

# Supporting Information

## **Direct defluorinative amidation–hydrolysis reaction of *gem*-difluoroalkenes with *N,N*-dimethylformamide, primary and secondary amines**

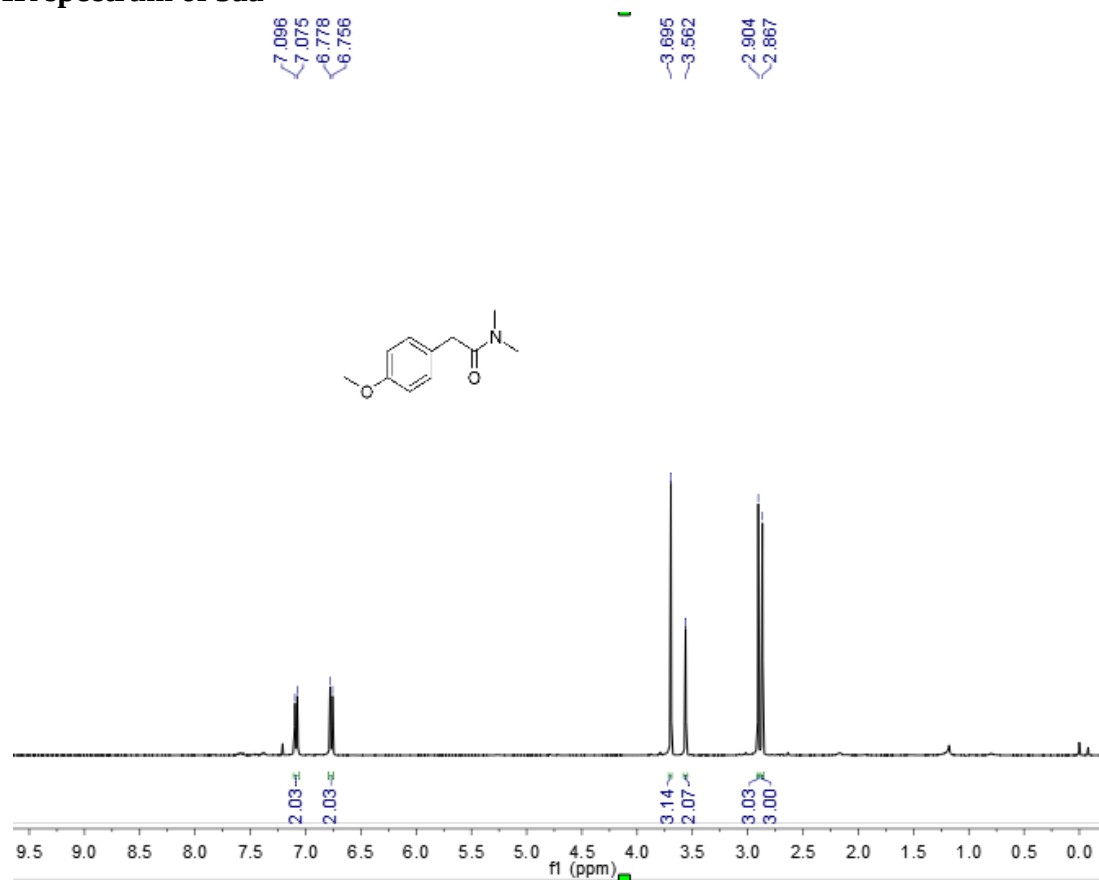
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Shanghai Key Laboratory of Chemical Biology, School of Pharmacy, East China University of Science and  
Technology (ECUST), Shanghai 200237, China

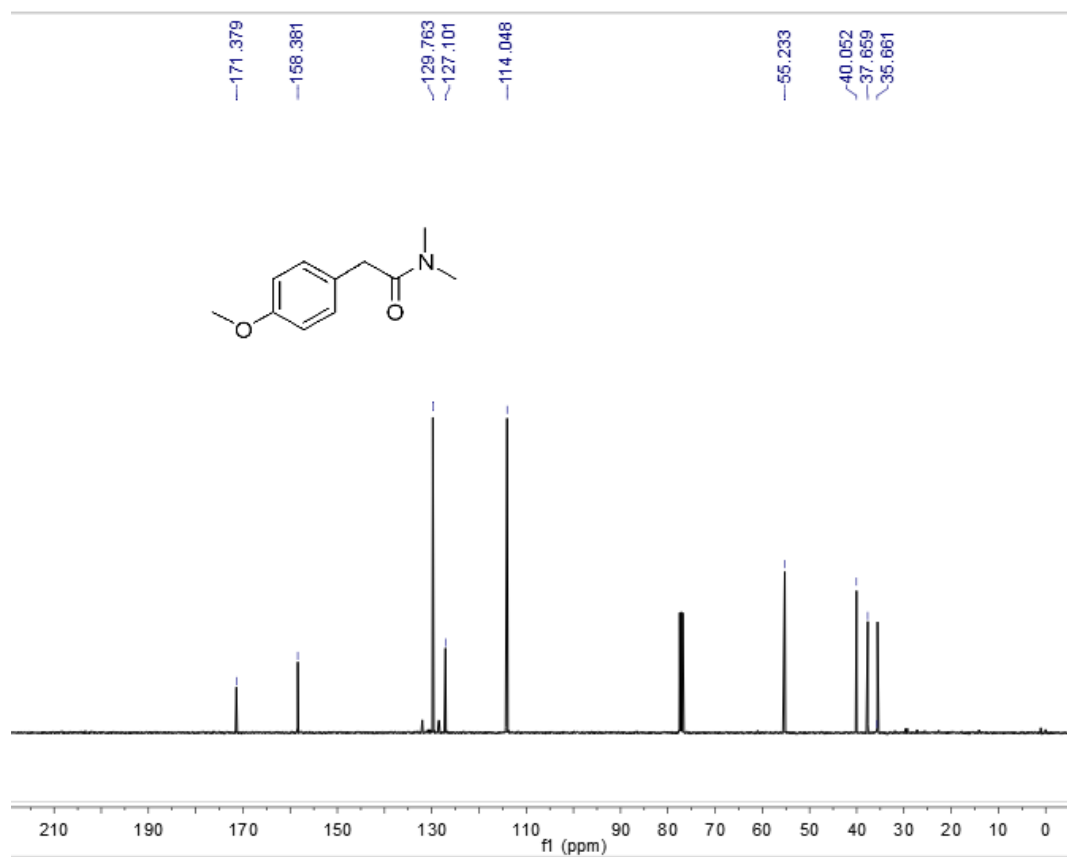
\*Corresponding author E-mail address: [scao@ecust.edu.cn](mailto:scao@ecust.edu.cn)

# $^1\text{H}$ , $^{13}\text{C}$ , $^{19}\text{F}$ NMR and HRMS (EI) spectra of compounds 3 and 4

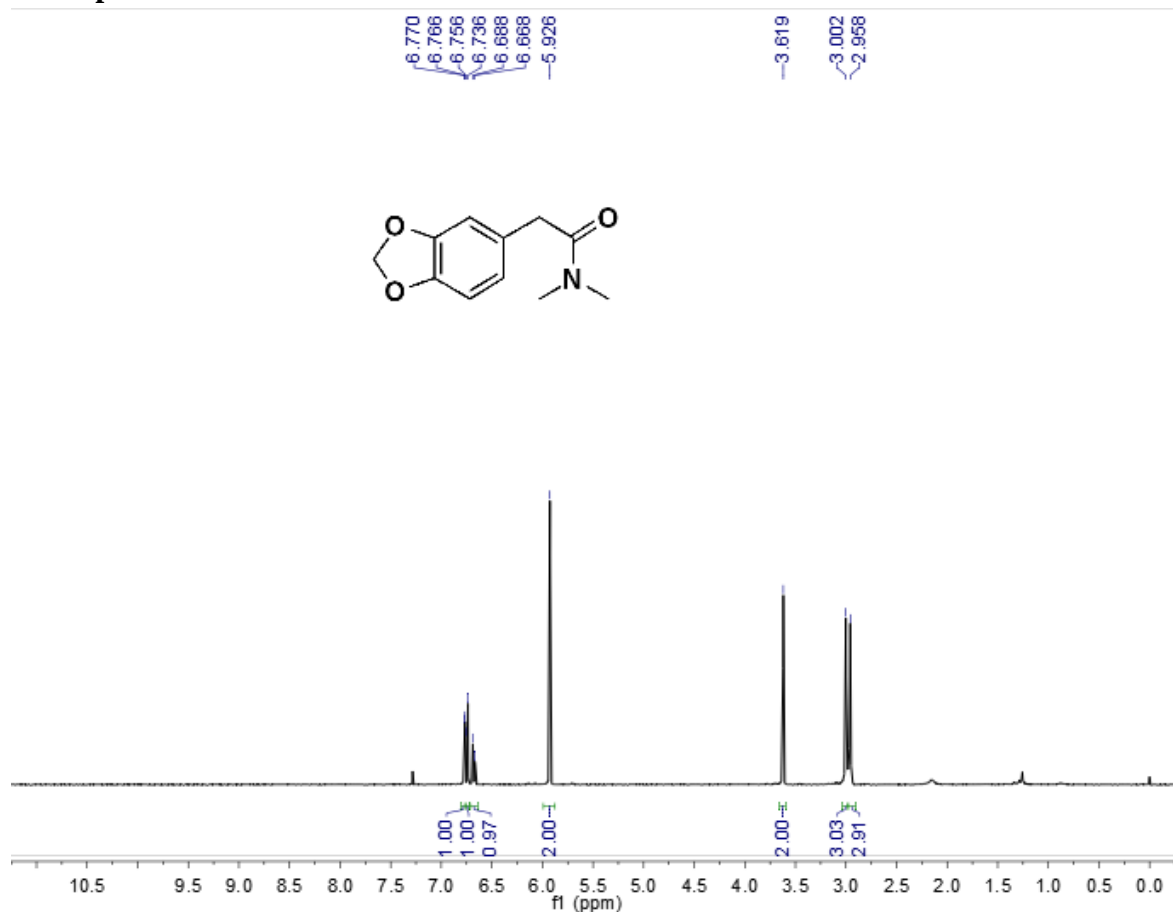
## $^1\text{H}$ NMR spectrum of 3aa



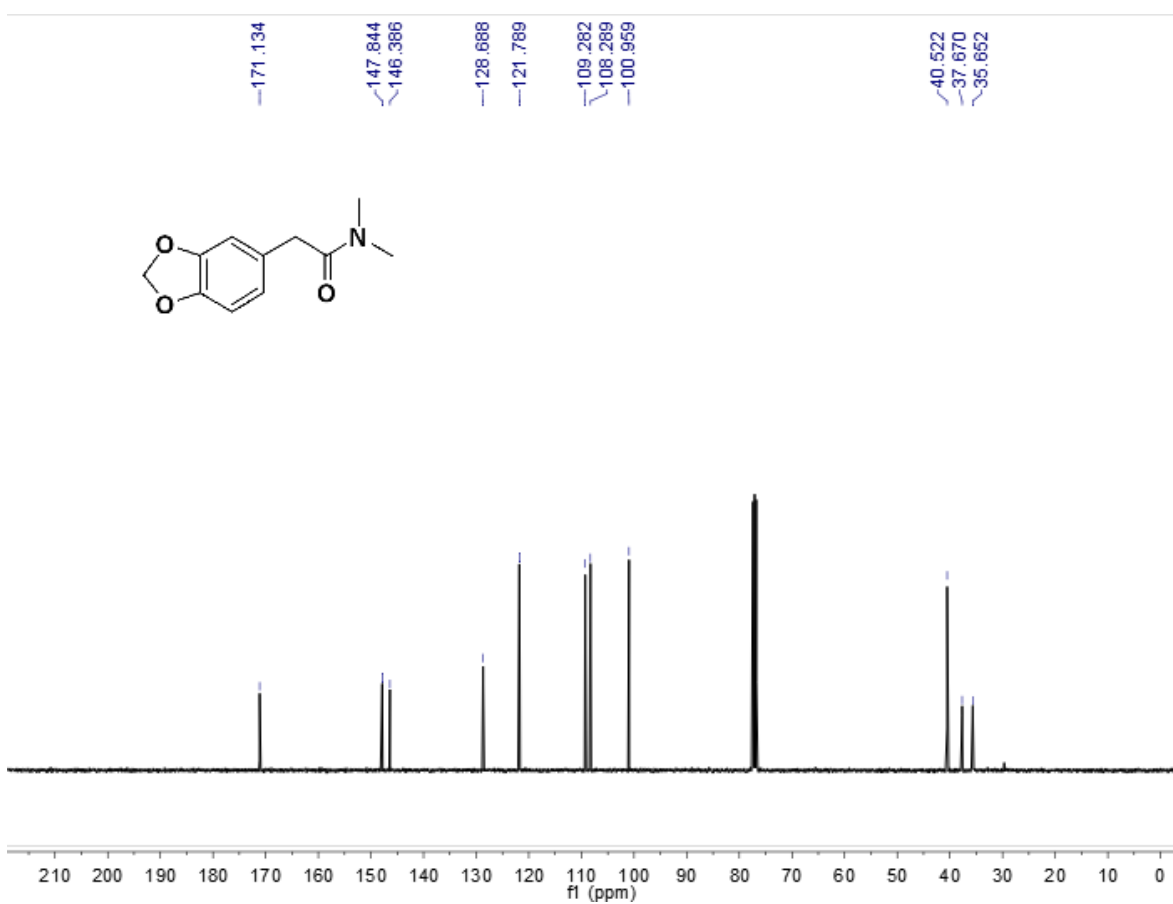
## $^{13}\text{C}$ NMR spectrum of 3aa



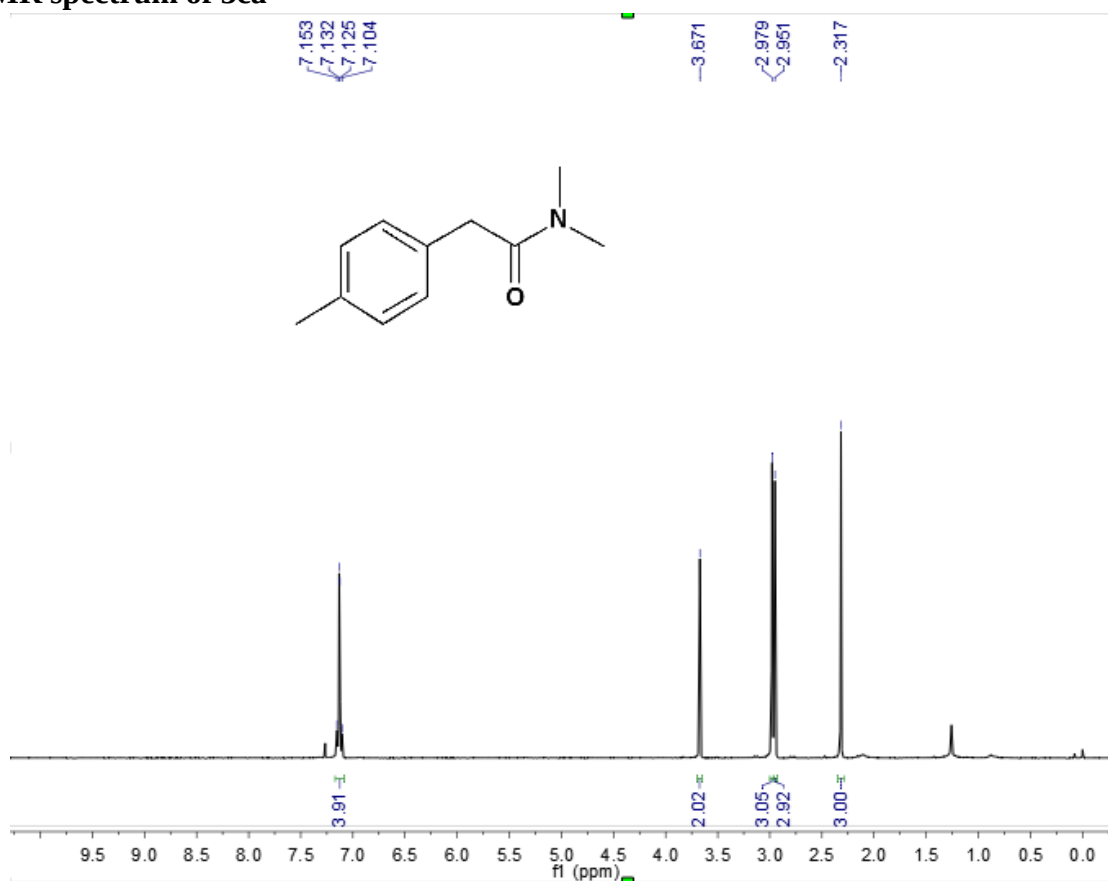
# <sup>1</sup>H NMR spectrum of 3ba



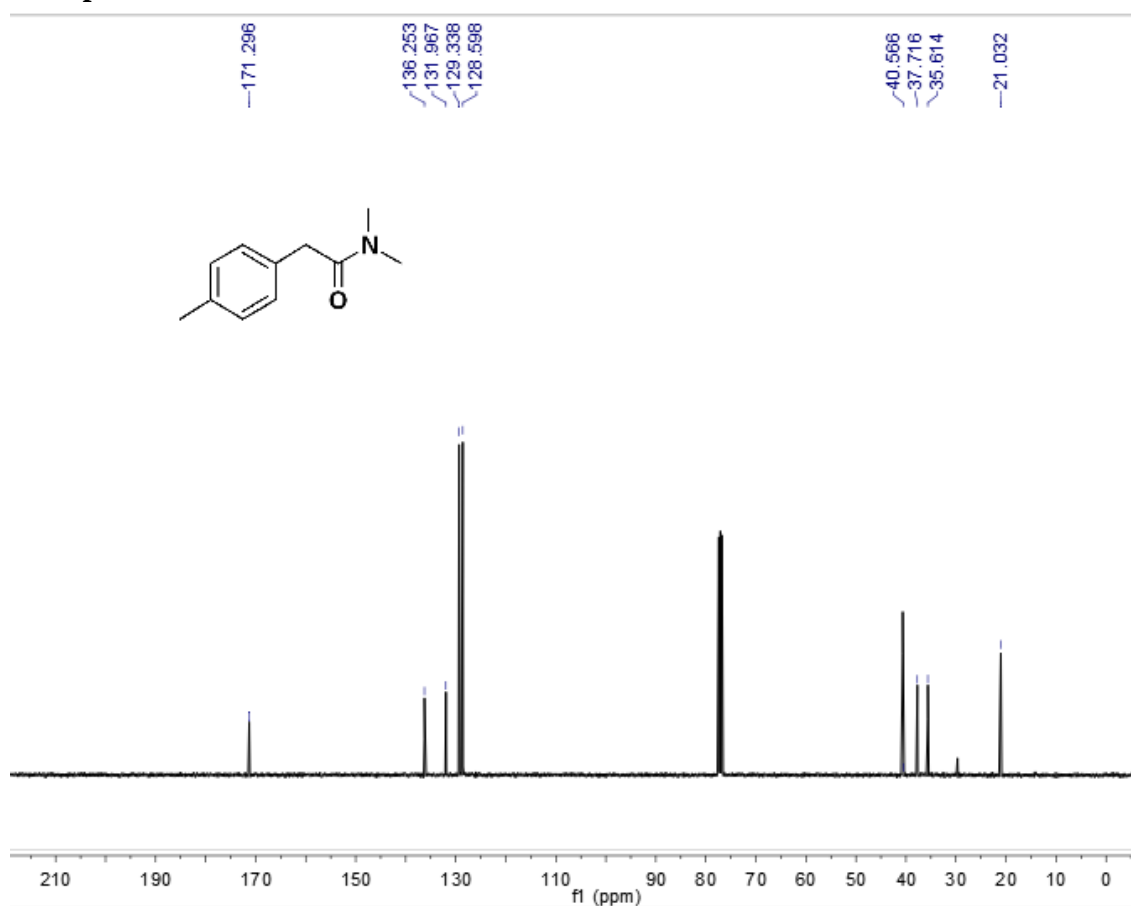
# <sup>13</sup>C NMR spectrum of 3ba



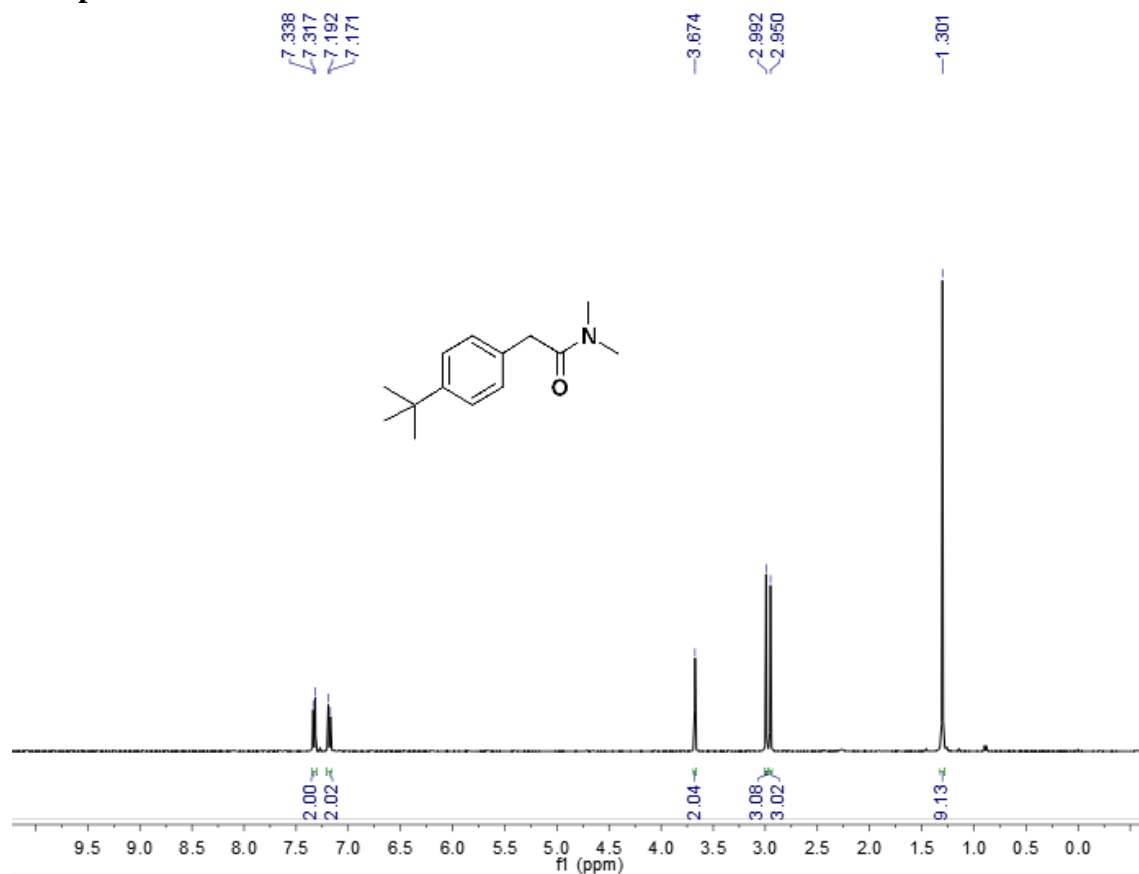
<sup>1</sup>H NMR spectrum of 3ca



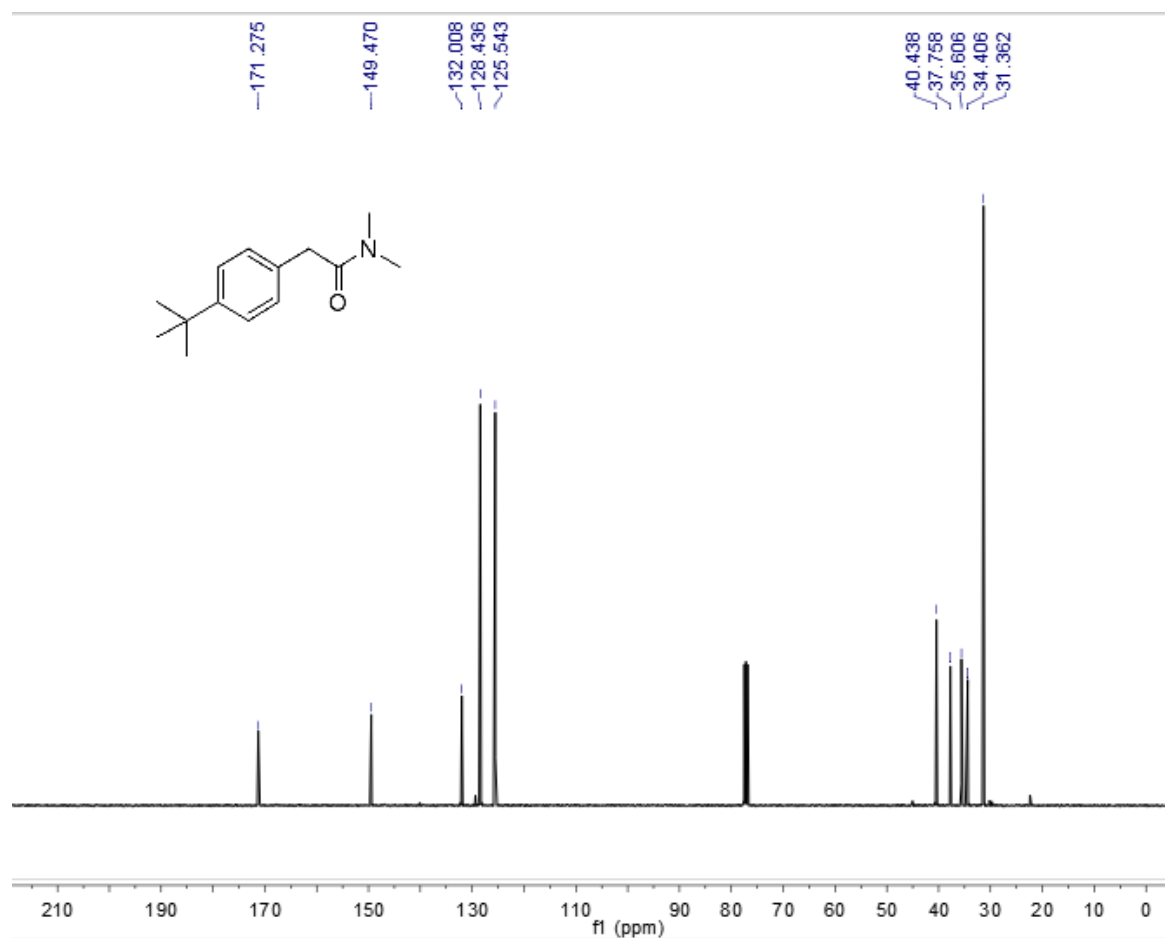
<sup>13</sup>C NMR spectrum of 3ca



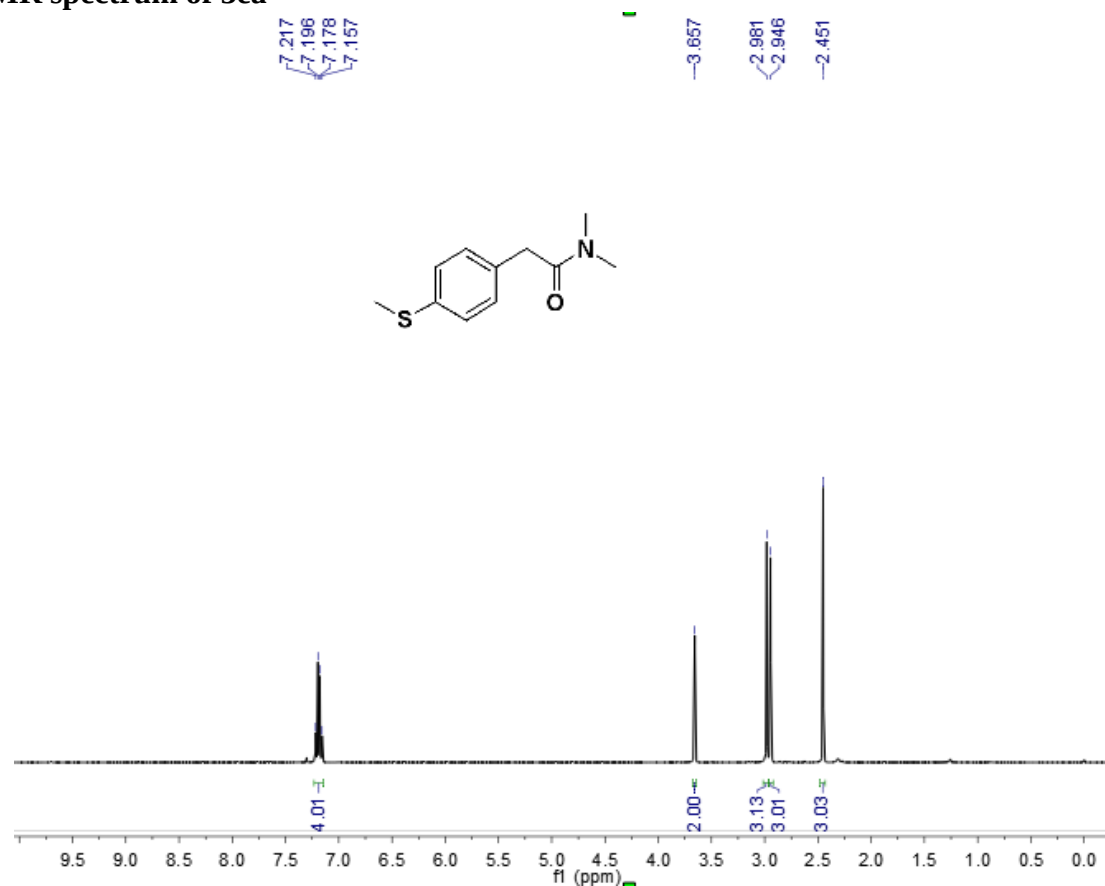
**<sup>1</sup>H NMR spectrum of 3da**



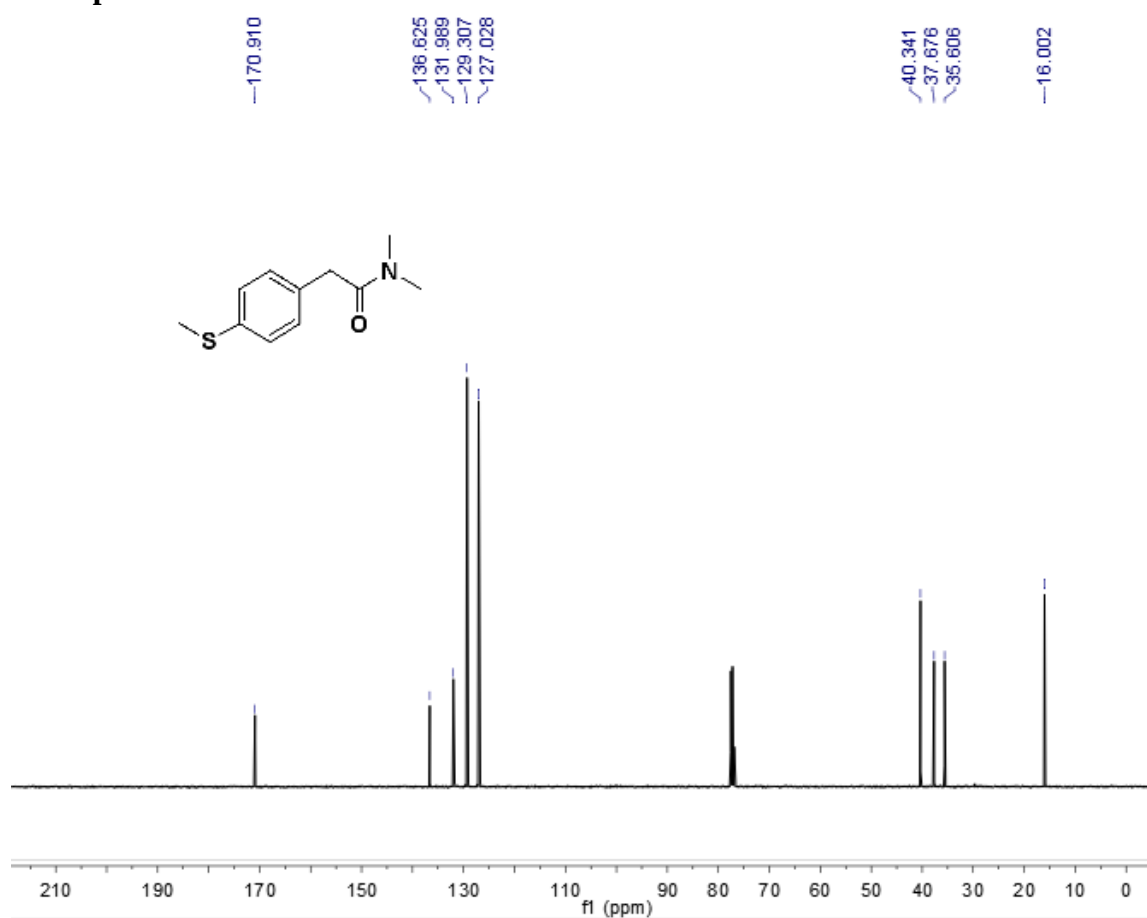
**<sup>13</sup>C NMR spectrum of 3da**



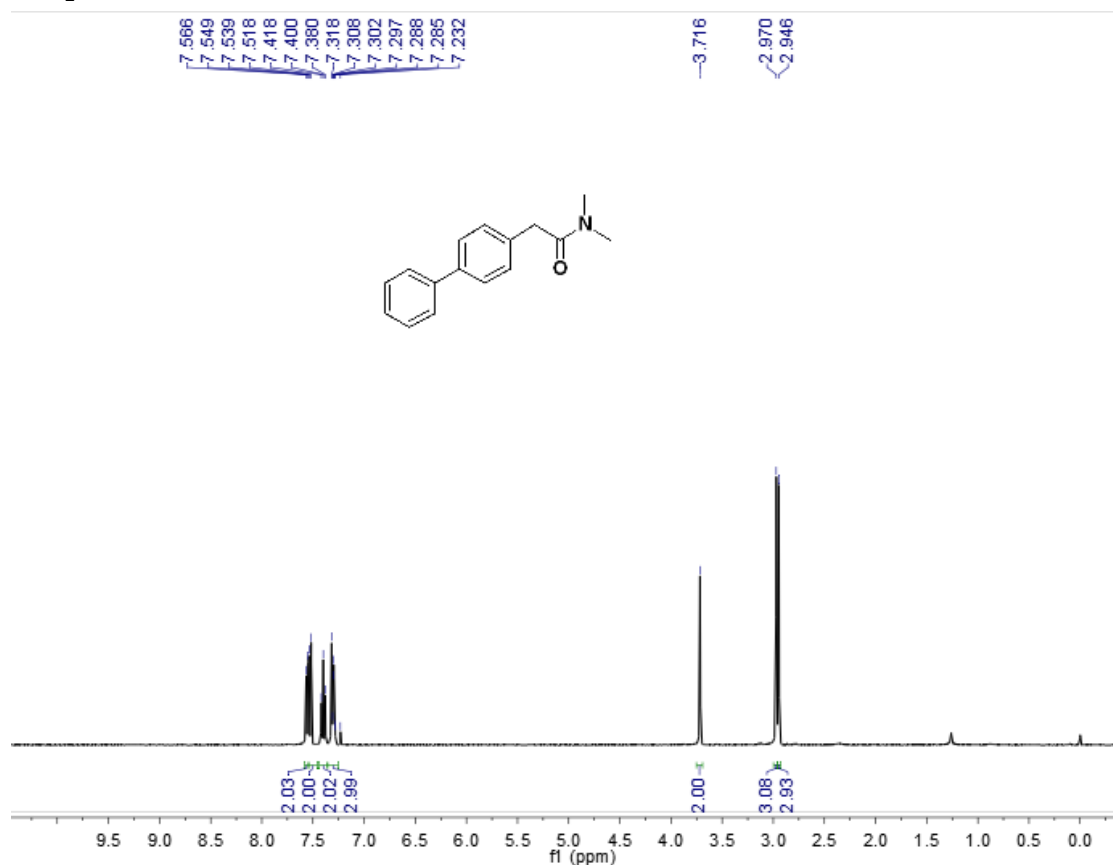
# <sup>1</sup>H NMR spectrum of 3ea



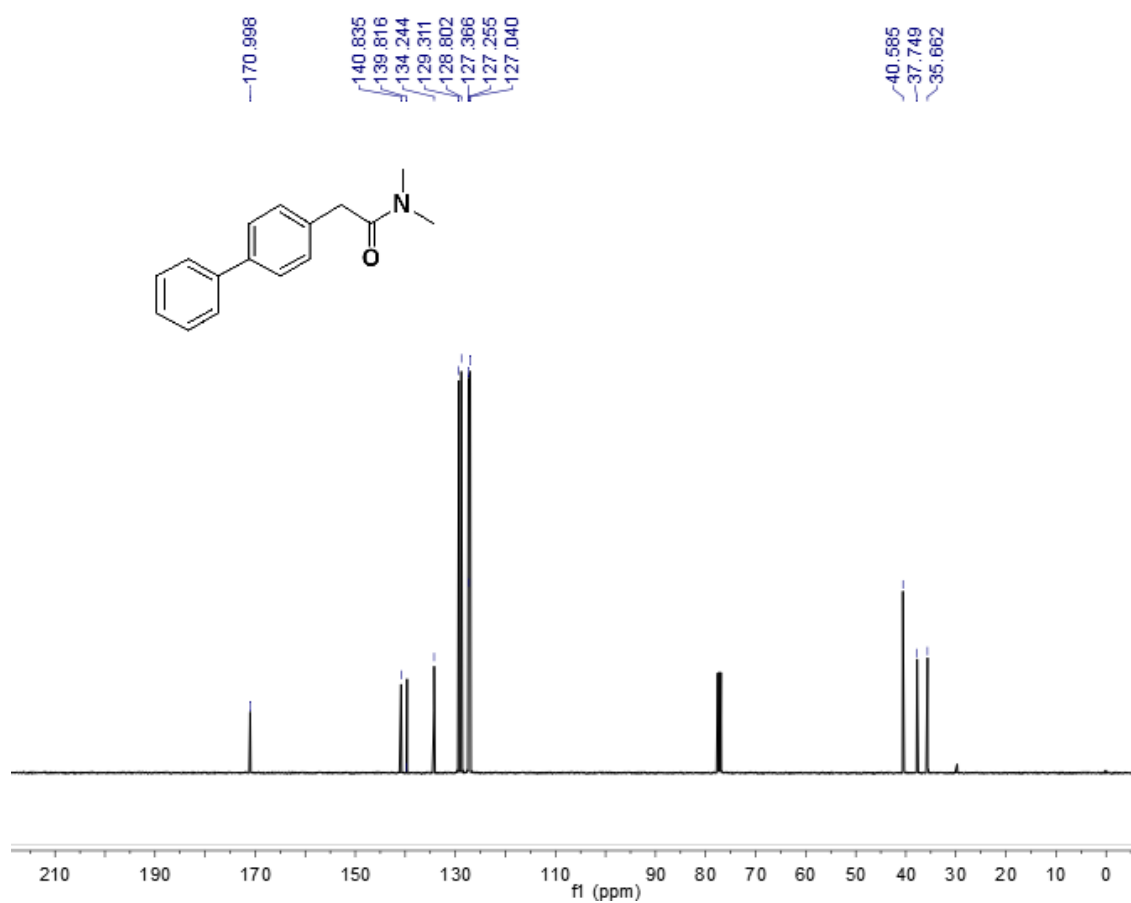
## <sup>13</sup>C NMR spectrum of 3ea



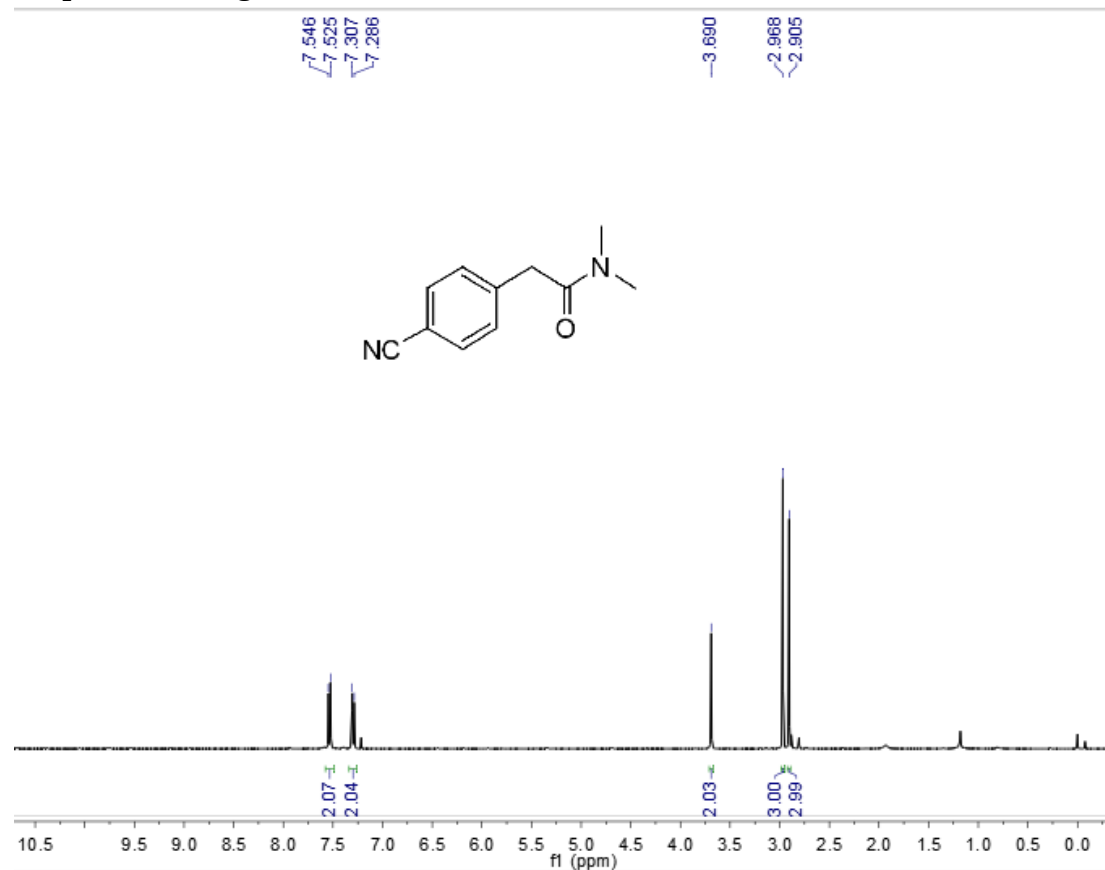
**<sup>1</sup>H NMR spectrum of 3fa**



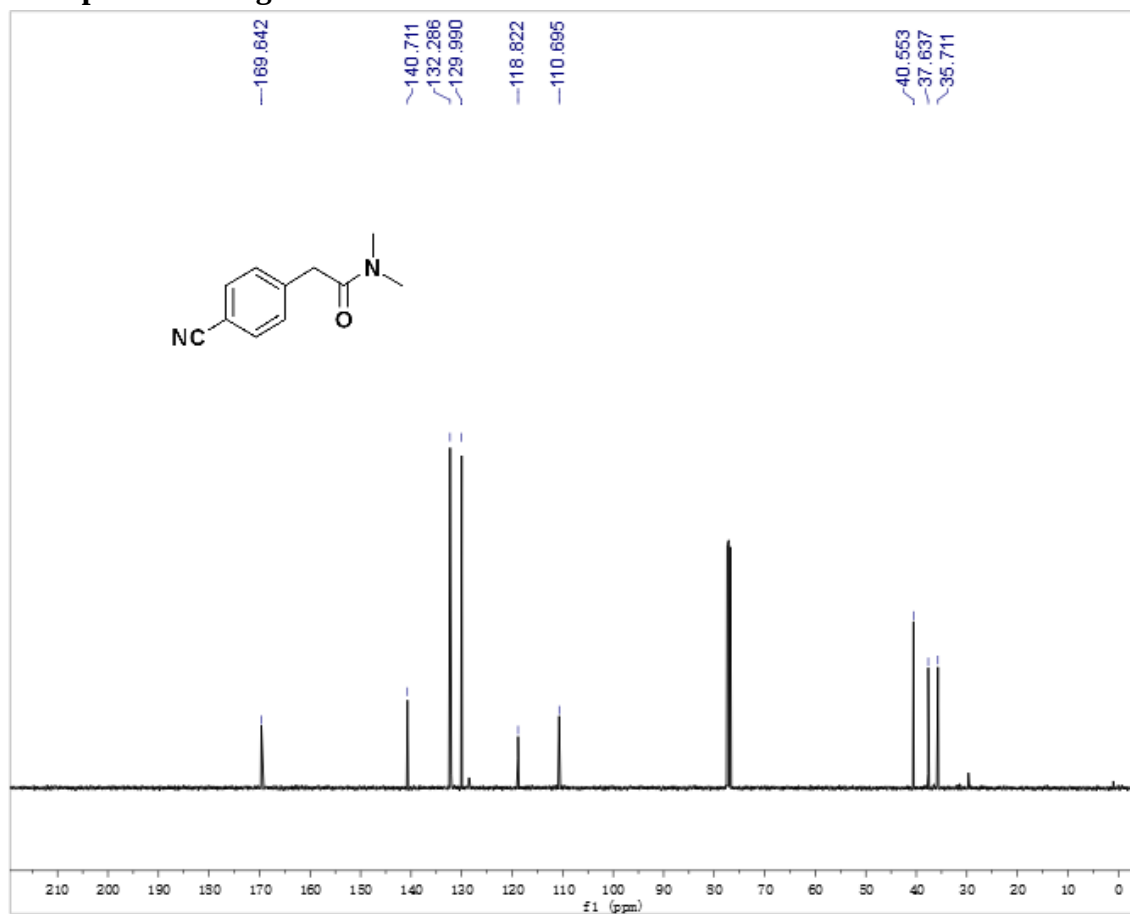
**<sup>13</sup>C NMR spectrum of 3fa**



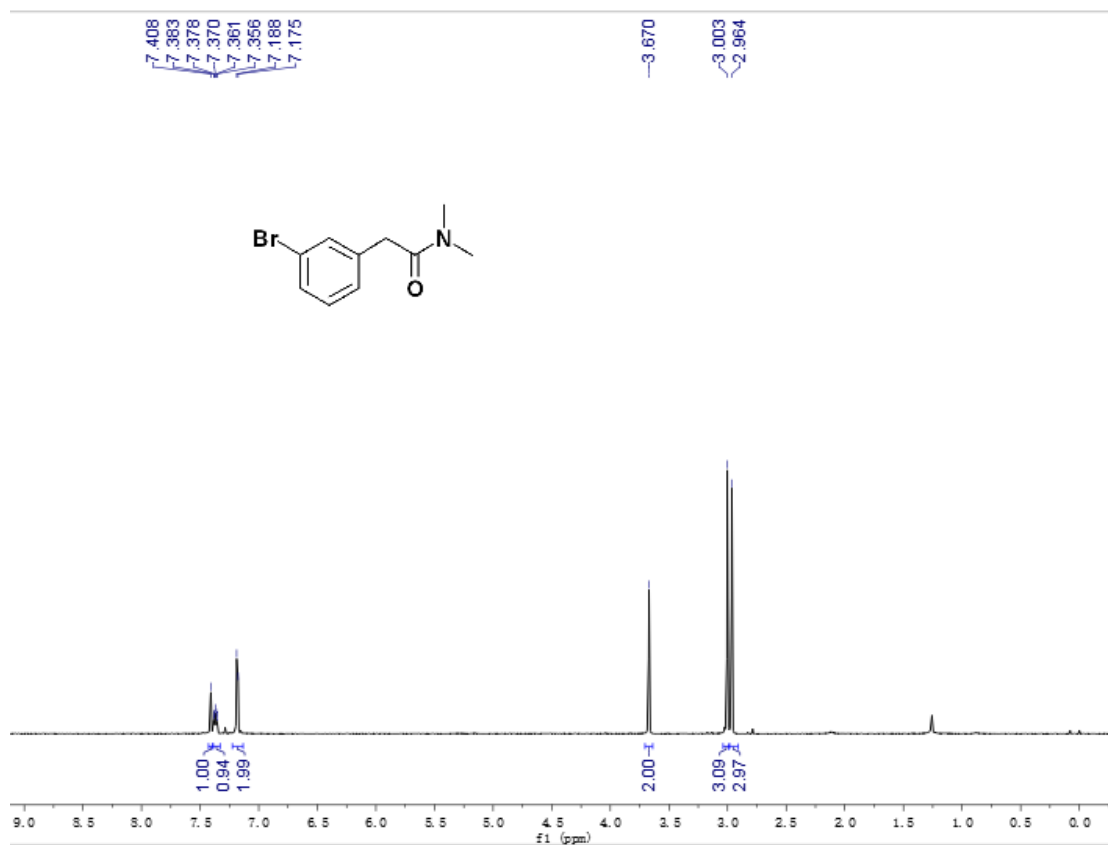
### <sup>1</sup>H NMR spectrum of 3ga



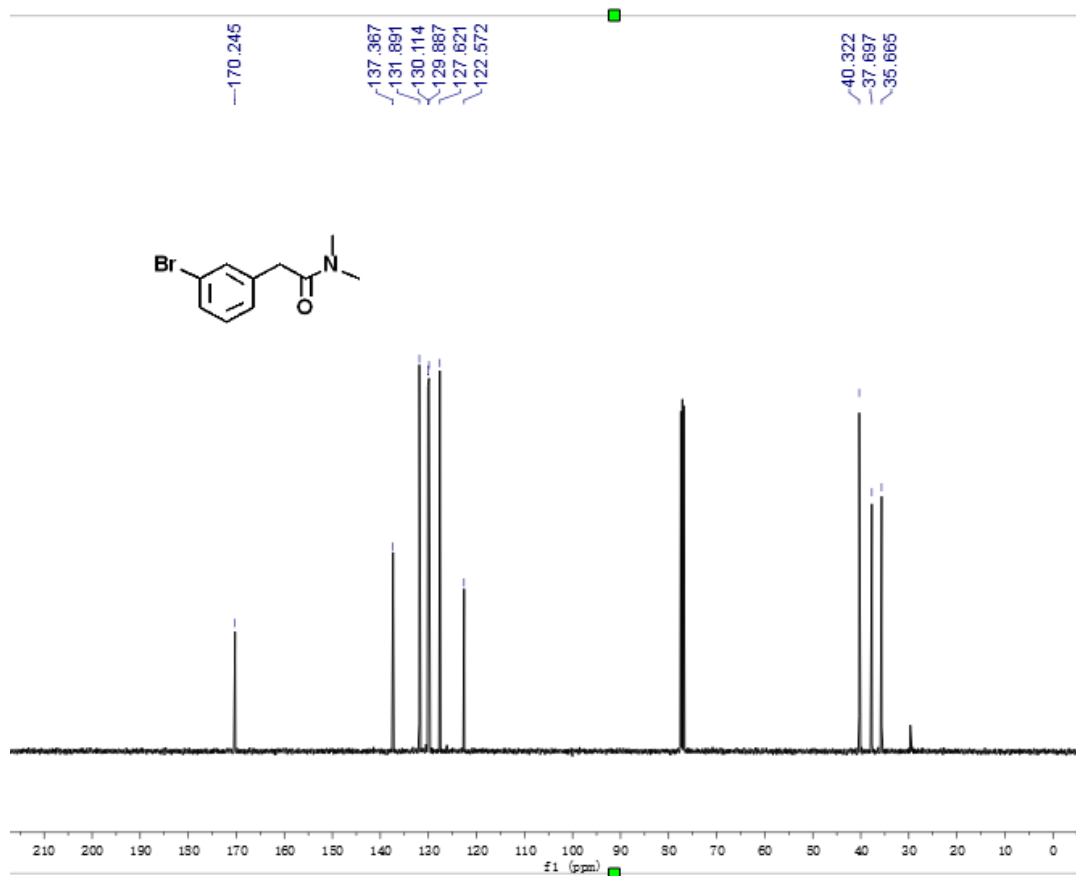
### <sup>13</sup>C NMR spectrum of 3ga



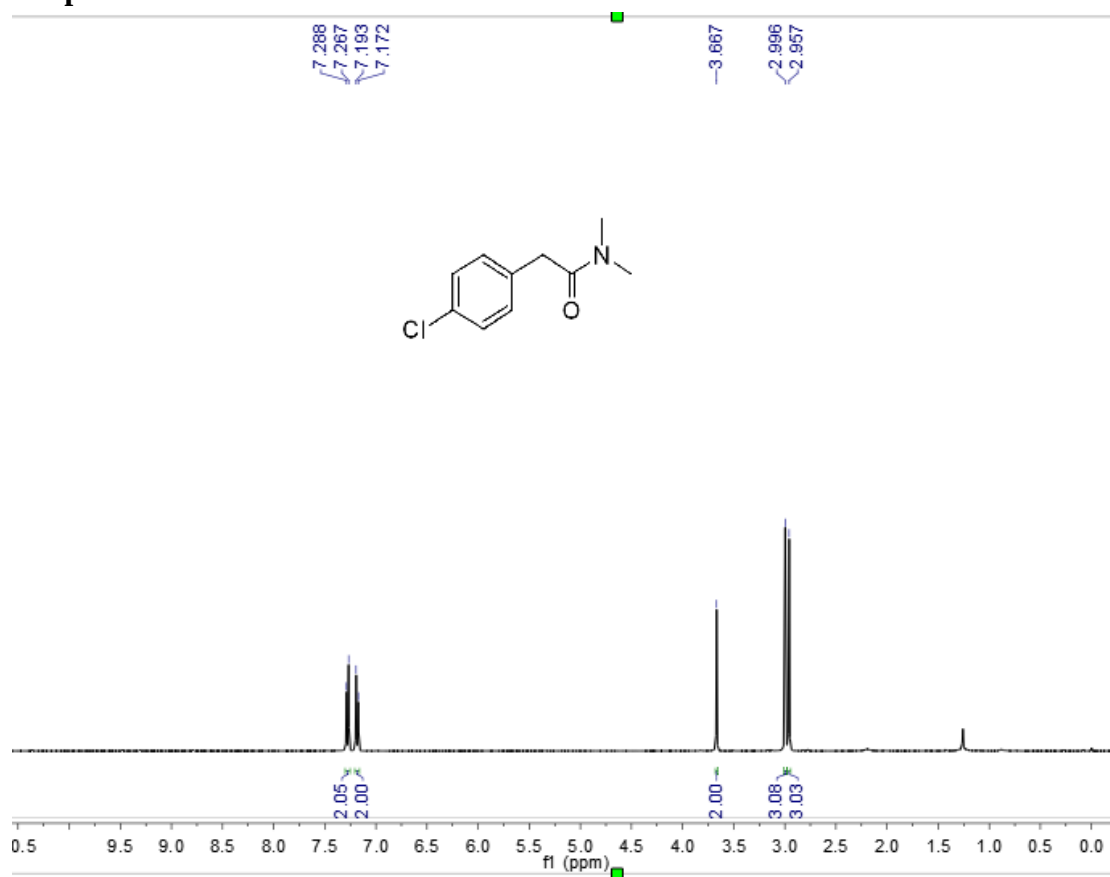
# <sup>1</sup>H NMR spectrum of 3ha



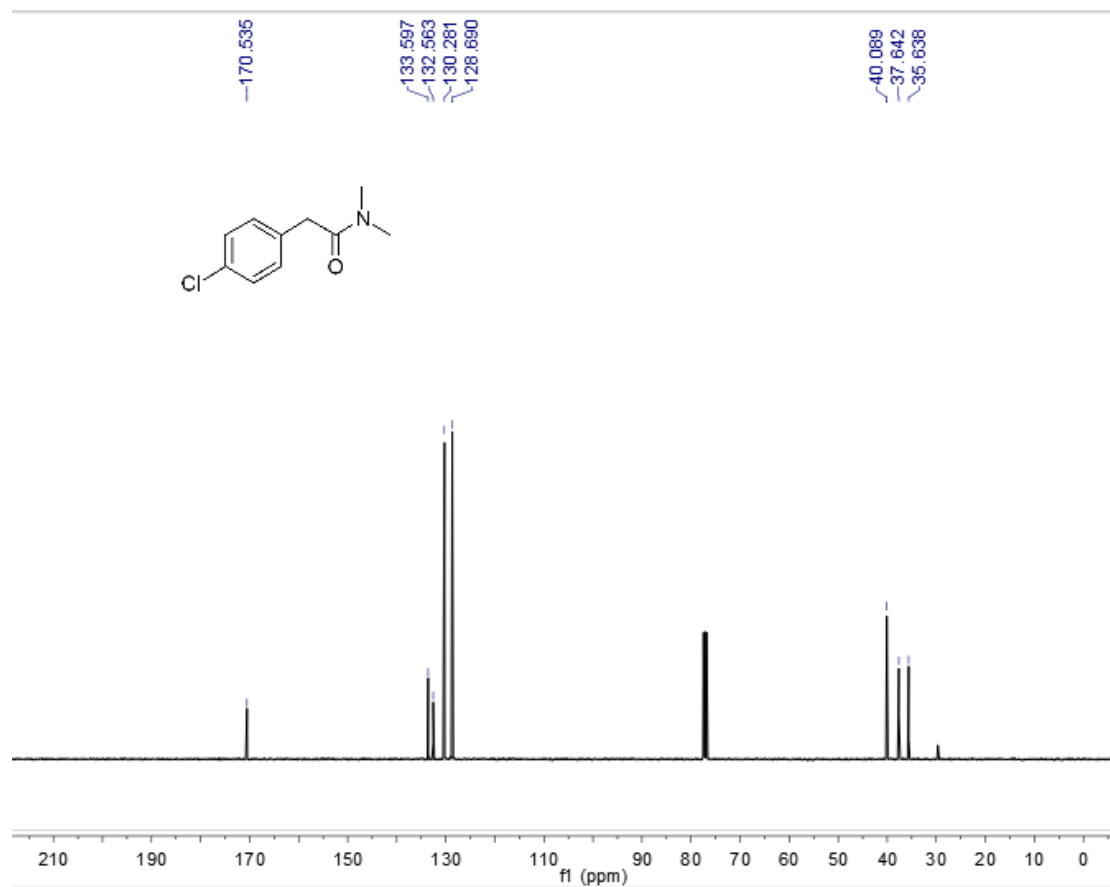
# <sup>13</sup>C NMR spectrum of 3ha



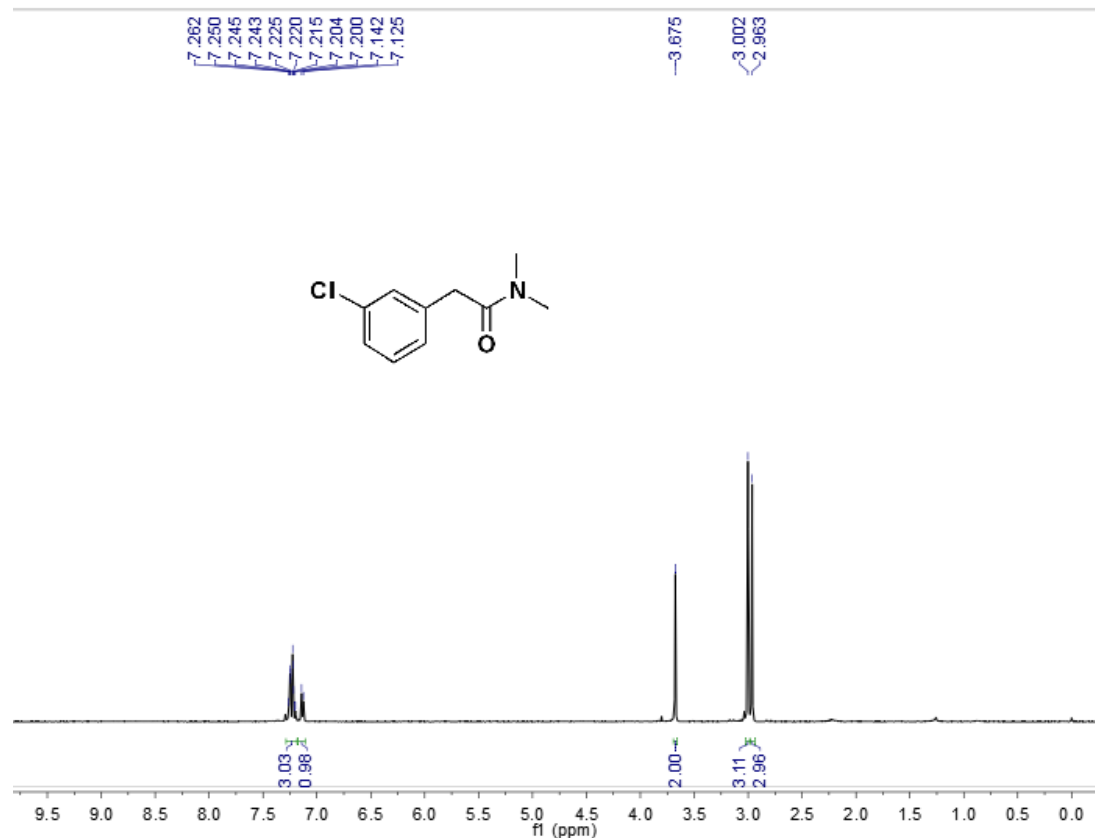
<sup>1</sup>H NMR spectrum of 3ia



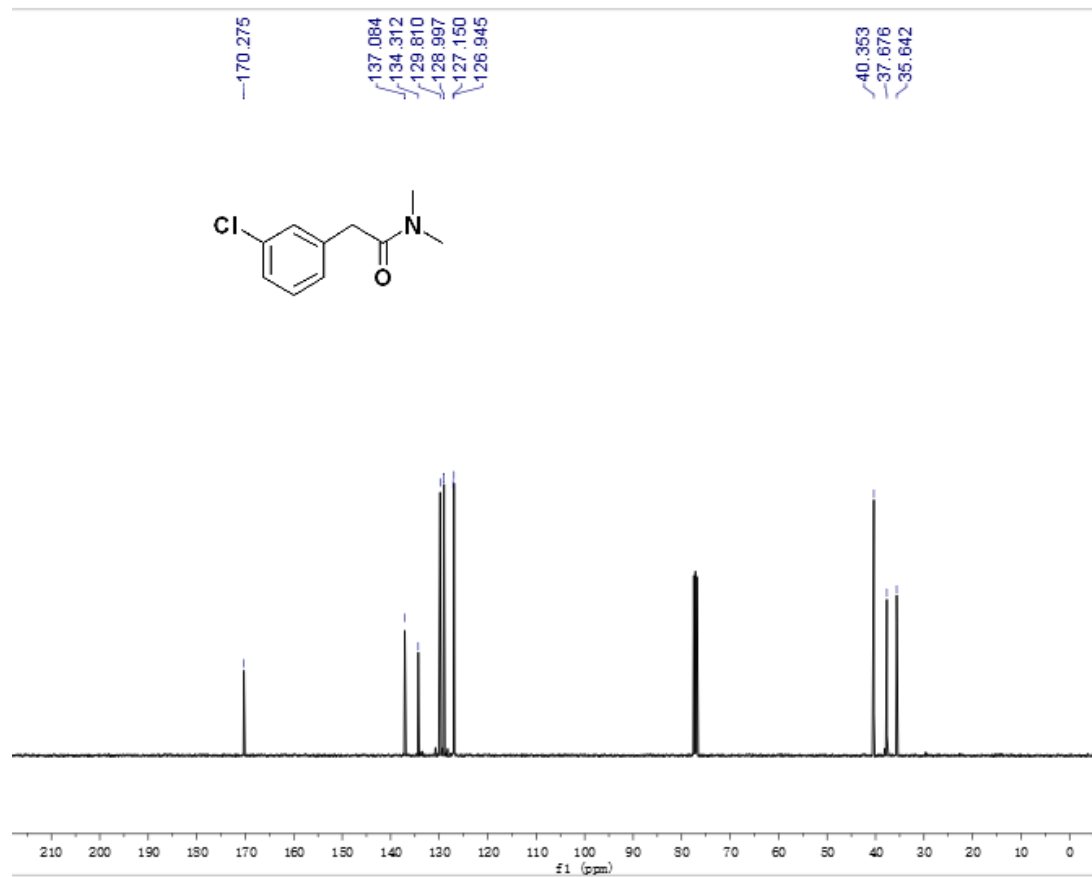
<sup>13</sup>C NMR spectrum of 3ia



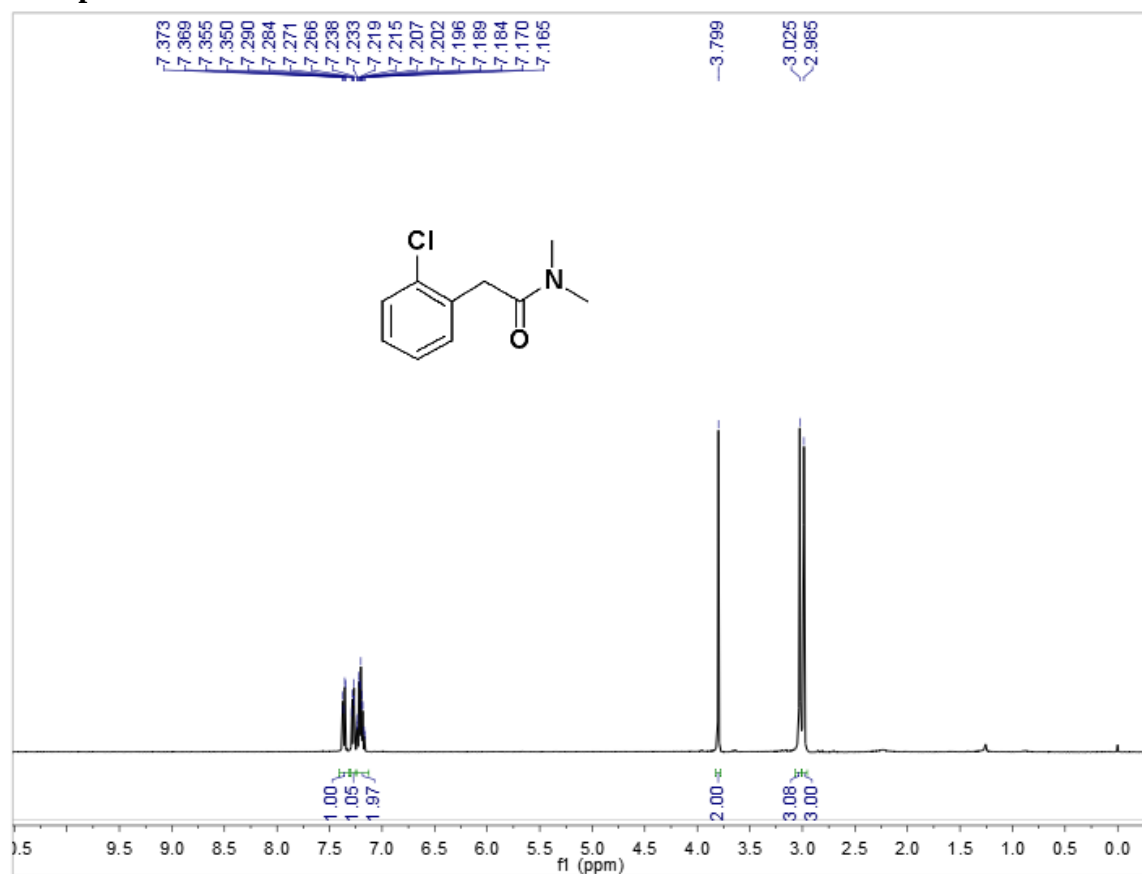
### <sup>1</sup>H NMR spectrum of 3ja



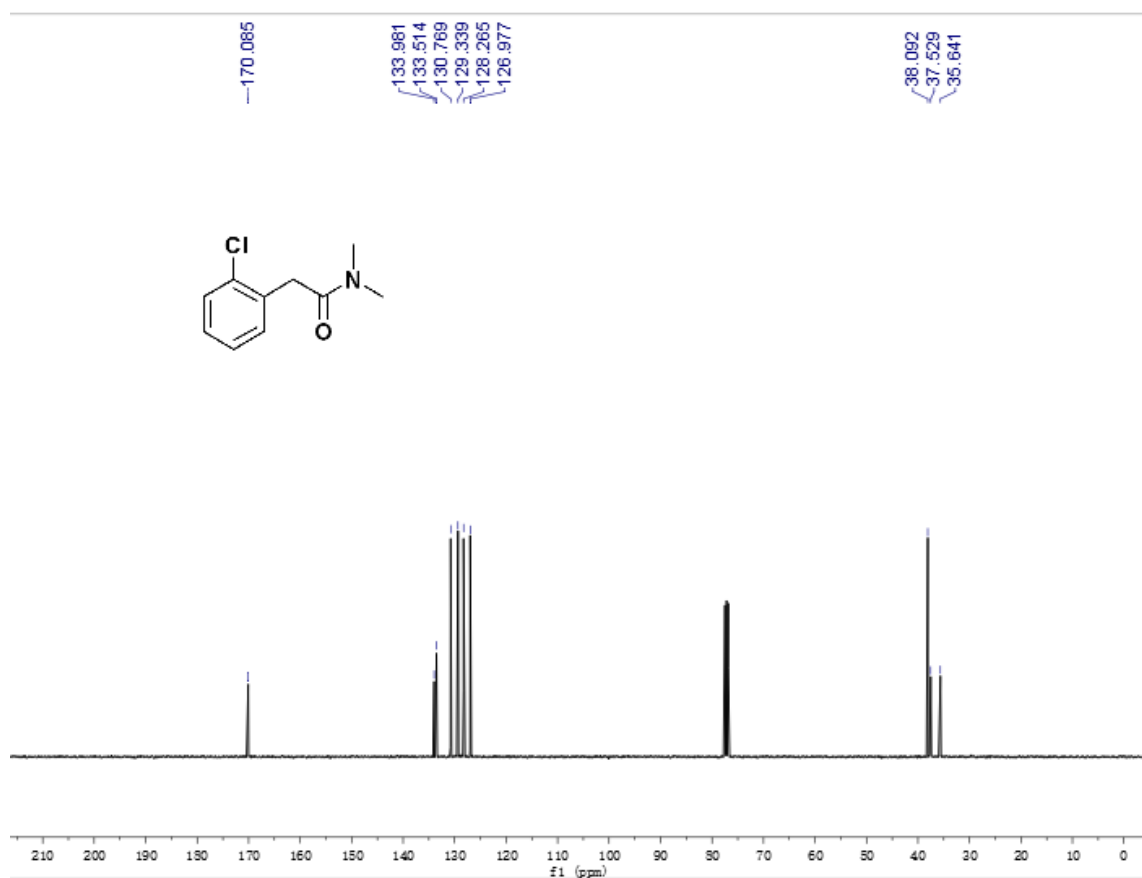
### <sup>13</sup>C NMR spectrum of 3ja



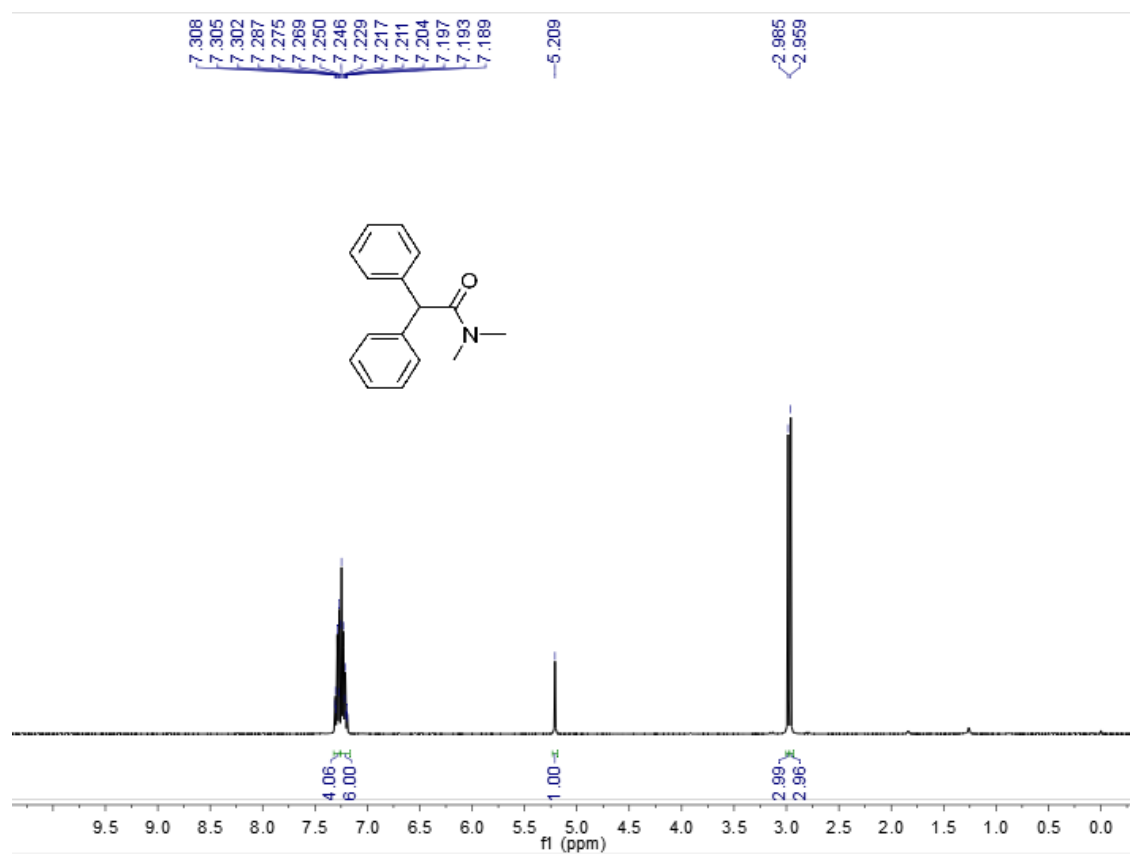
**<sup>1</sup>H NMR spectrum of 3ka**



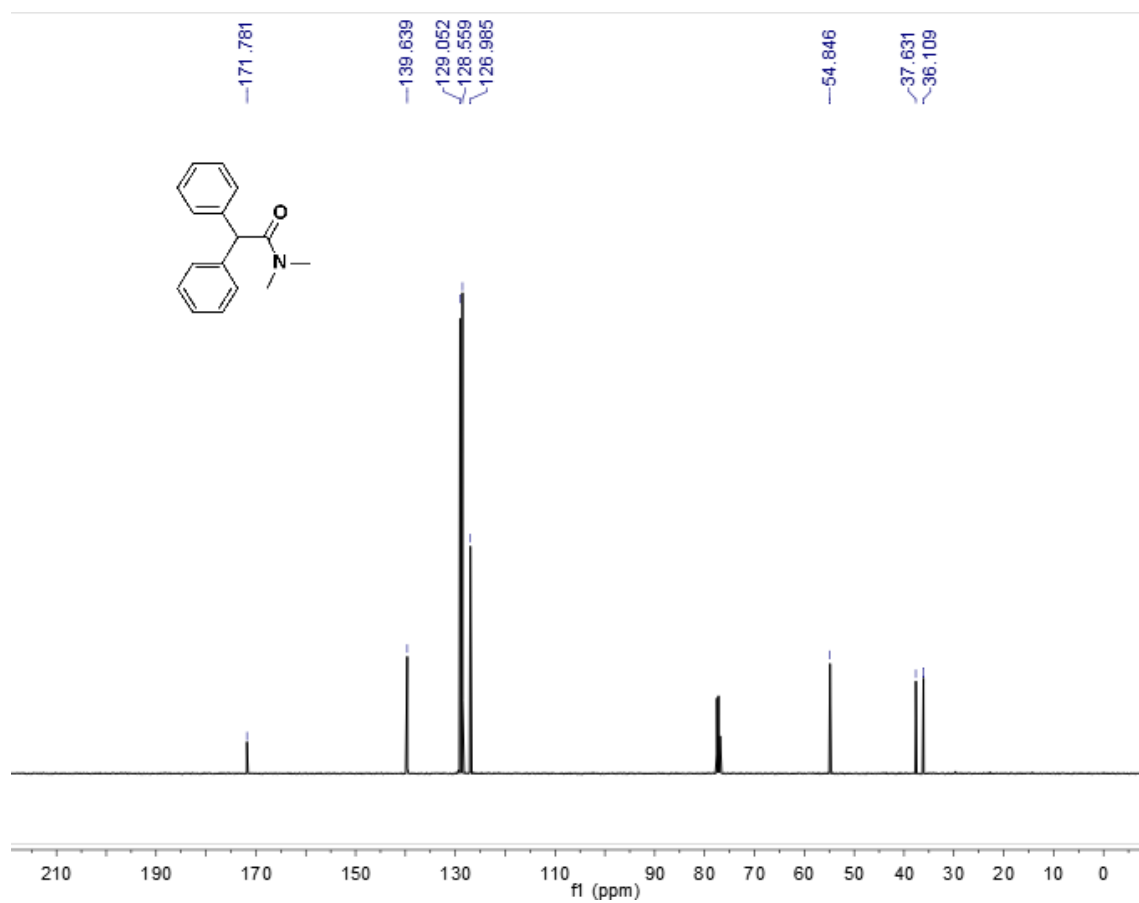
**<sup>13</sup>C NMR spectrum of 3ka**



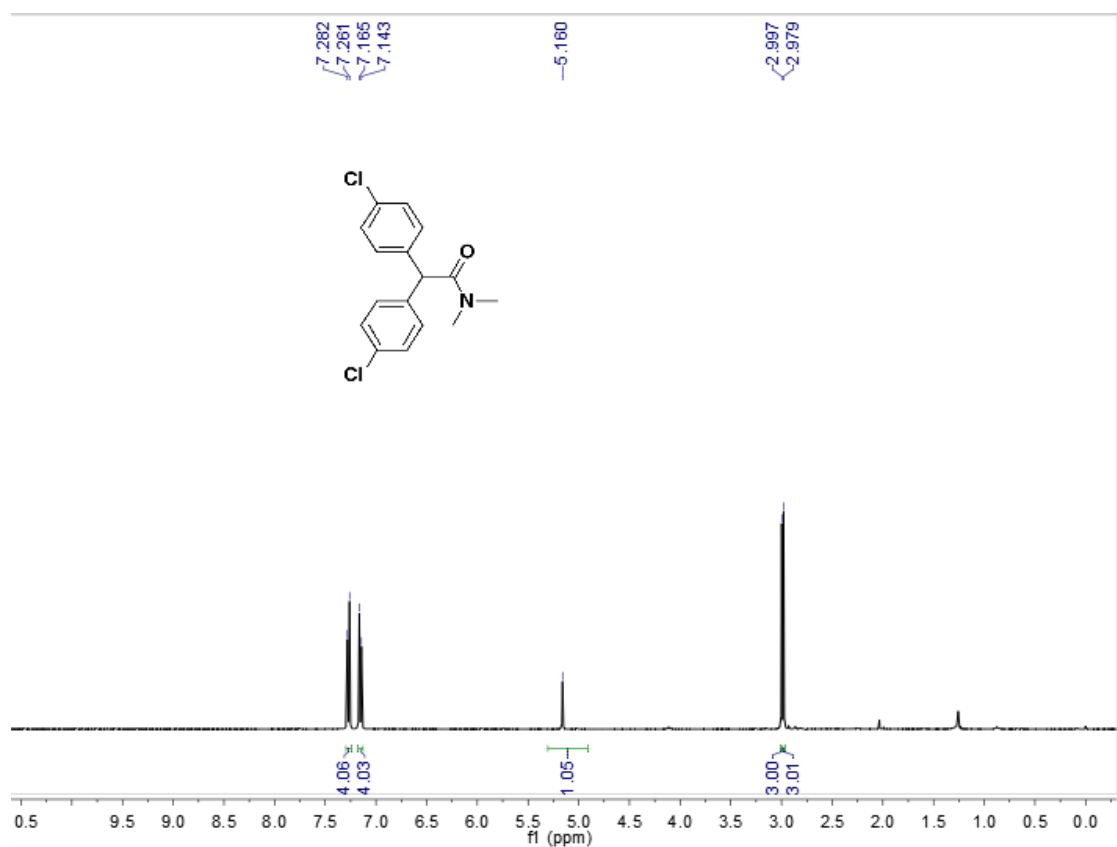
### <sup>1</sup>H NMR spectrum of 3la



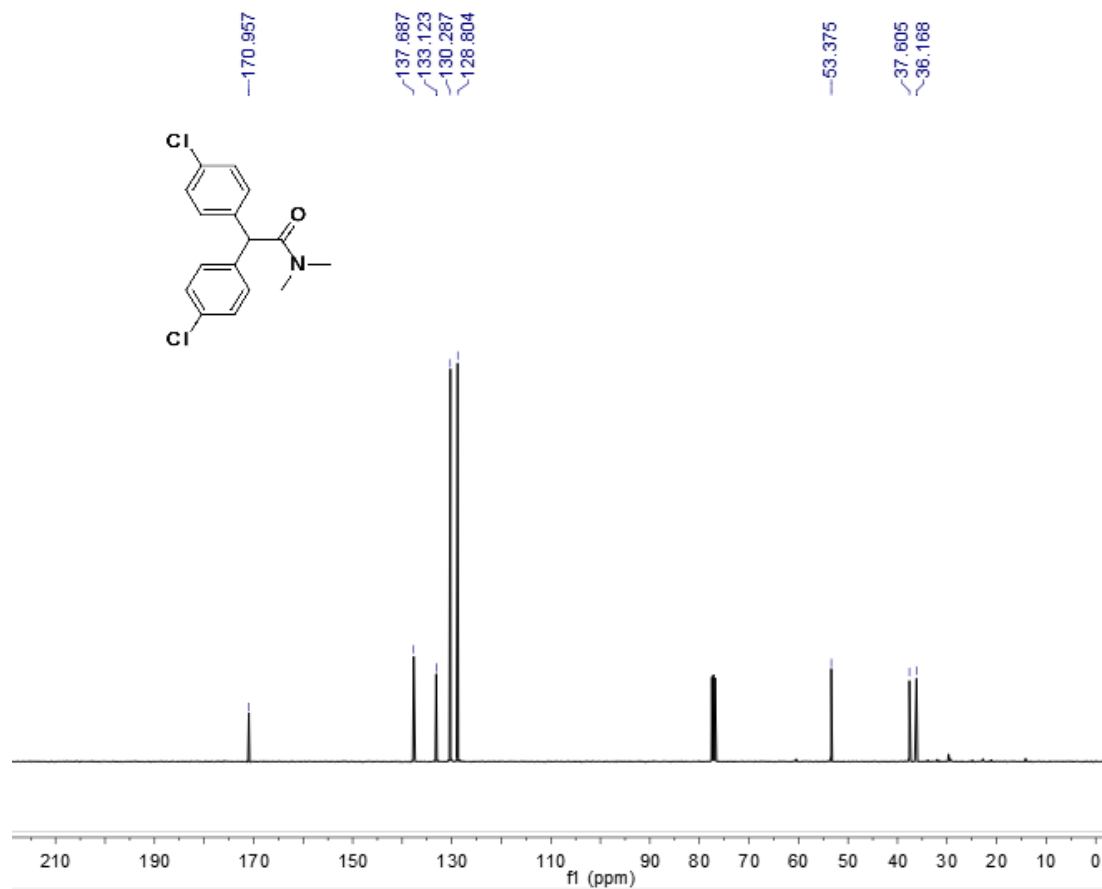
### <sup>13</sup>C NMR spectrum of 3la



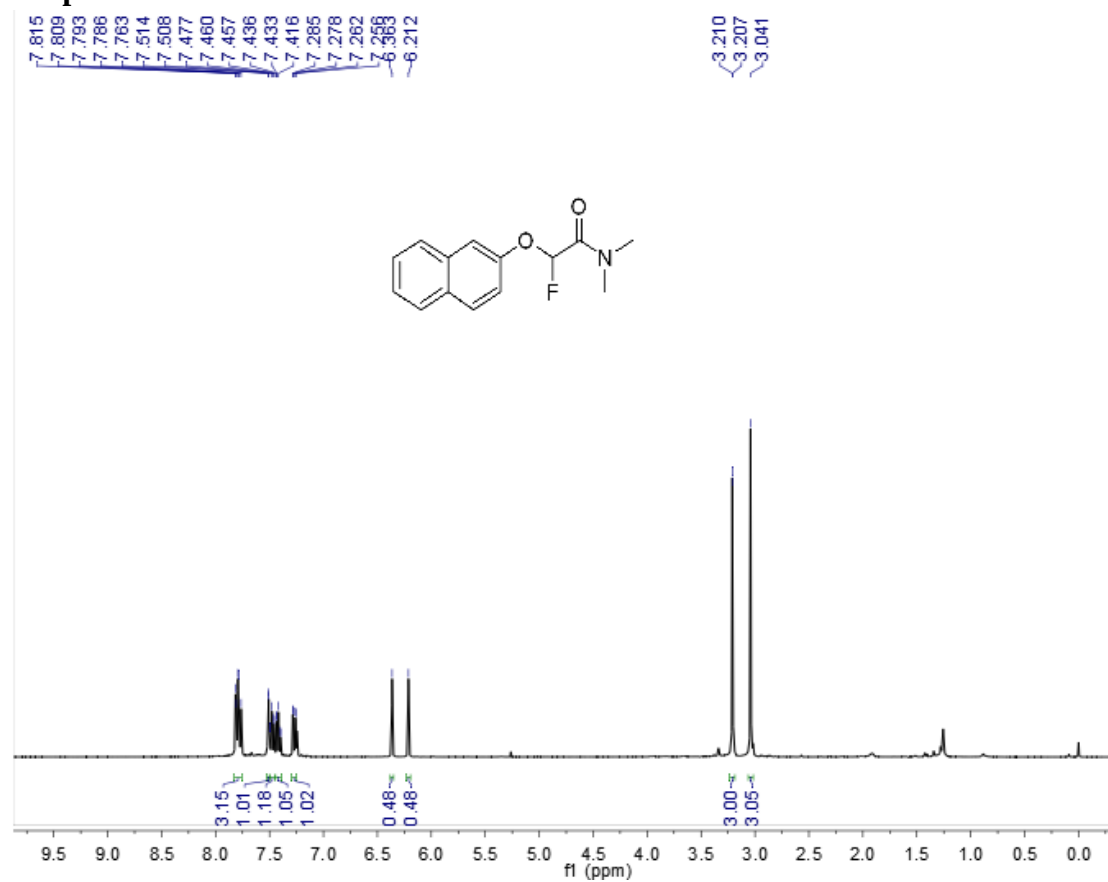
# <sup>1</sup>H NMR spectrum of 3ma



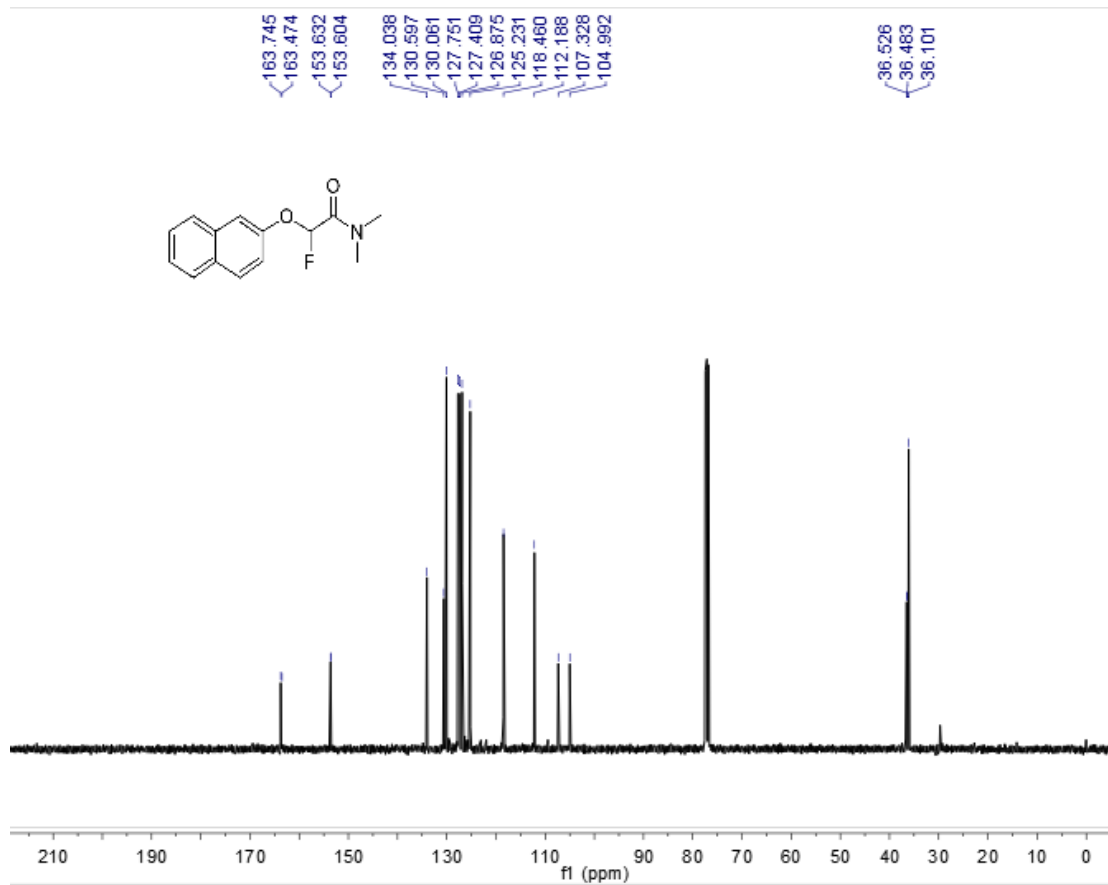
# <sup>13</sup>C NMR spectrum of 3ma



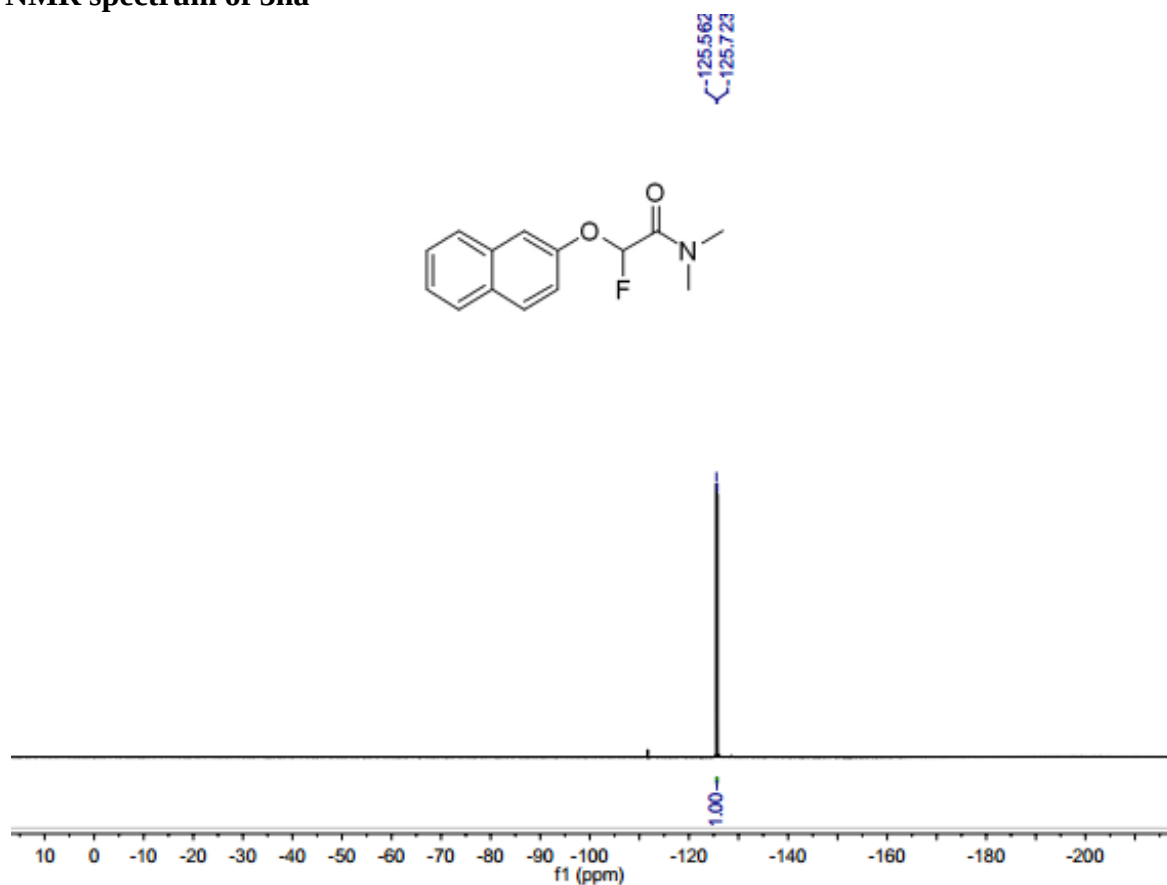
**<sup>1</sup>H NMR spectrum of 3na**



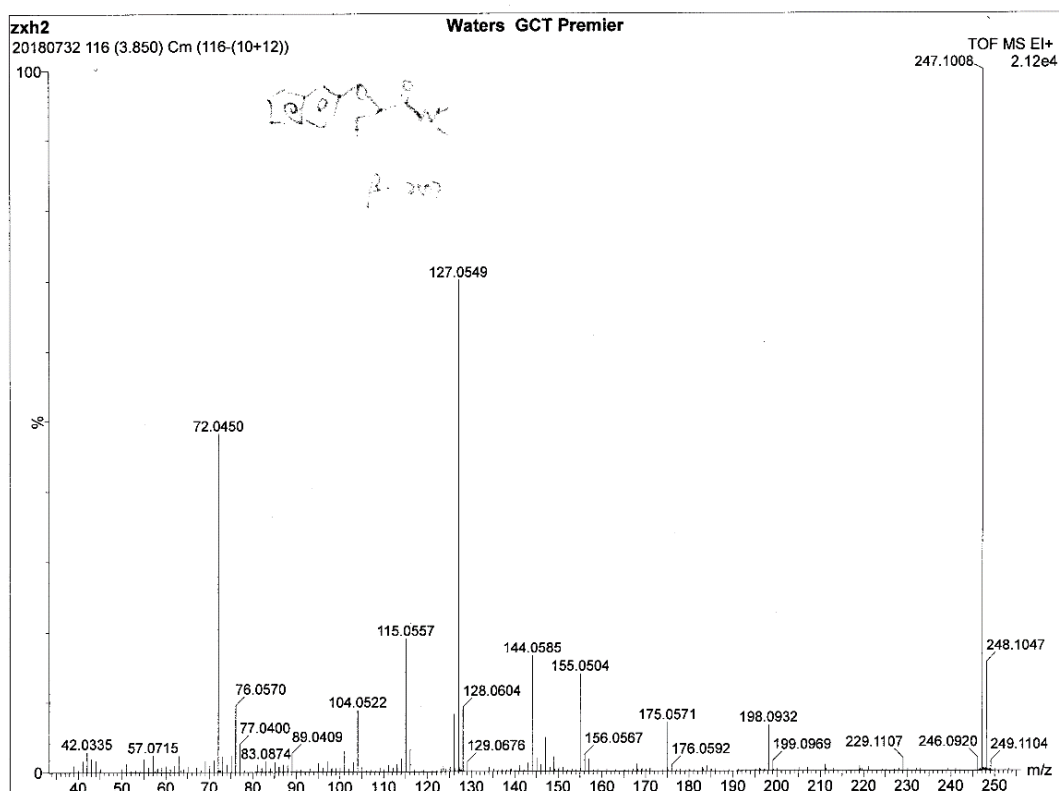
**<sup>13</sup>C NMR spectrum of 3na**



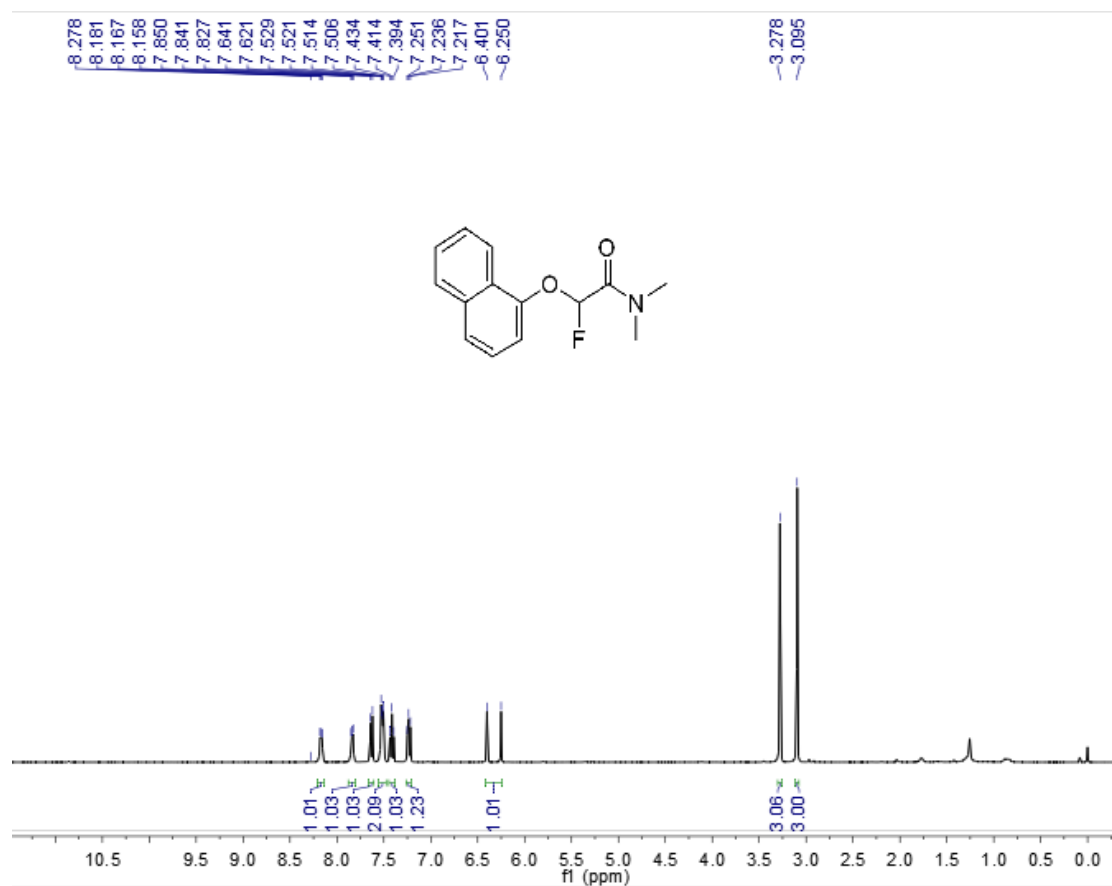
# <sup>19</sup>C NMR spectrum of 3na



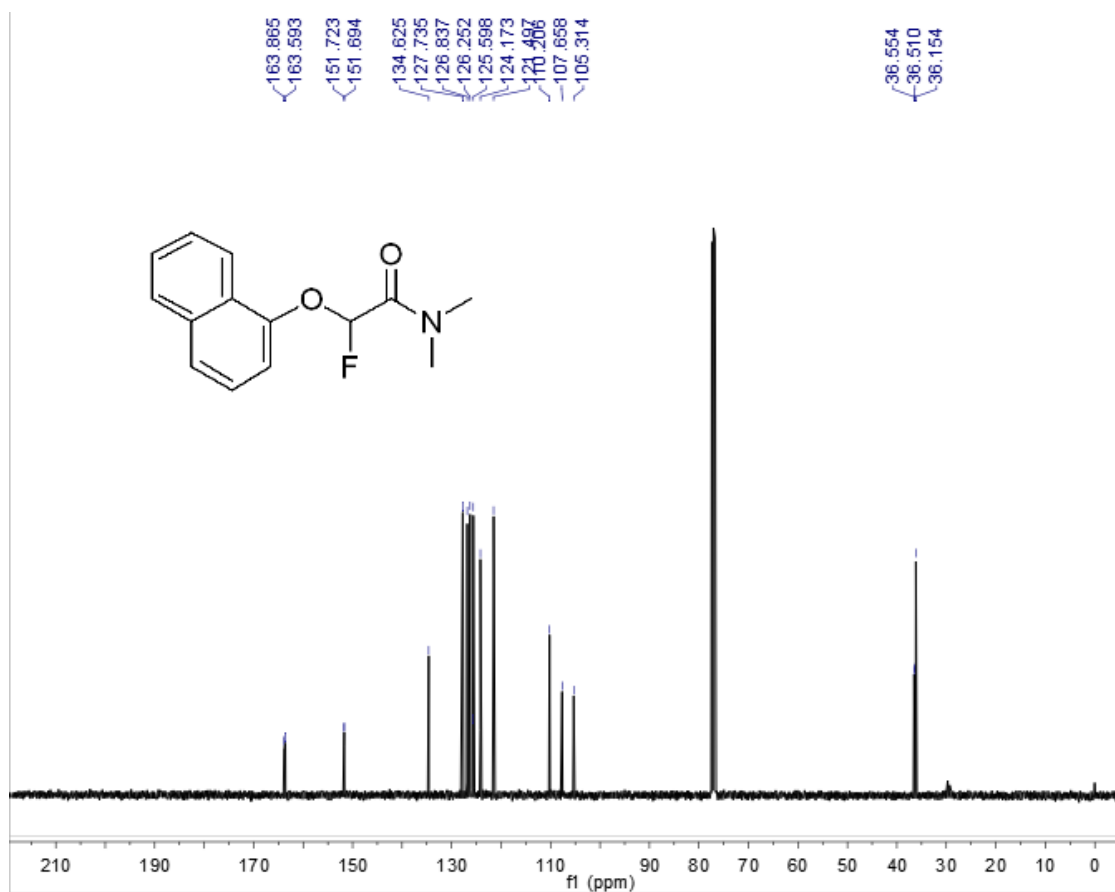
## HRMS (EI) of 3na



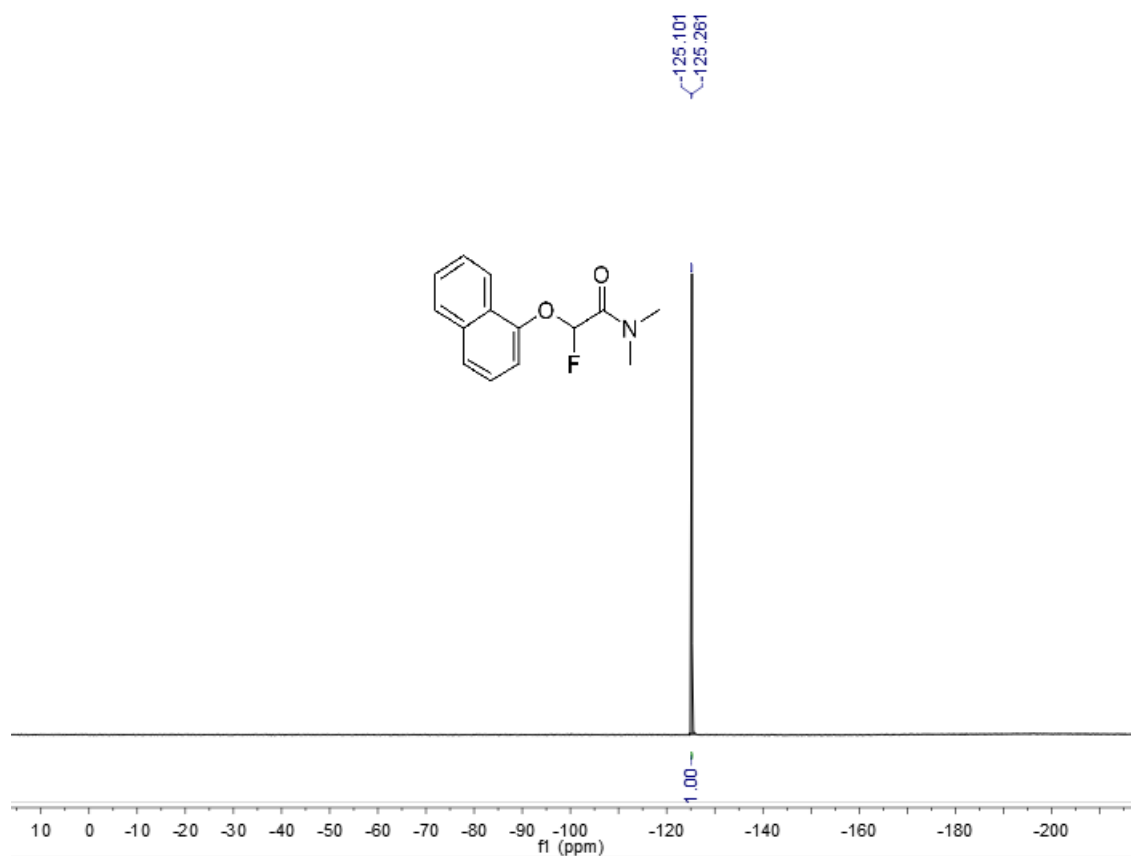
### <sup>1</sup>H NMR spectrum of 30a



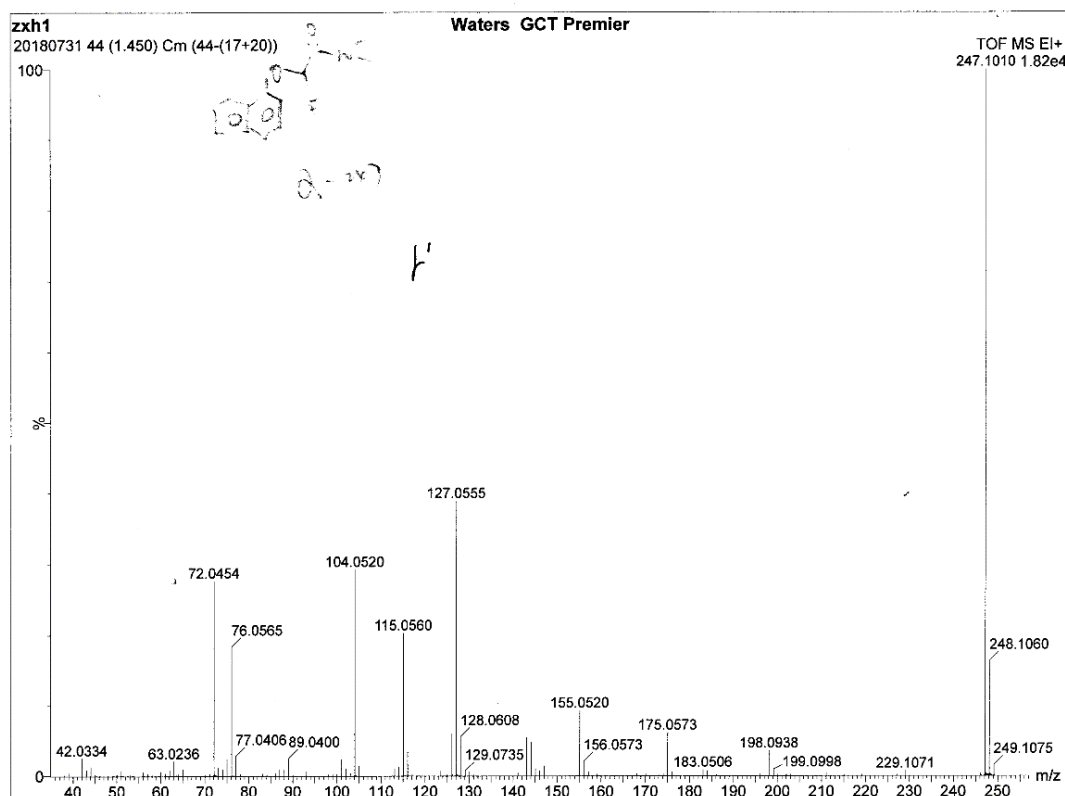
### <sup>13</sup>C NMR spectrum of 30a



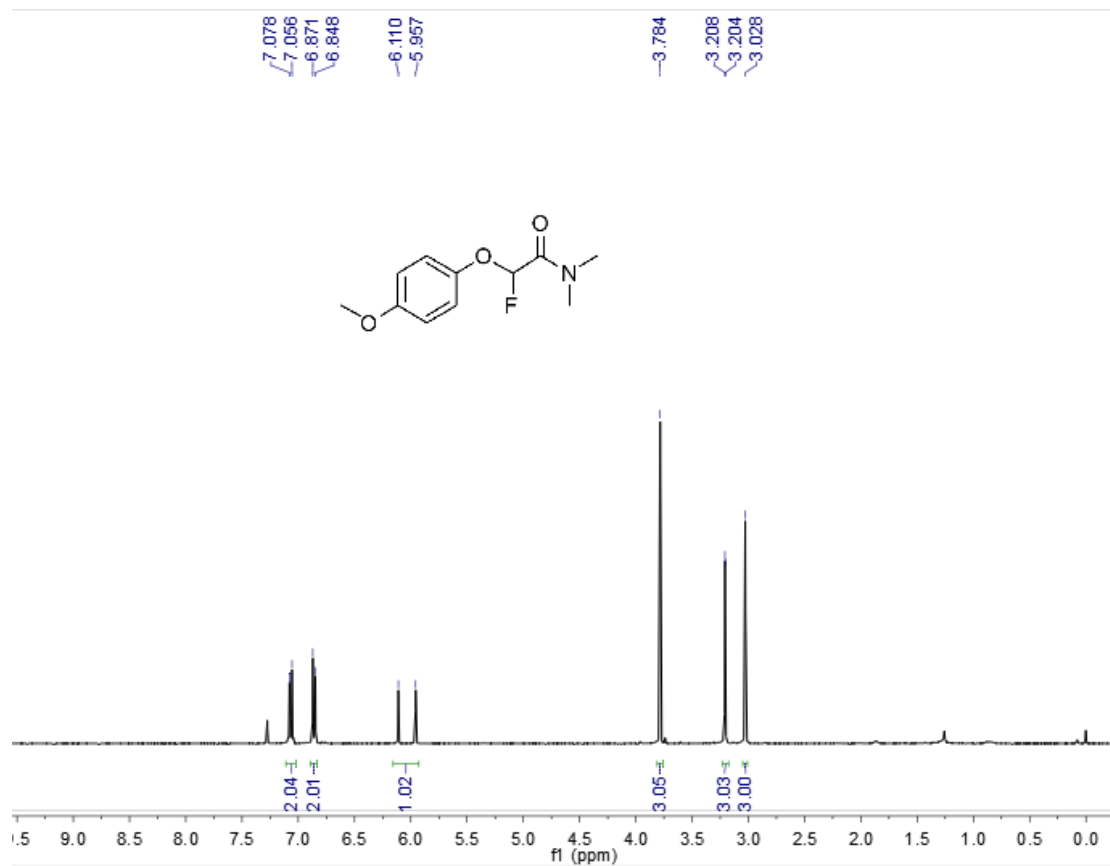
# <sup>19</sup>F NMR spectrum of 30a



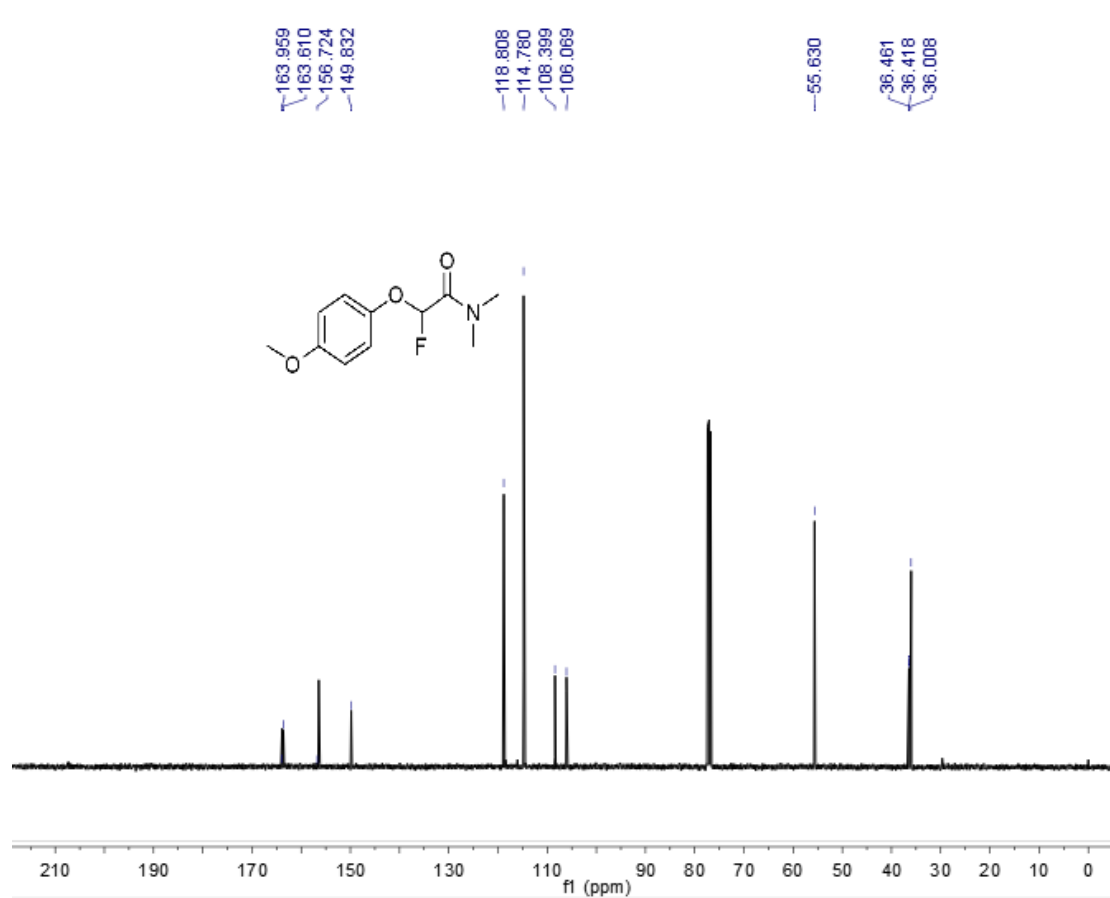
## HRMS (EI) of 30a



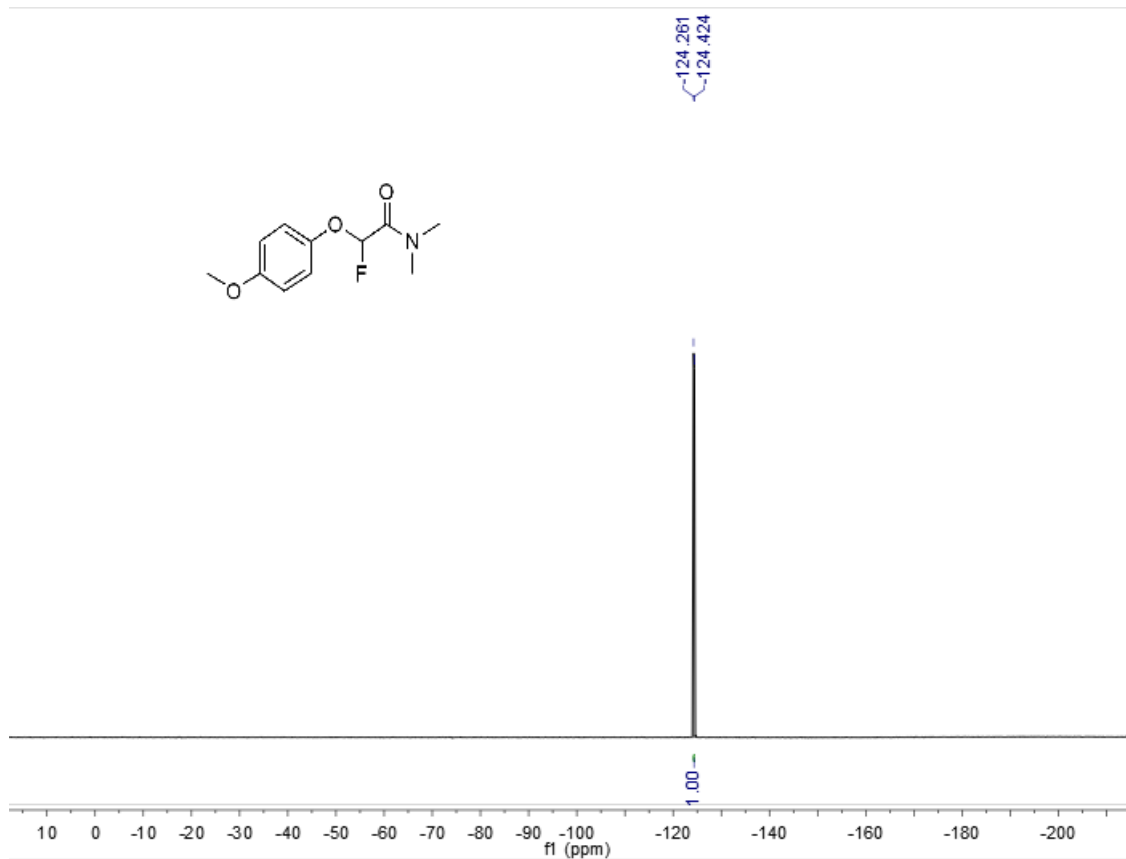
# <sup>1</sup>H NMR spectrum of 3pa



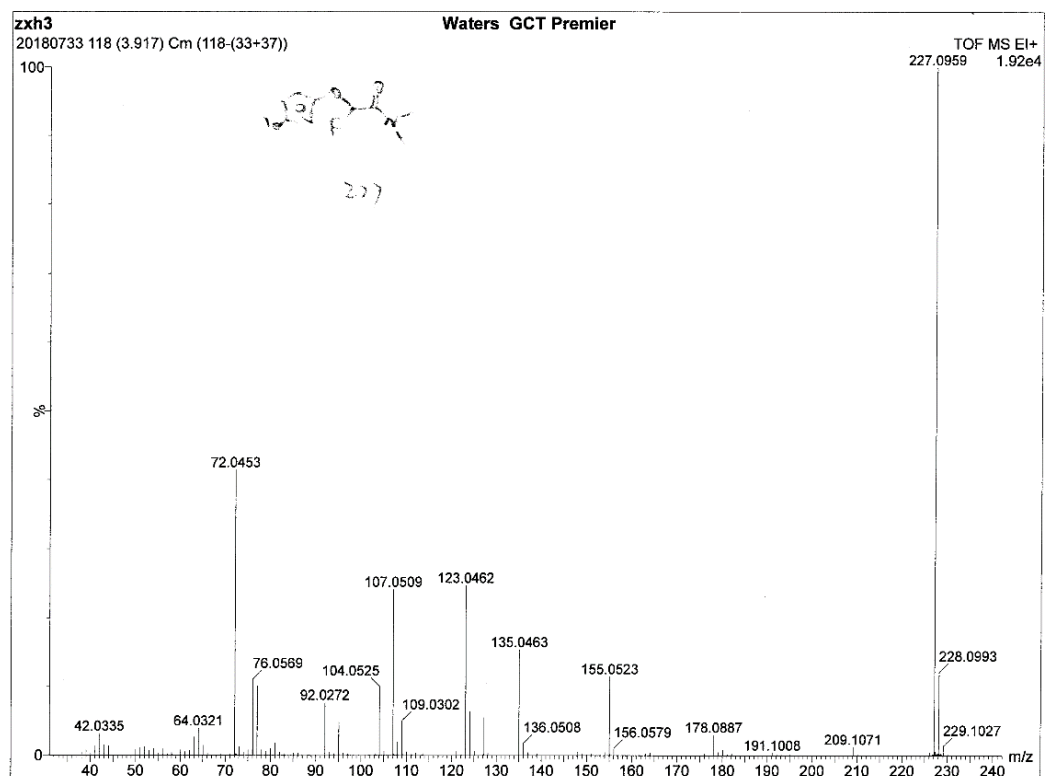
# <sup>13</sup>C NMR spectrum of 3pa



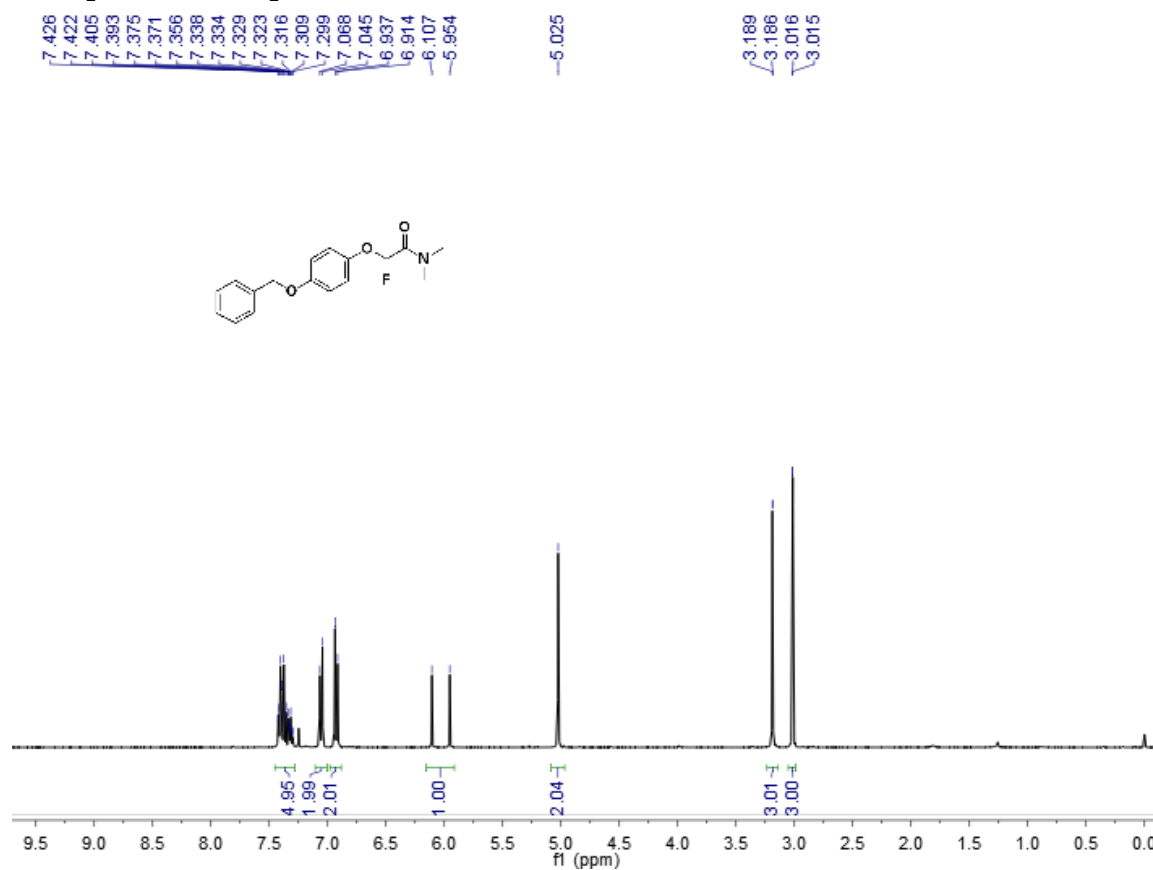
# <sup>19</sup>F NMR spectrum of 3pa



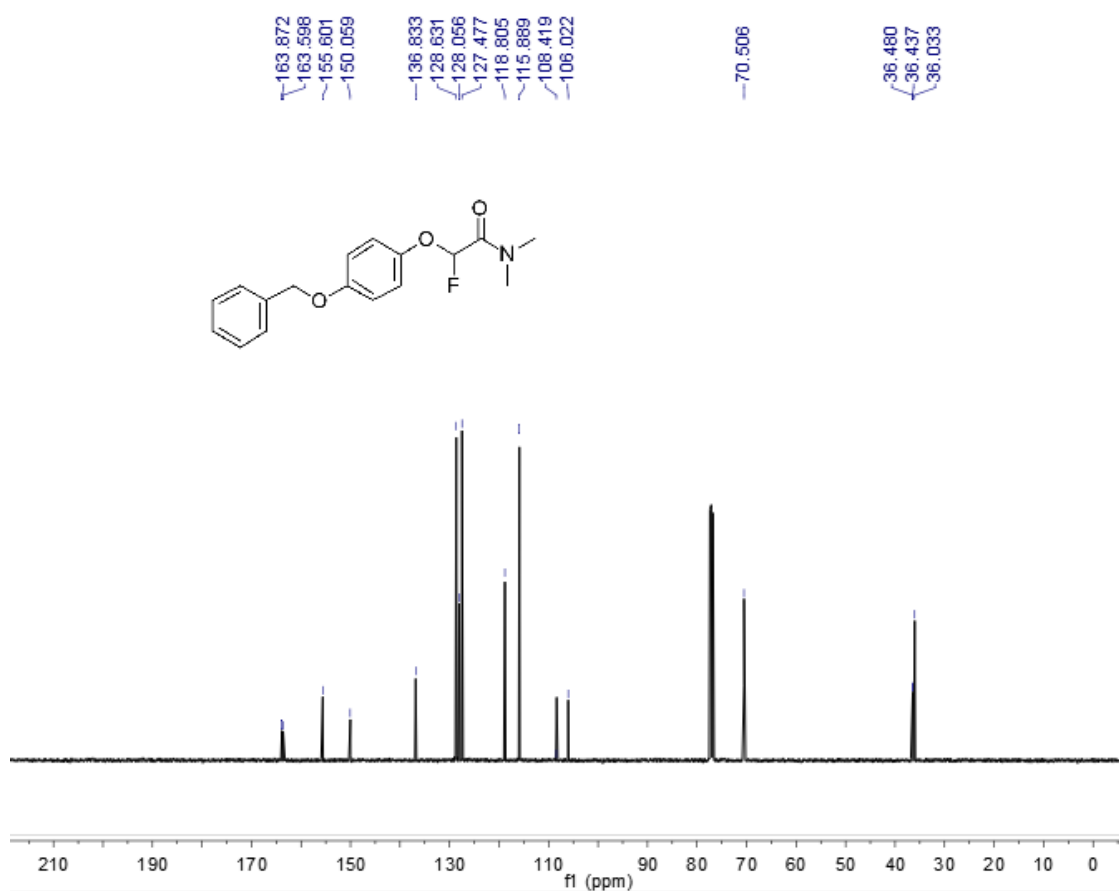
## HRMS (EI) of 3pa



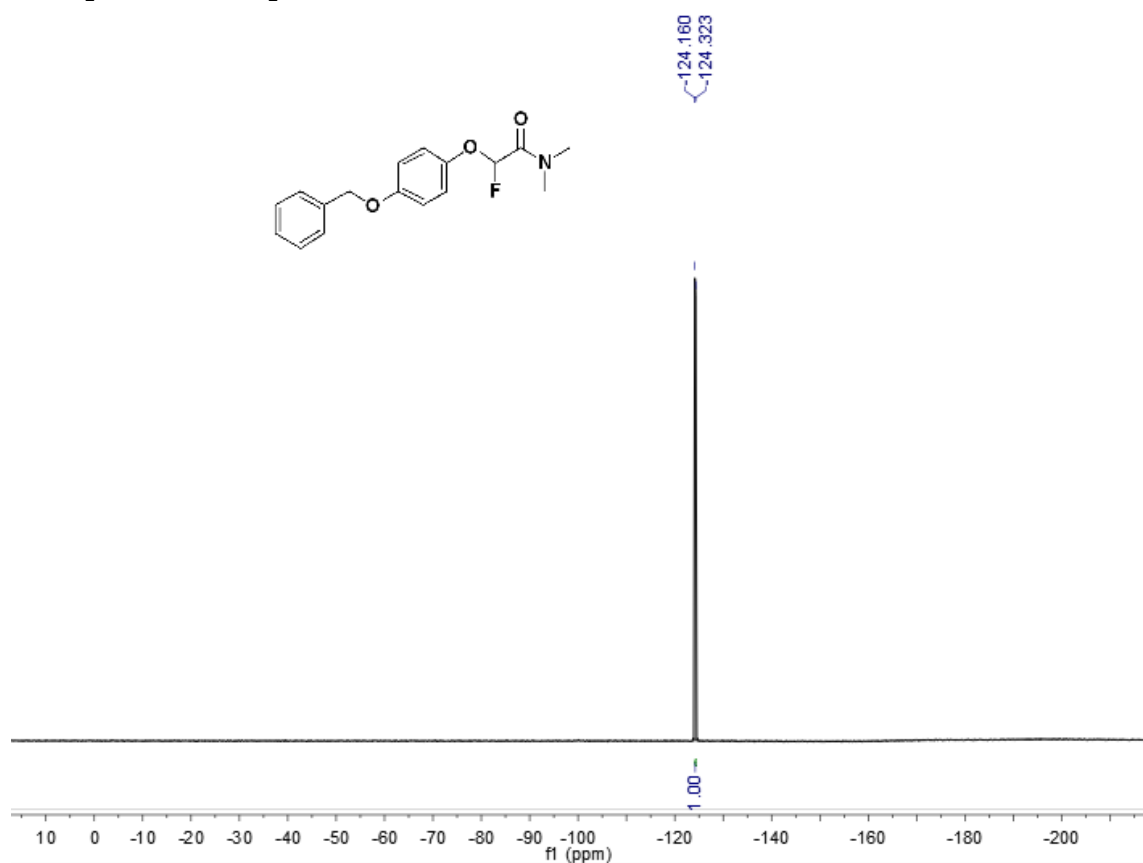
# <sup>1</sup>H NMR spectrum of 3qa



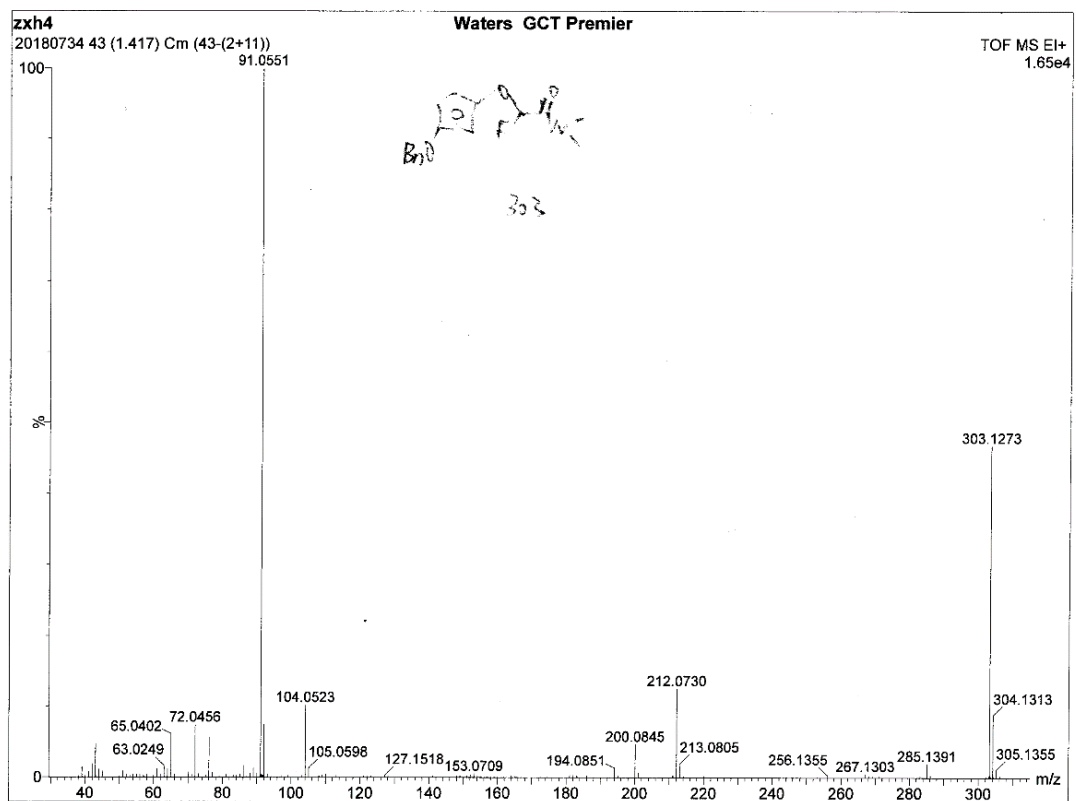
# <sup>13</sup>C NMR spectrum of 3qa



# <sup>19</sup>F NMR spectrum of 3qa

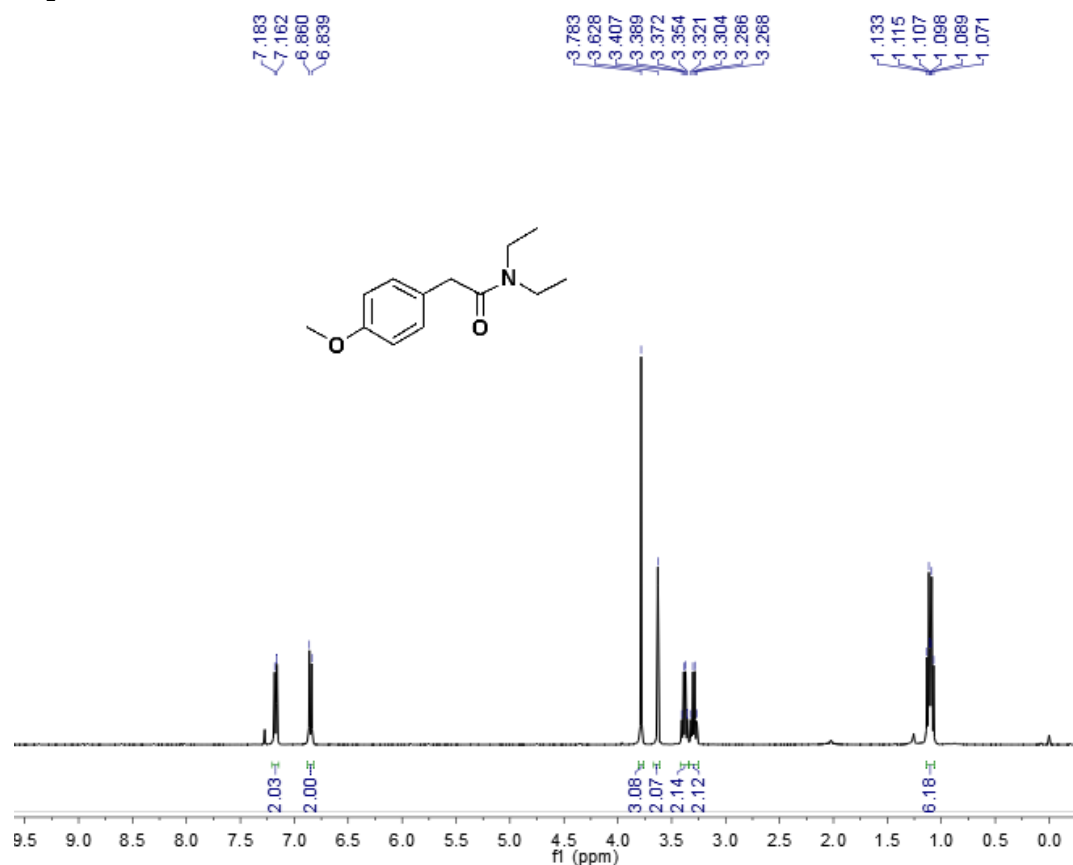


## HRMS (EI) of 3qa

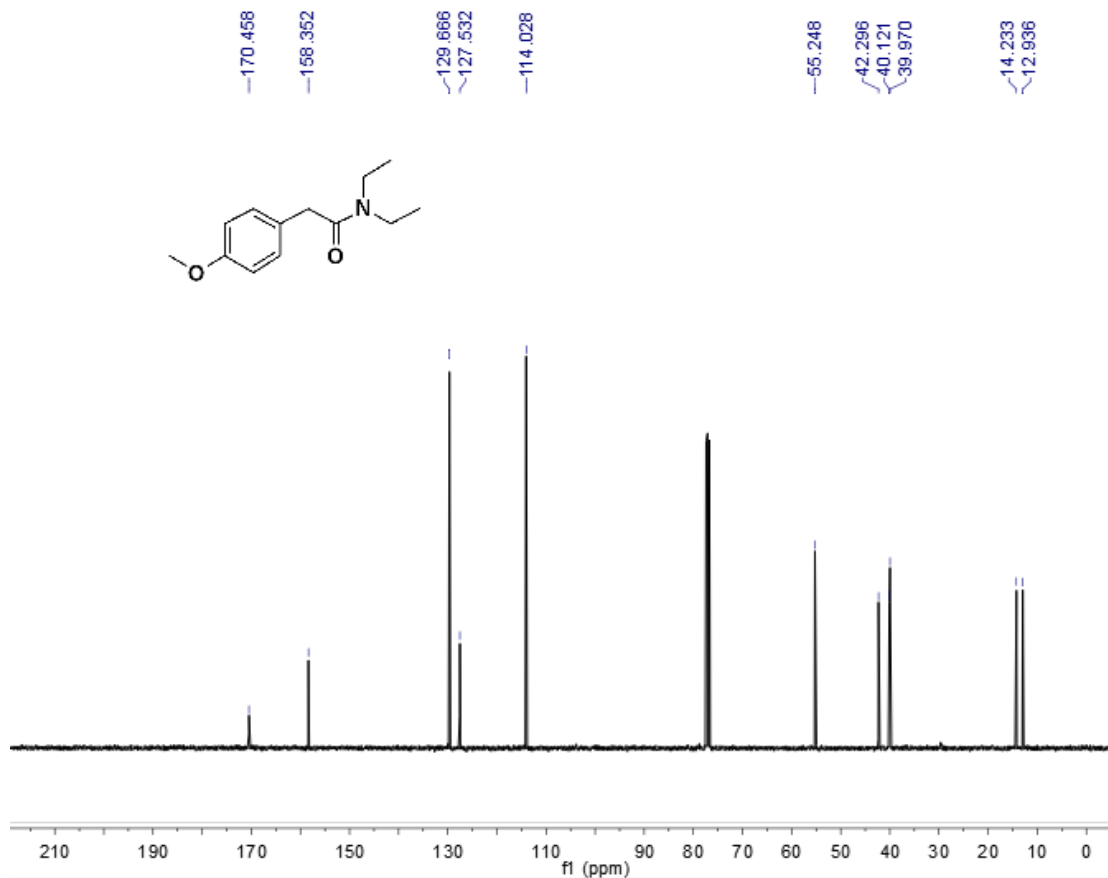


本数据仅供科研教学参考使用  
不具有任何证明作用

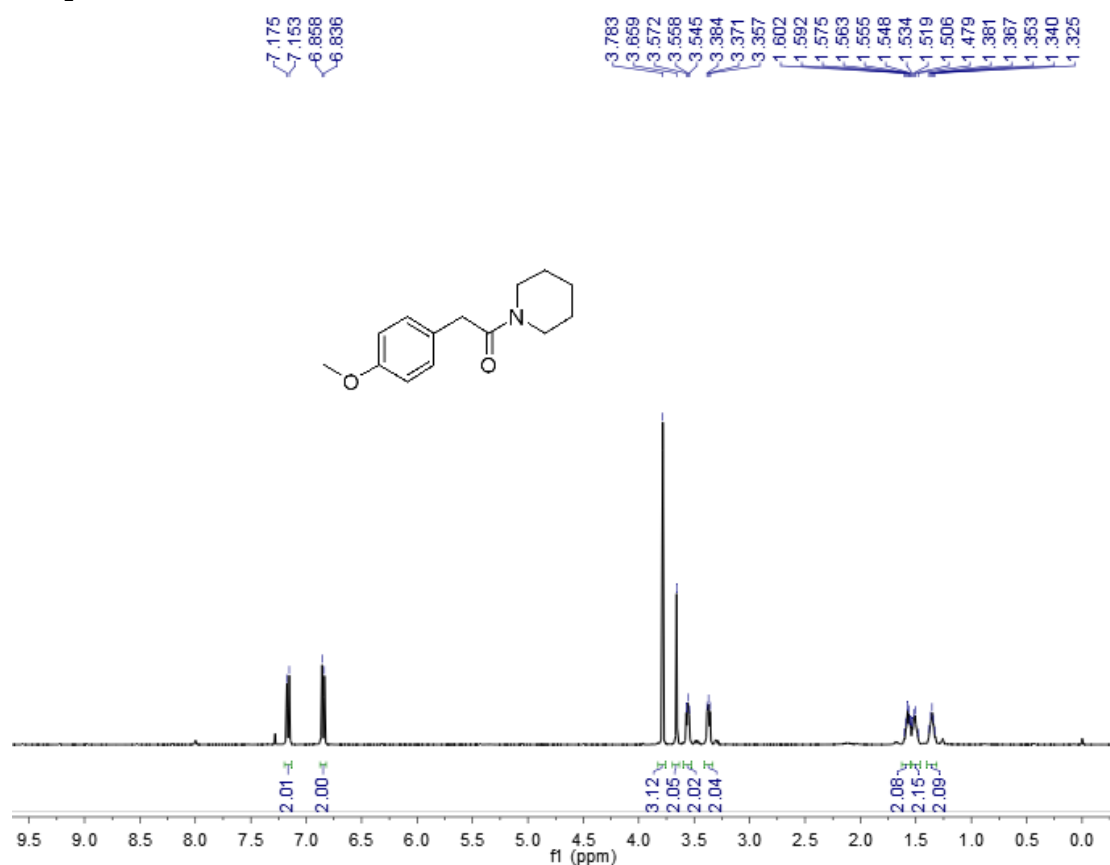
# <sup>1</sup>H NMR spectrum of 3ab



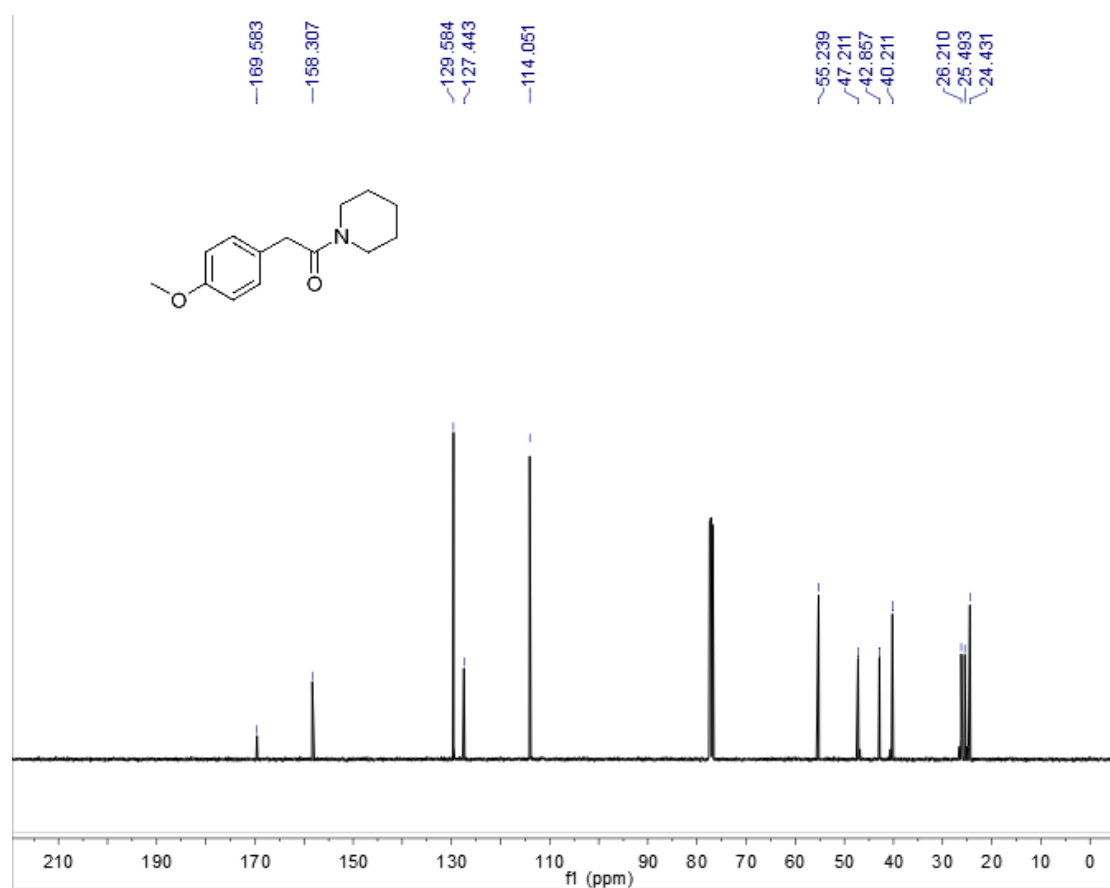
# <sup>13</sup>C NMR spectrum of 3ab



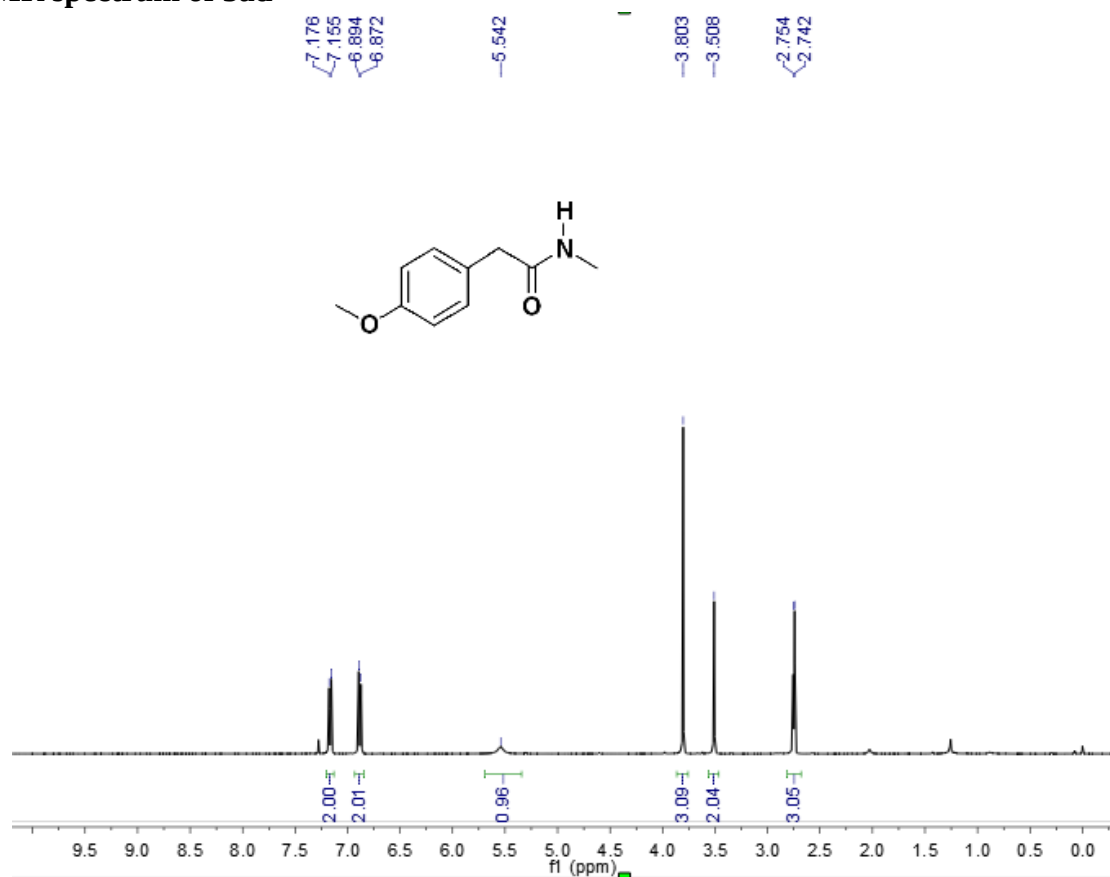
# <sup>1</sup>H NMR spectrum of 3ac



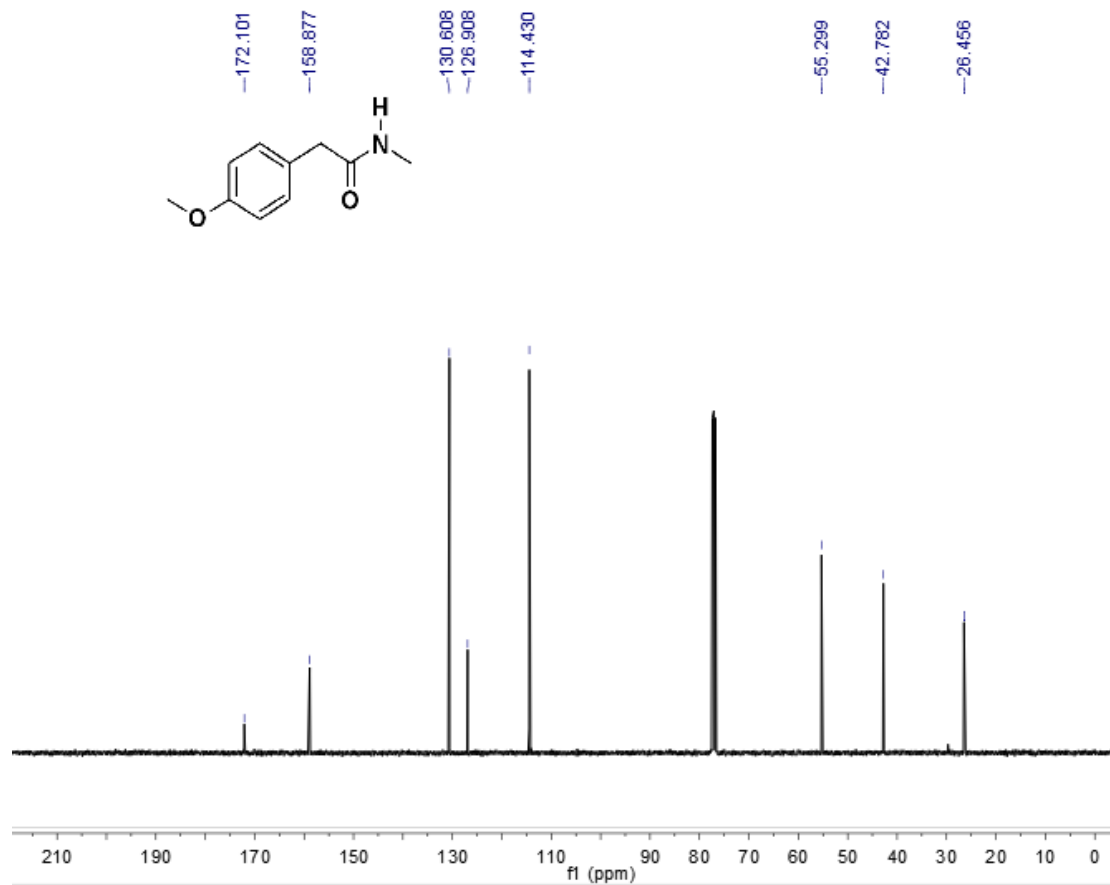
## <sup>13</sup>C NMR spectrum of 3ac



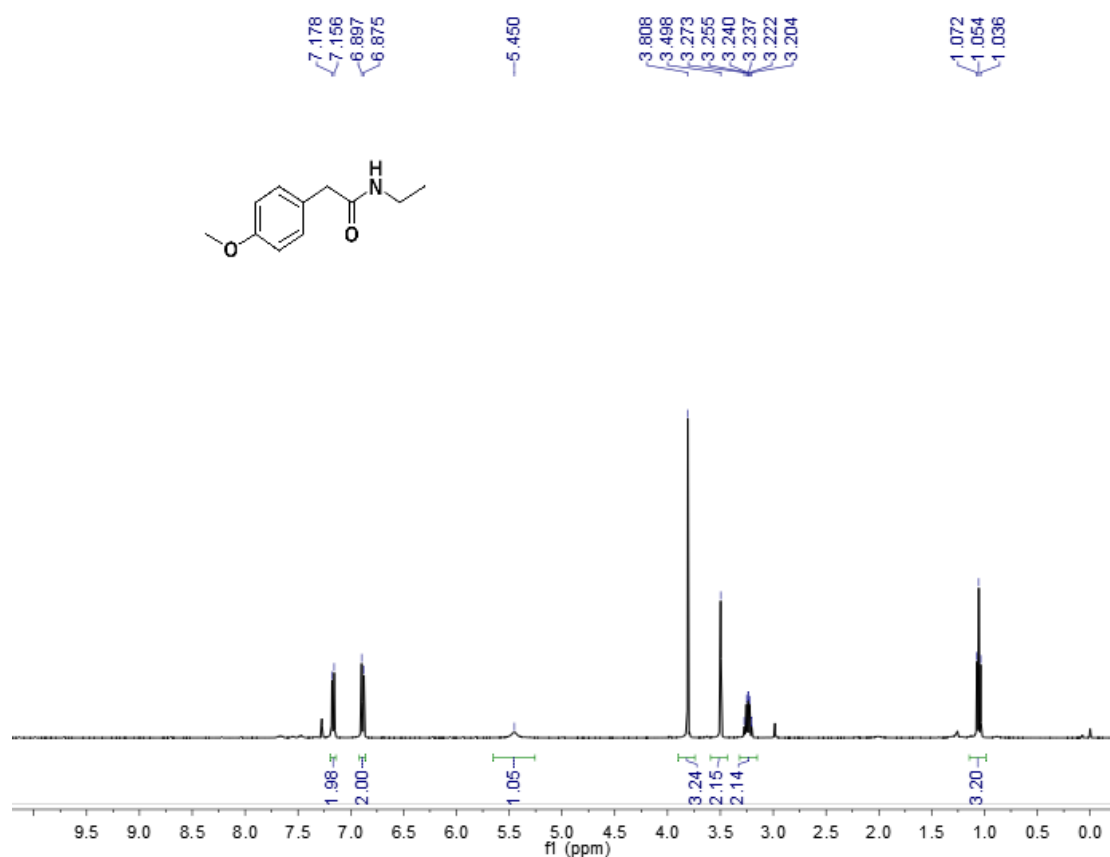
### $^1\text{H}$ NMR spectrum of 3ad



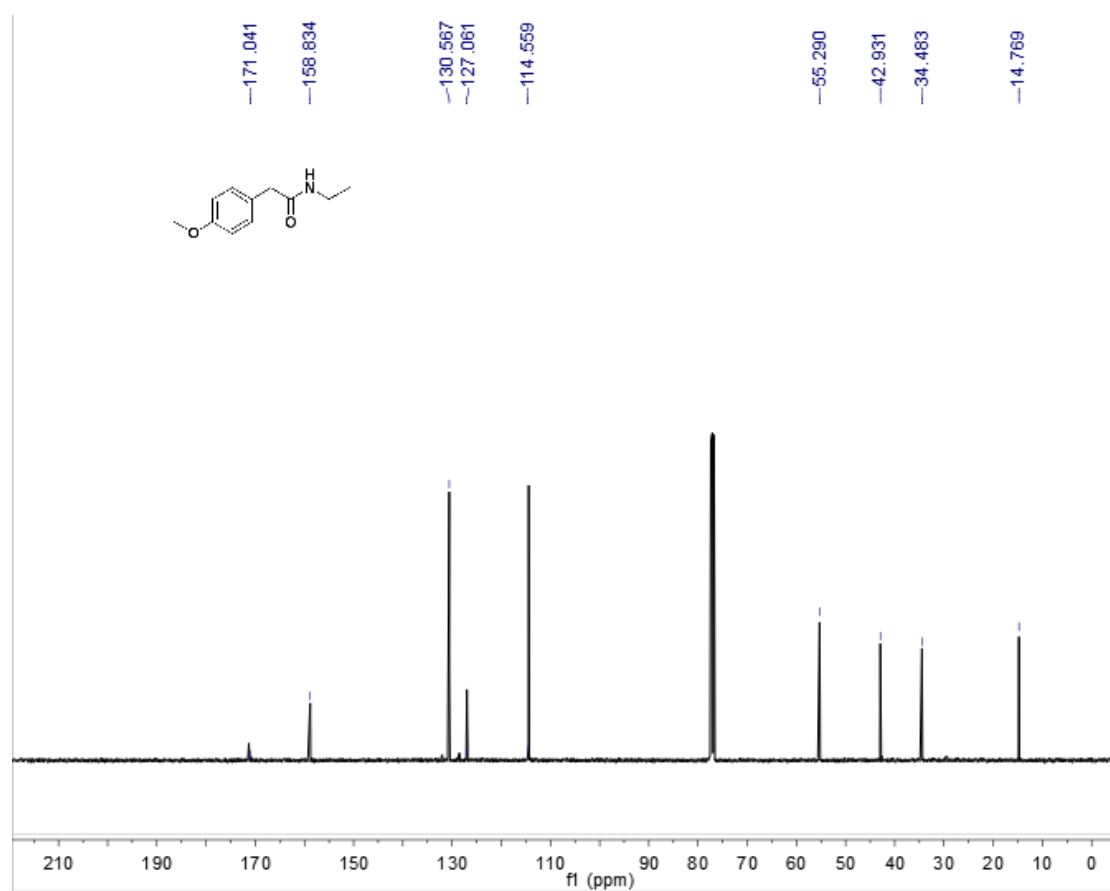
### $^{13}\text{C}$ NMR spectrum of 3ad



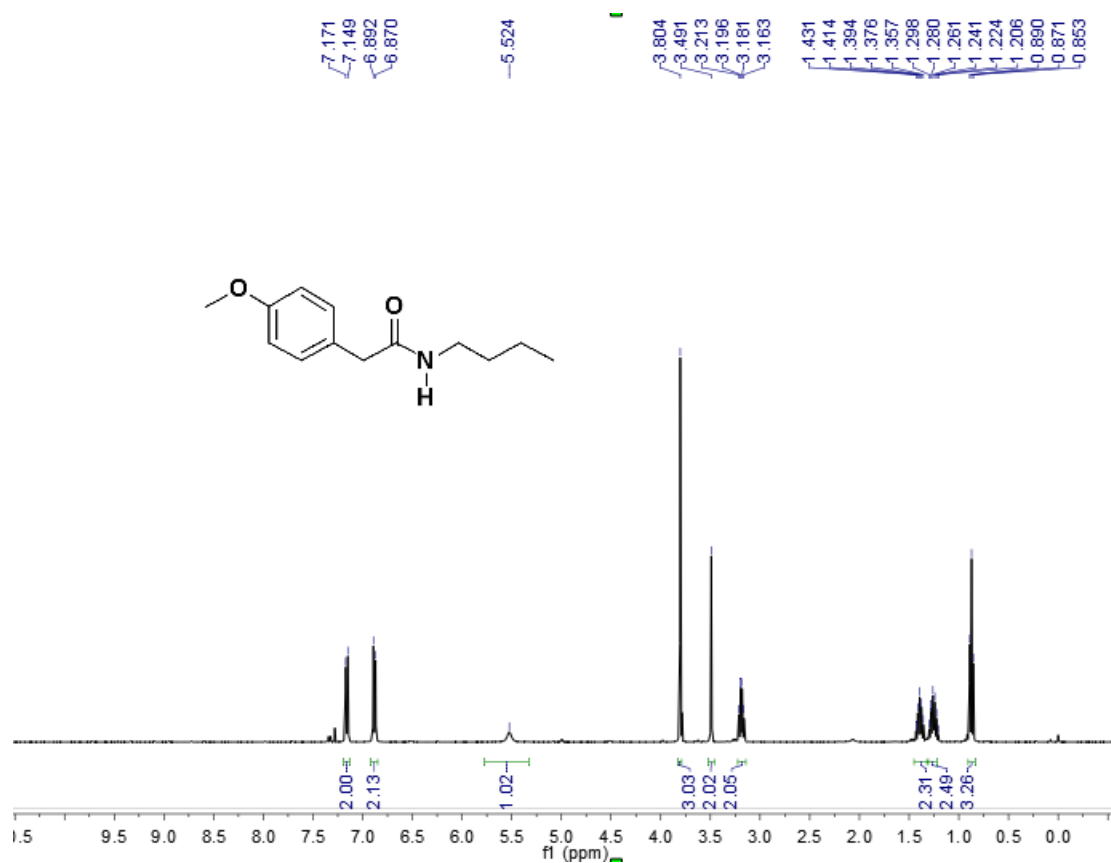
# <sup>1</sup>H NMR spectrum of 3ae



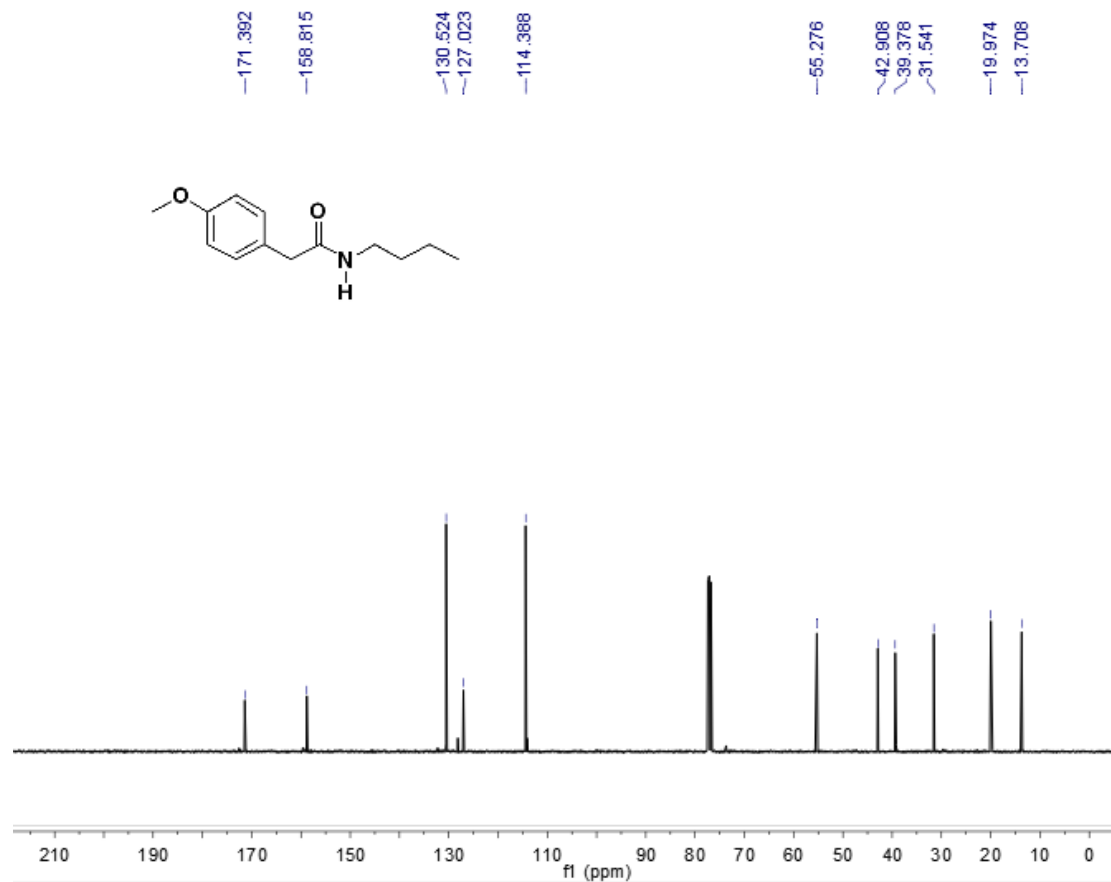
# <sup>13</sup>C NMR spectrum of 3ae



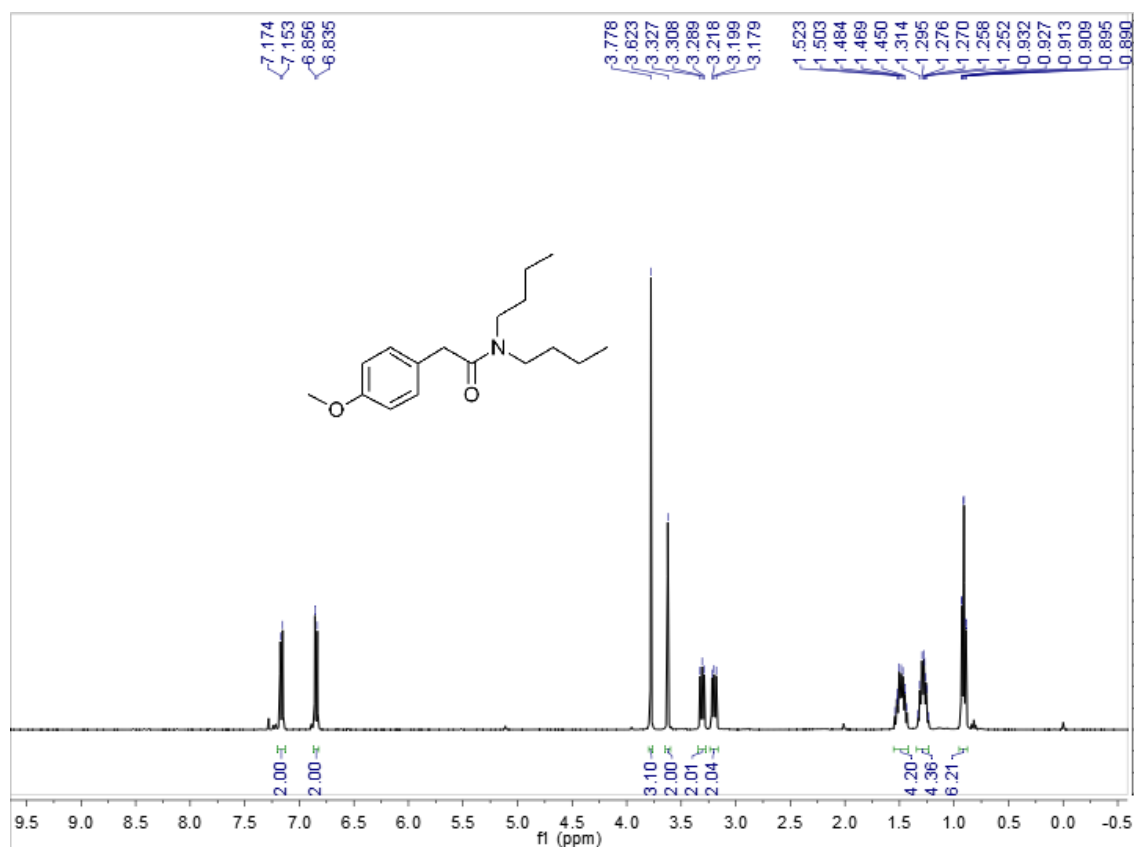
# <sup>1</sup>H NMR spectrum of 3af



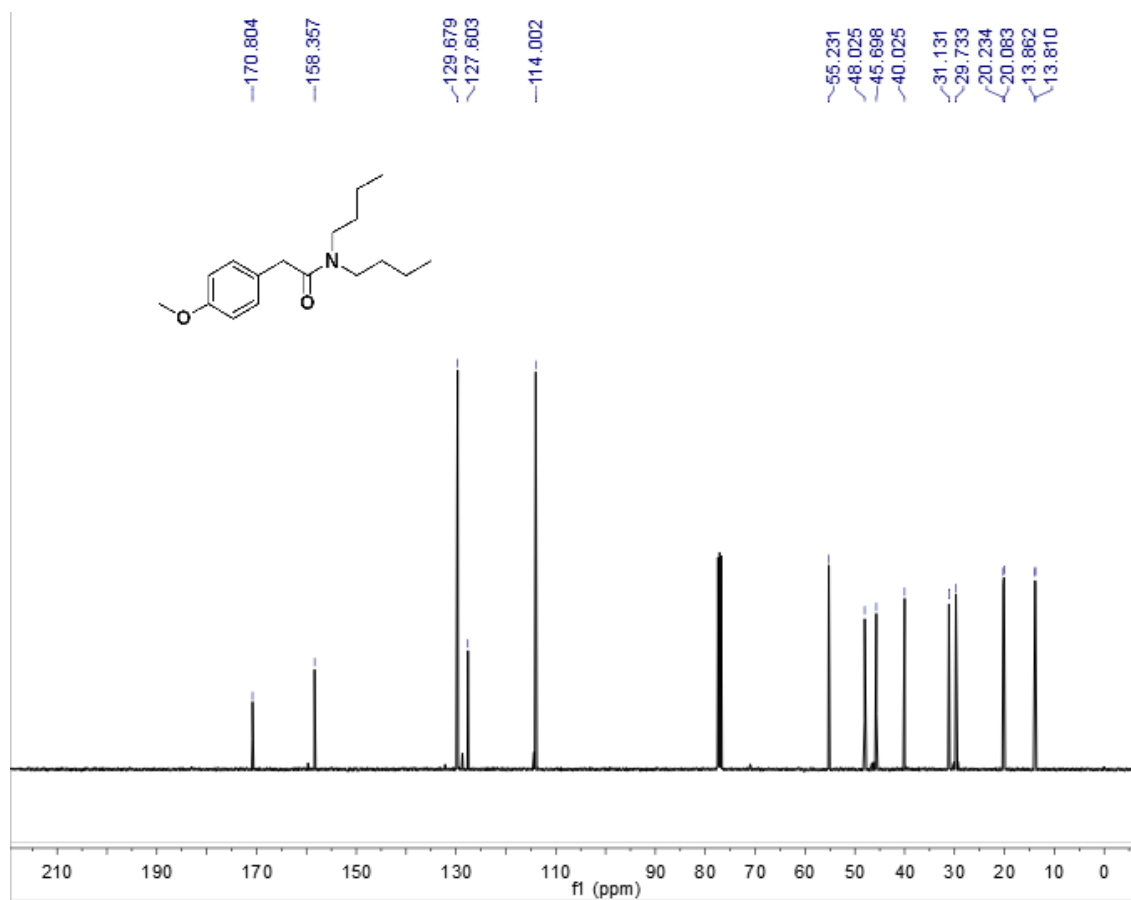
# <sup>13</sup>C NMR spectrum of 3af



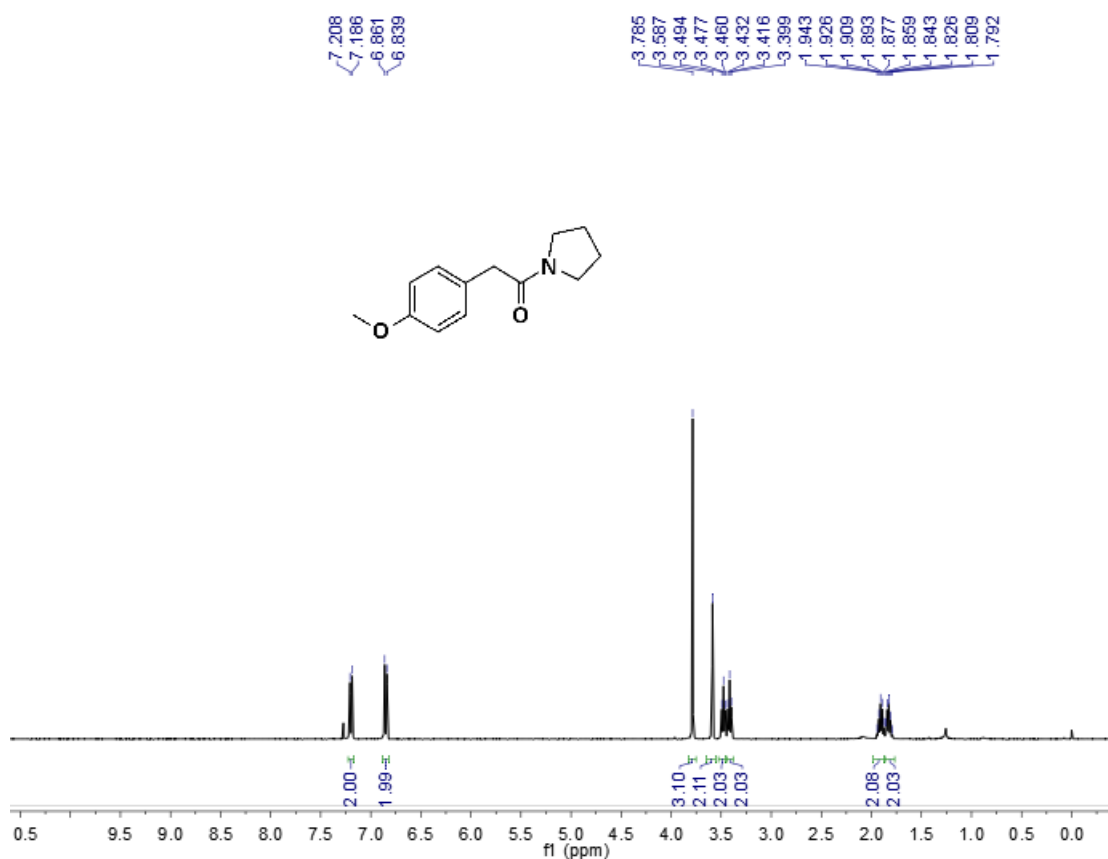
# <sup>1</sup>H NMR spectrum of 3ag



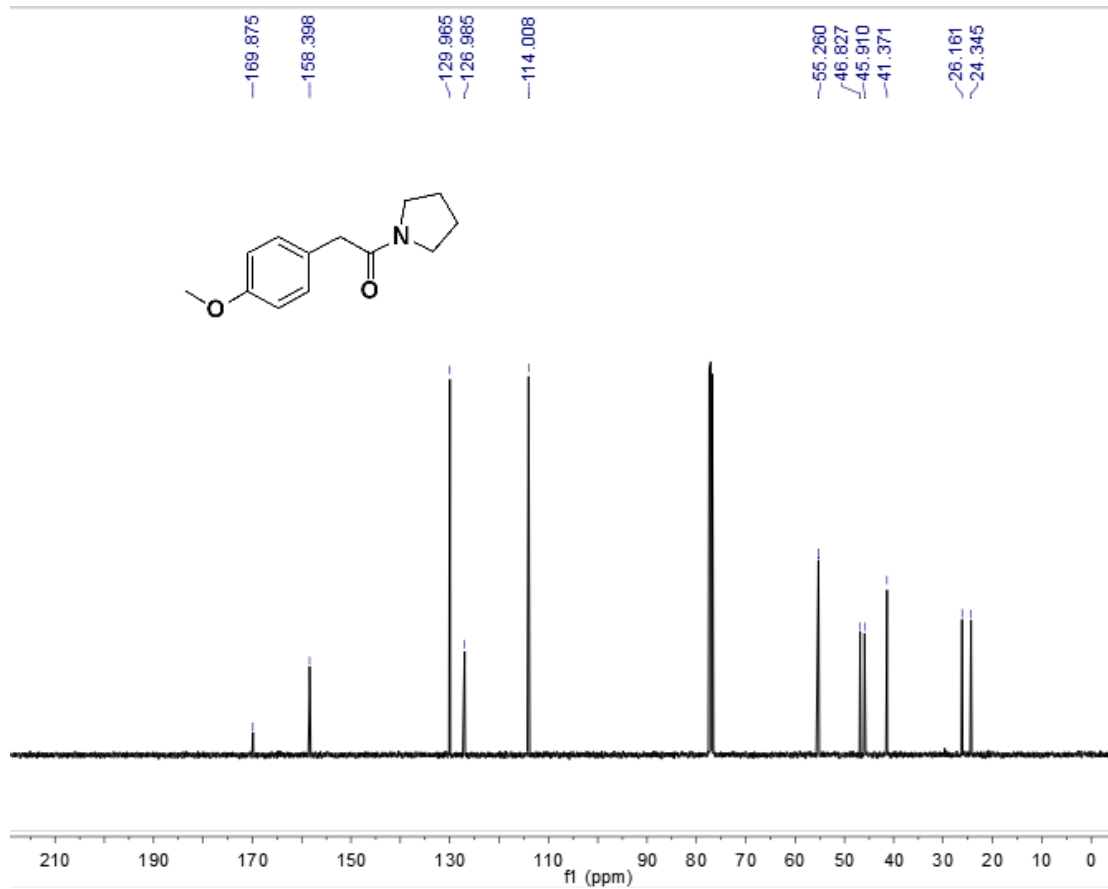
# <sup>13</sup>C NMR spectrum of 3ag



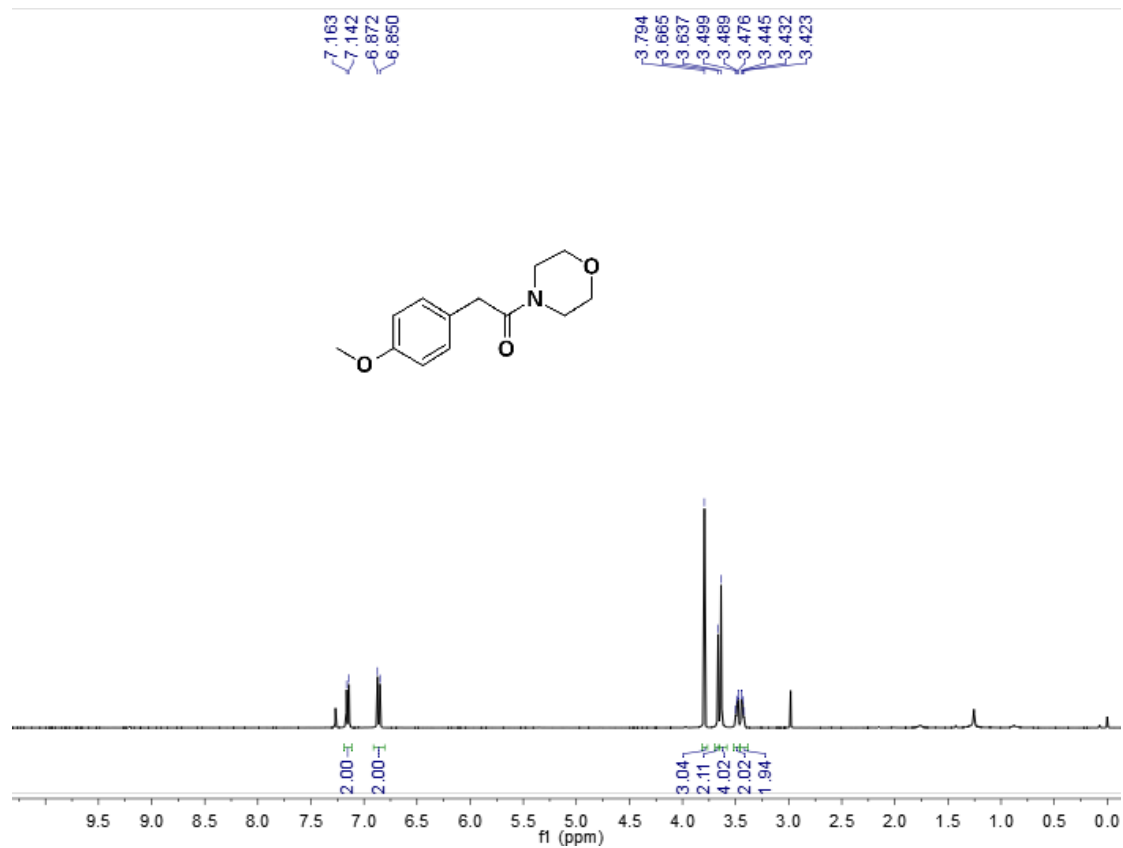
# <sup>1</sup>H NMR spectrum of 3ah



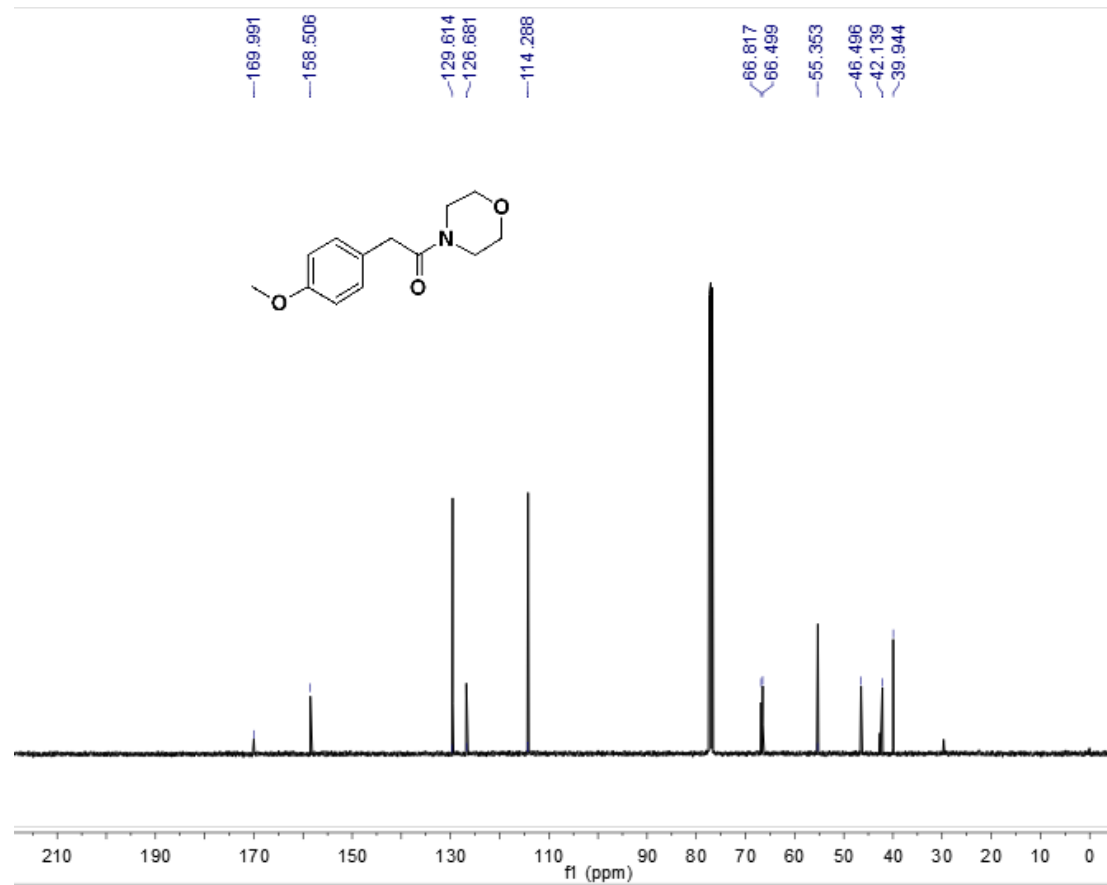
# <sup>13</sup>C NMR spectrum of 3ah



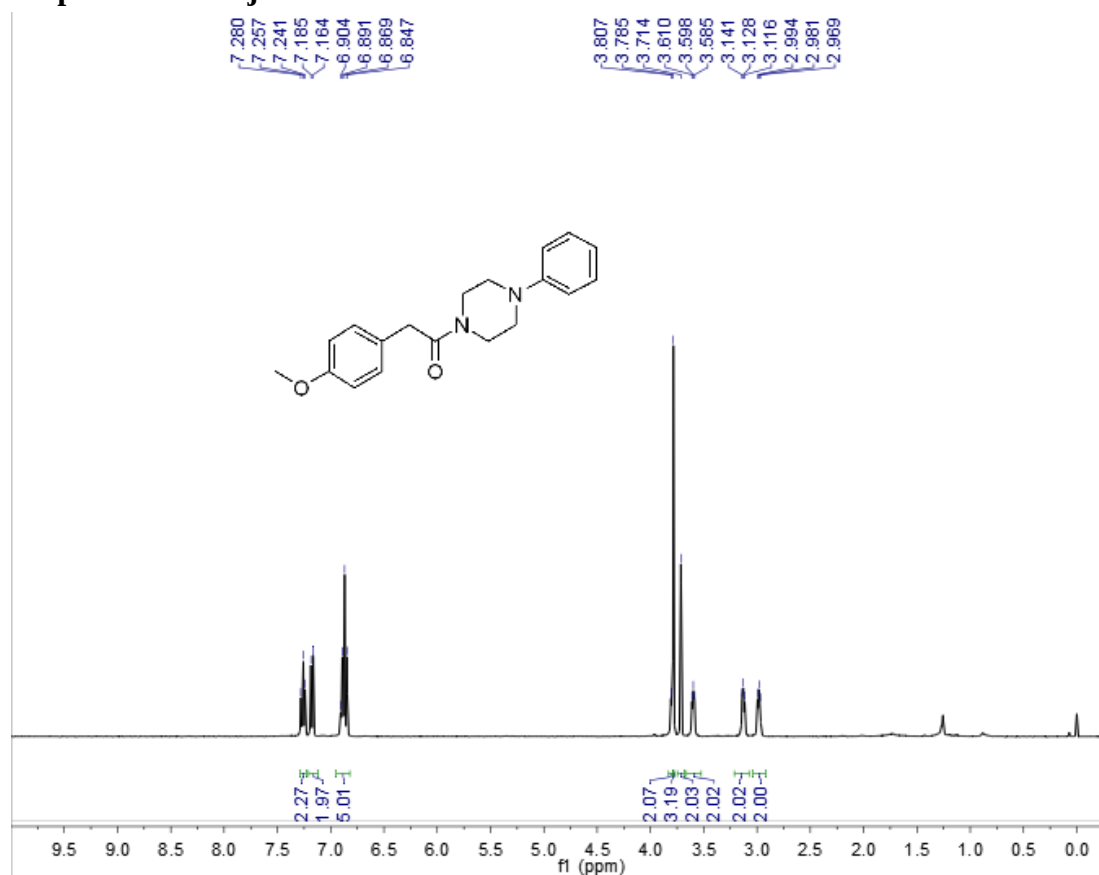
### <sup>1</sup>H NMR spectrum of 3ai



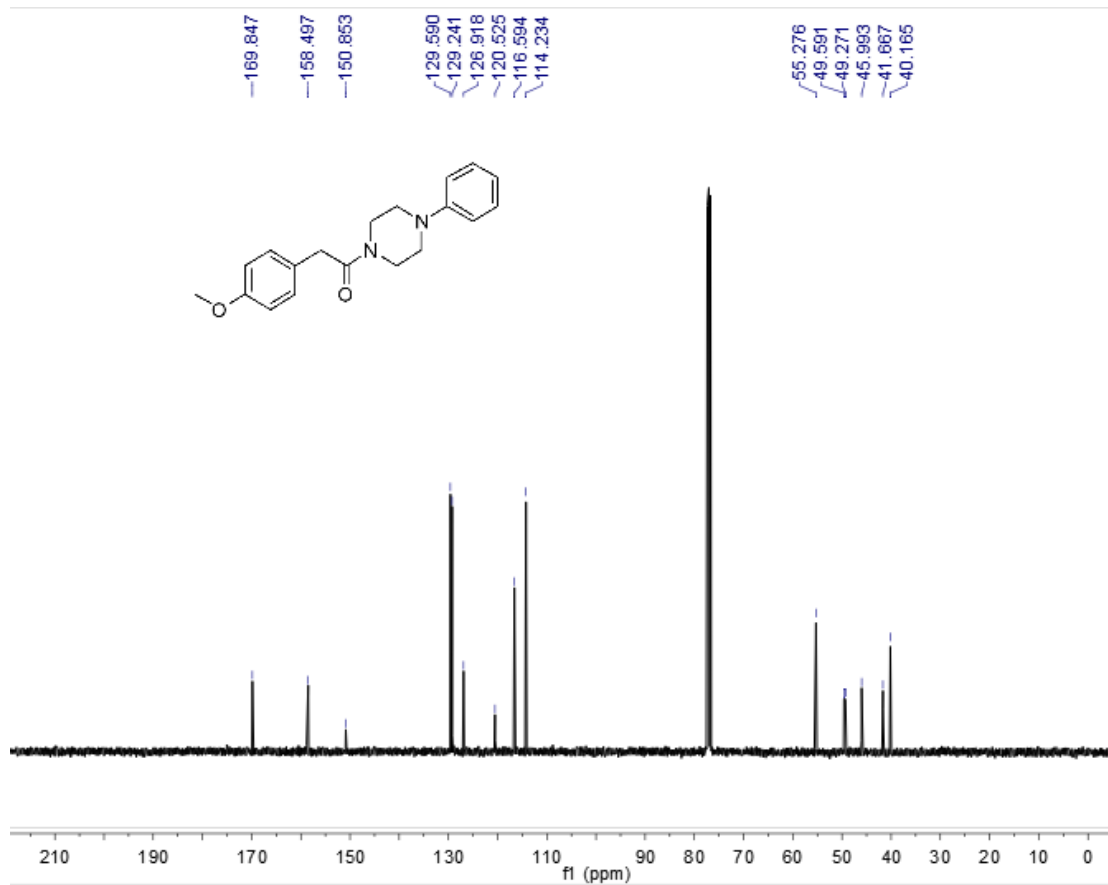
### <sup>13</sup>C NMR spectrum of 3ai



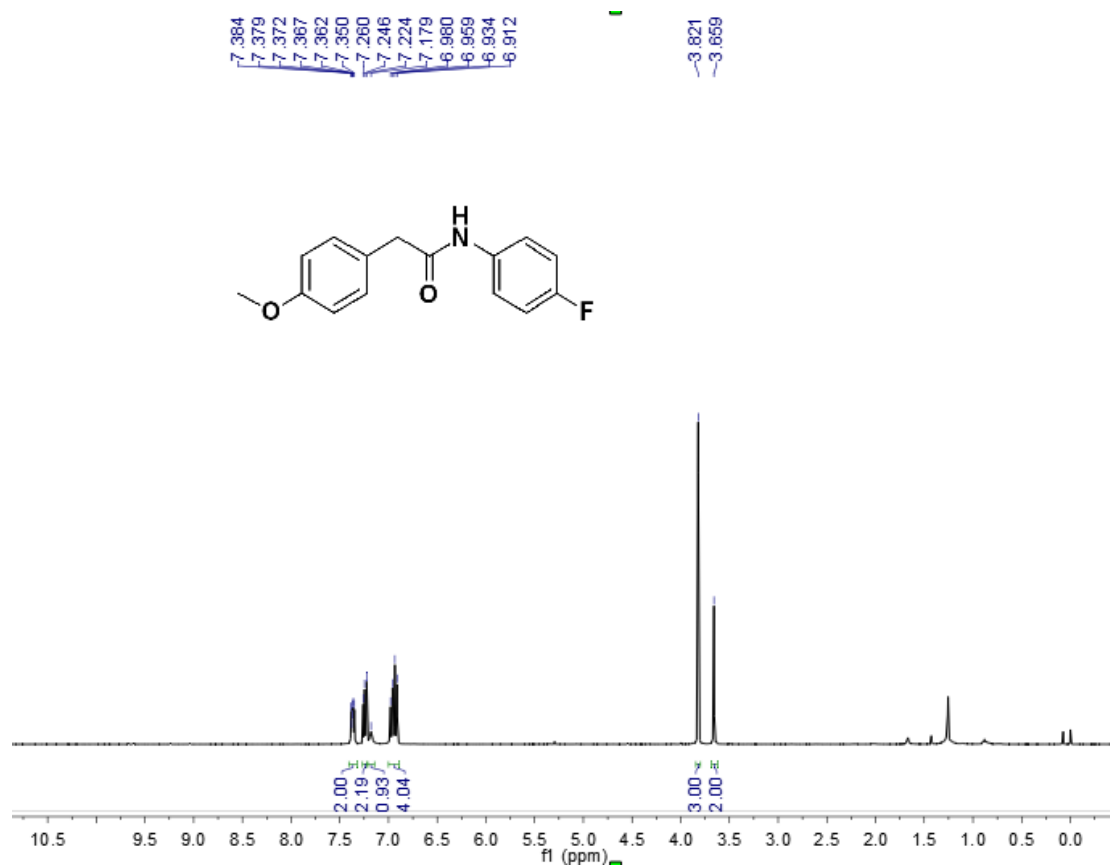
**<sup>1</sup>H NMR spectrum of 3aj**



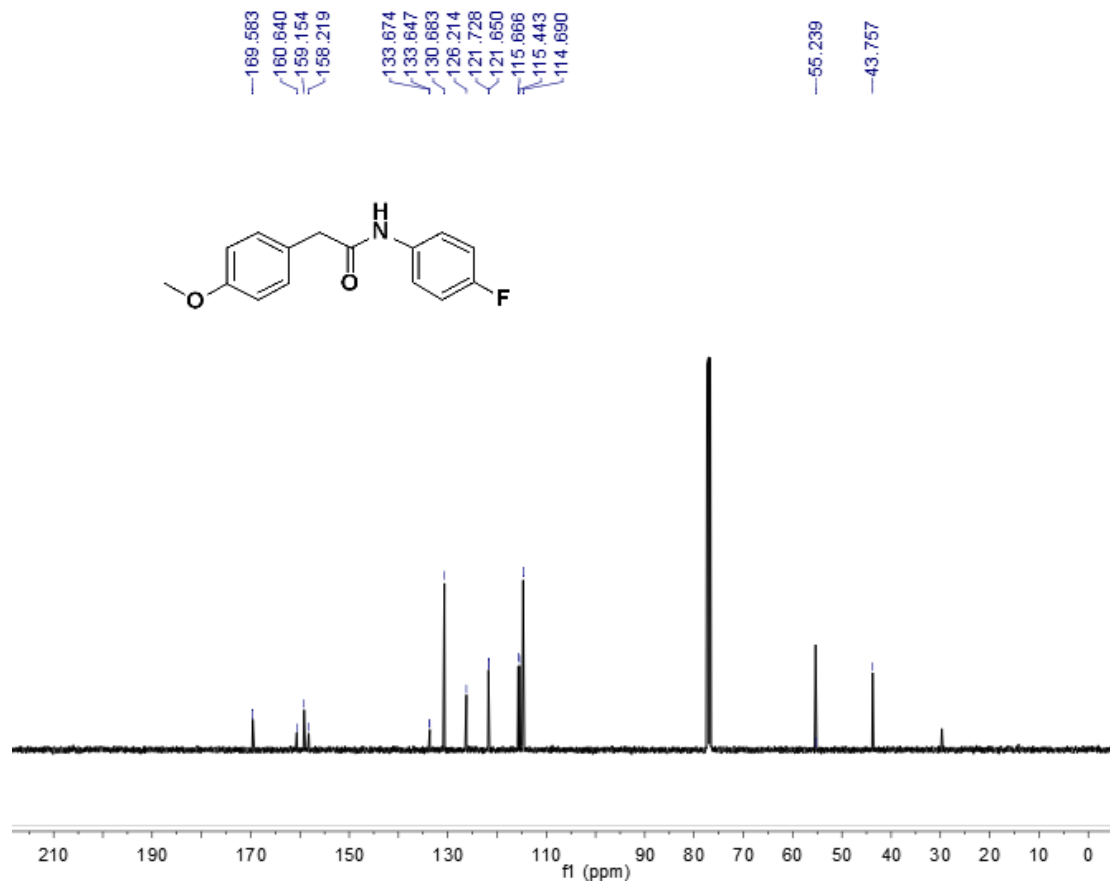
**<sup>13</sup>C NMR spectrum of 3aj**



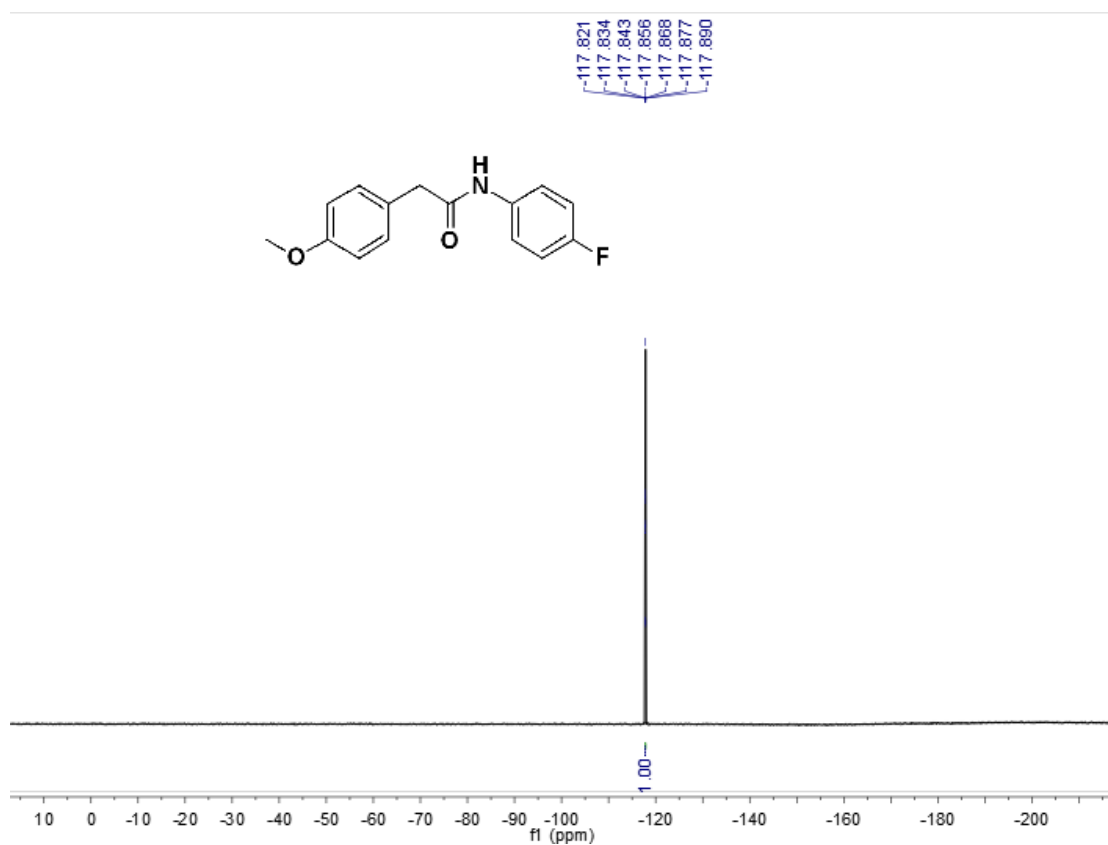
# <sup>1</sup>H NMR spectrum of 3ak



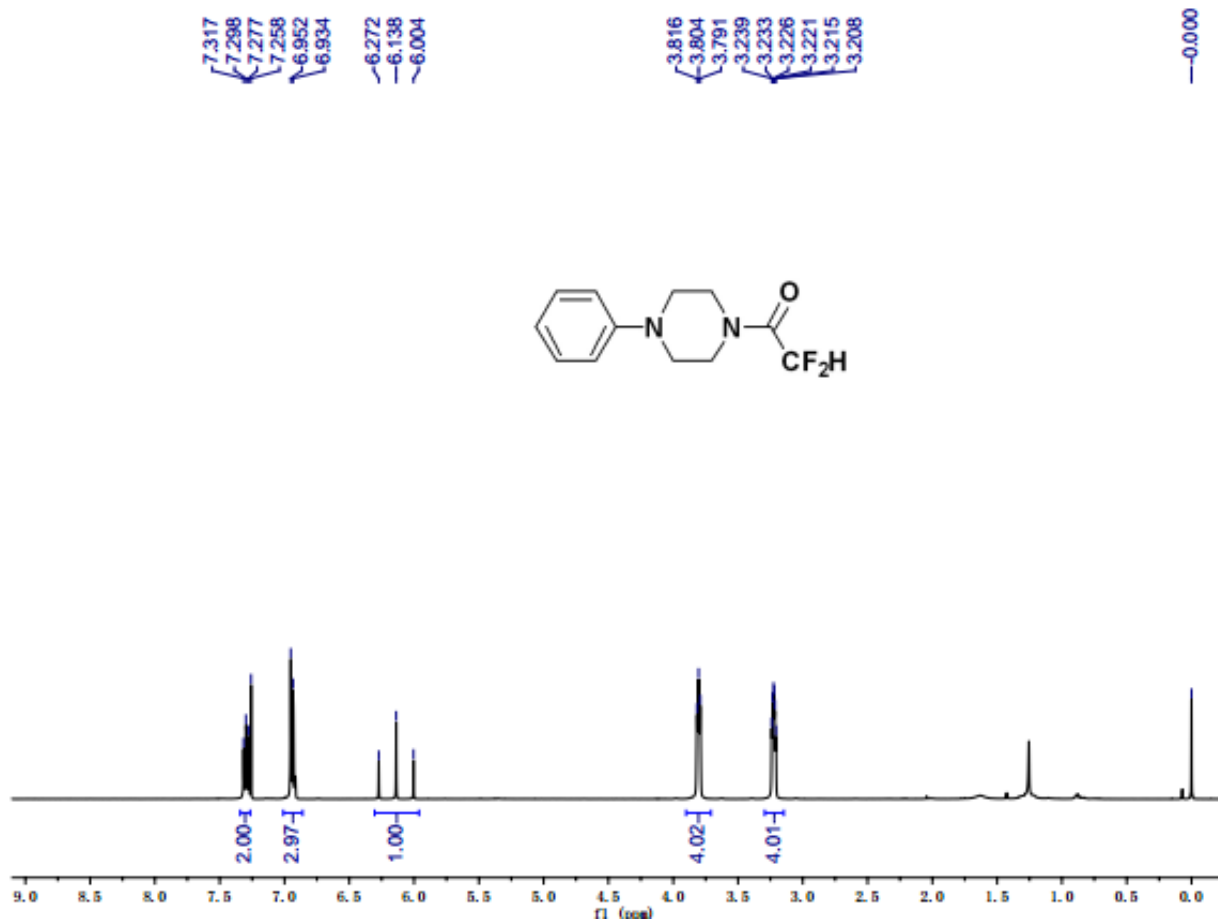
# <sup>13</sup>C NMR spectrum of 3ak



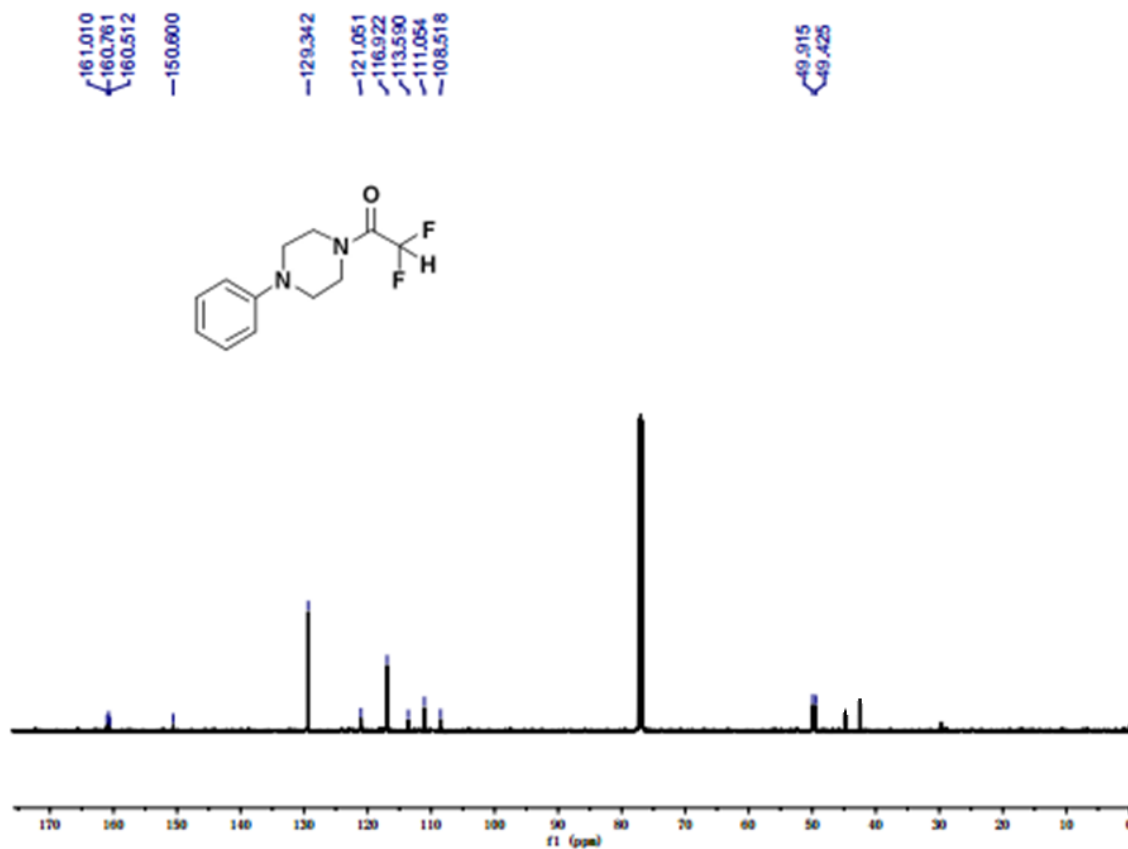
**$^{19}\text{F}$  NMR spectrum of 3ak**



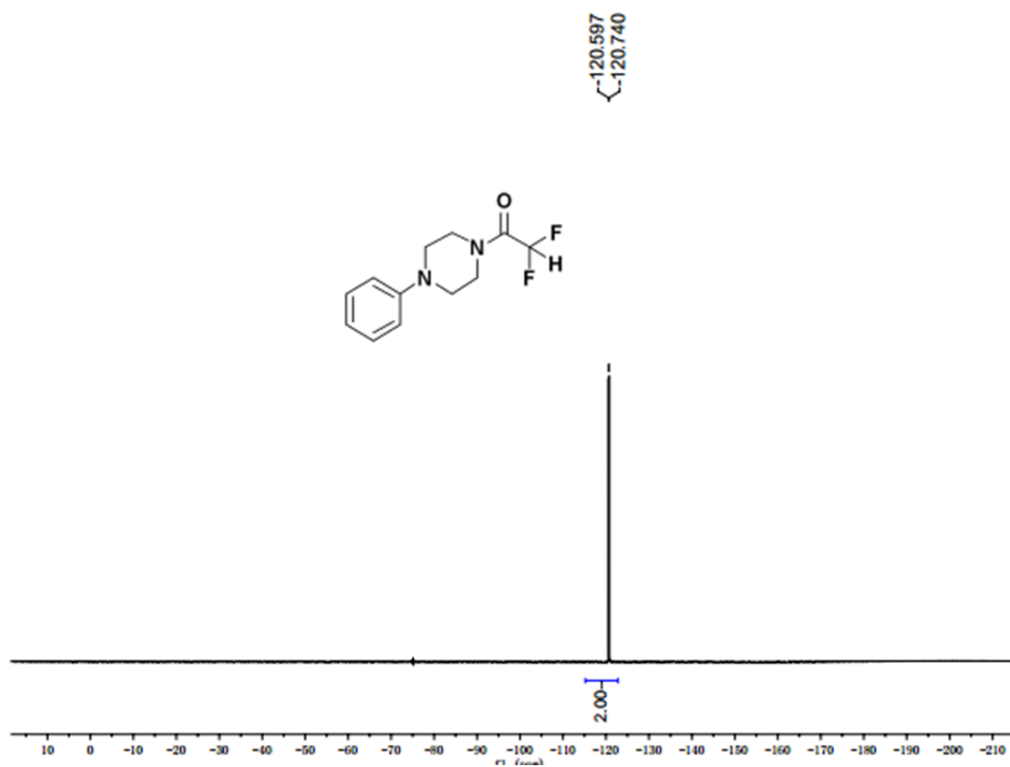
**$^1\text{H}$  NMR spectrum of 4**



<sup>13</sup>C NMR spectrum of 4



<sup>19</sup>F NMR spectrum of 4



<sup>1</sup>H NMR spectrum of 3fa'

