

Data Path : Z:\HPCHEM1\BNA F\DATA\BF033117\  
 Data File : BF094109.D  
 Acq On : 31 Mar 2017 21:15  
 Operator : SJ/MA  
 Sample : I2463-11  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 E2-BB-8-9-ESW

Manual Integrations  
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 4/3/2017 3:26:24 PM

Quant Time: Apr 01 00:39:46 2017  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF032217.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Mar 31 14:38:29 2017  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min)  |
|-----------------------------|-------|------|----------|--------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4   | 5.90  | 152  | 160896   | 20.00  | ng    | 0.00      |
| 21) Naphthalene-d8          | 7.40  | 136  | 562620   | 20.00  | ng    | 0.00      |
| 38) Acenaphthene-d10        | 9.55  | 164  | 235959   | 20.00  | ng    | 0.00      |
| 63) Phenanthrene-d10        | 11.37 | 188  | 346324   | 20.00  | ng    | 0.00      |
| 75) Chrysene-d12            | 14.67 | 240  | 252122   | 20.00  | ng    | 0.04      |
| 86) Perylene-d12            | 16.30 | 264  | 217463   | 20.00  | ng    | 0.05      |
| System Monitoring Compounds |       |      |          |        |       |           |
| 5) 2-Fluorophenol           | 4.44  | 112  | 1020904  | 107.17 | ng    | 0.00      |
| 7) Phenol-d6                | 5.51  | 99   | 1253584  | 106.37 | ng    | 0.00      |
| 23) Nitrobenzene-d5         | 6.55  | 82   | 750377   | 76.11  | ng    | 0.00      |
| 41) 2,4,6-Tribromophenol    | 10.52 | 330  | 203492   | 109.14 | ng    | 0.00      |
| 44) 2-Fluorobiphenyl        | 8.73  | 172  | 1298671  | 83.95  | ng    | 0.00      |
| 78) Terphenyl-d14           | 13.38 | 244  | 587931   | 52.27  | ng    | 0.03      |
| Target Compounds            |       |      |          |        |       |           |
| 9) Benzaldehyde             | 5.39  | 77   | 19200    | 2.41   | ng    | Qvalue 97 |
| 10) Phenol                  | 5.52  | 94   | 56876    | 4.24   | ng    | 90        |
| 17) 2-Methylphenol          | 6.21  | 107  | 240240   | 26.79  | ng    | 94        |
| 20) 3+4-Methylphenols       | 6.40  | 107  | 326347   | 30.05  | ng    | # 61      |
| 27) 2,4-Dimethylphenol      | 7.03  | 122  | 519505   | 65.02  | ng    | # 93      |
| 29) 2,4-Dichlorophenol      | 7.25  | 162  | 130013   | 17.40  | ng    | 99        |
| 31) Naphthalene             | 7.43  | 128  | 277070m  | 10.24  | ng    |           |
| 37) 2-Methylnaphthalene     | 8.27  | 142  | 71358    | 3.96   | ng    | 97        |
| 49) Dimethylphthalate       | 9.22  | 163  | 83049    | 4.95   | ng    | 100       |
| 70) Phenanthrene            | 11.40 | 178  | 101076   | 5.25   | ng    | 96        |

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

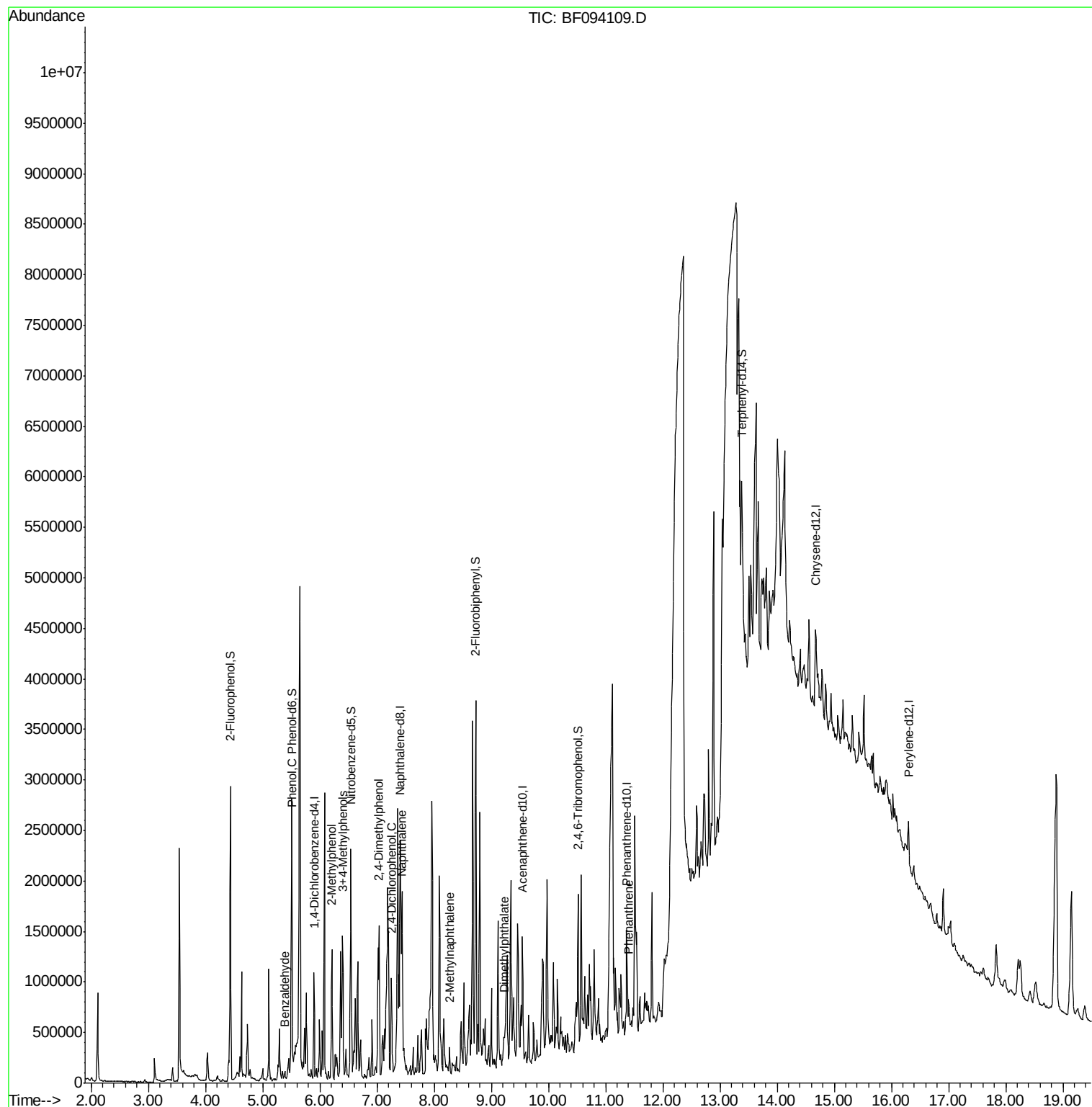
Data Path : Z:\HPCHEM1\BNA F\DATA\BF033117\  
Data File : BF094109.D  
Acq On : 31 Mar 2017 21:15  
Operator : SJ/MA  
Sample : I2463-11  
Misc :  
ALS Vial : 23 Sample Multiplier: 1

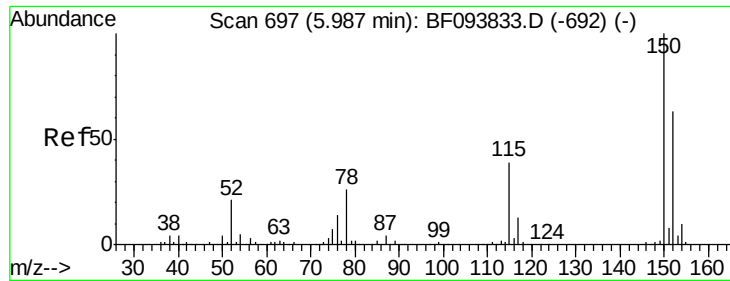
Instrument :  
BNA\_F  
ClientSampleId :  
E2-BB-8-9-ESW

Manual Integrations  
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Quant Time: Apr 01 00:39:46 2017  
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
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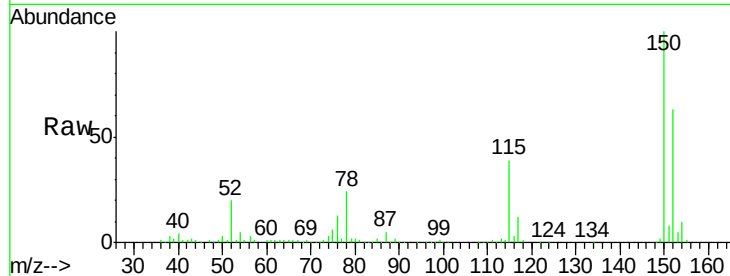
#1  
 1,4-Dichlorobenzene-d4  
 Concen: 20.00 ng  
 RT: 5.90 min Scan# 682  
 Delta R.T. -0.01 min  
 Lab File: BF094109.D  
 Acq: 31 Mar 2017 21:15

Instrument :  
 BNA\_F  
 ClientSampleId :  
 E2-BB-8-9-ESW

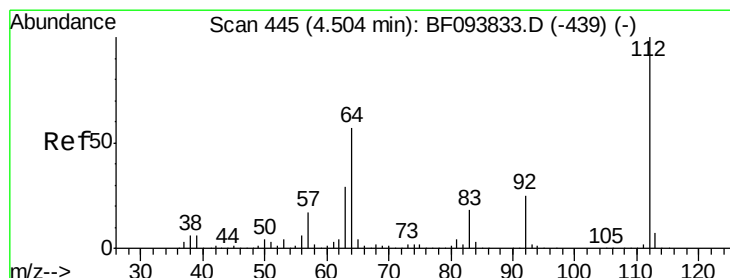
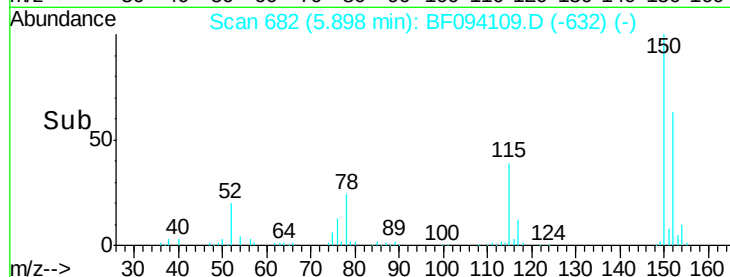
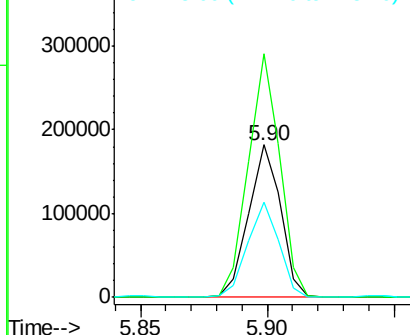
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 159.6 | 126.2 | 189.2 |
| 115     | 62.5  | 52.2  | 78.2  |

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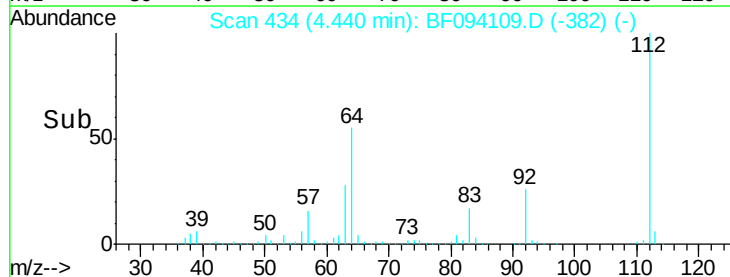
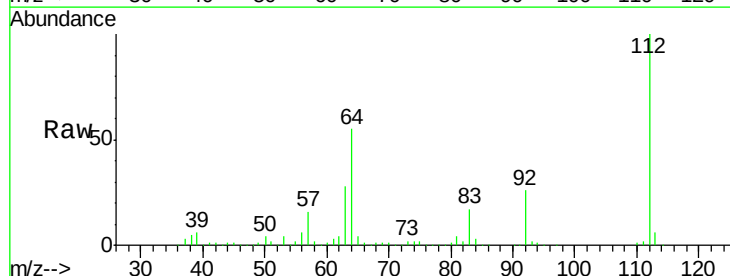
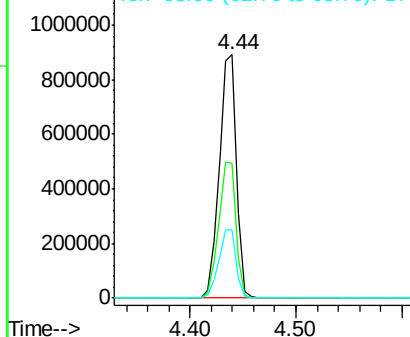
Abundance Ion 152.00 (151.70 to 152.70): E  
 Ion 150.00 (149.70 to 150.70): E  
 Ion 115.00 (114.70 to 115.70): E

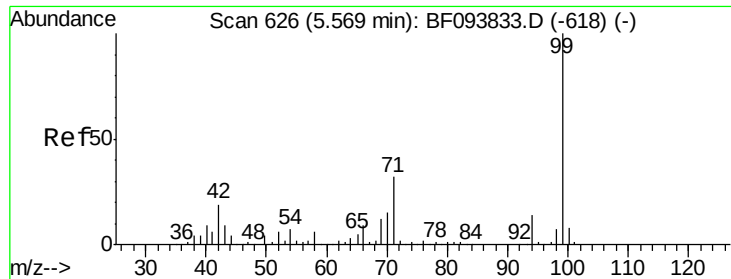


#5  
 2-Fluorophenol  
 Concen: 107.17 ng  
 RT: 4.44 min Scan# 434  
 Delta R.T. 0.01 min  
 Lab File: BF094109.D  
 Acq: 31 Mar 2017 21:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 55.5  | 46.0  | 69.0  |
| 63      | 27.9  | 23.4  | 35.0  |

Abundance Ion 112.00 (111.70 to 112.70): E  
 Ion 64.00 (63.70 to 64.70): BF0  
 Ion 63.00 (62.70 to 63.70): BF0





#7

Phenol-d6

Concen: 106.37 ng

RT: 5.51 min Scan# 616

Delta R.T. -0.00 min

Lab File: BF094109.D

Acq: 31 Mar 2017 21:15

Instrument :

BNA\_F

ClientSampleId :

E2-BB-8-9-ESW

Tot Ion: 99 Resp: 1253584

Ion Ratio Lower Upper

99 100

42 18.0 13.5 20.3

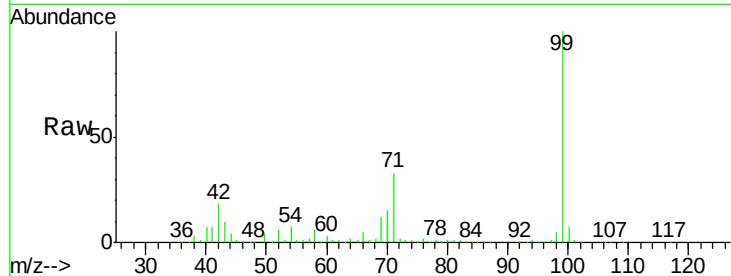
71 33.3 24.5 36.7

Manual Integrations

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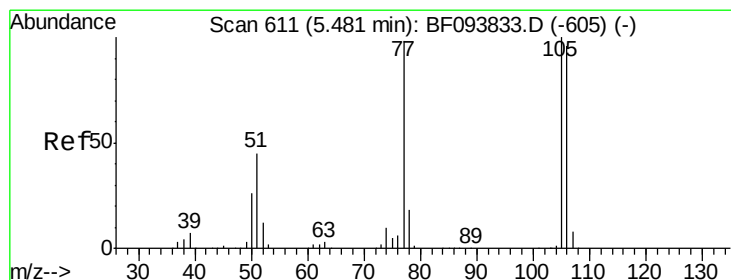
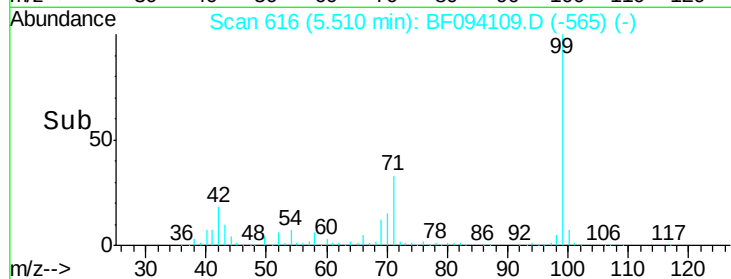
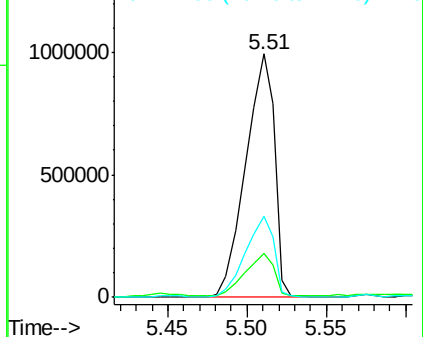
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Abundance Ion 99.00 (98.70 to 99.70): BF0

Ion 42.00 (41.70 to 42.70): BF0

Ion 71.00 (70.70 to 71.70): BF0



#9

Benzaldehyde

Concen: 2.41 ng

RT: 5.39 min Scan# 596

Delta R.T. -0.01 min

Lab File: BF094109.D

Acq: 31 Mar 2017 21:15

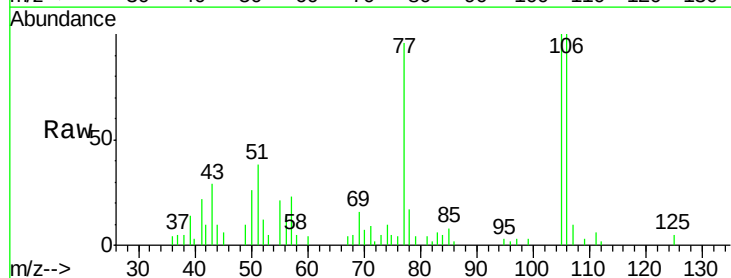
Tgt Ion: 77 Resp: 19200

Ion Ratio Lower Upper

77 100

105 104.6 83.8 123.8

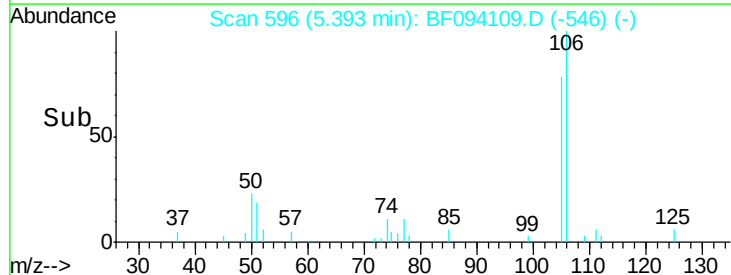
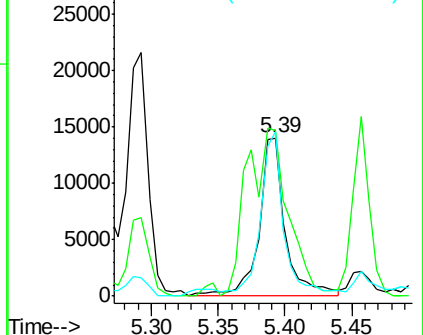
106 104.2 79.1 119.1

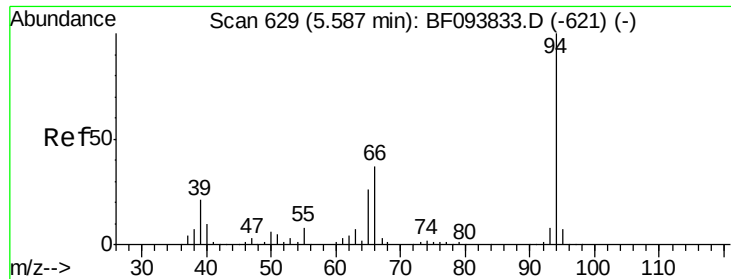


Abundance Ion 77.00 (76.70 to 77.70): BF0

Ion 105.00 (104.70 to 105.70): E

Ion 106.00 (105.70 to 106.70): E





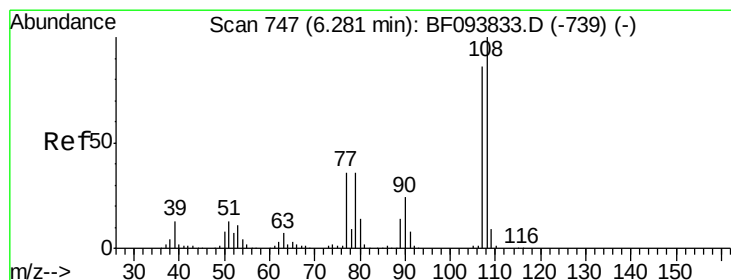
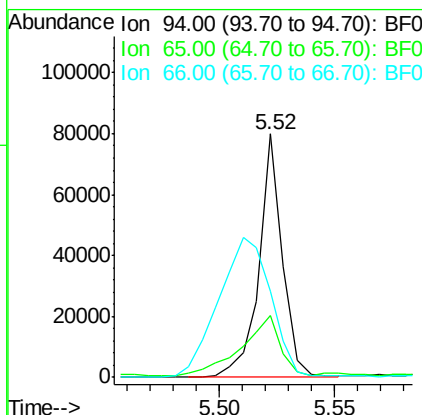
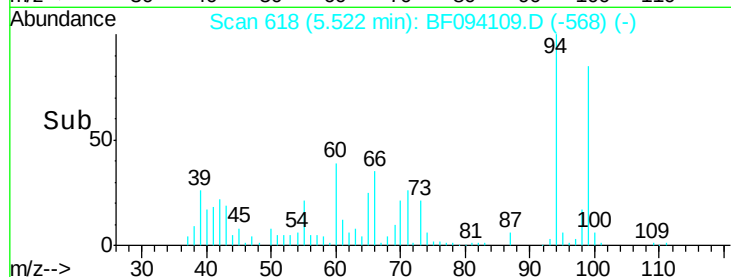
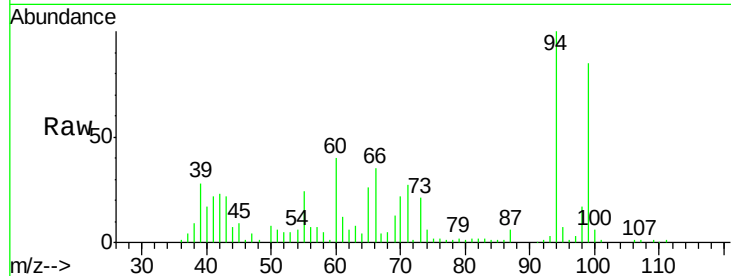
#10  
Phenol  
Concen: 4.24 ng  
RT: 5.52 min Scan# 618  
Delta R.T. -0.01 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

Instrument :  
BNA\_F  
ClientSampled :  
E2-BB-8-9-ESW

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 94      | 100   |       |       |
| 65      | 25.6  | 9.9   | 49.9  |
| 66      | 35.3  | 23.1  | 63.1  |

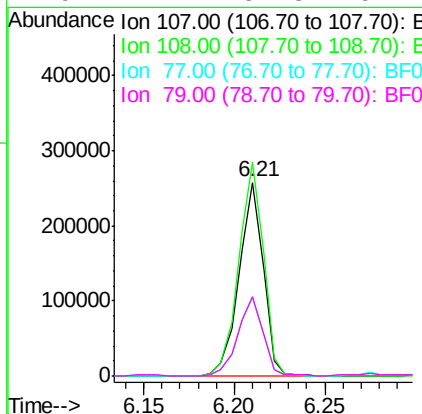
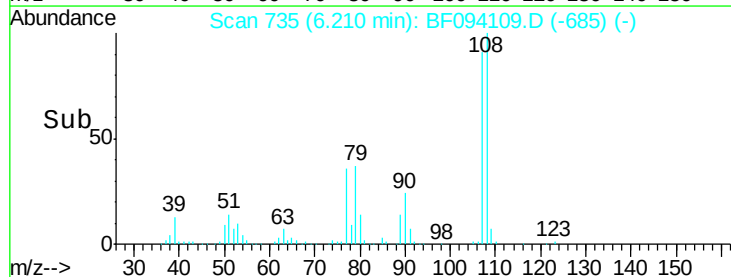
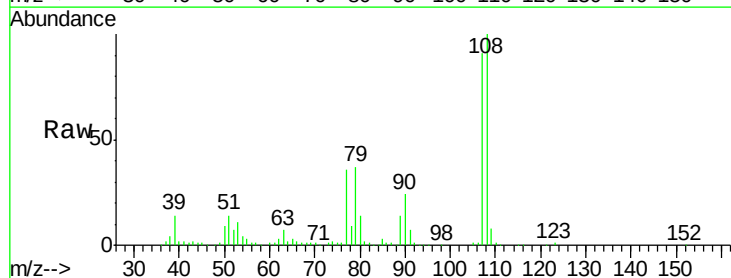
Manual Integrations  
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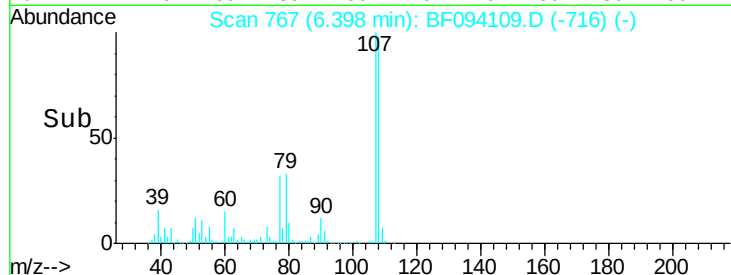
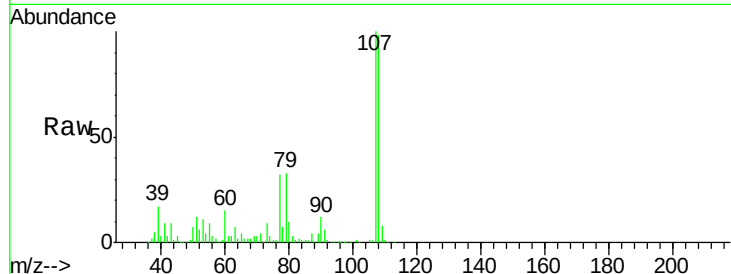
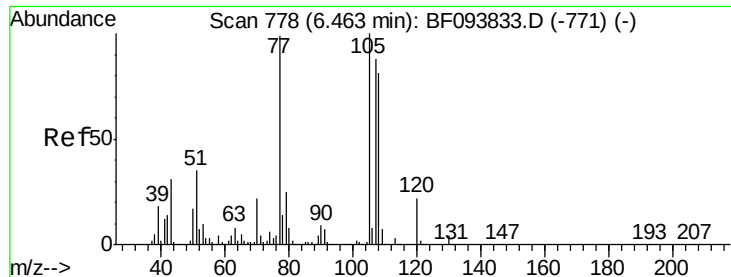
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#17  
2-Methylphenol  
Concen: 26.79 ng  
RT: 6.21 min Scan# 735  
Delta R.T. -0.01 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 108     | 110.4 | 93.4  | 140.0 |
| 77      | 40.2  | 35.8  | 53.6  |
| 79      | 41.4  | 34.8  | 52.2  |





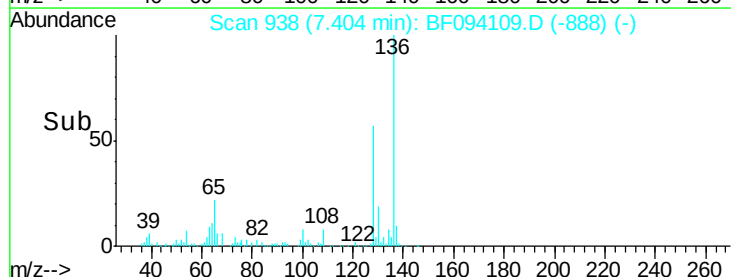
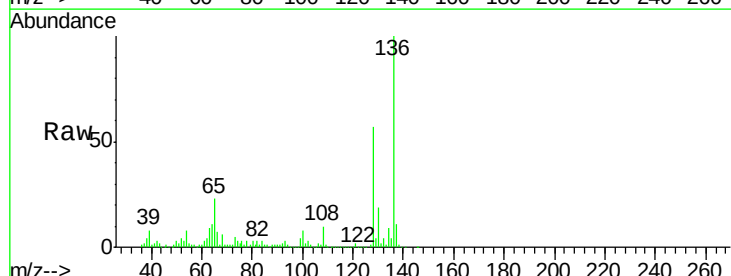
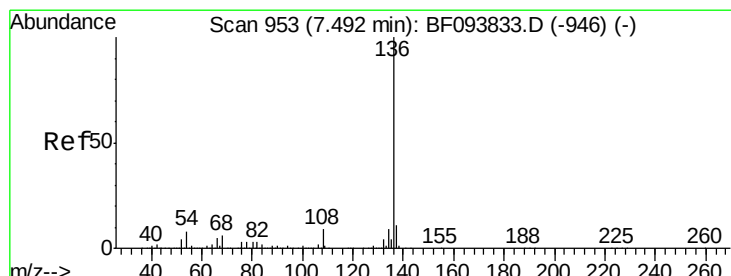
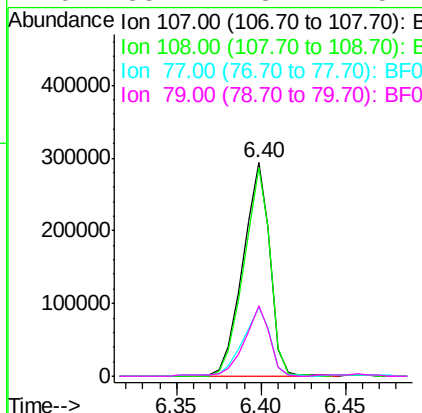
#20  
3+4-Methylphenols  
Concen: 30.05 ng  
RT: 6.40 min Scan# 767  
Delta R.T. -0.00 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

| Tot Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 107     | 100   |      |       |       |
| 108     | 97.6  | 71.0 | 111.0 |       |
| 77      | 32.3  | 90.5 | 130.5 |       |
| 79      | 33.2  | 8.4  | 48.4  |       |

Instrument :  
BNA\_F  
ClientSampleId :  
E2-BB-8-9-ESW

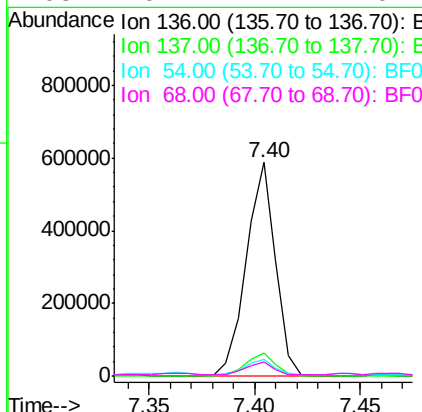
Manual Integrations  
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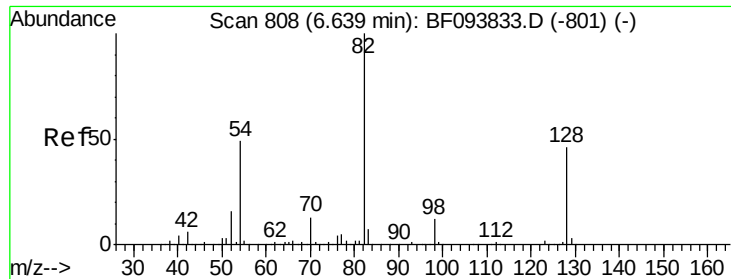
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#21  
Naphthalene-d8  
Concen: 20.00 ng  
RT: 7.40 min Scan# 938  
Delta R.T. -0.01 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 136     | 100   |      |       |       |
| 137     | 10.7  | 8.5  | 12.7  |       |
| 54      | 7.7   | 4.9  | 7.3   |       |
| 68      | 6.4   | 4.1  | 6.1   |       |





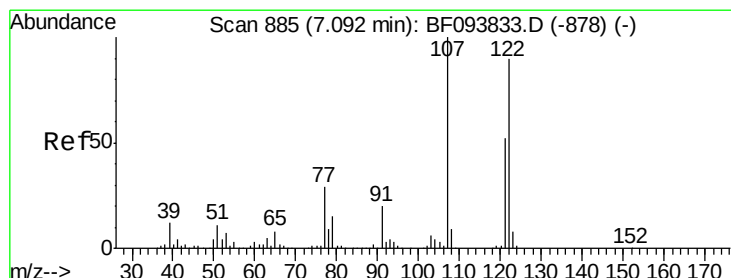
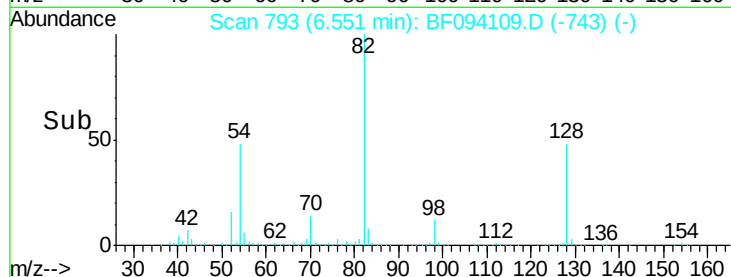
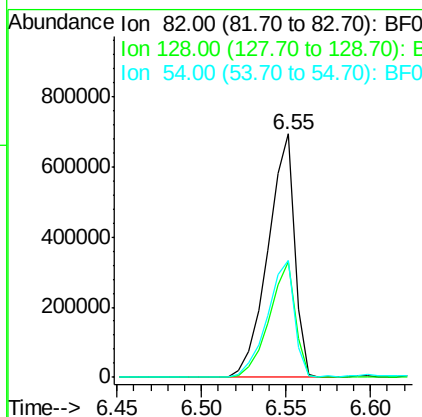
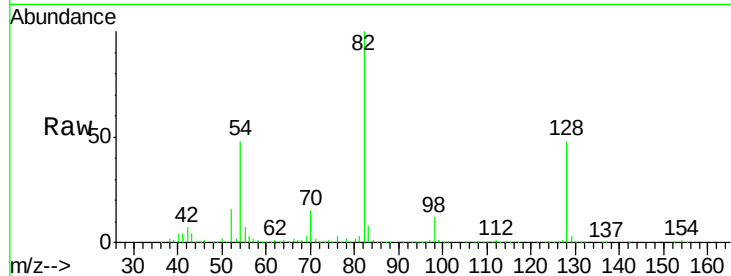
#23  
 Nitrobenzene-d5  
 Concen: 76.11 ng  
 RT: 6.55 min Scan# 793  
 Delta R.T. -0.01 min  
 Lab File: BF094109.D  
 Acq: 31 Mar 2017 21:15

Instrument :  
 BNA\_F  
 ClientSampleId :  
 E2-BB-8-9-ESW

| Tot Ion   | 82    | Resp  | 750377 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 82        | 100   |       |        |
| 128       | 47.6  | 34.0  | 51.0   |
| 54        | 47.9  | 42.2  | 63.2   |

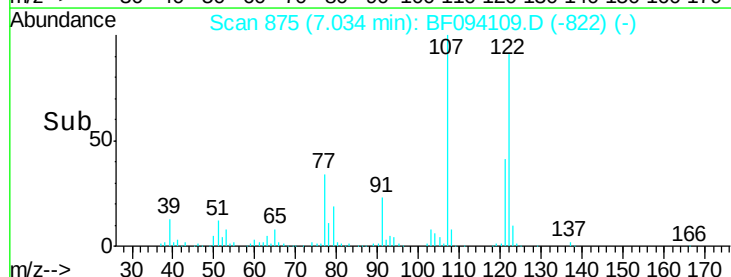
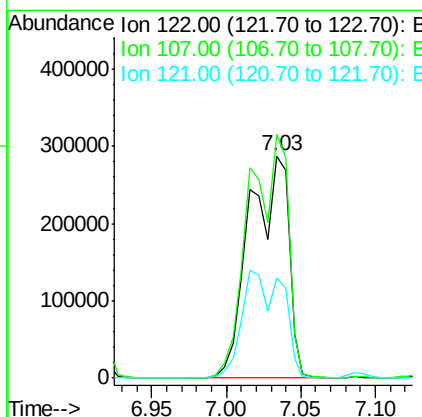
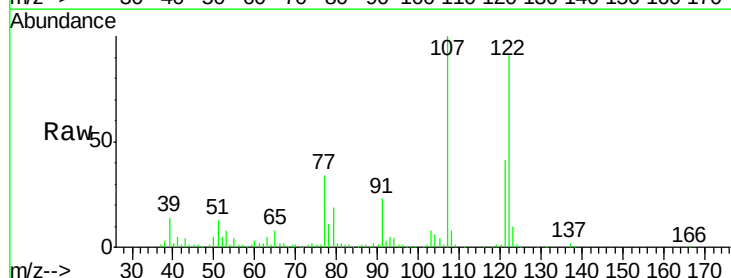
Manual Integrations  
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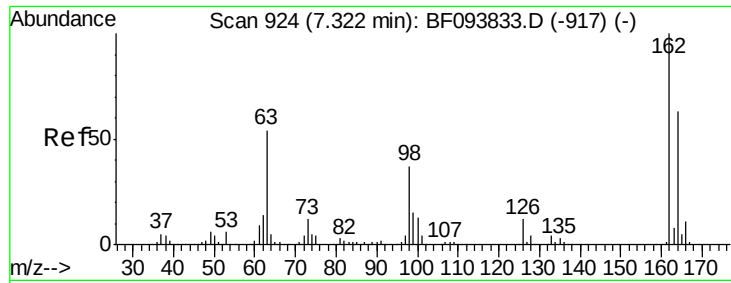
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#27  
 2,4-Dimethylphenol  
 Concen: 65.02 ng  
 RT: 7.03 min Scan# 875  
 Delta R.T. 0.01 min  
 Lab File: BF094109.D  
 Acq: 31 Mar 2017 21:15

| Tgt Ion   | 122   | Resp  | 519505 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 122       | 100   |       |        |
| 107       | 109.5 | 89.2  | 133.8  |
| 121       | 44.9  | 45.2  | 67.8#  |





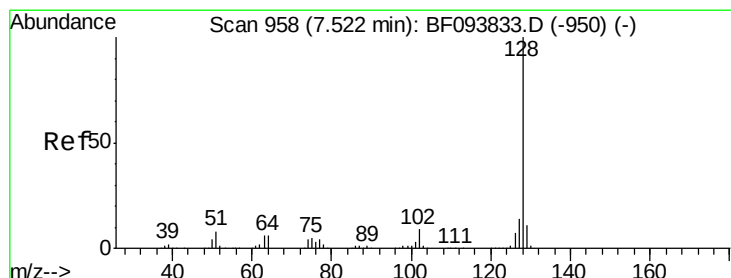
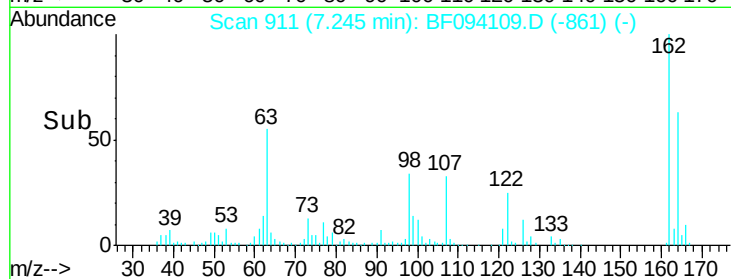
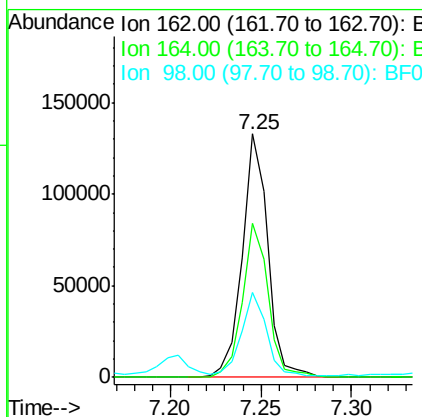
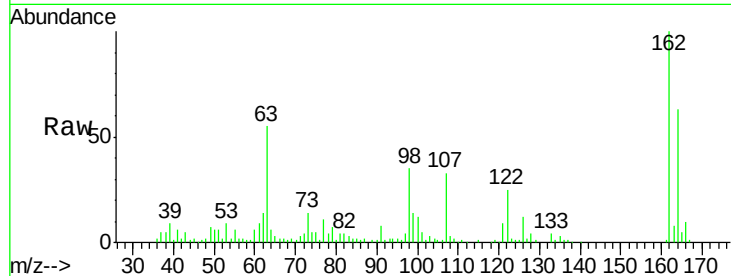
#29  
 2,4-Dichlorophenol  
 Concen: 17.40 ng  
 RT: 7.25 min Scan# 911  
 Delta R.T. -0.01 min  
 Lab File: BF094109.D  
 Acq: 31 Mar 2017 21:15

Instrument :  
 BNA\_F  
 ClientSampleId :  
 E2-BB-8-9-ESW

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 162     | 100   | 130013 |       |       |
| 164     | 63.5  | 44.6   | 84.6  |       |
| 98      | 34.9  | 14.8   | 54.8  |       |

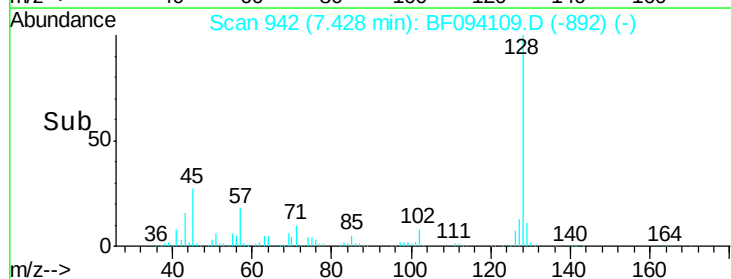
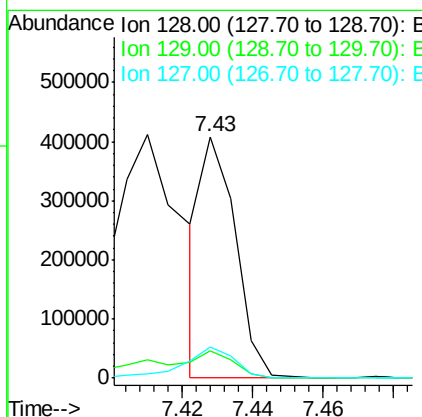
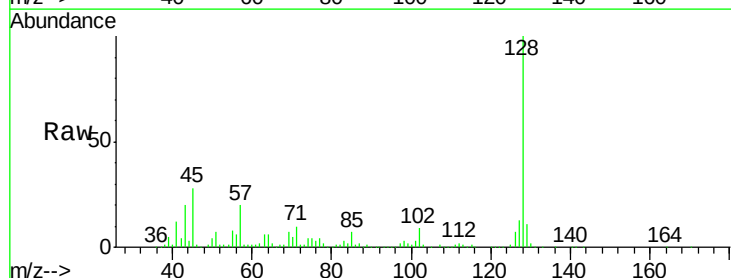
Manual Integrations  
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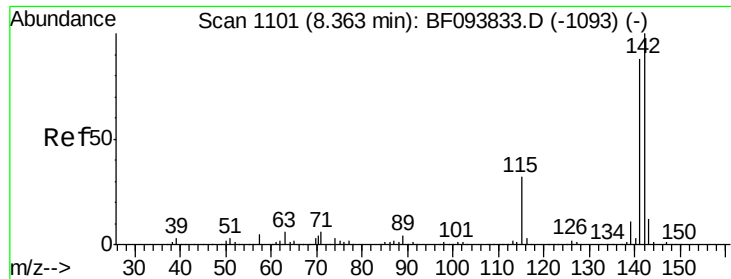


#31  
 Naphthalene  
 Concen: 10.24 ng m  
 RT: 7.43 min Scan# 942  
 Delta R.T. -0.01 min  
 Lab File: BF094109.D  
 Acq: 31 Mar 2017 21:15

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 128     | 100   | 277070 |       |       |
| 129     | 11.1  | 9.0    | 13.6  |       |
| 127     | 13.1  | 10.8   | 16.2  |       |







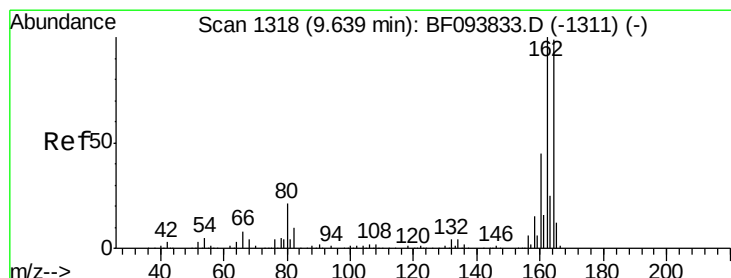
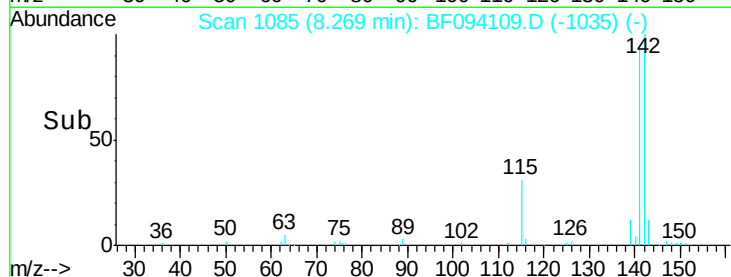
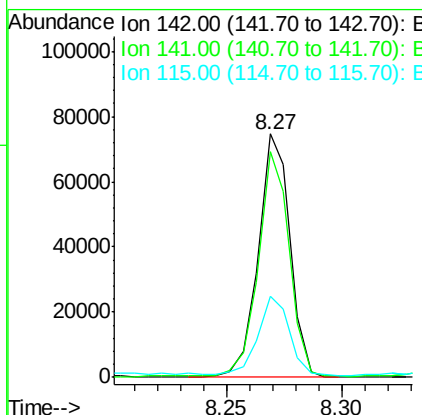
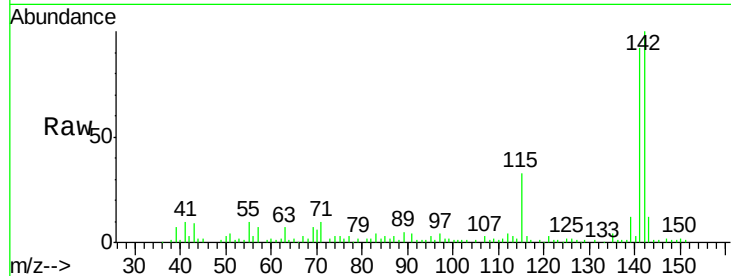
#37  
2-Methylnaphthalene  
Concen: 3.96 ng  
RT: 8.27 min Scan# 1085  
Delta R.T. -0.01 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

Instrument :  
BNA\_F  
ClientSampleId :  
E2-BB-8-9-ESW

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 142   | Resp: | 71358 |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 141       | 92.5  | 71.3  | 106.9 |
| 115       | 33.4  | 27.1  | 40.7  |

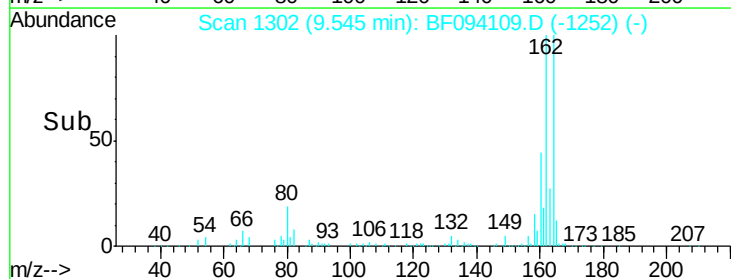
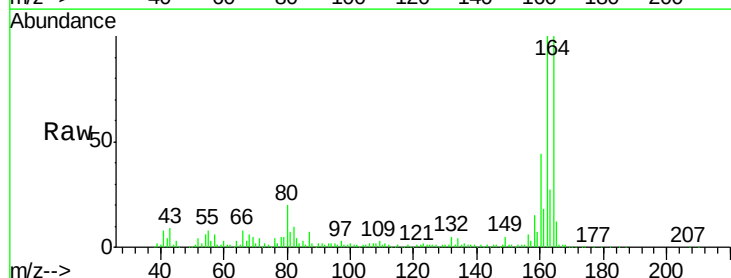
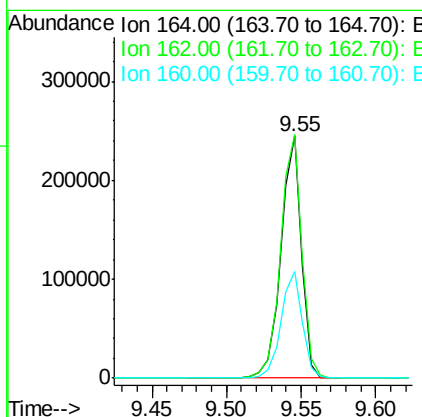
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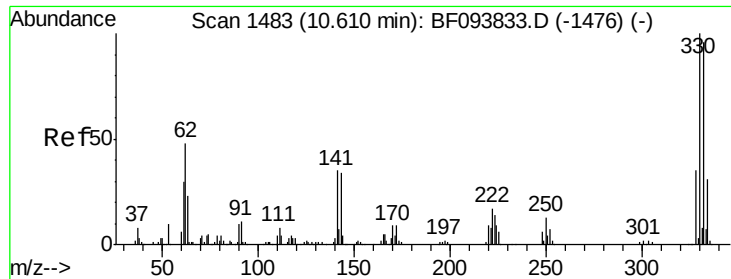
mohammad  
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#38  
Acenaphthene-d10  
Concen: 20.00 ng  
RT: 9.55 min Scan# 1302  
Delta R.T. -0.01 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 164   | Resp: | 235959 |
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 162       | 100.5 | 82.6  | 123.8  |
| 160       | 43.8  | 36.2  | 54.2   |





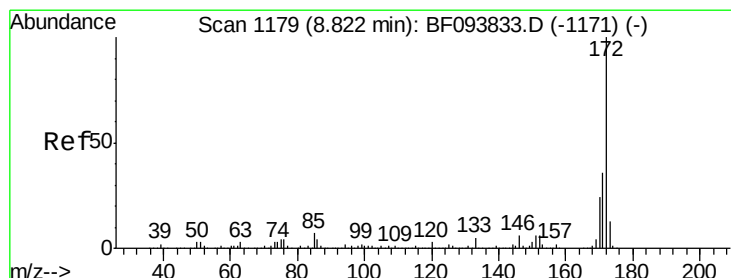
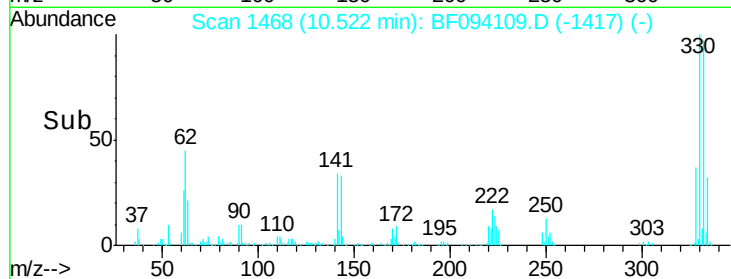
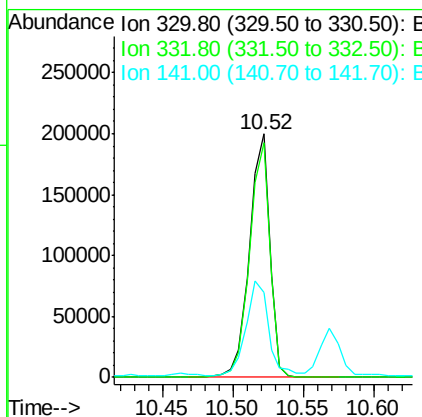
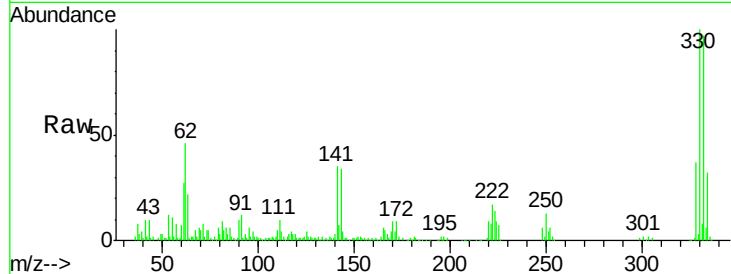
#41  
 2,4,6-Tribromophenol  
 Concen: 109.14 ng  
 RT: 10.52 min Scan# 1468  
 Delta R.T. -0.00 min  
 Lab File: BF094109.D  
 Acq: 31 Mar 2017 21:15

Instrument :  
 BNA\_F  
 ClientSampleId :  
 E2-BB-8-9-ESW

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 330     | 100   | 203492 |       |       |
| 332     | 96.6  | 76.6   | 115.0 |       |
| 141     | 42.6  | 31.4   | 47.2  |       |

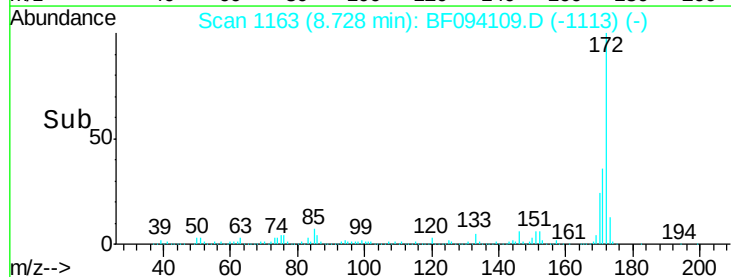
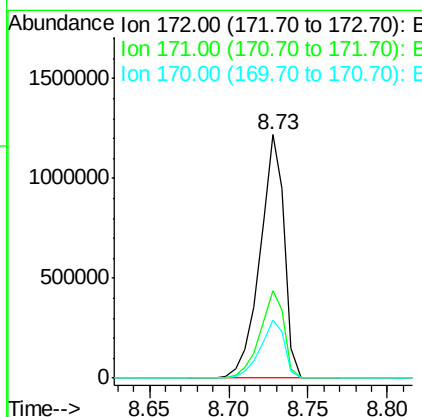
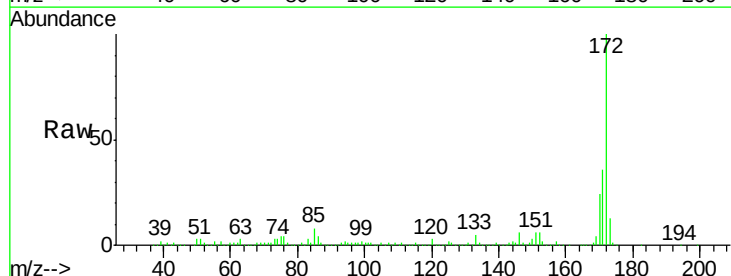
Manual Integrations  
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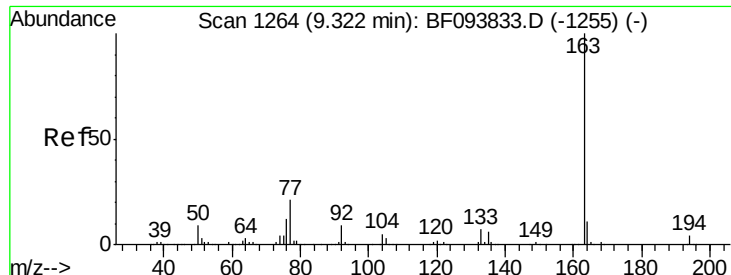
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#44  
 2-Fluorobiphenyl  
 Concen: 83.95 ng  
 RT: 8.73 min Scan# 1163  
 Delta R.T. -0.01 min  
 Lab File: BF094109.D  
 Acq: 31 Mar 2017 21:15

| Tgt Ion | Ratio | Resp    | Lower | Upper |
|---------|-------|---------|-------|-------|
| 172     | 100   | 1298671 |       |       |
| 171     | 35.9  | 29.6    | 44.4  |       |
| 170     | 23.7  | 19.8    | 29.8  |       |





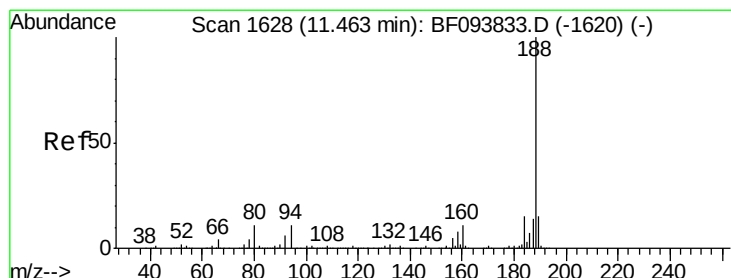
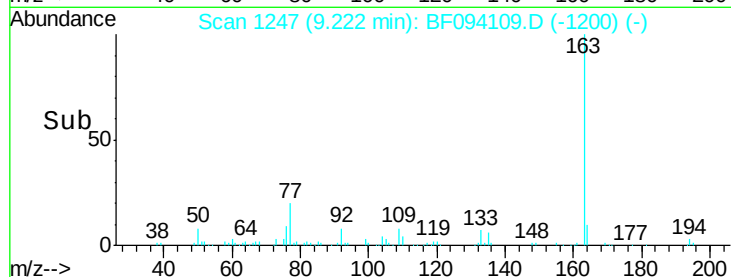
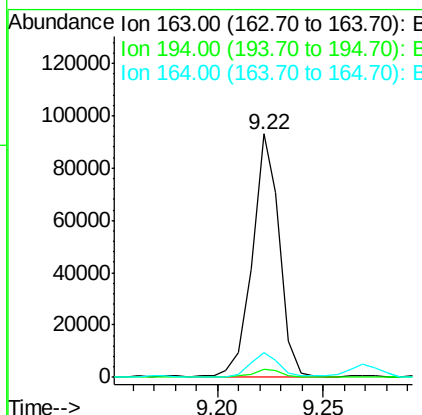
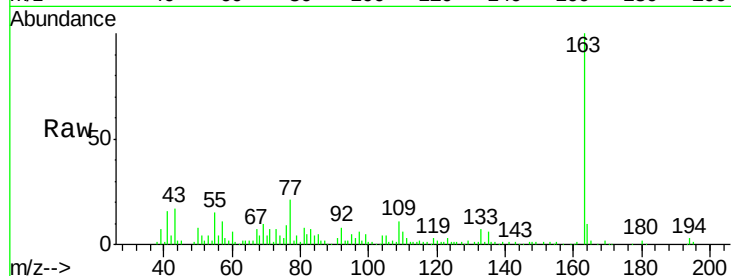
#49  
Dimethylphthalate  
Concen: 4.95 ng  
RT: 9.22 min Scan# 1247  
Delta R.T. -0.02 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

Instrument :  
BNA\_F  
ClientSampleId :  
E2-BB-8-9-ESW

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 163     | 100   | 83049 |       |       |
| 194     | 3.4   |       | 2.6   | 4.0   |
| 164     | 10.4  |       | 8.4   | 12.6  |

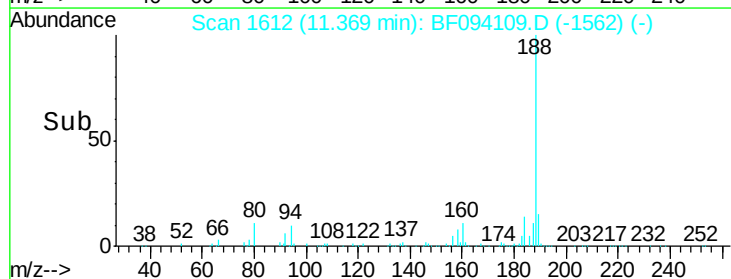
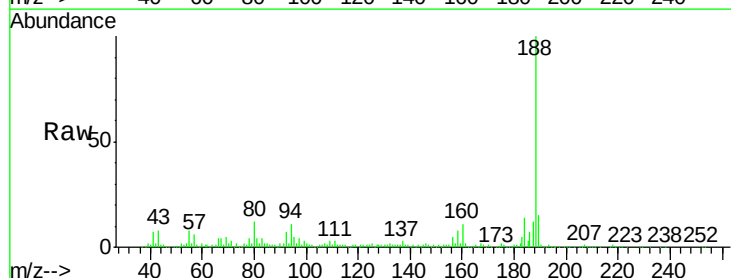
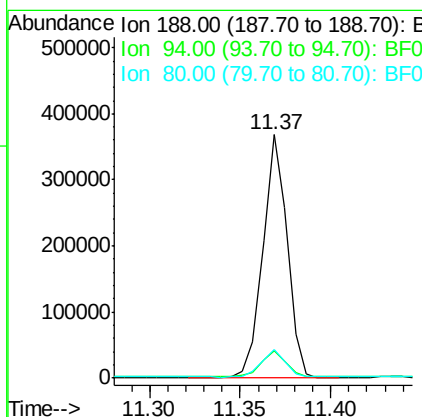
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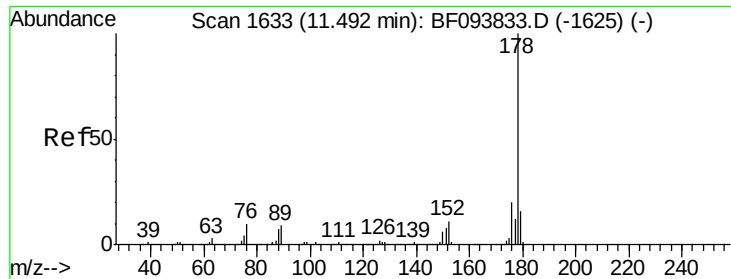
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#63  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 11.37 min Scan# 1612  
Delta R.T. -0.01 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 188     | 100   | 346324 |       |       |
| 94      | 11.1  |        | 9.4   | 14.2  |
| 80      | 11.8  |        | 10.2  | 15.2  |





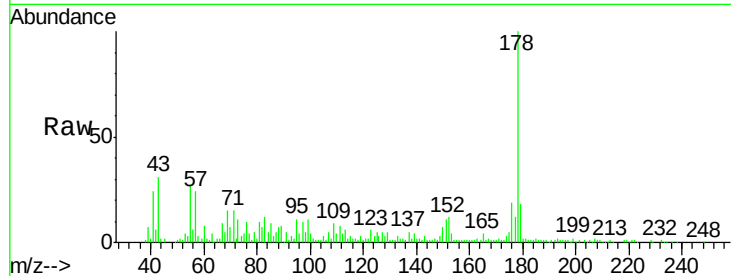
#70  
Phenanthrene  
Concen: 5.25 ng  
RT: 11.40 min Scan# 1617  
Delta R.T. -0.01 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

Instrument :  
BNA\_F  
ClientSampleId :  
E2-BB-8-9-ESW

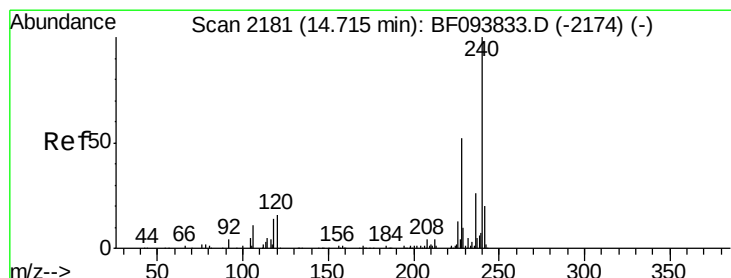
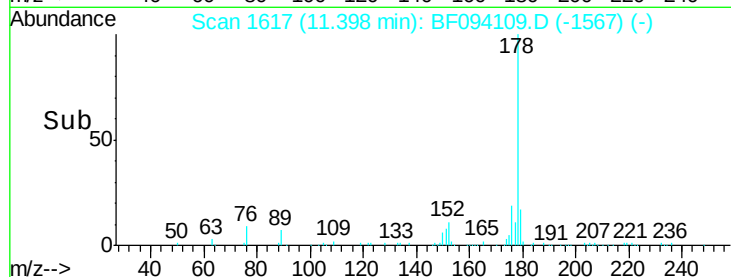
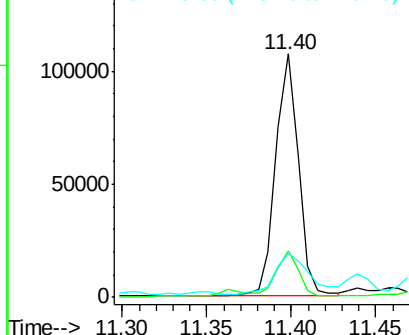
| Tot Ion | Ion  | Ratio | Resp | Lower | Upper |
|---------|------|-------|------|-------|-------|
| 178     | 100  |       |      |       |       |
| 176     | 18.9 | 16.2  | 24.4 |       |       |
| 179     | 17.8 | 12.6  | 19.0 |       |       |

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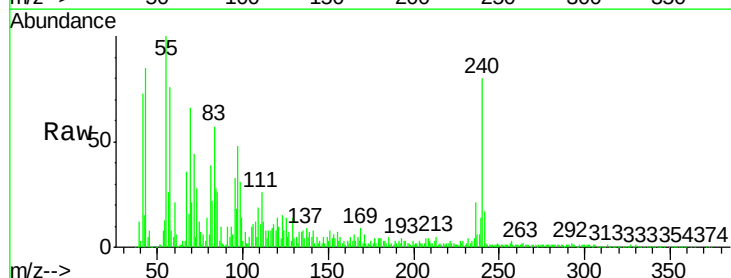


Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 176.00 (175.70 to 176.70): E  
Ion 179.00 (178.70 to 179.70): E

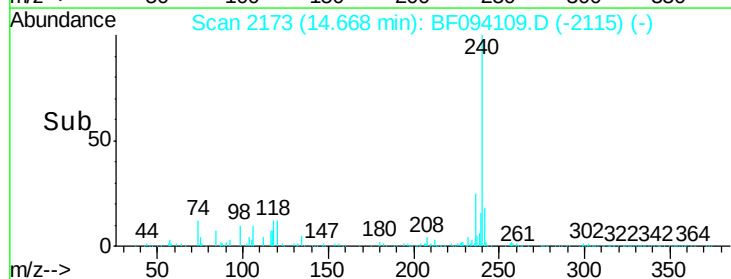
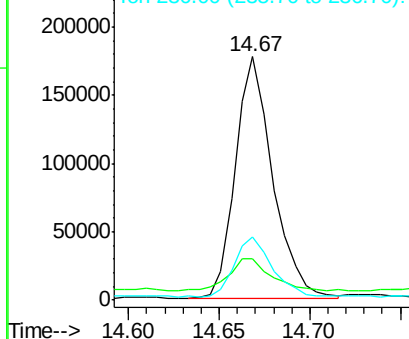


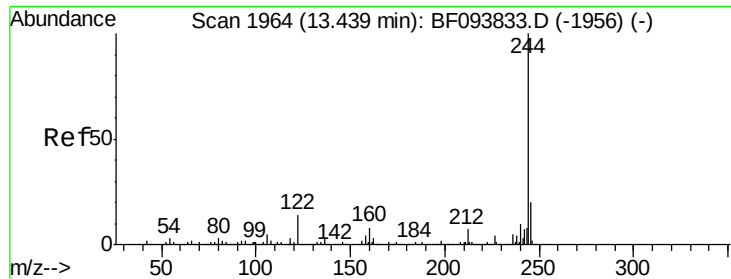
#75  
Chrysene-d12  
Concen: 20.00 ng  
RT: 14.67 min Scan# 2173  
Delta R.T. 0.04 min  
Lab File: BF094109.D  
Acq: 31 Mar 2017 21:15

| Tgt Ion | Ion  | Ratio | Resp | Lower | Upper |
|---------|------|-------|------|-------|-------|
| 240     | 100  |       |      |       |       |
| 120     | 17.1 | 5.8   | 8.8# |       |       |
| 236     | 25.9 | 20.5  | 30.7 |       |       |



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





#78

Terphenyl-d14

Concen: 52.27 ng

RT: 13.38 min Scan# 1954

Delta R.T. 0.03 min

Lab File: BF094109.D

Acq: 31 Mar 2017 21:15

Instrument :

BNA\_F

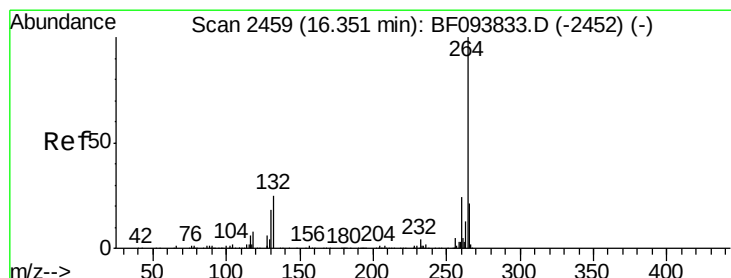
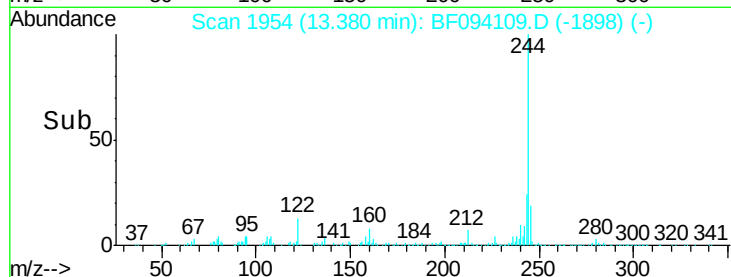
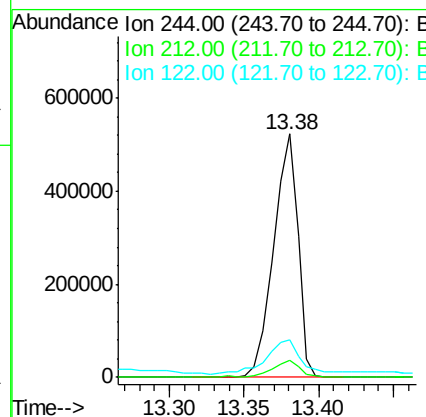
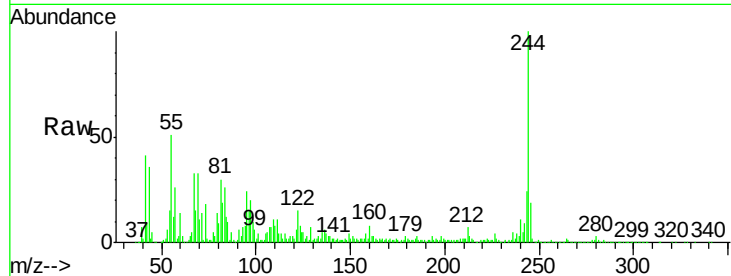
ClientSampleId :

E2-BB-8-9-ESW

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 244   | Resp: | 587931 |
| Ion Ratio | Lower | Upper |        |
| 244       | 100   |       |        |
| 212       | 6.9   | 6.0   | 9.0    |
| 122       | 15.4  | 10.3  | 15.5   |

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#86

Perylene-d12

Concen: 20.00 ng

RT: 16.30 min Scan# 2450

Delta R.T. 0.05 min

Lab File: BF094109.D

Acq: 31 Mar 2017 21:15

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 264   | Resp: | 217463 |
| Ion Ratio | Lower | Upper |        |
| 264       | 100   |       |        |
| 260       | 24.7  | 19.5  | 29.3   |
| 265       | 23.0  | 17.2  | 25.8   |

