

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF091418\  
 Data File : BF109021.D  
 Acq On : 15 Sep 2018 3:40  
 Operator : JU/SJ  
 Sample : J4898-02DL 2X  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 ROLLOFF02-COMP-FILLDL

Quant Time: Sep 15 06:54:53 2018  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF091418.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Sep 14 13:26:52 2018  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.72  | 152  | 152321   | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 8.00  | 136  | 604141   | 20.00 | ng    | 0.00     |
| 38) Acenaphthene-d10      | 9.75  | 164  | 297283   | 20.00 | ng    | 0.00     |
| 63) Phenanthrene-d10      | 11.22 | 188  | 576443   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12          | 13.85 | 240  | 425159   | 20.00 | ng    | -0.01    |
| 86) Perylene-d12          | 15.25 | 264  | 429483   | 20.00 | ng    | 0.00     |

|                             |       |     |        |       |    |       |
|-----------------------------|-------|-----|--------|-------|----|-------|
| System Monitoring Compounds |       |     |        |       |    |       |
| 5) 2-Fluorophenol           | 5.31  | 112 | 253922 | 27.69 | ng | -0.01 |
| 7) Phenol-d6                | 6.34  | 99  | 332985 | 28.16 | ng | -0.02 |
| 23) Nitrobenzene-d5         | 7.27  | 82  | 201251 | 18.68 | ng | -0.02 |
| 41) 2,4,6-Tribromophenol    | 10.53 | 330 | 87346  | 27.07 | ng | -0.01 |
| 44) 2-Fluorobiphenyl        | 9.07  | 172 | 377219 | 19.88 | ng | -0.01 |
| 78) Terphenyl-d14           | 12.81 | 244 | 395145 | 22.03 | ng | 0.00  |

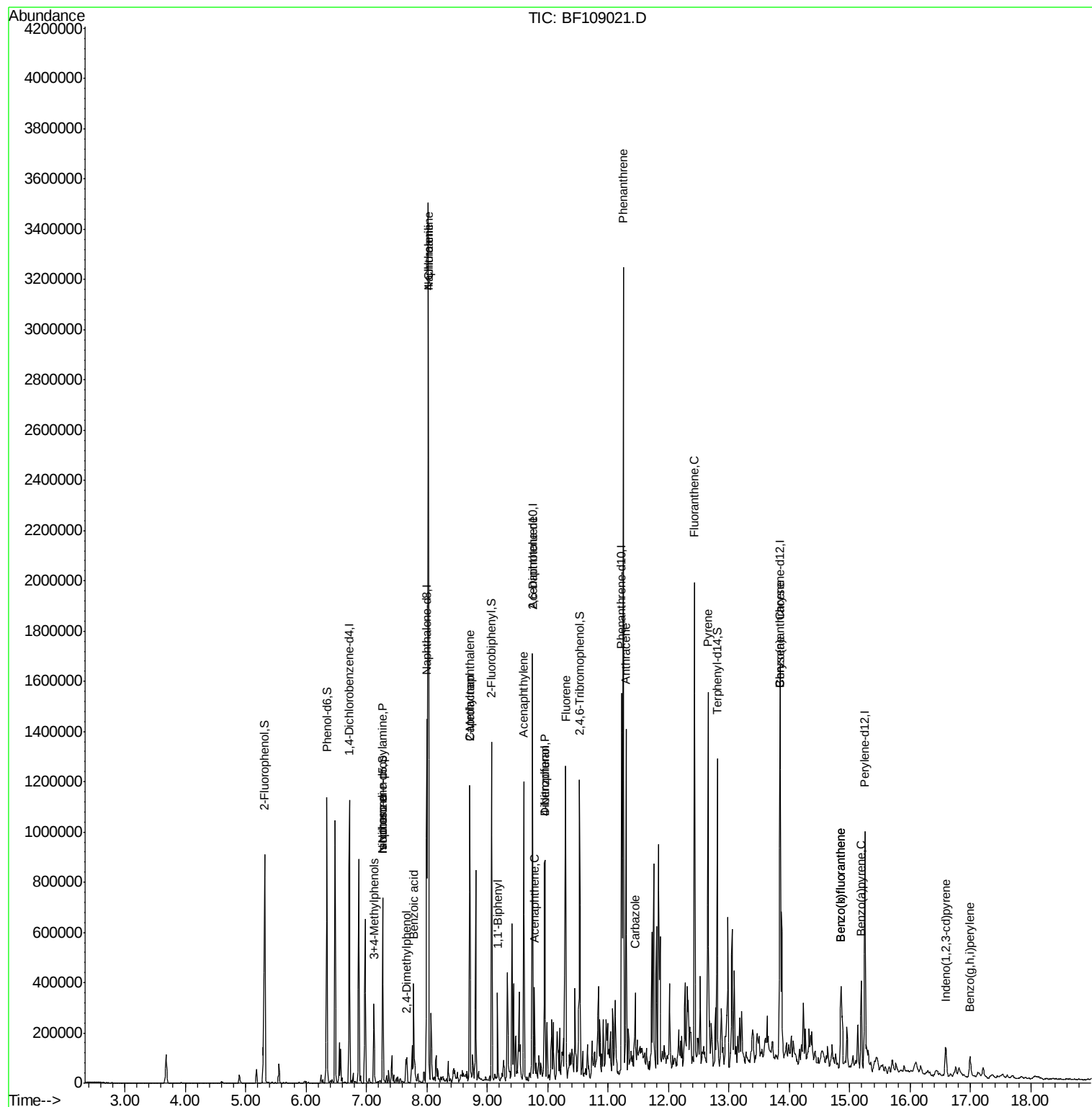
|                                |       |     |         |        |    |      |
|--------------------------------|-------|-----|---------|--------|----|------|
| Target Compounds               |       |     |         | Qvalue |    |      |
| 19) n-Nitroso-di-n-propylamine | 7.27  | 70  | 26595   | 3.402  | ng | # 77 |
| 20) 3+4-Methylphenols          | 7.12  | 107 | 62072   | 6.155  | ng | 86   |
| 25) Isophorone                 | 7.27  | 82  | 200726  | 10.841 | ng | # 64 |
| 27) 2,4-Dimethylphenol         | 7.67  | 122 | 26658   | 3.277  | ng | # 90 |
| 31) Naphthalene                | 8.02  | 128 | 1430360 | 51.011 | ng | 99   |
| 32) Benzoic acid               | 7.78  | 122 | 54125   | 10.183 | ng | # 16 |
| 33) 4-Chloroaniline            | 8.02  | 127 | 192688  | 15.455 | ng | # 33 |
| 35) Caprolactam                | 8.71  | 113 | 6211    | 2.198  | ng | # 1  |
| 37) 2-Methylnaphthalene        | 8.71  | 142 | 271513  | 14.854 | ng | 99   |
| 45) 1,1'-Biphenyl              | 9.17  | 154 | 84197   | 3.540  | ng | 98   |
| 48) Acenaphthylene             | 9.61  | 152 | 371949  | 12.952 | ng | 98   |
| 50) 2,6-Dinitrotoluene         | 9.75  | 165 | 45831   | 9.726  | ng | # 26 |
| 51) Acenaphthene               | 9.78  | 154 | 70203   | 3.926  | ng | 99   |
| 54) Dibenzofuran               | 9.95  | 168 | 279248  | 10.806 | ng | # 96 |
| 55) 4-Nitrophenol              | 9.95  | 139 | 103675  | 25.361 | ng | # 10 |
| 57) Fluorene                   | 10.30 | 166 | 320727  | 18.624 | ng | 99   |
| 70) Phenanthrene               | 11.25 | 178 | 1121613 | 39.693 | ng | 98   |
| 71) Anthracene                 | 11.30 | 178 | 460437  | 16.074 | ng | 99   |
| 72) Carbazole                  | 11.45 | 167 | 120241  | 4.241  | ng | 97   |
| 74) Fluoranthene               | 12.43 | 202 | 725769  | 24.329 | ng | 98   |
| 77) Pyrene                     | 12.66 | 202 | 609417  | 19.297 | ng | 99   |
| 80) Benzo(a)anthracene         | 13.84 | 228 | 274484  | 10.664 | ng | # 90 |
| 82) Chrysene                   | 13.84 | 228 | 274484  | 10.658 | ng | 94   |
| 85) Indeno(1,2,3-cd)pyrene     | 16.59 | 276 | 69006   | 3.352  | ng | # 91 |
| 87) Benzo(b)fluoranthene       | 14.85 | 252 | 250806  | 10.556 | ng | 97   |
| 88) Benzo(k)fluoranthene       | 14.85 | 252 | 250806  | 11.302 | ng | 98   |
| 89) Benzo(a)pyrene             | 15.19 | 252 | 154945  | 7.343  | ng | 97   |
| 91) Benzo(g,h,i)perylene       | 16.99 | 276 | 57213   | 3.228  | ng | 94   |

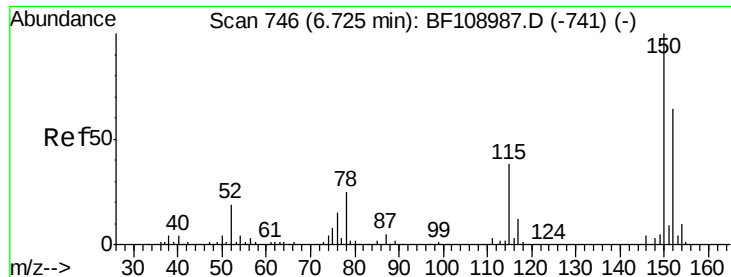
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Sep 14 13:26:52 2018  
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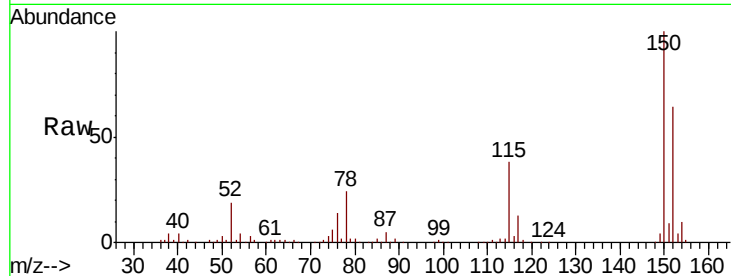


#1

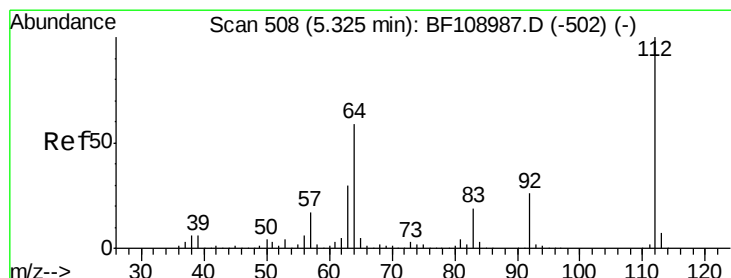
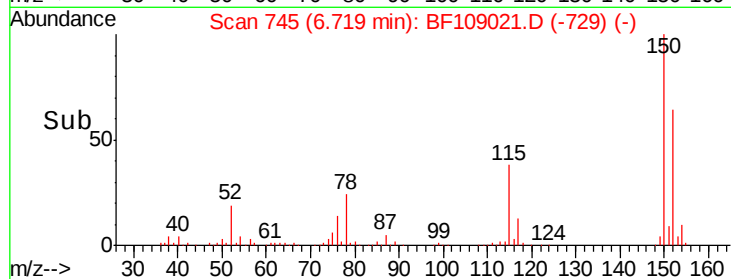
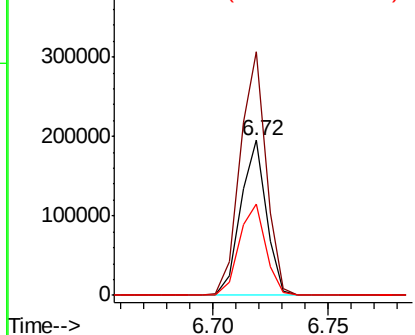
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.72 min Scan# 745  
Delta R.T. -0.01 min  
Lab File: BF109021.D  
Acq: 15 Sep 2018 3:40

Instrument :  
BNA\_F  
ClientSampleId :  
ROLLOFF02-COMP-FILLDL

Tgt Ion:152 Resp: 152321  
Ion Ratio Lower Upper  
152 100  
150 156.9 124.6 186.8  
115 59.3 50.1 75.1



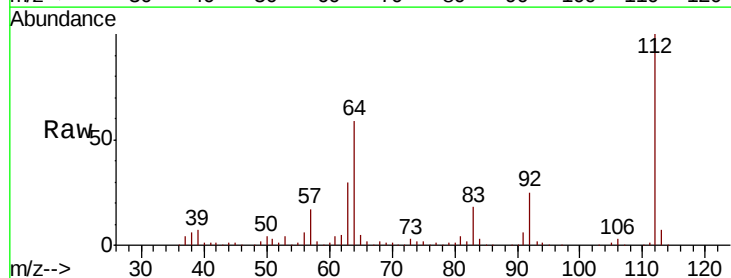
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



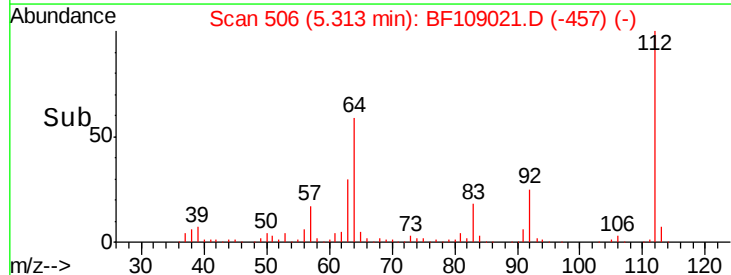
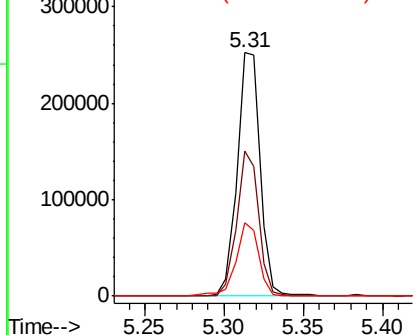
#5

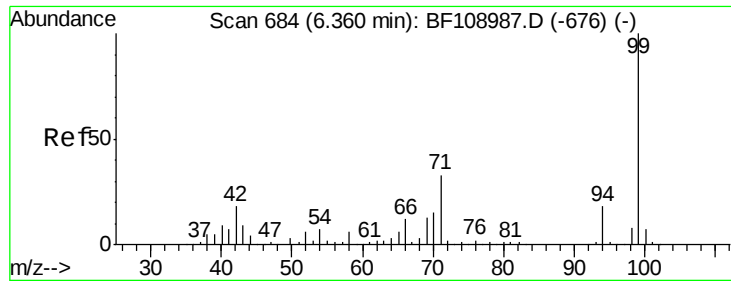
2-Fluorophenol  
Concen: 27.687 ng  
RT: 5.31 min Scan# 506  
Delta R.T. -0.01 min  
Lab File: BF109021.D  
Acq: 15 Sep 2018 3:40

Tgt Ion:112 Resp: 253922  
Ion Ratio Lower Upper  
112 100  
64 59.4 47.9 71.9  
63 30.4 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: 28.158 ng

RT: 6.34 min Scan# 681

Delta R.T. -0.02 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Instrument :

BNA\_F

ClientSampleId :

ROLLOFF02-COMP-FILLDL

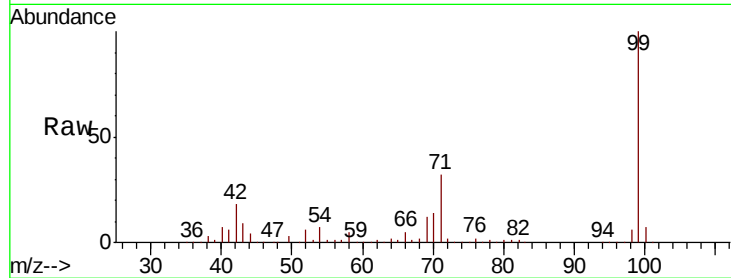
Tgt Ion: 99 Resp: 332985

Ion Ratio Lower Upper

99 100

42 17.9 14.5 21.7

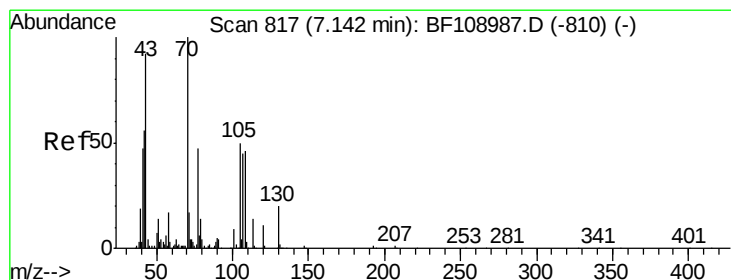
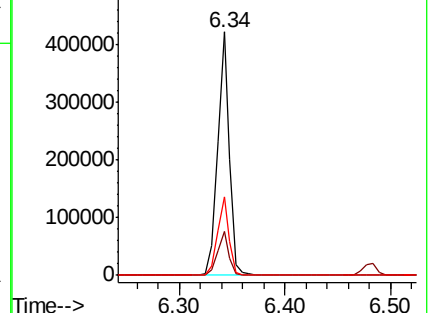
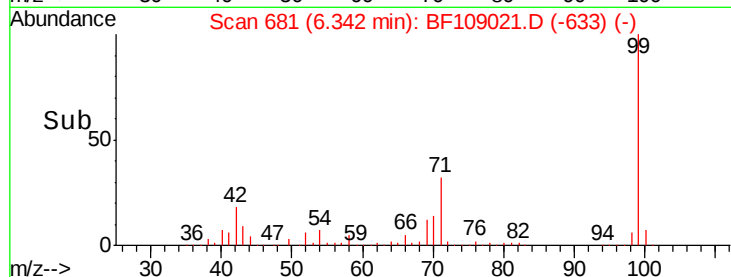
71 32.4 25.4 38.0



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: 3.402 ng

RT: 7.27 min Scan# 839

Delta R.T. 0.13 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Tgt Ion: 70 Resp: 26595

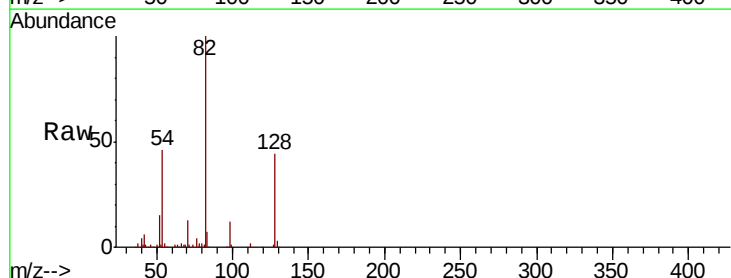
Ion Ratio Lower Upper

70 100

42 46.9 47.5 71.3#

101 0.0 7.4 11.2#

130 2.3 16.6 25.0#

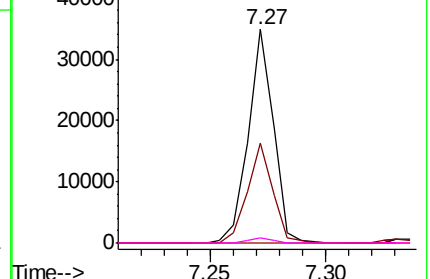
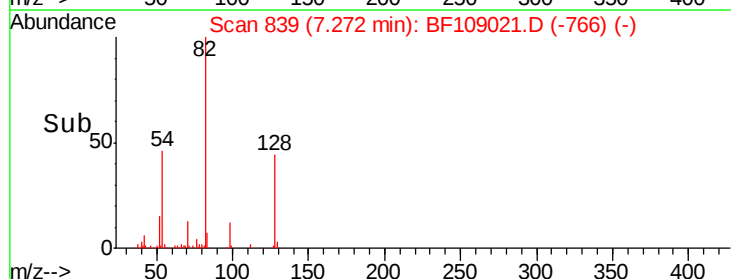


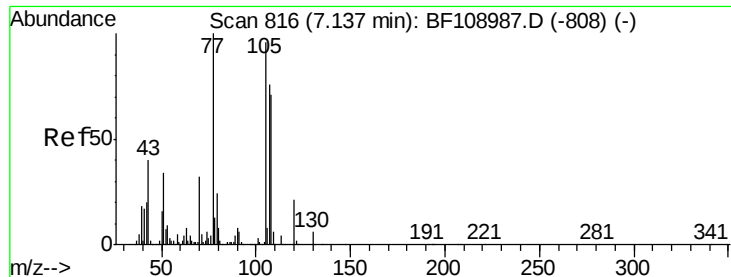
Abundance Ion 70.00 (69.70 to 70.70): BF1

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

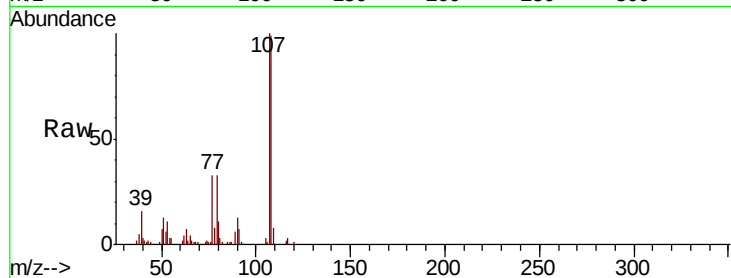




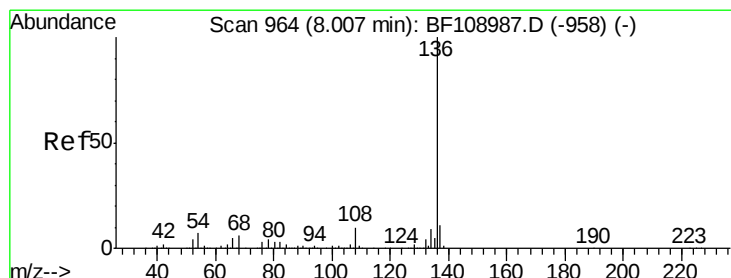
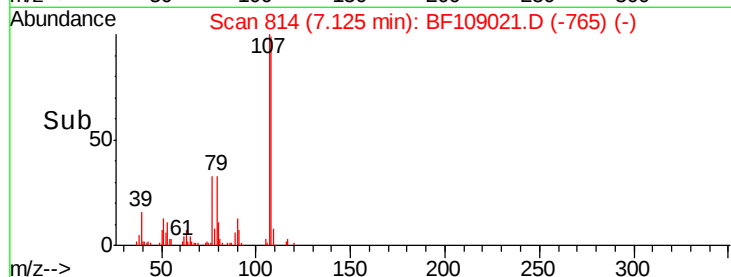
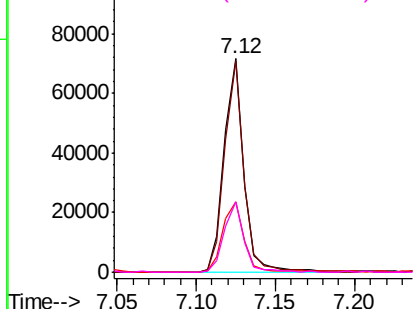
#20  
 3+4-Methylphenols  
 Concen: 6.155 ng  
 RT: 7.12 min Scan# 814  
 Delta R.T. -0.01 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 ROLLOFF02-COMP-FILLDL

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 107   | Resp: | 62072 |
| Ion      | Ratio | Lower | Upper |
| 107      | 100   |       |       |
| 108      | 99.1  | 68.2  | 108.2 |
| 77       | 33.2  | 26.7  | 66.7  |
| 79       | 33.2  | 6.3   | 46.3  |

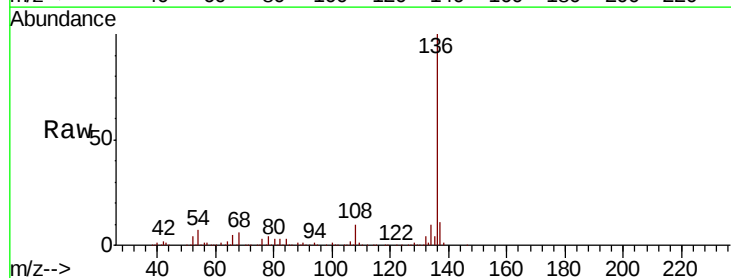


Abundance Ion 107.00 (106.70 to 107.70): E  
 Ion 108.00 (107.70 to 108.70): E  
 Ion 77.00 (76.70 to 77.70): BF1  
 Ion 79.00 (78.70 to 79.70): BF1

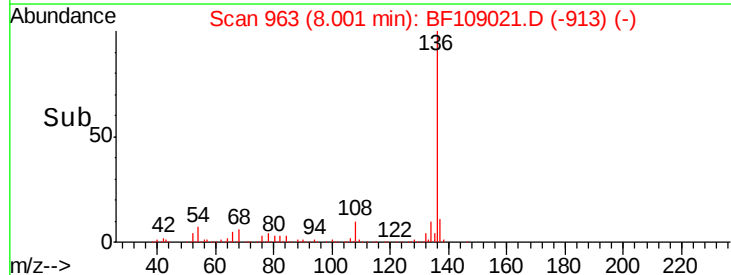
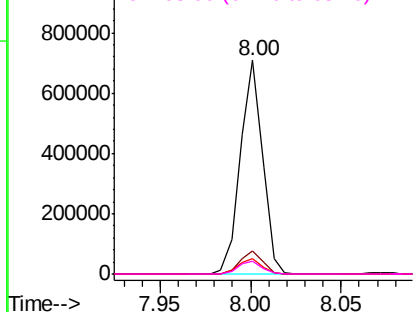


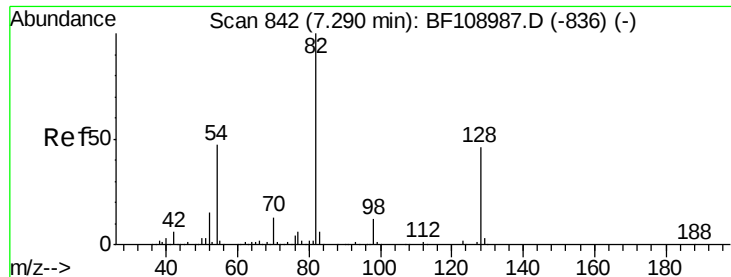
#21  
 Naphthalene-d8  
 Concen: 20.000 ng  
 RT: 8.00 min Scan# 963  
 Delta R.T. -0.01 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 136   | Resp: | 604141 |
| Ion      | Ratio | Lower | Upper  |
| 136      | 100   |       |        |
| 137      | 10.8  | 8.9   | 13.3   |
| 54       | 7.2   | 6.6   | 9.8    |
| 68       | 6.2   | 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

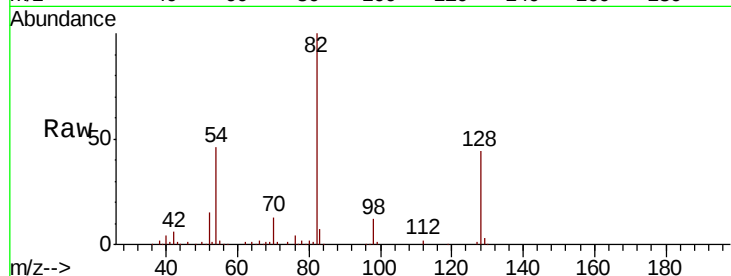




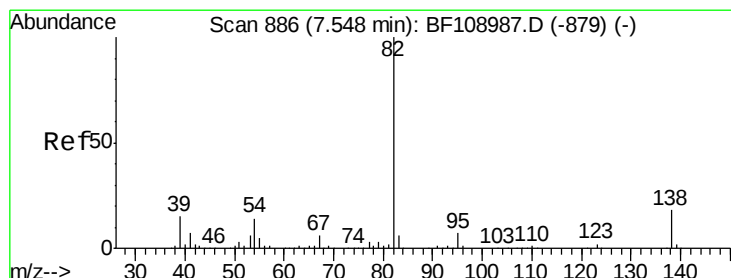
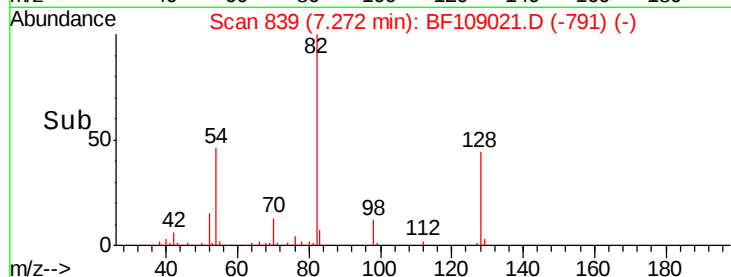
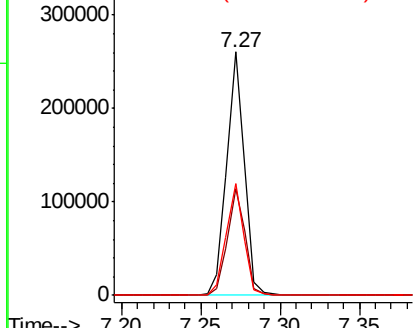
#23  
 Nitrobenzene-d5  
 Concen: 18.684 ng  
 RT: 7.27 min Scan# 839  
 Delta R.T. -0.02 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 ROLLOFF02-COMP-FILLDL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 82      | 100   |       |       |
| 128     | 43.9  | 36.1  | 54.1  |
| 54      | 46.1  | 41.4  | 62.2  |

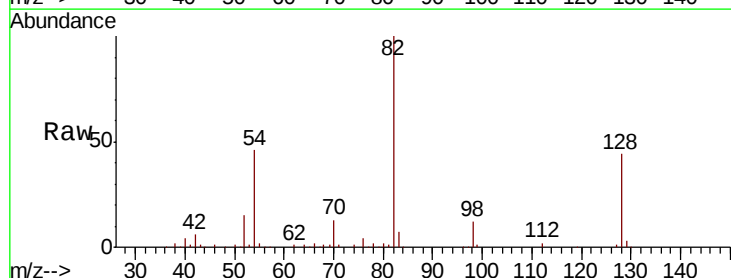


Abundance Ion 82.00 (81.70 to 82.70): BF1  
 Ion 128.00 (127.70 to 128.70): BF1  
 Ion 54.00 (53.70 to 54.70): BF1

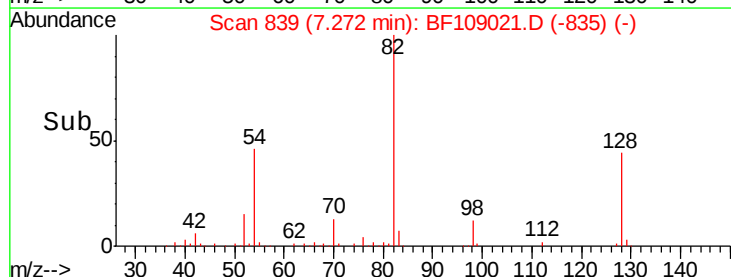
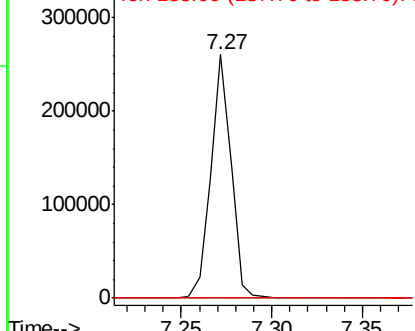


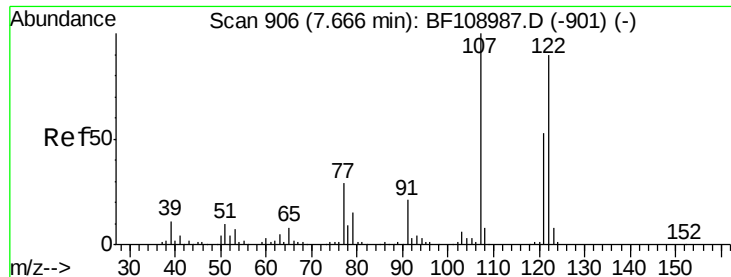
#25  
 Isophorone  
 Concen: 10.841 ng  
 RT: 7.27 min Scan# 839  
 Delta R.T. -0.28 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 82      | 100   |       |       |
| 95      | 0.0   | 5.2   | 7.8#  |
| 138     | 0.0   | 14.9  | 22.3# |



Abundance Ion 82.00 (81.70 to 82.70): BF1  
 Ion 95.00 (94.70 to 95.70): BF1  
 Ion 138.00 (137.70 to 138.70): BF1





#27

2,4-Dimethylphenol

Concen: 3.277 ng

RT: 7.67 min Scan# 906

Delta R.T. -0.00 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Instrument :

BNA\_F

ClientSampleId :

ROLLOFF02-COMP-FILLDL

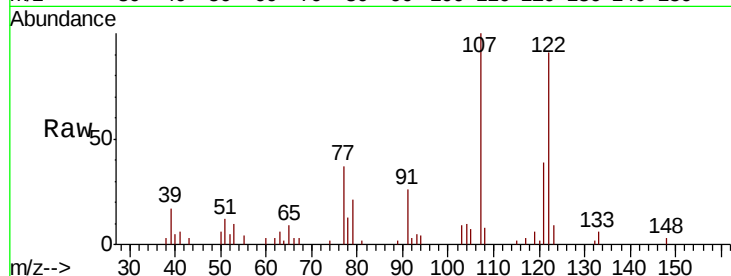
Tgt Ion:122 Resp: 26658

Ion Ratio Lower Upper

122 100

107 109.9 91.2 136.8

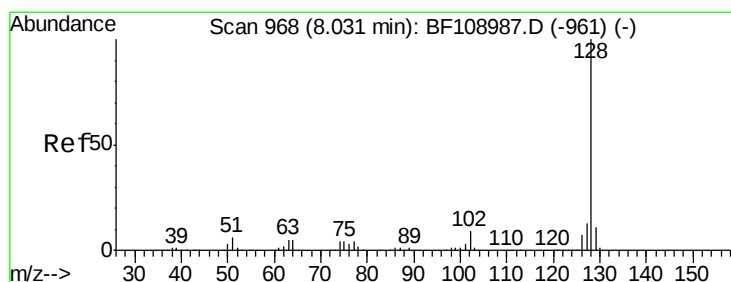
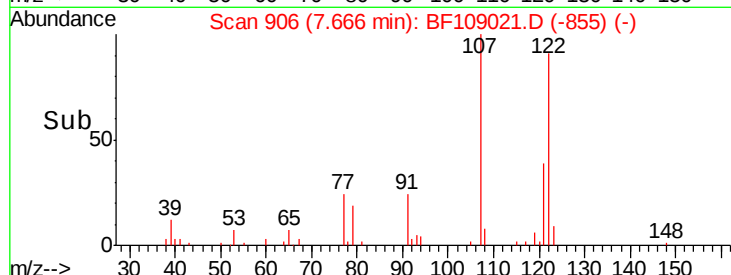
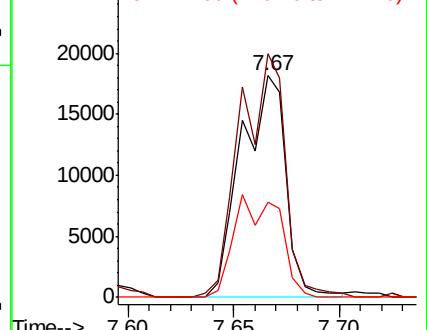
121 42.8 47.2 70.8#



Abundance Ion 122.00 (121.70 to 122.70): E

Ion 107.00 (106.70 to 107.70): E

Ion 121.00 (120.70 to 121.70): E



#31

Naphthalene

Concen: 51.011 ng

RT: 8.02 min Scan# 967

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

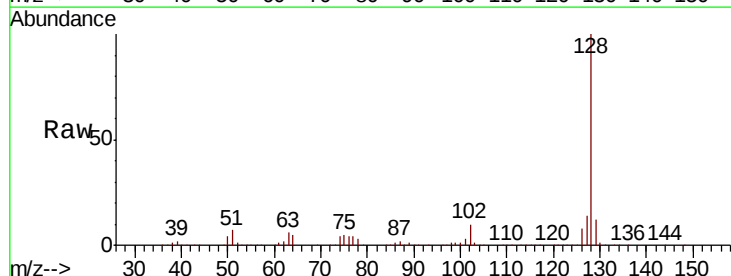
Tgt Ion:128 Resp: 1430360

Ion Ratio Lower Upper

128 100

129 11.6 8.8 13.2

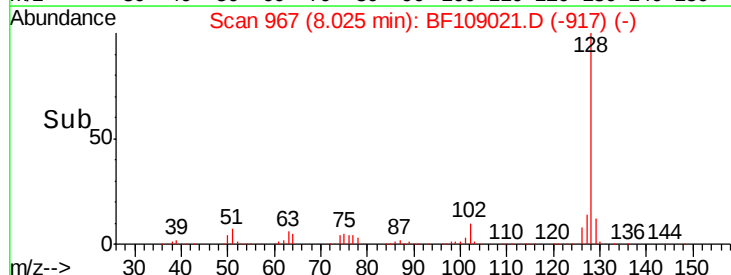
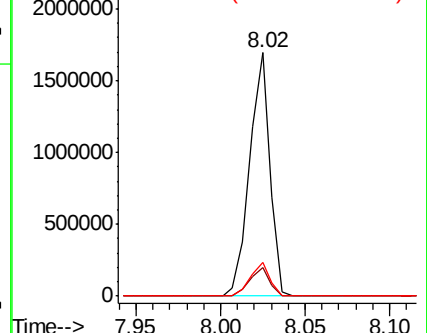
127 13.8 10.9 16.3

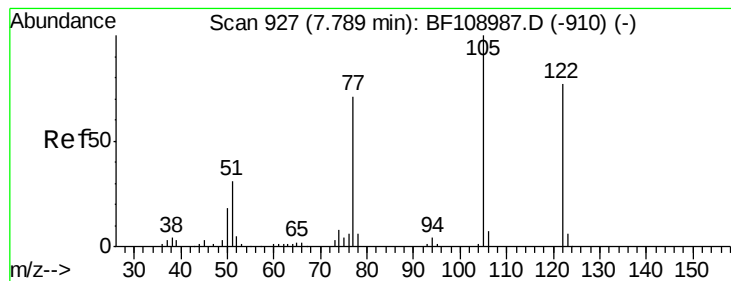


Abundance Ion 128.00 (127.70 to 128.70): E

Ion 129.00 (128.70 to 129.70): E

Ion 127.00 (126.70 to 127.70): E





#32

Benzoic acid

Concen: 10.183 ng

RT: 7.78 min Scan# 926

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Instrument :

BNA\_F

ClientSampleId :

ROLLOFF02-COMP-FILLDL

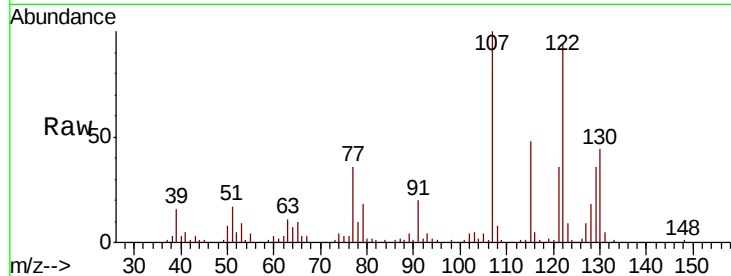
Tgt Ion:122 Resp: 54125

Ion Ratio Lower Upper

122 100

105 4.4 101.1 141.1#

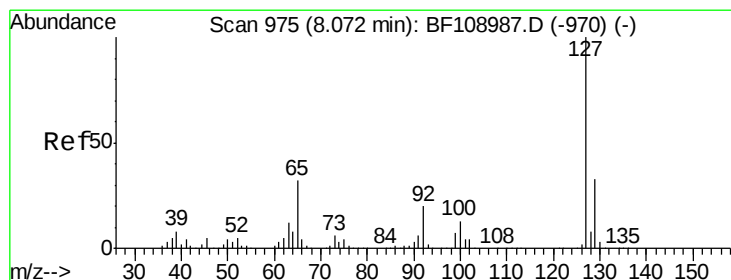
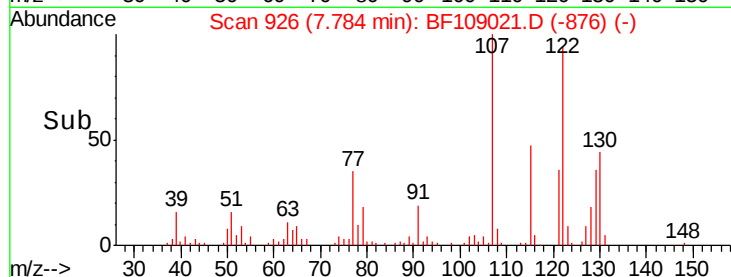
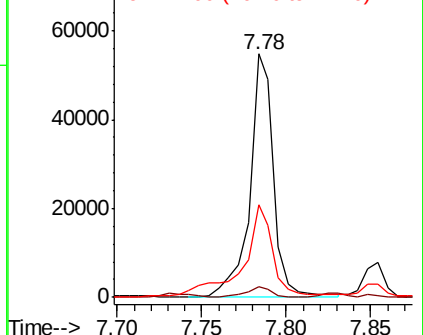
77 37.8 70.7 110.7#



Abundance Ion 122.00 (121.70 to 122.70): E

Ion 105.00 (104.70 to 105.70): E

Ion 77.00 (76.70 to 77.70): BF1



#33

4-Chloroaniline

Concen: 15.455 ng

RT: 8.02 min Scan# 967

Delta R.T. -0.05 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Tgt Ion:127 Resp: 192688

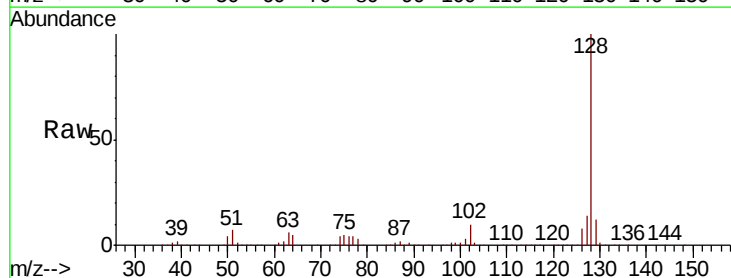
Ion Ratio Lower Upper

127 100

129 84.1 25.9 38.9#

65 0.0 25.0 37.4#

92 0.0 15.2 22.8#

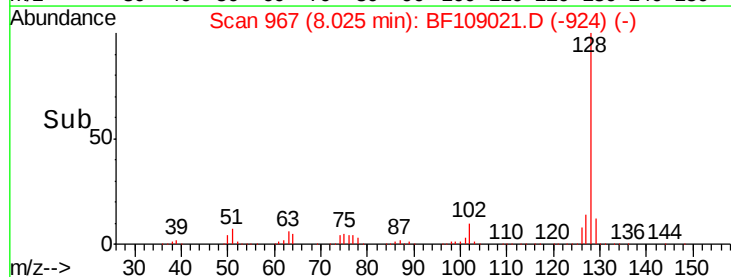
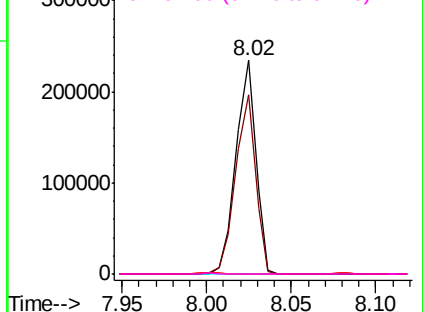


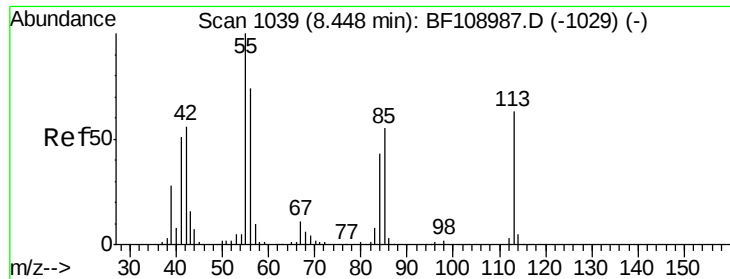
Abundance Ion 127.00 (126.70 to 127.70): E

Ion 129.00 (128.70 to 129.70): E

Ion 65.00 (64.70 to 65.70): BF1

Ion 92.00 (91.70 to 92.70): BF1

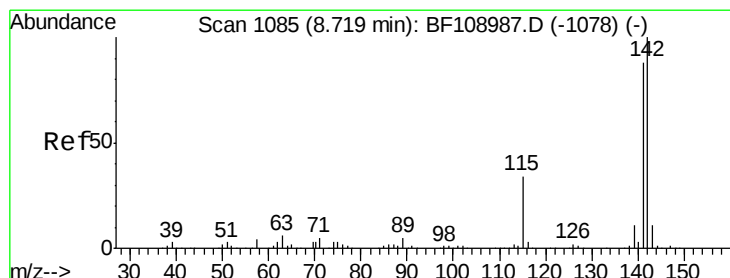
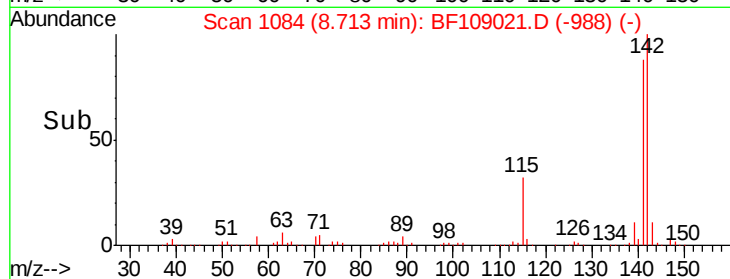
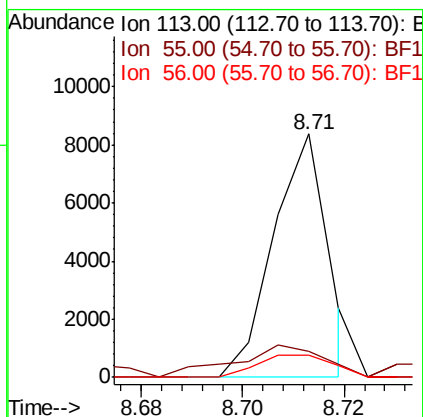
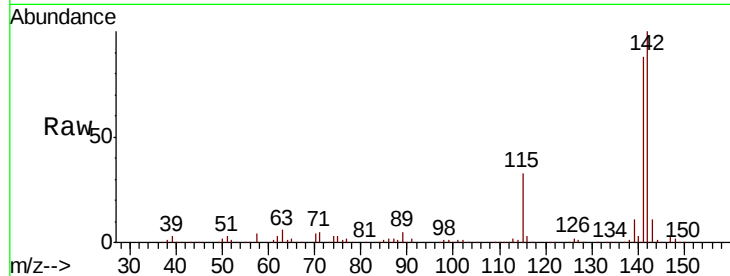




#35  
 Caprolactam  
 Concen: 2.198 ng  
 RT: 8.71 min Scan# 1084  
 Delta R.T. 0.26 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

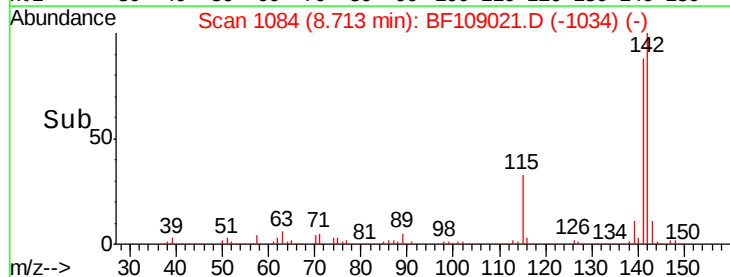
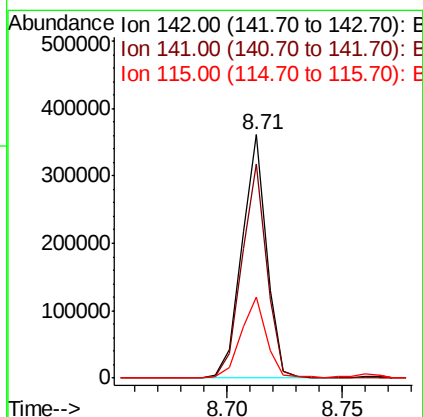
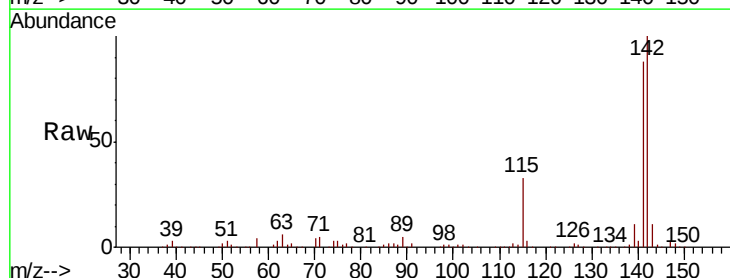
Instrument :  
 BNA\_F  
 ClientSampleId :  
 ROLLOFF02-COMP-FILLDL

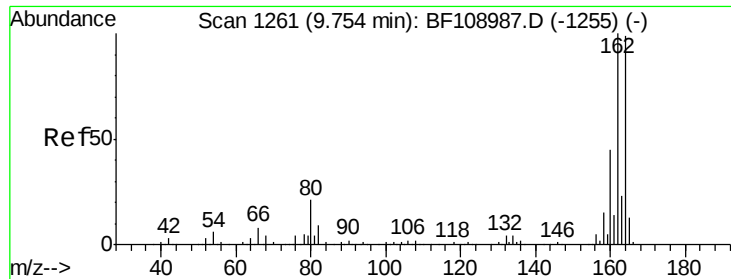
Tgt Ion:113 Resp: 6211  
 Ion Ratio Lower Upper  
 113 100  
 55 10.9 163.3 203.3#  
 56 9.0 115.7 155.7#



#37  
 2-Methylnaphthalene  
 Concen: 14.854 ng  
 RT: 8.71 min Scan# 1084  
 Delta R.T. -0.01 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

Tgt Ion:142 Resp: 271513  
 Ion Ratio Lower Upper  
 142 100  
 141 87.9 70.8 106.2  
 115 33.3 26.1 39.1

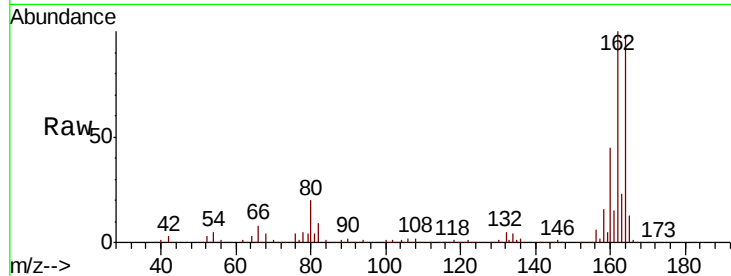




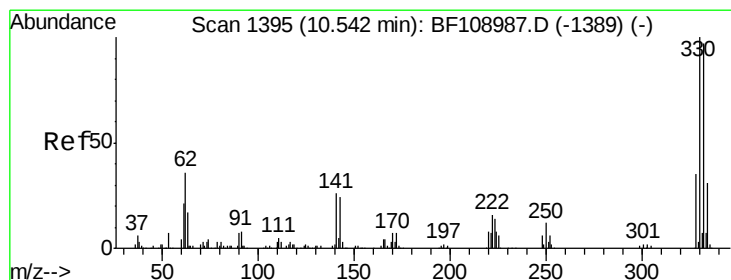
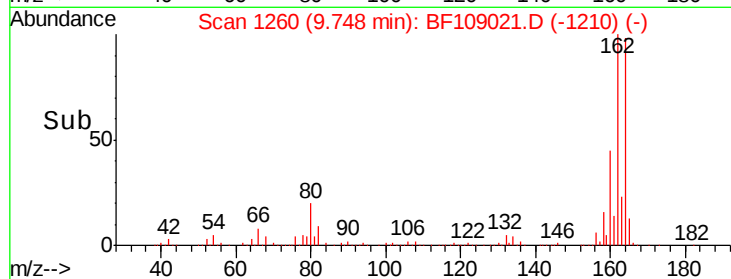
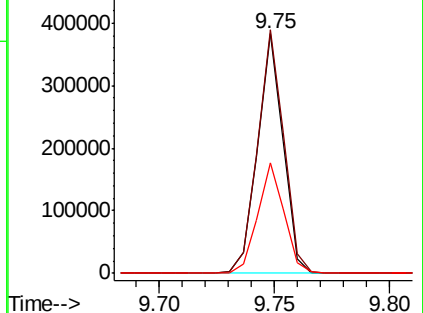
#38  
 Acenaphthene-d10  
 Concen: 20.000 ng  
 RT: 9.75 min Scan# 1260  
 Delta R.T. -0.01 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 ROLLOFF02-COMP-FILLDL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 162     | 101.8 | 86.1  | 129.1 |
| 160     | 46.0  | 38.3  | 57.5  |

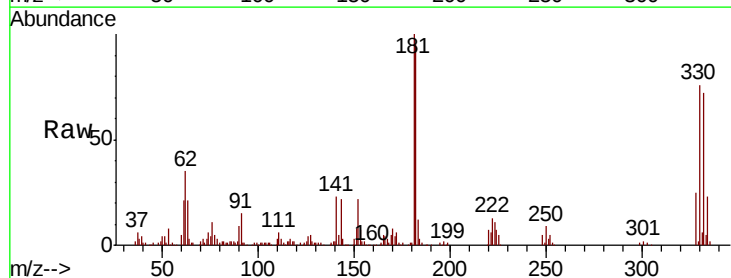


Abundance Ion 164.00 (163.70 to 164.70): E  
 Ion 162.00 (161.70 to 162.70): E  
 Ion 160.00 (159.70 to 160.70): E

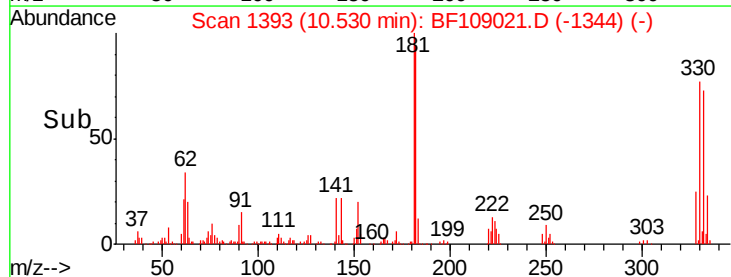
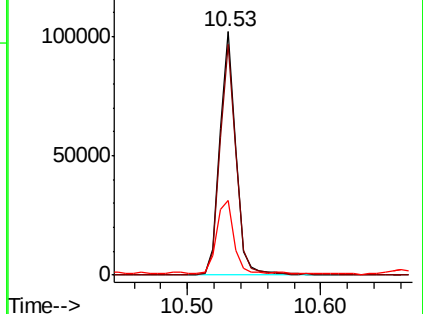


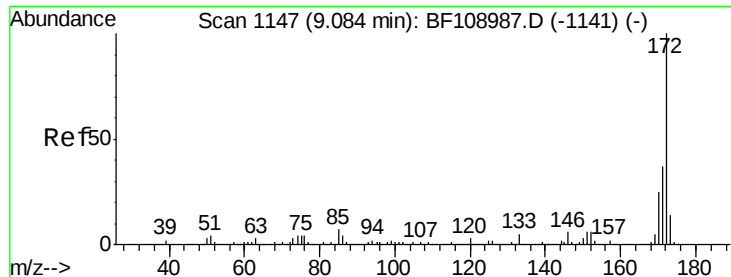
#41  
 2,4,6-Tribromophenol  
 Concen: 27.073 ng  
 RT: 10.53 min Scan# 1393  
 Delta R.T. -0.01 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 94.5  | 77.0  | 115.6 |
| 141     | 32.6  | 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

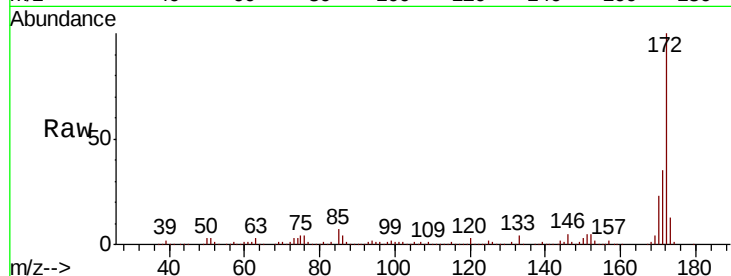




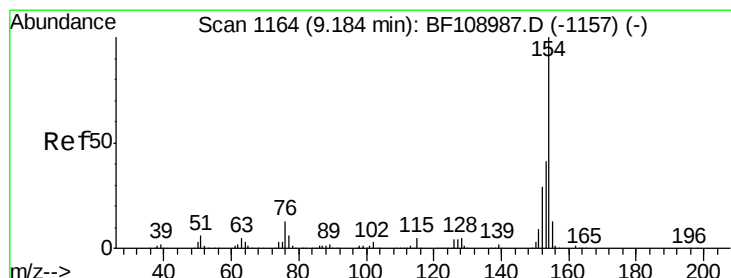
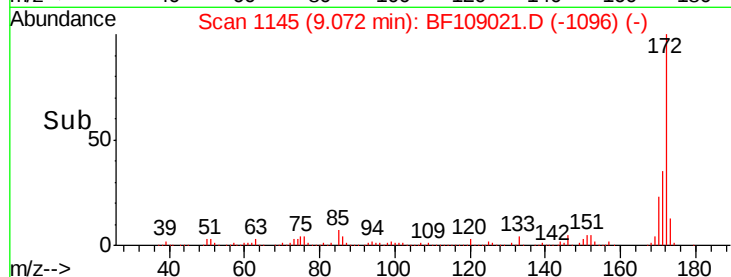
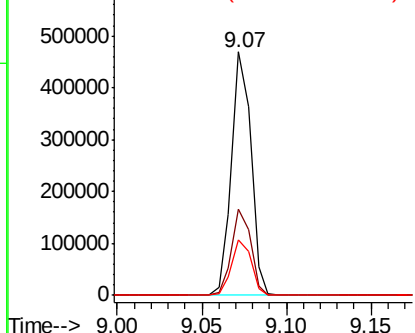
#44  
 2-Fluorobiphenyl  
 Concen: 19.880 ng  
 RT: 9.07 min Scan# 1145  
 Delta R.T. -0.01 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 ROLLOFF02-COMP-FILLDL

Tgt Ion:172 Resp: 377219  
 Ion Ratio Lower Upper  
 172 100  
 171 35.2 29.7 44.5  
 170 22.9 19.6 29.4

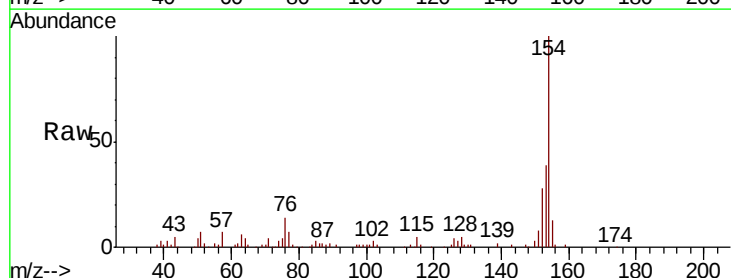


Abundance Ion 172.00 (171.70 to 172.70): E  
 Ion 171.00 (170.70 to 171.70): E  
 Ion 170.00 (169.70 to 170.70): E

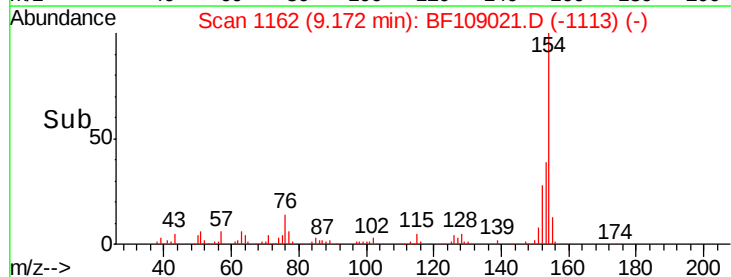
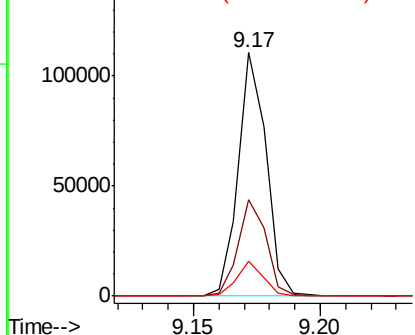


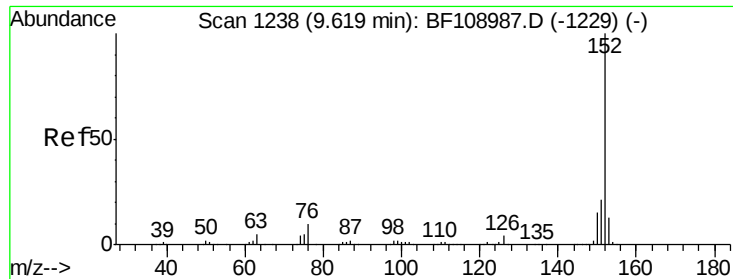
#45  
 1,1'-Biphenyl  
 Concen: 3.540 ng  
 RT: 9.17 min Scan# 1162  
 Delta R.T. -0.01 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

Tgt Ion:154 Resp: 84197  
 Ion Ratio Lower Upper  
 154 100  
 153 39.4 21.3 61.3  
 76 14.2 0.0 34.0



Abundance Ion 154.00 (153.70 to 154.70): E  
 Ion 153.00 (152.70 to 153.70): E  
 Ion 76.00 (75.70 to 76.70): BF1

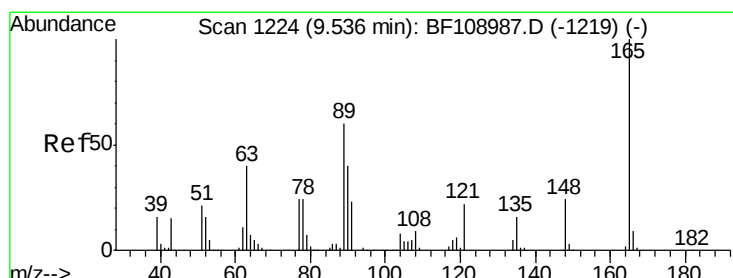
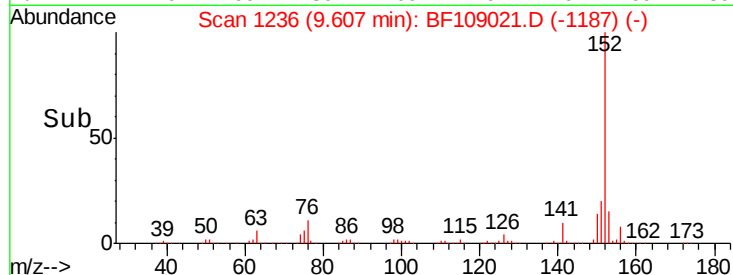
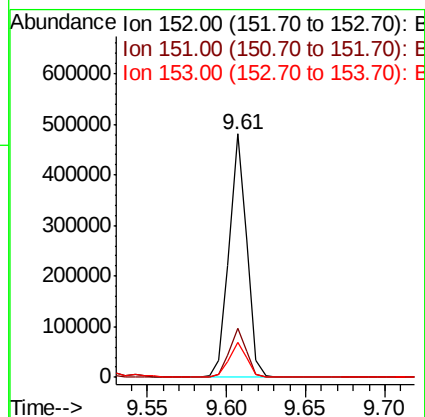
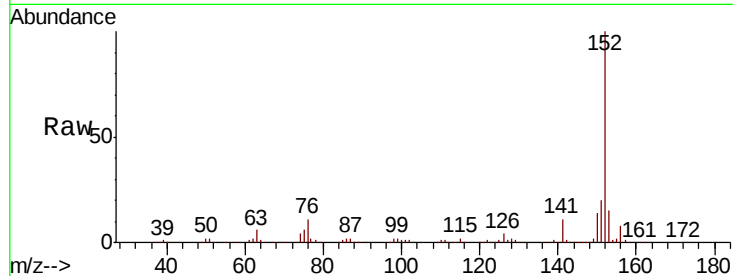




#48  
Acenaphthylene  
Concen: 12.952 ng  
RT: 9.61 min Scan# 1236  
Delta R.T. -0.01 min  
Lab File: BF109021.D  
Acq: 15 Sep 2018 3:40

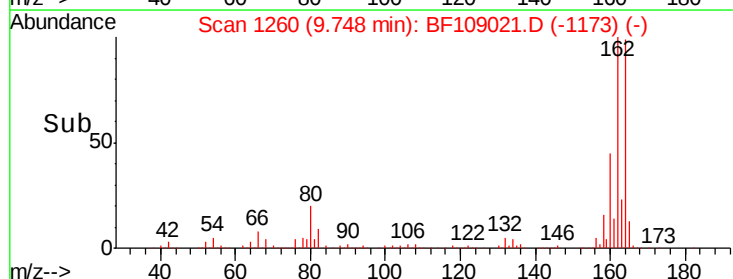
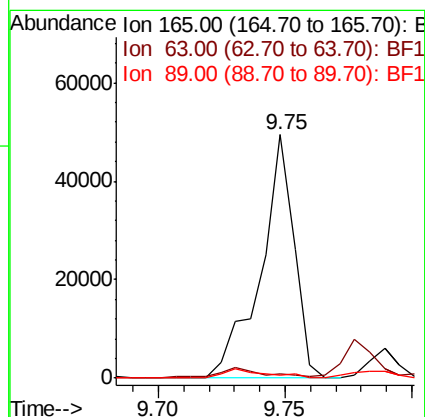
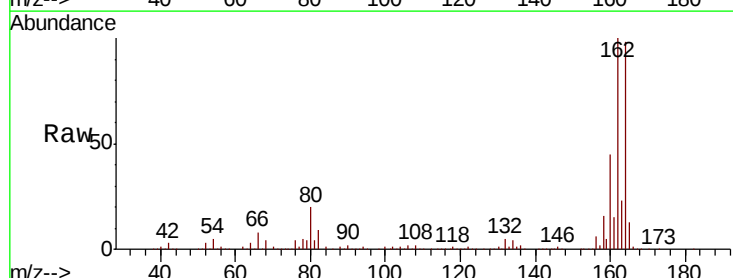
Instrument :  
BNA\_F  
ClientSampleId :  
ROLLOFF02-COMP-FILLDL

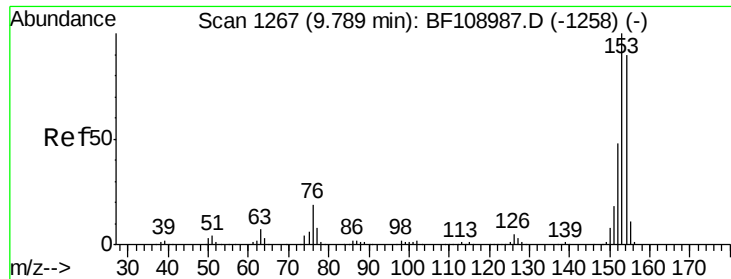
Tgt Ion:152 Resp: 371949  
Ion Ratio Lower Upper  
152 100  
151 20.1 16.3 24.5  
153 14.6 10.7 16.1



#50  
2,6-Dinitrotoluene  
Concen: 9.726 ng  
RT: 9.75 min Scan# 1260  
Delta R.T. 0.21 min  
Lab File: BF109021.D  
Acq: 15 Sep 2018 3:40

Tgt Ion:165 Resp: 45831  
Ion Ratio Lower Upper  
165 100  
63 1.8 44.7 67.1#  
89 1.4 44.0 66.0#





#51

Acenaphthene

Concen: 3.926 ng

RT: 9.78 min Scan# 1265

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Instrument :

BNA\_F

ClientSampleId :

ROLLOFF02-COMP-FILLDL

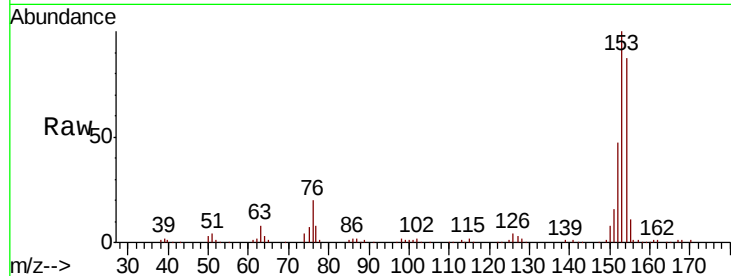
Tgt Ion:154 Resp: 70203

Ion Ratio Lower Upper

154 100

153 114.7 91.2 136.8

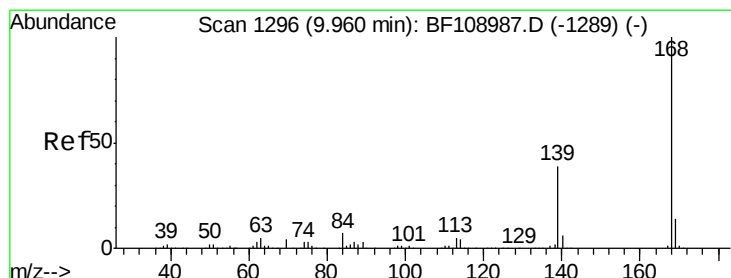
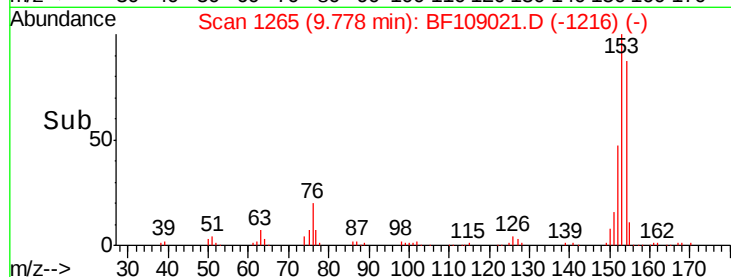
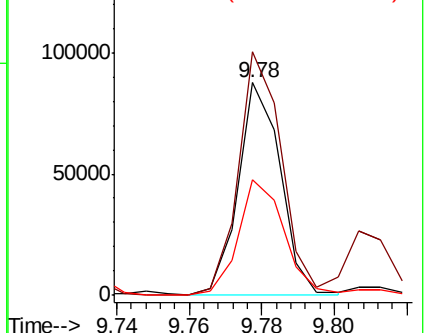
152 54.4 43.8 65.8



Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E



#54

Dibenzofuran

Concen: 10.806 ng

RT: 9.95 min Scan# 1295

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

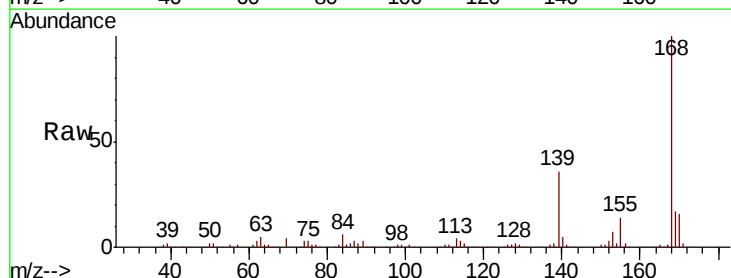
Tgt Ion:168 Resp: 279248

Ion Ratio Lower Upper

168 100

139 36.3 30.1 45.1

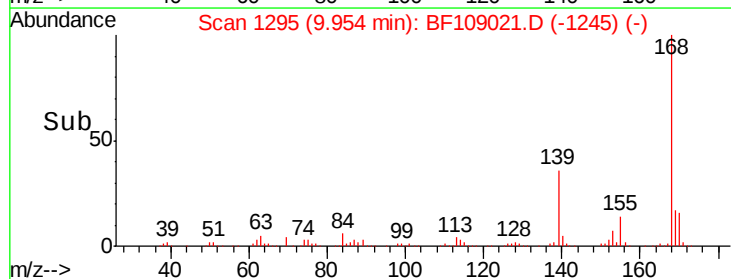
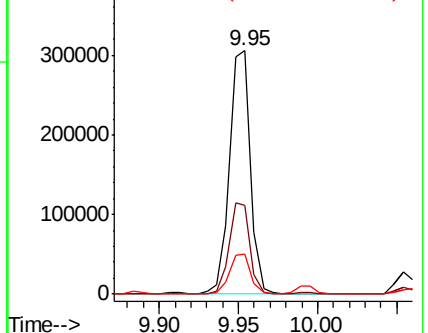
169 16.6 10.9 16.3#

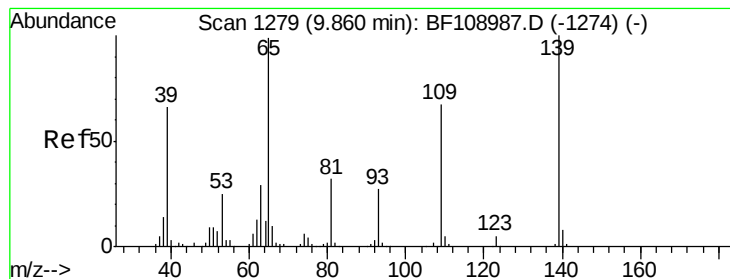


Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E

Ion 169.00 (168.70 to 169.70): E





#55

4-Nitrophenol

Concen: 25.361 ng

RT: 9.95 min Scan# 1294

Delta R.T. 0.09 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Instrument :

BNA\_F

ClientSampleId :

ROLLOFF02-COMP-FILLDL

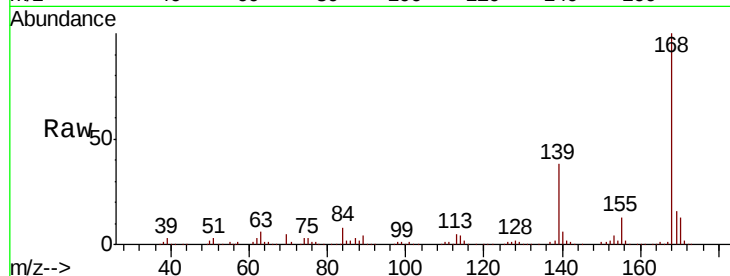
Tgt Ion:139 Resp: 103675

Ion Ratio Lower Upper

139 100

109 0.9 48.4 88.4#

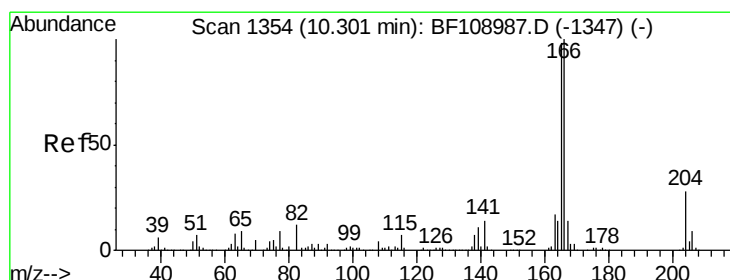
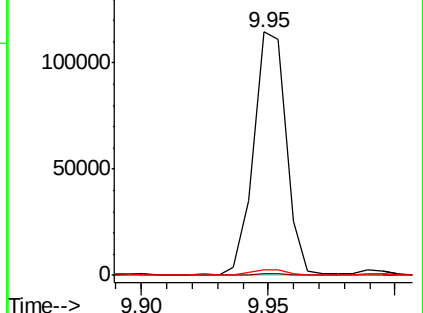
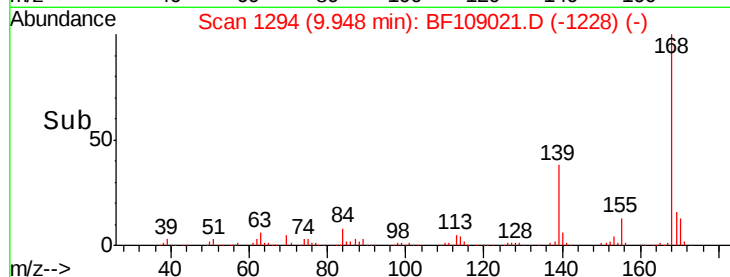
65 2.3 72.6 112.6#



Abundance Ion 139.00 (138.70 to 139.70): E

Ion 109.00 (108.70 to 109.70): E

Ion 65.00 (64.70 to 65.70): BF1



#57

Fluorene

Concen: 18.624 ng

RT: 10.30 min Scan# 1353

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

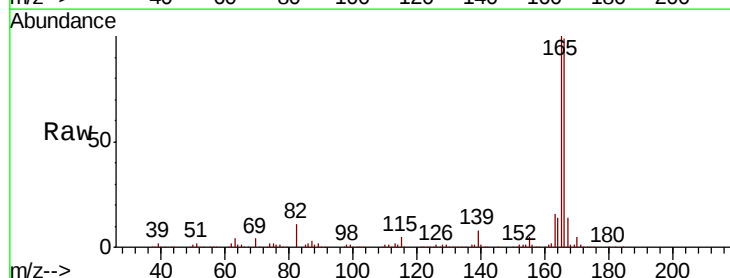
Tgt Ion:166 Resp: 320727

Ion Ratio Lower Upper

166 100

165 101.2 79.8 119.8

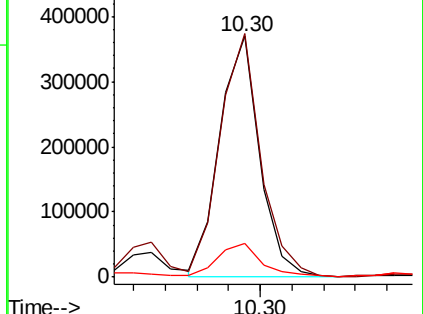
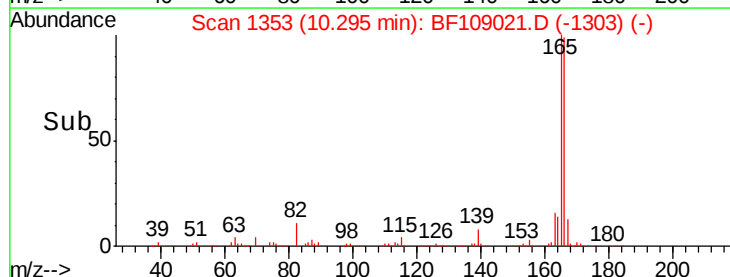
167 13.9 10.6 16.0

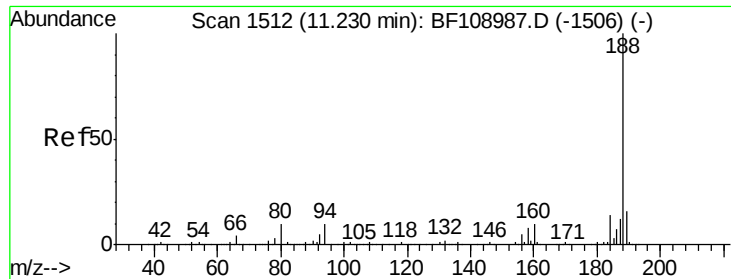


Abundance Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E

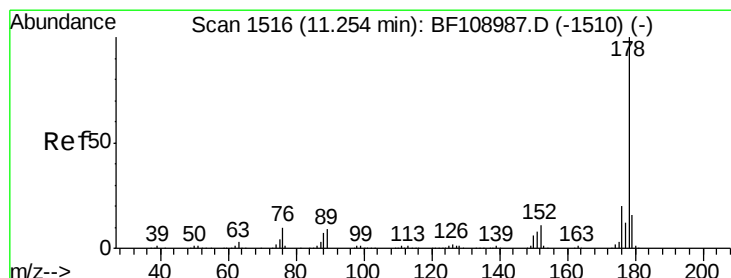
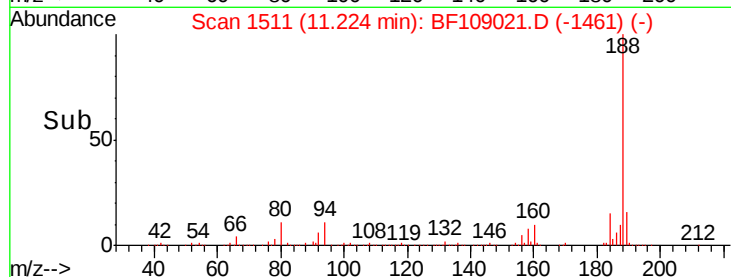
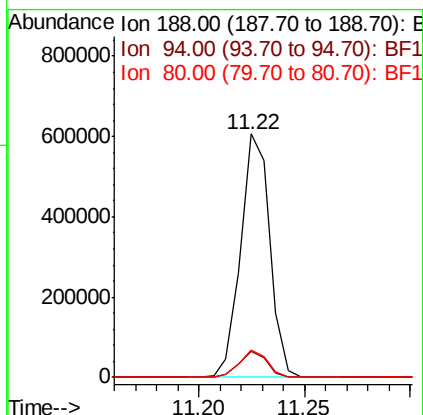
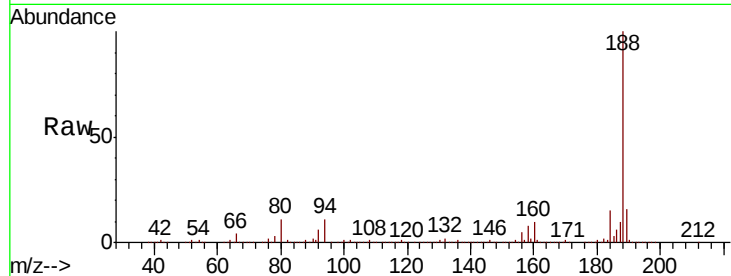




#63  
Phenanthrene-d10  
Concen: 20.000 ng  
RT: 11.22 min Scan# 1511  
Delta R.T. -0.01 min  
Lab File: BF109021.D  
Acq: 15 Sep 2018 3:40

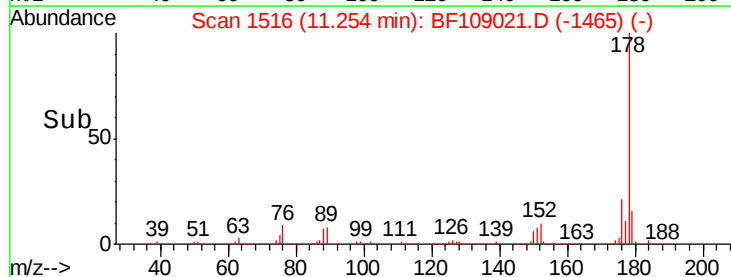
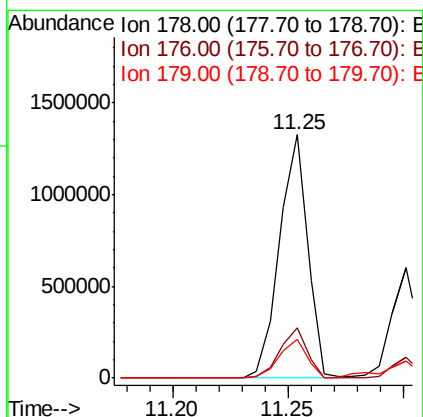
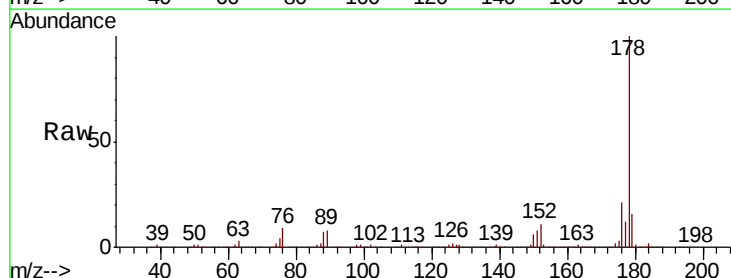
Instrument :  
BNA\_F  
ClientSampleId :  
ROLLOFF02-COMP-FILLDL

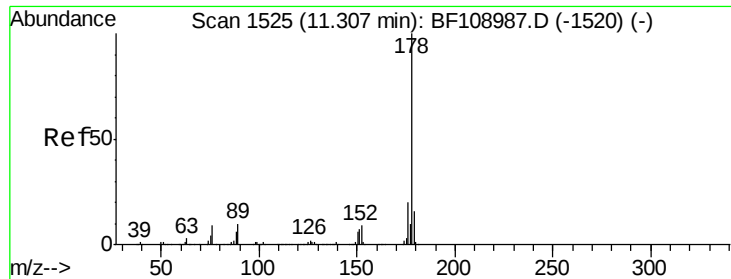
Tgt Ion:188 Resp: 576443  
Ion Ratio Lower Upper  
188 100  
94 10.9 8.5 12.7  
80 11.2 9.2 13.8



#70  
Phenanthrene  
Concen: 39.693 ng  
RT: 11.25 min Scan# 1516  
Delta R.T. -0.00 min  
Lab File: BF109021.D  
Acq: 15 Sep 2018 3:40

Tgt Ion:178 Resp: 1121613  
Ion Ratio Lower Upper  
178 100  
176 20.7 15.8 23.8  
179 15.8 13.0 19.6

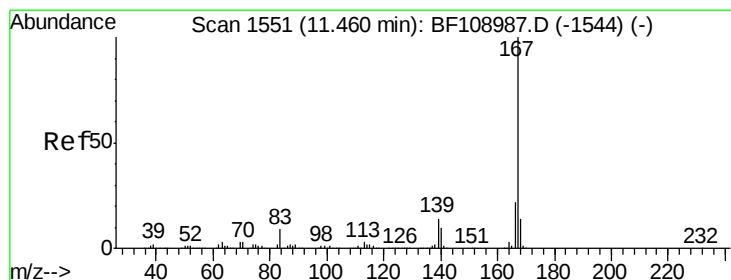
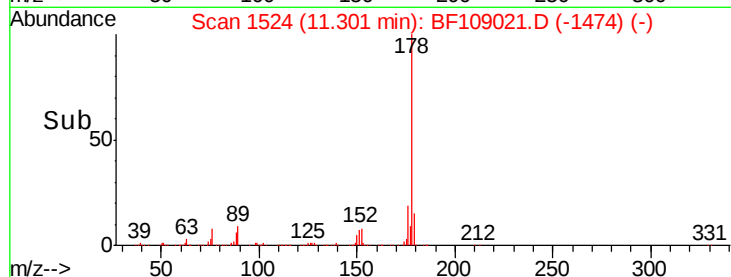
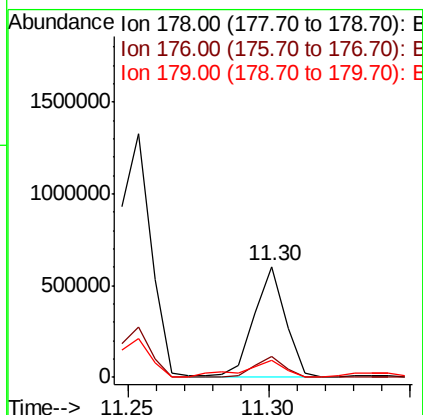
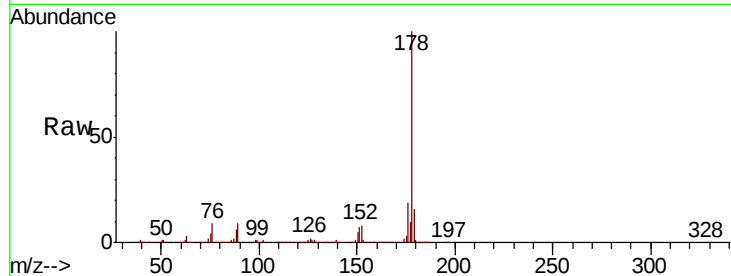




#71  
 Anthracene  
 Concen: 16.074 ng  
 RT: 11.30 min Scan# 1524  
 Delta R.T. -0.01 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

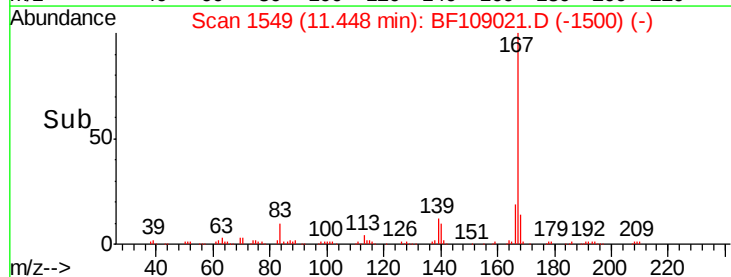
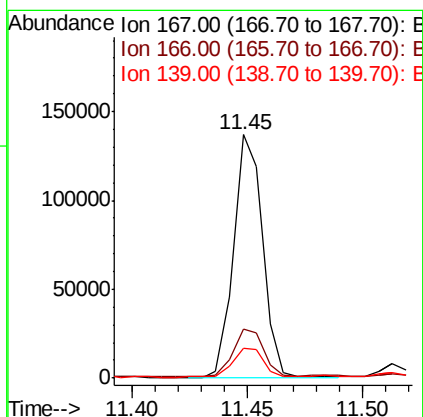
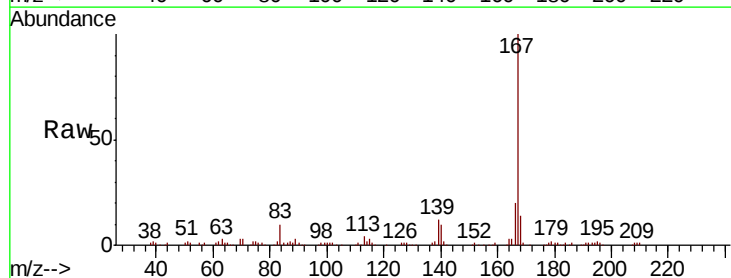
Instrument :  
 BNA\_F  
 ClientSampleId :  
 ROLLOFF02-COMP-FILLDL

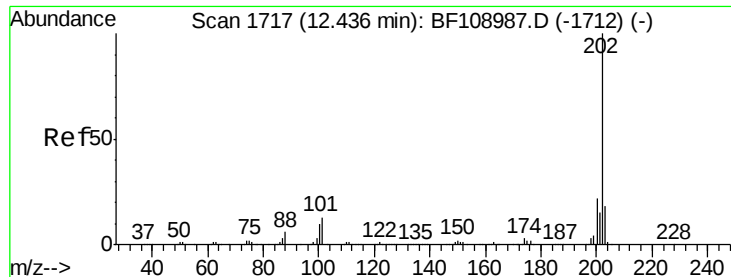
Tgt Ion:178 Resp: 460437  
 Ion Ratio Lower Upper  
 178 100  
 176 18.8 15.4 23.2  
 179 15.8 12.6 19.0



#72  
 Carbazole  
 Concen: 4.241 ng  
 RT: 11.45 min Scan# 1549  
 Delta R.T. -0.01 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

Tgt Ion:167 Resp: 120241  
 Ion Ratio Lower Upper  
 167 100  
 166 20.2 17.6 26.4  
 139 12.5 10.9 16.3





#74

Fluoranthene

Concen: 24.329 ng

RT: 12.43 min Scan# 1716

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Instrument :

BNA\_F

ClientSampleId :

ROLLOFF02-COMP-FILLDL

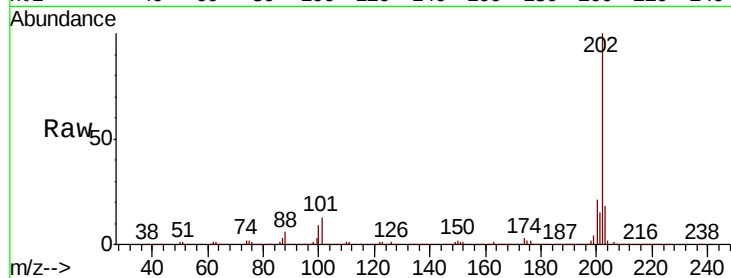
Tgt Ion: 202 Resp: 725769

Ion Ratio Lower Upper

202 100

101 12.9 0.0 34.1

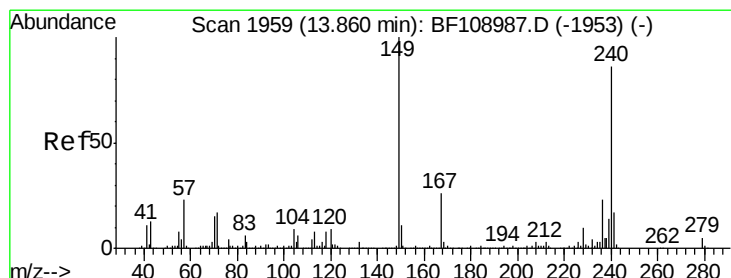
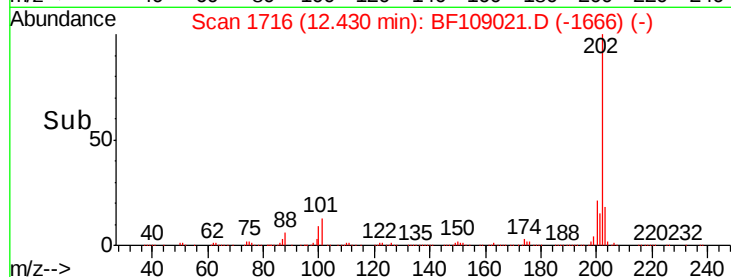
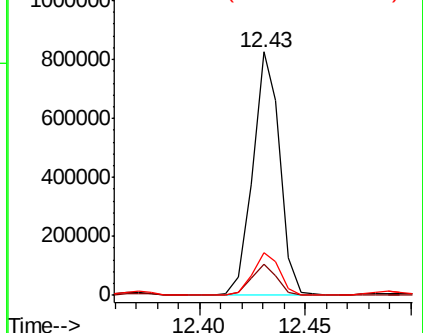
203 17.8 0.0 38.1



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: 13.85 min Scan# 1957

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

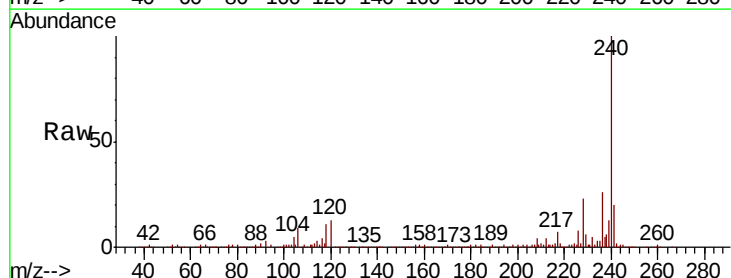
Tgt Ion: 240 Resp: 425159

Ion Ratio Lower Upper

240 100

120 13.0 9.5 14.3

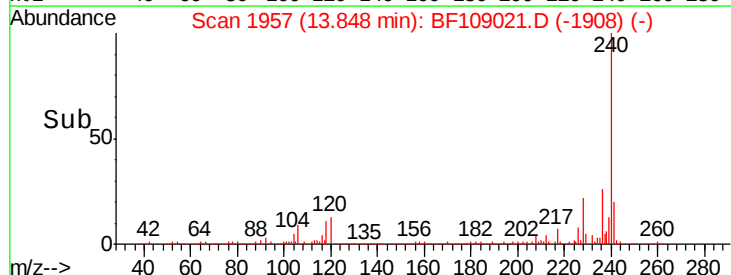
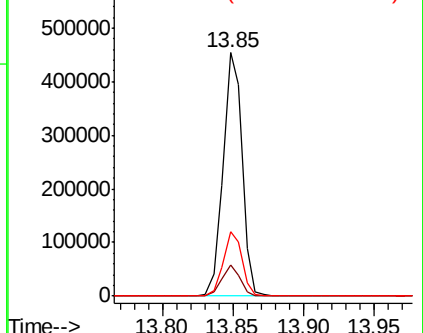
236 26.5 20.7 31.1

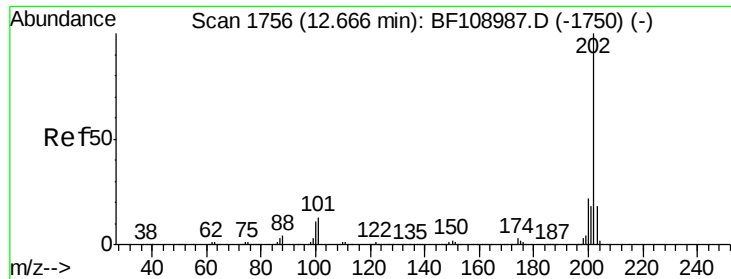


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E





#77

Pyrene

Concen: 19.297 ng

RT: 12.66 min Scan# 1755

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

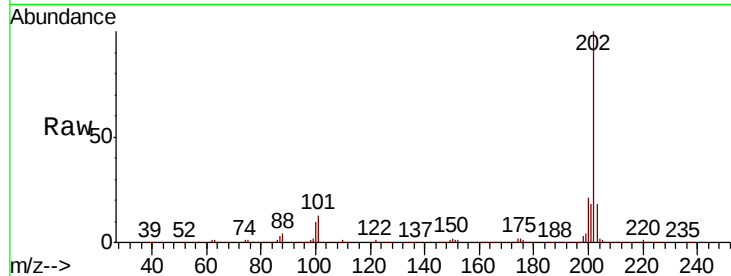
Instrument :

BNA\_F

ClientSampleId :

ROLLOFF02-COMP-FILLDL

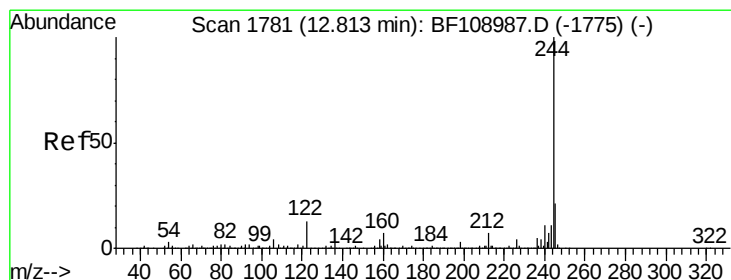
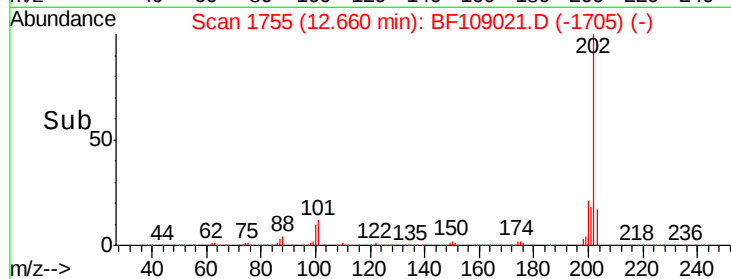
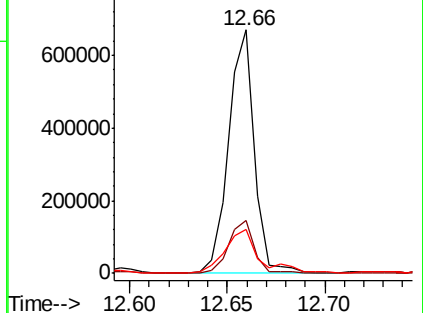
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 202   | Resp: | 609417 |
| Ion      | Ratio | Lower | Upper  |
| 202      | 100   |       |        |
| 200      | 21.5  | 17.4  | 26.2   |
| 203      | 18.3  | 14.3  | 21.5   |



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: 22.029 ng

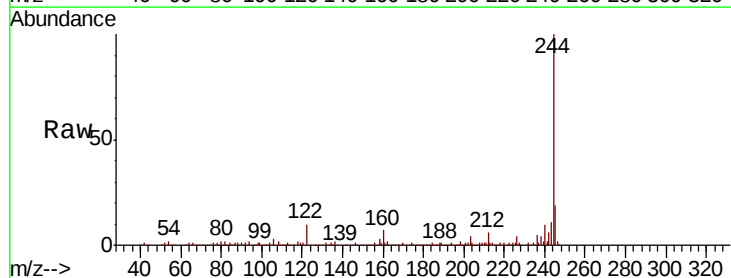
RT: 12.81 min Scan# 1780

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

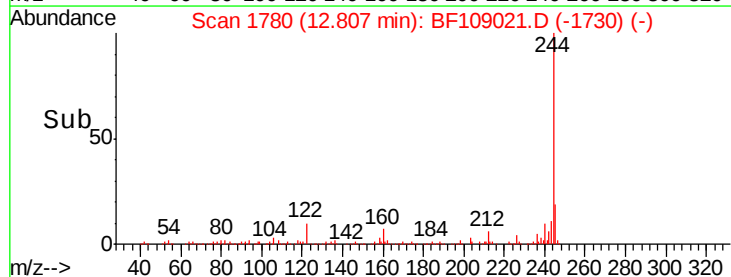
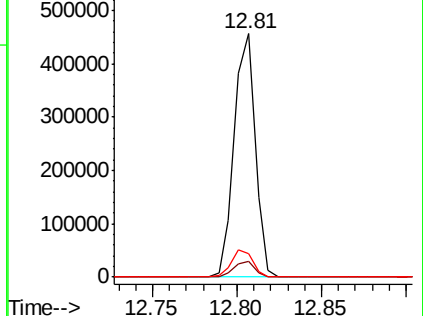
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 244   | Resp: | 395145 |
| Ion      | Ratio | Lower | Upper  |
| 244      | 100   |       |        |
| 212      | 6.3   | 5.4   | 8.0    |
| 122      | 9.9   | 11.0  | 16.4#  |

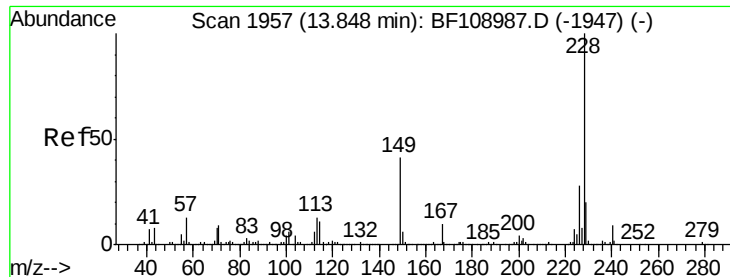


Abundance Ion 244.00 (243.70 to 244.70): E

Ion 212.00 (211.70 to 212.70): E

Ion 122.00 (121.70 to 122.70): E





#80

Benzo(a)anthracene

Concen: 10.664 ng

RT: 13.84 min Scan# 1955

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Instrument :

BNA\_F

ClientSampleId :

ROLLOFF02-COMP-FILLDL

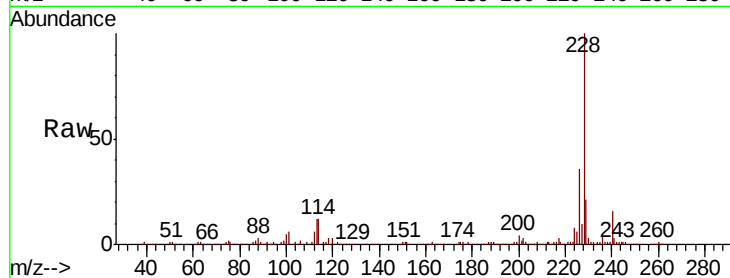
Tgt Ion:228 Resp: 274484

Ion Ratio Lower Upper

228 100

226 36.1 22.6 33.8#

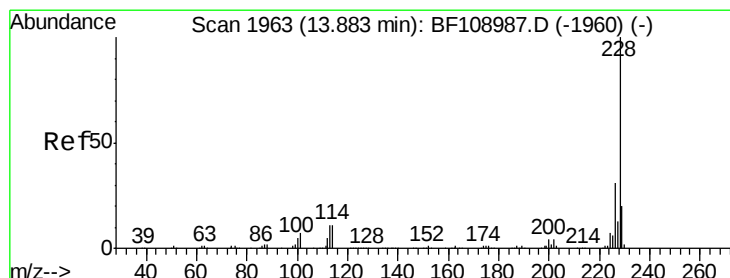
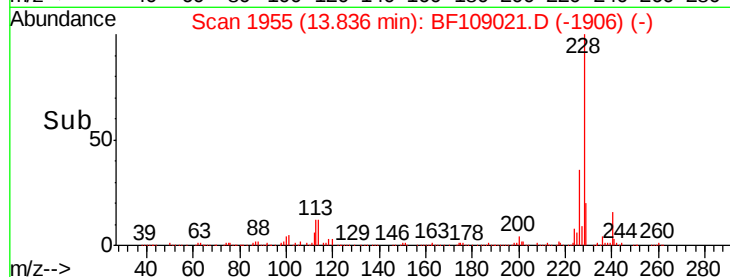
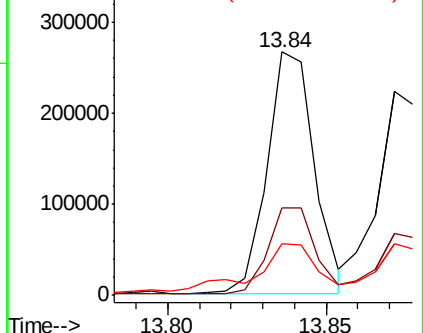
229 21.3 15.8 23.6



Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E



#82

Chrysene

Concen: 10.658 ng

RT: 13.84 min Scan# 1955

Delta R.T. -0.05 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

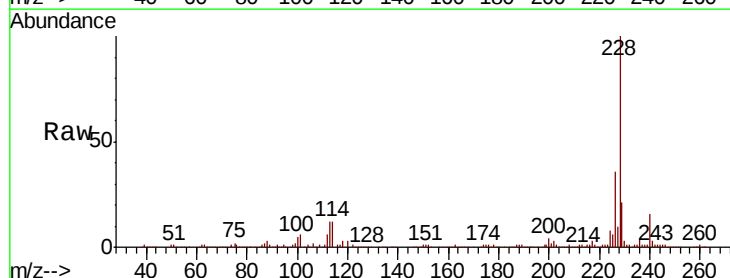
Tgt Ion:228 Resp: 274484

Ion Ratio Lower Upper

228 100

226 36.1 25.0 37.6

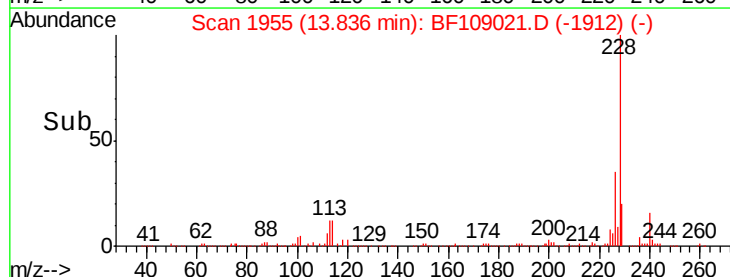
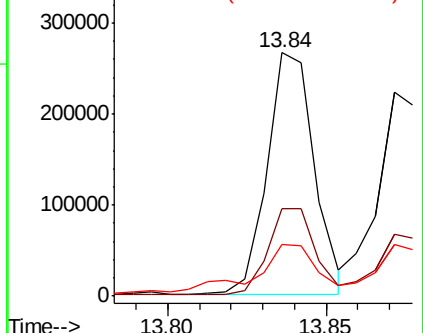
229 21.3 16.2 24.4

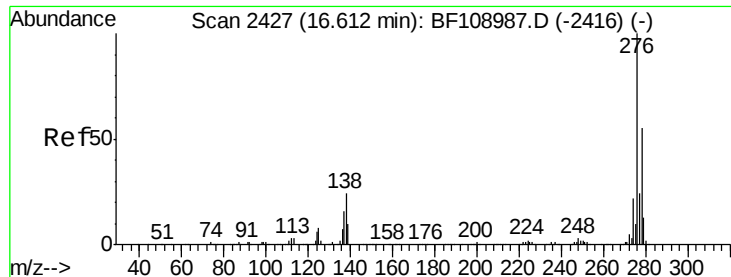


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E

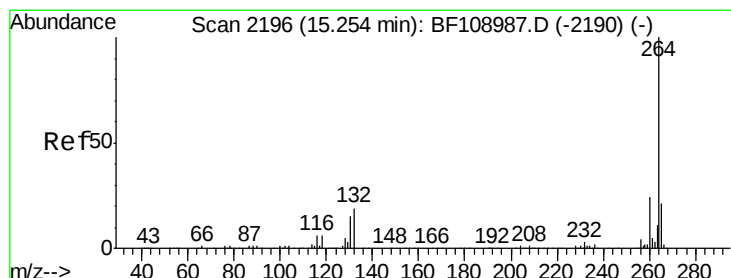
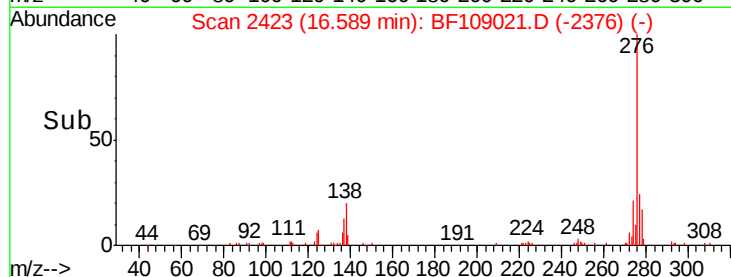
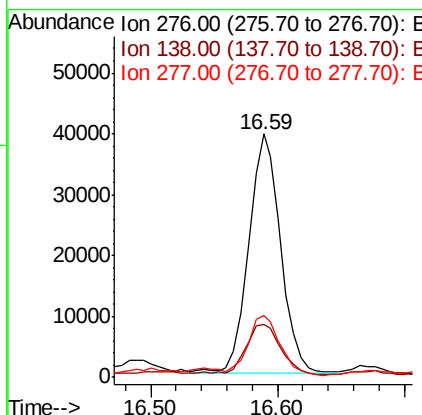
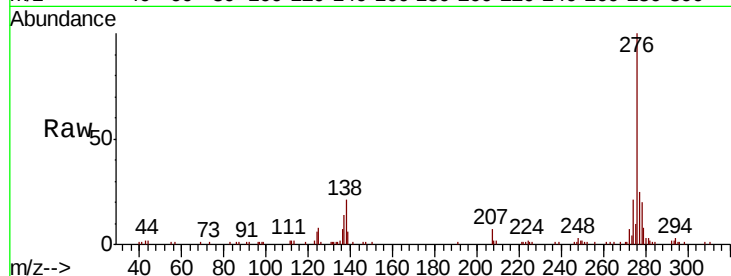




#85  
 Indeno(1,2,3-cd)pyrene  
 Concen: 3.352 ng  
 RT: 16.59 min Scan# 2423  
 Delta R.T. -0.02 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

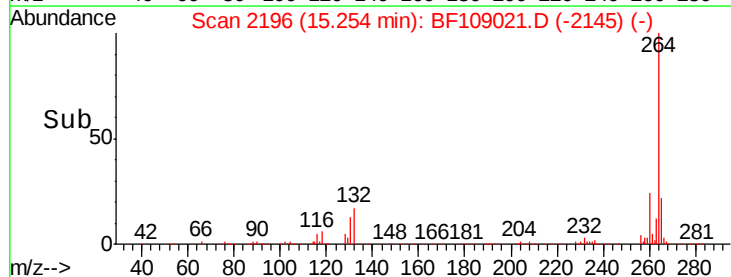
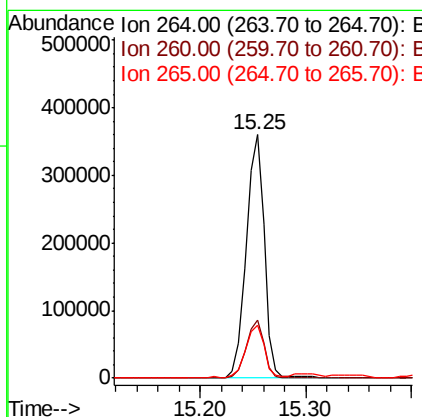
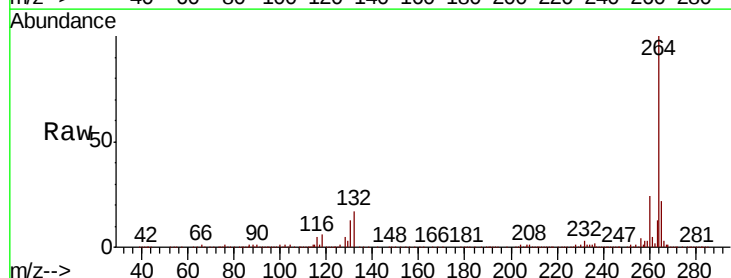
Instrument :  
 BNA\_F  
 ClientSampleId :  
 ROLLOFF02-COMP-FILLDL

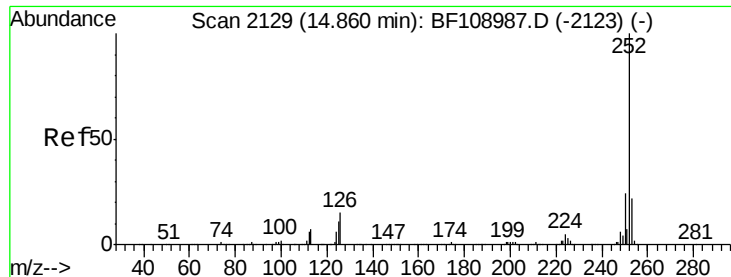
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 22.8  | 25.0  | 37.6# |
| 277     | 25.1  | 20.1  | 30.1  |



#86  
 Perylene-d12  
 Concen: 20.000 ng  
 RT: 15.25 min Scan# 2196  
 Delta R.T. -0.00 min  
 Lab File: BF109021.D  
 Acq: 15 Sep 2018 3:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 24.0  | 19.2  | 28.8  |
| 265     | 21.8  | 17.5  | 26.3  |

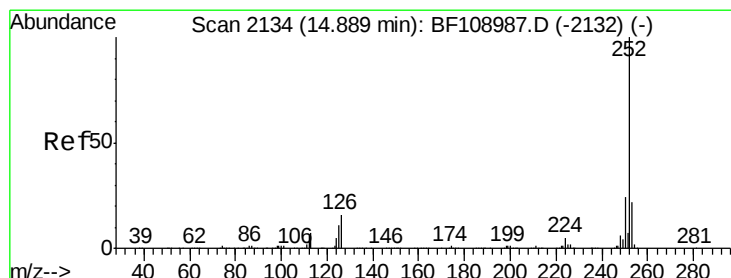
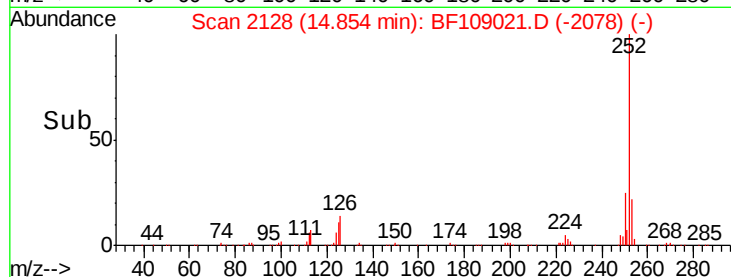
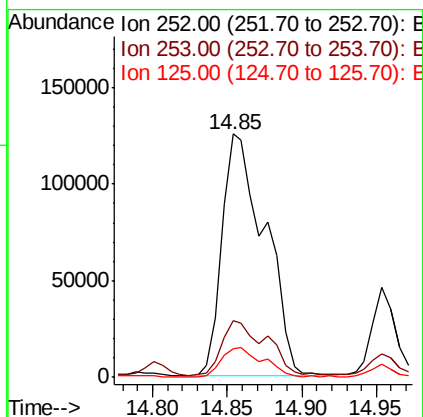
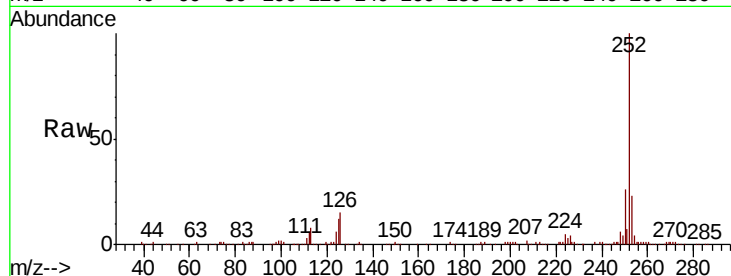




#87  
Benzo(b)fluoranthene  
Concen: 10.556 ng  
RT: 14.85 min Scan# 2128  
Delta R.T. -0.01 min  
Lab File: BF109021.D  
Acq: 15 Sep 2018 3:40

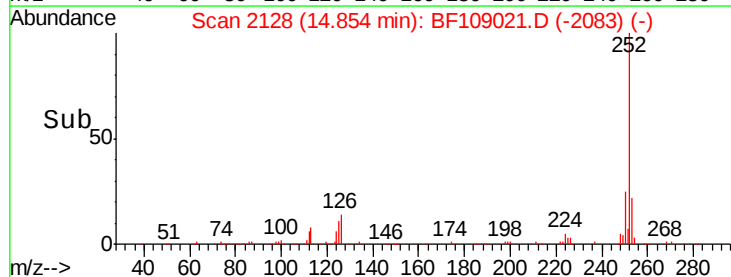
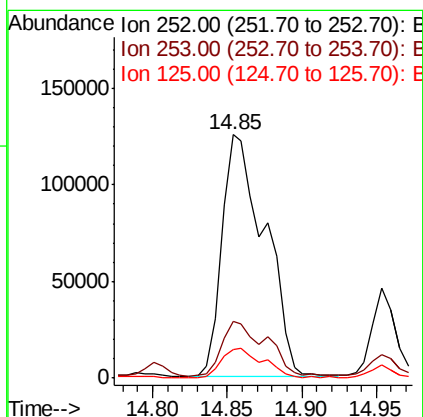
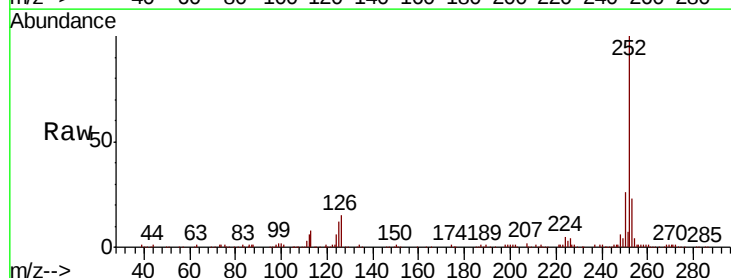
Instrument :  
BNA\_F  
ClientSampleId :  
ROLLOFF02-COMP-FILLDL

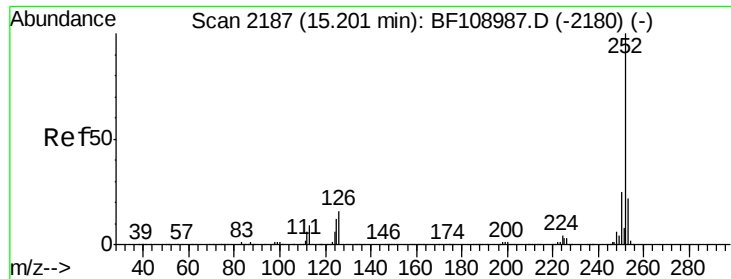
Tgt Ion:252 Resp: 250806  
Ion Ratio Lower Upper  
252 100  
253 23.2 17.0 25.6  
125 11.7 9.0 13.6



#88  
Benzo(k)fluoranthene  
Concen: 11.302 ng  
RT: 14.85 min Scan# 2128  
Delta R.T. -0.04 min  
Lab File: BF109021.D  
Acq: 15 Sep 2018 3:40

Tgt Ion:252 Resp: 250806  
Ion Ratio Lower Upper  
252 100  
253 23.2 17.9 26.9  
125 11.7 10.2 15.2





#89

Benzo(a)pyrene

Concen: 7.343 ng

RT: 15.19 min Scan# 2185

Delta R.T. -0.01 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

Instrument :

BNA\_F

ClientSampleId :

ROLLOFF02-COMP-FILLDL

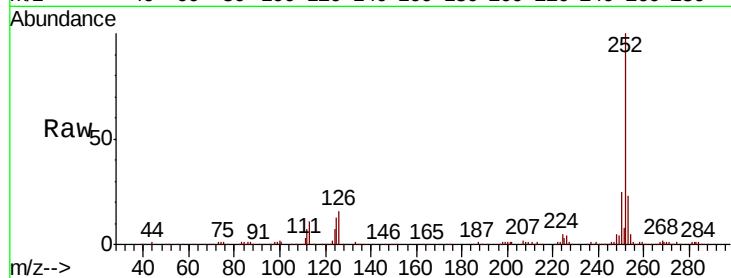
Tgt Ion:252 Resp: 154945

Ion Ratio Lower Upper

252 100

253 23.2 17.1 25.7

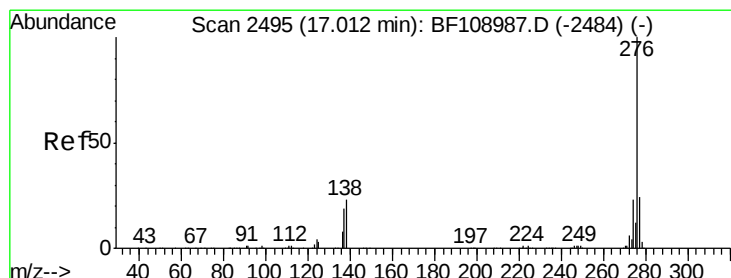
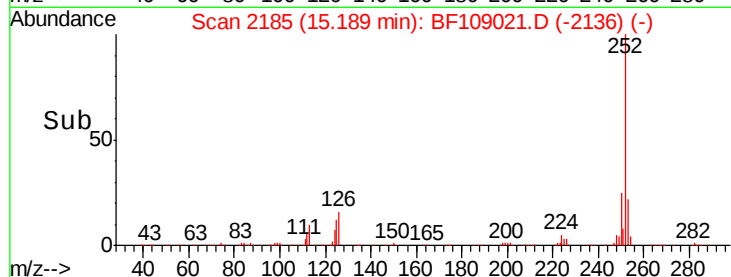
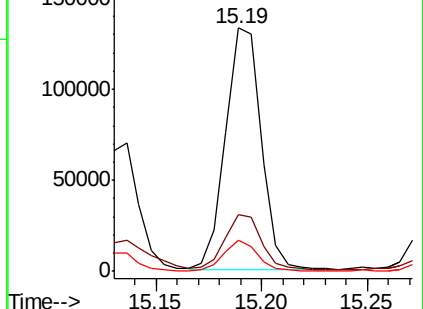
125 12.5 9.8 14.6



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: 3.228 ng

RT: 16.99 min Scan# 2492

Delta R.T. -0.02 min

Lab File: BF109021.D

Acq: 15 Sep 2018 3:40

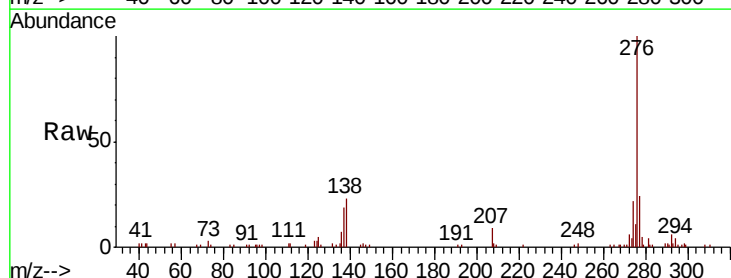
Tgt Ion:276 Resp: 57213

Ion Ratio Lower Upper

276 100

277 23.8 17.9 26.9

138 23.0 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

