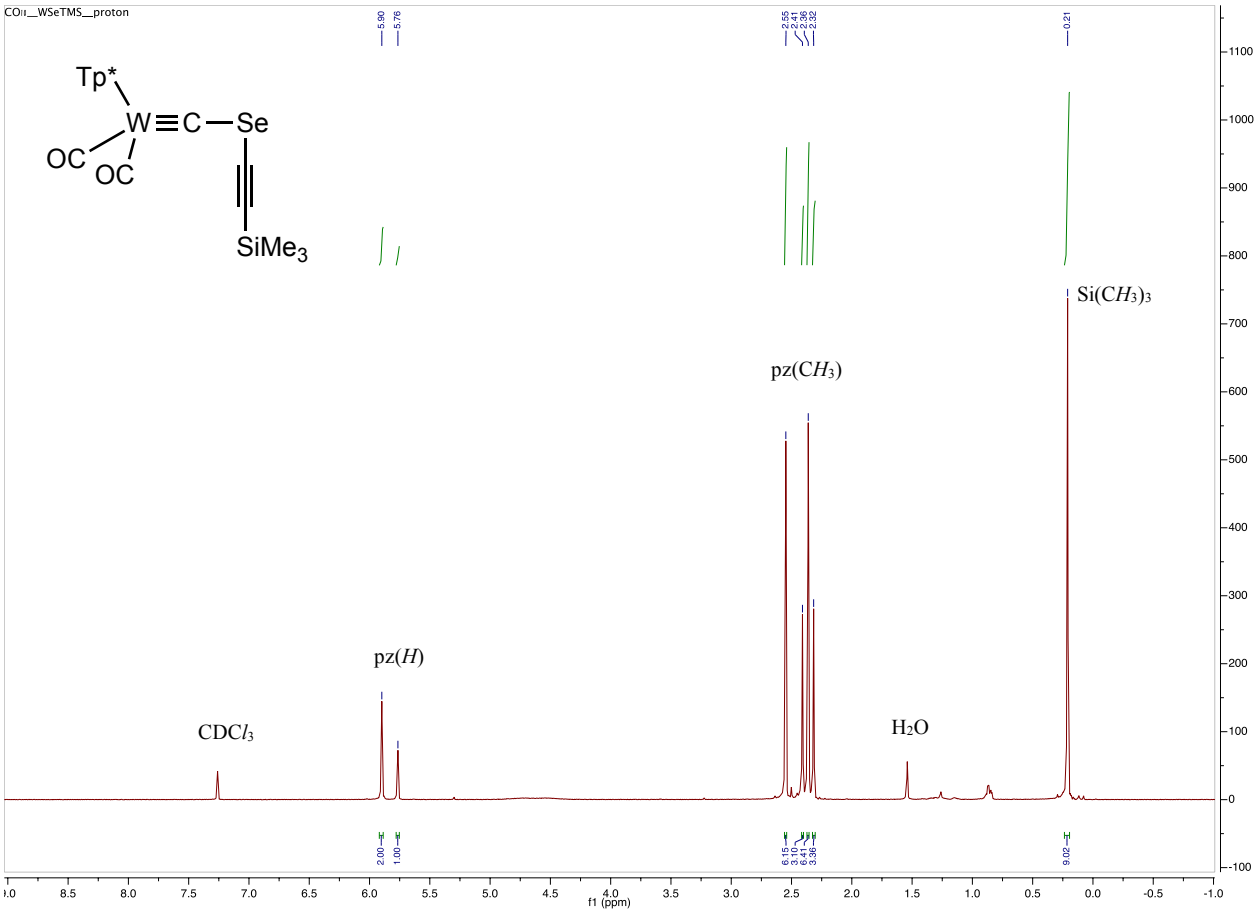
Dalton Transactions

ARTICLE

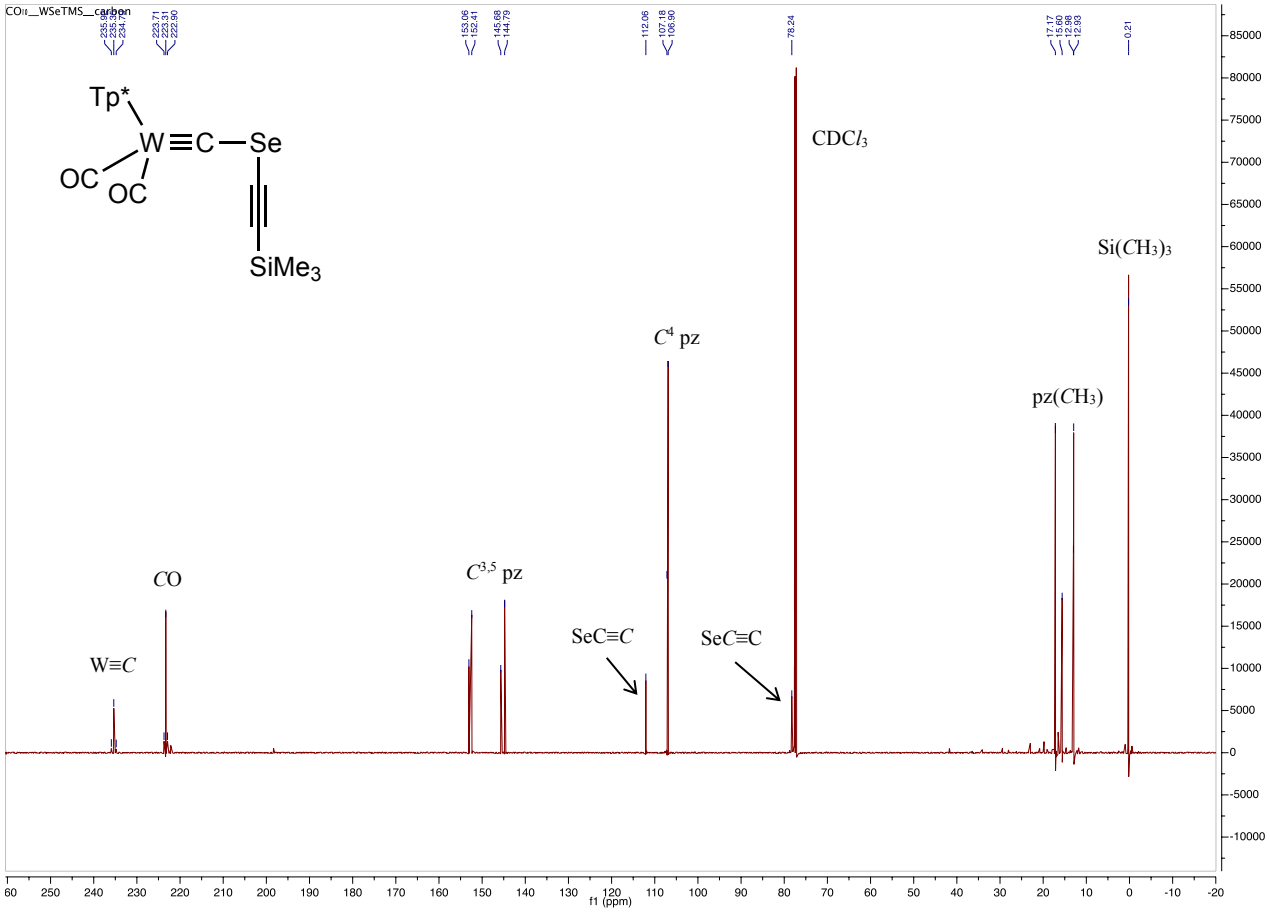
Electronic Supporting information for:

Alkynylselenolatoalkylidynes ($L_nM{\equiv}C{-}Se{-}C{\equiv}CR$) as building blocks for mixed metal/main-group extended frameworks

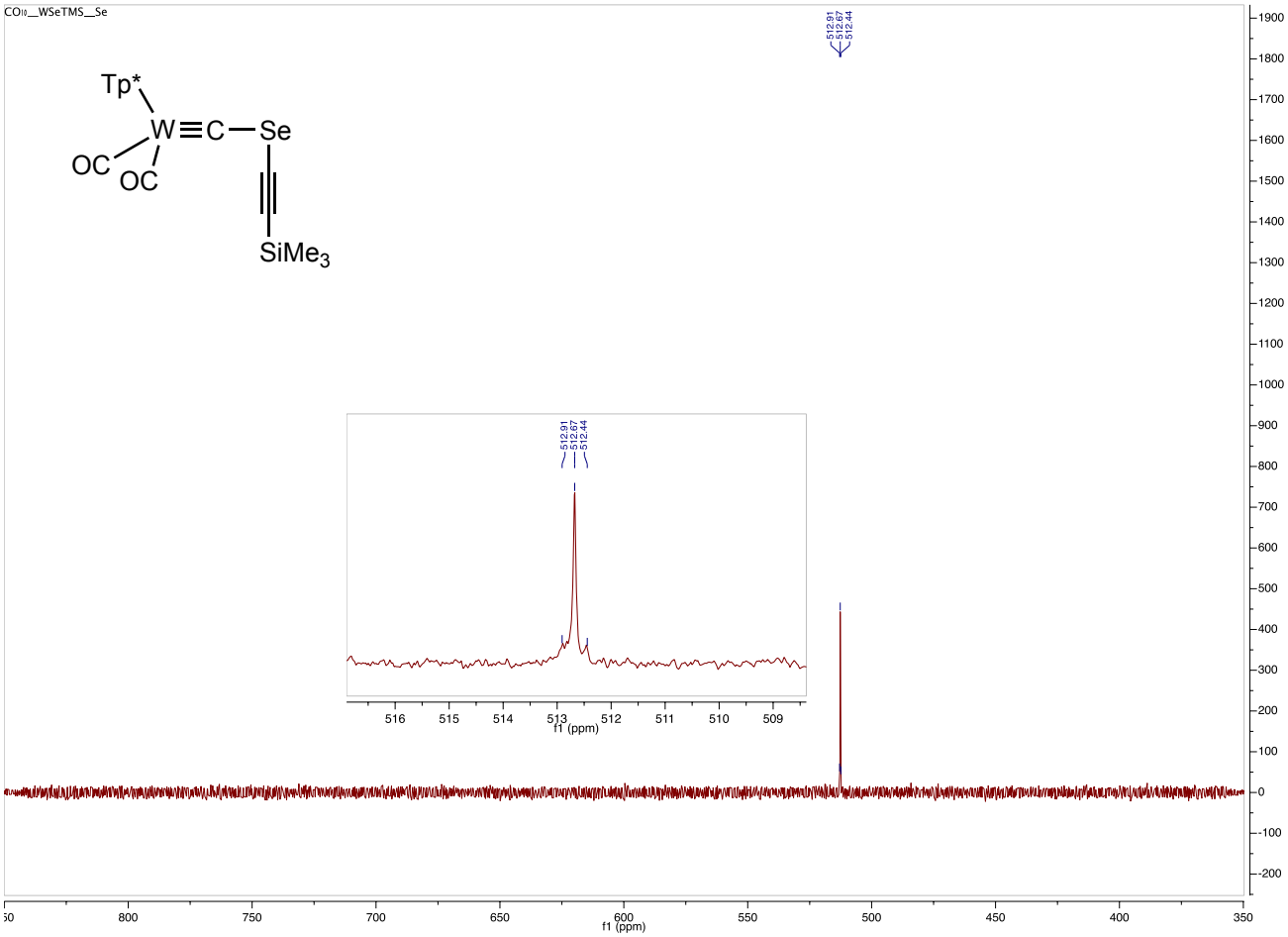
Benjamin J. Frogley,[a] Tobias L. Genet,[a] Anthony F. Hill*[a] and Chee S. Onn[a]



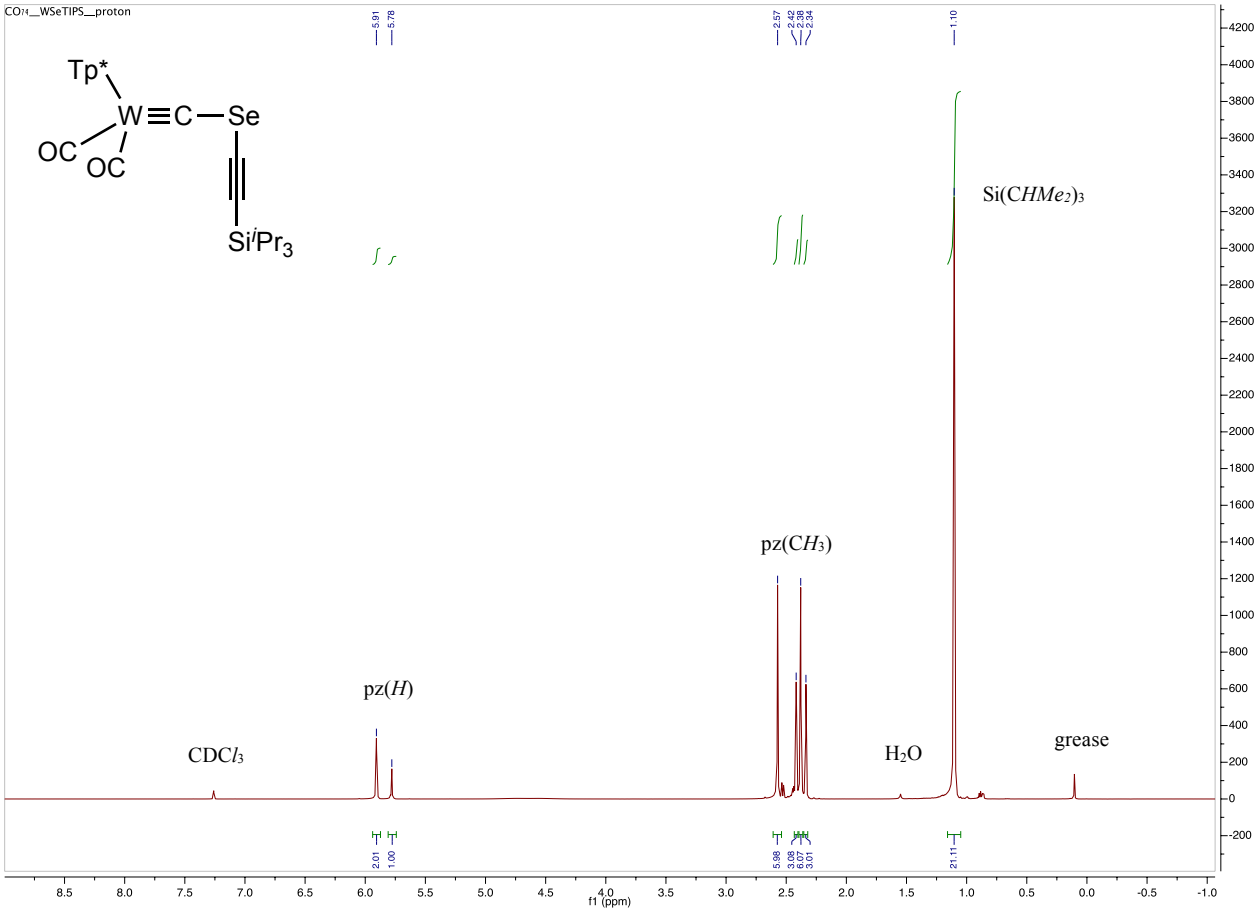
^{1}H NMR (700 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CSiMe$_3$)(CO)$_2$(Tp*)] (**2**).



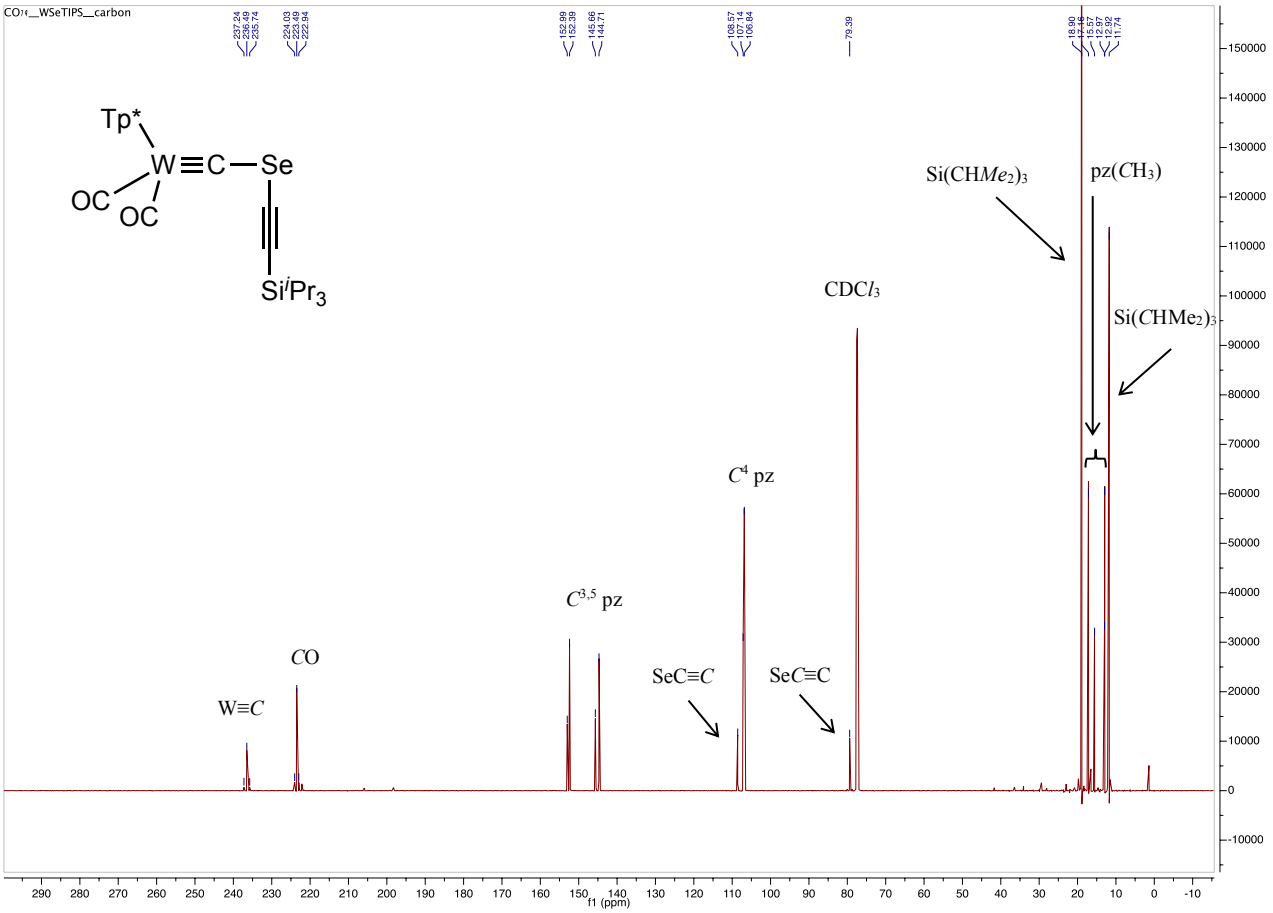
$^{13}C\{^{1}H\}$ NMR (176 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSeC≡CSiMe$_3$)(CO)$_2$(Tp*)] (**2**).



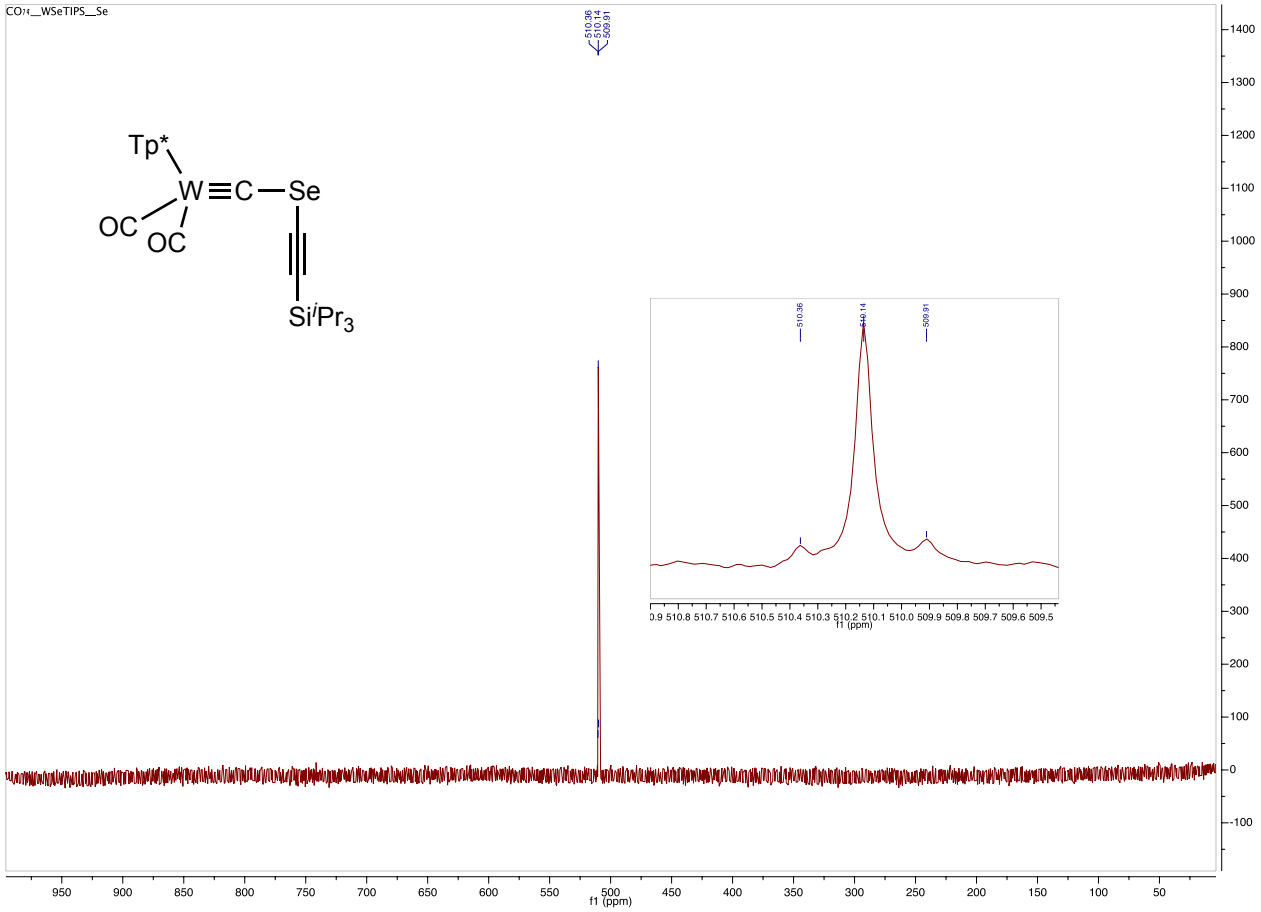
$^{77}Se\{^{1}H\}$ NMR (76 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CSiMe$_3$)(CO)$_2$(Tp*)] (**2**).



^{1}H NMR (600 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSeC≡CSi^{i}Pr$_3$)(CO)$_2$(Tp*)] (**3**).



$^{13}C\{^1H\}$ NMR (151 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSeC≡CSi^{i}Pr$_3$)(CO)$_2$(Tp*)] (**3**).



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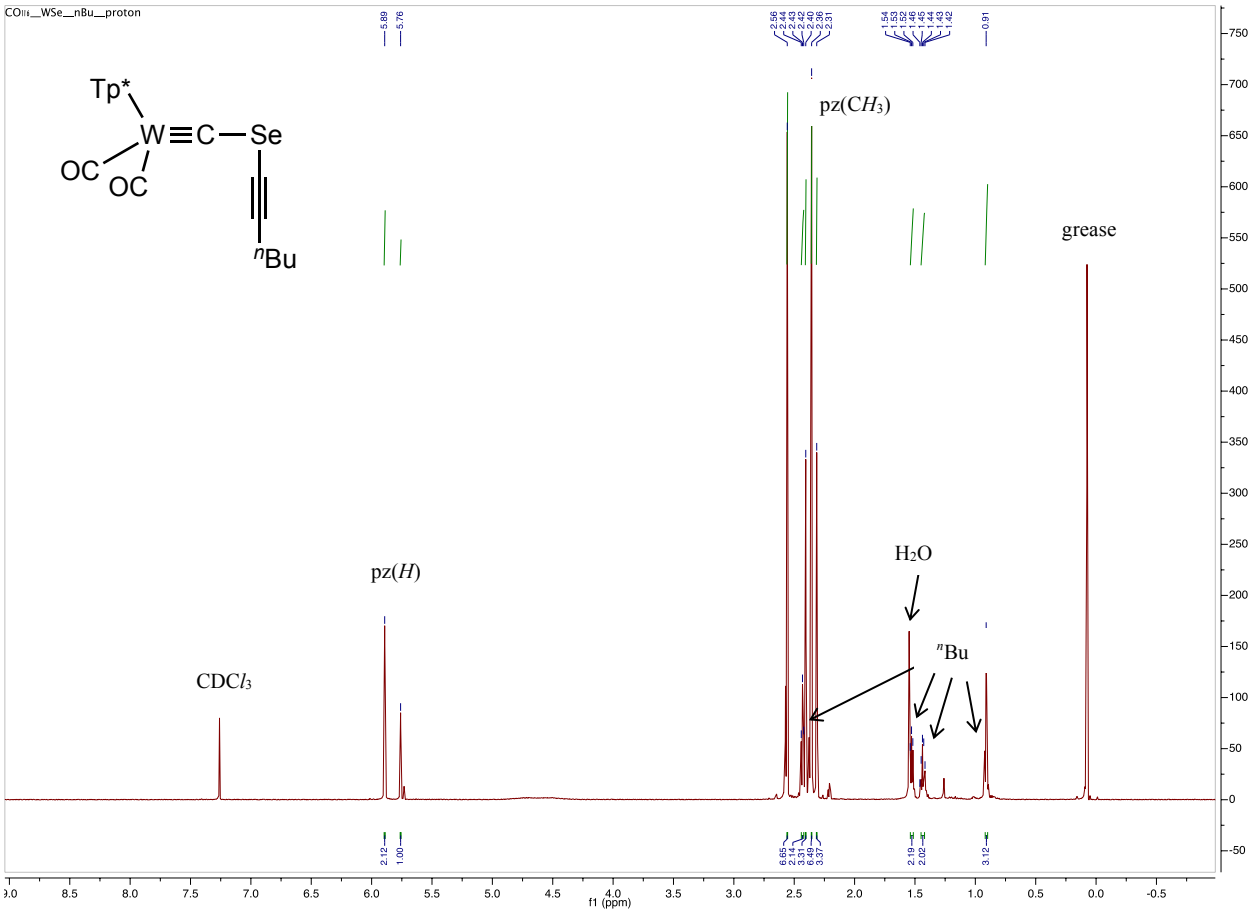
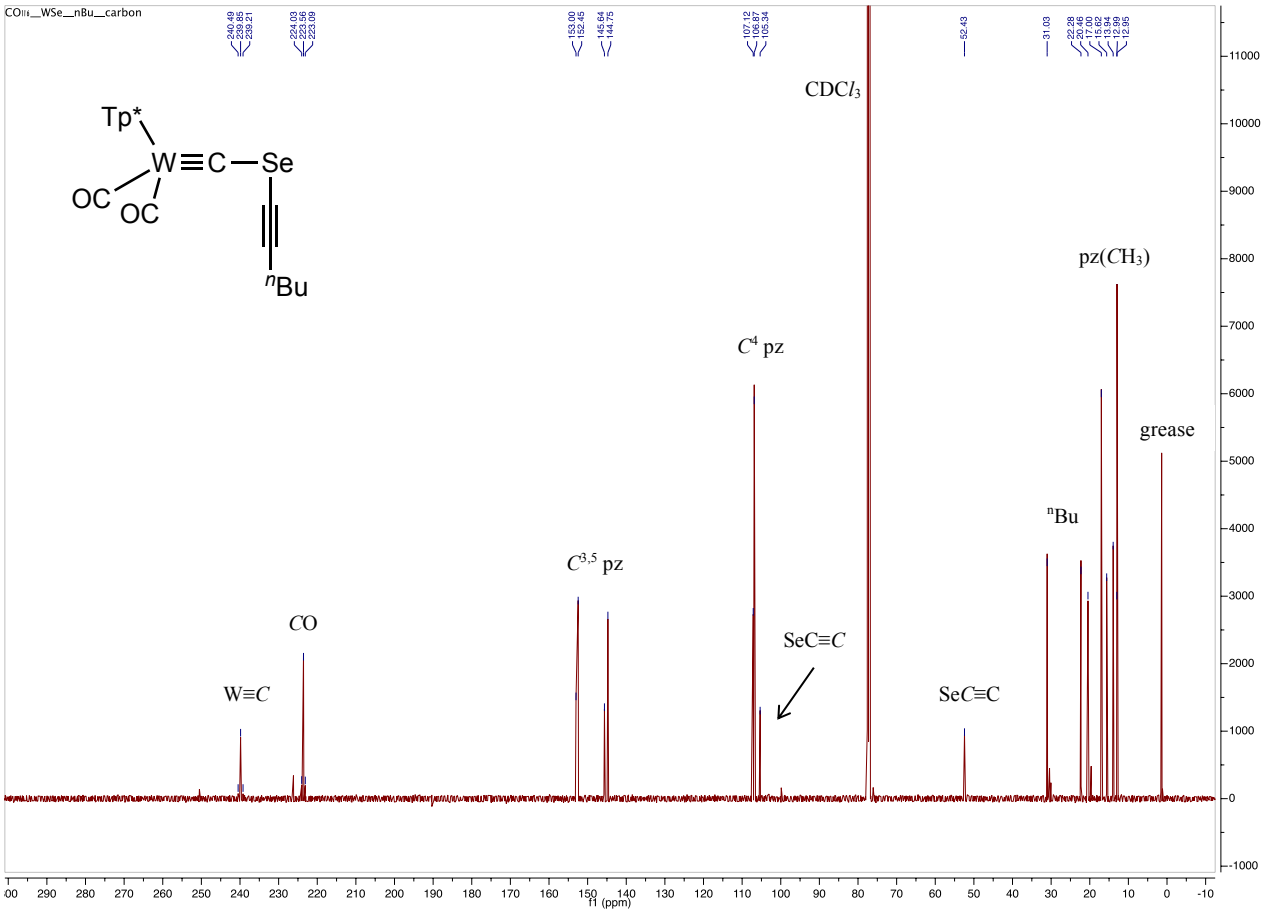


^{1}H NMR (700 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡C^{n}Bu)$(CO)_2$(Tp*)] (**4**).



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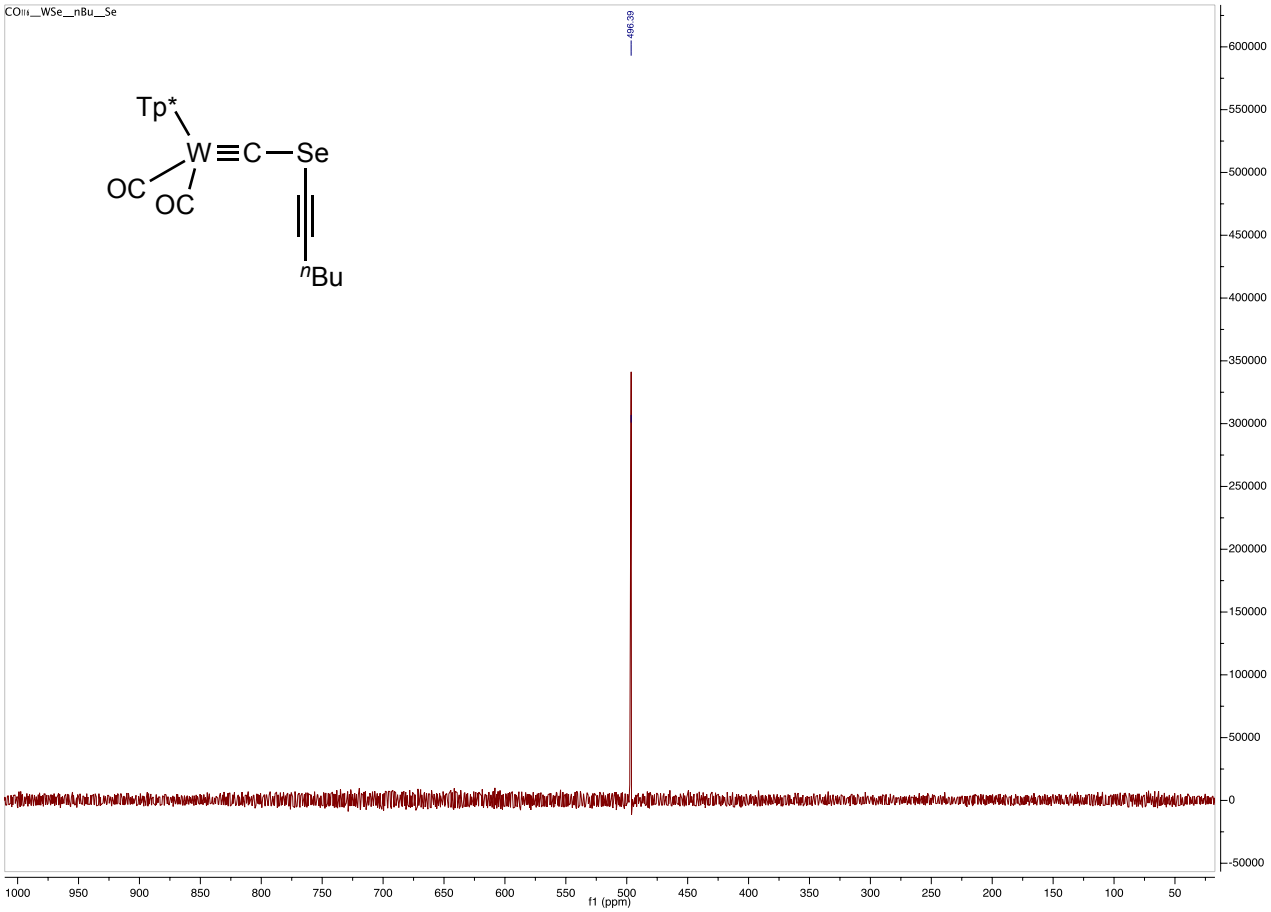

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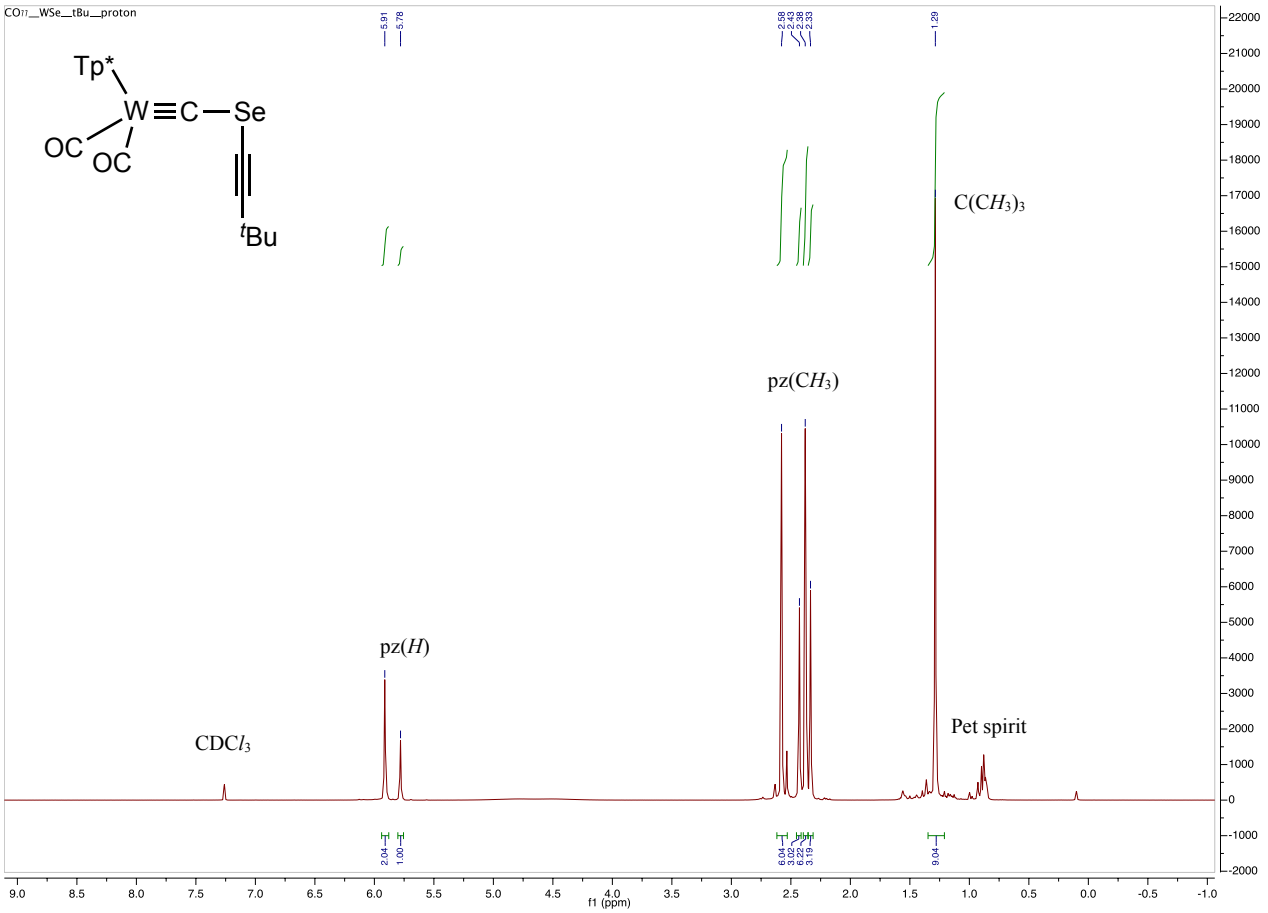
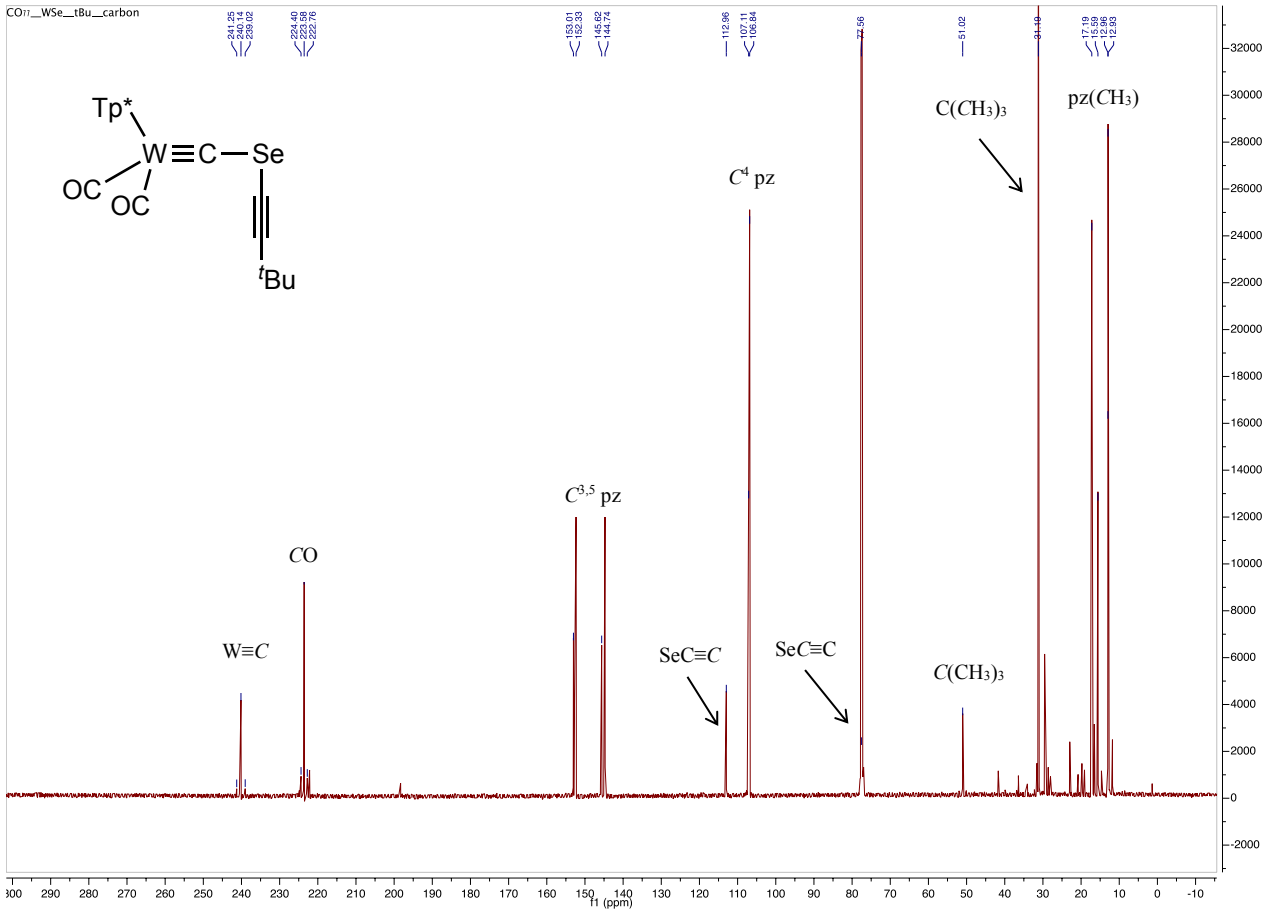
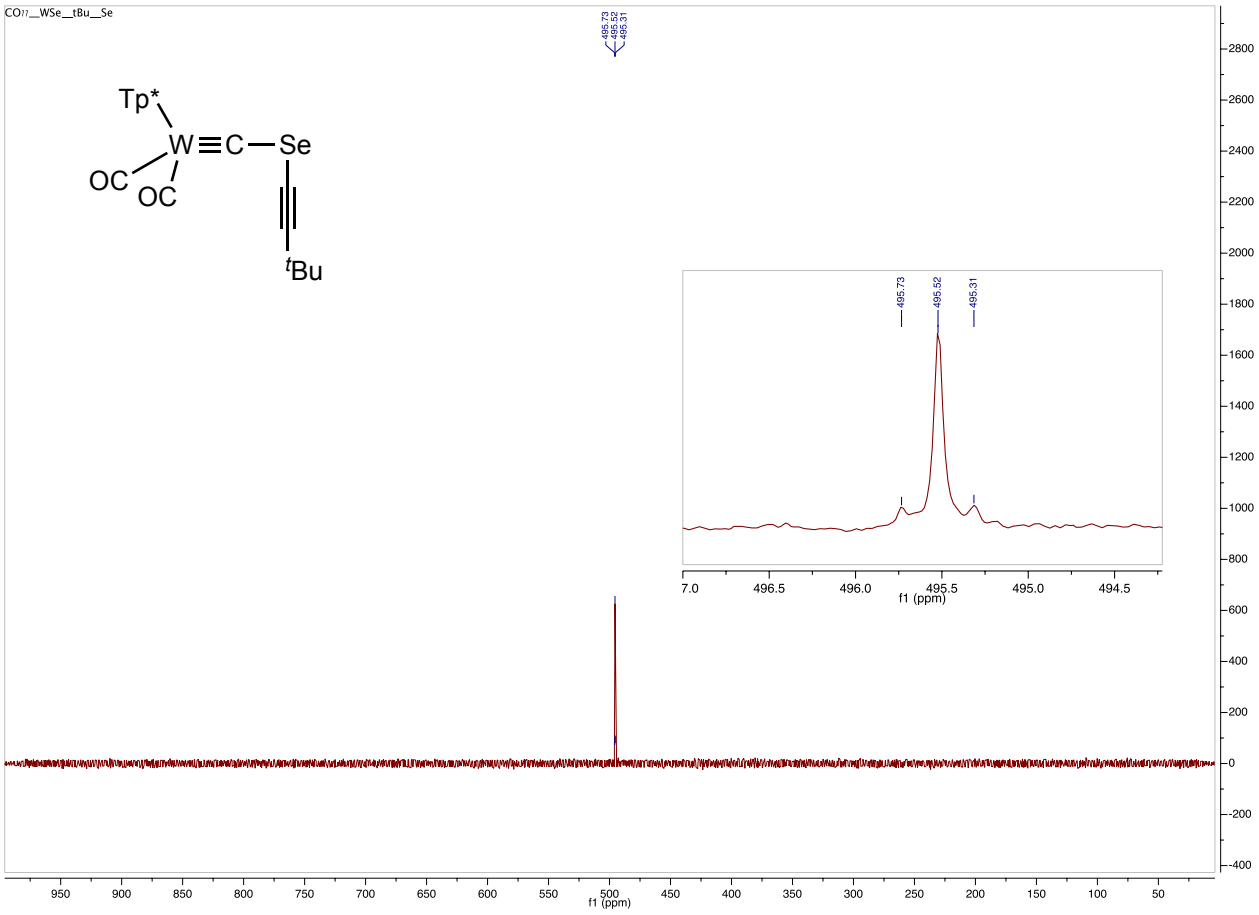


^{1}H NMR (400 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡C^{t}Bu)(CO)$_2$(Tp*)] (**5**).



$^{13}C\{^{1}H\}$ NMR (101 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSeC≡C^{t}Bu)$(CO)_2$(Tp*)] (**5**).



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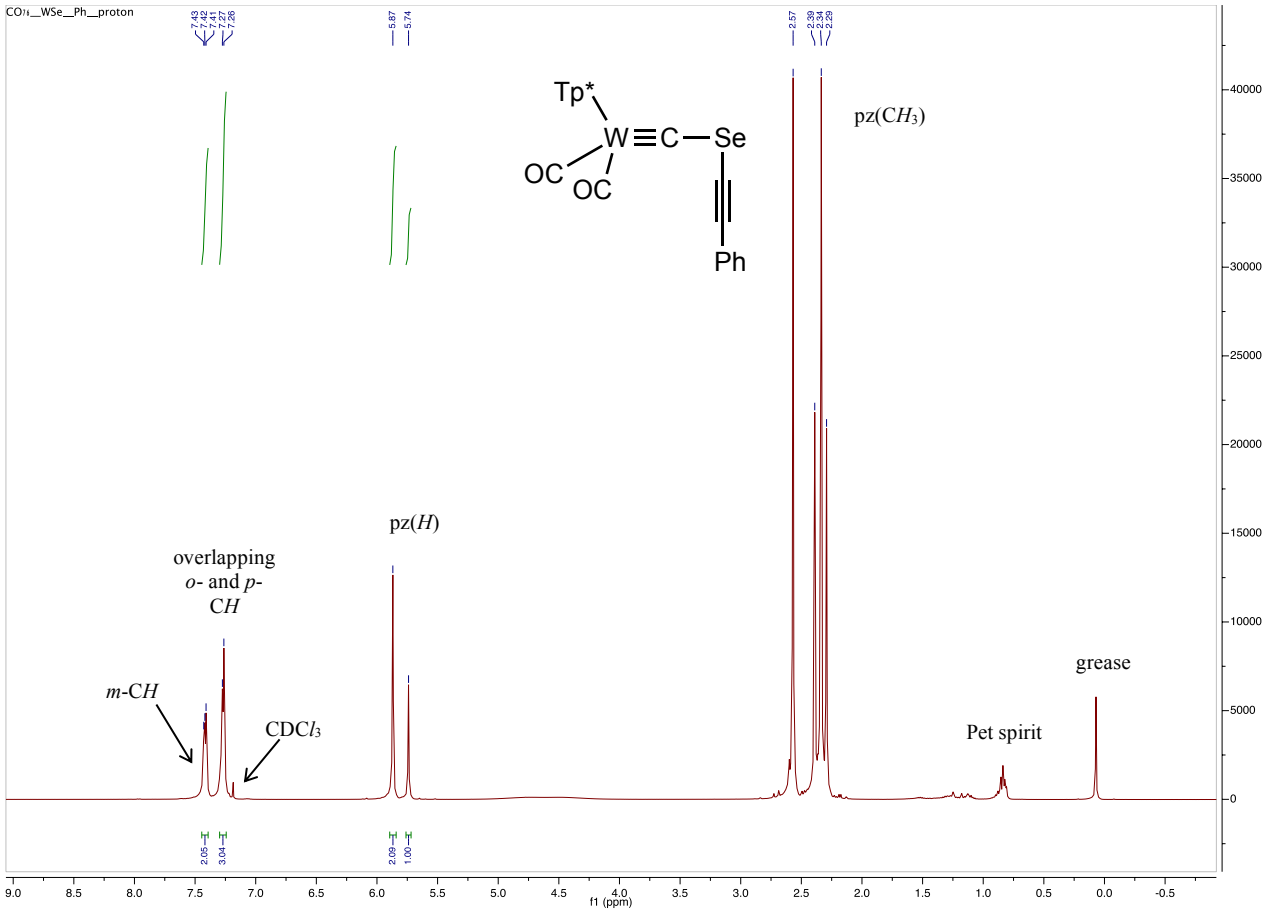
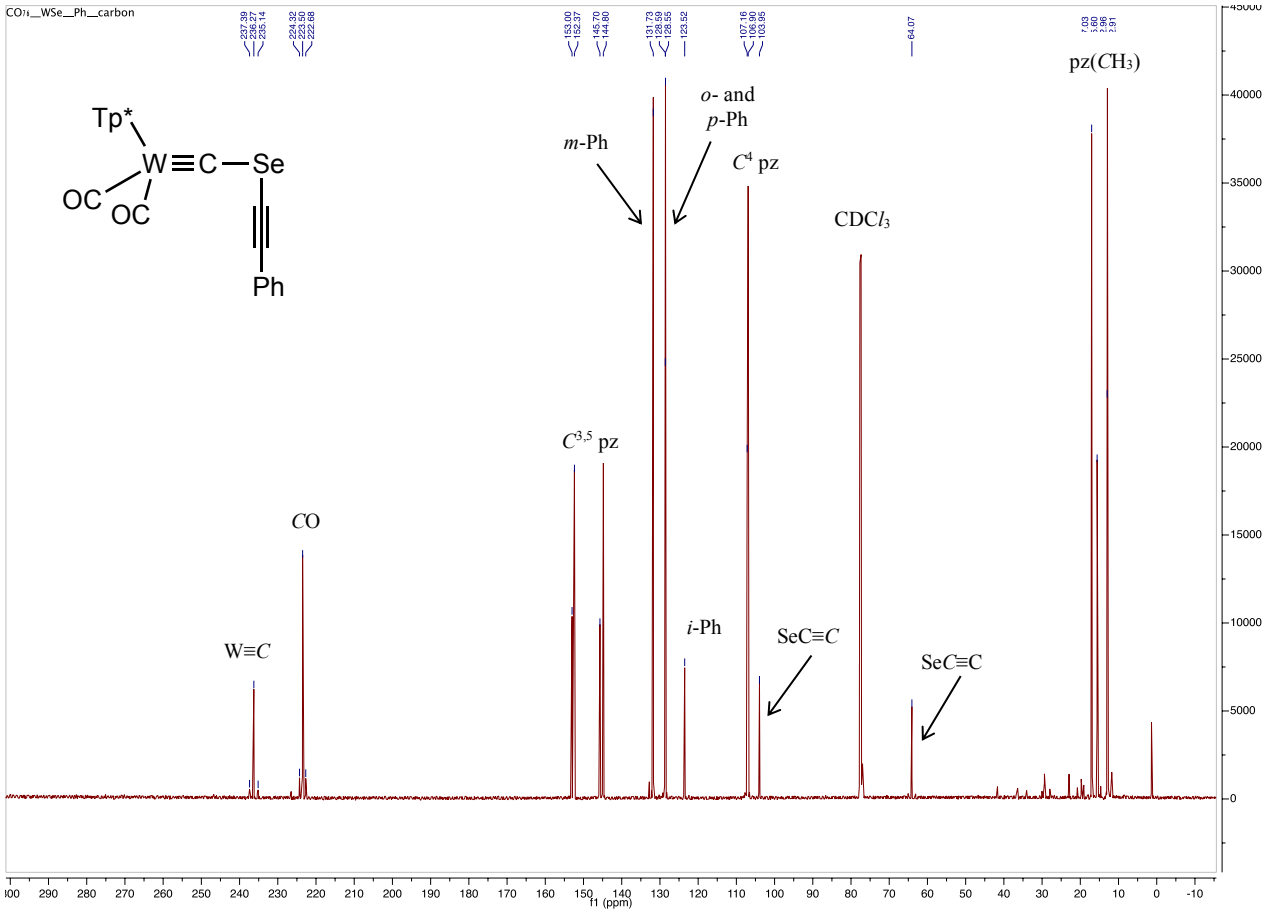


^{1}H NMR (400 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CPh)$(CO)_2$(Tp*)] (**6**).



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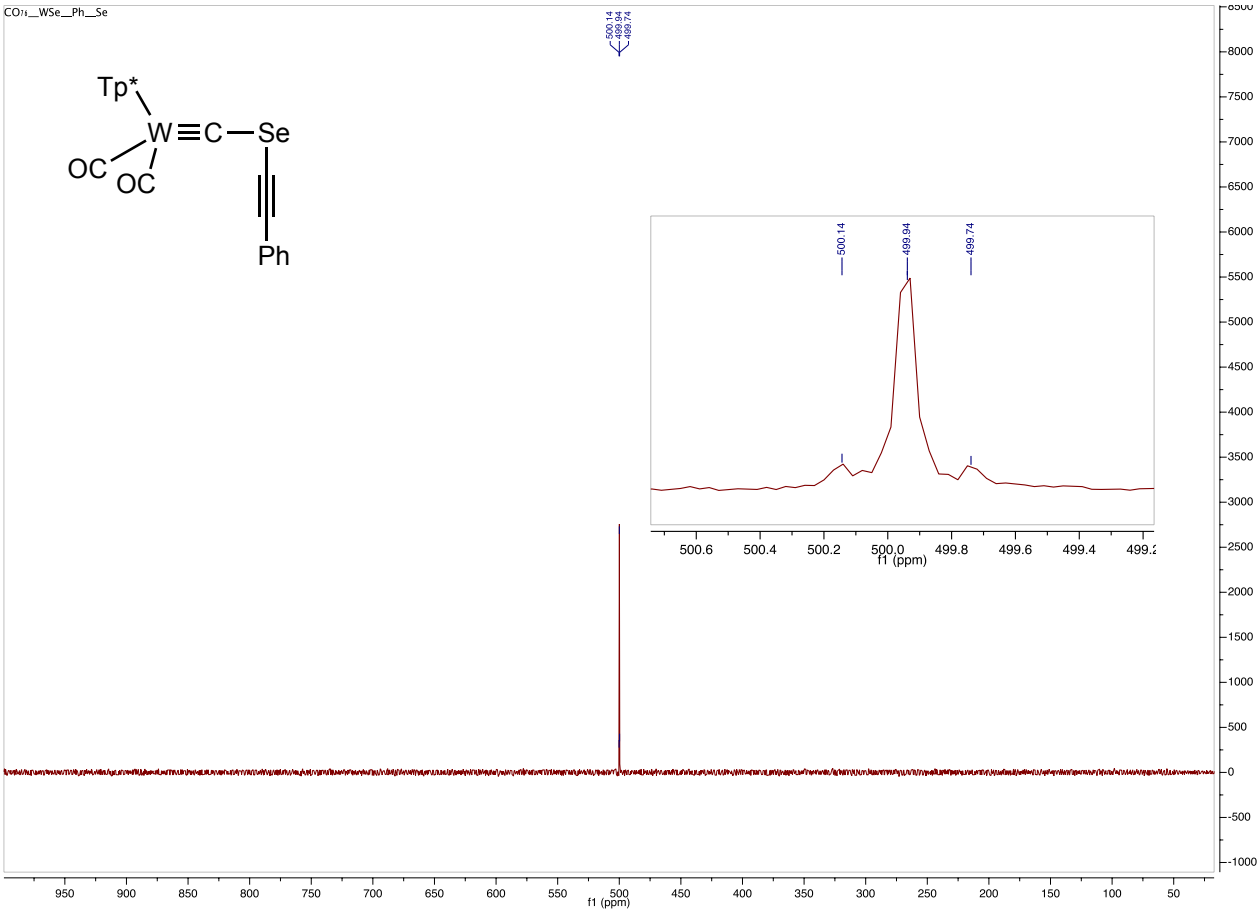

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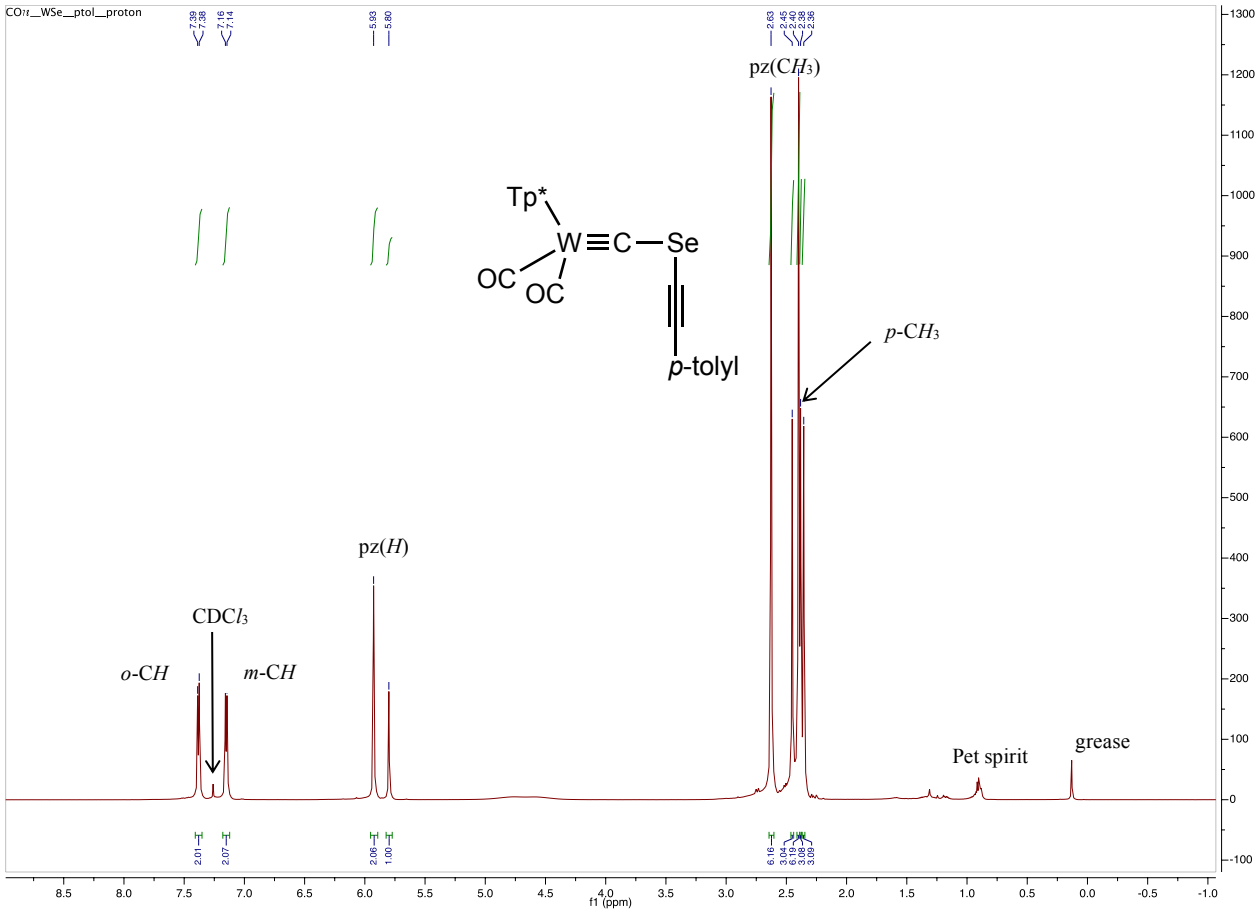
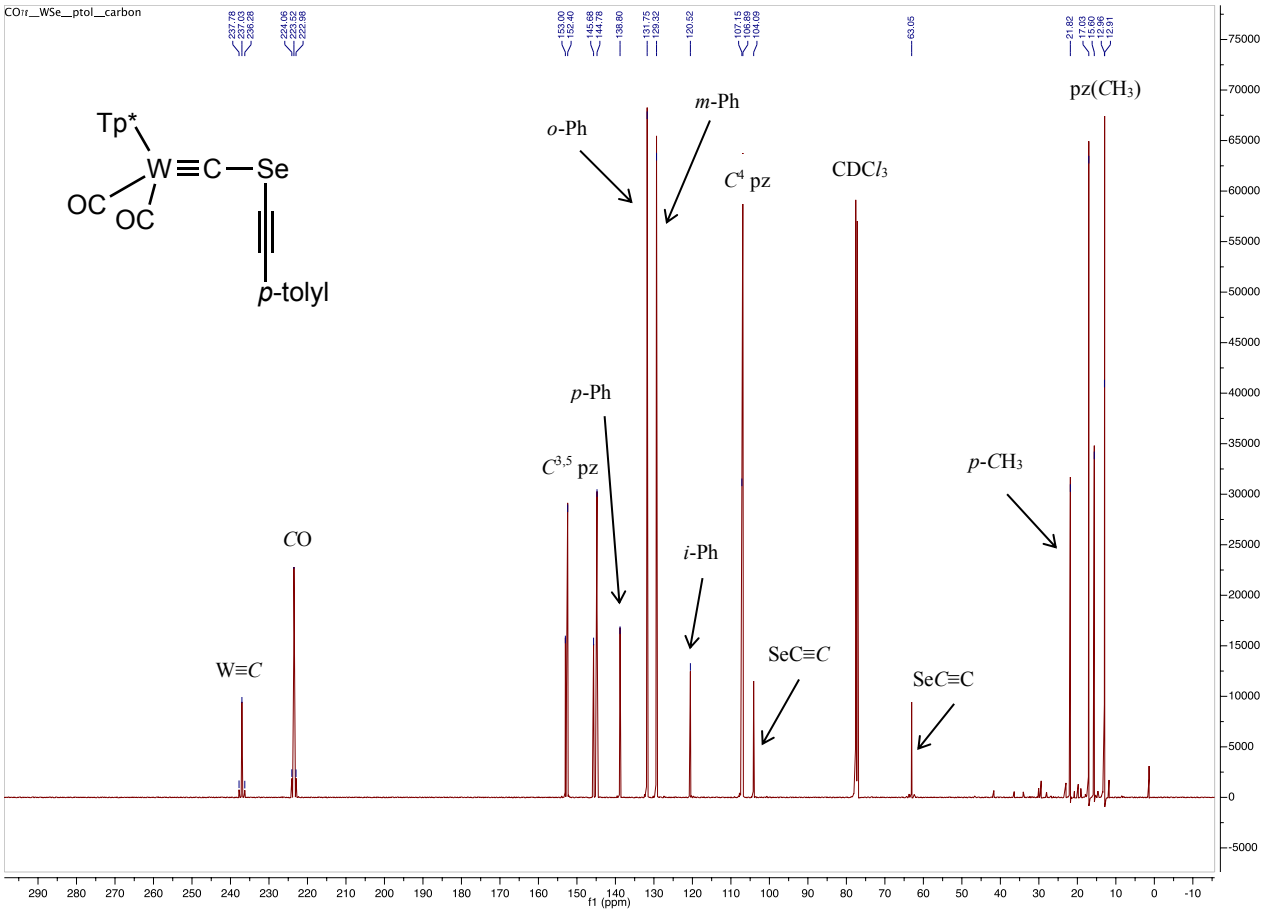
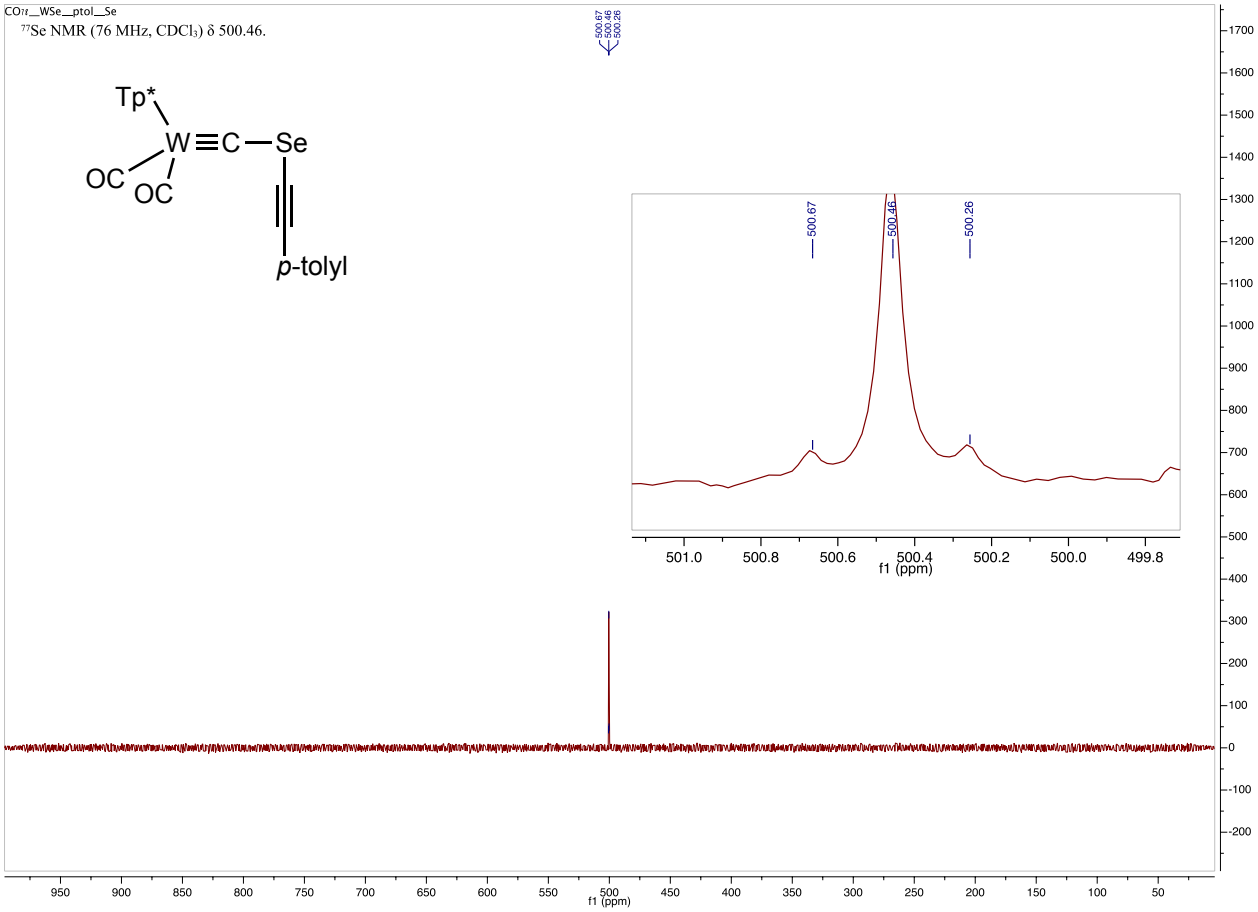


^{1}H NMR (600 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡C*p*-Tol)$(CO)_2$(Tp*)] (**7**).



$^{13}C\{^{1}H\}$ NMR (151 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSeC≡C*p*-Tol)(CO)$_2$(Tp*)] (**7**).



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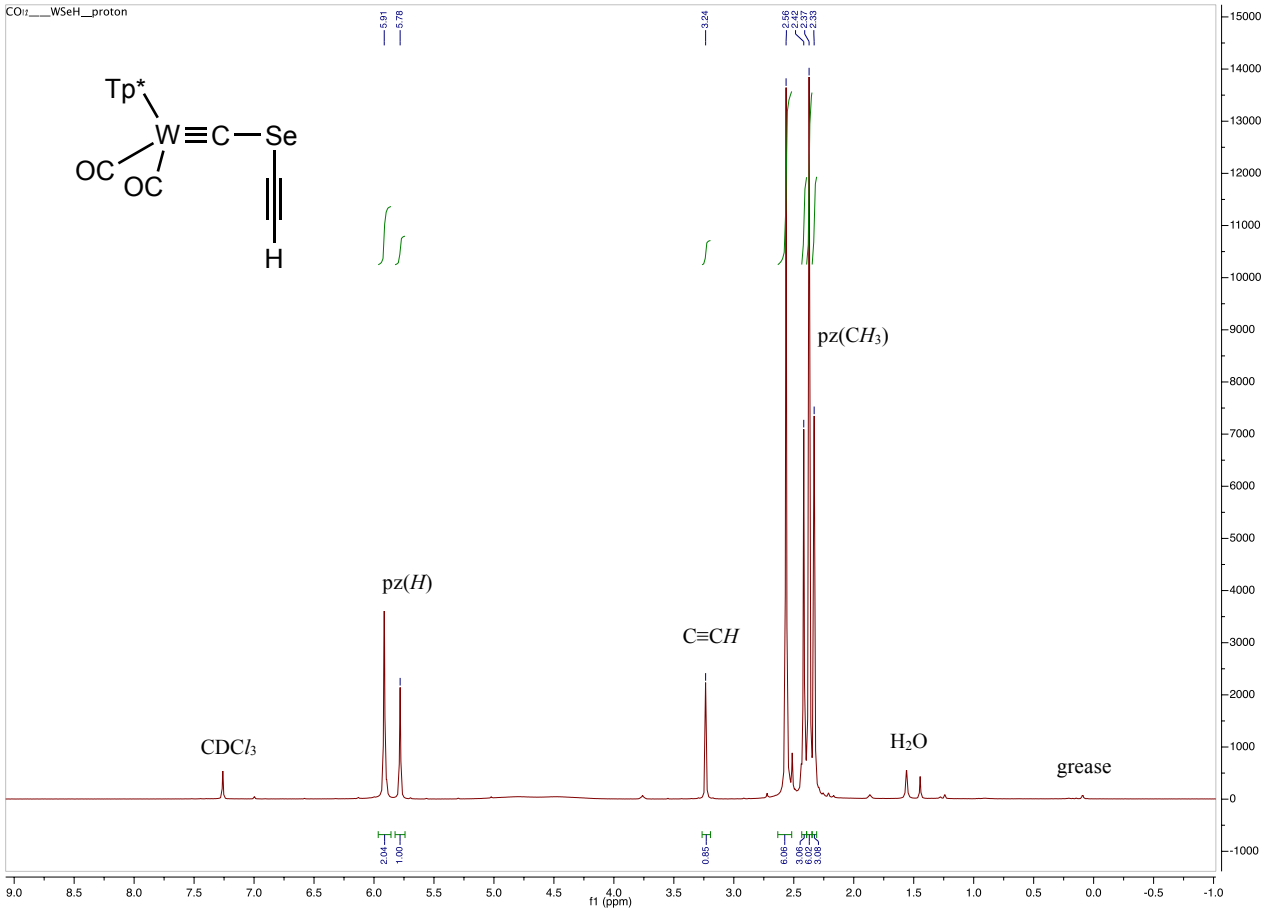
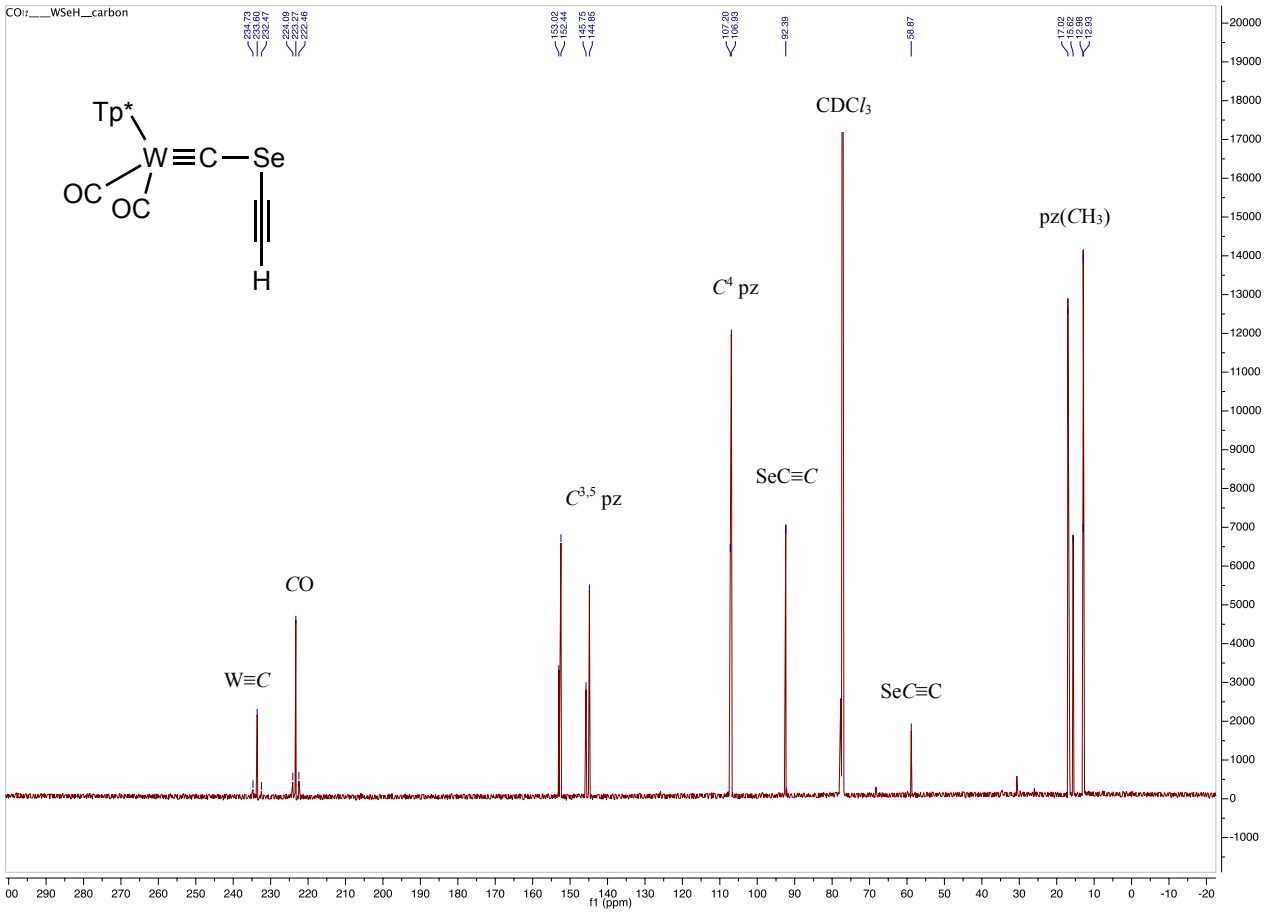
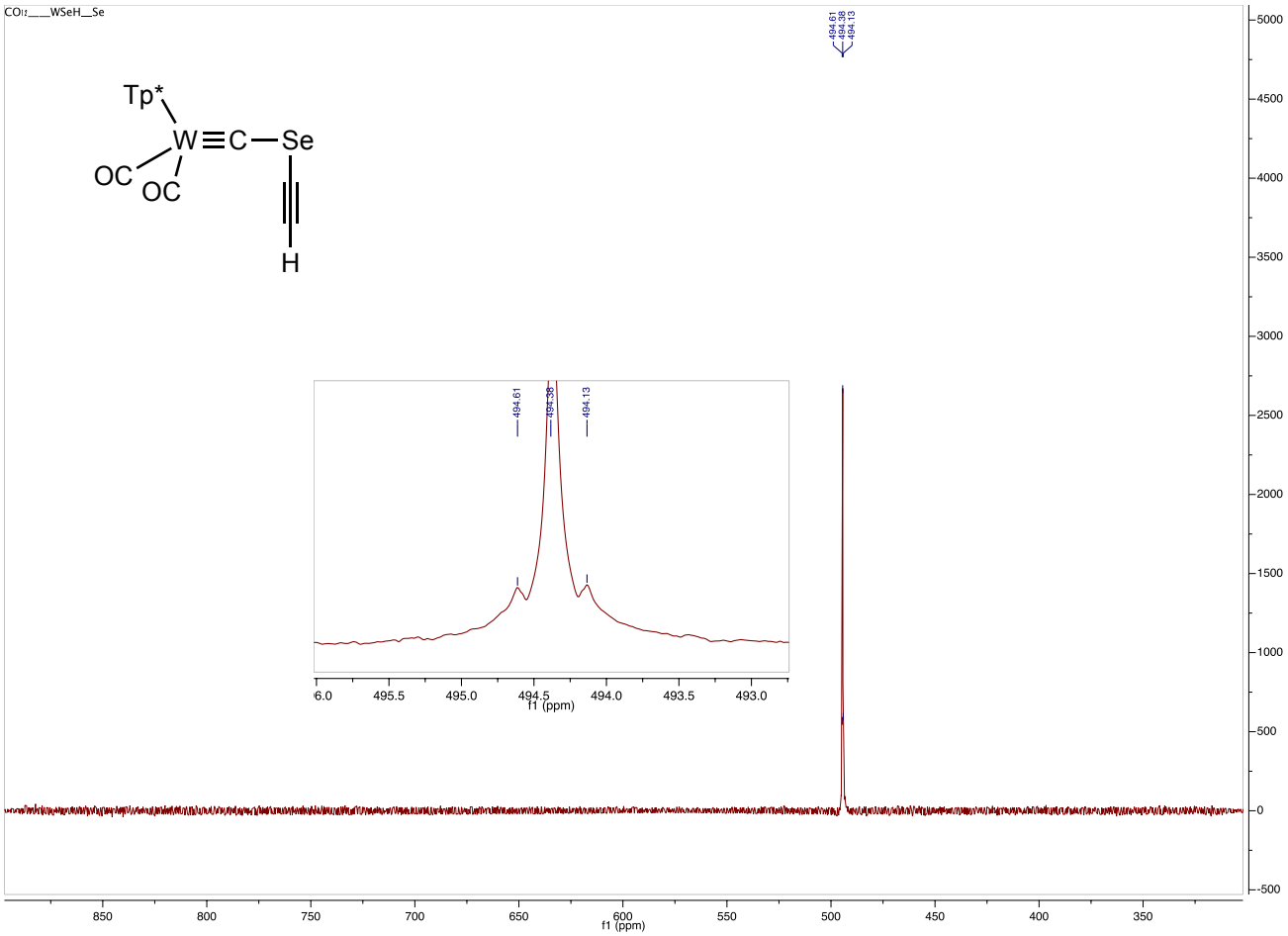


^{1}H NMR (400 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CH)$(CO)_2$(Tp*)] (**8**).



$^{13}C\{^{1}H\}$ NMR (101 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSeC≡CH)$(CO)_2$(Tp*)] (**8**).



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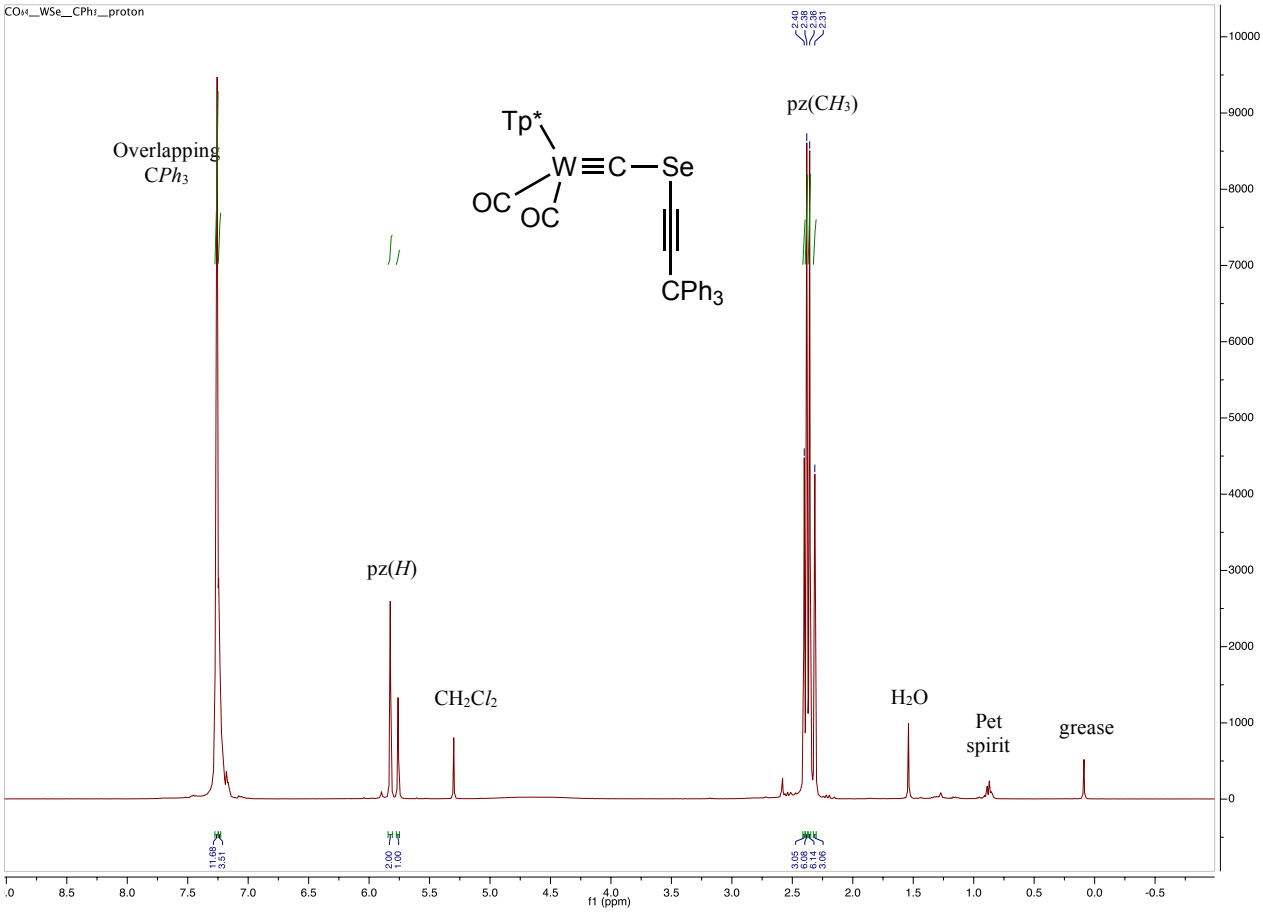
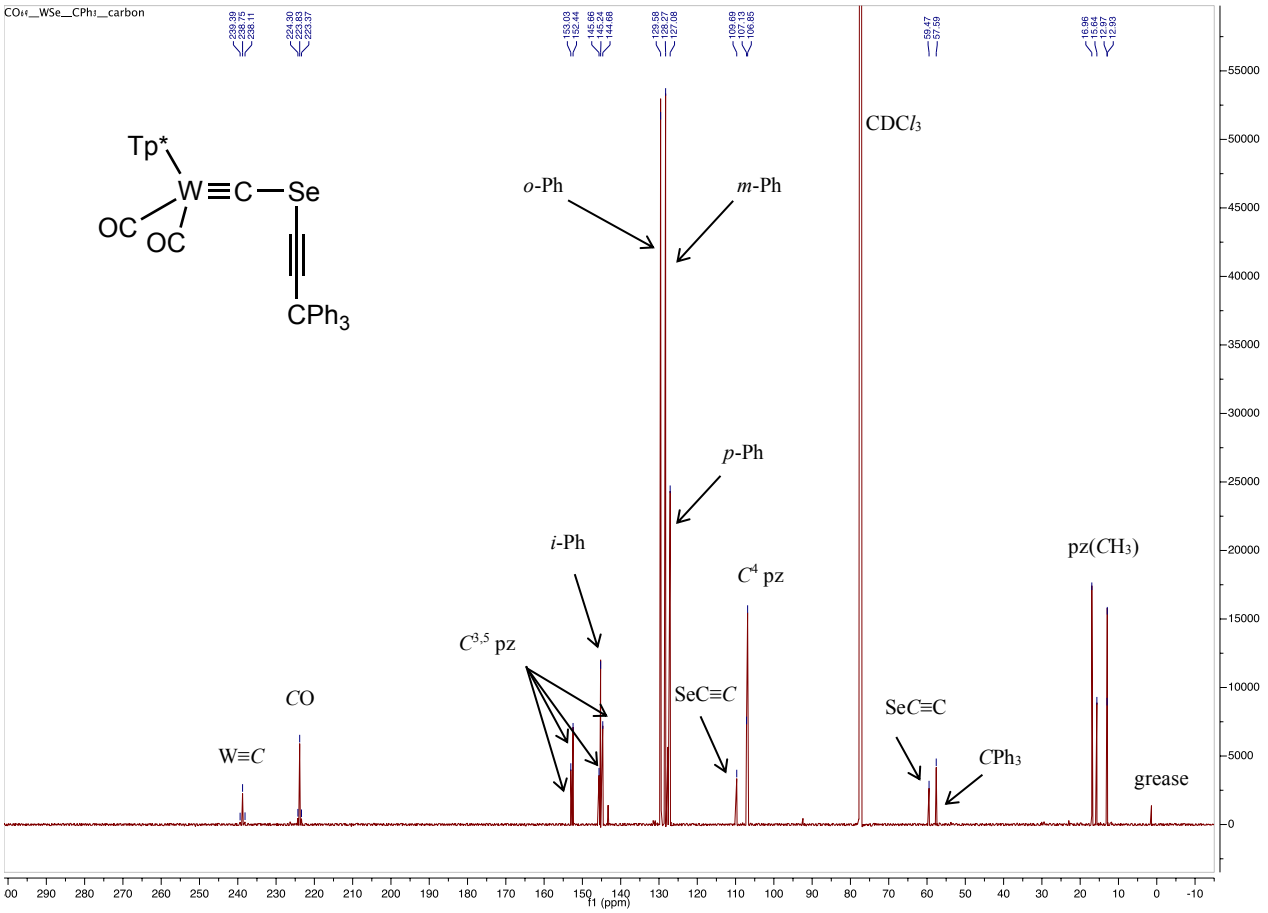
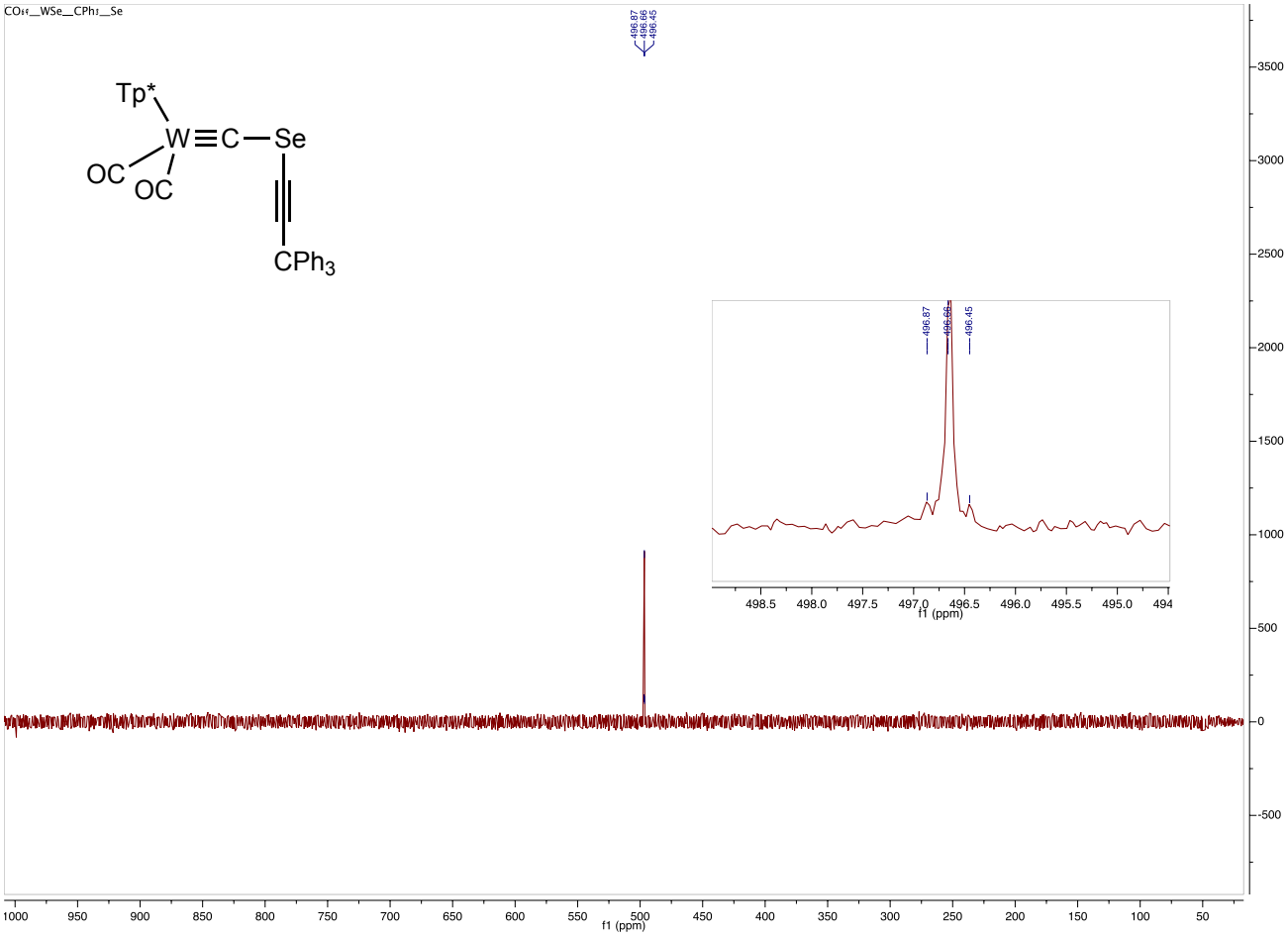


^{1}H NMR (700 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CCPh$_3$)(CO)$_2$(Tp*)] (**9**).



$^{13}C\{^{1}H\}$ NMR (176 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSeC≡CCPh_3)(CO)$_2$(Tp*)] (**9**).



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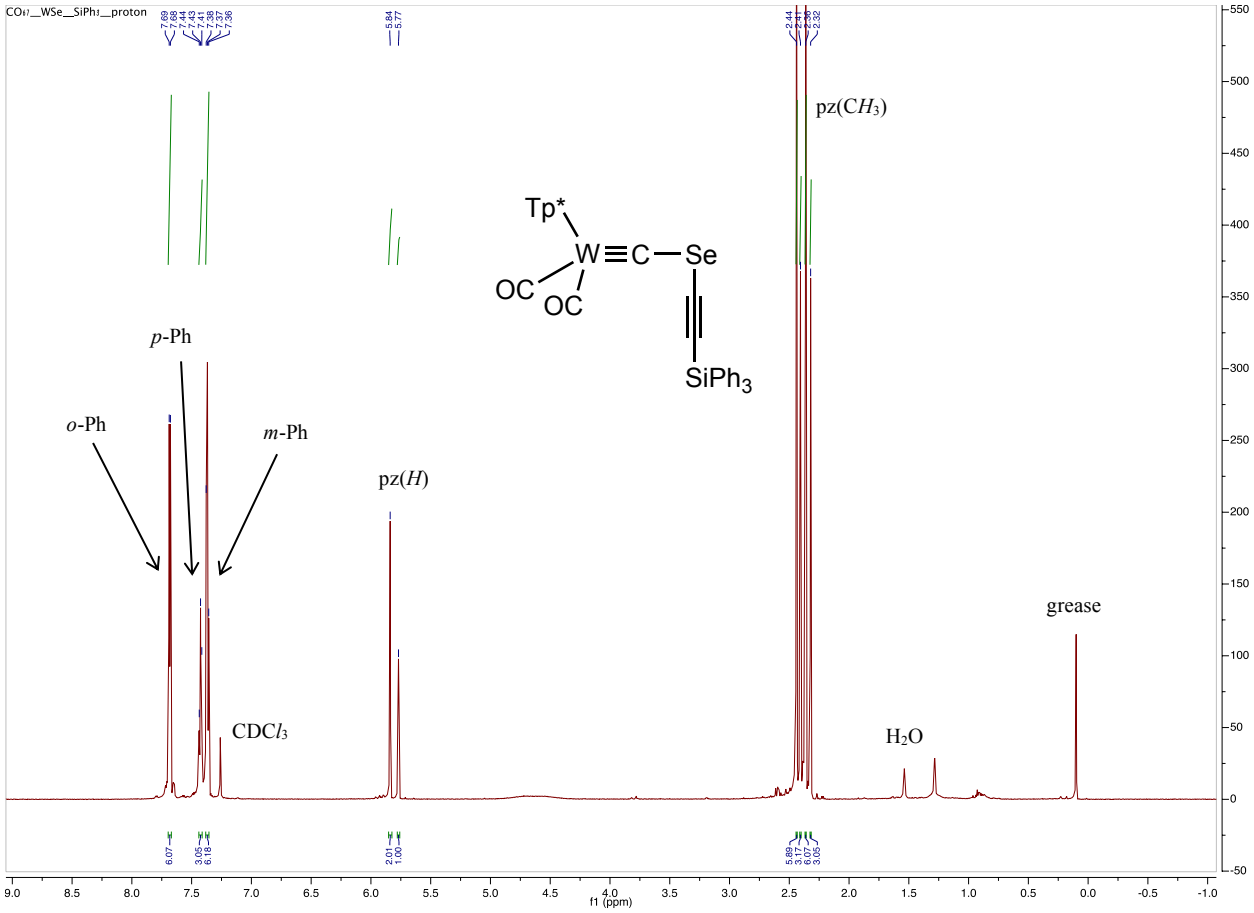
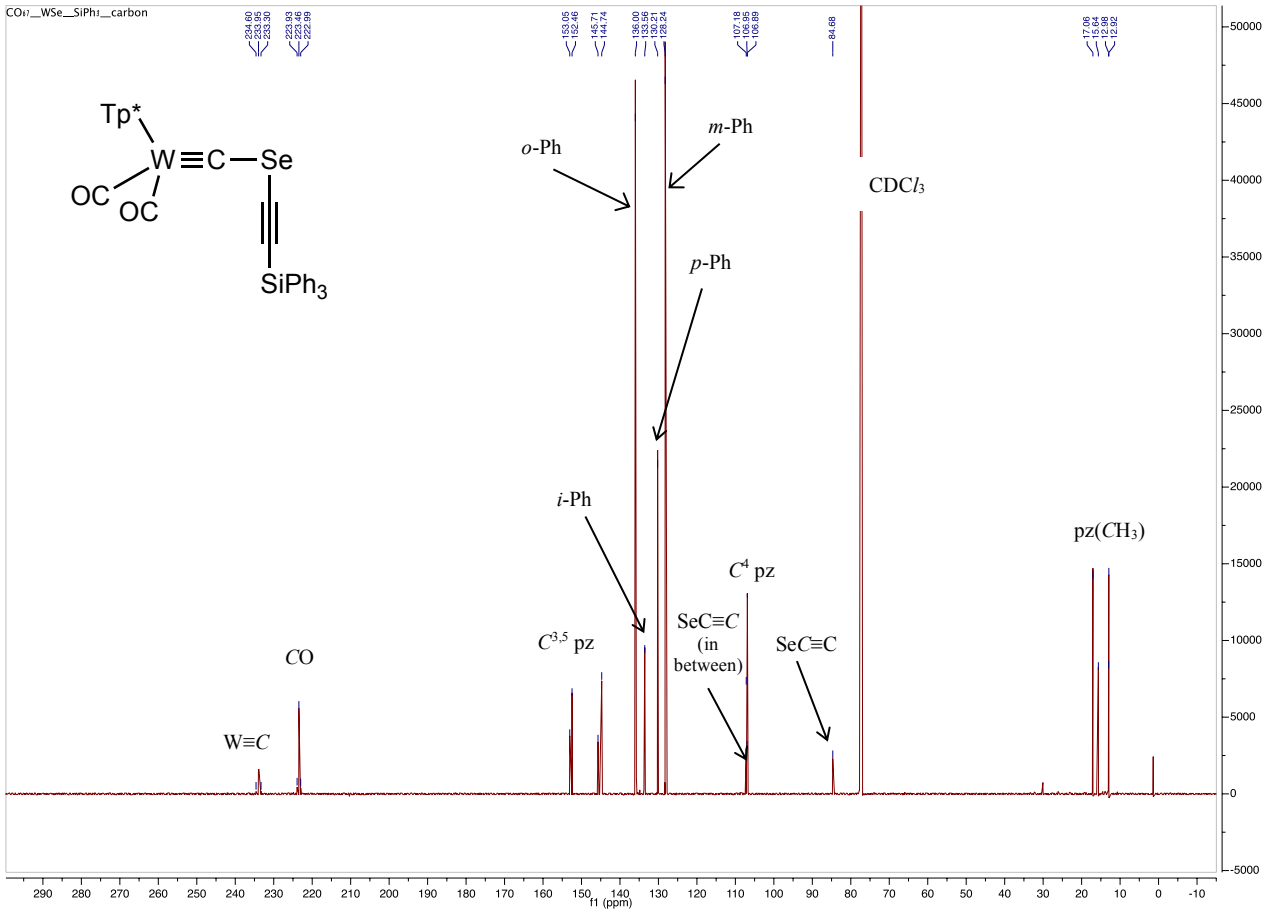


^{1}H NMR (700 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CSiPh$_3$)(CO)$_2$(Tp*)] (**10**).



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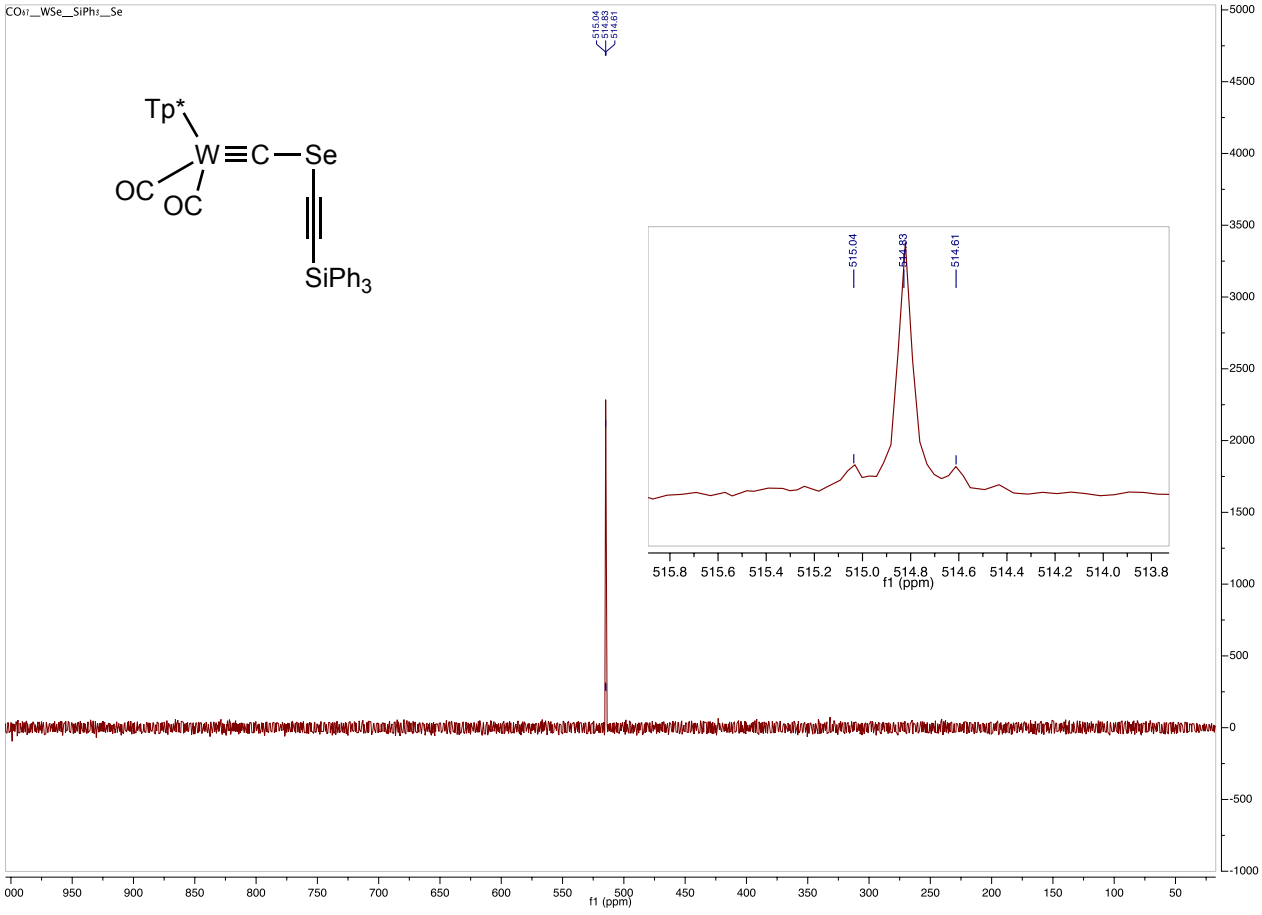

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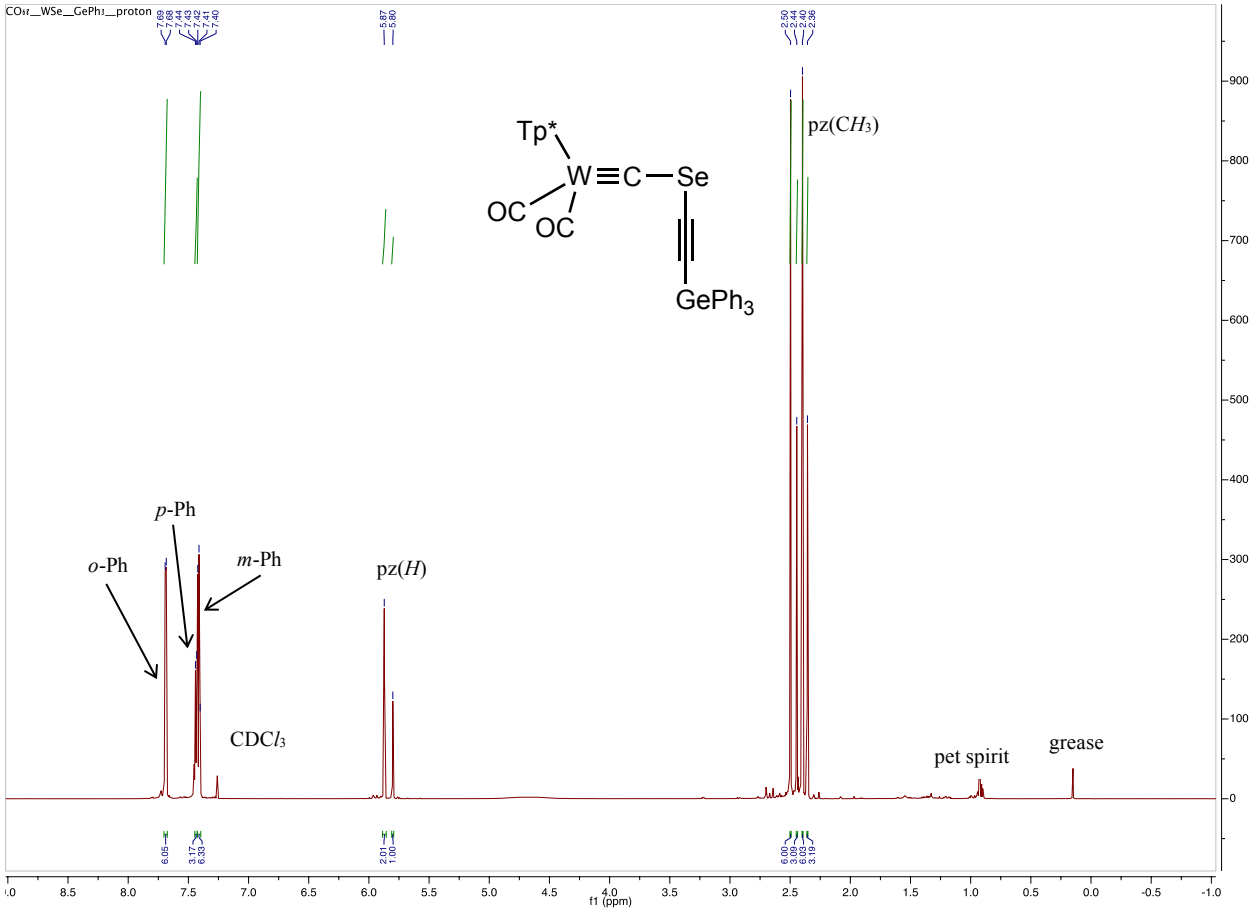
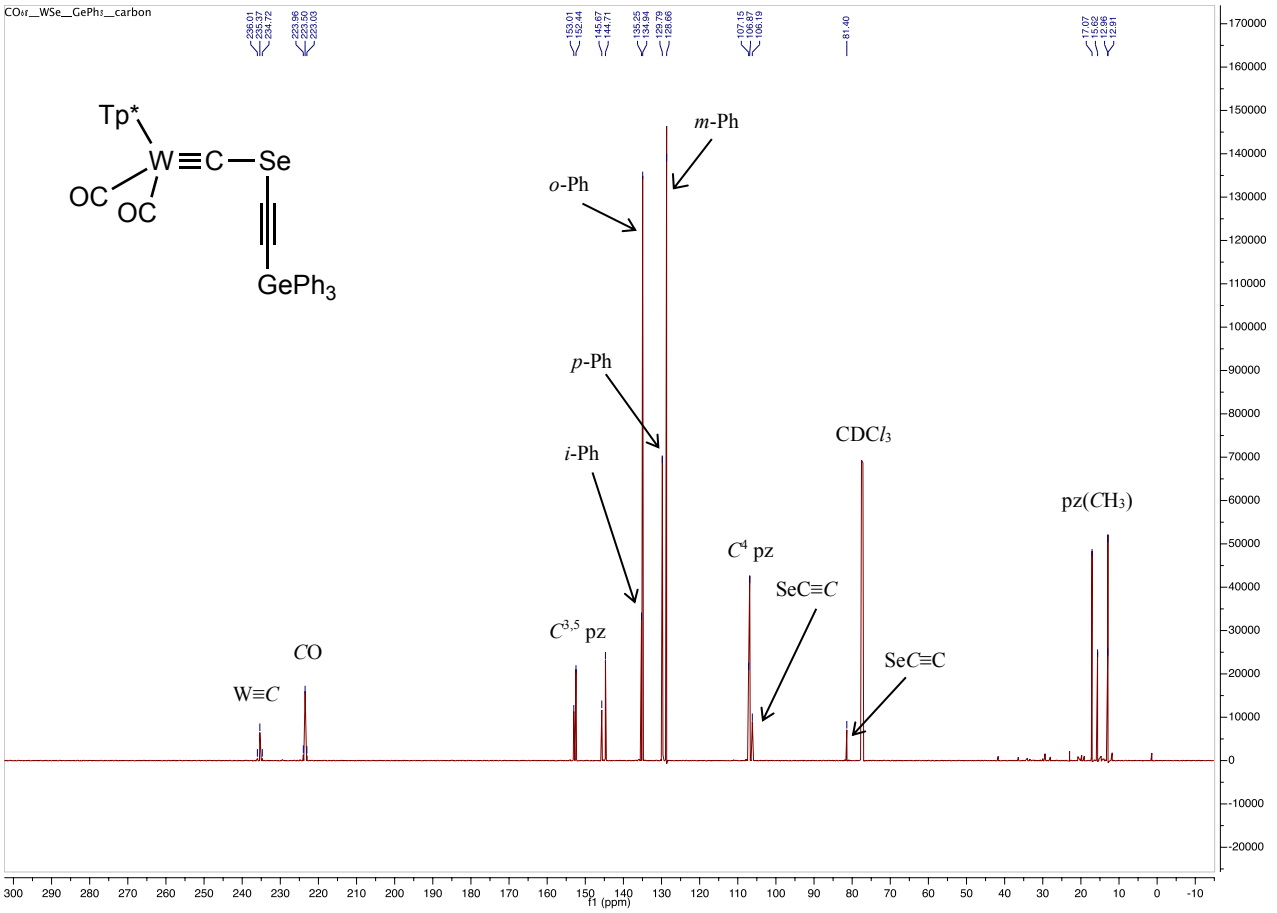


^{1}H NMR (700 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡C$GePh_3$)$(CO)_2$(Tp*)] (**11**).



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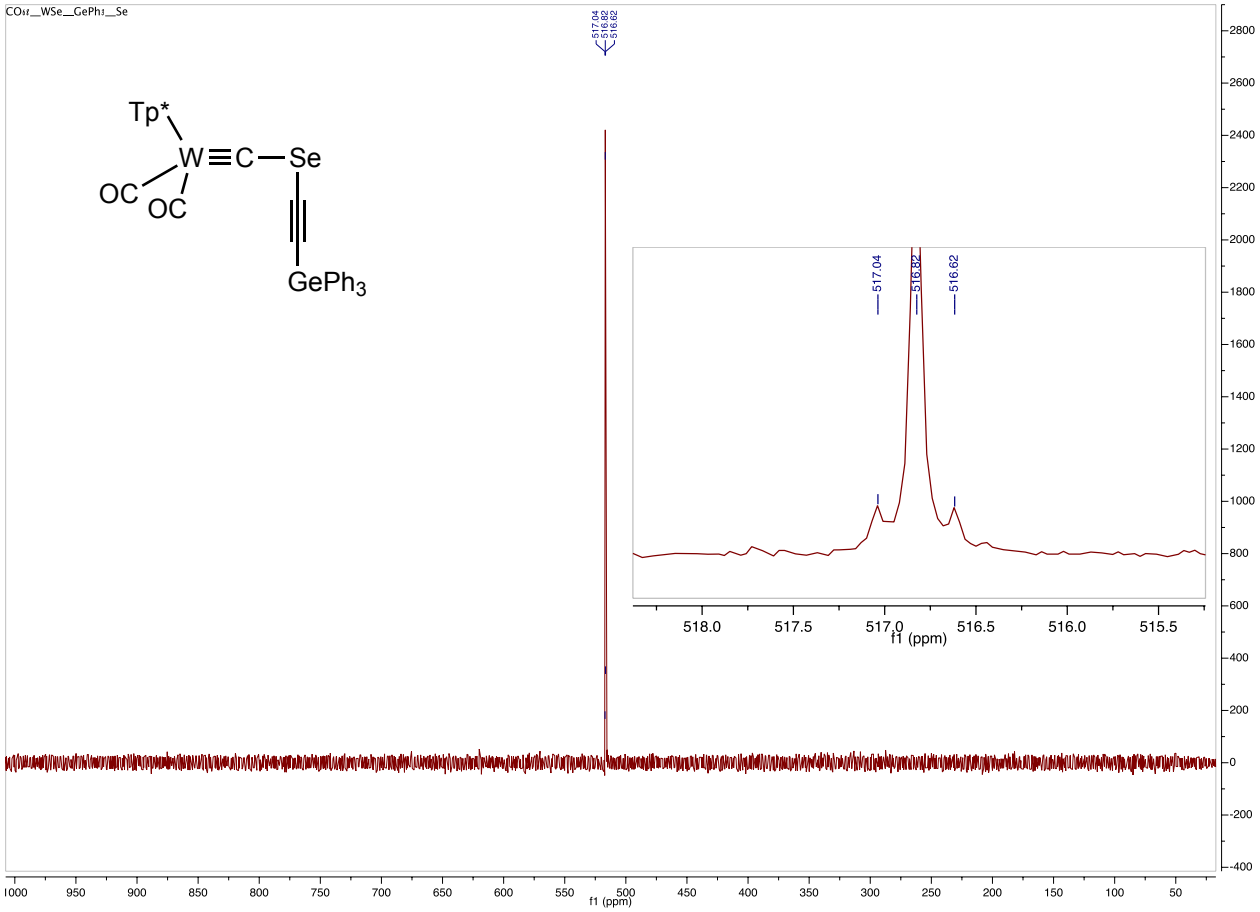

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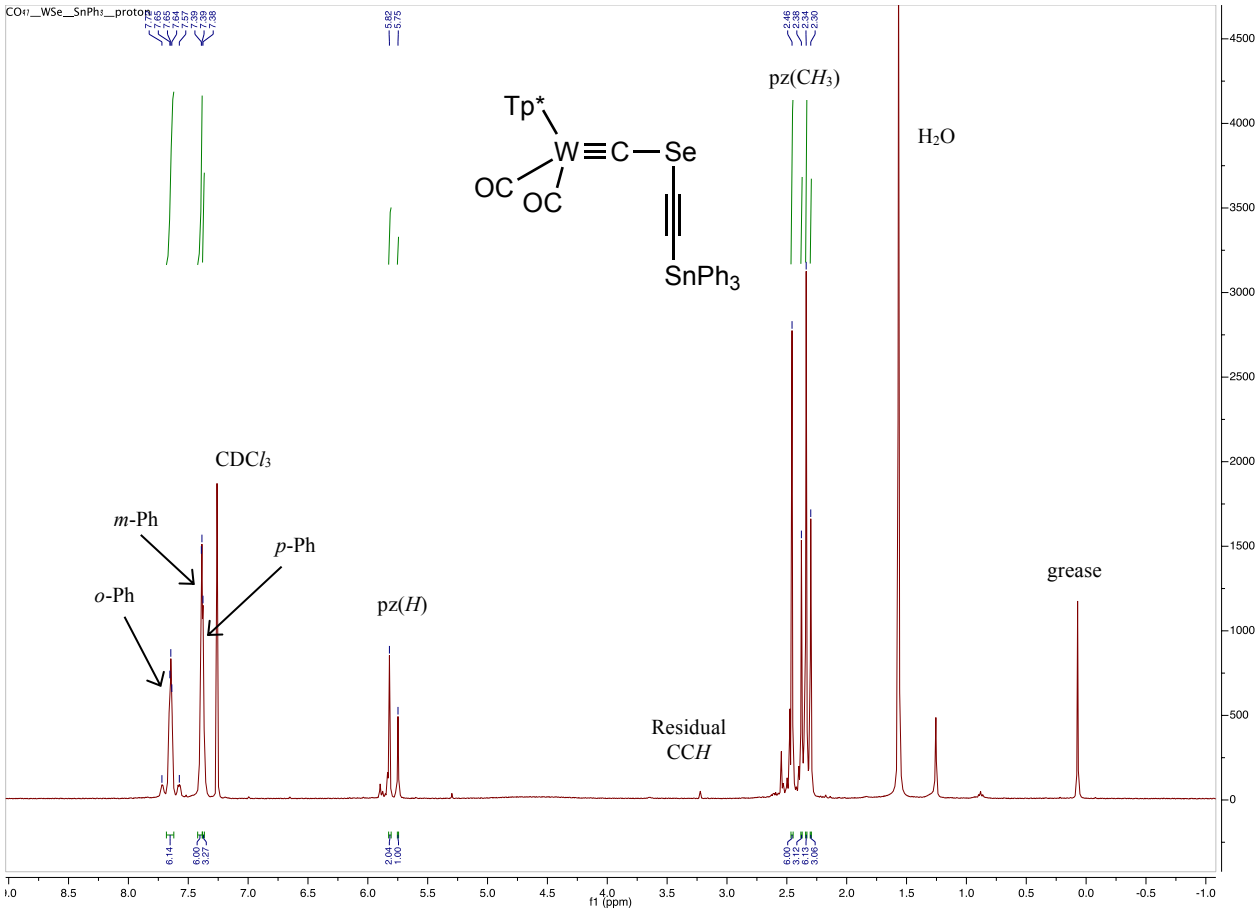
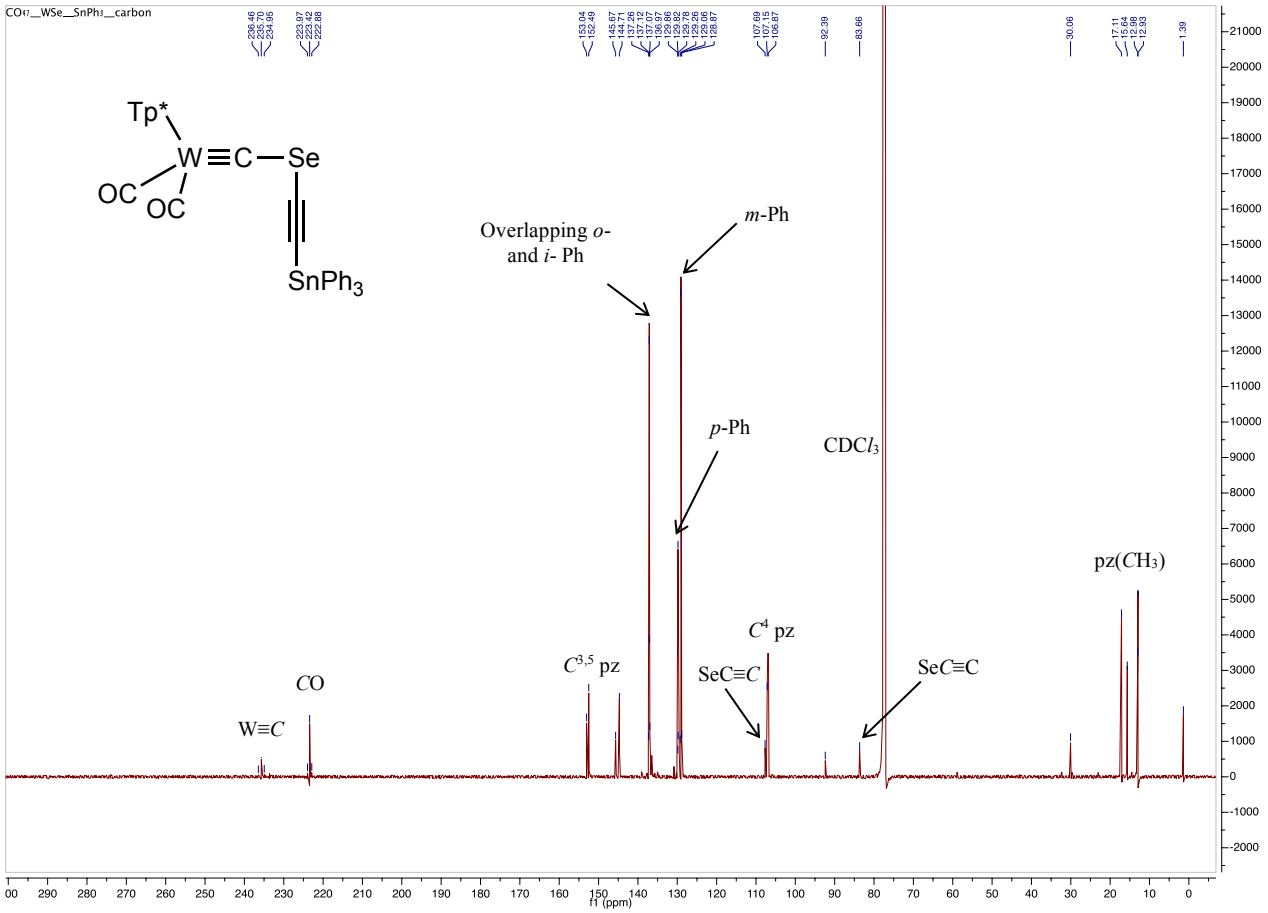


^{1}H NMR (600 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡C$SnPh_3$)$(CO)_2$(Tp*)] (**12**).



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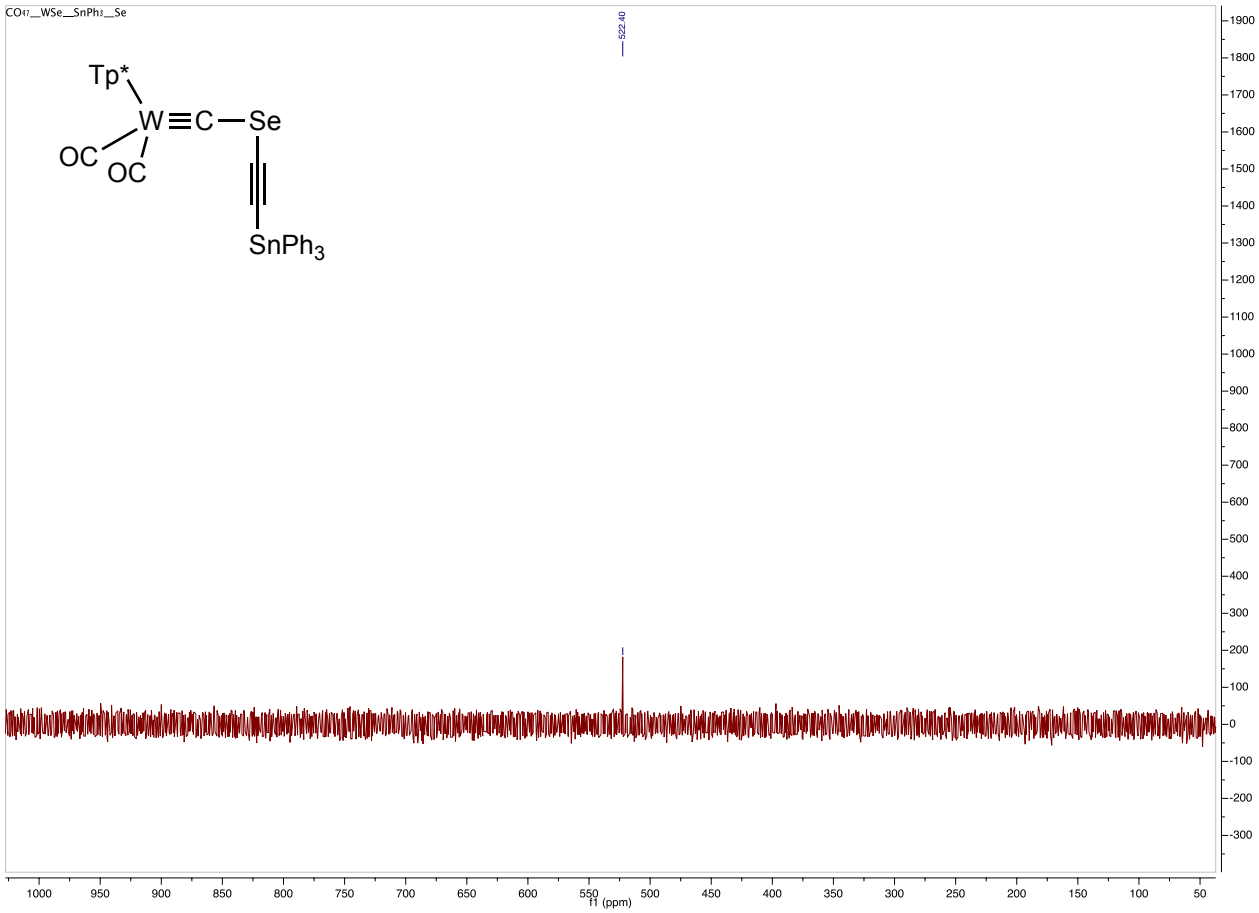
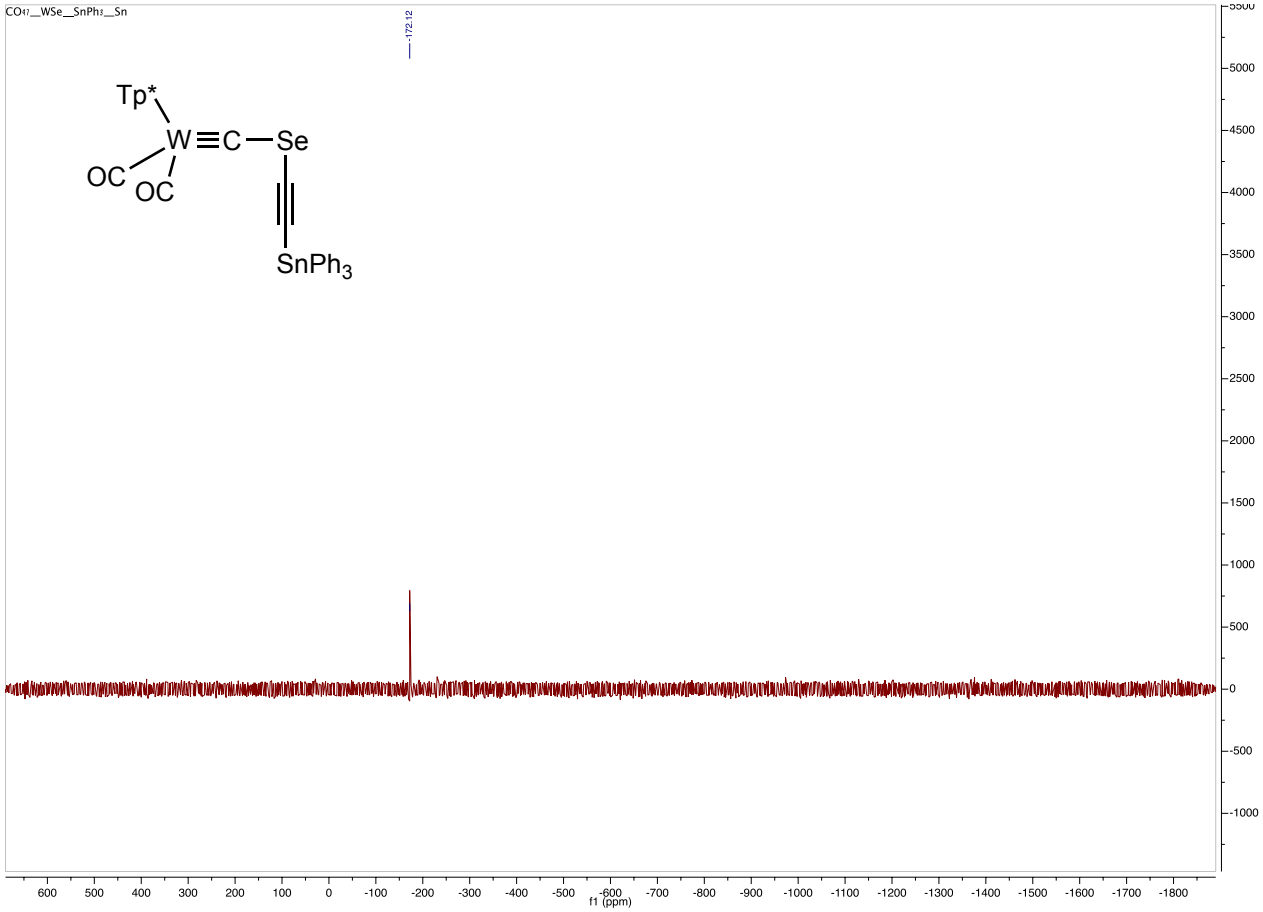
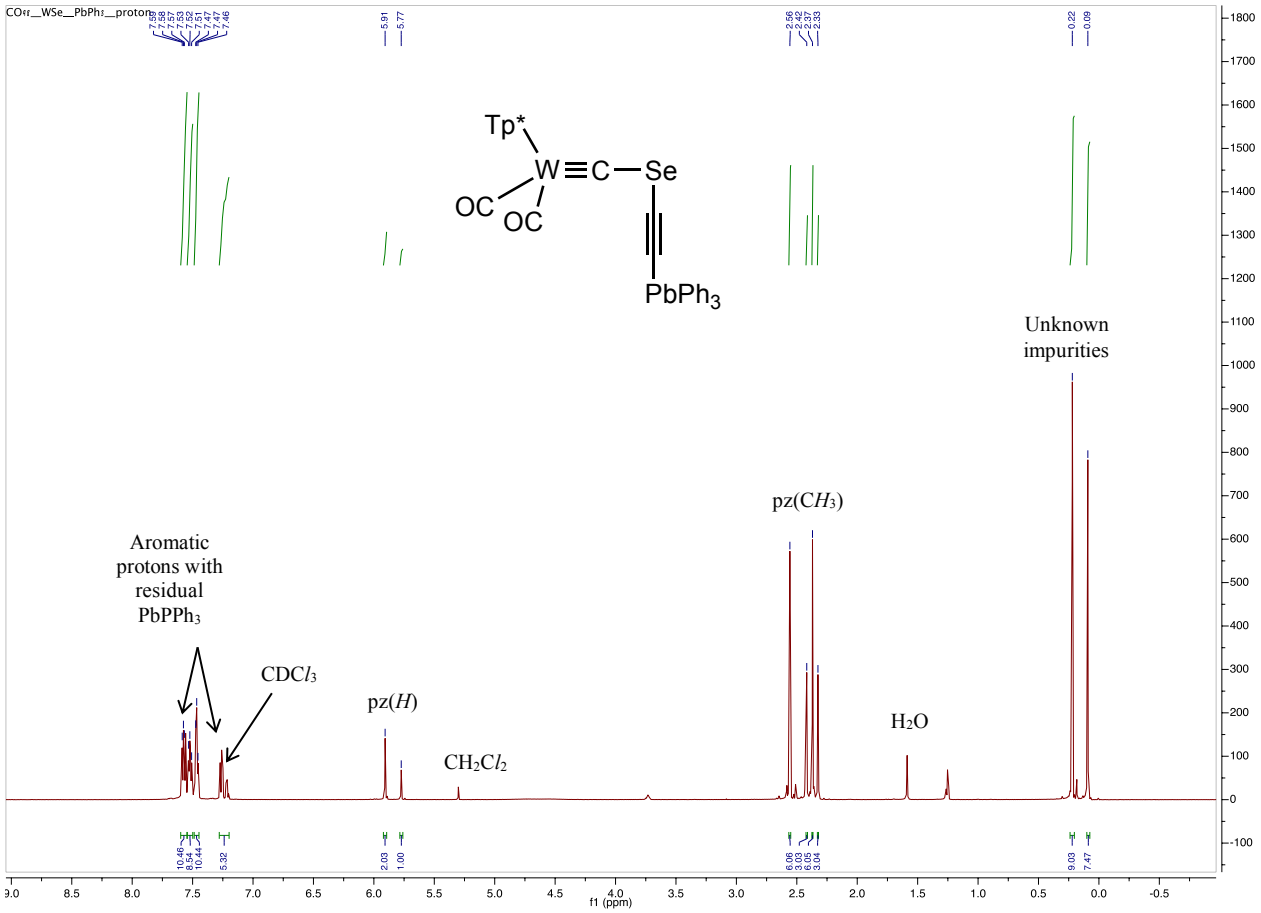


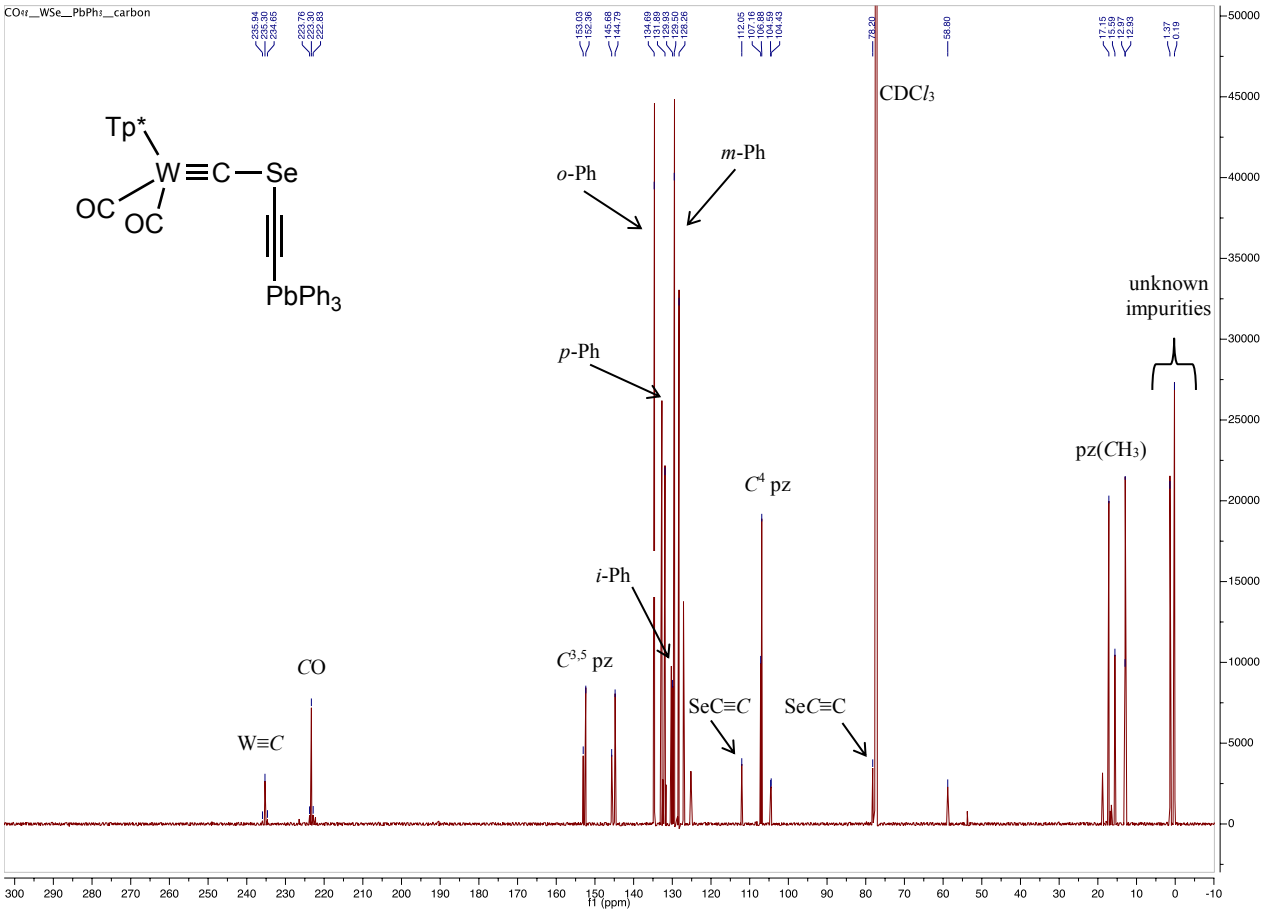
$^{77}Se\{^{1}H\}$ NMR (76 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡C$SnPh_3$)$(CO)_2$(Tp*)] (**12**).



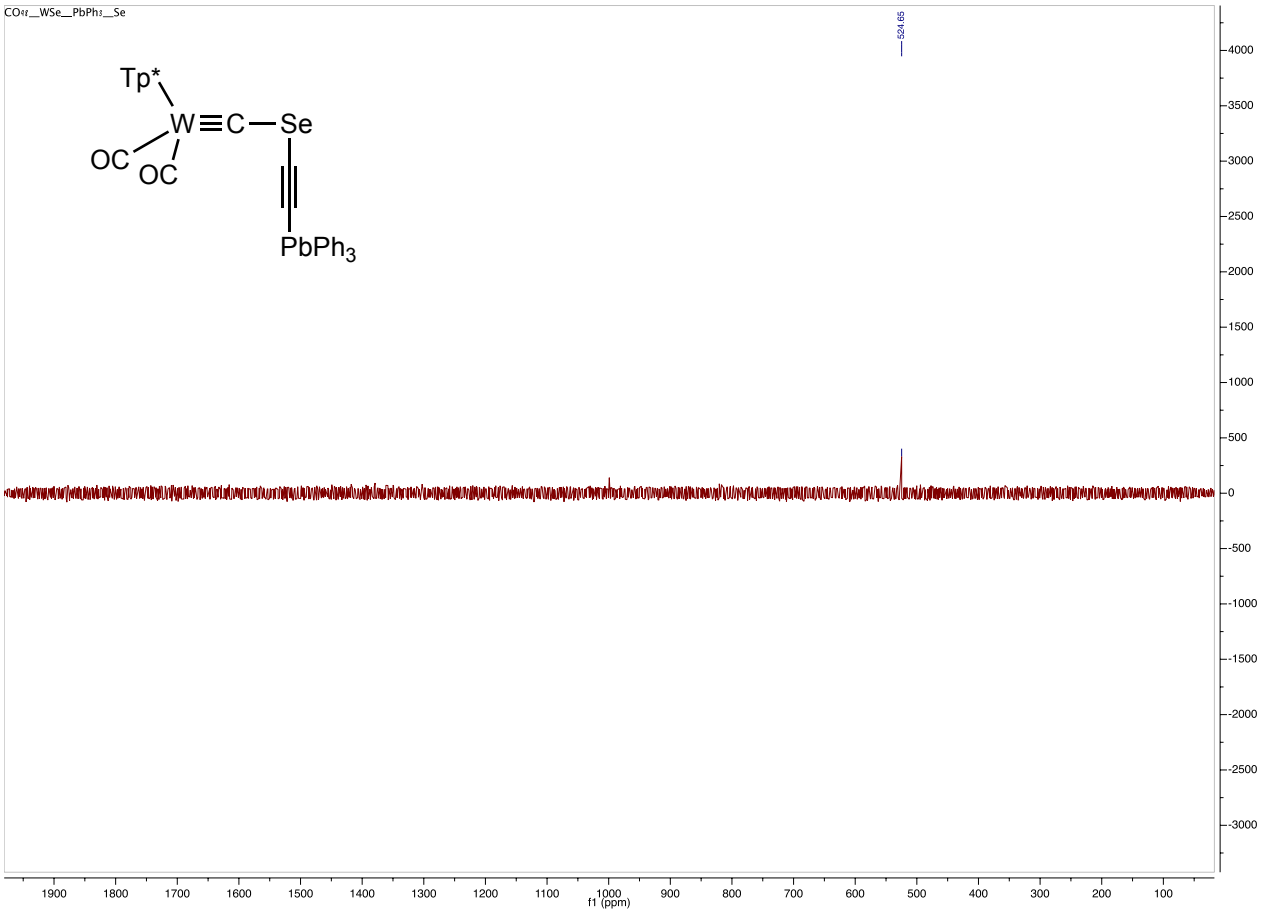
^{119}Sn NMR (149 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CSnPh$_3$)(CO)$_2$(Tp*)] (**12**).



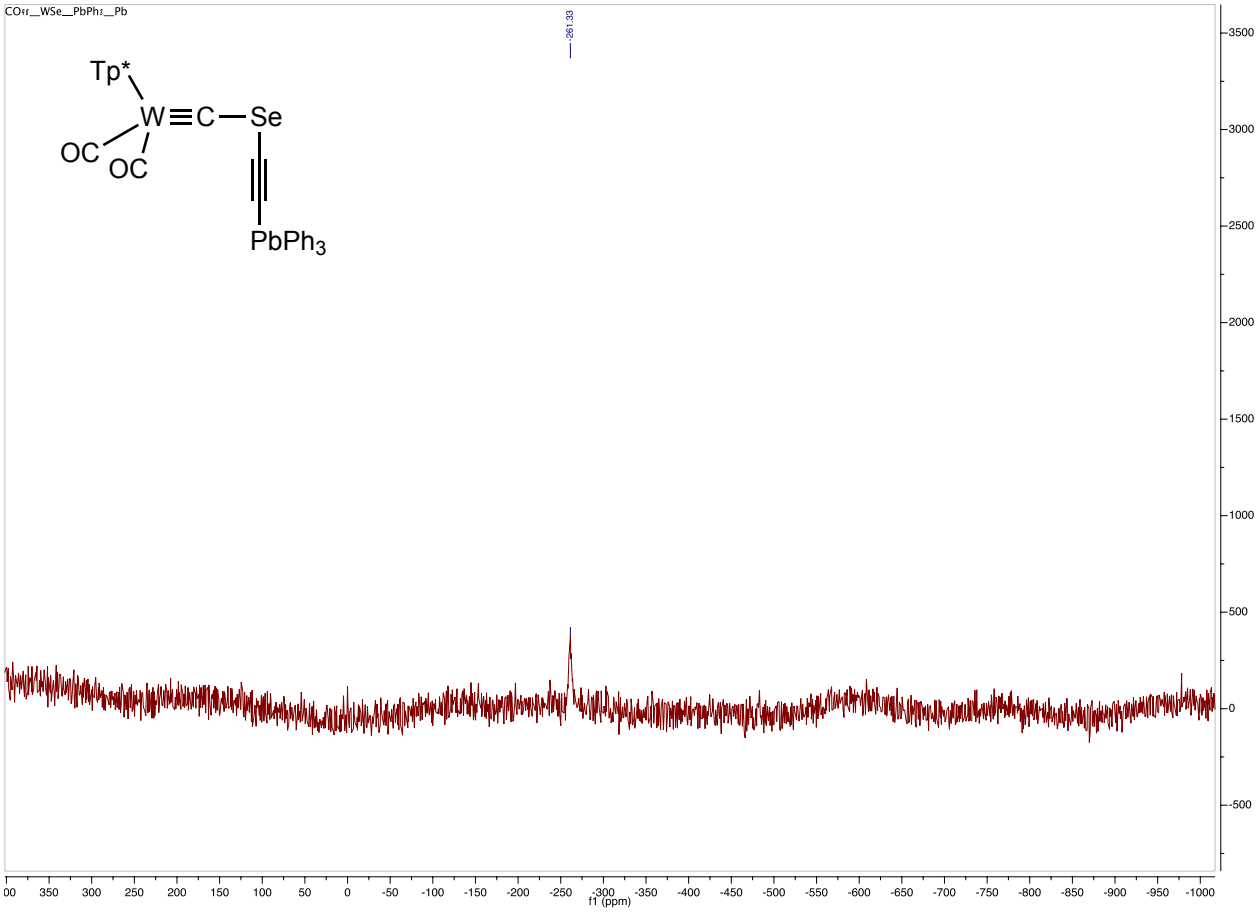
^{1}H NMR (400 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CPbPh$_3$)(CO)$_2$(Tp*)] (**13**).



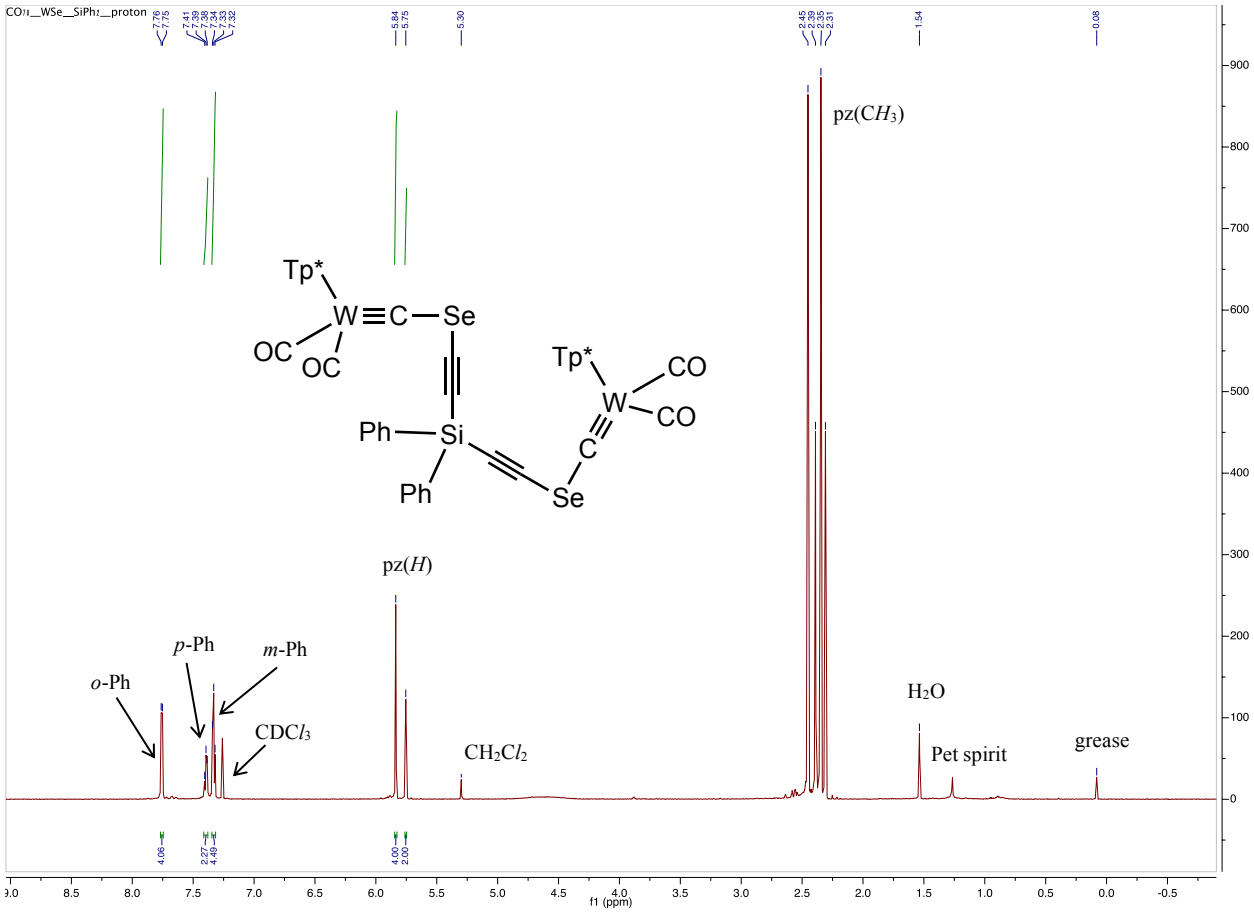
$^{13}C\{^{1}H\}$ NMR (101 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSeC≡CPbPh$_3$)(CO)$_2$(Tp*)] (**13**).



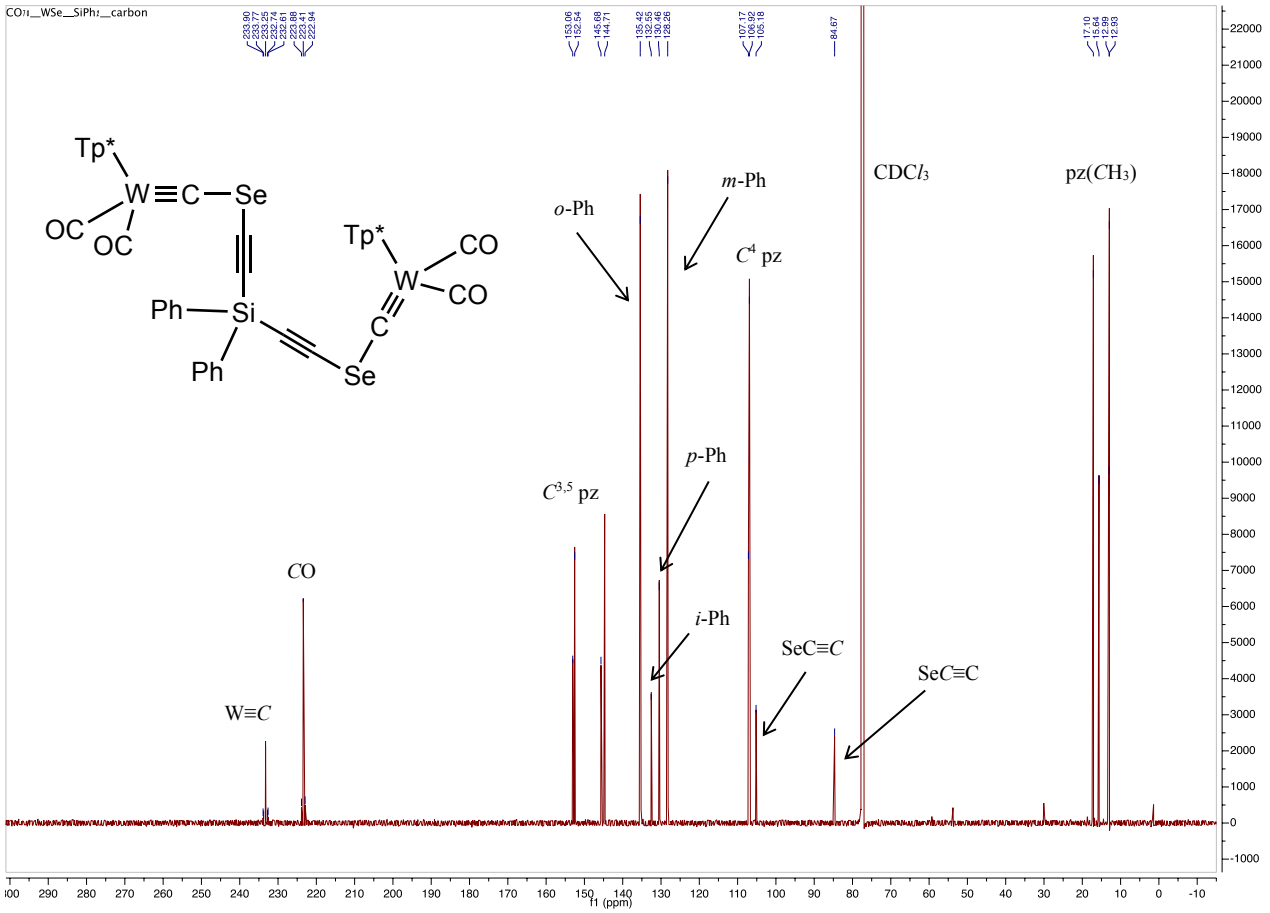
$^{77}Se\{^{1}H\}$ NMR (76 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CPbPh$_3$)(CO)$_2$(Tp*)] (**13**).



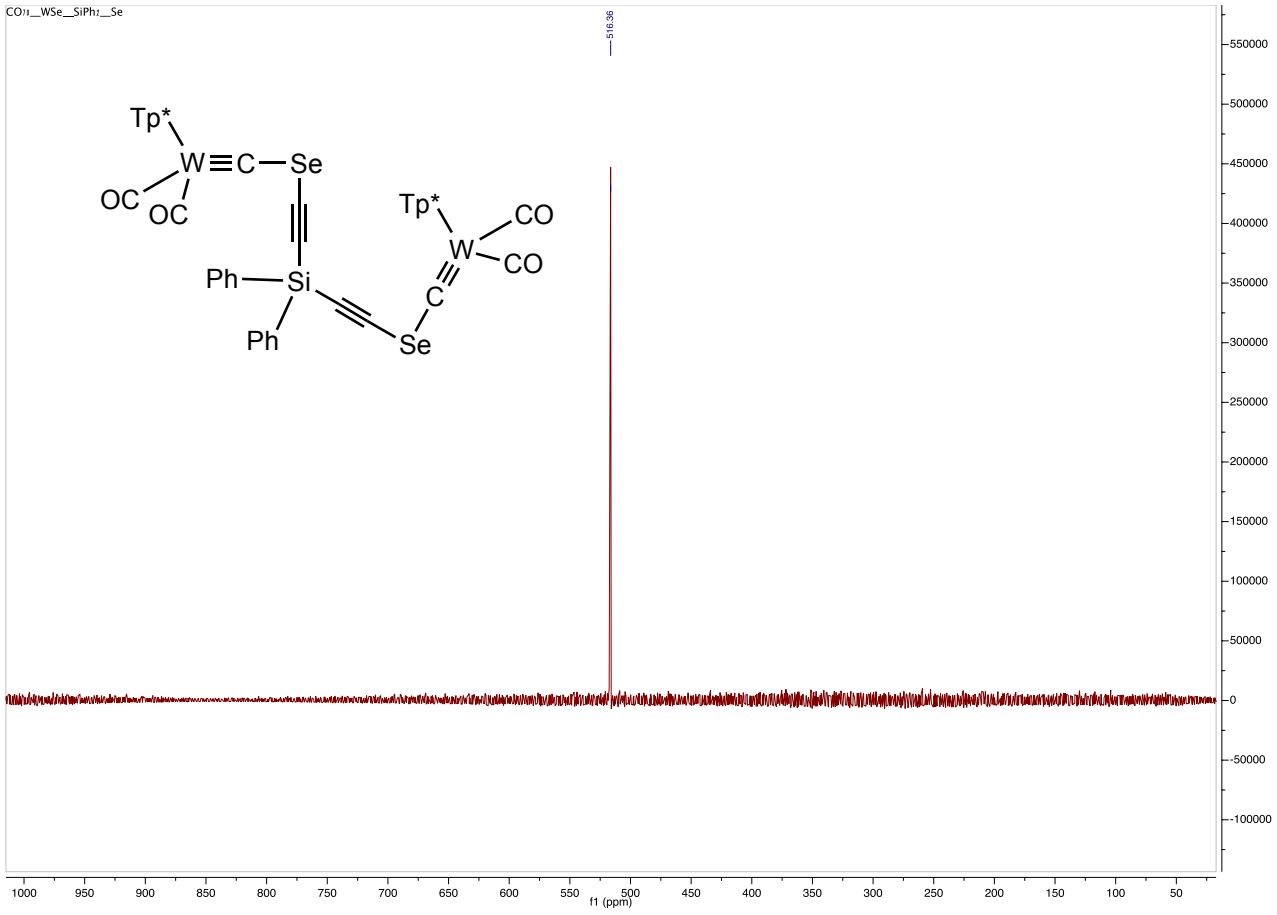
^{207}Pb NMR (84 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSeC≡CPbPh_3)$(CO)_2$(Tp*)] (**13**).



^{1}H NMR (700 MHz, $CDCl_3$, 25˚C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_2$$SiPh_2$] (**14**).



$^{13}C\{^{1}H\}$ NMR (176 MHz, $CDCl_3$, 25˚C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_2$$SiPh_2$] (**14**).



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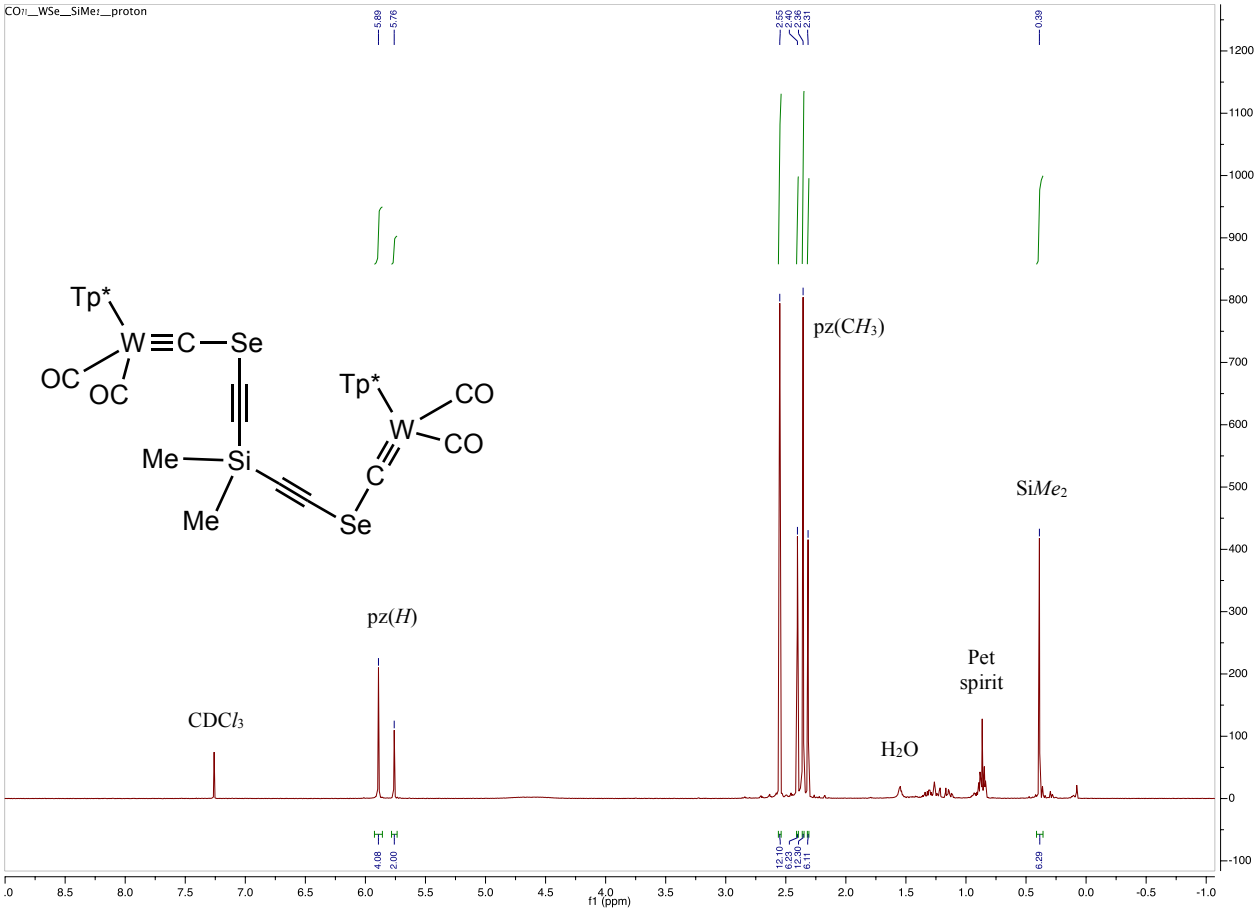
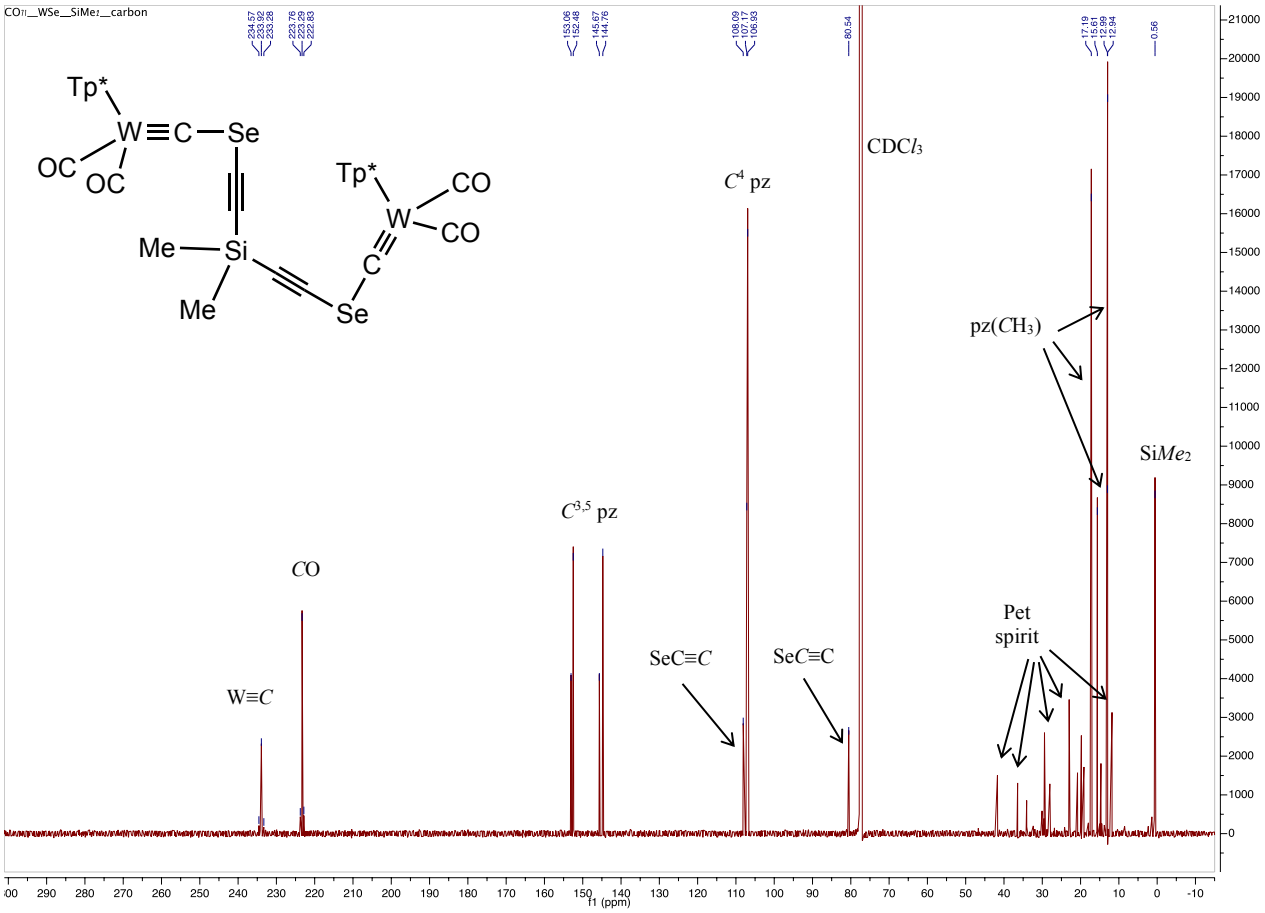
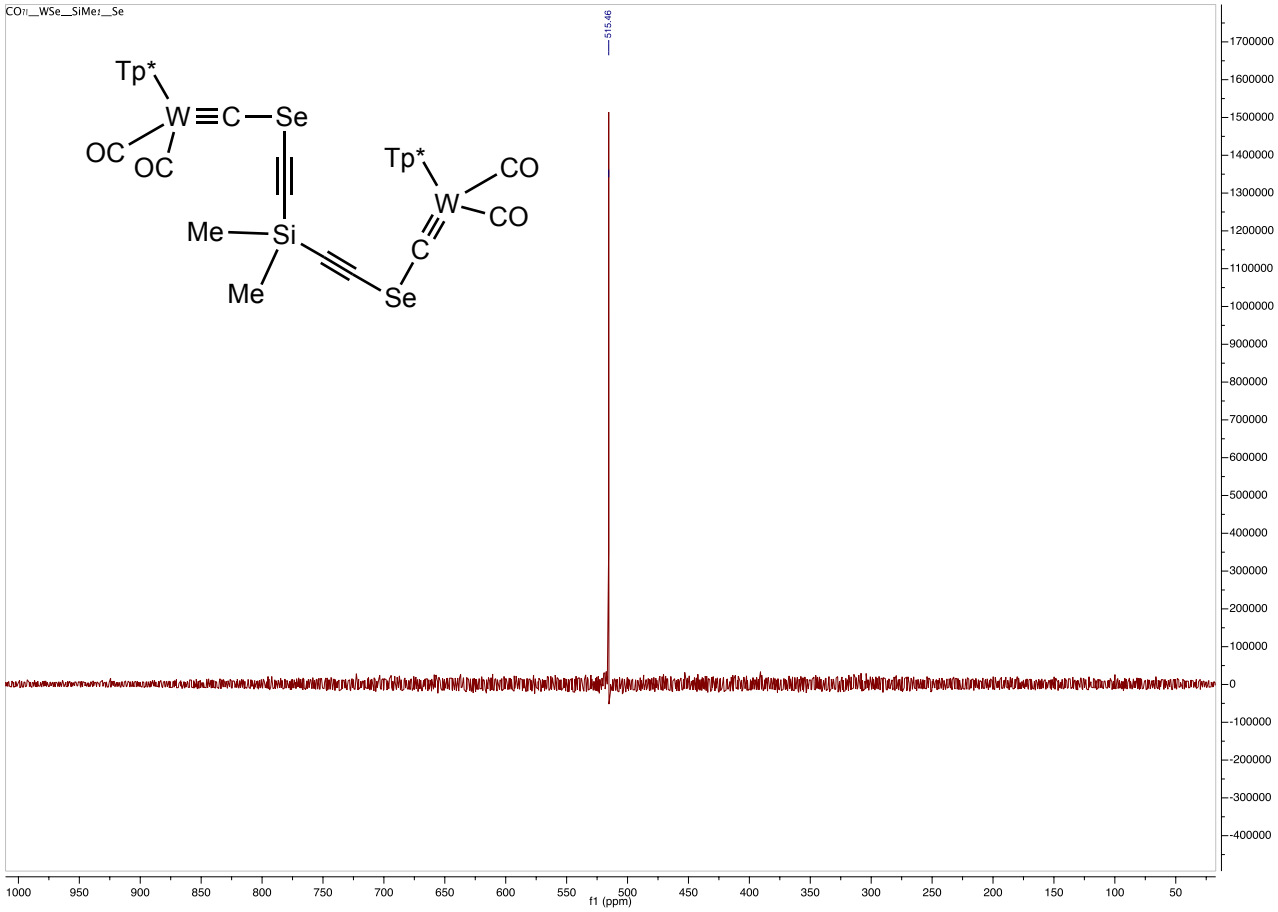


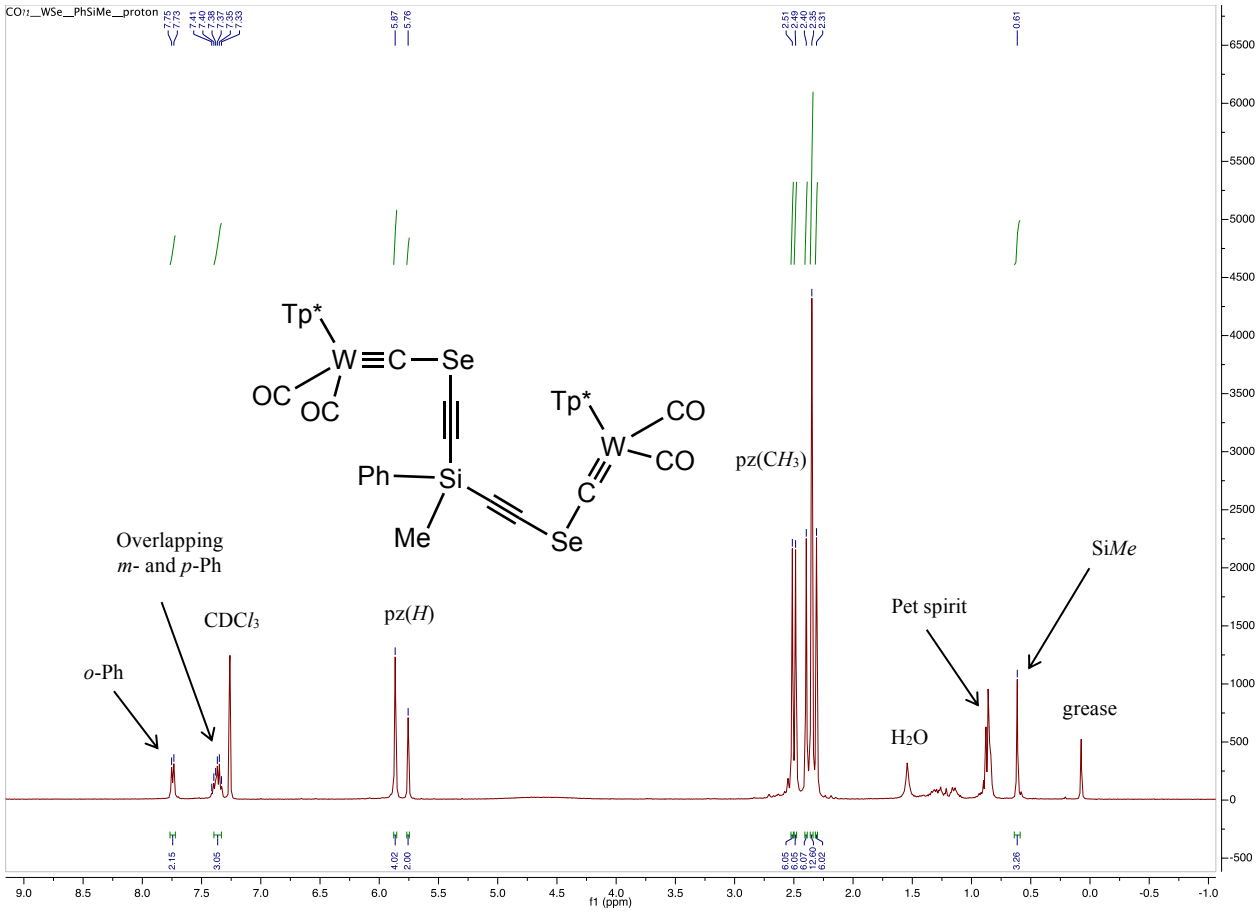
^{1}H NMR (700 MHz, $CDCl_3$, 25˚C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_2$$SiMe_2$] (**15**).



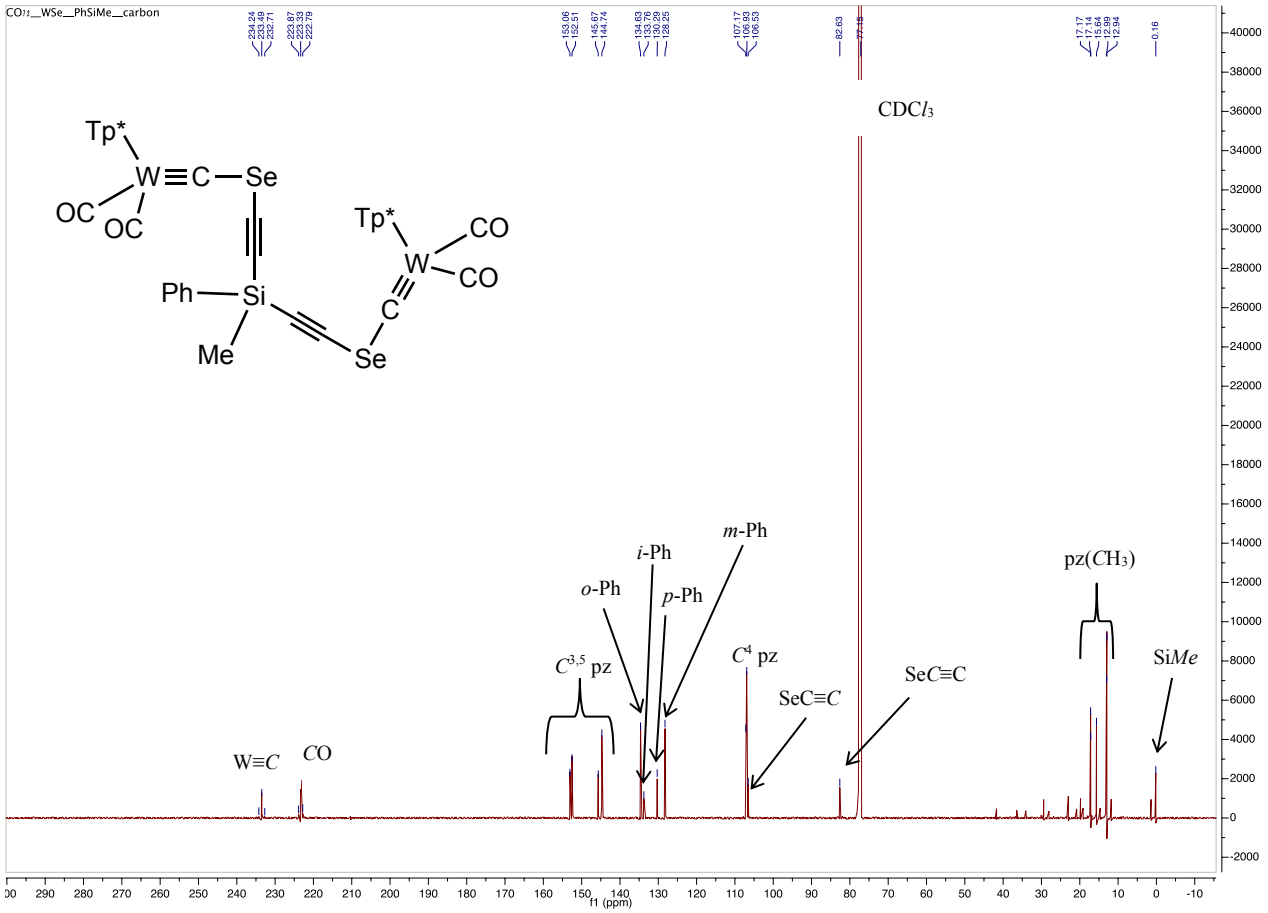
$^{13}C\{^{1}H\}$ NMR (176 MHz, $CDCl_3$, 25°C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_2$$SiMe_2$] (**15**).



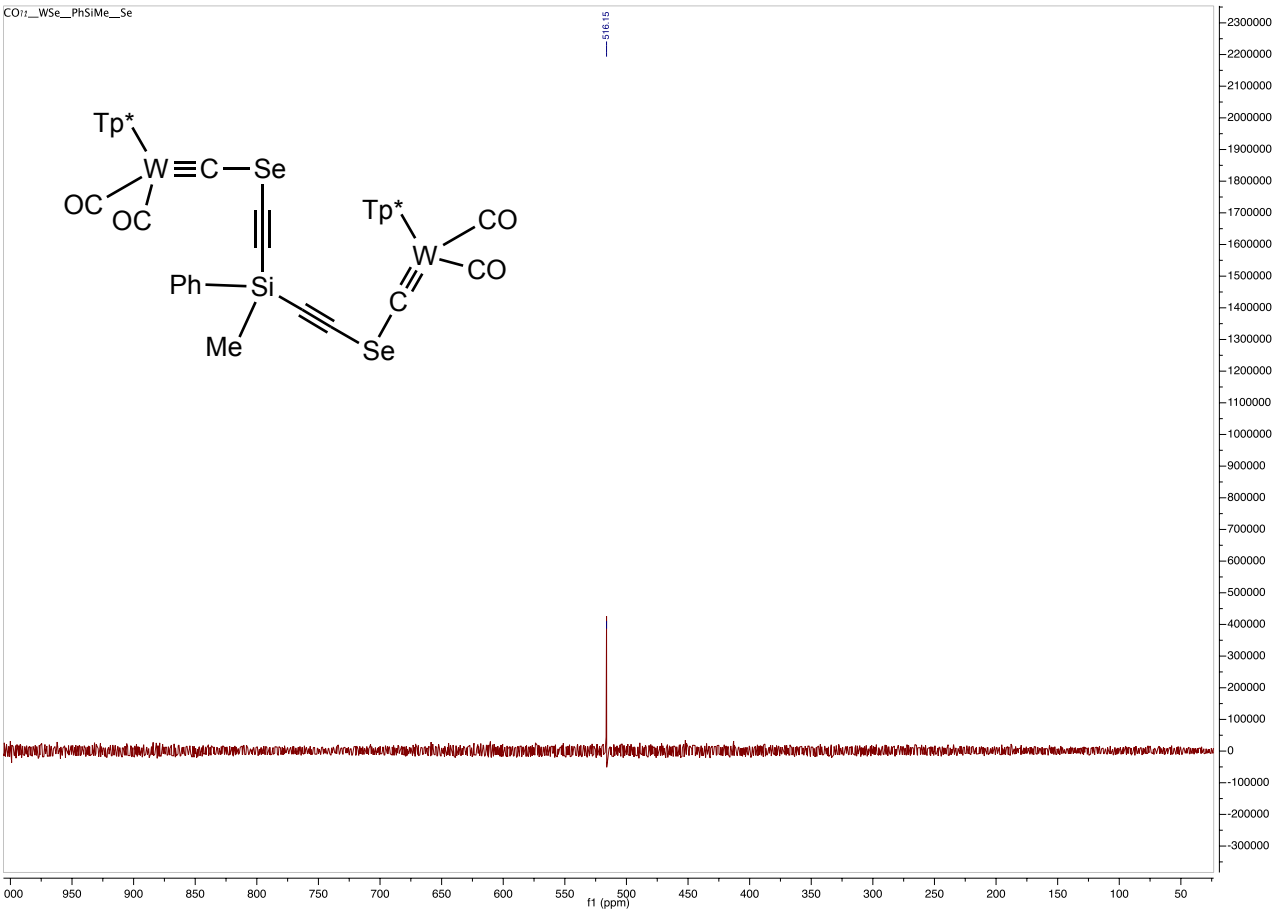
$^{77}Se\{^{1}H\}$ NMR (76 MHz, $CDCl_3$, 25˚C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_2$$SiMe_2$] (**15**).



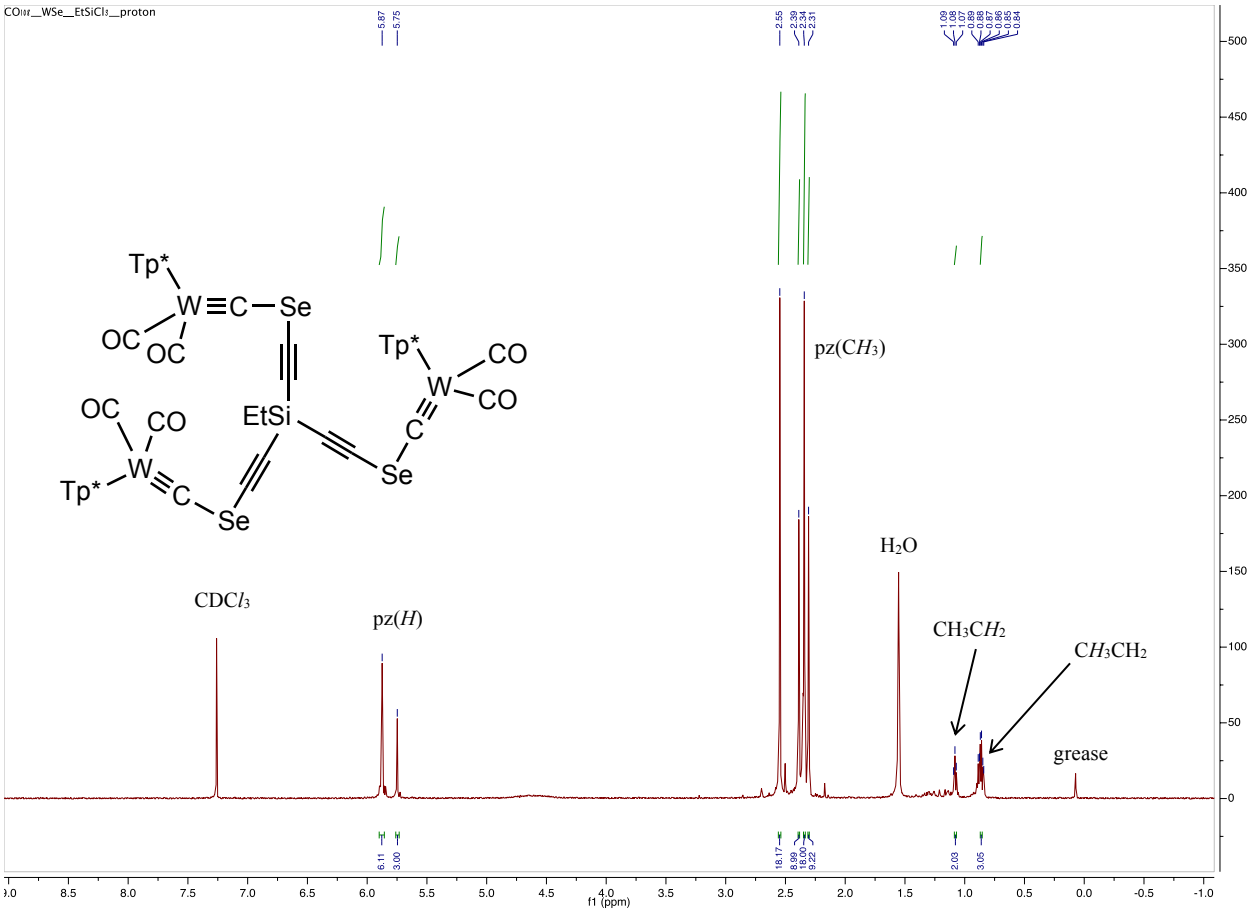
^{1}H NMR (400 MHz, $CDCl_3$, 25˚C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_2$SiPhMe] (**16**).



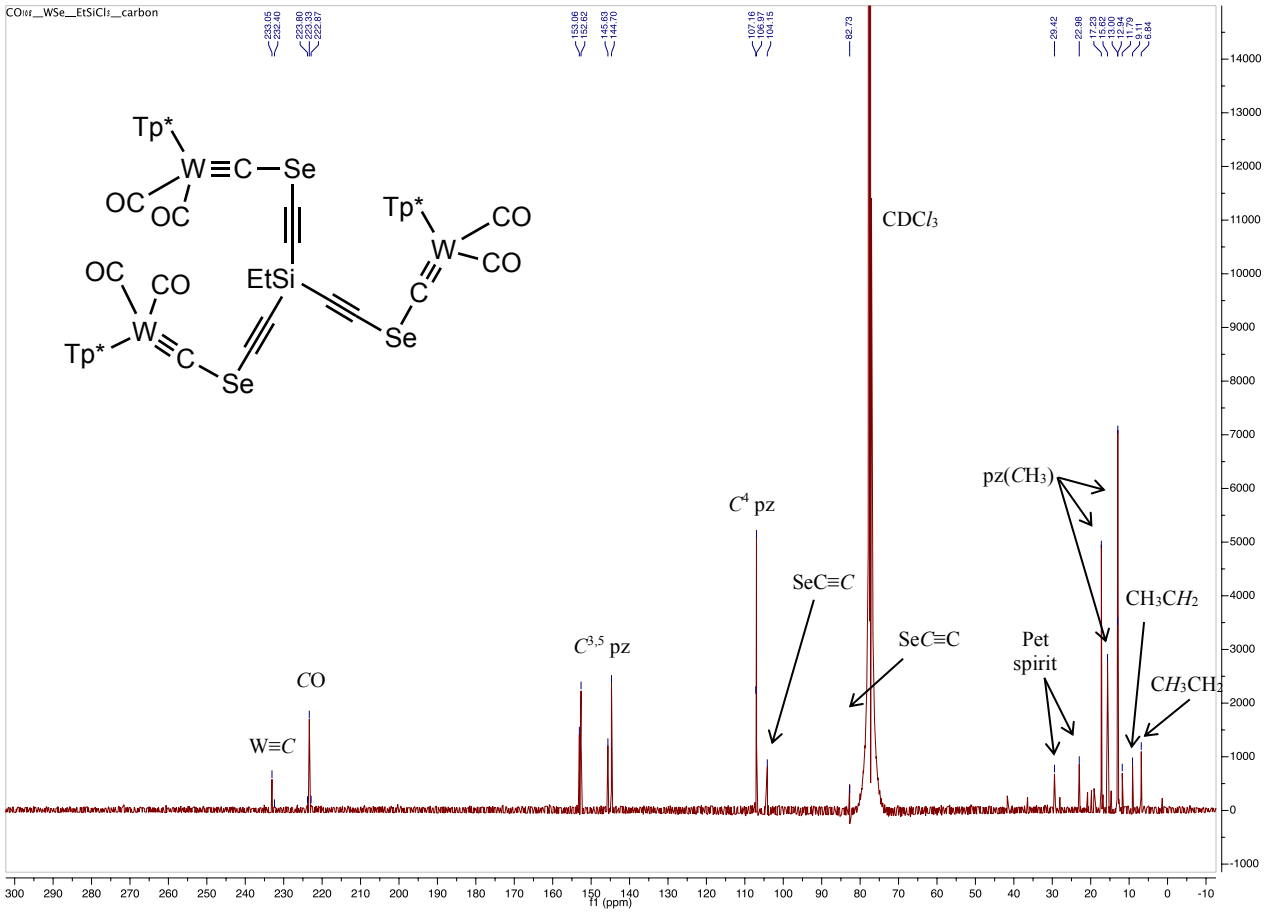
$^{13}C\{^{1}H\}$ NMR (151 MHz, $CDCl_3$, 25°C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_2$SiPhMe] (**16**).



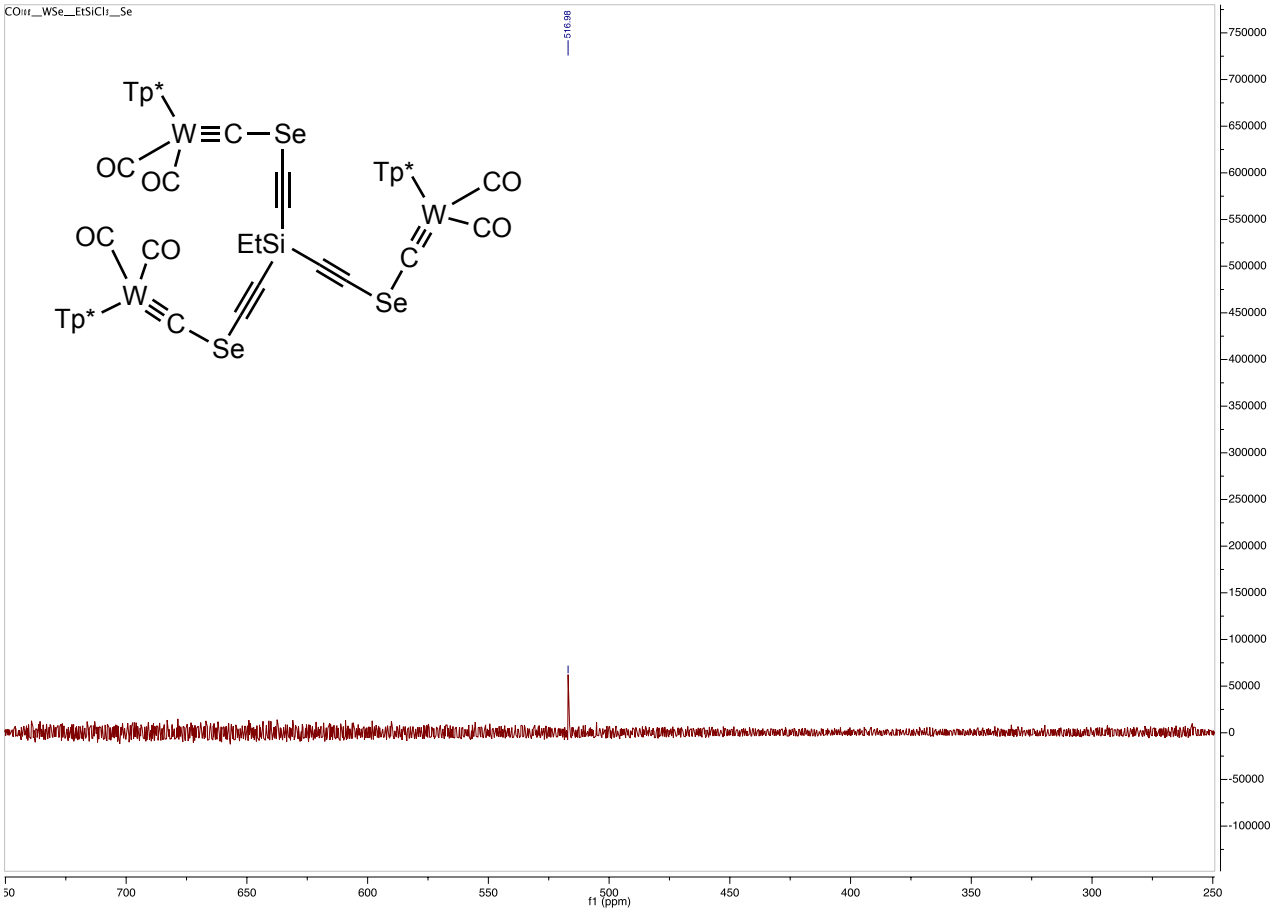
$^{77}Se\{^{1}H\}$ NMR (76 MHz, $CDCl_3$, 25°C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_2$SiPhMe] (**16**).



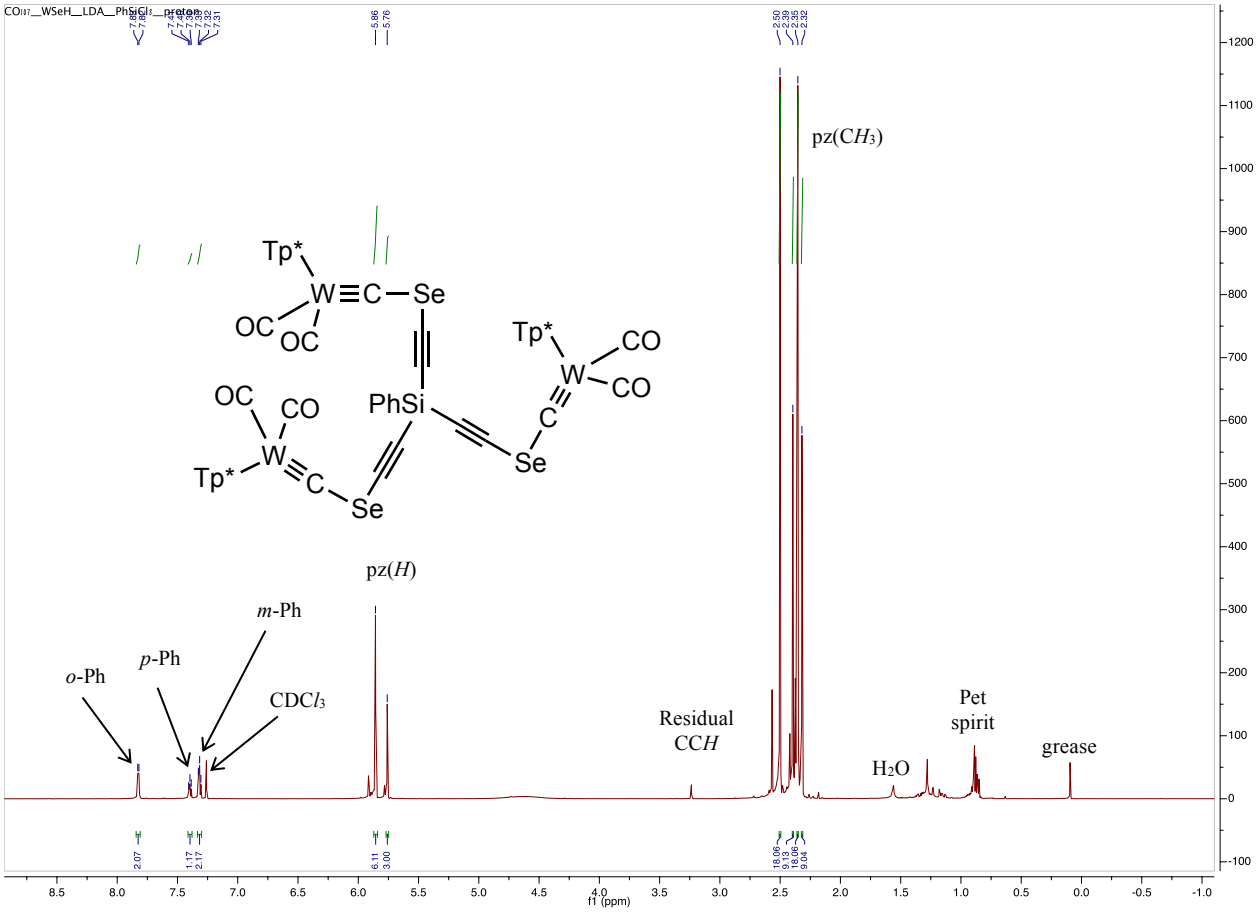
^{1}H NMR (700 MHz, $CDCl_3$, 25˚C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_3$SiEt] (**17**).



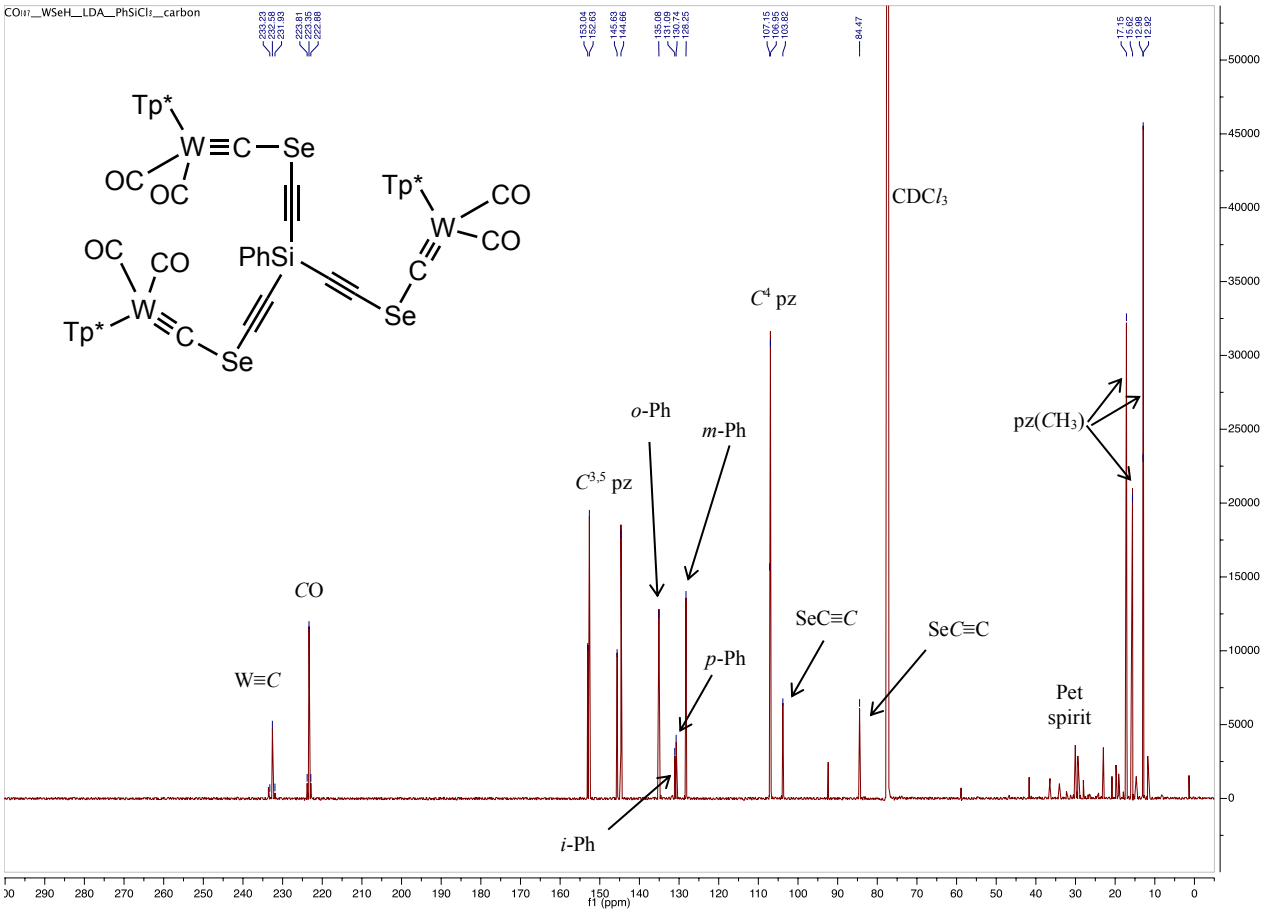
$^{13}C\{^{1}H\}$ NMR (176 MHz, $CDCl_3$, 25°C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_3$SiEt] (**17**).



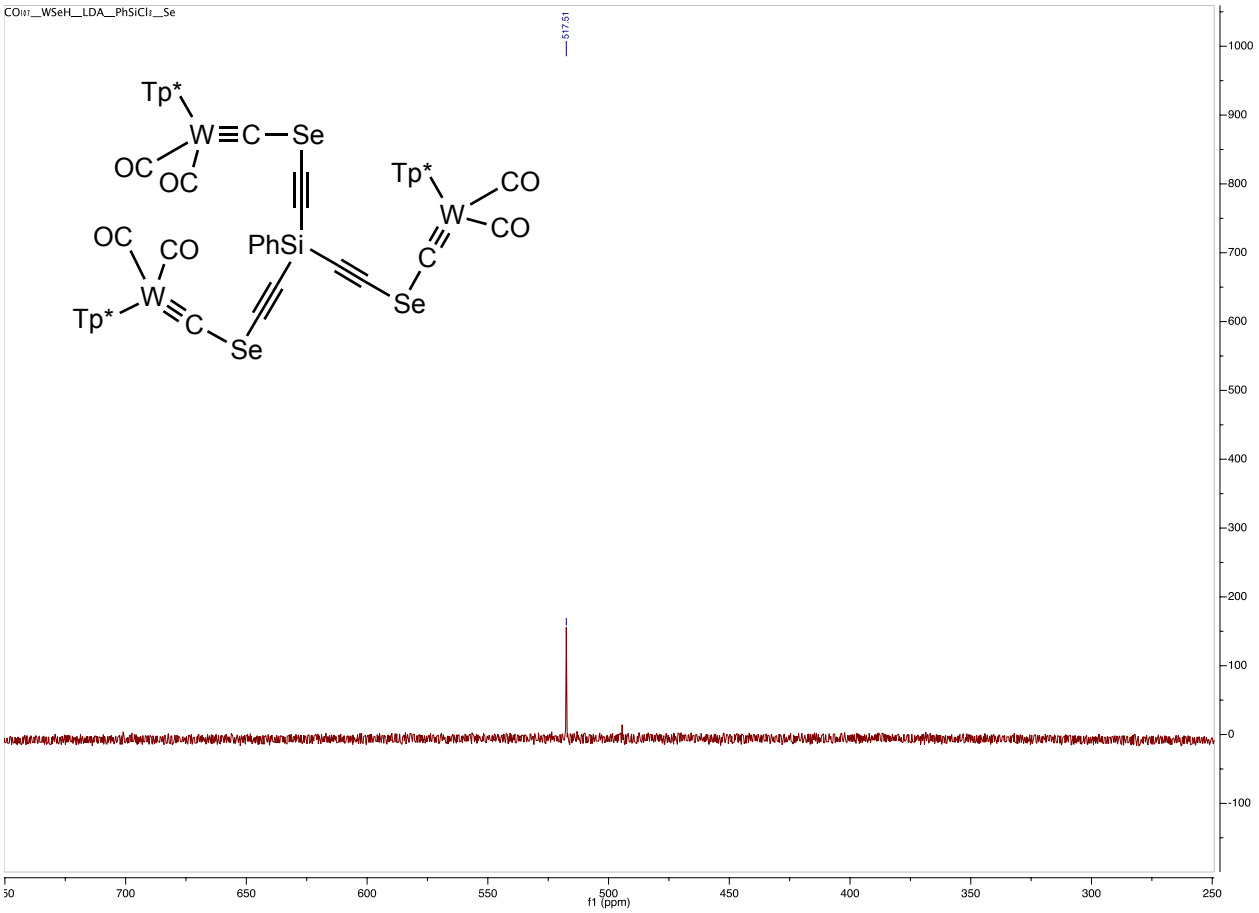
$^{77}Se\{^{1}H\}$ NMR (76 MHz, $CDCl_3$, 25°C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_3$SiEt] (**17**).



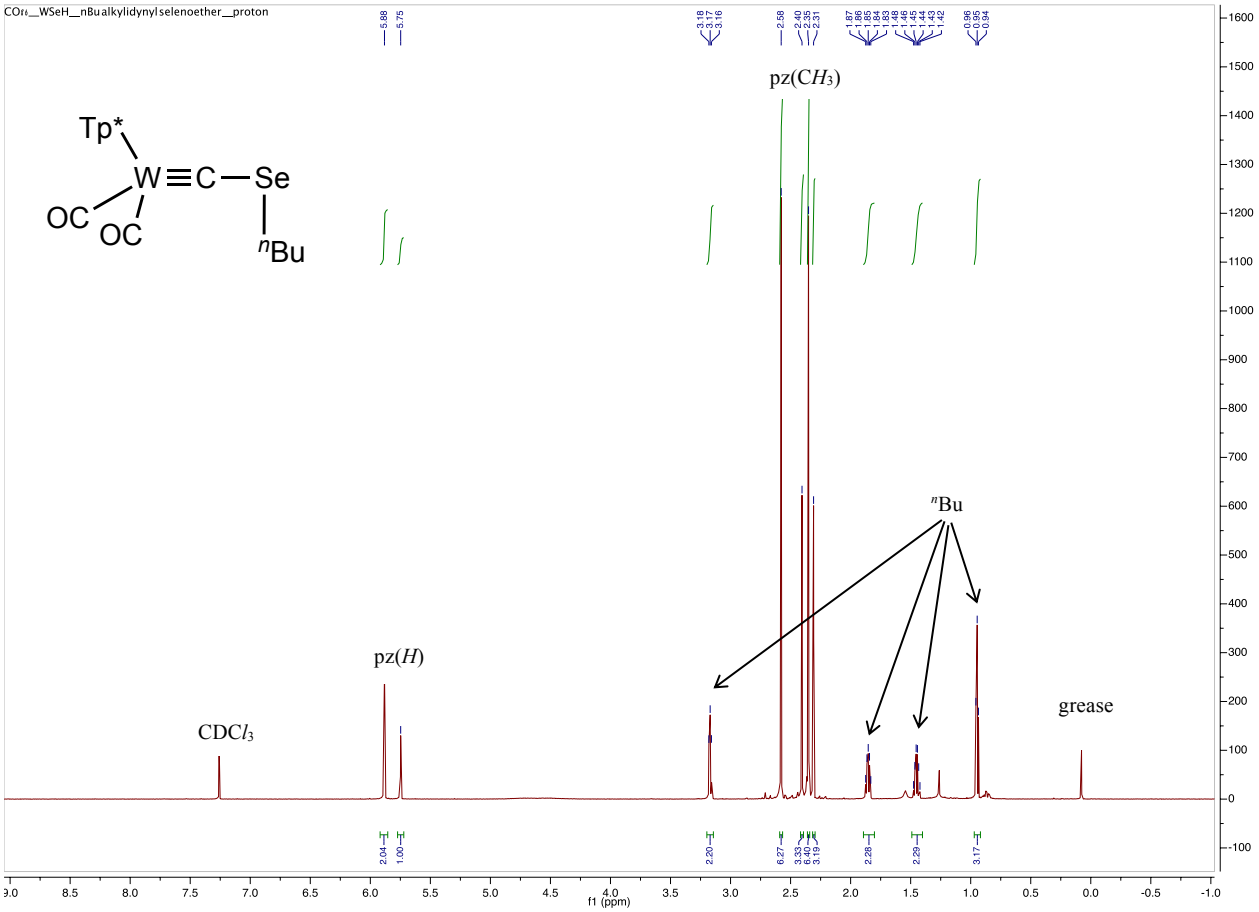
^{1}H NMR (400 MHz, $CDCl_3$, 25°C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_3$SiPh] (**18**).



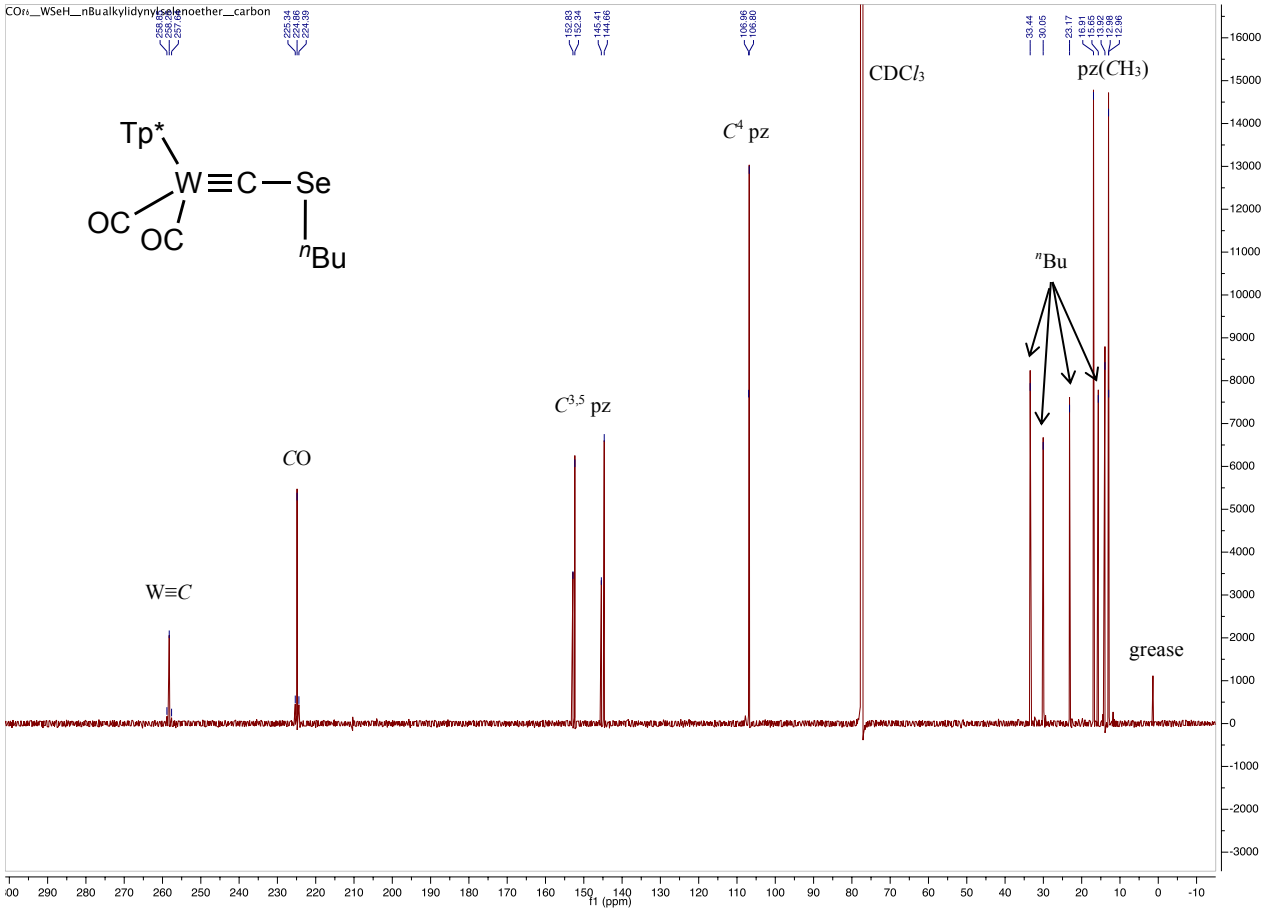
$^{13}C\{^{1}H\}$ NMR (101 MHz, $CDCl_3$, 25°C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_3$SiPh] (**18**).



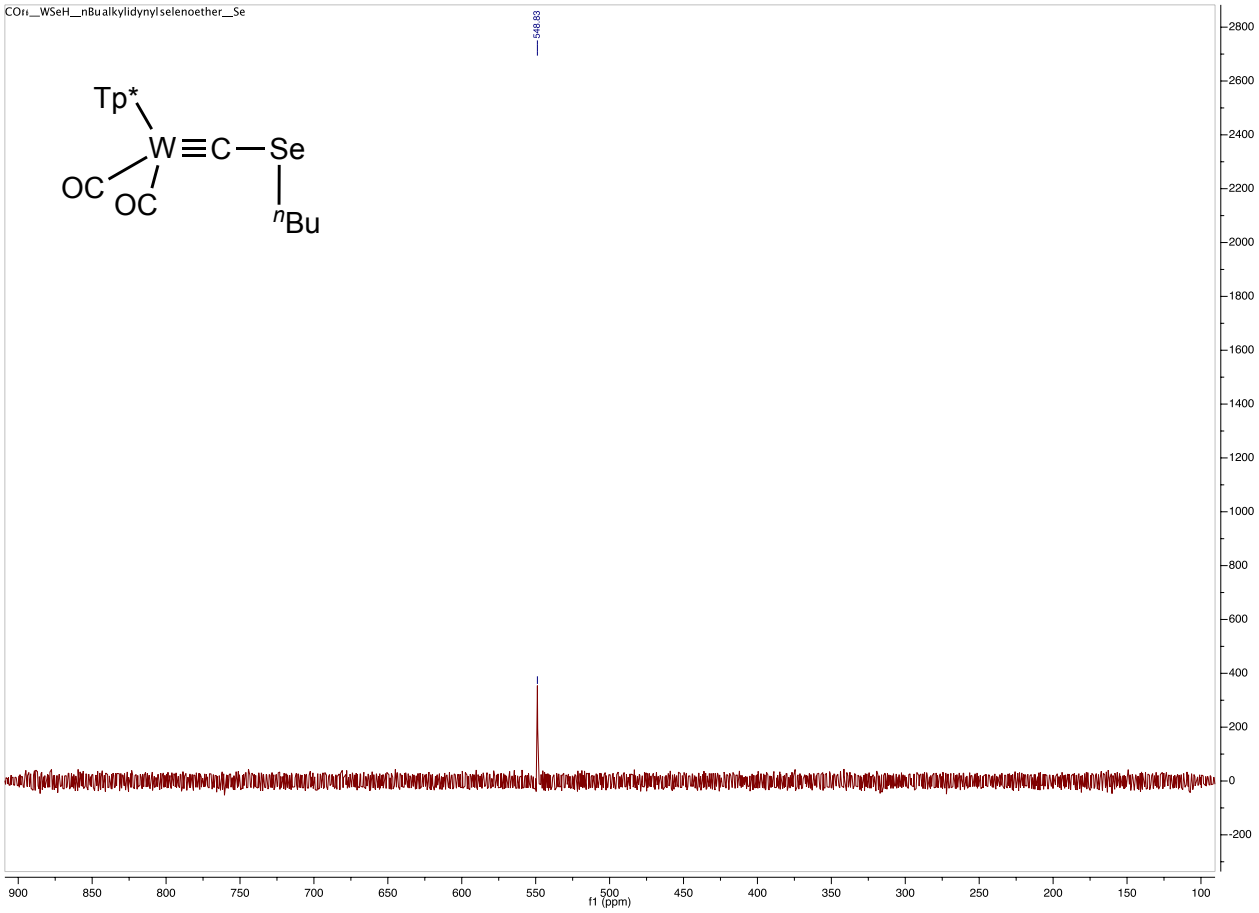
$^{77}Se\{^{1}H\}$ NMR (76 MHz, $CDCl_3$, 25°C, δ) of [{(Tp*)$(CO)_2$W≡CSeC≡C}$_3$SiPh] (**18**).



^{1}H NMR (700 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSe^{n}Bu)(CO)$_2$(Tp*)] (**19**).



$^{13}C\{^{1}H\}$ NMR (176 MHz, $CDCl_3$, 25°C, δ) of [W(≡CSe^{n}Bu)(CO)$_2$(Tp*)] (**19**).



$^{77}Se\{^{1}H\}$ NMR (76 MHz, $CDCl_3$, 25˚C, δ) of [W(≡CSe^{n}Bu)$(CO)_2$(Tp*)] (**19**).