

The synthesis of 1,4-dihydroquinoline-3-carboxylates from 2-benzoyl-3-[2-(dialkylamino)aryl]acrylates

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Supplementary Information

Ethyl 2-benzoyl-3-(2-(diethylamino)phenyl)acrylate (2a, E/Z 98:2). Yield 0.34 g (96%), yellow oil. ¹H NMR spectrum (800 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 8.12 (1H, s); 7.85 – 7.81 (2H, m); 7.66 – 7.62 (1H, m); 7.53 – 7.50 (2H, m); 7.29 – 7.25 (1H, m); 7.13 – 7.09 (1H, m); 7.07 – 7.04 (1H, m); 6.84 – 6.78 (1H, m); 4.19 (2H, q, *J* = 7.1); 3.08 (4H, q, *J* = 7.0); 1.12 (3H, t, *J* = 7.1); 1.00 (6H, t, *J* = 7.0). ¹³C NMR spectrum (201 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 194.7; 164.7; 151.2; 140.5; 136.3; 134.0; 130.7; 129.8; 129.3; 129.0; 128.5; 127.8; 121.9; 121.1; 61.0; 47.3; 13.9; 12.3. Found, *m/z*: 352.1906 [M+H]⁺. C₂₂H₂₆NO₃⁺. Calculated, *m/z*: 352.1907.

Ethyl 2-benzoyl-3-(2-(diethylamino)-4-methoxyphenyl)acrylate (2b, E/Z 8:1). Yield 0.35 g (93%), yellow powder, mp 105-107°C. ¹H NMR spectrum (800 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 8.07 (1H, s); 7.83 (2H, dd, *J* = 8.3, 1.4); 7.66 – 7.62 (1H, m); 7.53 – 7.48 (2H, m); 7.00 (1H, d, *J* = 8.8); 6.60 (1H, d, *J* = 2.5); 6.45 (1H, dd, *J* = 8.8, 2.5); 4.17 (2H, q, *J* = 7.1); 3.70 (3H, s); 3.08 (4H, q, *J* = 7.0); 1.11 (3H, t, *J* = 7.1); 1.01 (6H, t, *J* = 7.0). ¹³C NMR spectrum (201 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 195.3; 164.9; 161.6; 153.4; 140.0; 136.3; 134.0; 130.7; 129.0; 128.5; 127.3; 120.1; 107.8; 107.0; 60.7; 55.1; 47.3; 13.9; 12.3. Found, *m/z*: 382.2016 [M+H]⁺. C₂₃H₂₈NO₄⁺. Calculated, *m/z*: 382.2013.

Ethyl 2-benzoyl-3-(4-bromo-2-(diethylamino)phenyl)acrylate (2c, E/Z 10:1). Yield 0.41 g (95%), yellow oil. ¹H NMR spectrum (800 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 7.96 (1H, c); 7.83 – 7.80 (2H, m); 7.67 – 7.63 (1H, m); 7.54 – 7.50 (2H, m); 7.24 (1H, d, *J* = 2.0); 7.04 (1H, dd, *J* = 8.6, 2.0); 6.95 (1H, d, *J* = 8.6); 4.20 (2H, q, *J* = 7.1); 3.09 (4H, q, *J* = 7.0); 1.12 (3H, t, *J* = 7.1); 1.00 (6H, t, *J* = 7.0). ¹³C NMR spectrum (201 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 194.5; 164.5; 152.5; 139.5; 136.1; 134.2; 130.8; 130.5; 129.1; 128.5; 126.5; 124.7; 124.3; 123.8; 61.1; 47.0; 13.9; 12.2. Found, *m/z*: 430.1010 [M+H]⁺. C₂₂H₂₅BrNO₃⁺. Calculated, *m/z*: 430.1012.

2-(2-(diethylamino)benzylidene)-1,3-diphenylpropane-1,3-dione (2d). Yield 0.24 g (63%), yellow powder, mp 110-112°C. ¹H NMR spectrum (800 MHz, CDCl₃) δ, ppm (*J*, Hz): 7.96 – 7.87 (5H, m); 7.58 – 7.54 (1H, m); 7.52 – 7.44 (3H, m); 7.41 – 7.37 (2H, m); 7.29 – 7.26 (1H, s); 7.25 – 7.21 (1H, m); 7.00 (1H, d, *J* = 8.1); 6.83 – 6.79 (1H, m); 3.04 (4H, q, *J* = 7.1); 0.92 (6H, t, *J* = 7.1). ¹³C NMR spectrum (201 MHz, CDCl₃) δ, ppm (*J*, Hz): 197.1; 195.7; 151.8; 144.1; 138.4; 138.0; 137.4; 133.6; 132.5; 130.7; 130.6; 129.7; 129.4; 129.3; 128.8; 128.5; 122.5; 121.4; 47.8; 12.5. Found, *m/z*: 384.1957 [M+H]⁺. C₂₆H₂₆NO₂⁺. Calculated, *m/z*: 384.1958.

Ethyl 3-(2-(diethylamino)-phenyl)-2-(4-methoxybenzoyl)acrylate (2e, E/Z 12:1). Yield 0.38 g (99%), yellow oil. ¹H NMR spectrum (800 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 8.08 (1H, s); 7.81 – 7.78 (2H, m); 7.29 – 7.25 (1H, m); 7.13 – 7.10 (1H, m); 7.09 – 7.07 (1H, m); 7.04 – 7.01 (2H, m); 6.83 – 6.79 (1H, m); 4.19 (2H, q, *J* = 7.1); 3.82 (s, 3H); 3.07 (4H, q, *J* = 7.0); 1.14 (3H, t, *J* = 7.1); 1.01 (6H, t, *J* = 7.0). ¹³C NMR spectrum (201 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 193.1; 164.8; 163.8; 151.3; 139.7; 131.0; 130.6; 130.0; 129.3; 129.2; 127.9; 121.9; 121.1; 114.3; 60.9; 55.6; 47.3; 14.0; 12.3. Found, *m/z*: 382.2017 [M+H]⁺. C₂₃H₂₈NO₄⁺. Calculated, *m/z*: 382.2013.

Ethyl 2-benzoyl-3-(2-(benzyl(methyl)amino)phenyl)acrylate (2g, E/Z 7.2:1). Yield 0.38 g (96%), yellow oil. ¹H NMR spectrum (800 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 8.26 (1H, c); 7.86 – 7.82 (2H, m); 7.66 – 7.62 (1H, m); 7.52 – 7.48 (2H, m); 7.36 –

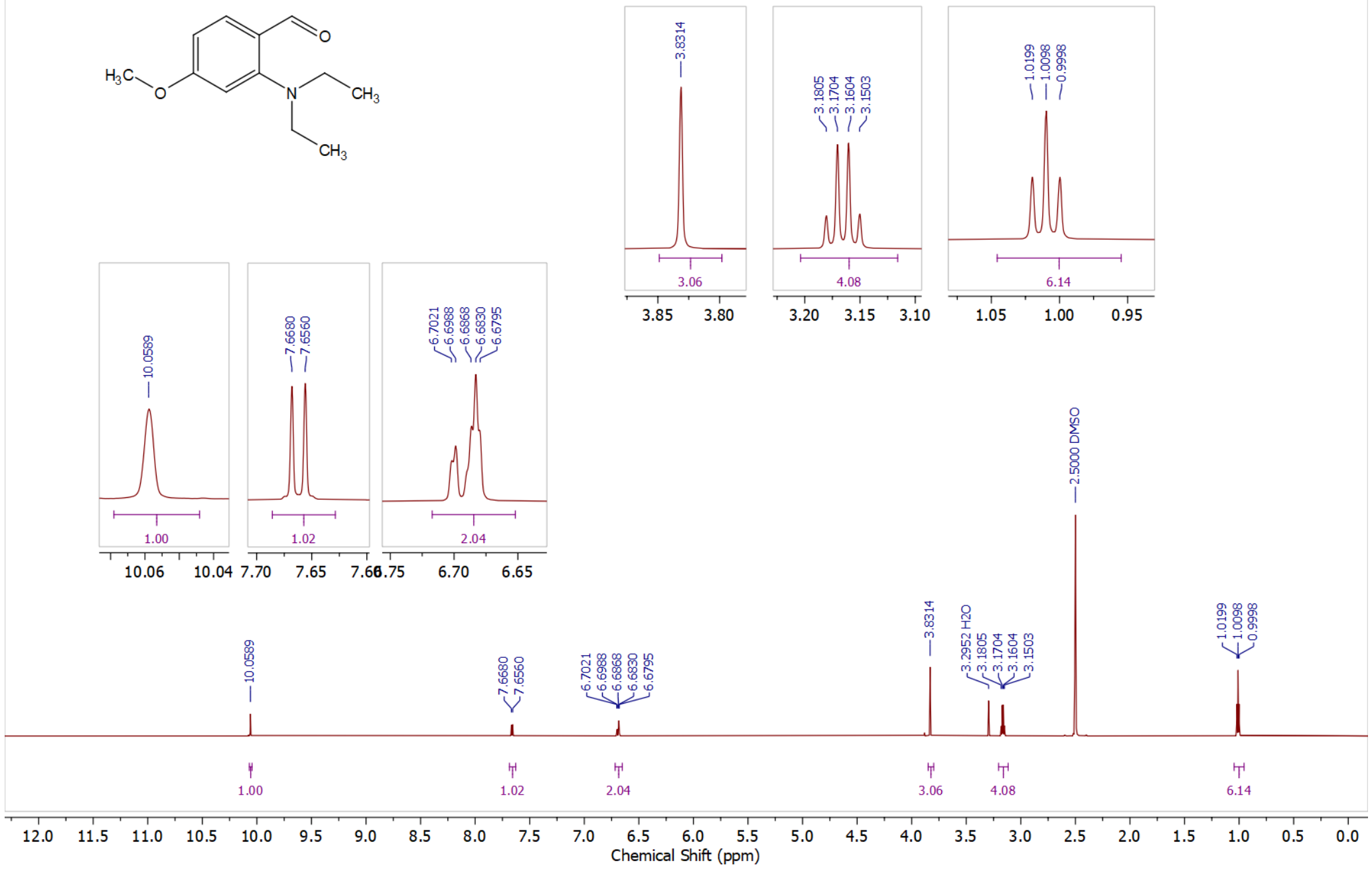
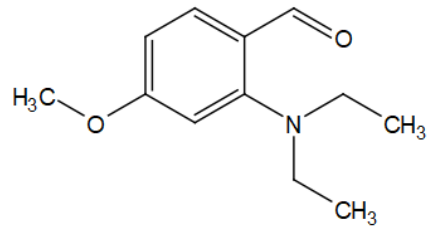
7.32 (2H, m); 7.30 – 7.25 (4H, m); 7.09 – 7.04 (2H, m); 6.88 – 6.81 (1H, m); 4.16 (2H, q, *J* = 7.1); 4.13 (2H, s); 2.63 (3H, s); 1.12 (3H, t, *J* = 7.1). ¹³C NMR spectrum (201 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 194.6; 164.6; 152.7; 140.5; 137.5; 136.3; 134.0; 131.1; 130.4; 129.2; 129.1; 128.5; 128.2; 128.2; 127.2; 126.5; 122.1; 120.0; 61.1; 61.0; 40.6; 13.8. Found, *m/z*: 400.1908 [M+H]⁺. C₂₆H₂₆NO₃⁺. Calculated, *m/z*: 400.1907.

Ethyl 2-benzoyl-3-(2-benzyl(ethylamino)phenyl)acrylate (2h, E/Z 10:1). Yield 0.40 g (98%), yellow oil. ¹H NMR spectrum (800 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 8.29 (1H, s); 7.86 – 7.79 (2H, m); 7.66 – 7.62 (1H, m); 7.52 – 7.47 (2H, m); 7.32 – 7.28 (4H, m); 7.25 – 7.21 (2H, m); 7.15 – 7.11 (1H, m); 7.06 – 7.02 (1H, m); 6.84 – 6.80 (1H, m); 4.24 (2H, s); 4.19 (2H, q, *J* = 7.1); 3.05 (2H, q, *J* = 7.0); 1.14 (3H, t, *J* = 7.1); 1.01 (3H, t, *J* = 7.0). ¹³C NMR spectrum (201 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 194.7; 164.6; 151.0; 140.4; 138.3; 136.3; 134.1; 130.7; 130.3; 129.2; 129.0; 128.5; 128.2; 128.1; 127.8; 126.9; 122.4; 121.7; 61.0; 56.5; 48.3; 13.9; 11.9. Found, *m/z*: 414.2067 [M+H]⁺. C₂₇H₂₈NO₃⁺. Calculated, *m/z*: 414.2064.

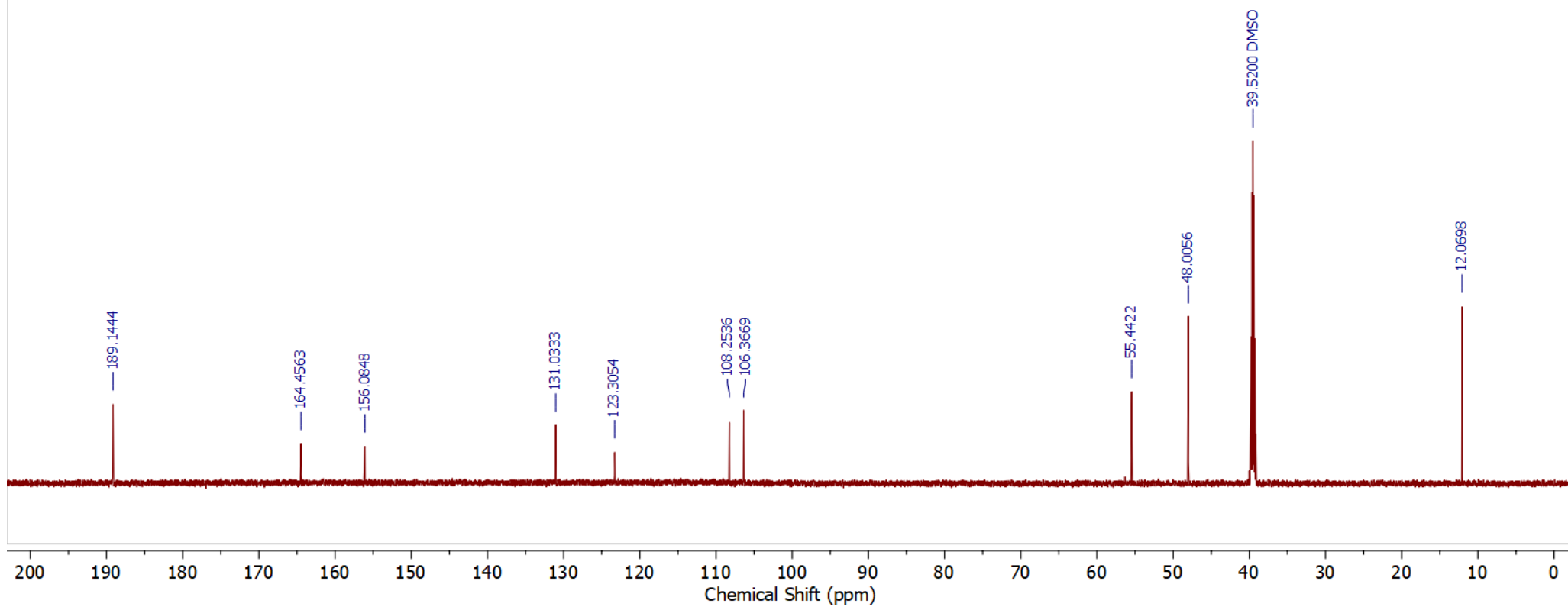
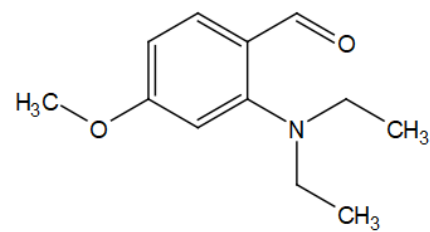
Ethyl 2-benzoyl-3-(2-(diethylamino)-5-nitrophenyl)acrylate (2i, E/Z 15:1). Yield 0.35 g (89%), yellow powder, mp 120-122°C. ¹H NMR spectrum (800 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 8.03 (1H, dd, *J* = 9.2, 2.4); 7.89 (1H, d, *J* = 2.4); 7.87 – 7.84 (2H, m); 7.83 (1H, s); 7.69 – 7.65 (1H, m); 7.56 – 7.52 (2H, m); 7.12 (1H, d, *J* = 9.2); 4.23 (2H, q, *J* = 7.1); 3.33 (4H, q, *J* = 7.0); 1.15 (3H, t, *J* = 7.1); 1.12 (6H, t, *J* = 7.0). ¹³C NMR spectrum (201 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 194.1; 164.2; 156.1; 139.9; 138.6; 136.1; 134.3; 131.3; 129.2; 128.6; 125.8; 125.6; 123.4; 118.4; 61.3; 46.6; 13.9; 12.6. Found, *m/z*: 397.1756 [M+H]⁺. C₂₂H₂₅N₂O₅⁺. Calculated, *m/z*: 397.1758.

Ethyl 2-(2-(diethylamino)benzylidene)-3-oxobutanoate (2j, E/Z 3:1). Yield 0.29 g (94 %), yellow oil. ¹H NMR spectrum (300 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 7.83 (1H, s); 7.44 – 7.37 (1H, m); 7.26 (1H, d, *J* = 7.6); 7.20 – 7.16 (1H, m); 7.07 – 7.03 (1H, m); 4.15 (2H, q, *J* = 7.2); 3.05 (4H, q, *J* = 7.0); 2.40 (3H, s); 1.09 (3H, t, *J* = 7.2); 0.98 (6H, t, *J* = 7.0). ¹³C NMR spectrum (201 MHz, DMSO-*d*₆) δ, ppm (*J*, Hz): 195.2; 166.9; 150.9; 140.7; 133.8; 130.8; 128.6; 128.6; 122.1; 121.0; 60.8; 47.0; 26.3; 13.6; 12.3. Found, *m/z*: 290.1754 [M+H]⁺. C₁₇H₂₄NO₃⁺. Calculated, *m/z*: 290.1751.

1b



1b



Sample Name: AI333

*SN BN21801310

Acq. Time: 10:22

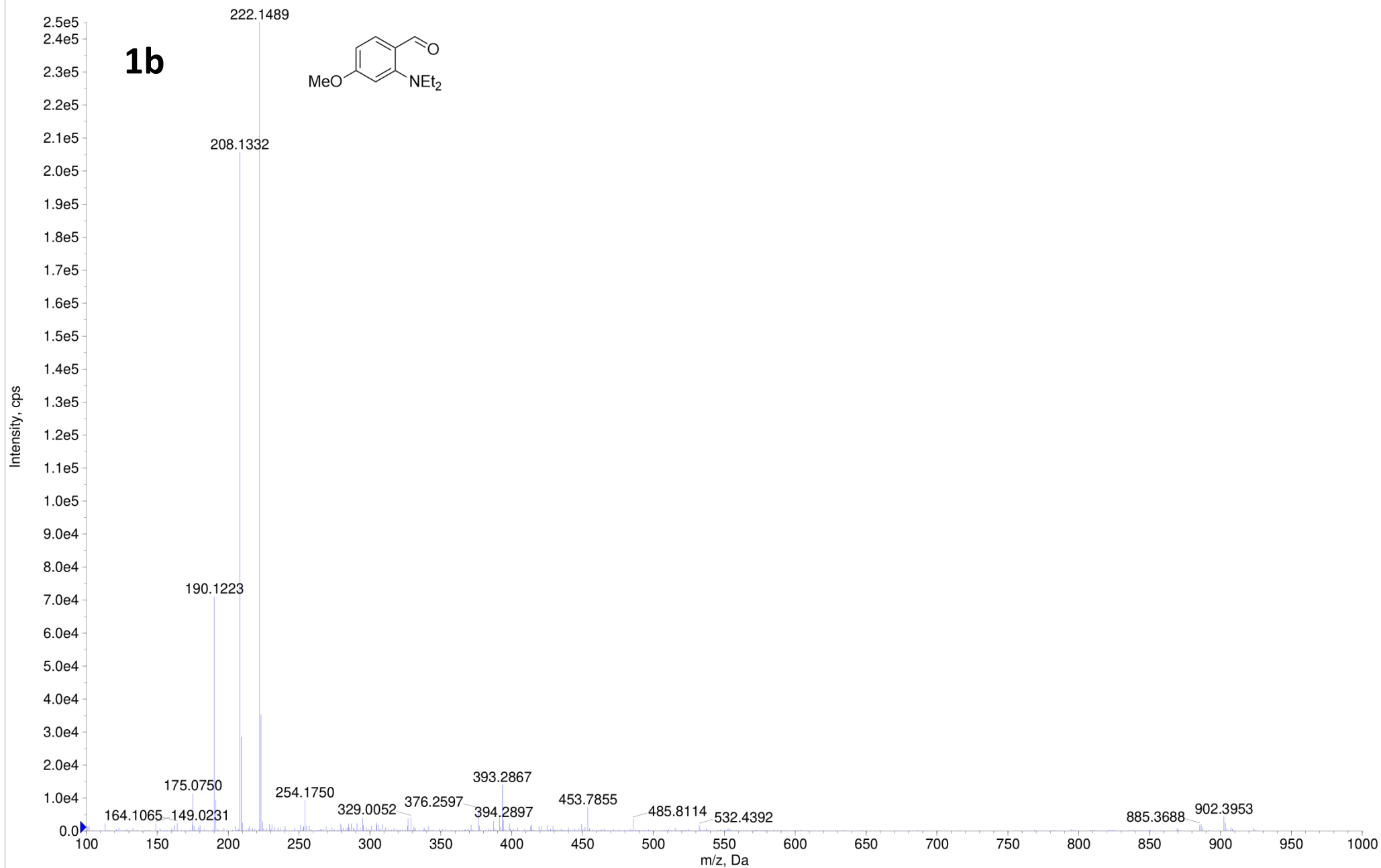
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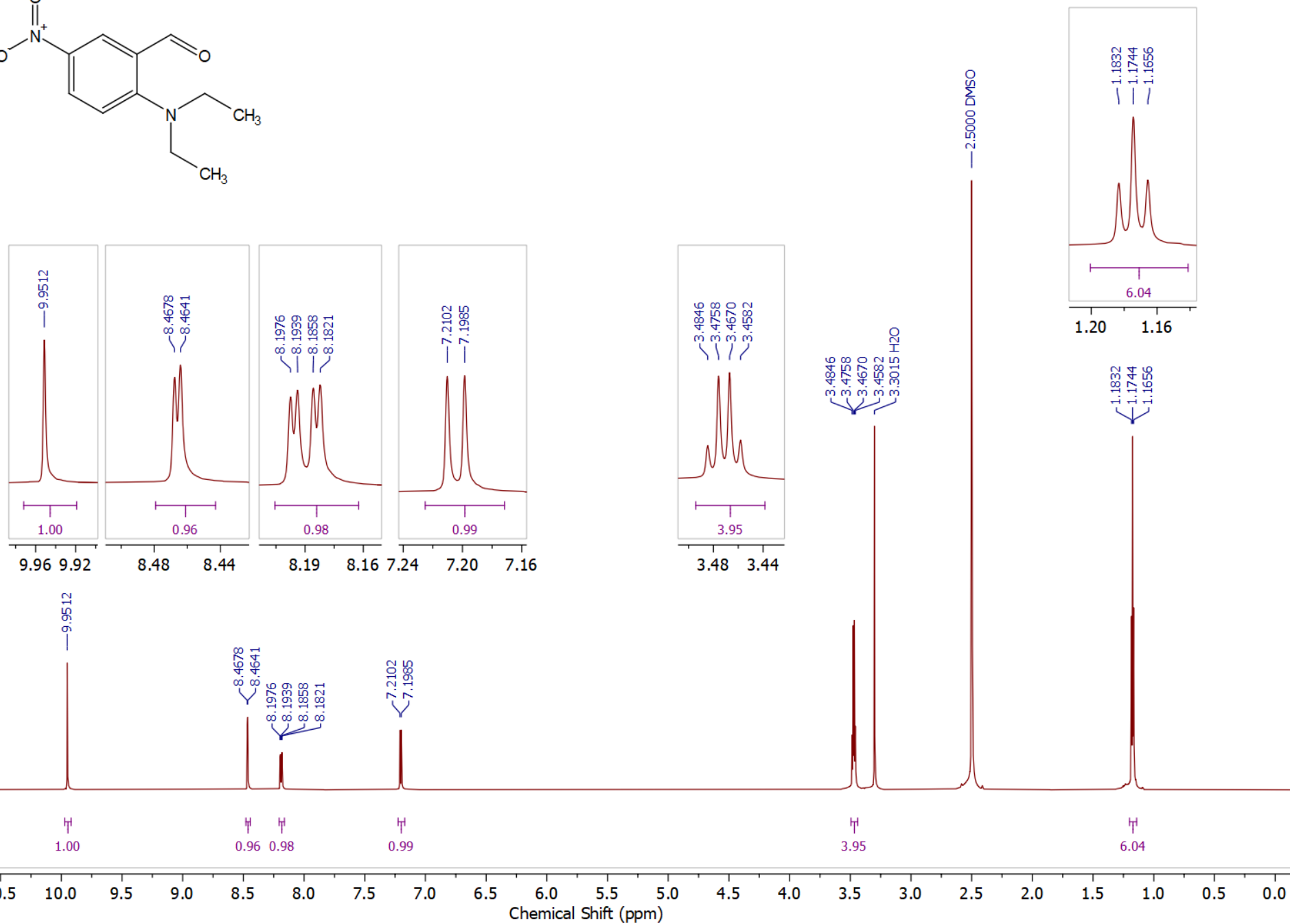
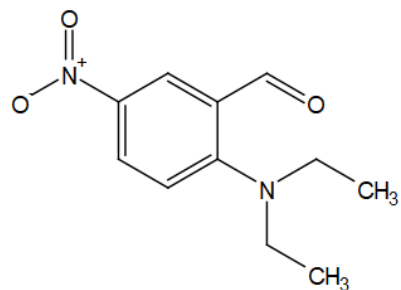
*5600 TripleTOF Service Report

Acq. Date: Wednesday, June 05, 2024

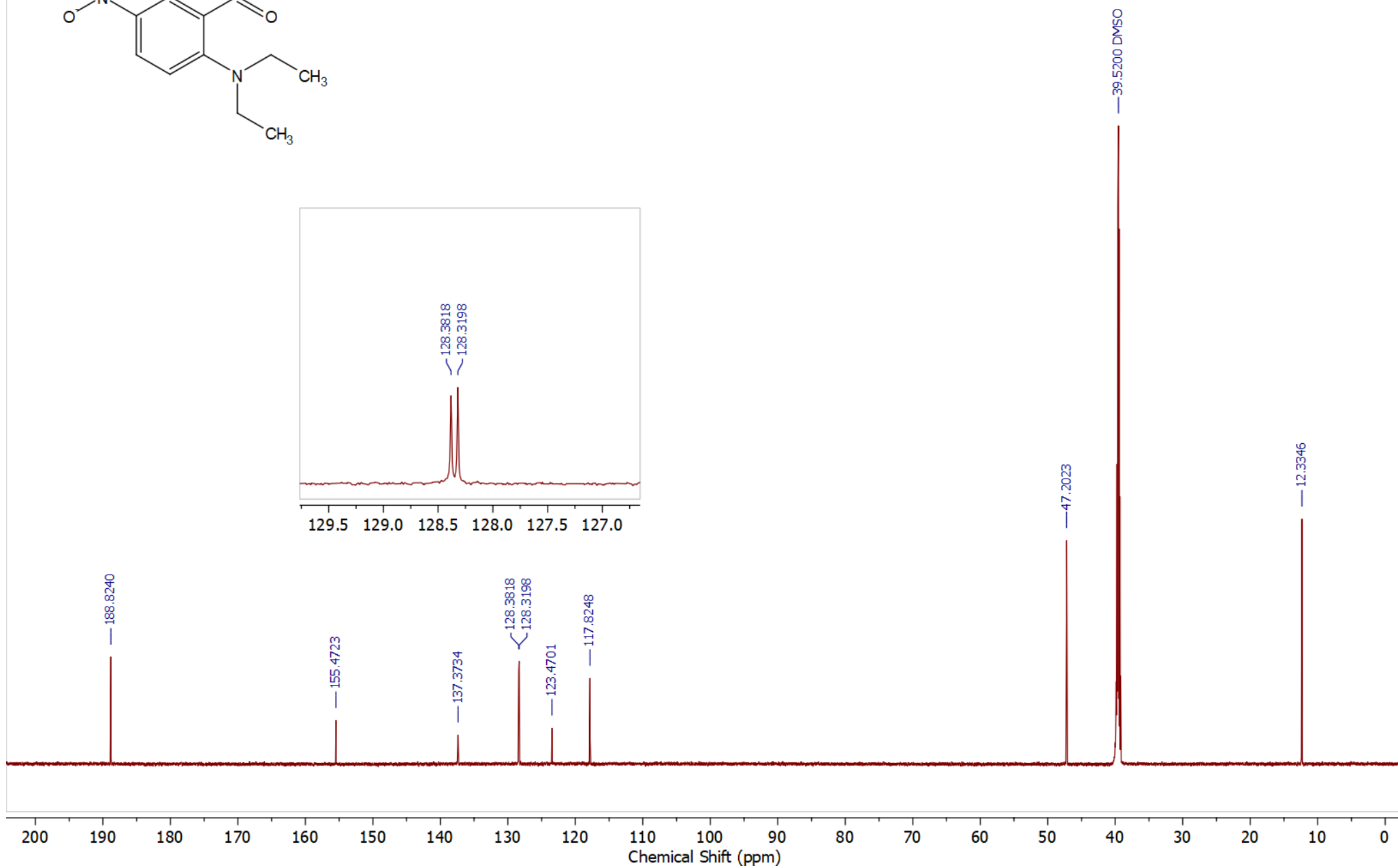
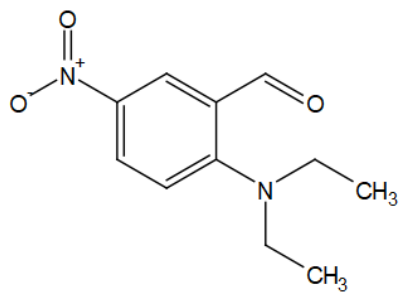
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Max. 2.5e5 cps.



1i

1i



Sample Name: ID781

*SN BN21801310

Acq. Time: 10:28

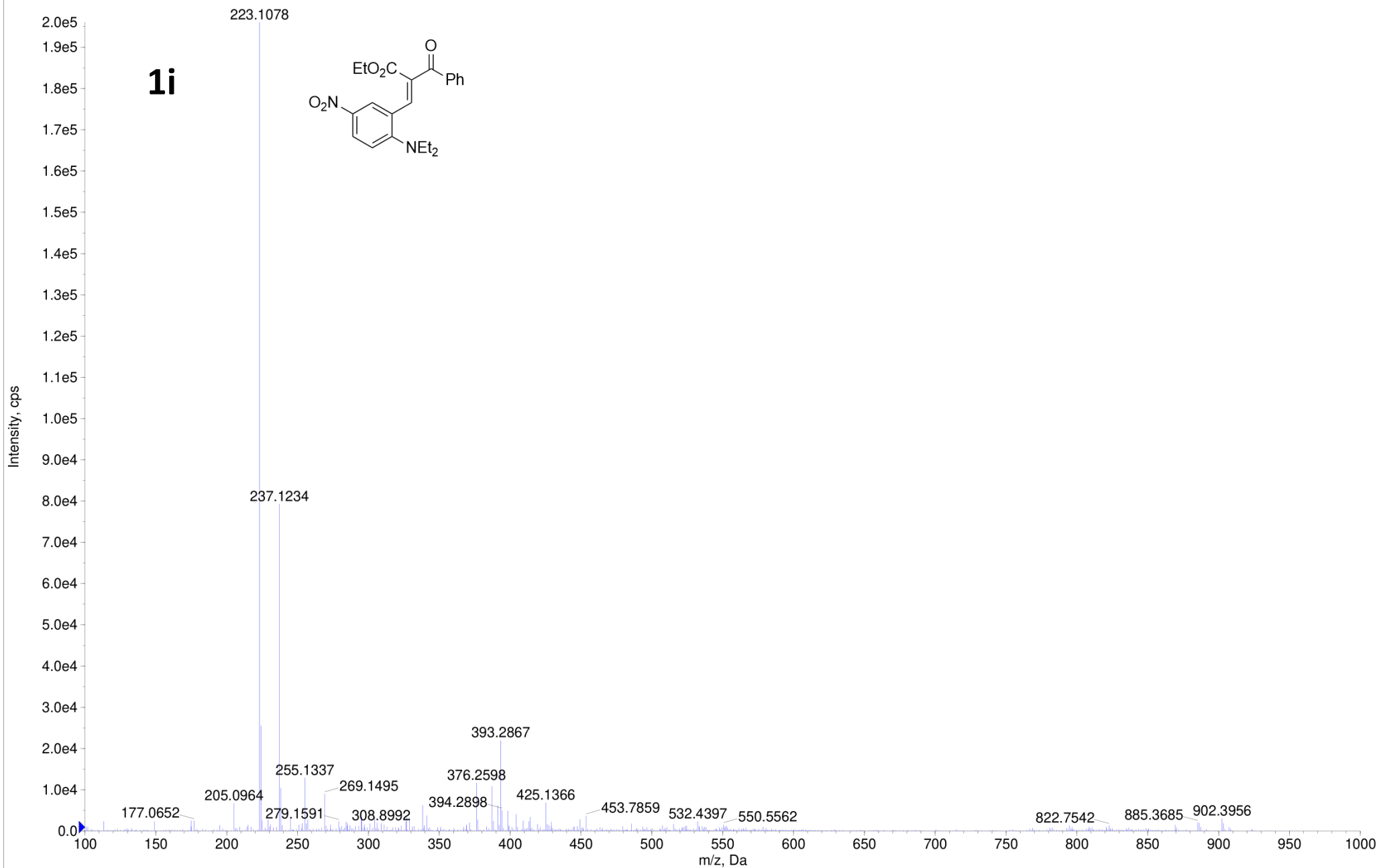
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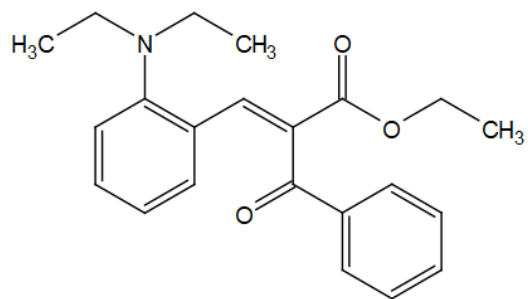
*5600 TripleTOF Service Report

Acq. Date: Wednesday, June 05, 2024

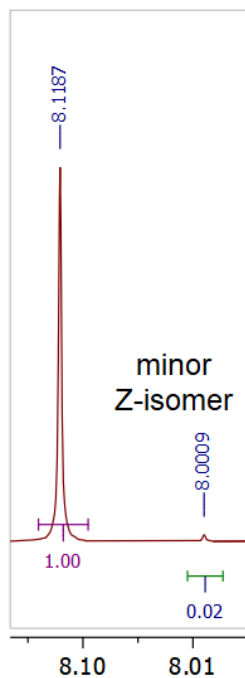
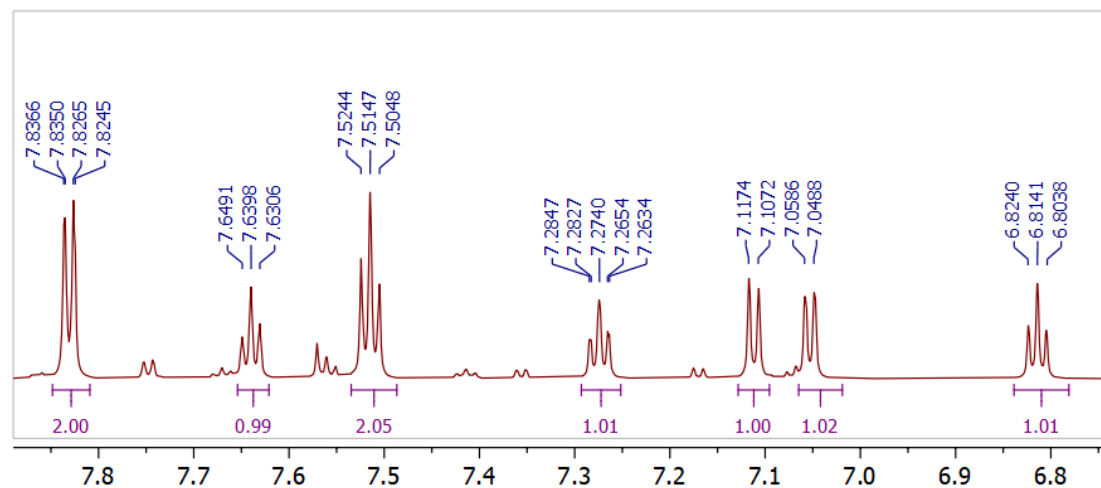
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Max. 2.0e5 cps.

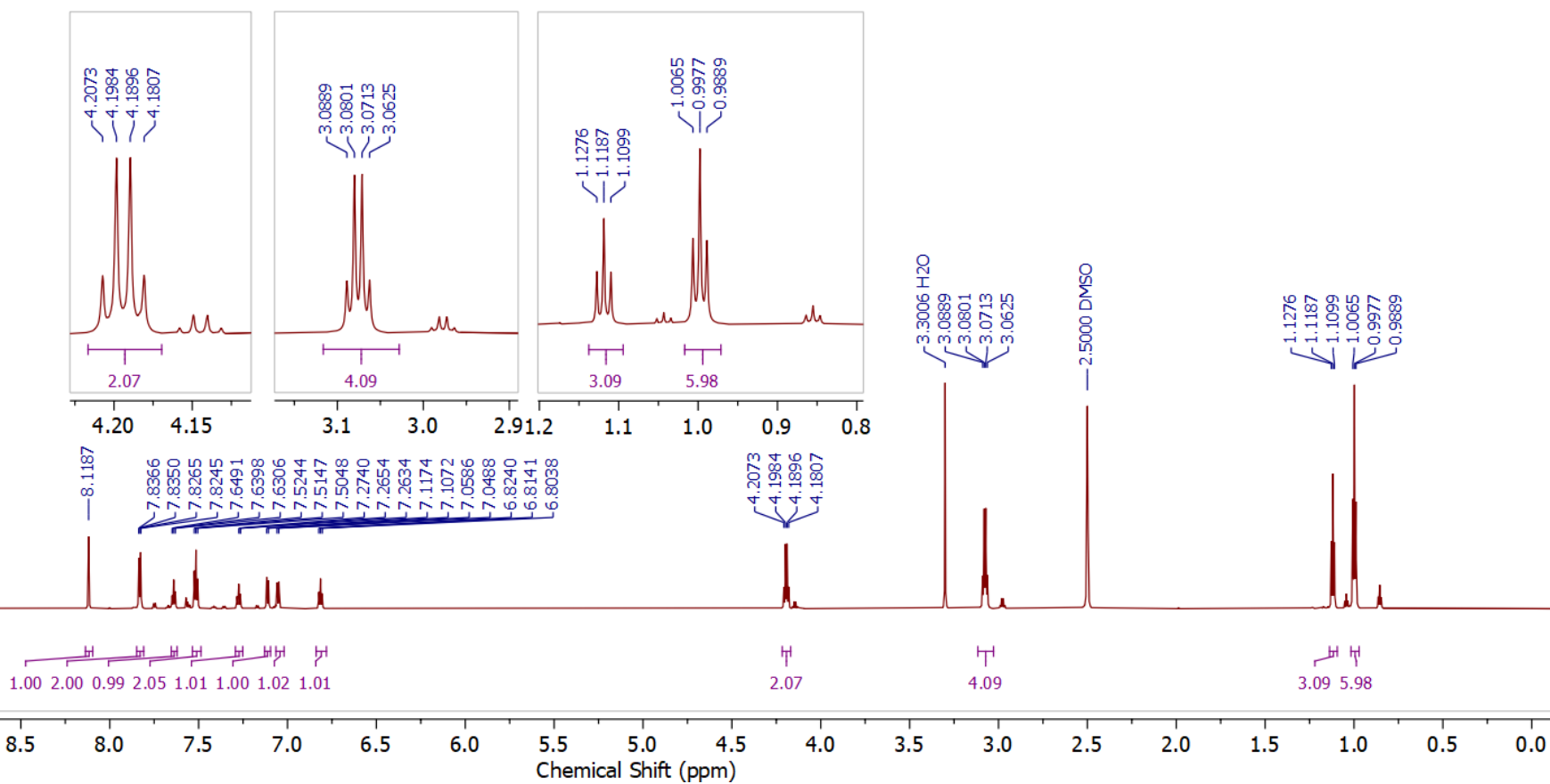


2a

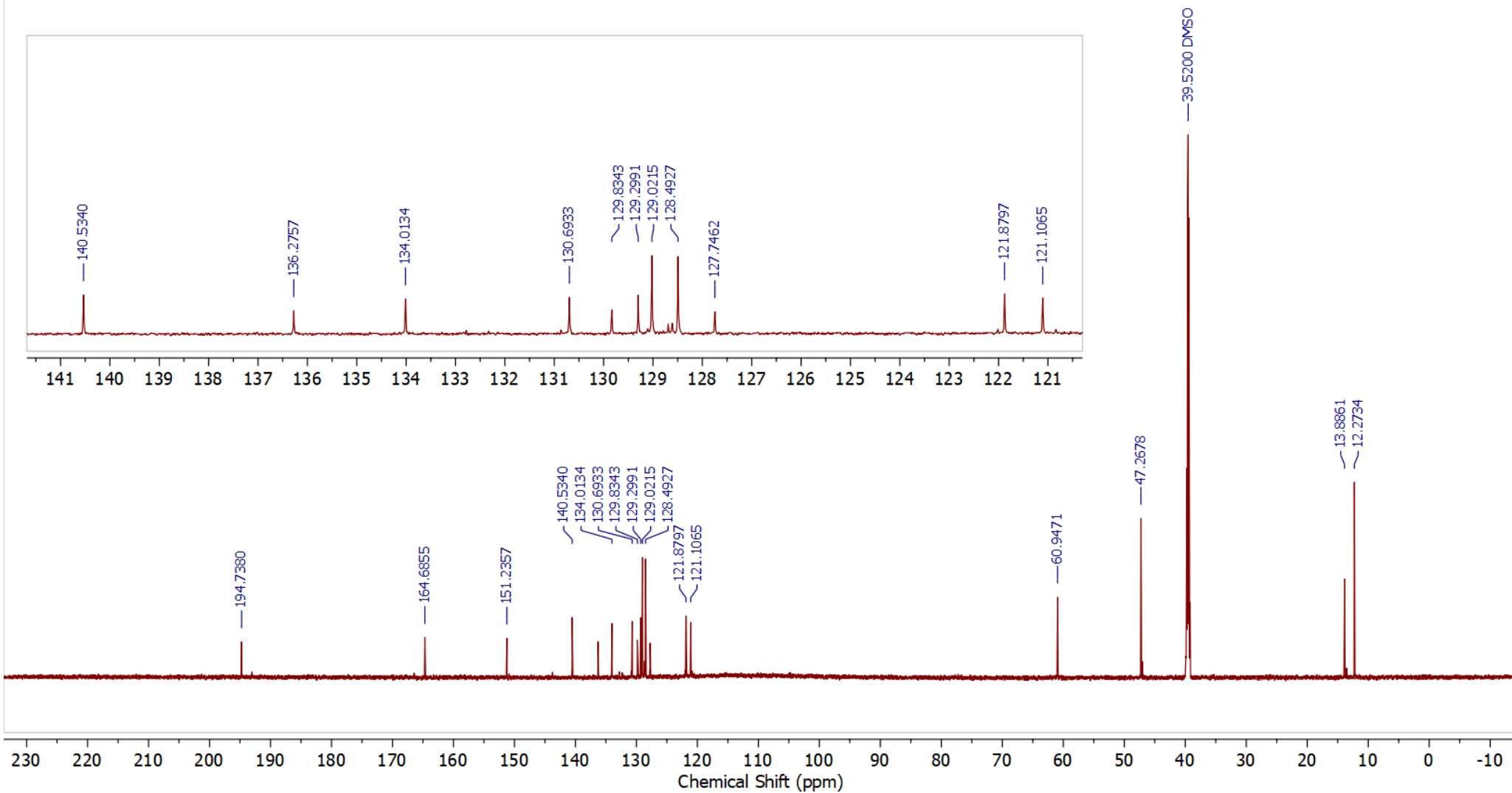
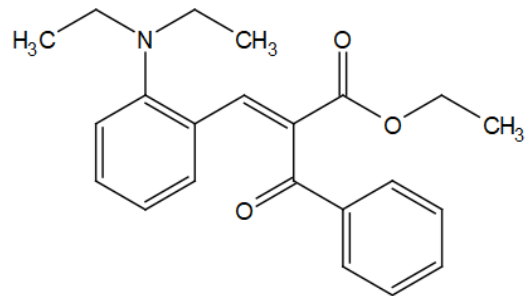
major E-isomer



minor Z-isomer

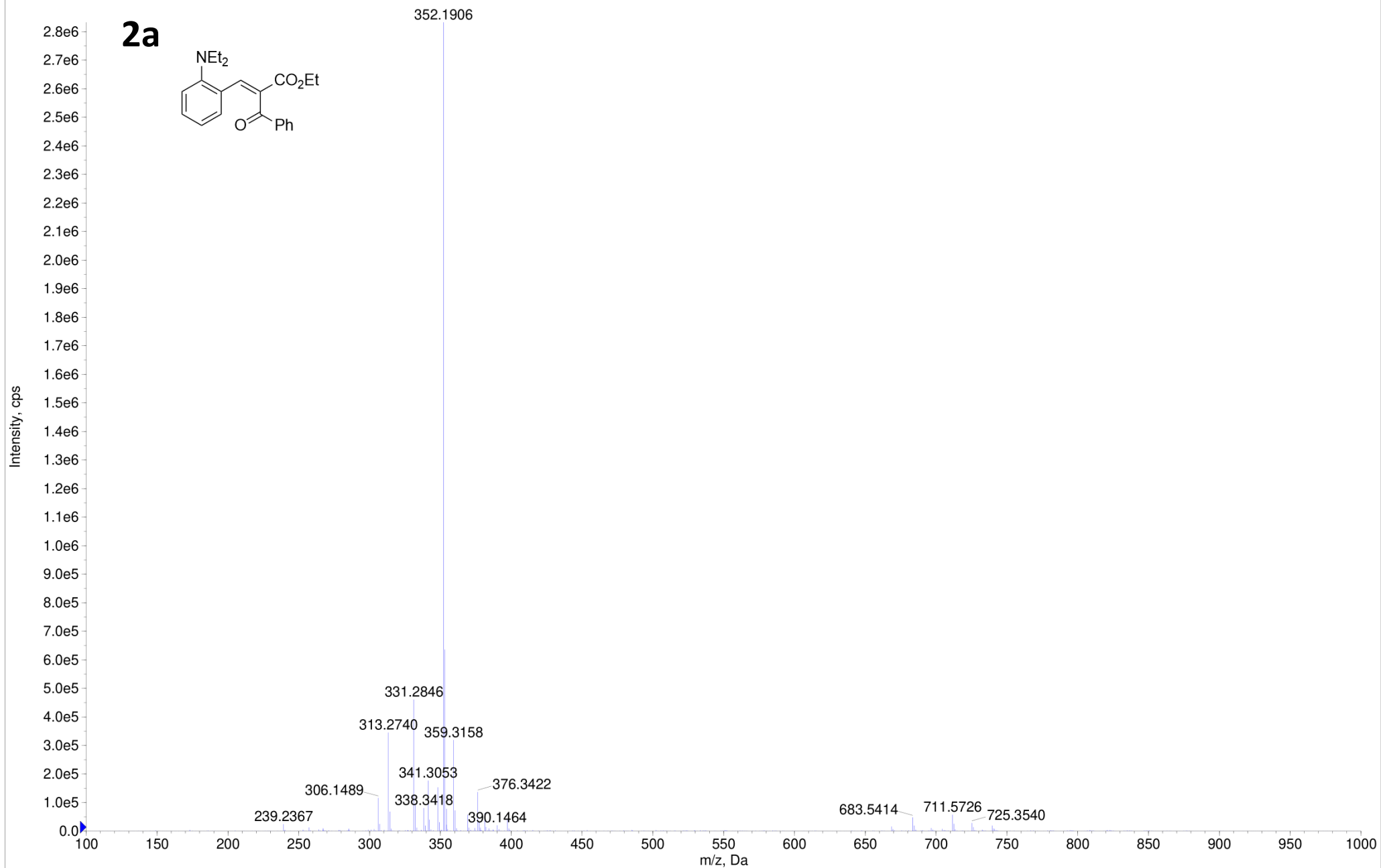


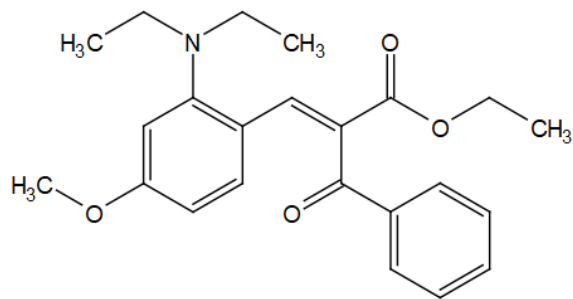
2a



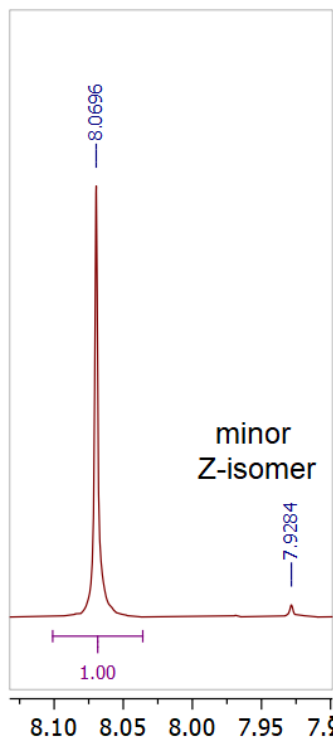
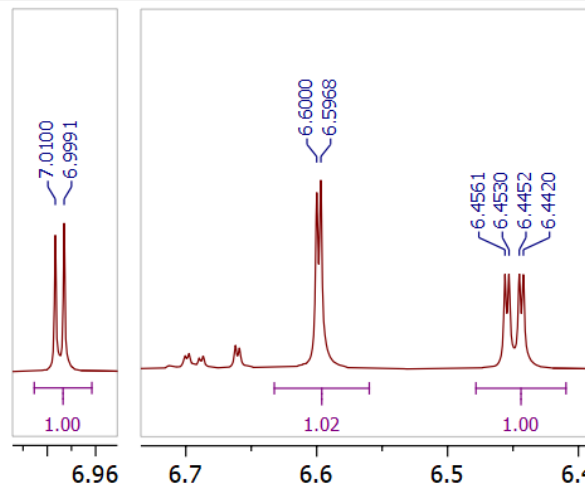
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Max. 2.8e6 cps.

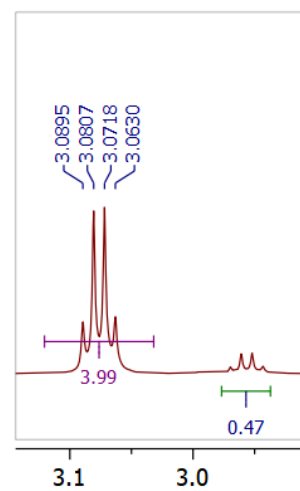
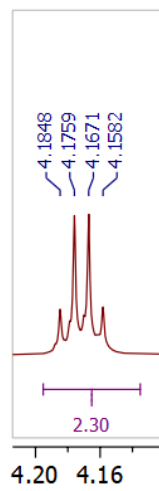
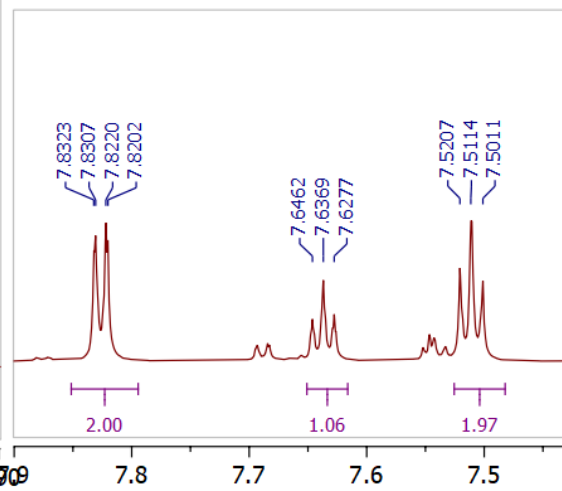


2b

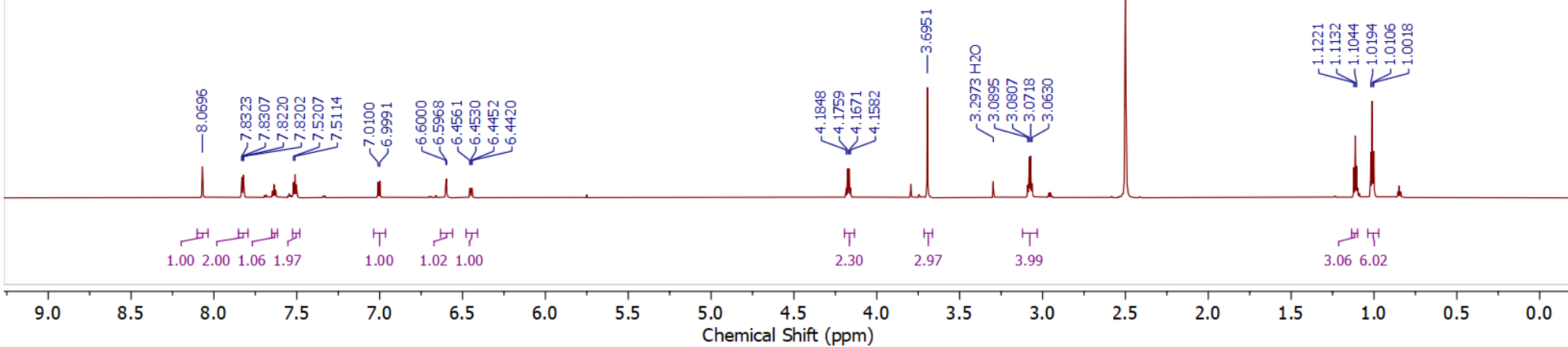
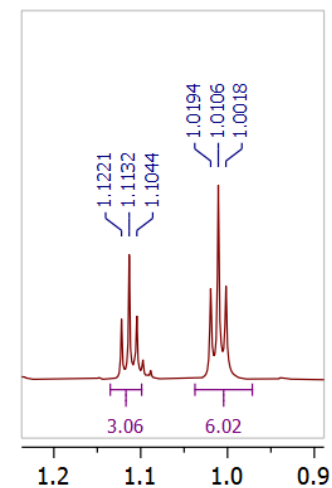
major E-isomer



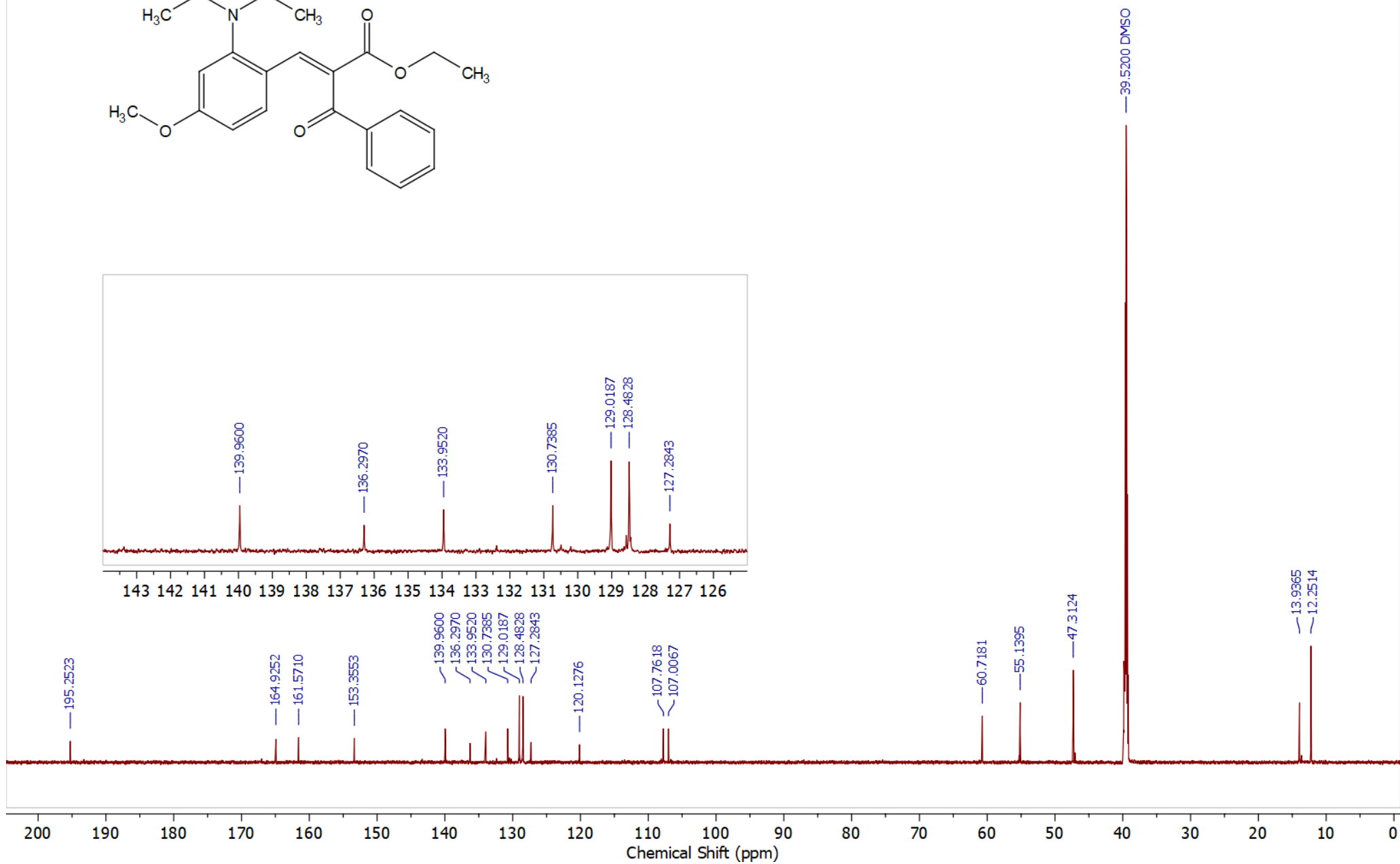
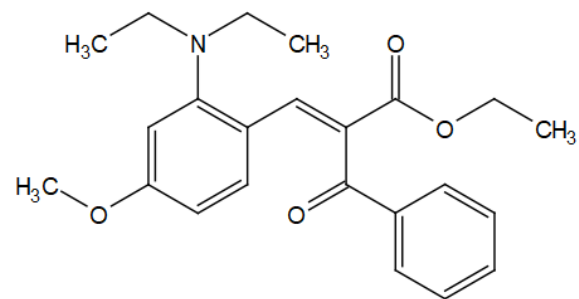
minor Z-isomer



2.5000 DMSO



2b



Sample Name: ID794

*SN BN21801310

Acq. Time: 13:49

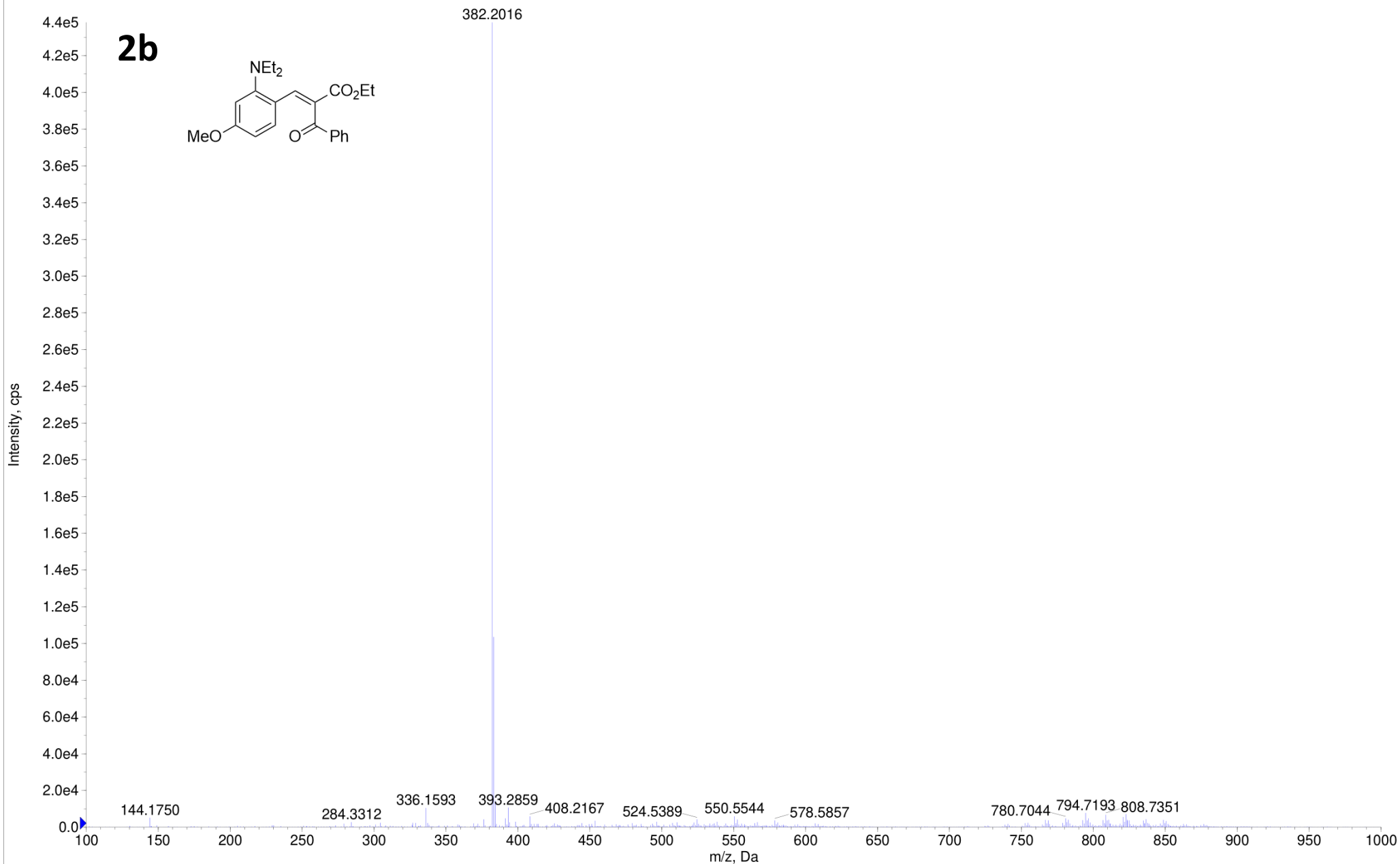
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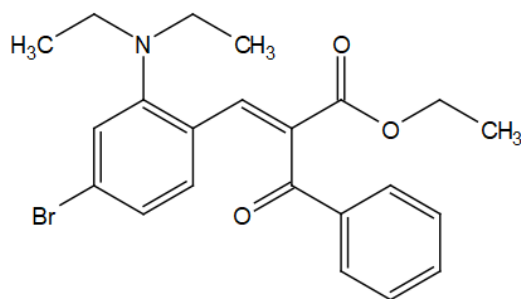
*5600 TripleTOF Service Report

Acq. Date: Tuesday, March 05, 2024

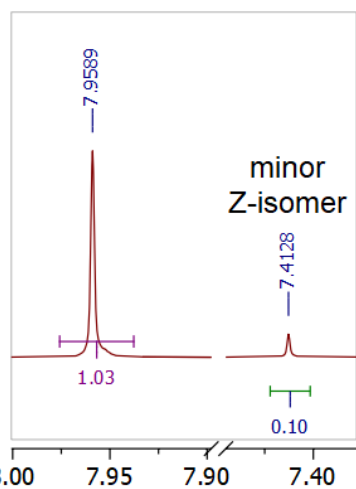
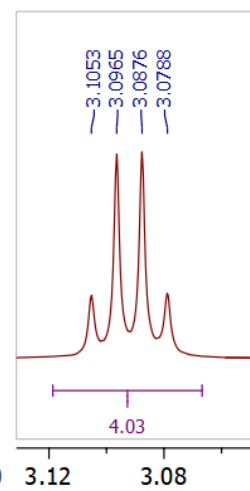
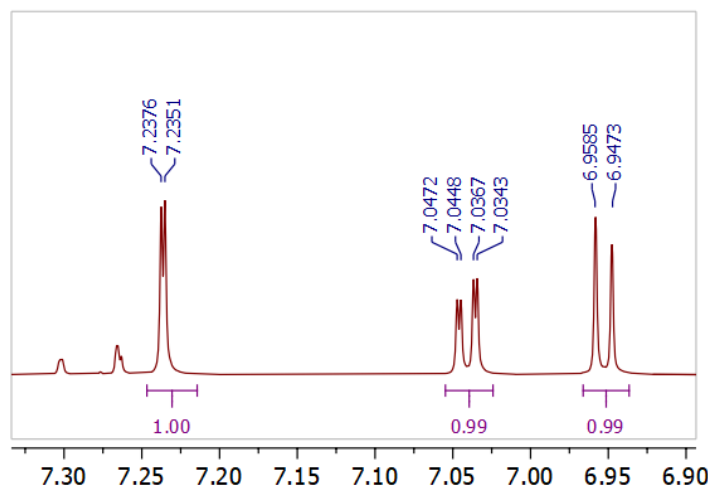
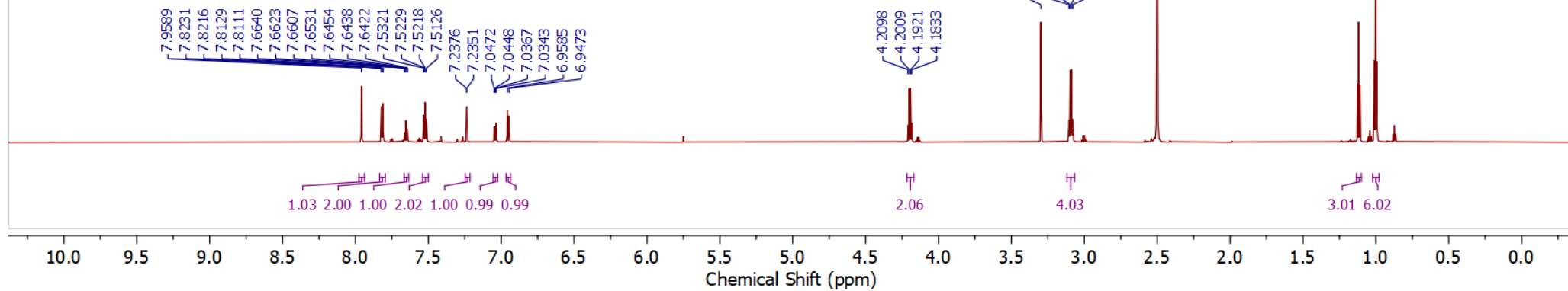
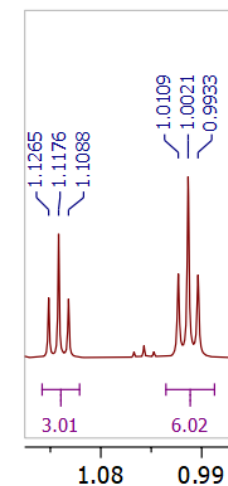
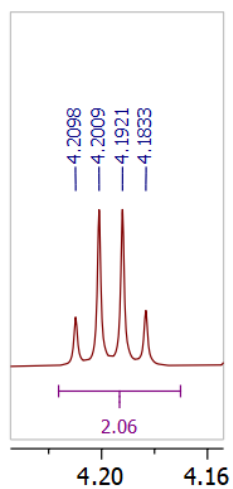
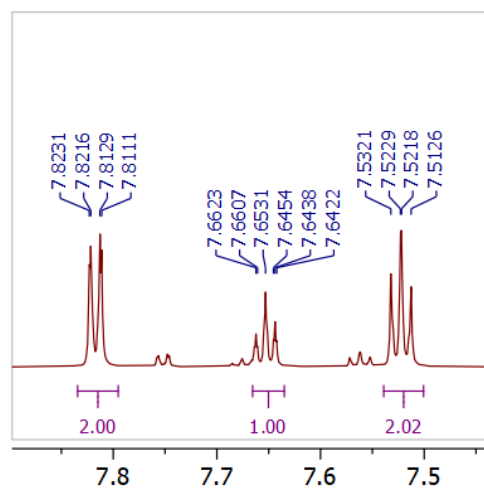
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Max. 4.4e5 cps.

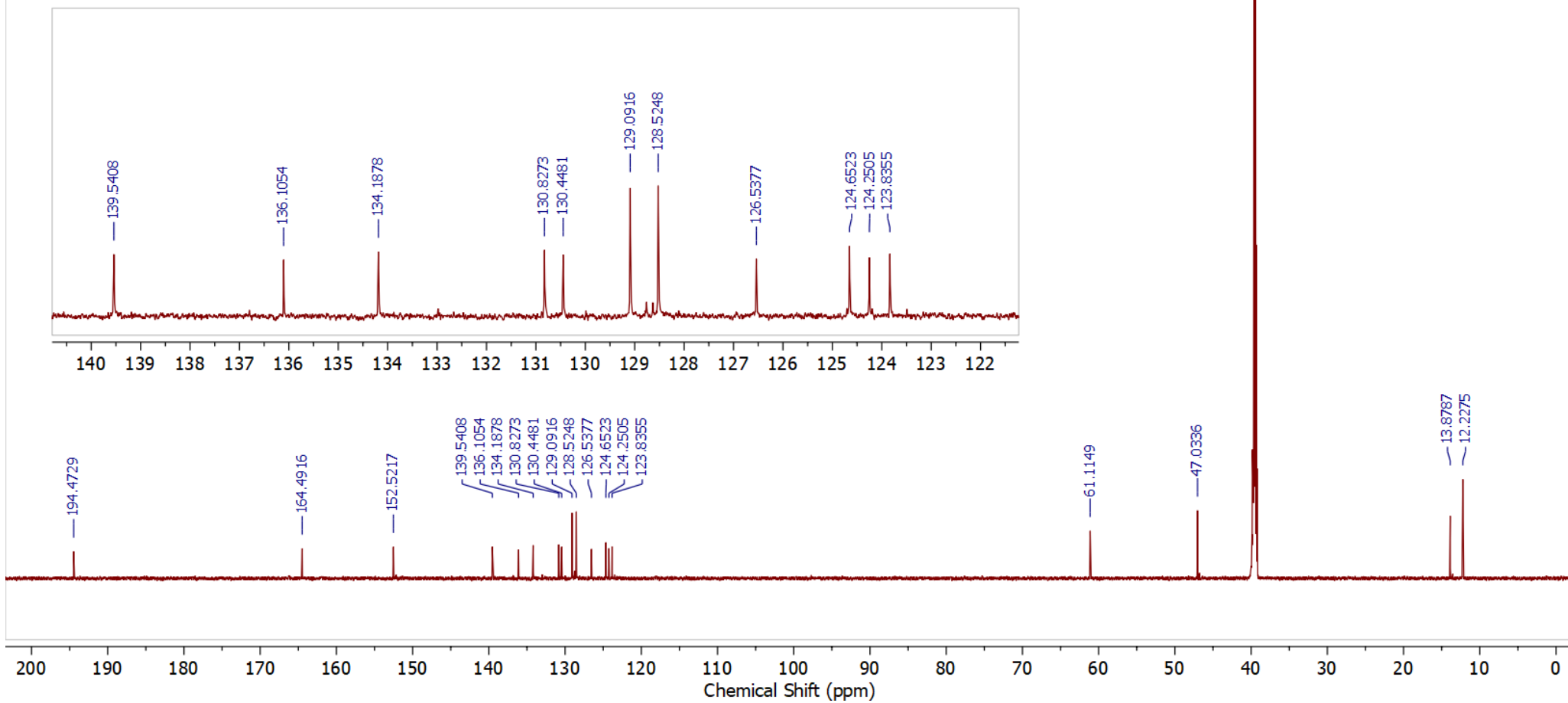
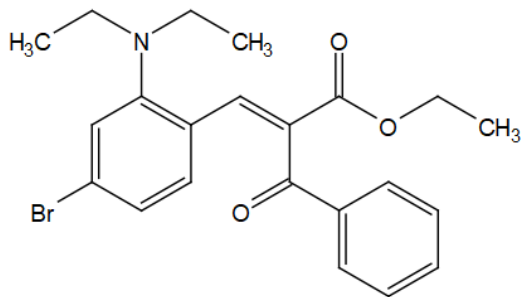


2c

major E-isomer

minor
Z-isomer

2c



Sample Name: ID798

*SN BN21801310

Acq. Time: 13:30

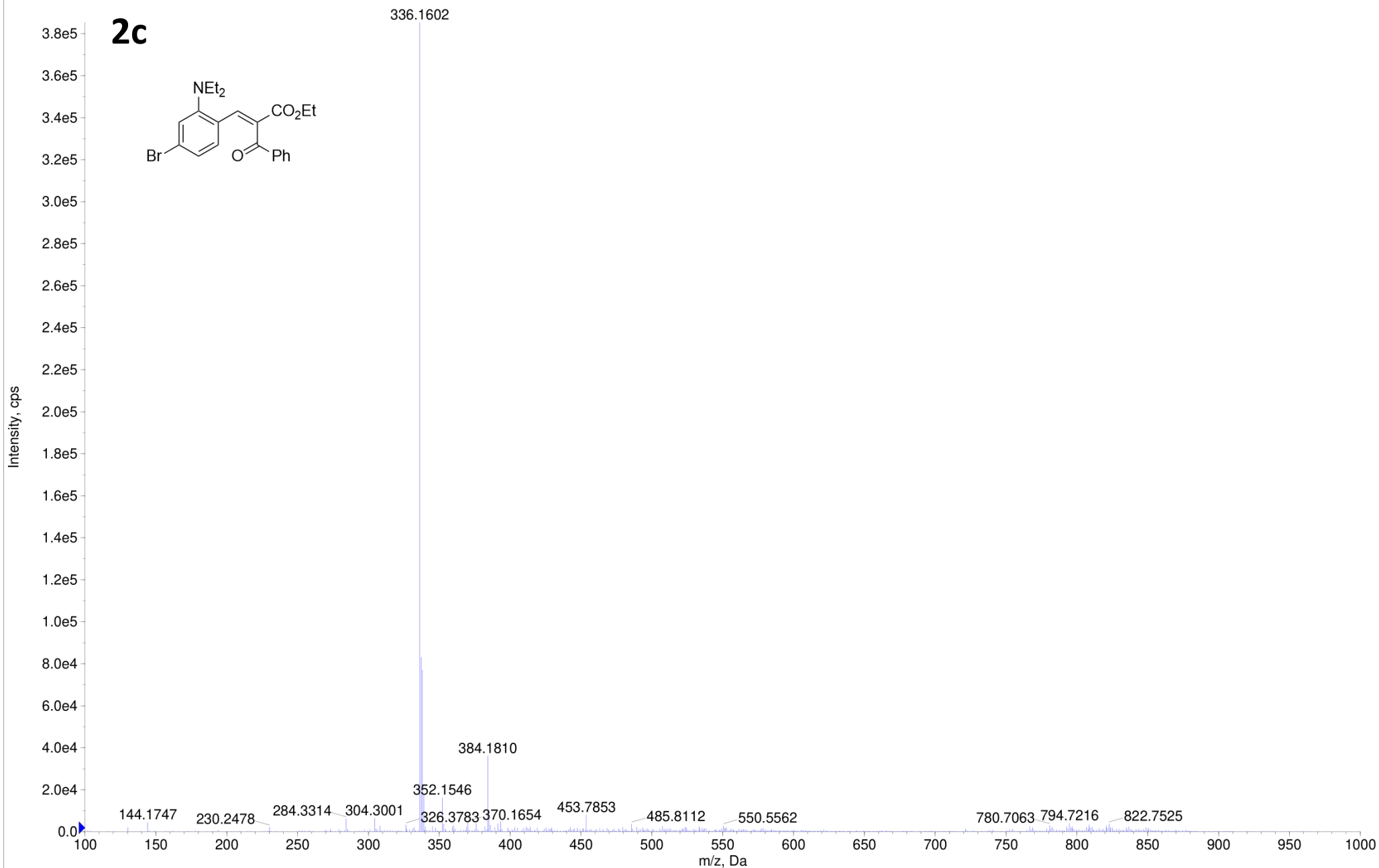
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*5600 TripleTOF Service Report

Acq. Date: Tuesday, March 05, 2024

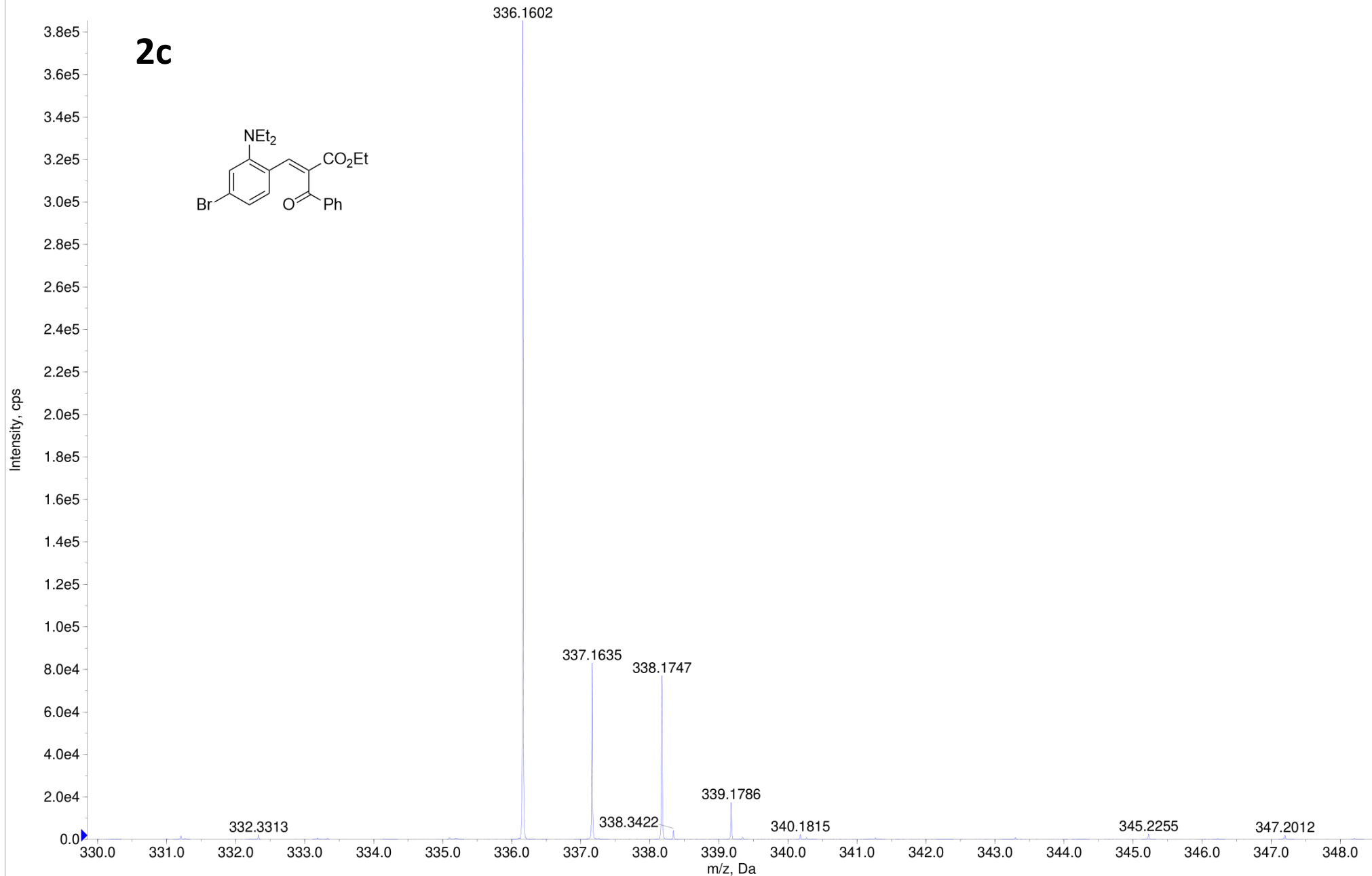
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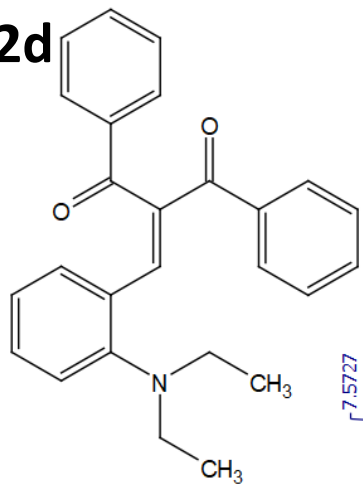


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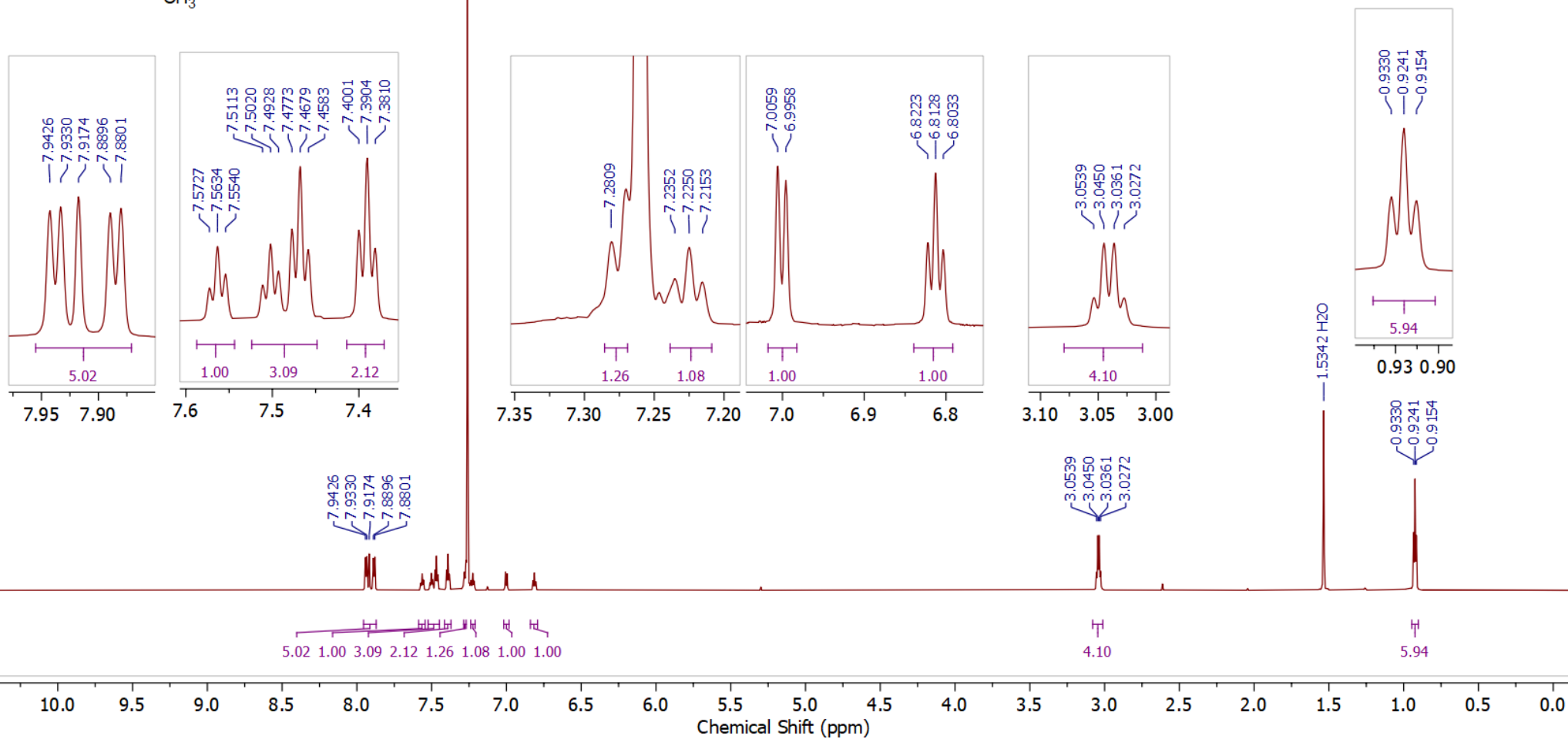
Max. 3.9e5 cps.

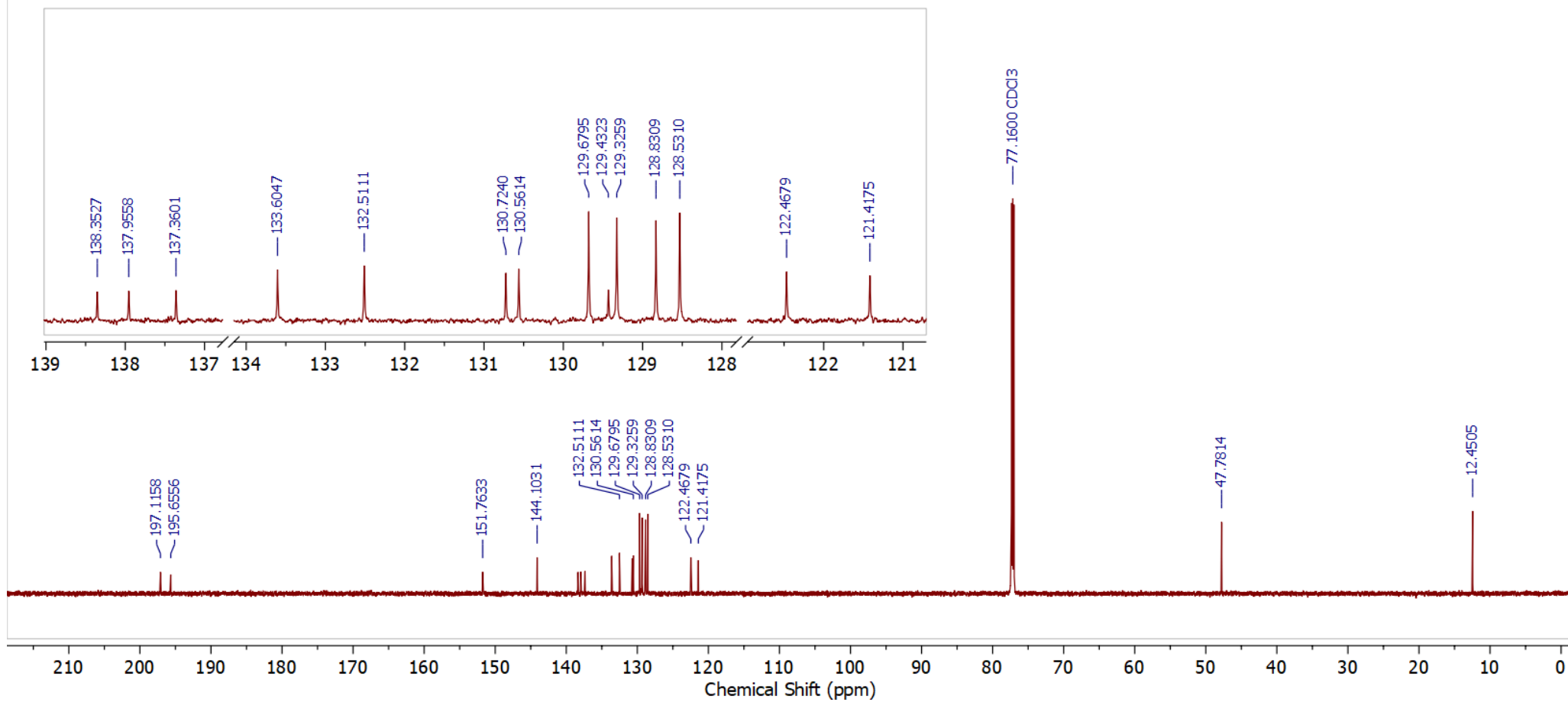
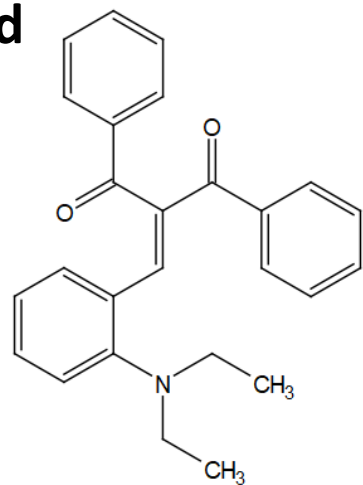


2d



7.5727
7.5634
7.5540
7.5113
7.5020
7.4928
7.4773
7.4679
7.4583
7.4001
7.3904
7.3810
7.2809
7.2618
7.2600 CDCl₃
7.2352
7.2250
7.2153
7.0059
6.9958
6.8223
6.8128
6.8033



2d

Sample Name: ID7542

*SN BN21801310

Acq. Time: 12:12

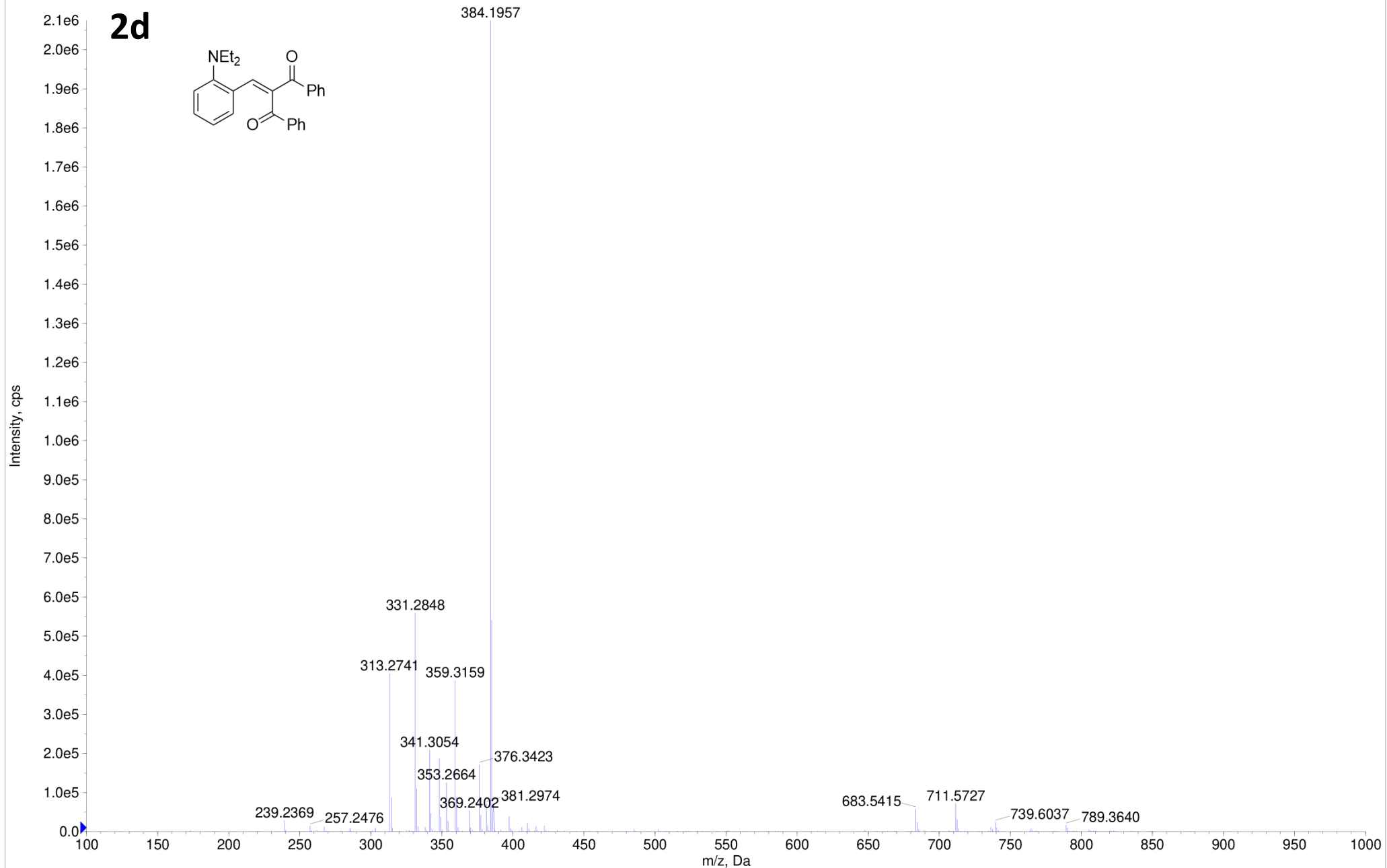
Acq. File: 26_01_2024.wiff

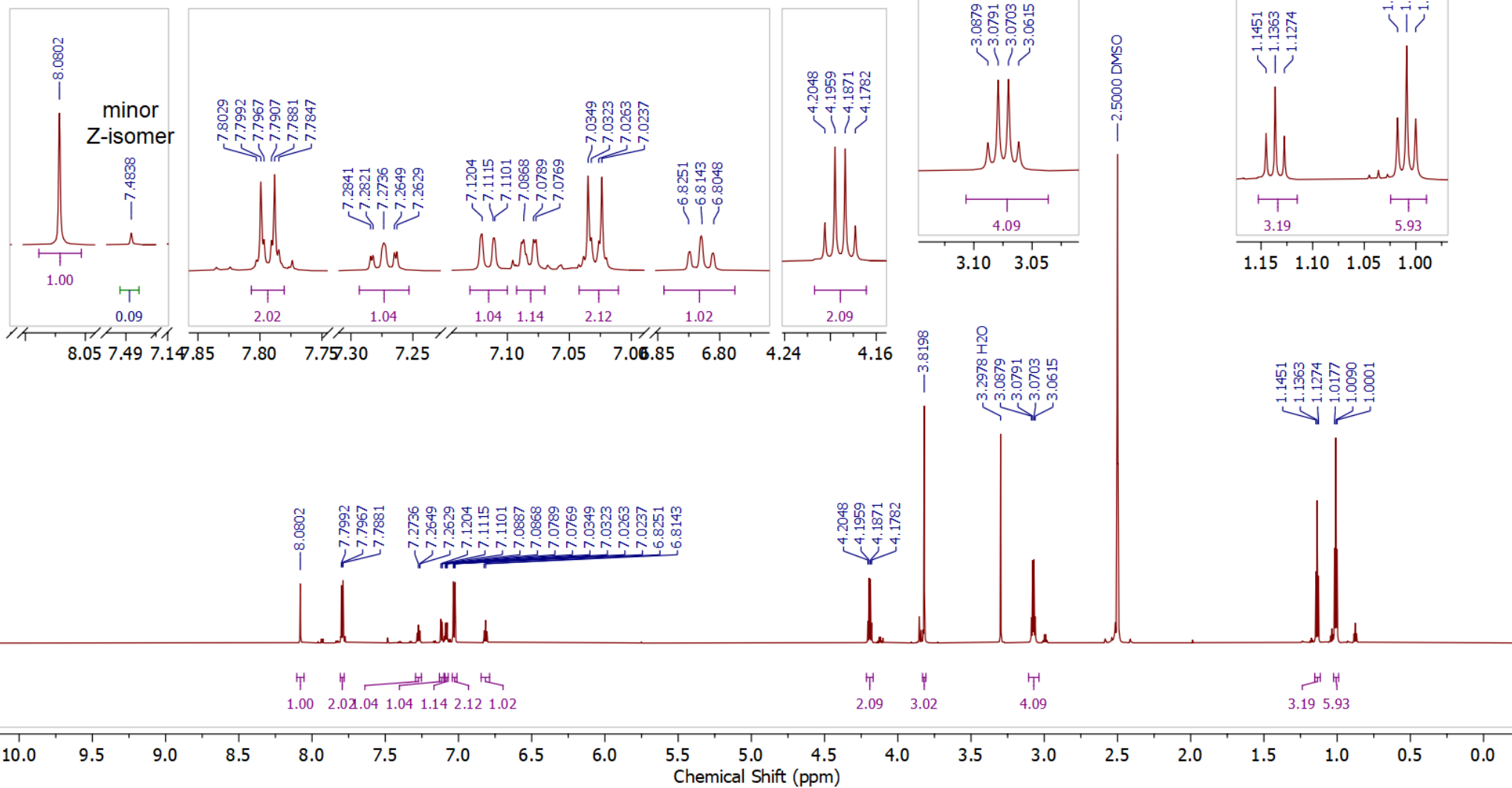
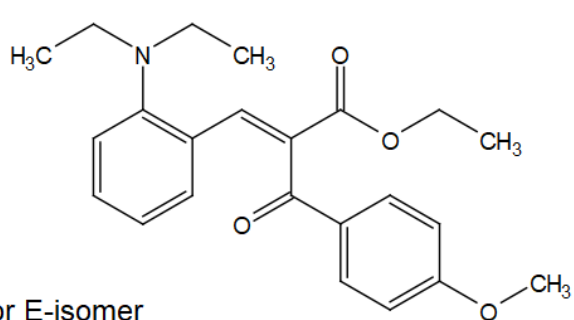
*5600 TripleTOF Service Report

Acq. Date: Friday, January 26, 2024

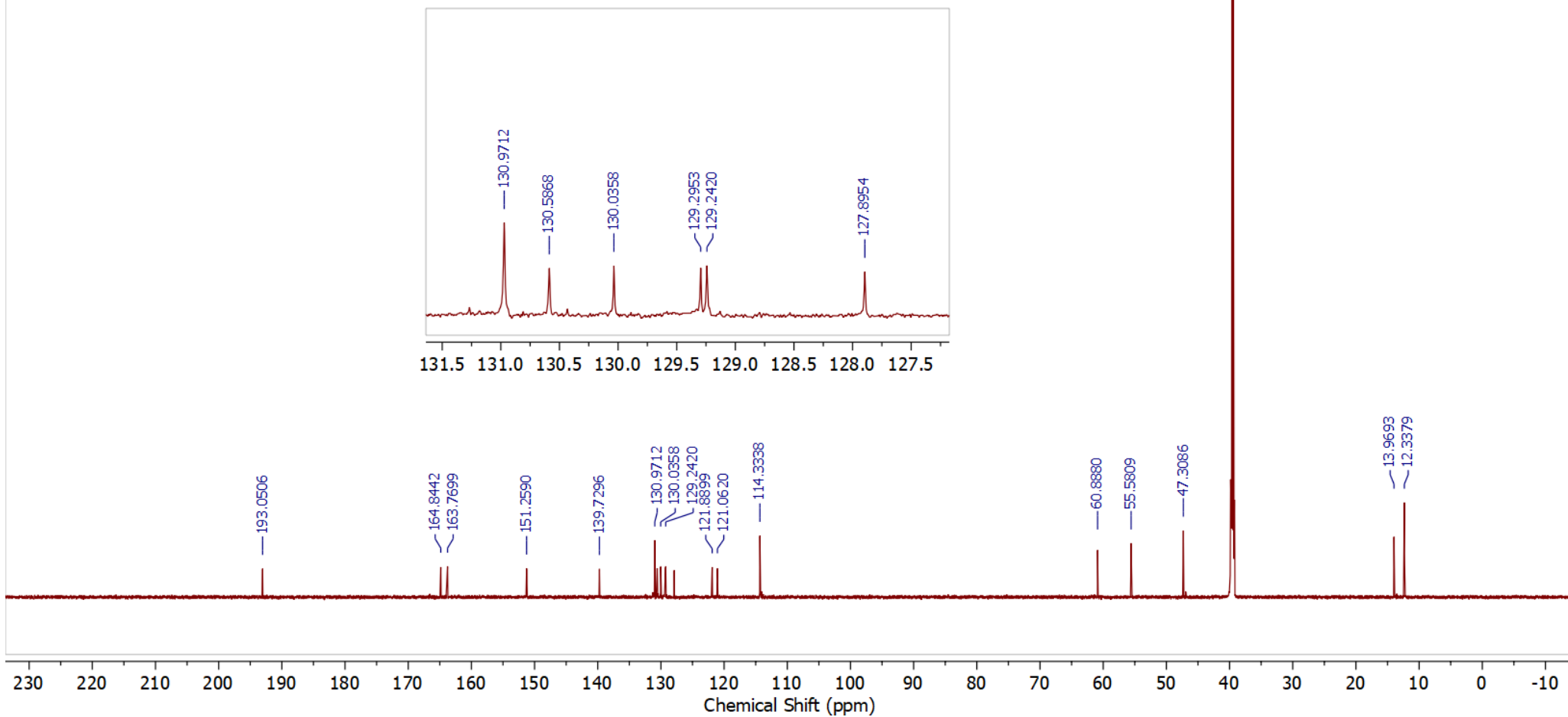
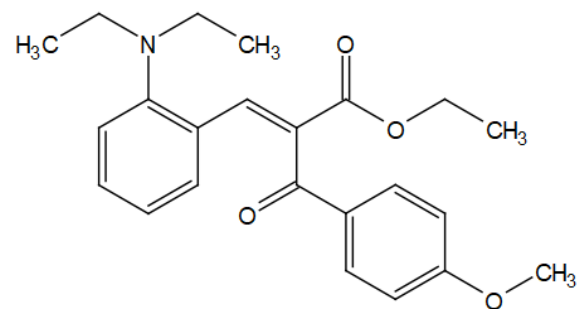
+TOF MS: 1.4090 to 1.5718 min from Sample 42 (ID7542) of 26_01_2024.wiff different calibrations (DuoSpray ())

Max. 2.1e6 cps.



2e

2e



Sample Name: ID808

*SN BN21801310

Acq. Time: 13:50

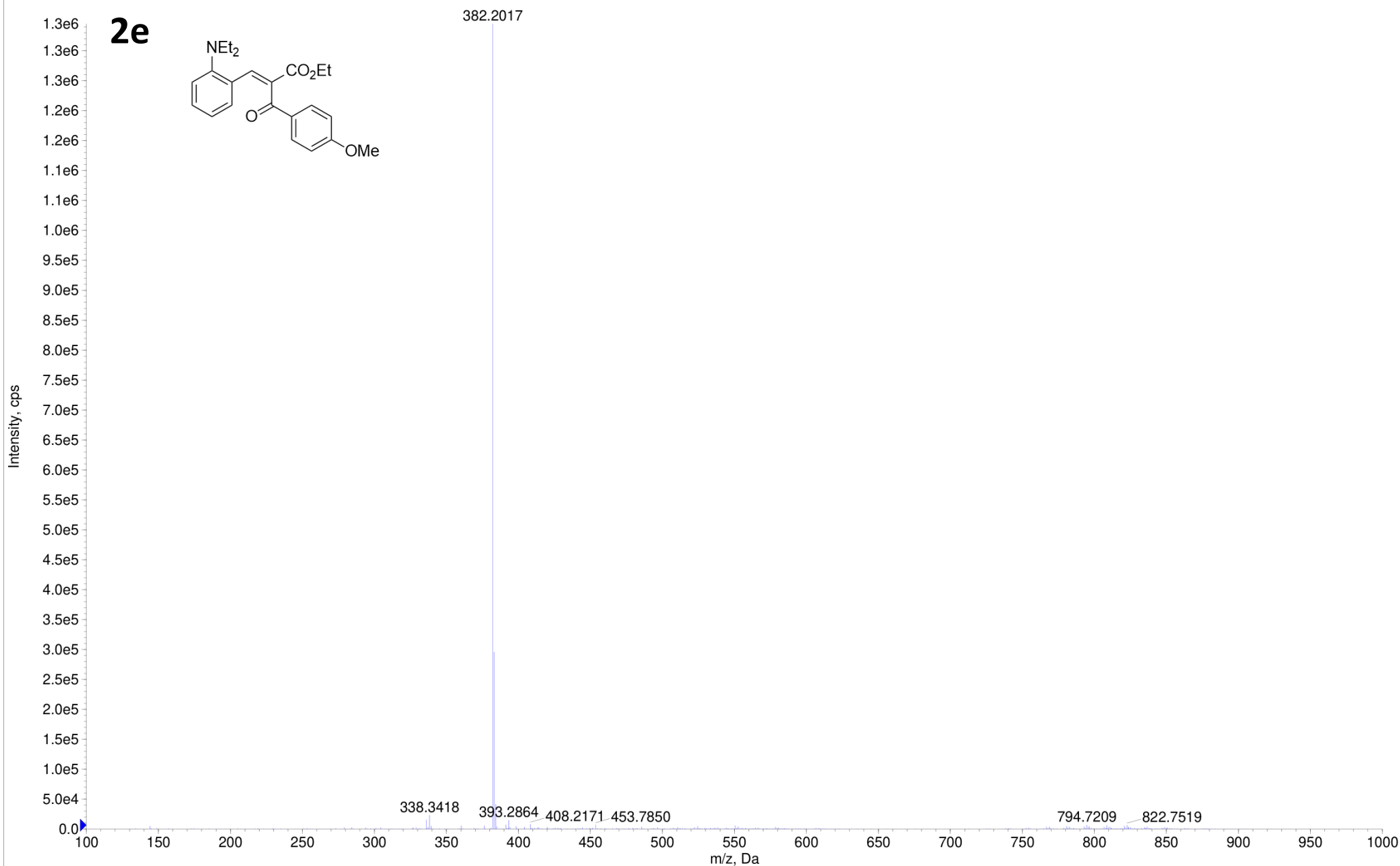
Acq. File: 05_03_2024.wiff

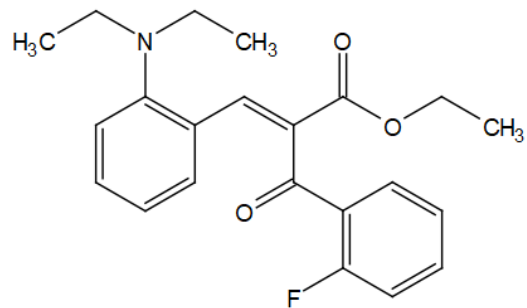
*5600 TripleTOF Service Report

Acq. Date: Tuesday, March 05, 2024

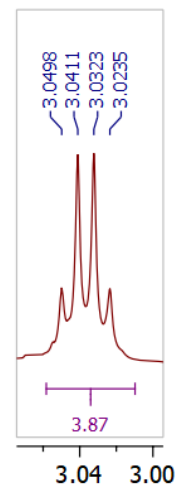
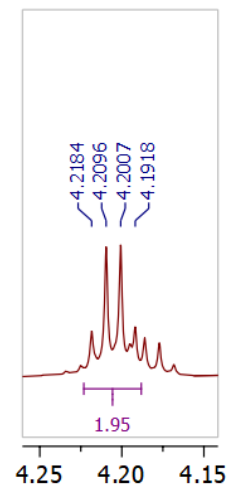
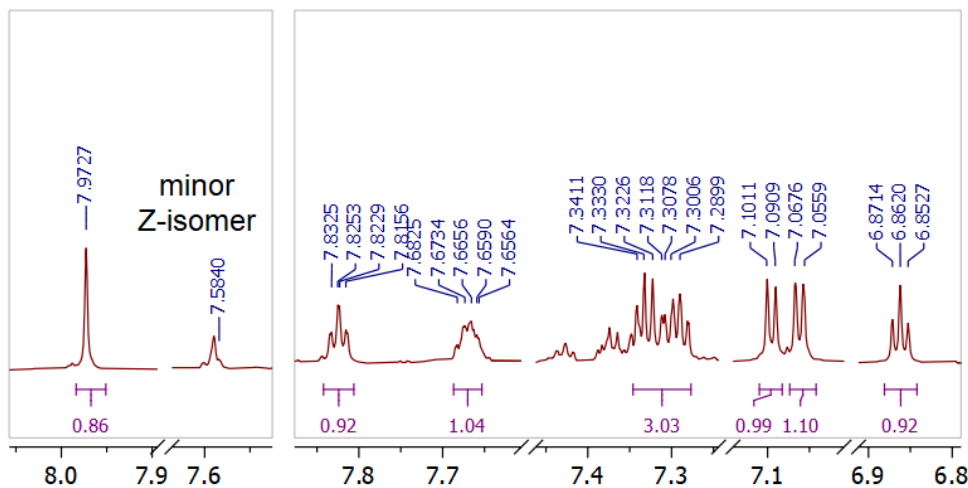
+TOF MS: 0.2650 to 0.3906 min from Sample 72 (ID808) of 05_03_2024.wiff
a=7.01850686332469550e-004, t0=-4.38975322862342750e-001 (DuoSpray (j))

Max. 1.3e6 cps.

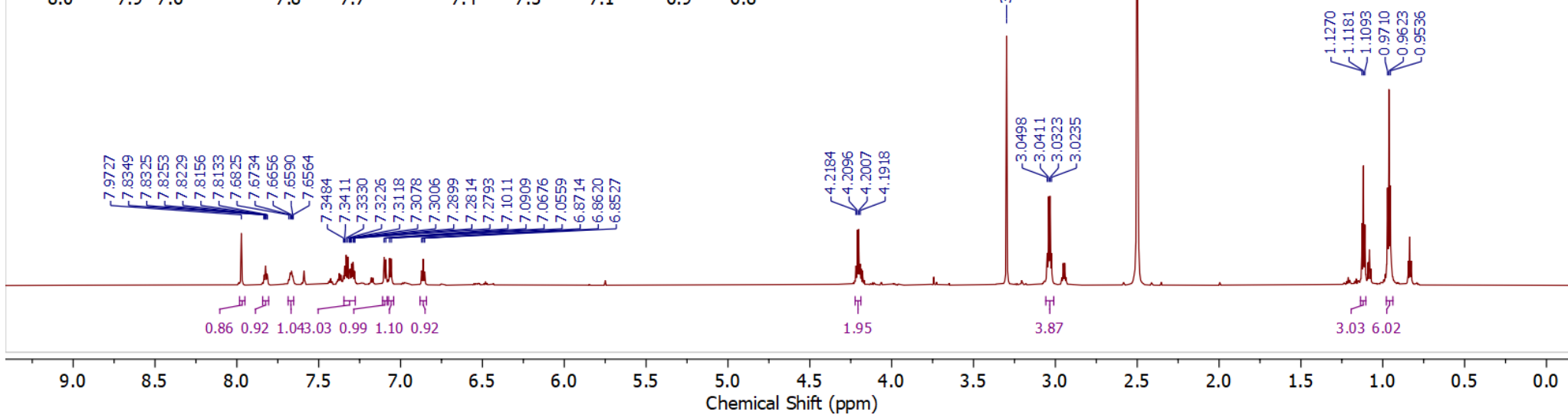
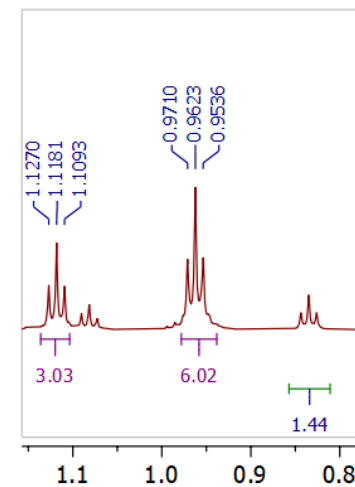


2f

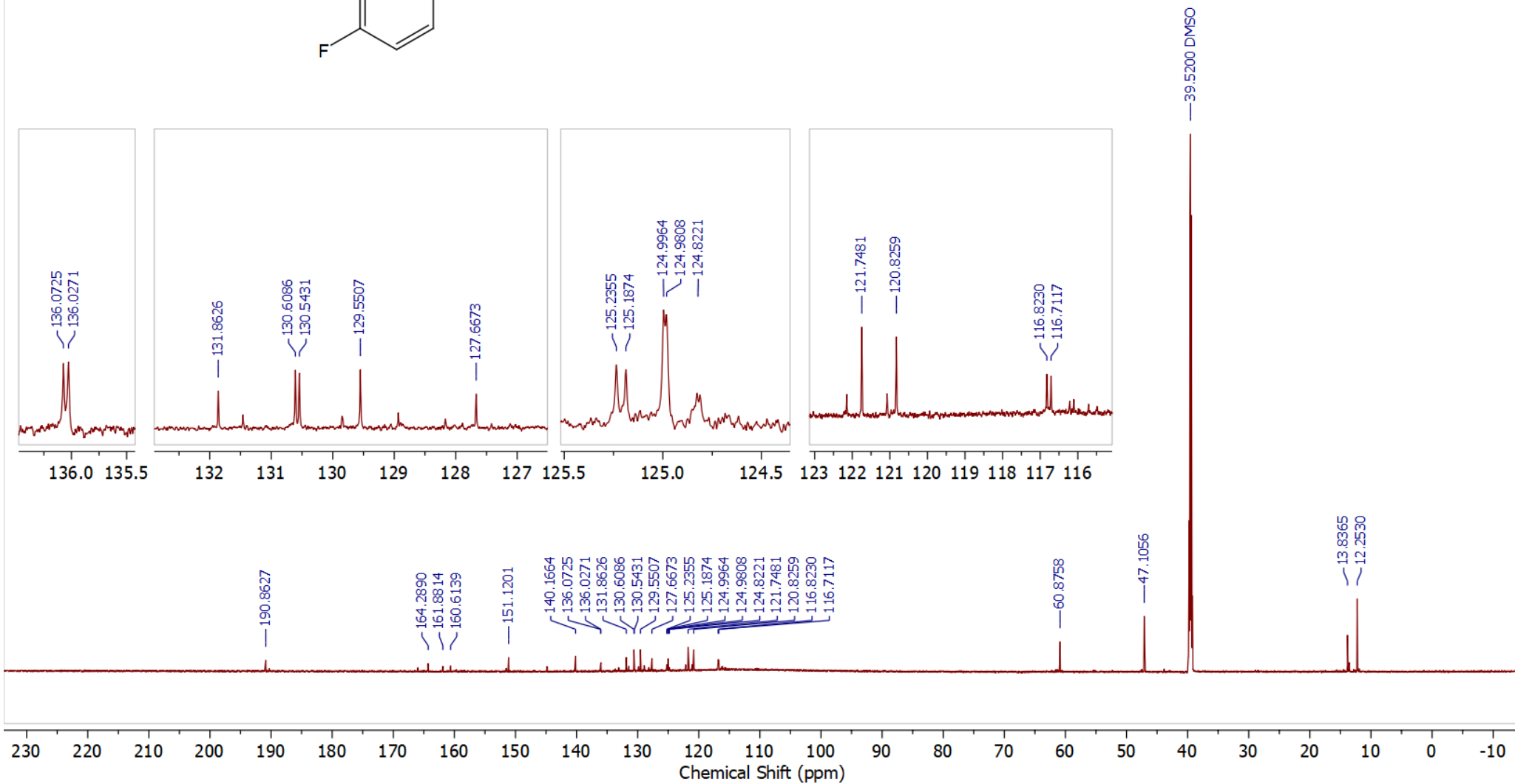
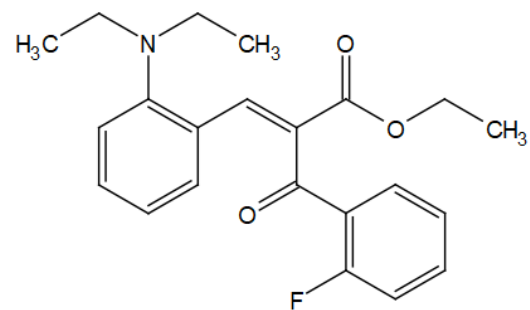
major E-isomer



2.5000 DMSO

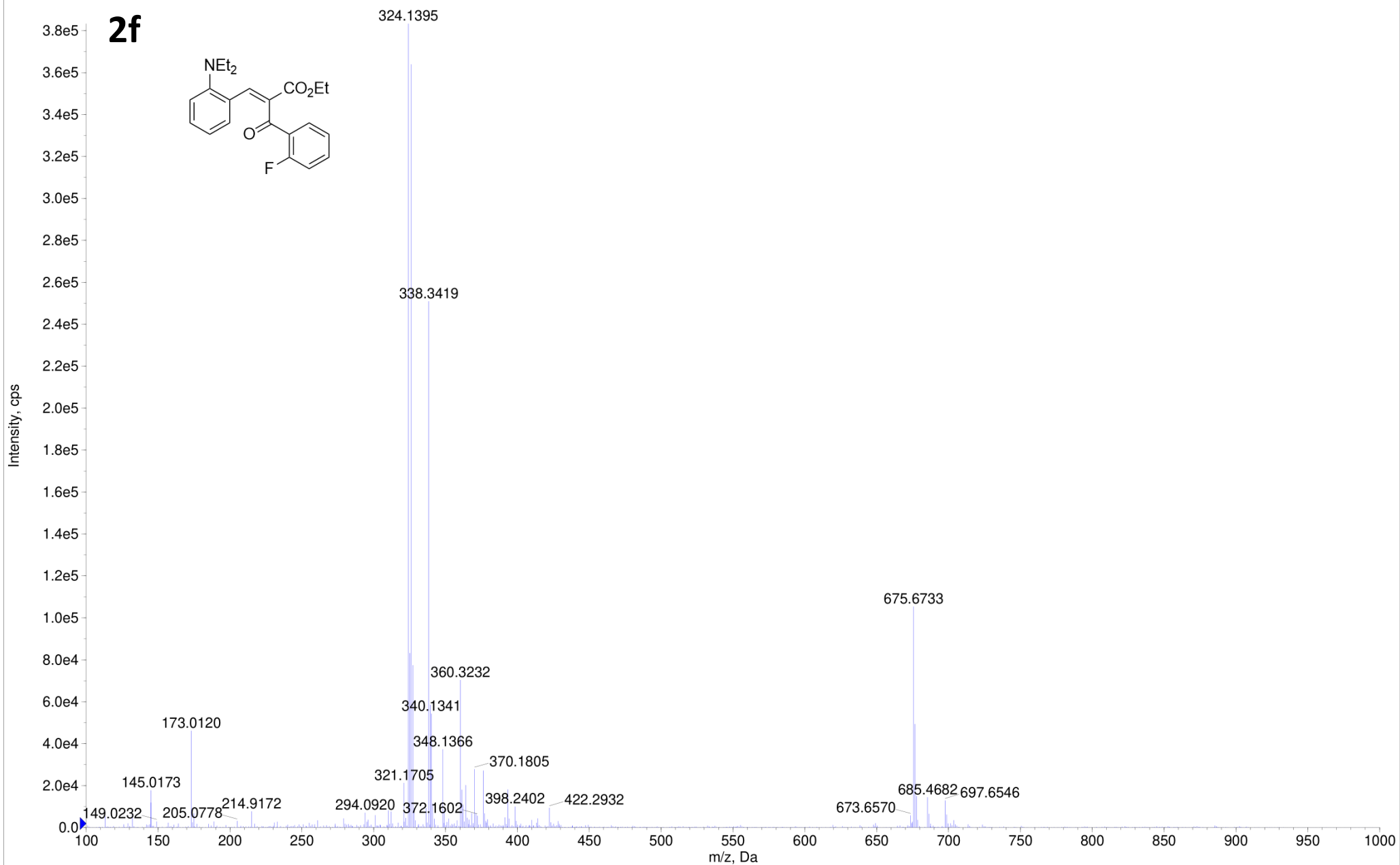


2f



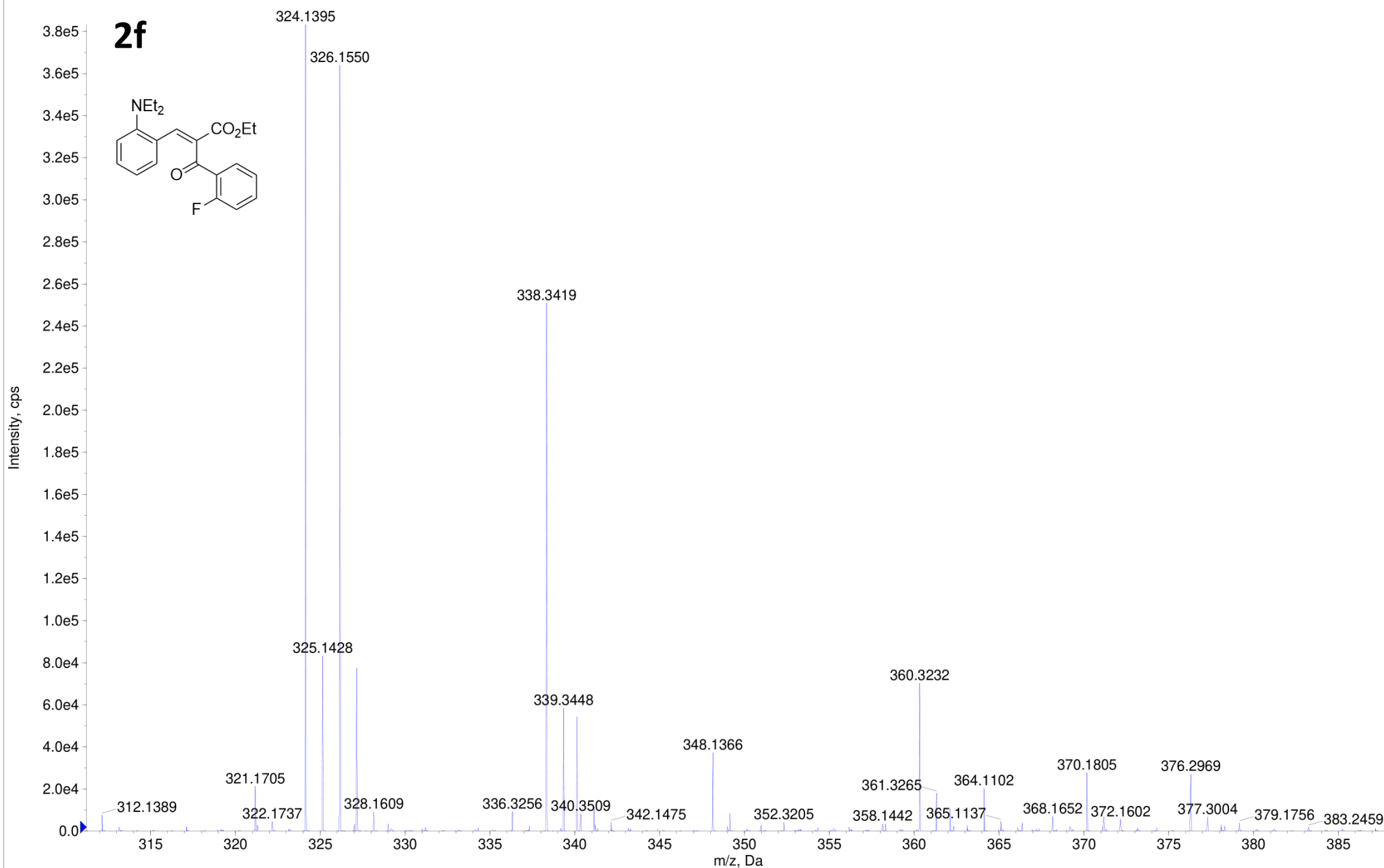
+TOF MS: 0.2558 to 0.3906 min from Sample 36 (ID7391) of 26_12_2023.wiff
a=7.01833341547554580e-004, t0=-4.36570612663340570e-001 (DuoSpray ())

Max. 3.8e5 cps.

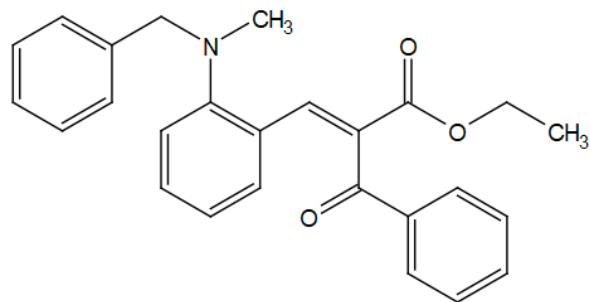


+TOF MS: 0.2558 to 0.3906 min from Sample 36 (ID7391) of 26_12_2023.wiff
a=7.01833341547554580e-004, t0=-4.36570612663340570e-001 (DuoSpray ())

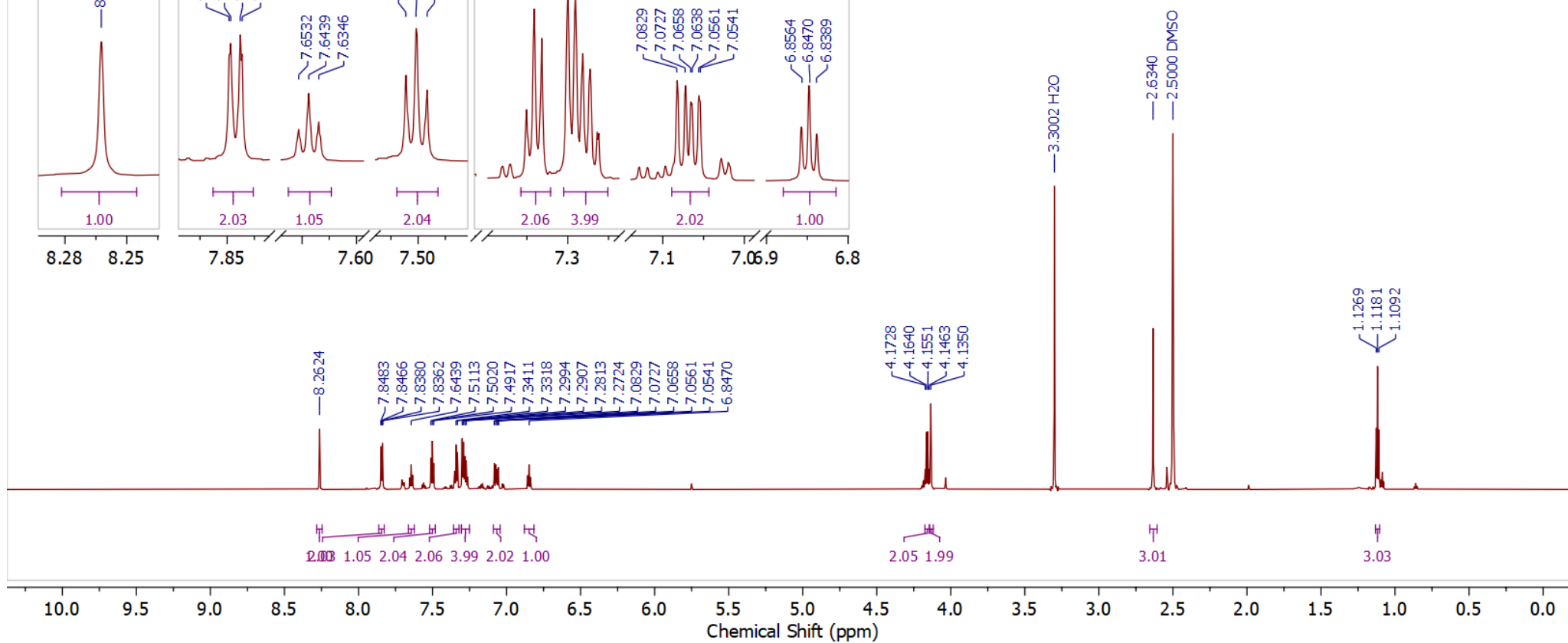
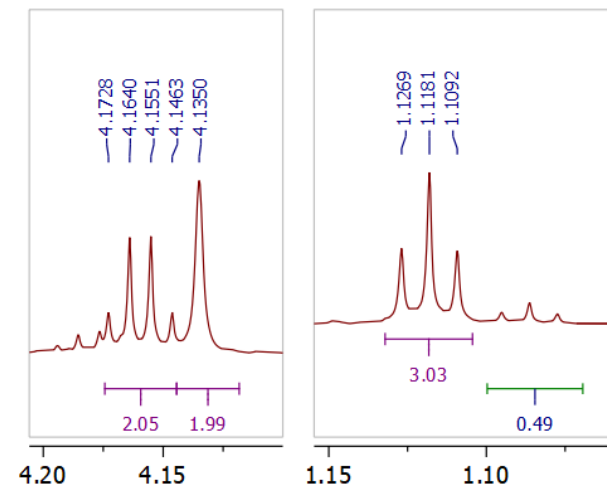
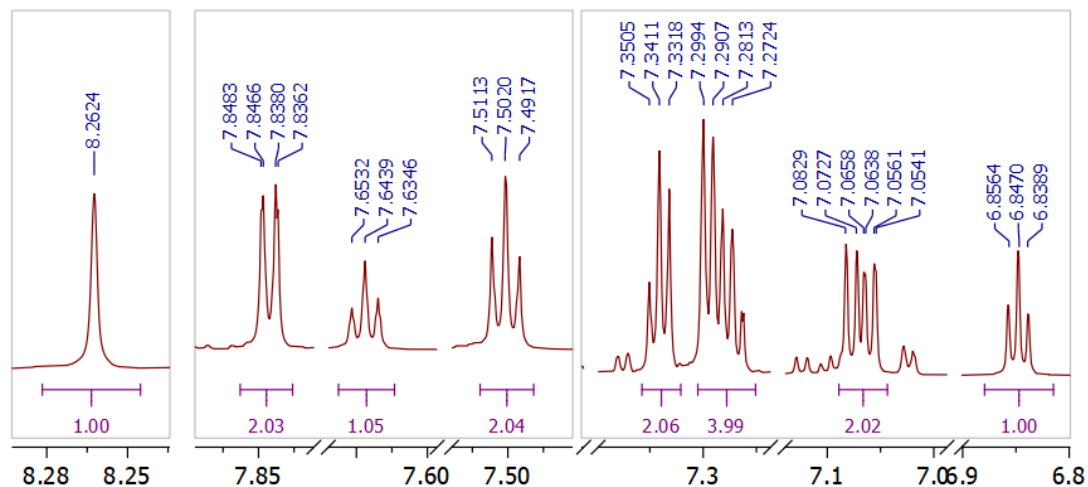
Max. 3.8e5 cps.



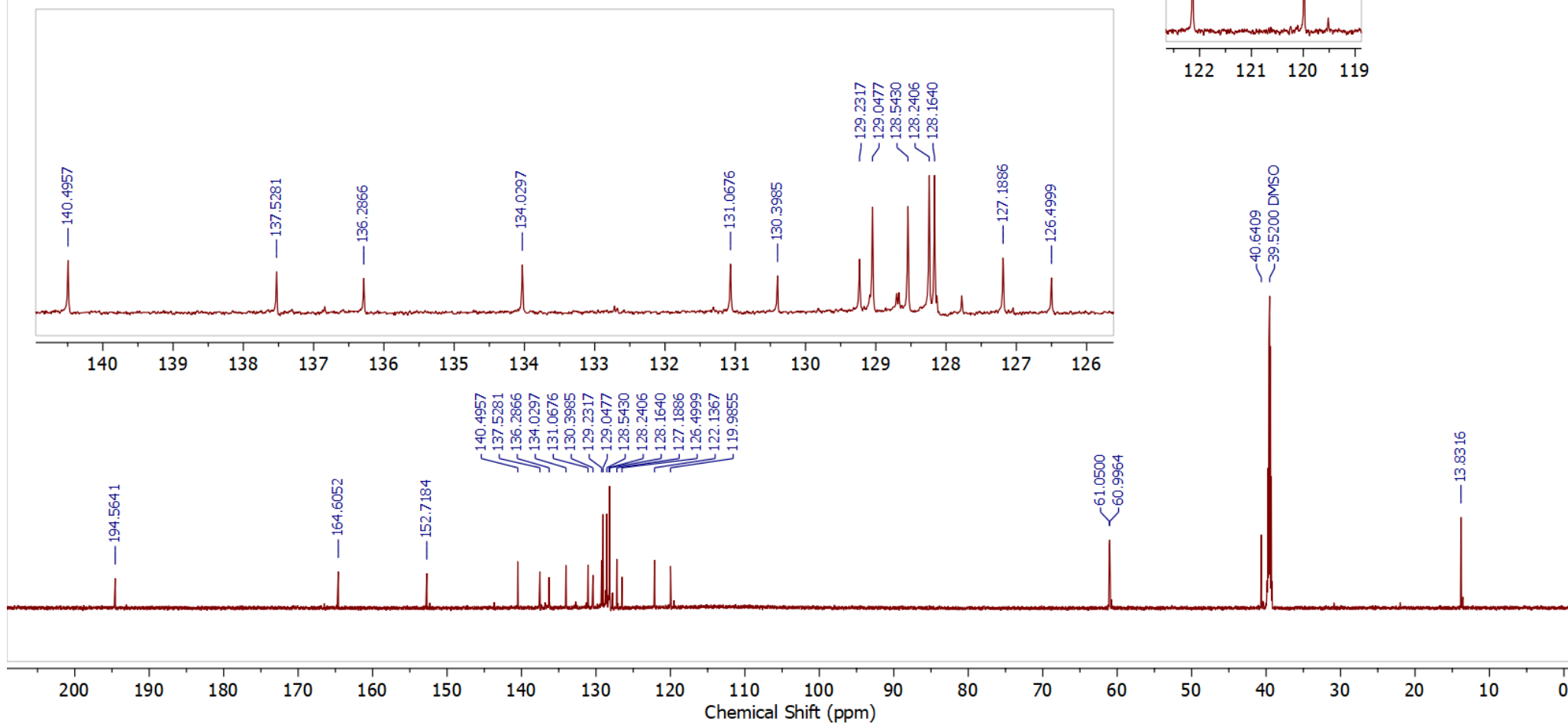
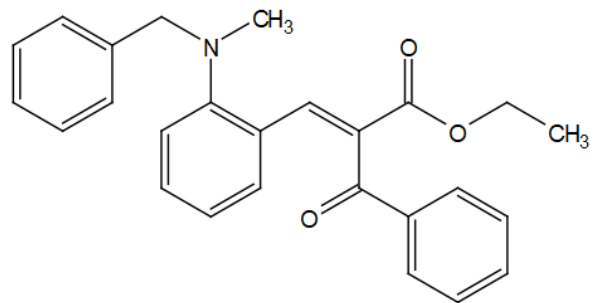
2g



major E-isomer

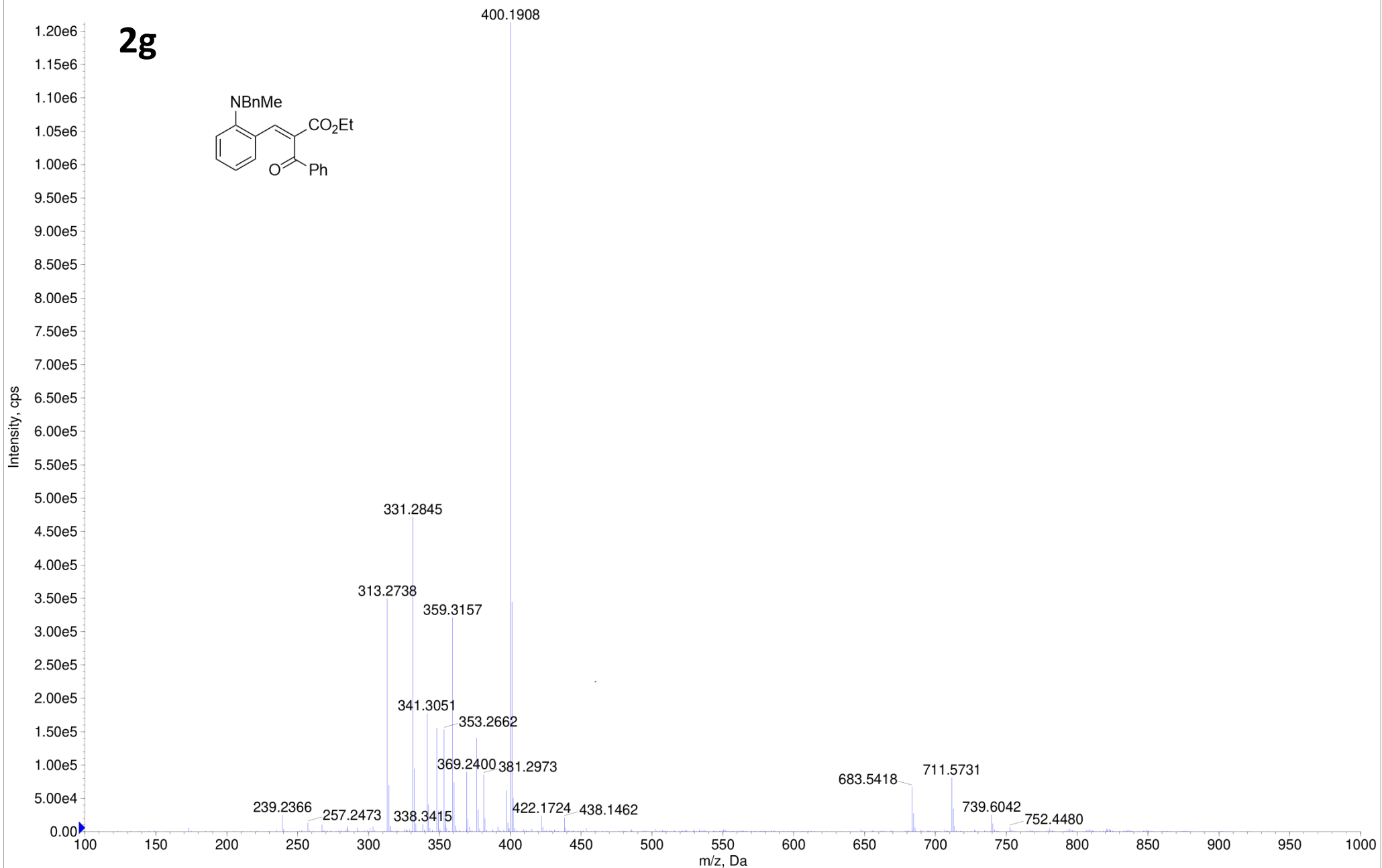


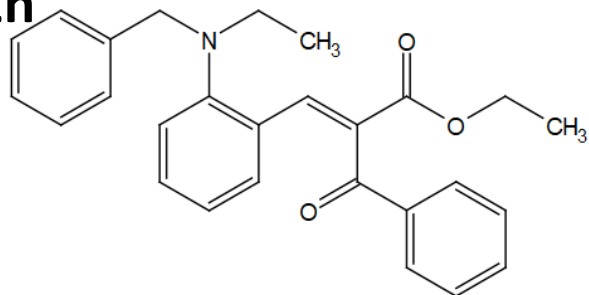
2g



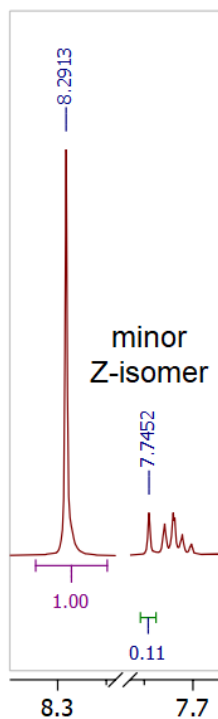
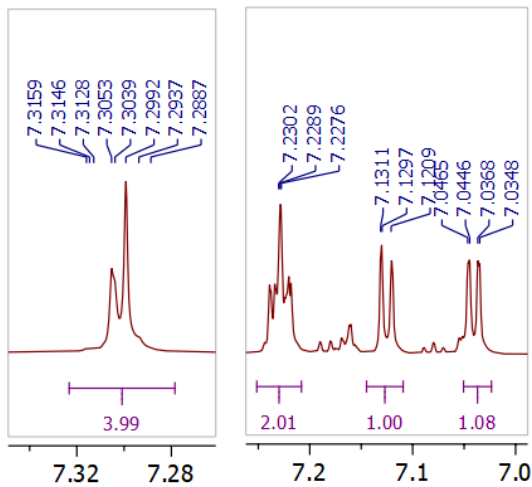
+TOF MS: 1.3206 to 1.4741 min from Sample 43 (ID771) of 26_01_2024.wiff different calibrations (DuoSpray ())

Max. 1.2e6 cps.

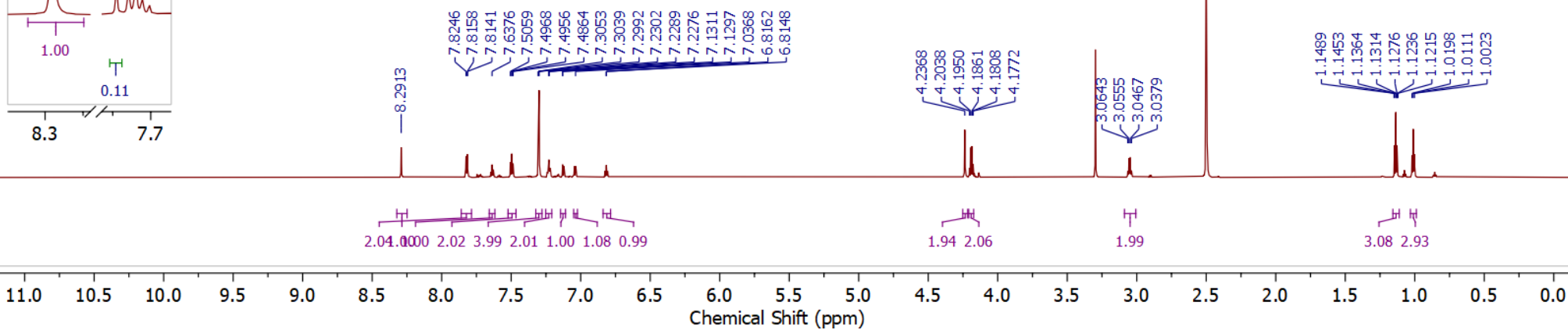
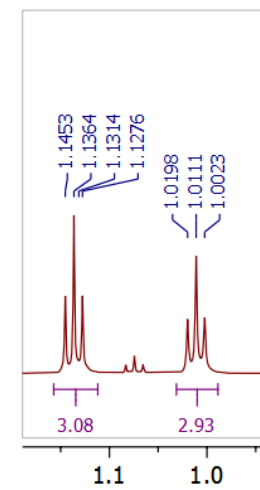
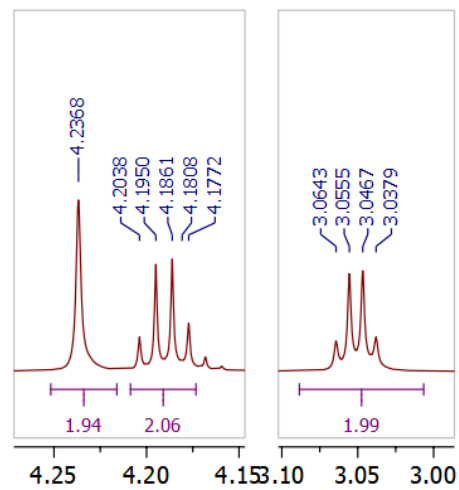
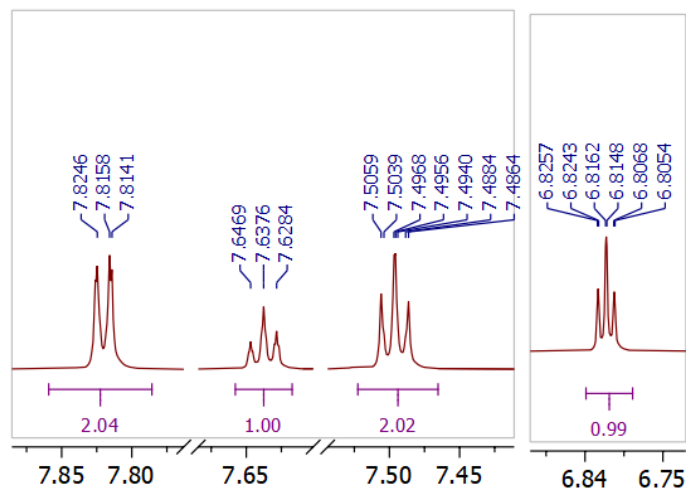


2h

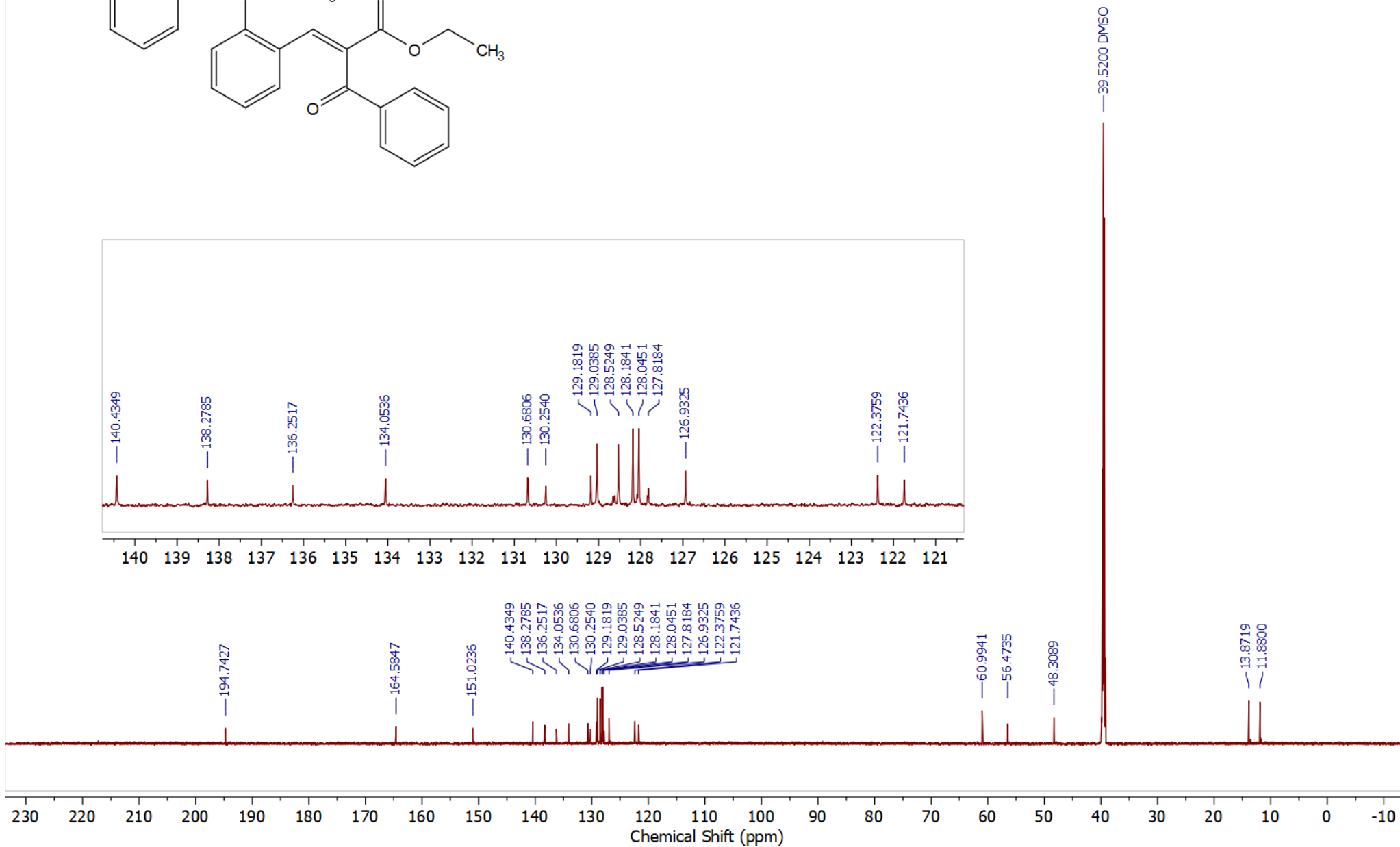
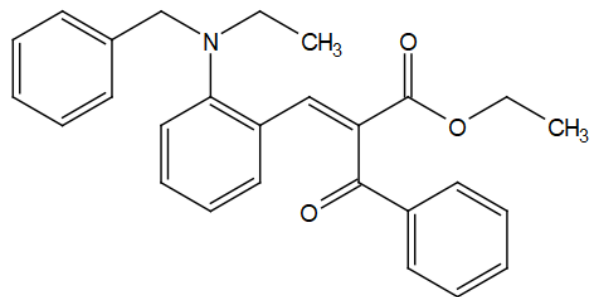
major E-isomer



minor Z-isomer



2h



Sample Name: ID780

*SN BN21801310

Acq. Time: 14:05

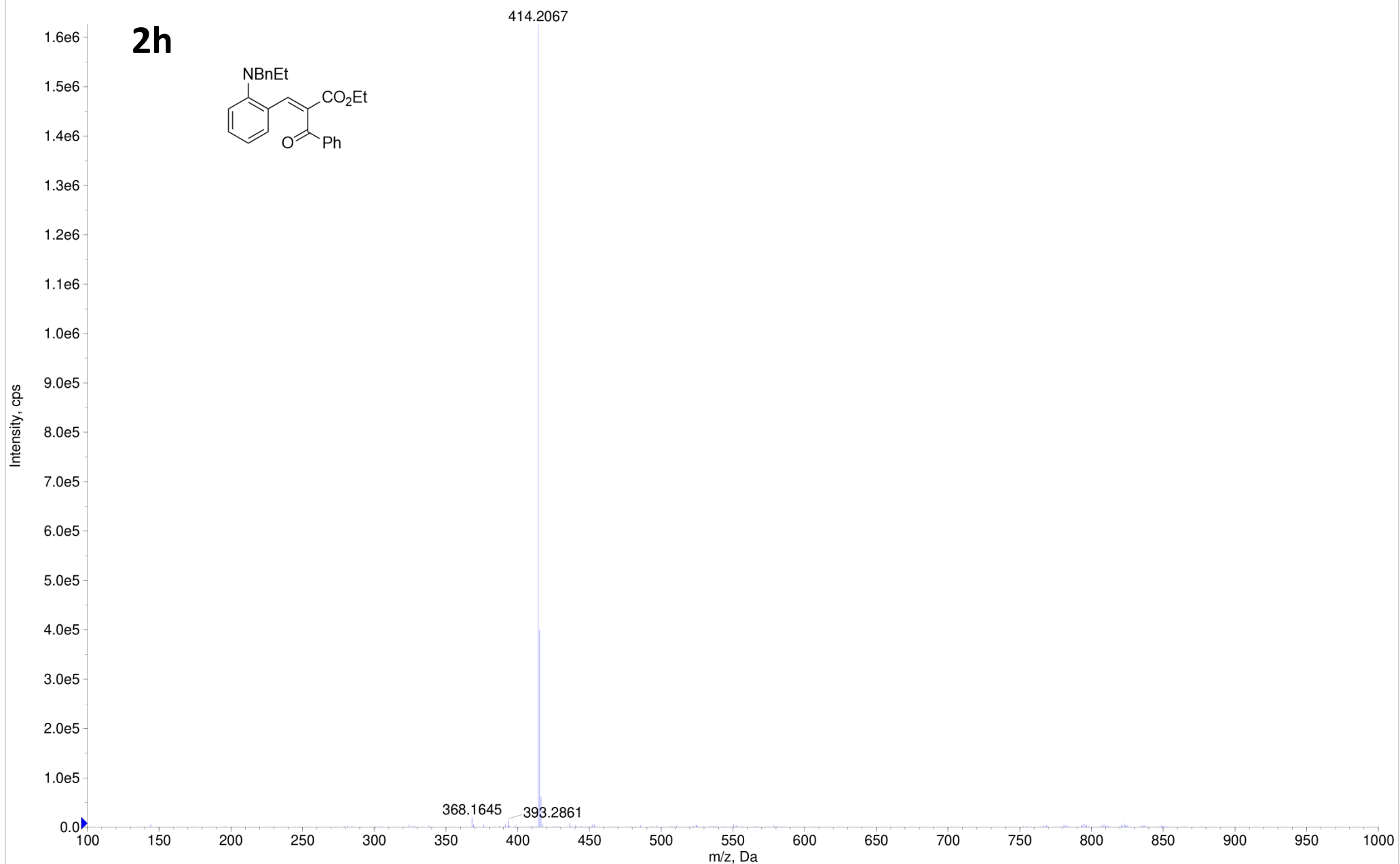
Acq. File: 05_03_2024.wiff

*5600 TripleTOF Service Report

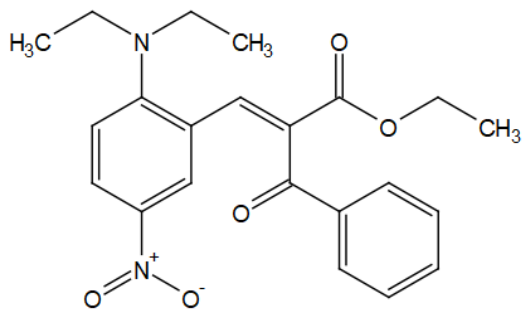
Acq. Date: Tuesday, March 05, 2024

+TOF MS: 0.2558 to 0.3580 min from Sample 79 (ID780) of 05_03_2024.wiff
a=7.01851251242533590e-004, t0=-4.34567151122280170e-001 (DuoSpray ())

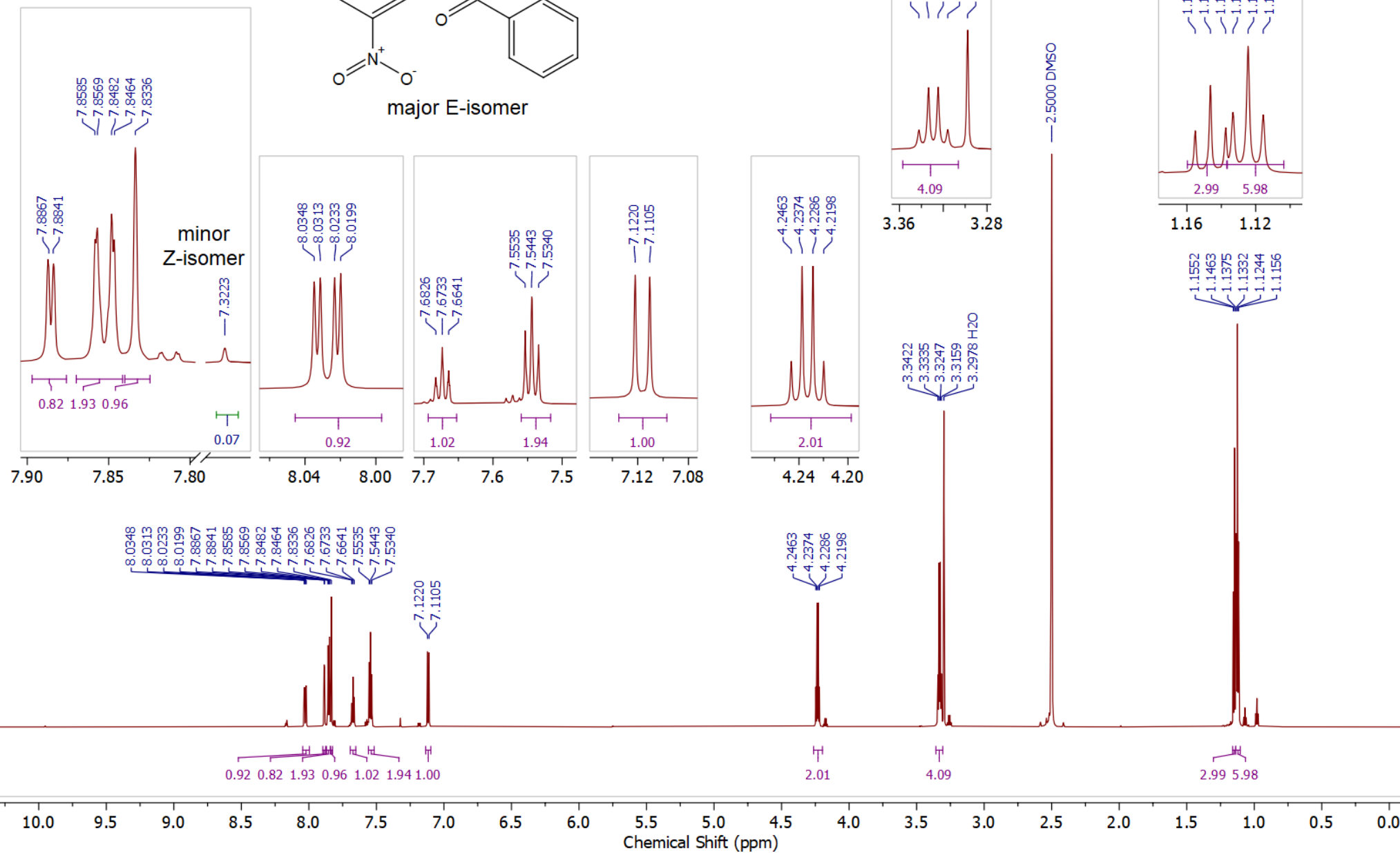
Max. 1.6e6 cps.



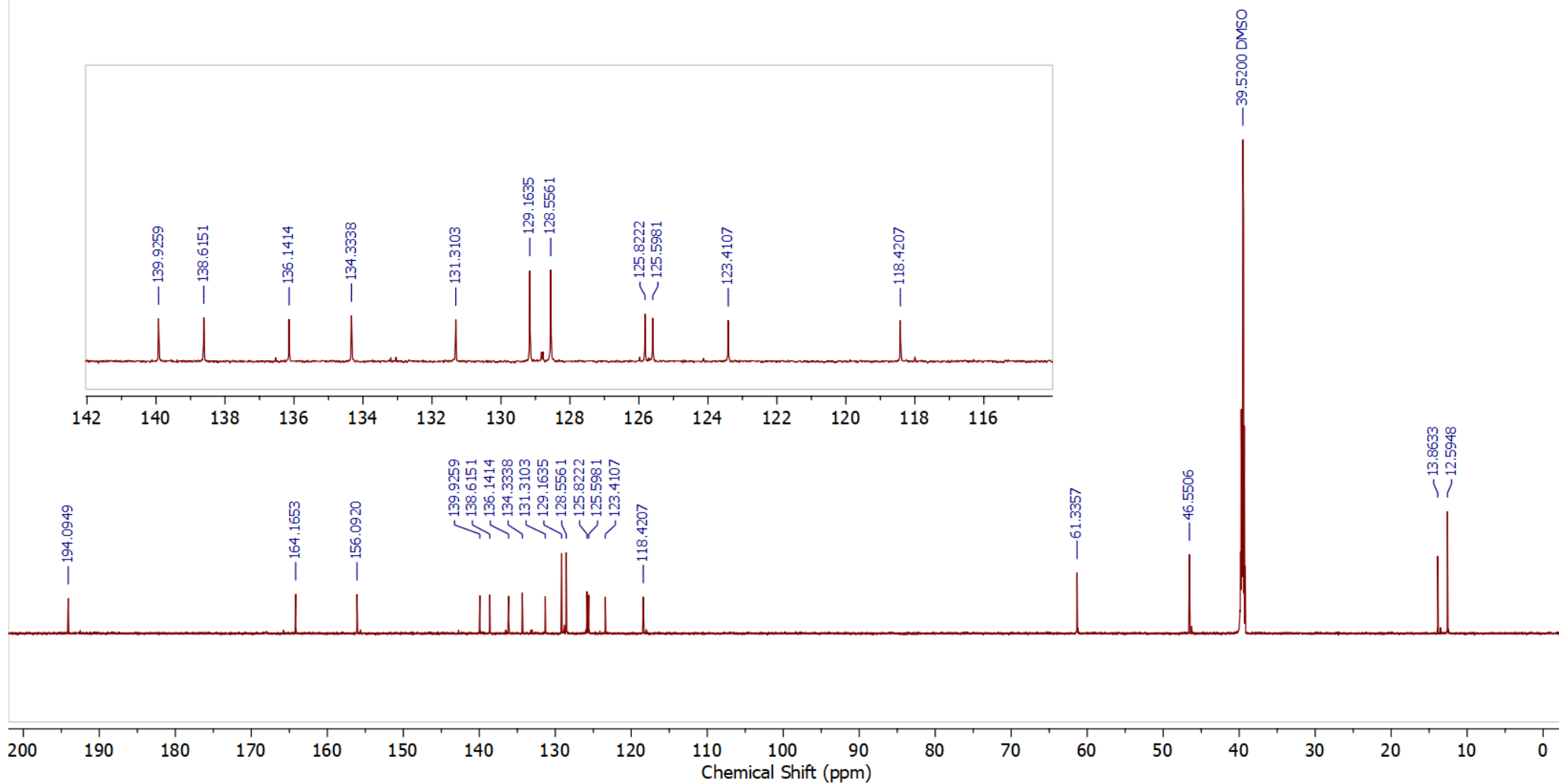
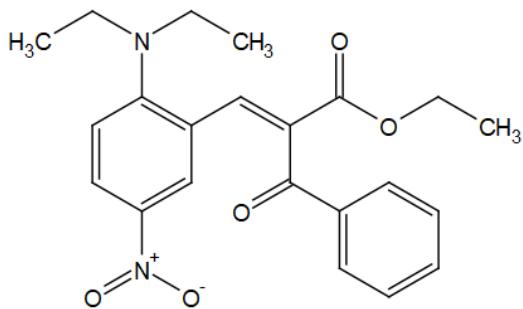
2i



major E-isomer



2i



Sample Name: ID800

*SN BN21801310

Acq. Time: 11:16

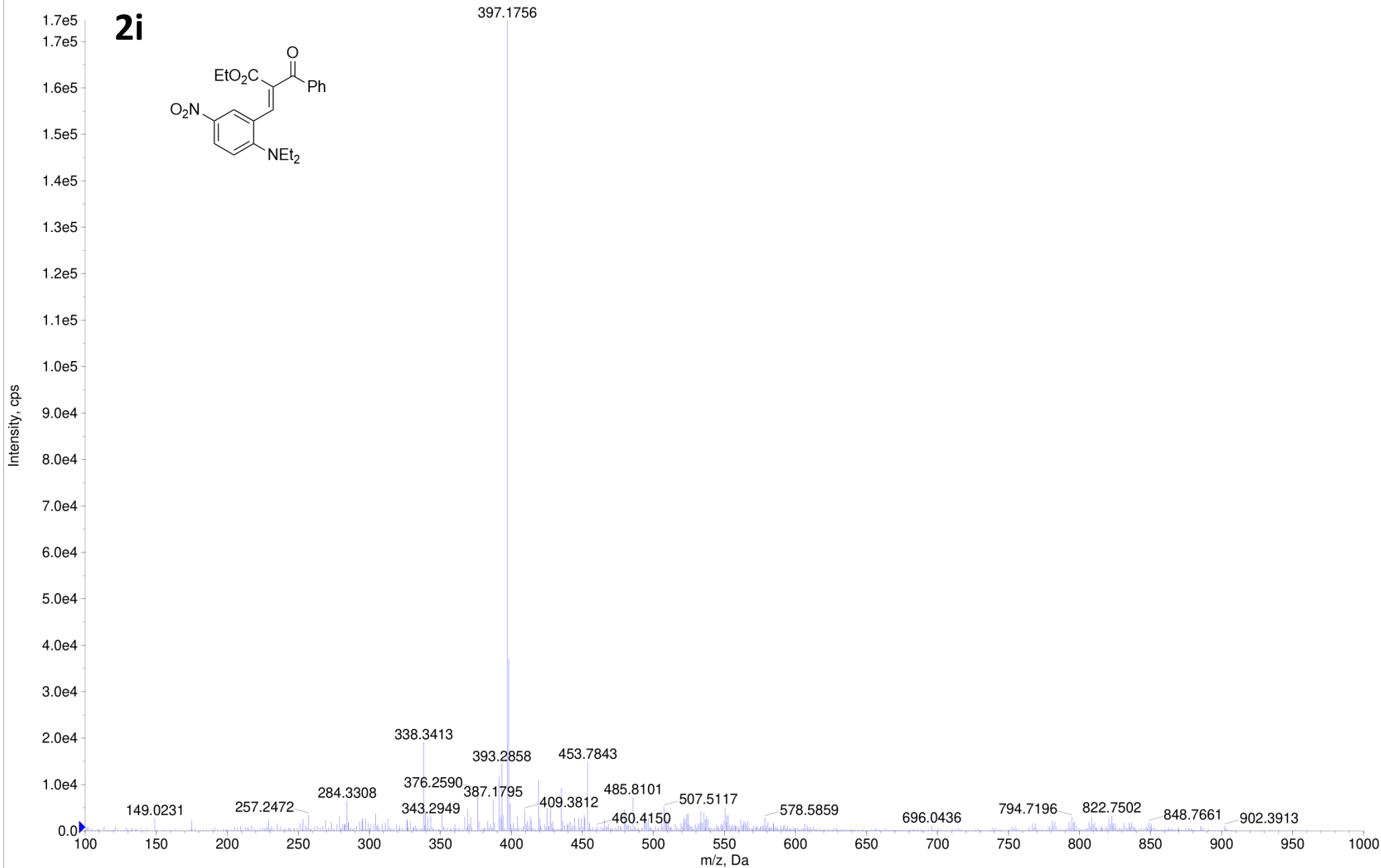
Acq. File: 05_06_2024.wiff

*5600 TripleTOF Service Report

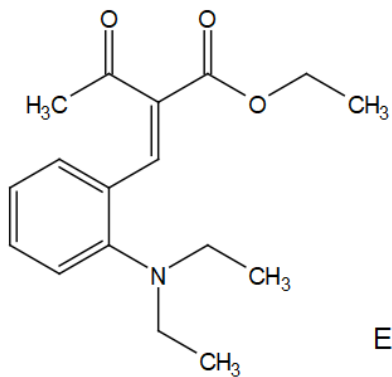
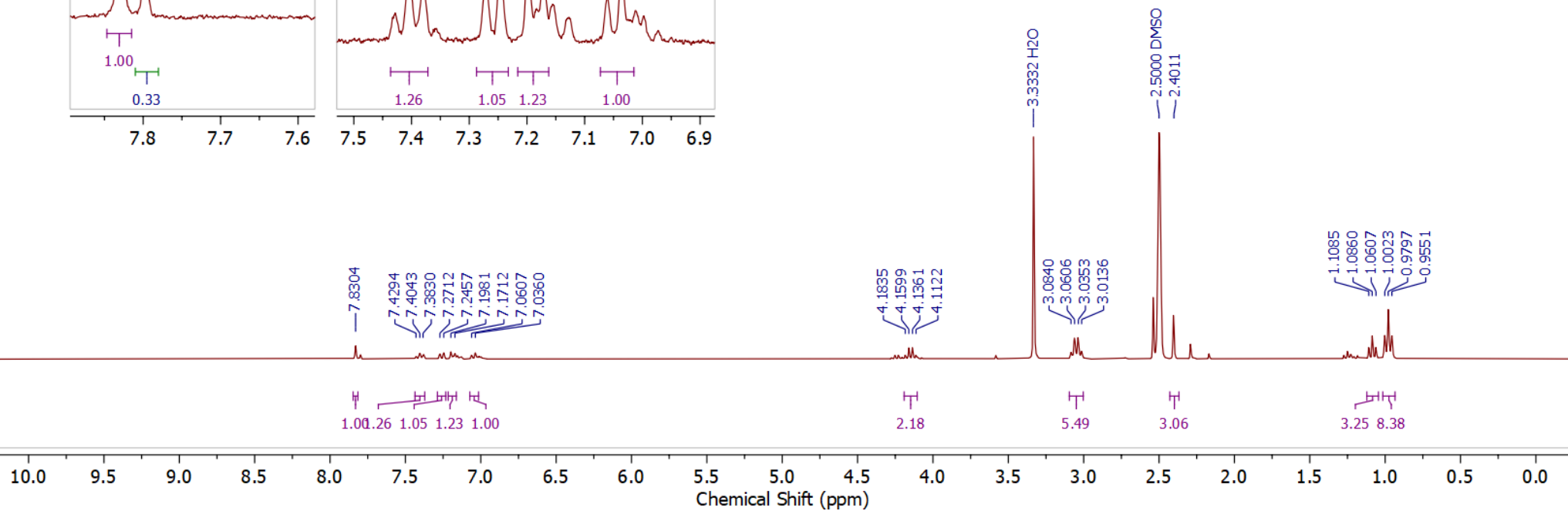
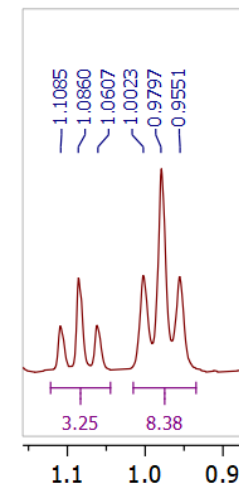
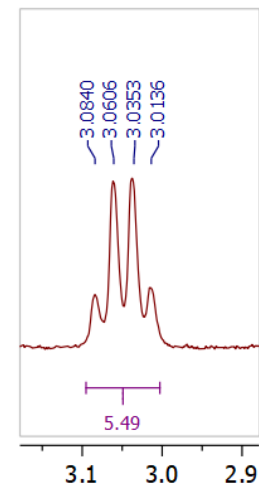
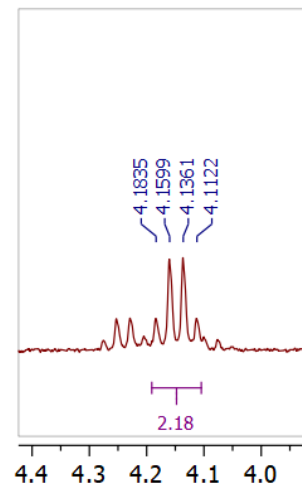
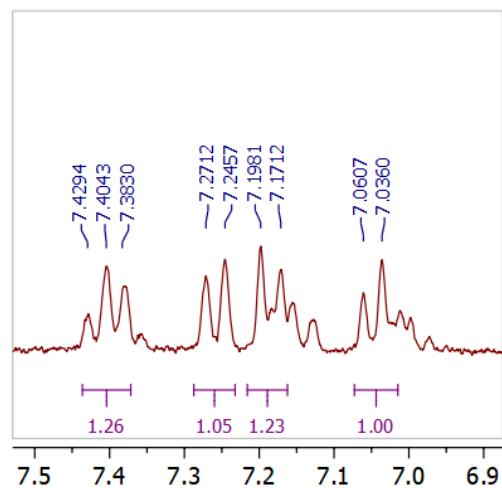
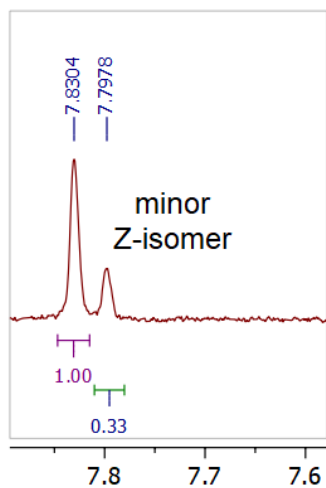
Acq. Date: Wednesday, June 05, 2024

+TOF MS: 0.7905 to 0.9672 min from Sample 33 (ID800) of 05_06_2024.wiff different calibrations (DuoSpray ())

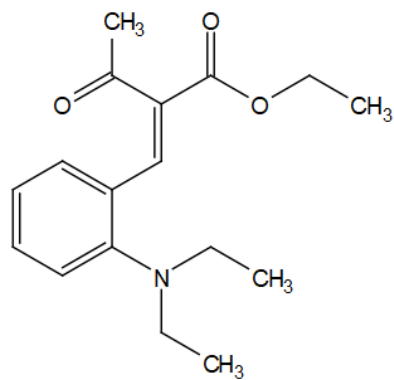
Max. 1.7e5 cps.



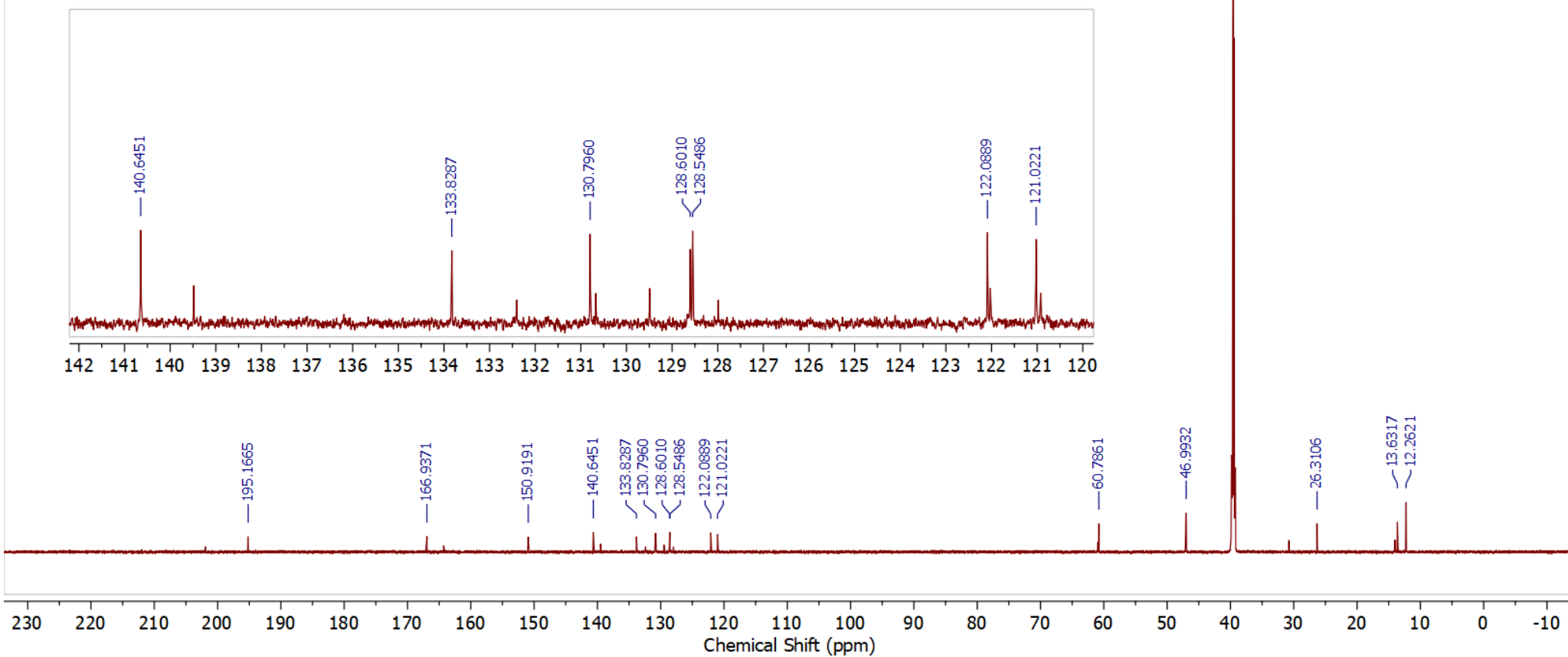
2j

major
E-isomer

2j



major E-isomer



Sample Name: ID722

*SN BN21801310

Acq. Time: 10:53

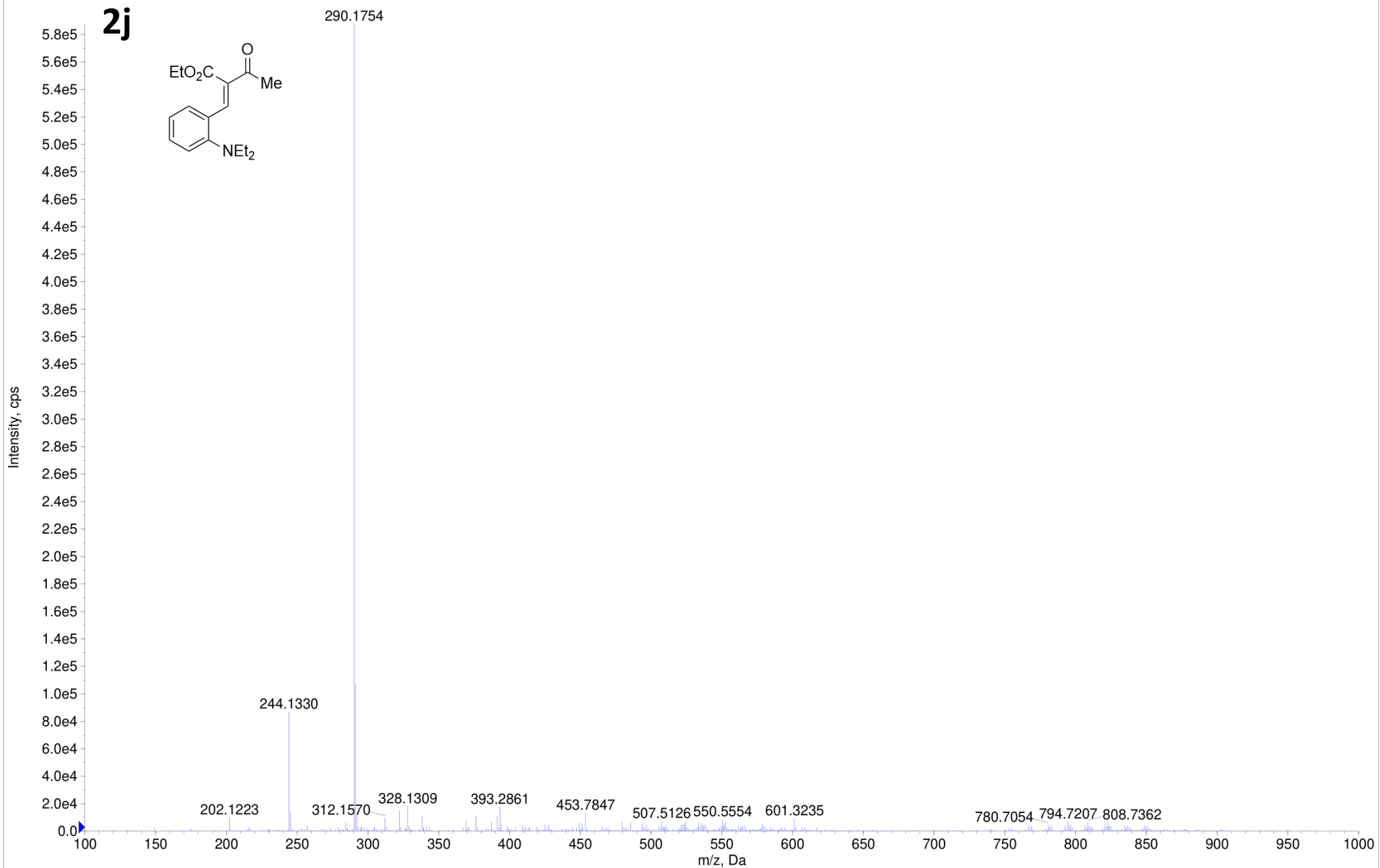
Acq. File: 05_06_2024.wiff

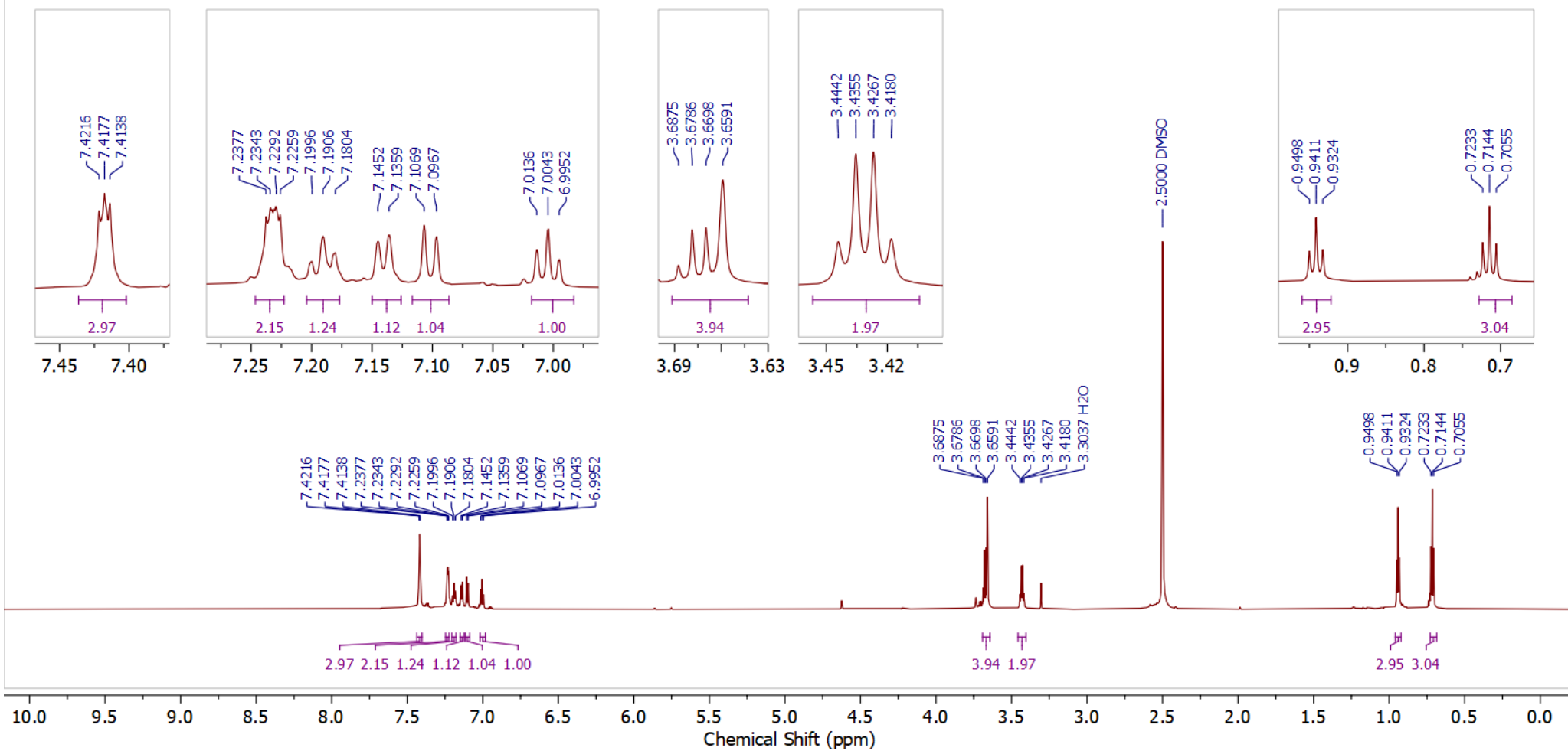
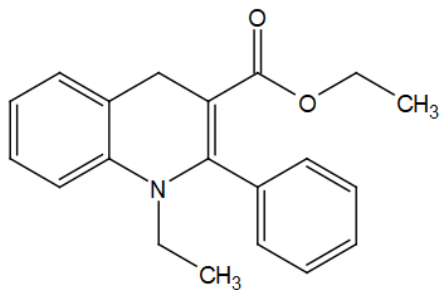
*5600 TripleTOF Service Report

Acq. Date: Wednesday, June 05, 2024

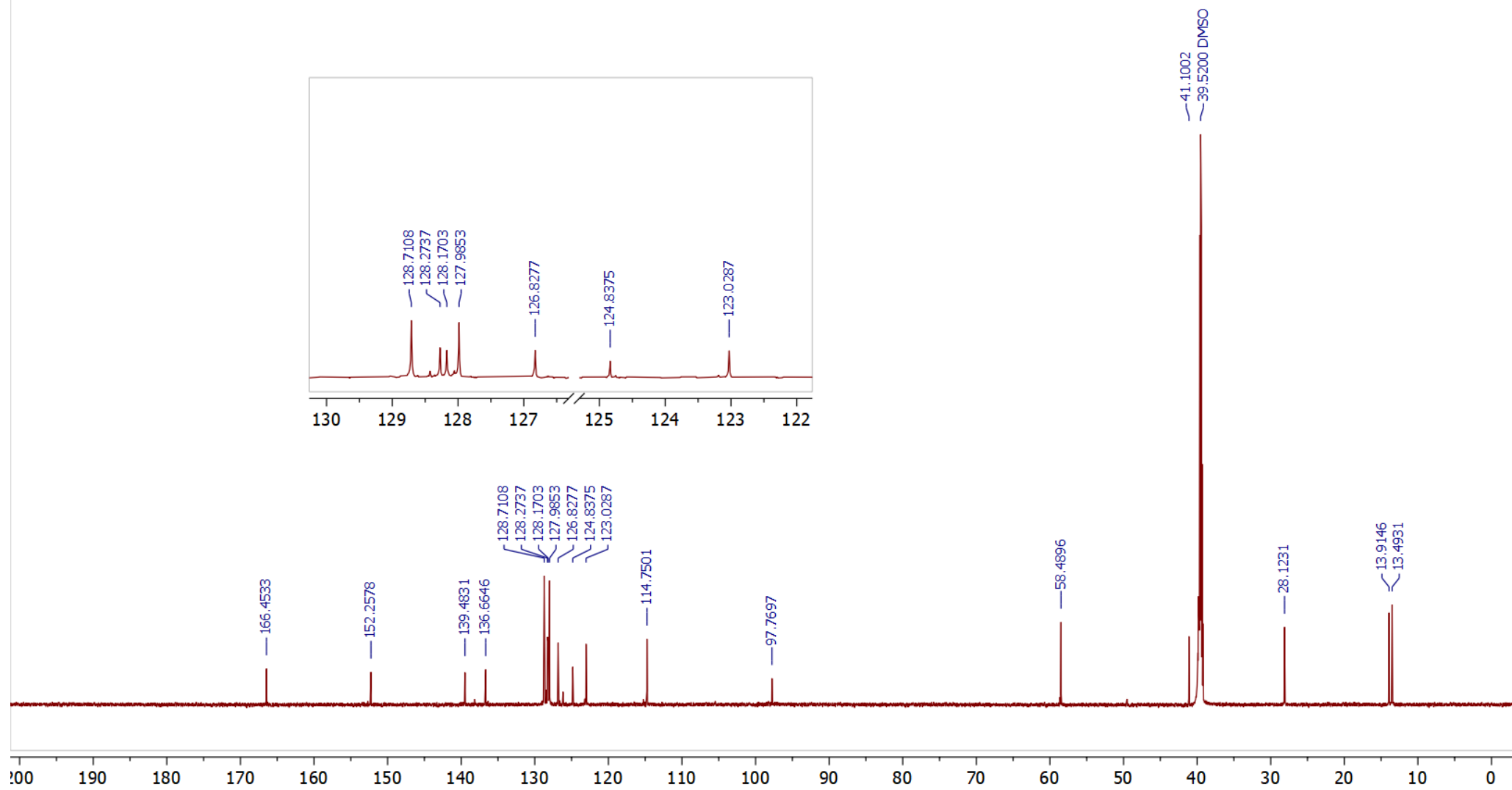
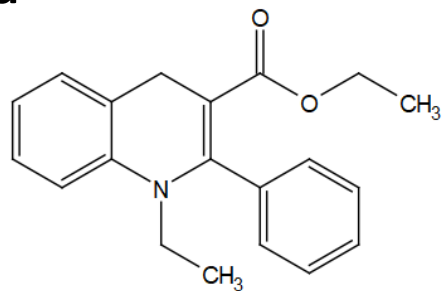
+TOF MS: 0.2790 to 0.4092 min from Sample 22 (ID722) of 05_06_2024.wiff different calibrations (DuoSpray ())

Max. 5.9e5 cps.



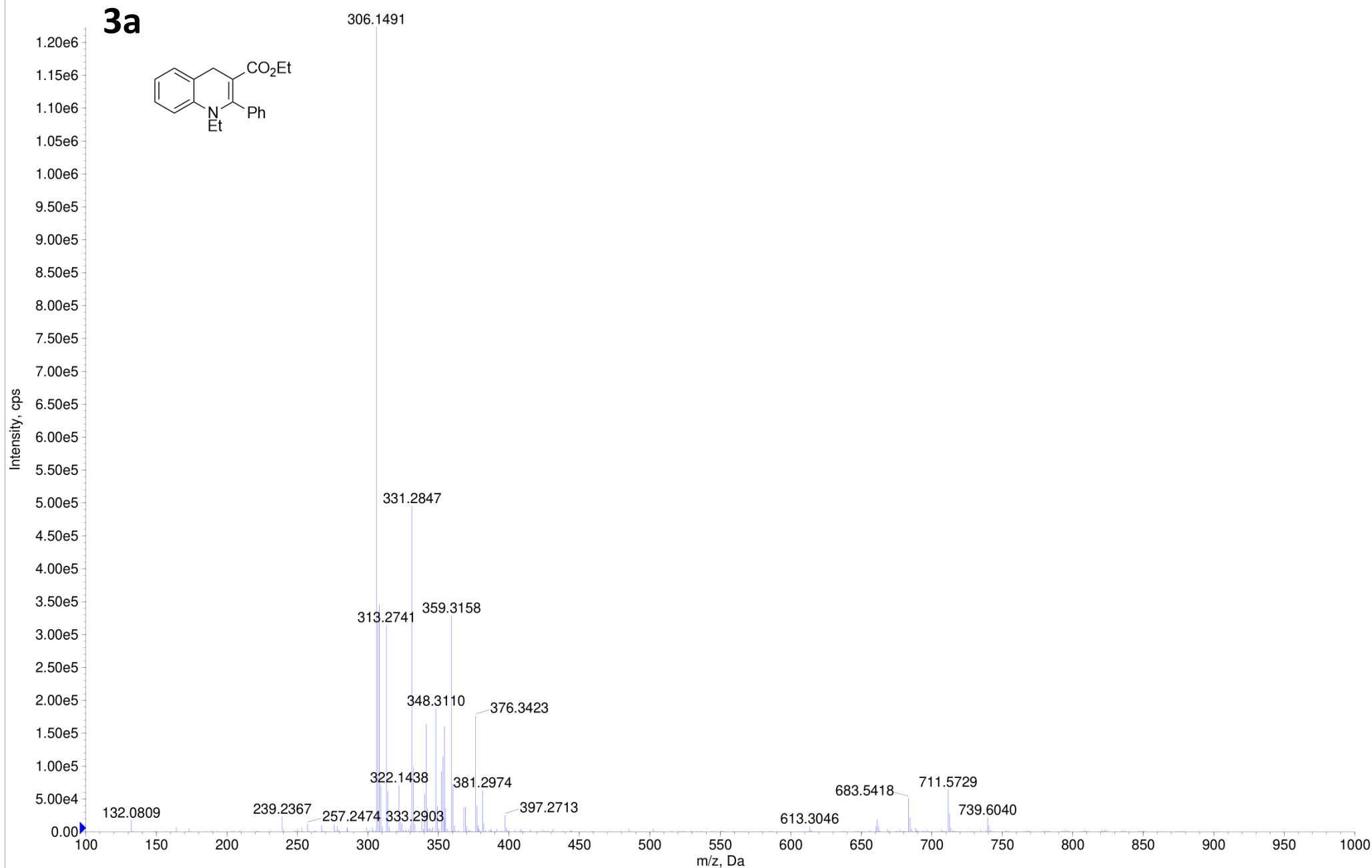
3a

3a

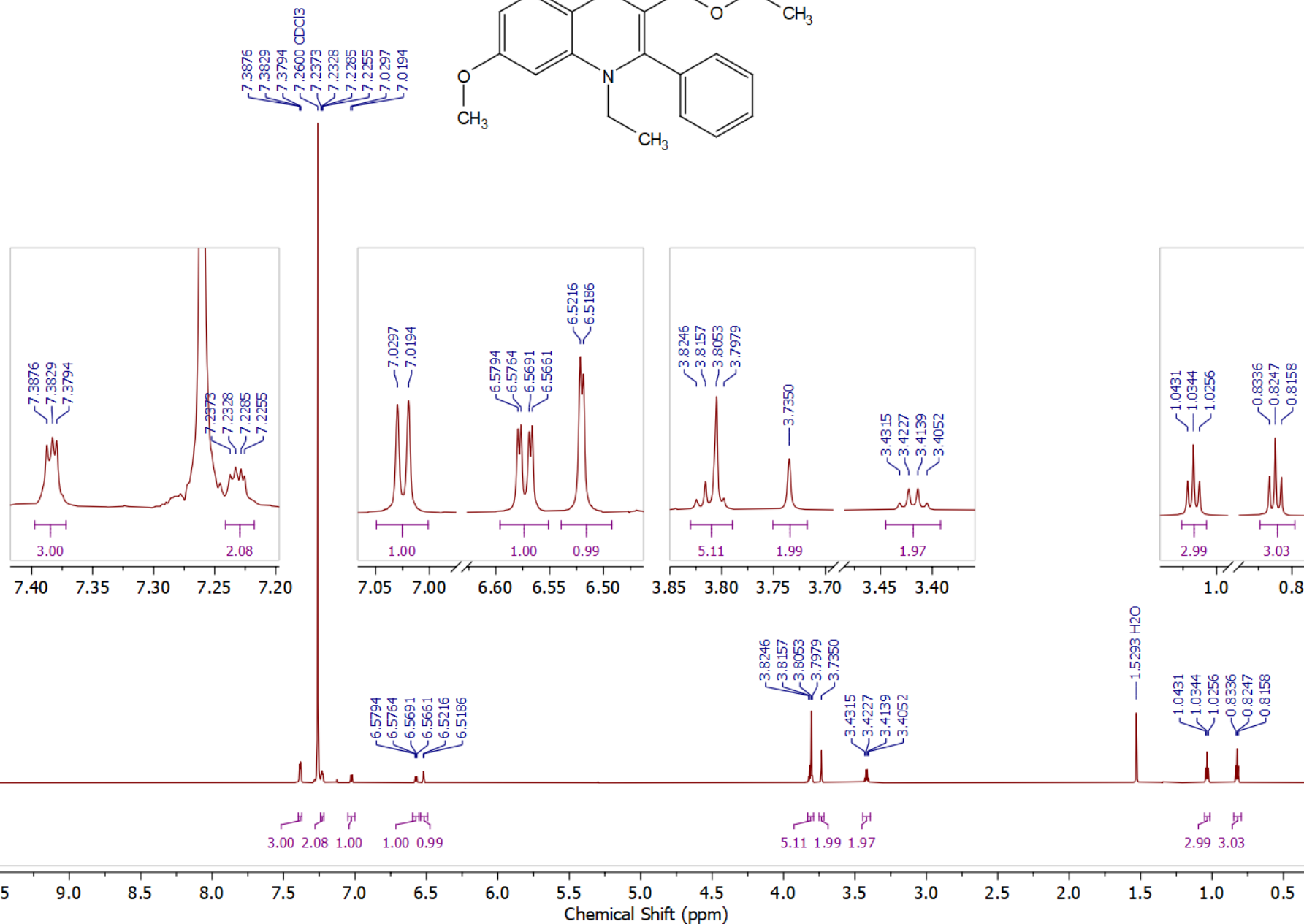
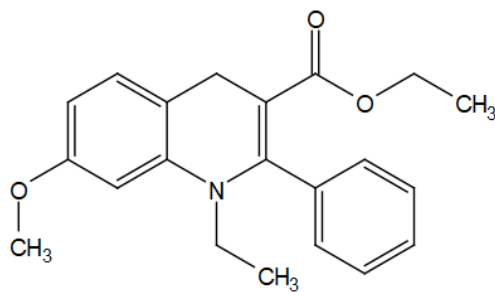


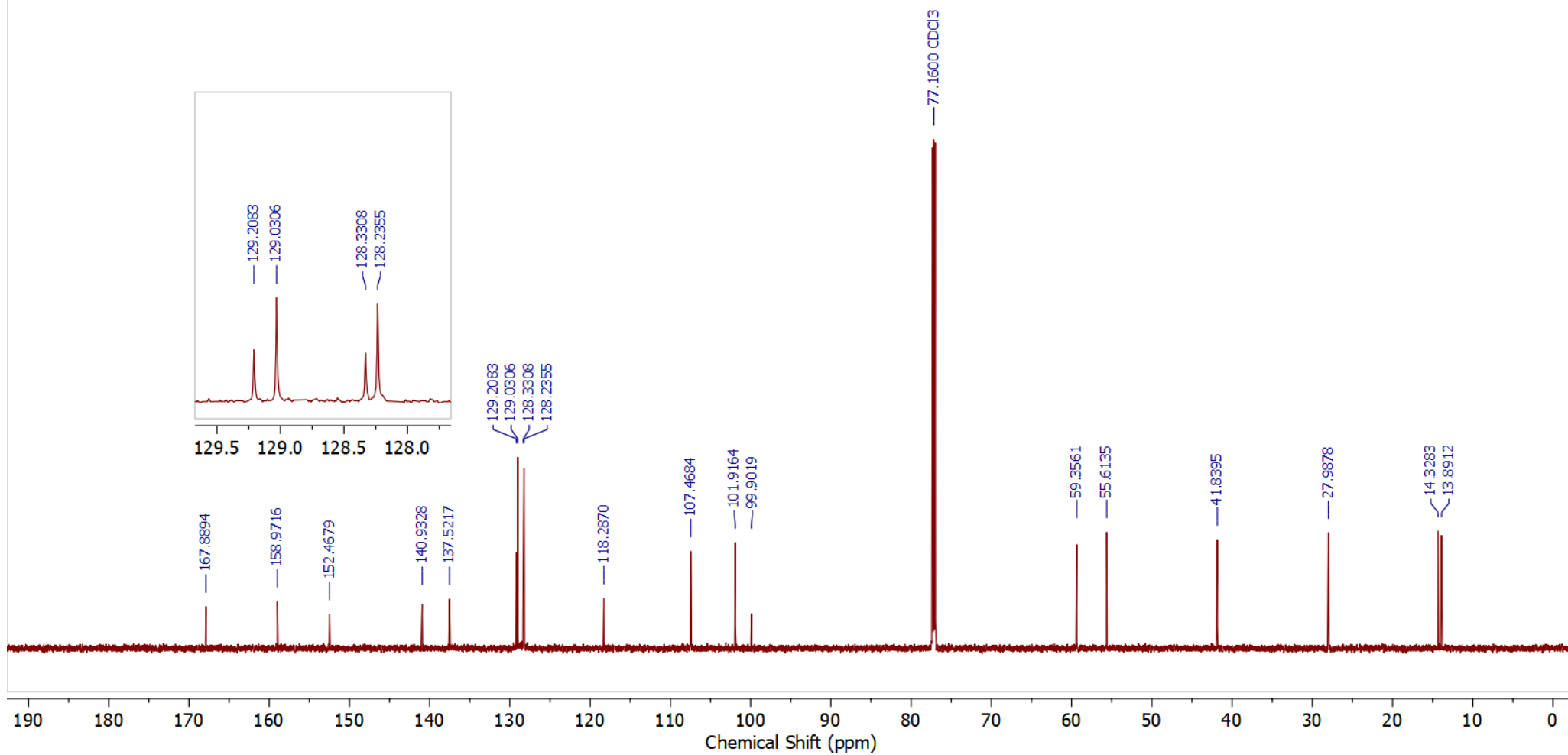
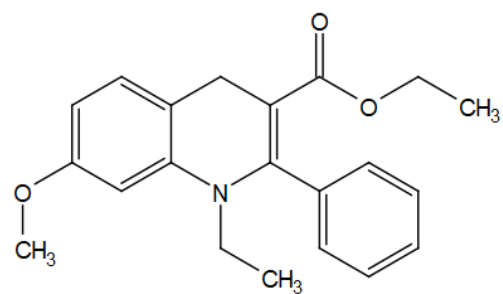
+TOF MS: 0.8788 to 1.0602 min from Sample 34 (ID7691) of 26_01_2024.wiff different calibrations (DuoSpray ())

Max. 1.2e6 cps.



3b



3b

Sample Name: ID798

*SN BN21801310

Acq. Time: 13:30

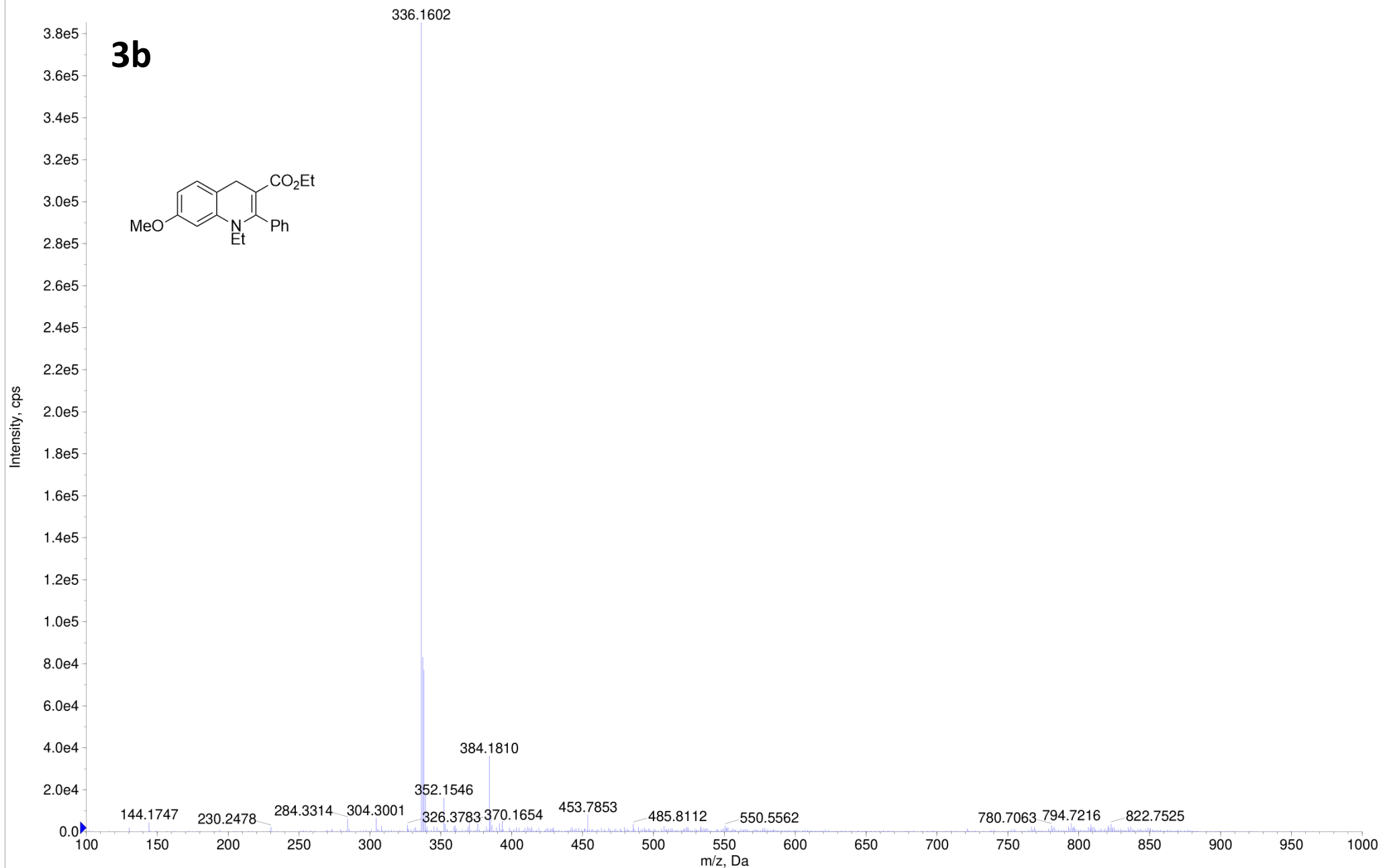
Acq. File: 05_03_2024.wiff

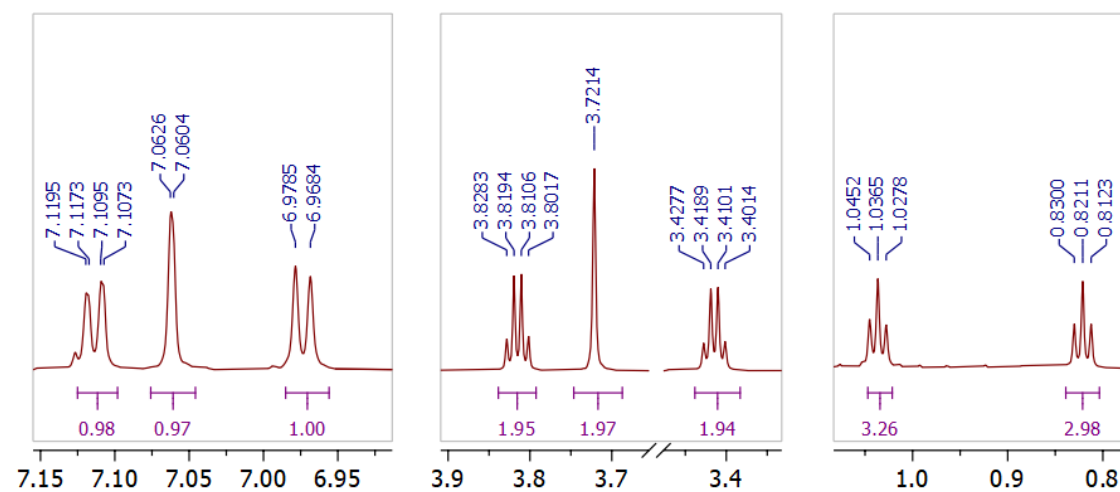
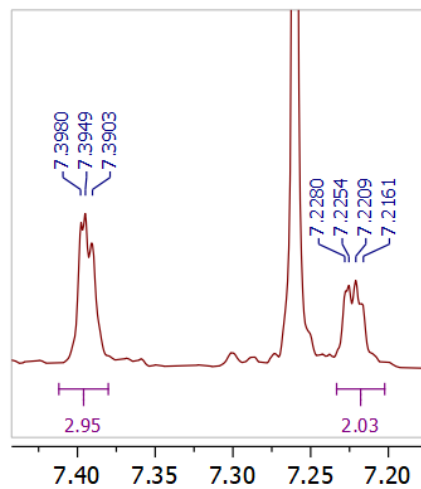
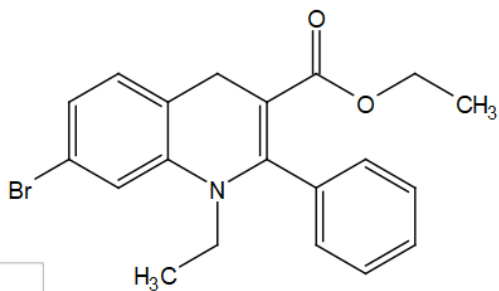
*5600 TripleTOF Service Report

Acq. Date: Tuesday, March 05, 2024

+TOF MS: 0.7580 to 0.8603 min from Sample 63 (ID798) of 05_03_2024.wiff different calibrations (DuoSpray ())

Max. 3.9e5 cps.



3c

7.3980
7.3949
7.3903
7.2600 CDCl₃
7.2280
7.2254
7.2209
7.2161
7.1195
7.1173
7.1095
7.1073
7.0626
7.0604
6.9785
6.9684

3.8283
3.8194
3.8106
3.8017
3.7214
3.4277
3.4189
3.4101
3.4014

1.5354 H₂O

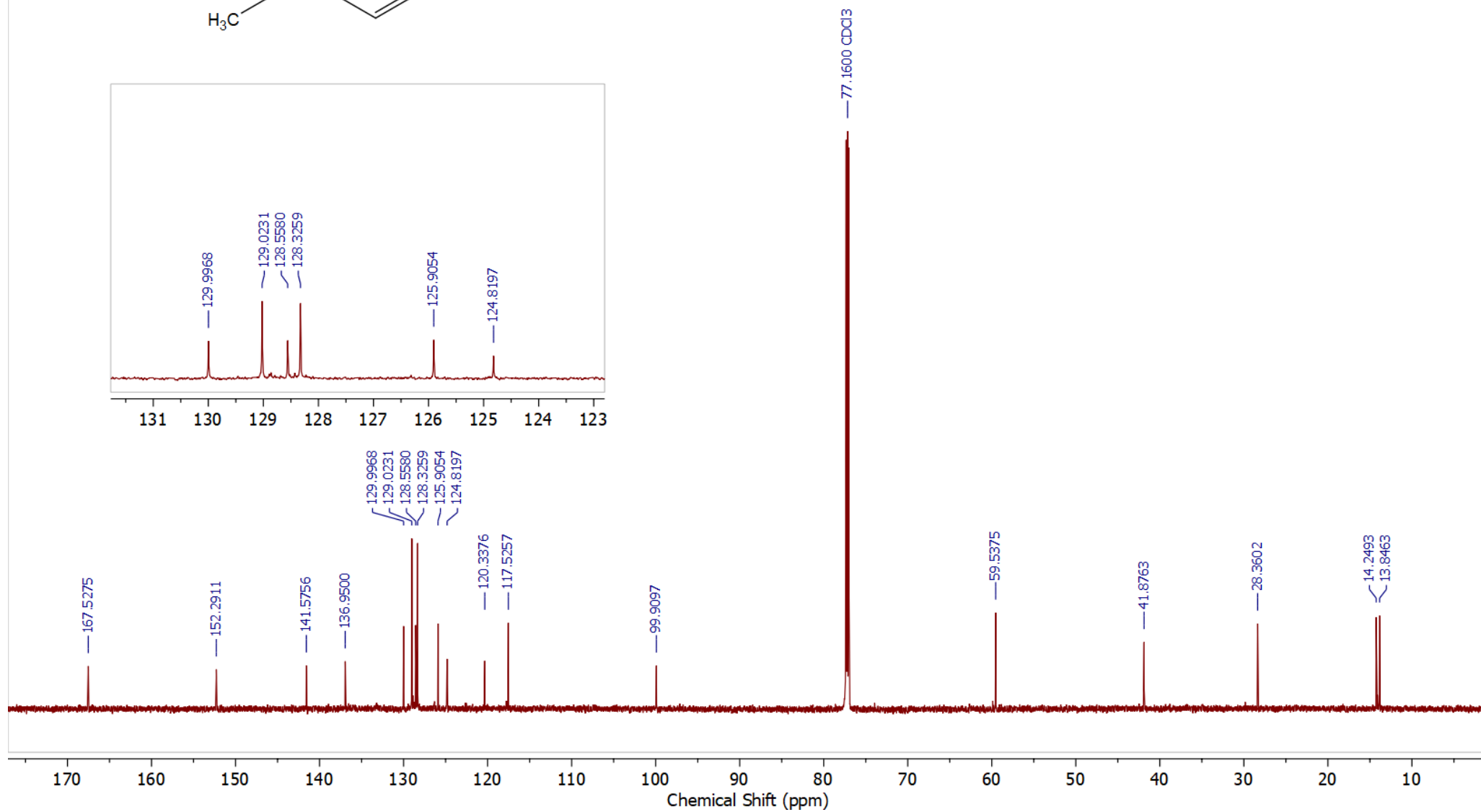
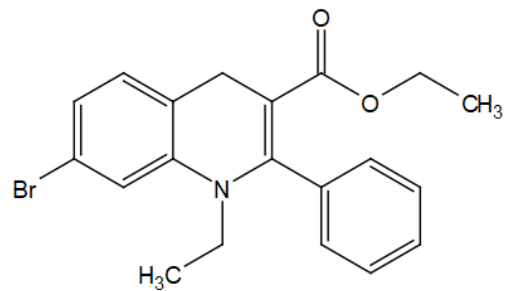
1.0452
1.0365
1.0278
0.8300
0.8211
0.8123

2.95 2.03 0.98 0.97 1.00

1.95 1.97 1.94

3.26 2.98

10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0
Chemical Shift (ppm)

3c

Sample Name: ID824

*SN BN21801310

Acq. Time: 13:59

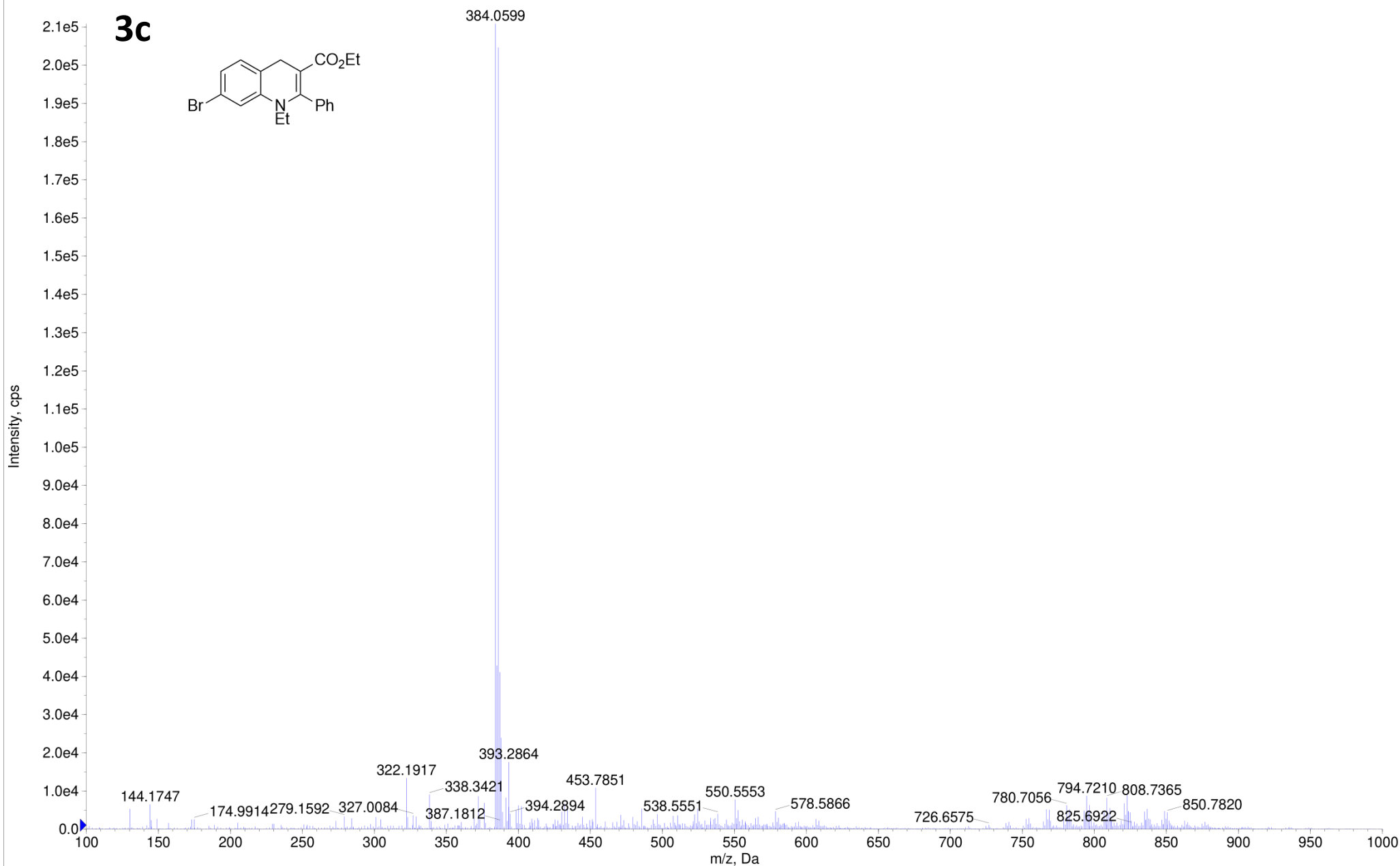
Acq. File: 05_03_2024.wiff

*5600 TripleTOF Service Report

Acq. Date: Tuesday, March 05, 2024

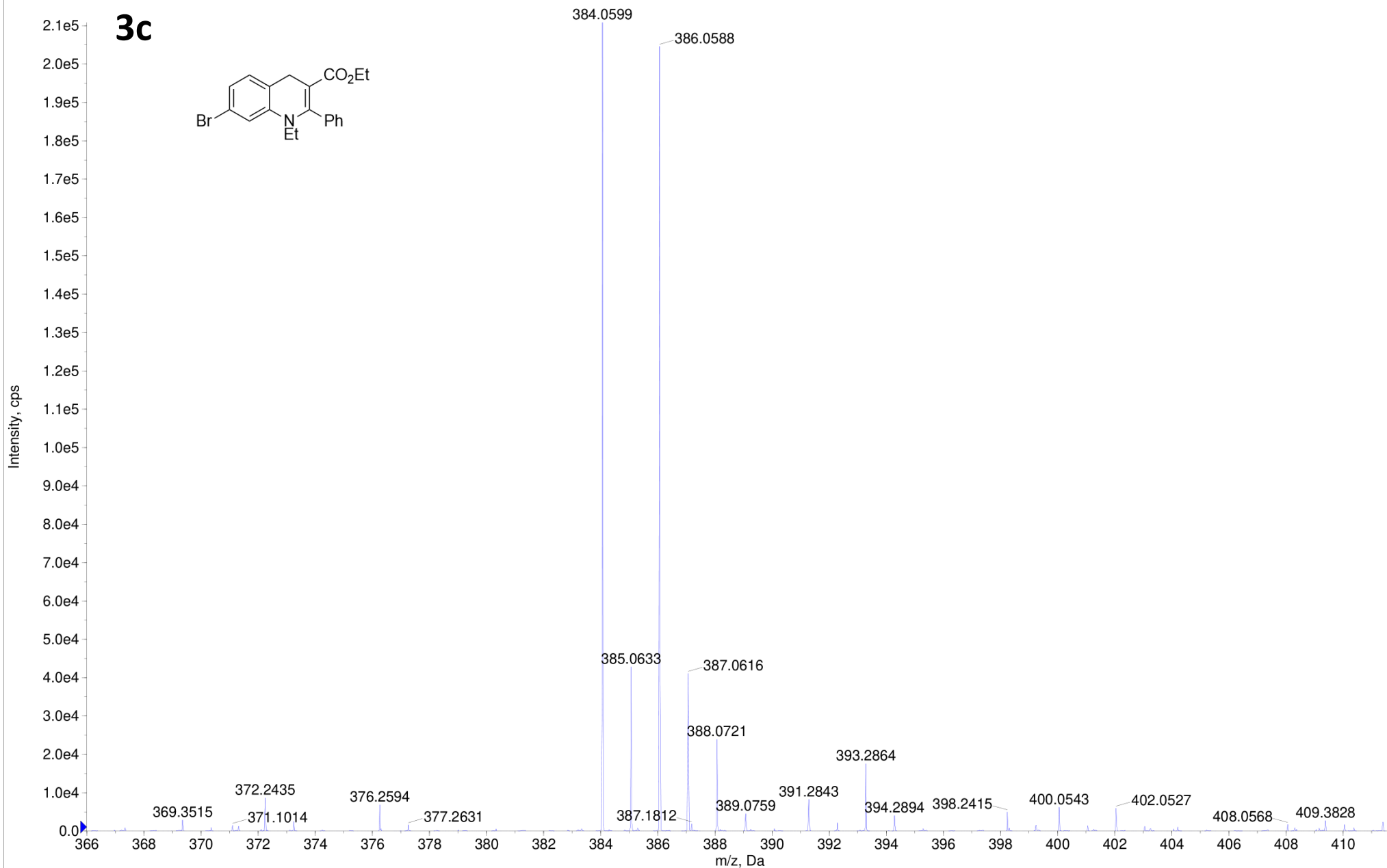
+TOF MS: 0.2557 to 0.3720 min from Sample 76 (ID824) of 05_03_2024.wiff
a=7.01850576044876360e-004, t0=-4.29431790441652080e-001 (DuoSpray (j))

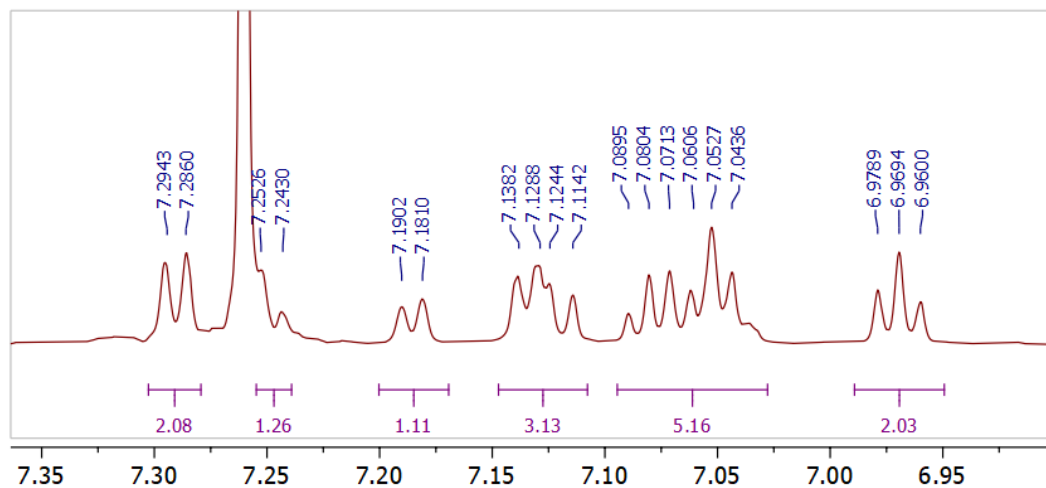
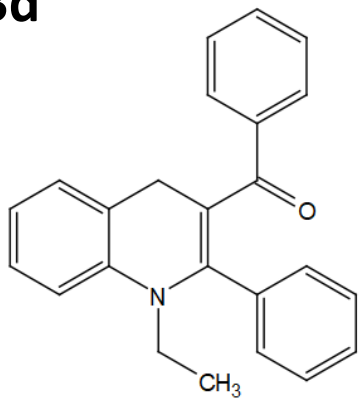
Max. 2.1e5 cps.



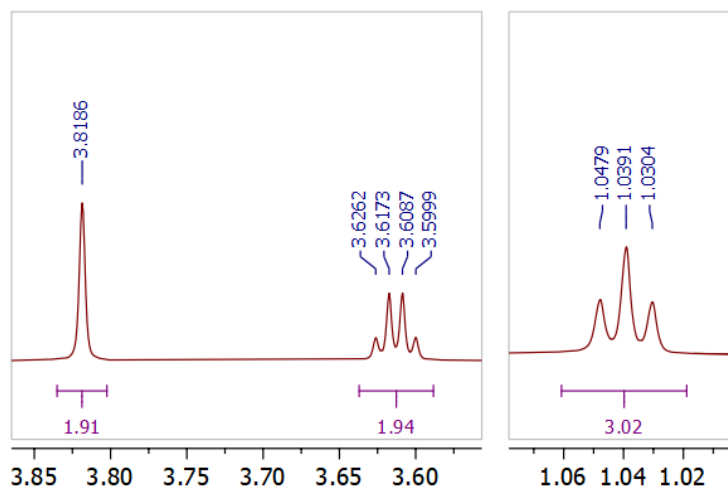
+TOF MS: 0.2557 to 0.3720 min from Sample 76 (ID824) of 05_03_2024.wiff
a=7.01850576044876360e-004, t0=-4.29431790441652080e-001 (DuoSpray ())

Max. 2.1e5 cps.



3d

7.2943
7.2860
7.2600 CDCl3
7.2526
7.2430
7.1902
7.1810
7.1382
7.1288
7.1244
7.1142
7.0895
7.0804
7.0713
7.0606
7.0527
7.0436
6.9789
6.9694
6.9600



5.2985 CH2Cl2

3.8186
3.6262
3.6173
3.6087
3.5999

1.0479
1.0391
1.0304

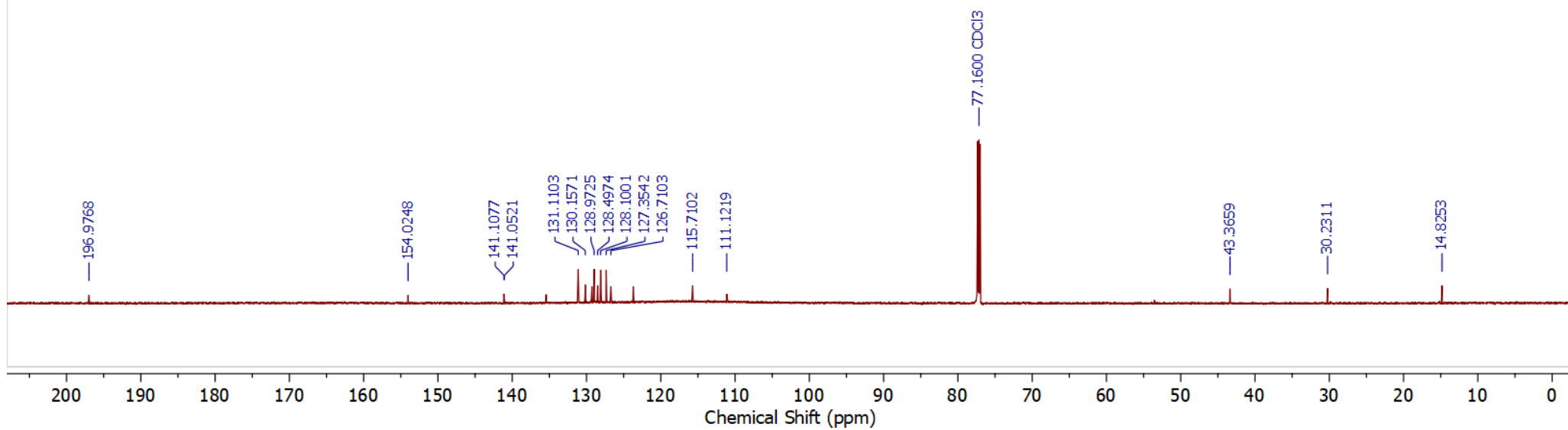
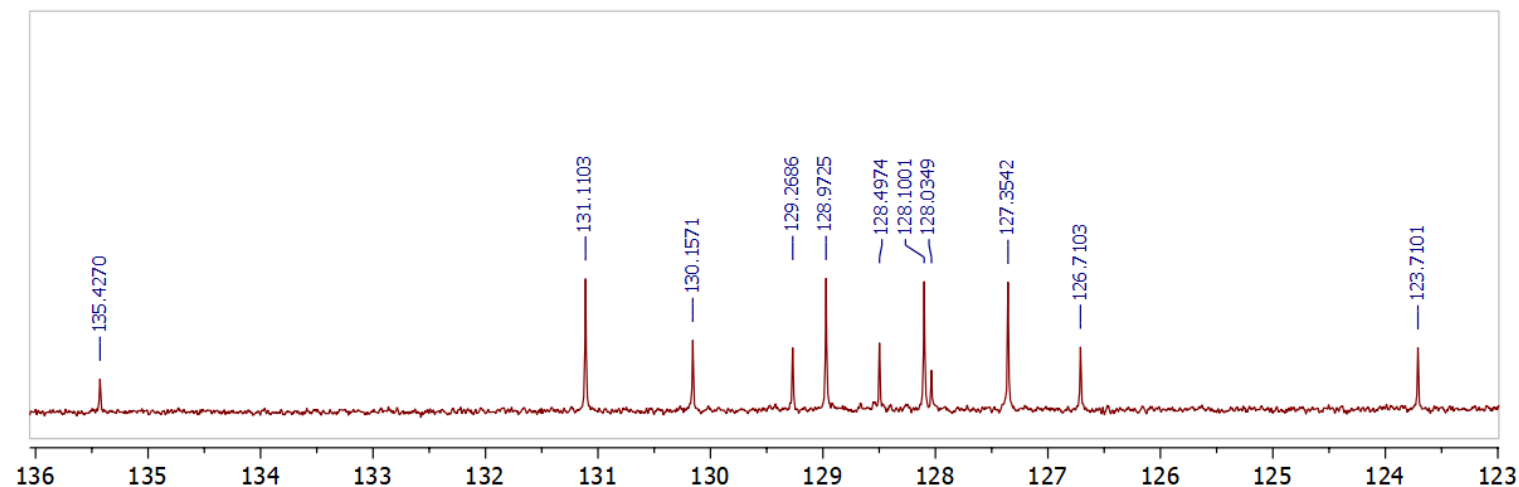
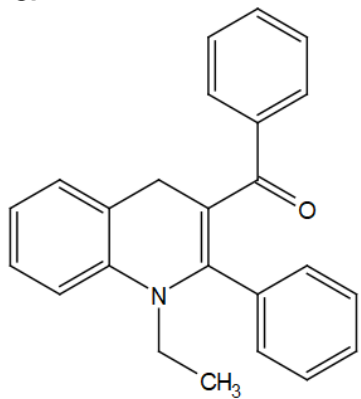
2.08 1.26 1.11 3.13 5.16 2.03

1.91 1.94

3.02

10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0
Chemical Shift (ppm)

3d



Sample Name: ID7662

*SN BN21801310

Acq. Time: 11:59

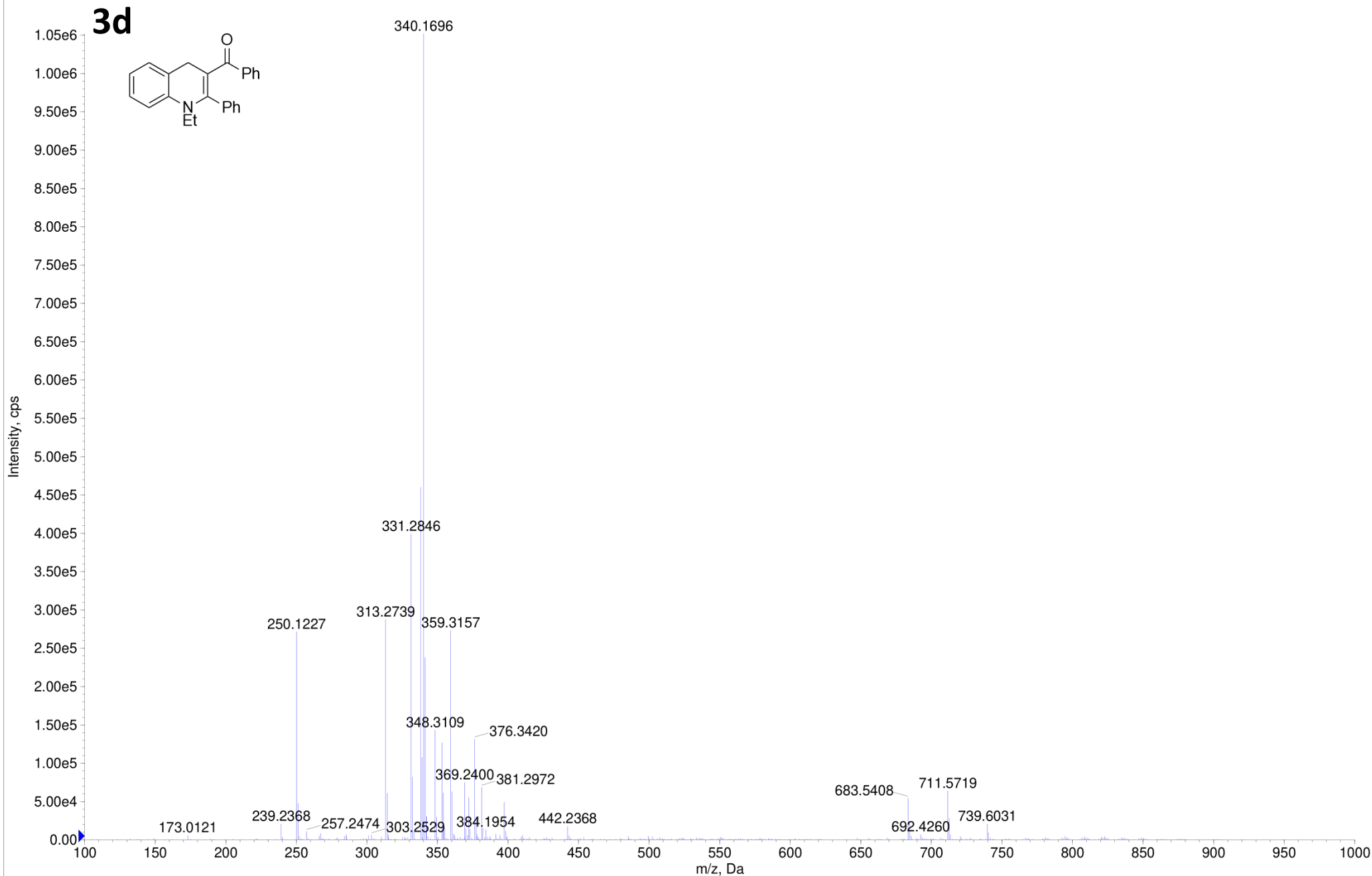
Acq. File: 26_01_2024.wiff

*5600 TripleTOF Service Report

Acq. Date: Friday, January 26, 2024

+TOF MS: 1.6787 to 1.8647 min from Sample 37 (ID7662) of 26_01_2024.wiff different calibrations (DuoSpray ())

Max. 1.1e6 cps.



Sample Name: ID7662

*SN BN21801310

Acq. Time: 11:59

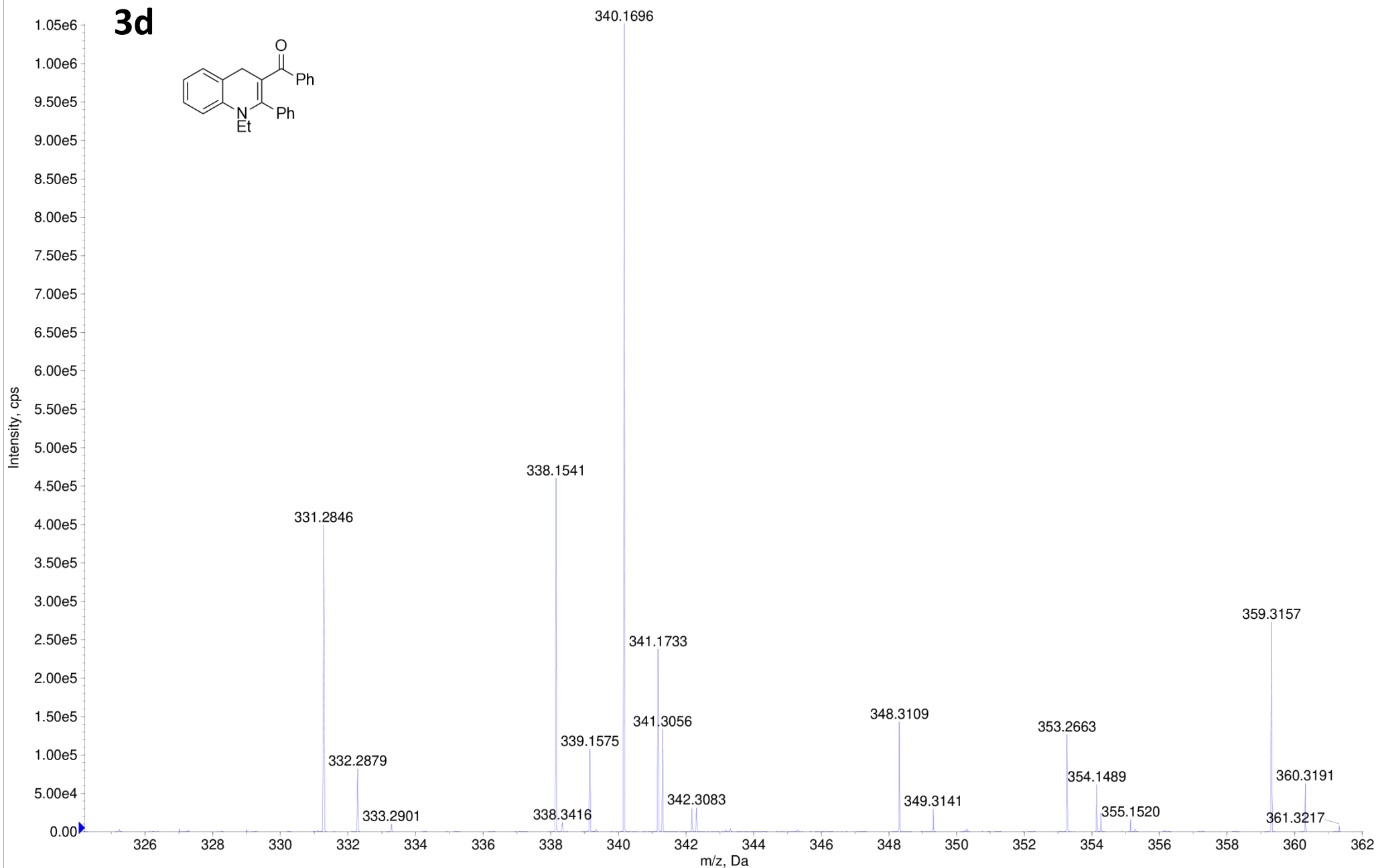
Acq. File: 26_01_2024.wiff

*5600 TripleTOF Service Report

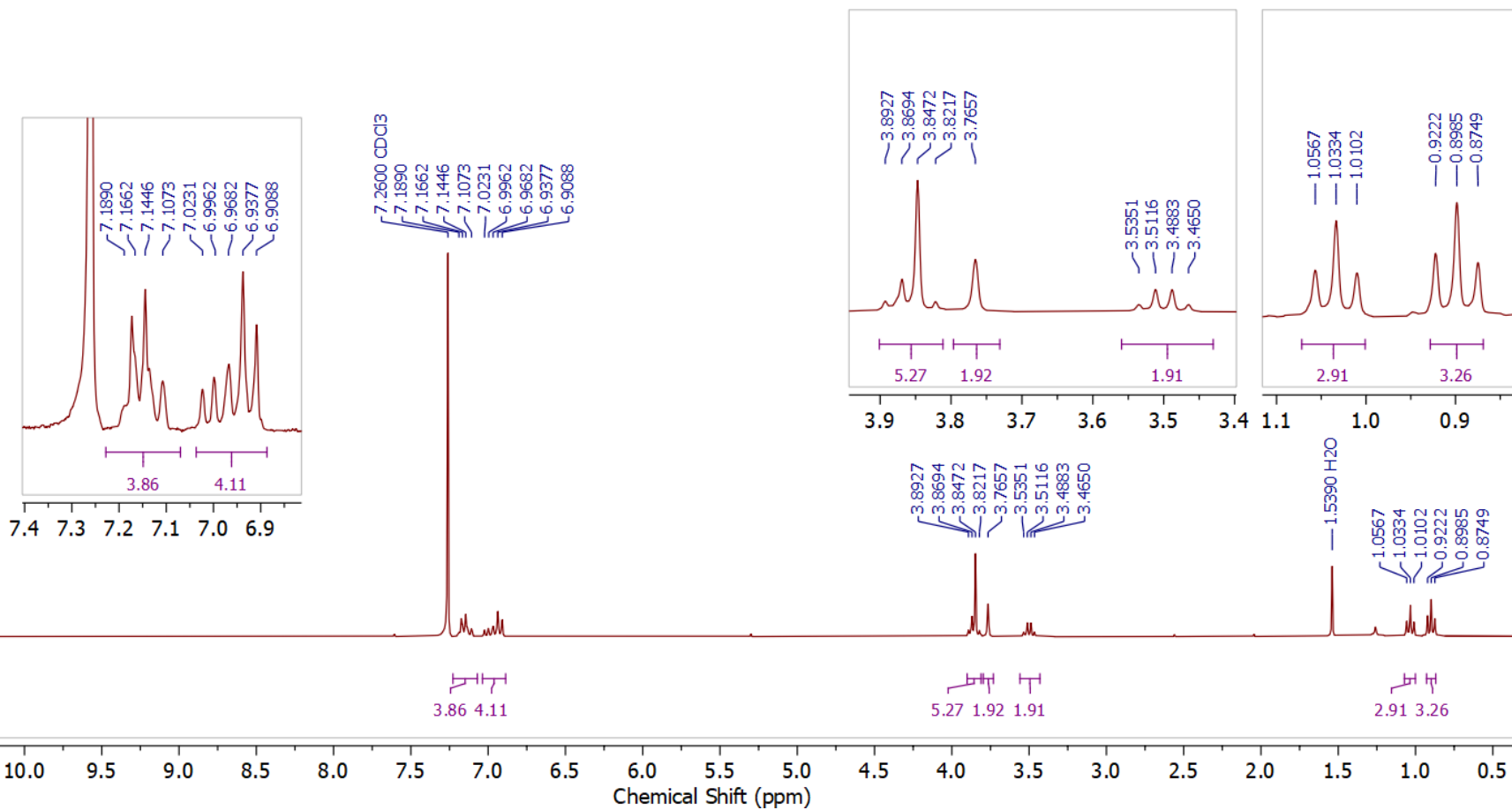
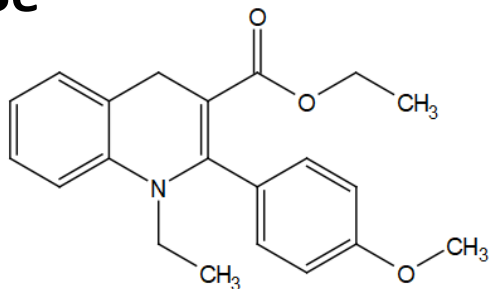
Acq. Date: Friday, January 26, 2024

+TOF MS: 1.6787 to 1.8647 min from Sample 37 (ID7662) of 26_01_2024.wiff different calibrations (DuoSpray ())

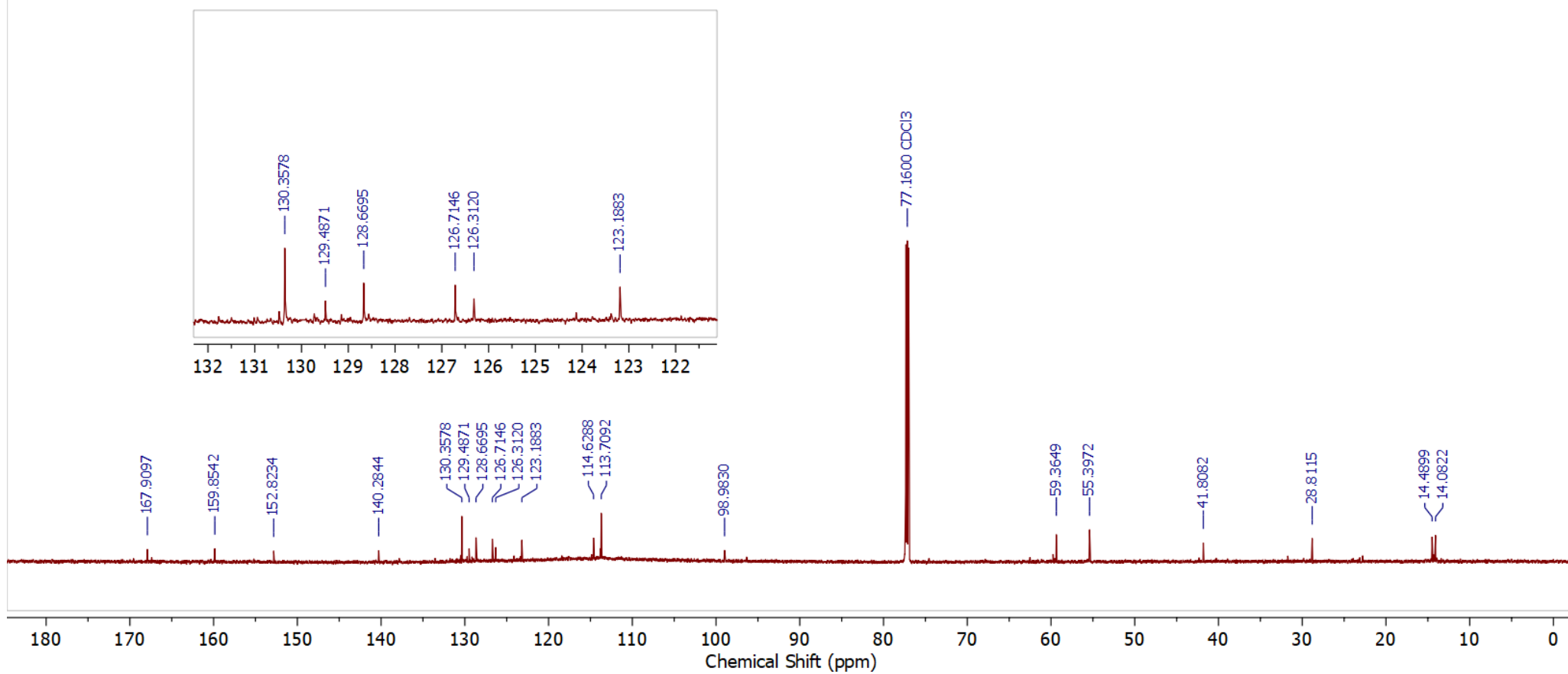
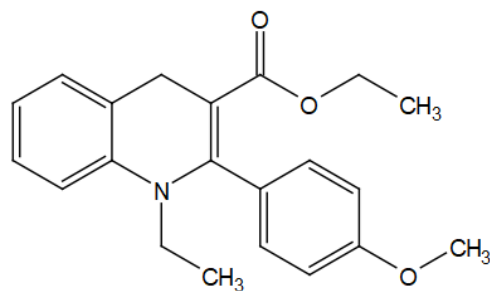
Max. 1.1e6 cps.



3e



3e



Sample Name: ID814

*SN BN21801310

Acq. Time: 13:39

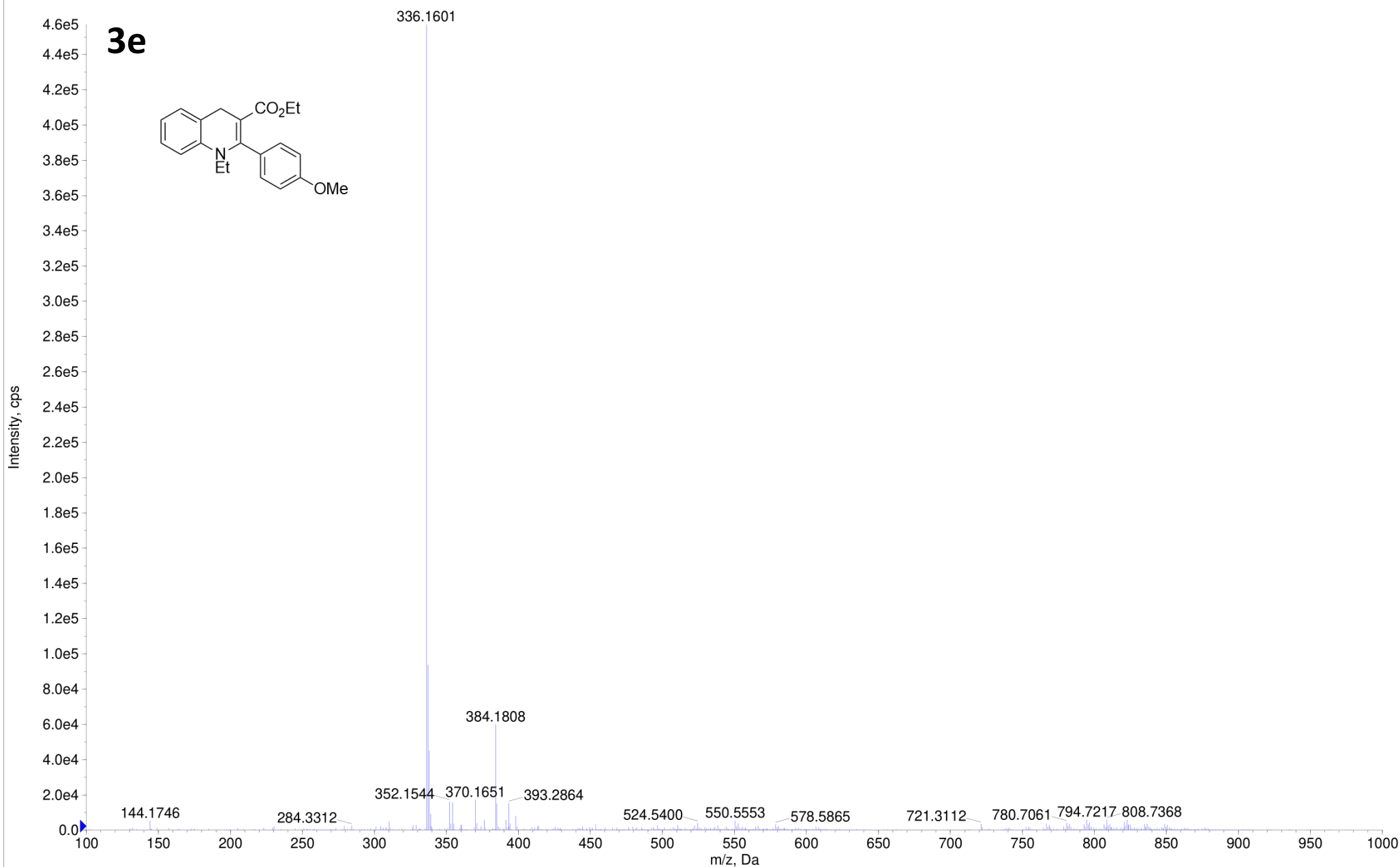
Acq. File: 05_03_2024.wiff

*5600 TripleTOF Service Report

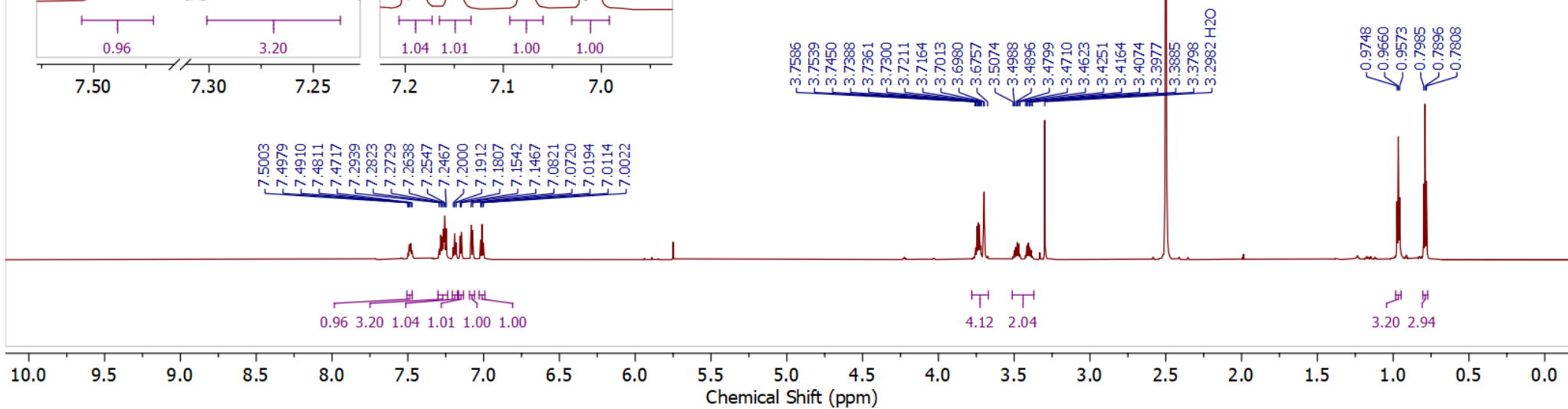
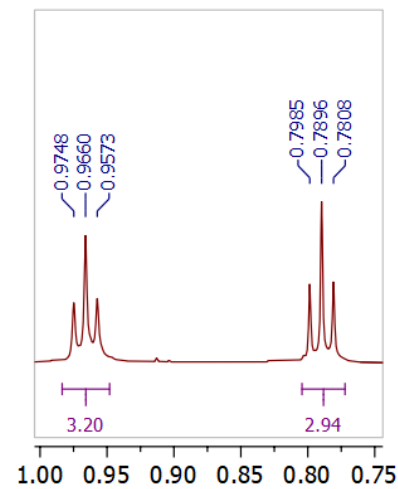
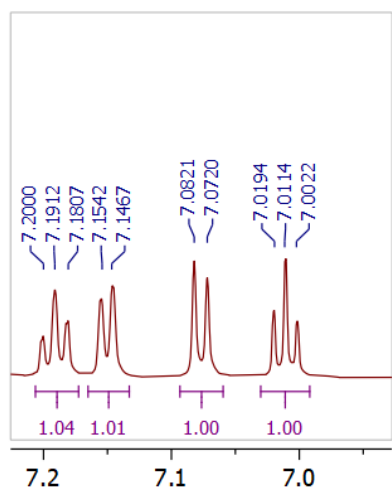
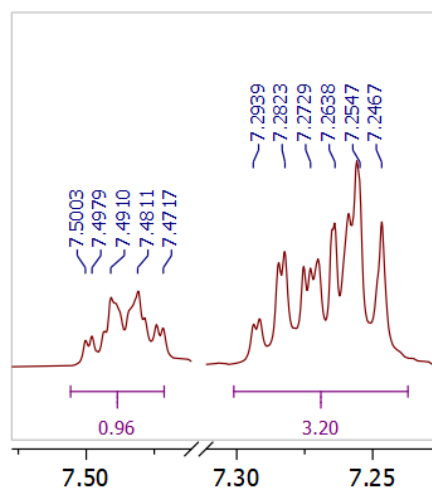
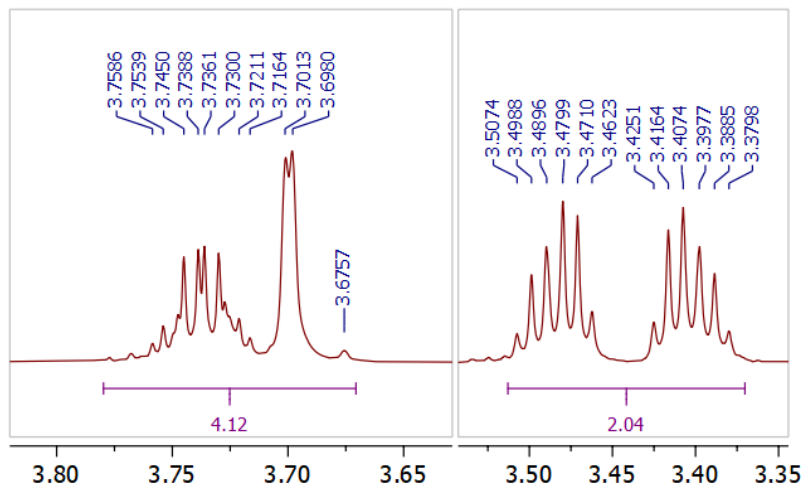
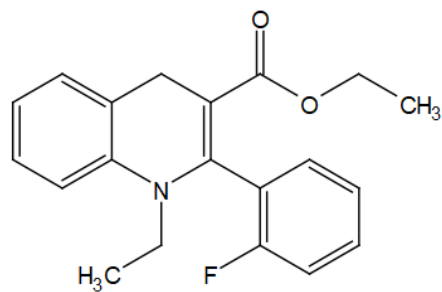
Acq. Date: Tuesday, March 05, 2024

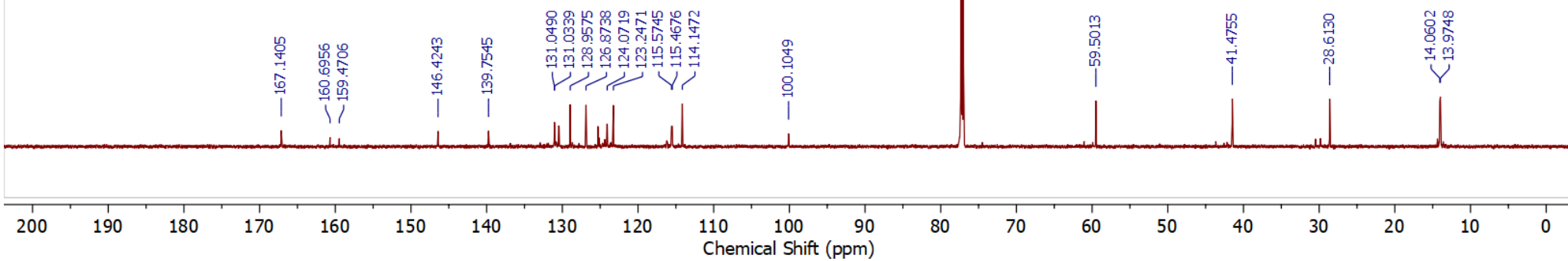
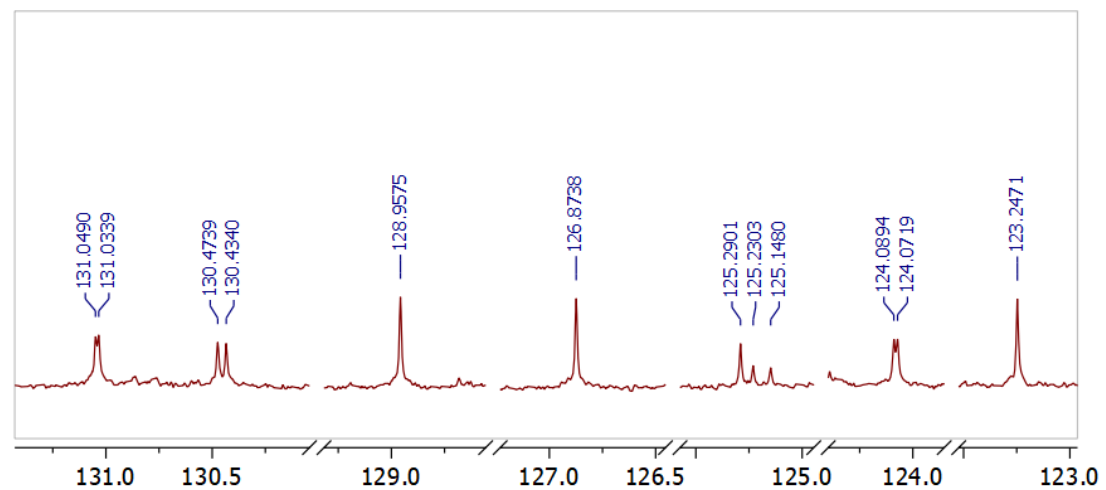
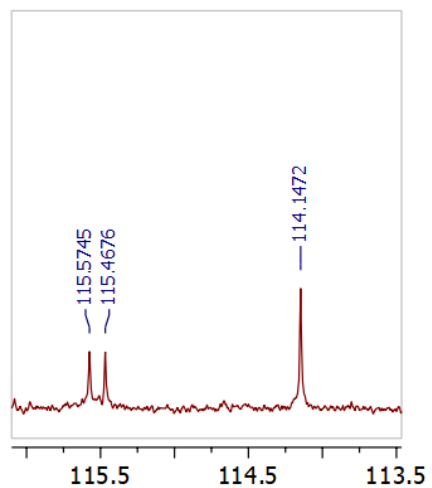
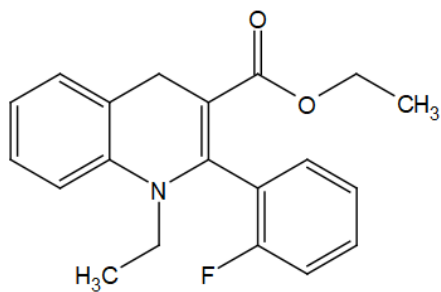
+TOF MS: 0.2511 to 0.3766 min from Sample 67 (ID814) of 05_03_2024.wiff
a=7.01852144460462240e-004, t0=-4.18447864271234040e-001 (DuoSpray (j))

Max. 4.6e5 cps.



3f



3f

Sample Name: ID7391

*SN BN21801310

Acq. Time: 12:16

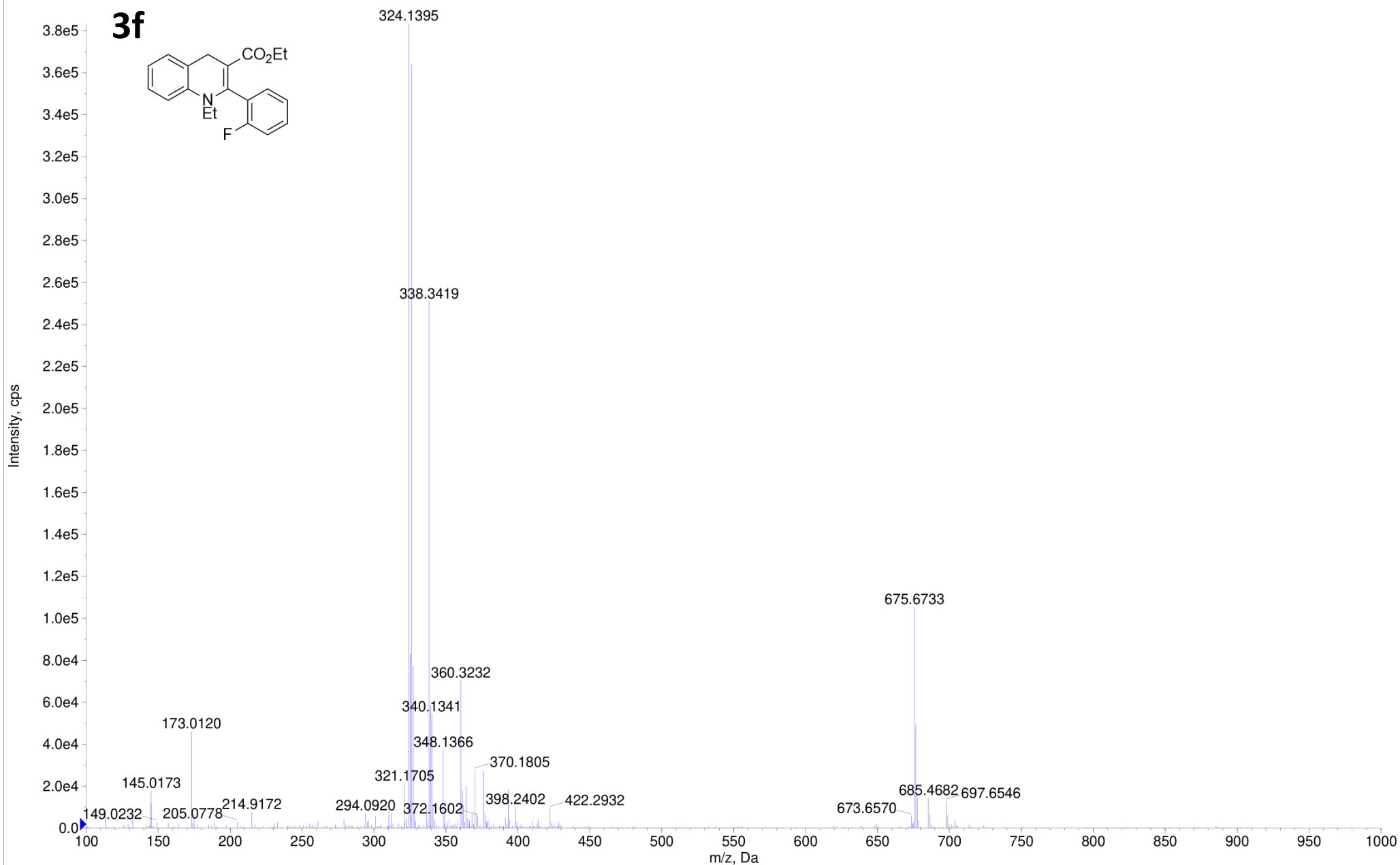
Acq. File: 26_12_2023.wiff

*5600 TripleTOF Service Report

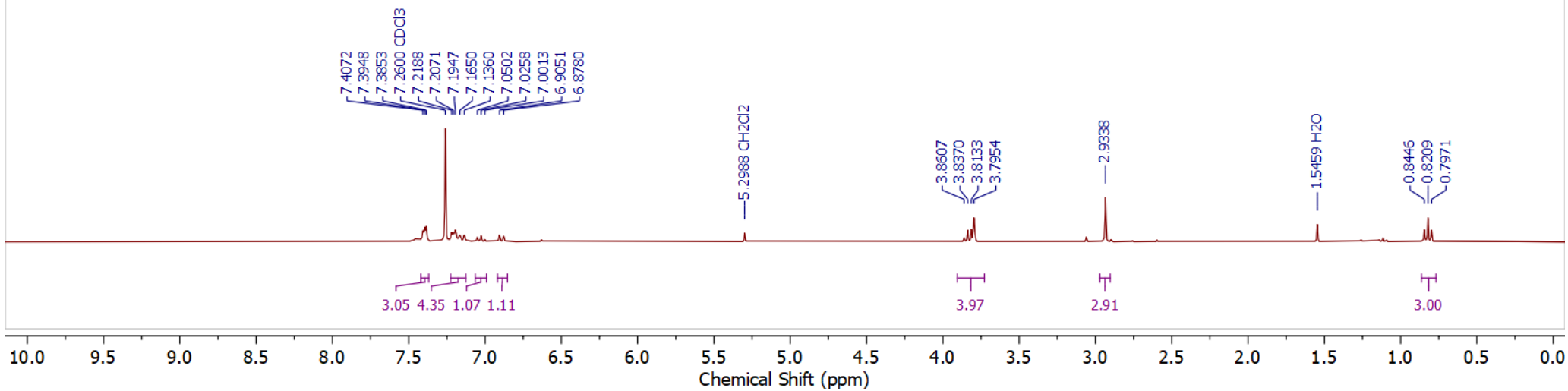
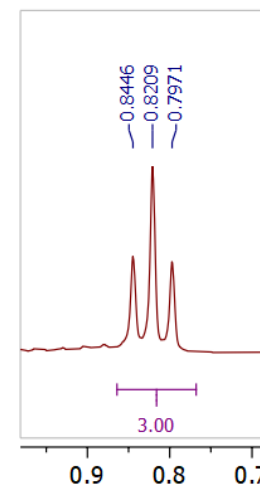
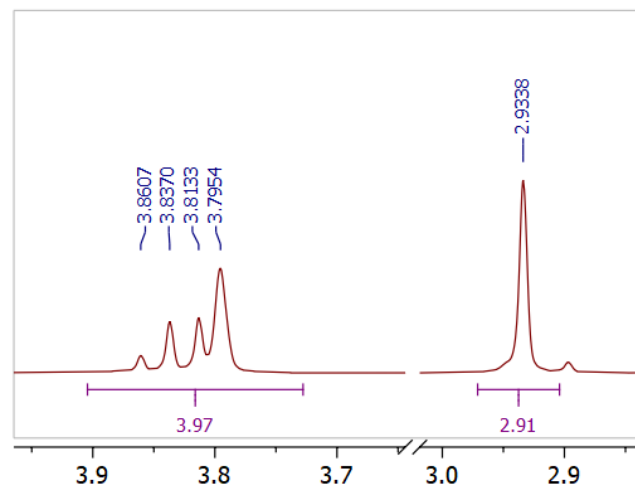
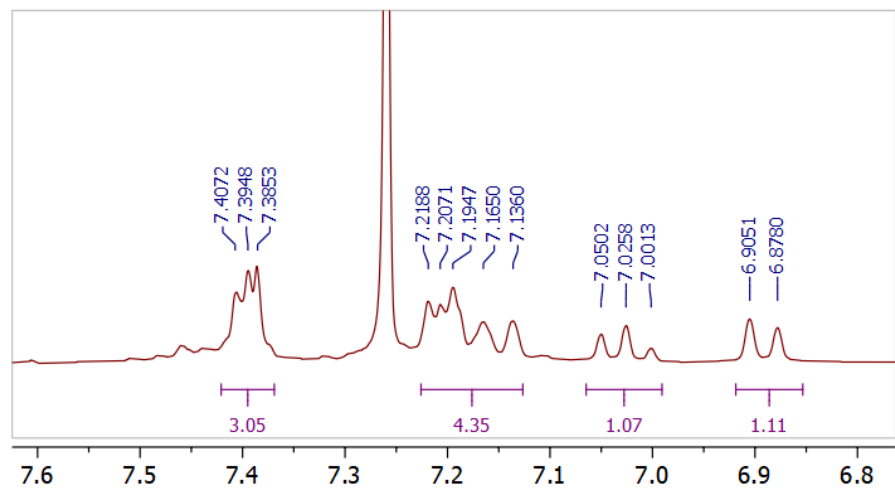
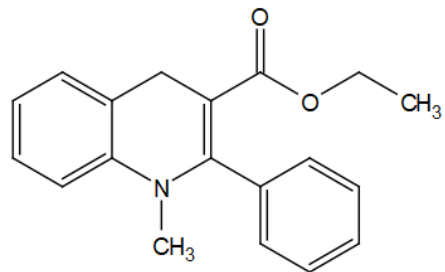
Acq. Date: Tuesday, December 26, 2023

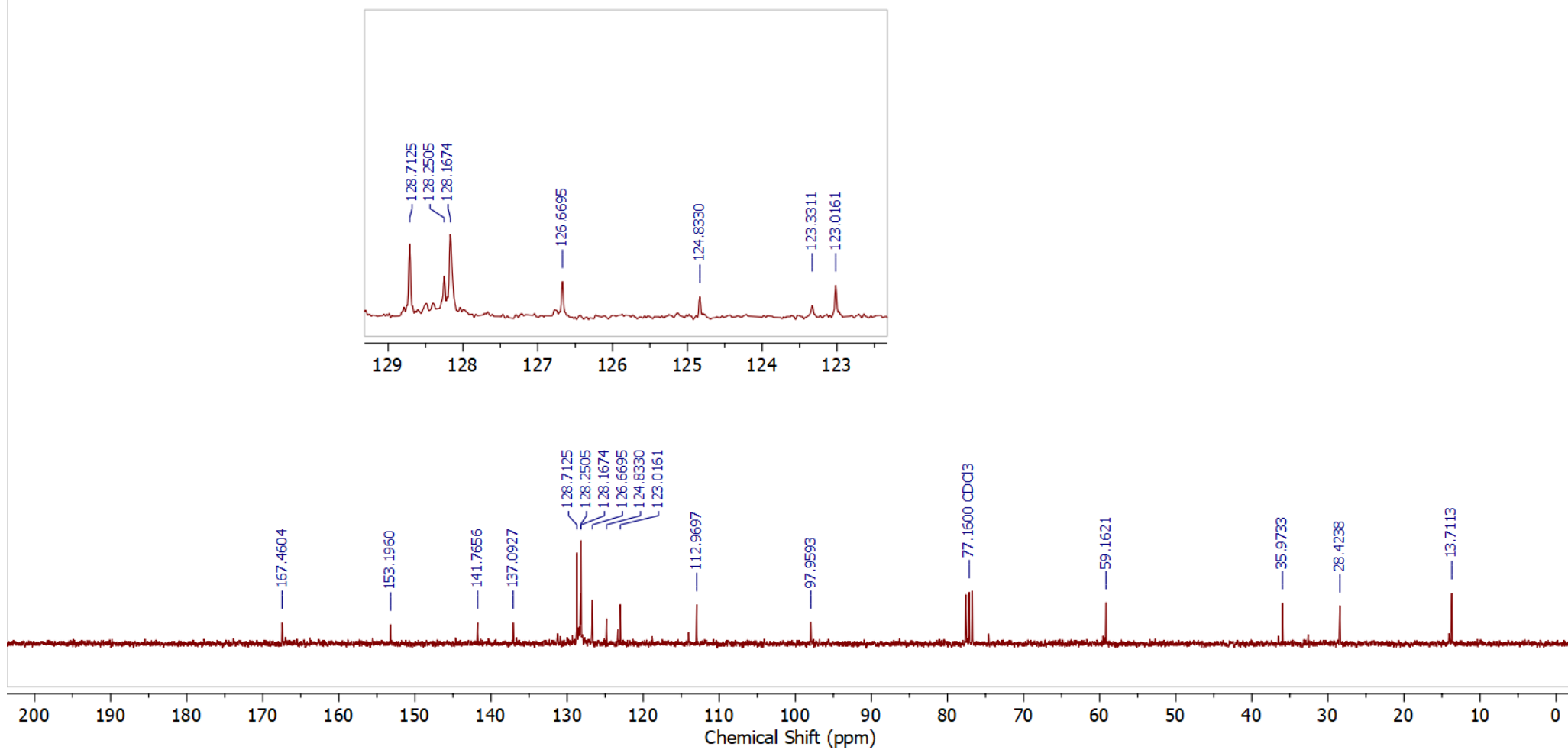
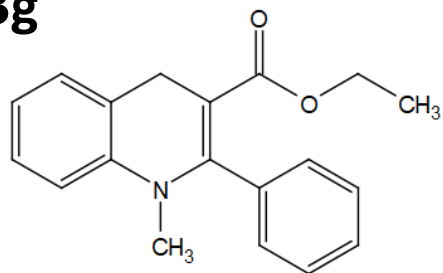
+TOF MS: 0.2558 to 0.3906 min from Sample 36 (ID7391) of 26_12_2023.wiff
a=7.01833341547554580e-004, t0=-4.36570612663340570e-001 (DuoSpray (j))

Max. 3.8e5 cps.



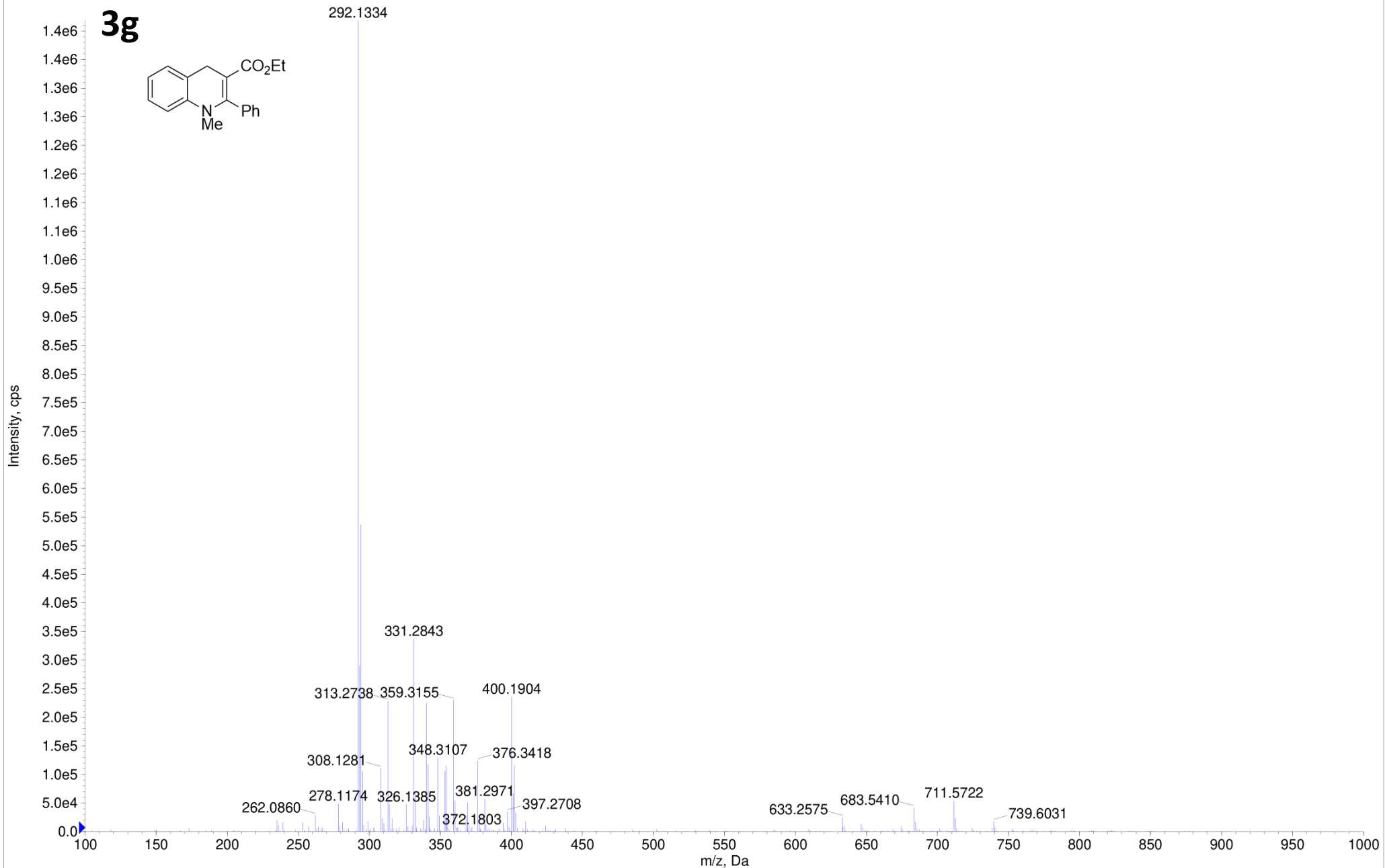
3g



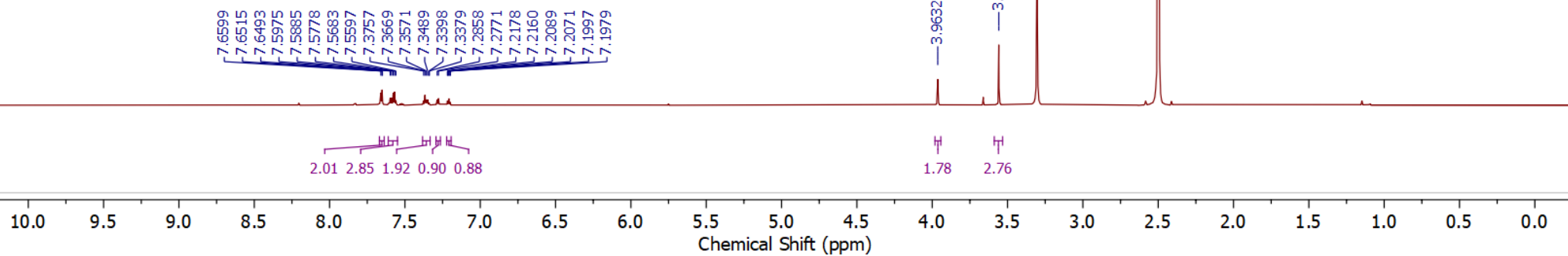
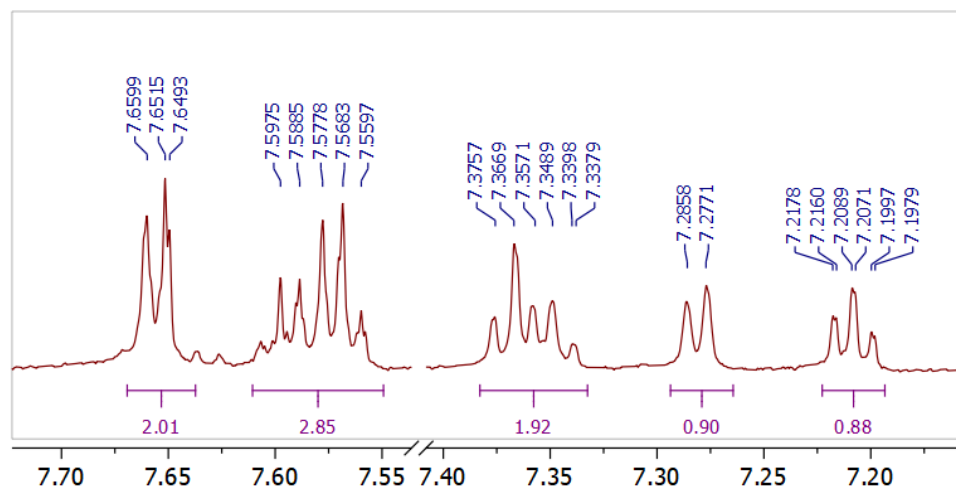
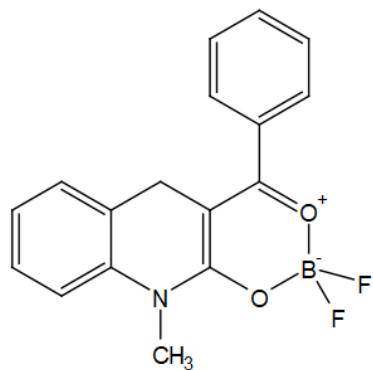
3g

+TOF MS: 1.4927 to 1.6926 min from Sample 29 (ID7742) of 26_01_2024.wiff different calibrations (DuoSpray ())

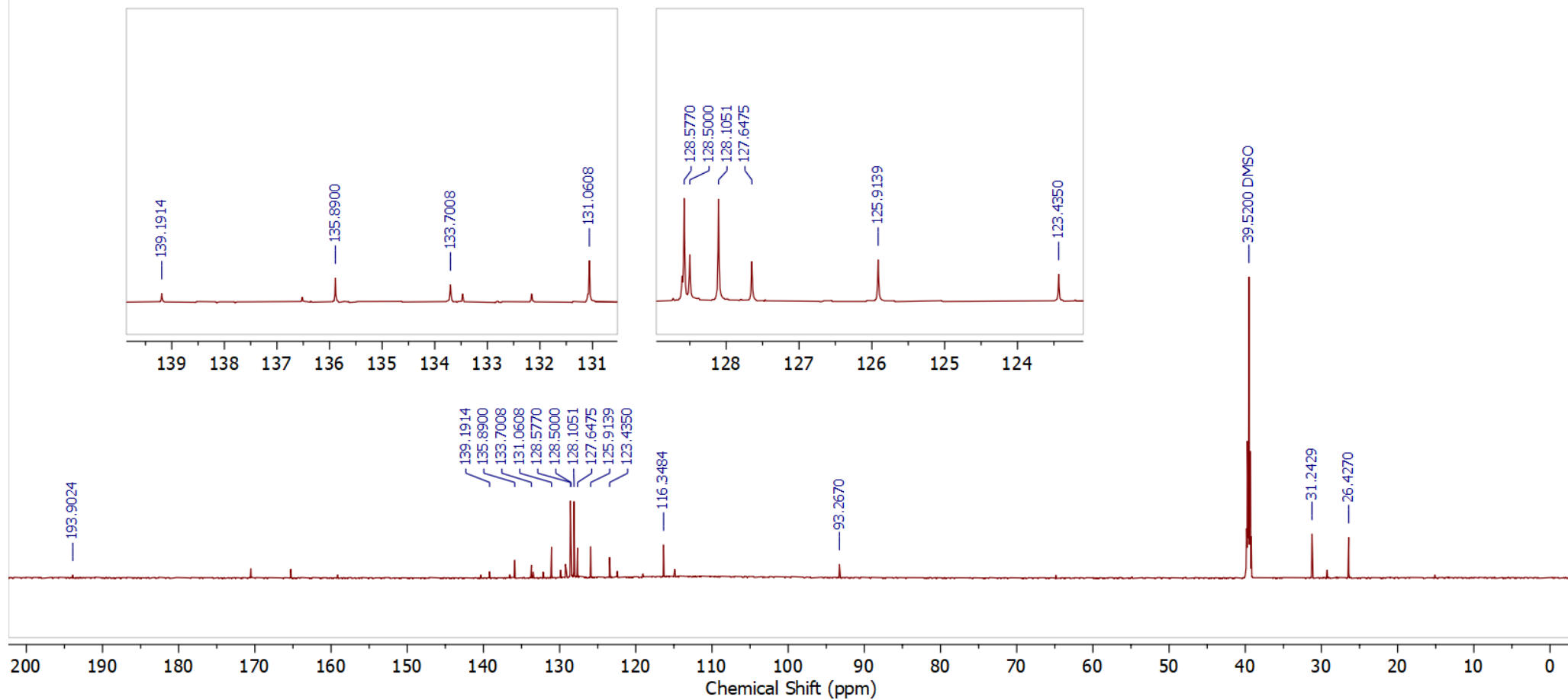
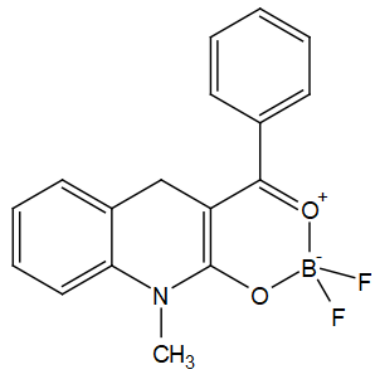
Max. 1.4e6 cps.



4



4



+TOF MS: 1.4694 to 1.6554 min from Sample 35 (ID7743) of 26_01_2024.wiff different calibrations (DuoSpray ())

Max. 1.4e6 cps.

