

Supporting Information for:

**Diverse C–C Bond Forming Reactions of Bis(carbene)platinum(II) Complexes**

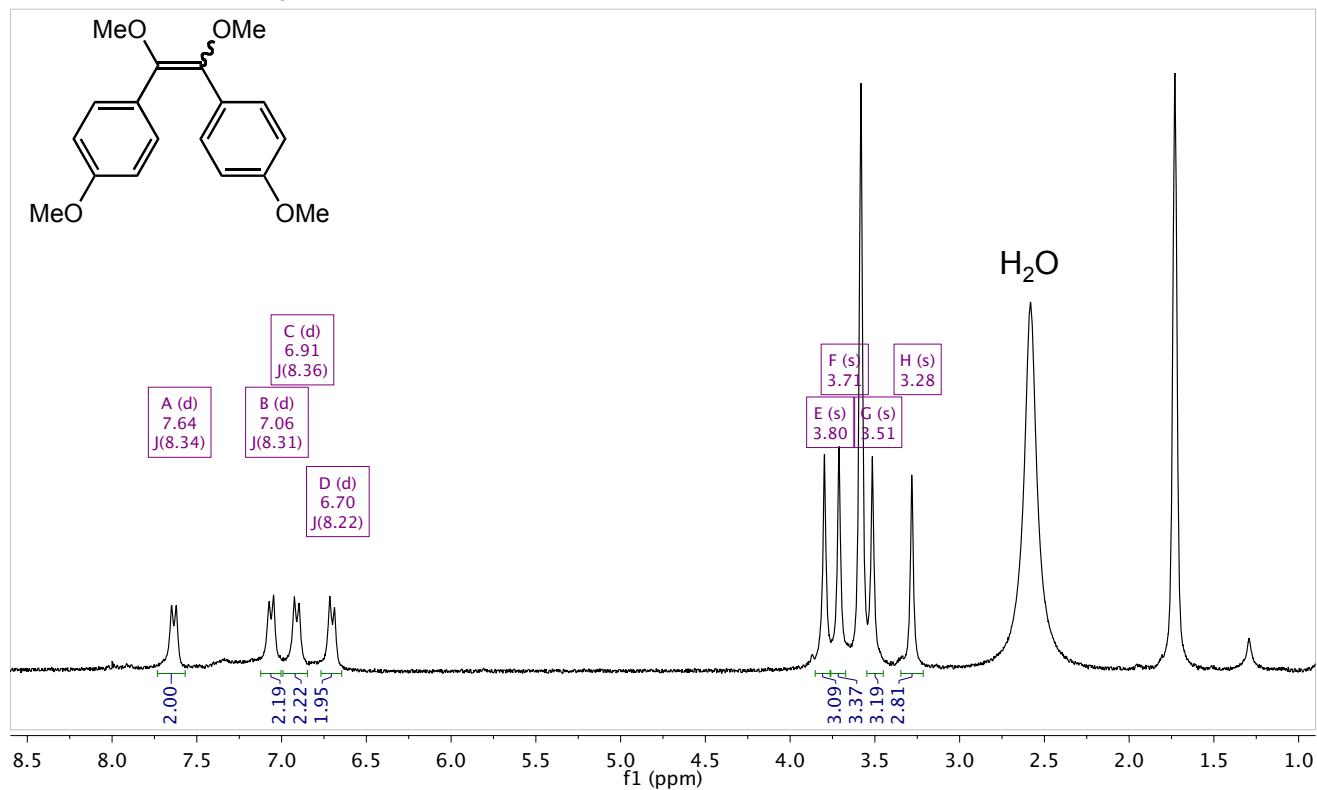
*Rachel C. Klet, Jay A. Labinger\*, John E. Bercaw\**

Arnold and Mabel Beckman Laboratories of Chemical Synthesis, California Institute of Technology, Pasadena, California 91125

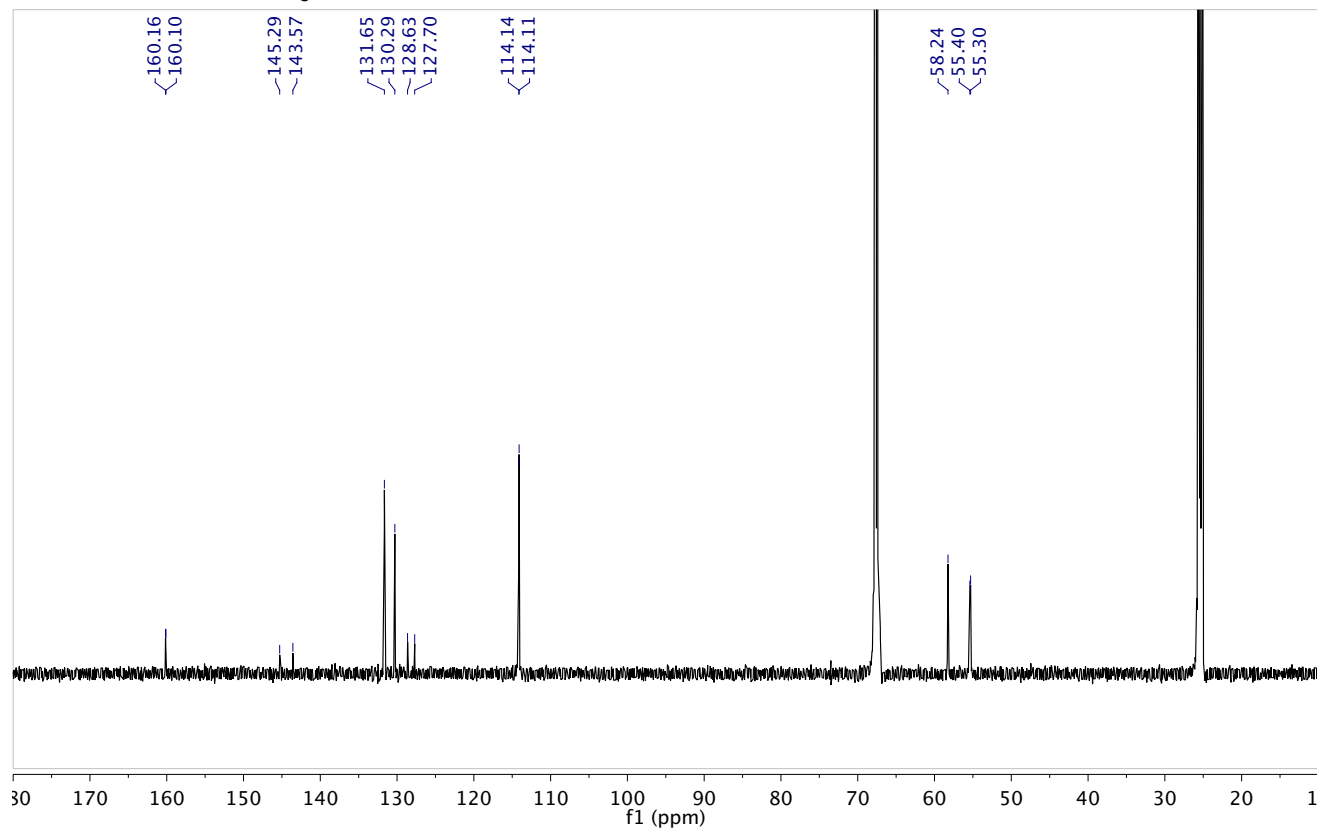
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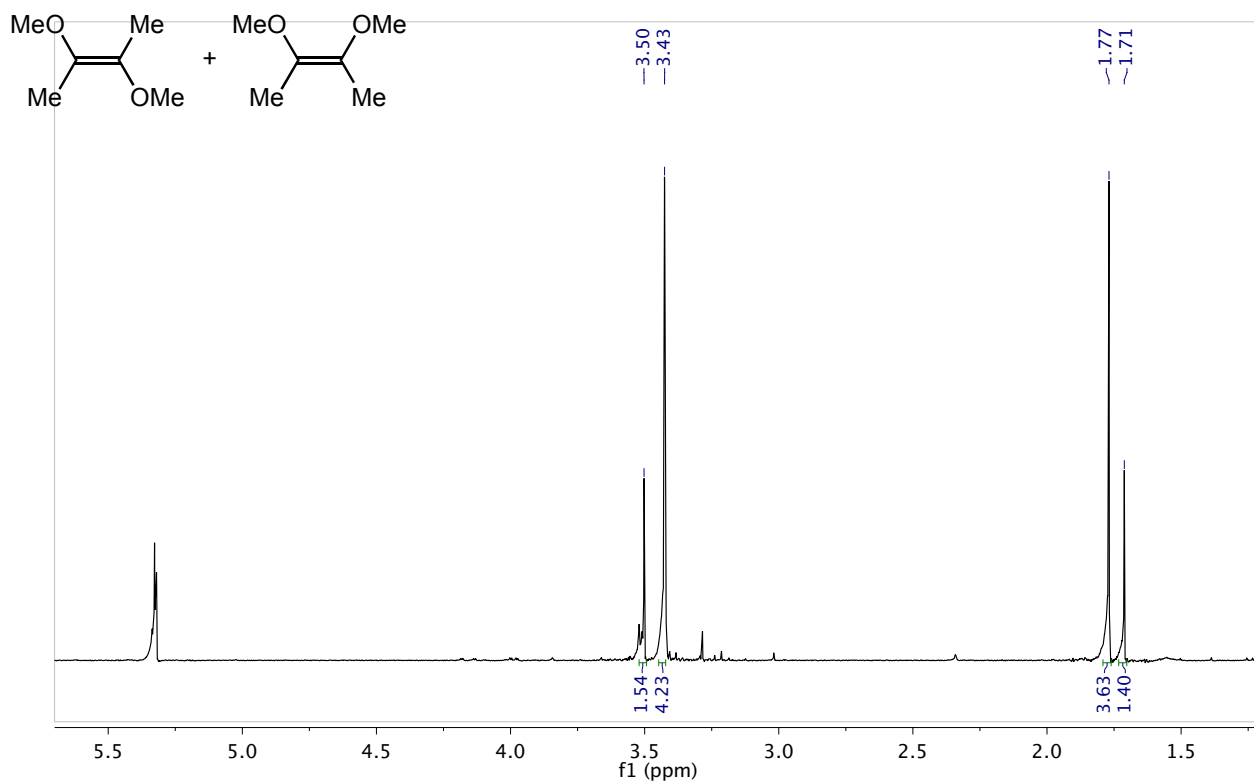
# <sup>1</sup>H Spectrum (THF-d<sub>8</sub>)



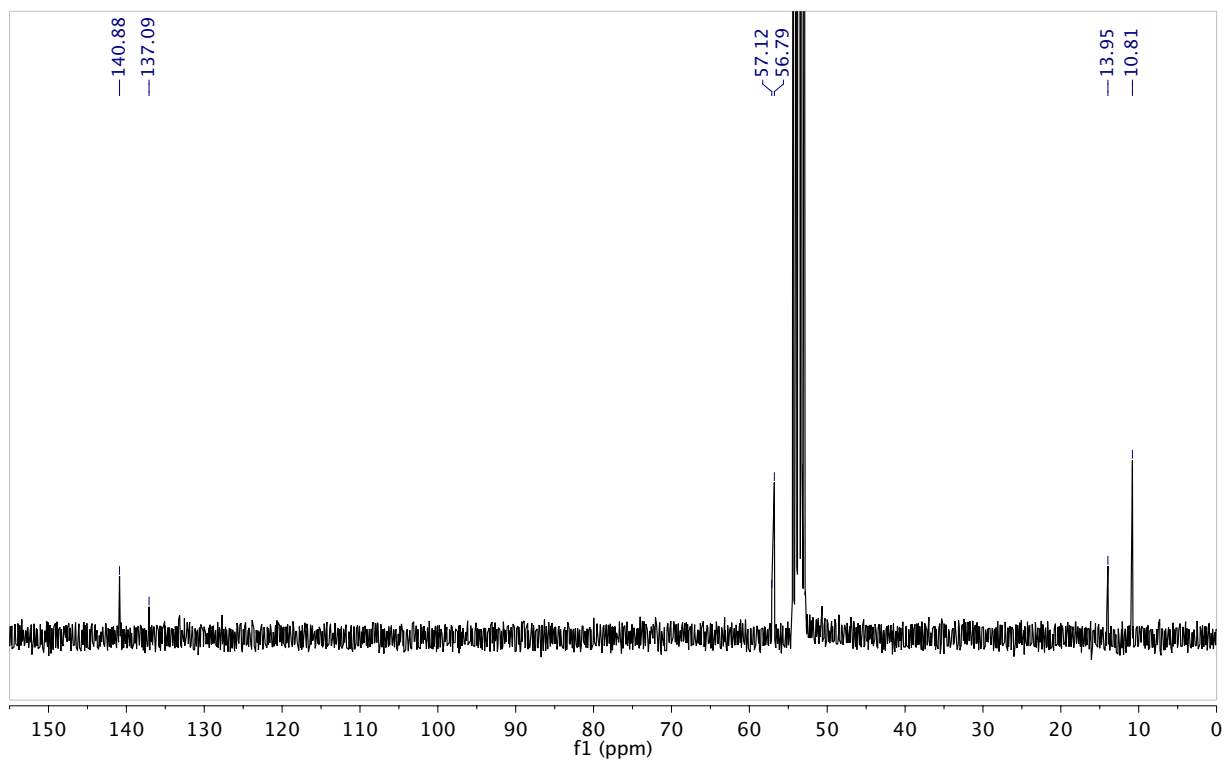
# <sup>13</sup>C Spectrum (THF-d<sub>8</sub>)



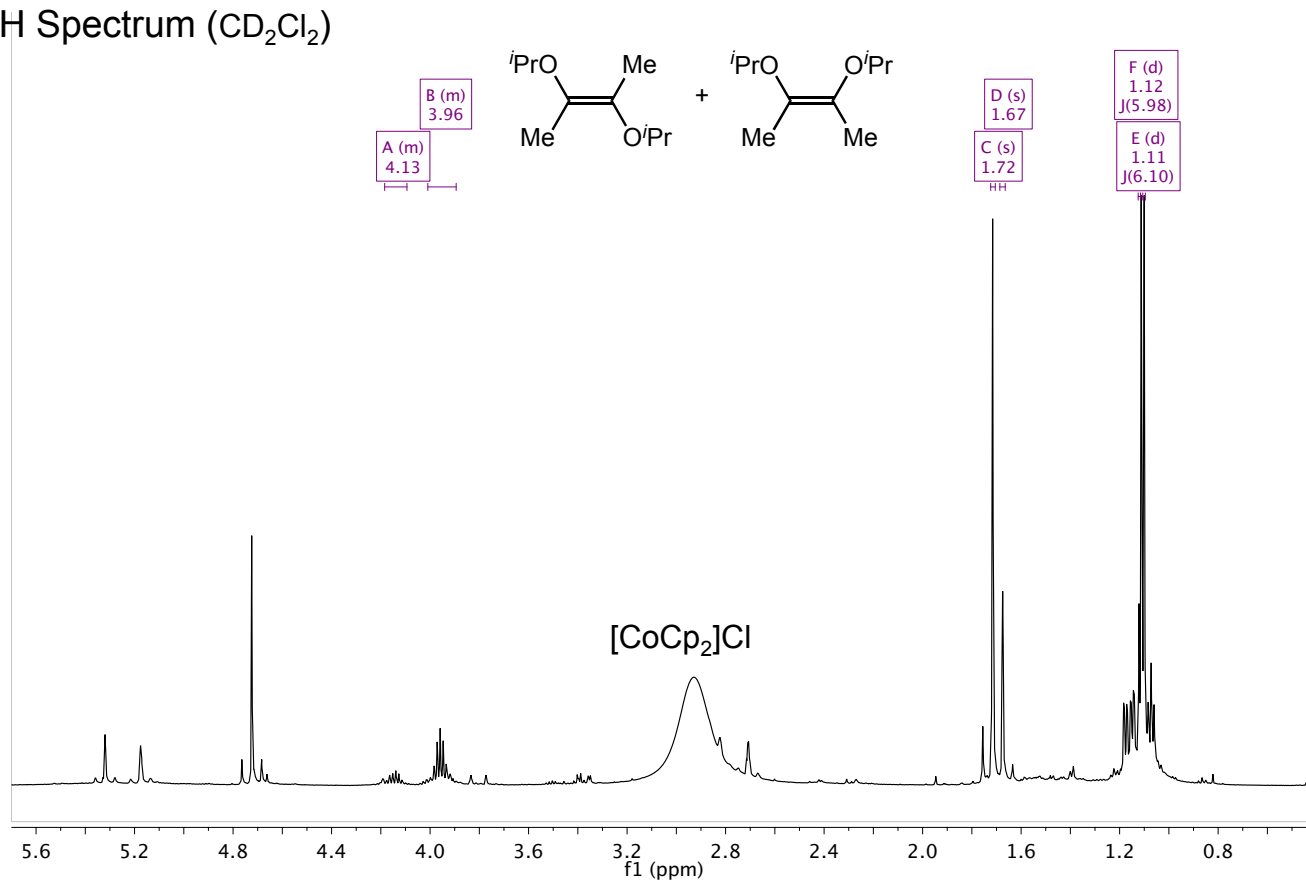
### $^1\text{H}$ Spectrum ( $\text{CD}_2\text{Cl}_2$ )



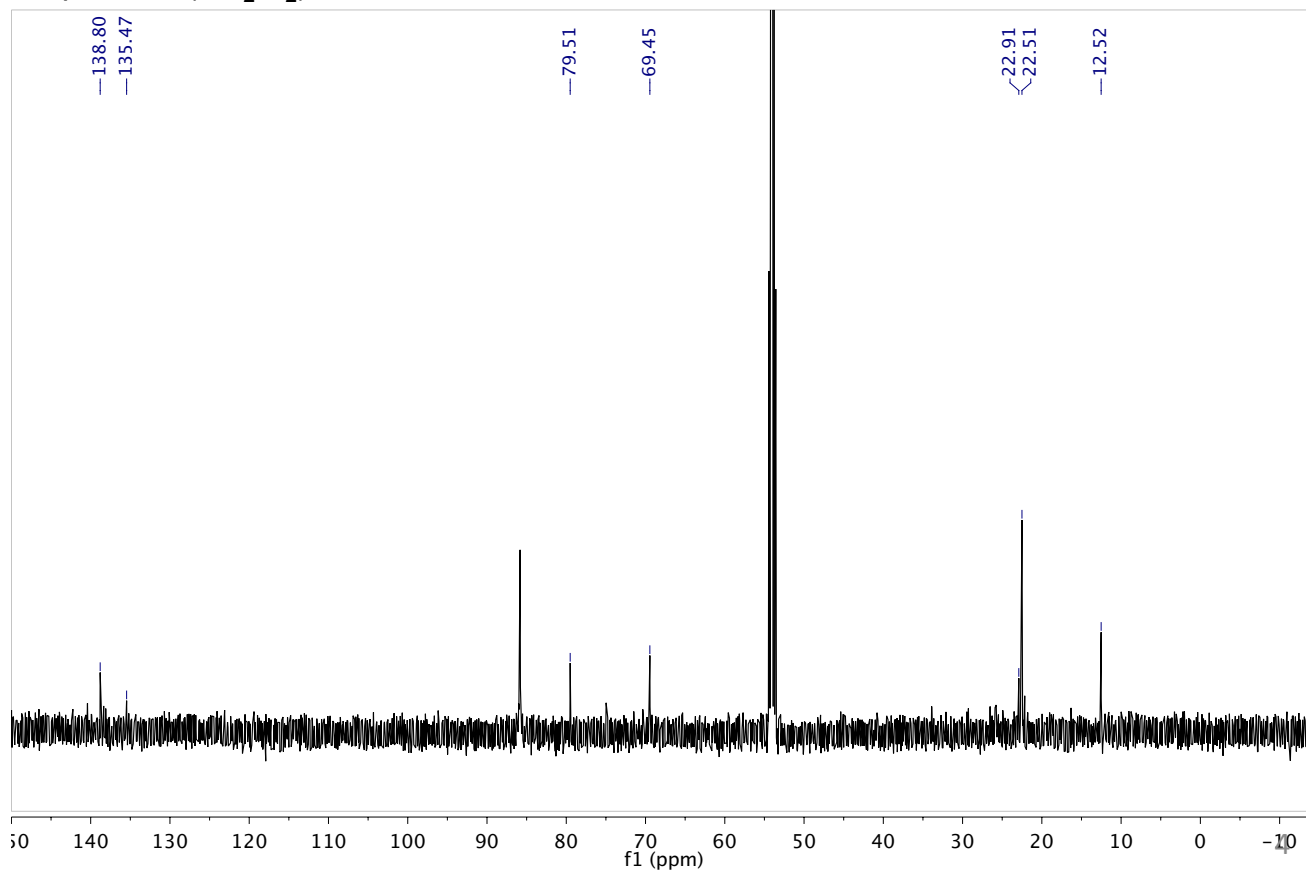
### $^{13}\text{C}$ Spectrum ( $\text{CD}_2\text{Cl}_2$ )



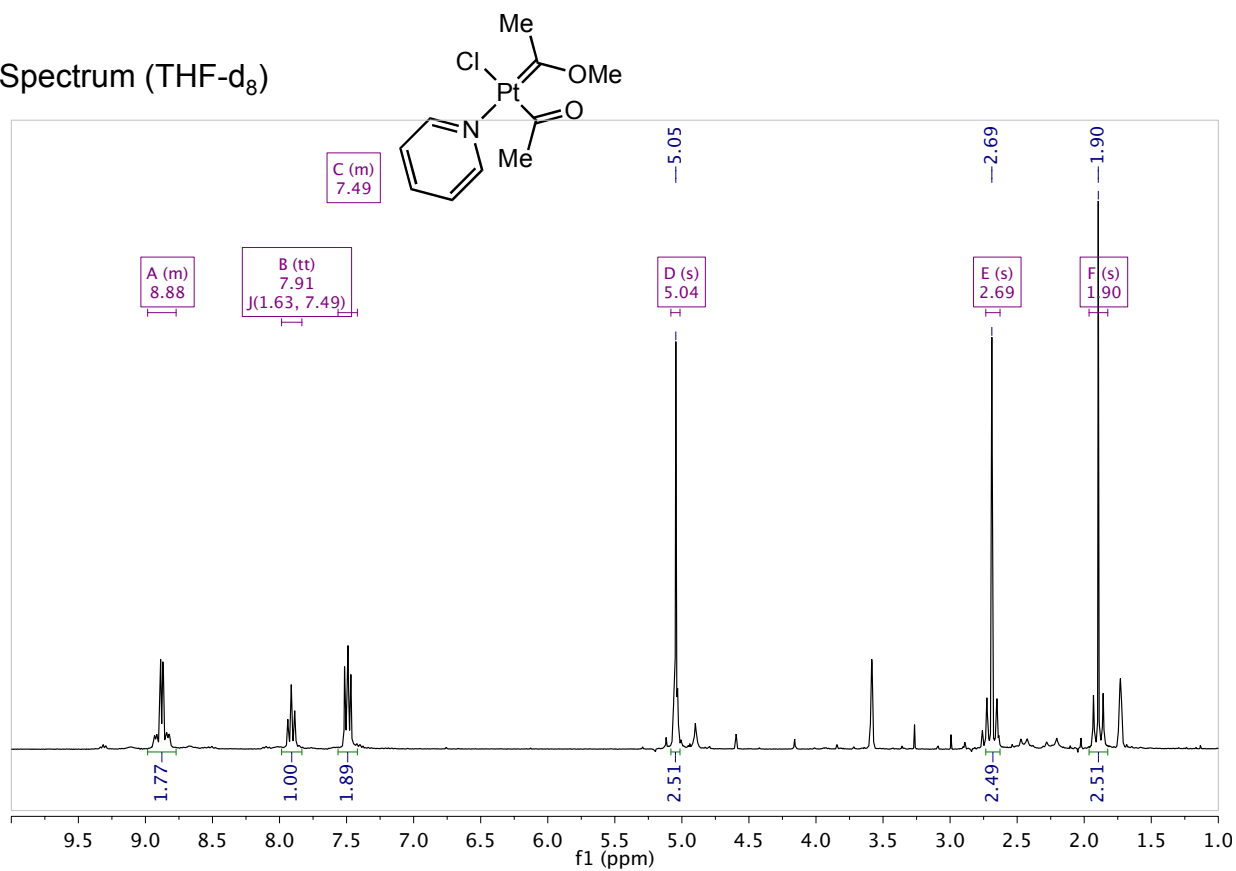
# $^1\text{H}$ Spectrum ( $\text{CD}_2\text{Cl}_2$ )



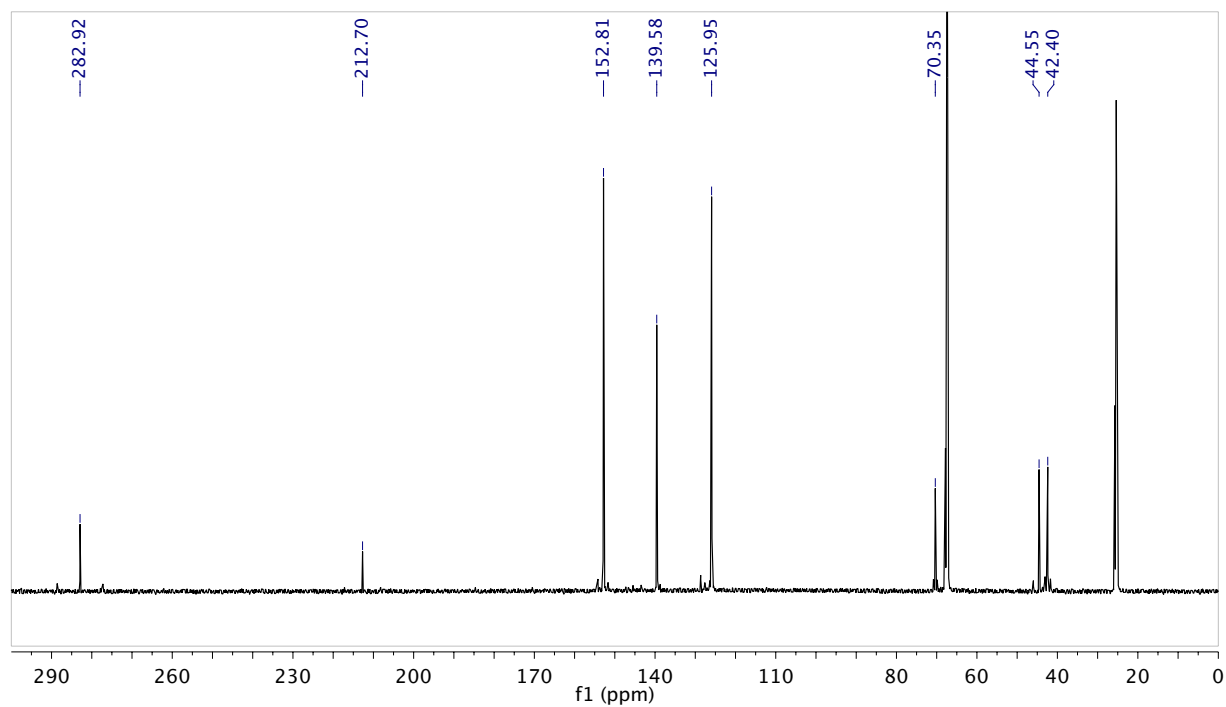
# $^{13}\text{C}$ Spectrum ( $\text{CD}_2\text{Cl}_2$ )



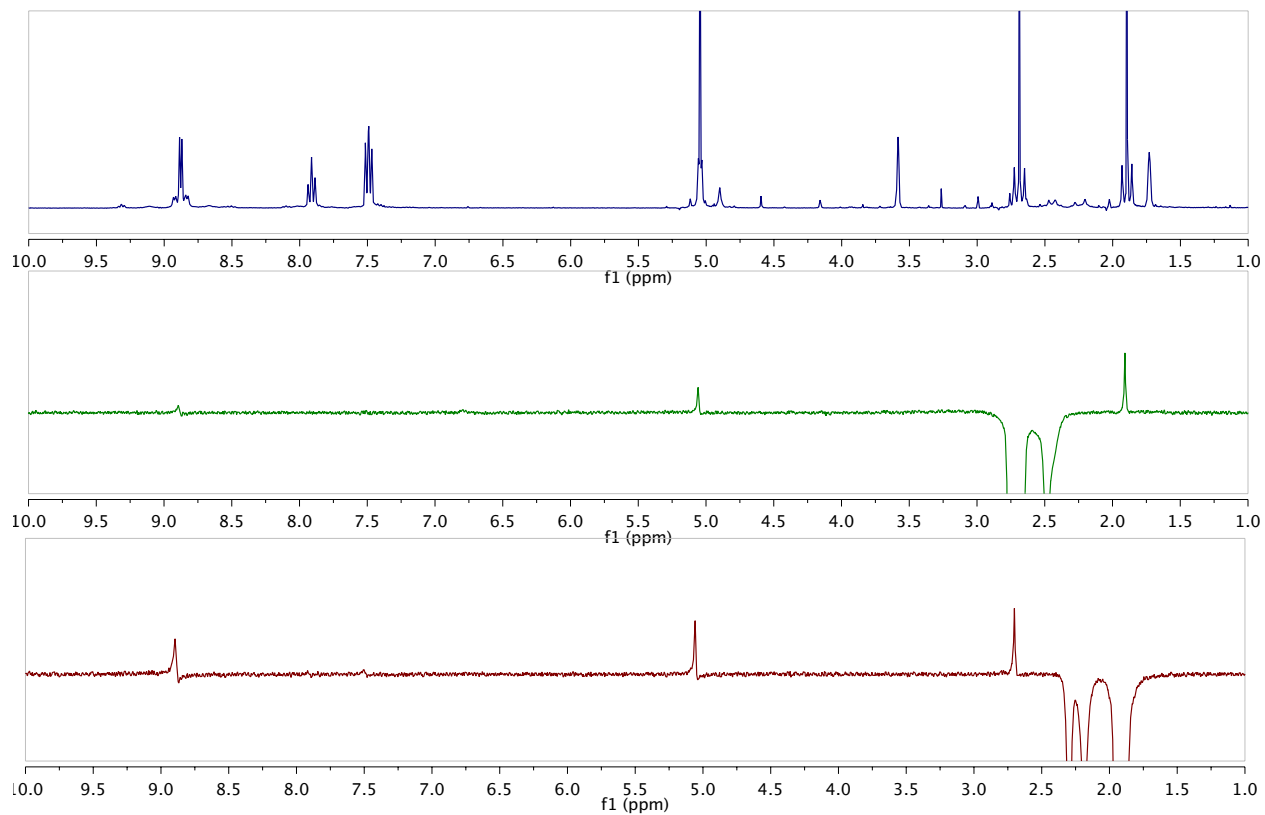
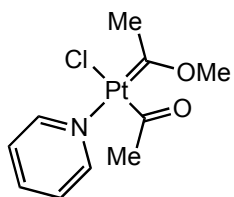
<sup>1</sup>H Spectrum (THF-d<sub>8</sub>)



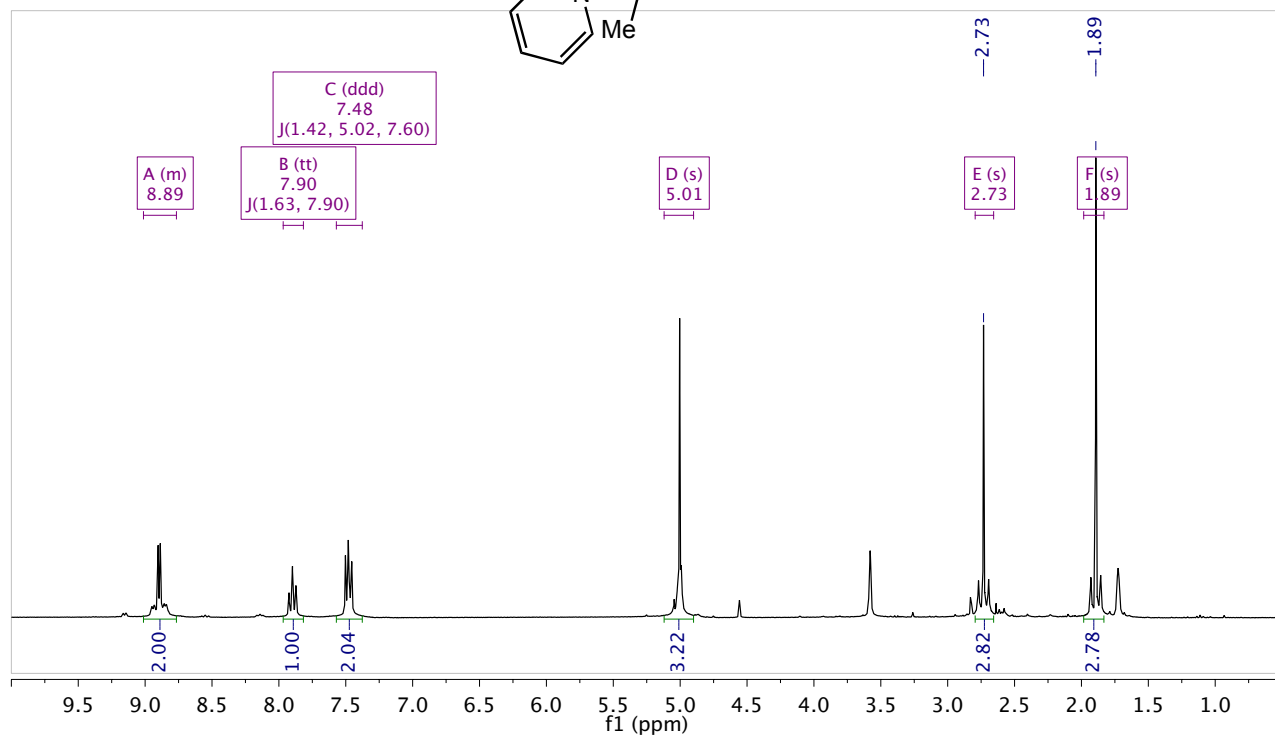
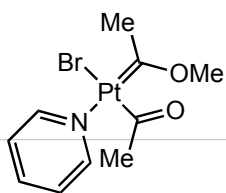
<sup>13</sup>C Spectrum (THF-d<sub>8</sub>)



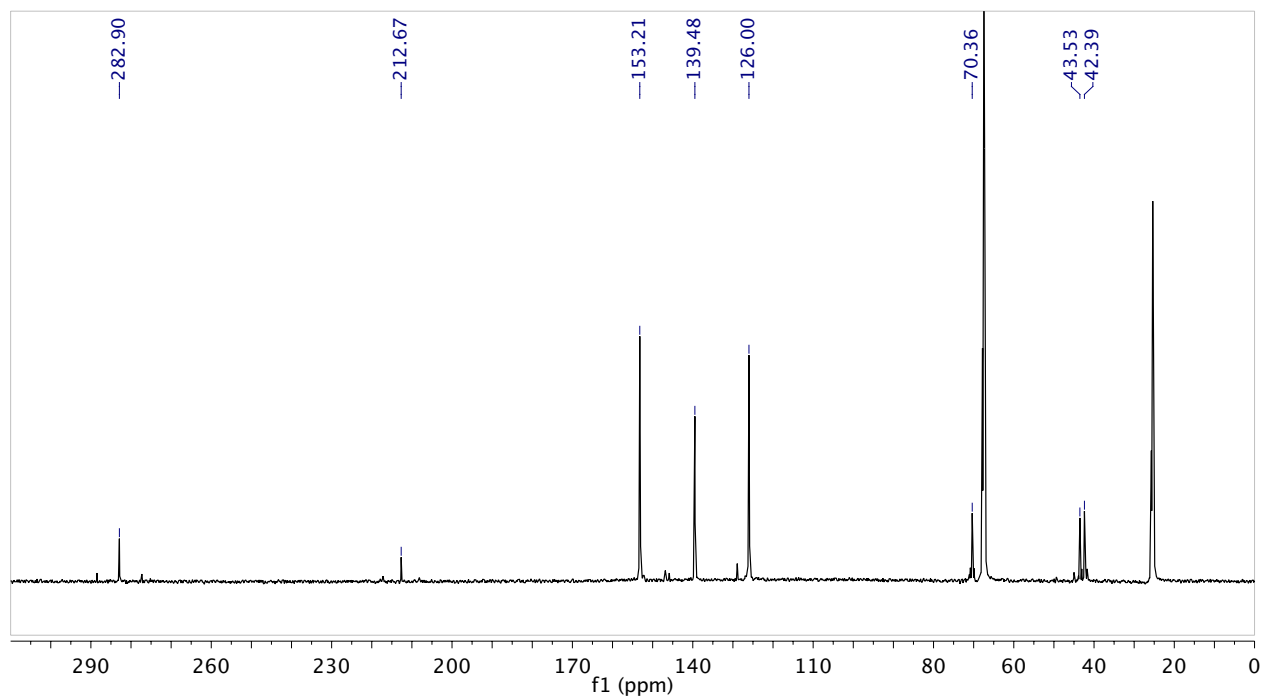
1D-NOESY Spectrum (THF-d<sub>8</sub>)



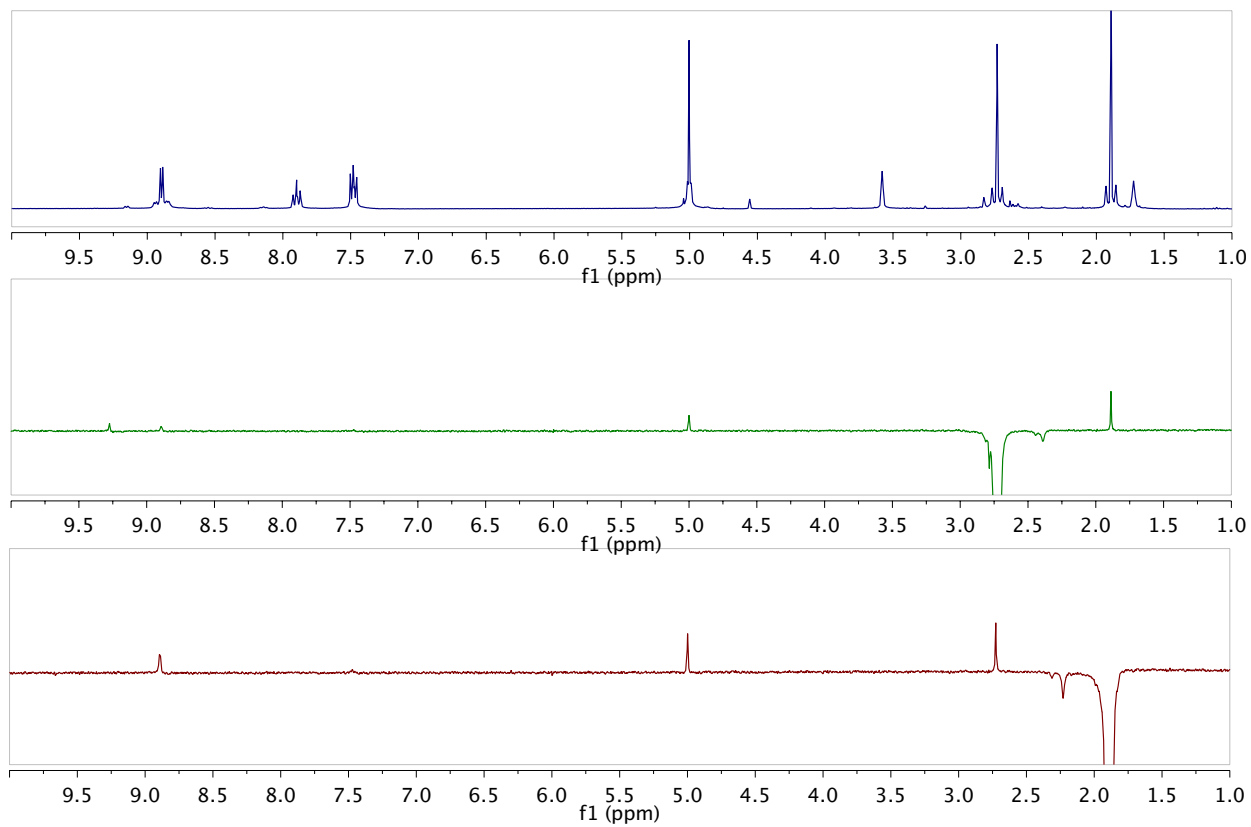
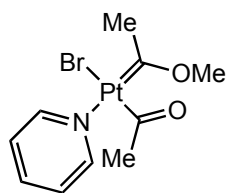
<sup>1</sup>H Spectrum (THF-d<sub>8</sub>)



<sup>13</sup>C Spectrum (THF-d<sub>8</sub>)

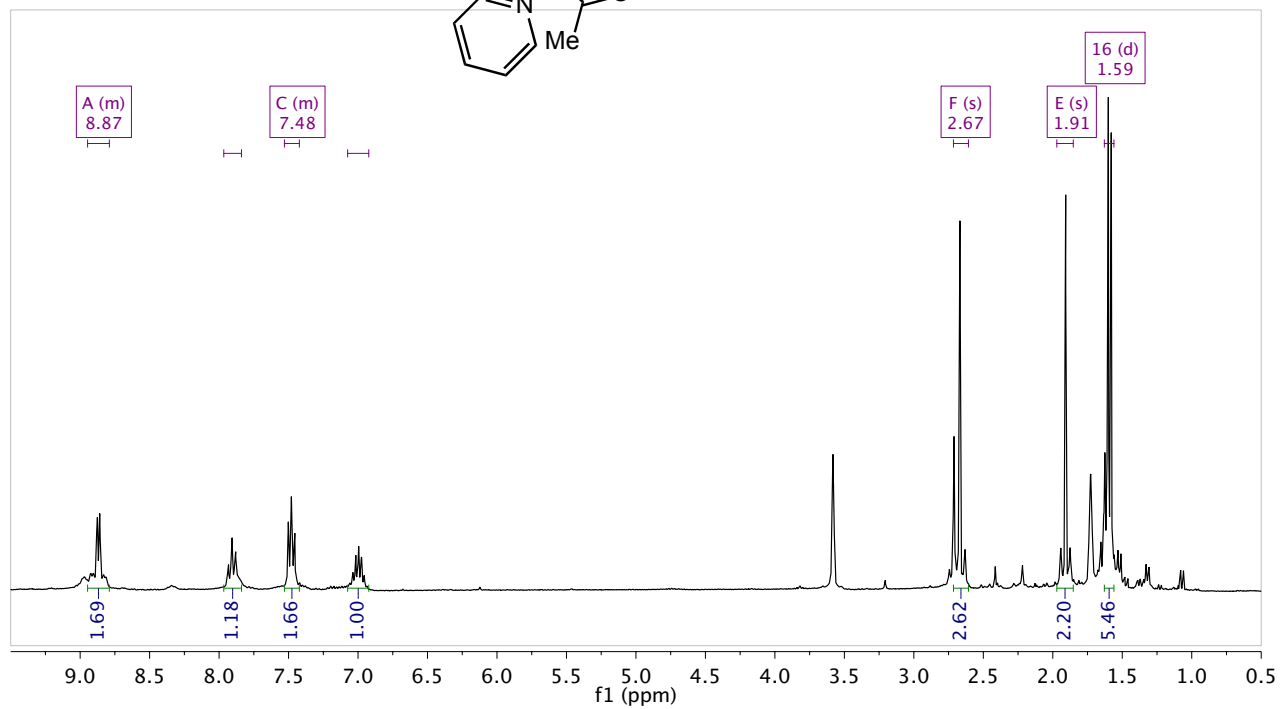
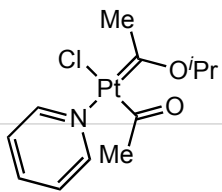


1D-NOESY Spectrum (THF-d<sub>8</sub>)

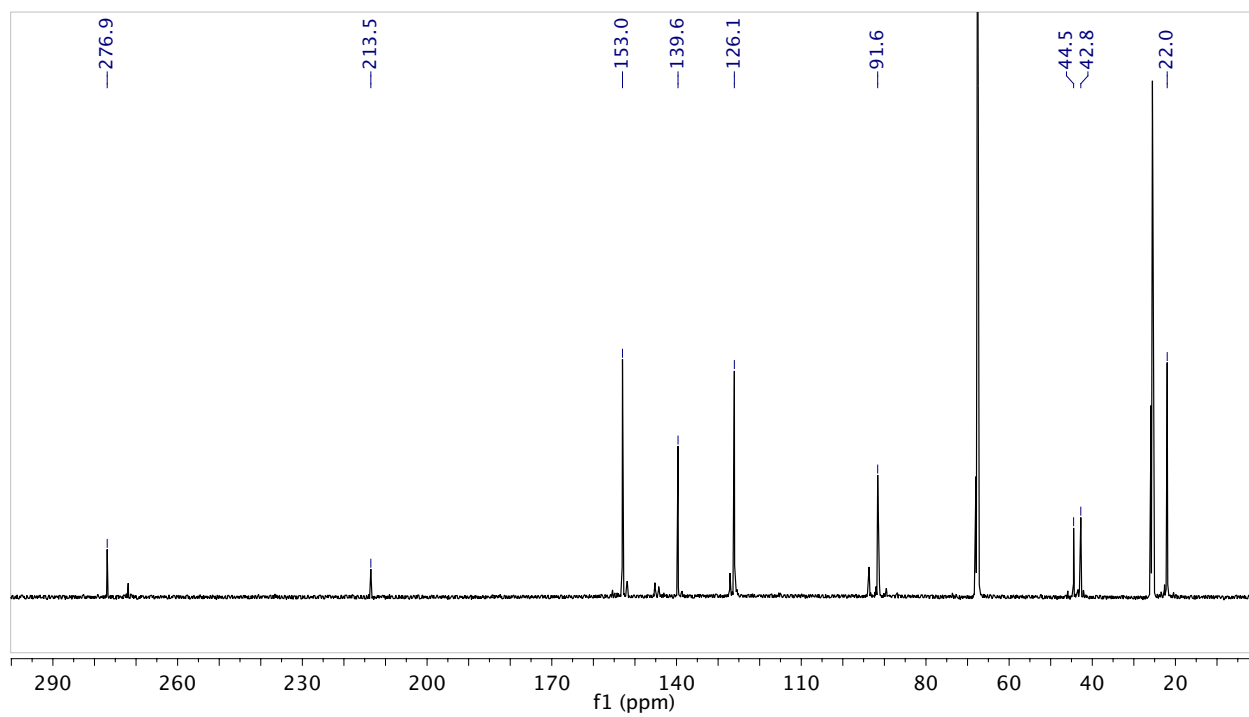




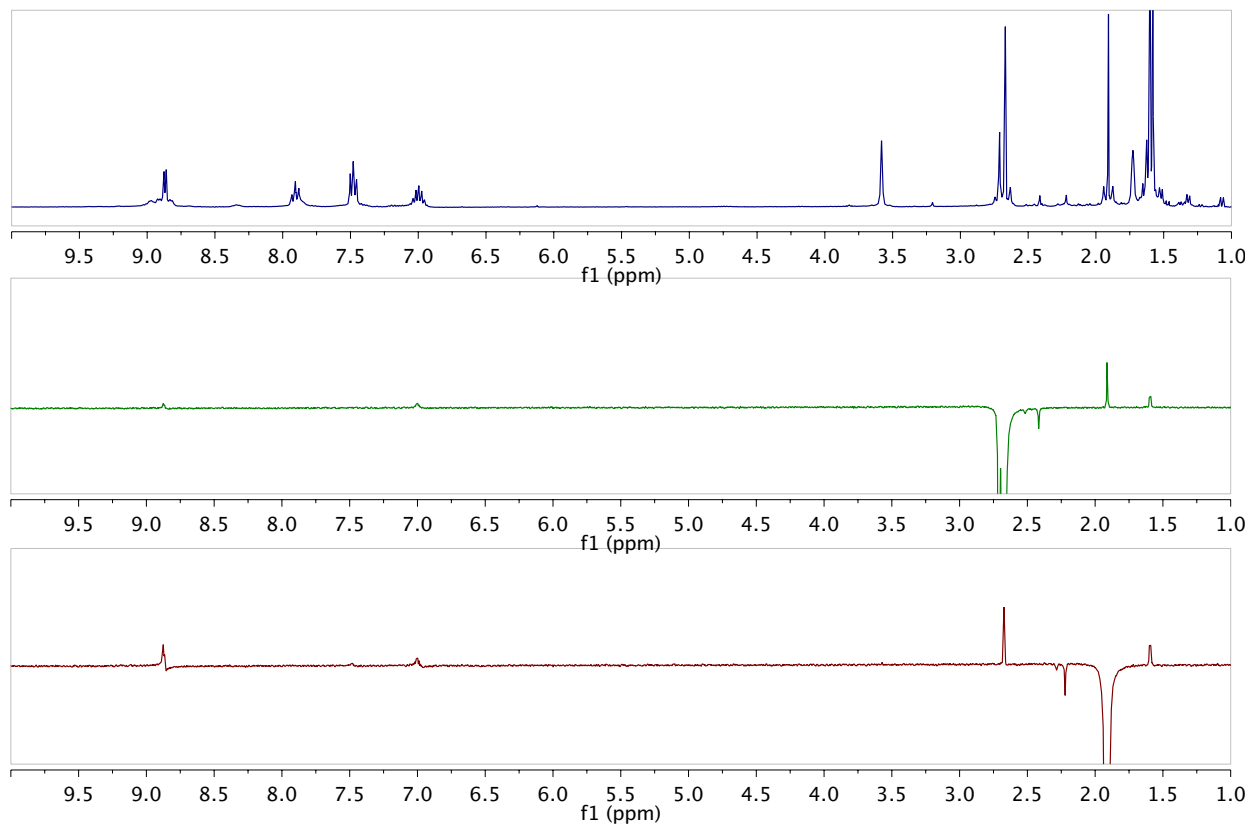
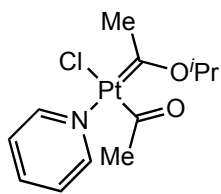
<sup>1</sup>H Spectrum (THF-d<sub>8</sub>)



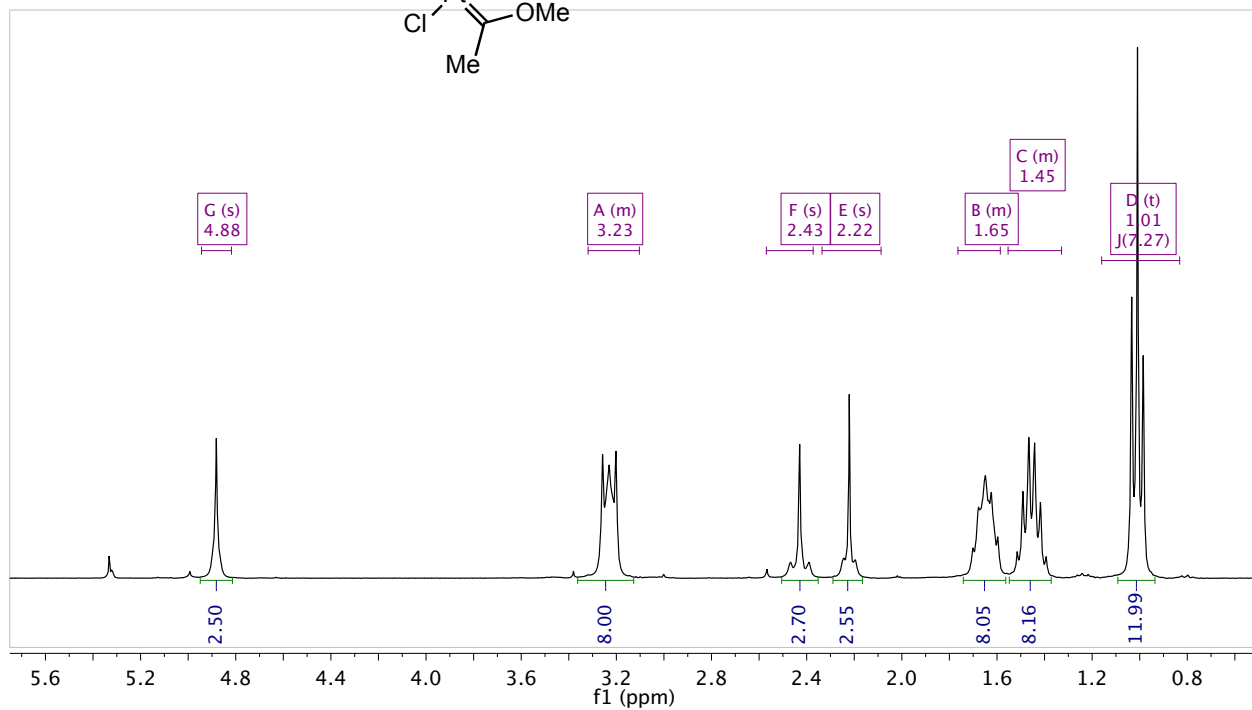
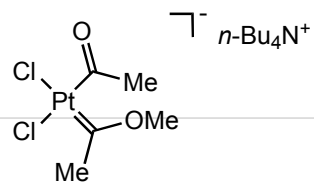
<sup>13</sup>C Spectrum (THF-d<sub>8</sub>)



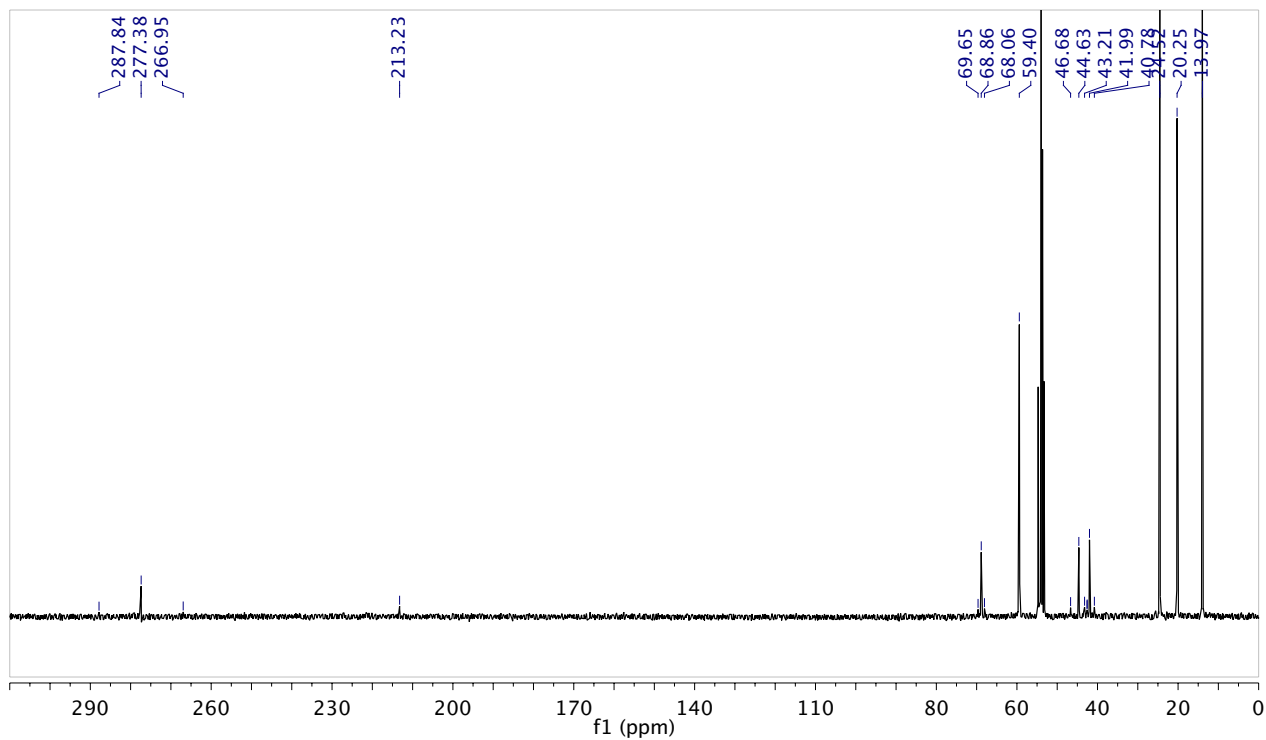
1D-NOESY Spectrum (THF-d<sub>8</sub>)



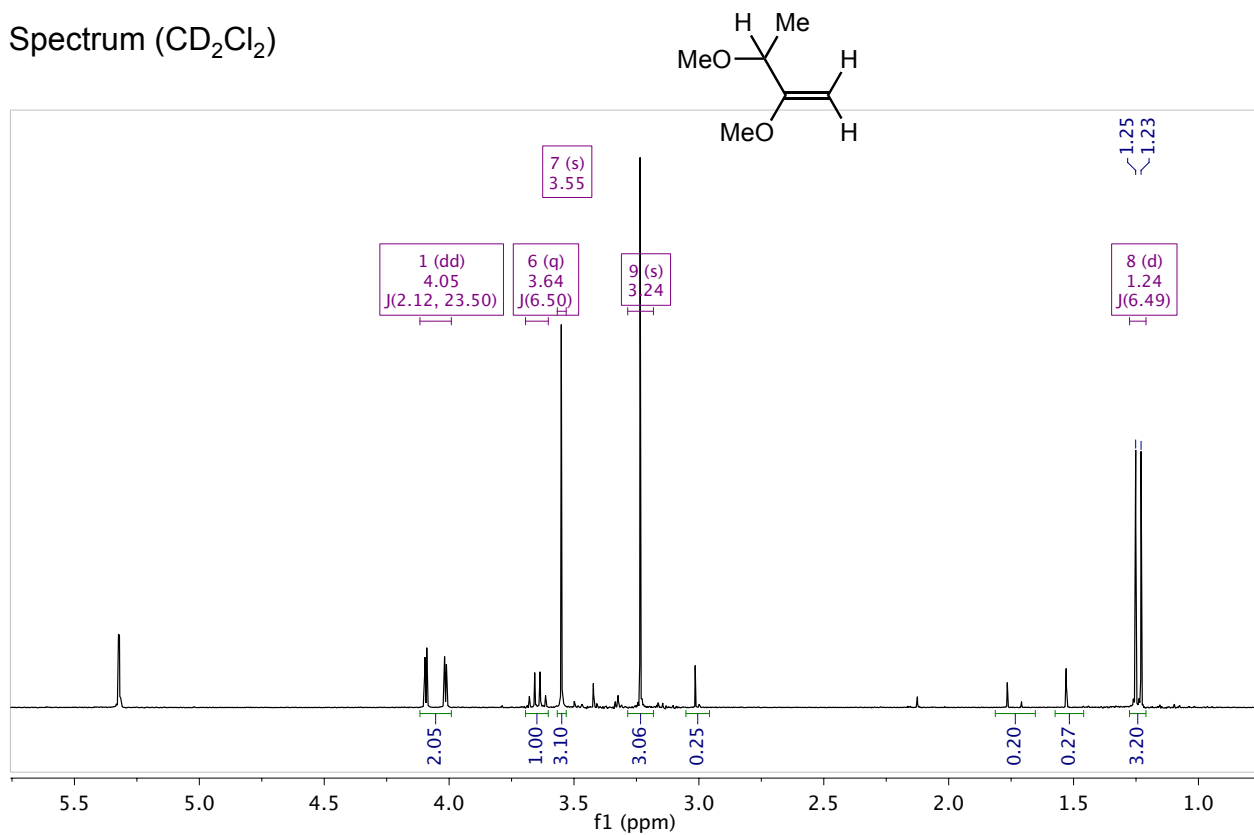
$^1\text{H}$  Spectrum ( $\text{CD}_2\text{Cl}_2$ )



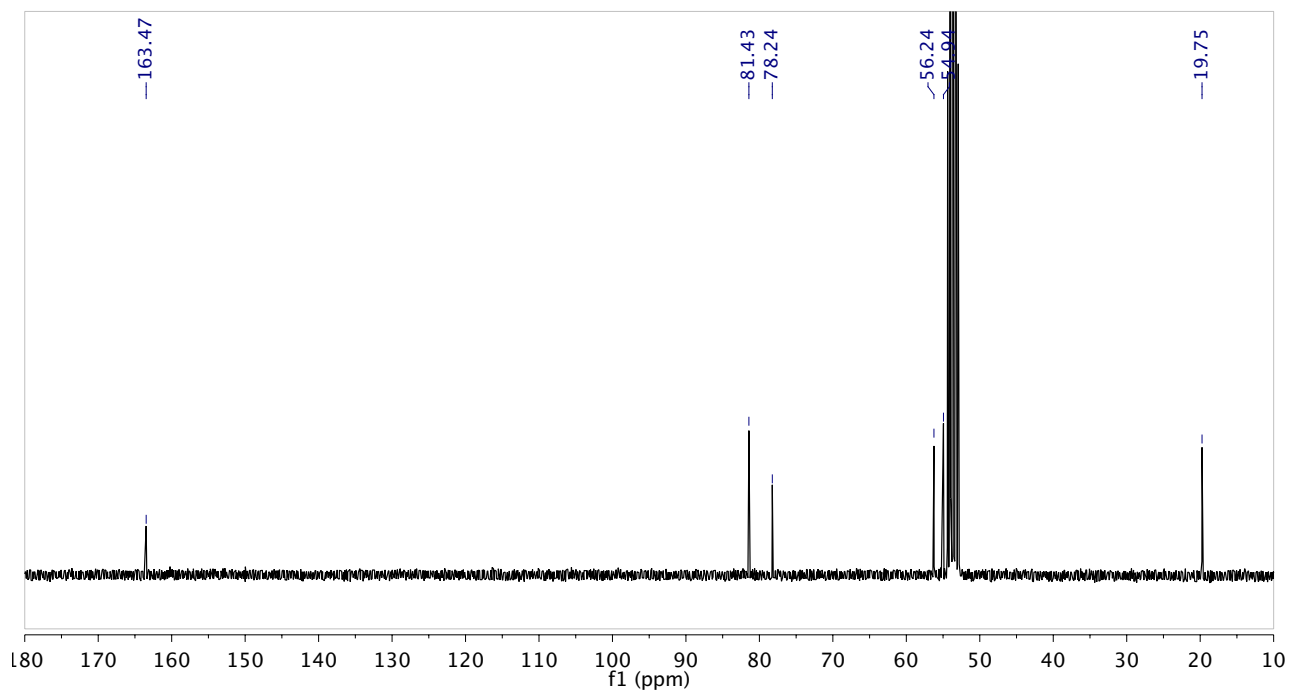
$^{13}\text{C}$  Spectrum ( $\text{CD}_2\text{Cl}_2$ )



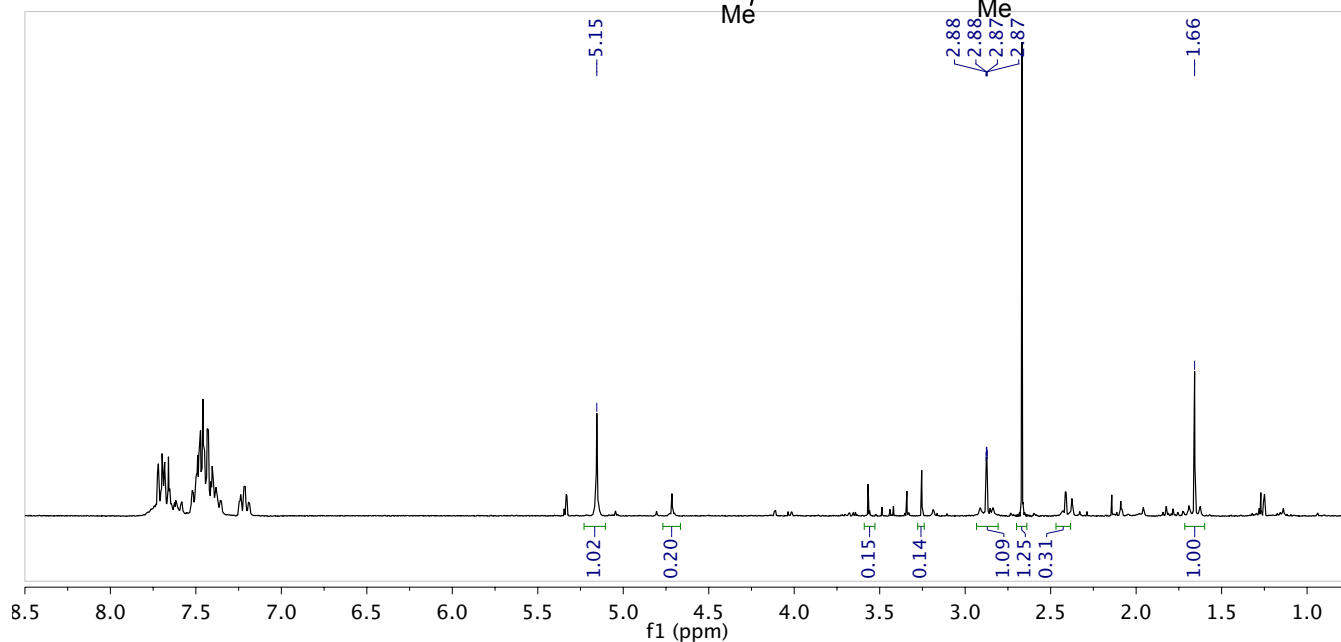
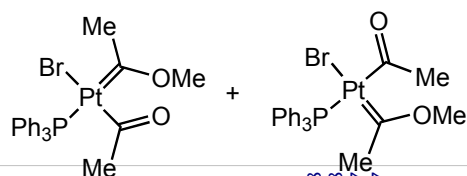
<sup>1</sup>H Spectrum (CD<sub>2</sub>Cl<sub>2</sub>)



<sup>13</sup>C Spectrum (CD<sub>2</sub>Cl<sub>2</sub>)

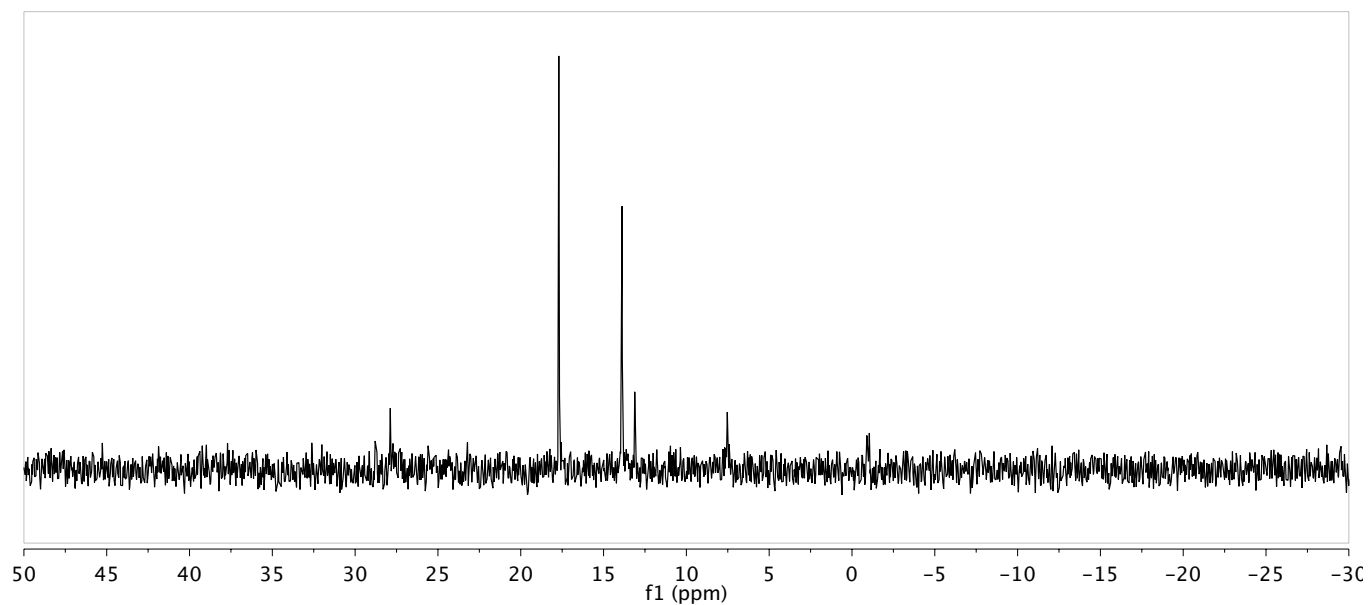


# $^1\text{H}$ Spectrum ( $\text{CD}_2\text{Cl}_2$ )

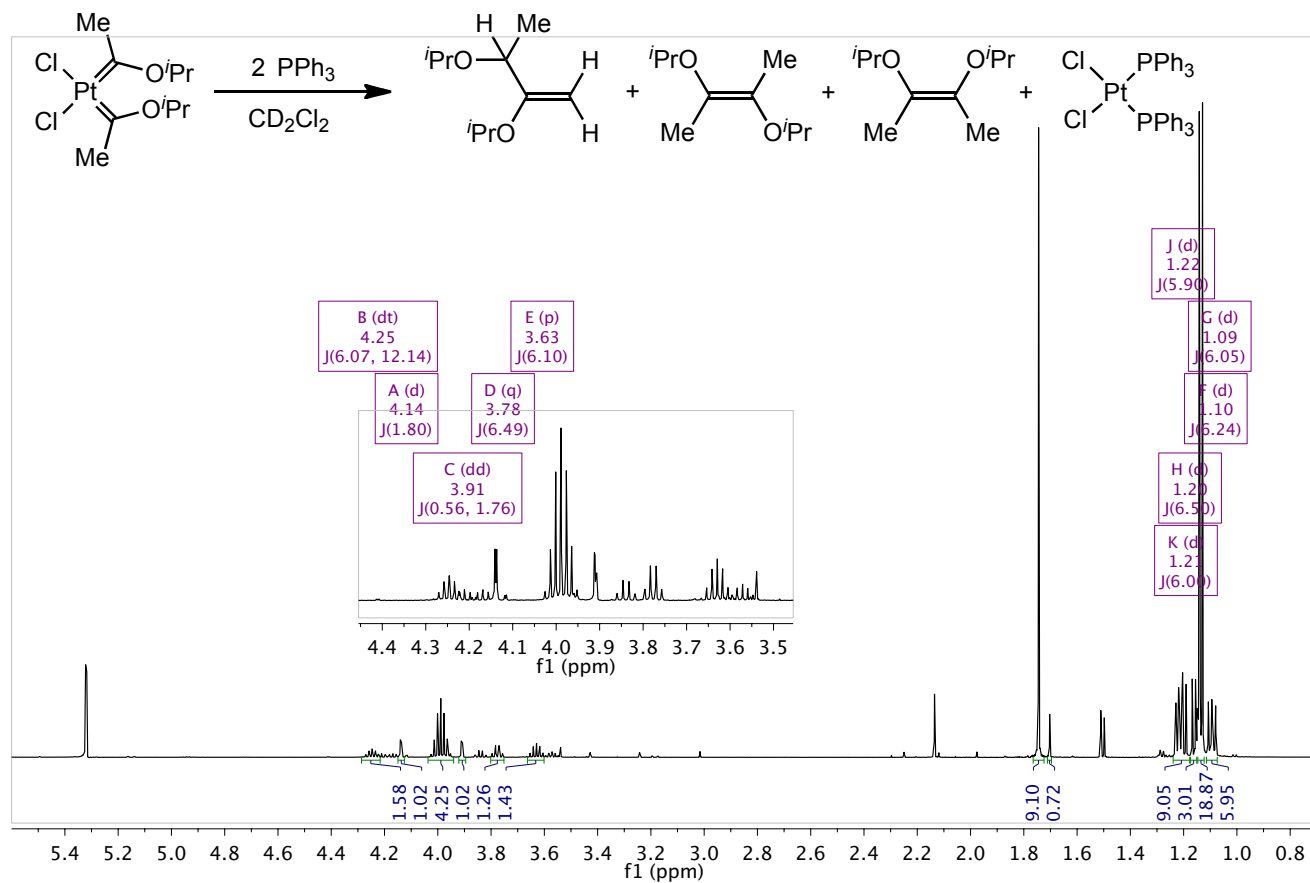


Peaks at 5.15, 2.88 and 1.66 are in the right range for  $\text{OCH}_3$ ,  $\text{CCH}_3$ , and  $\text{COCH}_3$ , respectively, suggestive of a platinum carbene, acyl species.

# $^{31}\text{P}$ Spectrum ( $\text{CD}_2\text{Cl}_2$ )



# $^1\text{H}$ Spectrum ( $\text{CD}_2\text{Cl}_2$ )



# $^{13}\text{C}$ Spectrum ( $\text{CD}_2\text{Cl}_2$ )

