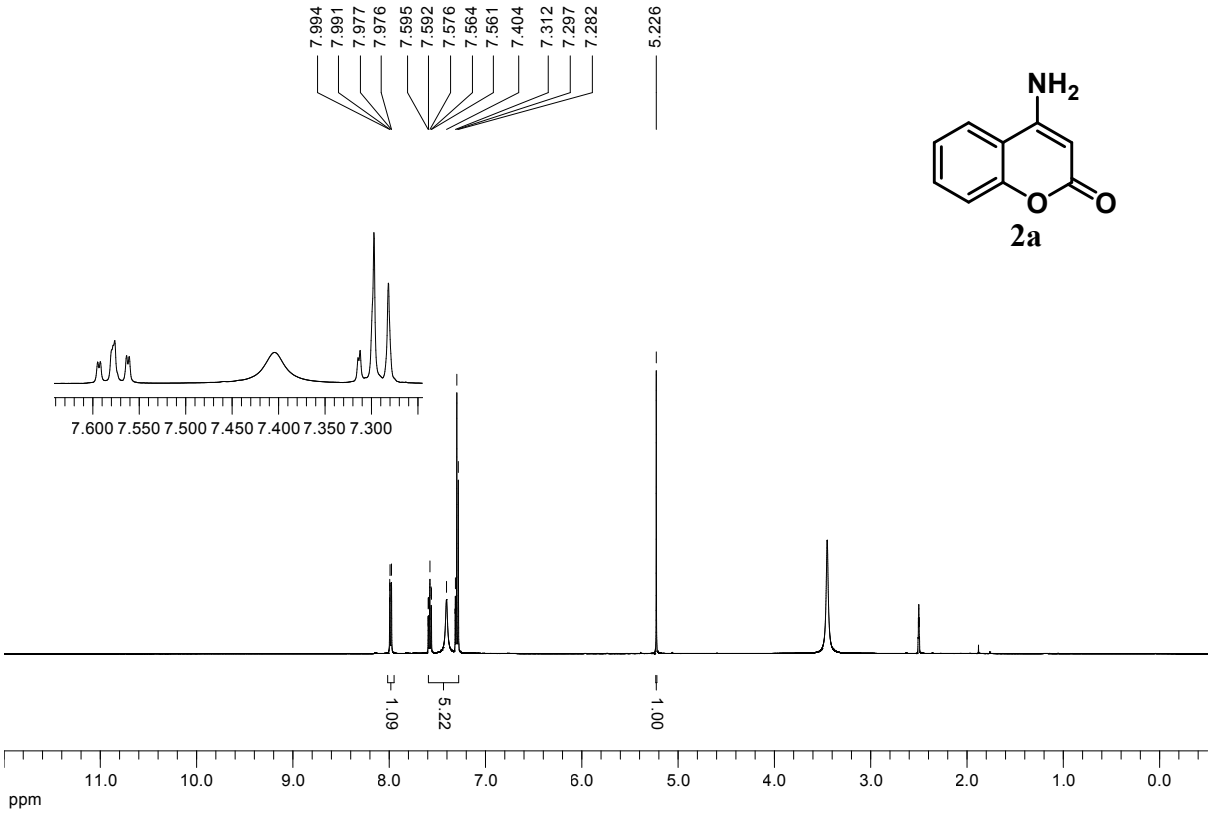
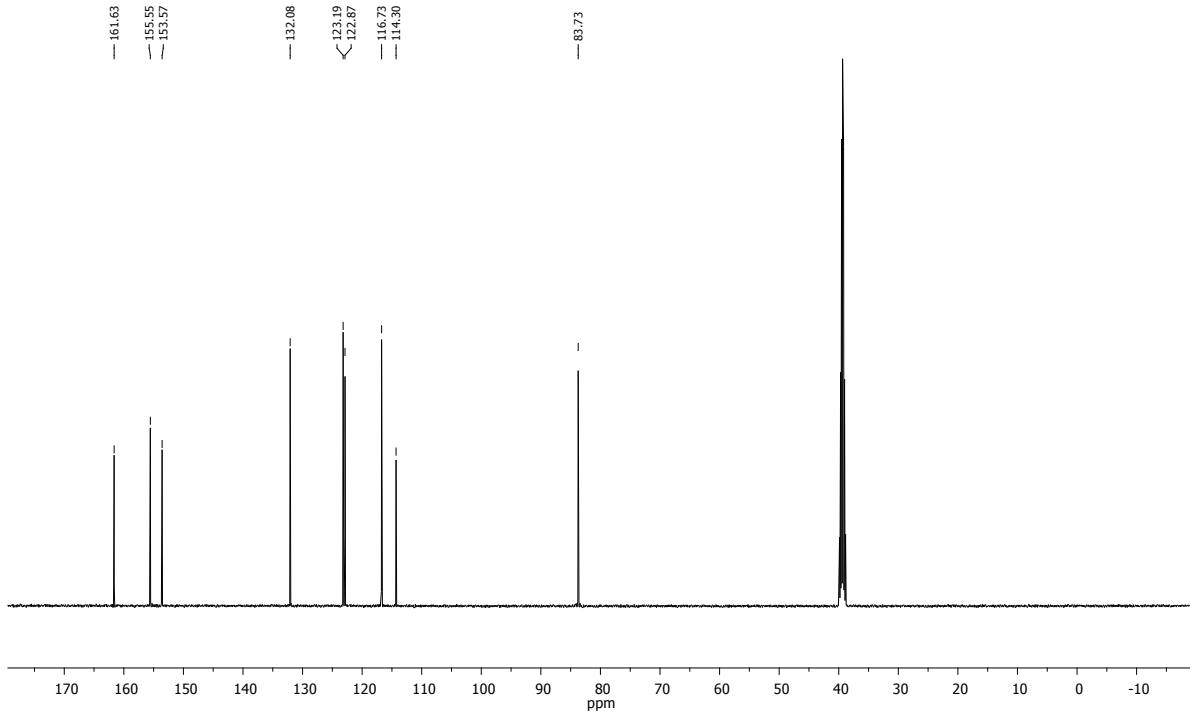
Supporting Information

Copies of ^{1}H, ^{13}C NMR and HRMS spectra of all products

^{1}H-NMR (500 MHz, DMSO-d_6)



^{13}C-NMR (126 MHz, DMSO-d_6)



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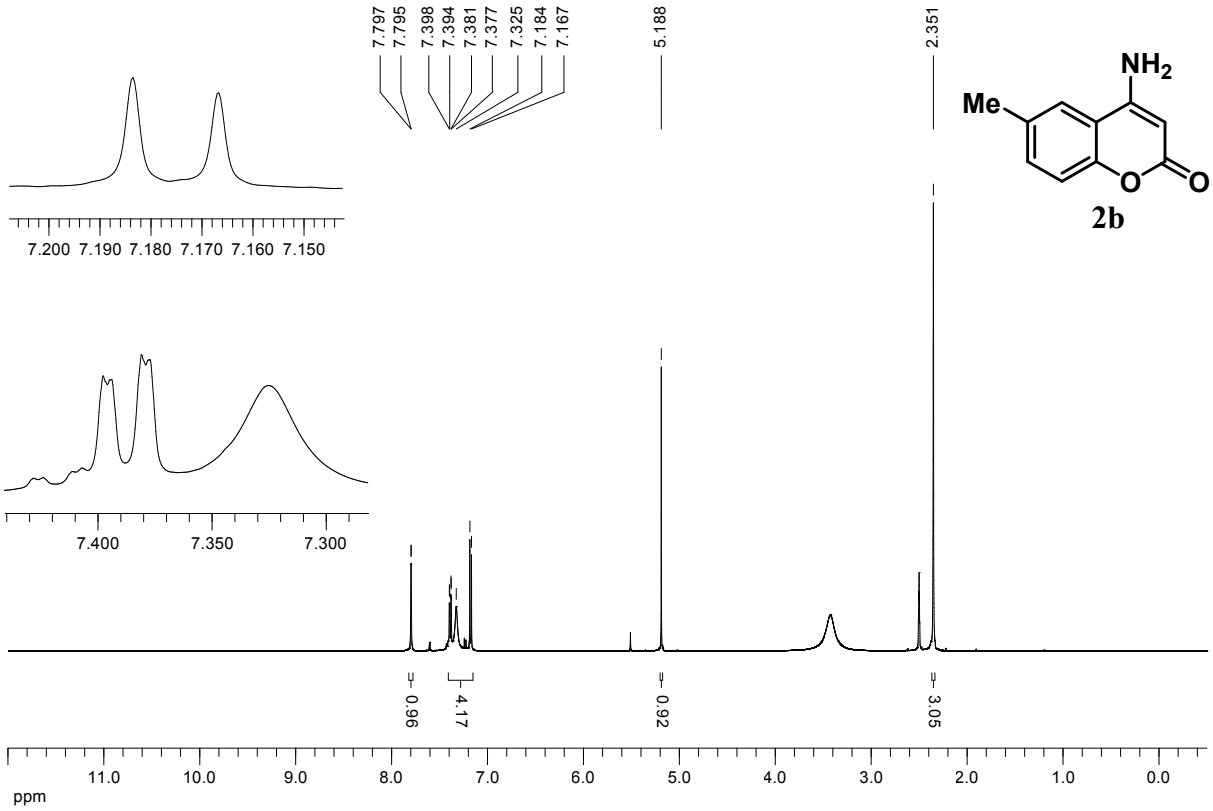

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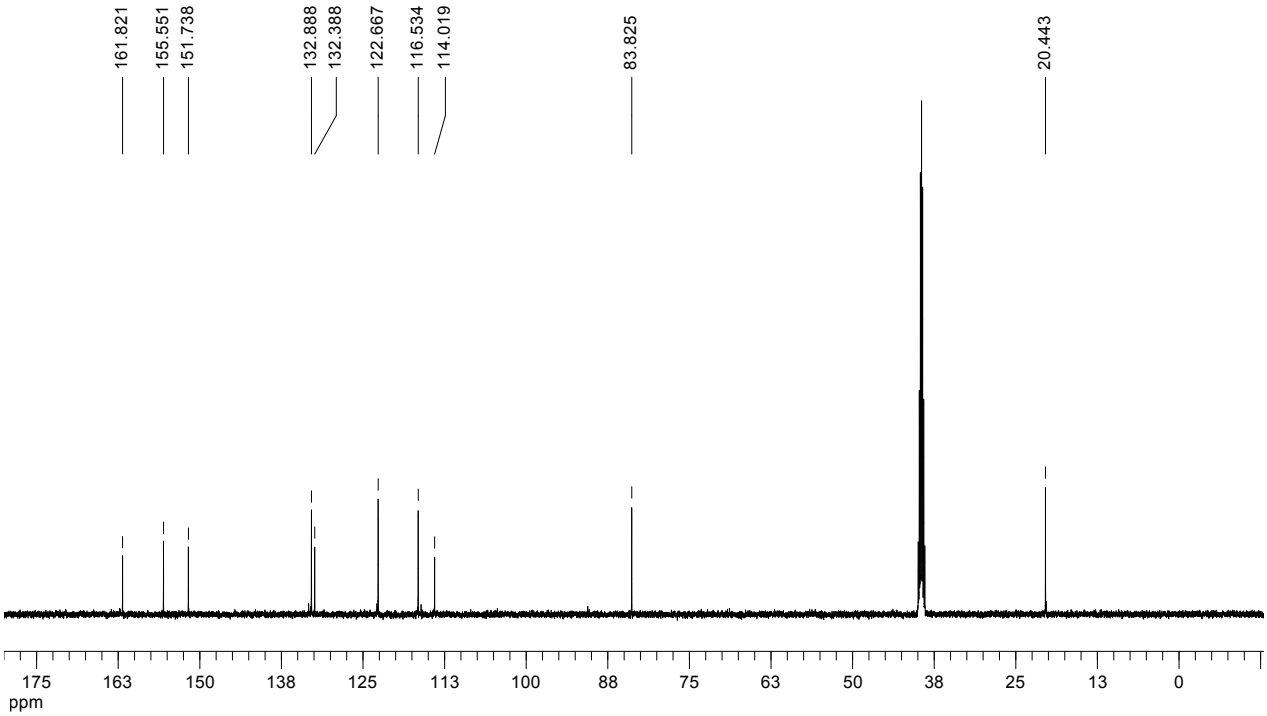

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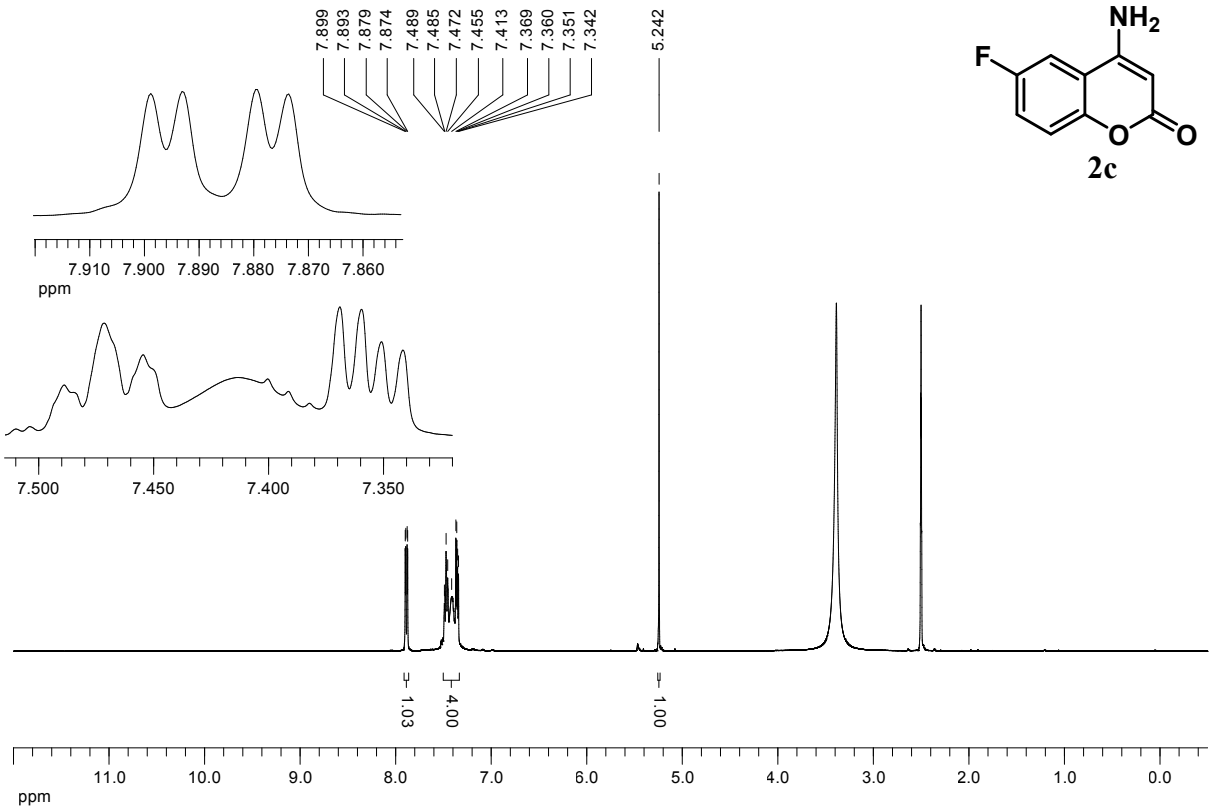

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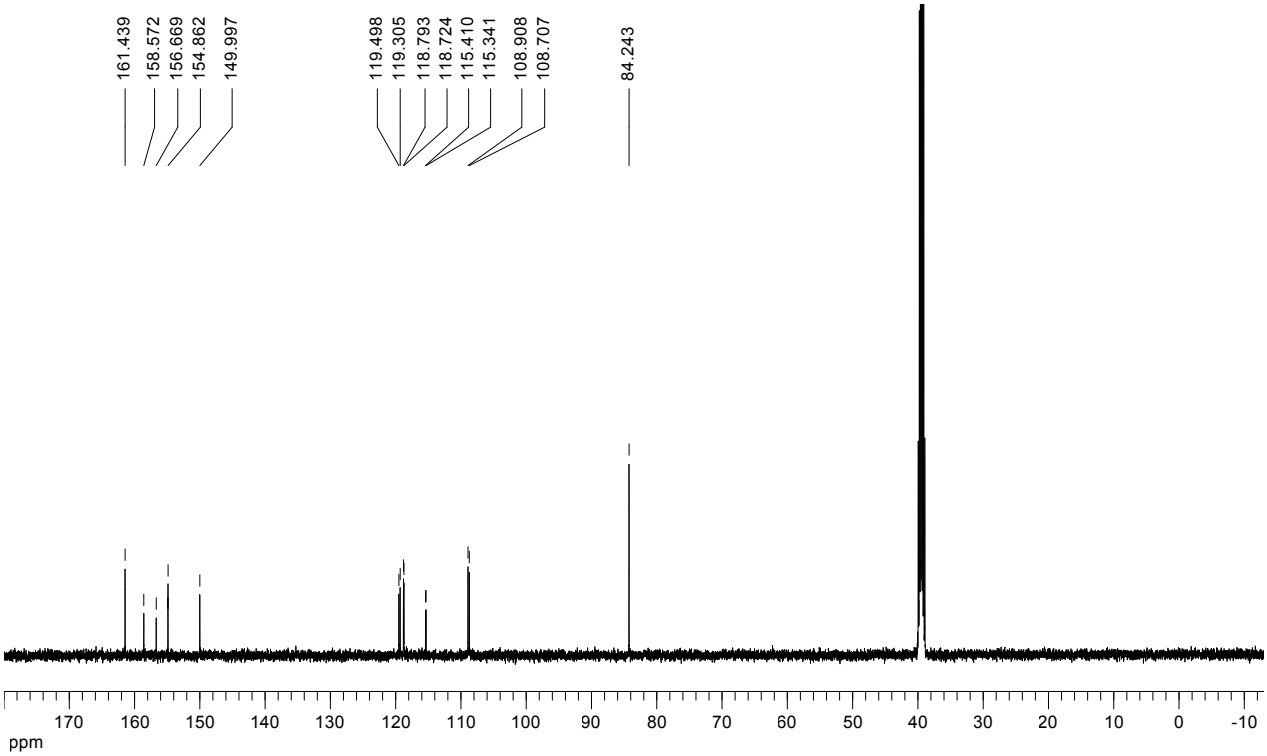

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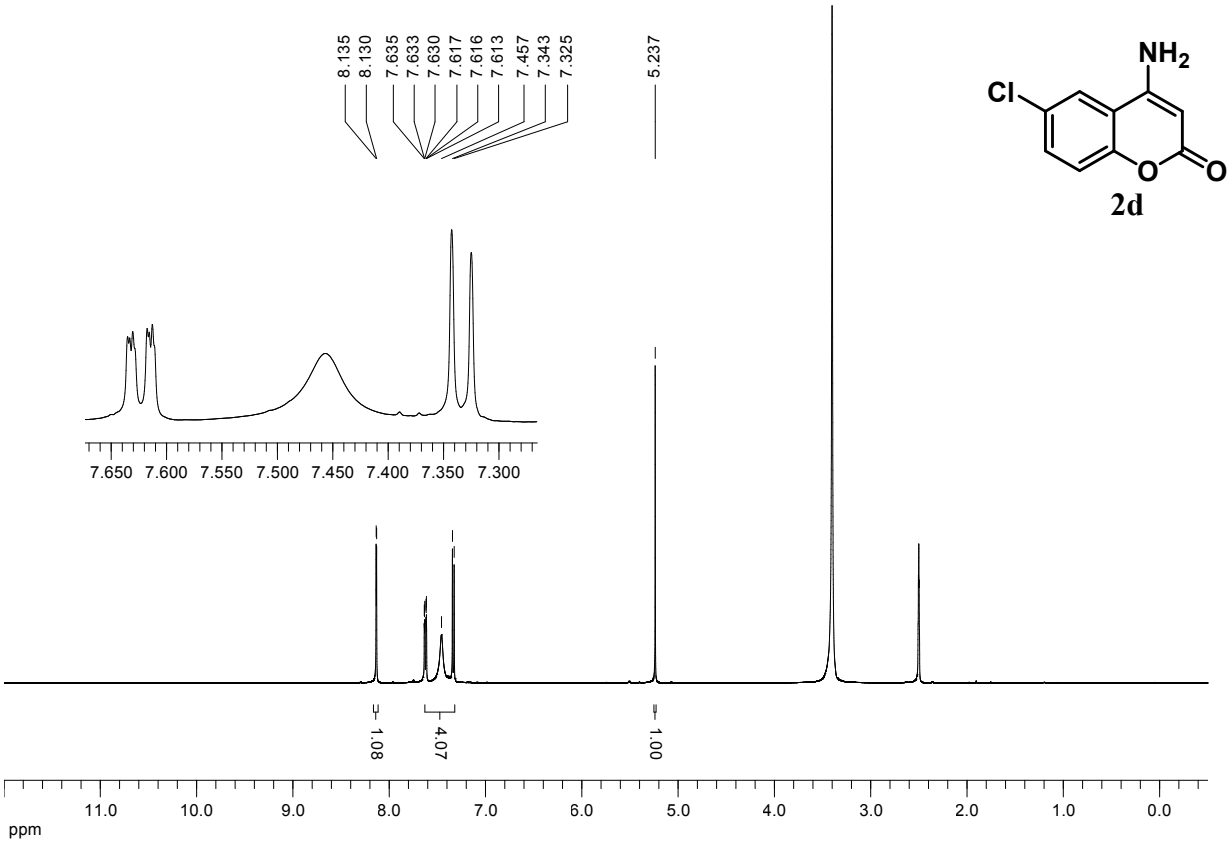

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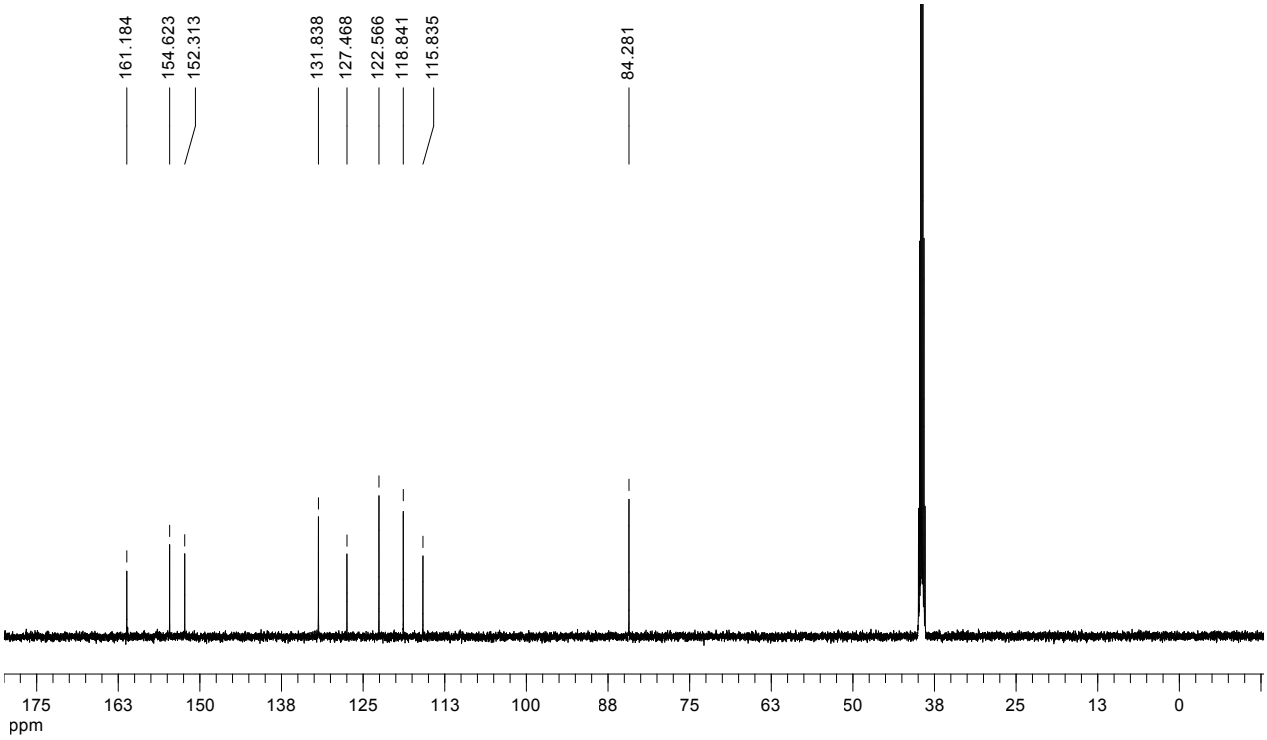

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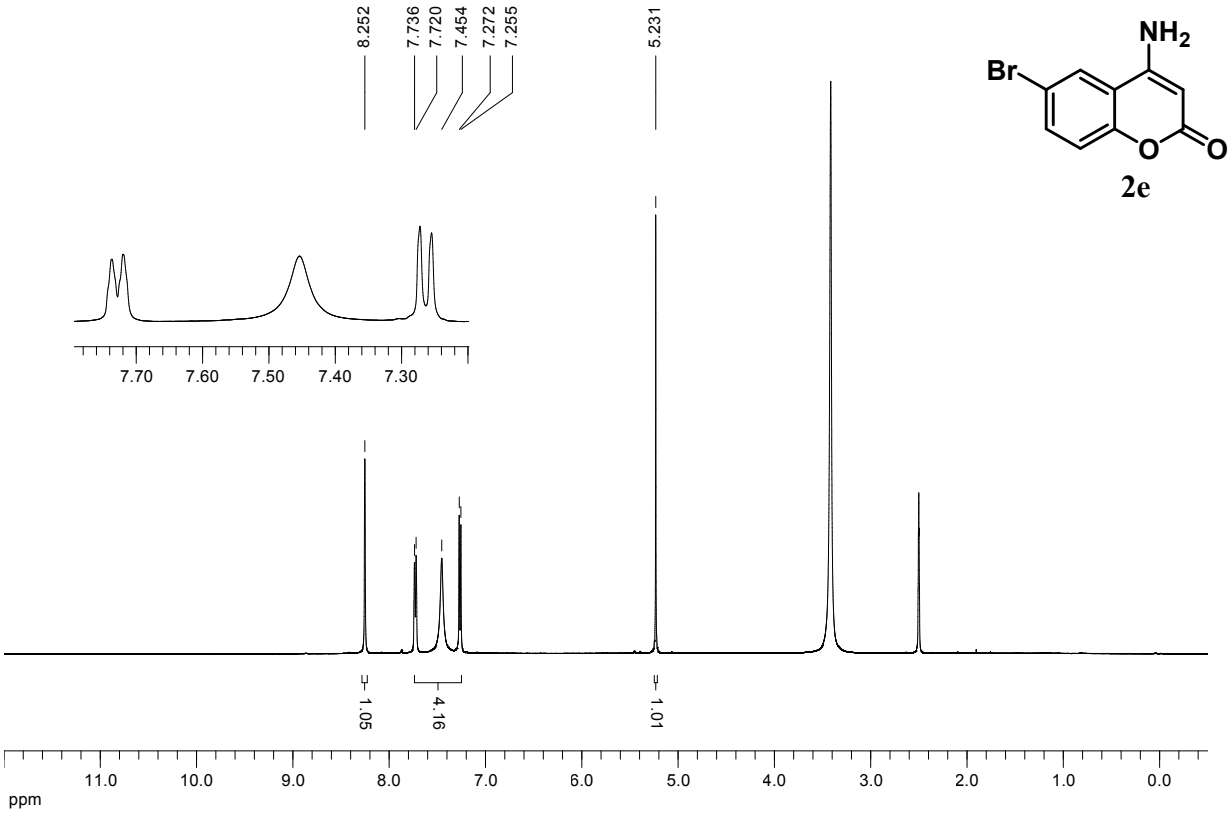

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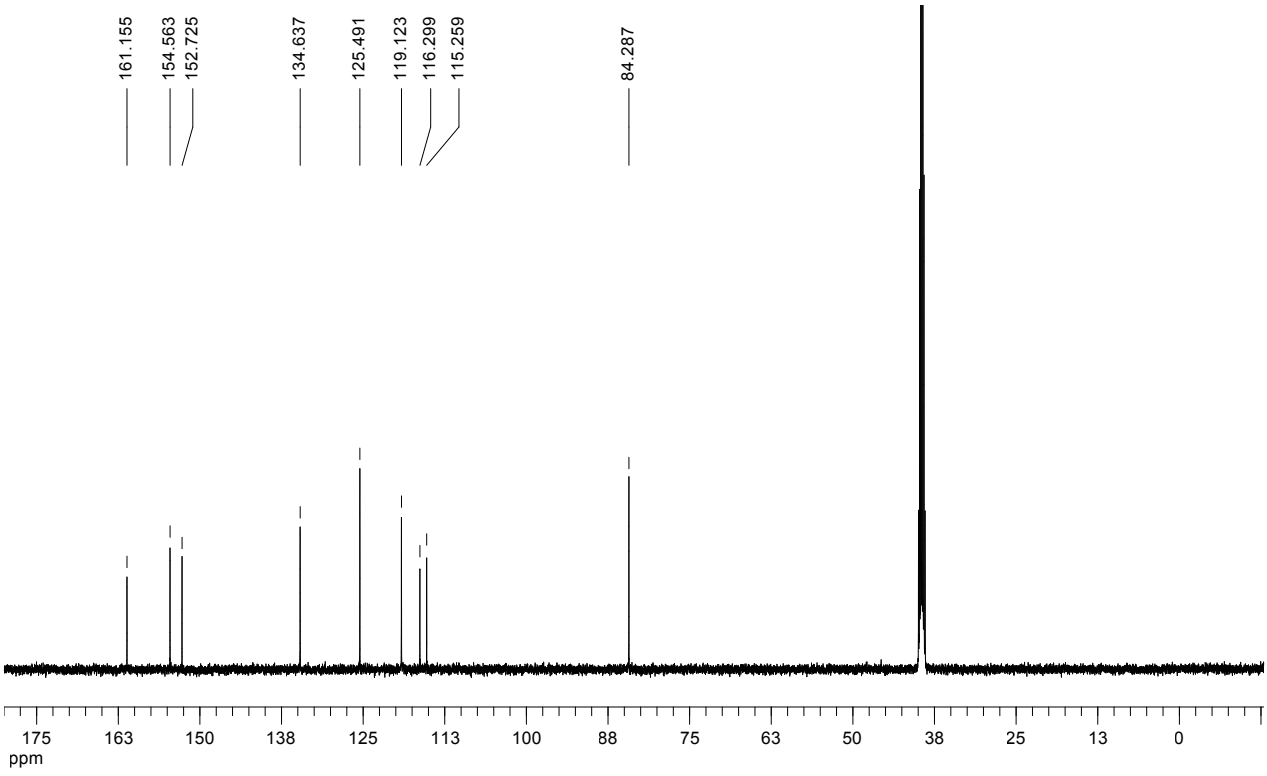

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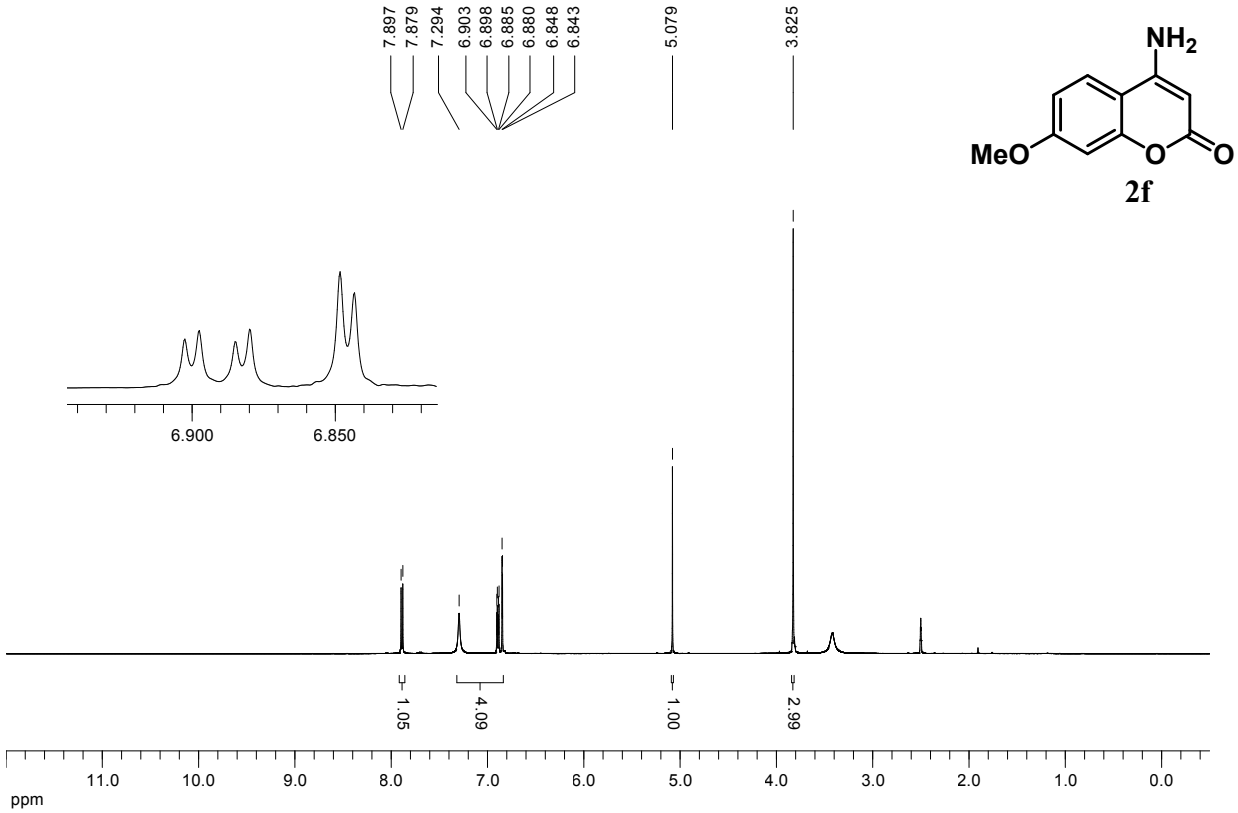

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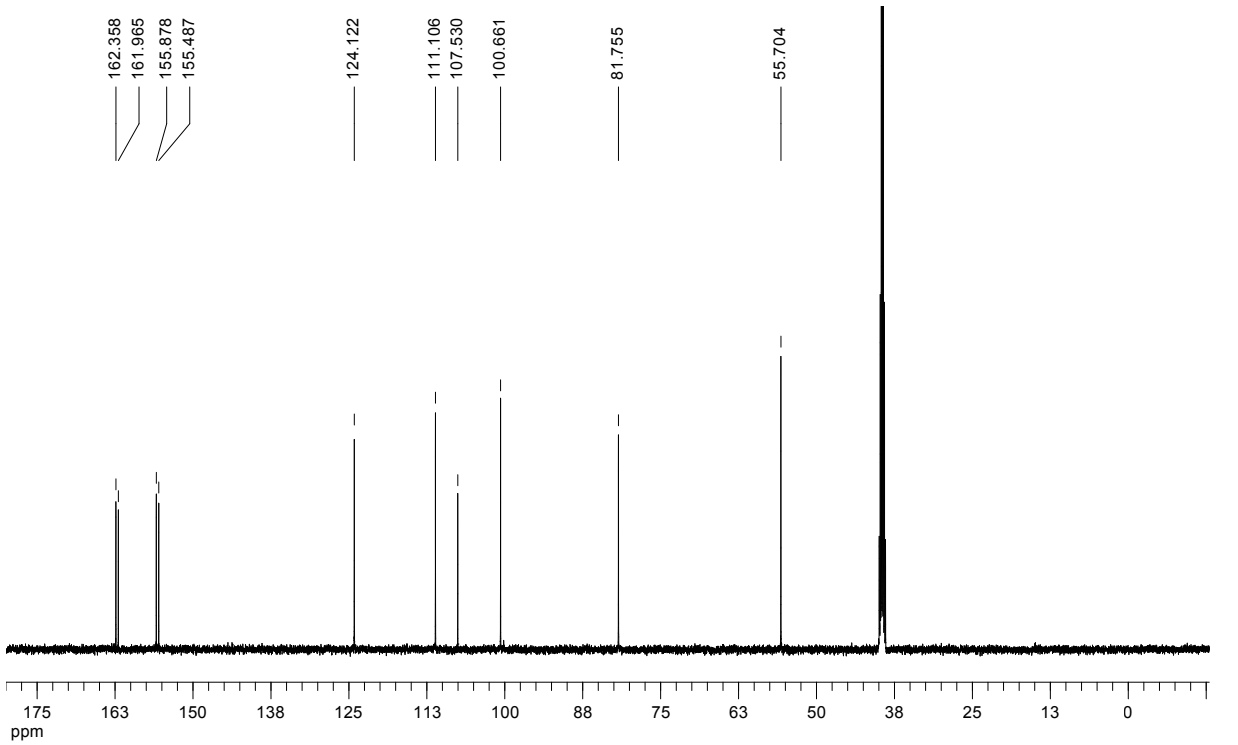

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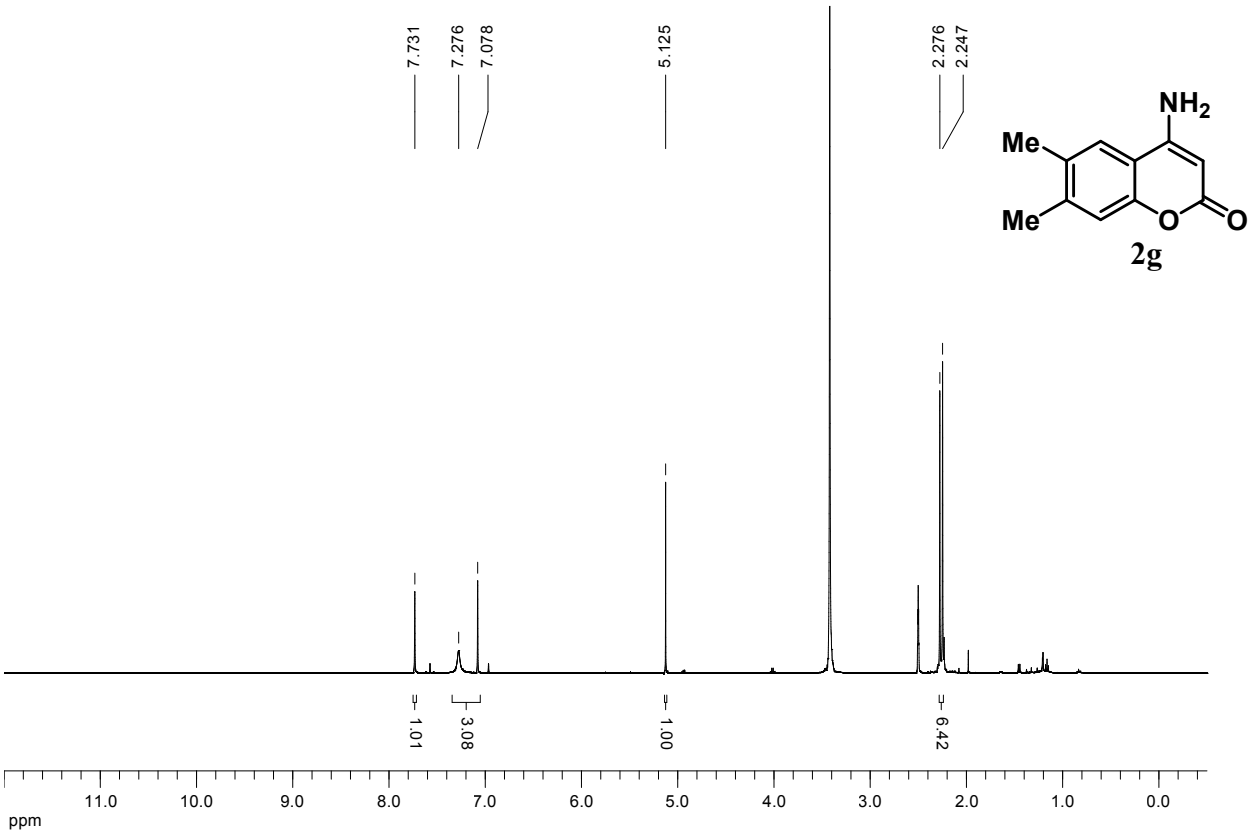

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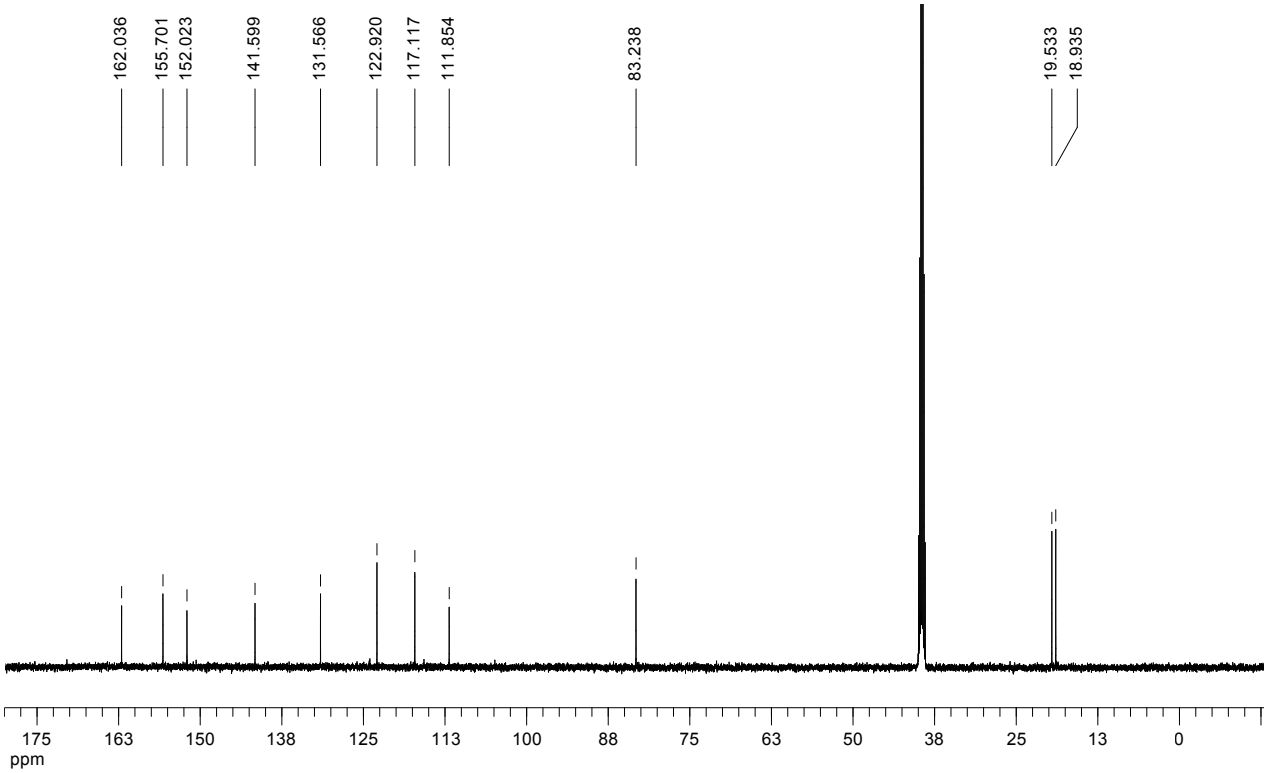

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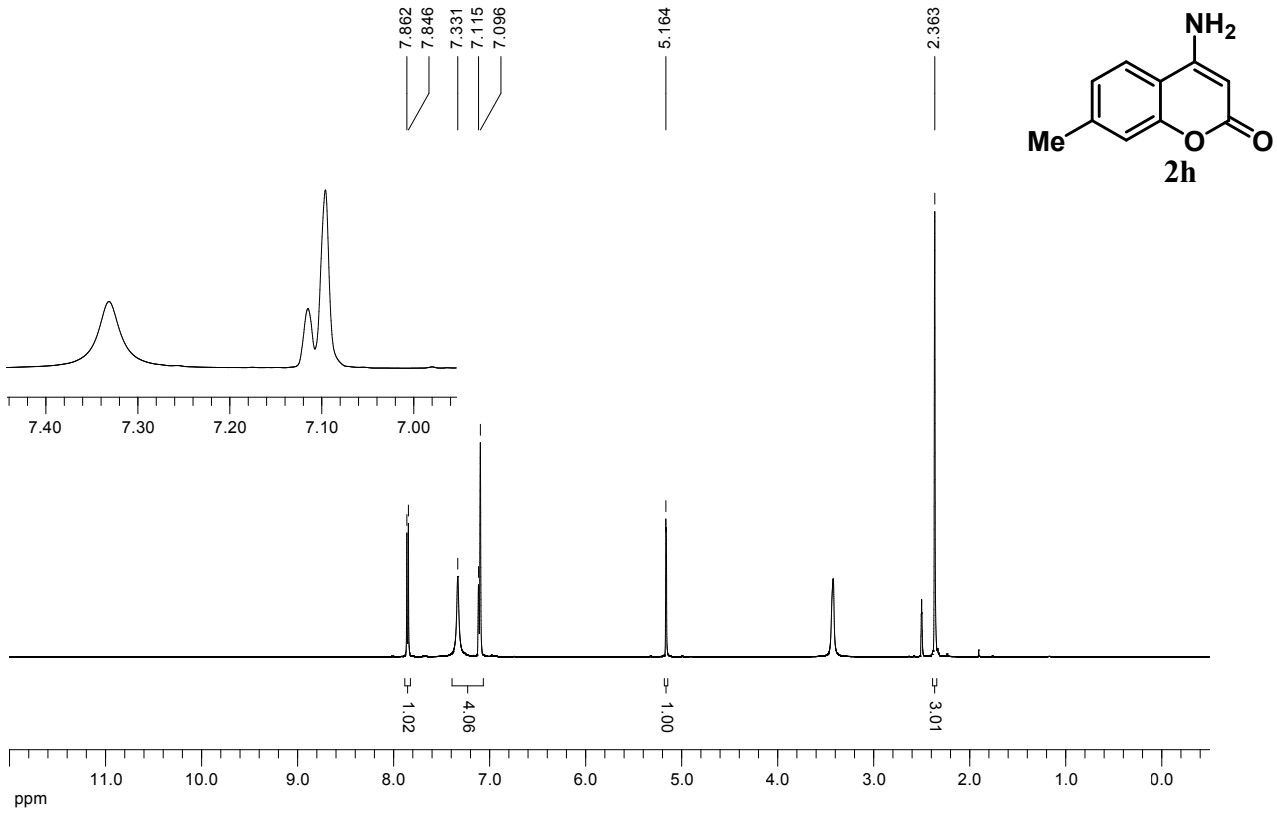

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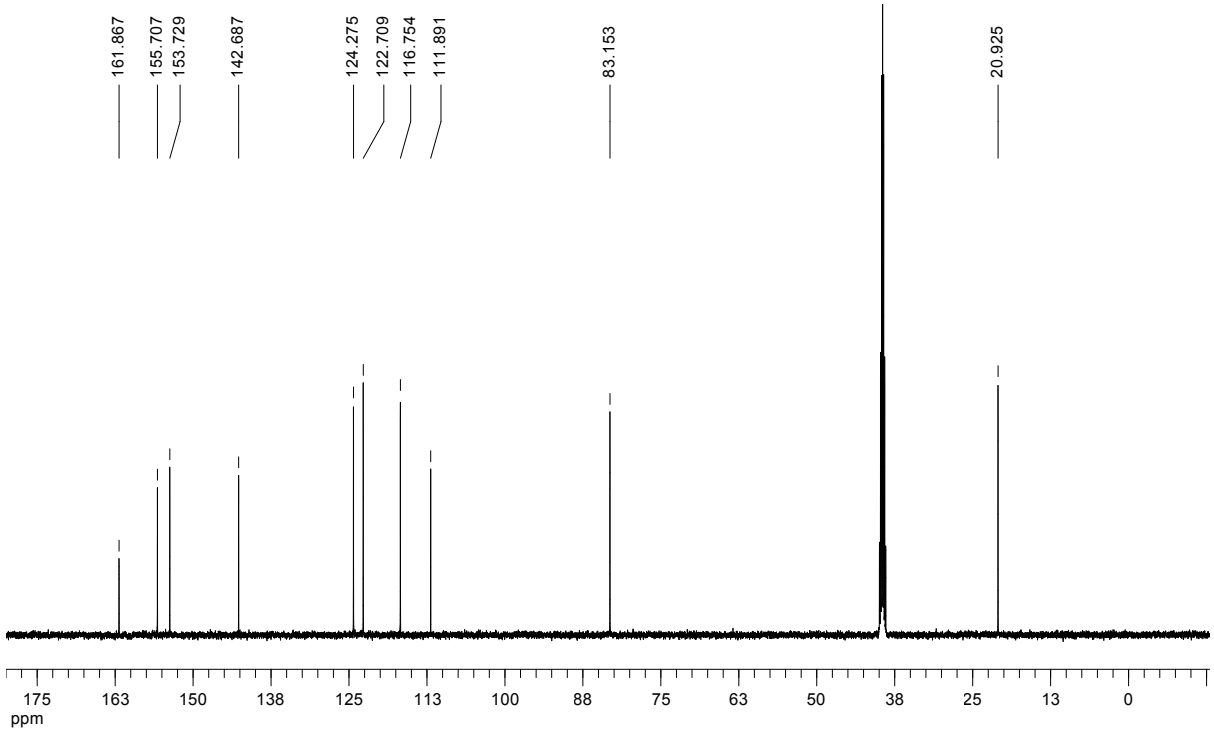

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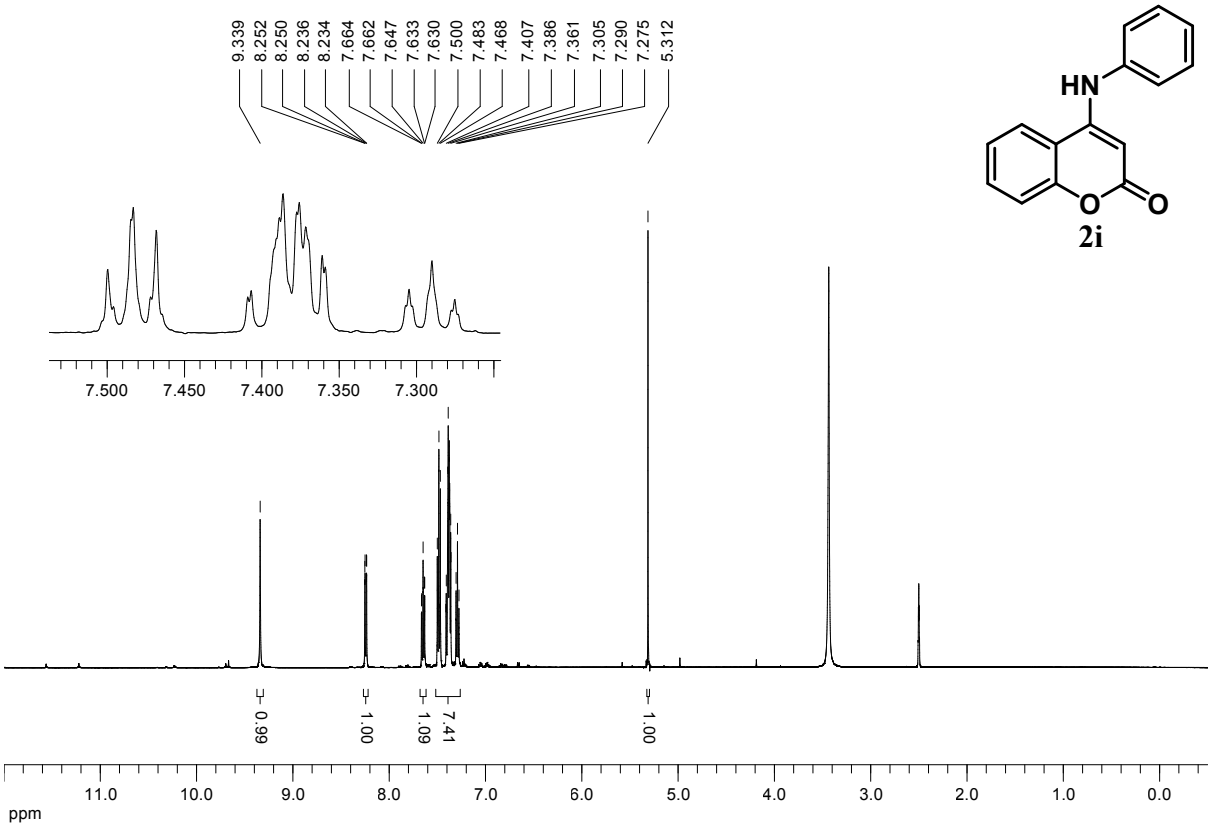

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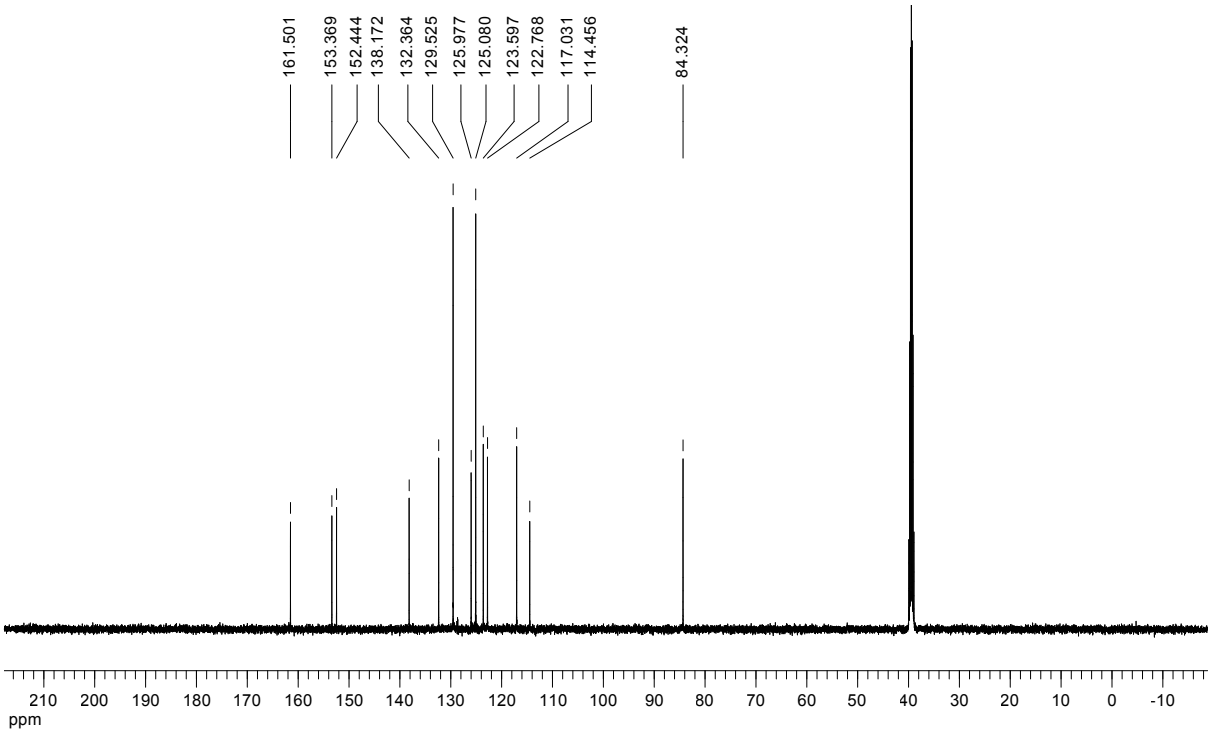

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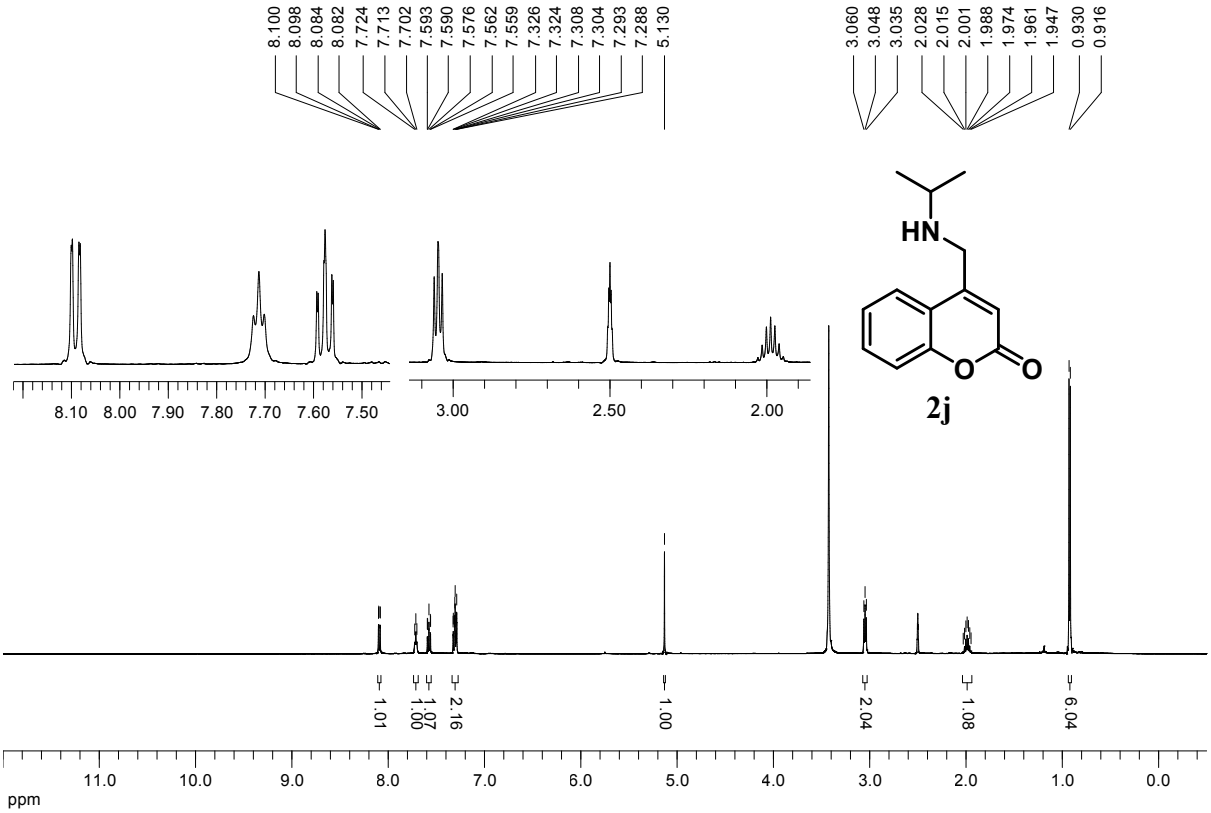

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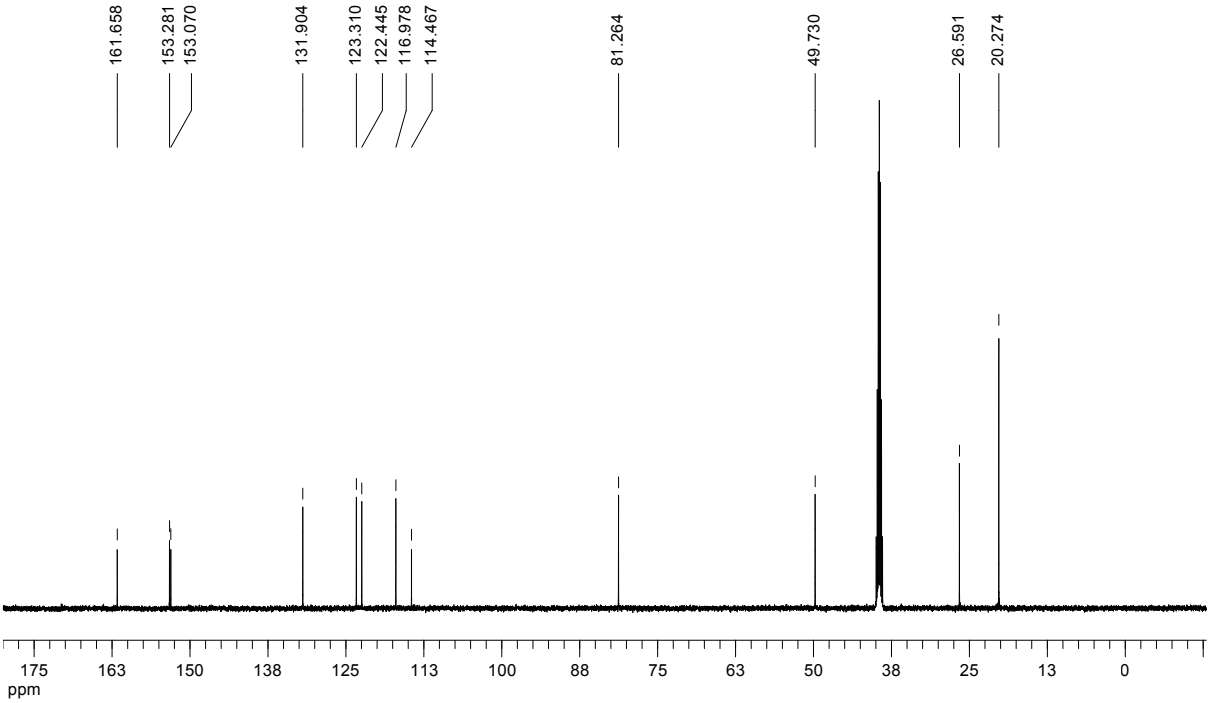
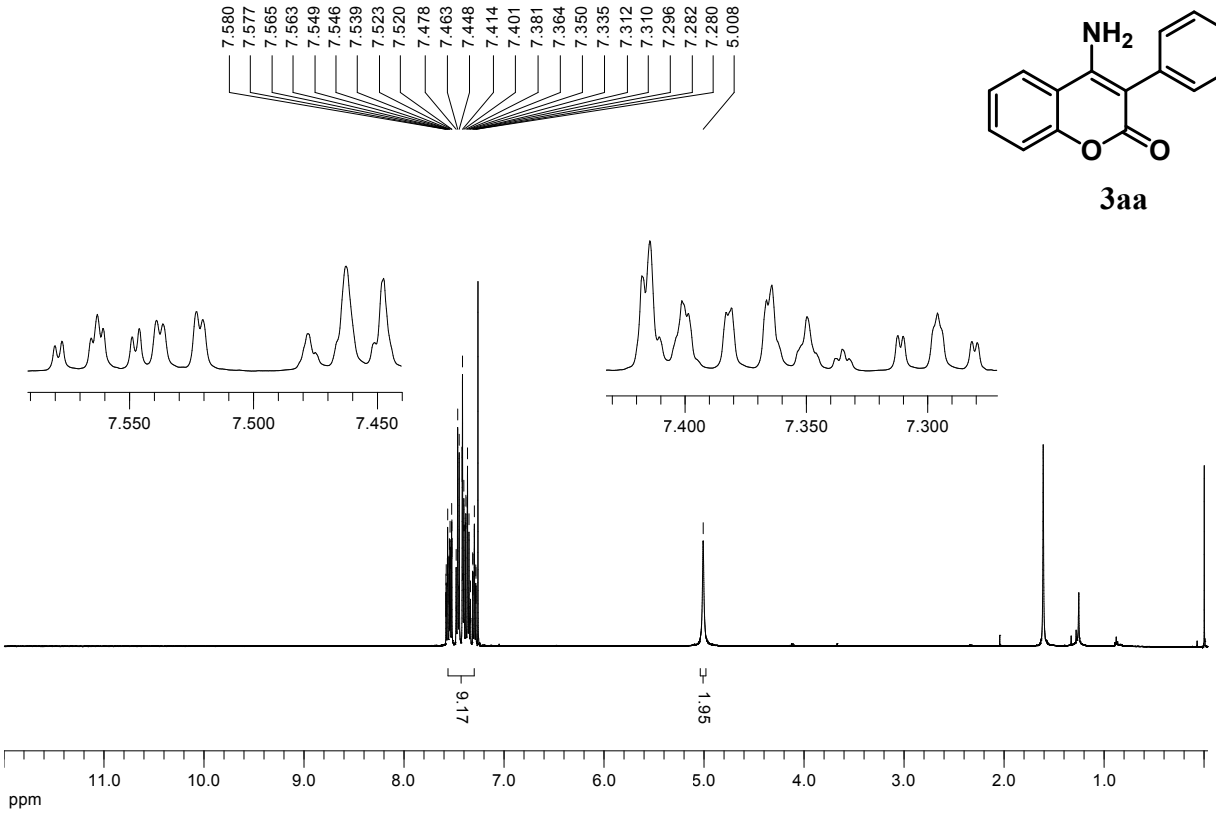
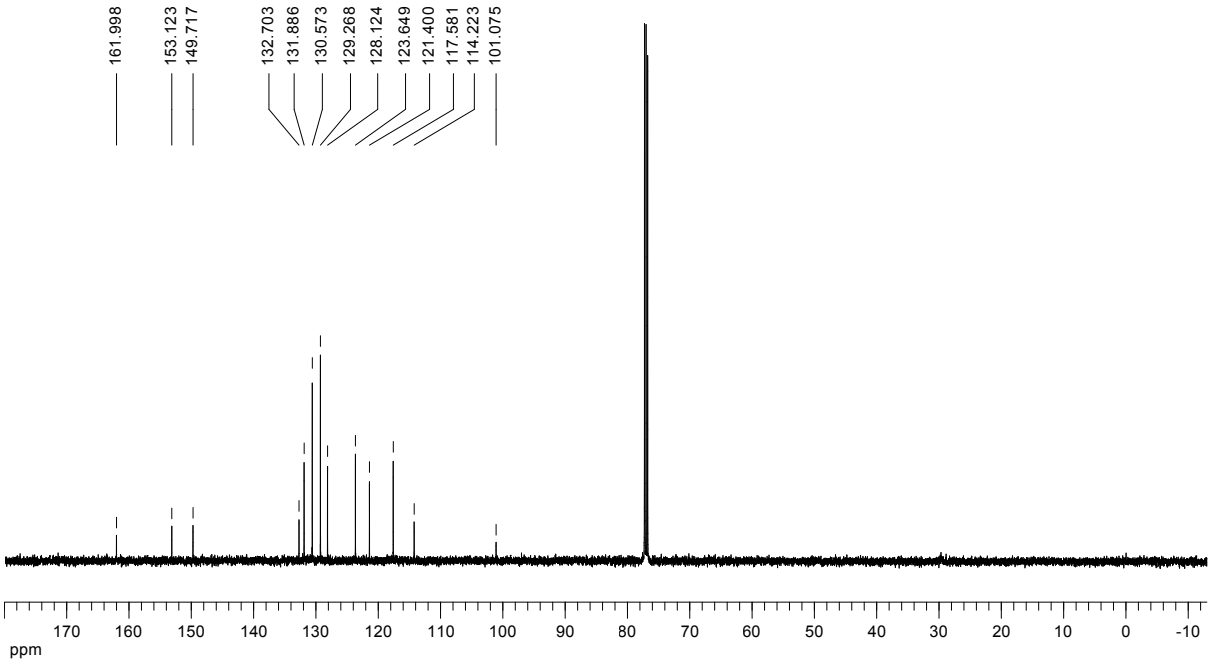


^{1}H-NMR (500 MHz, $CDCl_3$)



^{13}C-NMR (126 MHz, $CDCl_3$)



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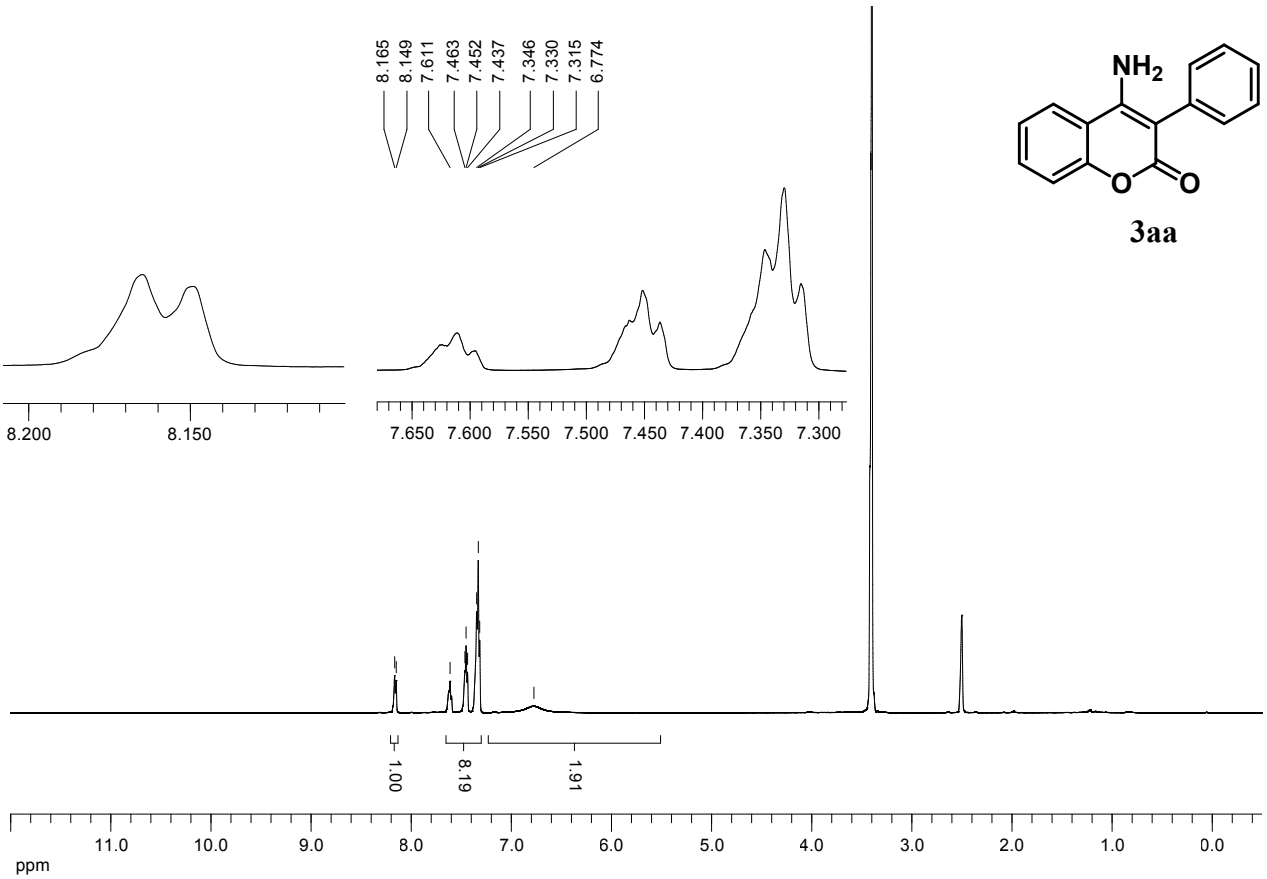

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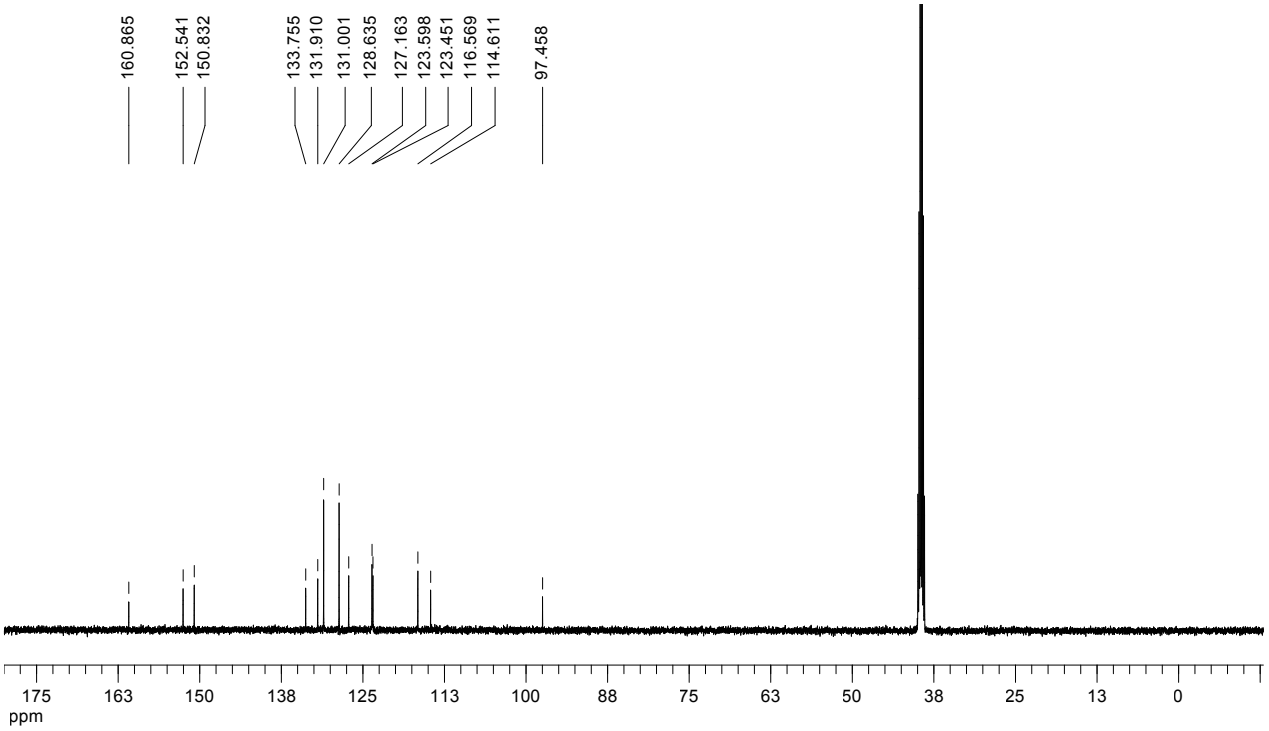

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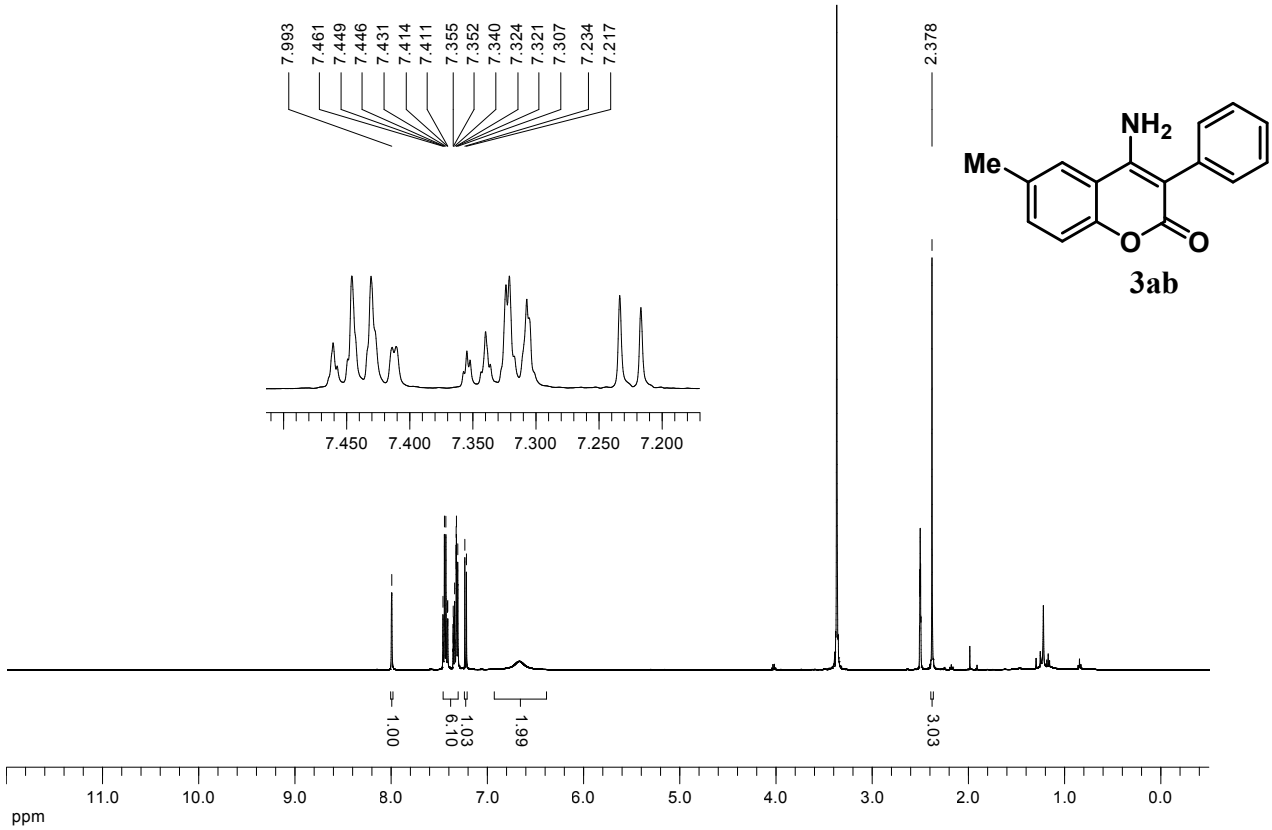

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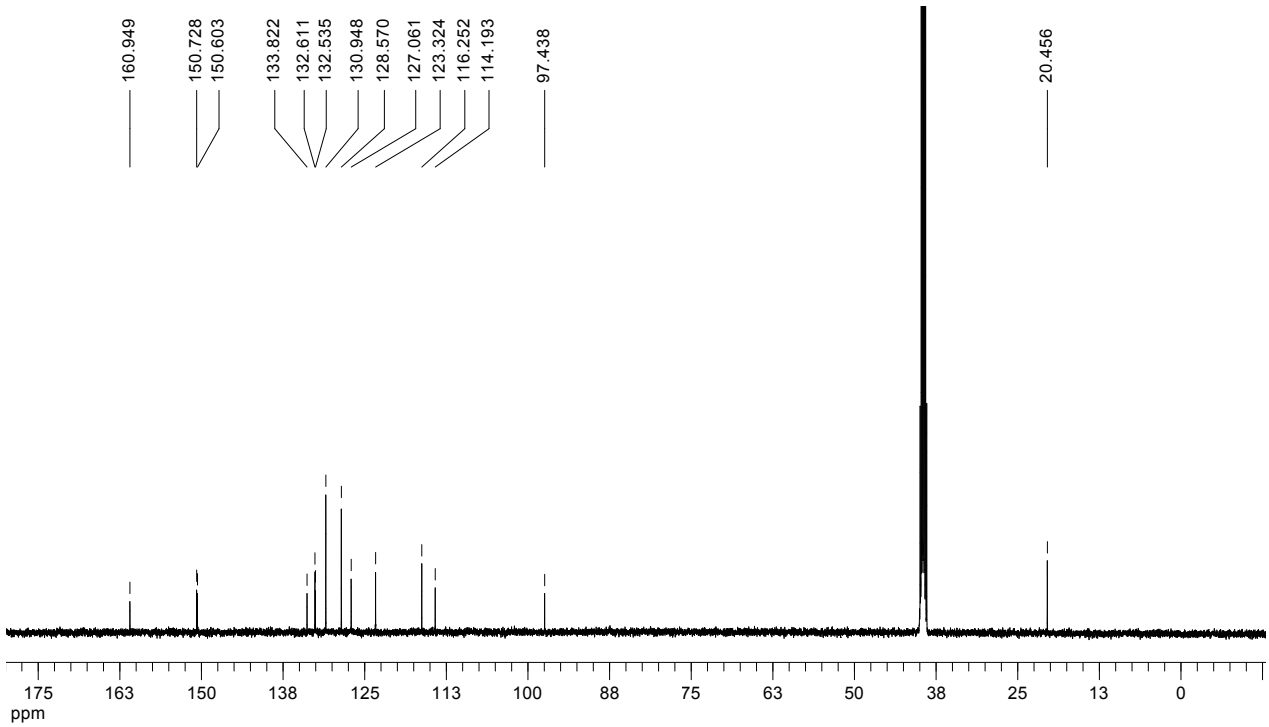

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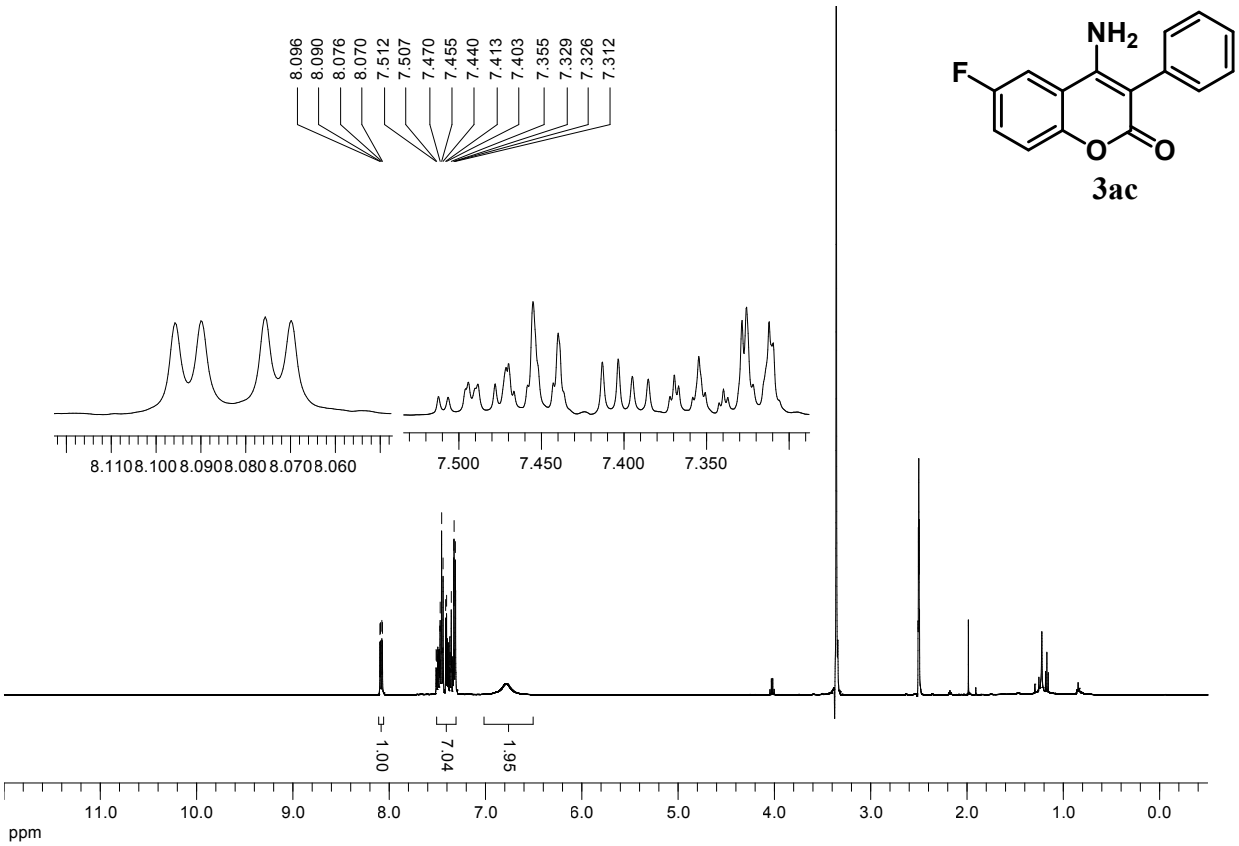

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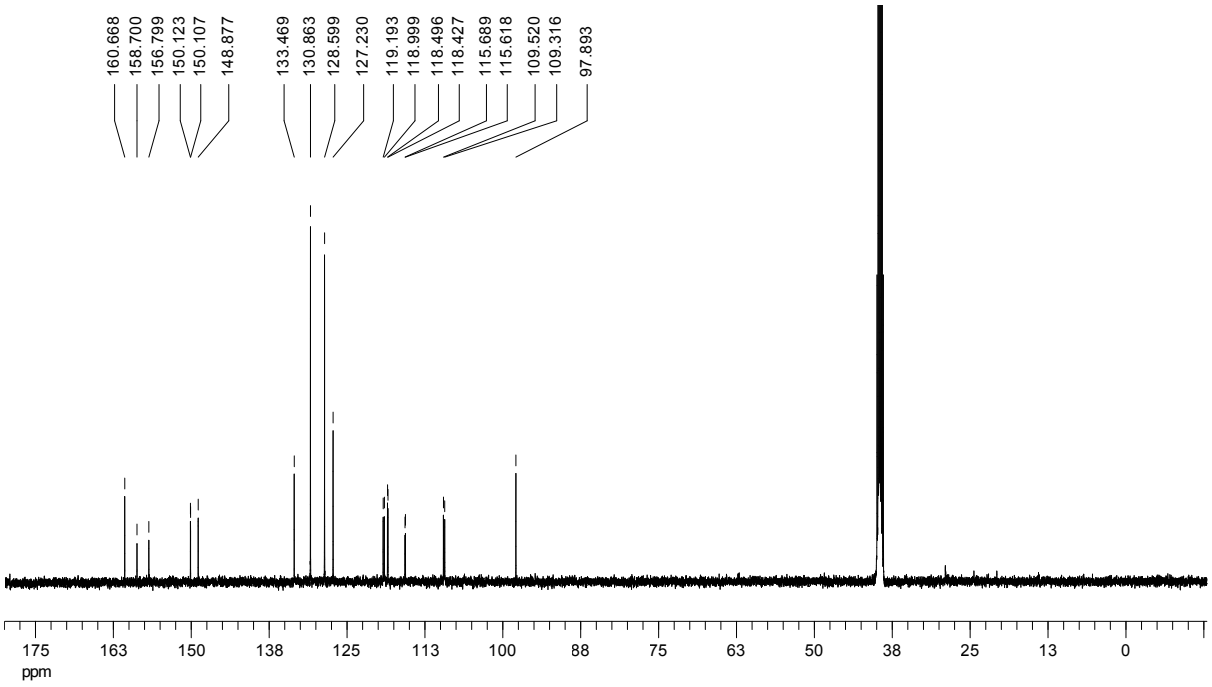

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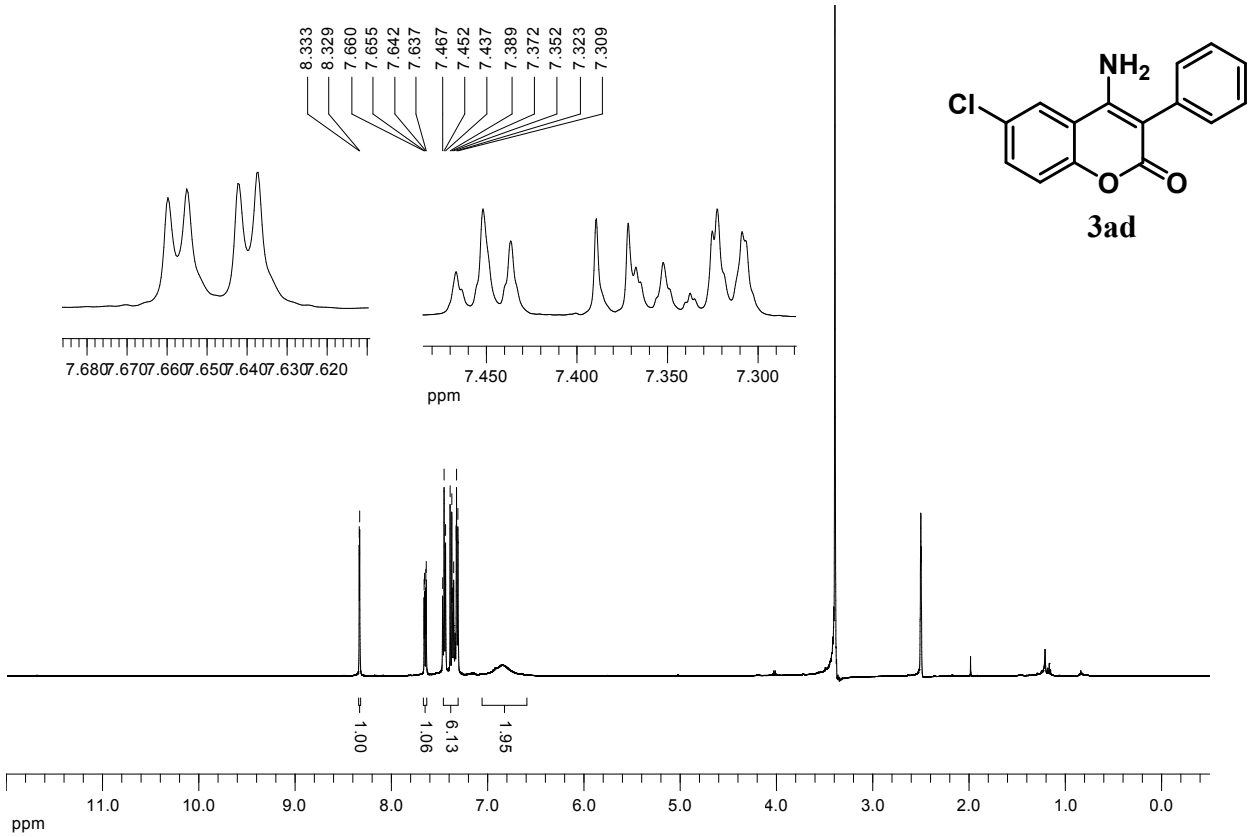

3ad

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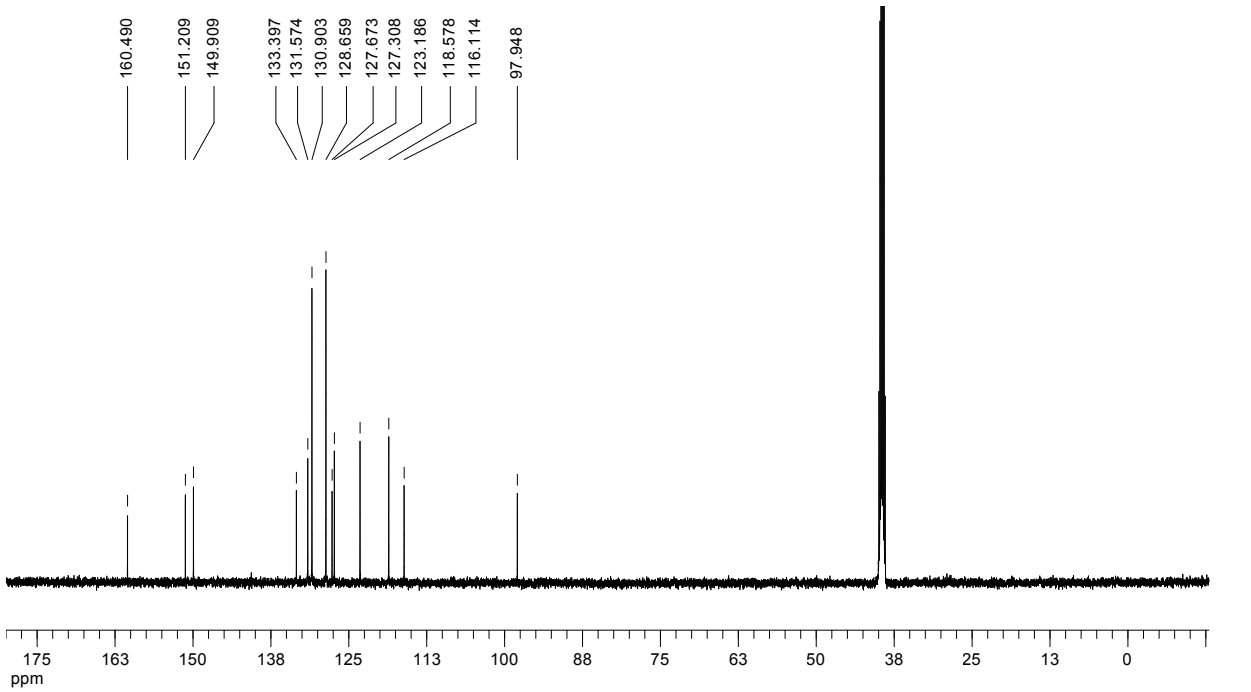

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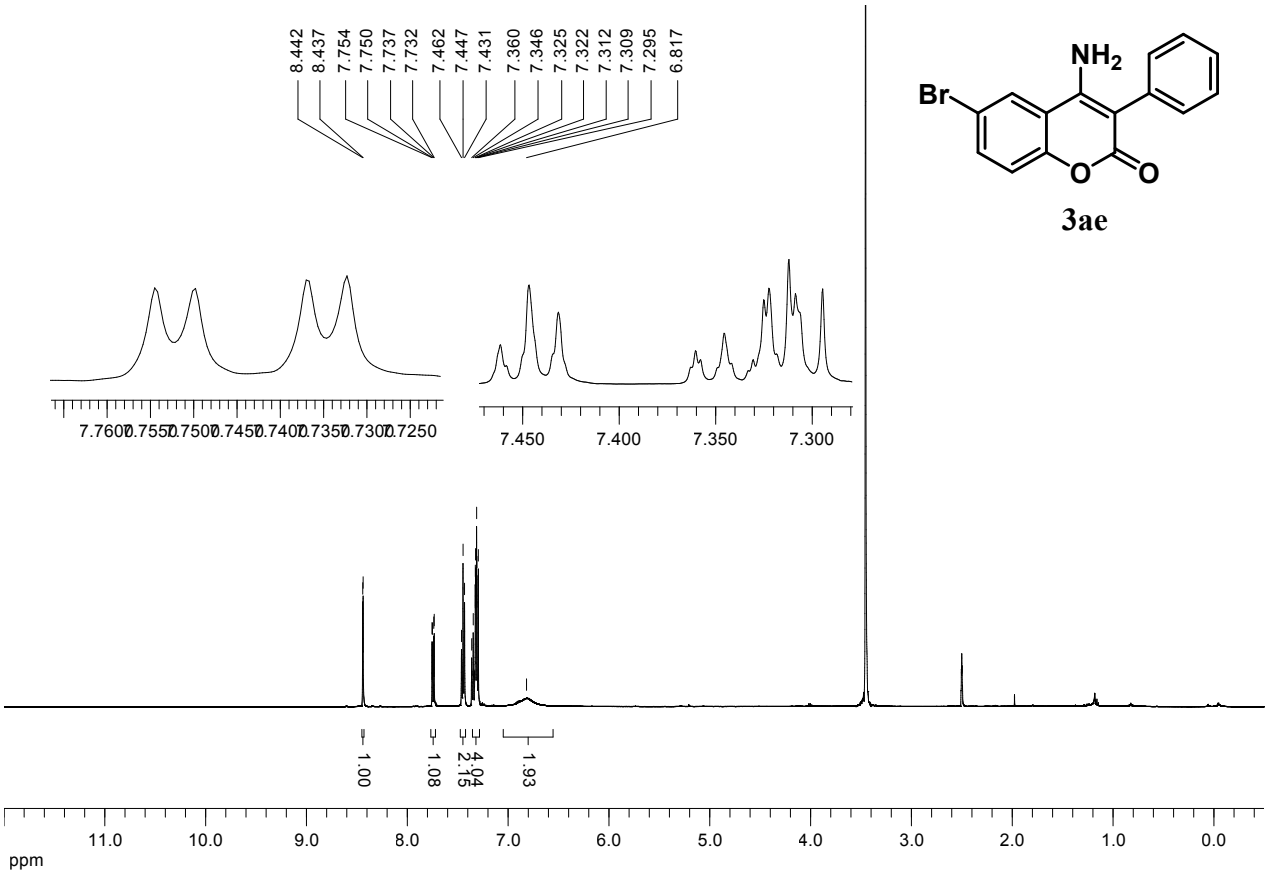

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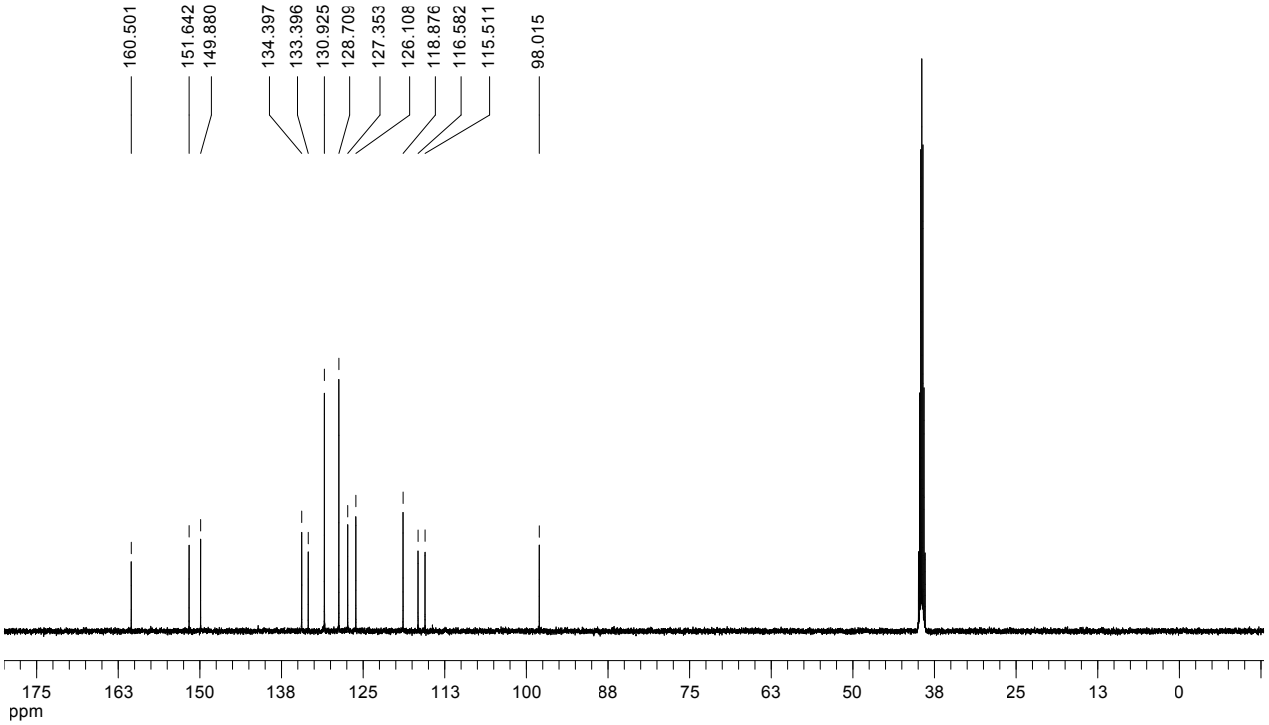

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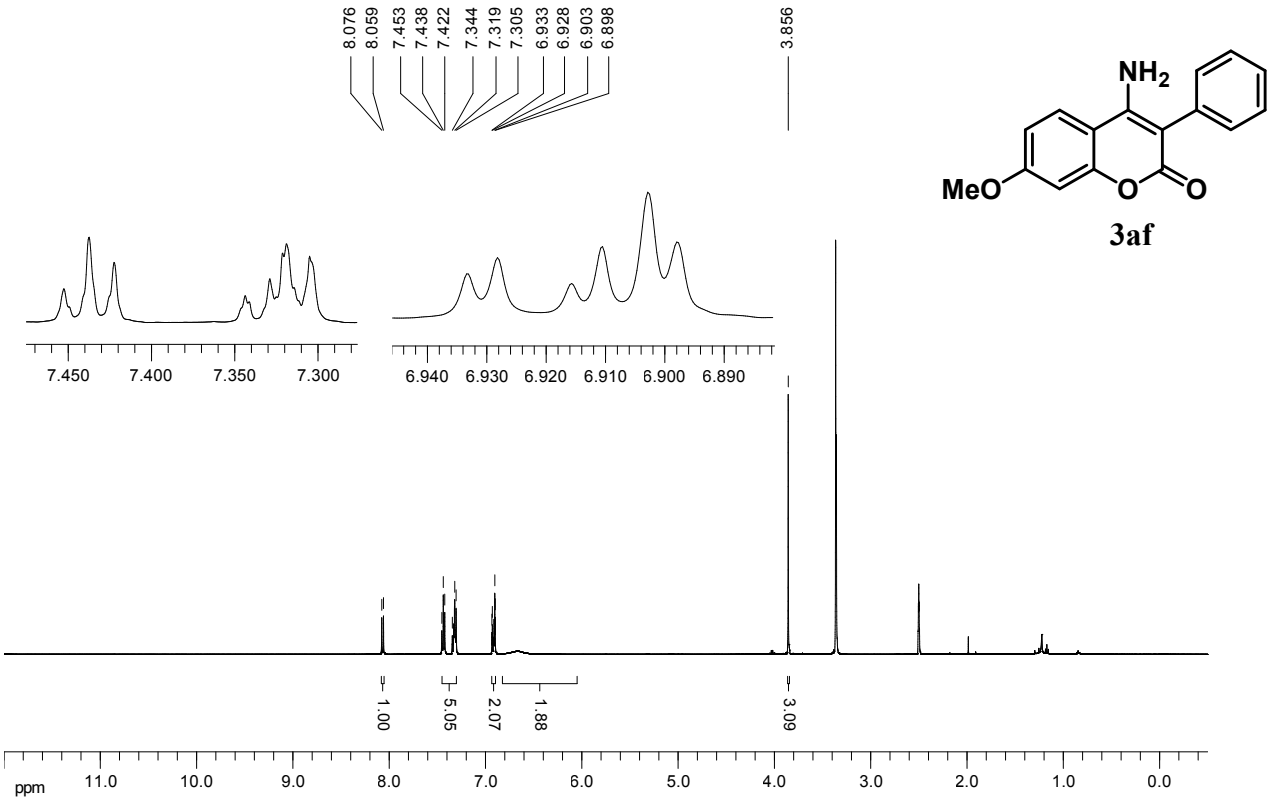

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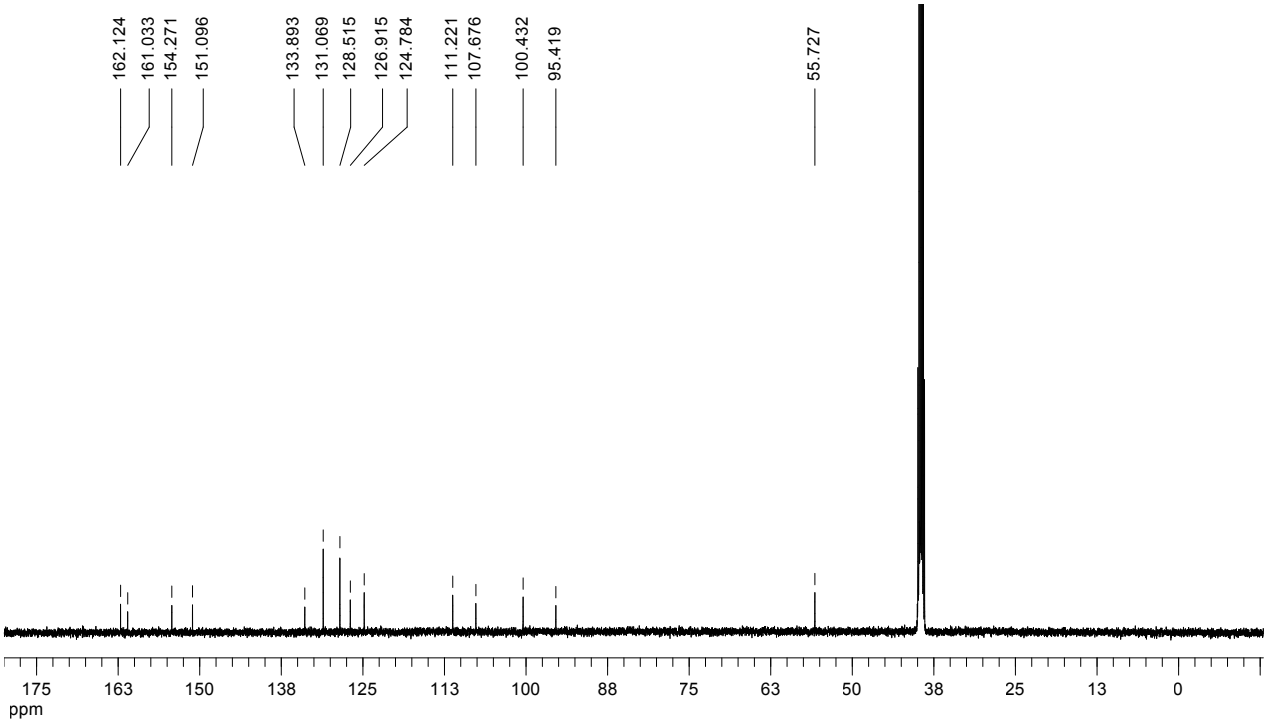
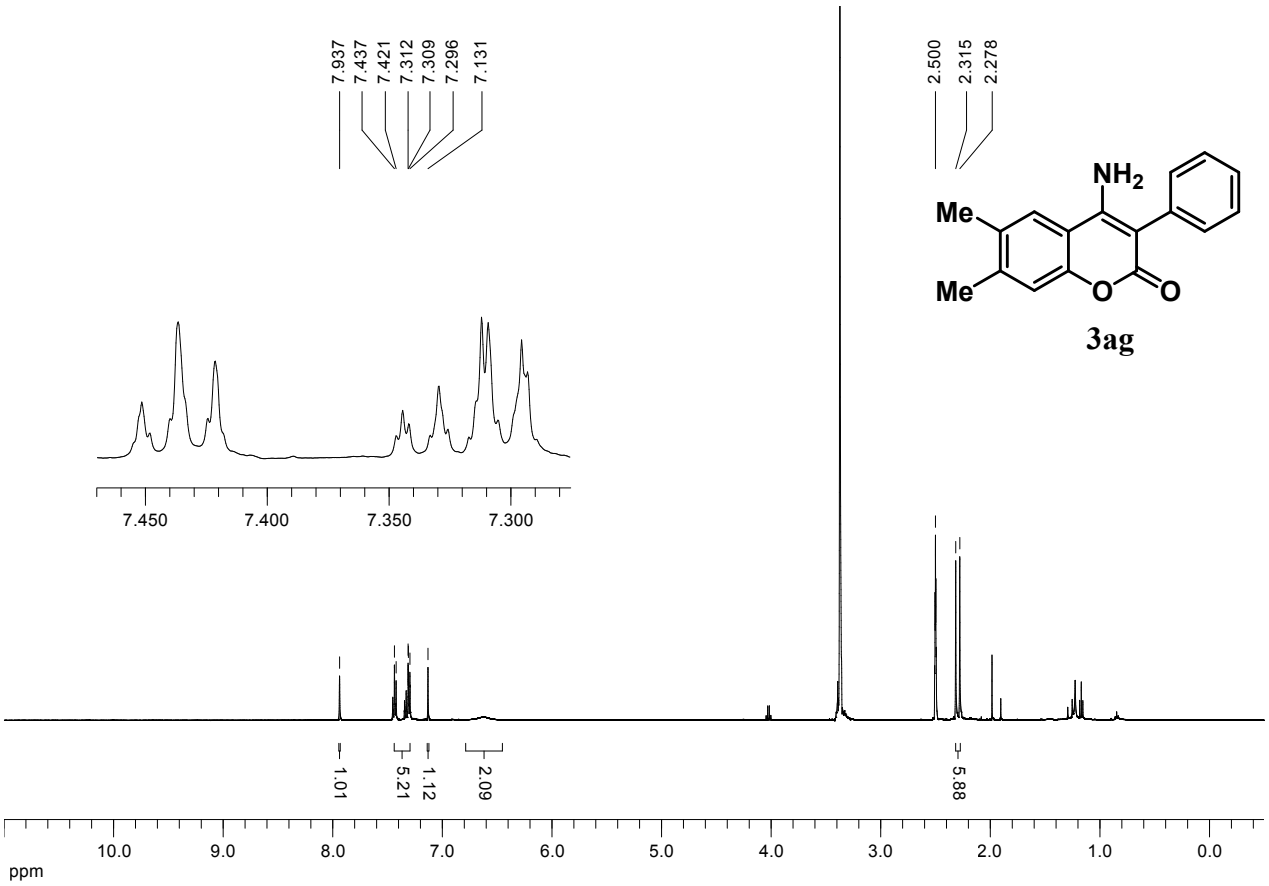


^{1}H-NMR (500 MHz, DMSO-d_6)



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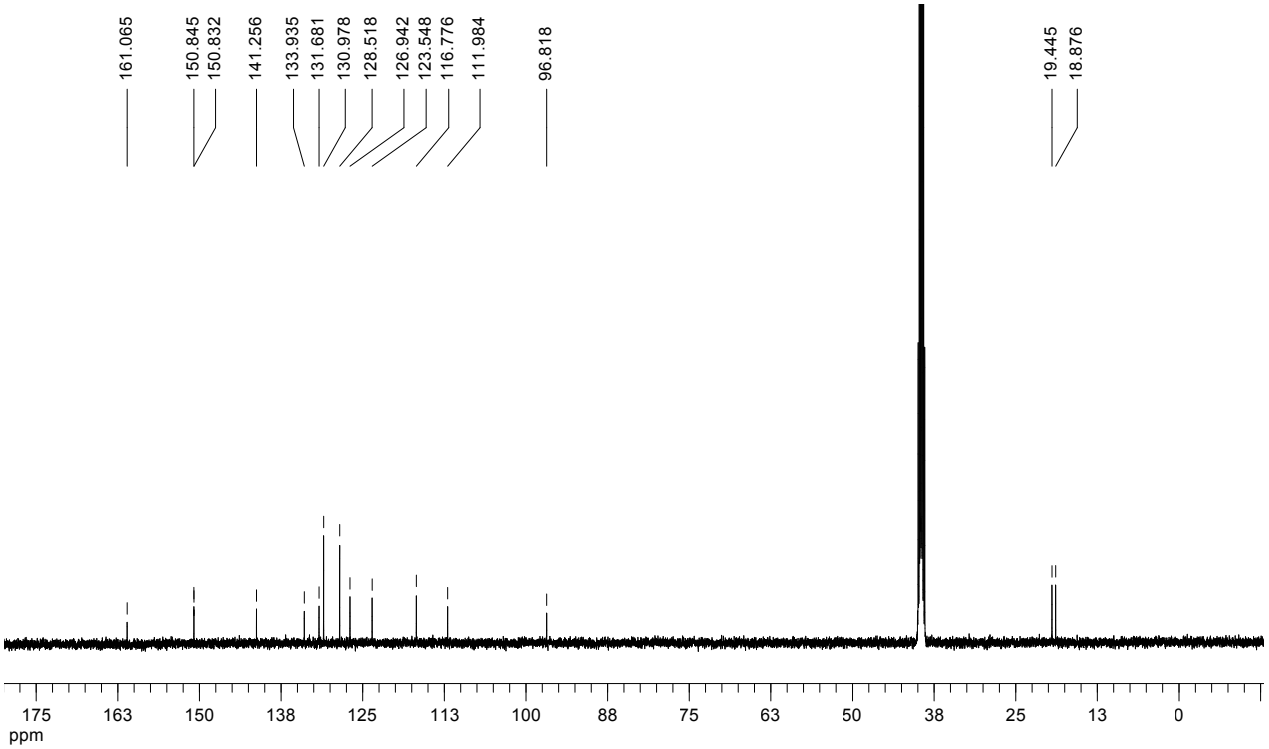

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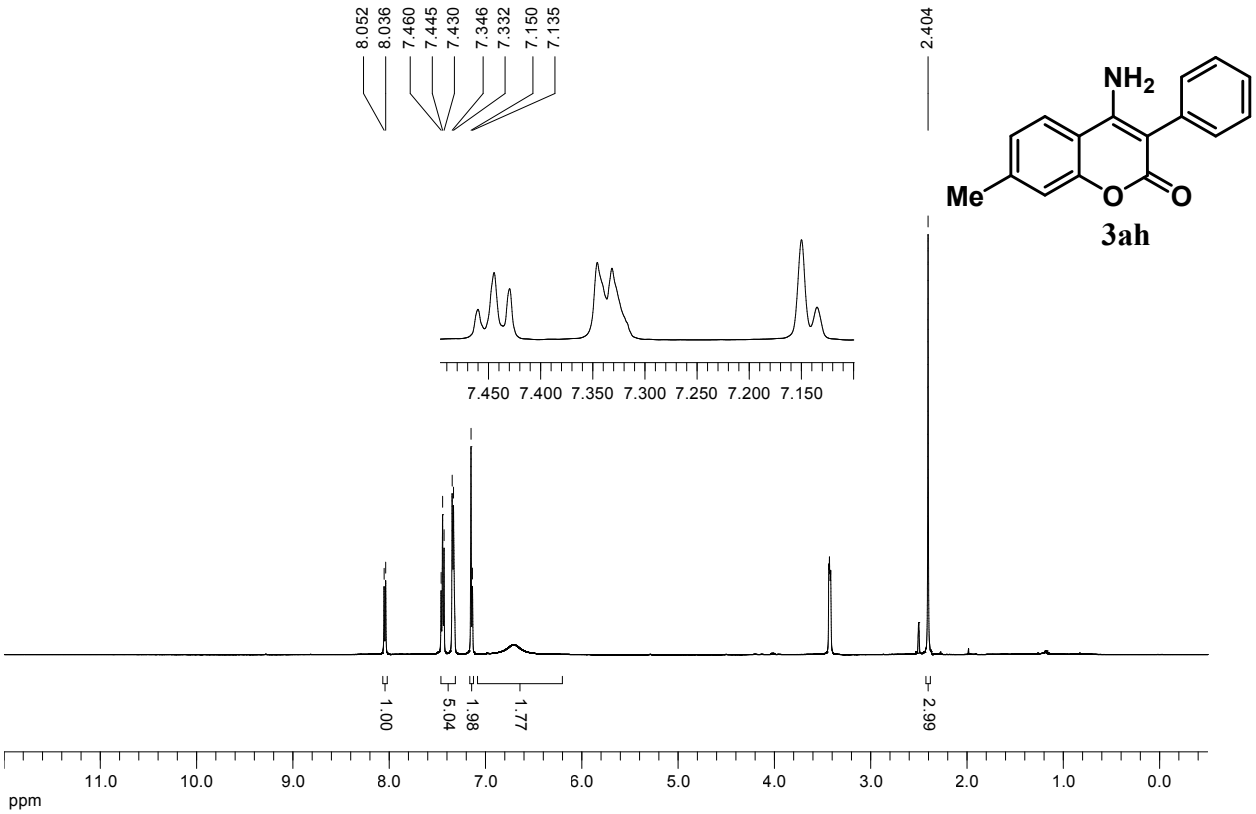

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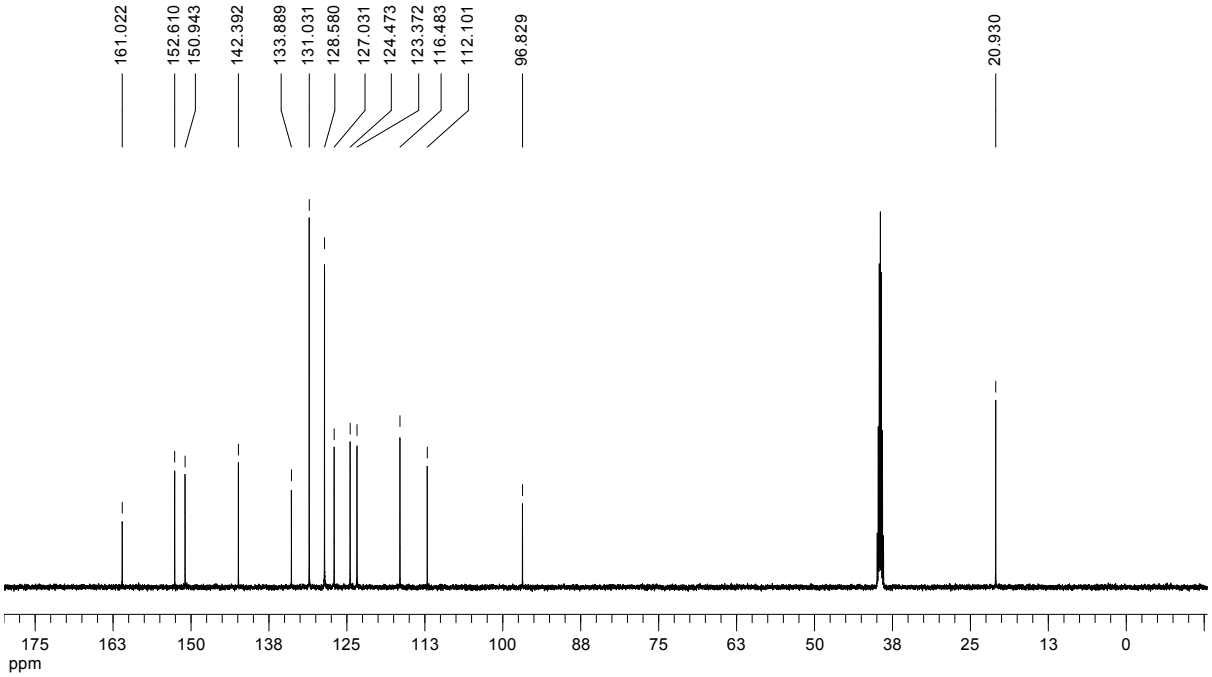

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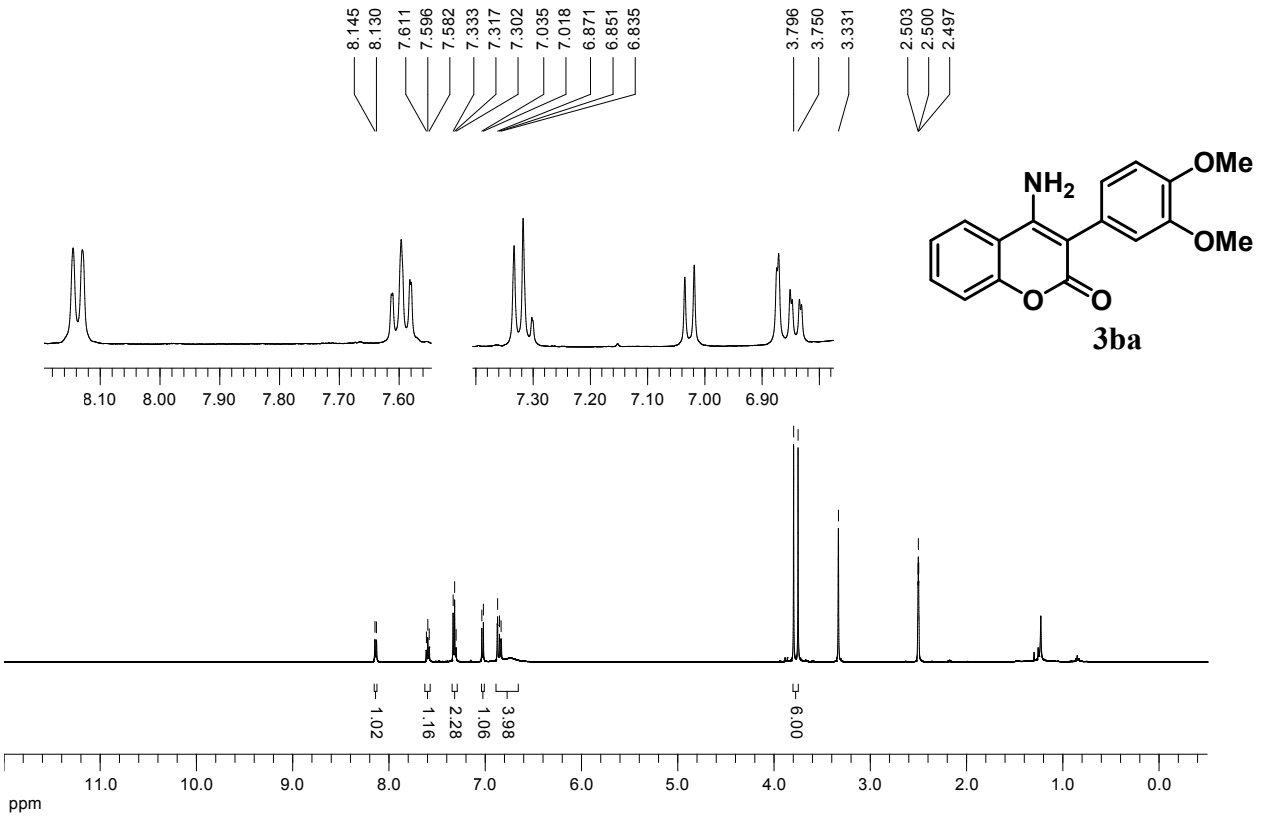

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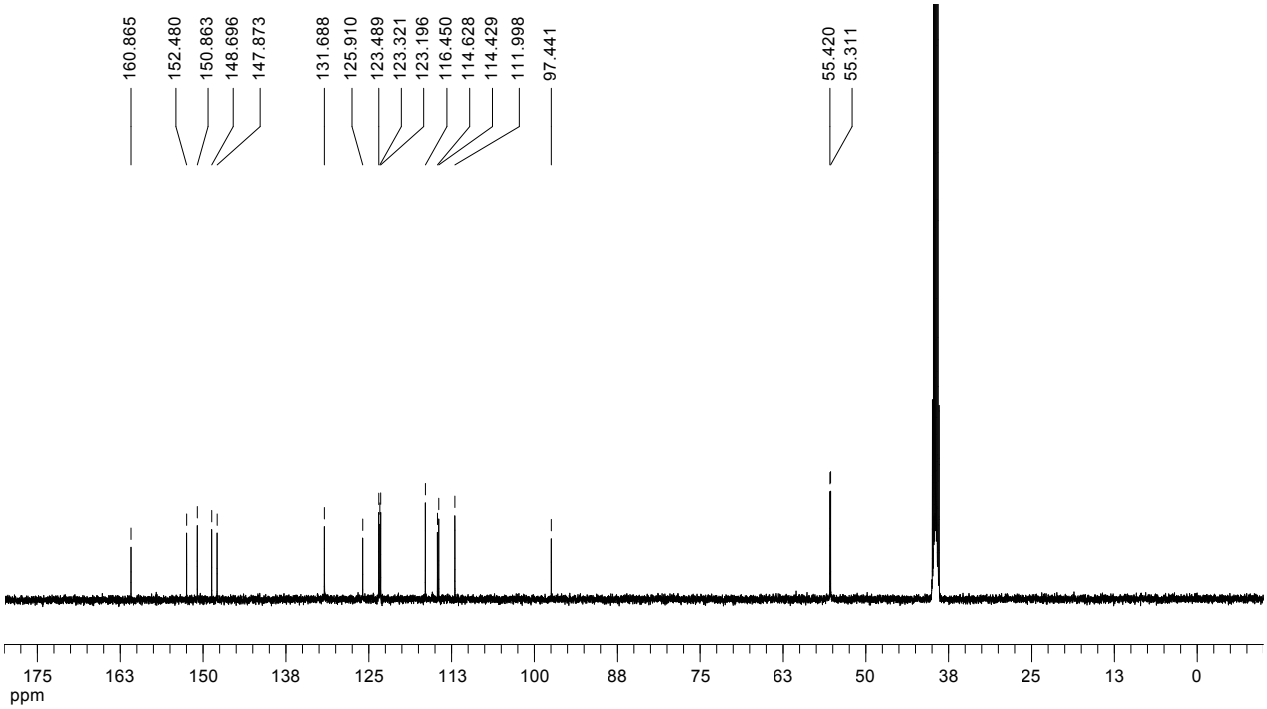

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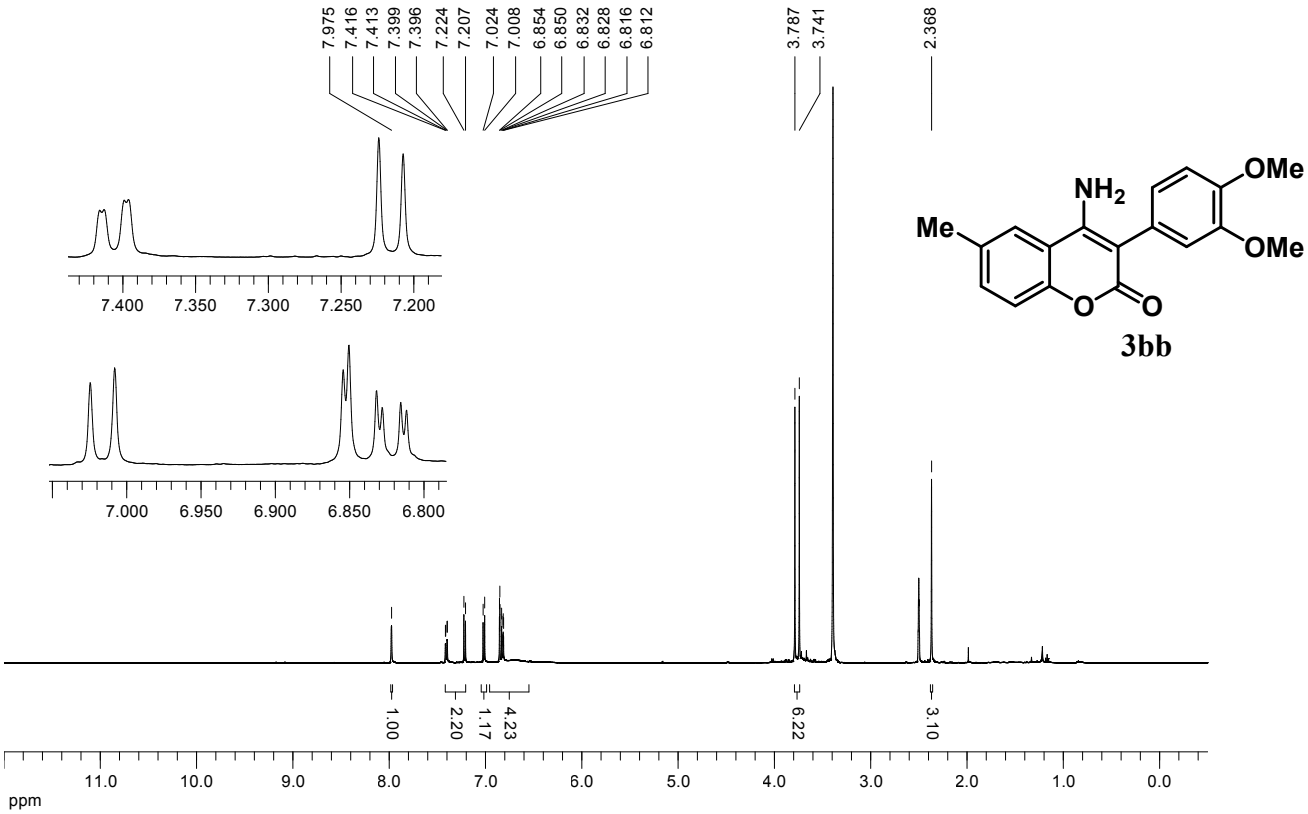

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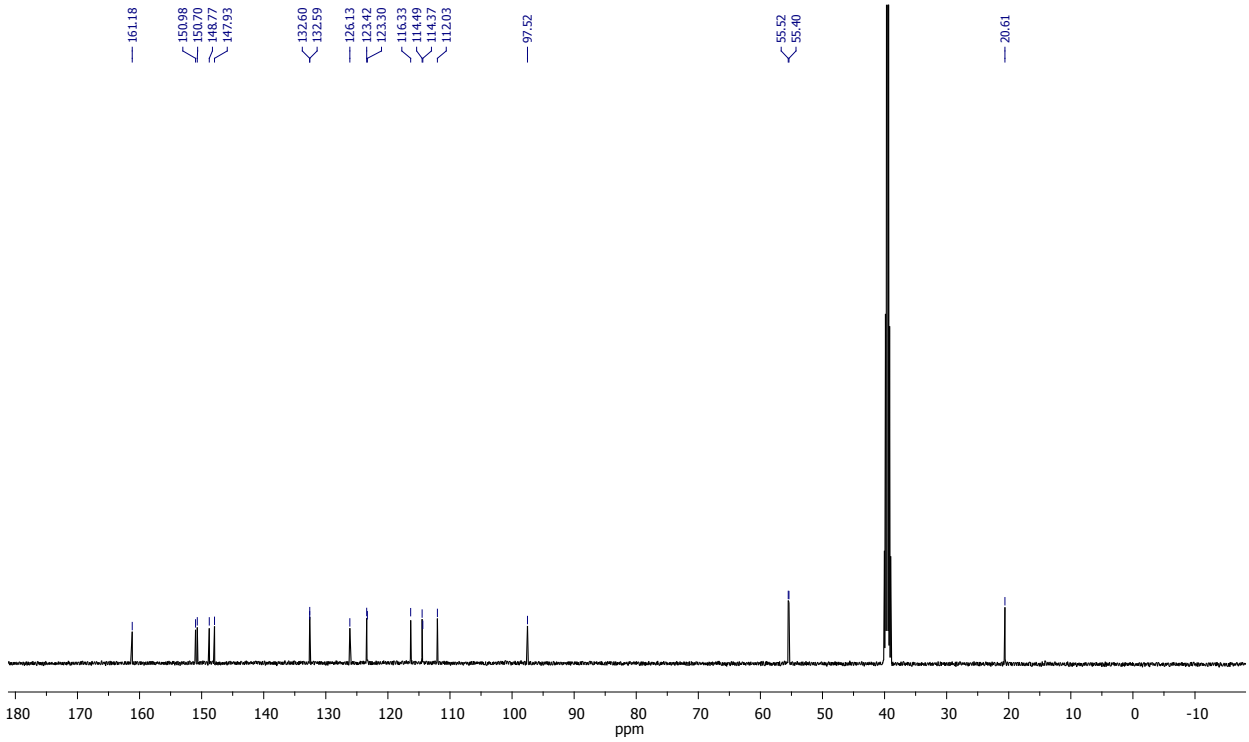

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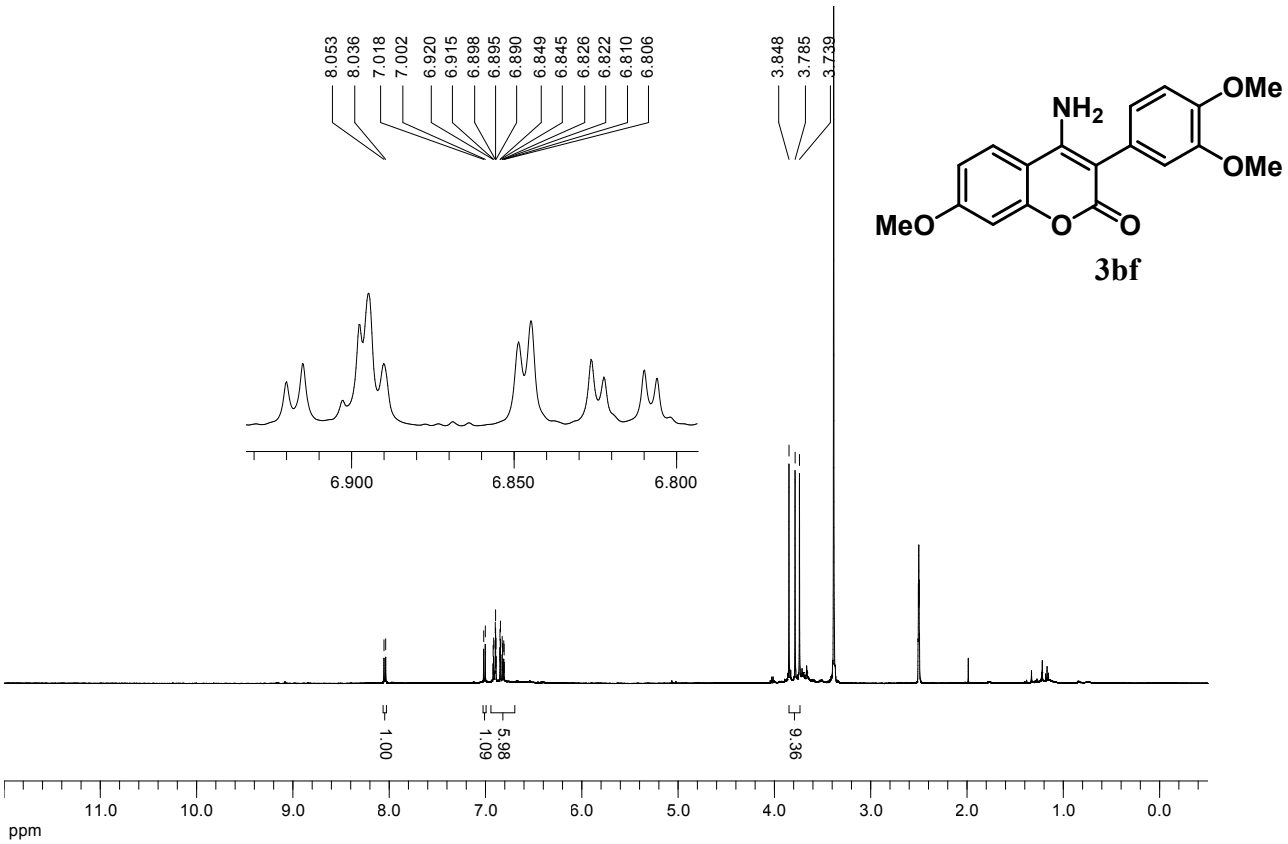
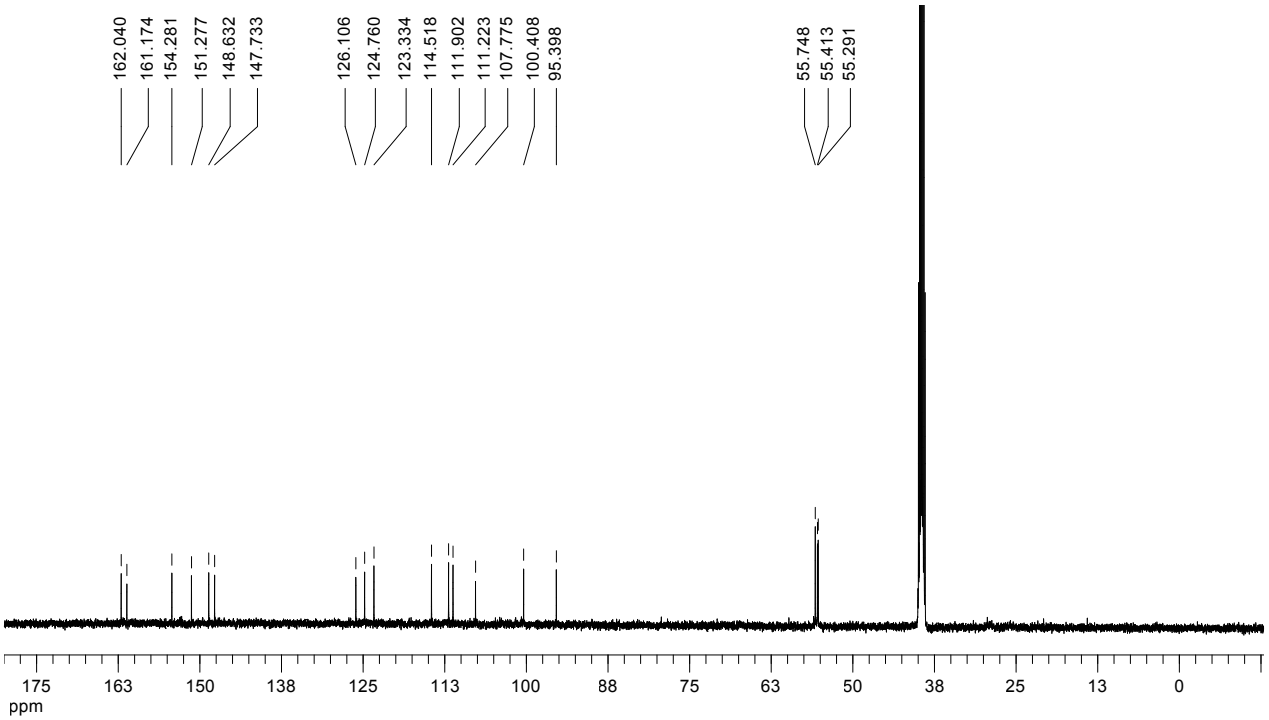


^{13}C-NMR (126 MHz, DMSO-d_6)



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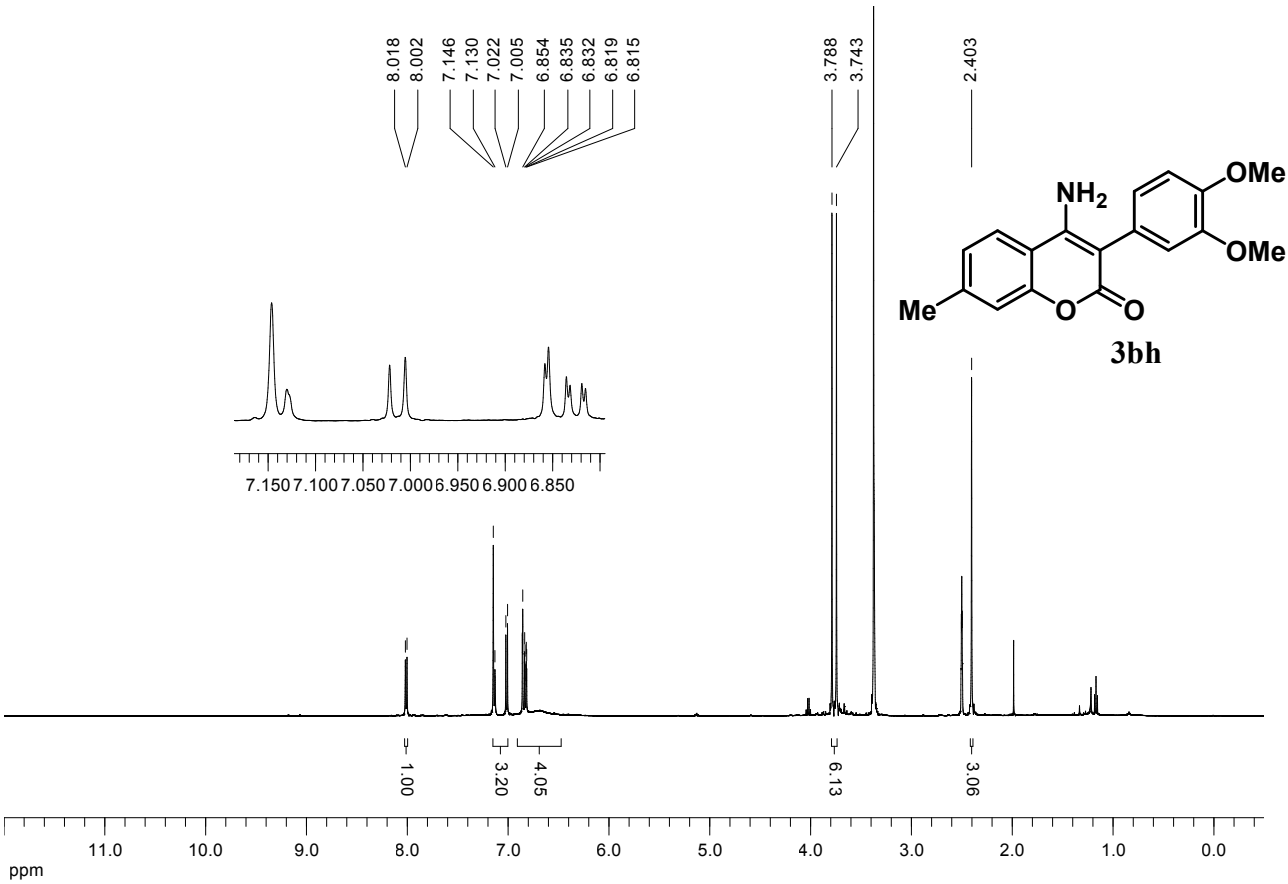
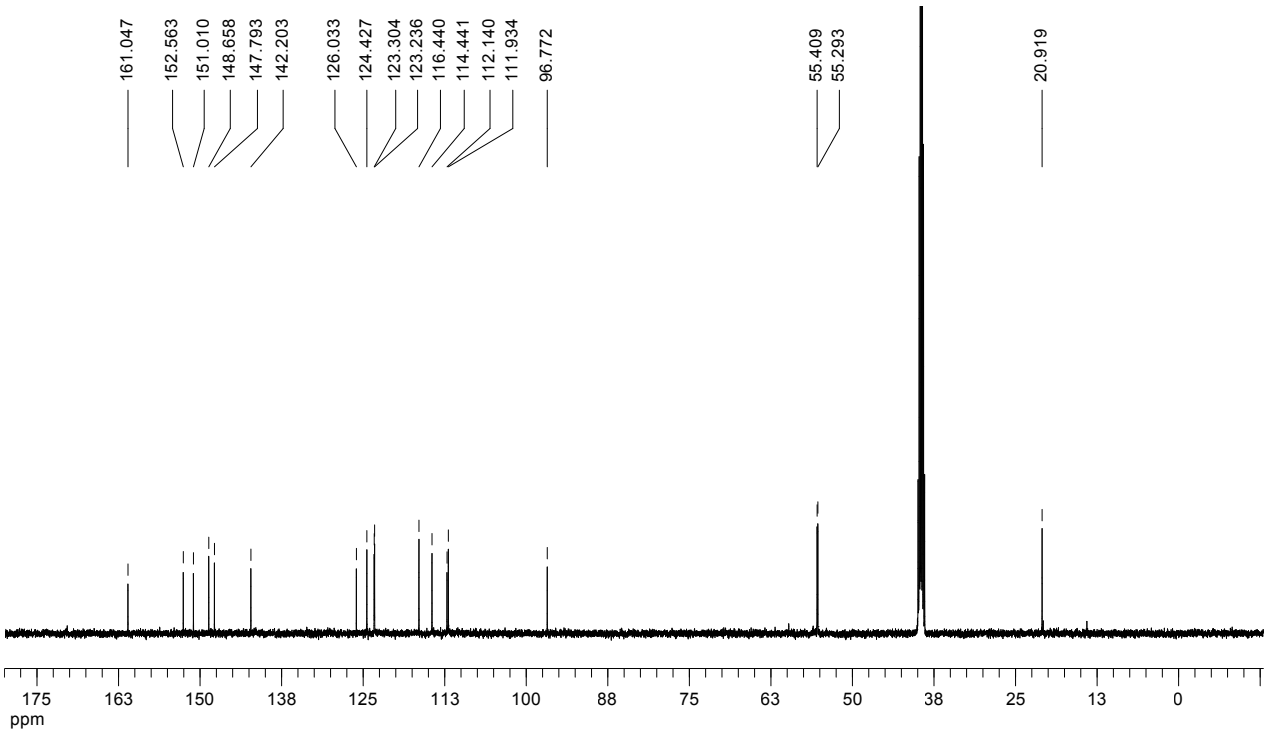
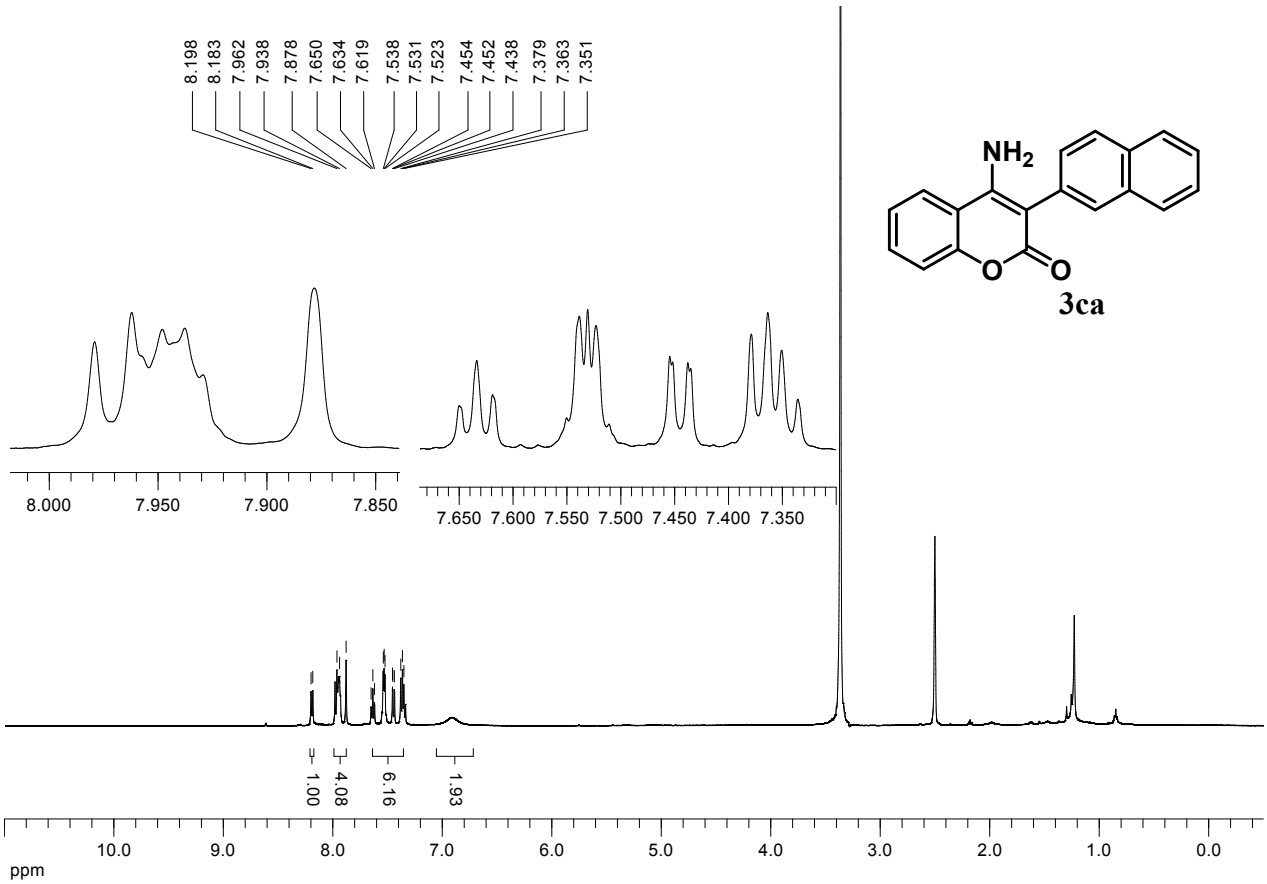


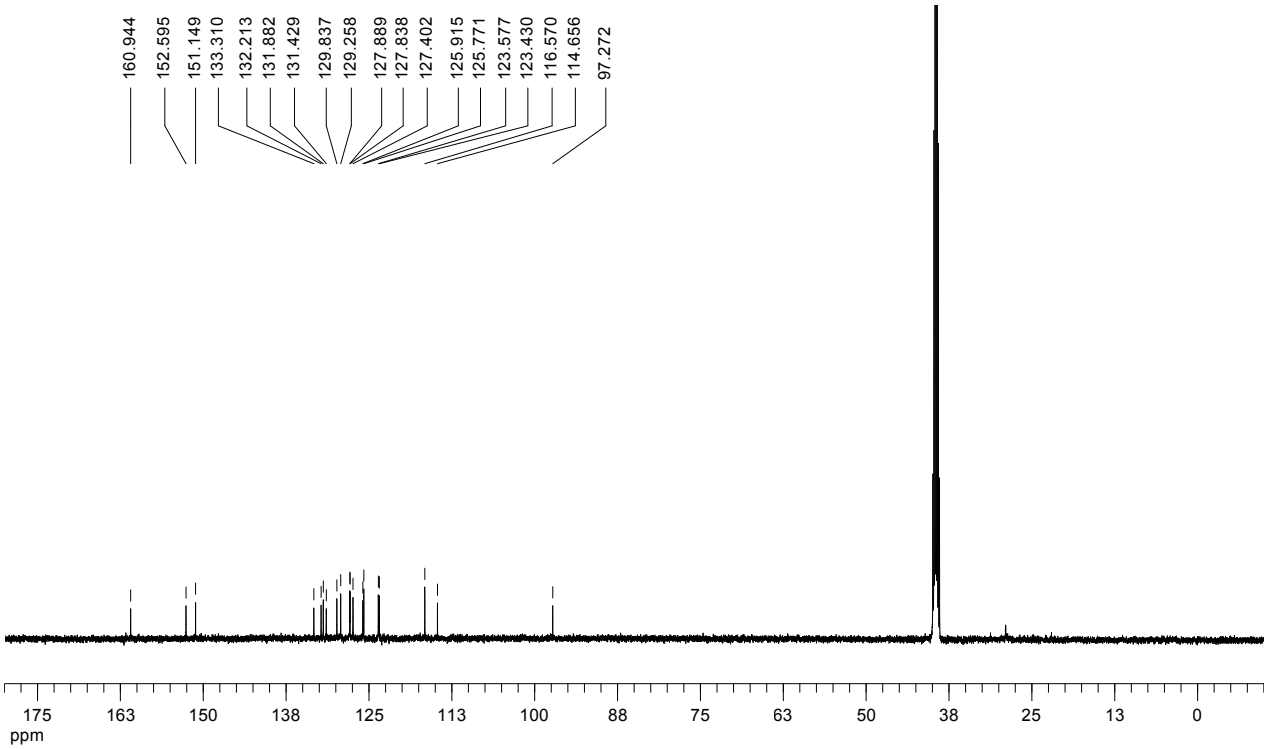
^{13}C-NMR (126 MHz, DMSO-d_6)



^{1}H-NMR (500 MHz, DMSO-d_6)



^{13}C-NMR (126 MHz, DMSO-d_6)



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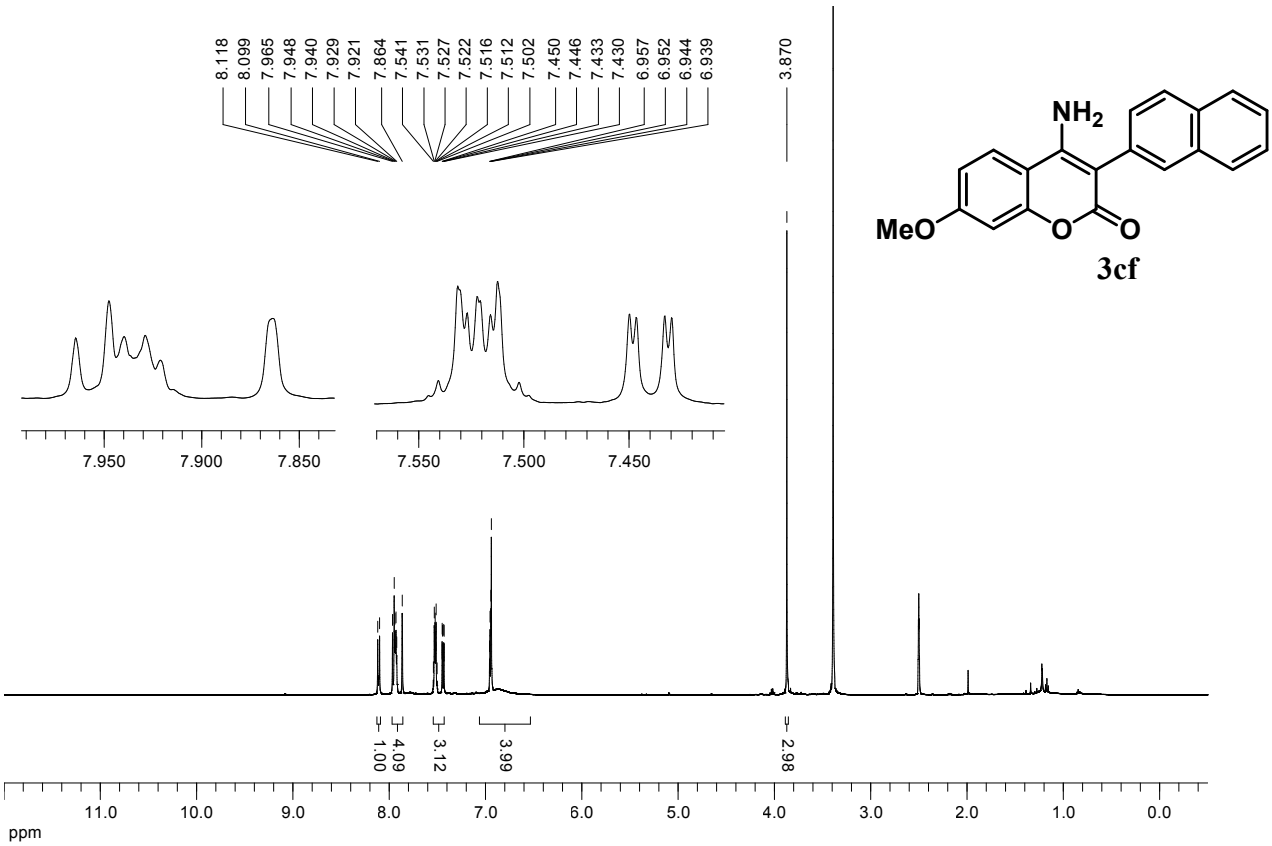
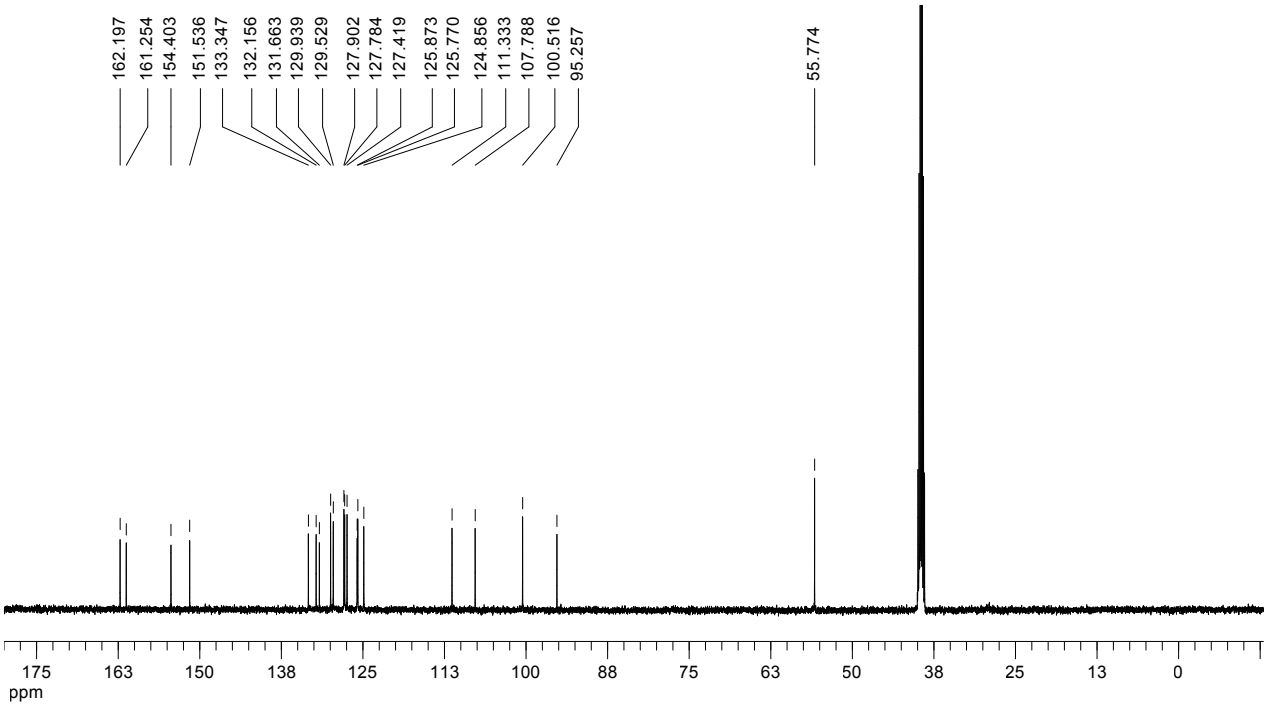
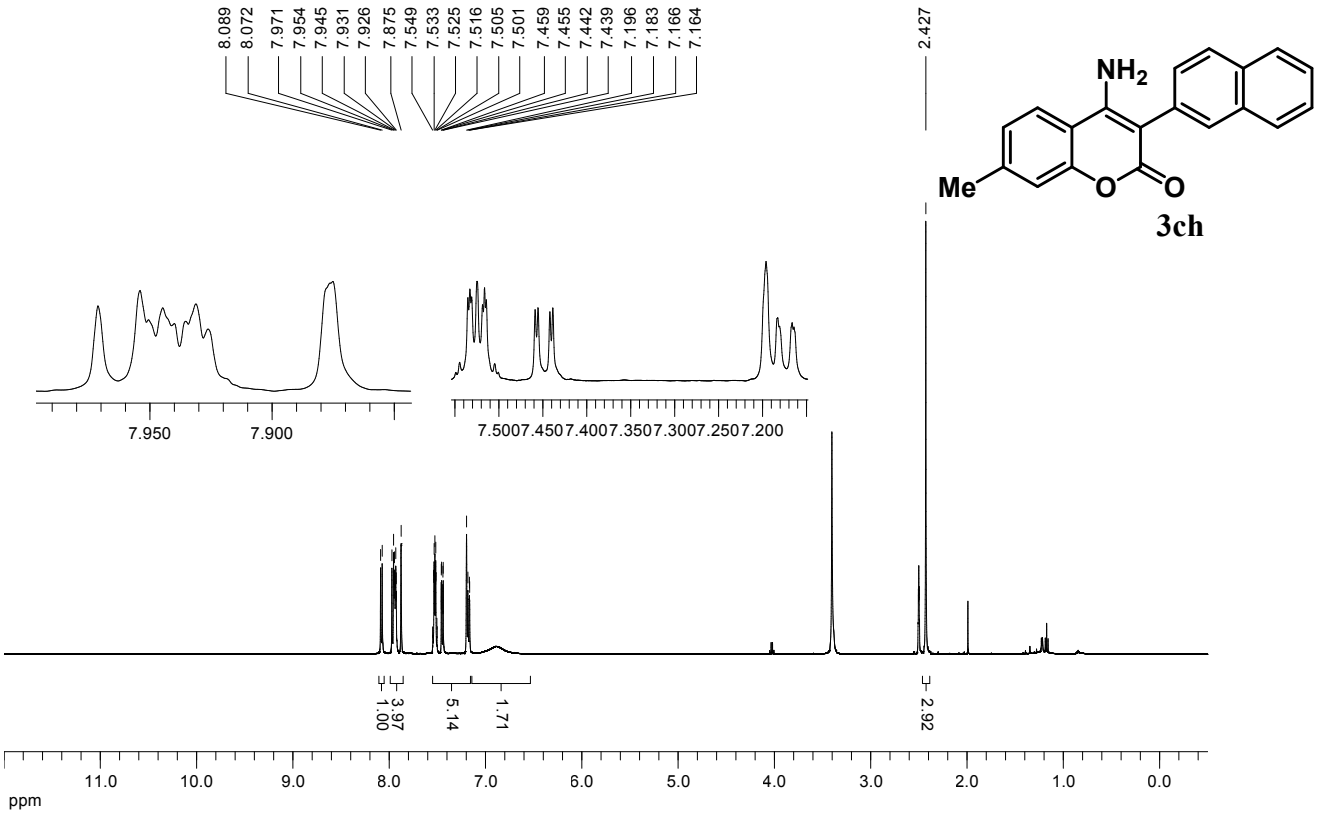


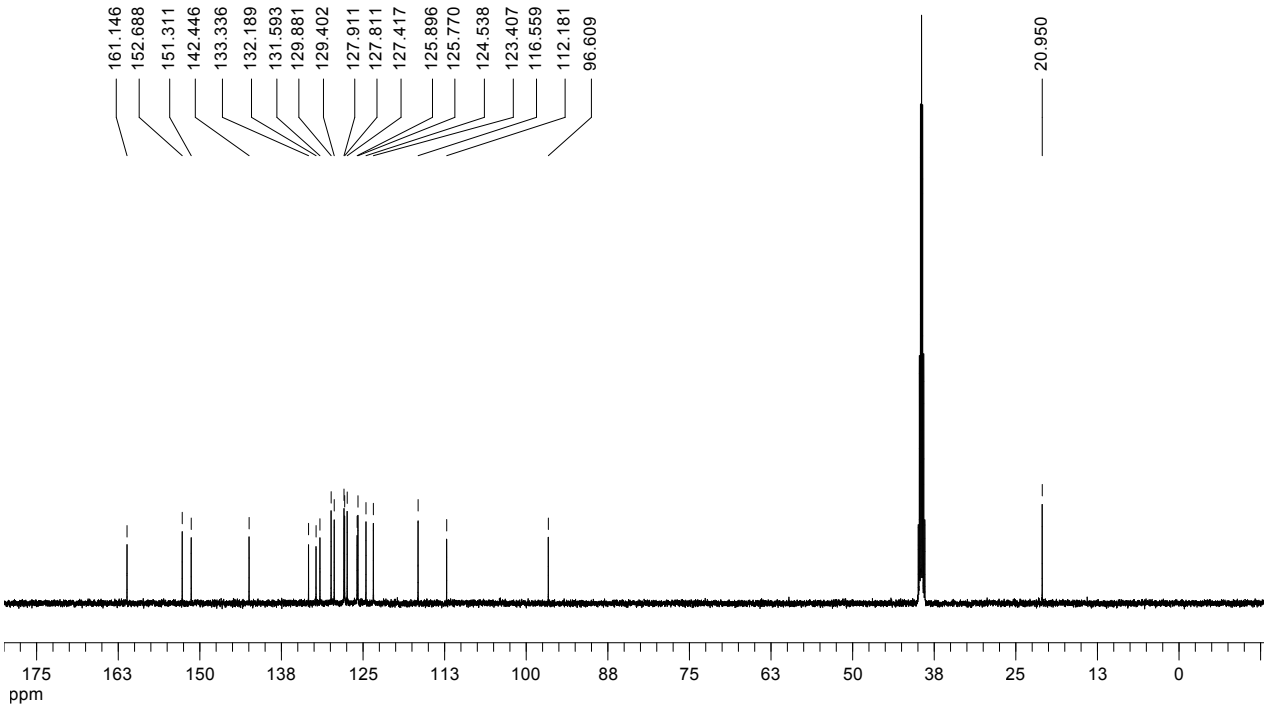
^{13}C-NMR (126 MHz, DMSO-d_6)



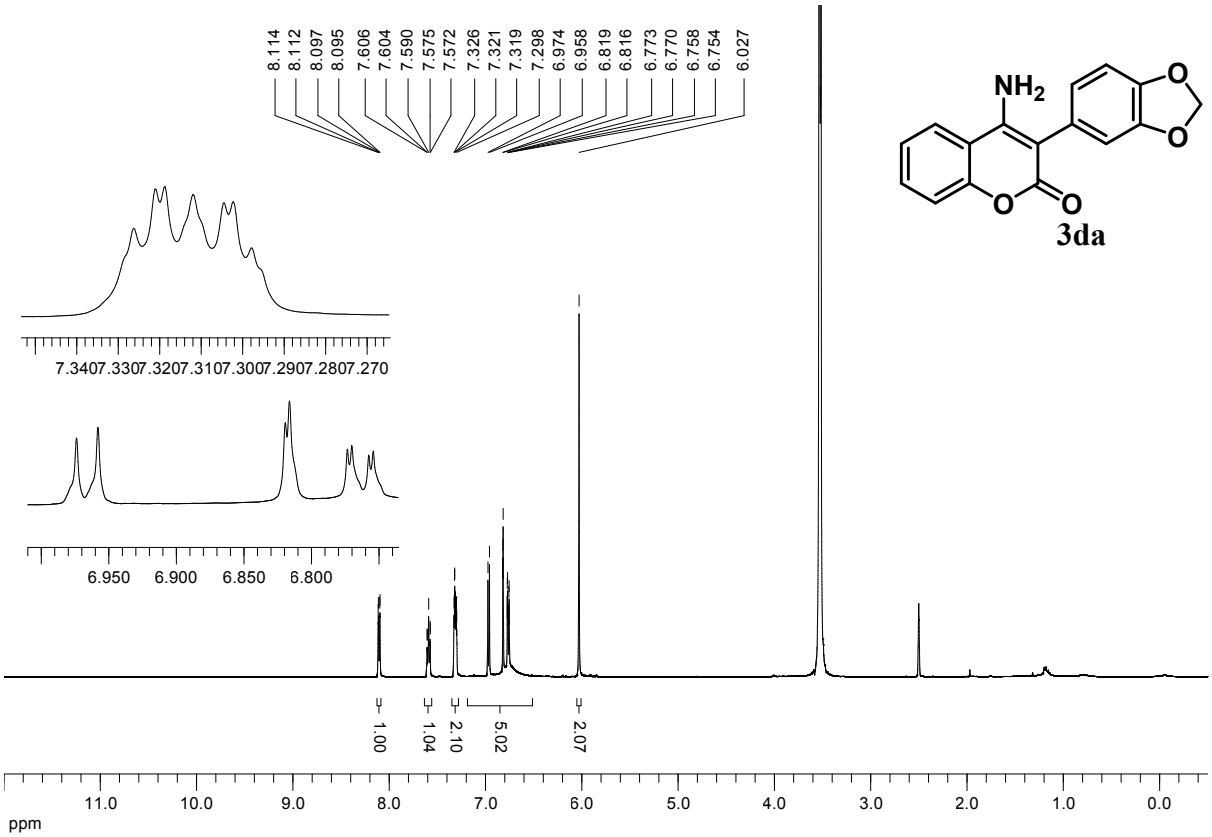
^{1}H-NMR (500 MHz, DMSO-d_6)



^{13}C-NMR (126 MHz, DMSO-d_6)



^{1}H-NMR (500 MHz, DMSO-d_6)



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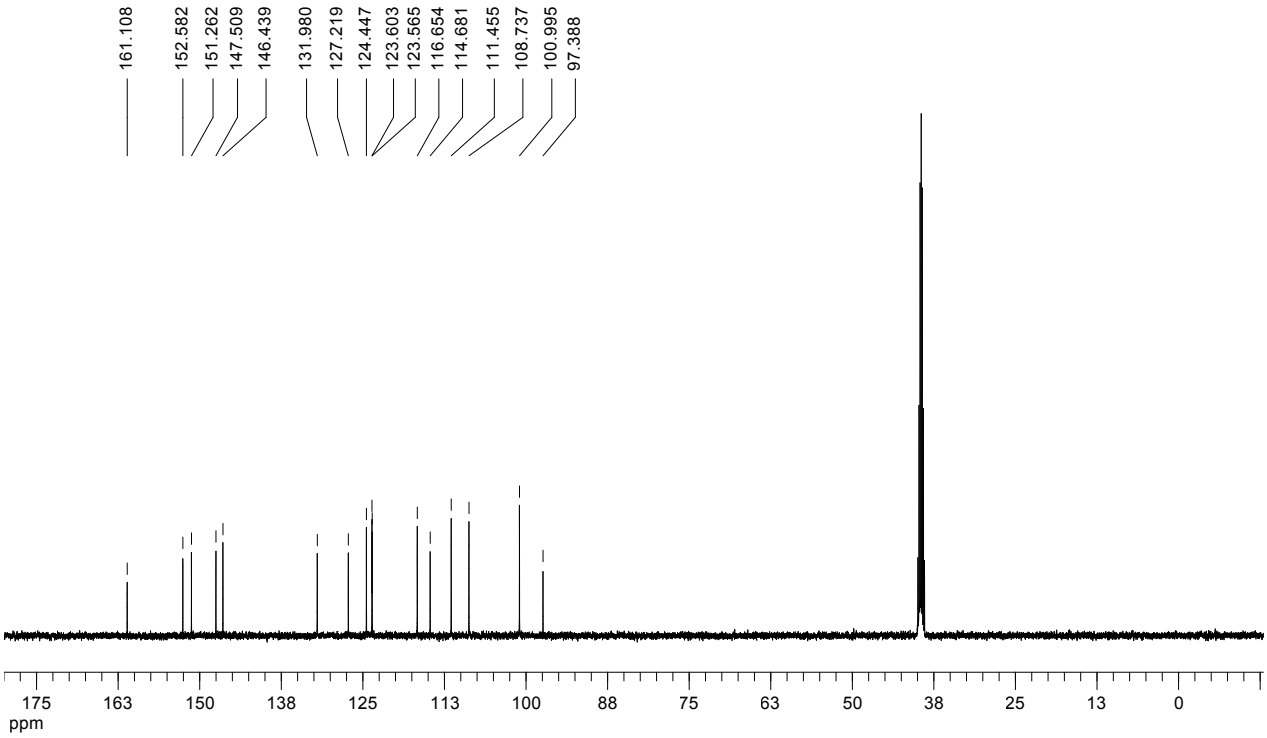
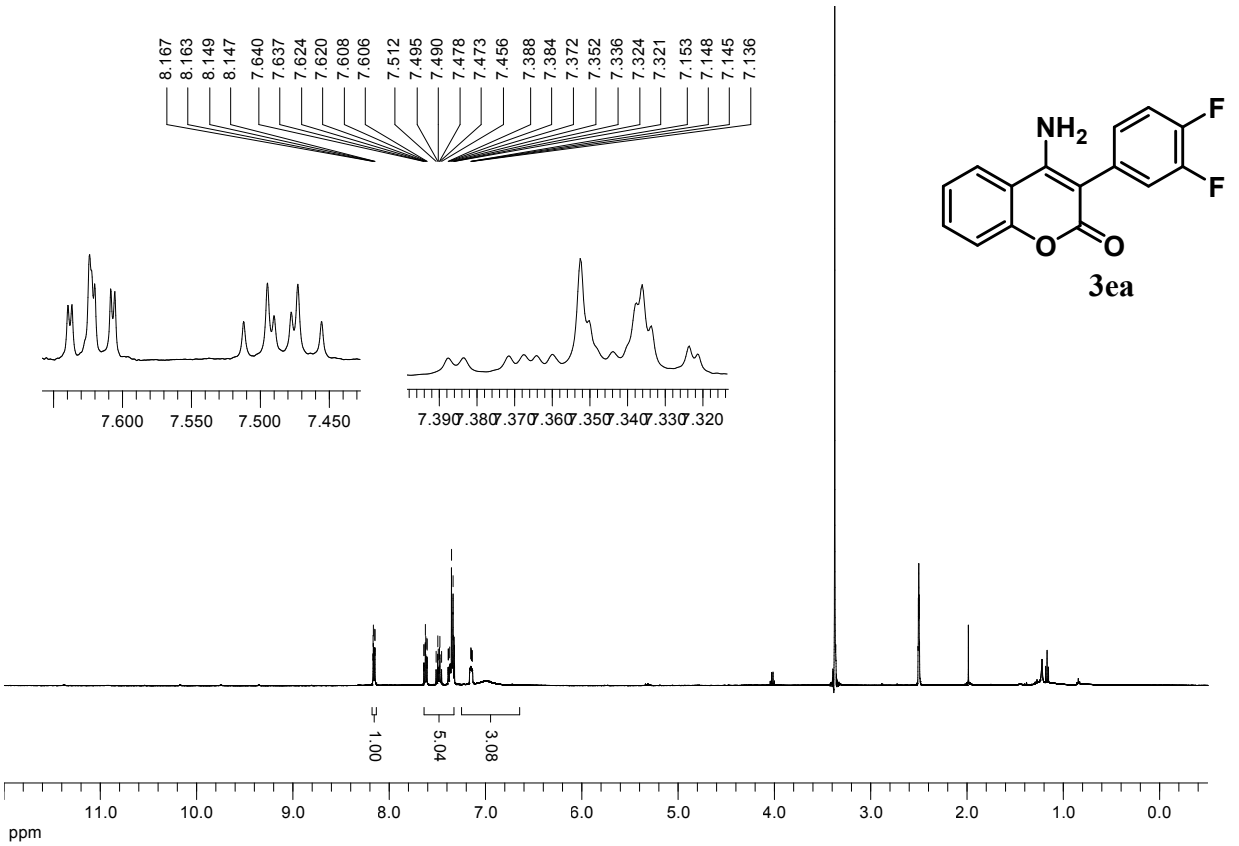
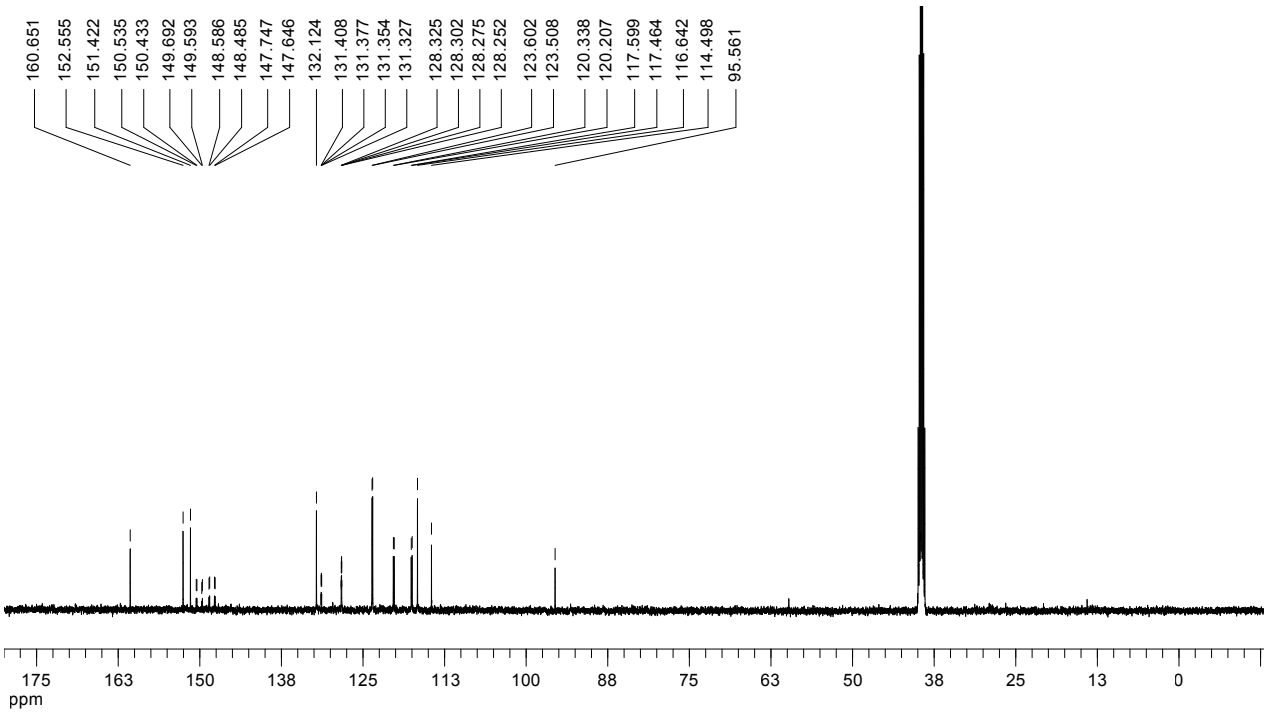


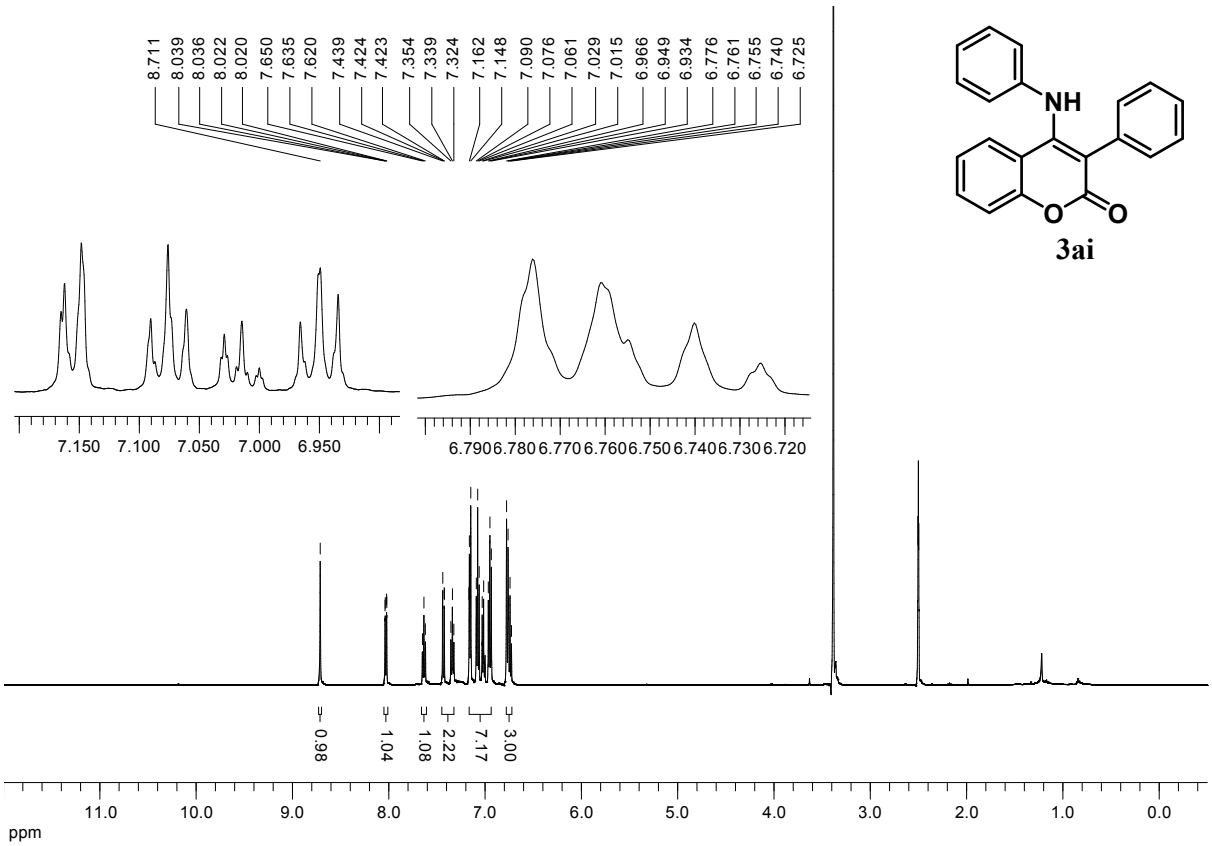
^{1}H-NMR (500 MHz, DMSO-d_6)



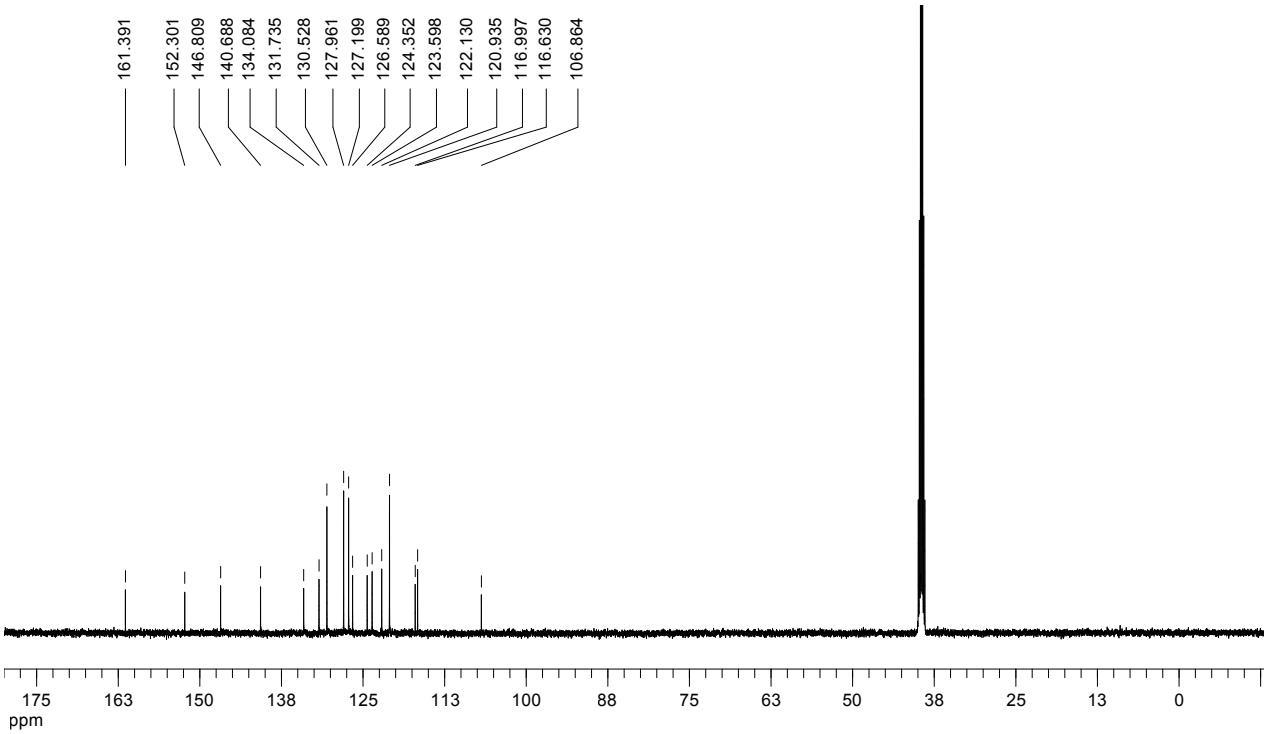
^{13}C-NMR (126 MHz, DMSO-d_6)



^{1}H-NMR (500 MHz, DMSO-d_6)



^{13}C-NMR (126 MHz, DMSO-d_6)



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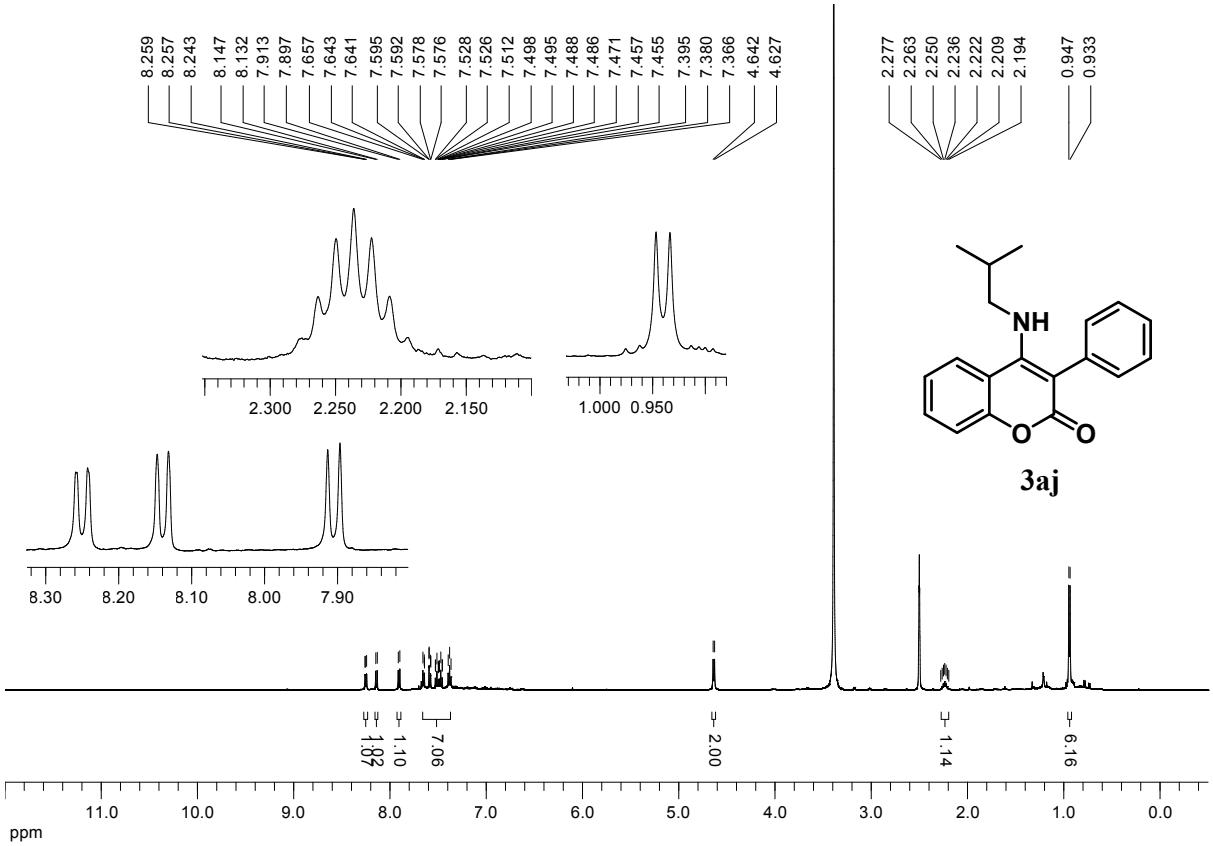

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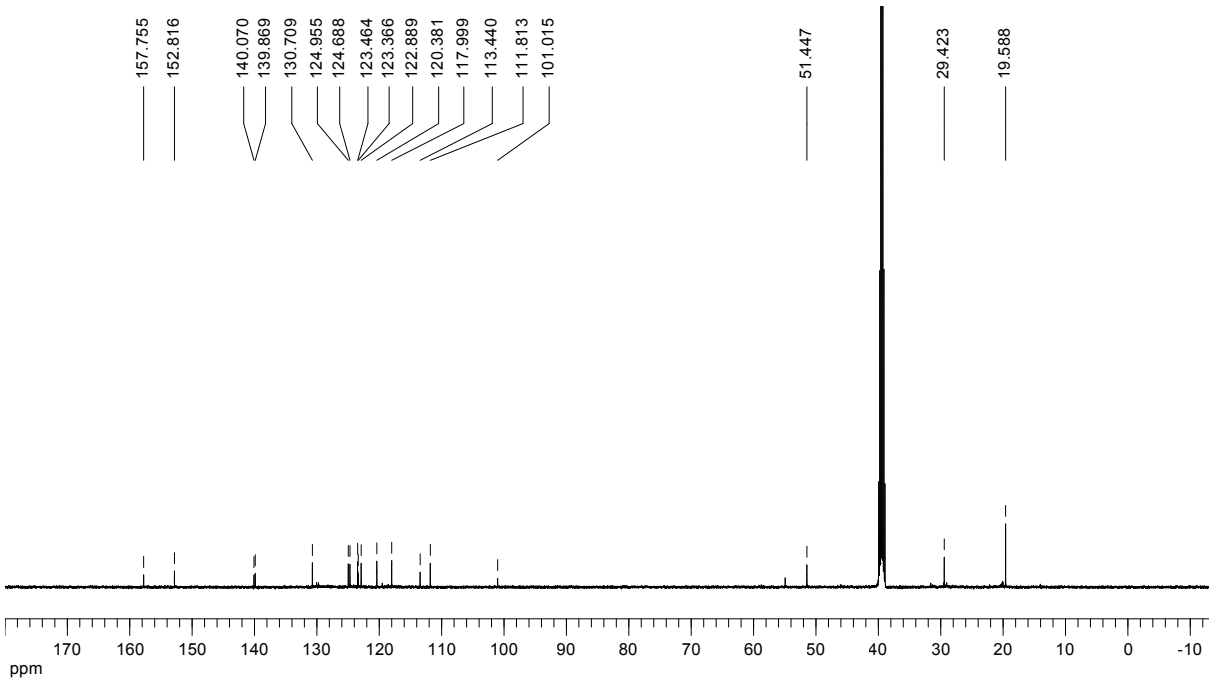

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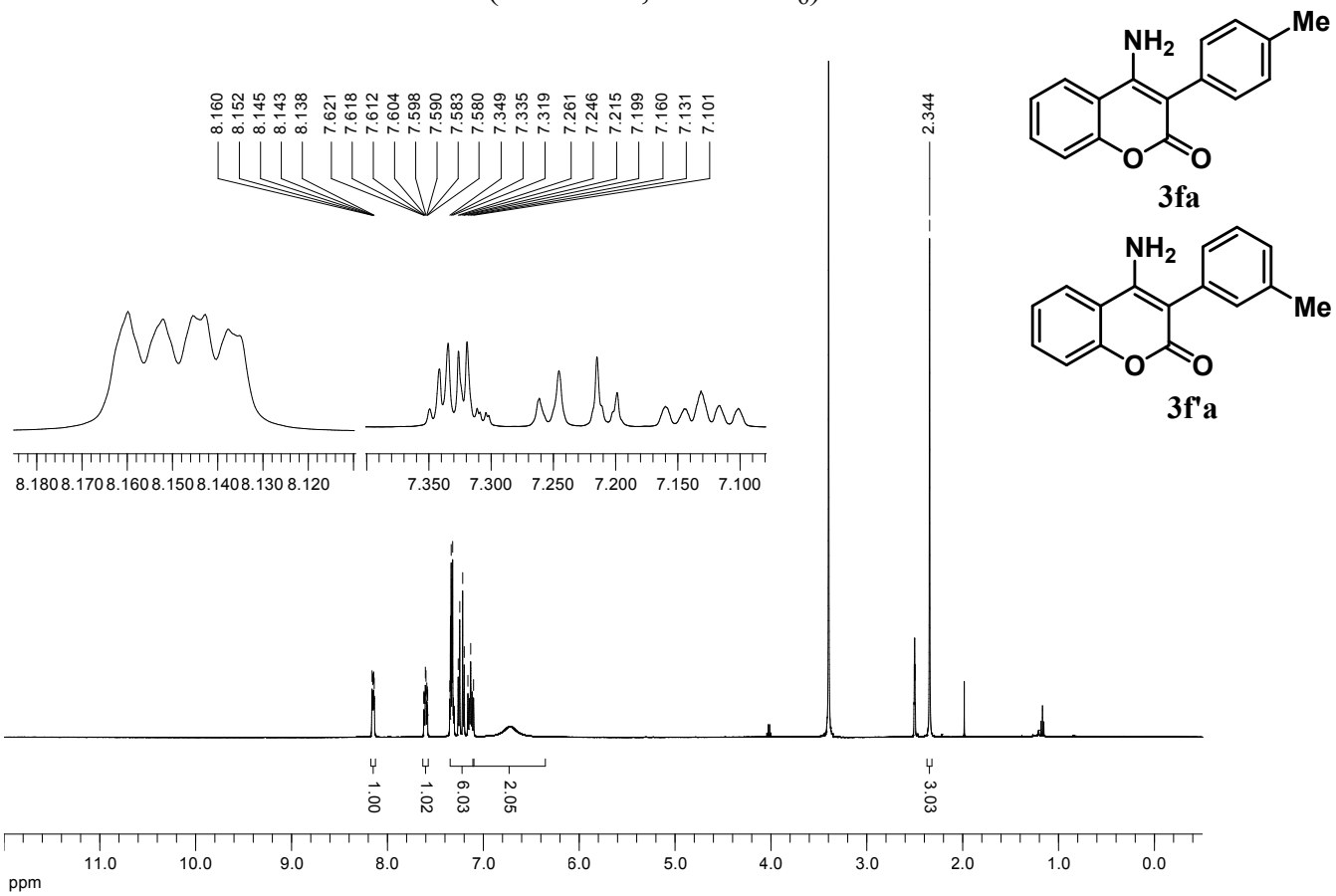

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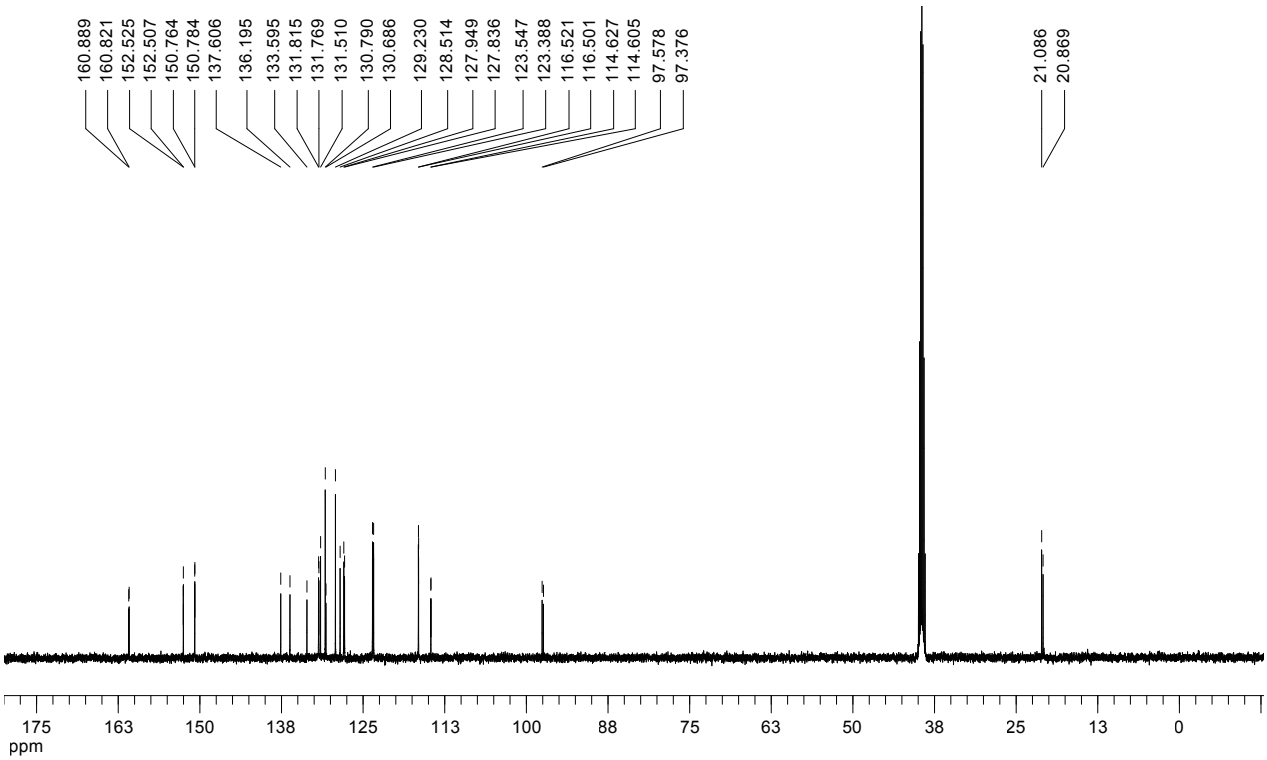

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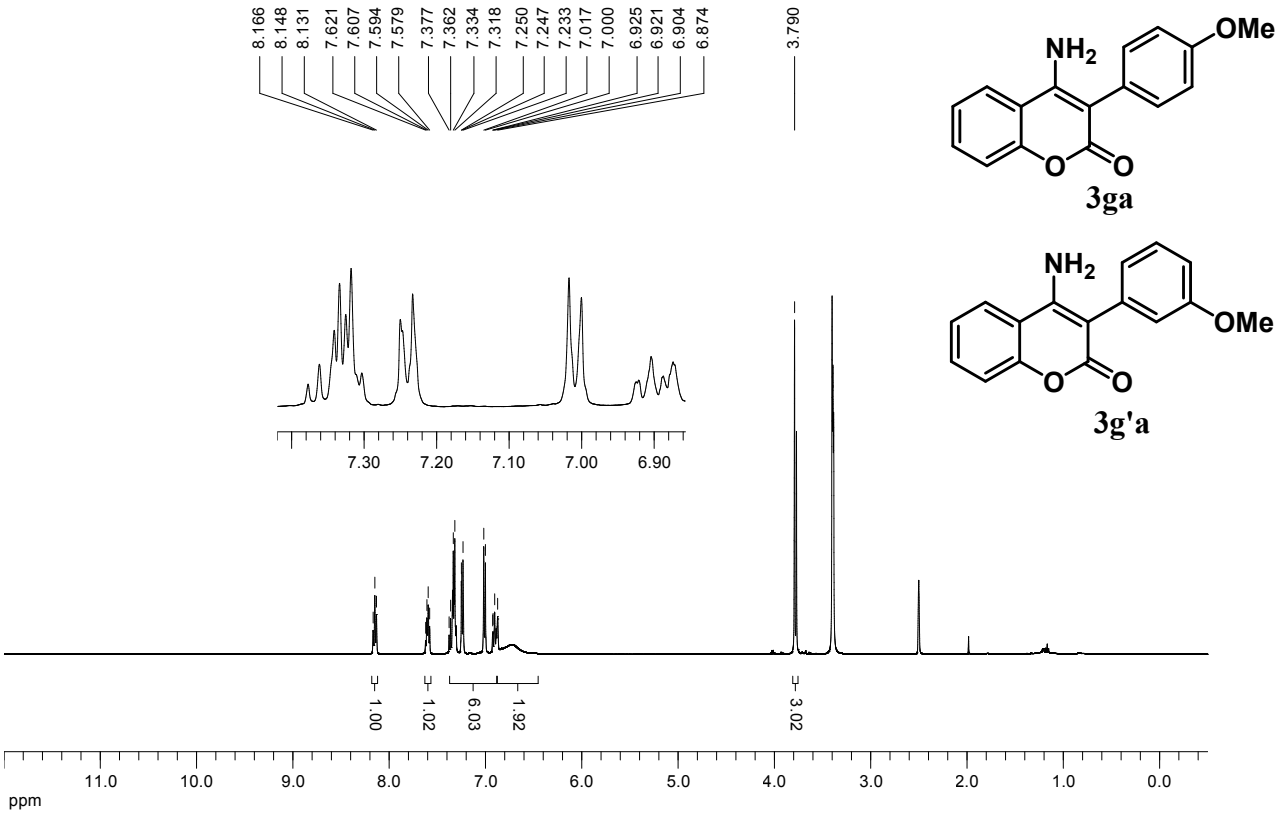

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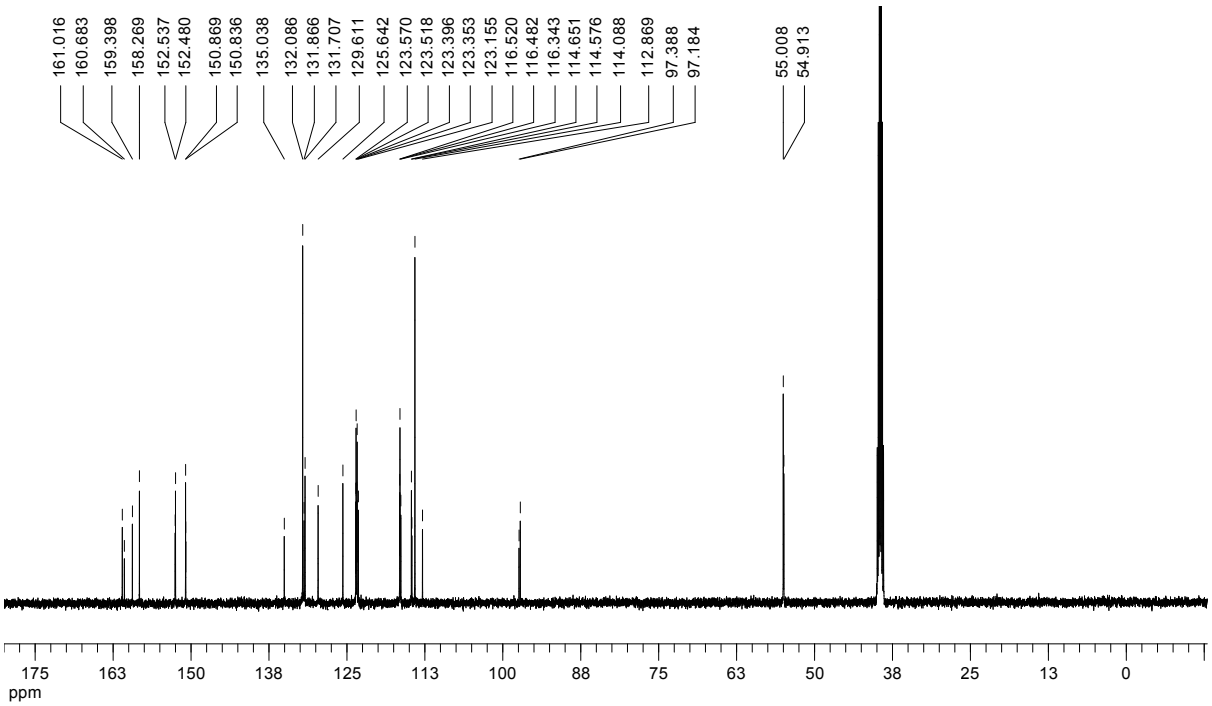

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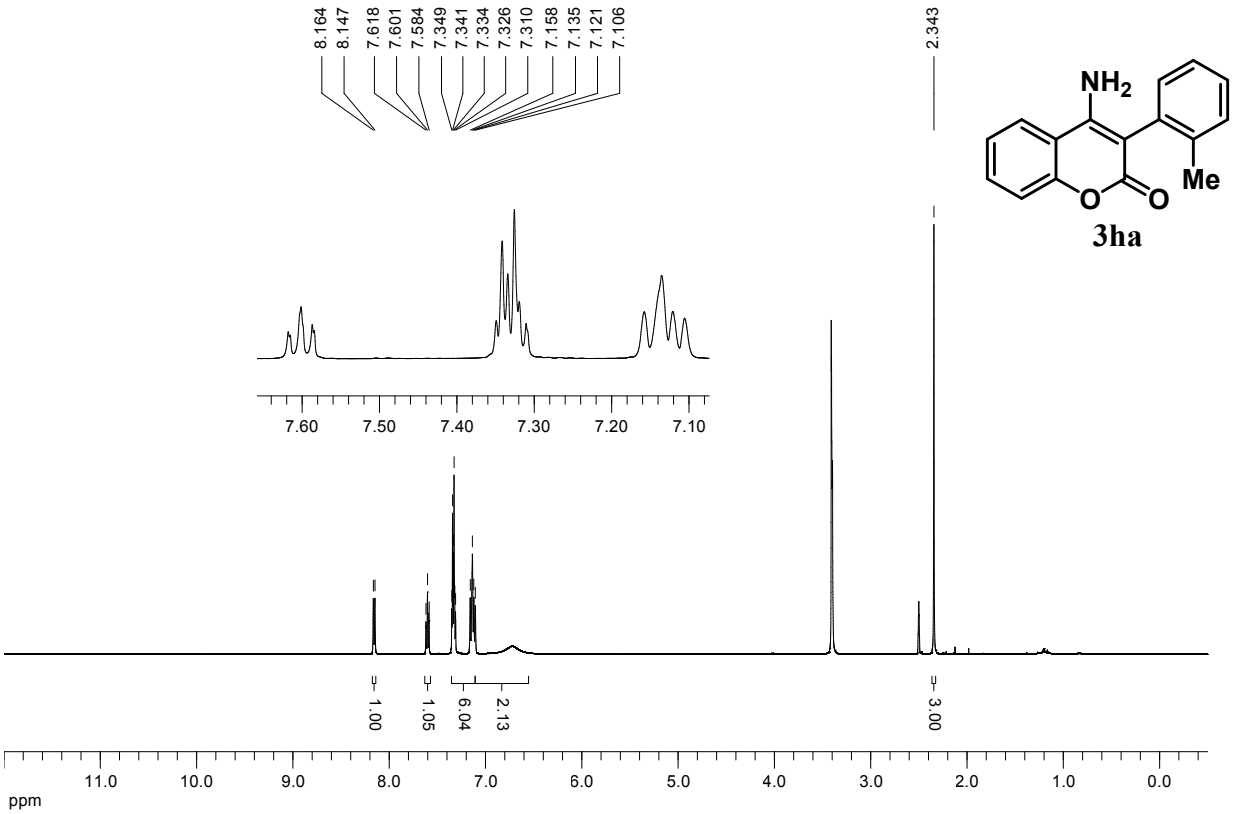

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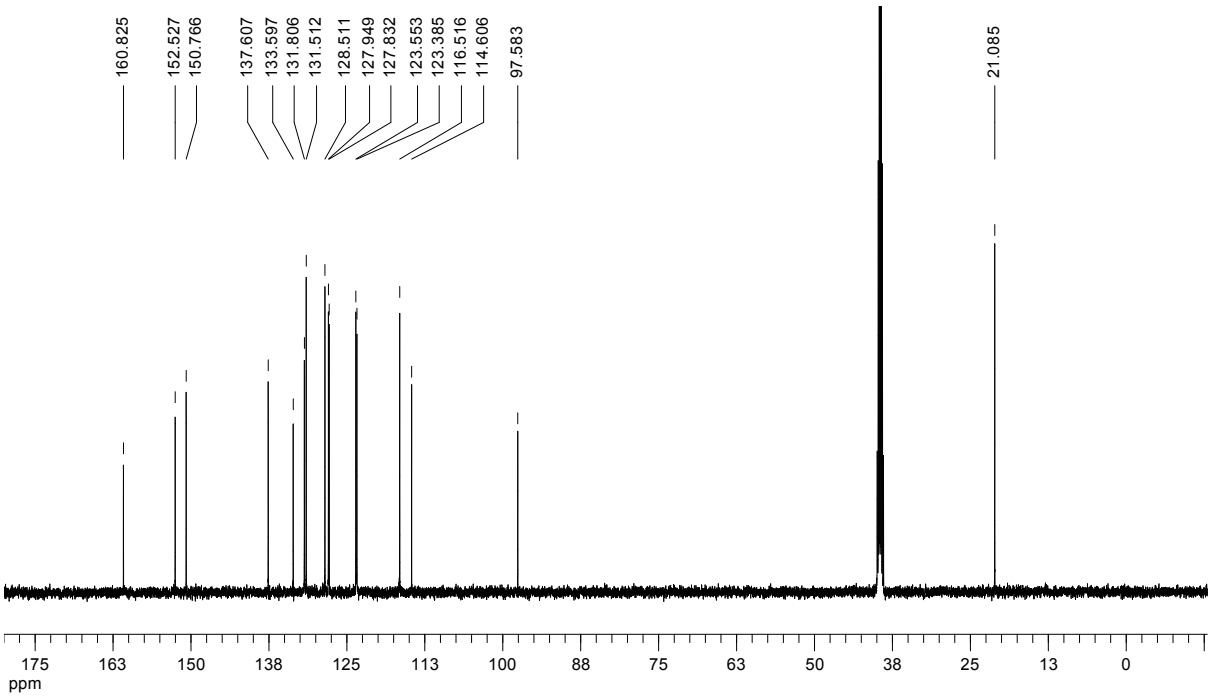

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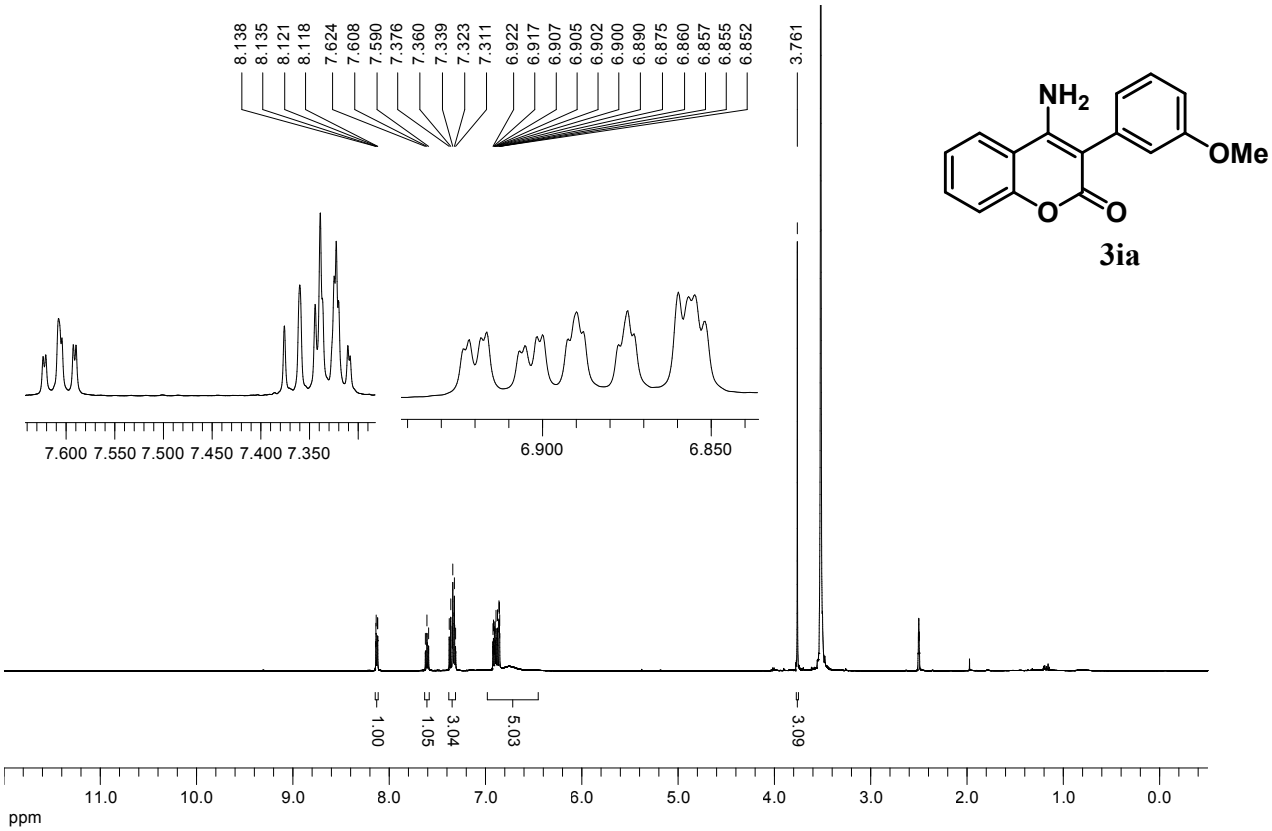

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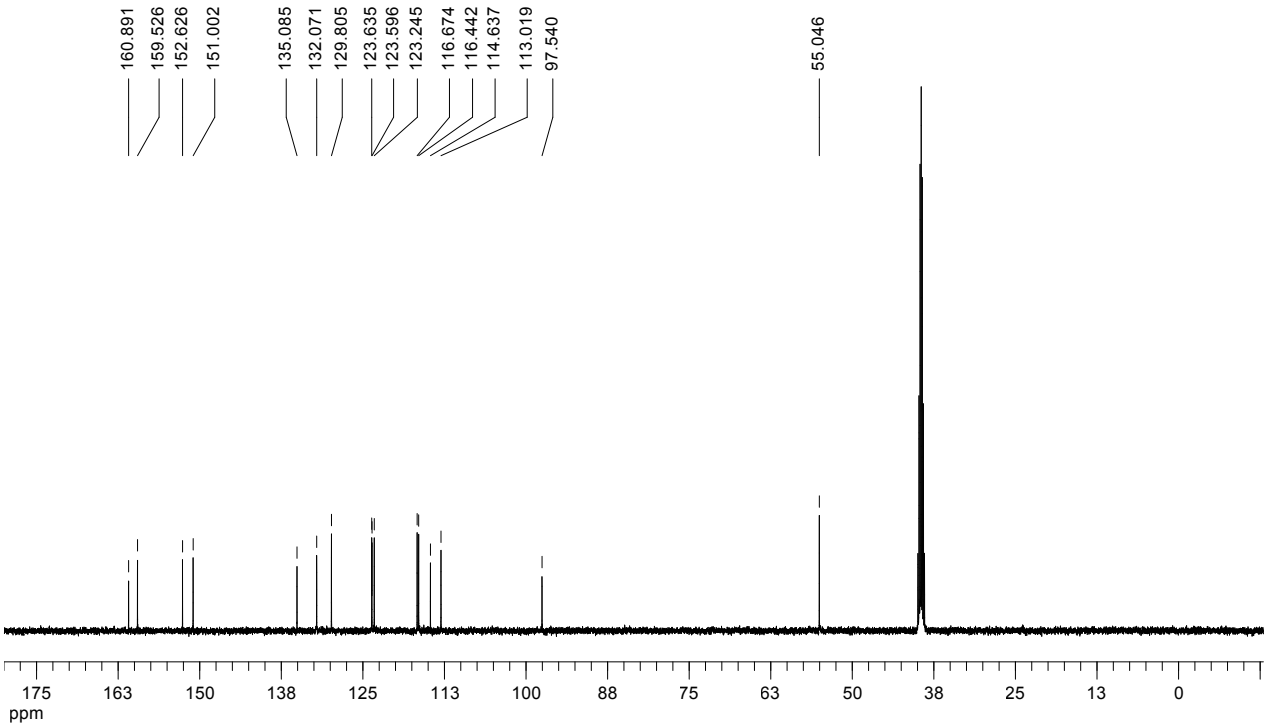

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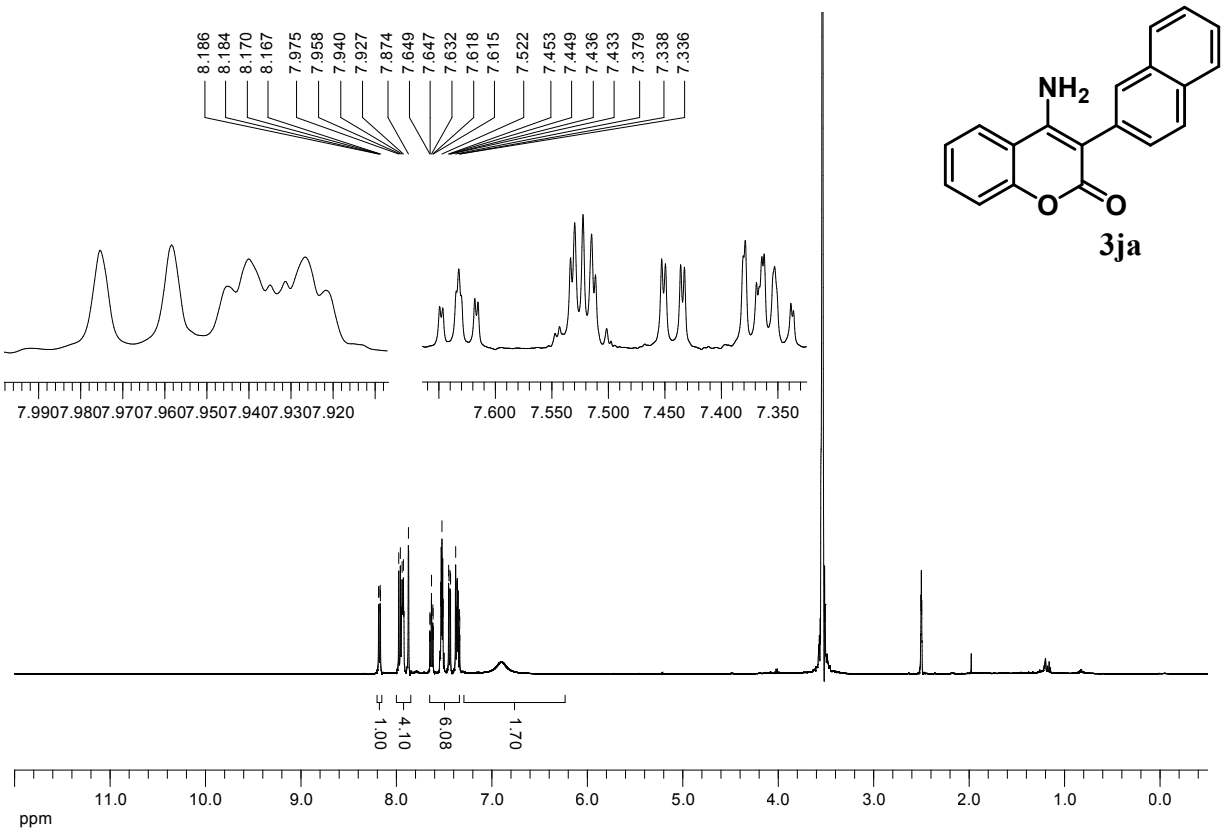

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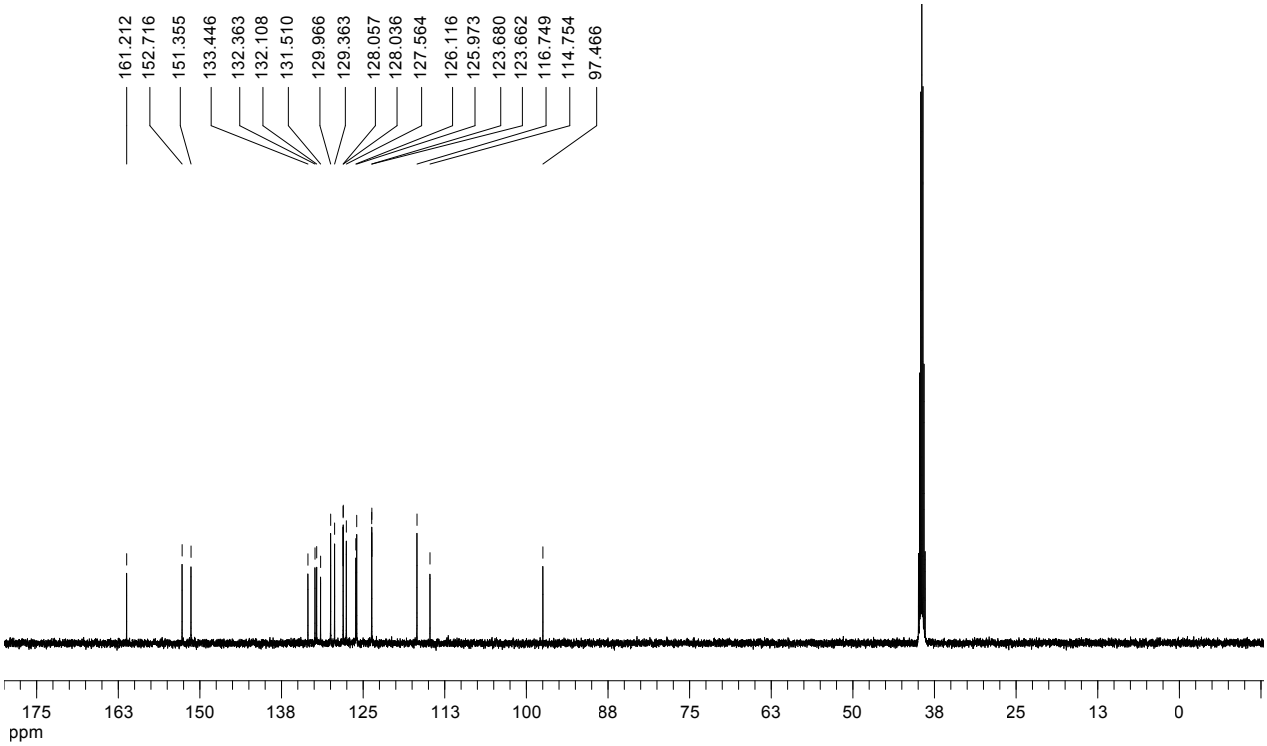

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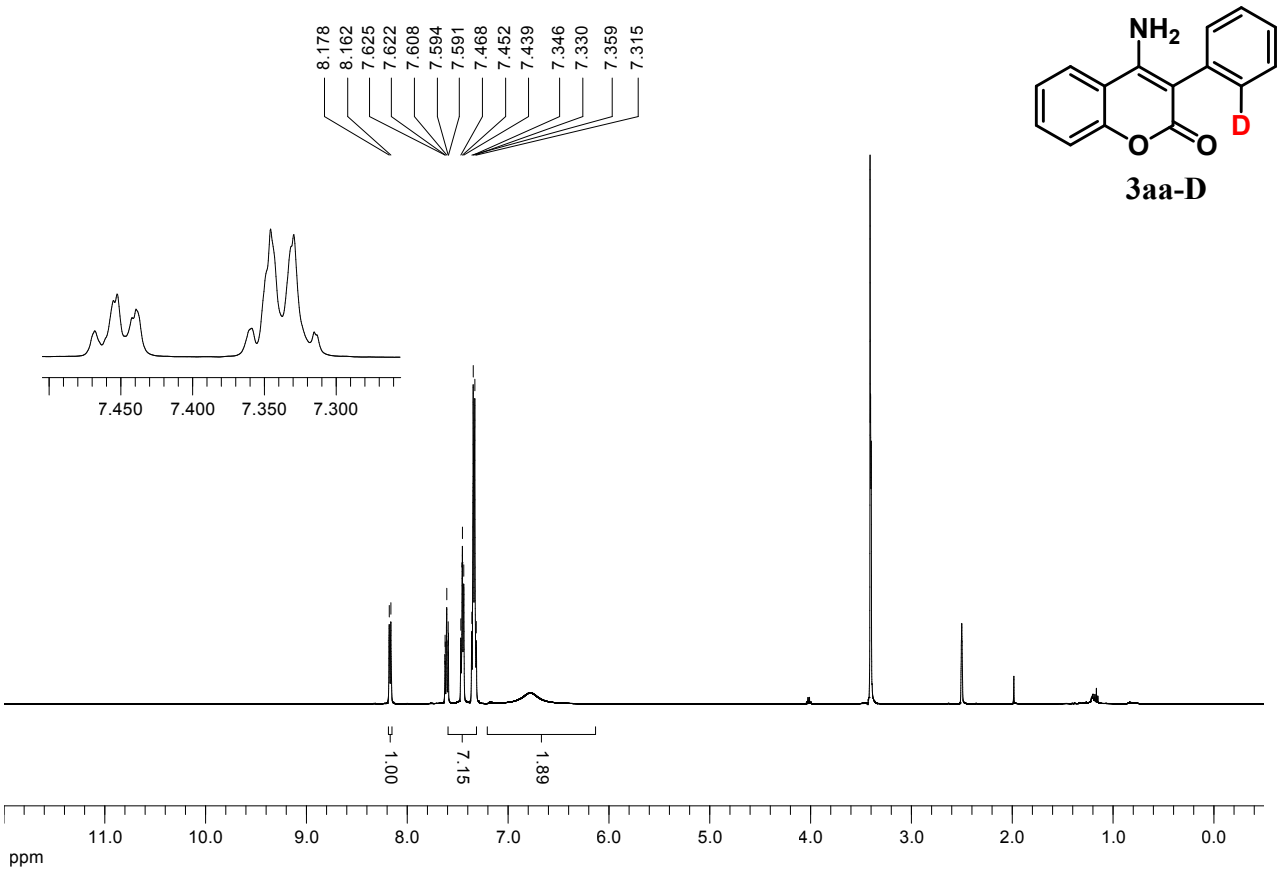
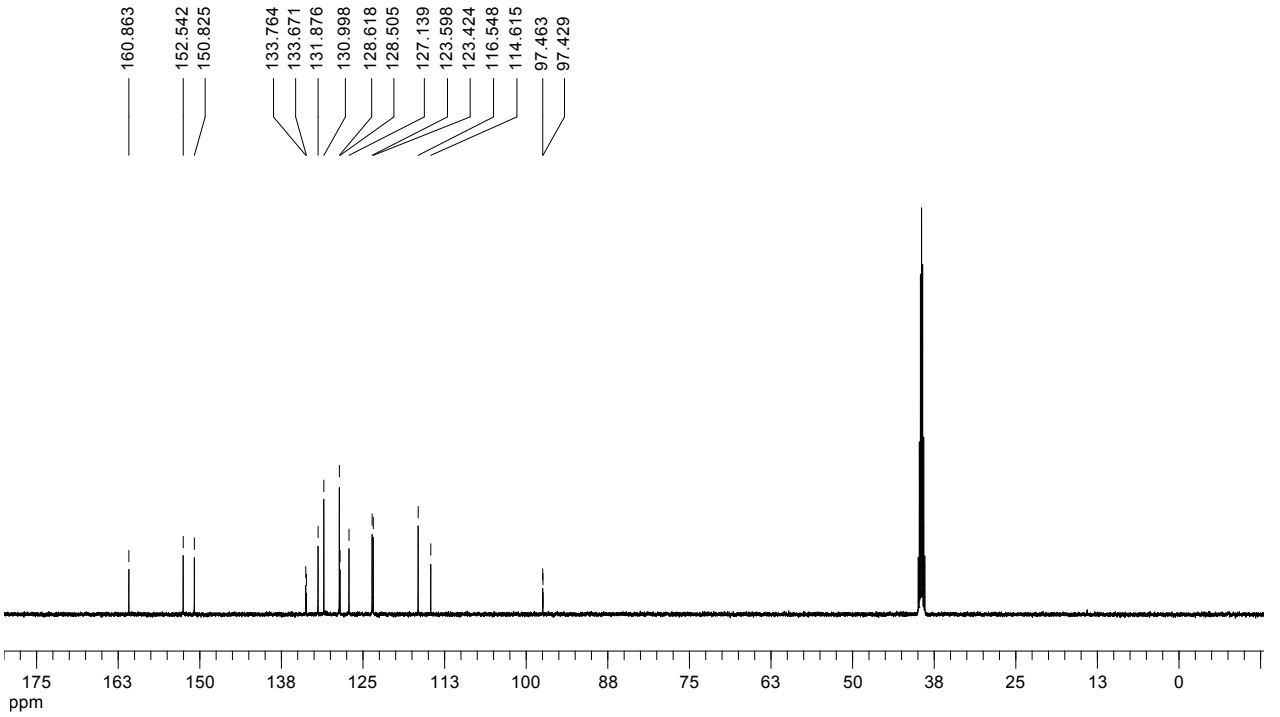
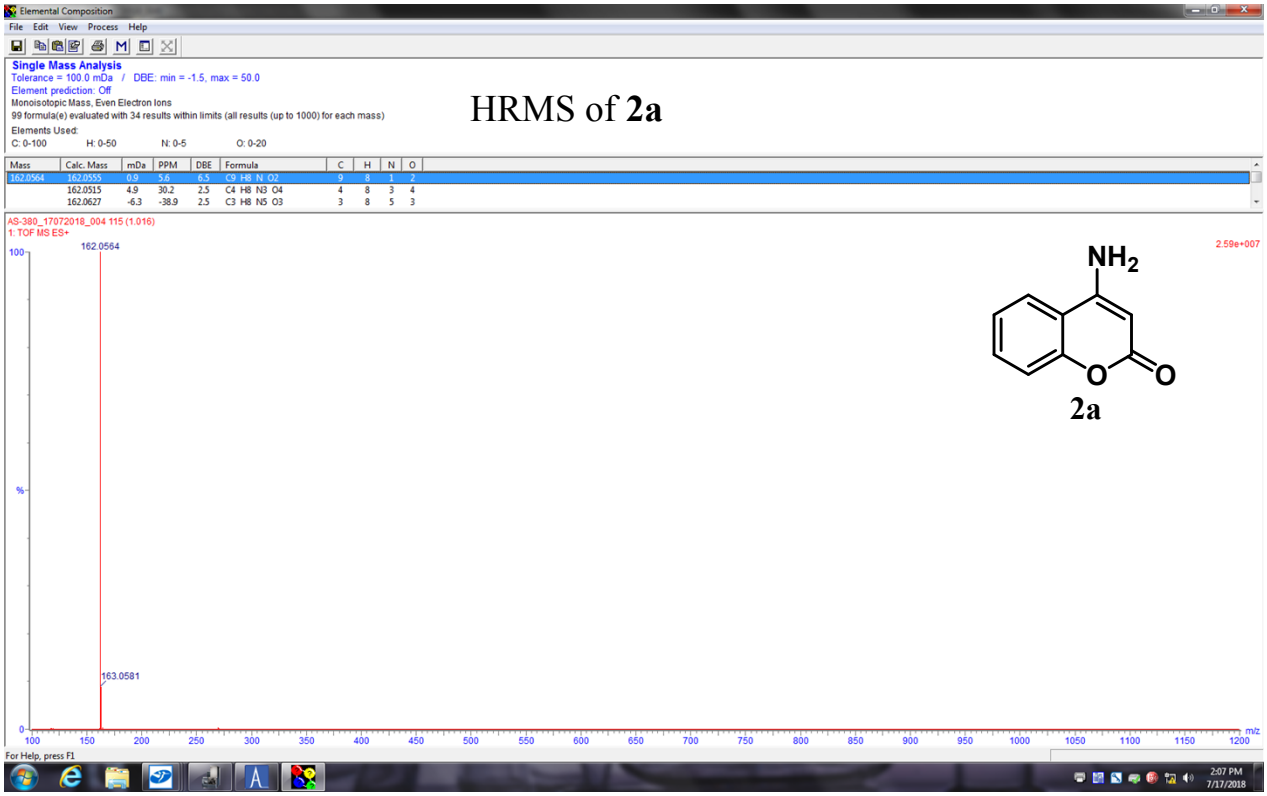


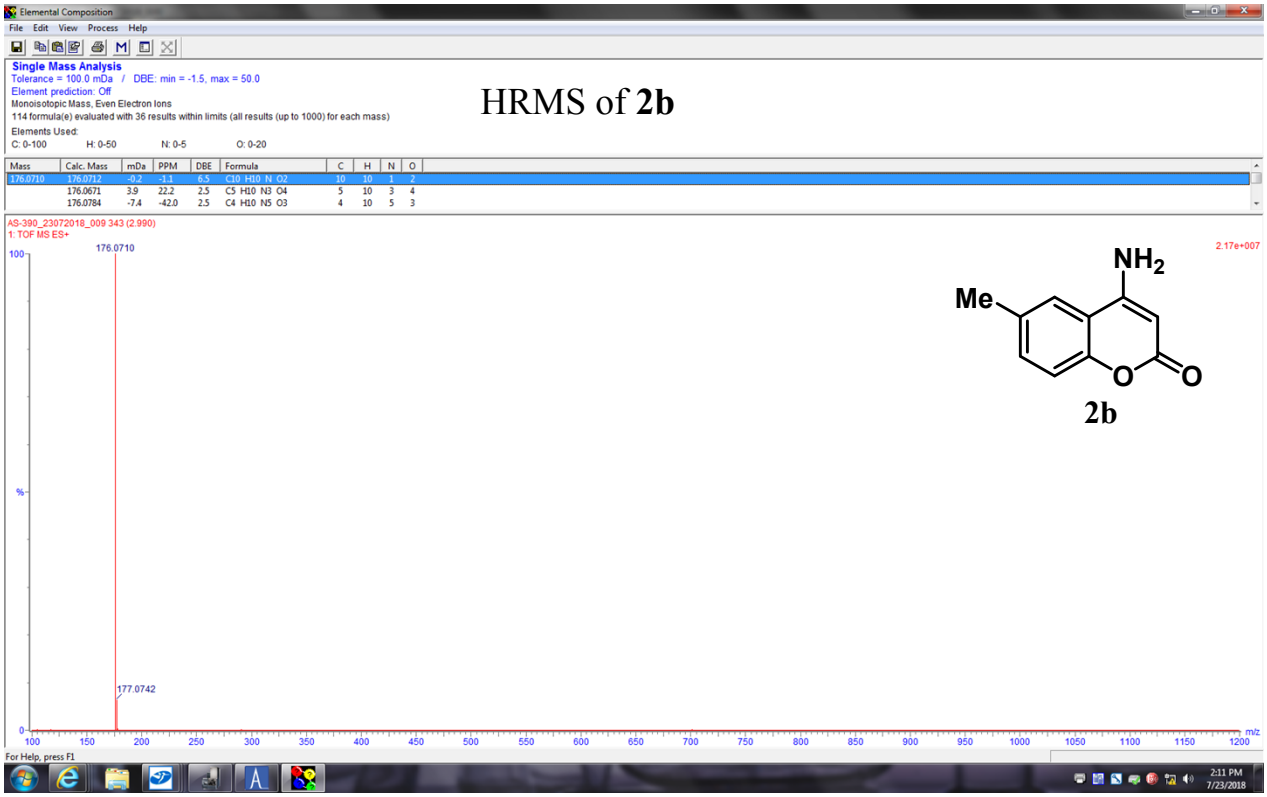
3aa-D

^{13}C-NMR (126 MHz, DMSO-d_6)

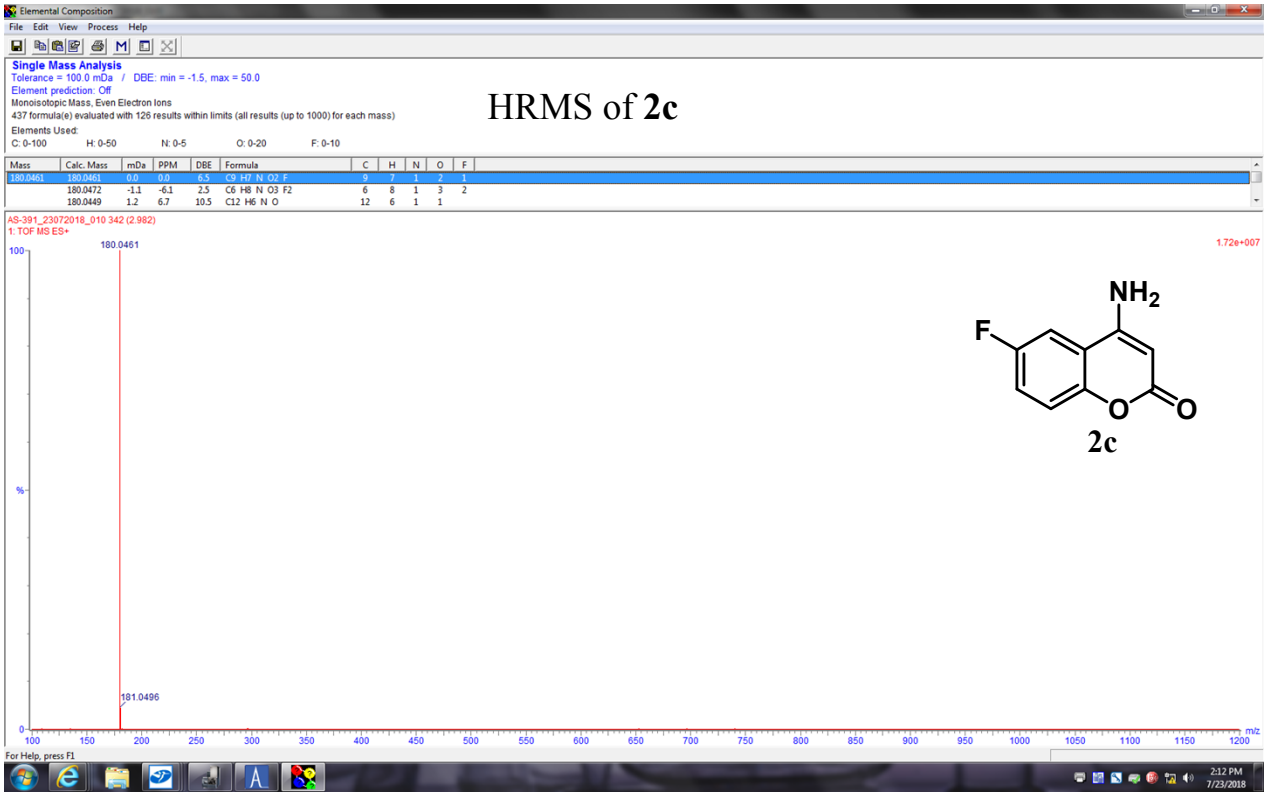




HRMS of **2a**



HRMS of **2b**



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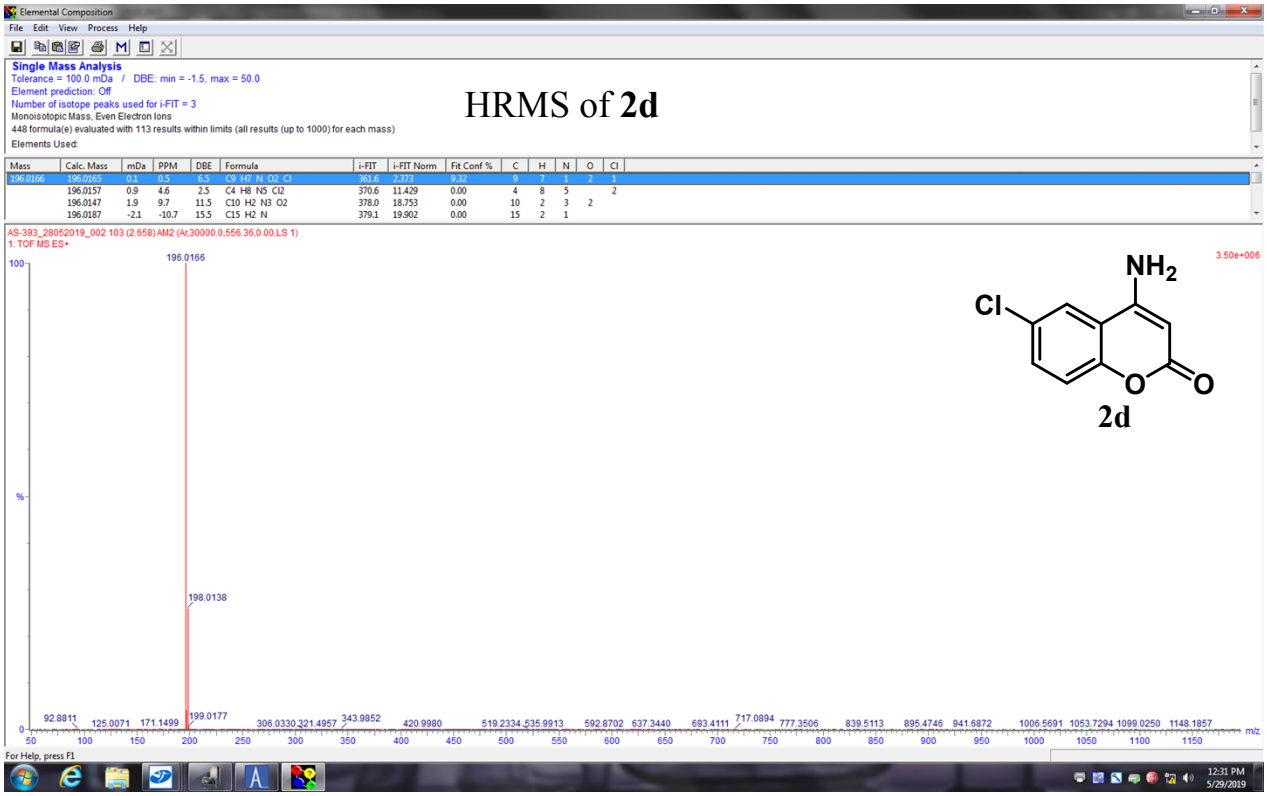
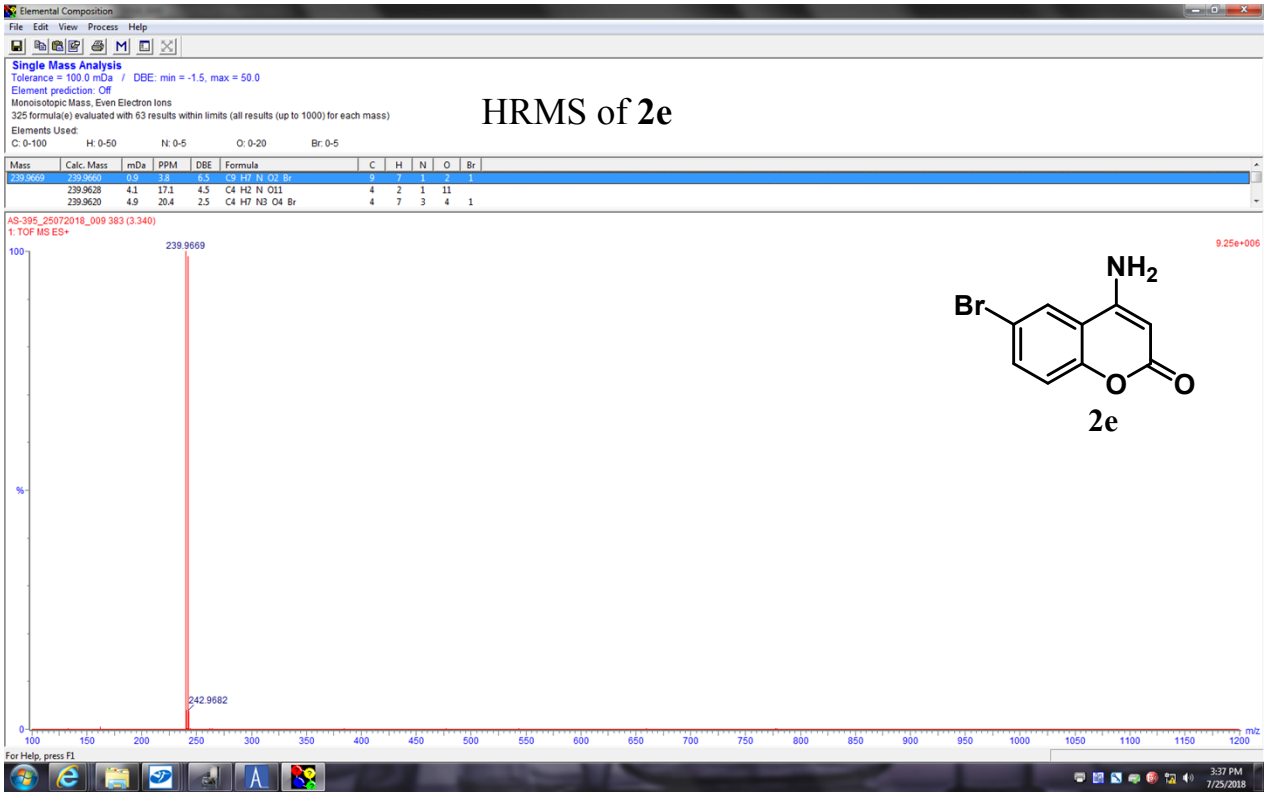
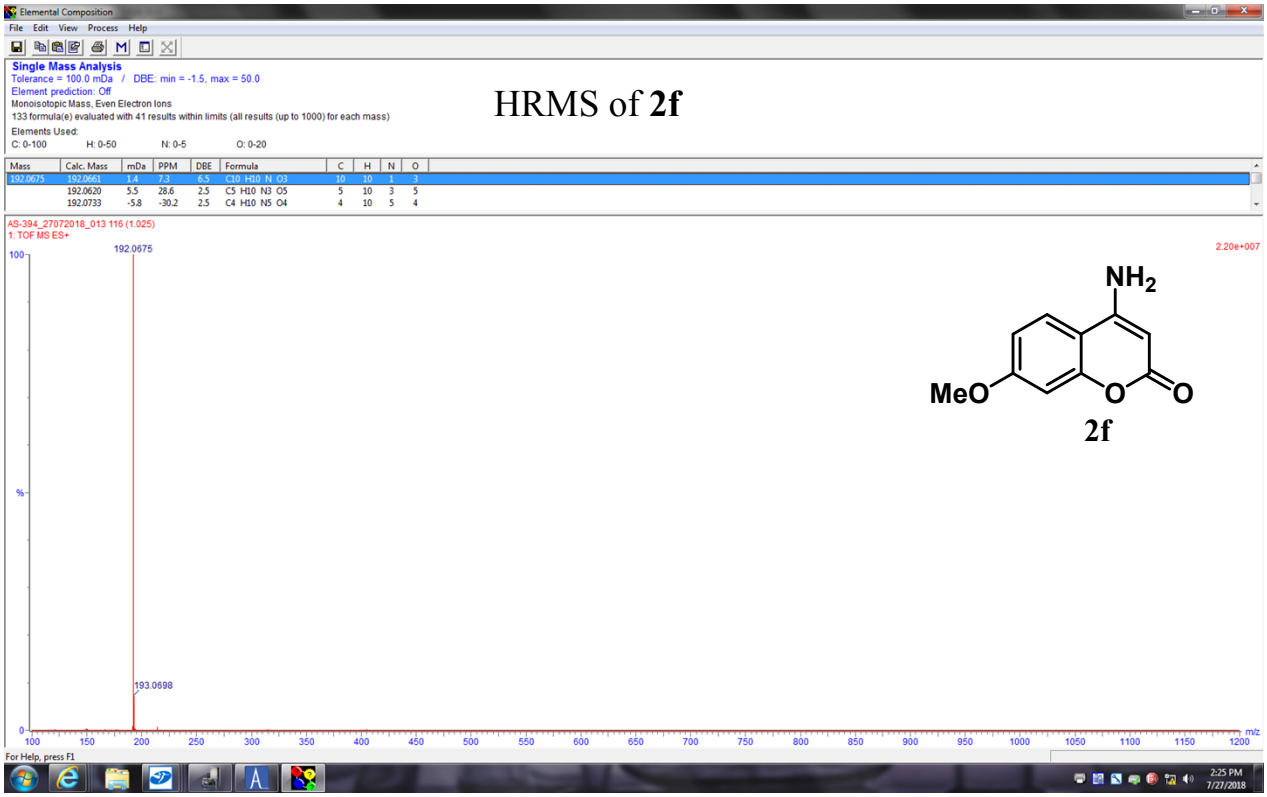


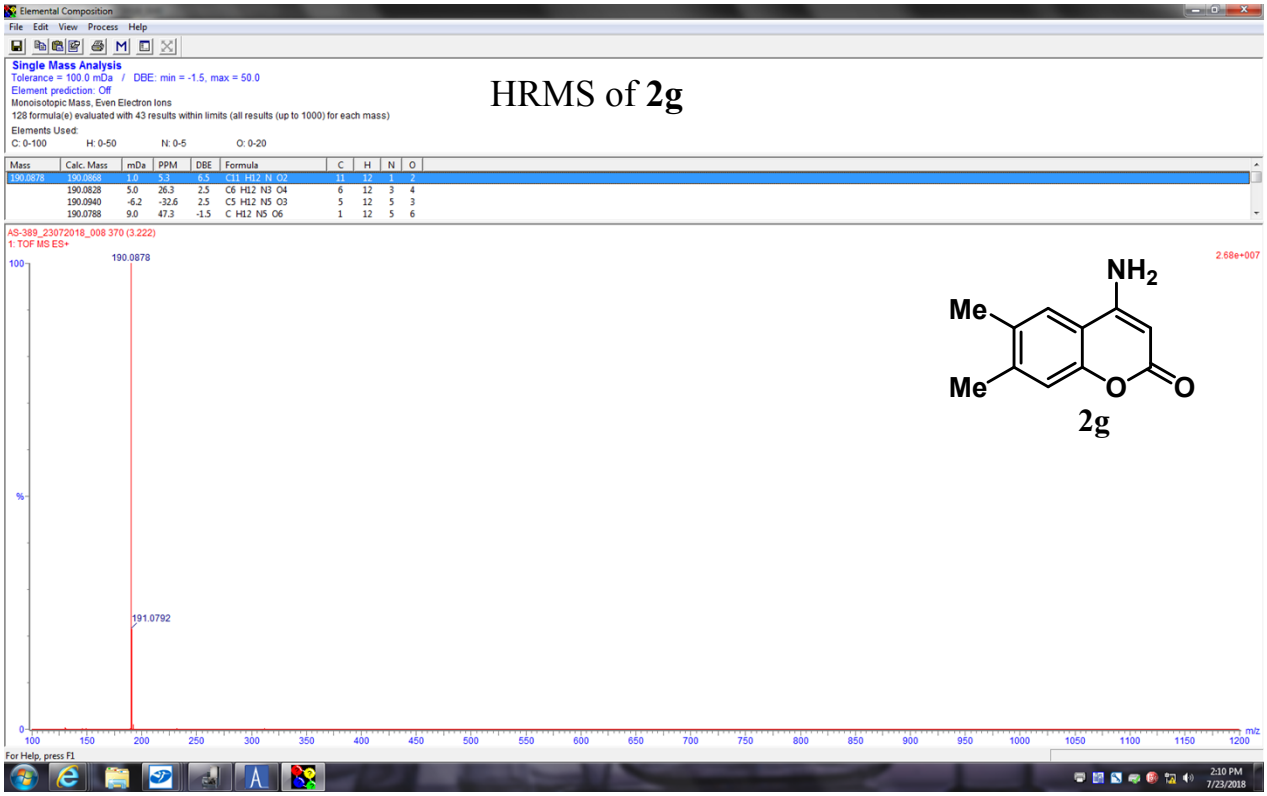
HRMS of **2d**



HRMS of **2e**

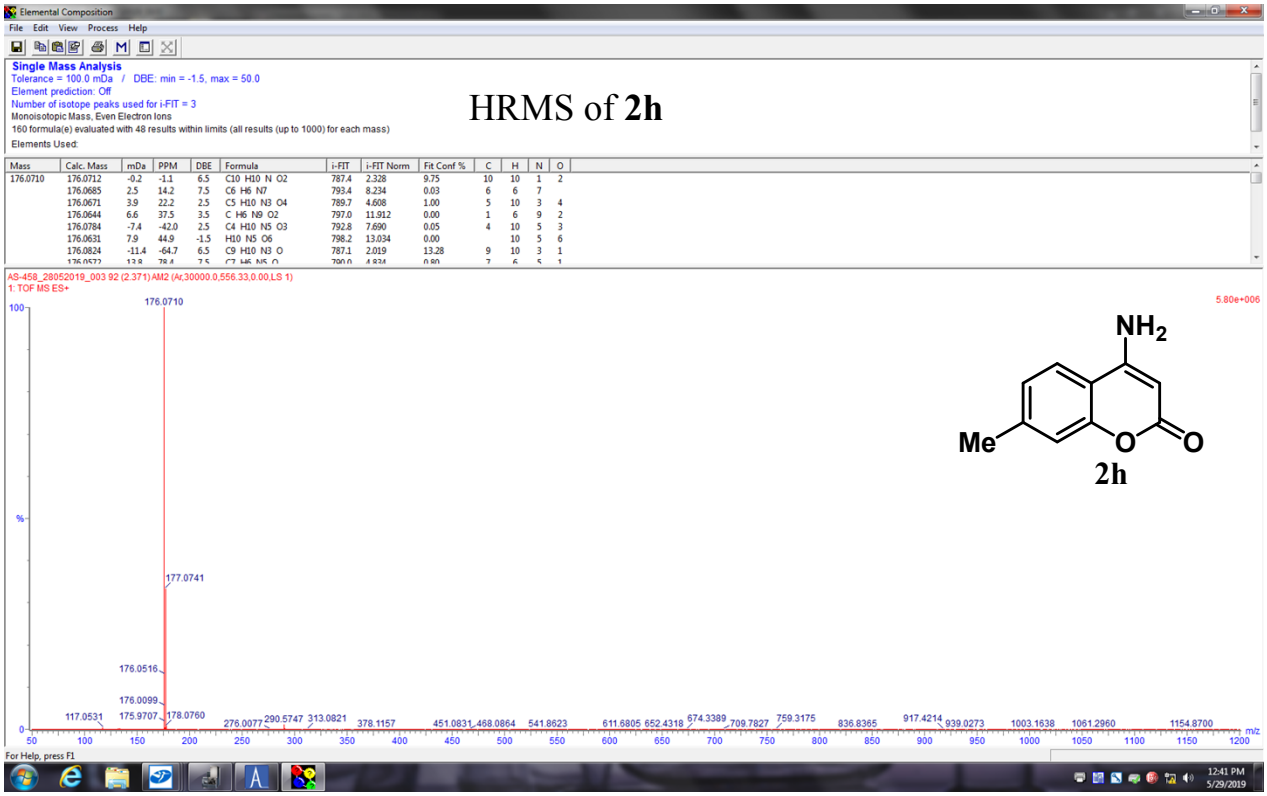


HRMS of **2f**



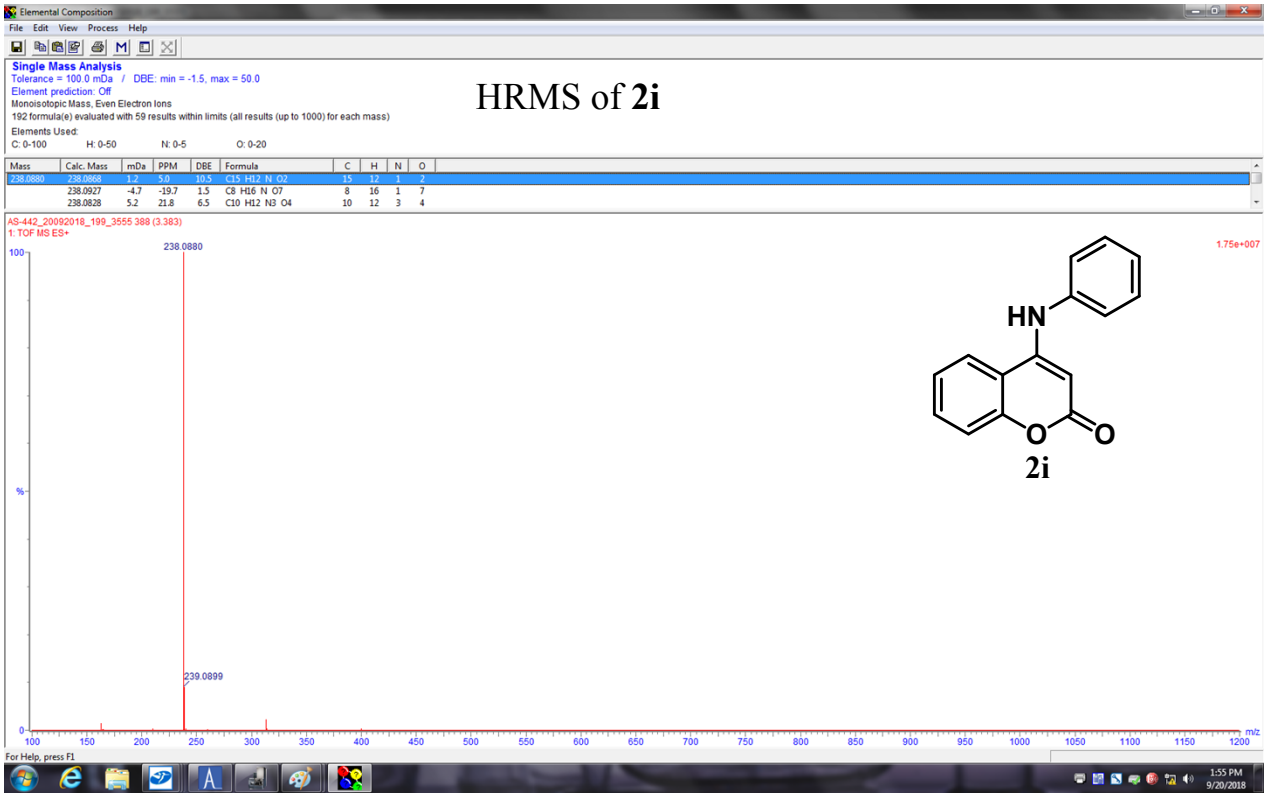
HRMS of **2g**

2g

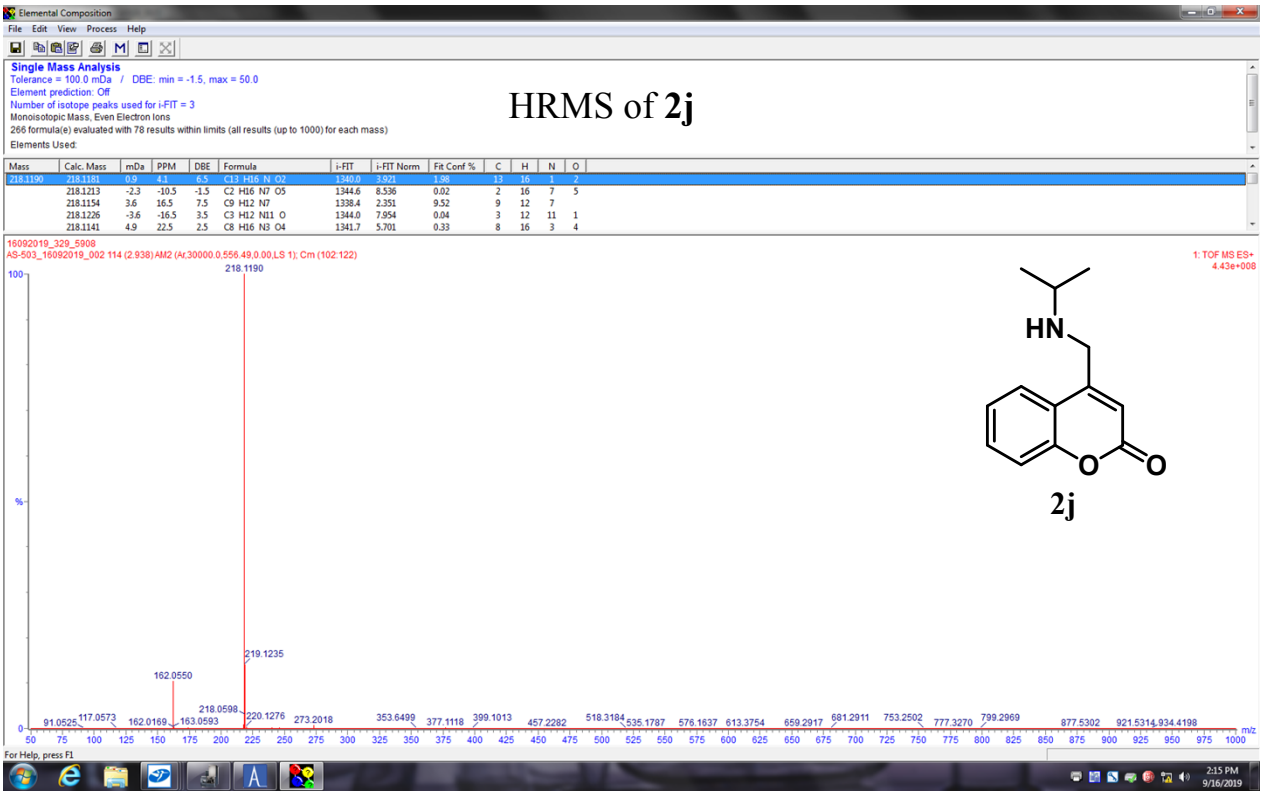


HRMS of **2h**

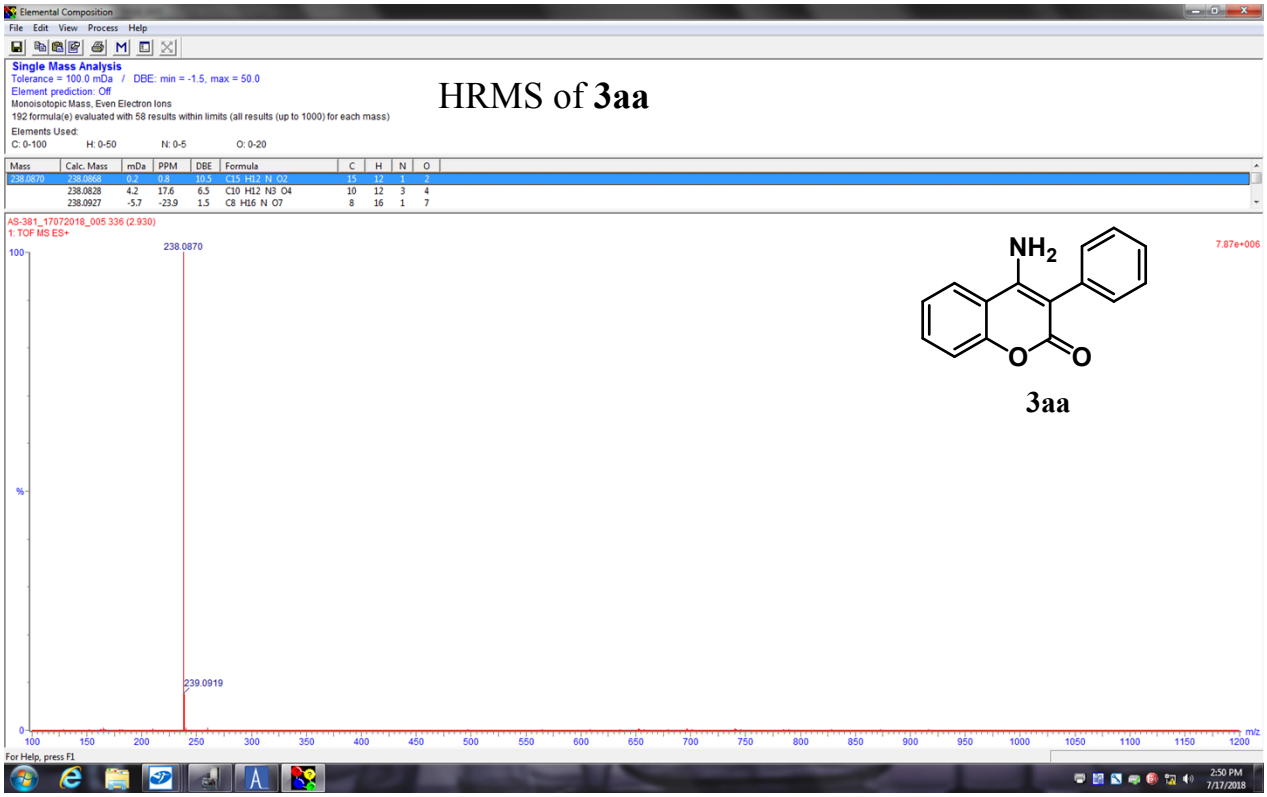
2h



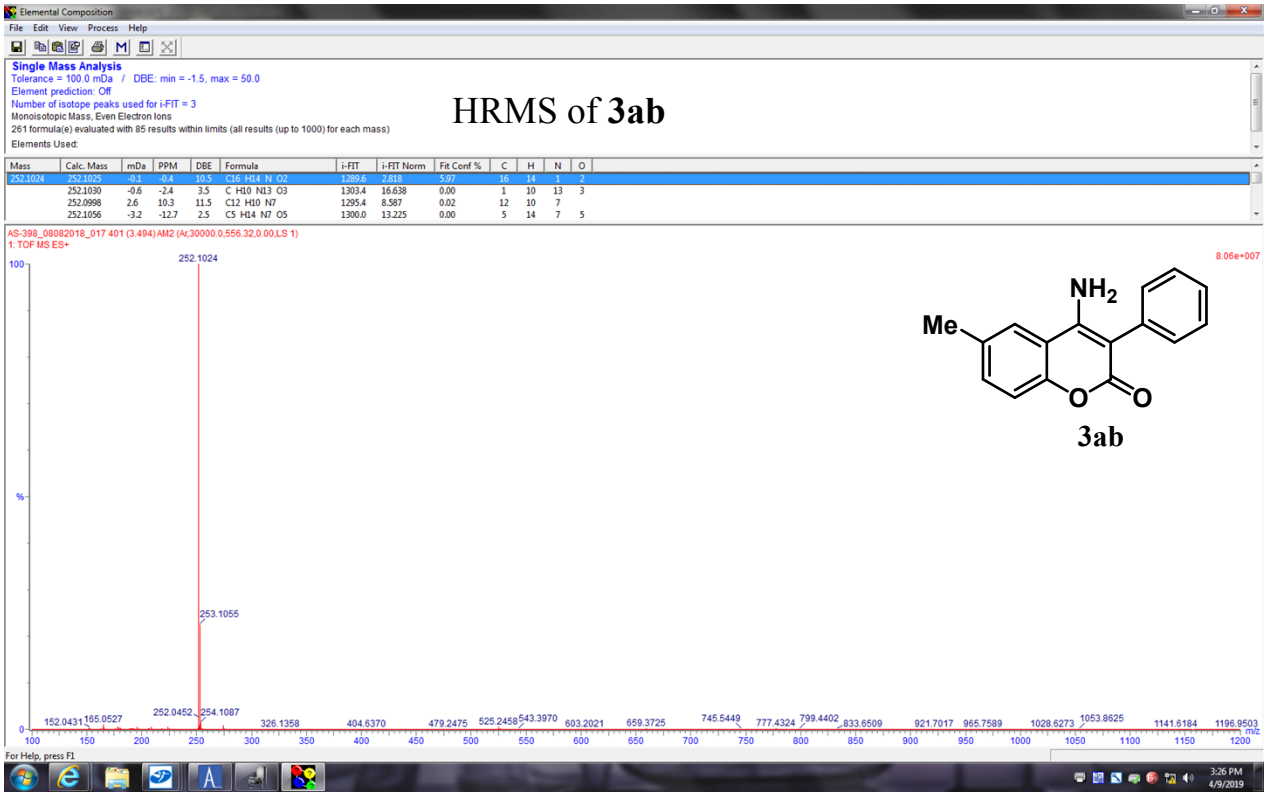
HRMS of **2i**



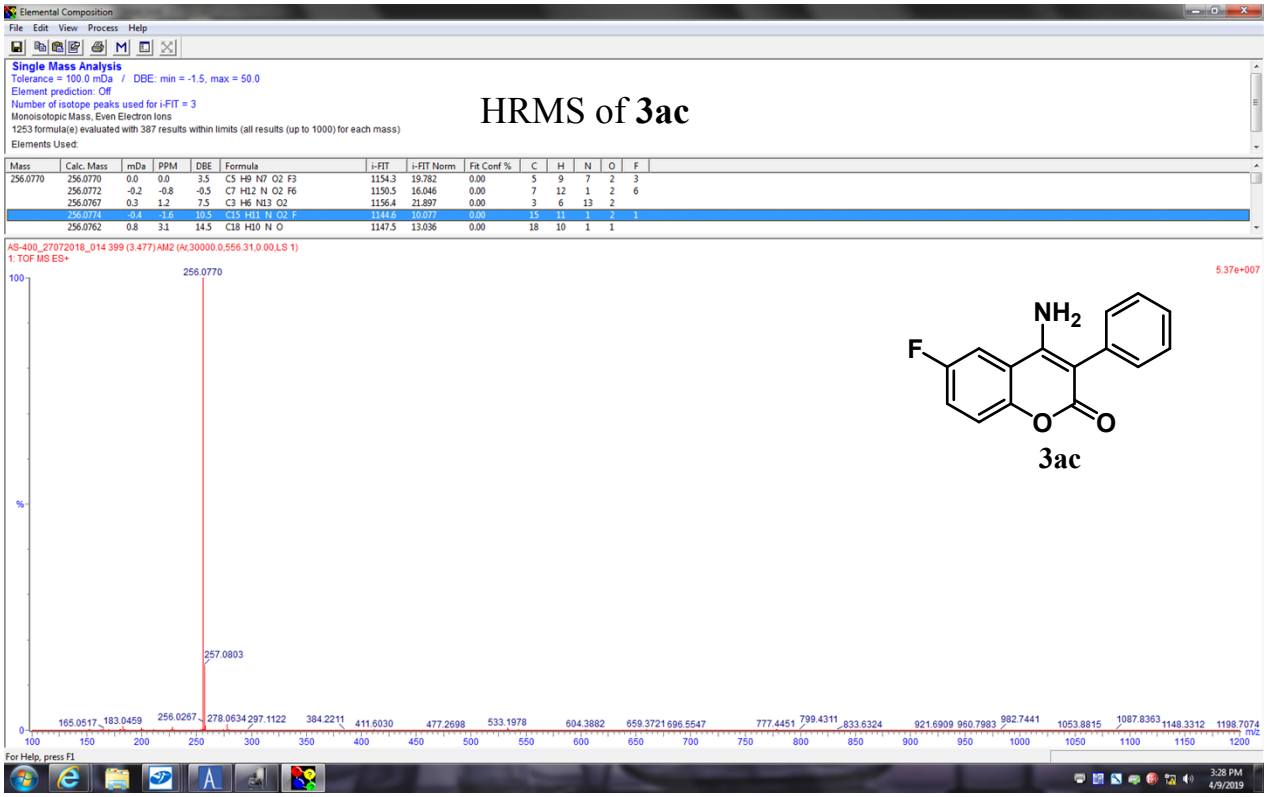
HRMS of **2j**



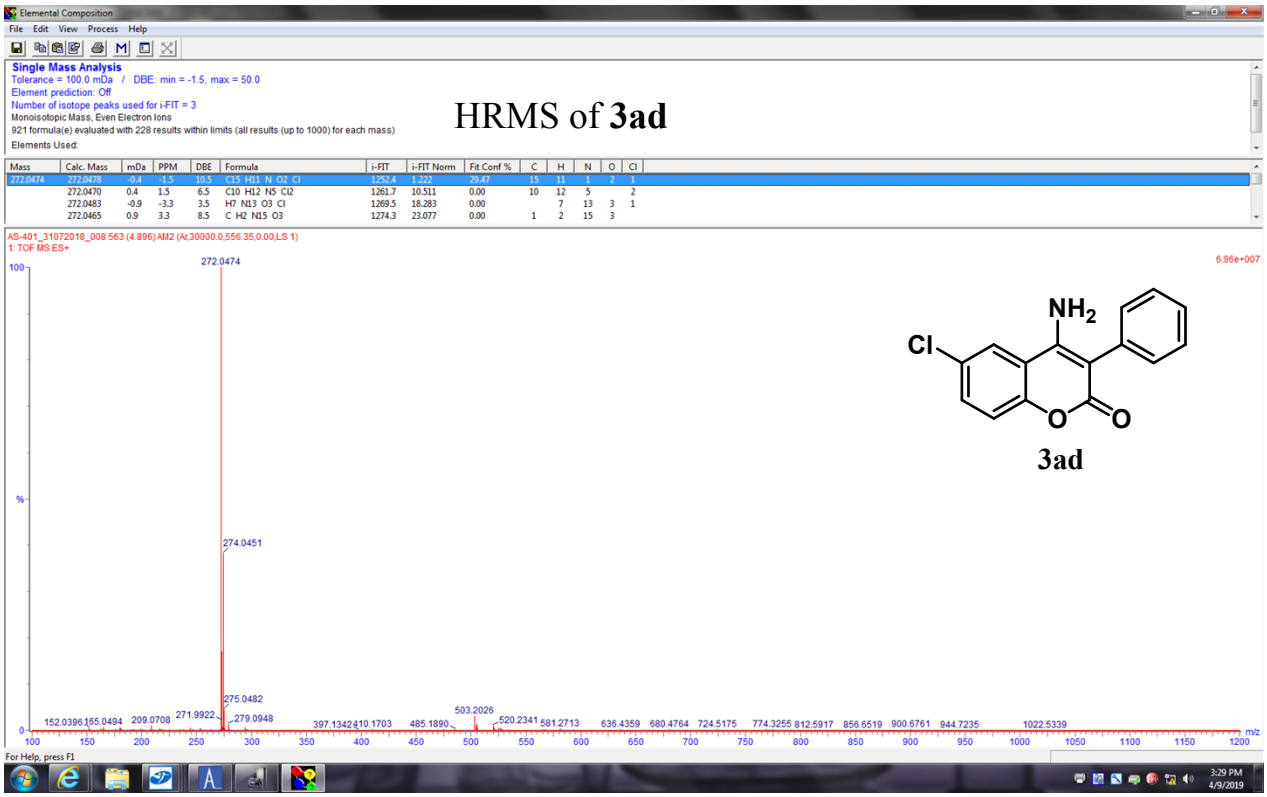
HRMS of **3aa**



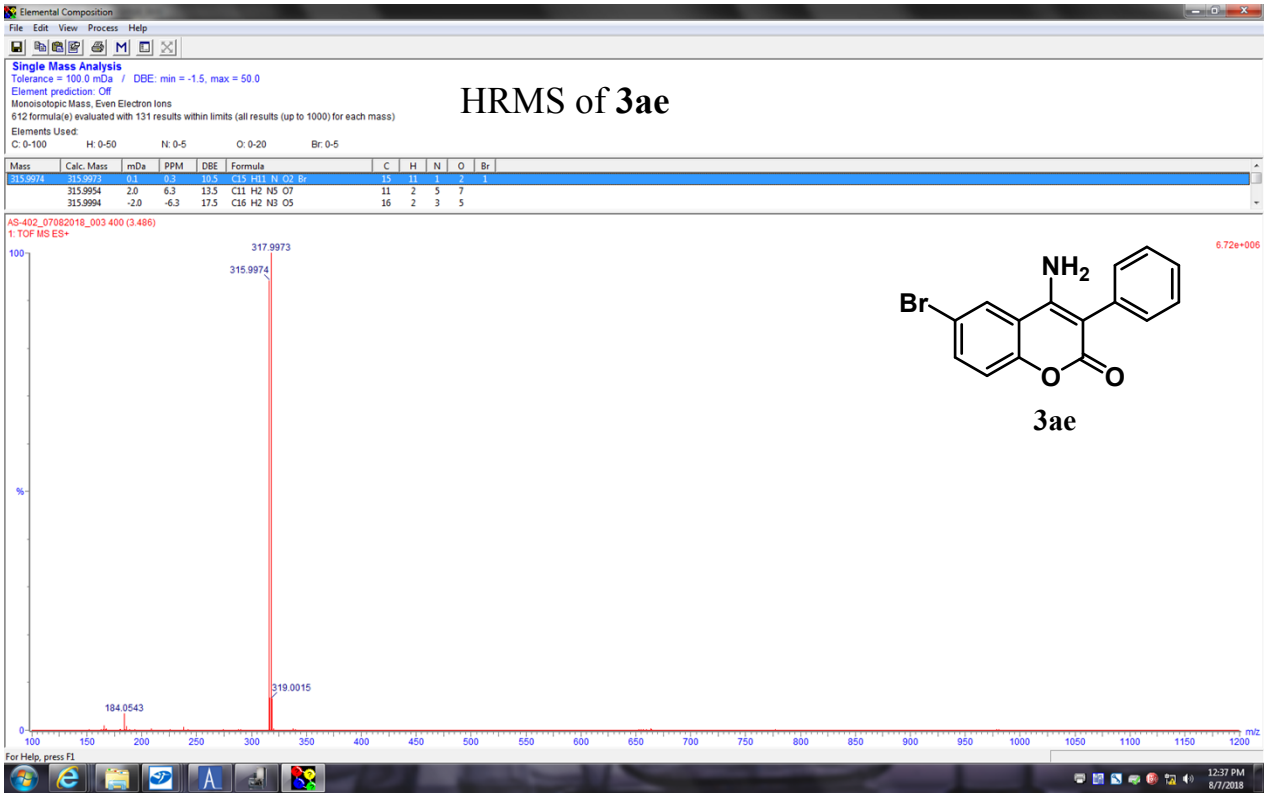
HRMS of **3ab**



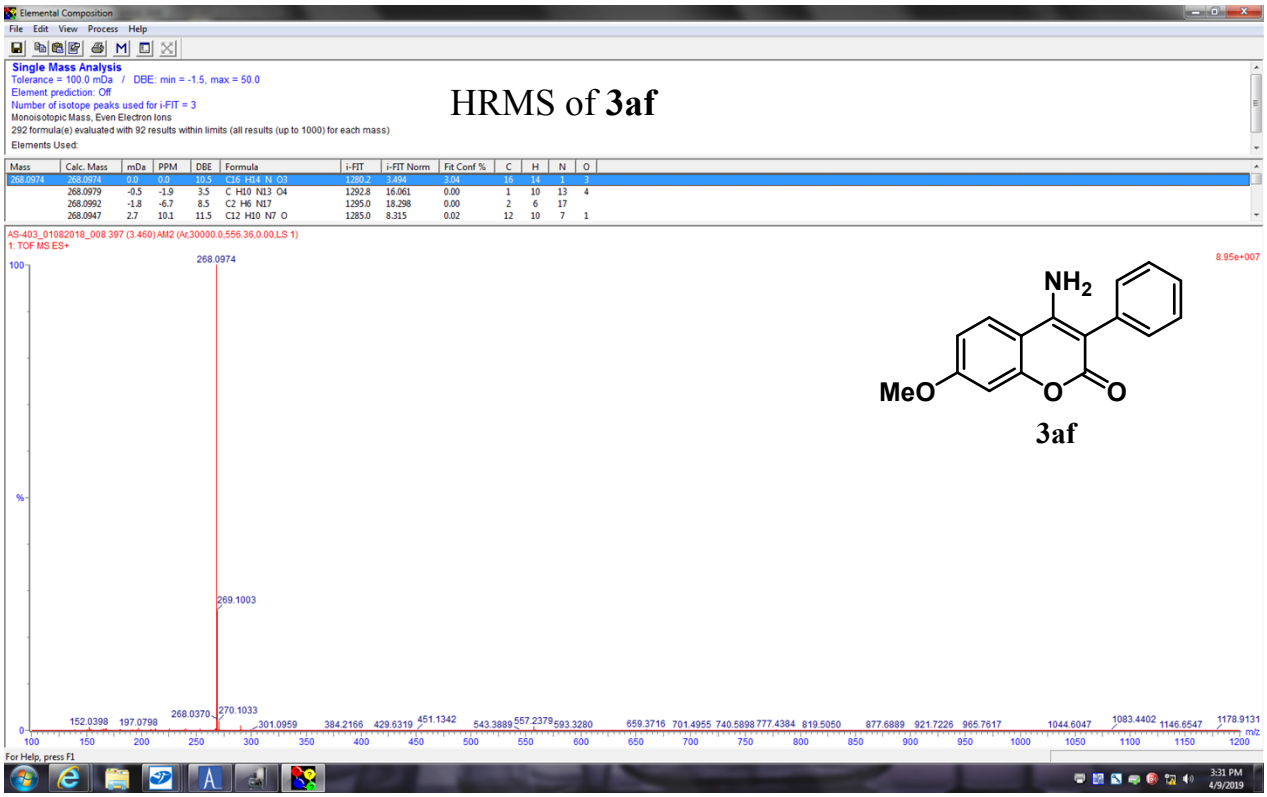
HRMS of **3ac**



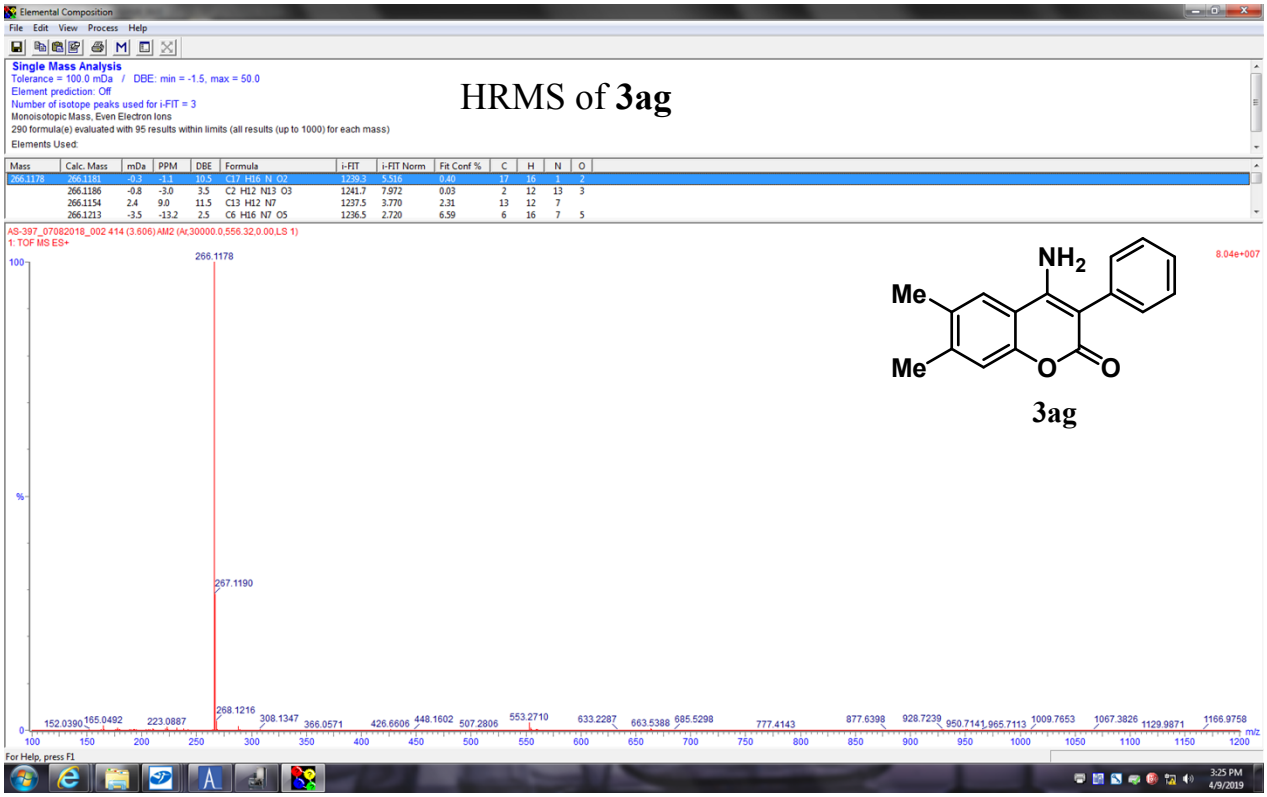
HRMS of **3ad**



HRMS of **3ae**



HRMS of **3af**



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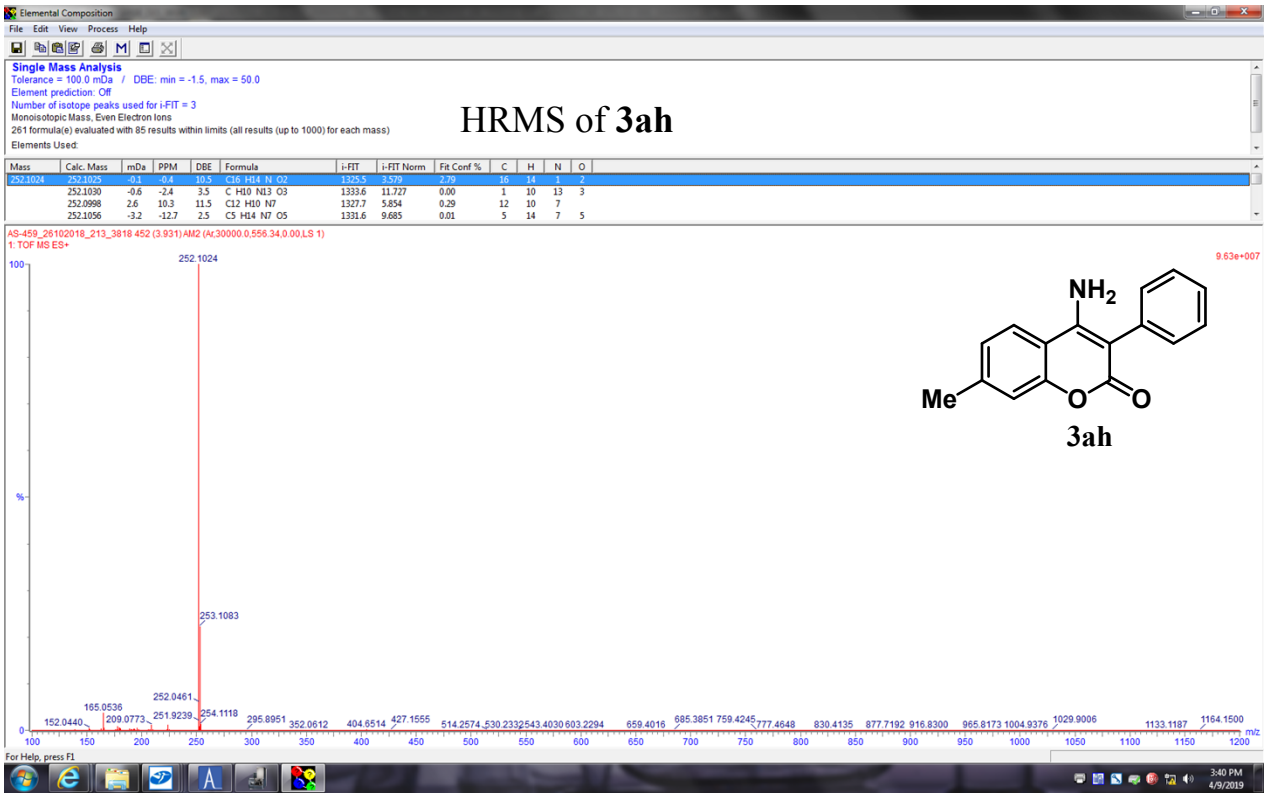
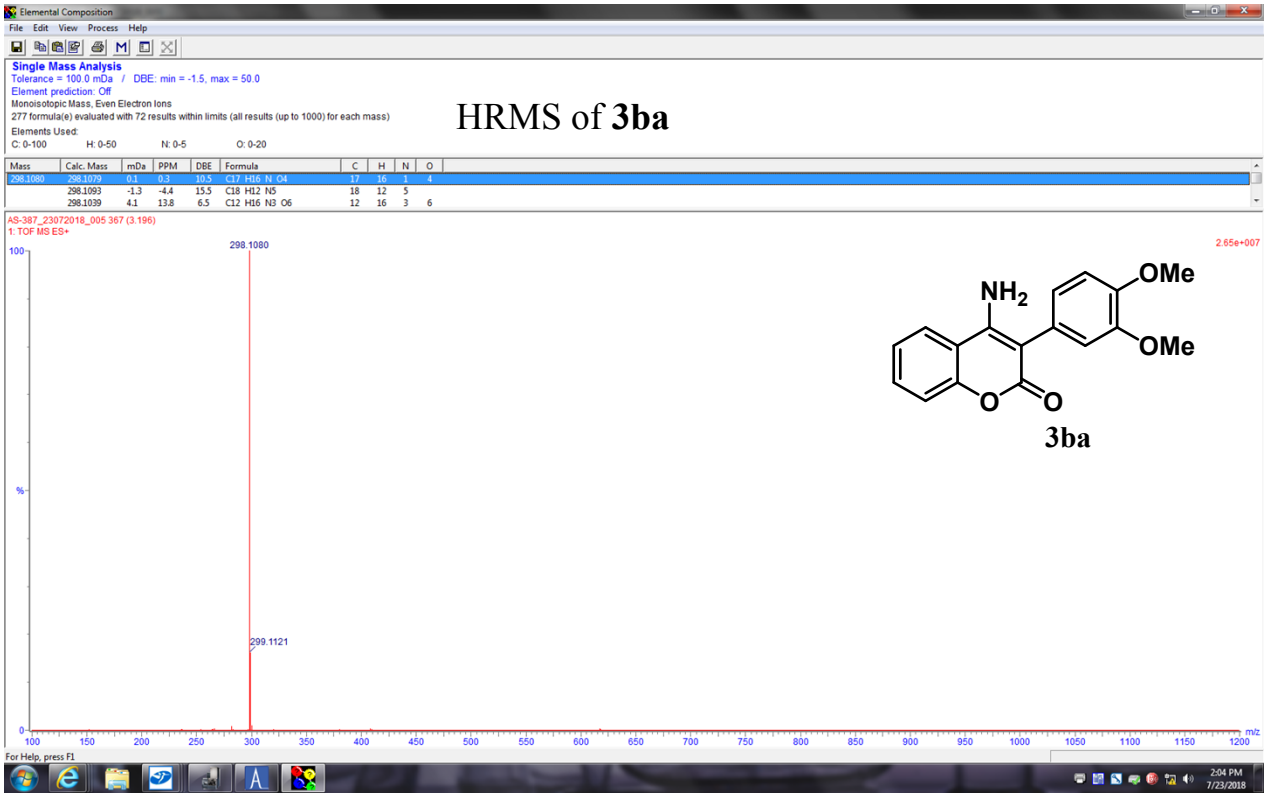


HRMS of **3ah**



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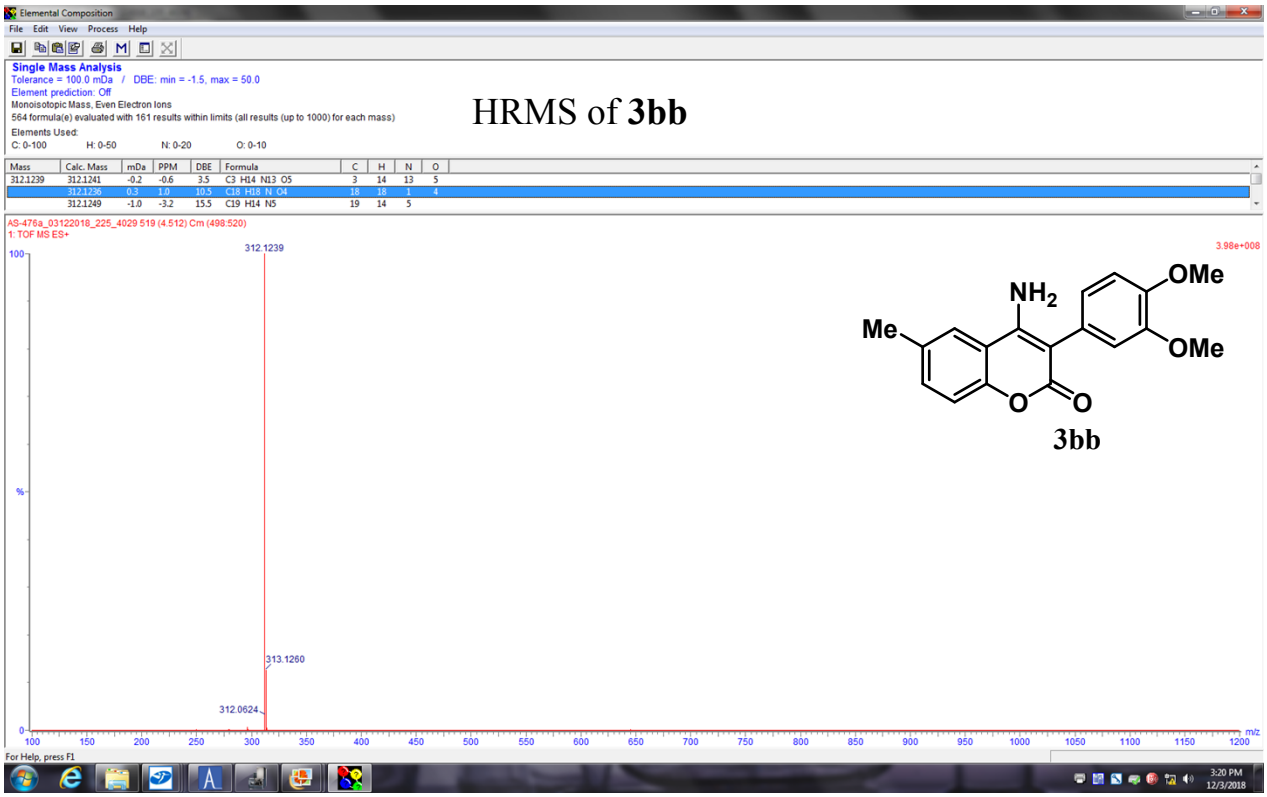

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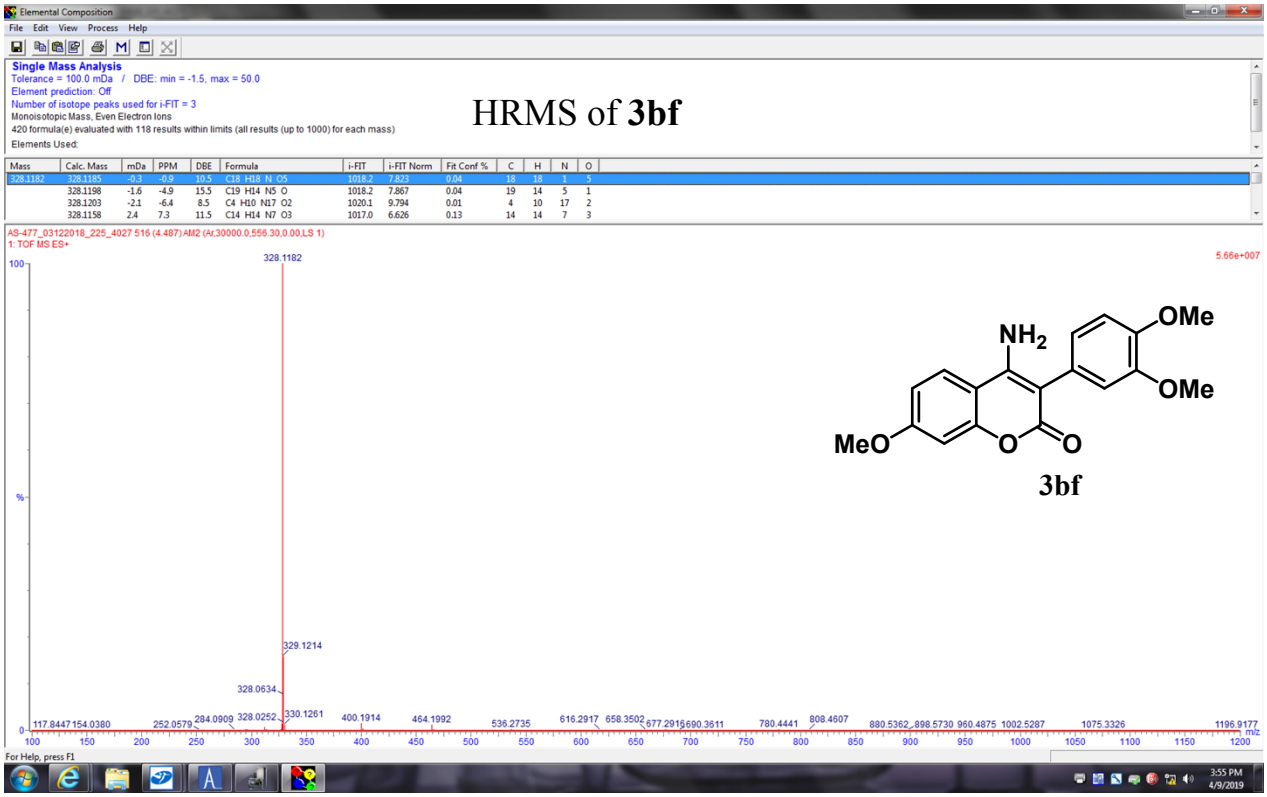

HRMS of **3bf**

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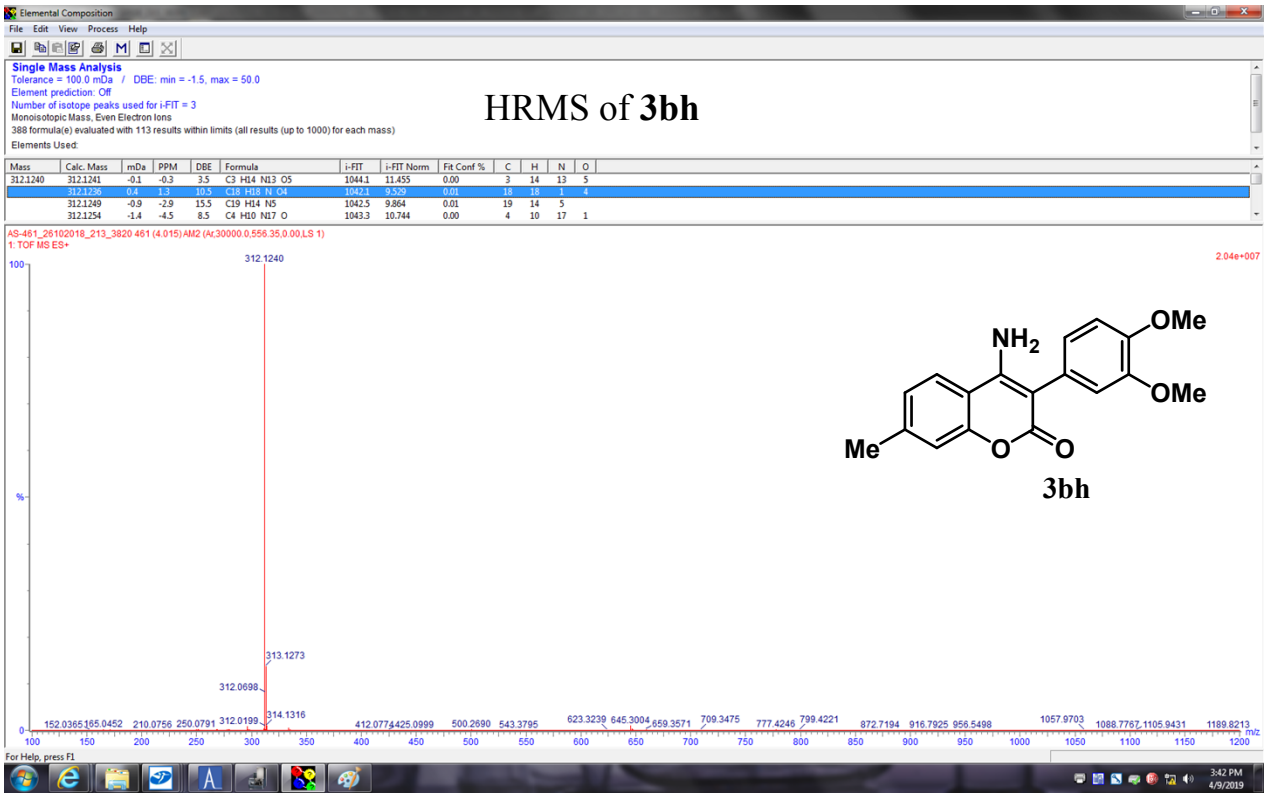

HRMS of **3bh**

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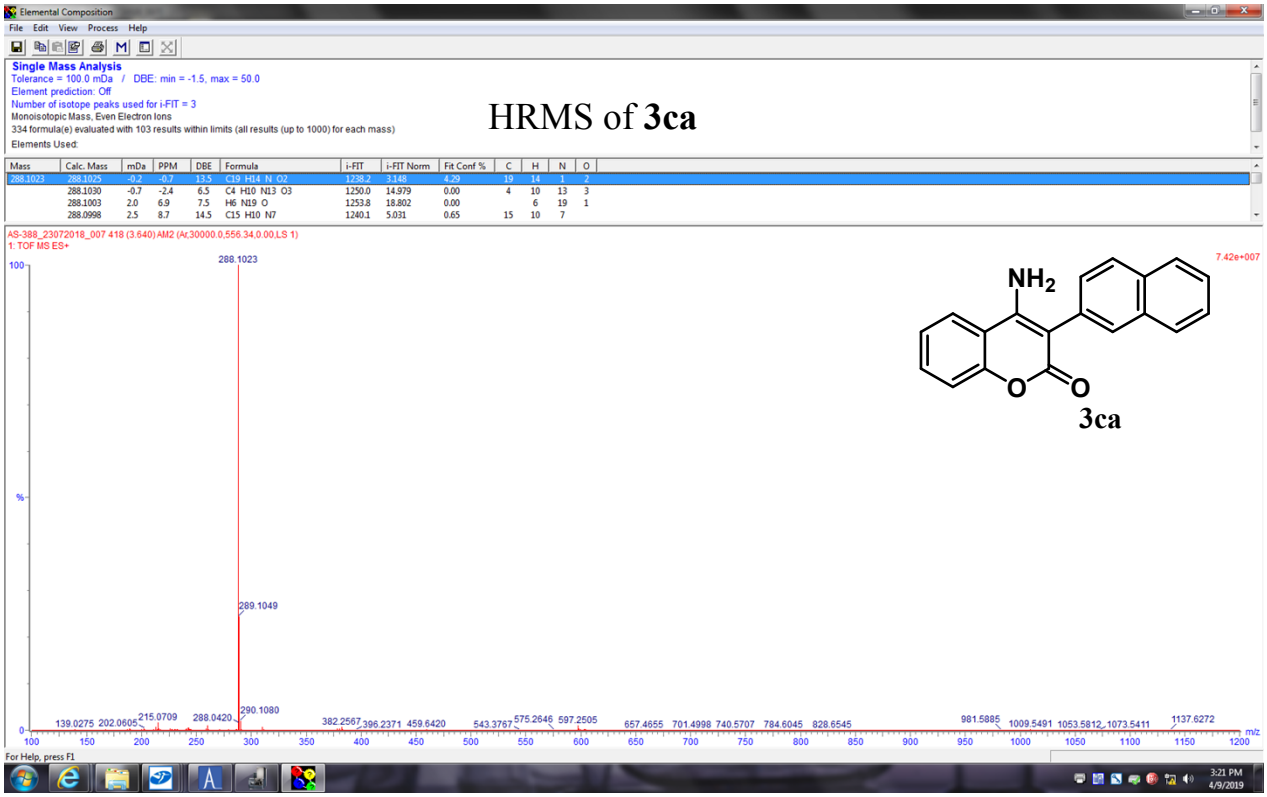
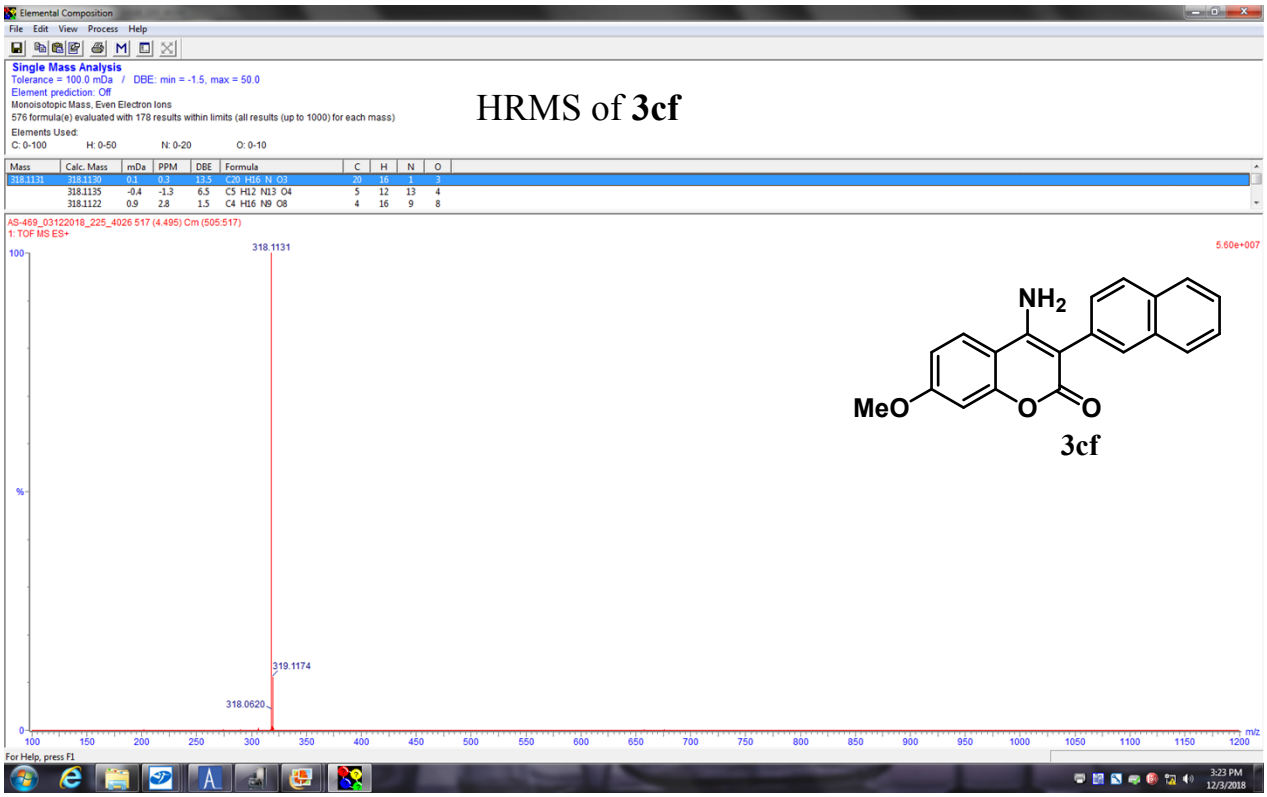
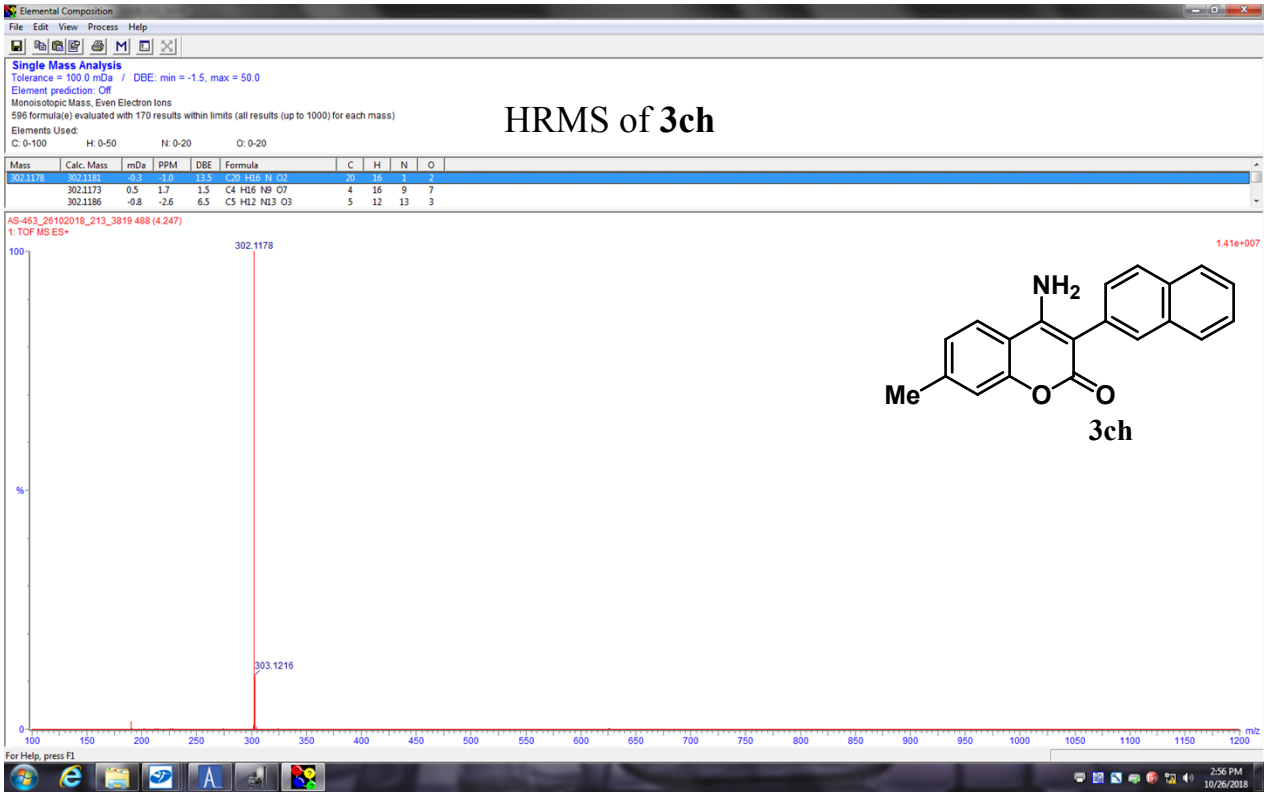


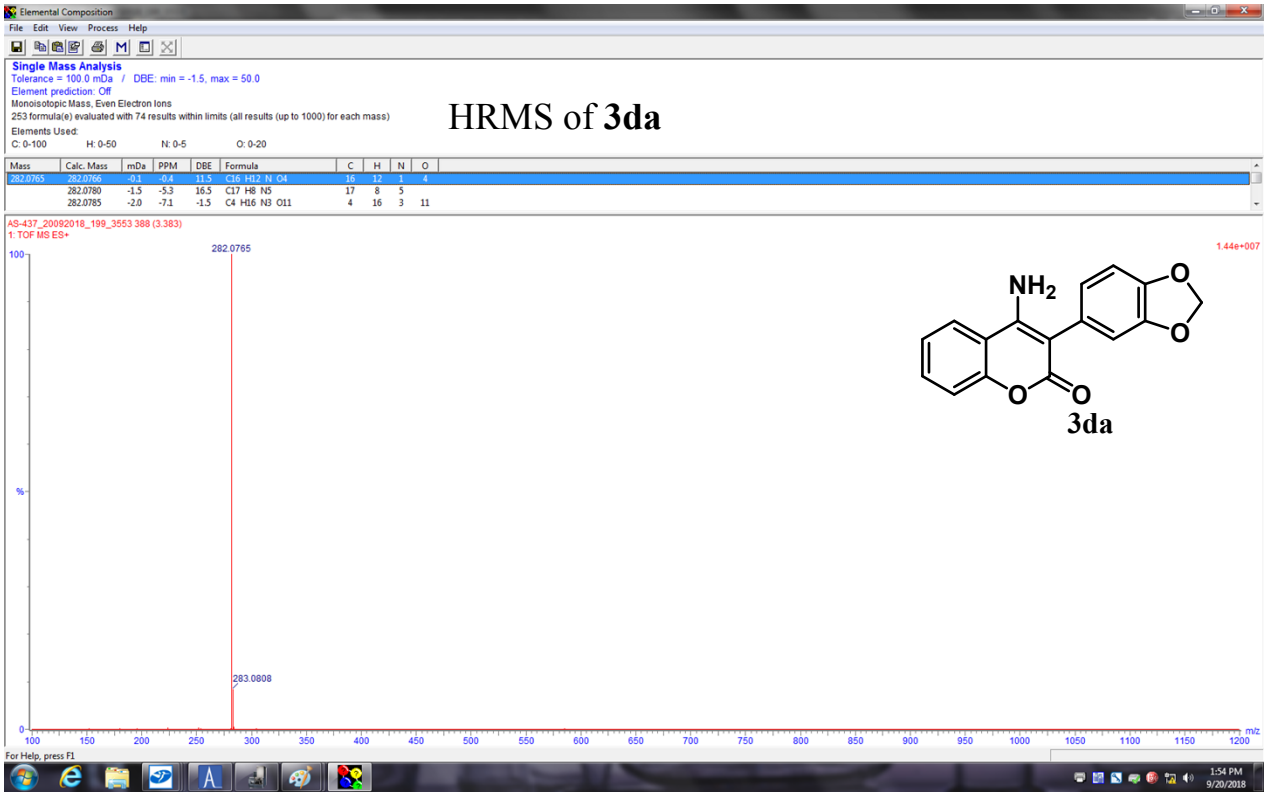
HRMS of **3ca**



HRMS of **3cf**



HRMS of **3ch**



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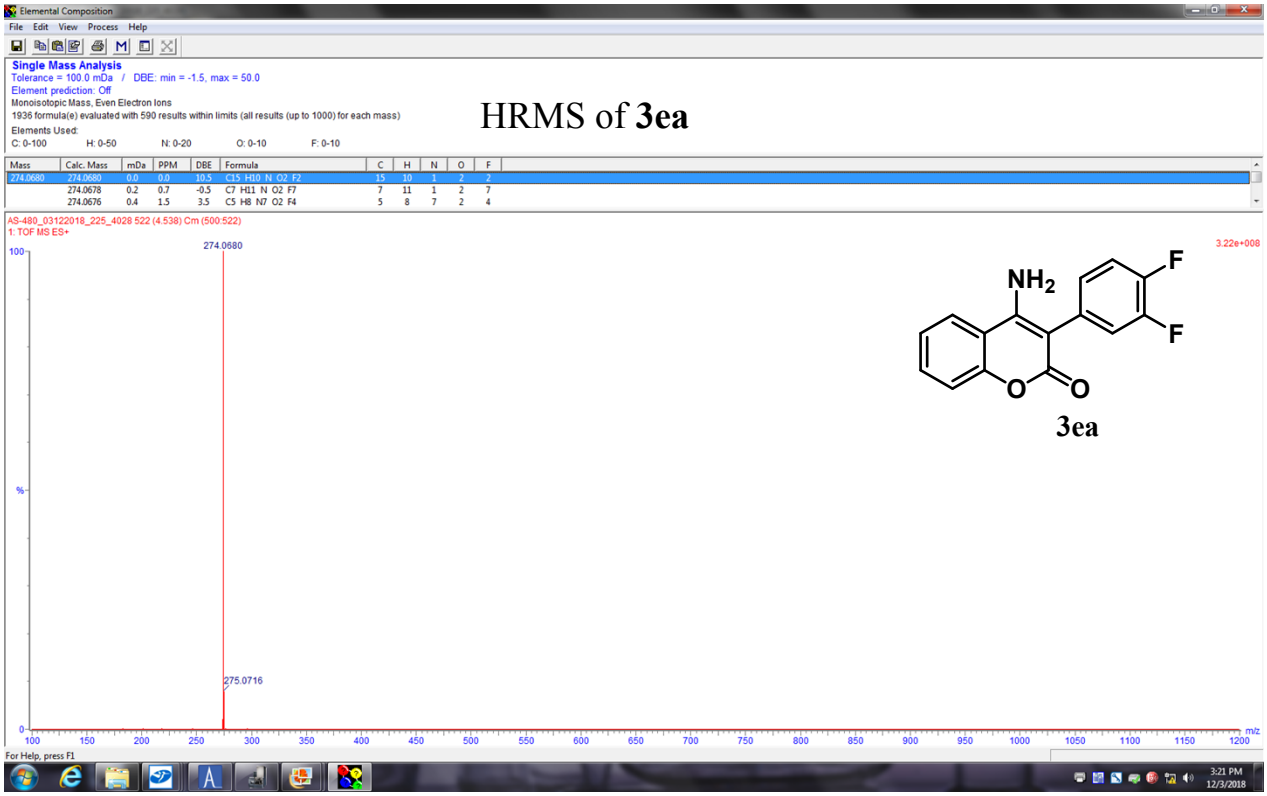

HRMS of **3ea**

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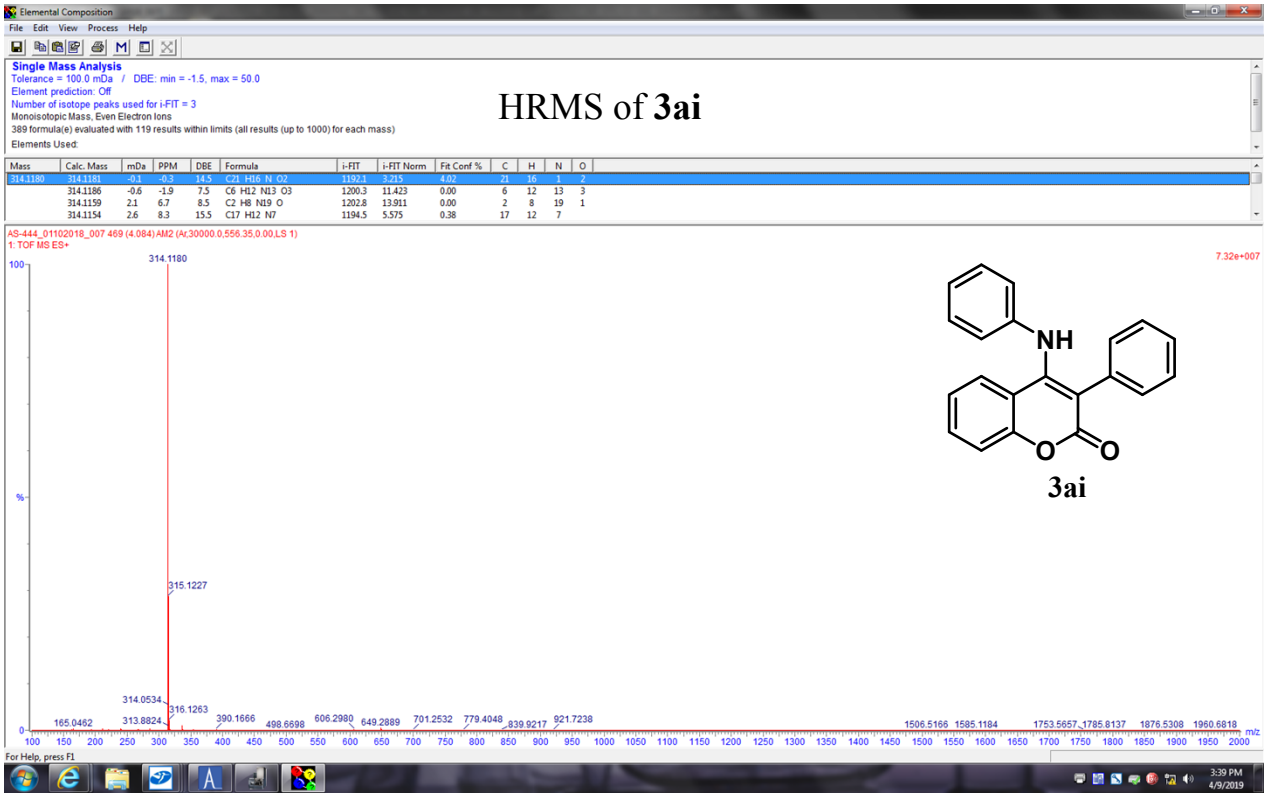

HRMS of **3ai**

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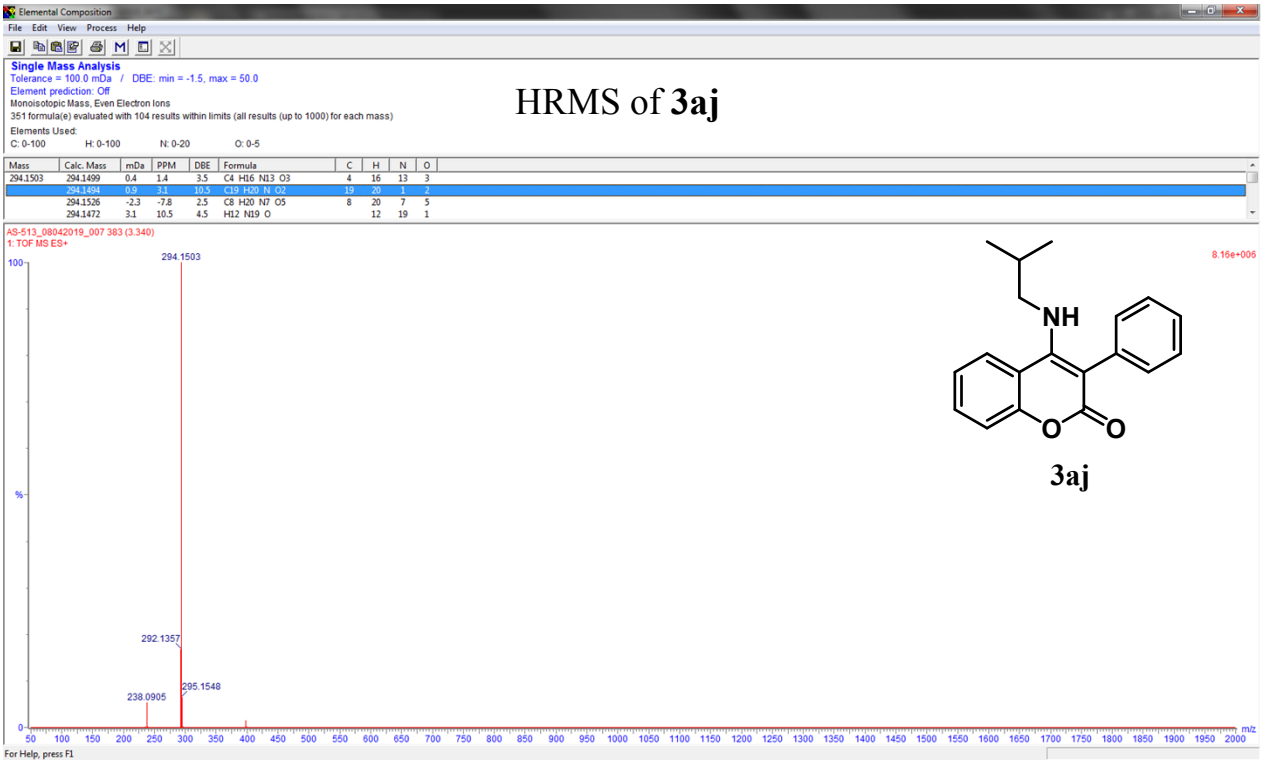
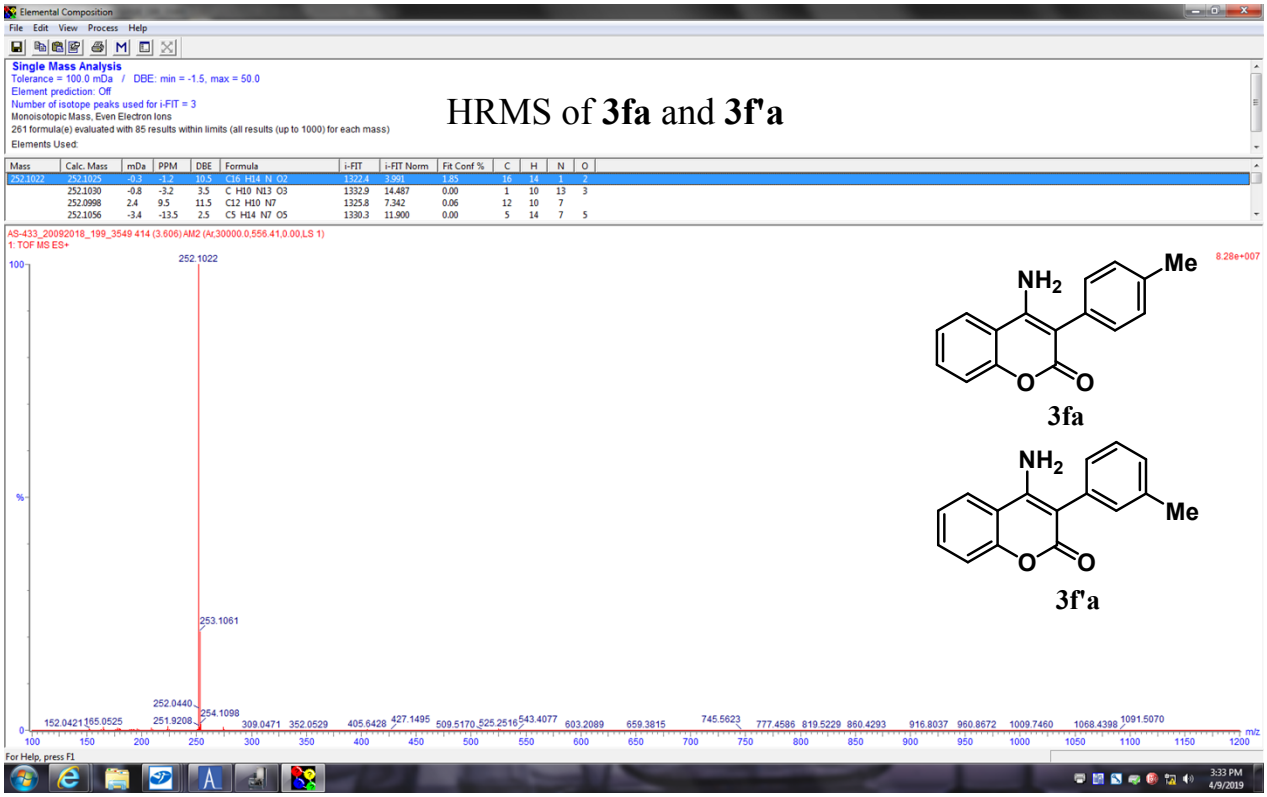
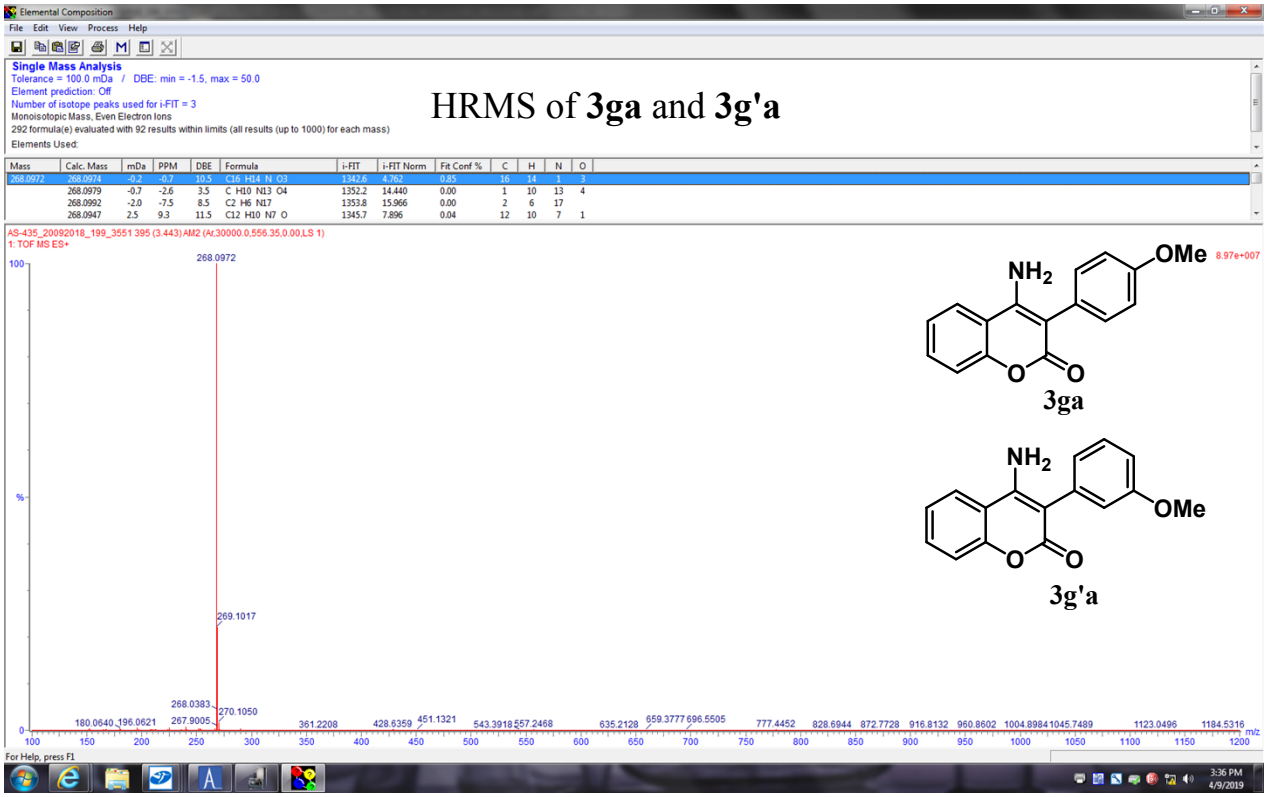


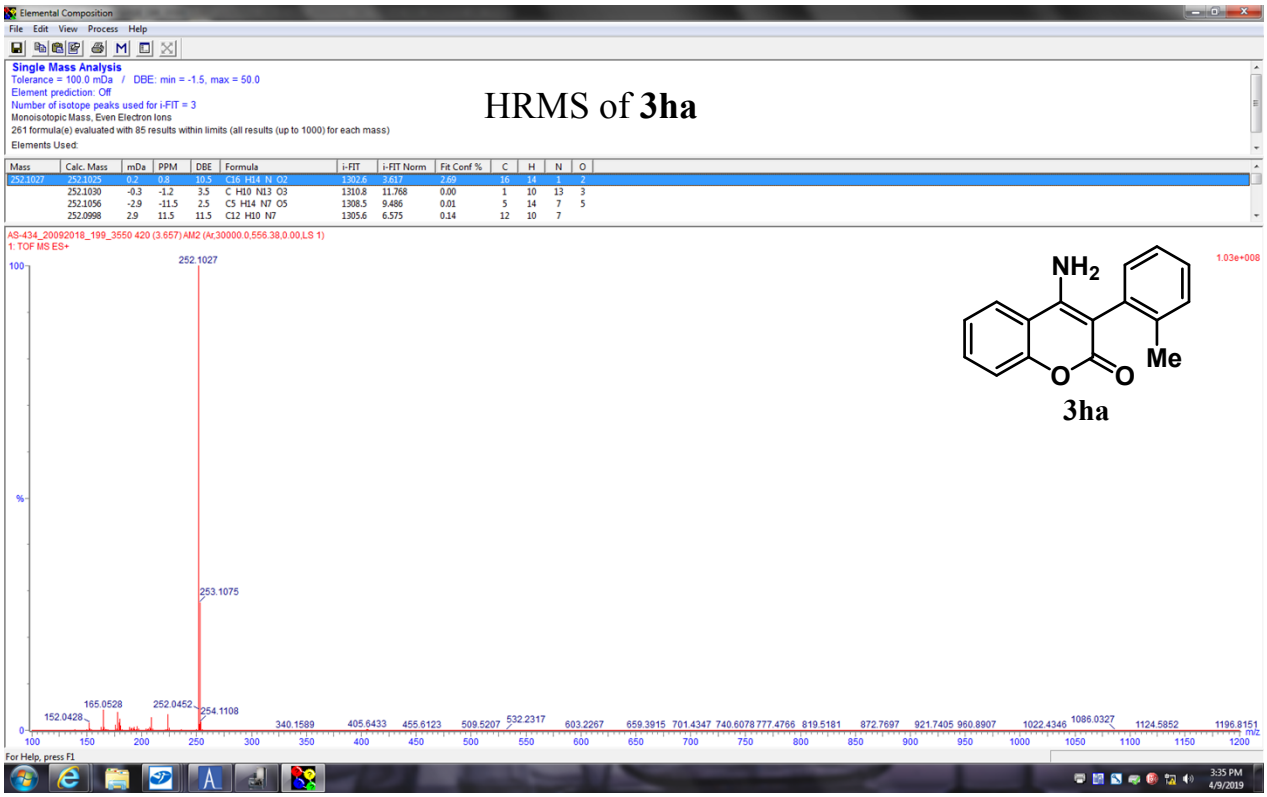
HRMS of **3aj**



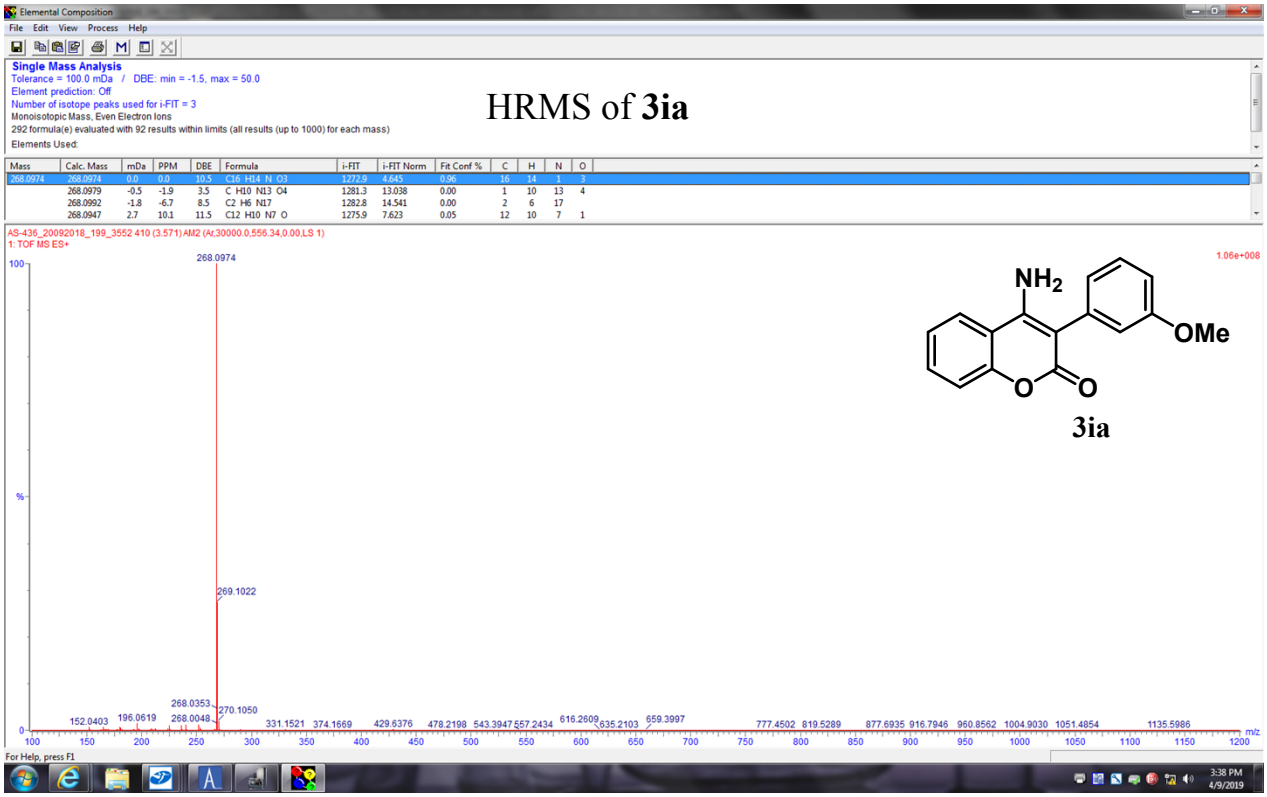
HRMS of **3fa** and **3f'a**



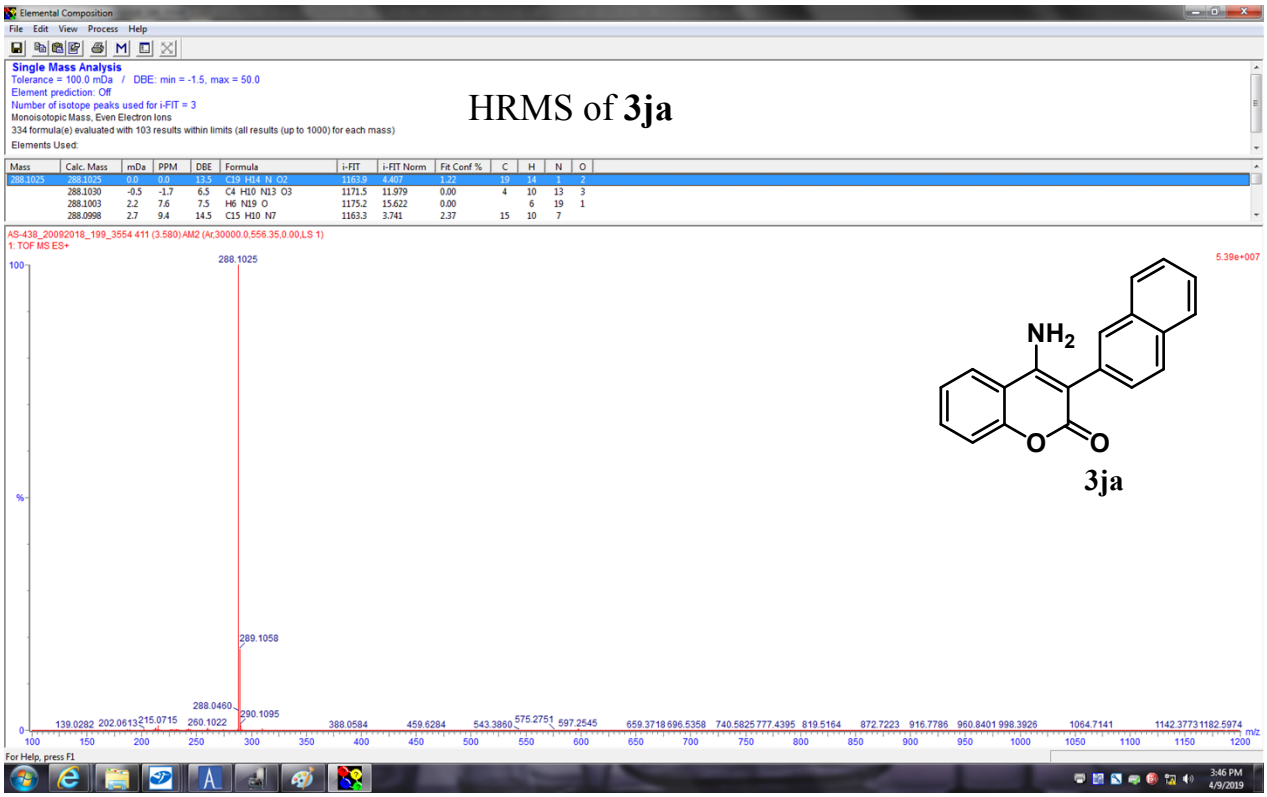
HRMS of **3ga** and **3g'a**



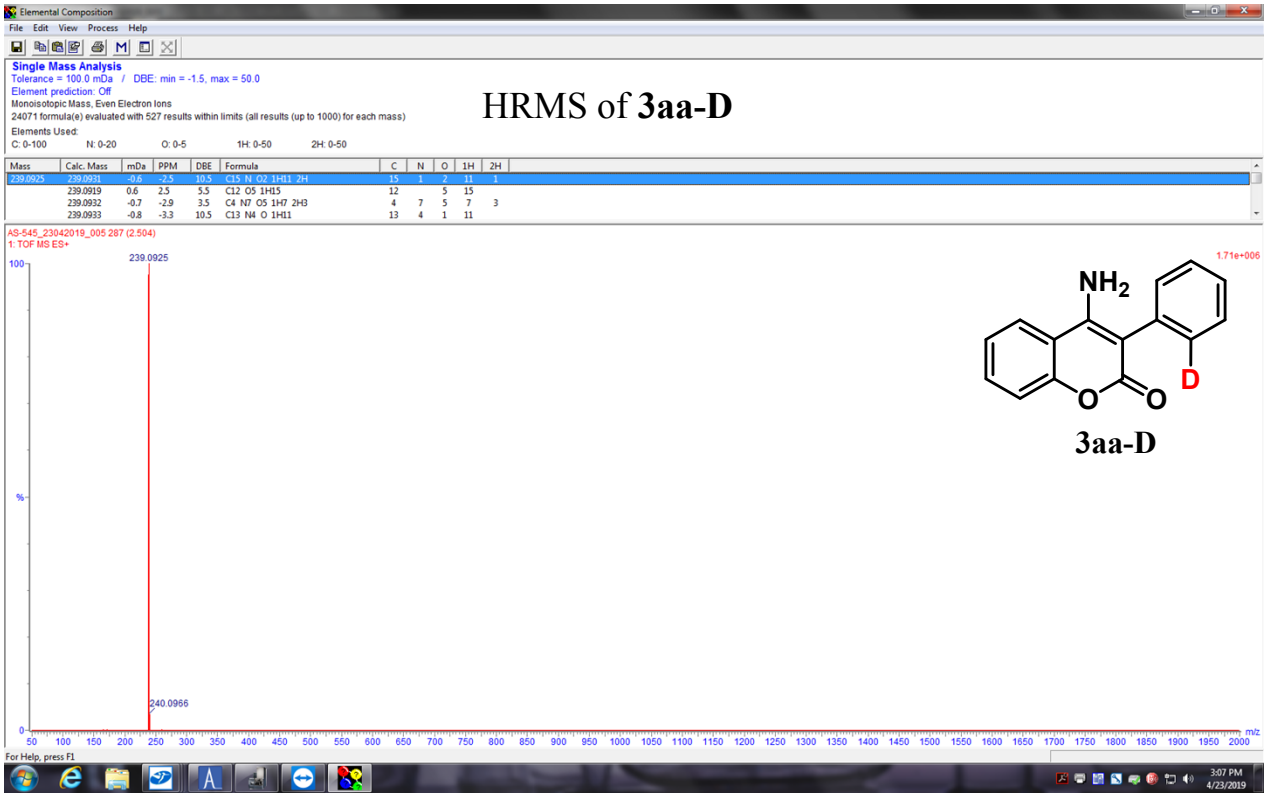
HRMS of **3ha**



HRMS of **3ia**



HRMS of **3ja**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24071 formula(e) evaluated with 527 results within limits (all results (up to 1000) for each mass)
Elements Used:
C: 0-100 N: 0-20 O: 0-5 1H: 0-50 2H: 0-50
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239.0932 -0.7 -2.9 3.5 C4 N7 O5 1H7 2H3 4 7 5 7 3
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AS-545_23042019_005 287 (2.504)
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%
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m/z
For Help, press F1
NH2
D
O
O
3aa-D

HRMS of **3aa-D**