

Supporting information for

Coinage metal complexes containing perfluorinated carboxylates.

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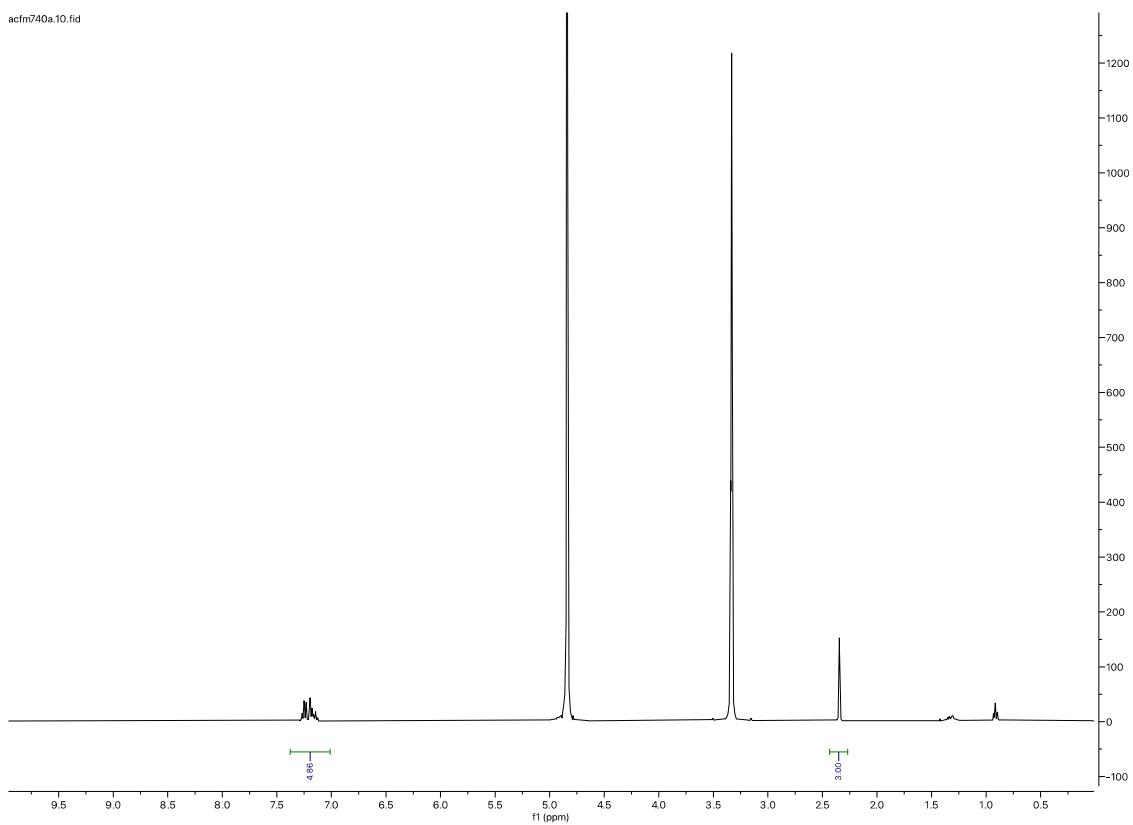
Corresponding author e-mail: fmohr@uni-wuppertal.de

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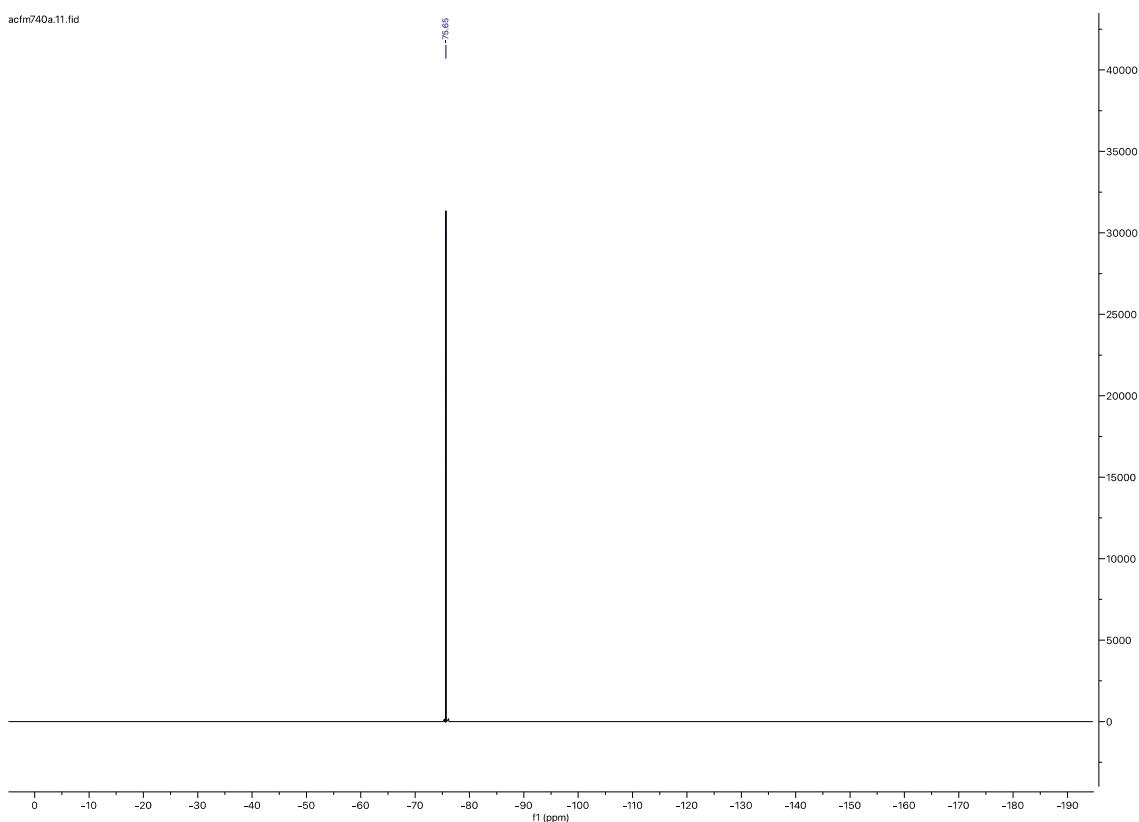
NMR spectra of the complexes

$[\text{Ag}(\text{O}_2\text{CCF}_3)(\eta^2\text{-MeC}_6\text{H}_5)]_n$ (**1**)

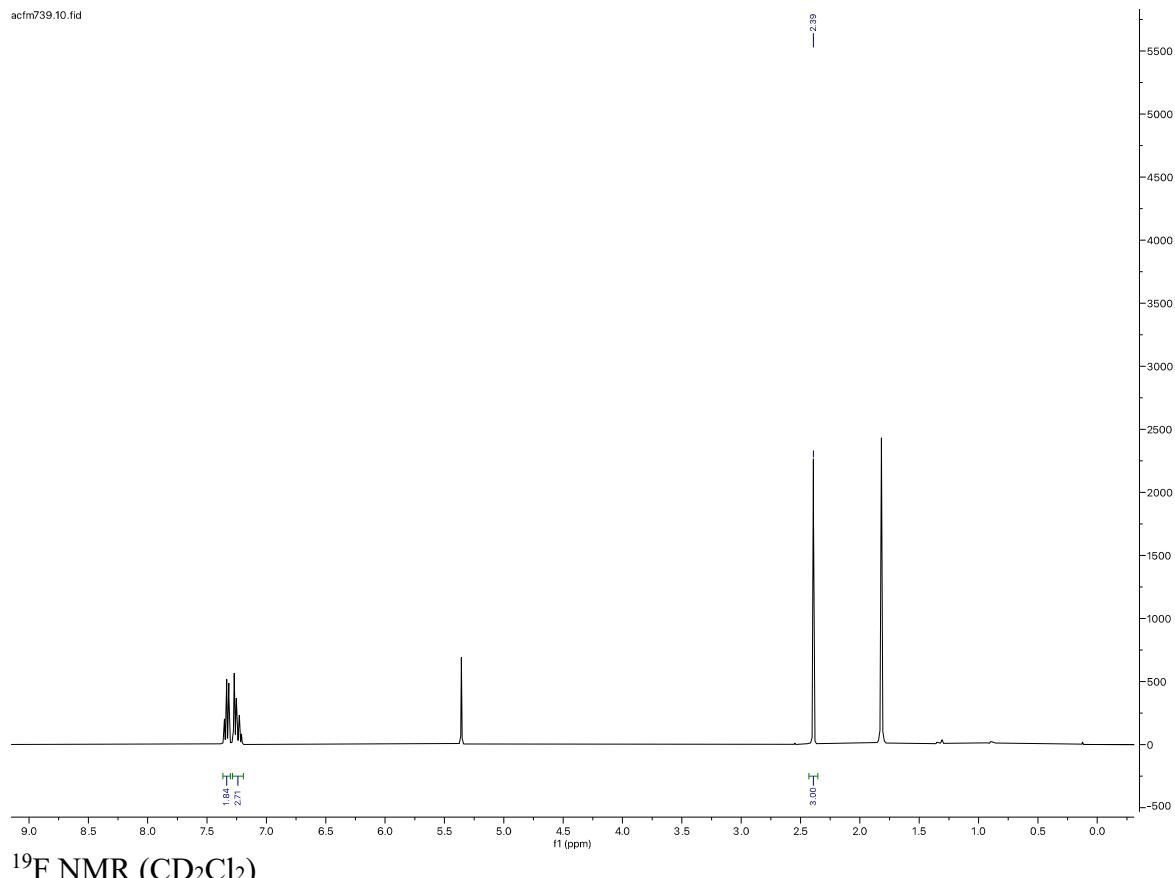
^1H NMR (CD_3OD)



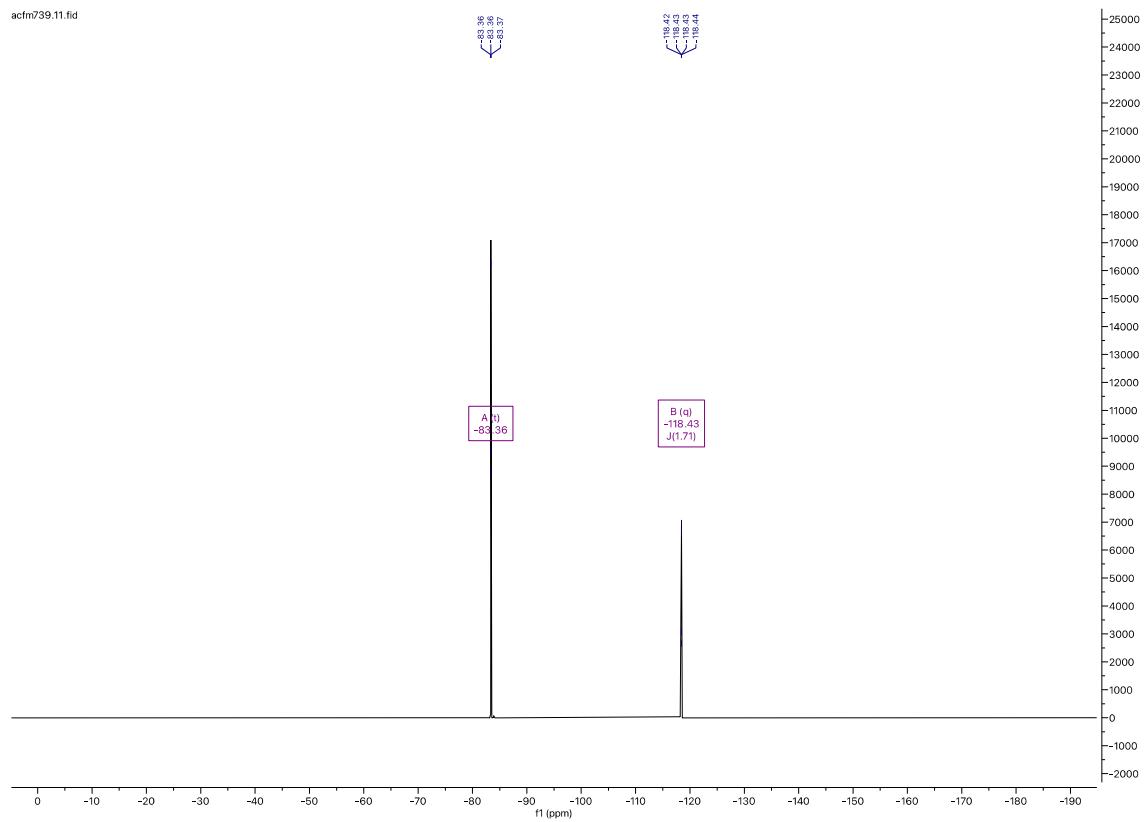
^{19}F NMR (CD_3OD)



$[\text{Ag}_2(\text{O}_2\text{CCF}_2\text{CF}_3)_2(\eta^2\text{-MeC}_6\text{H}_5)]_n$ (**2**)
¹H NMR (CD₂Cl₂)



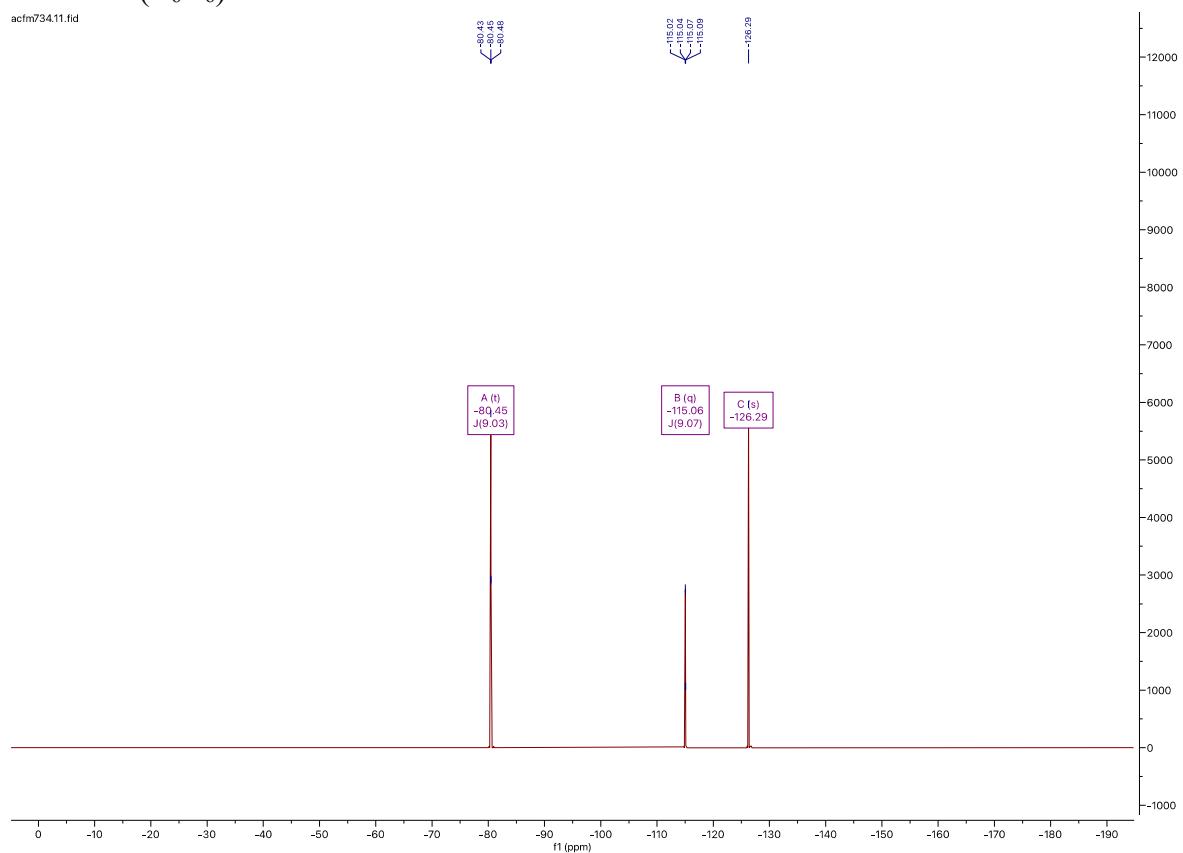
¹⁹F NMR (CD₂Cl₂)



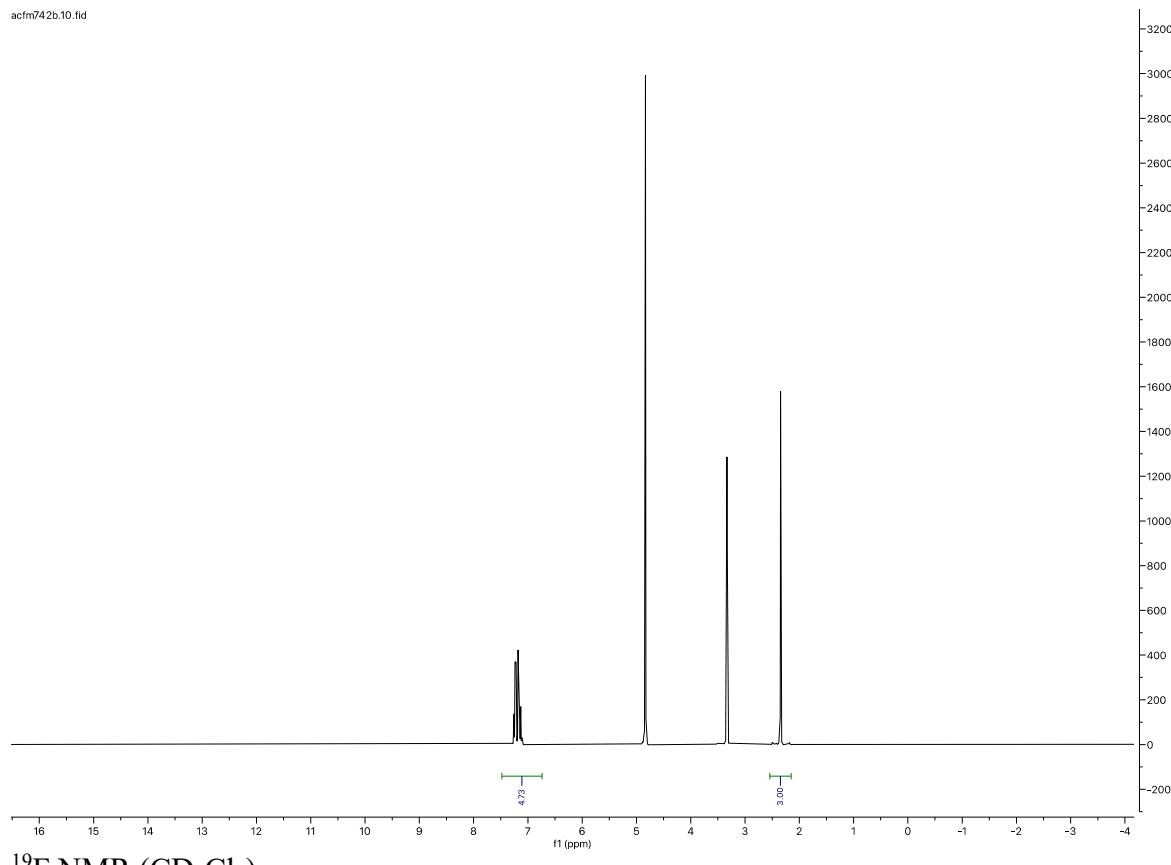
[Ag{O₂C(CF₂)₂CF₃}]_n (**3**)

¹⁹F NMR (C₆D₆)

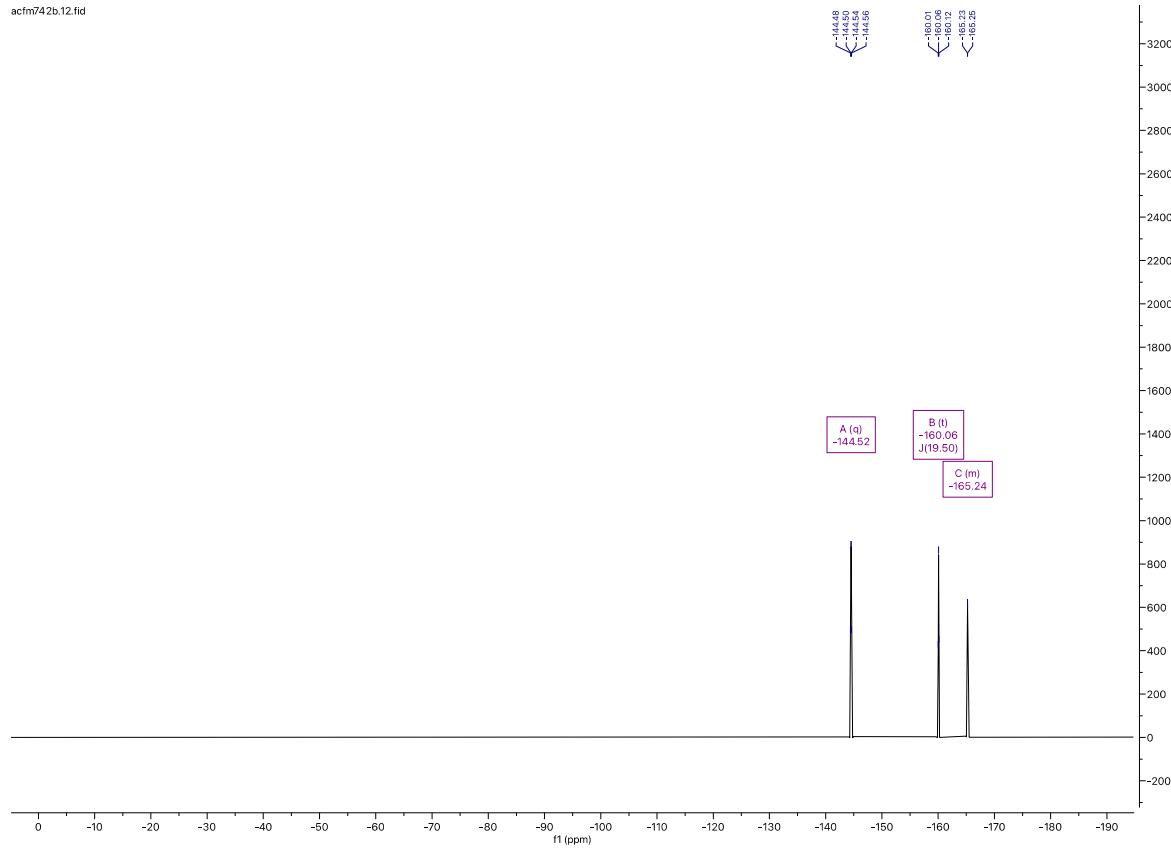
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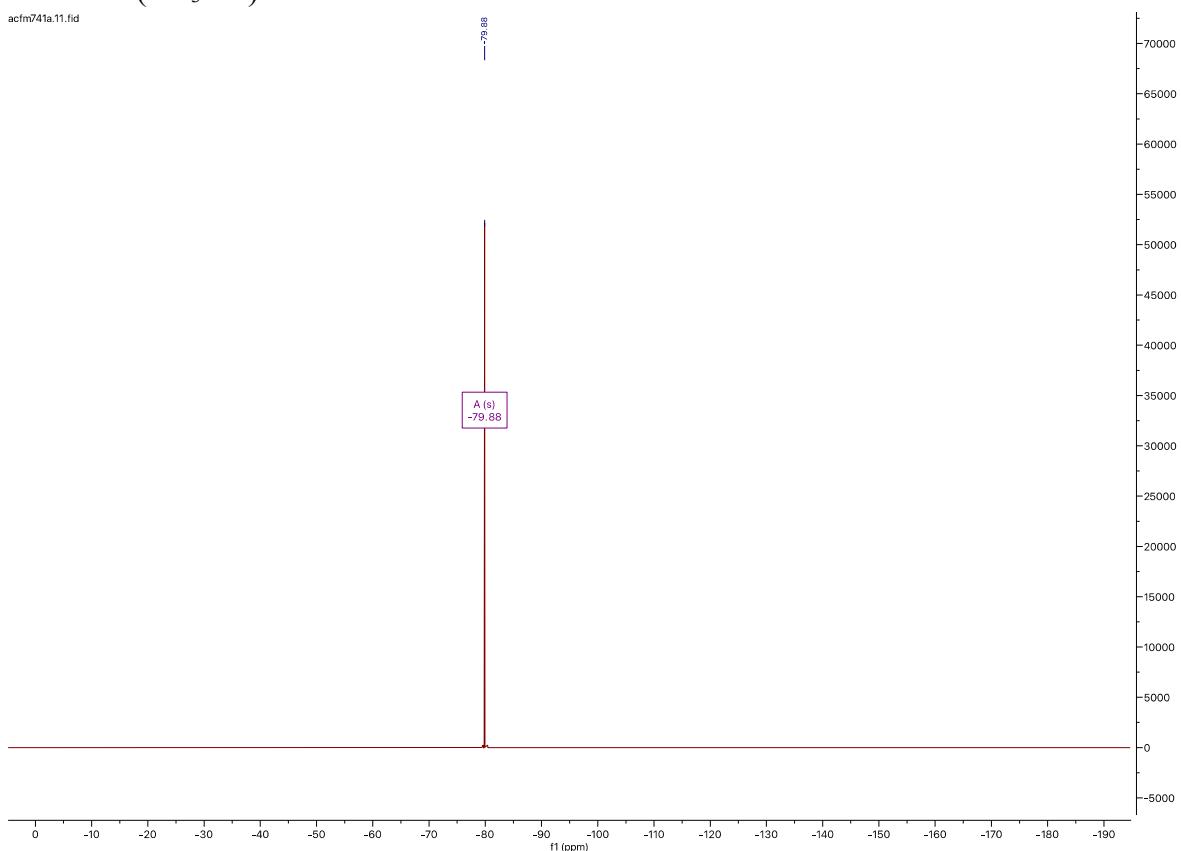
$[\text{Ag}(\text{O}_2\text{CC}_6\text{F}_5)(\text{MeC}_6\text{H}_5)]_n$ (**4**)
 ^1H NMR (CD_2Cl_2)



^{19}F NMR (CD_2Cl_2)

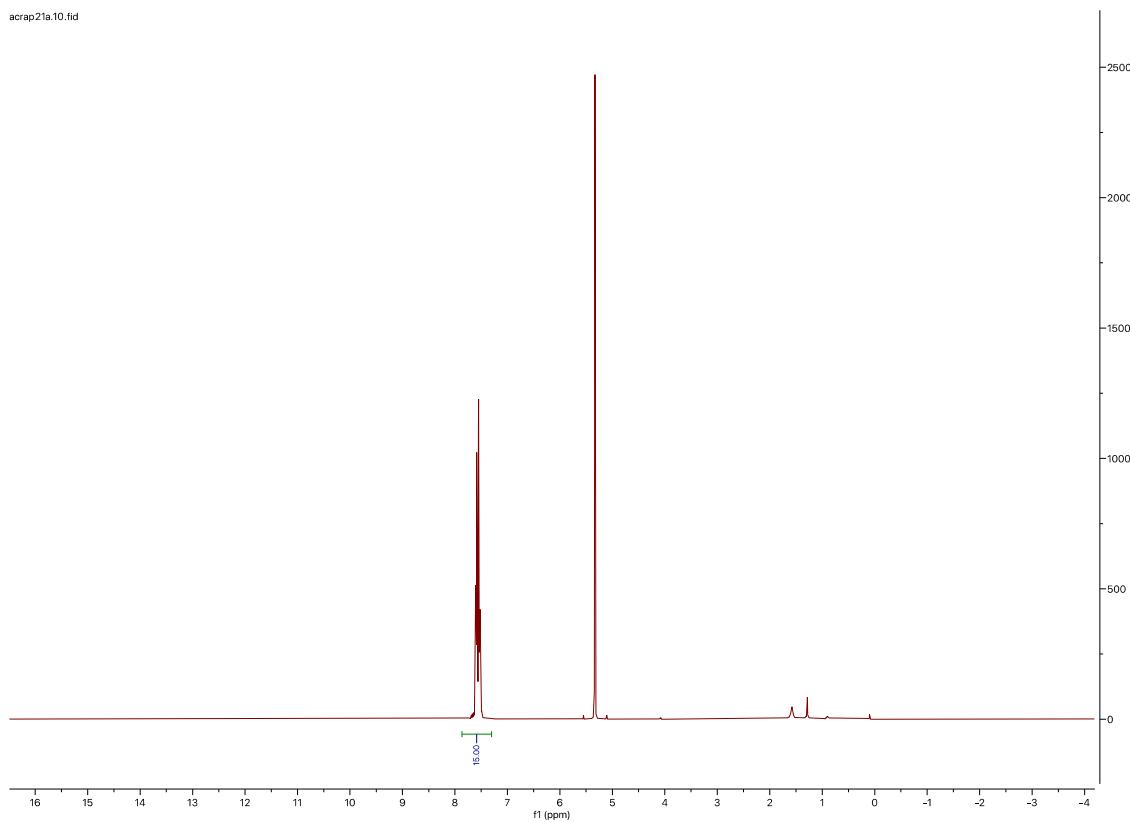


$[Ag(O_3SCF_3)]_n$ (**5**)
 ^{19}F NMR (CD_3OD)
acfnn741a.11.fid

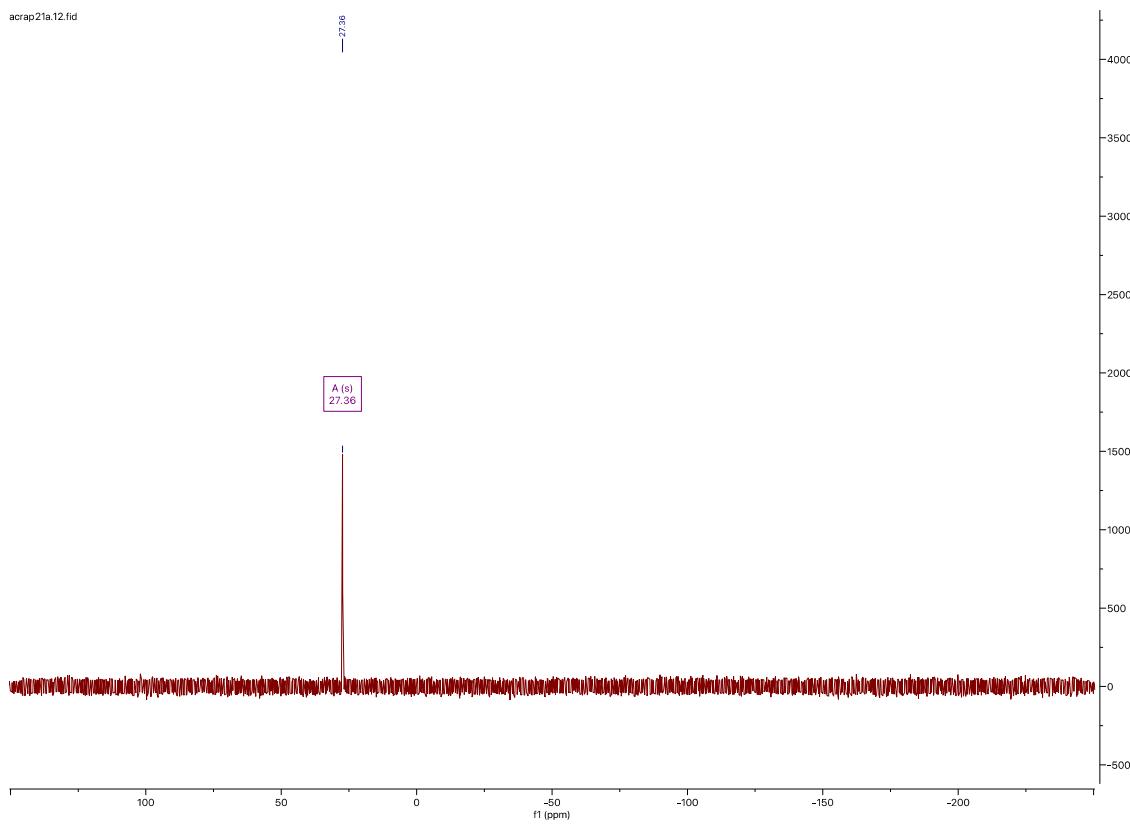


$[(\text{Ph}_3\text{P})\text{Au}(\text{O}_2\text{CCF}_3)]$ (**1a**)

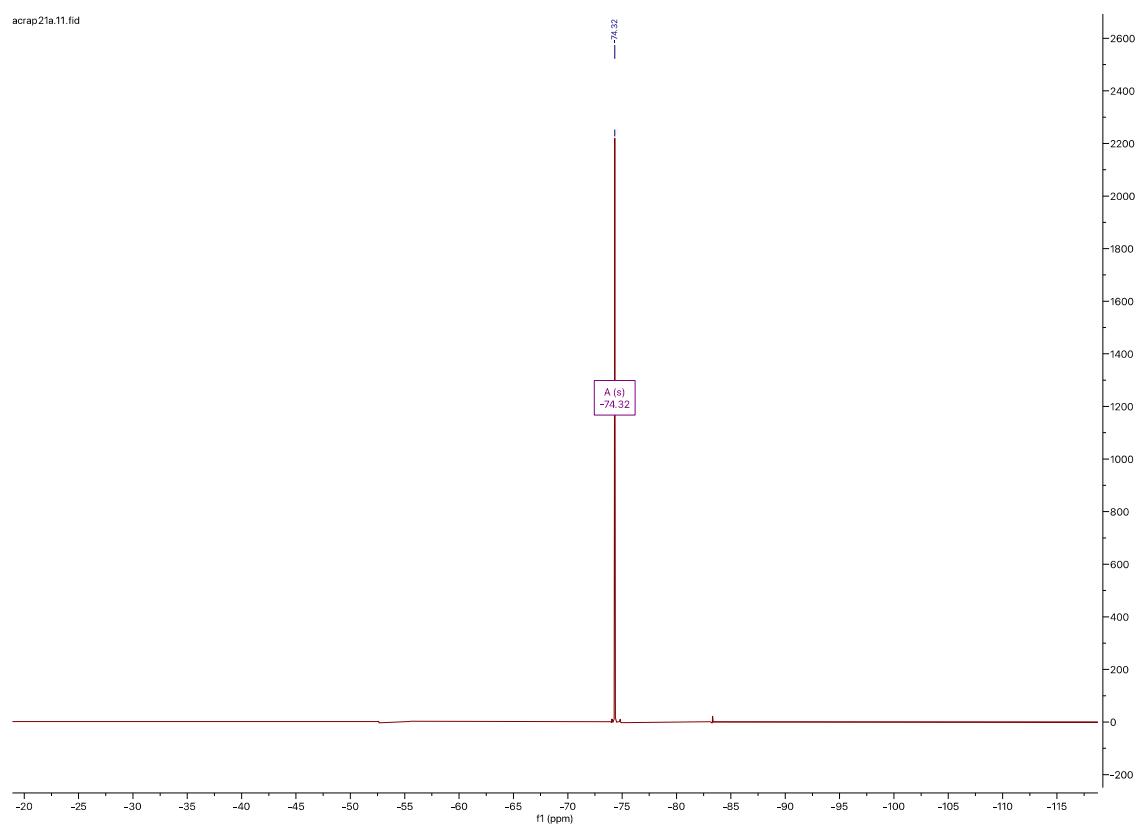
^1H NMR (CD_2Cl_2)



$^{31}\text{P}\{\text{H}\}$ NMR (CD_2Cl_2)



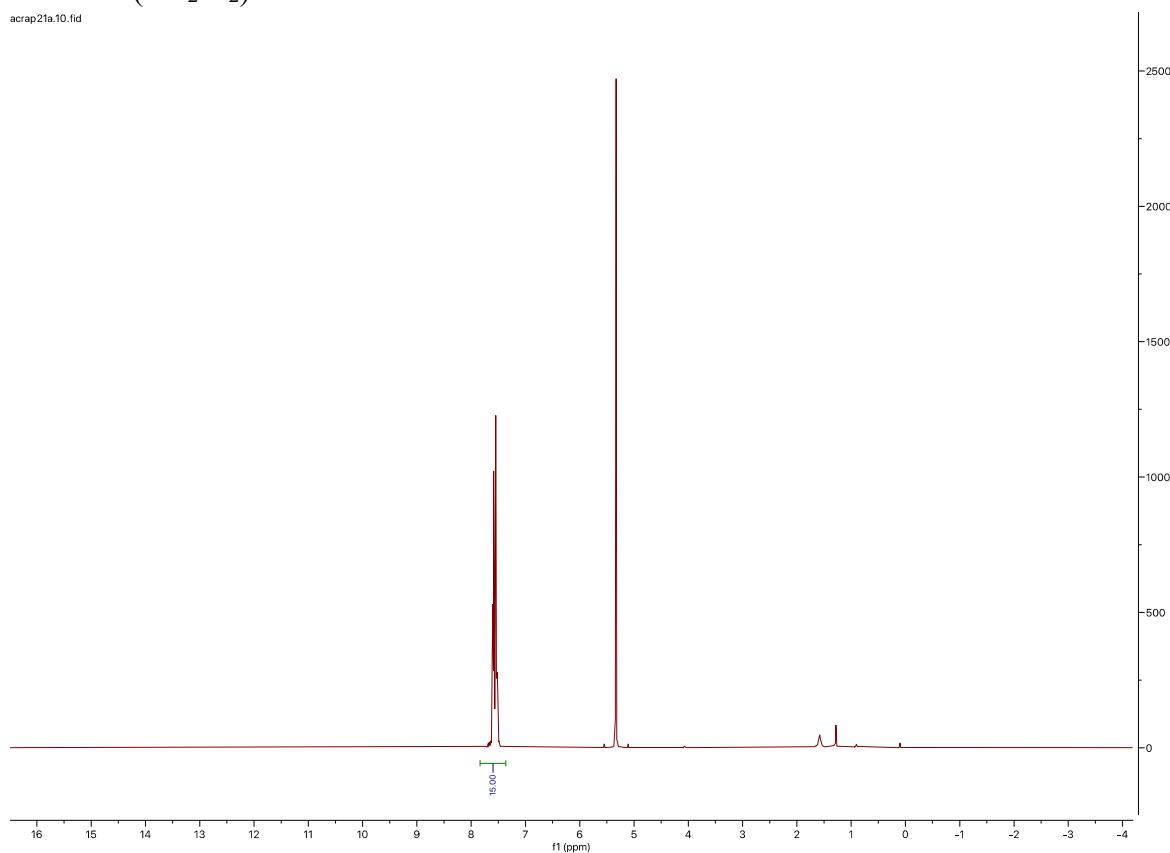
¹⁹F NMR (CD₂Cl₂)



$[(\text{Ph}_3\text{P})\text{Au}(\text{O}_2\text{CCF}_2\text{CF}_3)]$ (**2a**)

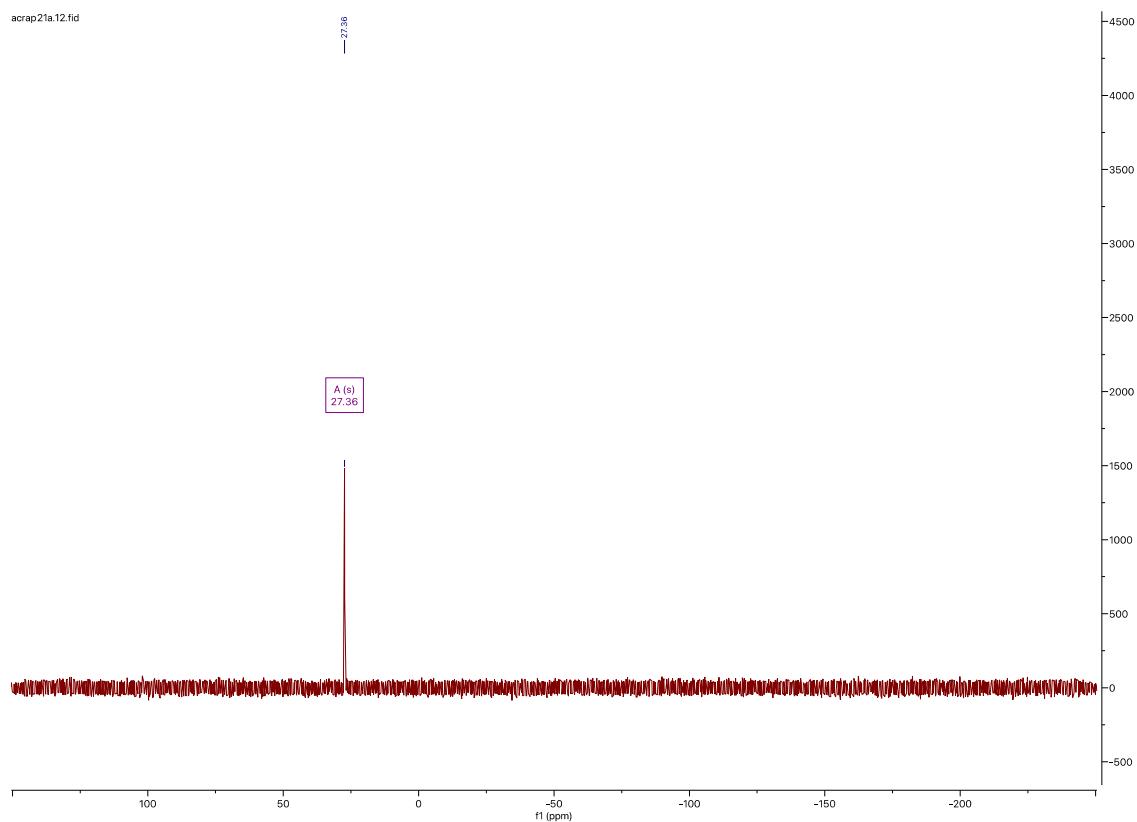
^1H NMR (CD_2Cl_2)

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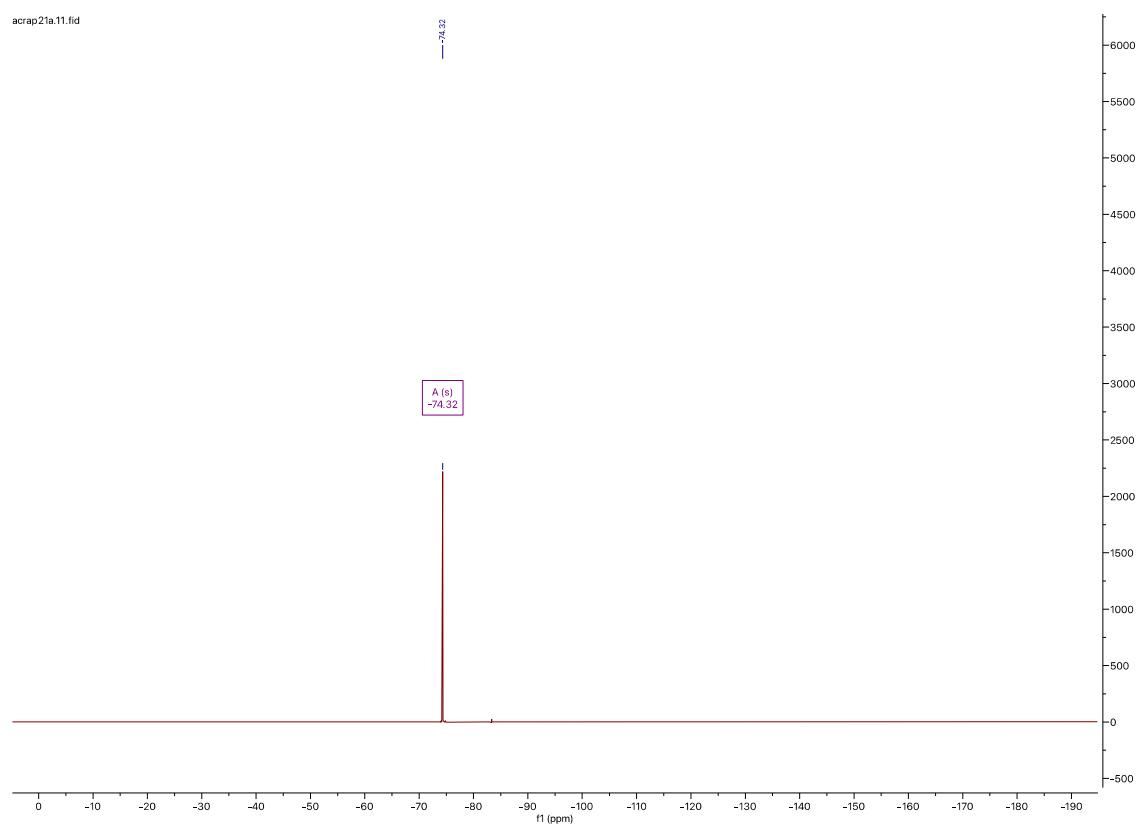


$^{31}\text{P}\{^1\text{H}\}$ NMR (CD_2Cl_2)

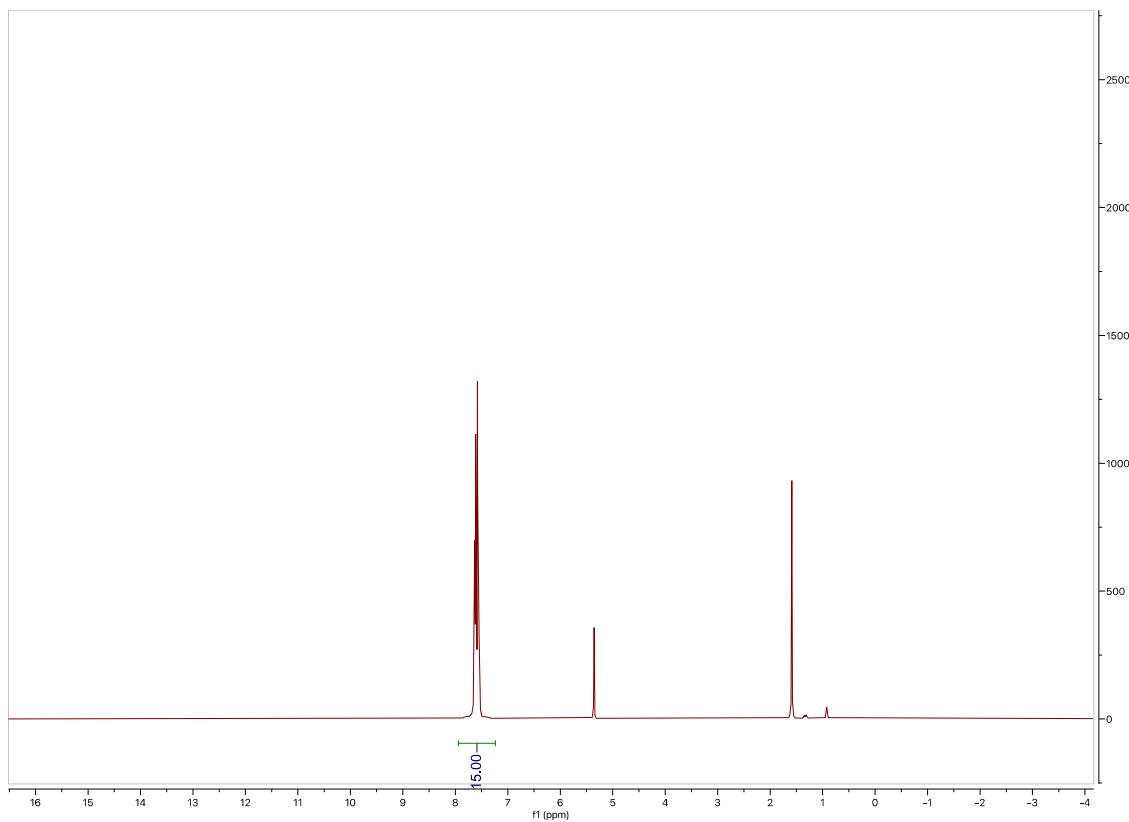
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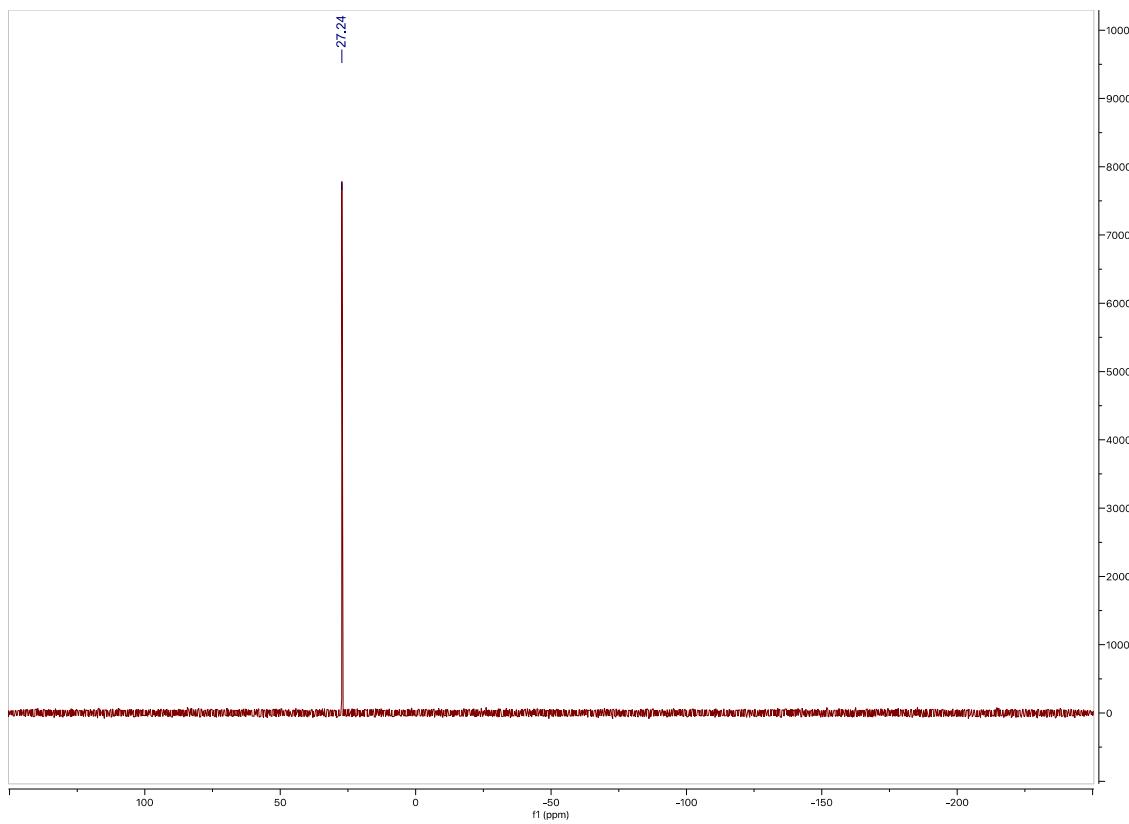
¹⁹F NMR (CD₂Cl₂)



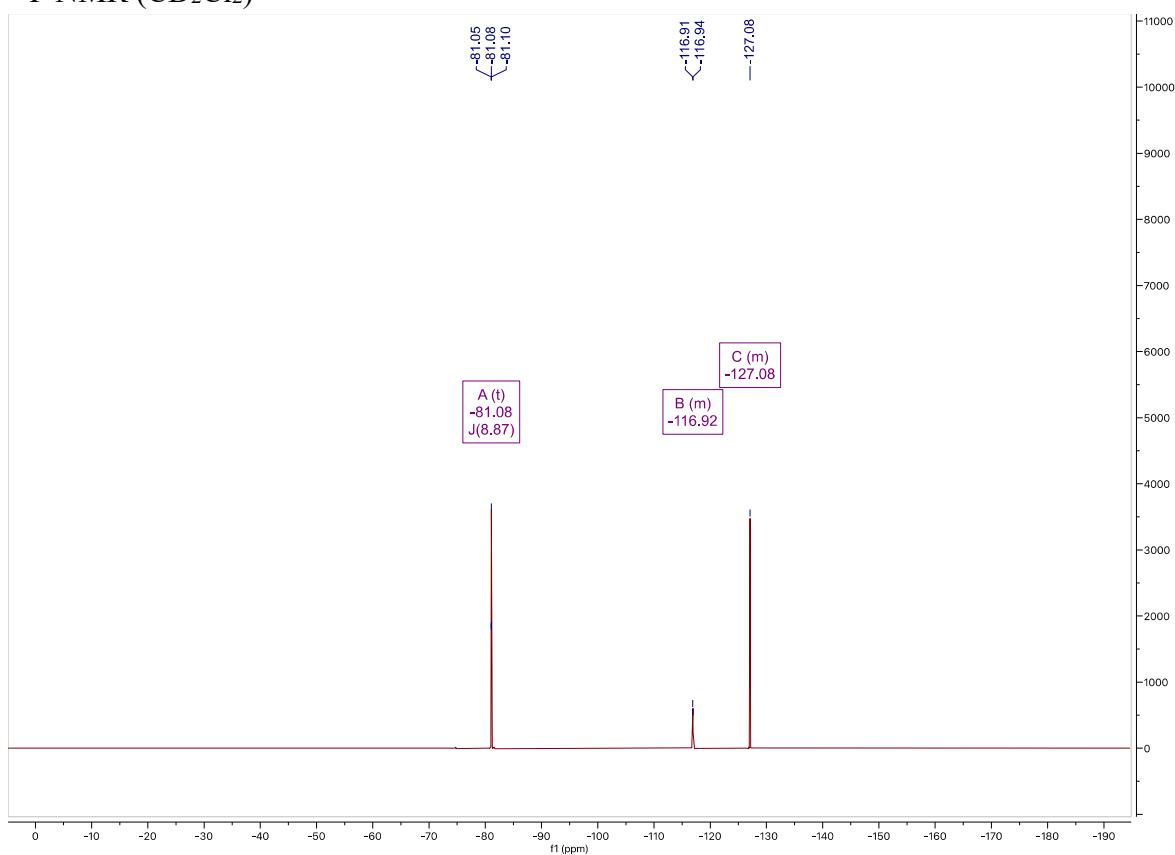
$[(\text{Ph}_3\text{P})\text{Au}\{\text{O}_2\text{C}(\text{CF}_2)_2\text{CF}_3\}]$ (**3a**)
 ^1H NMR (CD_2Cl_2)



$^{31}\text{P}\{^1\text{H}\}$ NMR (CD_2Cl_2)



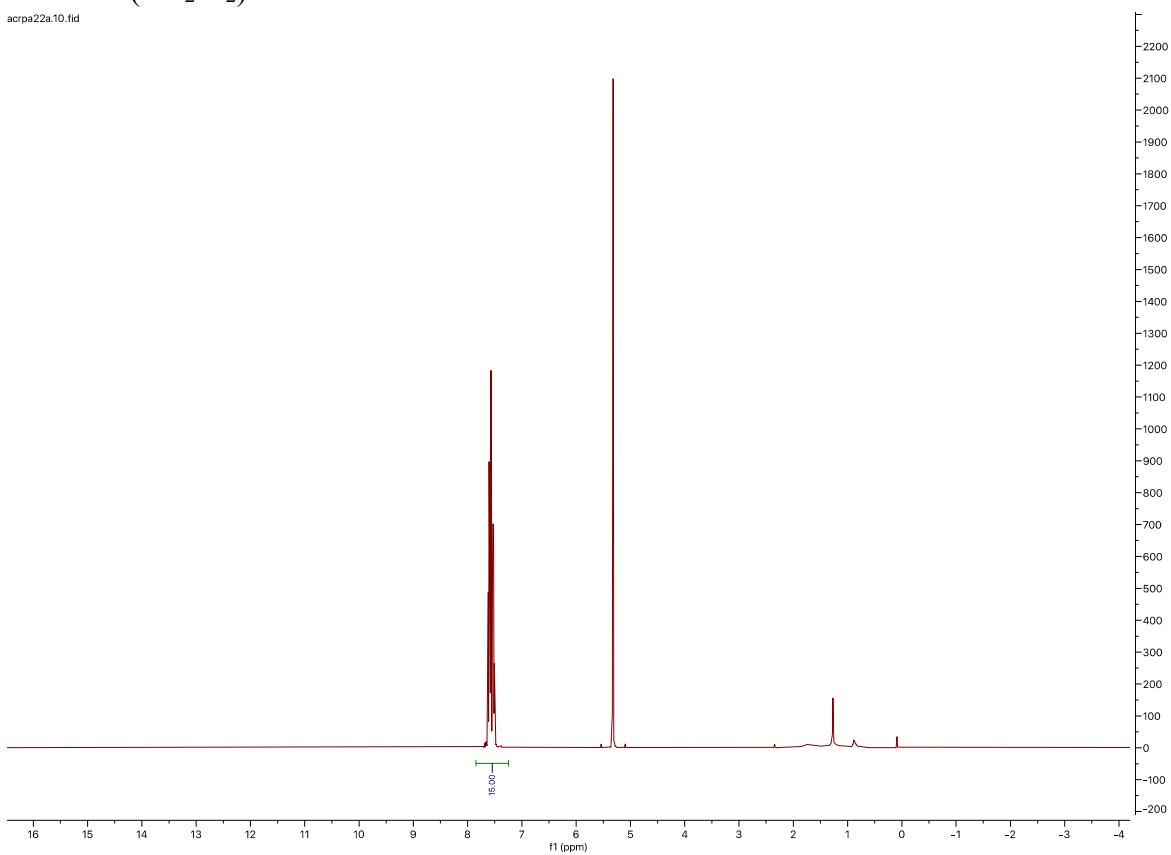
¹⁹F NMR (CD₂Cl₂)



[$(\text{Ph}_3\text{P})\text{Au}(\text{O}_2\text{CC}_6\text{F}_5)]$ (4a**)**

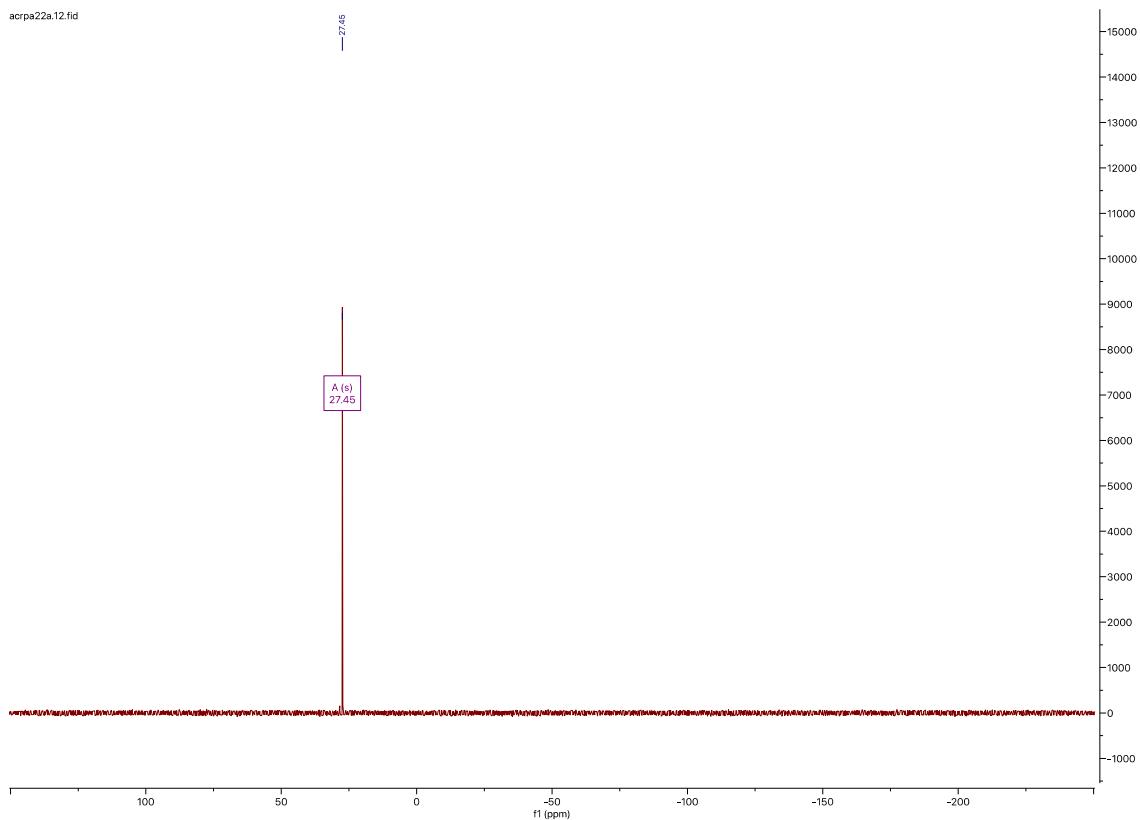
^1H NMR (CD_2Cl_2)

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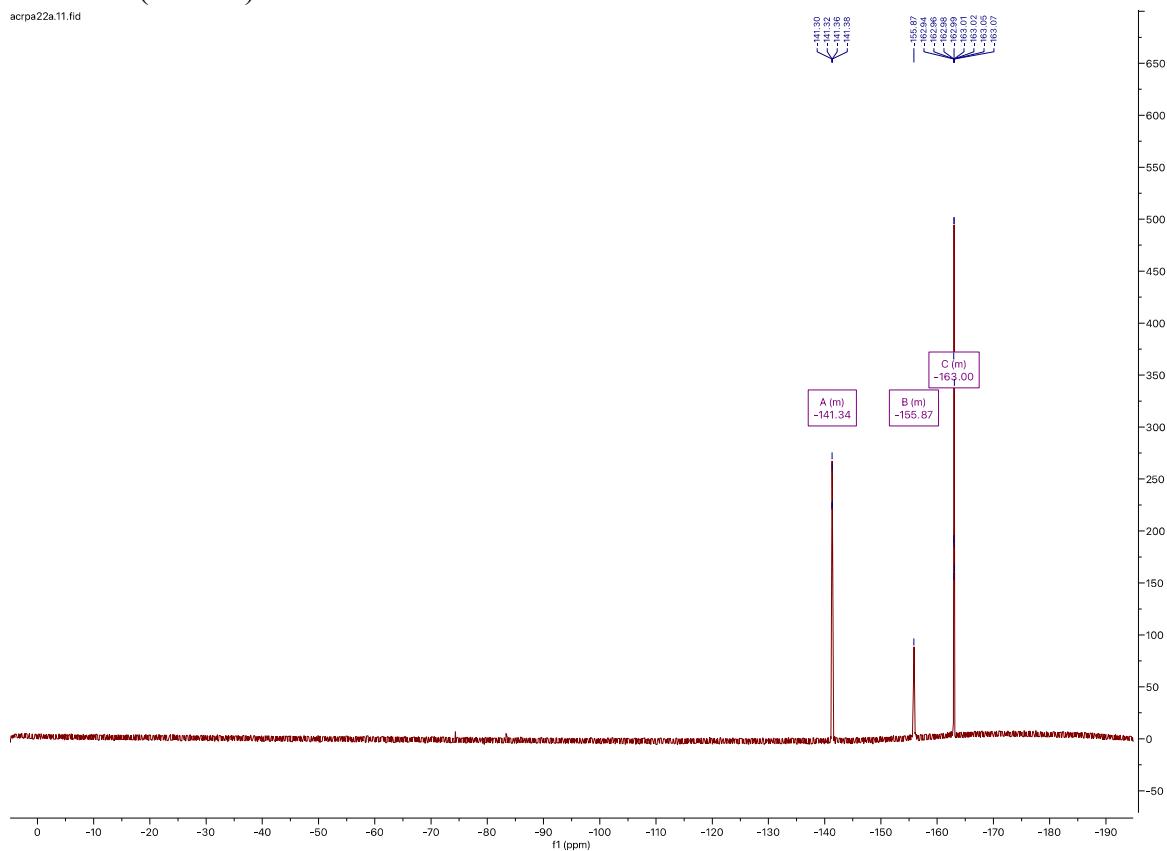
$^{31}\text{P}\{^1\text{H}\}$ NMR (CD_2Cl_2)

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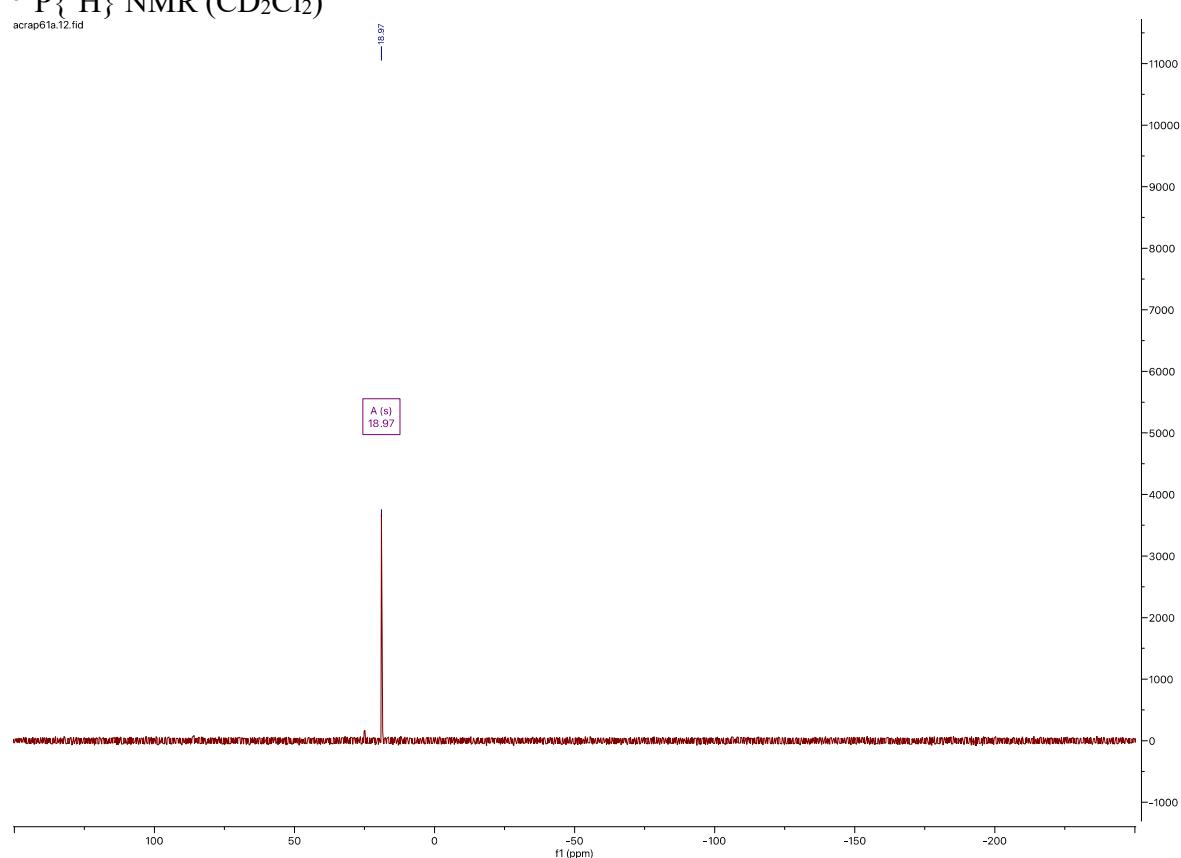


¹⁹F NMR (CD₂Cl₂)

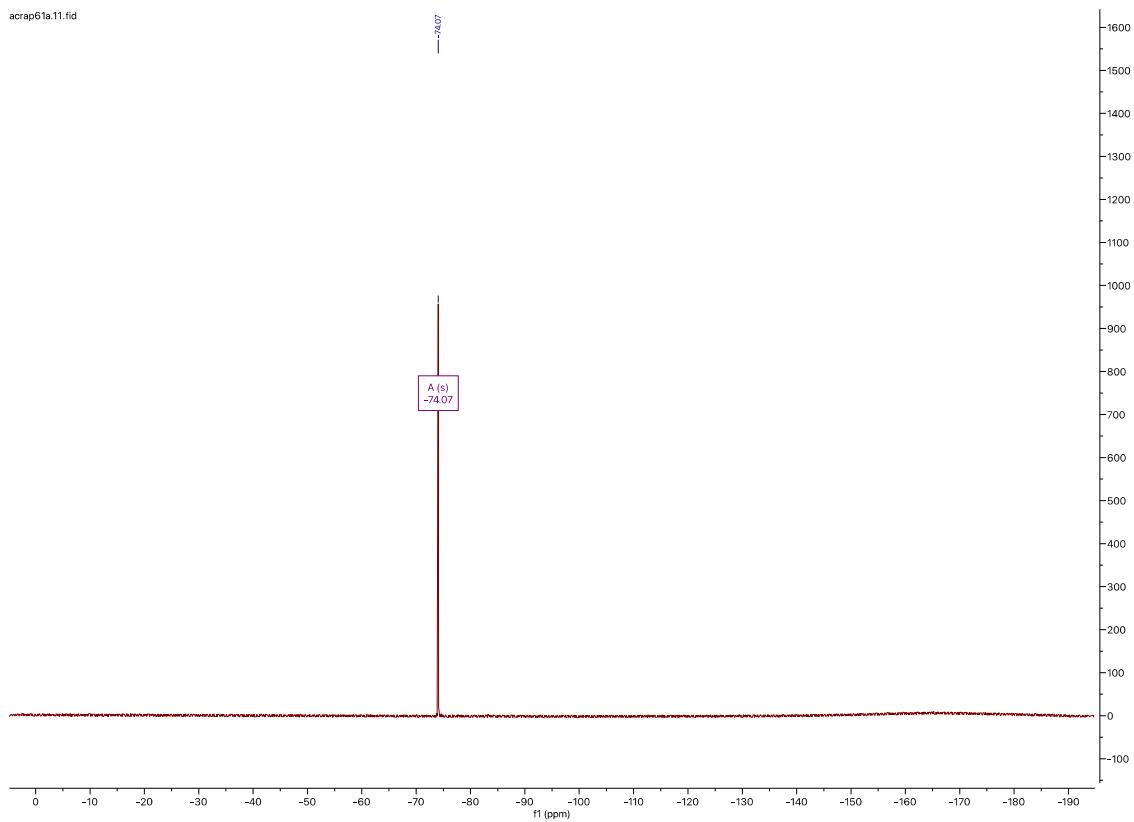
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$^{31}\text{P}\{\text{H}\}$ NMR (CD_2Cl_2)
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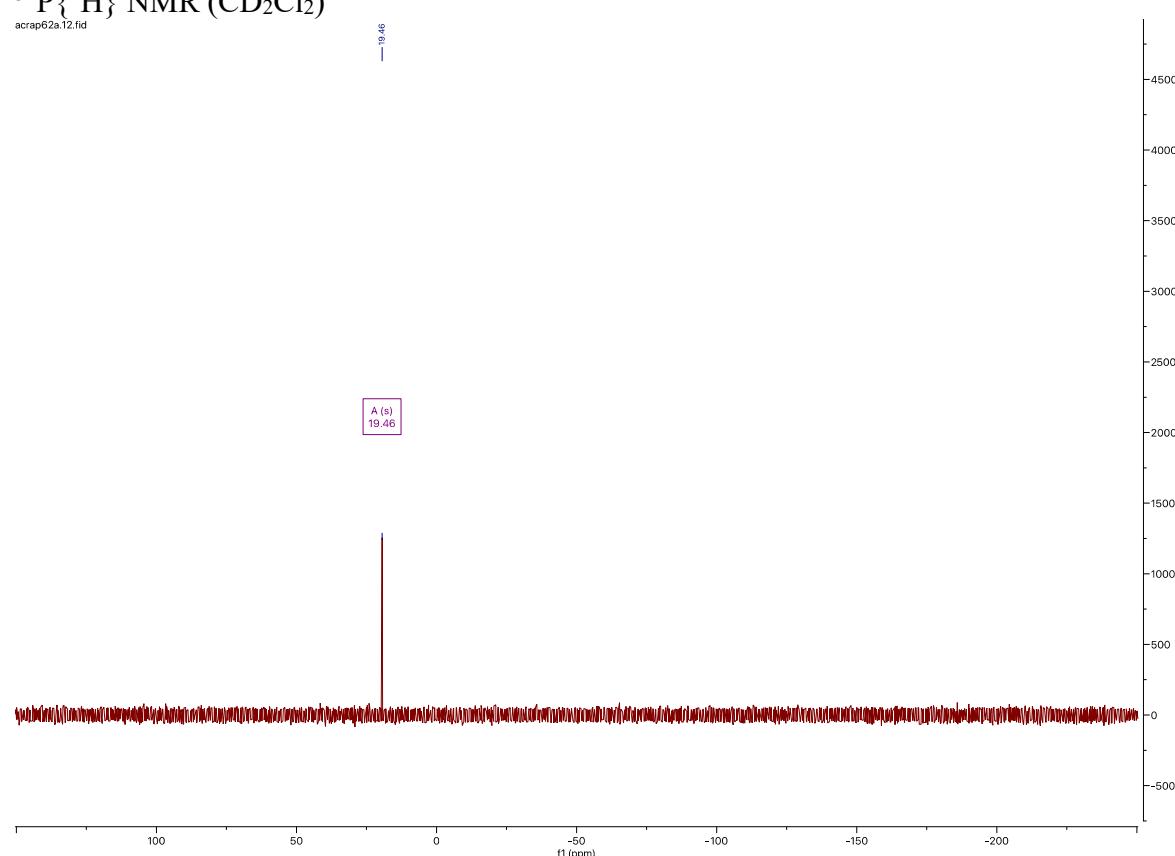
^{19}F NMR (CD_2Cl_2)
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[$(\text{dppb})(\text{AuO}_2\text{CC}_6\text{F}_5)_2$] (6a)

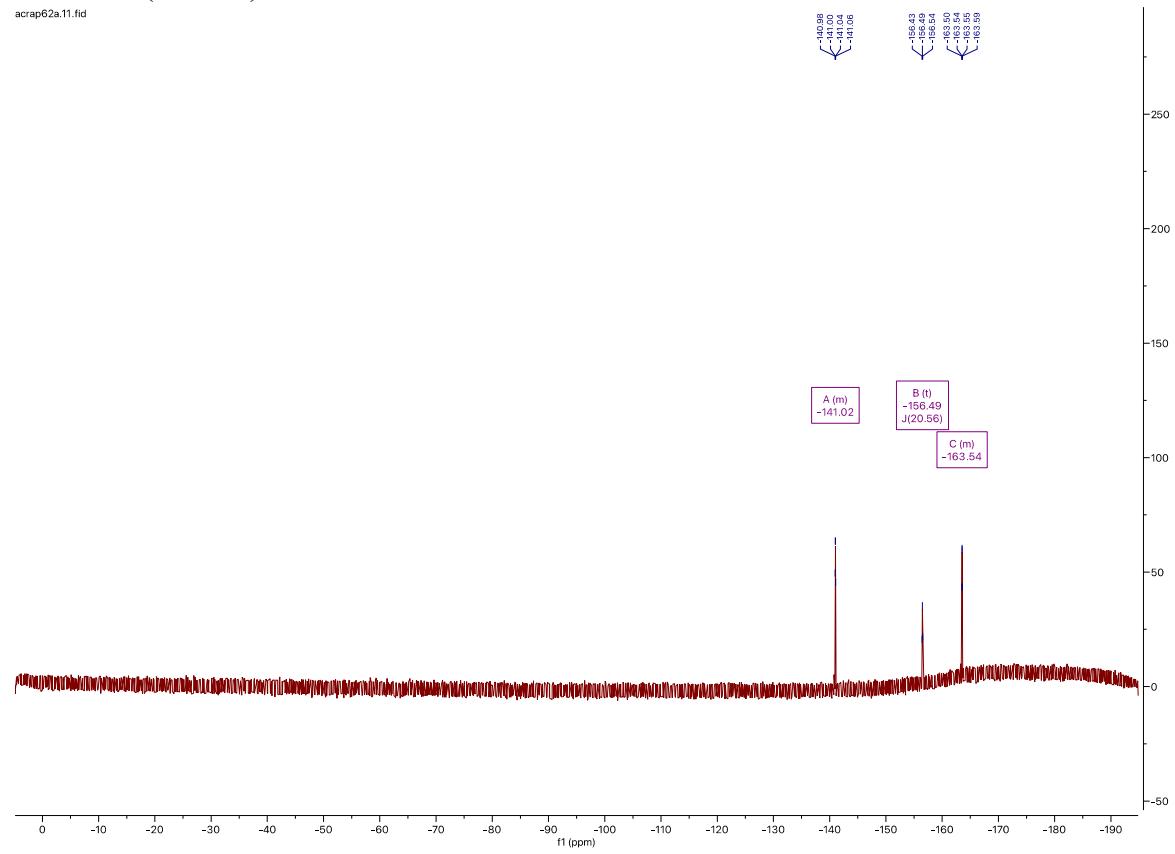
$^{31}\text{P}\{\text{H}\}$ NMR (CD_2Cl_2)

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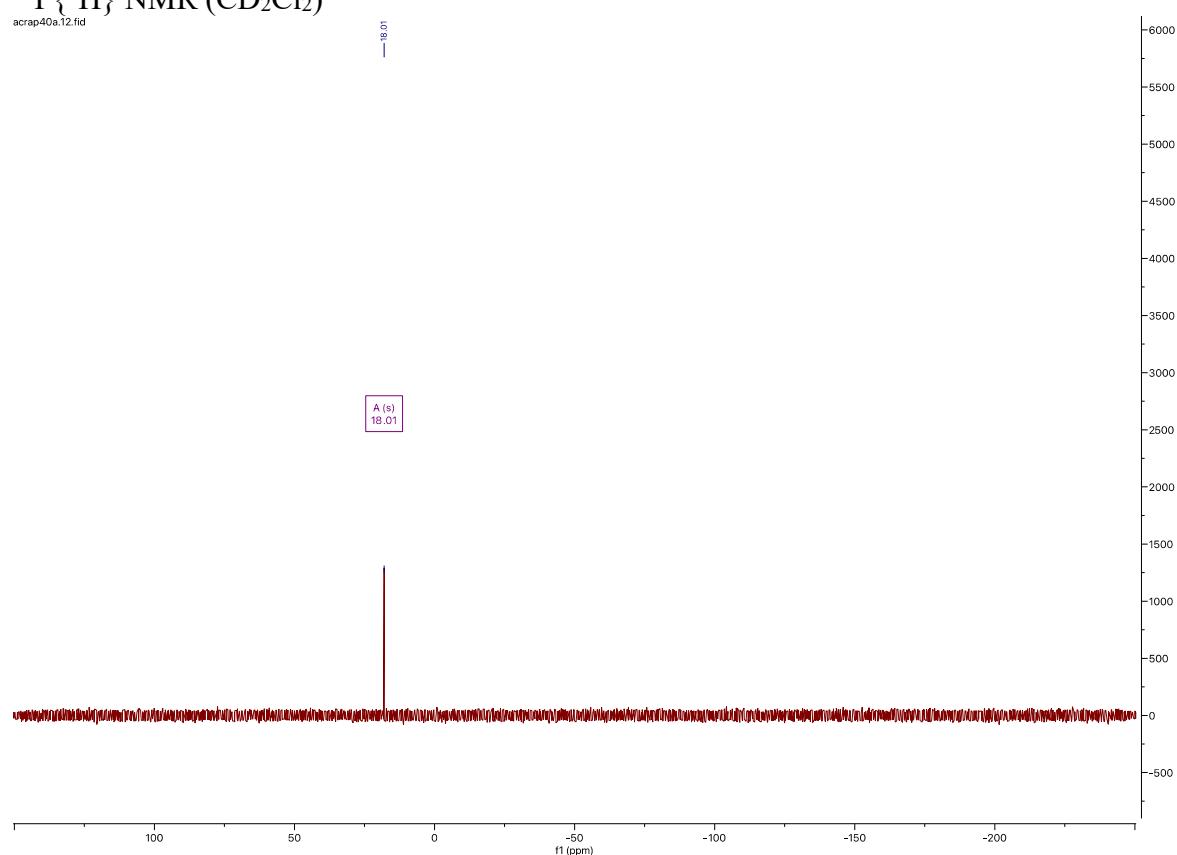


^{19}F NMR (CD_2Cl_2)

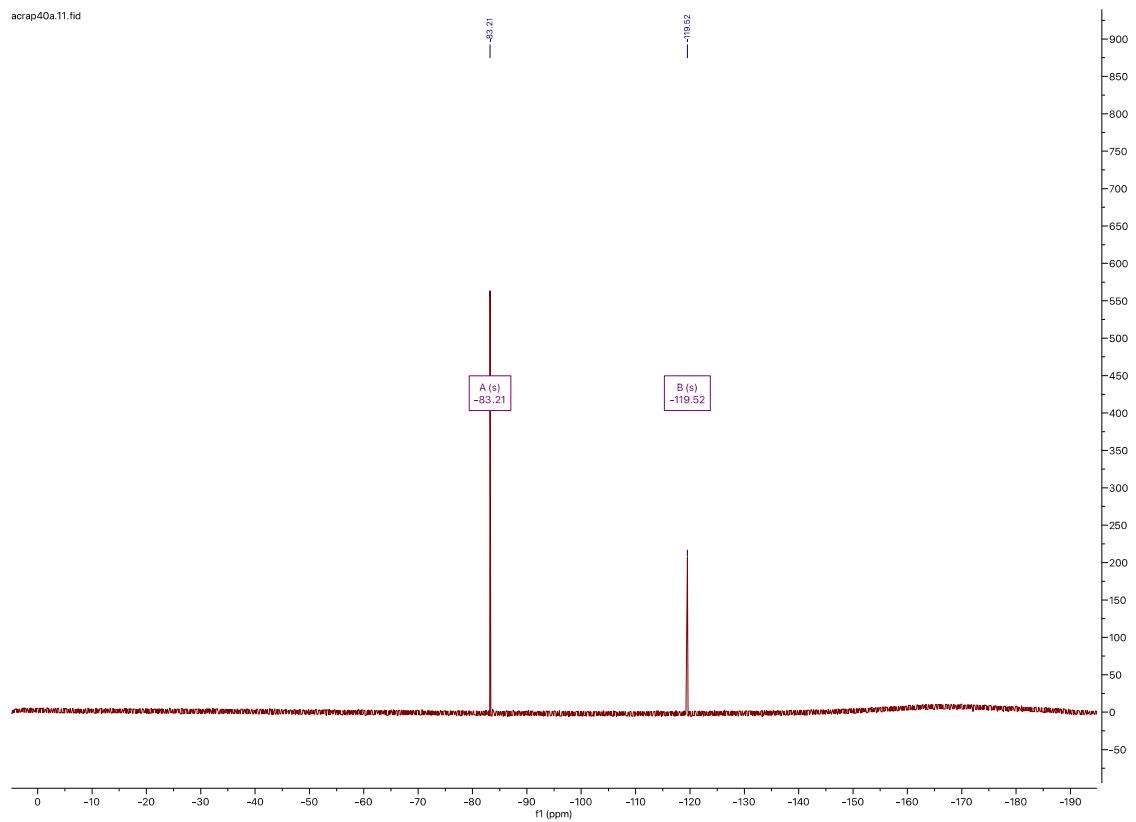
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$^{31}\text{P}\{\text{H}\}$ NMR (CD_2Cl_2)
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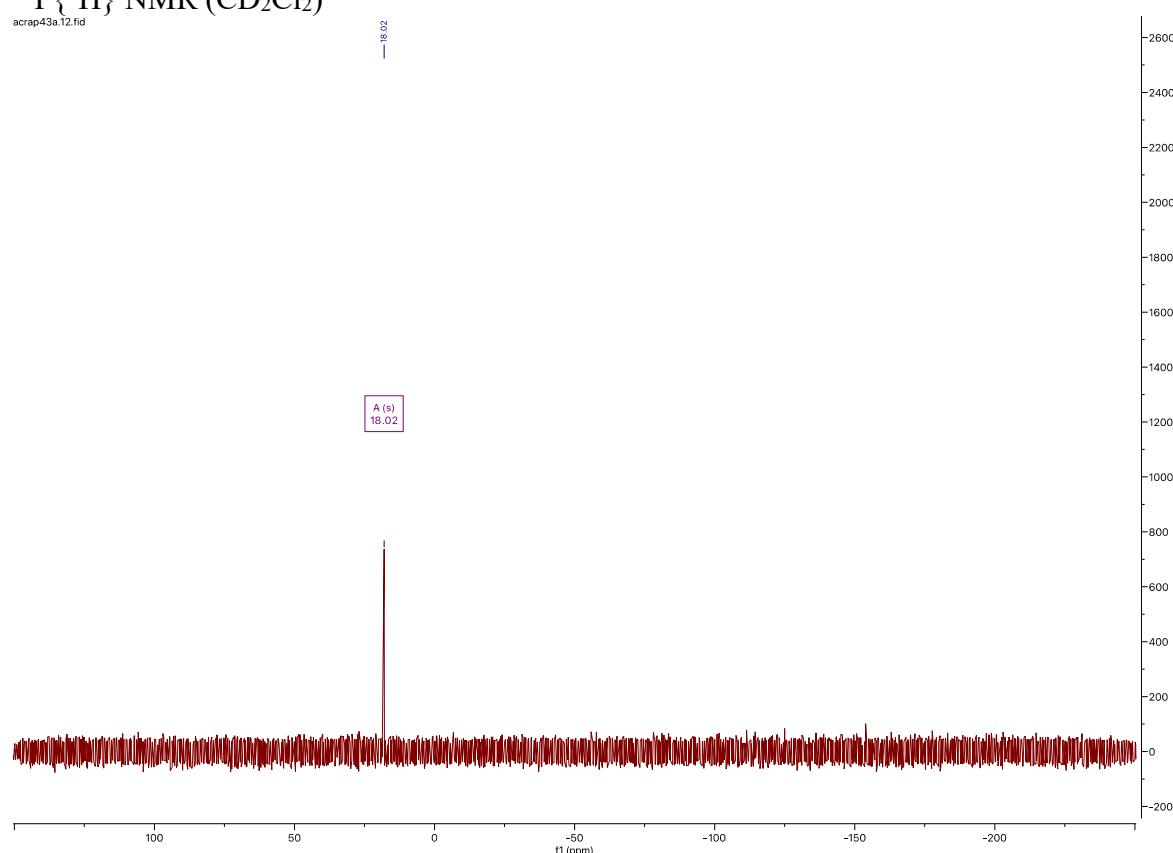
^{19}F NMR (CD_2Cl_2)
acrap40a.11.fid



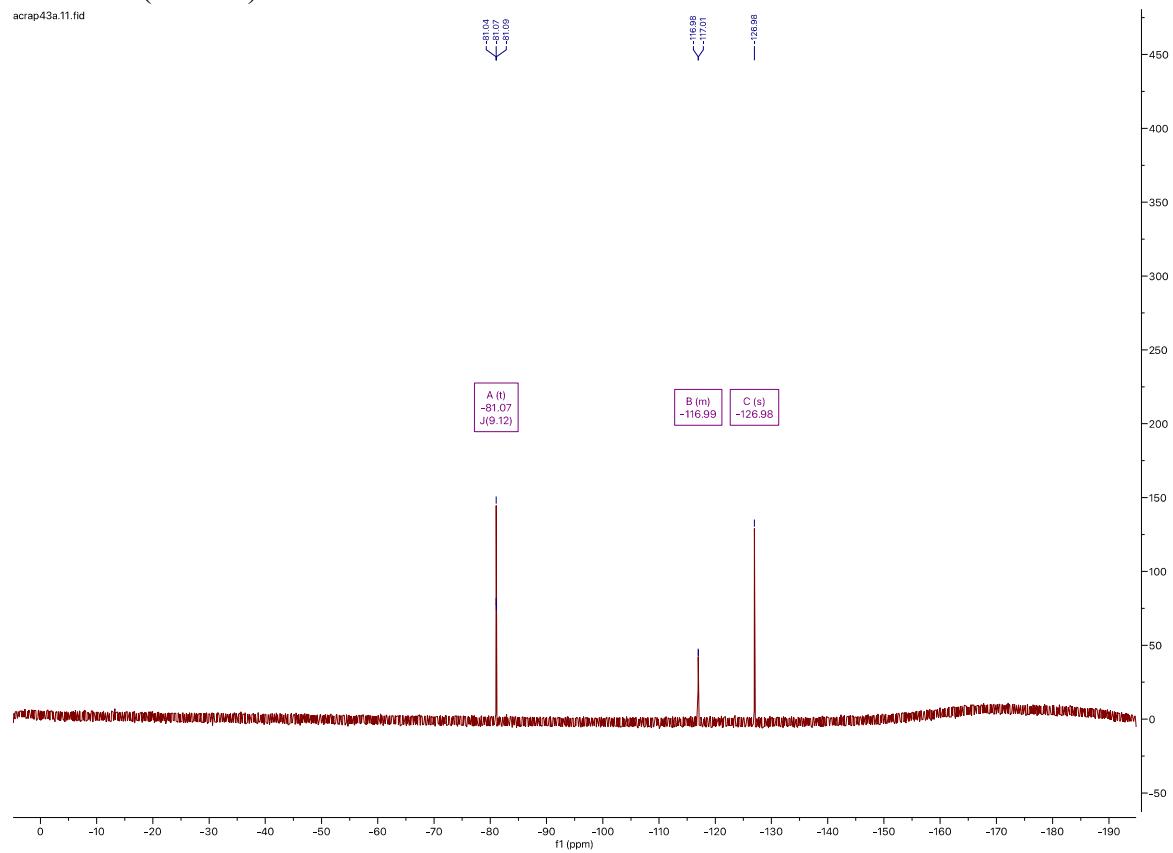
[$(Xantphos)\{AuO_2C(CF_2)_2CF_3\}_2$] (8a)

$^{31}P\{^1H\}$ NMR (CD_2Cl_2)

acrap43a.12.fid

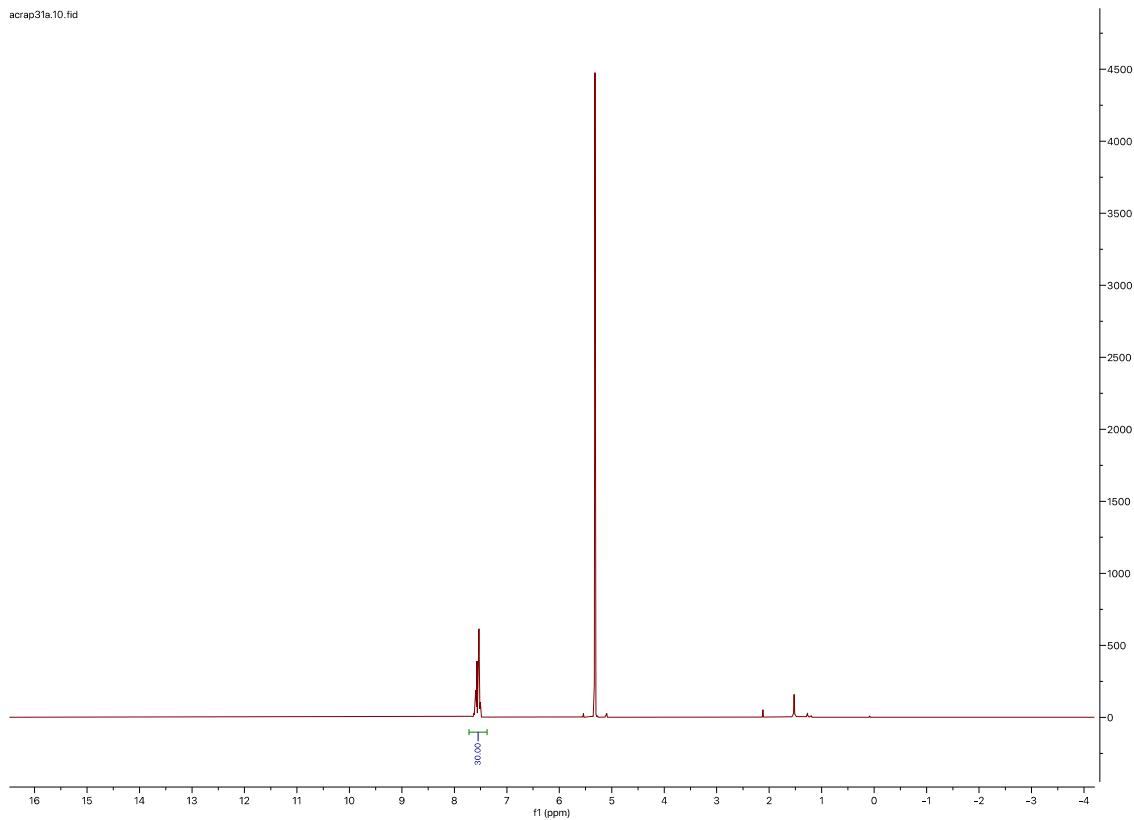


^{19}F NMR (CD_2Cl_2)



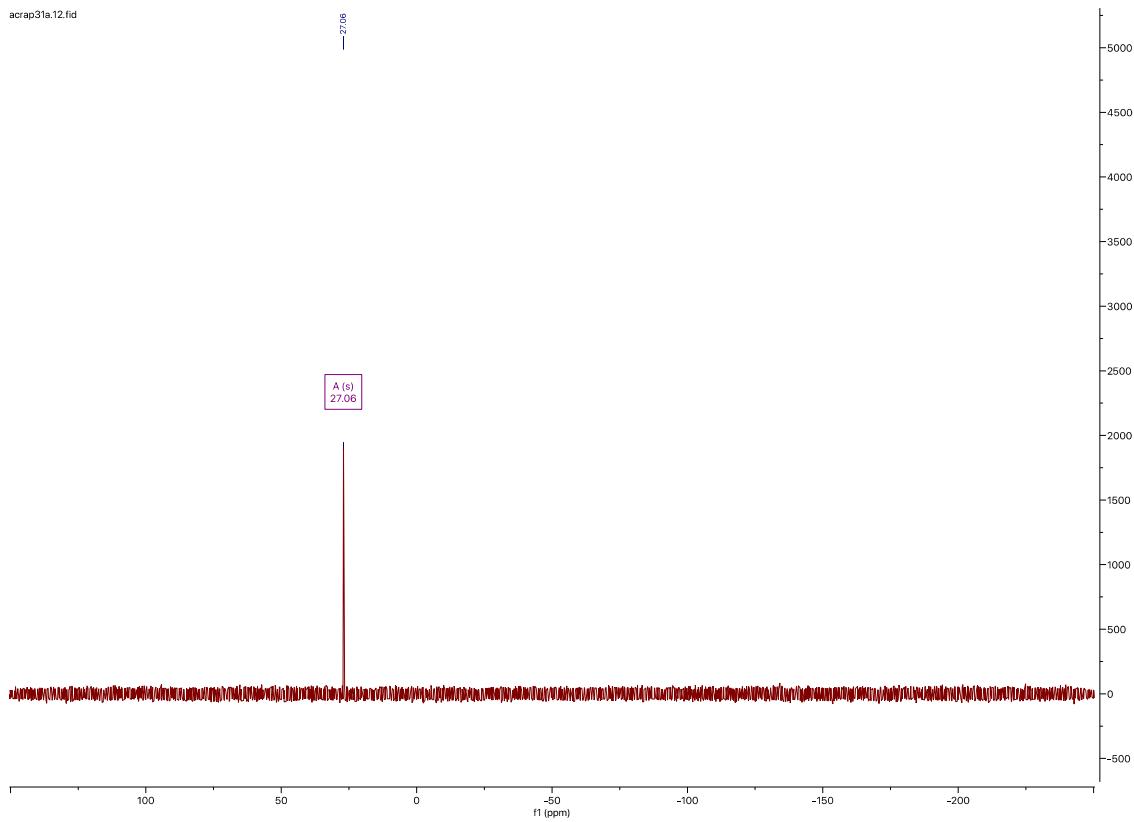
$[(CF_3CO_2)_2AgAu(PPh_3)]_2$ (**9a**)
 1H NMR (CD_2Cl_2)

acrap31a.10.fid



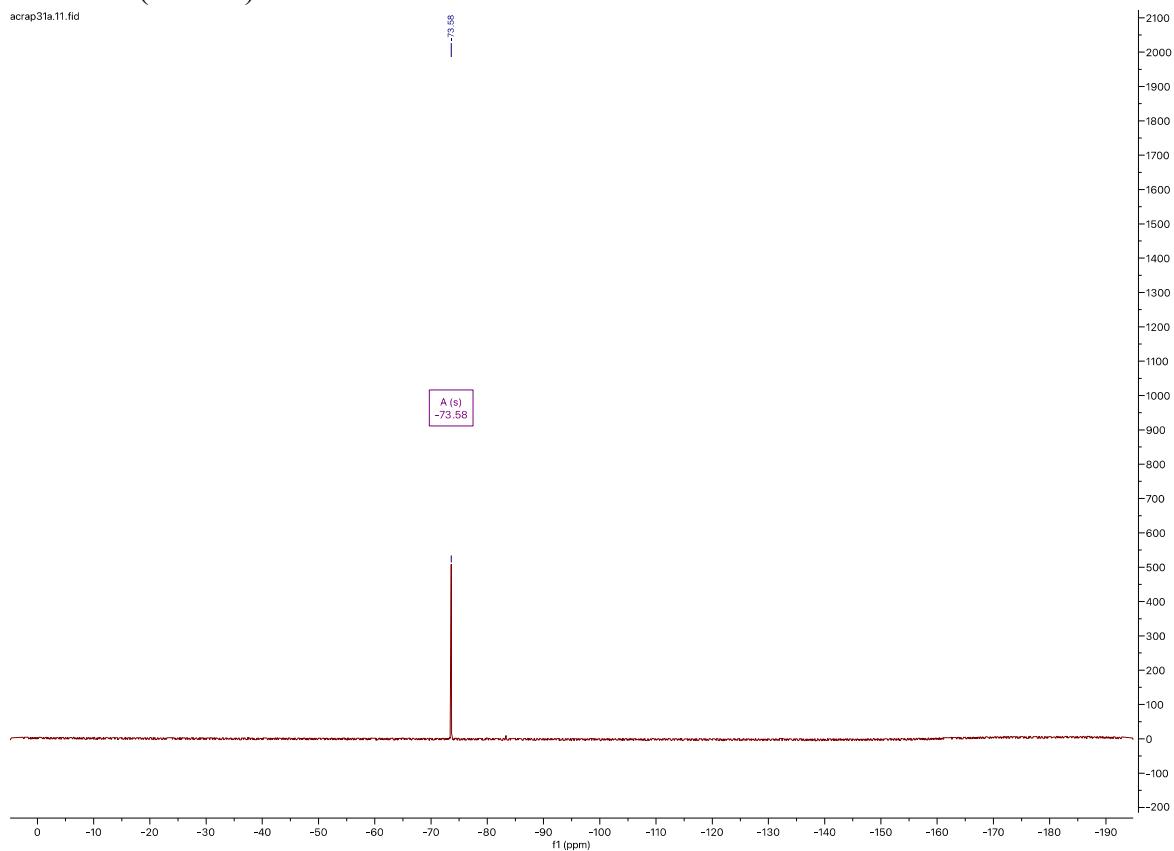
$^{31}P\{^1H\}$ NMR (CD_2Cl_2)

acrap31a.12.fid



¹⁹F NMR (CD₂Cl₂)

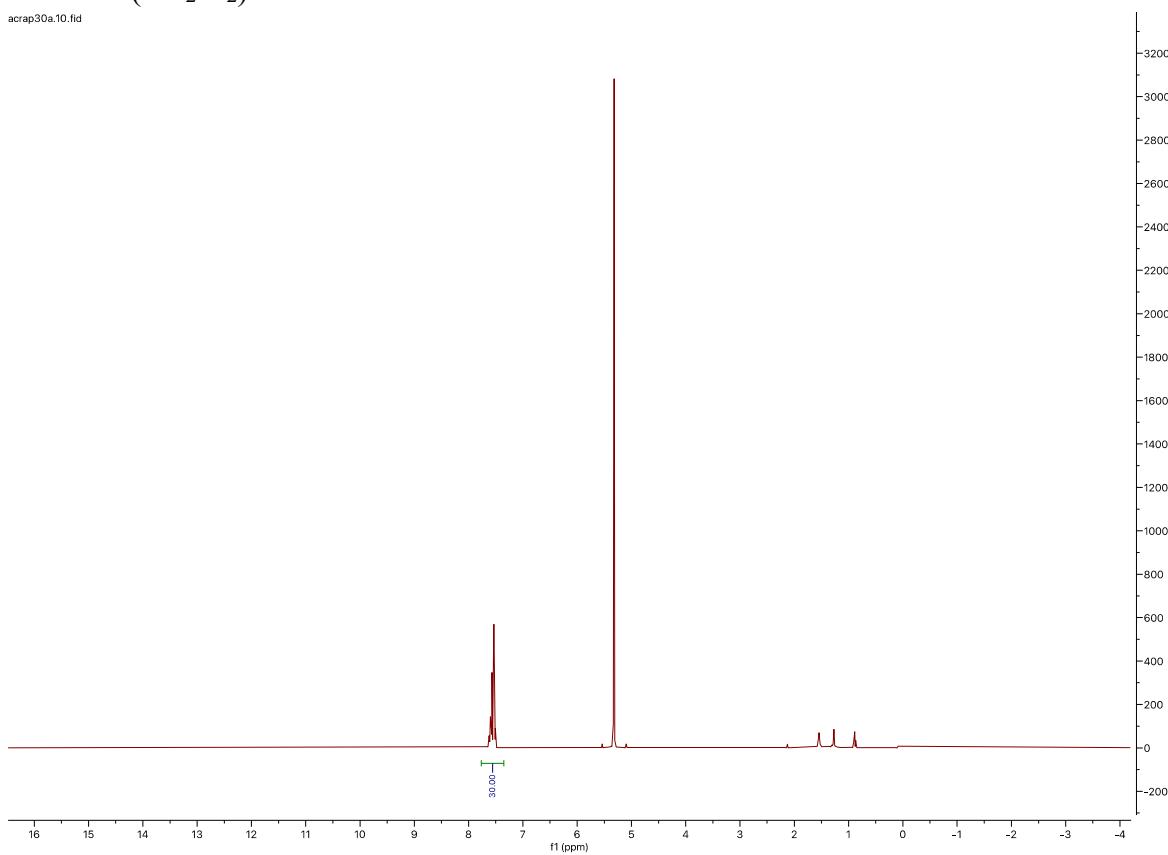
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$[(CF_3CF_2CO_2)_2AgAu(PPh_3)]_2$ (**10a**)

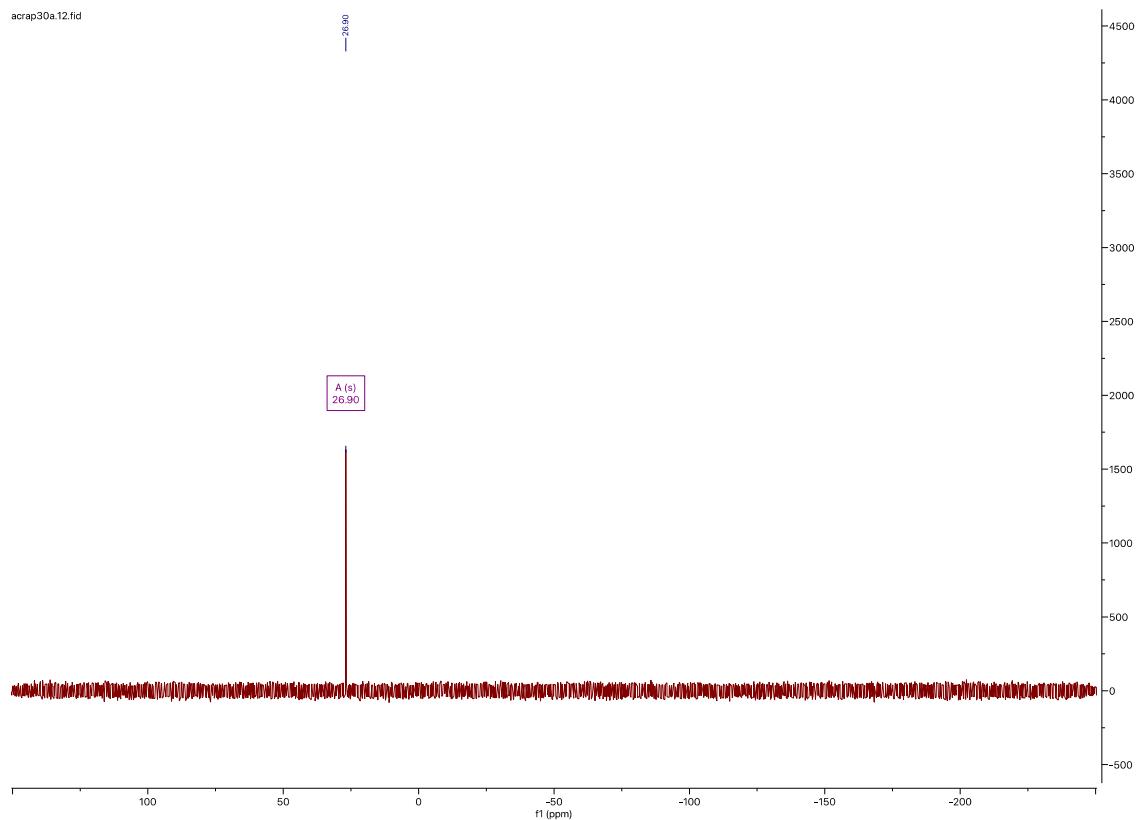
1H NMR (CD_2Cl_2)

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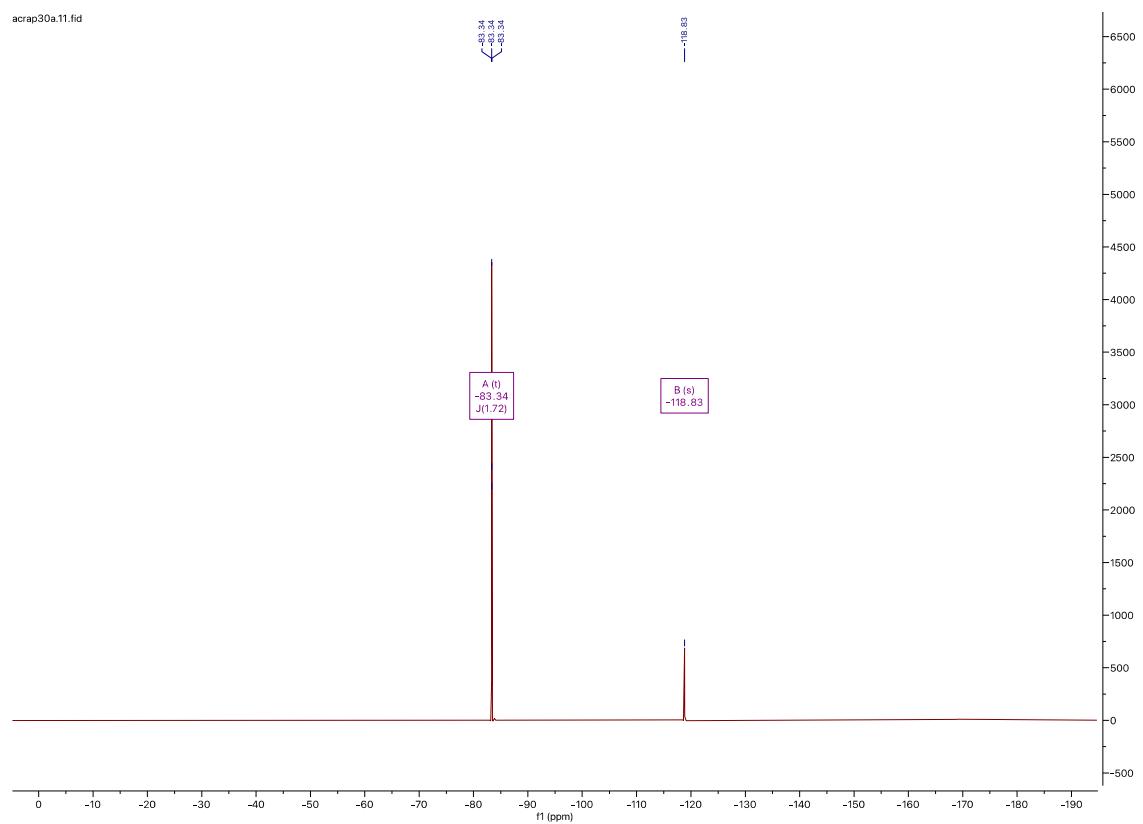


$^{31}P\{^1H\}$ NMR (CD_2Cl_2)

acrap30a.12.fid

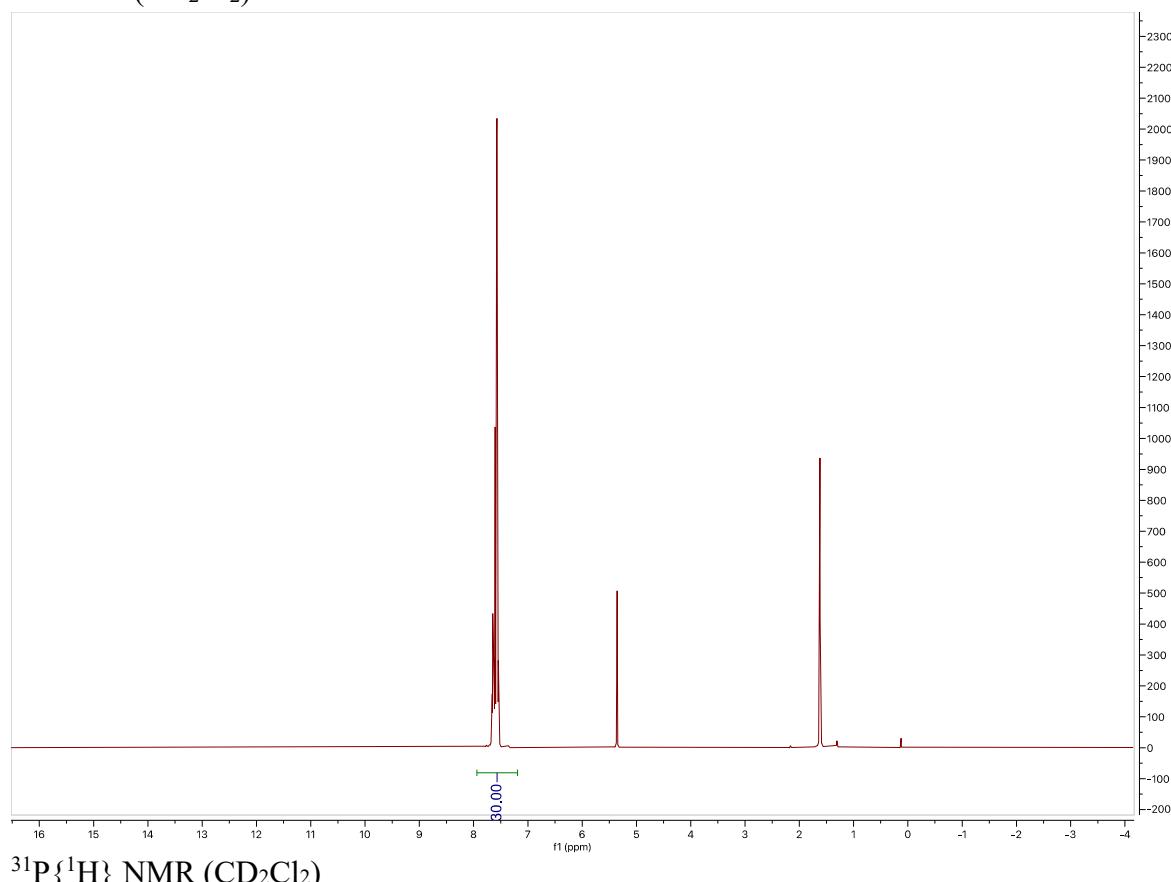


¹⁹F NMR (CD₂Cl₂)

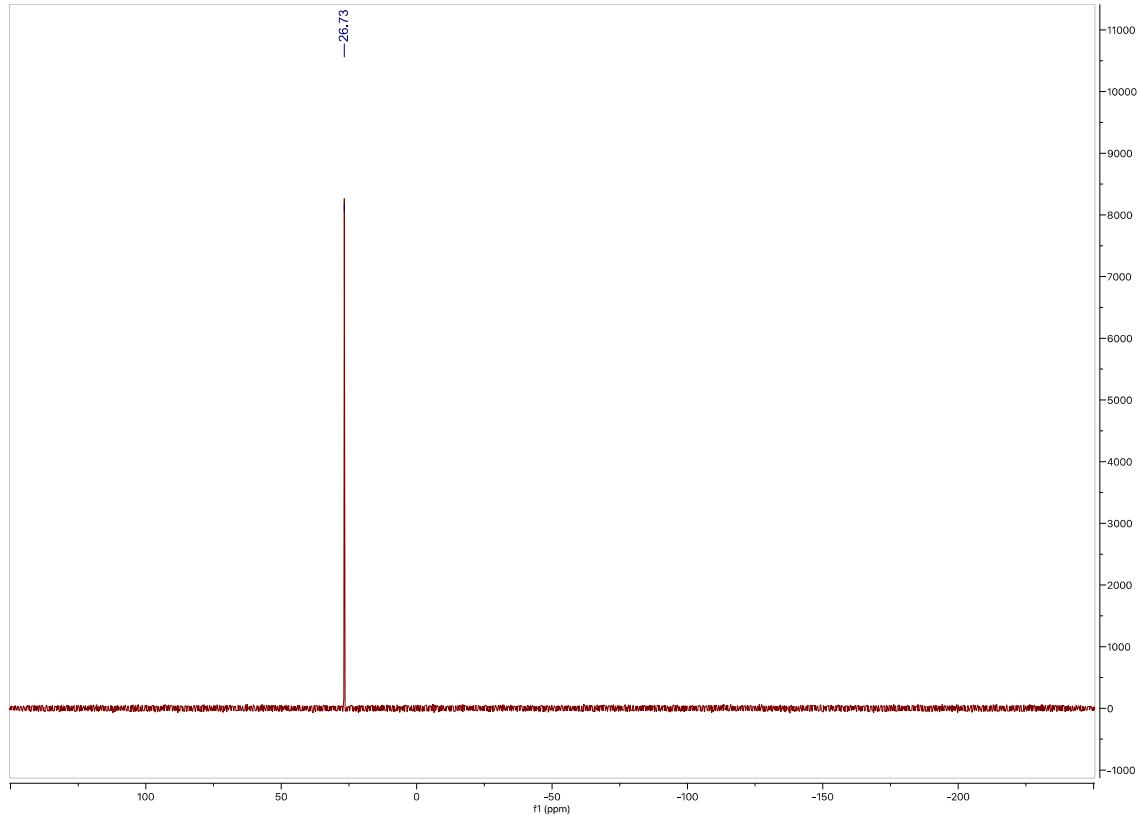


$[(CF_3CF_2)_2CO_2]_2AgAu(PPh_3)]_2$ (**11a**)

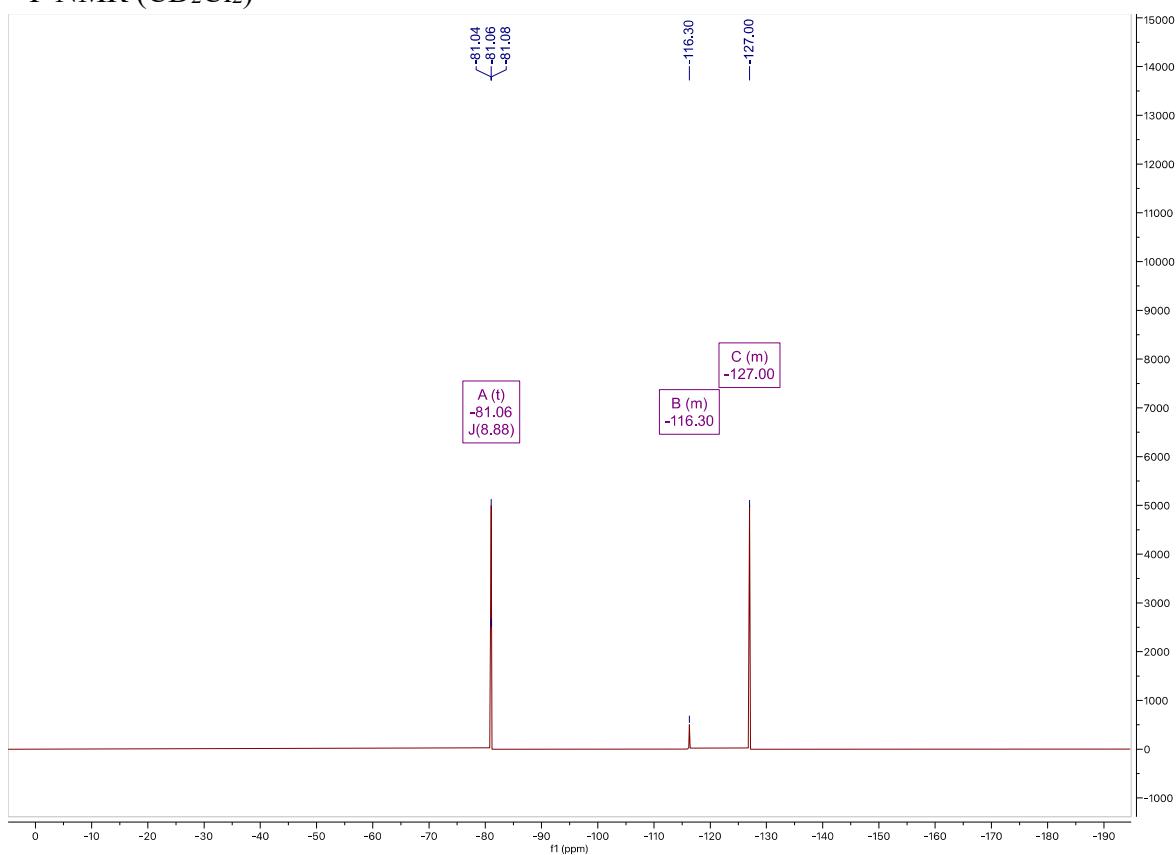
1H NMR (CD_2Cl_2)



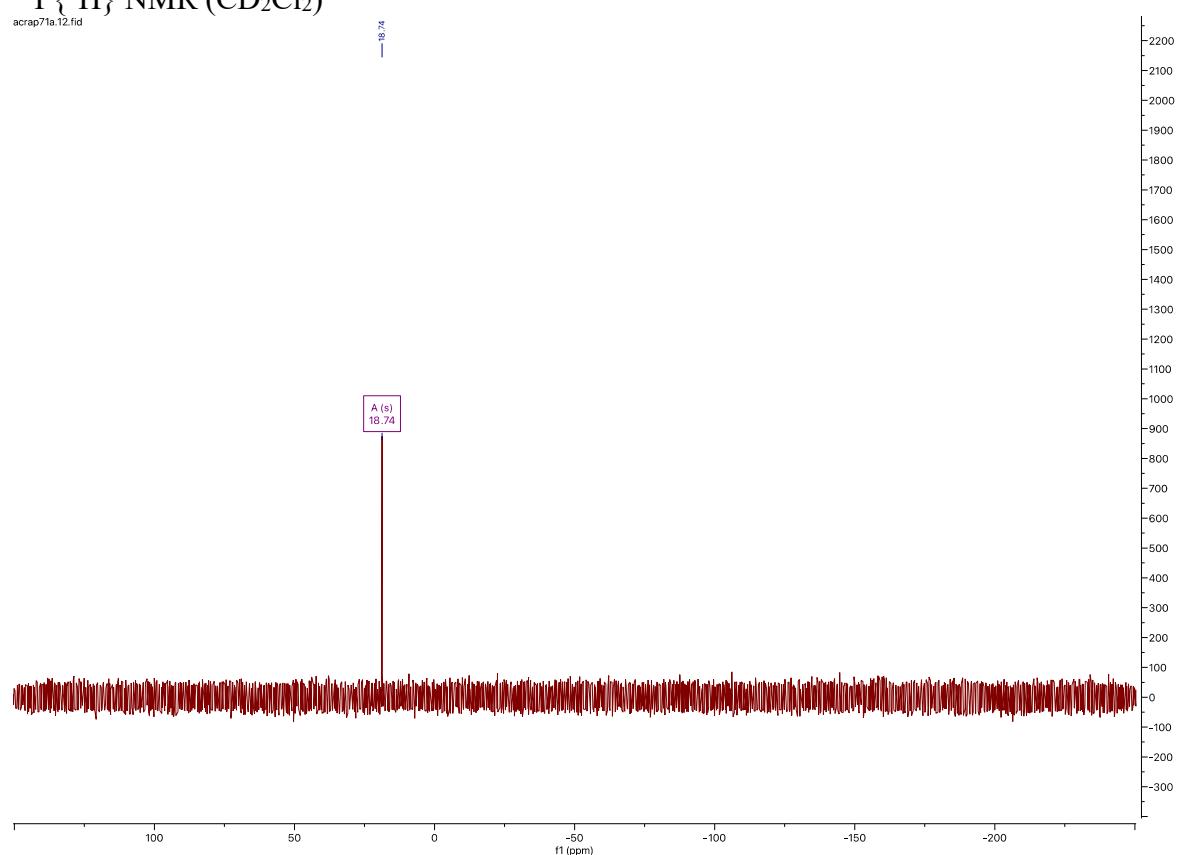
$^{31}P\{^1H\}$ NMR (CD_2Cl_2)



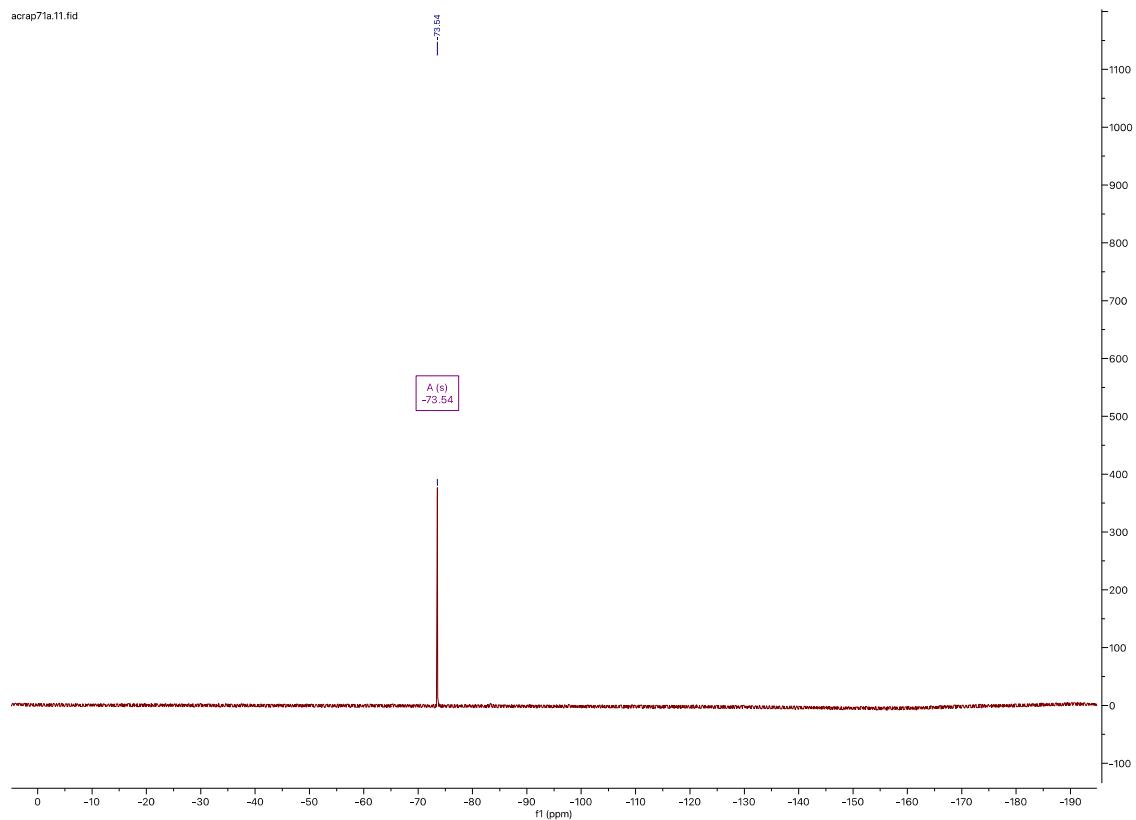
¹⁹F NMR (CD₂Cl₂)



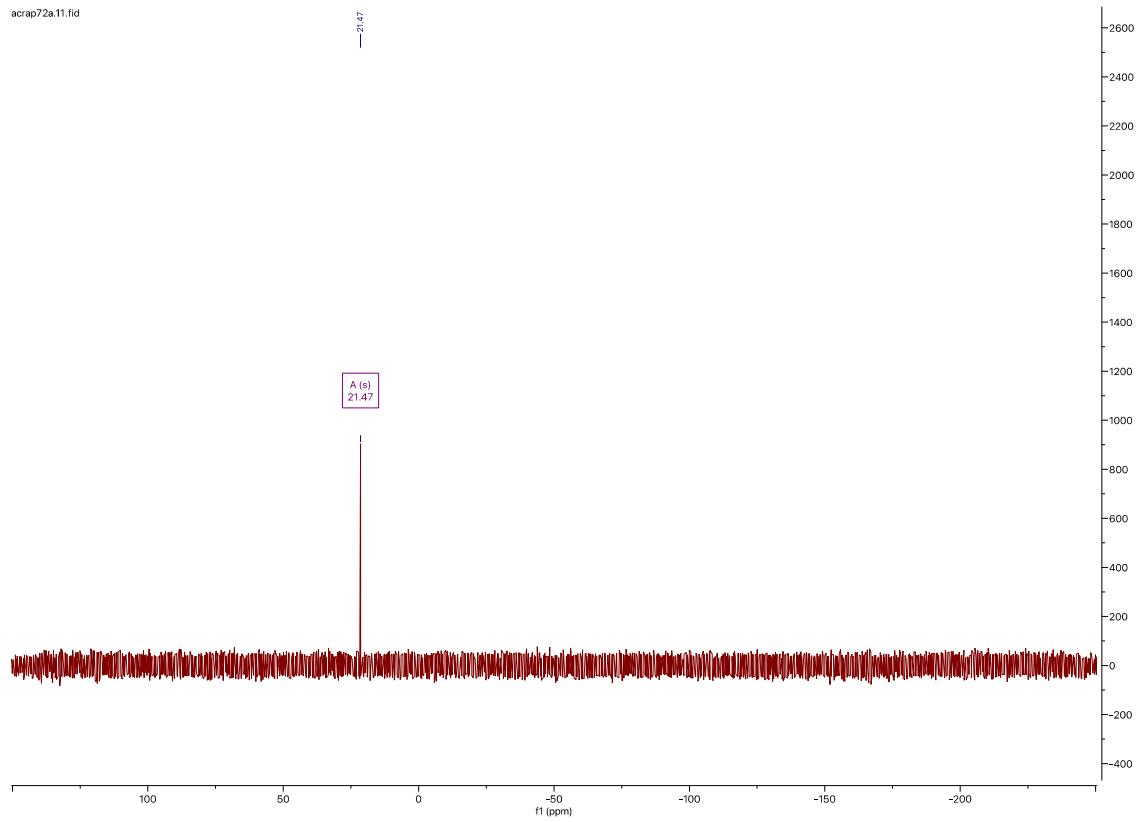
$^{31}\text{P}\{\text{H}\}$ NMR (CD_2Cl_2)
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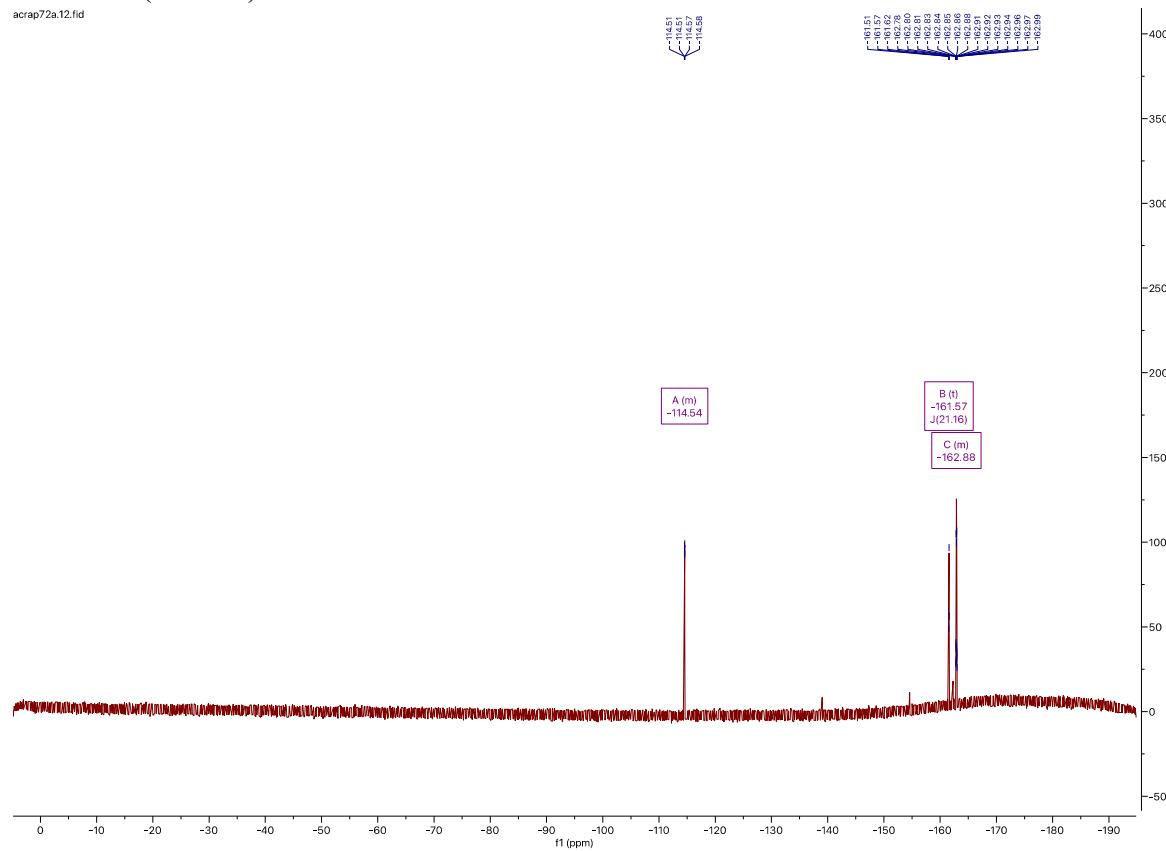
^{19}F NMR (CD_2Cl_2)



$[(C_6F_5CO_2)_2AgAu(dppb)]_2$ (**13a**)
 $^{31}P\{^1H\}$ NMR (CD_2Cl_2)



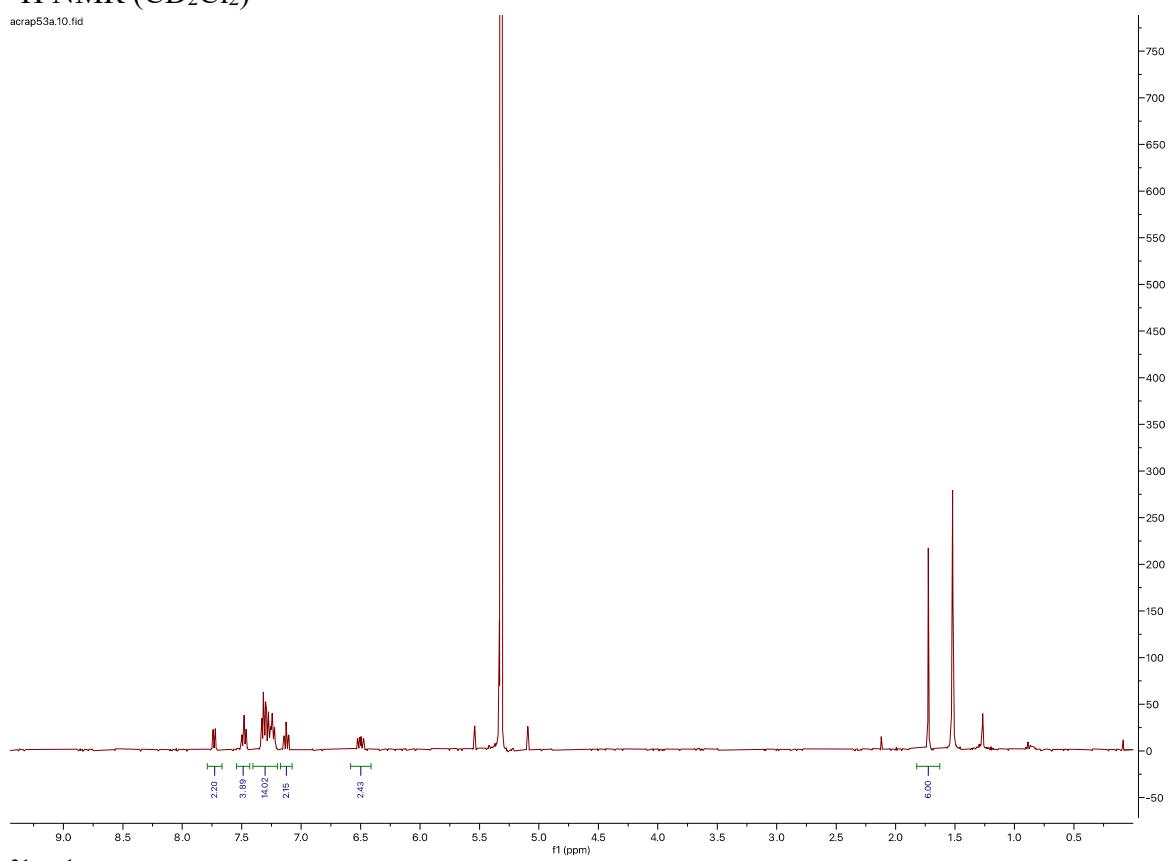
^{19}F NMR (CD_2Cl_2)



$[\{CF_3(CF_2)_2CO_2\}_2AgAu(Xantphos)\}_2$ (**14a**)

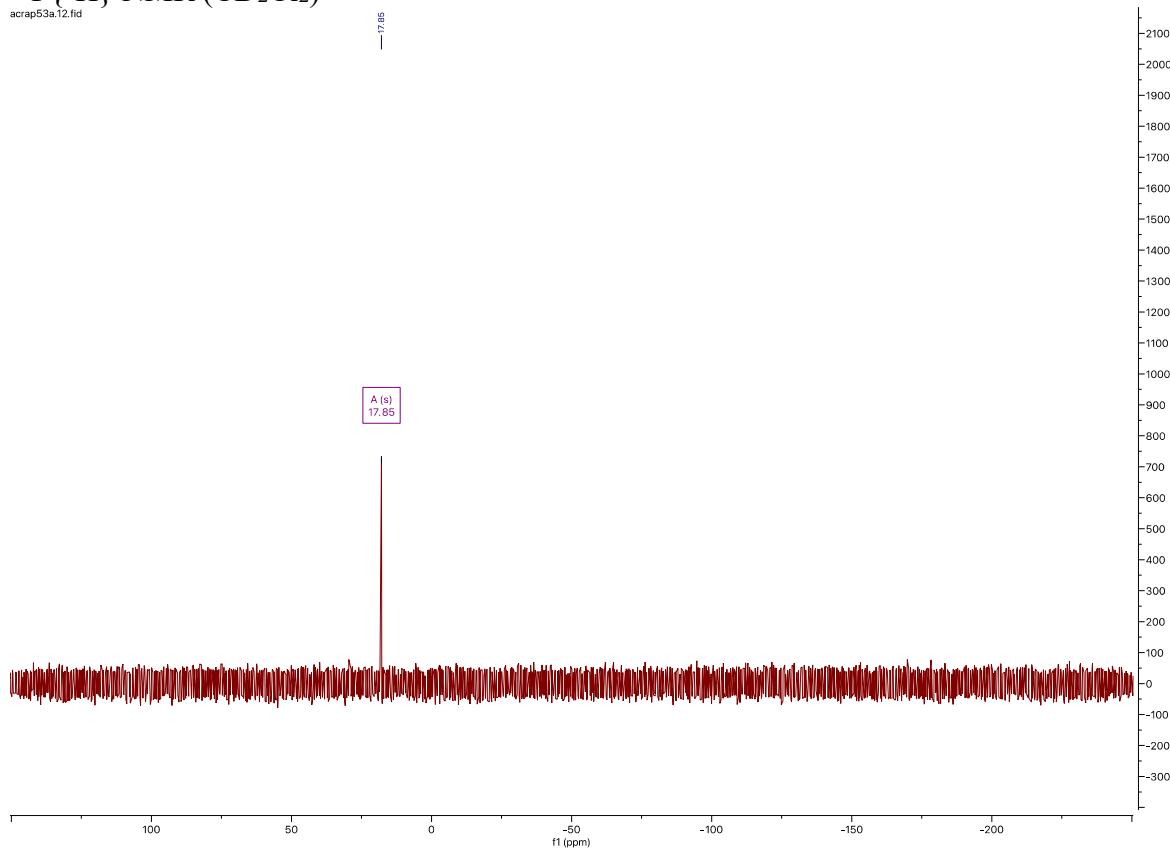
1H NMR (CD_2Cl_2)

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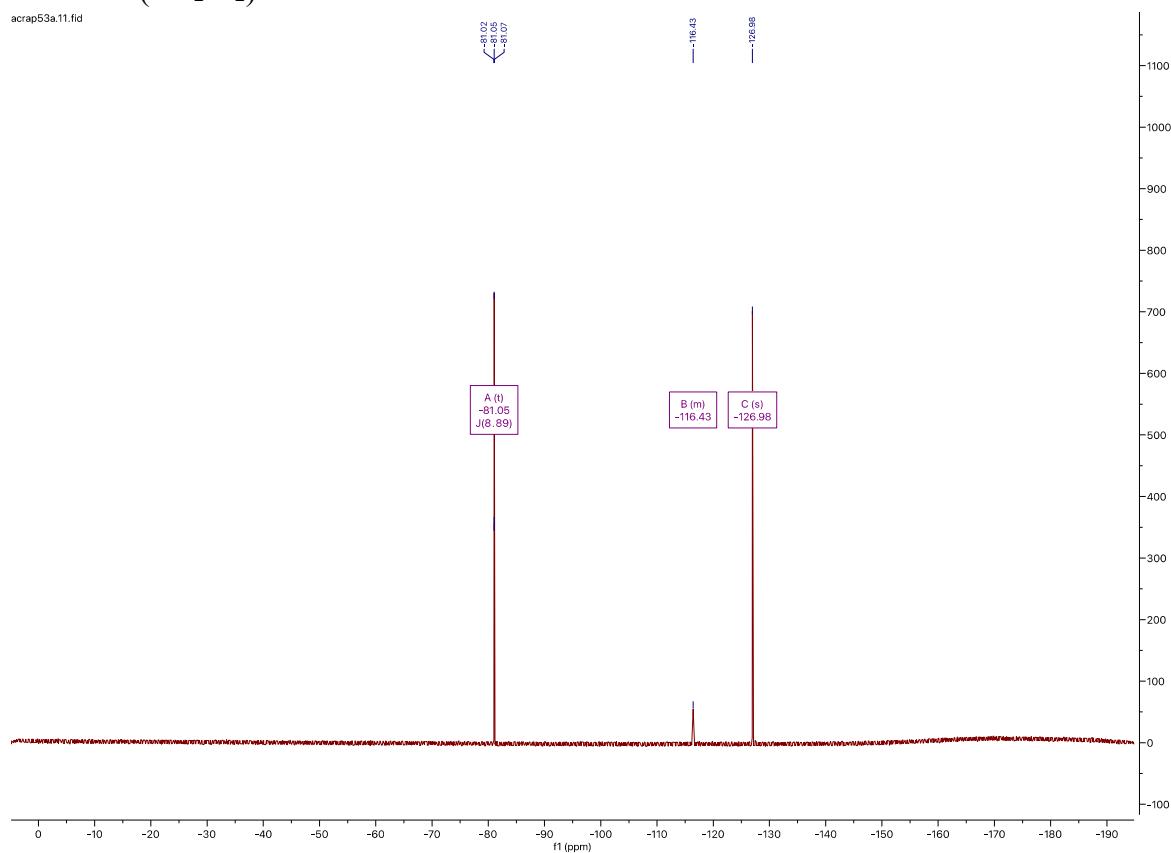
$^{31}P\{^1H\}$ NMR (CD_2Cl_2)

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¹⁹F NMR (CD₂Cl₂)

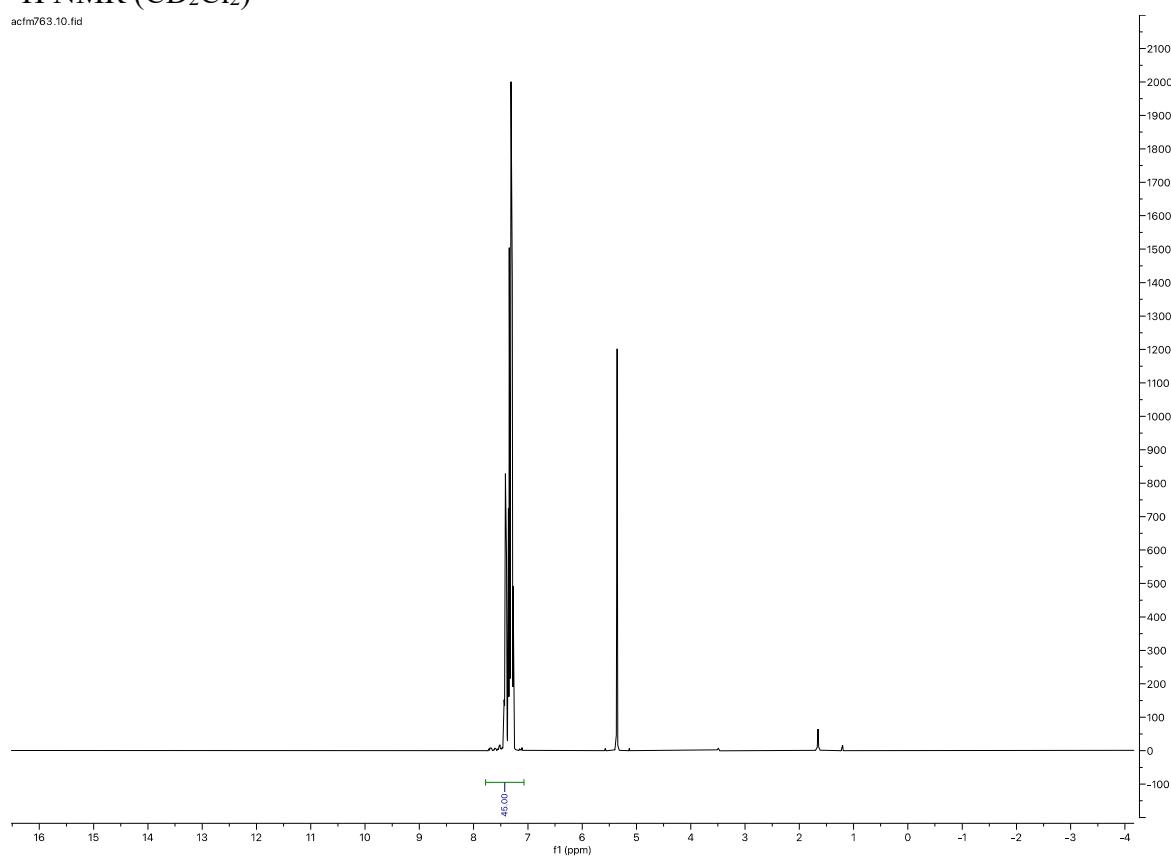
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[Cu(O₂CCF₃)(PPh₃)₃] (**17**)

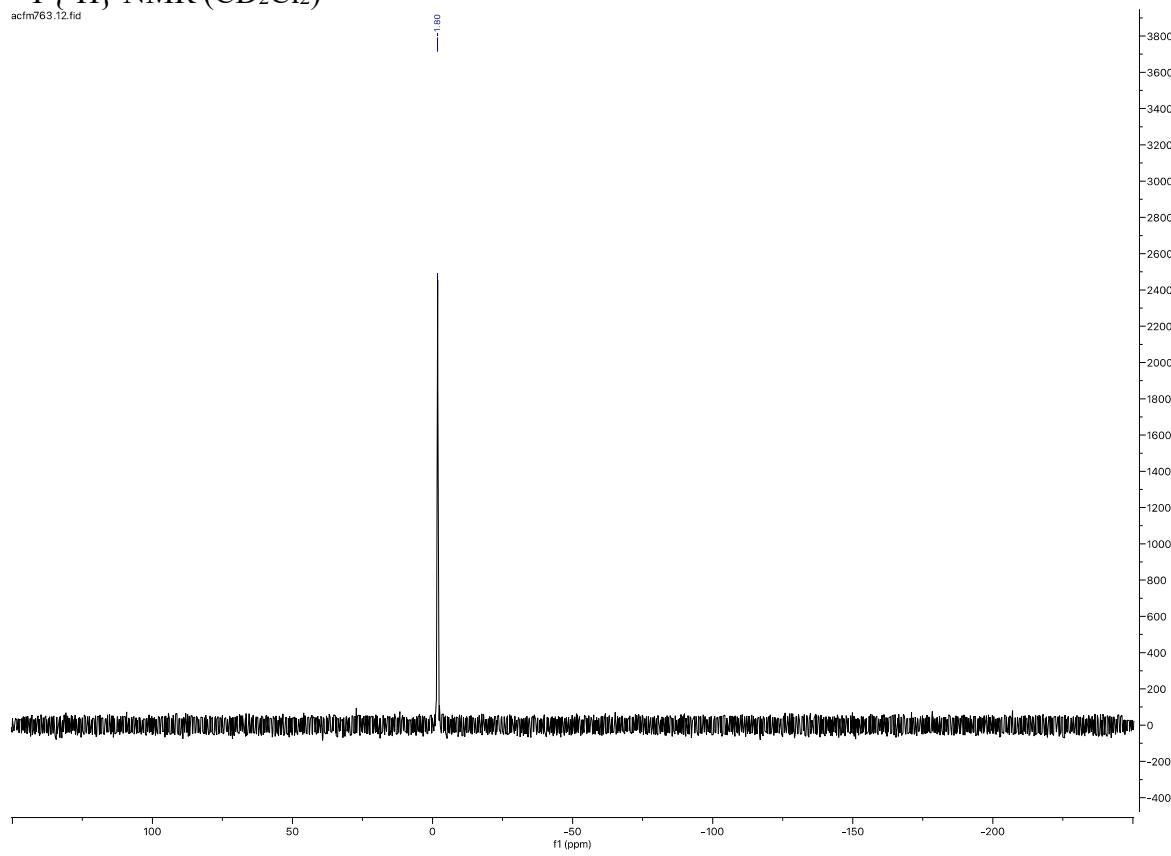
¹H NMR (CD₂Cl₂)

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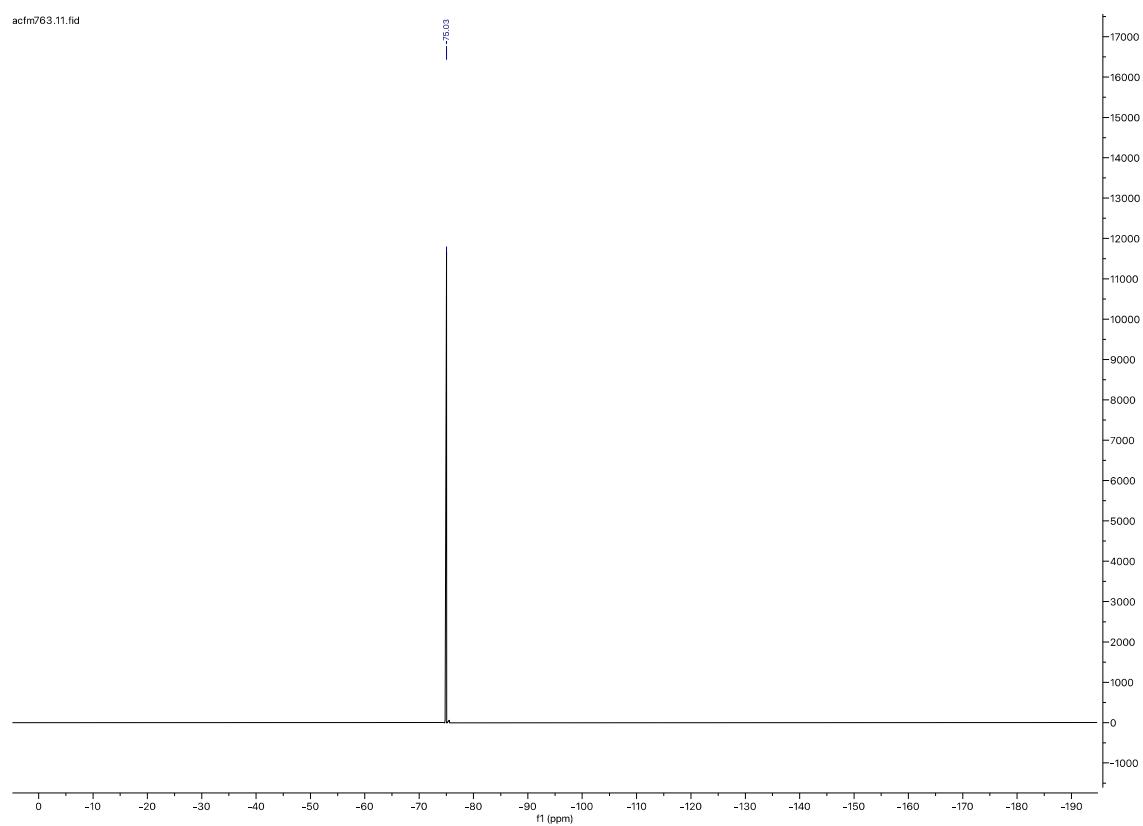


³¹P{¹H} NMR (CD₂Cl₂)

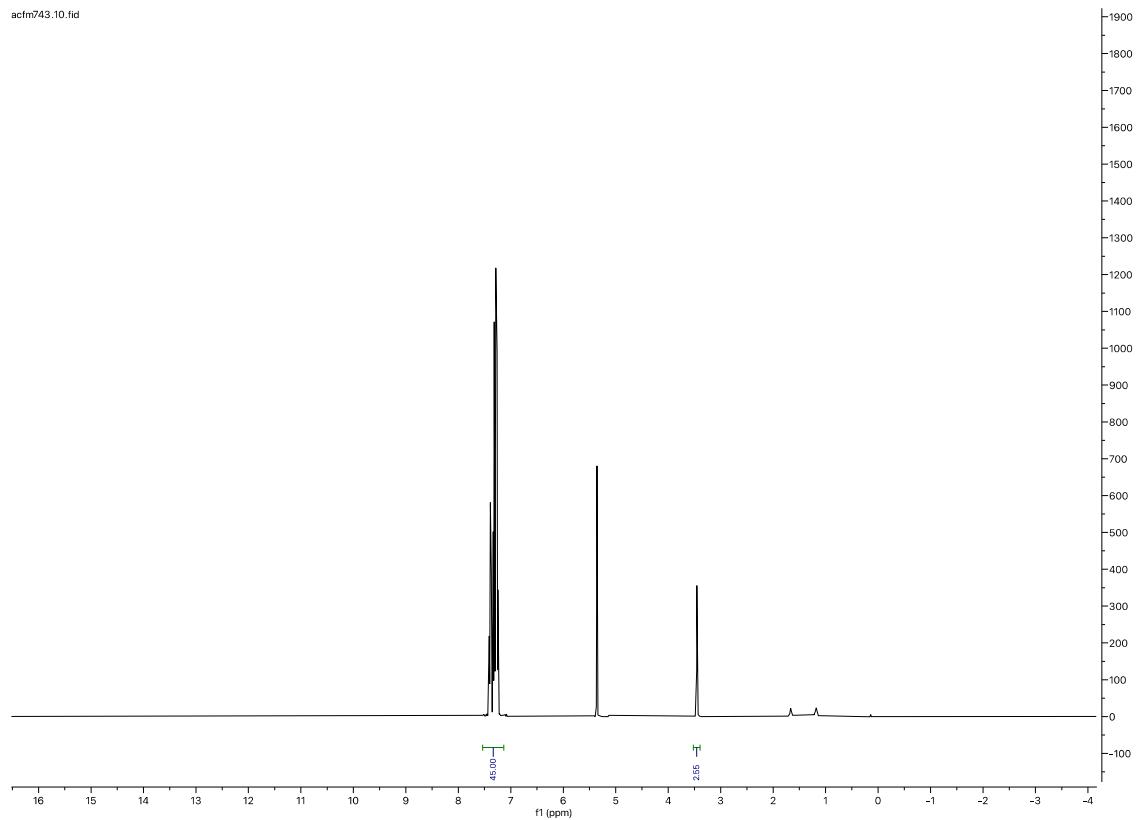
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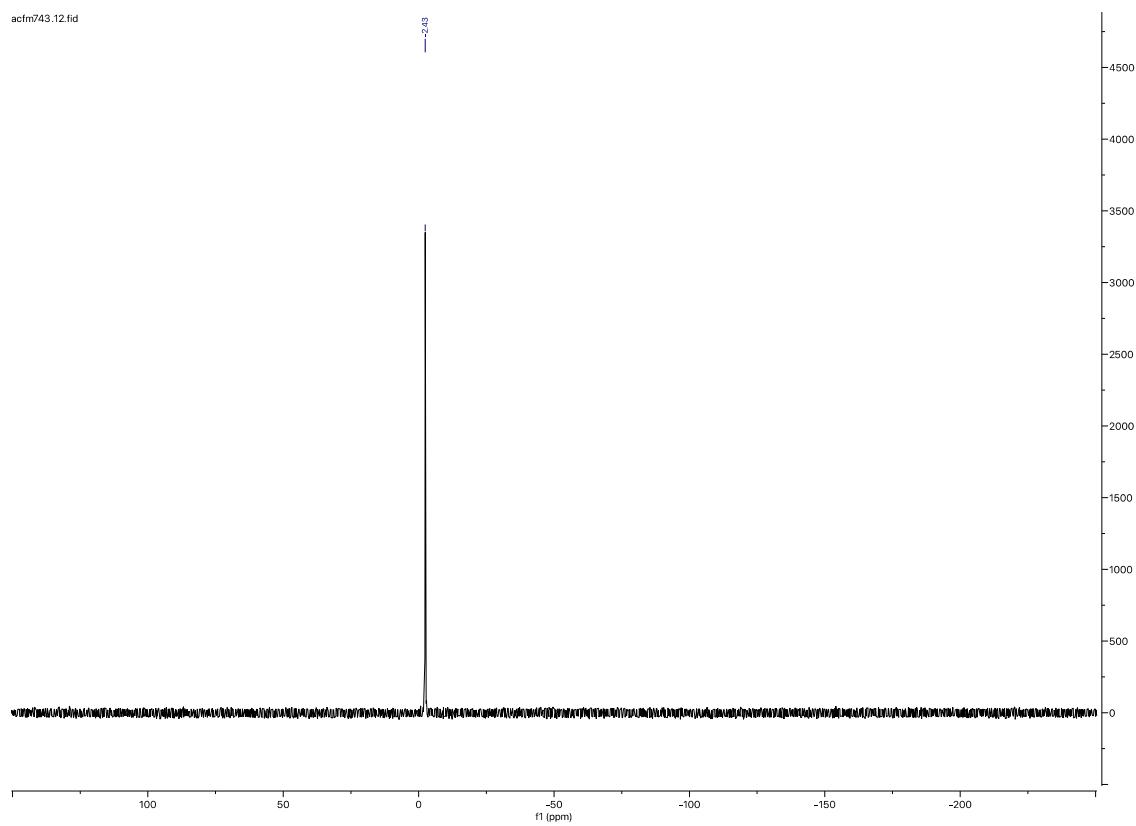
¹⁹F NMR (CD₂Cl₂)



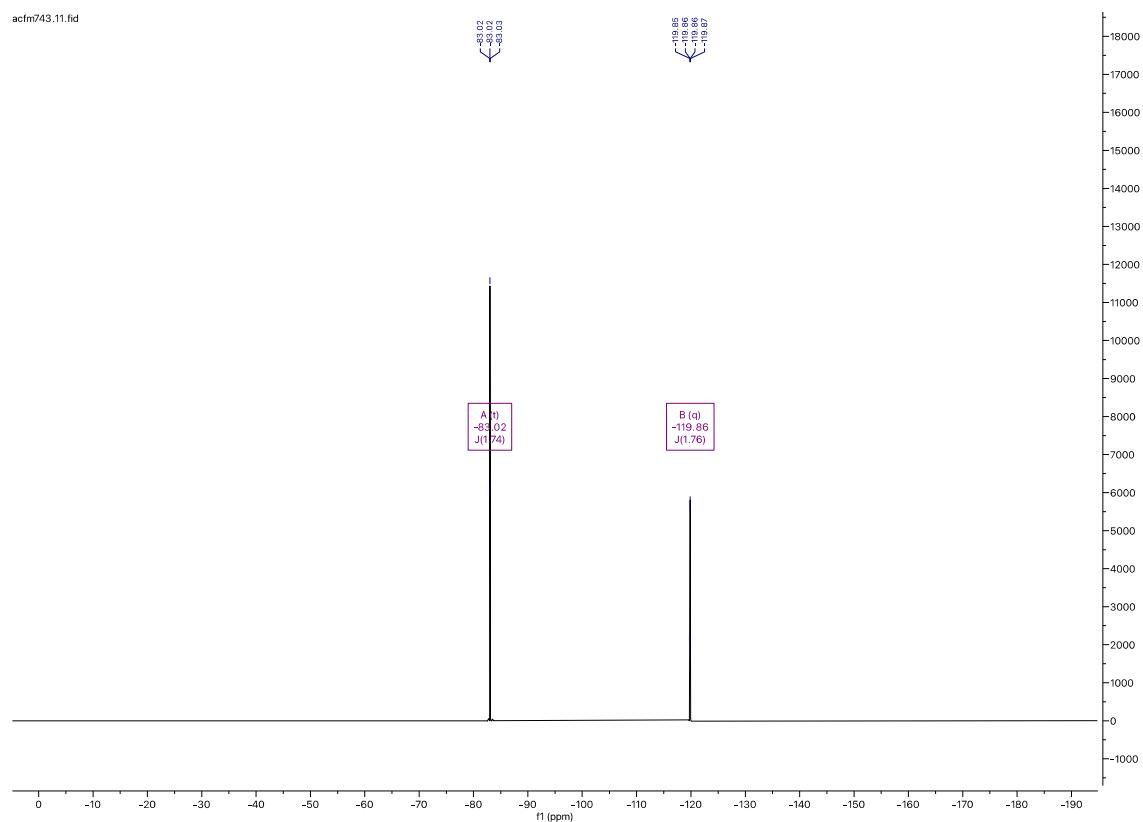
[Cu(O₂CCF₂CF₃)(PPh₃)₃]·MeOH (**18**)
¹H NMR (CD₂Cl₂)



³¹P{¹H} NMR (CD₂Cl₂)



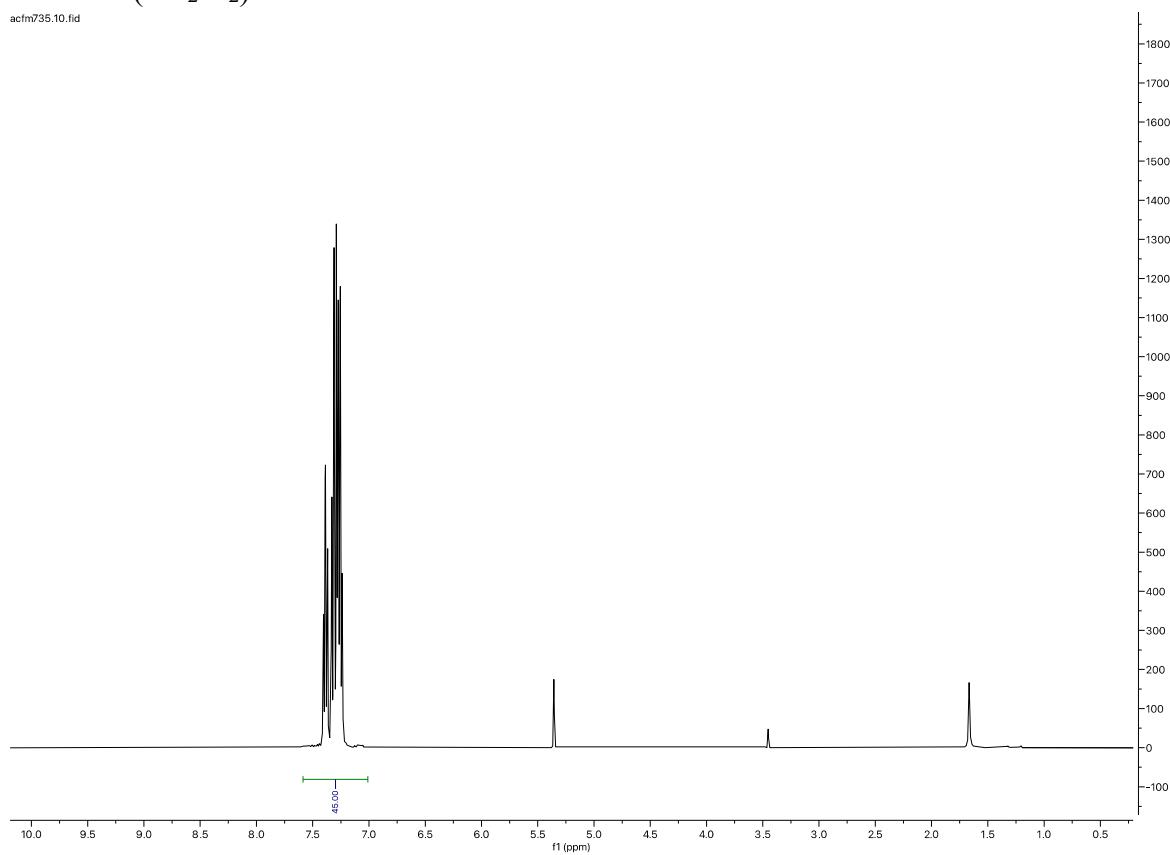
¹⁹F NMR (CD₂Cl₂)



$[\text{Cu}\{\text{O}_2\text{C}(\text{CF}_2)_2\text{CF}_3\}(\text{PPh}_3)_3]$ (**19**)

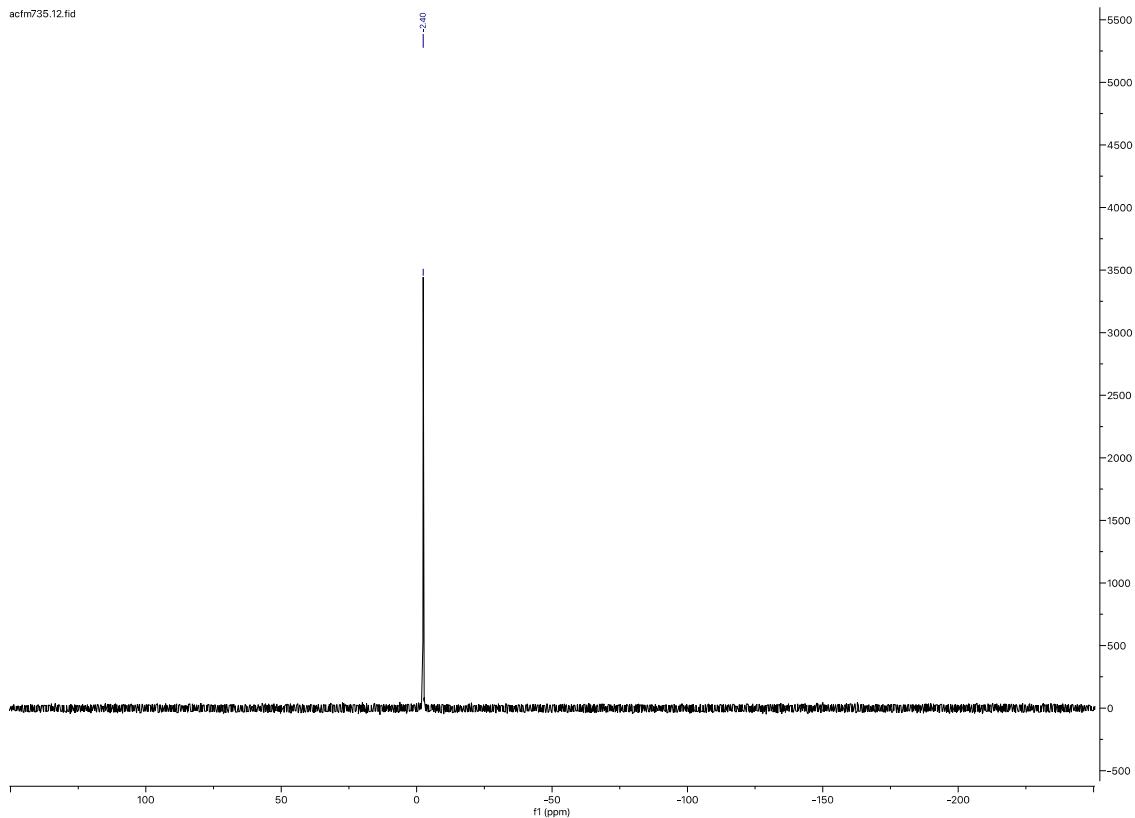
^1H NMR (CD_2Cl_2)

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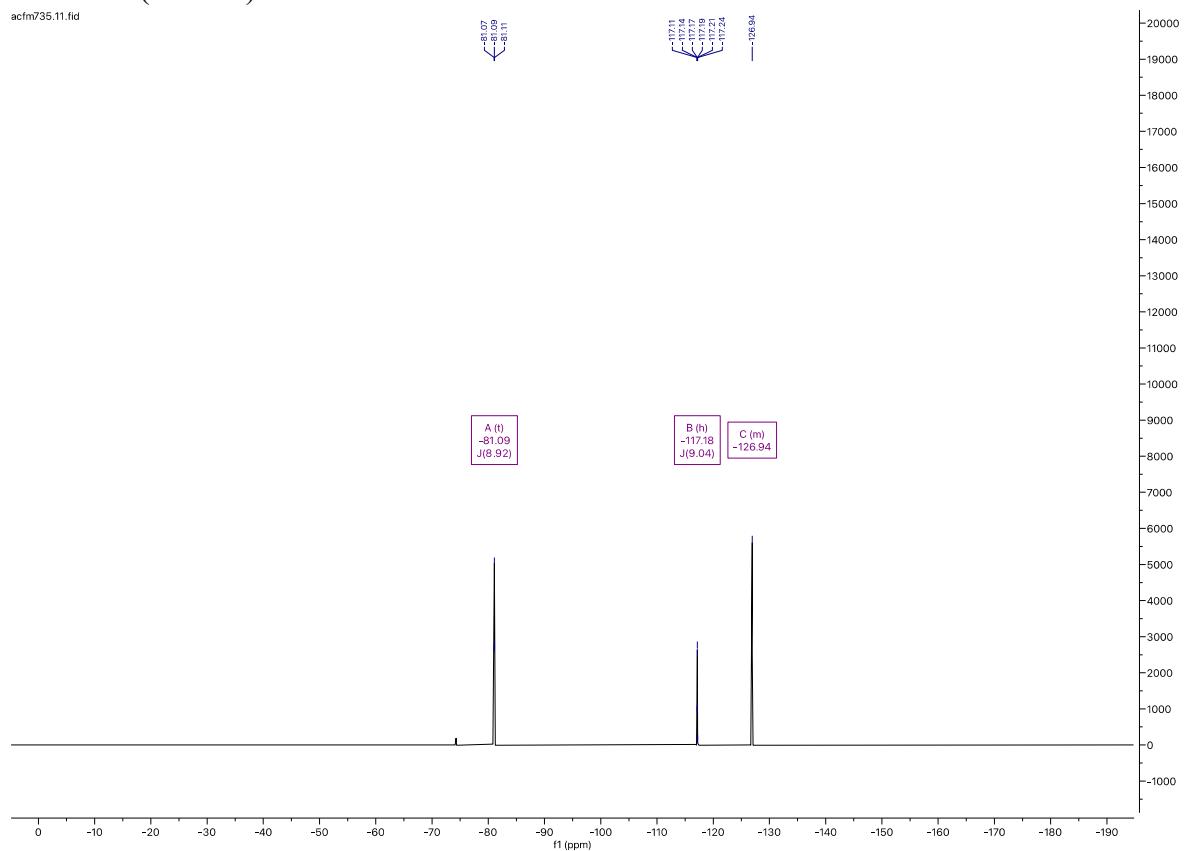
$^{31}\text{P}\{^1\text{H}\}$ NMR (CD_2Cl_2)

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¹⁹F NMR (CD₂Cl₂)

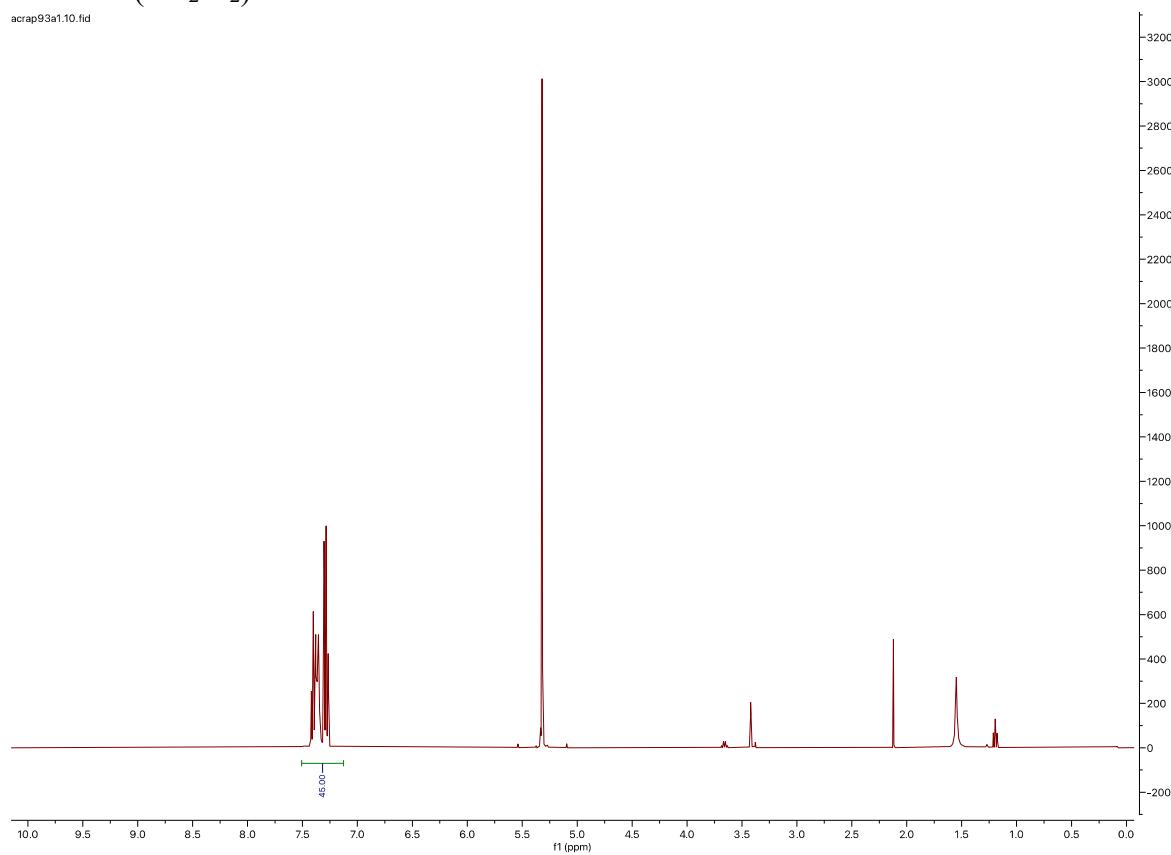
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$[\text{Cu}(\text{O}_2\text{CC}_6\text{F}_5)(\text{PPh}_3)_3]$ (**20**)

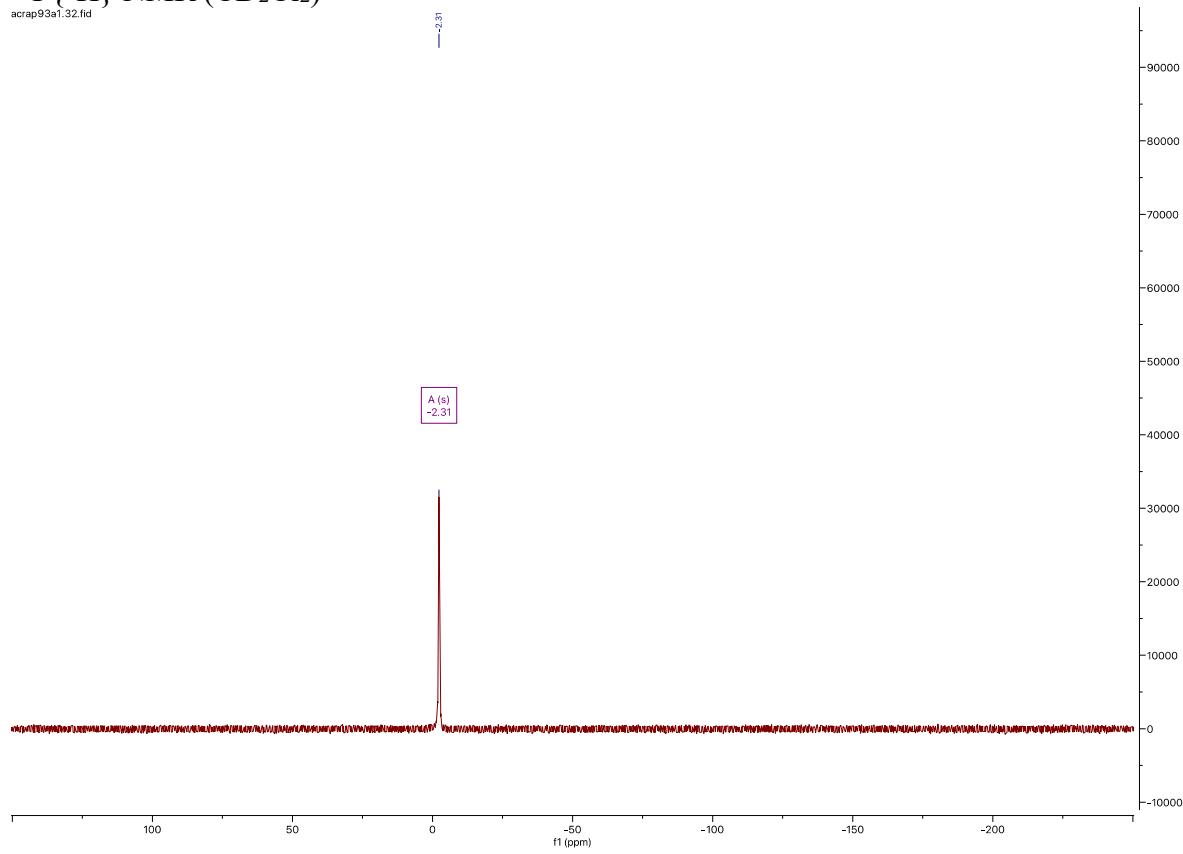
^1H NMR (CD_2Cl_2)

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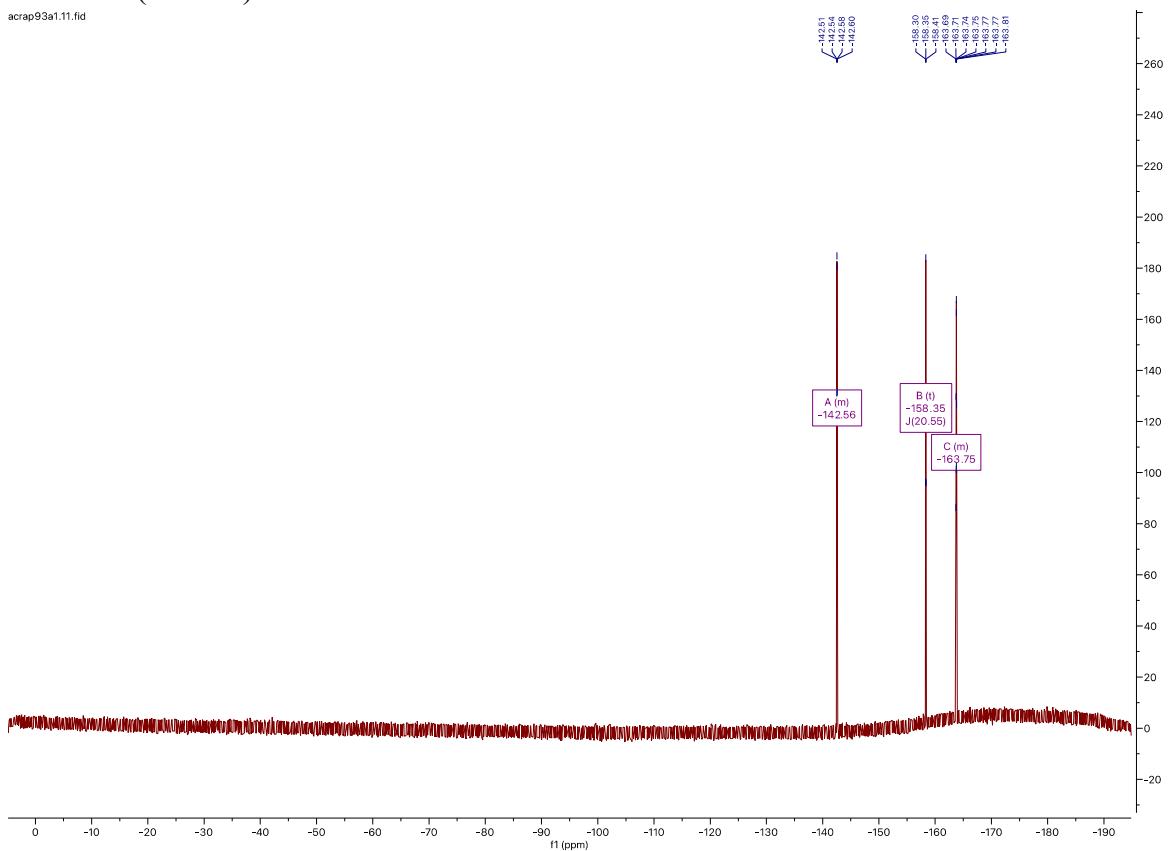
$^{31}\text{P}\{^1\text{H}\}$ NMR (CD_2Cl_2)

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¹⁹F NMR (CD₂Cl₂)

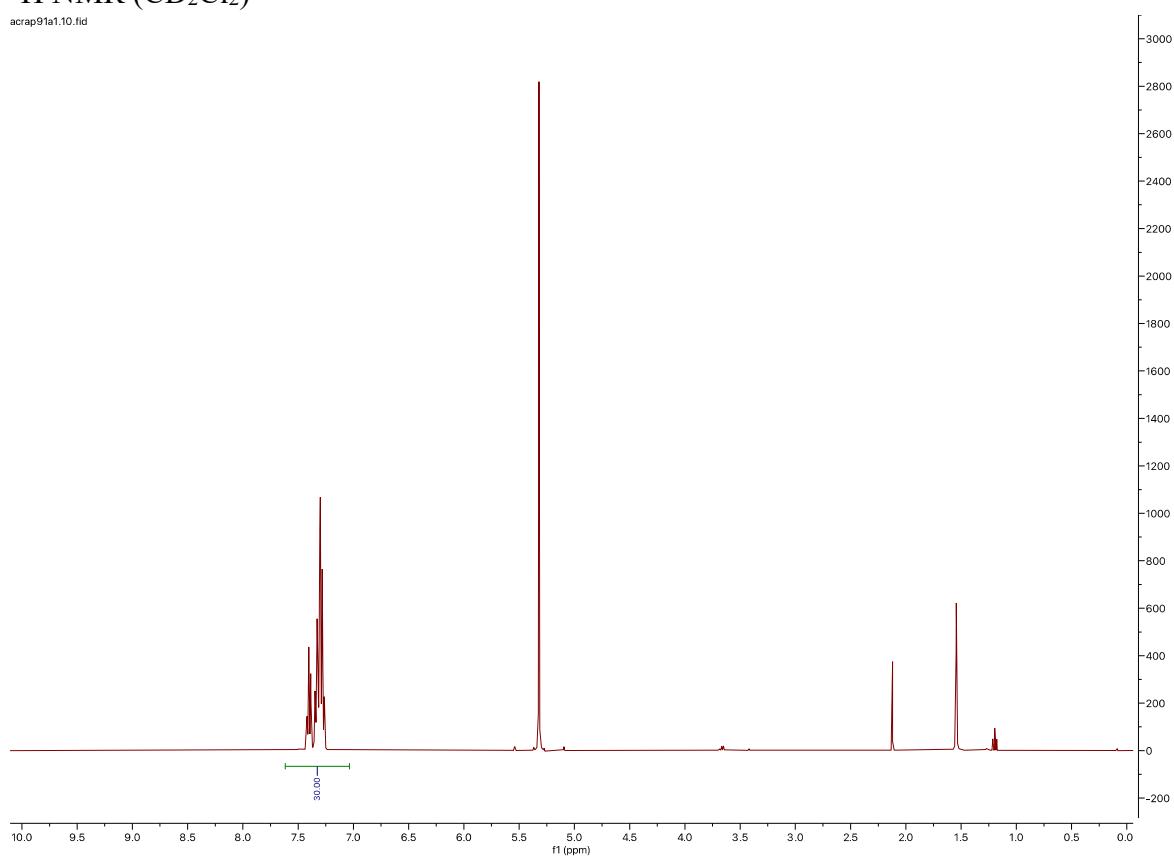
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[Cu(O₂CCF₂CF₃)(PPh₃)₂] (**21**)

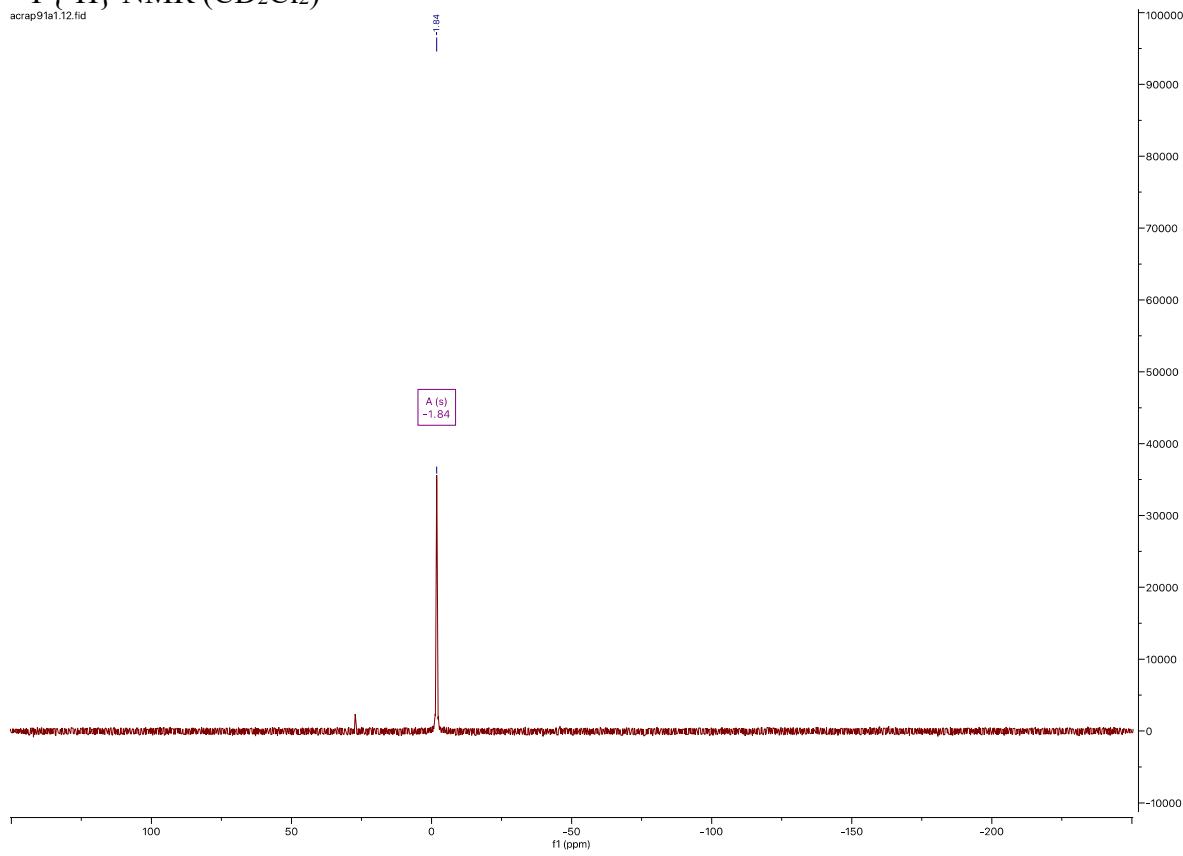
¹H NMR (CD₂Cl₂)

acrap91a1.10.fid



³¹P{¹H} NMR (CD₂Cl₂)

acrap91a1.12.fid



¹⁹F NMR (CD₂Cl₂)

