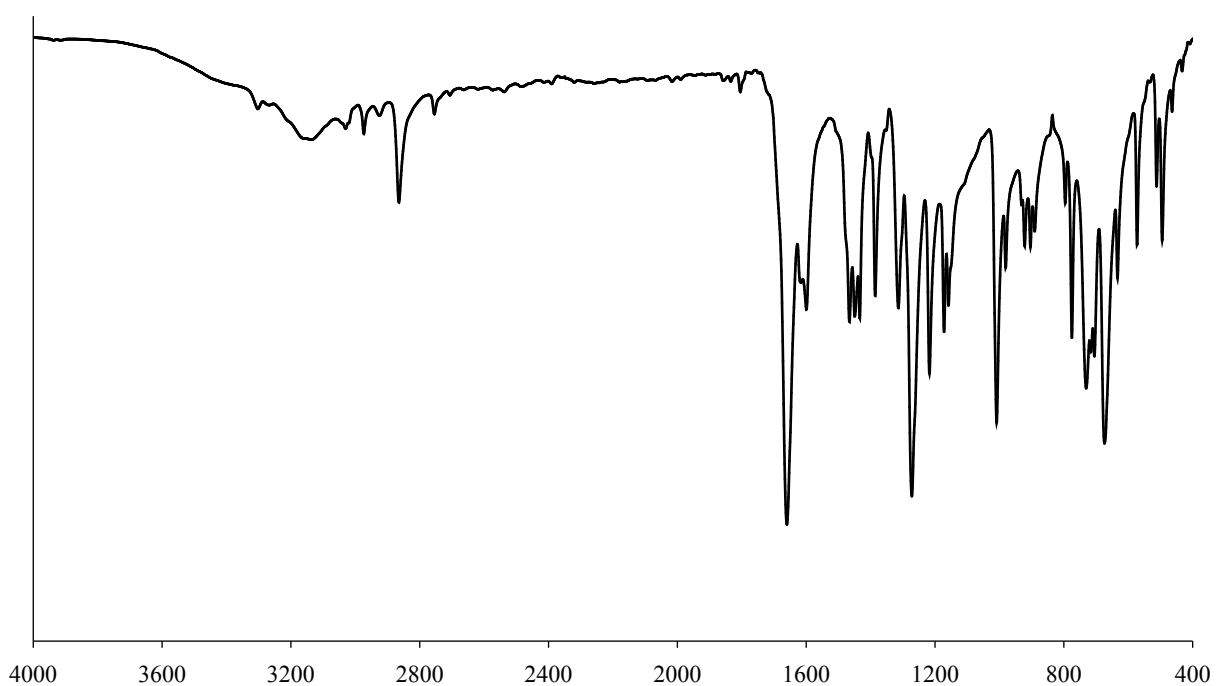


## Supplementary Information

### Design and synthesis of magnetic Fe<sub>3</sub>O<sub>4</sub>@NFC-ImSalophCu nano catalyst based on cellulose nanofibers as a new and highly efficient, reusable, stable and green catalyst for synthesis of 1,2,3-triazoles

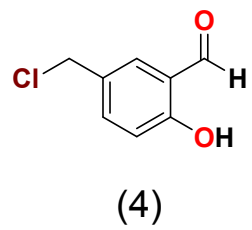
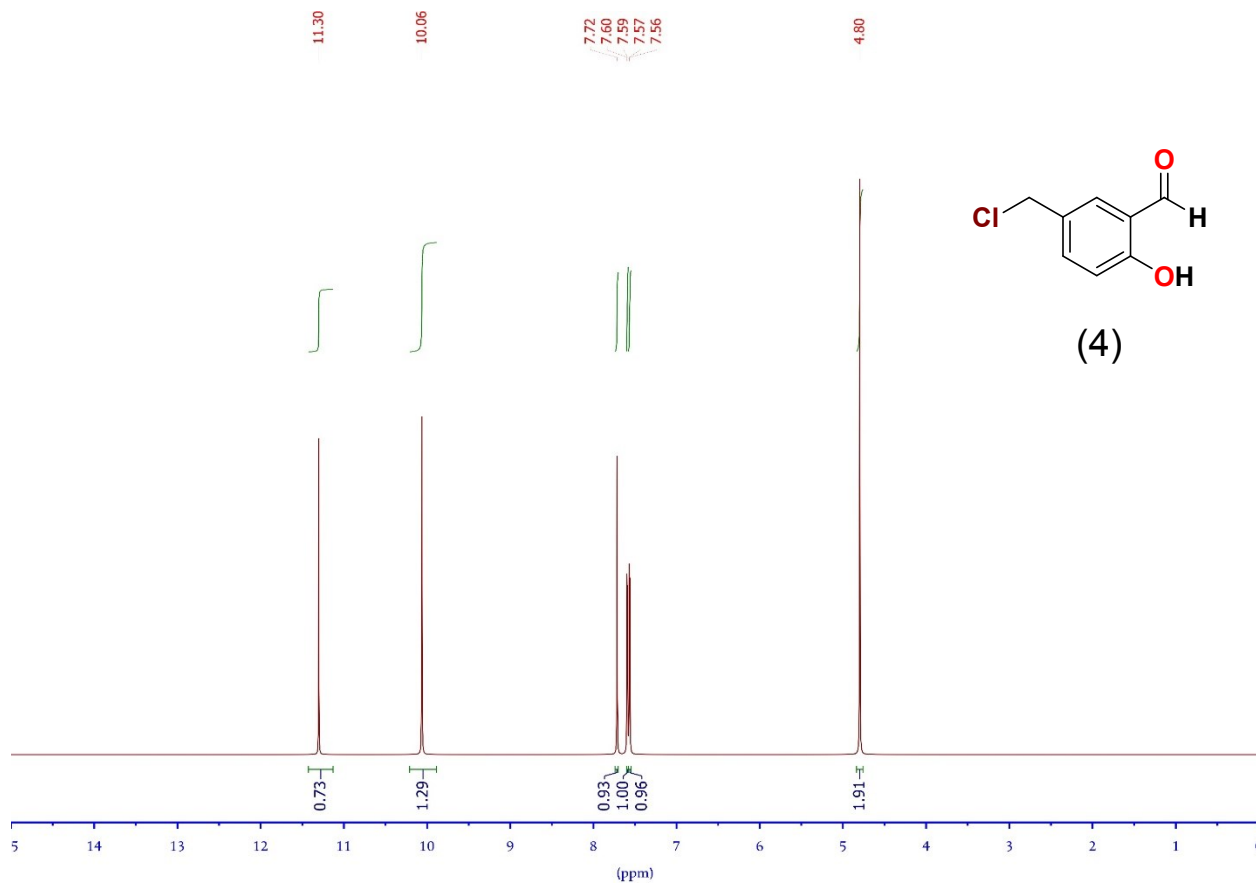
Pouya Ghamari kargar, <sup>a</sup> Ghodsieh Bagherzade\*<sup>a</sup> and Hossein Eshghi <sup>b</sup>

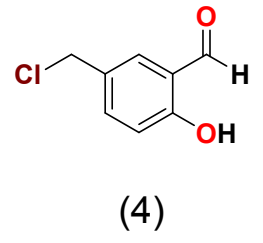
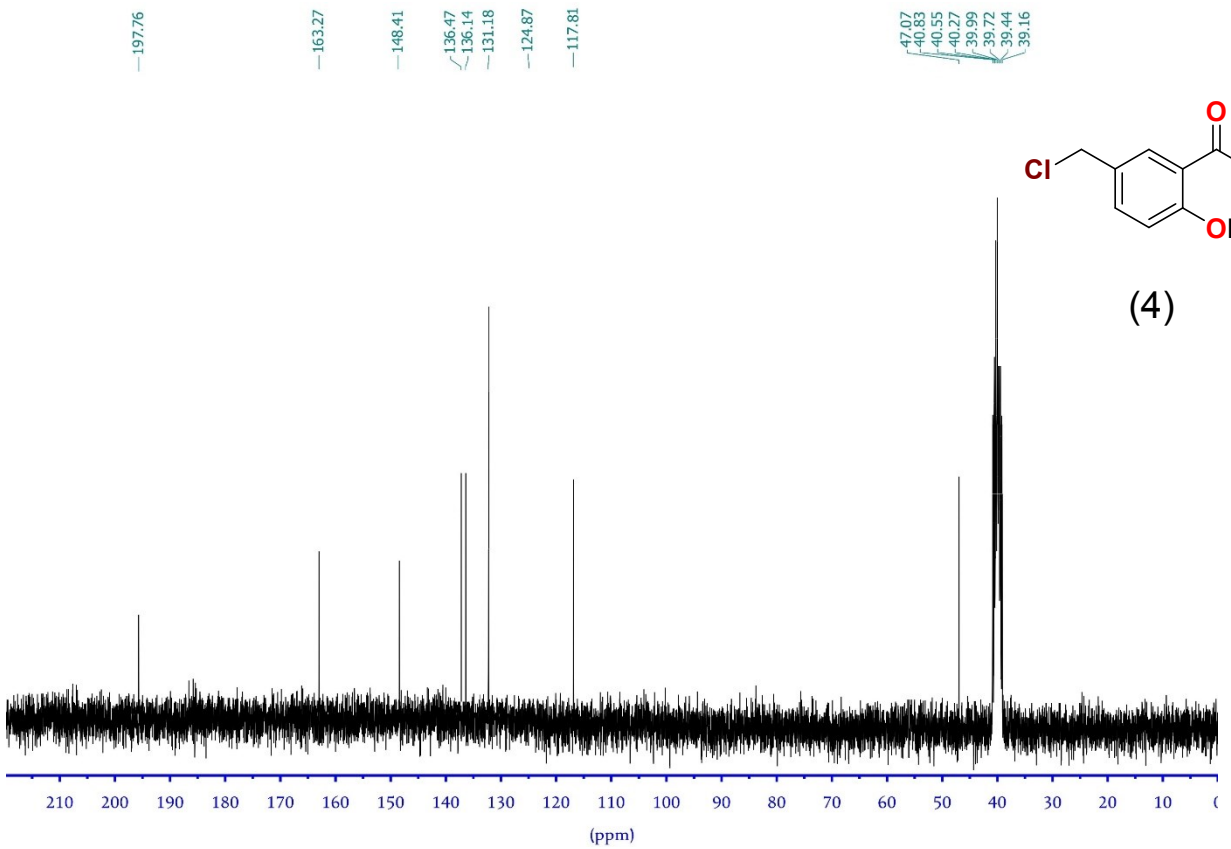
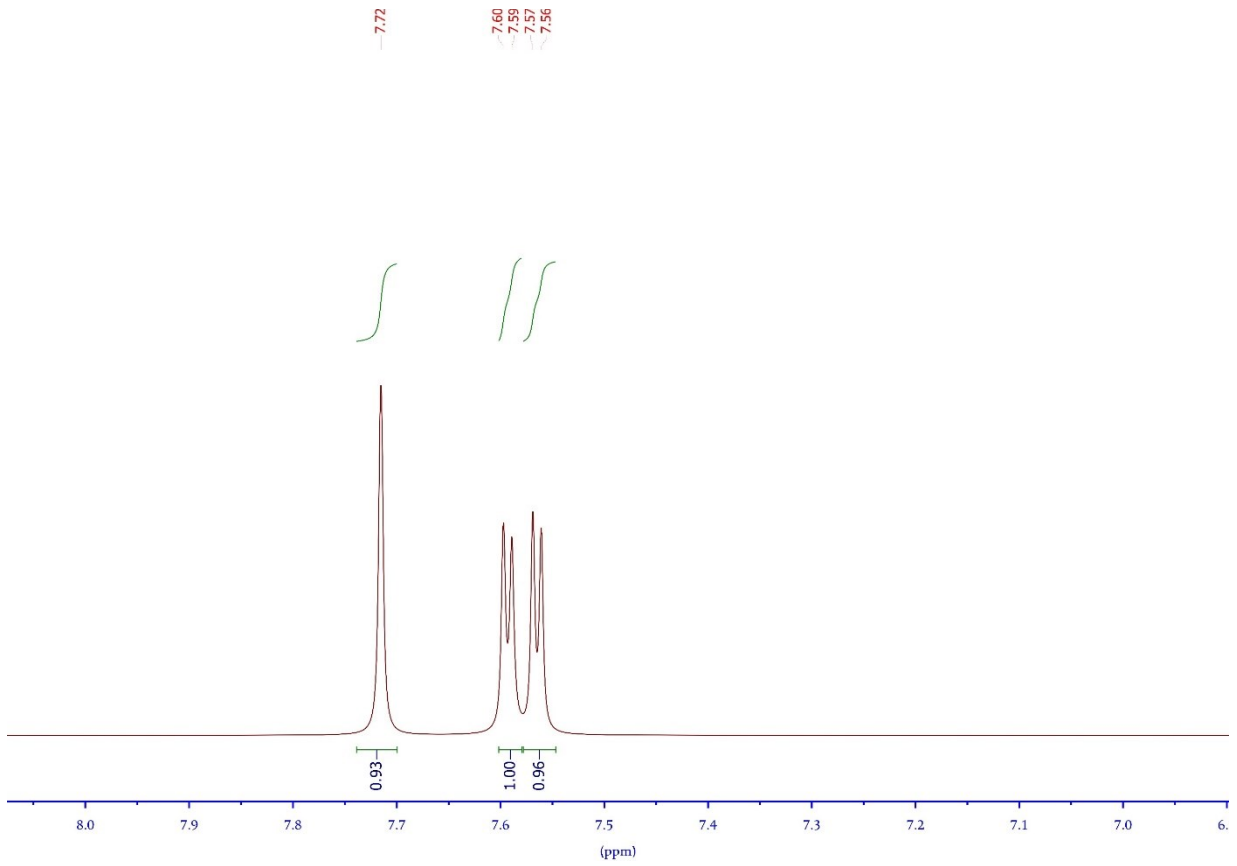
#### 5-(chloromethyl)-2-hydroxybenzaldehyde (4)



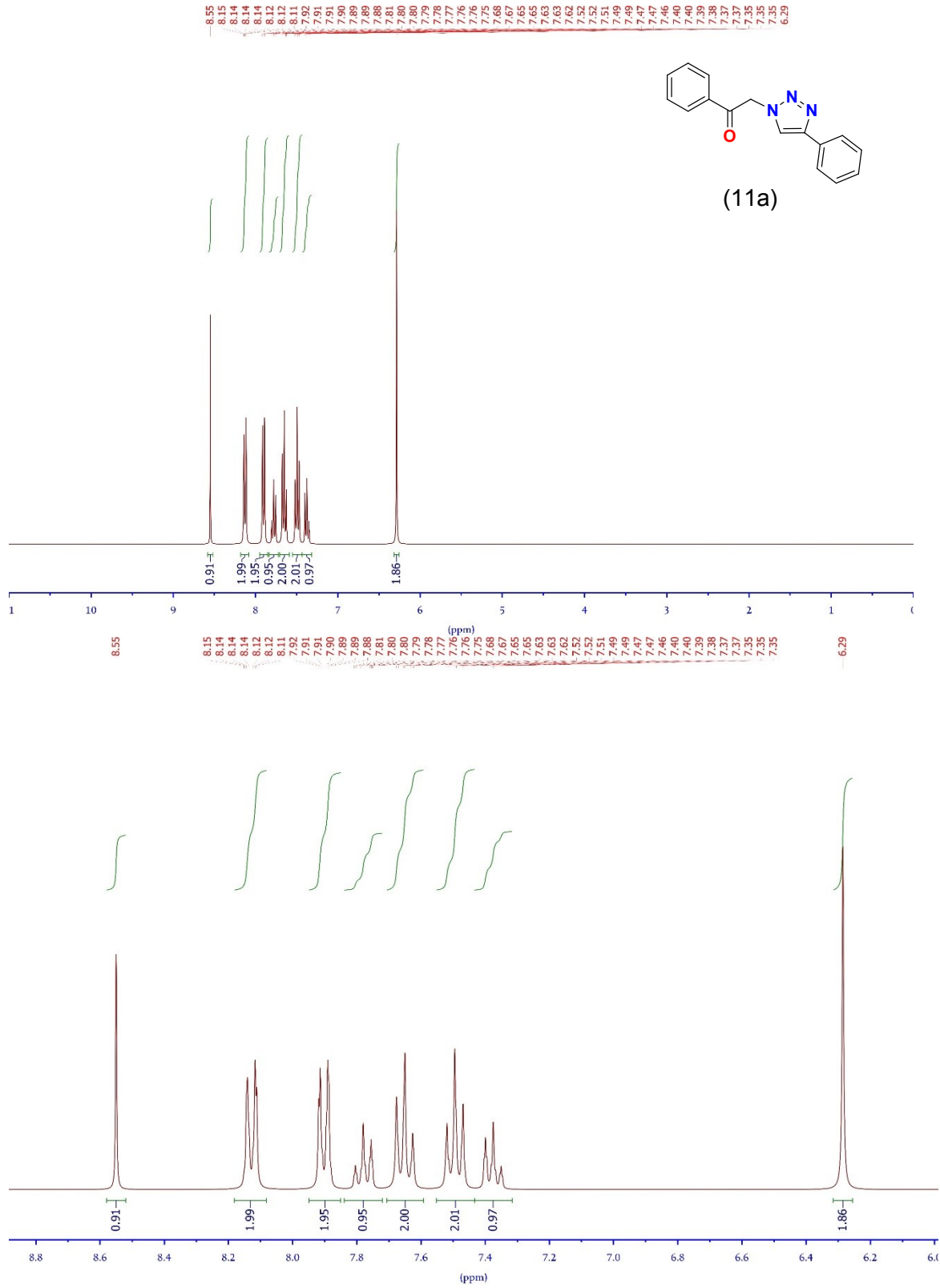
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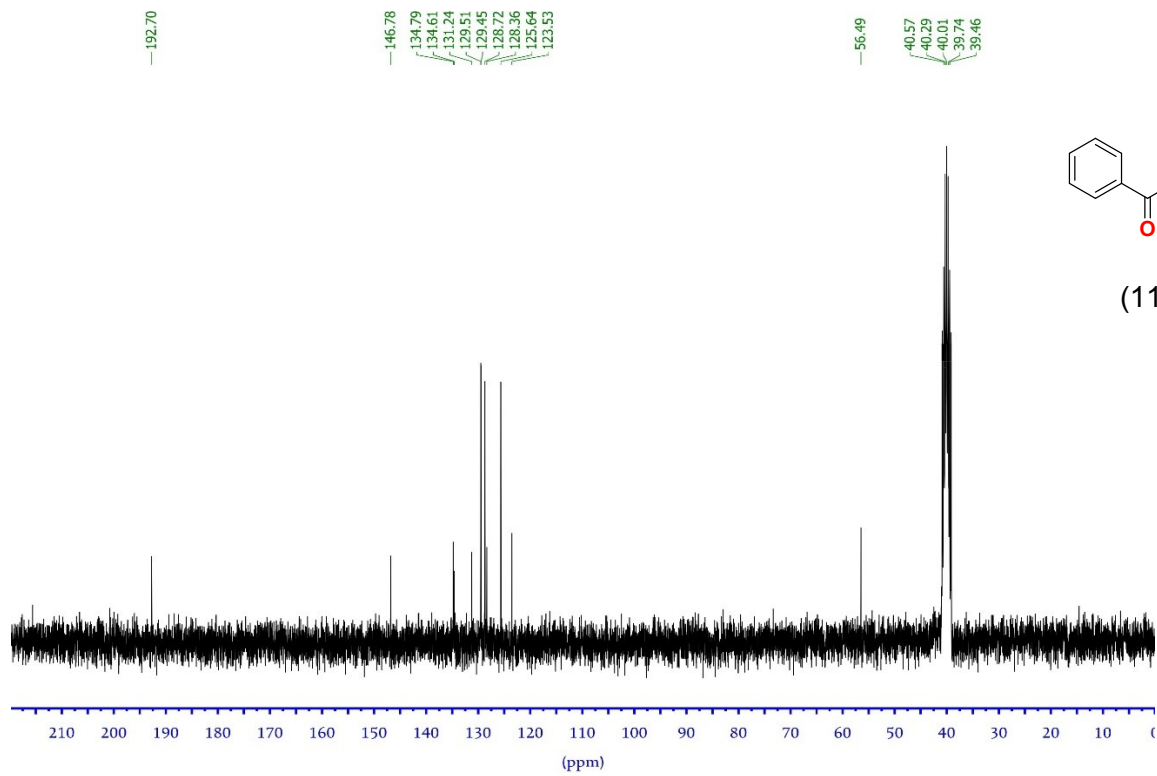
a. Department of Chemistry, Faculty of Sciences, University of Birjand, Birjand, 97175-615, Iran. E-mail: gbagherzade@gmail.com, [bagherzade@birjand.ac.ir](mailto:bagherzade@birjand.ac.ir); ax: +98 56 32345192; Tel: +98 56 32345192 Address here.  
b. Department of Chemistry, Faculty of Science, Ferdowsi University of Mashhad, Mashhad, Iran.



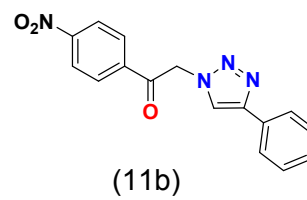
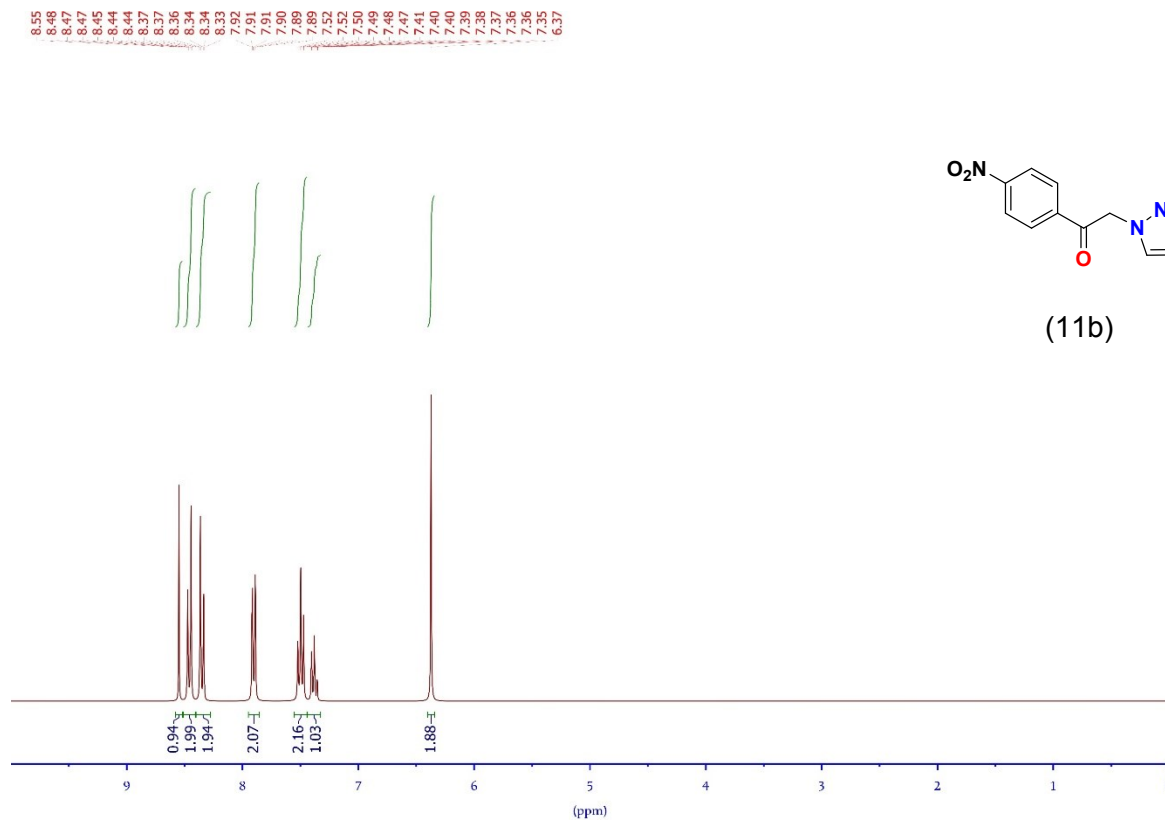


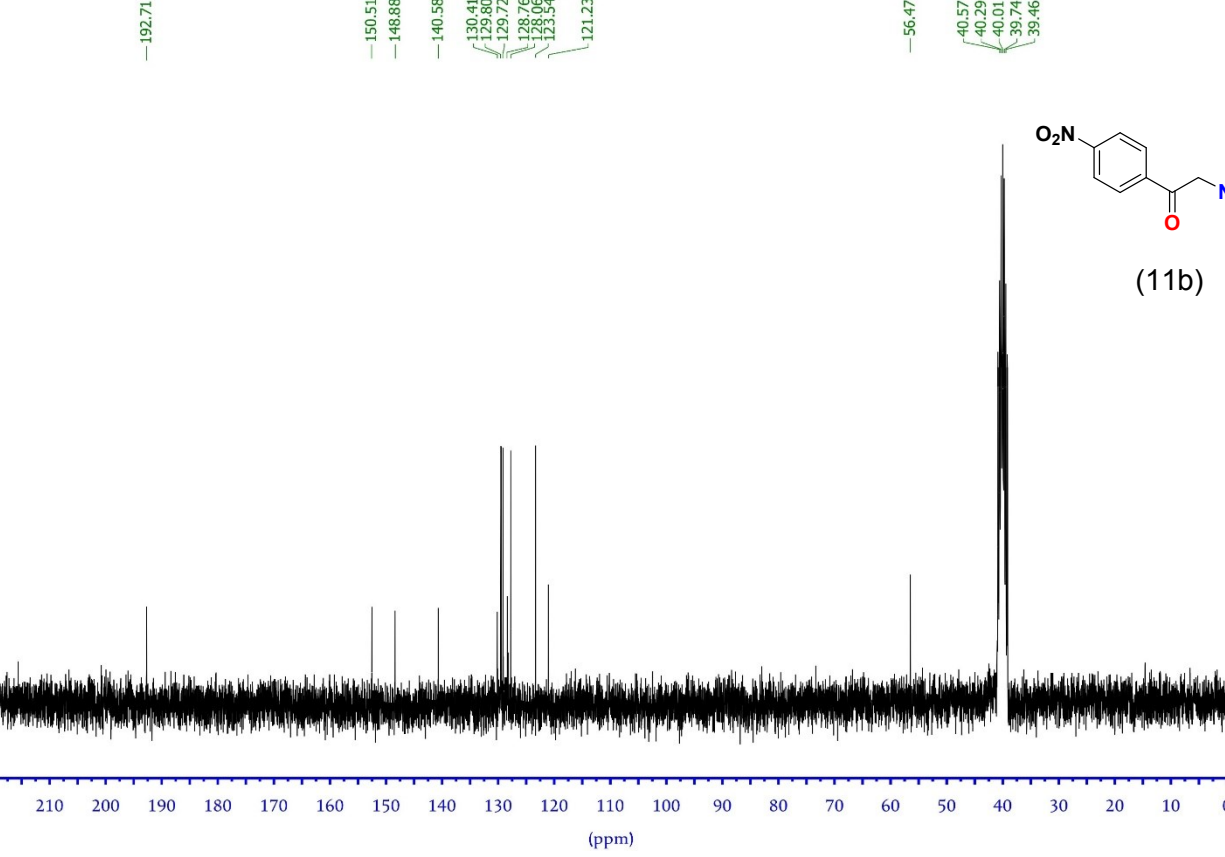
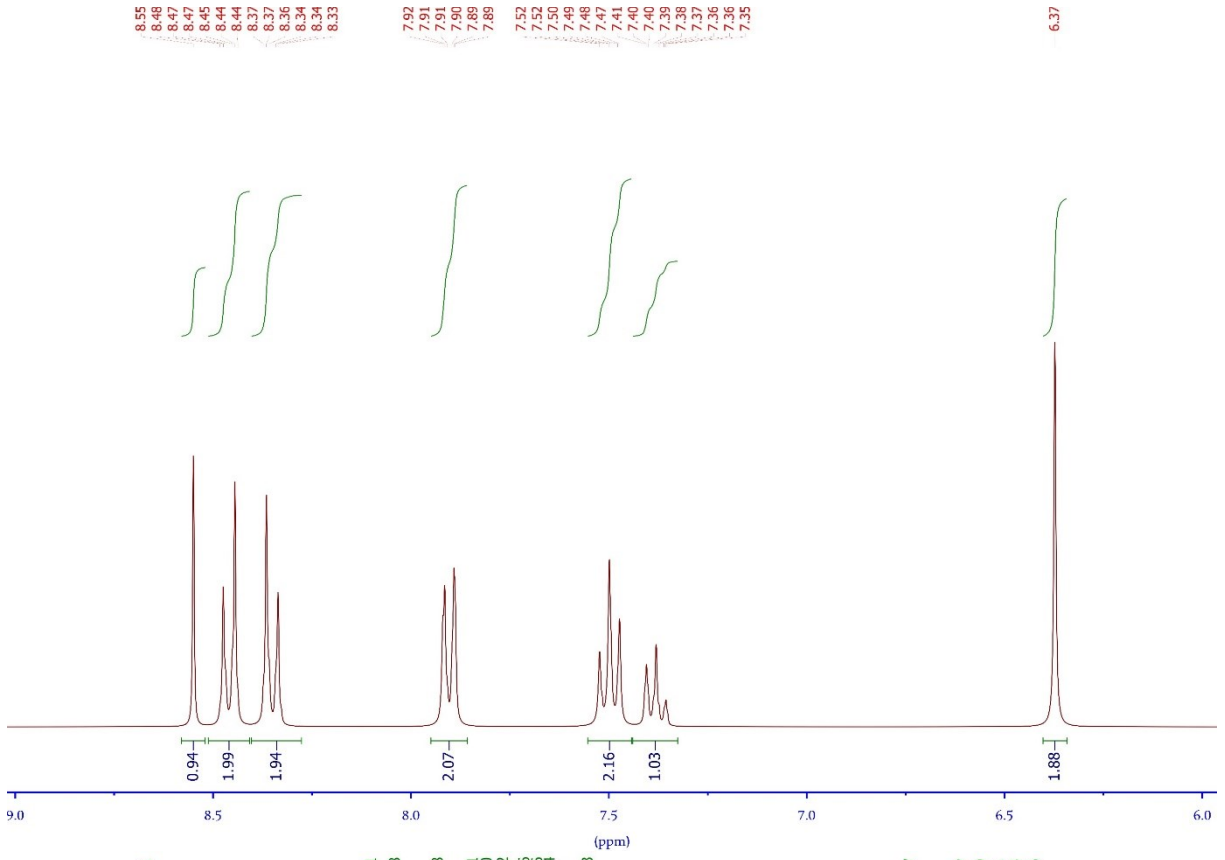
1-phenyl-2-(4-phenyl-1H-1,2,3-triazol-1-yl) ethanone (11a)



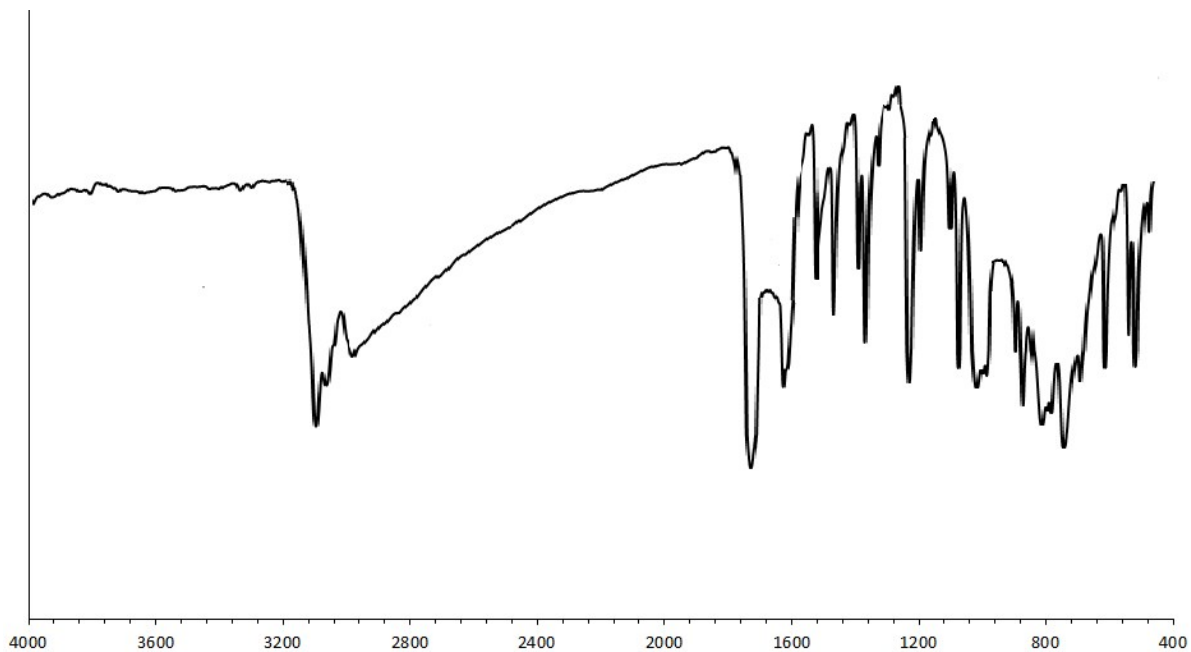


1-(4-nitro phenyl)-2-(4-phenyl-1H-1,2,3-triazol-1-yl) ethanone (11b)

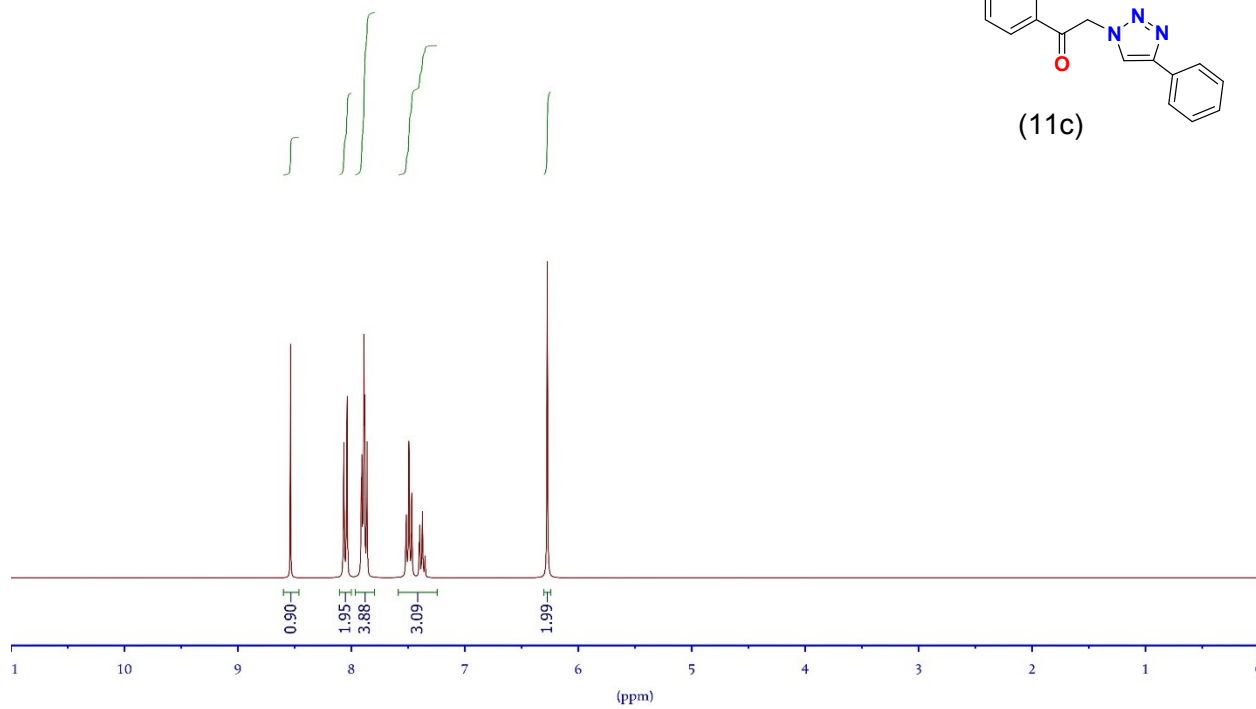
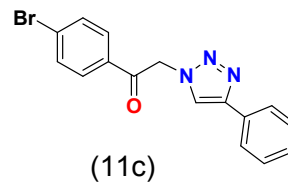




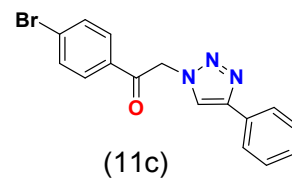
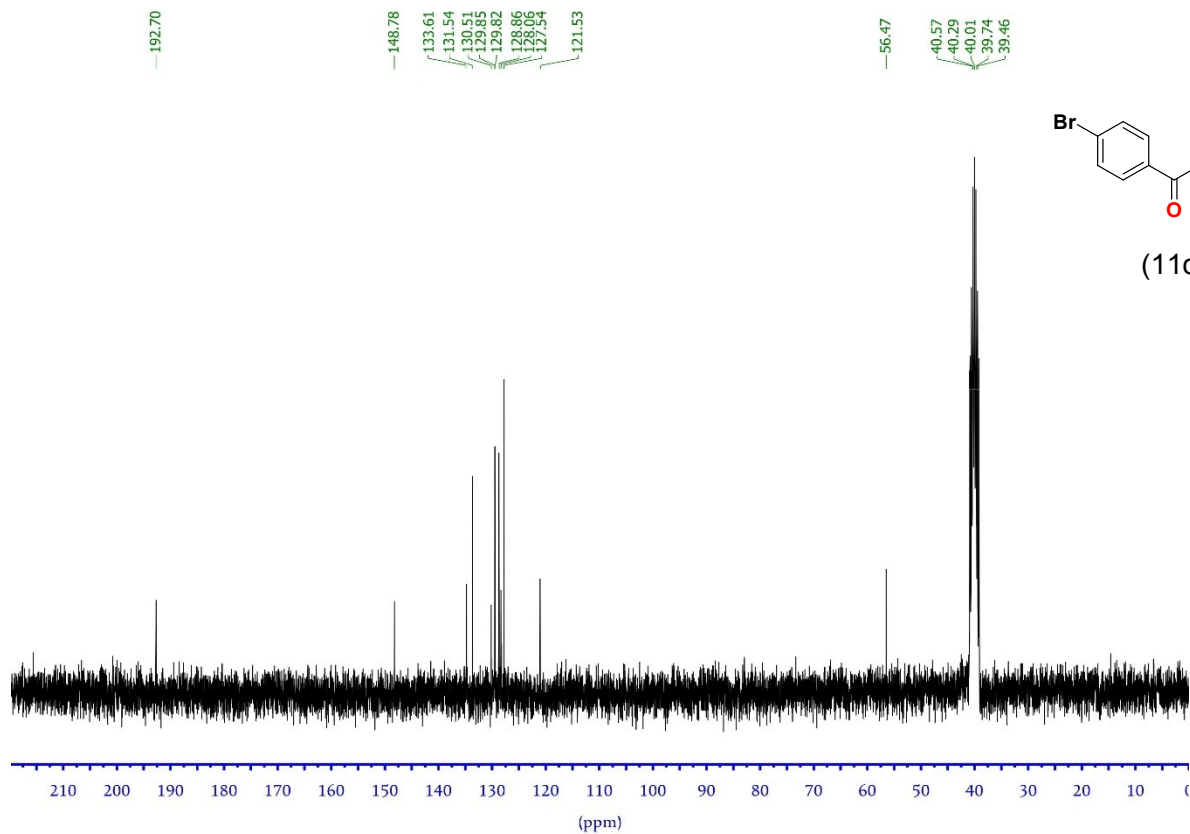
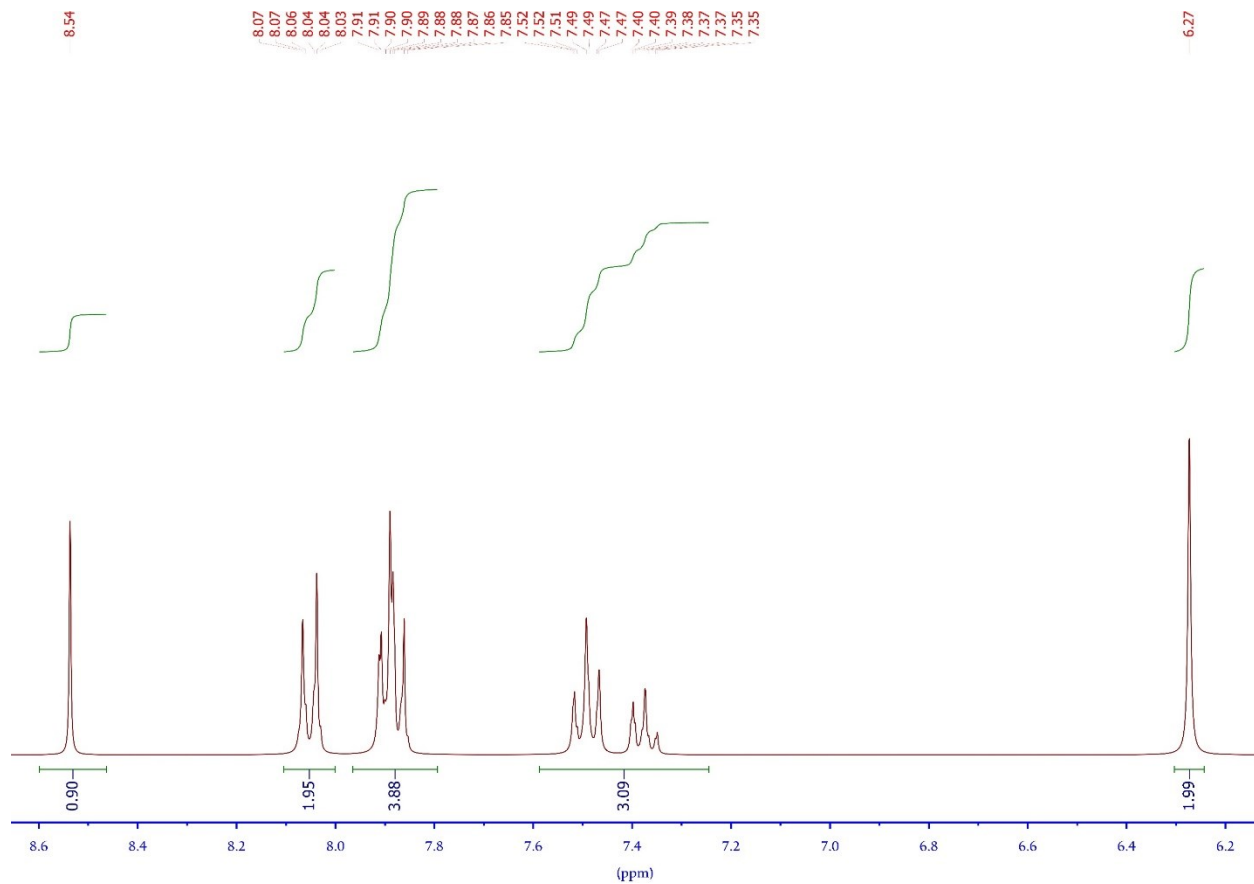
1-(4- bromophenyl)-2- (4-phenyl-1H-1,2,3-triazol-1-yl) ethanone (11c)



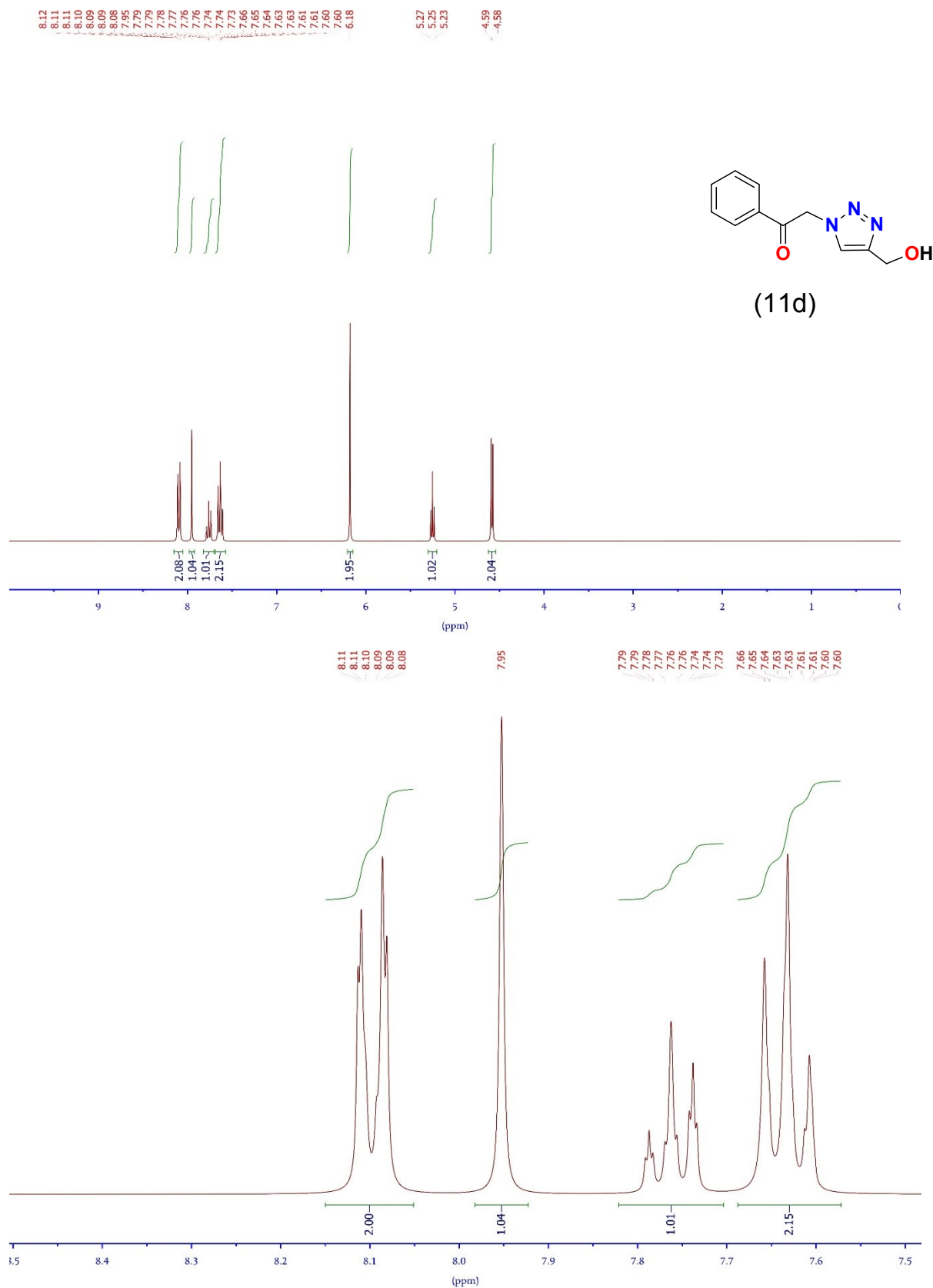
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8.07  
8.06  
8.06  
8.04  
8.04  
8.03  
7.91  
7.91  
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7.89  
7.89  
7.88  
7.88  
7.87  
7.86  
7.85  
7.85  
7.52  
7.52  
7.51  
7.49  
7.49  
7.47  
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7.39  
7.38  
7.37  
7.37  
7.35  
7.35  
6.27

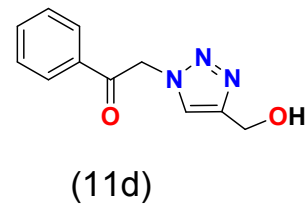
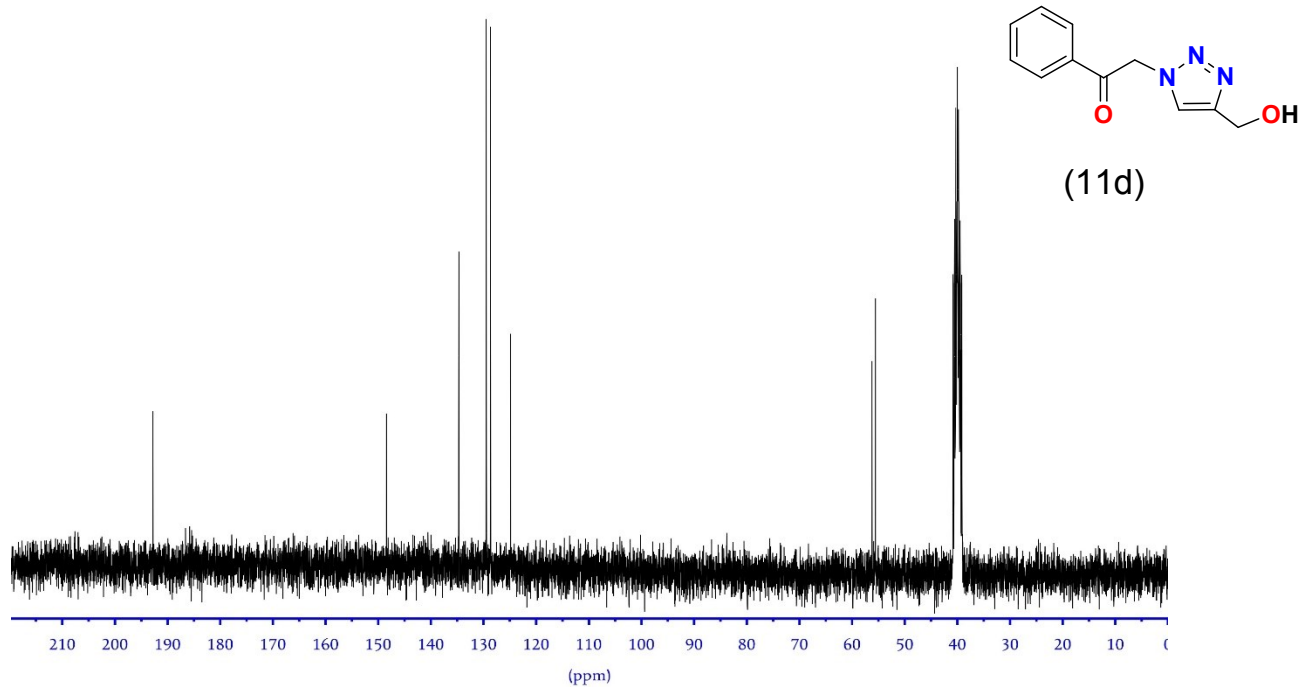
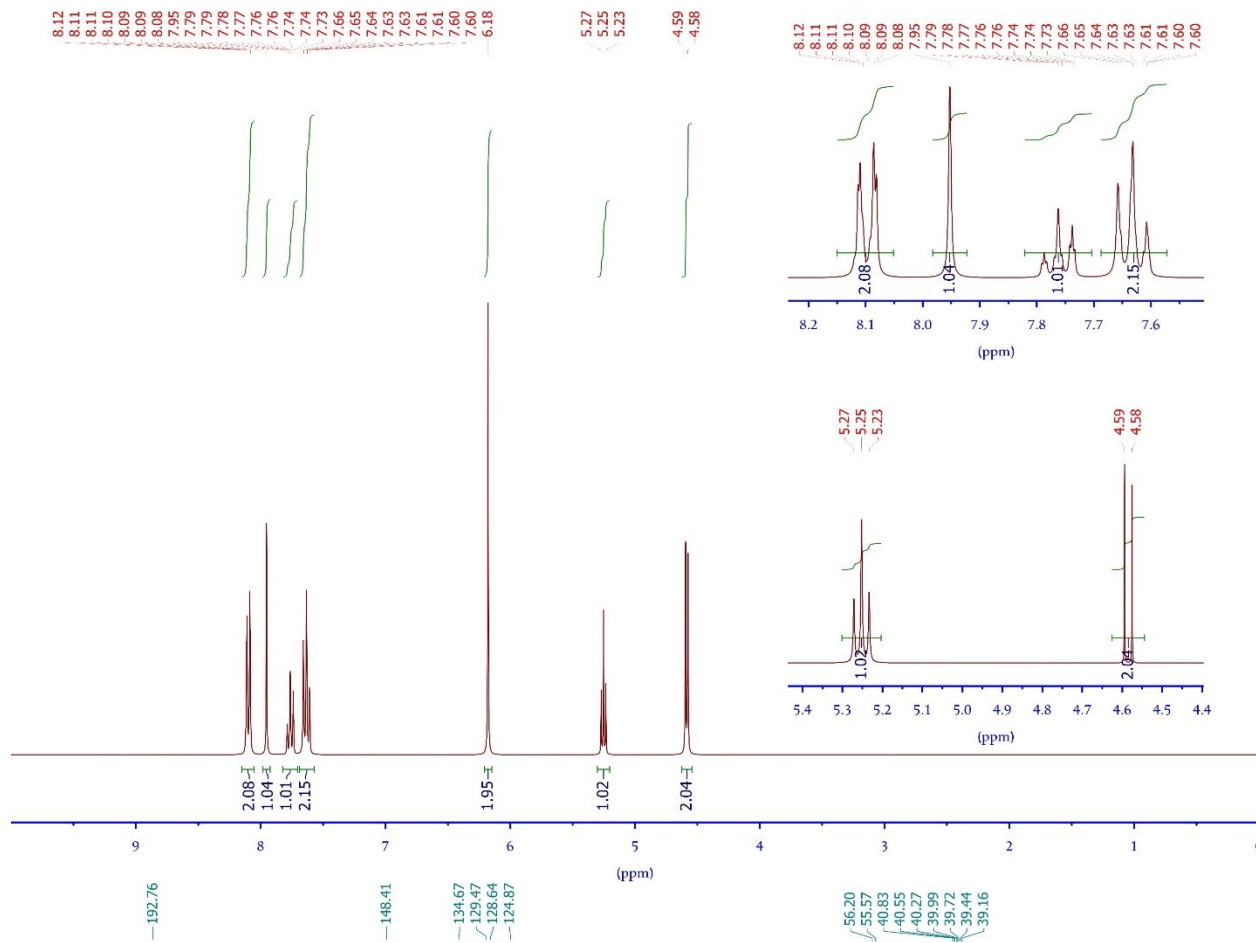




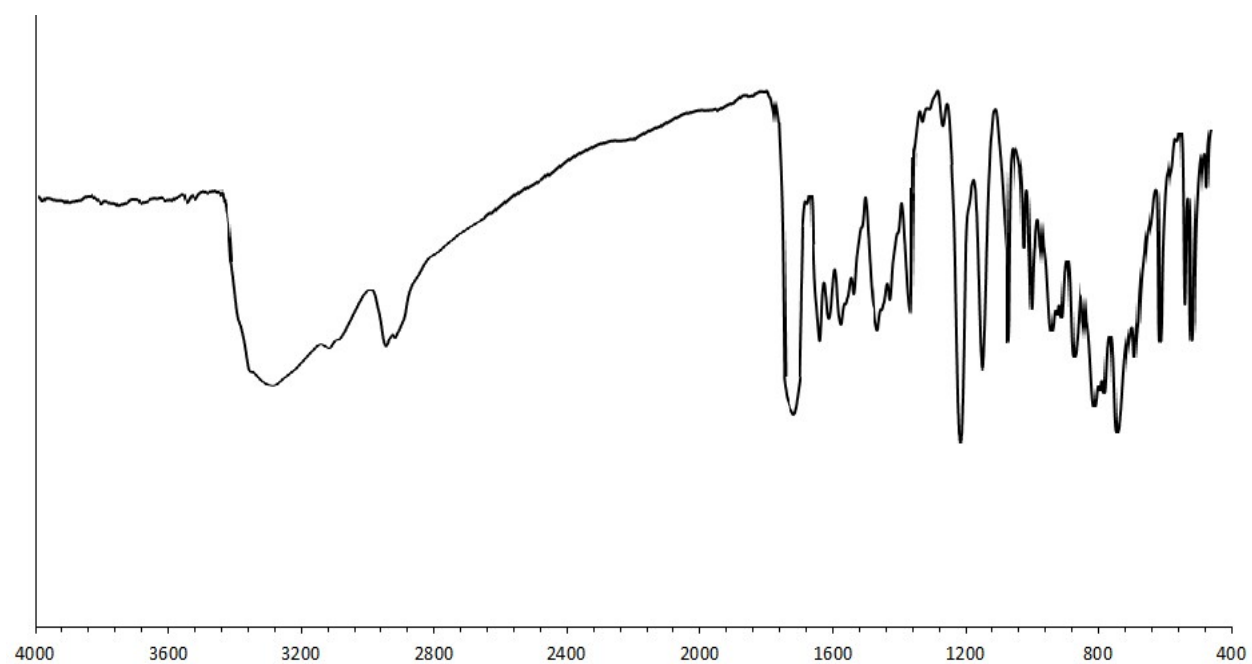


2-(4-(hydroxymethyl)-1H-1,2,3-triazol-1-yl)-1-phenylethanone (11d)

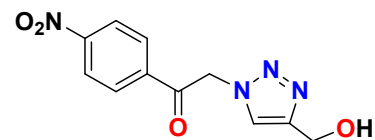
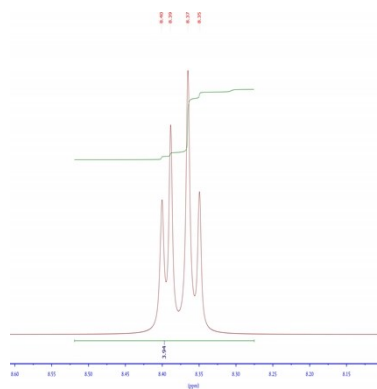




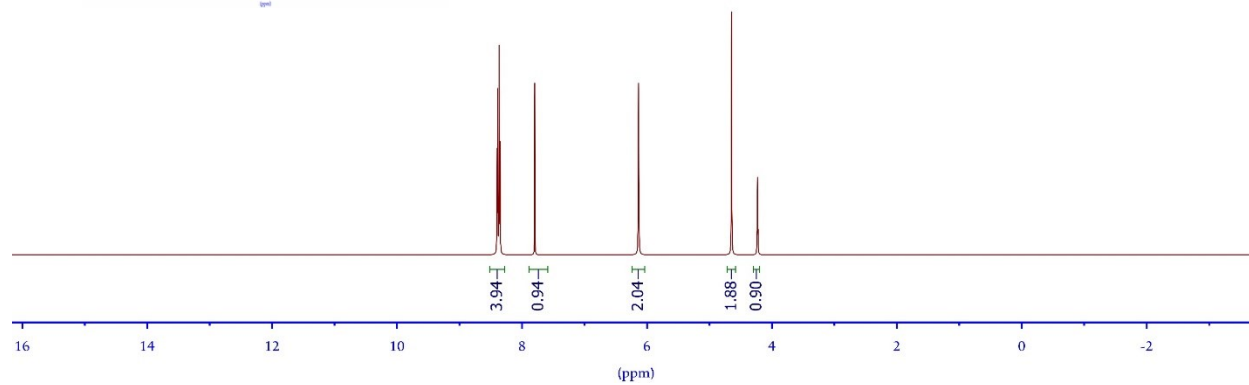
2- (4- (hydroxymethyl)- 1H- 1,2,3- triazol- 1- yl)- 1- (4-nitrophenyl) ethanone (11e)

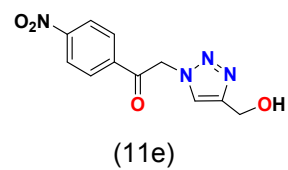
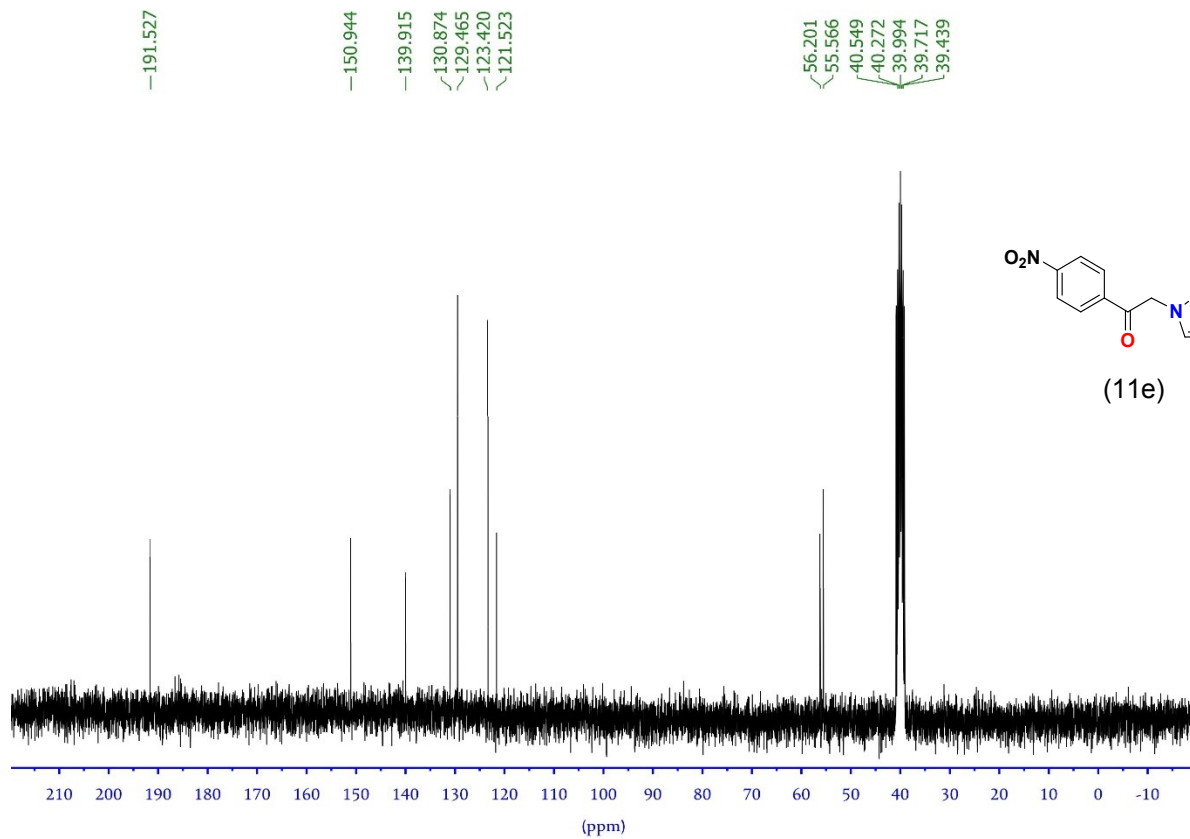
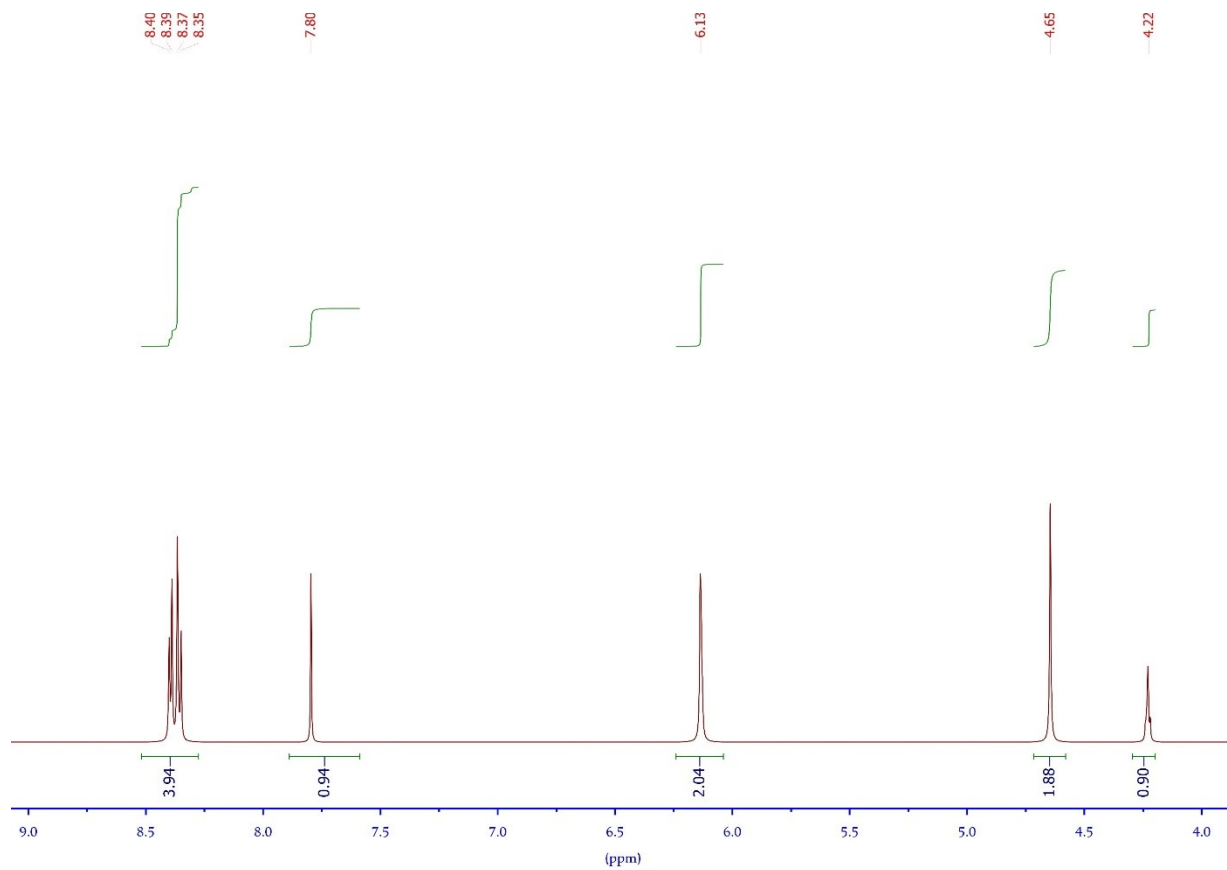


8.40  
8.39  
8.37  
8.35  
7.80  
6.13  
4.65  
4.22

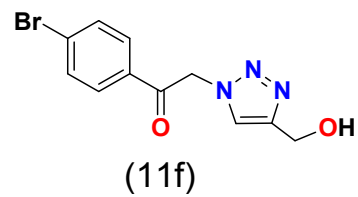
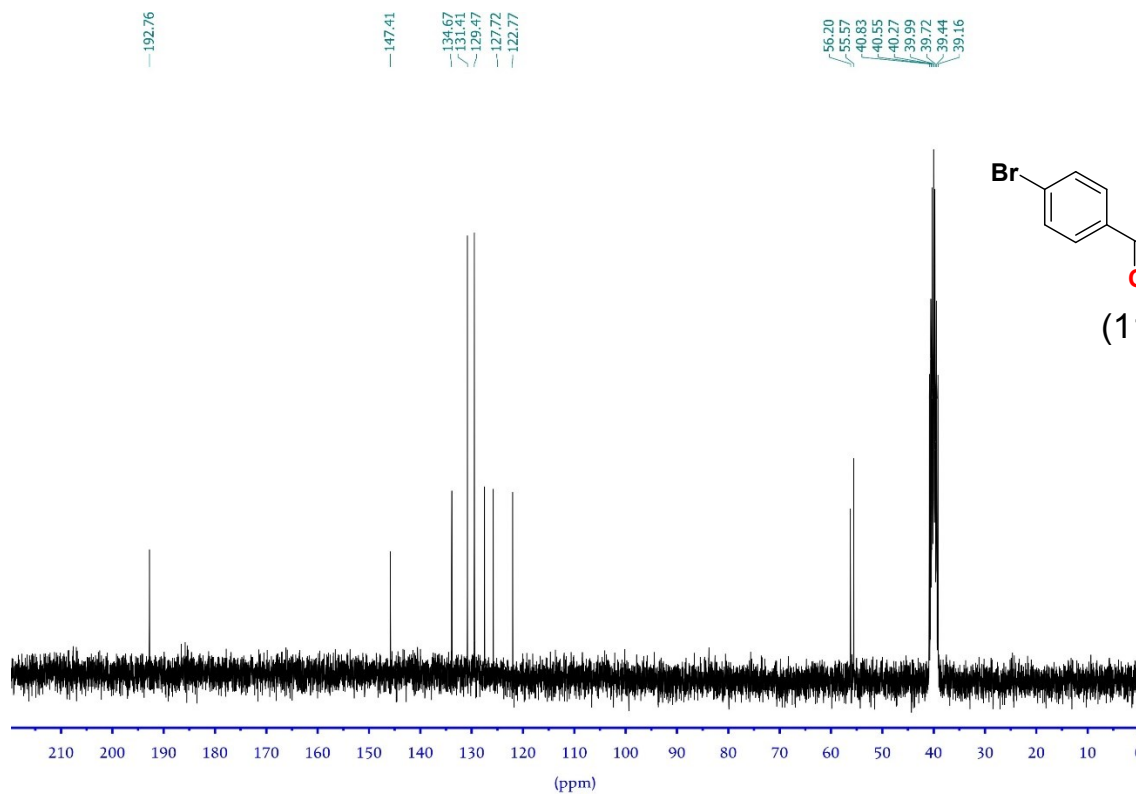
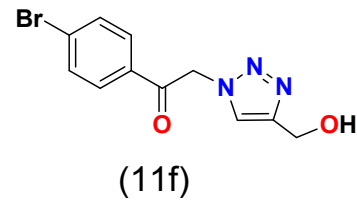
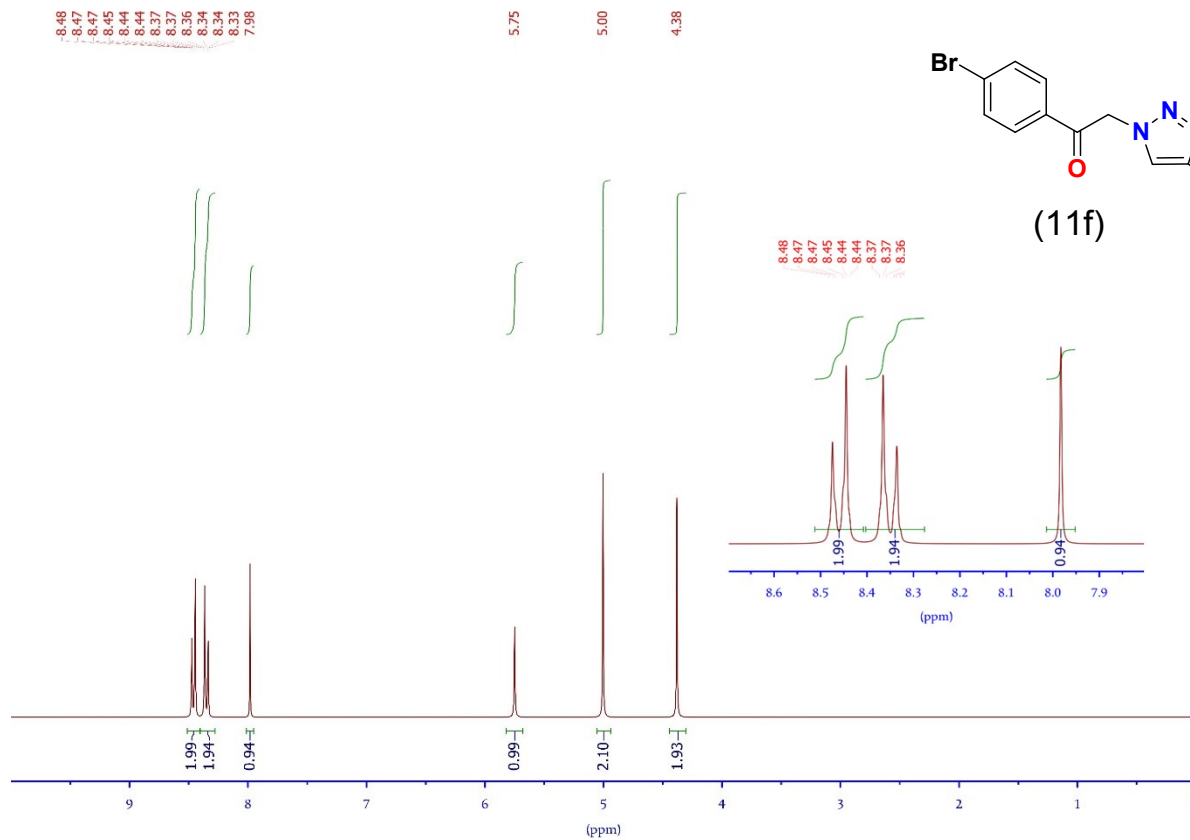


(11e)

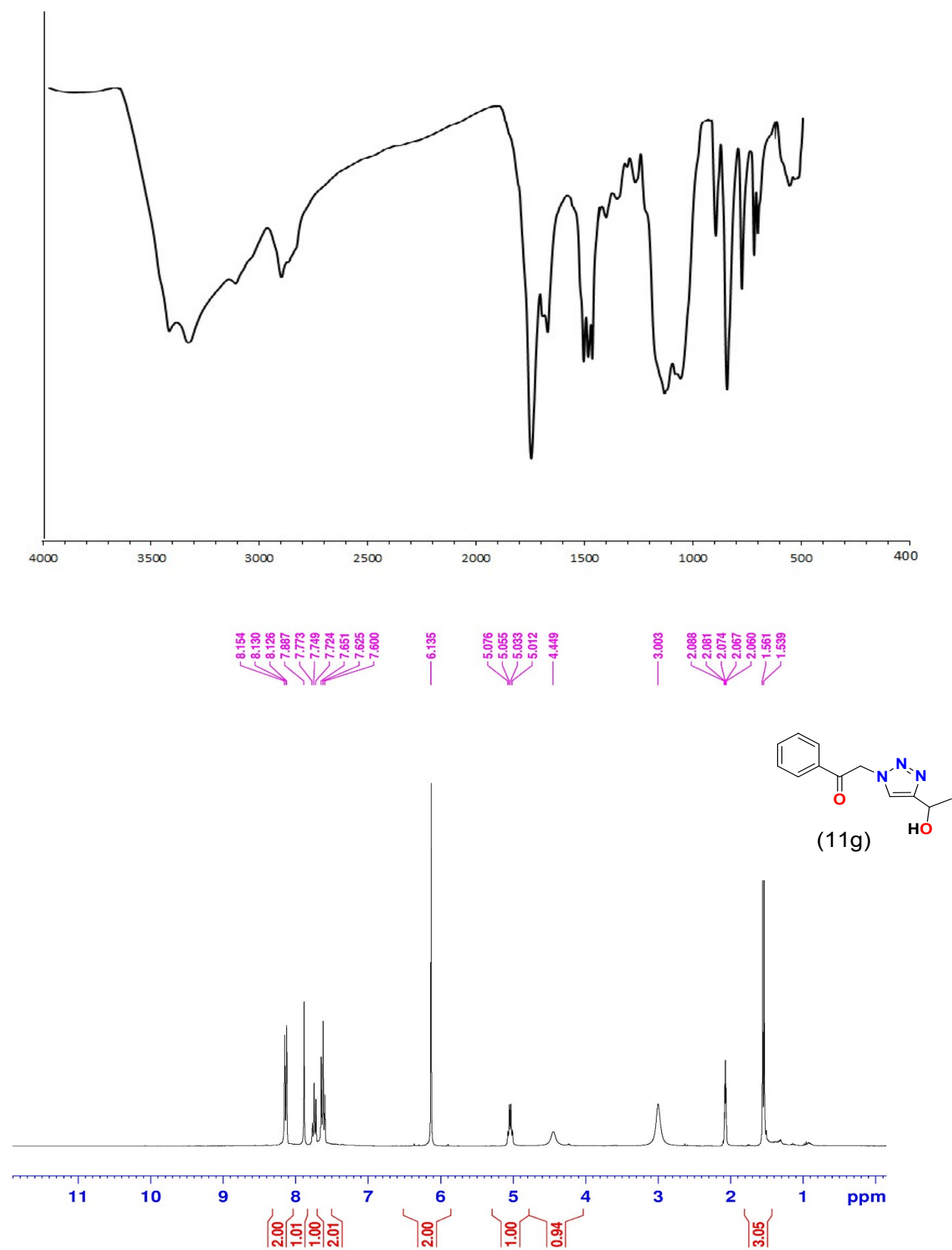


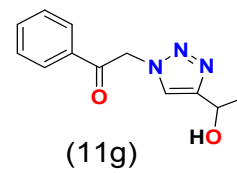
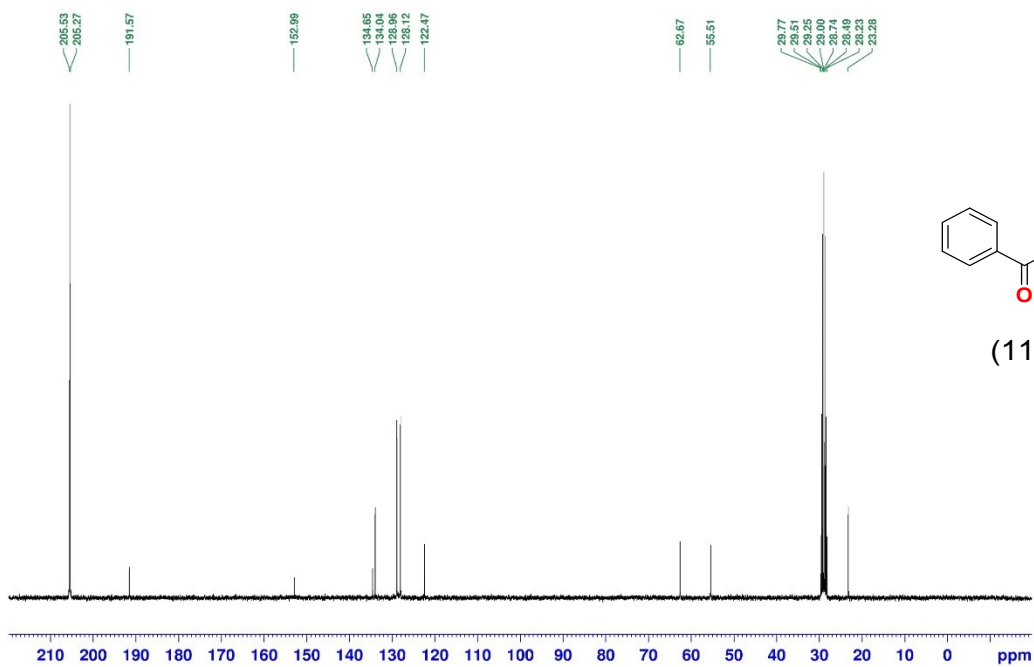
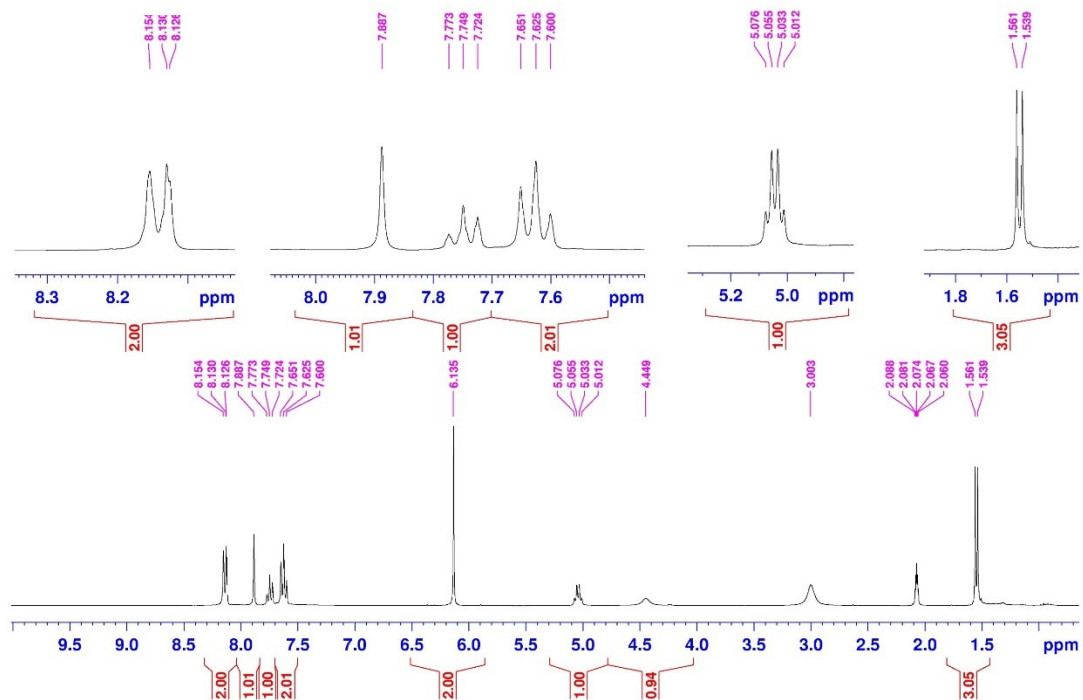


1-(4-bromophenyl)-2-(4-(hydroxymethyl)-1H-1,2,3-triazol-1-yl) ethanone (11f)



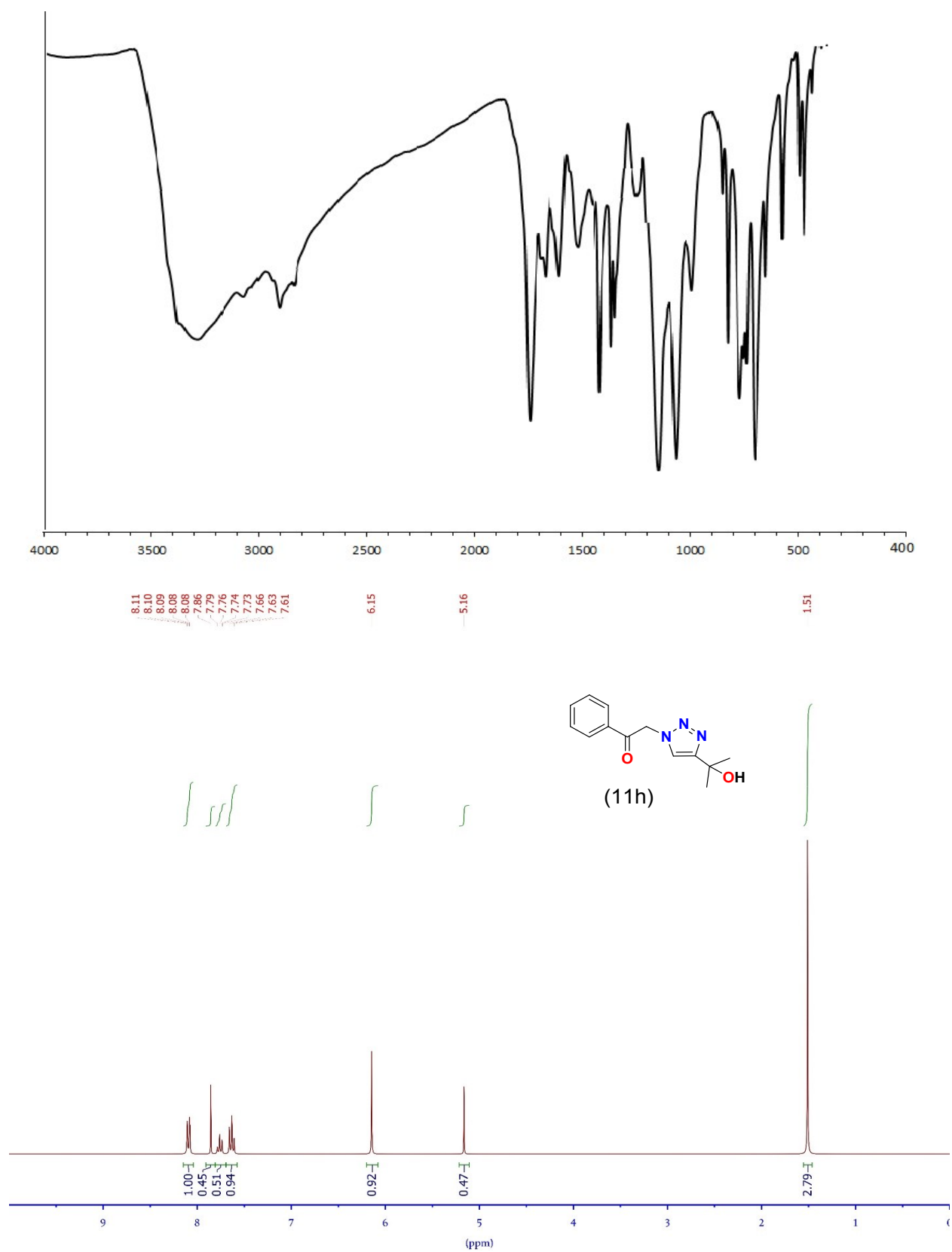
2- (4- (1- hydroxyethyl)- 1H- 1,2,3- triazol- 1- yl)- 1-phenylethanone (11g)

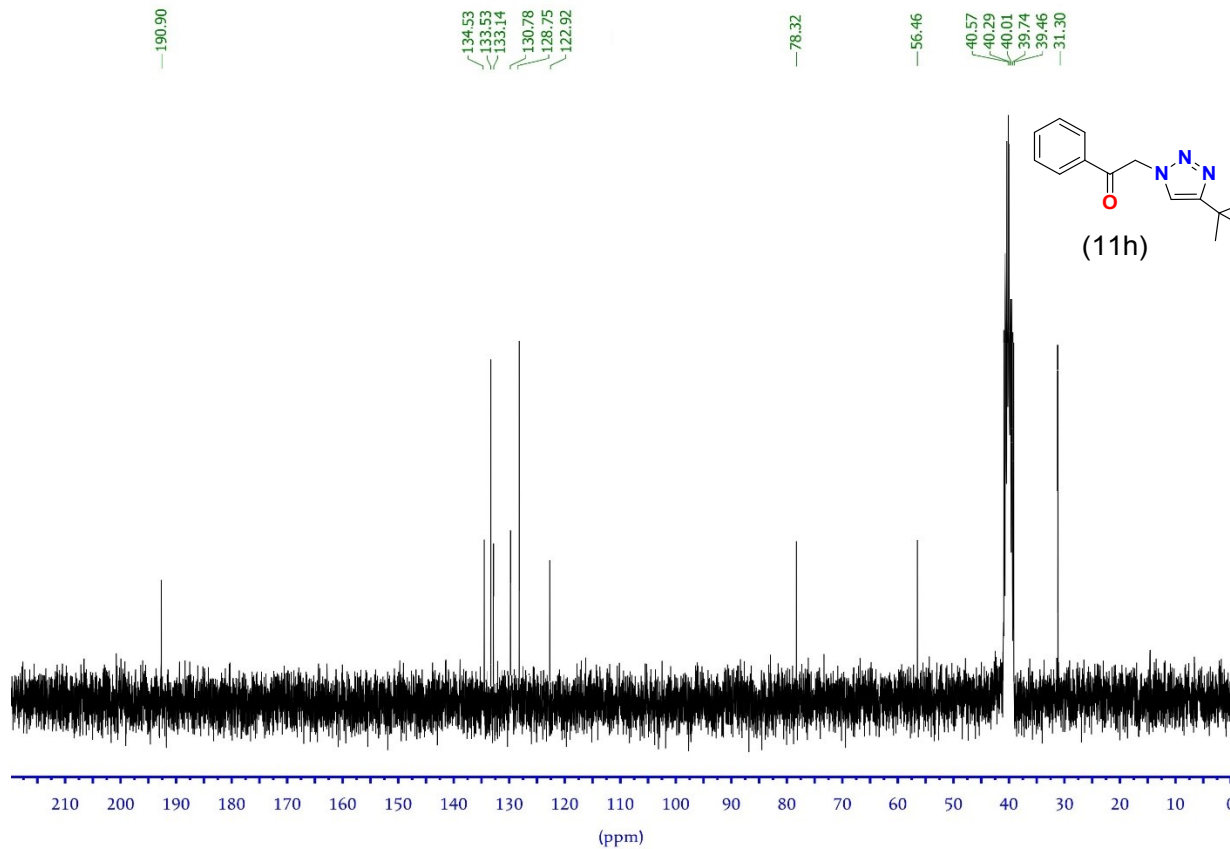
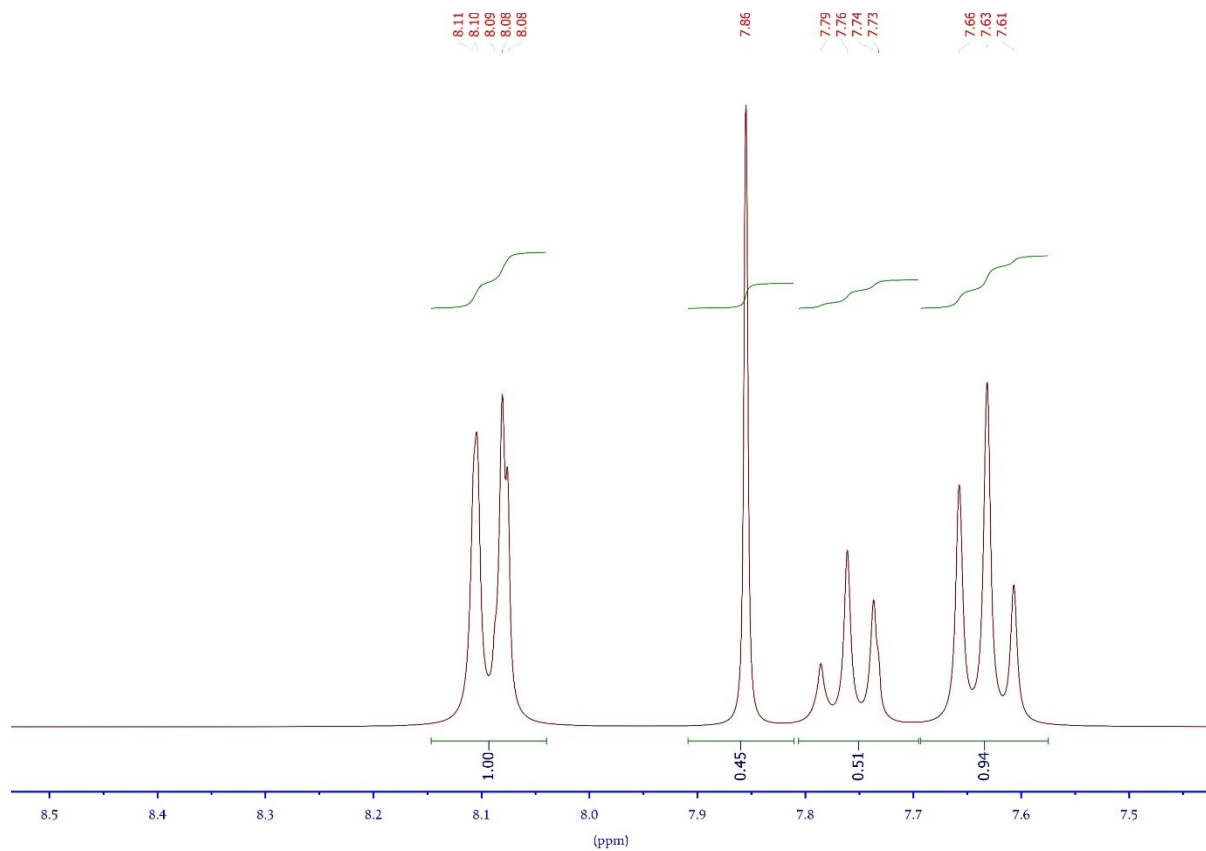




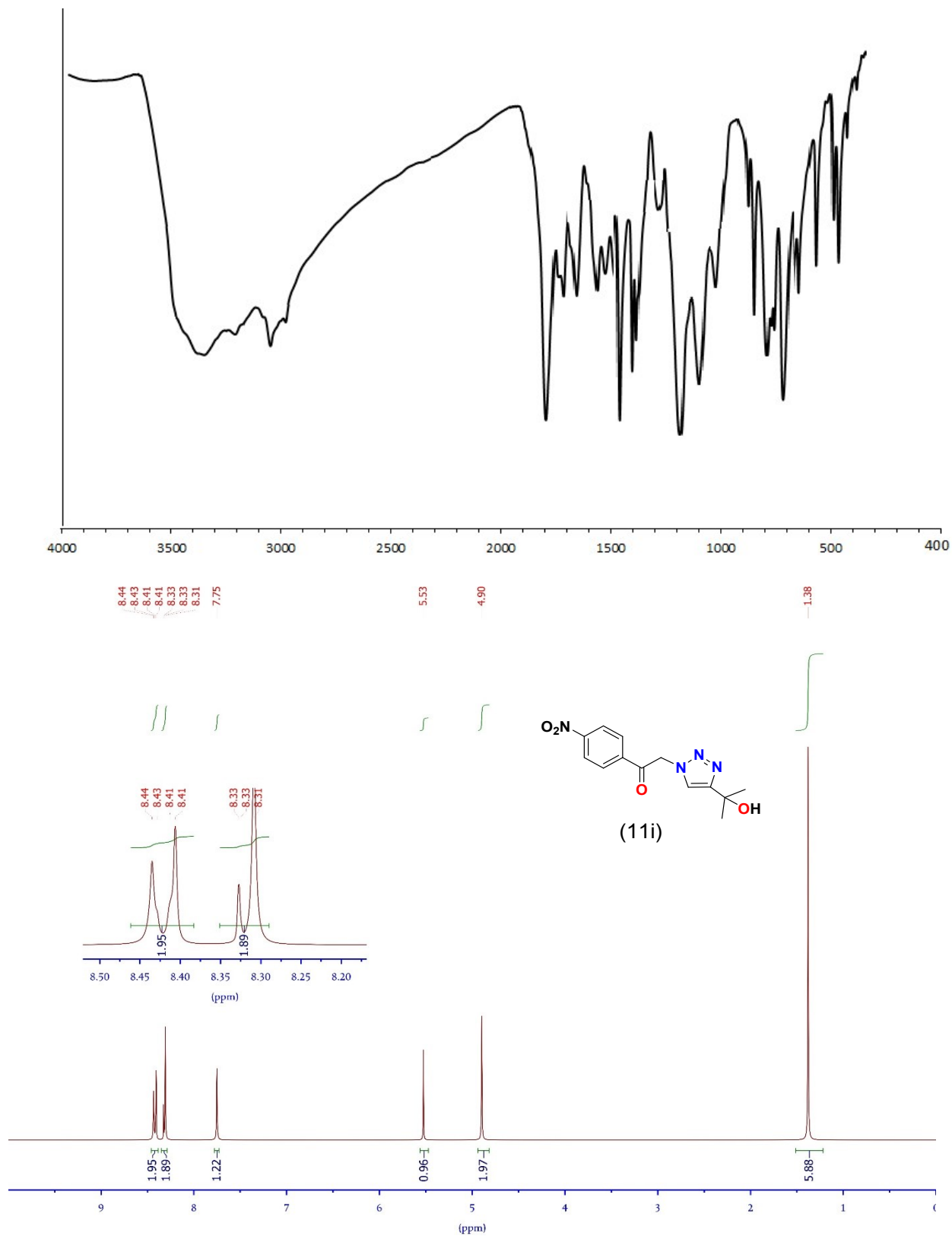


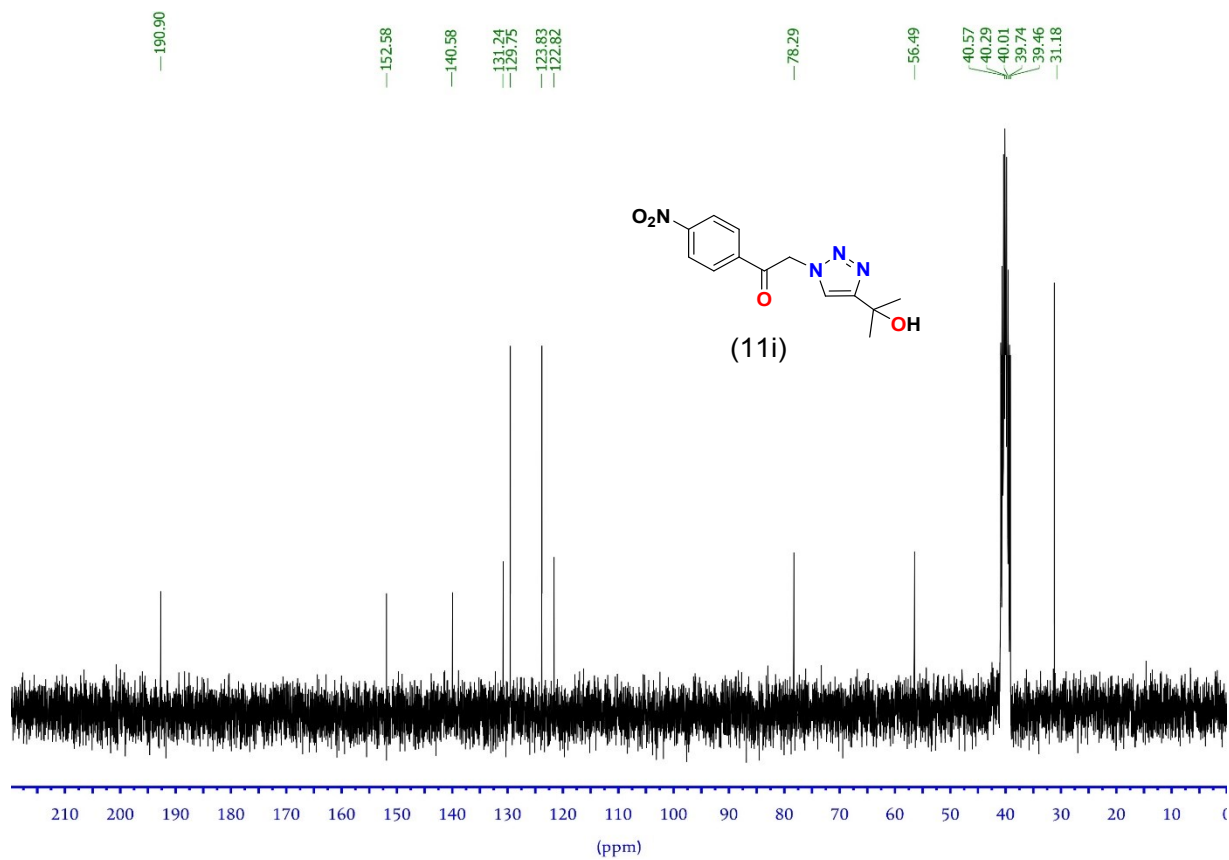
2-(4-(2-hydroxypropan-2-yl)-1H-1,2,3-triazol-1-yl)-1-phenylethanone (11h)





2-(4-(2-hydroxypropan-2-yl)-1H-1,2,3-triazol-1-yl)-1-(4-nitrophenyl) ethanone (11i)





1-(4-bromophenyl)-2-(4-(2-hydroxypropan-2-yl)-1H-1,2,3-triazol-1-yl) ethanone (11j)

