

Data Path : Z:\HPCHEM1\BNA F\DATA\BF042318\  
 Data File : BF104747.D  
 Acq On : 24 Apr 2018 10:02  
 Operator : JU/SJ  
 Sample : J2503-07DL 10X  
 Misc :  
 ALS Vial : 48 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 CHRT25773DL

Manual Integrations  
 APPROVED

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 4/24/2018 3:49:28 PM

Quant Time: Apr 24 11:34:55 2018  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Apr 23 15:38:25 2018  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min)       |
|-----------------------------|-------|------|----------|--------|-------|----------------|
| 1) 1,4-Dichlorobenzene-d4   | 6.81  | 152  | 89386    | 20.00  | ng    | 0.00           |
| 21) Naphthalene-d8          | 8.09  | 136  | 339438   | 20.00  | ng    | 0.00           |
| 38) Acenaphthene-d10        | 9.85  | 164  | 140651   | 20.00  | ng    | 0.00           |
| 63) Phenanthrene-d10        | 11.34 | 188  | 255252   | 20.00  | ng    | 0.00           |
| 75) Chrysene-d12            | 13.99 | 240  | 166310   | 20.00  | ng    | 0.00           |
| 86) Perylene-d12            | 15.47 | 264  | 121797   | 20.00  | ng    | 0.02           |
| System Monitoring Compounds |       |      |          |        |       |                |
| 5) 2-Fluorophenol           | 5.43  | 112  | 55338    | 9.47   | ng    | 0.01           |
| 7) Phenol-d6                | 6.45  | 99   | 68366    | 9.52   | ng    | 0.00           |
| 23) Nitrobenzene-d5         | 7.37  | 82   | 33948    | 6.53   | ng    | 0.00           |
| 41) 2,4,6-Tribromophenol    | 10.65 | 330  | 14027    | 9.61   | ng    | 0.00           |
| 44) 2-Fluorobiphenyl        | 9.17  | 172  | 74636    | 8.38   | ng    | 0.00           |
| 78) Terphenyl-d14           | 12.93 | 244  | 68940    | 9.45   | ng    | 0.00           |
| Target Compounds            |       |      |          |        |       |                |
| 57) Fluorene                | 10.40 | 166  | 20478    | 2.260  | ng    | Qvalue<br># 94 |
| 70) Phenanthrene            | 11.37 | 178  | 291378   | 20.498 | ng    | 98             |
| 71) Anthracene              | 11.42 | 178  | 81009    | 5.606  | ng    | 98             |
| 72) Carbazole               | 11.57 | 167  | 43009    | 3.046  | ng    | 98             |
| 74) Fluoranthene            | 12.56 | 202  | 446540   | 30.067 | ng    | 97             |
| 77) Pyrene                  | 12.79 | 202  | 387509   | 31.435 | ng    | 99             |
| 80) Benzo(a)anthracene      | 13.98 | 228  | 168529m  | 16.962 | ng    |                |
| 82) Chrysene                | 14.02 | 228  | 140368   | 13.754 | ng    | 98             |
| 85) Indeno(1,2,3-cd)pyrene  | 16.93 | 276  | 58630m   | 6.763  | ng    |                |
| 87) Benzo(b)fluoranthene    | 15.04 | 252  | 145488m  | 18.913 | ng    |                |
| 88) Benzo(k)fluoranthene    | 15.06 | 252  | 49044m   | 6.753  | ng    |                |
| 89) Benzo(a)pyrene          | 15.40 | 252  | 99267    | 14.422 | ng    | # 93           |
| 90) Dibenzo(a,h)anthracene  | 16.94 | 278  | 14920    | 2.639  | ng    | # 79           |
| 91) Benzo(g,h,i)perylene    | 17.39 | 276  | 57342    | 10.470 | ng    | 97             |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

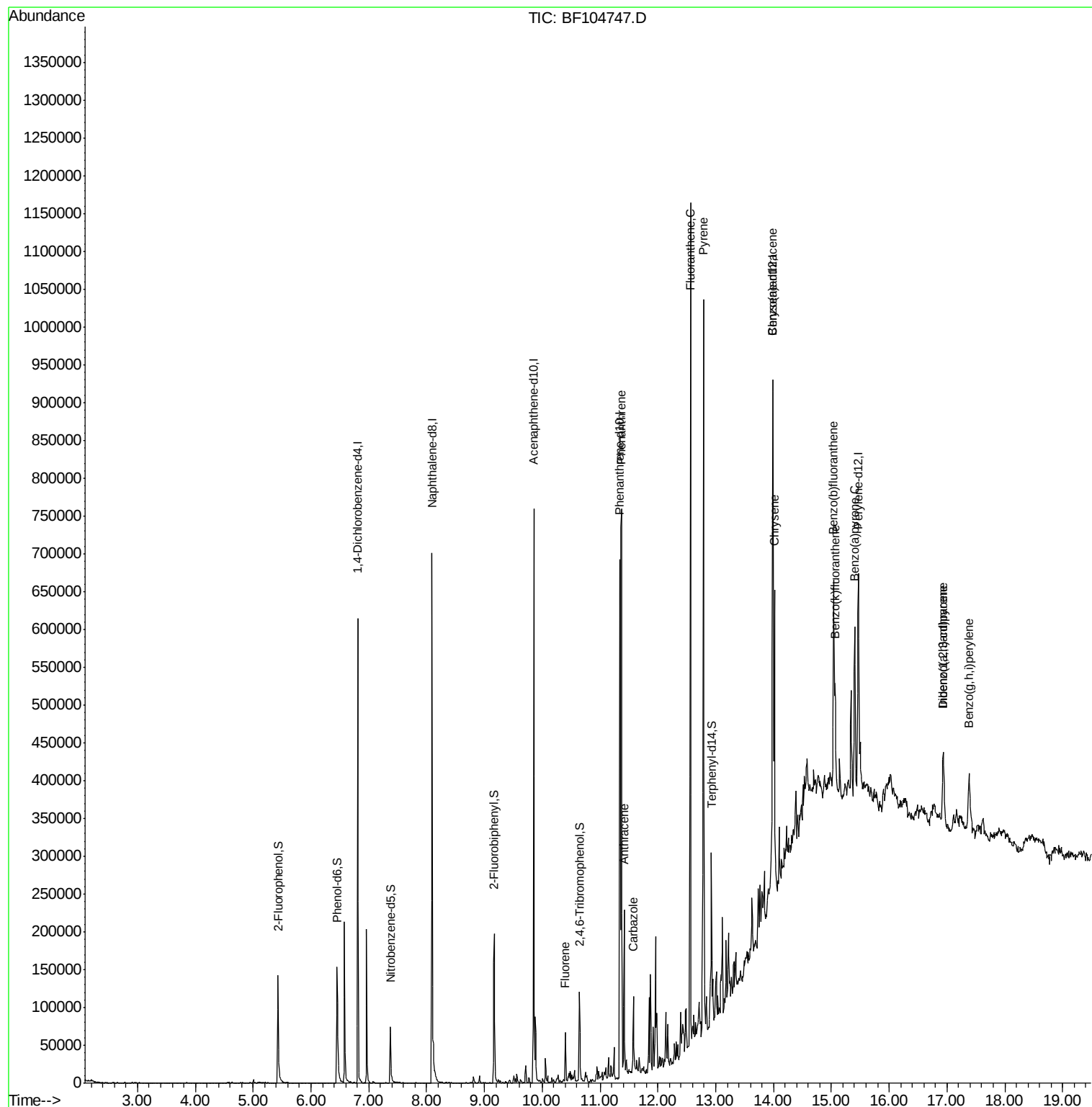
Data Path : Z:\HPCHEM1\BNA F\DATA\BF042318\  
Data File : BF104747.D  
Acq On : 24 Apr 2018 10:02  
Operator : JU/SJ  
Sample : J2503-07DL 10X  
Misc :  
ALS Vial : 48 Sample Multiplier: 1

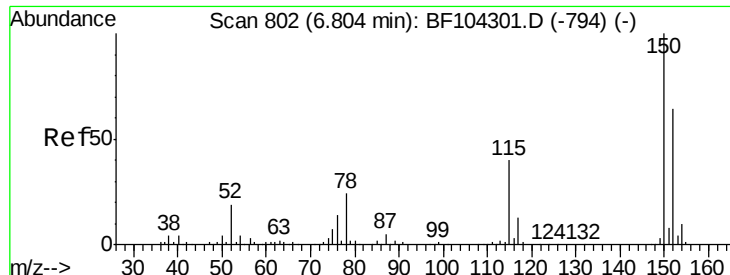
Instrument :  
BNA\_F  
ClientSampleId :  
CHRT25773DL

Manual Integrations  
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4/24/2018 3:49:28 PM

Quant Time: Apr 24 11:34:55 2018  
Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Mon Apr 23 15:38:25 2018  
Response via : Initial Calibration





#1

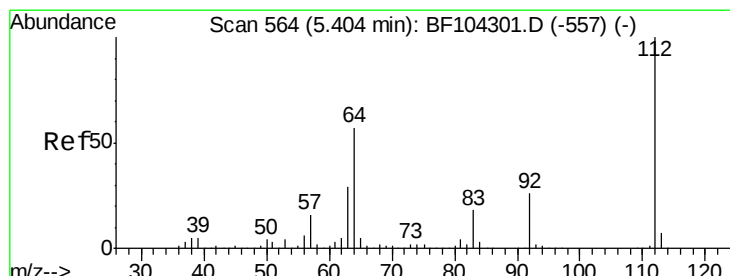
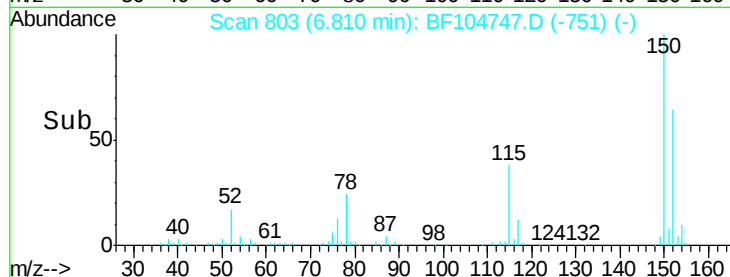
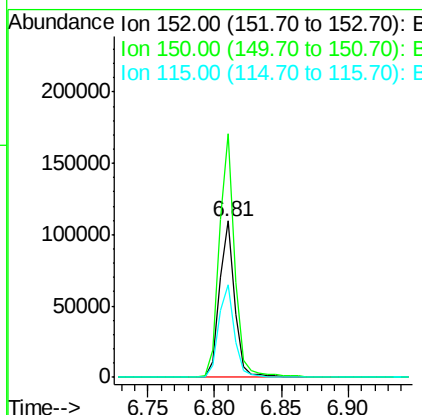
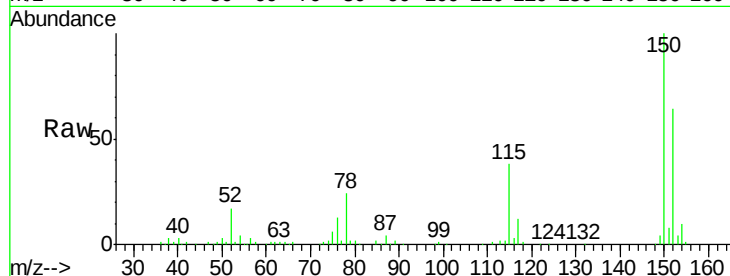
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.81 min Scan# 803  
Delta R.T. 0.01 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

Instrument :  
BNA\_F  
ClientSampleId :  
CHRT25773DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 156.0 | 124.6 | 186.8 |
| 115     | 59.4  | 50.1  | 75.1  |

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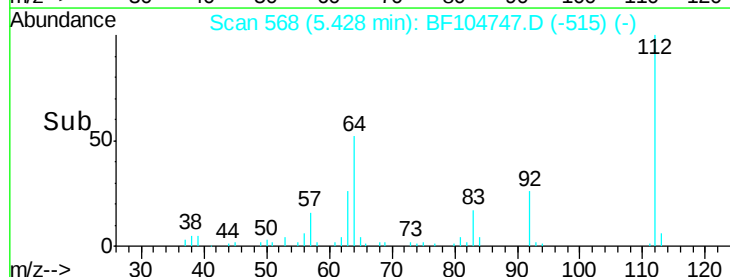
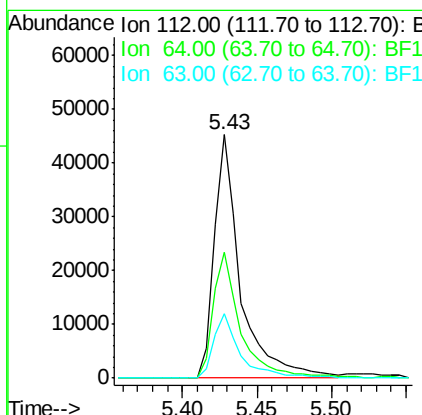
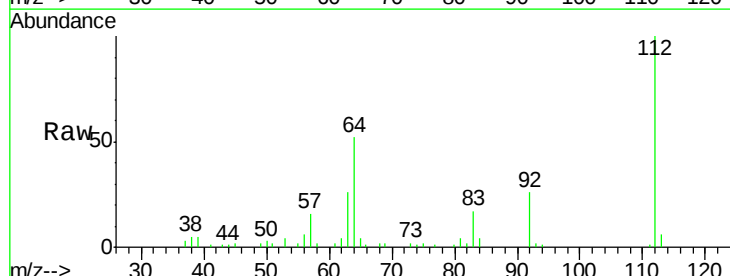
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#5

2-Fluorophenol  
Concen: 9.466 ng  
RT: 5.43 min Scan# 568  
Delta R.T. 0.01 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 51.7  | 47.9  | 71.9  |
| 63      | 26.4  | 23.7  | 35.5  |





#7

Phenol-d6

Concen: 9.518 ng

RT: 6.45 min Scan# 742

Delta R.T. 0.01 min

Lab File: BF104747.D

Acq: 24 Apr 2018 10:02

Instrument :

BNA\_F

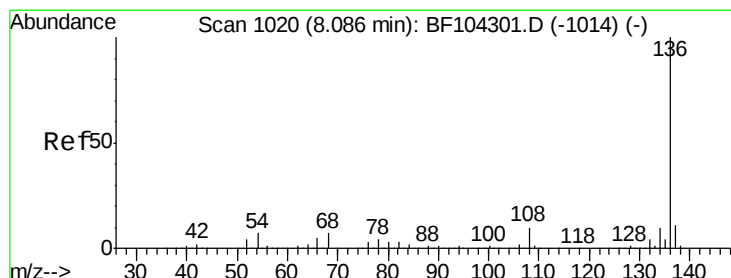
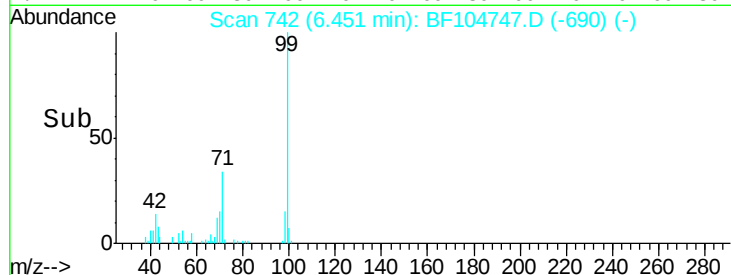
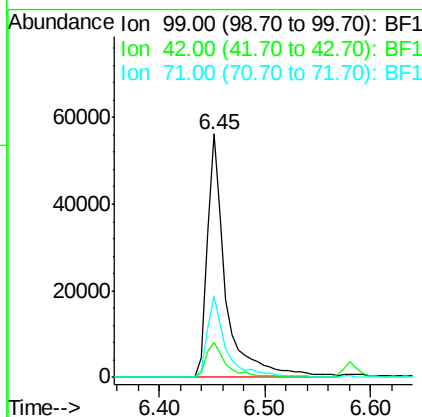
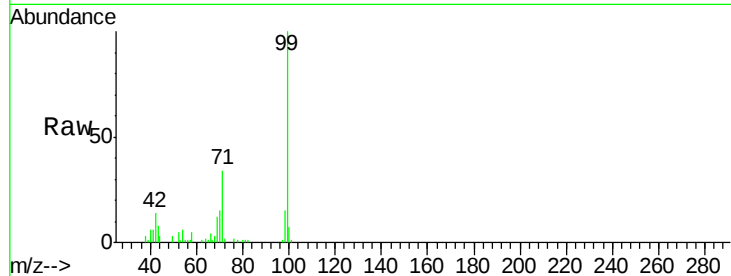
ClientSampleId :

CHRT25773DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 99    | Resp: | 68366 |
| Ion Ratio | Lower | Upper |       |
| 99        | 100   |       |       |
| 42        | 14.2  | 14.5  | 21.7# |
| 71        | 33.5  | 25.4  | 38.0  |

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#21

Naphthalene-d8

Concen: 20.000 ng

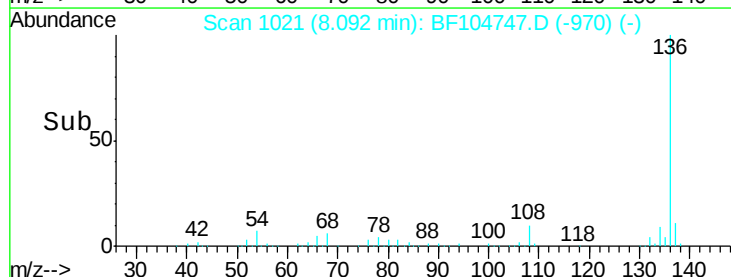
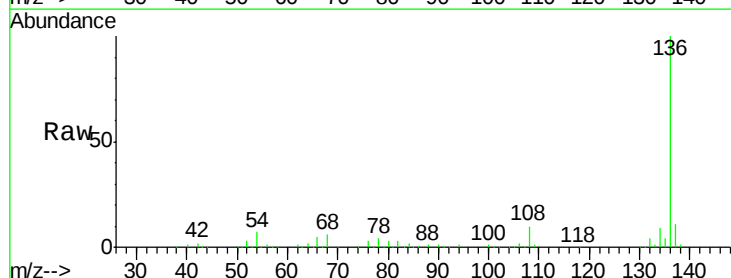
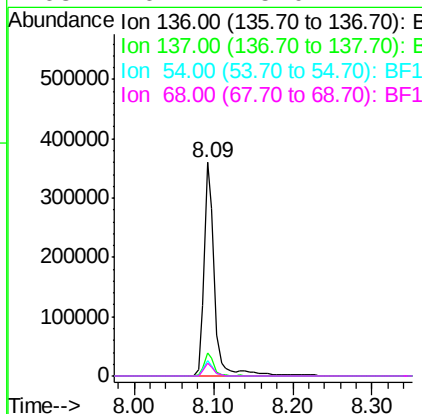
RT: 8.09 min Scan# 1021

Delta R.T. -0.00 min

Lab File: BF104747.D

Acq: 24 Apr 2018 10:02

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 136   | Resp: | 339438 |
| Ion Ratio | Lower | Upper |        |
| 136       | 100   |       |        |
| 137       | 10.8  | 8.9   | 13.3   |
| 54        | 7.0   | 6.6   | 9.8    |
| 68        | 6.1   | 5.0   | 7.4    |





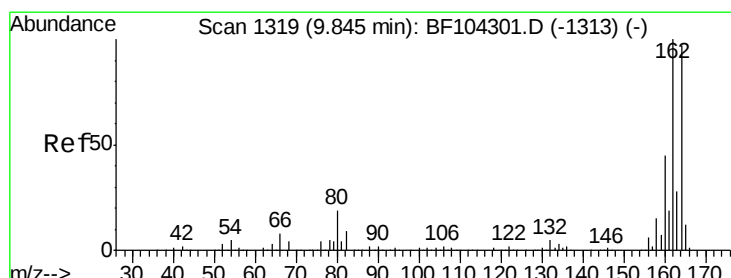
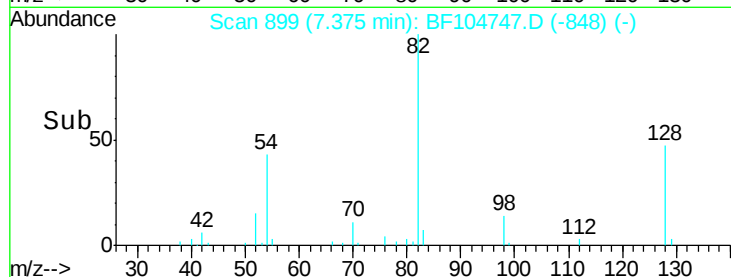
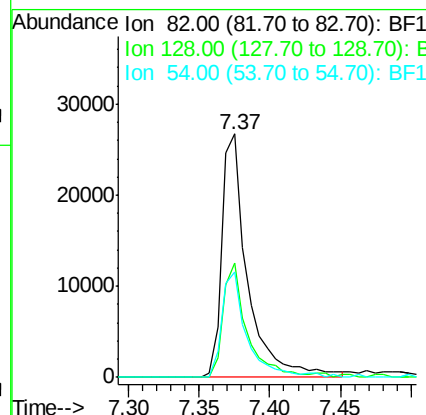
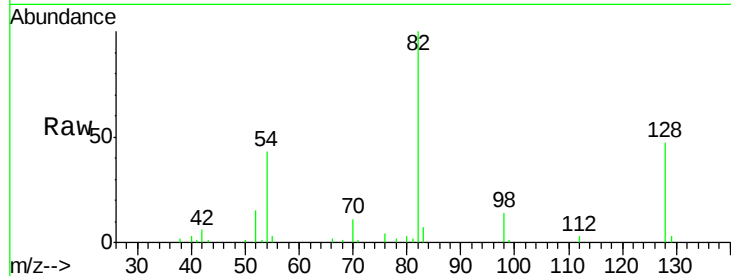
#23  
Nitrobenzene-d5  
Concen: 6.531 ng  
RT: 7.37 min Scan# 899  
Delta R.T. -0.00 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

Instrument :  
BNA\_F  
ClientSampleId :  
CHRT25773DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 82    | Resp: | 33948 |
| Ion Ratio | Lower | Upper |       |
| 82        | 100   |       |       |
| 128       | 47.0  | 36.1  | 54.1  |
| 54        | 43.2  | 41.4  | 62.2  |

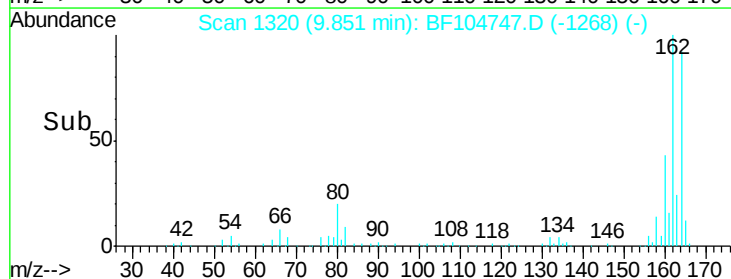
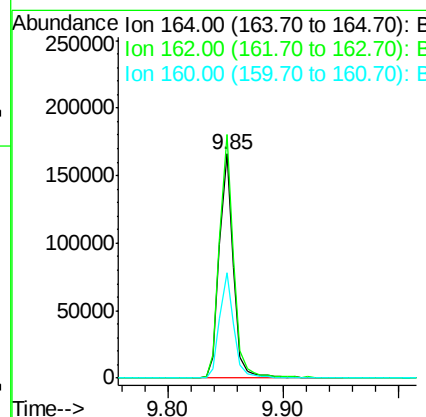
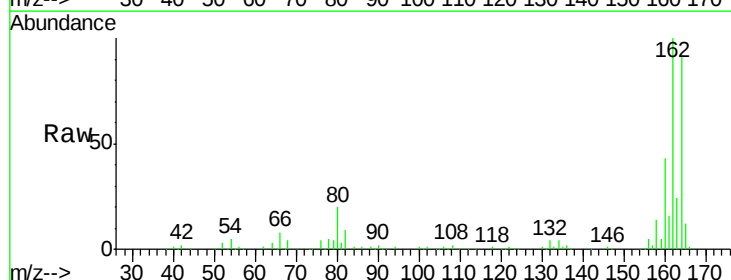
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#38  
Acenaphthene-d10  
Concen: 20.000 ng  
RT: 9.85 min Scan# 1320  
Delta R.T. 0.01 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 164   | Resp: | 140651 |
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 162       | 108.7 | 86.1  | 129.1  |
| 160       | 46.9  | 38.3  | 57.5   |





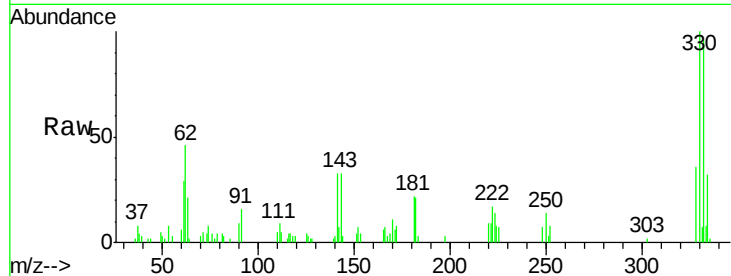
#41  
 2,4,6-Tribromophenol  
 Concen: 9.614 ng  
 RT: 10.65 min Scan# 1455  
 Delta R.T. 0.01 min  
 Lab File: BF104747.D  
 Acq: 24 Apr 2018 10:02

Instrument :  
 BNA\_F  
 ClientSampleId :  
 CHRT25773DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 97.7  | 77.0  | 115.6 |
| 141     | 35.0  | 29.9  | 44.9  |

Manual Integrations  
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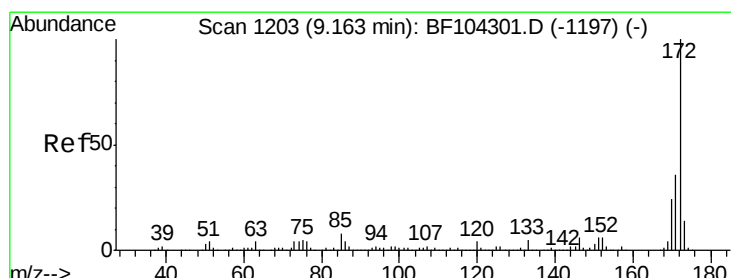
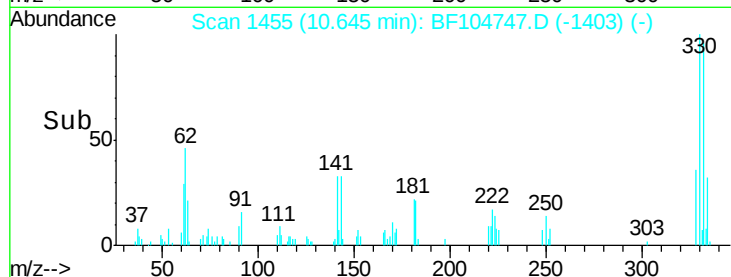
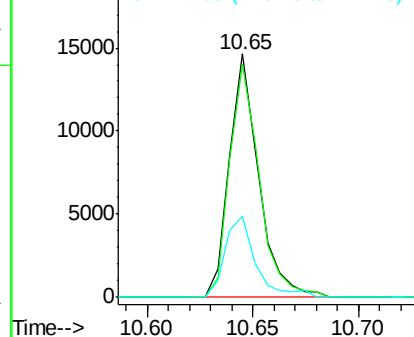


Abundance

Ion 329.80 (329.50 to 330.50): E

Ion 331.80 (331.50 to 332.50): E

Ion 141.00 (140.70 to 141.70): E



#44  
 2-Fluorobiphenyl  
 Concen: 8.383 ng  
 RT: 9.17 min Scan# 1204  
 Delta R.T. -0.00 min  
 Lab File: BF104747.D  
 Acq: 24 Apr 2018 10:02

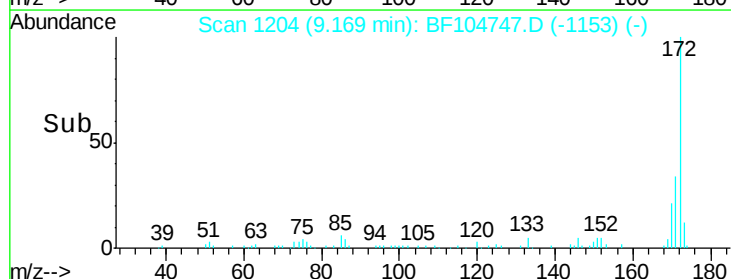
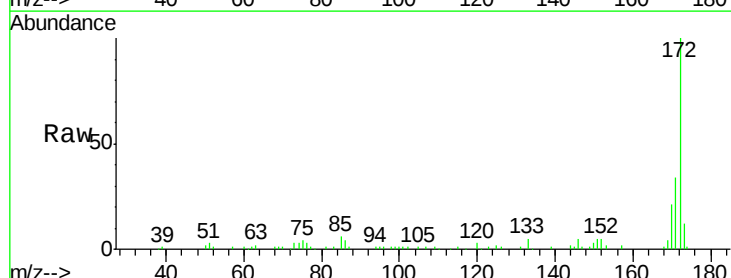
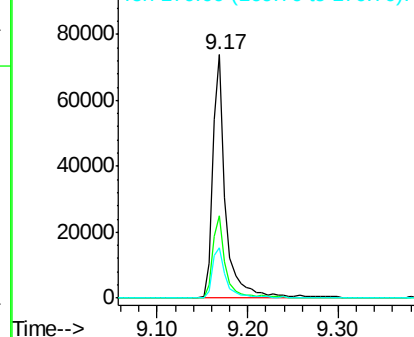
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 34.0  | 29.7  | 44.5  |
| 170     | 20.9  | 19.6  | 29.4  |

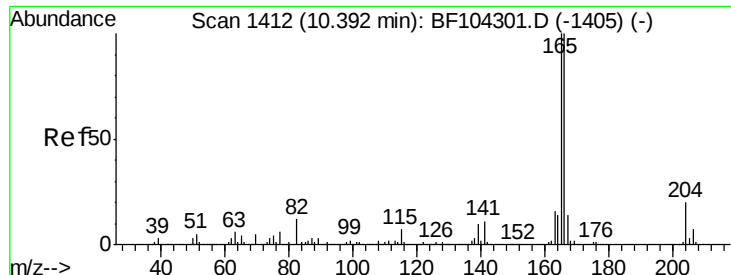
Abundance

Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E





#57

Fluorene

Concen: 2.260 ng

RT: 10.40 min Scan# 1413

Delta R.T. -0.00 min

Lab File: BF104747.D

Acq: 24 Apr 2018 10:02

Instrument :

BNA\_F

ClientSampleId :

CHRT25773DL

Tot Ion:166 Resp: 20478

Ion Ratio Lower Upper

166 100

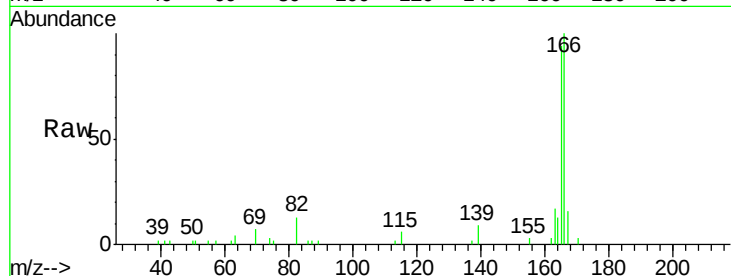
165 94.4 79.8 119.8

167 16.0 10.6 16.0#

Manual Integrations  
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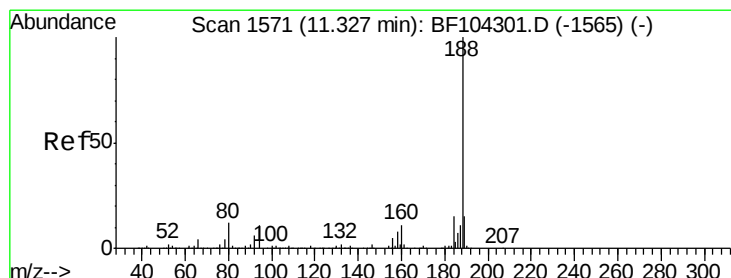
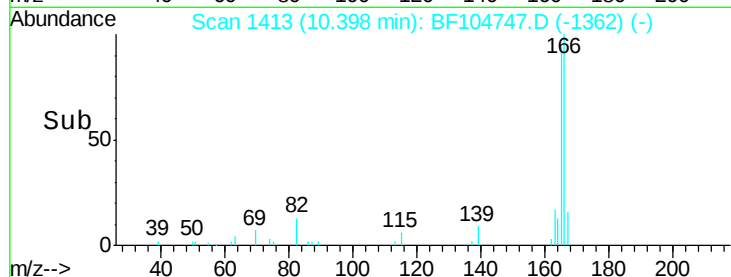
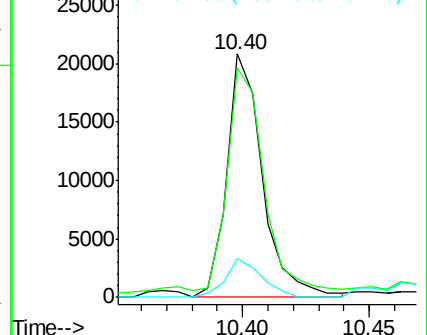
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Abundance Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E



#63

Phenanthrene-d10

Concen: 20.000 ng

RT: 11.34 min Scan# 1573

Delta R.T. 0.01 min

Lab File: BF104747.D

Acq: 24 Apr 2018 10:02

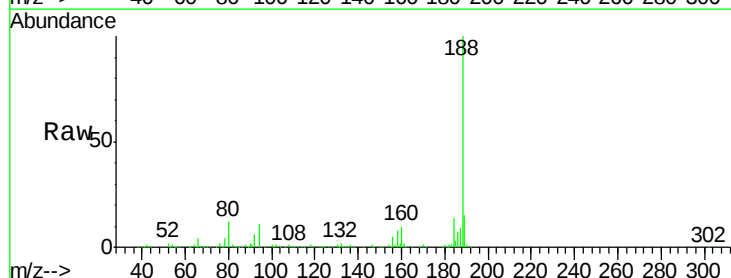
Tgt Ion:188 Resp: 255252

Ion Ratio Lower Upper

188 100

94 10.9 8.5 12.7

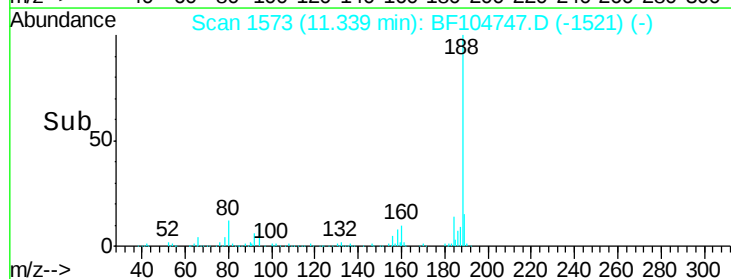
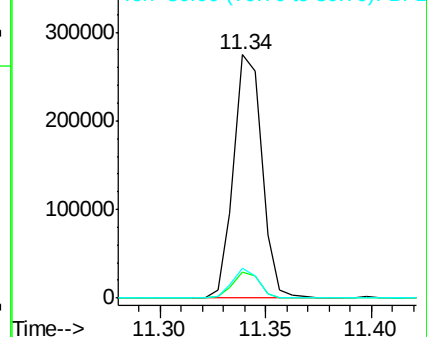
80 12.1 9.2 13.8

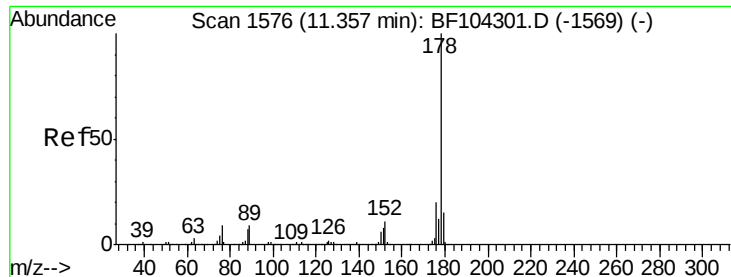


Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BF1

Ion 80.00 (79.70 to 80.70): BF1





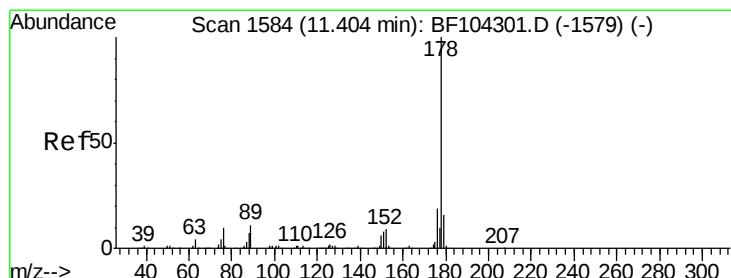
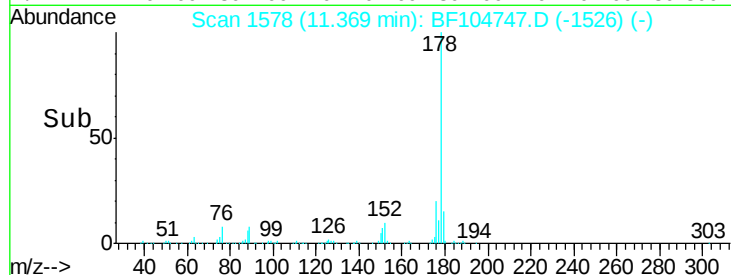
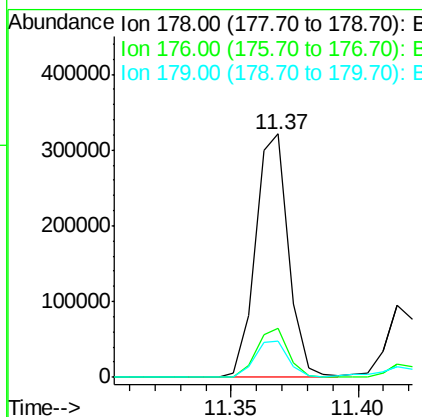
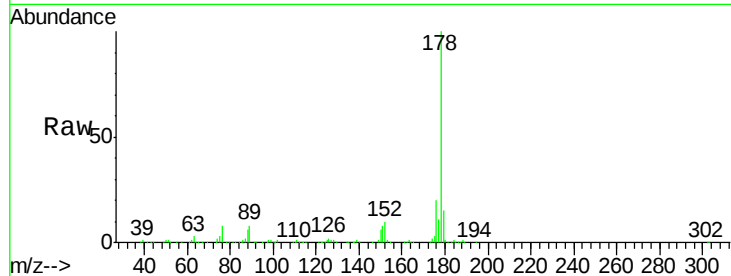
#70  
Phenanthrene  
Concen: 20.498 ng  
RT: 11.37 min Scan# 1578  
Delta R.T. 0.01 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

Instrument :  
BNA\_F  
ClientSampleId :  
CHRT25773DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 20.0  | 15.8  | 23.8  |
| 179     | 14.9  | 13.0  | 19.6  |

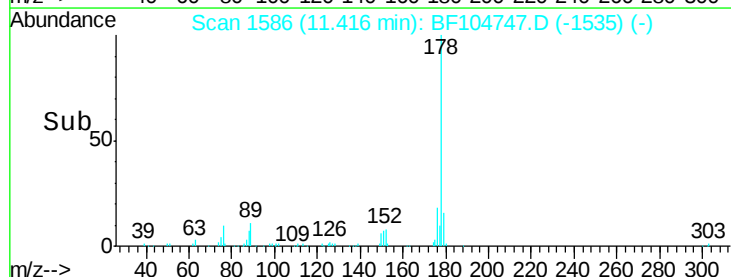
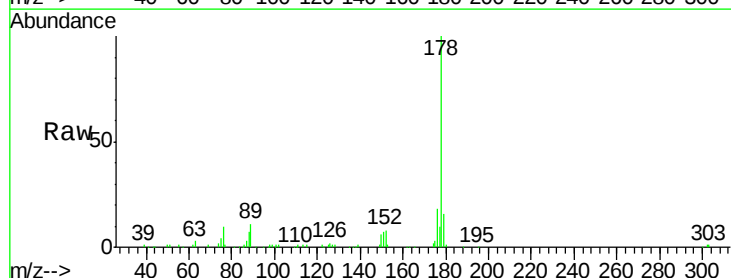
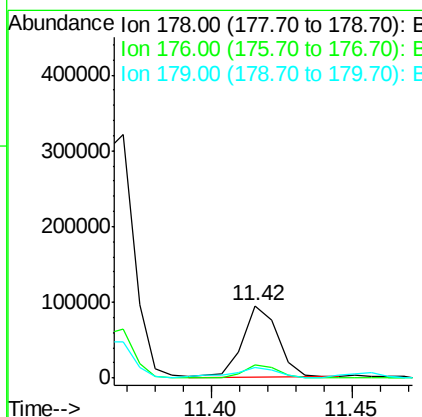
Manual Integrations  
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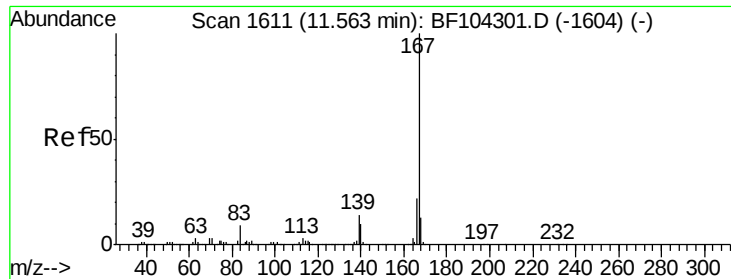
Sohil  
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#71  
Anthracene  
Concen: 5.606 ng  
RT: 11.42 min Scan# 1586  
Delta R.T. -0.00 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 17.7  | 15.4  | 23.2  |
| 179     | 15.6  | 12.6  | 19.0  |





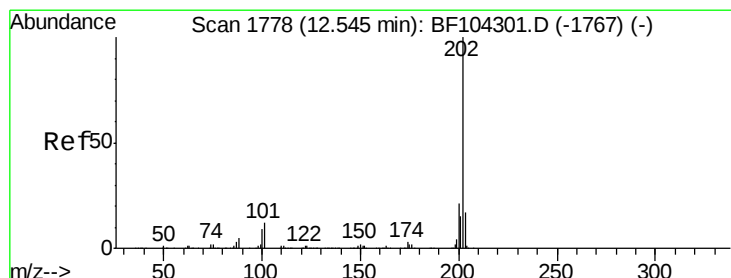
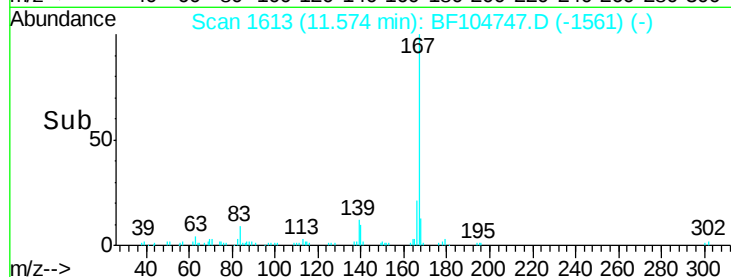
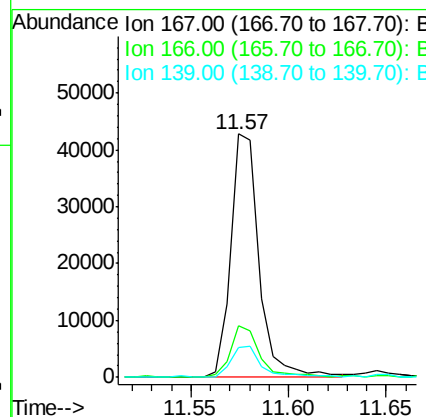
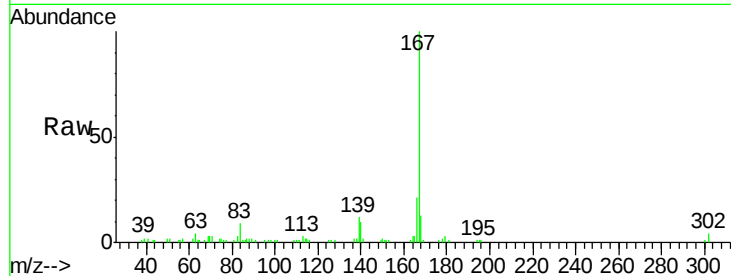
#72  
 Carbazole  
 Concen: 3.046 ng  
 RT: 11.57 min Scan# 1613  
 Delta R.T. 0.01 min  
 Lab File: BF104747.D  
 Acq: 24 Apr 2018 10:02

Instrument :  
 BNA\_F  
 ClientSampleId :  
 CHRT25773DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 21.2  | 17.6  | 26.4  |
| 139     | 12.3  | 10.9  | 16.3  |

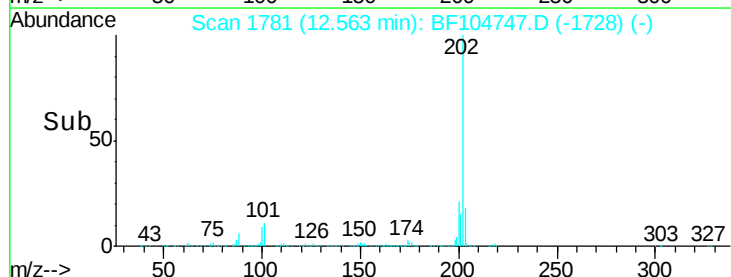
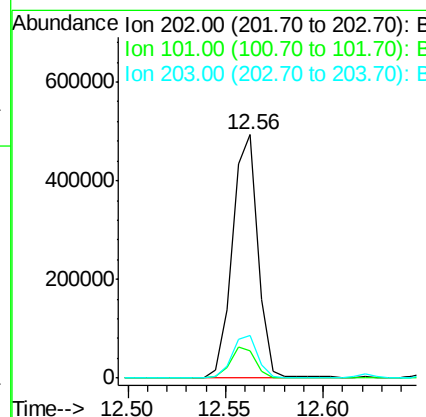
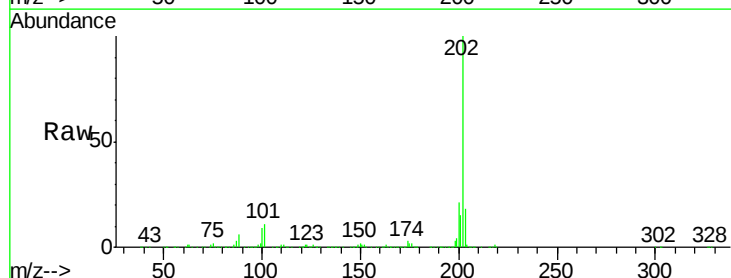
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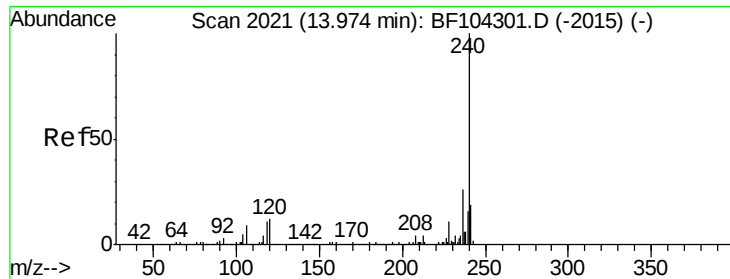
Sohil  
 4/24/2018 3:49:28 PM



#74  
 Fluoranthene  
 Concen: 30.067 ng  
 RT: 12.56 min Scan# 1781  
 Delta R.T. 0.01 min  
 Lab File: BF104747.D  
 Acq: 24 Apr 2018 10:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 11.5  | 0.0   | 34.1  |
| 203     | 17.6  | 0.0   | 38.1  |





#75

Chrysene-d12

Concen: 20.000 ng

RT: 13.99 min Scan# 2024

Delta R.T. 0.01 min

Lab File: BF104747.D

Acq: 24 Apr 2018 10:02

Instrument :

BNA\_F

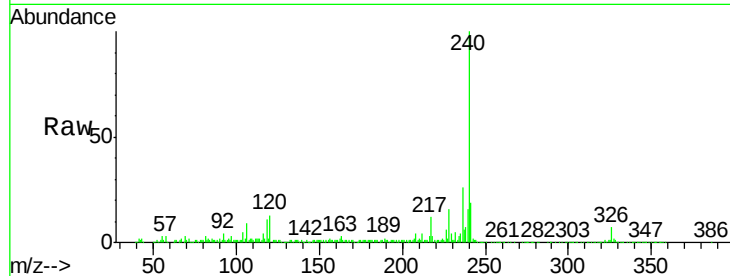
ClientSampleID :

CHRT25773DL

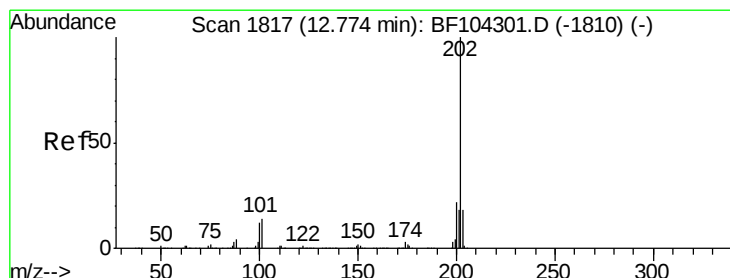
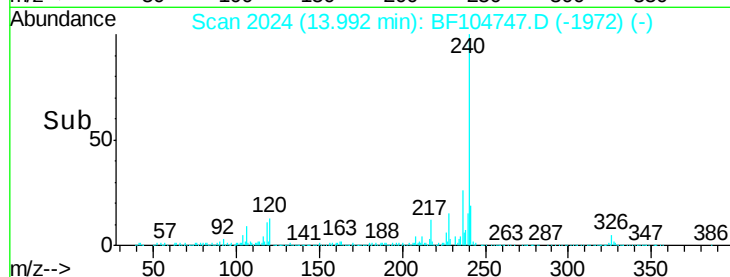
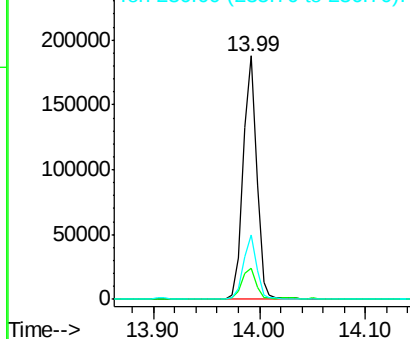
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 12.8  | 9.5   | 14.3  |
| 236     | 26.3  | 20.7  | 31.1  |

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Abundance Ion 240.00 (239.70 to 240.70): E  
Ion 120.00 (119.70 to 120.70): E  
Ion 236.00 (235.70 to 236.70): E



#77

Pyrene

Concen: 31.435 ng

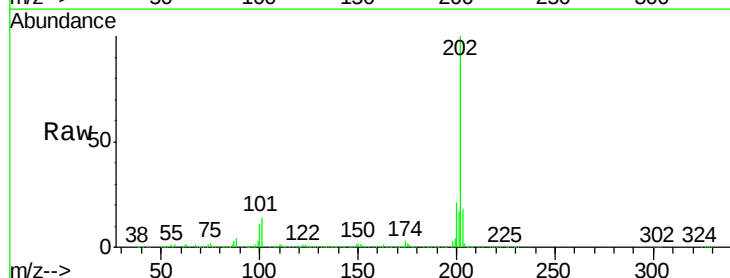
RT: 12.79 min Scan# 1820

Delta R.T. 0.01 min

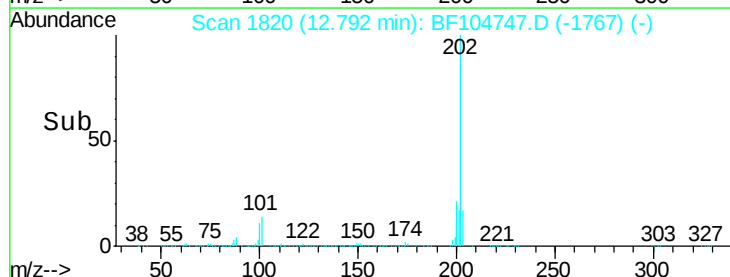
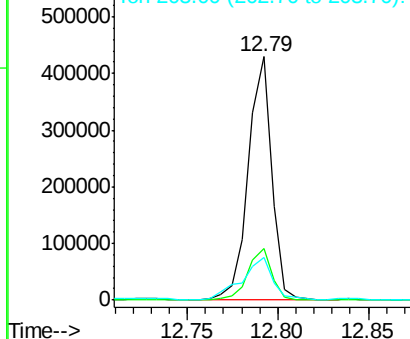
Lab File: BF104747.D

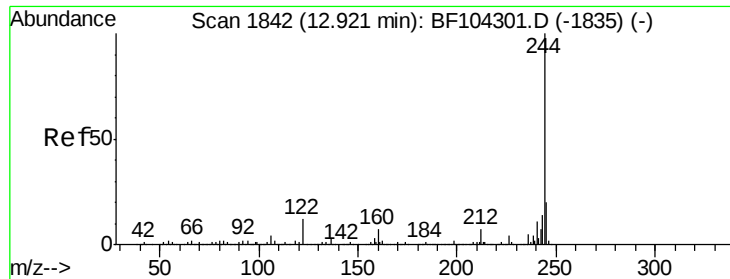
Acq: 24 Apr 2018 10:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.2  | 17.4  | 26.2  |
| 203     | 17.6  | 14.3  | 21.5  |



Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 200.00 (199.70 to 200.70): E  
Ion 203.00 (202.70 to 203.70): E





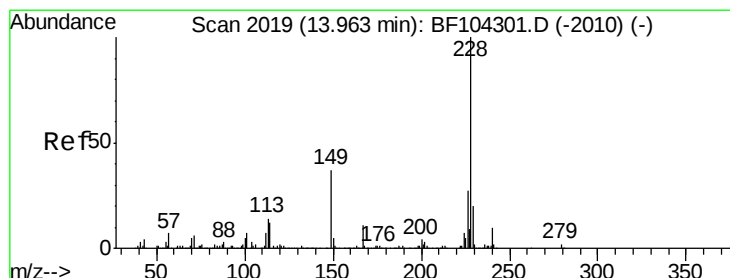
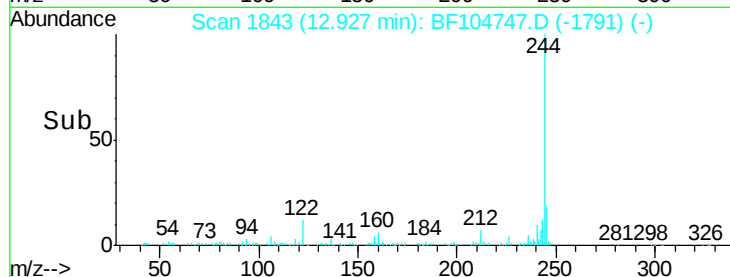
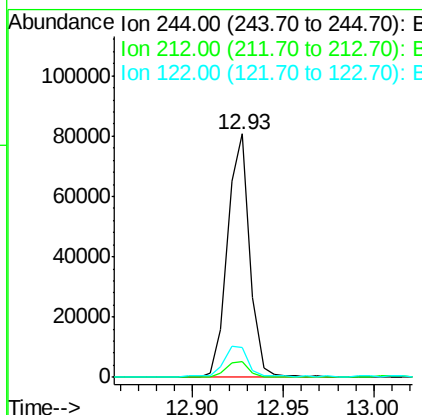
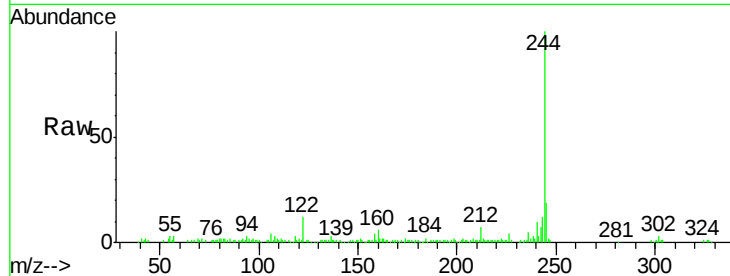
#78  
 Terphenyl-d14  
 Concen: 9.451 ng  
 RT: 12.93 min Scan# 1843  
 Delta R.T. 0.01 min  
 Lab File: BF104747.D  
 Acq: 24 Apr 2018 10:02

Instrument :  
 BNA\_F  
 ClientSampleID :  
 CHRT25773DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 6.6   | 5.4   | 8.0   |
| 122     | 12.0  | 11.0  | 16.4  |

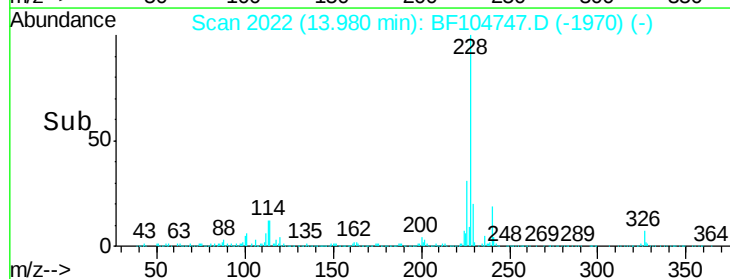
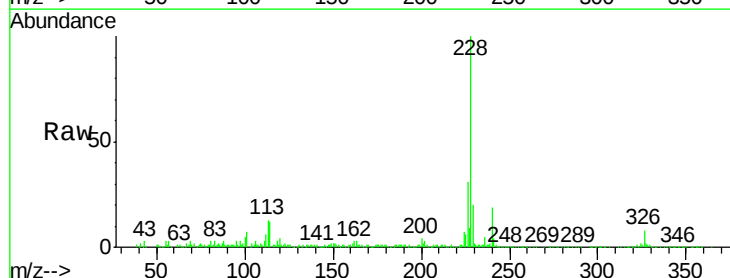
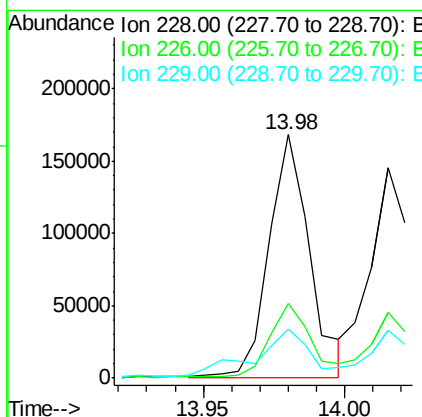
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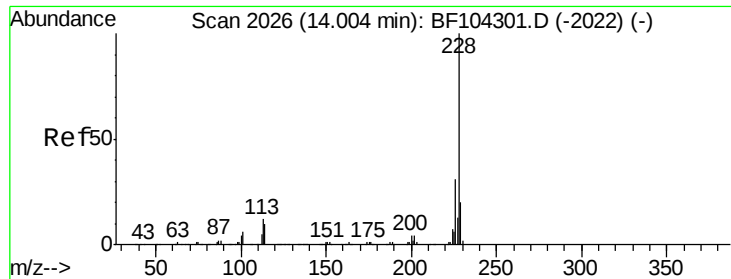
Sohil  
 4/24/2018 3:49:28 PM



#80  
 Benzo(a)anthracene  
 Concen: 16.962 ng m  
 RT: 13.98 min Scan# 2022  
 Delta R.T. 0.01 min  
 Lab File: BF104747.D  
 Acq: 24 Apr 2018 10:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 30.7  | 22.6  | 33.8  |
| 229     | 20.2  | 15.8  | 23.6  |





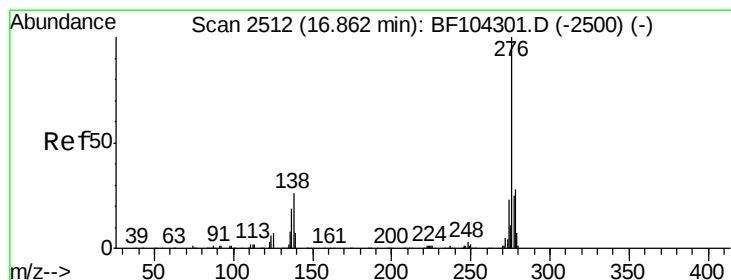
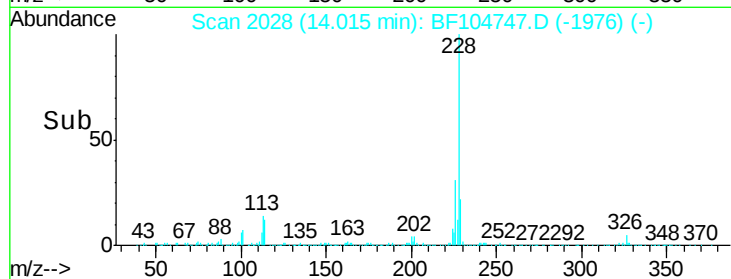
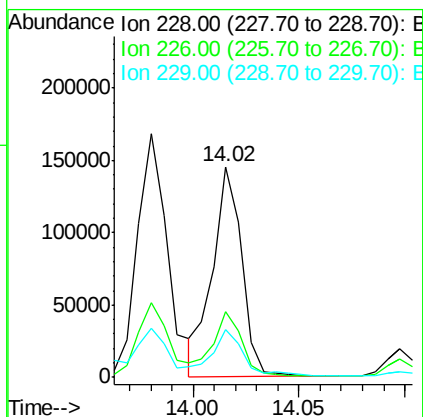
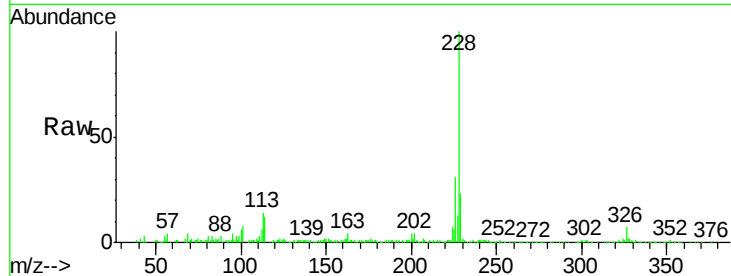
#82  
Chrysene  
Concen: 13.754 ng  
RT: 14.02 min Scan# 2028  
Delta R.T. 0.01 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

Instrument :  
BNA\_F  
ClientSampleId :  
CHRT25773DL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 228   | Resp: | 140368 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 31.3  | 25.0  | 37.6   |
| 229       | 22.5  | 16.2  | 24.4   |

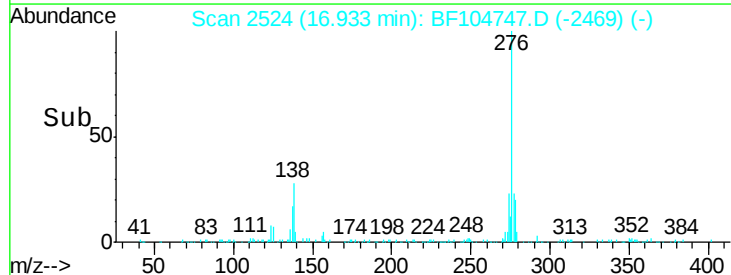
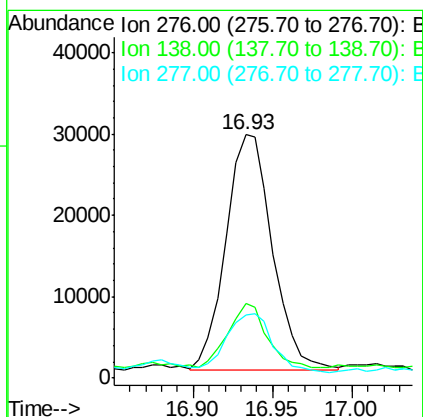
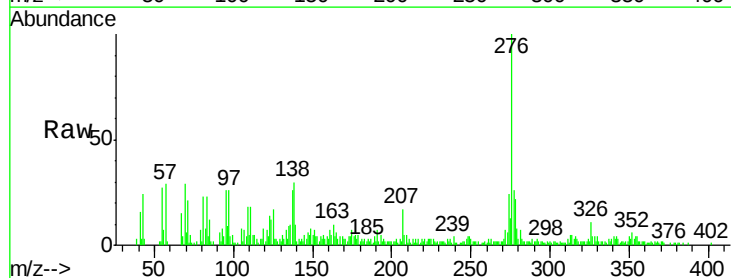
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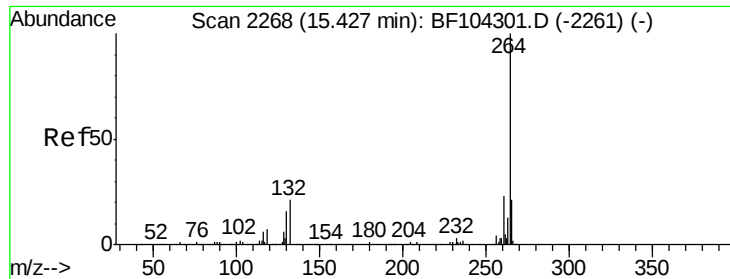
Sohil  
4/24/2018 3:49:28 PM



#85  
Indeno(1,2,3-cd)pyrene  
Concen: 6.763 ng m  
RT: 16.93 min Scan# 2524  
Delta R.T. 0.02 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 276   | Resp: | 58630 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 138       | 6.2   | 25.0  | 37.6# |
| 277       | 4.9   | 20.1  | 30.1# |





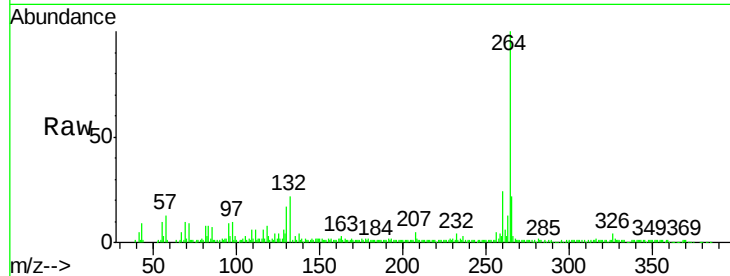
#86  
Pervlene-d12  
Concen: 20.000 ng  
RT: 15.47 min Scan# 2275  
Delta R.T. 0.02 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

Instrument :  
BNA\_F  
ClientSampleId :  
CHRT25773DL

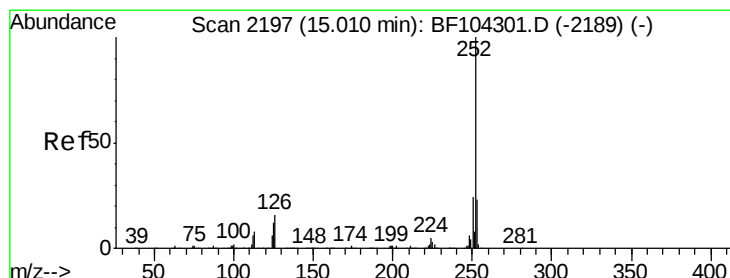
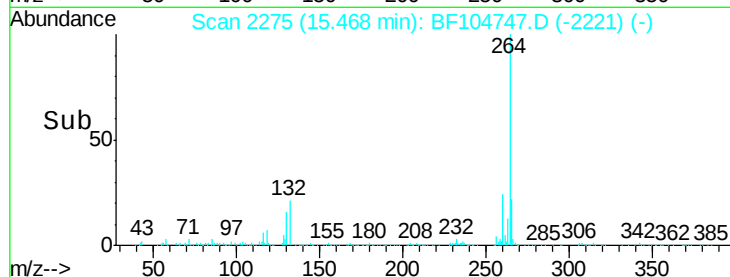
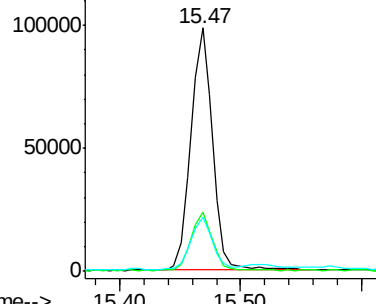
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 24.4  | 19.2  | 28.8  |
| 265     | 22.4  | 17.5  | 26.3  |

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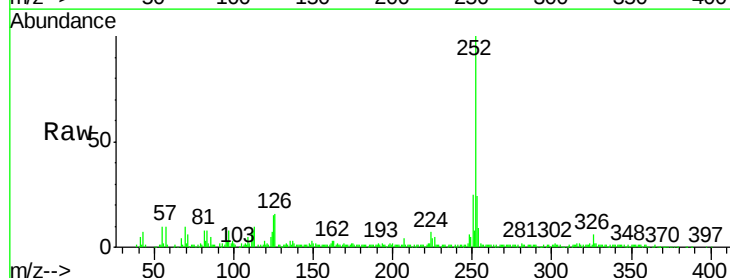


Abundance Ion 264.00 (263.70 to 264.70): E  
Ion 260.00 (259.70 to 260.70): E  
Ion 265.00 (264.70 to 265.70): E

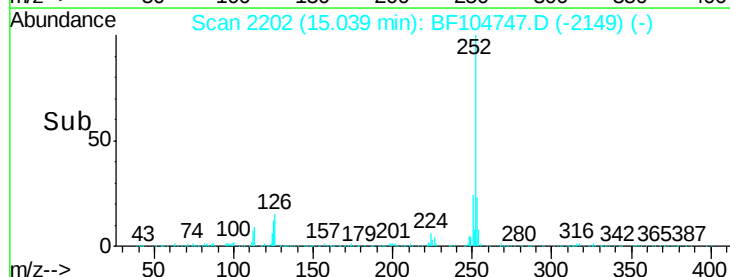
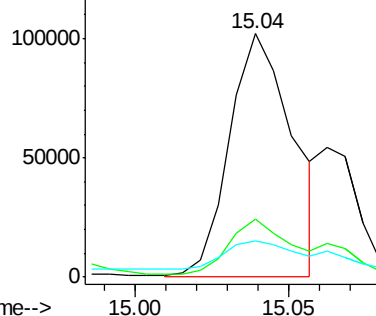


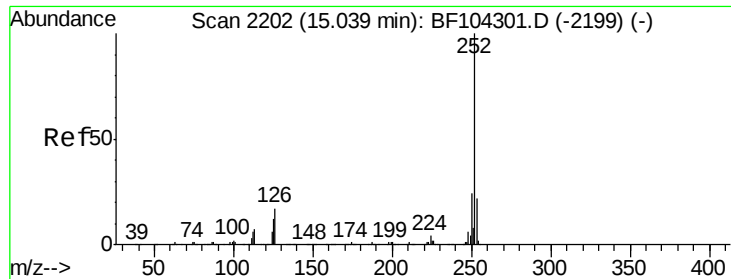
#87  
Benzo(b)fluoranthene  
Concen: 18.913 ng m  
RT: 15.04 min Scan# 2202  
Delta R.T. 0.01 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.1  | 17.0  | 25.6  |
| 125     | 15.0  | 9.0   | 13.6# |



Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E





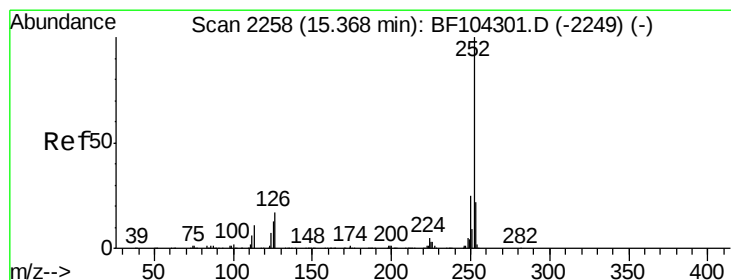
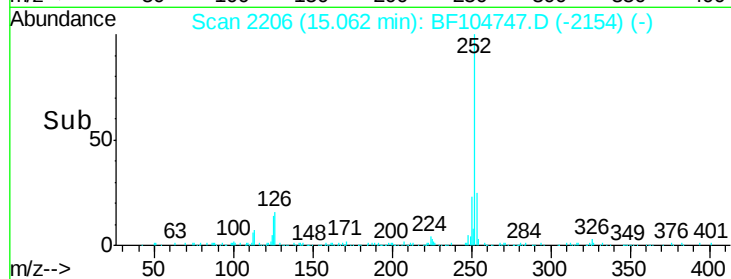
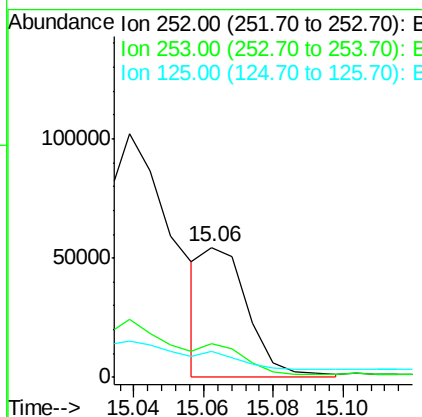
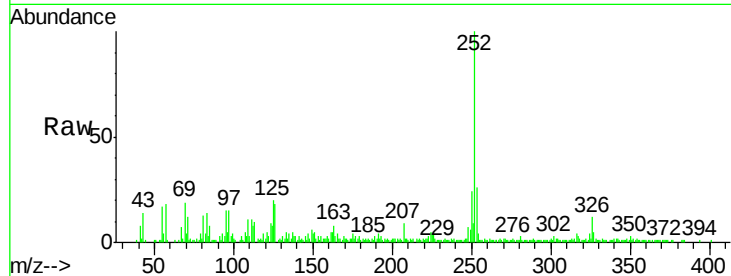
#88  
Benzo(k)fluoranthene  
Concen: 6.753 ng m  
RT: 15.06 min Scan# 2206  
Delta R.T. 0.01 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

Instrument :  
BNA\_F  
ClientSampleId :  
CHRT25773DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 25.9  | 17.9  | 26.9  |
| 125     | 19.8  | 10.2  | 15.2  |

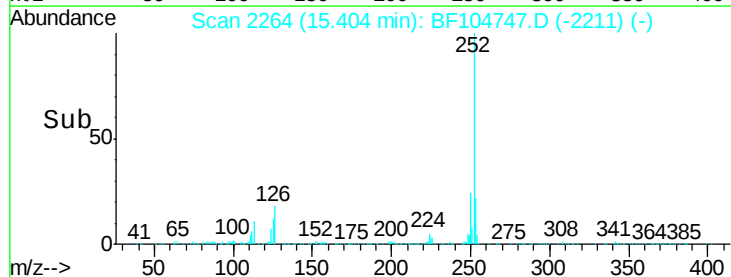
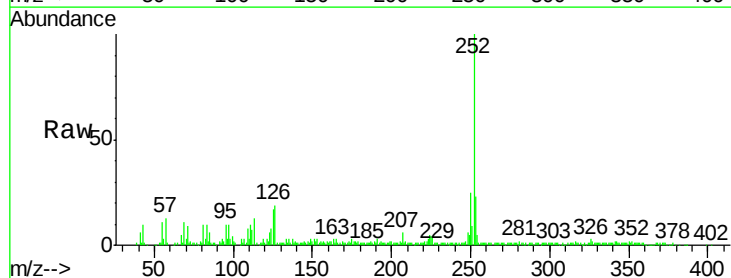
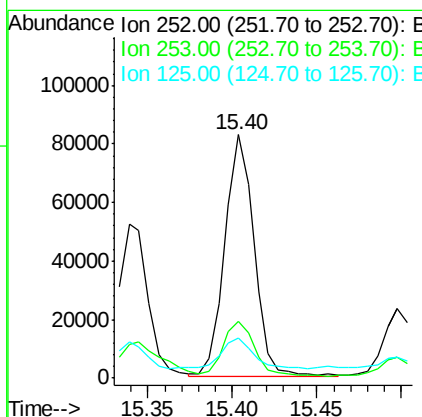
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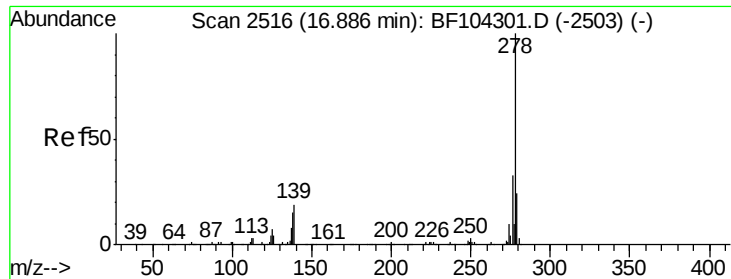
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4/24/2018 3:49:28 PM



#89  
Benzo(a)pyrene  
Concen: 14.422 ng  
RT: 15.40 min Scan# 2264  
Delta R.T. 0.01 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.4  | 17.1  | 25.7  |
| 125     | 16.5  | 9.8   | 14.6  |





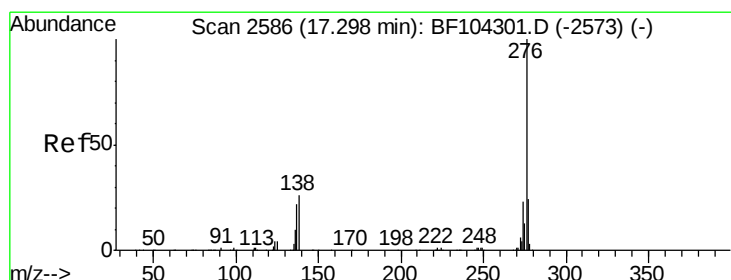
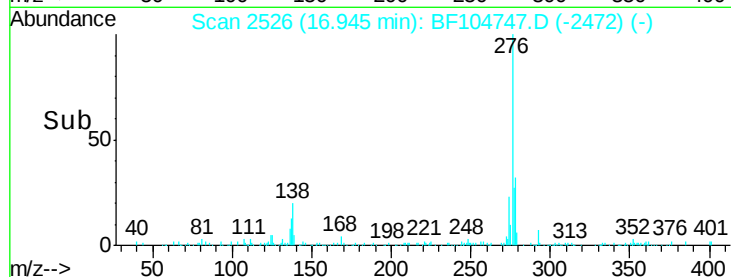
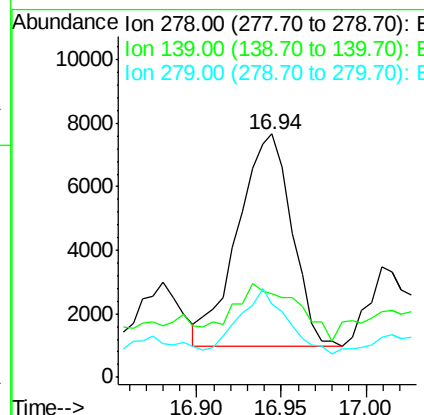
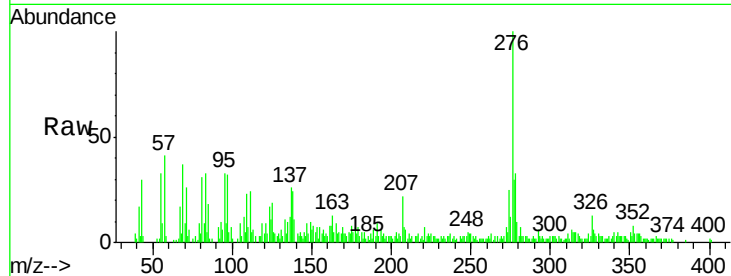
#90  
Dibenzo(a,h)anthracene  
Concen: 2.639 ng  
RT: 16.94 min Scan# 2526  
Delta R.T. 0.02 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

Instrument :  
BNA\_F  
ClientSampleID :  
CHRT25773DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 34.3  | 15.9  | 23.9# |
| 279     | 30.2  | 19.0  | 28.4# |

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4/24/2018 3:49:28 PM



#91  
Benzo(g,h,i)perylene  
Concen: 10.470 ng  
RT: 17.39 min Scan# 2601  
Delta R.T. 0.04 min  
Lab File: BF104747.D  
Acq: 24 Apr 2018 10:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 25.5  | 17.9  | 26.9  |
| 138     | 26.8  | 21.8  | 32.8  |

