

Data Path : Z:\HPCHEM1\BNA F\DATA\BF062516\  
 Data File : BF088403.D  
 Acq On : 26 Jun 2016 6:02  
 Operator : UM/SJ  
 Sample : H3598-16DL 10X  
 Misc :  
 ALS Vial : 51 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 PM-STA-1393(0-4)DL

Quant Time: Jun 26 06:39:37 2016  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF060716.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Jun 22 14:55:14 2016  
 Response via : Initial Calibration

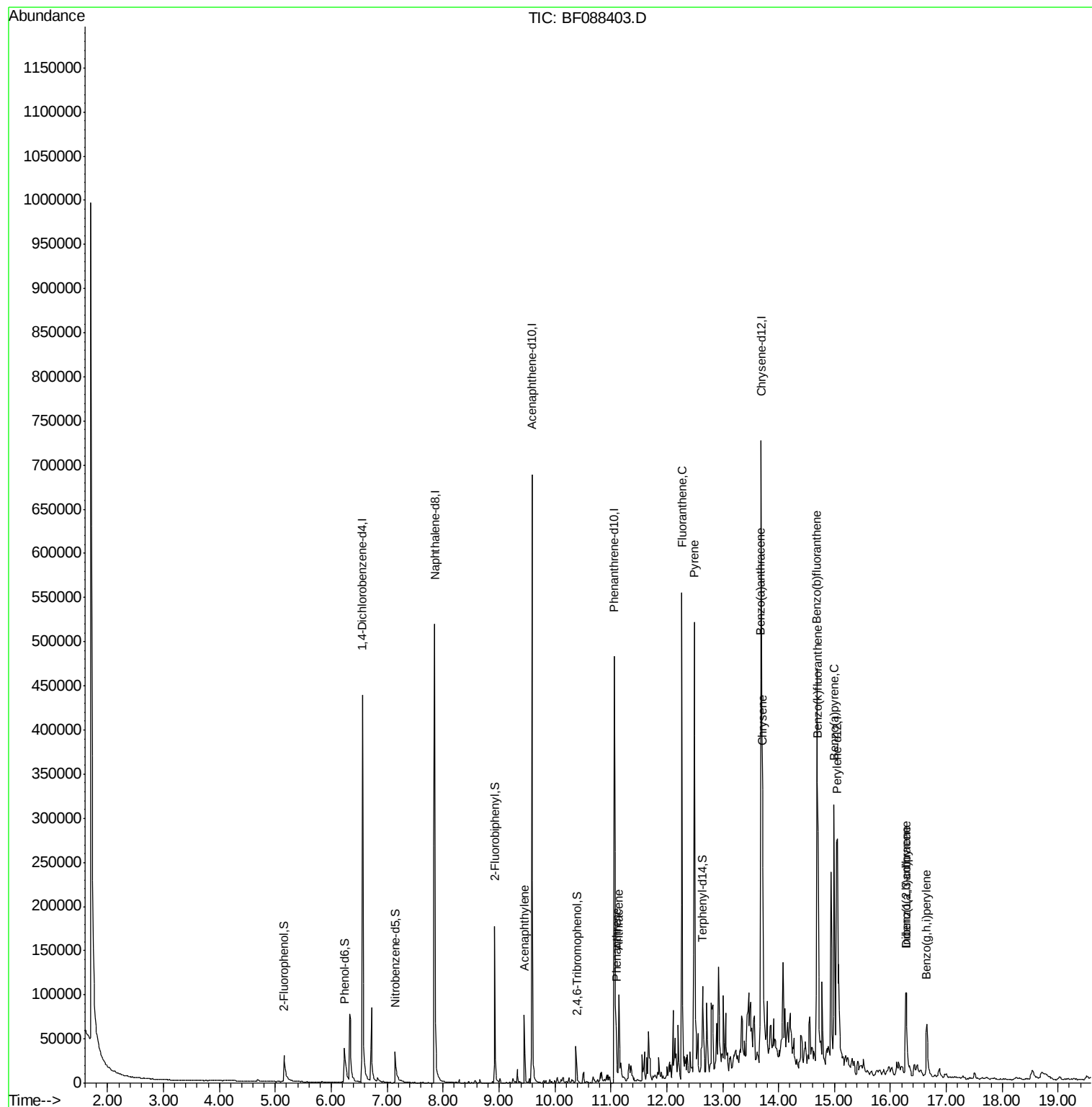
| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.56  | 152  | 89040    | 20.00 | ng    | -0.05    |
| 21) Naphthalene-d8          | 7.85  | 136  | 354810   | 20.00 | ng    | -0.05    |
| 38) Acenaphthene-d10        | 9.59  | 164  | 152876   | 20.00 | ng    | -0.06    |
| 63) Phenanthrene-d10        | 11.06 | 188  | 243393   | 20.00 | ng    | -0.06    |
| 75) Chrysene-d12            | 13.69 | 240  | 187301   | 20.00 | ng    | -0.06    |
| 86) Perylene-d12            | 15.05 | 264  | 155021   | 20.00 | ng    | -0.06    |
| System Monitoring Compounds |       |      |          |       |       |          |
| 5) 2-Fluorophenol           | 5.15  | 112  | 34042    | 6.54  | ng    | -0.02    |
| 7) Phenol-d6                | 6.24  | 99   | 53136    | 8.42  | ng    | -0.02    |
| 23) Nitrobenzene-d5         | 7.14  | 82   | 32936    | 5.42  | ng    | -0.03    |
| 41) 2,4,6-Tribromophenol    | 10.39 | 330  | 7842     | 4.86  | ng    | -0.05    |
| 44) 2-Fluorobiphenyl        | 8.92  | 172  | 72736    | 2.07  | ng    | -0.05    |
| 78) Terphenyl-d14           | 12.64 | 244  | 41829    | 5.08  | ng    | -0.06    |
| Target Compounds            |       |      |          |       |       | Qvalue   |
| 48) Acenaphthylene          | 9.45  | 152  | 46495    | 2.95  | ng    | 100      |
| 70) Phenanthrene            | 11.10 | 178  | 33431    | 2.62  | ng    | 97       |
| 71) Anthracene              | 11.14 | 178  | 57572    | 4.47  | ng    | 99       |
| 74) Fluoranthene            | 12.27 | 202  | 257374   | 19.10 | ng    | 97       |
| 77) Pyrene                  | 12.49 | 202  | 297932   | 21.44 | ng    | 97       |
| 80) Benzo(a)anthracene      | 13.68 | 228  | 216510m  | 20.28 | ng    |          |
| 82) Chrysene                | 13.71 | 228  | 135635m  | 13.51 | ng    |          |
| 85) Indeno(1,2,3-cd)pyrene  | 16.29 | 276  | 66755    | 7.16  | ng    | # 100    |
| 87) Benzo(b)fluoranthene    | 14.69 | 252  | 212058m  | 19.63 | ng    |          |
| 88) Benzo(k)fluoranthene    | 14.70 | 252  | 107291m  | 13.16 | ng    |          |
| 89) Benzo(a)pyrene          | 14.99 | 252  | 140360   | 16.06 | ng    | 97       |
| 90) Dibenzo(a,h)anthracene  | 16.27 | 278  | 17761m   | 2.19  | ng    |          |
| 91) Benzo(a,h,i)perylene    | 16.65 | 276  | 54782    | 6.56  | ng    | 98       |

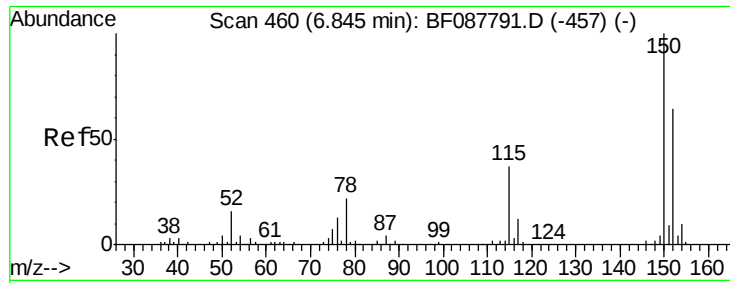
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Jun 22 14:55:14 2016  
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#1

1,4-Dichlorobenzene-d4

Concen: 20.00 ng

RT: 6.56 min Scan# 435

Delta R.T. -0.05 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

Instrument :

BNA\_F

ClientSampleId :

PM-STA-1393(0-4)DL

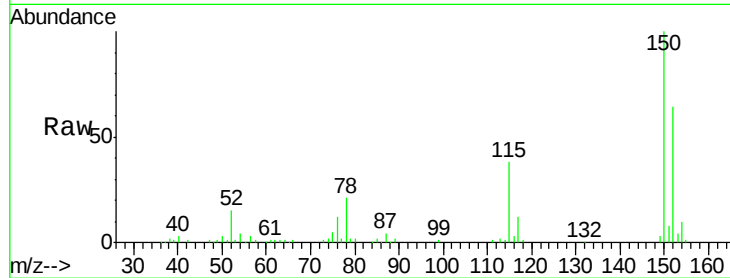
Tot Ion:152 Resp: 89040

Ion Ratio Lower Upper

152 100

150 156.6 123.8 185.6

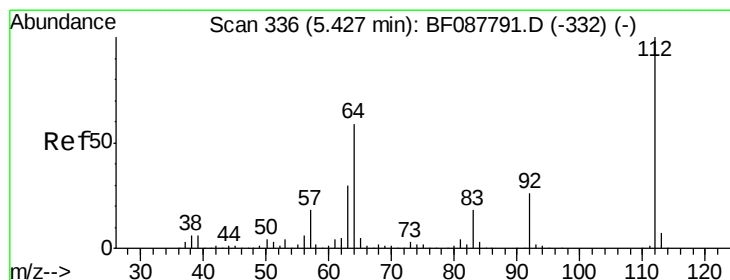
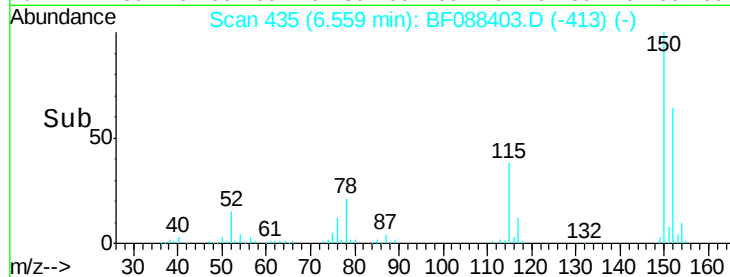
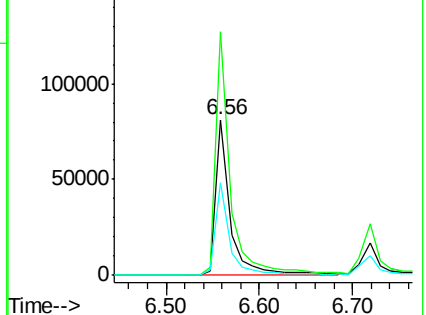
115 59.3 39.6 59.4



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: 6.54 ng

RT: 5.15 min Scan# 312

Delta R.T. -0.02 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

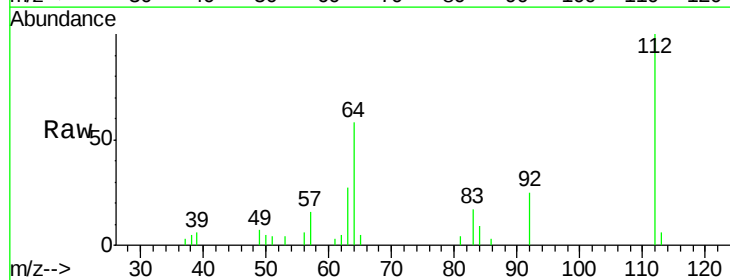
Tgt Ion:112 Resp: 34042

Ion Ratio Lower Upper

112 100

64 58.2 42.2 63.2

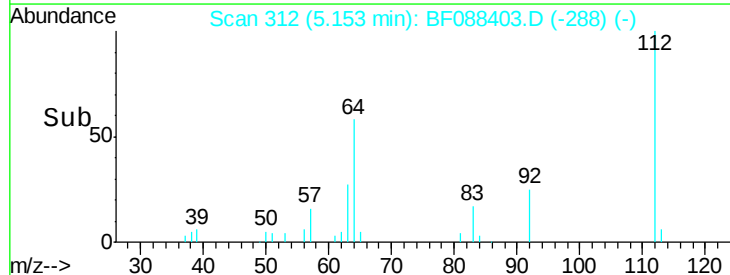
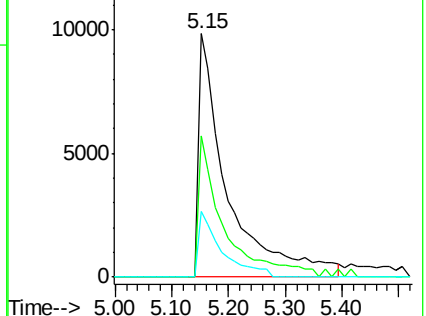
63 27.1 21.8 32.8



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: 8.42 ng

RT: 6.24 min Scan# 407

Delta R.T. -0.02 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

Instrument :

BNA\_F

ClientSampleId :

PM-STA-1393(0-4)DL

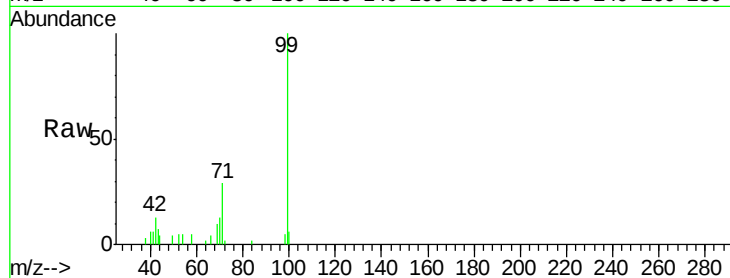
Tot Ion: 99 Resp: 53136

Ion Ratio Lower Upper

99 100

42 13.4 12.2 18.2

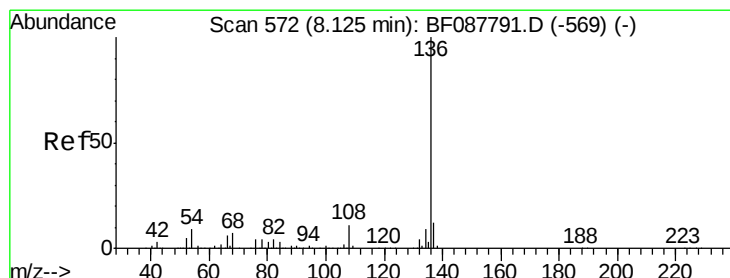
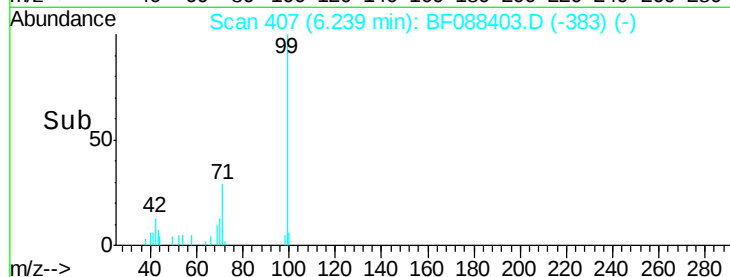
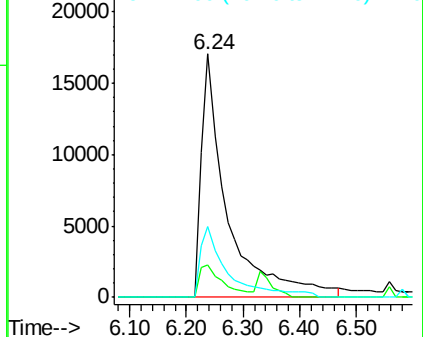
71 29.1 23.4 35.0



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: 7.85 min Scan# 548

Delta R.T. -0.05 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

Tgt Ion: 136 Resp: 354810

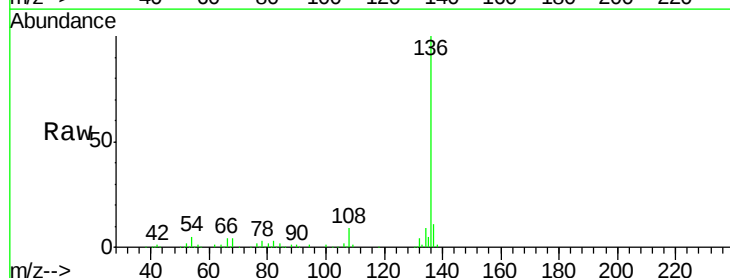
Ion Ratio Lower Upper

136 100

137 10.6 9.1 13.7

54 4.8 6.6 10.0#

68 4.4 5.1 7.7#

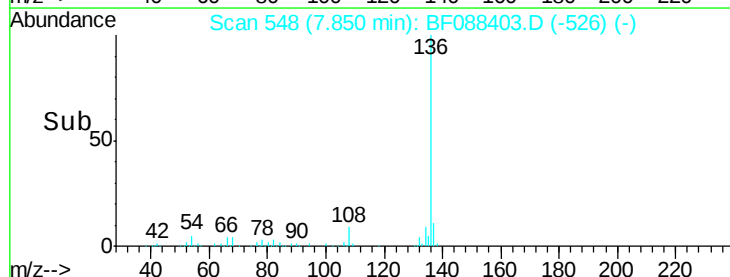
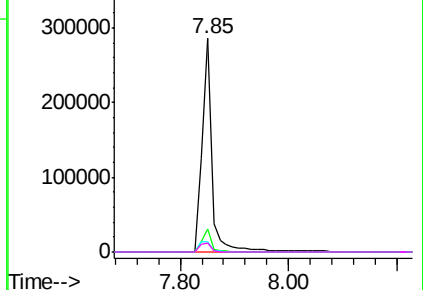


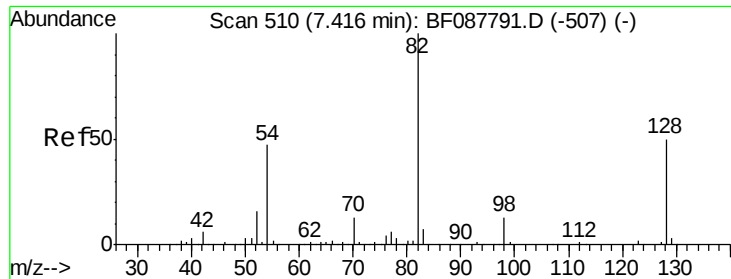
Abundance Ion 136.00 (135.70 to 136.70): E

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

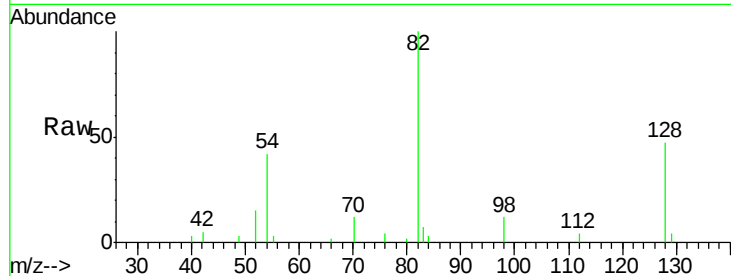




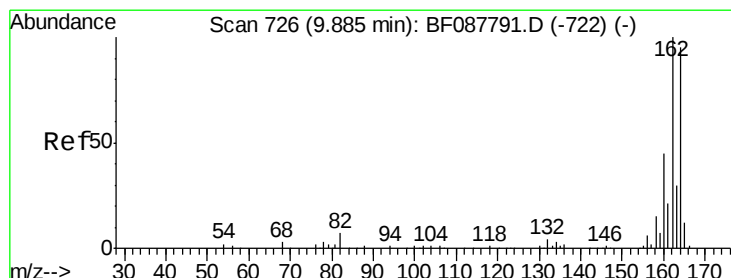
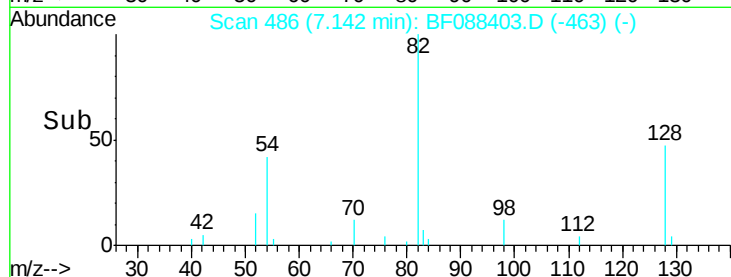
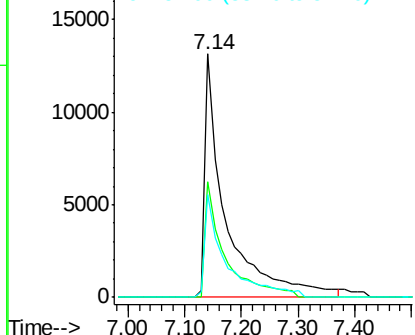
#23  
 Nitrobenzene-d5  
 Concen: 5.42 ng  
 RT: 7.14 min Scan# 486  
 Delta R.T. -0.03 min  
 Lab File: BF088403.D  
 Acq: 26 Jun 2016 6:02

Instrument :  
 BNA\_F  
 ClientSampleId :  
 PM-STA-1393(0-4)DL

Tot Ion: 82 Resp: 32936  
 Ion Ratio Lower Upper  
 82 100  
 128 47.2 35.9 53.9  
 54 42.4 40.9 61.3

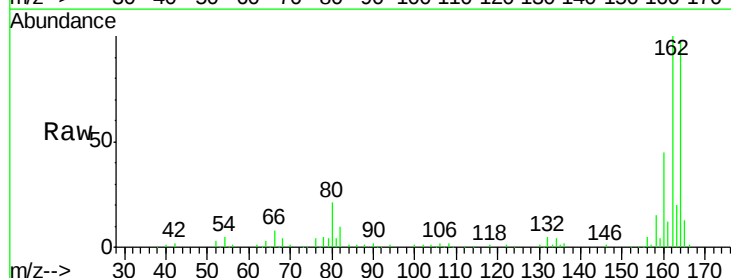


Abundance Ion 82.00 (81.70 to 82.70): BF0  
 Ion 128.00 (127.70 to 128.70): E  
 Ion 54.00 (53.70 to 54.70): BF0

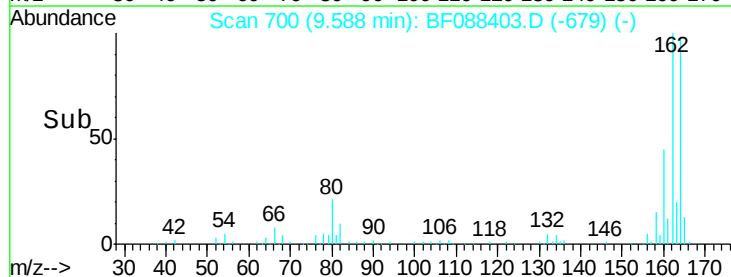
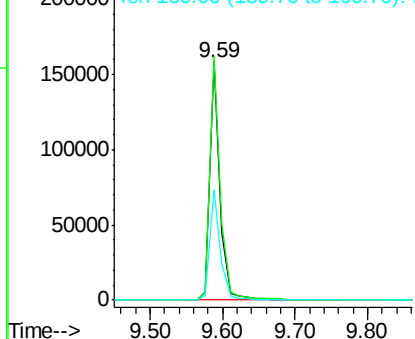


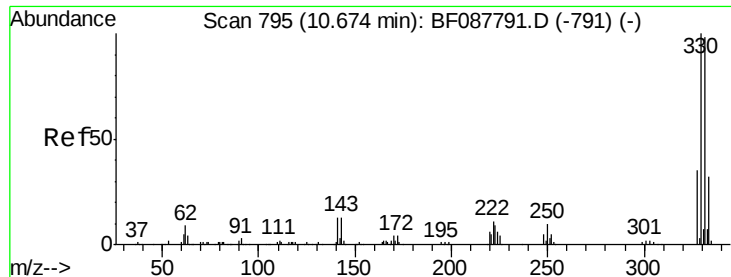
#38  
 Acenaphthene-d10  
 Concen: 20.00 ng  
 RT: 9.59 min Scan# 700  
 Delta R.T. -0.06 min  
 Lab File: BF088403.D  
 Acq: 26 Jun 2016 6:02

Tgt Ion:164 Resp: 152876  
 Ion Ratio Lower Upper  
 164 100  
 162 102.3 85.4 128.2  
 160 46.4 39.5 59.3



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

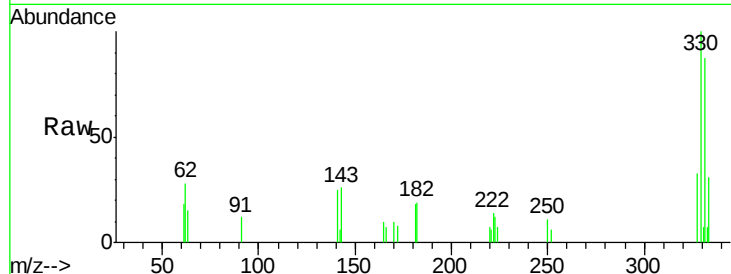




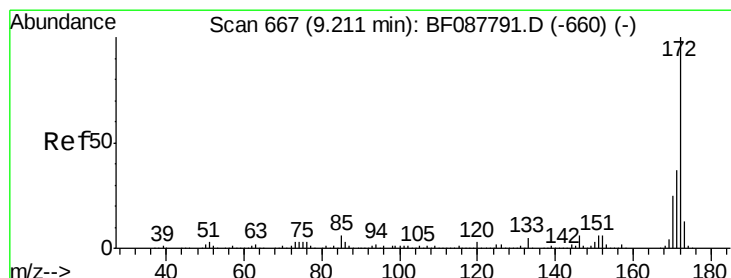
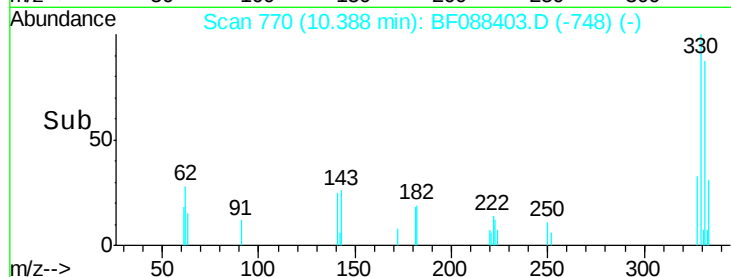
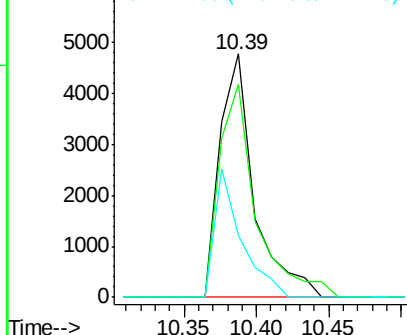
#41  
 2,4,6-Tribromophenol  
 Concen: 4.86 ng  
 RT: 10.39 min Scan# 770  
 Delta R.T. -0.05 min  
 Lab File: BF088403.D  
 Acq: 26 Jun 2016 6:02

Instrument :  
 BNA\_F  
 ClientSampleId :  
 PM-STA-1393(0-4)DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 93.2  | 0.0   | 0.0#  |
| 141     | 40.7  | 0.0   | 0.0#  |

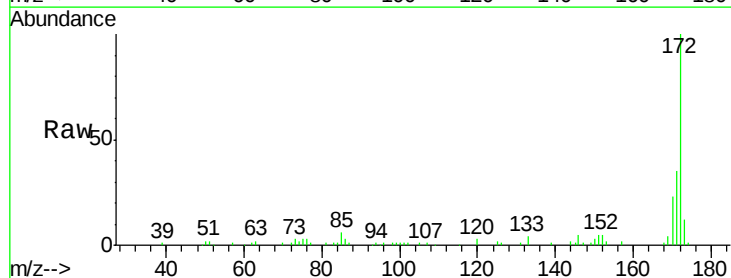


Abundance Ion 329.80 (329.50 to 330.50): E  
 Ion 331.80 (331.50 to 332.50): E  
 Ion 141.00 (140.70 to 141.70): E

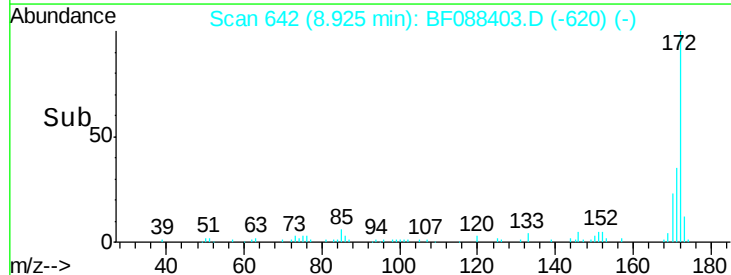
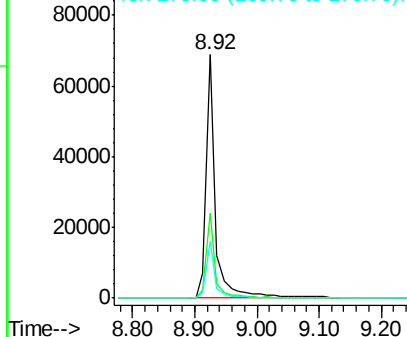


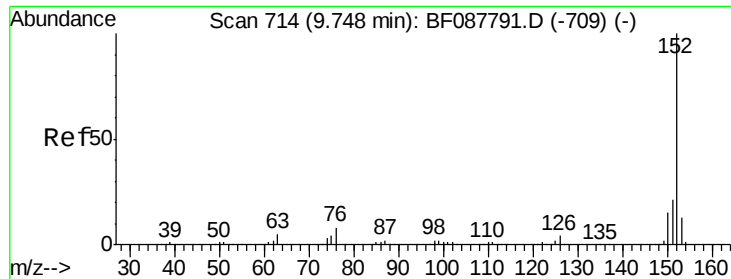
#44  
 2-Fluorobiphenyl  
 Concen: 2.07 ng  
 RT: 8.92 min Scan# 642  
 Delta R.T. -0.05 min  
 Lab File: BF088403.D  
 Acq: 26 Jun 2016 6:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 34.9  | 28.6  | 43.0  |
| 170     | 23.1  | 19.2  | 28.8  |



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

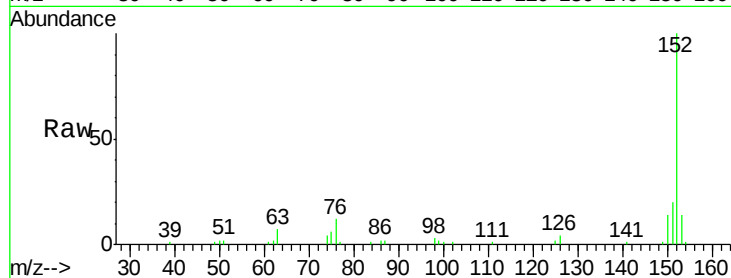




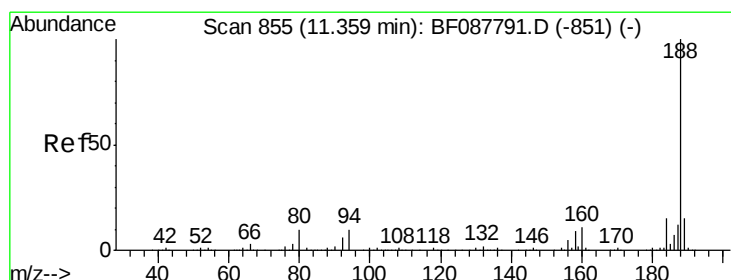
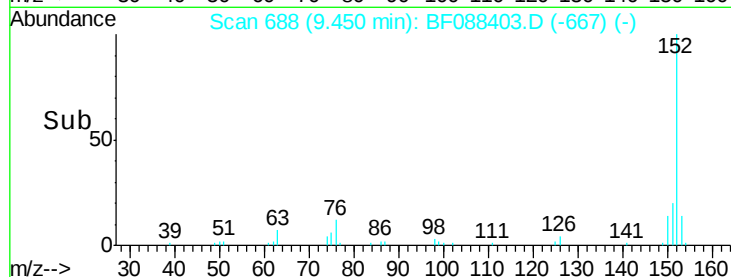
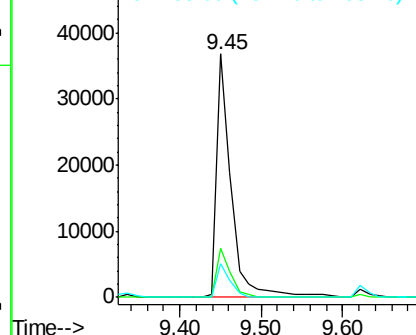
#48  
Acenaphthylene  
Concen: 2.95 ng  
RT: 9.45 min Scan# 688  
Delta R.T. -0.06 min  
Lab File: BF088403.D  
Acq: 26 Jun 2016 6:02

Instrument :  
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ClientSampleId :  
PM-STA-1393(0-4)DL

Tot Ion:152 Resp: 46495  
Ion Ratio Lower Upper  
152 100  
151 20.1 16.2 24.4  
153 13.6 11.0 16.6

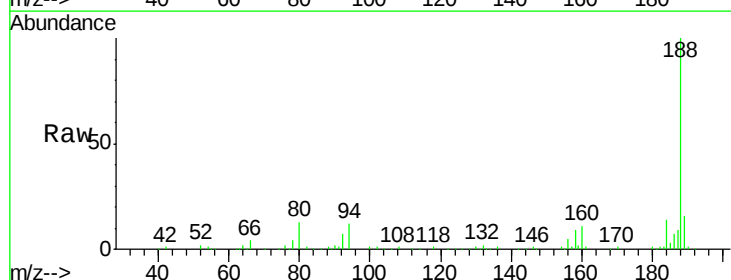


Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 151.00 (150.70 to 151.70): E  
Ion 153.00 (152.70 to 153.70): E

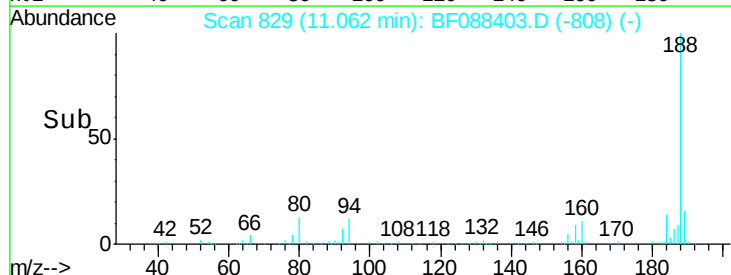
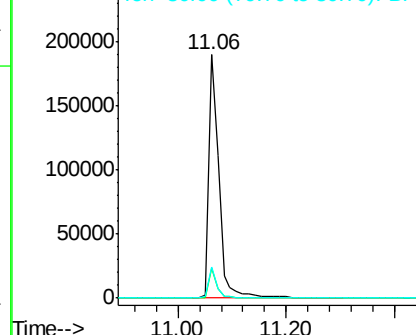


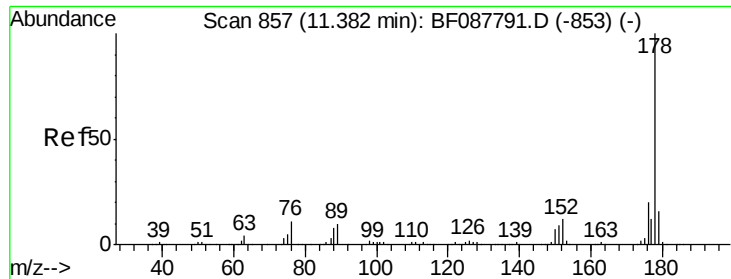
#63  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 11.06 min Scan# 829  
Delta R.T. -0.06 min  
Lab File: BF088403.D  
Acq: 26 Jun 2016 6:02

Tgt Ion:188 Resp: 243393  
Ion Ratio Lower Upper  
188 100  
94 12.2 9.0 13.6  
80 13.0 10.0 15.0



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: 2.62 ng

RT: 11.10 min Scan# 832

Delta R.T. -0.05 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

Instrument :

BNA\_F

ClientSampleId :

PM-STA-1393(0-4)DL

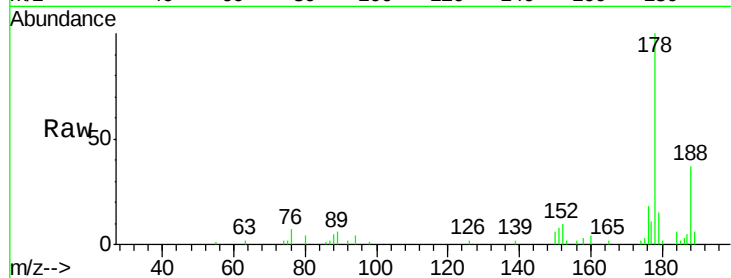
Tot Ion:178 Resp: 33431

Ion Ratio Lower Upper

178 100

176 18.2 15.8 23.6

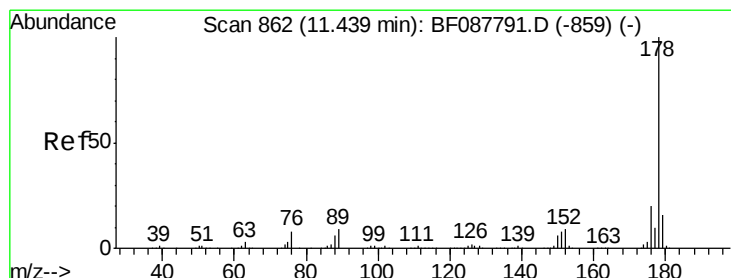
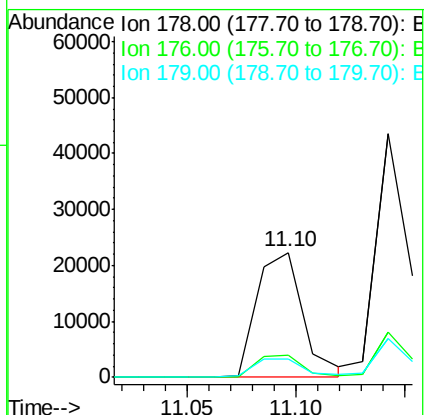
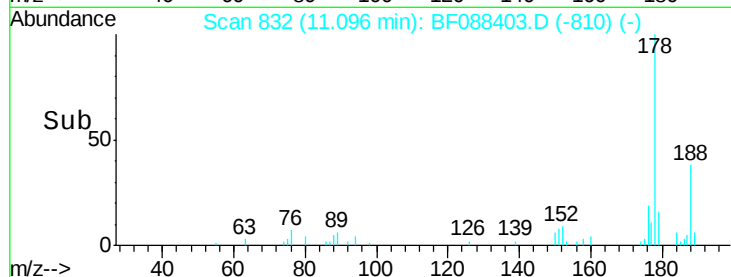
179 15.0 13.0 19.4



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



#71

Anthracene

Concen: 4.47 ng

RT: 11.14 min Scan# 836

Delta R.T. -0.06 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

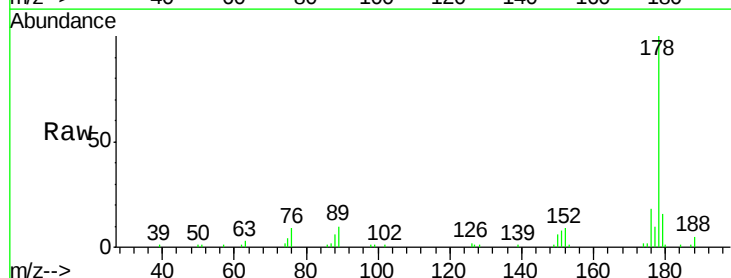
Tgt Ion:178 Resp: 57572

Ion Ratio Lower Upper

178 100

176 18.3 15.6 23.4

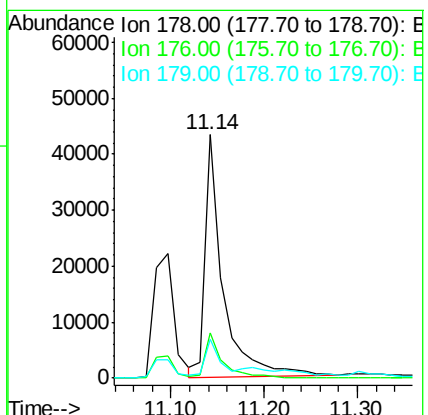
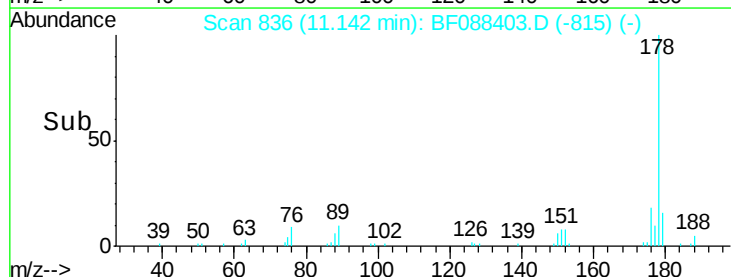
179 16.0 12.8 19.2

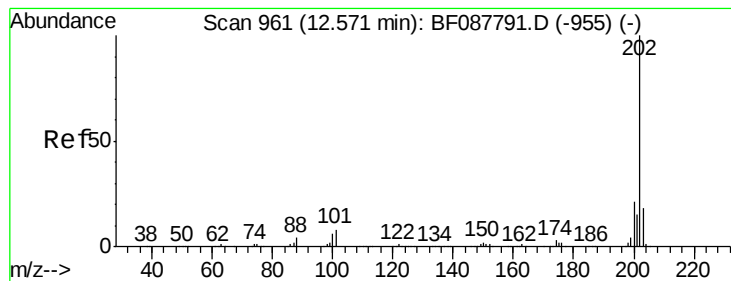


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#74

Fluoranthene

Concen: 19.10 ng

RT: 12.27 min Scan# 935

Delta R.T. -0.05 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

Instrument :

BNA\_F

ClientSampleId :

PM-STA-1393(0-4)DL

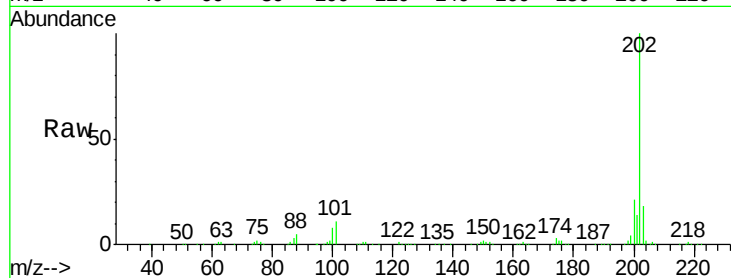
Tot Ion:202 Resp: 257374

Ion Ratio Lower Upper

202 100

101 10.8 0.0 33.1

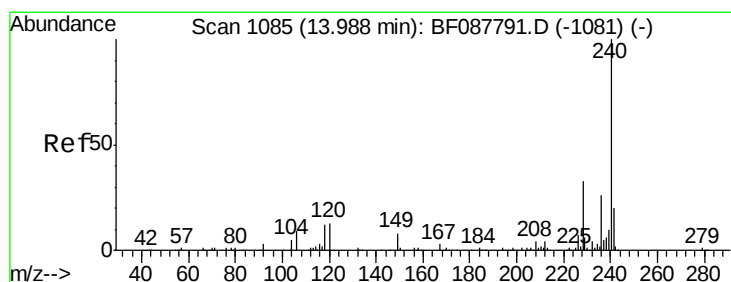
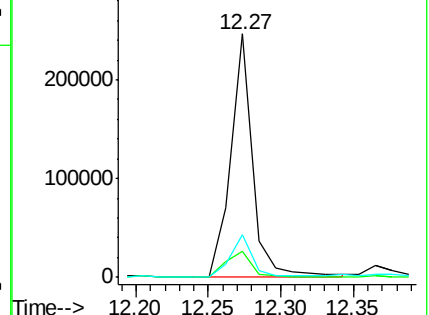
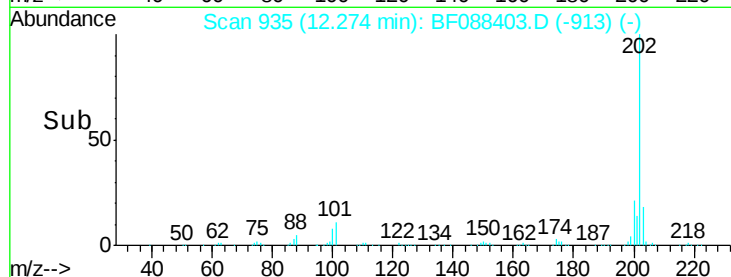
203 17.6 0.0 38.1



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: 13.69 min Scan# 1059

Delta R.T. -0.06 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

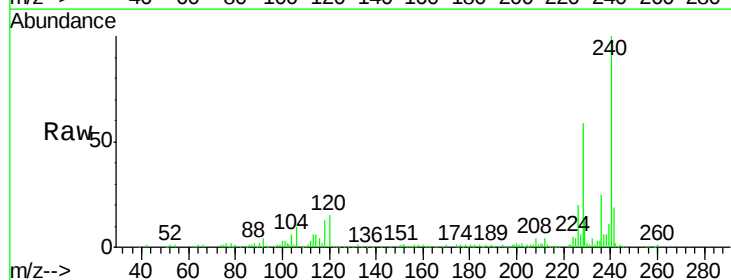
Tgt Ion:240 Resp: 187301

Ion Ratio Lower Upper

240 100

120 14.8 6.8 10.2#

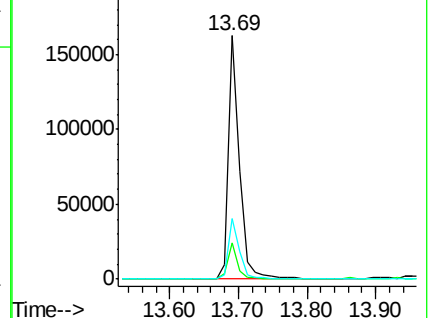
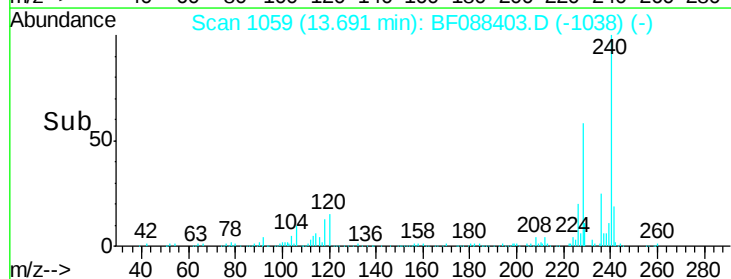
236 25.1 20.2 30.2

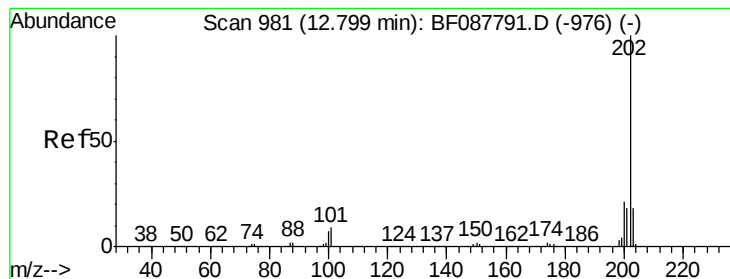


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E





#77

Pvrene

Concen: 21.44 ng

RT: 12.49 min Scan# 954

Delta R.T. -0.06 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

Instrument :

BNA\_F

ClientSampleId :

PM-STA-1393(0-4)DL

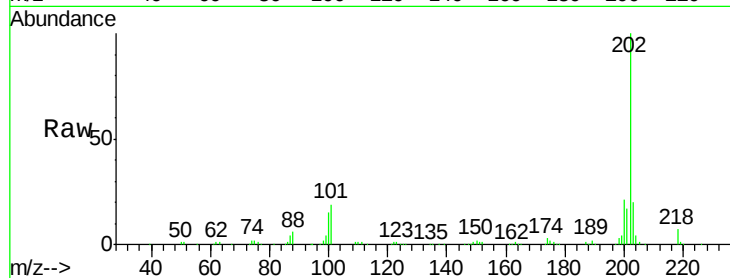
Tot Ion:202 Resp: 297932

Ion Ratio Lower Upper

202 100

200 20.8 17.4 26.2

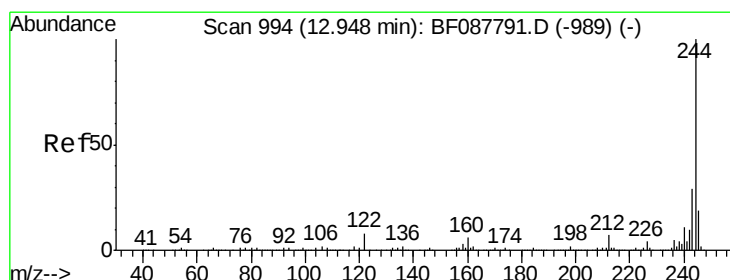
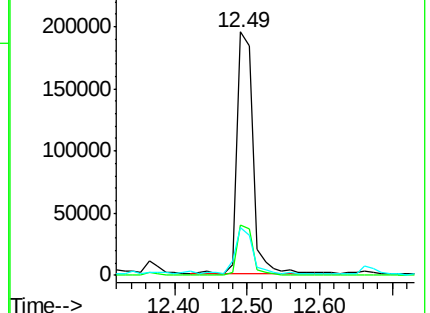
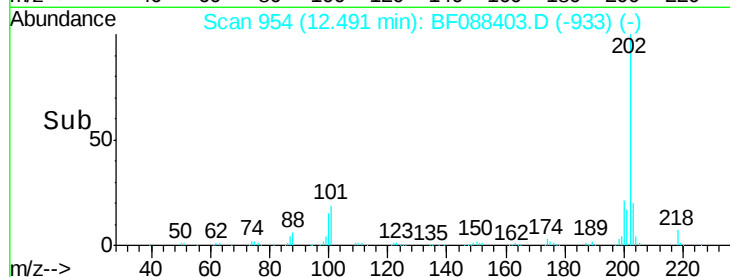
203 19.8 14.5 21.7



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: 5.08 ng

RT: 12.64 min Scan# 967

Delta R.T. -0.06 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

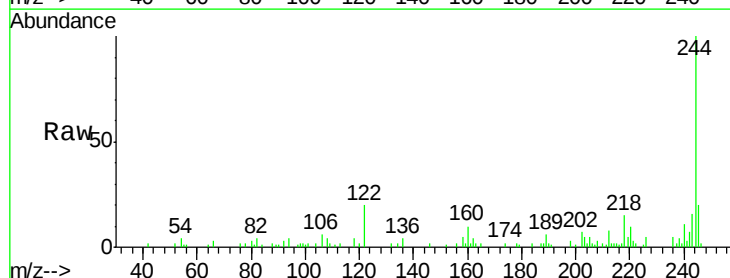
Tgt Ion:244 Resp: 41829

Ion Ratio Lower Upper

244 100

212 7.8 6.0 9.0

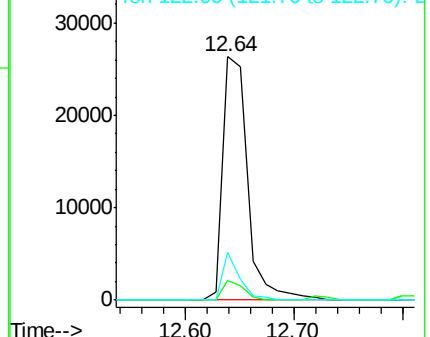
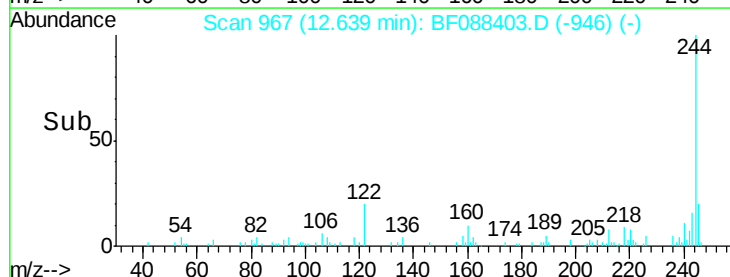
122 19.8 11.2 16.8#

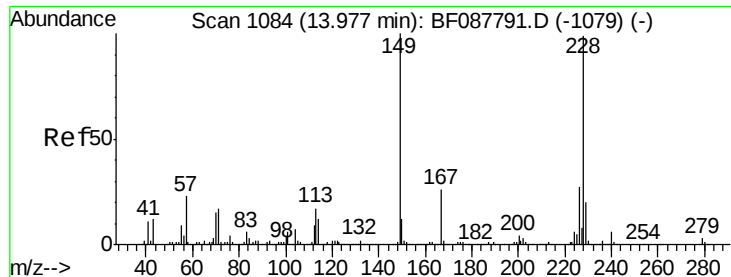


Abundance Ion 244.00 (243.70 to 244.70): E

Ion 212.00 (211.70 to 212.70): E

Ion 122.00 (121.70 to 122.70): E





#80

Benzo(a)anthracene

Concen: 20.28 ng m

RT: 13.68 min Scan# 1058

Delta R.T. -0.06 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

Instrument :

BNA\_F

ClientSampleId :

PM-STA-1393(0-4)DL

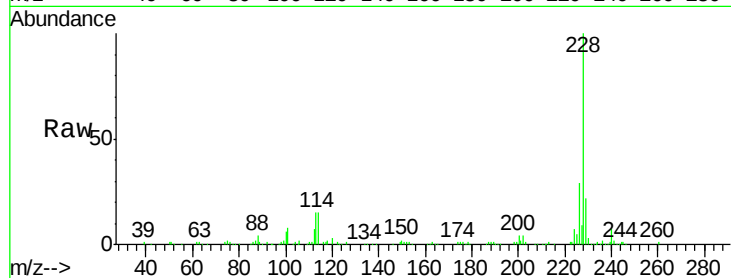
Tot Ion:228 Resp: 216510

Ion Ratio Lower Upper

228 100

226 28.7 22.3 33.5

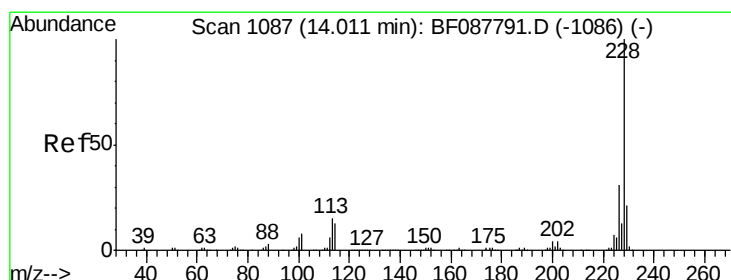
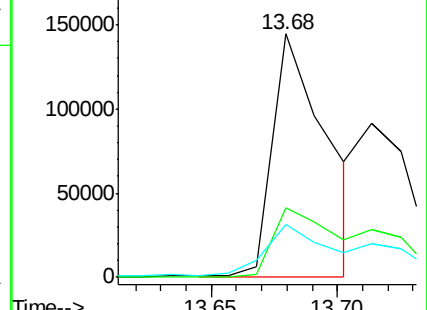
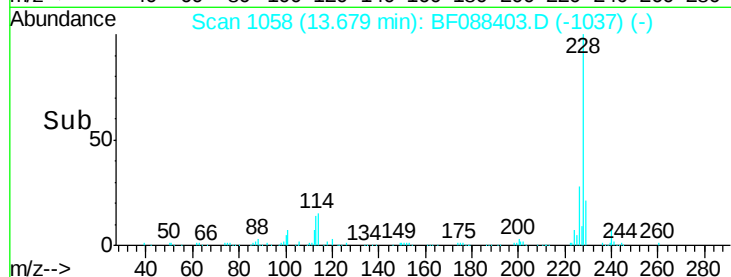
229 21.8 16.0 24.0



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: 13.51 ng m

RT: 13.71 min Scan# 1061

Delta R.T. -0.06 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

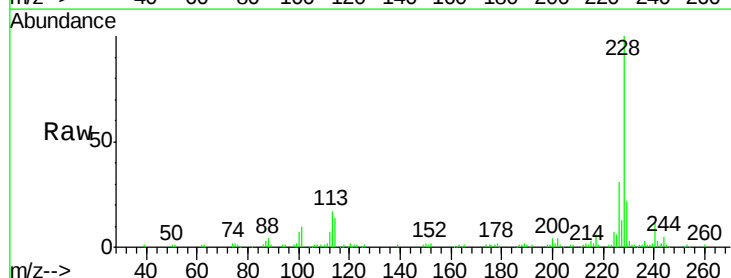
Tgt Ion:228 Resp: 135635

Ion Ratio Lower Upper

228 100

226 30.8 25.4 38.2

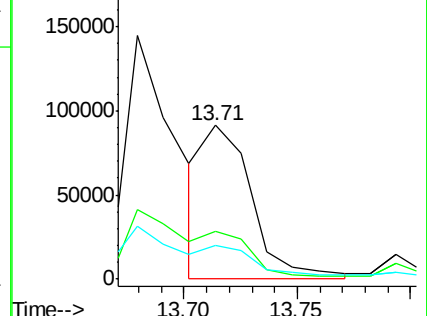
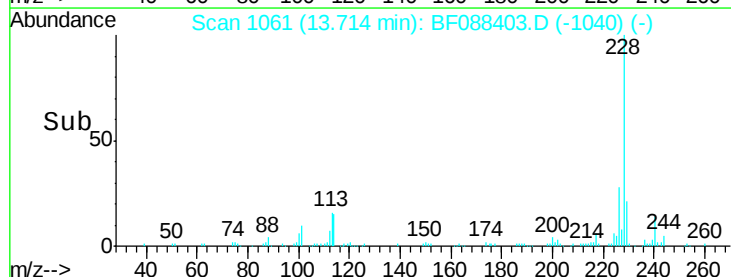
229 21.7 16.3 24.5

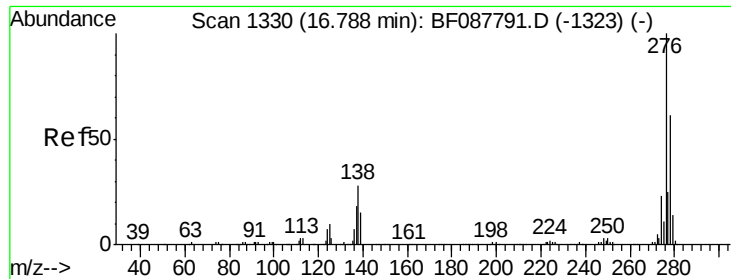


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E

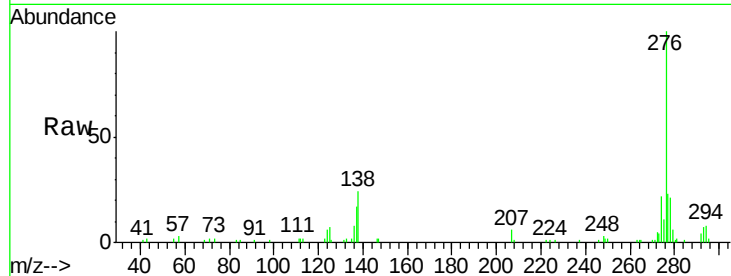




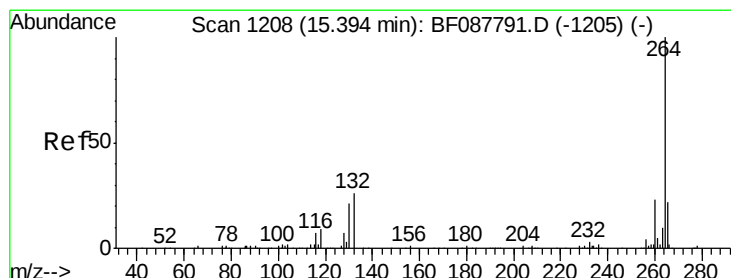
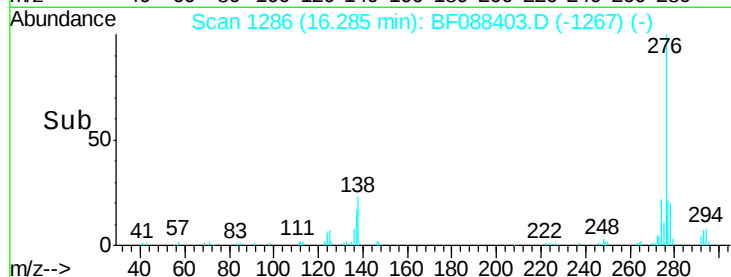
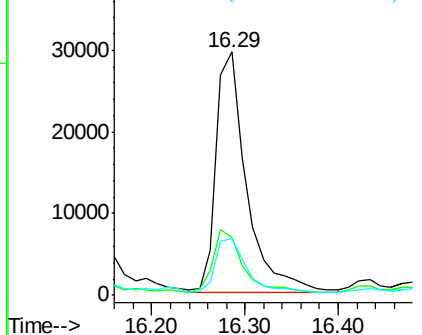
#85  
 Indeno(1,2,3-cd)pyrene  
 Concen: 7.16 ng  
 RT: 16.29 min Scan# 1286  
 Delta R.T. -0.08 min  
 Lab File: BF088403.D  
 Acq: 26 Jun 2016 6:02

Instrument :  
 BNA\_F  
 ClientSampleId :  
 PM-STA-1393(0-4)DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 30.4  | 0.0   | 0.0#  |
| 277     | 23.3  | 0.0   | 0.0#  |

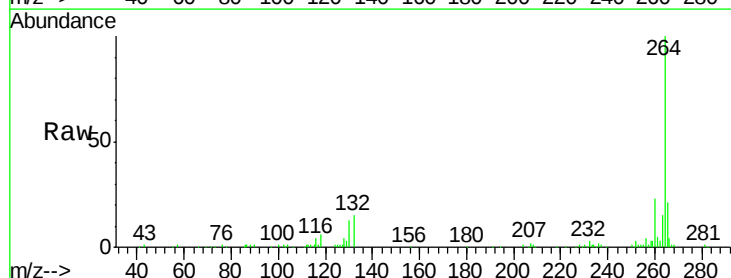


Abundance Ion 276.00 (275.70 to 276.70): E  
 Ion 138.00 (137.70 to 138.70): E  
 Ion 277.00 (276.70 to 277.70): E

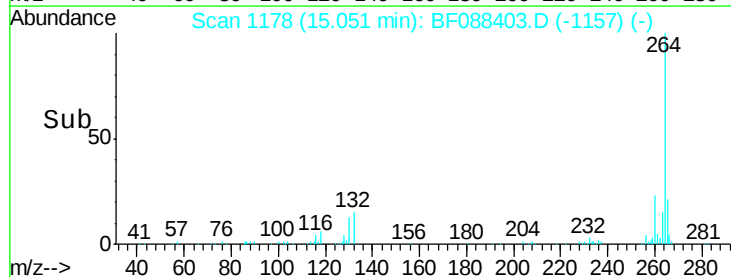
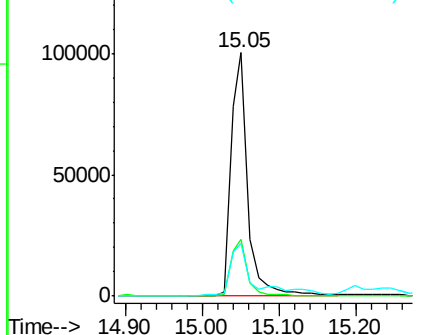


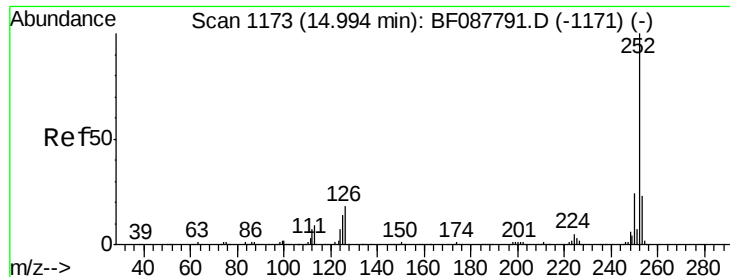
#86  
 Perylene-d12  
 Concen: 20.00 ng  
 RT: 15.05 min Scan# 1178  
 Delta R.T. -0.06 min  
 Lab File: BF088403.D  
 Acq: 26 Jun 2016 6:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 23.2  | 19.2  | 28.8  |
| 265     | 21.5  | 16.9  | 25.3  |



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: 19.63 ng m

RT: 14.69 min Scan# 1146

Delta R.T. -0.06 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

Instrument :

BNA\_F

ClientSampleId :

PM-STA-1393(0-4)DL

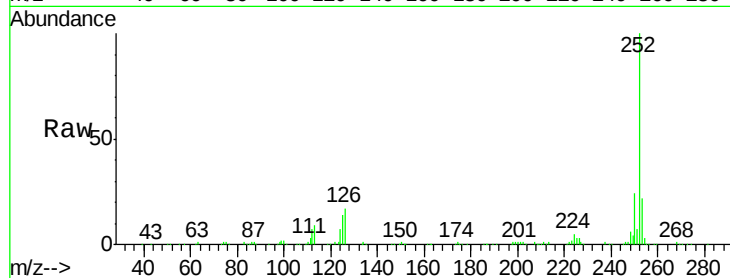
Tot Ion:252 Resp: 212058

Ion Ratio Lower Upper

252 100

253 21.8 17.4 26.2

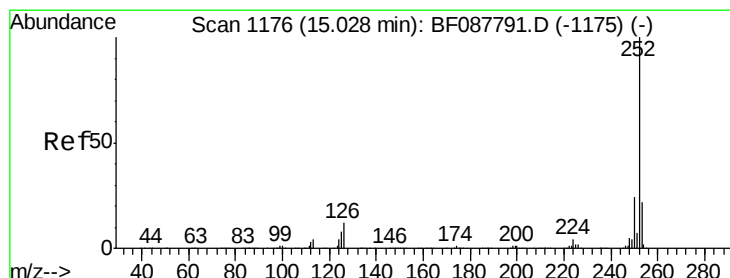
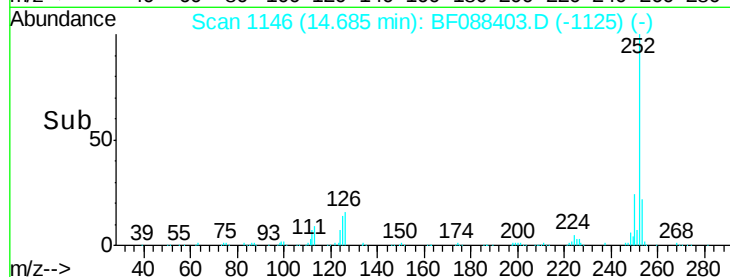
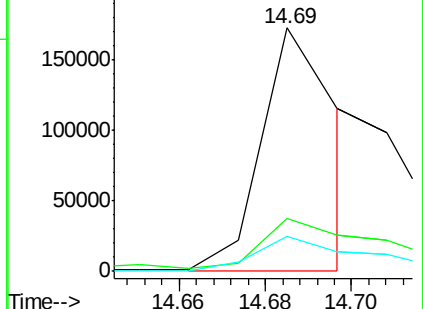
125 14.2 7.1 10.7#



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: 13.16 ng m

RT: 14.70 min Scan# 1147

Delta R.T. -0.07 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

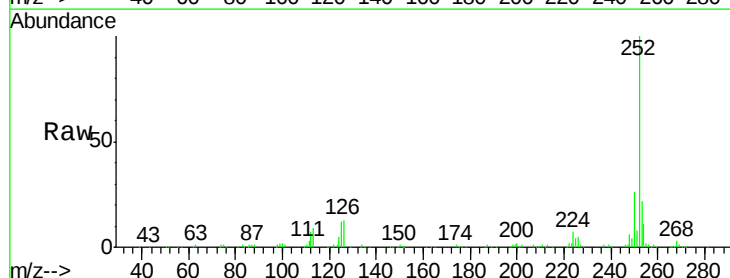
Tgt Ion:252 Resp: 107291

Ion Ratio Lower Upper

252 100

253 22.2 18.0 27.0

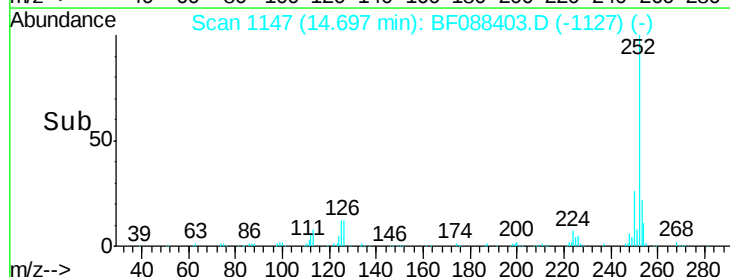
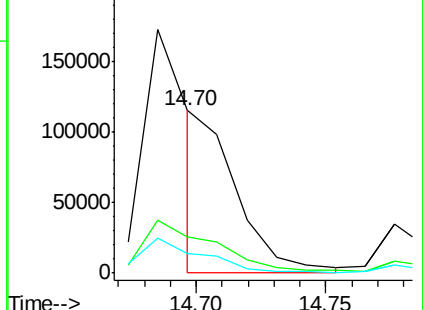
125 12.4 11.2 16.8

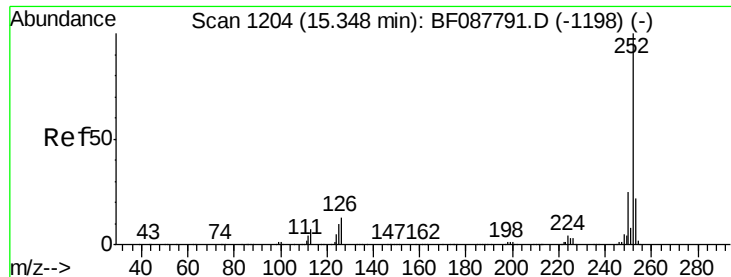


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E

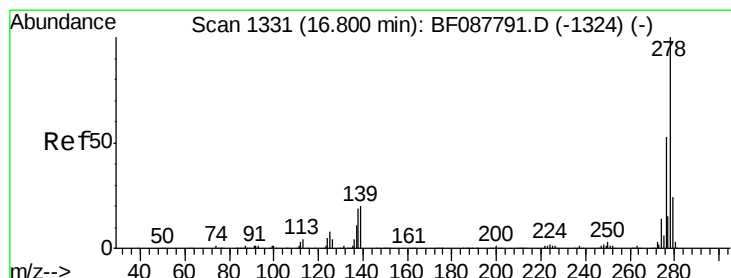
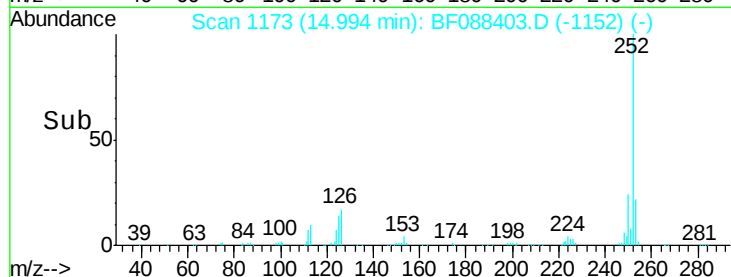
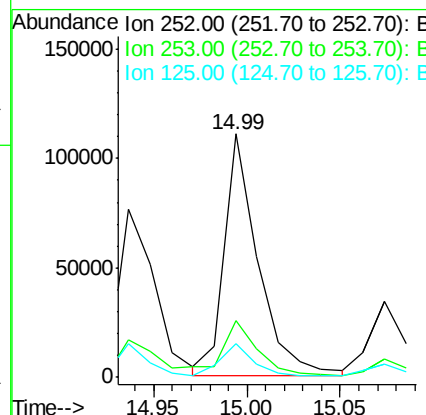
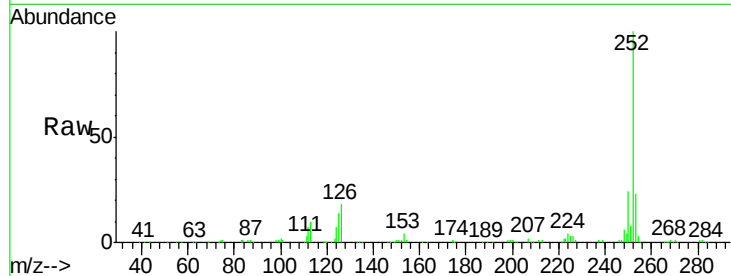




#89  
Benzo(a)pyrene  
Concen: 16.06 ng  
RT: 14.99 min Scan# 1173  
Delta R.T. -0.06 min  
Lab File: BF088403.D  
Acq: 26 Jun 2016 6:02

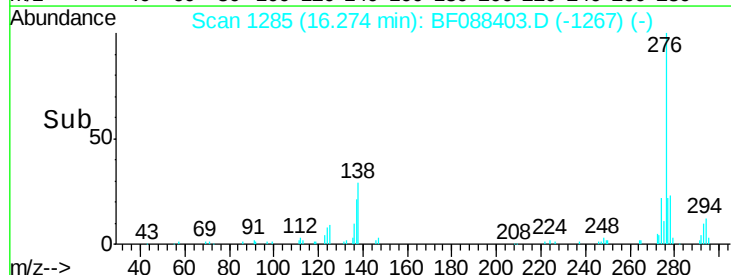
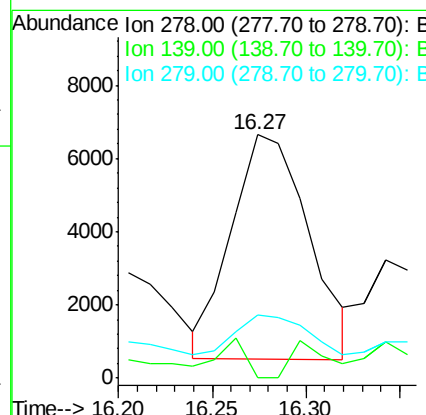
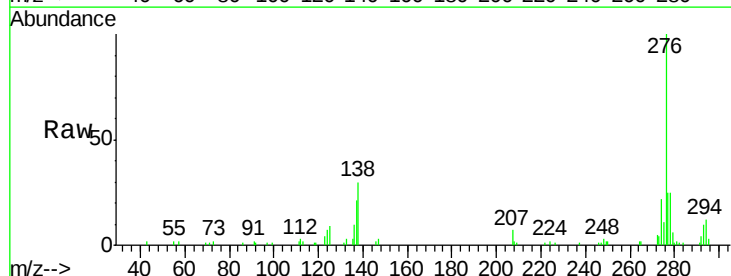
Instrument :  
BNA\_F  
ClientSampleId :  
PM-STA-1393(0-4)DL

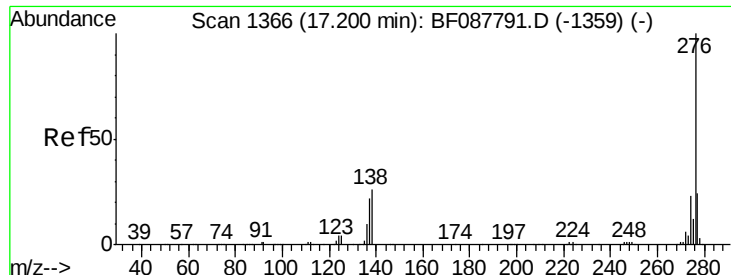
Tot Ion:252 Resp: 140360  
Ion Ratio Lower Upper  
252 100  
253 23.1 17.9 26.9  
125 13.7 12.5 18.7



#90  
Dibenzo(a,h)anthracene  
Concen: 2.19 ng m  
RT: 16.27 min Scan# 1285  
Delta R.T. -0.09 min  
Lab File: BF088403.D  
Acq: 26 Jun 2016 6:02

Tgt Ion:278 Resp: 17761  
Ion Ratio Lower Upper  
278 100  
139 0.0 15.7 23.5#  
279 25.9 19.4 29.2





#91

Benzo(a,h,i)perylene

Concen: 6.56 ng

RT: 16.65 min Scan# 1318

Delta R.T. -0.09 min

Lab File: BF088403.D

Acq: 26 Jun 2016 6:02

Instrument :

BNA\_F

ClientSampleId :

PM-STA-1393(0-4)DL

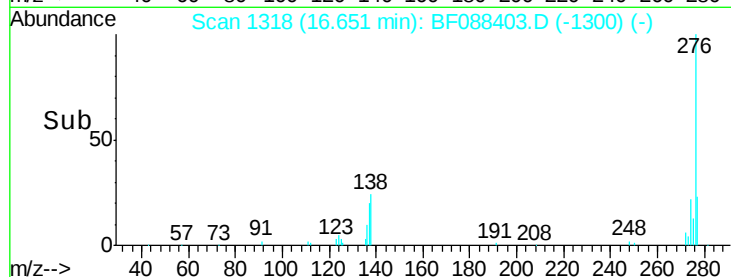
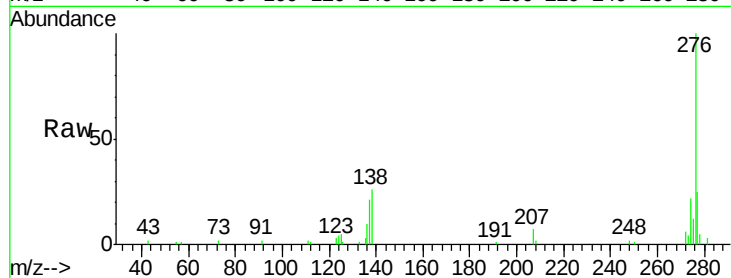
Tot Ion:276 Resp: 54782

Ion Ratio Lower Upper

276 100

277 24.9 18.9 28.3

138 25.7 21.4 32.2



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

