Supplementary Materials

Base-Mediated Claisen Rearrangement of CF_3-Containing Bisallyl Ethers

Yoko Hamada, Rio Matsunaga, Tomoko Kawasaki-Takasuka and Takashi Yamazaki *

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1. ^{1}H and ^{13}C NMR charts for new compounds S2

1.1. (*E*)-1,1,1-Trifluoro-2,4-diphenyl-4-{(prop-2-en-1-yl)oxy}but-2-ene (**3a**) S2

1.2. (*E*)-1,1,1-Trifluoro-2-(4-methoxyphenyl)-4-phenyl-{(prop-2-en-1-yl)oxy}but-2-ene (**3b**) S3

1.3. (*E*)-1,1,1-Trifluoro-2-(4-fluorophenyl)-4-phenyl-{(prop-2-en-1-yl)oxy}but-2-ene (**3c**) S4

1.4. (*E*)-1-Phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-2-ene (**3d**) S5

1.5. (*E*)-1,5-Diphenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-2-ene (**3e**) S6

1.6. (*E*)-1-(4-Methoxyphenyl)-5-phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-2-ene (**3f**) S7

1.7. (*E*)-1-(4-Bromophenyl)-5-phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-2-ene (**3g**) S8

1.8. (*E*)-4,4,4-Trifluoro-1,3-diphenyl-1-{(prop-2-en-1-yl)oxy}but-1-ene (**4a**) S9

1.9. (*E*)-4,4,4-Trifluoro-3-(4-methoxyphenyl)-1-phenyl-1-{(prop-2-en-1-yl)oxy}but-1-ene (**4b**) S10

1.10. (*E*)-4,4,4-Trifluoro-3-(4-fluorophenyl)-1-phenyl-1-{(prop-2-en-1-yl)oxy}but-1-ene (**4c**) S11

1.11. (*E*)-1-Phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-1-ene (**4d**) S12

1.12. (*E*)-1,5-Diphenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-1-ene (**4e**) S13

1.13. (*E*)-1-(4-Methoxyphenyl)-5-phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-1-ene (**4f**) S14/S15

1.14. (*E*)-1-(4-Bromophenyl)-5-phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-1-ene (**4g**) S16

1.15. 4,4,4-Trifluoro-1,3-diphenyl-2-(prop-2-en-1-yl)butan-1-one (**5a**) S17

1.16. 4,4,4-Trifluoro-3-(4-methoxyphenyl)-1-phenyl-2-(prop-2-en-1-yl)butan-1-one (**5b**) S18

1.17. 4,4,4-Trifluoro-3-(4-fluorophenyl)-1-phenyl-2- (prop-2-en-1-yl)butan-1-one (**5c**) S19

1.18. 1-Phenyl-2-(prop-2-en-1-yl)-3-(trifluoromethyl)pentan-1-one (**5d**) S20

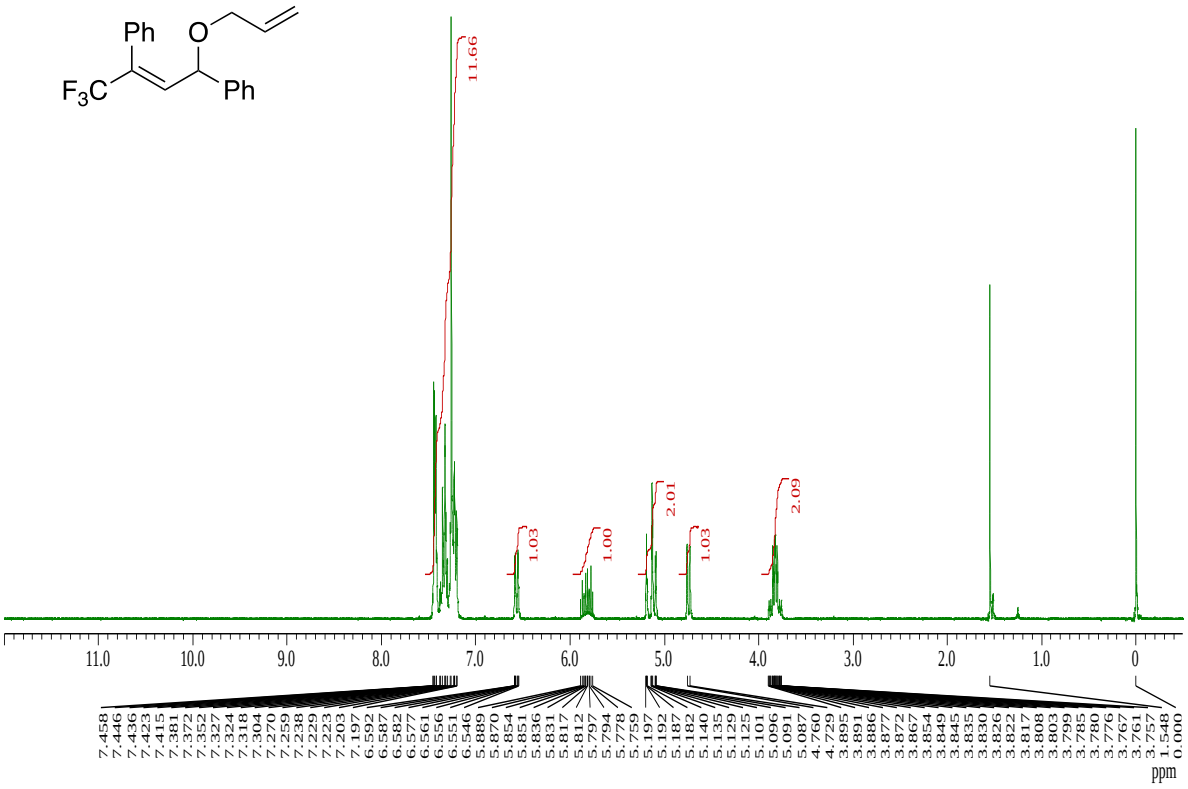
1.19. 1,5-Diphenyl-2-(prop-2-en-1-yl)-3-(trifluoromethyl)pentan-1-one (**5e**) S21

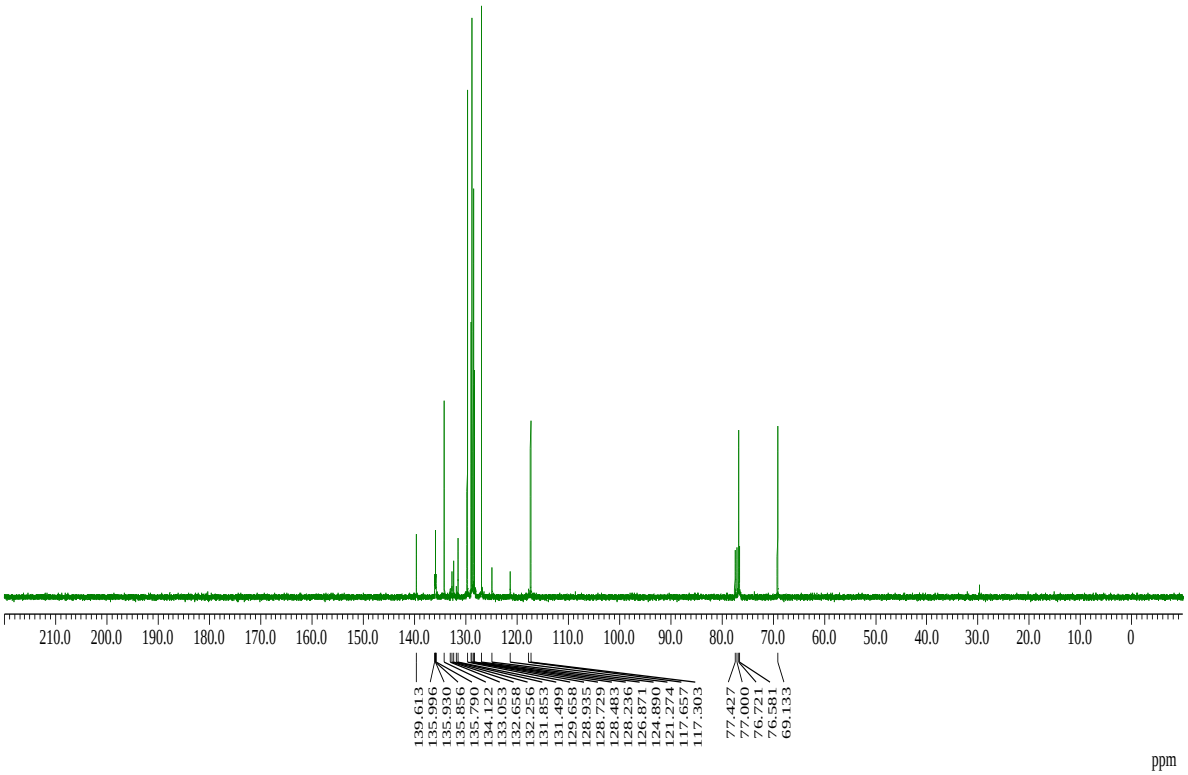
1.20. 1-(4-Methoxyphenyl)-5-phenyl-2-(prop-2-en-1-yl)-3-(trifluoromethyl)pentan-1-one (**5f**) S22

1.21. 1-(4-Bromophenyl)-5-phenyl-2-(prop-2-en-1-yl)-3-(trifluoromethyl)pentan-1-one (**5g**) S23/S24

1. ^{1}H and ^{13}C NMR charts for new compounds

1.1. (E)-1,1,1-Trifluoro-2,4-diphenyl-4-{(prop-2-en-1-yl)oxy}but-2-ene (3a)





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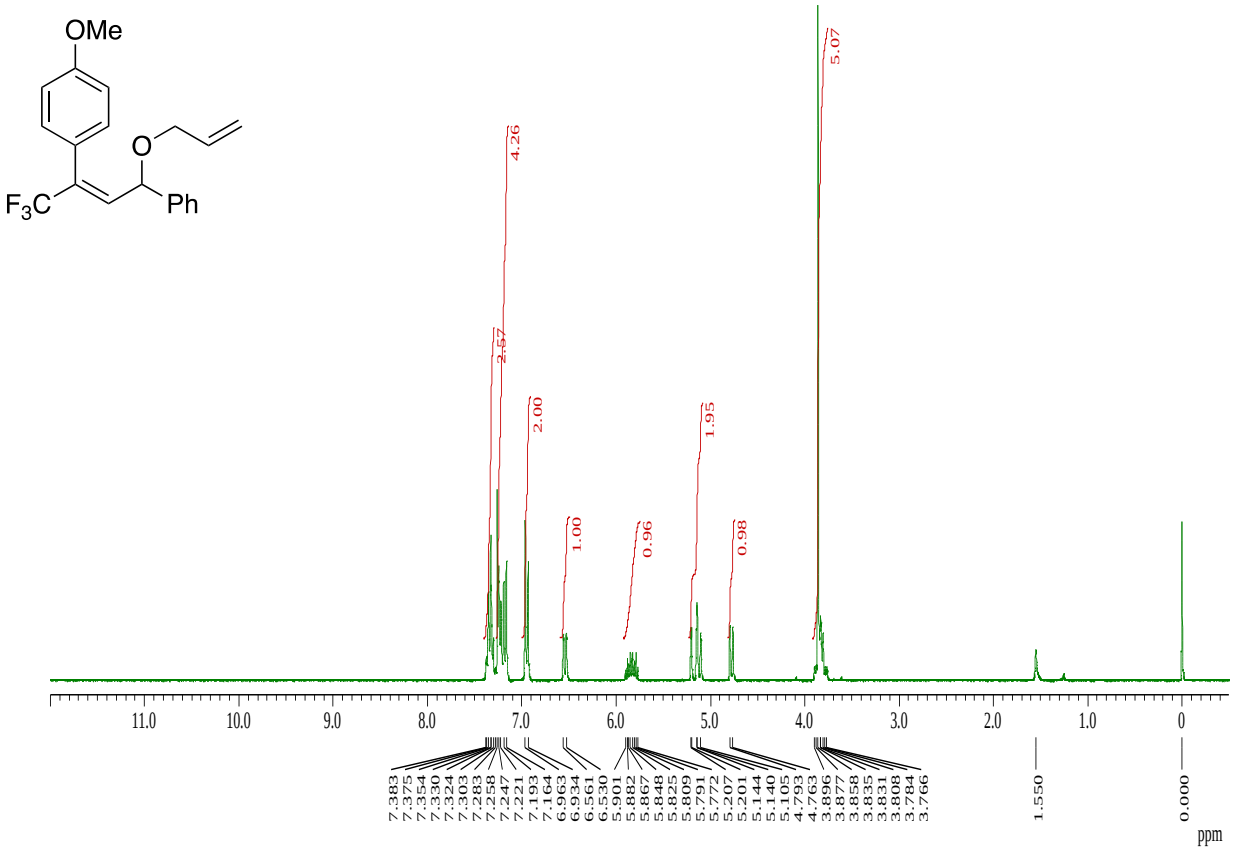

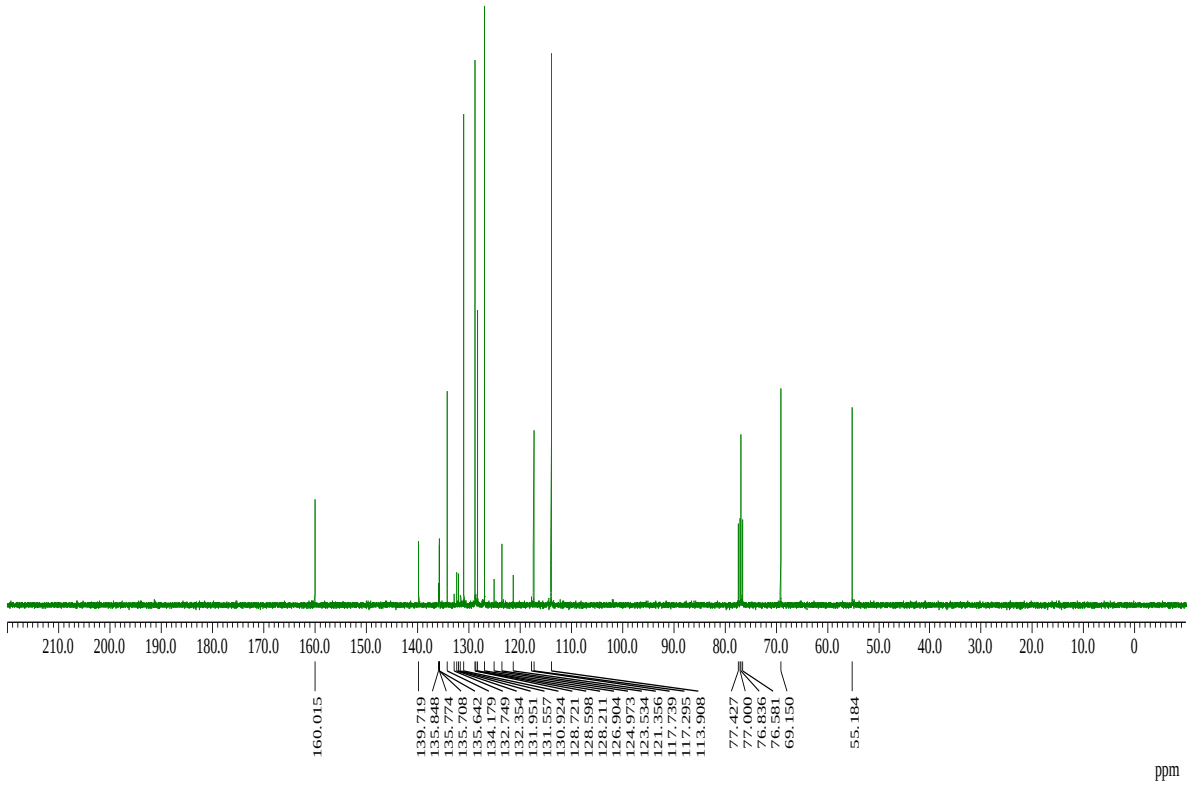

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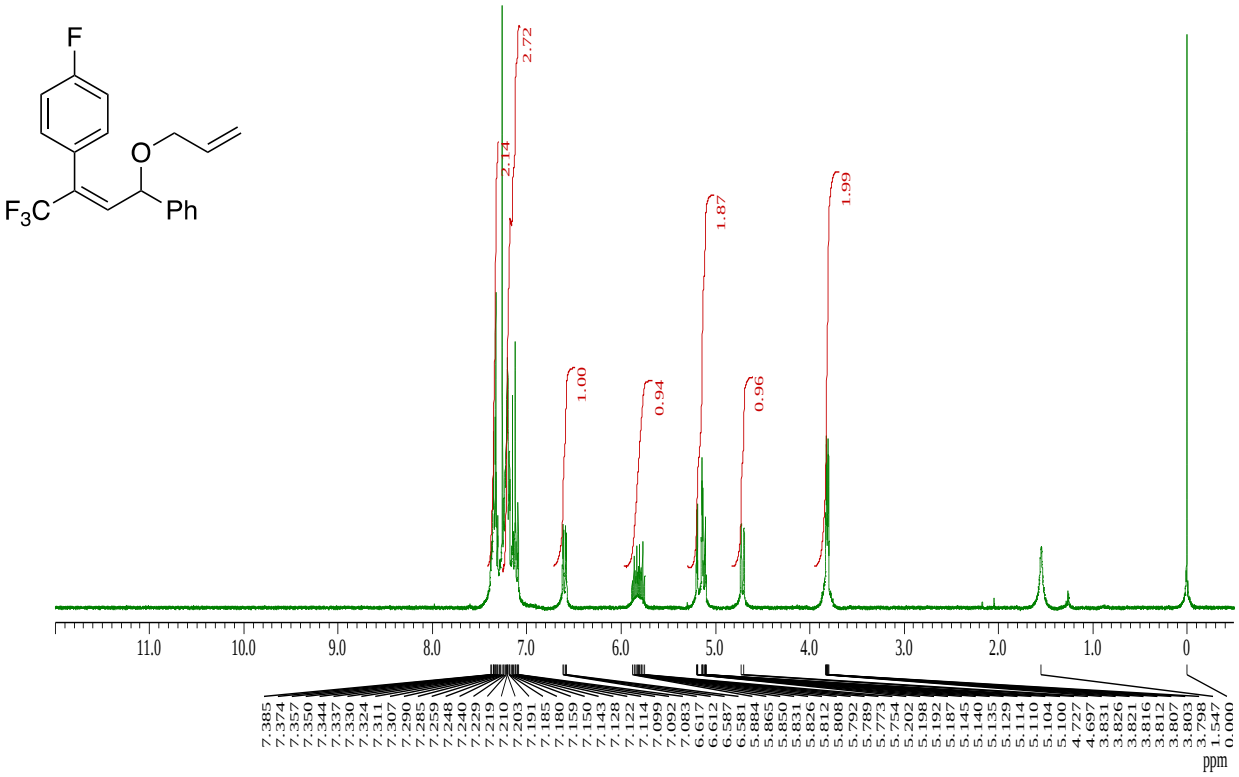

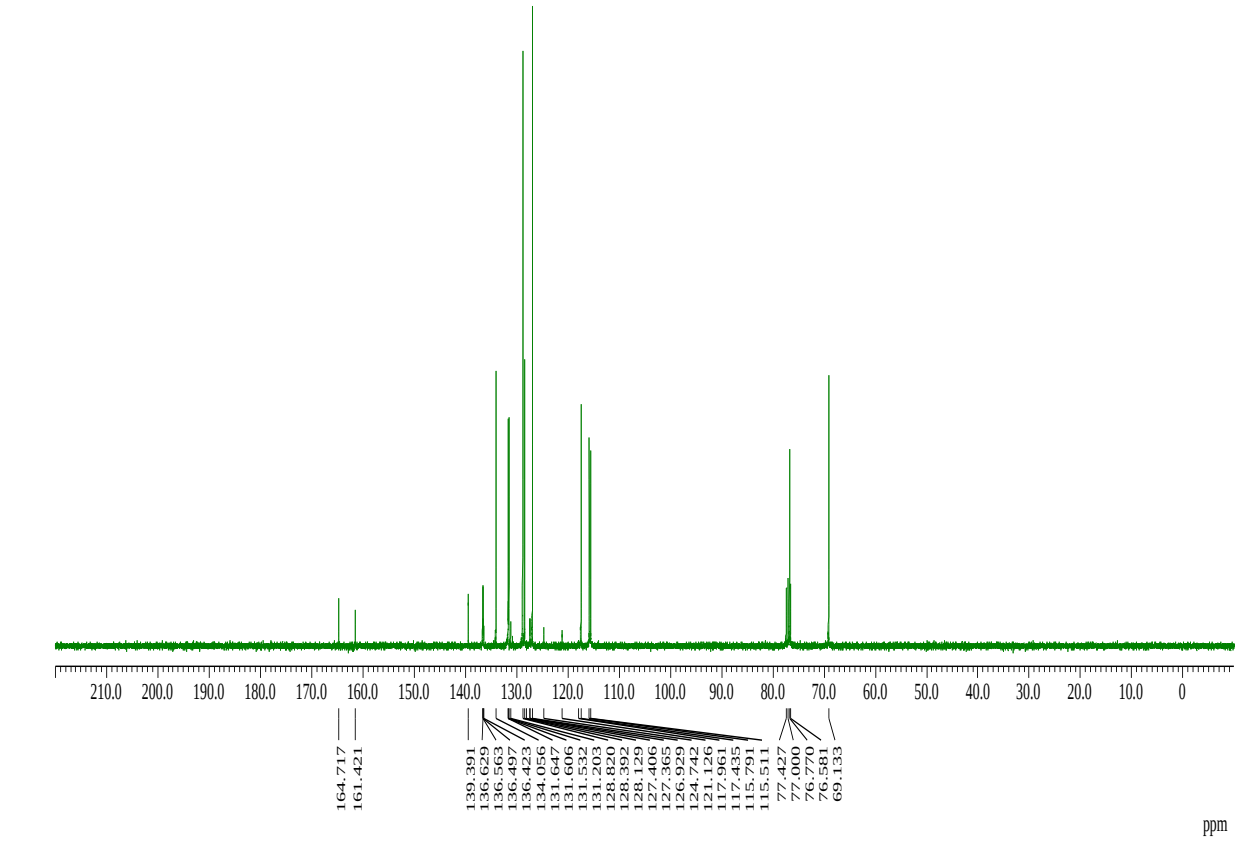

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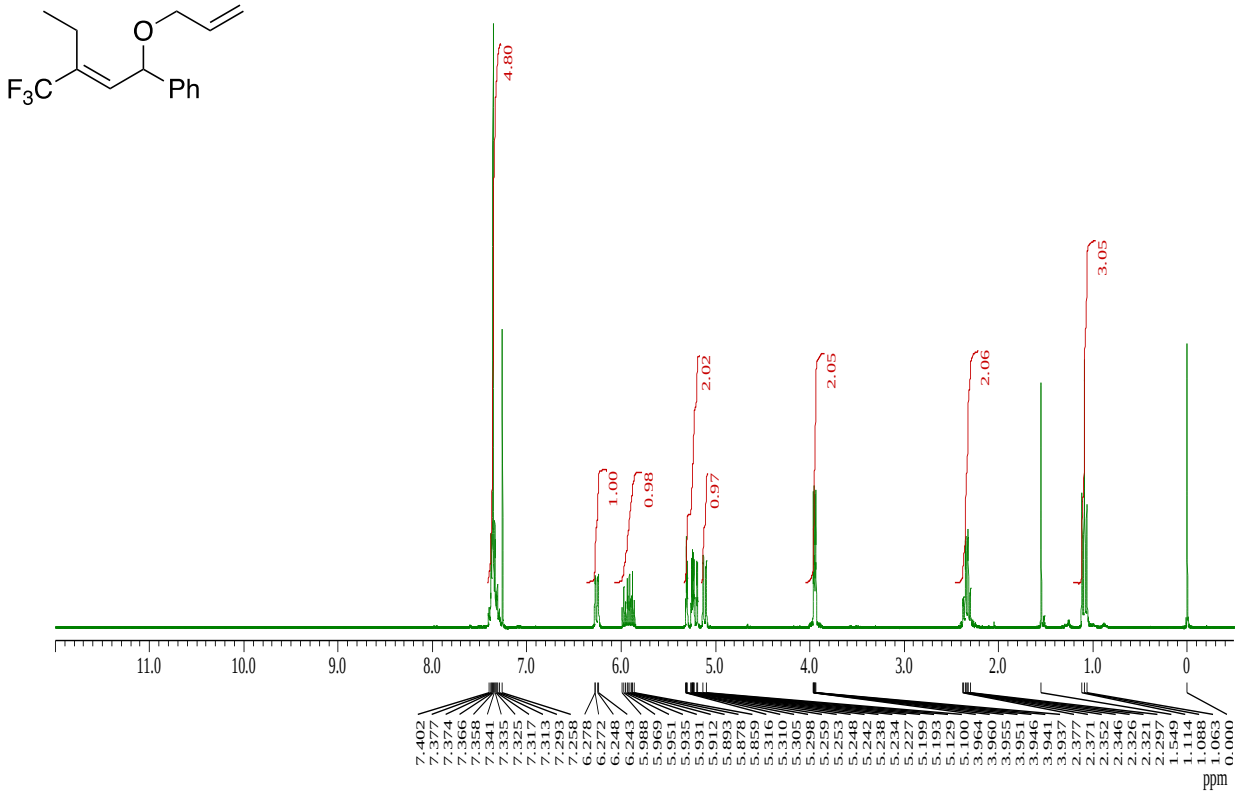
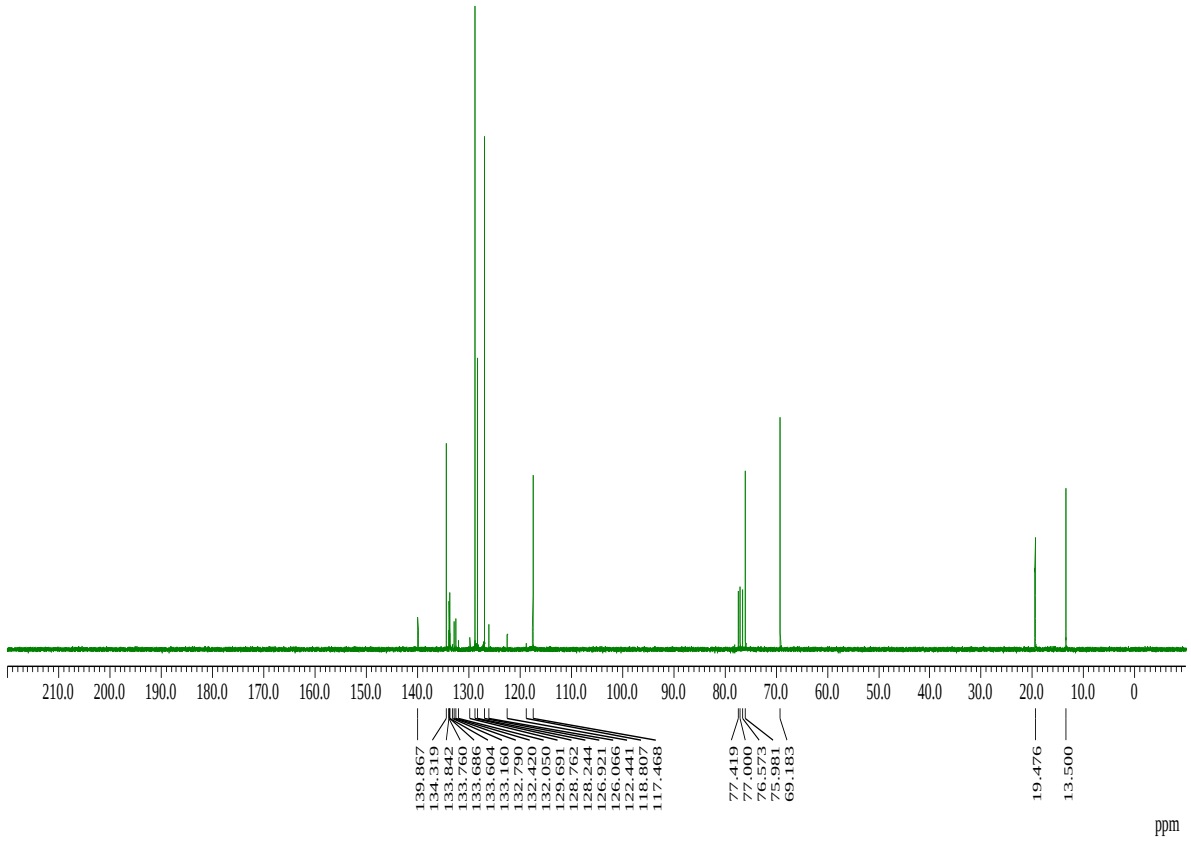
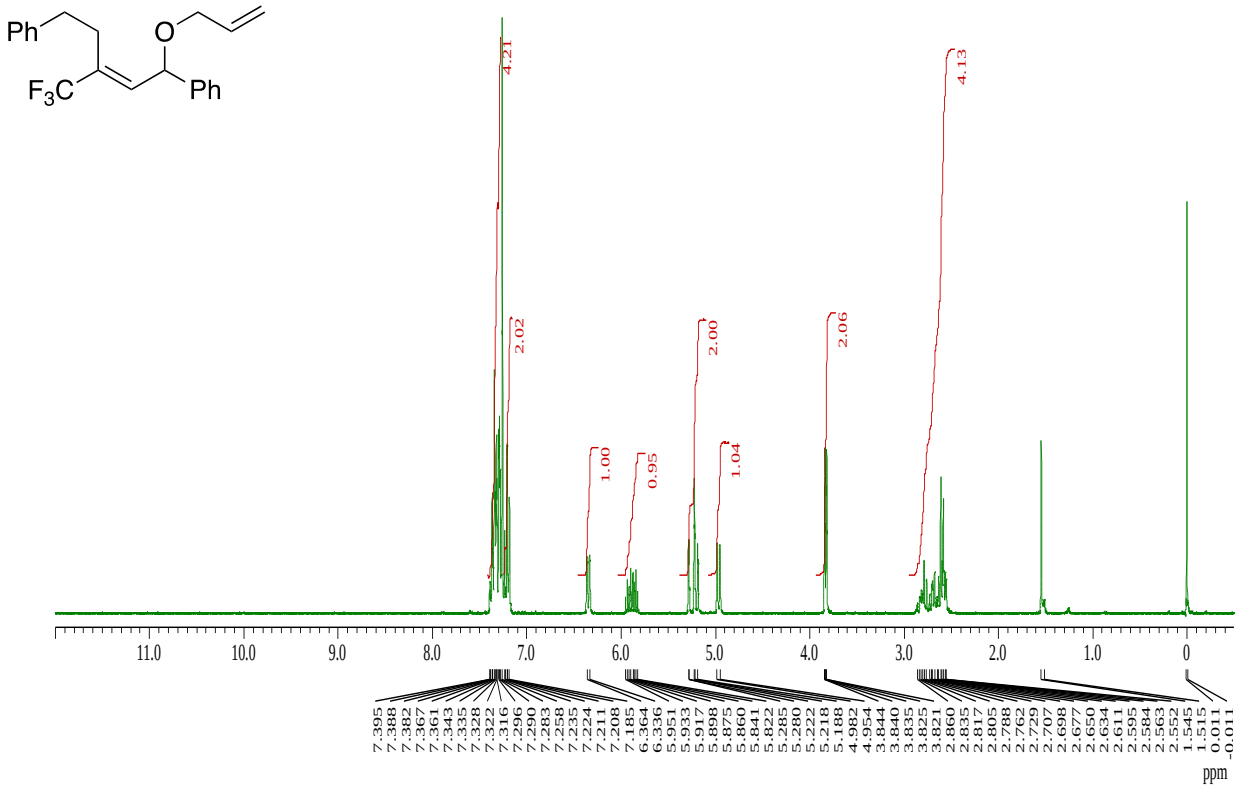
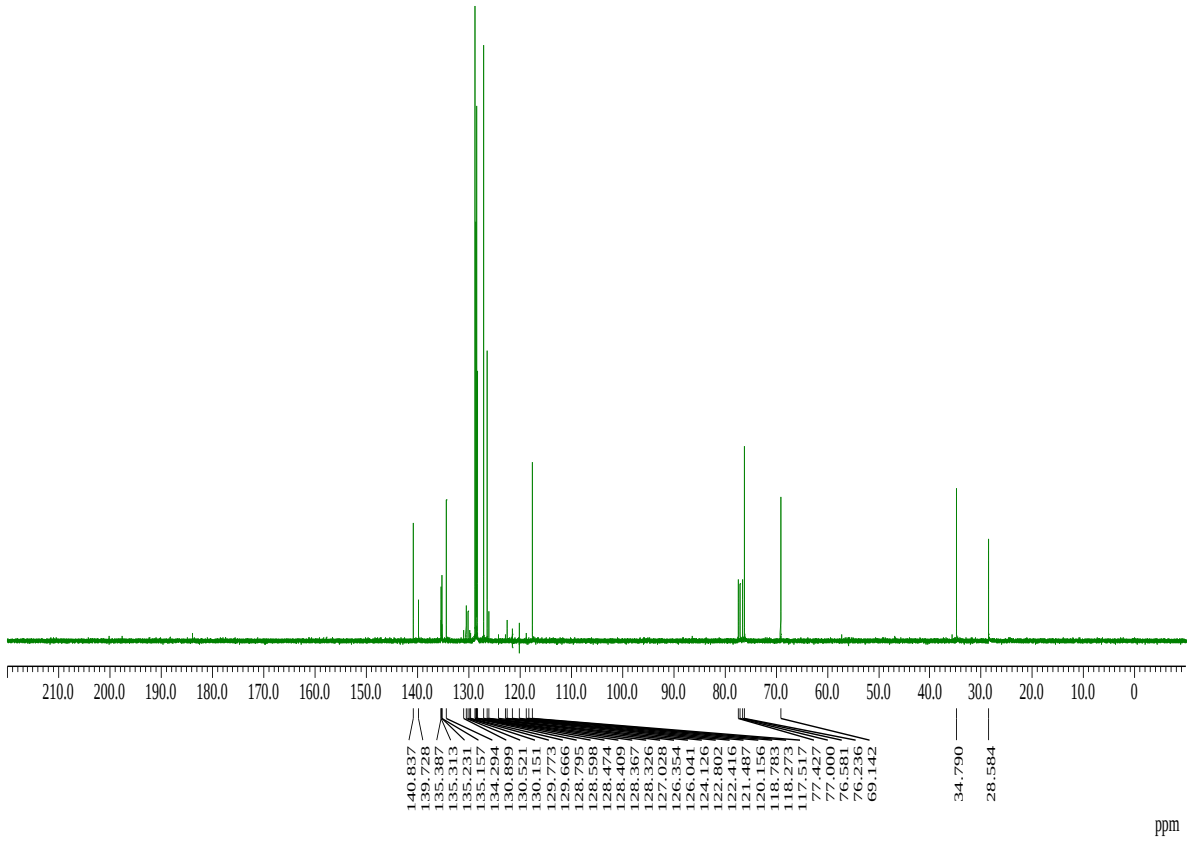




1.5. (E)-1,5-Diphenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-2-ene (3e)





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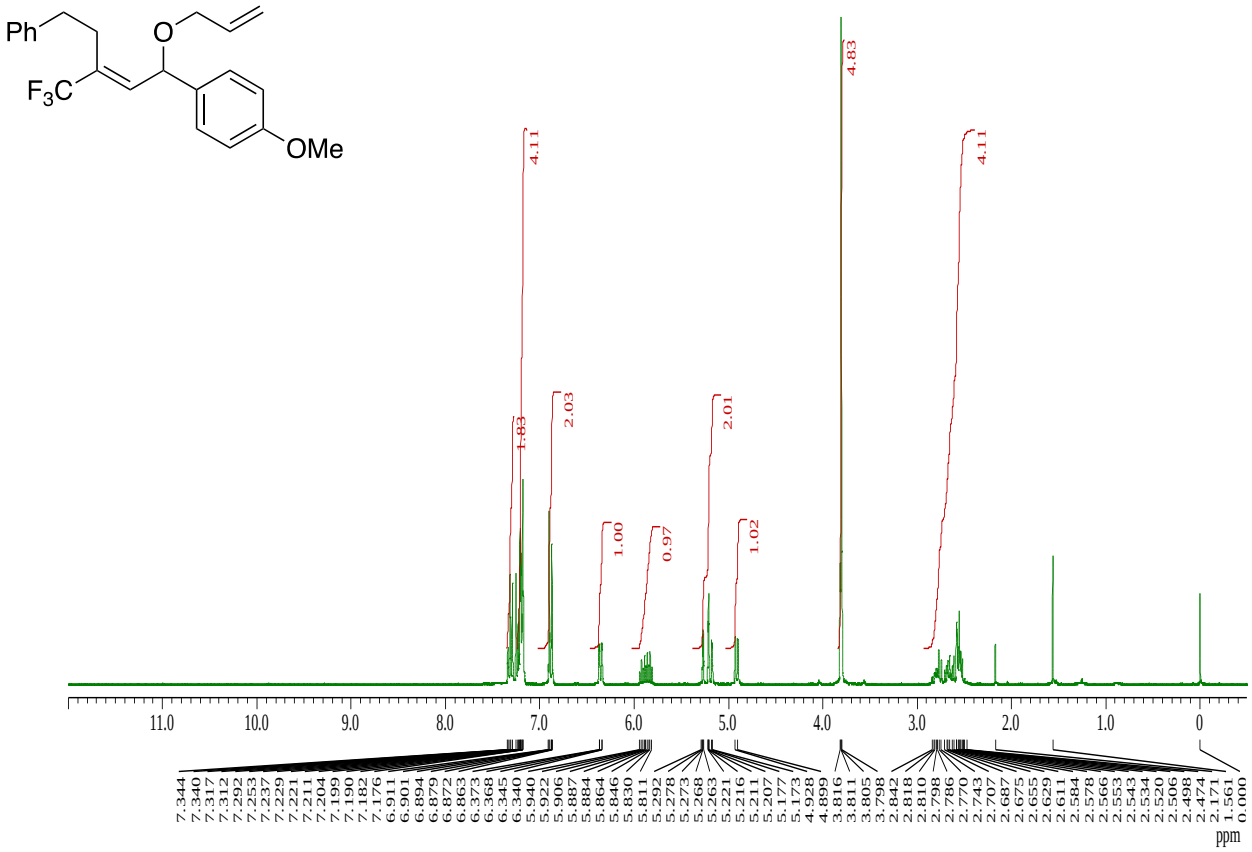
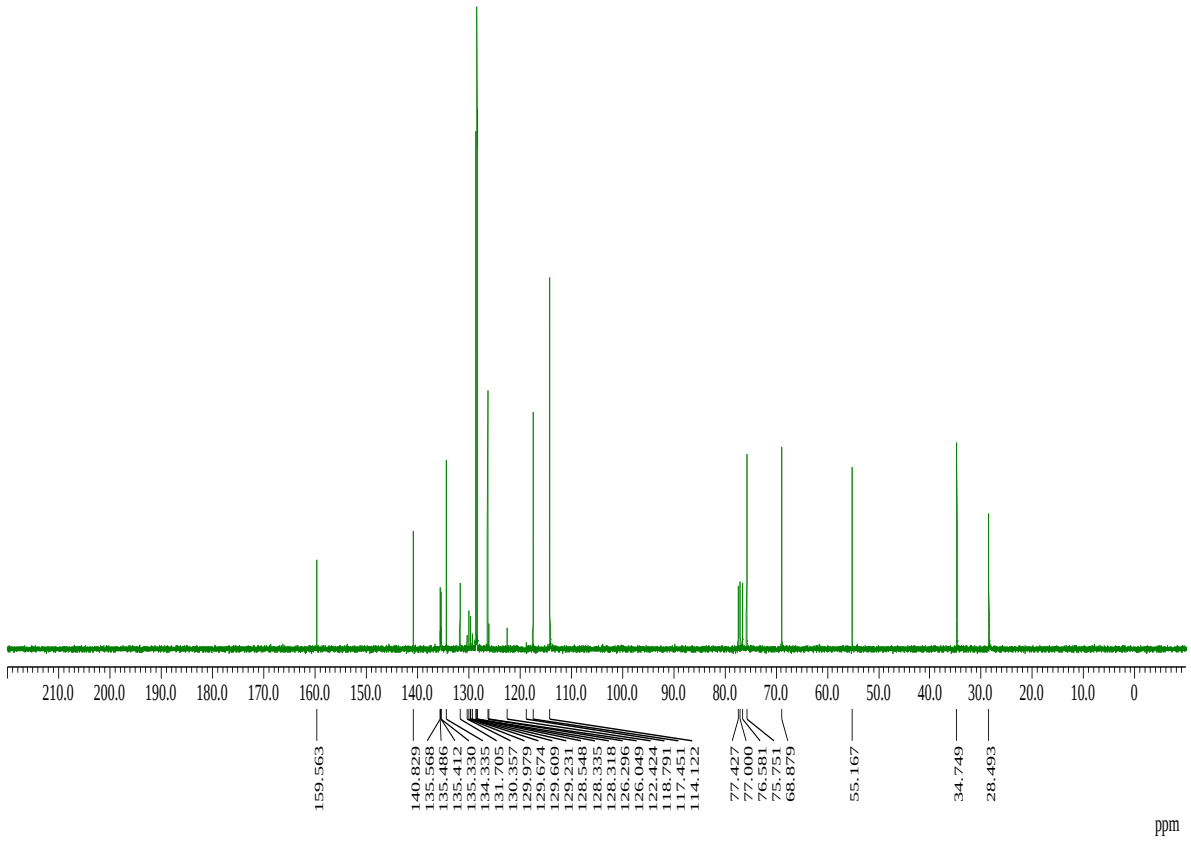
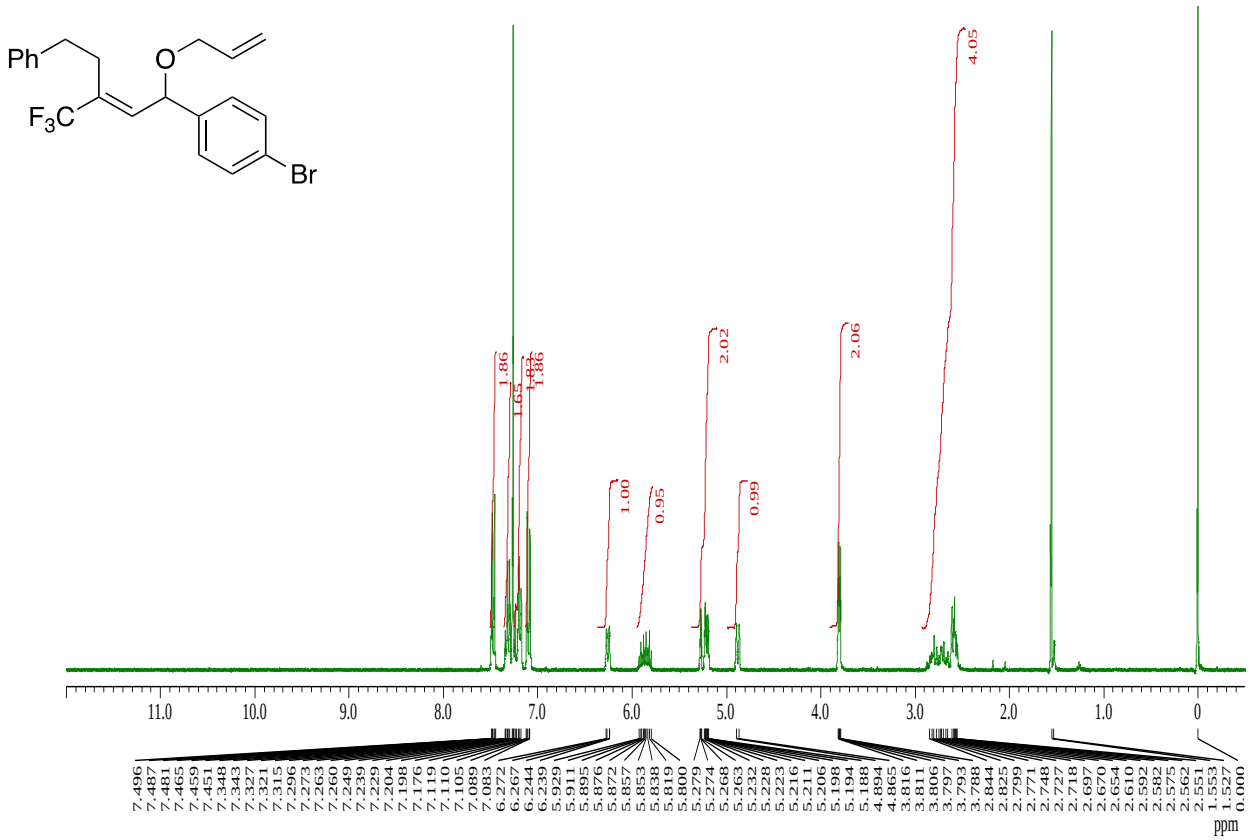
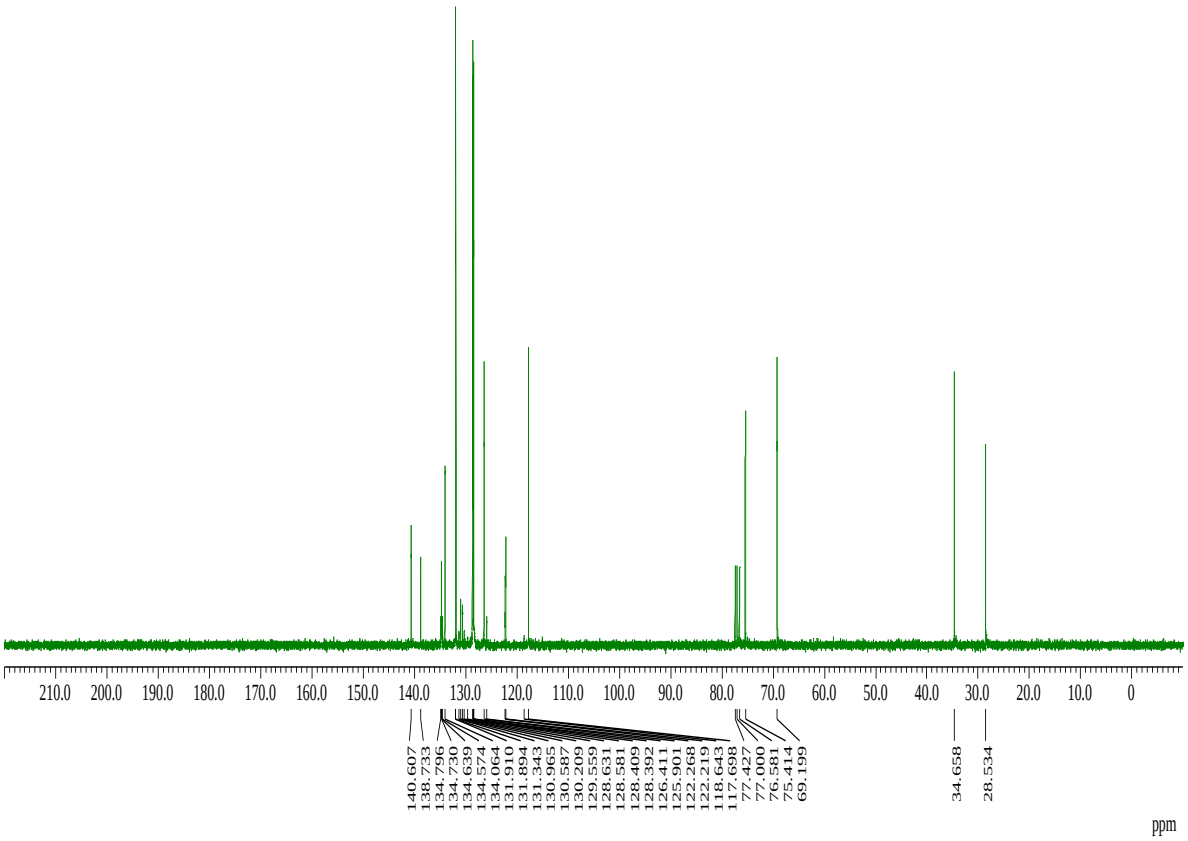


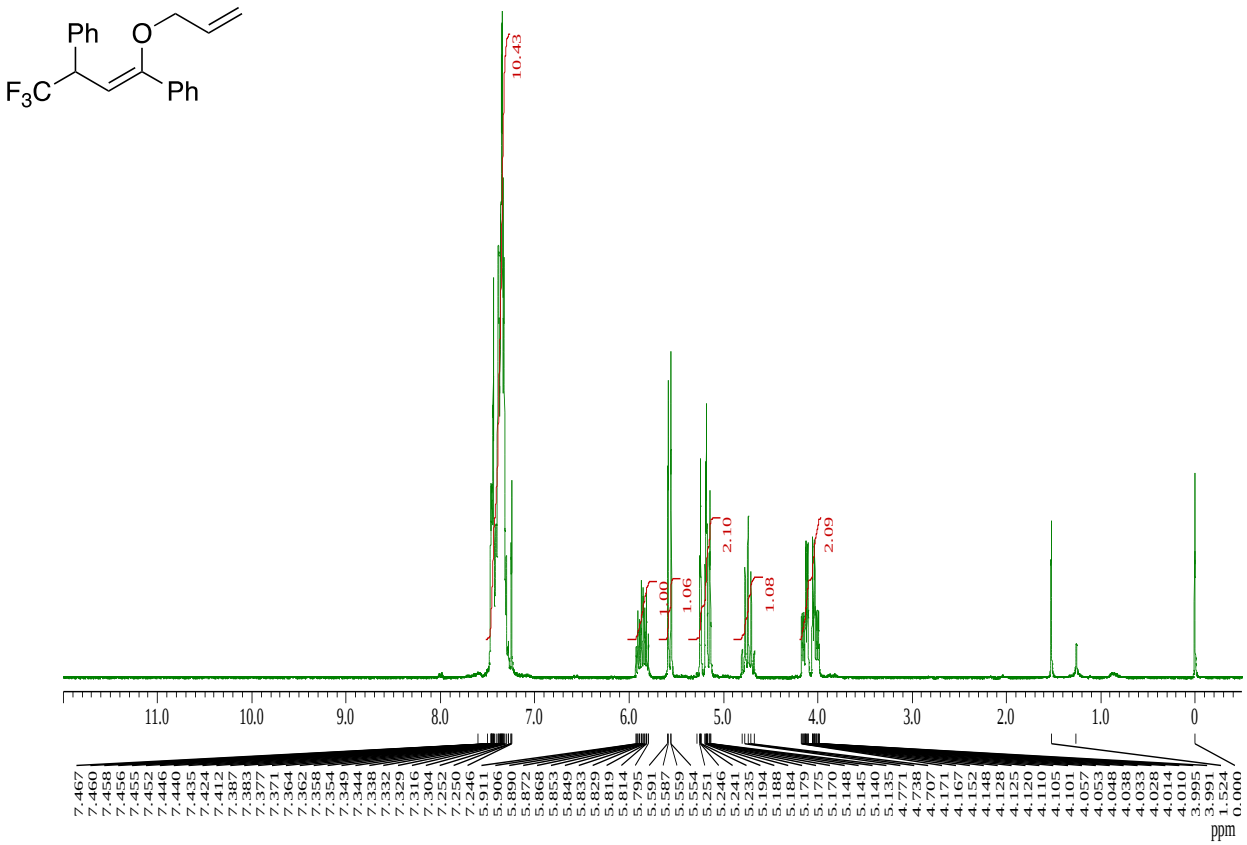


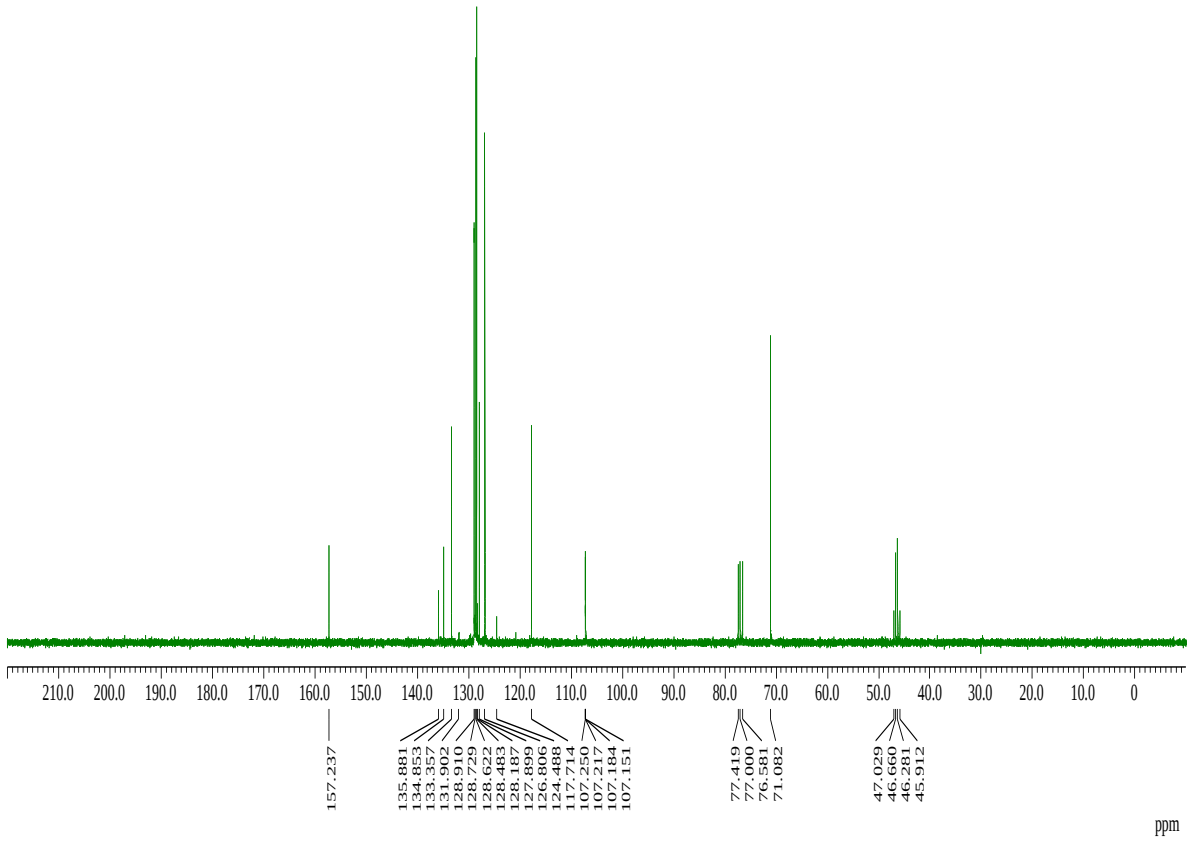
1.7. (E)-1-(4-Bromophenyl)-5-phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-2-ene (3g)



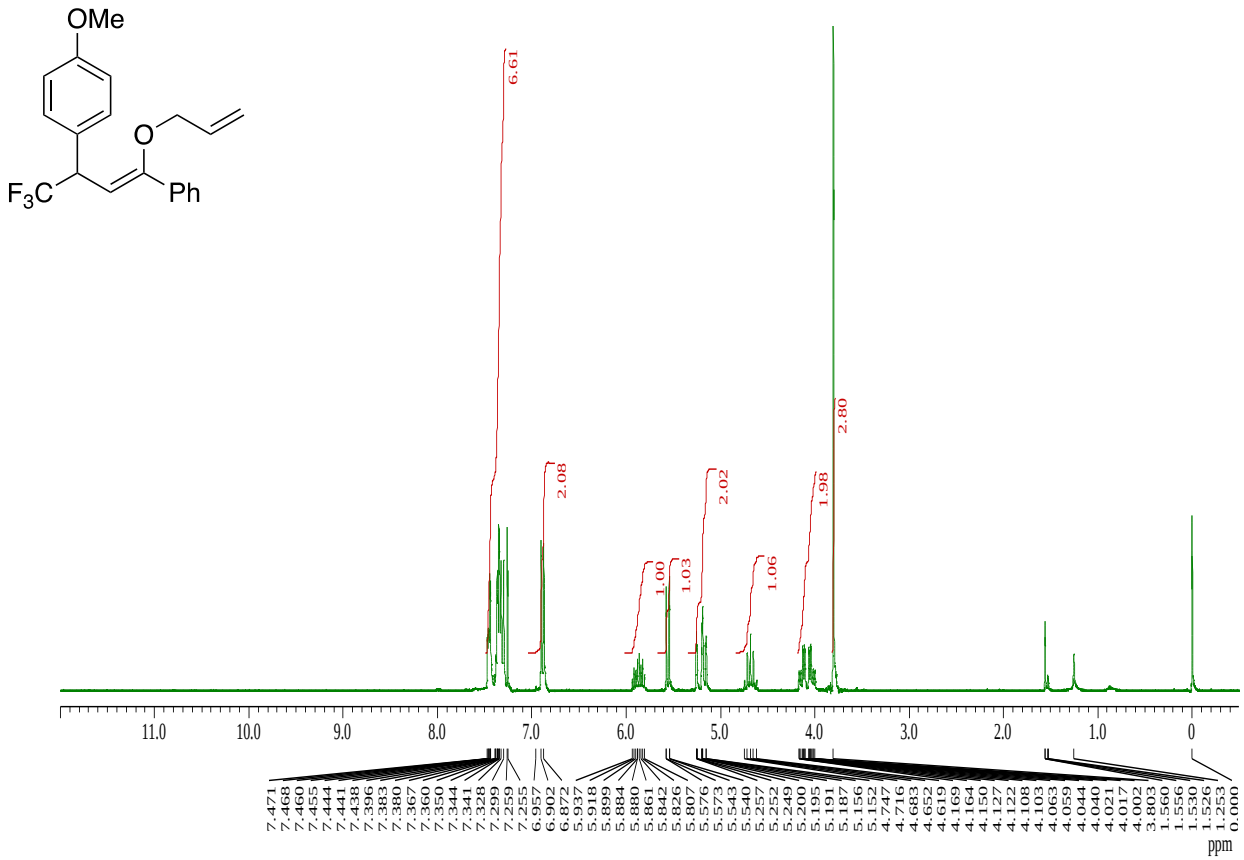


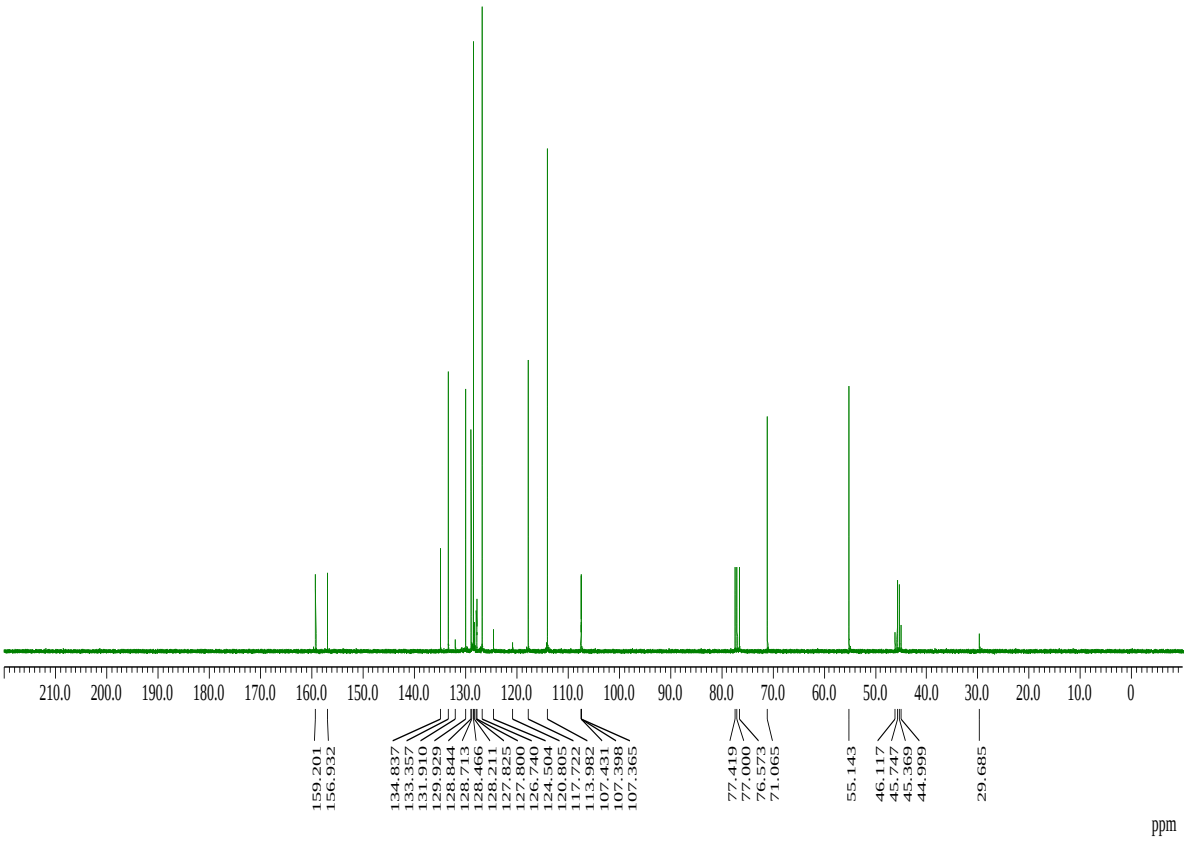
1.8. (E)-4,4,4-Trifluoro-1,3-diphenyl-1-{(prop-2-en-1-yl)oxy}but-1-ene (4a)



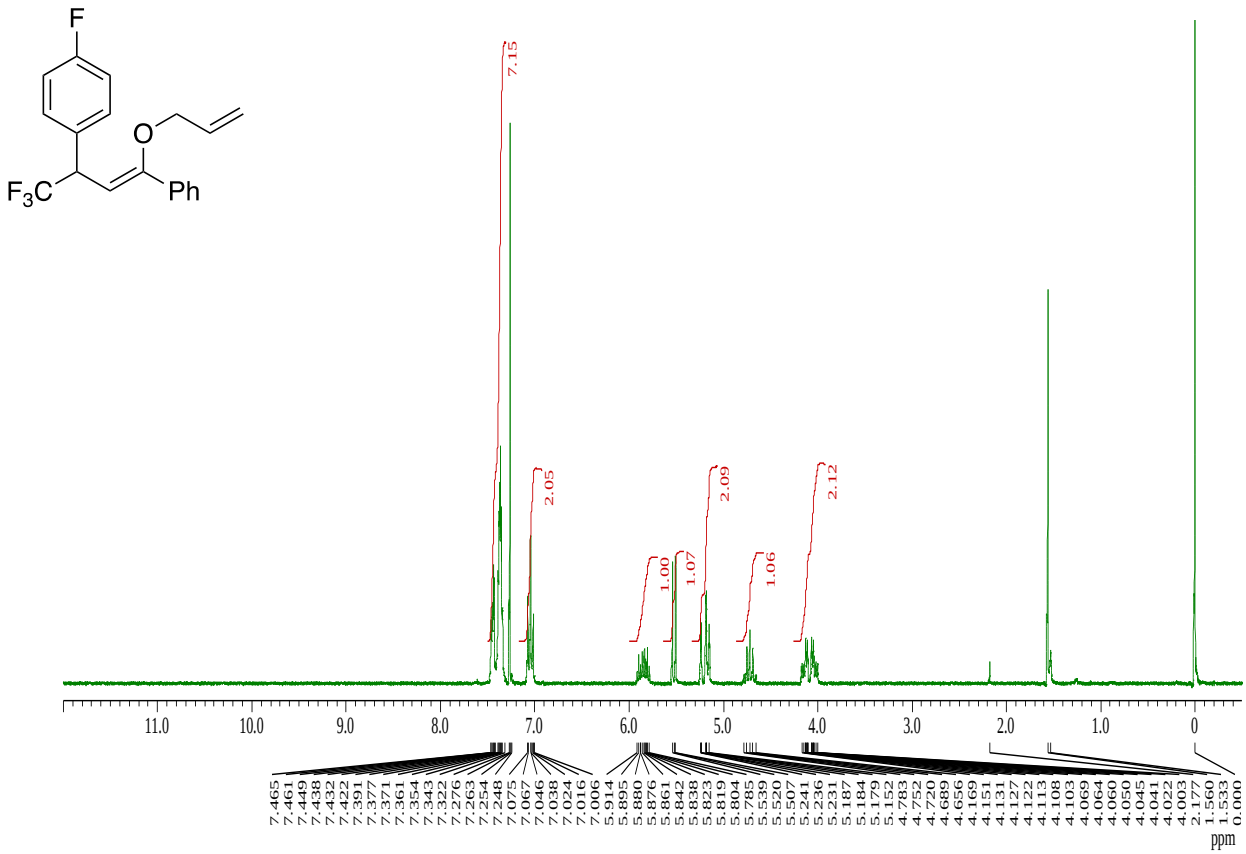


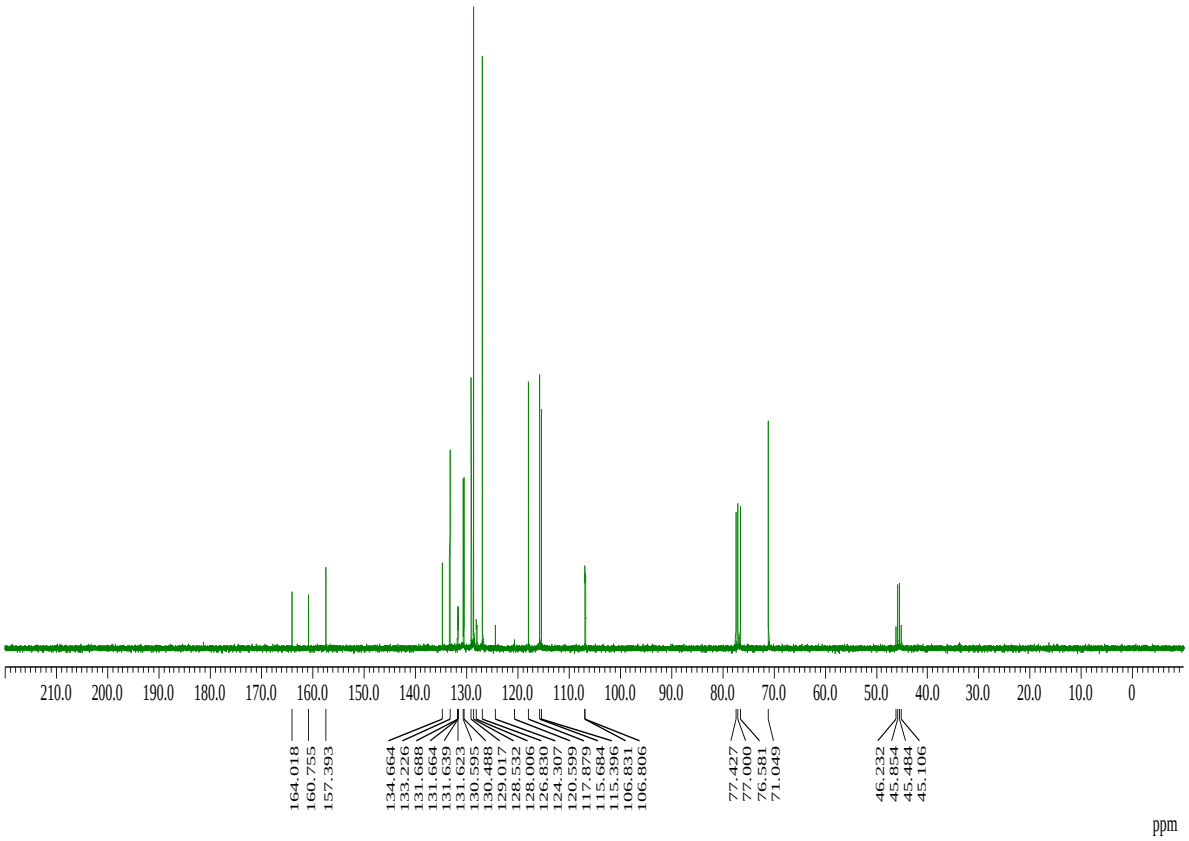
1.9. (E)-4,4,4-Trifluoro-3-(4-methoxyphenyl)-1-phenyl-1-{(prop-2-en-1-yl)oxy}but-1-ene (4b)



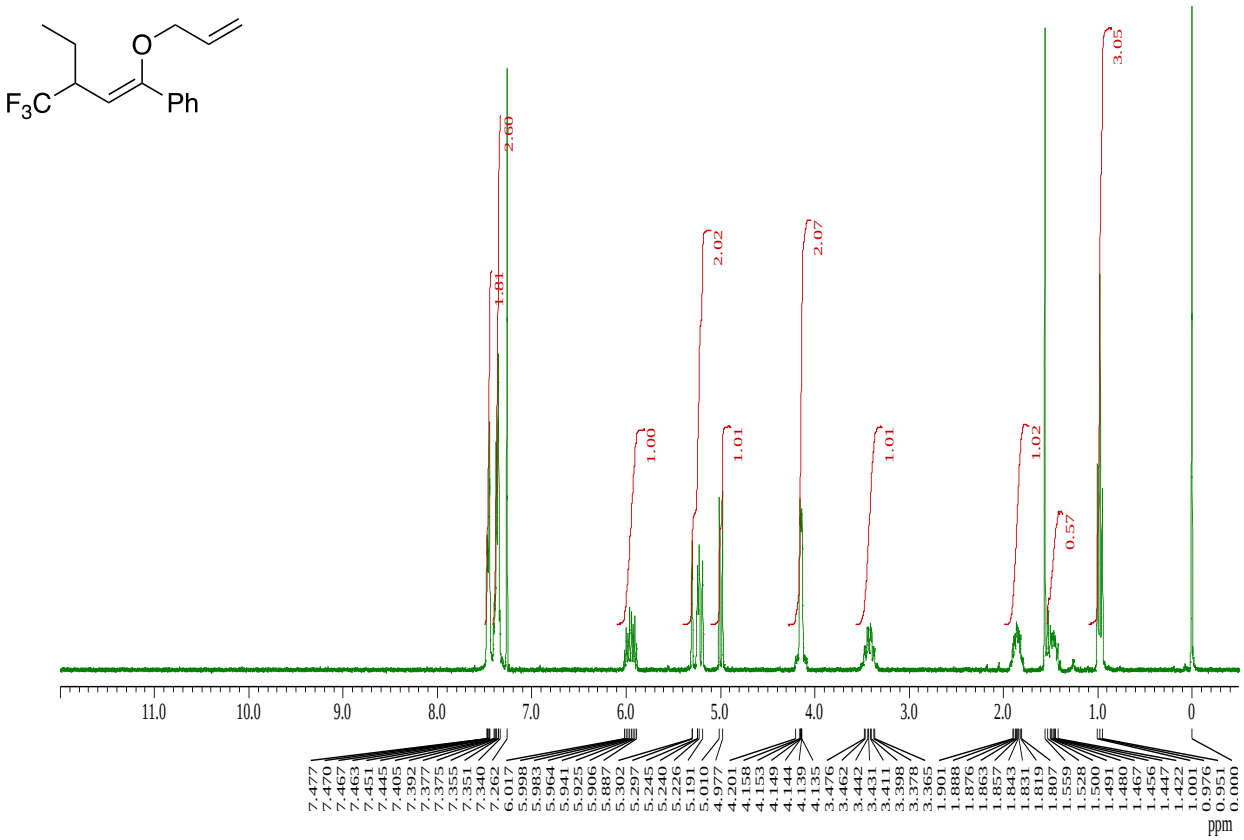


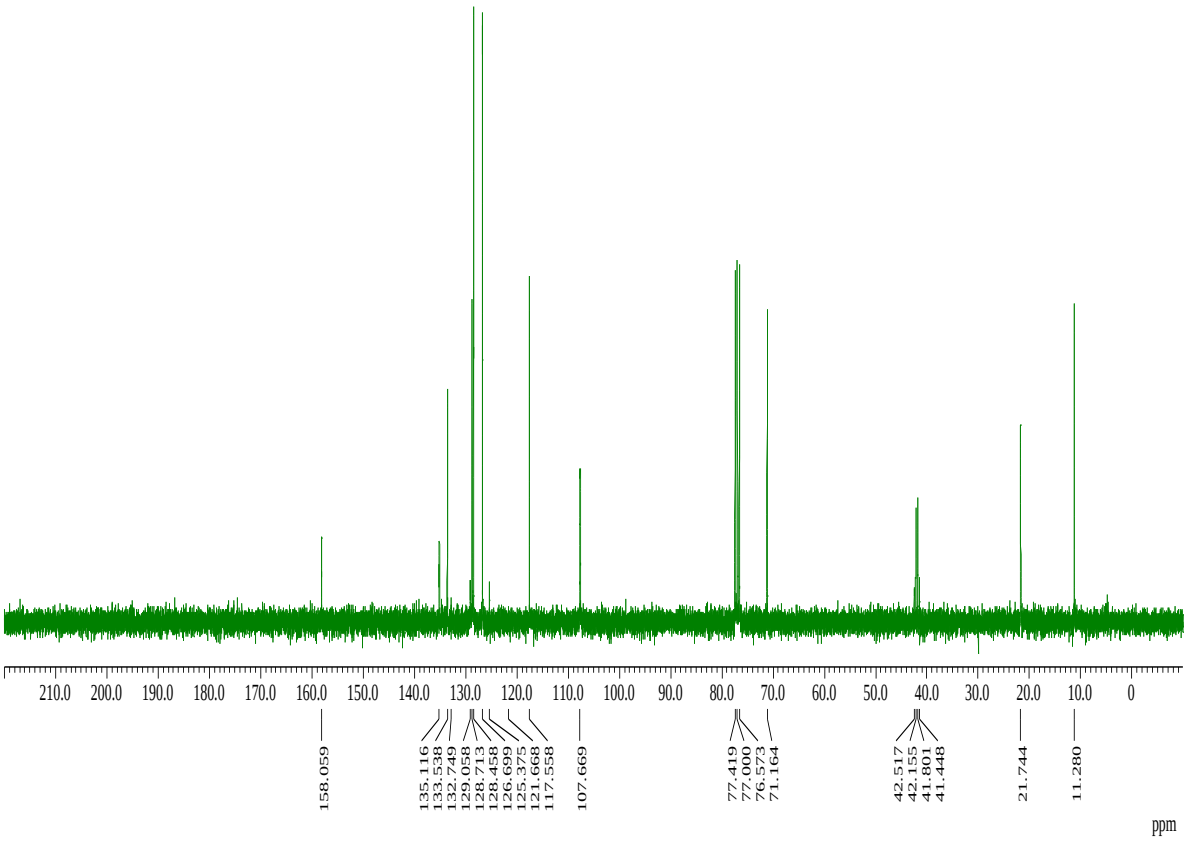
1.10. (E)-4,4,4-Trifluoro-3-(4-fluorophenyl)-1-phenyl-1-{(prop-2-en-1-yl)oxy}but-1-ene (4c)



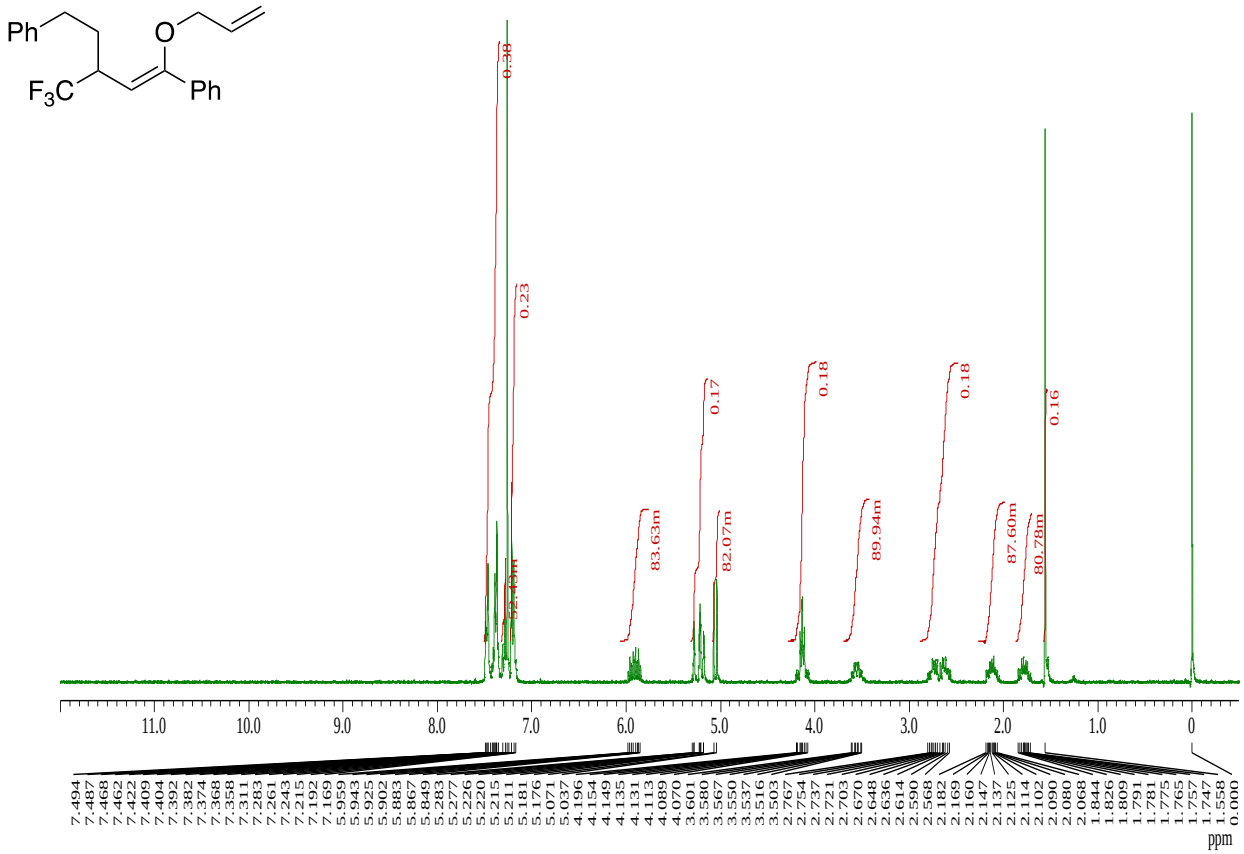


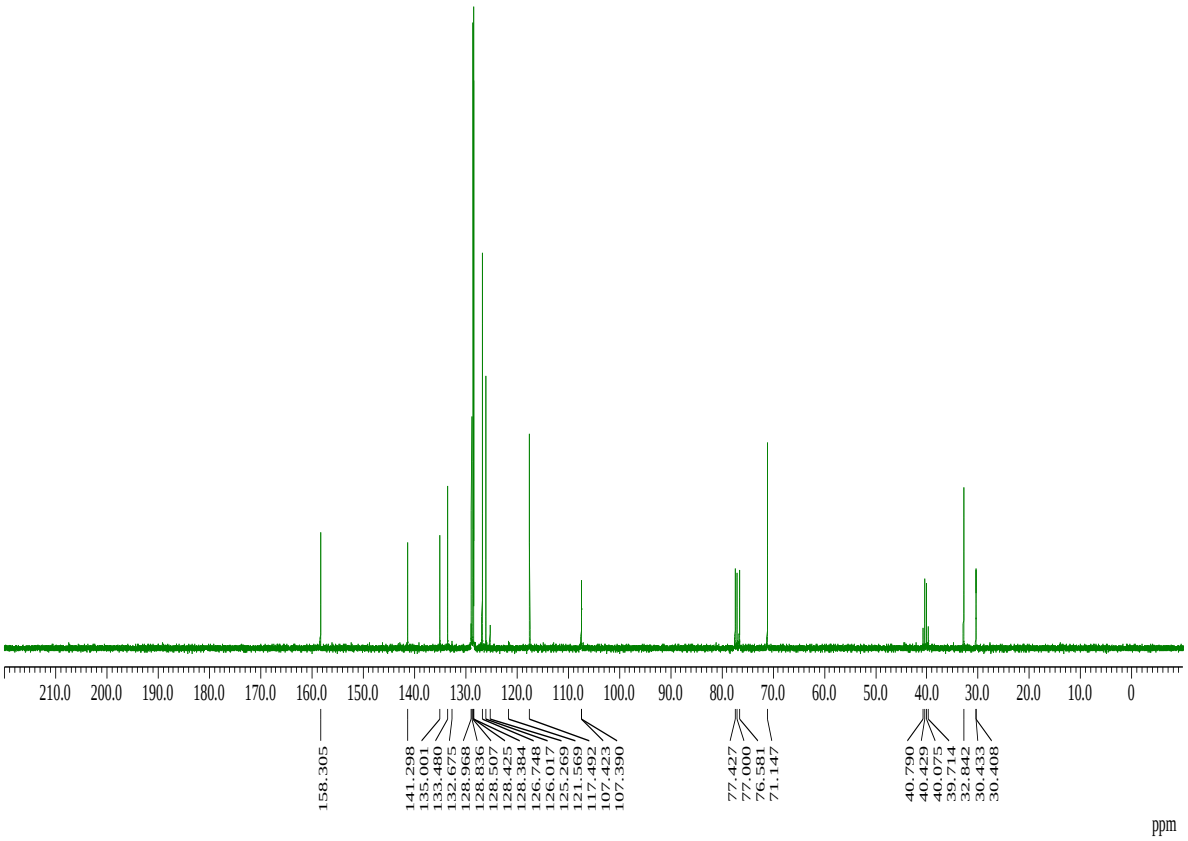
1.11. (E)-1-Phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-1-ene (4d)



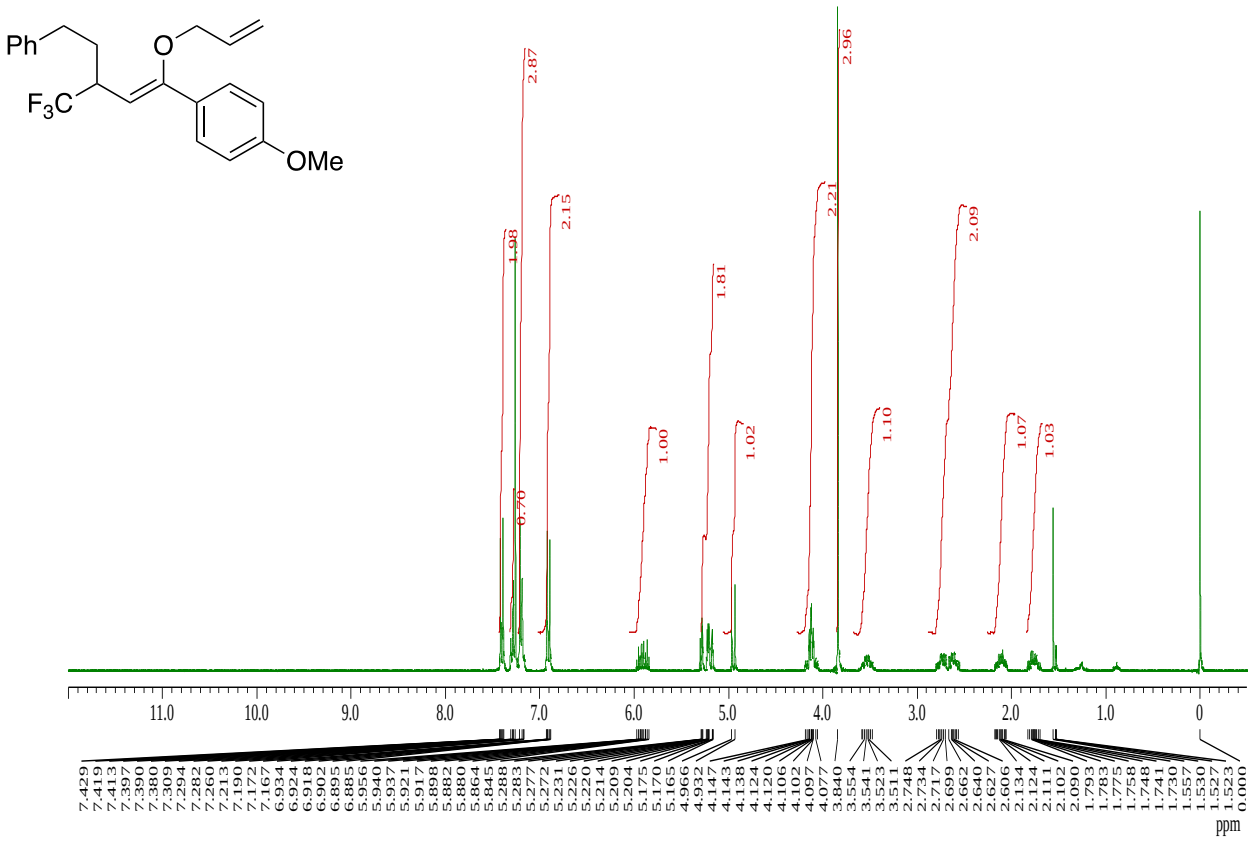


1.12. (E)-1,5-Diphenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-1-ene (4e)





1.13. (E)-1-(4-Methoxyphenyl)-5-phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-1-ene (4f)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6.0
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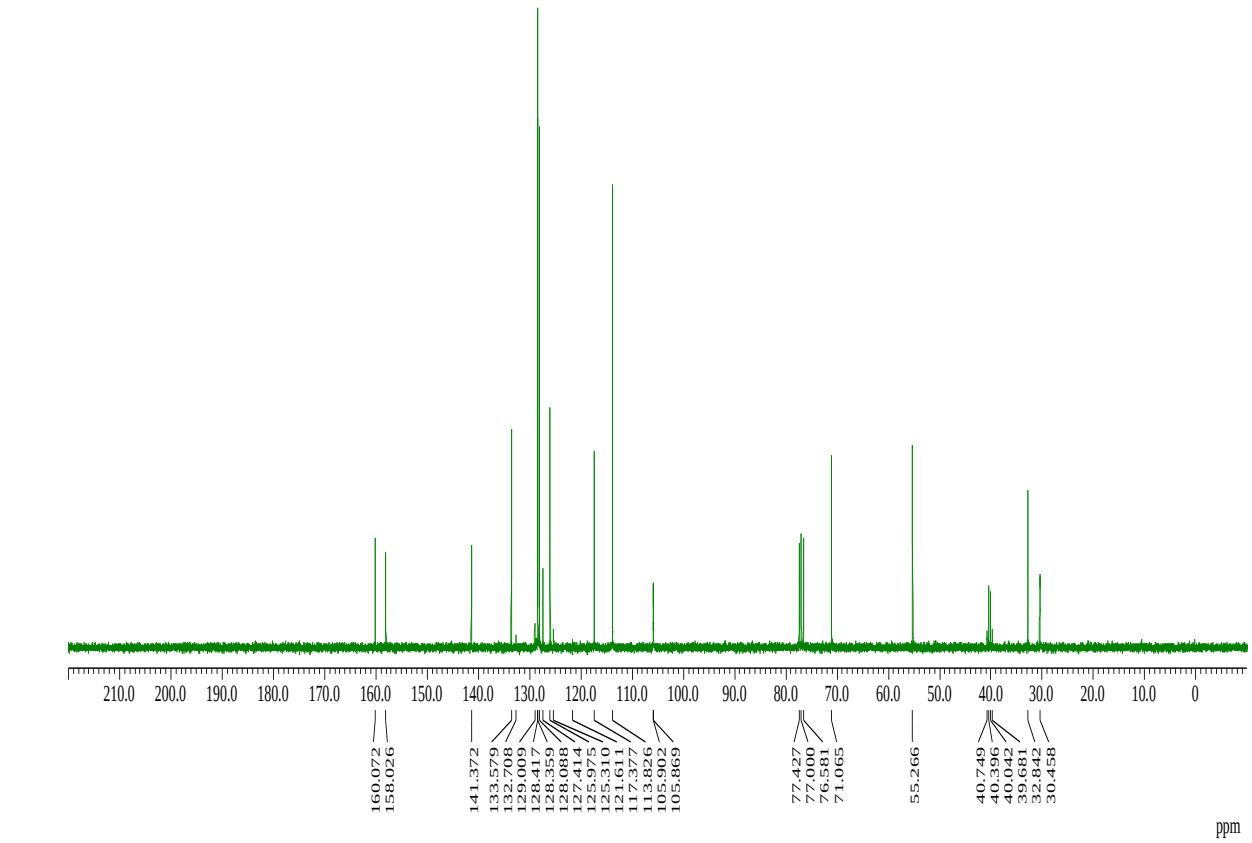
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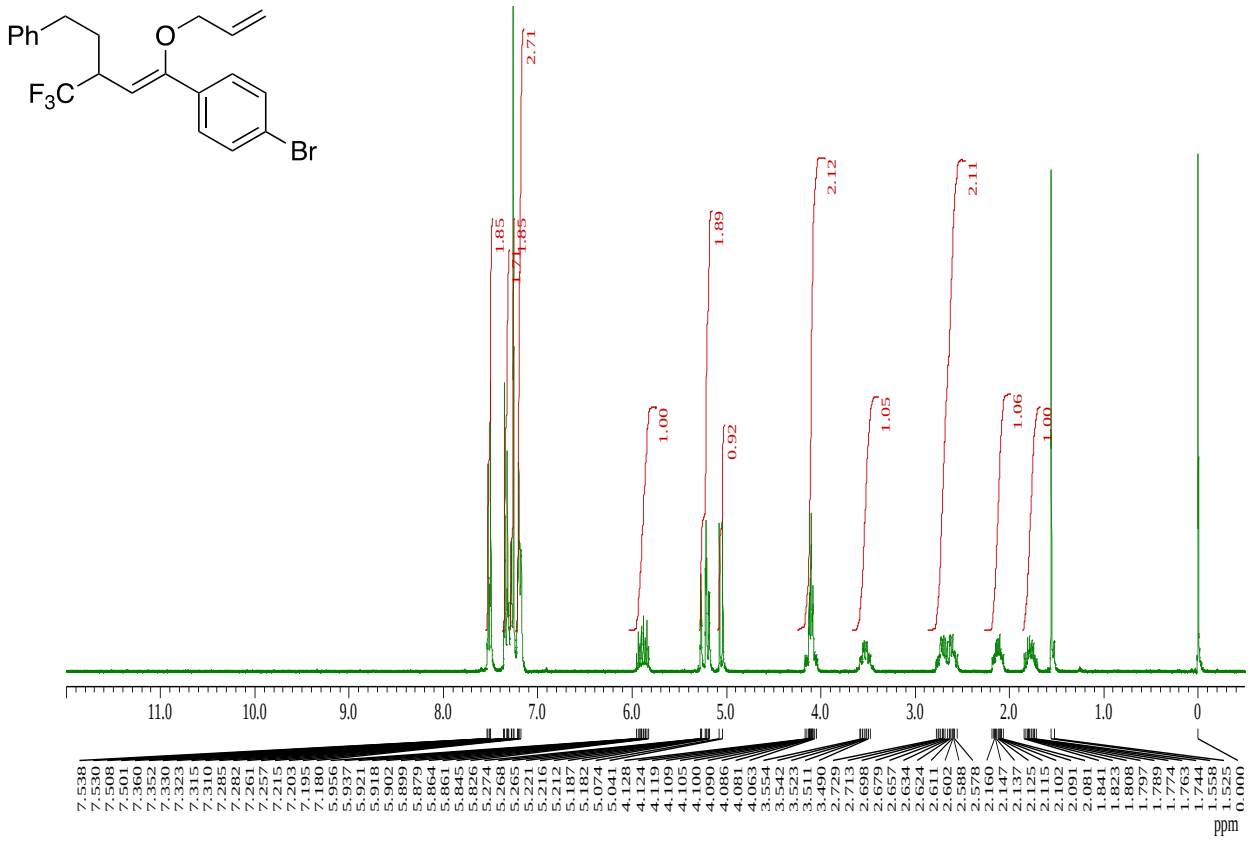
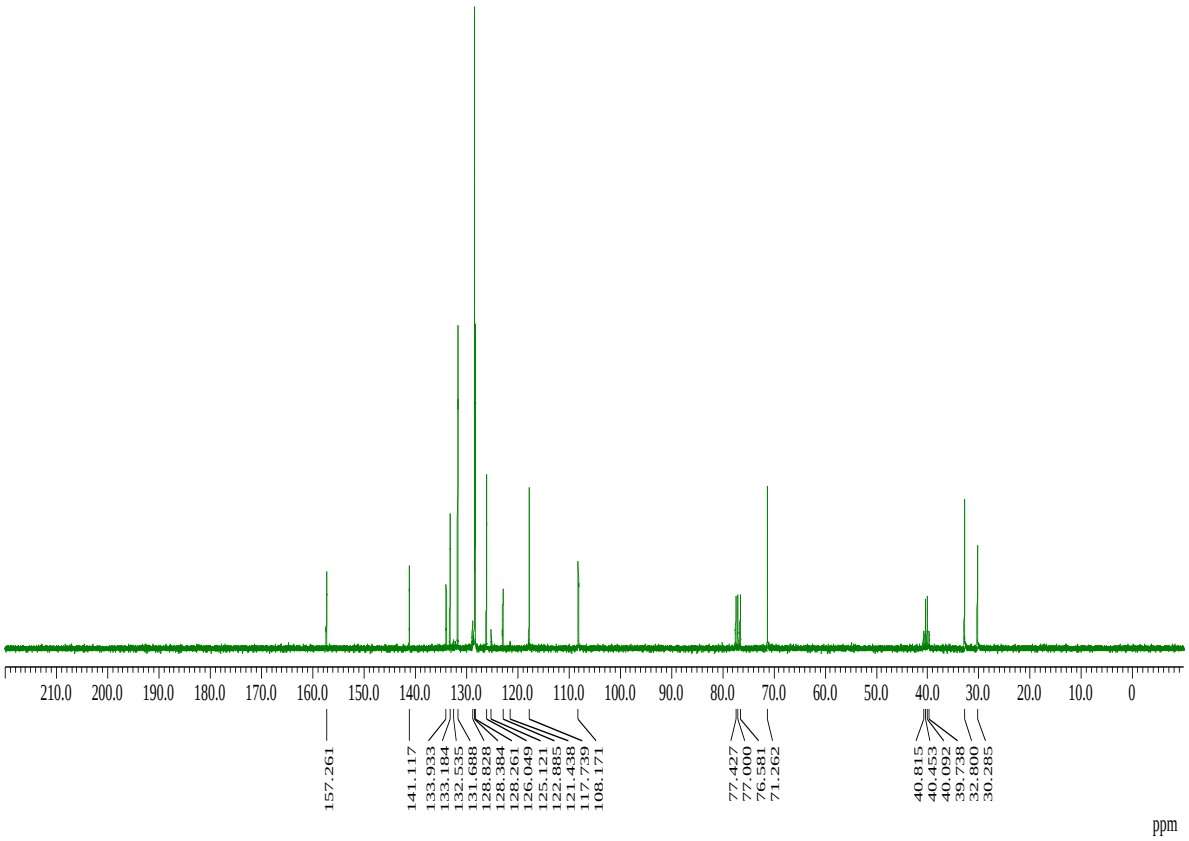
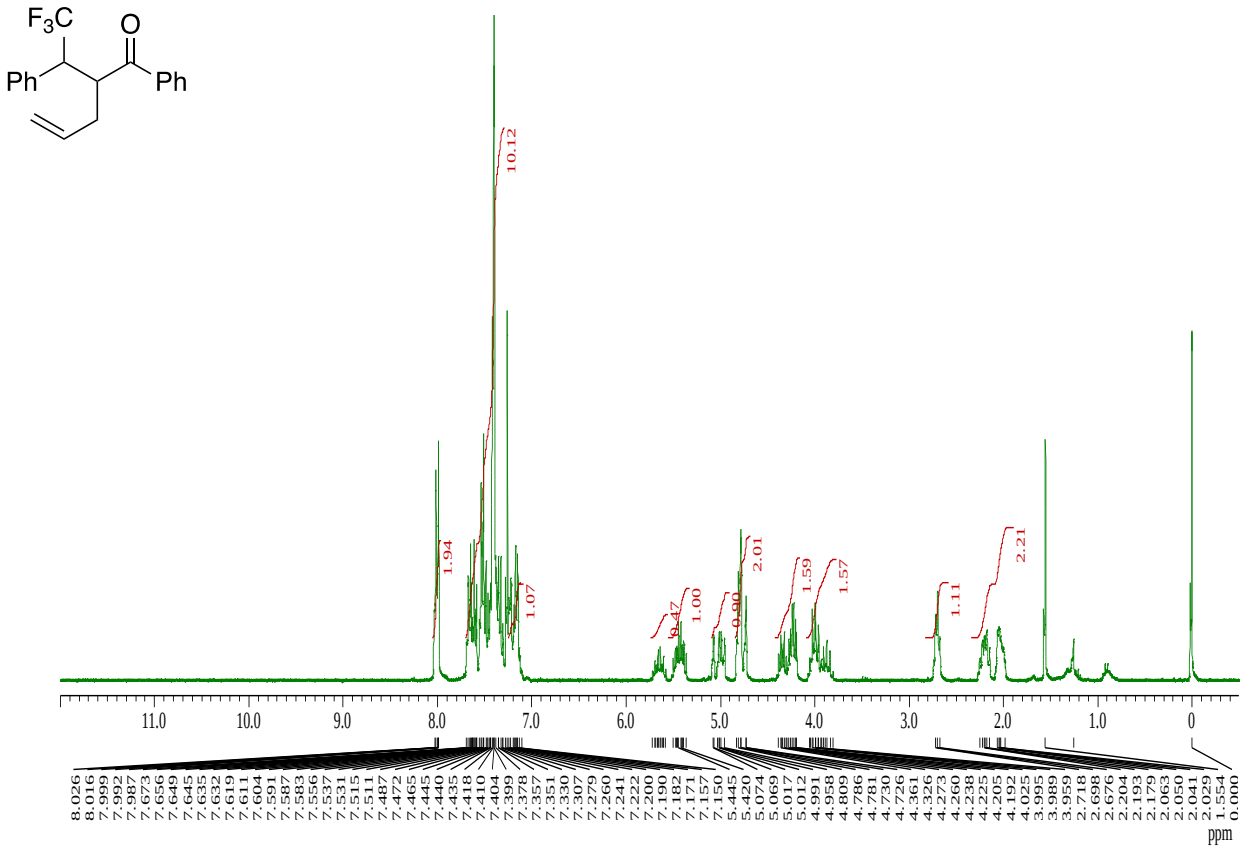
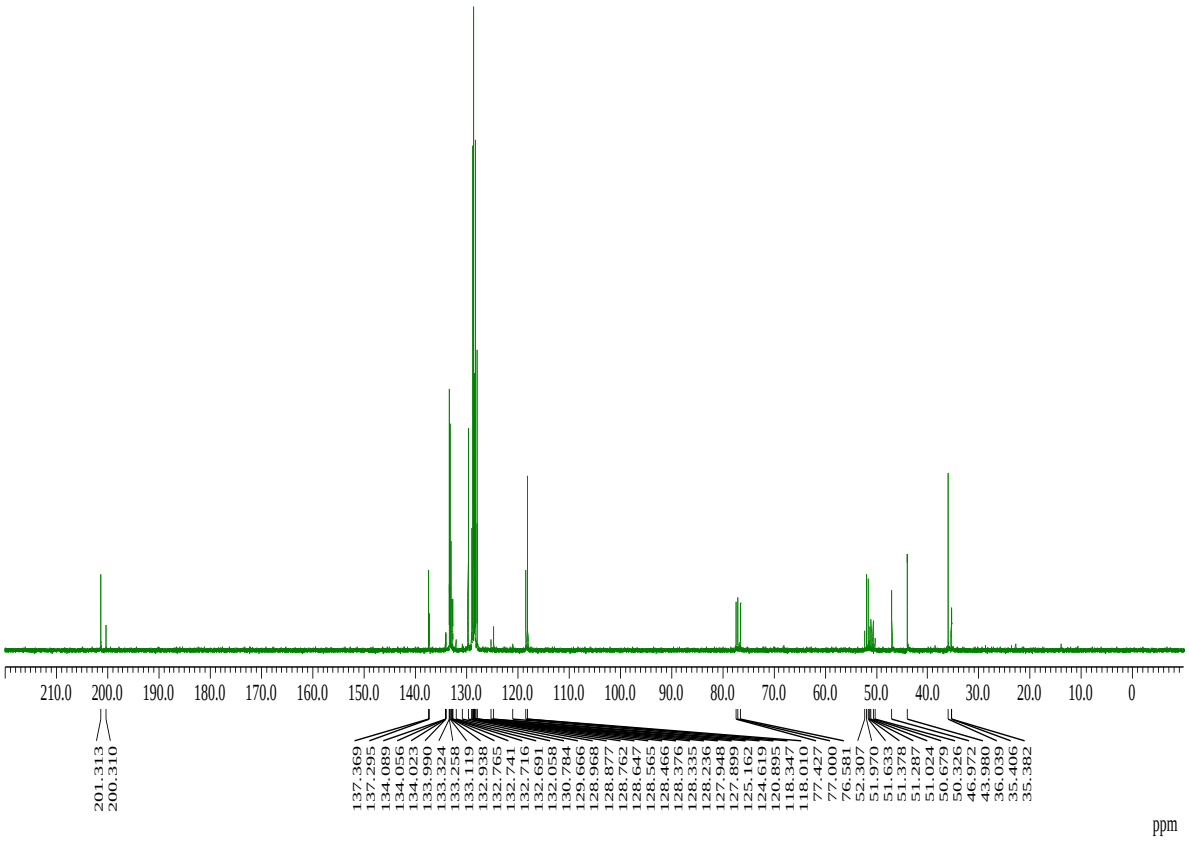
1.14. (E)-1-(4-Bromophenyl)-5-phenyl-1-{(prop-2-en-1-yl)oxy}-3-(trifluoromethyl)pent-1-ene (4g)



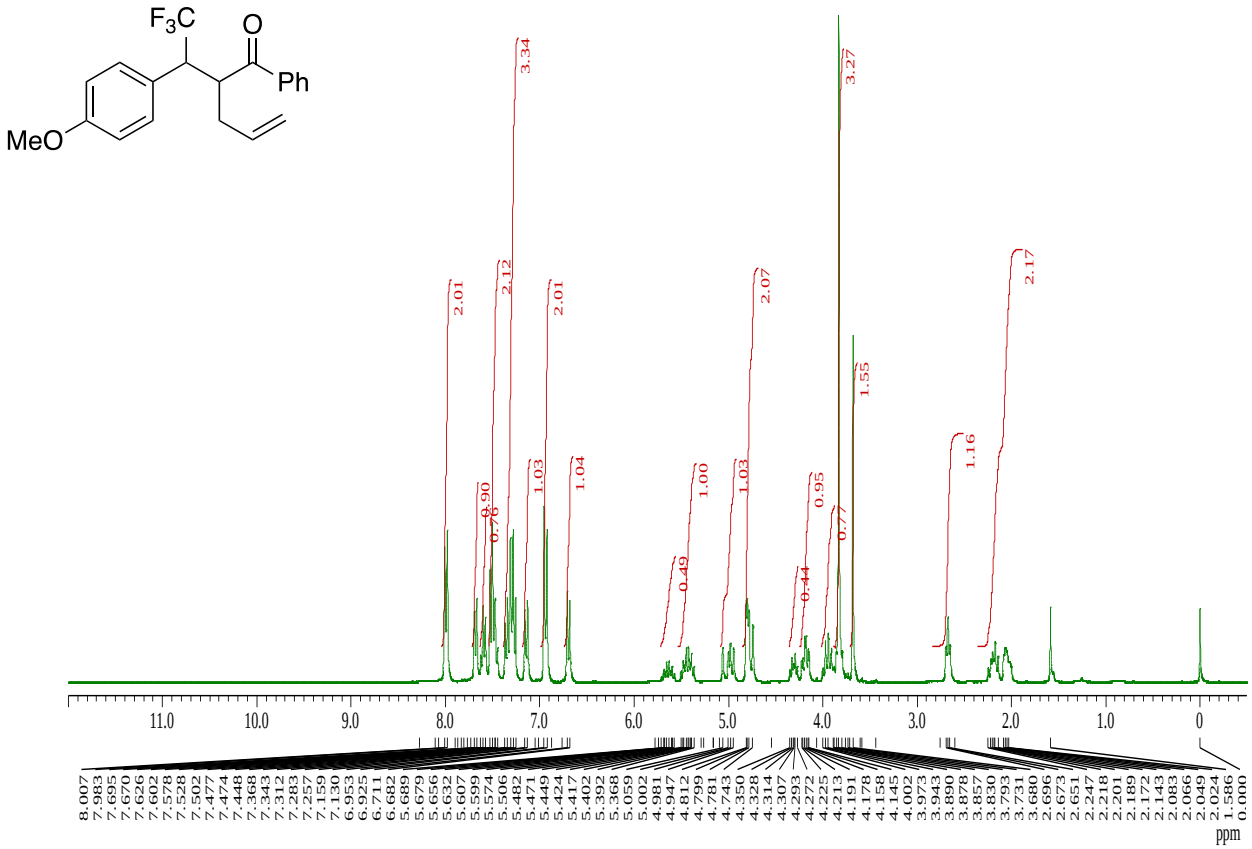


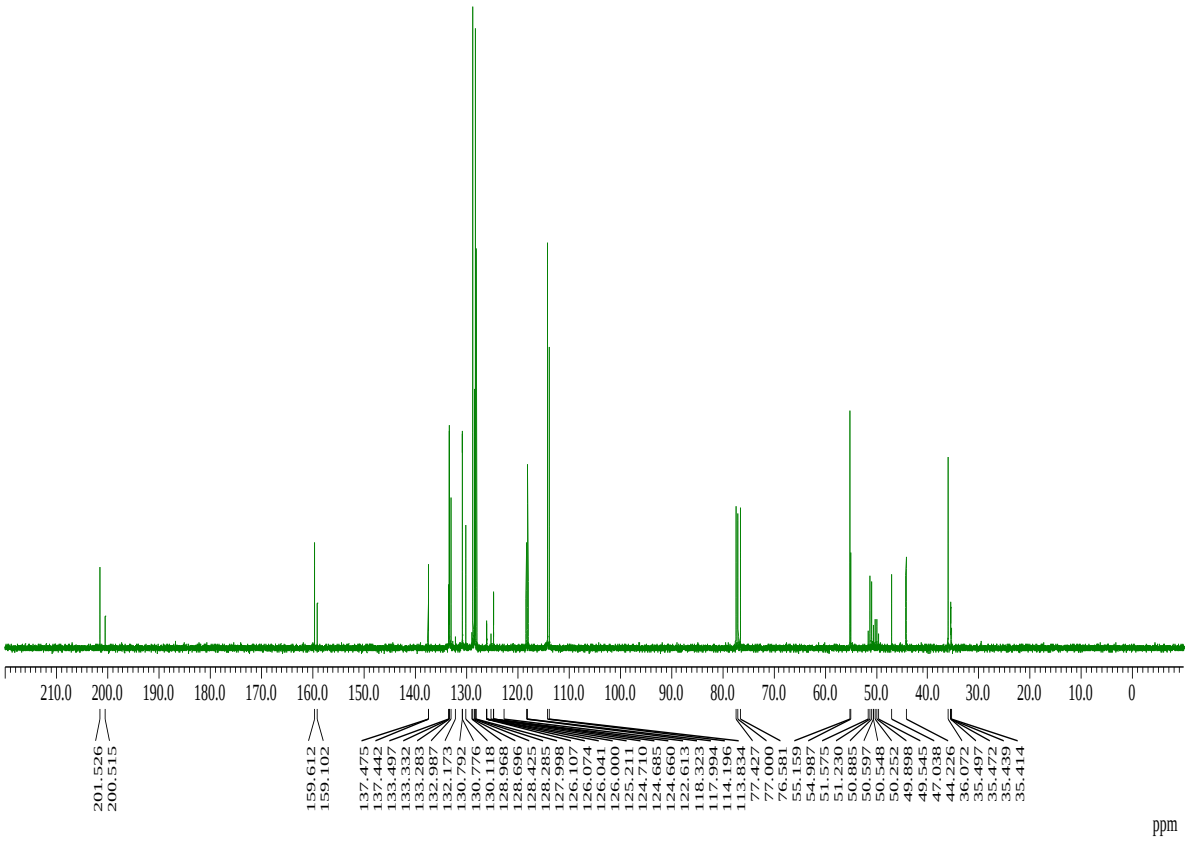
1.15. 4,4,4-Trifluoro-1,3-diphenyl-2-(prop-2-en-1-yl)butan-1-one (5a)



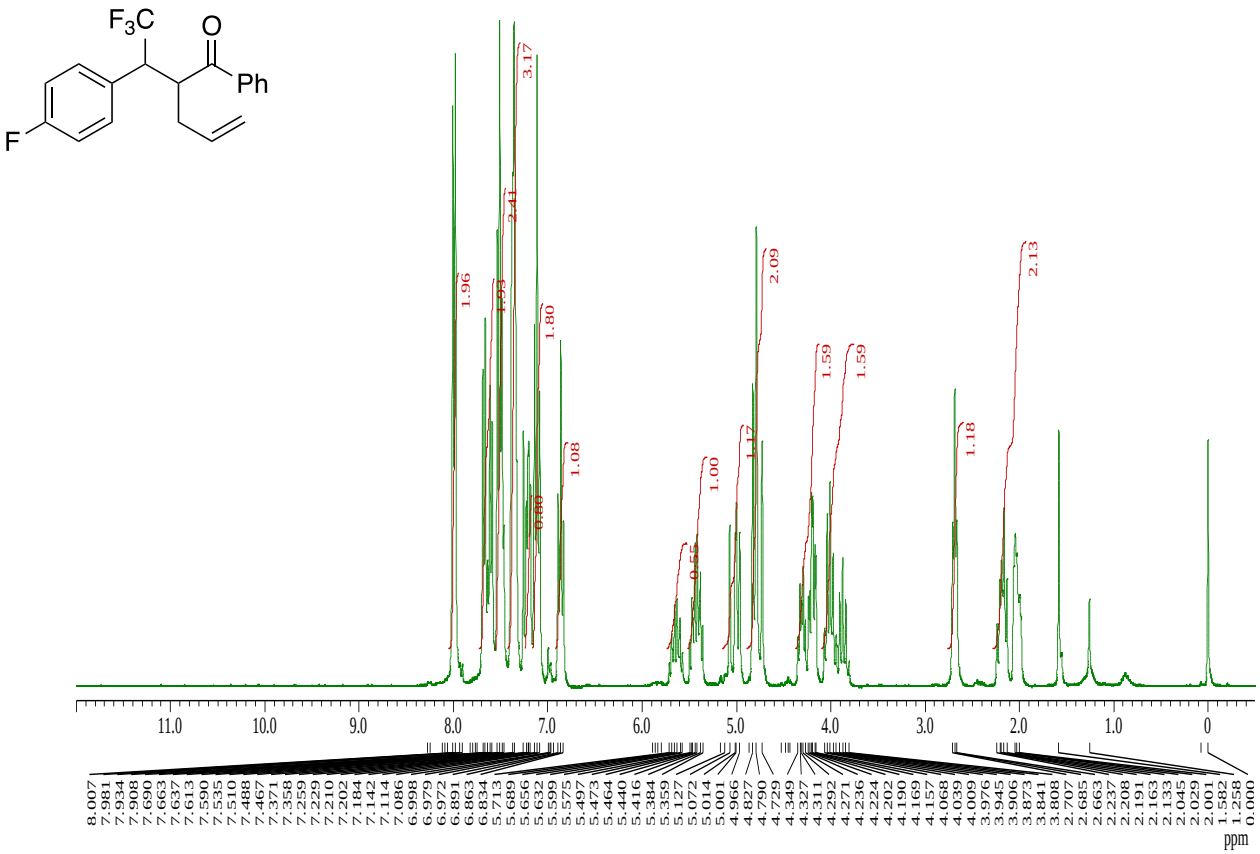


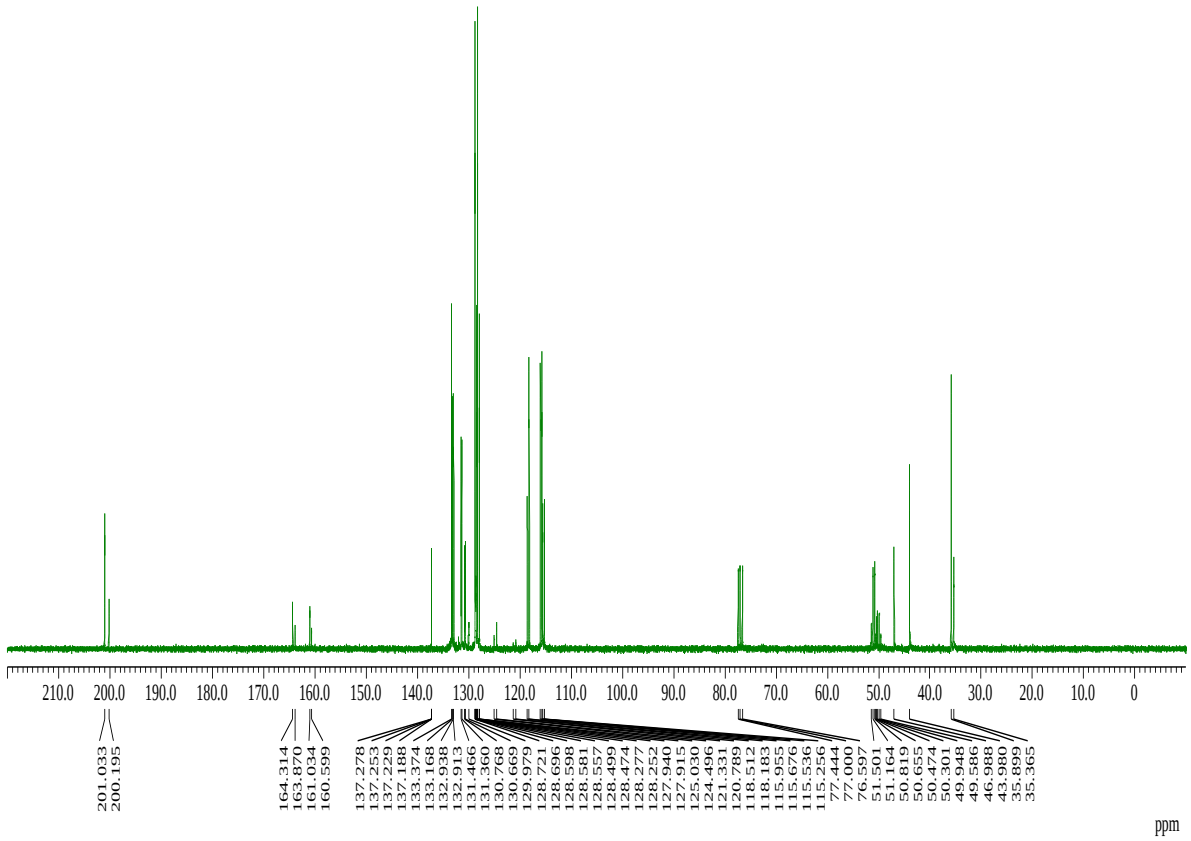
1.16. 4,4,4-Trifluoro-3-(4-methoxyphenyl)-1-phenyl-2-(prop-2-en-1-yl)butan-1-one (5b)



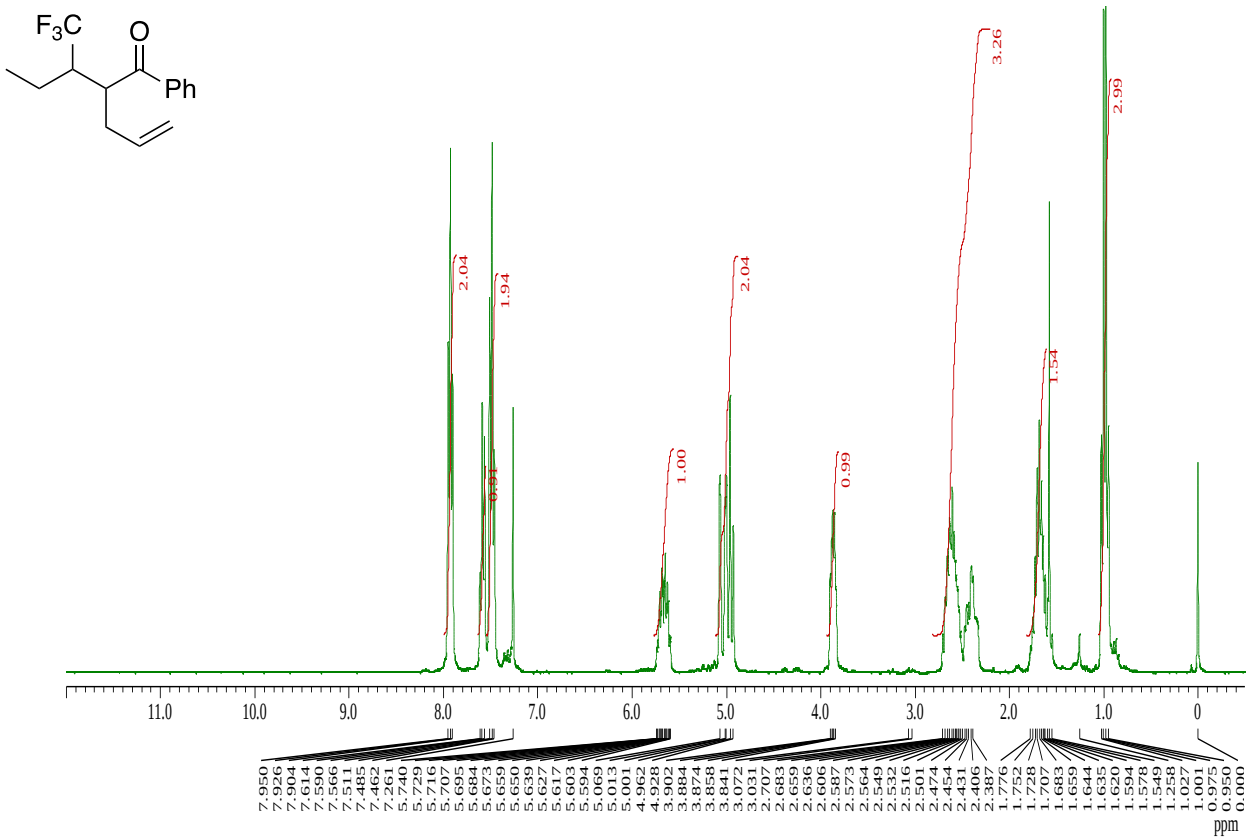


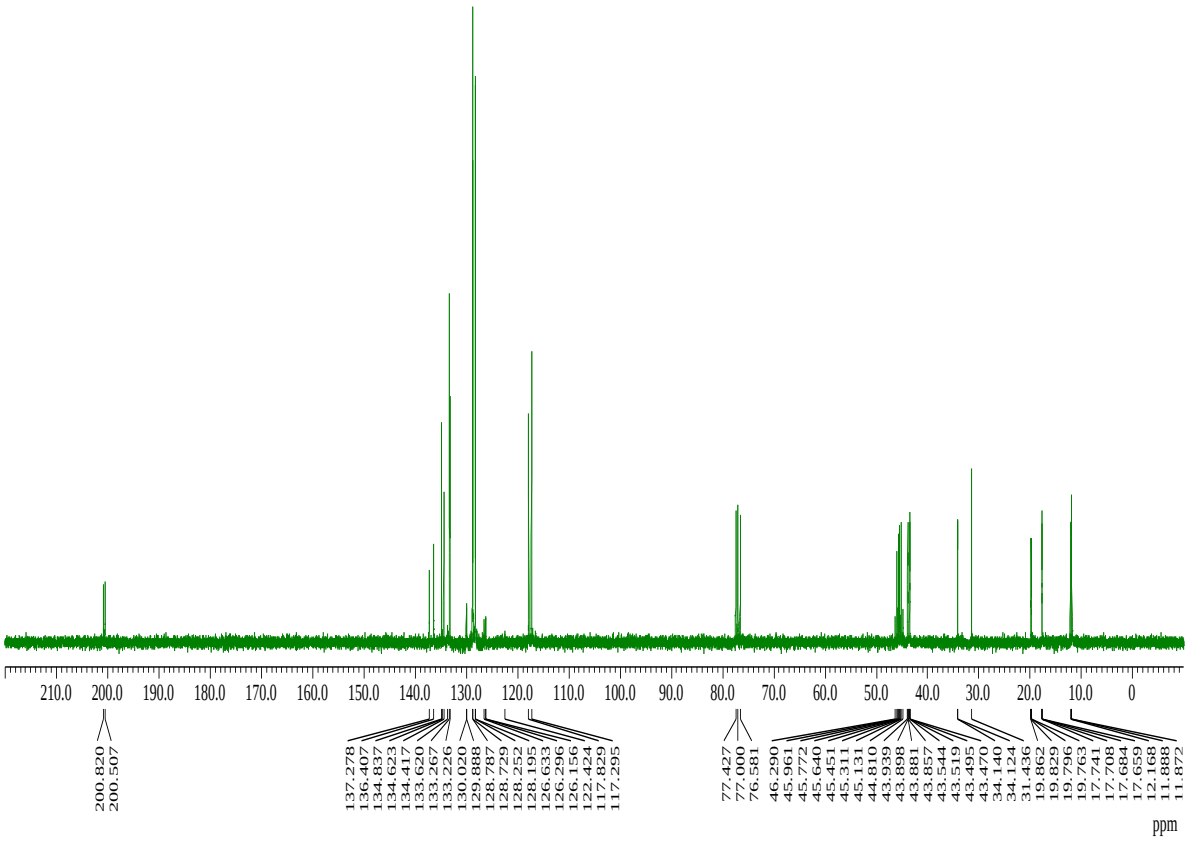
1.17. 4,4,4-Trifluoro-3-(4-fluorophenyl)-1-phenyl-2- (prop-2-en-1-yl)butan-1-one (5c)



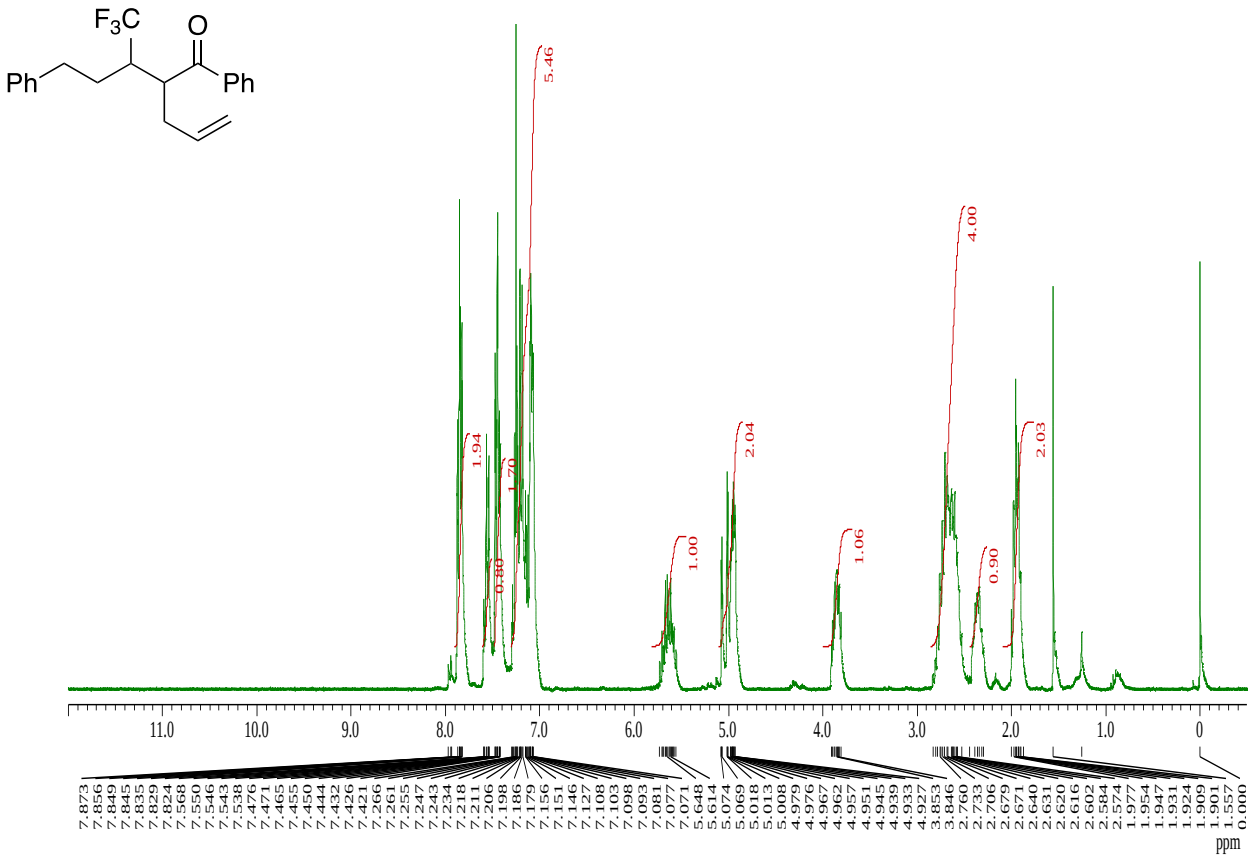


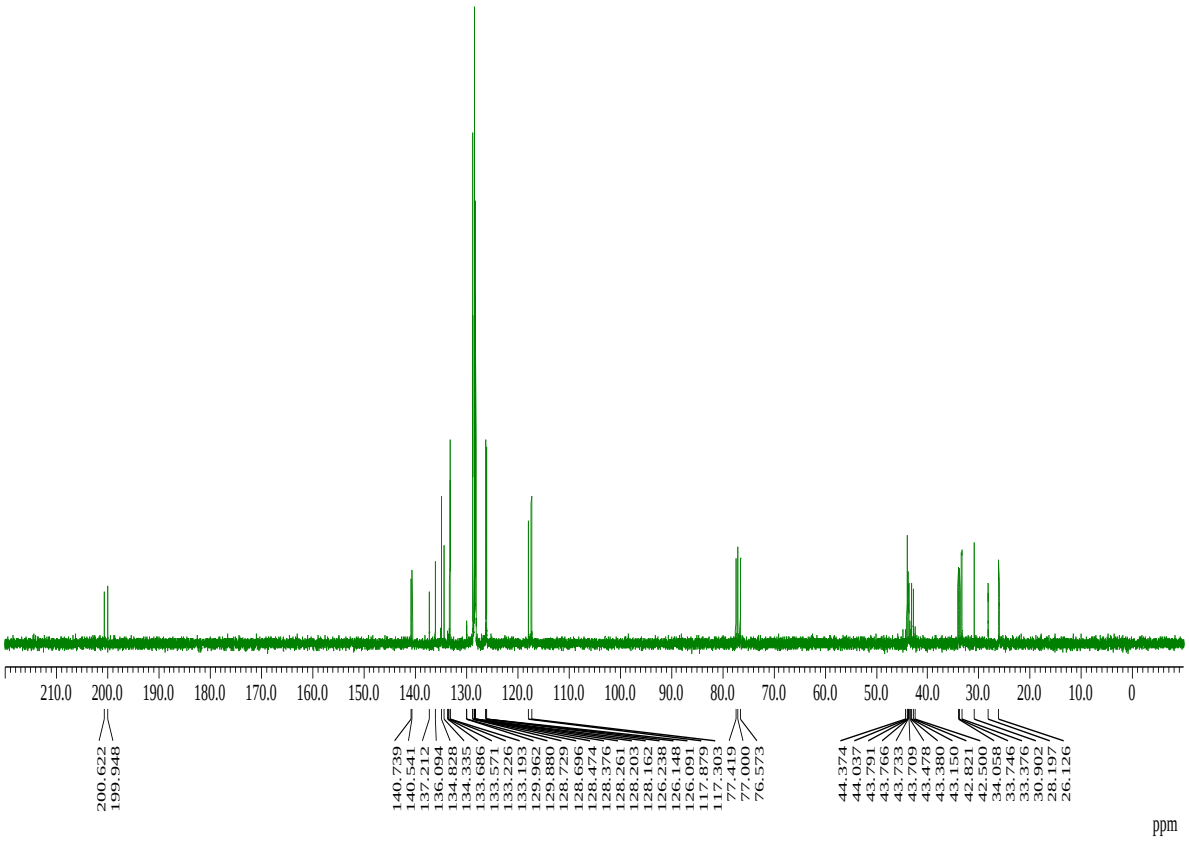
1.18. 1-Phenyl-2-(prop-2-en-1-yl)-3-(trifluoromethyl)pentan-1-one (5d)



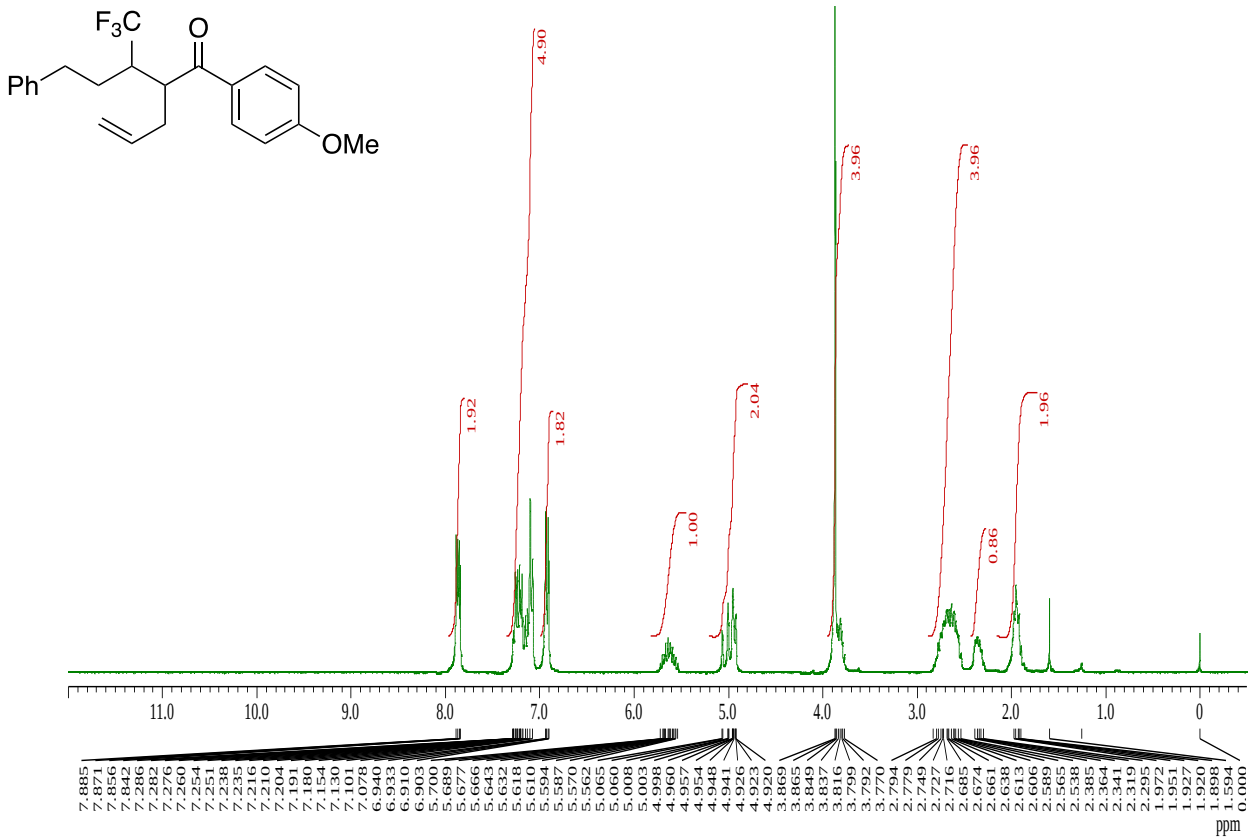


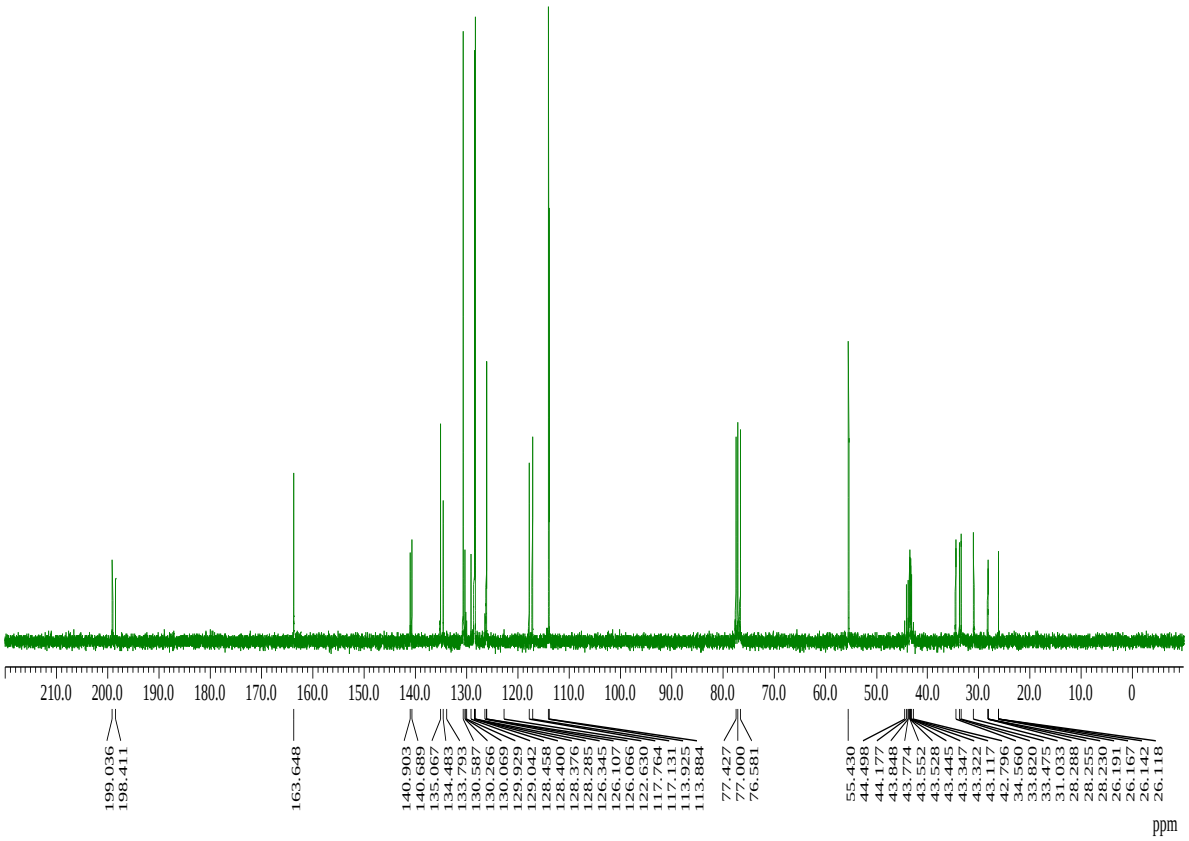
1.19. 1,5-Diphenyl-2-(prop-2-en-1-yl)-3-(trifluoromethyl)pentan-1-one (5e)



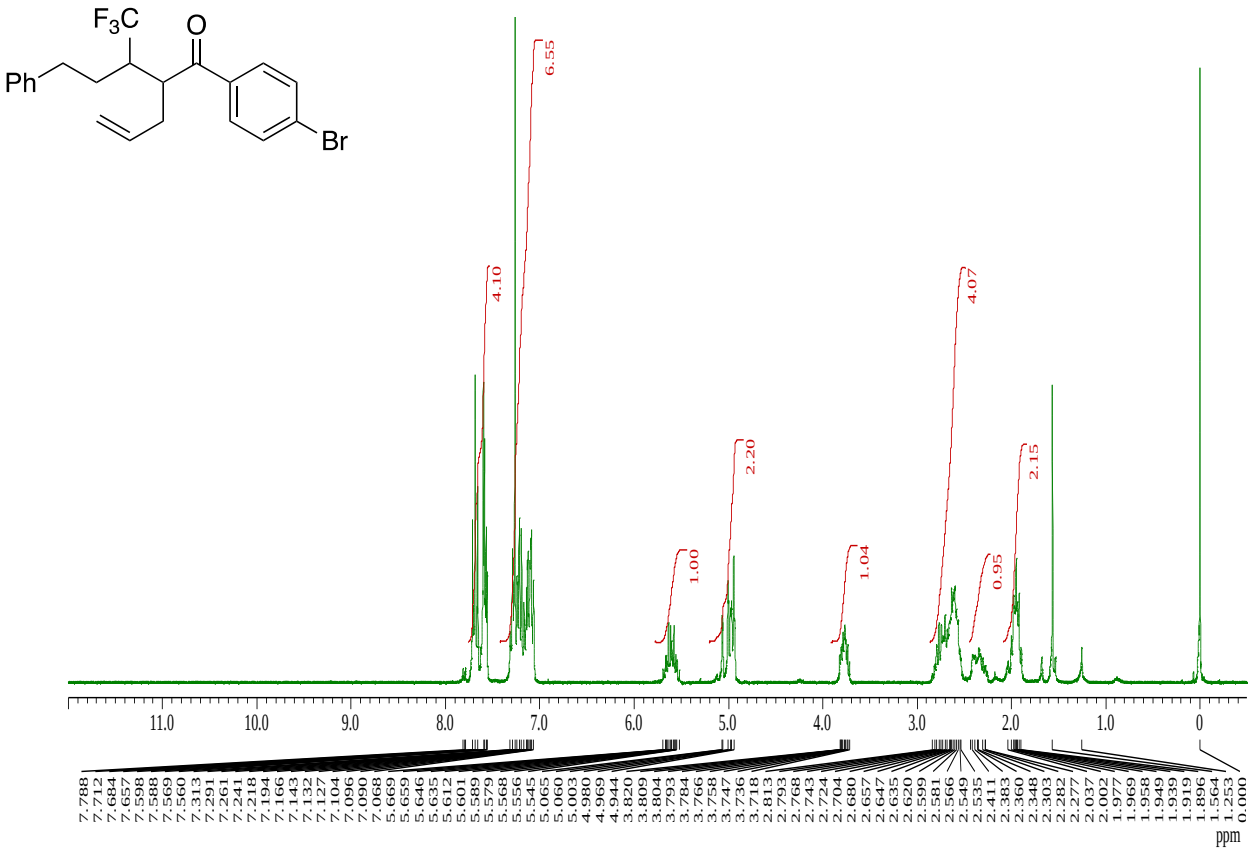


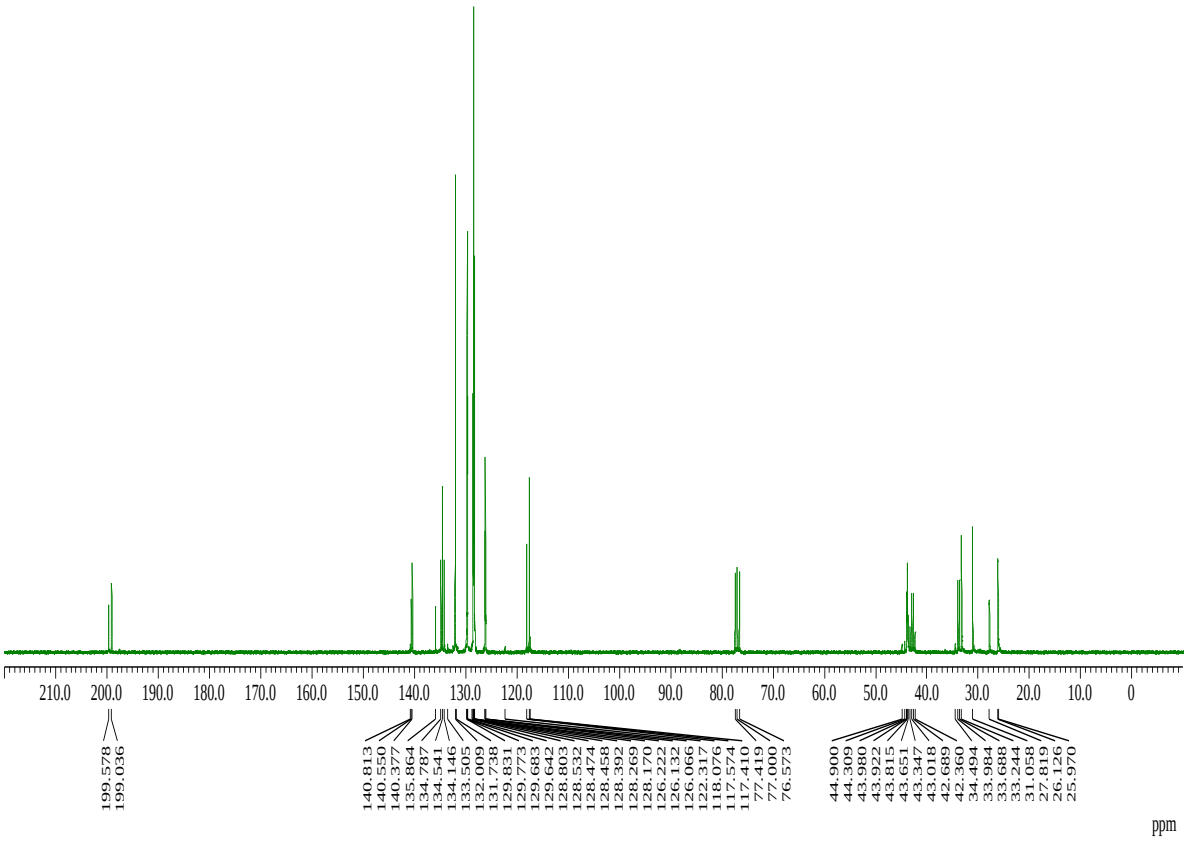
1.20. 1-(4-Methoxyphenyl)-5-phenyl-2-(prop-2-en-1-yl)-3-(trifluoromethyl)pentan-1-one (5f)





1.21. 1-(4-Bromophenyl)-5-phenyl-2-(prop-2-en-1-yl)-3-(trifluoromethyl)pentan-1-one (5g)




210.0 200.0 190.0 180.0 170.0 160.0 150.0 140.0 130.0 120.0 110.0 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0
199.578
199.036
140.813
140.550
140.377
135.864
134.787
134.541
134.146
133.505
132.009
131.738
129.831
129.773
129.683
129.642
128.803
128.532
128.474
128.458
128.392
128.269
128.170
126.222
126.132
126.066
122.317
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117.410
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44.309
43.980
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43.651
43.347
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33.688
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ppm