

Data Path : Z:\HPCHEM1\BNA F\DATA\BF072617\  
 Data File : BF097101.D  
 Acq On : 27 Jul 2017 3:15  
 Operator : SJ/JU  
 Sample : I4391-04  
 Misc :  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :

Quant Time: Jul 27 08:22:21 2017  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF072517.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Jul 25 14:11:51 2017  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.49  | 152  | 96315    | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 7.78  | 136  | 369584   | 20.00 | ng    | 0.00     |
| 38) Acenaphthene-d10      | 9.52  | 164  | 141611   | 20.00 | ng    | -0.01    |
| 63) Phenanthrene-d10      | 11.00 | 188  | 201572   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12          | 13.63 | 240  | 191203   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12          | 14.98 | 264  | 136251   | 20.00 | ng    | 0.00     |

## System Monitoring Compounds

|                          |       |     |        |        |    |       |
|--------------------------|-------|-----|--------|--------|----|-------|
| 5) 2-Fluorophenol        | 5.10  | 112 | 652067 | 102.06 | ng | 0.00  |
| 7) Phenol-d6             | 6.16  | 99  | 767937 | 105.28 | ng | -0.01 |
| 23) Nitrobenzene-d5      | 7.06  | 82  | 440486 | 69.92  | ng | -0.01 |
| 41) 2,4,6-Tribromophenol | 10.31 | 330 | 111413 | 99.58  | ng | -0.01 |
| 44) 2-Fluorobiphenyl     | 8.86  | 172 | 765795 | 91.77  | ng | -0.01 |
| 78) Terphenyl-d14        | 12.59 | 244 | 472707 | 50.41  | ng | 0.00  |

## Target Compounds

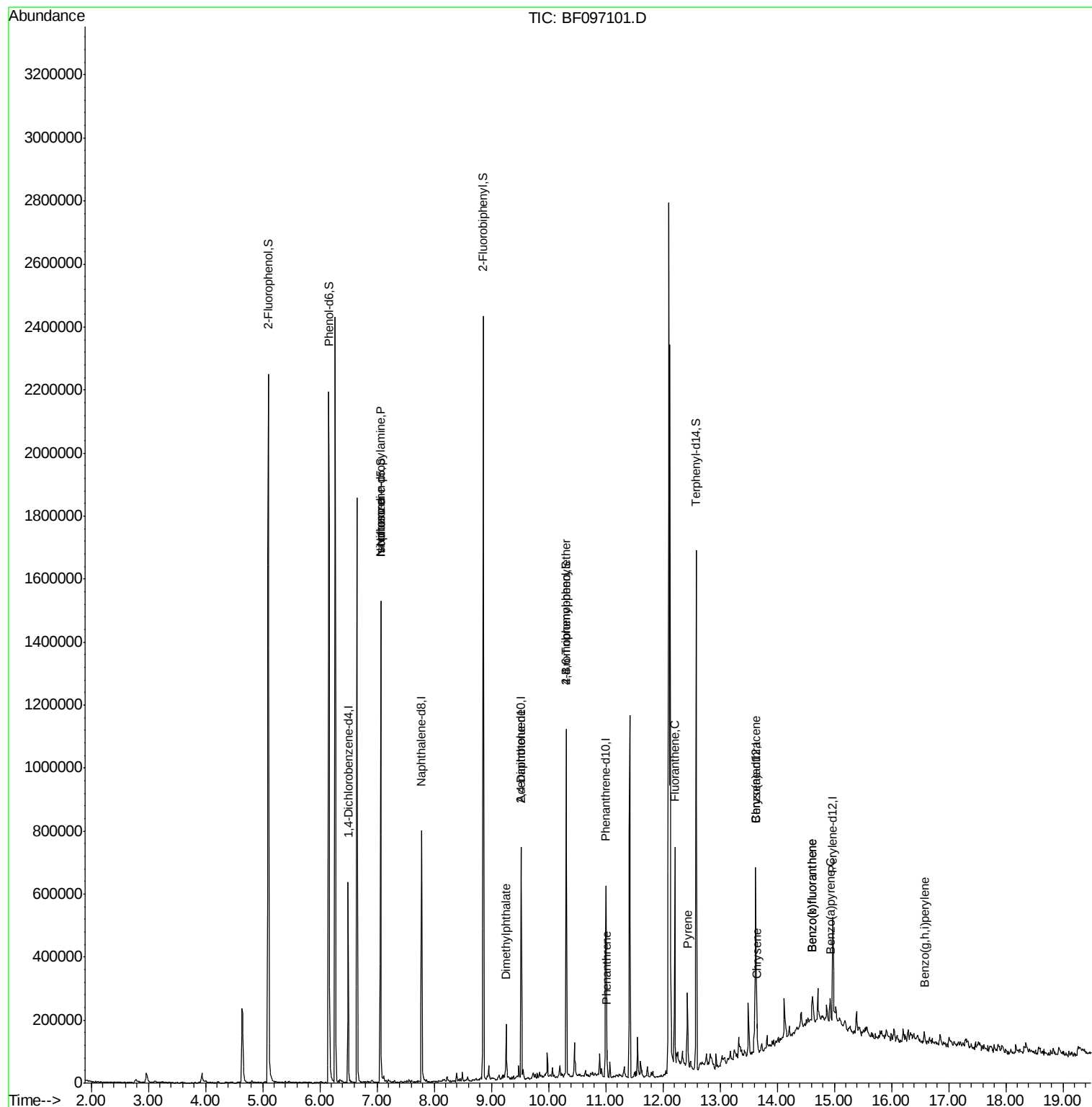
|                                |       |     |        |        |    | Qvalue |
|--------------------------------|-------|-----|--------|--------|----|--------|
| 19) n-Nitroso-di-n-propylamine | 7.06  | 70  | 58530  | 12.191 | ng | # 86   |
| 25) Isophorone                 | 7.06  | 82  | 431582 | 34.980 | ng | # 67   |
| 49) Dimethylphthalate          | 9.26  | 163 | 66545  | 6.188  | ng | 99     |
| 56) 2,4-Dinitrotoluene         | 9.52  | 165 | 18412  | 7.022  | ng | # 32   |
| 66) 4-Bromophenyl-phenylether  | 10.31 | 248 | 7280   | 3.619  | ng | # 1    |
| 70) Phenanthrene               | 11.02 | 178 | 30083  | 2.785  | ng | 96     |
| 74) Fluoranthene               | 12.20 | 202 | 78779  | 7.446  | ng | 95     |
| 77) Pyrene                     | 12.43 | 202 | 81771  | 5.224  | ng | 98     |
| 80) Benzo(a)anthracene         | 13.62 | 228 | 30754  | 2.486  | ng | 97     |
| 82) Chrysene                   | 13.65 | 228 | 33393  | 2.764  | ng | 97     |
| 87) Benzo(b)fluoranthene       | 14.62 | 252 | 48018  | 5.863  | ng | # 91   |
| 88) Benzo(k)fluoranthene       | 14.62 | 252 | 48018  | 6.152  | ng | # 95   |
| 89) Benzo(a)pyrene             | 14.93 | 252 | 24013  | 3.203  | ng | # 91   |
| 91) Benzo(a,h,i)perylene       | 16.57 | 276 | 15090  | 2.341  | ng | # 87   |

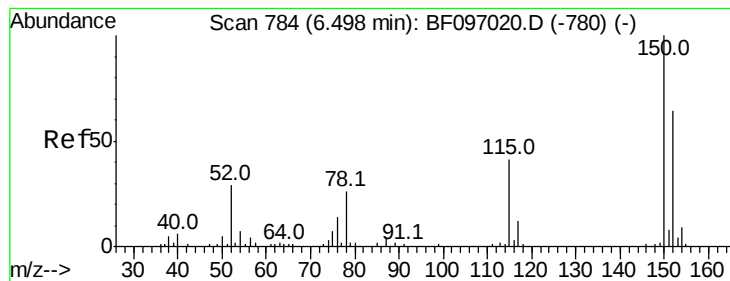
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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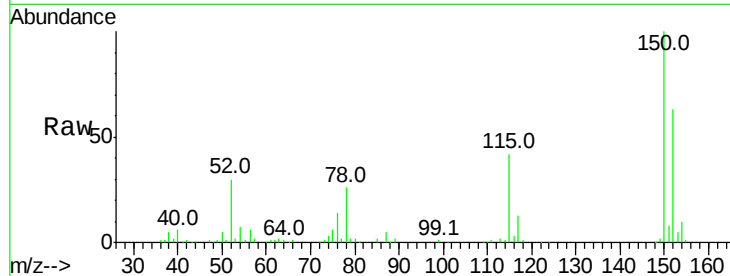


#1

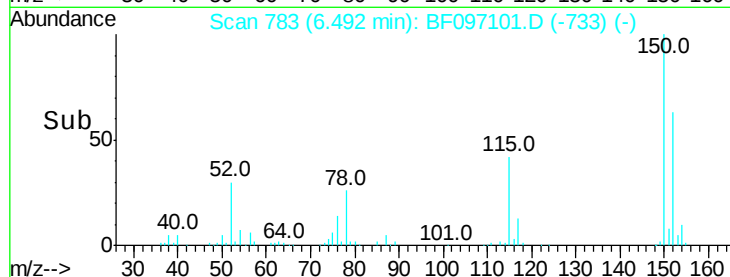
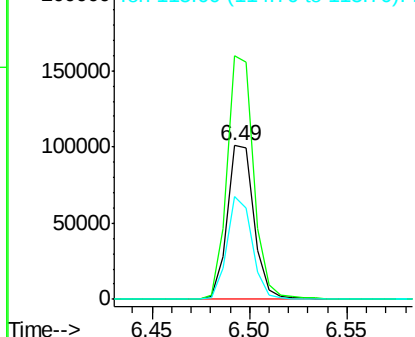
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.49 min Scan# 783  
Delta R.T. -0.01 min  
Lab File: BF097101.D  
Acq: 27 Jul 2017 3:15

Instrument :  
BNA\_F  
ClientSampleId :

Tot Ion:152 Resp: 96315  
Ion Ratio Lower Upper  
152 100  
150 158.3 126.2 189.2  
115 67.0 52.2 78.2



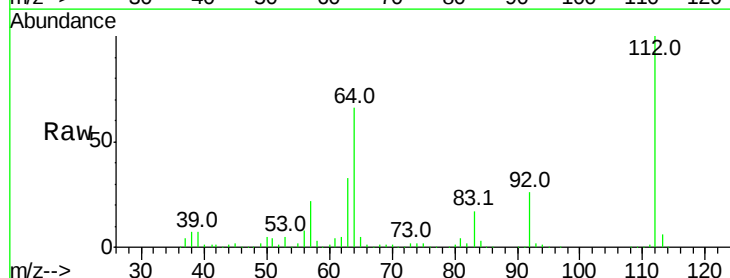
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



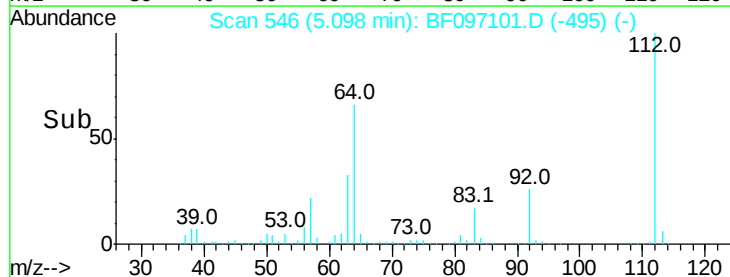
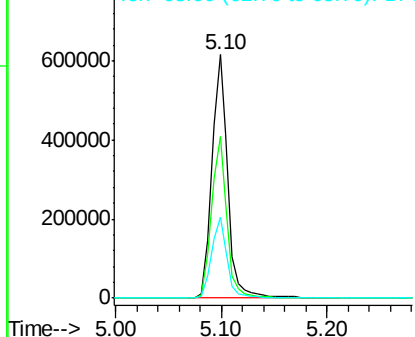
#5

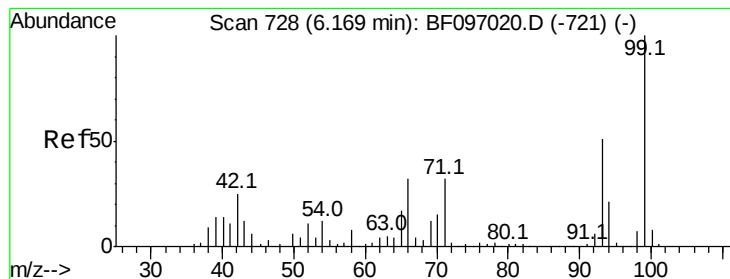
2-Fluorophenol  
Concen: 102.059 ng  
RT: 5.10 min Scan# 546  
Delta R.T. 0.00 min  
Lab File: BF097101.D  
Acq: 27 Jul 2017 3:15

Tgt Ion:112 Resp: 652067  
Ion Ratio Lower Upper  
112 100  
64 66.3 46.0 69.0  
63 33.3 23.4 35.0



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: 105.284 ng

RT: 6.16 min Scan# 726

Delta R.T. -0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

Instrument :

BNA\_F

ClientSampled :

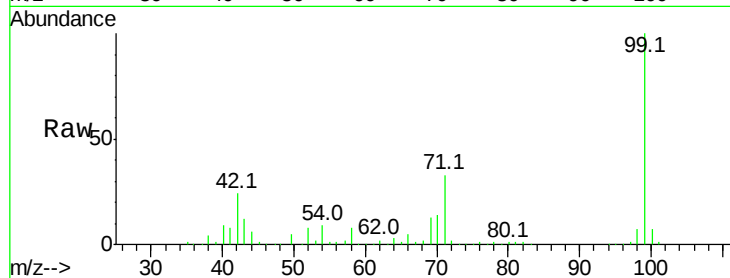
Tot Ion: 99 Resp: 767937

Ion Ratio Lower Upper

99 100

42 24.0 13.5 20.3#

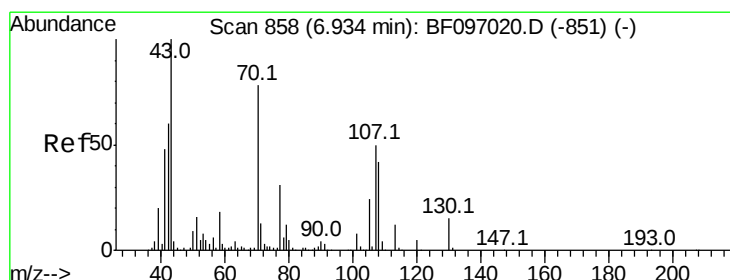
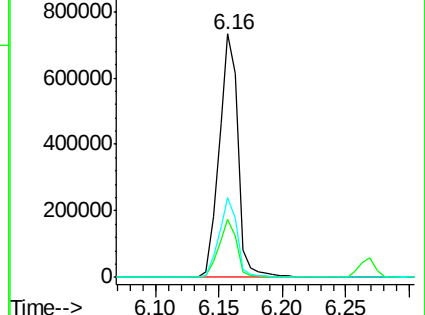
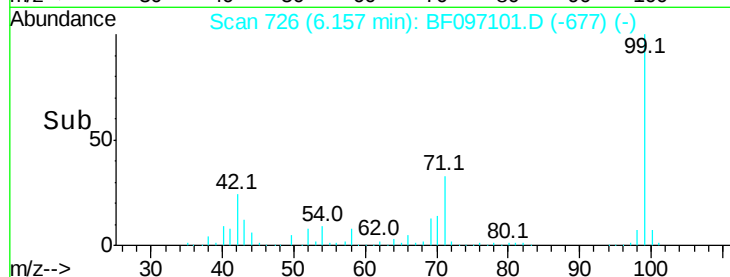
71 32.8 24.5 36.7



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



#19

n-Nitroso-di-n-propylamine

Concen: 12.191 ng

RT: 7.06 min Scan# 880

Delta R.T. 0.13 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

Tgt Ion: 70 Resp: 58530

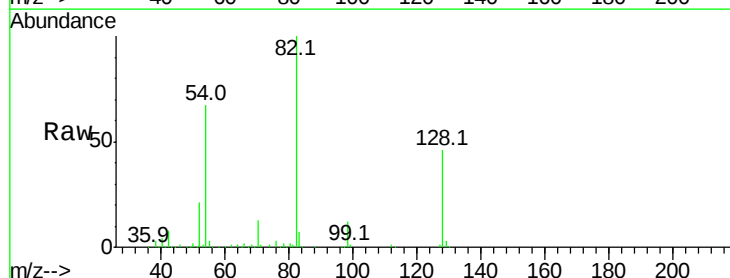
Ion Ratio Lower Upper

70 100

42 61.9 47.2 70.8

101 0.0 7.2 10.8#

130 2.8 15.9 23.9#

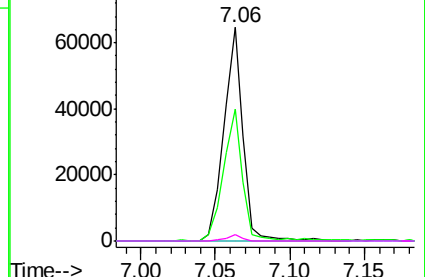
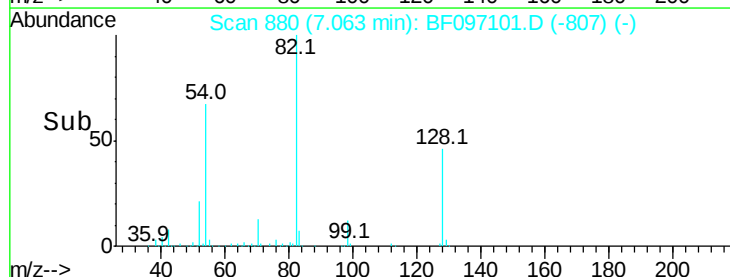


Abundance Ion 70.00 (69.70 to 70.70): BF0

Ion 42.00 (41.70 to 42.70): BF0

Ion 101.00 (100.70 to 101.70): BF0

Ion 130.00 (129.70 to 130.70): BF0





#21

Naphthalene-d8

Concen: 20.000 ng

RT: 7.78 min Scan# 1002

Delta R.T. -0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

Instrument :

BNA\_F

ClientSampleId :

Tot Ion:136 Resp: 369584

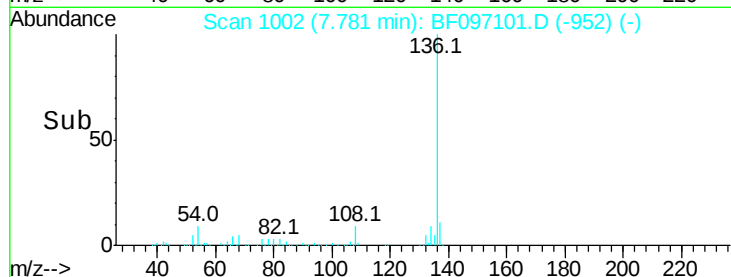
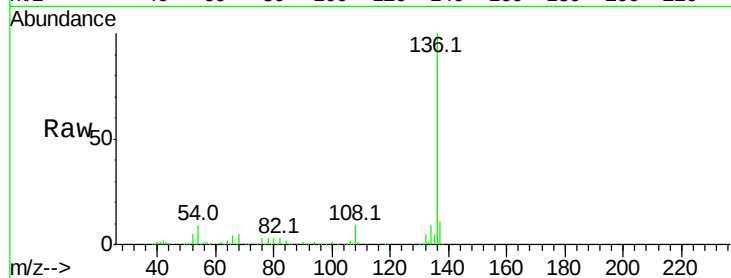
Ion Ratio Lower Upper

136 100

137 11.3 8.5 12.7

54 9.4 4.9 7.3#

68 5.0 4.1 6.1

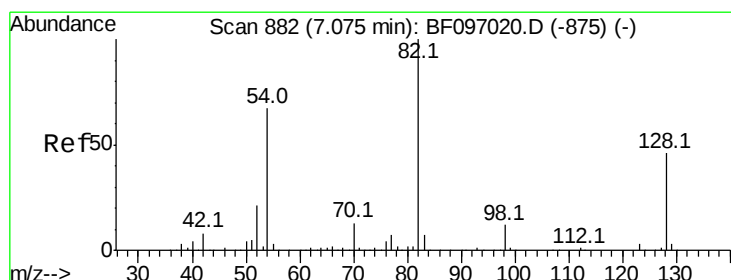
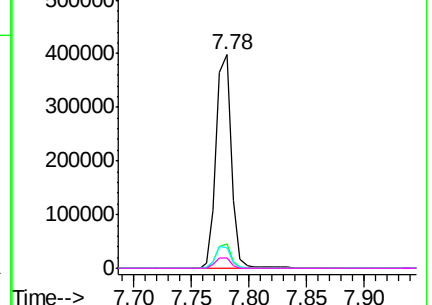


Abundance Ion 136.00 (135.70 to 136.70): E

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: 69.918 ng

RT: 7.06 min Scan# 880

Delta R.T. -0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

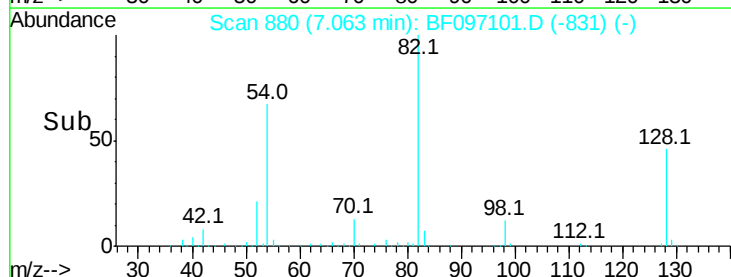
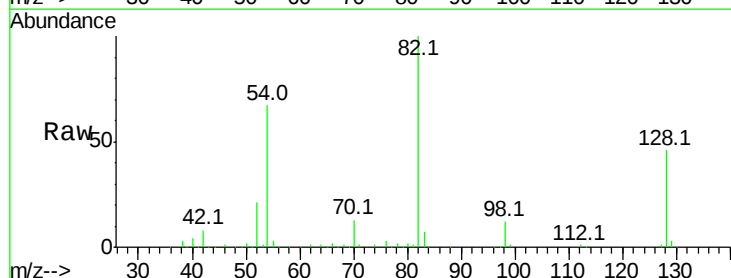
Tgt Ion: 82 Resp: 440486

Ion Ratio Lower Upper

82 100

128 45.6 34.0 51.0

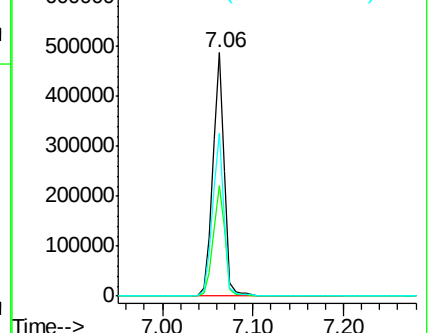
54 66.7 42.2 63.2#

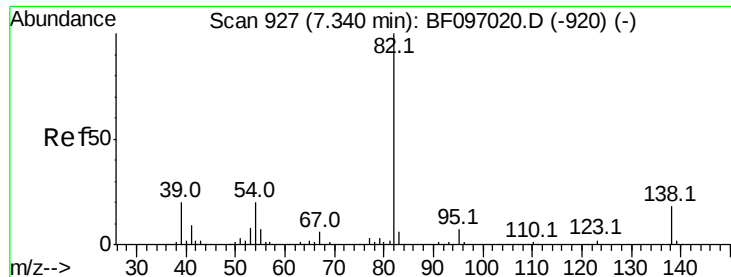


Abundance Ion 82.00 (81.70 to 82.70): BF0

Ion 128.00 (127.70 to 128.70): E

Ion 54.00 (53.70 to 54.70): BF0





#25

Isophorone

Concen: 34.980 ng

RT: 7.06 min Scan# 880

Delta R.T. -0.28 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

Instrument :

BNA\_F

ClientSampleId :

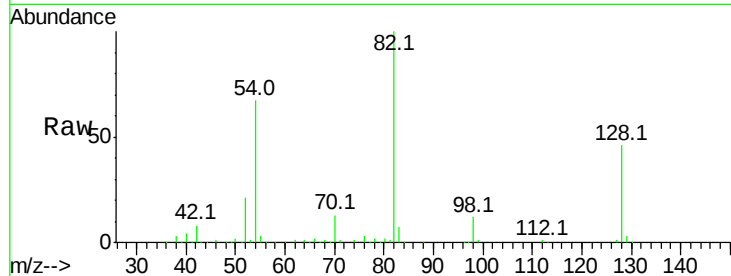
Tot Ion: 82 Resp: 431582

Ion Ratio Lower Upper

82 100

95 0.0 5.3 7.9#

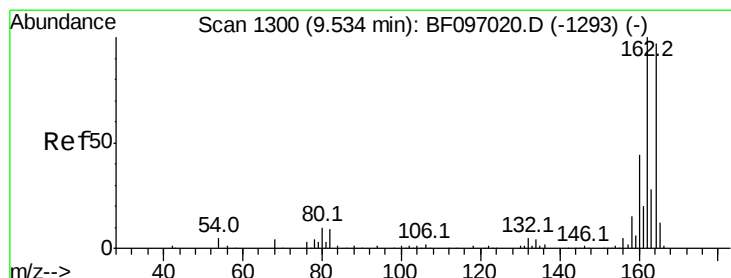
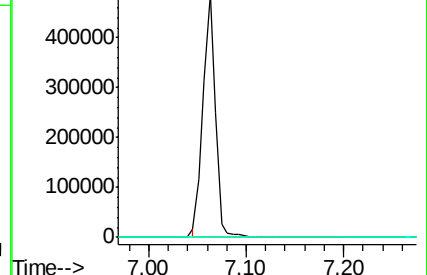
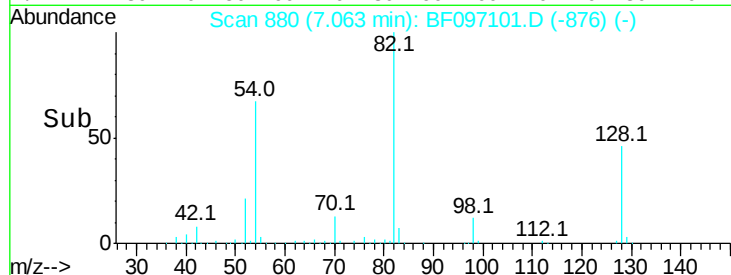
138 0.0 13.1 19.7#



Abundance Ion 82.00 (81.70 to 82.70): BF0

Ion 95.00 (94.70 to 95.70): BF0

Ion 138.00 (137.70 to 138.70): BF0



#38

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.52 min Scan# 1298

Delta R.T. -0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

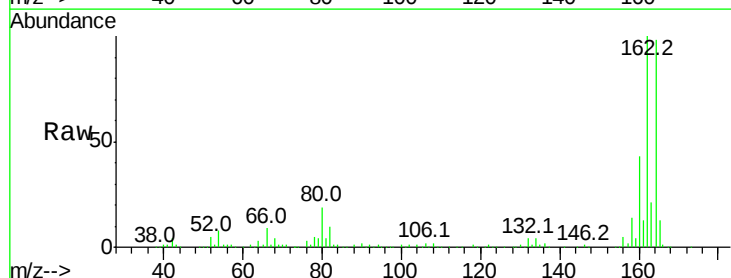
Tgt Ion:164 Resp: 141611

Ion Ratio Lower Upper

164 100

162 102.2 82.6 123.8

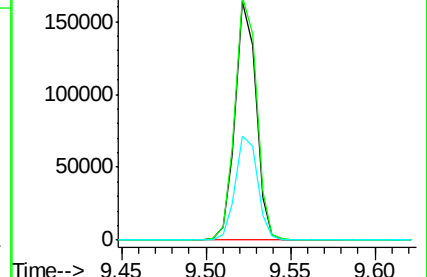
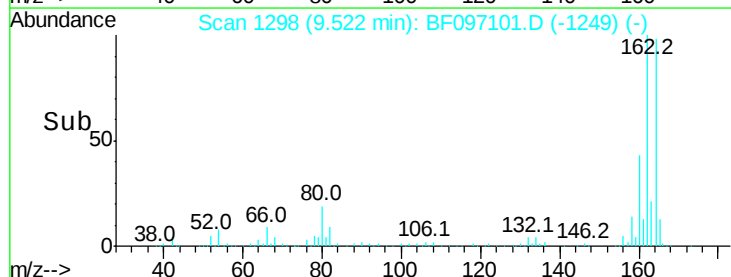
160 43.9 36.2 54.2

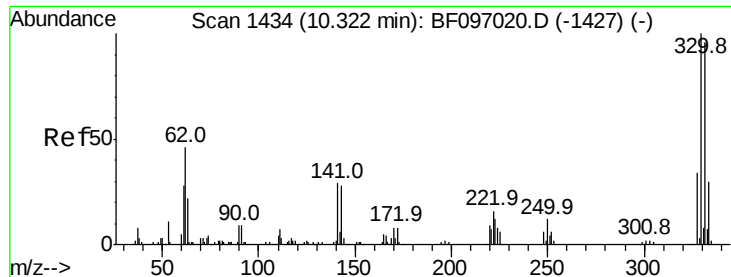


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E



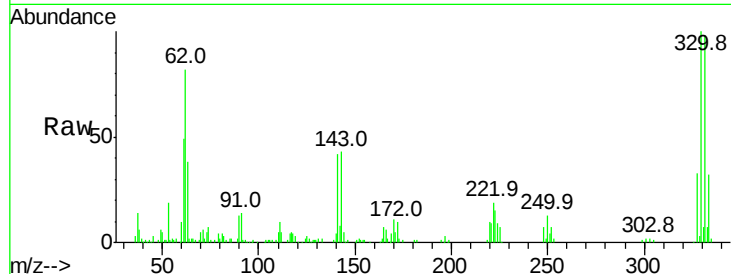


#41  
 2,4,6-Tribromophenol  
 Concen: 99.577 ng  
 RT: 10.31 min Scan# 1432  
 Delta R.T. -0.01 min  
 Lab File: BF097101.D  
 Acq: 27 Jul 2017 3:15

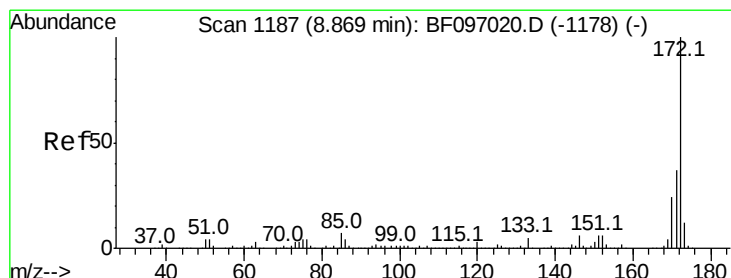
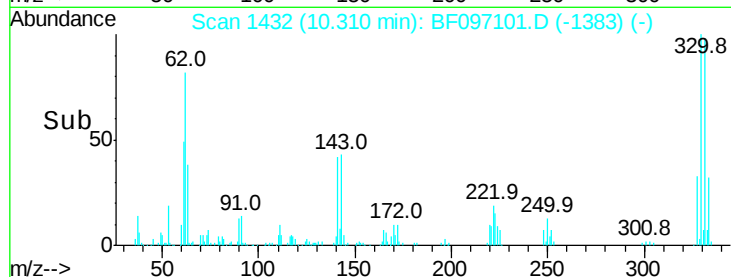
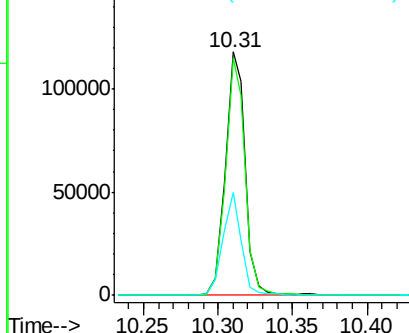
Instrument :  
 BNA\_F  
 ClientSampleId :

Tot Ion:330 Resp: 111413  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 330 | 100   |       |       |
| 332 | 95.9  | 76.6  | 115.0 |
| 141 | 39.3  | 31.4  | 47.2  |



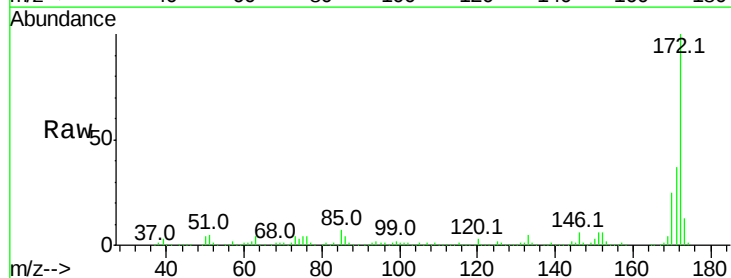
Abundance Ion 329.80 (329.50 to 330.50): E  
 Ion 331.80 (331.50 to 332.50): E  
 Ion 141.00 (140.70 to 141.70): E



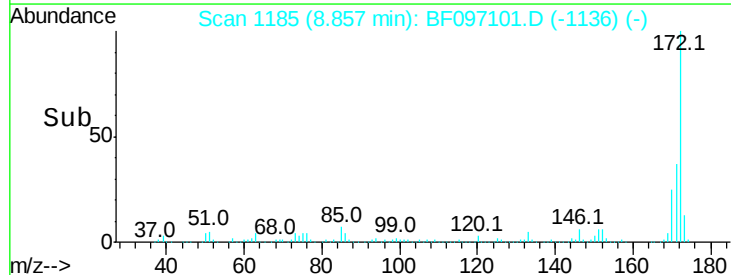
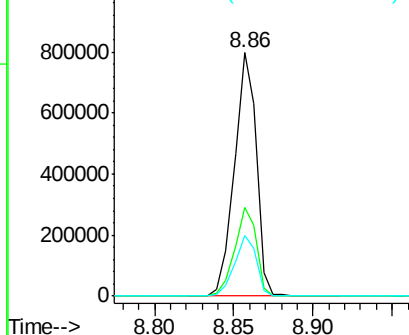
#44  
 2-Fluorobiphenyl  
 Concen: 91.775 ng  
 RT: 8.86 min Scan# 1185  
 Delta R.T. -0.01 min  
 Lab File: BF097101.D  
 Acq: 27 Jul 2017 3:15

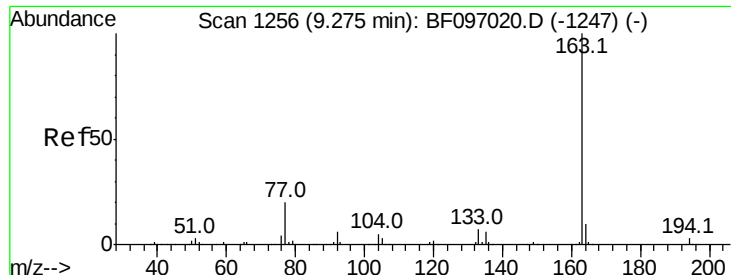
Tgt Ion:172 Resp: 765795  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 172 | 100   |       |       |
| 171 | 36.6  | 29.6  | 44.4  |
| 170 | 25.0  | 19.8  | 29.8  |



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

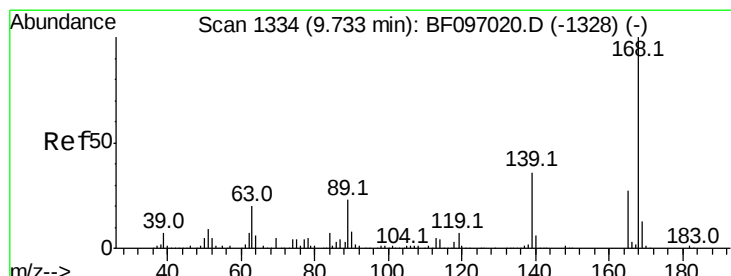
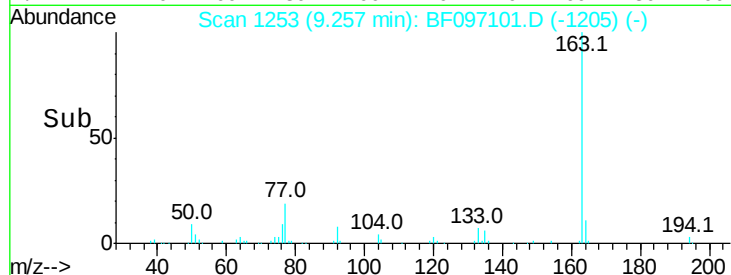
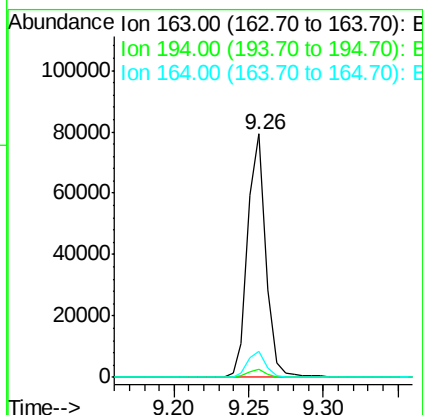
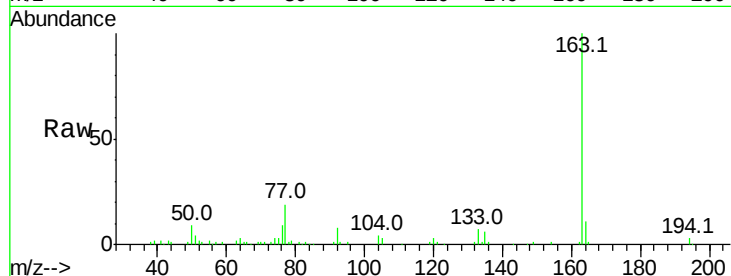




#49  
Dimethylphthalate  
Concen: 6.188 ng  
RT: 9.26 min Scan# 1253  
Delta R.T. -0.02 min  
Lab File: BF097101.D  
Acq: 27 Jul 2017 3:15

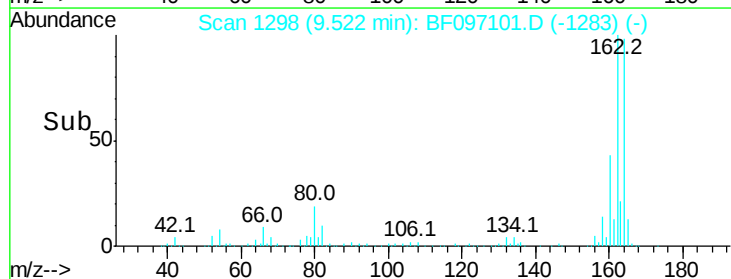
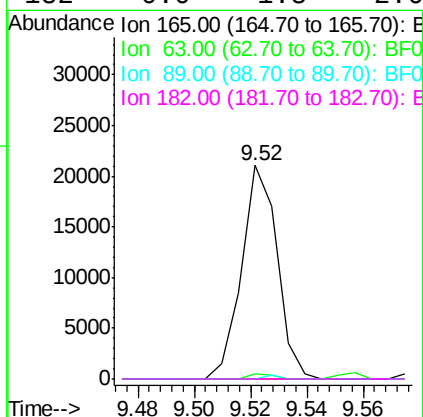
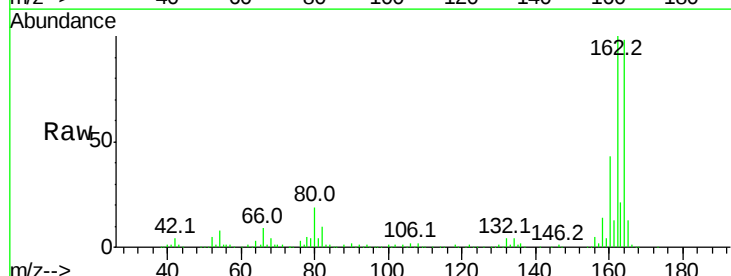
Instrument :  
BNA\_F  
ClientSampled :

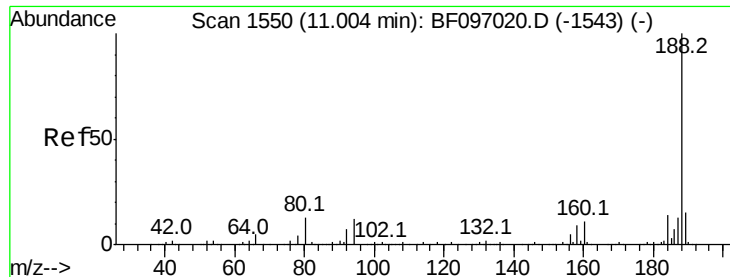
Tot Ion:163 Resp: 66545  
Ion Ratio Lower Upper  
163 100  
194 3.3 2.6 4.0  
164 10.8 8.4 12.6



#56  
2,4-Dinitrotoluene  
Concen: 7.022 ng  
RT: 9.52 min Scan# 1298  
Delta R.T. -0.21 min  
Lab File: BF097101.D  
Acq: 27 Jul 2017 3:15

Tgt Ion:165 Resp: 18412  
Ion Ratio Lower Upper  
165 100  
63 2.5 25.4 38.0#  
89 0.0 46.4 69.6#  
182 0.0 1.8 2.6#

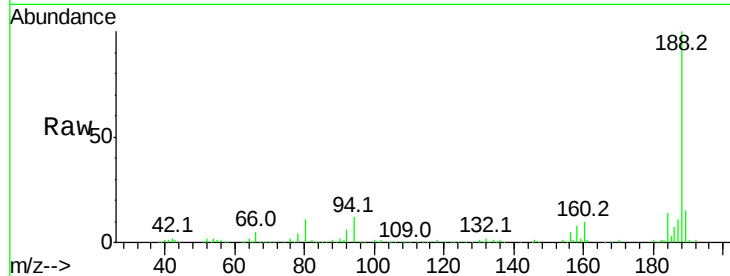




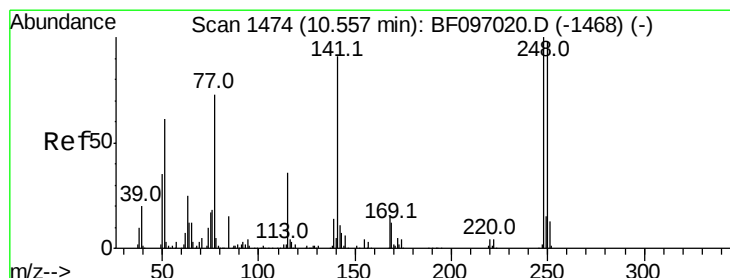
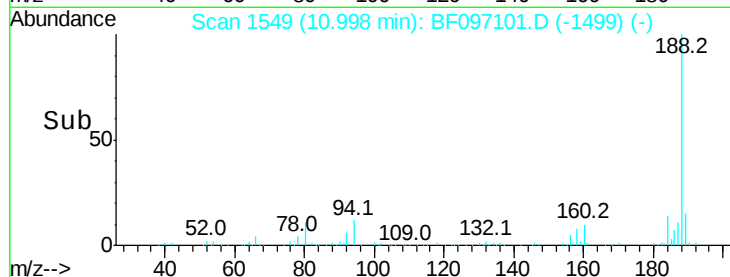
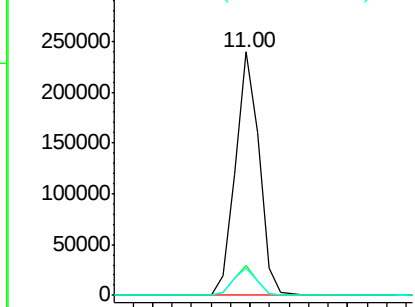
#63  
 Phenanthrene-d10  
 Concen: 20.000 ng  
 RT: 11.00 min Scan# 1549  
 Delta R.T. -0.01 min  
 Lab File: BF097101.D  
 Acq: 27 Jul 2017 3:15

Instrument :  
 BNA\_F  
 ClientSampleId :

Tot Ion:188 Resp: 201572  
 Ion Ratio Lower Upper  
 188 100  
 94 12.2 9.4 14.2  
 80 11.3 10.2 15.2

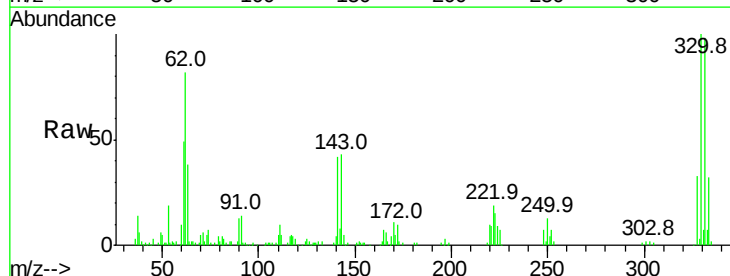


Abundance Ion 188.00 (187.70 to 188.70): E  
 Ion 94.00 (93.70 to 94.70): BF0  
 Ion 80.00 (79.70 to 80.70): BF0

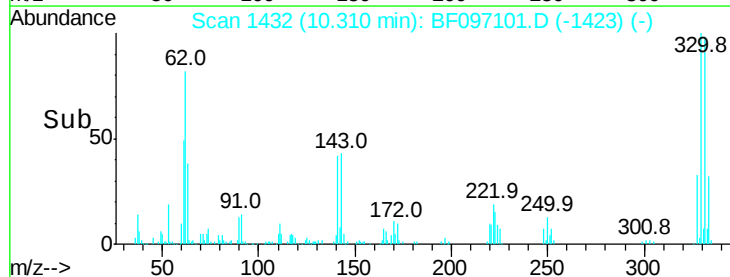
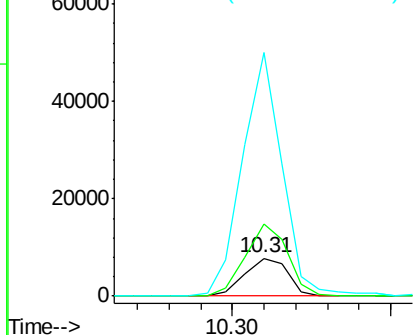


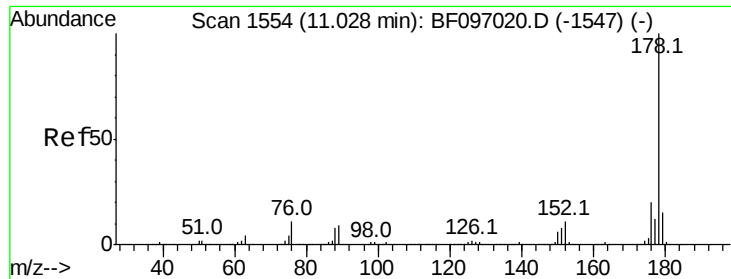
#66  
 4-Bromophenyl-phenylether  
 Concen: 3.619 ng  
 RT: 10.31 min Scan# 1432  
 Delta R.T. -0.25 min  
 Lab File: BF097101.D  
 Acq: 27 Jul 2017 3:15

Tgt Ion:248 Resp: 7280  
 Ion Ratio Lower Upper  
 248 100  
 250 190.2 76.8 115.2#  
 141 639.2 68.6 103.0#



Abundance Ion 248.00 (247.70 to 248.70): E  
 Ion 250.00 (249.70 to 250.70): E  
 Ion 141.00 (140.70 to 141.70): E





#70

Phenanthrene

Concen: 2.785 ng

RT: 11.02 min Scan# 1553

Delta R.T. -0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

Instrument :

BNA\_F

ClientSampleId :

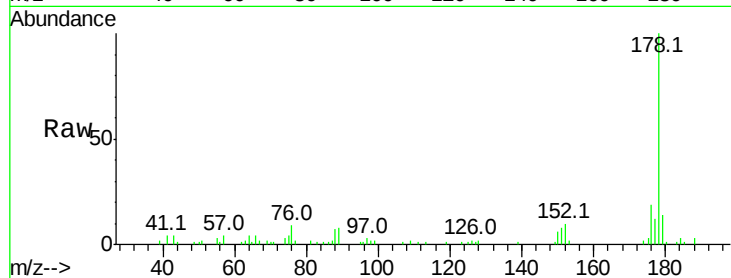
Tot Ion:178 Resp: 30083

Ion Ratio Lower Upper

178 100

176 18.5 16.2 24.4

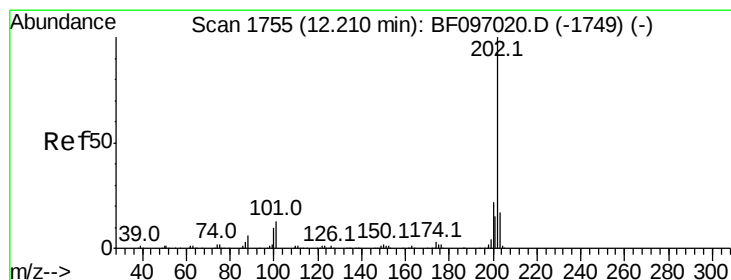
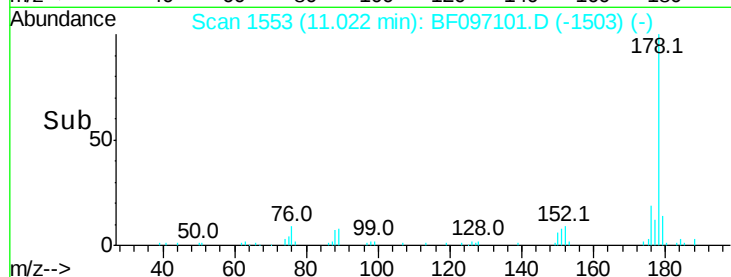
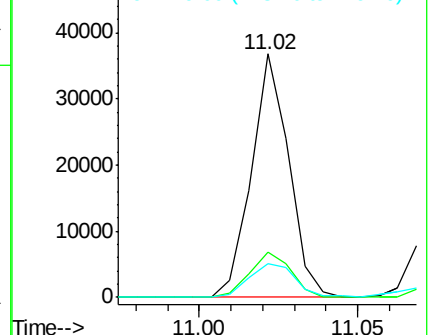
179 14.1 12.6 19.0



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



#74

Fluoranthene

Concen: 7.446 ng

RT: 12.20 min Scan# 1754

Delta R.T. -0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

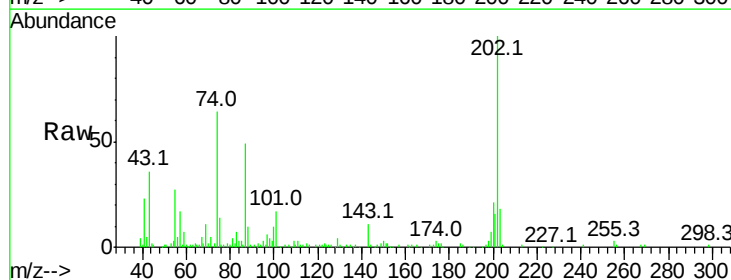
Tgt Ion:202 Resp: 78779

Ion Ratio Lower Upper

202 100

101 16.9 0.0 33.2

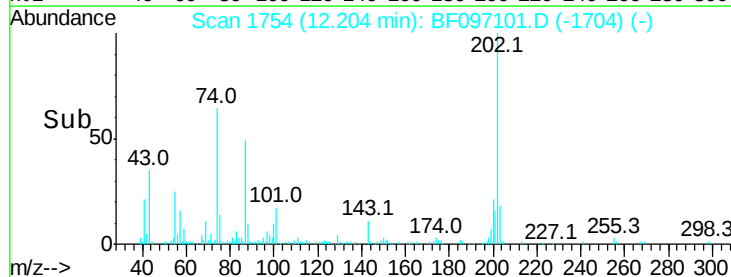
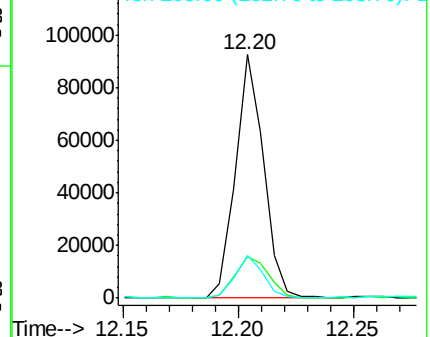
203 17.5 0.0 38.1

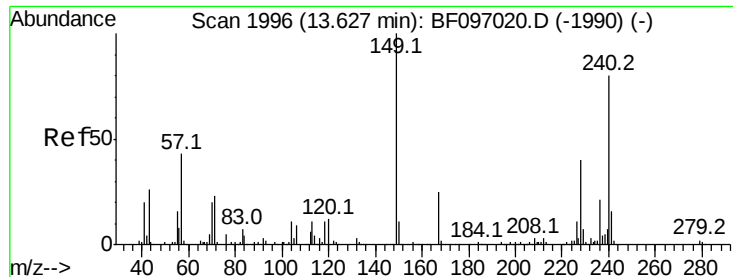


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 203.00 (202.70 to 203.70): E

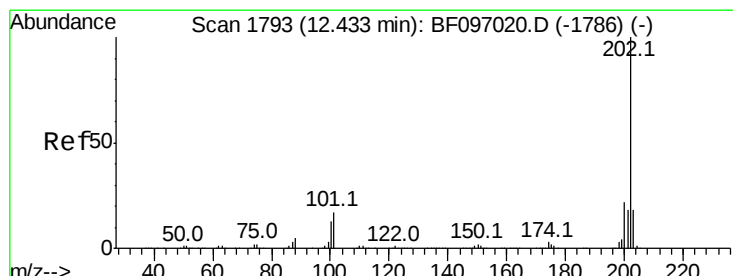
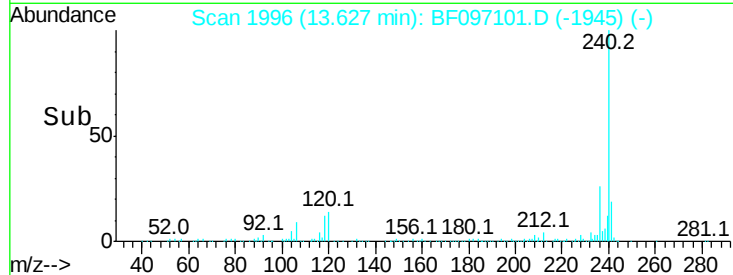
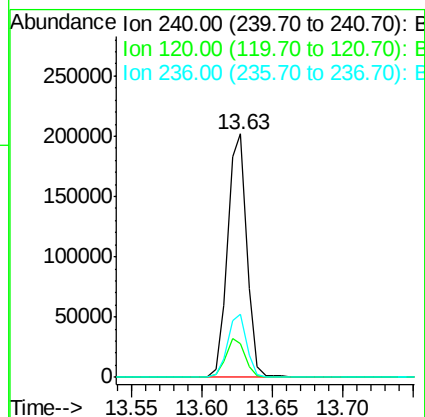
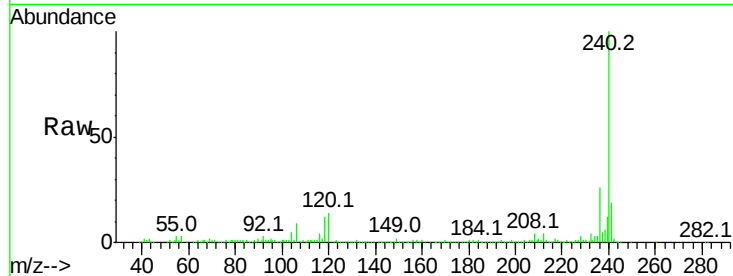




#75  
 Chrysene-d12  
 Concen: 20.000 ng  
 RT: 13.63 min Scan# 1996  
 Delta R.T. -0.00 min  
 Lab File: BF097101.D  
 Acq: 27 Jul 2017 3:15

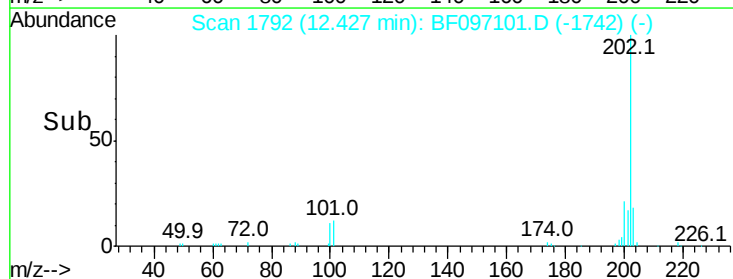
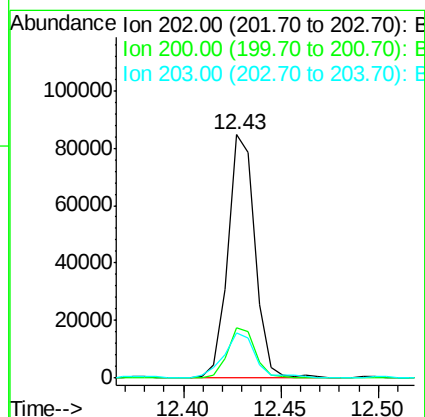
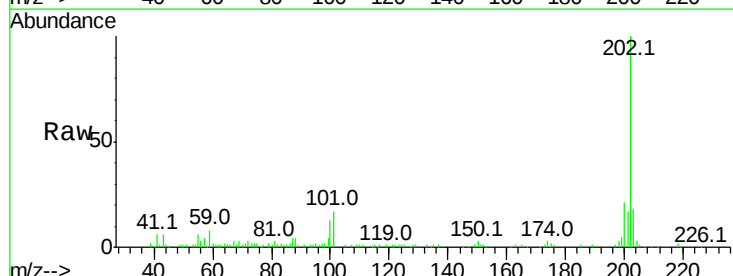
Instrument :  
 BNA\_F  
 ClientSampleId :

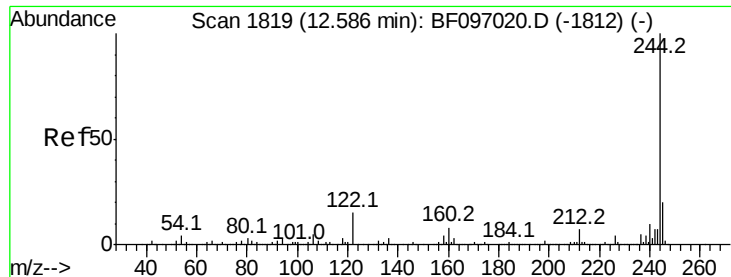
Tot Ion:240 Resp: 191203  
 Ion Ratio Lower Upper  
 240 100  
 120 13.7 5.8 8.8#  
 236 25.8 20.5 30.7



#77  
 Pyrene  
 Concen: 5.224 ng  
 RT: 12.43 min Scan# 1792  
 Delta R.T. -0.01 min  
 Lab File: BF097101.D  
 Acq: 27 Jul 2017 3:15

Tgt Ion:202 Resp: 81771  
 Ion Ratio Lower Upper  
 202 100  
 200 20.7 17.6 26.4  
 203 18.5 14.4 21.6





#78

Terphenyl-d14

Concen: 50.406 ng

RT: 12.59 min Scan# 1819

Delta R.T. -0.00 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

Instrument :

BNA\_F

ClientSampleId :

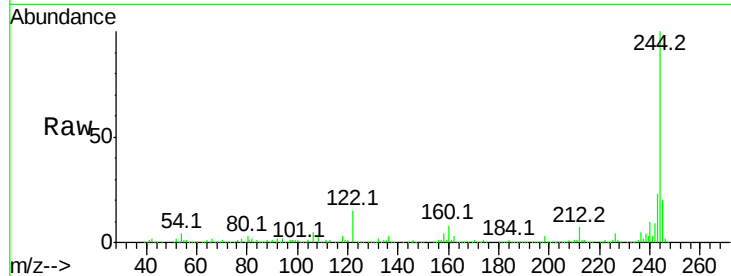
Tot Ion:244 Resp: 472707

Ion Ratio Lower Upper

244 100

212 6.8 6.0 9.0

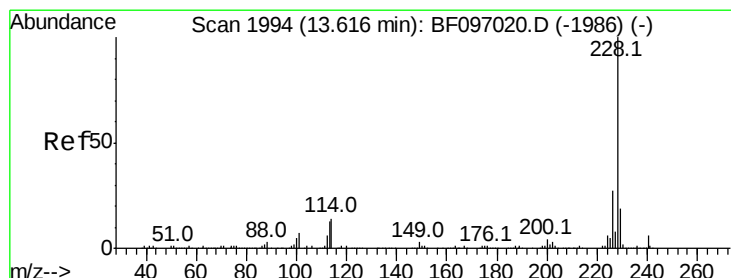
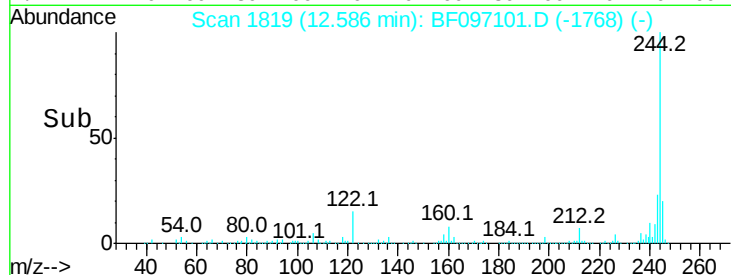
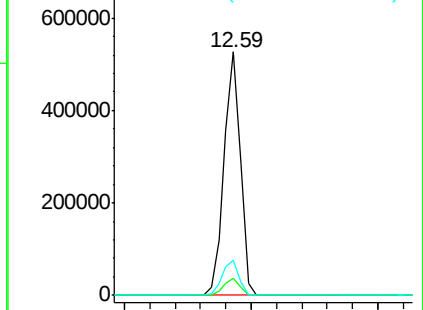
122 14.6 10.3 15.5



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: 2.486 ng

RT: 13.62 min Scan# 1994

Delta R.T. -0.00 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

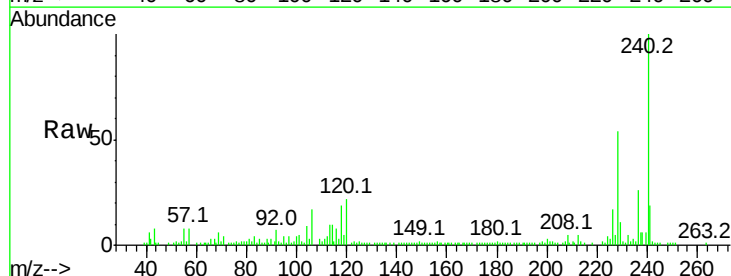
Tgt Ion:228 Resp: 30754

Ion Ratio Lower Upper

228 100

226 31.0 22.6 33.8

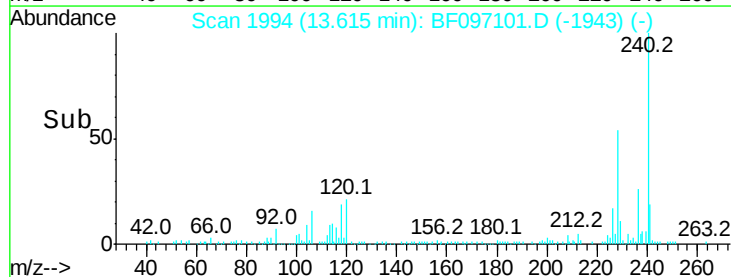
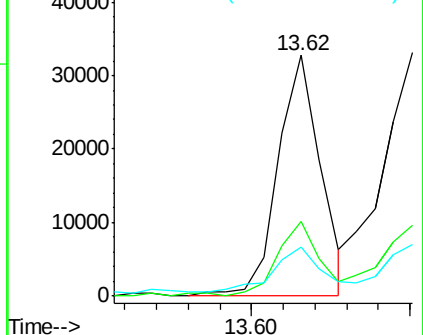
229 20.5 16.3 24.5

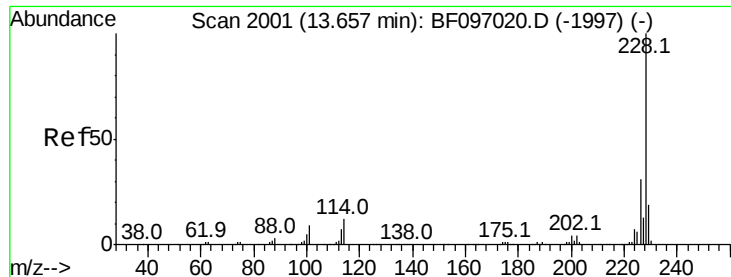


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#82

Chrysene

Concen: 2.764 ng

RT: 13.65 min Scan# 2000

Delta R.T. -0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

Instrument :

BNA\_F

ClientSampleId :

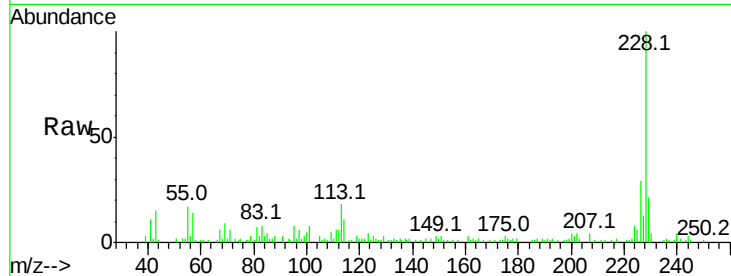
Tot Ion:228 Resp: 33393

Ion Ratio Lower Upper

228 100

226 29.2 24.9 37.3

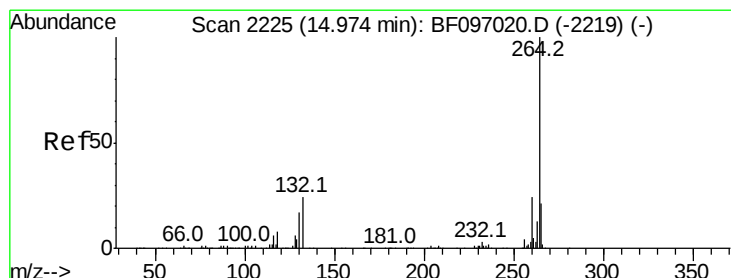
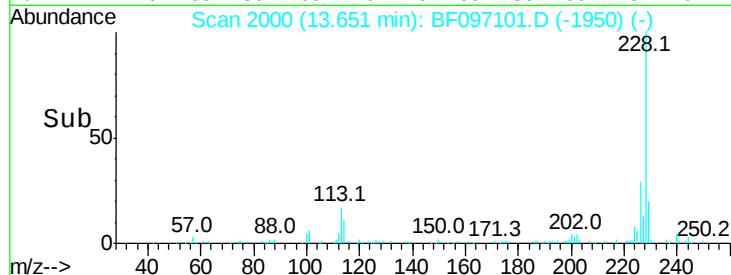
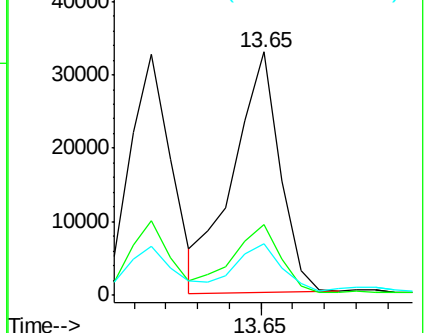
229 21.0 15.8 23.6



Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E



#86

Perylene-d12

Concen: 20.000 ng

RT: 14.98 min Scan# 2226

Delta R.T. 0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

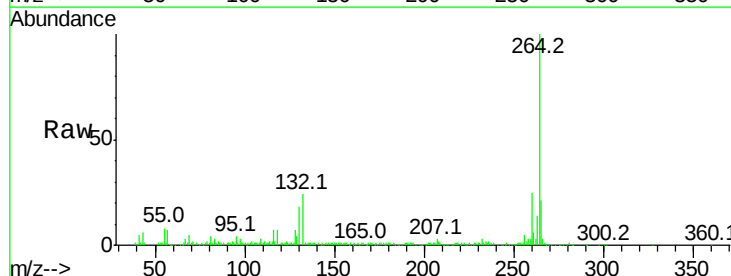
Tgt Ion:264 Resp: 136251

Ion Ratio Lower Upper

264 100

260 24.6 19.5 29.3

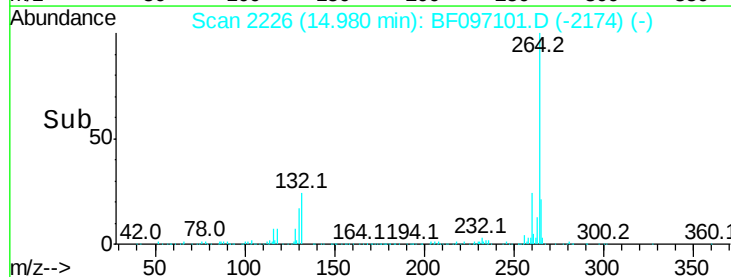
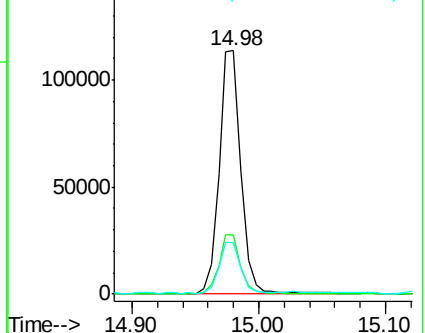
265 21.1 17.2 25.8

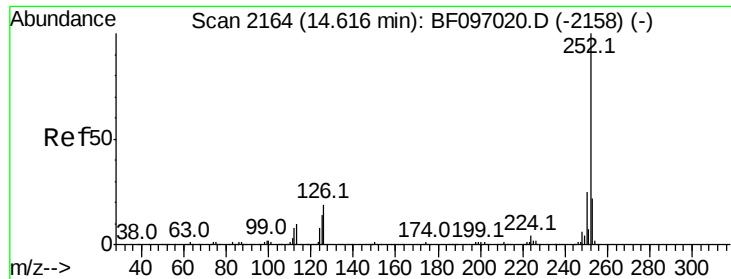


Abundance Ion 264.00 (263.70 to 264.70): E

Ion 260.00 (259.70 to 260.70): E

Ion 265.00 (264.70 to 265.70): E





#87

Benzo(b)fluoranthene

Concen: 5.863 ng

RT: 14.62 min Scan# 2164

Delta R.T. -0.00 min

Lab File: BF097101.D

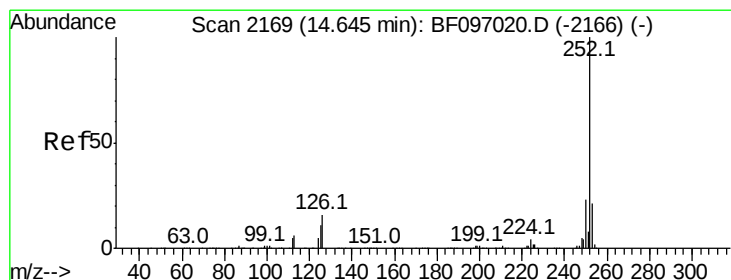
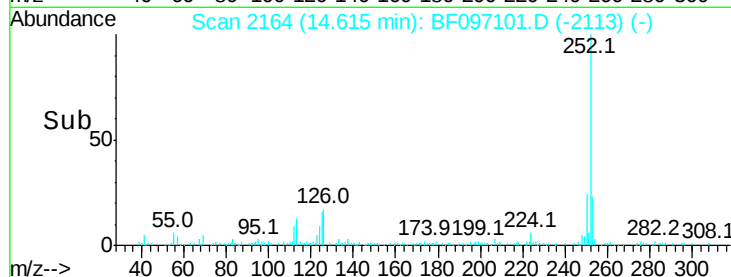
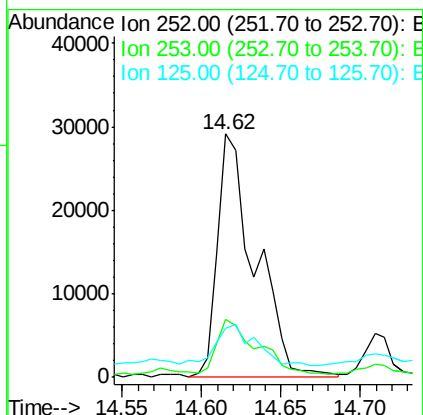
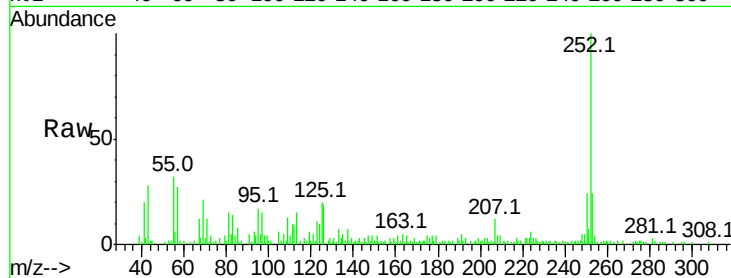
Acq: 27 Jul 2017 3:15

Instrument :

BNA\_F

ClientSampleId :

|             |       |           |
|-------------|-------|-----------|
| Tot Ion:252 | Resp: | 48018     |
| Ion Ratio   | Lower | Upper     |
| 252         | 100   |           |
| 253         | 24.0  | 18.1 27.1 |
| 125         | 20.3  | 9.8 14.8# |



#88

Benzo(k)fluoranthene

Concen: 6.152 ng

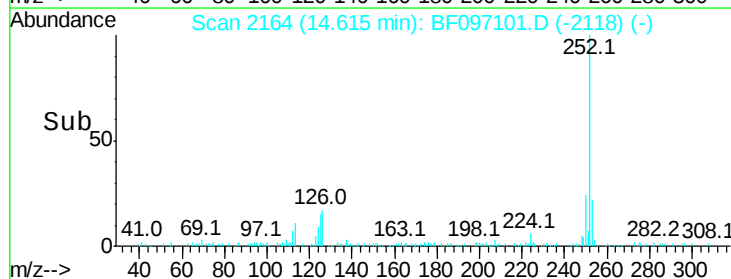
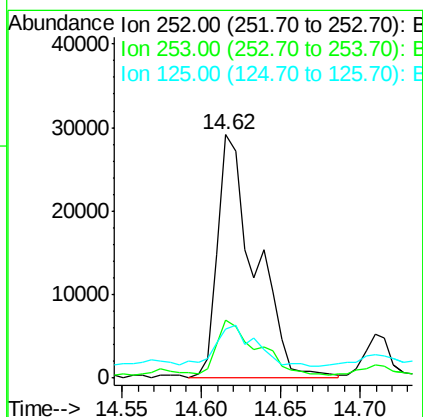
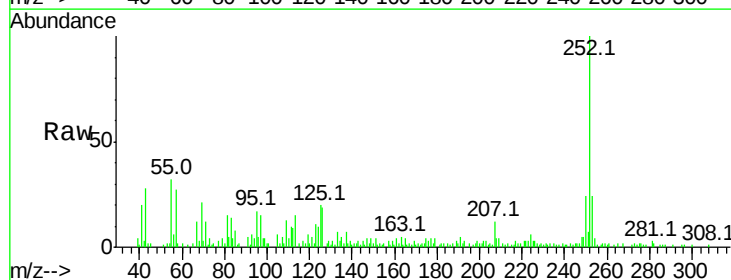
RT: 14.62 min Scan# 2164

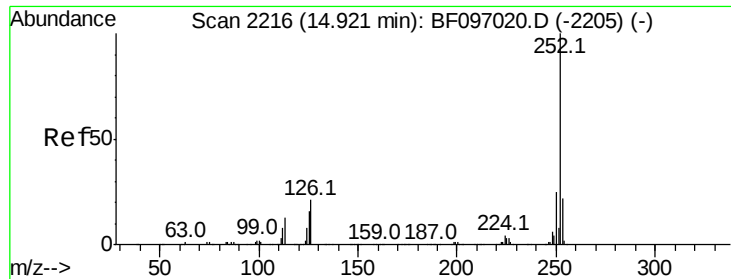
Delta R.T. -0.03 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:252 | Resp: | 48018      |
| Ion Ratio   | Lower | Upper      |
| 252         | 100   |            |
| 253         | 24.0  | 18.4 27.6  |
| 125         | 20.3  | 13.1 19.7# |





#89

Benzo(a)pyrene

Concen: 3.203 ng

RT: 14.93 min Scan# 2217

Delta R.T. 0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

Instrument :

BNA\_F

ClientSampleId :

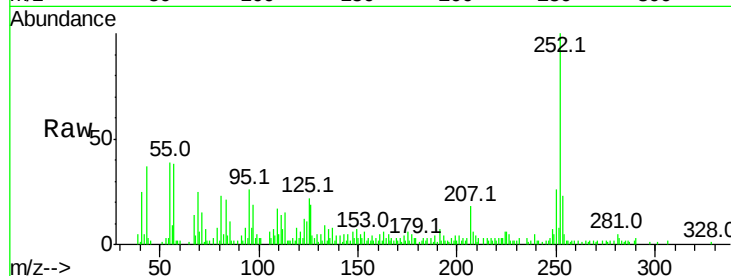
Tot Ion:252 Resp: 24013

Ion Ratio Lower Upper

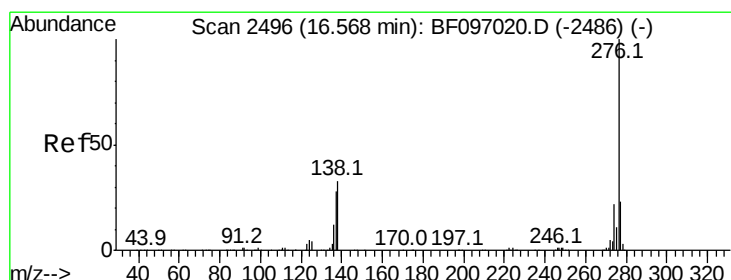
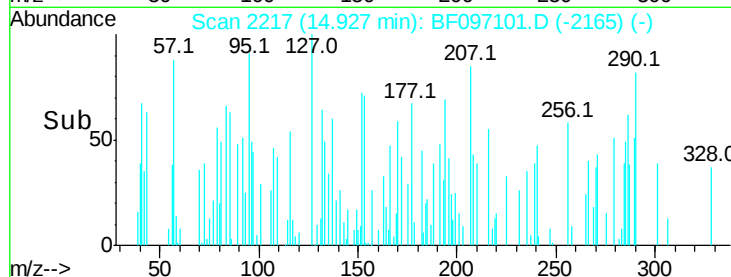
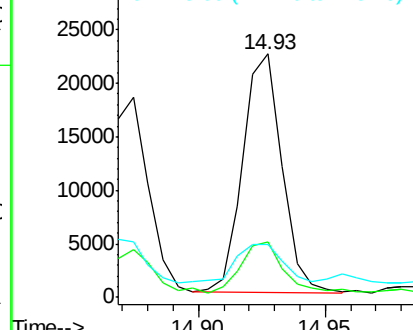
252 100

253 22.7 17.5 26.3

125 21.9 11.0 16.4#



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: 2.341 ng

RT: 16.57 min Scan# 2497

Delta R.T. 0.01 min

Lab File: BF097101.D

Acq: 27 Jul 2017 3:15

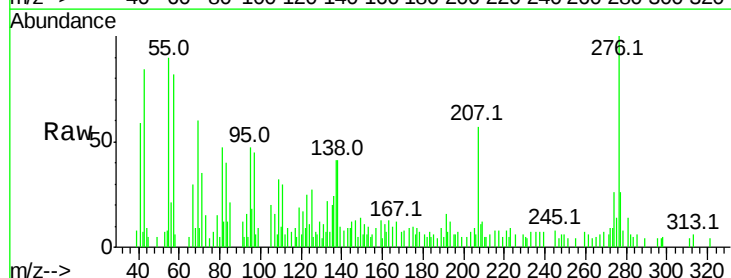
Tgt Ion:276 Resp: 15090

Ion Ratio Lower Upper

276 100

277 26.3 18.6 28.0

138 41.4 25.4 38.0#



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

