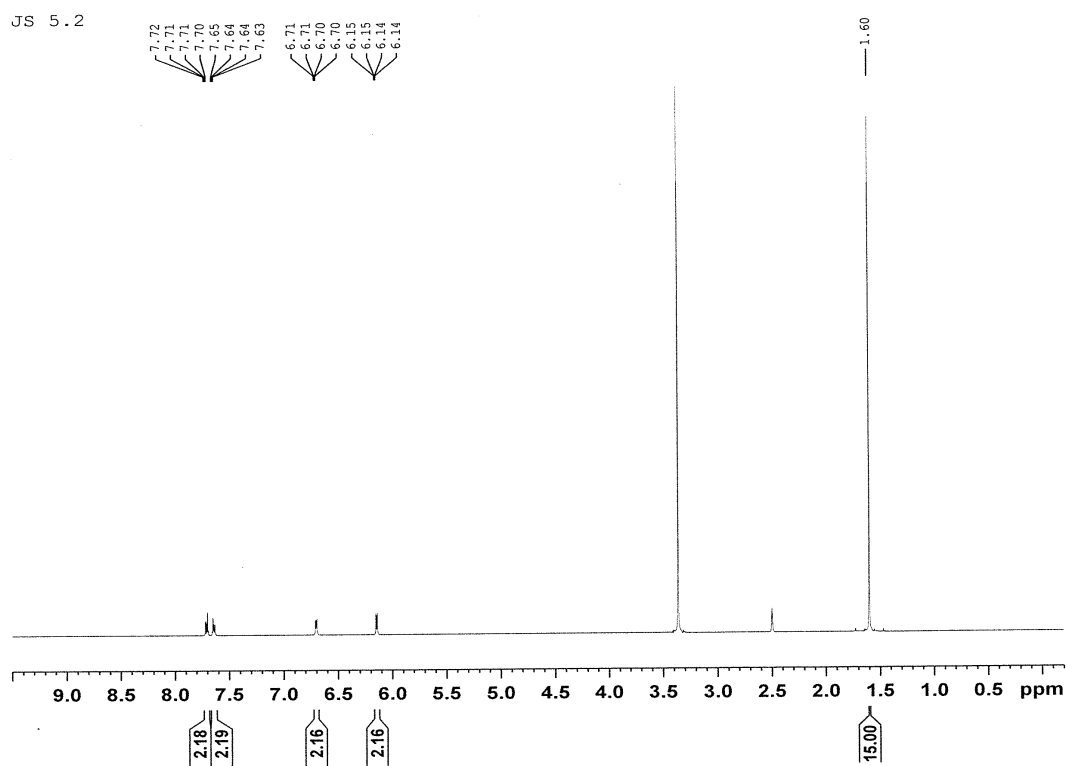


## Supplementary Material

## Facile Synthesis of Pentamethylcyclopentadienyl Ruthenium Half-Sandwich Complexes by Naphthalene Displacement

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**Figure 1:** <sup>1</sup>H NMR SPECTRUM of [Cp\*Ru(naphthalene)]BF<sub>4</sub> (**1**)

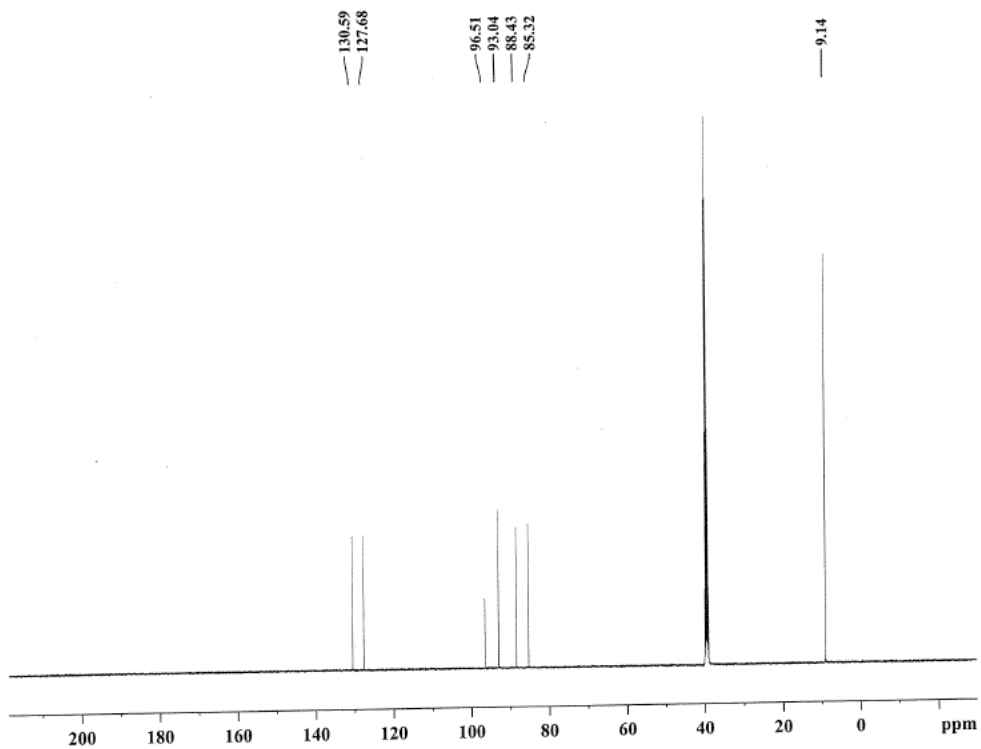


Figure 2:  $^{13}\text{C}$  NMR SPECTRUM of  $[\text{Cp}^*\text{Ru}(\text{naphthalene})]\text{BF}_4$  (**1**)

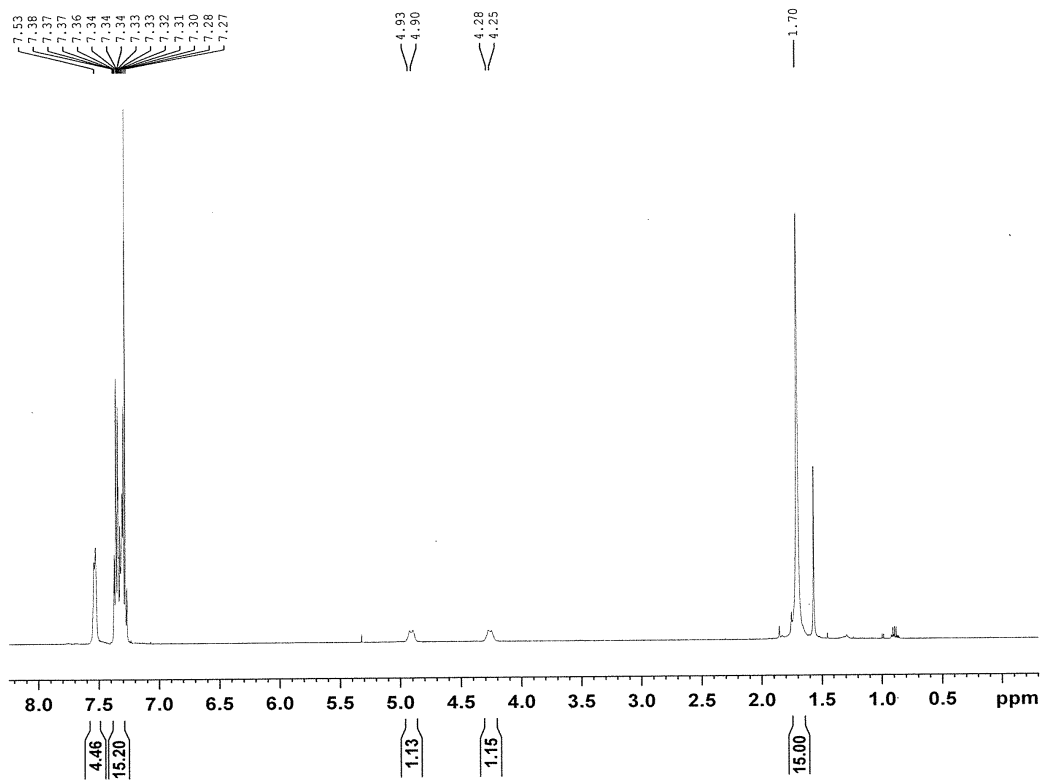


Figure 3:  $^1\text{H}$  NMR SPECTRUM of  $\text{Cp}^*\text{Ru}(\text{dppm})\text{Cl}$  (**2**)

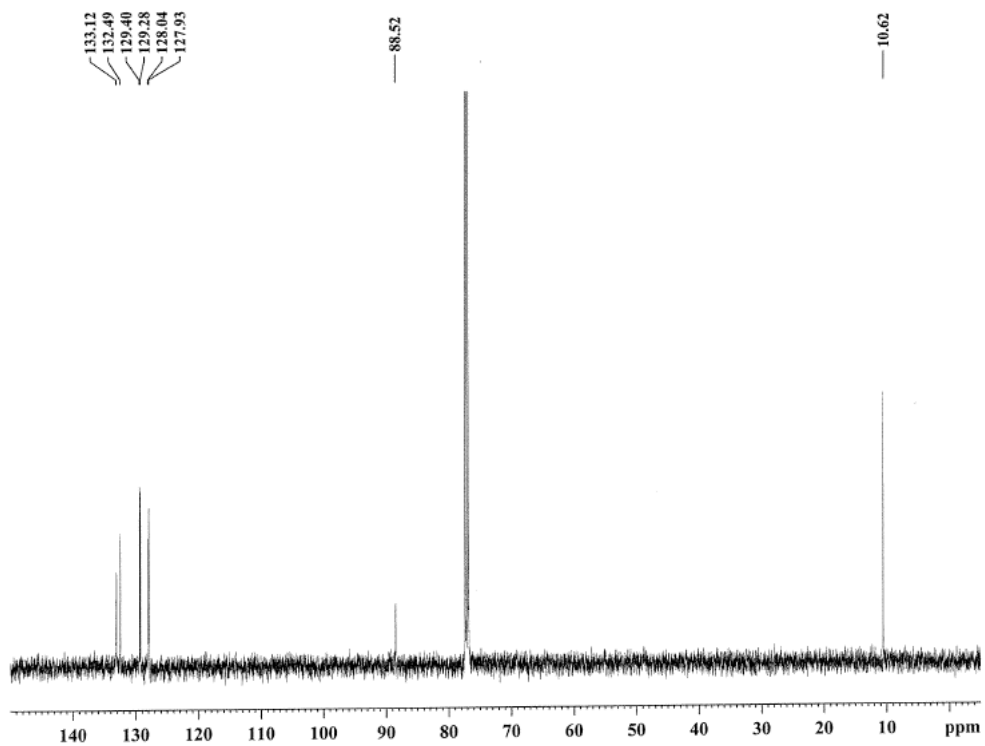


Figure 4:  $^{13}\text{C}$  NMR SPECTRUM of  $\text{Cp}^*\text{Ru}(\text{dppm})\text{Cl}$

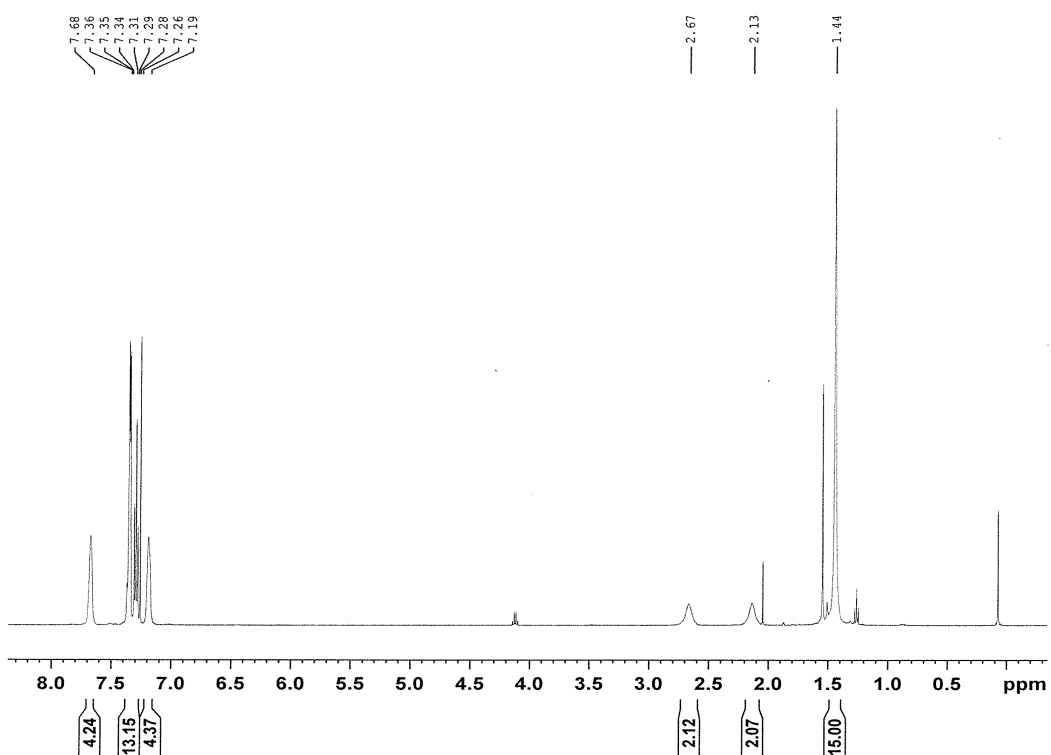


Figure 5:  $^1\text{H}$  NMR SPECTRUM of  $\text{Cp}^*\text{Ru}(\text{dppe})\text{Cl}$  (**3**)

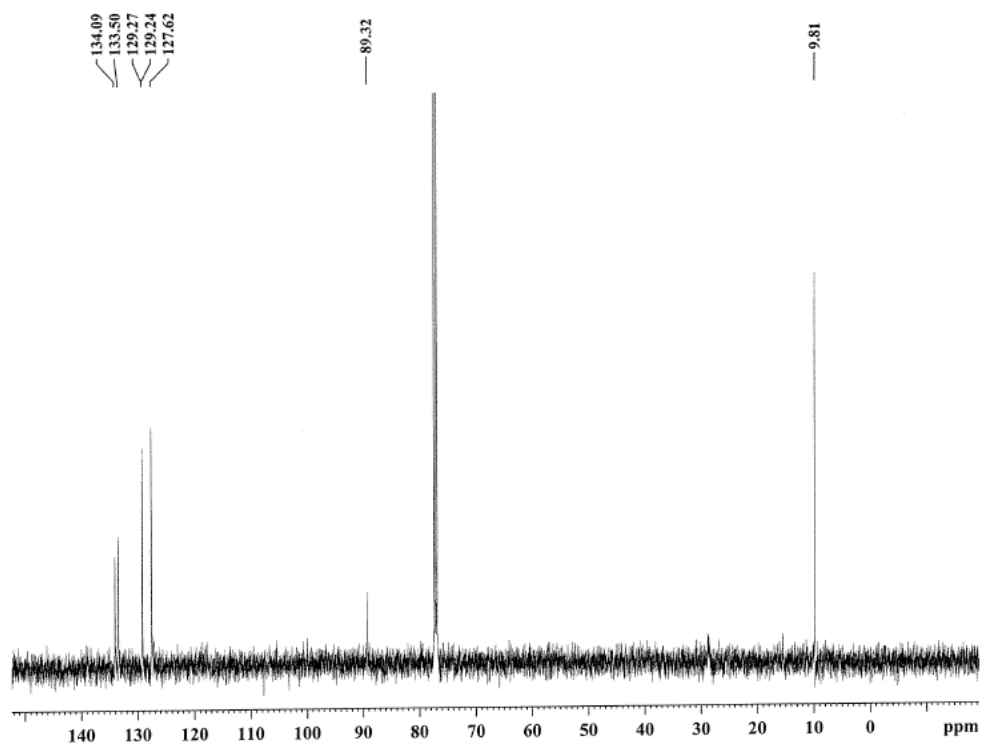


Figure 6:  $^{13}\text{C}$  NMR SPECTRUM of  $\text{Cp}^*\text{Ru}(\text{dppe})\text{Cl}$  (3)

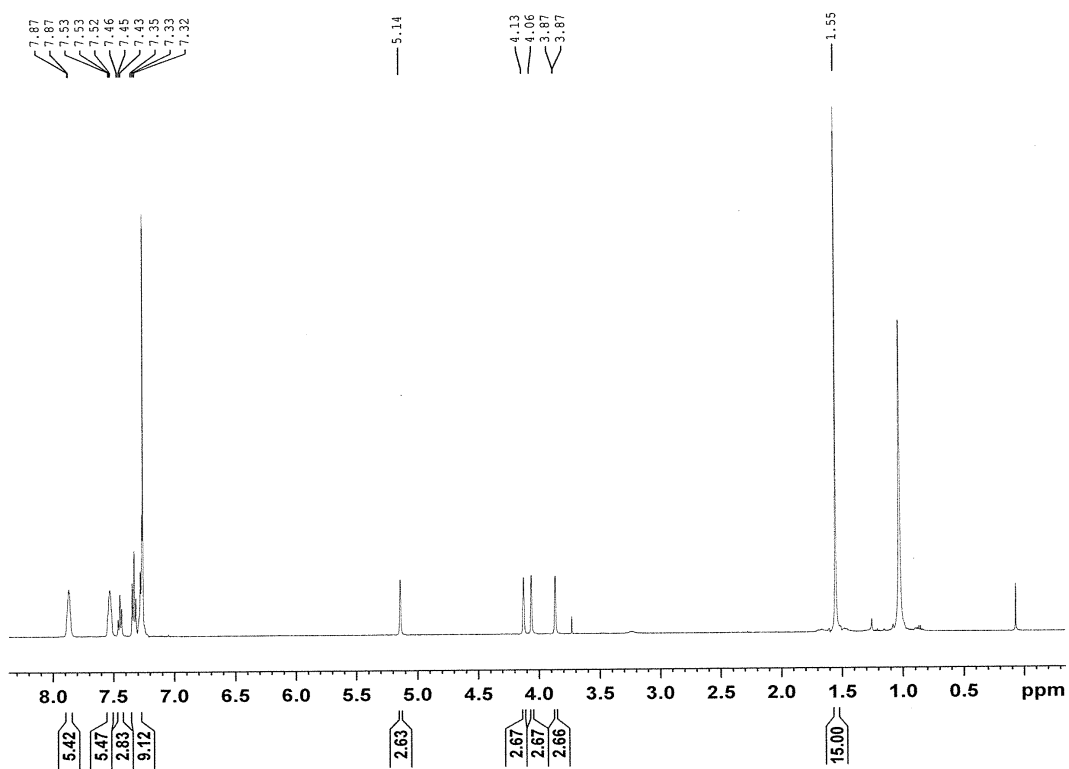


Figure 7:  $^1\text{H}$  NMR SPECTRUM of  $\text{Cp}^*\text{Ru}(\text{dppf})\text{Cl}$  (4)

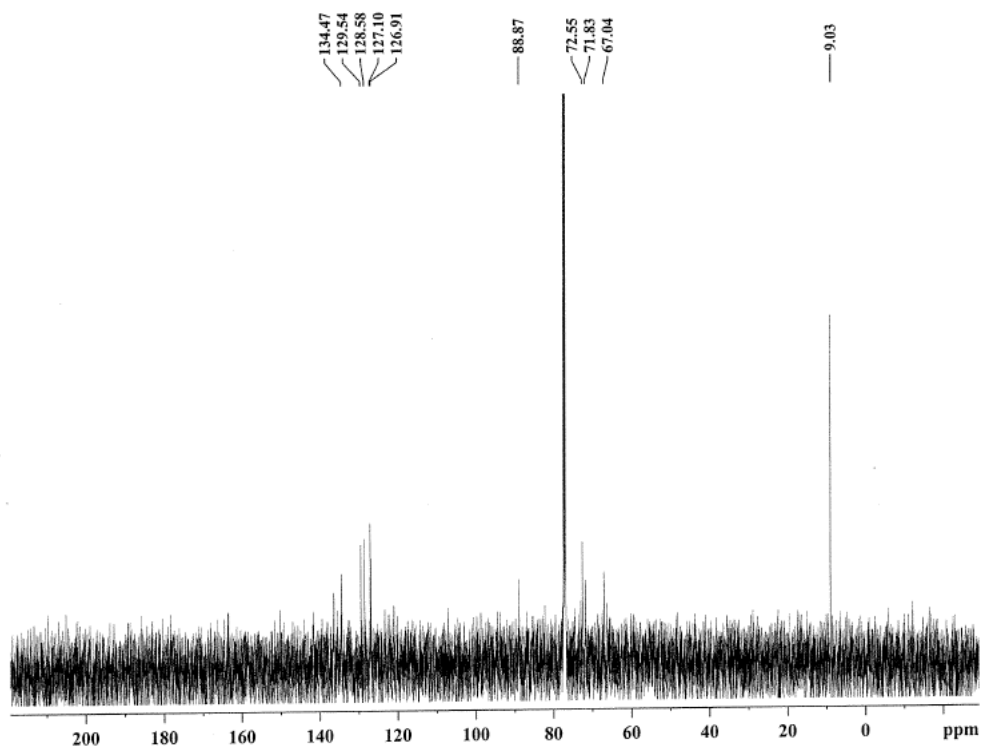


Figure 8:  $^{13}\text{C}$  NMR SPECTRUM of  $\text{Cp}^*\text{Ru}(\text{dppf})\text{Cl}$  (**4**)

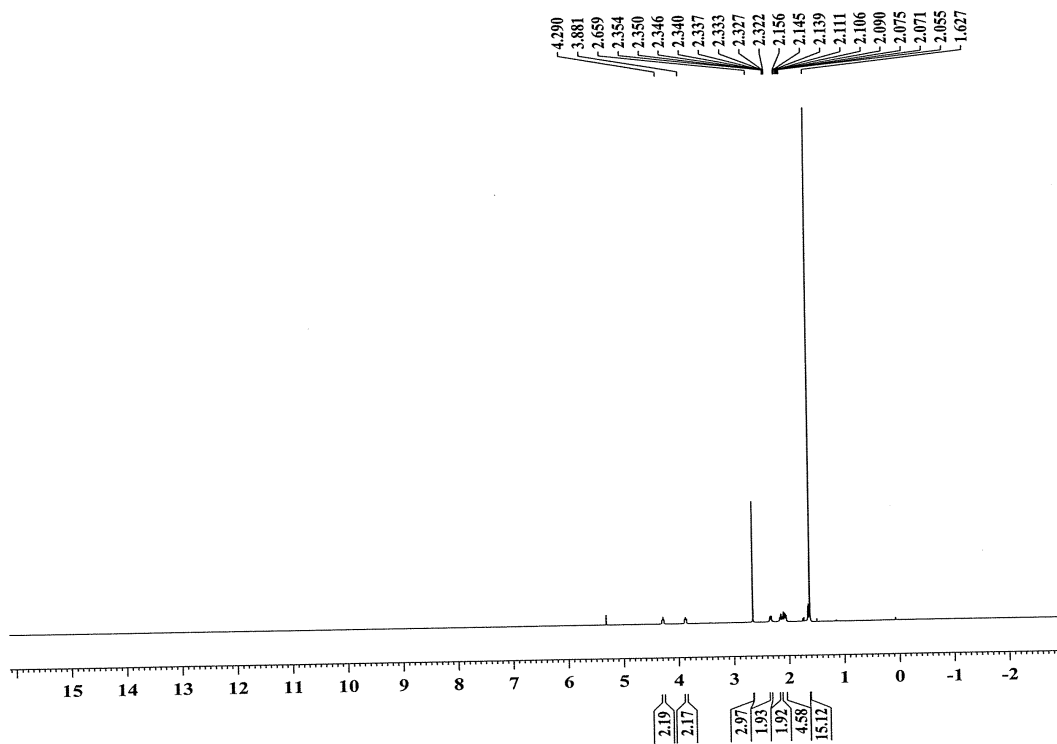


Figure 9:  $^1\text{H}$  NMR SPECTRUM of  $[\text{Cp}^*\text{Ru}(\text{COD})(\text{MeCN})]\text{BF}_4$  (**5**)

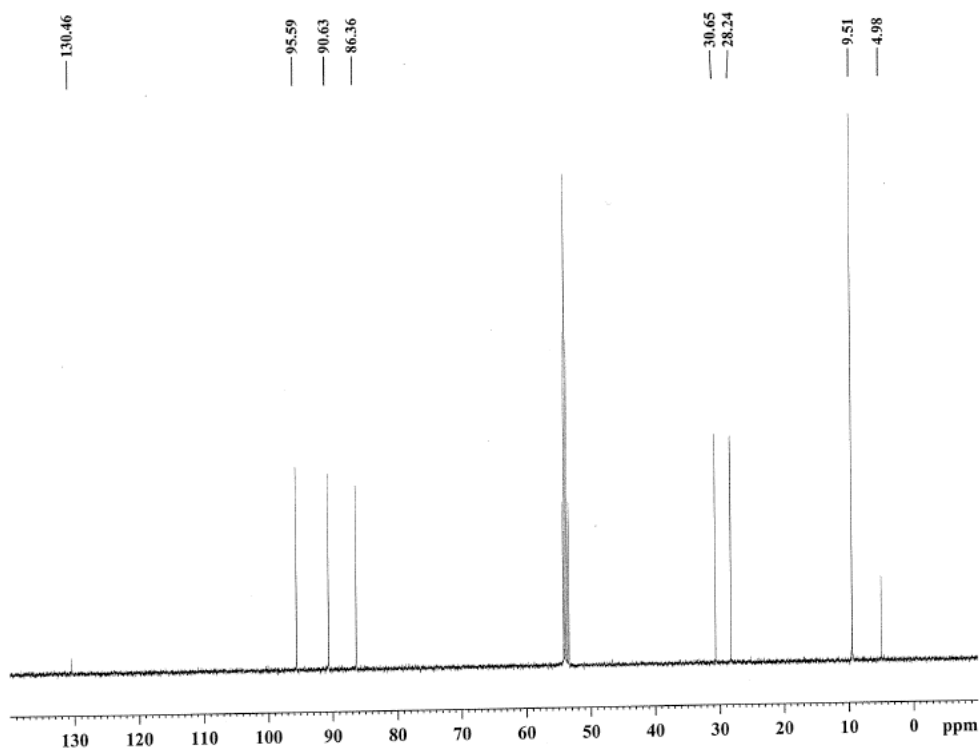


Figure 10:  $^{13}\text{C}$  NMR SPECTRUM of  $[\text{Cp}^*\text{Ru}(\text{COD})(\text{MeCN})]\text{BF}_4$  (5)

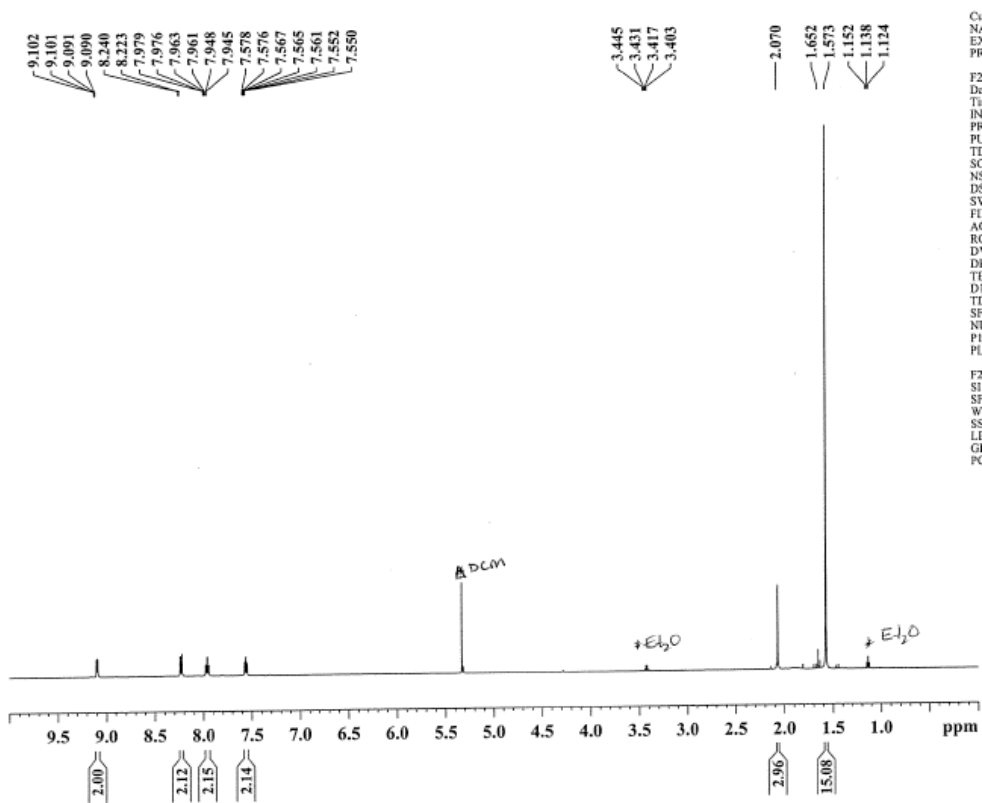
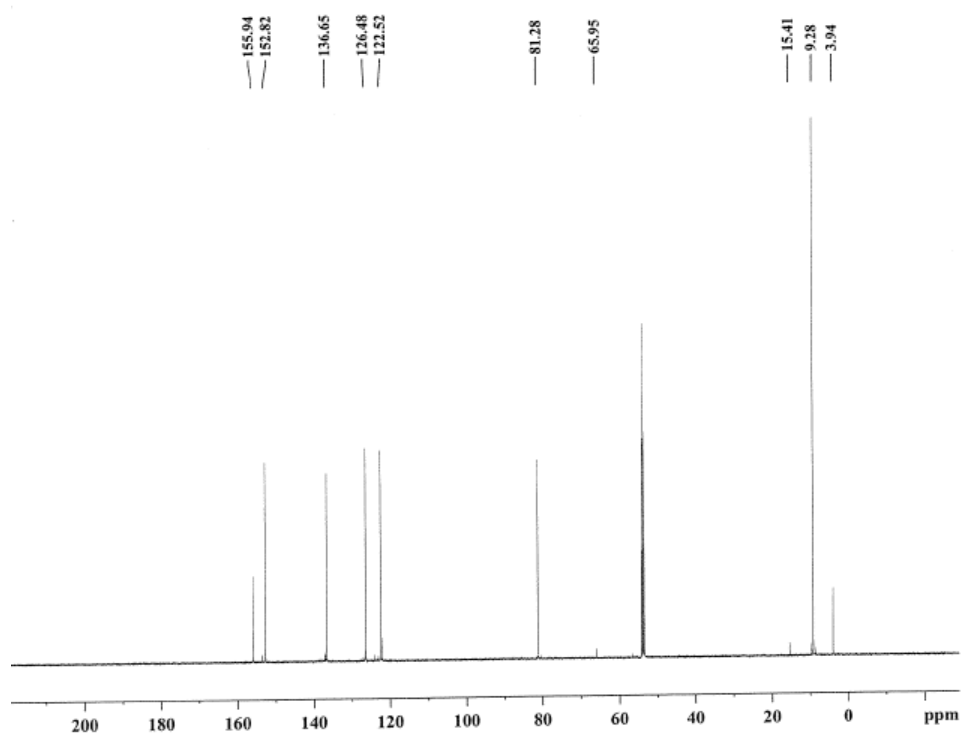


Figure 11:  $^1\text{H}$  NMR SPECTRUM of  $[\text{Cp}^*\text{Ru}(\text{bpy})(\text{MeCN})]\text{BF}_4$  (6)



**Figure 12:**  $^{13}\text{C}$  NMR SPECTRUM of  $[\text{Cp}^*\text{Ru}(\text{bpy})(\text{MeCN})]\text{BF}_4$  (6)