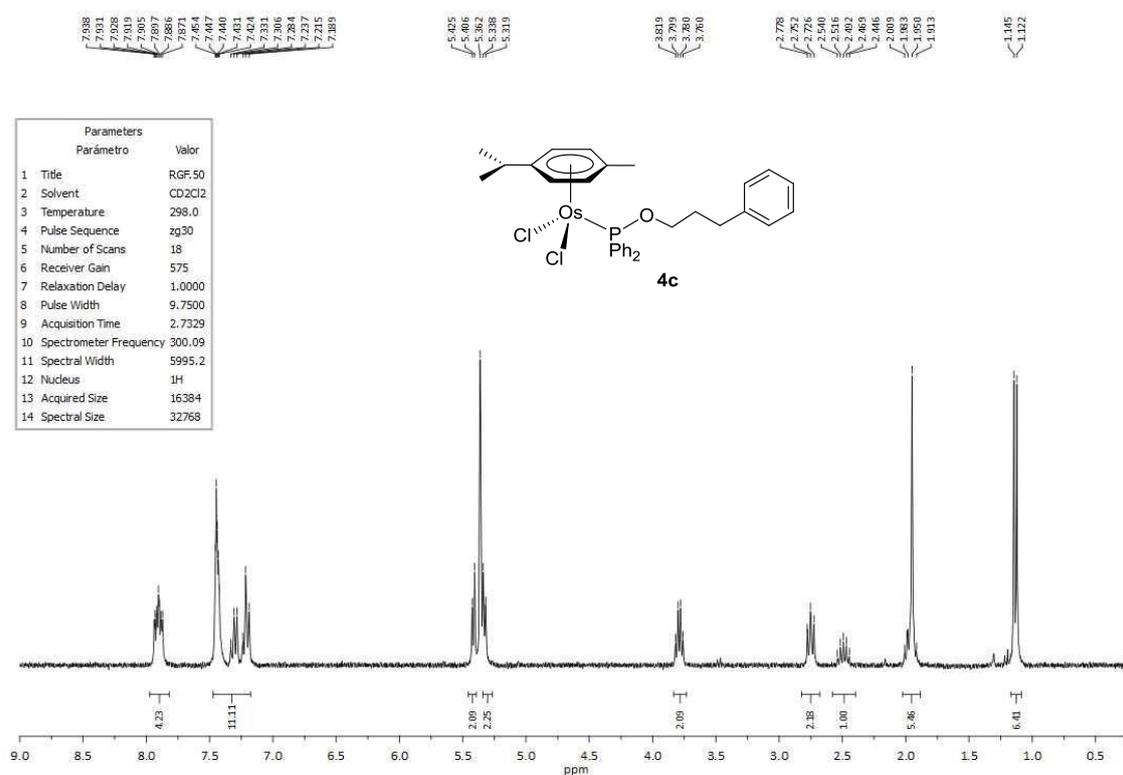


Figure S8: ^1H NMR spectrum (300 MHz, CD_2Cl_2) of complex **4c**.

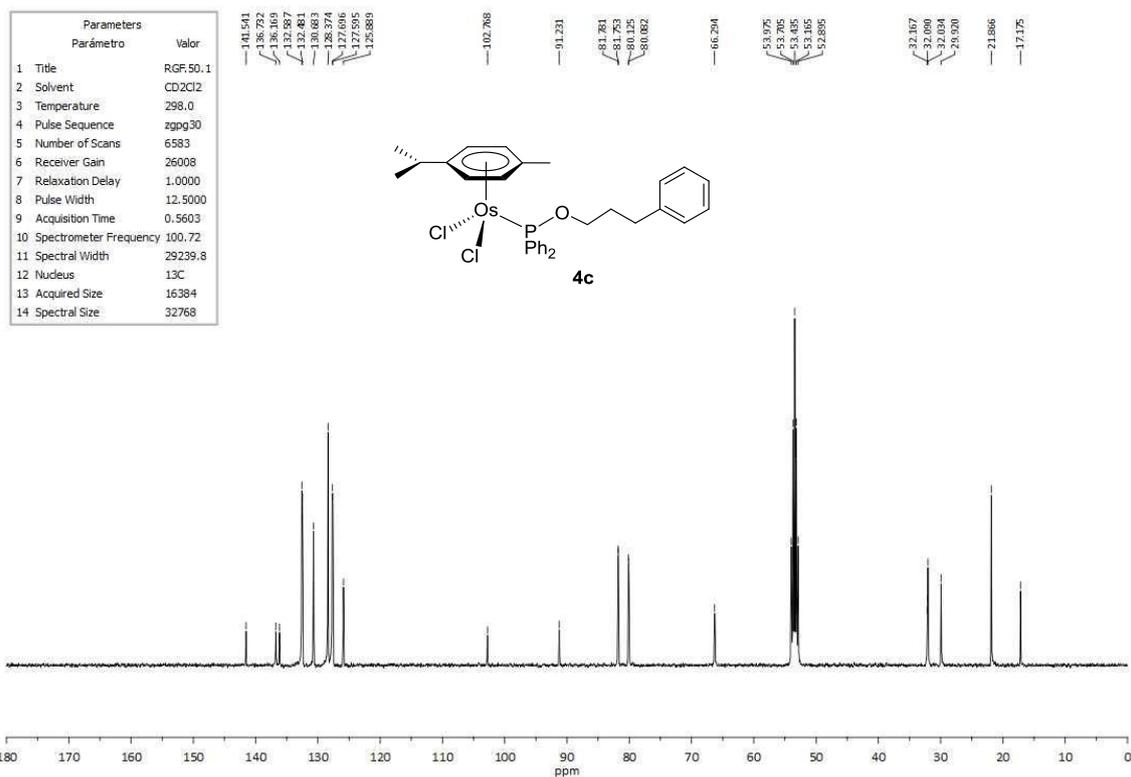


Figure S9: ¹³C{¹H} NMR spectrum (100 MHz, CD₂Cl₂) of complex **4c**.

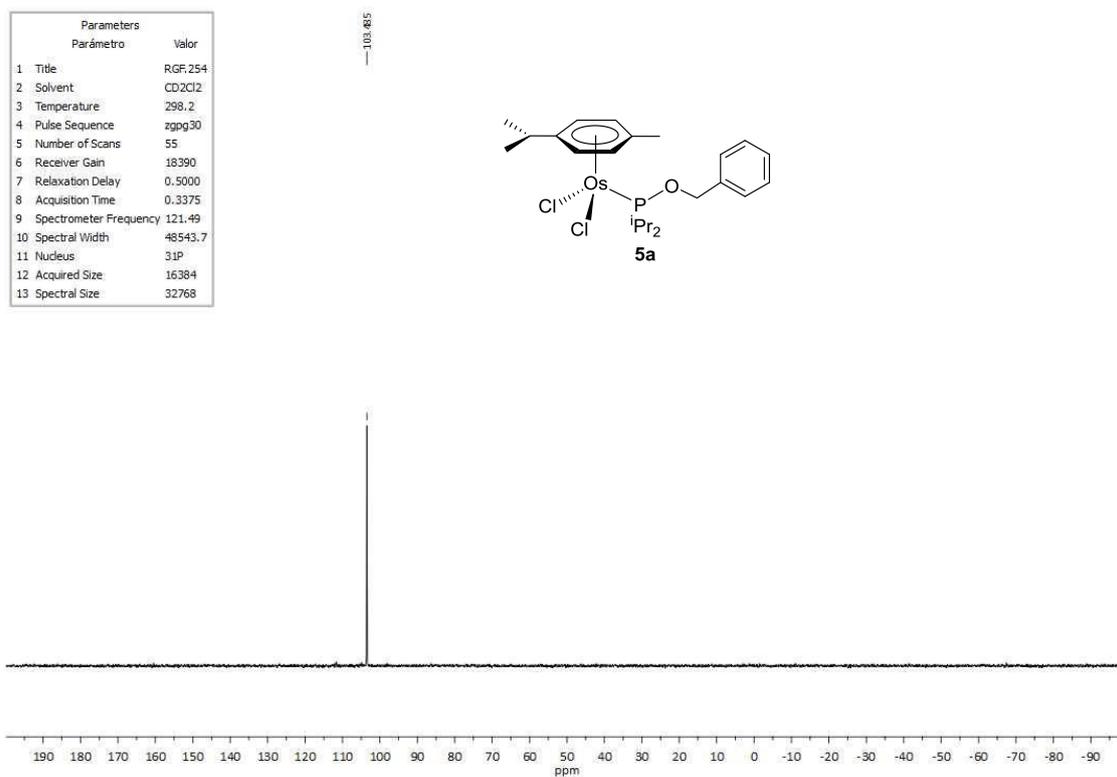


Figure S10: ³¹P{¹H} NMR spectrum (121 MHz, CD₂Cl₂) of complex **5a**.

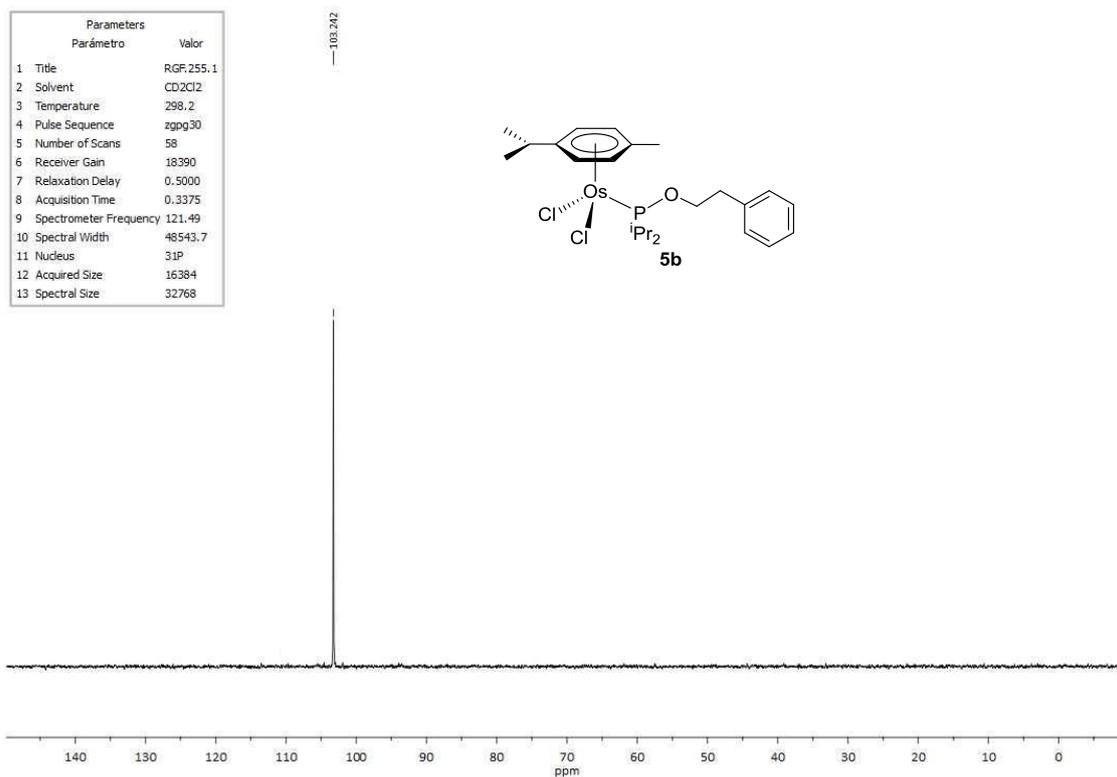


Figure S13: $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum (121 MHz, CD_2Cl_2) of complex **5b**.

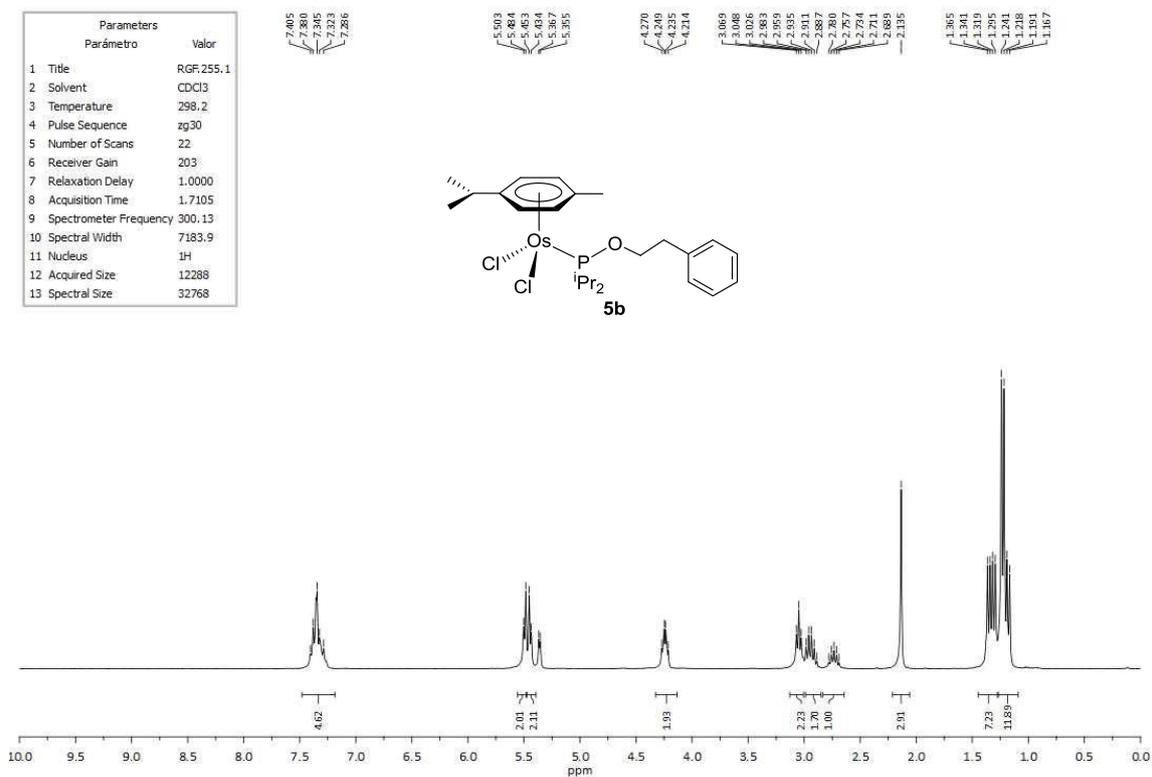


Figure S14: ^1H NMR spectrum (300 MHz, CD_2Cl_2) of complex **5b**.

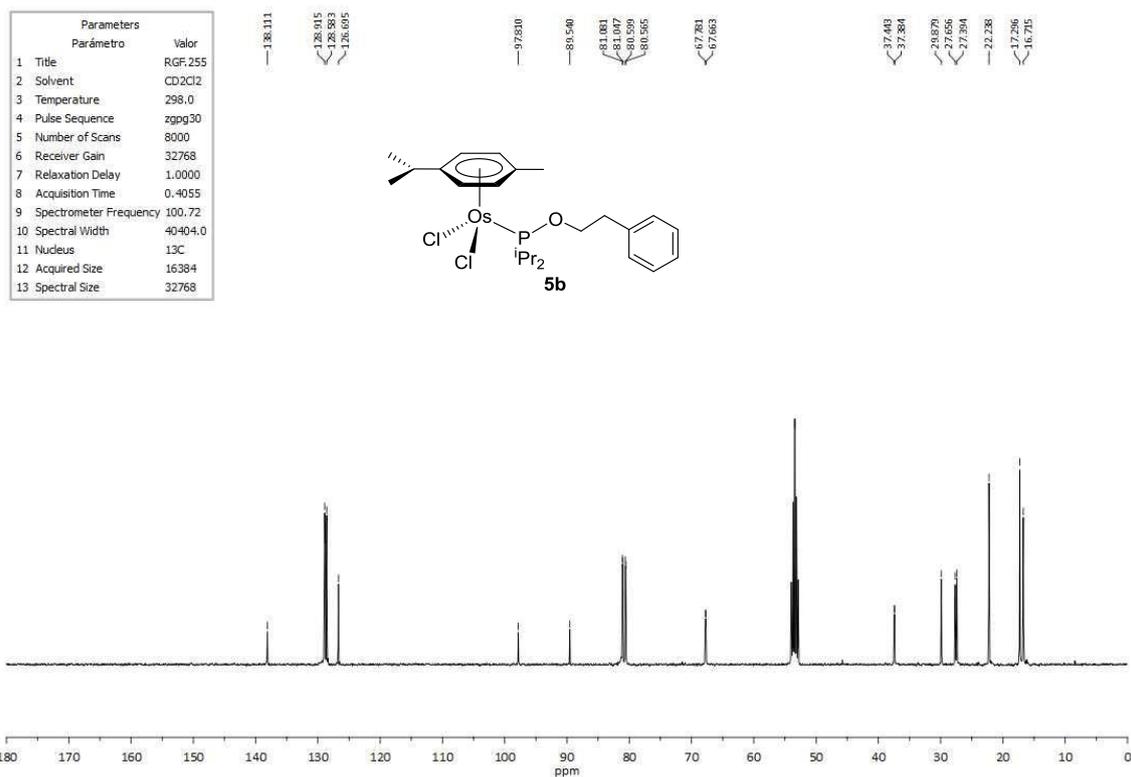


Figure S15: ¹³C{¹H} NMR spectrum (100 MHz, CD₂Cl₂) of complex **5b**.

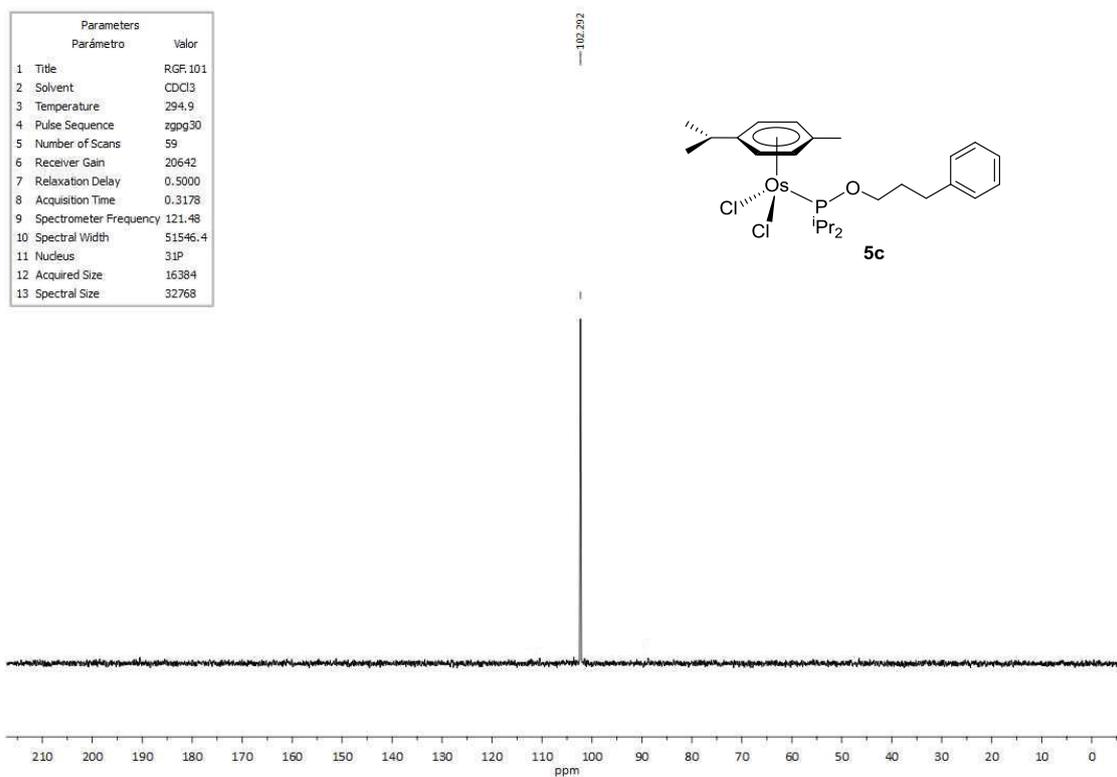


Figure S16: ³¹P{¹H} NMR spectrum (121 MHz, CDCl₃) of complex **5c**.

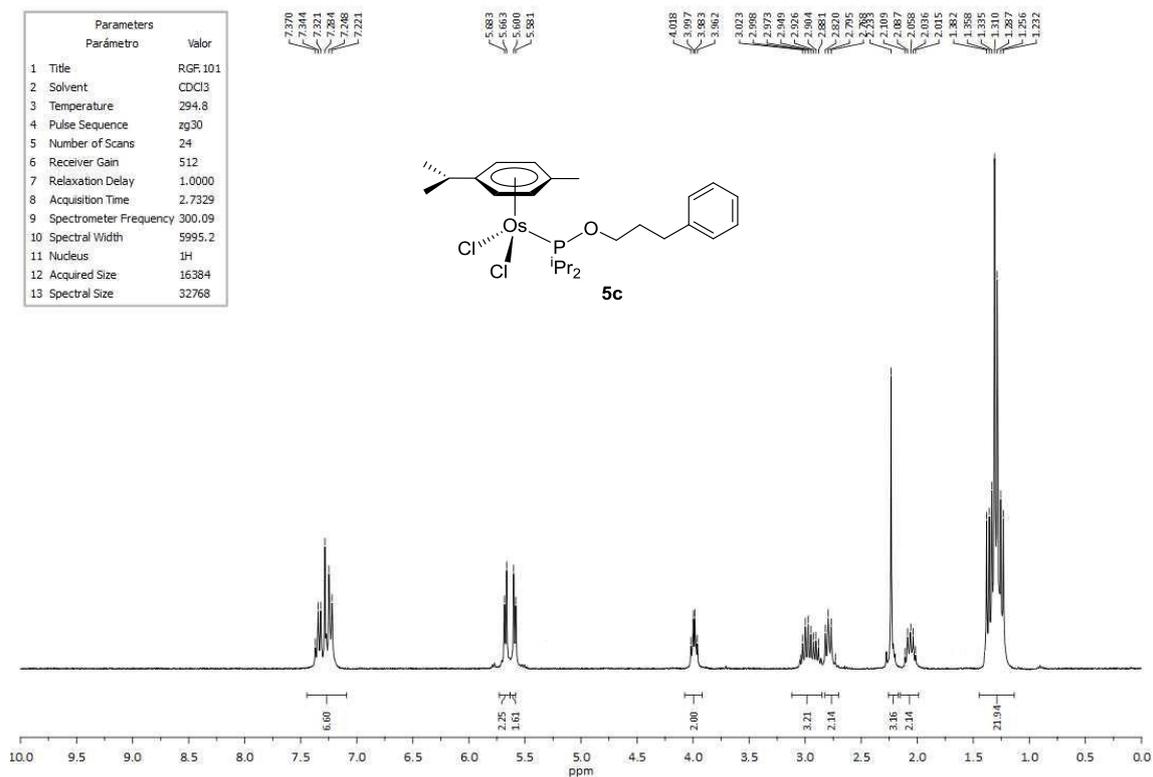


Figure S17: ^1H NMR spectrum (300 MHz, CDCl_3) of complex **5c**.

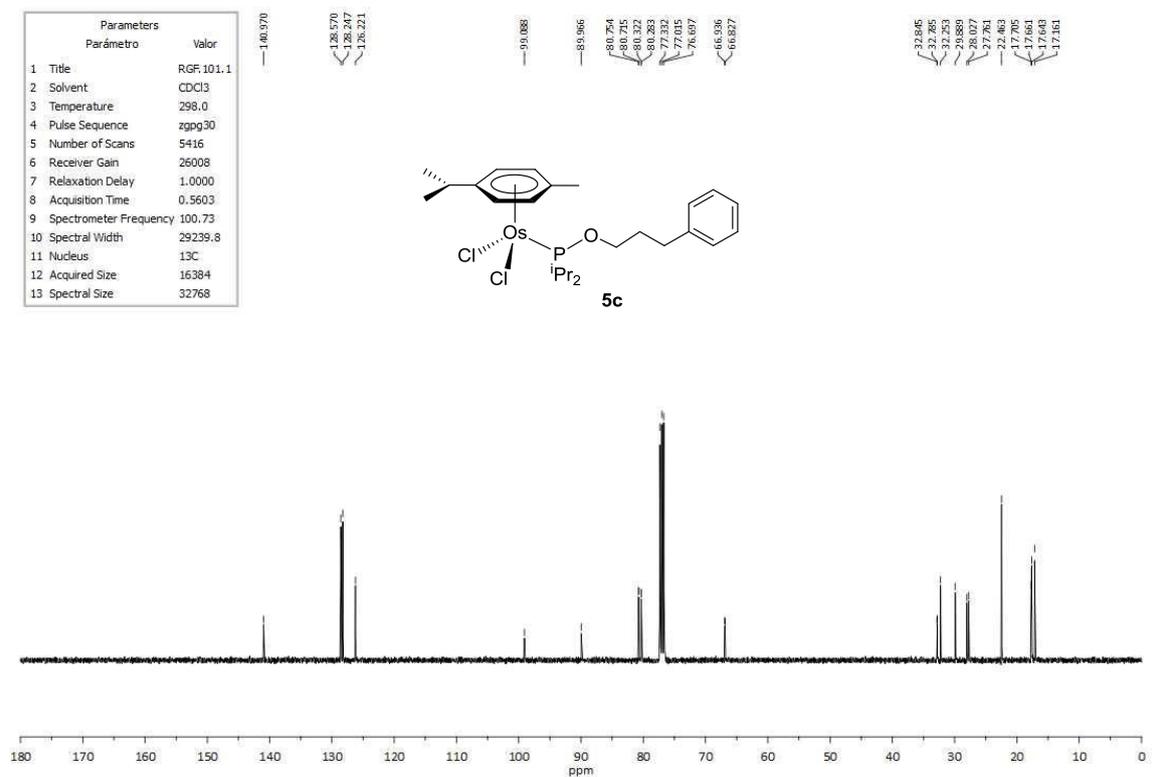


Figure S18: $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum (100 MHz, CDCl_3) of complex **5c**.

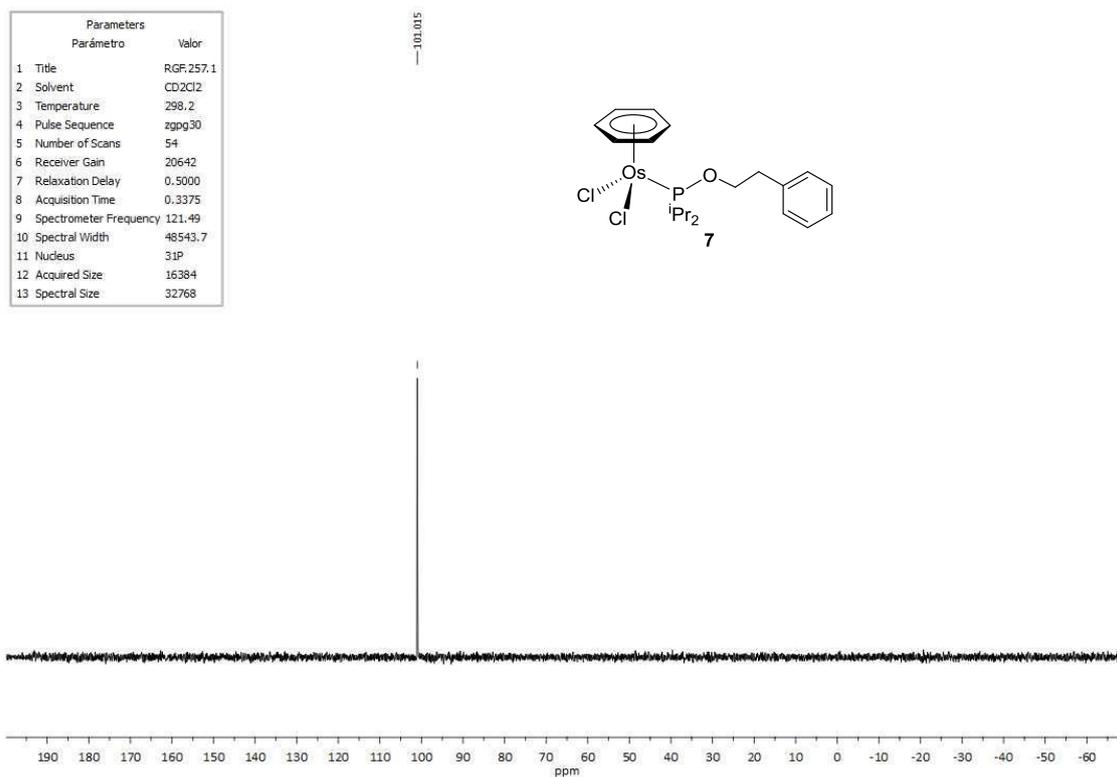


Figure S19: $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum (121 MHz, CD_2Cl_2) of complex **7**.

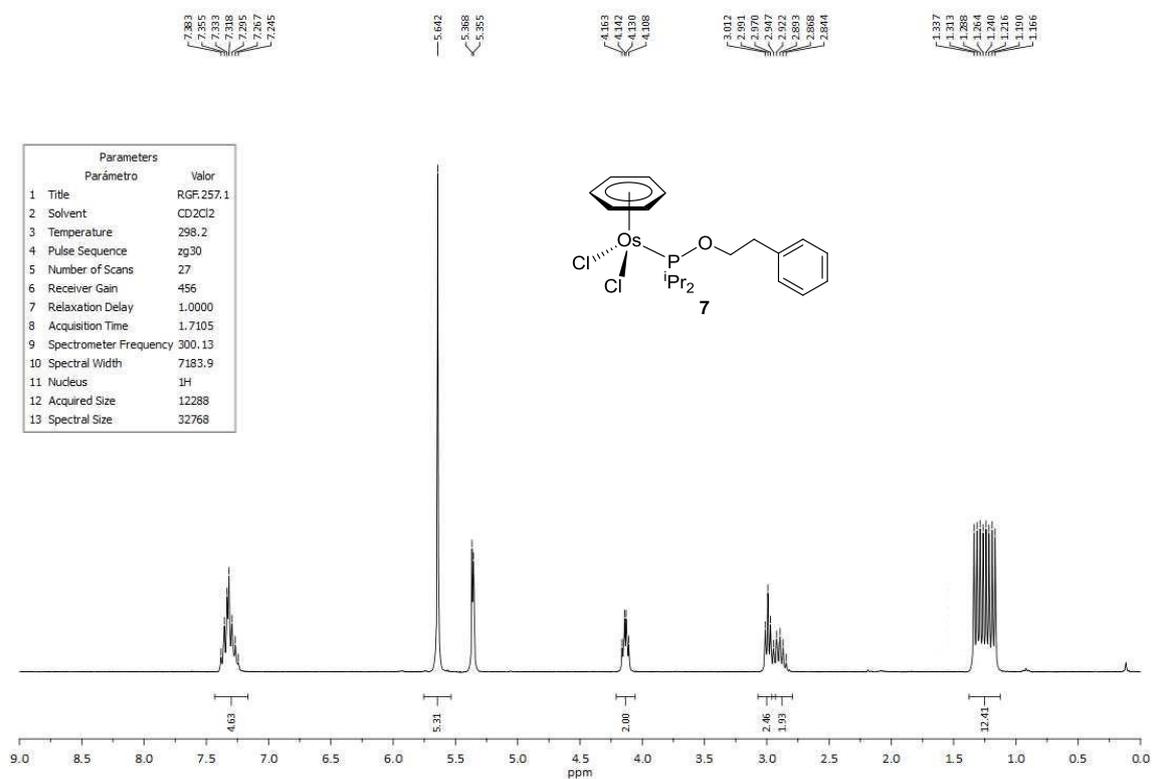


Figure S20: ^1H NMR spectrum (300 MHz, CD_2Cl_2) of complex **7**.

Parameters	
Parámetro	Valor
1 Title	RGR, 257.1
2 Solvent	CD ₂ Cl ₂
3 Temperature	298.0
4 Pulse Sequence	zgpg30
5 Number of Scans	8000
6 Receiver Gain	26008
7 Relaxation Delay	1.0000
8 Acquisition Time	0.5603
9 Spectrometer Frequency	100.72
10 Spectral Width	29239.8
11 Nucleus	¹³ C
12 Acquired Size	16384
13 Spectral Size	32768

¹³C chemical shifts (ppm): 136.614, 128.080, 128.465, 128.551, 80.517, 69.315, 68.131, 53.957, 53.887, 53.417, 53.147, 52.877, 37.262, 37.115, 28.925, 28.628, 17.445, 17.307.

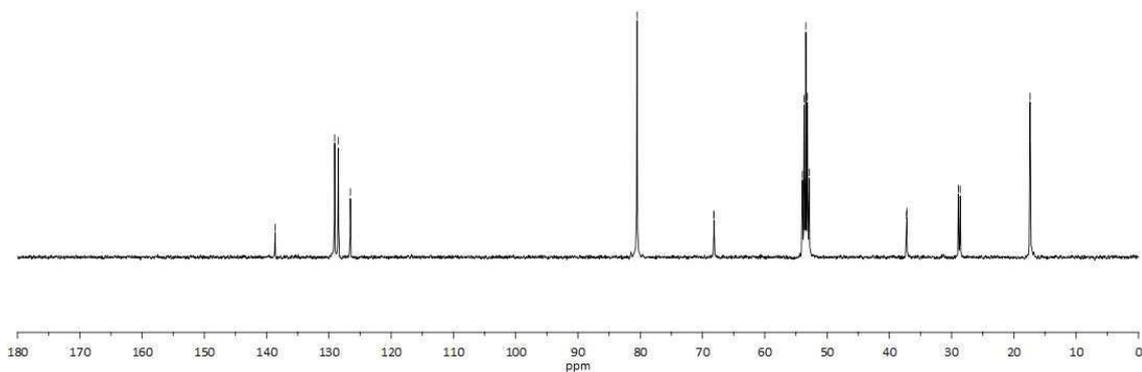
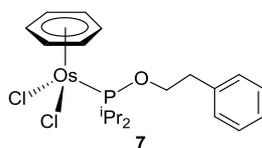


Figure S21: ¹³C{¹H} NMR spectrum (100 MHz, CD₂Cl₂) of complex 7.