

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF101816\  
 Data File : BF090631.D  
 Acq On : 18 Oct 2016 16:46  
 Operator : UM/SJ  
 Sample : H5289-02  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SP-3-2

Quant Time: Oct 19 01:06:41 2016  
 Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF101316.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Oct 17 19:19:58 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.90  | 152  | 212419   | 20.00 | ng    | -0.01    |
| 21) Naphthalene-d8        | 8.19  | 136  | 931298   | 20.00 | ng    | -0.01    |
| 38) Acenaphthene-d10      | 9.95  | 164  | 445367   | 20.00 | ng    | -0.01    |
| 63) Phenanthrene-d10      | 11.43 | 188  | 648834   | 20.00 | ng    | -0.01    |
| 75) Chrysene-d12          | 14.08 | 240  | 557351   | 20.00 | ng    | -0.01    |
| 86) Perylene-d12          | 15.54 | 264  | 518752   | 20.00 | ng    | 0.00     |

|                             |       |     |         |        |    |       |
|-----------------------------|-------|-----|---------|--------|----|-------|
| System Monitoring Compounds |       |     |         |        |    |       |
| 5) 2-Fluorophenol           | 5.51  | 112 | 1567297 | 135.26 | ng | 0.00  |
| 7) Phenol-d6                | 6.54  | 99  | 2237637 | 129.96 | ng | 0.00  |
| 23) Nitrobenzene-d5         | 7.47  | 82  | 1409755 | 84.09  | ng | -0.01 |
| 41) 2,4,6-Tribromophenol    | 10.74 | 330 | 410229  | 103.32 | ng | -0.01 |
| 44) 2-Fluorobiphenyl        | 9.26  | 172 | 1797406 | 66.50  | ng | -0.01 |
| 78) Terphenyl-d14           | 13.02 | 244 | 1405629 | 58.72  | ng | -0.01 |

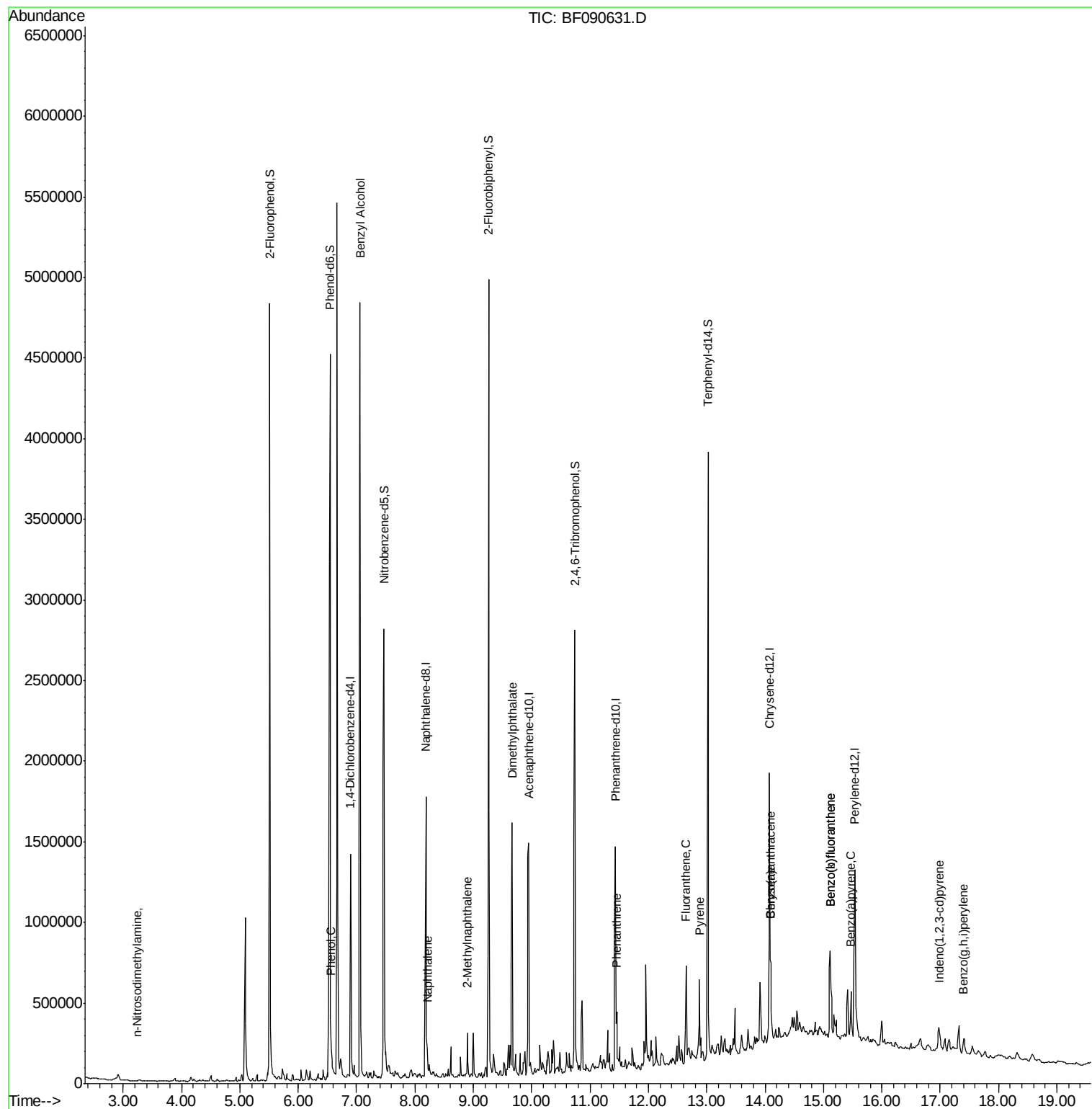
|                            |       |     |        |       |    |        |
|----------------------------|-------|-----|--------|-------|----|--------|
| Target Compounds           |       |     |        |       |    | Qvalue |
| 4) n-Nitrosodimethylamine  | 3.24  | 42  | 259    | 7.21  | ng | # 1    |
| 10) Phenol                 | 6.55  | 94  | 39677  | 2.01  | ng | 97     |
| 15) Benzyl Alcohol         | 7.06  | 79  | 24785  | 2.11  | ng | # 49   |
| 31) Naphthalene            | 8.21  | 128 | 99468  | 2.10  | ng | 100    |
| 37) 2-Methylnaphthalene    | 8.90  | 142 | 77088  | 2.77  | ng | 100    |
| 49) Dimethylphthalate      | 9.66  | 163 | 709536 | 24.55 | ng | # 98   |
| 70) Phenanthrene           | 11.46 | 178 | 159955 | 4.62  | ng | 98     |
| 74) Fluoranthene           | 12.65 | 202 | 256308 | 7.36  | ng | 99     |
| 77) Pyrene                 | 12.88 | 202 | 220262 | 5.97  | ng | 98     |
| 80) Benzo(a)anthracene     | 14.10 | 228 | 371540 | 11.71 | ng | 96     |
| 82) Chrysene               | 14.10 | 228 | 371540 | 12.15 | ng | 98     |
| 85) Indeno(1,2,3-cd)pyrene | 16.98 | 276 | 95497  | 5.40  | ng | 98     |
| 87) Benzo(b)fluoranthene   | 15.12 | 252 | 434860 | 12.81 | ng | 98     |
| 88) Benzo(k)fluoranthene   | 15.12 | 252 | 434860 | 11.91 | ng | 99     |
| 89) Benzo(a)pyrene         | 15.47 | 252 | 150335 | 4.84  | ng | 98     |
| 91) Benzo(g,h,i)perylene   | 17.40 | 276 | 84535  | 3.74  | ng | 96     |

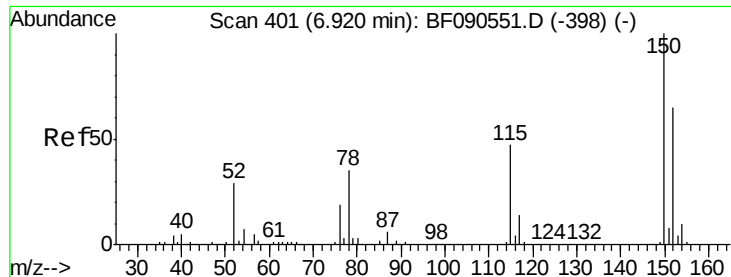
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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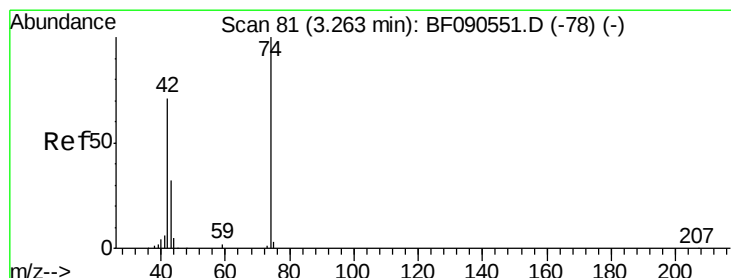
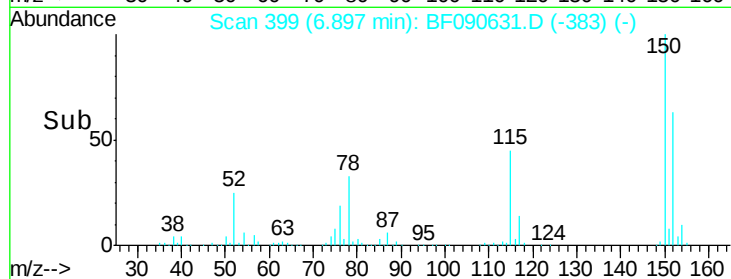
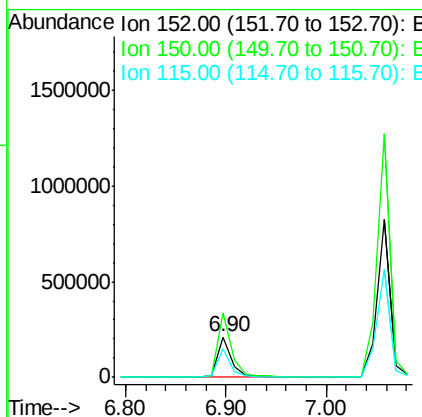
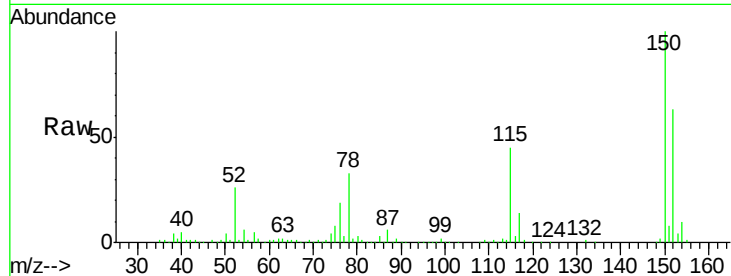




#1  
 1,4-Dichlorobenzene-d4  
 Concen: 20.00 ng  
 RT: 6.90 min Scan# 399  
 Delta R.T. -0.01 min  
 Lab File: BF090631.D  
 Acq: 18 Oct 2016 16:46

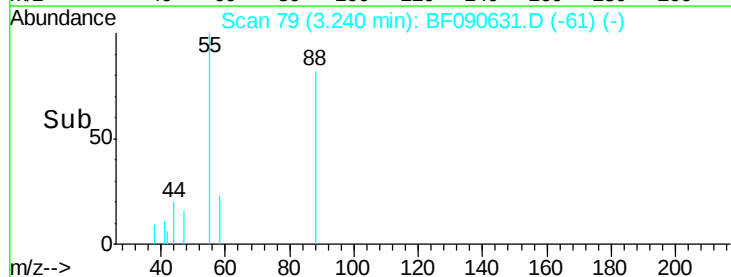
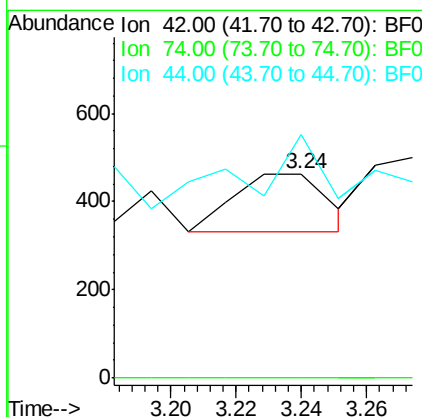
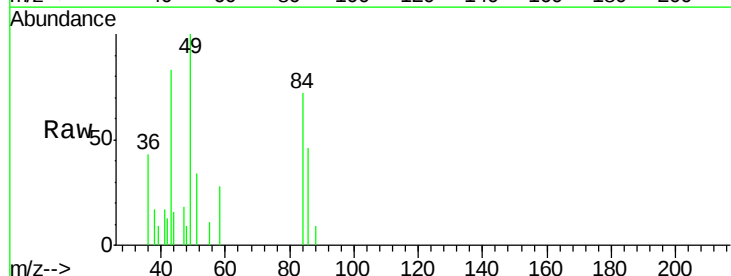
Instrument :  
 BNA\_F  
 ClientSampleId :  
 SP-3-2

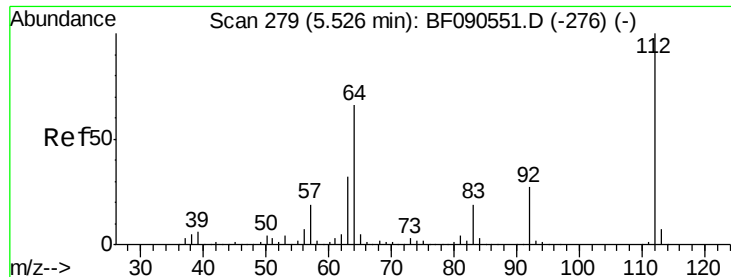
Tgt Ion: 152 Resp: 212419  
 Ion Ratio Lower Upper  
 152 100  
 150 158.4 127.2 190.8  
 115 71.2 58.6 88.0



#4  
 n-Nitrosodimethylamine  
 Concen: 7.21 ng  
 RT: 3.24 min Scan# 79  
 Delta R.T. 0.01 min  
 Lab File: BF090631.D  
 Acq: 18 Oct 2016 16:46

Tgt Ion: 42 Resp: 259  
 Ion Ratio Lower Upper  
 42 100  
 74 0.0 113.3 169.9#  
 44 119.2 6.0 9.0#





#5

2-Fluorophenol

Concen: 135.26 ng

RT: 5.51 min Scan# 278

Delta R.T. -0.00 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

Instrument :

BNA\_F

ClientSampleId :

SP-3-2

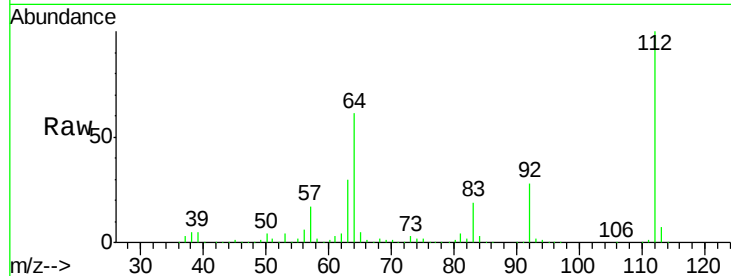
Tgt Ion: 112 Resp: 1567297

Ion Ratio Lower Upper

112 100

64 61.3 52.6 78.8

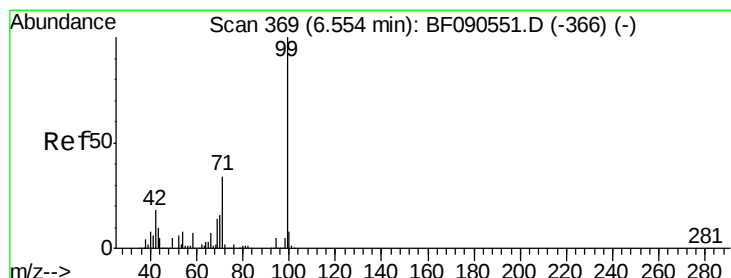
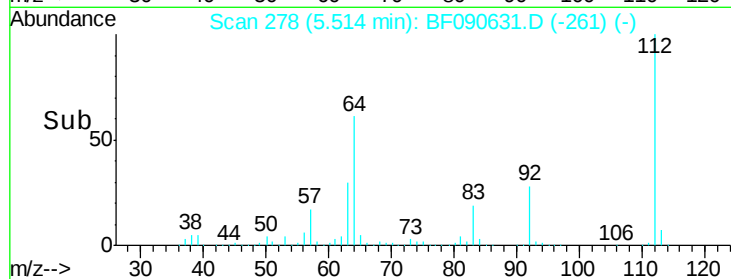
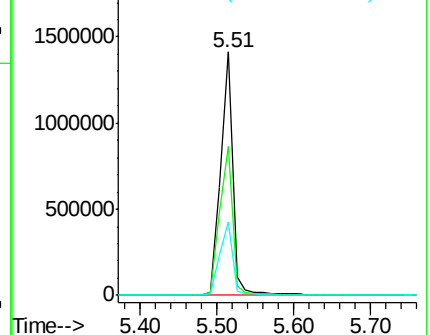
63 30.2 26.0 39.0



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: 129.96 ng

RT: 6.54 min Scan# 368

Delta R.T. -0.00 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

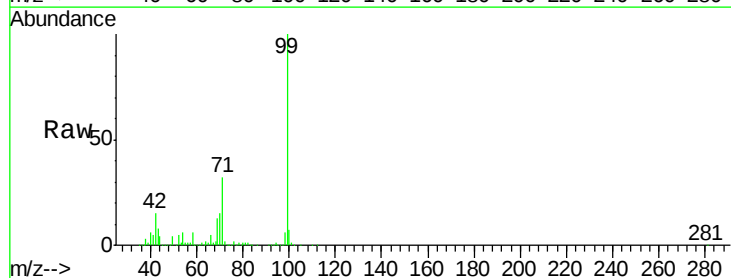
Tgt Ion: 99 Resp: 2237637

Ion Ratio Lower Upper

99 100

42 14.8 14.7 22.1

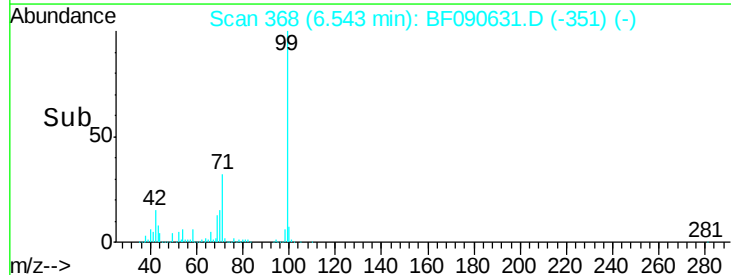
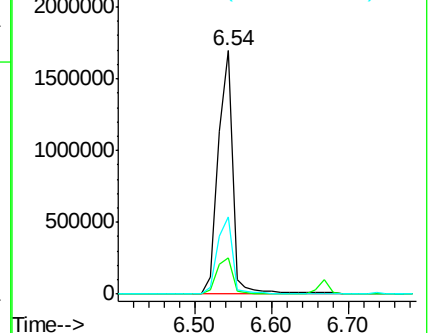
71 31.7 27.6 41.4

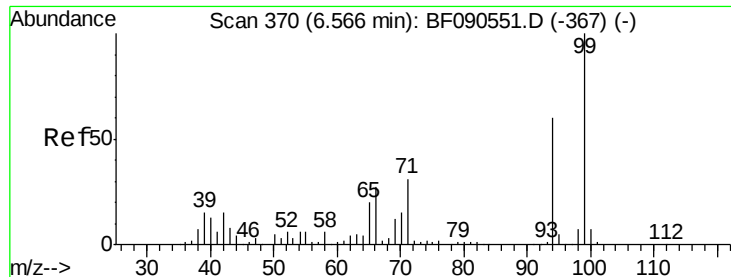


Abundance Ion 99.00 (98.70 to 99.70): BF0

Ion 42.00 (41.70 to 42.70): BF0

Ion 71.00 (70.70 to 71.70): BF0





#10

Phenol

Concen: 2.01 ng

RT: 6.55 min Scan# 369

Delta R.T. -0.01 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

Instrument :

BNA\_F

ClientSampleId :

SP-3-2

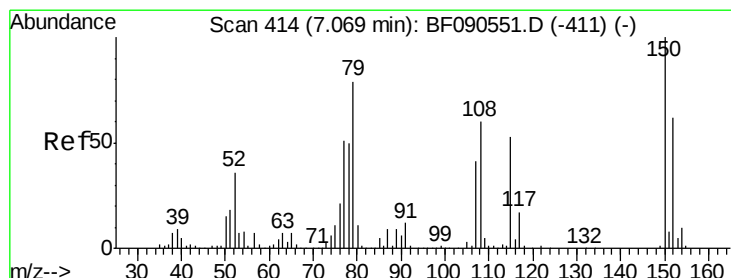
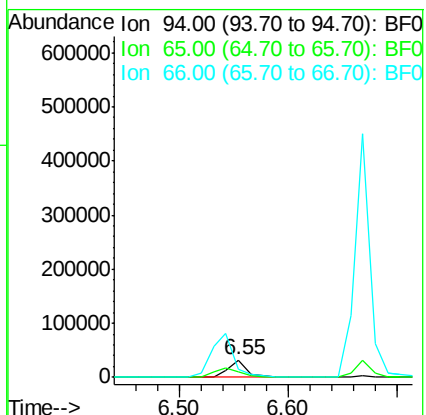
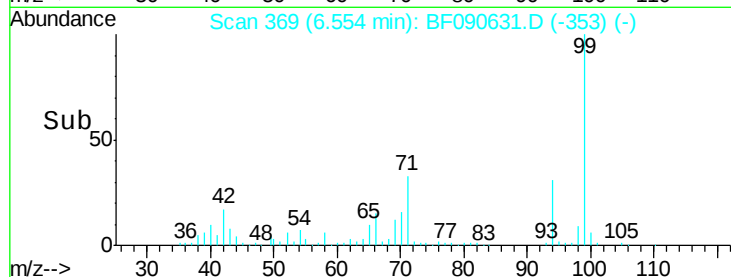
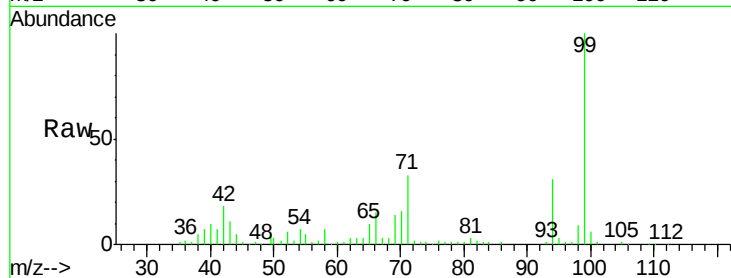
Tgt Ion: 94 Resp: 39677

Ion Ratio Lower Upper

94 100

65 30.6 12.5 52.5

66 47.4 25.5 65.5



#15

Benzyl Alcohol

Concen: 2.11 ng

RT: 7.06 min Scan# 413

Delta R.T. -0.00 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

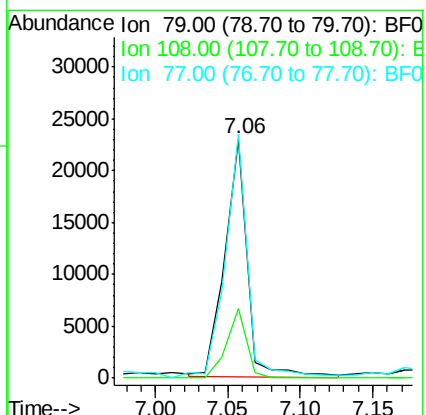
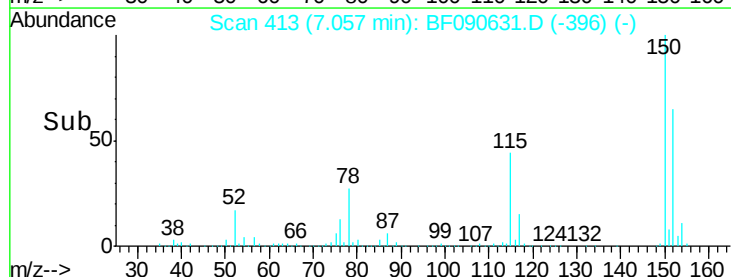
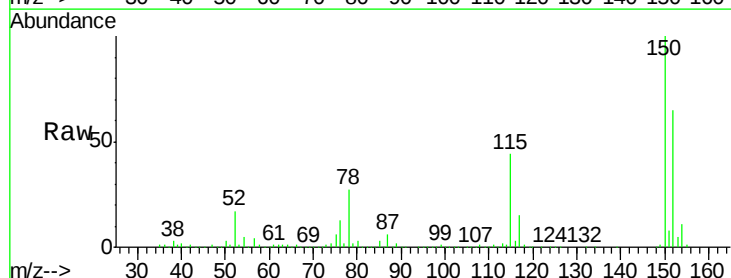
Tgt Ion: 79 Resp: 24785

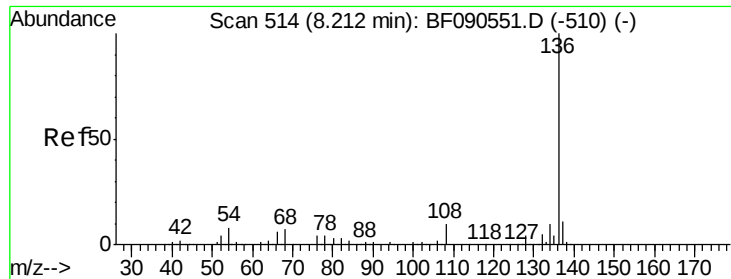
Ion Ratio Lower Upper

79 100

108 29.0 60.2 90.4#

77 102.0 52.0 78.0#

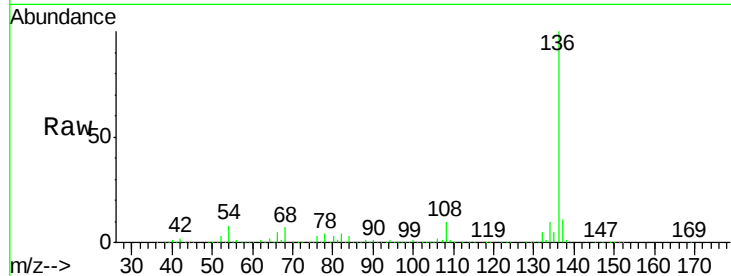




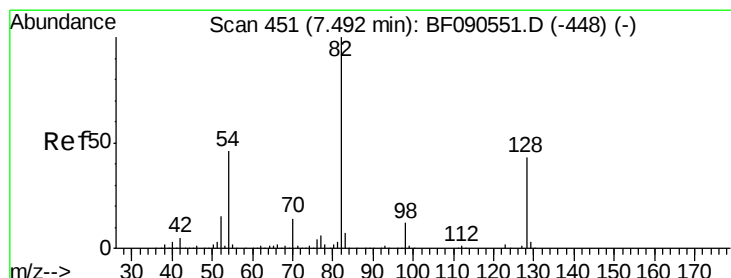
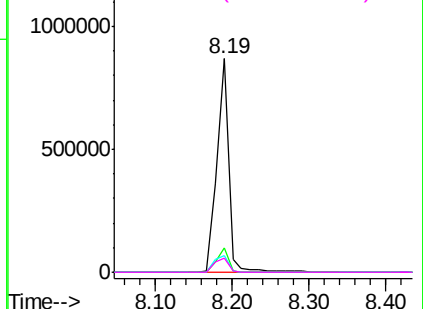
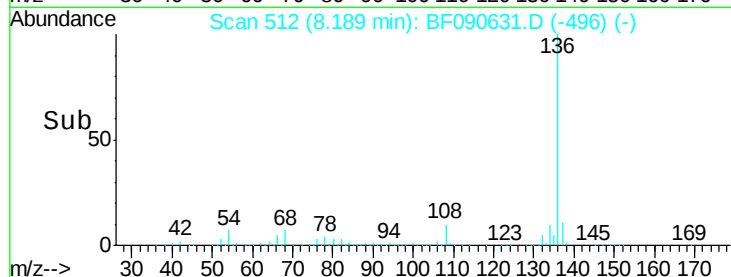
#21  
Naphthalene-d8  
Concen: 20.00 ng  
RT: 8.19 min Scan# 512  
Delta R.T. -0.01 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

Instrument :  
BNA\_F  
ClientSampleId :  
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|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 136   | Resp: | 931298 |
| Ion      | Ratio | Lower | Upper  |
| 136      | 100   |       |        |
| 137      | 11.1  | 8.8   | 13.2   |
| 54       | 7.6   | 6.8   | 10.2   |
| 68       | 6.8   | 6.0   | 9.0    |

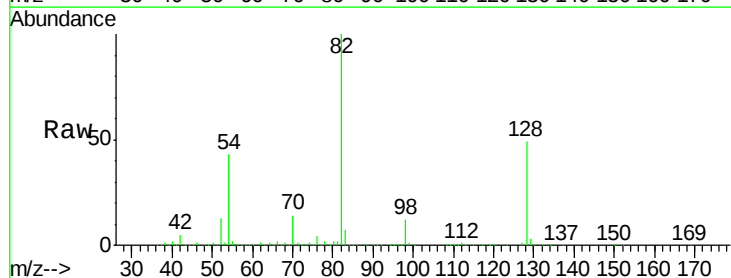


Abundance Ion 136.00 (135.70 to 136.70): E  
Ion 137.00 (136.70 to 137.70): E  
Ion 54.00 (53.70 to 54.70): BF0  
Ion 68.00 (67.70 to 68.70): BF0

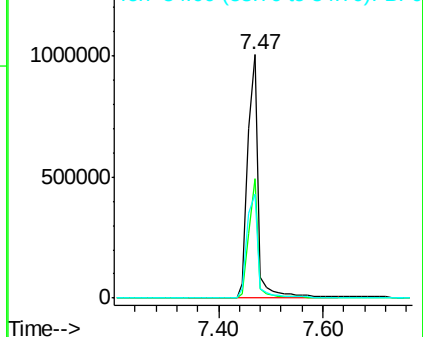
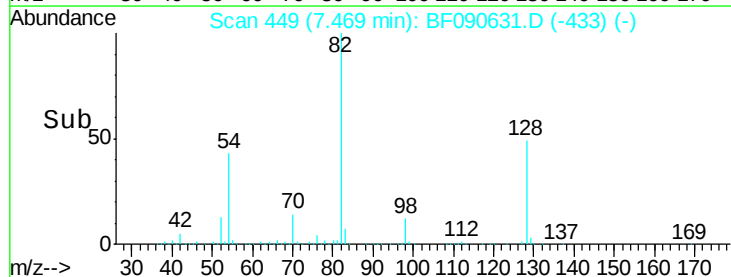


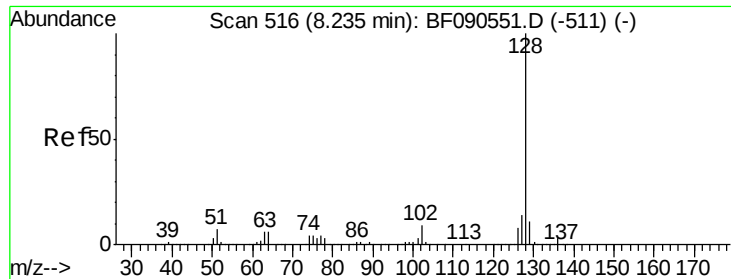
#23  
Nitrobenzene-d5  
Concen: 84.09 ng  
RT: 7.47 min Scan# 449  
Delta R.T. -0.01 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 82    | Resp: | 1409755 |
| Ion      | Ratio | Lower | Upper   |
| 82       | 100   |       |         |
| 128      | 49.2  | 34.3  | 51.5    |
| 54       | 42.9  | 37.0  | 55.6    |



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

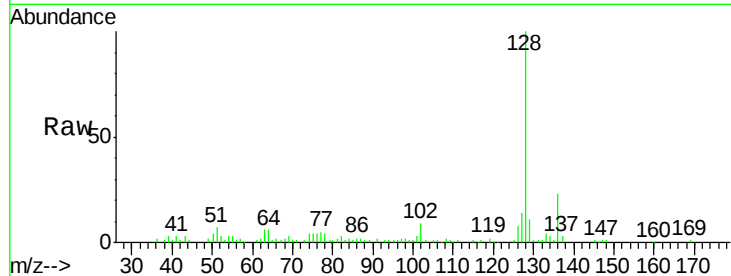




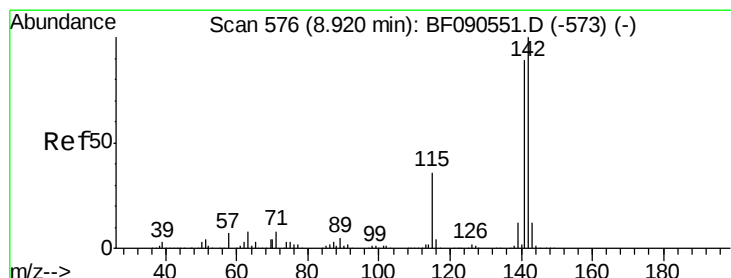
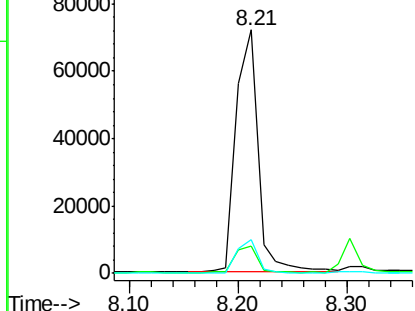
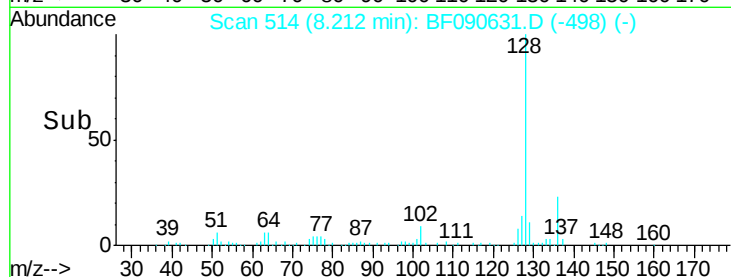
#31  
Naphthalene  
Concen: 2.10 ng  
RT: 8.21 min Scan# 514  
Delta R.T. -0.01 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

Instrument :  
BNA\_F  
ClientSampleID :  
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Tgt Ion:128 Resp: 99468  
Ion Ratio Lower Upper  
128 100  
129 11.1 9.0 13.6  
127 13.7 10.8 16.2

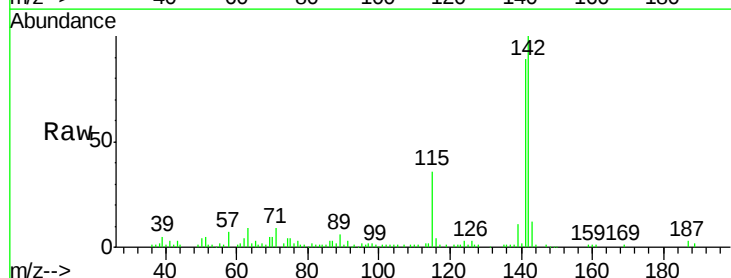


Abundance Ion 128.00 (127.70 to 128.70): E  
Ion 129.00 (128.70 to 129.70): E  
Ion 127.00 (126.70 to 127.70): E

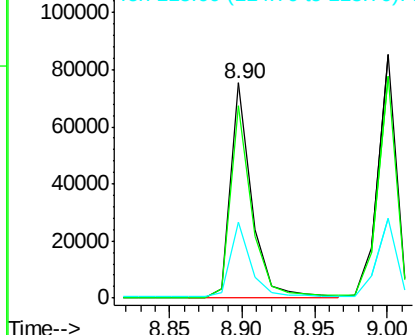
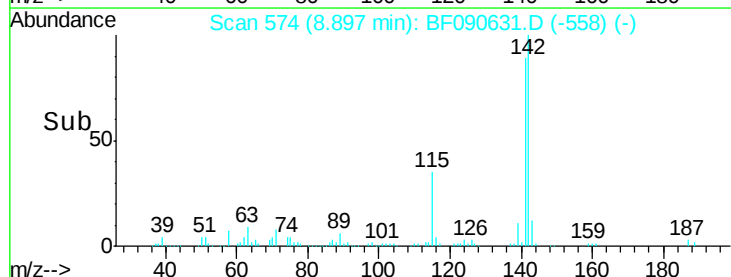


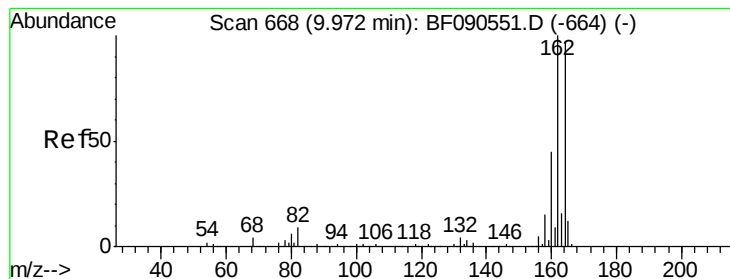
#37  
2-Methylnaphthalene  
Concen: 2.77 ng  
RT: 8.90 min Scan# 574  
Delta R.T. -0.01 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

Tgt Ion:142 Resp: 77088  
Ion Ratio Lower Upper  
142 100  
141 89.3 71.3 106.9  
115 35.5 28.8 43.2



Abundance Ion 142.00 (141.70 to 142.70): E  
Ion 141.00 (140.70 to 141.70): E  
Ion 115.00 (114.70 to 115.70): E





#38

Acenaphthene-d10

Concen: 20.00 ng

RT: 9.95 min Scan# 666

Delta R.T. -0.01 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

Instrument :

BNA\_F

ClientSampleId :

SP-3-2

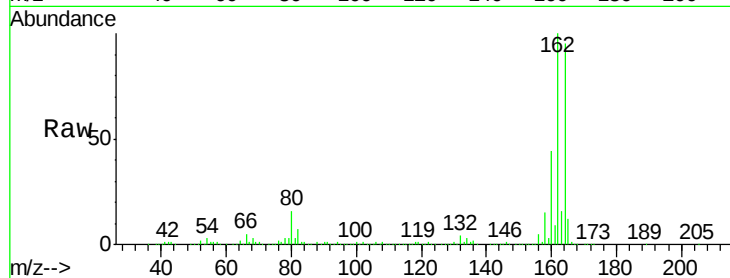
Tgt Ion:164 Resp: 445367

Ion Ratio Lower Upper

164 100

162 105.0 82.2 123.4

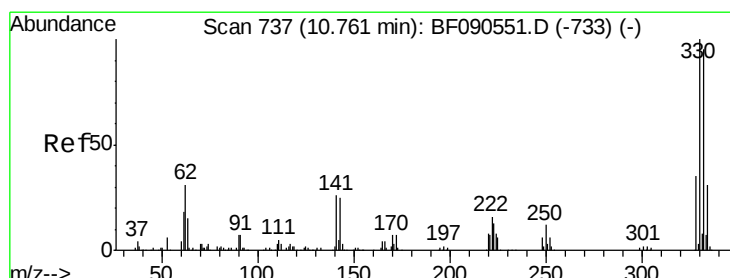
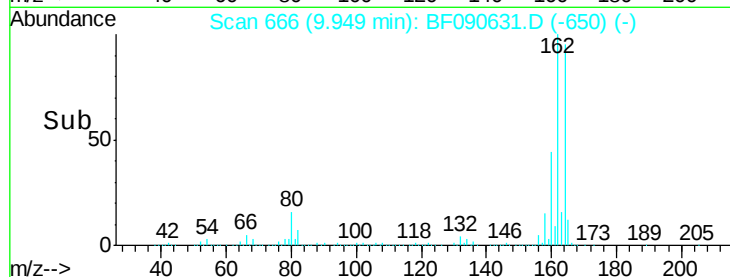
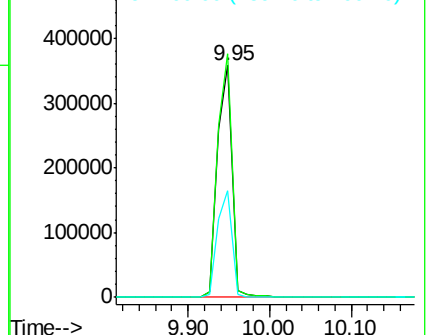
160 45.7 36.6 55.0



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: 103.32 ng

RT: 10.74 min Scan# 735

Delta R.T. -0.01 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

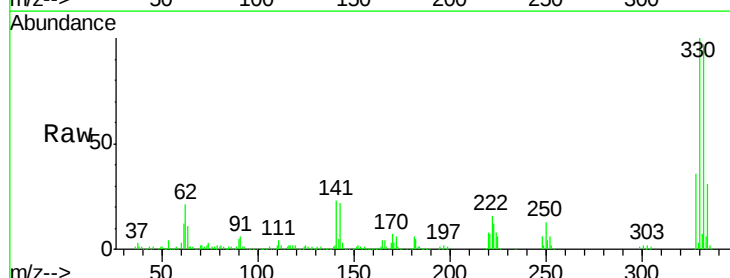
Tgt Ion:330 Resp: 410229

Ion Ratio Lower Upper

330 100

332 97.1 76.2 114.2

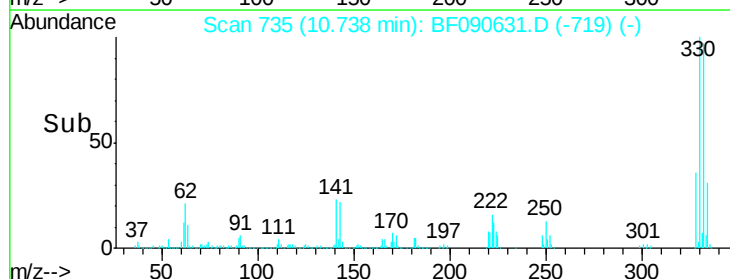
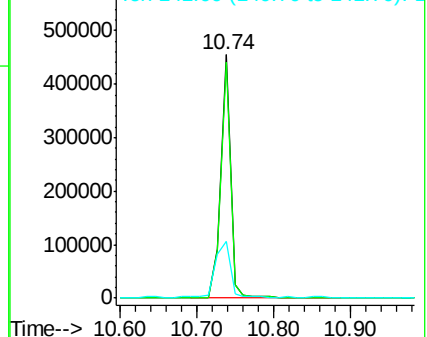
141 34.9 31.4 47.2

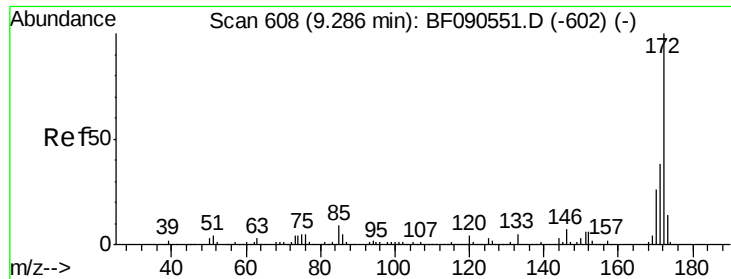


Abundance Ion 329.80 (329.50 to 330.50): E

Ion 331.80 (331.50 to 332.50): E

Ion 141.00 (140.70 to 141.70): E

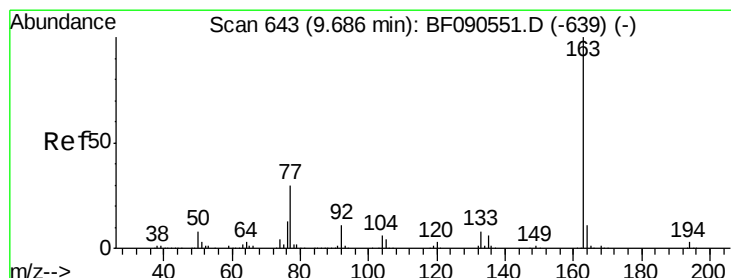
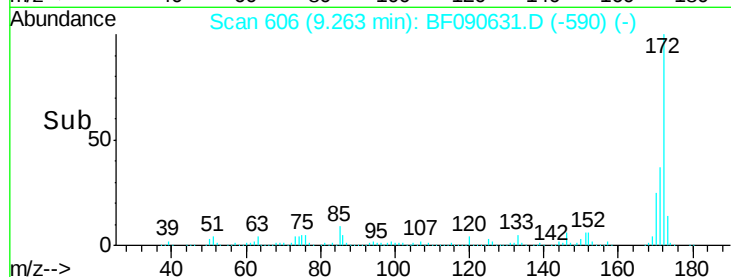
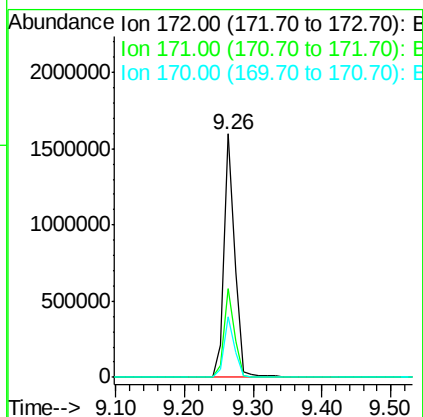
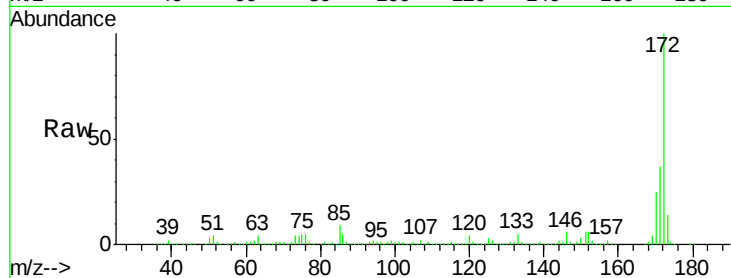




#44  
 2-Fluorobiphenyl  
 Concen: 66.50 ng  
 RT: 9.26 min Scan# 606  
 Delta R.T. -0.01 min  
 Lab File: BF090631.D  
 Acq: 18 Oct 2016 16:46

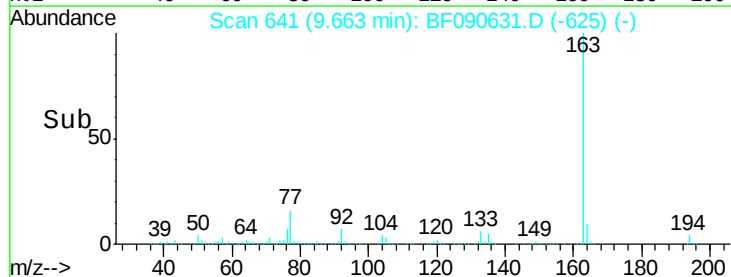
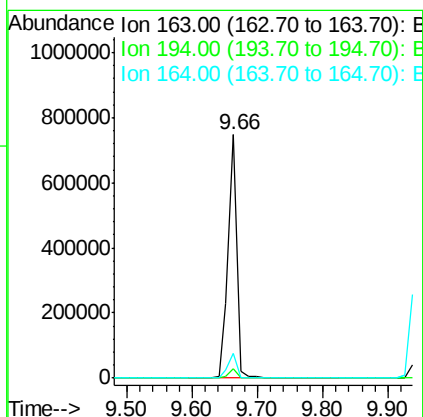
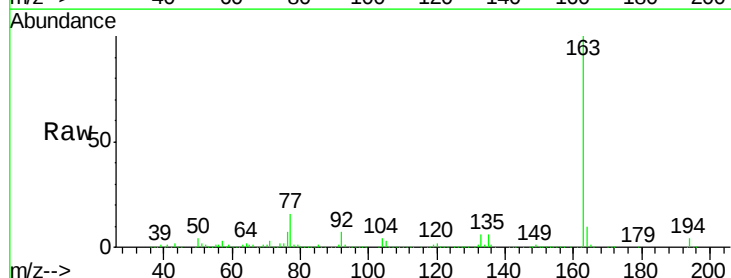
Instrument :  
 BNA\_F  
 ClientSampleId :  
 SP-3-2

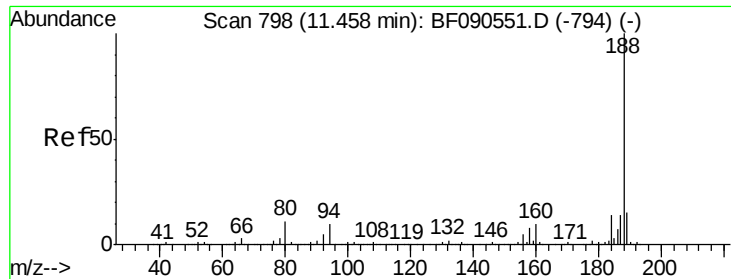
Tgt Ion:172 Resp: 1797406  
 Ion Ratio Lower Upper  
 172 100  
 171 36.5 30.1 45.1  
 170 24.8 20.6 30.8



#49  
 Dimethylphthalate  
 Concen: 24.55 ng  
 RT: 9.66 min Scan# 641  
 Delta R.T. -0.01 min  
 Lab File: BF090631.D  
 Acq: 18 Oct 2016 16:46

Tgt Ion:163 Resp: 709536  
 Ion Ratio Lower Upper  
 163 100  
 194 3.7 2.3 3.5#  
 164 10.0 8.6 13.0

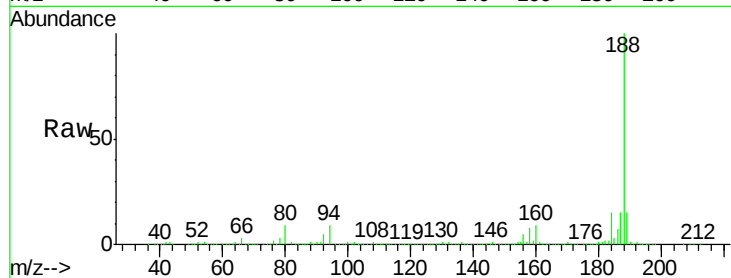




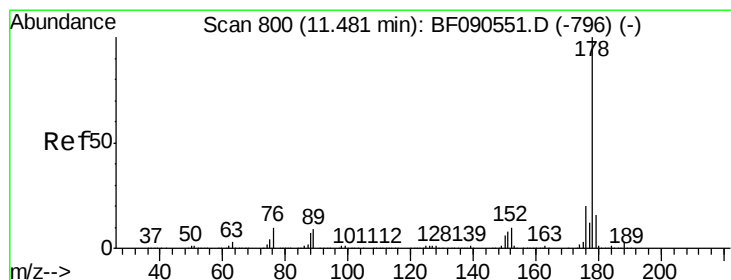
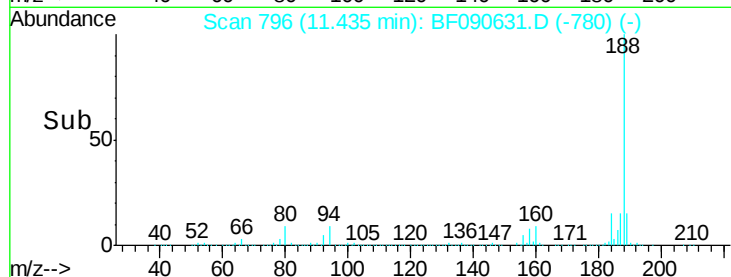
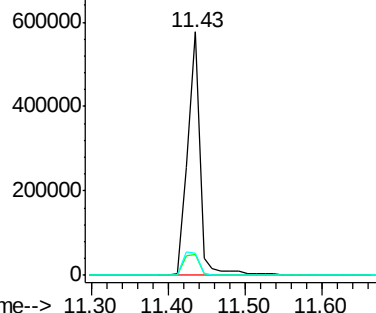
#63  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 11.43 min Scan# 796  
Delta R.T. -0.01 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

Instrument :  
BNA\_F  
ClientSampleId :  
SP-3-2

Tgt Ion:188 Resp: 648834  
Ion Ratio Lower Upper  
188 100  
94 8.6 7.7 11.5  
80 9.2 8.6 12.8

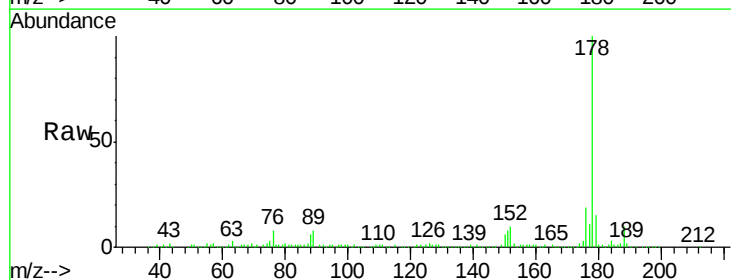


Abundance Ion 188.00 (187.70 to 188.70): E  
Ion 94.00 (93.70 to 94.70): BF0  
Ion 80.00 (79.70 to 80.70): BF0

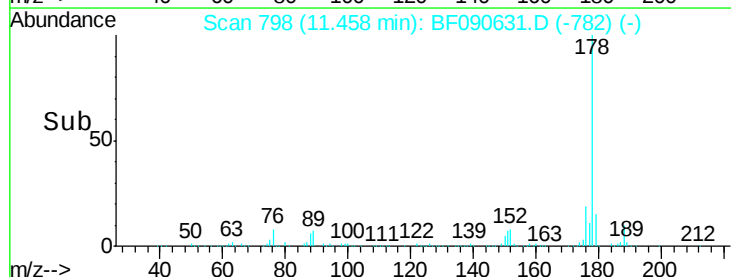
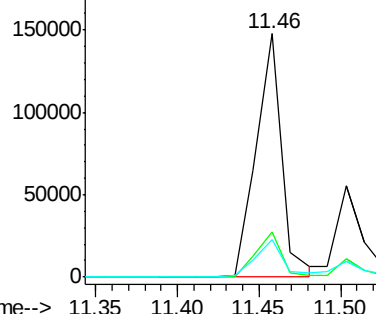


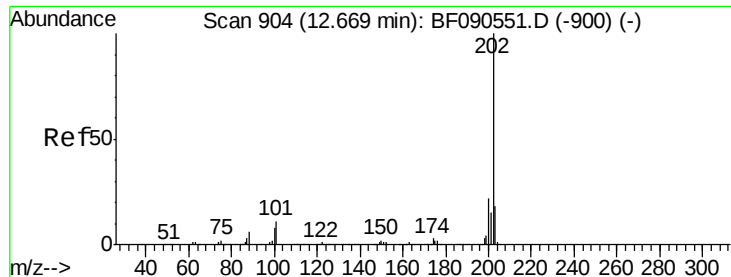
#70  
Phenanthrene  
Concen: 4.62 ng  
RT: 11.46 min Scan# 798  
Delta R.T. -0.01 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

Tgt Ion:178 Resp: 159955  
Ion Ratio Lower Upper  
178 100  
176 18.8 16.1 24.1  
179 15.2 12.6 19.0



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





#74

Fluoranthene

Concen: 7.36 ng

RT: 12.65 min Scan# 902

Delta R.T. -0.01 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

Instrument :

BNA\_F

ClientSampleId :

SP-3-2

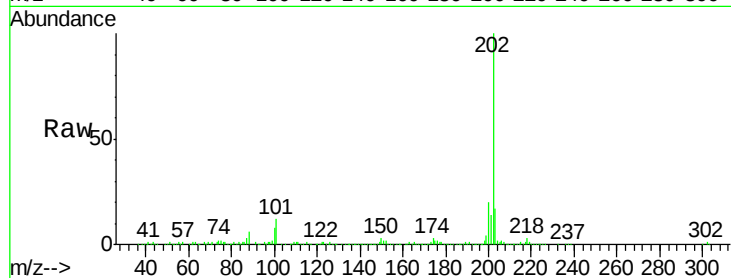
Tgt Ion:202 Resp: 256308

Ion Ratio Lower Upper

202 100

101 11.6 0.0 31.1

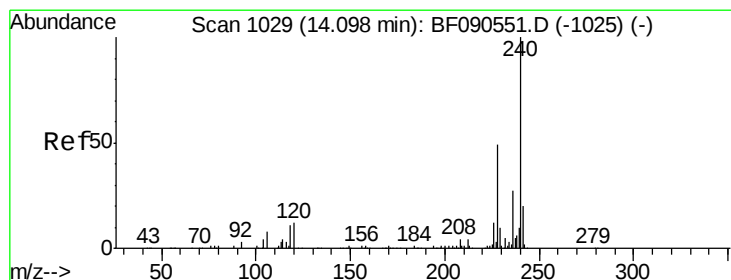
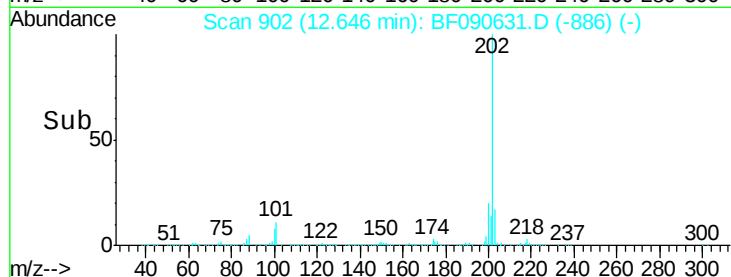
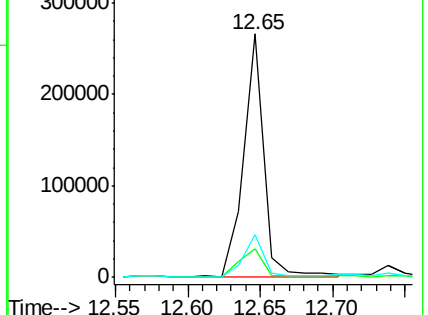
203 17.3 0.0 38.0



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: 14.08 min Scan# 1027

Delta R.T. -0.01 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

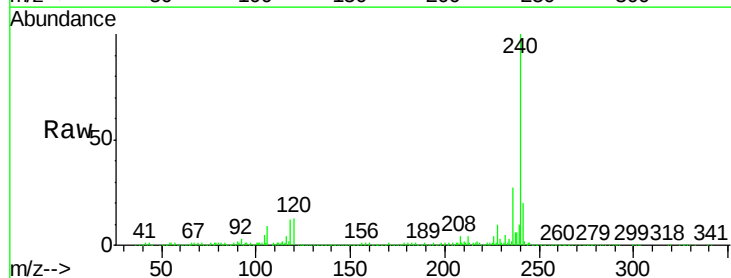
Tgt Ion:240 Resp: 557351

Ion Ratio Lower Upper

240 100

120 13.0 9.8 14.8

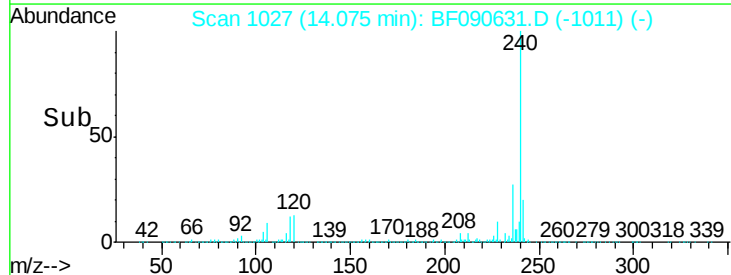
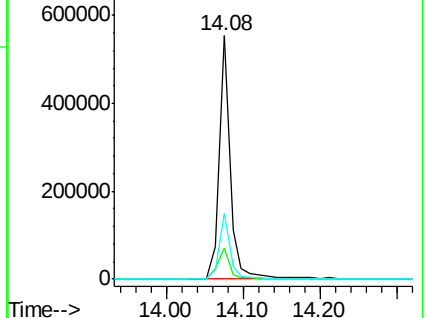
236 27.2 21.7 32.5

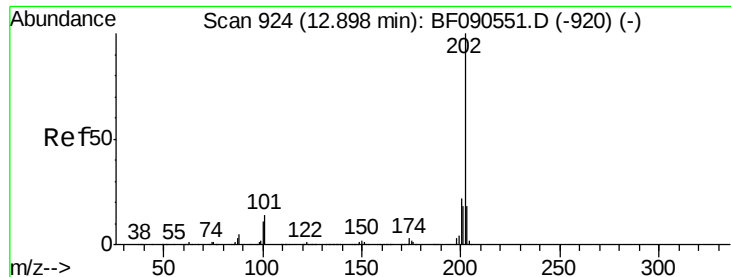


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E

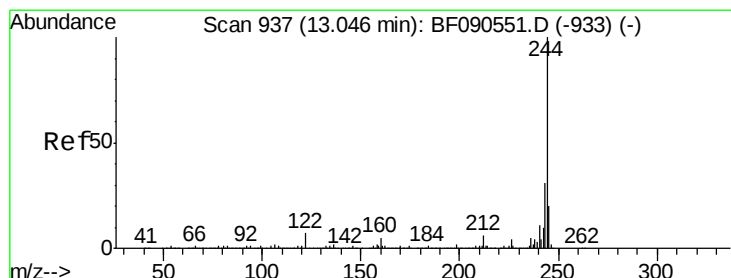
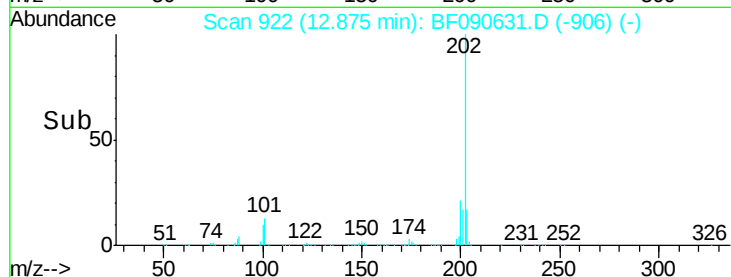
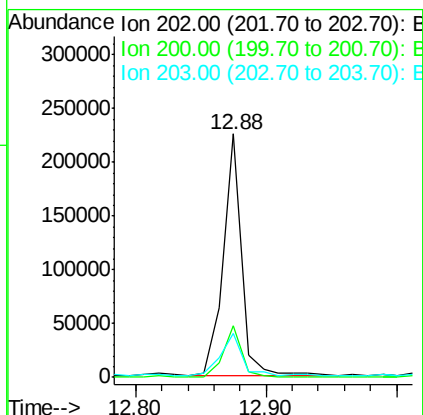
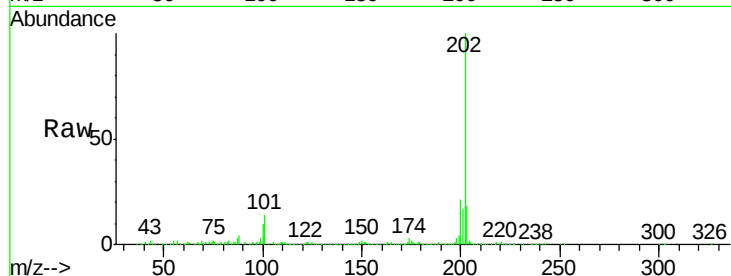




#77  
 Pyrene  
 Concen: 5.97 ng  
 RT: 12.88 min Scan# 922  
 Delta R.T. -0.01 min  
 Lab File: BF090631.D  
 Acq: 18 Oct 2016 16:46

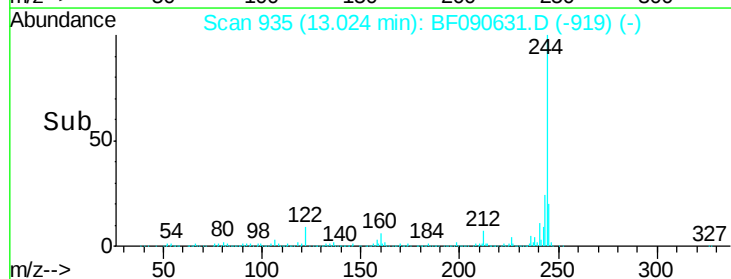
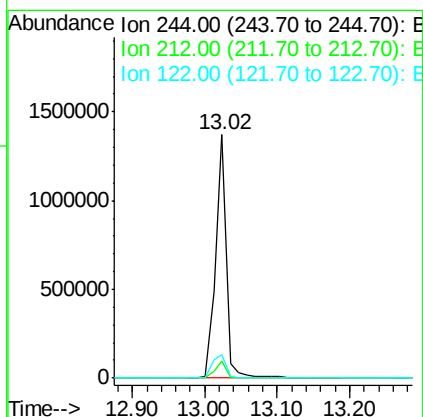
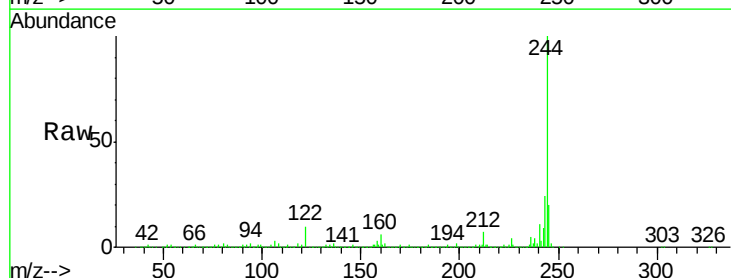
Instrument :  
 BNA\_F  
 ClientSampleId :  
 SP-3-2

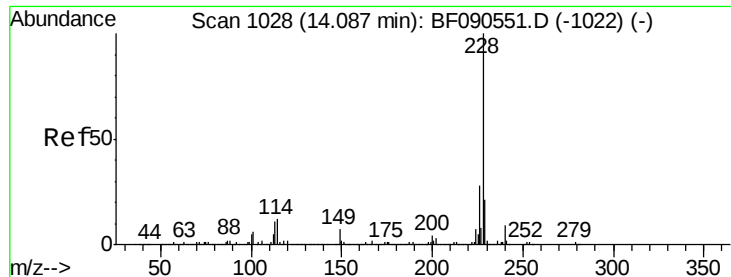
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.1  | 17.8  | 26.6  |
| 203     | 17.9  | 14.6  | 21.8  |



#78  
 Terphenyl-d14  
 Concen: 58.72 ng  
 RT: 13.02 min Scan# 935  
 Delta R.T. -0.01 min  
 Lab File: BF090631.D  
 Acq: 18 Oct 2016 16:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 6.8   | 5.0   | 7.4   |
| 122     | 9.5   | 5.6   | 8.4   |

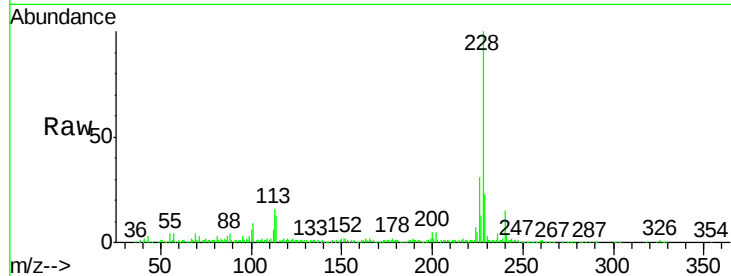




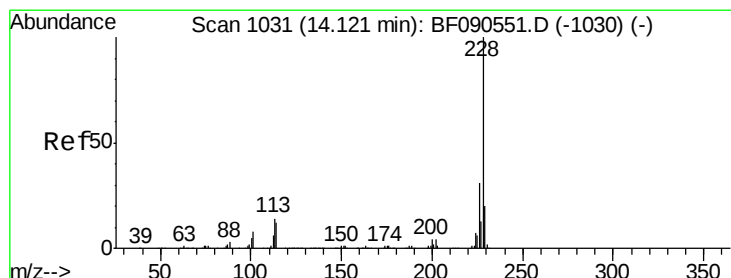
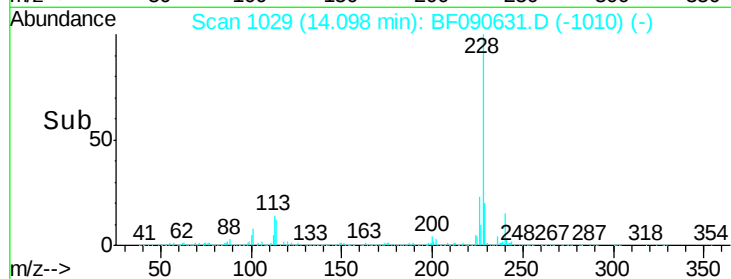
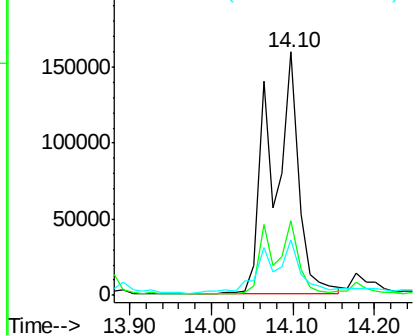
#80  
Benzo(a)anthracene  
Concen: 11.71 ng  
RT: 14.10 min Scan# 1029  
Delta R.T. 0.02 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

Instrument :  
BNA\_F  
ClientSampleId :  
SP-3-2

Tgt Ion:228 Resp: 371540  
Ion Ratio Lower Upper  
228 100  
226 30.6 22.8 34.2  
229 22.6 16.6 25.0

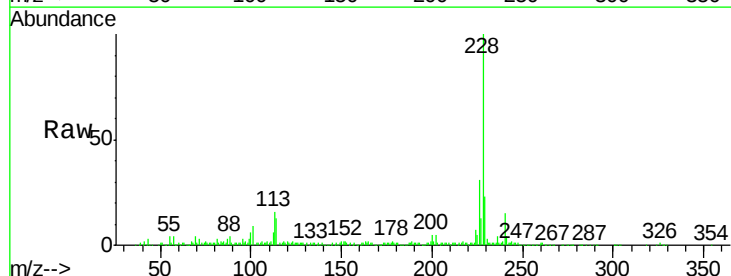


Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E

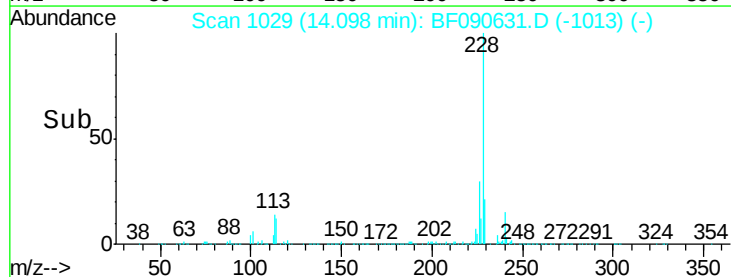
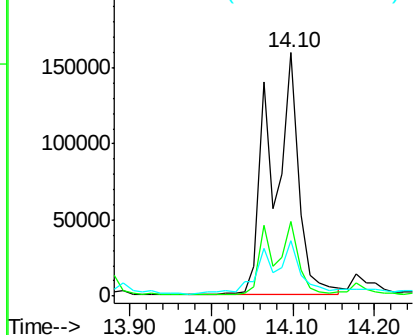


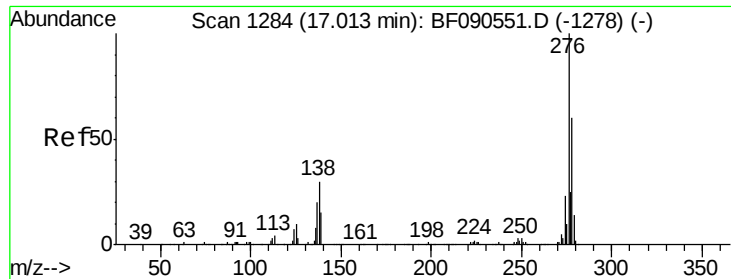
#82  
Chrysene  
Concen: 12.15 ng  
RT: 14.10 min Scan# 1029  
Delta R.T. -0.01 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

Tgt Ion:228 Resp: 371540  
Ion Ratio Lower Upper  
228 100  
226 30.6 24.8 37.2  
229 22.6 16.2 24.4



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

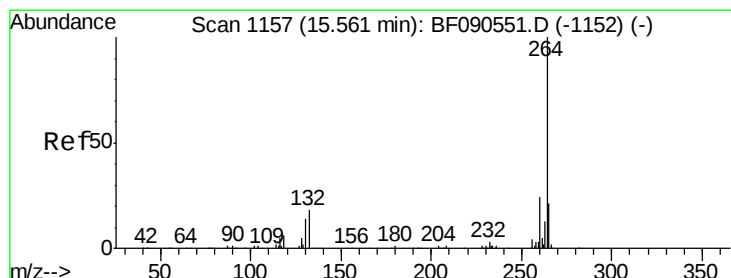
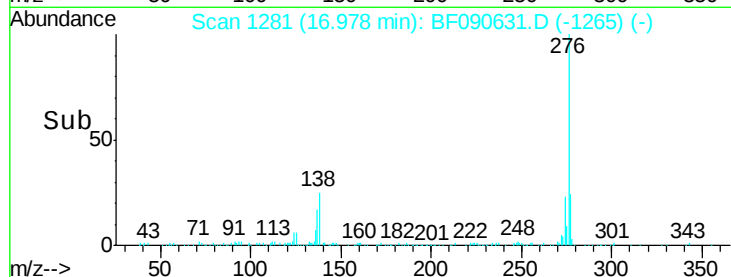
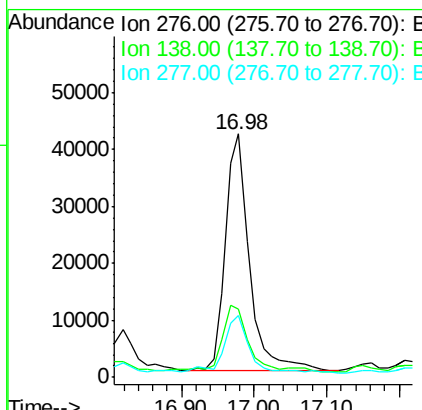
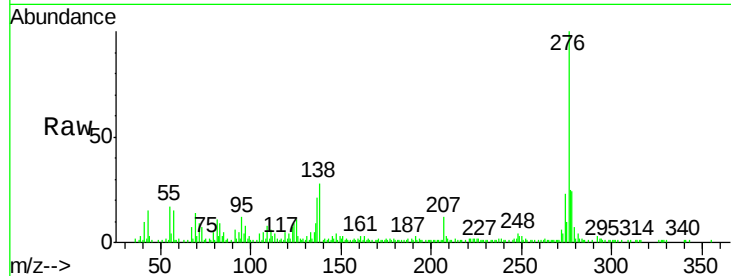




#85  
 Indeno(1,2,3-cd)pyrene  
 Concen: 5.40 ng  
 RT: 16.98 min Scan# 1281  
 Delta R.T. -0.01 min  
 Lab File: BF090631.D  
 Acq: 18 Oct 2016 16:46

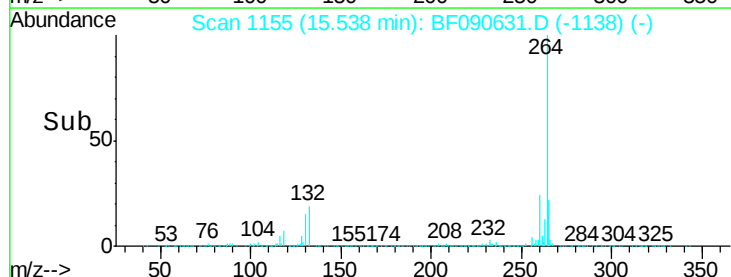
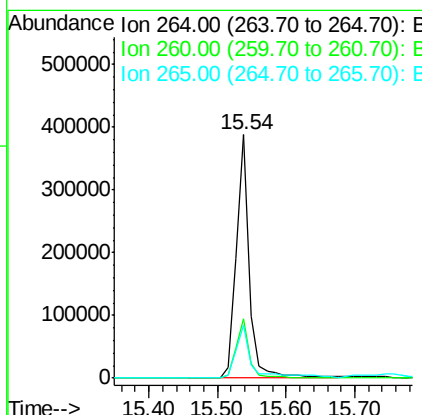
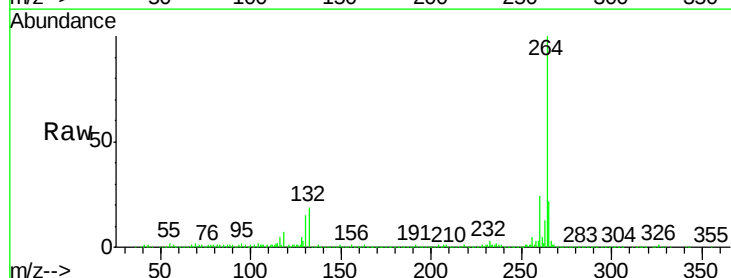
Instrument :  
 BNA\_F  
 ClientSampleId :  
 SP-3-2

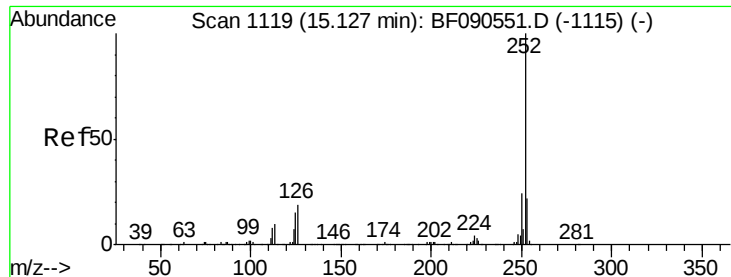
Tgt Ion: 276 Resp: 95497  
 Ion Ratio Lower Upper  
 276 100  
 138 32.1 25.8 38.6  
 277 27.1 20.1 30.1



#86  
 Perylene-d12  
 Concen: 20.00 ng  
 RT: 15.54 min Scan# 1155  
 Delta R.T. -0.00 min  
 Lab File: BF090631.D  
 Acq: 18 Oct 2016 16:46

Tgt Ion: 264 Resp: 518752  
 Ion Ratio Lower Upper  
 264 100  
 260 24.2 19.3 28.9  
 265 21.8 16.7 25.1

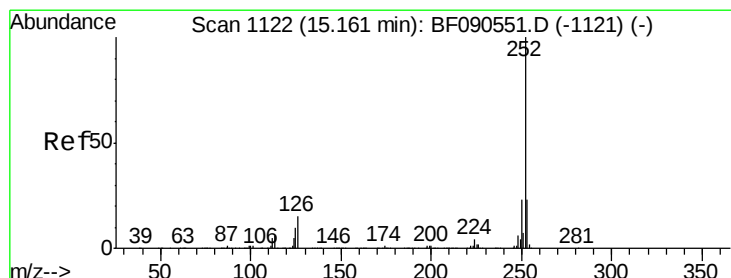
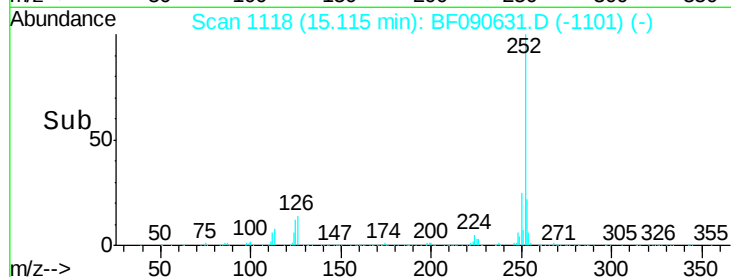
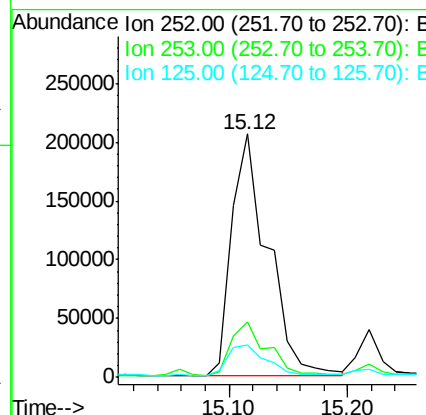
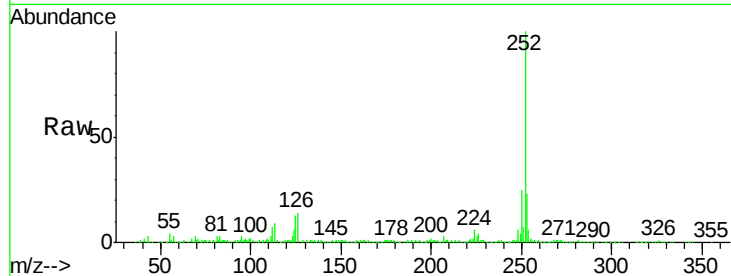




#87  
Benzo(b)fluoranthene  
Concen: 12.81 ng  
RT: 15.12 min Scan# 1118  
Delta R.T. -0.00 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

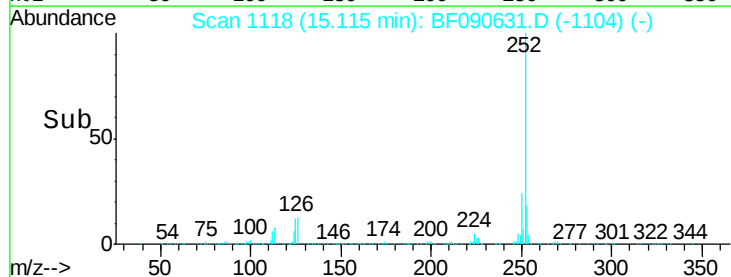
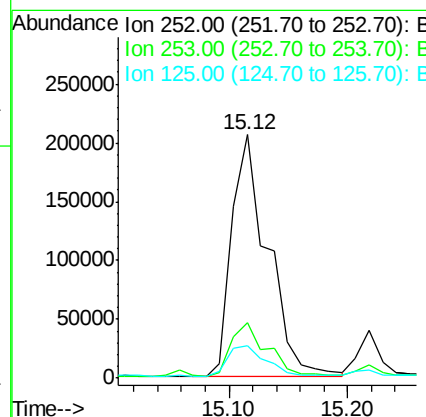
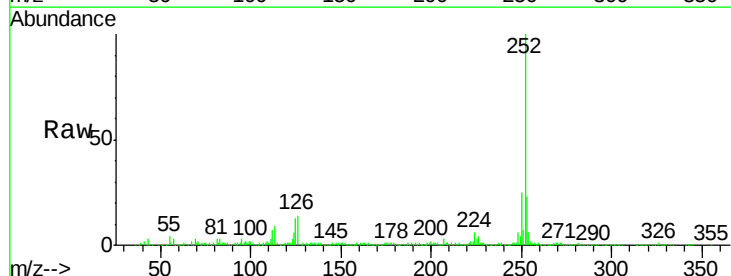
Instrument :  
BNA\_F  
ClientSampled :  
SP-3-2

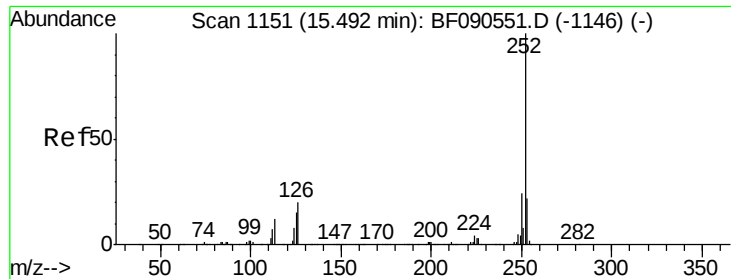
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.6  | 17.8  | 26.8  |
| 125     | 13.3  | 12.0  | 18.0  |



#88  
Benzo(k)fluoranthene  
Concen: 11.91 ng  
RT: 15.12 min Scan# 1118  
Delta R.T. -0.03 min  
Lab File: BF090631.D  
Acq: 18 Oct 2016 16:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.6  | 18.0  | 27.0  |
| 125     | 13.3  | 10.0  | 15.0  |





#89

Benzo(a)pyrene

Concen: 4.84 ng

RT: 15.47 min Scan# 1149

Delta R.T. -0.01 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

Instrument :

BNA\_F

ClientSampleId :

SP-3-2

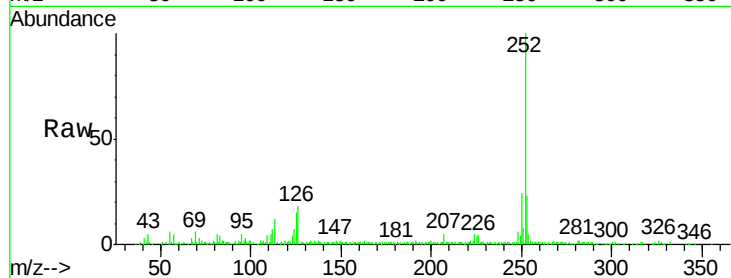
Tgt Ion:252 Resp: 150335

Ion Ratio Lower Upper

252 100

253 23.4 17.9 26.9

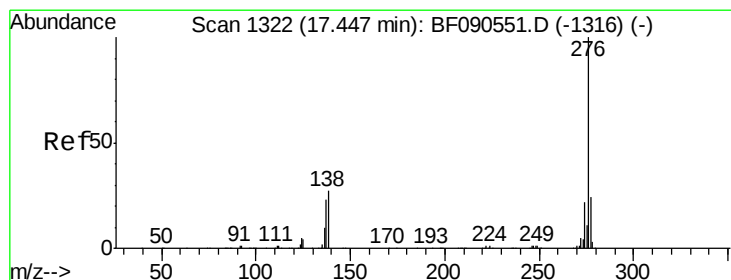
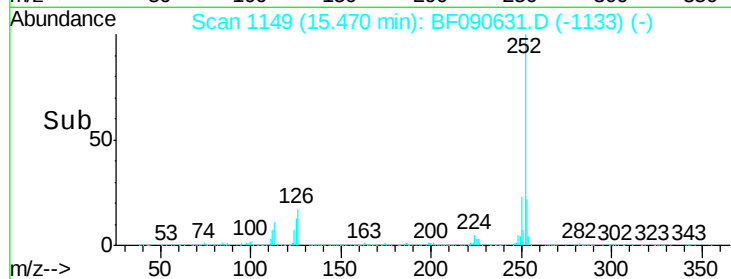
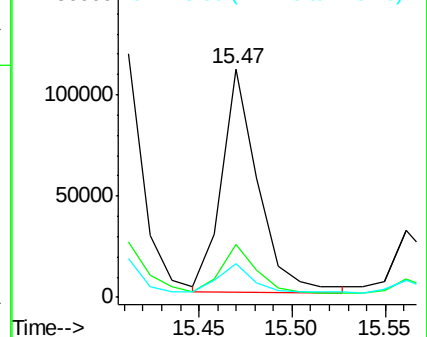
125 14.9 12.3 18.5



Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E



#91

Benzo(g,h,i)perylene

Concen: 3.74 ng

RT: 17.40 min Scan# 1318

Delta R.T. -0.02 min

Lab File: BF090631.D

Acq: 18 Oct 2016 16:46

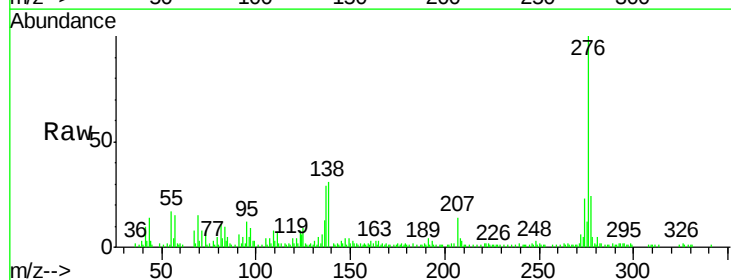
Tgt Ion:276 Resp: 84535

Ion Ratio Lower Upper

276 100

277 23.8 18.8 28.2

138 31.0 21.8 32.8



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

