

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF040319\  
 Data File : BF113566.D  
 Acq On : 4 Apr 2019 2:19  
 Operator : JU/SJ  
 Sample : K2199-01 2X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :

Quant Time: Apr 04 04:29:40 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF040319.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Apr 04 04:05:31 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.69  | 152  | 117412   | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 7.97  | 136  | 401954   | 20.00 | ng    | 0.00     |
| 39) Acenaphthene-d10      | 9.72  | 164  | 166297   | 20.00 | ng    | 0.00     |
| 64) Phenanthrene-d10      | 11.20 | 188  | 334780   | 20.00 | ng    | 0.00     |
| 76) Chrysene-d12          | 13.84 | 240  | 313929   | 20.00 | ng    | 0.00     |
| 87) Perylene-d12          | 15.25 | 264  | 236526   | 20.00 | ng    | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 5) 2-Fluorophenol           | 5.30  | 112  | 222665   | 32.34 | ng    | 0.00     |
| 7) Phenol-d6                | 6.33  | 99   | 300050   | 35.36 | ng    | -0.01    |
| 23) Nitrobenzene-d5         | 7.25  | 82   | 155044   | 22.59 | ng    | -0.01    |
| 42) 2,4,6-Tribromophenol    | 10.51 | 330  | 61019    | 30.55 | ng    | 0.00     |
| 45) 2-Fluorobiphenyl        | 9.05  | 172  | 305804   | 29.60 | ng    | 0.00     |
| 79) Terphenyl-d14           | 12.79 | 244  | 354035   | 22.96 | ng    | 0.00     |

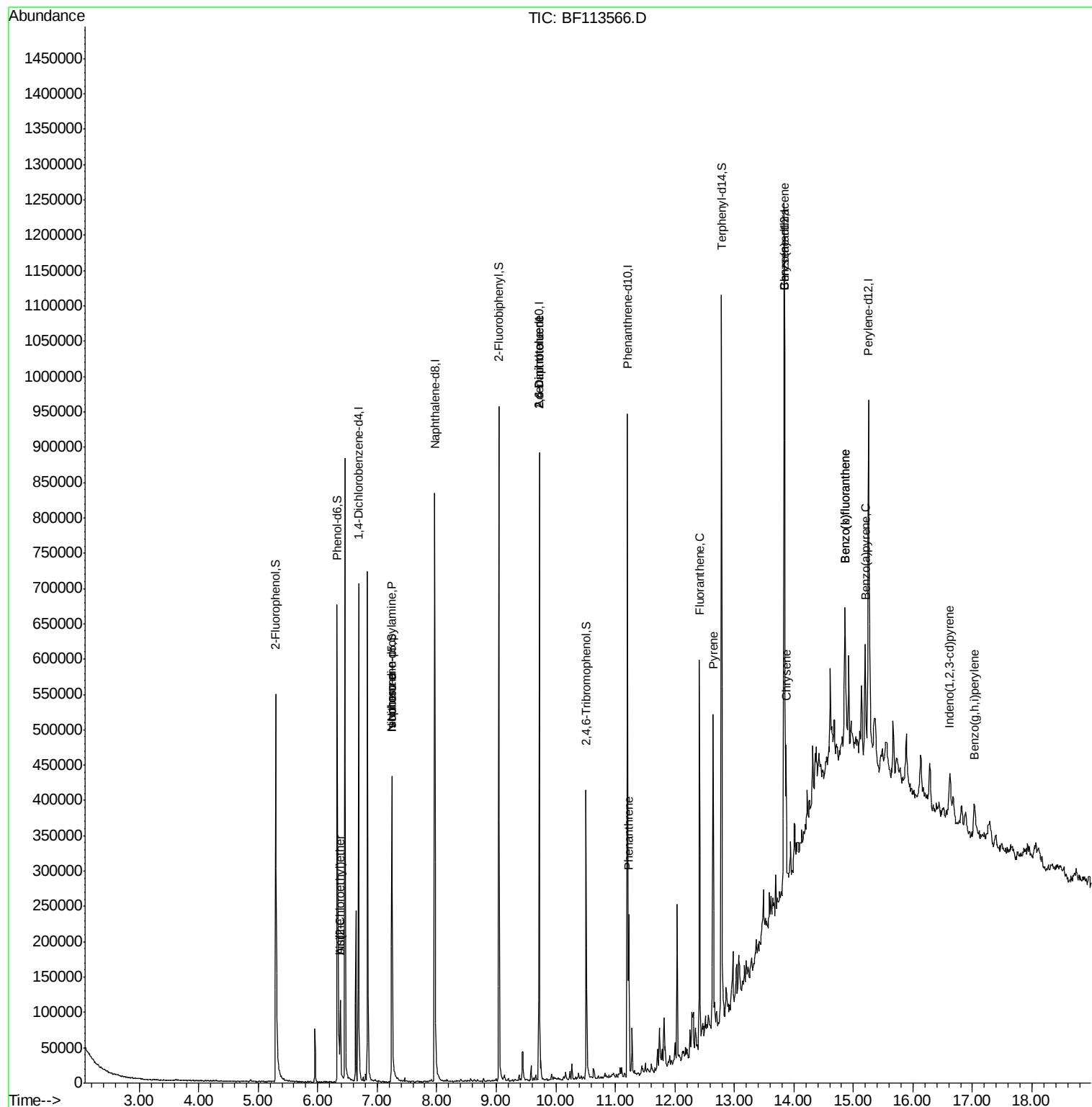
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units | Qvalue |
|--------------------------------|-------|------|----------|--------|-------|--------|
| 6) Aniline                     | 6.38  | 93   | 21259    | 2.067  | ng    | # 25   |
| 11) bis(2-Chloroethyl)ether    | 6.38  | 93   | 21259    | 2.820  | ng    | # 23   |
| 19) n-Nitroso-di-n-propylamine | 7.25  | 70   | 19460    | 3.719  | ng    | # 73   |
| 25) Isophorone                 | 7.25  | 82   | 155043   | 11.729 | ng    | # 64   |
| 51) 2,6-Dinitrotoluene         | 9.72  | 165  | 21099    | 7.808  | ng    | # 27   |
| 57) 2,4-Dinitrotoluene         | 9.72  | 165  | 21099    | 6.456  | ng    | # 24   |
| 71) Phenanthrene               | 11.23 | 178  | 80359    | 4.831  | ng    | 97     |
| 75) Fluoranthene               | 12.42 | 202  | 208769   | 11.711 | ng    | 98     |
| 78) Pyrene                     | 12.64 | 202  | 190040   | 7.956  | ng    | 99     |
| 81) Benzo(a)anthracene         | 13.83 | 228  | 97852    | 5.403  | ng    | 97     |
| 83) Chrysene                   | 13.87 | 228  | 88787    | 4.837  | ng    | 98     |
| 86) Indeno(1,2,3-cd)pyrene     | 16.62 | 276  | 38635    | 2.279  | ng    | 98     |
| 88) Benzo(b)fluoranthene       | 14.86 | 252  | 127811   | 8.828  | ng    | # 91   |
| 89) Benzo(k)fluoranthene       | 14.86 | 252  | 127811   | 9.836  | ng    | # 90   |
| 90) Benzo(a)pyrene             | 15.20 | 252  | 65799    | 5.114  | ng    | # 94   |
| 92) Benzo(g,h,i)perylene       | 17.03 | 276  | 37620    | 3.064  | ng    | # 88   |

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

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BNA\_F  
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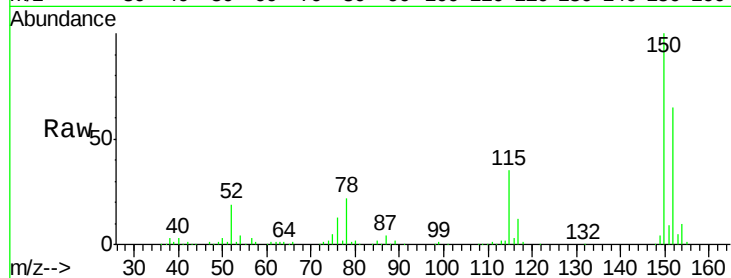


#1

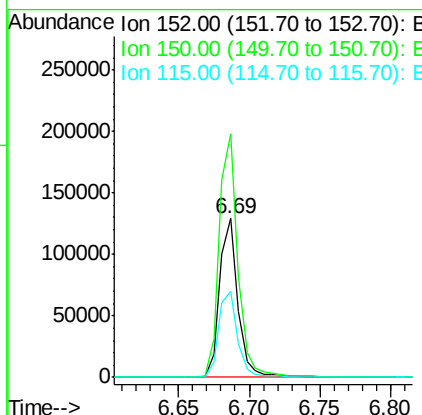
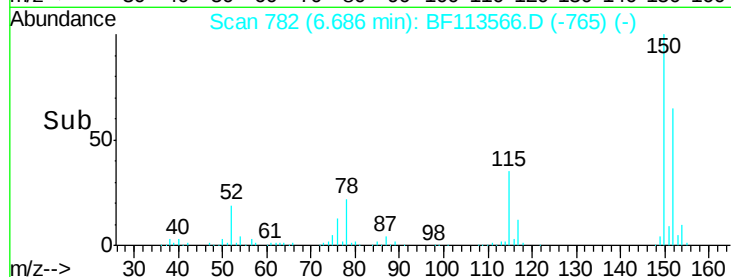
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.69 min Scan# 782  
Delta R.T. -0.00 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

Instrument :  
BNA\_F  
ClientSampled :

Tot Ion:152 Resp: 117412  
Ion Ratio Lower Upper  
152 100  
150 153.5 124.7 187.1  
115 54.2 46.0 69.0



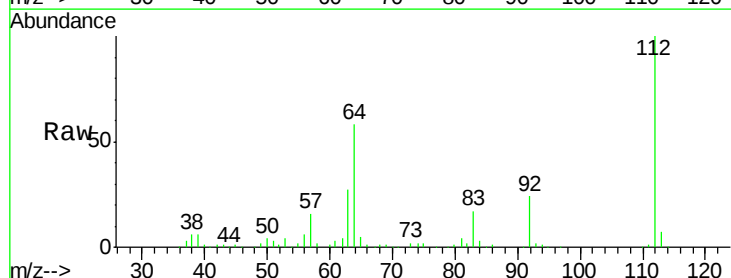
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



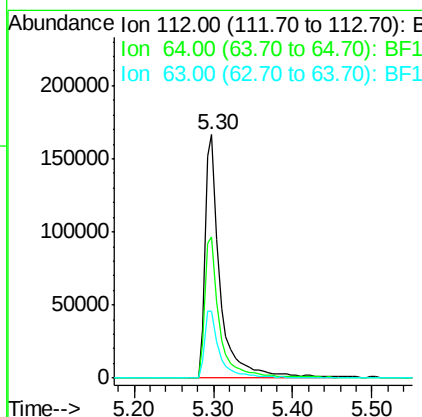
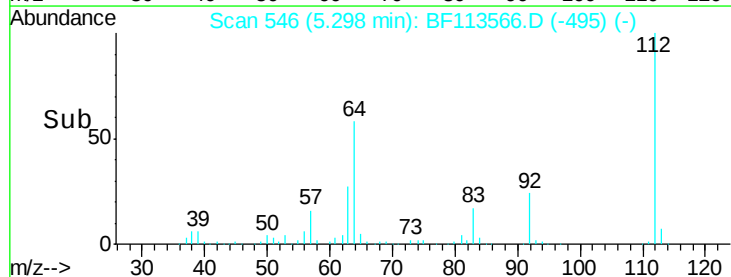
#5

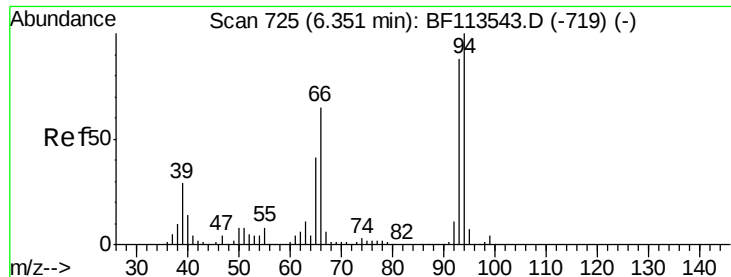
2-Fluorophenol  
Concen: 32.339 ng  
RT: 5.30 min Scan# 546  
Delta R.T. 0.00 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

Tgt Ion:112 Resp: 222665  
Ion Ratio Lower Upper  
112 100  
64 58.1 49.2 73.8  
63 27.4 24.9 37.3



Abundance Ion 112.00 (111.70 to 112.70): E  
Ion 64.00 (63.70 to 64.70): BF1  
Ion 63.00 (62.70 to 63.70): BF1





#6

Aniline

Concen: 2.067 ng

RT: 6.38 min Scan# 730

Delta R.T. 0.03 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

Instrument :

BNA\_F

ClientSampled :

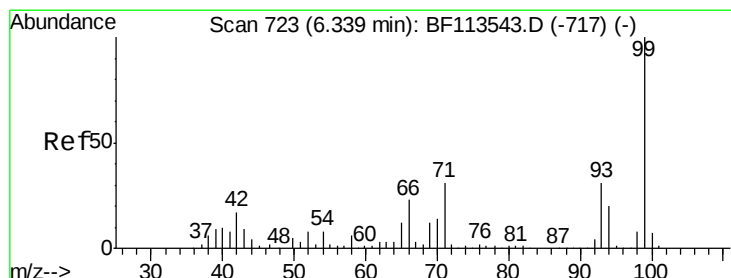
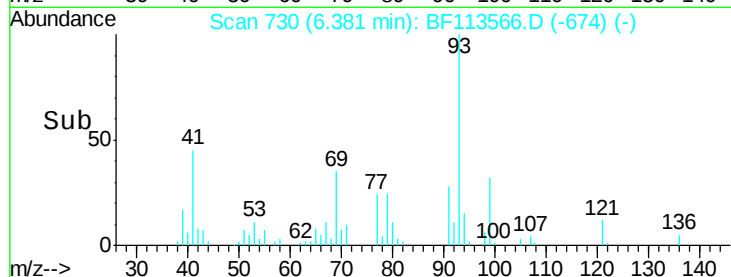
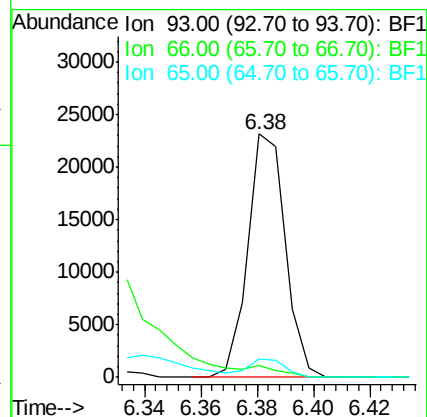
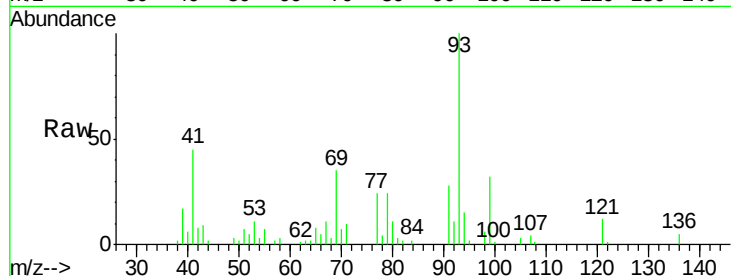
Tot Ion: 93 Resp: 21259

Ion Ratio Lower Upper

93 100

66 4.8 62.1 93.1#

65 7.6 38.7 58.1#



#7

Phenol-d6

Concen: 35.357 ng

RT: 6.33 min Scan# 721

Delta R.T. -0.01 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

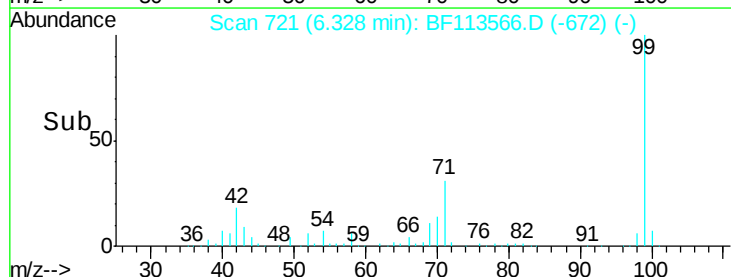
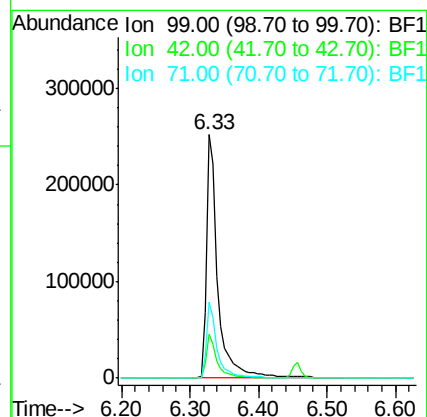
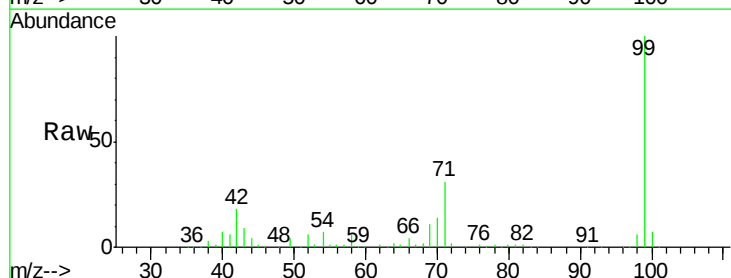
Tgt Ion: 99 Resp: 300050

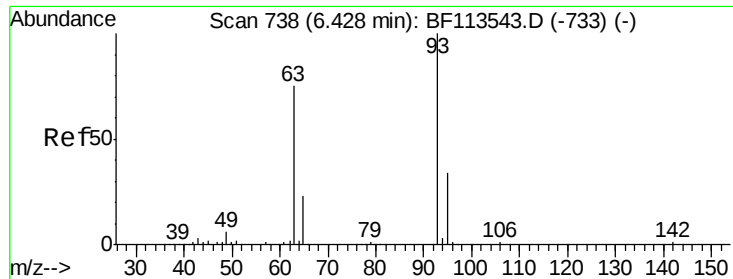
Ion Ratio Lower Upper

99 100

42 17.9 14.8 22.2

71 31.0 24.9 37.3

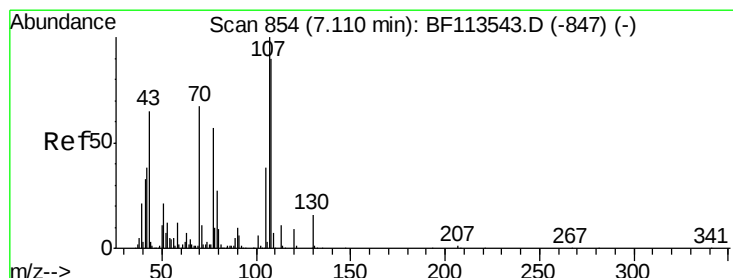
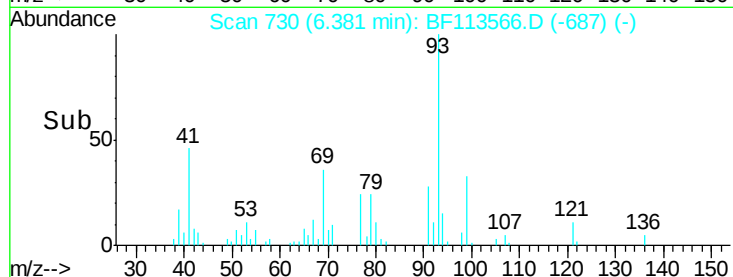
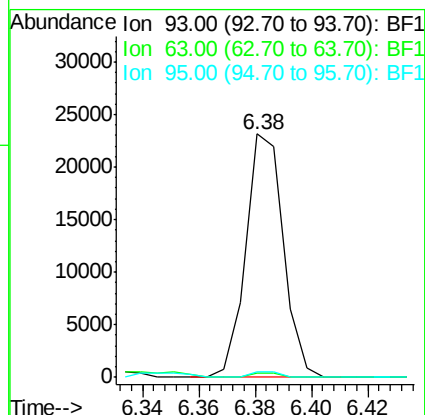
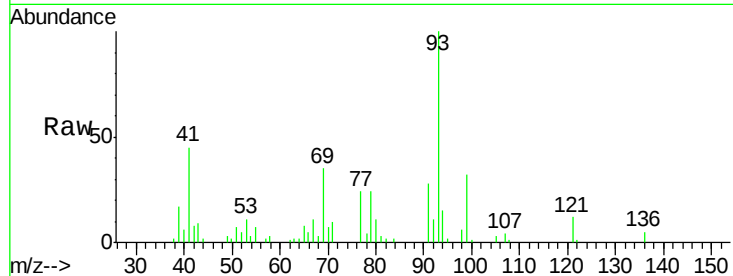




#11  
bis(2-Chloroethyl)ether  
Concen: 2.820 ng  
RT: 6.38 min Scan# 730  
Delta R.T. -0.05 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

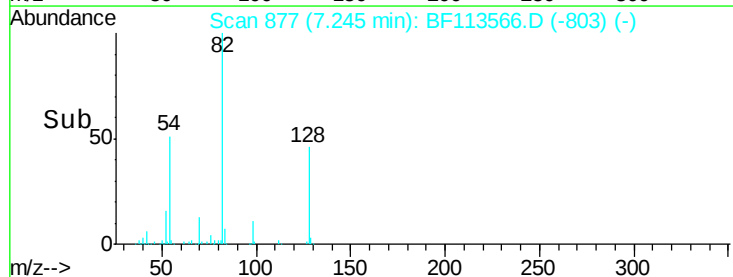
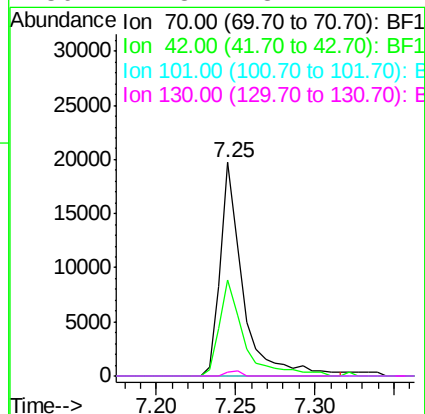
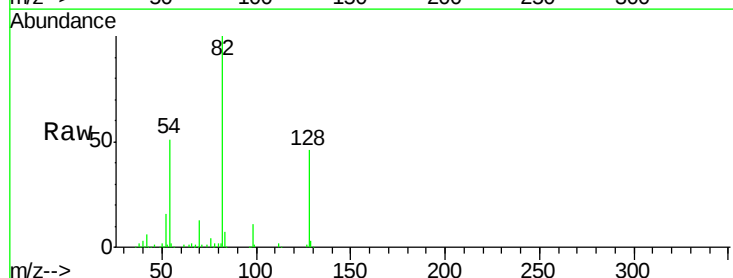
Instrument :  
BNA\_F  
ClientSampleId :

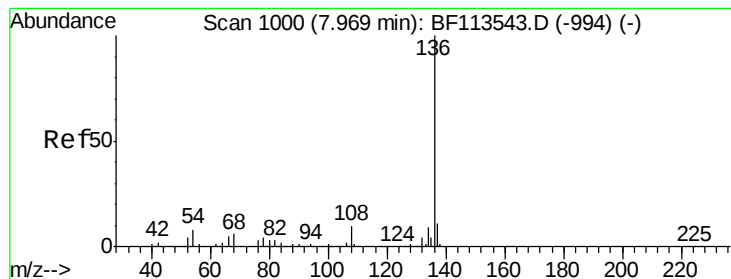
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 93      | 100   |       |       |
| 63      | 1.9   | 56.1  | 96.1# |
| 95      | 2.4   | 12.8  | 52.8# |



#19  
n-Nitroso-di-n-propylamine  
Concen: 3.719 ng  
RT: 7.25 min Scan# 877  
Delta R.T. 0.14 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 70      | 100   |       |       |
| 42      | 45.1  | 48.4  | 72.6# |
| 101     | 0.0   | 7.8   | 11.8# |
| 130     | 1.8   | 18.2  | 27.4# |





#21

Naphthalene-d8

Concen: 20.000 ng

RT: 7.97 min Scan# 1000

Delta R.T. 0.00 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

Instrument :

BNA\_F

ClientSampleId :

Tot Ion:136 Resp: 401954

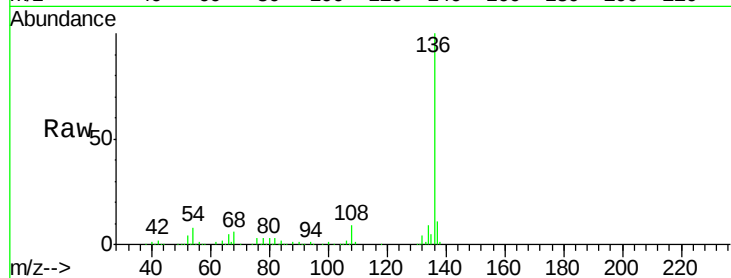
Ion Ratio Lower Upper

136 100

137 11.0 8.9 13.3

54 7.5 7.0 10.6

68 5.8 4.8 7.2

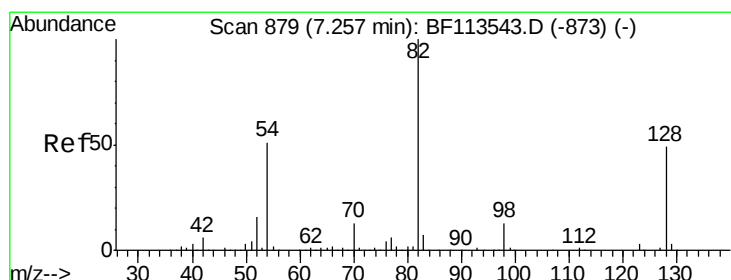
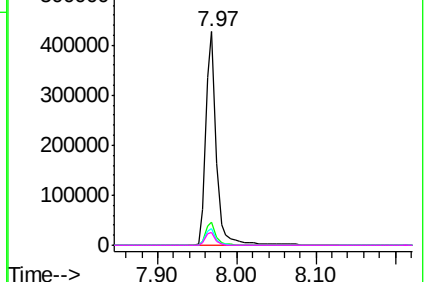
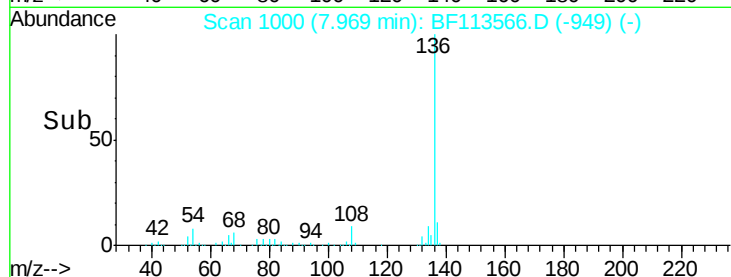


Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BF1

Ion 68.00 (67.70 to 68.70): BF1



#23

Nitrobenzene-d5

Concen: 22.594 ng

RT: 7.25 min Scan# 877

Delta R.T. -0.01 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

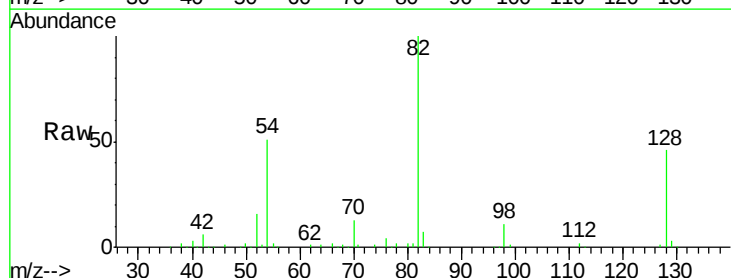
Tgt Ion: 82 Resp: 155044

Ion Ratio Lower Upper

82 100

128 45.5 36.5 54.7

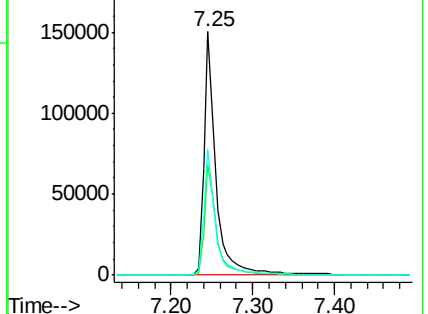
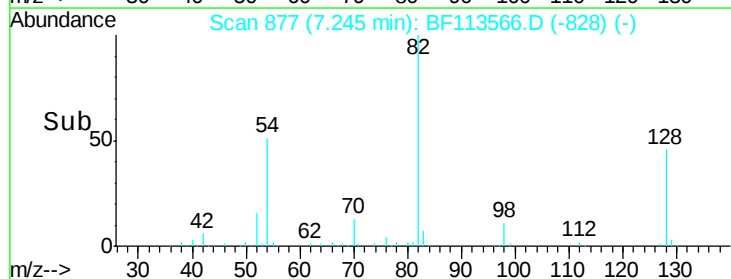
54 51.4 42.2 63.2

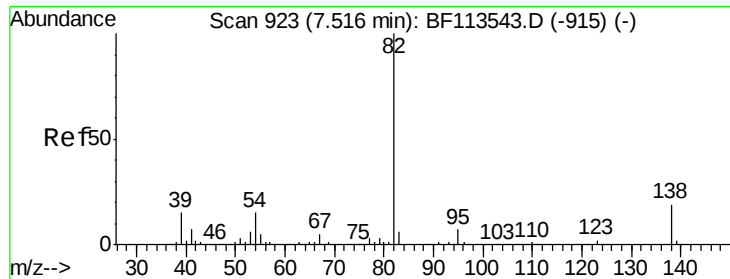


Abundance Ion 82.00 (81.70 to 82.70): BF1

Ion 128.00 (127.70 to 128.70): E

Ion 54.00 (53.70 to 54.70): BF1





#25

Isophorone

Concen: 11.729 ng

RT: 7.25 min Scan# 877

Delta R.T. -0.27 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

Instrument :

BNA\_F

ClientSampleId :

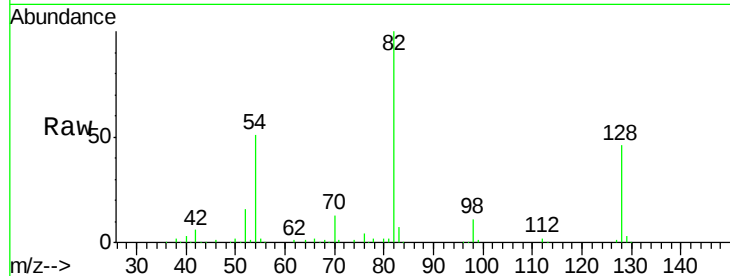
Tot Ion: 82 Resp: 155043

Ion Ratio Lower Upper

82 100

95 0.0 5.5 8.3#

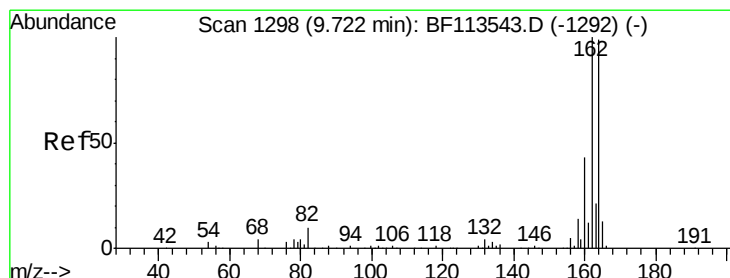
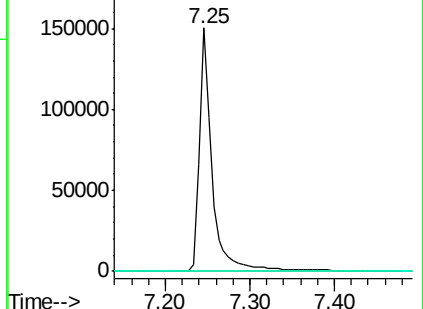
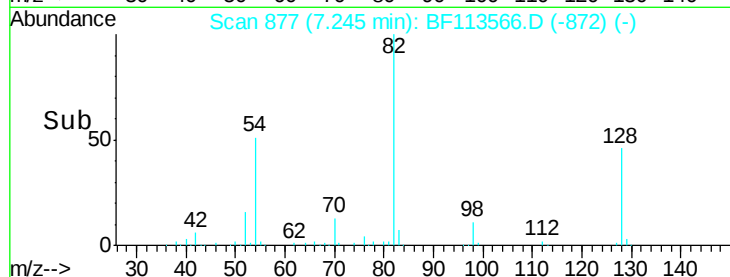
138 0.0 15.2 22.8#



Abundance Ion 82.00 (81.70 to 82.70): BF1

Ion 95.00 (94.70 to 95.70): BF1

Ion 138.00 (137.70 to 138.70): BF1



#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.72 min Scan# 1298

Delta R.T. -0.00 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

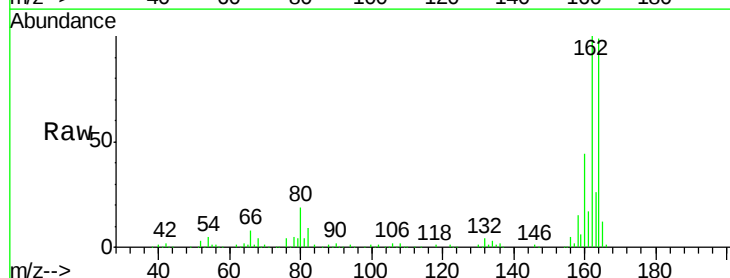
Tgt Ion:164 Resp: 166297

Ion Ratio Lower Upper

164 100

162 101.4 81.8 122.6

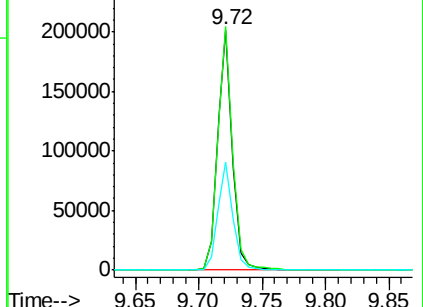
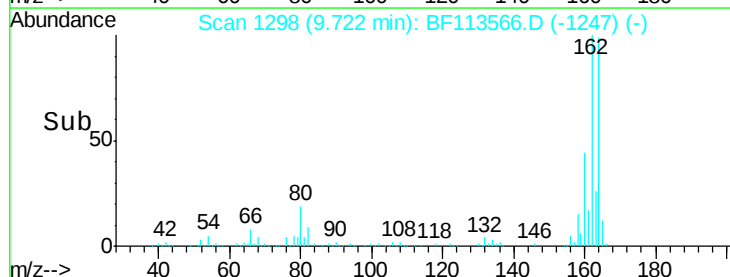
160 45.0 36.4 54.6

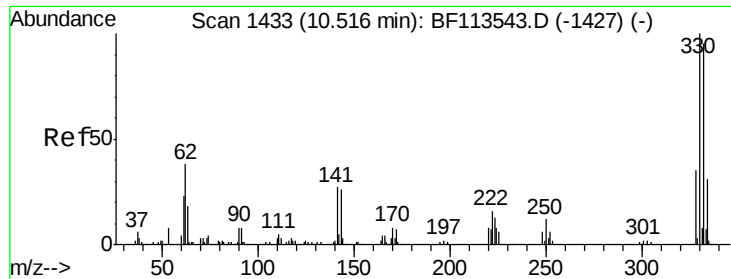


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E

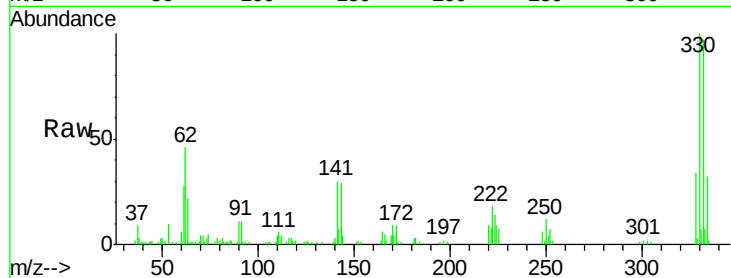




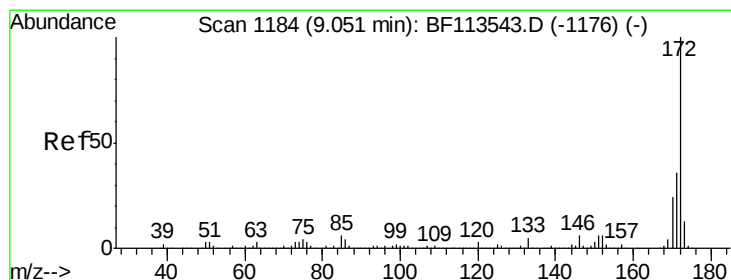
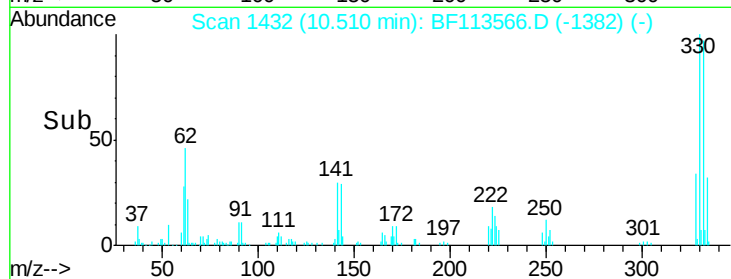
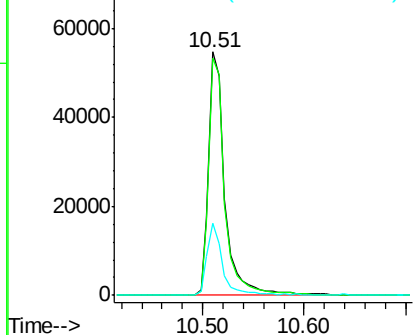
#42  
 2,4,6-Tribromophenol  
 Concen: 30.546 ng  
 RT: 10.51 min Scan# 1432  
 Delta R.T. -0.01 min  
 Lab File: BF113566.D  
 Acq: 4 Apr 2019 2:19

Instrument :  
 BNA\_F  
 ClientSampled :

Tot Ion:330 Resp: 61019  
 Ion Ratio Lower Upper  
 330 100  
 332 96.5 77.8 116.6  
 141 28.0 22.7 34.1

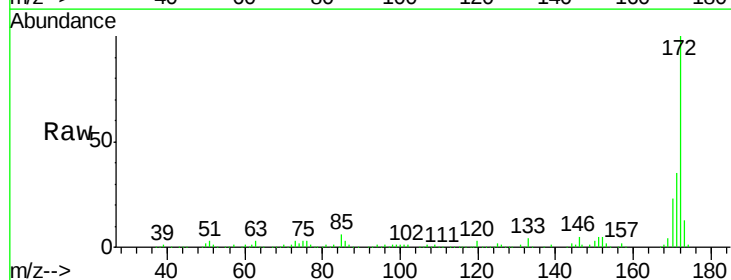


Abundance Ion 329.80 (329.50 to 330.50): E  
 Ion 331.80 (331.50 to 332.50): E  
 Ion 141.00 (140.70 to 141.70): E

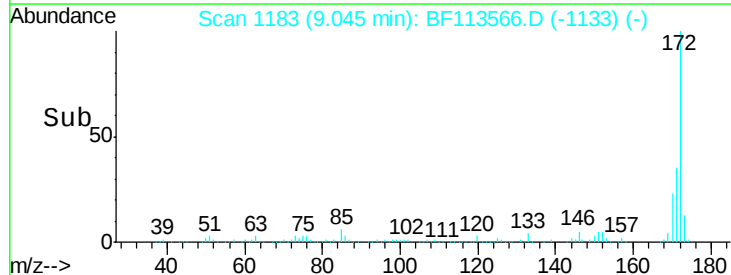
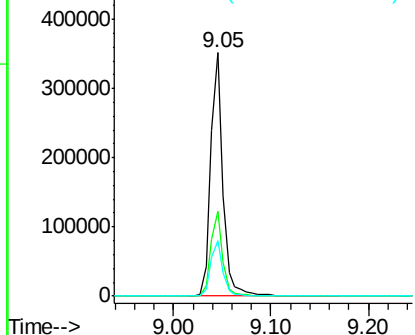


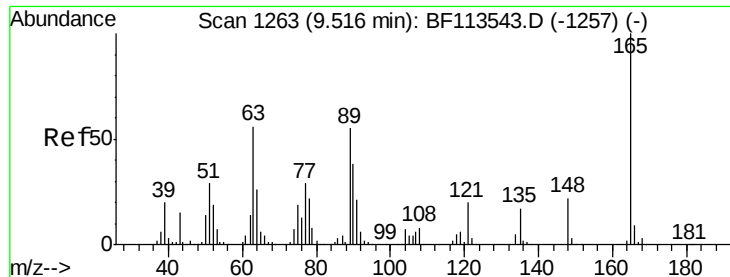
#45  
 2-Fluorobiphenyl  
 Concen: 29.604 ng  
 RT: 9.05 min Scan# 1183  
 Delta R.T. -0.01 min  
 Lab File: BF113566.D  
 Acq: 4 Apr 2019 2:19

Tgt Ion:172 Resp: 305804  
 Ion Ratio Lower Upper  
 172 100  
 171 34.7 29.0 43.6  
 170 22.9 19.5 29.3



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

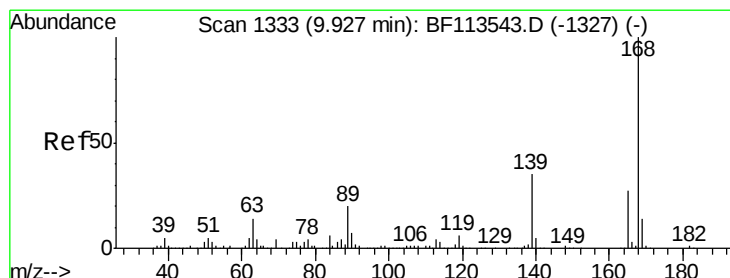
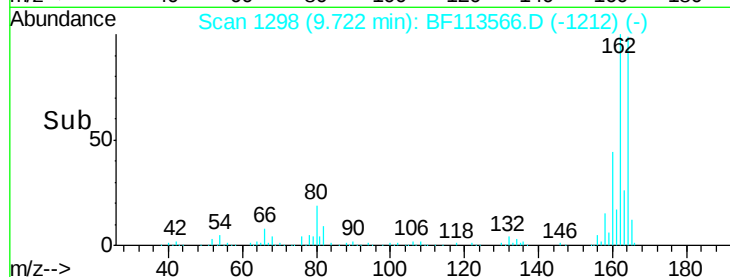
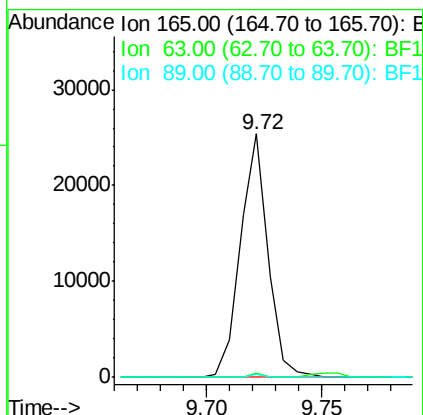
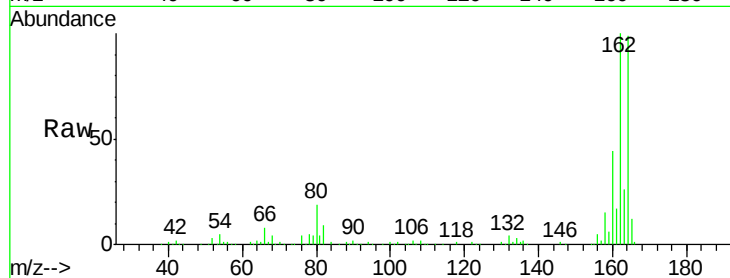




#51  
 2,6-Dinitrotoluene  
 Concen: 7.808 ng  
 RT: 9.72 min Scan# 1298  
 Delta R.T. 0.21 min  
 Lab File: BF113566.D  
 Acq: 4 Apr 2019 2:19

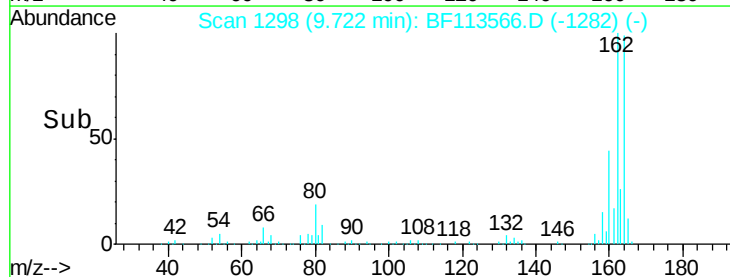
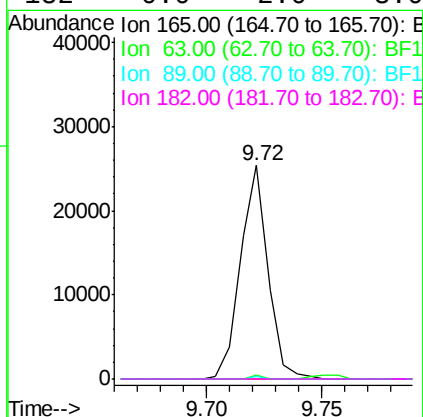
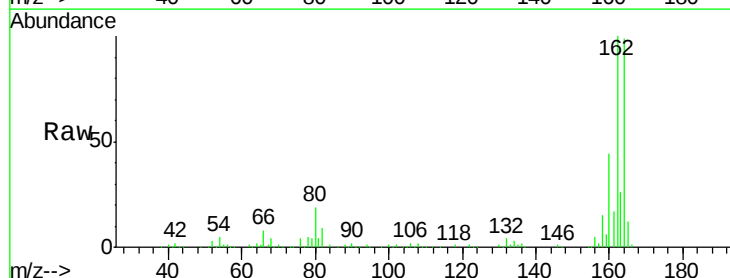
Instrument :  
 BNA\_F  
 ClientSampleId :

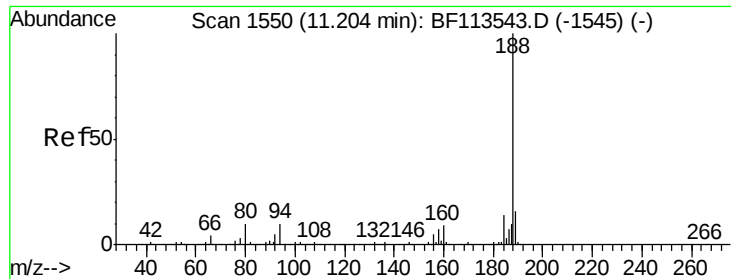
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 165     | 100   |       |       |
| 63      | 1.7   | 43.4  | 65.0# |
| 89      | 1.4   | 43.1  | 64.7# |



#57  
 2,4-Dinitrotoluene  
 Concen: 6.456 ng  
 RT: 9.72 min Scan# 1298  
 Delta R.T. -0.21 min  
 Lab File: BF113566.D  
 Acq: 4 Apr 2019 2:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 165     | 100   |       |       |
| 63      | 1.7   | 37.5  | 56.3# |
| 89      | 1.4   | 57.4  | 86.2# |
| 182     | 0.0   | 2.0   | 3.0#  |





#64

Phenanthrene-d10

Concen: 20.000 ng

RT: 11.20 min Scan# 1550

Delta R.T. 0.00 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

Instrument :

BNA\_F

ClientSampled :

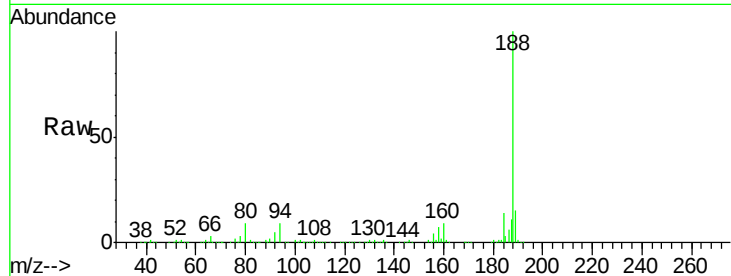
Tot Ion:188 Resp: 334780

Ion Ratio Lower Upper

188 100

94 9.4 7.0 10.6

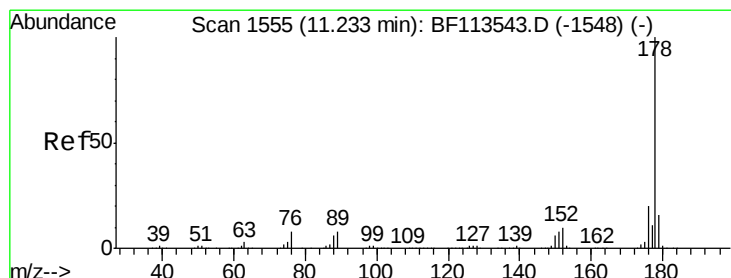
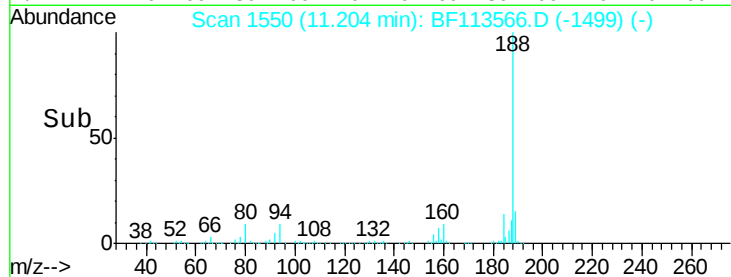
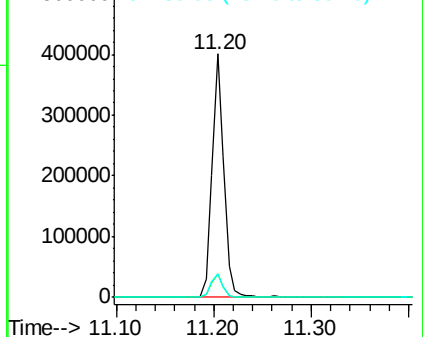
80 9.5 7.7 11.5



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



#71

Phenanthrene

Concen: 4.831 ng

RT: 11.23 min Scan# 1554

Delta R.T. -0.01 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

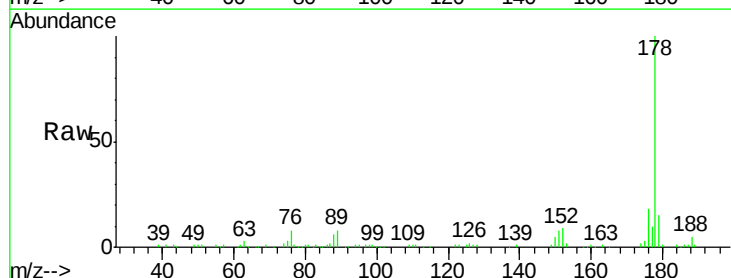
Tgt Ion:178 Resp: 80359

Ion Ratio Lower Upper

178 100

176 18.2 16.2 24.2

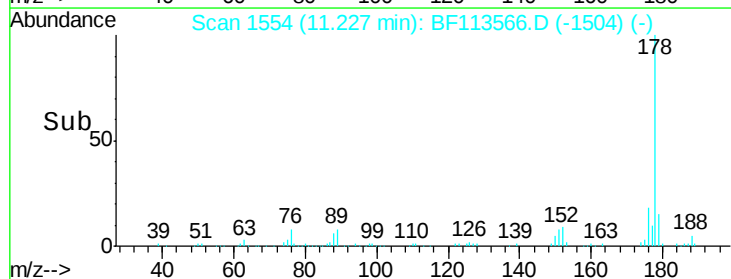
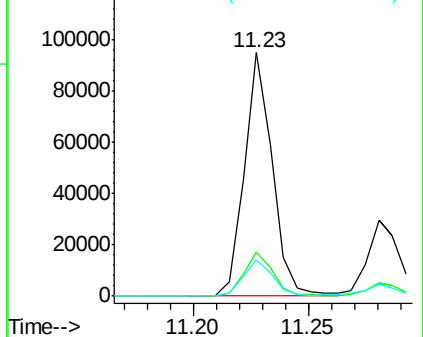
179 15.0 12.7 19.1

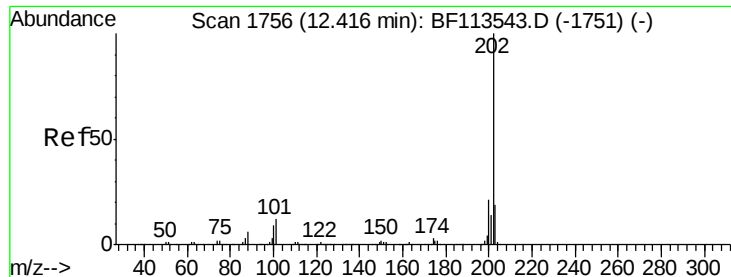


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#75

Fluoranthene

Concen: 11.711 ng

RT: 12.42 min Scan# 1756

Delta R.T. 0.00 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

Instrument :

BNA\_F

ClientSampleId :

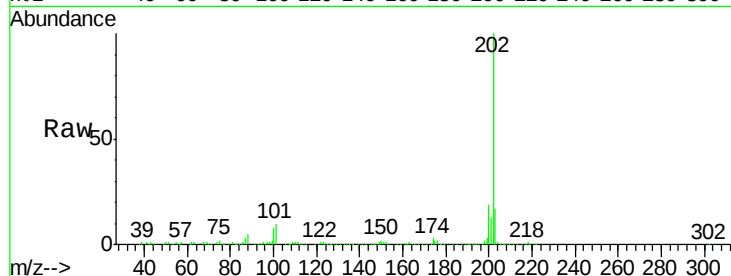
Tot Ion:202 Resp: 208769

Ion Ratio Lower Upper

202 100

101 10.3 0.0 31.4

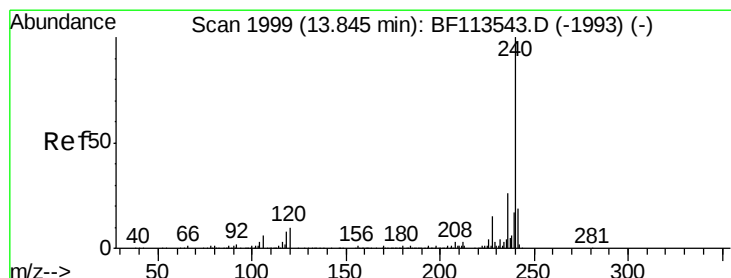
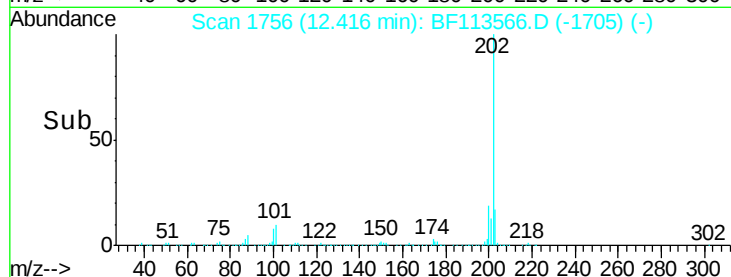
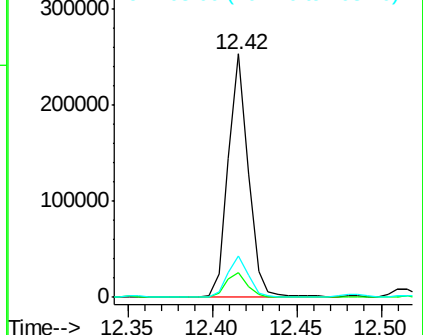
203 17.2 0.0 38.0



Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 203.00 (202.70 to 203.70): E



#76

Chrysene-d12

Concen: 20.000 ng

RT: 13.84 min Scan# 1998

Delta R.T. -0.01 min

Lab File: BF113566.D

Acq: 4 Apr 2019 2:19

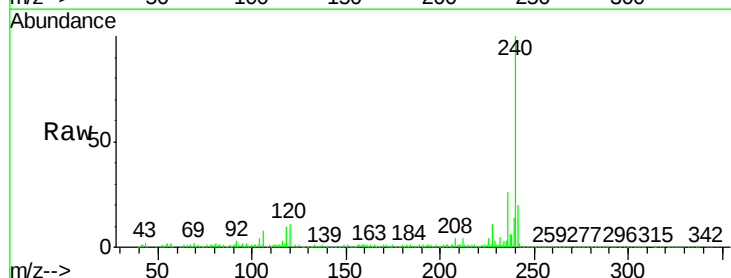
Tgt Ion:240 Resp: 313929

Ion Ratio Lower Upper

240 100

120 11.5 8.8 13.2

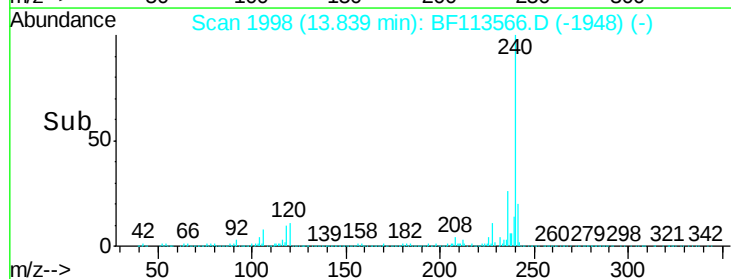
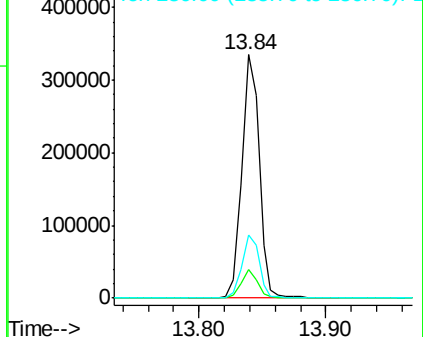
236 25.9 20.9 31.3

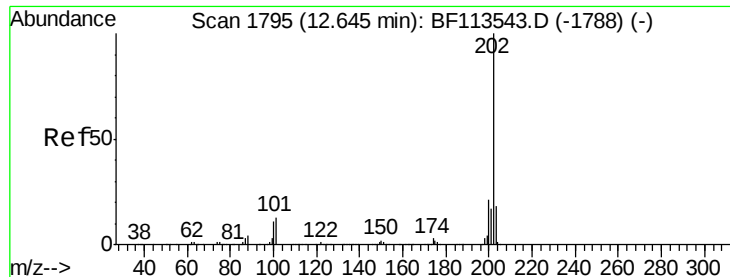


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E

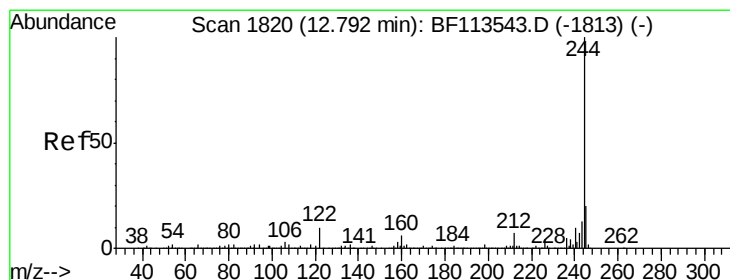
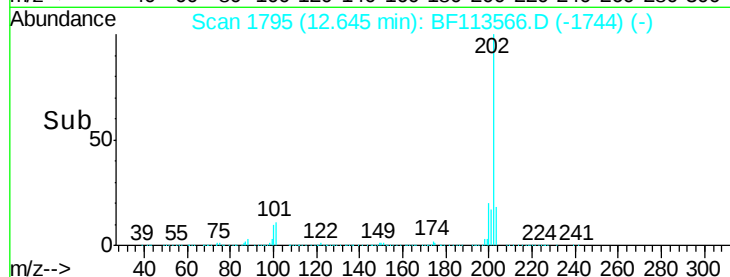
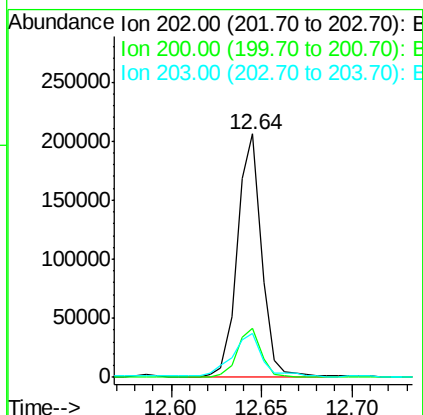
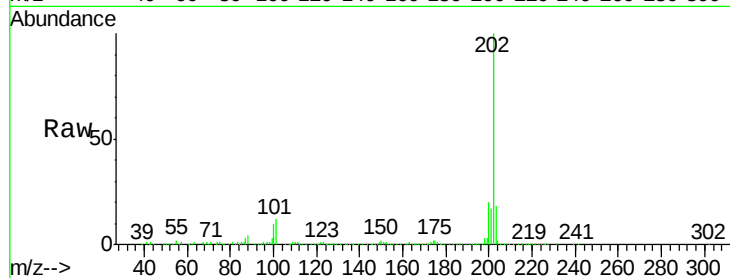




#78  
Pvrene  
Concen: 7.956 ng  
RT: 12.64 min Scan# 1795  
Delta R.T. 0.00 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

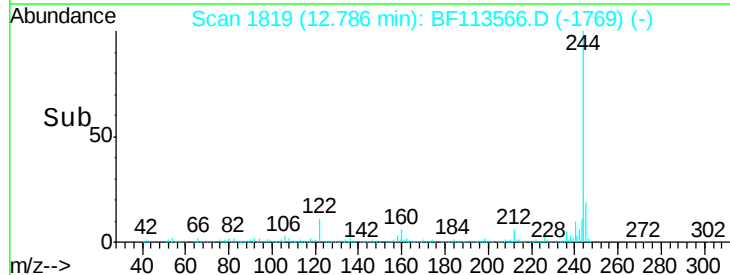
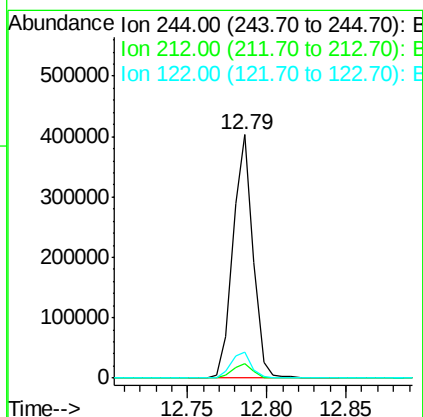
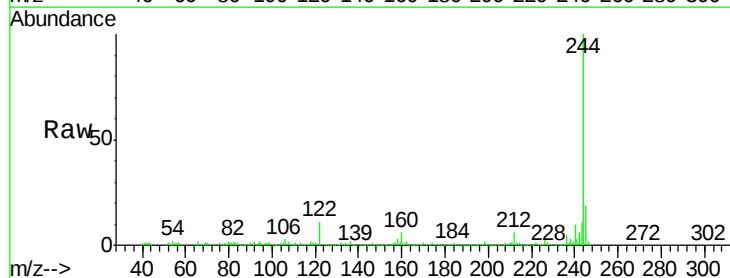
Instrument :  
BNA\_F  
ClientSampleId :

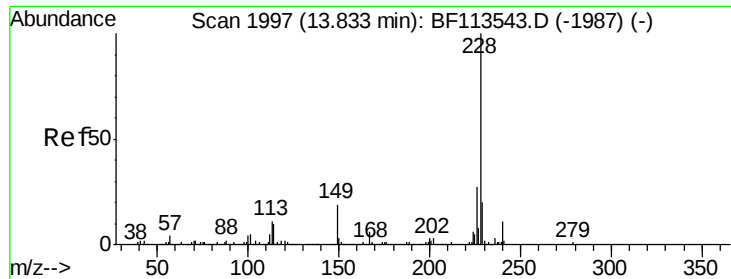
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 20.1  | 16.8  | 25.2  |
| 203     | 17.9  | 14.4  | 21.6  |



#79  
Terphenyl-d14  
Concen: 22.961 ng  
RT: 12.79 min Scan# 1819  
Delta R.T. -0.01 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 6.1   | 5.5   | 8.3   |
| 122     | 10.5  | 8.6   | 13.0  |

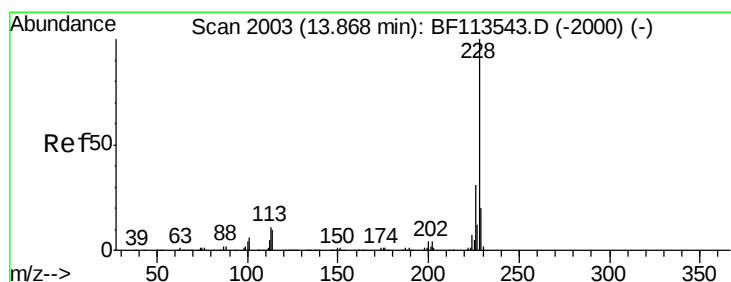
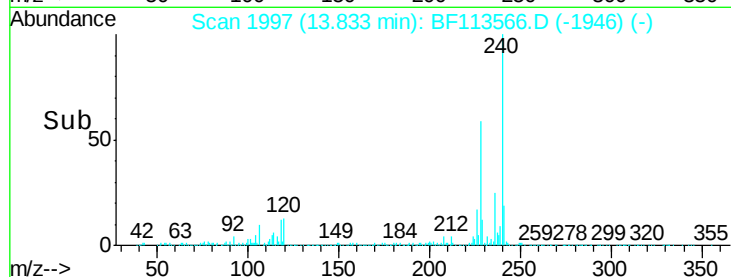
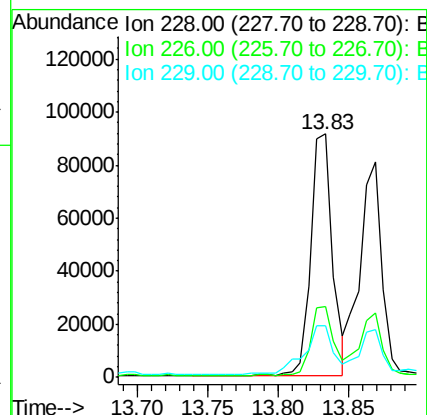
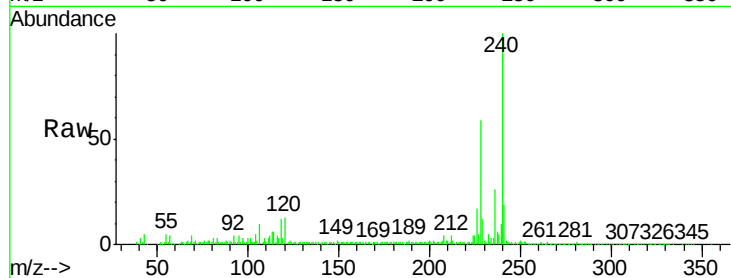




#81  
Benzo(a)anthracene  
Concen: 5.403 ng  
RT: 13.83 min Scan# 1997  
Delta R.T. -0.00 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

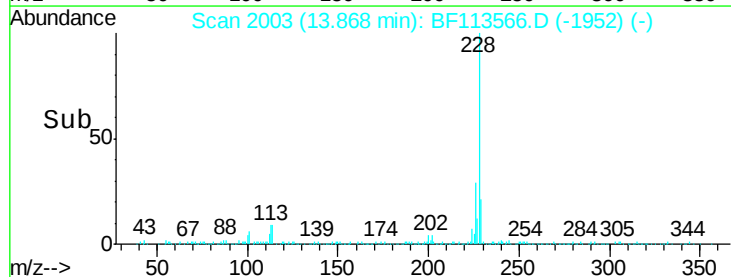
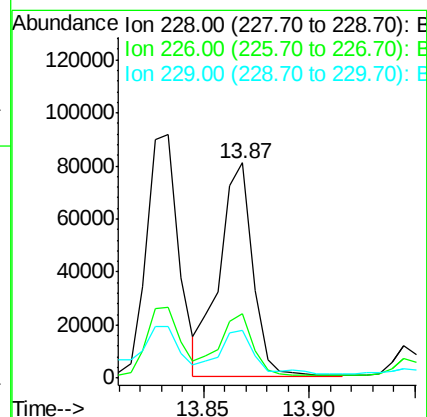
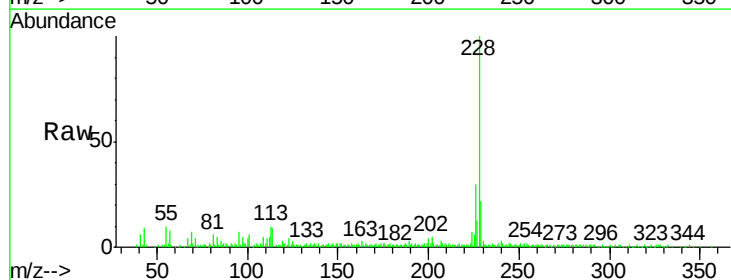
Instrument :  
BNA\_F  
ClientSampleId :

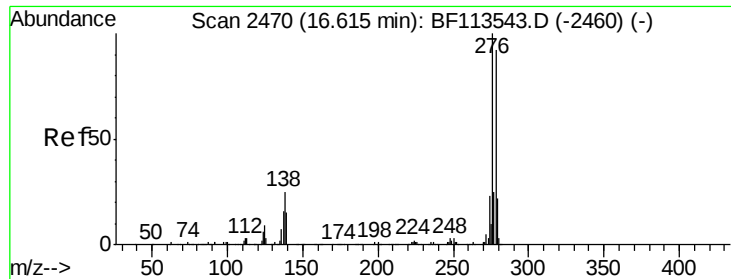
Tot Ion:228 Resp: 97852  
Ion Ratio Lower Upper  
228 100  
226 29.3 21.8 32.8  
229 21.1 16.2 24.4



#83  
Chrysene  
Concen: 4.837 ng  
RT: 13.87 min Scan# 2003  
Delta R.T. -0.00 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

Tgt Ion:228 Resp: 88787  
Ion Ratio Lower Upper  
228 100  
226 29.8 24.3 36.5  
229 22.5 16.3 24.5

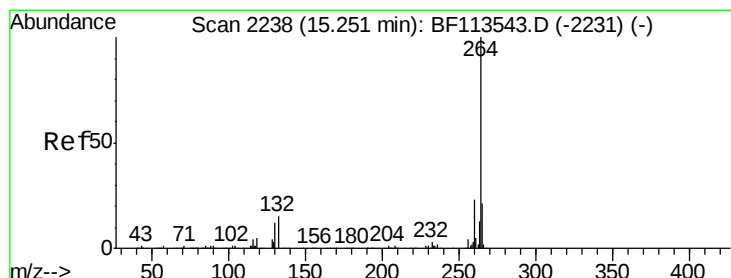
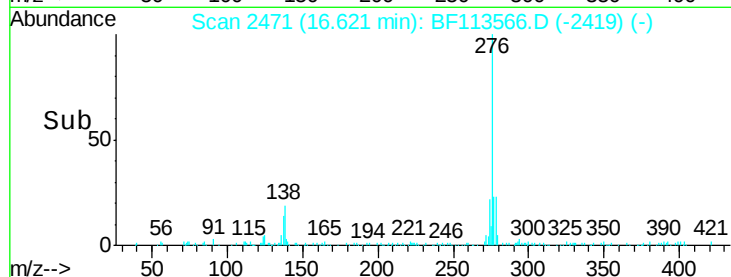
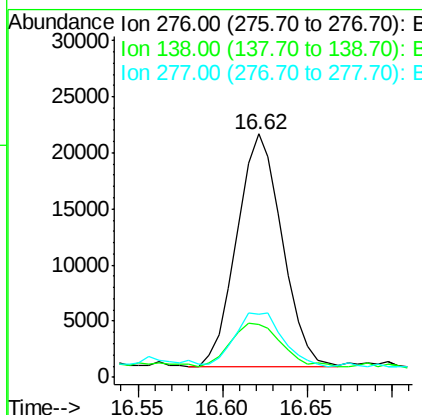
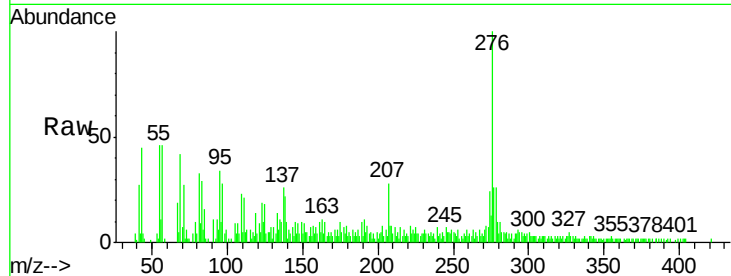




#86  
 Indeno(1,2,3-cd)pyrene  
 Concen: 2.279 ng  
 RT: 16.62 min Scan# 2471  
 Delta R.T. 0.01 min  
 Lab File: BF113566.D  
 Acq: 4 Apr 2019 2:19

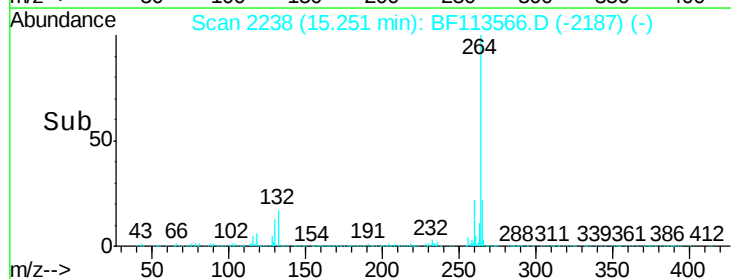
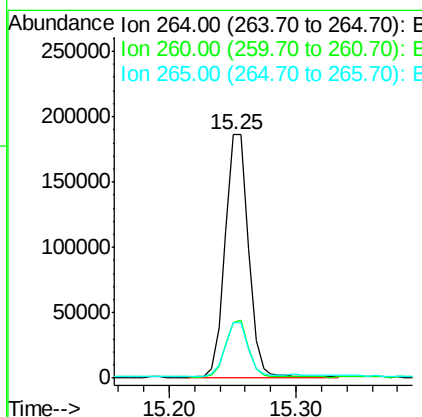
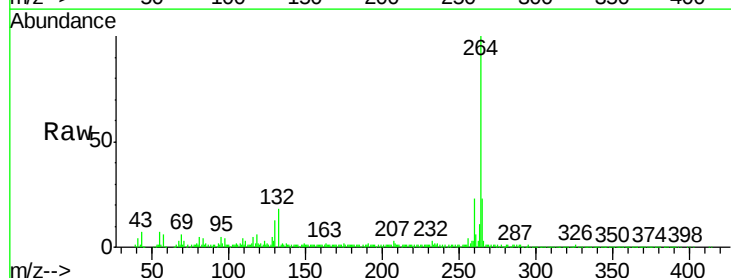
Instrument :  
 BNA\_F  
 ClientSampleId :

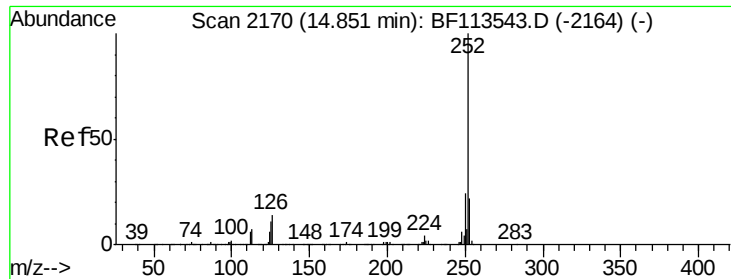
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 21.4  | 18.1  | 27.1  |
| 277     | 24.5  | 20.2  | 30.4  |



#87  
 Perylene-d12  
 Concen: 20.000 ng  
 RT: 15.25 min Scan# 2238  
 Delta R.T. -0.00 min  
 Lab File: BF113566.D  
 Acq: 4 Apr 2019 2:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 22.6  | 19.1  | 28.7  |
| 265     | 22.6  | 17.1  | 25.7  |

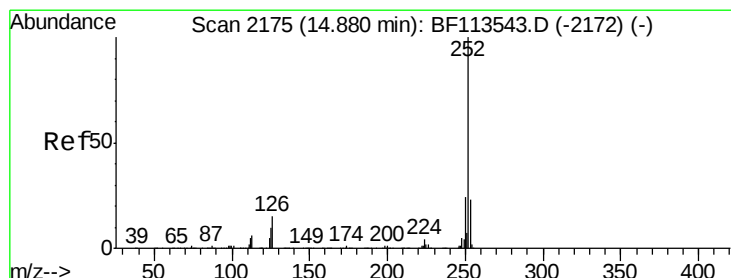
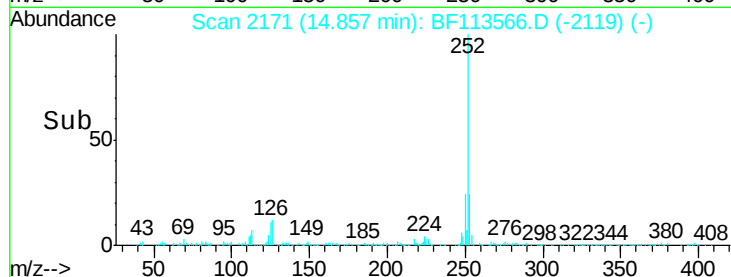
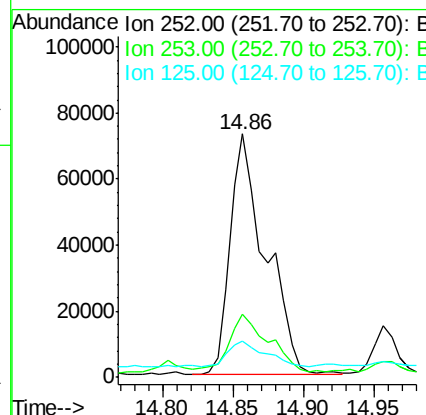
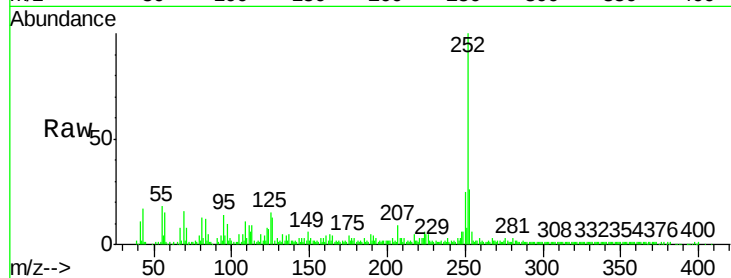




#88  
Benzo(b)fluoranthene  
Concen: 8.828 ng  
RT: 14.86 min Scan# 2171  
Delta R.T. 0.01 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

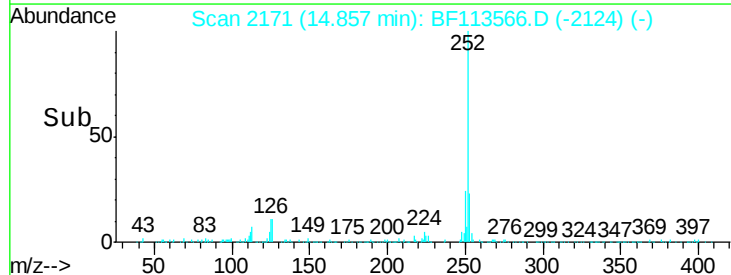
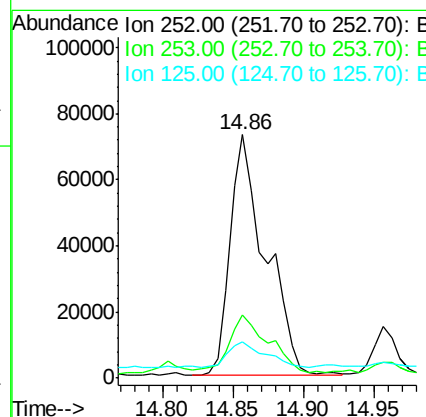
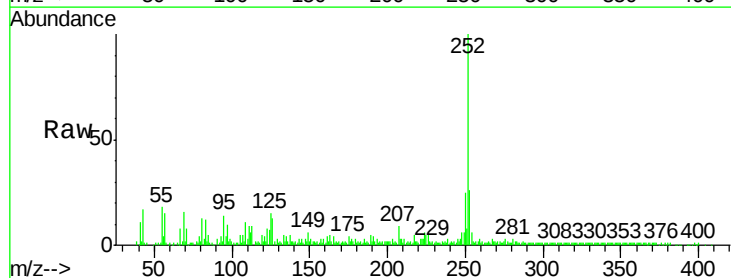
Instrument :  
BNA\_F  
ClientSampleId :

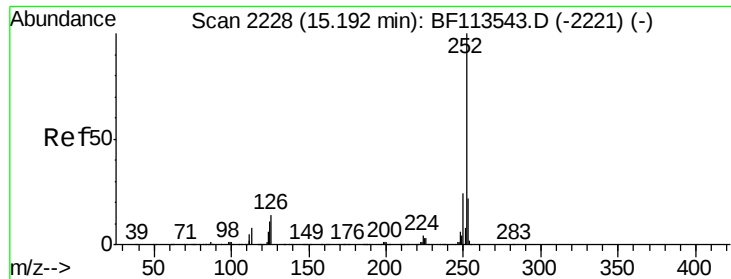
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 25.8  | 18.0  | 27.0  |
| 125     | 14.9  | 7.6   | 11.4  |



#89  
Benzo(k)fluoranthene  
Concen: 9.836 ng  
RT: 14.86 min Scan# 2171  
Delta R.T. -0.02 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 25.8  | 17.7  | 26.5  |
| 125     | 14.9  | 7.3   | 10.9  |

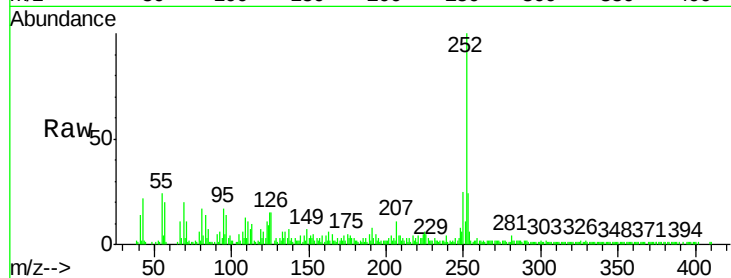




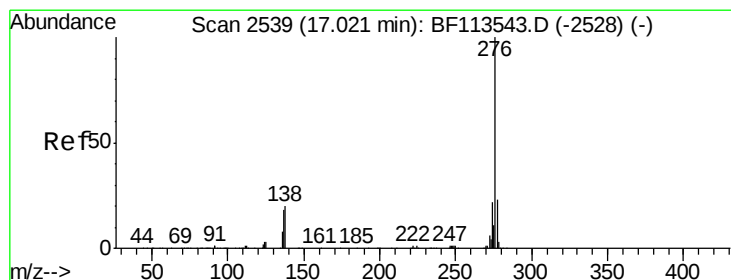
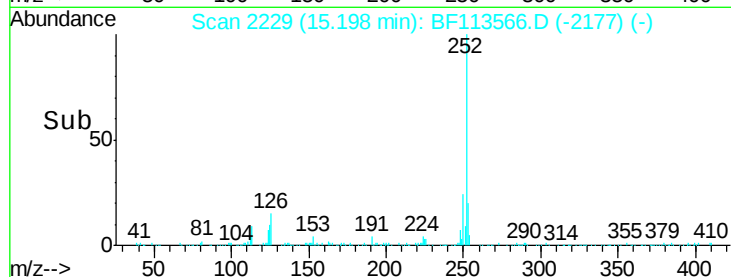
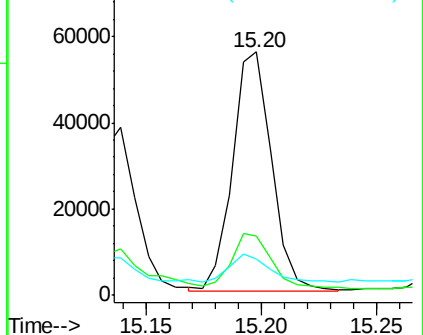
#90  
Benzo(a)pyrene  
Concen: 5.114 ng  
RT: 15.20 min Scan# 2229  
Delta R.T. 0.01 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

Instrument :  
BNA\_F  
ClientSampleId :

Tot Ion:252 Resp: 65799  
Ion Ratio Lower Upper  
252 100  
253 24.2 17.9 26.9  
125 14.9 8.8 13.2#

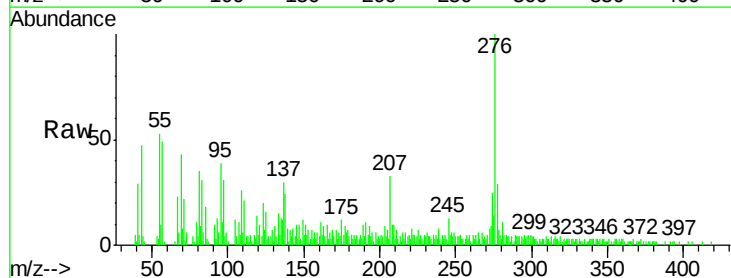


Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E



#92  
Benzo(g,h,i)perylene  
Concen: 3.064 ng  
RT: 17.03 min Scan# 2540  
Delta R.T. 0.01 min  
Lab File: BF113566.D  
Acq: 4 Apr 2019 2:19

Tgt Ion:276 Resp: 37620  
Ion Ratio Lower Upper  
276 100  
277 29.5 18.8 28.2#  
138 24.3 15.6 23.4#



Abundance Ion 276.00 (275.70 to 276.70): E  
Ion 277.00 (276.70 to 277.70): E  
Ion 138.00 (137.70 to 138.70): E

