

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF092218\  
 Data File : BF109239.D  
 Acq On : 22 Sep 2018 23:16  
 Operator : JU/SJ  
 Sample : J4777-21 2X  
 Misc :  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :

Quant Time: Sep 24 06:51:29 2018  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF092218.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Sat Sep 22 13:32:18 2018  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.70  | 152  | 115805   | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 7.99  | 136  | 434752   | 20.00 | ng    | 0.00     |
| 38) Acenaphthene-d10      | 9.74  | 164  | 181363   | 20.00 | ng    | 0.00     |
| 63) Phenanthrene-d10      | 11.21 | 188  | 282468   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12          | 13.84 | 240  | 229971   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12          | 15.24 | 264  | 182733   | 20.00 | ng    | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 5) 2-Fluorophenol           | 5.31  | 112  | 387684   | 55.14 | ng    | 0.00     |
| 7) Phenol-d6                | 6.34  | 99   | 494108   | 55.07 | ng    | -0.02    |
| 23) Nitrobenzene-d5         | 7.26  | 82   | 301549   | 40.94 | ng    | -0.02    |
| 41) 2,4,6-Tribromophenol    | 10.52 | 330  | 88668    | 49.59 | ng    | -0.02    |
| 44) 2-Fluorobiphenyl        | 9.06  | 172  | 556116   | 46.25 | ng    | -0.01    |
| 78) Terphenyl-d14           | 12.79 | 244  | 376066   | 40.13 | ng    | -0.01    |

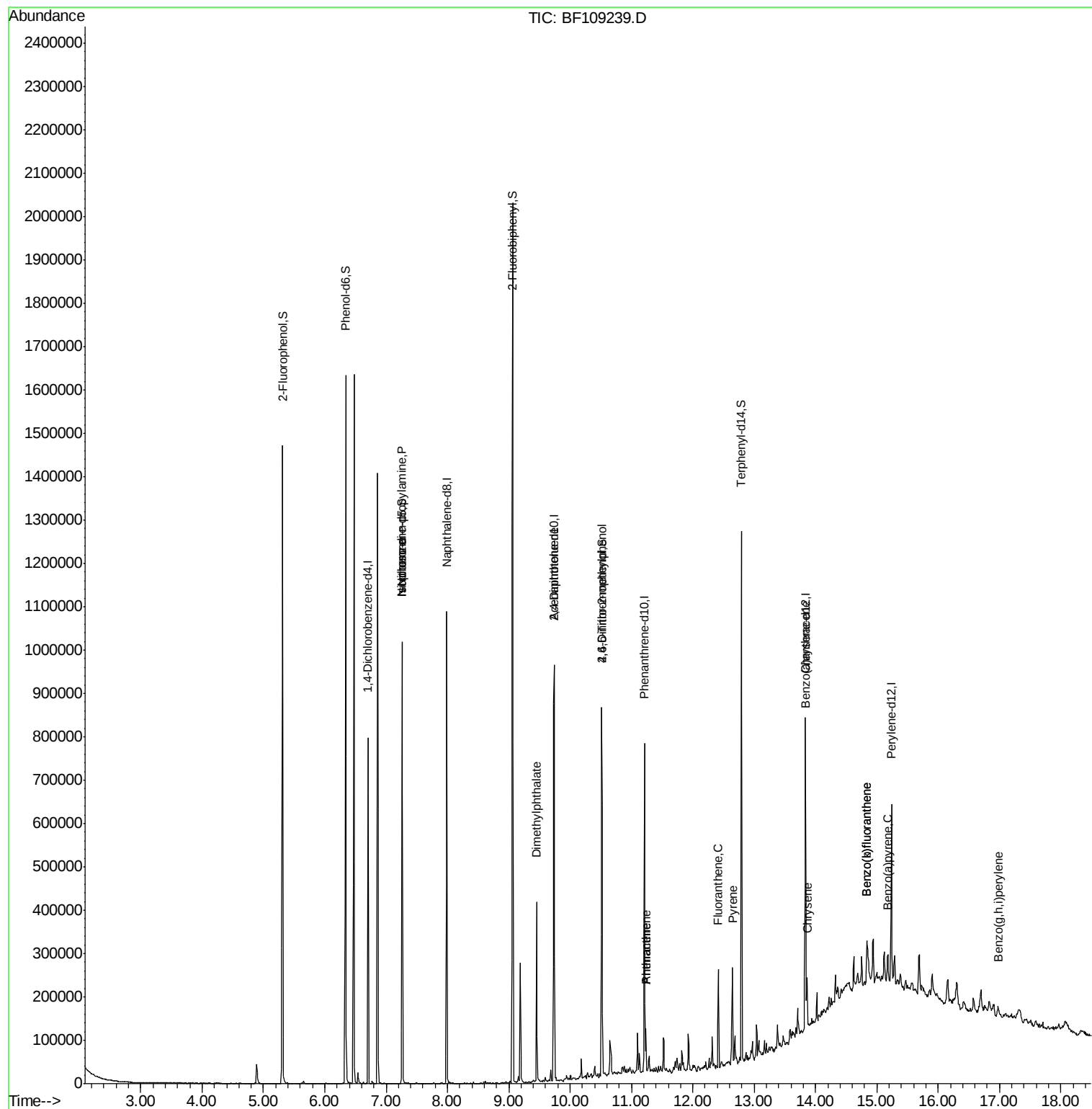
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units | Qvalue |
|--------------------------------|-------|------|----------|--------|-------|--------|
| 19) n-Nitroso-di-n-propylamine | 7.26  | 70   | 39124    | 6.655  | ng    | # 78   |
| 25) Isophorone                 | 7.26  | 82   | 286102   | 21.573 | ng    | # 64   |
| 49) Dimethylphthalate          | 9.46  | 163  | 148352   | 11.246 | ng    | 98     |
| 56) 2,4-Dinitrotoluene         | 9.74  | 165  | 23327    | 7.057  | ng    | # 24   |
| 64) 4,6-Dinitro-2-methylphenol | 10.52 | 198  | 115      | 6.608  | ng    | # 1    |
| 70) Phenanthrene               | 11.23 | 178  | 32269    | 2.288  | ng    | 98     |
| 71) Anthracene                 | 11.23 | 178  | 32269    | 2.256  | ng    | 98     |
| 74) Fluoranthene               | 12.42 | 202  | 83697    | 5.553  | ng    | 97     |
| 77) Pyrene                     | 12.64 | 202  | 89338    | 5.420  | ng    | 98     |
| 80) Benzo(a)anthracene         | 13.83 | 228  | 44875    | 3.240  | ng    | 95     |
| 82) Chrysene                   | 13.86 | 228  | 47026    | 3.425  | ng    | 95     |
| 87) Benzo(b)fluoranthene       | 14.84 | 252  | 68101    | 6.782  | ng    | # 90   |
| 88) Benzo(k)fluoranthene       | 14.84 | 252  | 68101    | 7.147  | ng    | 93     |
| 89) Benzo(a)pyrene             | 15.18 | 252  | 32756    | 3.620  | ng    | # 93   |
| 91) Benzo(a,h,i)perylene       | 16.98 | 276  | 19215    | 2.634  | ng    | 91     |

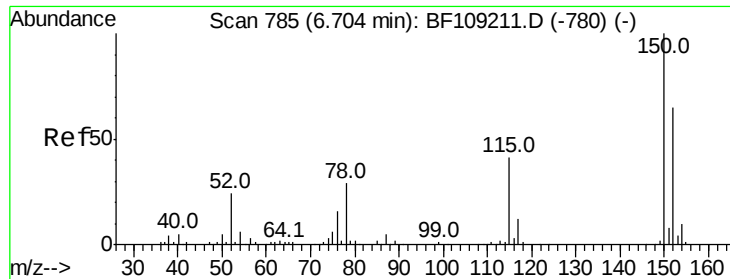
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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BNA\_F  
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Quant Time: Sep 24 06:51:29 2018  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF092218.M  
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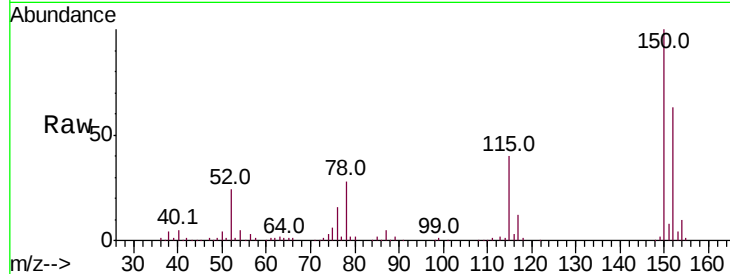


#1

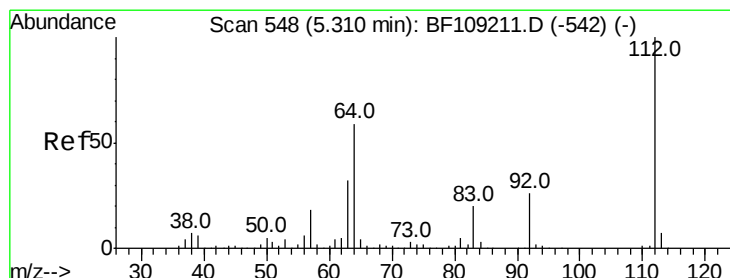
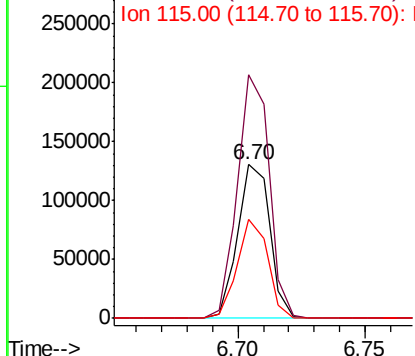
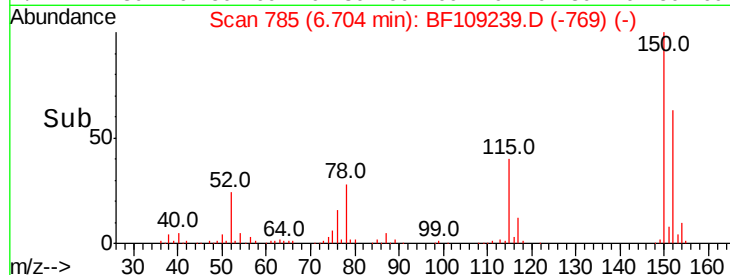
1,4-Dichlorobenzene-d4  
 Concen: 20.000 ng  
 RT: 6.70 min Scan# 785  
 Delta R.T. -0.01 min  
 Lab File: BF109239.D  
 Acq: 22 Sep 2018 23:16

Instrument :  
 BNA\_F  
 ClientSampleId :

Tot Ion:152 Resp: 115805  
 Ion Ratio Lower Upper  
 152 100  
 150 158.5 124.6 186.8  
 115 64.0 50.1 75.1



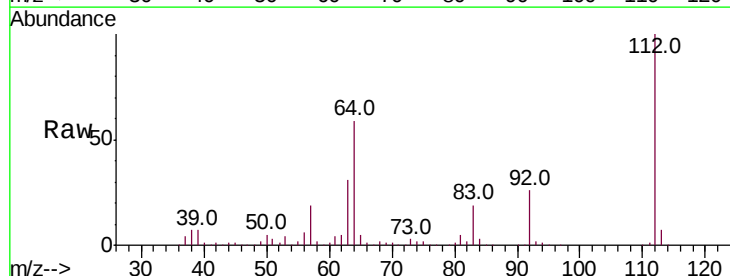
Abundance Ion 152.00 (151.70 to 152.70): E  
 Ion 150.00 (149.70 to 150.70): E  
 Ion 115.00 (114.70 to 115.70): E



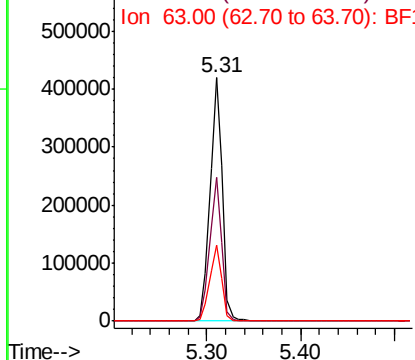
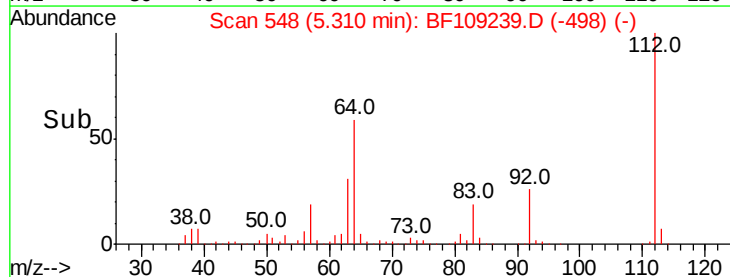
#5

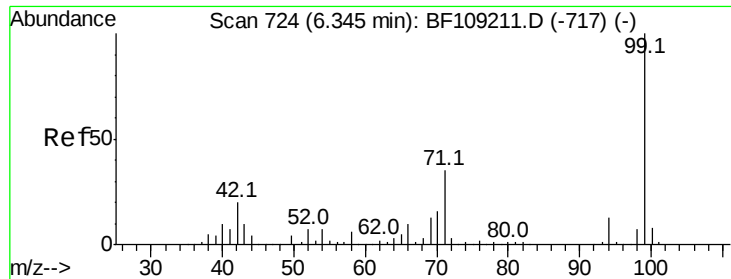
2-Fluorophenol  
 Concen: 55.140 ng  
 RT: 5.31 min Scan# 548  
 Delta R.T. -0.01 min  
 Lab File: BF109239.D  
 Acq: 22 Sep 2018 23:16

Tgt Ion:112 Resp: 387684  
 Ion Ratio Lower Upper  
 112 100  
 64 59.3 47.9 71.9  
 63 30.9 23.7 35.5



Abundance Ion 112.00 (111.70 to 112.70): E  
 Ion 64.00 (63.70 to 64.70): BF1  
 Ion 63.00 (62.70 to 63.70): BF1





#7

Phenol-d6

Concen: 55.074 ng

RT: 6.34 min Scan# 723

Delta R.T. -0.02 min

Lab File: BF109239.D

Acq: 22 Sep 2018 23:16

Instrument :

BNA\_F

ClientSampled :

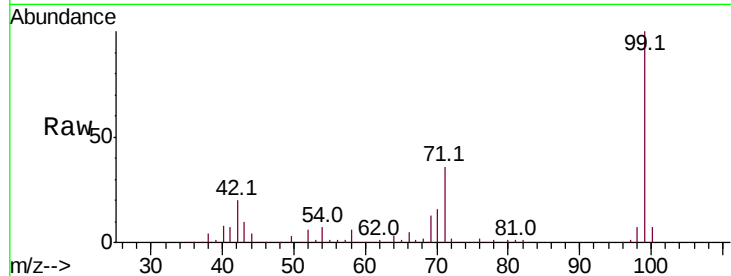
Tot Ion: 99 Resp: 494108

Ion Ratio Lower Upper

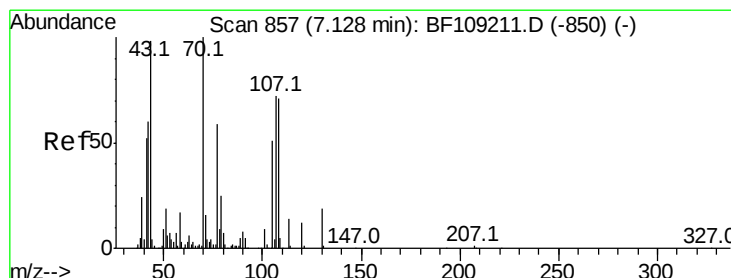
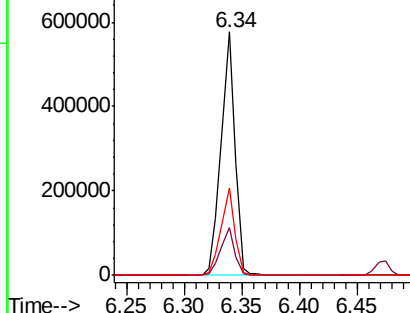
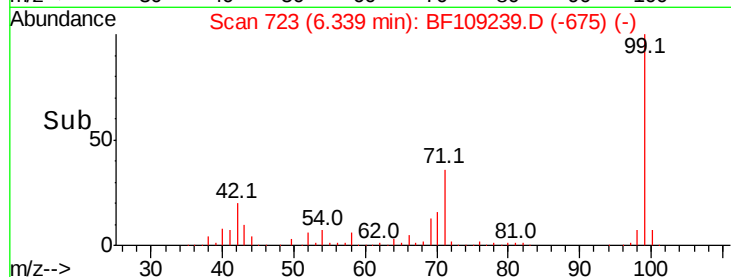
99 100

42 19.6 14.5 21.7

71 35.7 25.4 38.0



Abundance Ion 99.00 (98.70 to 99.70): BF1  
Ion 42.00 (41.70 to 42.70): BF1  
Ion 71.00 (70.70 to 71.70): BF1



#19

n-Nitroso-di-n-propylamine

Concen: 6.655 ng

RT: 7.26 min Scan# 880

Delta R.T. 0.12 min

Lab File: BF109239.D

Acq: 22 Sep 2018 23:16

Tgt Ion: 70 Resp: 39124

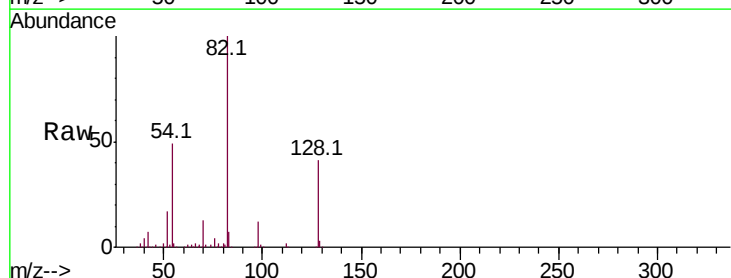
Ion Ratio Lower Upper

70 100

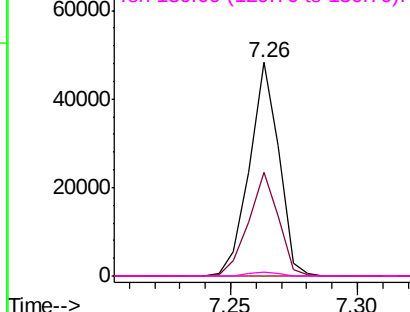
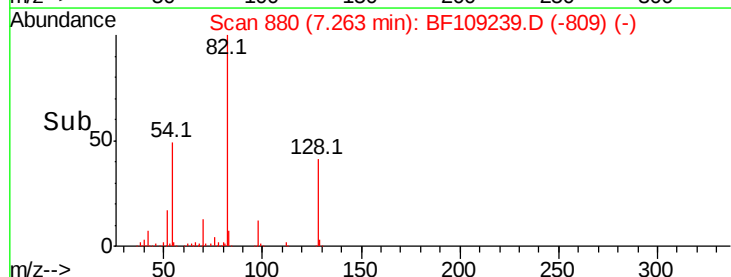
42 48.5 47.5 71.3

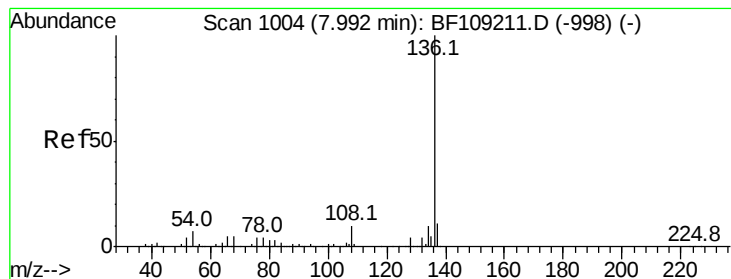
101 0.0 7.4 11.2#

130 1.9 16.6 25.0#



Abundance Ion 70.00 (69.70 to 70.70): BF1  
Ion 42.00 (41.70 to 42.70): BF1  
Ion 101.00 (100.70 to 101.70): BF1  
Ion 130.00 (129.70 to 130.70): BF1





#21

Naphthalene-d8

Concen: 20.000 ng

RT: 7.99 min Scan# 1003

Delta R.T. -0.01 min

Lab File: BF109239.D

Acq: 22 Sep 2018 23:16

Instrument :

BNA\_F

ClientSampleId :

Tot Ion:136 Resp: 434752

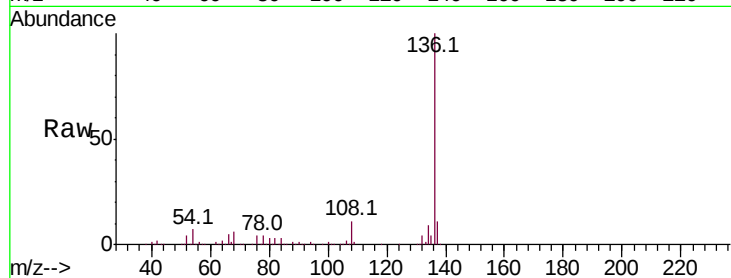
Ion Ratio Lower Upper

136 100

137 11.0 8.9 13.3

54 7.4 6.6 9.8

68 5.9 5.0 7.4

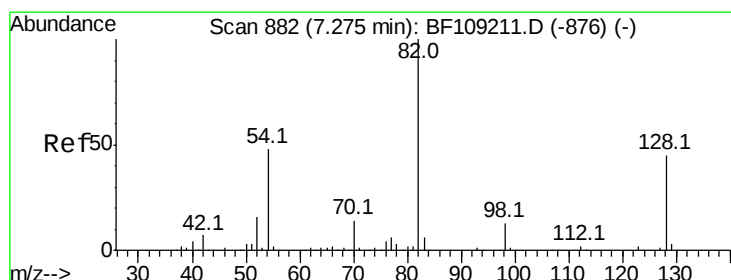
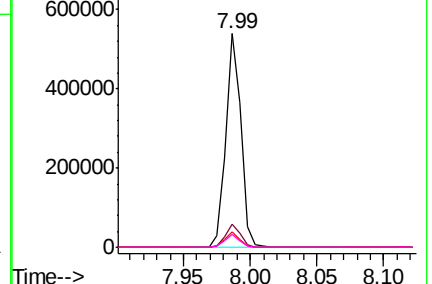
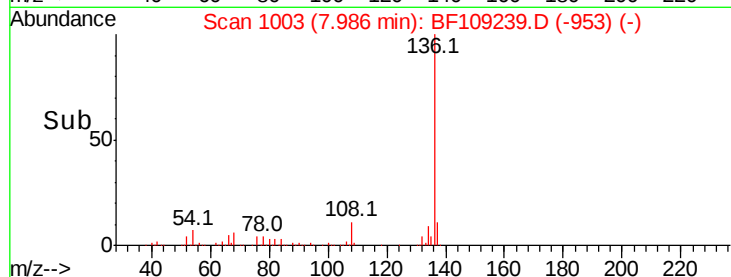


Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BF1

Ion 68.00 (67.70 to 68.70): BF1



#23

Nitrobenzene-d5

Concen: 40.945 ng

RT: 7.26 min Scan# 880

Delta R.T. -0.02 min

Lab File: BF109239.D

Acq: 22 Sep 2018 23:16

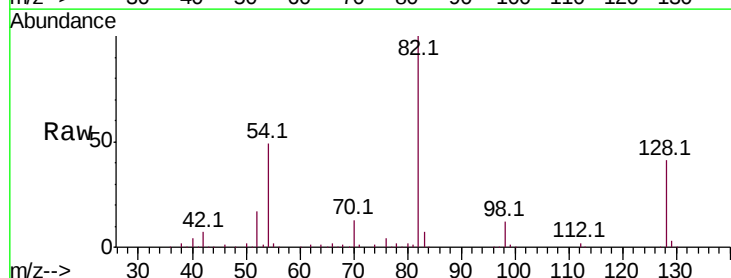
Tgt Ion: 82 Resp: 301549

Ion Ratio Lower Upper

82 100

128 40.7 36.1 54.1

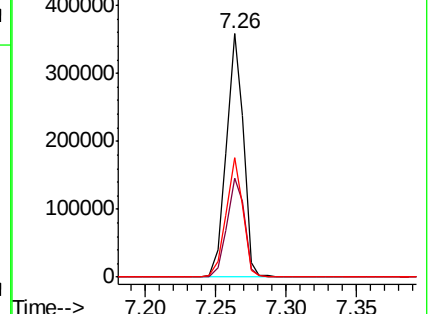
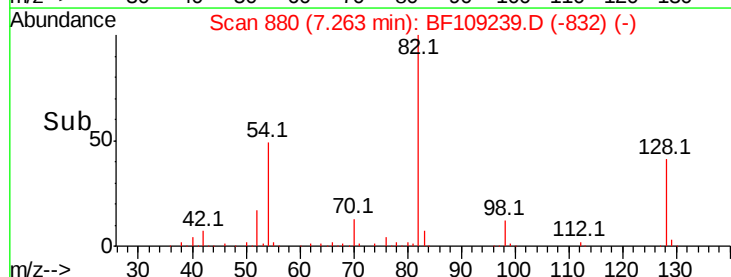
54 48.9 41.4 62.2

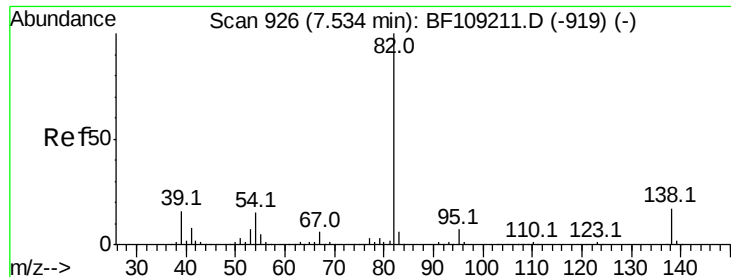


Abundance Ion 82.00 (81.70 to 82.70): BF1

Ion 128.00 (127.70 to 128.70): E

Ion 54.00 (53.70 to 54.70): BF1





#25

Isophorone

Concen: 21.573 ng

RT: 7.26 min Scan# 880

Delta R.T. -0.28 min

Lab File: BF109239.D

Acq: 22 Sep 2018 23:16

Instrument :

BNA\_F

ClientSampleId :

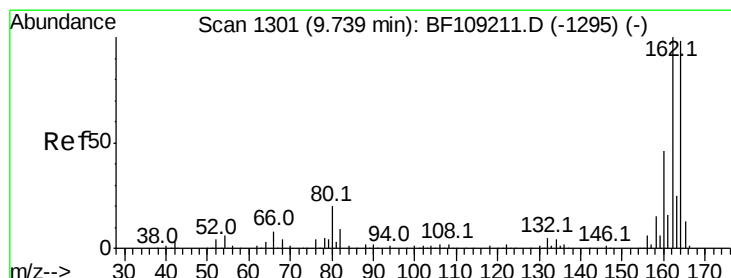
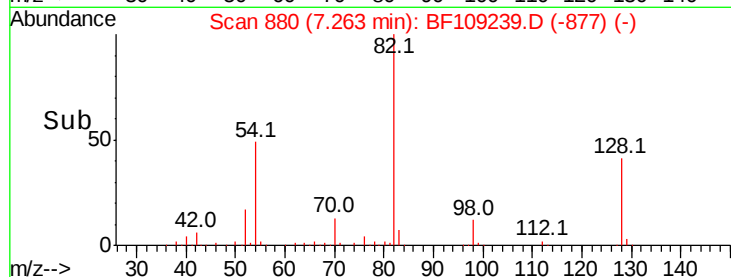
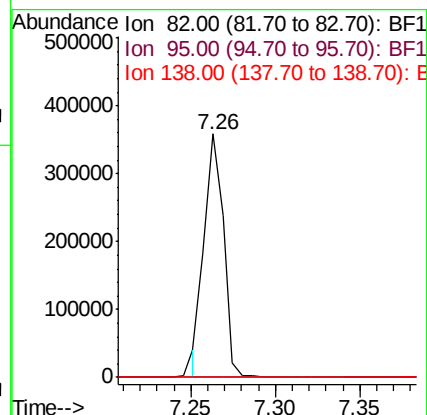
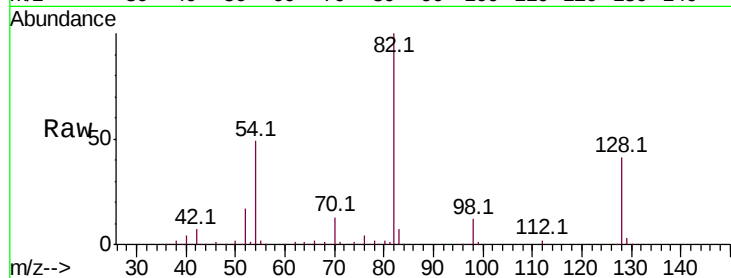
Tot Ion: 82 Resp: 286102

Ion Ratio Lower Upper

82 100

95 0.0 5.2 7.8#

138 0.0 14.9 22.3#



#38

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.74 min Scan# 1301

Delta R.T. -0.00 min

Lab File: BF109239.D

Acq: 22 Sep 2018 23:16

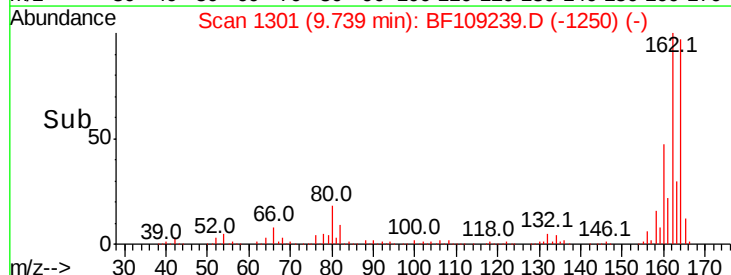
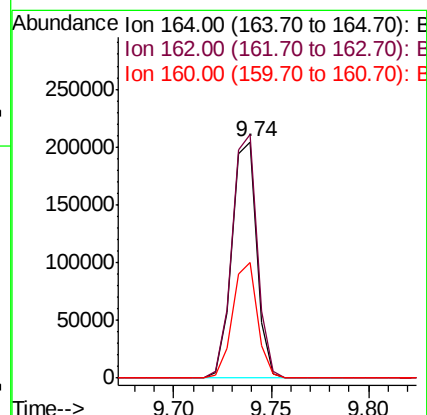
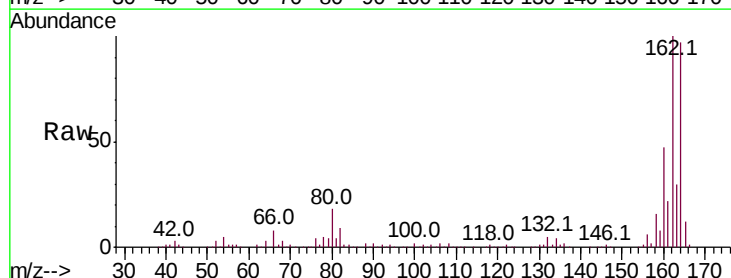
Tgt Ion:164 Resp: 181363

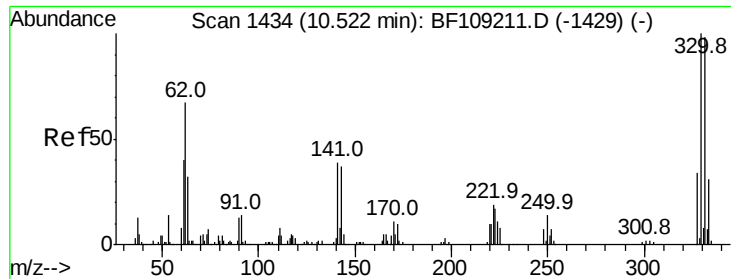
Ion Ratio Lower Upper

164 100

162 103.1 86.1 129.1

160 48.8 38.3 57.5

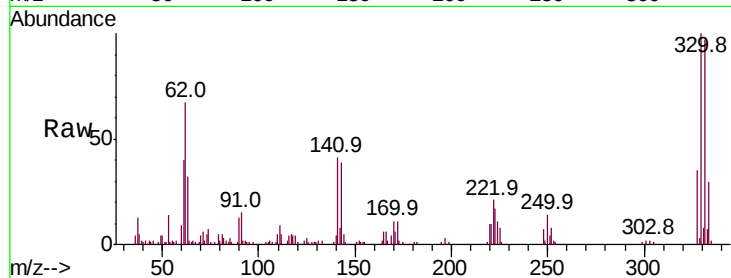




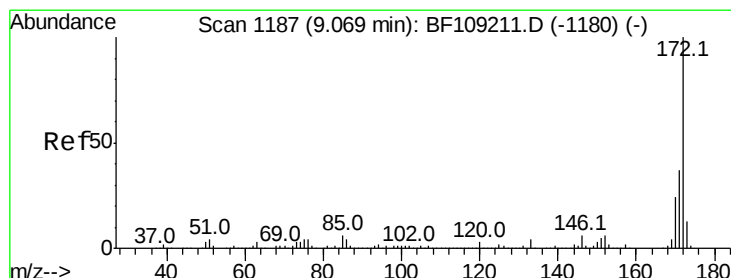
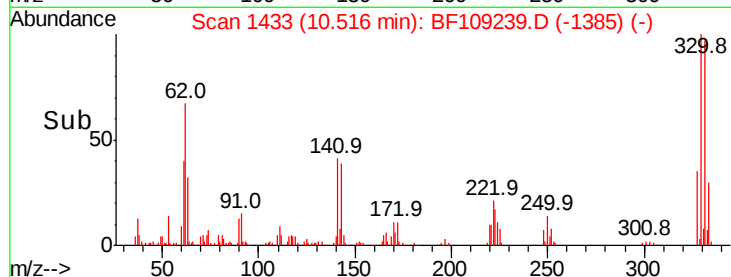
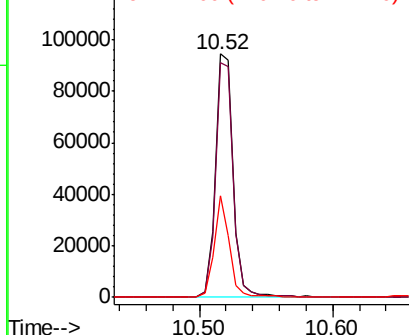
#41  
 2,4,6-Tribromophenol  
 Concen: 49.594 ng  
 RT: 10.52 min Scan# 1433  
 Delta R.T. -0.02 min  
 Lab File: BF109239.D  
 Acq: 22 Sep 2018 23:16

Instrument :  
 BNA\_F  
 ClientSampleId :

Tot Ion:330 Resp: 88668  
 Ion Ratio Lower Upper  
 330 100  
 332 96.1 77.0 115.6  
 141 36.0 29.9 44.9

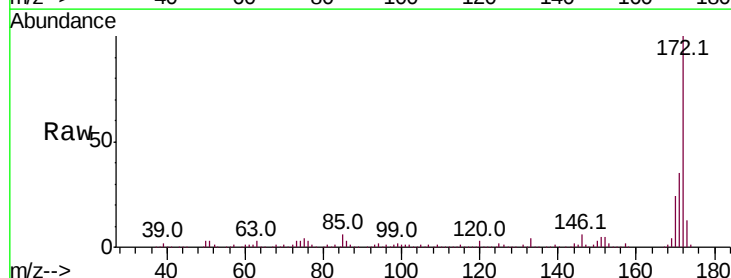


Abundance Ion 329.80 (329.50 to 330.50): E  
 Ion 331.80 (331.50 to 332.50): E  
 Ion 141.00 (140.70 to 141.70): E

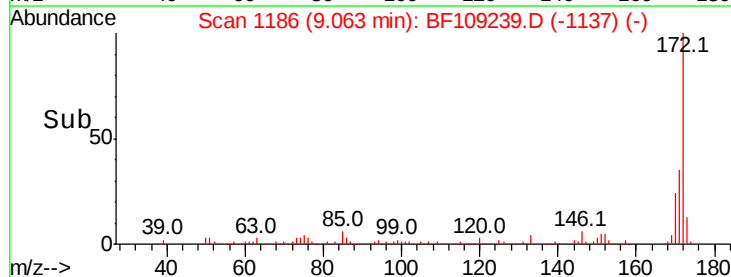
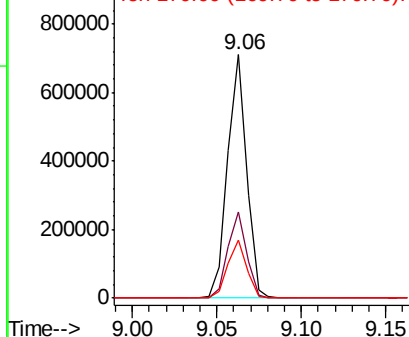


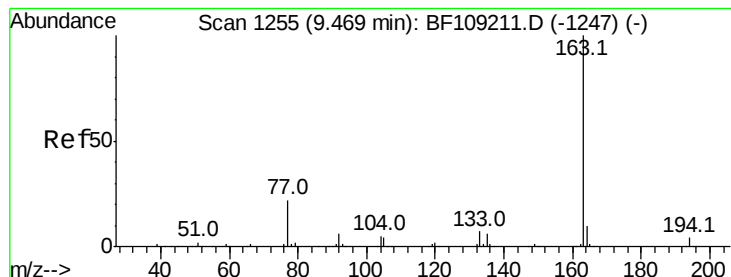
#44  
 2-Fluorobiphenyl  
 Concen: 46.246 ng  
 RT: 9.06 min Scan# 1186  
 Delta R.T. -0.01 min  
 Lab File: BF109239.D  
 Acq: 22 Sep 2018 23:16

Tgt Ion:172 Resp: 556116  
 Ion Ratio Lower Upper  
 172 100  
 171 35.3 29.7 44.5  
 170 24.0 19.6 29.4



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: 11.246 ng

RT: 9.46 min Scan# 1253

Delta R.T. -0.02 min

Lab File: BF109239.D

Acq: 22 Sep 2018 23:16

Instrument :

BNA\_F

ClientSampled :

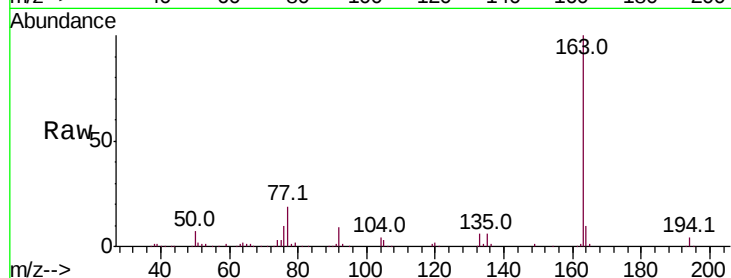
Tot Ion:163 Resp: 148352

Ion Ratio Lower Upper

163 100

194 3.9 2.7 4.1

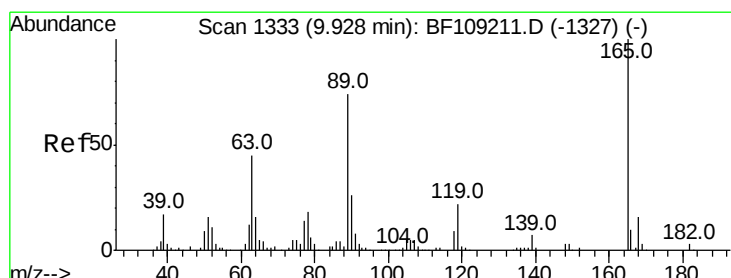
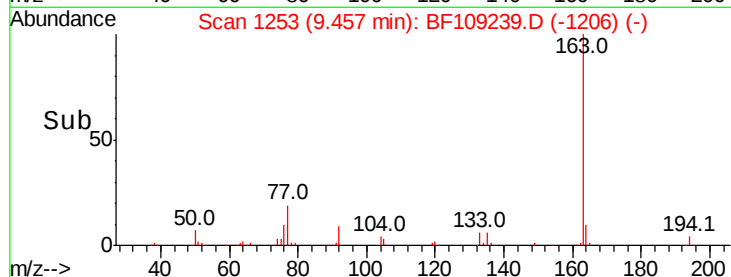
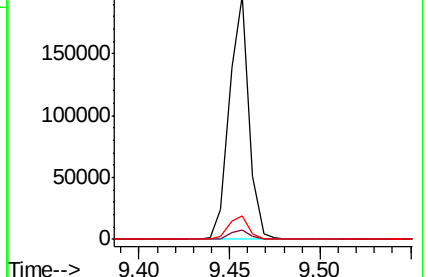
164 9.5 8.2 12.2



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



#56

2,4-Dinitrotoluene

Concen: 7.057 ng

RT: 9.74 min Scan# 1301

Delta R.T. -0.20 min

Lab File: BF109239.D

Acq: 22 Sep 2018 23:16

Tgt Ion:165 Resp: 23327

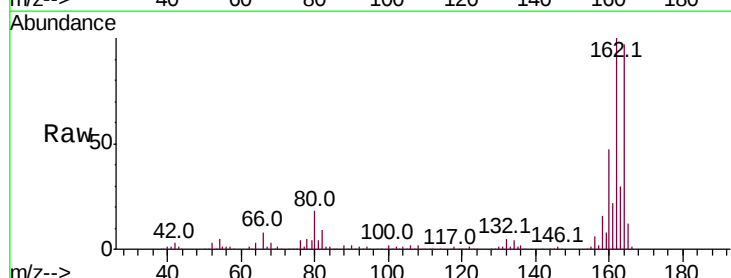
Ion Ratio Lower Upper

165 100

63 1.5 36.4 54.6#

89 2.3 57.8 86.6#

182 0.0 1.6 2.4#

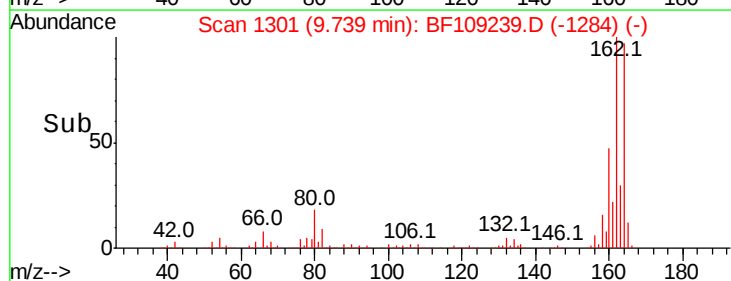
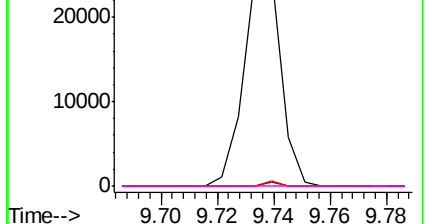


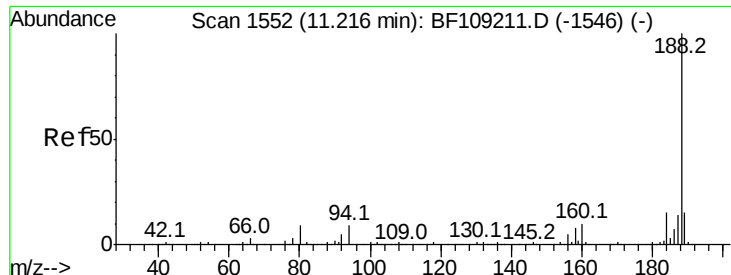
Abundance Ion 165.00 (164.70 to 165.70): E

Ion 63.00 (62.70 to 63.70): BF1

Ion 89.00 (88.70 to 89.70): BF1

Ion 182.00 (181.70 to 182.70): E

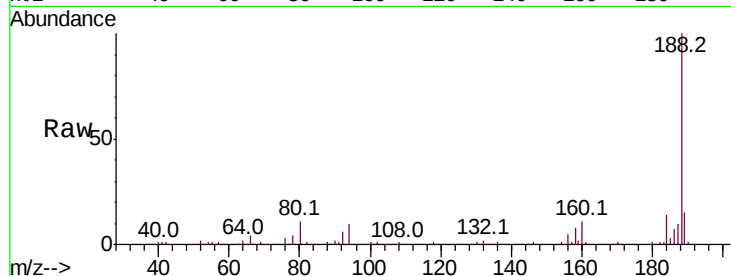




#63  
 Phenanthrene-d10  
 Concen: 20.000 ng  
 RT: 11.21 min Scan# 1551  
 Delta R.T. -0.01 min  
 Lab File: BF109239.D  
 Acq: 22 Sep 2018 23:16

Instrument :  
 BNA\_F  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 188     | 100   |       |       |
| 94      | 9.8   | 8.5   | 12.7  |
| 80      | 10.9  | 9.2   | 13.8  |

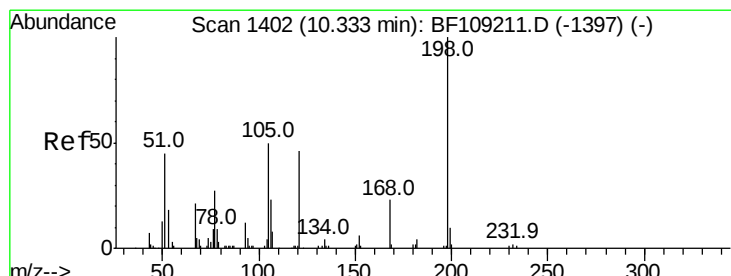
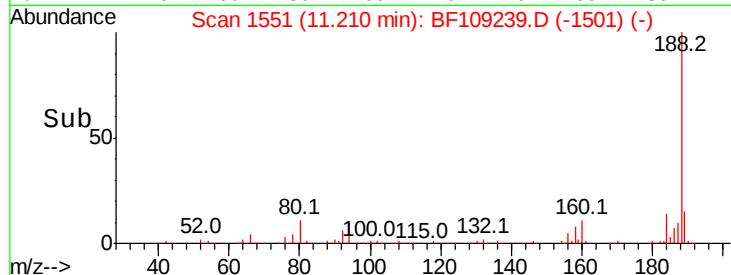
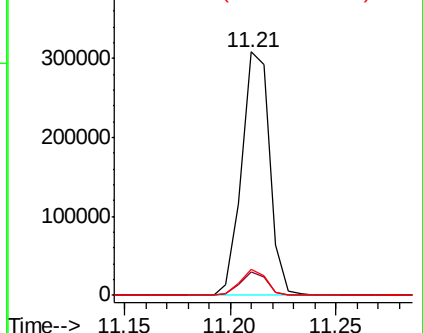


Abundance

Ion 188.00 (187.70 to 188.70): E

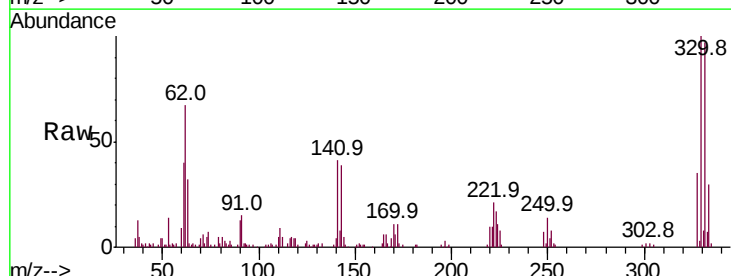
Ion 94.00 (93.70 to 94.70): BF1

Ion 80.00 (79.70 to 80.70): BF1



#64  
 4,6-Dinitro-2-methylphenol  
 Concen: 6.608 ng  
 RT: 10.52 min Scan# 1433  
 Delta R.T. 0.17 min  
 Lab File: BF109239.D  
 Acq: 22 Sep 2018 23:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 198     | 100   |       |       |
| 51      | 209.2 | 37.7  | 77.7# |
| 105     | 329.8 | 36.3  | 76.3# |

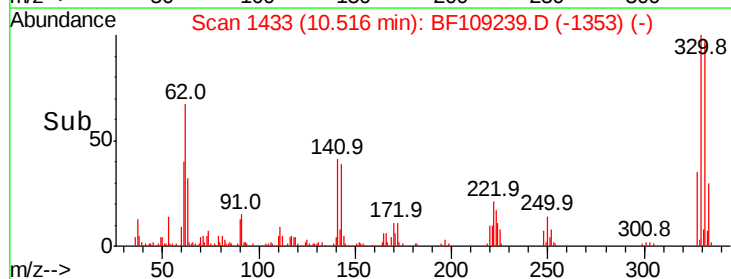
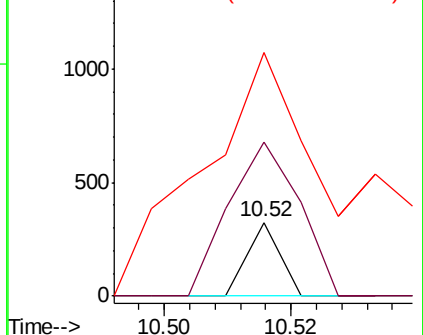


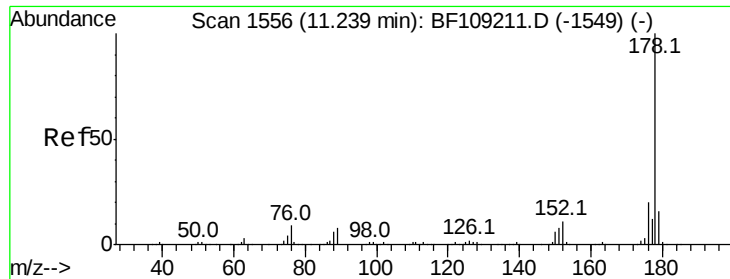
Abundance

Ion 198.00 (197.70 to 198.70): E

Ion 51.00 (50.70 to 51.70): BF1

Ion 105.00 (104.70 to 105.70): E

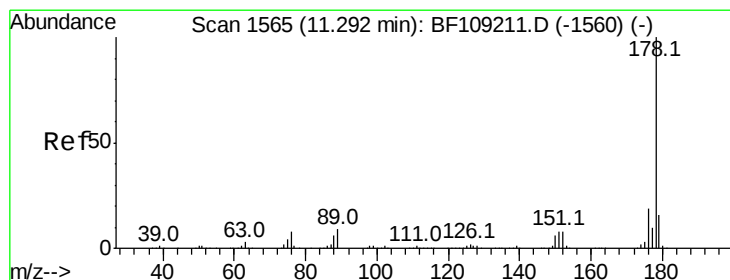
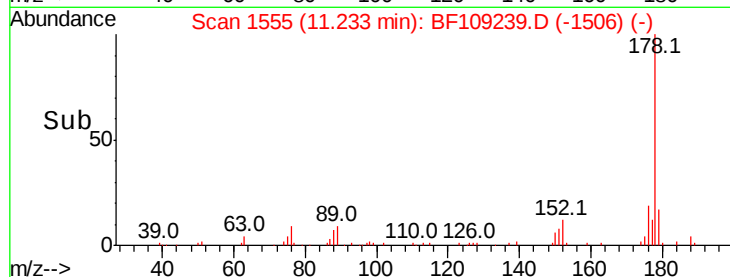
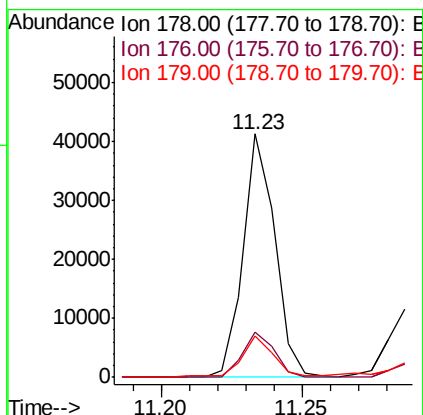
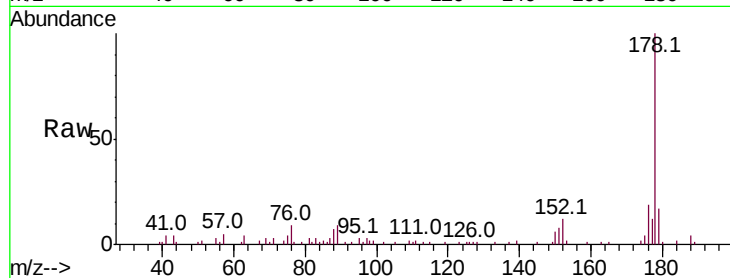




#70  
Phenanthrene  
Concen: 2.288 ng  
RT: 11.23 min Scan# 1555  
Delta R.T. -0.01 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

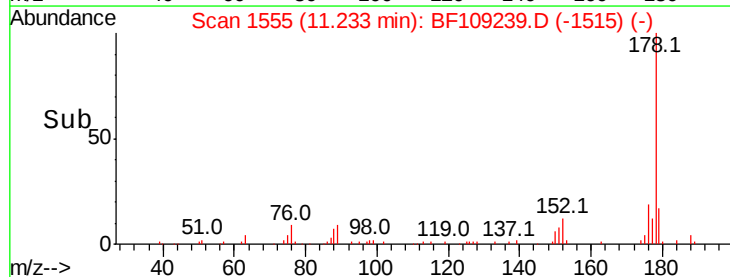
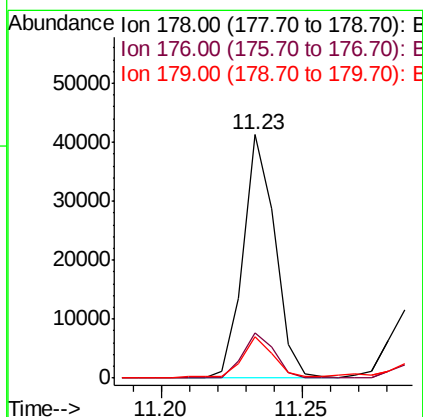
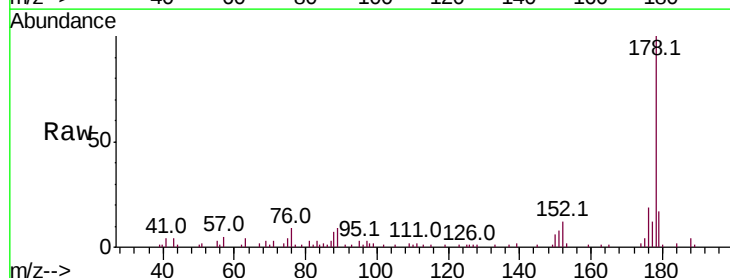
Instrument :  
BNA\_F  
ClientSampled :

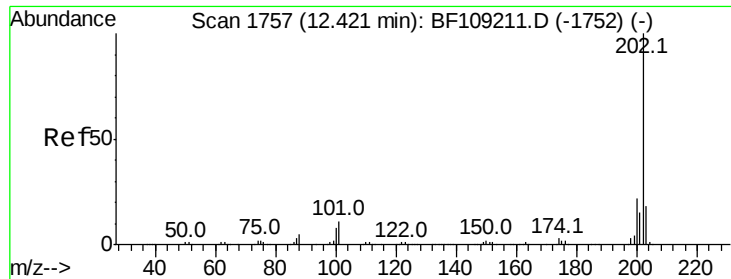
Tot Ion:178 Resp: 32269  
Ion Ratio Lower Upper  
178 100  
176 18.8 15.8 23.8  
179 16.7 13.0 19.6



#71  
Anthracene  
Concen: 2.256 ng  
RT: 11.23 min Scan# 1555  
Delta R.T. -0.06 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

Tgt Ion:178 Resp: 32269  
Ion Ratio Lower Upper  
178 100  
176 18.8 15.4 23.2  
179 16.7 12.6 19.0

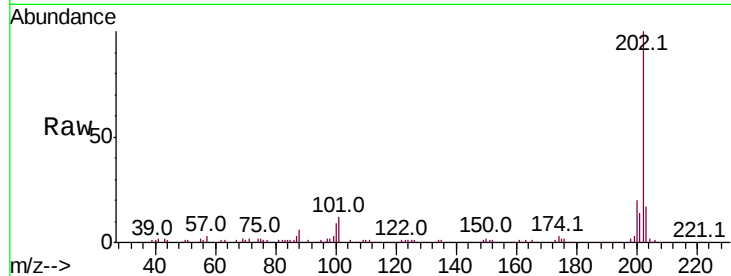




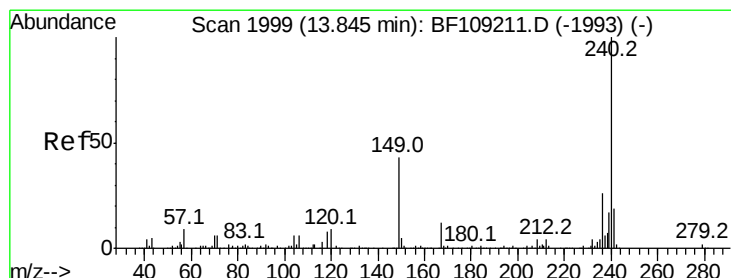
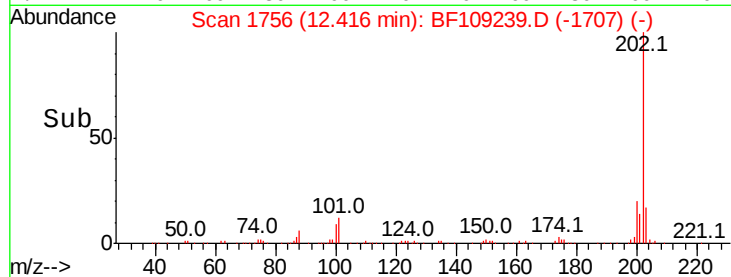
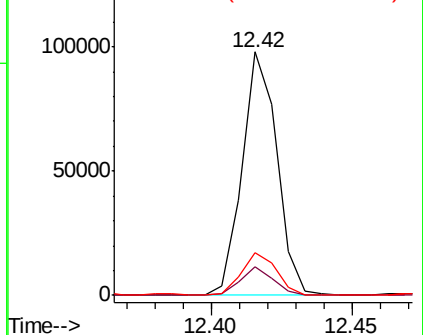
#74  
Fluoranthene  
Concen: 5.553 ng  
RT: 12.42 min Scan# 1756  
Delta R.T. -0.01 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

Instrument :  
BNA\_F  
ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 11.9  | 0.0   | 34.1  |
| 203     | 17.3  | 0.0   | 38.1  |

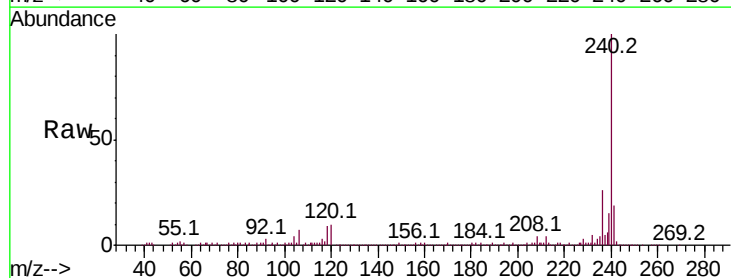


Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 101.00 (100.70 to 101.70): E  
Ion 203.00 (202.70 to 203.70): E

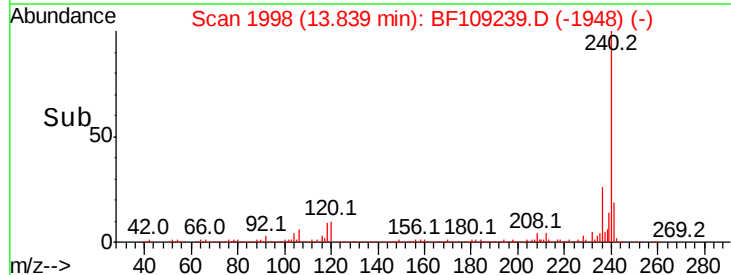
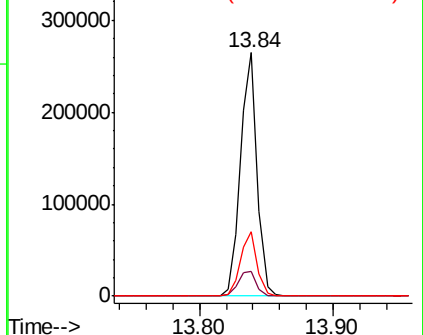


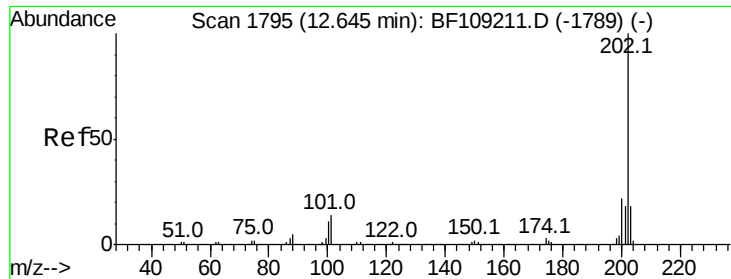
#75  
Chrysene-d12  
Concen: 20.000 ng  
RT: 13.84 min Scan# 1998  
Delta R.T. -0.01 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 10.4  | 9.5   | 14.3  |
| 236     | 26.3  | 20.7  | 31.1  |



Abundance Ion 240.00 (239.70 to 240.70): E  
Ion 120.00 (119.70 to 120.70): E  
Ion 236.00 (235.70 to 236.70): E

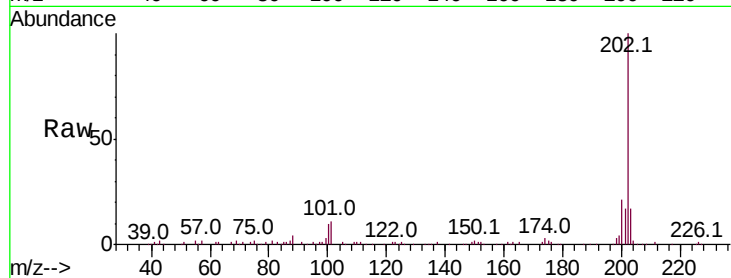




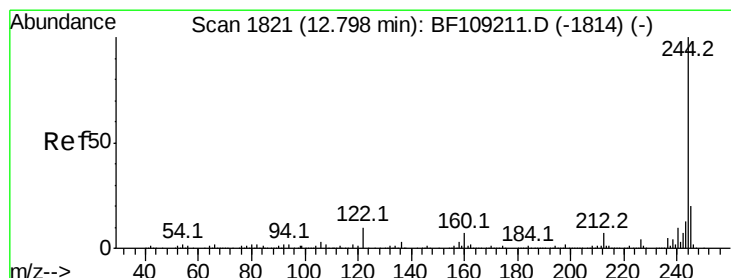
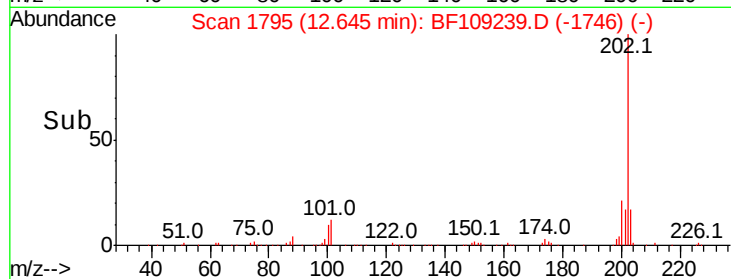
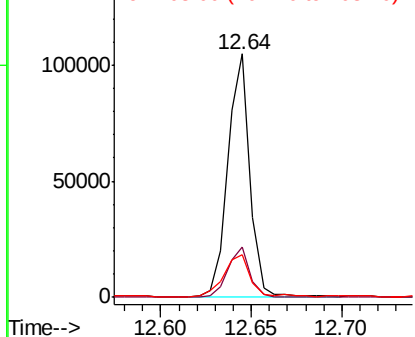
#77  
Pvrene  
Concen: 5.420 ng  
RT: 12.64 min Scan# 1795  
Delta R.T. -0.01 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

Instrument :  
BNA\_F  
ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 20.6  | 17.4  | 26.2  |
| 203     | 17.3  | 14.3  | 21.5  |

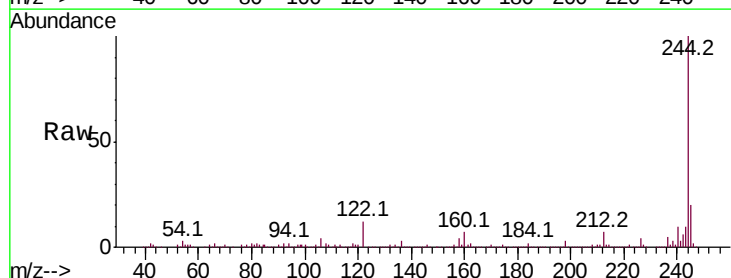


Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 200.00 (199.70 to 200.70): E  
Ion 203.00 (202.70 to 203.70): E

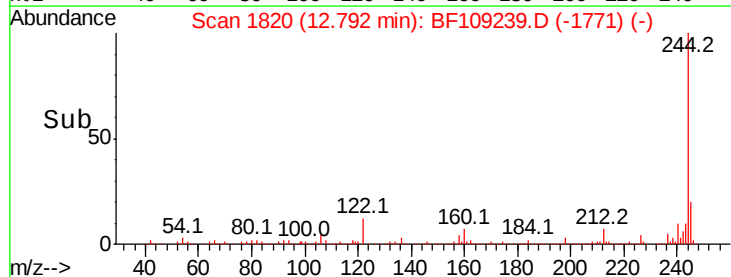
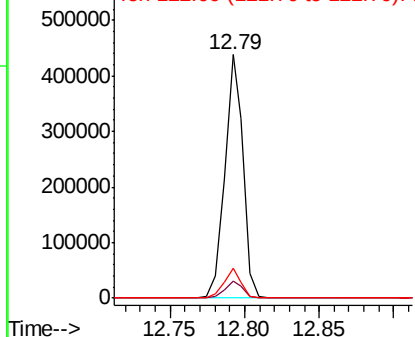


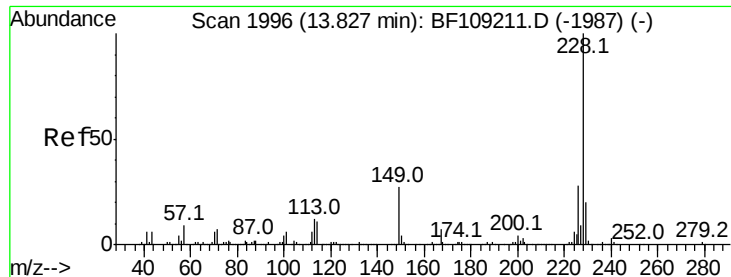
#78  
Terphenyl-d14  
Concen: 40.132 ng  
RT: 12.79 min Scan# 1820  
Delta R.T. -0.01 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 7.0   | 5.4   | 8.0   |
| 122     | 12.4  | 11.0  | 16.4  |



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: 3.240 ng

RT: 13.83 min Scan# 1996

Delta R.T. -0.01 min

Lab File: BF109239.D

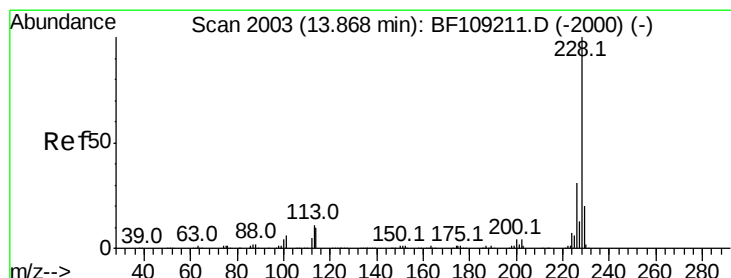
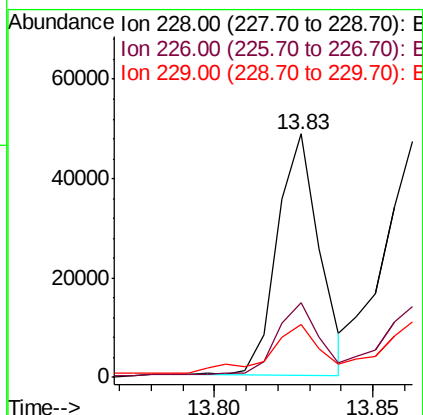
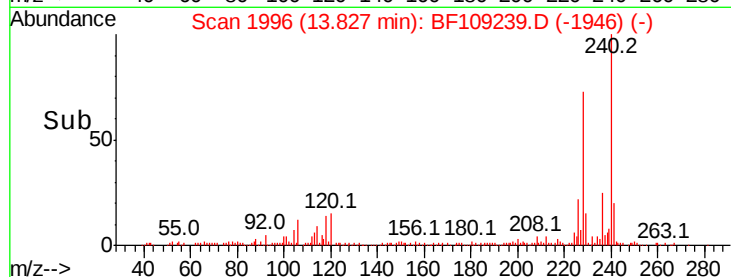
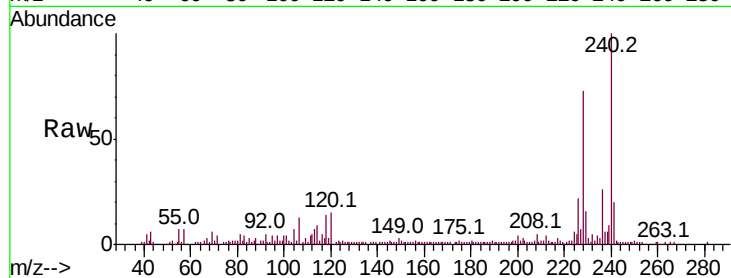
Acq: 22 Sep 2018 23:16

Instrument :

BNA\_F

ClientSampleId :

|             |       |           |
|-------------|-------|-----------|
| Tot Ion:228 | Resp: | 44875     |
| Ion Ratio   | Lower | Upper     |
| 228         | 100   |           |
| 226         | 30.6  | 22.6 33.8 |
| 229         | 21.8  | 15.8 23.6 |



#82

Chrysene

Concen: 3.425 ng

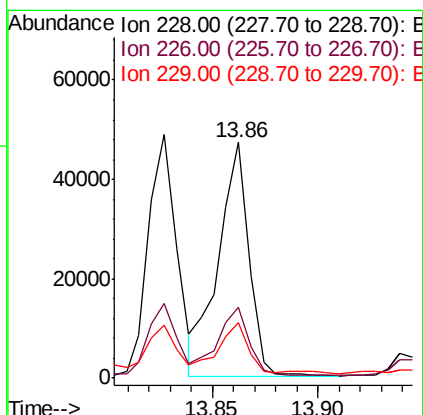
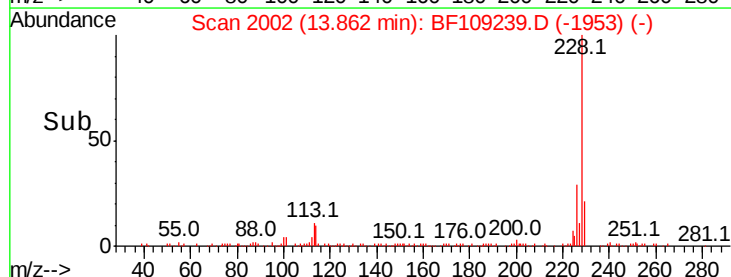
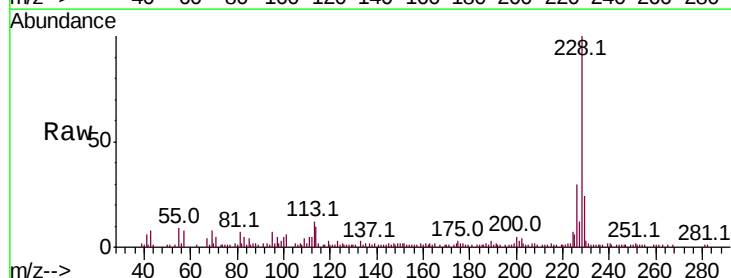
RT: 13.86 min Scan# 2002

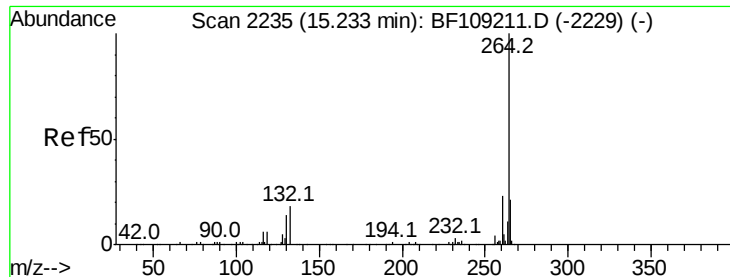
Delta R.T. -0.01 min

Lab File: BF109239.D

Acq: 22 Sep 2018 23:16

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:228 | Resp: | 47026     |
| Ion Ratio   | Lower | Upper     |
| 228         | 100   |           |
| 226         | 29.8  | 25.0 37.6 |
| 229         | 23.7  | 16.2 24.4 |



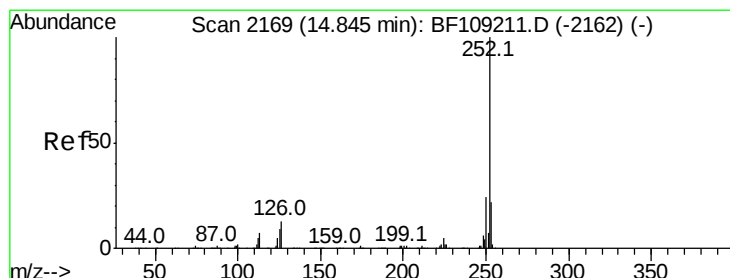
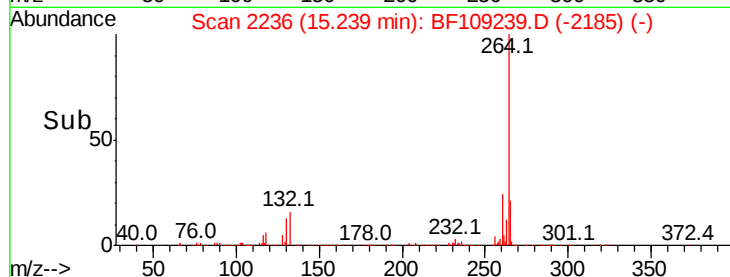
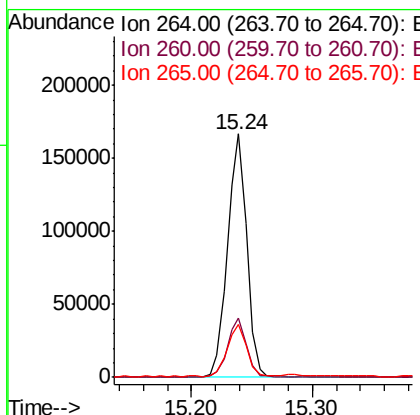
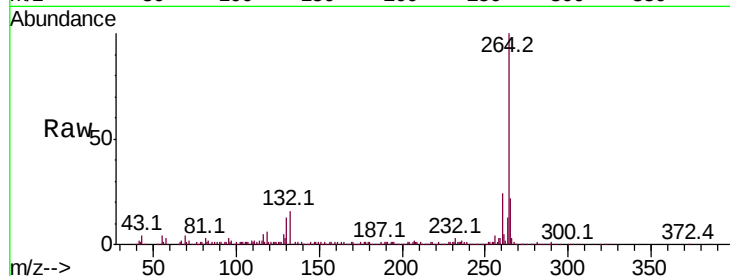


#86  
Pervlene-d12  
Concen: 20.000 ng  
RT: 15.24 min Scan# 2236  
Delta R.T. -0.00 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

Instrument :  
BNA\_F  
ClientSampleId :

Tot Ion:264 Resp: 182733  

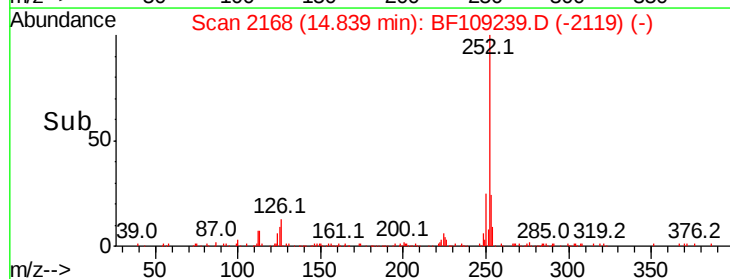
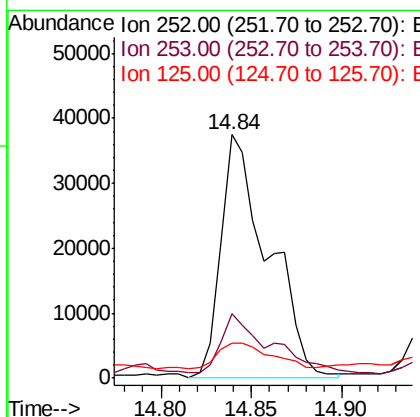
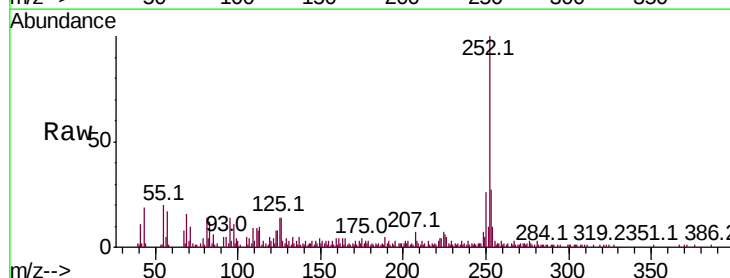
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 264 | 100   |       |       |
| 260 | 24.5  | 19.2  | 28.8  |
| 265 | 21.6  | 17.5  | 26.3  |

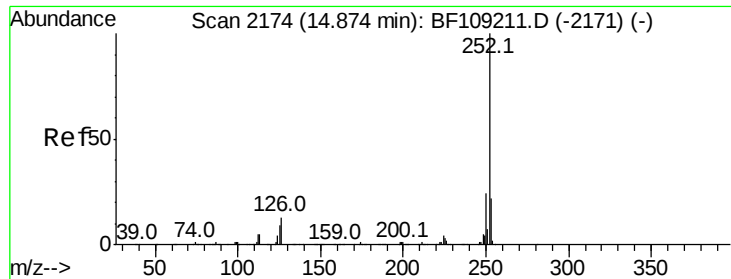


#87  
Benzo(b)fluoranthene  
Concen: 6.782 ng  
RT: 14.84 min Scan# 2168  
Delta R.T. -0.01 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

Tgt Ion:252 Resp: 68101  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 26.5  | 17.0  | 25.6# |
| 125 | 14.3  | 9.0   | 13.6# |

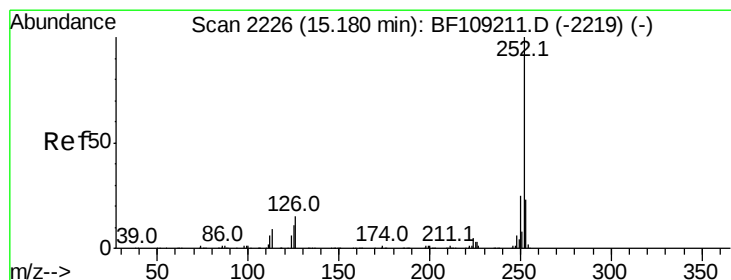
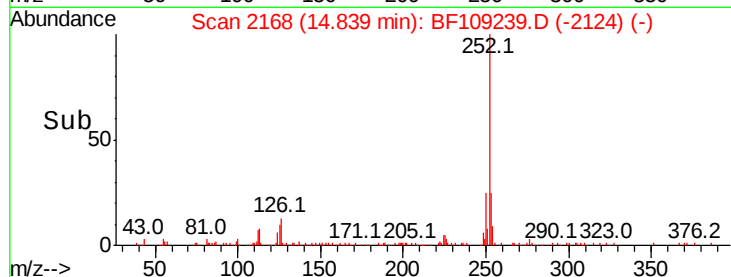
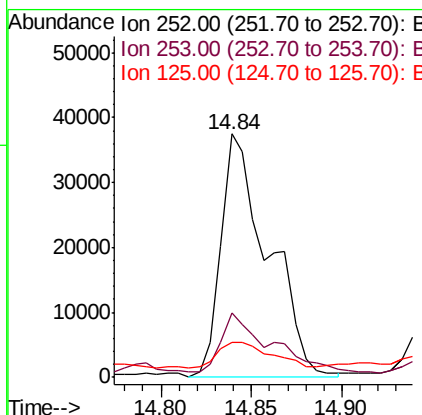
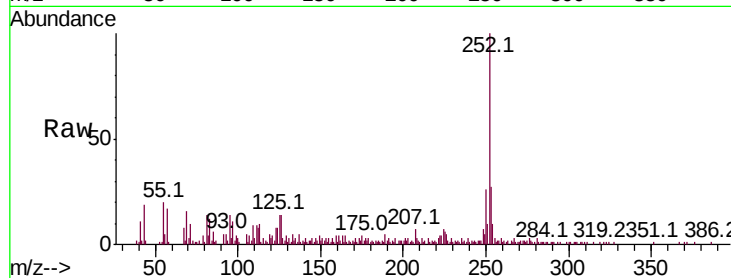




#88  
Benzo(k)fluoranthene  
Concen: 7.147 ng  
RT: 14.84 min Scan# 2168  
Delta R.T. -0.04 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

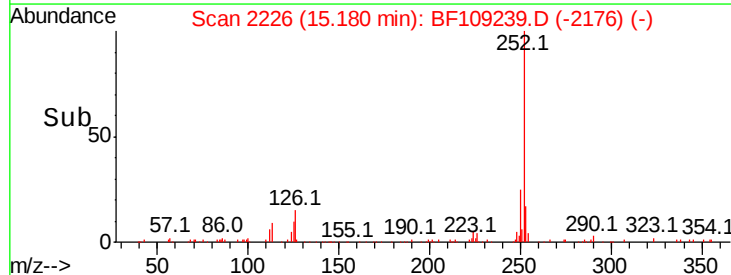
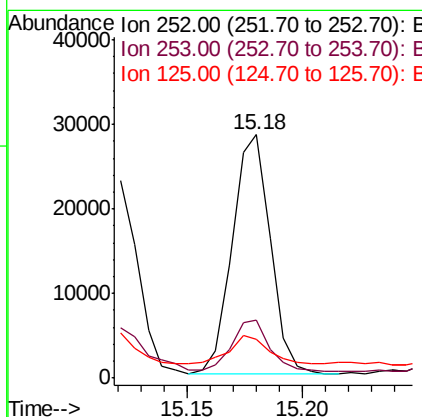
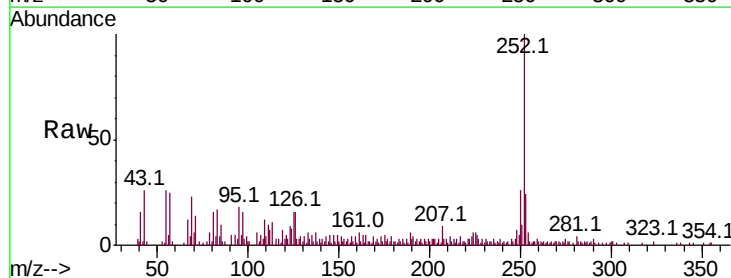
Instrument :  
BNA\_F  
ClientSampleId :

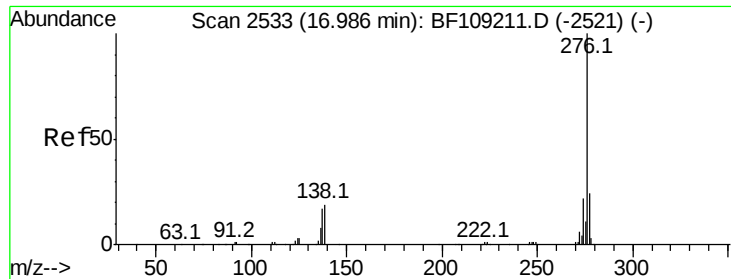
Tot Ion:252 Resp: 68101  
Ion Ratio Lower Upper  
252 100  
253 26.5 17.9 26.9  
125 14.3 10.2 15.2



#89  
Benzo(a)pyrene  
Concen: 3.620 ng  
RT: 15.18 min Scan# 2226  
Delta R.T. -0.01 min  
Lab File: BF109239.D  
Acq: 22 Sep 2018 23:16

Tgt Ion:252 Resp: 32756  
Ion Ratio Lower Upper  
252 100  
253 23.8 17.1 25.7  
125 15.8 9.8 14.6#





#91  
 Benzo(a,h,i)perylene  
 Concen: 2.634 ng  
 RT: 16.98 min Scan# 2532  
 Delta R.T. -0.02 min  
 Lab File: BF109239.D  
 Acq: 22 Sep 2018 23:16

Instrument :  
 BNA\_F  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 26.1  | 17.9  | 26.9  |
| 138     | 22.3  | 21.8  | 32.8  |

