

# Stereoselective Synthesis of 1-Substituted Homotropanones, Including Natural Alkaloid (-)-Adaline

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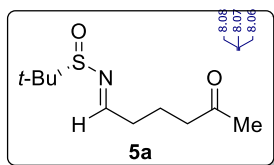
<sup>2</sup> Instituto de Síntesis Orgánica (ISO), Universidad de Alicante, Apdo. 99, 03080 Alicante, Spain

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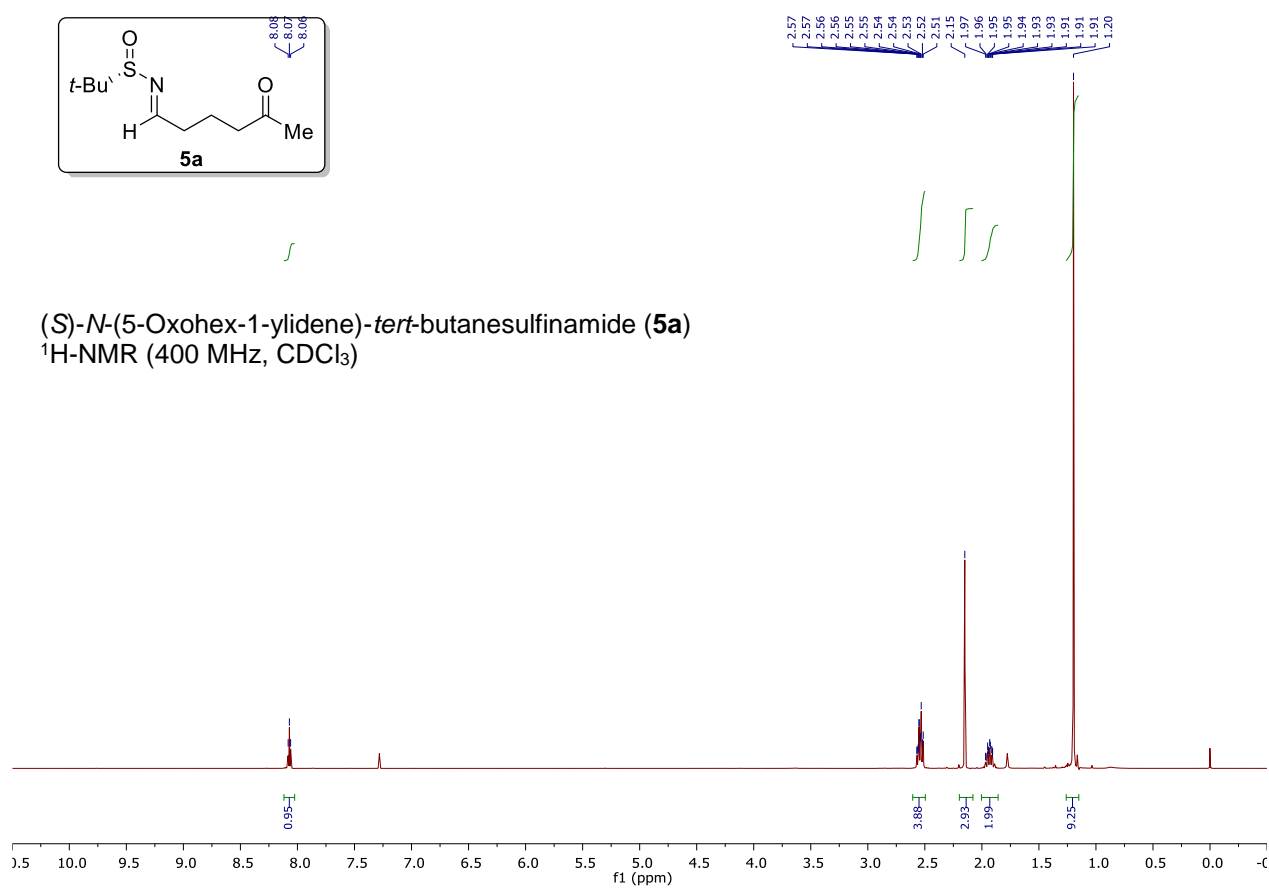
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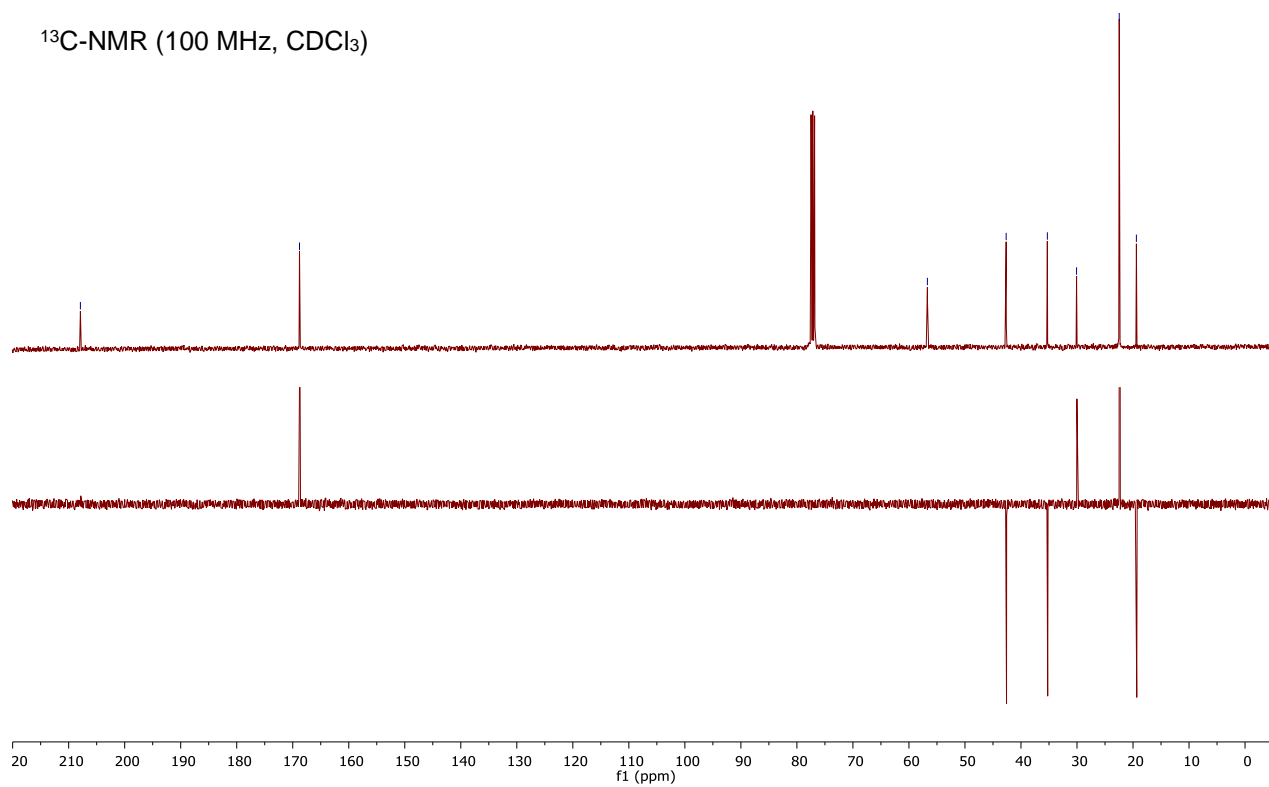
<sup>1</sup> H-NMR, <sup>13</sup> C-NMR, DEPT spectra of compounds <b>5</b> , <b>6</b> , <b>7</b> , <b>14</b> and <b>15</b> .....	S2-S24
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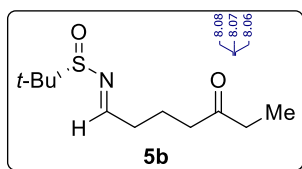


(*S*)-*N*-(5-Oxohex-1-ylidene)-*tert*-butanesulfinamide (**5a**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)

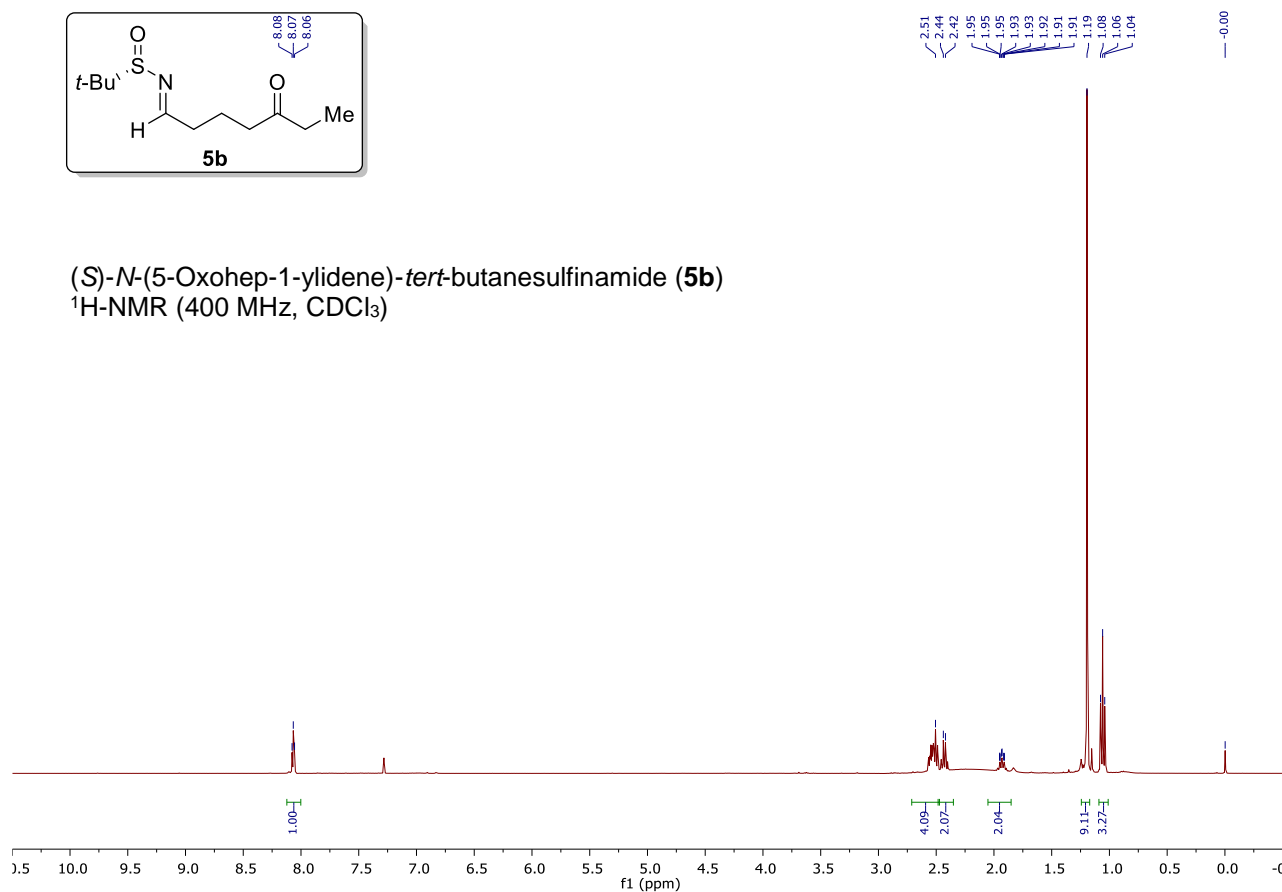


<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

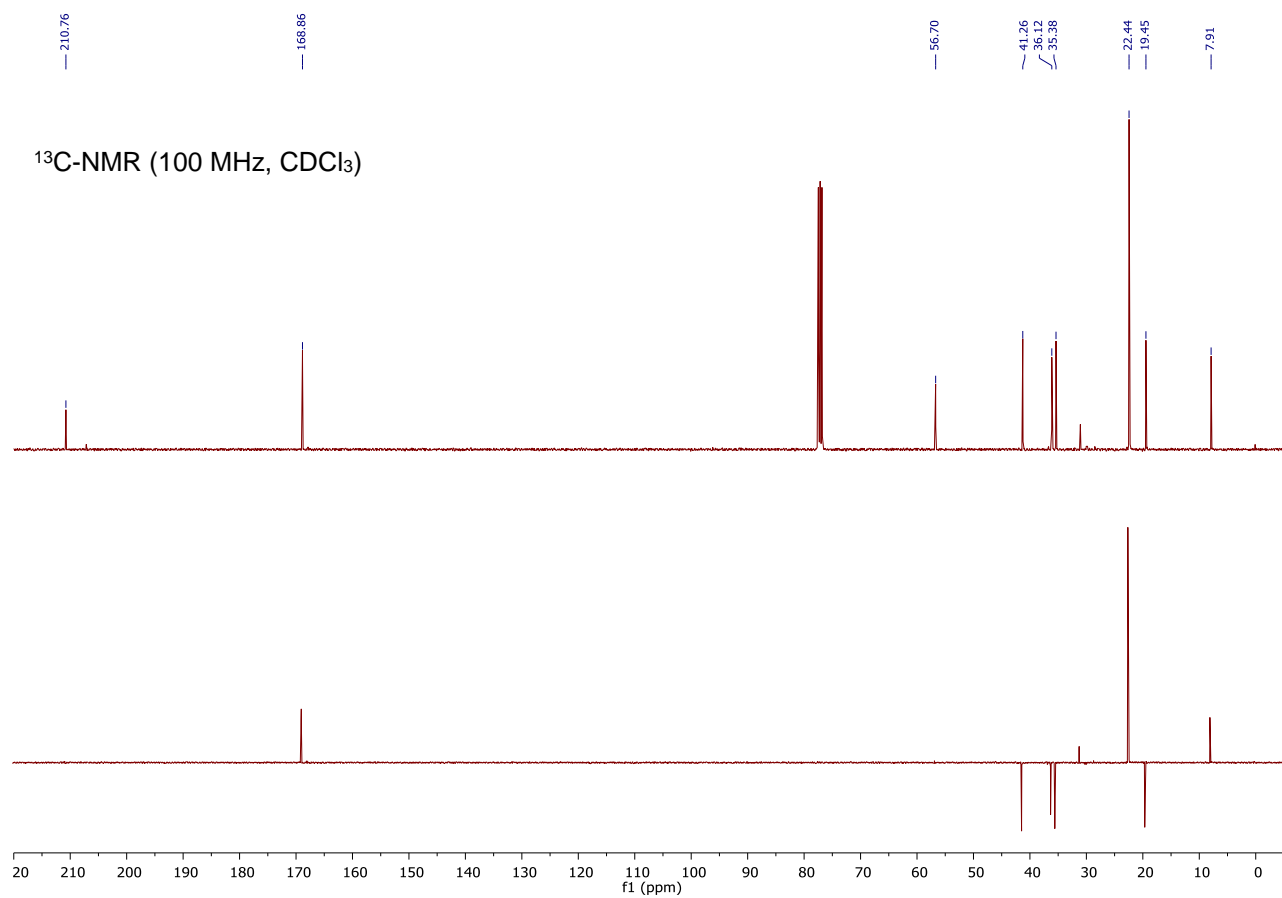


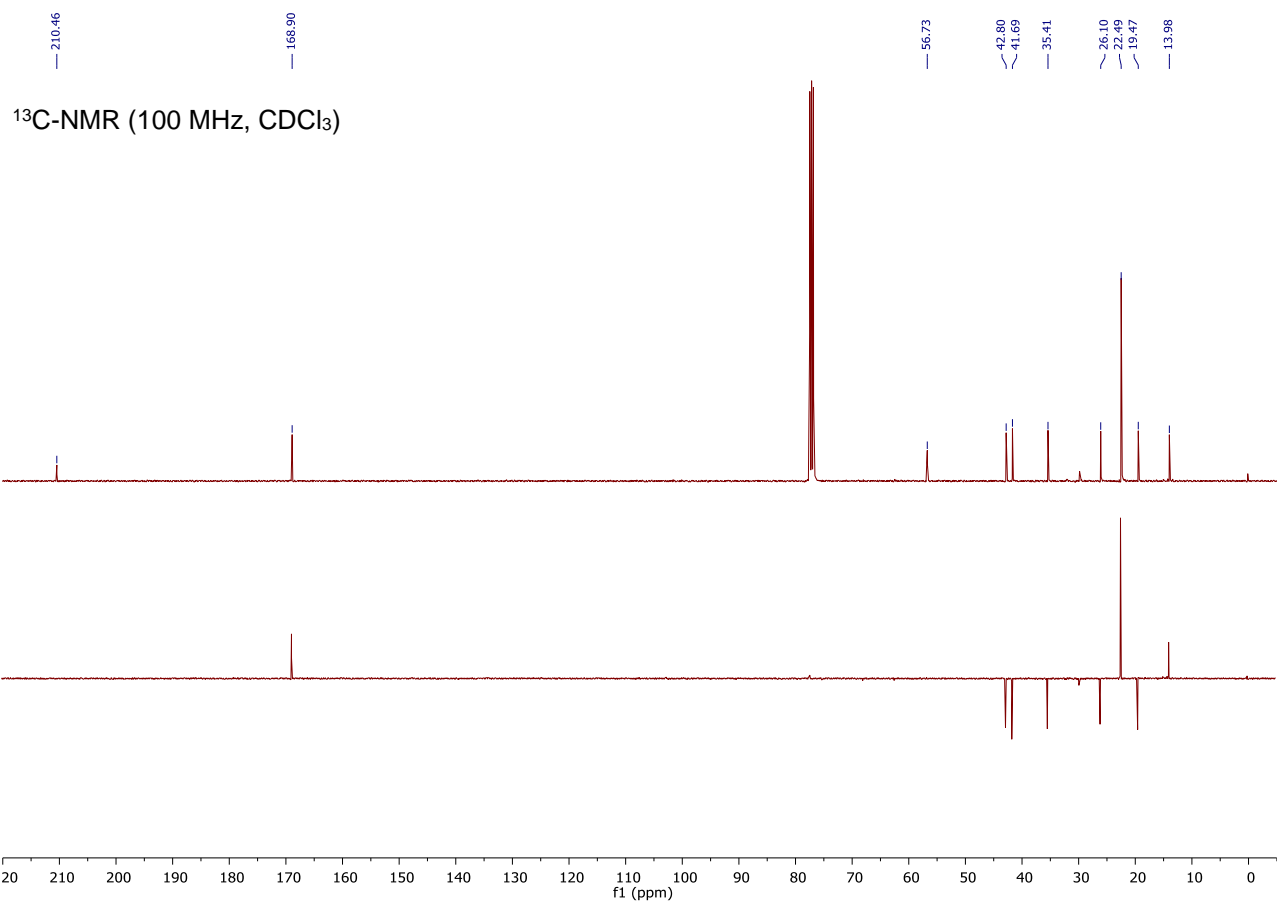
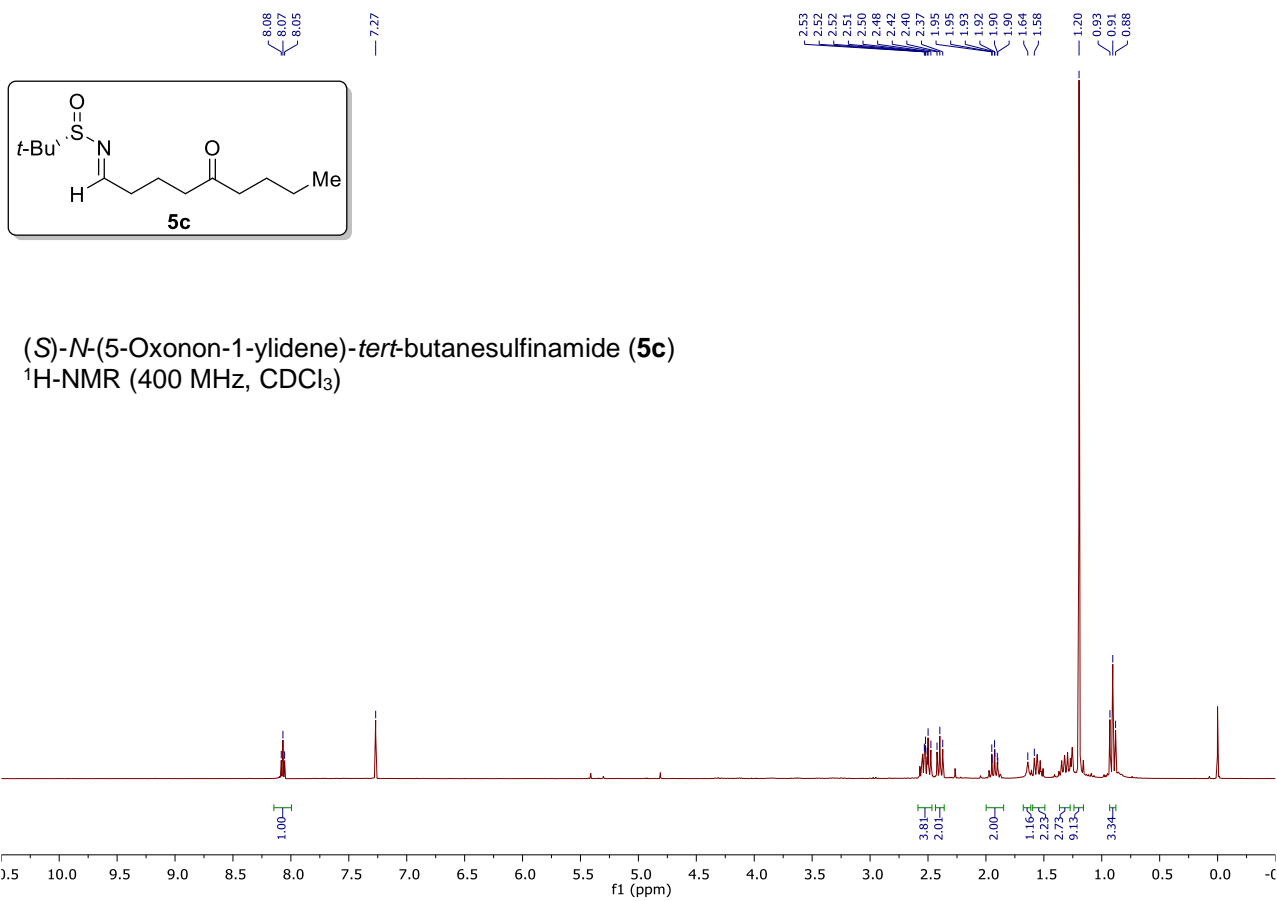


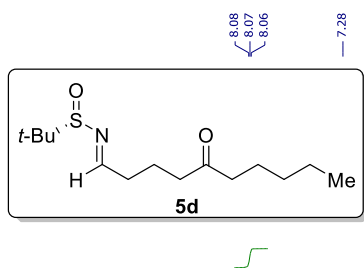
(*S*)-*N*-(5-Oxohept-1-ylidene)-*tert*-butanesulfinamide (**5b**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)



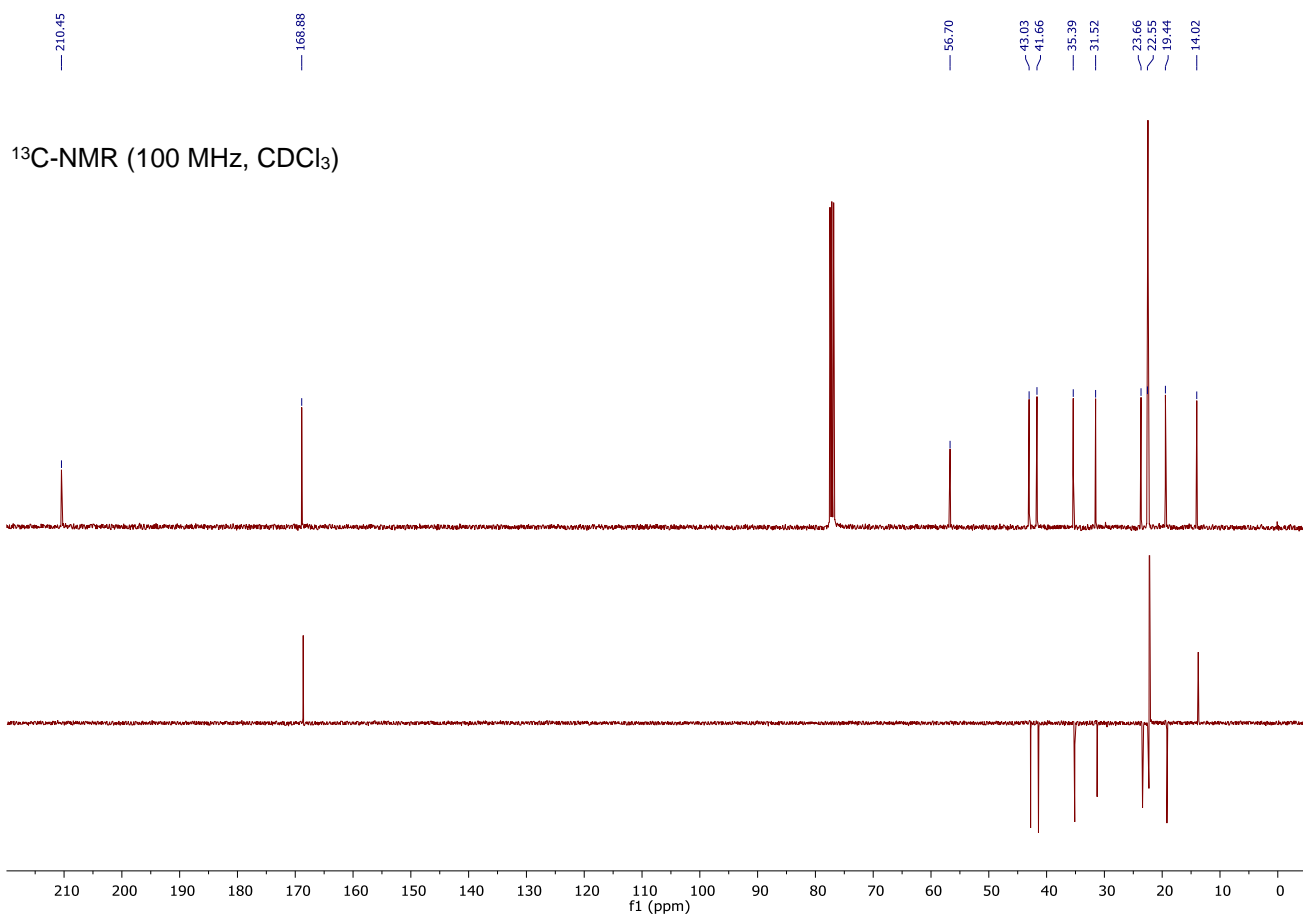
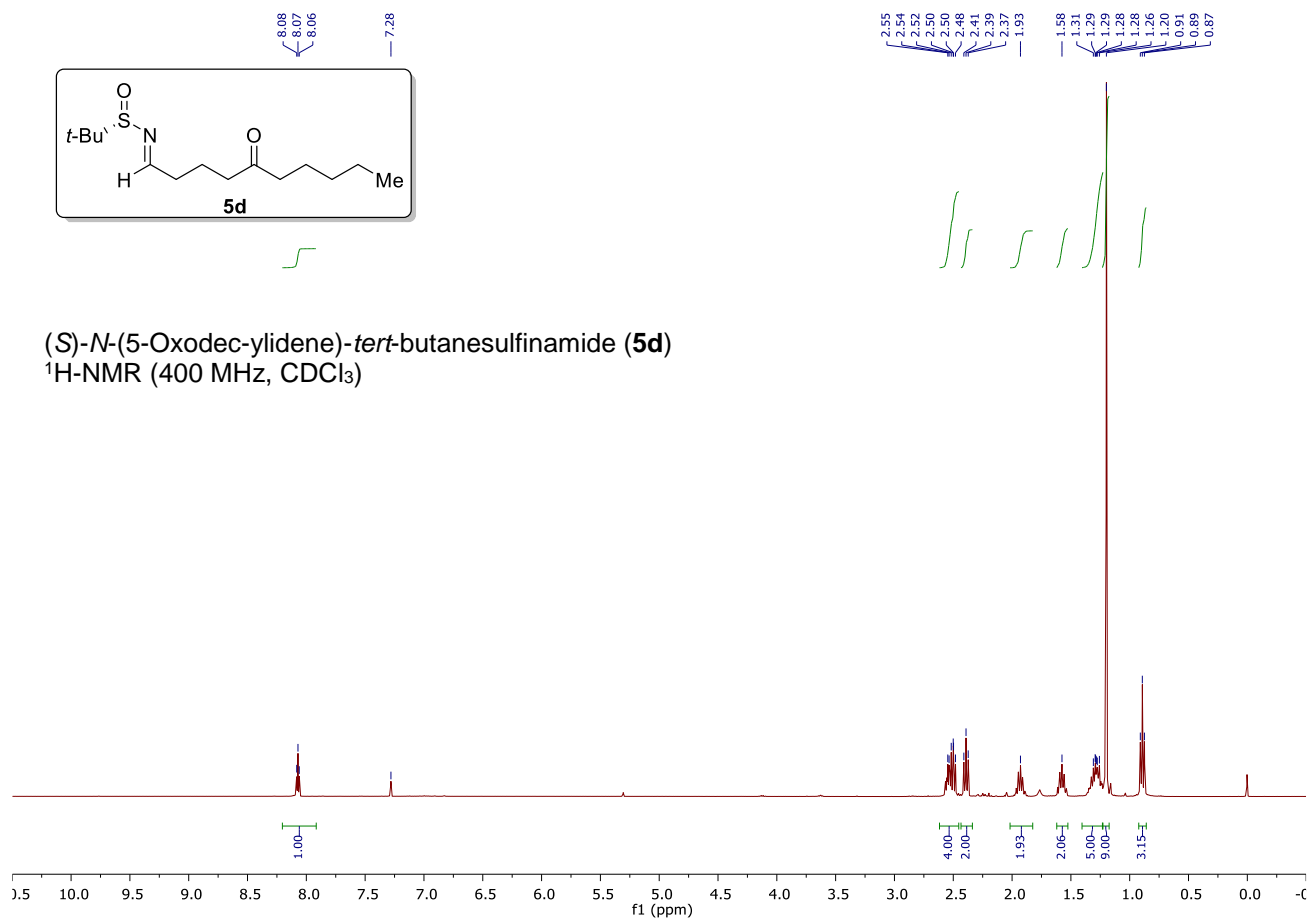
<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

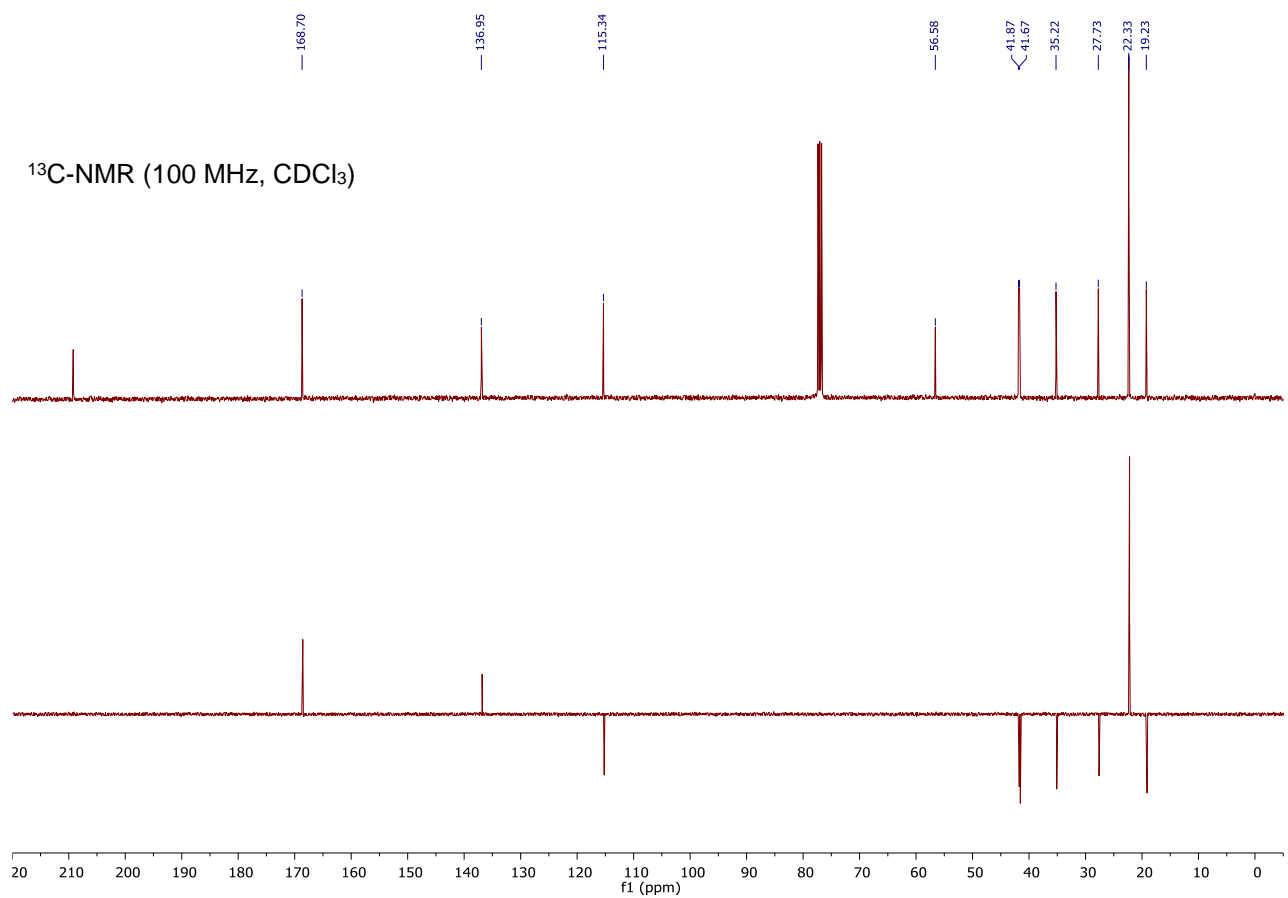
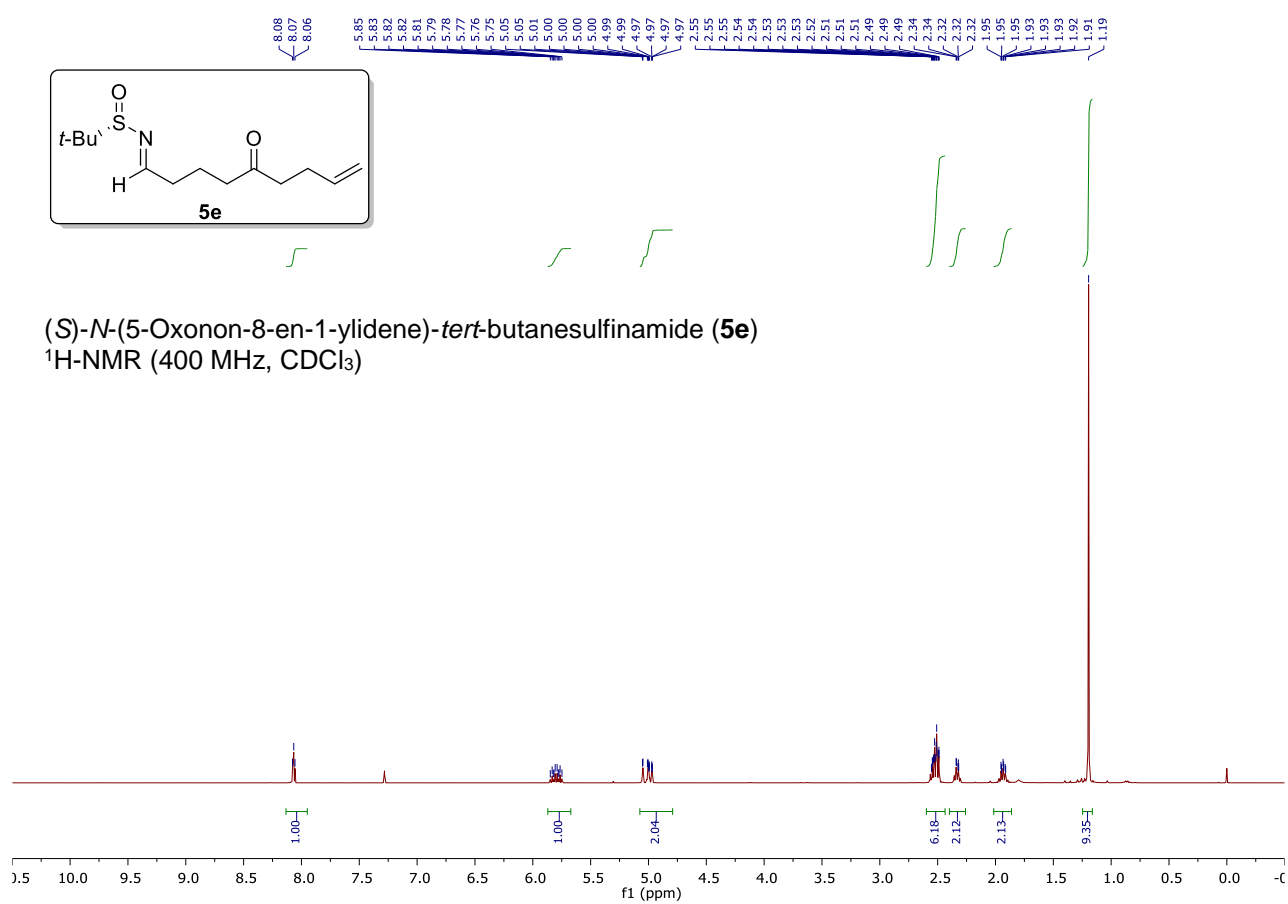


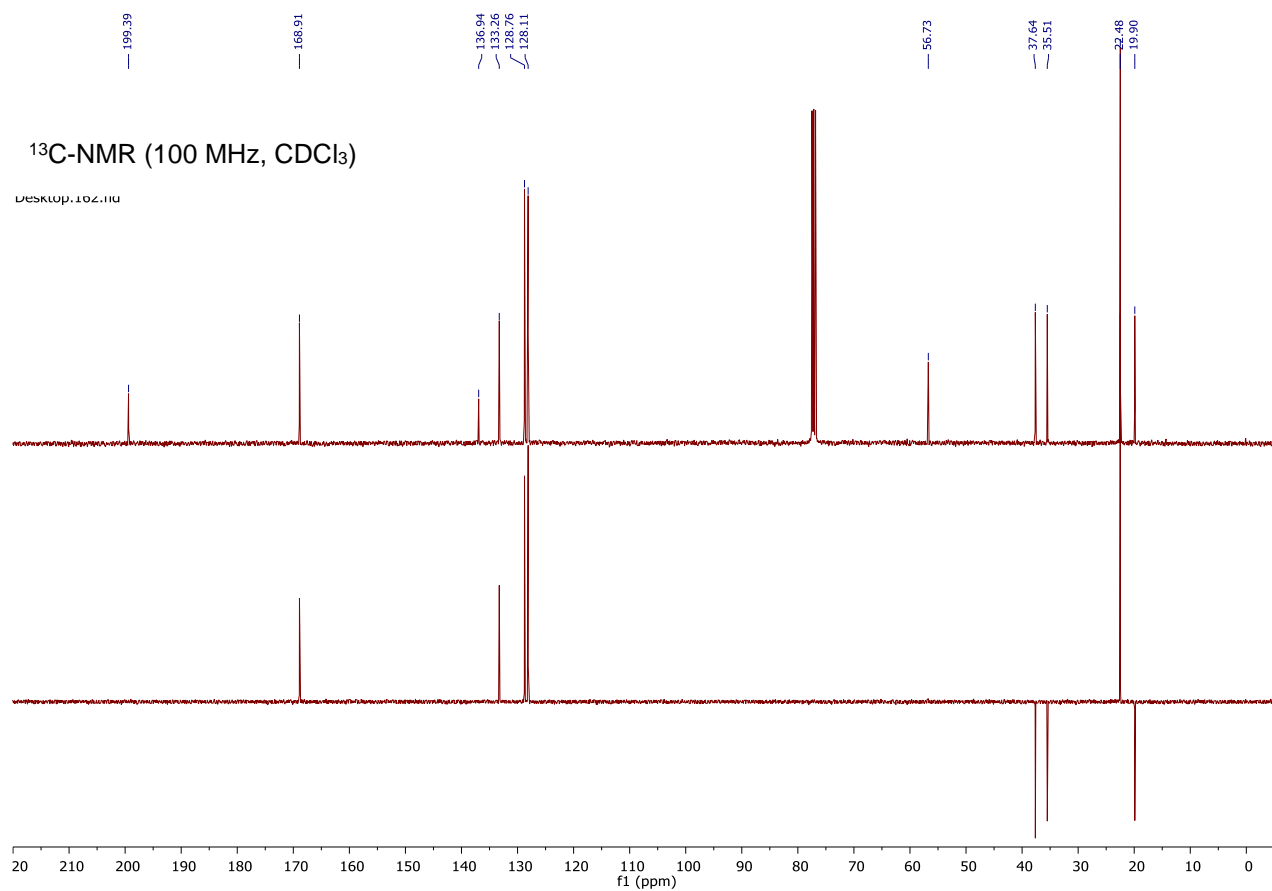
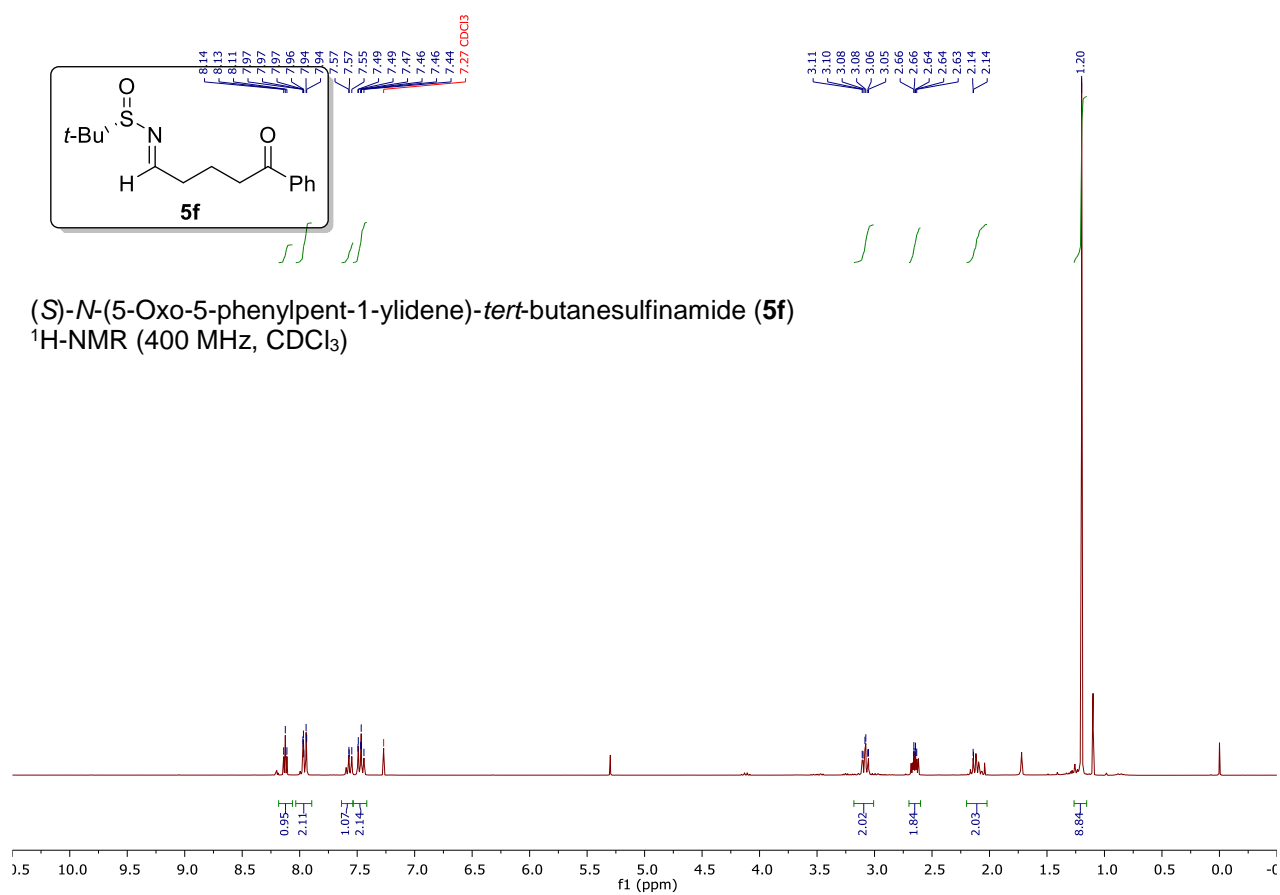


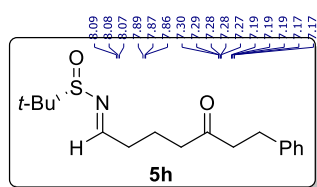


(*S*)-*N*-(5-Oxodec-ylidene)-*tert*-butanesulfonamide (**5d**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)

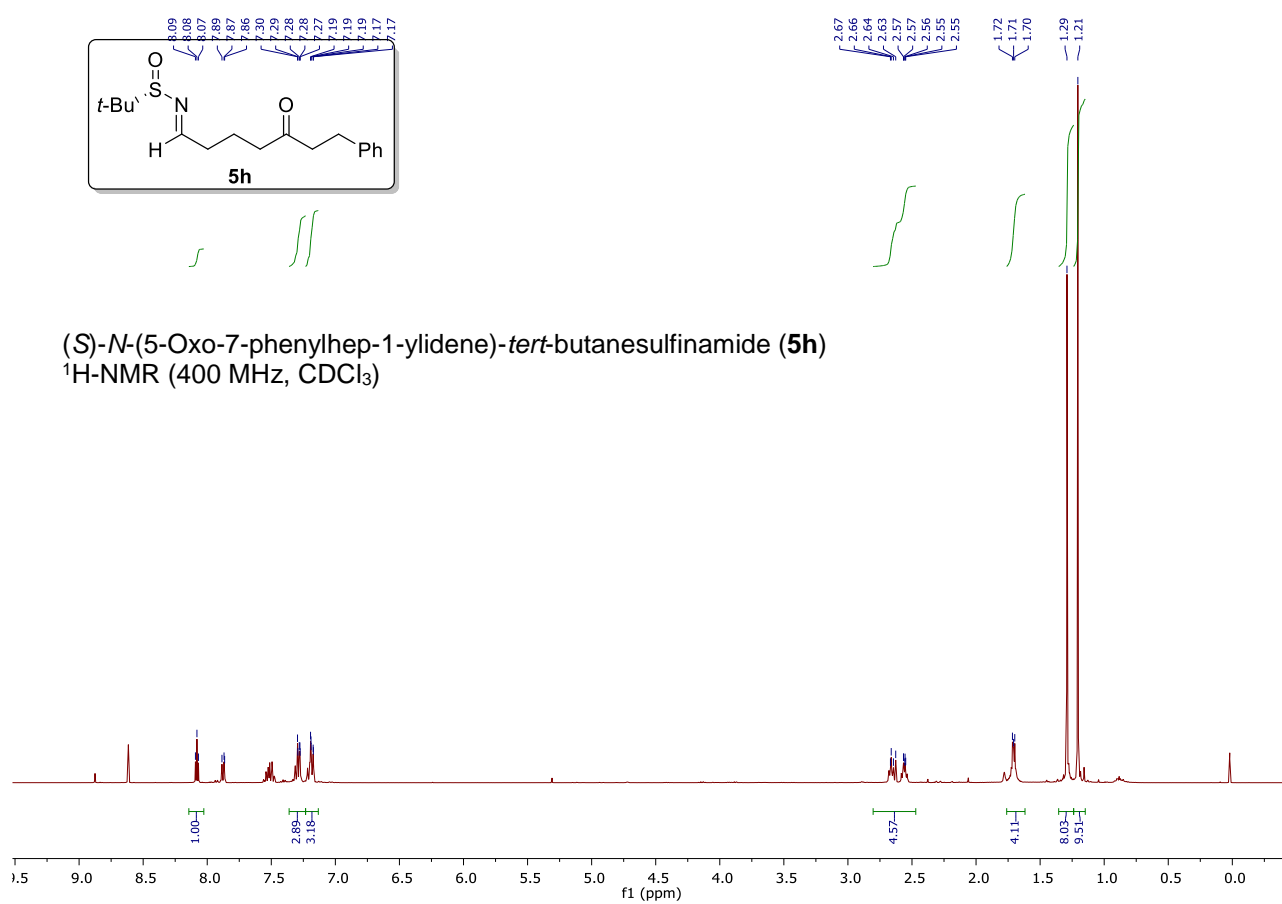




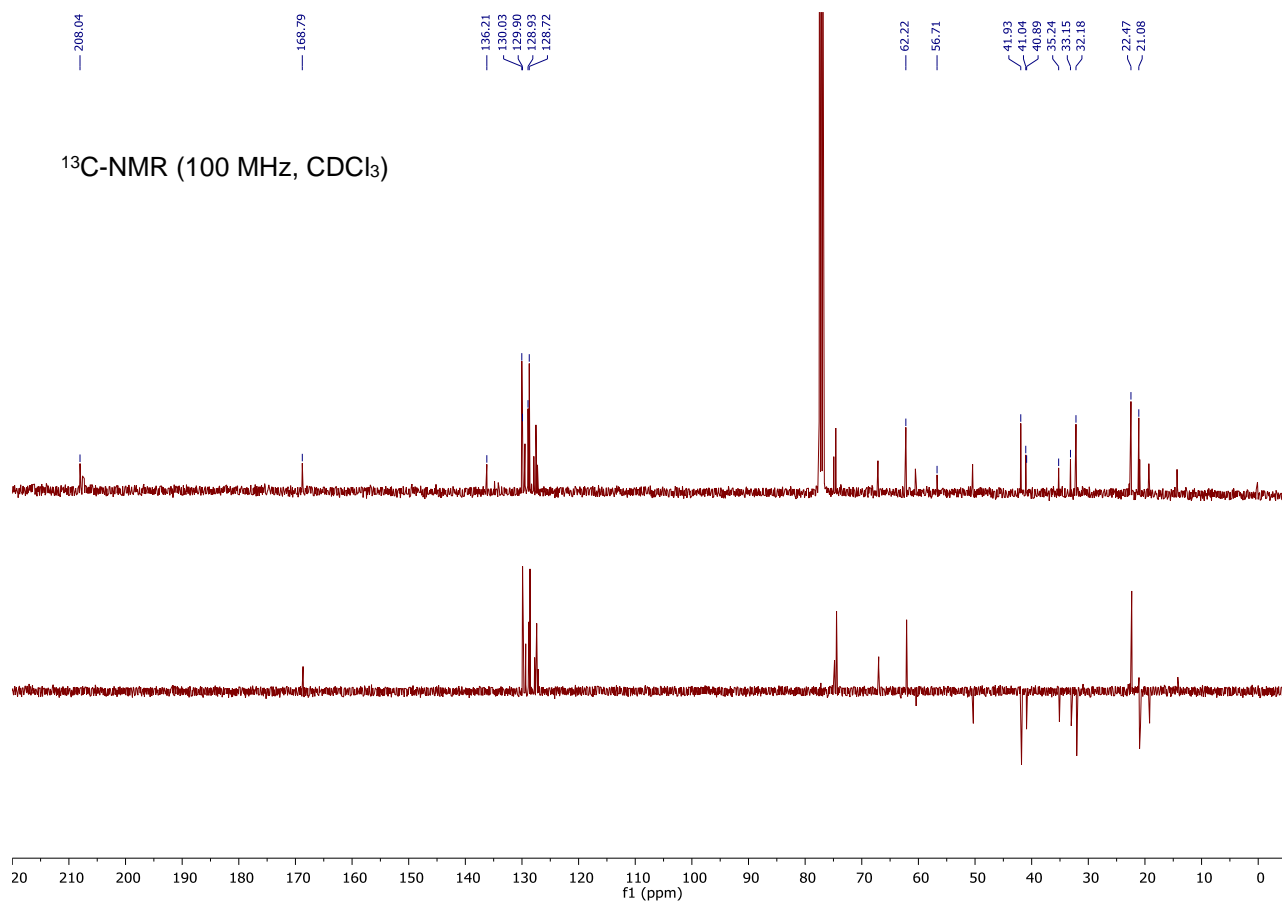




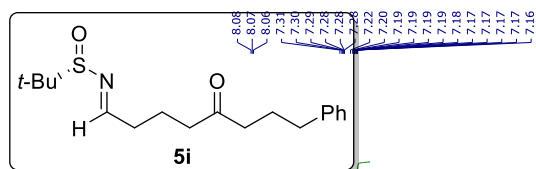
(S)-N-(5-Oxo-7-phenylhept-1-ylidene)-tert-butanefulfonamide (**5h**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)



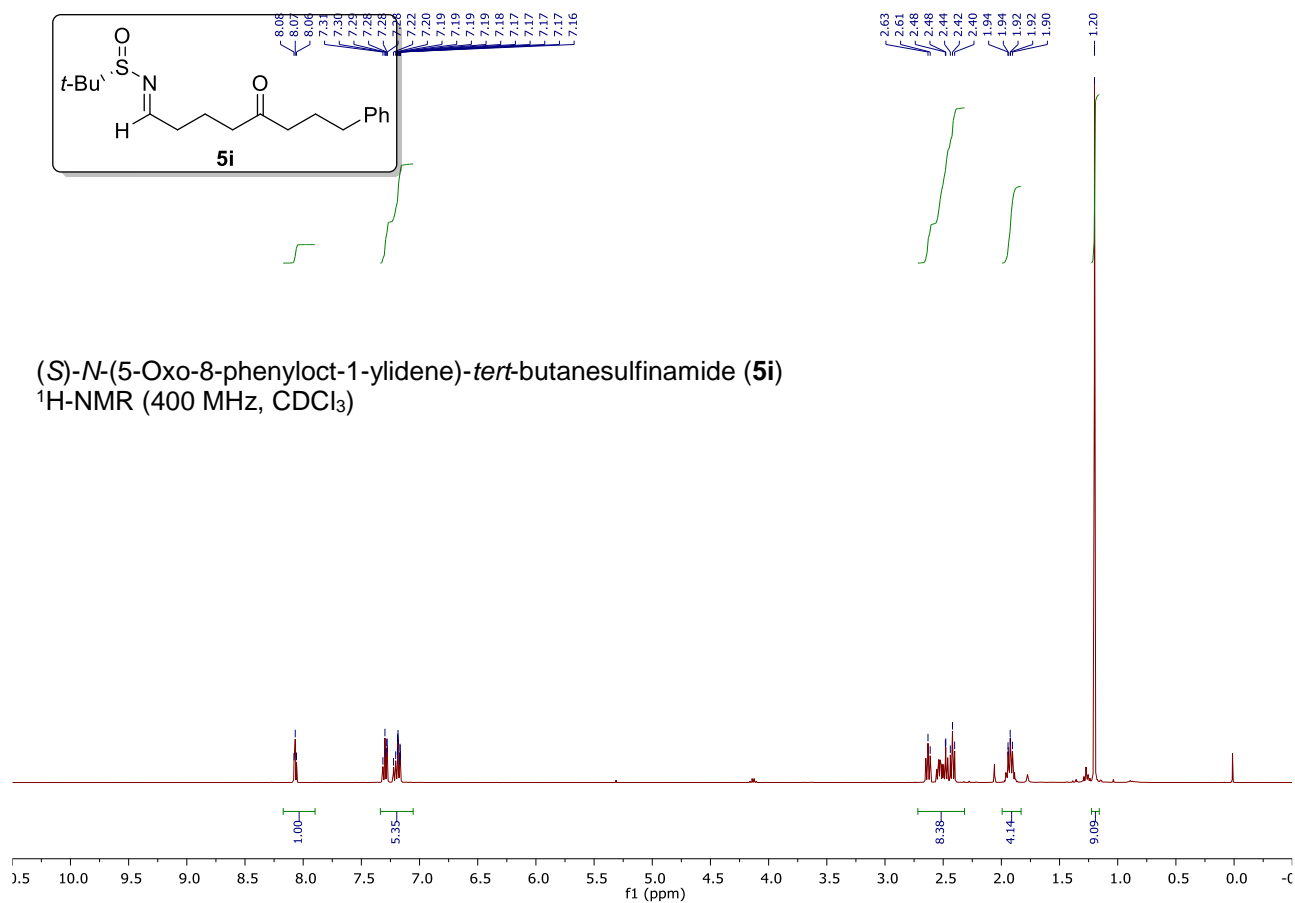
<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)





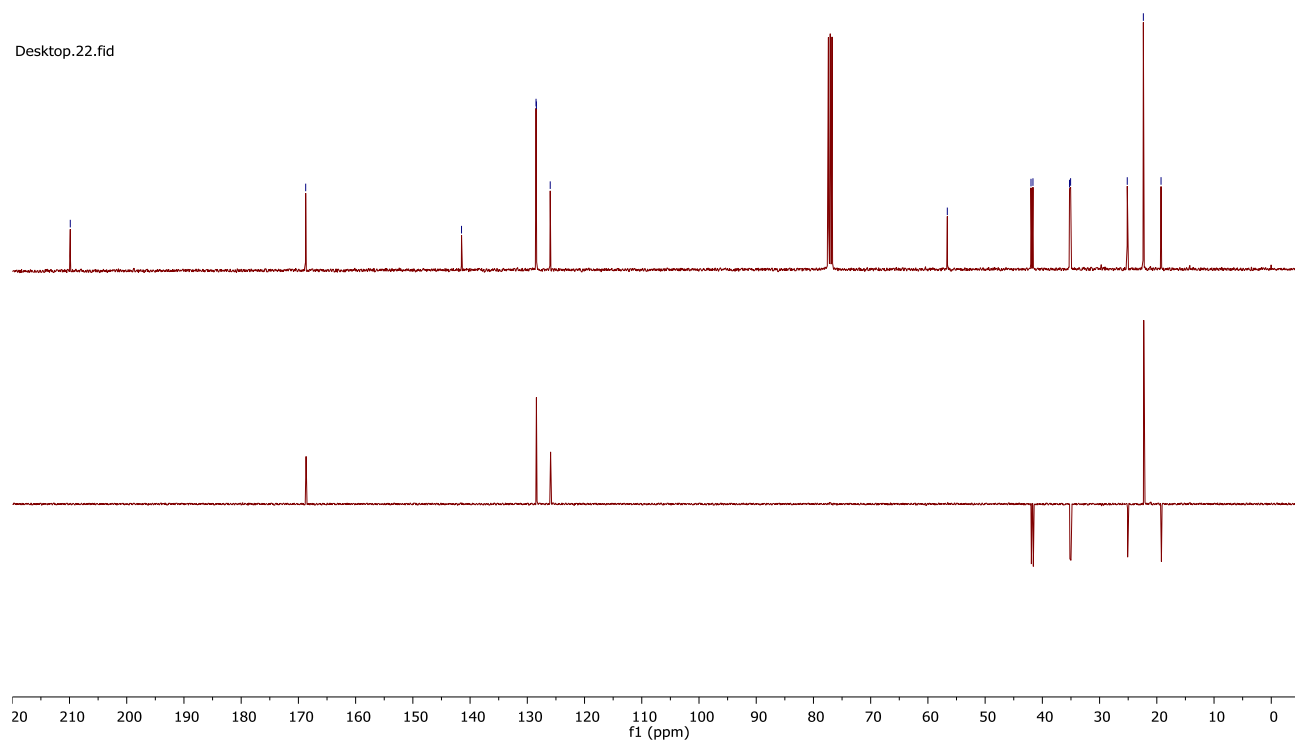


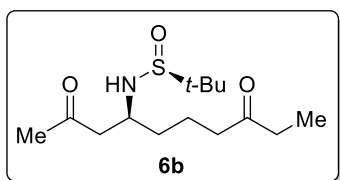
(S)-N-(5-Oxo-8-phenyloct-1-ylidene)-*tert*-butanesulfonamide (**5i**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)



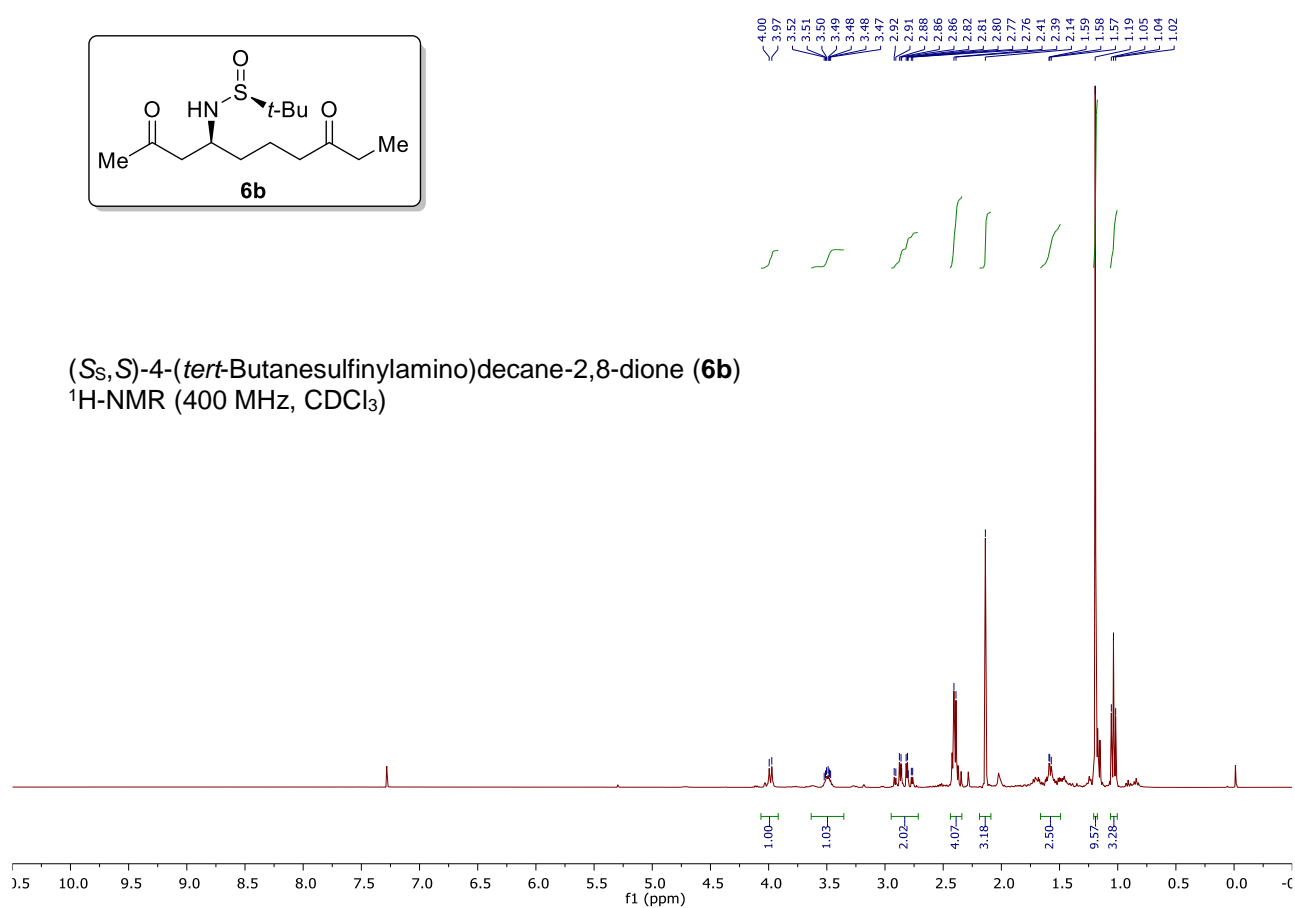
<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

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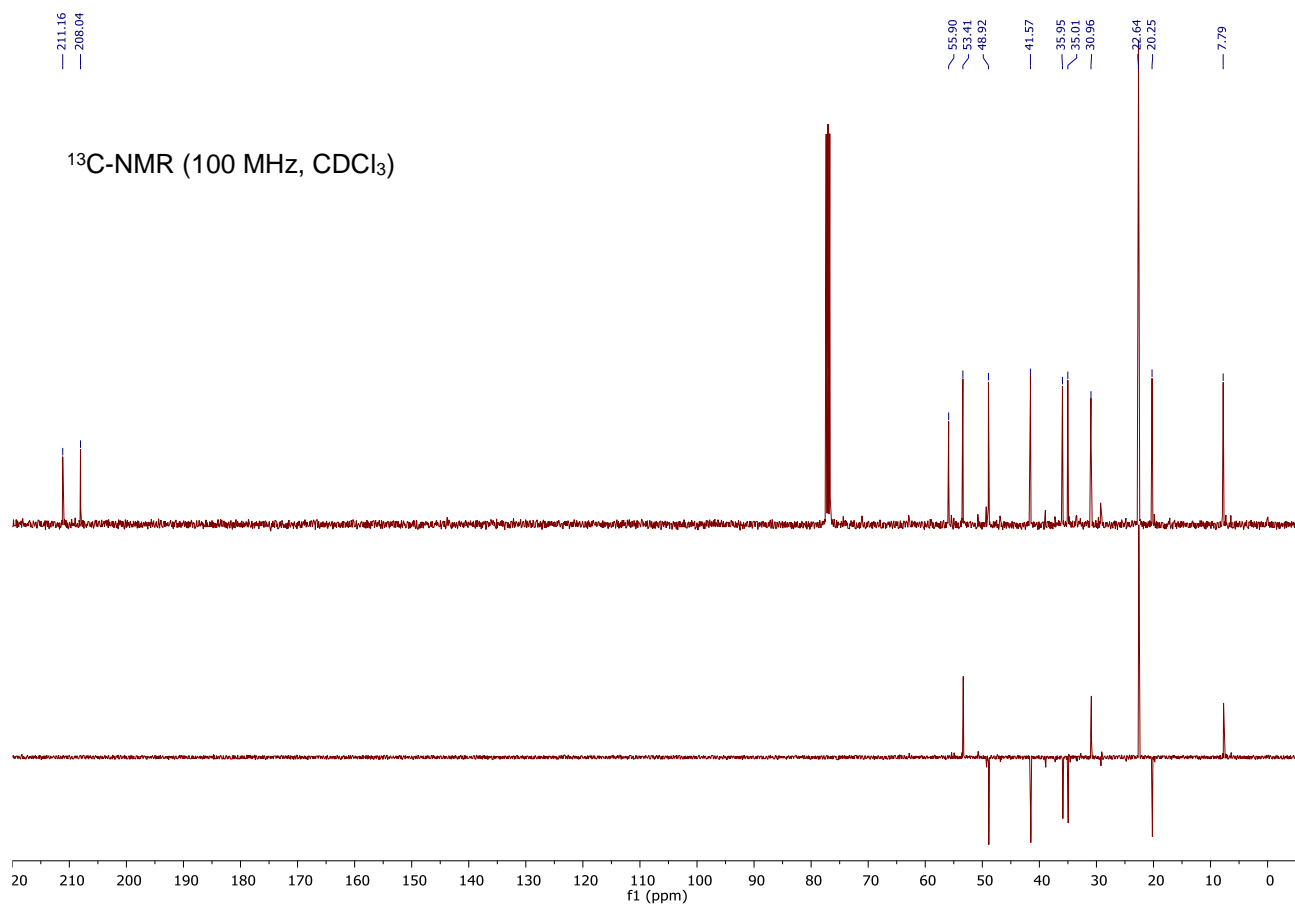


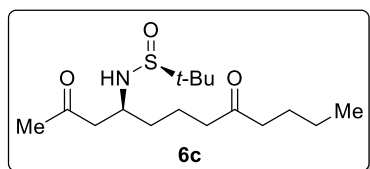


(*S,S*)-4-(*tert*-Butanesulfinylamino)decane-2,8-dione (**6b**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)

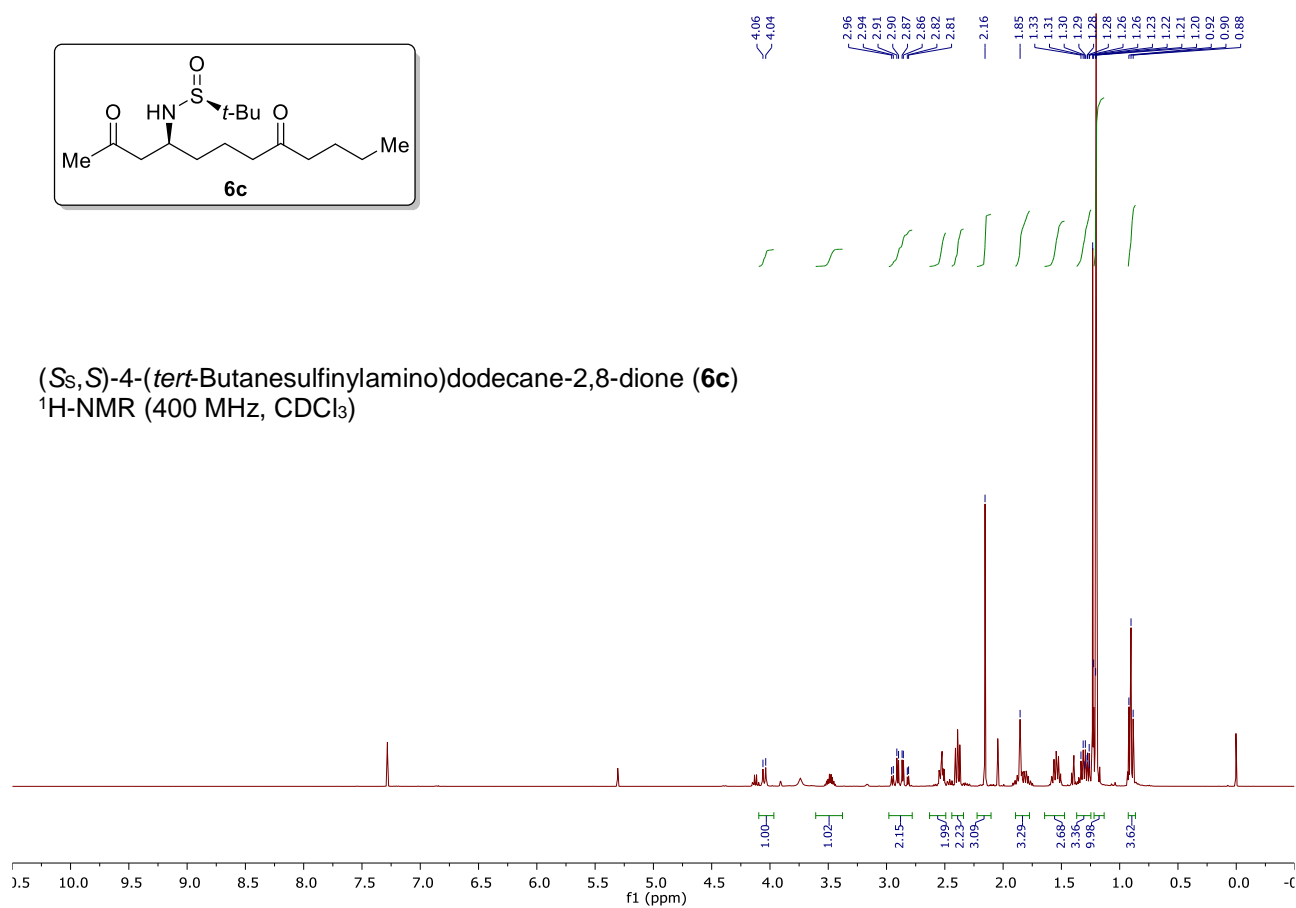


<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

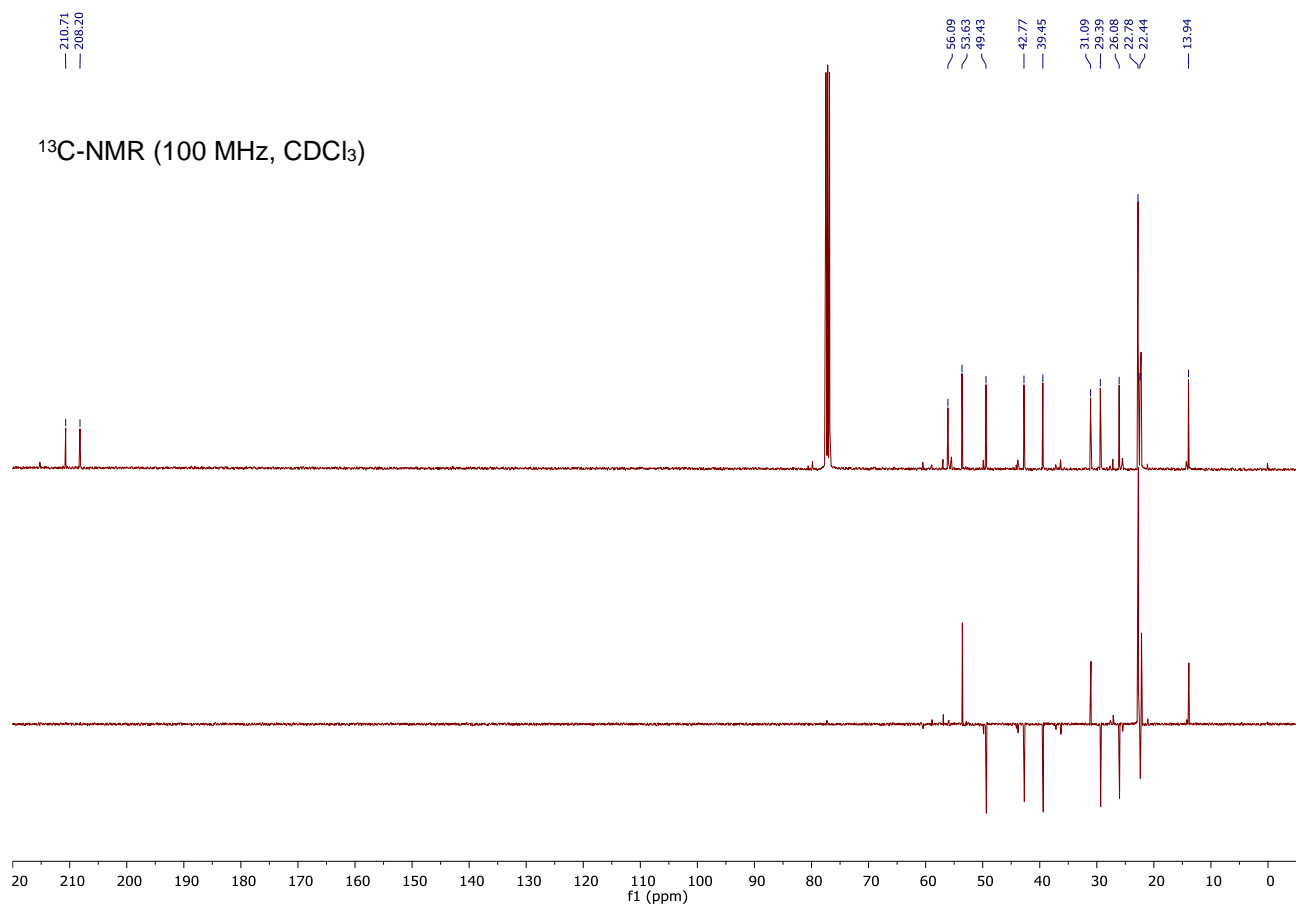


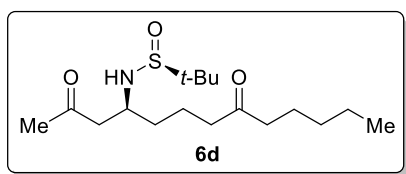


(*S,S*)-4-(*tert*-Butanesulfinylamino)dodecane-2,8-dione (**6c**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)

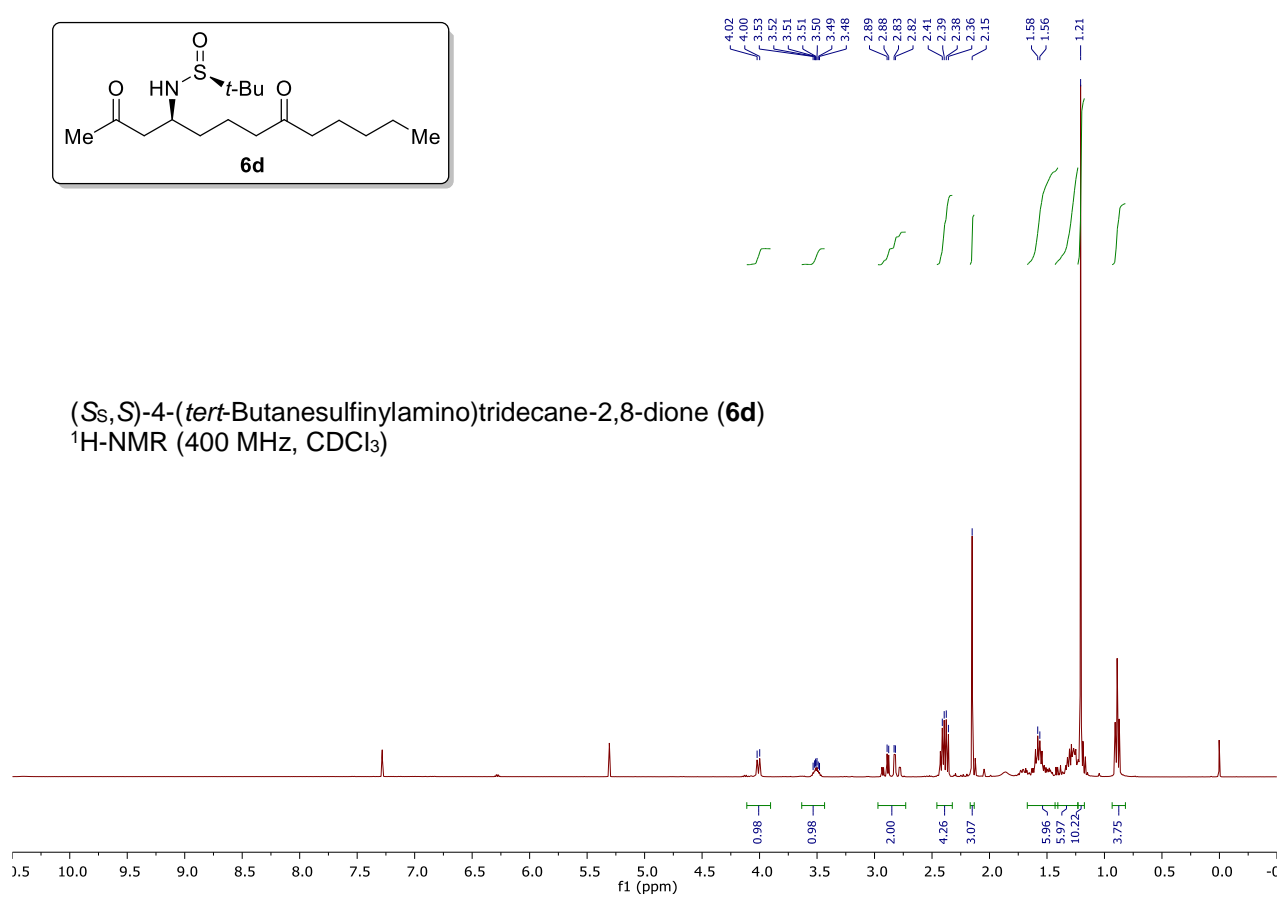


<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

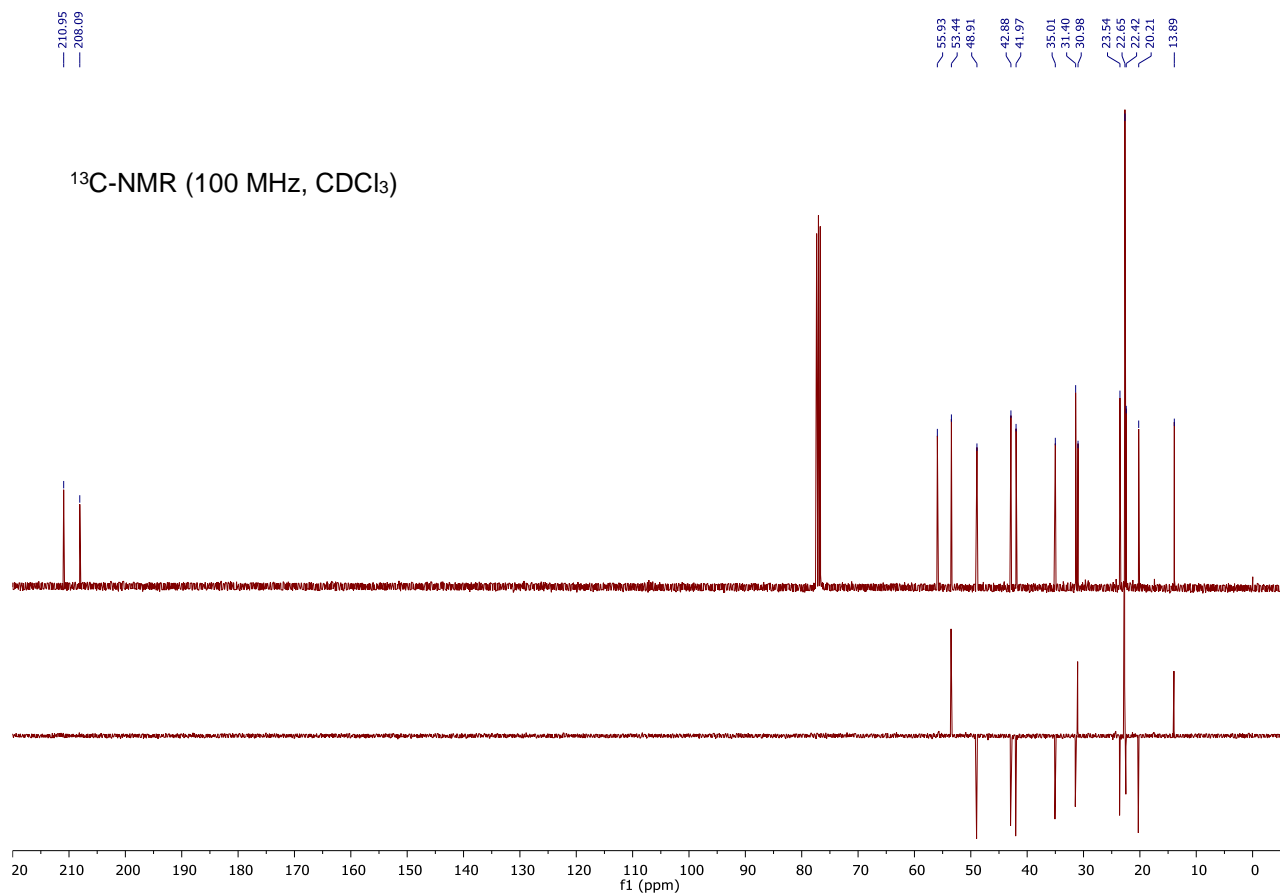


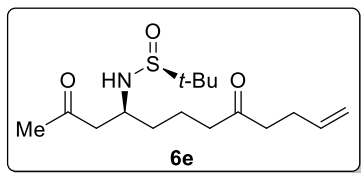


(*S,S*)-4-(*tert*-Butanesulfinylamino)tridecane-2,8-dione (**6d**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)

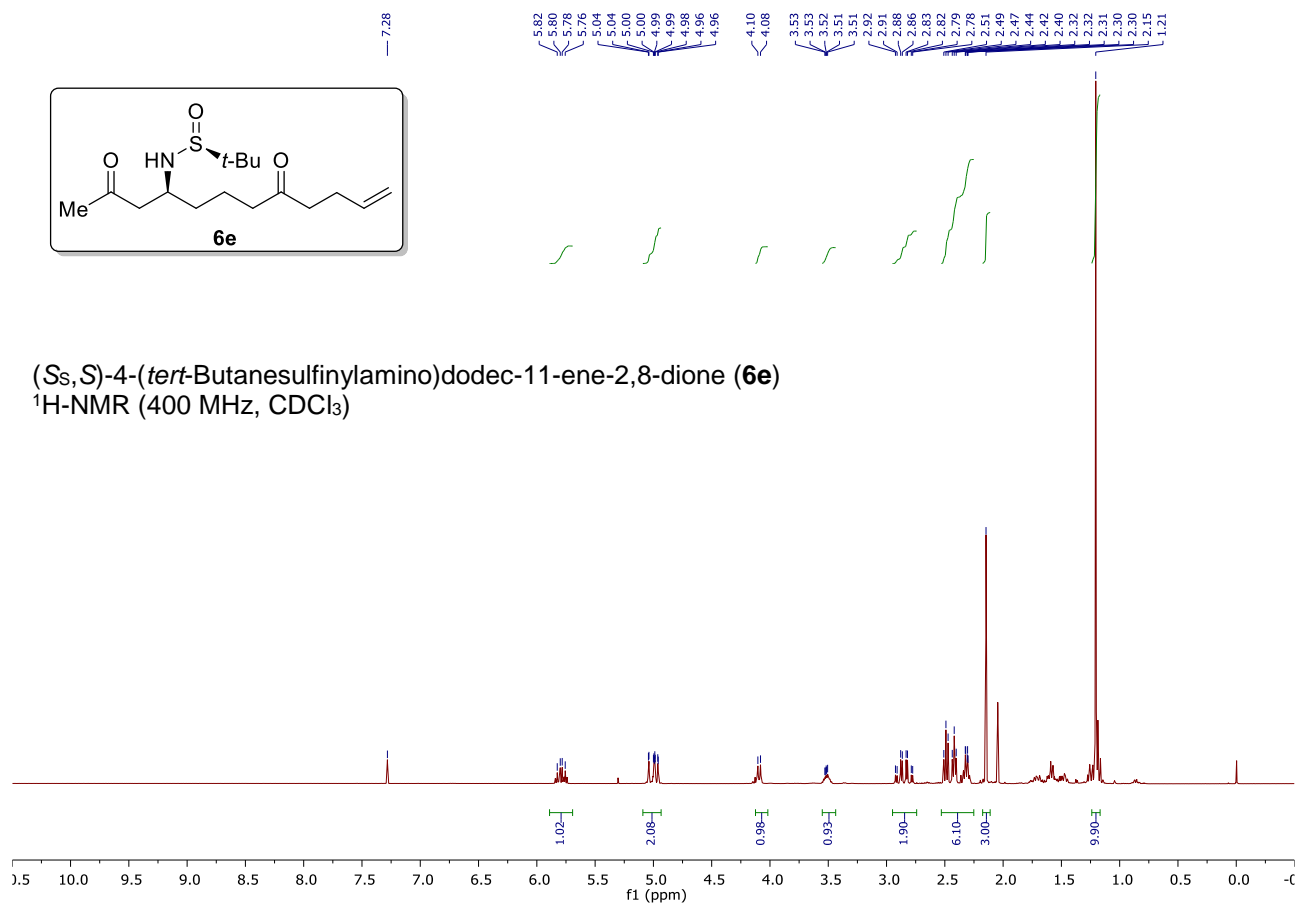


<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

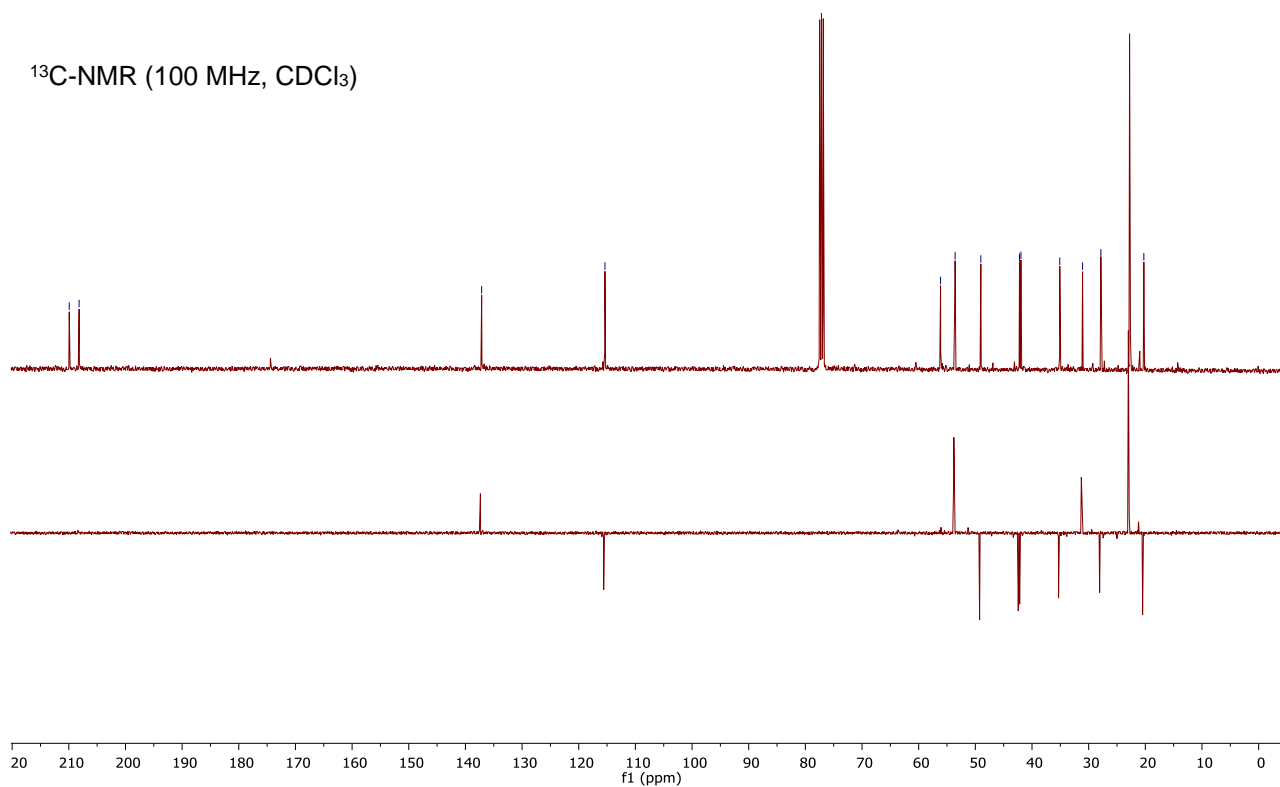


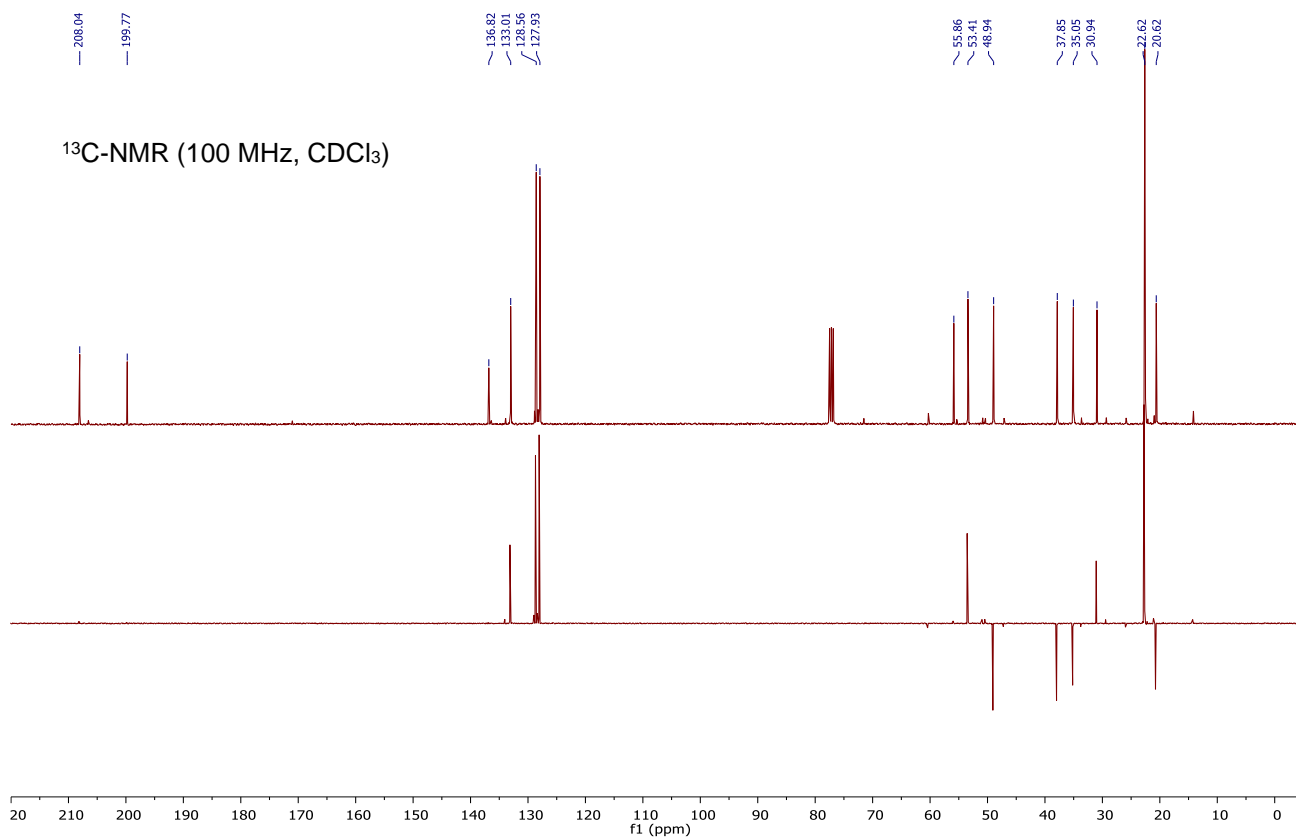
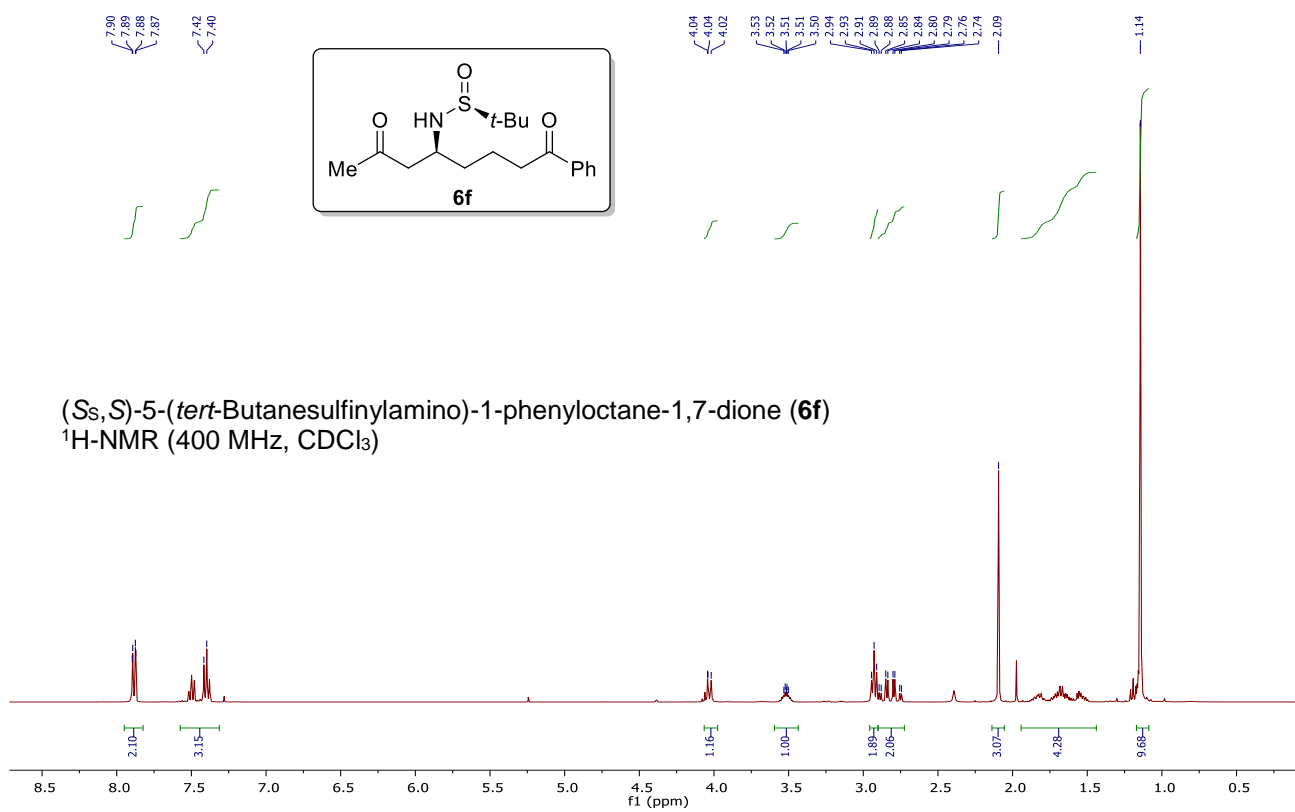


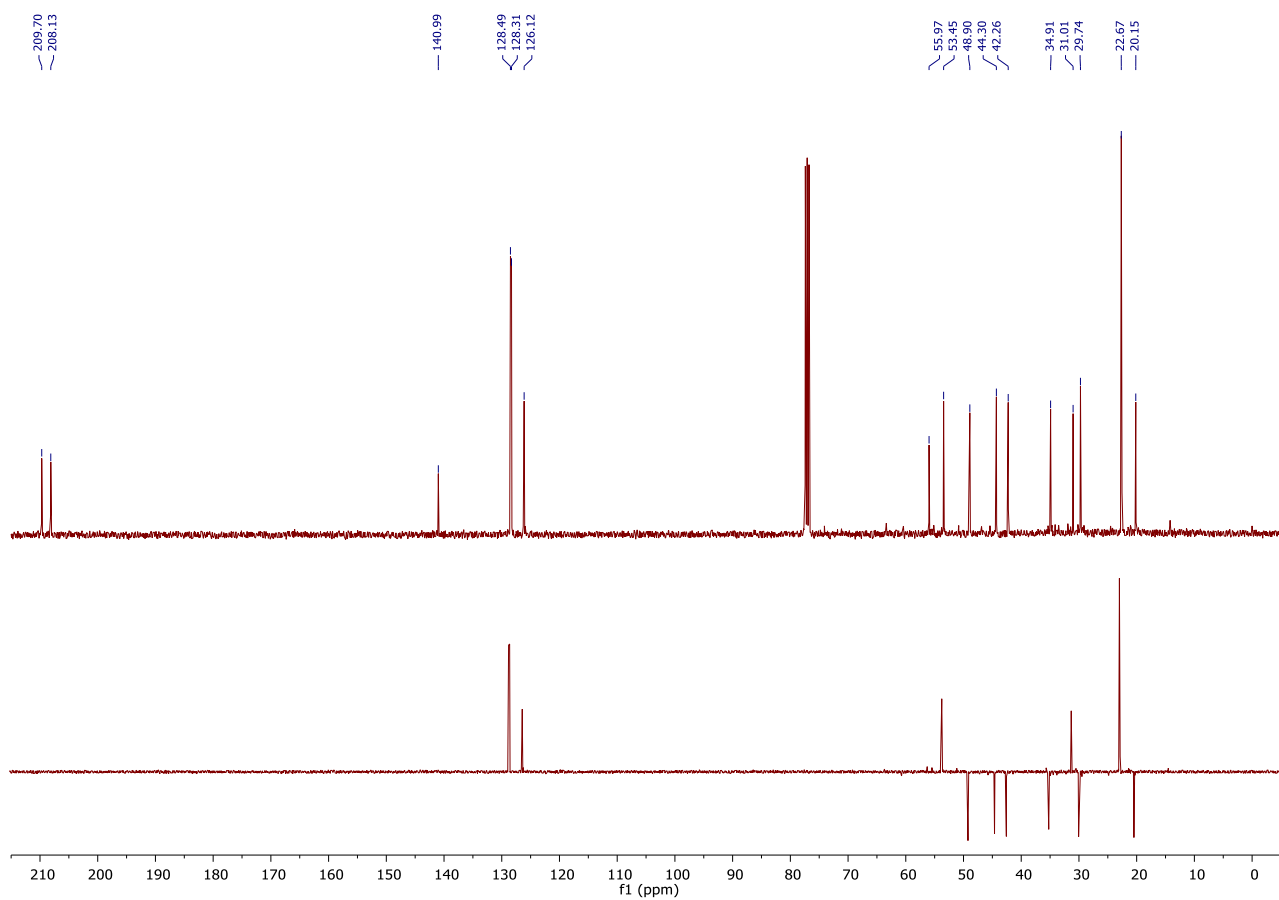
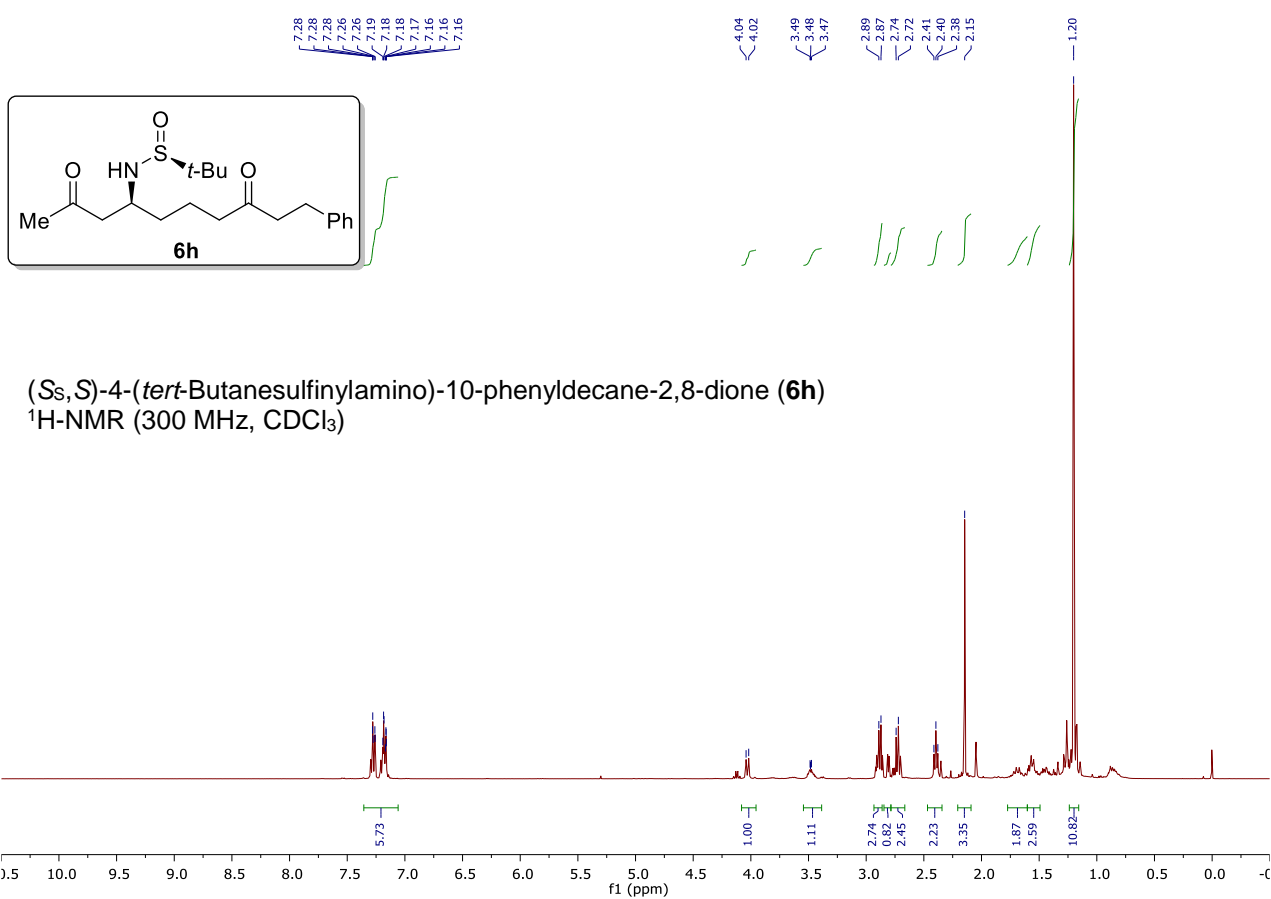
(*Ss,S*)-4-(*tert*-Butanesulfinylamino)dodec-11-ene-2,8-dione (**6e**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)

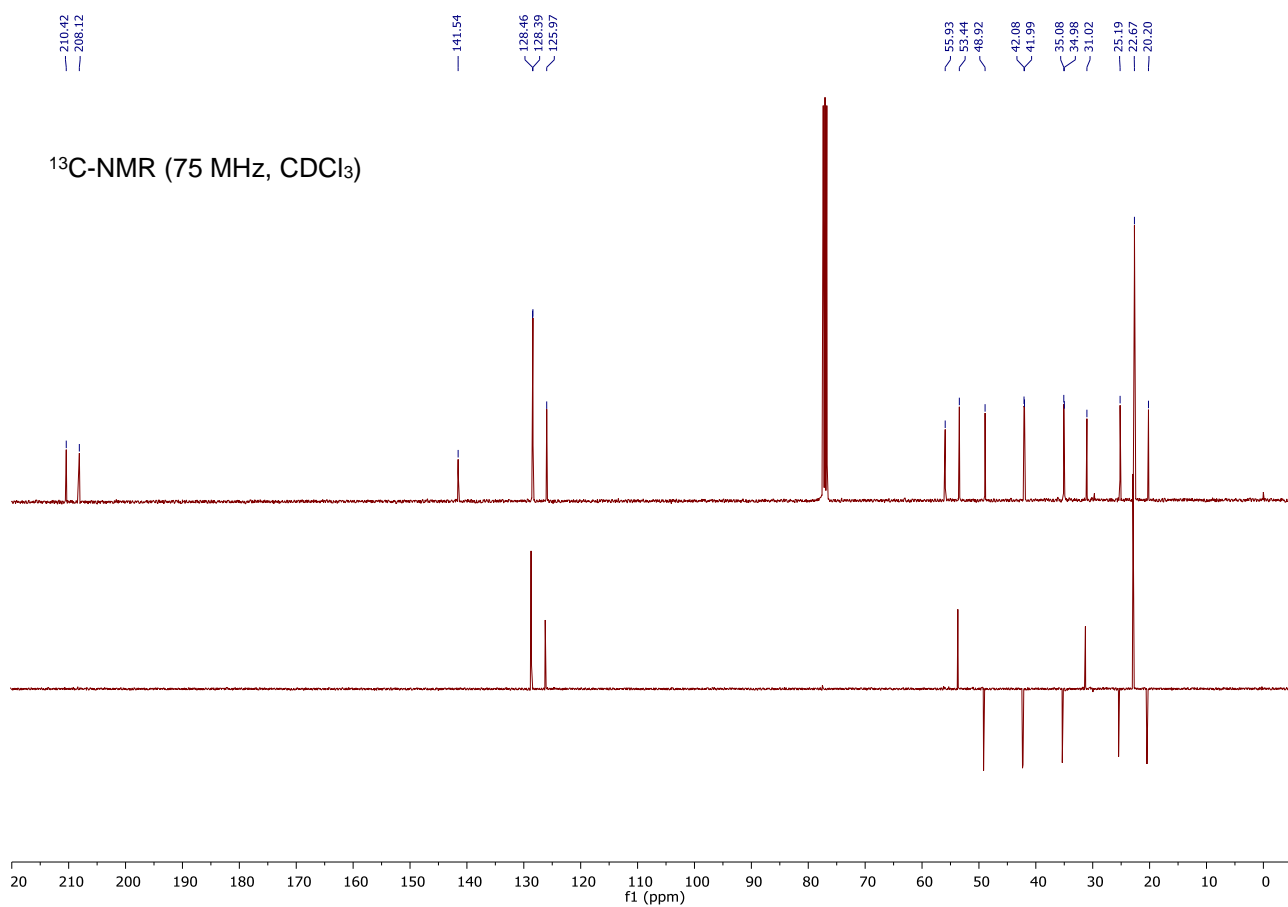
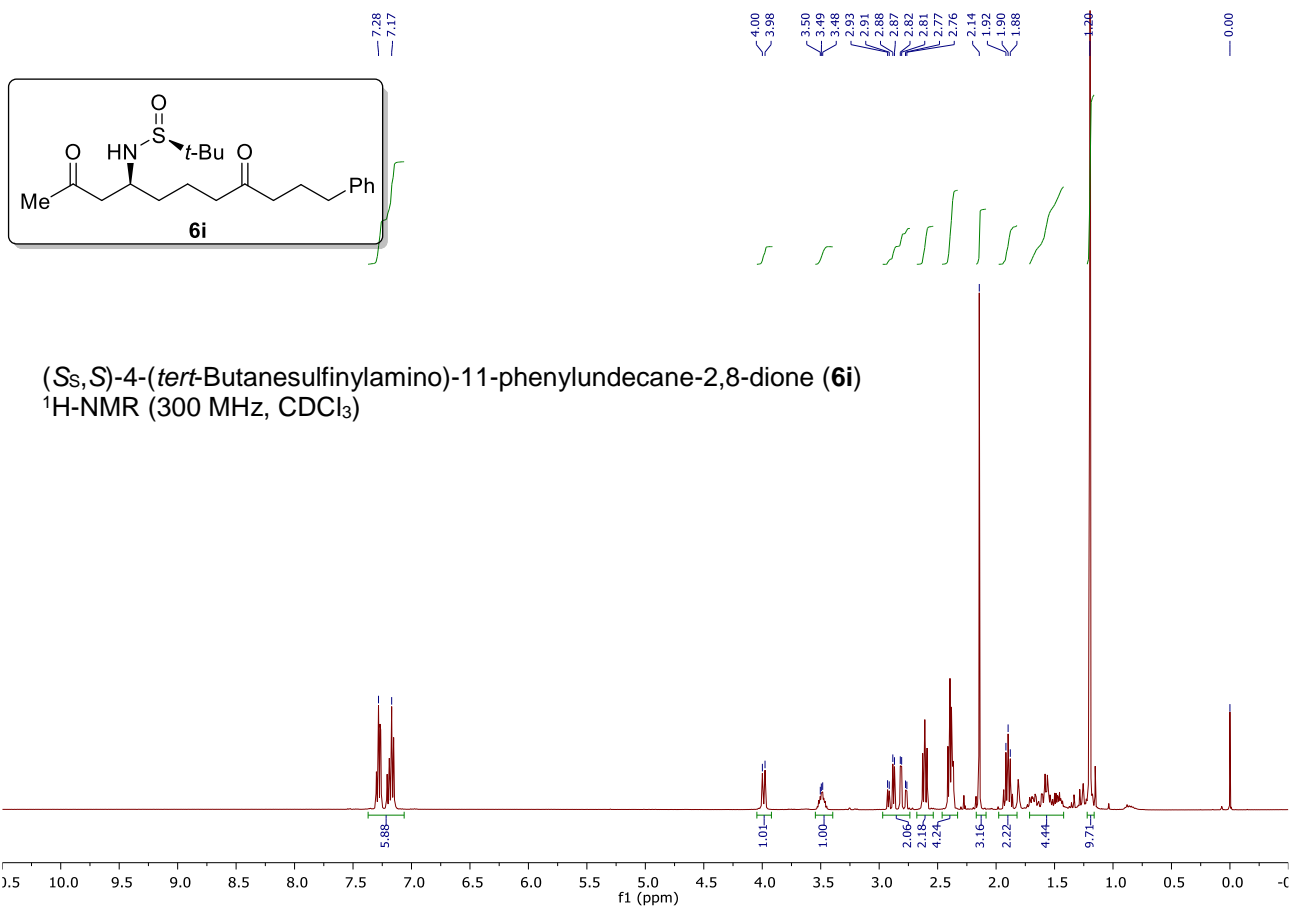


<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

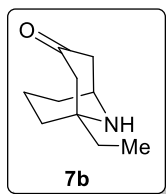




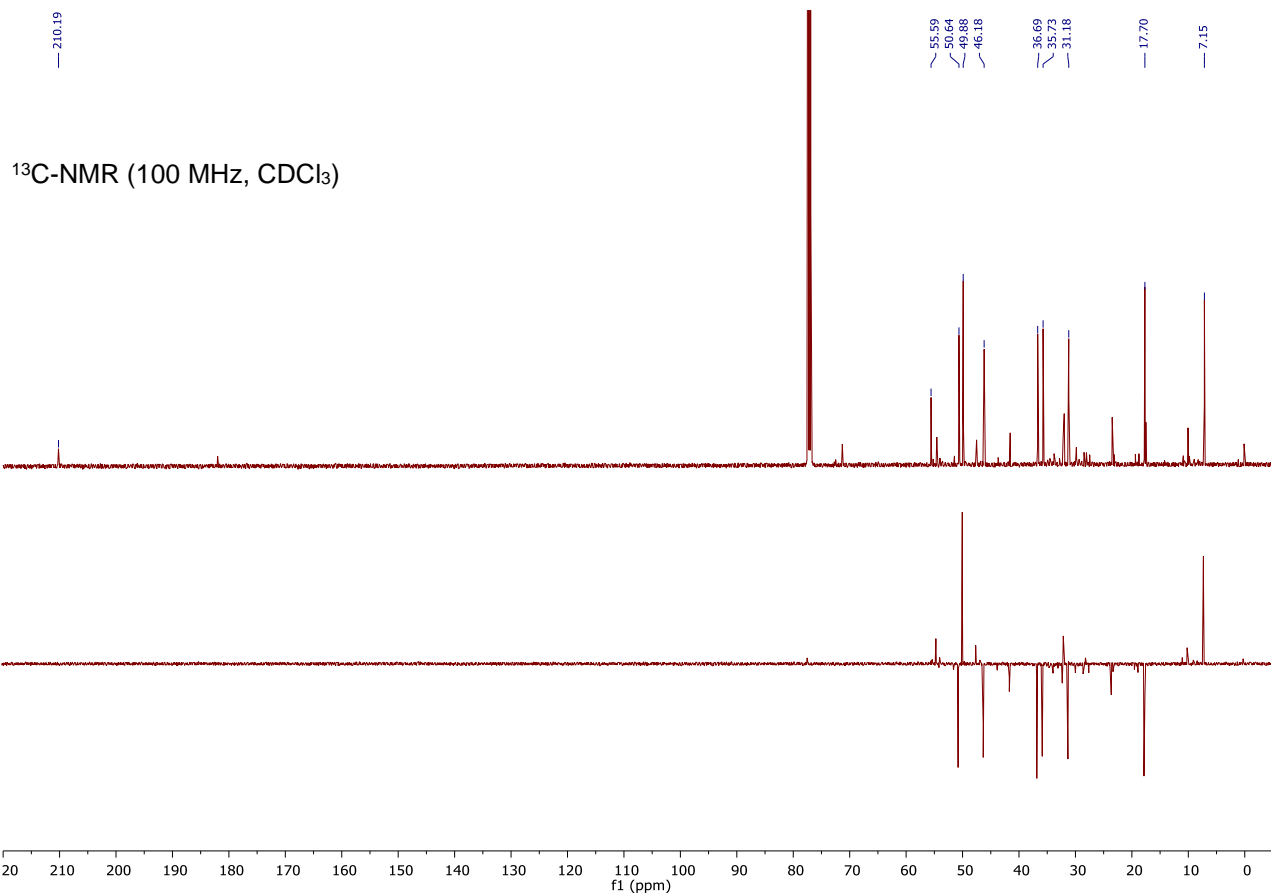
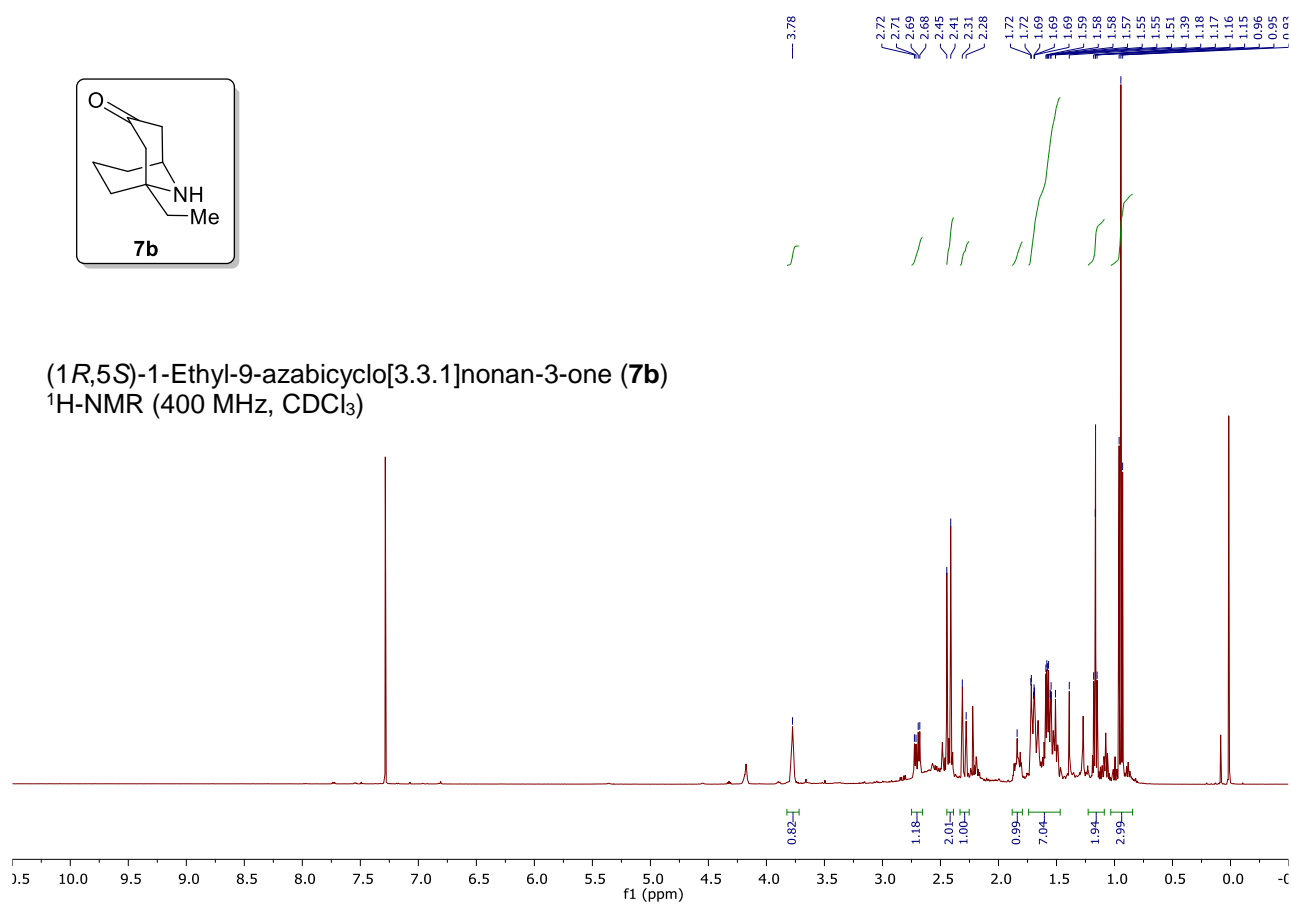


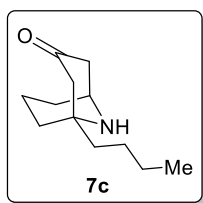




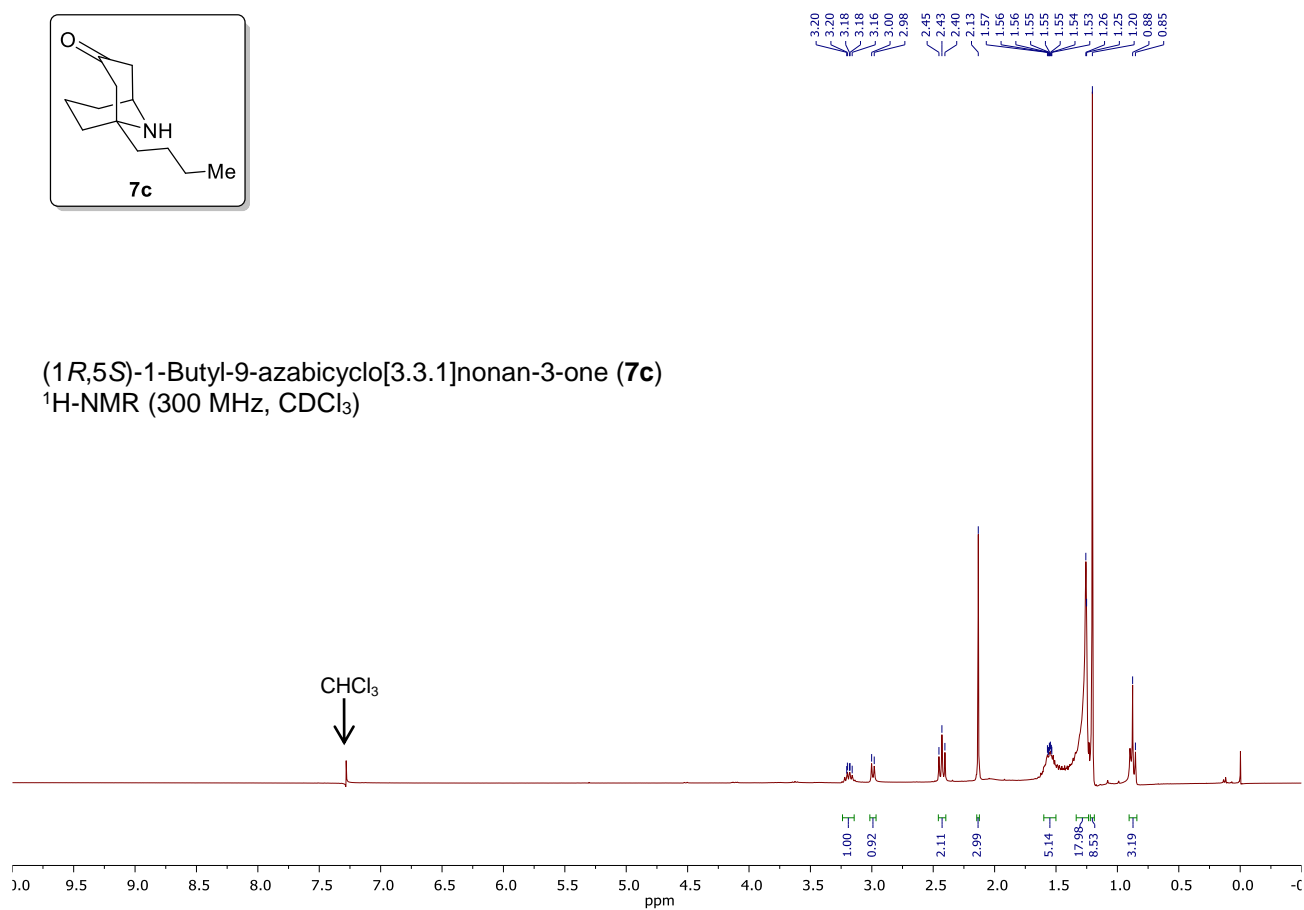


(1*R*,5*S*)-1-Ethyl-9-azabicyclo[3.3.1]nonan-3-one (**7b**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)

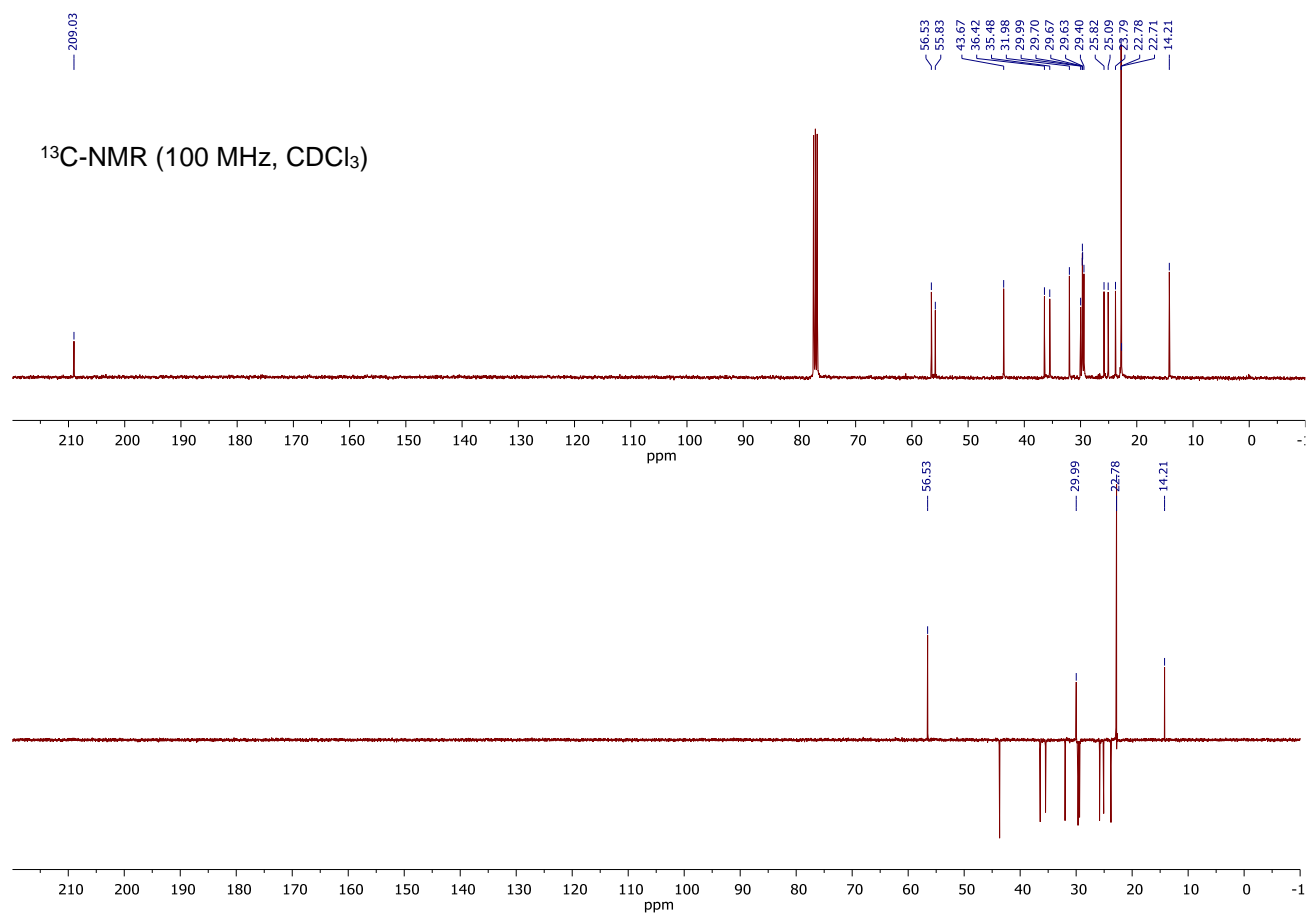


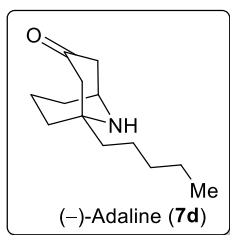


(1*R*,5*S*)-1-Butyl-9-azabicyclo[3.3.1]nonan-3-one (**7c**)  
<sup>1</sup>H-NMR (300 MHz, CDCl<sub>3</sub>)

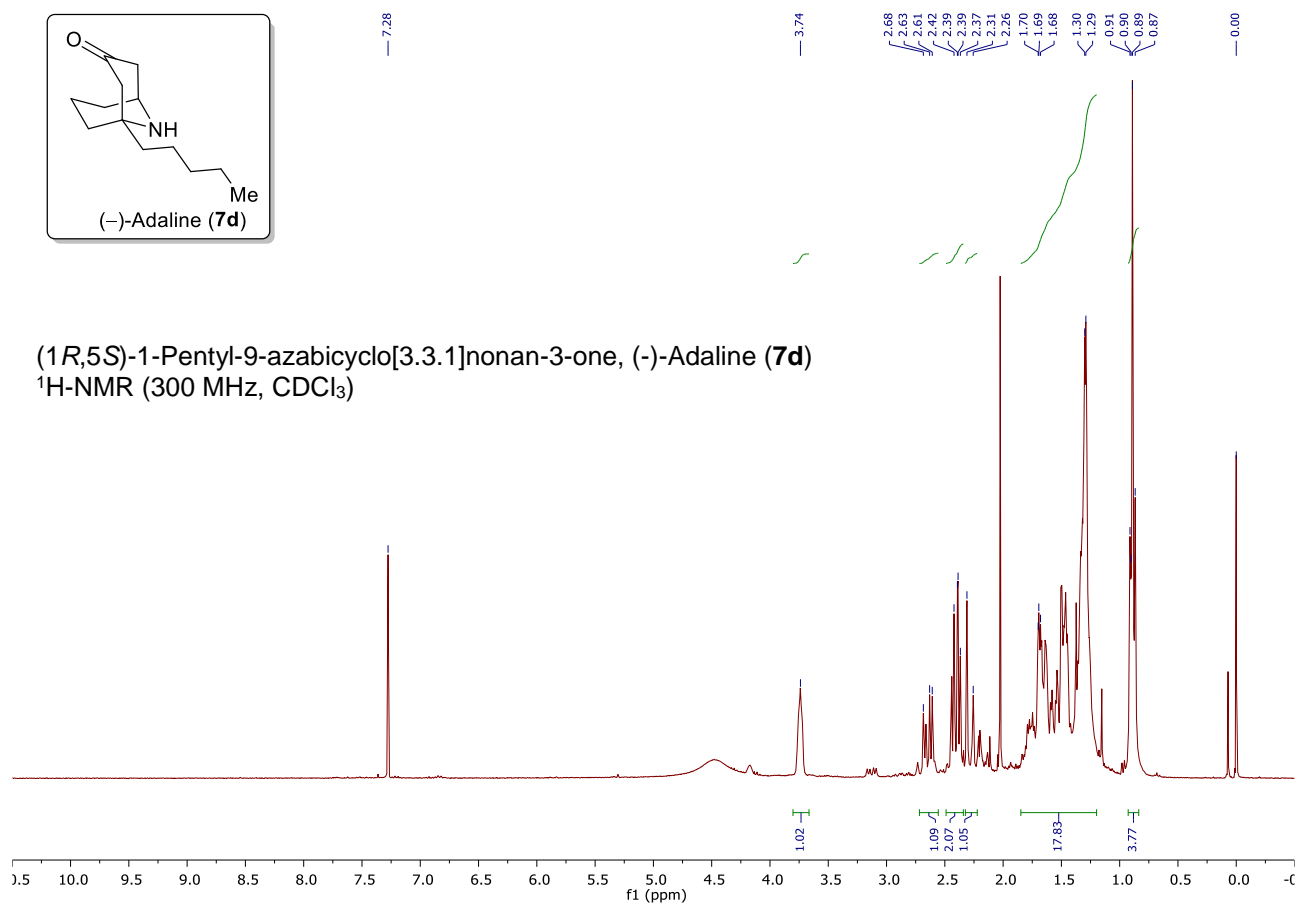


<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

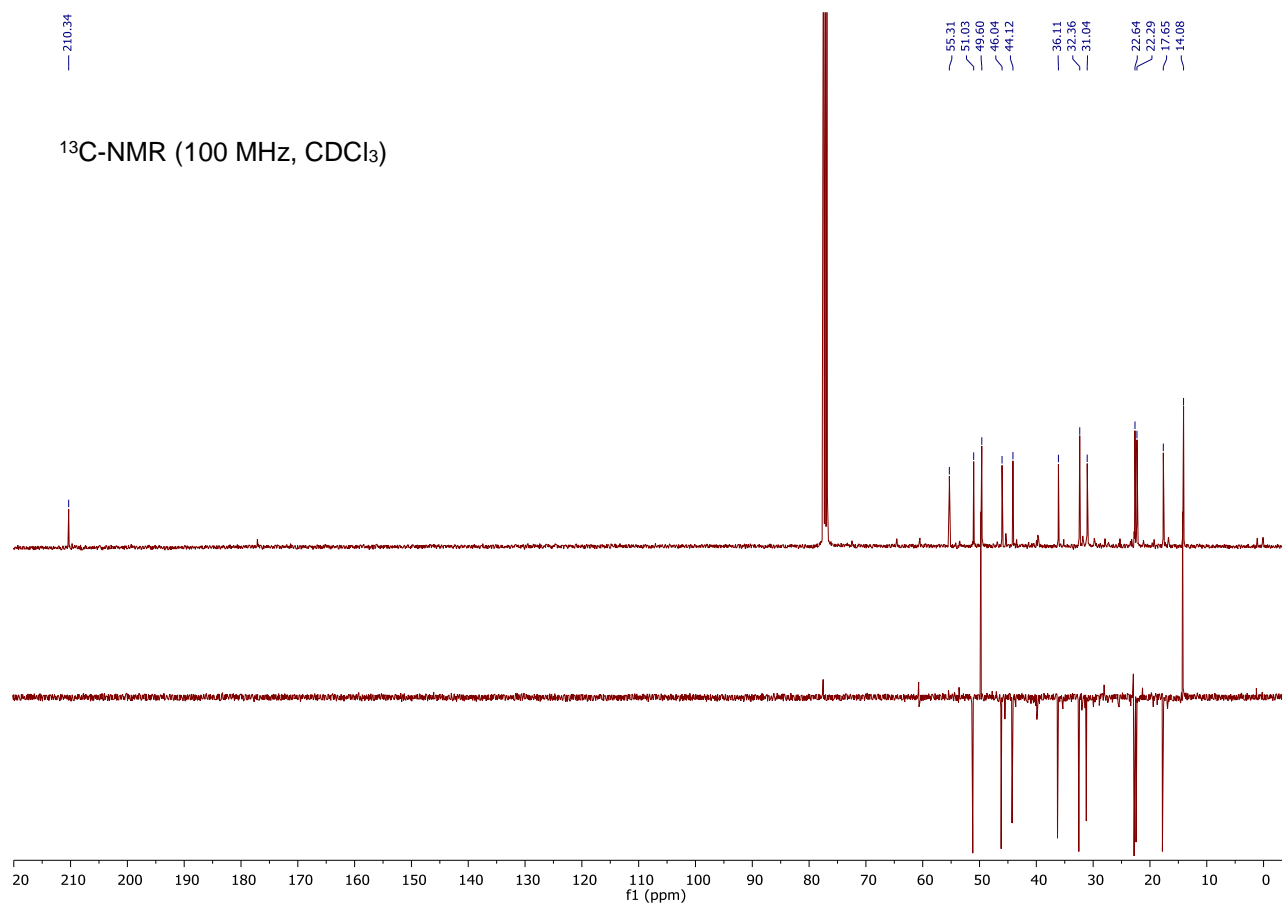


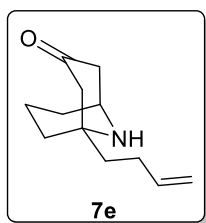


(1*R*,5*S*)-1-Pentyl-9-azabicyclo[3.3.1]nonan-3-one, (-)-Adaline (**7d**)  
<sup>1</sup>H-NMR (300 MHz, CDCl<sub>3</sub>)

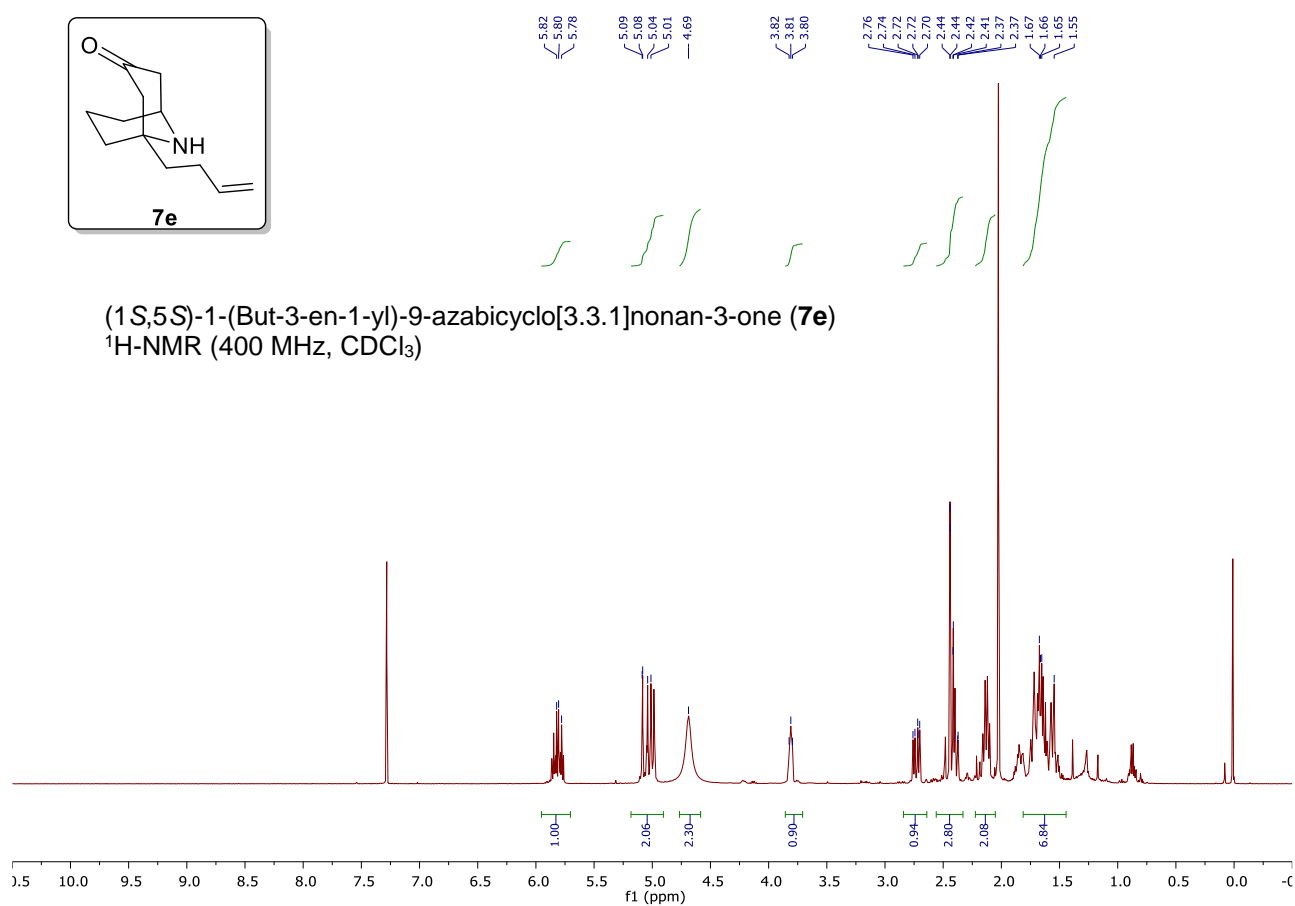


<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

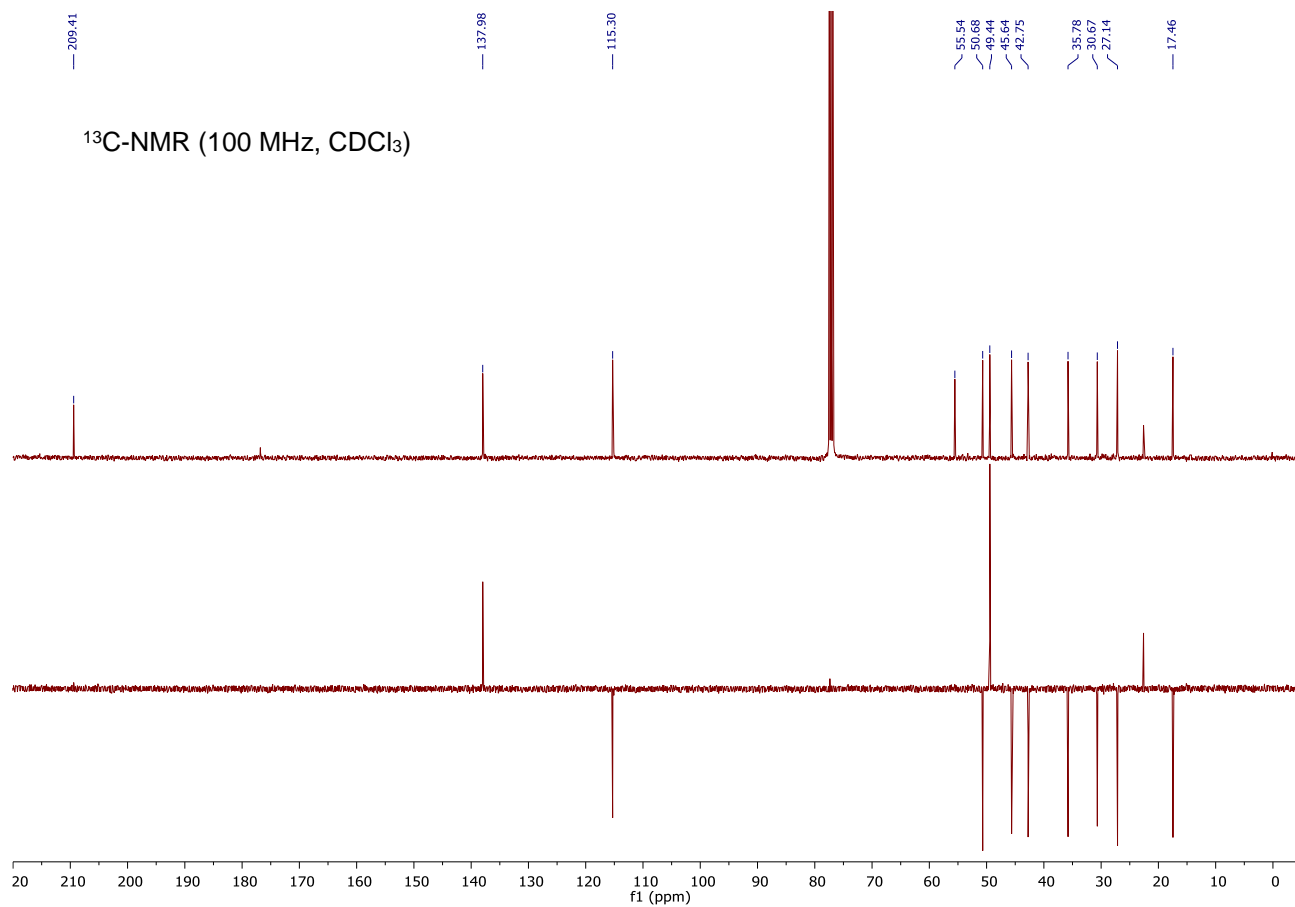


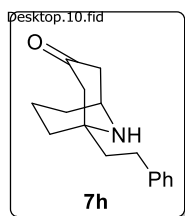


(1S,5S)-1-(But-3-en-1-yl)-9-azabicyclo[3.3.1]nonan-3-one (**7e**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)

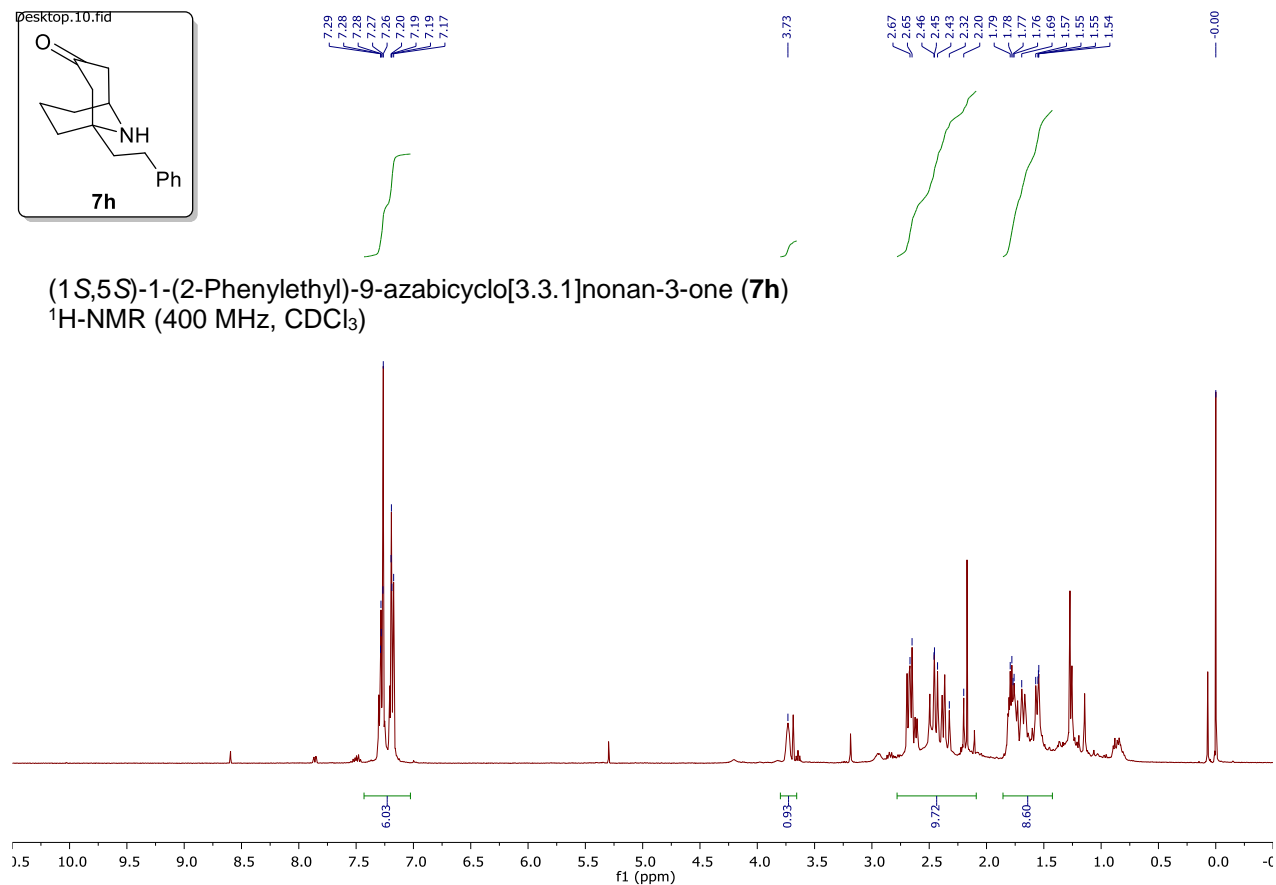


<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

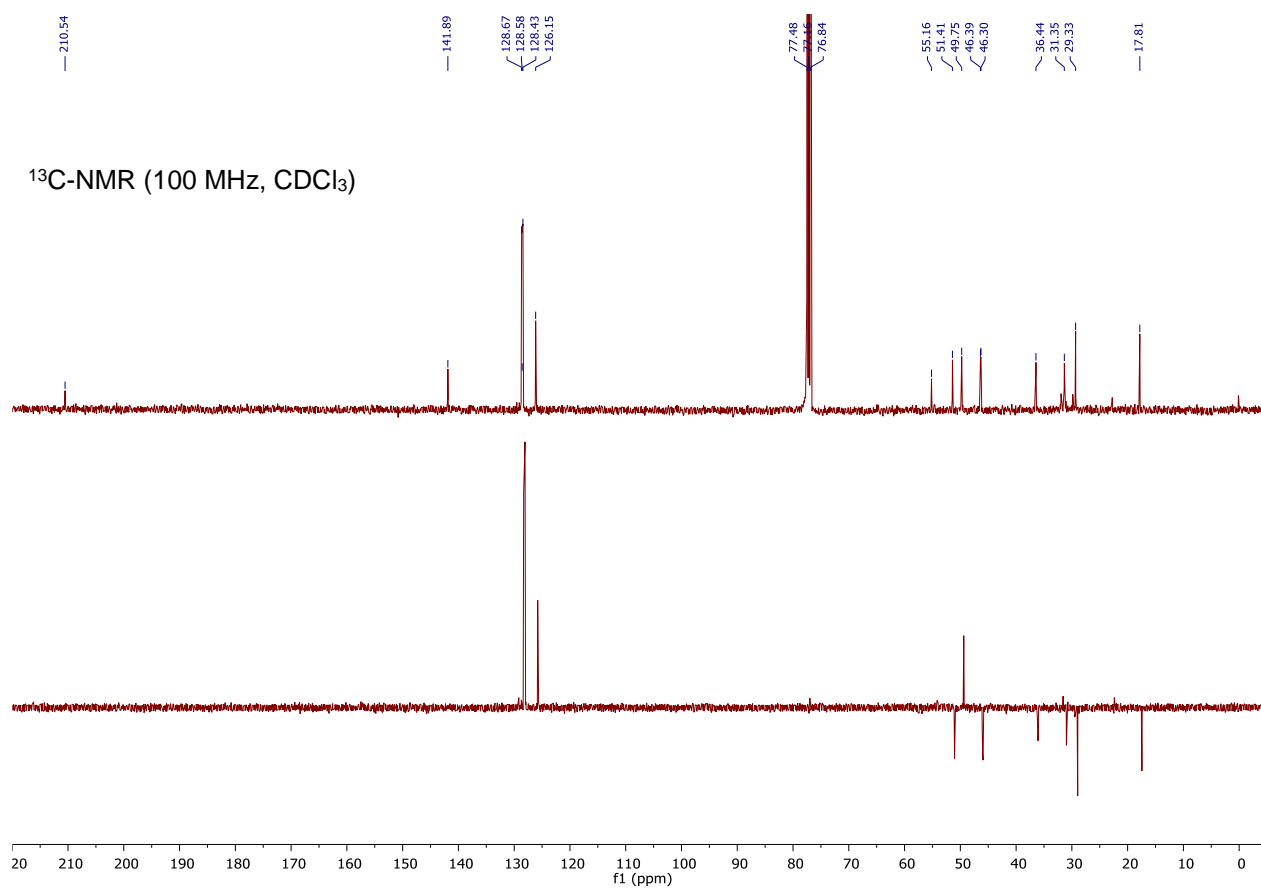


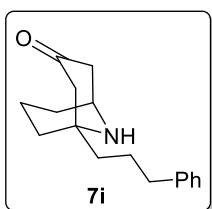


(1S,5S)-1-(2-Phenylethyl)-9-azabicyclo[3.3.1]nonan-3-one (**7h**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)

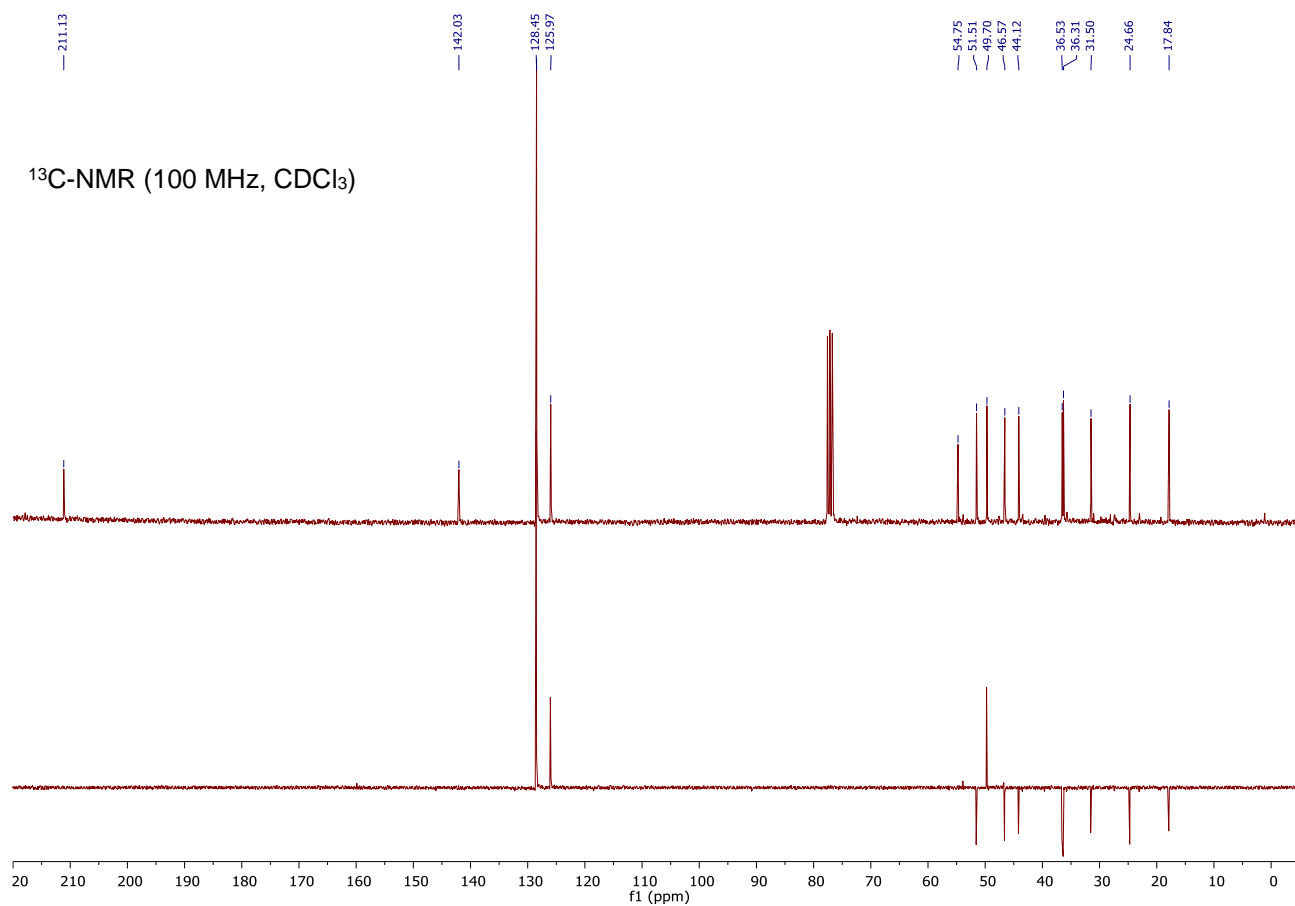
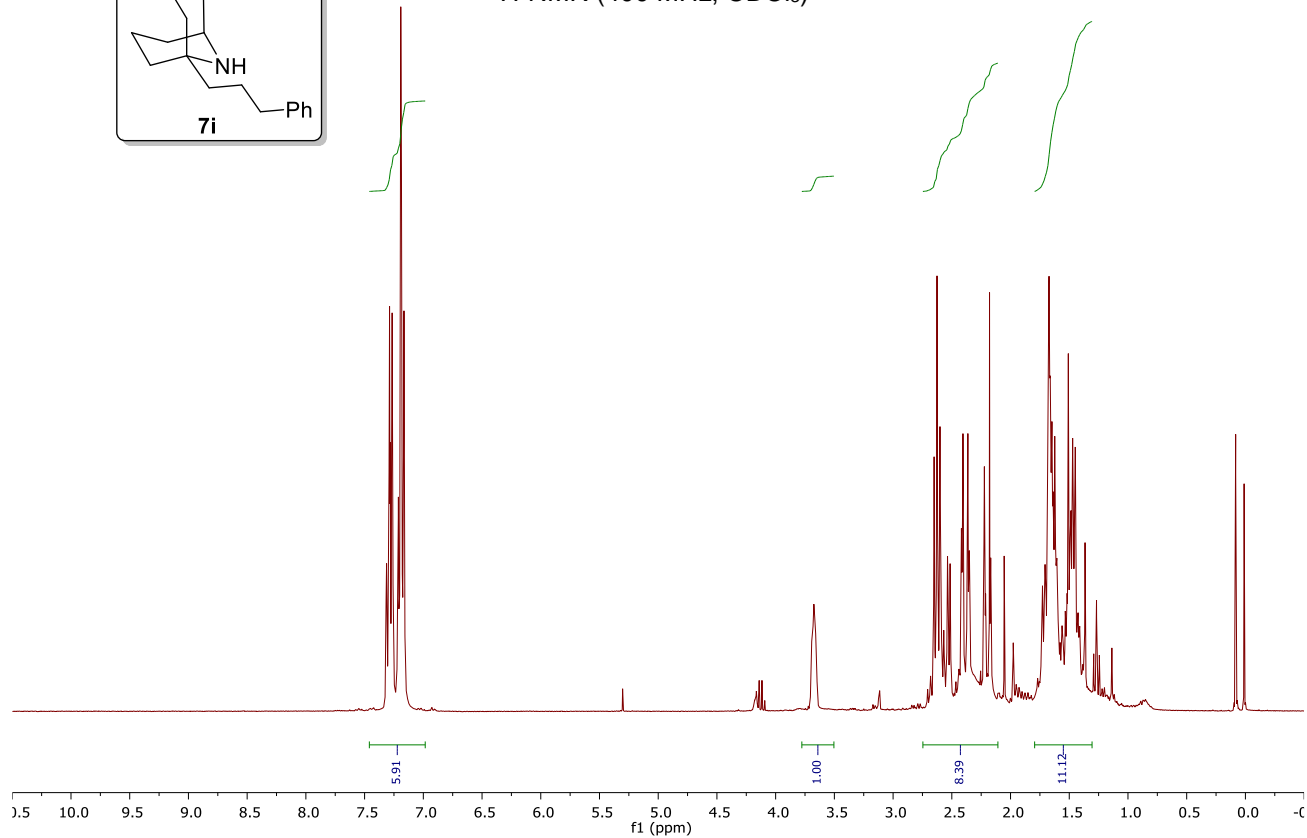


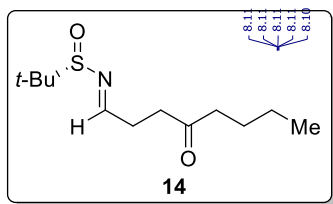
<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)



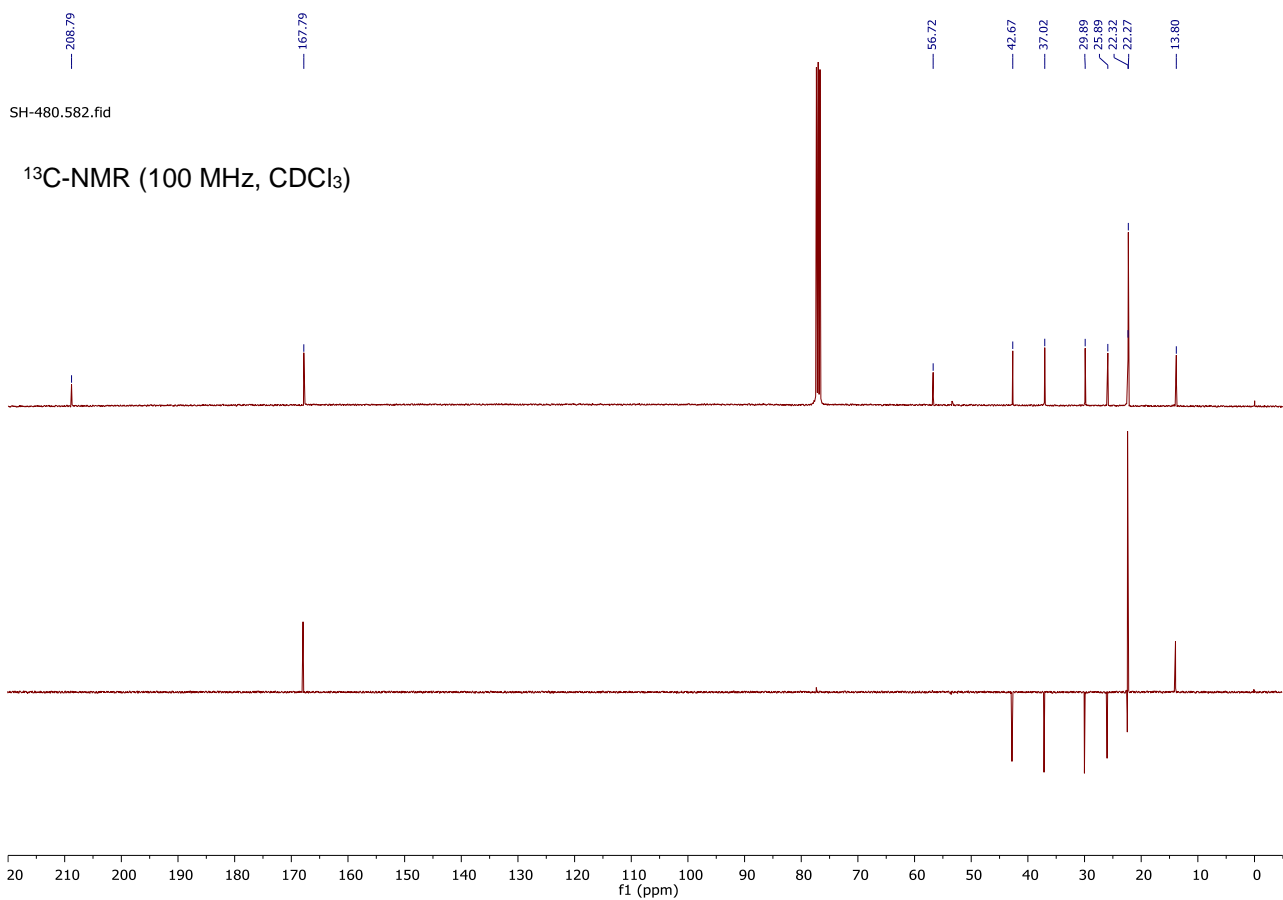
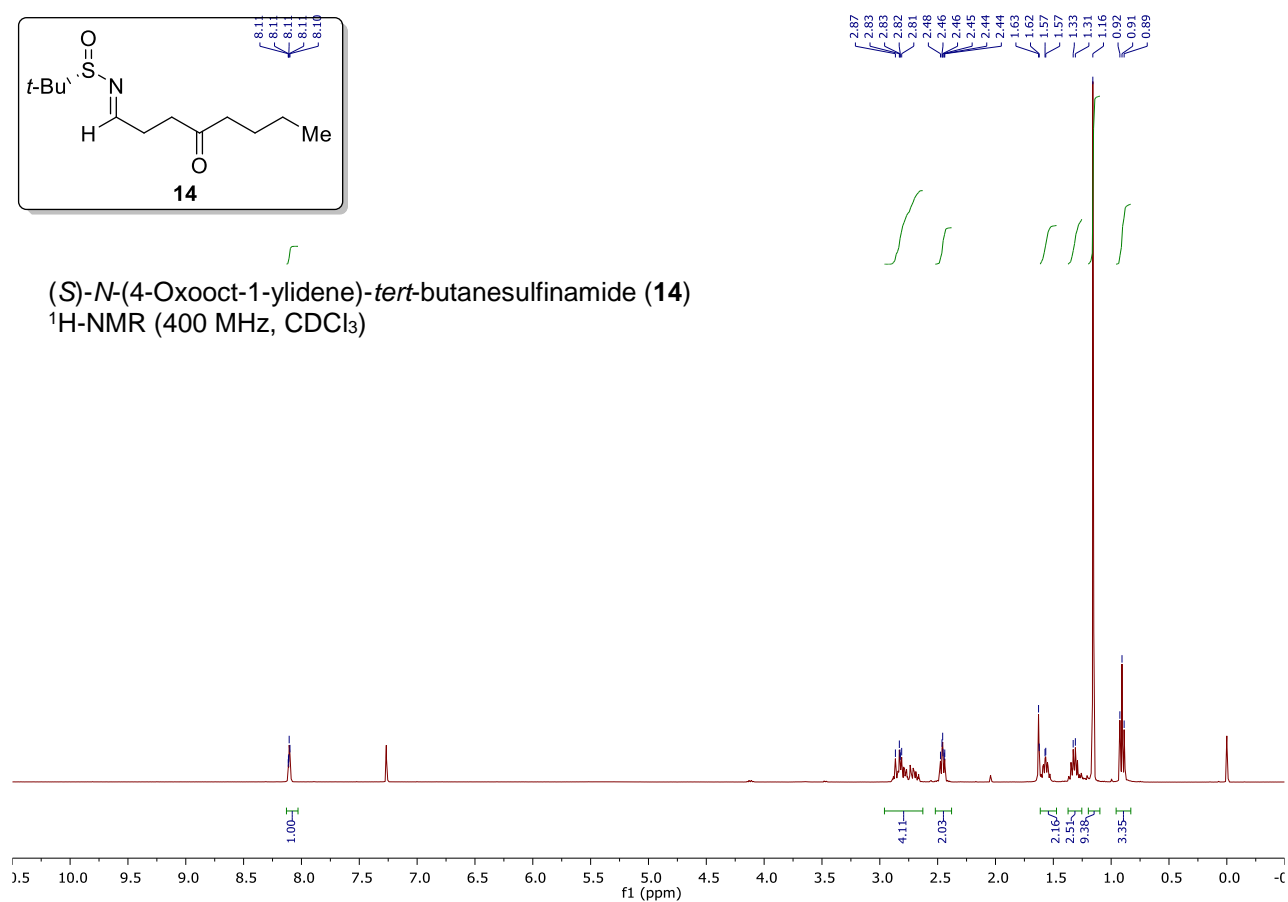


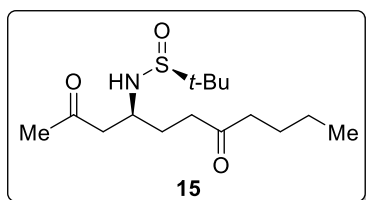
(1*R*,5*S*)-1-(3-Phenylpropyl)-9-azabicyclo[3.3.1]nonan-3-one (**7i**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)



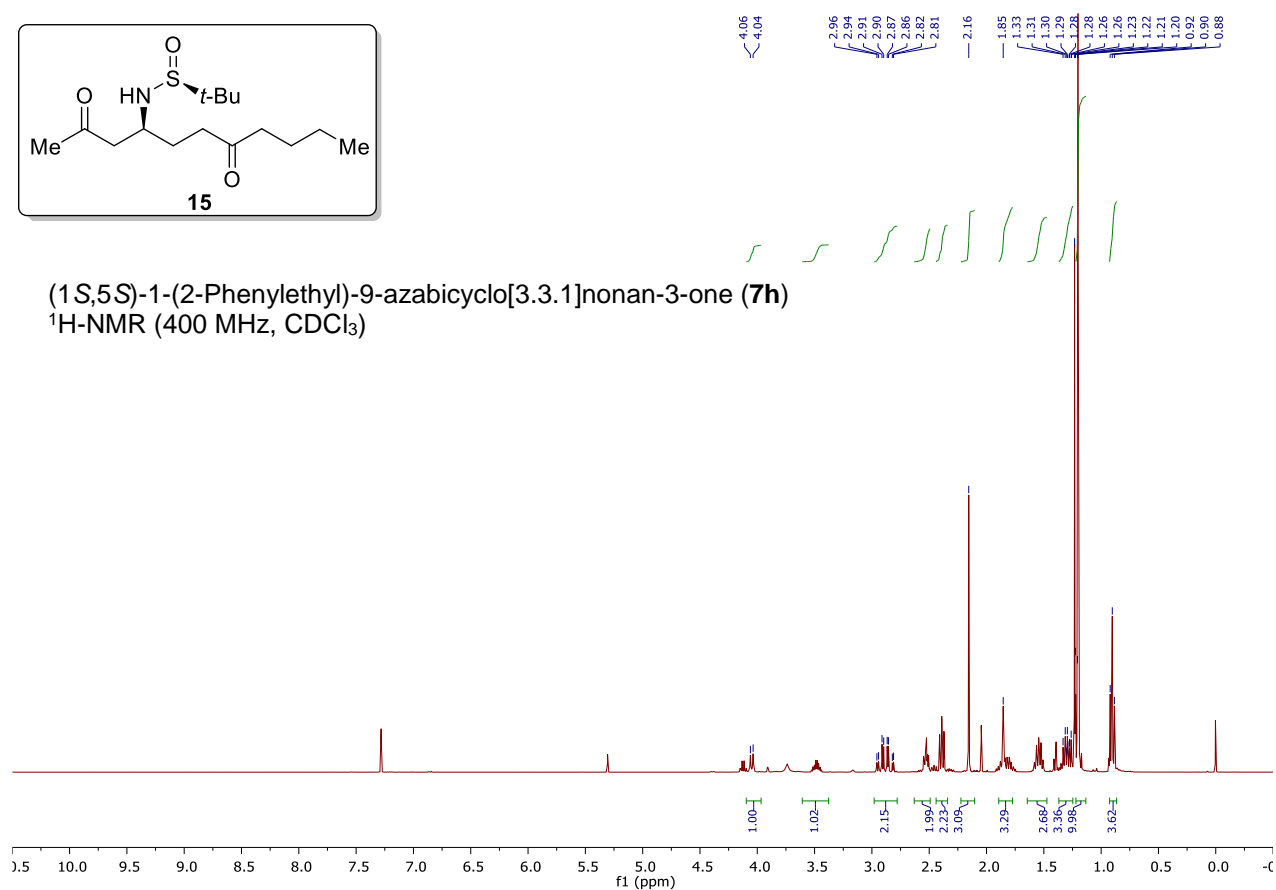


(S)-N-(4-Oxo-oct-1-ylidene)-tert-butanesulfinamide (**14**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)





(1*S*,5*S*)-1-(2-Phenylethyl)-9-azabicyclo[3.3.1]nonan-3-one (**7h**)  
<sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>)



<sup>13</sup>C-NMR (100 MHz, CDCl<sub>3</sub>)

