

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF041015\  
 Data File : BF078433.D  
 Acq On : 11 Apr 2015 9:52  
 Operator : TP/IZ  
 Sample : G1793-09DL2 20X  
 Misc :  
 ALS Vial : 31 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-6DADL2

Quant Time: Apr 13 02:21:37 2015  
 Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF040115.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Apr 09 11:29:31 2015  
 Response via : Initial Calibration

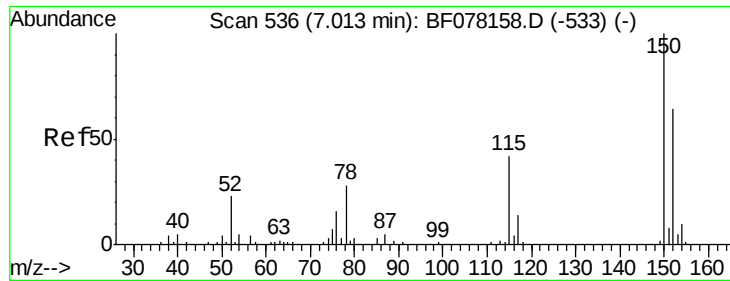
| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.86  | 152  | 31704    | 20.00 | ng    | -0.02    |
| 21) Naphthalene-d8        | 8.44  | 136  | 140855   | 20.00 | ng    | -0.02    |
| 38) Acenaphthene-d10      | 10.59 | 164  | 71242    | 20.00 | ng    | -0.05    |
| 63) Phenanthrene-d10      | 12.42 | 188  | 142374   | 20.00 | ng    | -0.05    |
| 75) Chrysene-d12          | 15.69 | 240  | 156440   | 20.00 | ng    | -0.06    |
| 86) Perylene-d12          | 17.38 | 264  | 159320   | 20.00 | ng    | -0.08    |

|                             |       |     |       |      |    |       |
|-----------------------------|-------|-----|-------|------|----|-------|
| System Monitoring Compounds |       |     |       |      |    |       |
| 5) 2-Fluorophenol           | 5.13  | 112 | 3157  | 1.64 | ng | -0.05 |
| 7) Phenol-d6                | 6.46  | 99  | 5086  | 2.11 | ng | -0.01 |
| 23) Nitrobenzene-d5         | 7.56  | 82  | 3321  | 1.43 | ng | -0.02 |
| 41) 2,4,6-Tribromophenol    | 11.57 | 330 | 2216  | 3.75 | ng | -0.05 |
| 44) 2-Fluorobiphenyl        | 9.78  | 172 | 10607 | 2.13 | ng | -0.03 |
| 78) Terphenyl-d14           | 14.41 | 244 | 16131 | 2.33 | ng | -0.06 |

|                          |       |     |        |       |    |        |
|--------------------------|-------|-----|--------|-------|----|--------|
| Target Compounds         |       |     |        |       |    | Qvalue |
| 31) Naphthalene          | 8.46  | 128 | 340861 | 46.49 | ng | 99     |
| 37) 2-Methylnaphthalene  | 9.32  | 142 | 85816  | 17.24 | ng | 99     |
| 45) 1,1'-Biphenyl        | 9.90  | 154 | 29245  | 5.02  | ng | 98     |
| 48) Acenaphthylene       | 10.42 | 152 | 23869  | 3.22  | ng | # 95   |
| 51) Acenaphthene         | 10.64 | 154 | 74612  | 17.90 | ng | 100    |
| 54) Dibenzofuran         | 10.85 | 168 | 46115  | 7.24  | ng | 91     |
| 57) Fluorene             | 11.28 | 166 | 79711  | 15.45 | ng | 99     |
| 70) Phenanthrene         | 12.45 | 178 | 356165 | 43.25 | ng | 100    |
| 71) Anthracene           | 12.51 | 178 | 121264 | 14.94 | ng | 99     |
| 74) Fluoranthene         | 13.92 | 202 | 200776 | 23.12 | ng | 93     |
| 77) Pyrene               | 14.19 | 202 | 199996 | 20.36 | ng | 98     |
| 80) Benzo(a)anthracene   | 15.71 | 228 | 65126  | 7.00  | ng | 96     |
| 82) Chrysene             | 15.71 | 228 | 67346  | 7.70  | ng | 99     |
| 87) Benzo(b)fluoranthene | 16.95 | 252 | 87701  | 8.91  | ng | # 95   |
| 88) Benzo(k)fluoranthene | 16.95 | 252 | 87907  | 10.05 | ng | 99     |
| 89) Benzo(a)pyrene       | 17.31 | 252 | 60715  | 7.07  | ng | # 92   |

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





#1

1,4-Dichlorobenzene-d4

Concen: 20.00 ng

RT: 6.86 min Scan# 523

Delta R.T. -0.02 min

Lab File: BF078433.D

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BNA\_F

ClientSampleId :

SB-6DADL2

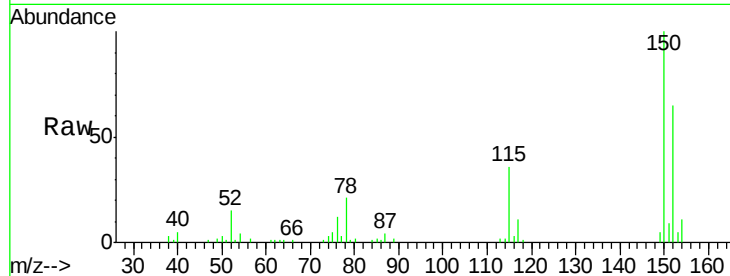
Tgt Ion:152 Resp: 31704

Ion Ratio Lower Upper

152 100

150 154.8 125.9 188.9

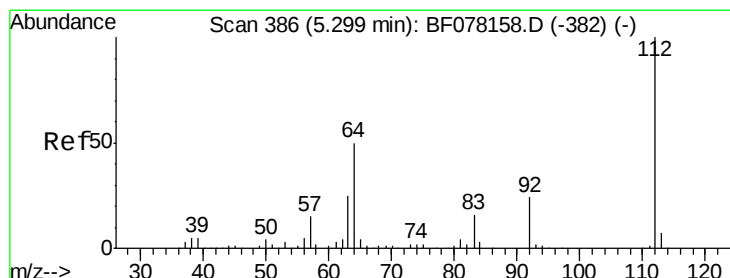
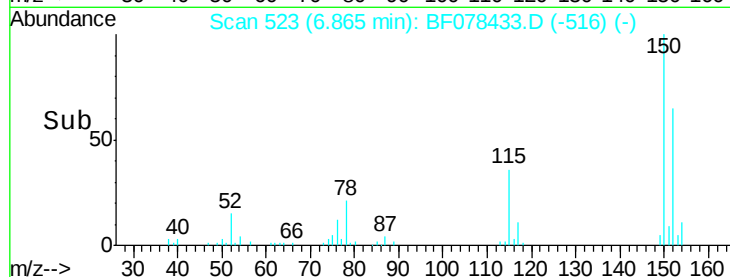
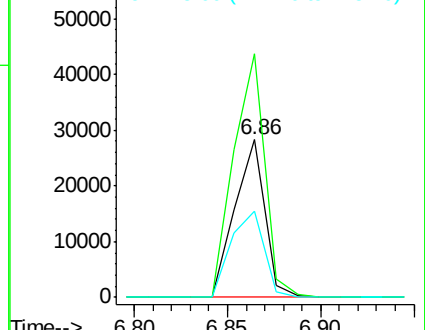
115 55.0 52.7 79.1



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: 1.64 ng

RT: 5.13 min Scan# 371

Delta R.T. -0.05 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

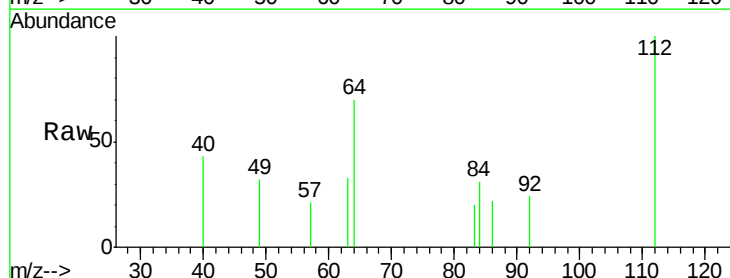
Tgt Ion:112 Resp: 3157

Ion Ratio Lower Upper

112 100

64 70.4 39.9 59.9#

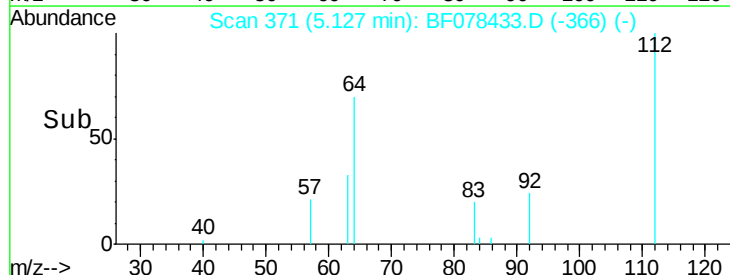
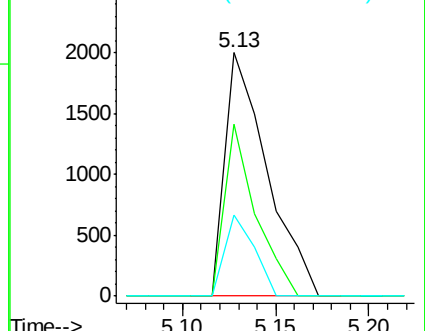
63 33.2 20.2 30.4#

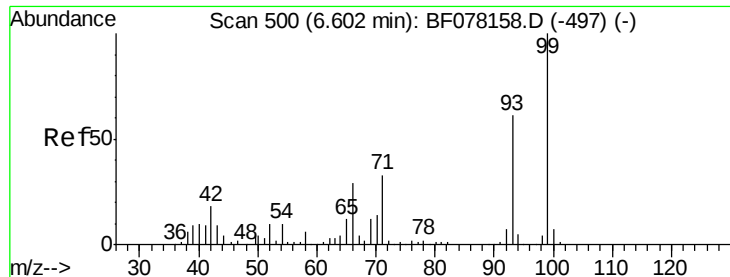


Abundance Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BF0

Ion 63.00 (62.70 to 63.70): BF0





#7

Phenol-d6

Concen: 2.11 ng

RT: 6.46 min Scan# 488

Delta R.T. -0.01 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

Instrument :

BNA\_F

ClientSampleId :

SB-6DADL2

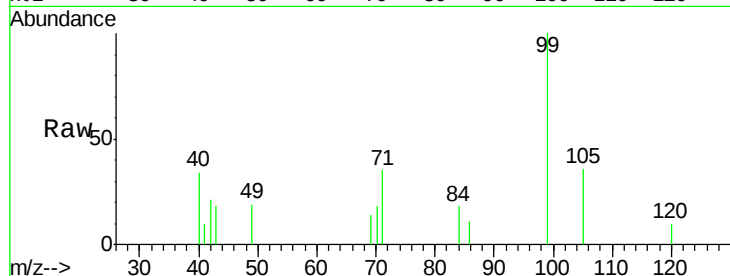
Tgt Ion: 99 Resp: 5086

Ion Ratio Lower Upper

99 100

42 21.2 14.8 22.2

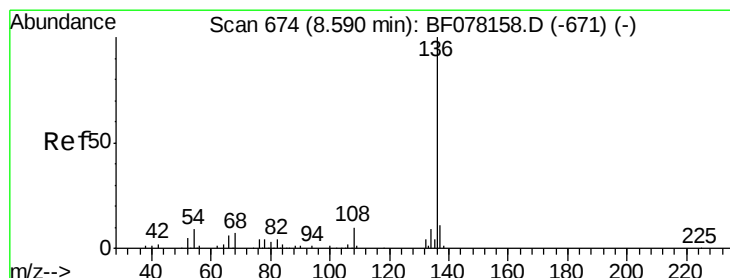
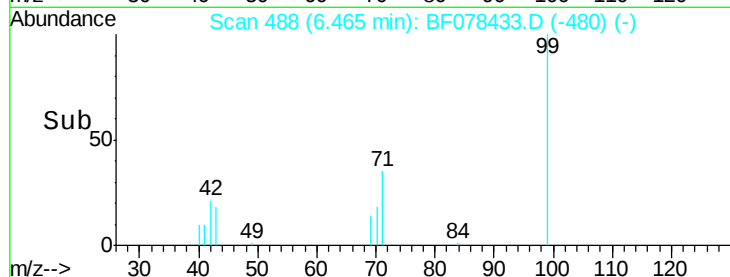
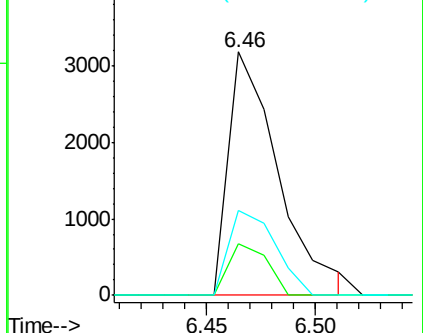
71 34.9 26.6 39.8



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



#21

Naphthalene-d8

Concen: 20.00 ng

RT: 8.44 min Scan# 661

Delta R.T. -0.02 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

Tgt Ion: 136 Resp: 140855

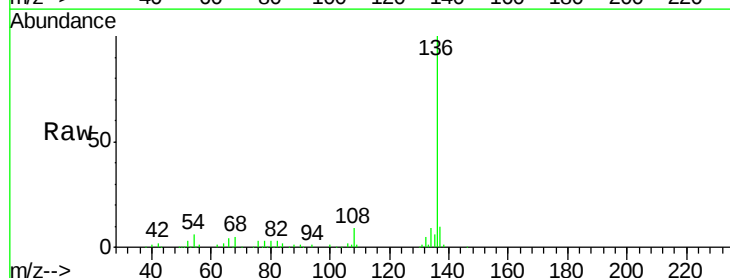
Ion Ratio Lower Upper

136 100

137 10.3 9.0 13.4

54 6.2 7.0 10.6#

68 5.0 5.4 8.2#

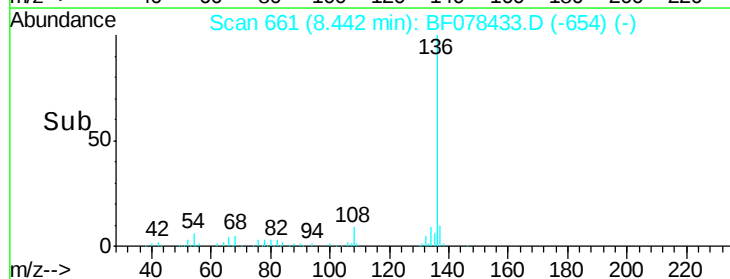
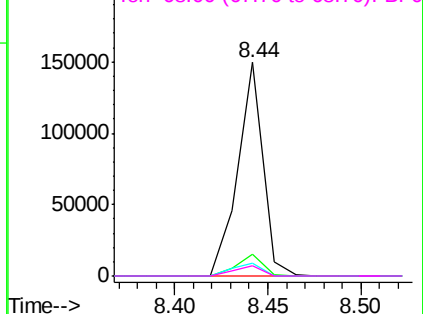


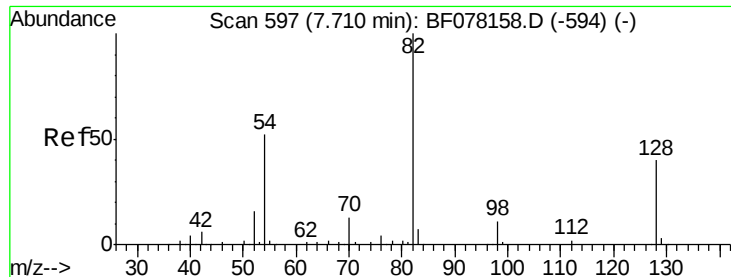
Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BF0

Ion 68.00 (67.70 to 68.70): BF0

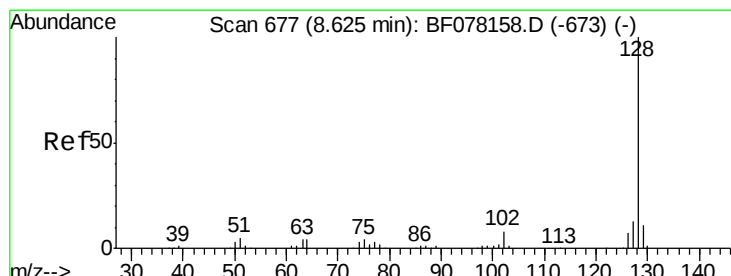
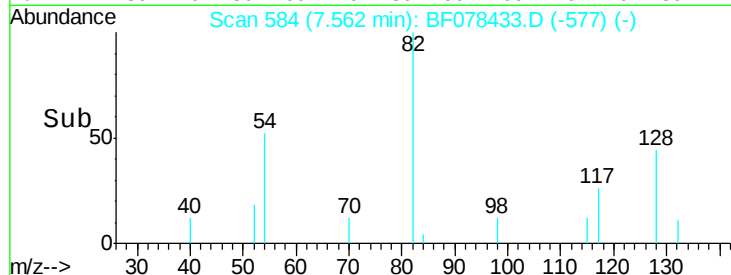
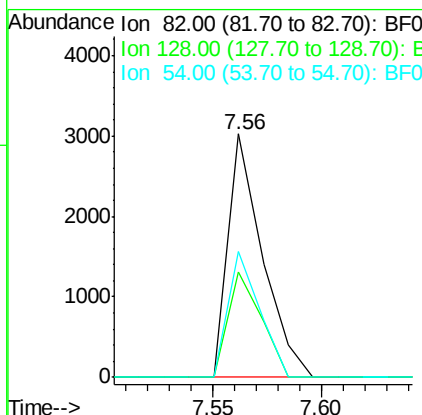
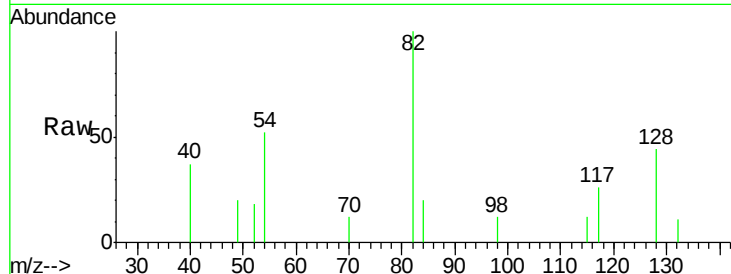




#23  
 Nitrobenzene-d5  
 Concen: 1.43 ng  
 RT: 7.56 min Scan# 584  
 Delta R.T. -0.02 min  
 Lab File: BF078433.D  
 Acq: 11 Apr 2015 9:52

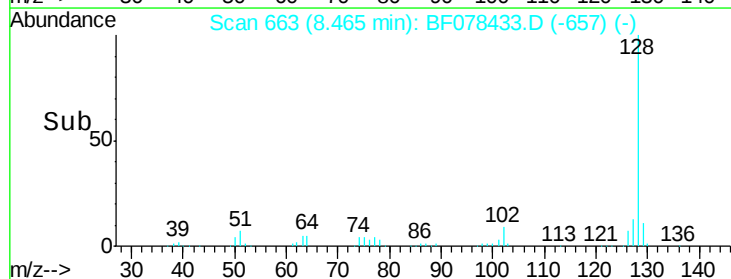
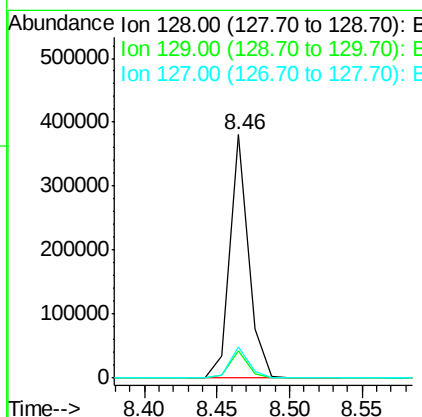
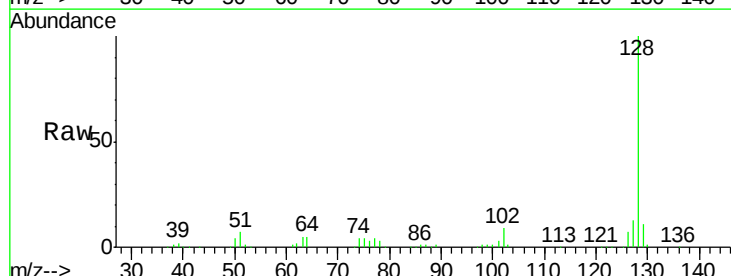
Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-6DADL2

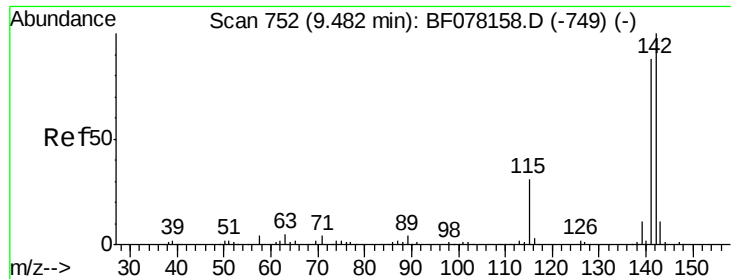
Tgt Ion: 82 Resp: 3321  
 Ion Ratio Lower Upper  
 82 100  
 128 43.5 31.8 47.8  
 54 51.5 41.5 62.3



#31  
 Naphthalene  
 Concen: 46.49 ng  
 RT: 8.46 min Scan# 663  
 Delta R.T. -0.03 min  
 Lab File: BF078433.D  
 Acq: 11 Apr 2015 9:52

Tgt Ion: 128 Resp: 340861  
 Ion Ratio Lower Upper  
 128 100  
 129 11.0 8.6 12.8  
 127 13.0 10.7 16.1

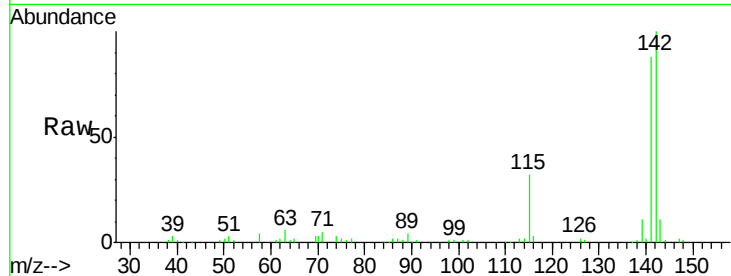




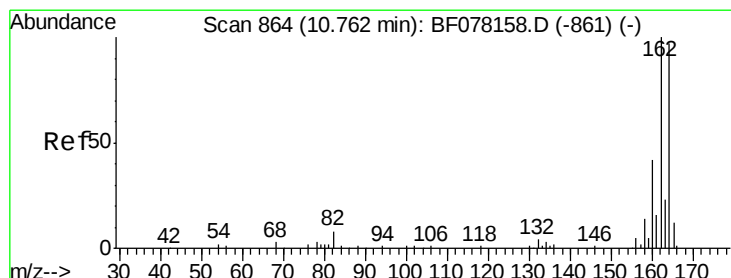
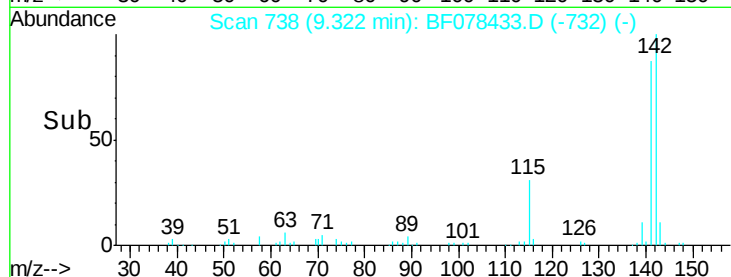
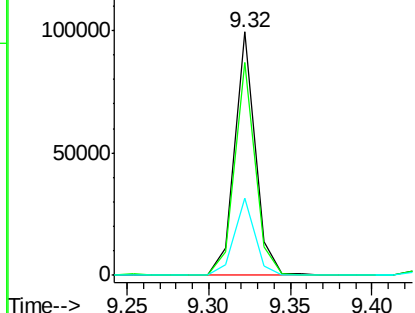
#37  
 2-Methylnaphthalene  
 Concen: 17.24 ng  
 RT: 9.32 min Scan# 738  
 Delta R.T. -0.03 min  
 Lab File: BF078433.D  
 Acq: 11 Apr 2015 9:52

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-6DADL2

Tgt Ion:142 Resp: 85816  
 Ion Ratio Lower Upper  
 142 100  
 141 87.6 70.3 105.5  
 115 31.5 24.6 37.0

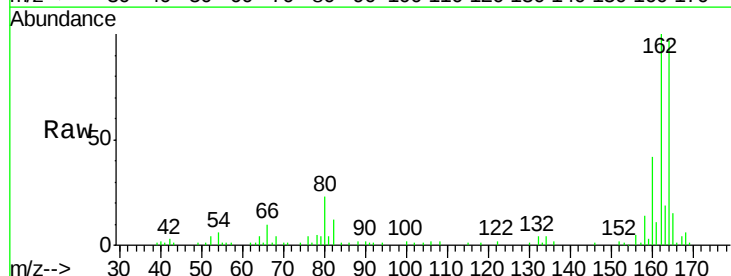


Abundance Ion 142.00 (141.70 to 142.70): E  
 Ion 141.00 (140.70 to 141.70): E  
 Ion 115.00 (114.70 to 115.70): E

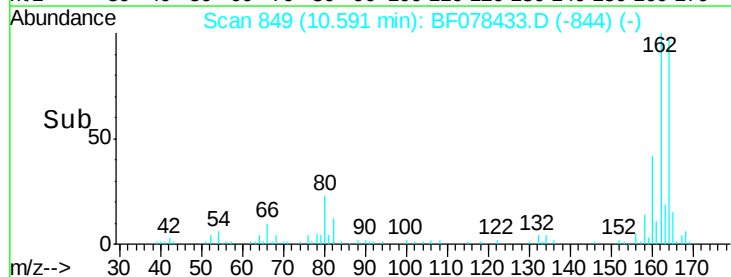
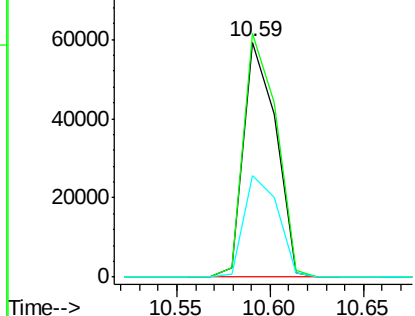


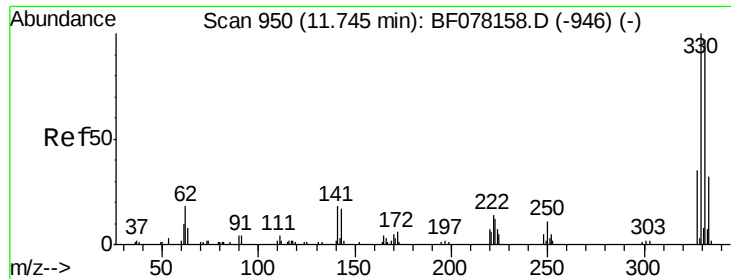
#38  
 Acenaphthene-d10  
 Concen: 20.00 ng  
 RT: 10.59 min Scan# 849  
 Delta R.T. -0.05 min  
 Lab File: BF078433.D  
 Acq: 11 Apr 2015 9:52

Tgt Ion:164 Resp: 71242  
 Ion Ratio Lower Upper  
 164 100  
 162 103.5 82.2 123.2  
 160 43.3 34.7 52.1



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

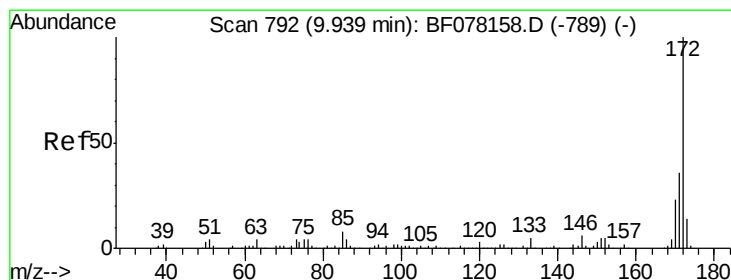
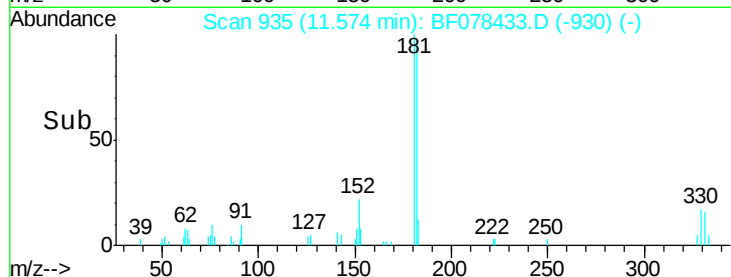
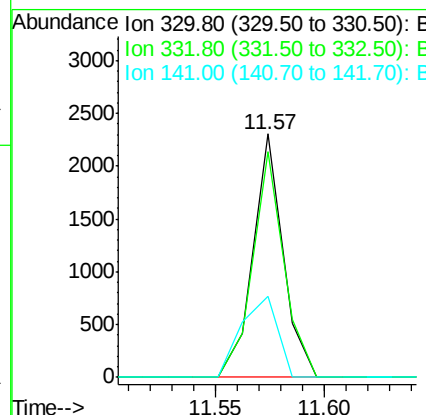
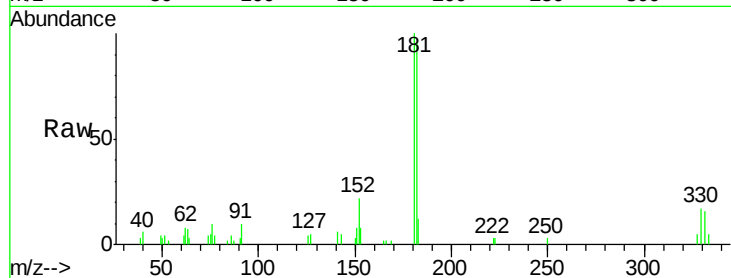




#41  
 2,4,6-Tribromophenol  
 Concen: 3.75 ng  
 RT: 11.57 min Scan# 935  
 Delta R.T. -0.05 min  
 Lab File: BF078433.D  
 Acq: 11 Apr 2015 9:52

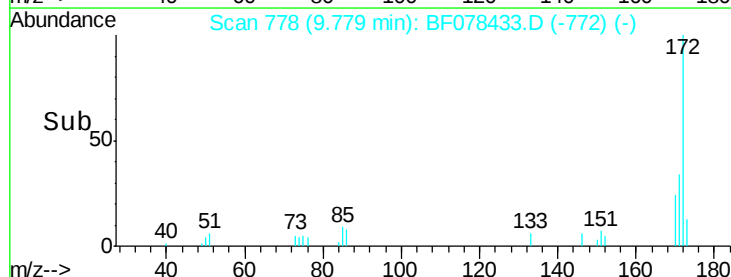
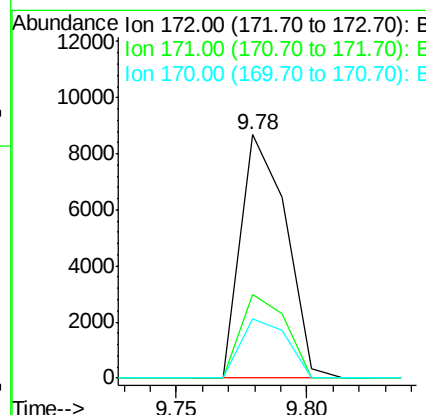
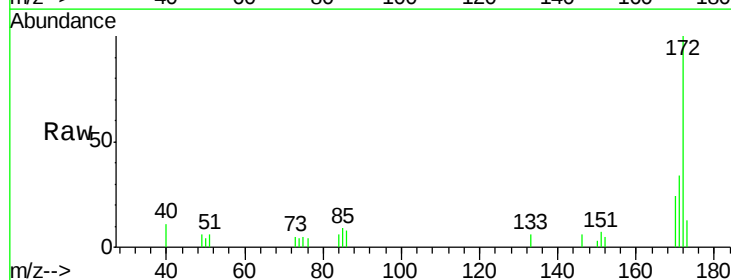
Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-6DADL2

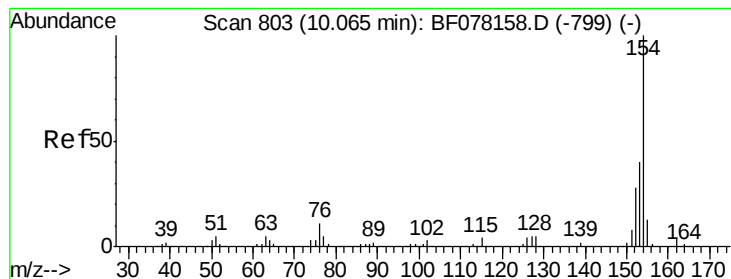
Tgt Ion:330 Resp: 2216  
 Ion Ratio Lower Upper  
 330 100  
 332 96.0 78.6 117.8  
 141 40.0 31.2 46.8



#44  
 2-Fluorobiphenyl  
 Concen: 2.13 ng  
 RT: 9.78 min Scan# 778  
 Delta R.T. -0.03 min  
 Lab File: BF078433.D  
 Acq: 11 Apr 2015 9:52

Tgt Ion:172 Resp: 10607  
 Ion Ratio Lower Upper  
 172 100  
 171 34.3 28.6 42.8  
 170 24.5 18.5 27.7





#45

1,1'-Biphenyl

Concen: 5.02 ng

RT: 9.90 min Scan# 789

Delta R.T. -0.03 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

Instrument :

BNA\_F

ClientSampleId :

SB-6DADL2

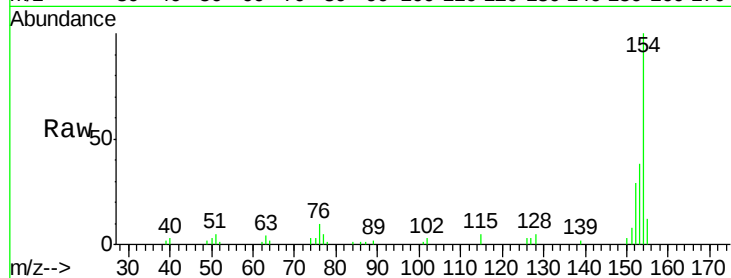
Tgt Ion:154 Resp: 29245

Ion Ratio Lower Upper

154 100

153 38.5 20.0 60.0

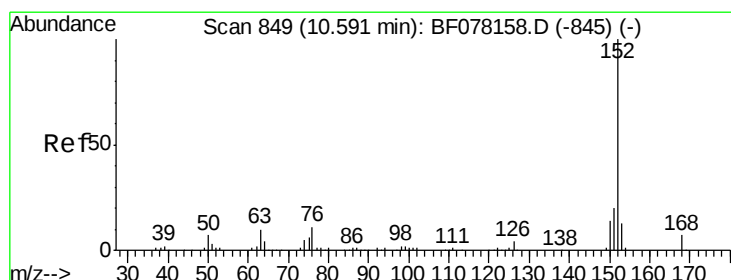
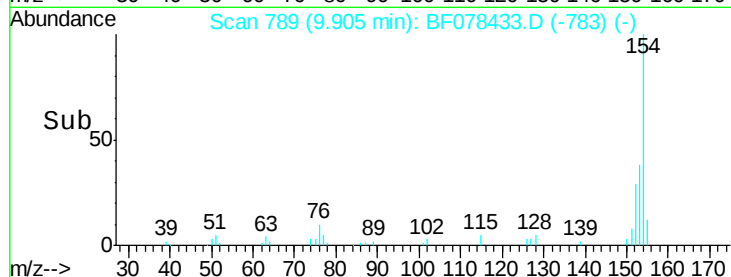
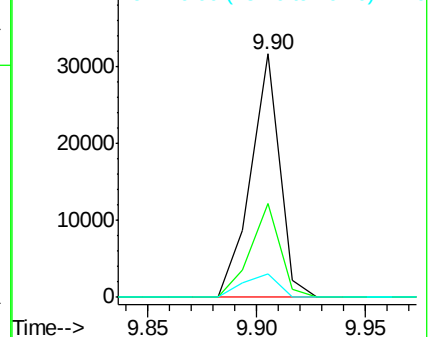
76 9.6 0.0 30.6



Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 76.00 (75.70 to 76.70): BF0



#48

Acenaphthylene

Concen: 3.22 ng

RT: 10.42 min Scan# 834

Delta R.T. -0.05 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

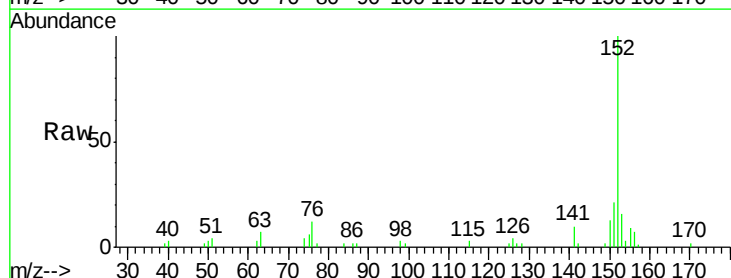
Tgt Ion:152 Resp: 23869

Ion Ratio Lower Upper

152 100

151 20.6 15.7 23.5

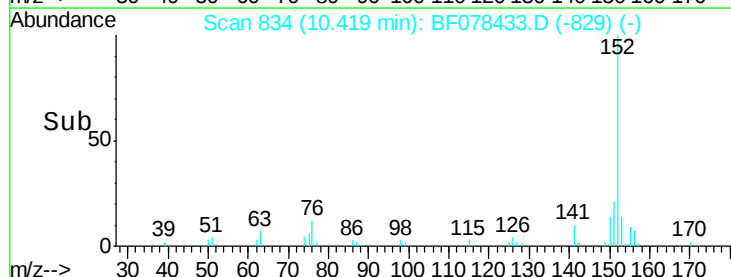
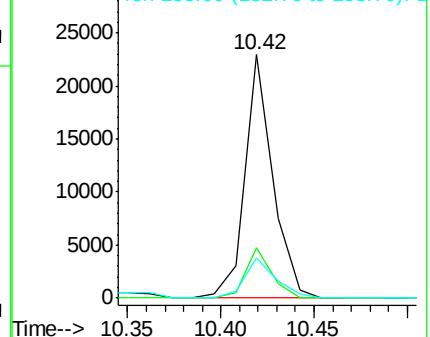
153 16.2 10.2 15.2#

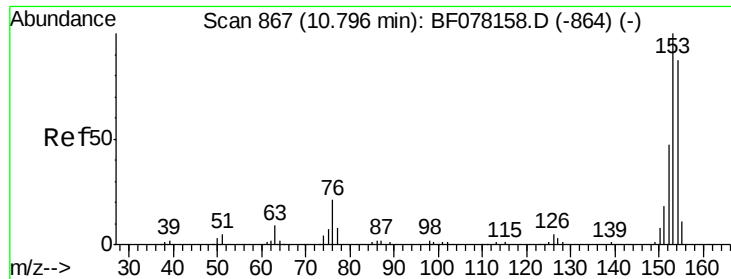


Abundance Ion 152.00 (151.70 to 152.70): E

Ion 151.00 (150.70 to 151.70): E

Ion 153.00 (152.70 to 153.70): E





#51

Acenaphthene

Concen: 17.90 ng

RT: 10.64 min Scan# 853

Delta R.T. -0.03 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

Instrument :

BNA\_F

ClientSampleId :

SB-6DADL2

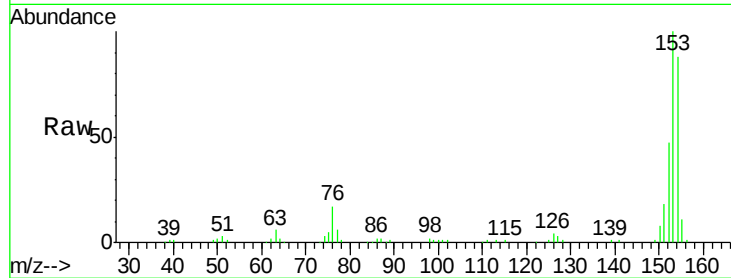
Tgt Ion:154 Resp: 74612

Ion Ratio Lower Upper

154 100

153 113.7 91.4 137.2

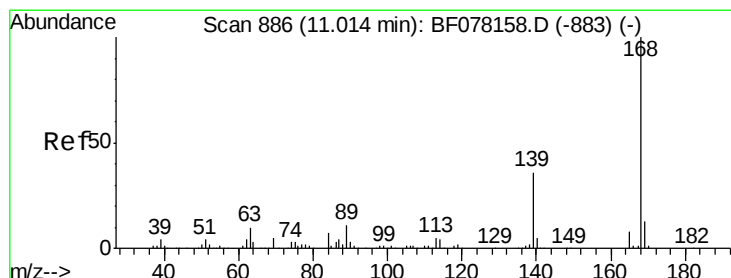
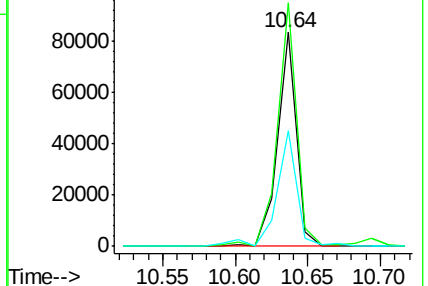
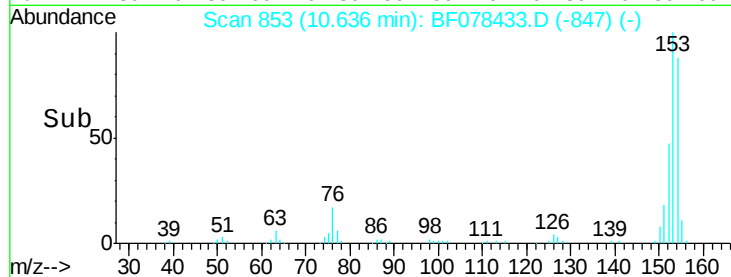
152 54.0 43.0 64.6



Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E



#54

Dibenzofuran

Concen: 7.24 ng

RT: 10.85 min Scan# 872

Delta R.T. -0.03 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

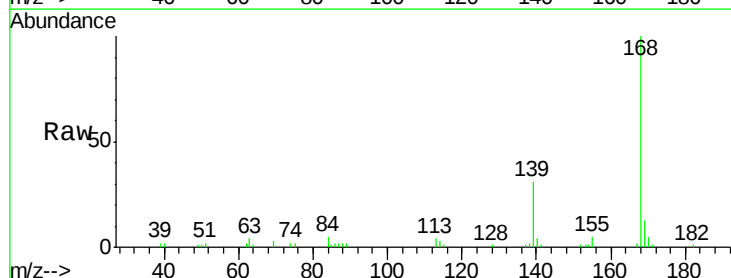
Tgt Ion:168 Resp: 46115

Ion Ratio Lower Upper

168 100

139 31.4 31.0 46.4

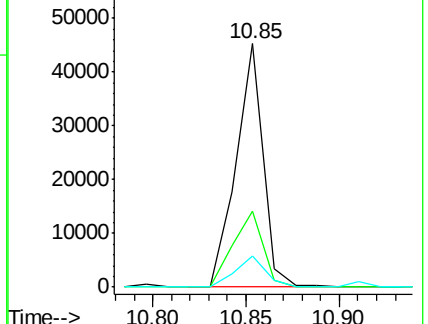
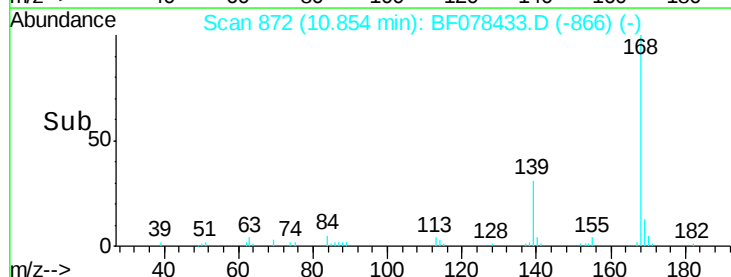
169 13.0 10.7 16.1

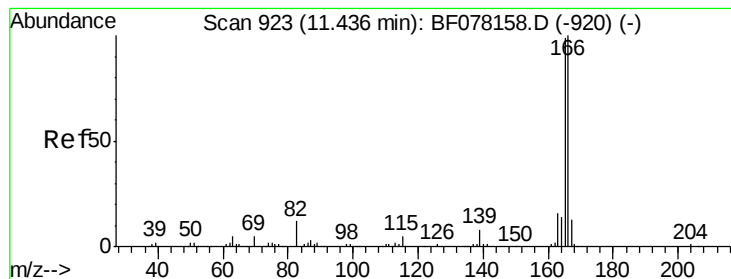


Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E

Ion 169.00 (168.70 to 169.70): E





#57

Fluorene

Concen: 15.45 ng

RT: 11.28 min Scan# 909

Delta R.T. -0.03 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

Instrument :

BNA\_F

ClientSampleId :

SB-6DADL2

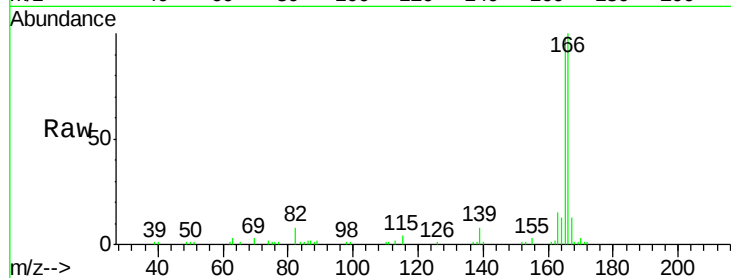
Tgt Ion:166 Resp: 79711

Ion Ratio Lower Upper

166 100

165 98.0 78.9 118.3

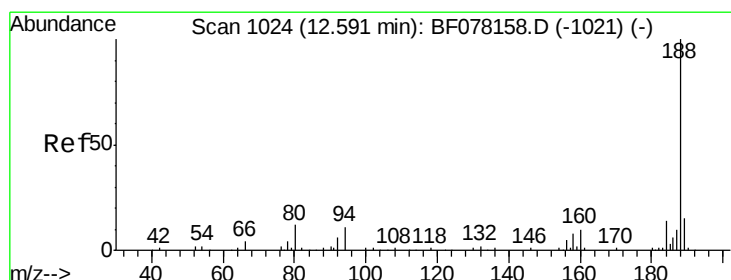
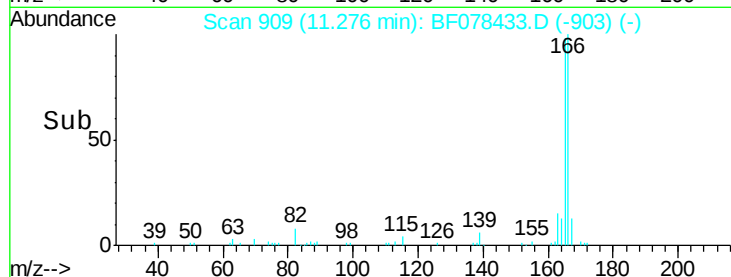
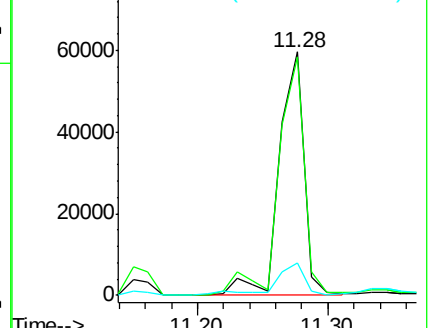
167 13.4 10.7 16.1



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: 20.00 ng

RT: 12.42 min Scan# 1009

Delta R.T. -0.05 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

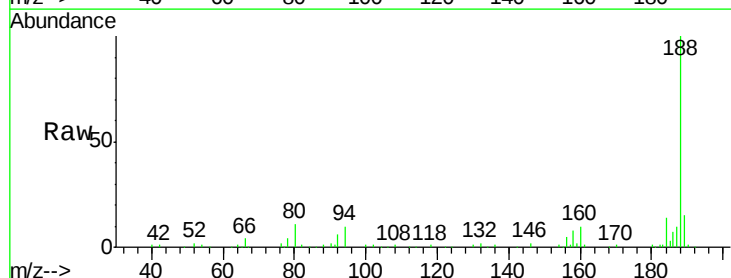
Tgt Ion:188 Resp: 142374

Ion Ratio Lower Upper

188 100

94 10.1 9.0 13.4

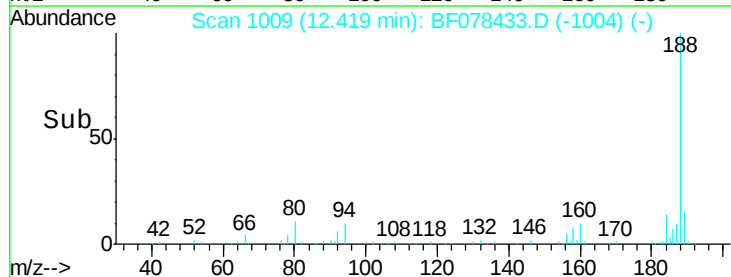
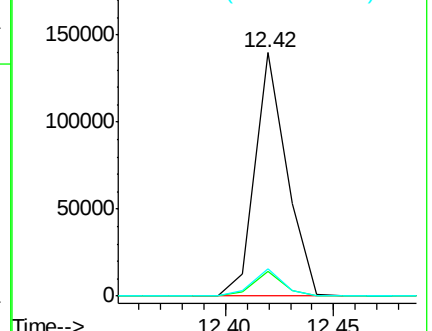
80 11.1 9.5 14.3

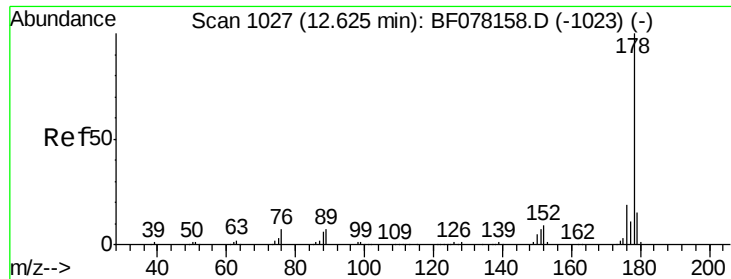


Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BF0

Ion 80.00 (79.70 to 80.70): BF0

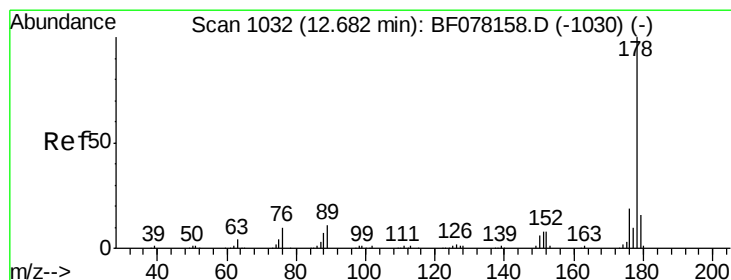
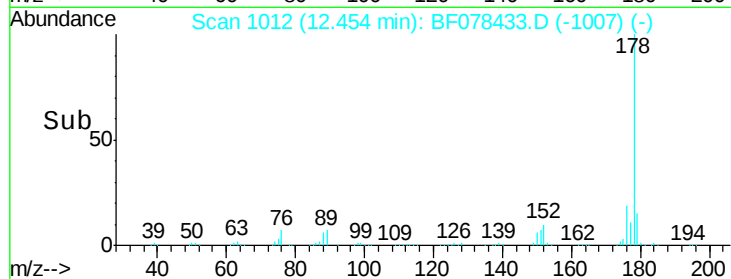
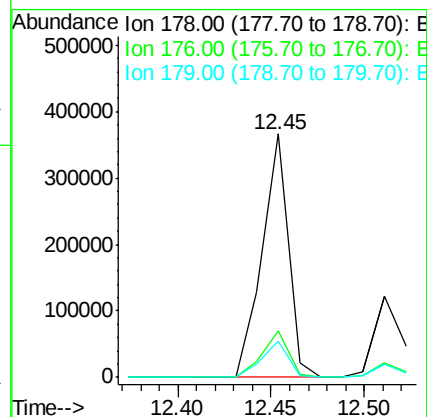
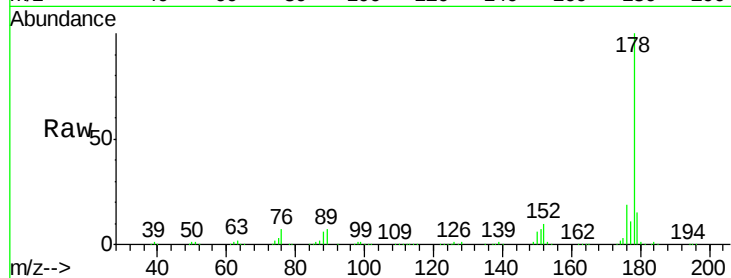




#70  
Phenanthrene  
Concen: 43.25 ng  
RT: 12.45 min Scan# 1012  
Delta R.T. -0.05 min  
Lab File: BF078433.D  
Acq: 11 Apr 2015 9:52

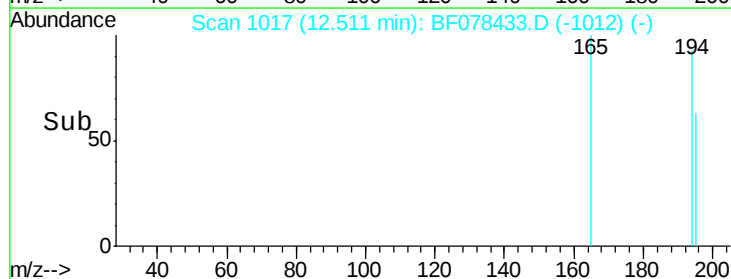
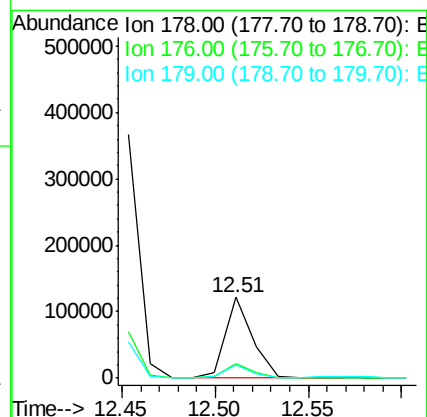
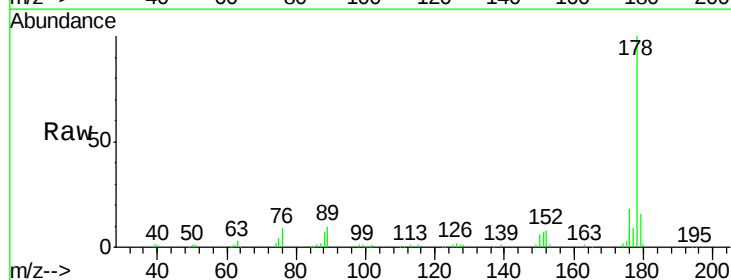
Instrument :  
BNA\_F  
ClientSampleId :  
SB-6DADL2

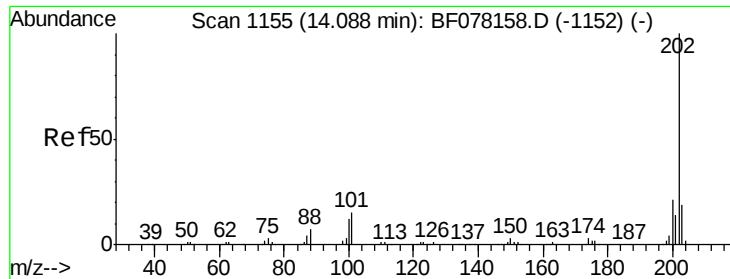
Tgt Ion:178 Resp: 356165  
Ion Ratio Lower Upper  
178 100  
176 19.1 15.4 23.0  
179 15.1 12.2 18.2



#71  
Anthracene  
Concen: 14.94 ng  
RT: 12.51 min Scan# 1017  
Delta R.T. -0.05 min  
Lab File: BF078433.D  
Acq: 11 Apr 2015 9:52

Tgt Ion:178 Resp: 121264  
Ion Ratio Lower Upper  
178 100  
176 18.4 14.8 22.2  
179 15.9 12.4 18.6

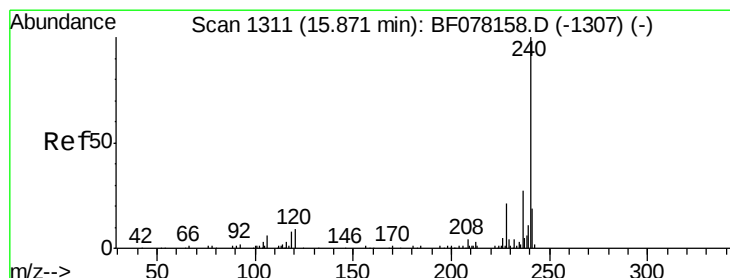
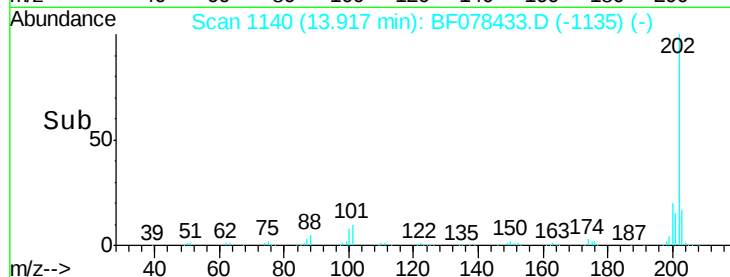
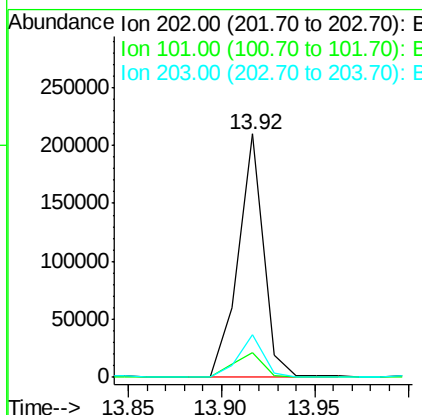
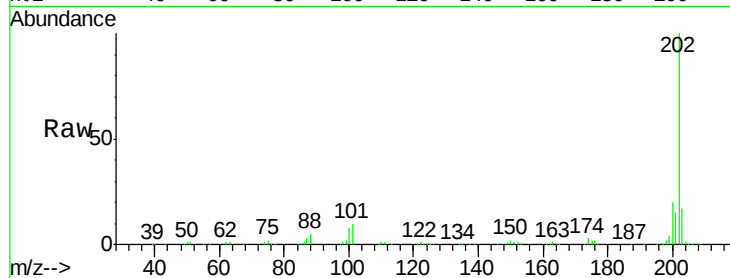




#74  
 Fluoranthene  
 Concen: 23.12 ng  
 RT: 13.92 min Scan# 1140  
 Delta R.T. -0.05 min  
 Lab File: BF078433.D  
 Acq: 11 Apr 2015 9:52

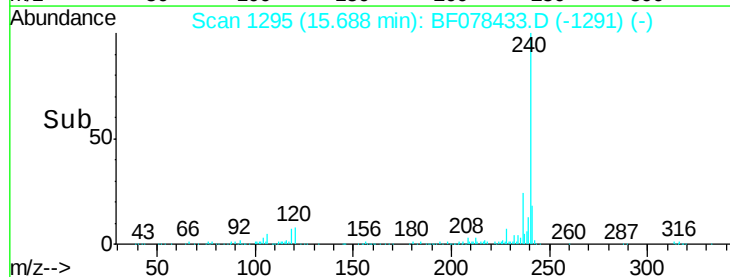
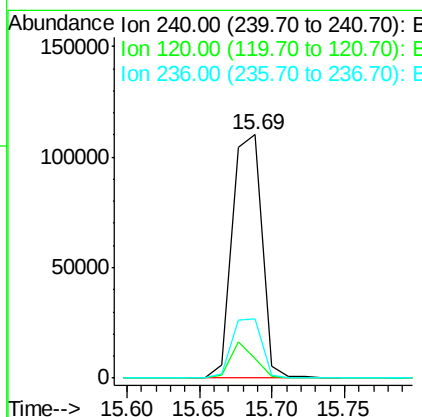
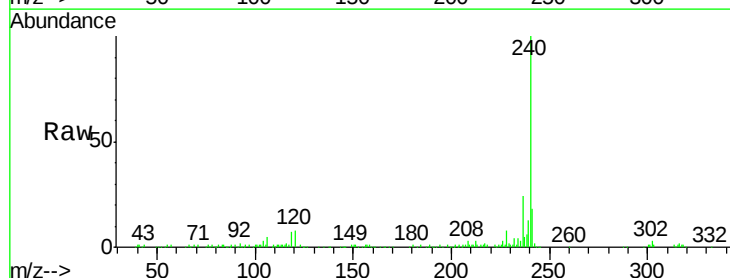
Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-6DADL2

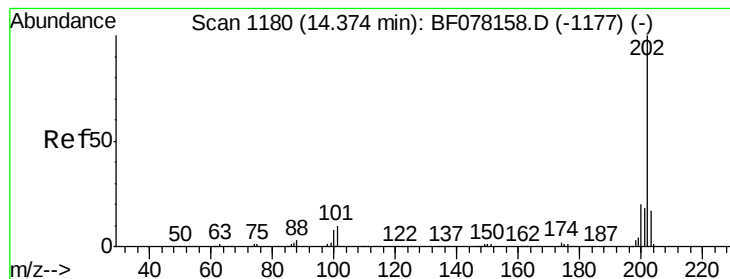
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 10.1  | 0.0   | 35.2  |
| 203     | 17.5  | 0.0   | 38.5  |



#75  
 Chrysene-d12  
 Concen: 20.00 ng  
 RT: 15.69 min Scan# 1295  
 Delta R.T. -0.06 min  
 Lab File: BF078433.D  
 Acq: 11 Apr 2015 9:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 7.9   | 7.1   | 10.7  |
| 236     | 24.3  | 21.4  | 32.2  |





#77

Pyrene

Concen: 20.36 ng

RT: 14.19 min Scan# 1164

Delta R.T. -0.06 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

Instrument :

BNA\_F

ClientSampleId :

SB-6DADL2

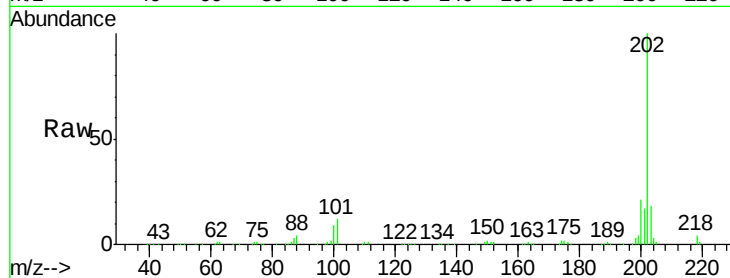
Tgt Ion: 202 Resp: 199996

Ion Ratio Lower Upper

202 100

200 20.9 16.3 24.5

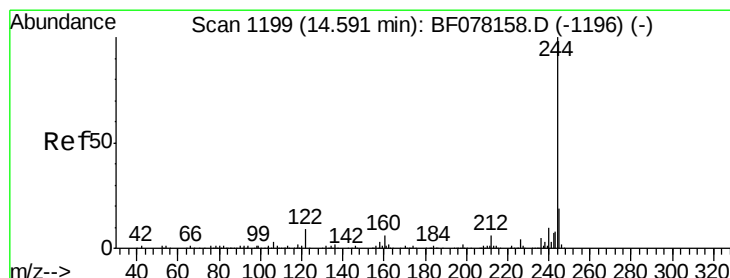
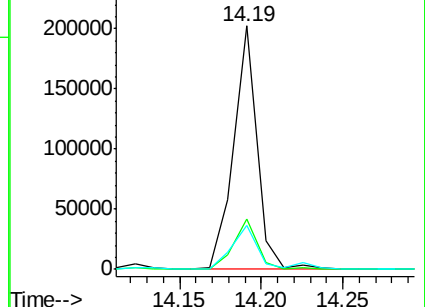
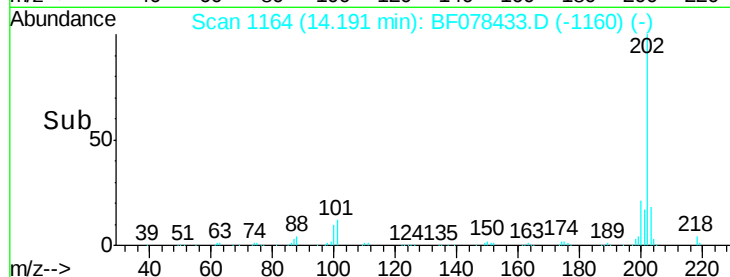
203 18.2 13.8 20.6



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: 2.33 ng

RT: 14.41 min Scan# 1183

Delta R.T. -0.06 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

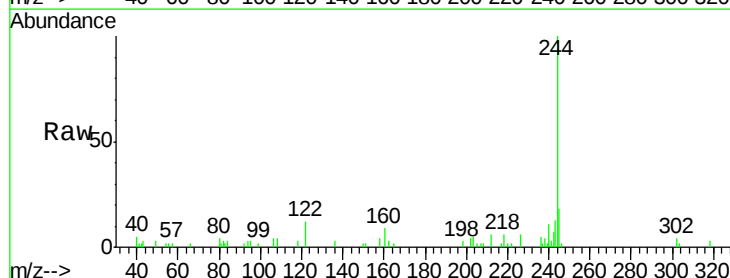
Tgt Ion: 244 Resp: 16131

Ion Ratio Lower Upper

244 100

212 5.9 5.0 7.4

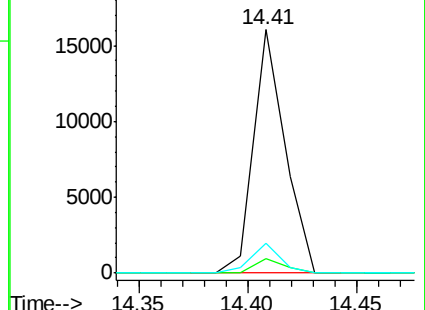
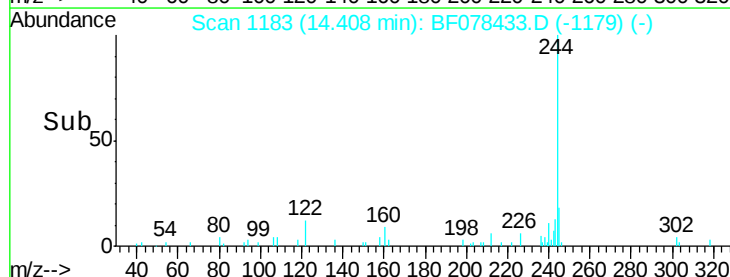
122 12.2 7.1 10.7#

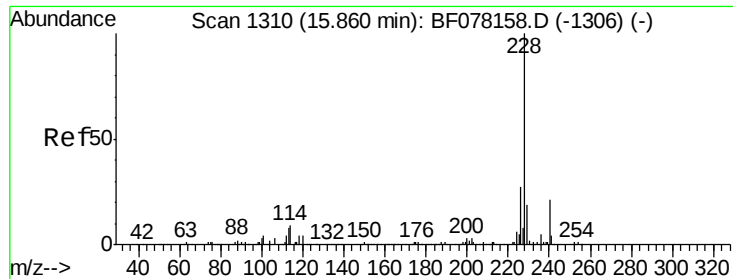


Abundance Ion 244.00 (243.70 to 244.70): E

Ion 212.00 (211.70 to 212.70): E

Ion 122.00 (121.70 to 122.70): E





#80

Benzo(a)anthracene

Concen: 7.00 ng

RT: 15.71 min Scan# 1297

Delta R.T. -0.02 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

Instrument :

BNA\_F

ClientSampleId :

SB-6DADL2

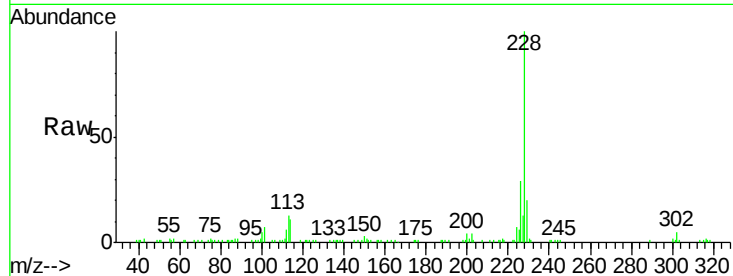
Tgt Ion:228 Resp: 65126

Ion Ratio Lower Upper

228 100

226 29.3 21.3 31.9

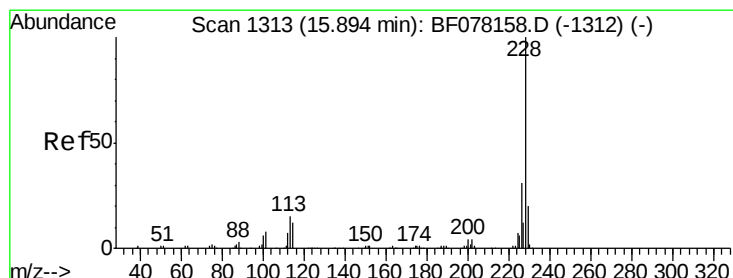
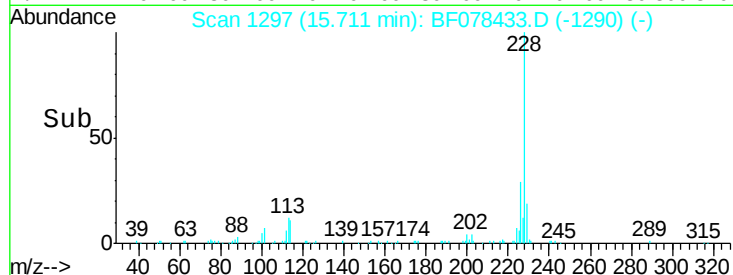
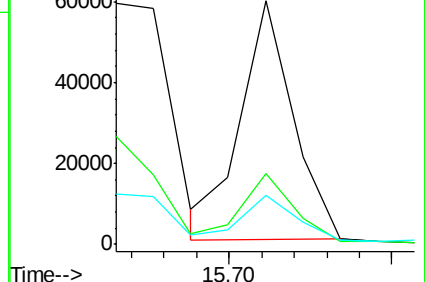
229 20.2 15.4 23.2



Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E



#82

Chrysene

Concen: 7.70 ng

RT: 15.71 min Scan# 1297

Delta R.T. -0.06 min

Lab File: BF078433.D

Acq: 11 Apr 2015 9:52

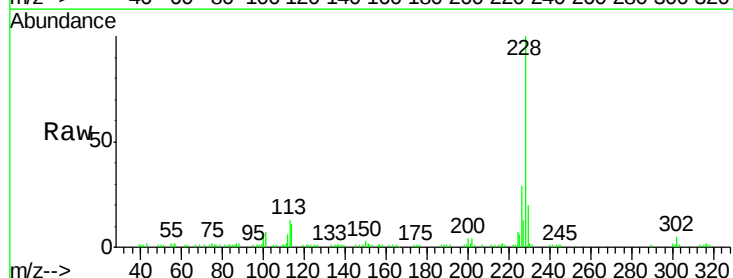
Tgt Ion:228 Resp: 67346

Ion Ratio Lower Upper

228 100

226 29.3 24.2 36.4

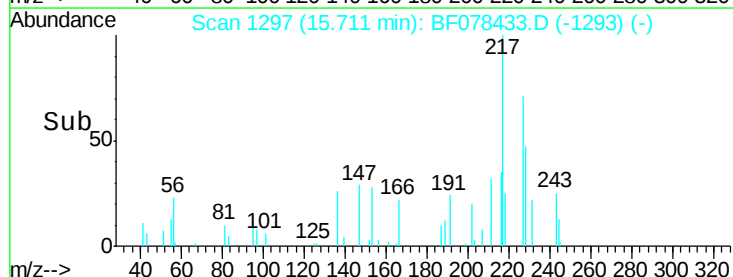
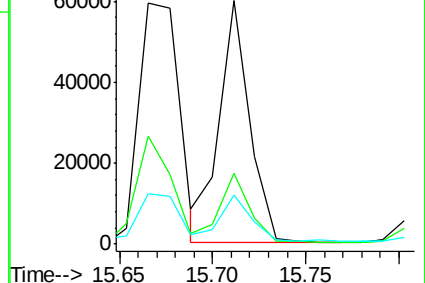
229 20.2 15.8 23.8

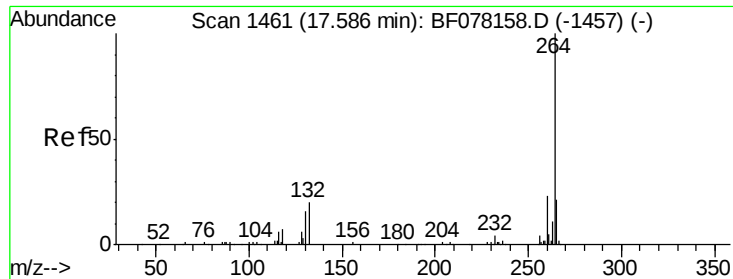


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E

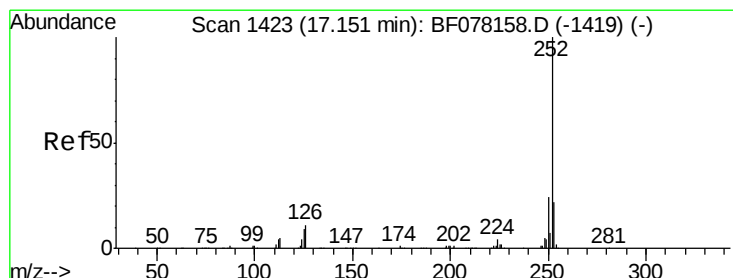
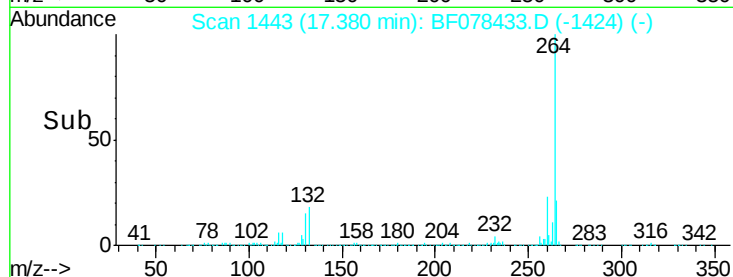
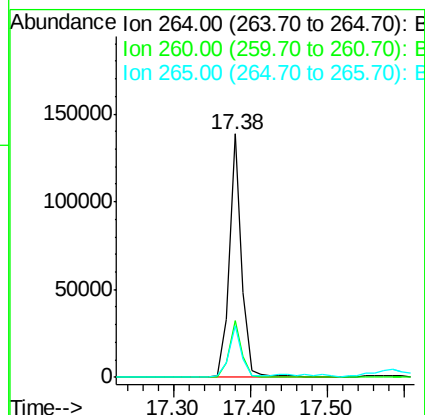
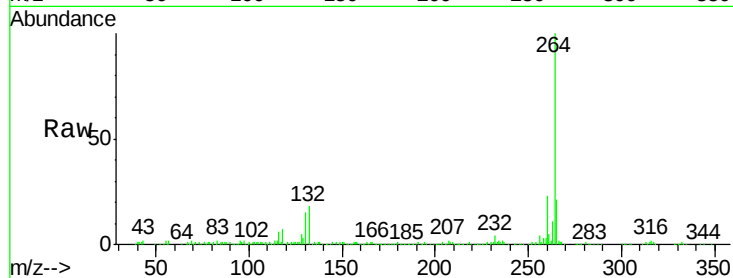




#86  
Perylene-d12  
Concen: 20.00 ng  
RT: 17.38 min Scan# 1443  
Delta R.T. -0.08 min  
Lab File: BF078433.D  
Acq: 11 Apr 2015 9:52

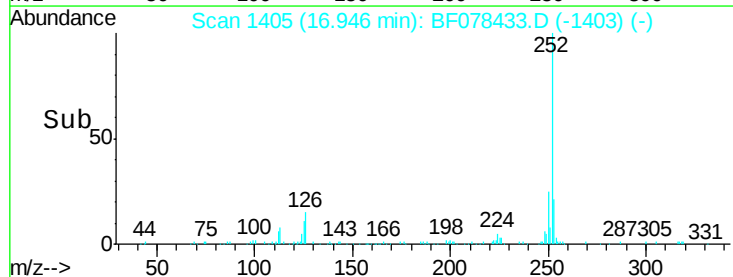
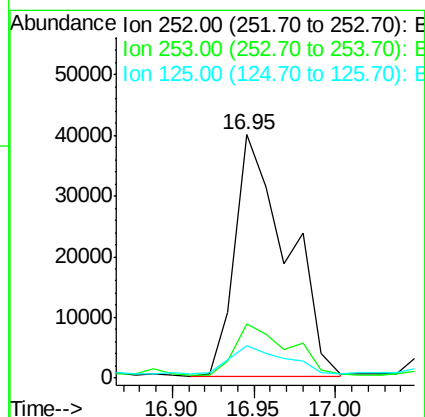
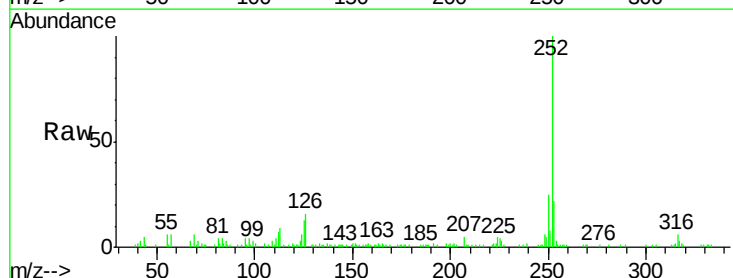
Instrument :  
BNA\_F  
ClientSampleId :  
SB-6DADL2

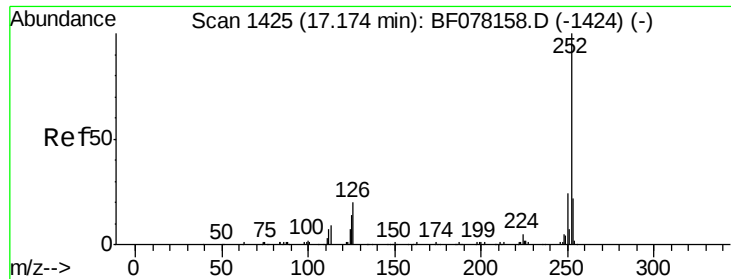
Tgt Ion:264 Resp: 159320  
Ion Ratio Lower Upper  
264 100  
260 23.1 18.6 27.8  
265 21.2 17.0 25.6



#87  
Benzo(b)fluoranthene  
Concen: 8.91 ng  
RT: 16.95 min Scan# 1405  
Delta R.T. -0.08 min  
Lab File: BF078433.D  
Acq: 11 Apr 2015 9:52

Tgt Ion:252 Resp: 87701  
Ion Ratio Lower Upper  
252 100  
253 22.2 17.2 25.8  
125 13.4 7.0 10.4#

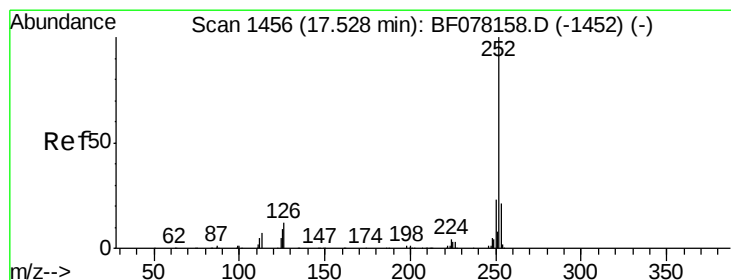
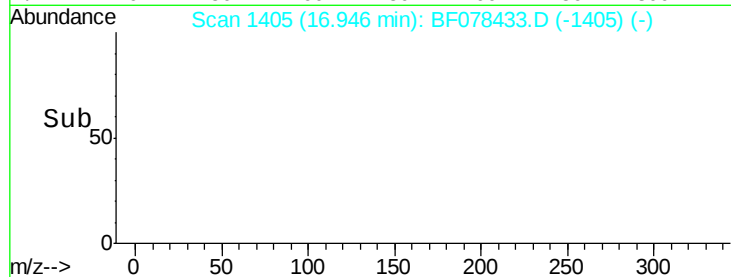
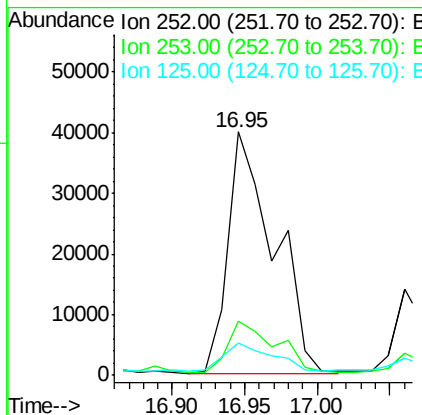
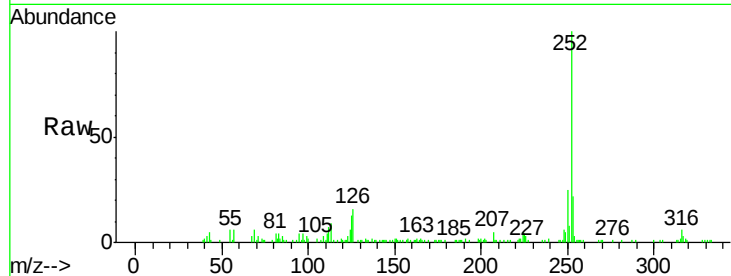




#88  
Benzo(k)fluoranthene  
Concen: 10.05 ng  
RT: 16.95 min Scan# 1405  
Delta R.T. -0.10 min  
Lab File: BF078433.D  
Acq: 11 Apr 2015 9:52

Instrument :  
BNA\_F  
ClientSampleId :  
SB-6DADL2

Tgt Ion: 252 Resp: 87907  
Ion Ratio Lower Upper  
252 100  
253 22.2 17.5 26.3  
125 13.4 11.6 17.4



#89  
Benzo(a)pyrene  
Concen: 7.07 ng  
RT: 17.31 min Scan# 1437  
Delta R.T. -0.09 min  
Lab File: BF078433.D  
Acq: 11 Apr 2015 9:52

Tgt Ion: 252 Resp: 60715  
Ion Ratio Lower Upper  
252 100  
253 21.8 16.8 25.2  
125 17.1 7.4 11.0#

