

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF100416\  
 Data File : BF090355.D  
 Acq On : 4 Oct 2016 21:23  
 Operator : UM/SJ  
 Sample : H4982-04RE  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 S-10

Quant Time: Oct 05 01:15:14 2016  
 Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF100416.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Oct 04 14:16:07 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.01  | 152  | 249788   | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 8.29  | 136  | 833273   | 20.00 | ng    | 0.00     |
| 38) Acenaphthene-d10      | 10.05 | 164  | 379790   | 20.00 | ng    | 0.00     |
| 63) Phenanthrene-d10      | 11.55 | 188  | 650428   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12          | 14.20 | 240  | 720528   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12          | 15.71 | 264  | 618578   | 20.00 | ng    | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|-------|------|----------|--------|-------|----------|
| 5) 2-Fluorophenol           | 5.62  | 112  | 2085137  | 131.66 | ng    | 0.00     |
| 7) Phenol-d6                | 6.63  | 99   | 2969565  | 150.01 | ng    | 0.00     |
| 23) Nitrobenzene-d5         | 7.57  | 82   | 1818858  | 127.24 | ng    | 0.00     |
| 41) 2,4,6-Tribromophenol    | 10.84 | 330  | 448302   | 135.91 | ng    | 0.00     |
| 44) 2-Fluorobiphenyl        | 9.38  | 172  | 2484553  | 106.66 | ng    | 0.00     |
| 78) Terphenyl-d14           | 13.14 | 244  | 2249084  | 72.67  | ng    | 0.00     |

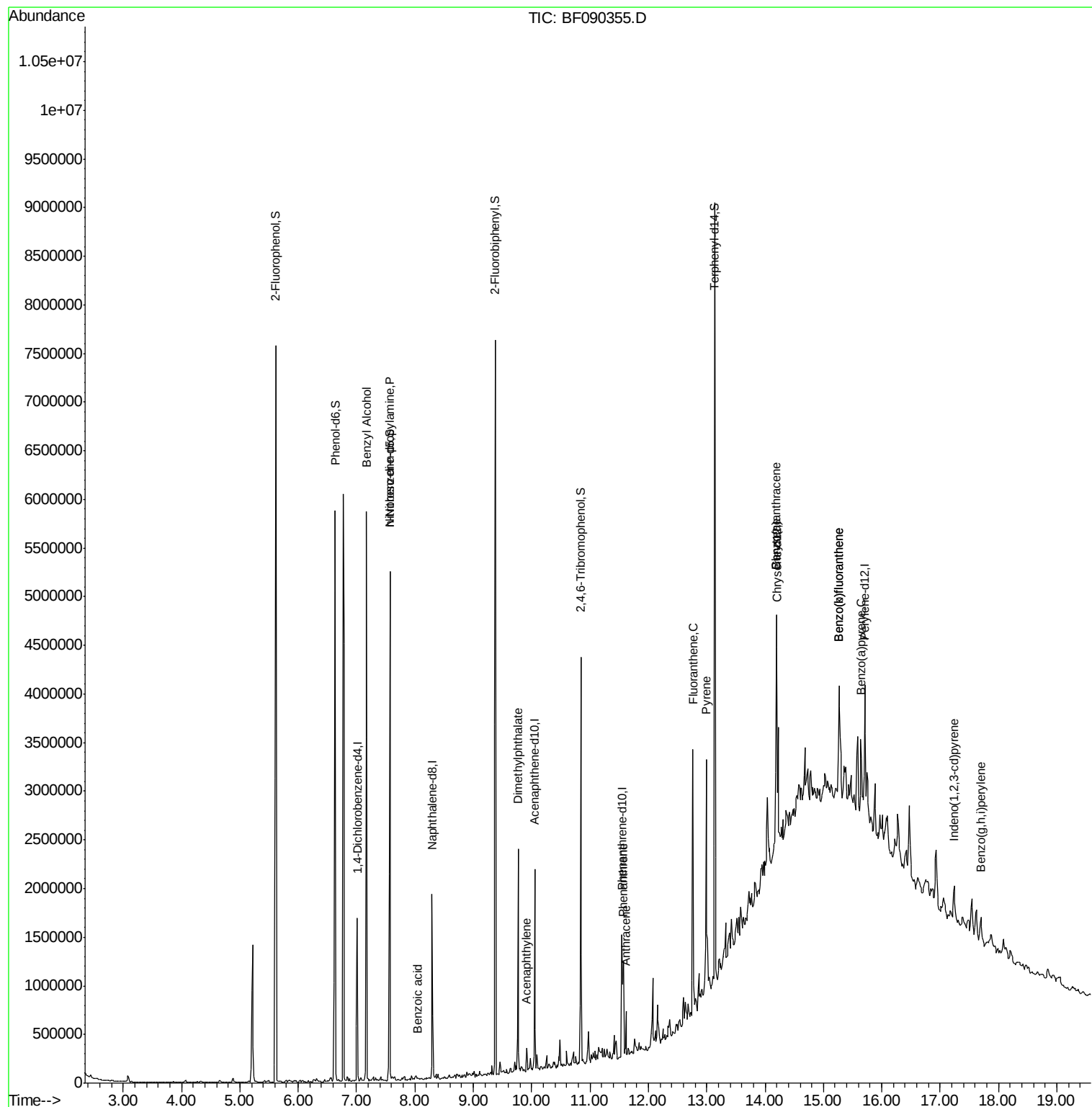
| Target Compounds               | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|--------------------------------|-------|------|----------|-------|-------|--------|
| 15) Benzyl Alcohol             | 7.17  | 79   | 34030    | 2.44  | ng    | # 43   |
| 19) n-Nitroso-di-n-propylamine | 7.57  | 70   | 264838   | 20.95 | ng    | # 65   |
| 32) Benzoic acid               | 8.05  | 122  | 852      | 5.35  | ng    | # 50   |
| 48) Acenaphthylene             | 9.91  | 152  | 86995    | 2.61  | ng    | 97     |
| 49) Dimethylphthalate          | 9.77  | 163  | 744683   | 33.12 | ng    | 98     |
| 70) Phenanthrene               | 11.57 | 178  | 480824   | 13.78 | ng    | 96     |
| 71) Anthracene                 | 11.62 | 178  | 160813   | 4.62  | ng    | 96     |
| 74) Fluoranthene               | 12.76 | 202  | 911598   | 27.54 | ng    | 99     |
| 77) Pyrene                     | 12.99 | 202  | 894880   | 19.40 | ng    | 98     |
| 80) Benzo(a)anthracene         | 14.19 | 228  | 514606   | 12.74 | ng    | 95     |
| 82) Chrysene                   | 14.19 | 228  | 514606   | 13.59 | ng    | 98     |
| 85) Indeno(1,2,3-cd)pyrene     | 17.24 | 276  | 210394   | 5.17  | ng    | 94     |
| 87) Benzo(b)fluoranthene       | 15.26 | 252  | 813388   | 22.87 | ng    | # 83   |
| 88) Benzo(k)fluoranthene       | 15.26 | 252  | 813388   | 23.94 | ng    | # 88   |
| 89) Benzo(a)pyrene             | 15.64 | 252  | 418259   | 12.89 | ng    | # 84   |
| 91) Benzo(g,h,i)perylene       | 17.70 | 276  | 214075   | 6.87  | ng    | # 91   |

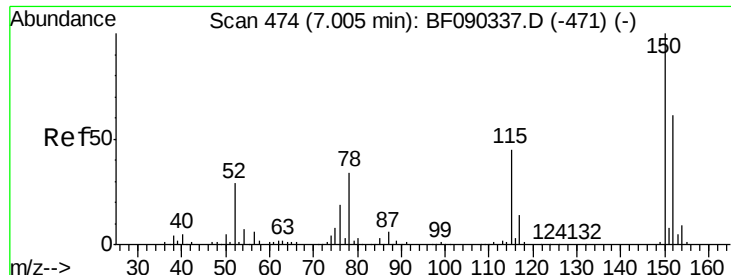
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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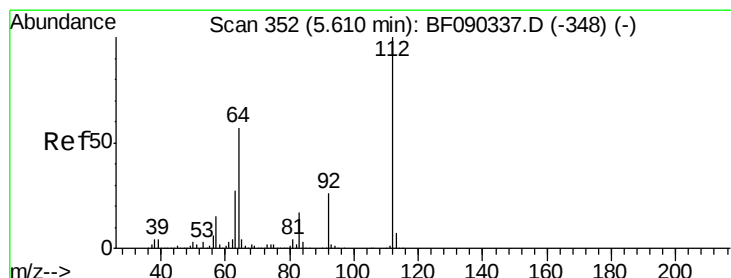
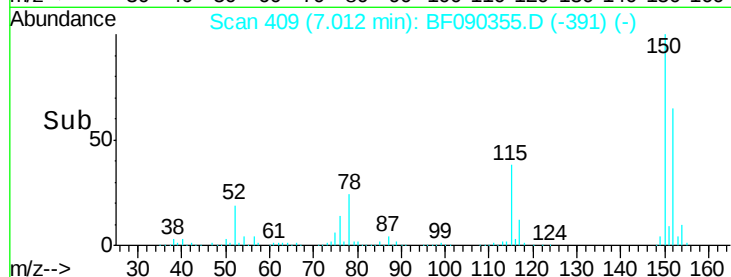
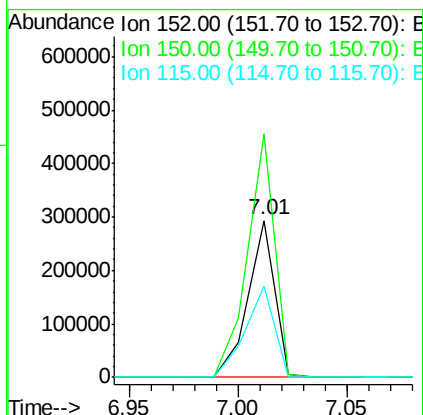
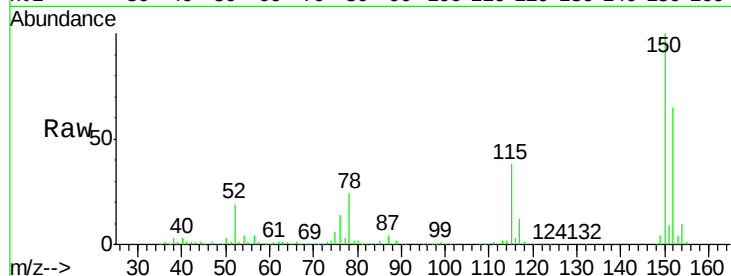




#1  
 1,4-Dichlorobenzene-d4  
 Concen: 20.00 ng  
 RT: 7.01 min Scan# 409  
 Delta R.T. 0.01 min  
 Lab File: BF090355.D  
 Acq: 4 Oct 2016 21:23

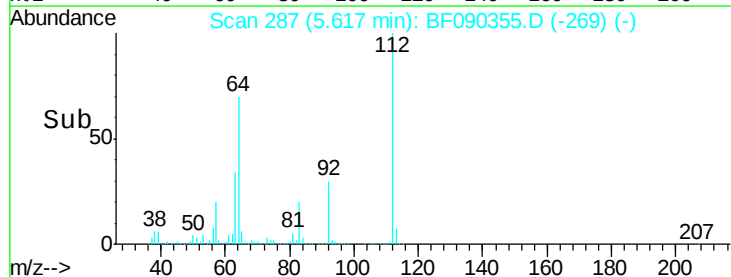
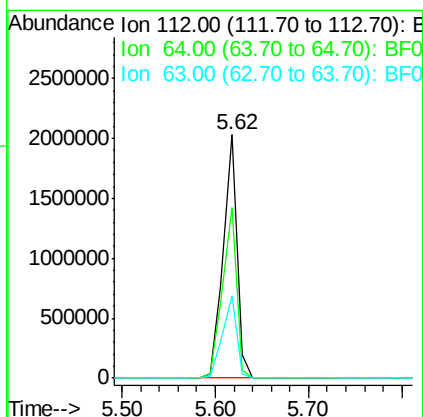
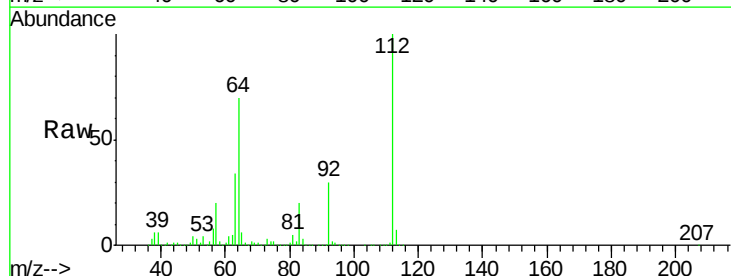
Instrument :  
 BNA\_F  
 ClientSampleId :  
 S-10

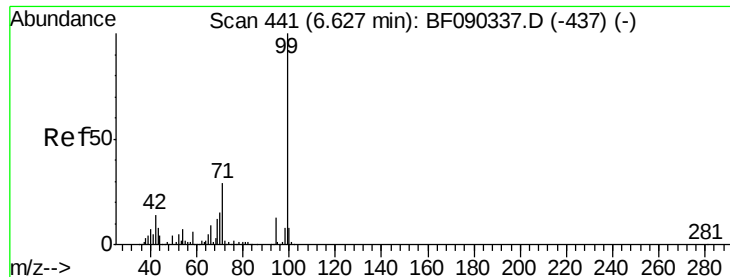
Tgt Ion:152 Resp: 249788  
 Ion Ratio Lower Upper  
 152 100  
 150 154.9 124.6 186.8  
 115 58.4 46.2 69.4



#5  
 2-Fluorophenol  
 Concen: 131.66 ng  
 RT: 5.62 min Scan# 287  
 Delta R.T. 0.01 min  
 Lab File: BF090355.D  
 Acq: 4 Oct 2016 21:23

Tgt Ion:112 Resp: 2085137  
 Ion Ratio Lower Upper  
 112 100  
 64 70.3 57.9 86.9  
 63 34.0 29.6 44.4





#7

Phenol-d6

Concen: 150.01 ng

RT: 6.63 min Scan# 376

Delta R.T. 0.01 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

Instrument :

BNA\_F

ClientSampleId :

S-10

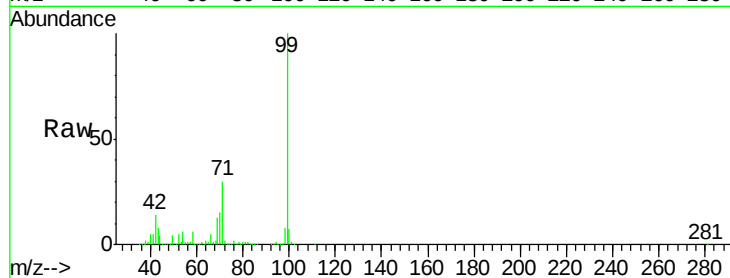
Tgt Ion: 99 Resp: 2969565

Ion Ratio Lower Upper

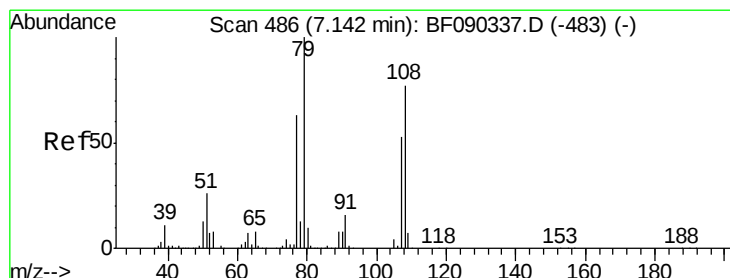
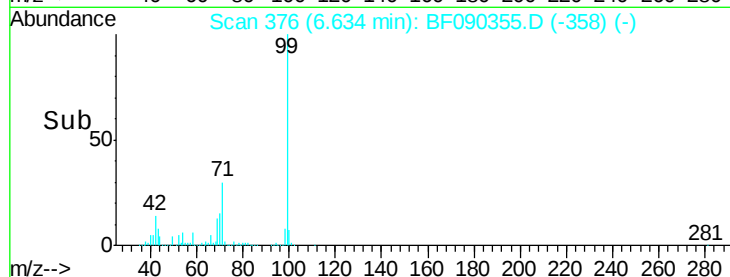
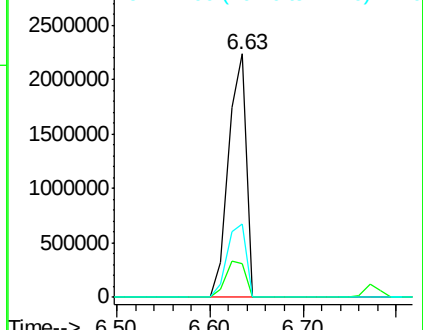
99 100

42 14.0 20.0 30.0#

71 30.0 27.9 41.9



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



#15

Benzyl Alcohol

Concen: 2.44 ng

RT: 7.17 min Scan# 423

Delta R.T. 0.03 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

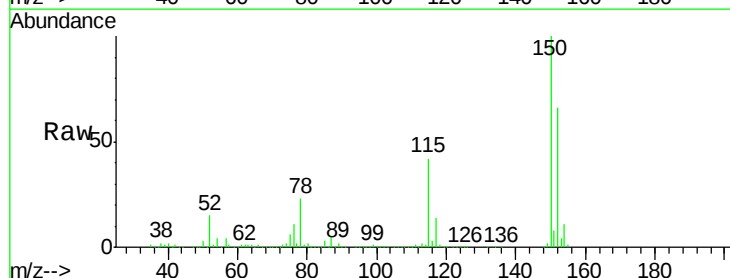
Tgt Ion: 79 Resp: 34030

Ion Ratio Lower Upper

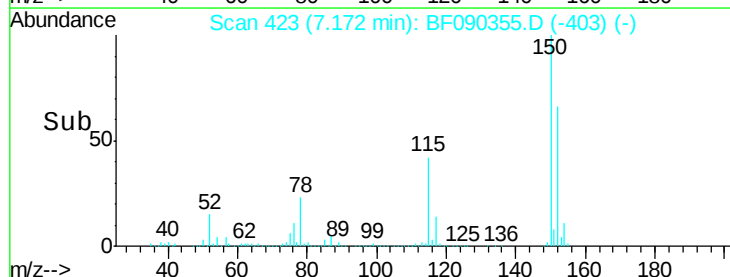
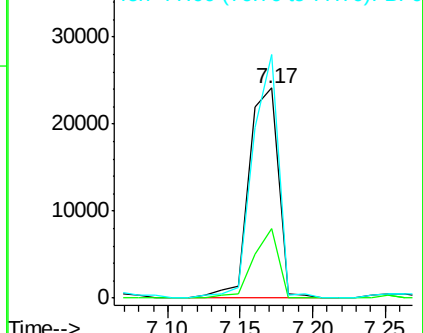
79 100

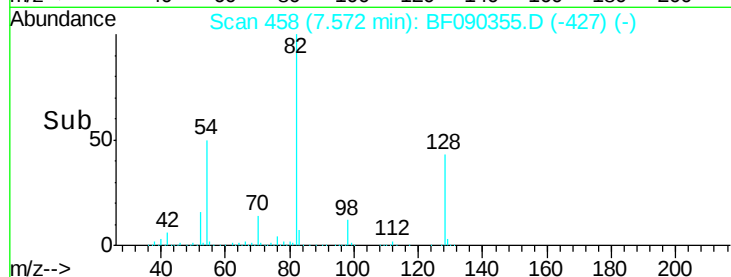
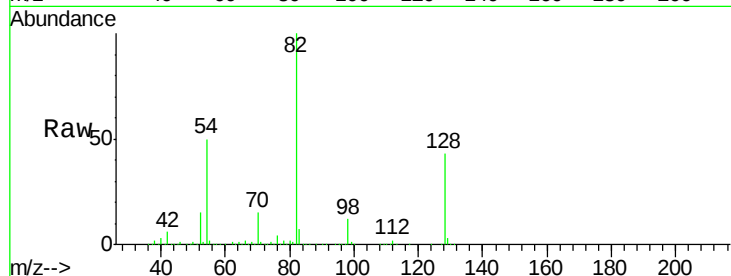
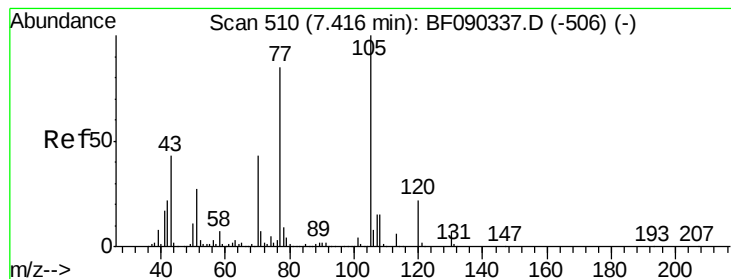
108 33.2 60.9 91.3#

77 115.9 51.5 77.3#



Abundance Ion 79.00 (78.70 to 79.70): BF0  
Ion 108.00 (107.70 to 108.70): E  
Ion 77.00 (76.70 to 77.70): BF0





#19

n-Nitroso-di-n-propylamine

Concen: 20.95 ng

RT: 7.57 min Scan# 458

Delta R.T. 0.16 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

Instrument :

BNA\_F

ClientSampleId :

S-10

Tgt Ion: 70 Resp: 264838

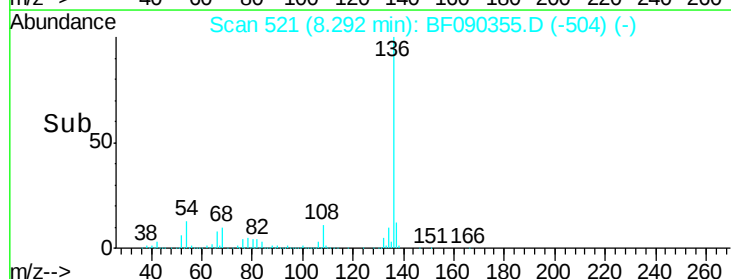
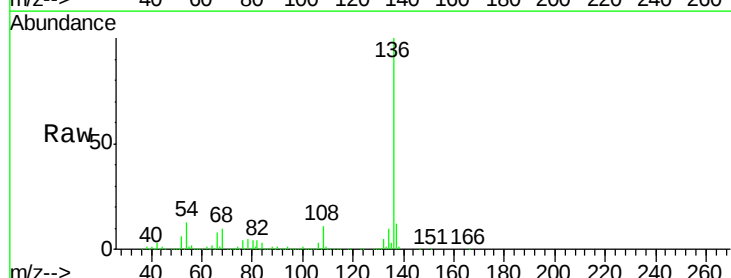
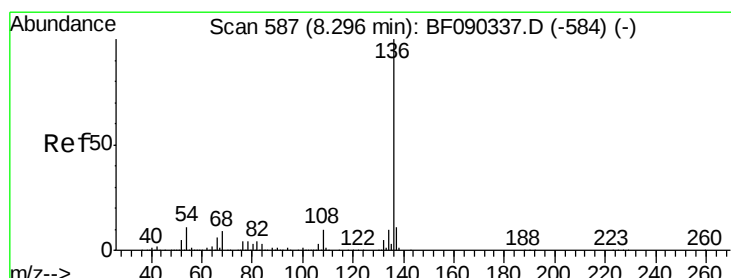
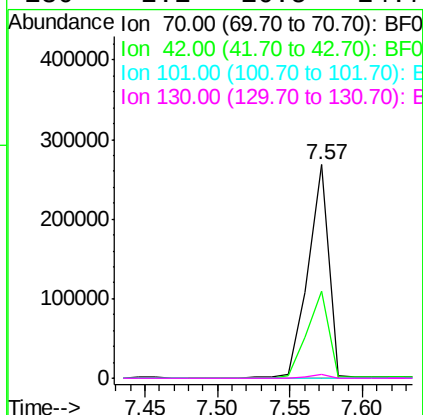
Ion Ratio Lower Upper

70 100

42 40.7 55.4 83.2#

101 0.0 7.6 11.4#

130 2.1 16.5 24.7#



#21

Naphthalene-d8

Concen: 20.00 ng

RT: 8.29 min Scan# 521

Delta R.T. -0.00 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

Tgt Ion: 136 Resp: 833273

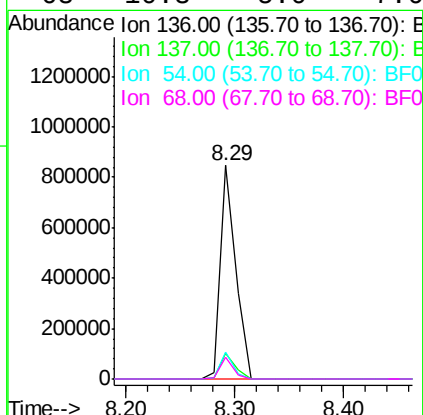
Ion Ratio Lower Upper

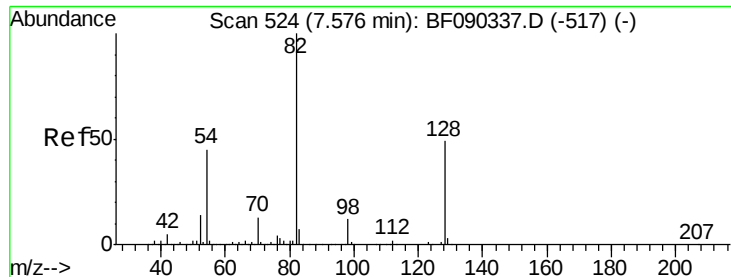
136 100

137 11.8 9.0 13.6

54 12.6 6.6 10.0#

68 10.3 5.0 7.6#

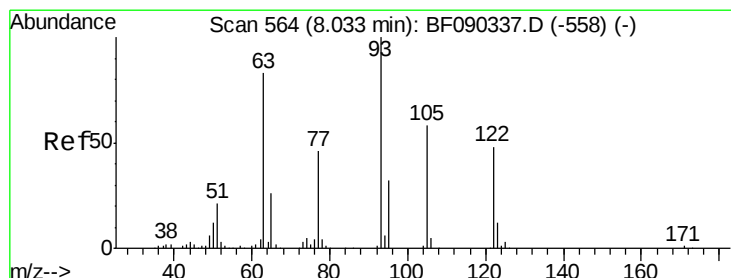
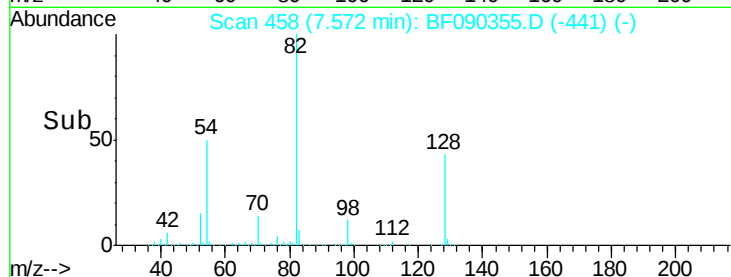
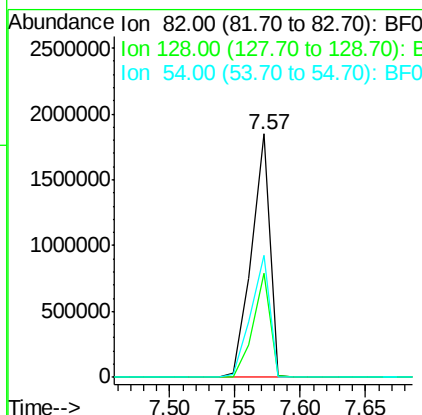
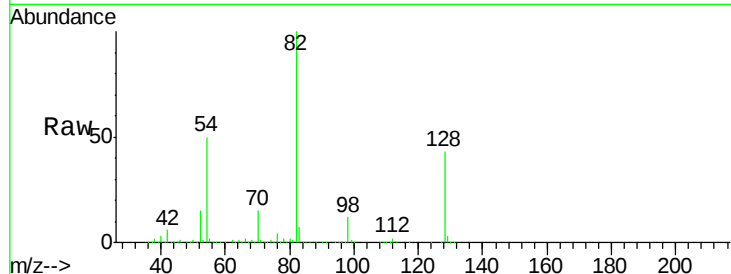




#23  
 Nitrobenzene-d5  
 Concen: 127.24 ng  
 RT: 7.57 min Scan# 458  
 Delta R.T. -0.00 min  
 Lab File: BF090355.D  
 Acq: 4 Oct 2016 21:23

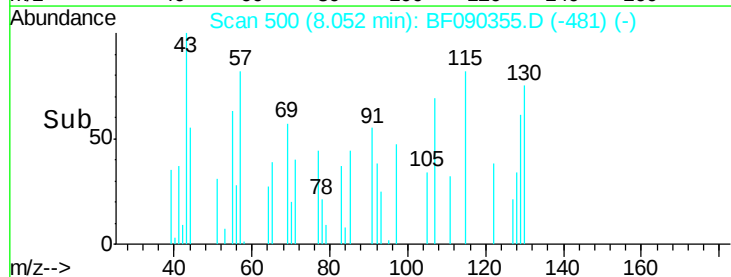
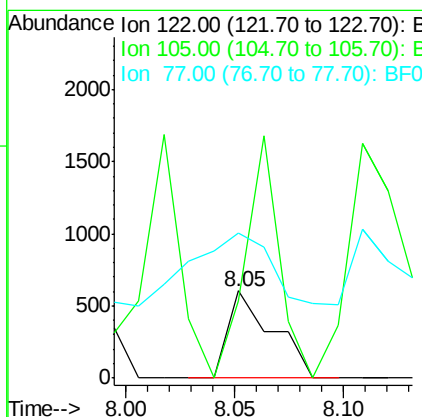
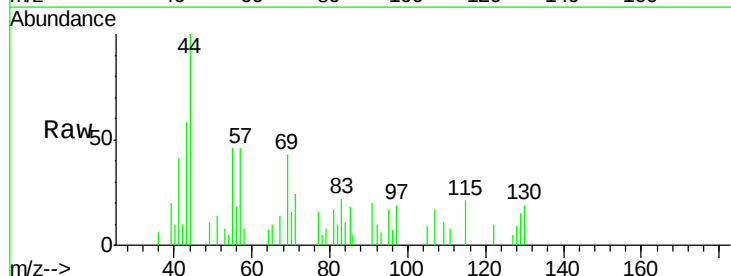
Instrument :  
 BNA\_F  
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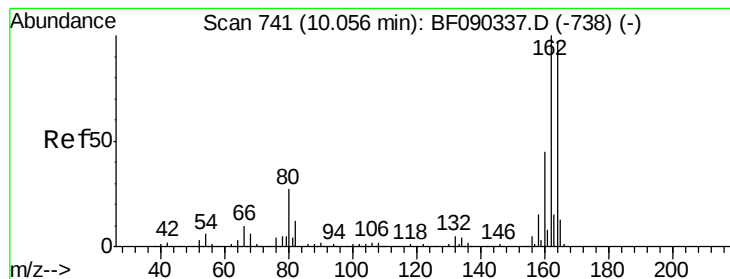
Tgt Ion: 82 Resp: 1818858  
 Ion Ratio Lower Upper  
 82 100  
 128 42.6 40.0 60.0  
 54 50.0 42.6 64.0



#32  
 Benzoic acid  
 Concen: 5.35 ng  
 RT: 8.05 min Scan# 500  
 Delta R.T. 0.02 min  
 Lab File: BF090355.D  
 Acq: 4 Oct 2016 21:23

Tgt Ion: 122 Resp: 852  
 Ion Ratio Lower Upper  
 122 100  
 105 88.6 103.9 143.9#  
 77 166.3 74.6 114.6#





#38

Acenaphthene-d10

Concen: 20.00 ng

RT: 10.05 min Scan# 675

Delta R.T. -0.00 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

Instrument :

BNA\_F

ClientSampleId :

S-10

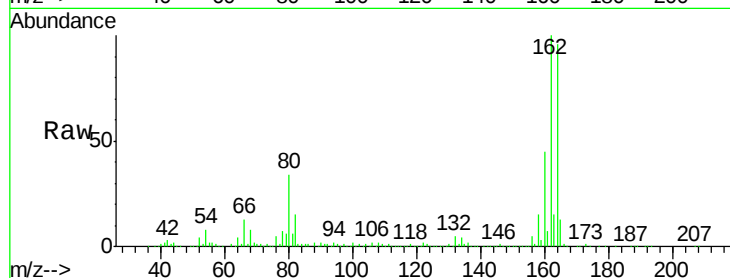
Tgt Ion:164 Resp: 379790

Ion Ratio Lower Upper

164 100

162 103.9 80.1 120.1

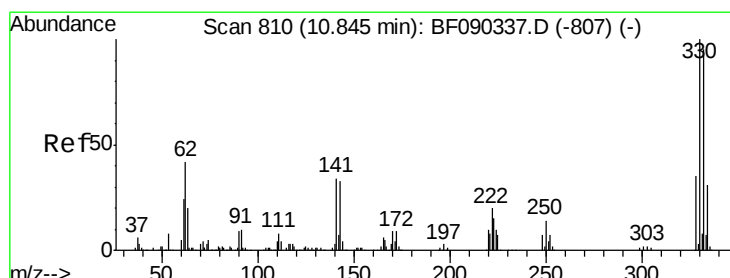
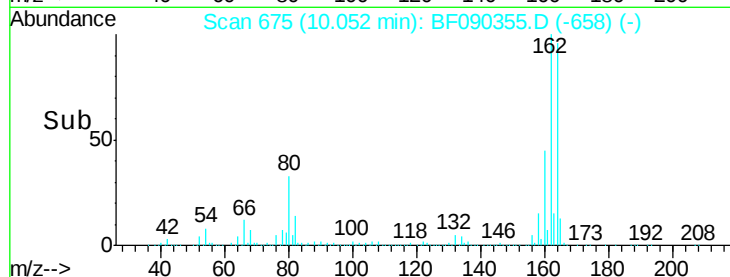
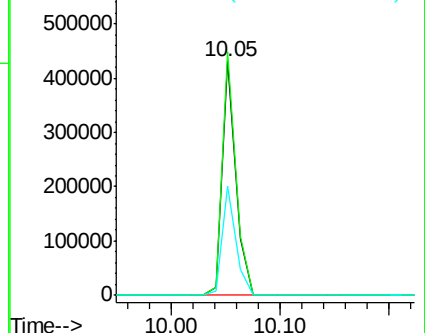
160 46.4 36.3 54.5



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: 135.91 ng

RT: 10.84 min Scan# 744

Delta R.T. -0.00 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

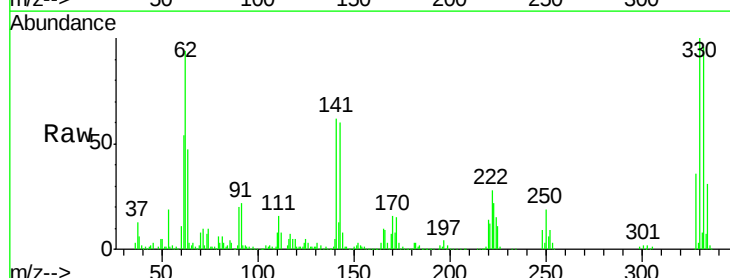
Tgt Ion:330 Resp: 448302

Ion Ratio Lower Upper

330 100

332 97.0 75.4 113.0

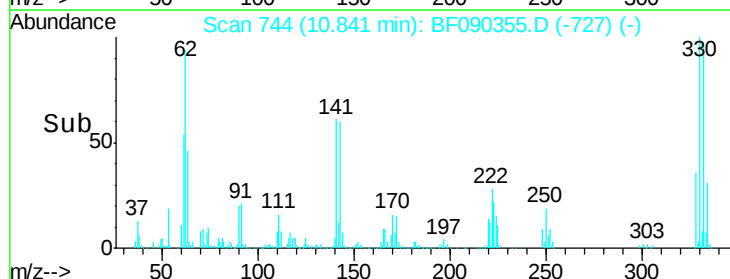
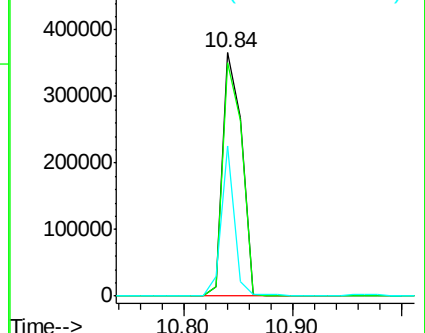
141 42.7 26.9 40.3#

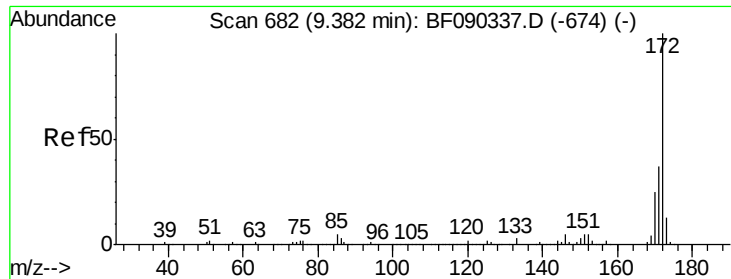


Abundance Ion 329.80 (329.50 to 330.50): E

Ion 331.80 (331.50 to 332.50): E

Ion 141.00 (140.70 to 141.70): E

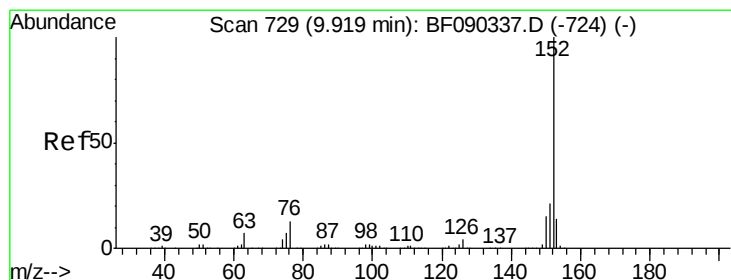
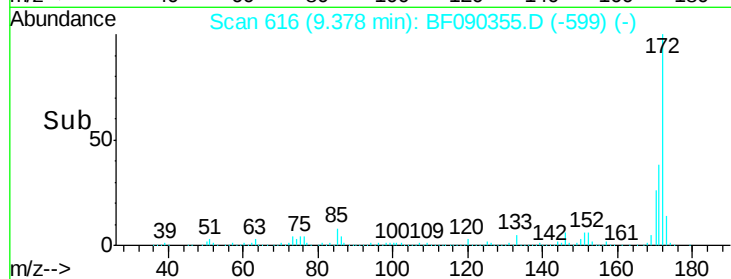
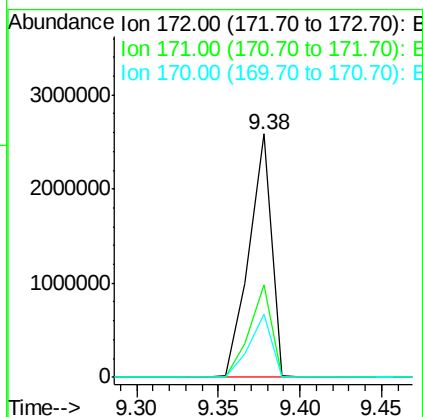
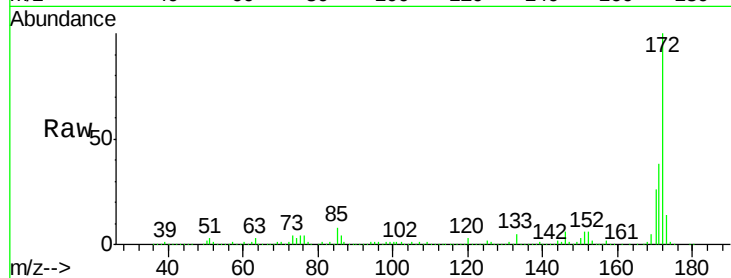




#44  
 2-Fluorobiphenyl  
 Concen: 106.66 ng  
 RT: 9.38 min Scan# 616  
 Delta R.T. -0.00 min  
 Lab File: BF090355.D  
 Acq: 4 Oct 2016 21:23

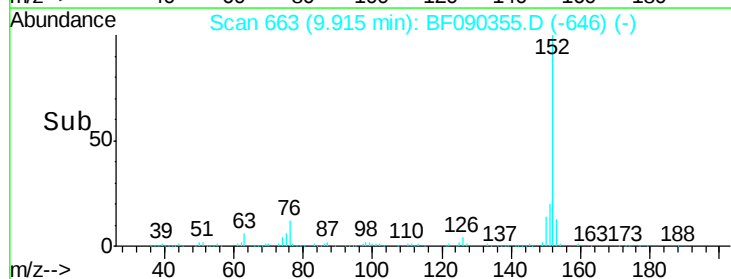
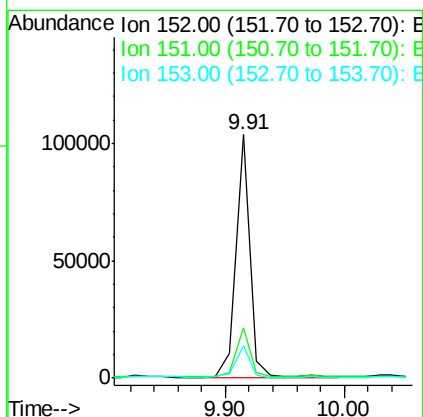
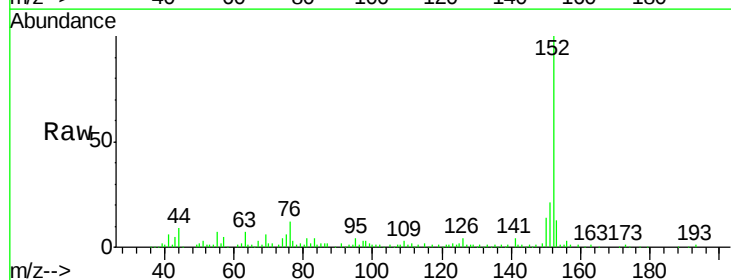
Instrument :  
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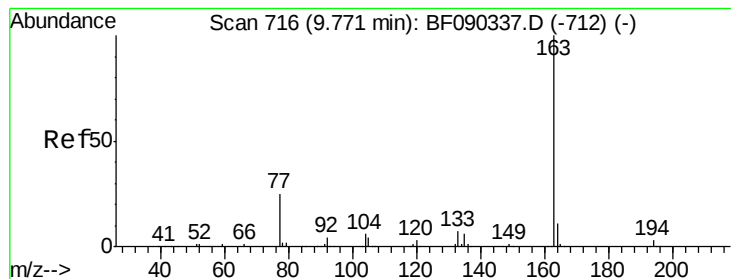
Tgt Ion:172 Resp: 2484553  
 Ion Ratio Lower Upper  
 172 100  
 171 37.9 31.8 47.8  
 170 25.9 21.7 32.5



#48  
 Acenaphthylene  
 Concen: 2.61 ng  
 RT: 9.91 min Scan# 663  
 Delta R.T. -0.00 min  
 Lab File: BF090355.D  
 Acq: 4 Oct 2016 21:23

Tgt Ion:152 Resp: 86995  
 Ion Ratio Lower Upper  
 152 100  
 151 20.6 17.4 26.0  
 153 13.2 11.6 17.4





#49

Dimethylphthalate

Concen: 33.12 ng

RT: 9.77 min Scan# 650

Delta R.T. -0.00 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

Instrument :

BNA\_F

ClientSampleId :

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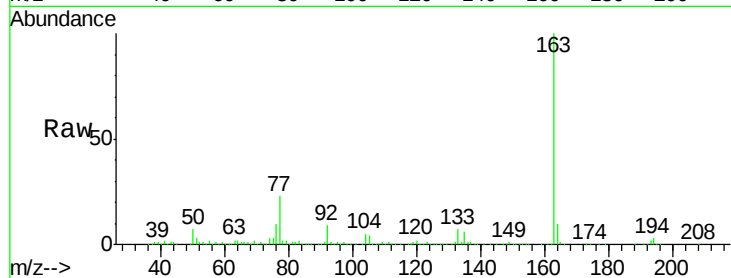
Tgt Ion:163 Resp: 744683

Ion Ratio Lower Upper

163 100

194 3.3 2.8 4.2

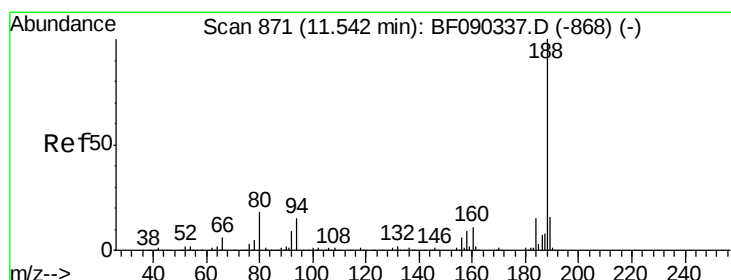
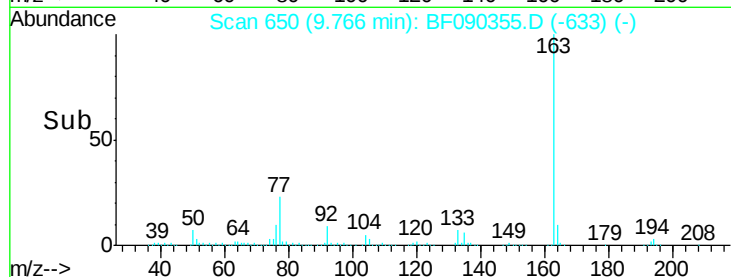
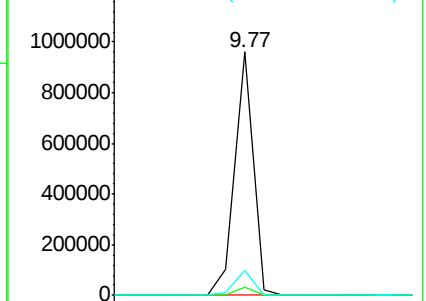
164 10.4 9.0 13.4



Abundance Ion 163.00 (162.70 to 163.70): E

Ion 194.00 (193.70 to 194.70): E

Ion 164.00 (163.70 to 164.70): E



#63

Phenanthrene-d10

Concen: 20.00 ng

RT: 11.55 min Scan# 806

Delta R.T. 0.01 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

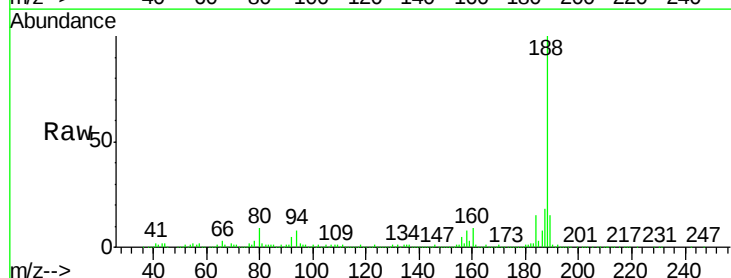
Tgt Ion:188 Resp: 650428

Ion Ratio Lower Upper

188 100

94 8.3 8.2 12.2

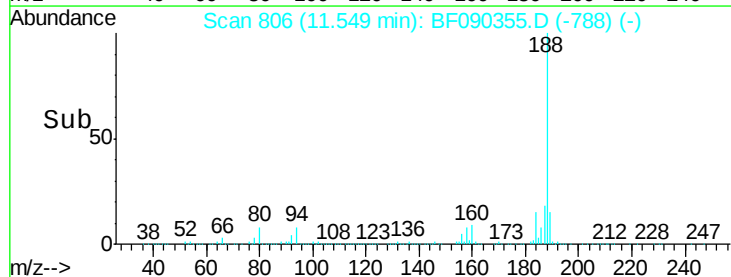
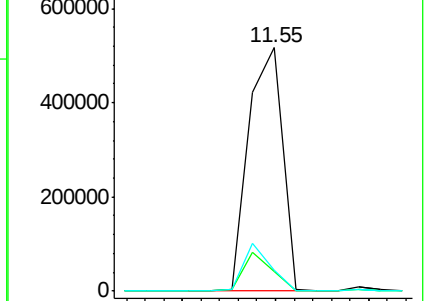
80 8.6 8.8 13.2#

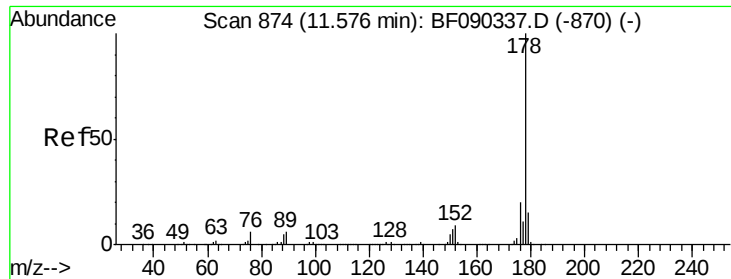


Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BF0

Ion 80.00 (79.70 to 80.70): BF0

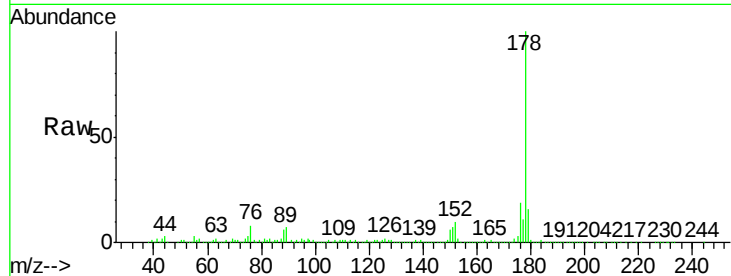




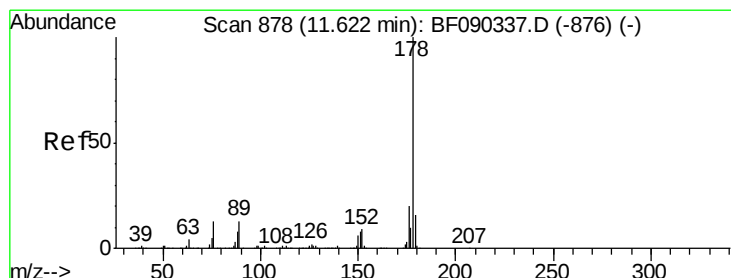
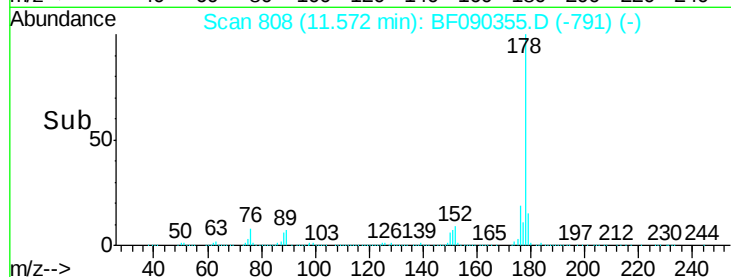
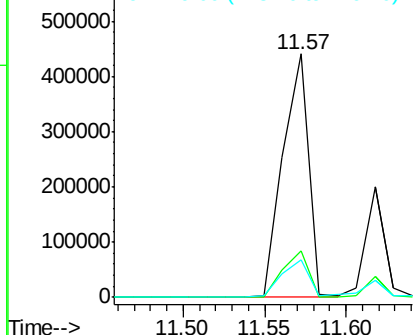
#70  
Phenanthrene  
Concen: 13.78 ng  
RT: 11.57 min Scan# 808  
Delta R.T. -0.00 min  
Lab File: BF090355.D  
Acq: 4 Oct 2016 21:23

Instrument :  
BNA\_F  
ClientSampled :  
S-10

Tgt Ion:178 Resp: 480824  
Ion Ratio Lower Upper  
178 100  
176 19.3 17.3 25.9  
179 15.5 13.8 20.6

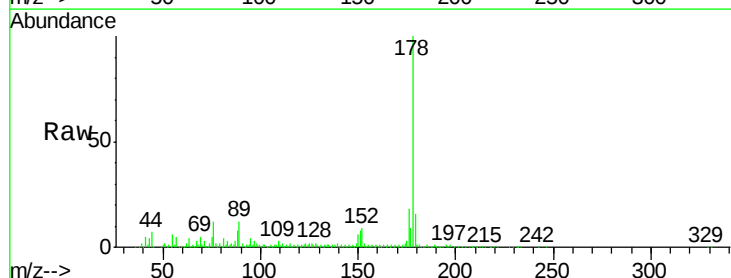


Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 176.00 (175.70 to 176.70): E  
Ion 179.00 (178.70 to 179.70): E

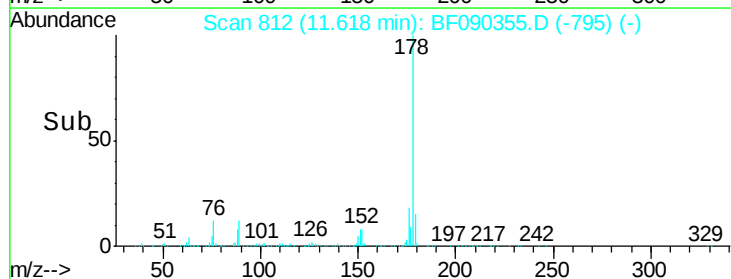
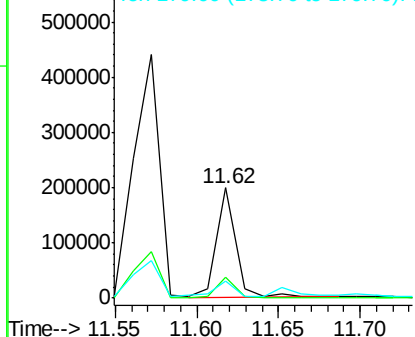


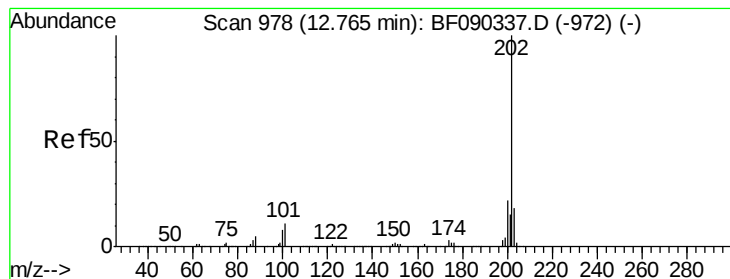
#71  
Anthracene  
Concen: 4.62 ng  
RT: 11.62 min Scan# 812  
Delta R.T. -0.00 min  
Lab File: BF090355.D  
Acq: 4 Oct 2016 21:23

Tgt Ion:178 Resp: 160813  
Ion Ratio Lower Upper  
178 100  
176 18.5 16.8 25.2  
179 15.7 13.4 20.2



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: 27.54 ng

RT: 12.76 min Scan# 912

Delta R.T. -0.00 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

Instrument :

BNA\_F

ClientSampled :

S-10

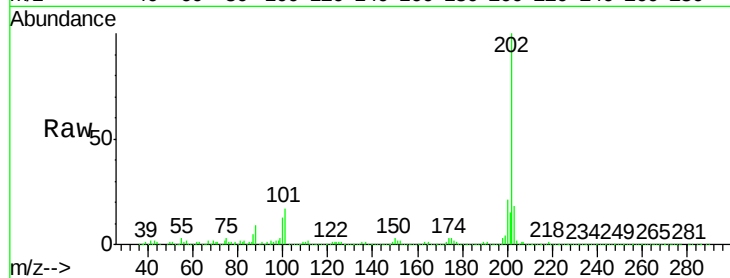
Tgt Ion:202 Resp: 911598

Ion Ratio Lower Upper

202 100

101 17.4 0.0 37.2

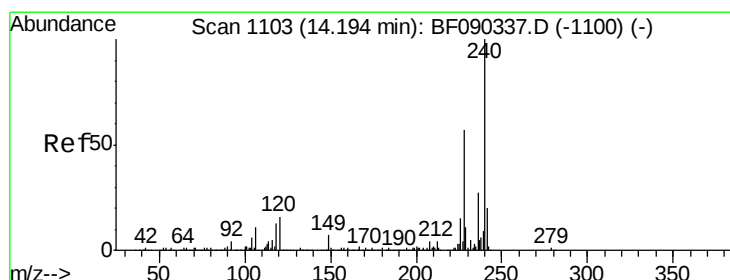
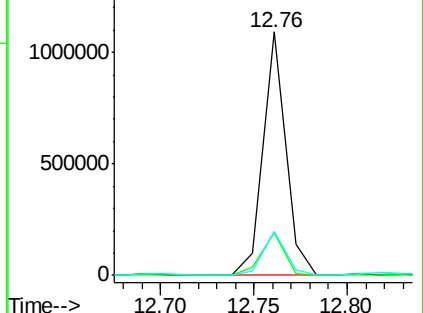
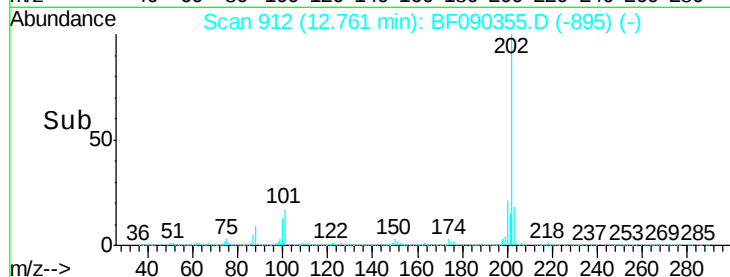
203 18.3 0.0 39.3



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: 14.20 min Scan# 1038

Delta R.T. 0.01 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

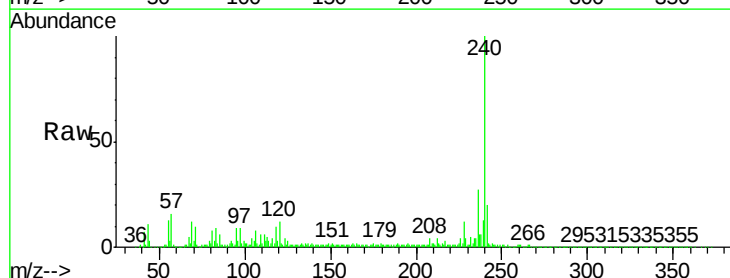
Tgt Ion:240 Resp: 720528

Ion Ratio Lower Upper

240 100

120 11.7 8.6 13.0

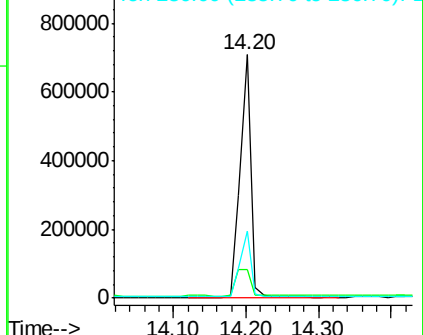
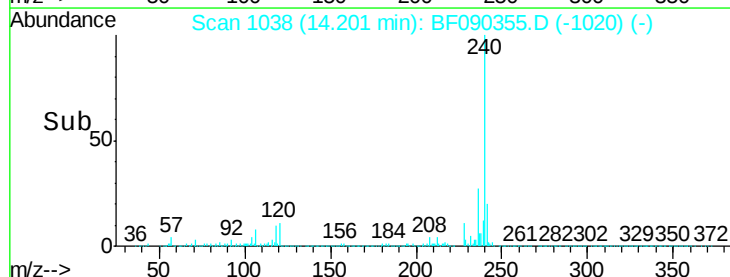
236 27.4 21.6 32.4

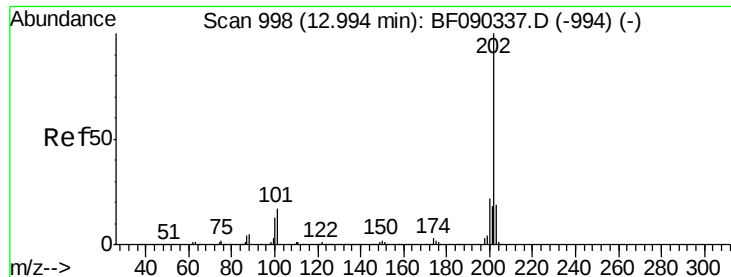


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E

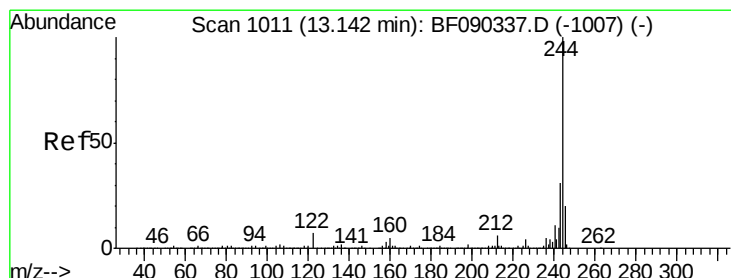
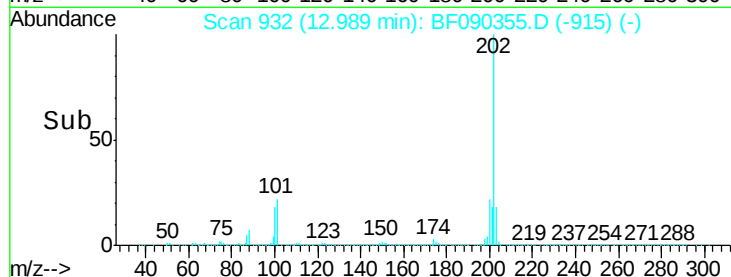
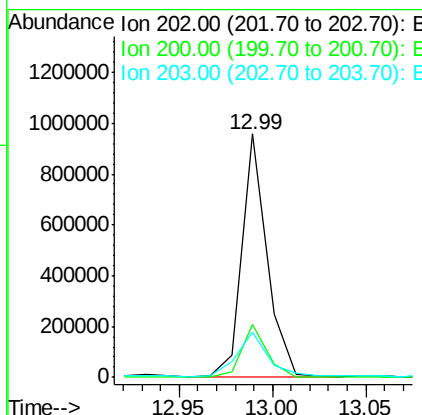
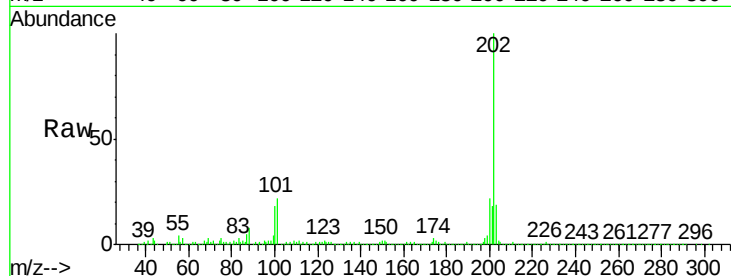




#77  
 Pyrene  
 Concen: 19.40 ng  
 RT: 12.99 min Scan# 932  
 Delta R.T. -0.00 min  
 Lab File: BF090355.D  
 Acq: 4 Oct 2016 21:23

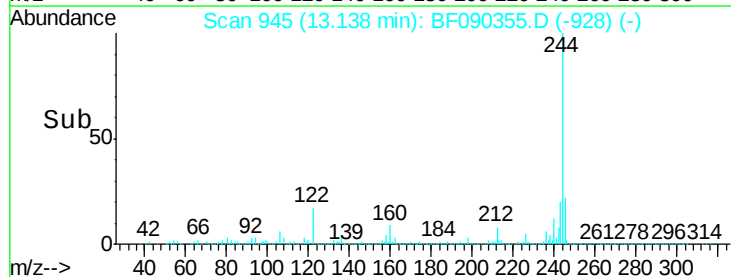
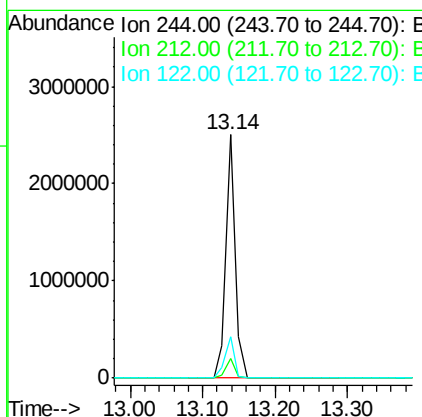
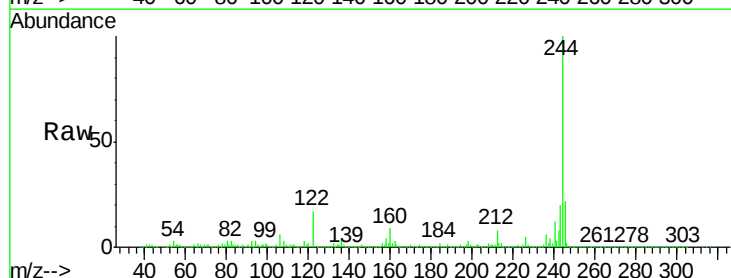
Instrument :  
 BNA\_F  
 ClientSampleId :  
 S-10

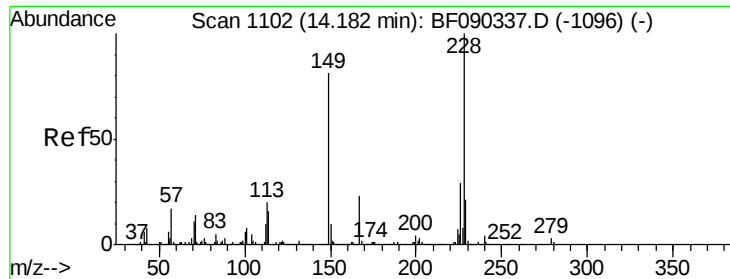
Tgt Ion:202 Resp: 894880  
 Ion Ratio Lower Upper  
 202 100  
 200 21.9 18.5 27.7  
 203 18.6 15.0 22.6



#78  
 Terphenyl-d14  
 Concen: 72.67 ng  
 RT: 13.14 min Scan# 945  
 Delta R.T. -0.00 min  
 Lab File: BF090355.D  
 Acq: 4 Oct 2016 21:23

Tgt Ion:244 Resp: 2249084  
 Ion Ratio Lower Upper  
 244 100  
 212 8.0 6.8 10.2  
 122 17.2 13.3 19.9





#80

Benzo(a)anthracene

Concen: 12.74 ng

RT: 14.19 min Scan# 1037

Delta R.T. 0.01 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

Instrument :

BNA\_F

ClientSampleId :

S-10

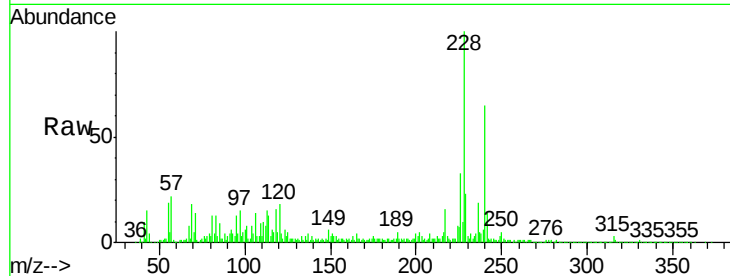
Tgt Ion:228 Resp: 514606

Ion Ratio Lower Upper

228 100

226 32.6 23.6 35.4

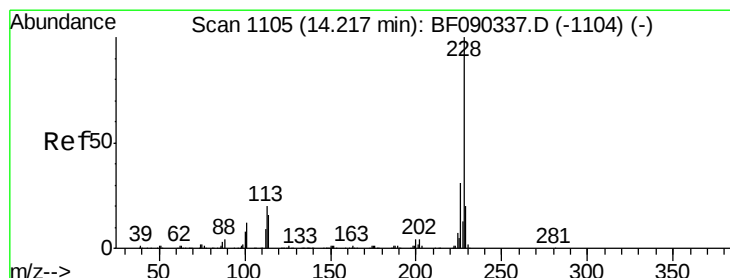
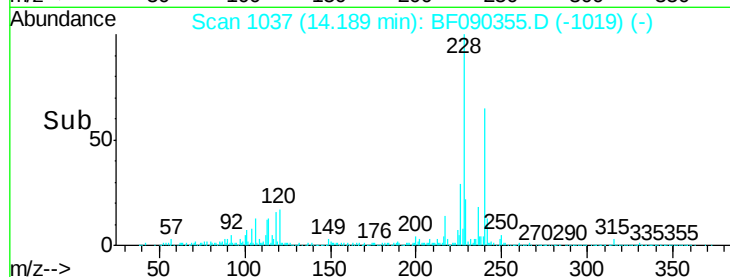
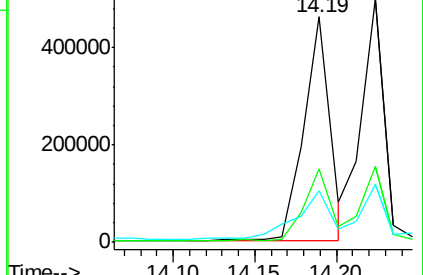
229 22.7 16.6 25.0



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: 13.59 ng

RT: 14.19 min Scan# 1037

Delta R.T. -0.03 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

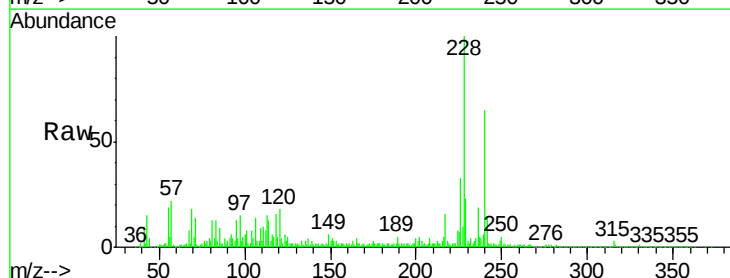
Tgt Ion:228 Resp: 514606

Ion Ratio Lower Upper

228 100

226 32.6 25.8 38.6

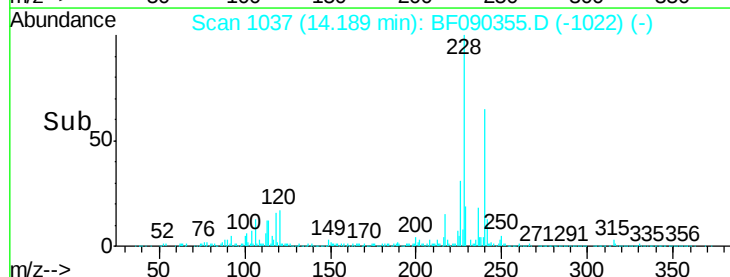
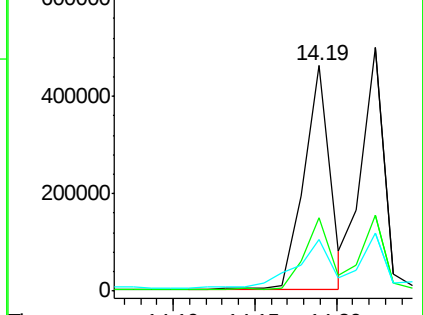
229 22.7 16.9 25.3

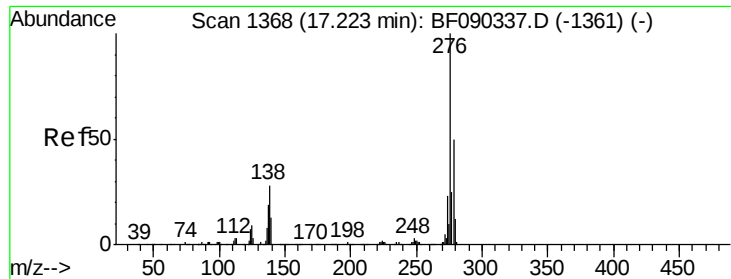


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E

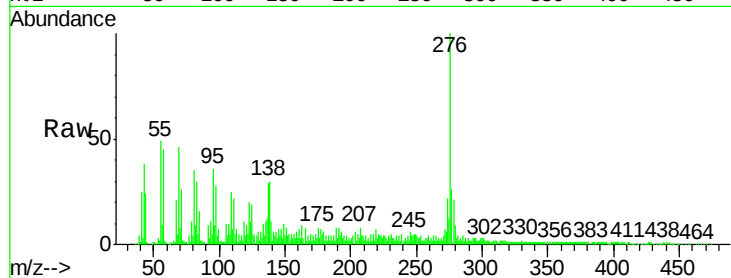




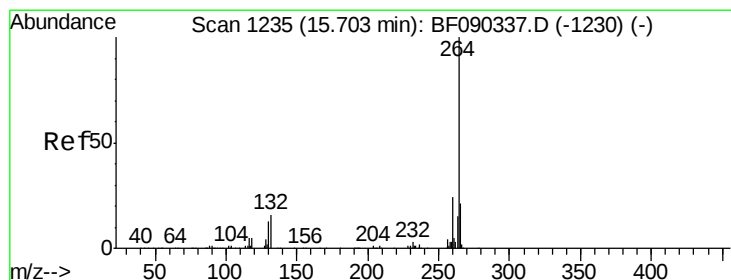
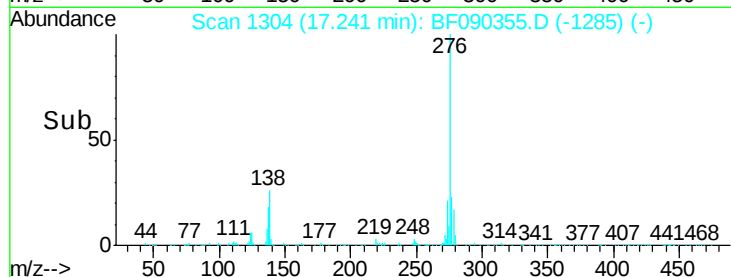
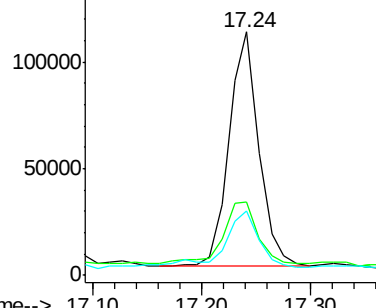
#85  
Indeno(1,2,3-cd)pyrene  
Concen: 5.17 ng  
RT: 17.24 min Scan# 1304  
Delta R.T. 0.02 min  
Lab File: BF090355.D  
Acq: 4 Oct 2016 21:23

Instrument :  
BNA\_F  
ClientSampled :  
S-10

Tgt Ion: 276 Resp: 210394  
Ion Ratio Lower Upper  
276 100  
138 31.6 23.8 35.8  
277 30.3 20.4 30.6

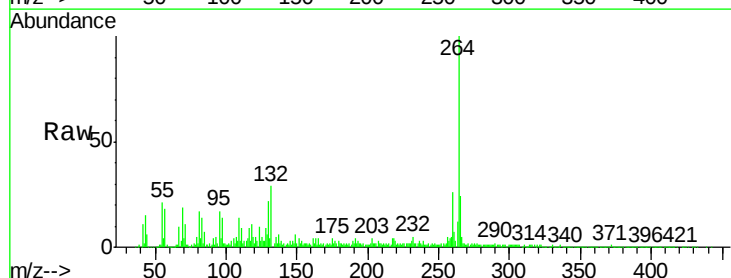


Abundance Ion 276.00 (275.70 to 276.70): E  
Ion 138.00 (137.70 to 138.70): E  
Ion 277.00 (276.70 to 277.70): E

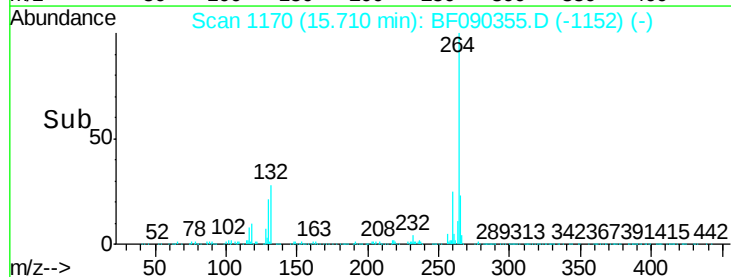
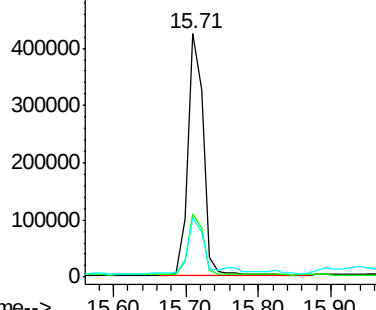


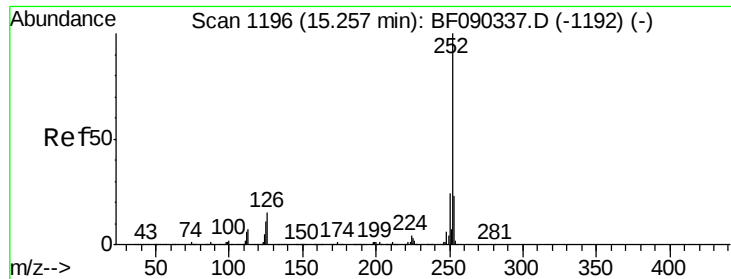
#86  
Perylene-d12  
Concen: 20.00 ng  
RT: 15.71 min Scan# 1170  
Delta R.T. 0.01 min  
Lab File: BF090355.D  
Acq: 4 Oct 2016 21:23

Tgt Ion: 264 Resp: 618578  
Ion Ratio Lower Upper  
264 100  
260 25.7 19.3 28.9  
265 24.4 17.4 26.0



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

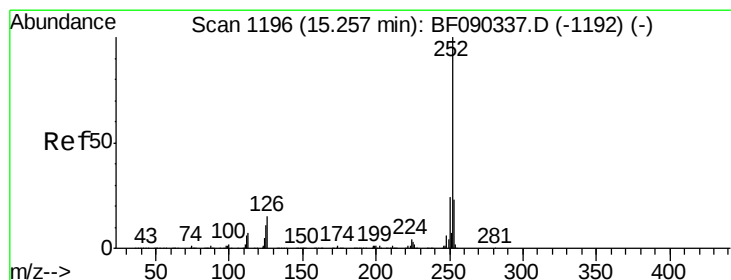
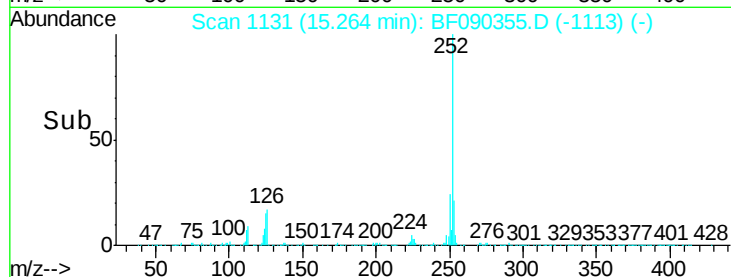
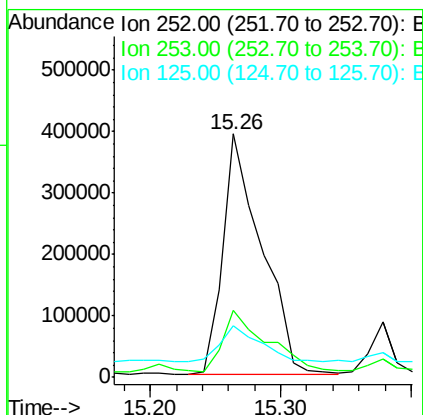
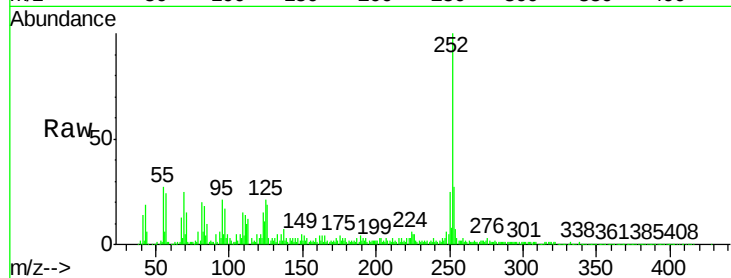




#87  
Benzo(b)fluoranthene  
Concen: 22.87 ng  
RT: 15.26 min Scan# 1131  
Delta R.T. 0.01 min  
Lab File: BF090355.D  
Acq: 4 Oct 2016 21:23

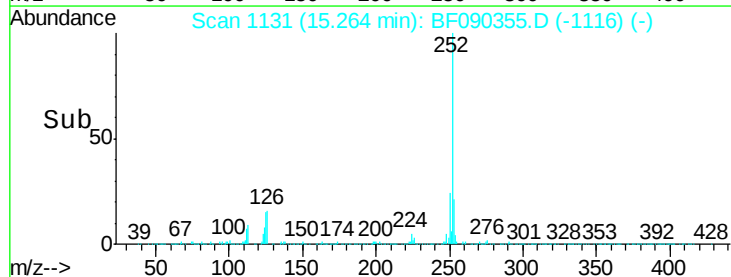
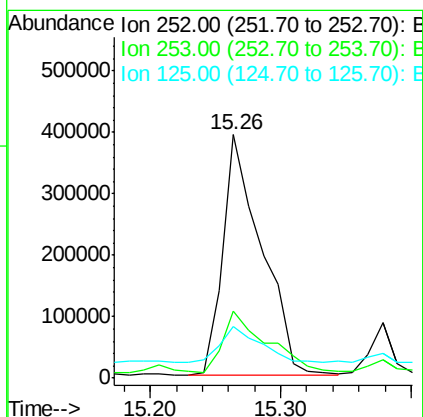
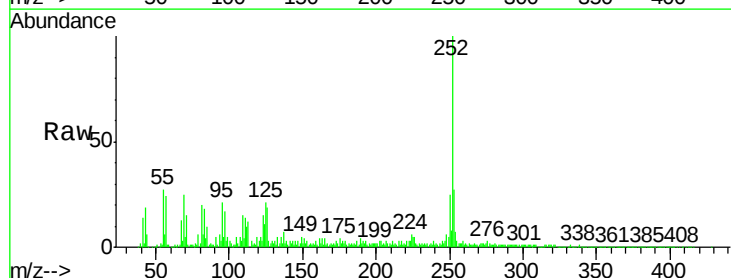
Instrument :  
BNA\_F  
ClientSampleId :  
S-10

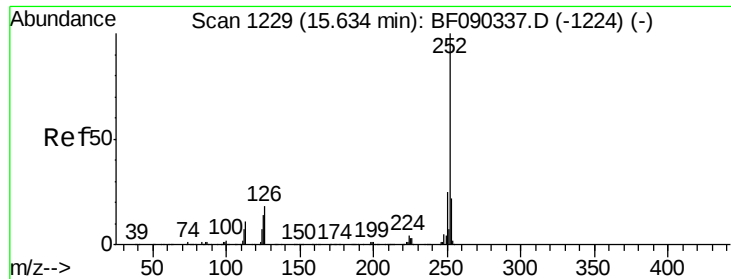
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 27.5  | 18.2  | 27.2# |
| 125     | 21.2  | 7.0   | 10.4# |



#88  
Benzo(k)fluoranthene  
Concen: 23.94 ng  
RT: 15.26 min Scan# 1131  
Delta R.T. -0.03 min  
Lab File: BF090355.D  
Acq: 4 Oct 2016 21:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 27.5  | 18.6  | 27.8  |
| 125     | 21.2  | 11.7  | 17.5# |





#89

Benzo(a)pyrene

Concen: 12.89 ng

RT: 15.64 min Scan# 1164

Delta R.T. 0.01 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

Instrument :

BNA\_F

ClientSampleId :

S-10

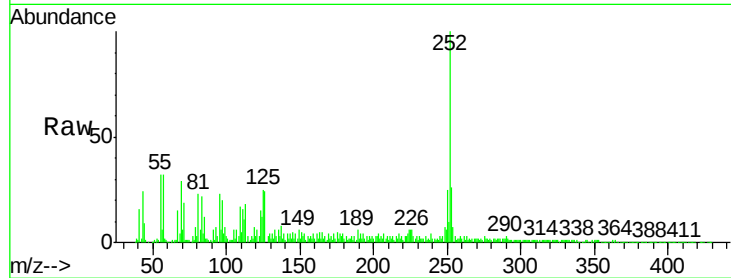
Tgt Ion:252 Resp: 418259

Ion Ratio Lower Upper

252 100

253 26.4 18.2 27.4

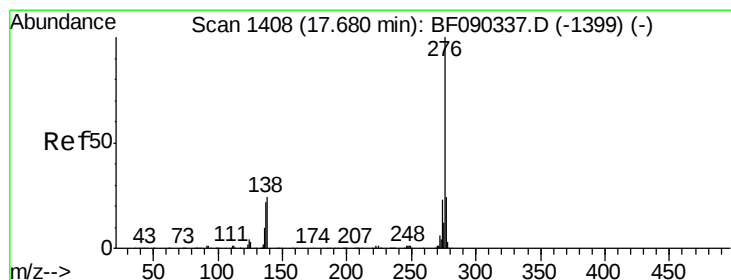
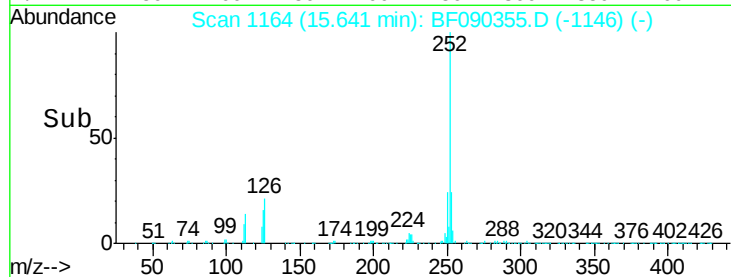
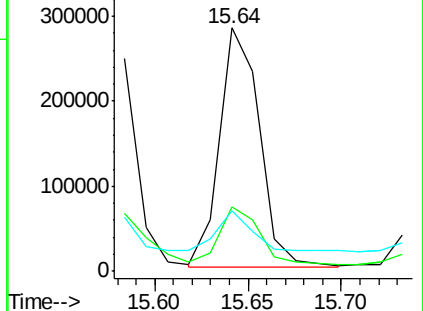
125 24.8 9.8 14.8#



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



#91

Benzo(g,h,i)perylene

Concen: 6.87 ng

RT: 17.70 min Scan# 1344

Delta R.T. 0.02 min

Lab File: BF090355.D

Acq: 4 Oct 2016 21:23

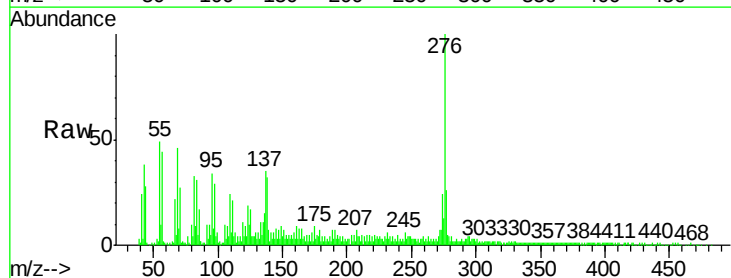
Tgt Ion:276 Resp: 214075

Ion Ratio Lower Upper

276 100

277 26.4 19.4 29.0

138 32.4 20.8 31.2#



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

