Solvothermal synthesis of cobalt PCP pincer complexes from $[Co_2(CO)_8]$

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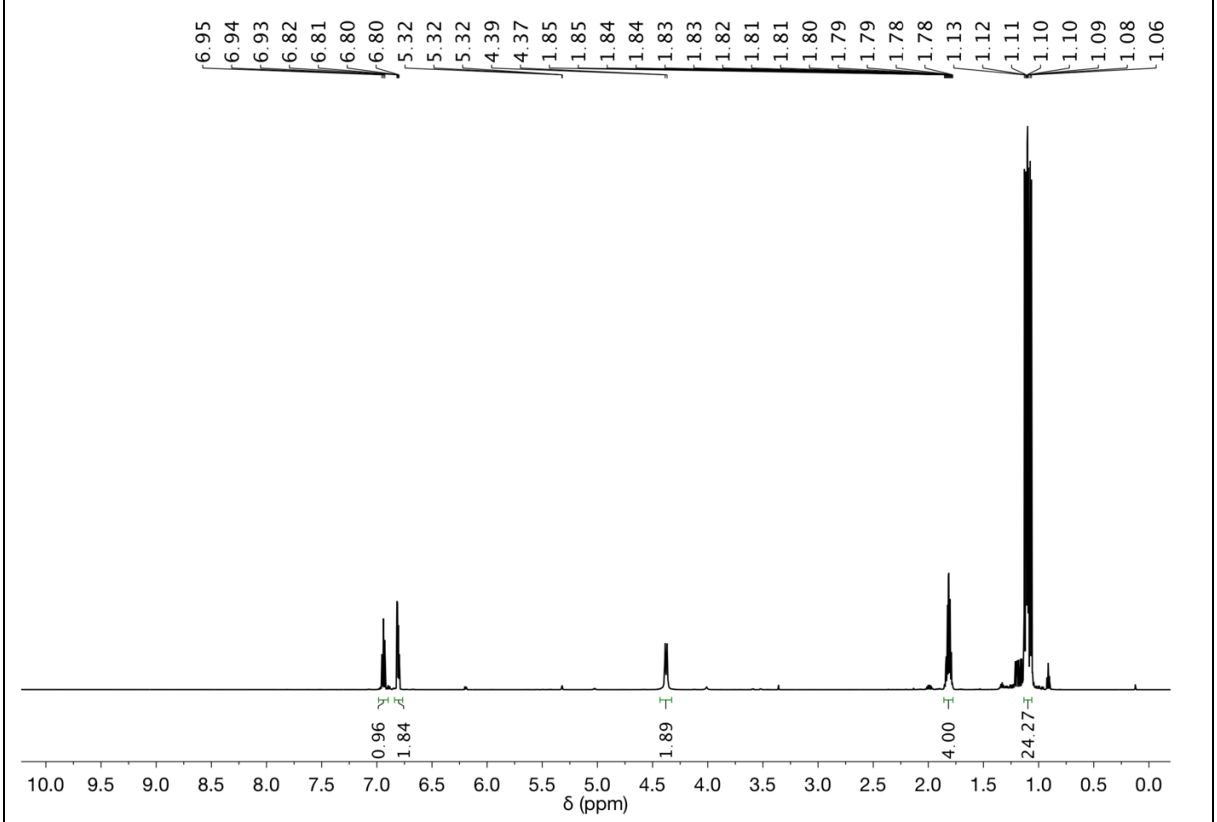
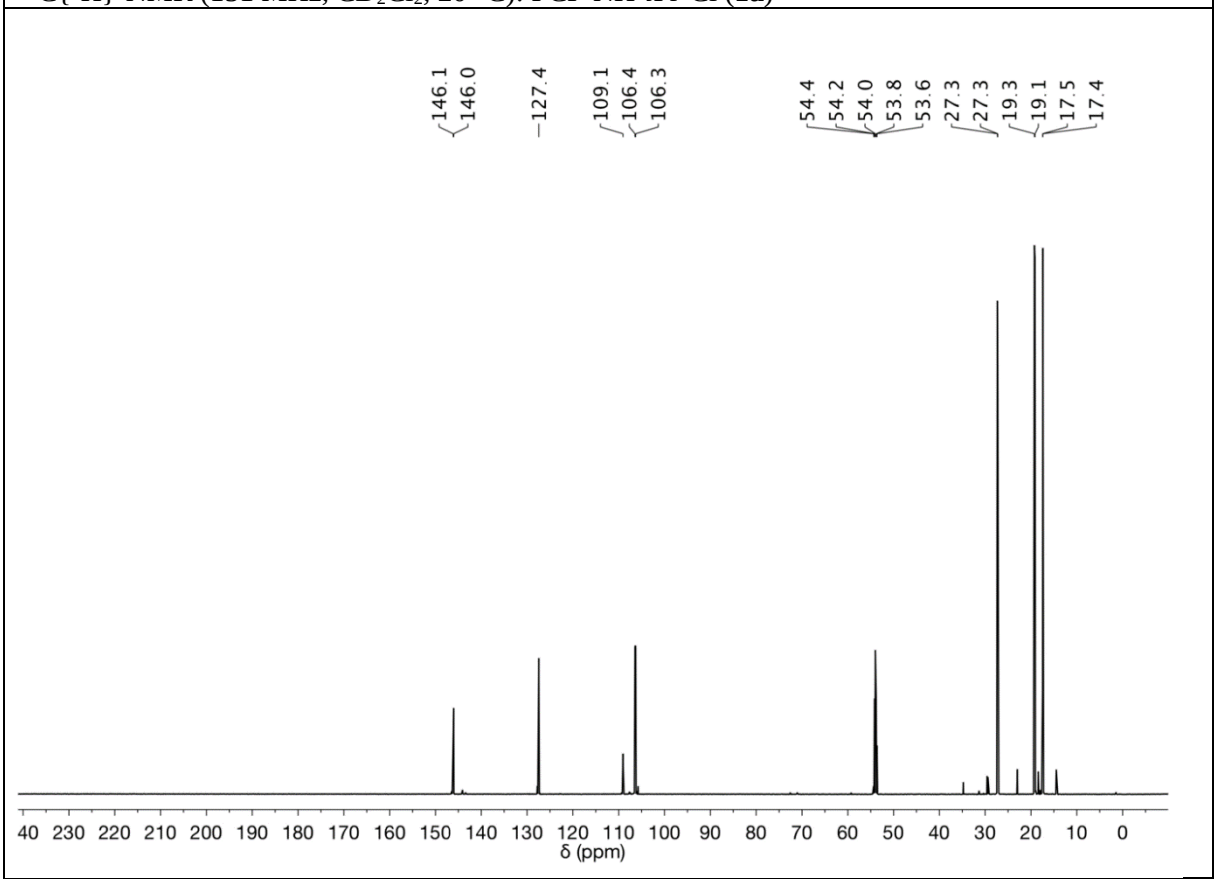
Supporting Information

NMR spectra

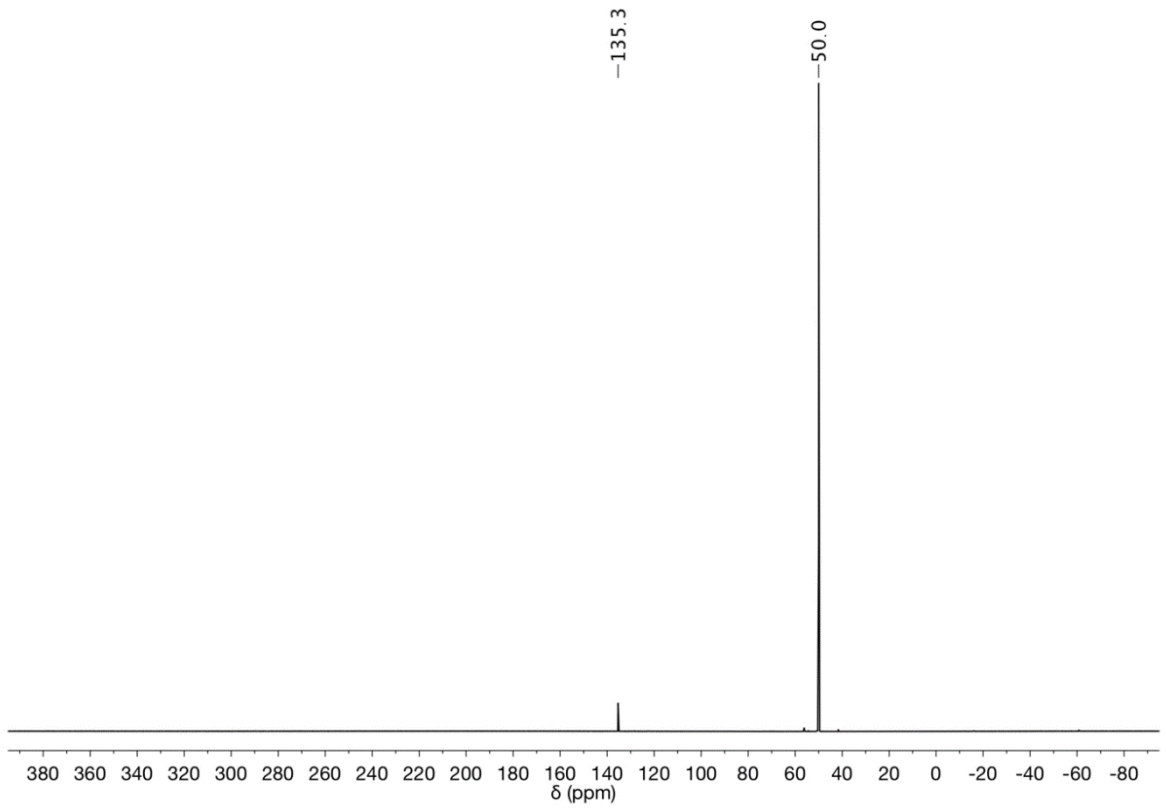
^{1}H-NMR (600 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*i*Pr-Cl (**1a**)



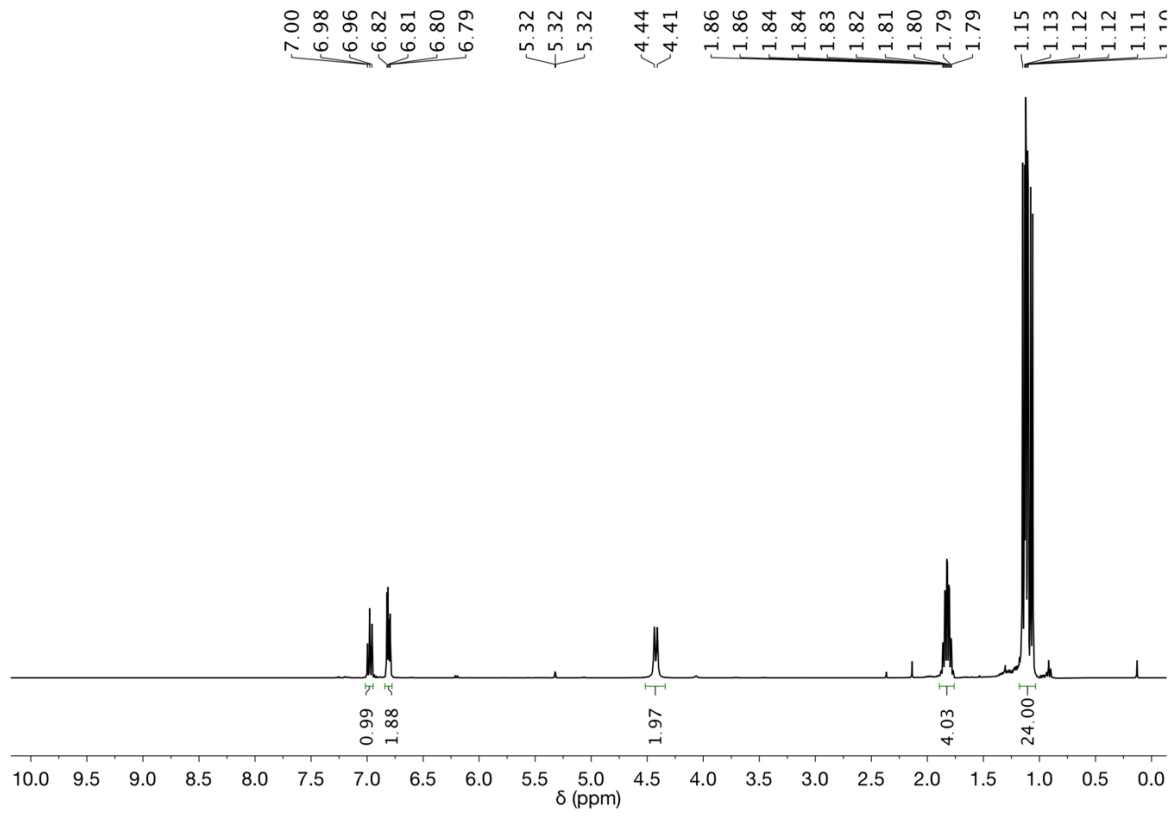
^{13}C{^{1}H}-NMR (151 MHz, CD_2Cl_2, 20 °C): PCP-NH-*i*Pr-Cl (**1a**)



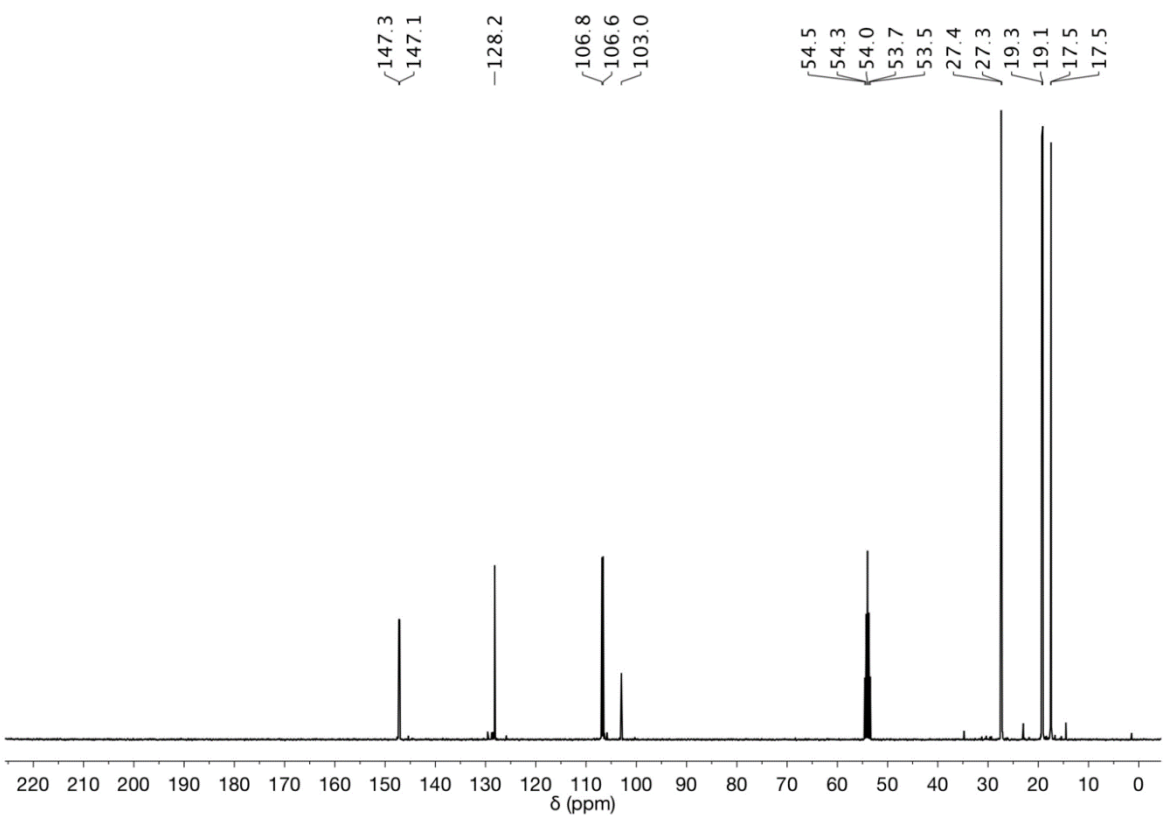
$^{31}P\{^{1}H\}$-NMR (243 MHz, CD_2Cl_2, 20 °C): PCP-NH-*i*Pr-Cl (**1a**)



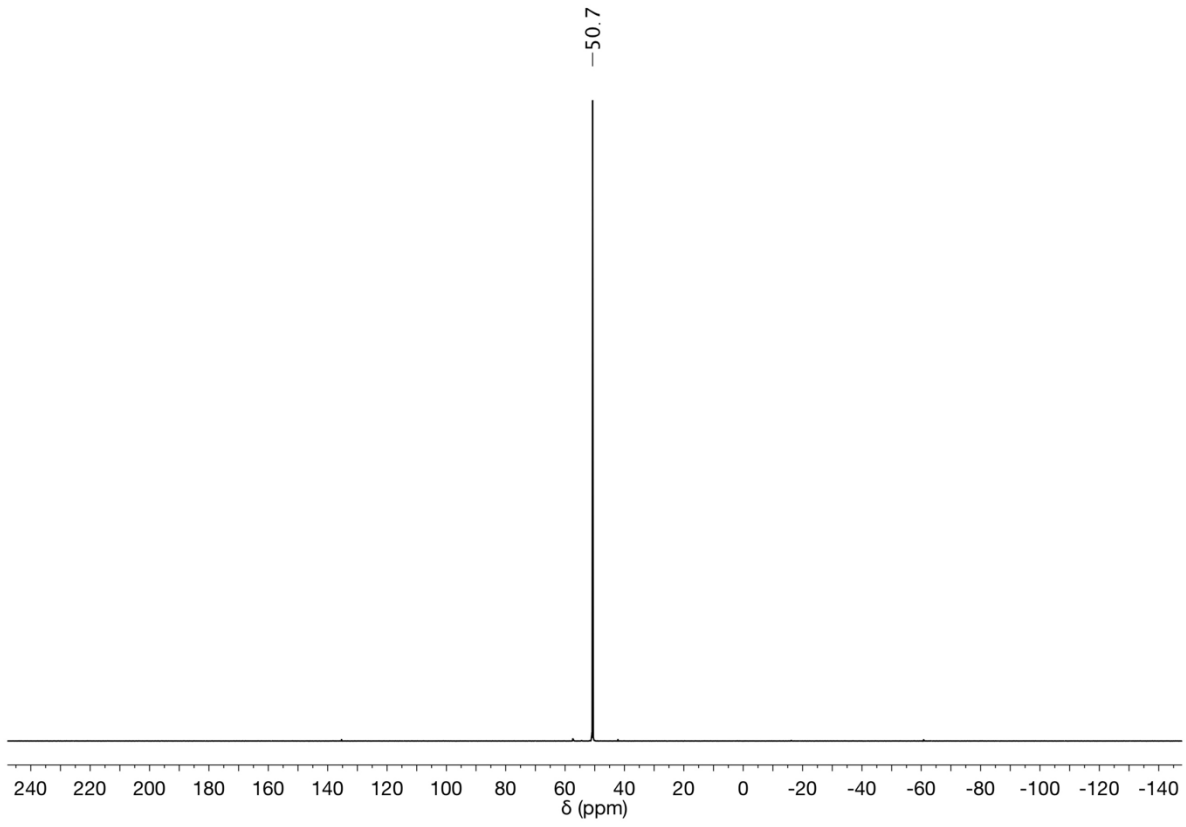
^{1}H-NMR (400 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*i*Pr-Br (**1b**)



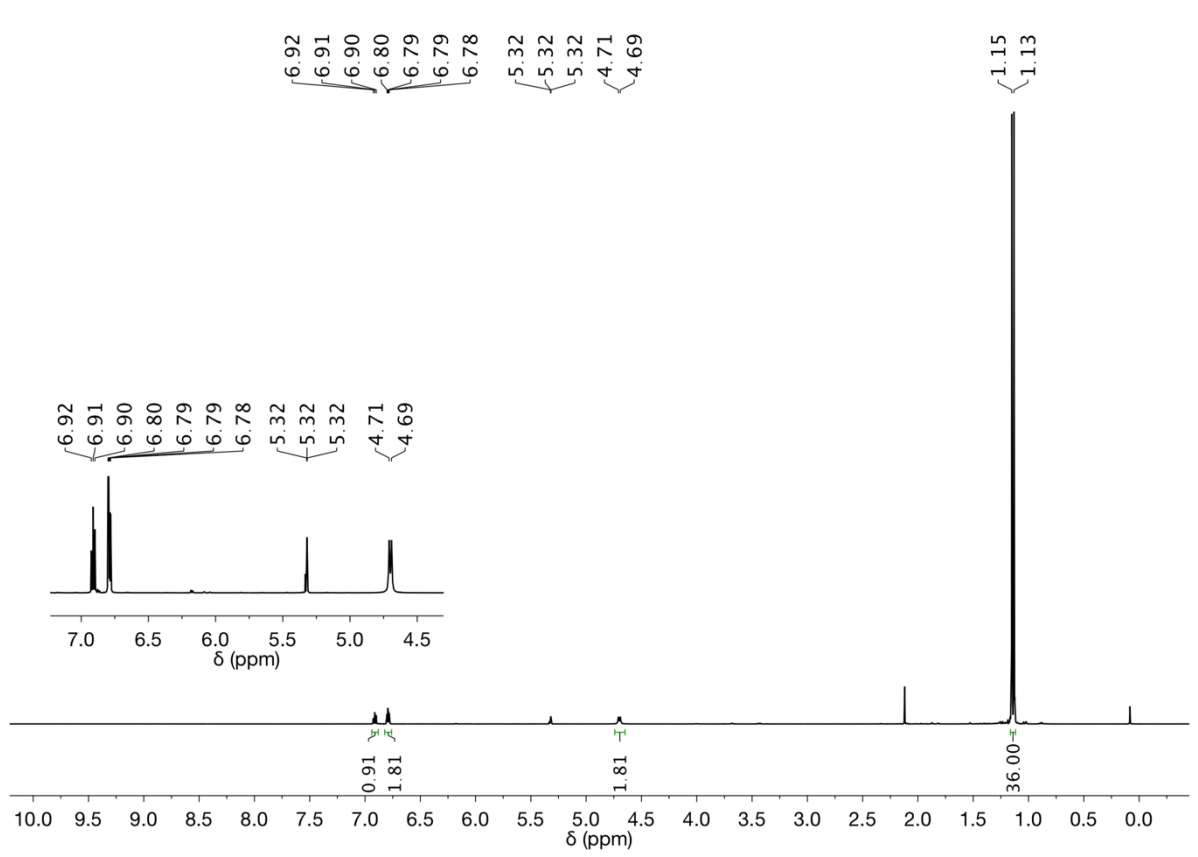
$^{13}C\{^{1}H\}$-NMR (400 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*i*Pr-Br (**1b**)



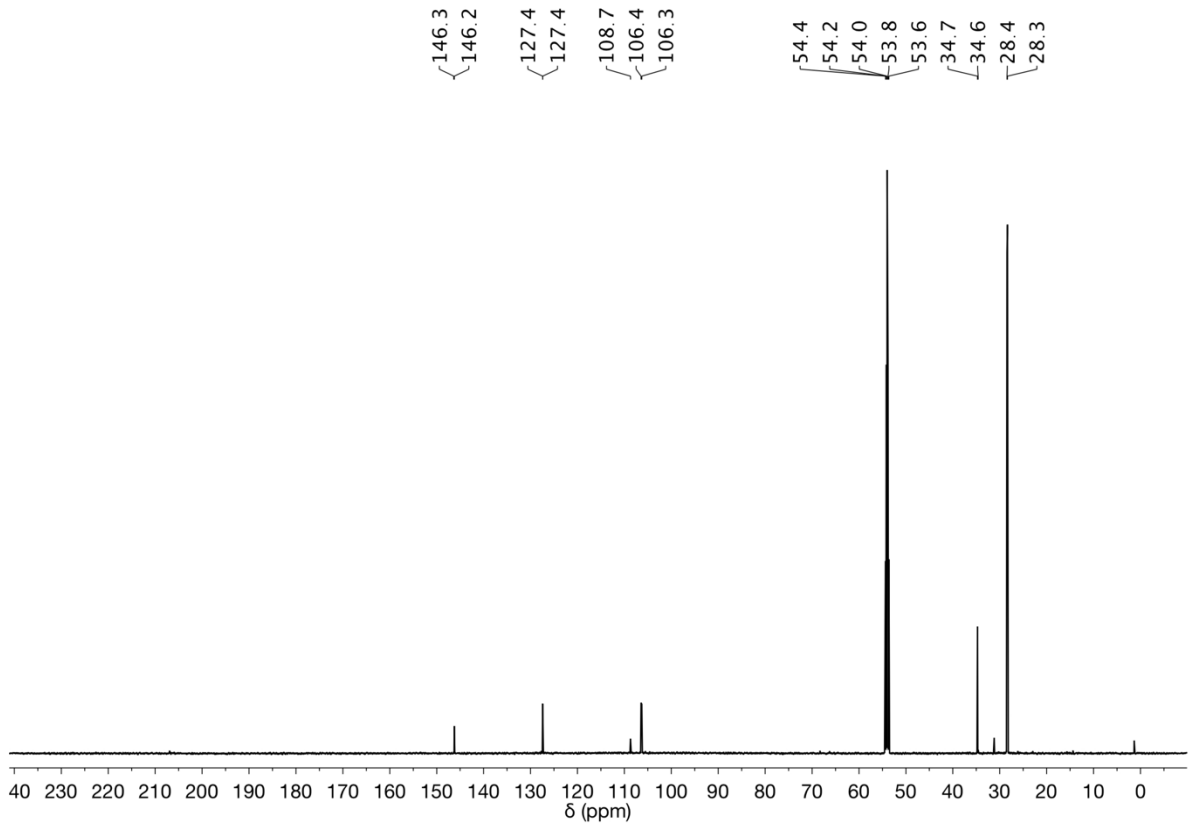
$^{31}P\{^{1}H\}$-NMR (400 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*i*Pr-Br (**1b**)



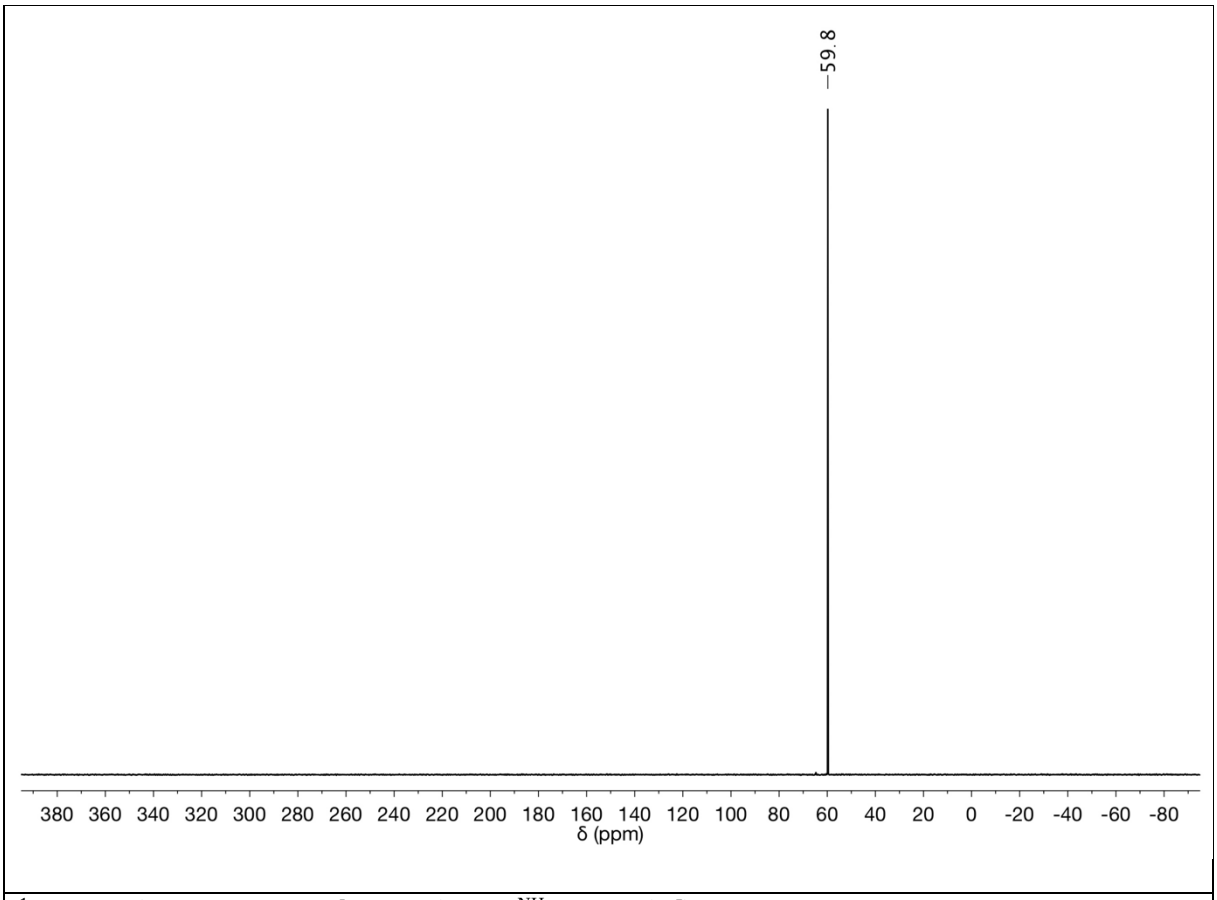
^{1}H-NMR (600 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*t*Bu-Cl (**1c**)



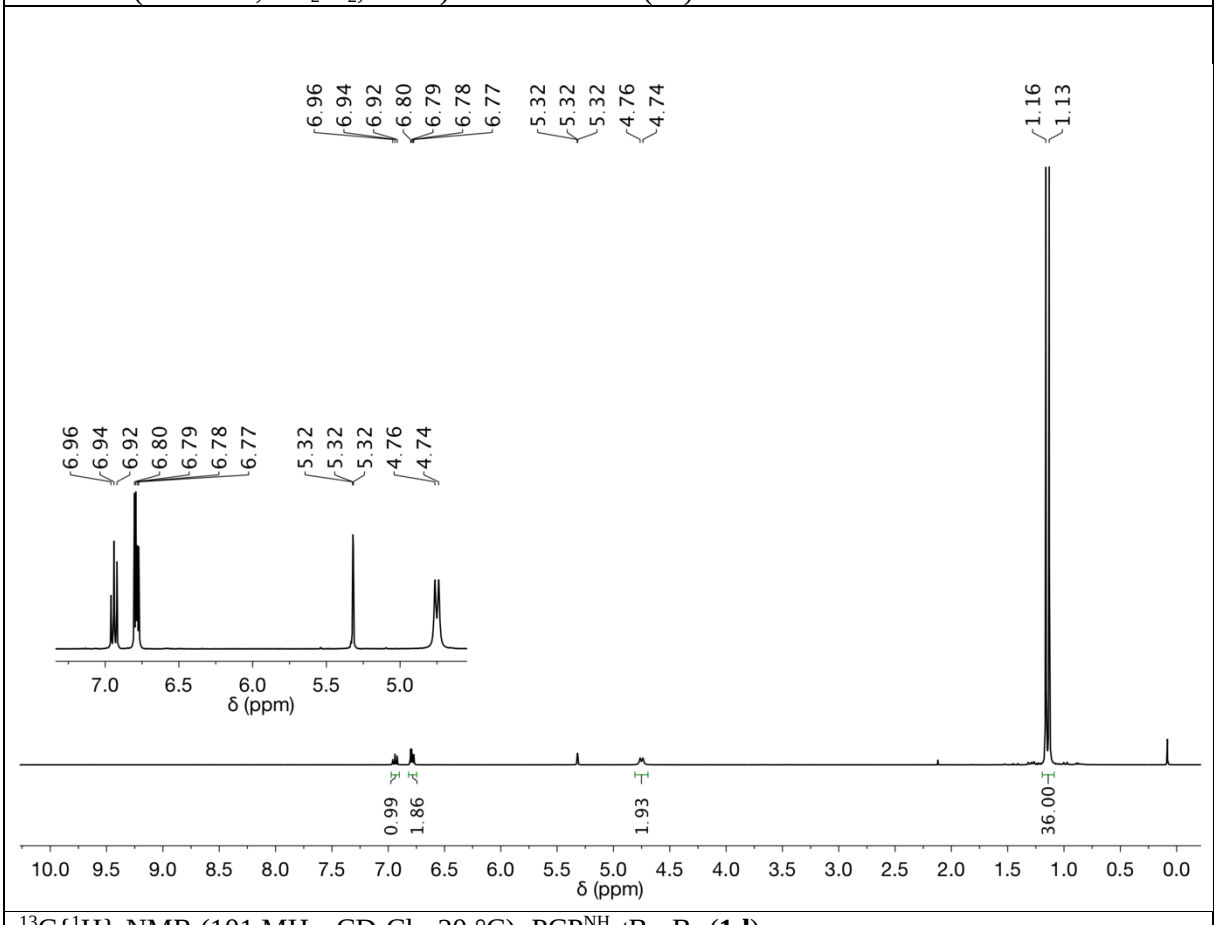
^{13}C{^{1}H}-NMR (151 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*t*Bu-Cl (**1c**)



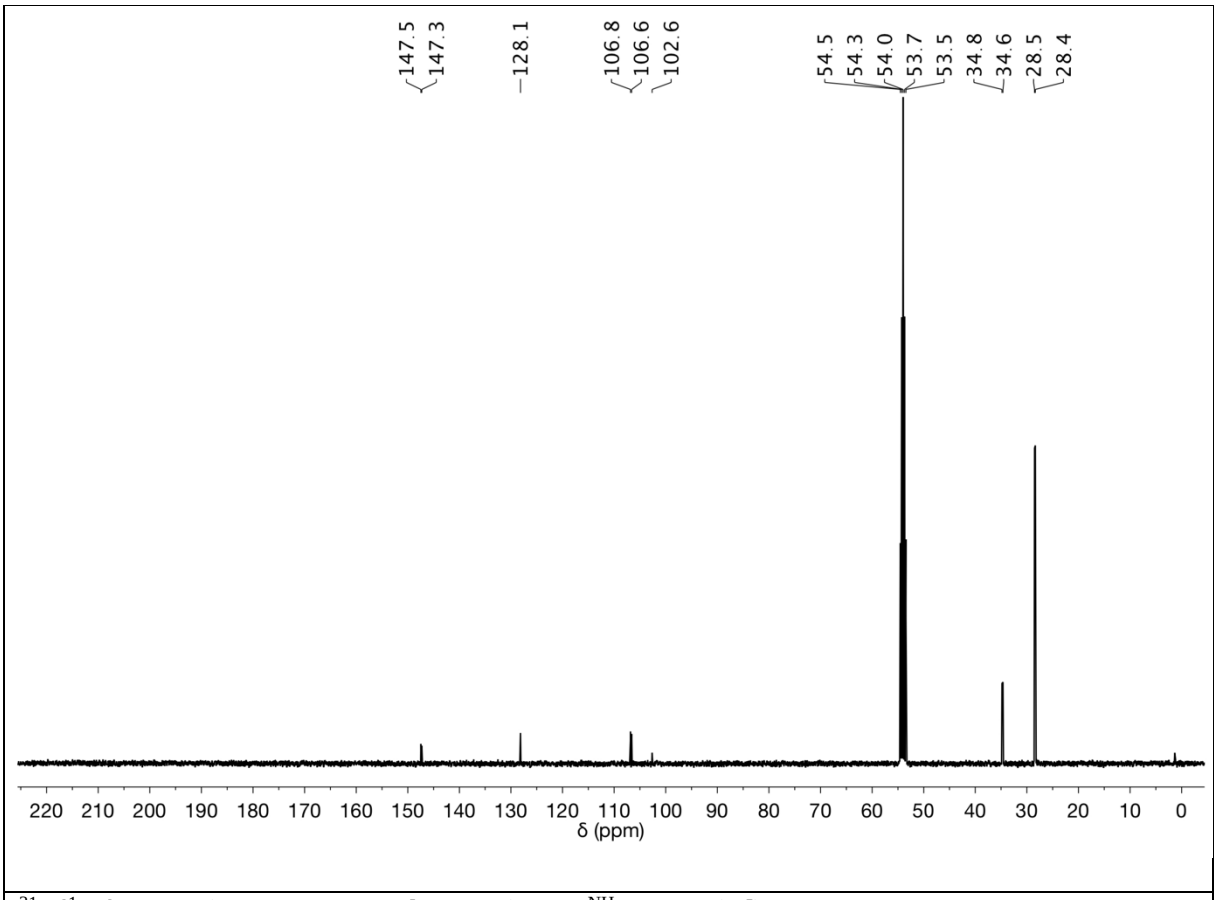
^{31}P{^{1}H}-NMR (243 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*t*Bu-Cl (**1c**)



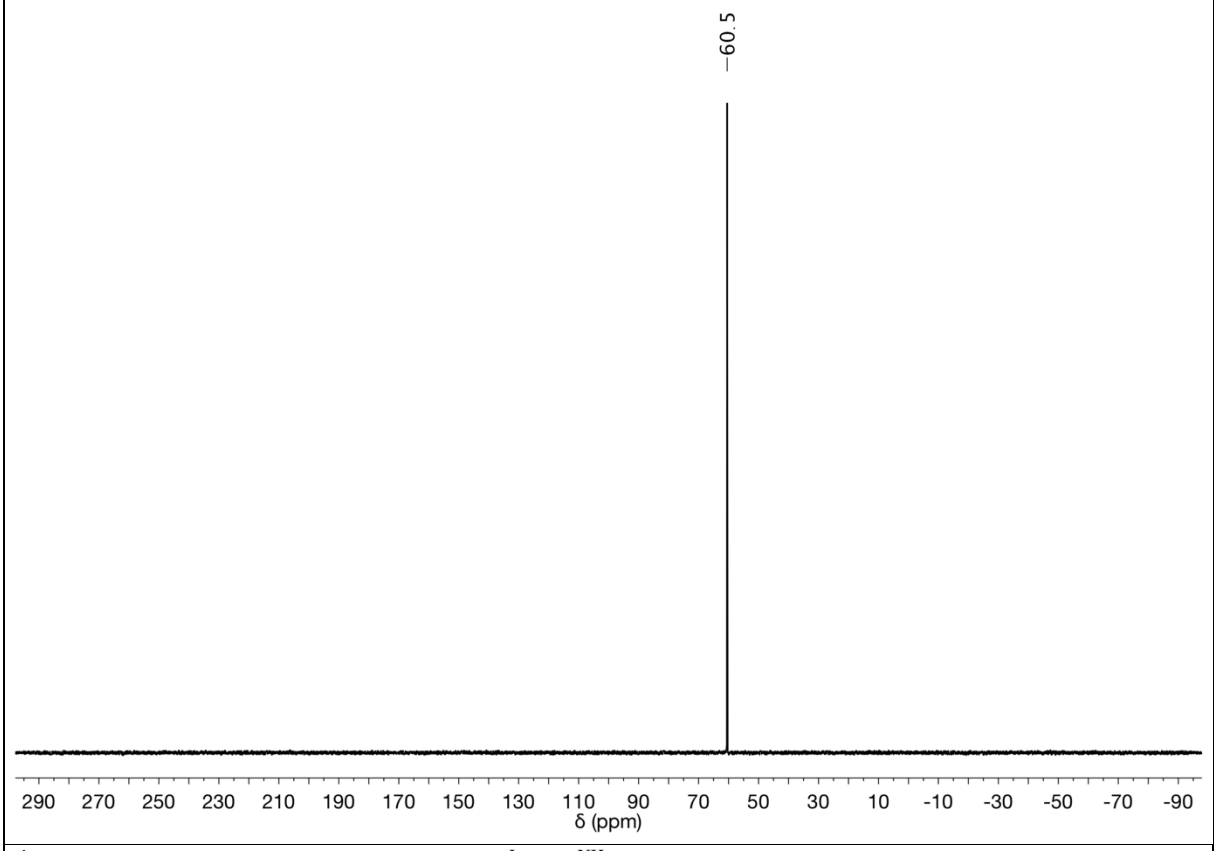
^{1}H-NMR (400 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*t*Bu-Br (**1d**)



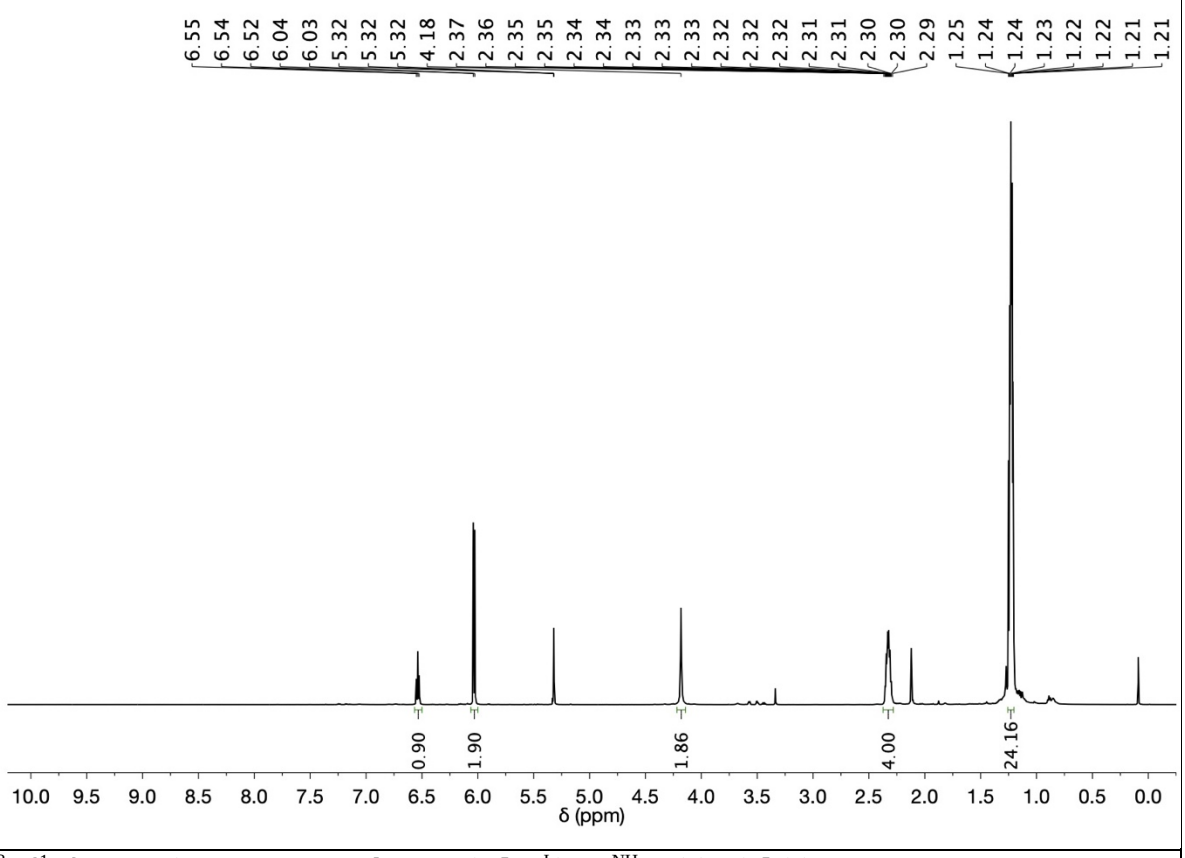
^{13}C{^{1}H}-NMR (101 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*t*Bu-Br (**1d**)



$^{31}P\{^{1}H\}$-NMR (162 MHz, CD_2Cl_2, 20 °C): PCP^{NH}-*t*Bu-Br (**1d**)



^{1}H-NMR (400 MHz, CD_2Cl_2, 20 °C): [$Co^{I}(PCP^{NH}$-*i*Pr)$(CO)_2$] (**3**)



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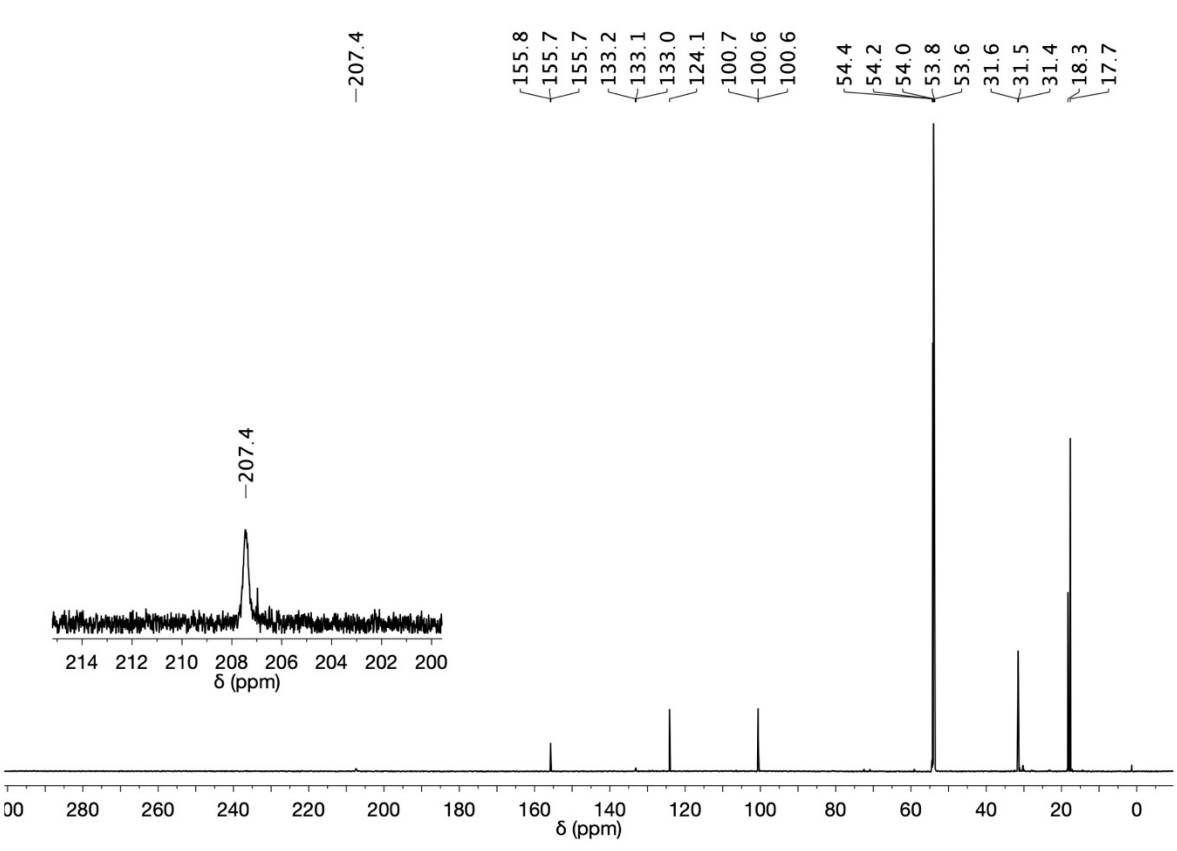
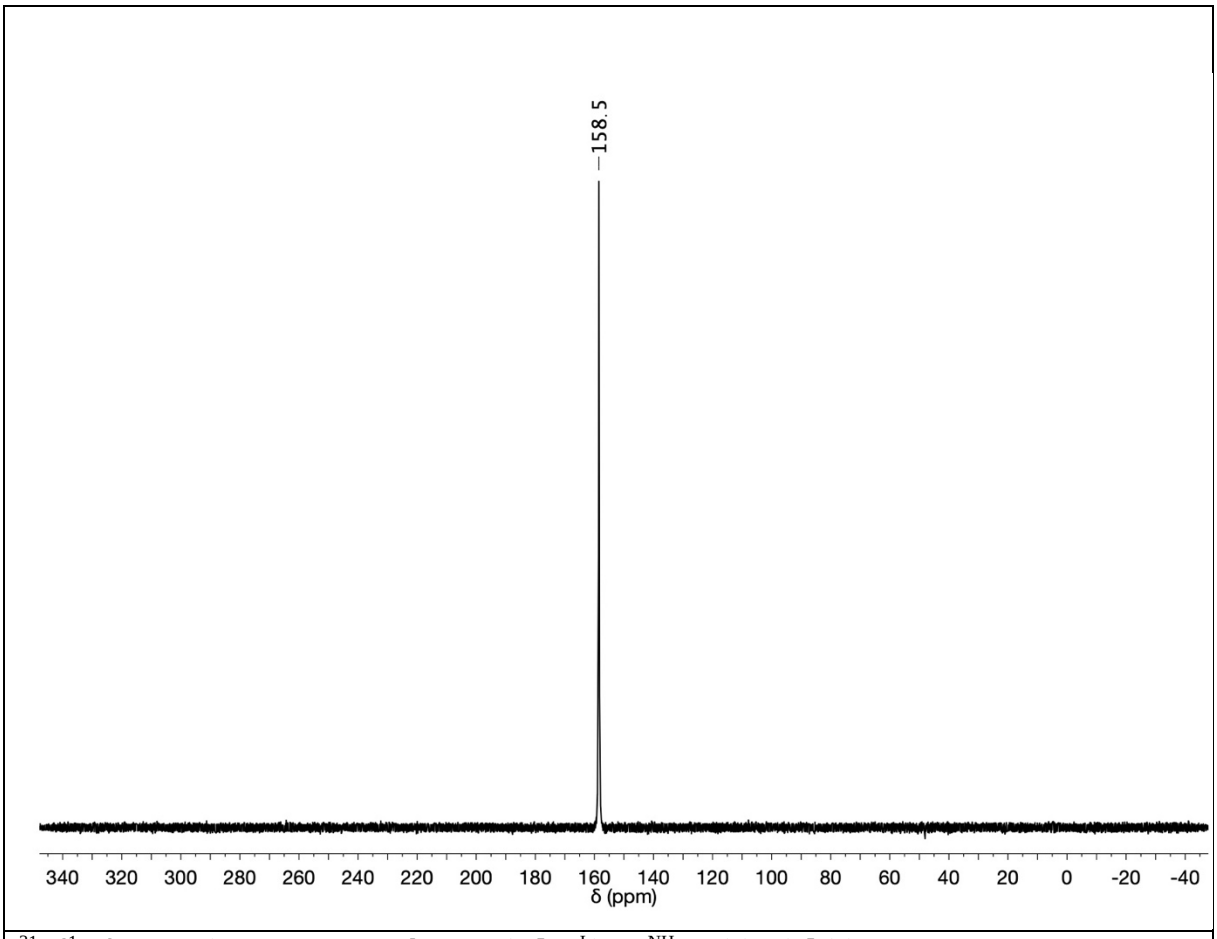
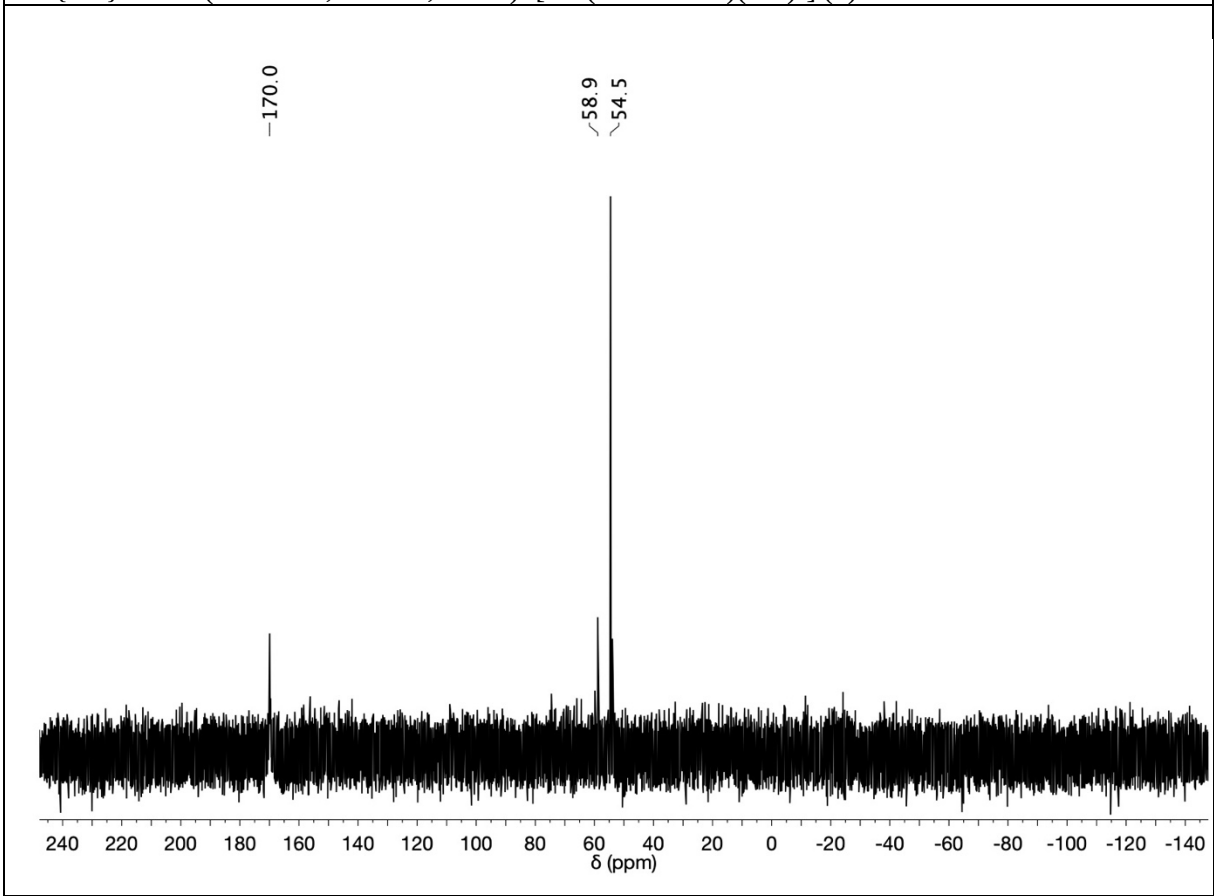


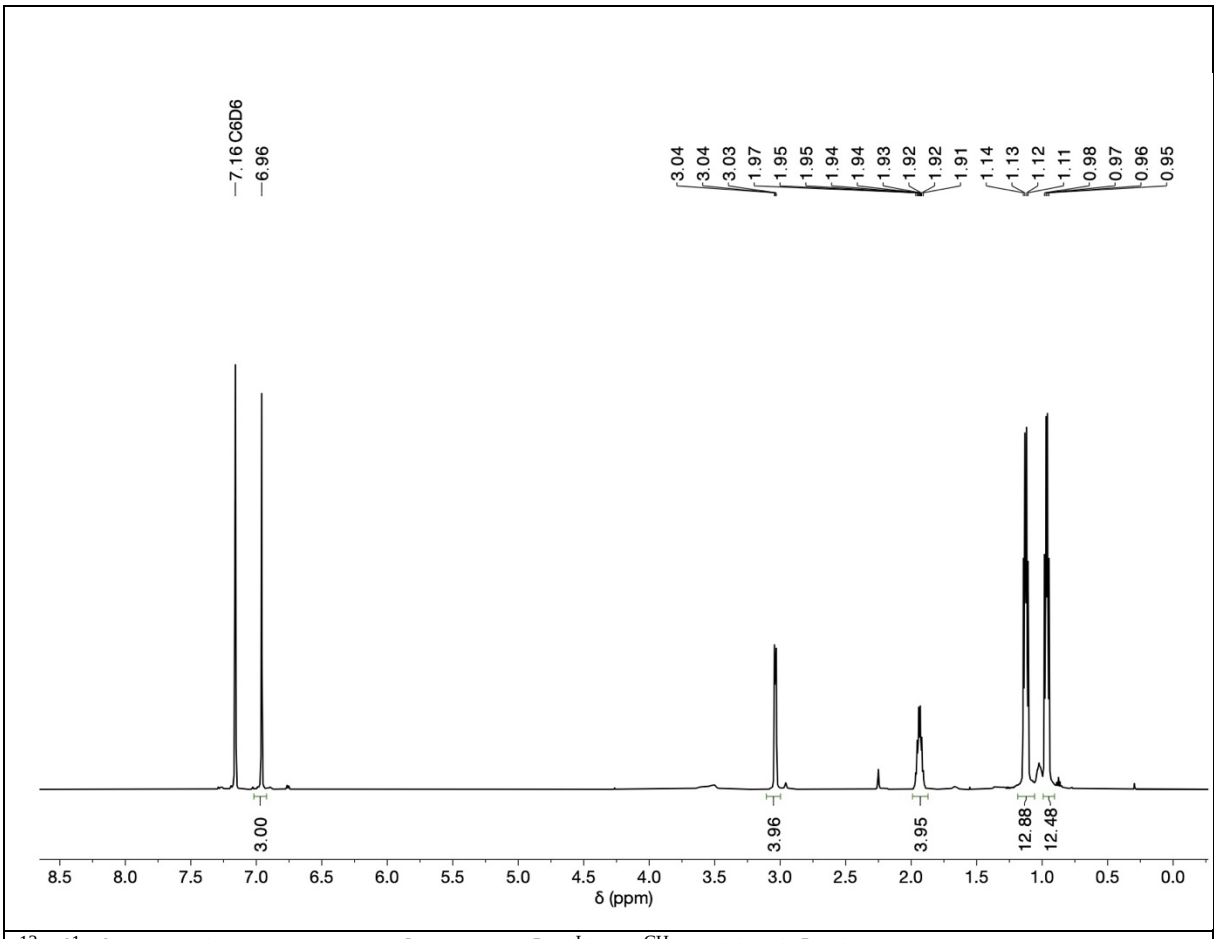
$^{31}P\{^{1}H\}$-NMR (162 MHz, CD_2Cl_2, 20 °C): [$Co^{I}(PCP^{NH}$-*i*Pr)$(CO)_2$] (**3**)



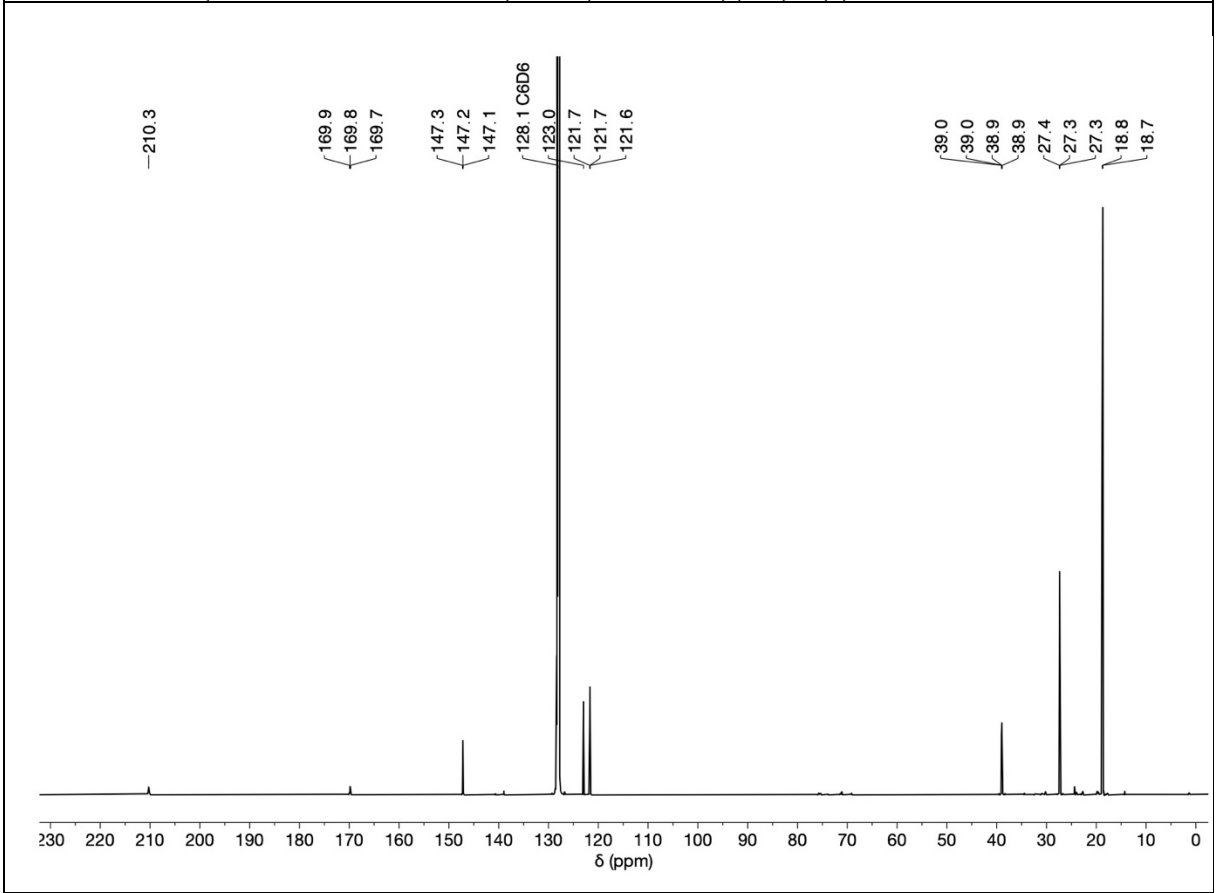
$^{31}P\{^{1}H\}$-NMR (162 MHz, CD_2Cl_2, 20 °C): [$Co^{I}(PCP^{NH}$-*t*Bu)$(CO)_2$] (**4**)



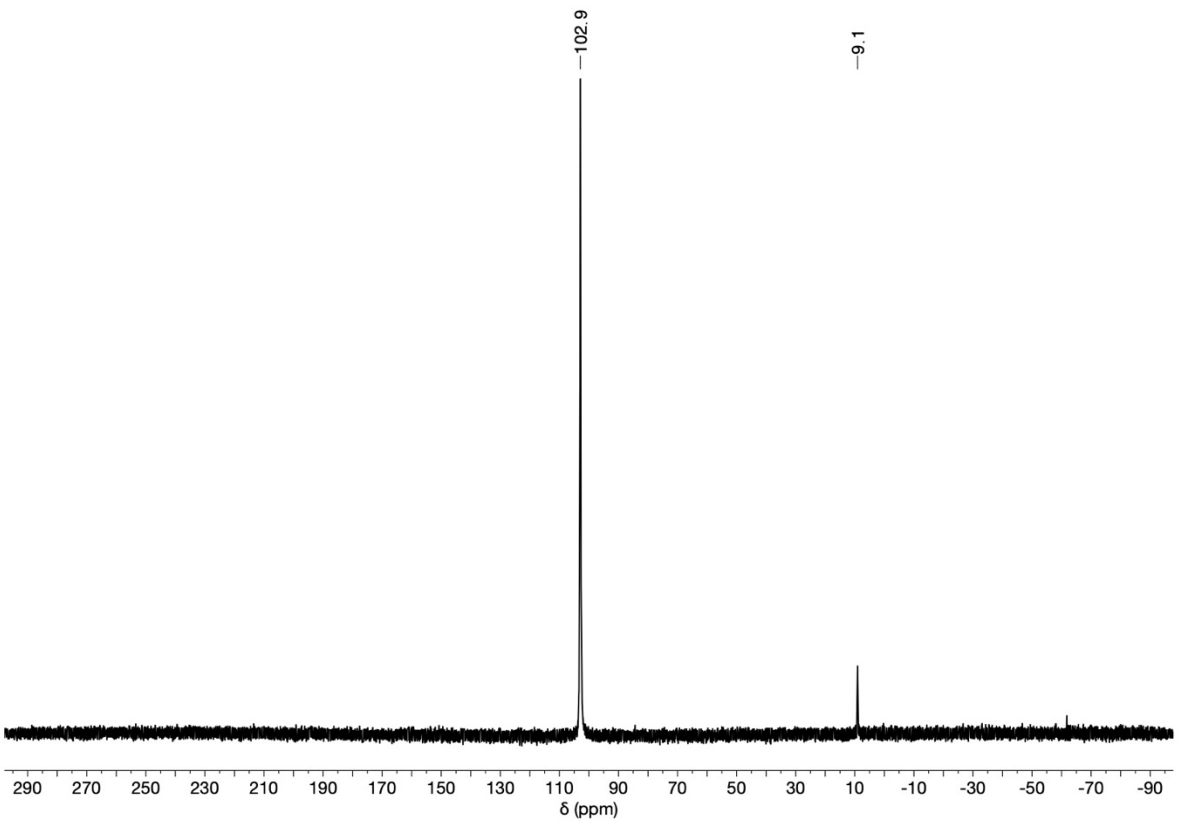
^{1}H-NMR (600 MHz, C_6D_6, 20 °C): [$Co^{I}(PCP^{CH_2}$-*i*Pr$)(CO)_2$] (**7**)



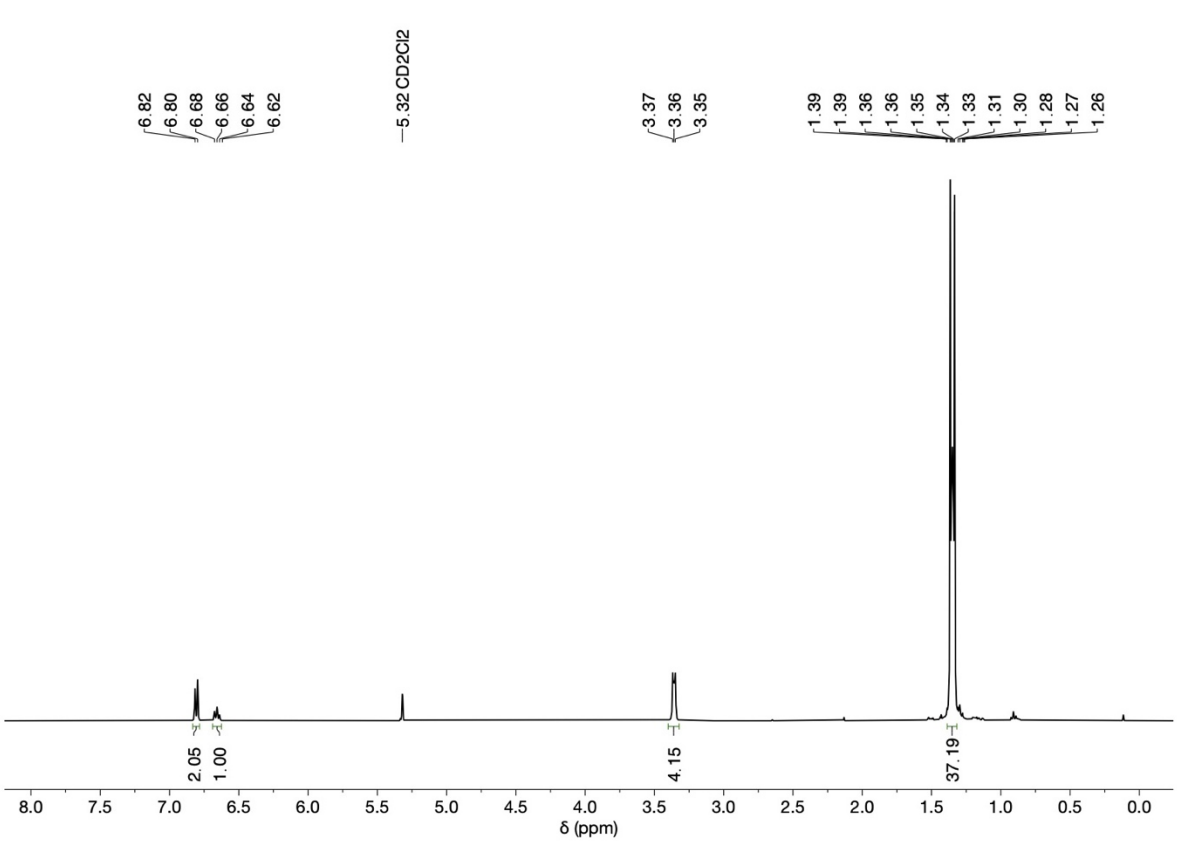
$^{13}C\{^{1}H\}$-NMR (151 MHz, CD_2Cl_2, 20 °C): $[Co^{I}(PCP^{CH_2}\text{-}i\text{Pr})(CO)_2]$ (**7**)



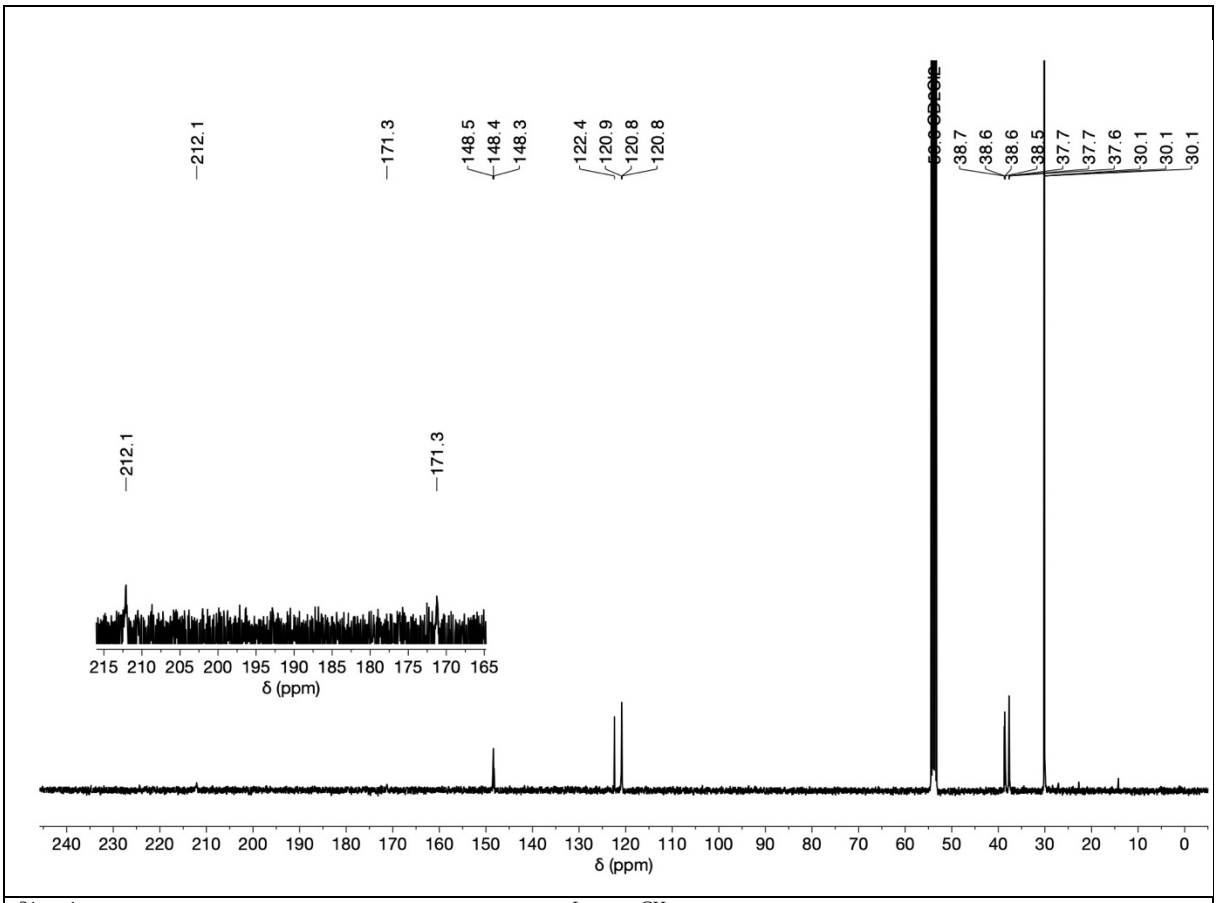
$^{31}P\{^{1}H\}$-NMR (243 MHz, CD_2Cl_2, 20 °C): $[Co^{I}(PCP^{CH_2}\text{-}i\text{Pr})(CO)_2]$ (**7**)



^{1}H-NMR (400 MHz, C_6D_6, 20 °C): [Co^{I}(PCP^{CH_2}-*t*Bu)(CO)$_2$] (**8**)



^{13}C{^{1}H}-NMR (101 MHz, CD_2Cl_2, 20 °C): [Co^{I}(PCP^{CH_2}-*t*Bu)(CO)$_2$] (**8**)



$^{31}P\{^{1}H\}$-NMR (162 MHz, CD_2Cl_2, 20 °C): [Co^{I}(PCP^{CH_2}-*t*Bu)$(CO)_2$] (**8**)