

## Supporting Information

### Synthesis of artemisinic acid derived glycoconjugates and their anticancer studies

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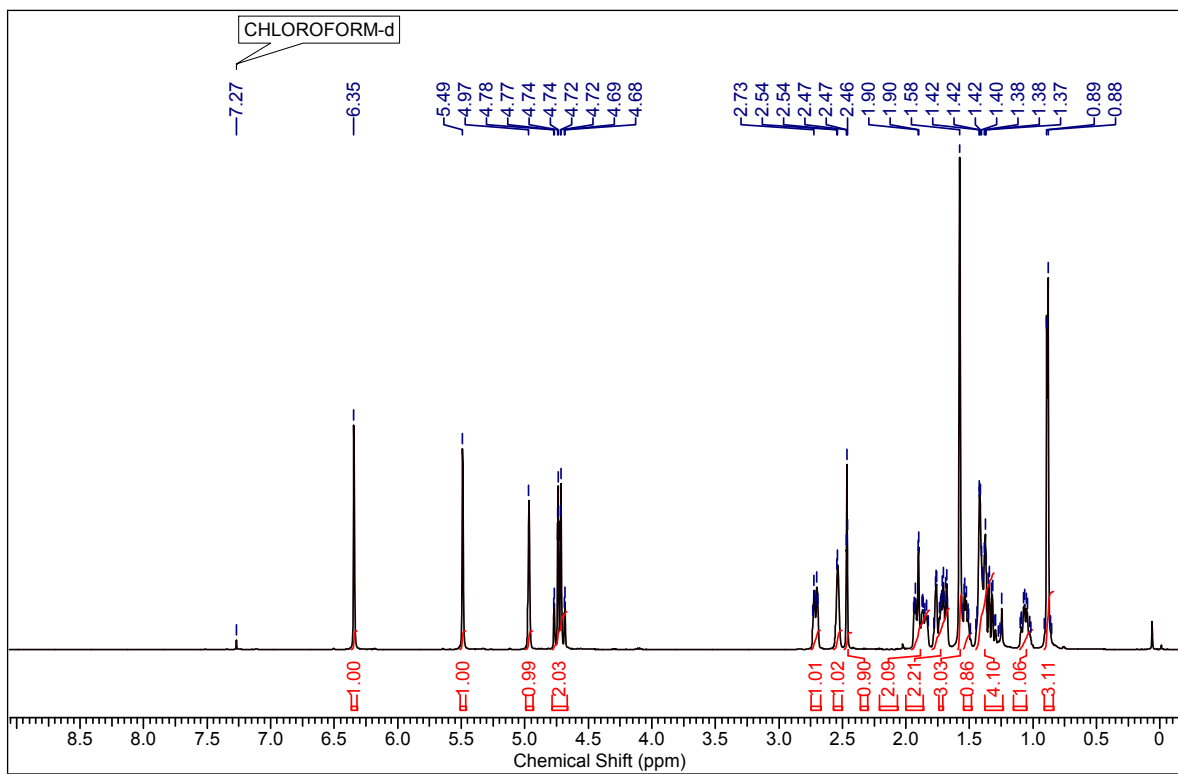
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<sup>c</sup>Cancer Biology Division, National Centre for Cell Sciences,  
Ganeshkhind Road, Pune-411 007, India

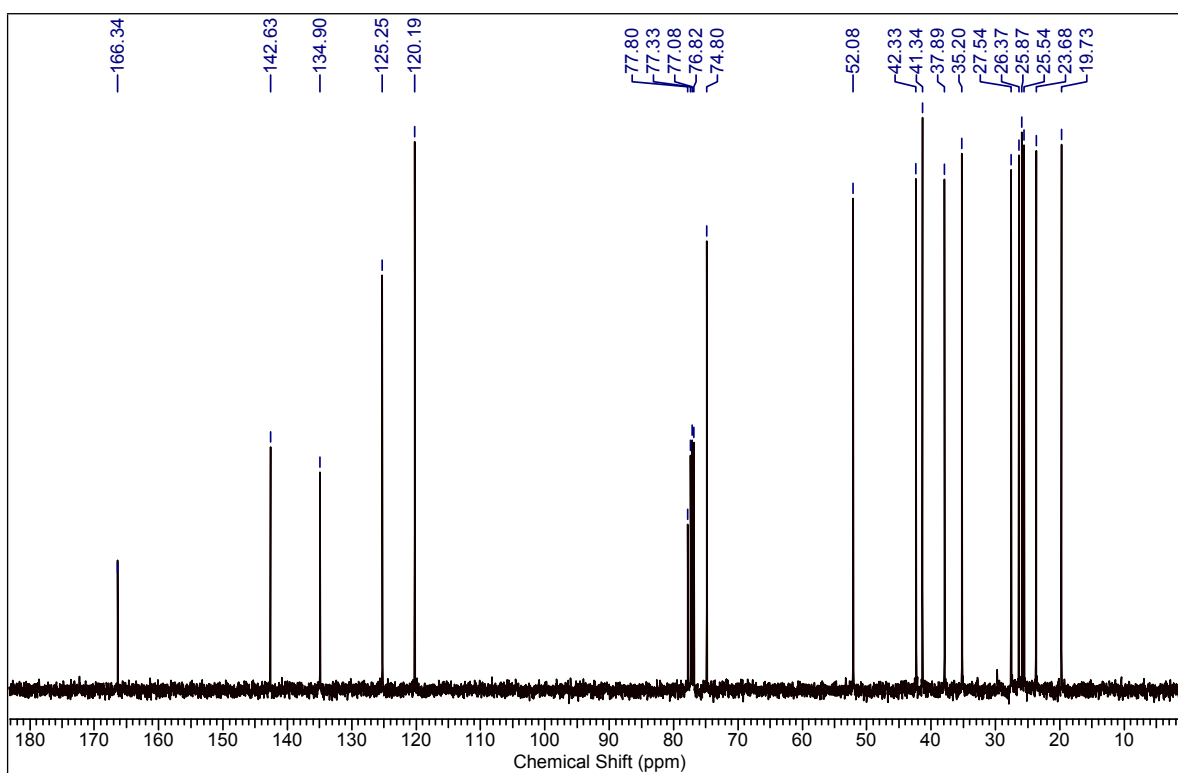
#### Contents:

<sup>1</sup>H, <sup>13</sup>C NMR and HRMS spectra of all the synthesized compounds

**Spectra**  
**<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) of compound 4**

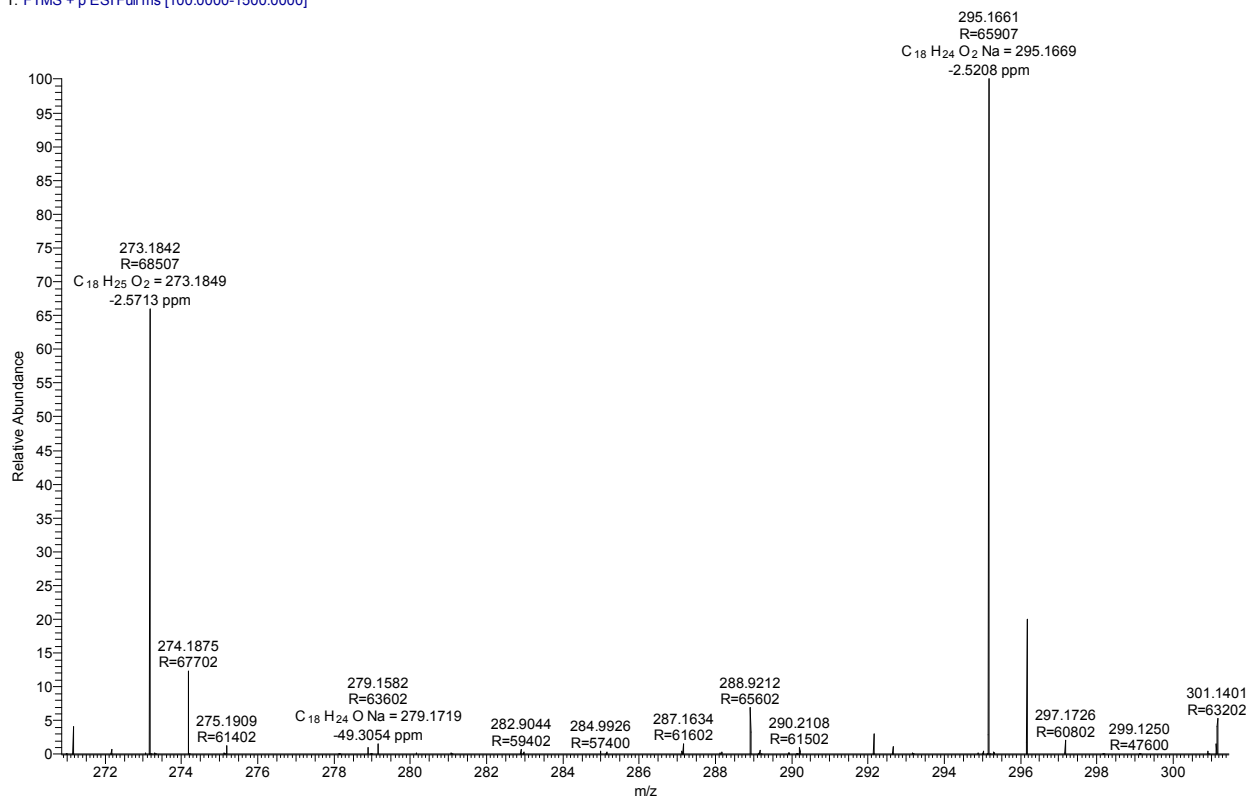


**<sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of compound 4**

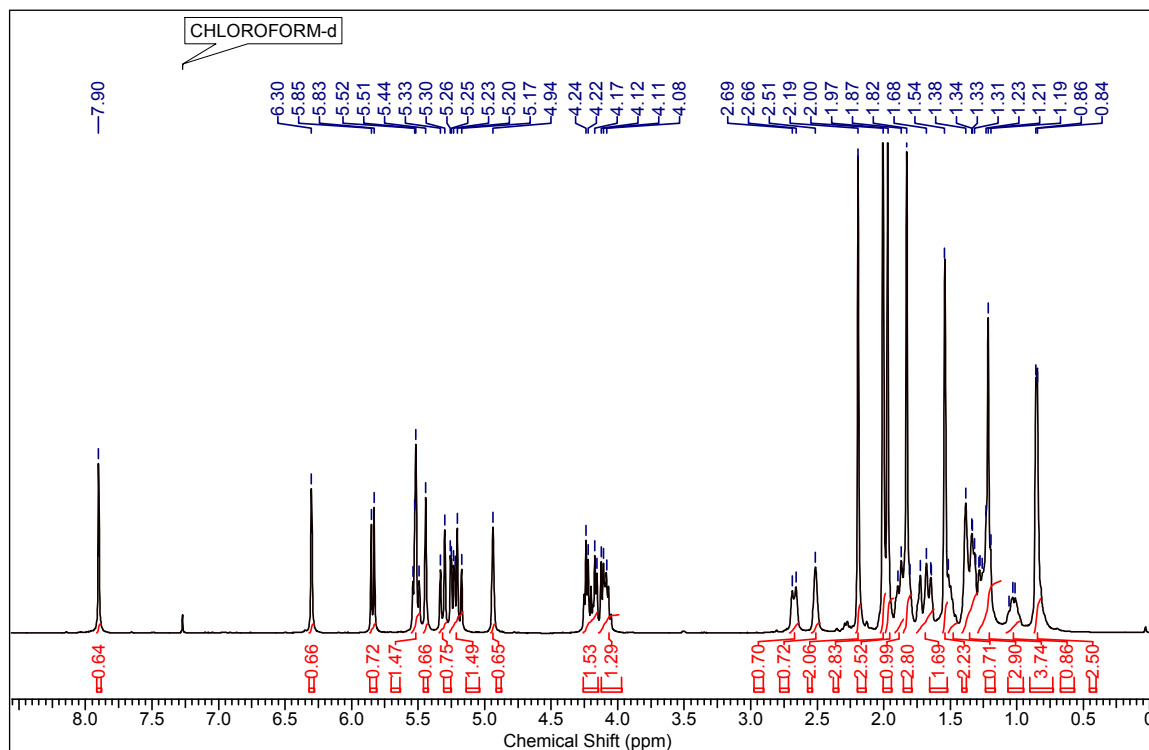


# HRMS of 4

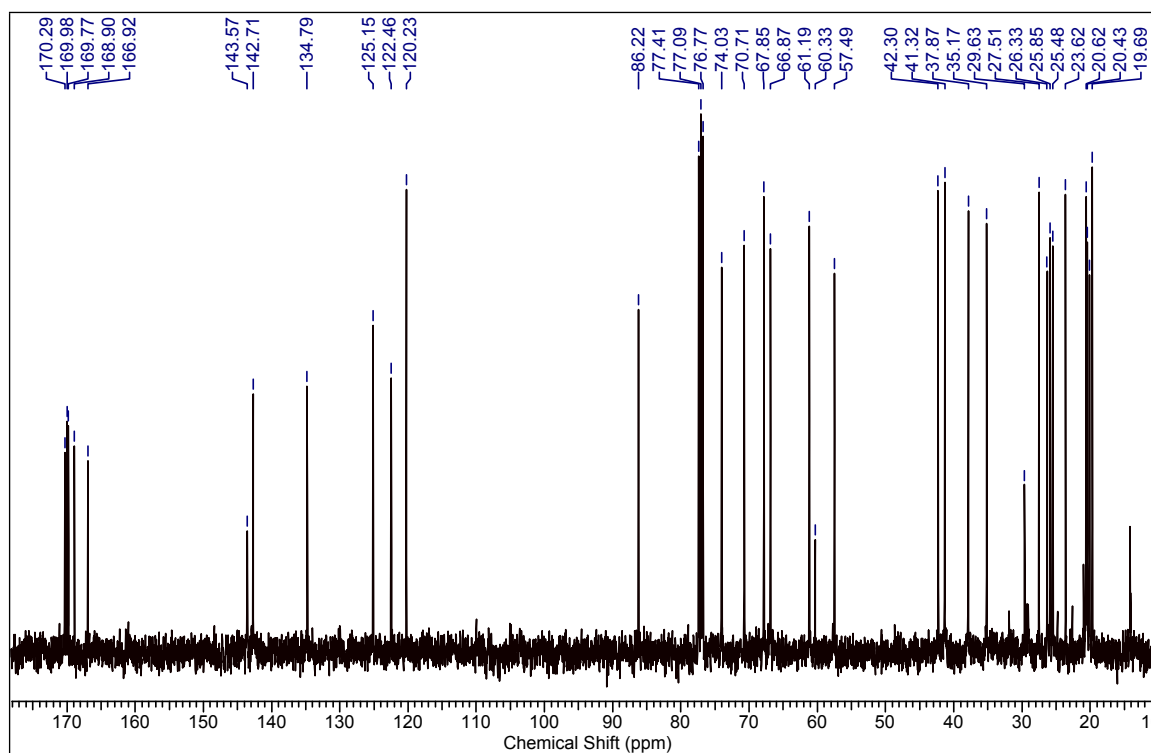
AA-1\_171124161135#367 RT: 1.64 AV: 1 NL: 9.62E7  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



# <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 7a

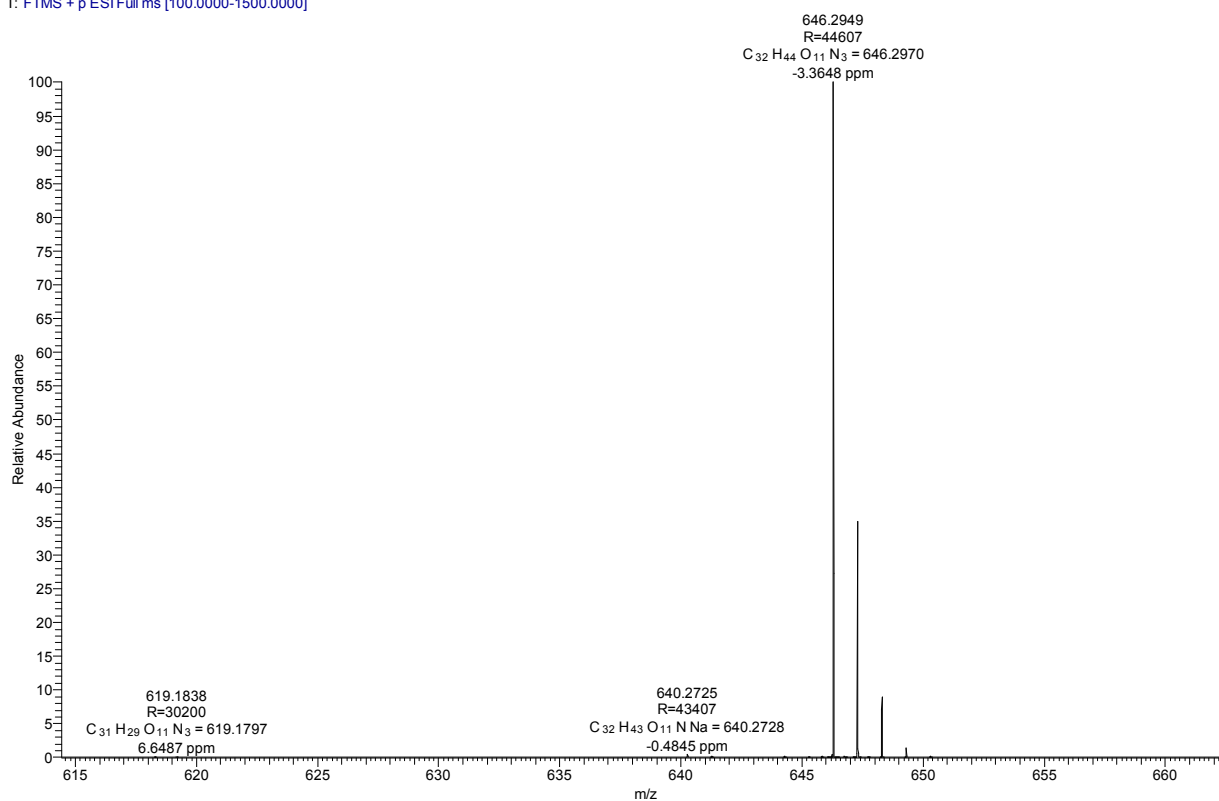


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 7a

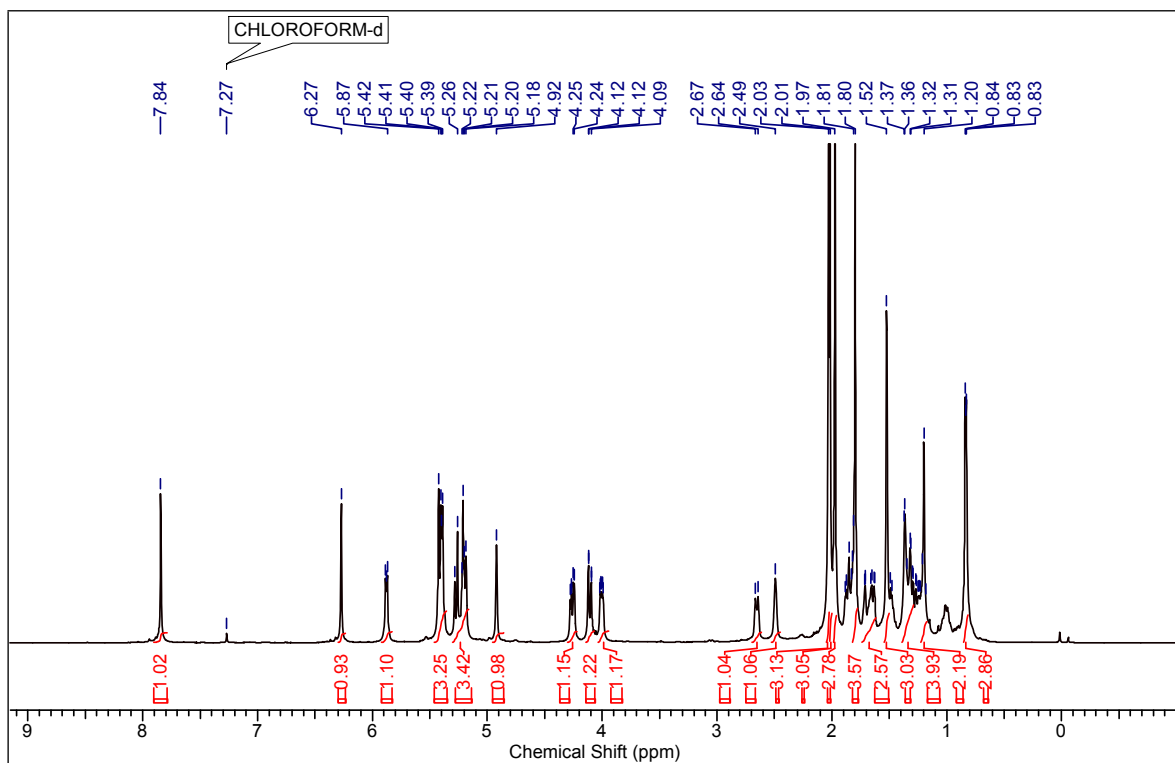


### HRMS of 7a

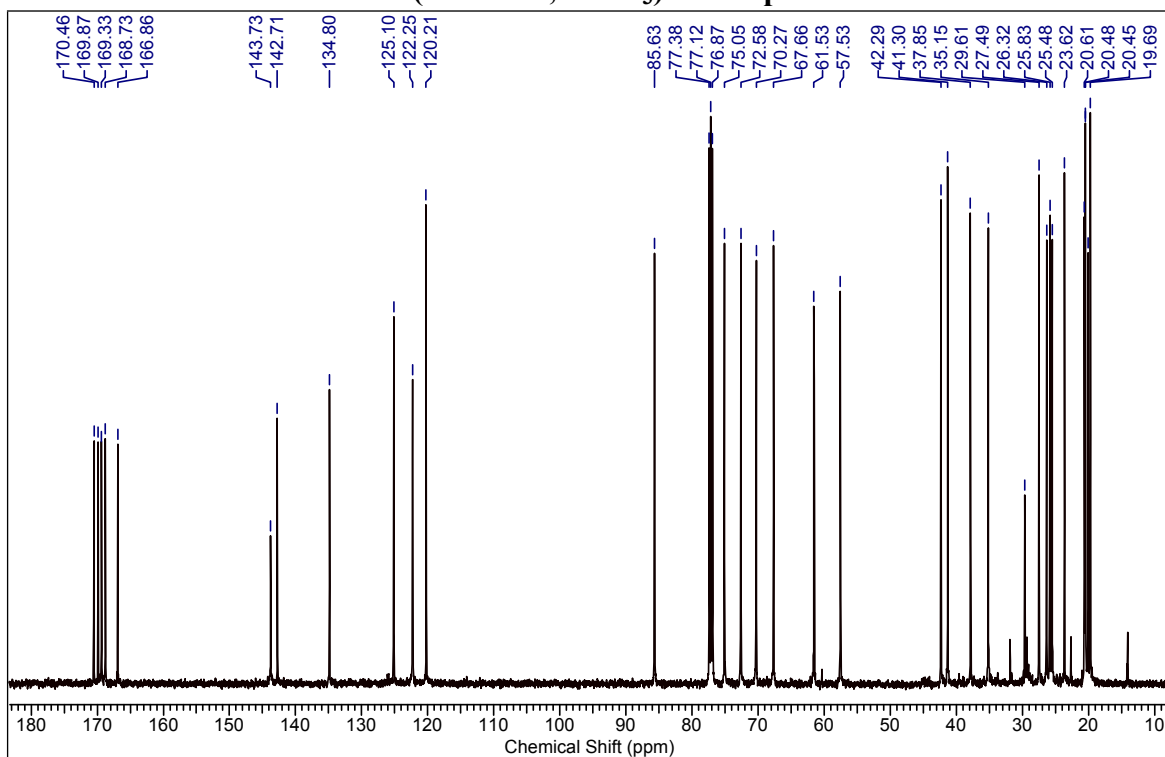
AA-2\_171124165538 #303 RT: 1.35 AV: 1 NL: 3.34E9  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



### <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) of compound 7b

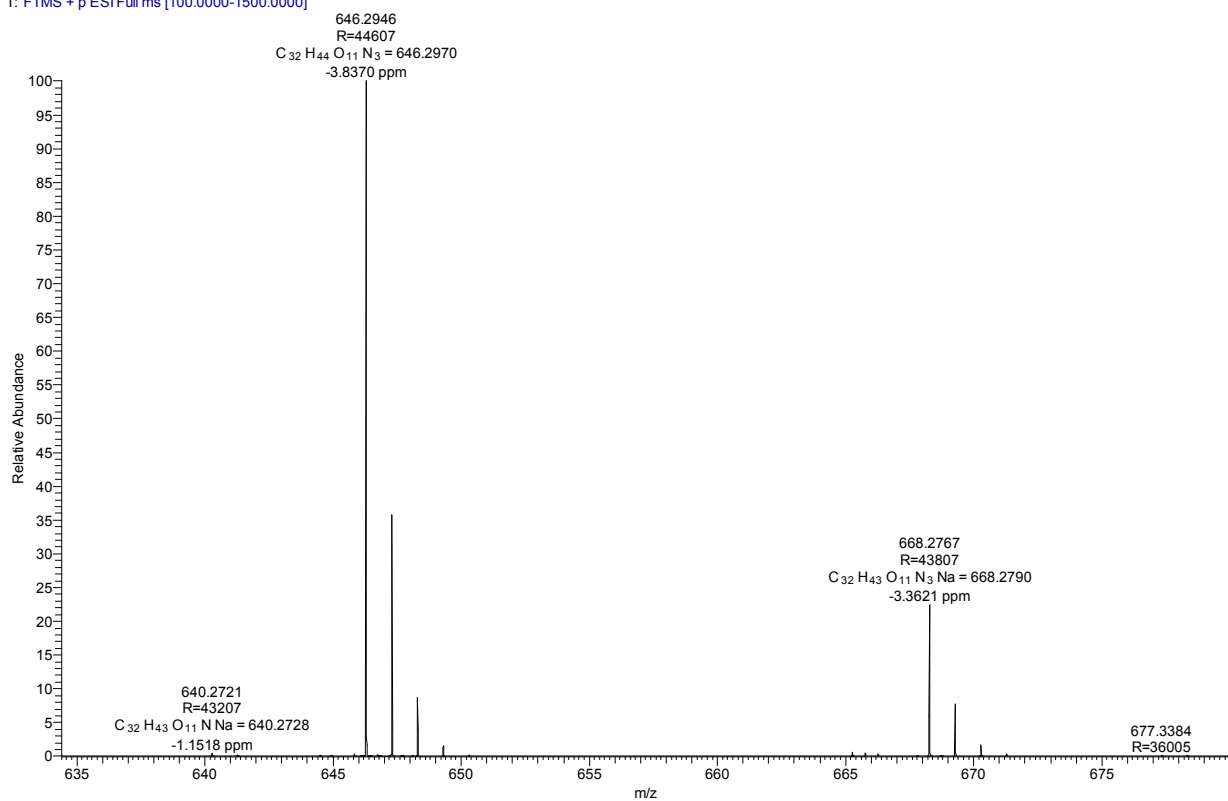


### <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of compound 7b

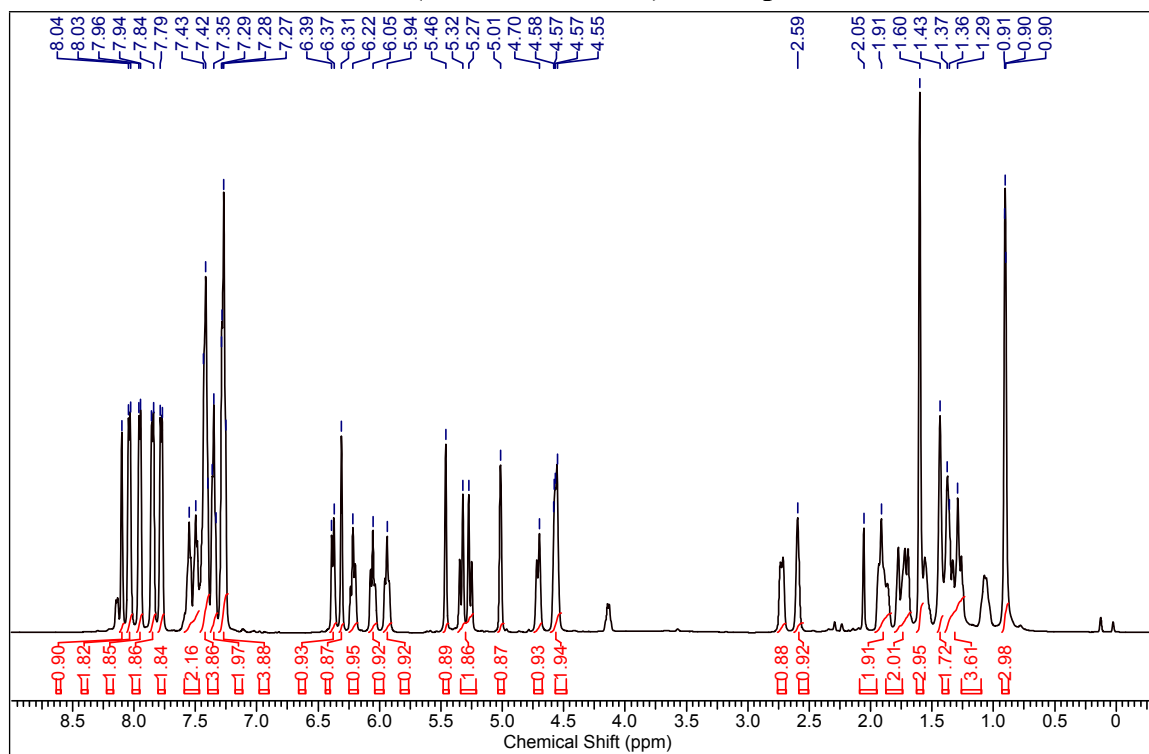


## HRMS of 7b

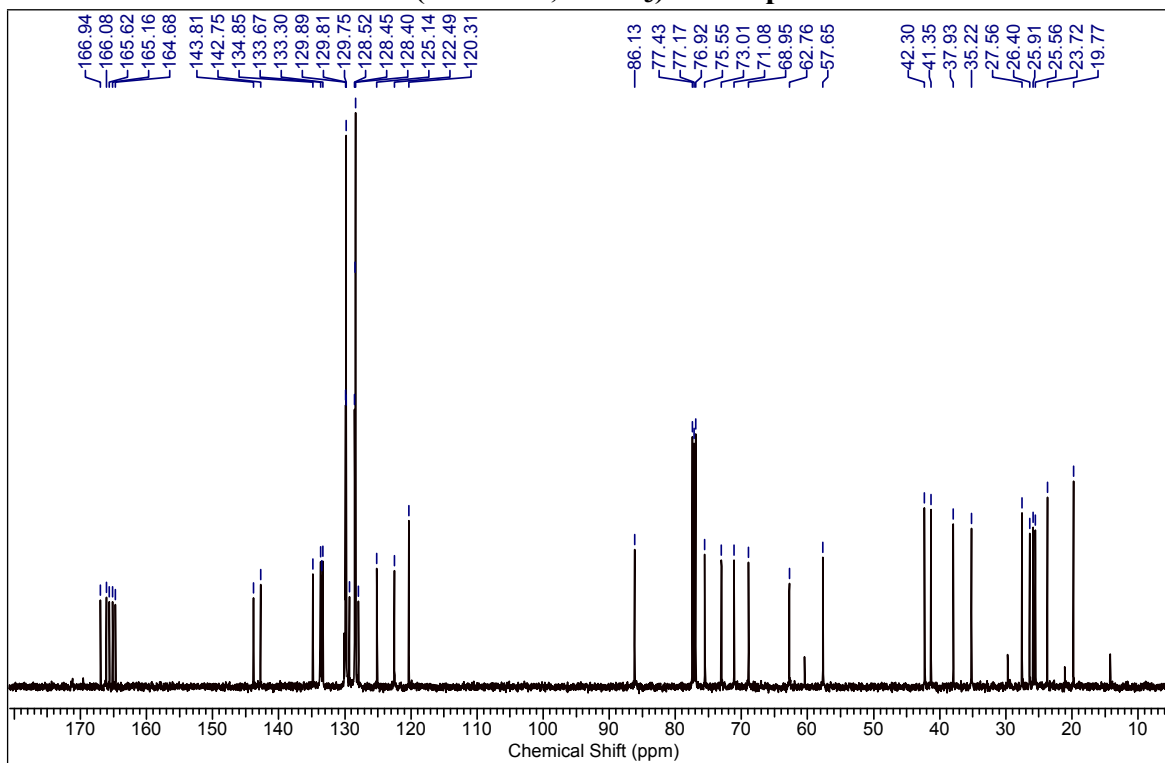
AA-3 #305 RT: 1.36 AV: 1 NL: 3.05E9  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



## <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 7c

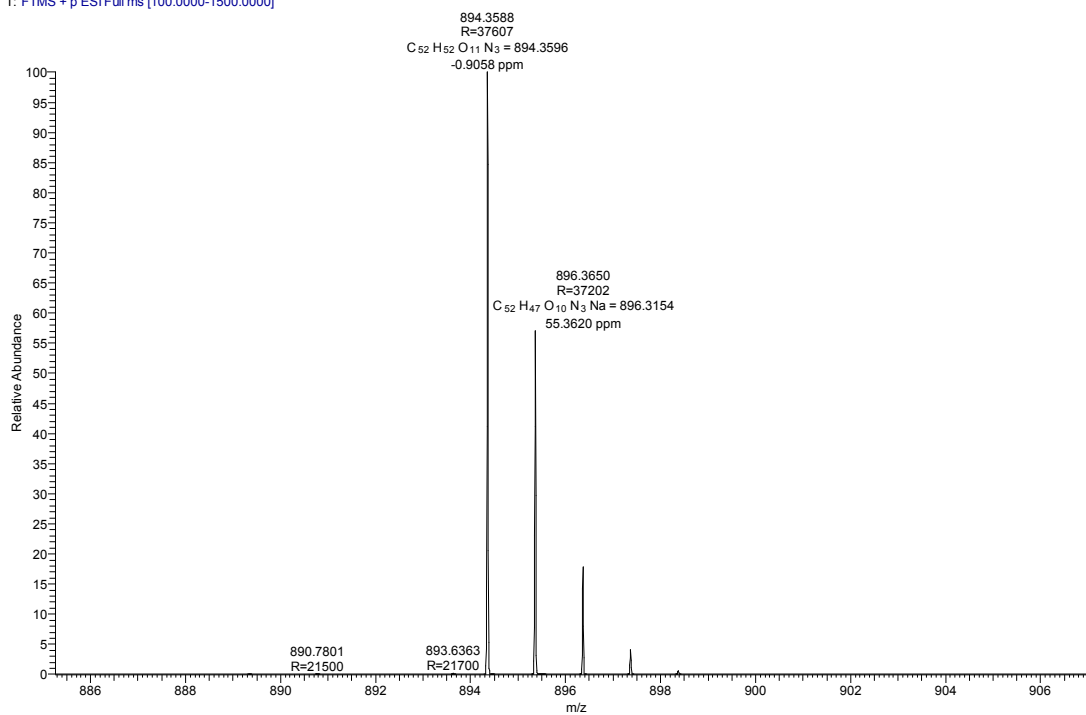


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 7c

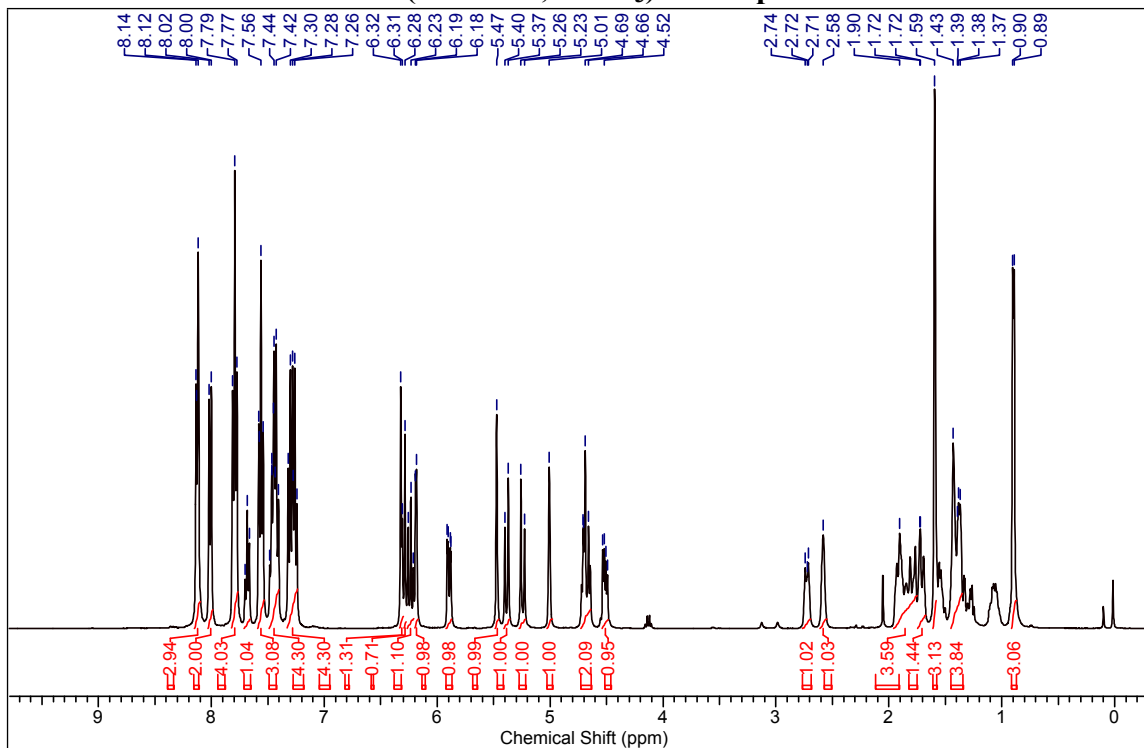


### HRMS of 7c

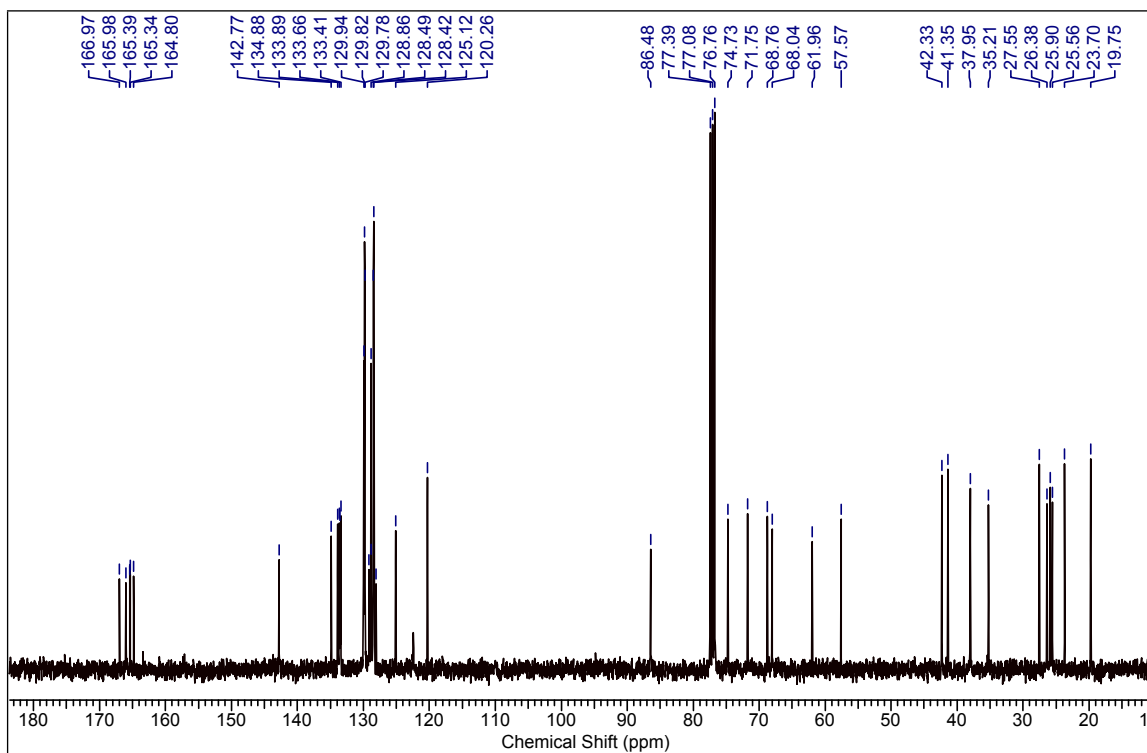
AA-5 #430 RT: 1.92 AV: 1 NL: 2.95E7  
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**<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 7d**



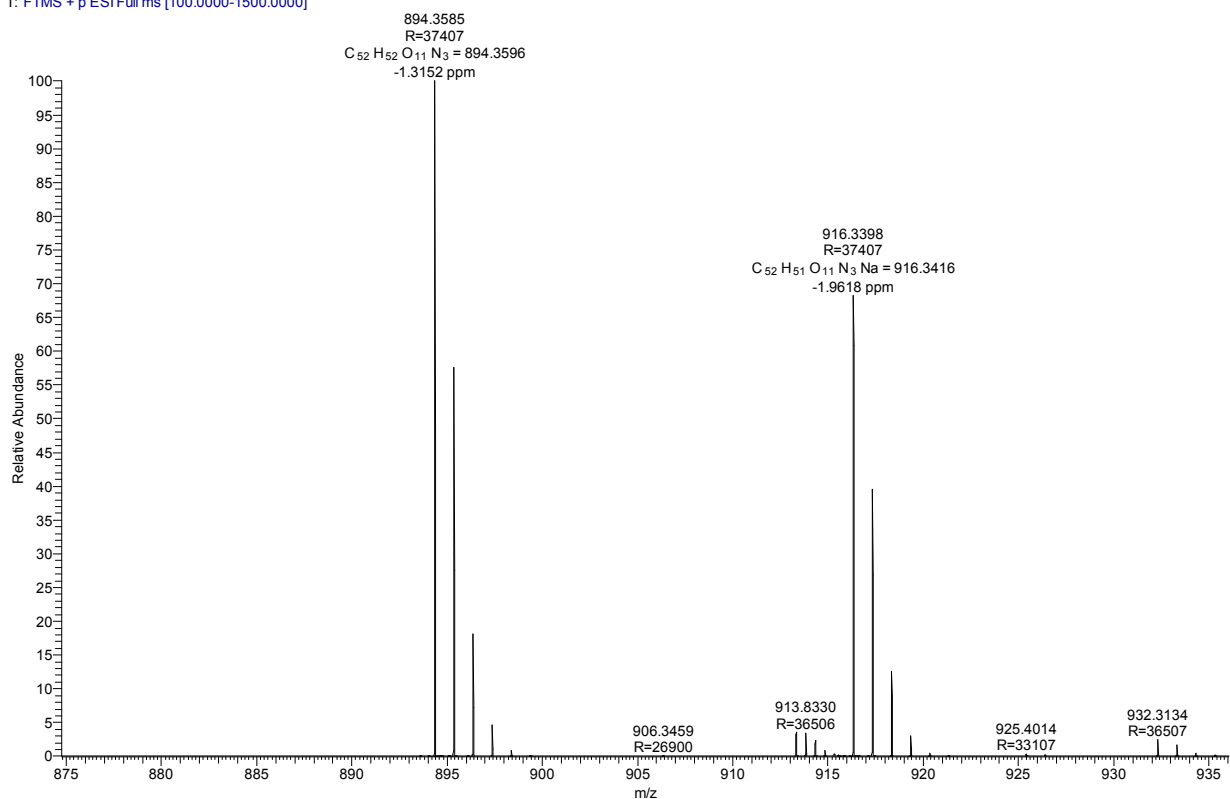
**<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 7d**



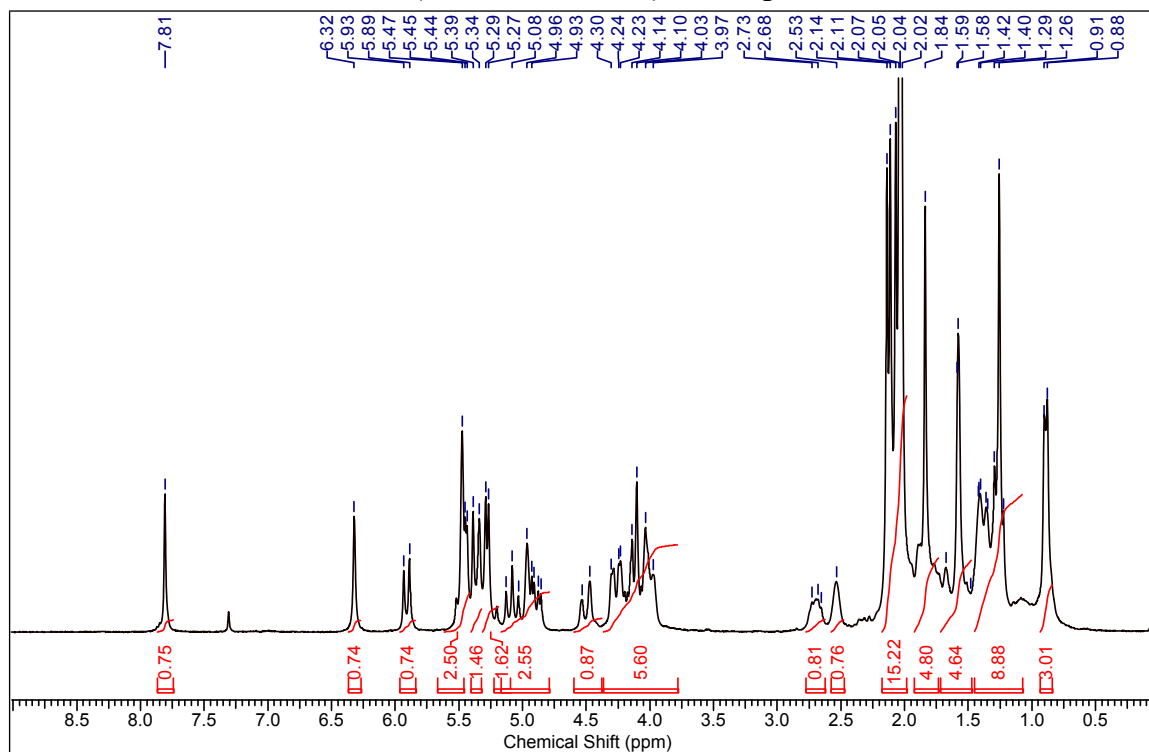


# HRMS of 7d

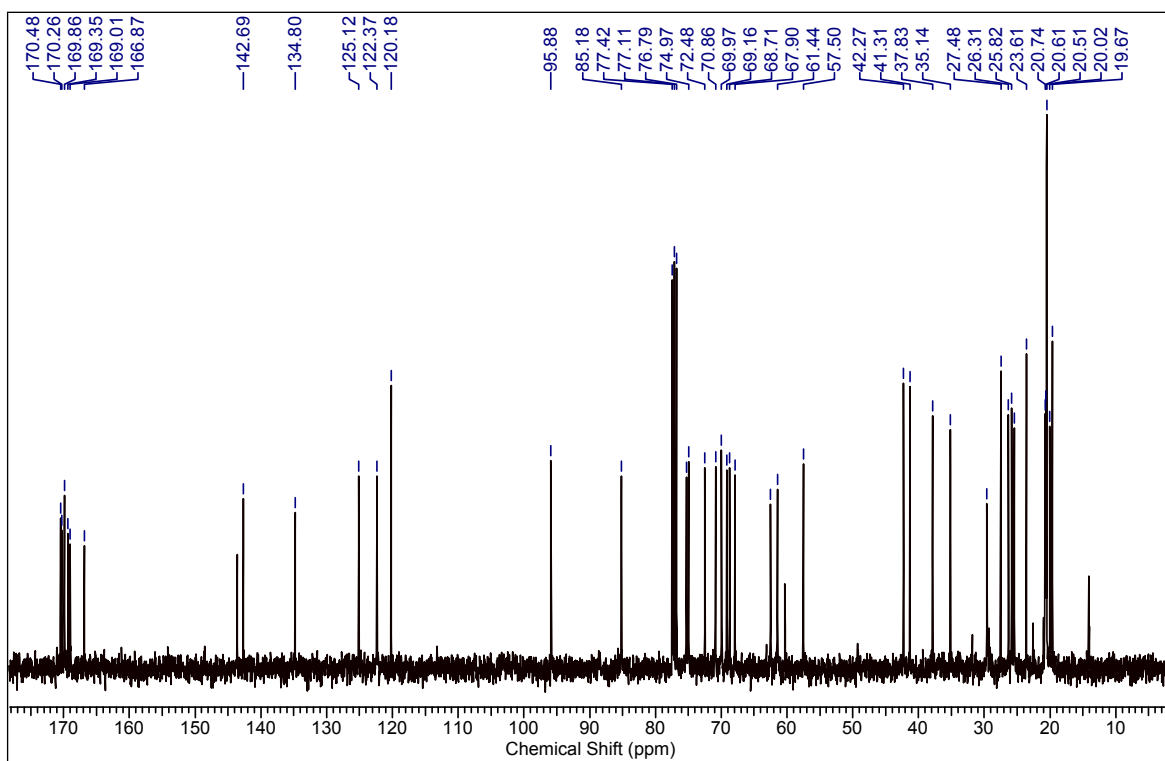
AA-6 #432 RT: 1.93 AV: 1 NL: 1.40E8  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



# <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 7e

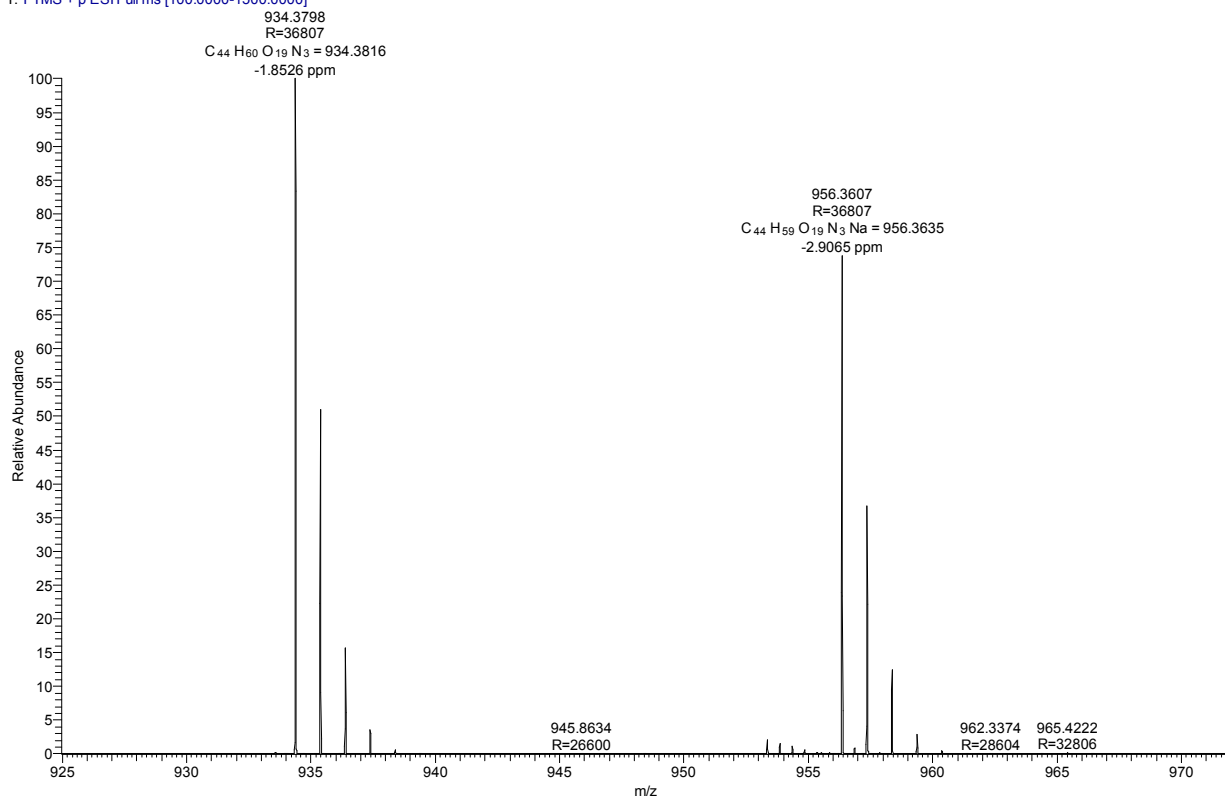


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 7e

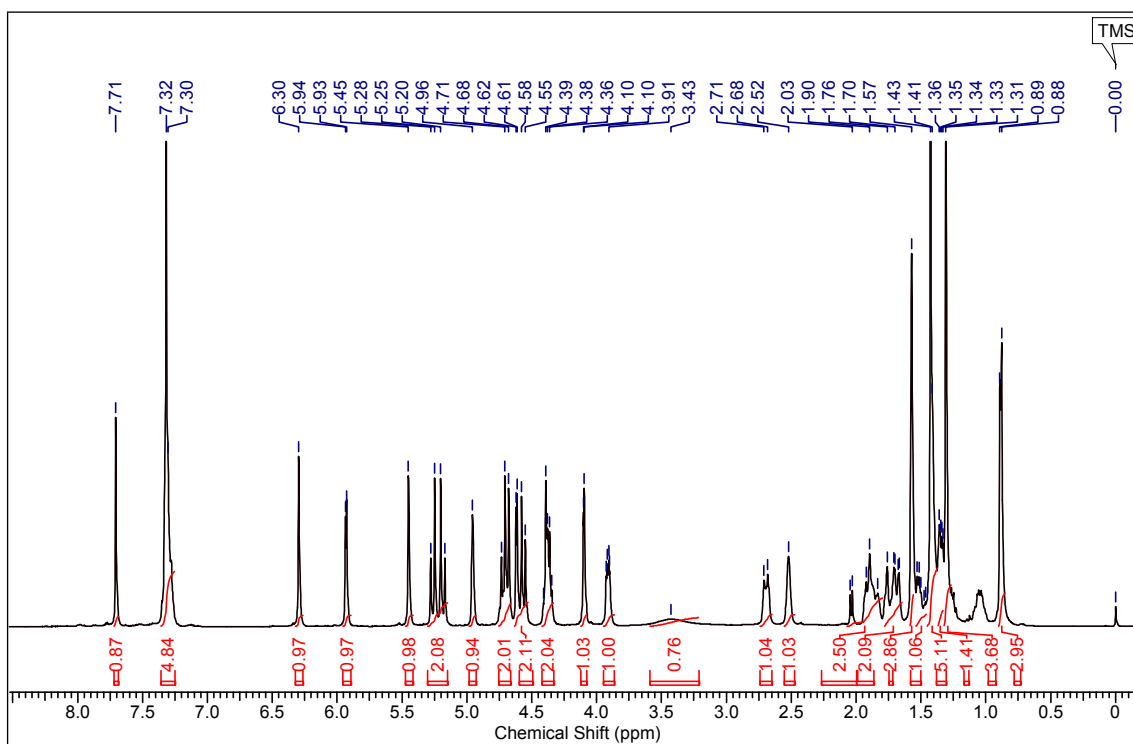


### HRMS of 7e

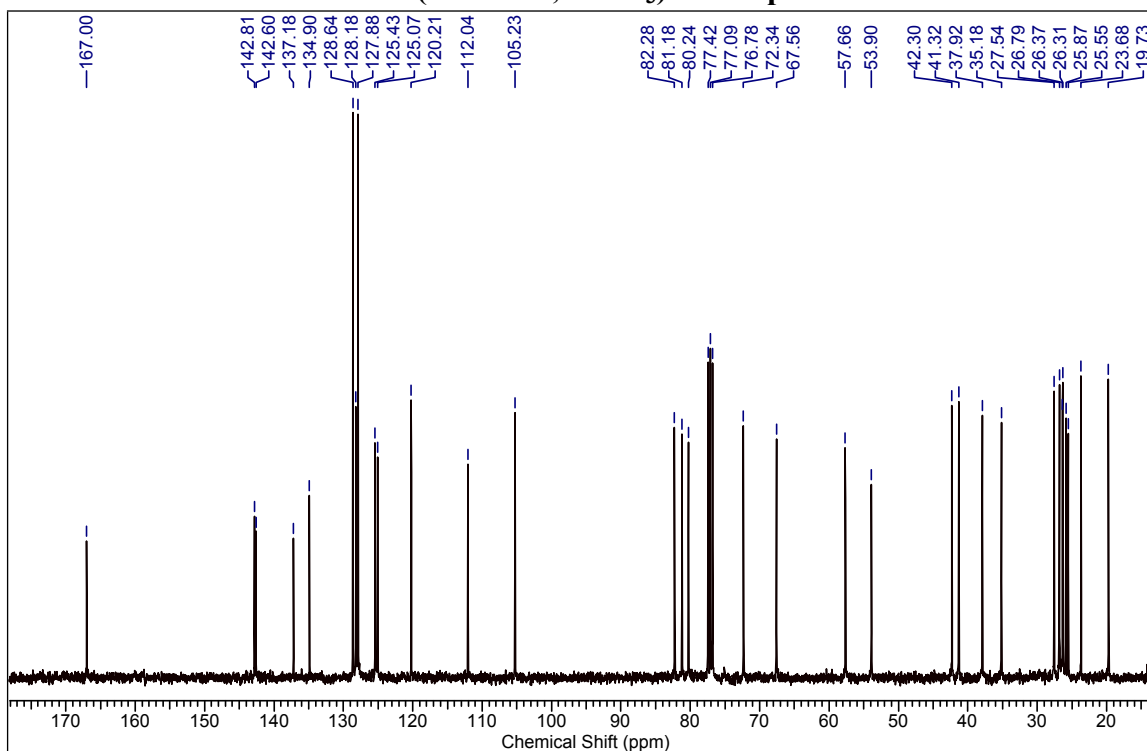
AA-4 #311 RT: 1.38 AV: 1 NL: 9.29E8  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



### <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 7f

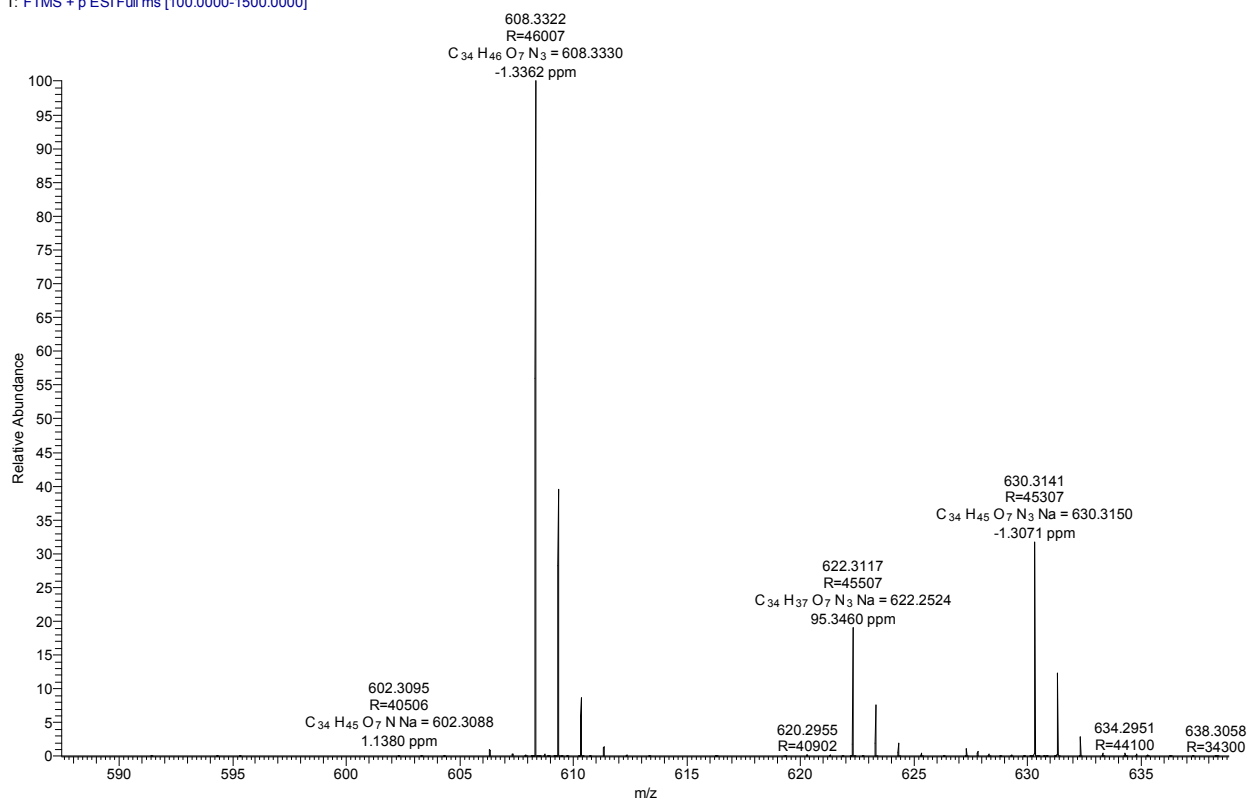


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 7f

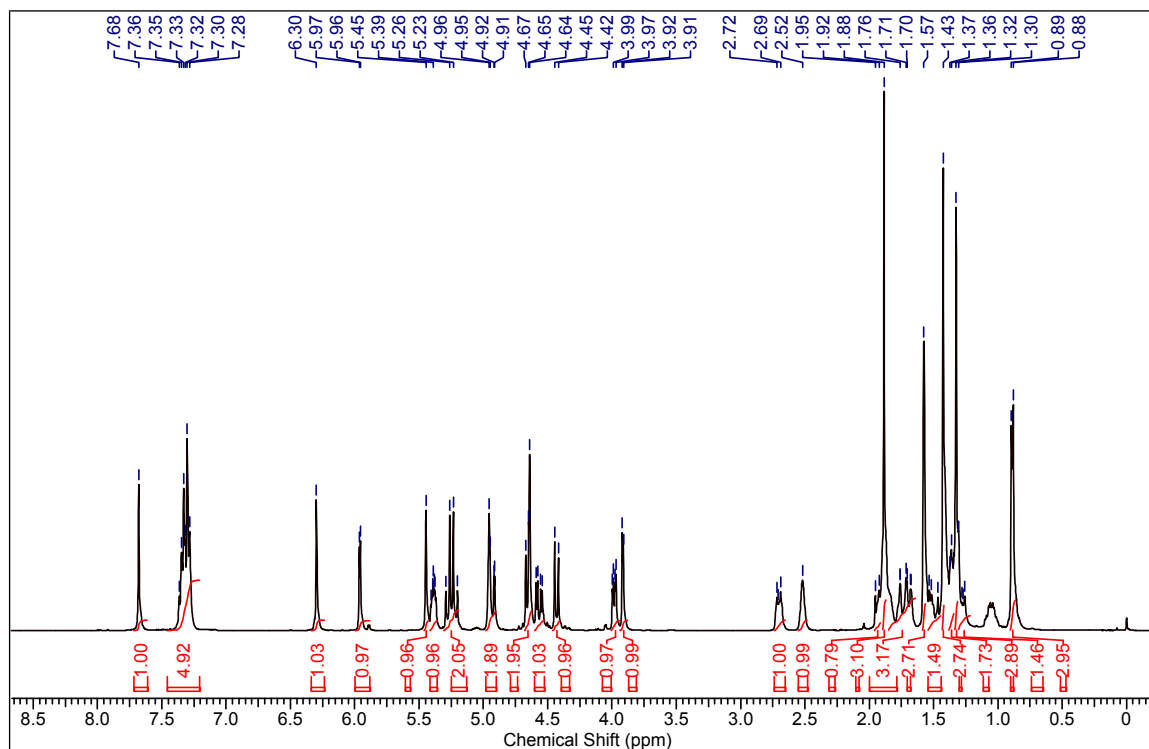


# HRMS of 7f

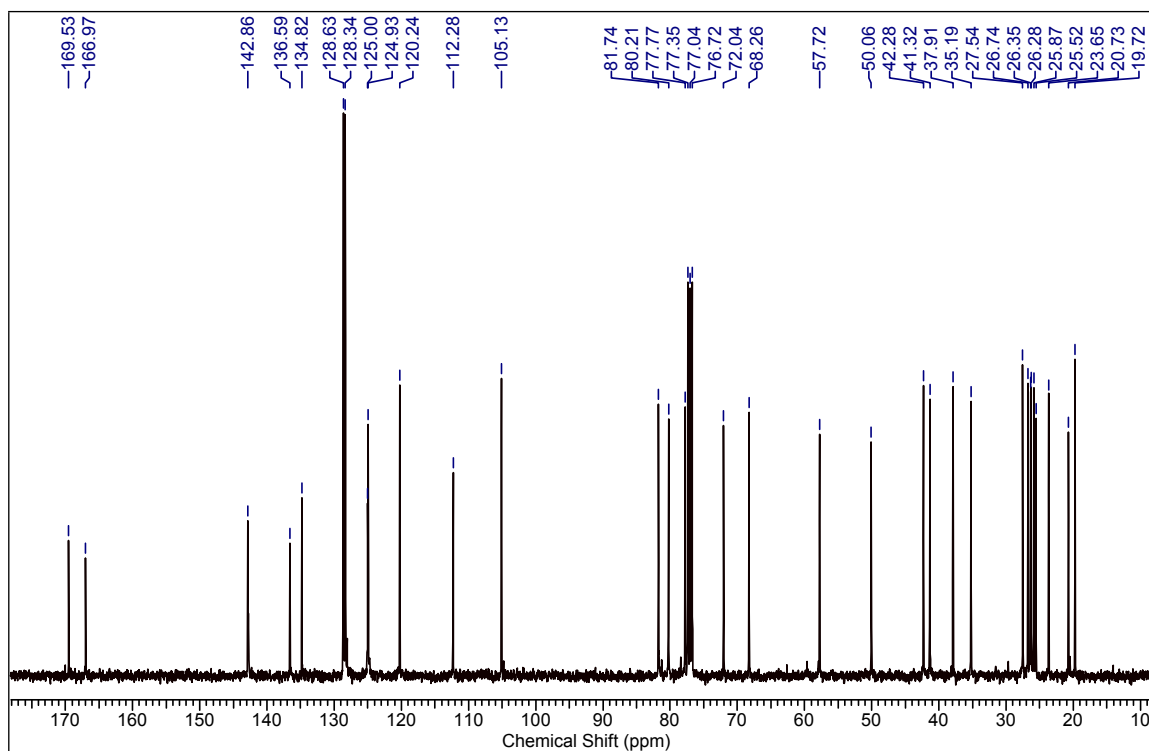
AA-10 #345 RT: 1.54 AV: 1 NL: 2.09E9  
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# <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 7g

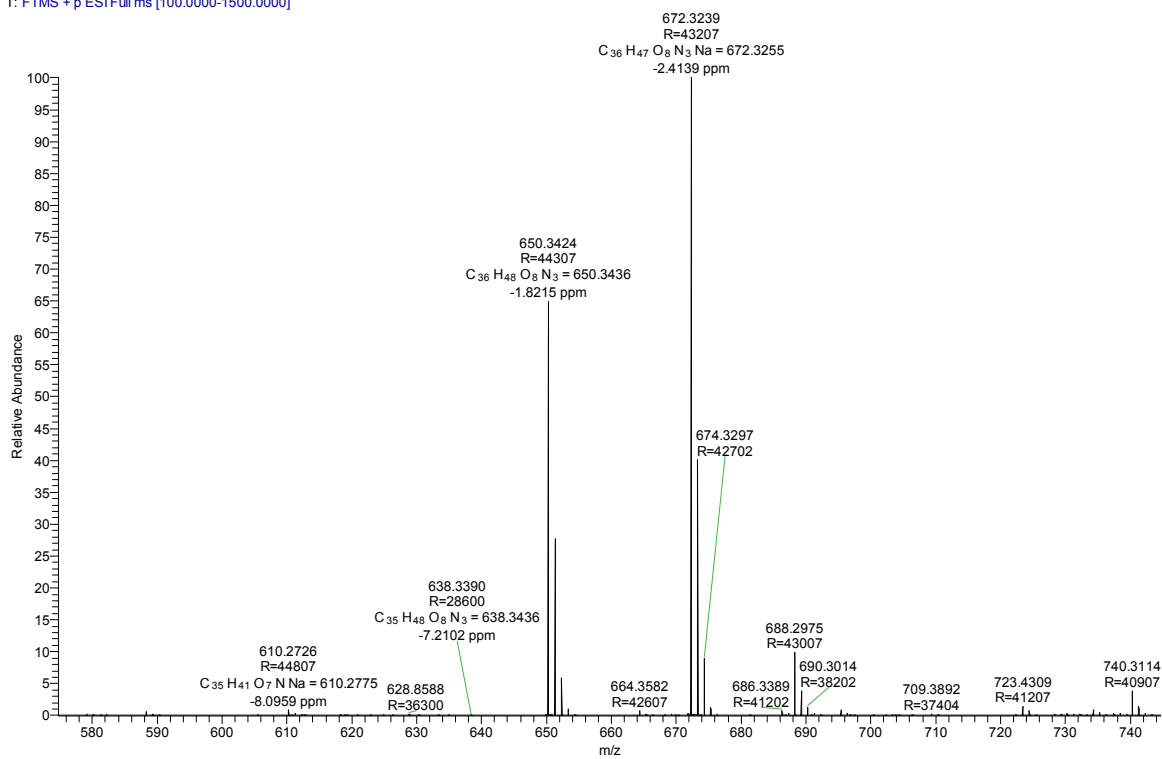


### $^{13}\text{C}$ NMR (100 MHz, $\text{CDCl}_3$ ) of compound 7g

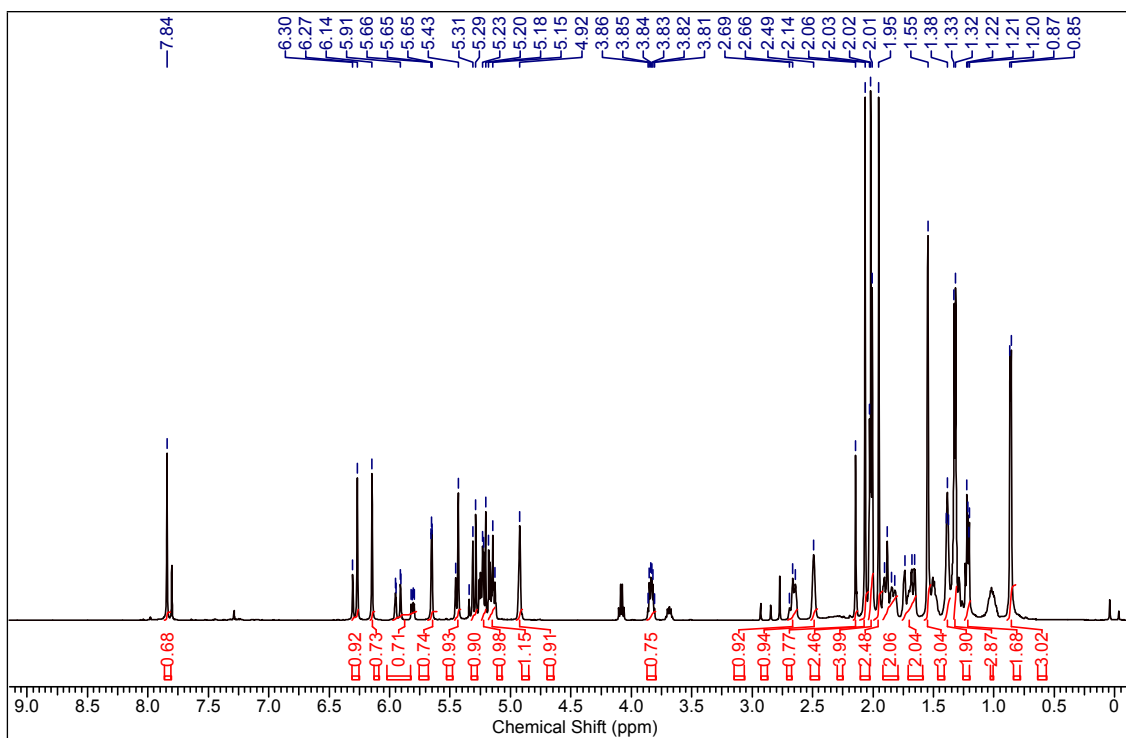


### HRMS of 7g

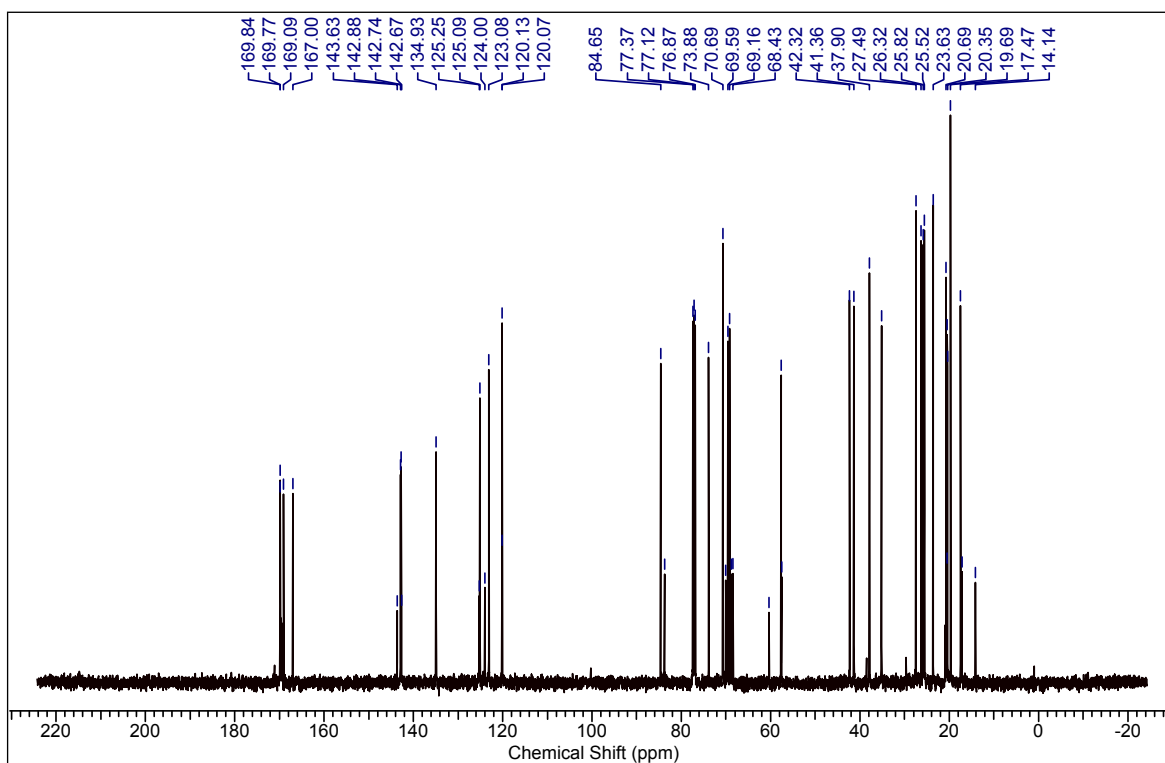
AA-11 #390 RT: 1.74 AV: 1 NL: 1.91E8  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



**<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) of compound 7h**

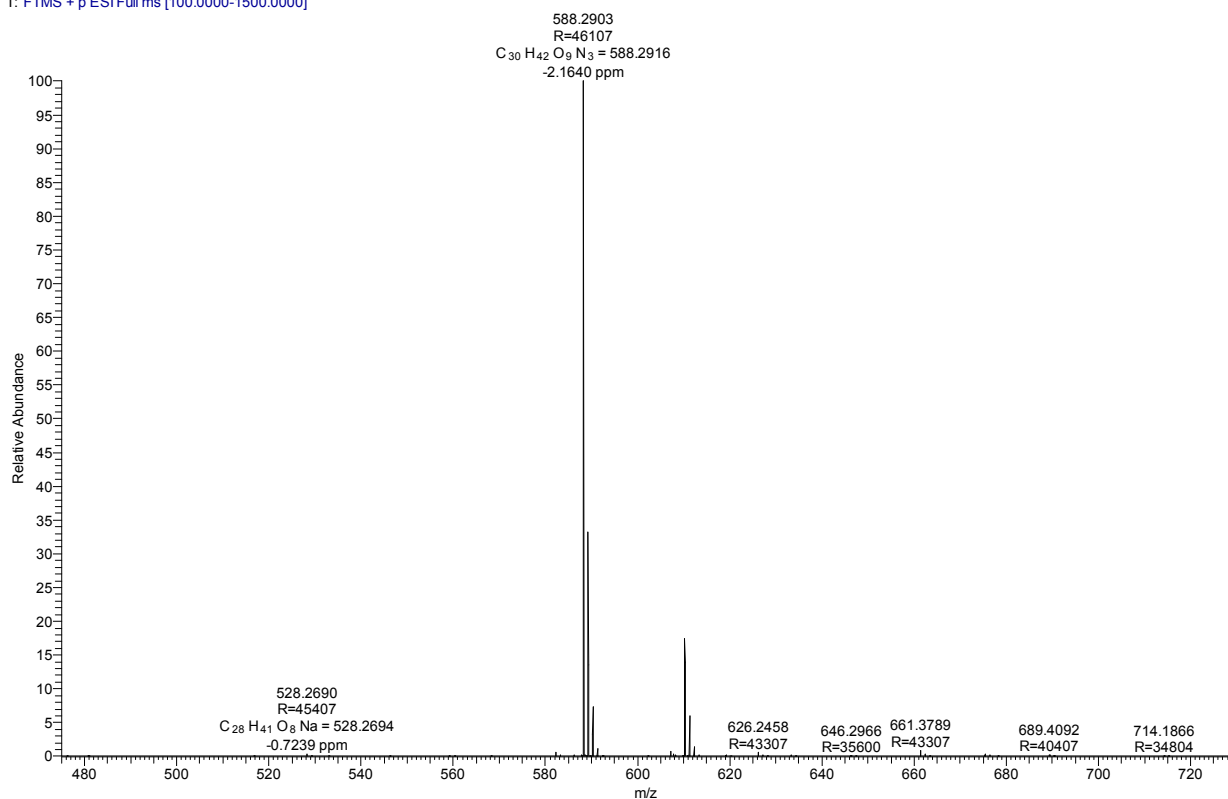


**<sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of compound 7h**

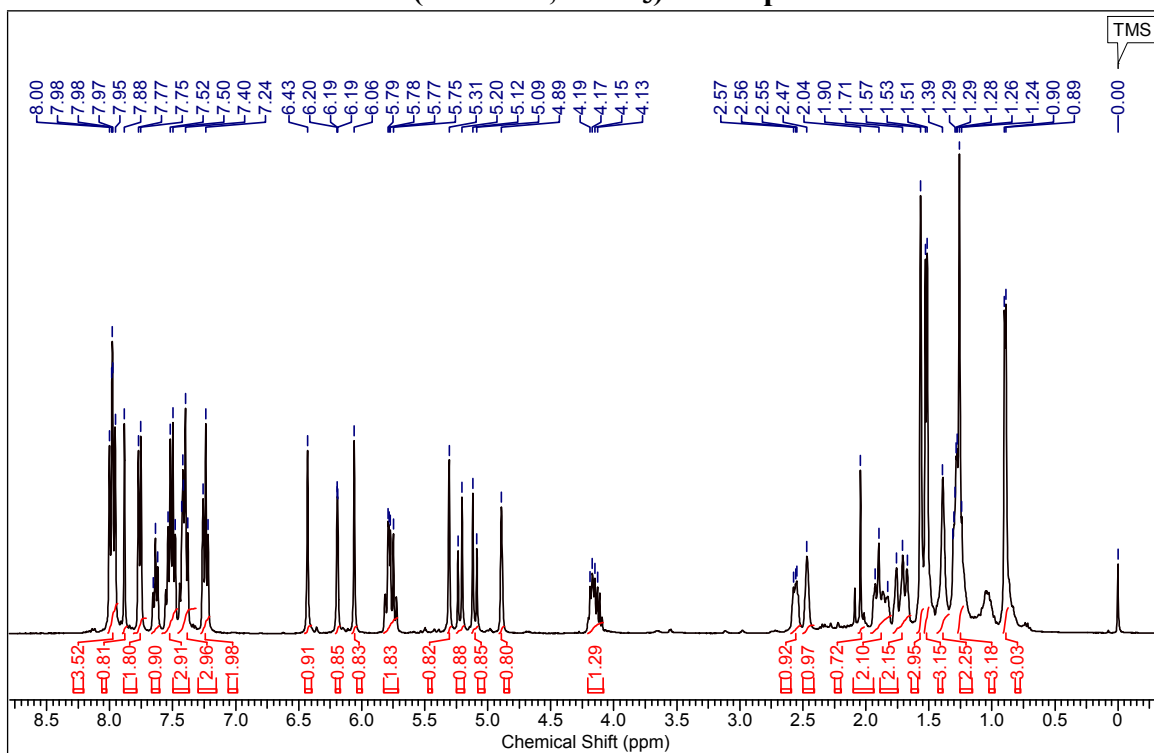


# HRMS of 7h

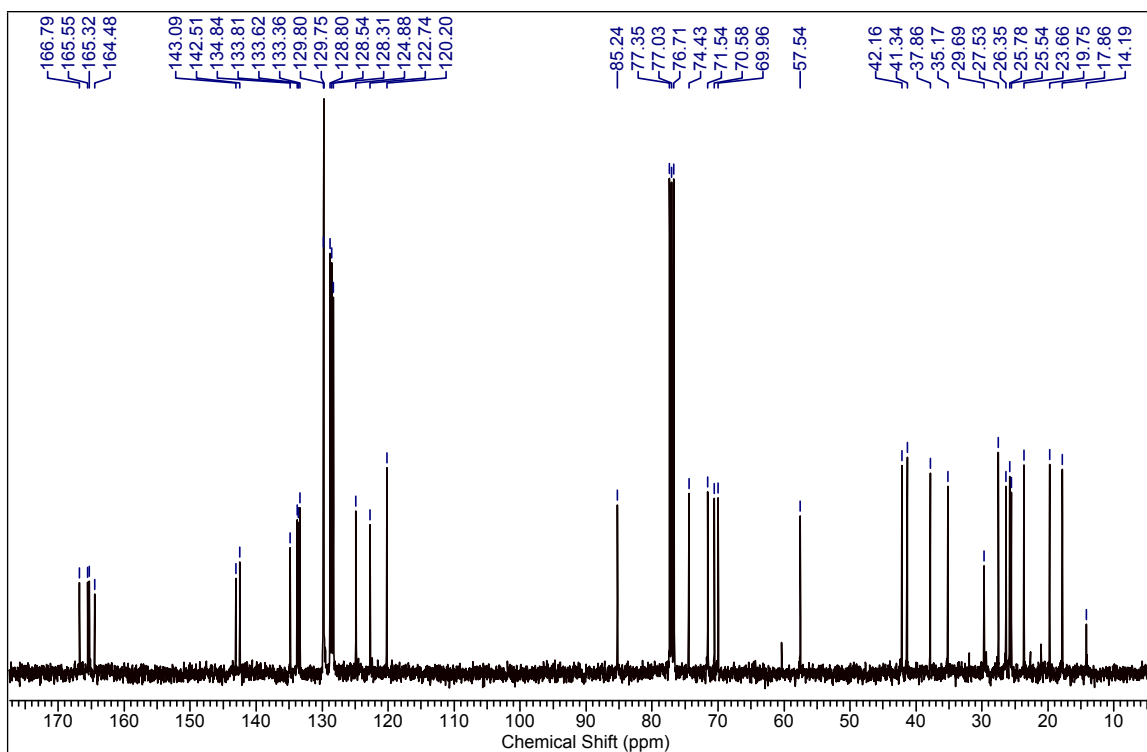
AA-7 #309 RT: 1.39 AV: 1 NL: 3.12E9  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



# <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 7i

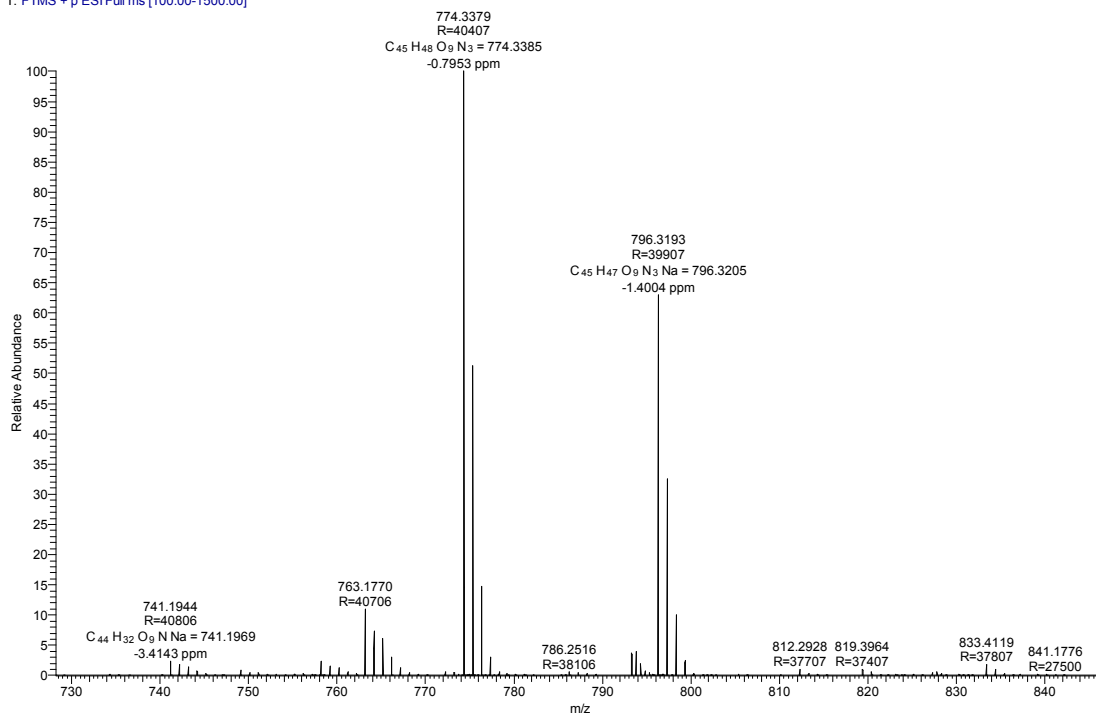


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 7i



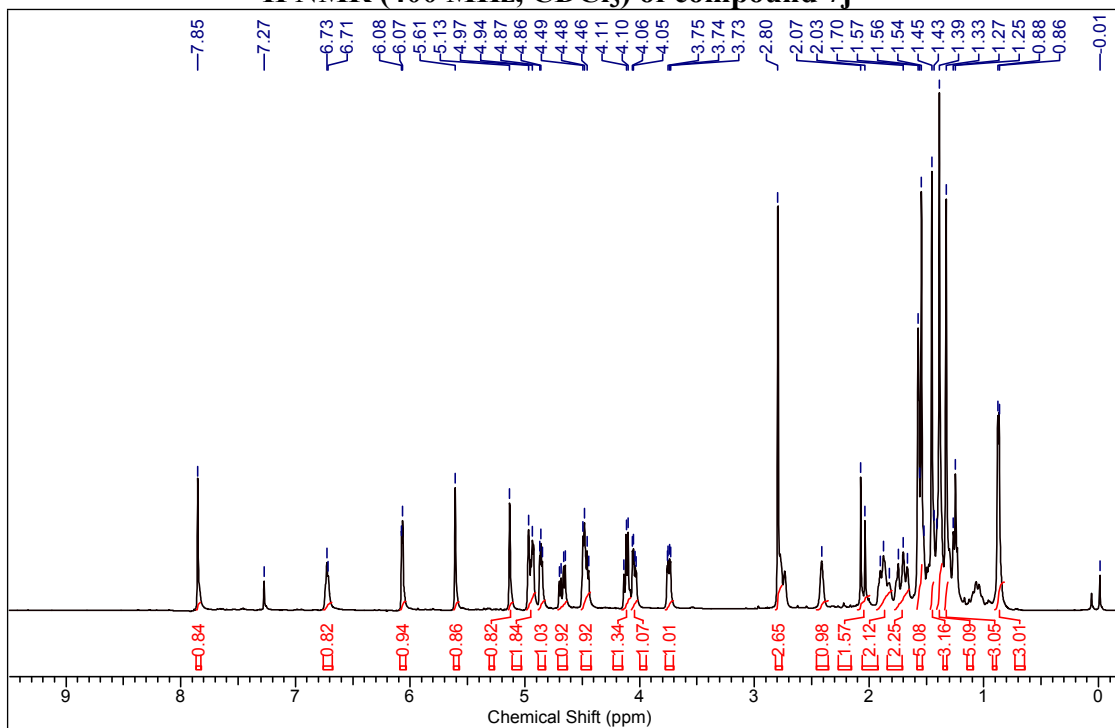
### HRMS of 7i

KTK-AA-8 #325 RT: 1.45 AV: 1 NL: 2.01E8  
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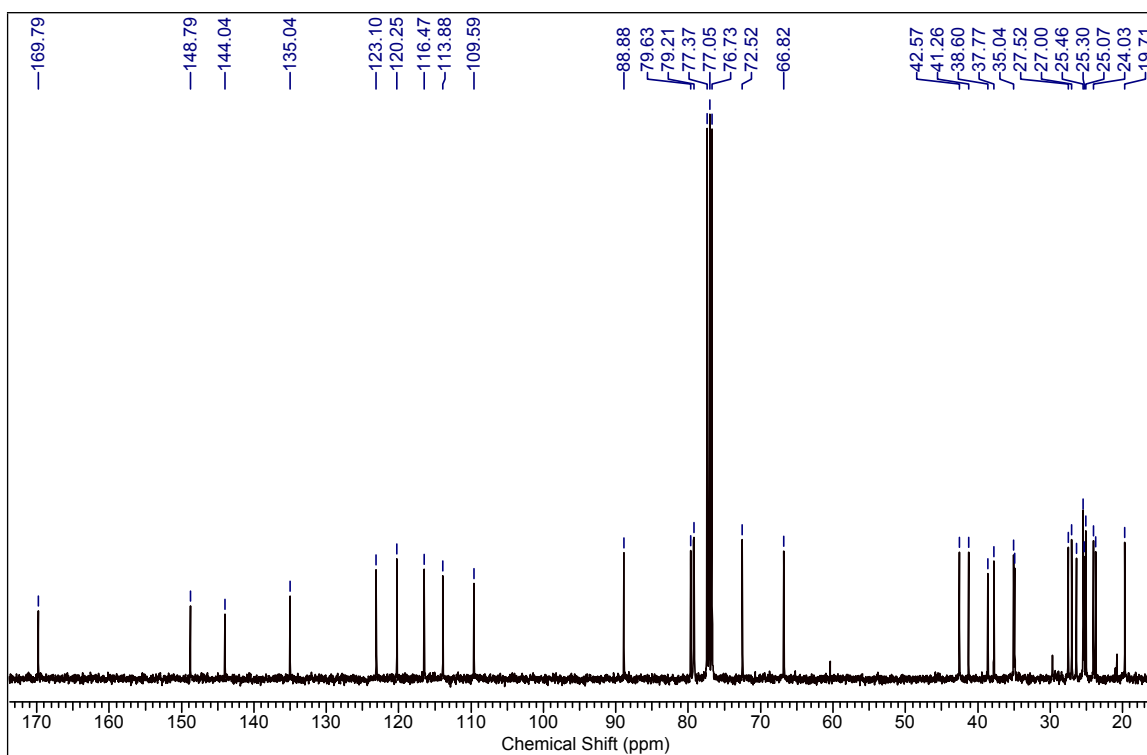




**<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 7j**

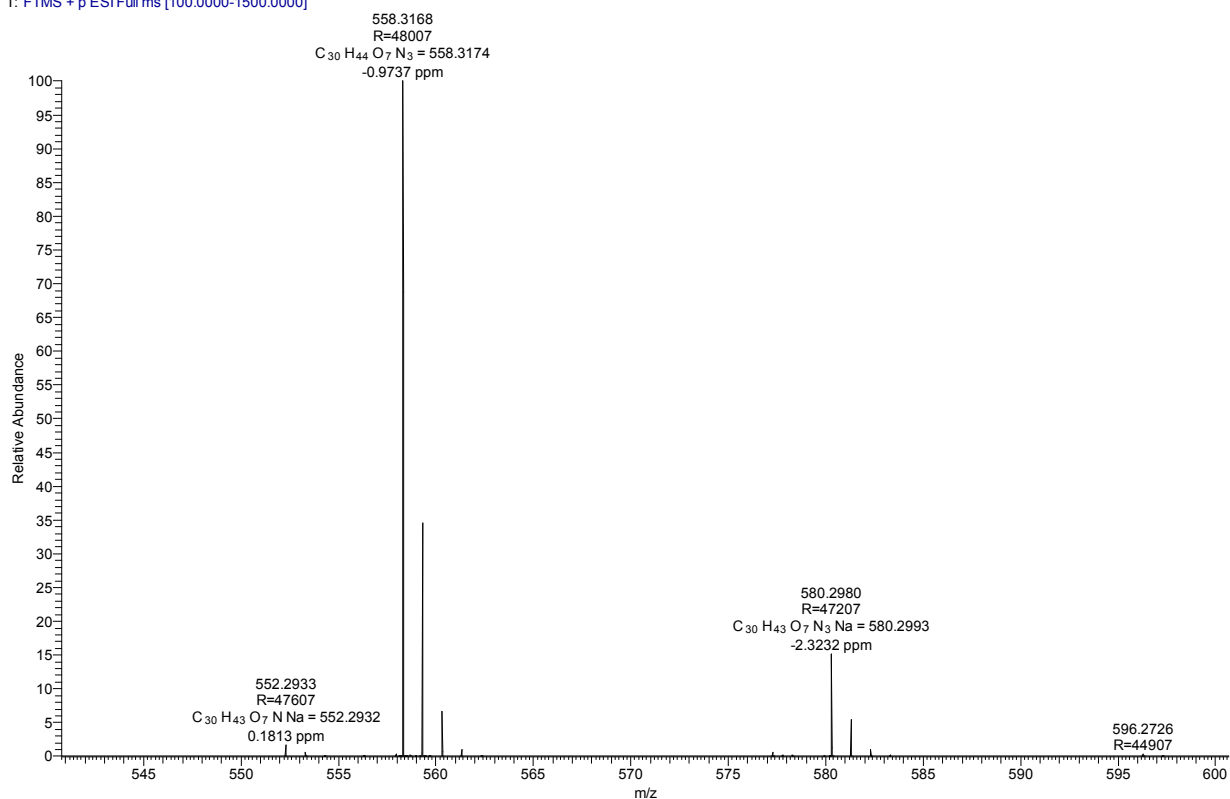


**<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 7j**

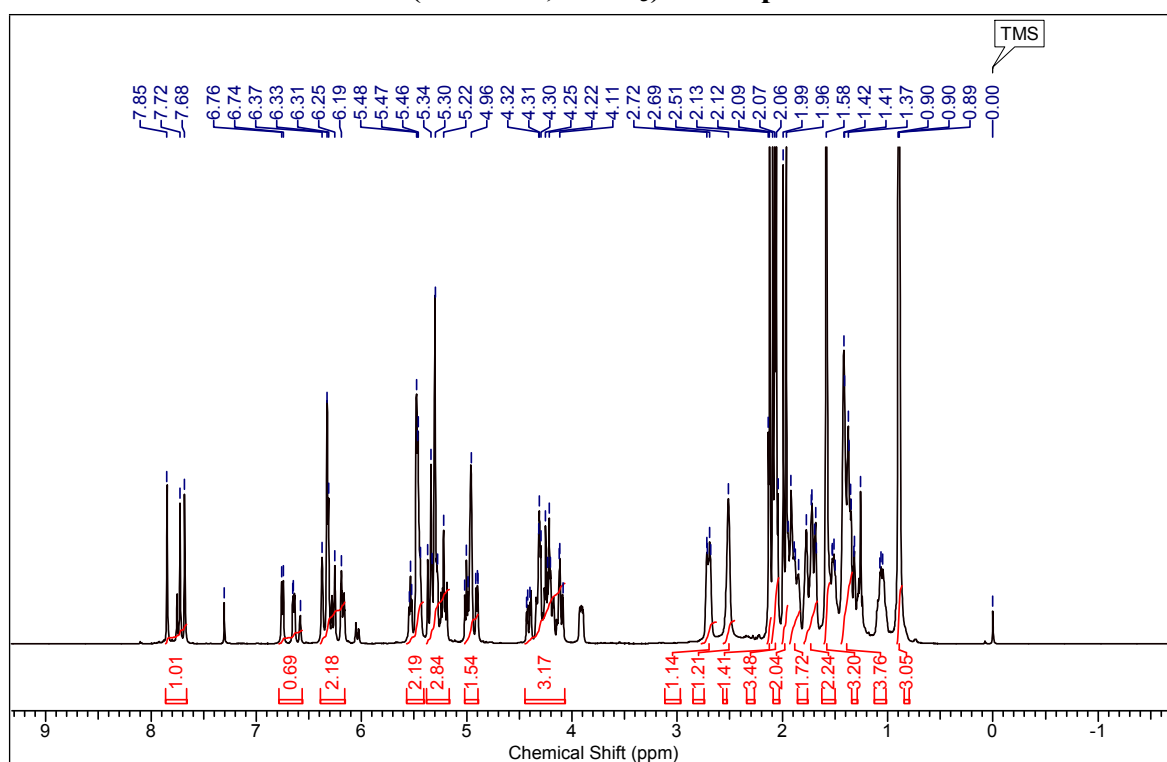


# HRMS of 7j

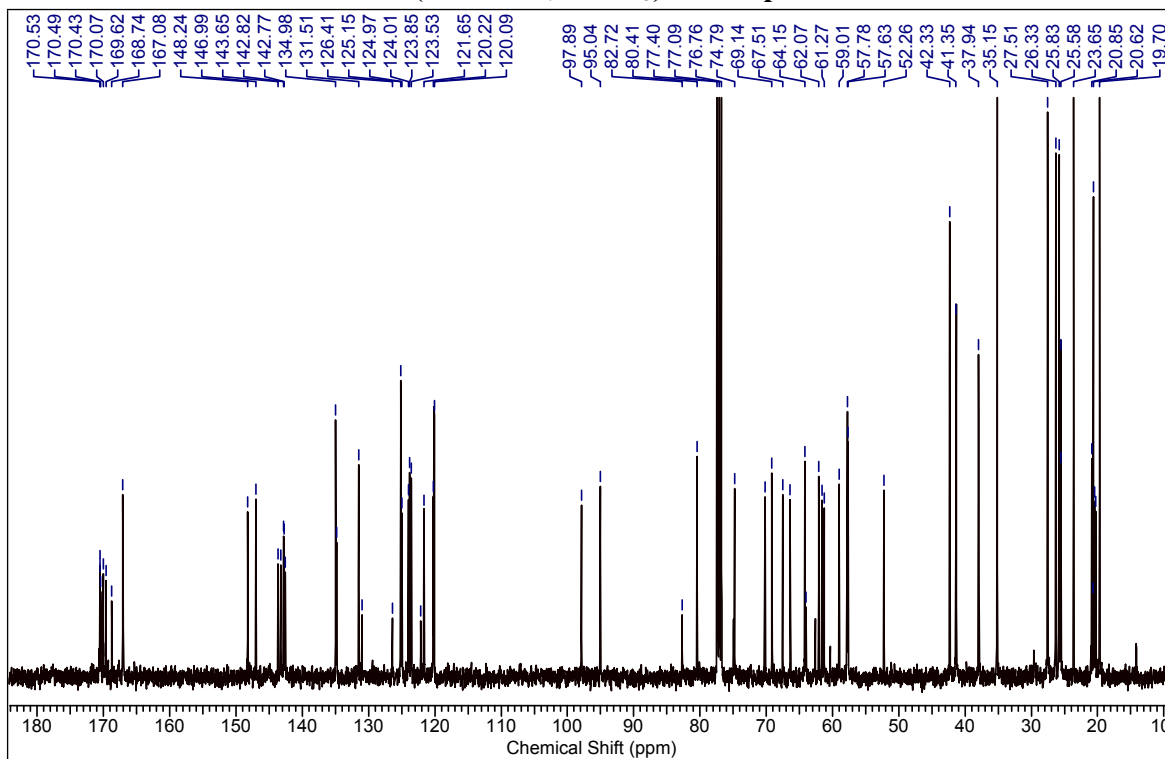
AA-9 #366 RT: 1.63 AV: 1 NL: 3.89E9  
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# <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 7k

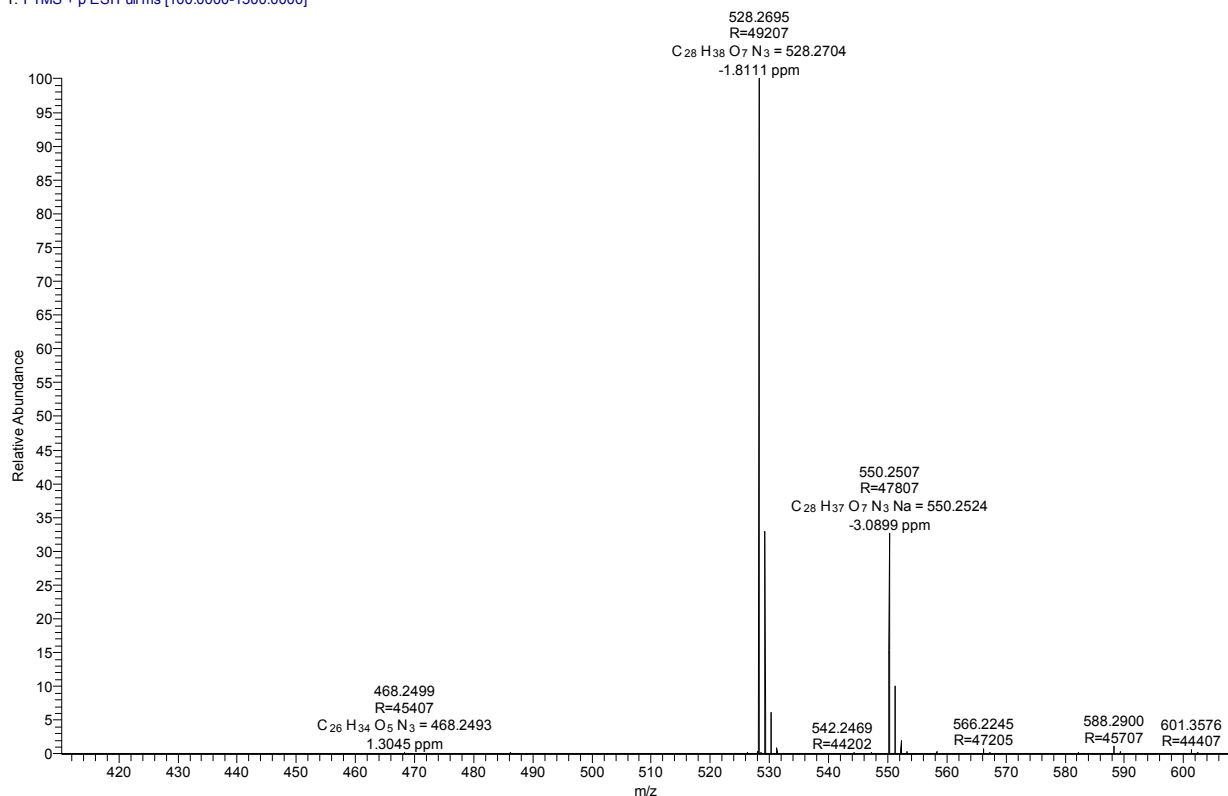


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 7k

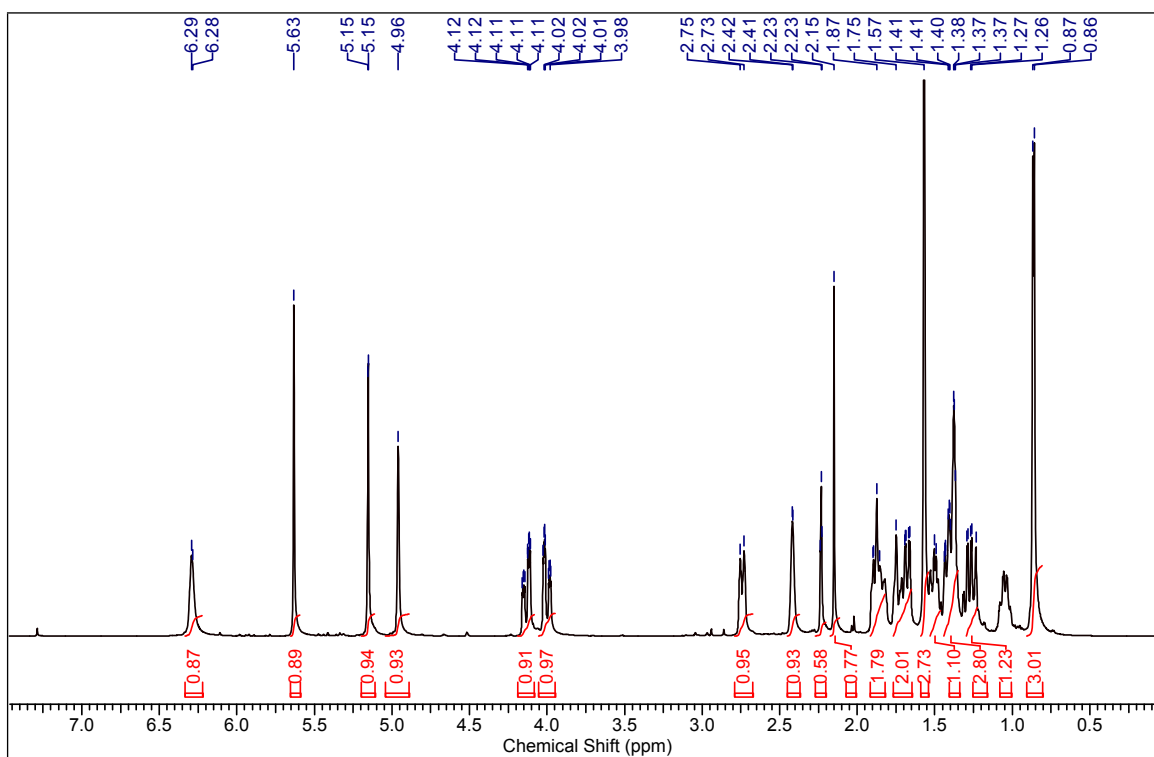


### HRMS of 7k

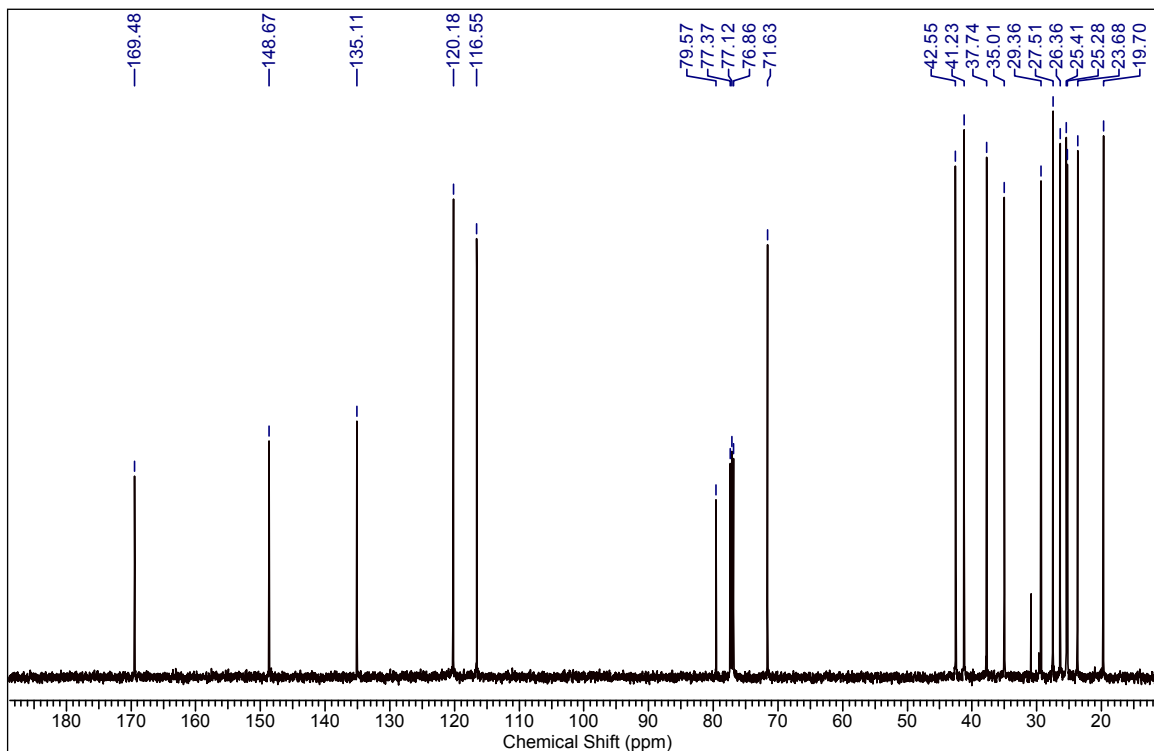
AA-12 #310 RT: 1.38 AV: 1 NL: 5.41E9  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



**<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) of compound 5**

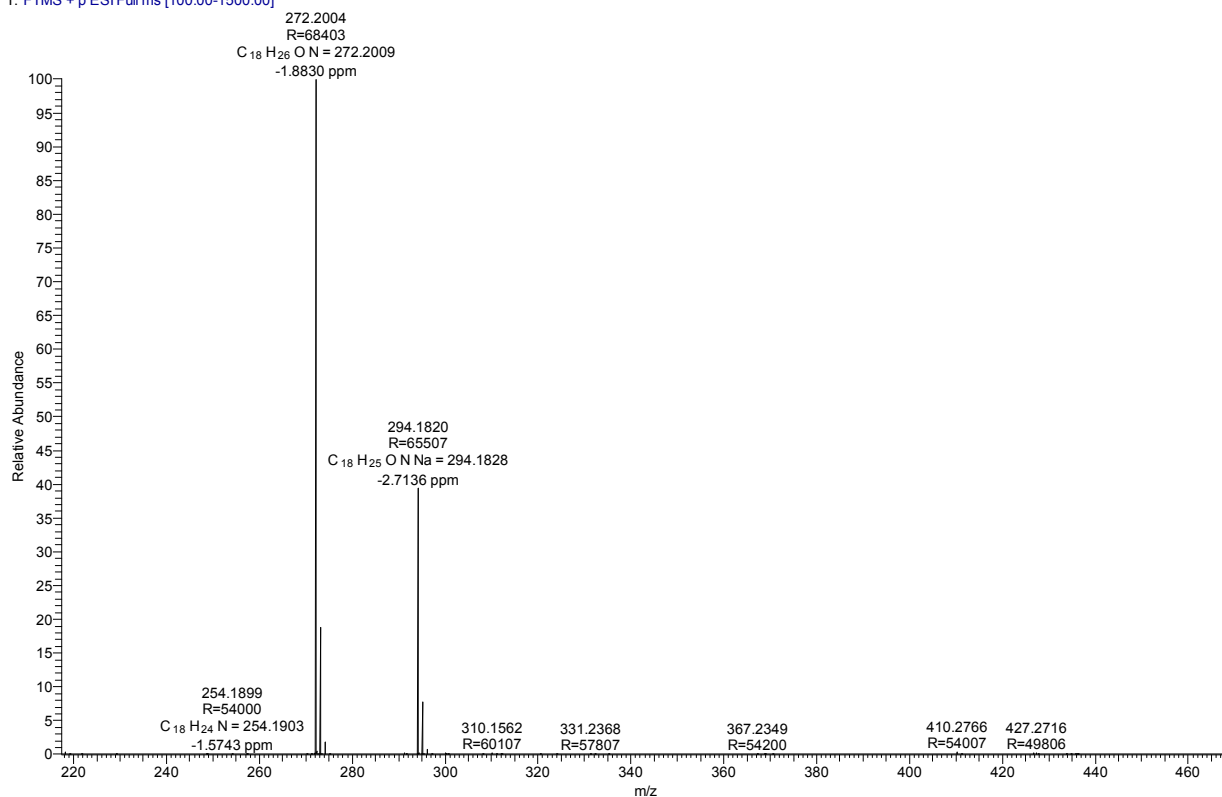


**<sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of compound 5**

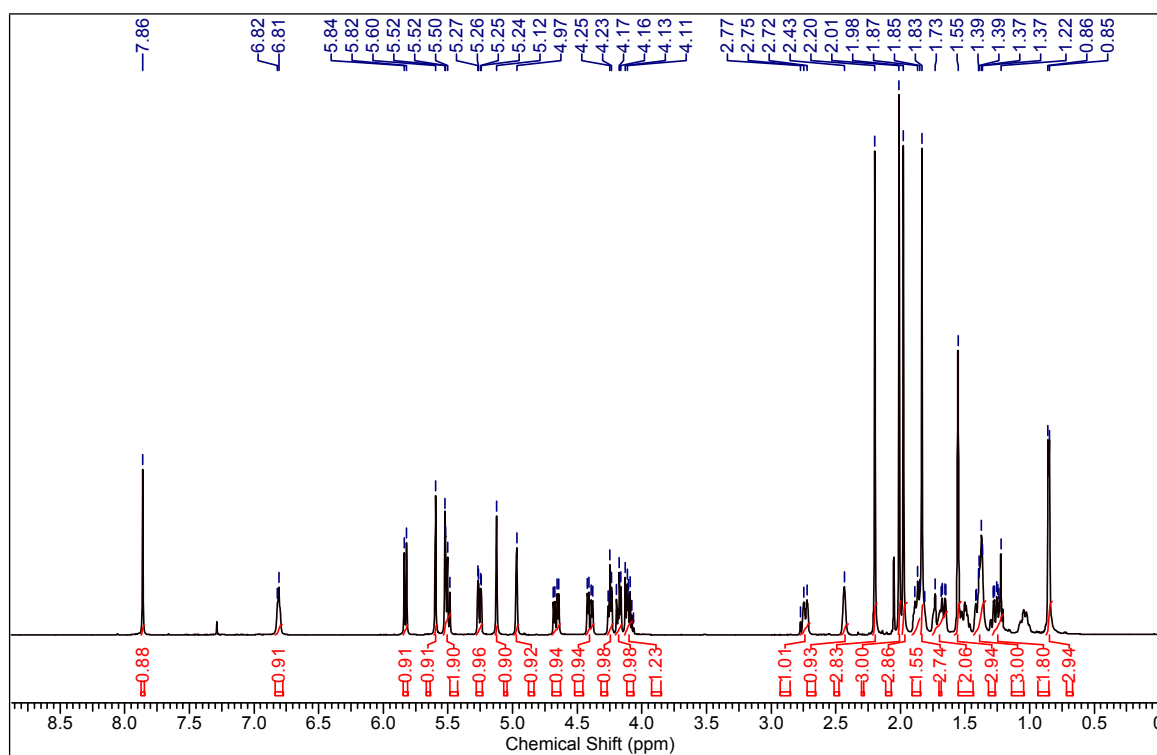


# HRMS of 5

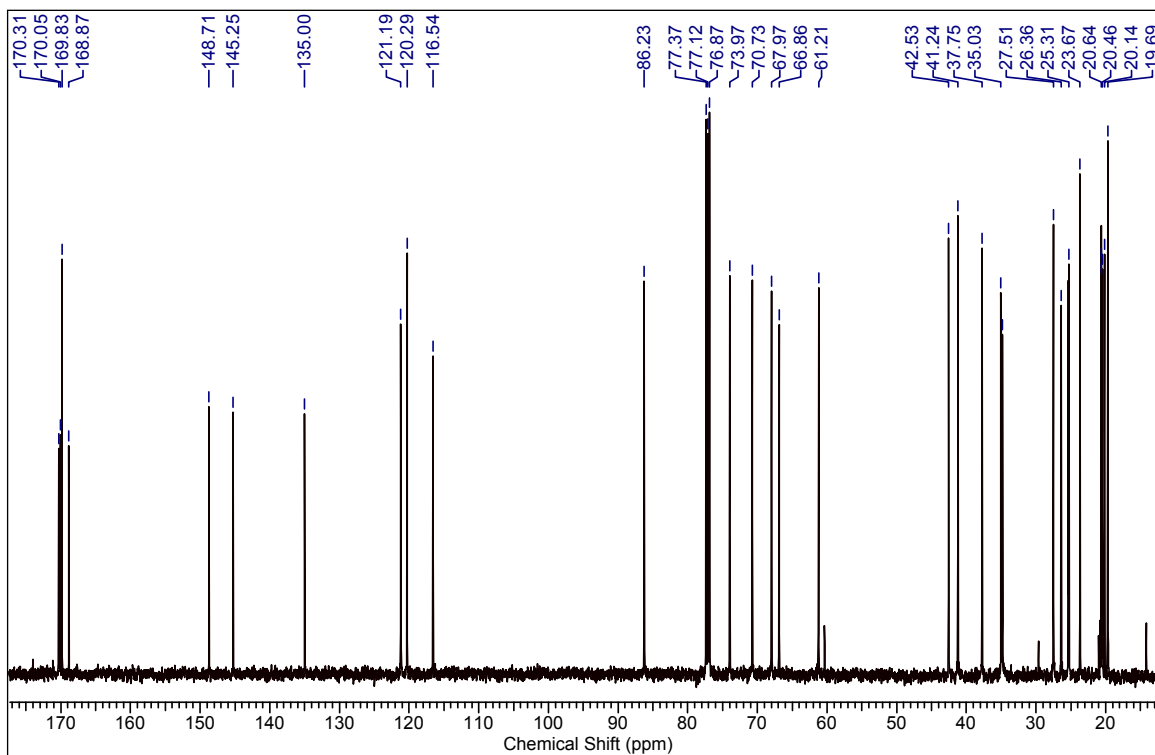
KTK-PA-1 #141 RT: 0.63 AV: 1 NL: 7.31E9  
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## <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) of compound 8a

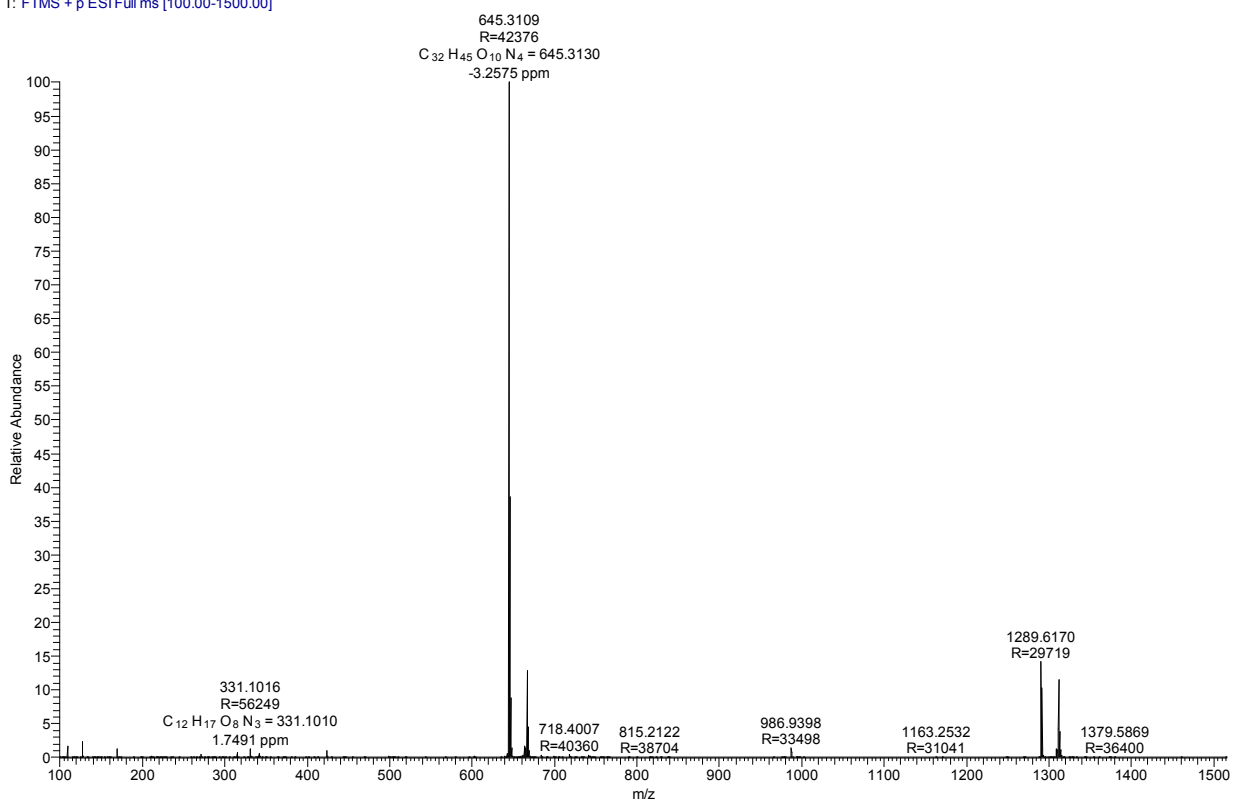


### <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of compound 8a

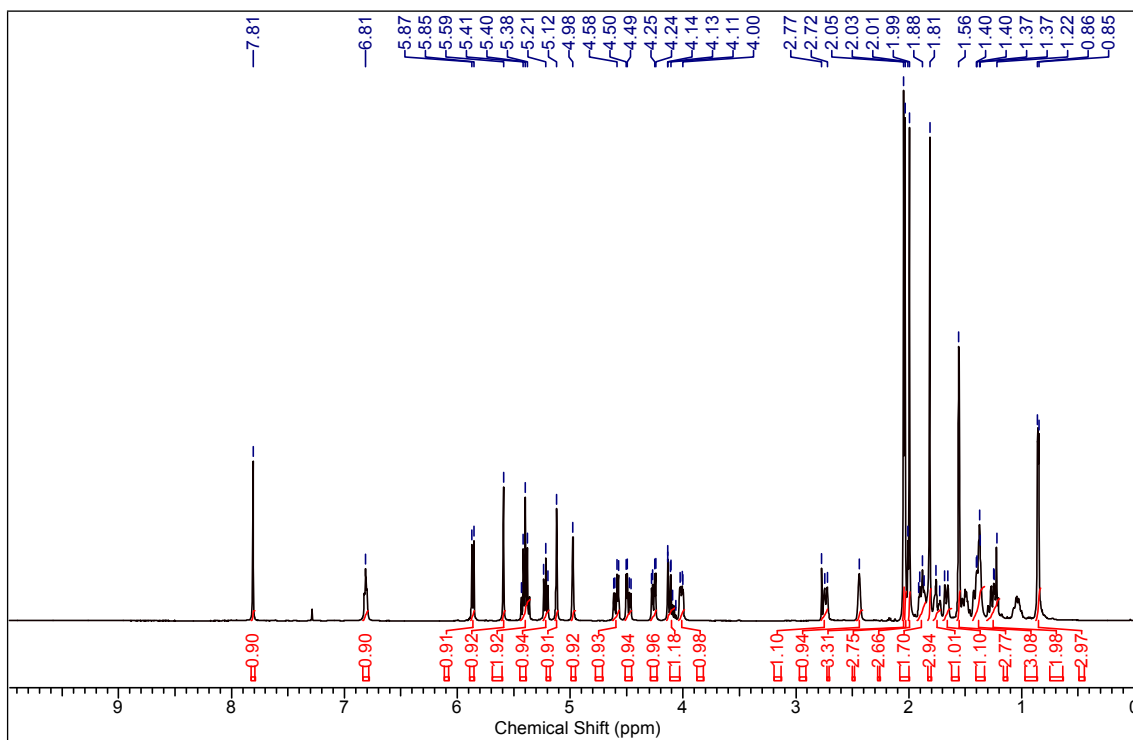


### HRMS of 8a

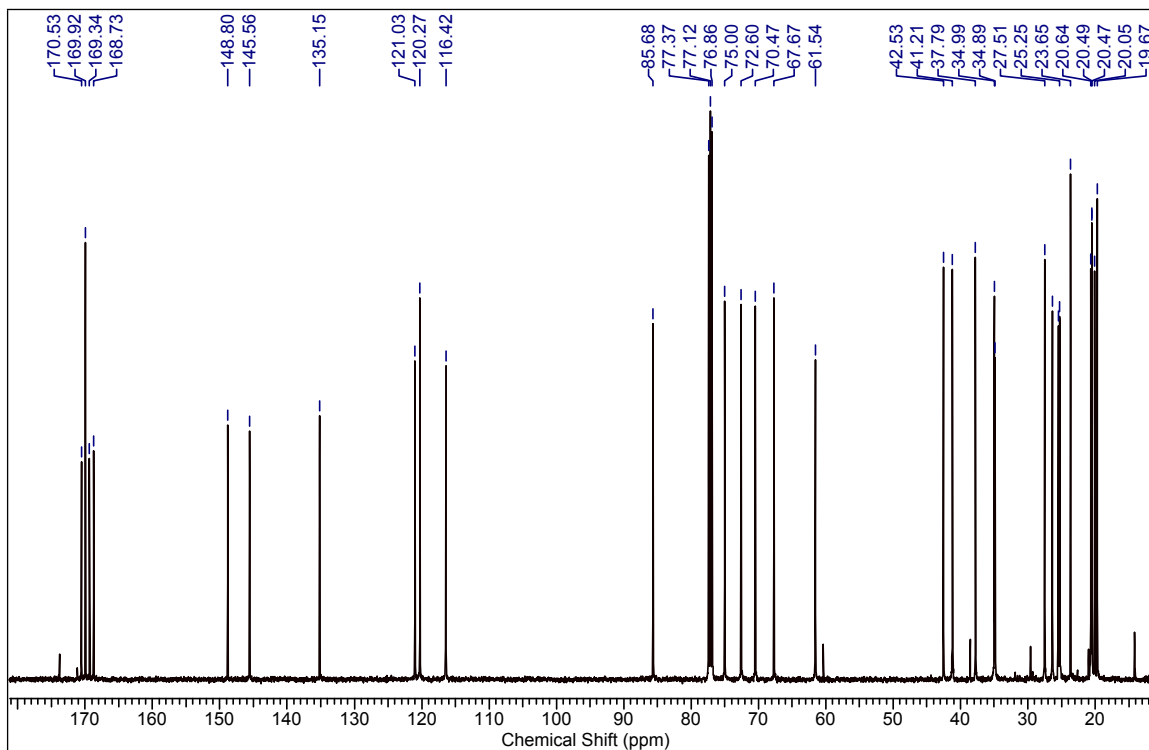
KTK-PA-2 #140-142 RT: 0.62-0.63 AV: 3 NL: 2.43E9  
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### <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) of compound 8b

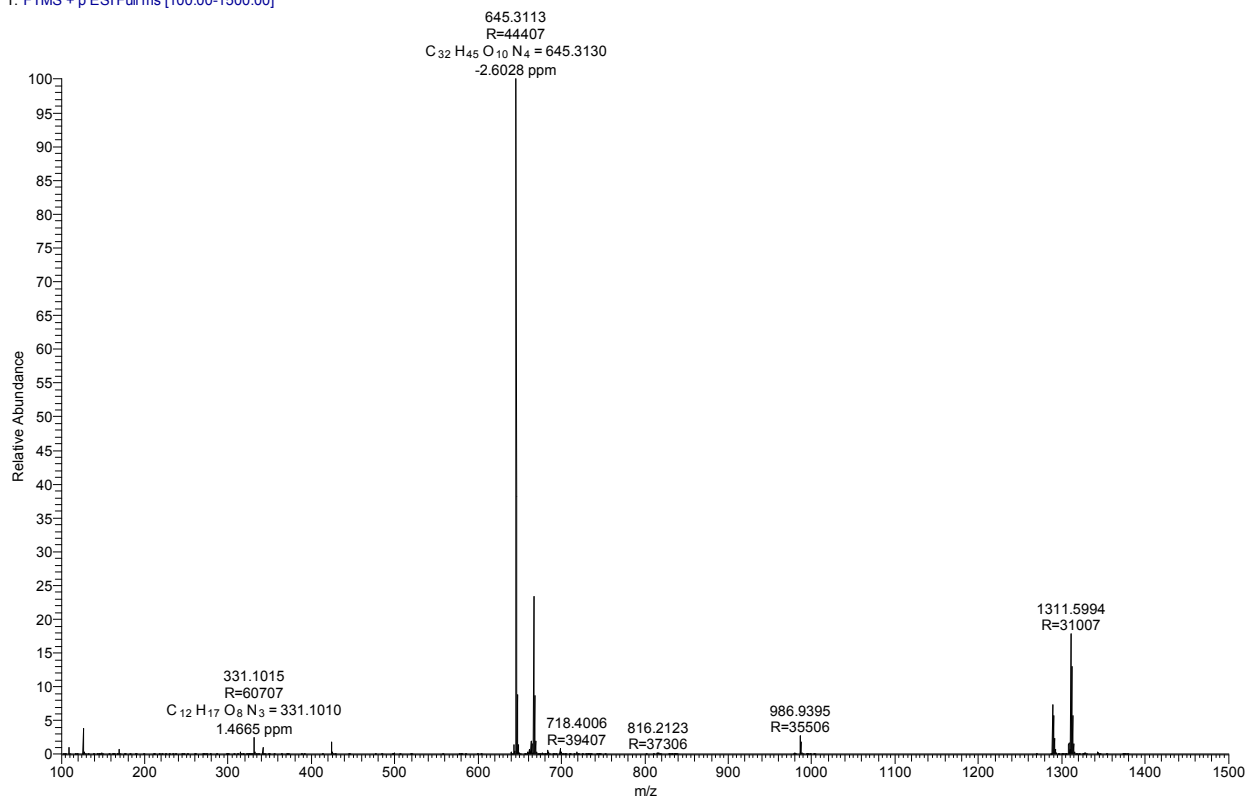


### <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of compound 8b

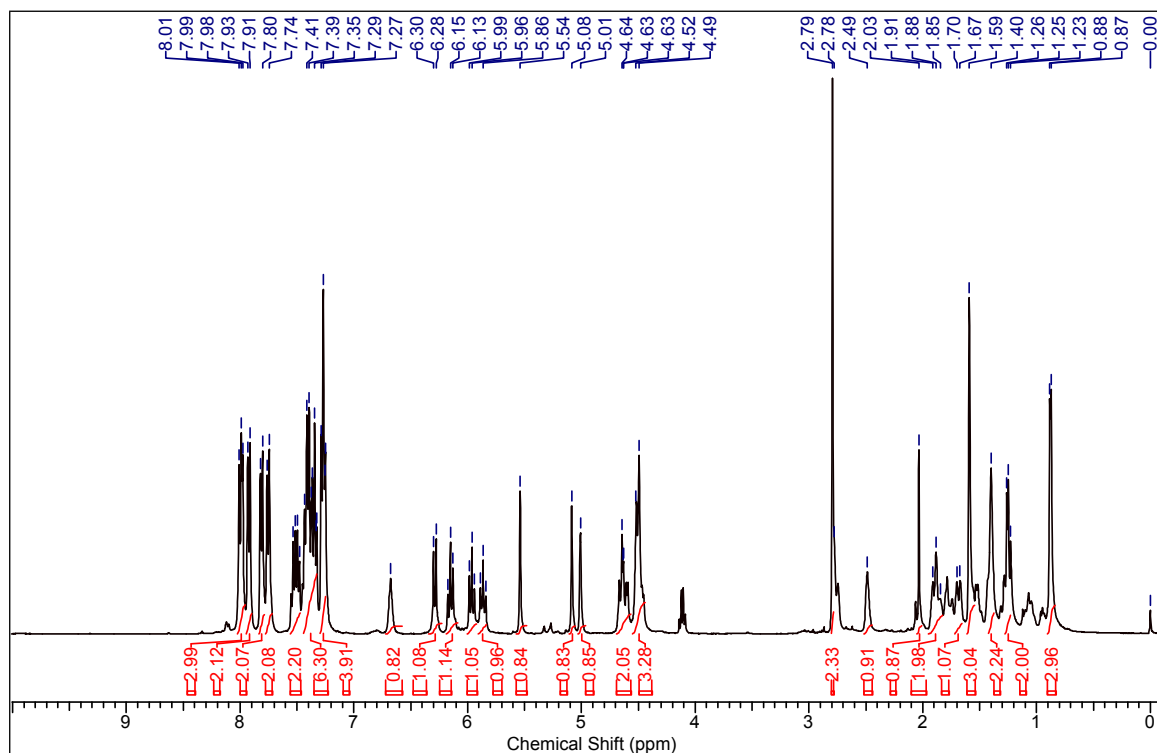


## HRMS of 8b

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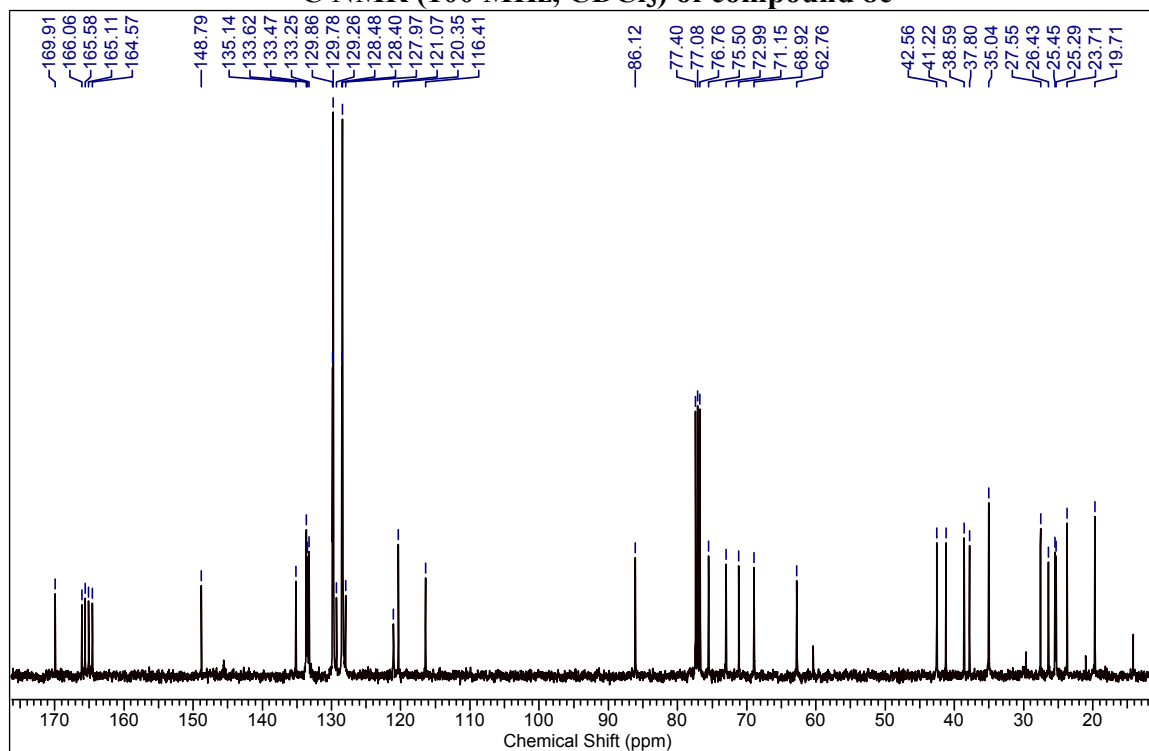


## $^1H$ NMR (400 MHz, $CDCl_3$ ) of compound 8c



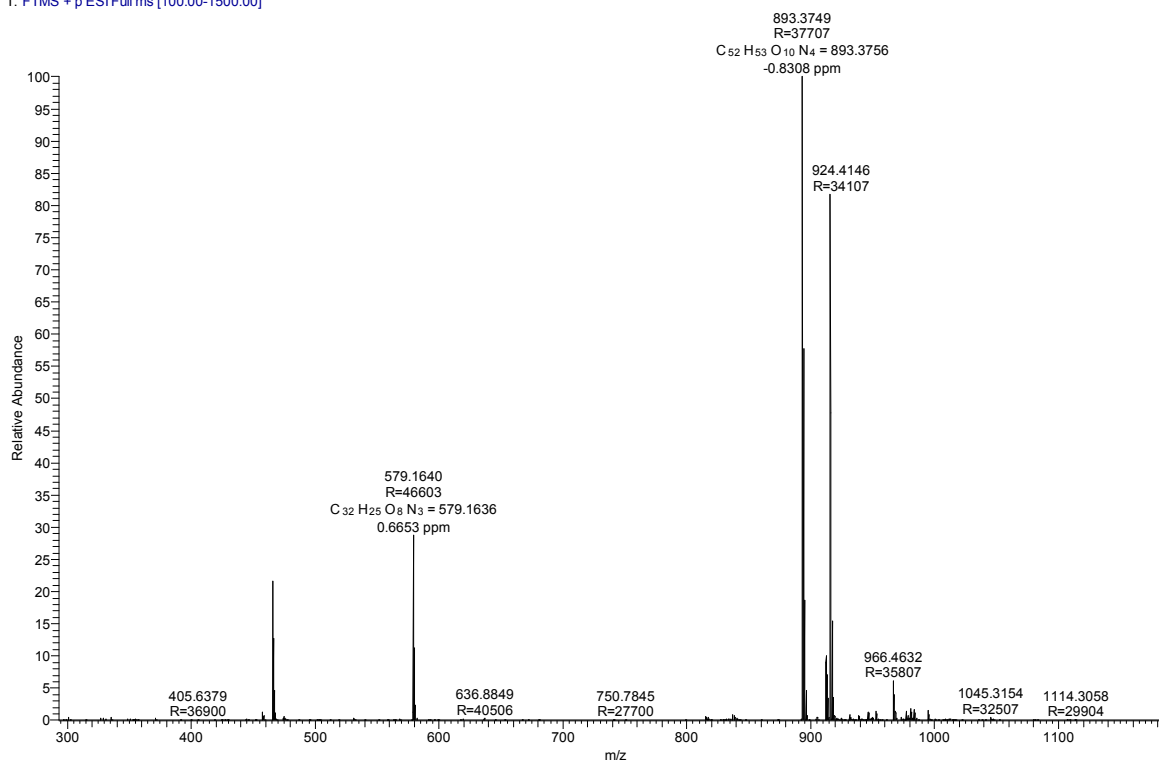


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 8c

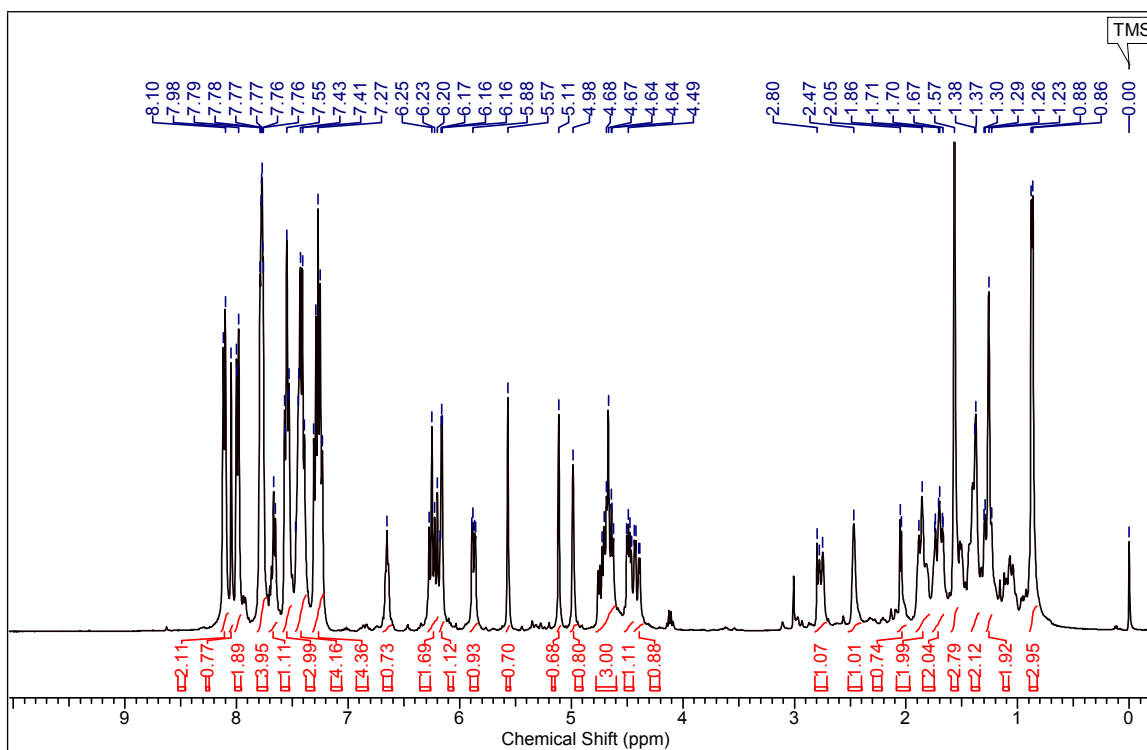


### HRMS of 8c

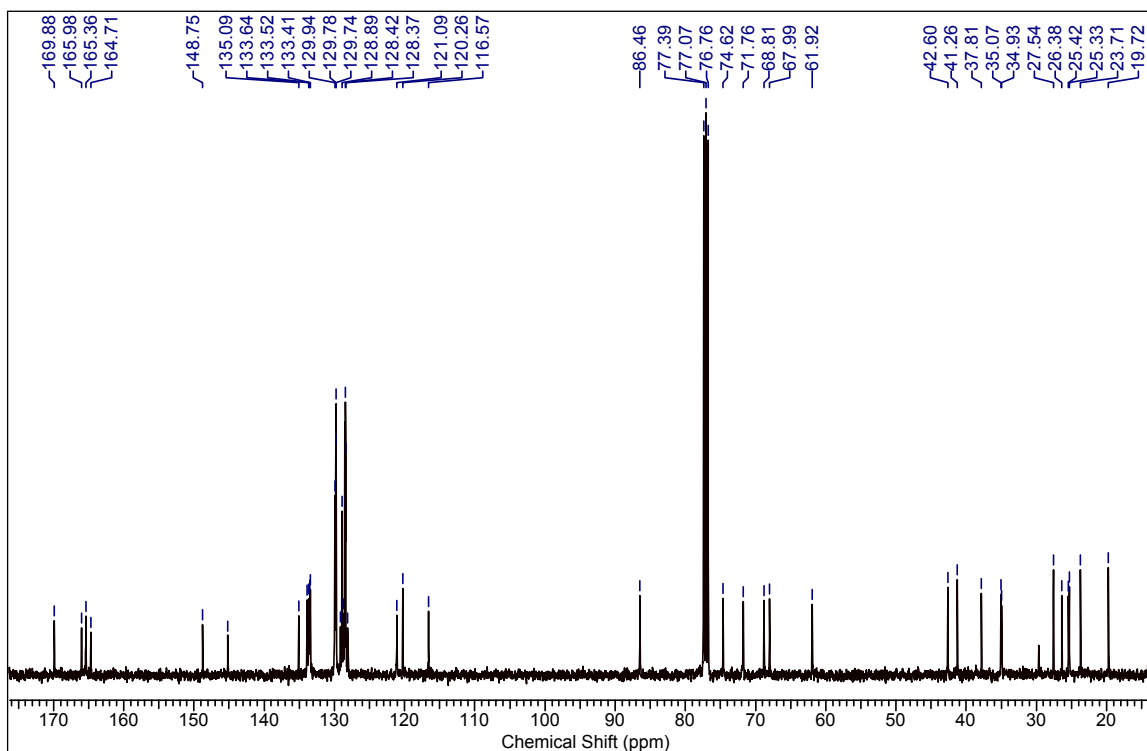
KTK-PA-4 #214 RT: 0.95 AV: 1 NL: 2.22E8  
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### <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 8d

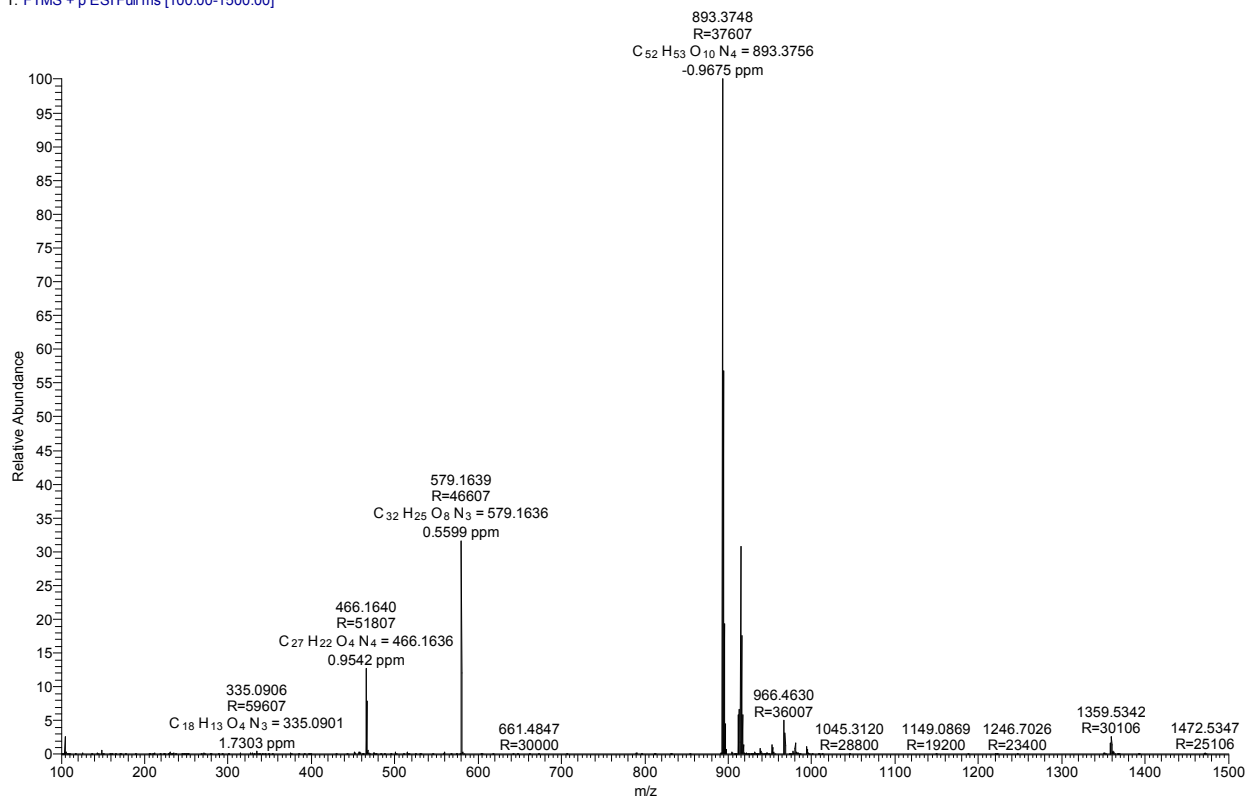


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 8d

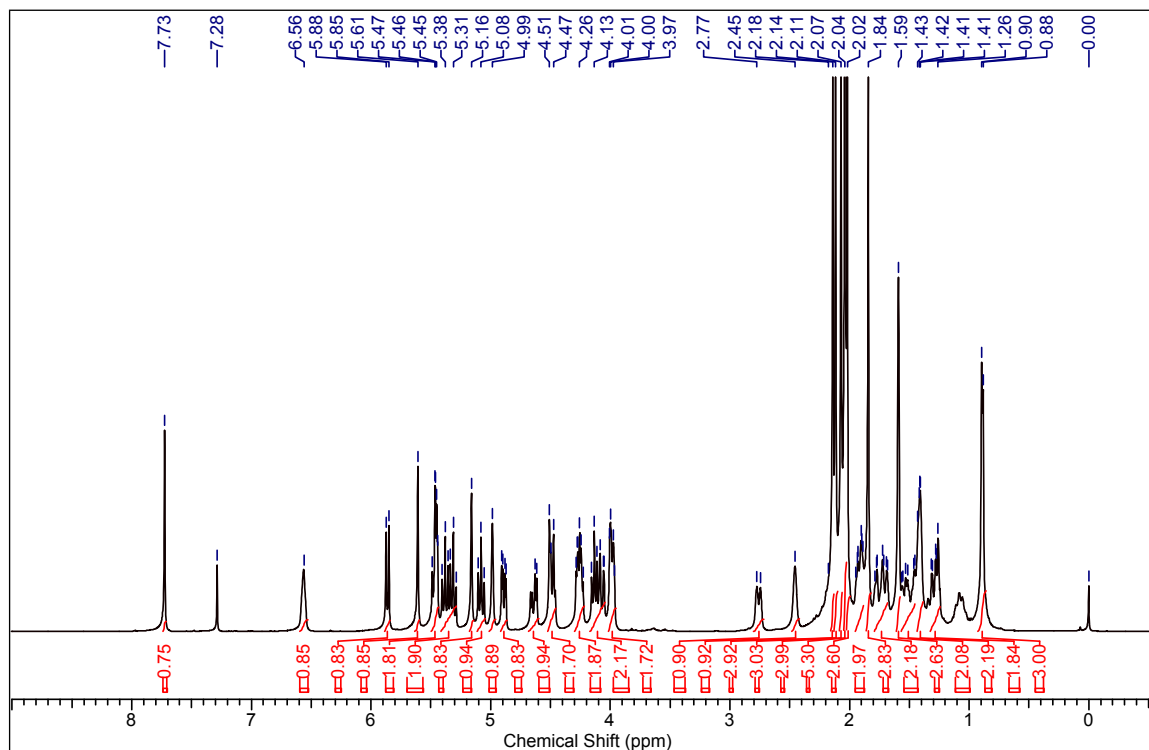


# HRMS of 8d

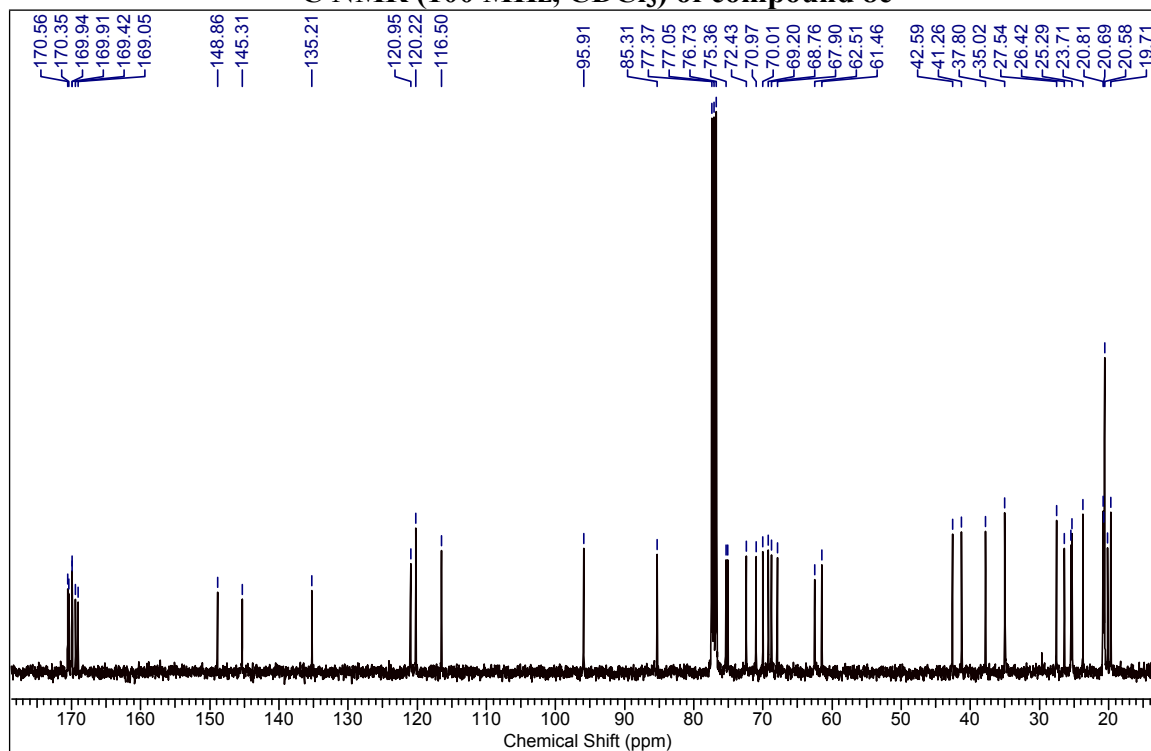
KTK-PA-6 #232 RT: 1.03 AV: 1 NL: 3.76E8  
T: FTMS + p ESI Full ms [100.00-1500.00]



# <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 8e

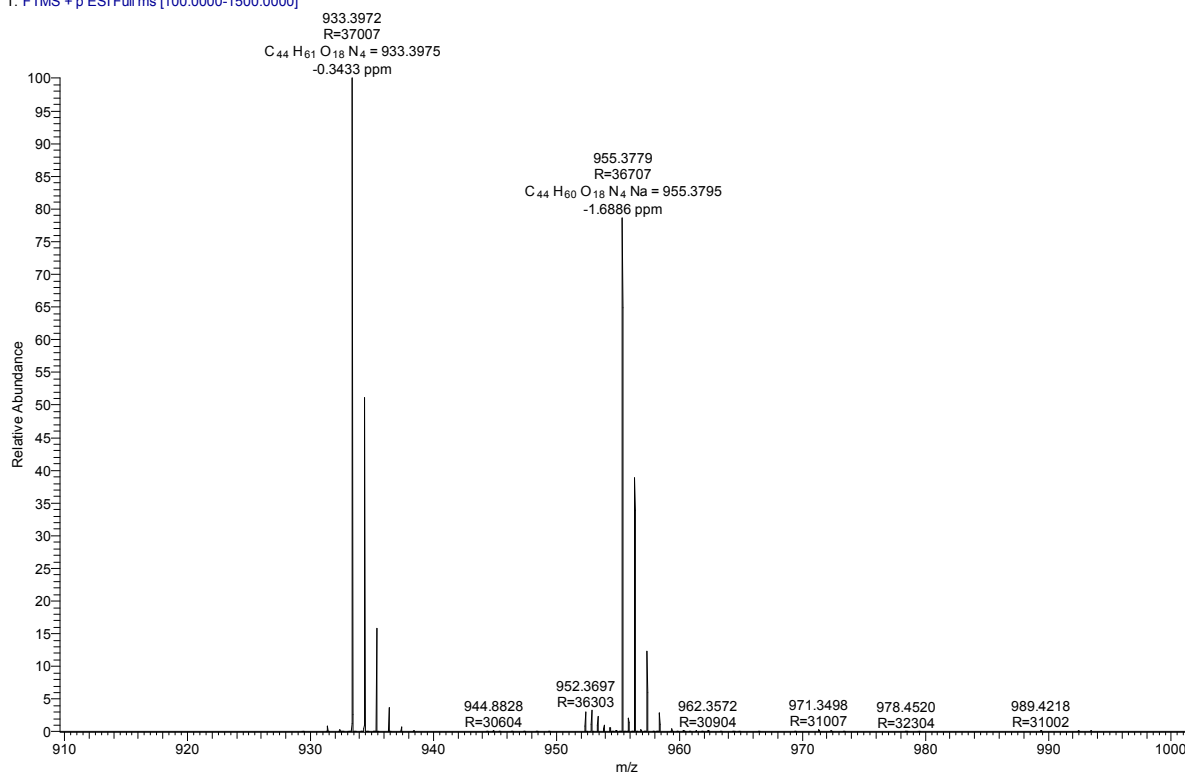


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 8e

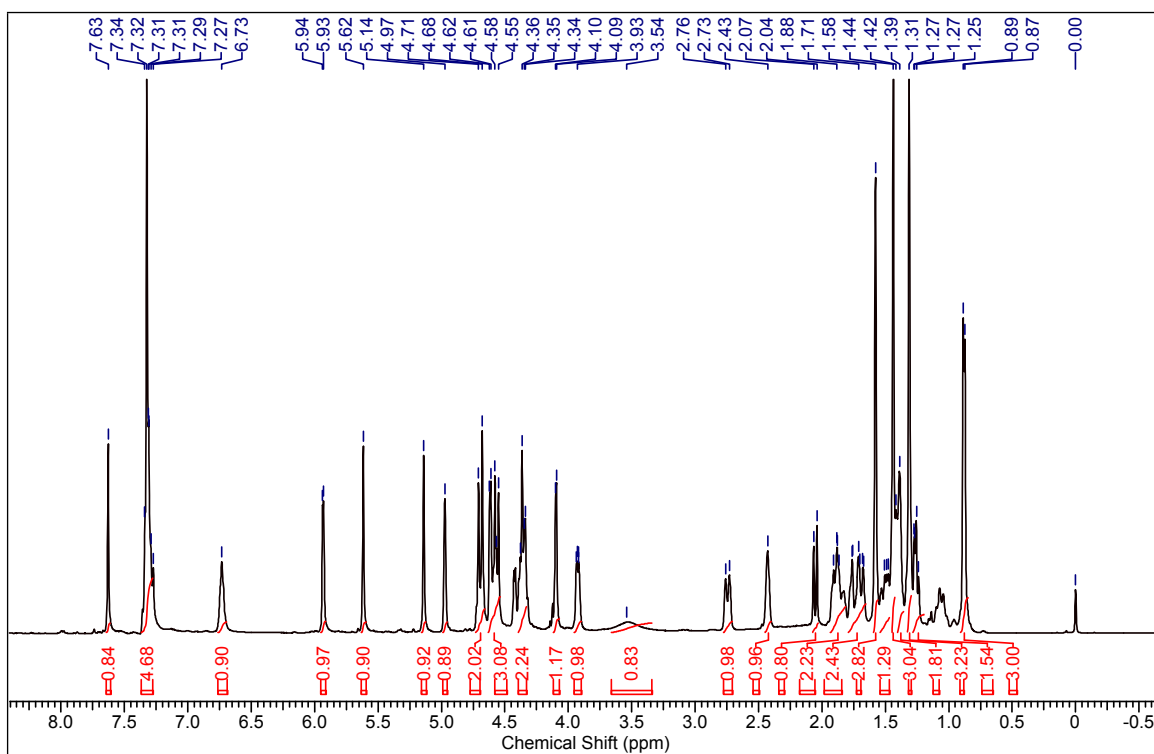


### HRMS of 8e

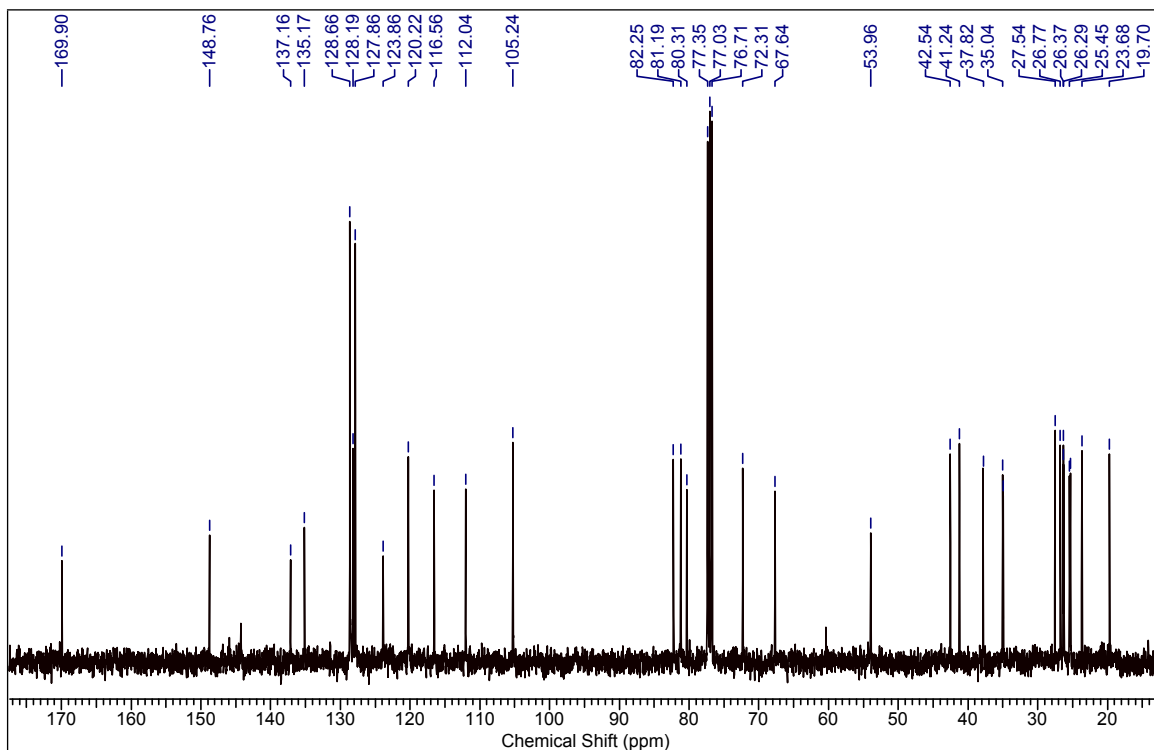
PA-9 #296 RT: 1.32 AV: 1 NL: 9.92E8  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



**<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 8f**

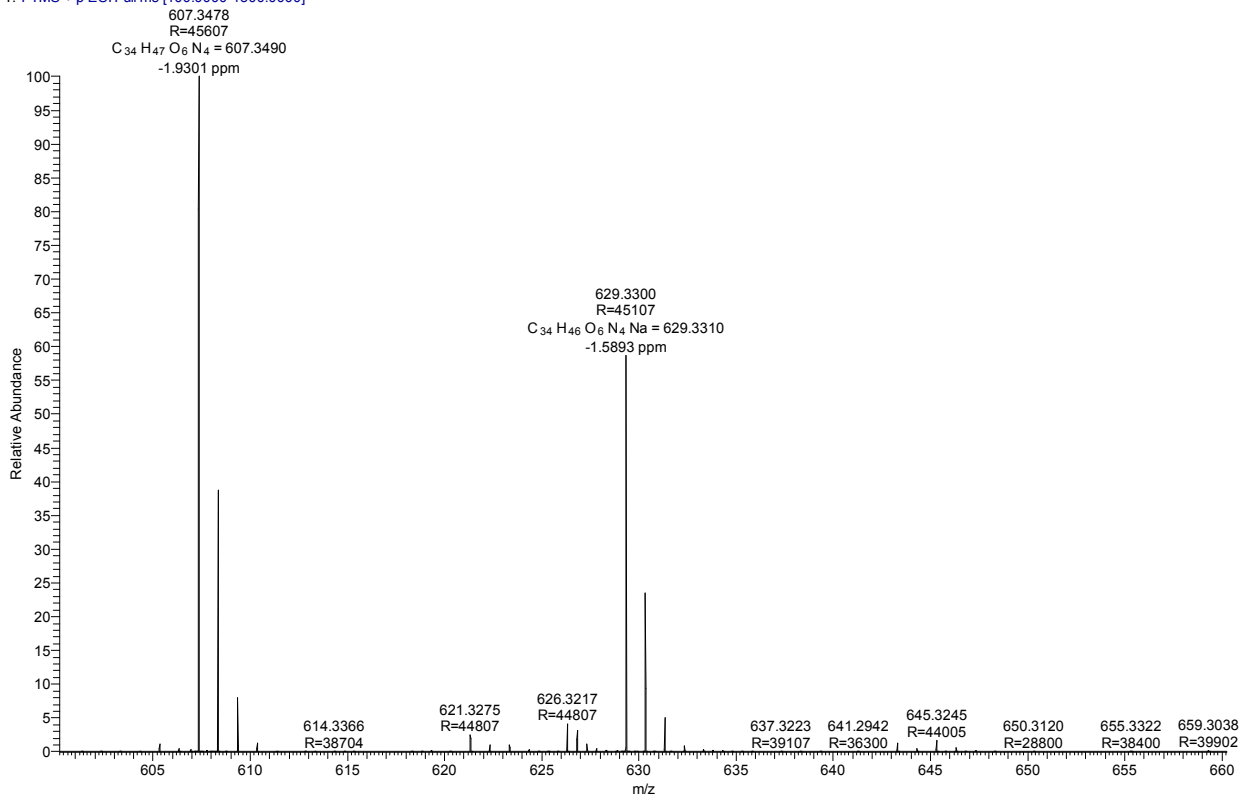


**<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 8f**

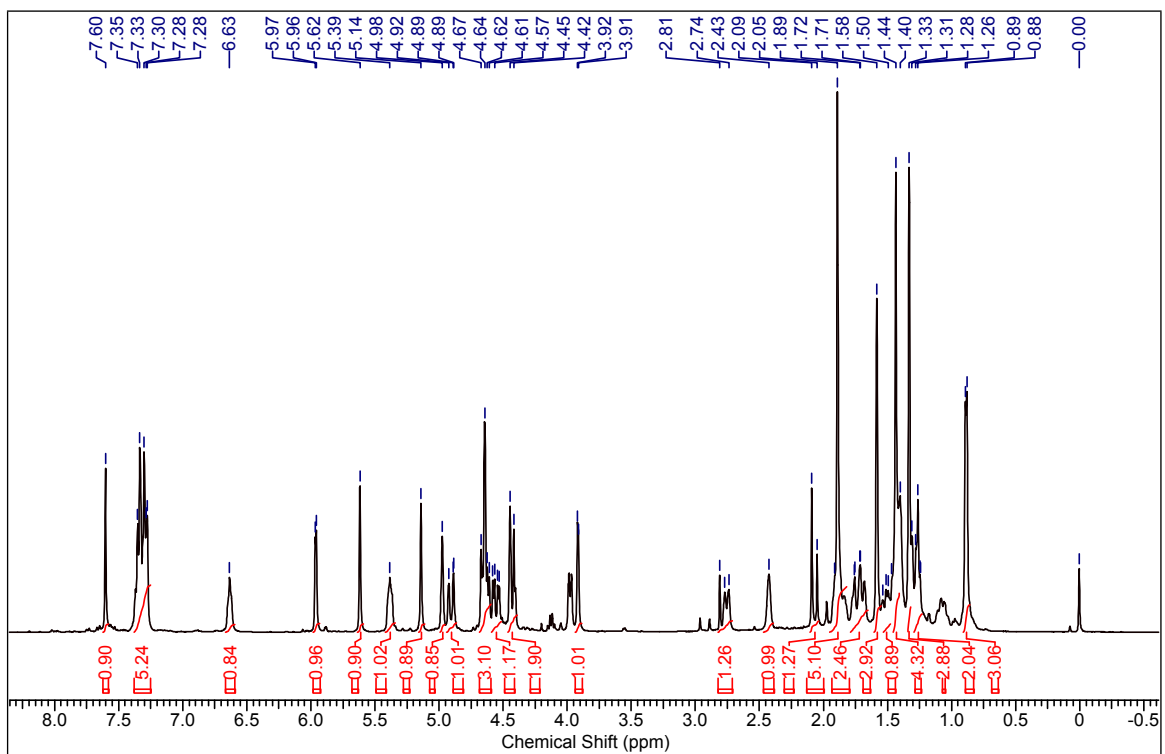


# HRMS of 8f

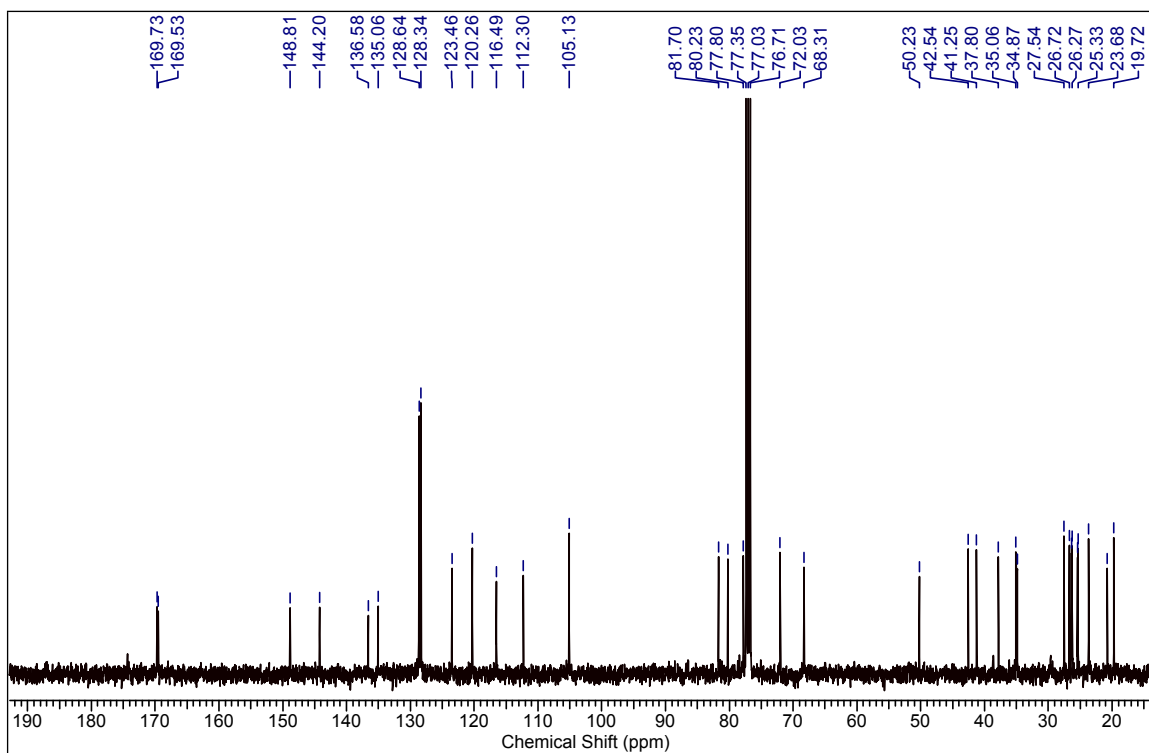
PA-12 #315 RT: 1.40 AV: 1 NL: 1.27E9  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



# <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 8g

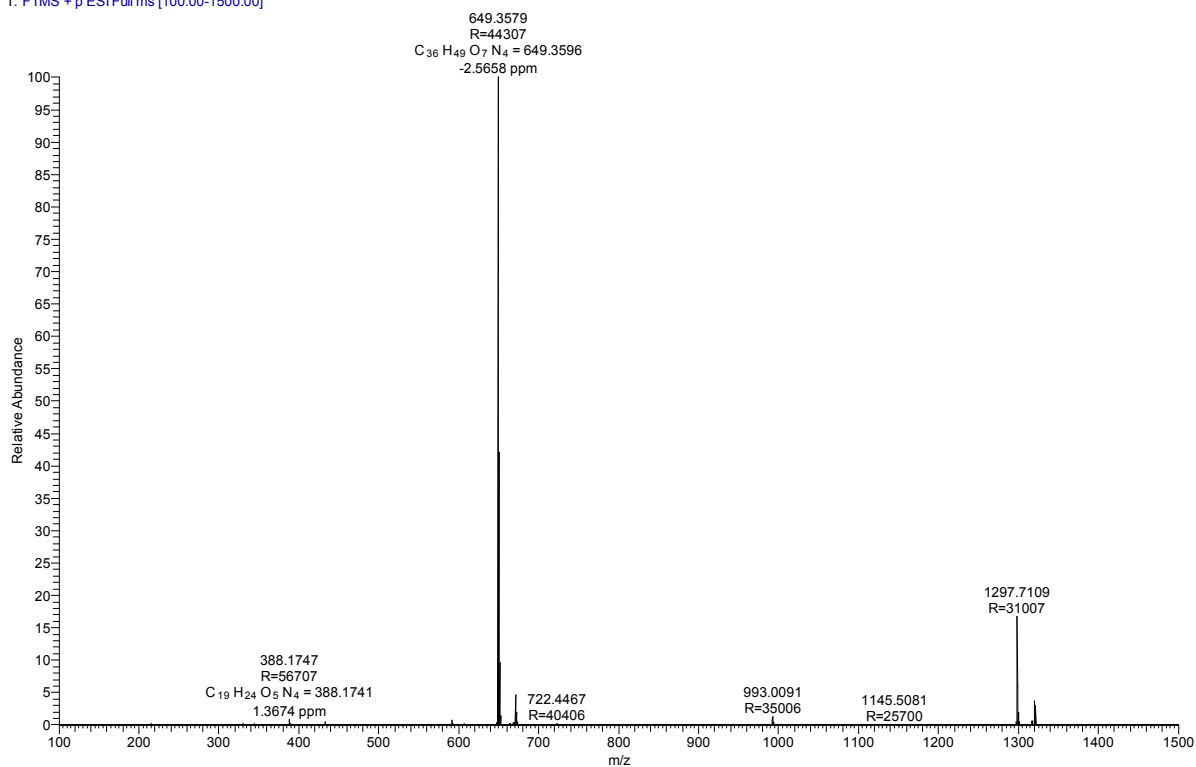


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 8g

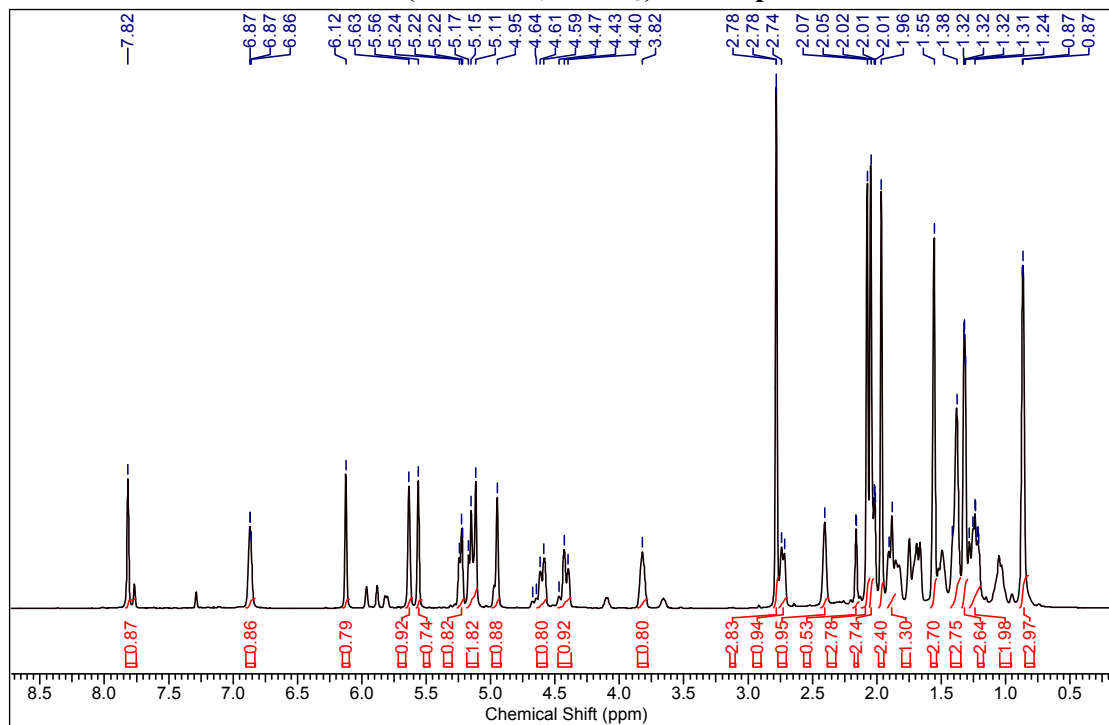


### HRMS of 8g

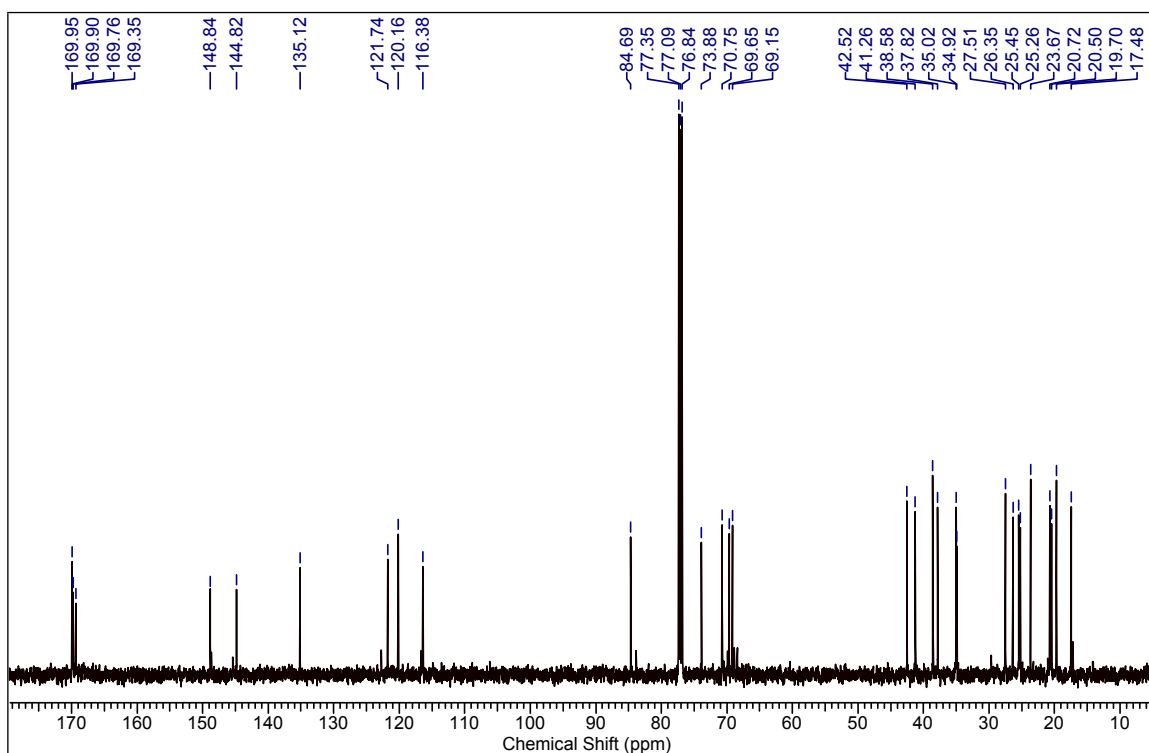
KTK-PA-10 #180 RT: 0.80 AV: 1 NL: 3.78E9  
T: FTMS + p ESI Full ms [100.00-1500.00]



**<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 8h**



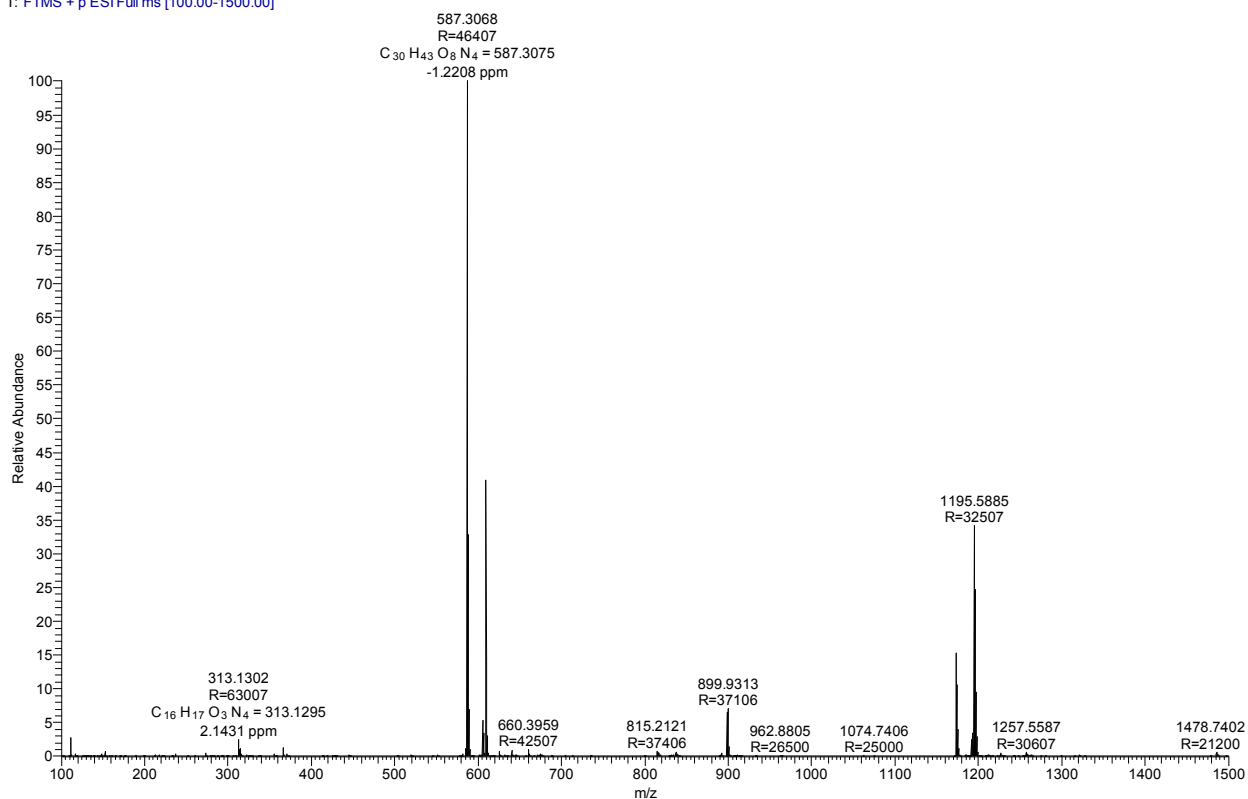
**<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 8h**



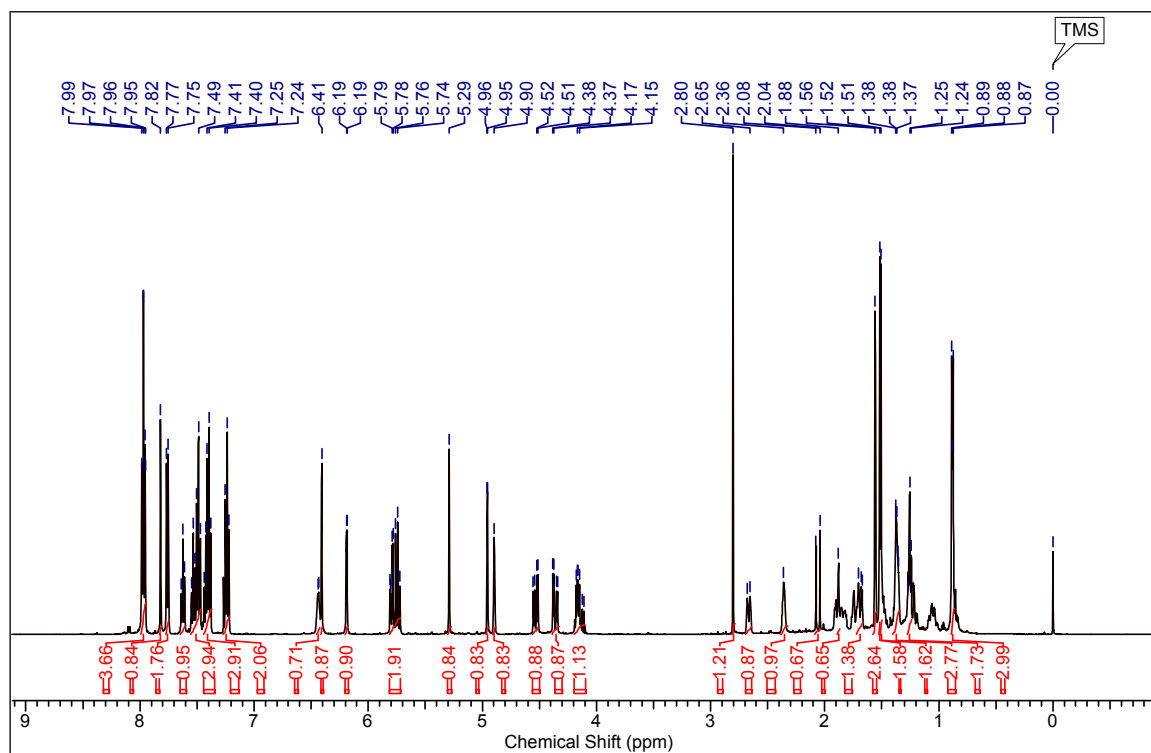


# HRMS of 8h

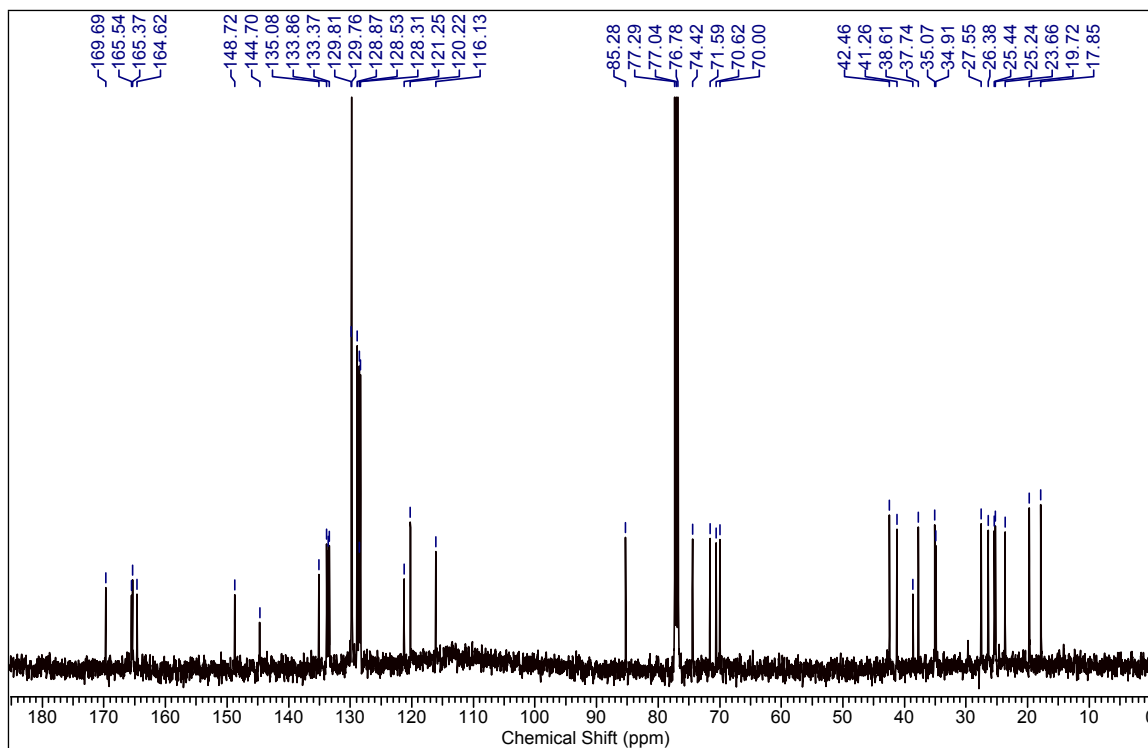
KTK-PA-5 #140 RT: 0.62 AV: 1 NL: 1.40E9  
T: FTMS + p ESI Full ms [100.00-1500.00]



# $^1H$ NMR (500 MHz, $CDCl_3$ ) of compound 8i

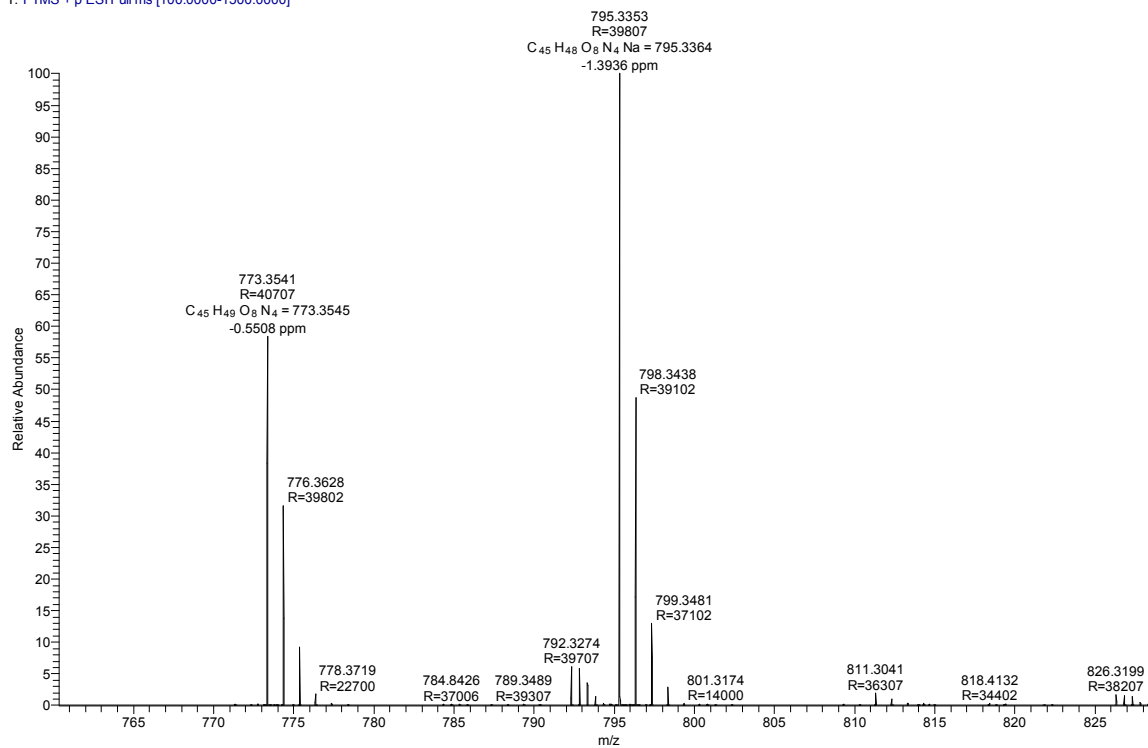


### <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of compound 8i

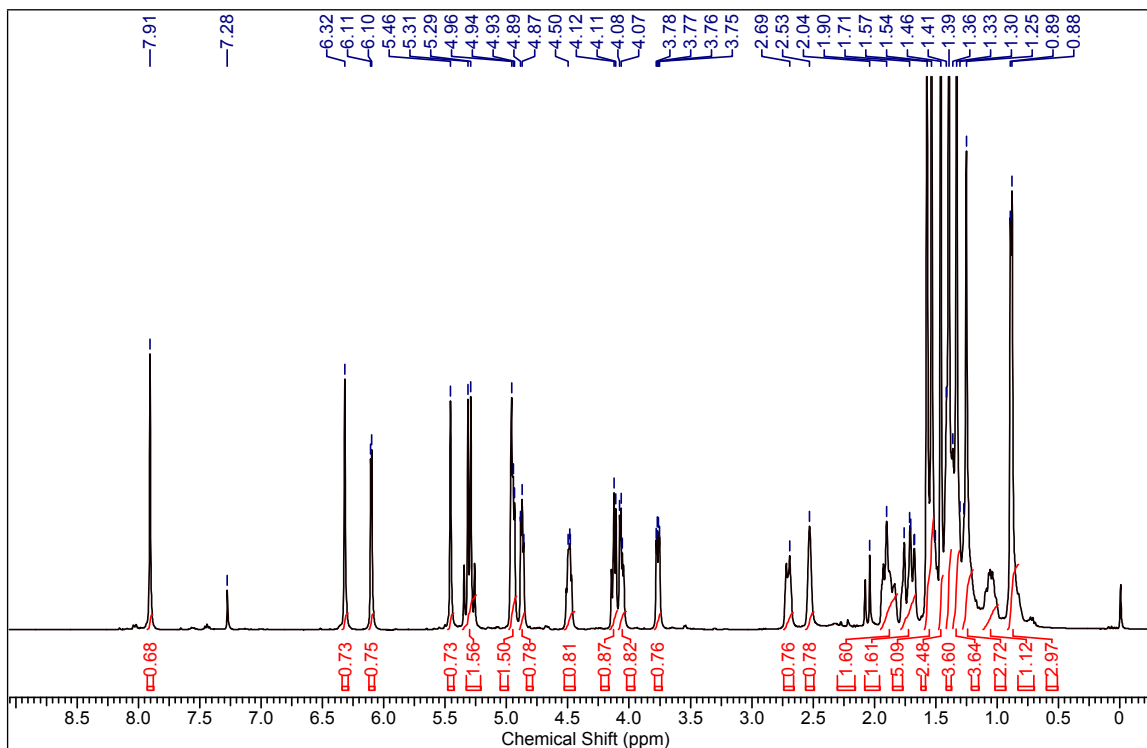


### HRMS of 8i

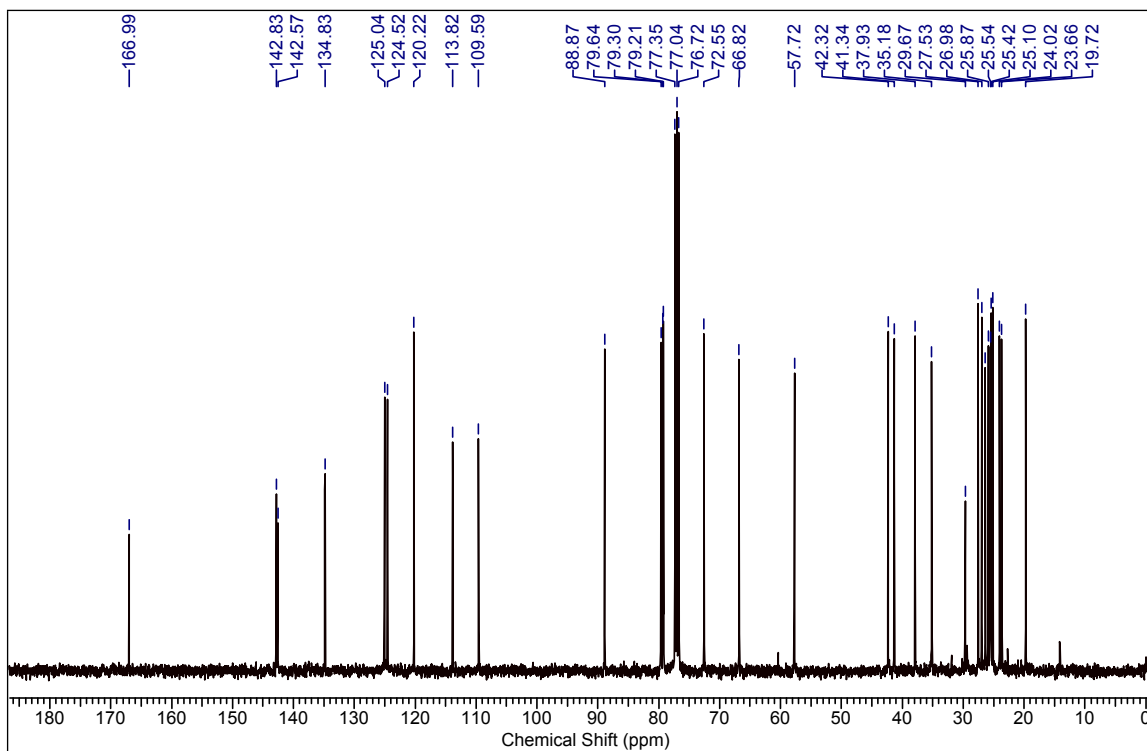
PA-7 #357 RT: 1.59 AV: 1 NL: 4.71E8  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



**<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 8j**

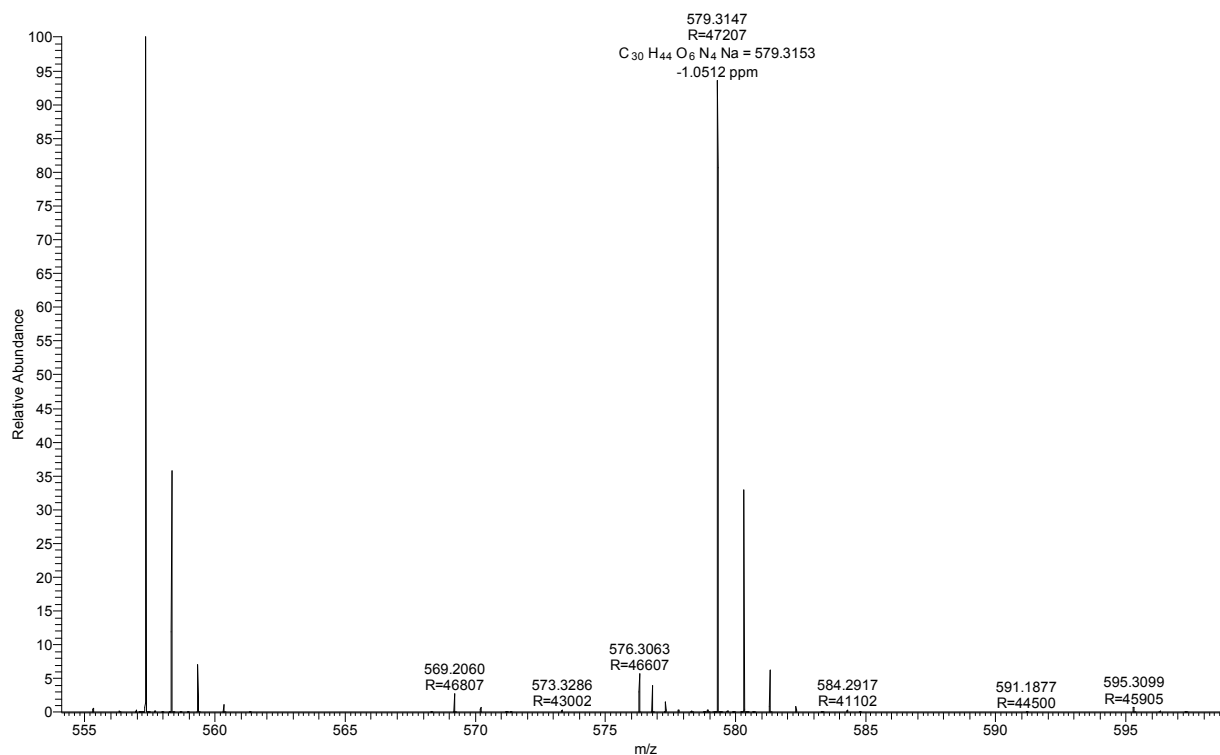


**<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 8j**

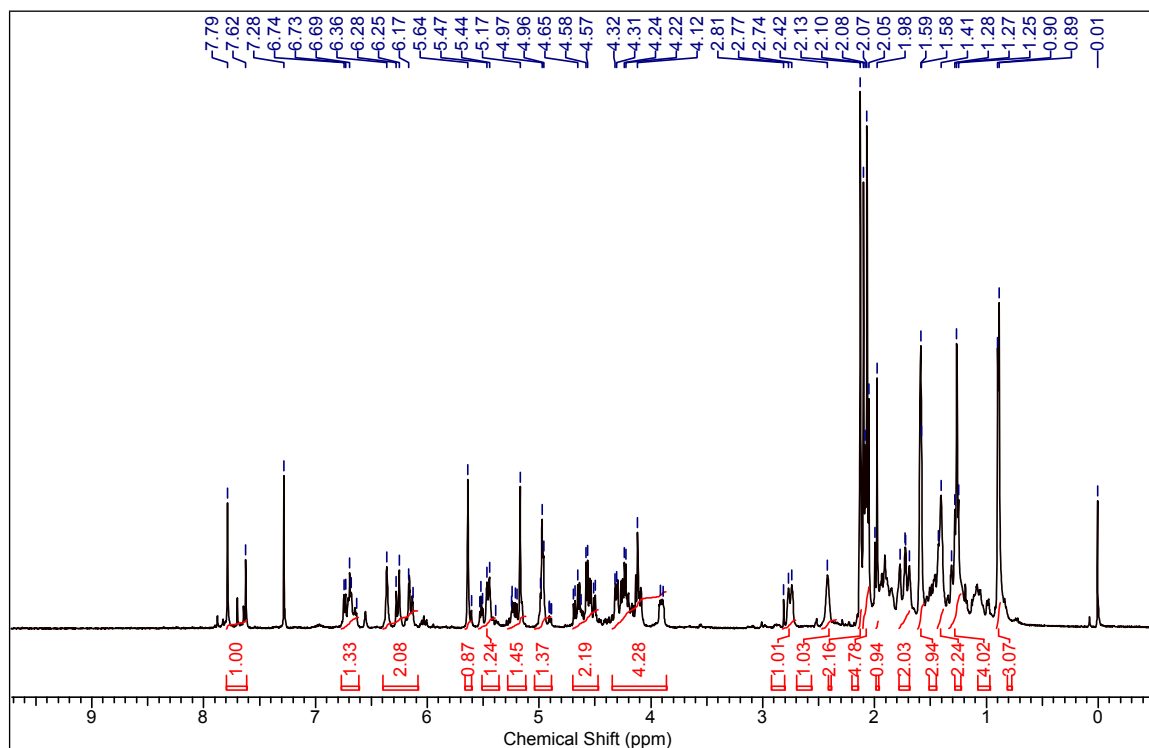


# HRMS of 8j

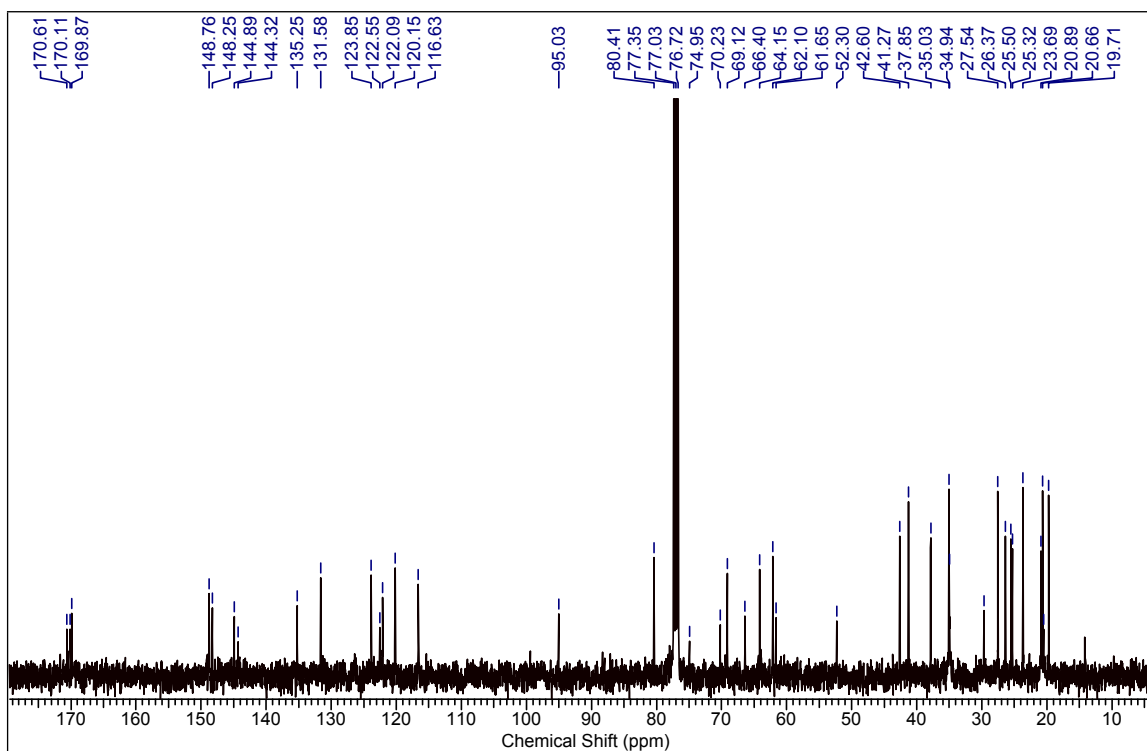
PA-8 #311 RT: 1.39 AV: 1 NL: 1.07E9  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



# <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 8k

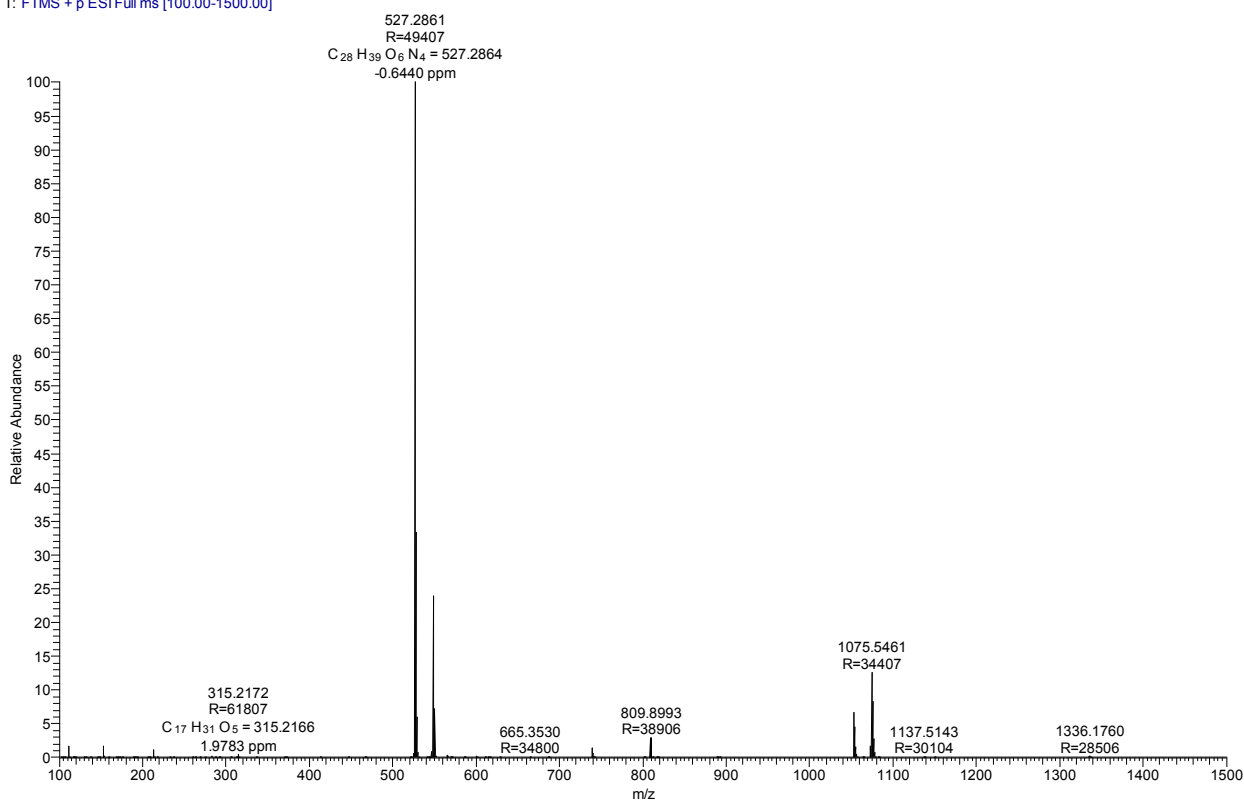


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 8k

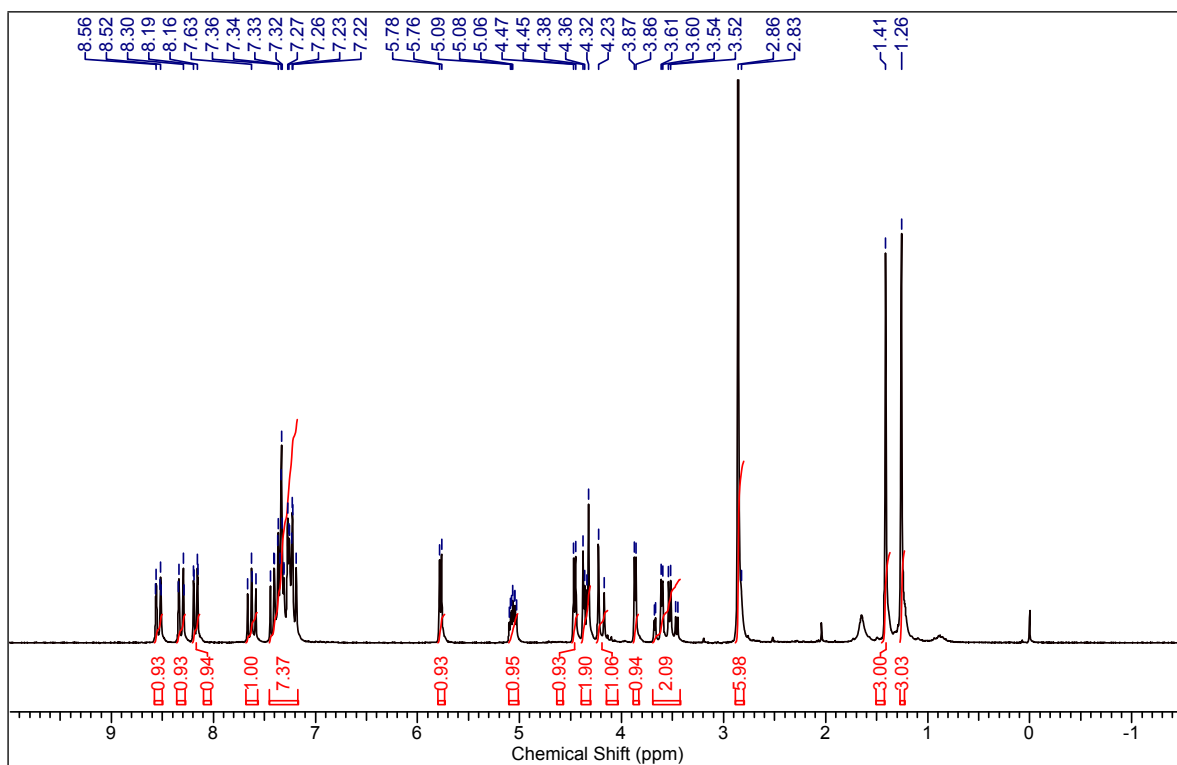


### HRMS of 8k

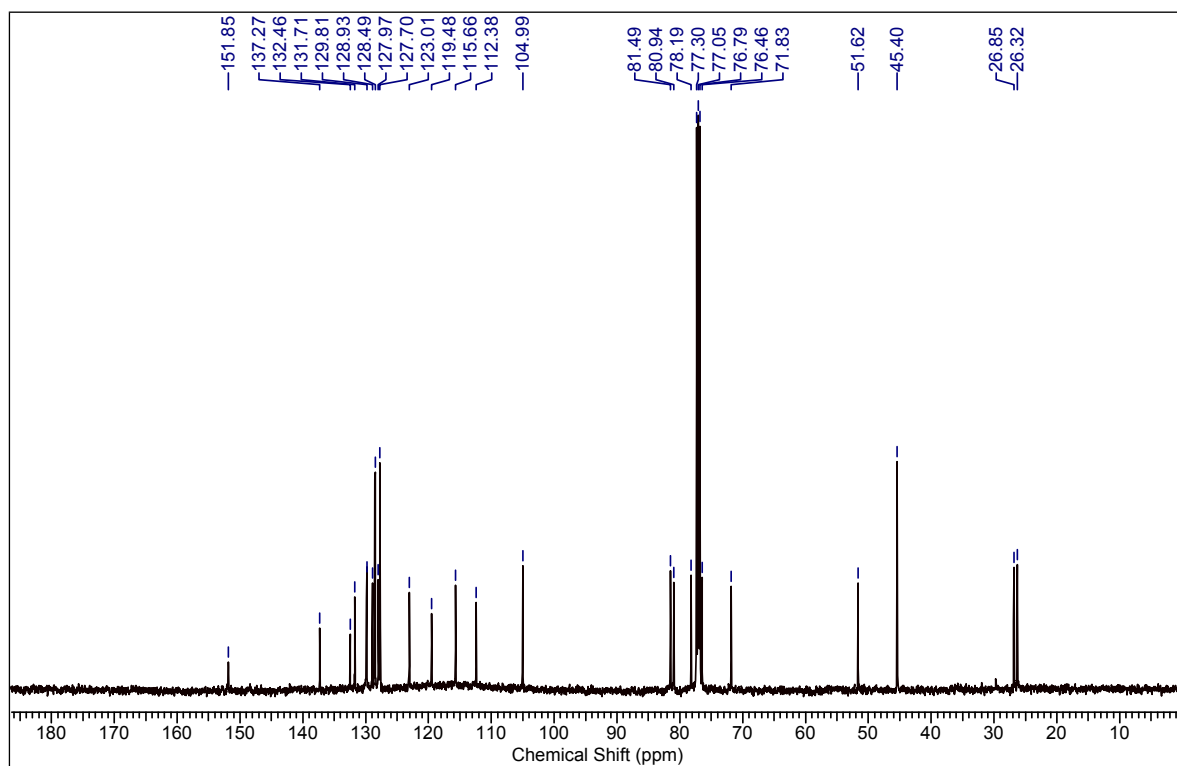
KTK-PA-11 #140 RT: 0.62 AV: 1 NL: 3.85E9  
T: FTMS + p ESIFull.ms [100.00-1500.00]



**<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) of Compound 10**

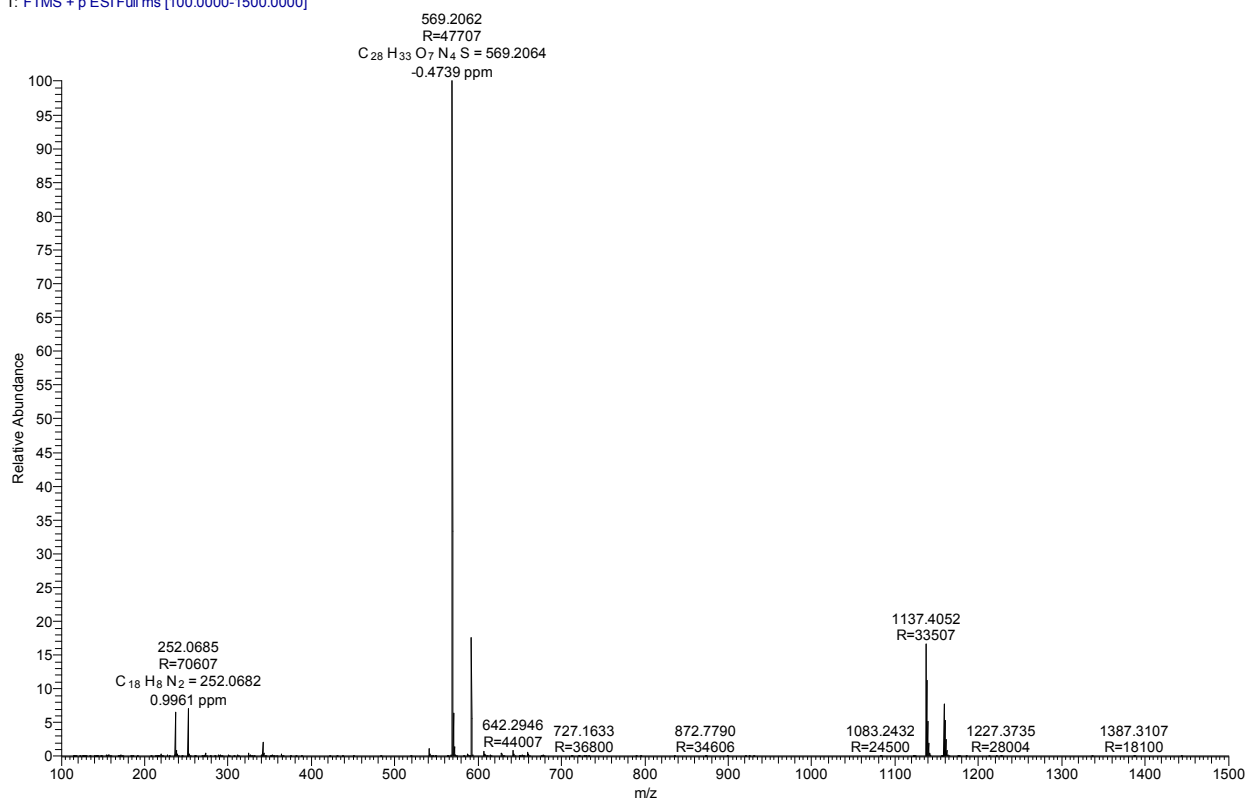


**<sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of compound 10**

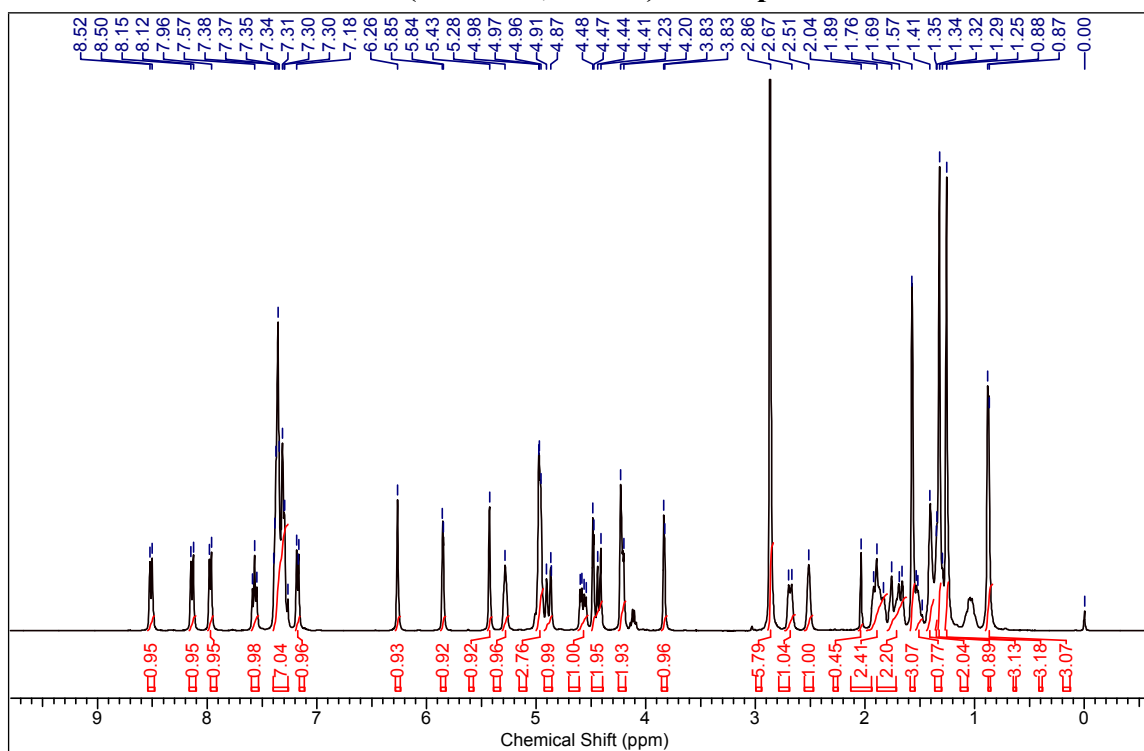


# HRMS of 10

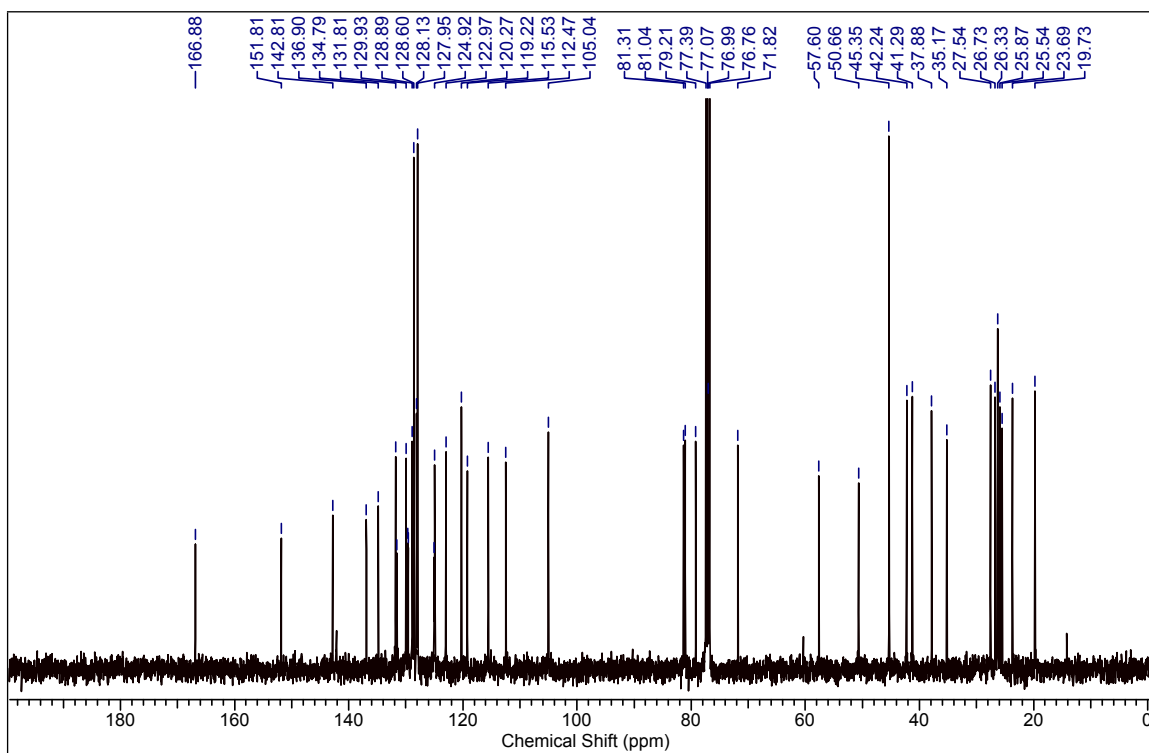
DAN-P-1\_180110152809 #305 RT: 1.36 AV: 1 NL: 2.72E9  
T: FTMS + p ESI Full ms [100.0000-1500.0000]



## <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 11

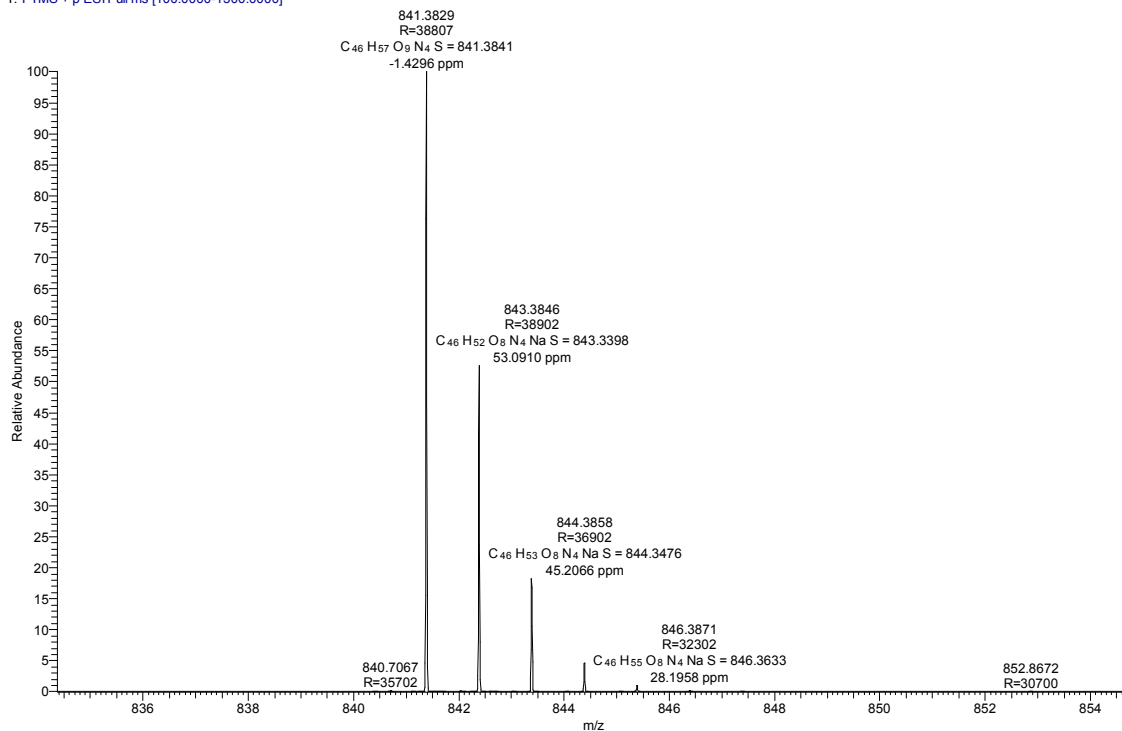


### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 11



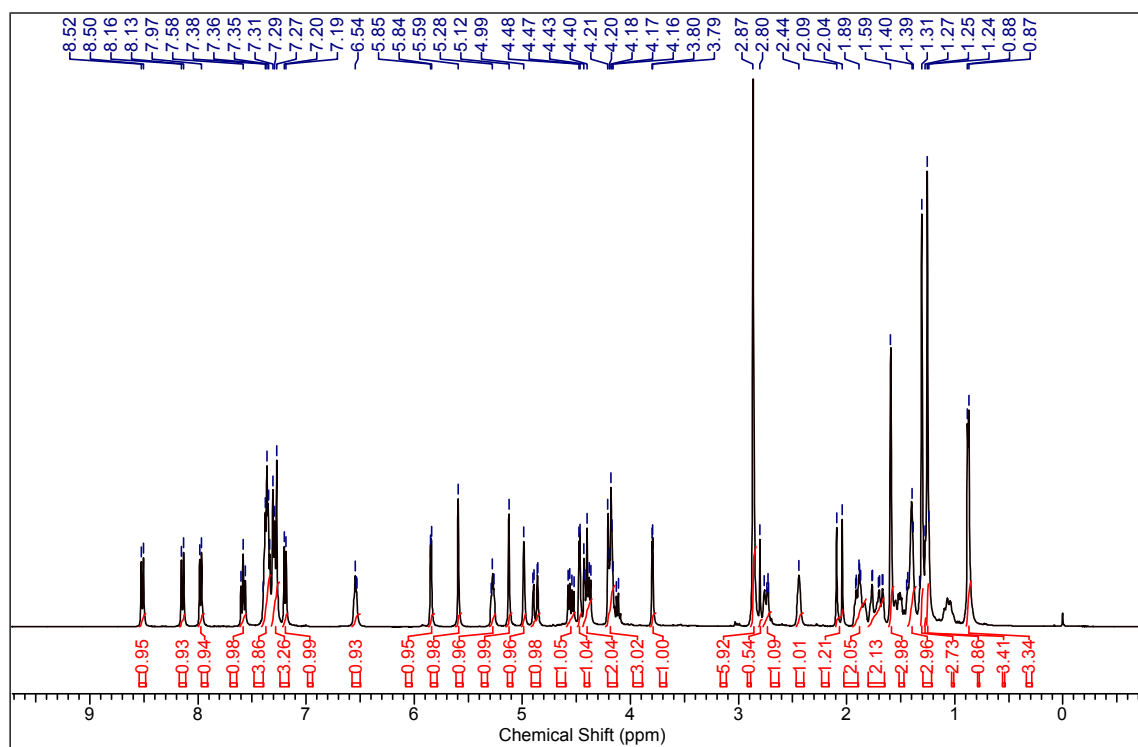
### HRMS of 11

AA-D #462 RT: 2.07 AV: 1 NL: 9.58E8  
T: FTMS + p ESI Full ms [100.0000-1500.0000]

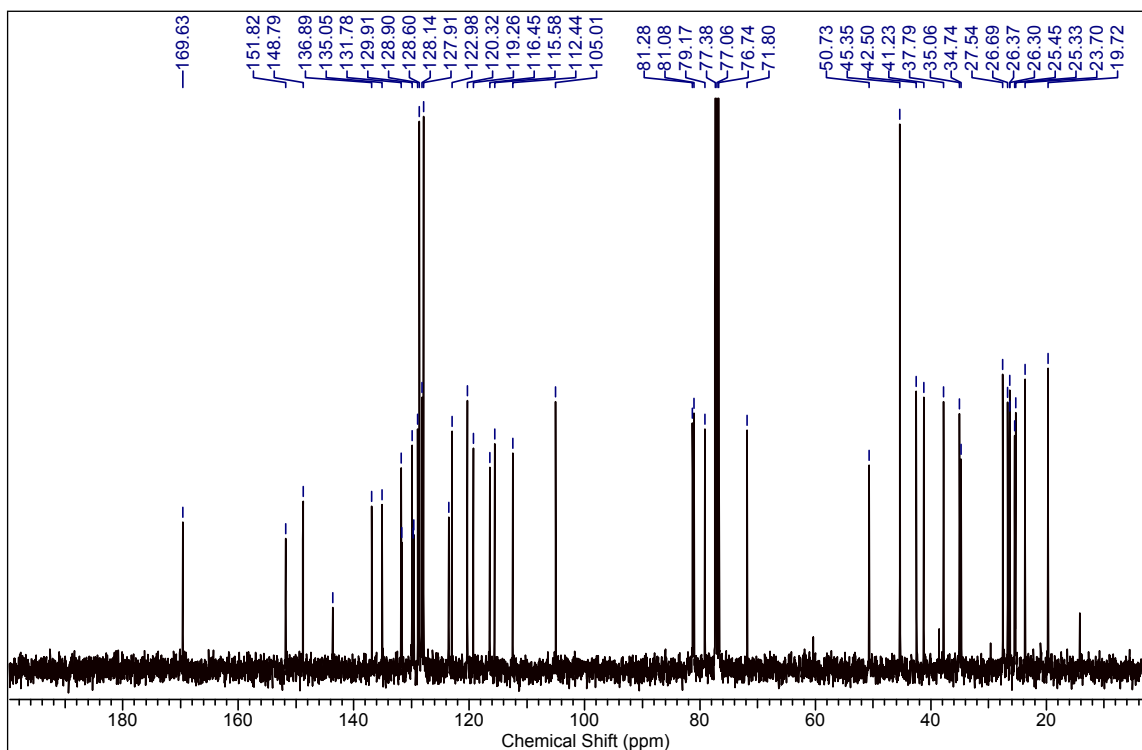




### <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 12



### <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 12



# HRMS of 12

PA-D #367 RT: 1.63 AV: 1 NL: 1.19E9  
T: FTMS + p ESI Full ms [100.0000-1500.0000]

