

Data Path : Z:\HPCHEM1\BNA F\DATA\BF092116\  
 Data File : BF090177.D  
 Acq On : 21 Sep 2016 23:37  
 Operator : UM/SJ  
 Sample : H4856-14 5X  
 Misc :  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SS-2

Quant Time: Sep 22 03:57:20 2016  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF092016.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Sep 20 17:58:29 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.50  | 152  | 112262   | 20.00 | ng    | -0.02    |
| 21) Naphthalene-d8        | 7.79  | 136  | 425839   | 20.00 | ng    | -0.02    |
| 38) Acenaphthene-d10      | 9.53  | 164  | 190005   | 20.00 | ng    | -0.02    |
| 63) Phenanthrene-d10      | 11.01 | 188  | 288435   | 20.00 | ng    | -0.02    |
| 75) Chrysene-d12          | 13.61 | 240  | 310701   | 20.00 | ng    | -0.02    |
| 86) Perylene-d12          | 14.94 | 264  | 299347   | 20.00 | ng    | -0.02    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 5) 2-Fluorophenol           | 5.06  | 112  | 156851   | 22.77 | ng    | -0.01    |
| 7) Phenol-d6                | 6.16  | 99   | 171553   | 20.17 | ng    | -0.01    |
| 23) Nitrobenzene-d5         | 7.07  | 82   | 103952   | 14.15 | ng    | -0.02    |
| 41) 2,4,6-Tribromophenol    | 10.32 | 330  | 31768    | 19.49 | ng    | -0.02    |
| 44) 2-Fluorobiphenyl        | 8.87  | 172  | 175352   | 18.12 | ng    | -0.02    |
| 78) Terphenyl-d14           | 12.58 | 244  | 130983   | 10.70 | ng    | -0.02    |

| Target Compounds               | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|--------------------------------|-------|------|----------|-------|-------|--------|
| 31) Naphthalene                | 7.82  | 128  | 54313    | 2.68  | ng    | 97     |
| 37) 2-Methylnaphthalene        | 8.50  | 142  | 35196    | 2.79  | ng    | 99     |
| 49) Dimethylphthalate          | 9.28  | 163  | 55077    | 4.55  | ng    | 99     |
| 70) Phenanthrene               | 11.03 | 178  | 151395   | 11.22 | ng    | 98     |
| 71) Anthracene                 | 11.07 | 178  | 35269    | 2.49  | ng    | 97     |
| 73) Di-n-butylphthalate        | 11.59 | 149  | 37255    | 2.14  | ng    | 99     |
| 74) Fluoranthene               | 12.21 | 202  | 141903   | 9.80  | ng    | 92     |
| 77) Pyrene                     | 12.42 | 202  | 124313   | 5.85  | ng    | 97     |
| 80) Benzo(a)anthracene         | 13.60 | 228  | 66963    | 4.01  | ng    | # 88   |
| 82) Chrysene                   | 13.63 | 228  | 54700m   | 3.36  | ng    |        |
| 83) Bis(2-ethylhexyl)phthalate | 13.63 | 149  | 125848   | 9.46  | ng    | # 97   |
| 85) Indeno(1,2,3-cd)pyrene     | 16.09 | 276  | 29246    | 2.22  | ng    | 96     |
| 87) Benzo(b)fluoranthene       | 14.59 | 252  | 76024m   | 4.59  | ng    |        |
| 88) Benzo(k)fluoranthene       | 14.61 | 252  | 33957m   | 2.18  | ng    |        |
| 89) Benzo(a)pyrene             | 14.89 | 252  | 51250    | 3.29  | ng    | # 91   |
| 91) Benzo(g,h,i)perylene       | 16.43 | 276  | 27405    | 2.30  | ng    | 92     |

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



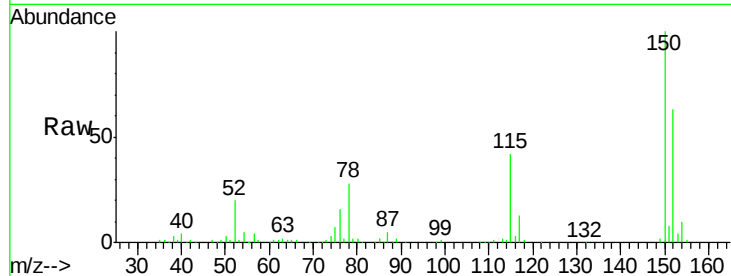


#1

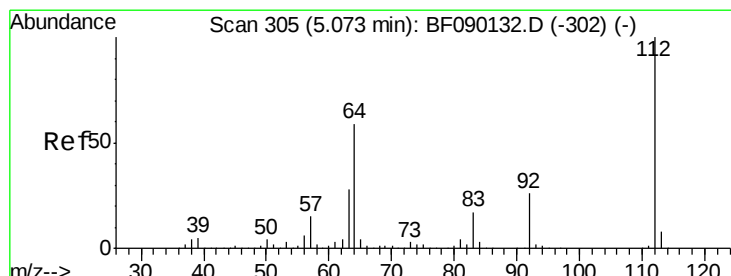
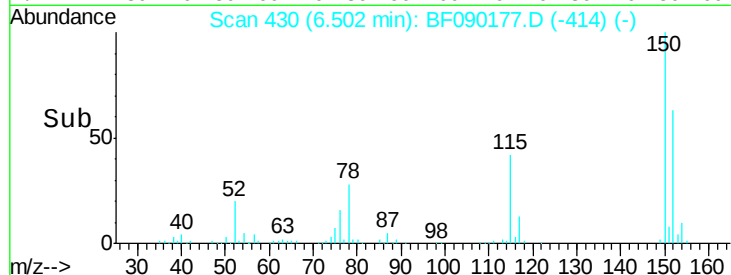
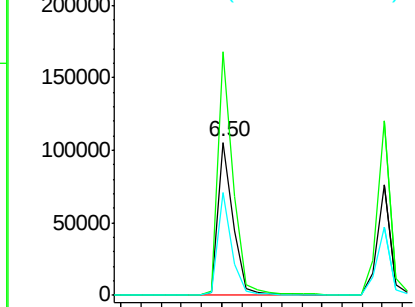
1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 6.50 min Scan# 430  
Delta R.T. -0.02 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Instrument :  
BNA\_F  
ClientSampled :  
SS-2

Tot Ion:152 Resp: 112262  
Ion Ratio Lower Upper  
152 100  
150 159.1 128.9 193.3  
115 67.2 55.5 83.3



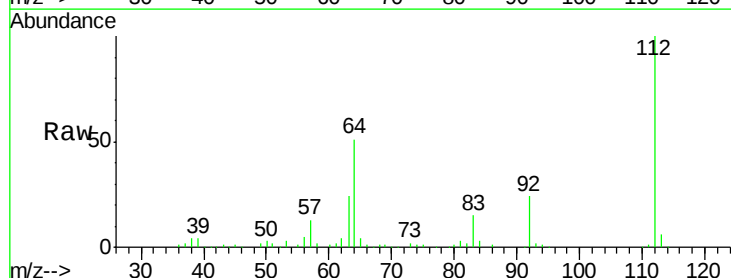
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



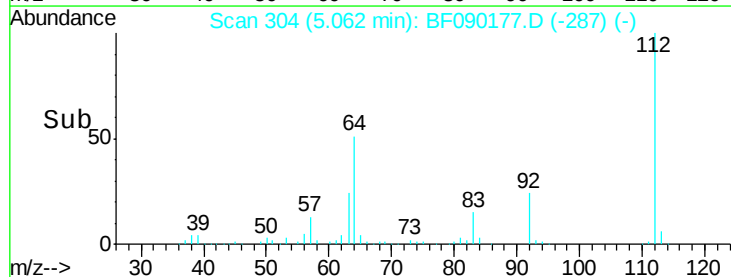
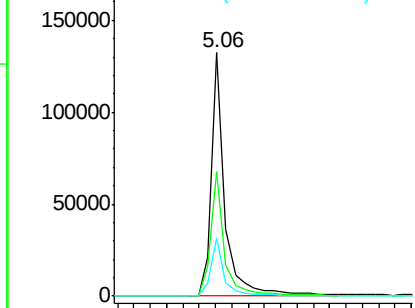
#5

2-Fluorophenol  
Concen: 22.77 ng  
RT: 5.06 min Scan# 304  
Delta R.T. -0.01 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Tgt Ion:112 Resp: 156851  
Ion Ratio Lower Upper  
112 100  
64 51.0 39.8 59.6  
63 24.1 18.9 28.3



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: 20.17 ng

RT: 6.16 min Scan# 400

Delta R.T. -0.01 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

Instrument :

BNA\_F

ClientSampleId :

SS-2

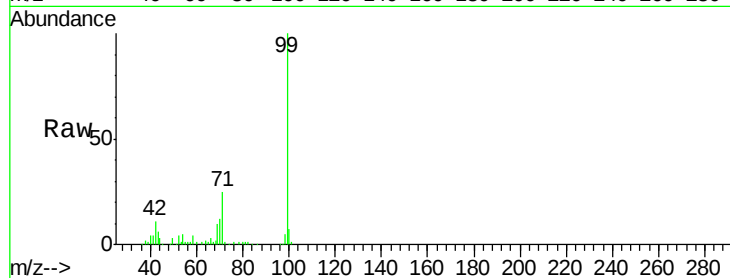
Tot Ion: 99 Resp: 171553

Ion Ratio Lower Upper

99 100

42 10.8 10.6 15.8

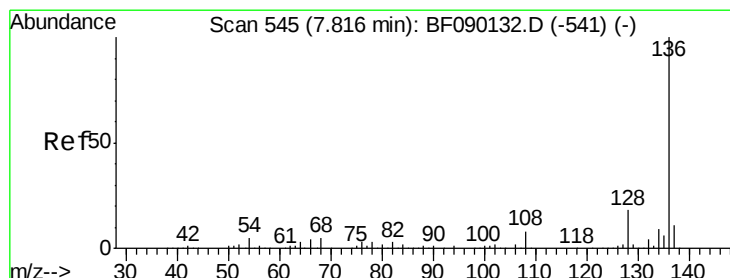
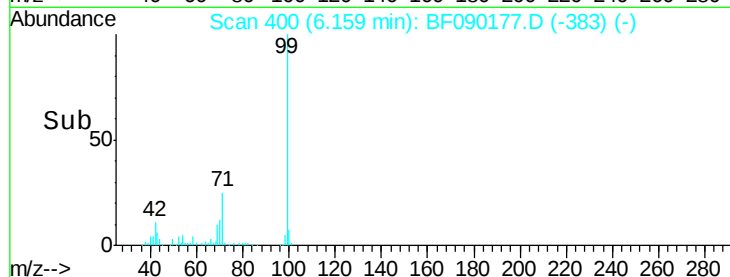
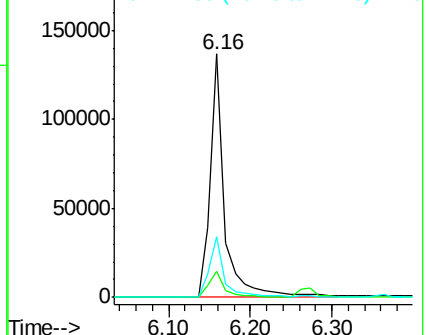
71 25.1 23.0 34.6



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: 7.79 min Scan# 543

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

Tgt Ion: 136 Resp: 425839

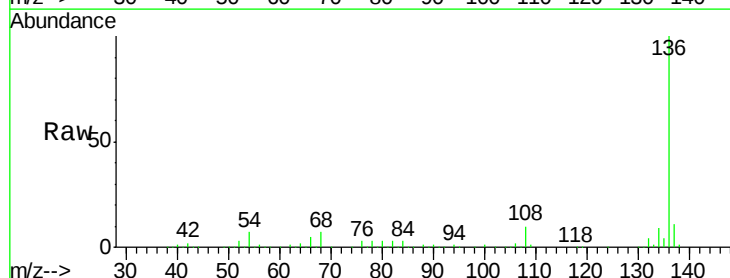
Ion Ratio Lower Upper

136 100

137 11.3 9.0 13.4

54 6.7 6.4 9.6

68 6.7 6.3 9.5

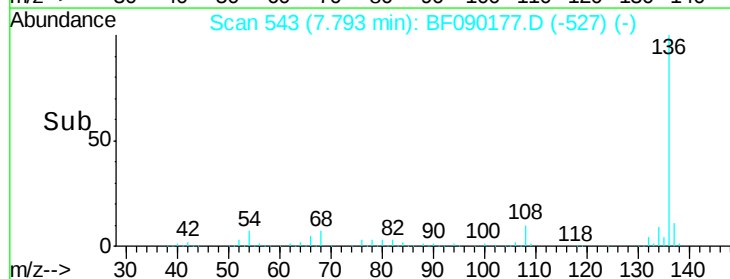
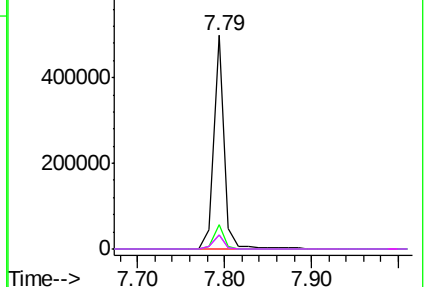


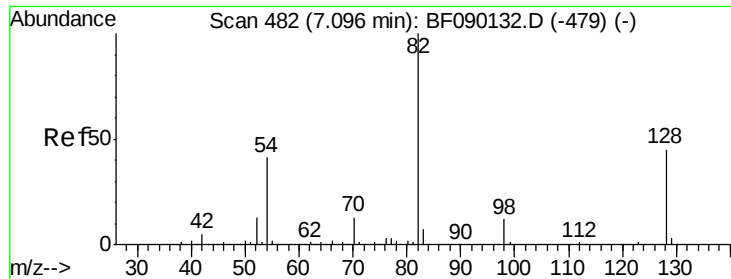
Abundance Ion 136.00 (135.70 to 136.70): E

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

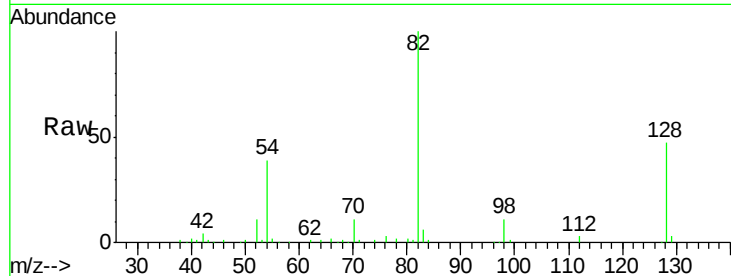




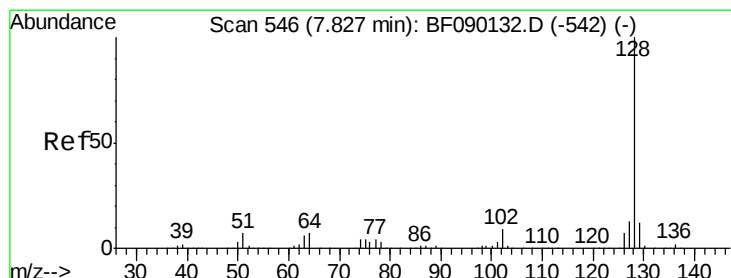
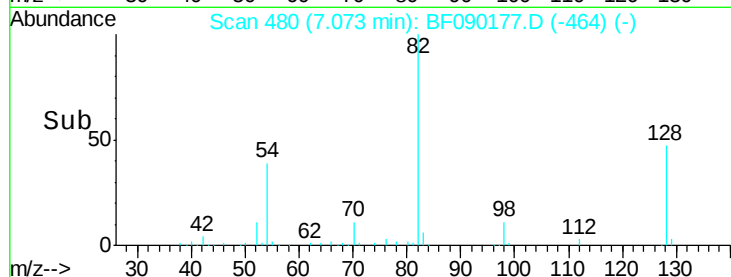
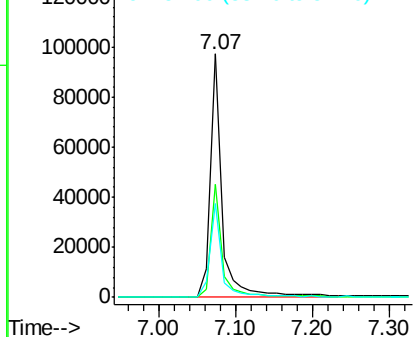
#23  
Nitrobenzene-d5  
Concen: 14.15 ng  
RT: 7.07 min Scan# 480  
Delta R.T. -0.02 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Instrument :  
BNA\_F  
ClientSampleId :  
SS-2

Tot Ion: 82 Resp: 103952  
Ion Ratio Lower Upper  
82 100  
128 46.6 37.5 56.3  
54 38.7 31.9 47.9

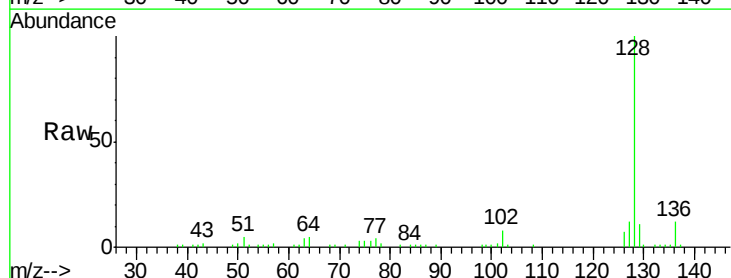


Abundance Ion 82.00 (81.70 to 82.70): BF0  
Ion 128.00 (127.70 to 128.70): E  
Ion 54.00 (53.70 to 54.70): BF0

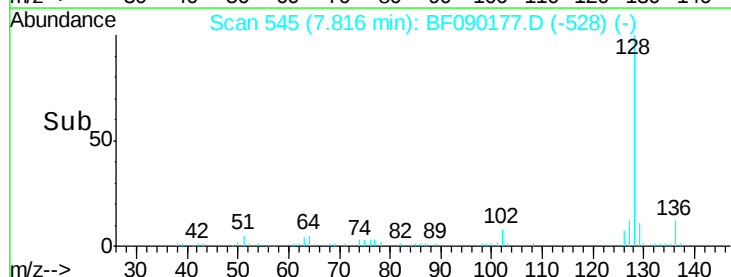
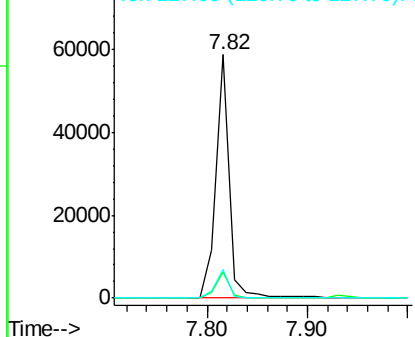


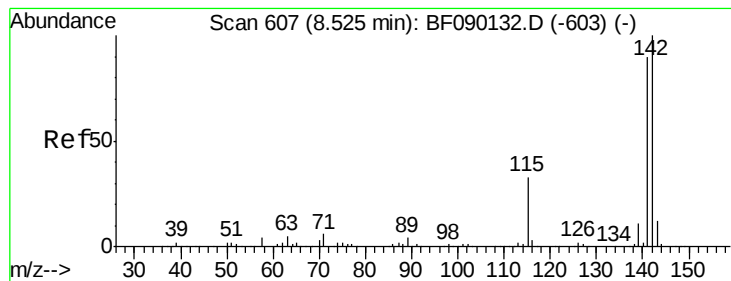
#31  
Naphthalene  
Concen: 2.68 ng  
RT: 7.82 min Scan# 545  
Delta R.T. -0.01 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Tgt Ion: 128 Resp: 54313  
Ion Ratio Lower Upper  
128 100  
129 10.8 9.3 13.9  
127 11.7 10.8 16.2



Abundance Ion 128.00 (127.70 to 128.70): E  
Ion 129.00 (128.70 to 129.70): E  
Ion 127.00 (126.70 to 127.70): E





#37

2-Methylnaphthalene

Concen: 2.79 ng

RT: 8.50 min Scan# 605

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

Instrument :

BNA\_F

ClientSampleId :

SS-2

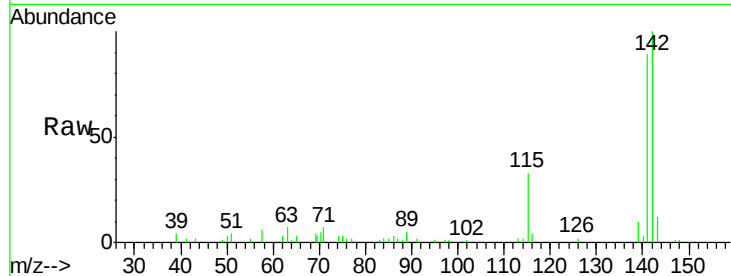
Tot Ion:142 Resp: 35196

Ion Ratio Lower Upper

142 100

141 89.2 71.4 107.2

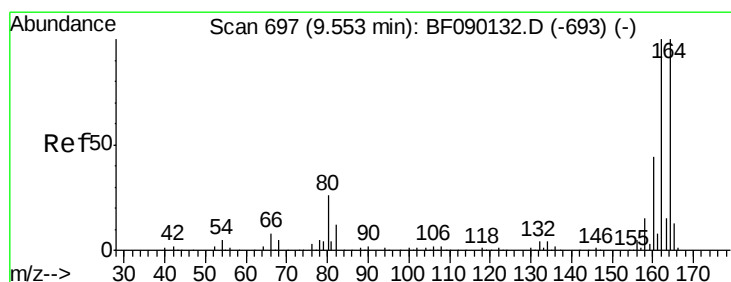
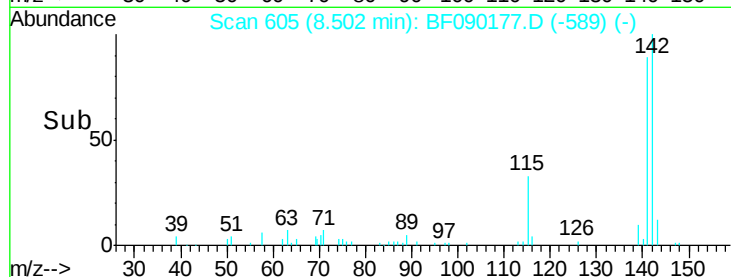
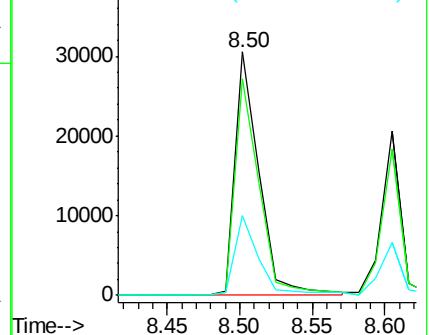
115 32.9 28.3 42.5



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: 9.53 min Scan# 695

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

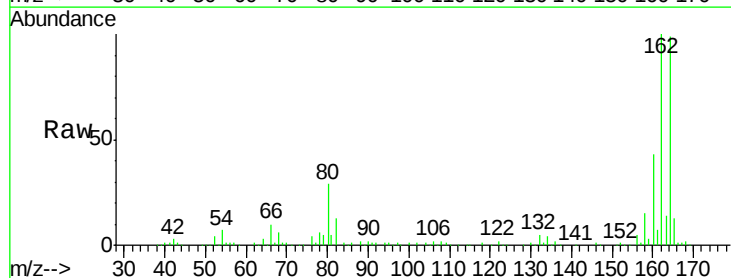
Tgt Ion:164 Resp: 190005

Ion Ratio Lower Upper

164 100

162 101.3 81.4 122.2

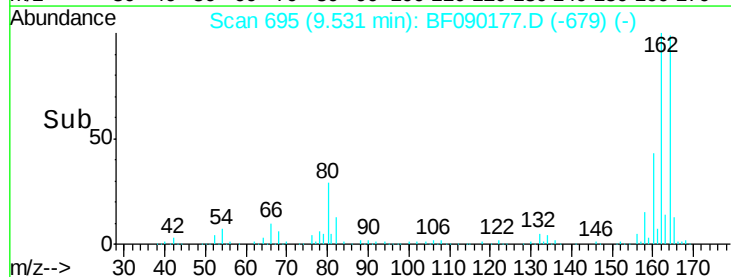
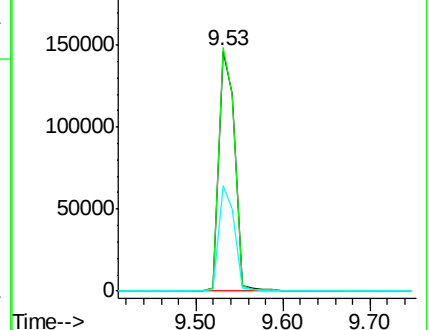
160 43.8 36.6 54.8

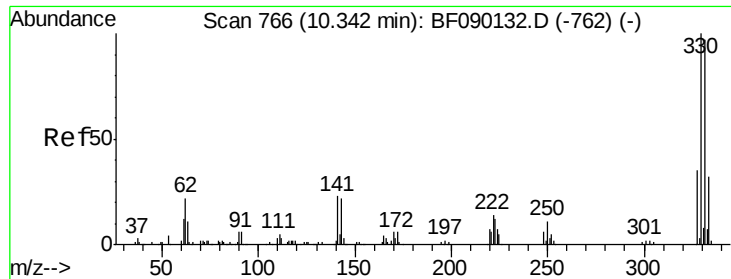


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E

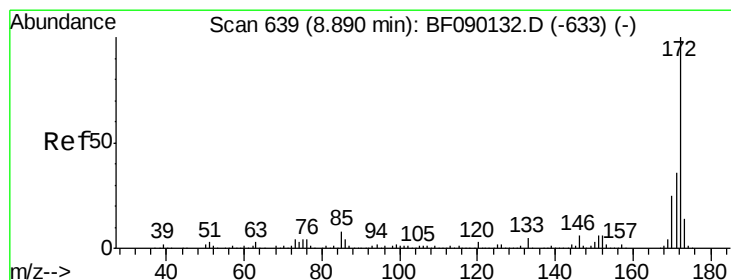
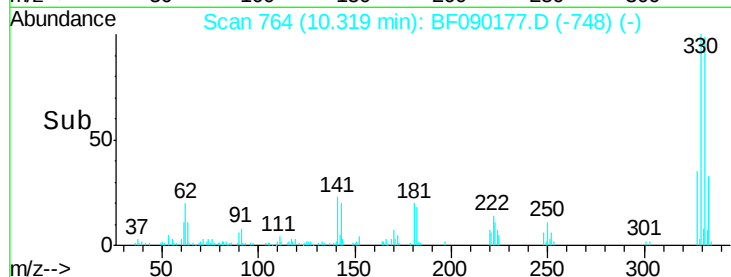
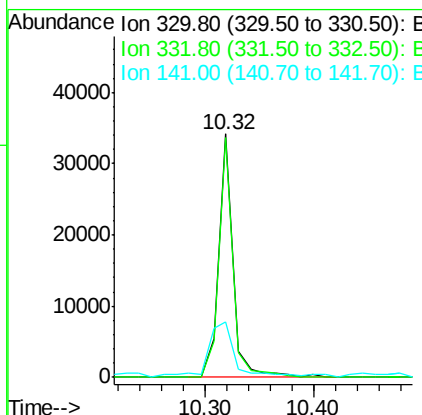
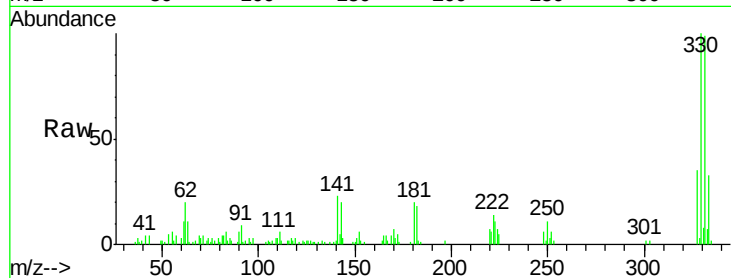




#41  
 2,4,6-Tribromophenol  
 Concen: 19.49 ng  
 RT: 10.32 min Scan# 764  
 Delta R.T. -0.02 min  
 Lab File: BF090177.D  
 Acq: 21 Sep 2016 23:37

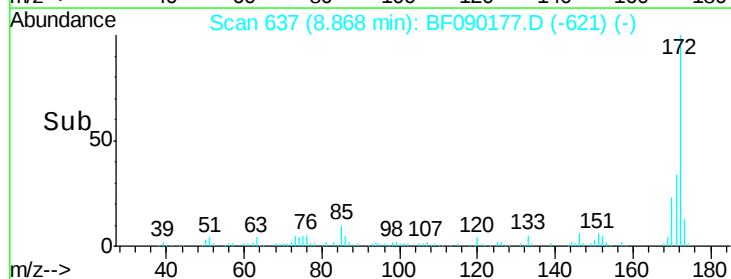
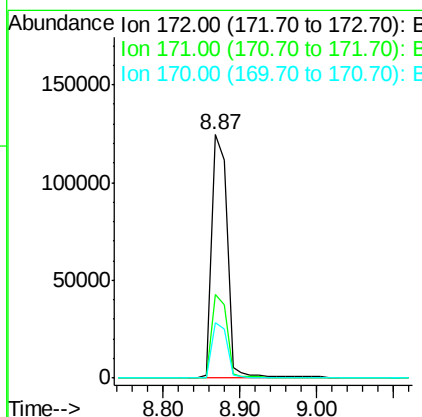
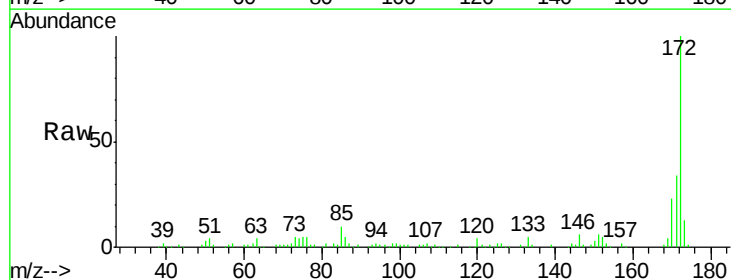
Instrument :  
 BNA\_F  
 ClientSampleId :  
 SS-2

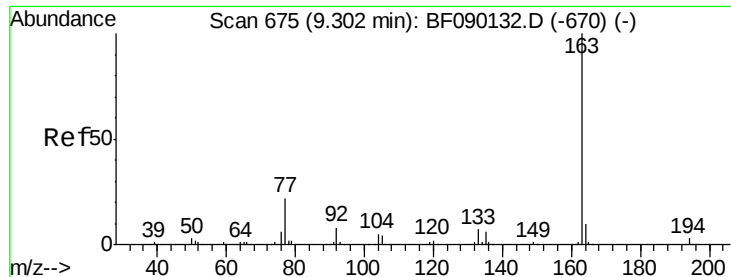
Tot Ion:330 Resp: 31768  
 Ion Ratio Lower Upper  
 330 100  
 332 96.9 78.1 117.1  
 141 44.3 23.9 35.9#



#44  
 2-Fluorobiphenyl  
 Concen: 18.12 ng  
 RT: 8.87 min Scan# 637  
 Delta R.T. -0.02 min  
 Lab File: BF090177.D  
 Acq: 21 Sep 2016 23:37

Tgt Ion:172 Resp: 175352  
 Ion Ratio Lower Upper  
 172 100  
 171 34.1 29.2 43.8  
 170 22.8 19.8 29.8

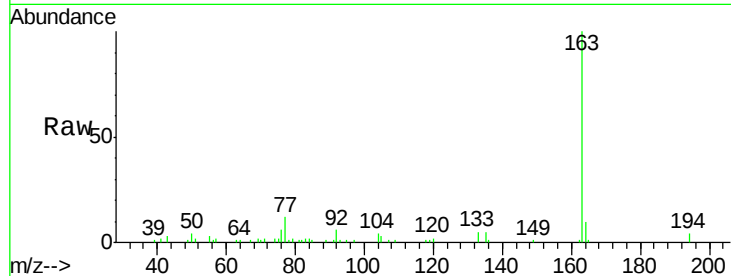




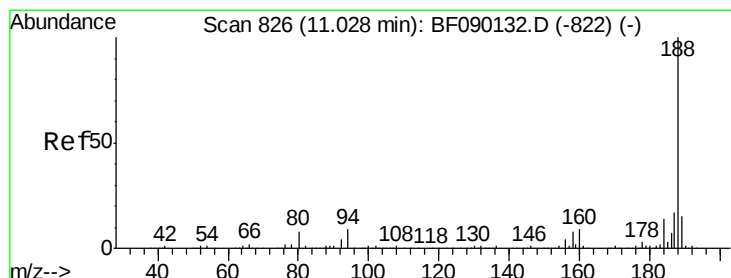
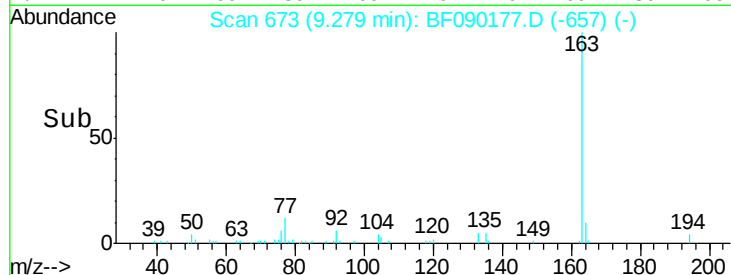
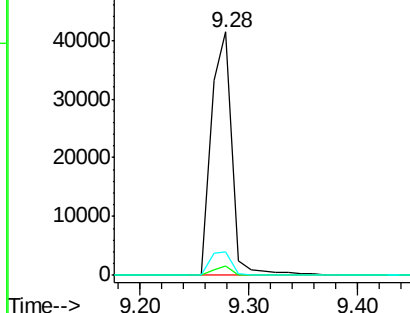
#49  
Dimethylphthalate  
Concen: 4.55 ng  
RT: 9.28 min Scan# 673  
Delta R.T. -0.02 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Instrument :  
BNA\_F  
ClientSampled :  
SS-2

Tot Ion:163 Resp: 55077  
Ion Ratio Lower Upper  
163 100  
194 3.8 2.8 4.2  
164 9.8 8.1 12.1

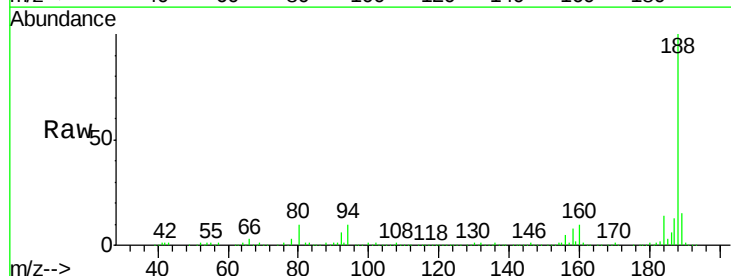


Abundance Ion 163.00 (162.70 to 163.70): E  
Ion 194.00 (193.70 to 194.70): E  
Ion 164.00 (163.70 to 164.70): E

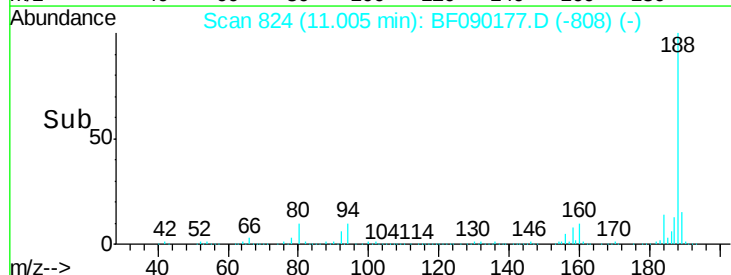
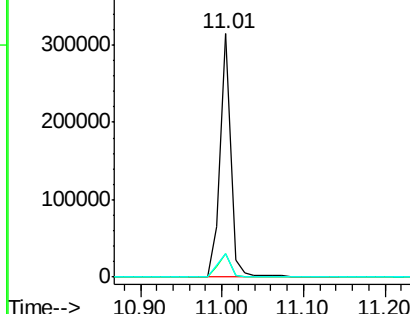


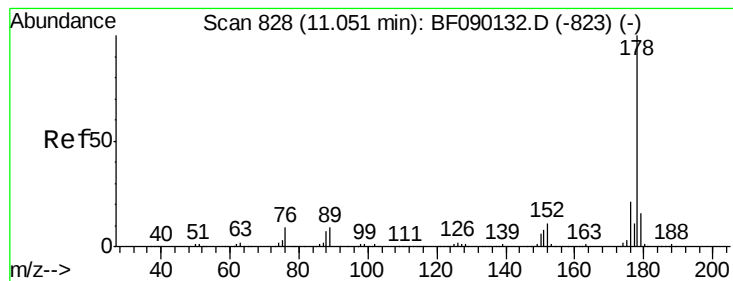
#63  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 11.01 min Scan# 824  
Delta R.T. -0.02 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Tgt Ion:188 Resp: 288435  
Ion Ratio Lower Upper  
188 100  
94 9.8 10.5 15.7#  
80 9.6 11.2 16.8#



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: 11.22 ng

RT: 11.03 min Scan# 826

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

Instrument :

BNA\_F

ClientSampleId :

SS-2

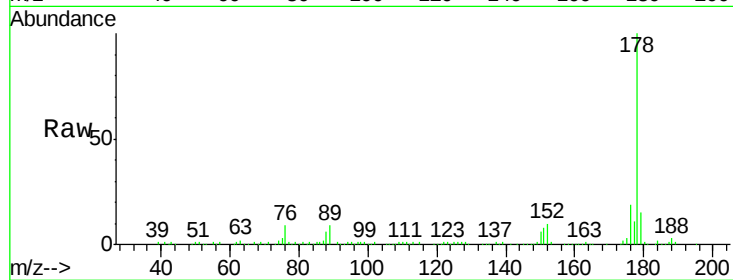
Tot Ion:178 Resp: 151395

Ion Ratio Lower Upper

178 100

176 18.9 15.9 23.9

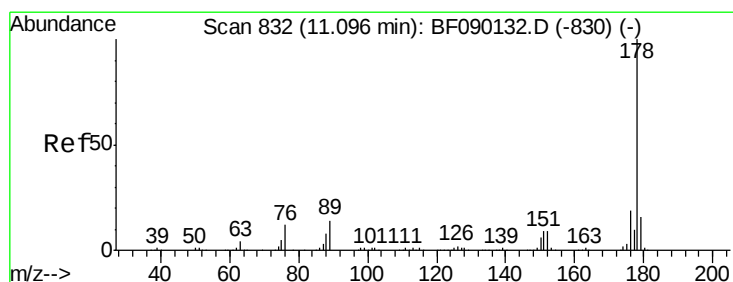
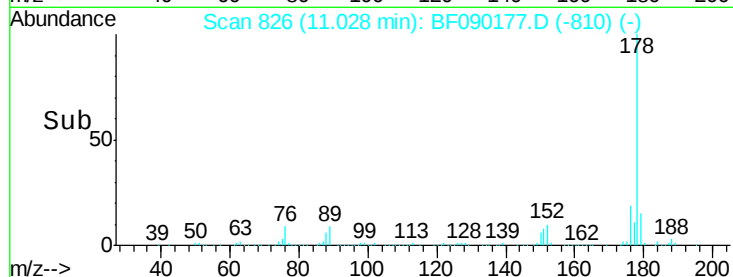
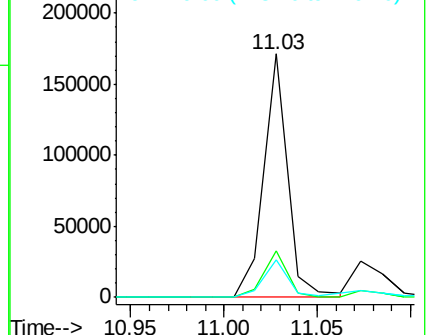
179 15.3 12.9 19.3



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



#71

Anthracene

Concen: 2.49 ng

RT: 11.07 min Scan# 830

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

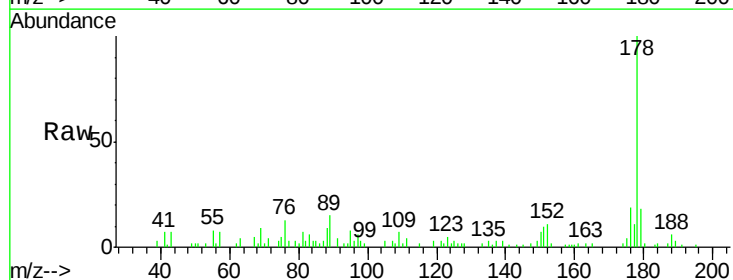
Tgt Ion:178 Resp: 35269

Ion Ratio Lower Upper

178 100

176 19.4 15.8 23.6

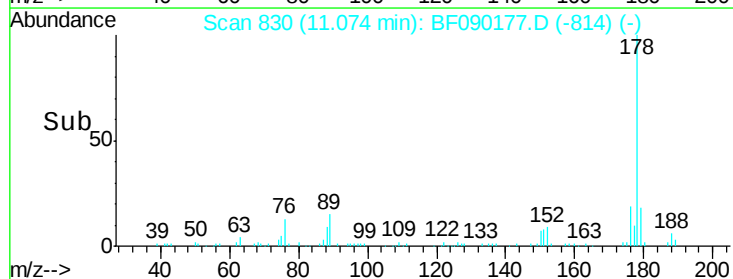
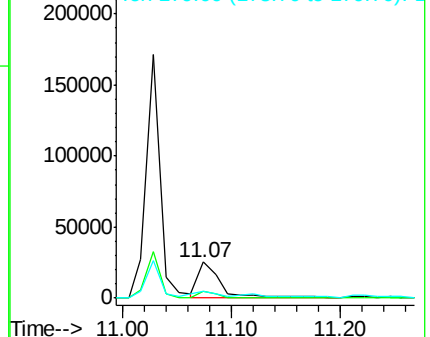
179 18.2 12.6 19.0

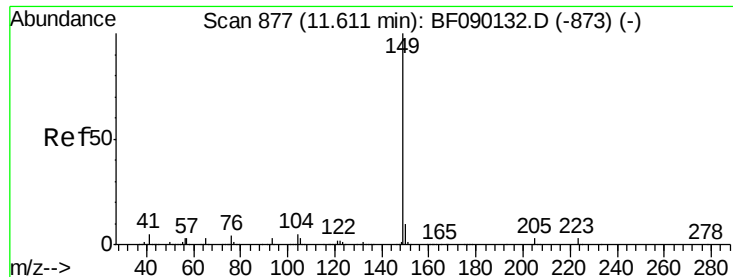


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#73

Di-n-butylphthalate

Concen: 2.14 ng

RT: 11.59 min Scan# 875

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

Instrument :

BNA\_F

ClientSampleID :

SS-2

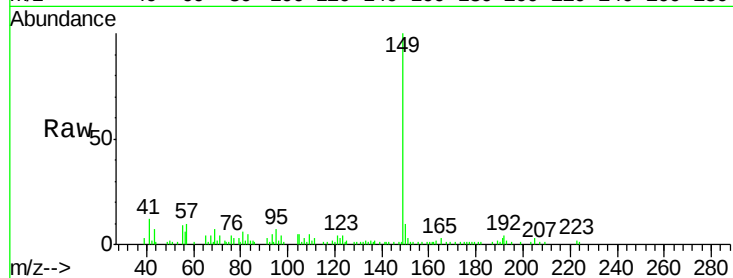
Tot Ion:149 Resp: 37255

Ion Ratio Lower Upper

149 100

150 10.3 7.8 11.8

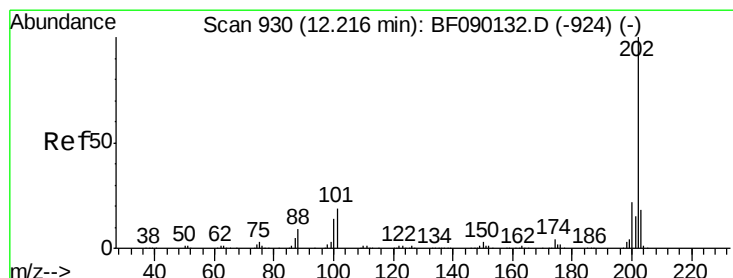
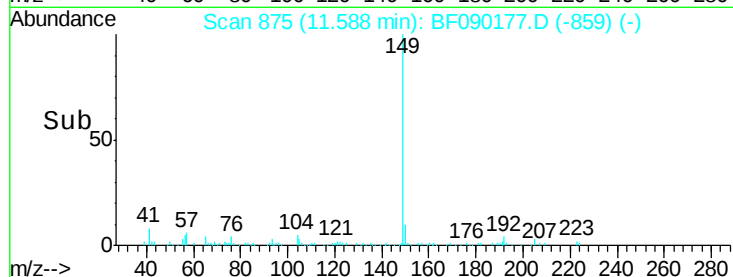
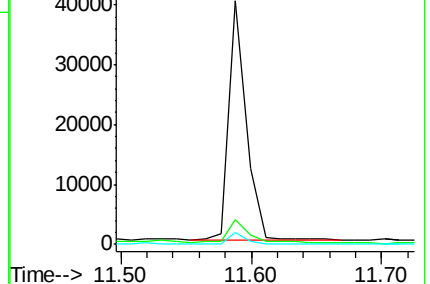
104 4.7 3.9 5.9



Abundance Ion 149.00 (148.70 to 149.70): E

Ion 150.00 (149.70 to 150.70): E

Ion 104.00 (103.70 to 104.70): E



#74

Fluoranthene

Concen: 9.80 ng

RT: 12.21 min Scan# 929

Delta R.T. -0.01 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

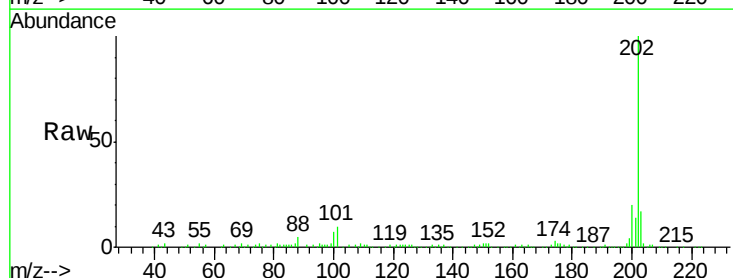
Tgt Ion:202 Resp: 141903

Ion Ratio Lower Upper

202 100

101 10.1 0.0 36.1

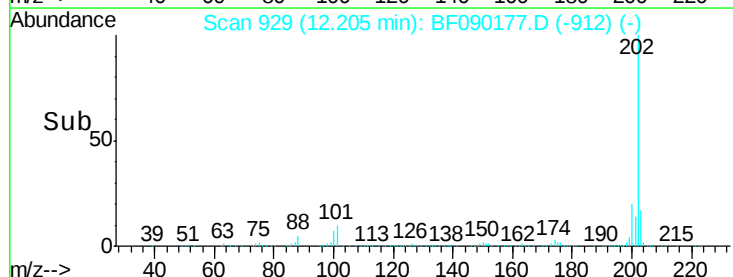
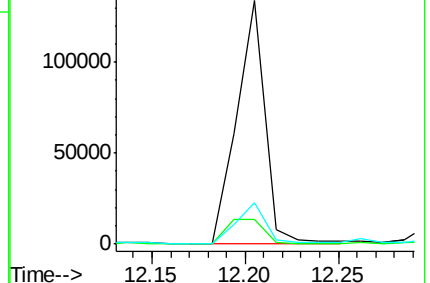
203 17.2 0.0 38.2

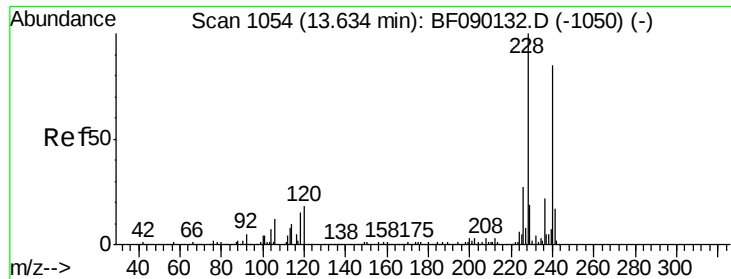


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 203.00 (202.70 to 203.70): E





#75

Chrysene-d12

Concen: 20.00 ng

RT: 13.61 min Scan# 1052

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

Instrument :

BNA\_F

ClientSampleId :

SS-2

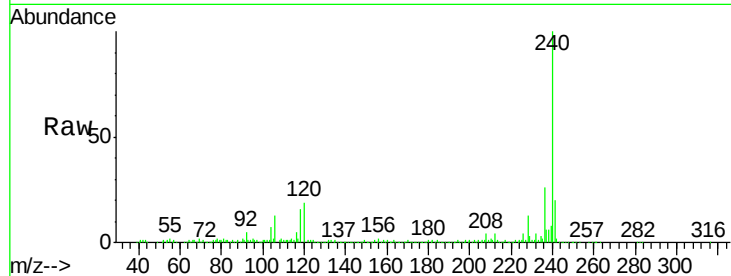
Tot Ion:240 Resp: 310701

Ion Ratio Lower Upper

240 100

120 19.2 10.6 16.0#

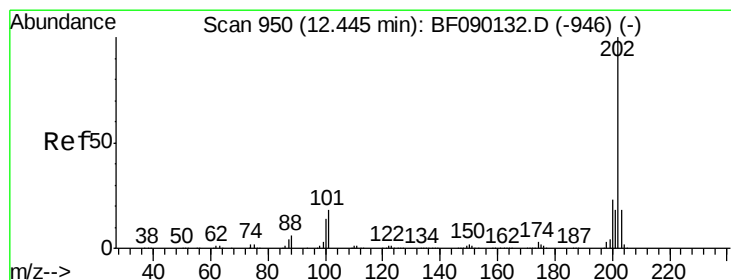
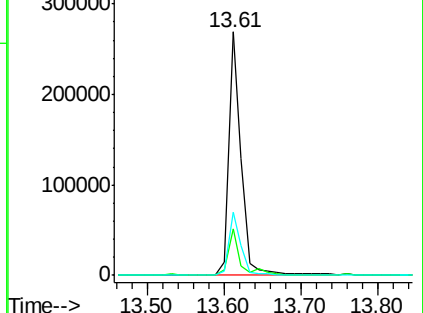
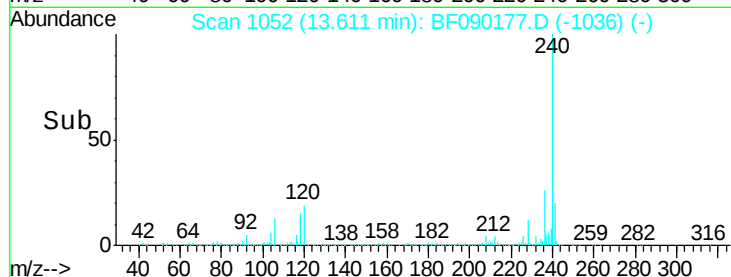
236 25.9 21.6 32.4



Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E



#77

Pyrene

Concen: 5.85 ng

RT: 12.42 min Scan# 948

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

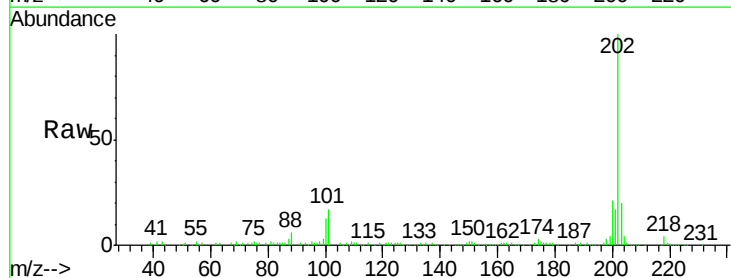
Tgt Ion:202 Resp: 124313

Ion Ratio Lower Upper

202 100

200 21.2 17.9 26.9

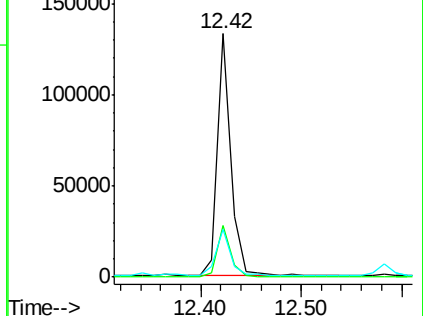
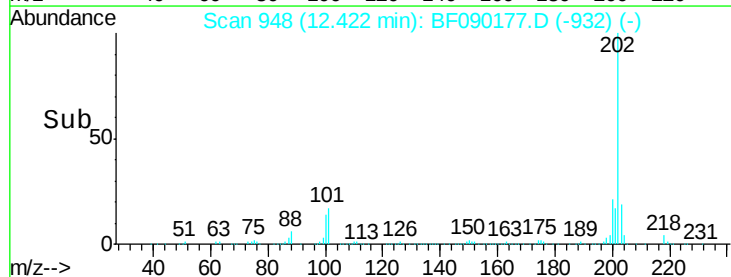
203 19.7 14.2 21.4

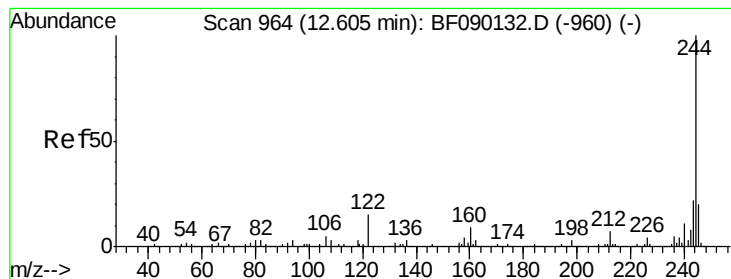


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E





#78

Terphenyl-d14

Concen: 10.70 ng

RT: 12.58 min Scan# 962

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

Instrument :

BNA\_F

ClientSampleId :

SS-2

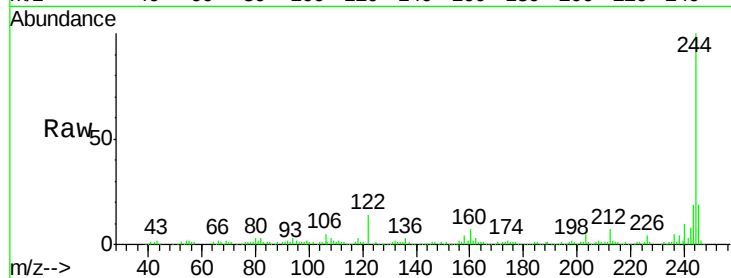
Tot Ion:244 Resp: 130983

Ion Ratio Lower Upper

244 100

212 6.8 5.8 8.8

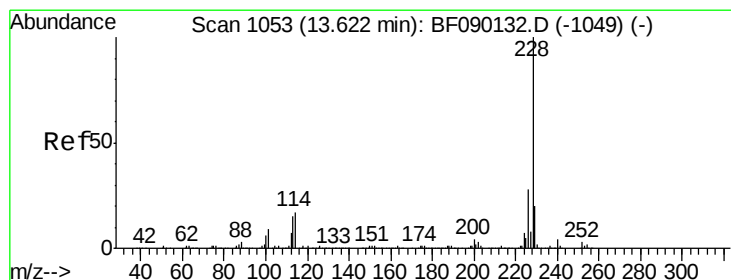
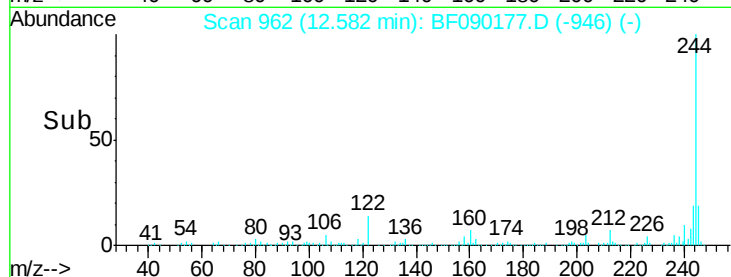
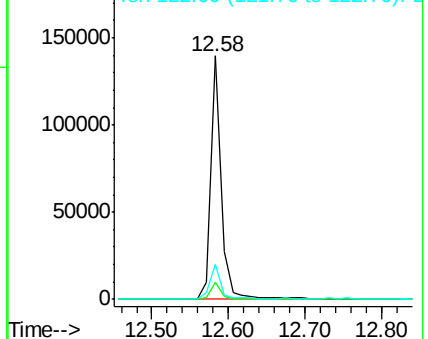
122 14.1 9.4 14.0#



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: 4.01 ng

RT: 13.60 min Scan# 1051

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

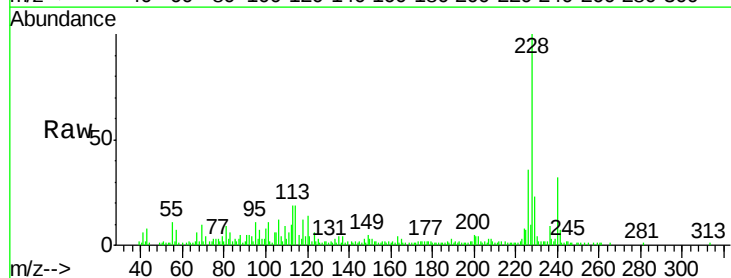
Tgt Ion:228 Resp: 66963

Ion Ratio Lower Upper

228 100

226 35.8 22.0 33.0#

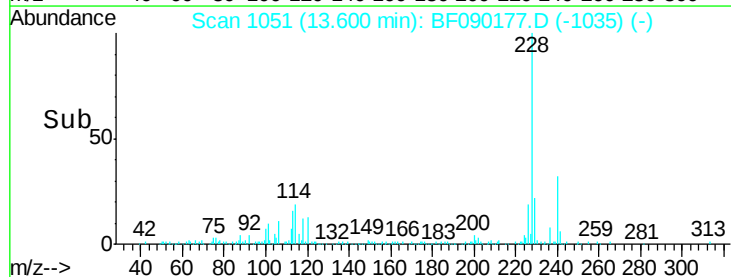
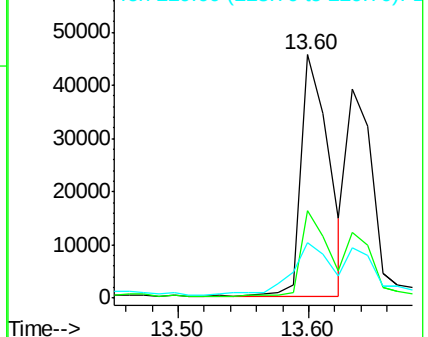
229 22.9 16.2 24.2

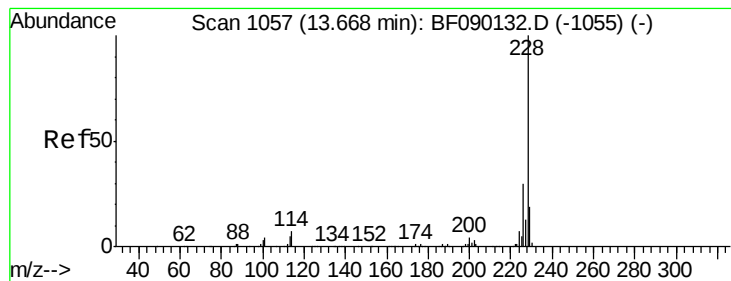


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#82

Chrysene

Concen: 3.36 ng/mL

RT: 13.63 min Scan# 1054

Delta R.T. -0.03 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

Instrument :

BNA\_F

ClientSampleID :

SS-2

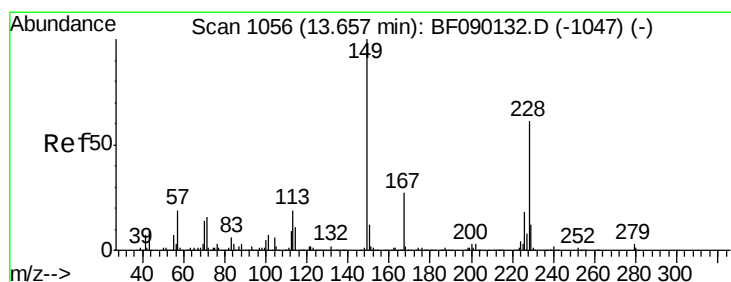
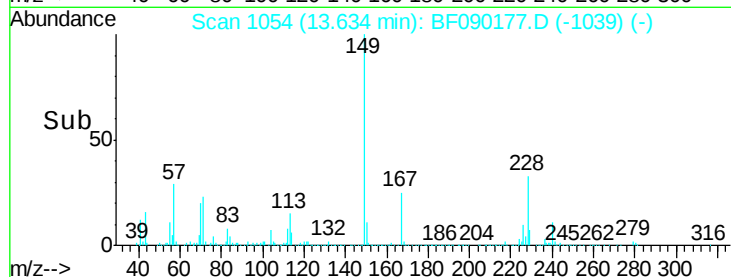
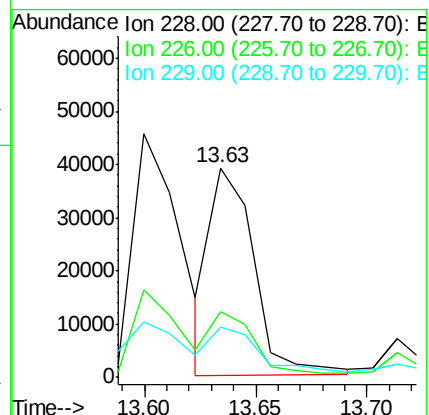
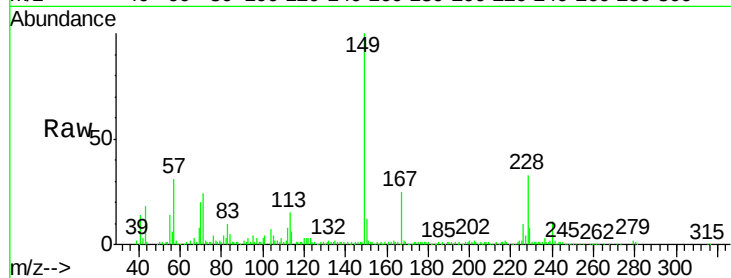
Tot Ion: 228 Resp: 54700

Ion Ratio Lower Upper

228 100

226 31.2 24.6 37.0

229 24.0 16.2 24.4



#83

Bis(2-ethylhexyl)phthalate

Concen: 9.46 ng/mL

RT: 13.63 min Scan# 1054

Delta R.T. -0.02 min

Lab File: BF090177.D

Acq: 21 Sep 2016 23:37

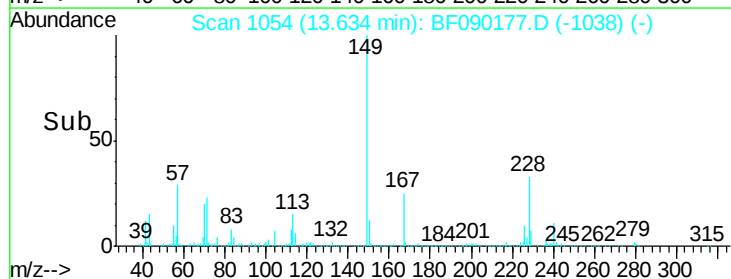
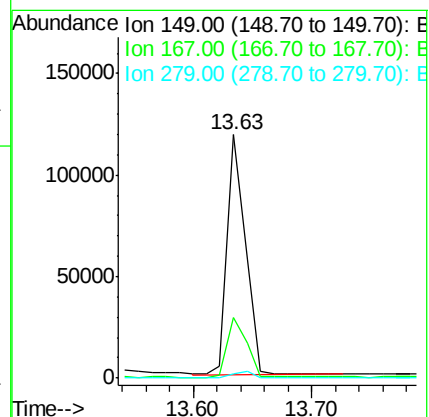
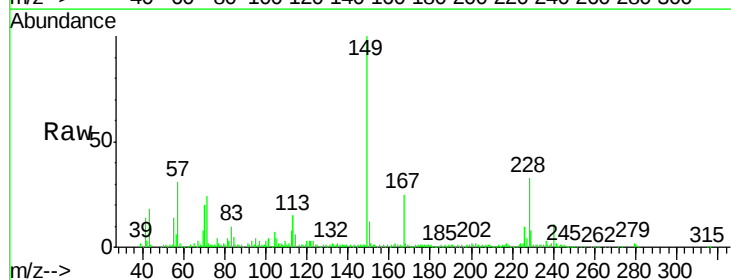
Tgt Ion: 149 Resp: 125848

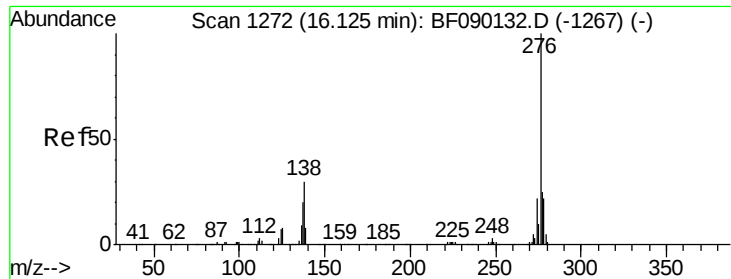
Ion Ratio Lower Upper

149 100

167 25.1 21.2 31.8

279 2.0 2.2 3.2#

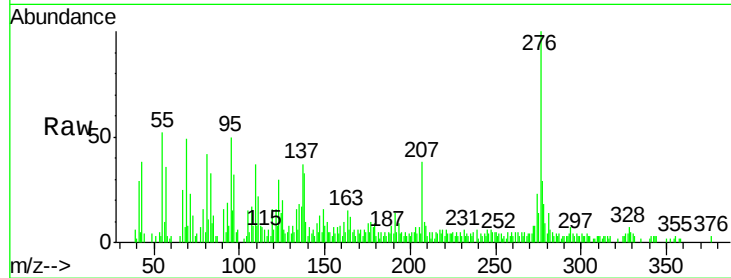




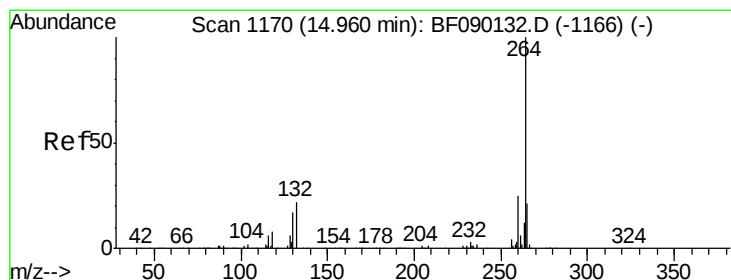
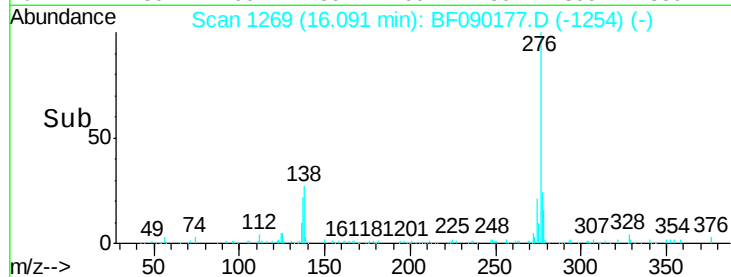
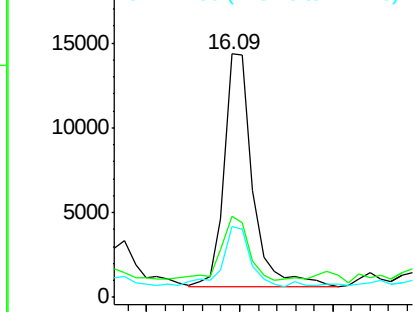
#85  
 Indeno(1,2,3-cd)pyrene  
 Concen: 2.22 ng  
 RT: 16.09 min Scan# 1269  
 Delta R.T. -0.03 min  
 Lab File: BF090177.D  
 Acq: 21 Sep 2016 23:37

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SS-2

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 29.5  | 25.9  | 38.9  |
| 277     | 26.2  | 19.9  | 29.9  |

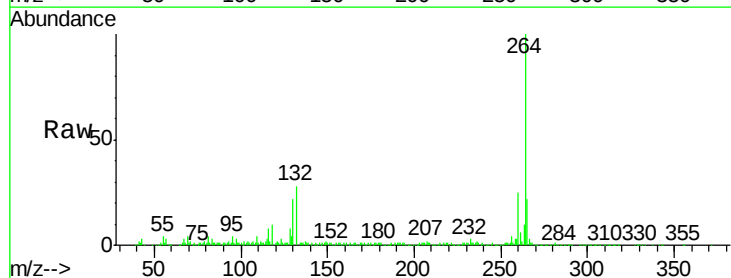


Abundance Ion 276.00 (275.70 to 276.70): E  
 Ion 138.00 (137.70 to 138.70): E  
 Ion 277.00 (276.70 to 277.70): E

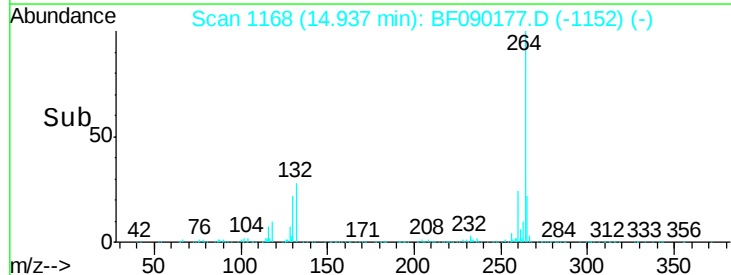
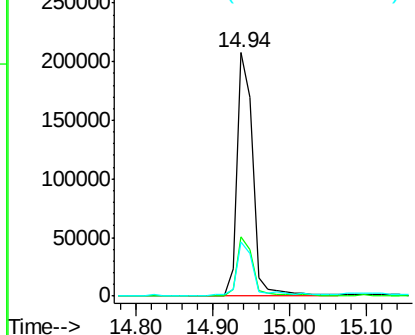


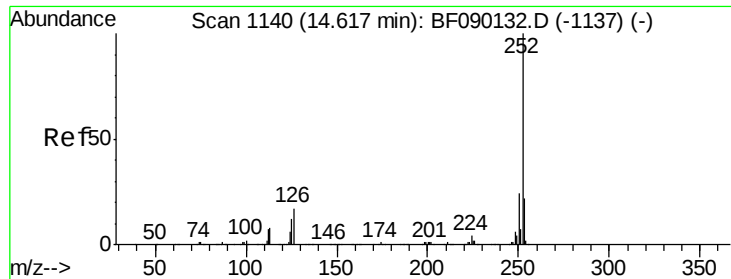
#86  
 Perylene-d12  
 Concen: 20.00 ng  
 RT: 14.94 min Scan# 1168  
 Delta R.T. -0.02 min  
 Lab File: BF090177.D  
 Acq: 21 Sep 2016 23:37

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 24.6  | 19.5  | 29.3  |
| 265     | 22.1  | 17.0  | 25.4  |



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

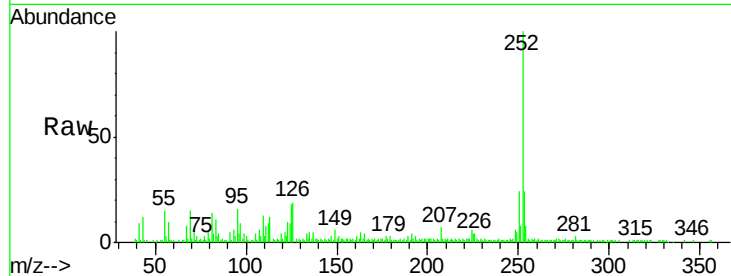




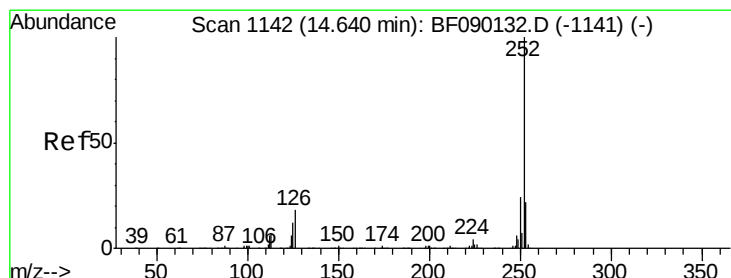
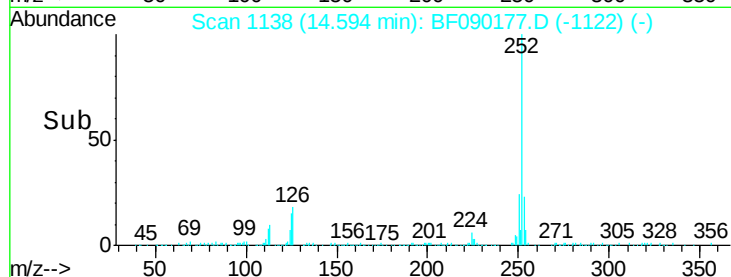
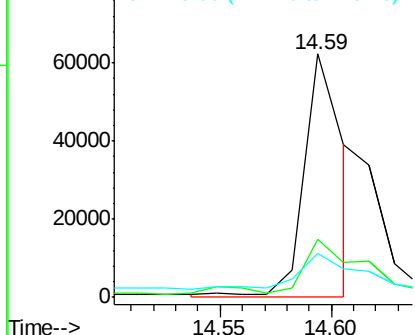
#87  
Benzo(b)fluoranthene  
Concen: 4.59 ng m  
RT: 14.59 min Scan# 1138  
Delta R.T. -0.02 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Instrument :  
BNA\_F  
ClientSampleId :  
SS-2

Tot Ion:252 Resp: 76024  
Ion Ratio Lower Upper  
252 100  
253 24.1 17.9 26.9  
125 18.2 12.7 19.1

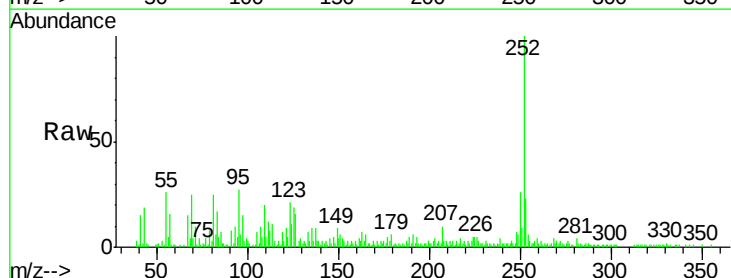


Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E

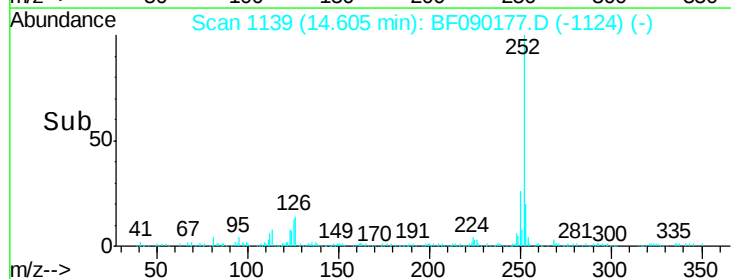
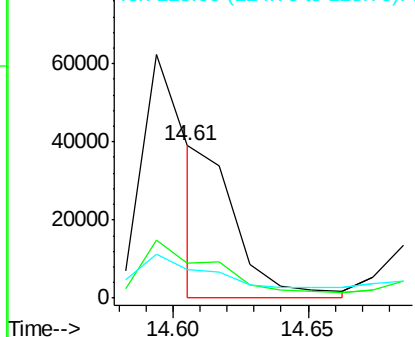


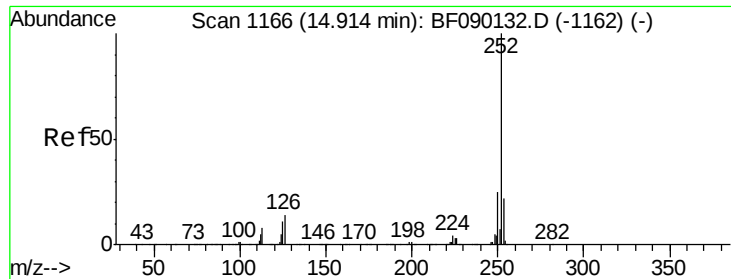
#88  
Benzo(k)fluoranthene  
Concen: 2.18 ng m  
RT: 14.61 min Scan# 1139  
Delta R.T. -0.03 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Tgt Ion:252 Resp: 33957  
Ion Ratio Lower Upper  
252 100  
253 23.3 17.8 26.8  
125 18.7 7.8 11.6#



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

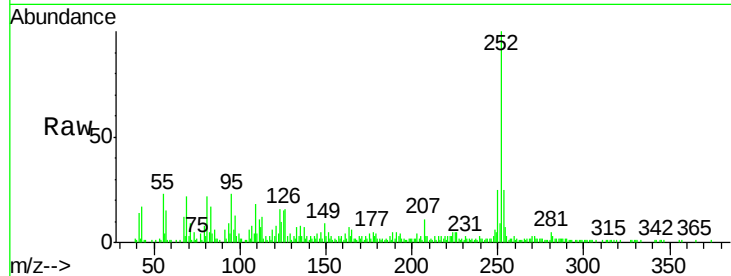




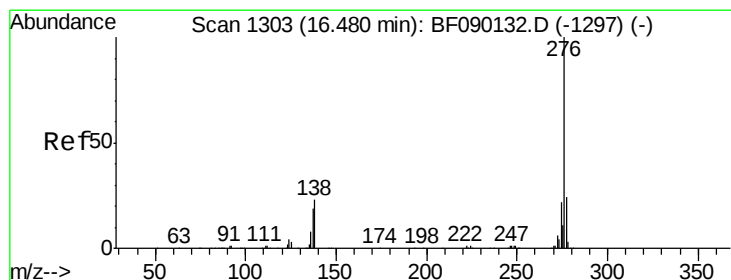
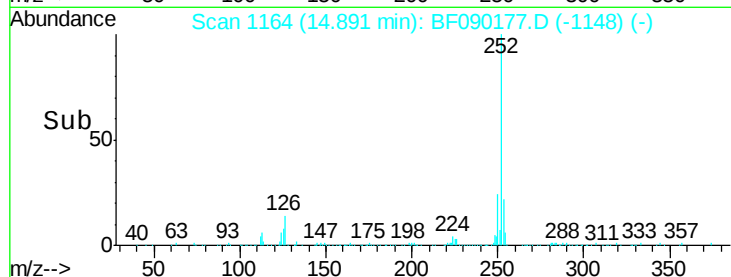
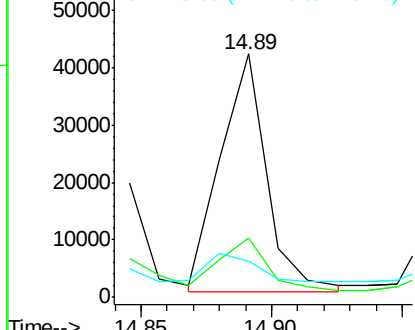
#89  
Benzo(a)pyrene  
Concen: 3.29 ng  
RT: 14.89 min Scan# 1164  
Delta R.T. -0.02 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Instrument :  
BNA\_F  
ClientSampleId :  
SS-2

Tot Ion:252 Resp: 51250  
Ion Ratio Lower Upper  
252 100  
253 24.6 17.4 26.0  
125 15.0 7.7 11.5#

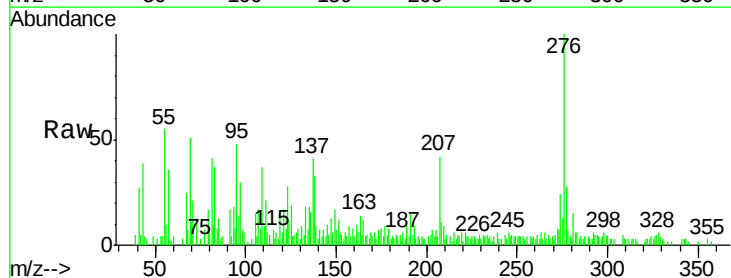


Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E



#91  
Benzo(g,h,i)perylene  
Concen: 2.30 ng  
RT: 16.43 min Scan# 1299  
Delta R.T. -0.05 min  
Lab File: BF090177.D  
Acq: 21 Sep 2016 23:37

Tgt Ion:276 Resp: 27405  
Ion Ratio Lower Upper  
276 100  
277 27.9 18.9 28.3  
138 33.3 23.3 34.9



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

