

Stereoselective Synthesis of δ - and ϵ -Amino Ketone Derivatives from *N*-*tert*-Butanesulfinyl Aldimines and Functionalized Organolithium Compounds

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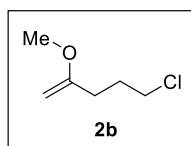
² Instituto de Síntesis Orgánica (ISO), Universidad de Alicante, Apdo. 99, 03080 Alicante, Spain

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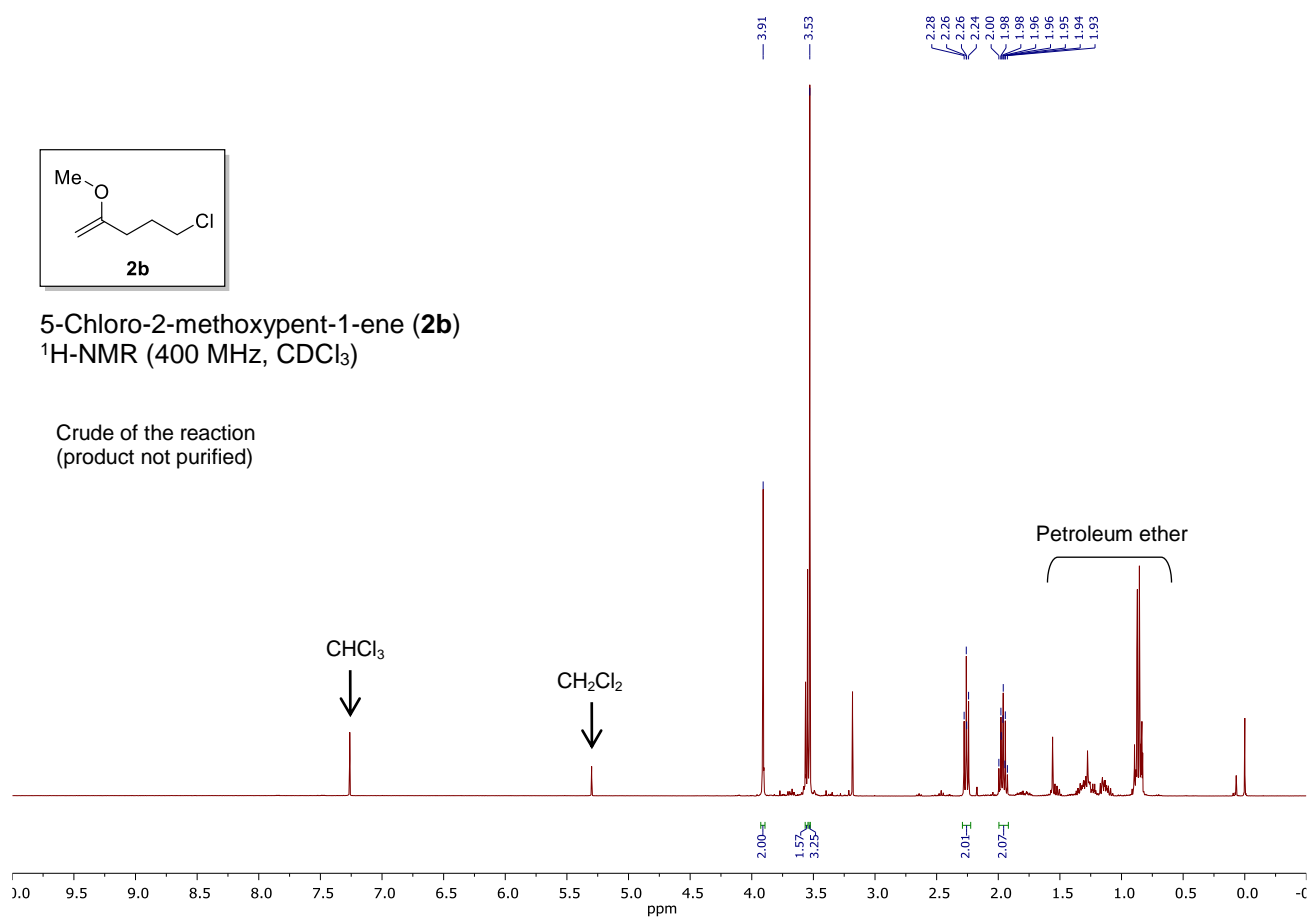
¹ H-NMR, ¹³ C-NMR, DEPT spectra of compounds 2 , 7 , 9 , 11 and 13	S2-S21
Chiral GC chromatograms of compounds 13a and <i>ent</i> - 13a	S22-S24



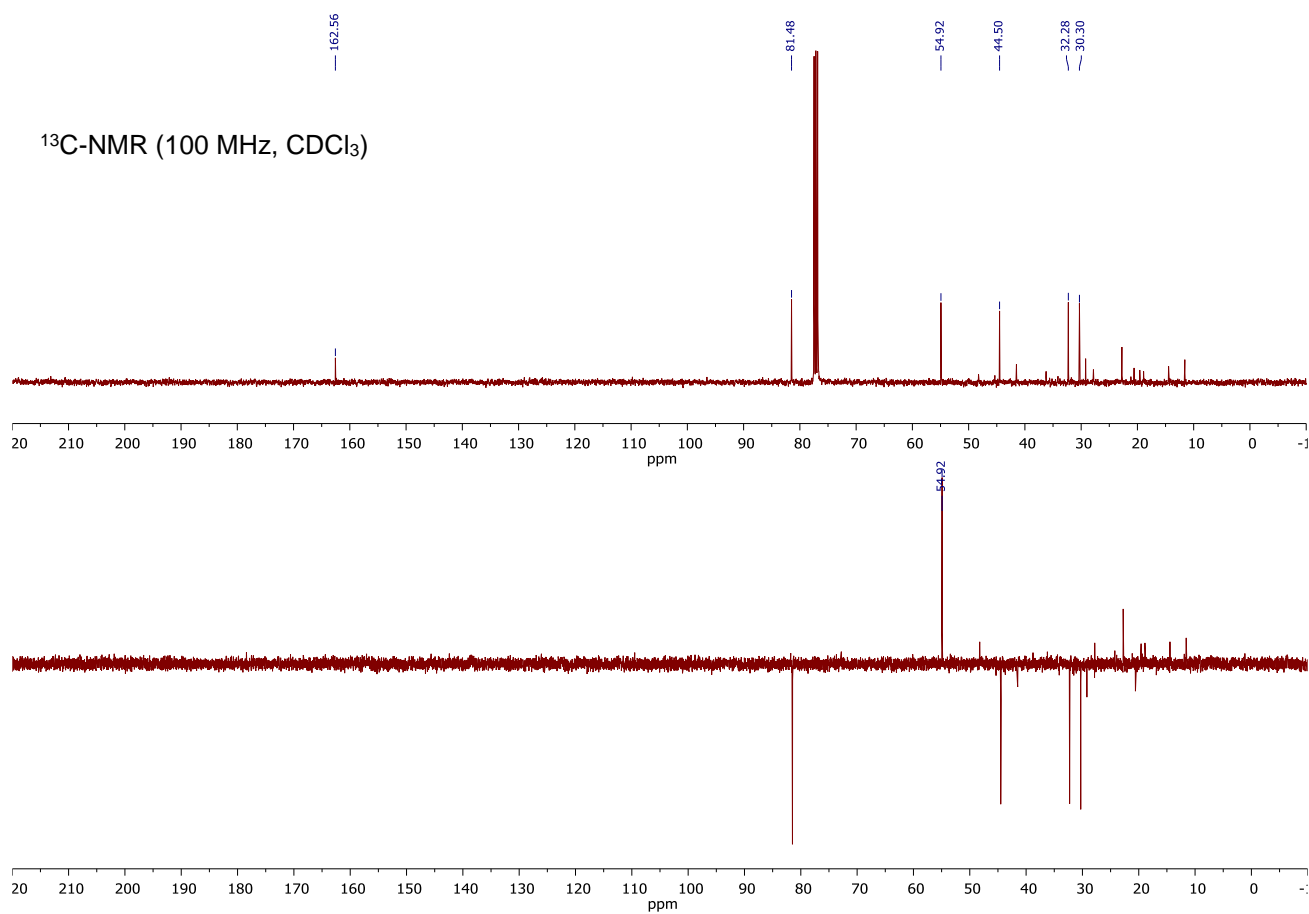
5-Chloro-2-methoxypent-1-ene (**2b**)

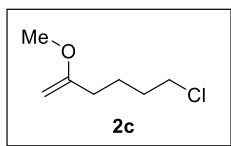
$^1\text{H-NMR}$ (400 MHz, CDCl_3)

Crude of the reaction
(product not purified)



$^{13}\text{C-NMR}$ (100 MHz, CDCl_3)

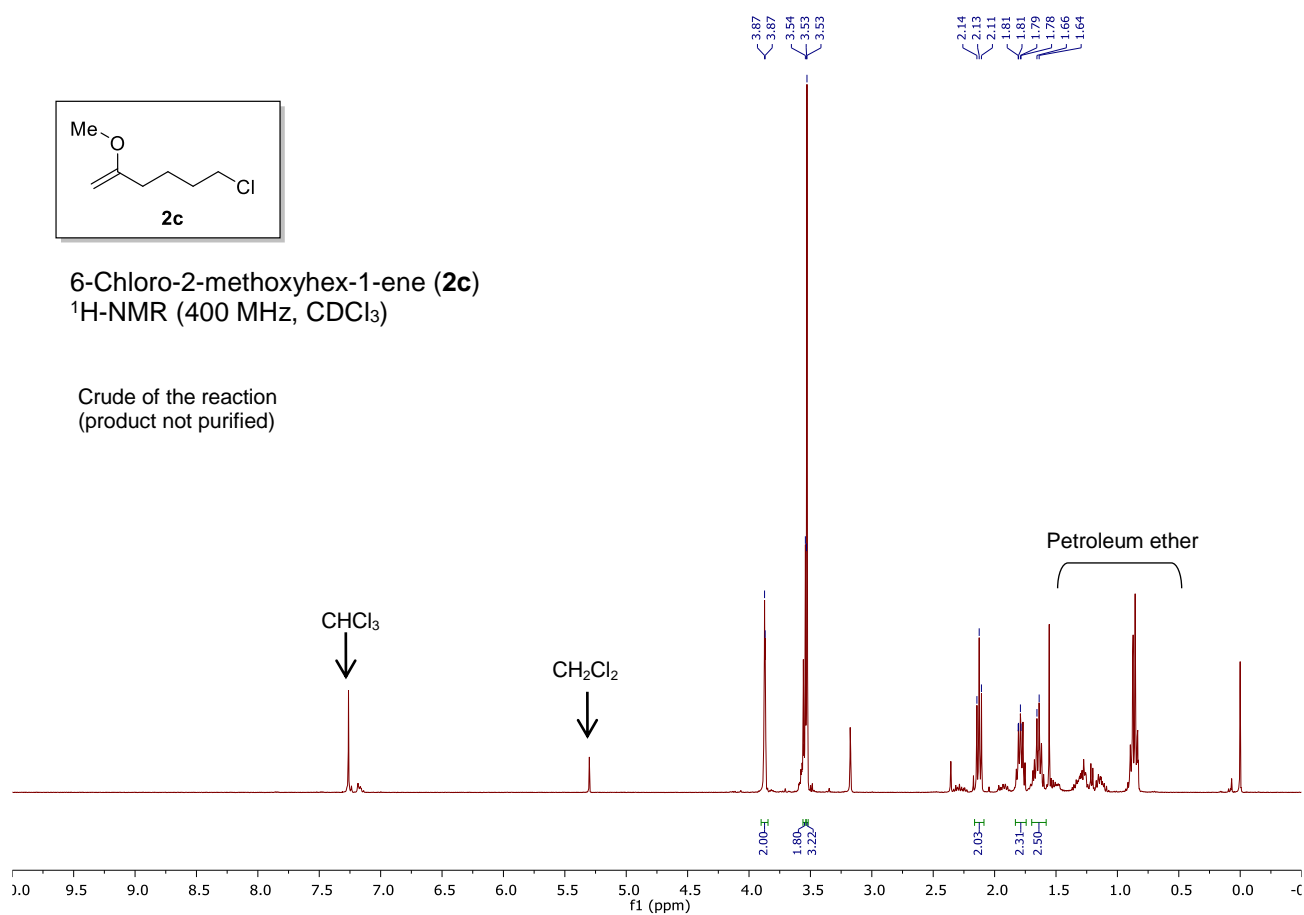




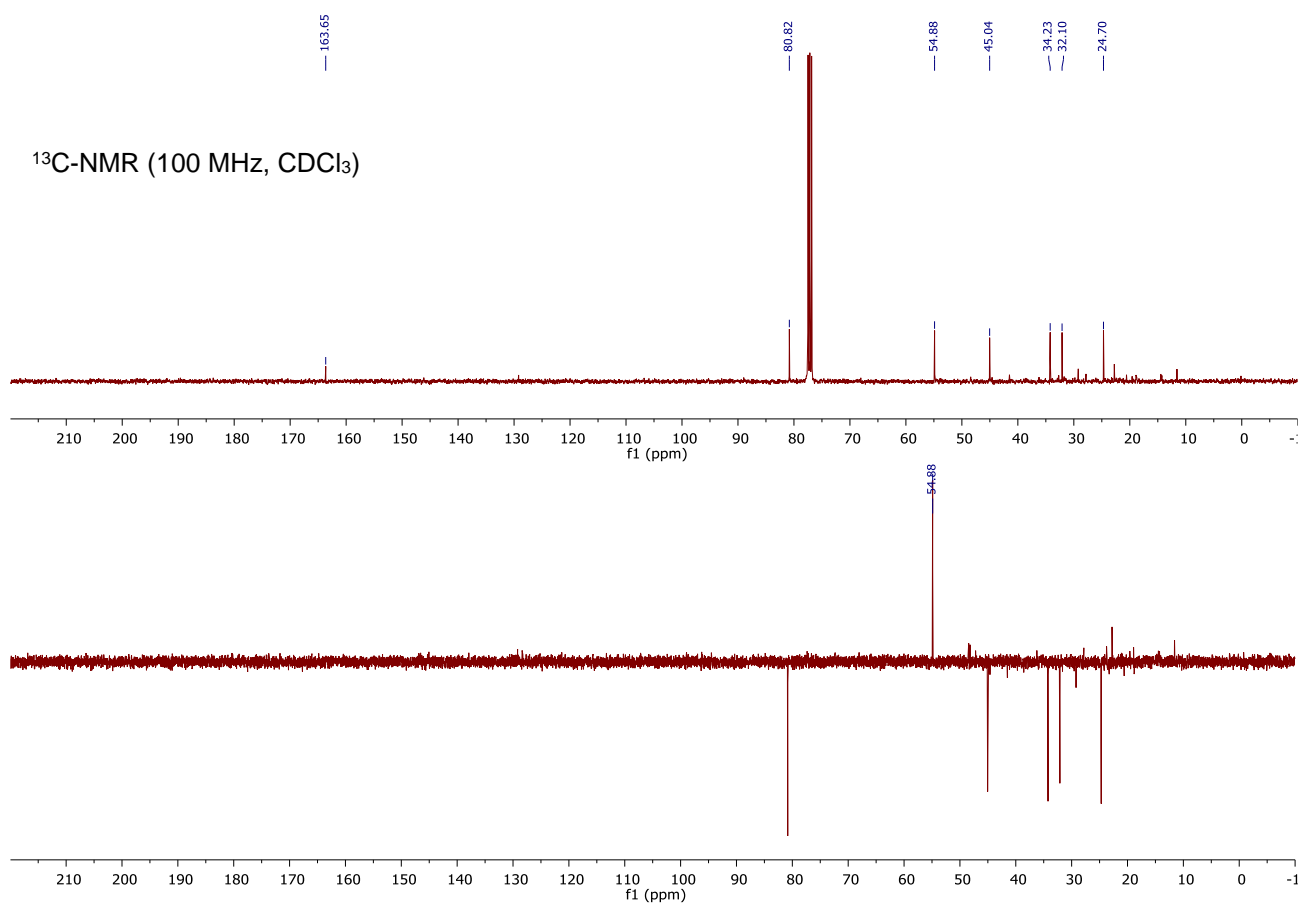
6-Chloro-2-methoxyhex-1-ene (**2c**)

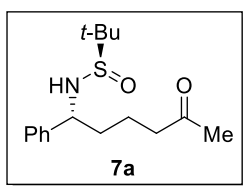
$^1\text{H-NMR}$ (400 MHz, CDCl_3)

Crude of the reaction
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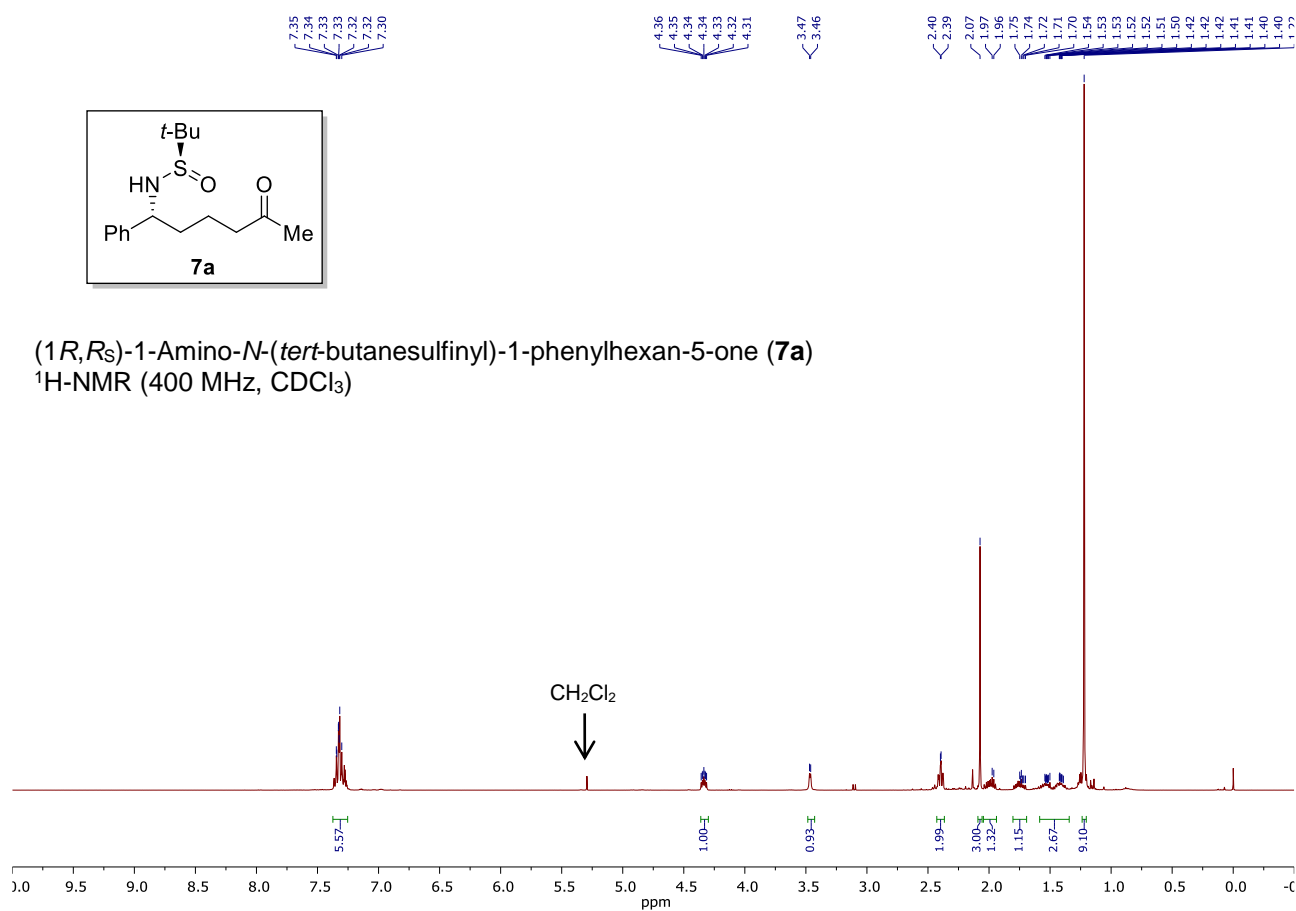
$^{13}\text{C-NMR}$ (100 MHz, CDCl_3)



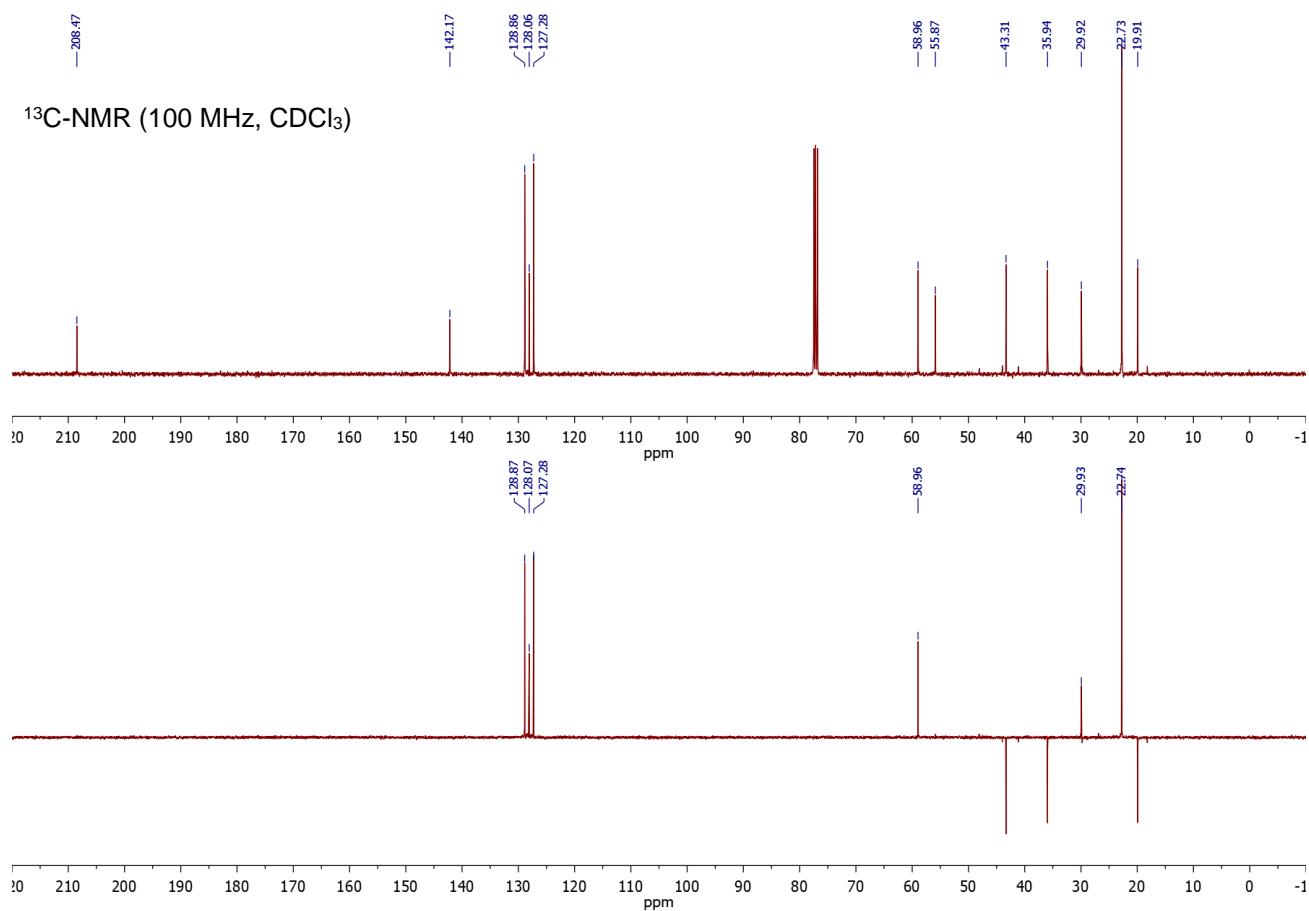


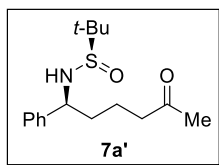
(1*R*,*R*_s)-1-Amino-*N*-(*tert*-butanesulfinyl)-1-phenylhexan-5-one (**7a**)

¹H-NMR (400 MHz, CDCl₃)



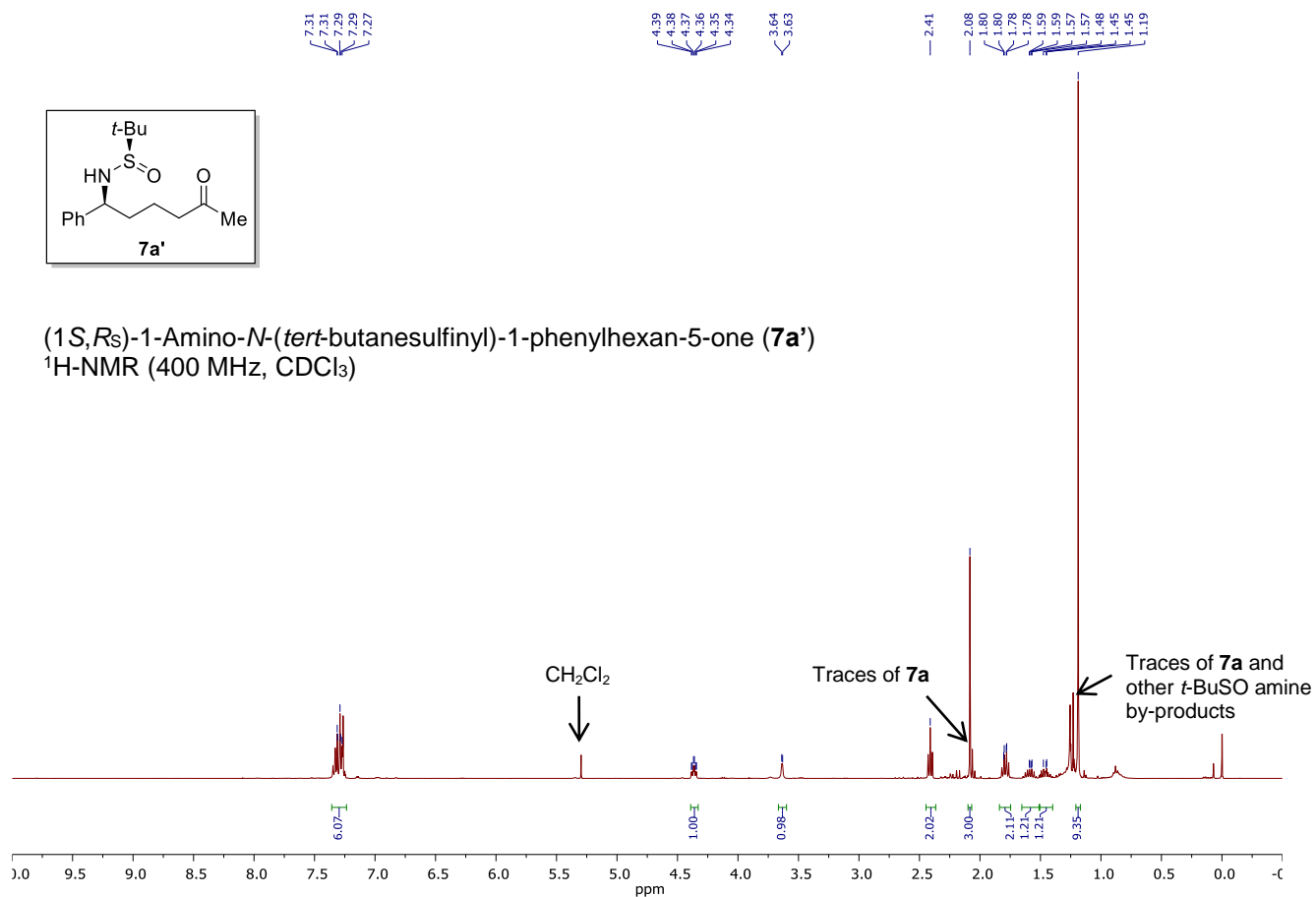
¹³C-NMR (100 MHz, CDCl₃)



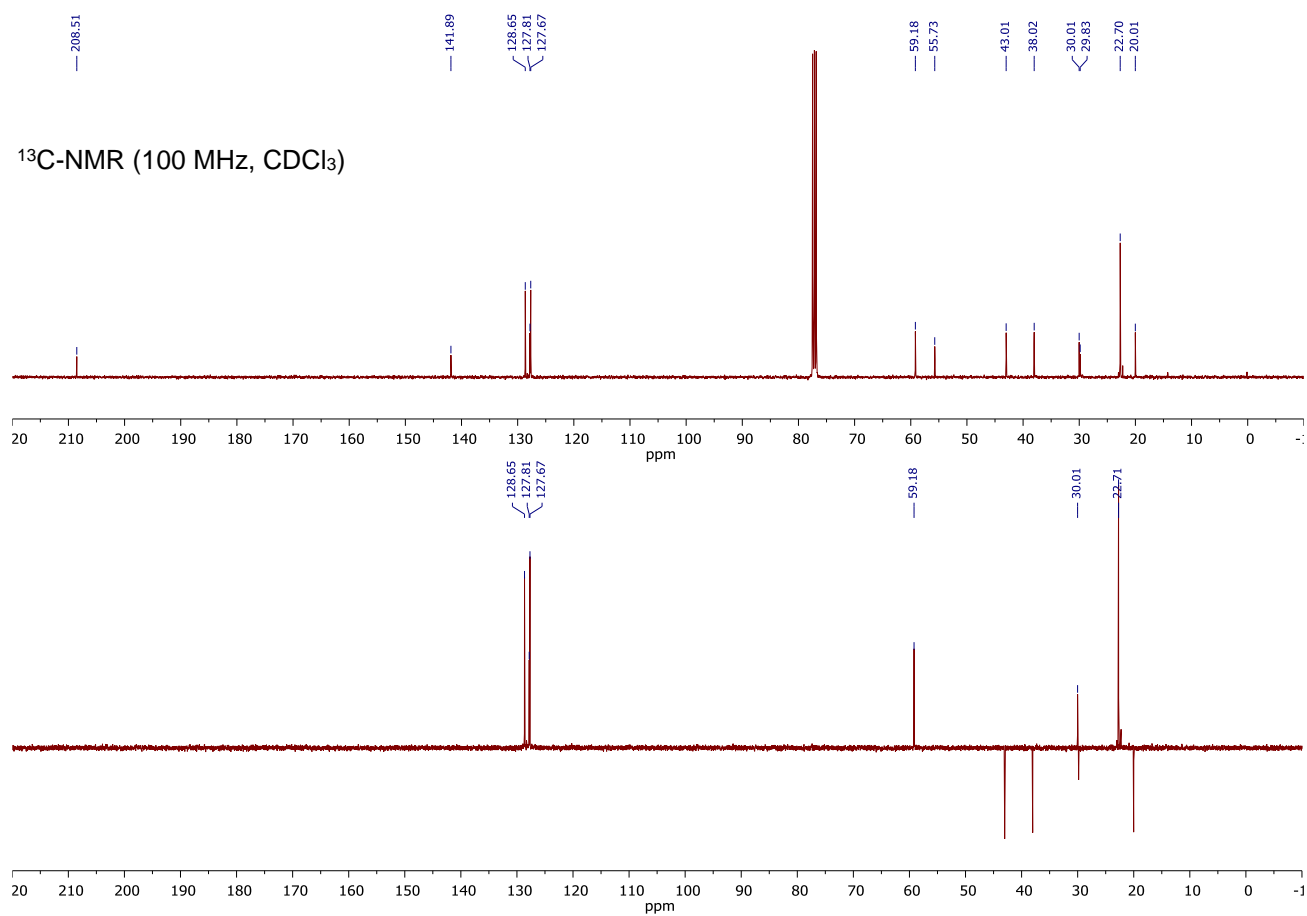


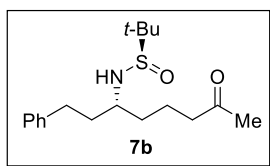
(1*S*,*R*_s)-1-Amino-*N*-(*tert*-butanesulfinyl)-1-phenylhexan-5-one (**7a'**)

¹H-NMR (400 MHz, CDCl₃)



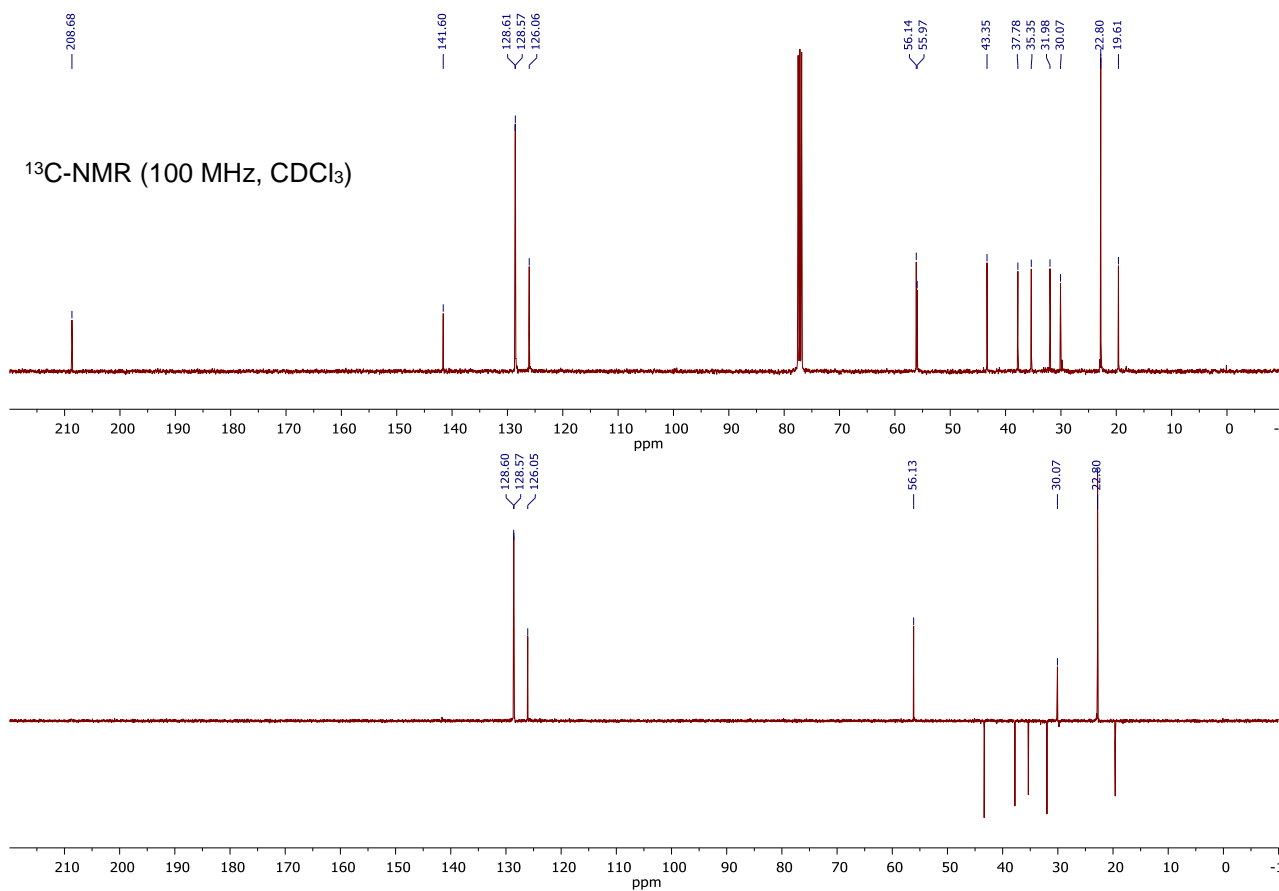
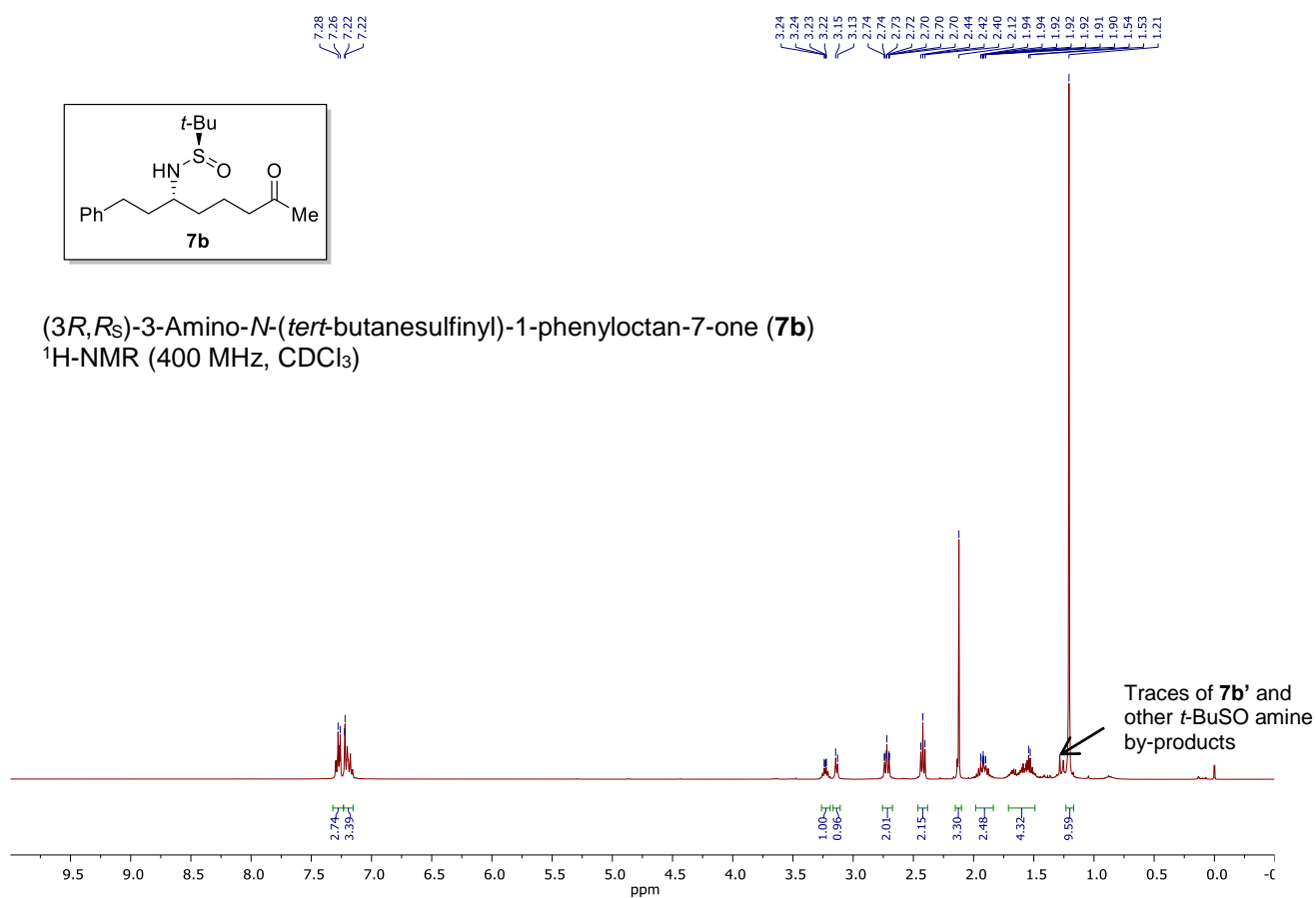
¹³C-NMR (100 MHz, CDCl₃)

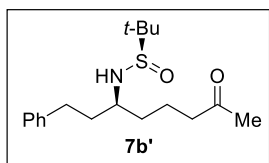




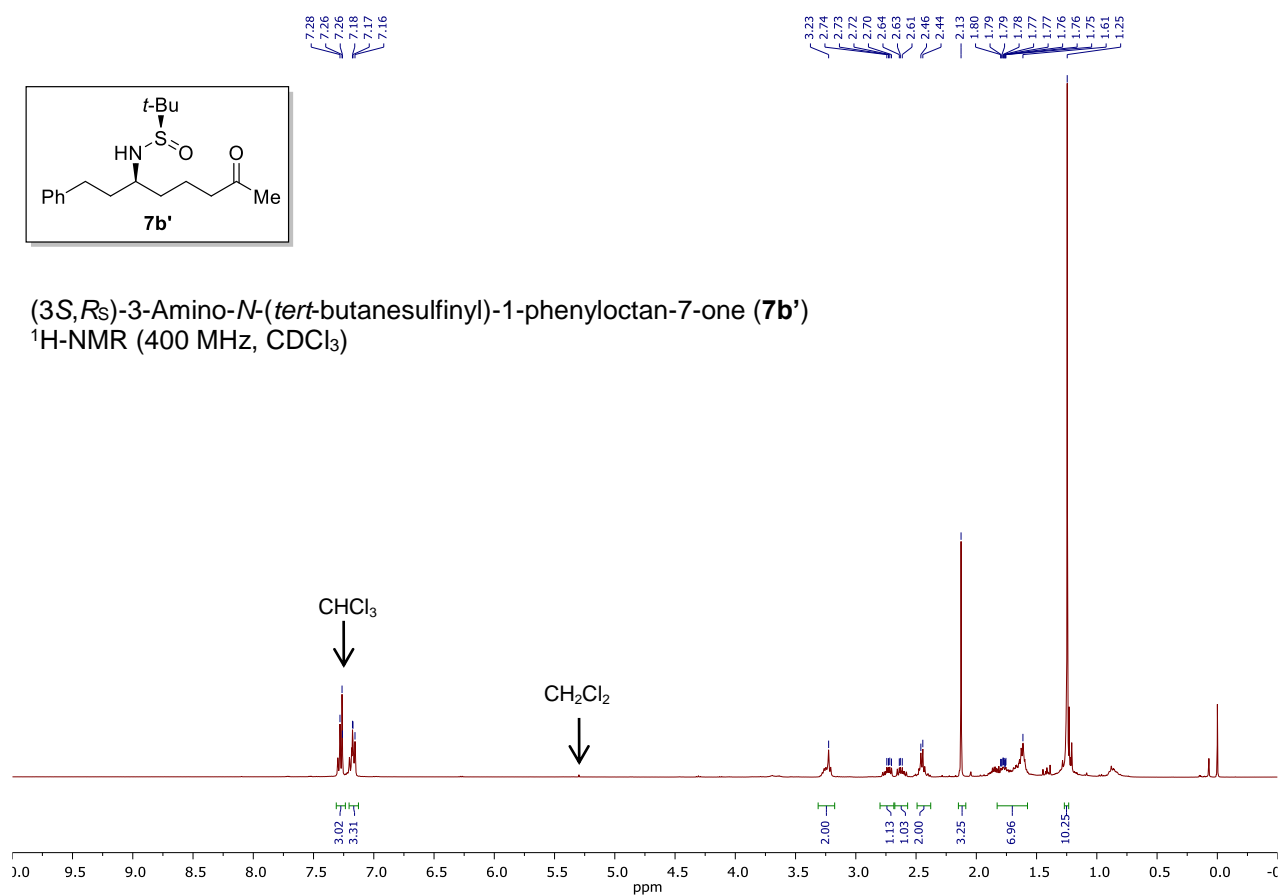
(3*R*,8*S*)-3-Amino-*N*-(*tert*-butanesulfinyl)-1-phenyloctan-7-one (**7b**)

$^1\text{H-NMR}$ (400 MHz, CDCl_3)

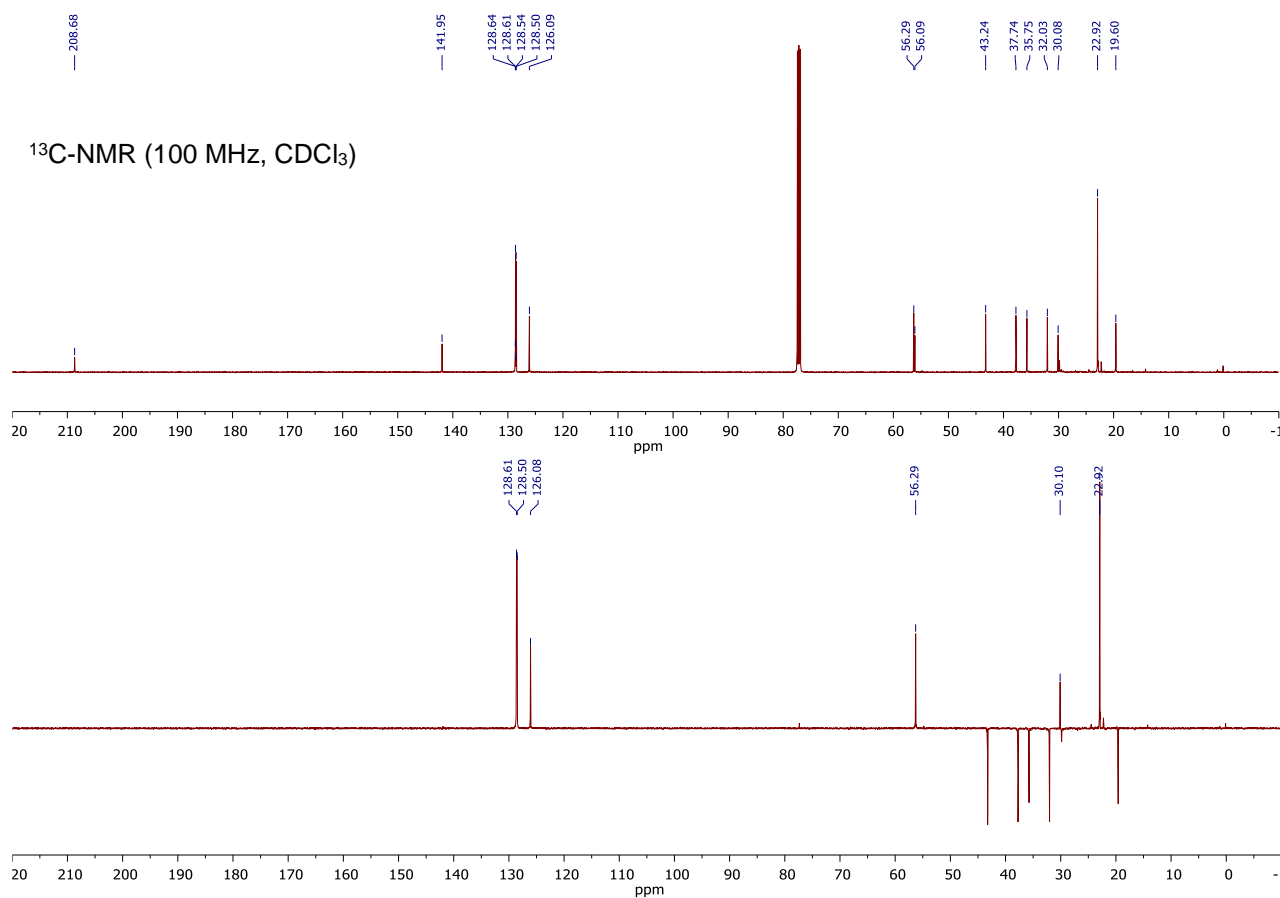


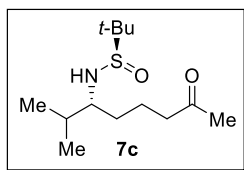


(3*S*,*R*_S)-3-Amino-*N*-(*tert*-butanesulfinyl)-1-phenyloctan-7-one (**7b'**)
¹H-NMR (400 MHz, CDCl₃)



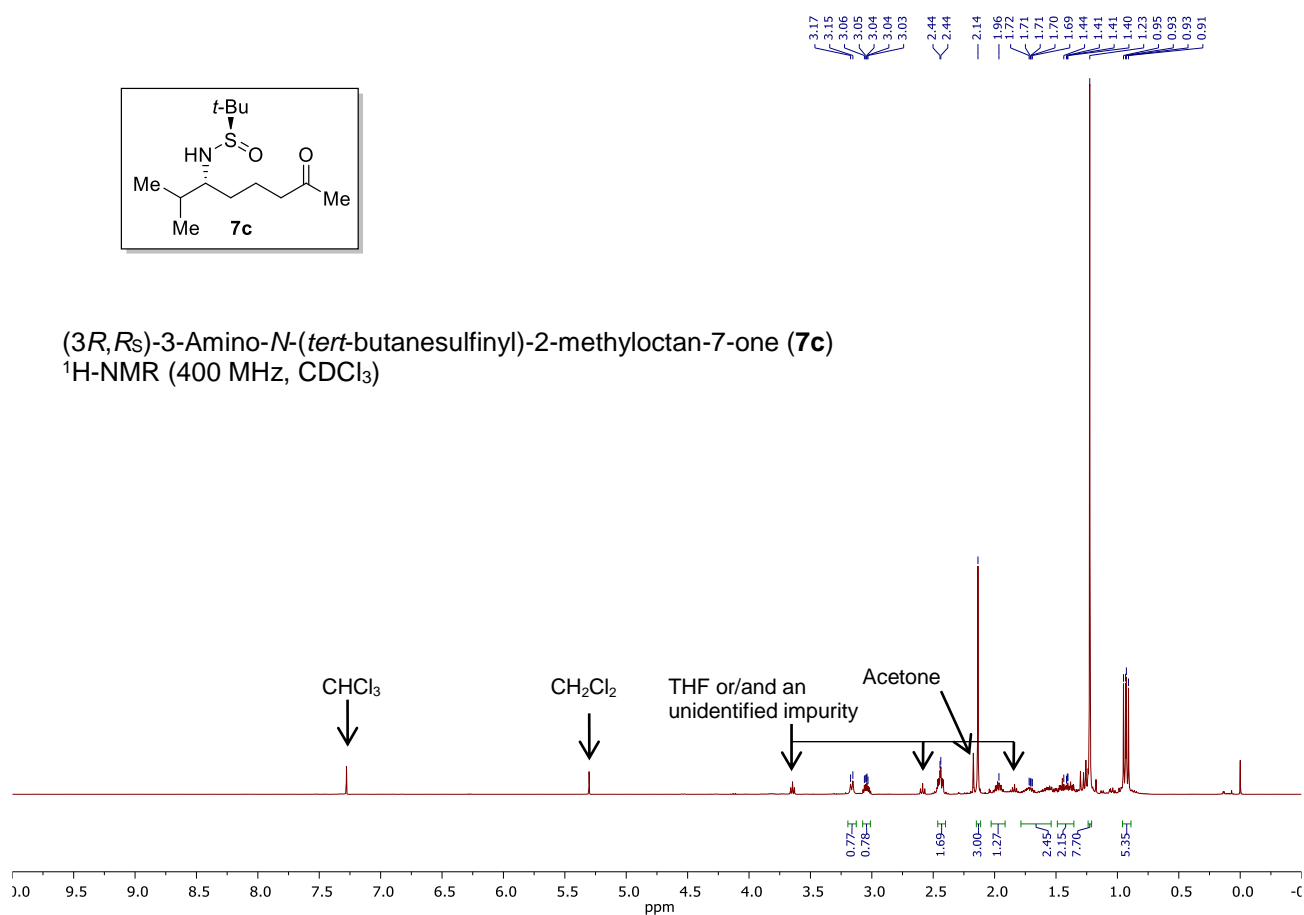
¹³C-NMR (100 MHz, CDCl₃)



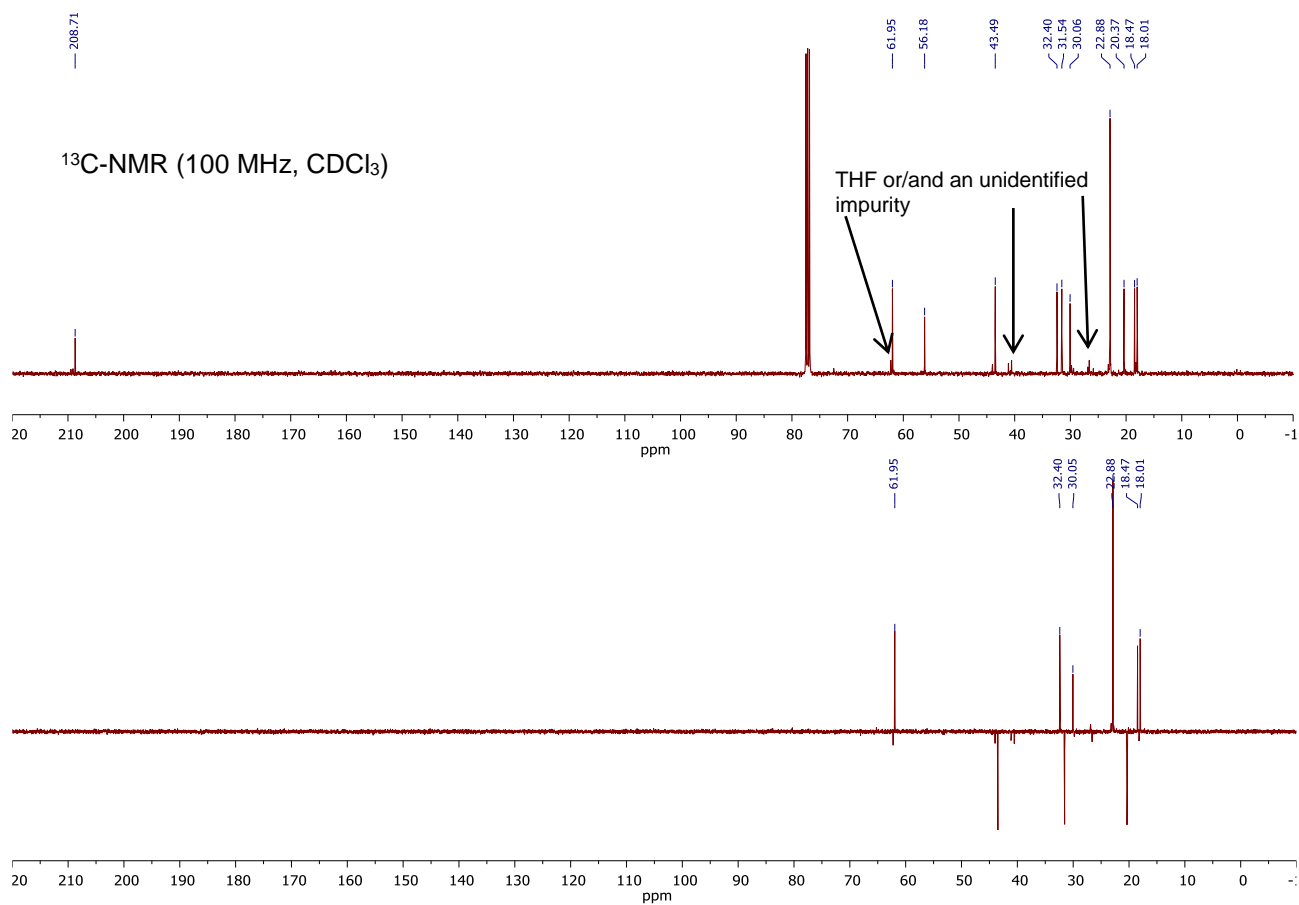


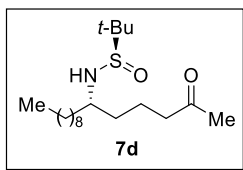
(3*R*,8*S*)-3-Amino-*N*-(*tert*-butanesulfinyl)-2-methyloctan-7-one (**7c**)

^1H -NMR (400 MHz, CDCl_3)

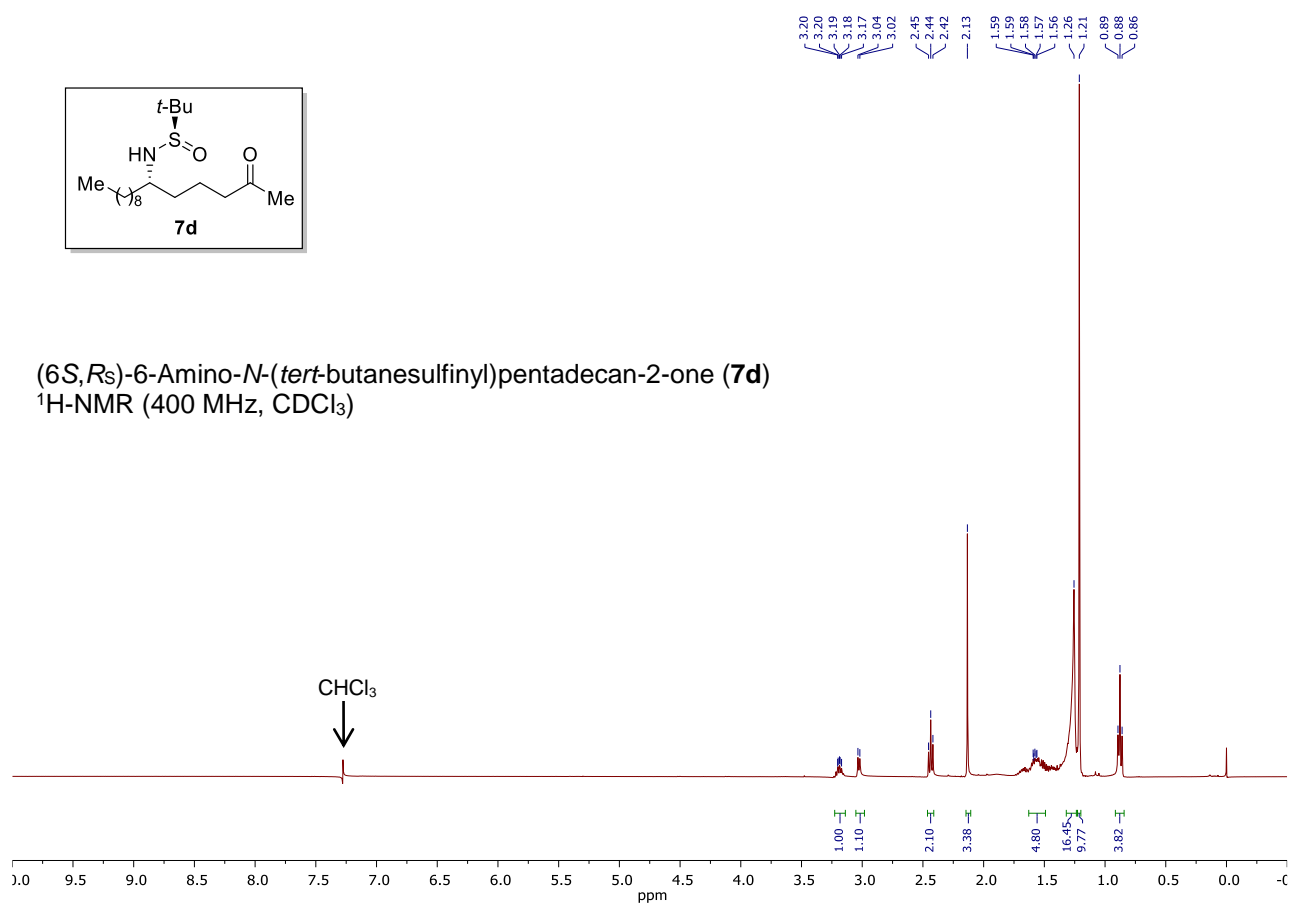


^{13}C -NMR (100 MHz, CDCl_3)

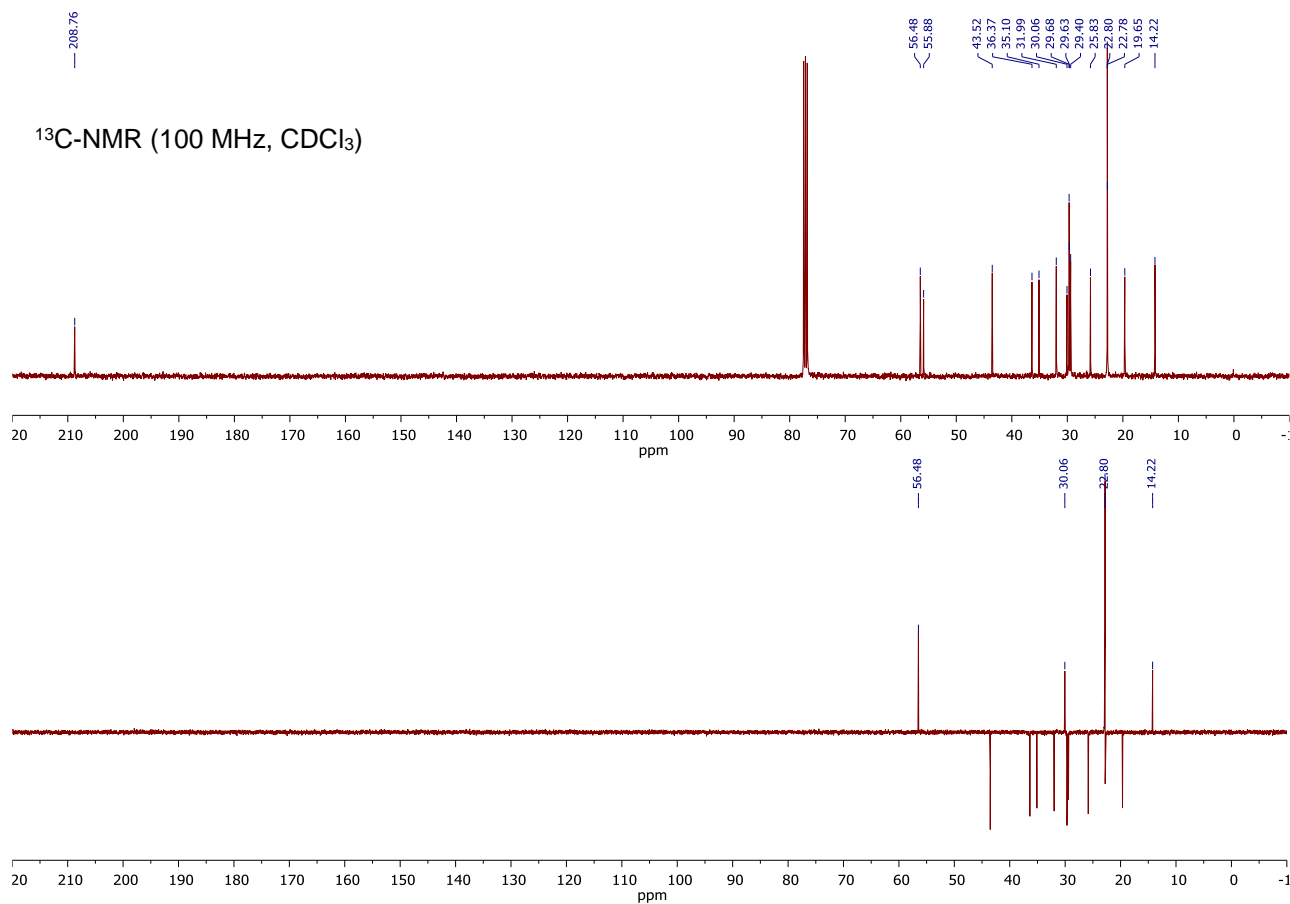


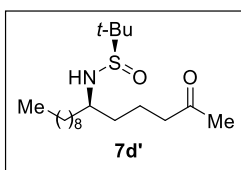


(6*S*, *R_S*)-6-Amino-*N*-(*tert*-butanesulfinyl)pentadecan-2-one (**7d**)
¹H-NMR (400 MHz, CDCl₃)



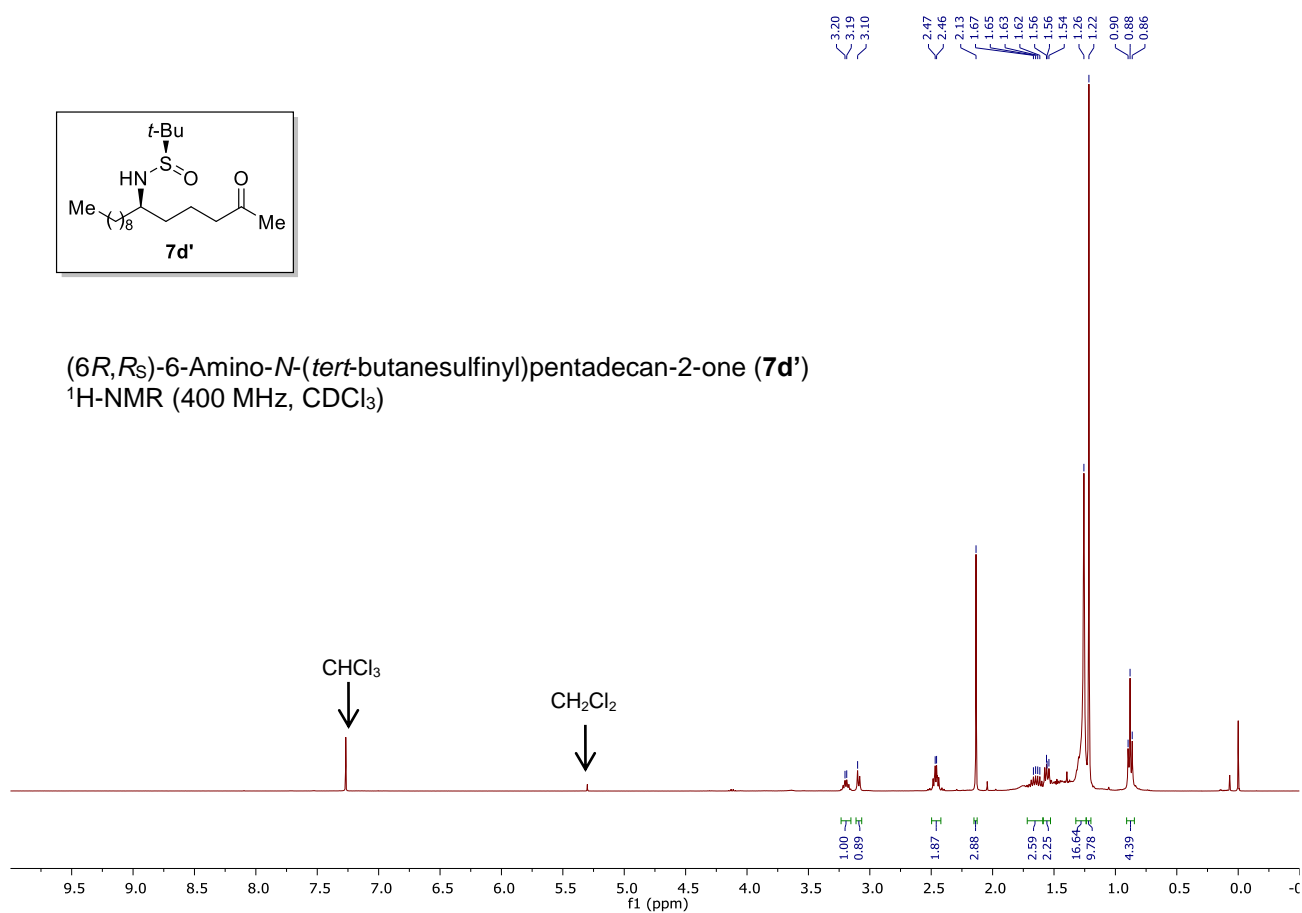
¹³C-NMR (100 MHz, CDCl₃)



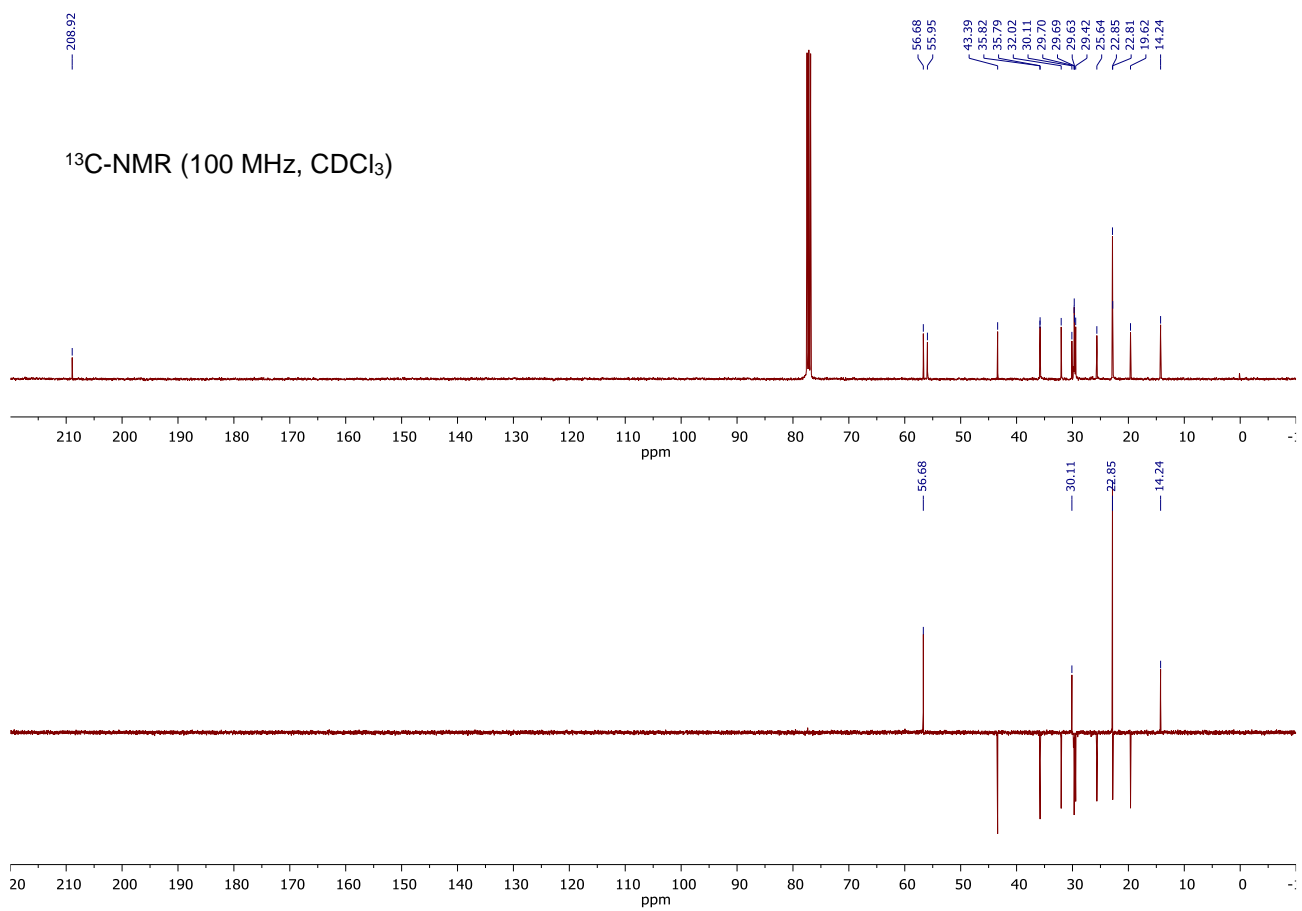


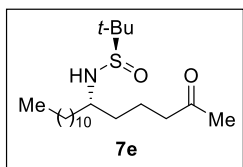
(6*R*,*R*_S)-6-Amino-*N*-(*tert*-butanesulfinyl)pentadecan-2-one (**7d'**)

¹H-NMR (400 MHz, CDCl₃)

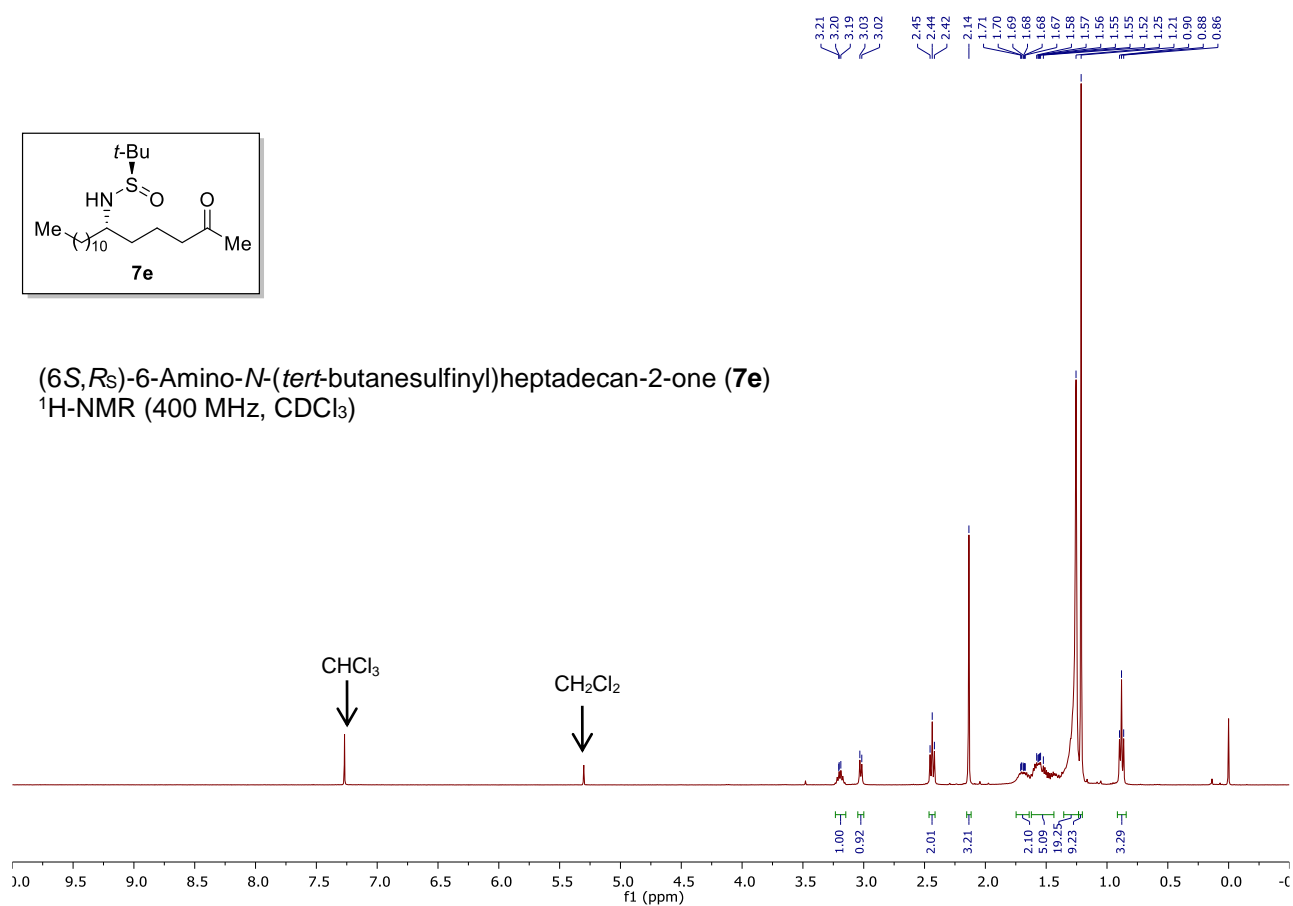


¹³C-NMR (100 MHz, CDCl₃)

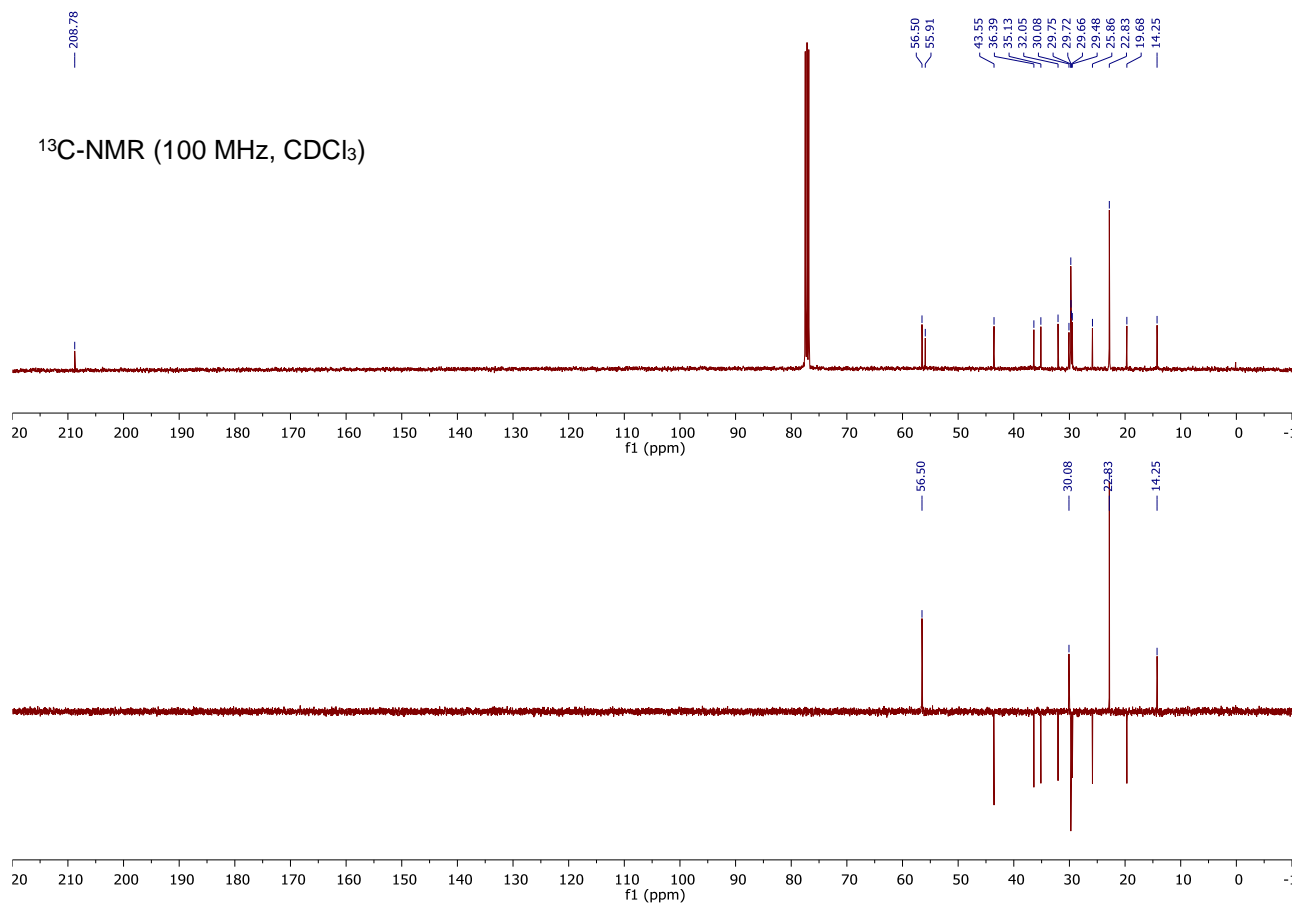


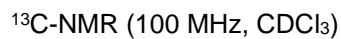
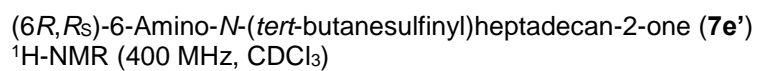


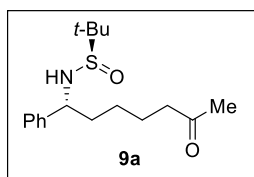
(6*S*, *R_S*)-6-Amino-*N*-(*tert*-butanesulfinyl)heptadecan-2-one (**7e**)
¹H-NMR (400 MHz, CDCl₃)



¹³C-NMR (100 MHz, CDCl₃)

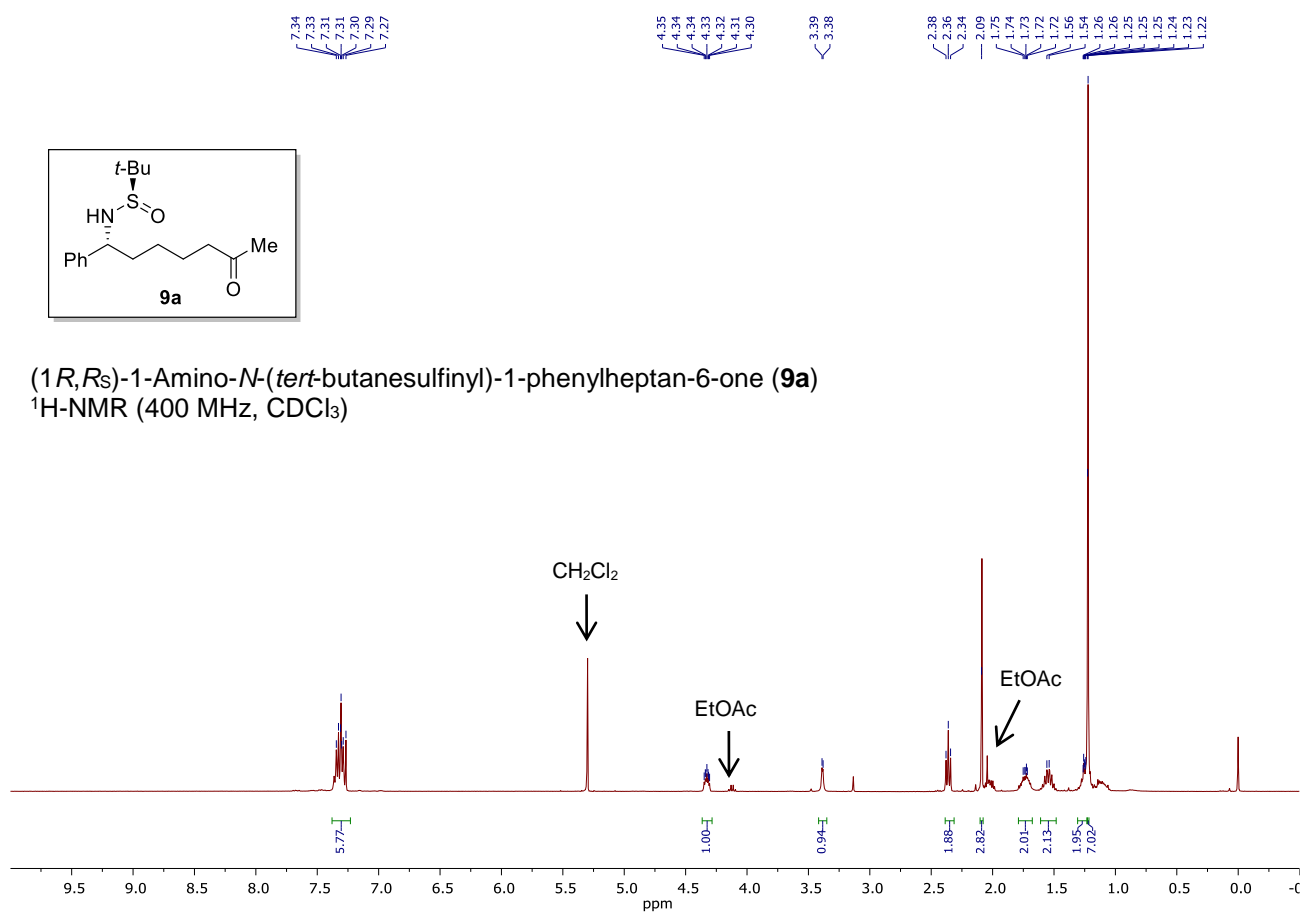




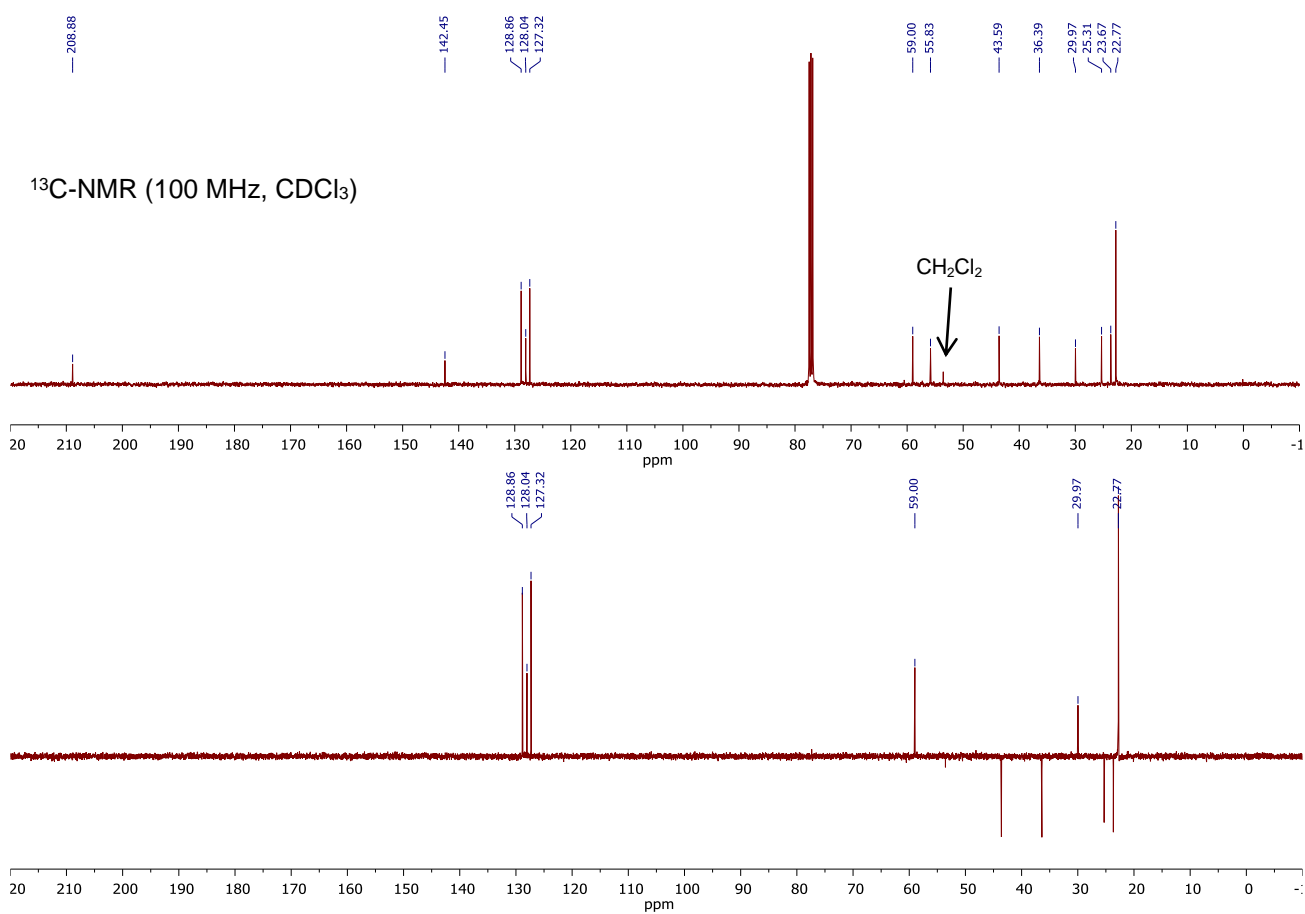


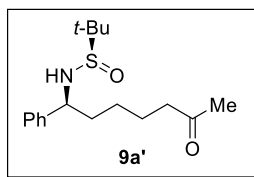
(1*R*,*R*_S)-1-Amino-*N*-(*tert*-butanesulfinyl)-1-phenylheptan-6-one (**9a**)

¹H-NMR (400 MHz, CDCl₃)

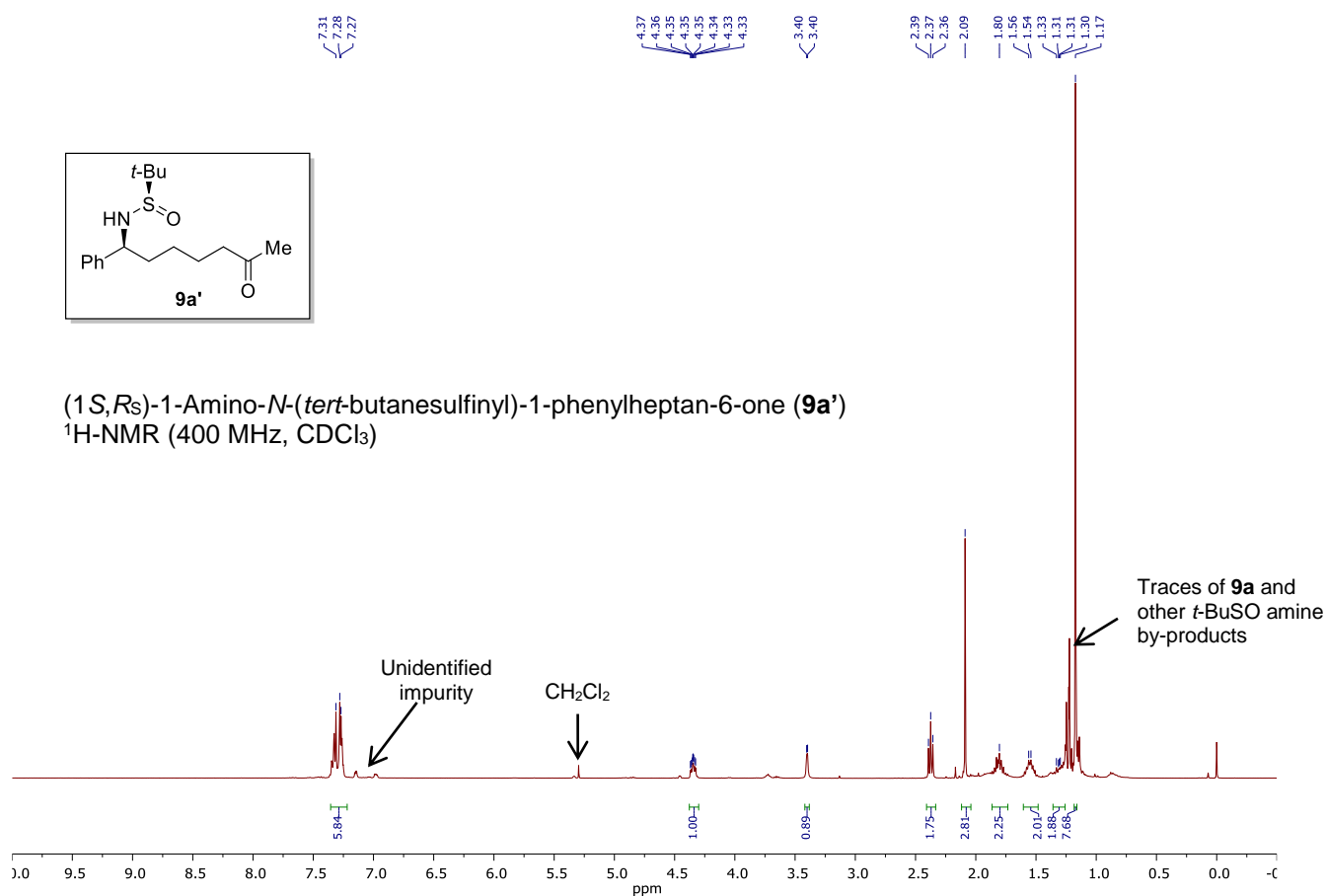


¹³C-NMR (100 MHz, CDCl₃)

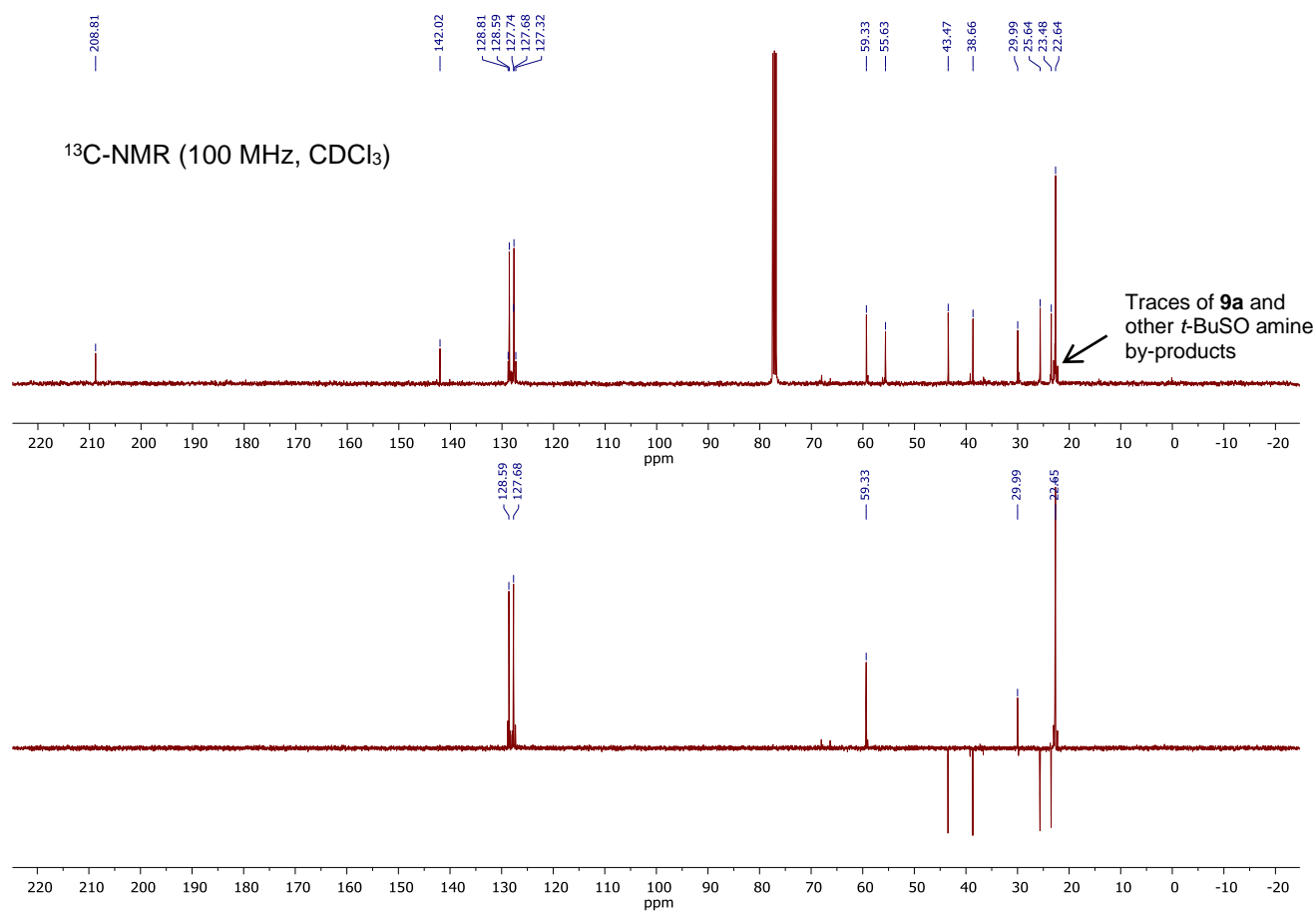


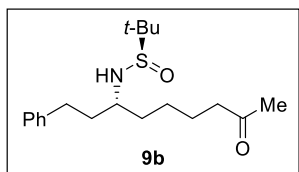


(1*S*,*R*_{*S*})-1-Amino-*N*-(*tert*-butanesulfinyl)-1-phenylheptan-6-one (**9a'**)
¹H-NMR (400 MHz, CDCl₃)

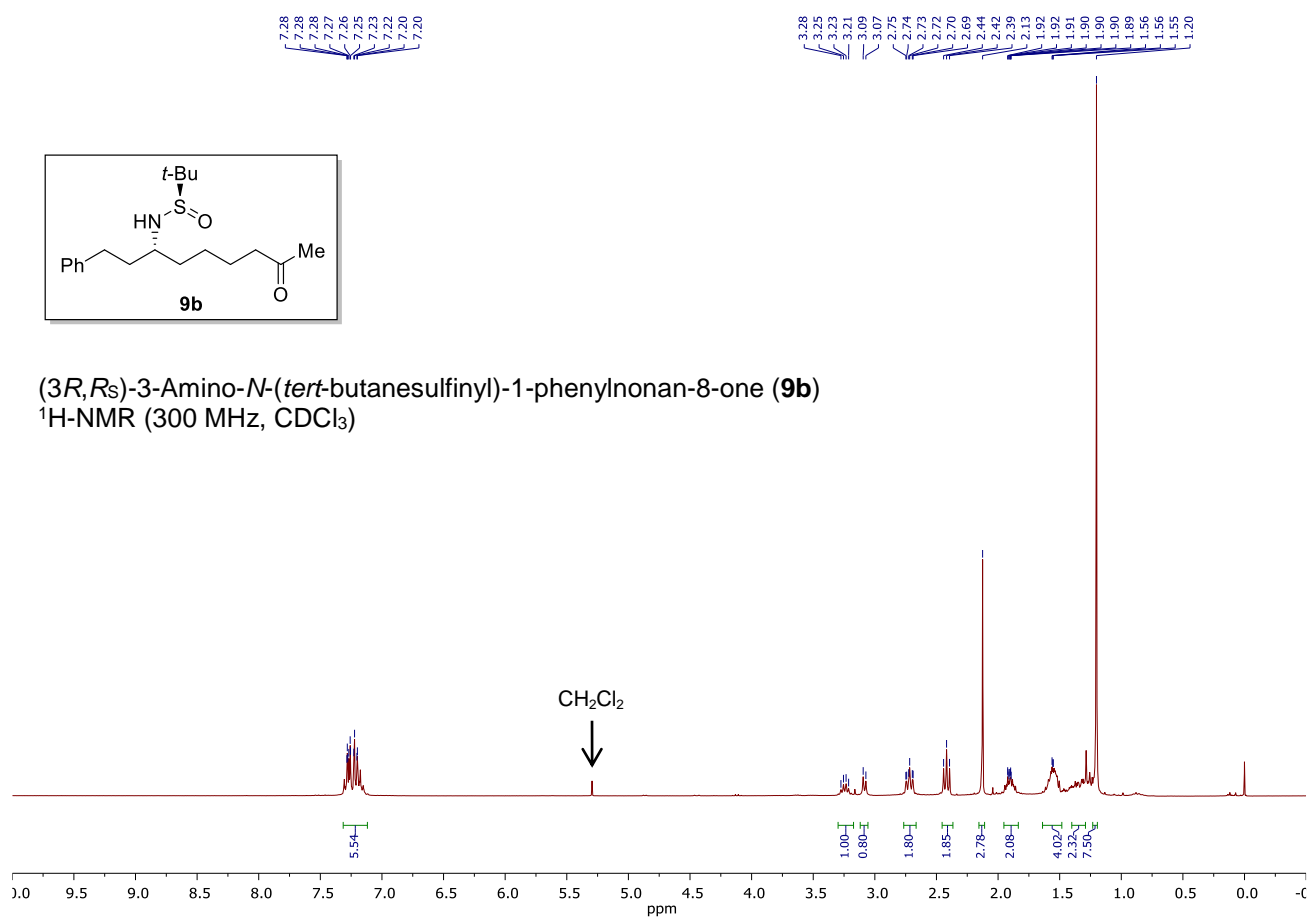


¹³C-NMR (100 MHz, CDCl₃)

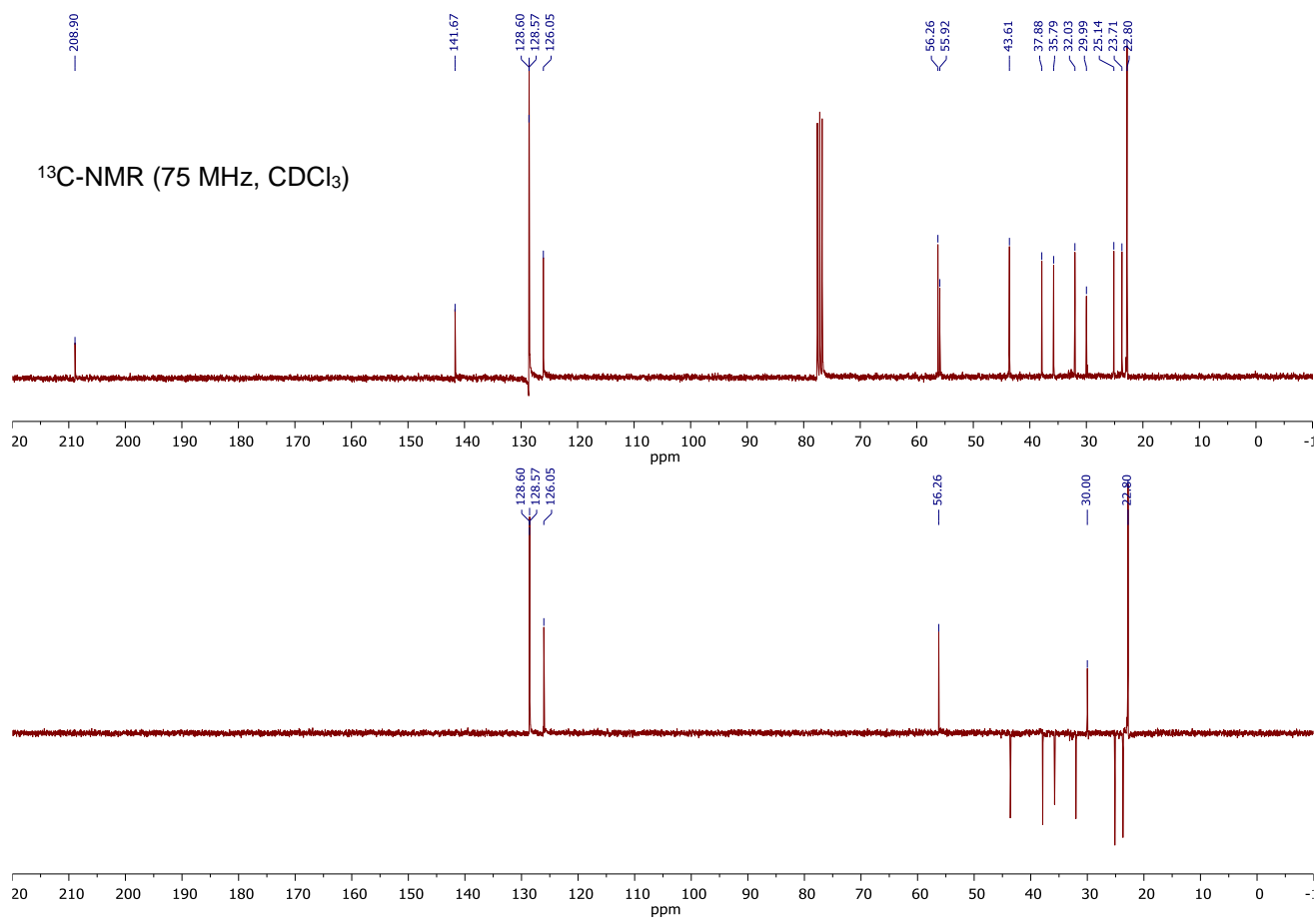


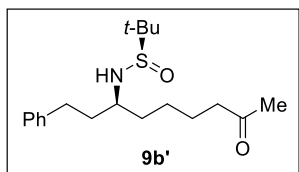


(3*R*,8*S*)-3-Amino-*N*-(*tert*-butanesulfinyl)-1-phenylnonan-8-one (**9b**)
¹H-NMR (300 MHz, CDCl₃)



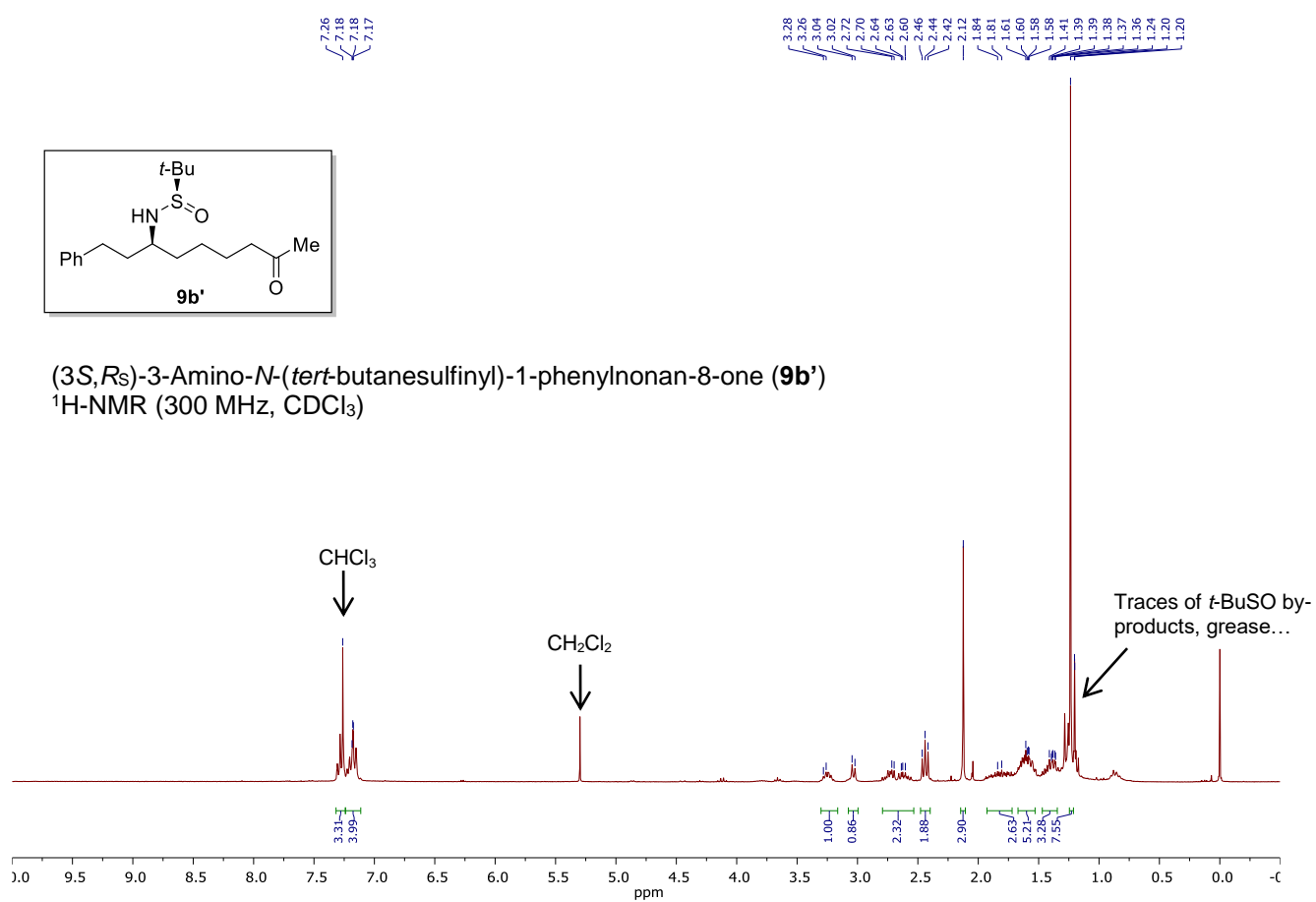
¹³C-NMR (75 MHz, CDCl₃)



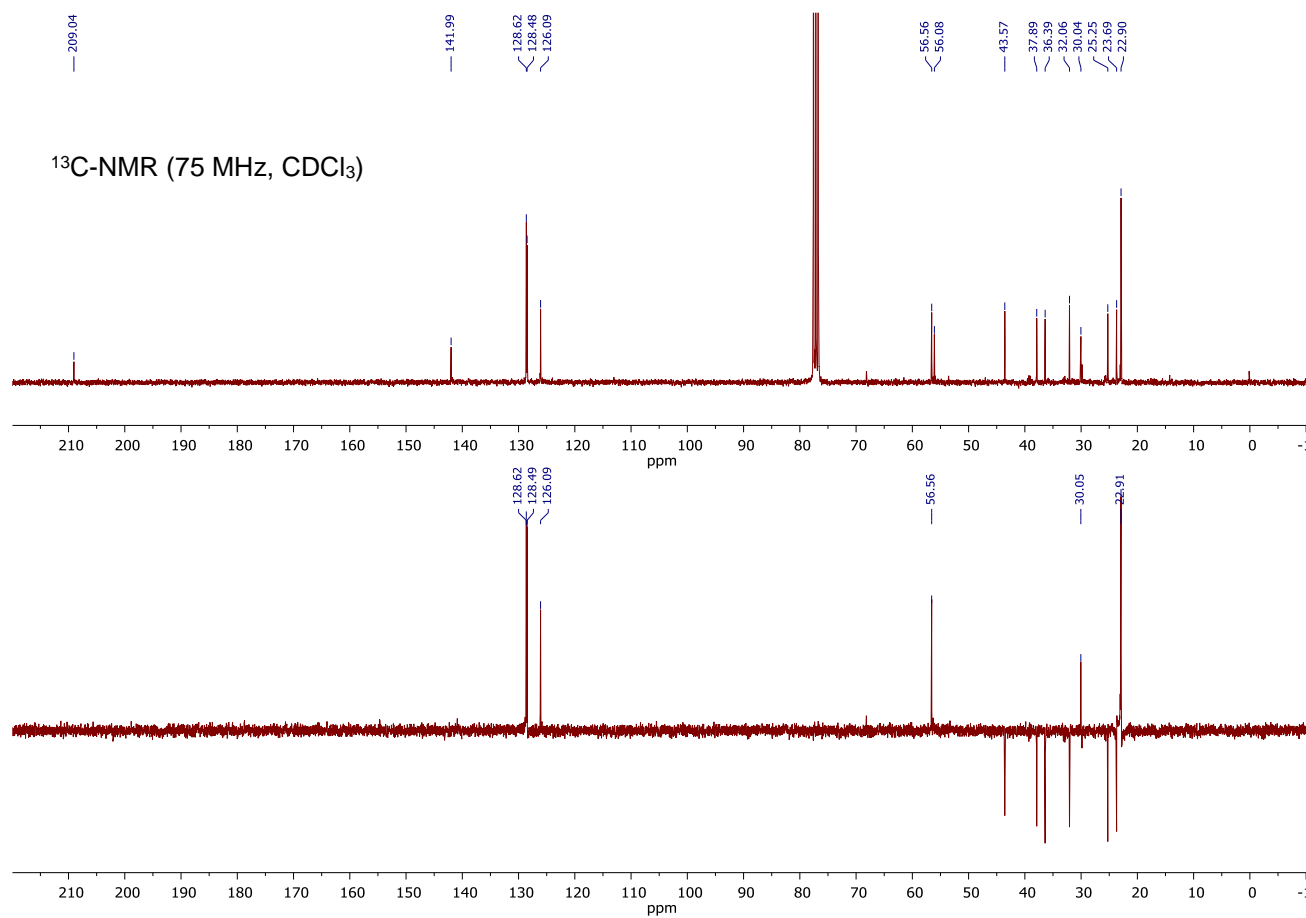


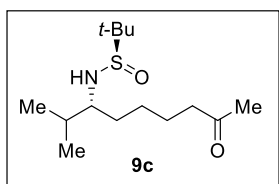
(3*S*, *R*_{*S*})-3-Amino-*N*-(*tert*-butanesulfinyl)-1-phenylnonan-8-one (**9b'**)

¹H-NMR (300 MHz, CDCl₃)

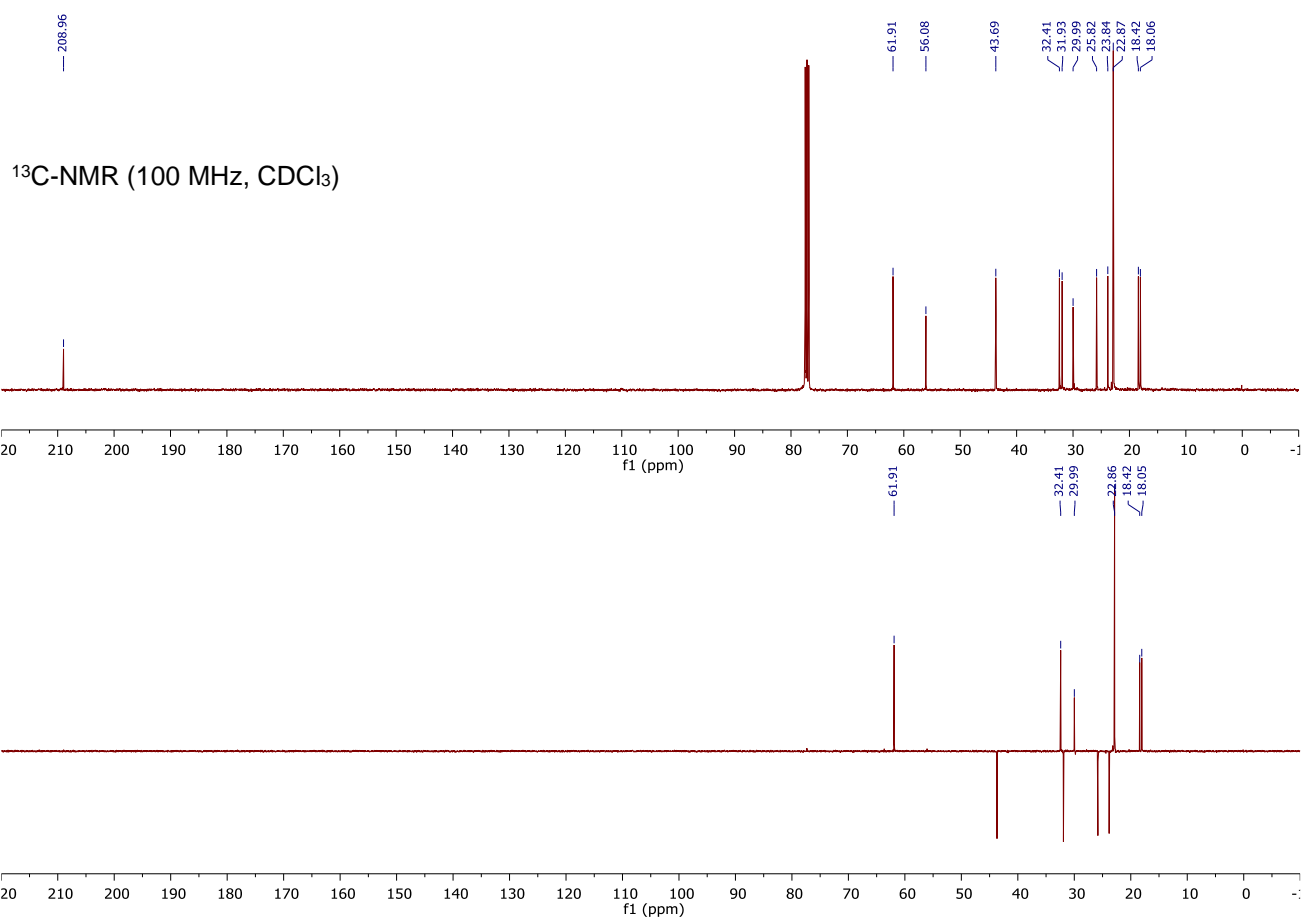
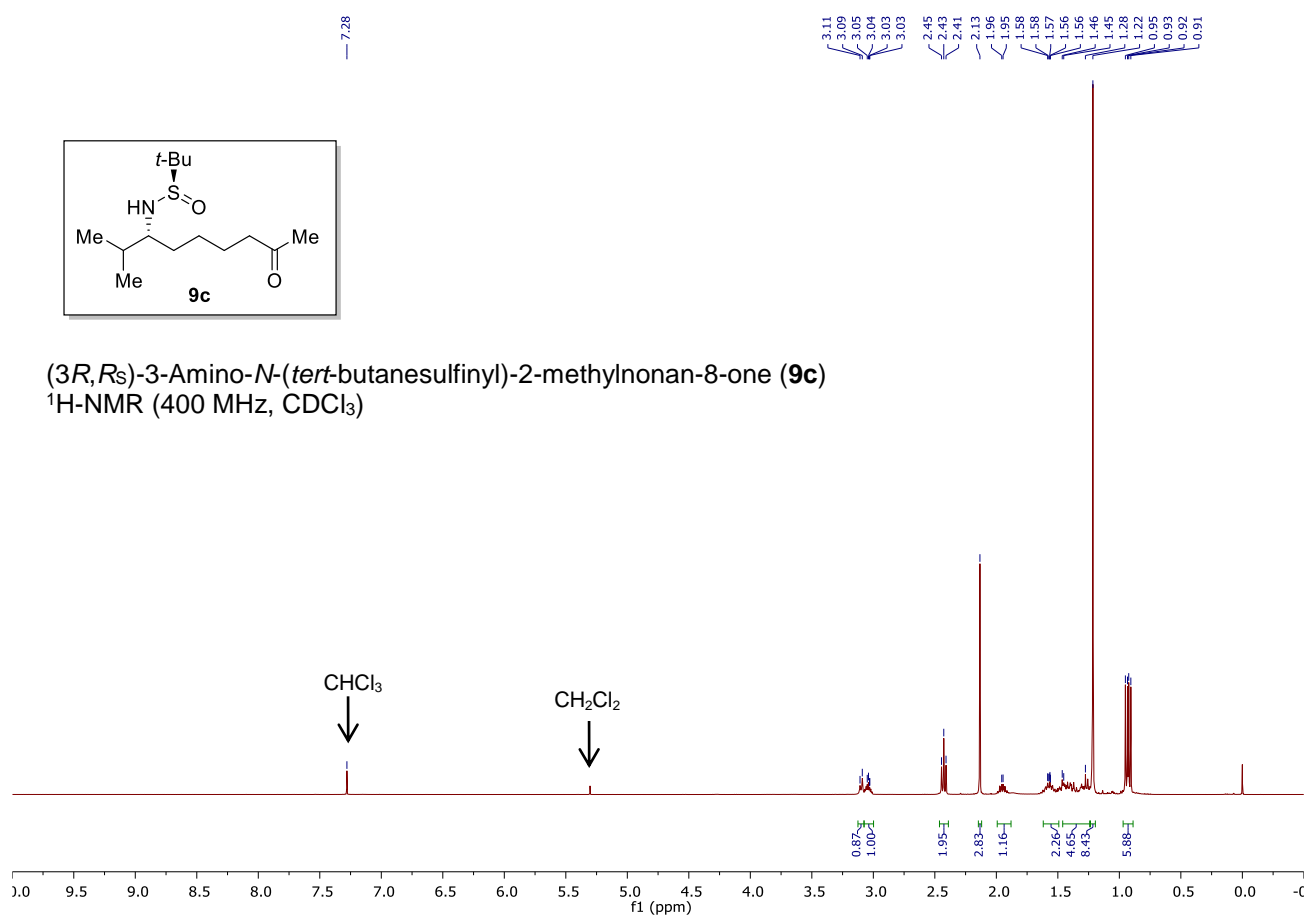


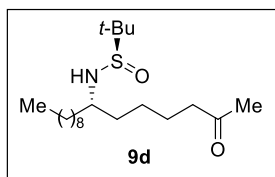
¹³C-NMR (75 MHz, CDCl₃)





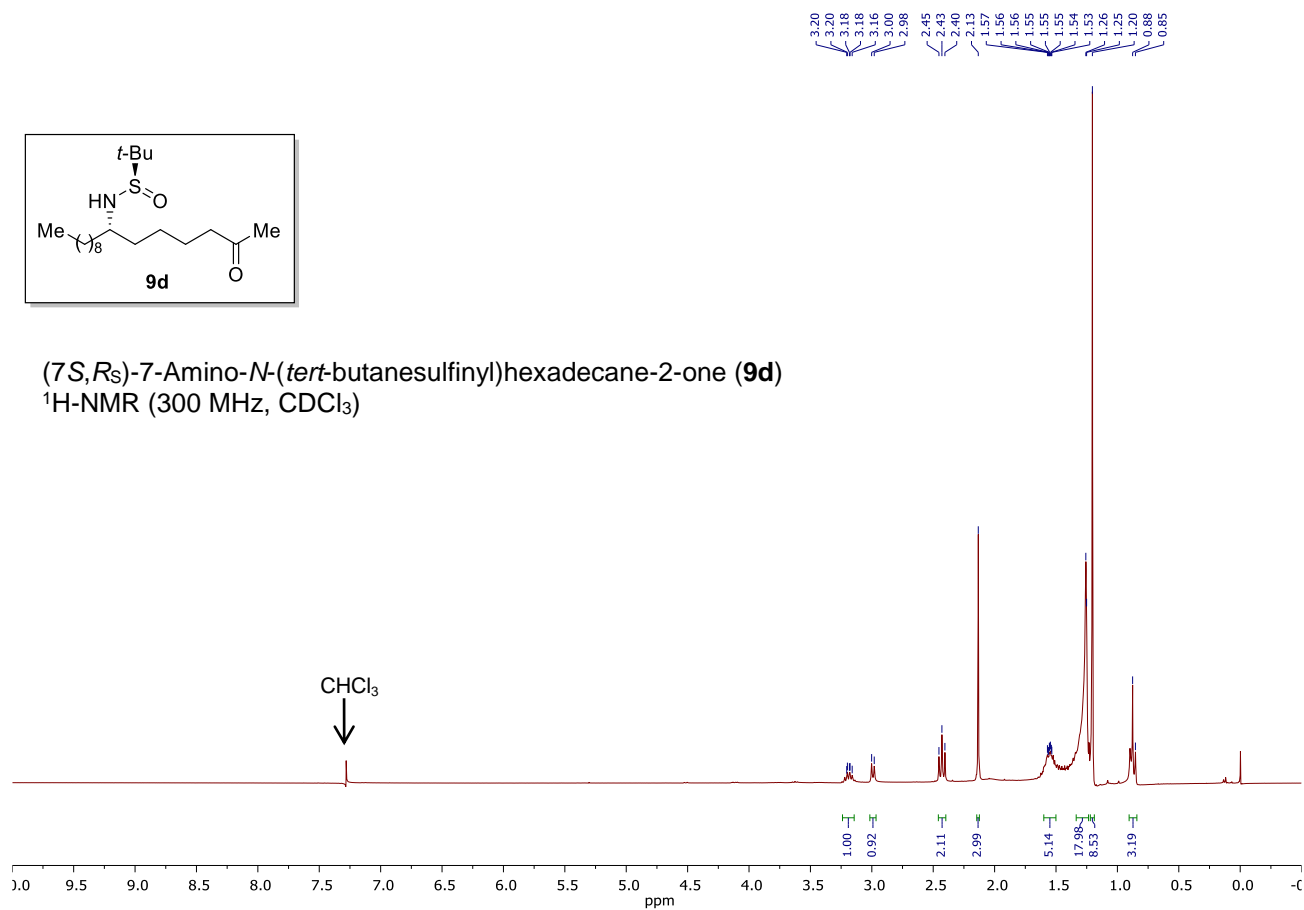
(3*R*,8*S*)-3-Amino-*N*-(*tert*-butanesulfinyl)-2-methylnonan-8-one (**9c**)
¹H-NMR (400 MHz, CDCl₃)



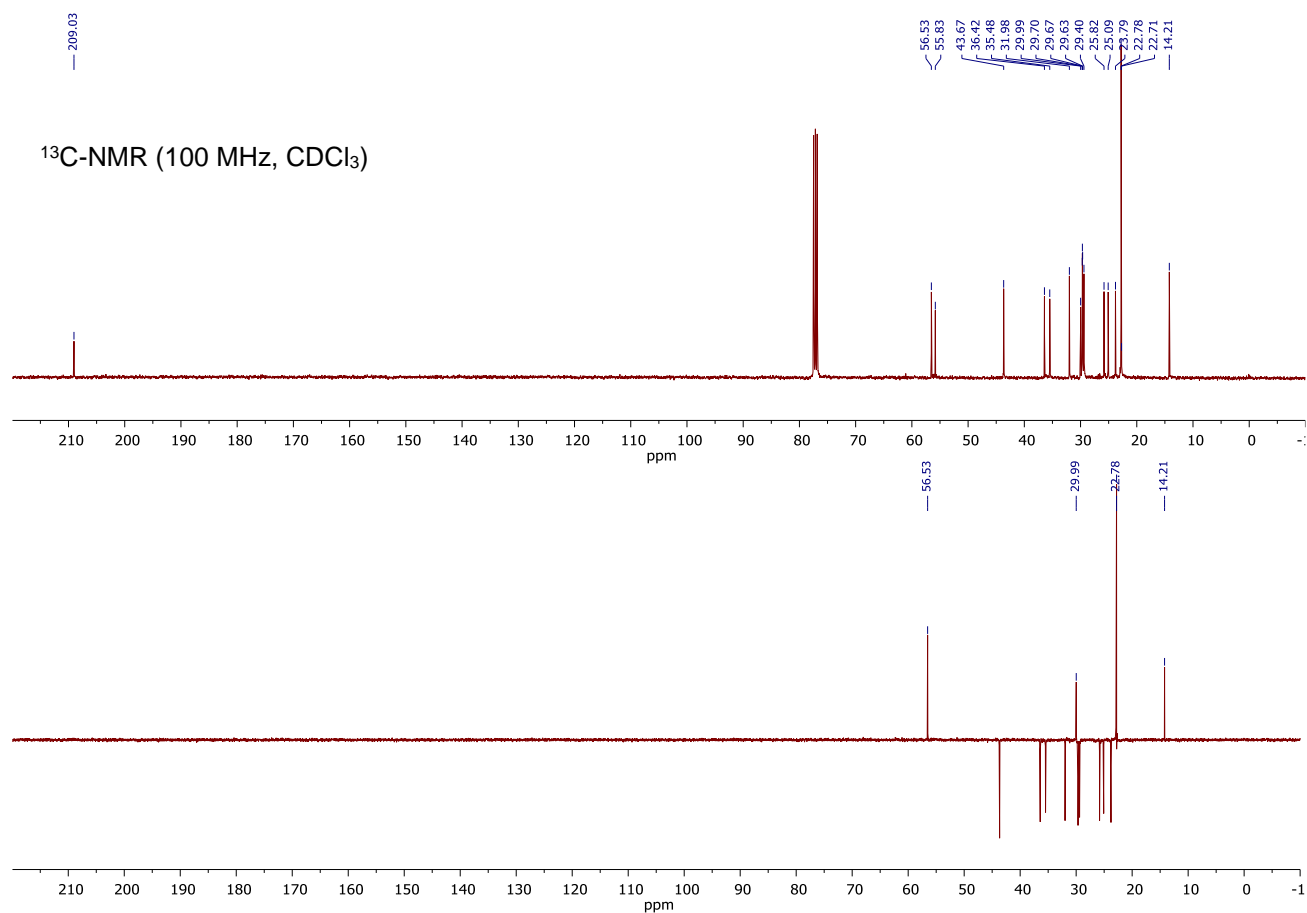


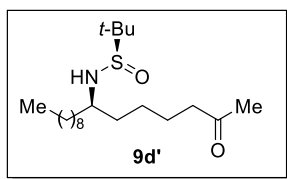
(7*S*,*R*_s)-7-Amino-*N*-(*tert*-butanesulfinyl)hexadecane-2-one (**9d**)

¹H-NMR (300 MHz, CDCl₃)

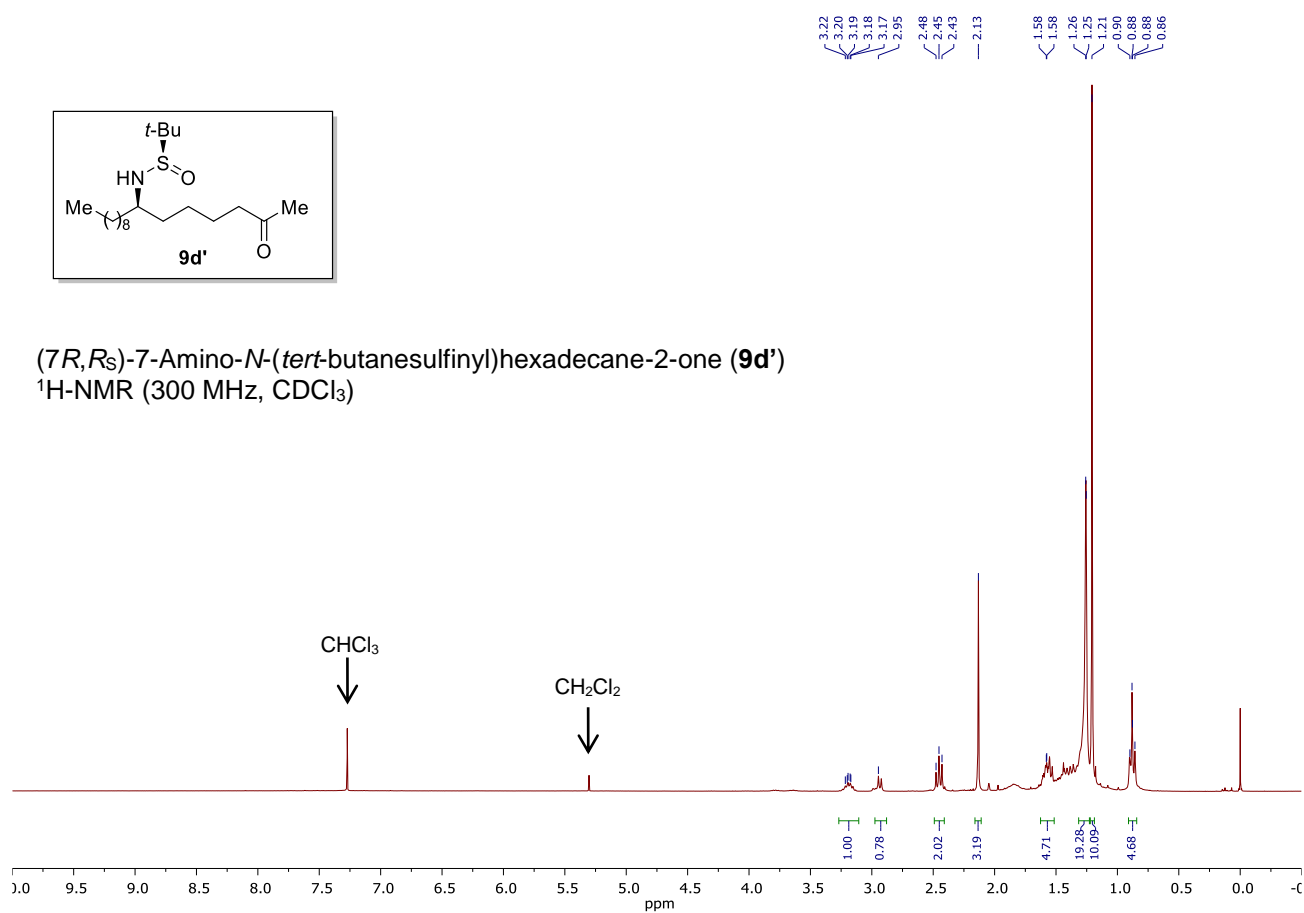


¹³C-NMR (100 MHz, CDCl₃)

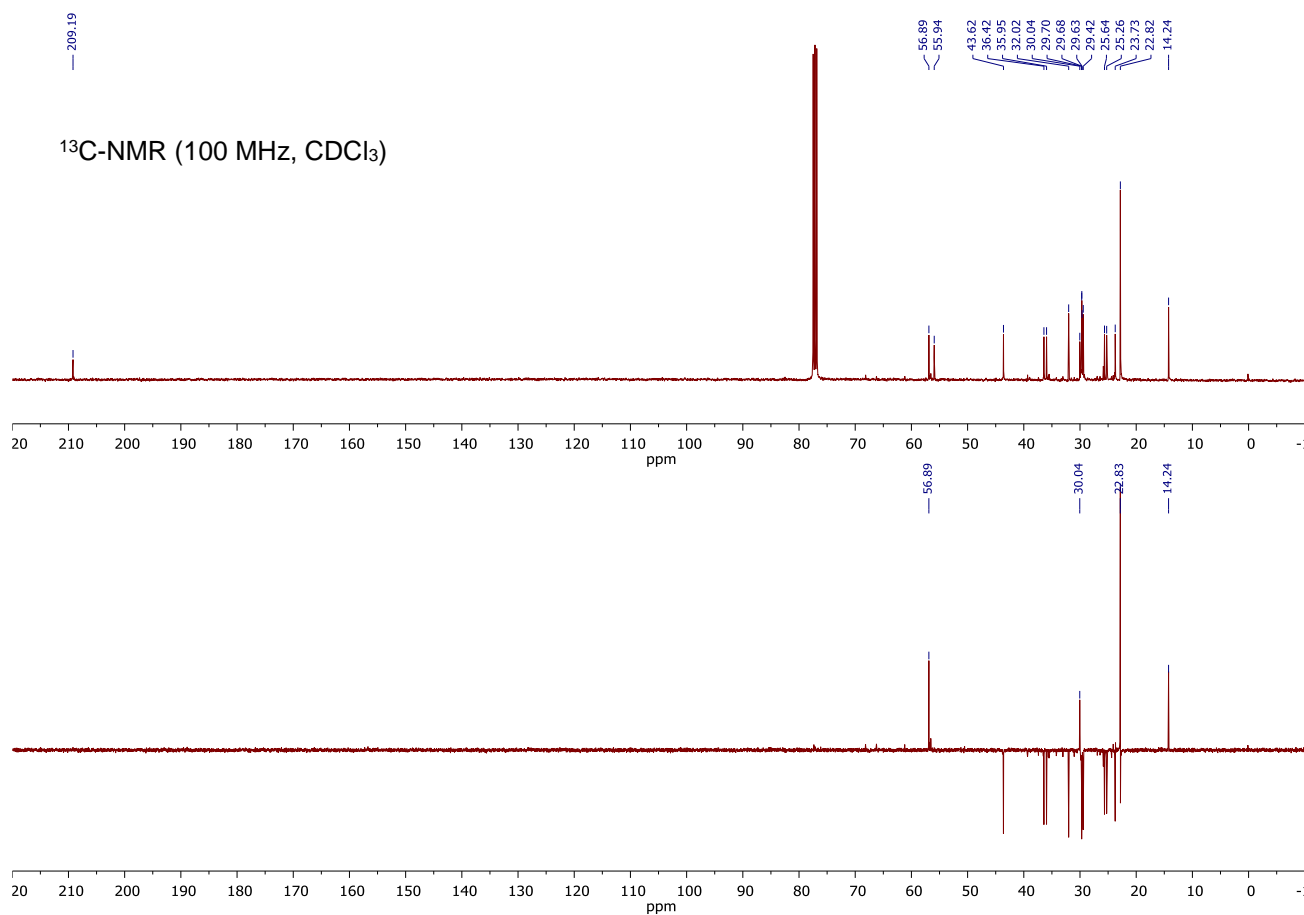


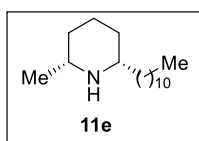


(7*R*,8*S*)-7-Amino-*N*-(*tert*-butanesulfinyl)hexadecane-2-one (**9d'**)
¹H-NMR (300 MHz, CDCl₃)

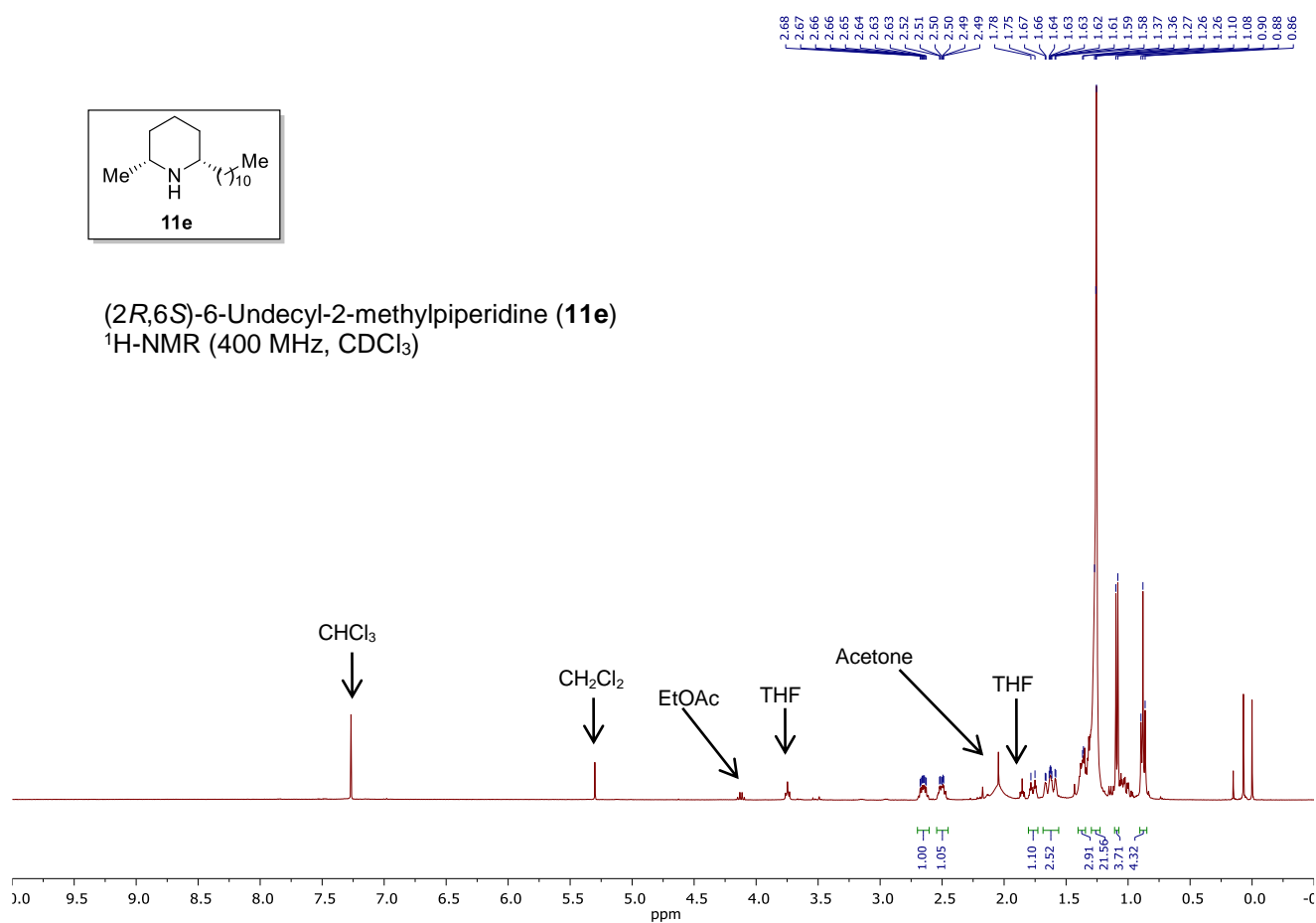


¹³C-NMR (100 MHz, CDCl₃)

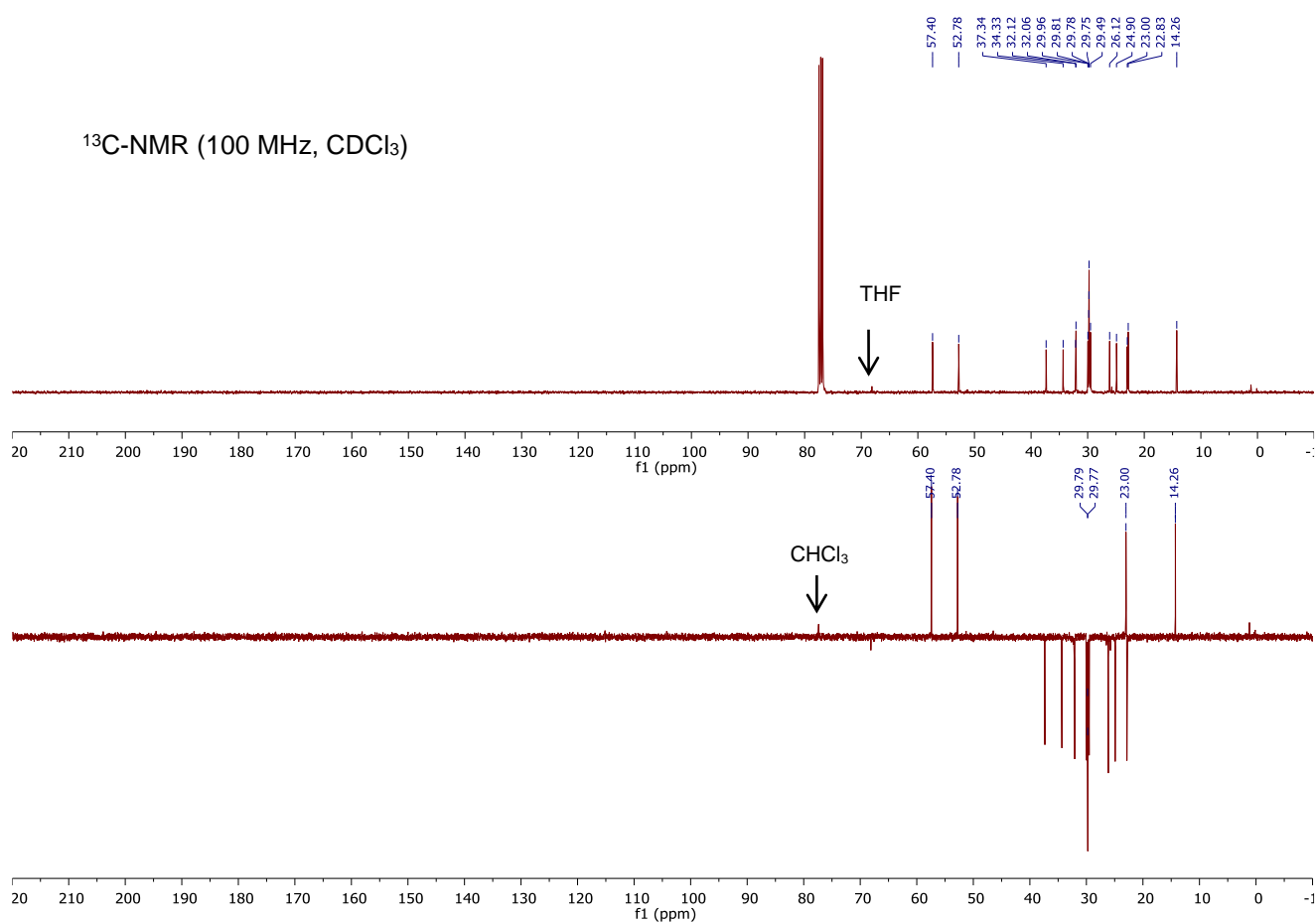


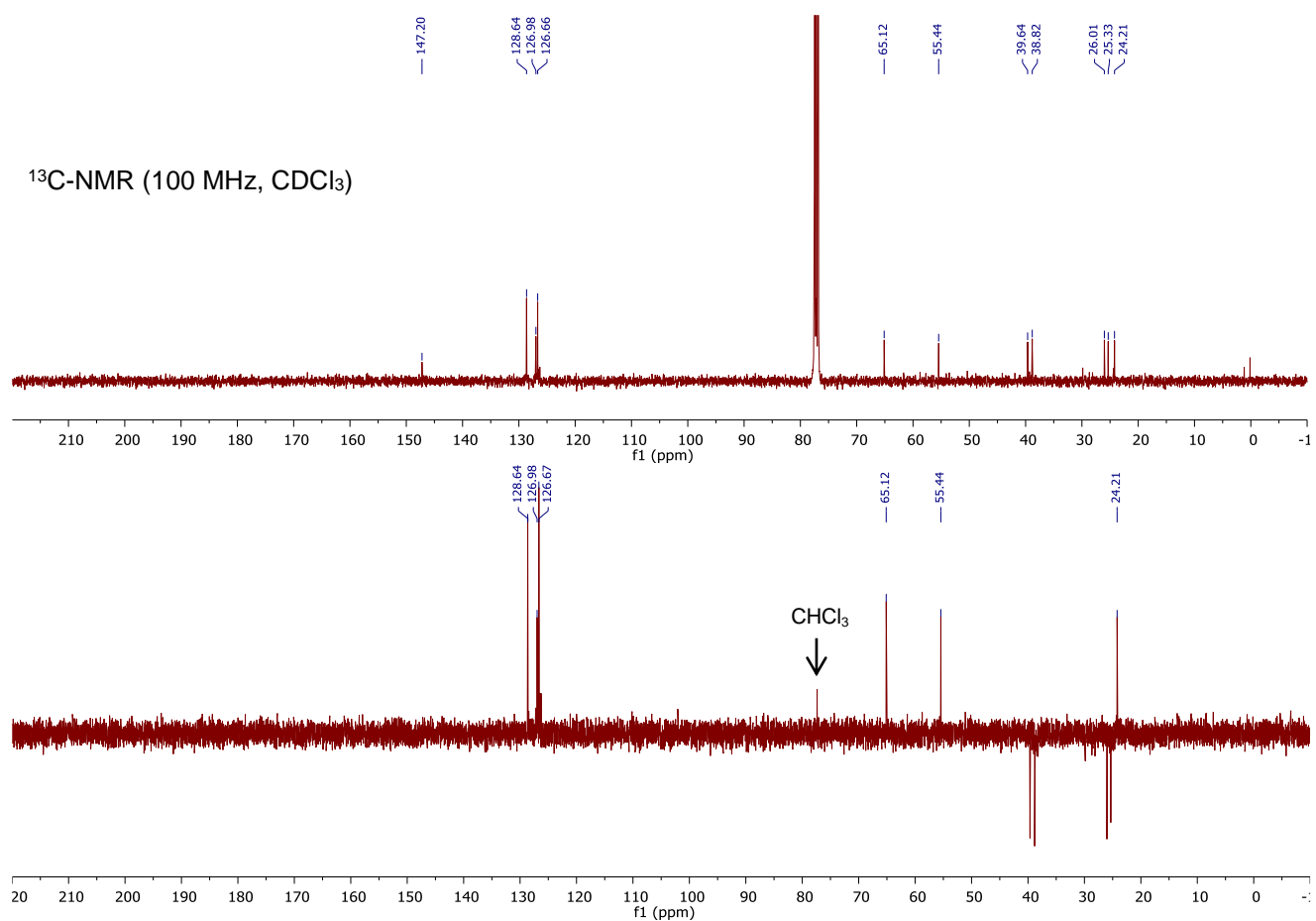
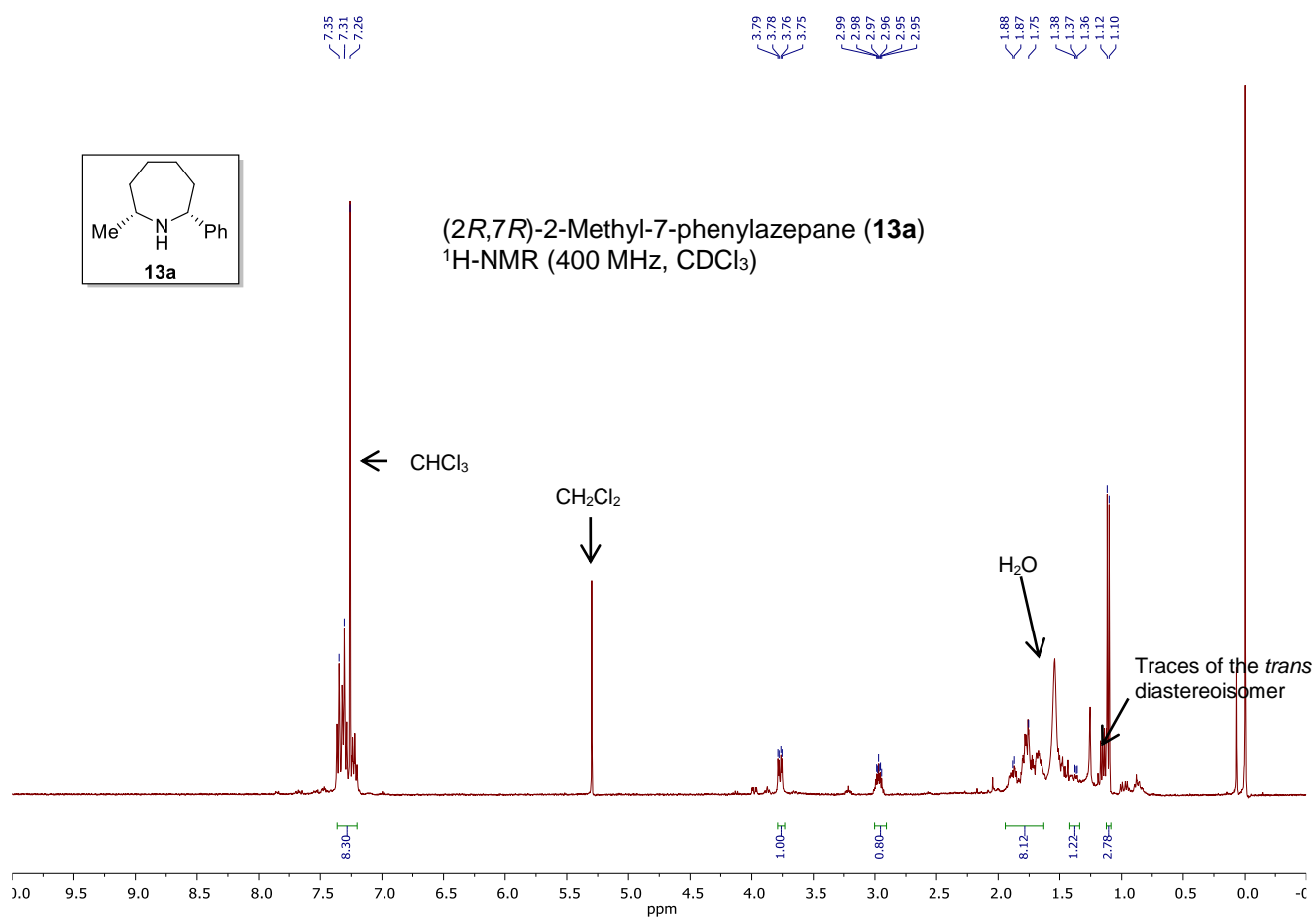


(2*R*,6*S*)-6-Undecyl-2-methylpiperidine (**11e**)
¹H-NMR (400 MHz, CDCl₃)

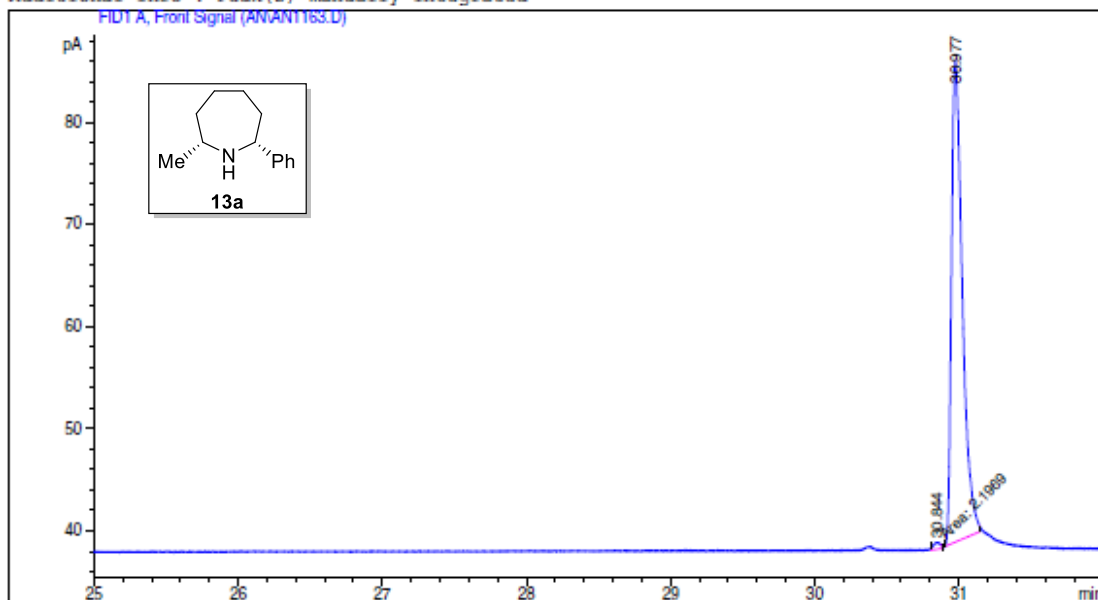


¹³C-NMR (100 MHz, CDCl₃)





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Use Multiplier & Dilution Factor with ISTDs

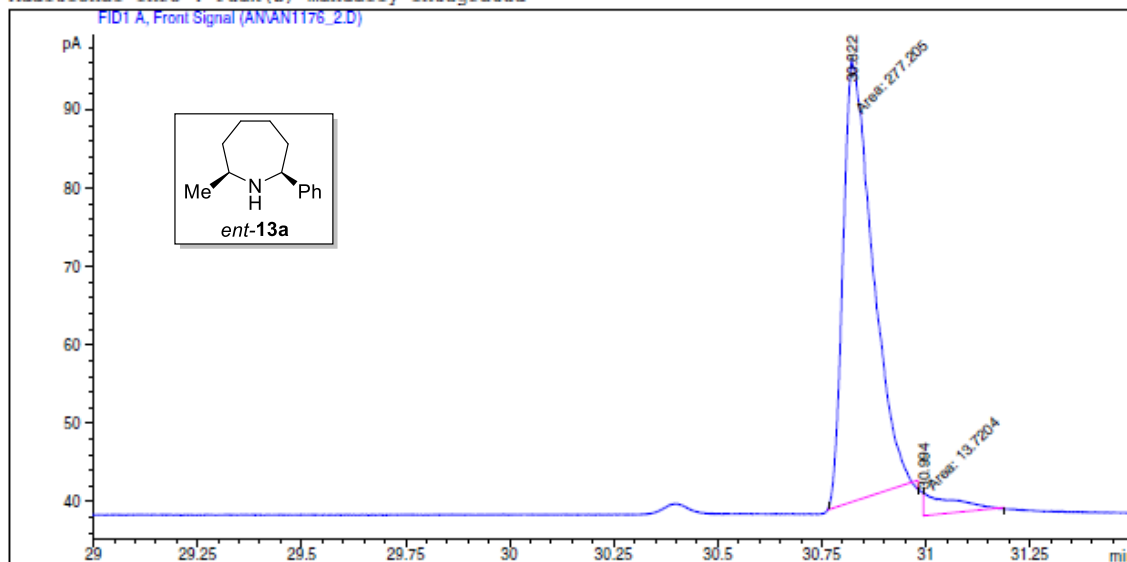
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Totals : 248.27352 47.82974

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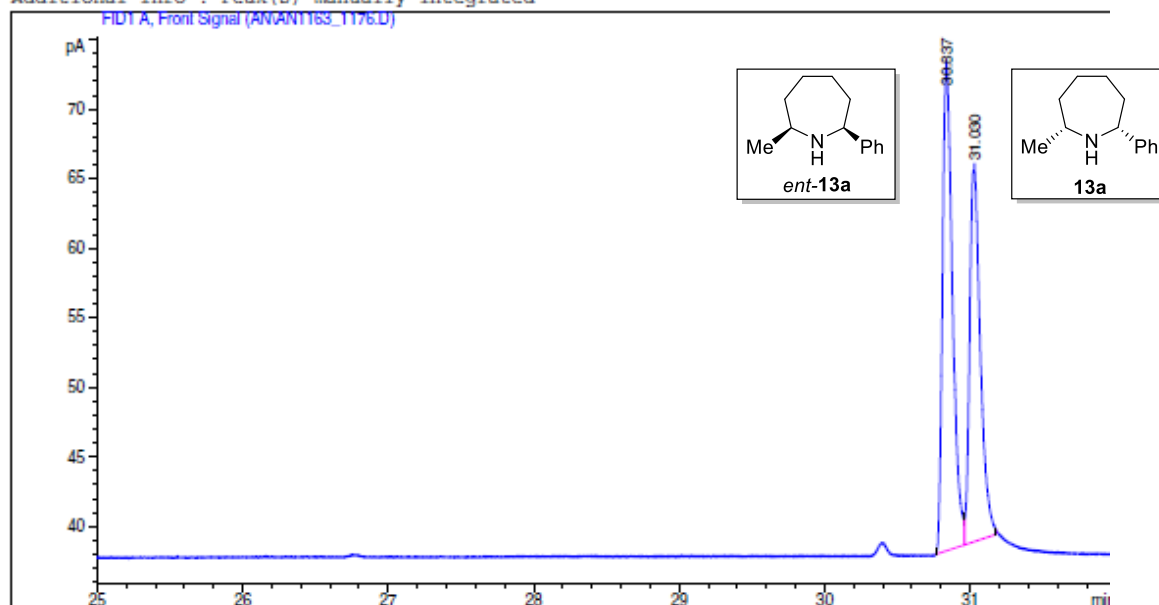
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Totals : 290.92524 59.64593

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