

Data Path : Z:\HPCHEM1\BNA F\DATA\BF052815\  
 Data File : BF079542.D  
 Acq On : 28 May 2015 14:09  
 Operator : TP/IZ  
 Sample : G2359-02DL 10X  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :

Quant Time: May 28 14:58:09 2015  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF052615.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed May 27 01:32:46 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 0.00  | 152  | 0        | 0.00  | ng    | -7.02    |
| 21) Naphthalene-d8        | 8.54  | 136  | 291402   | 20.00 | ng    | -0.06    |
| 38) Acenaphthene-d10      | 10.71 | 164  | 158014   | 20.00 | ng    | -0.06    |
| 63) Phenanthrene-d10      | 12.54 | 188  | 308402   | 20.00 | ng    | -0.06    |
| 75) Chrysene-d12          | 15.82 | 240  | 301546   | 20.00 | ng    | -0.06    |
| 86) Perylene-d12          | 17.54 | 264  | 312611   | 20.00 | ng    | -0.05    |

|                             |       |     |       |      |    |       |
|-----------------------------|-------|-----|-------|------|----|-------|
| System Monitoring Compounds |       |     |       |      |    |       |
| 5) 2-Fluorophenol           | 0.00  | 112 | 0     | 0.00 | ng |       |
| 7) Phenol-d6                | 0.00  | 99  | 0     | 0.00 | ng |       |
| 23) Nitrobenzene-d5         | 7.66  | 82  | 31999 | 6.35 | ng | -0.06 |
| 41) 2,4,6-Tribromophenol    | 11.69 | 330 | 17080 | 9.84 | ng | -0.06 |
| 44) 2-Fluorobiphenyl        | 9.88  | 172 | 74829 | 6.76 | ng | -0.06 |
| 78) Terphenyl-d14           | 14.53 | 244 | 83800 | 6.52 | ng | -0.07 |

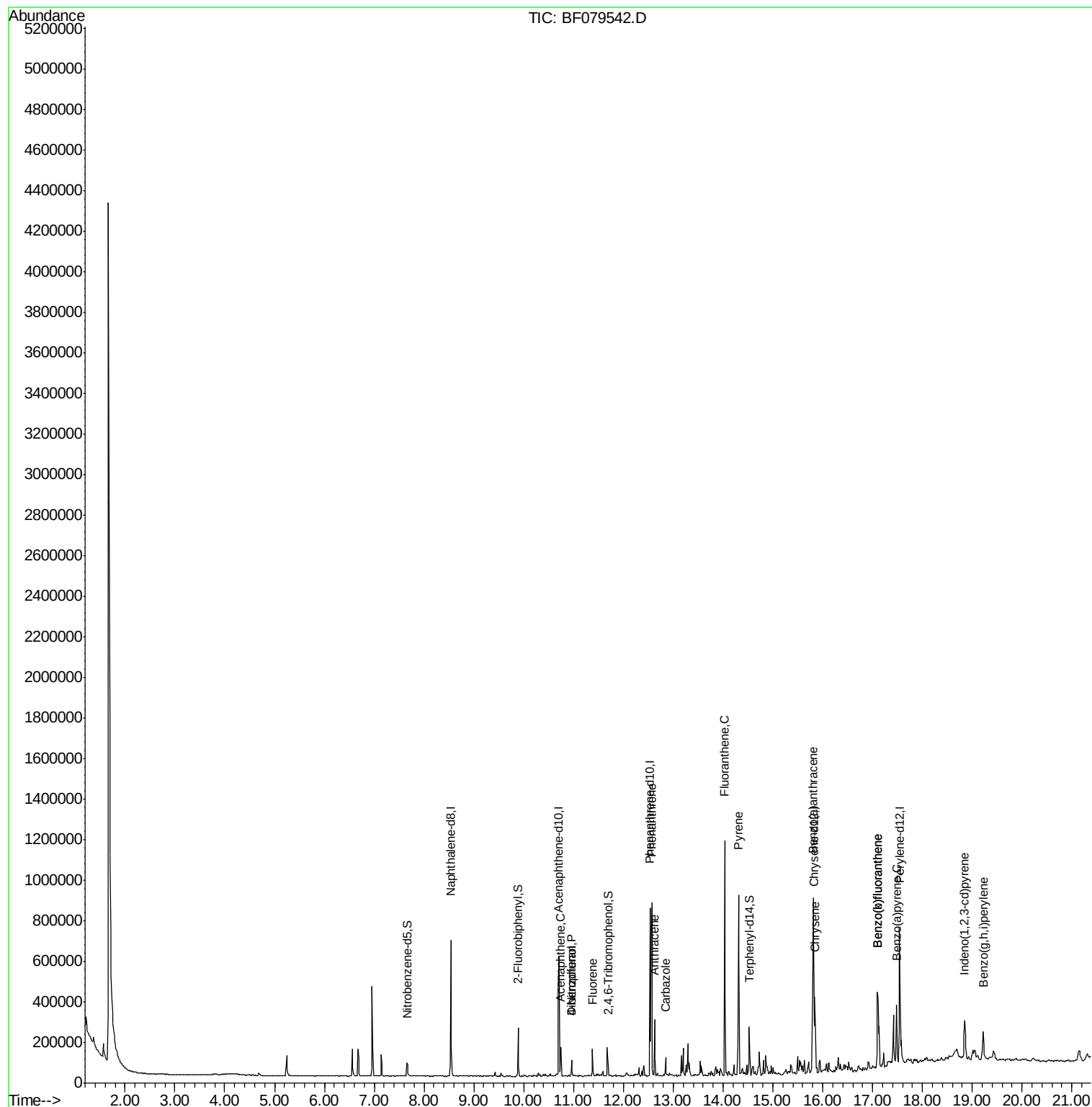
|                            |       |     |        |           |    |      |
|----------------------------|-------|-----|--------|-----------|----|------|
| Target Compounds           |       |     |        | Qvalue    |    |      |
| 51) Acenaphthene           | 10.74 | 154 | 32442  | 3.51      | ng | 97   |
| 54) Dibenzofuran           | 10.96 | 168 | 33960  | 2.49      | ng | 97   |
| 55) 4-Nitrophenol          | 10.96 | 139 | 13098  | 7.81      | ng | # 12 |
| 57) Fluorene               | 11.38 | 166 | 38928  | 3.46      | ng | 99   |
| 70) Phenanthrene           | 12.57 | 178 | 467765 | 27.65     | ng | 100  |
| 71) Anthracene             | 12.63 | 178 | 121070 | 7.05      | ng | 99   |
| 72) Carbazole              | 12.85 | 167 | 40761  | 2.46      | ng | 98   |
| 73) Di-n-butylphthalate    | 13.30 | 149 | 1711   | Below Cal | #  | 52   |
| 74) Fluoranthene           | 14.03 | 202 | 513280 | 28.29     | ng | 96   |
| 77) Pyrene                 | 14.31 | 202 | 430268 | 23.03     | ng | # 94 |
| 80) Benzo(a)anthracene     | 15.81 | 228 | 227750 | 13.13     | ng | 99   |
| 82) Chrysene               | 15.84 | 228 | 164981 | 10.01     | ng | 97   |
| 85) Indeno(1,2,3-cd)pyrene | 18.85 | 276 | 121585 | 5.73      | ng | 95   |
| 87) Benzo(b)fluoranthene   | 17.10 | 252 | 326870 | 18.33     | ng | # 96 |
| 88) Benzo(k)fluoranthene   | 17.10 | 252 | 326870 | 20.50     | ng | # 94 |
| 89) Benzo(a)pyrene         | 17.49 | 252 | 180965 | 10.08     | ng | 97   |
| 91) Benzo(a,h,i)perylene   | 19.22 | 276 | 115827 | 4.56      | ng | 95   |

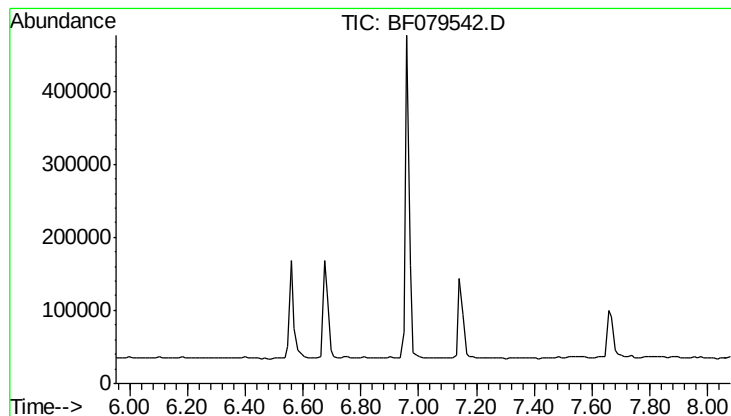
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\HPCHEM1\BNA F\DATA\BF052815\  
Data File : BF079542.D  
Acq On : 28 May 2015 14:09  
Operator : TP/IZ  
Sample : G2359-02DL 10X  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :

Quant Time: May 28 14:58:09 2015  
Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed May 27 01:32:46 2015  
Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 0.00 ng

Expected RT: 7.02 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampleId :

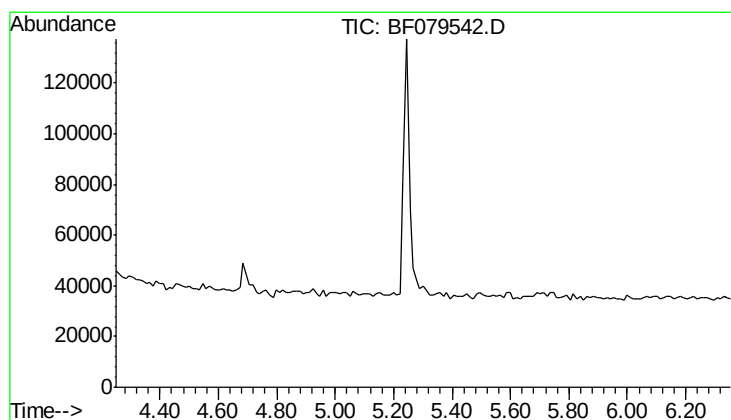
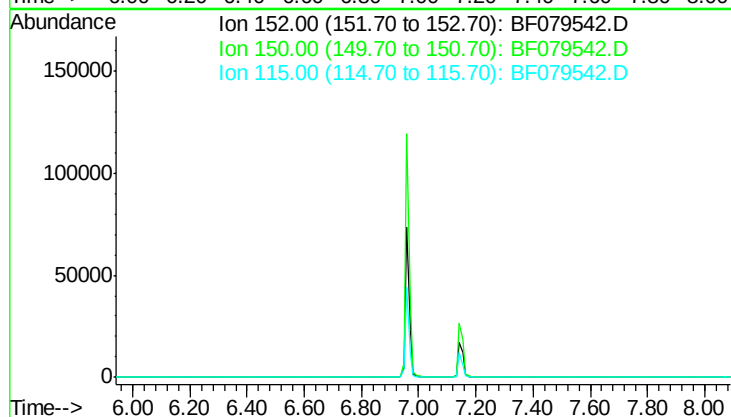
Tot Ion: 152

Sig Exp Ratio

152 100

150 155.0

115 62.0



#5

2-Fluorophenol

Concen: 0.00 ng

Expected RT: 5.30 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

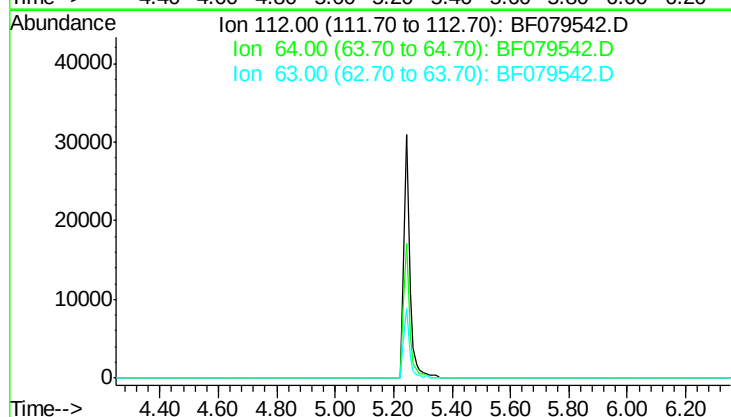
Tgt Ion: 112

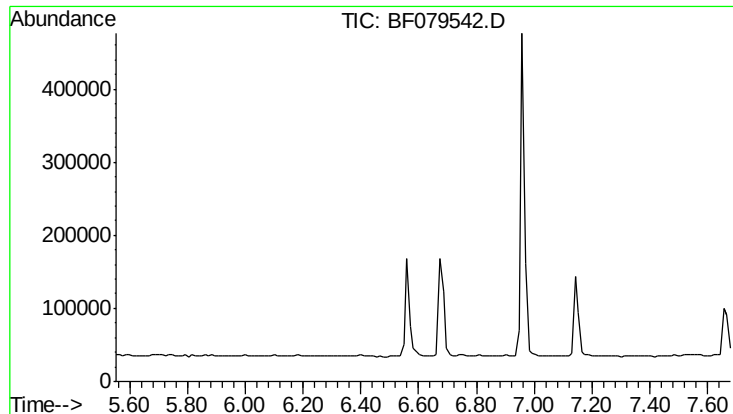
Sig Exp Ratio

112 100

64 54.4

63 27.3





#7

Phenol-d6

Concen: 0.00 ng

Expected RT: 6.62 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampleId :

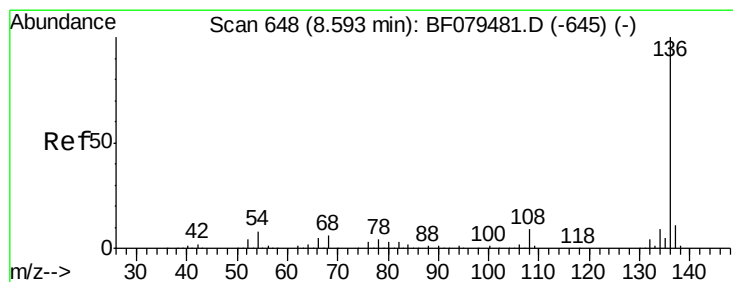
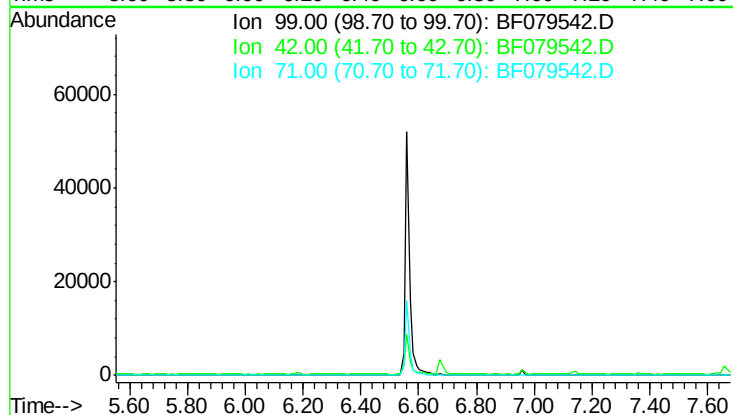
Tot Ion: 99

Sig Exp Ratio

99 100

42 14.9

71 27.6



#21

Naphthalene-d8

Concen: 20.00 ng

RT: 8.54 min Scan# 643

Delta R.T. -0.06 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Tgt Ion:136 Resp: 291402

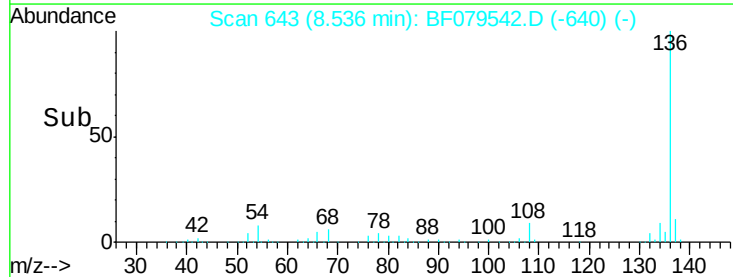
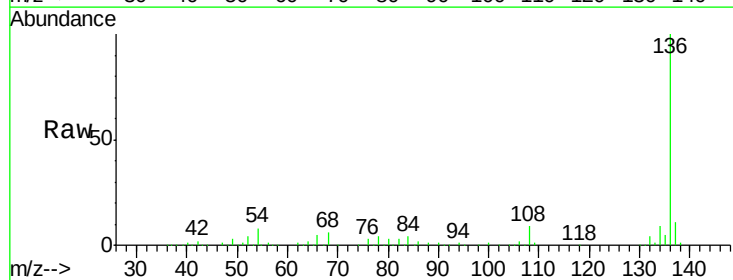
Ion Ratio Lower Upper

136 100

137 11.2 8.5 12.7

54 8.0 6.6 9.8

68 5.9 4.7 7.1

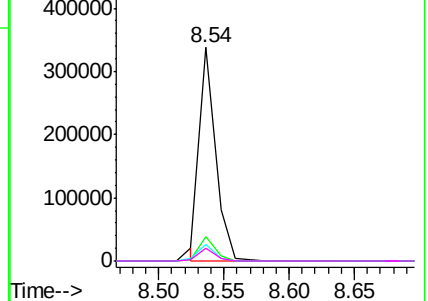


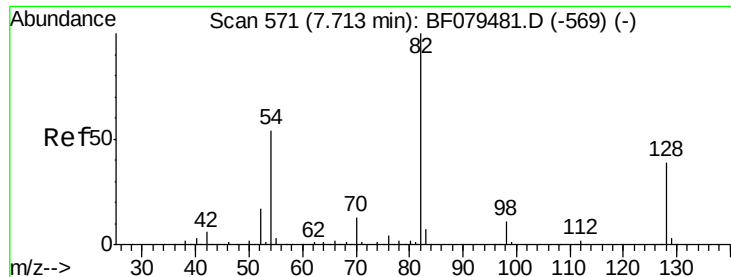
Abundance Ion 136.00 (135.70 to 136.70): E

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: 6.35 ng

RT: 7.66 min Scan# 566

Delta R.T. -0.06 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampled :

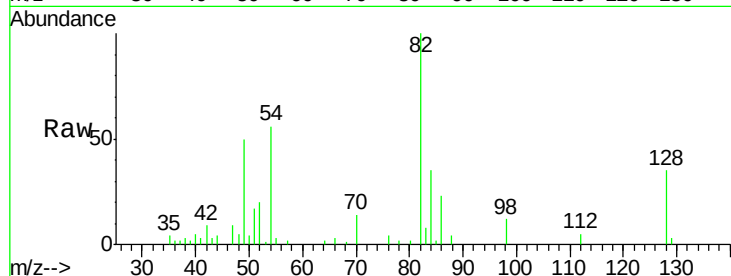
Tot Ion: 82 Resp: 31999

Ion Ratio Lower Upper

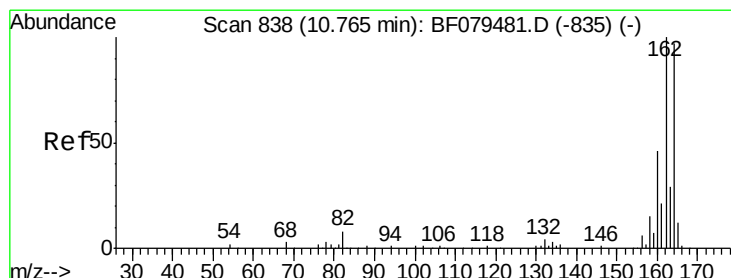
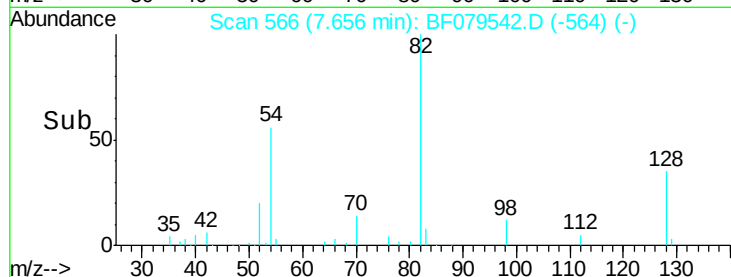
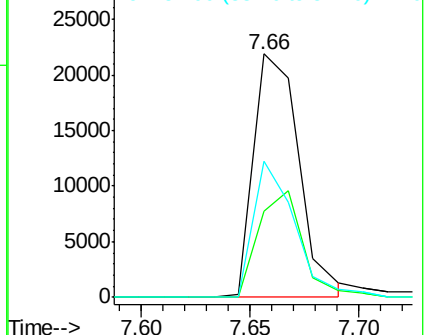
82 100

128 35.4 30.8 46.2

54 55.8 42.8 64.2



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



#38

Acenaphthene-d10

Concen: 20.00 ng

RT: 10.71 min Scan# 833

Delta R.T. -0.06 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

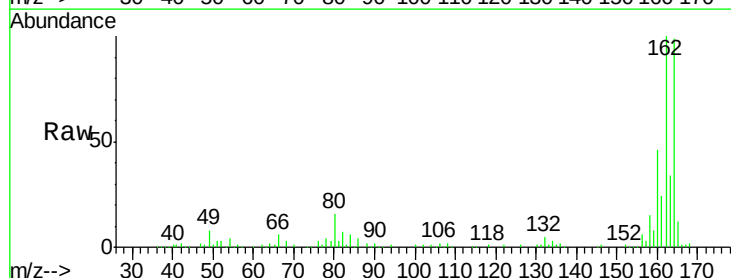
Tgt Ion: 164 Resp: 158014

Ion Ratio Lower Upper

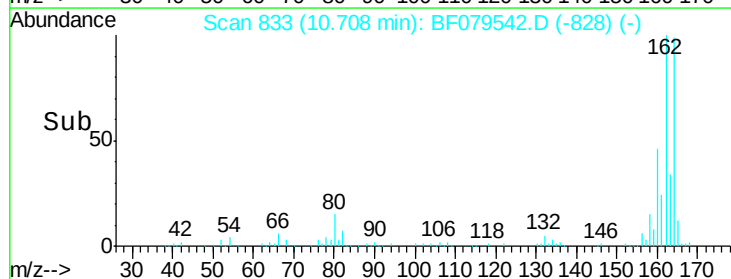
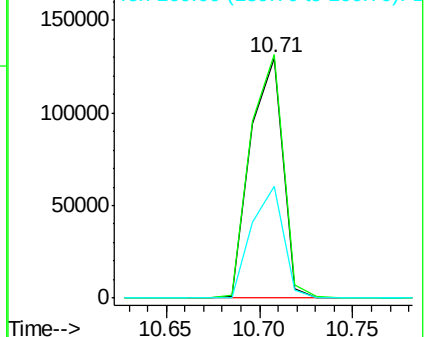
164 100

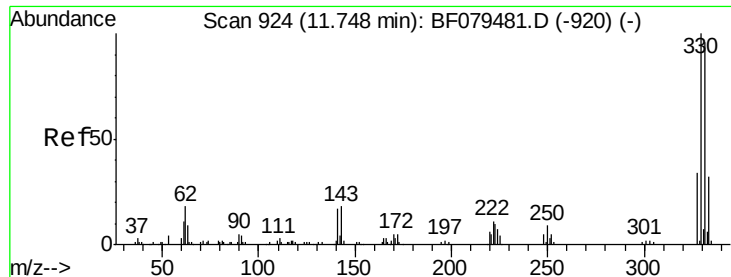
162 101.5 82.6 124.0

160 46.6 37.7 56.5



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

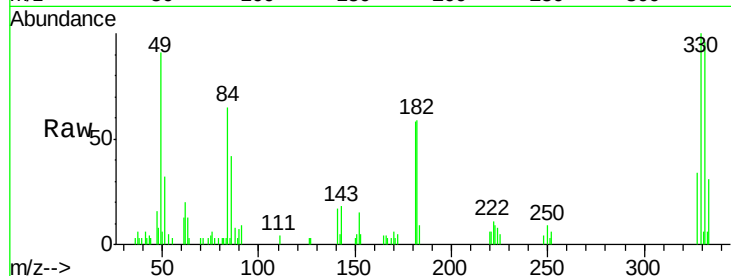




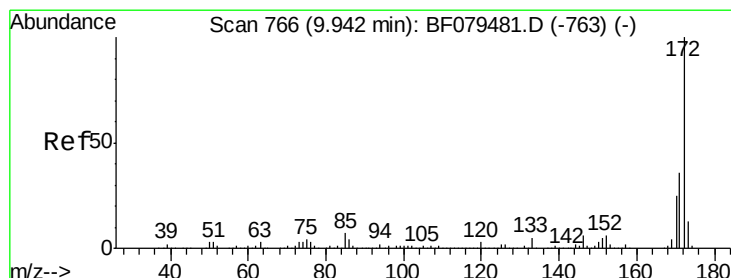
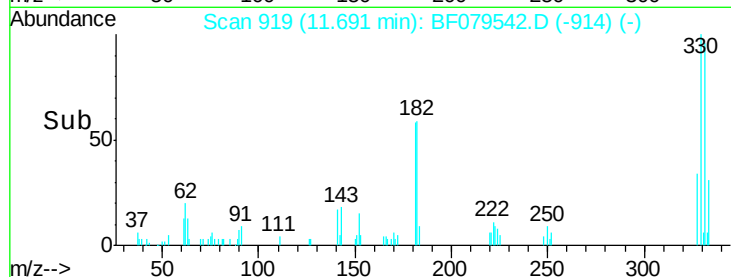
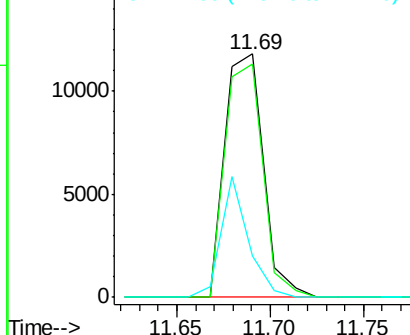
#41  
 2,4,6-Tribromophenol  
 Concen: 9.84 ng  
 RT: 11.69 min Scan# 919  
 Delta R.T. -0.06 min  
 Lab File: BF079542.D  
 Acq: 28 May 2015 14:09

Instrument :  
 BNA\_F  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 94.8  | 0.0   | 0.0#  |
| 141     | 35.1  | 0.0   | 0.0#  |

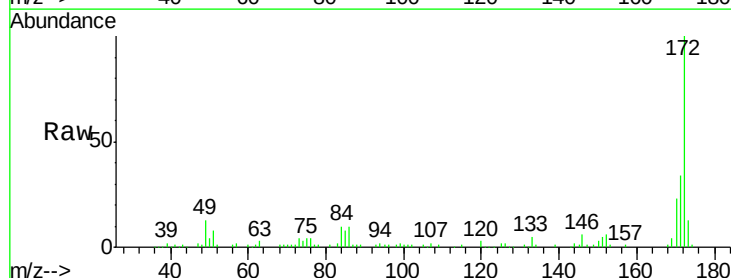


Abundance Ion 329.80 (329.50 to 330.50): E  
 Ion 331.80 (331.50 to 332.50): E  
 Ion 141.00 (140.70 to 141.70): E

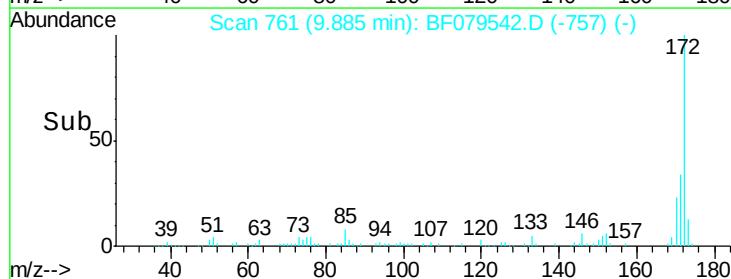
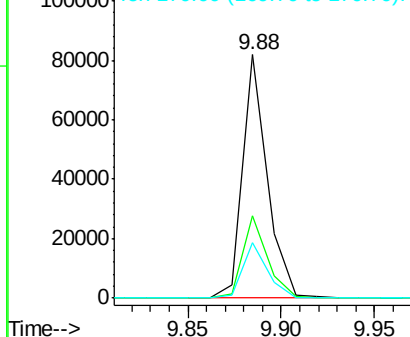


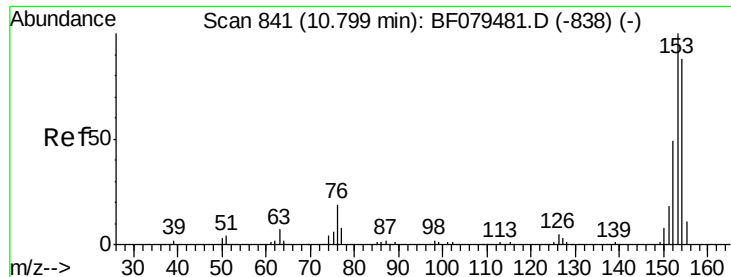
#44  
 2-Fluorobiphenyl  
 Concen: 6.76 ng  
 RT: 9.88 min Scan# 761  
 Delta R.T. -0.06 min  
 Lab File: BF079542.D  
 Acq: 28 May 2015 14:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 34.0  | 28.5  | 42.7  |
| 170     | 22.6  | 19.7  | 29.5  |



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

Acenaphthene

Concen: 3.51 ng

RT: 10.74 min Scan# 836

Delta R.T. -0.06 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampleId :

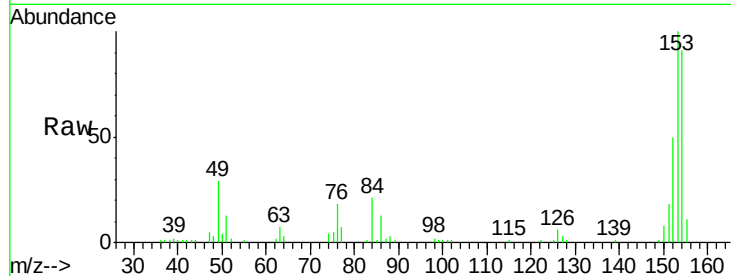
Tot Ion:154 Resp: 32442

Ion Ratio Lower Upper

154 100

153 109.9 91.1 136.7

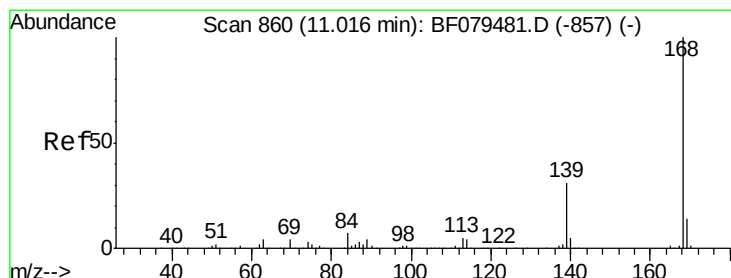
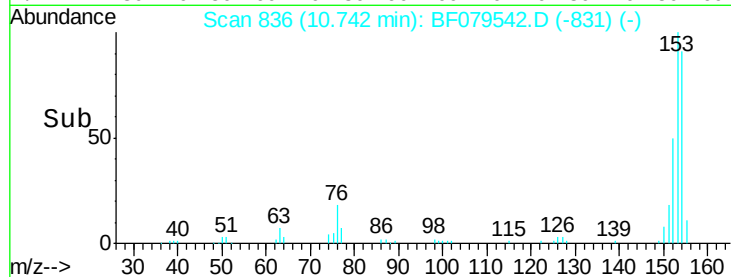
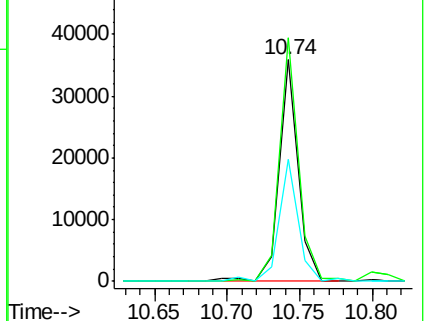
152 55.1 44.6 66.8



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: 2.49 ng

RT: 10.96 min Scan# 855

Delta R.T. -0.06 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

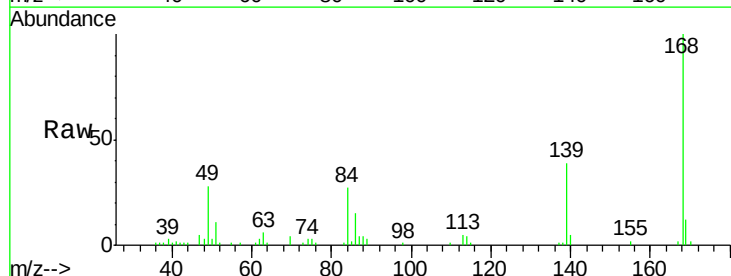
Tgt Ion:168 Resp: 33960

Ion Ratio Lower Upper

168 100

139 39.2 32.9 49.3

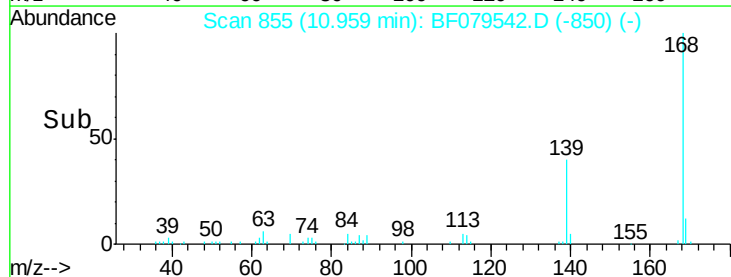
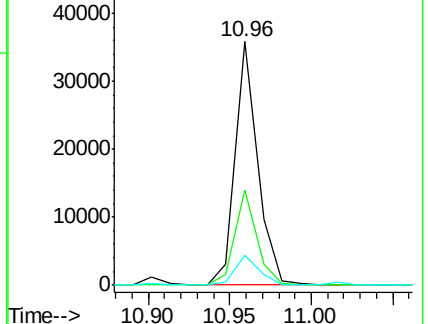
169 12.2 11.1 16.7

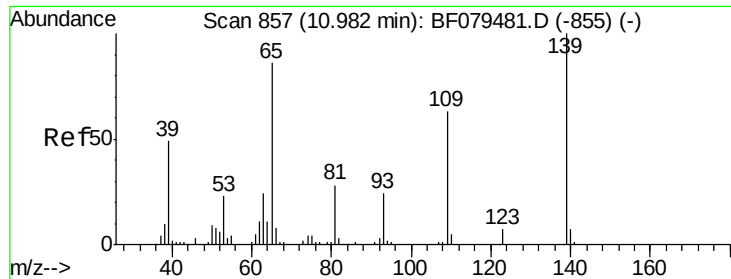


Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E

Ion 169.00 (168.70 to 169.70): E





#55

4-Nitrophenol

Concen: 7.81 ng

RT: 10.96 min Scan# 855

Delta R.T. -0.02 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampleId :

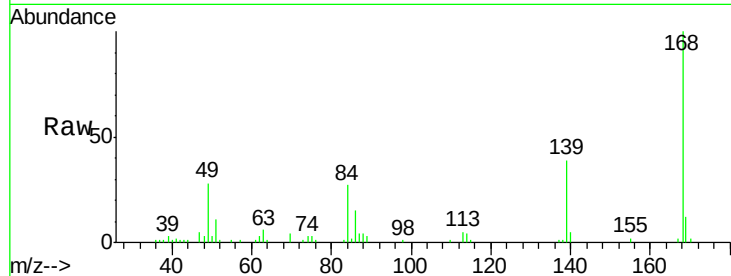
Tot Ion:139 Resp: 13098

Ion Ratio Lower Upper

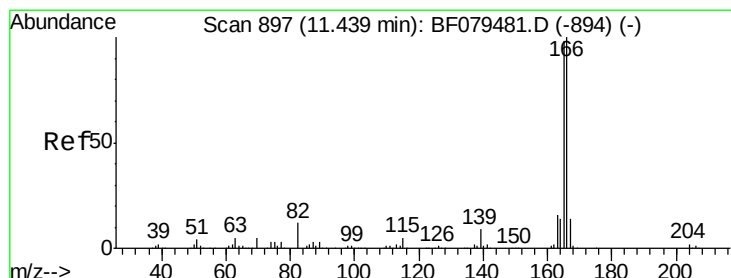
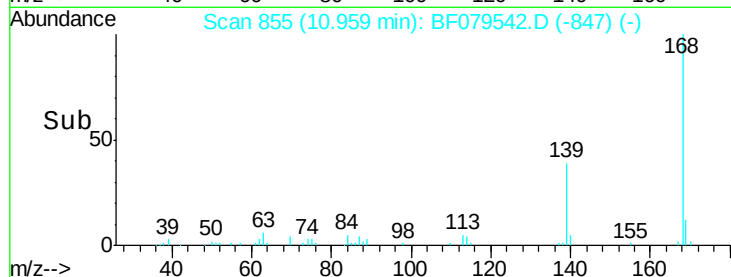
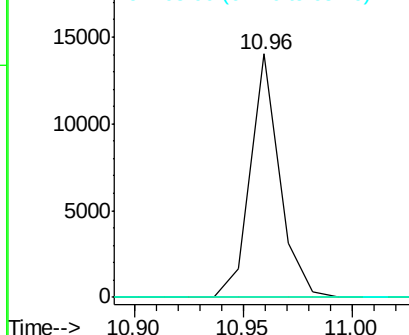
139 100

109 0.0 42.8 82.8#

65 0.0 66.3 106.3#



Abundance Ion 139.00 (138.70 to 139.70): E  
Ion 109.00 (108.70 to 109.70): E  
Ion 65.00 (64.70 to 65.70): E



#57

Fluorene

Concen: 3.46 ng

RT: 11.38 min Scan# 892

Delta R.T. -0.06 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

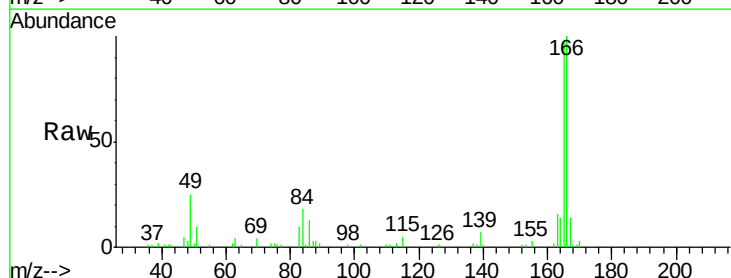
Tgt Ion:166 Resp: 38928

Ion Ratio Lower Upper

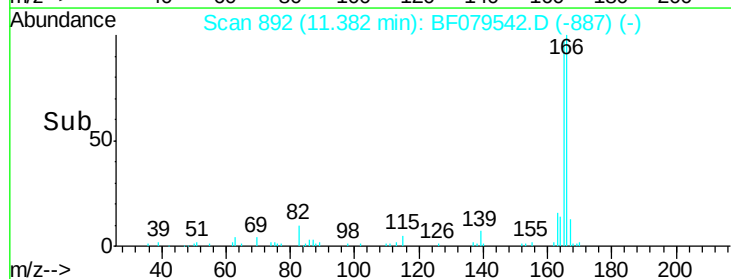
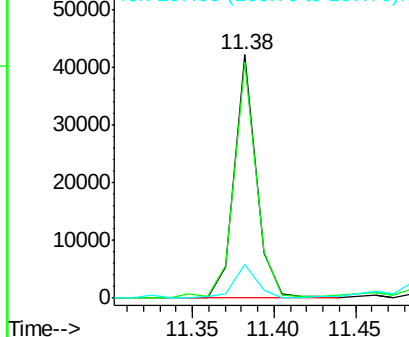
166 100

165 97.1 78.6 117.8

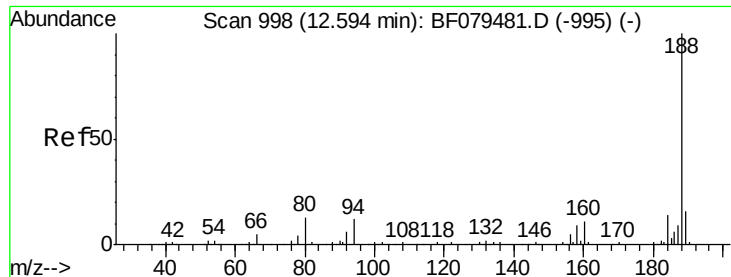
167 14.1 10.8 16.2



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



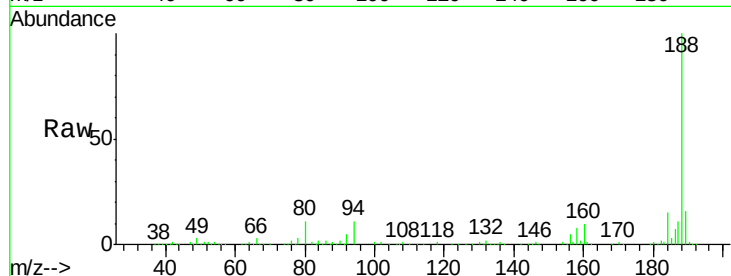




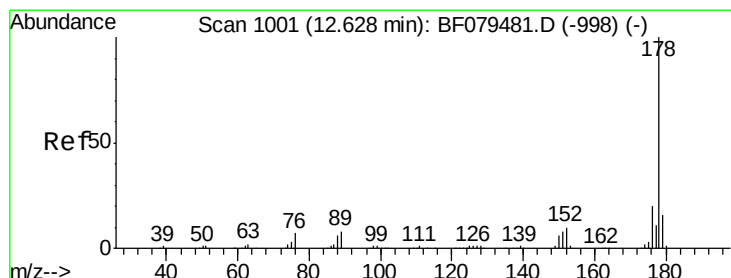
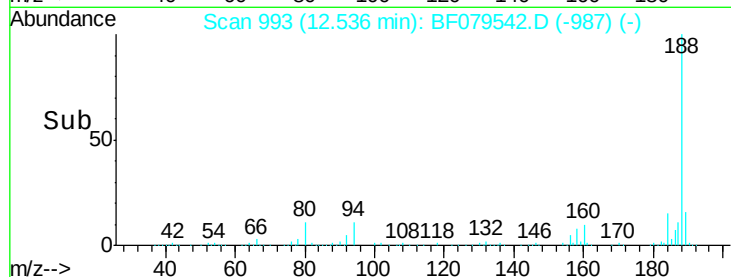
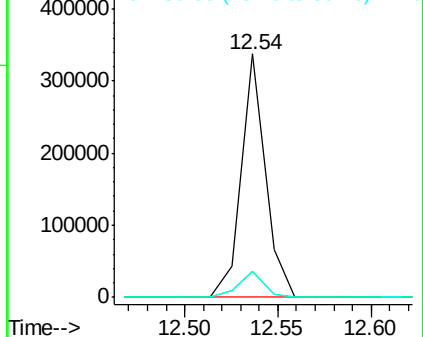
#63  
 Phenanthrene-d10  
 Concen: 20.00 ng  
 RT: 12.54 min Scan# 993  
 Delta R.T. -0.06 min  
 Lab File: BF079542.D  
 Acq: 28 May 2015 14:09

Instrument :  
 BNA\_F  
 ClientSampleId :

Tot Ion:188 Resp: 308402  
 Ion Ratio Lower Upper  
 188 100  
 94 10.5 9.8 14.6  
 80 10.6 10.5 15.7

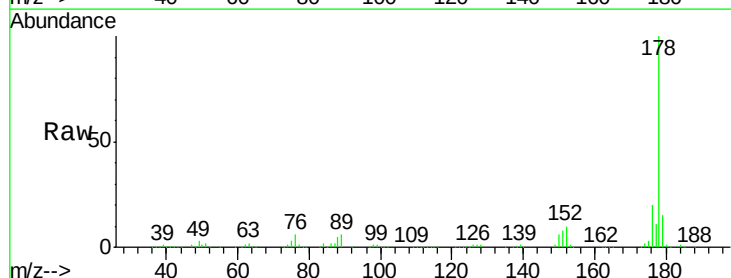


Abundance Ion 188.00 (187.70 to 188.70): E  
 Ion 94.00 (93.70 to 94.70): BF0  
 Ion 80.00 (79.70 to 80.70): BF0

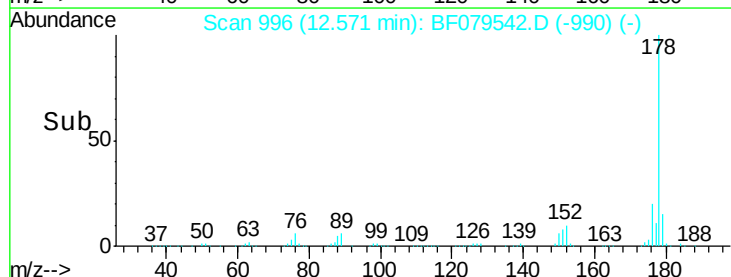
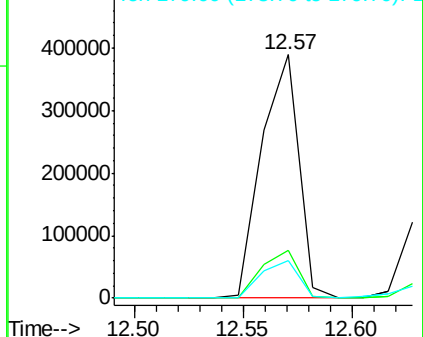


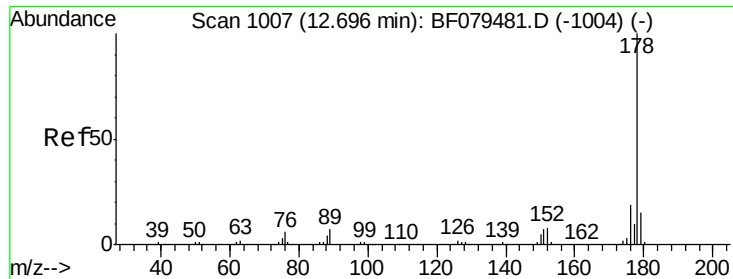
#70  
 Phenanthrene  
 Concen: 27.65 ng  
 RT: 12.57 min Scan# 996  
 Delta R.T. -0.06 min  
 Lab File: BF079542.D  
 Acq: 28 May 2015 14:09

Tgt Ion:178 Resp: 467765  
 Ion Ratio Lower Upper  
 178 100  
 176 19.5 15.7 23.5  
 179 15.4 12.4 18.6



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: 7.05 ng

RT: 12.63 min Scan# 1001

Delta R.T. -0.07 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampled :

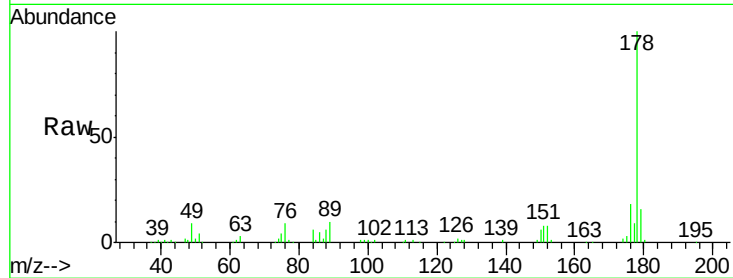
Tot Ion:178 Resp: 121070

Ion Ratio Lower Upper

178 100

176 18.5 15.3 22.9

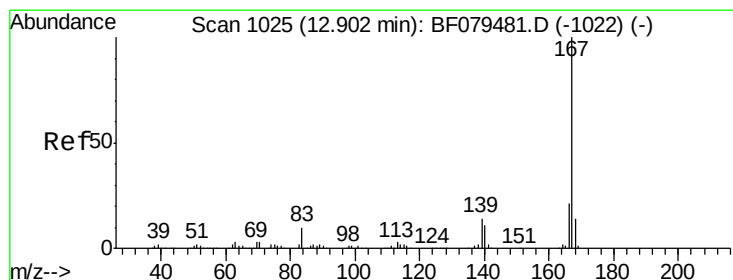
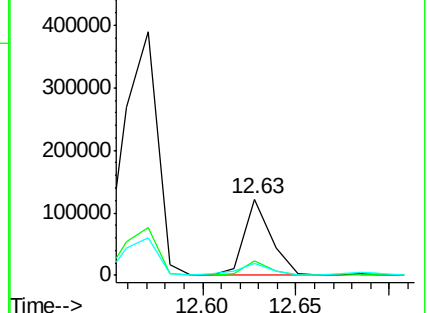
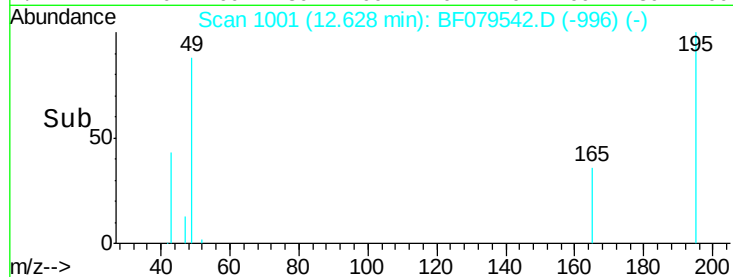
179 15.9 12.2 18.4



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



#72

Carbazole

Concen: 2.46 ng

RT: 12.85 min Scan# 1020

Delta R.T. -0.06 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

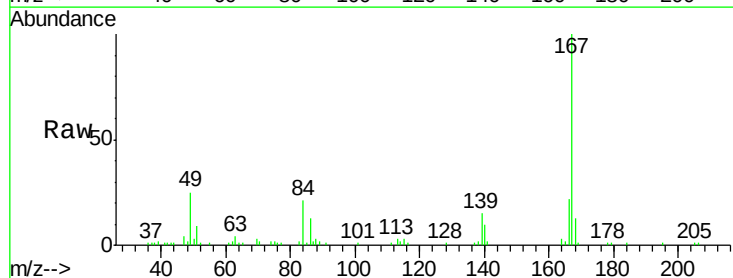
Tgt Ion:167 Resp: 40761

Ion Ratio Lower Upper

167 100

166 22.0 17.0 25.4

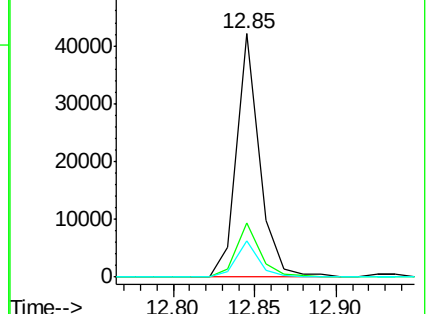
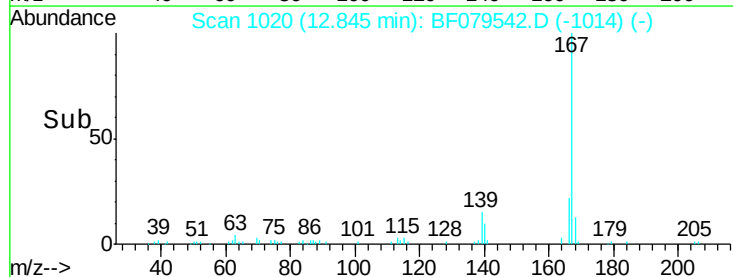
139 14.8 11.2 16.8

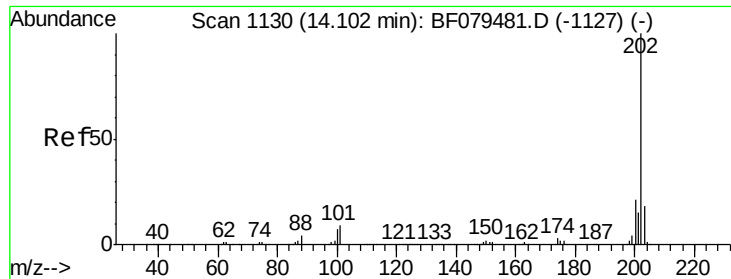


Abundance Ion 167.00 (166.70 to 167.70): E

Ion 166.00 (165.70 to 166.70): E

Ion 139.00 (138.70 to 139.70): E





#74

Fluoranthene

Concen: 28.29 ng

RT: 14.03 min Scan# 1124

Delta R.T. -0.07 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampleId :

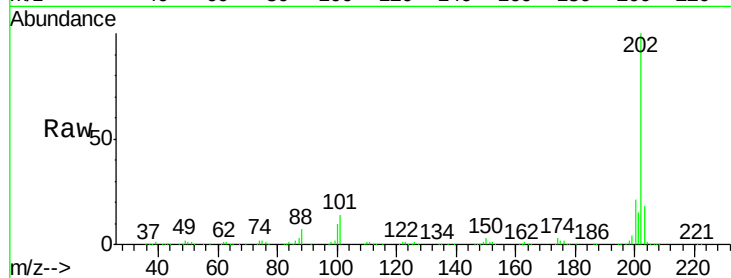
Tot Ion:202 Resp: 513280

Ion Ratio Lower Upper

202 100

101 13.7 0.0 29.3

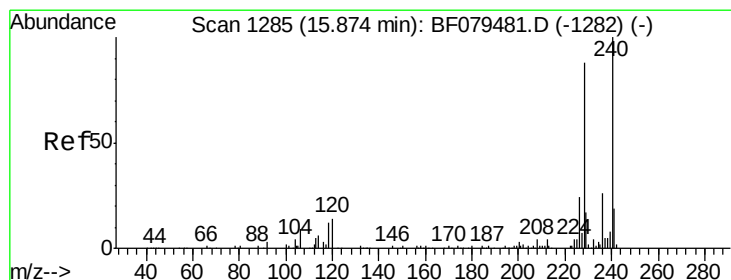
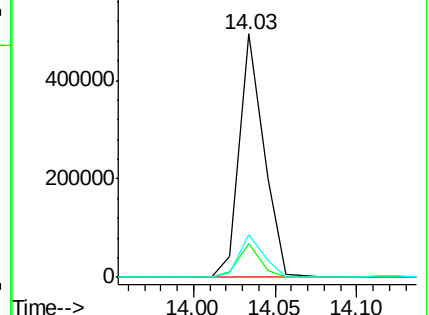
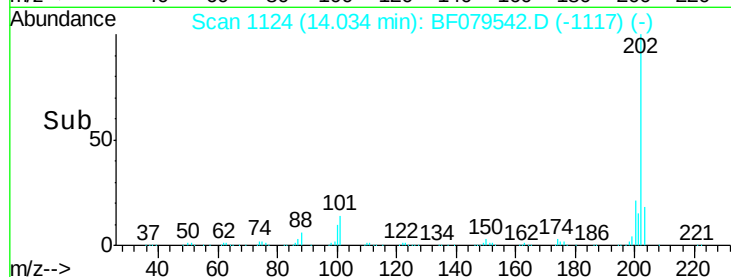
203 17.7 0.0 37.6



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: 15.82 min Scan# 1280

Delta R.T. -0.06 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

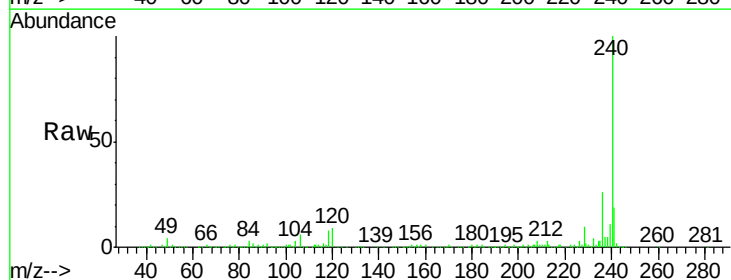
Tgt Ion:240 Resp: 301546

Ion Ratio Lower Upper

240 100

120 9.0 10.8 16.2#

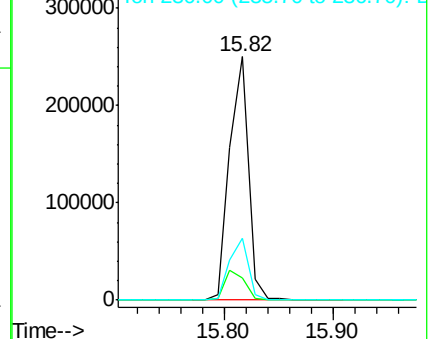
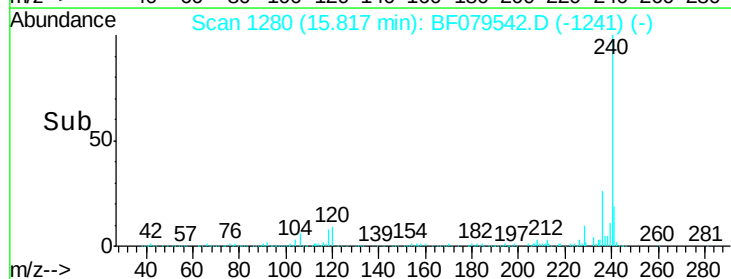
236 25.7 21.0 31.6

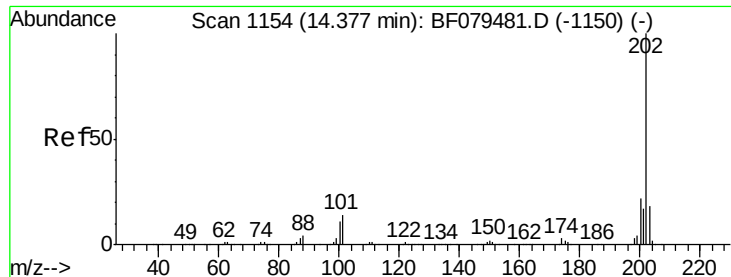


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E





#77

Pvrene

Concen: 23.03 ng

RT: 14.31 min Scan# 1148

Delta R.T. -0.07 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampleId :

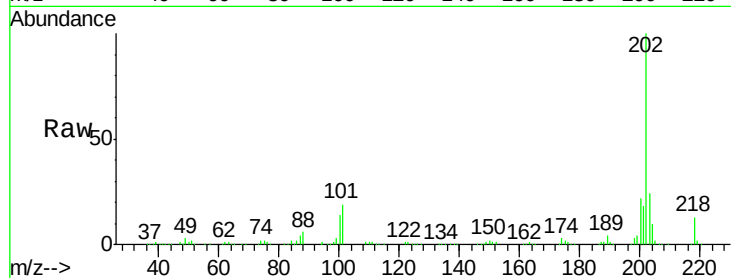
Tot Ion:202 Resp: 430268

Ion Ratio Lower Upper

202 100

200 21.7 17.5 26.3

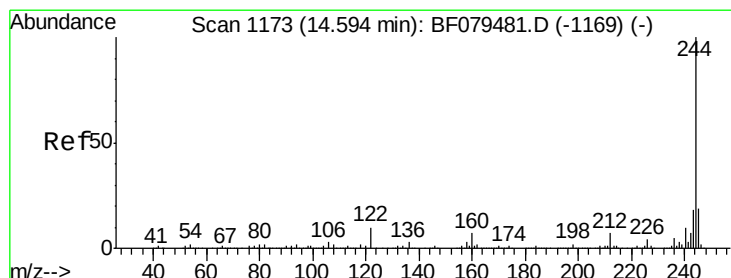
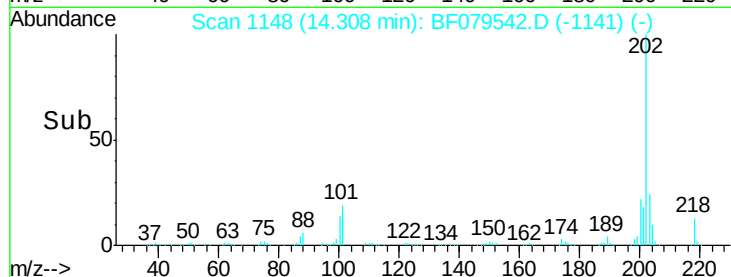
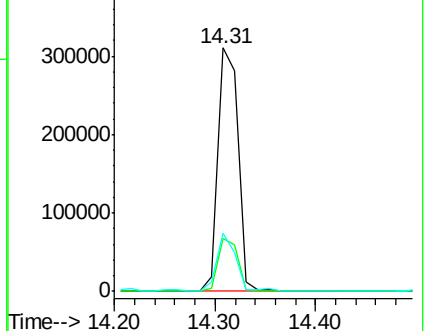
203 23.9 14.4 21.6#



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: 6.52 ng

RT: 14.53 min Scan# 1167

Delta R.T. -0.07 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

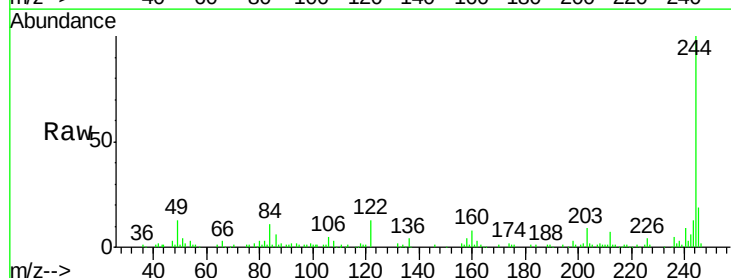
Tgt Ion:244 Resp: 83800

Ion Ratio Lower Upper

244 100

212 6.8 5.2 7.8

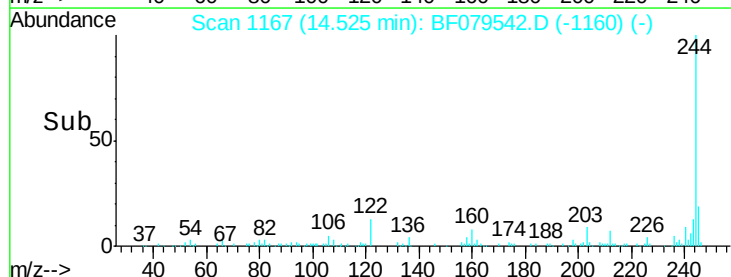
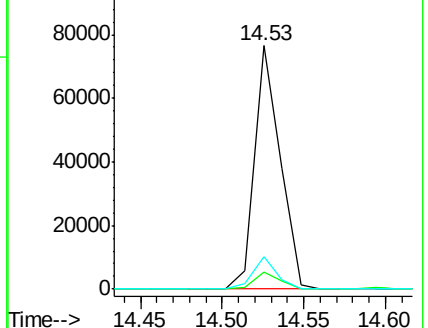
122 13.1 8.0 12.0#

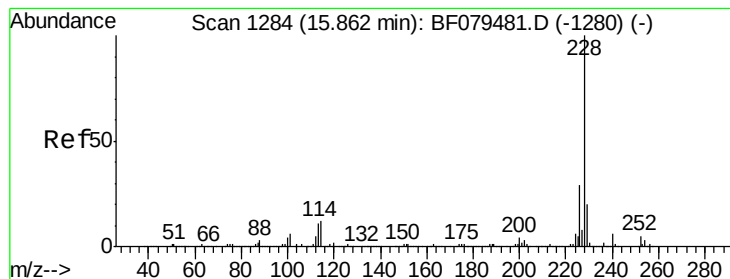


Abundance Ion 244.00 (243.70 to 244.70): E

Ion 212.00 (211.70 to 212.70): E

Ion 122.00 (121.70 to 122.70): E





#80

Benzo(a)anthracene

Concen: 13.13 ng

RT: 15.81 min Scan# 1279

Delta R.T. -0.06 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampleId :

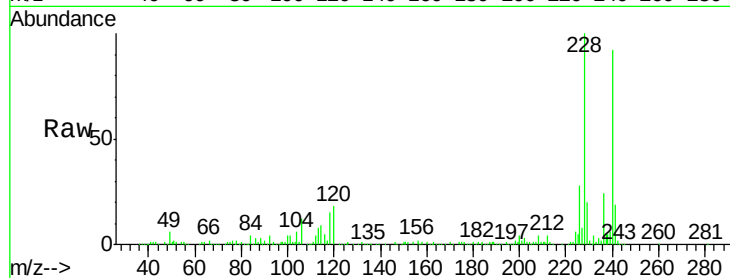
Tot Ion:228 Resp: 227750

Ion Ratio Lower Upper

228 100

226 27.6 22.8 34.2

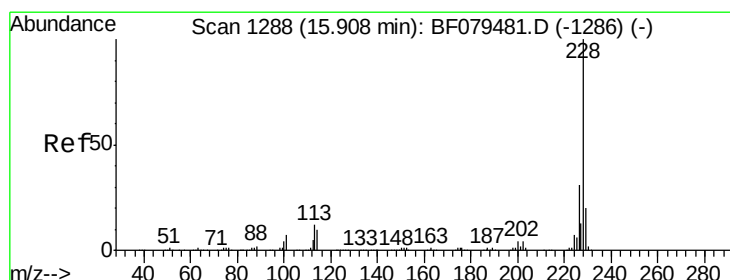
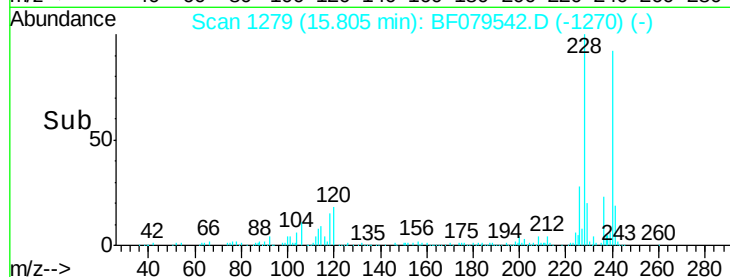
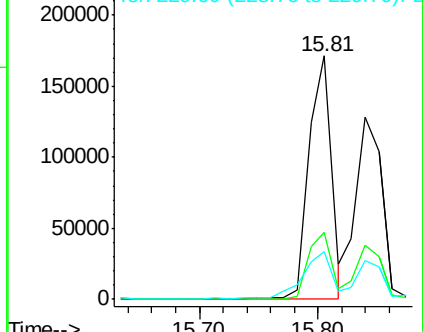
229 19.8 15.9 23.9



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: 10.01 ng

RT: 15.84 min Scan# 1282

Delta R.T. -0.07 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

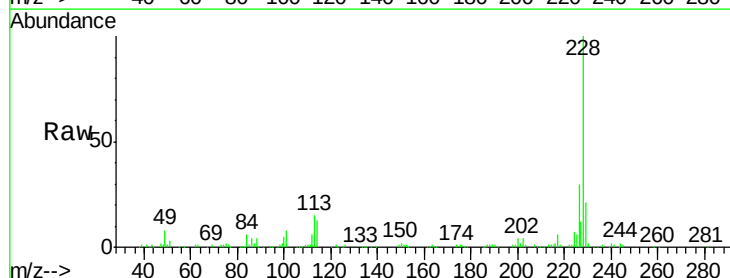
Tgt Ion:228 Resp: 164981

Ion Ratio Lower Upper

228 100

226 29.7 25.0 37.4

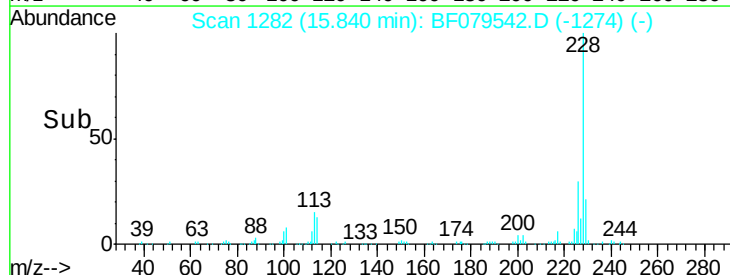
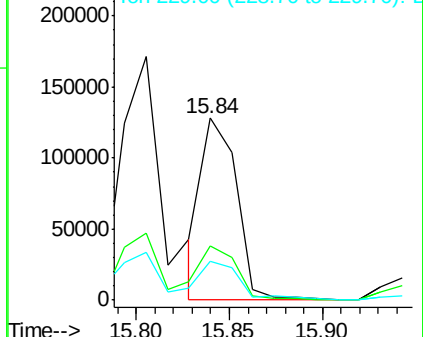
229 21.2 15.9 23.9

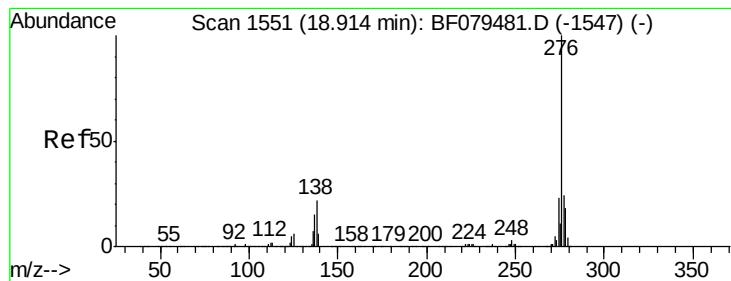


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#85

Indeno(1,2,3-cd)pyrene

Concen: 5.73 ng

RT: 18.85 min Scan# 1545

Delta R.T. -0.07 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

Instrument :

BNA\_F

ClientSampled :

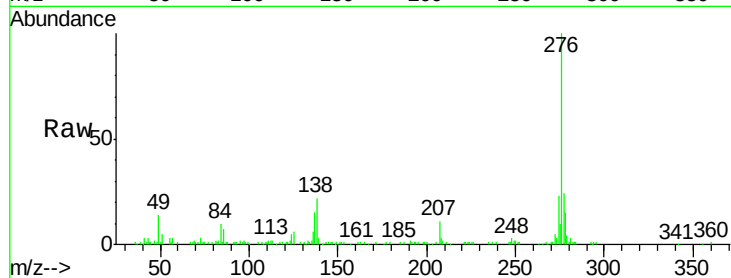
Tot Ion:276 Resp: 121585

Ion Ratio Lower Upper

276 100

138 24.7 21.4 32.2

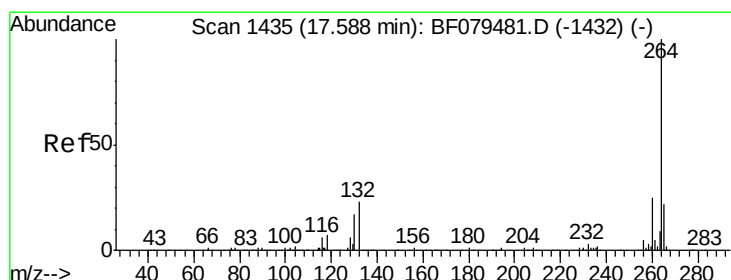
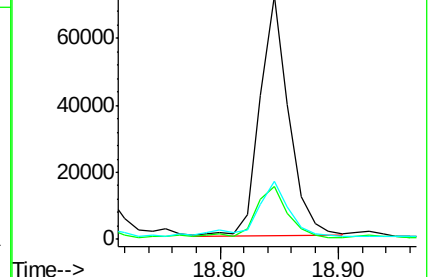
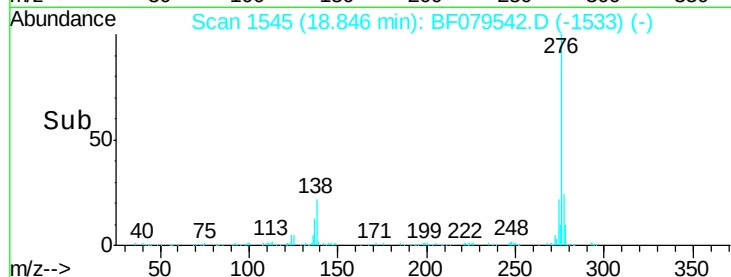
277 27.7 19.8 29.6



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: 17.54 min Scan# 1431

Delta R.T. -0.05 min

Lab File: BF079542.D

Acq: 28 May 2015 14:09

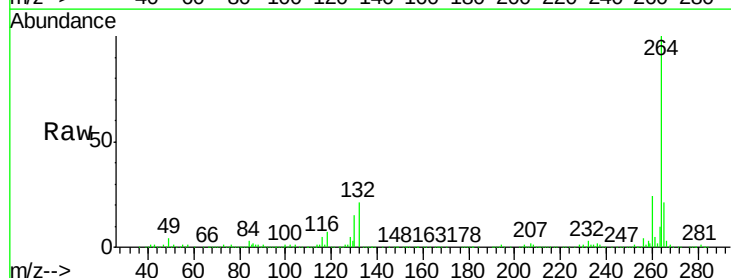
Tgt Ion:264 Resp: 312611

Ion Ratio Lower Upper

264 100

260 23.8 19.8 29.8

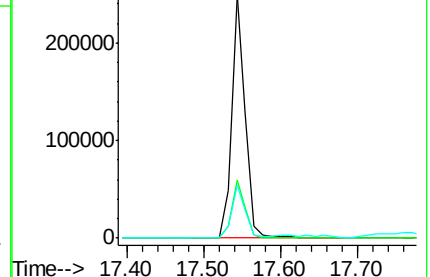
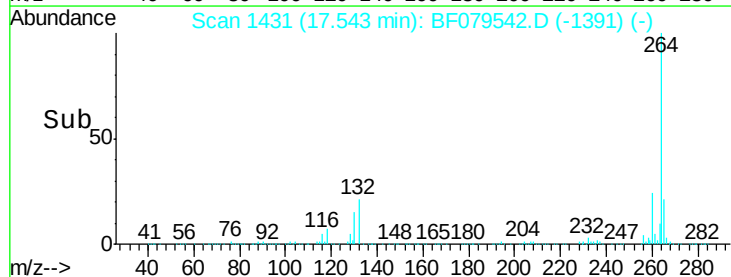
265 21.5 17.8 26.6

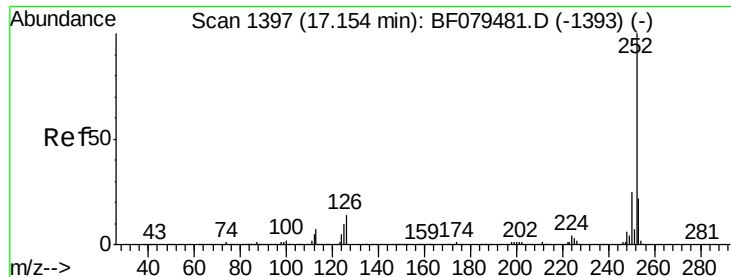


Abundance Ion 264.00 (263.70 to 264.70): E

Ion 260.00 (259.70 to 260.70): E

Ion 265.00 (264.70 to 265.70): E

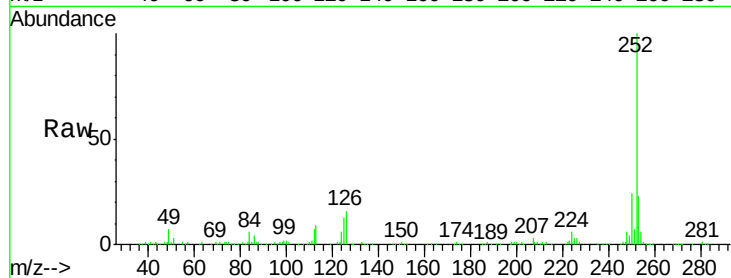




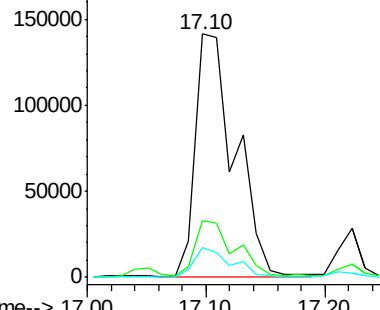
#87  
Benzo(b)fluoranthene  
Concen: 18.33 ng  
RT: 17.10 min Scan# 1392  
Delta R.T. -0.06 min  
Lab File: BF079542.D  
Acq: 28 May 2015 14:09

Instrument :  
BNA\_F  
ClientSampleId :

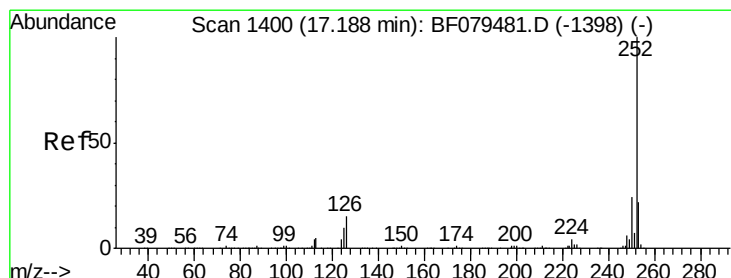
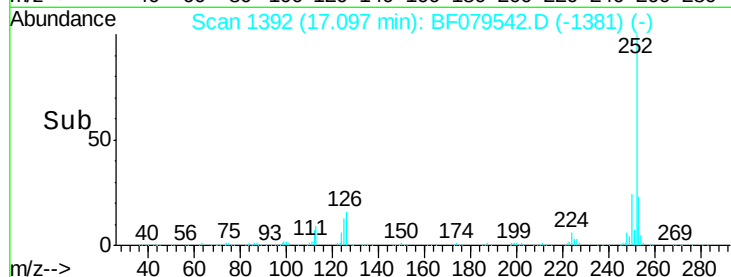
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.1  | 17.6  | 26.4  |
| 125     | 12.5  | 7.8   | 11.6  |



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

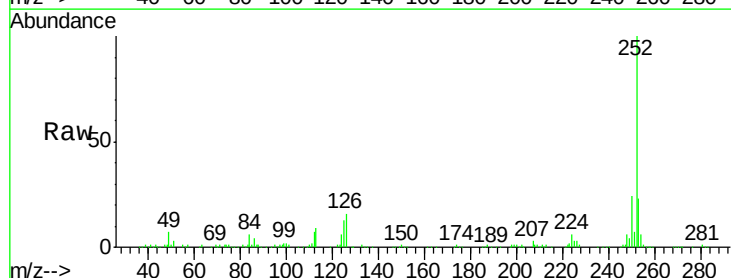


Time--> 17.00 17.10 17.20

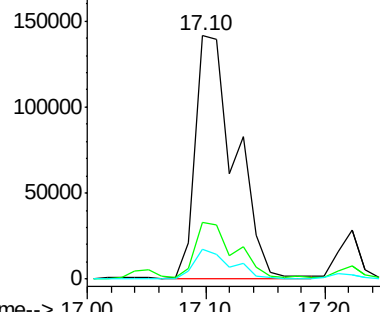


#88  
Benzo(k)fluoranthene  
Concen: 20.50 ng  
RT: 17.10 min Scan# 1392  
Delta R.T. -0.09 min  
Lab File: BF079542.D  
Acq: 28 May 2015 14:09

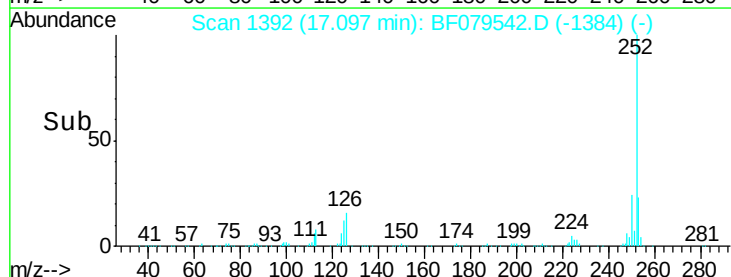
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.1  | 17.2  | 25.8  |
| 125     | 12.5  | 6.8   | 10.2  |

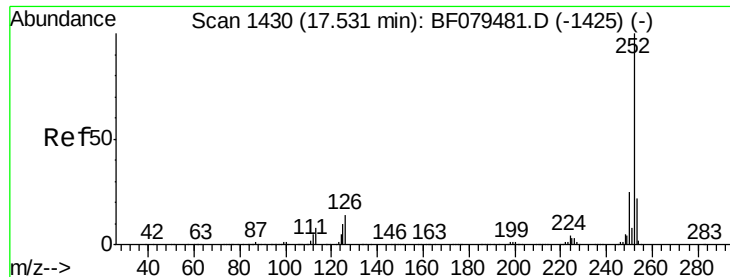


Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E



Time--> 17.00 17.10 17.20

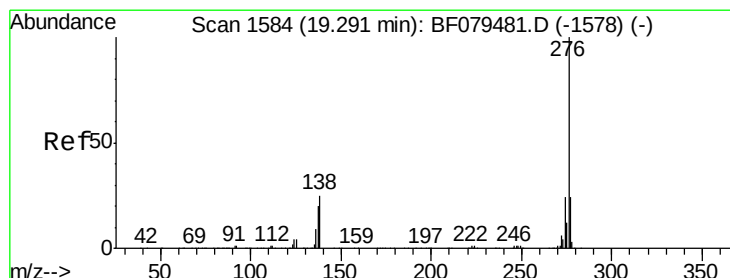
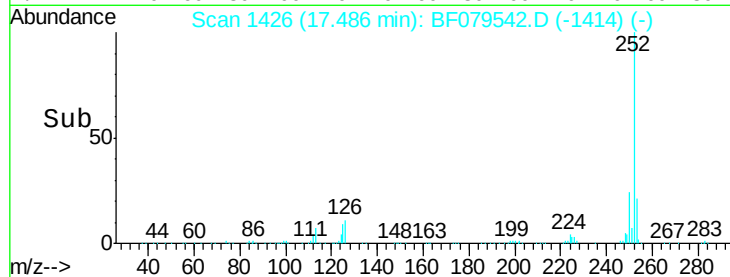
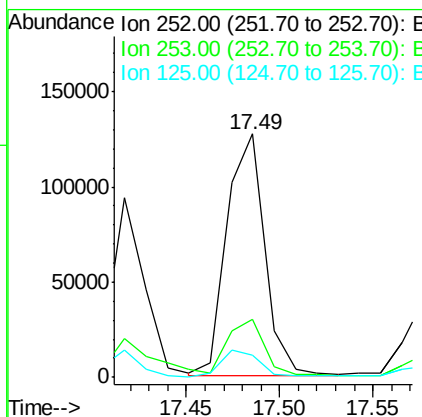
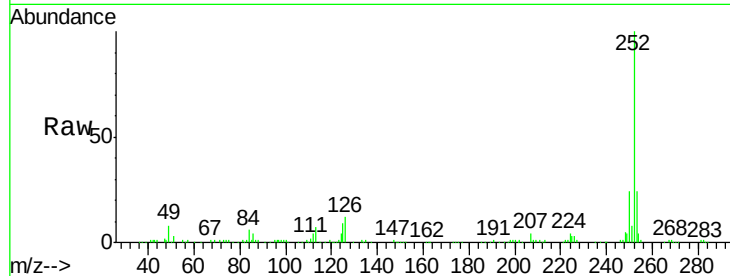




#89  
Benzo(a)pyrene  
Concen: 10.08 ng  
RT: 17.49 min Scan# 1426  
Delta R.T. -0.05 min  
Lab File: BF079542.D  
Acq: 28 May 2015 14:09

Instrument :  
BNA\_F  
ClientSampleId :

|     |         |       |        |
|-----|---------|-------|--------|
| Tot | Ion:252 | Resp: | 180965 |
| Ion | Ratio   | Lower | Upper  |
| 252 | 100     |       |        |
| 253 | 23.7    | 17.8  | 26.8   |
| 125 | 9.2     | 7.9   | 11.9   |



#91  
Benzo(g,h,i)perylene  
Concen: 4.56 ng  
RT: 19.22 min Scan# 1578  
Delta R.T. -0.07 min  
Lab File: BF079542.D  
Acq: 28 May 2015 14:09

|     |         |       |        |
|-----|---------|-------|--------|
| Tgt | Ion:276 | Resp: | 115827 |
| Ion | Ratio   | Lower | Upper  |
| 276 | 100     |       |        |
| 277 | 23.2    | 19.1  | 28.7   |
| 138 | 20.5    | 20.1  | 30.1   |

