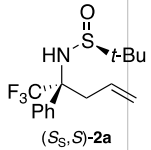
Supporting information for

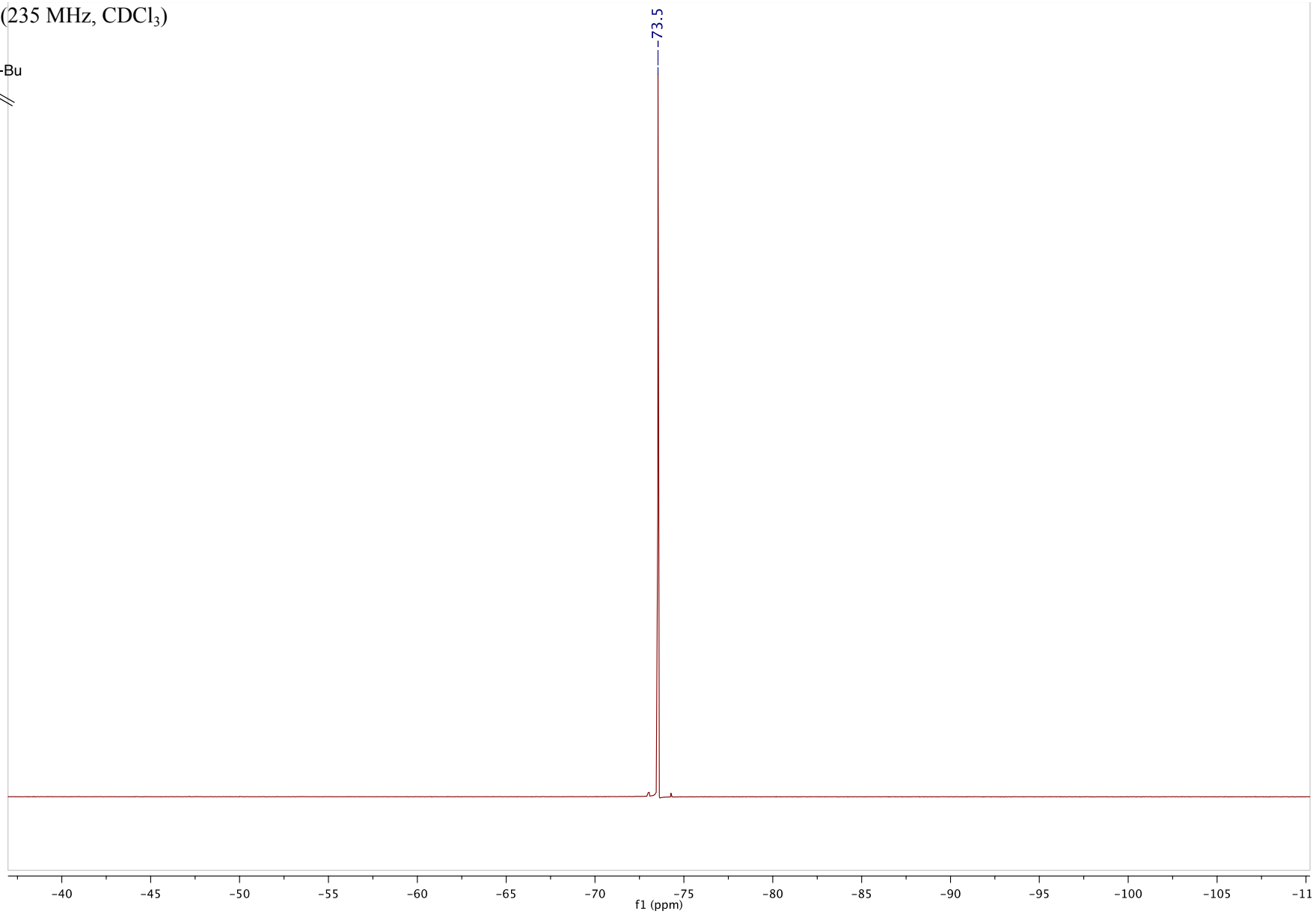
α-Trifluoromethylated tertiary homoallylic amines : Diastereoselective synthesis and conversion into β-aminoesters, γ- and δ-aminoalcohols, azetidines and pyrrolidines.

Fabienne Grellepois,* Abdelkhalek Ben Jamaa, Nathalie Saraiva Rosa

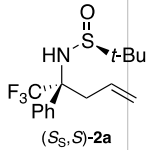
^{19}F NMR (235 MHz, $CDCl_3$)



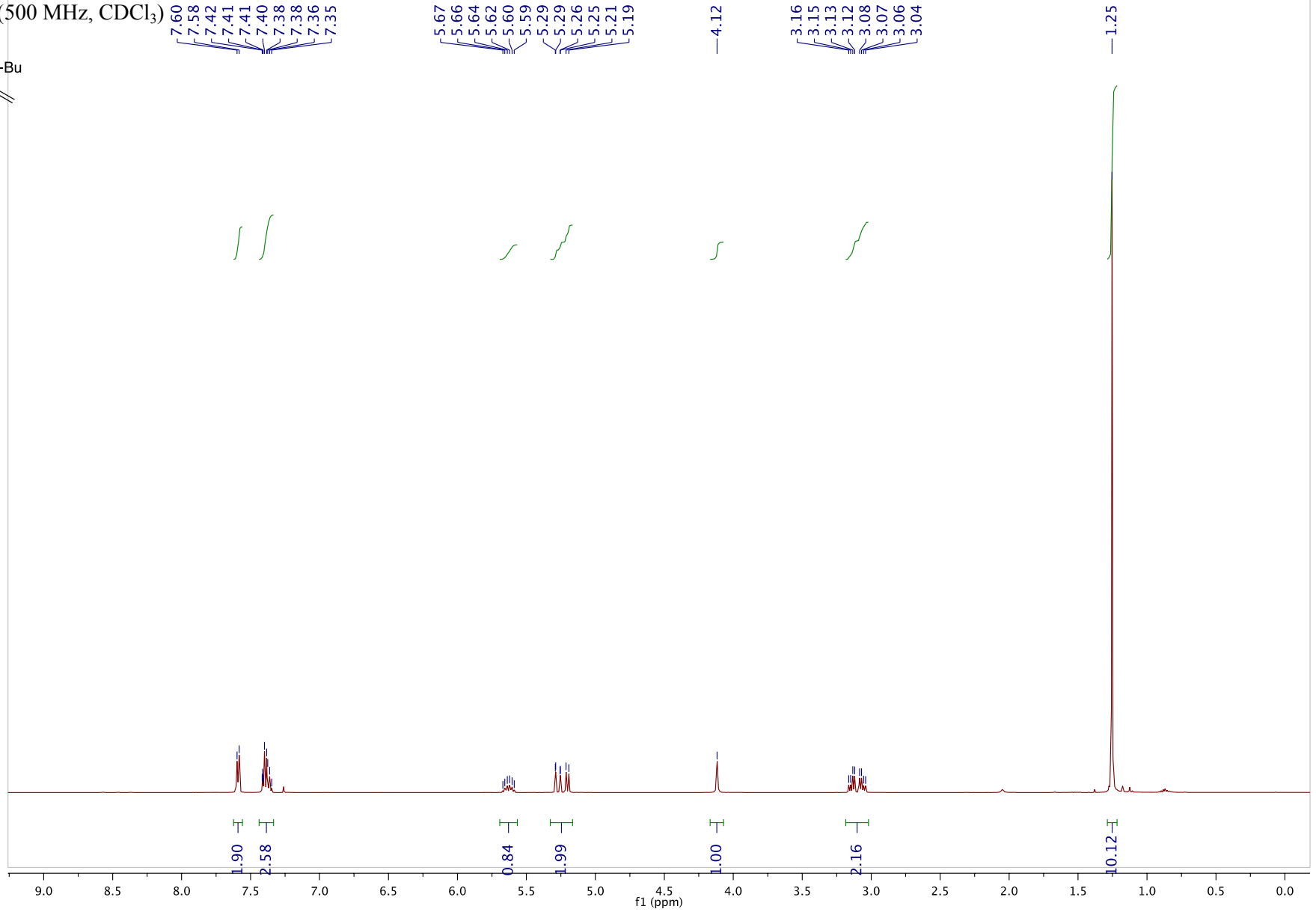
(S_S,*S*)-**2a**



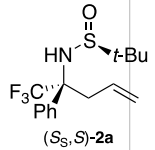
^{1}H NMR (500 MHz, $CDCl_3$)



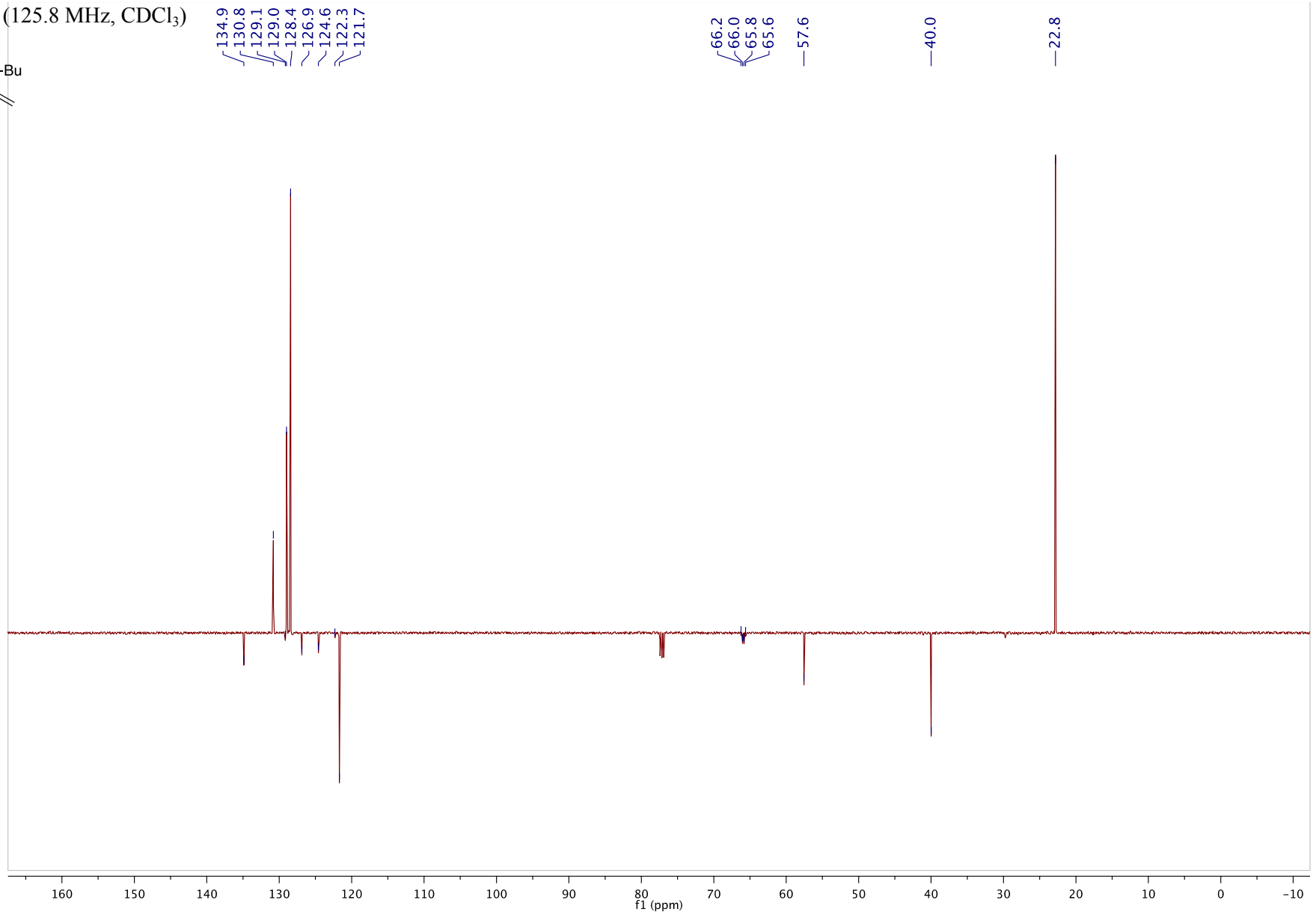
(S_S,*S*)-**2a**



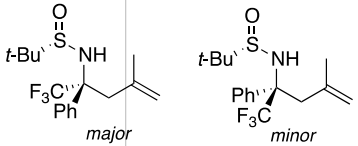
^{13}C NMR (125.8 MHz, $CDCl_3$)



(S_S,*S*)-**2a**

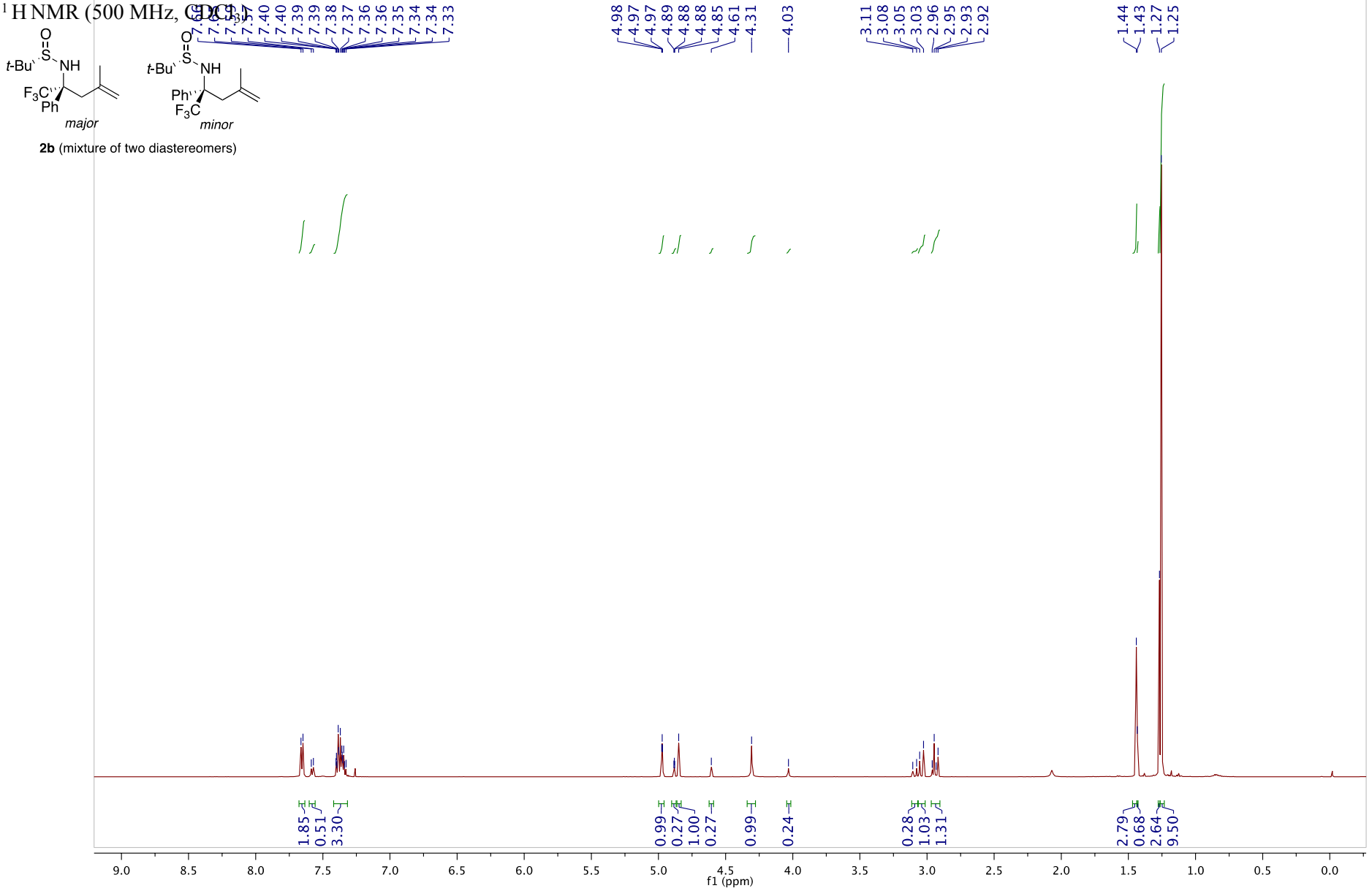


^{19}F NMR (235 MHz, $CDCl_3$)

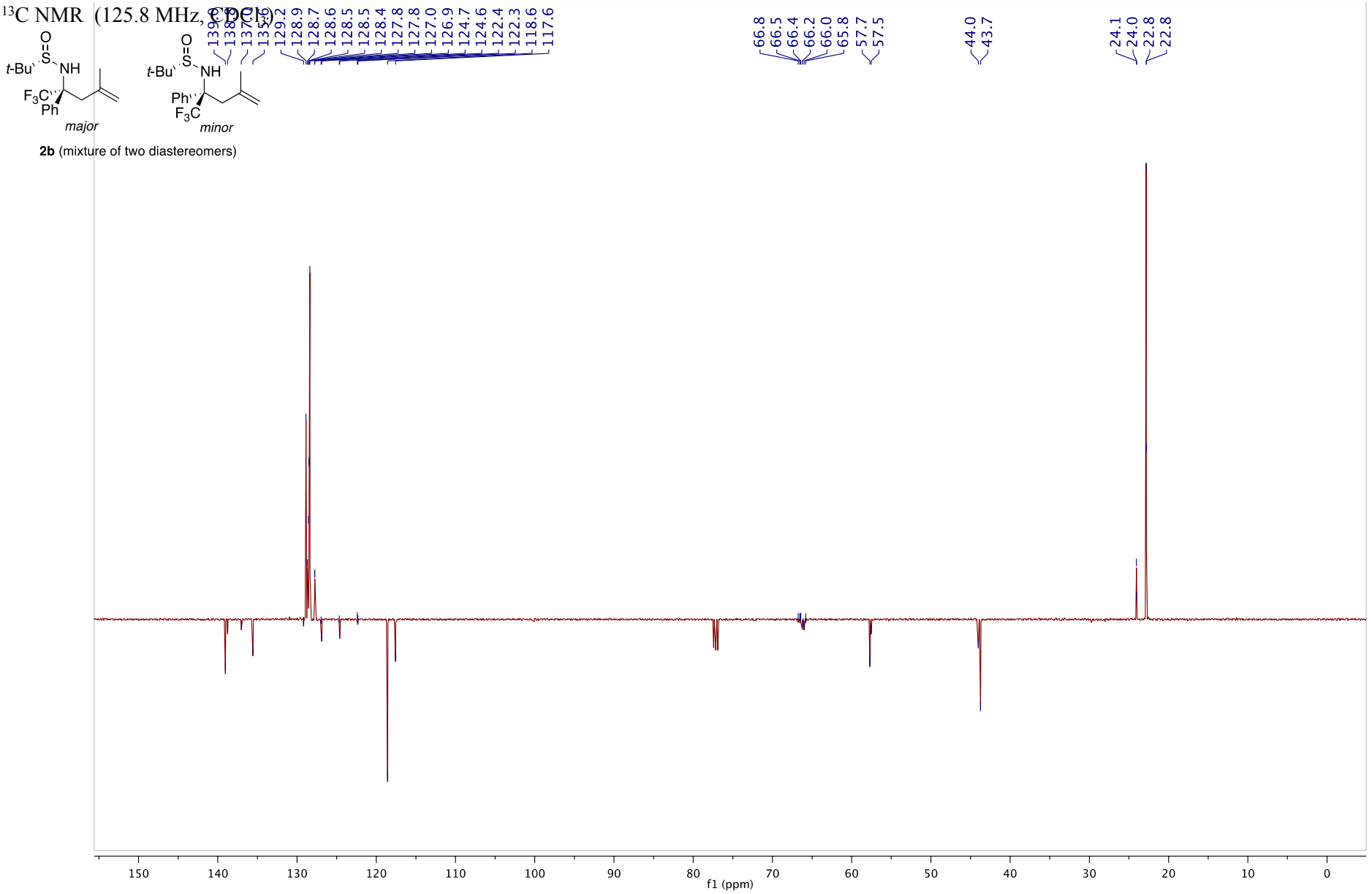


2b (mixture of two diastereomers)

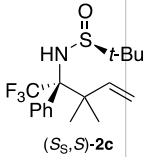
^{1}H NMR (500 MHz, $CDCl_3$)



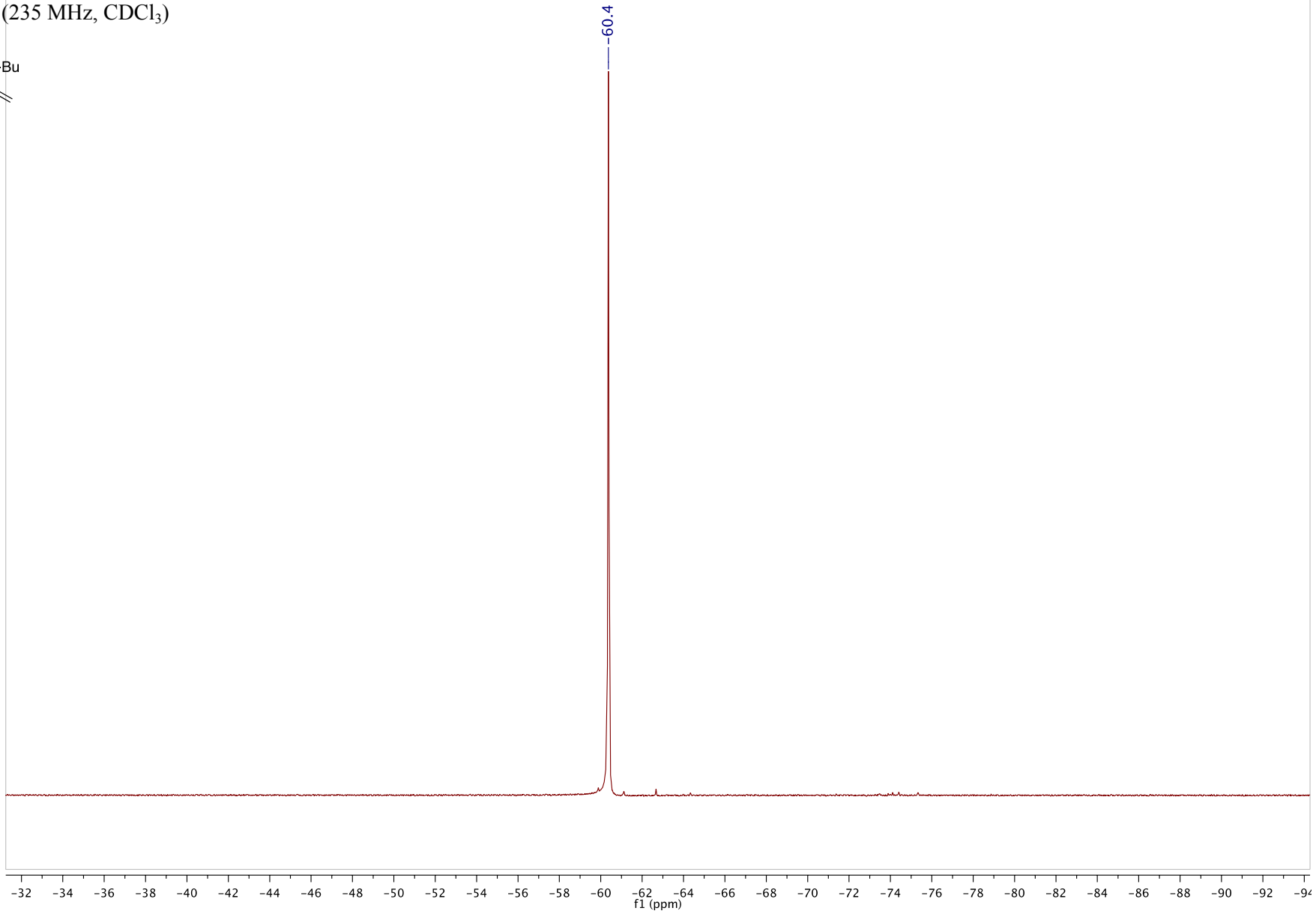
^{13}C NMR (125.8 MHz, CDCl$_3$)



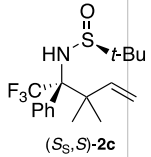
^{19}F NMR (235 MHz, $CDCl_3$)



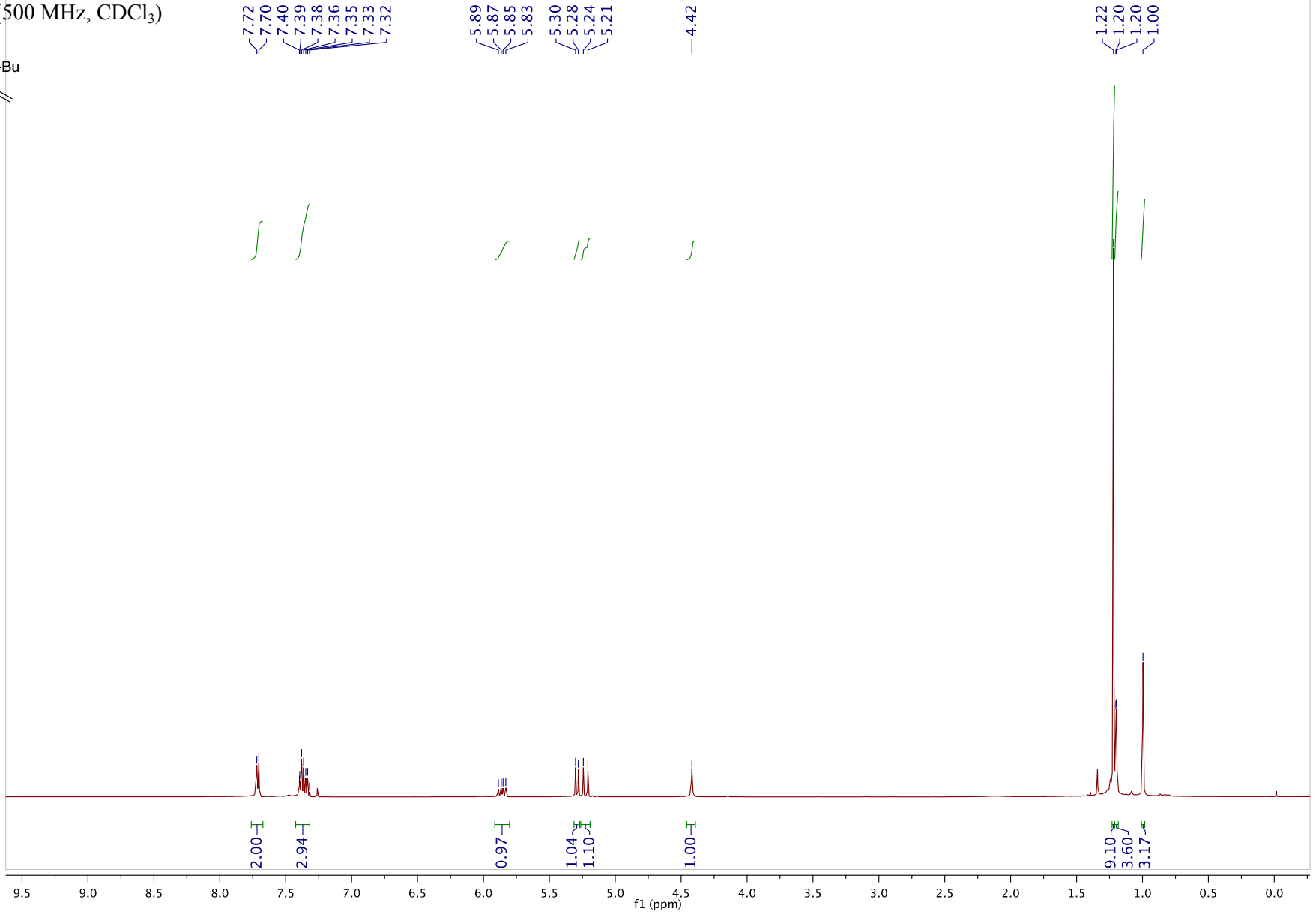
(S_S,*S*)-**2c**



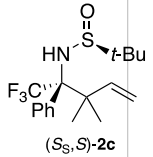
^{1}H NMR (500 MHz, $CDCl_3$)



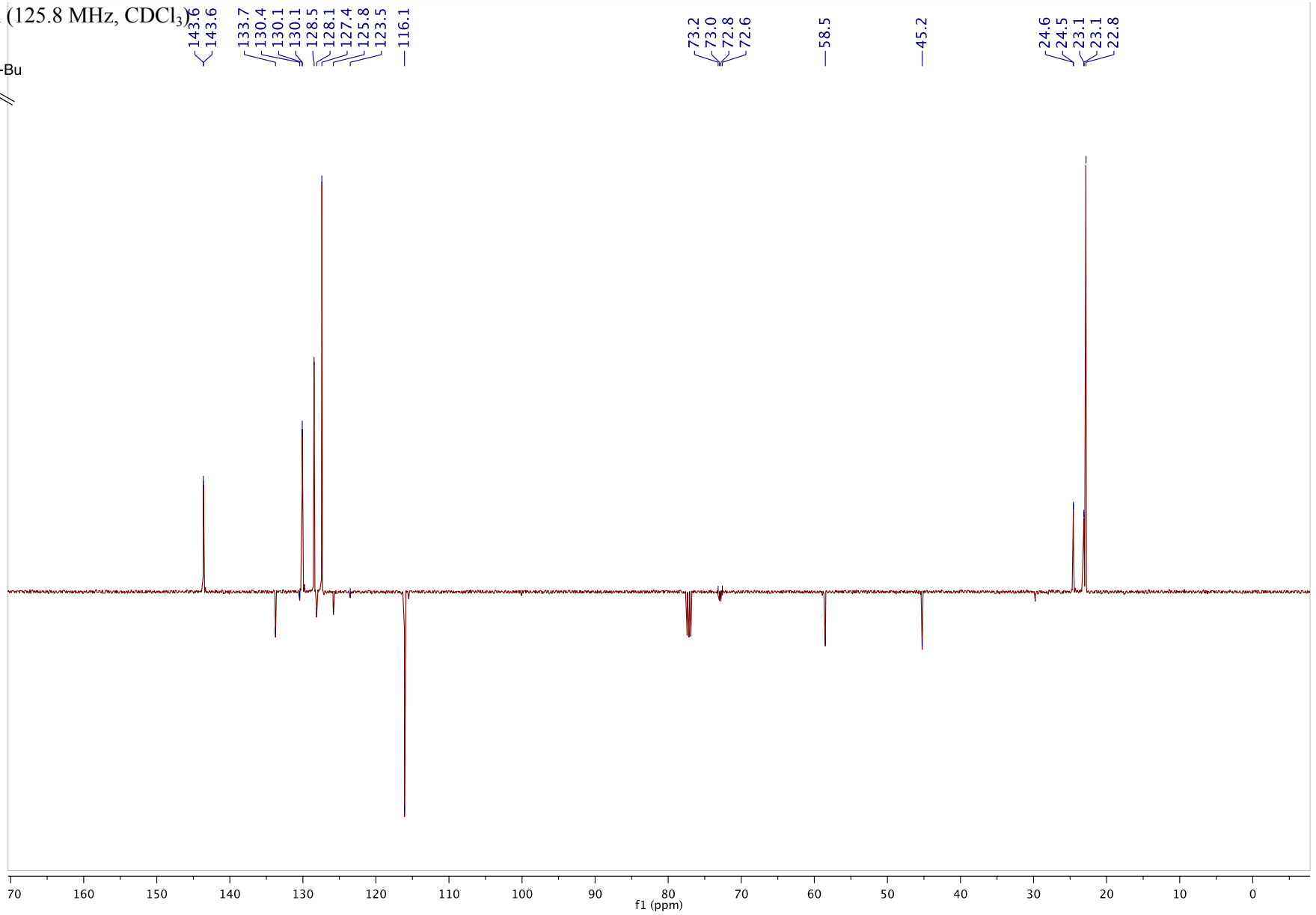
(S_S,*S*)-**2c**



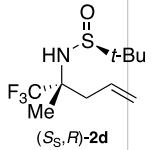
^{13}C NMR (125.8 MHz, $CDCl_3$)



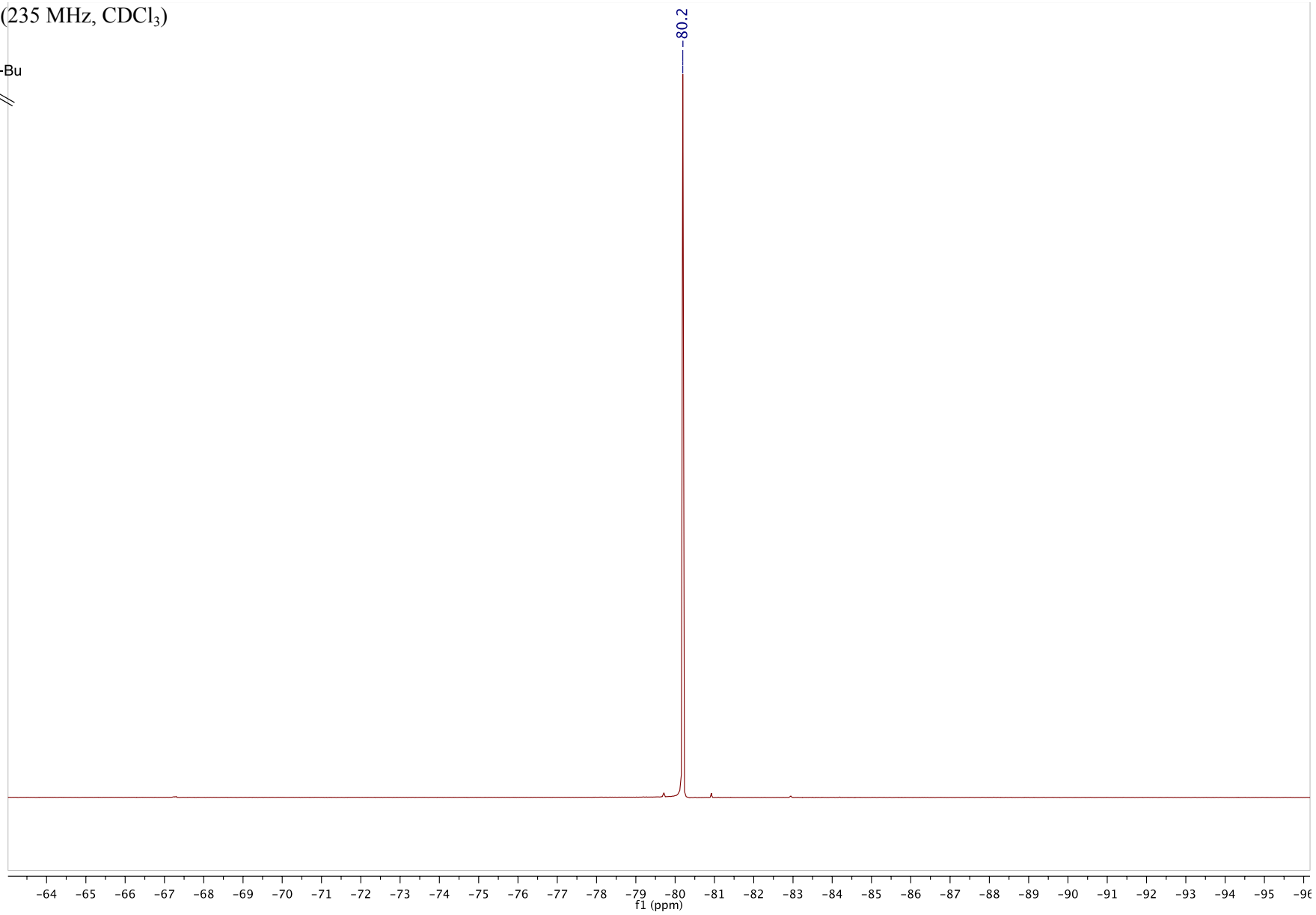
(S_S,S)-**2c**



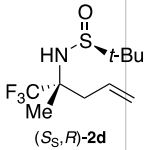
^{19}F NMR (235 MHz, $CDCl_3$)



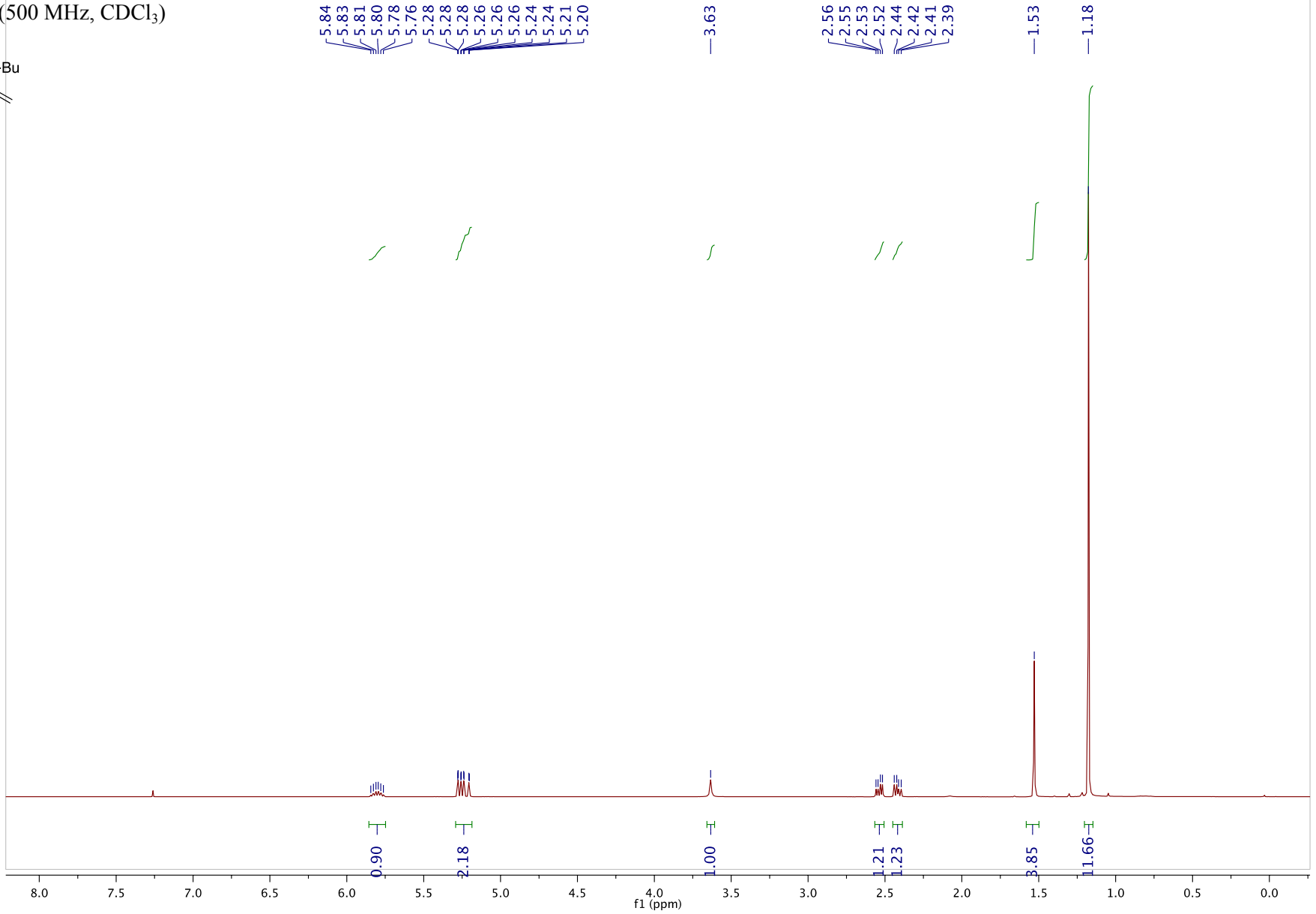
(S_S,*R*)-**2d**



^{1}H NMR (500 MHz, $CDCl_3$)



(S_S,*R*)-**2d**



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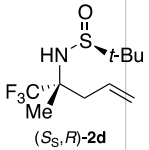
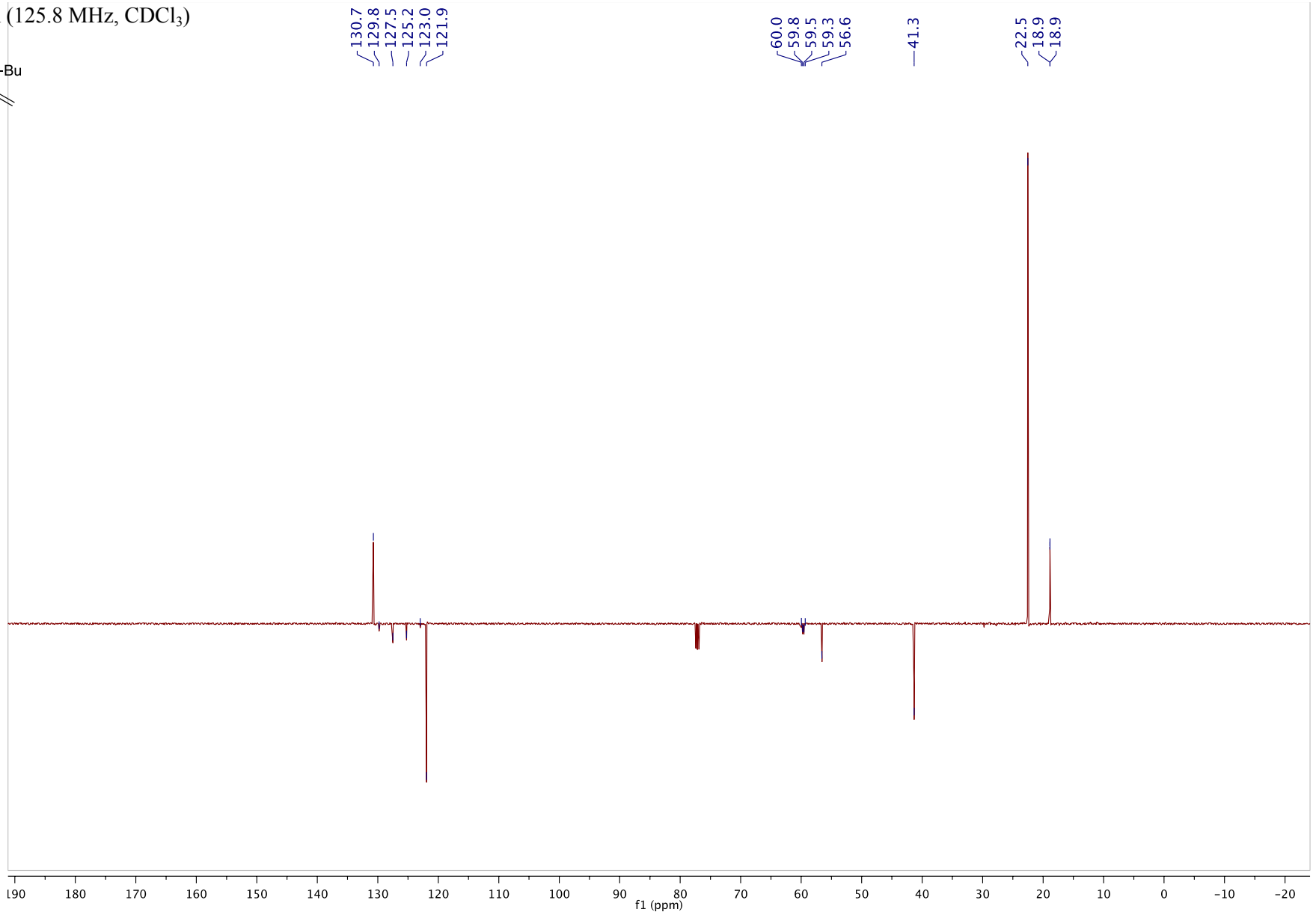
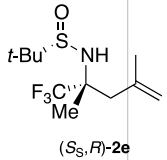


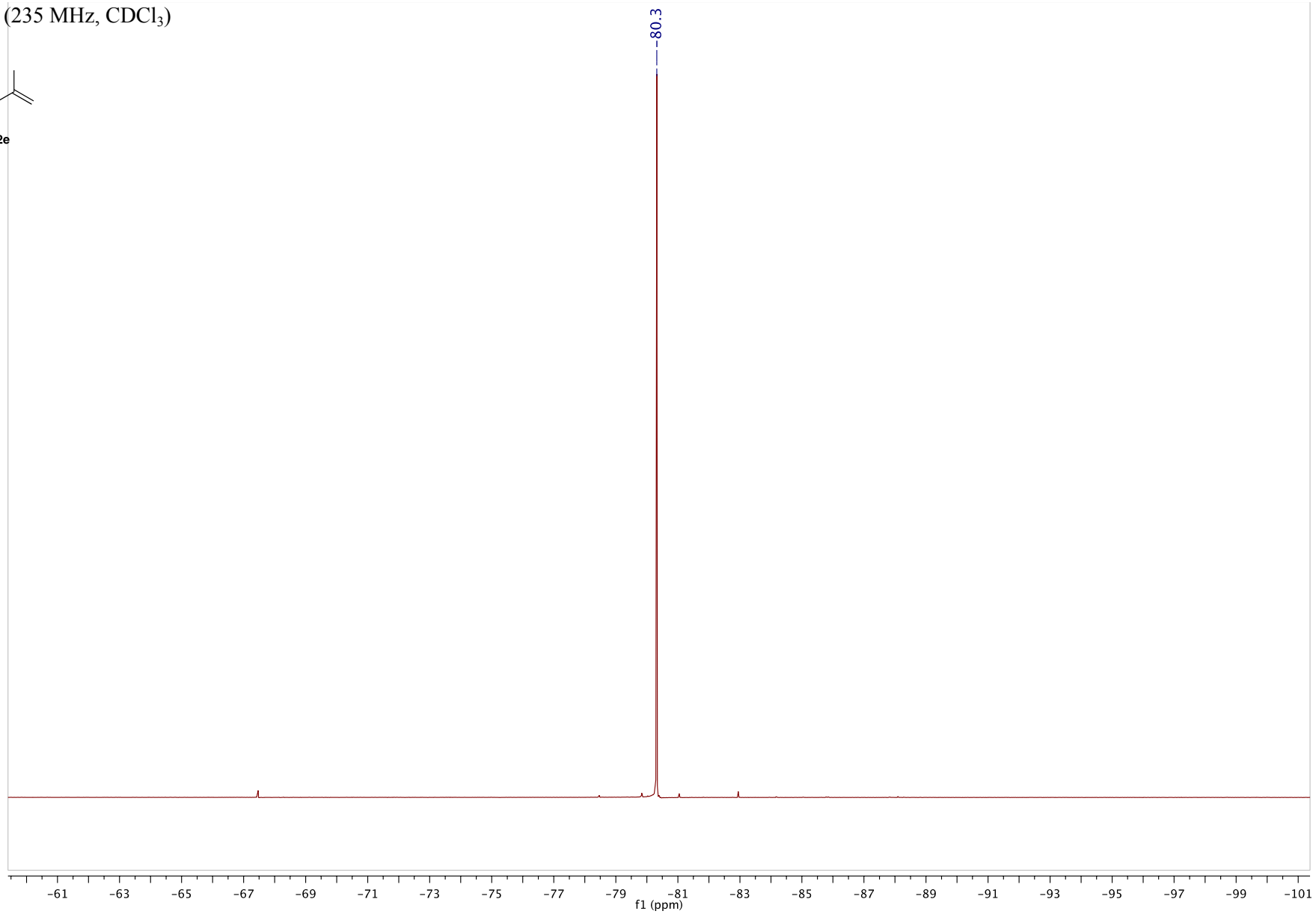
(S_S,*R*)-**2d**



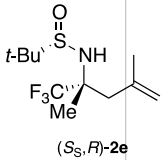
^{19}F NMR (235 MHz, $CDCl_3$)



(S_S,*R*)-**2e**



^{1}H NMR (500 MHz, $CDCl_3$)



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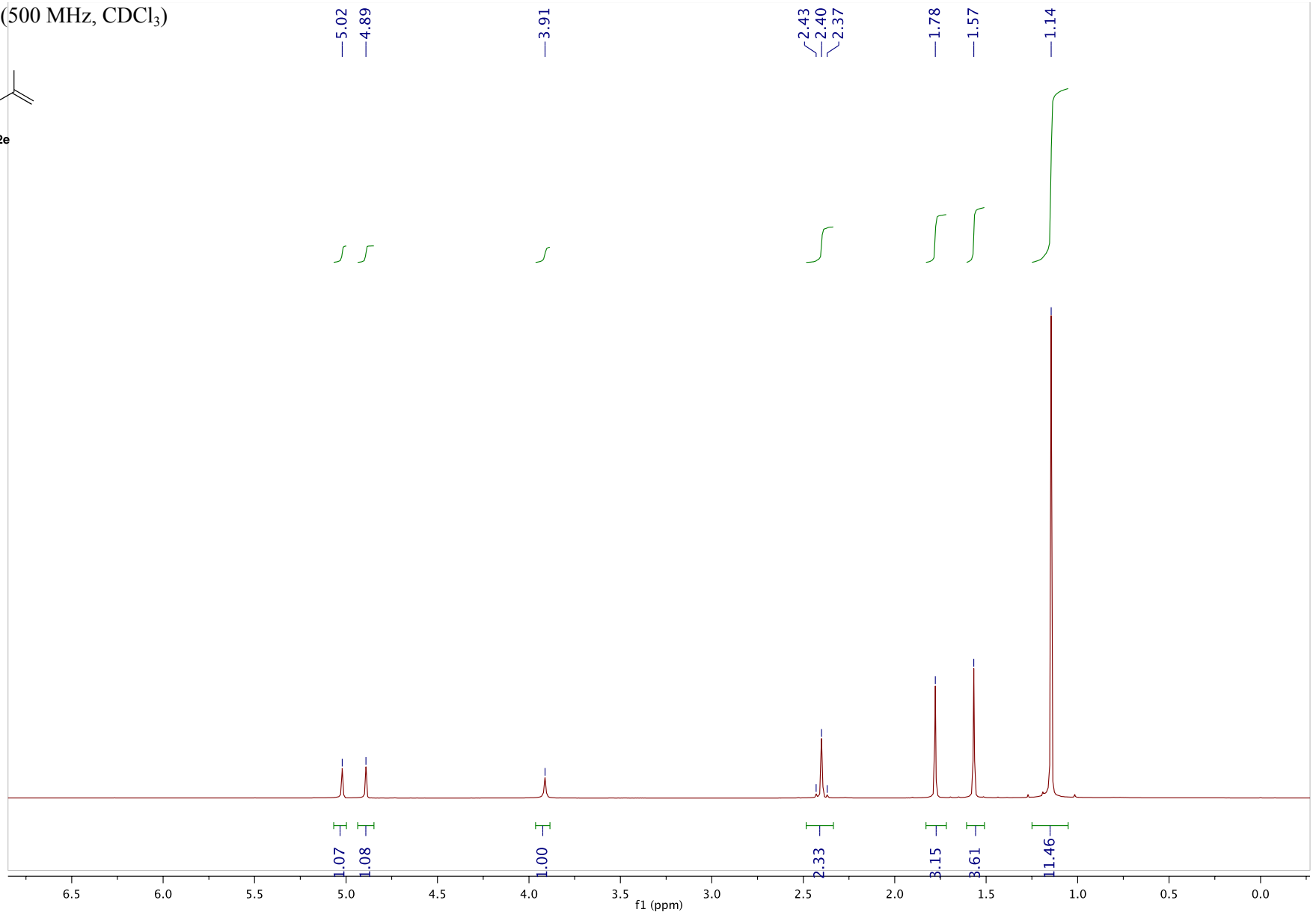
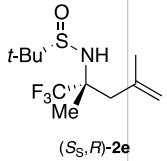


^{13}C NMR (125.8 MHz, CDCl$_3$)



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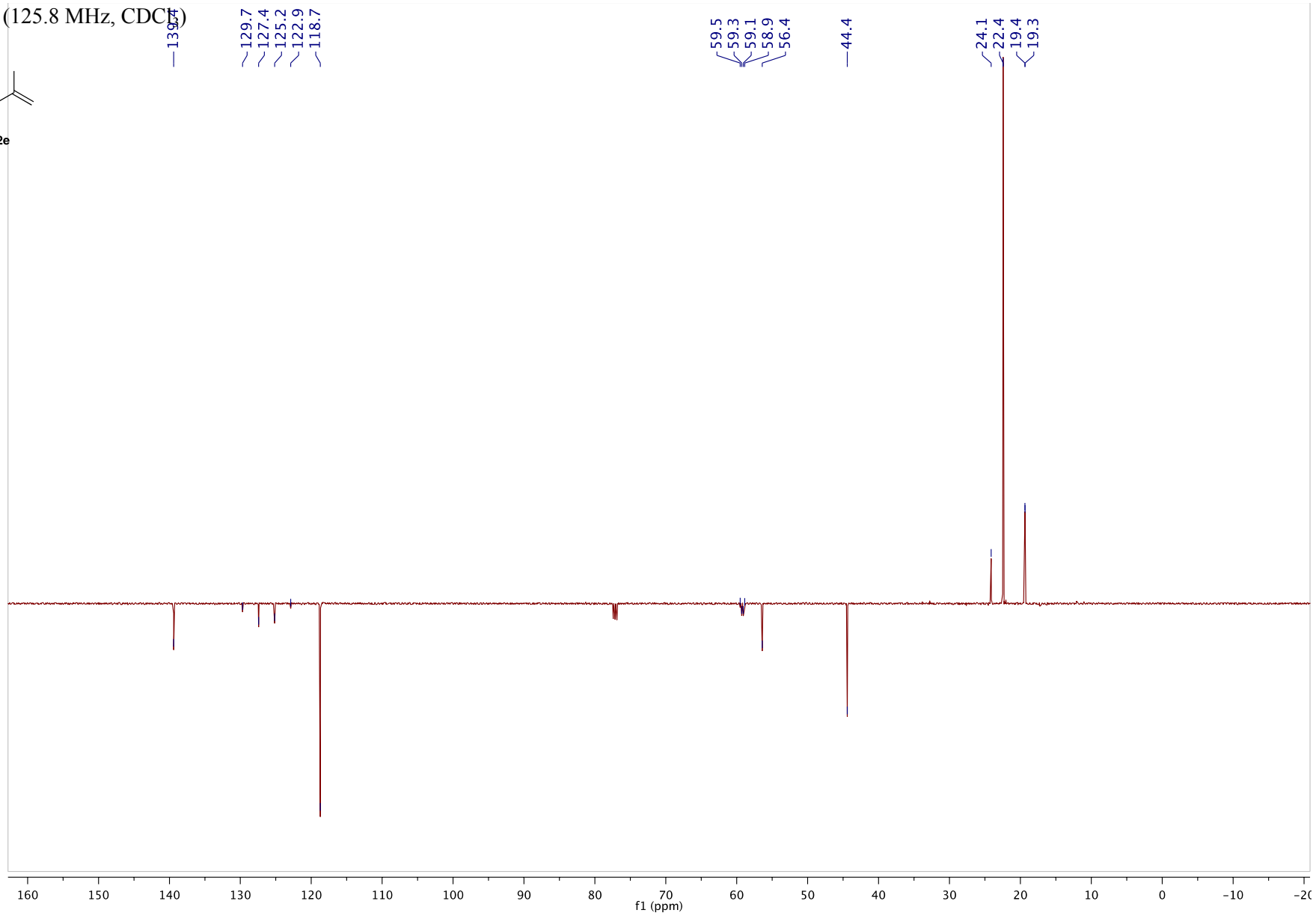
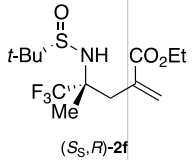
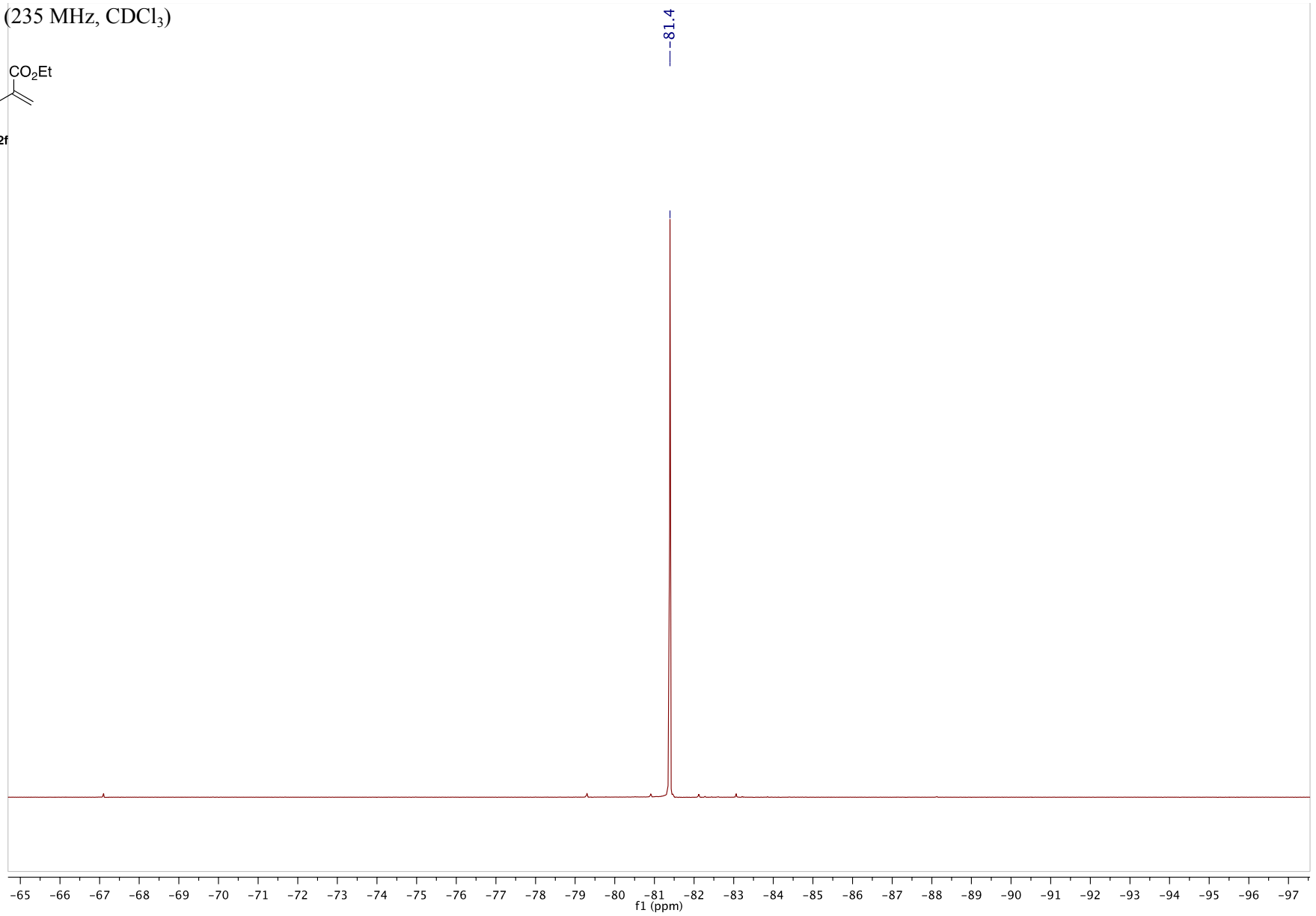


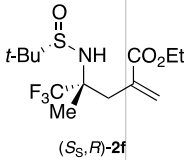
^{19}F NMR (235 MHz, $CDCl_3$)



(S_S,*R*)-**2f**



^{1}H NMR (500 MHz, $CDCl_3$)



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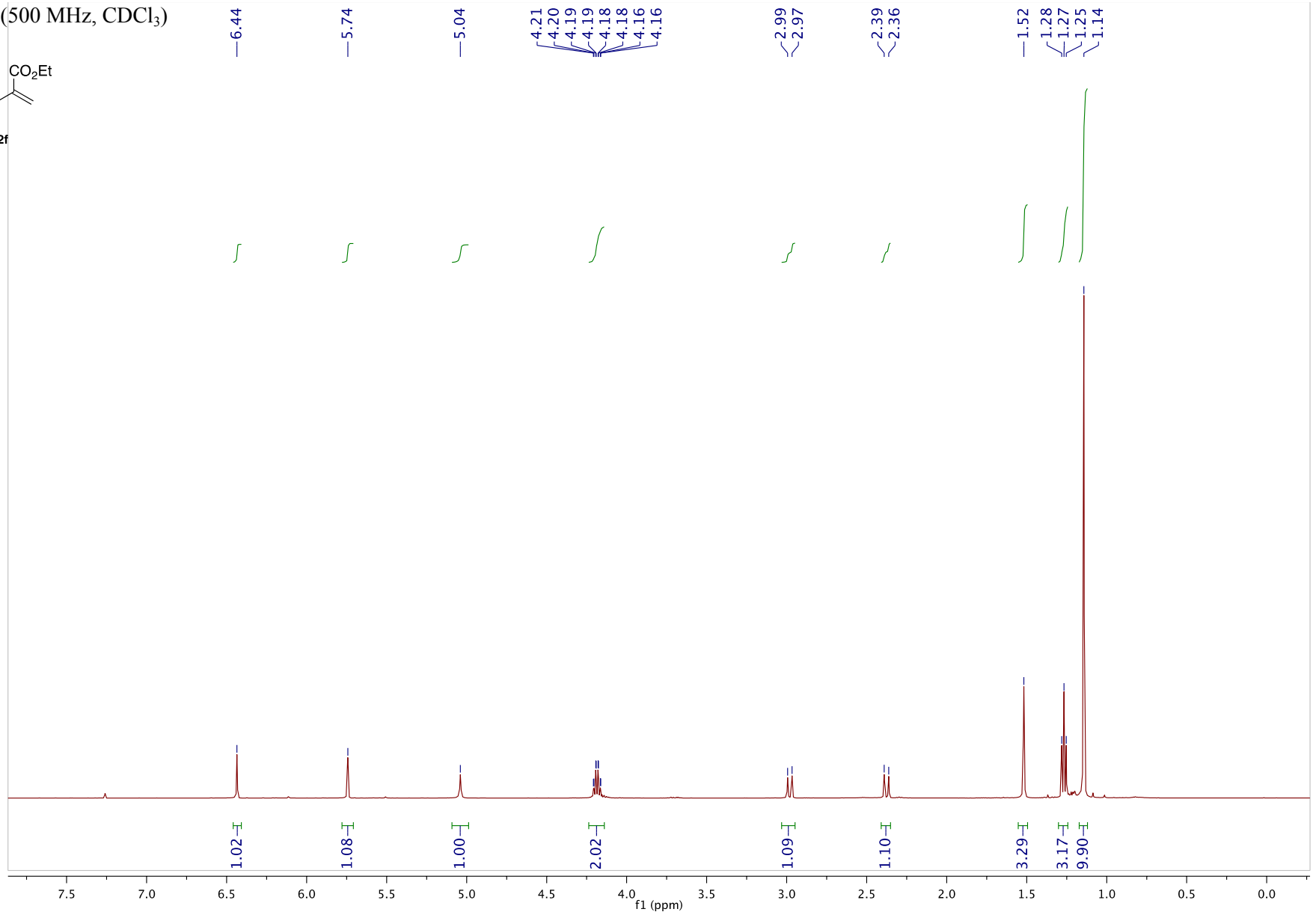

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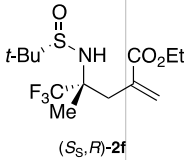

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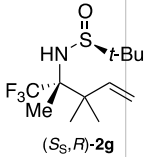
^{19}F NMR (235 MHz, $CDCl_3$)



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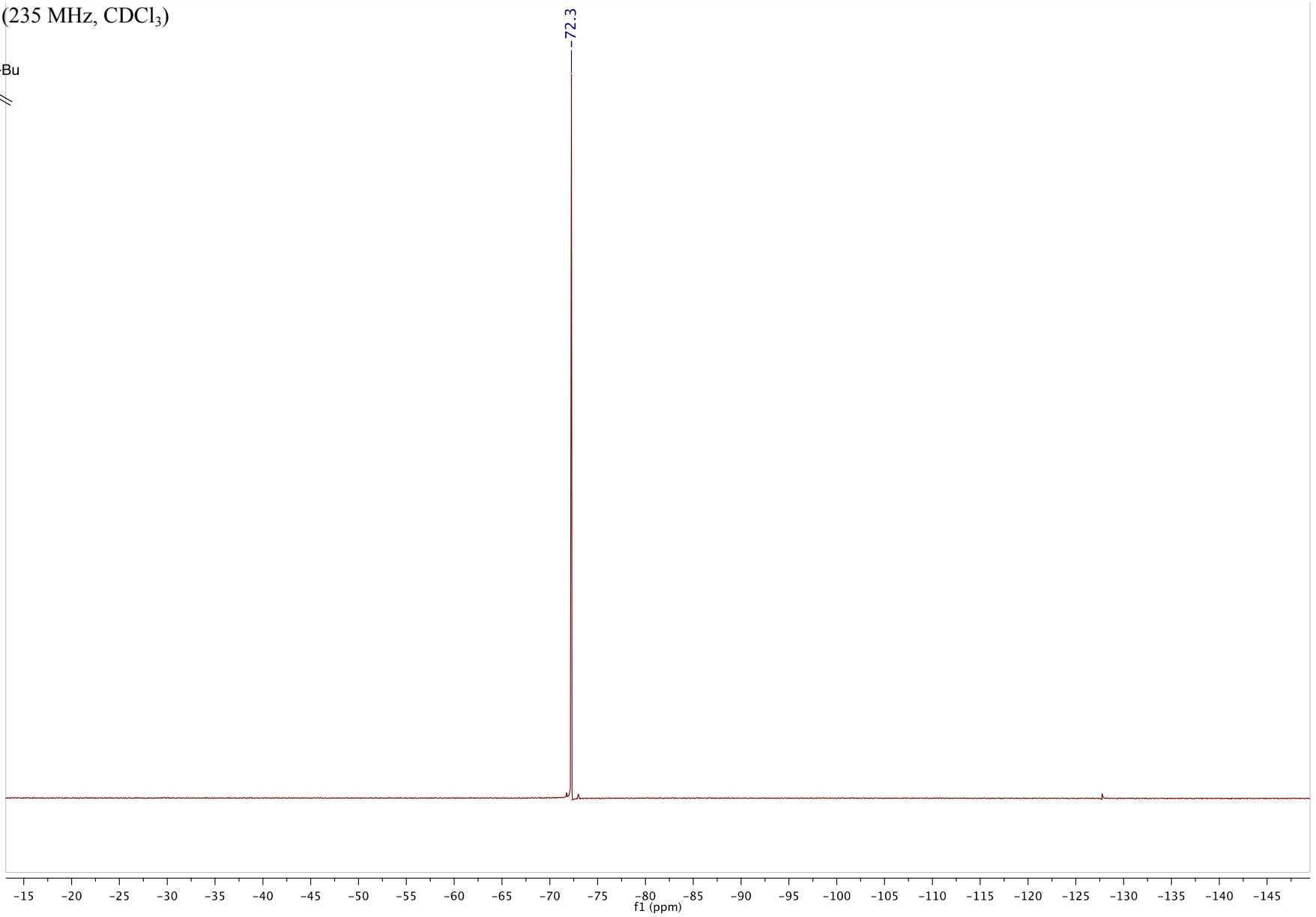
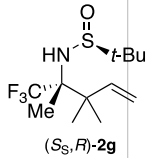


^{1}H NMR (500 MHz, $CDCl_3$)



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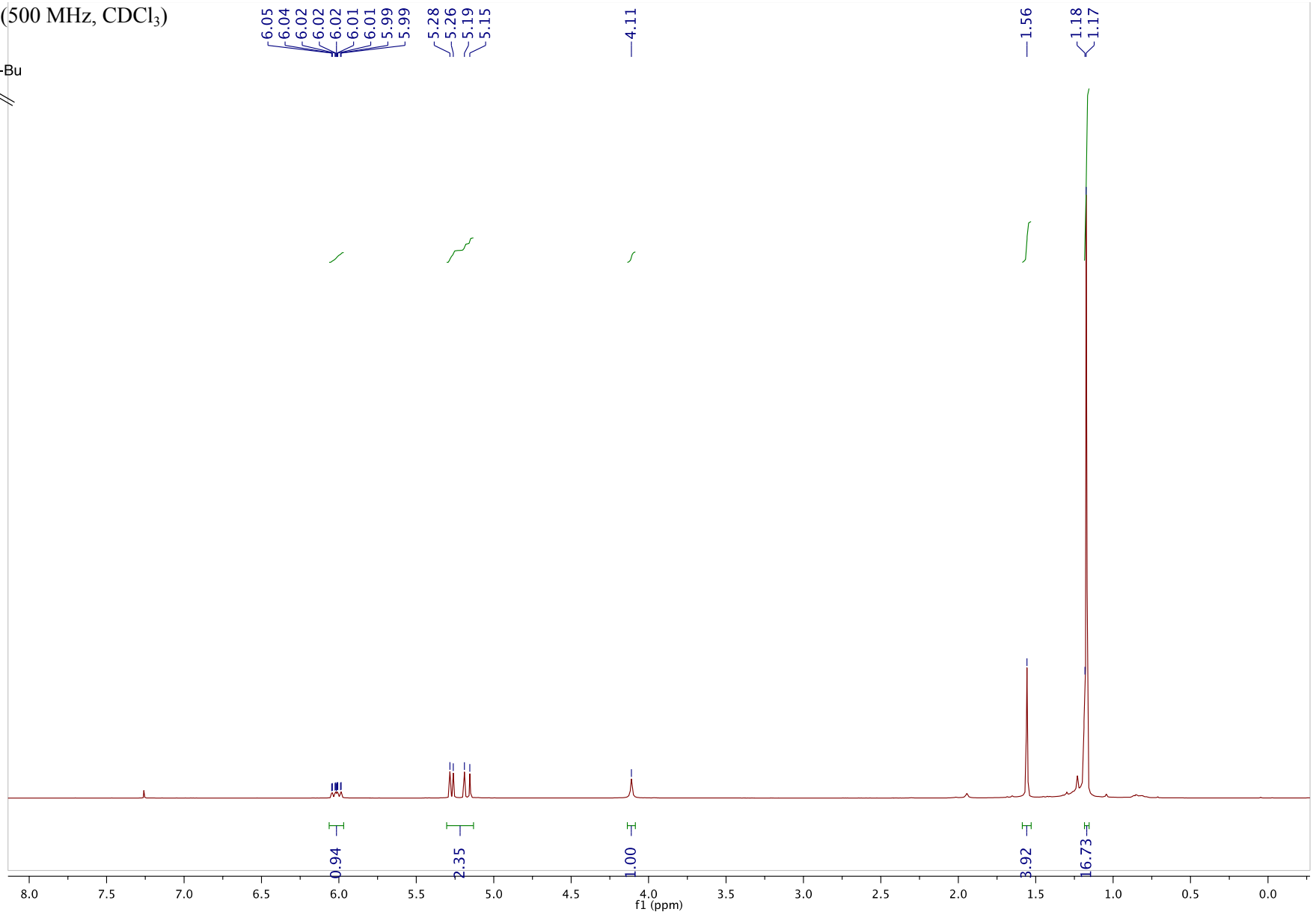

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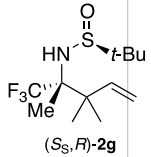

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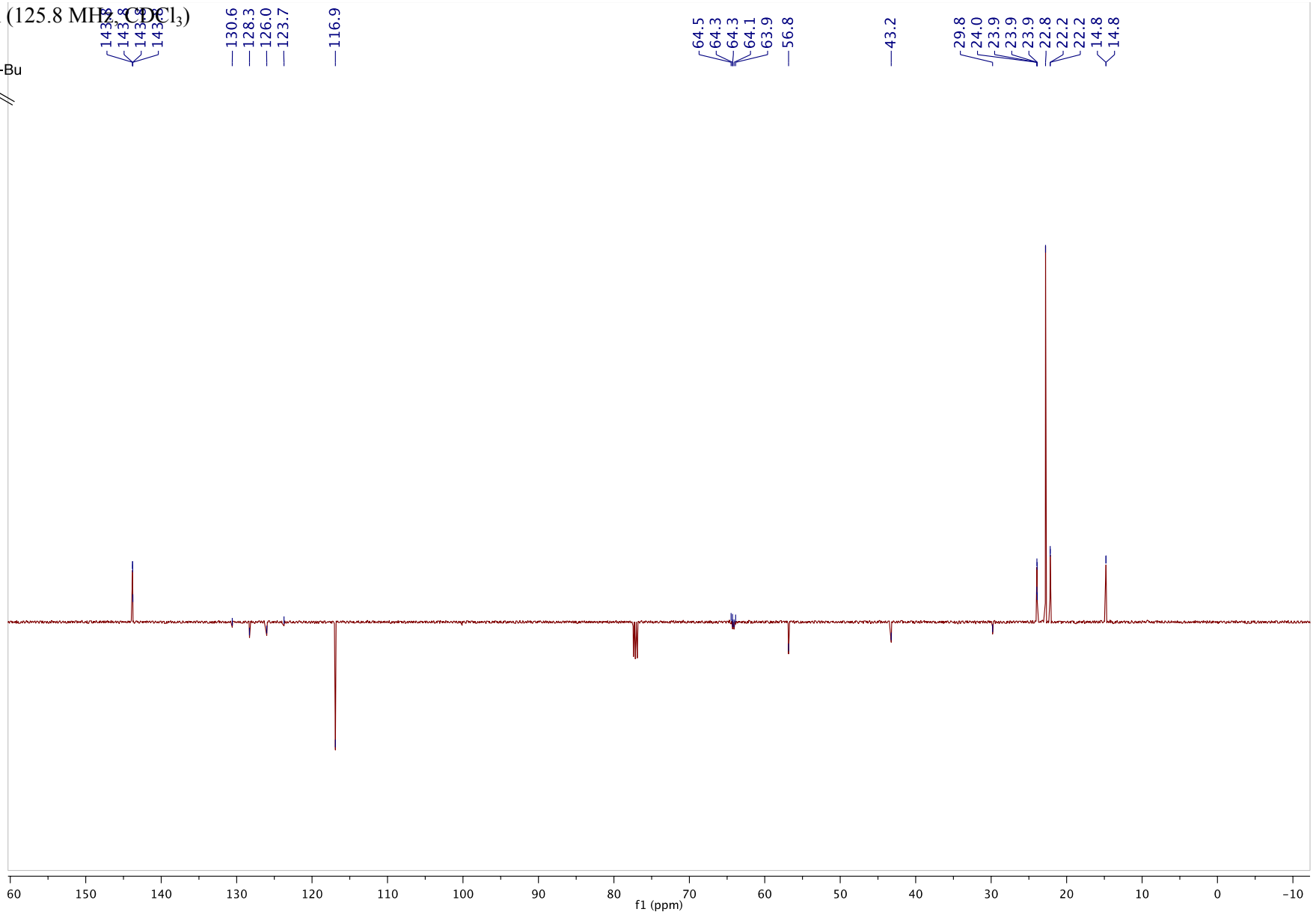

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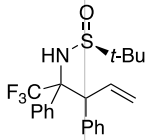
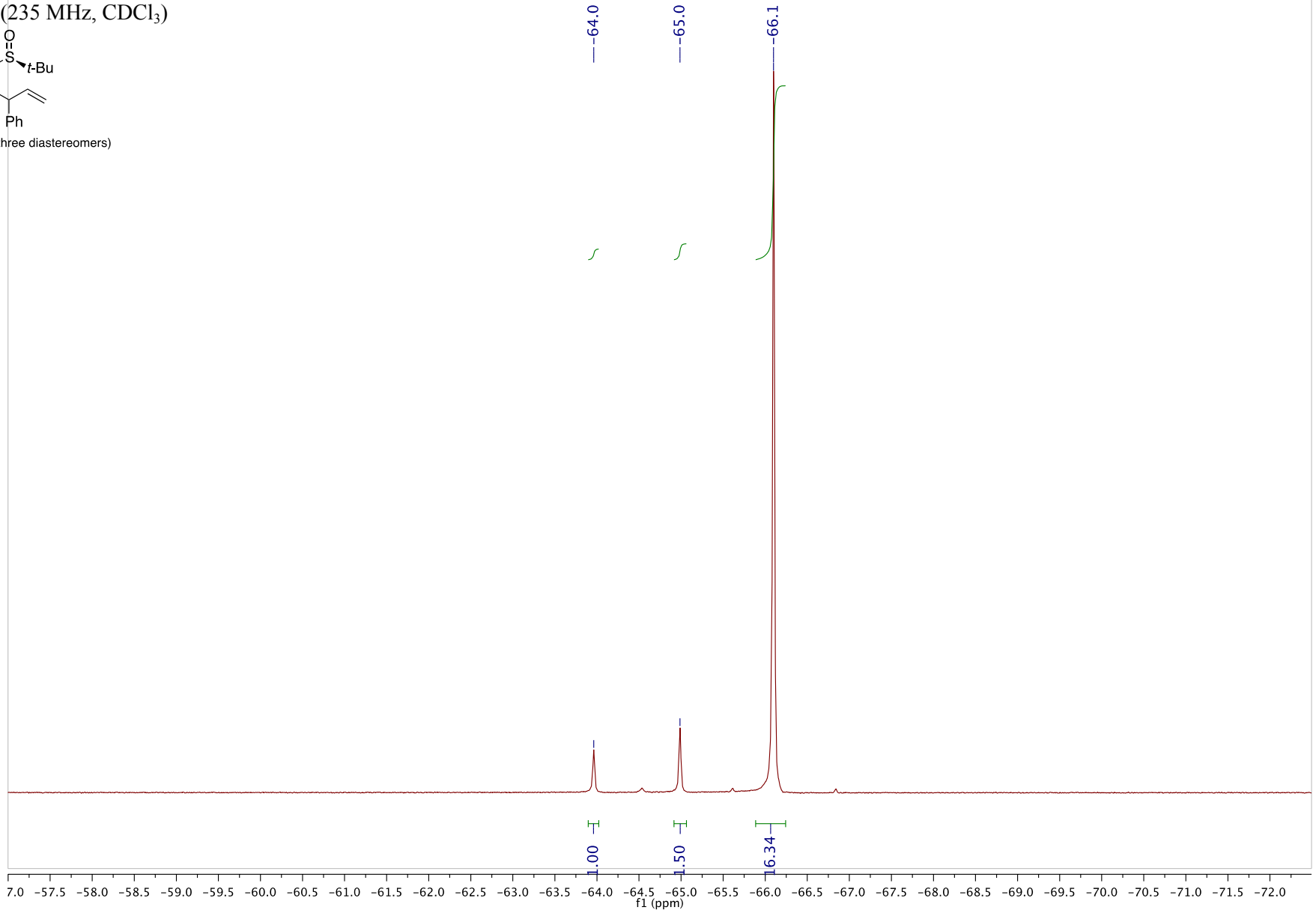
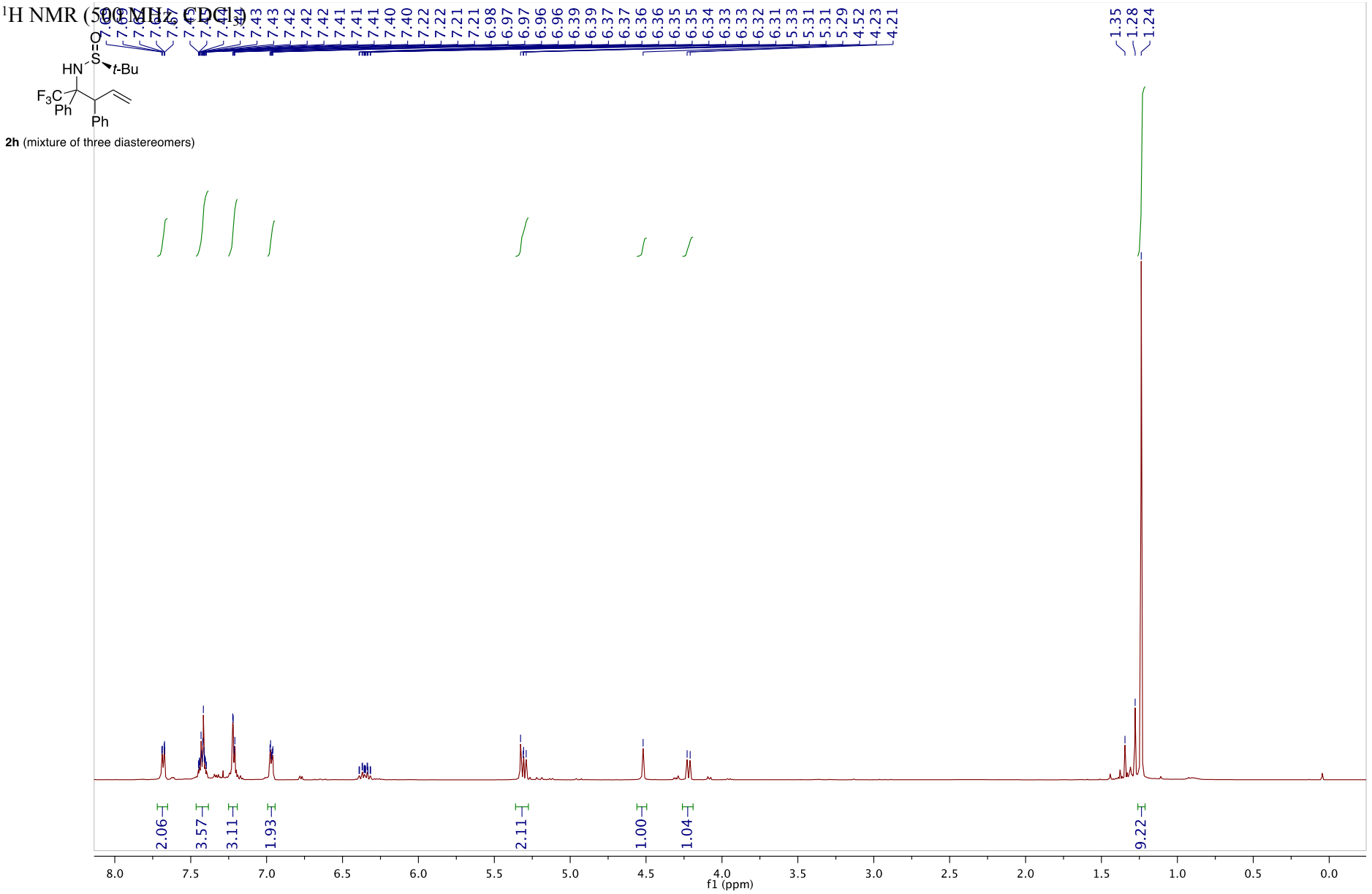


2h (mixture of three diastereomers)



^{1}H NMR (500 MHz, CDCl$_3$)



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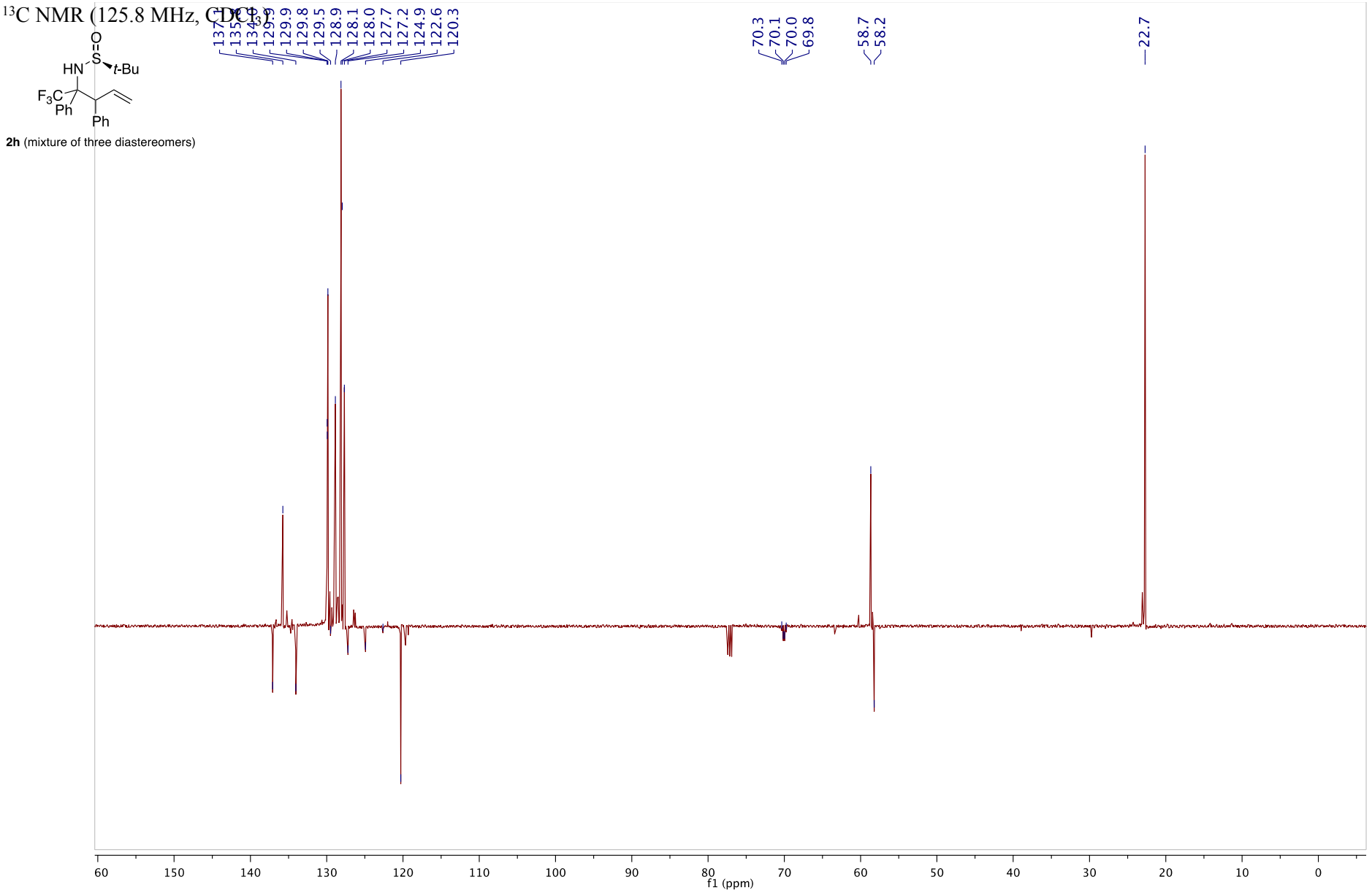

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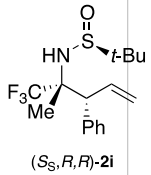
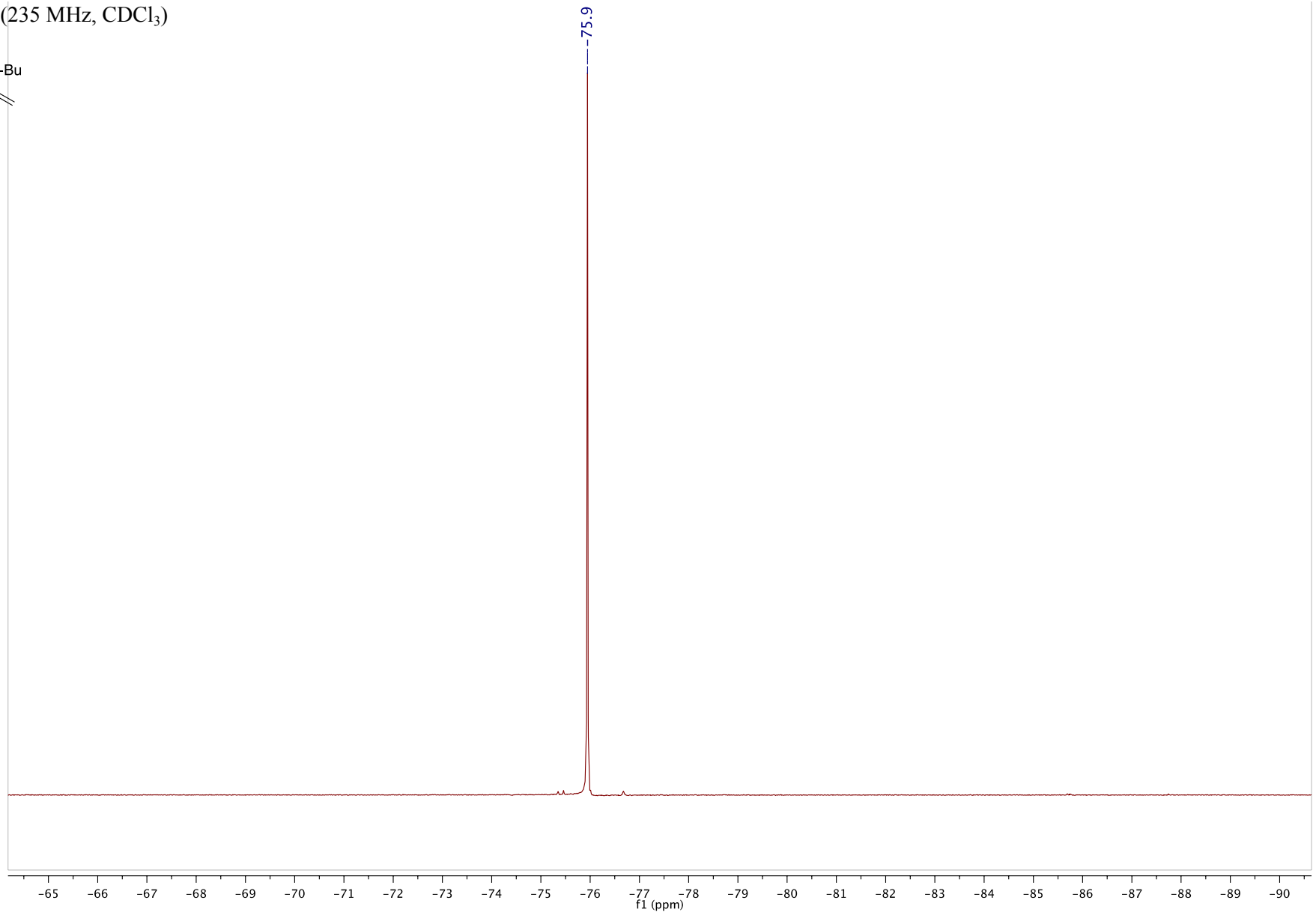
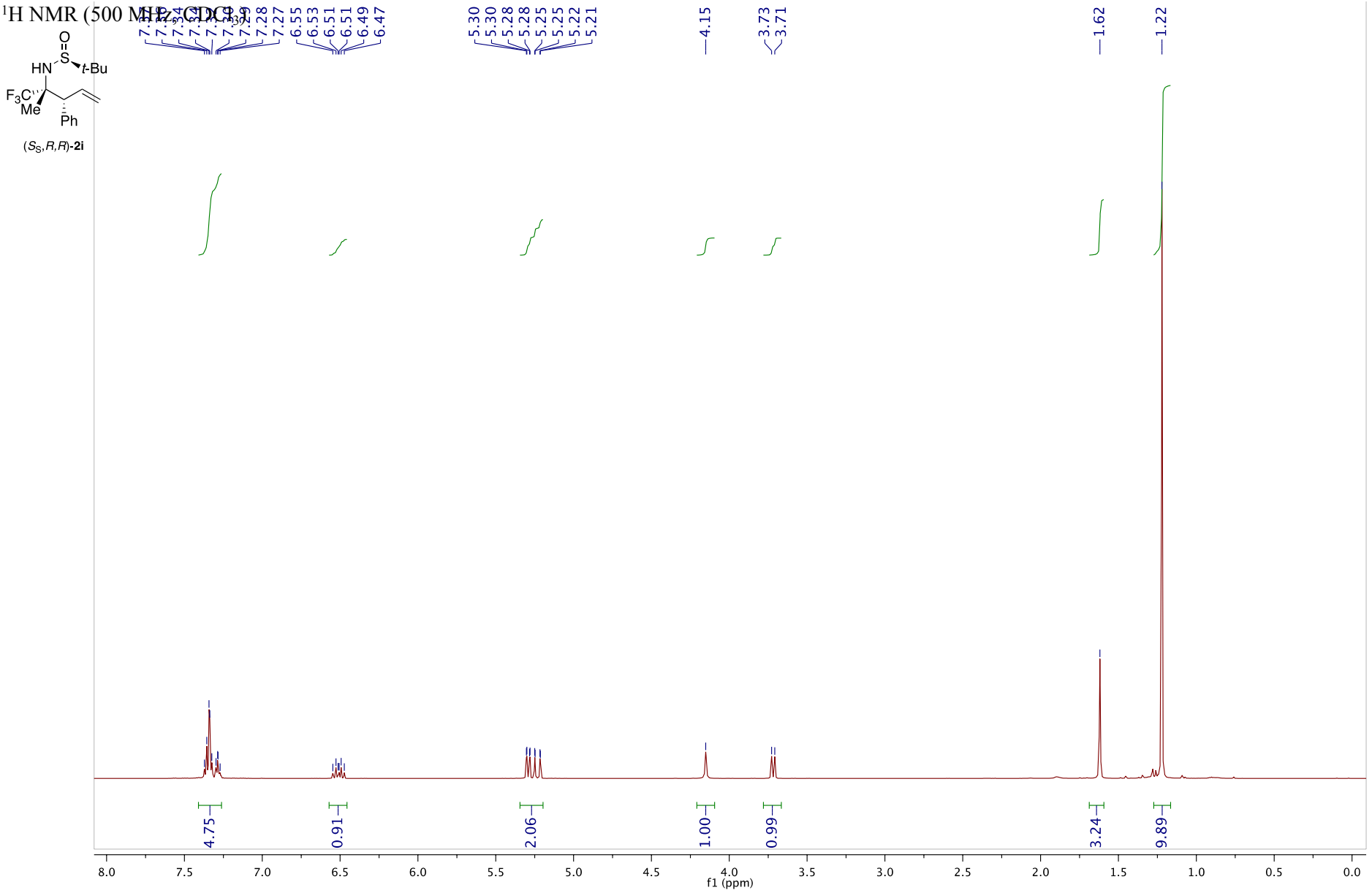


(S_S,*R*,*R*)-**2i**

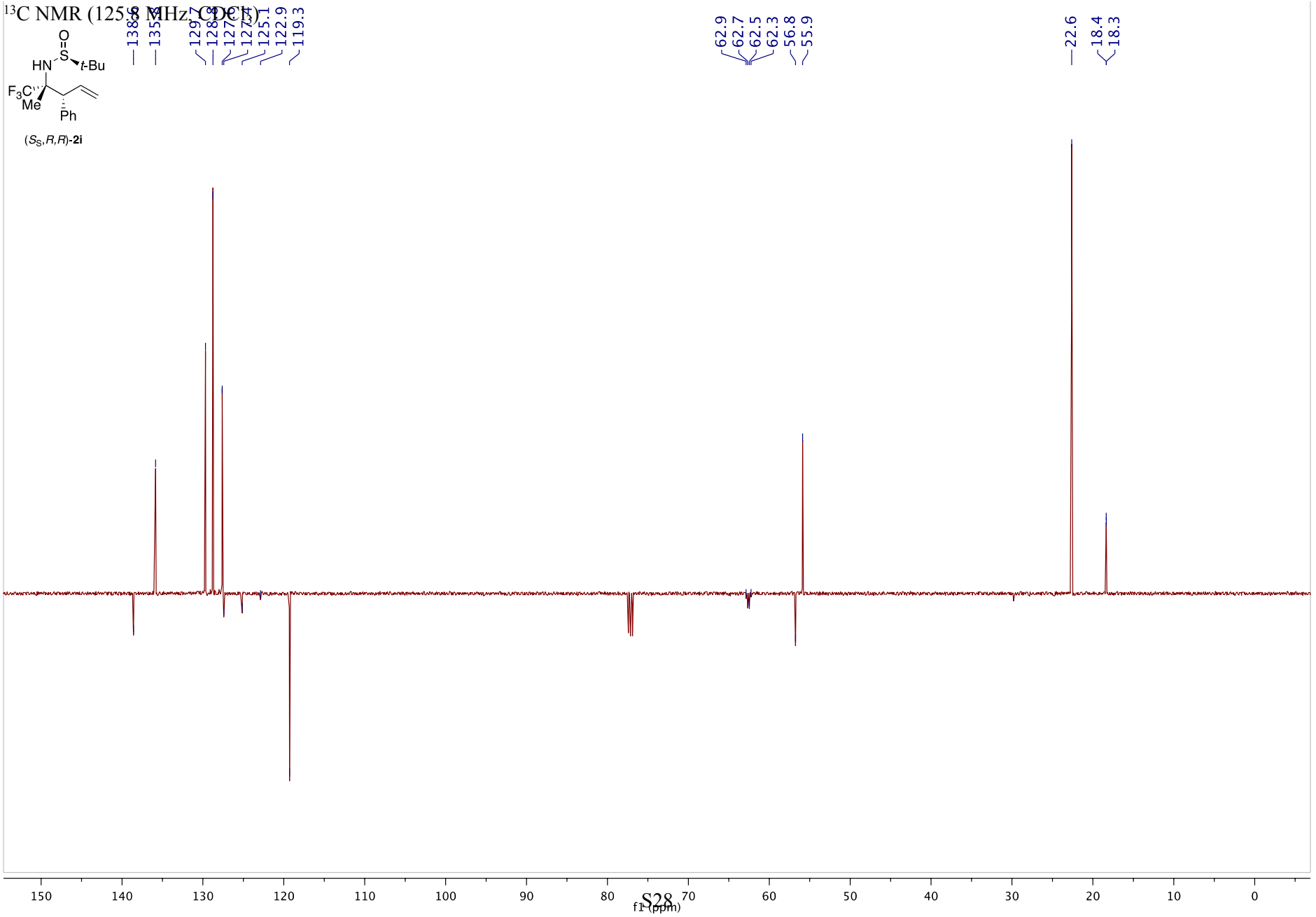


^{1}H NMR (500 MHz, CDCl$_3$)

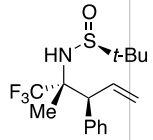


(S_S,*R*,*R*)-**2i**

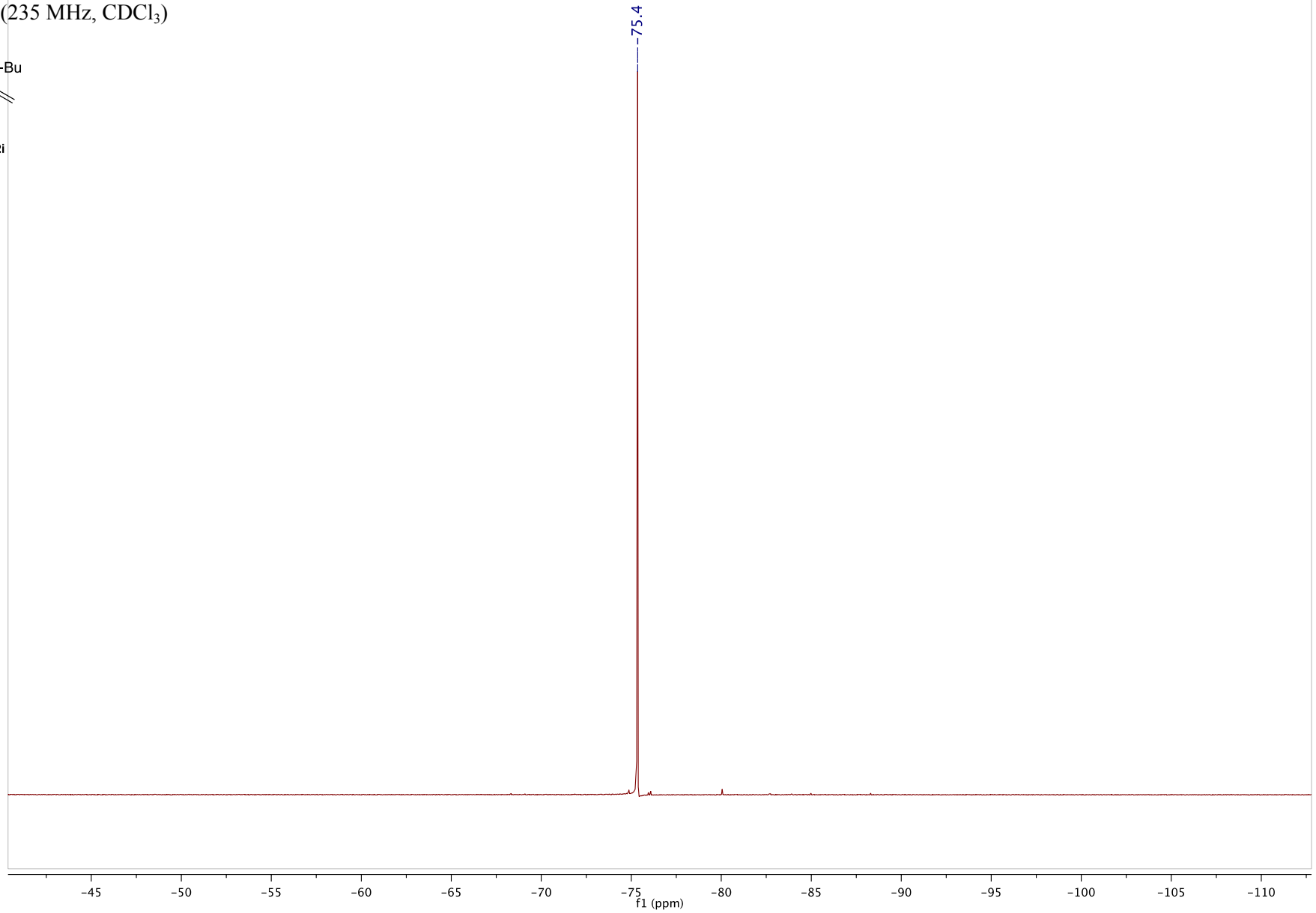
^{13}C NMR (125.8 MHz, $CDCl_3$)



^{19}F NMR (235 MHz, $CDCl_3$)



(S_S,*R*,*S*)-**2i**



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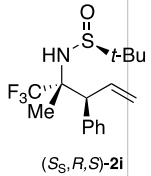
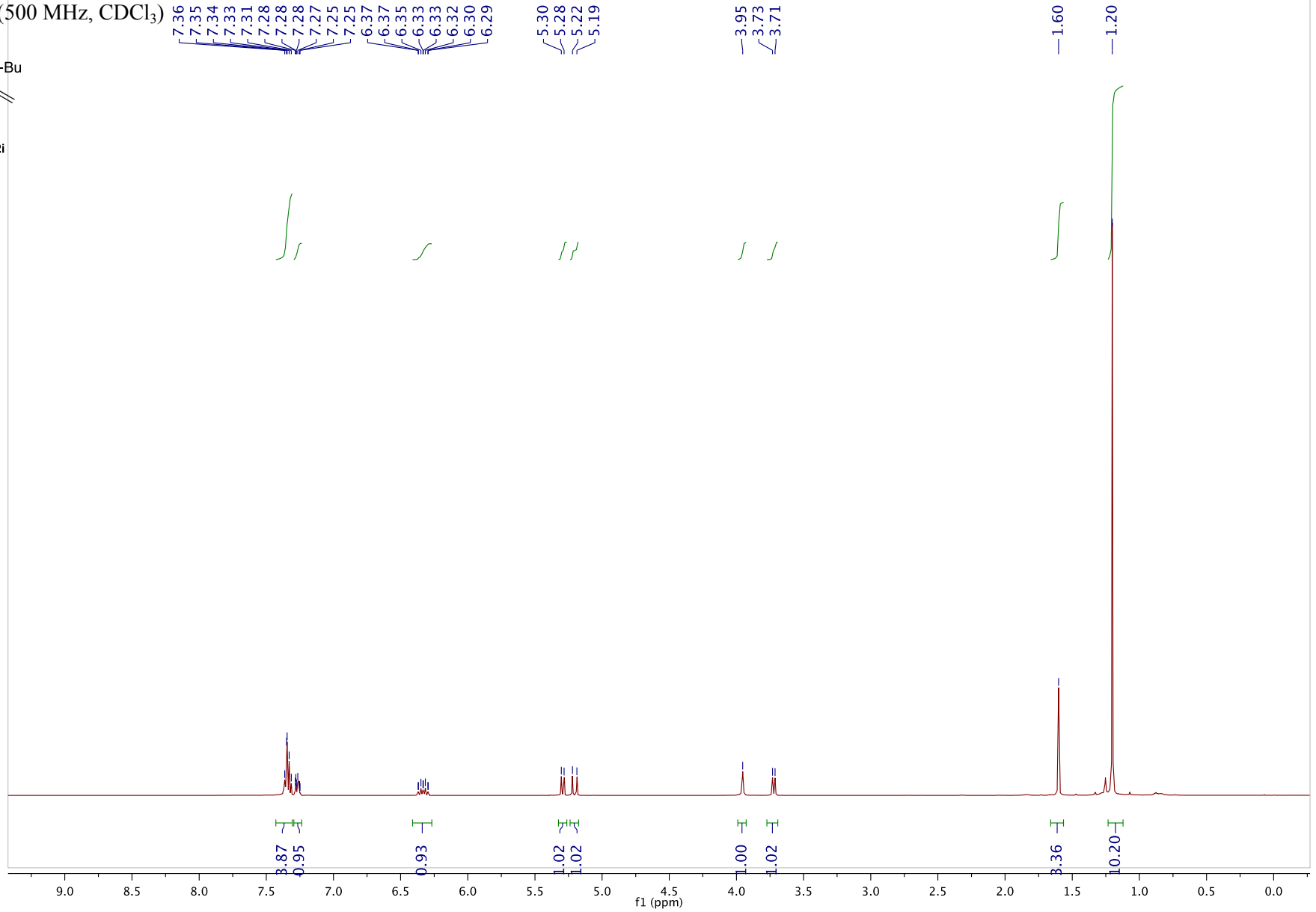


(S_S,*R*,*S*)-**2i**



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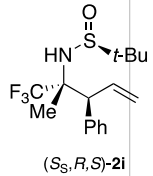
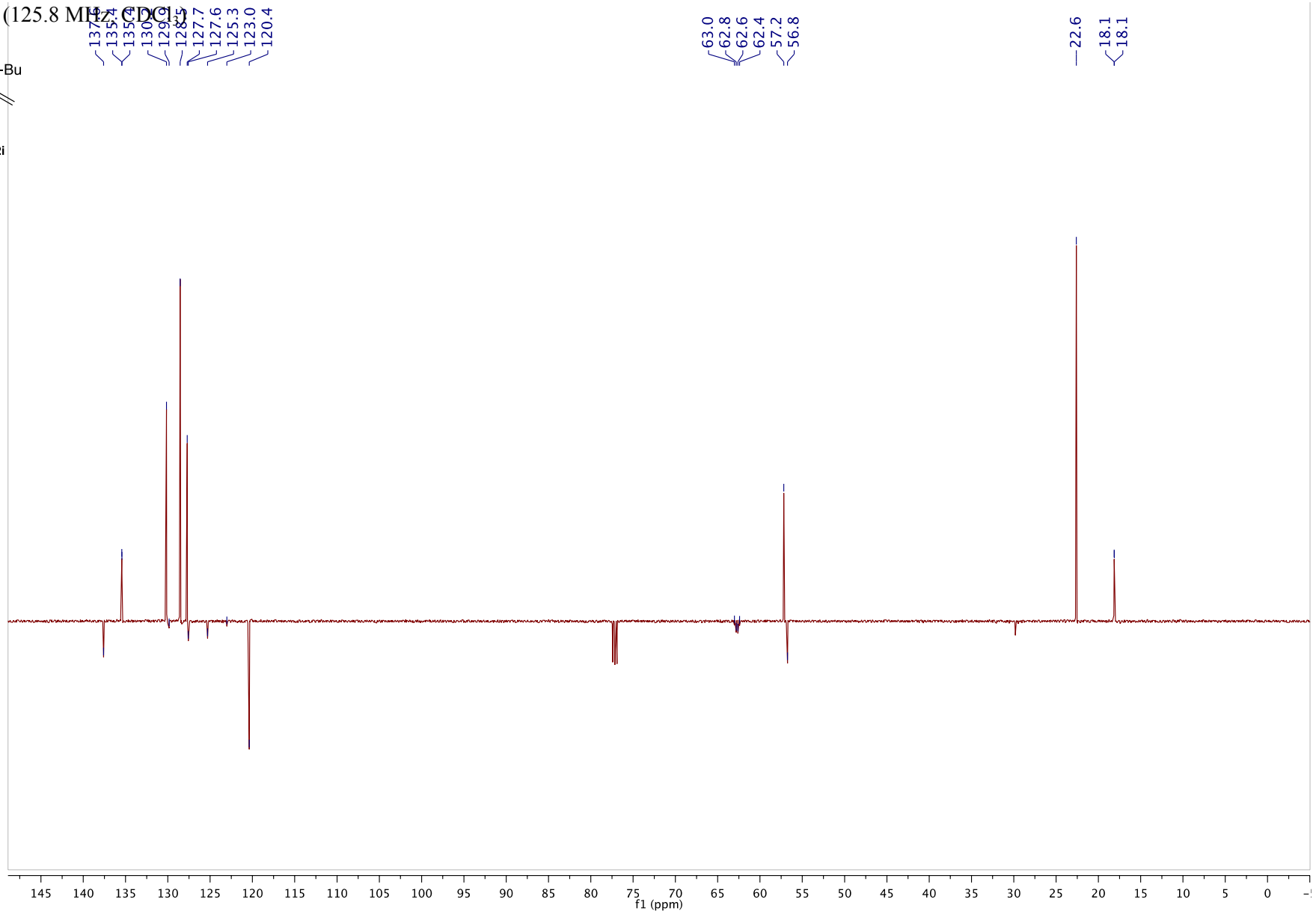


(S_S,*R*,*S*)-**2i**



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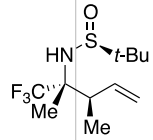

(S_S,*R*,*R*)-**2i** (*major diastereomer*)

2i (mixture of three diastereomers)

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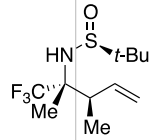

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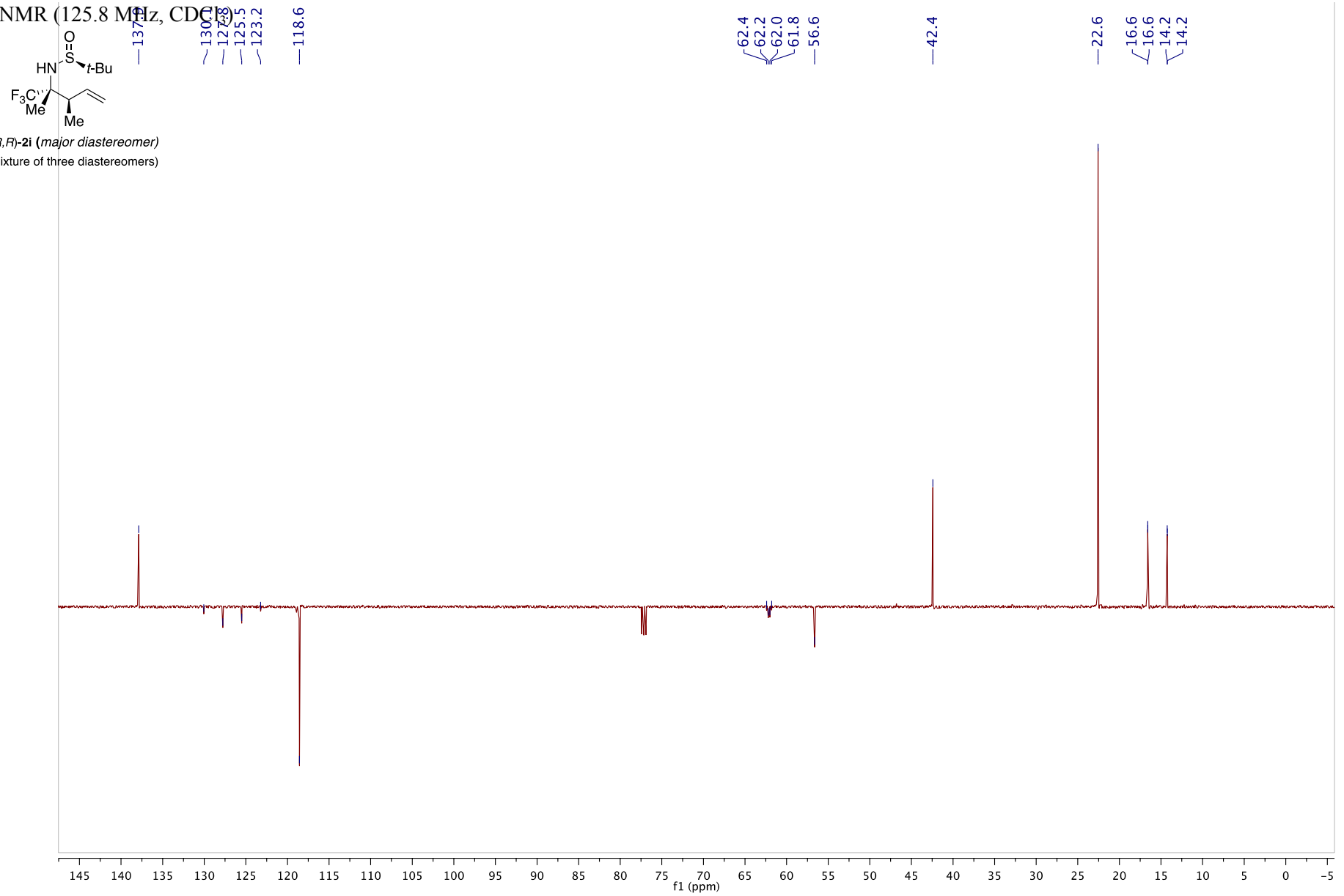
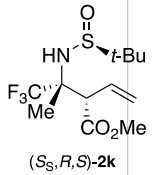
^{13}C NMR (125.8 MHz, CDCl$_3$)



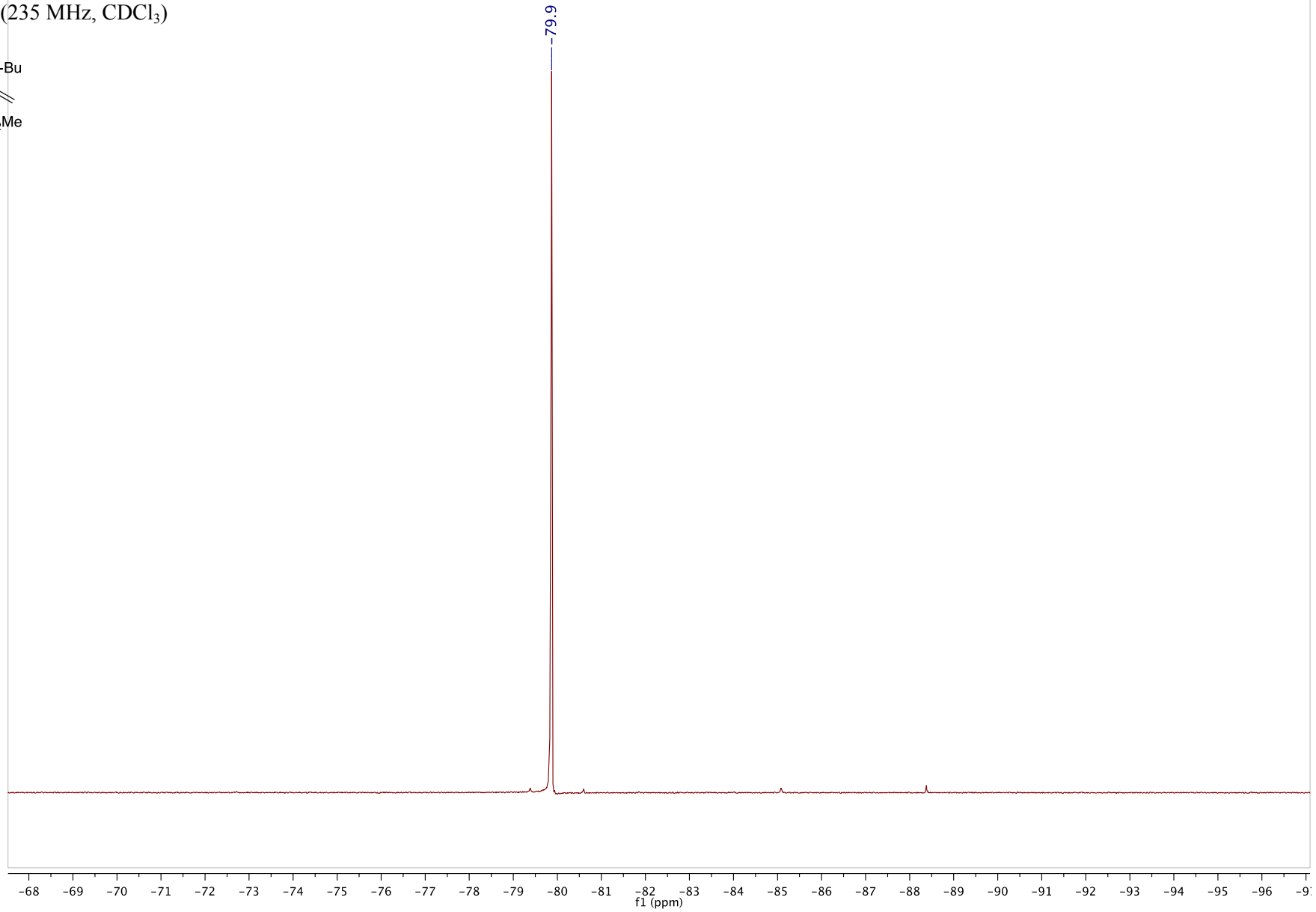
(*S*$_S$,*R*,*R*)-**2i** (*major diastereomer*)

2i (mixture of three diastereomers)

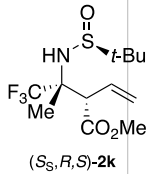
^{19}F NMR (235 MHz, $CDCl_3$)



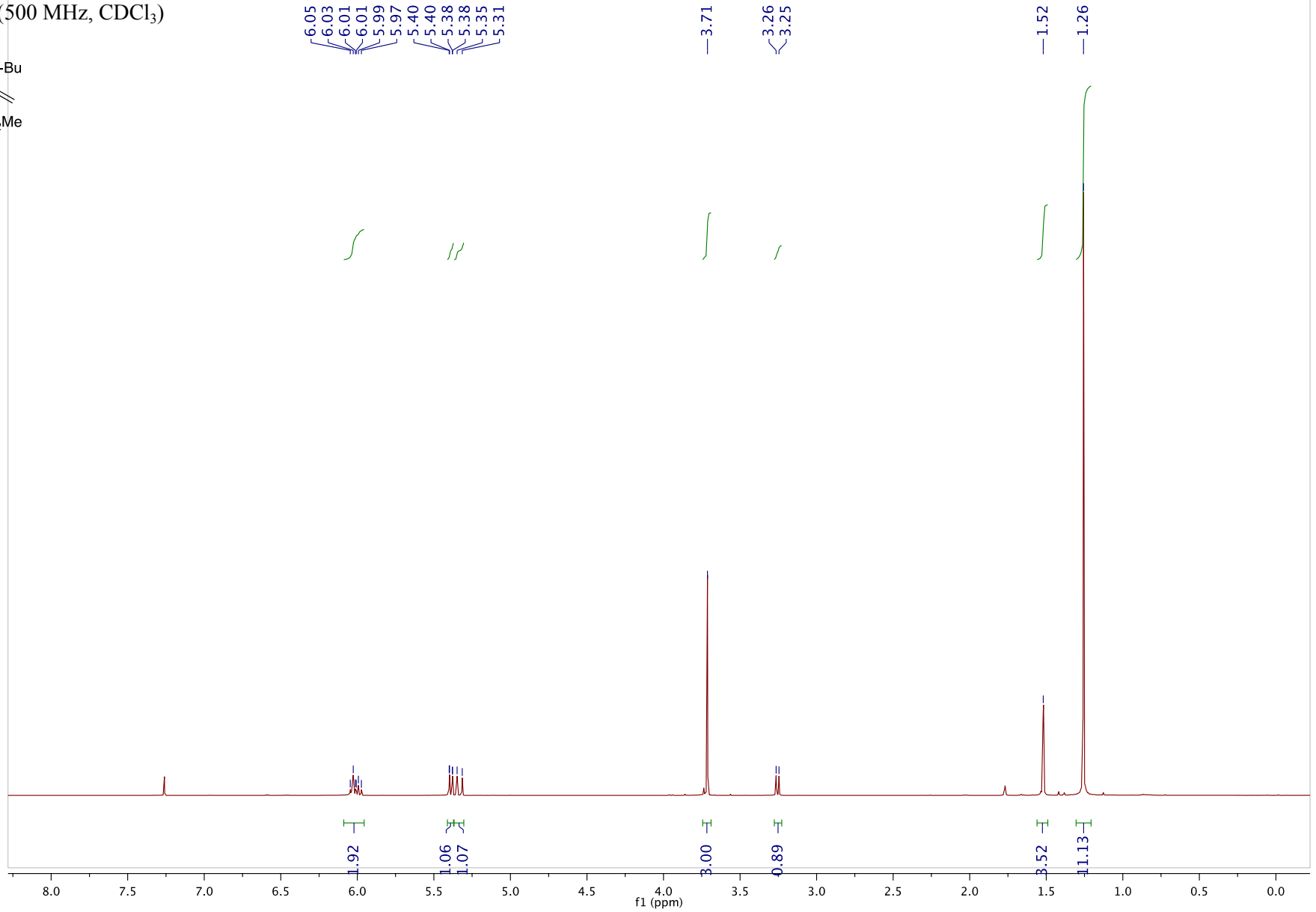
(S_S,*R*,*S*)-**2k**



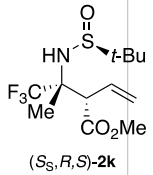
^{1}H NMR (500 MHz, $CDCl_3$)



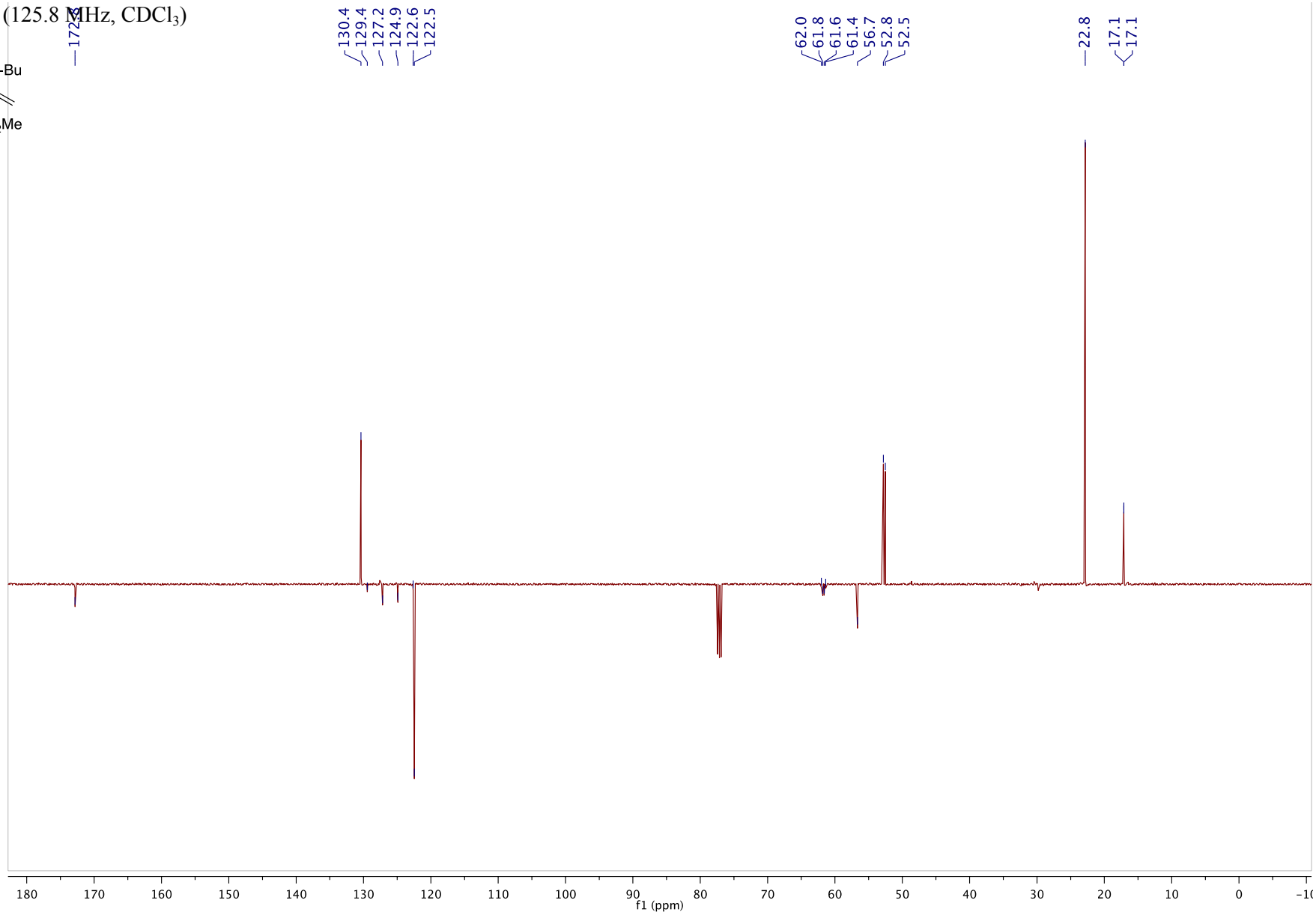
(S_S,*R*,*S*)-**2k**



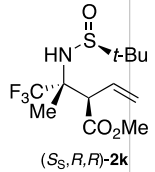
^{13}C NMR (125.8 MHz, $CDCl_3$)



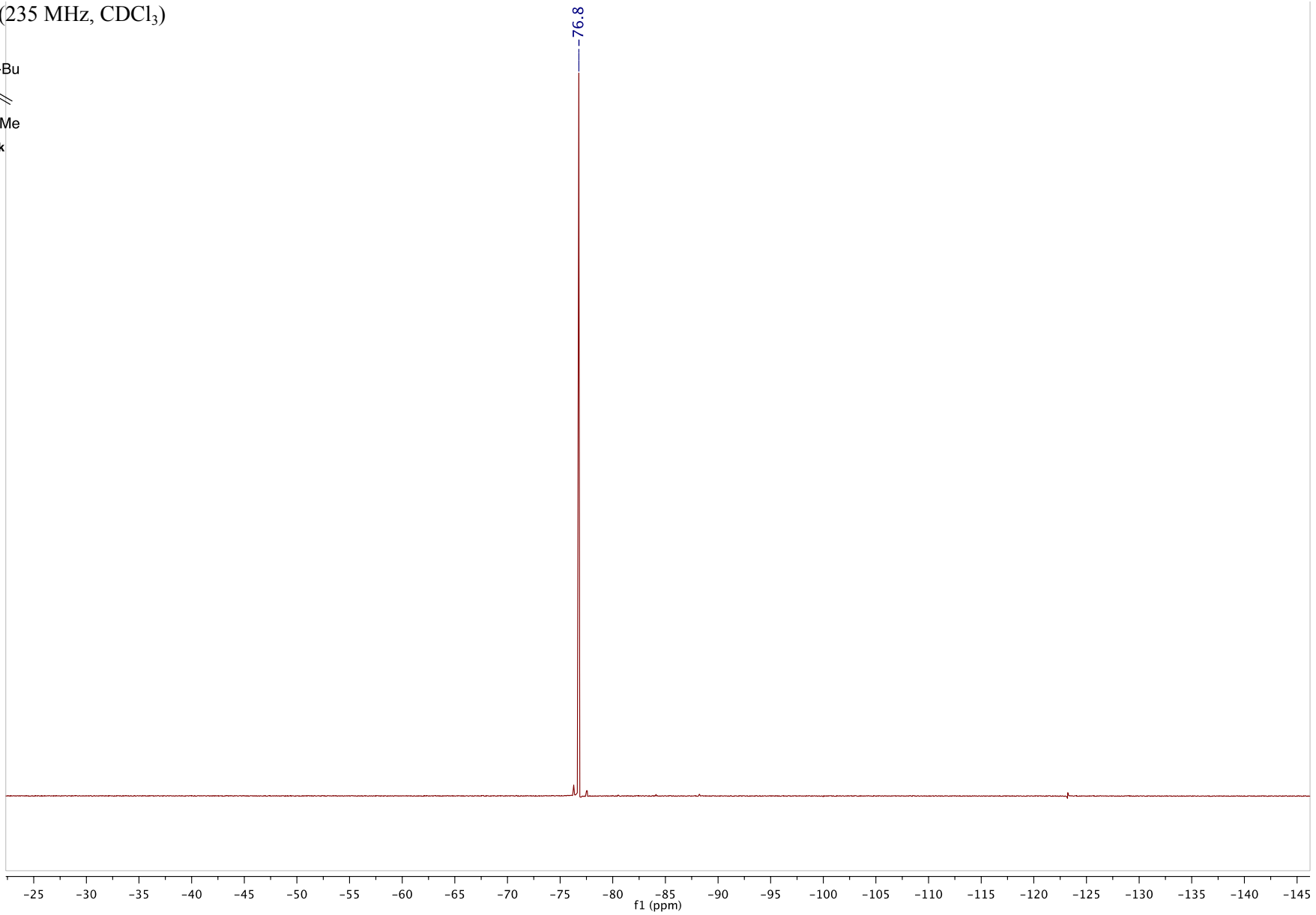
(S_S,*R*,*S*)-**2k**



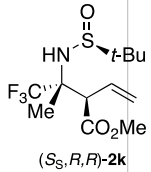
^{19}F NMR (235 MHz, $CDCl_3$)



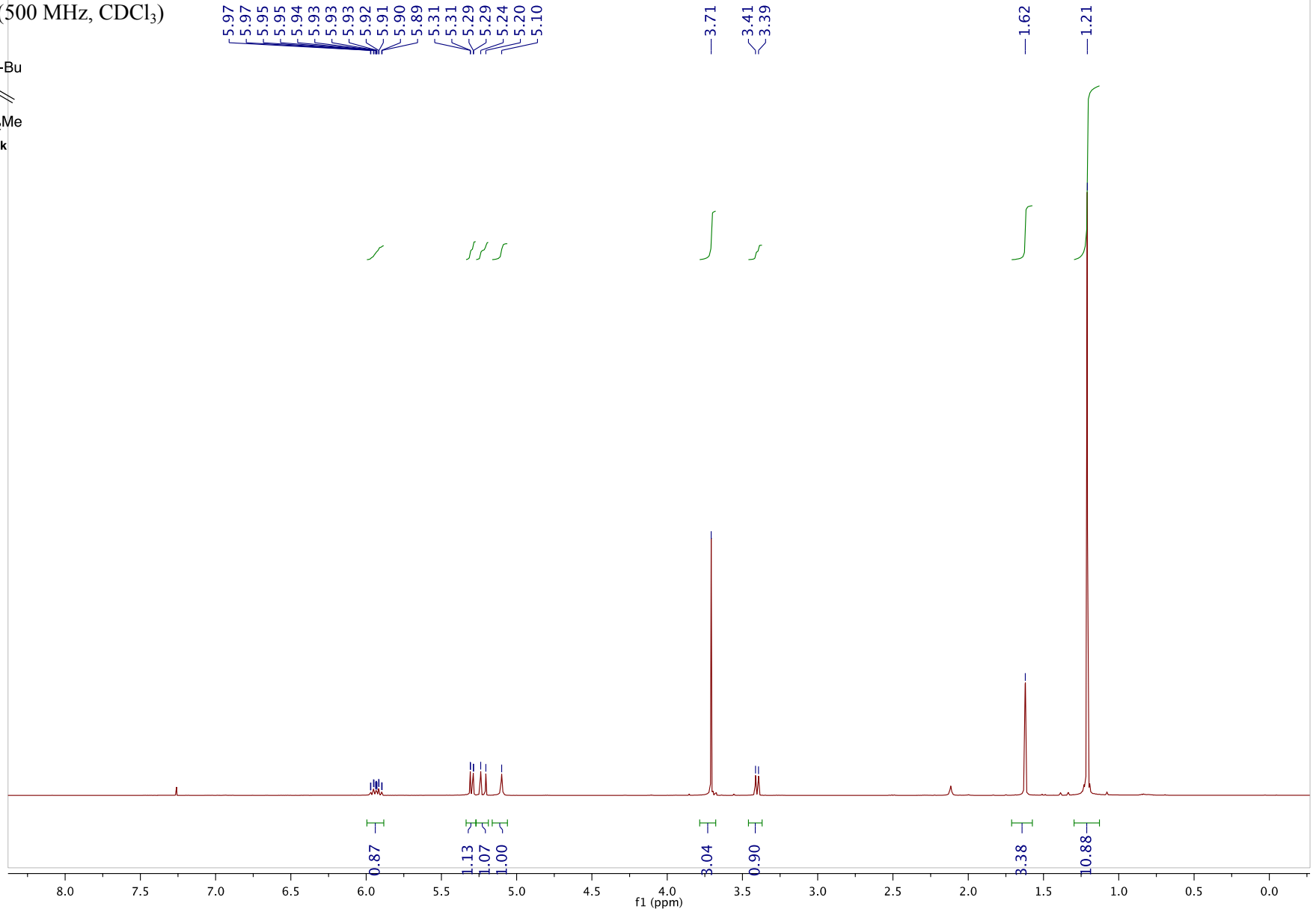
(S_S,*R*,*R*)-**2k**



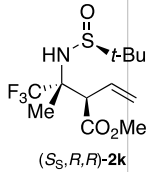
^{1}H NMR (500 MHz, $CDCl_3$)



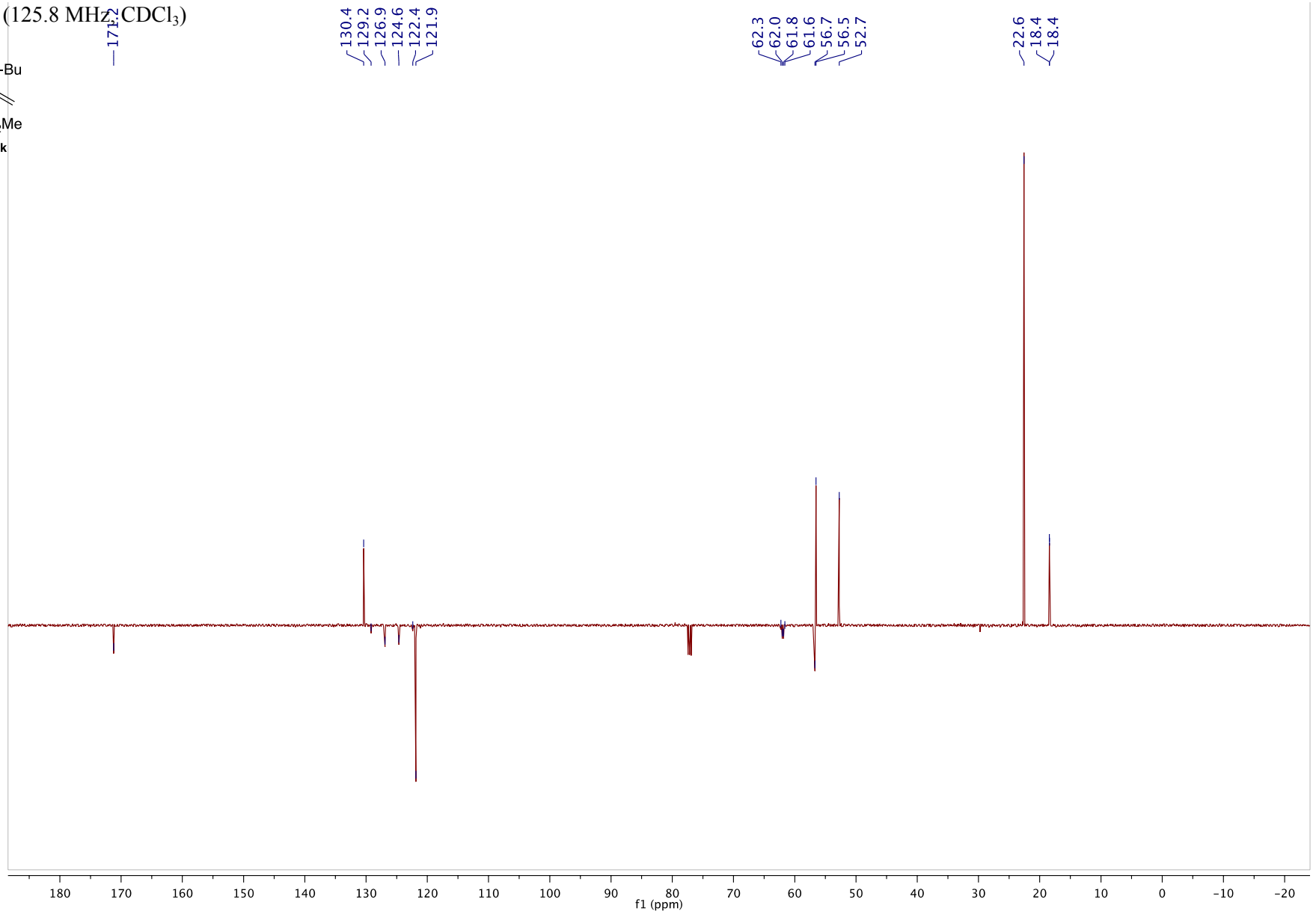
(S_S,*R*,*R*)-**2k**



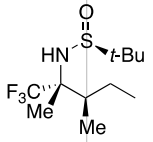
^{13}C NMR (125.8 MHz, $CDCl_3$)



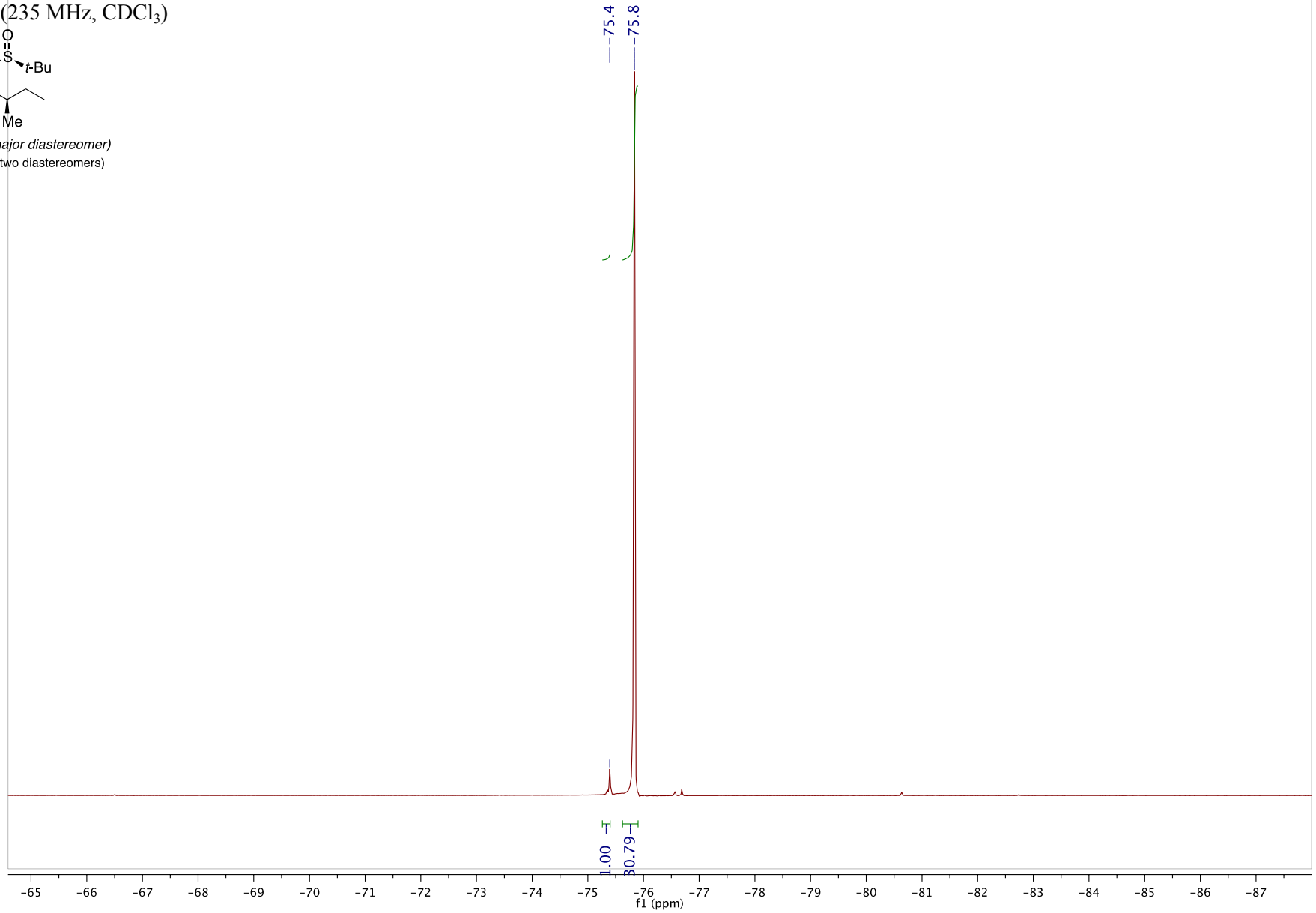
(S_S,*R*,*R*)-**2k**



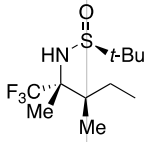
^{19}F NMR (235 MHz, $CDCl_3$)



(S_S,*R*,*R*)-**3a** (*major diastereomer*)
3a (mixture of two diastereomers)



^{1}H NMR (500 MHz, $CDCl_3$)



(S_S,*R*,*R*)-**3a** (*major diastereomer*)
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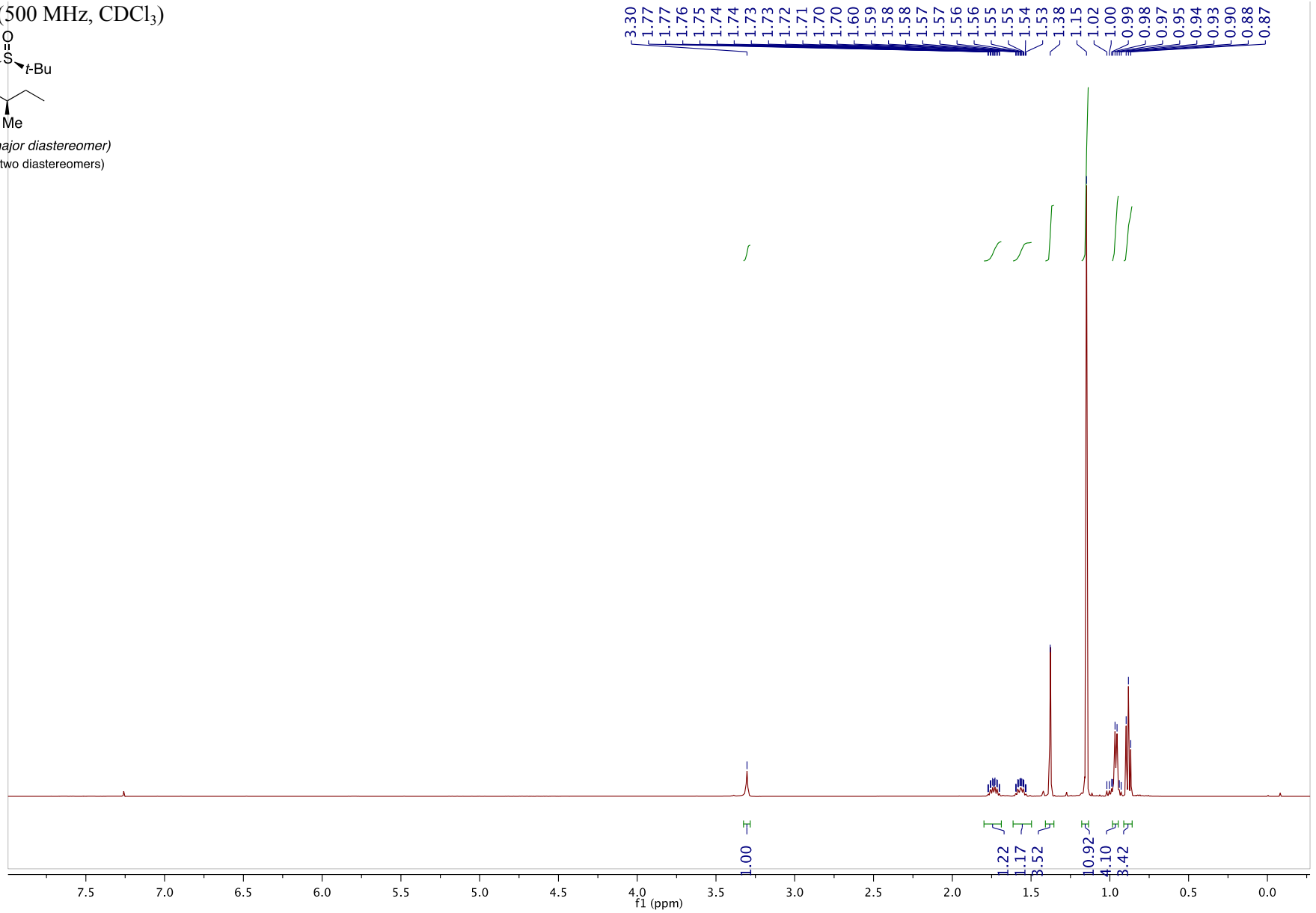
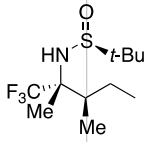
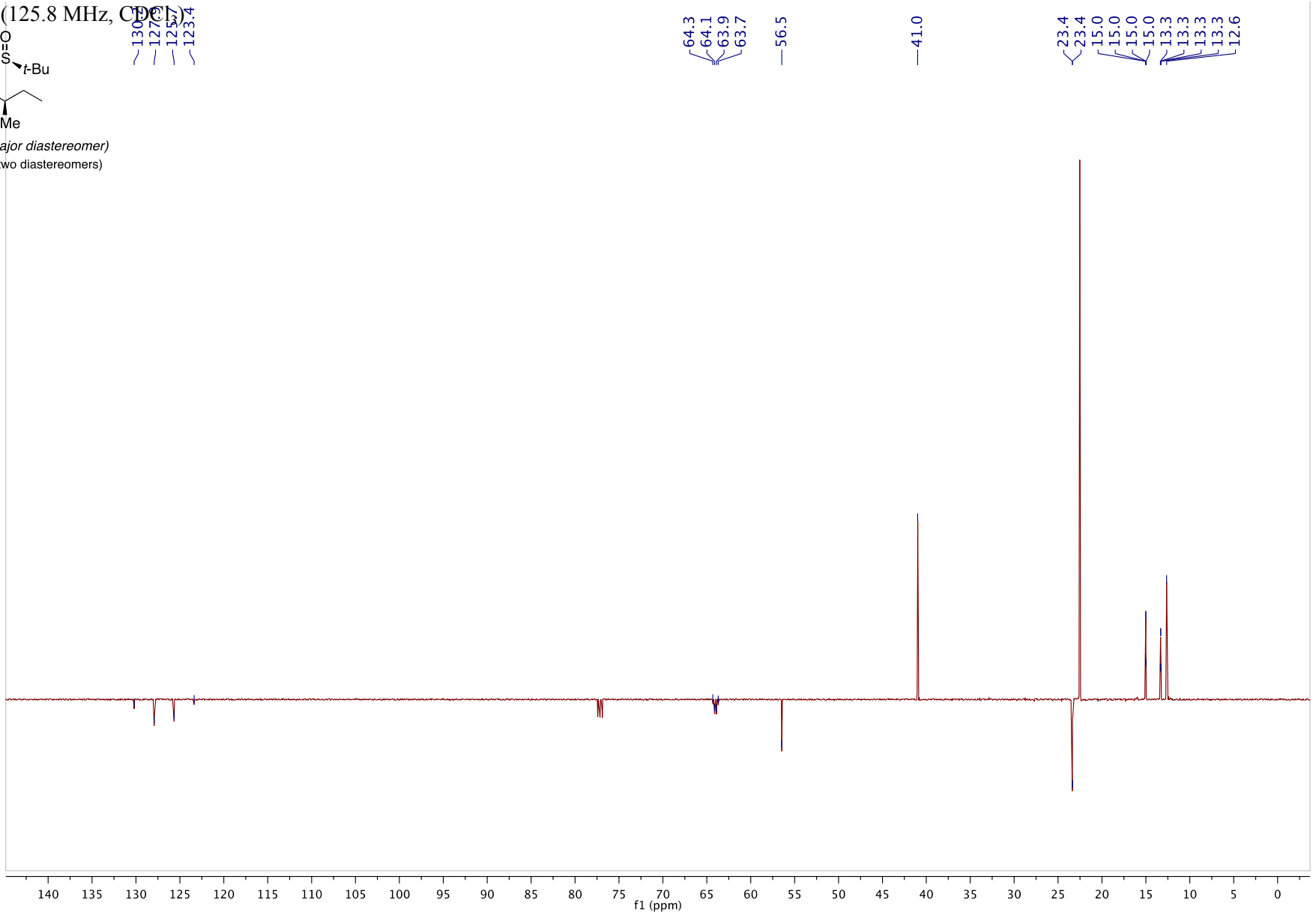


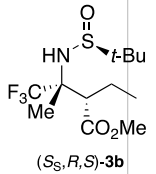
^{13}C NMR (125.8 MHz, CDCl$_3$)



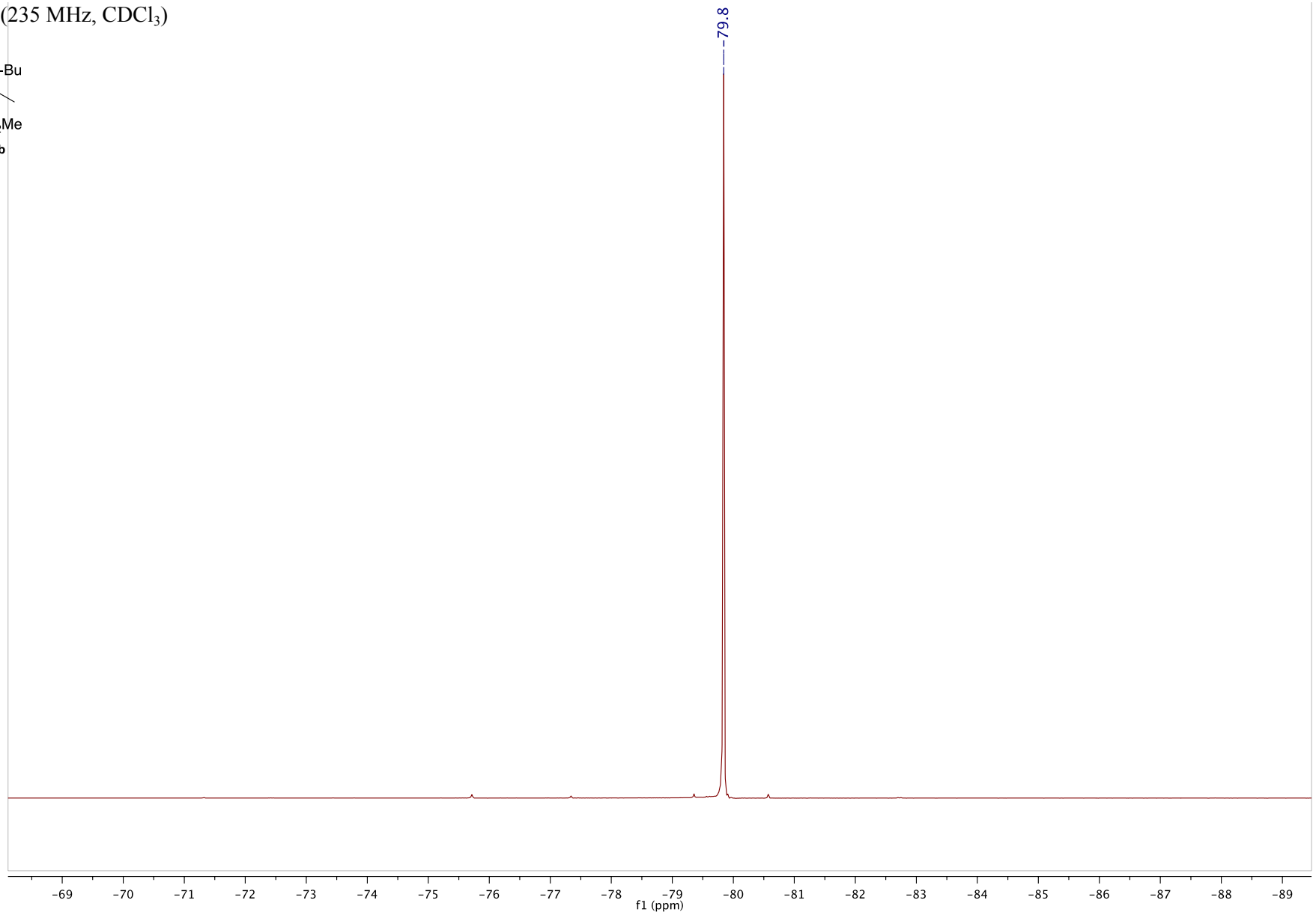
(*S*$_S$,*R*,*R*)-**3a** (*major diastereomer*)
3a (mixture of two diastereomers)



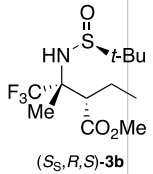
^{19}F NMR (235 MHz, $CDCl_3$)



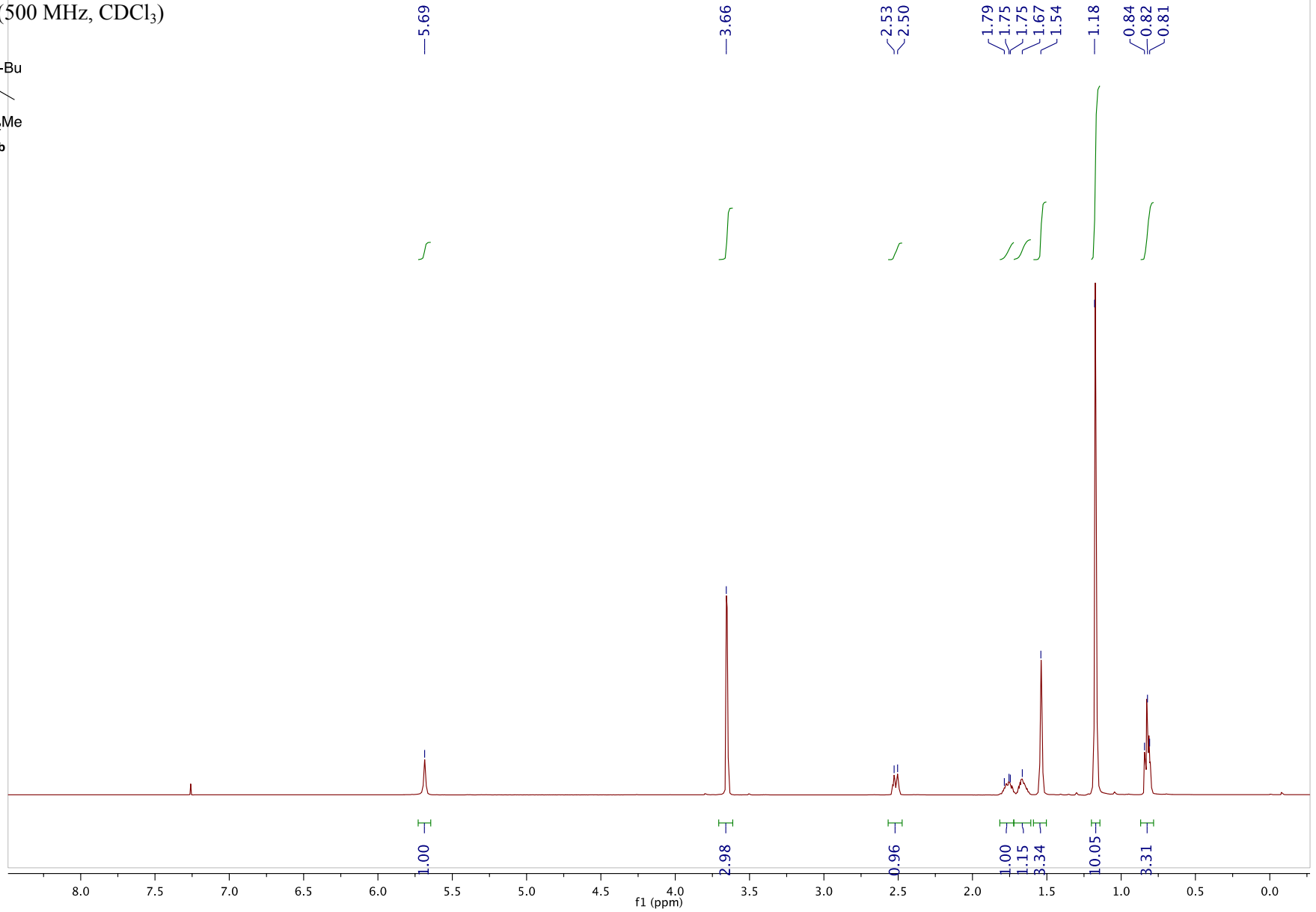
(S_S,*R*,*S*)-**3b**



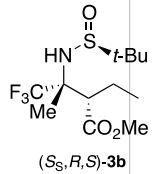
^{1}H NMR (500 MHz, $CDCl_3$)



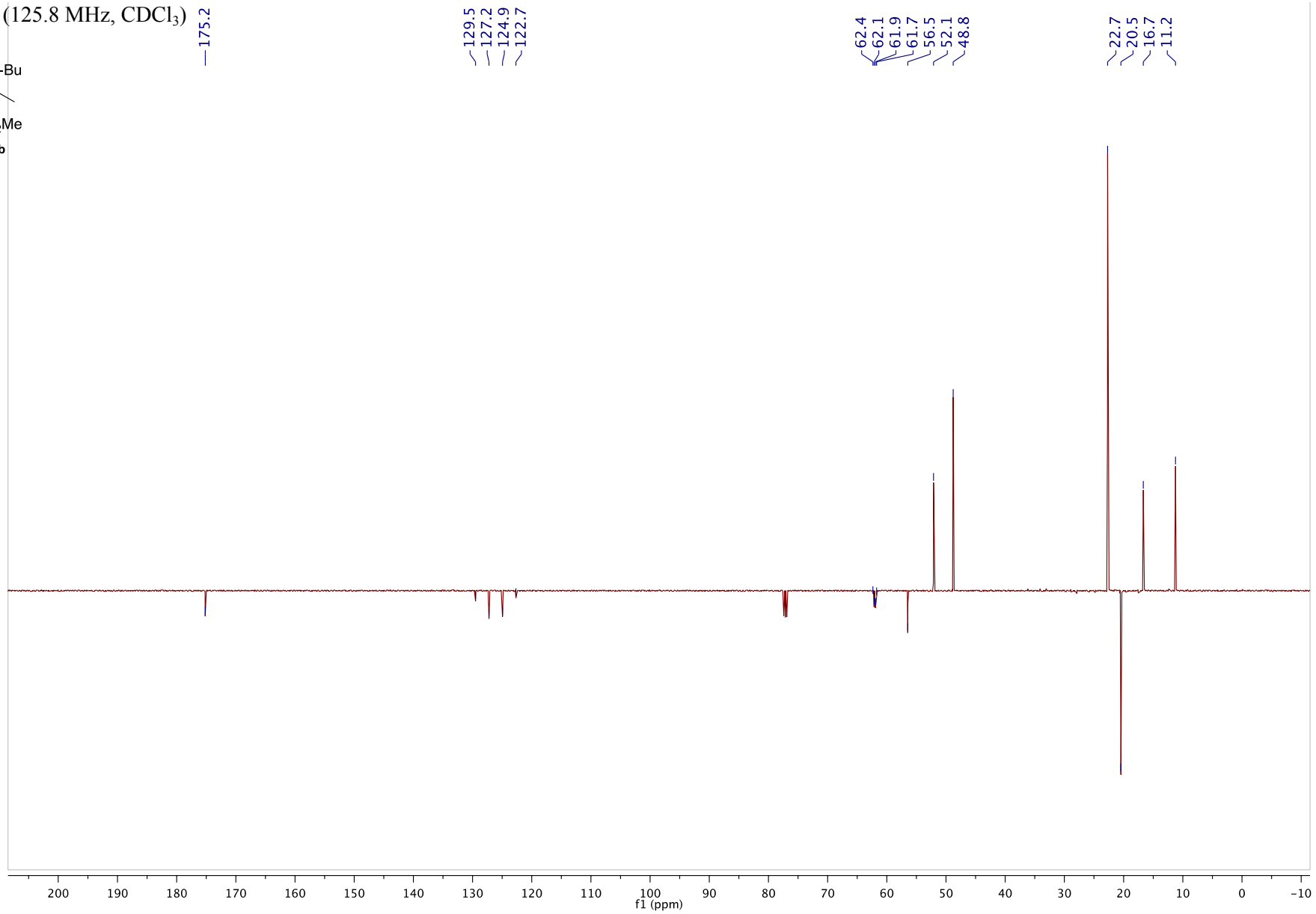
(S_S,*R*,*S*)-**3b**



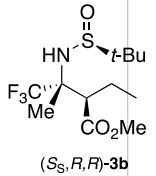
^{13}C NMR (125.8 MHz, $CDCl_3$)



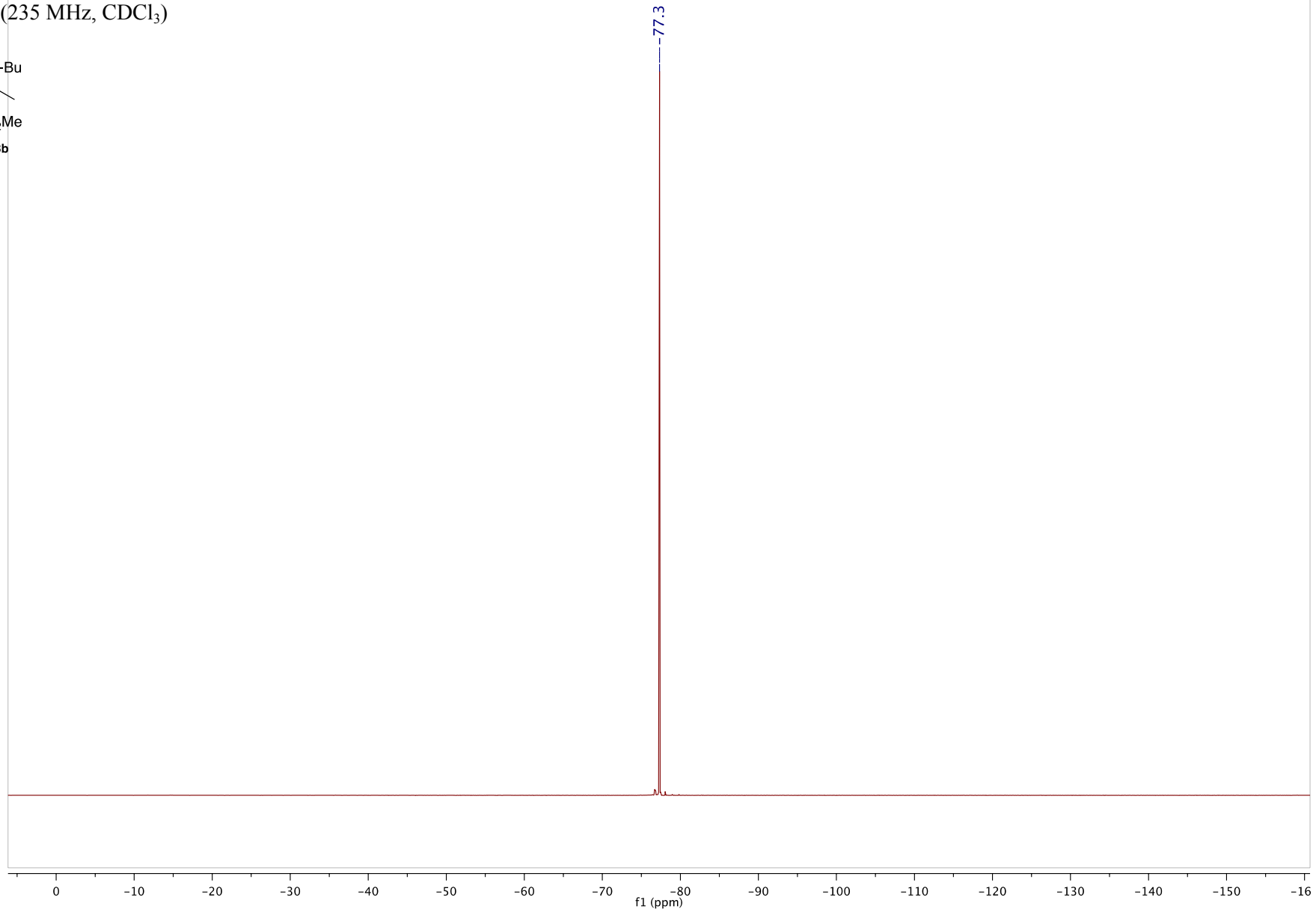
(S_S,*R*,*S*)-**3b**



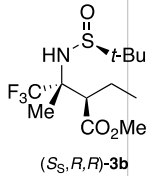
^{19}F NMR (235 MHz, $CDCl_3$)



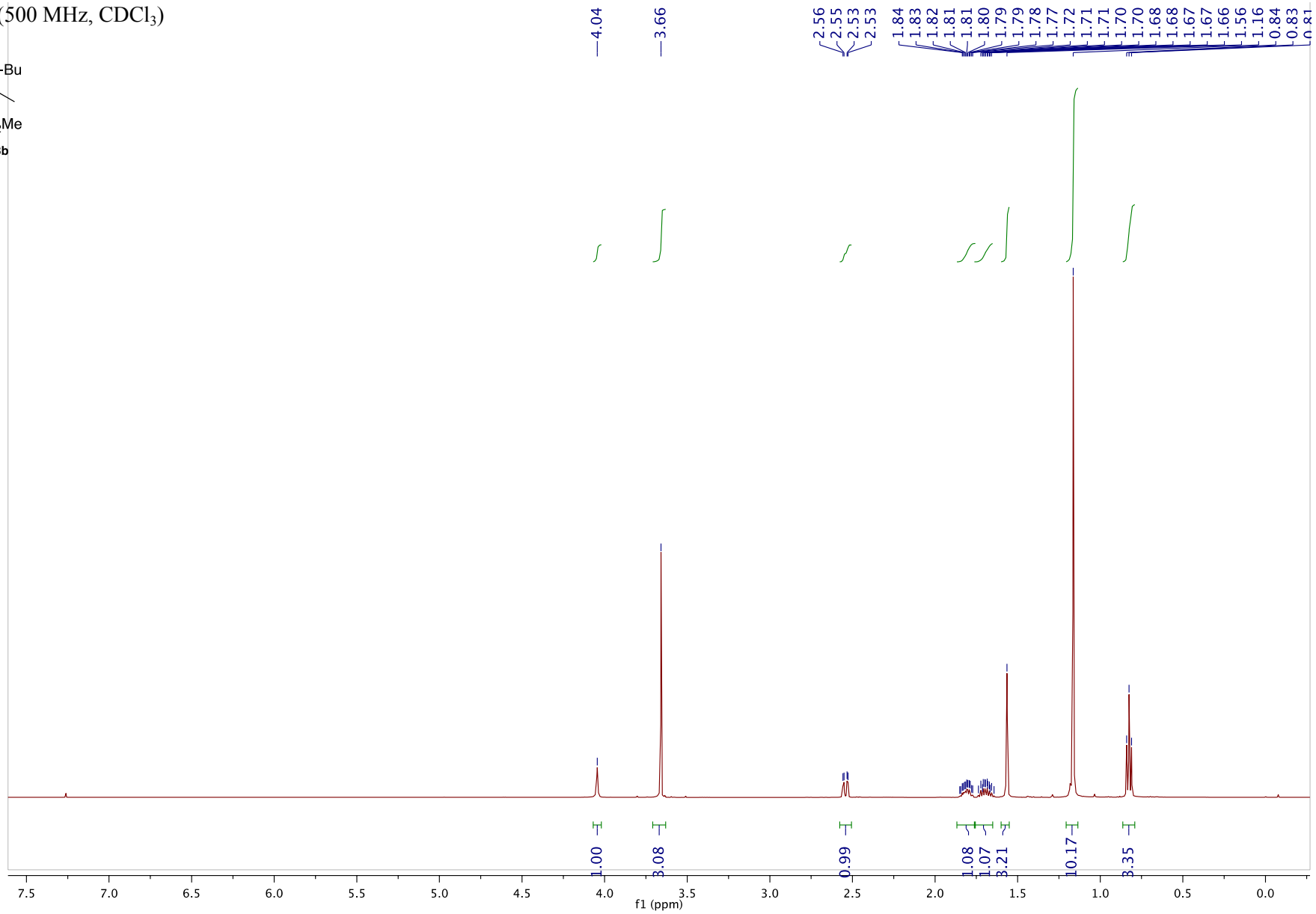
(S_S,*R*,*R*)-**3b**



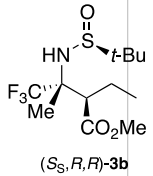
^{1}H NMR (500 MHz, $CDCl_3$)



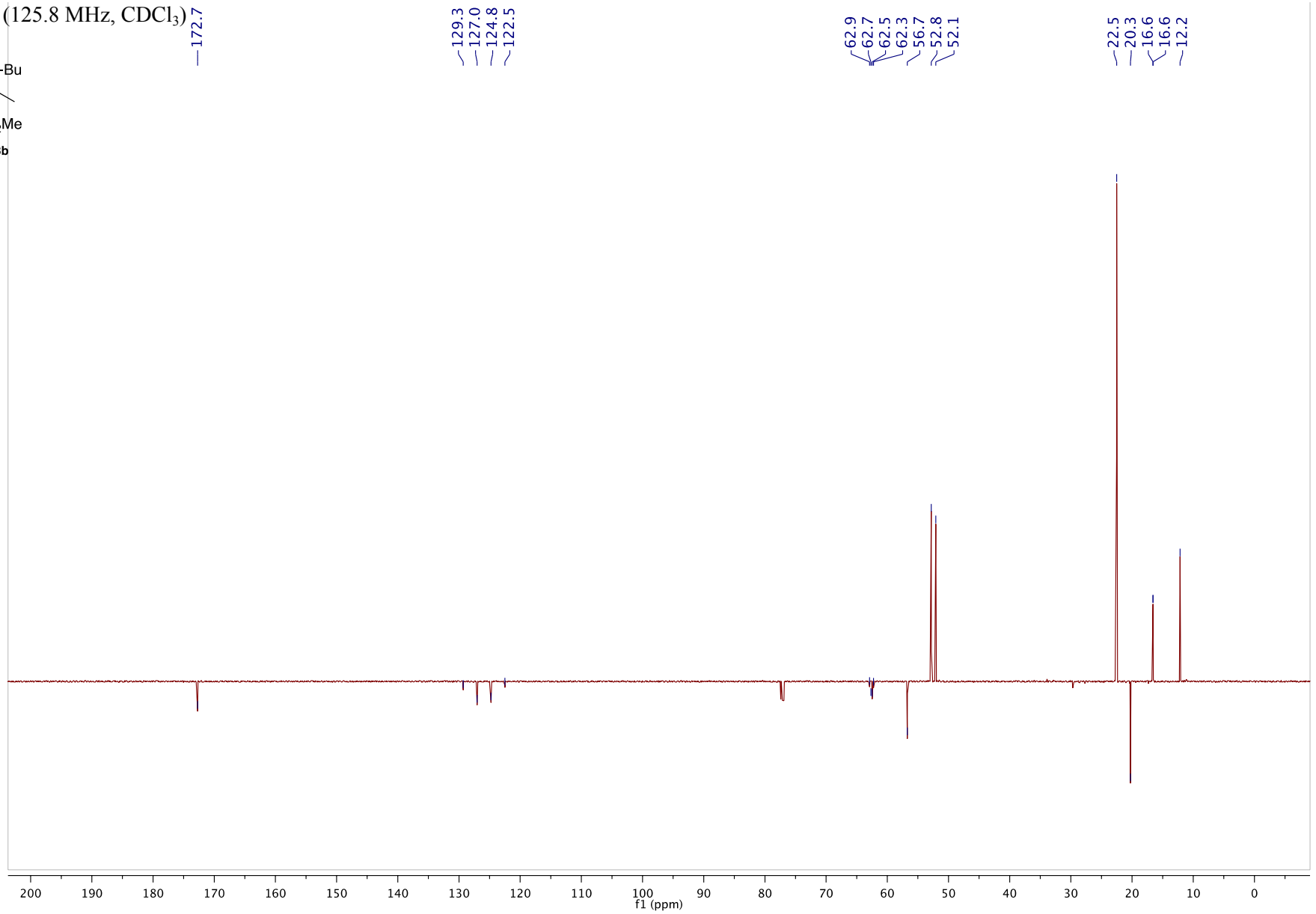
(S_S,*R*,*R*)-**3b**



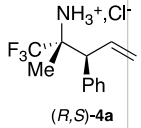
^{13}C NMR (125.8 MHz, $CDCl_3$)



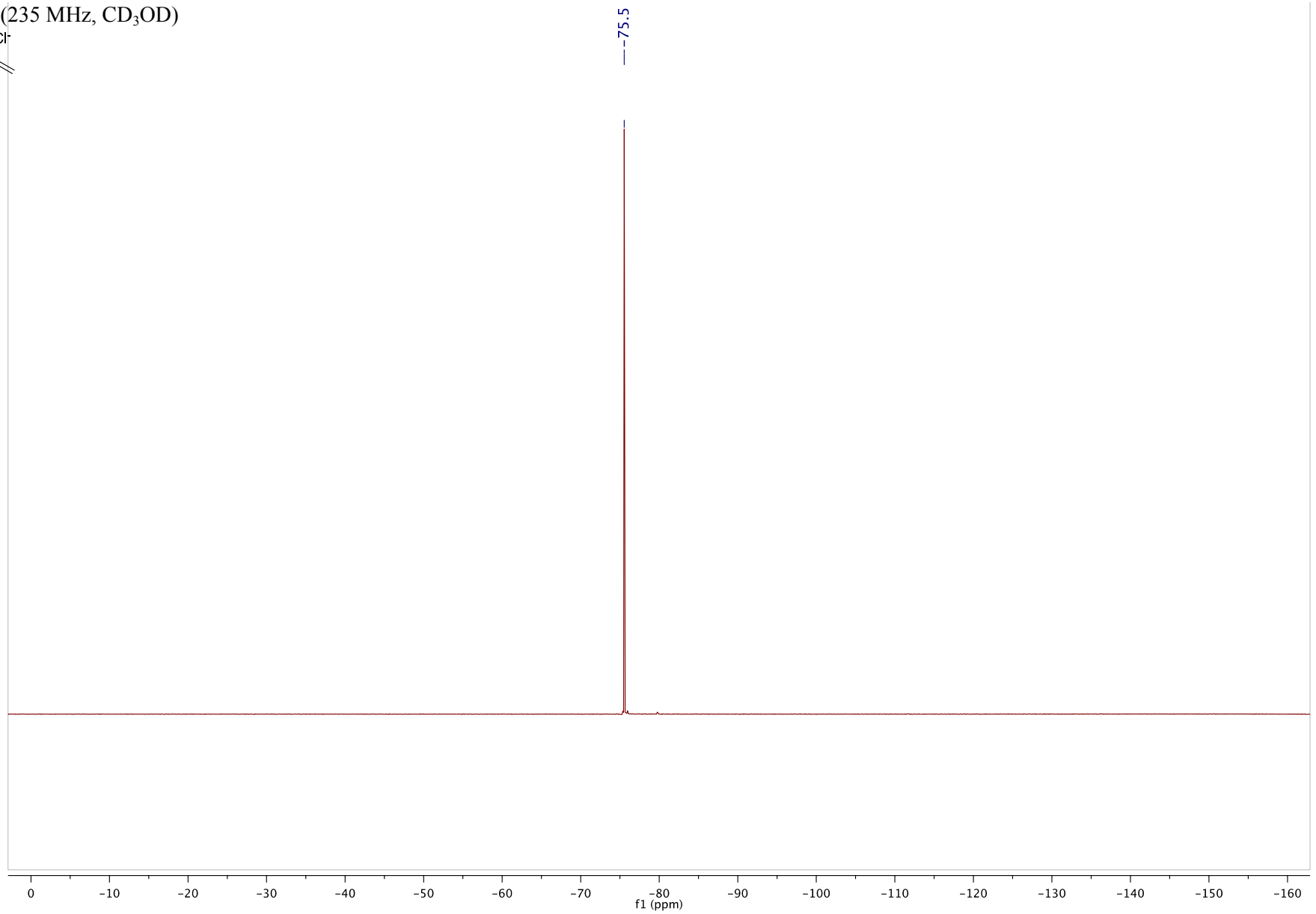
(S_S,*R*,*R*)-**3b**



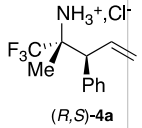
^{19}F NMR (235 MHz, CD_3OD)



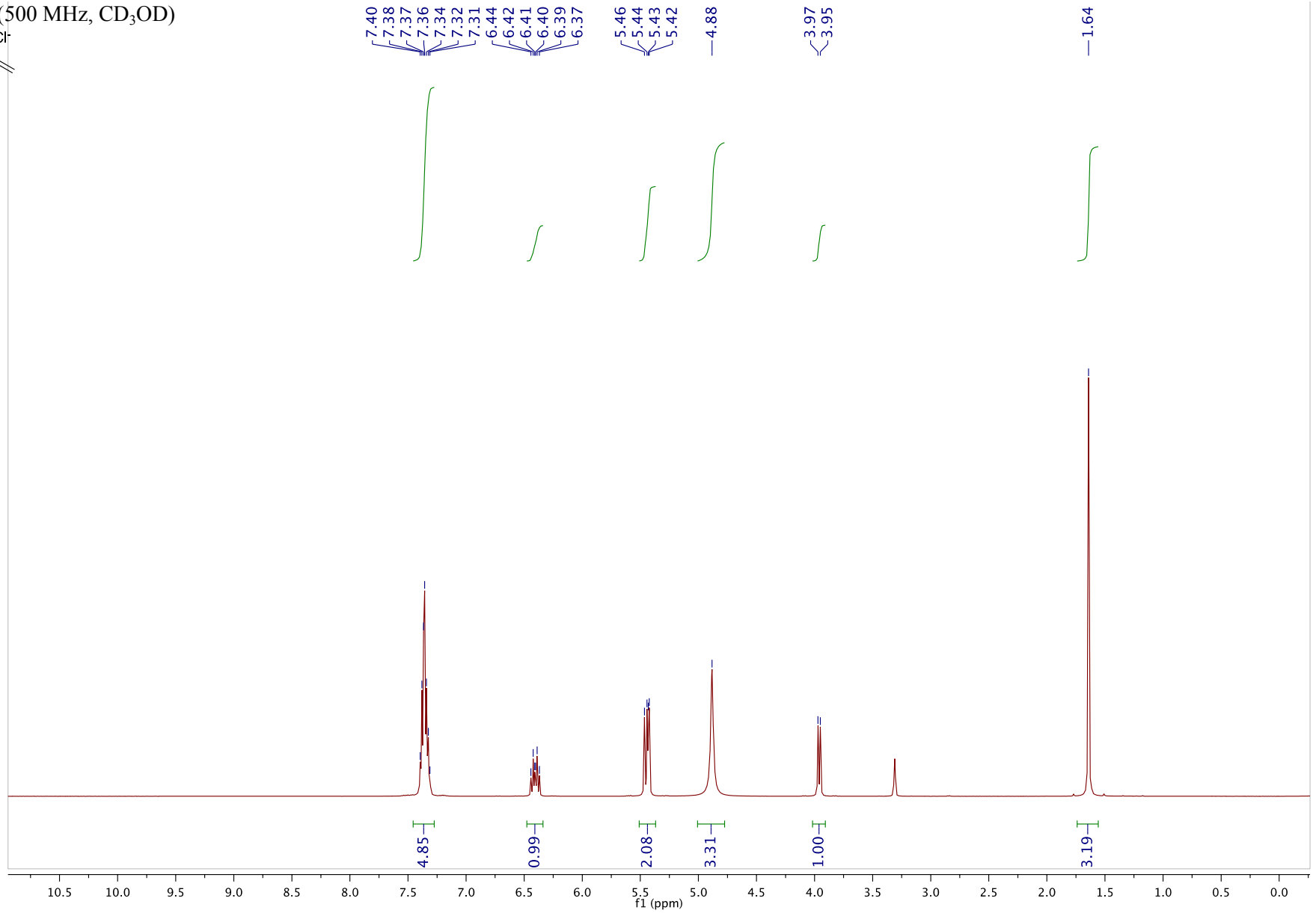
(*R*,*S*)-**4a**



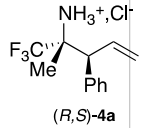
^{1}H NMR (500 MHz, CD_3OD)



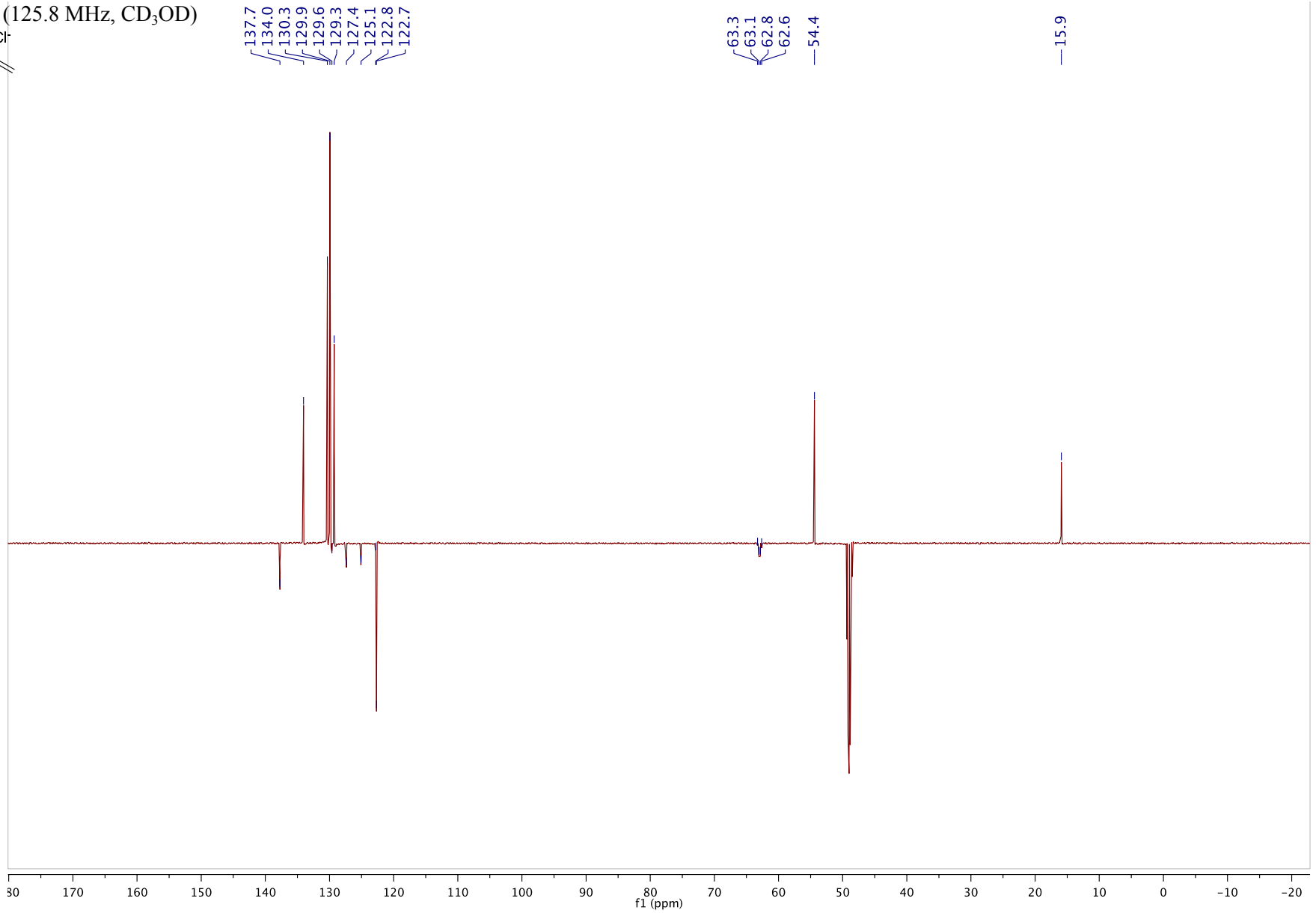
(*R*,*S*)-**4a**



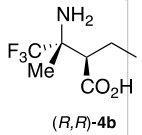
^{13}C NMR (125.8 MHz, CD_3OD)



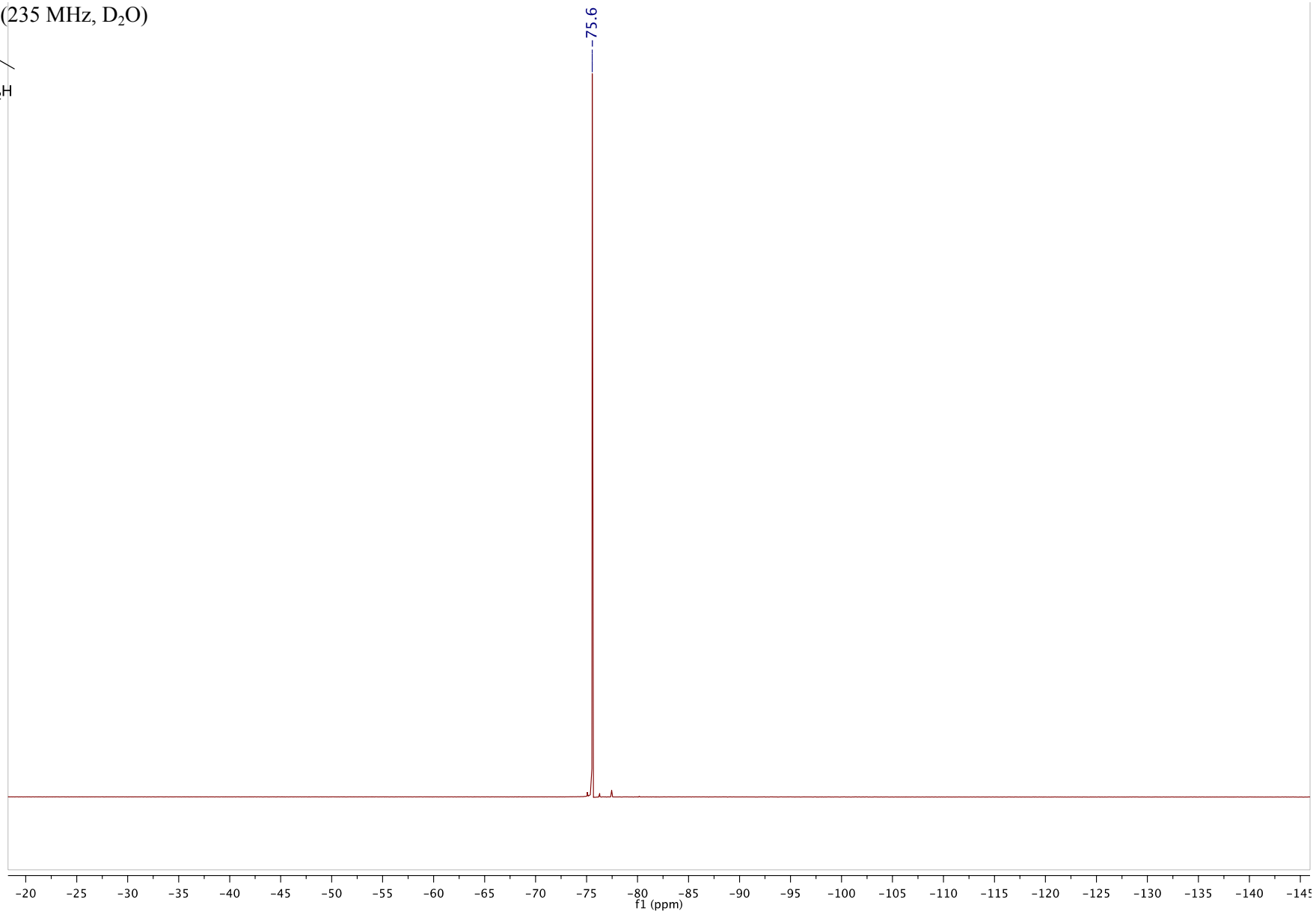
(*R*,*S*)-**4a**



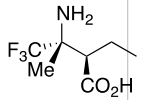
^{19}F NMR (235 MHz, D_2O)



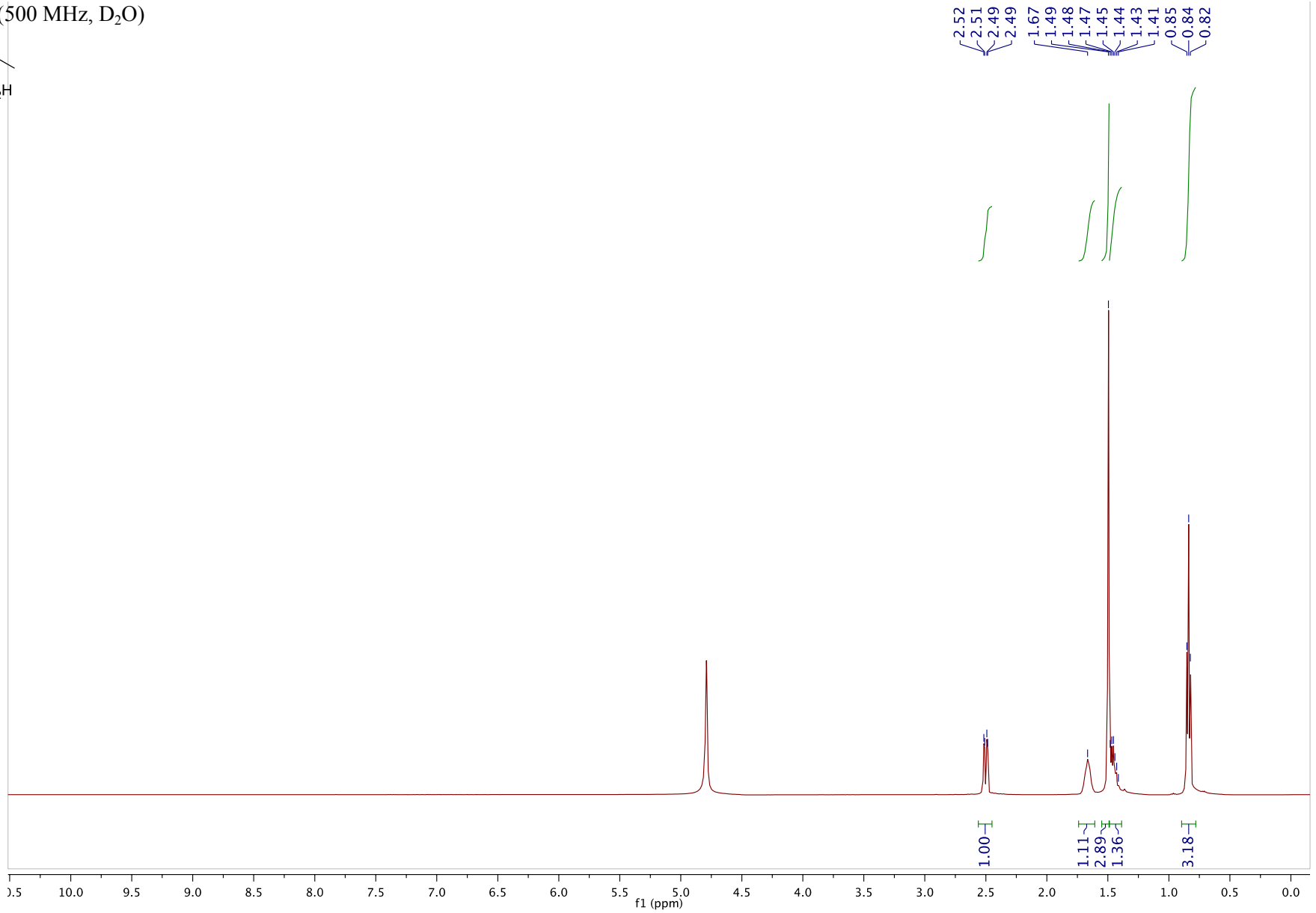
(*R*,*R*)-**4b**



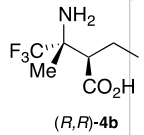
^{1}H NMR (500 MHz, D_2O)



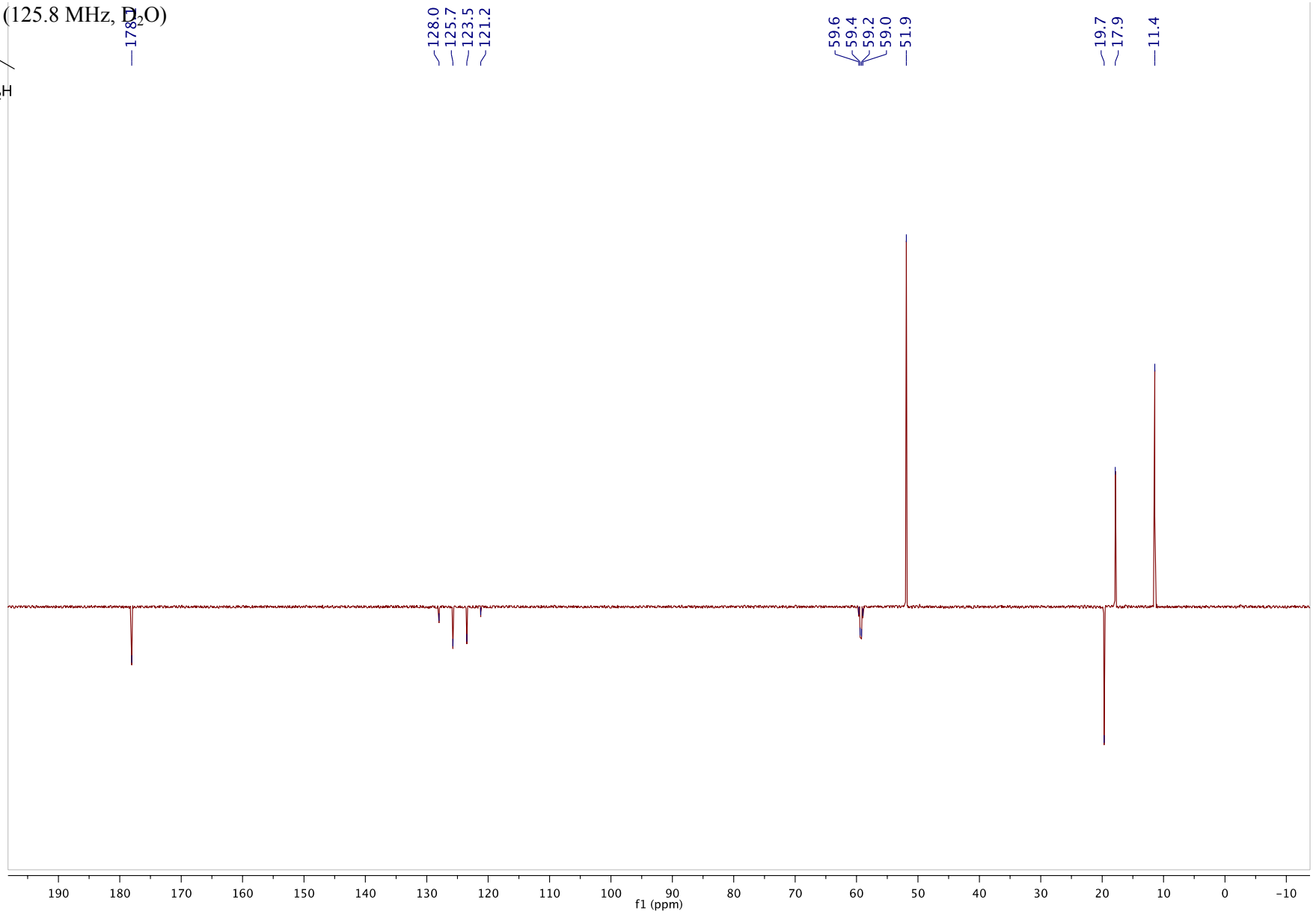
(*R,R*)-**4b**



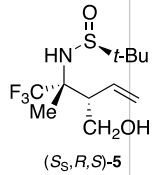
^{13}C NMR (125.8 MHz, D_2O)



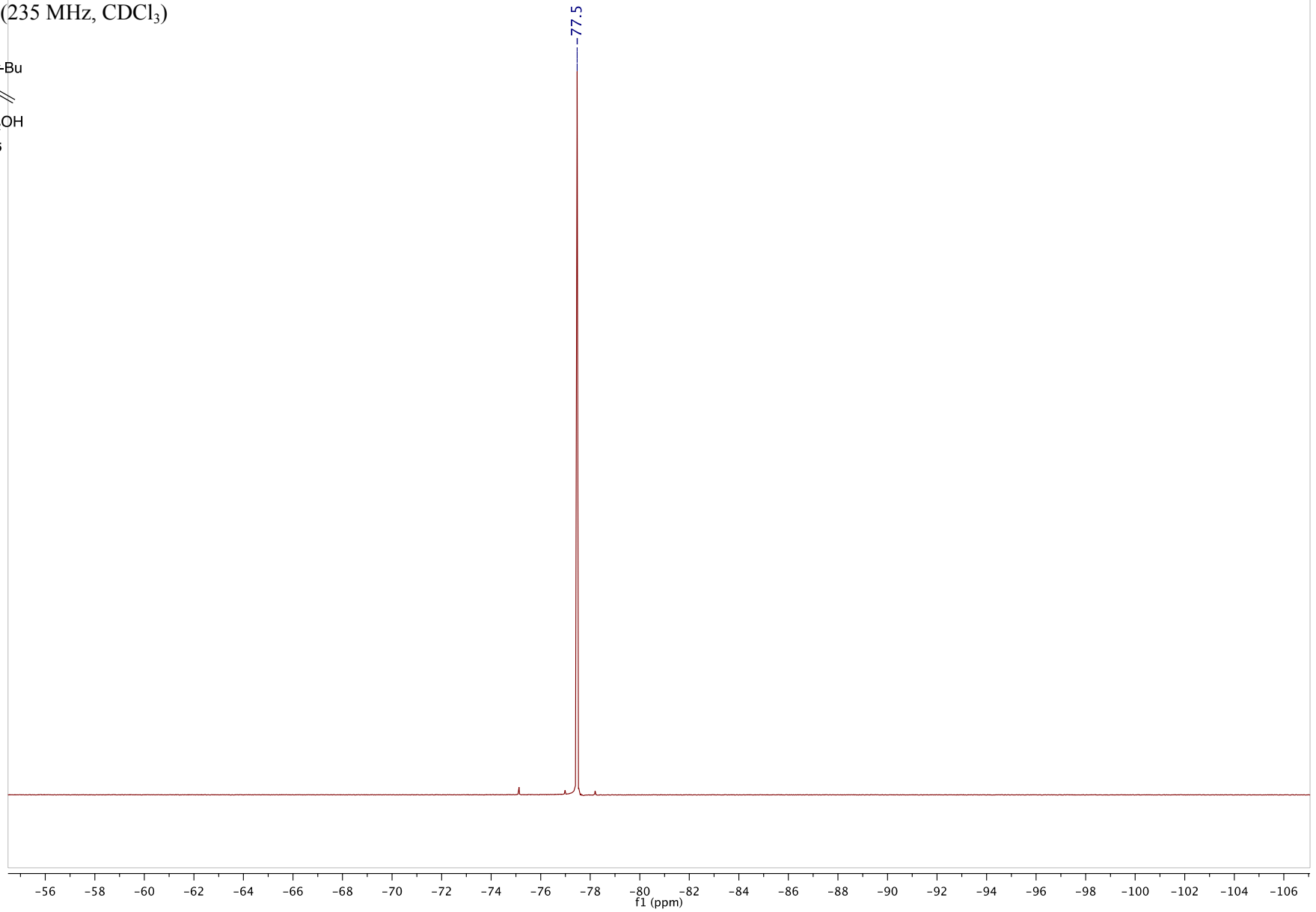
(*R,R*)-**4b**



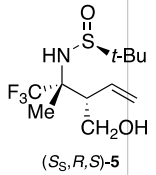
^{19}F NMR (235 MHz, $CDCl_3$)



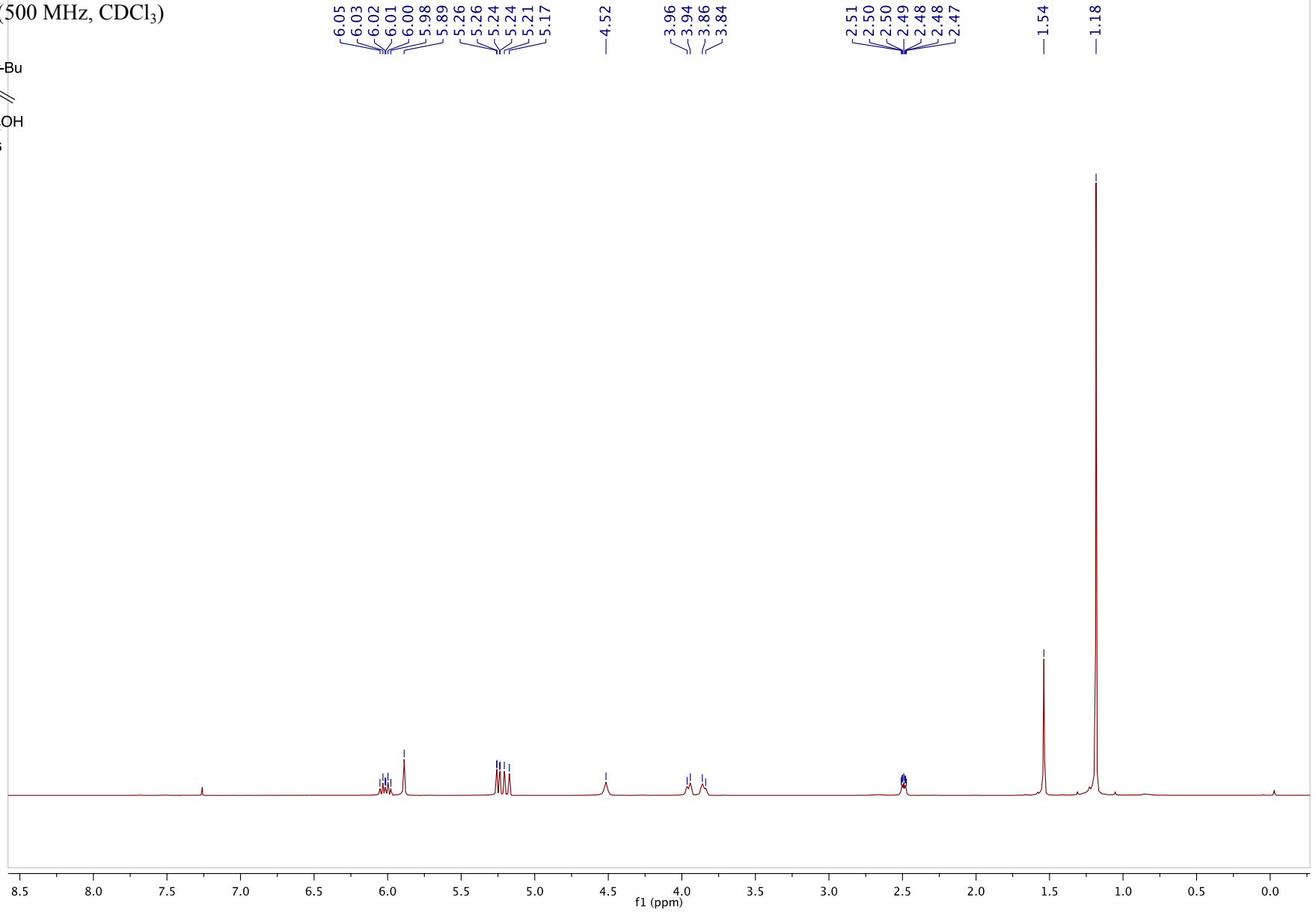
(S_S,*R*,*S*)-**5**



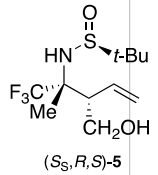
^{1}H NMR (500 MHz, $CDCl_3$)



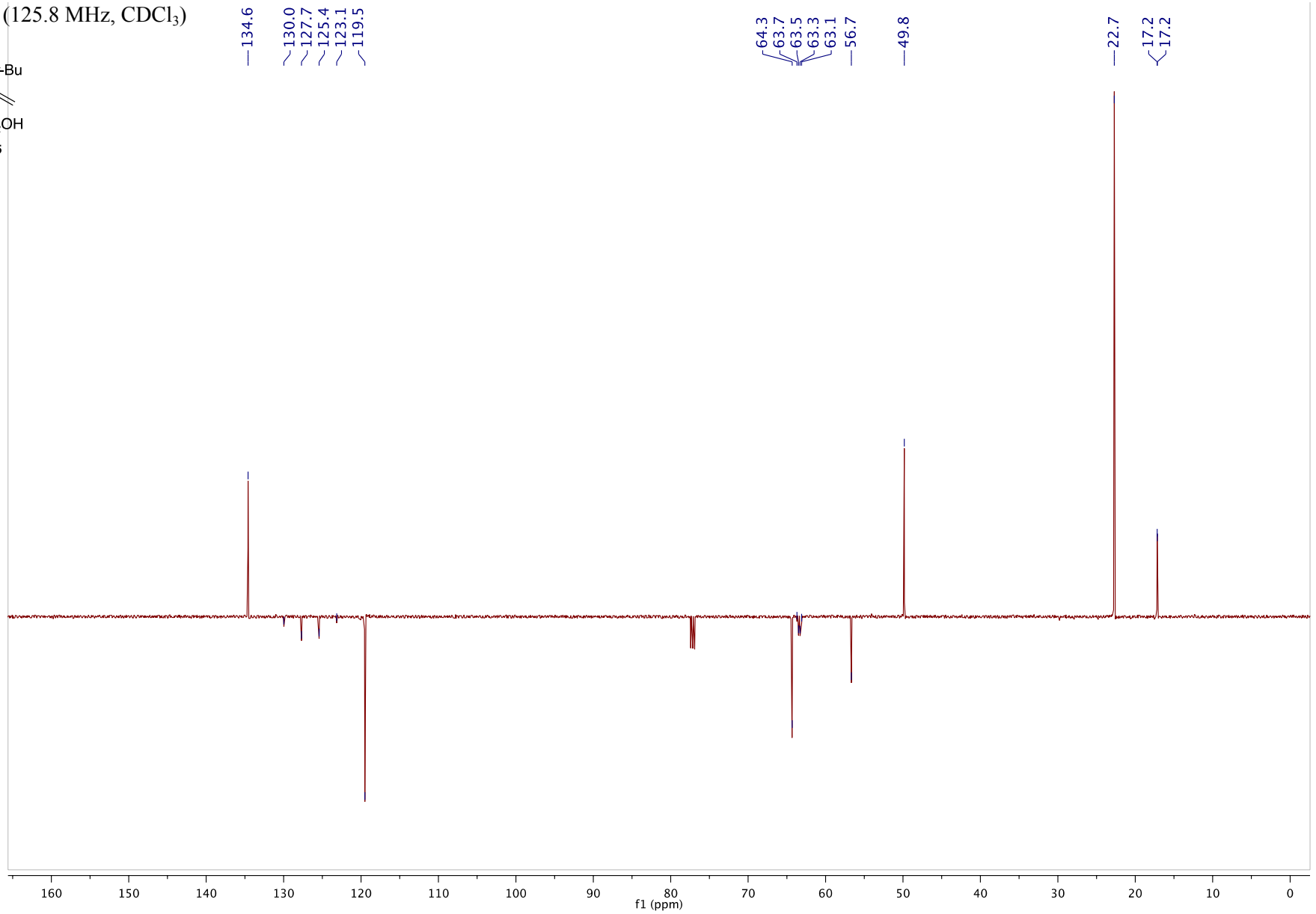
(S_S,*R*,*S*)-**5**



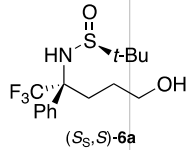
^{13}C NMR (125.8 MHz, $CDCl_3$)



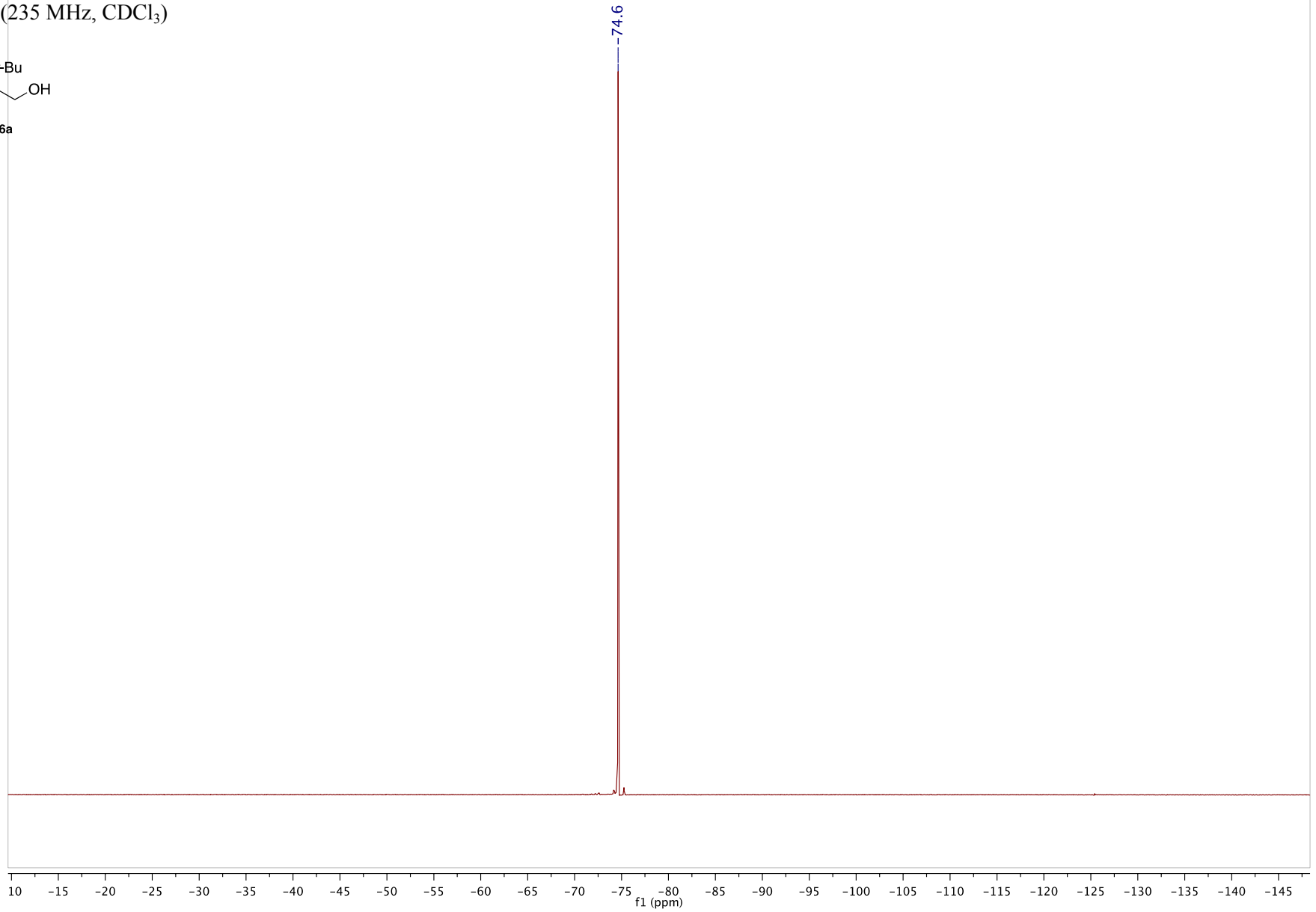
(S_S,*R*,*S*)-**5**



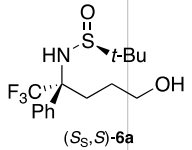
^{19}F NMR (235 MHz, $CDCl_3$)



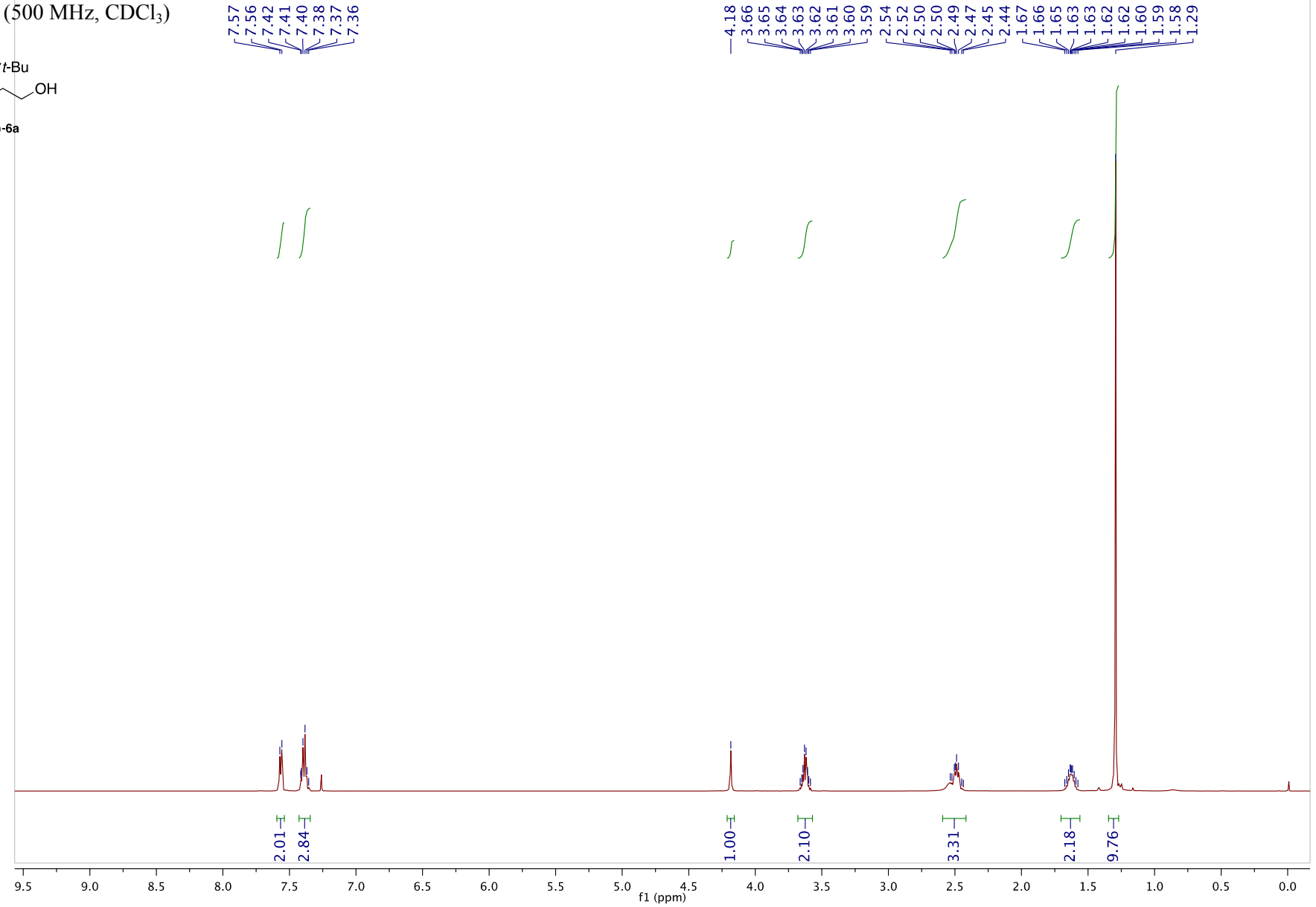
(S_S,S)-**6a**



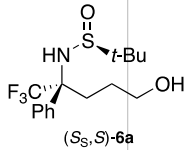
^{1}H NMR (500 MHz, $CDCl_3$)



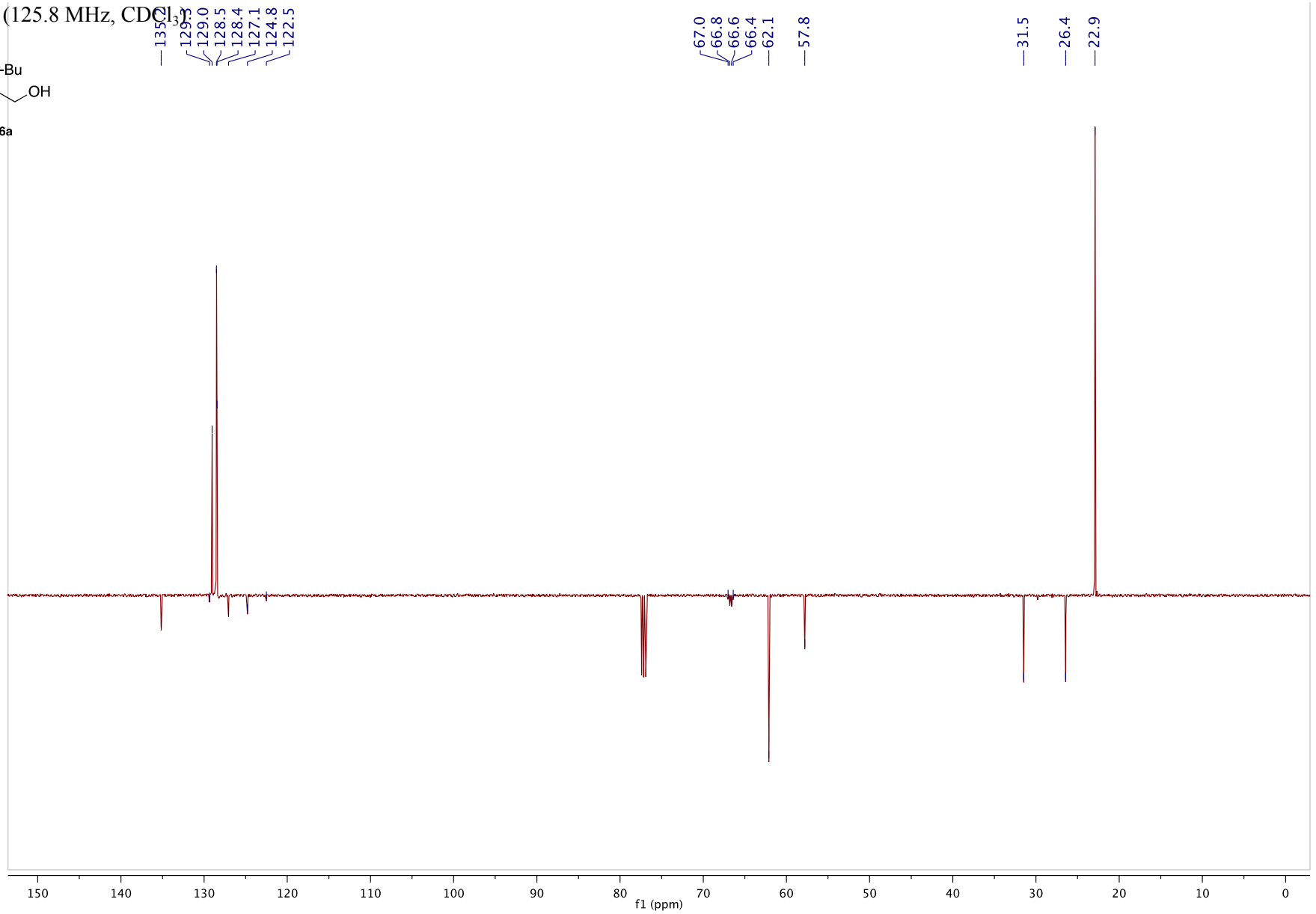
(S_S,S)-**6a**



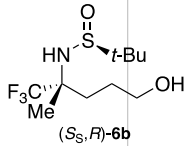
^{13}C NMR (125.8 MHz, $CDCl_3$)



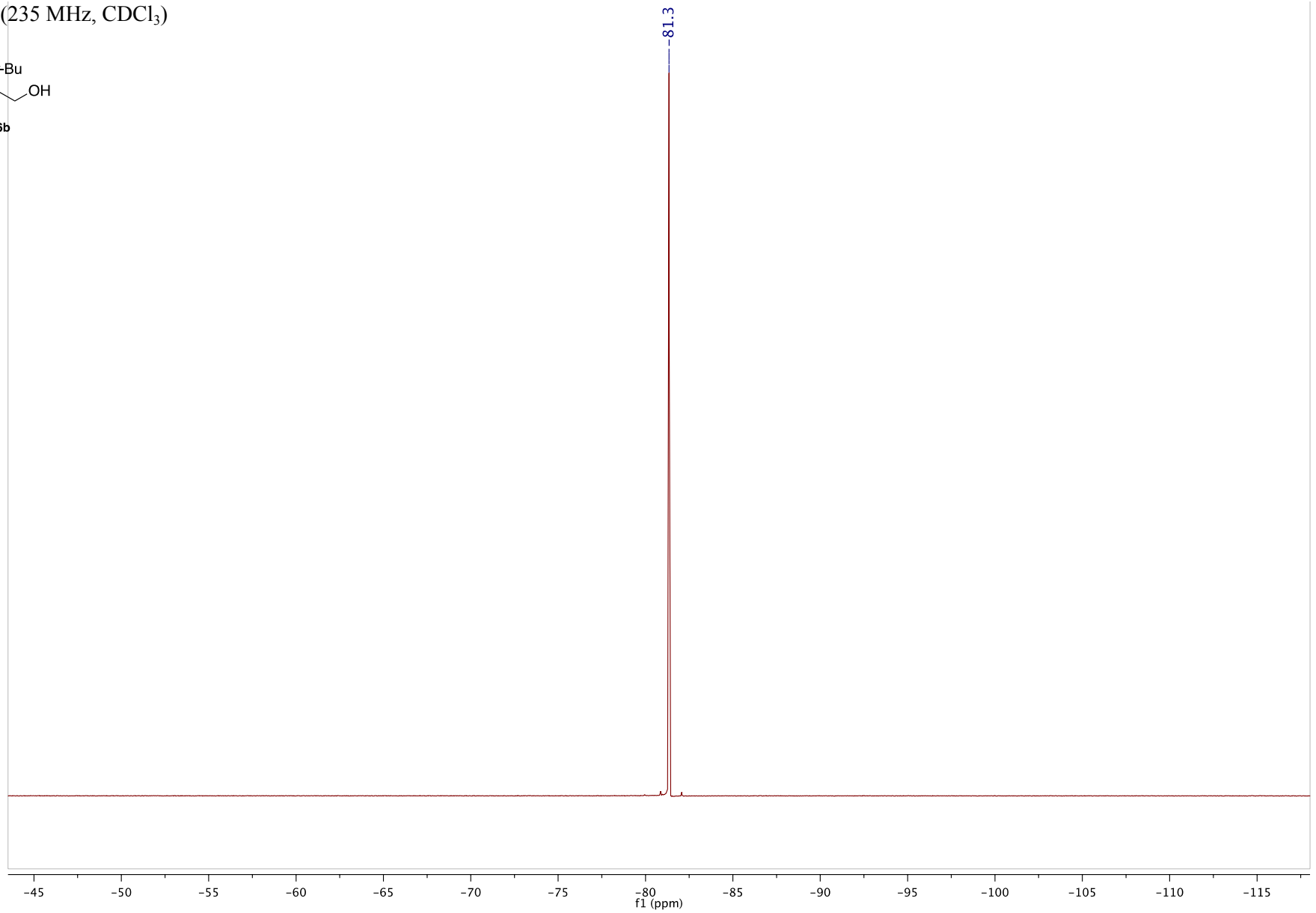
(S_S,*S*)-**6a**



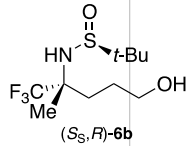
^{19}F NMR (235 MHz, $CDCl_3$)



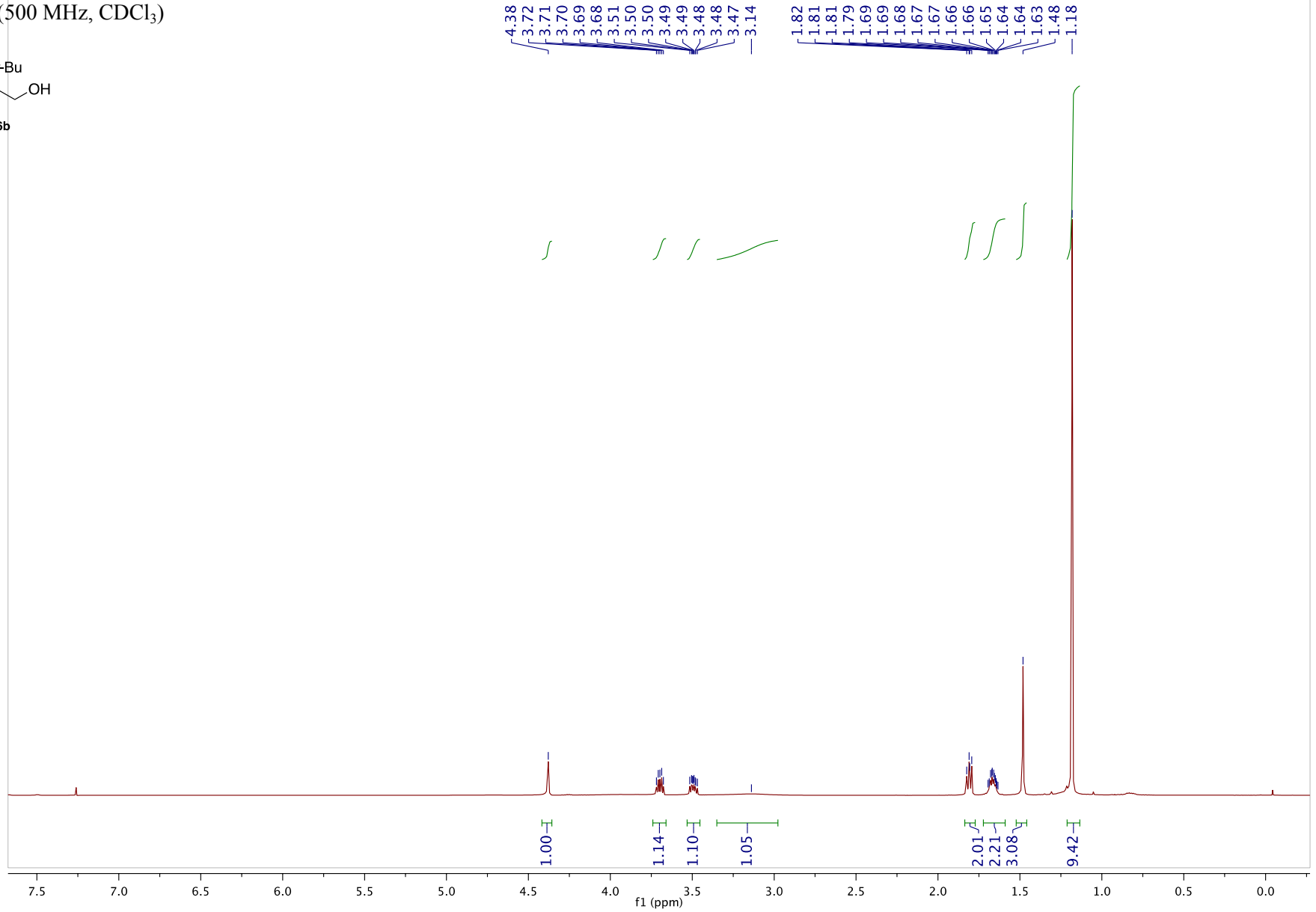
(S_S,*R*)-**6b**



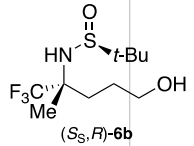
^{1}H NMR (500 MHz, $CDCl_3$)



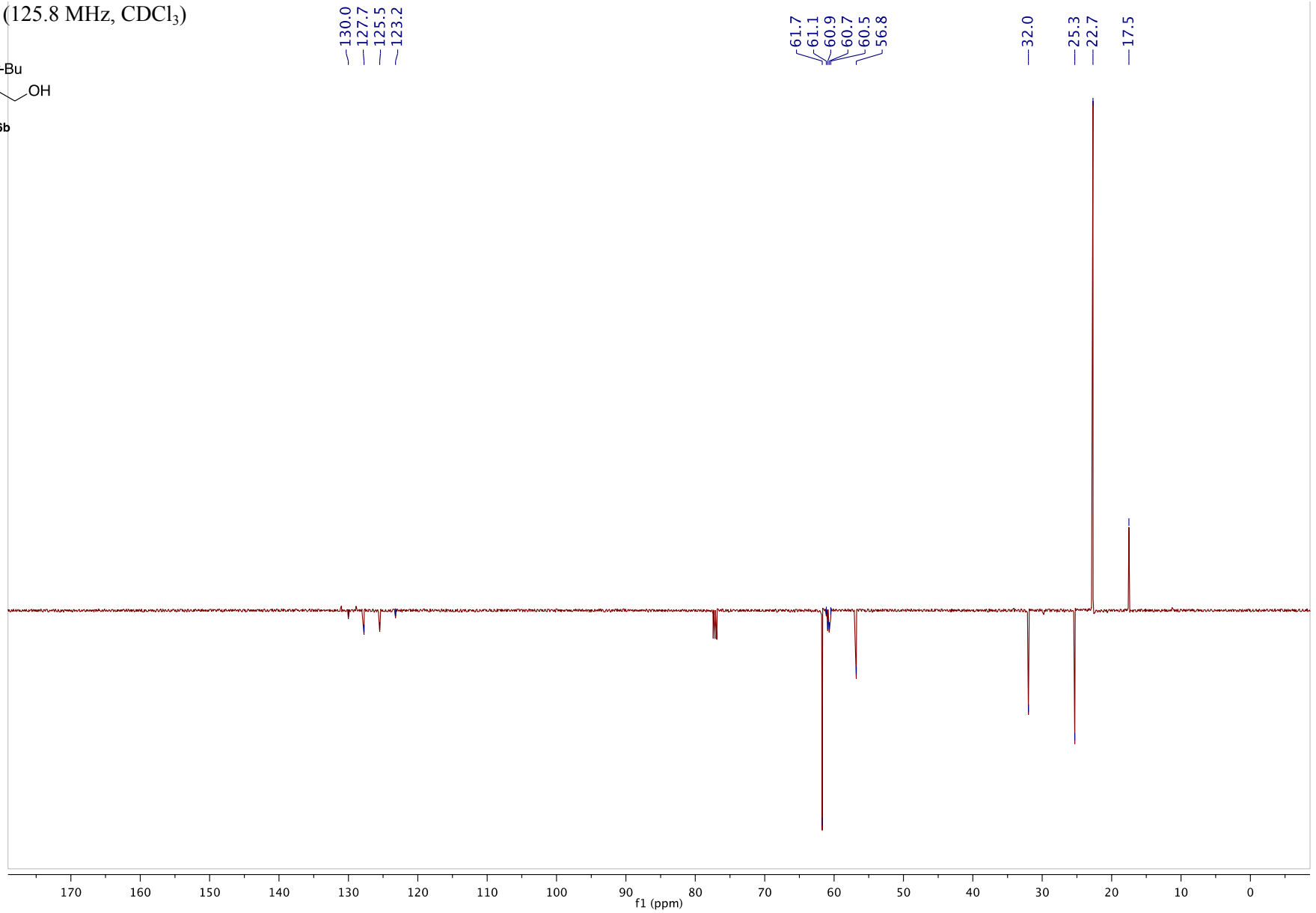
(S_S,*R*)-**6b**



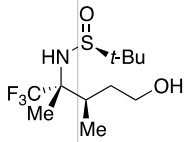
^{13}C NMR (125.8 MHz, $CDCl_3$)



(S_S,*R*)-**6b**

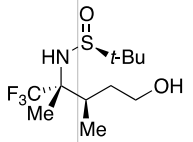


^{19}F NMR (235 MHz, $CDCl_3$)



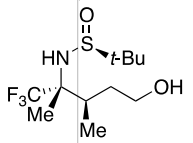
(S_S,*R*,*R*)-**6c** (*major diastereomer*)
6c (mixture of two diastereomers)

^{1}H NMR (500 MHz, $CDCl_3$)



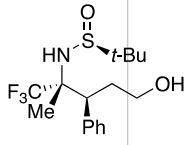
(S_S,*R*,*R*)-**6c** (*major diastereomer*)
6c (mixture of two diastereomers)

^{13}C NMR (125.8 MHz, CDCl$_3$)

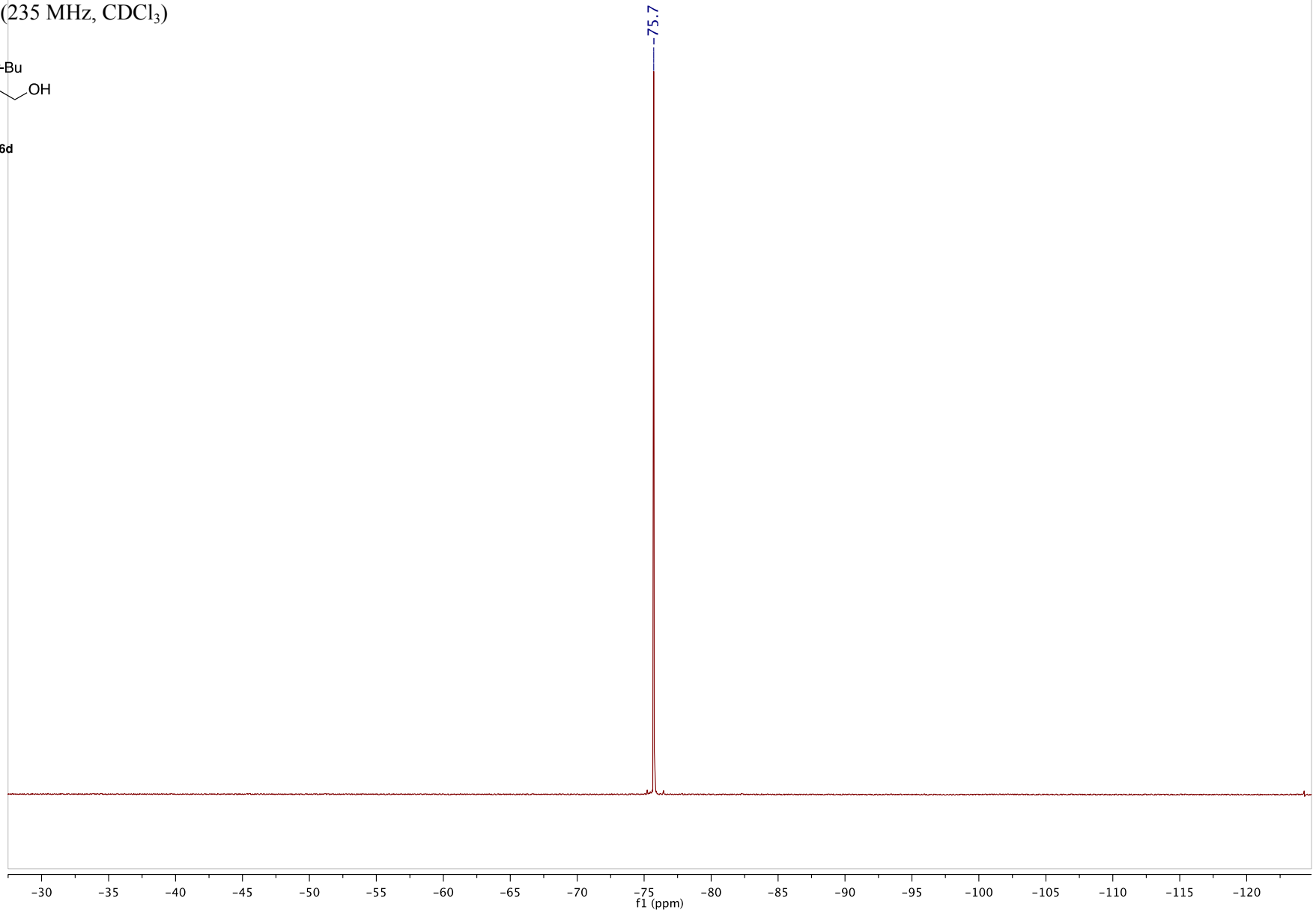


(*S*$_S$,*R*,*R*)-**6c** (*major diastereomer*)
6c (mixture of two diastereomers)

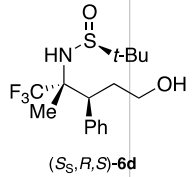
^{19}F NMR (235 MHz, $CDCl_3$)



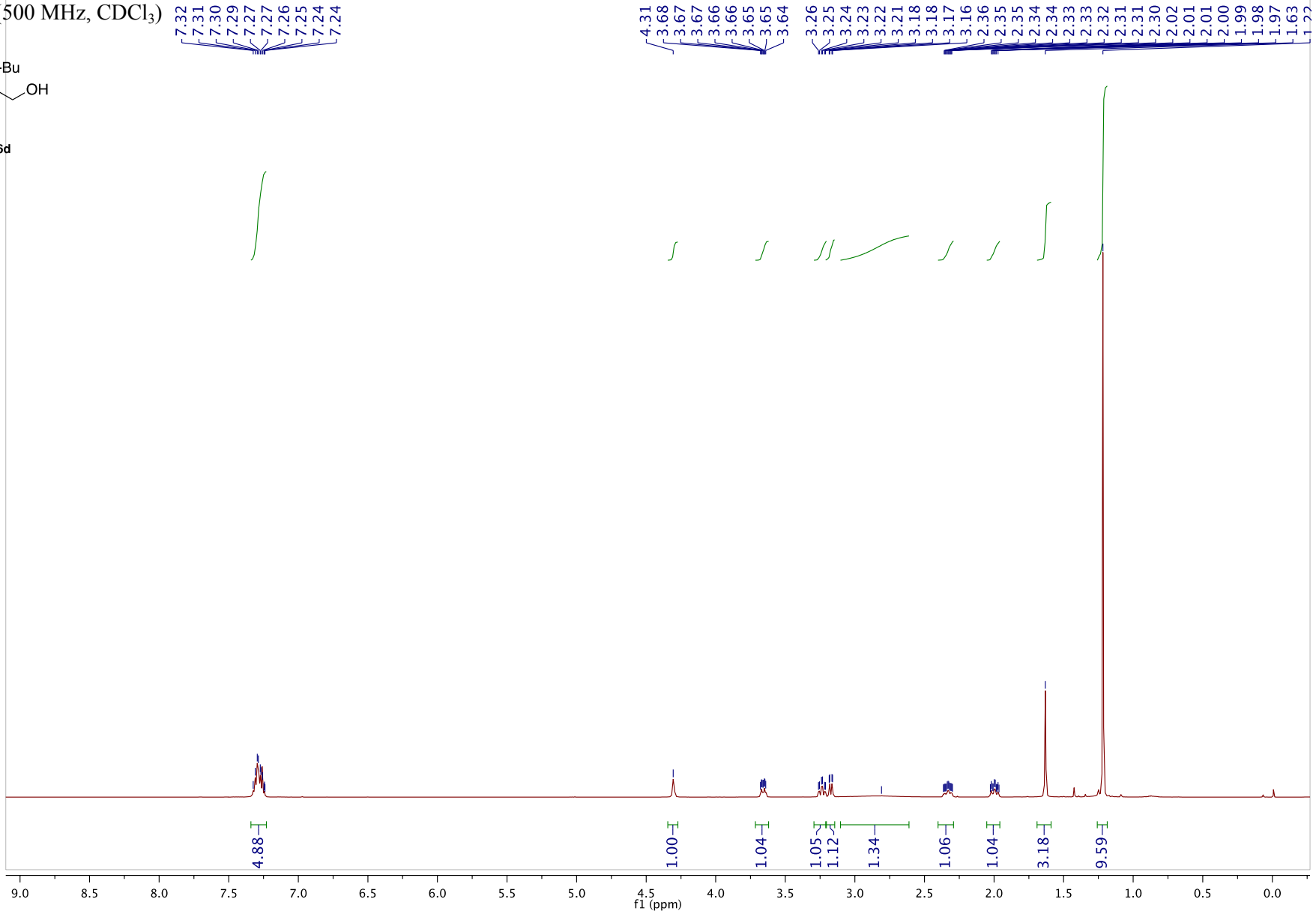
(S_S,*R*,*S*)-**6d**



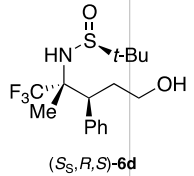
^{1}H NMR (500 MHz, $CDCl_3$)



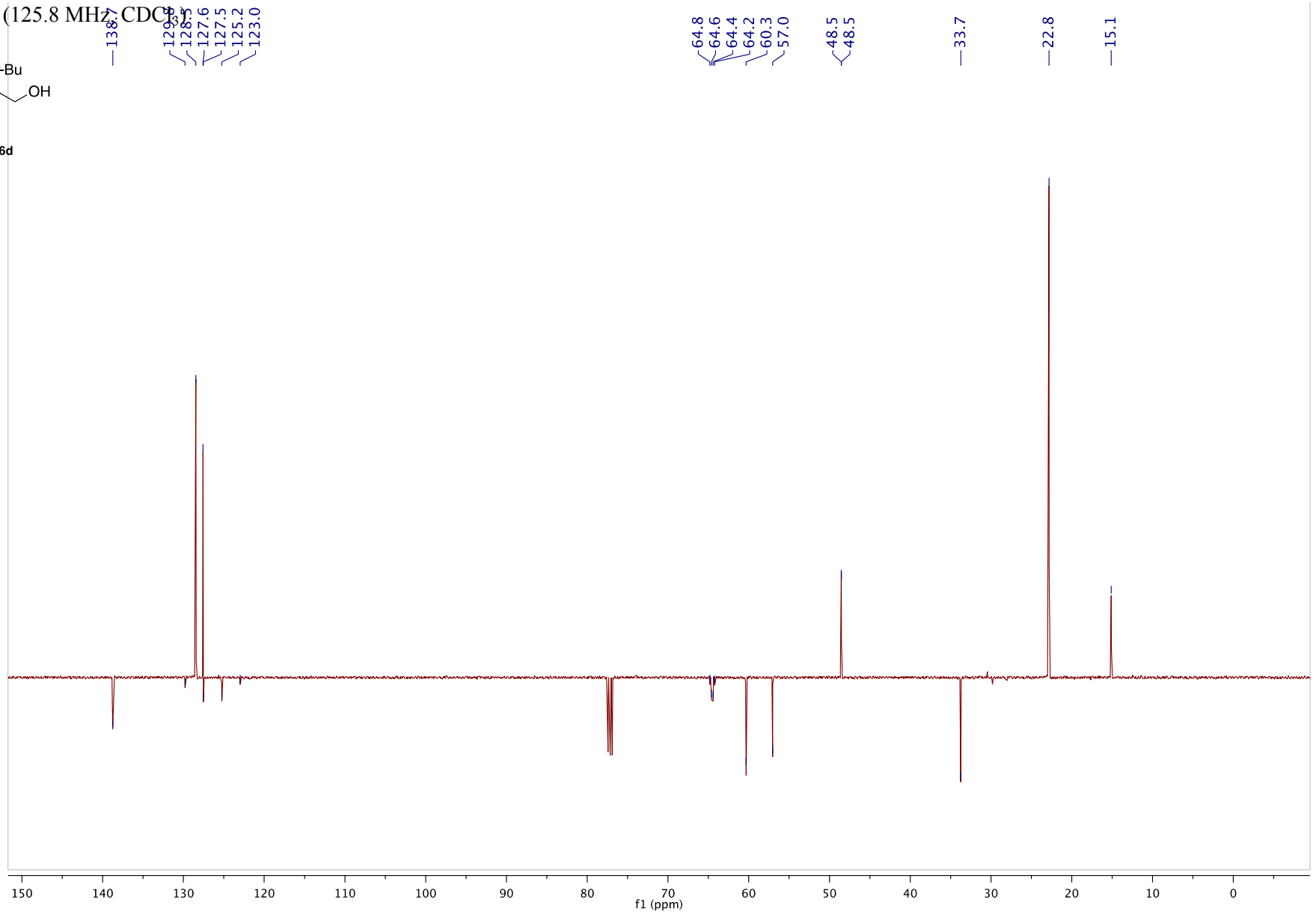
(S_S,*R*,*S*)-**6d**



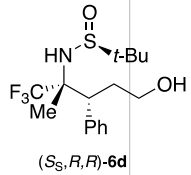
^{13}C NMR (125.8 MHz, CDCl$_3$)



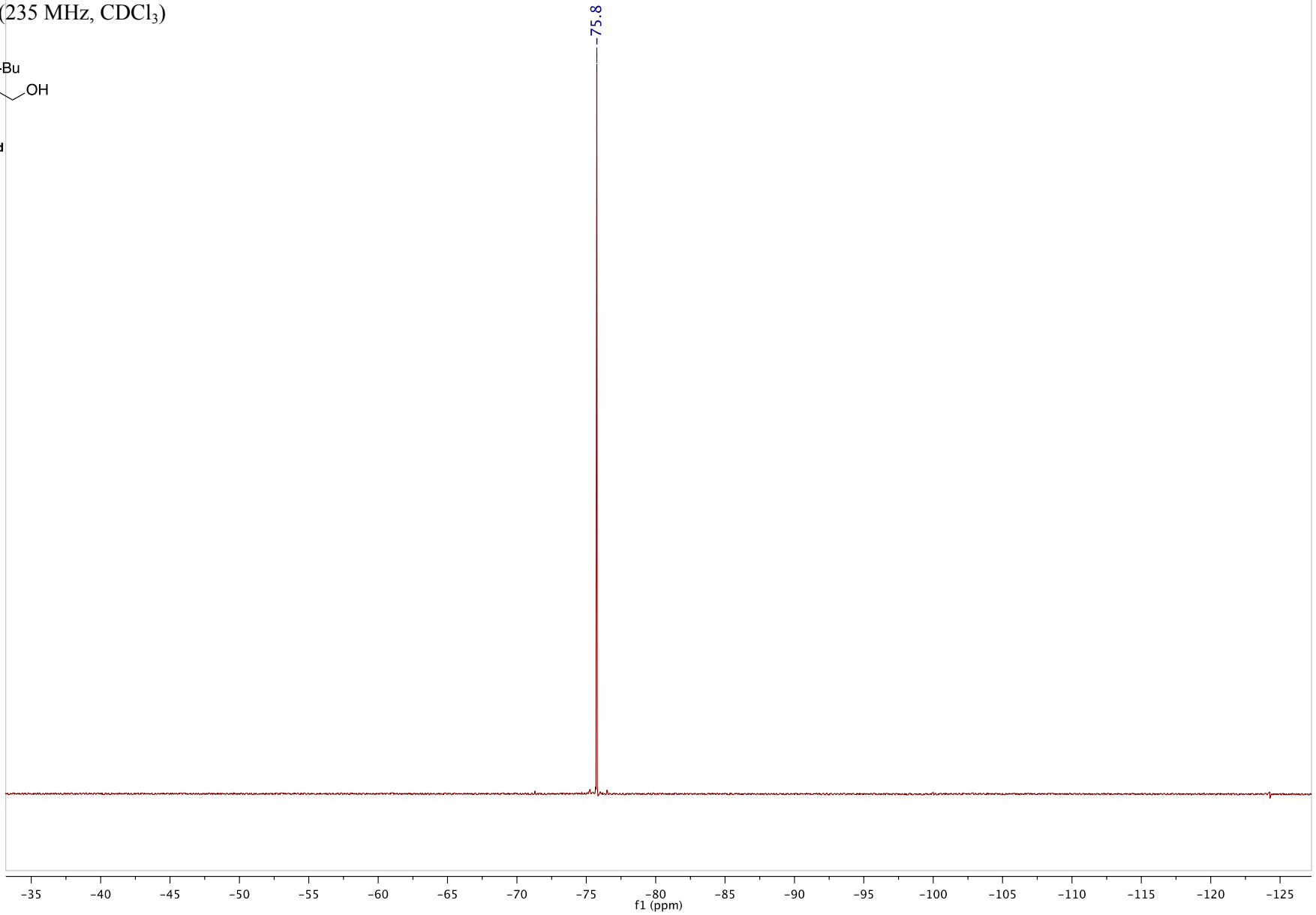
(S_S,*R*,*S*)-**6d**



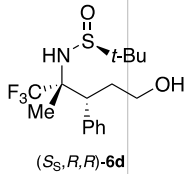
^{19}F NMR (235 MHz, $CDCl_3$)



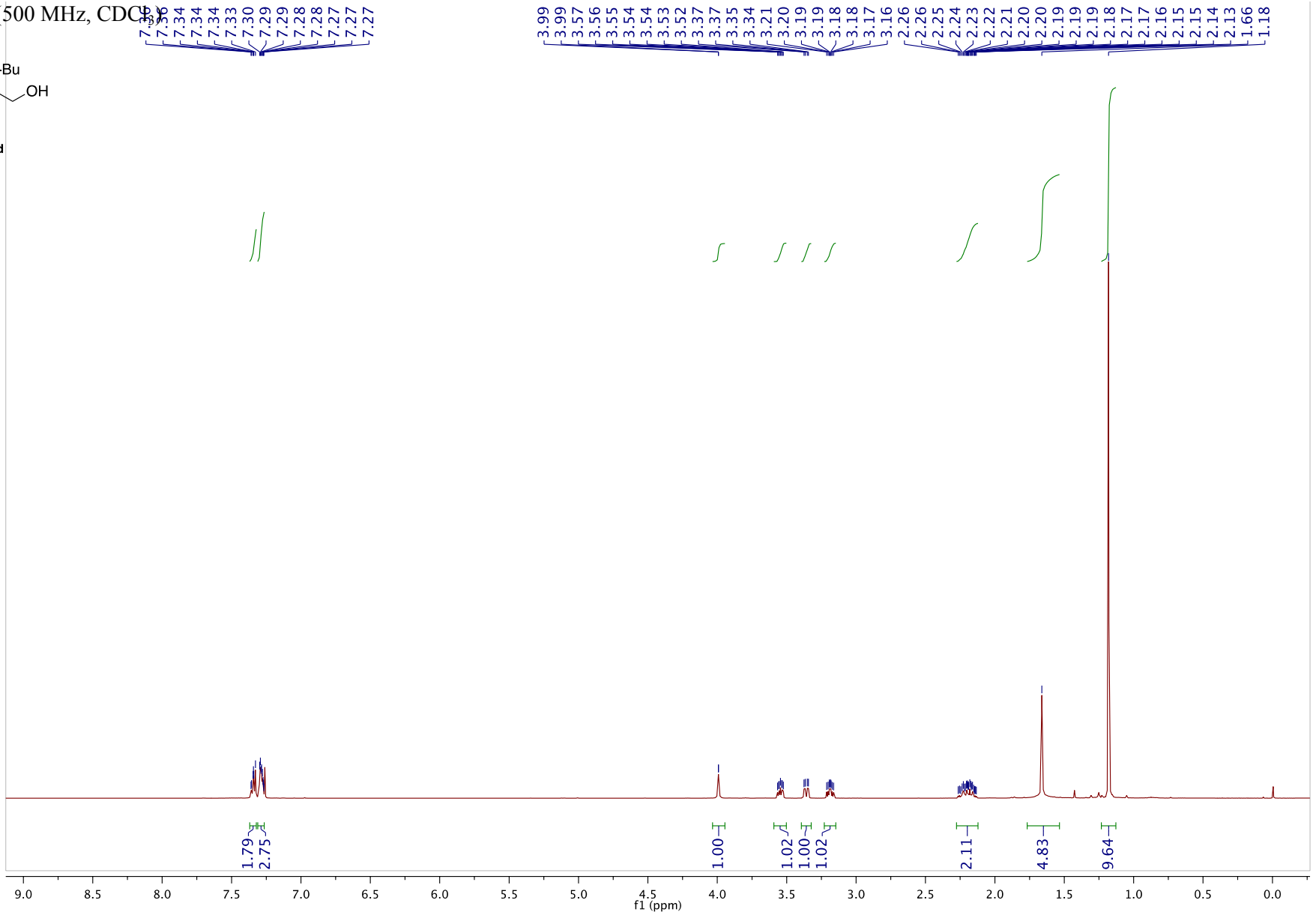
(S_S,*R*,*R*)-**6d**



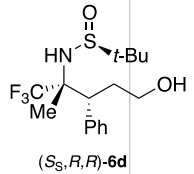
^{1}H NMR (500 MHz, CDCl$_3$)



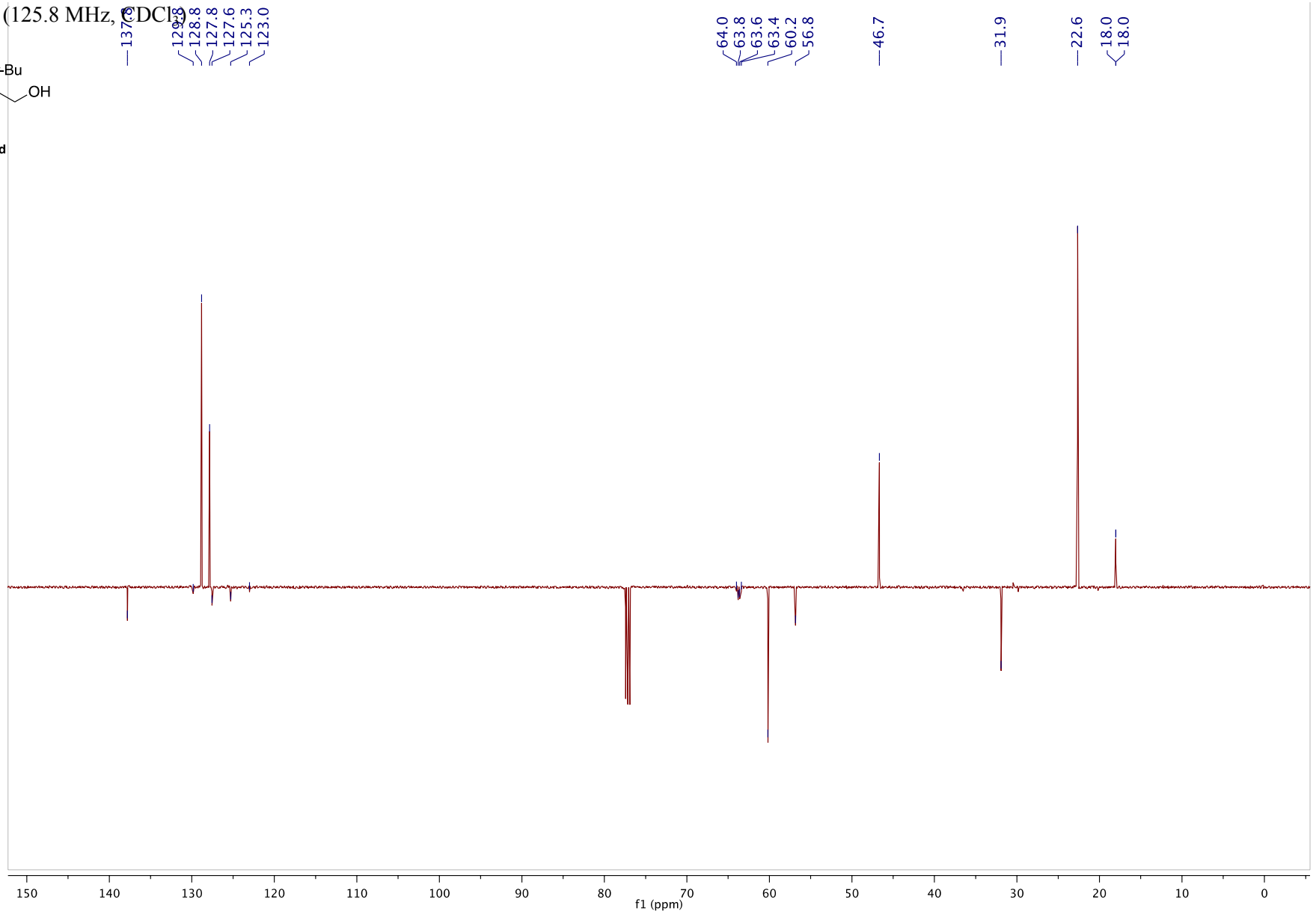
(S_S,*R*,*R*)-**6d**



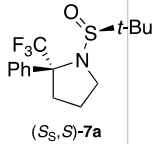
^{13}C NMR (125.8 MHz, CDCl$_3$)



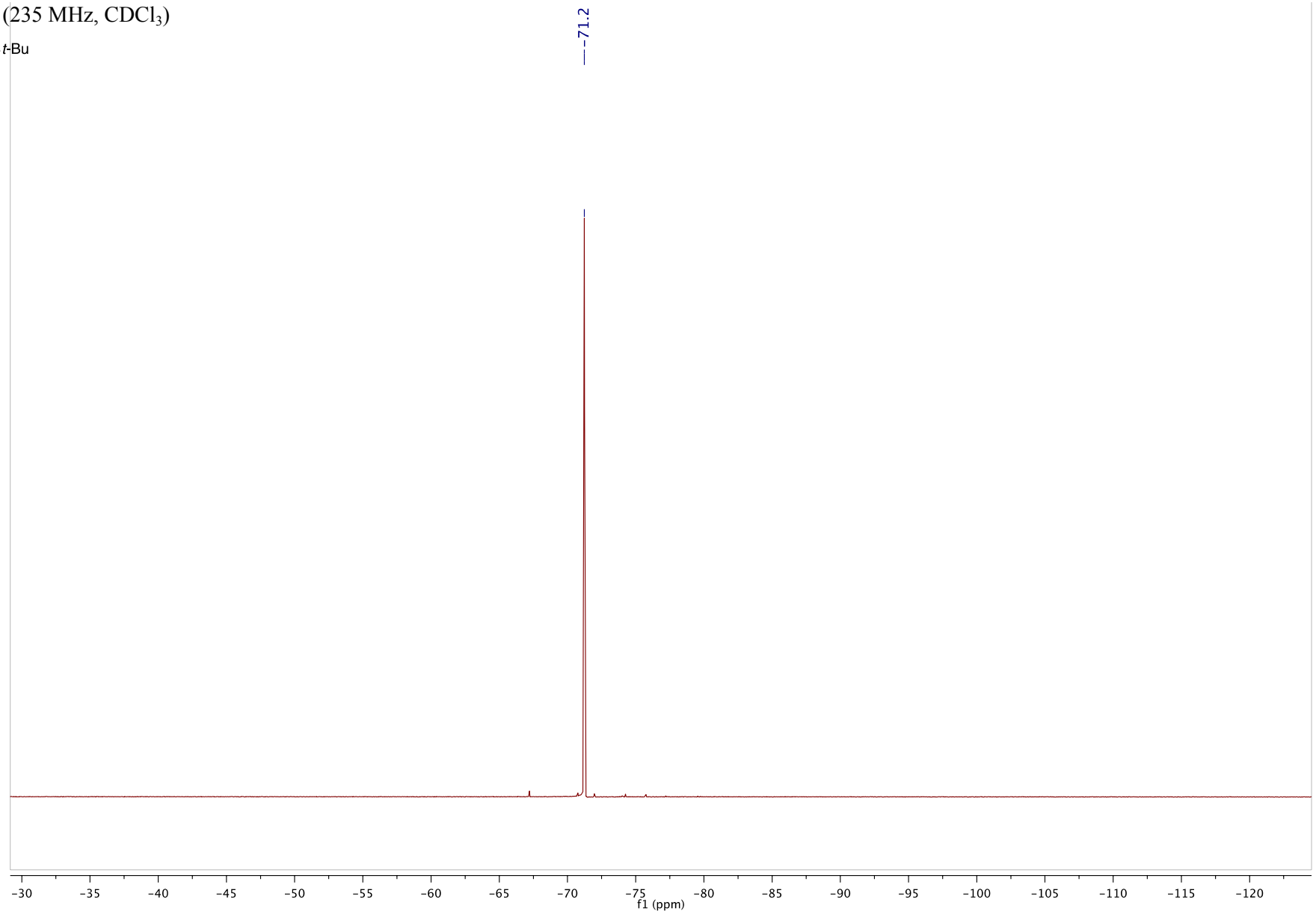
(S_S,*R*,*R*)-**6d**



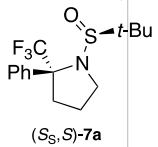
^{19}F NMR (235 MHz, $CDCl_3$)



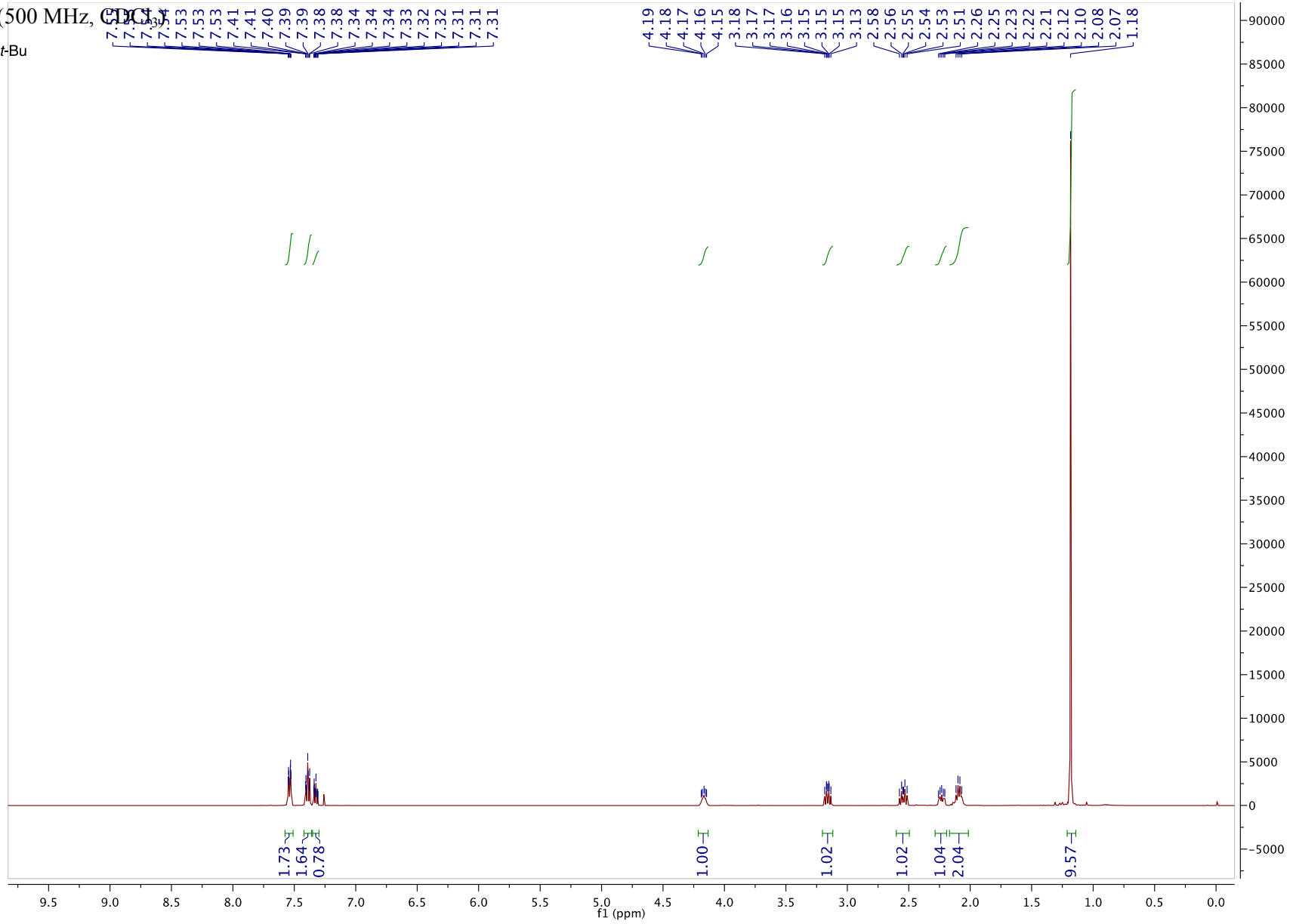
(S_S,*S*)-**7a**



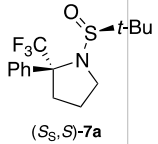
^{1}H NMR (500 MHz, $CDCl_3$)



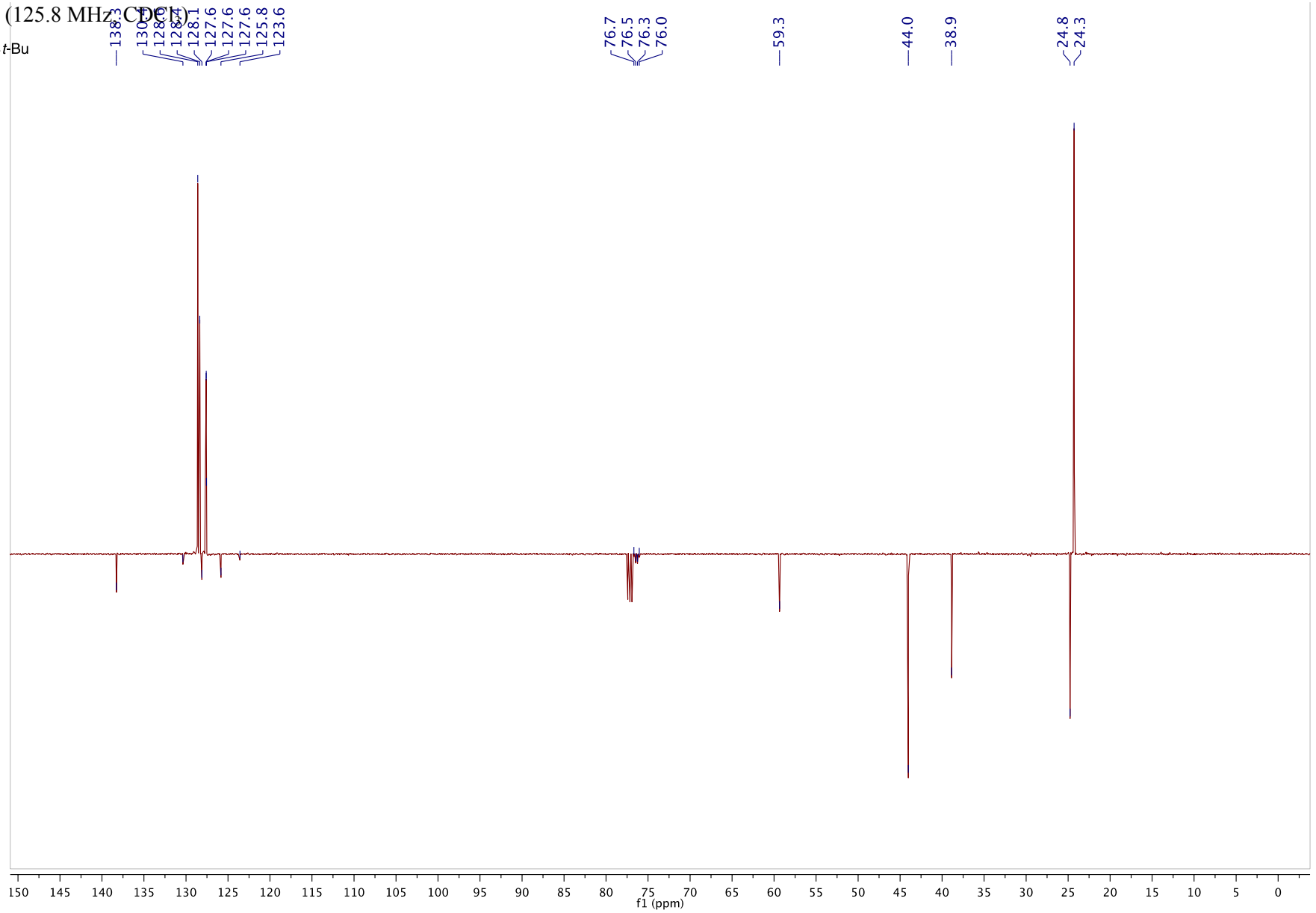
(S_S,*S*)-**7a**



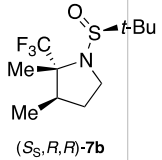
^{13}C NMR (125.8 MHz, CDCl$_3$)



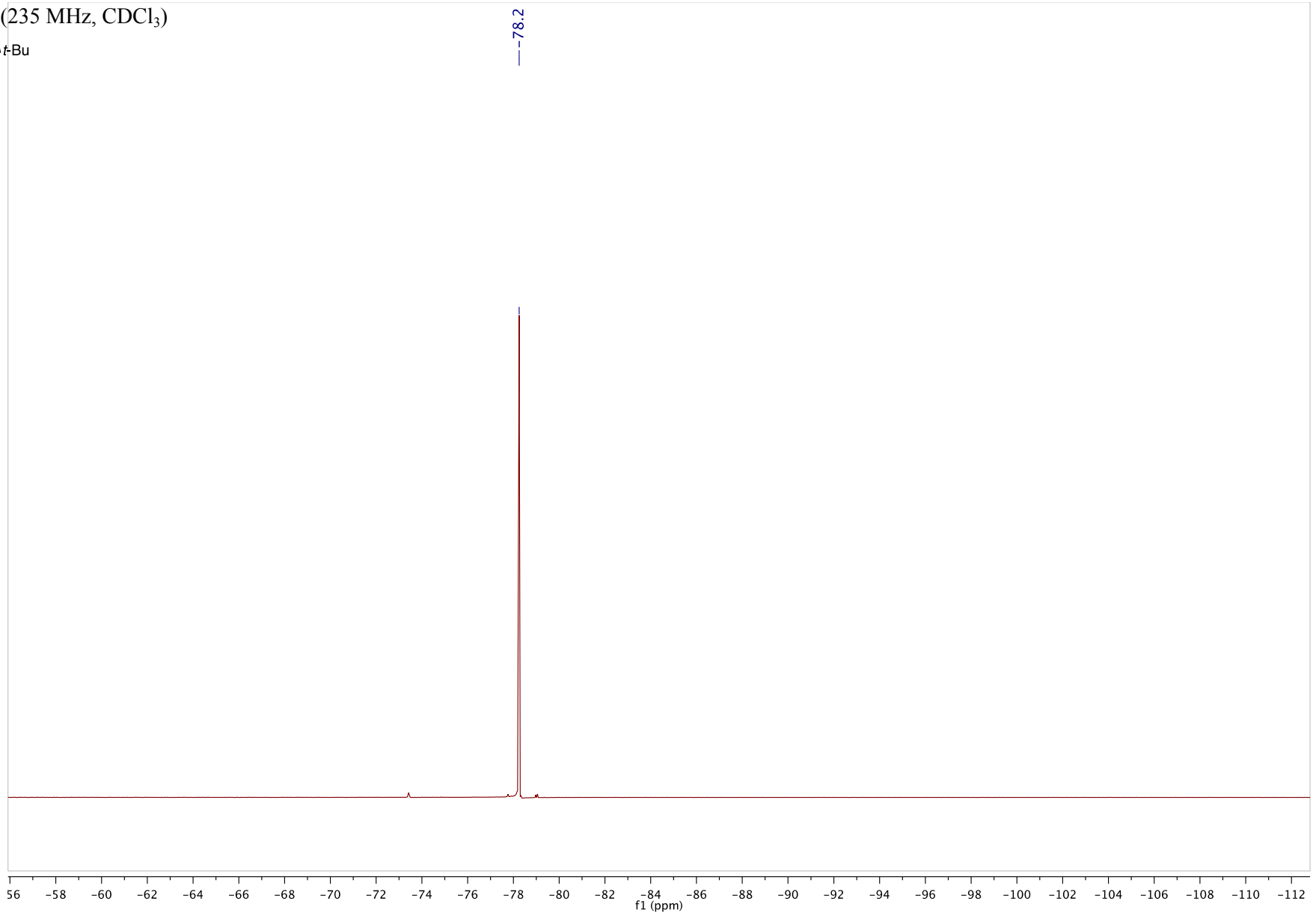
(S_S,S)-**7a**



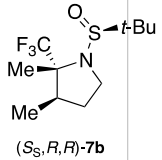
^{19}F NMR (235 MHz, $CDCl_3$)



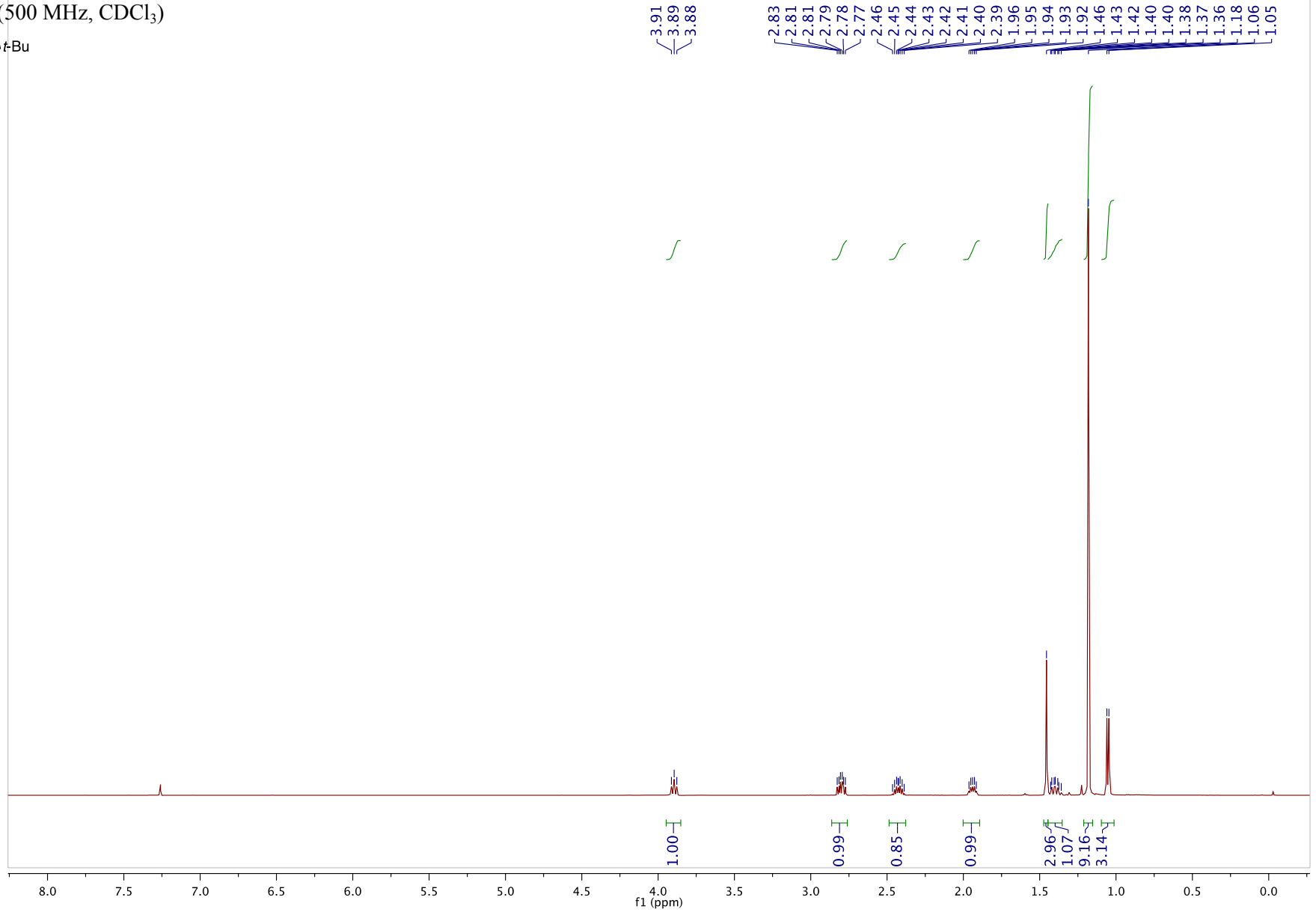
(S_S,*R*,*R*)-**7b**



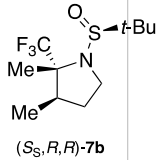
^{1}H NMR (500 MHz, $CDCl_3$)



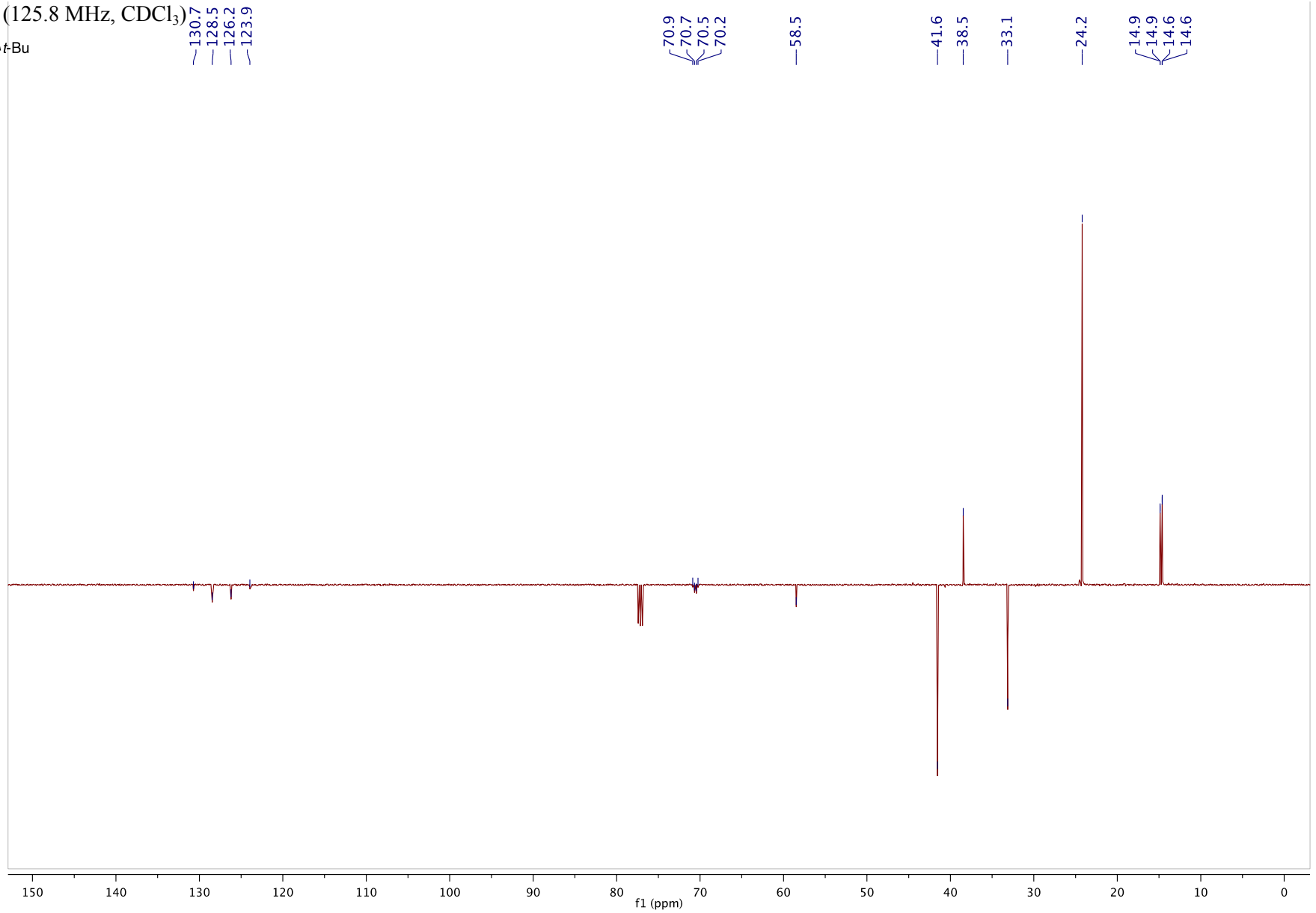
(S_S,*R*,*R*)-**7b**



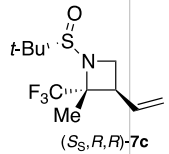
^{13}C NMR (125.8 MHz, $CDCl_3$)



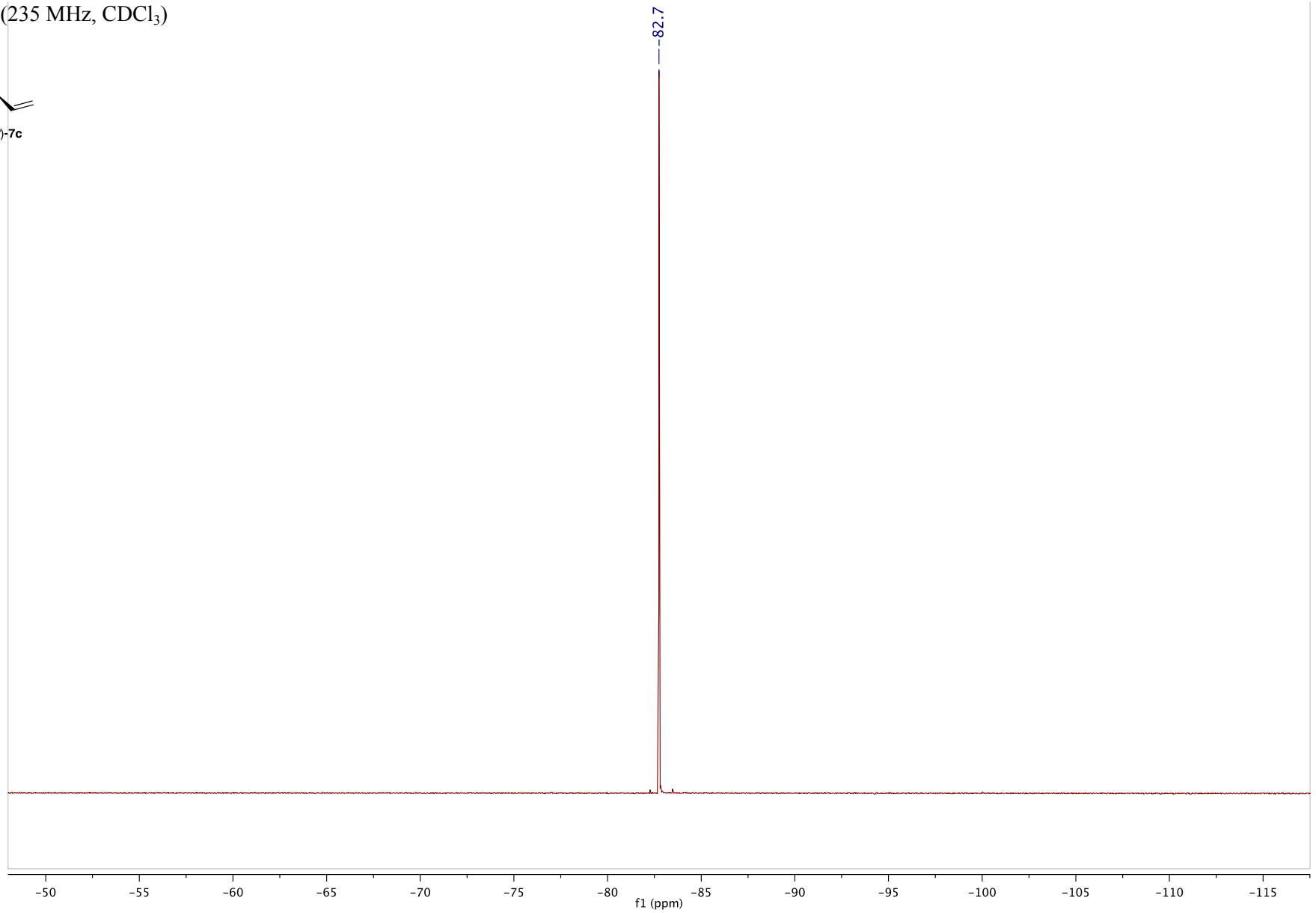
(S_S,*R*,*R*)-**7b**



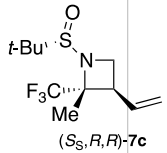
^{19}F NMR (235 MHz, $CDCl_3$)



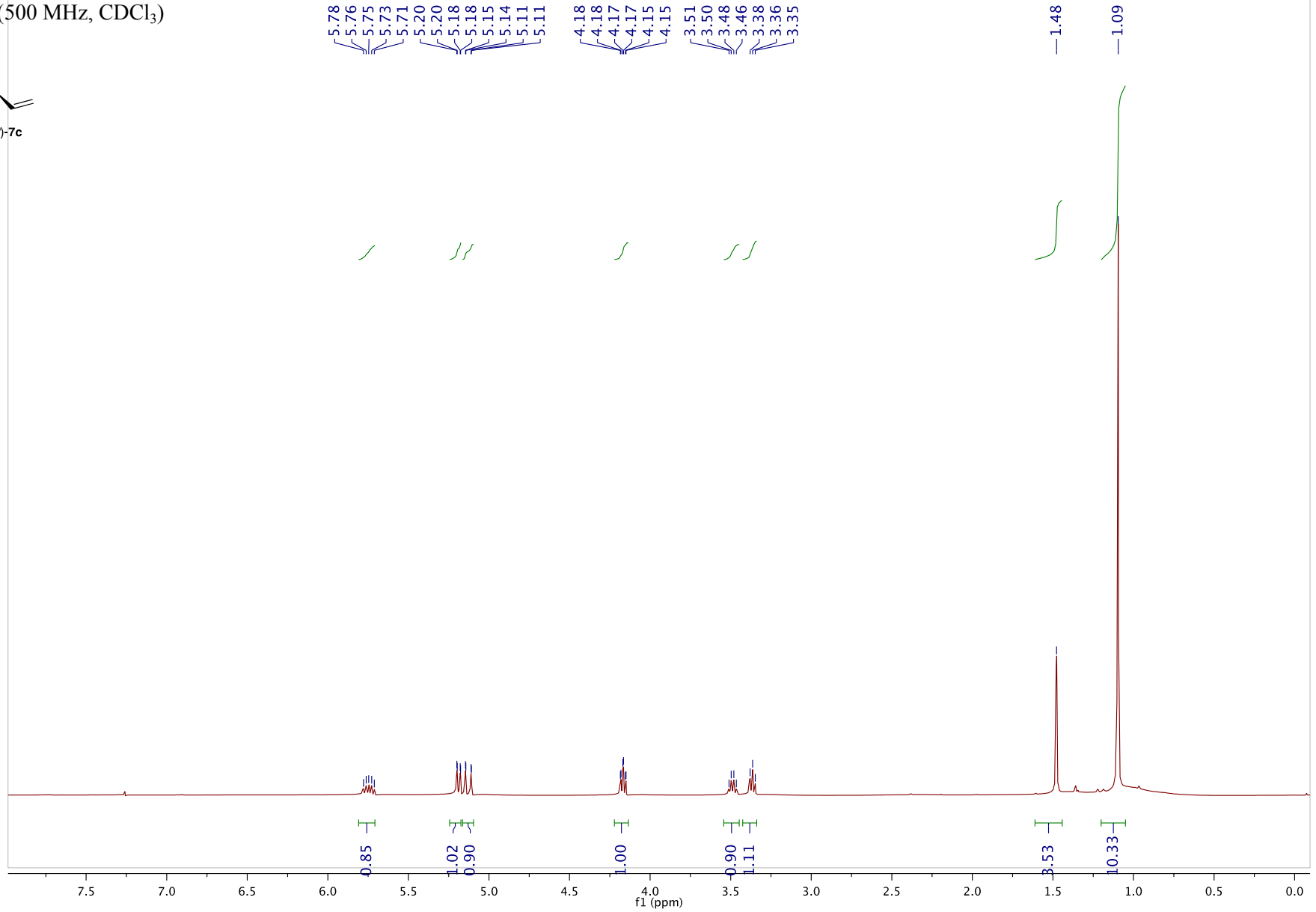
(S_S,*R*,*R*)-**7c**



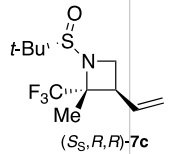
^{1}H NMR (500 MHz, $CDCl_3$)



(S_S,*R*,*R*)-**7c**



^{13}C NMR (125.8 MHz, $CDCl_3$)



(S_S,*R*,*R*)-**7c**