

Data Path : Z:\HPCHEM1\BNA F\DATA\BF052617\  
 Data File : BF095494.D  
 Acq On : 27 May 2017 10:19  
 Operator : SJ/MA  
 Sample : I3240-05DL 5X  
 Misc :  
 ALS Vial : 39 Sample Multiplier: 1

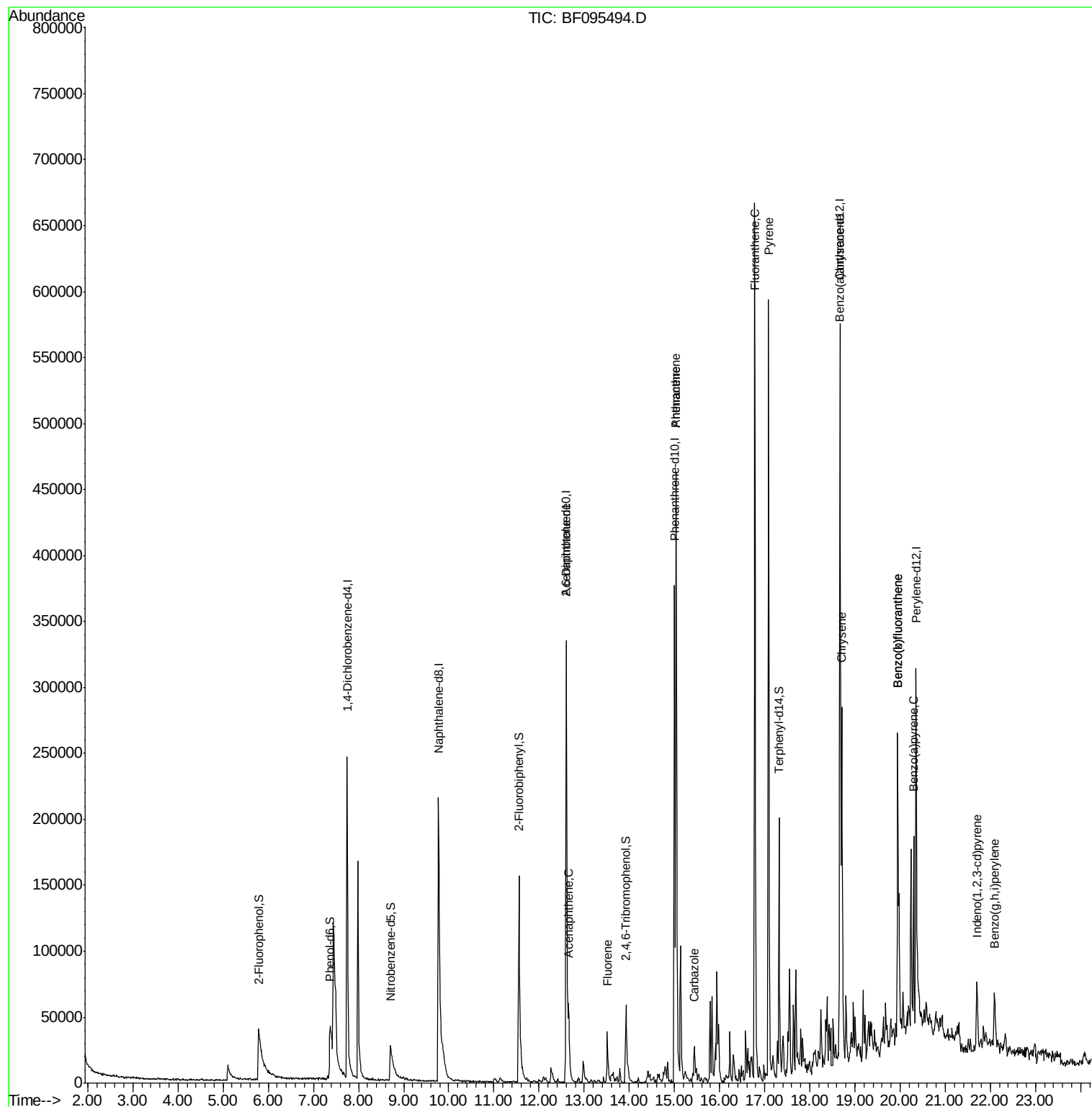
Quant Time: May 28 23:04:43 2017  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050217.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri May 26 16:50:16 2017  
 Response via : Initial Calibration

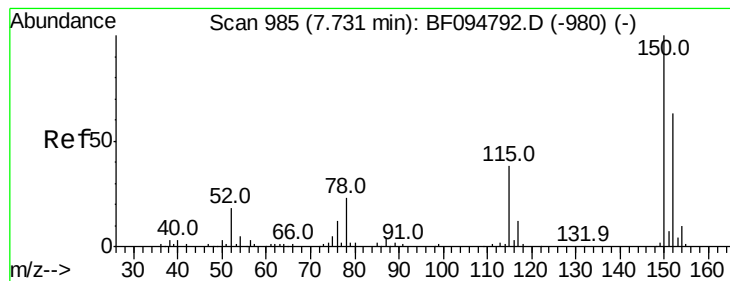
| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.75  | 152  | 80891    | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8          | 9.77  | 136  | 342469   | 20.00 | ng    | 0.01     |
| 38) Acenaphthene-d10        | 12.60 | 164  | 142004   | 20.00 | ng    | 0.00     |
| 63) Phenanthrene-d10        | 15.00 | 188  | 213227   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12            | 18.67 | 240  | 188367   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12            | 20.35 | 264  | 131584   | 20.00 | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |       |       |          |
| 5) 2-Fluorophenol           | 5.78  | 112  | 76571    | 15.78 | ng    | 0.08     |
| 7) Phenol-d6                | 7.37  | 99   | 100800   | 17.32 | ng    | 0.07     |
| 23) Nitrobenzene-d5         | 8.71  | 82   | 50232    | 9.25  | ng    | 0.05     |
| 41) 2,4,6-Tribromophenol    | 13.92 | 330  | 17680    | 15.20 | ng    | 0.02     |
| 44) 2-Fluorobiphenyl        | 11.55 | 172  | 133228   | 13.50 | ng    | 0.02     |
| 78) Terphenyl-d14           | 17.32 | 244  | 86395    | 10.10 | ng    | 0.00     |
| Target Compounds            |       |      |          |       |       | Qvalue   |
| 50) 2,6-Dinitrotoluene      | 12.60 | 165  | 15141    | 6.37  | ng    | # 31     |
| 51) Acenaphthene            | 12.66 | 154  | 21015    | 2.33  | ng    | 97       |
| 57) Fluorene                | 13.51 | 166  | 24610    | 2.26  | ng    | 100      |
| 70) Phenanthrene            | 15.04 | 178  | 319103   | 26.05 | ng    | 98       |
| 71) Anthracene              | 15.04 | 178  | 319103   | 25.50 | ng    | 98       |
| 72) Carbazole               | 15.44 | 167  | 27147    | 2.38  | ng    | 95       |
| 74) Fluoranthene            | 16.78 | 202  | 382737   | 30.45 | ng    | 98       |
| 77) Pyrene                  | 17.08 | 202  | 283431   | 20.12 | ng    | 95       |
| 80) Benzo(a)anthracene      | 18.66 | 228  | 149393   | 13.63 | ng    | 96       |
| 82) Chrysene                | 18.71 | 228  | 143875   | 13.57 | ng    | 96       |
| 85) Indeno(1,2,3-cd)pyrene  | 21.70 | 276  | 36053    | 4.19  | ng    | 95       |
| 87) Benzo(b)fluoranthene    | 19.95 | 252  | 175779   | 21.62 | ng    | # 97     |
| 88) Benzo(k)fluoranthene    | 19.95 | 252  | 175779   | 22.41 | ng    | 97       |
| 89) Benzo(a)pyrene          | 20.30 | 252  | 76003    | 10.13 | ng    | 96       |
| 91) Benzo(a,h,i)perylene    | 22.09 | 276  | 40838    | 6.72  | ng    | 98       |

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

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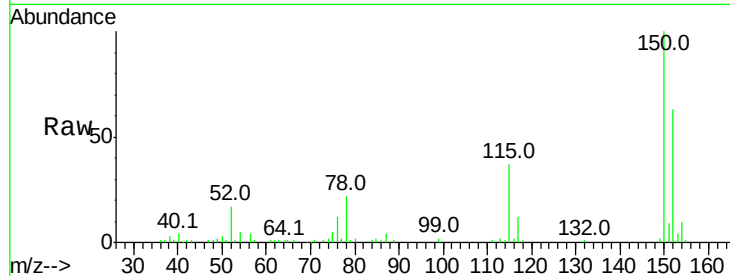




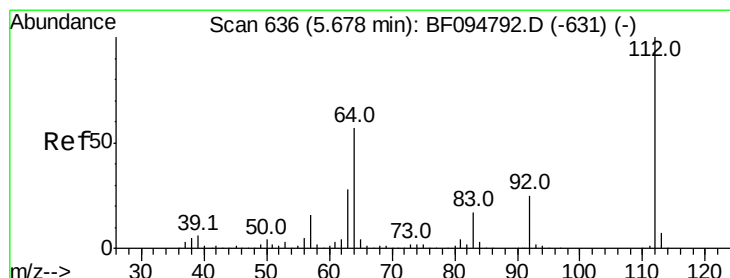
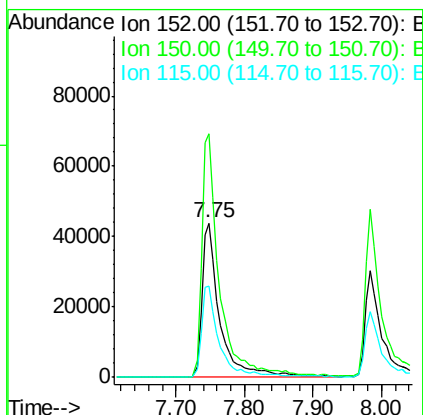
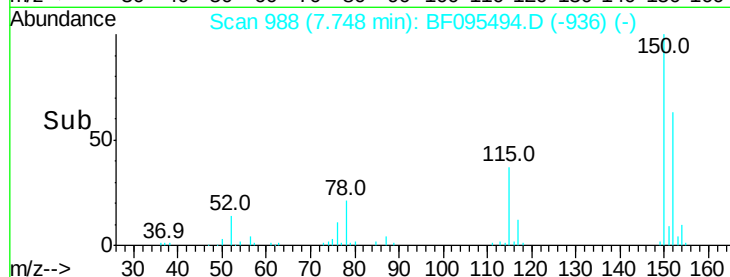
#1

1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 7.75 min Scan# 988  
Delta R.T. 0.01 min  
Lab File: BF095494.D  
Acq: 27 May 2017 10:19

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 158.0 | 126.2 | 189.2 |
| 115     | 58.9  | 52.2  | 78.2  |



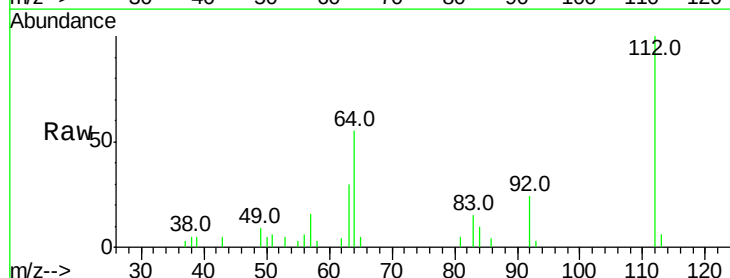
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



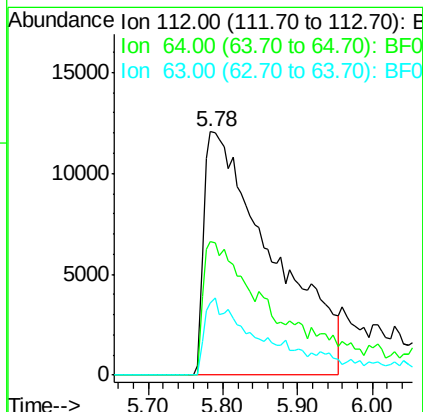
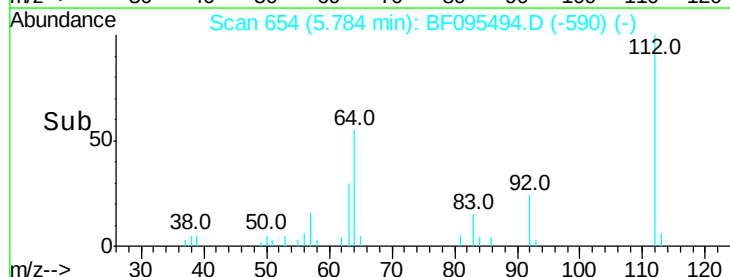
#5

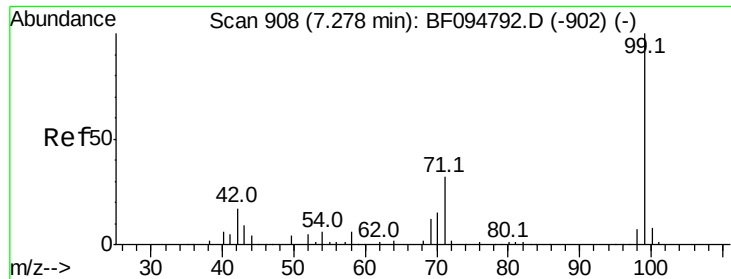
2-Fluorophenol  
Concen: 15.78 ng  
RT: 5.78 min Scan# 654  
Delta R.T. 0.08 min  
Lab File: BF095494.D  
Acq: 27 May 2017 10:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 54.7  | 46.0  | 69.0  |
| 63      | 29.8  | 23.4  | 35.0  |



Abundance Ion 112.00 (111.70 to 112.70): E  
Ion 64.00 (63.70 to 64.70): BF0  
Ion 63.00 (62.70 to 63.70): BF0





#7

Phenol-d6

Concen: 17.32 ng

RT: 7.37 min Scan# 923

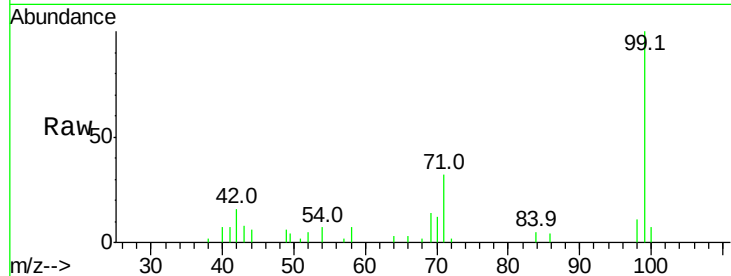
Delta R.T. 0.07 min

Lab File: BF095494.D

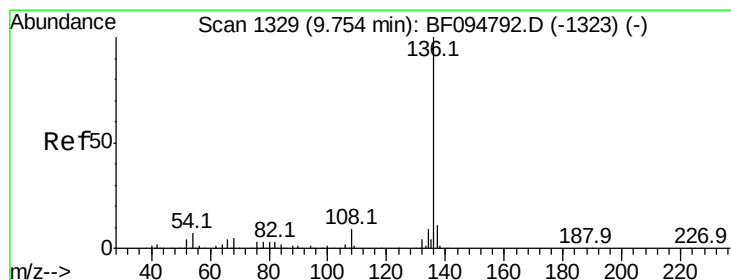
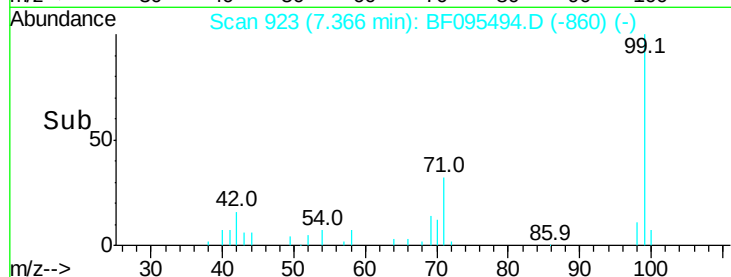
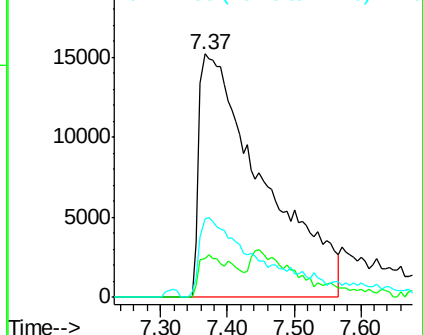
Acq: 27 May 2017 10:19

Tot Ion: 99 Resp: 100800

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 99  | 100   |       |       |
| 42  | 15.7  | 13.5  | 20.3  |
| 71  | 32.0  | 24.5  | 36.7  |



Abundance Ion 99.00 (98.70 to 99.70): BF0  
Ion 42.00 (41.70 to 42.70): BF0  
Ion 71.00 (70.70 to 71.70): BF0



#21

Naphthalene-d8

Concen: 20.00 ng

RT: 9.77 min Scan# 1332

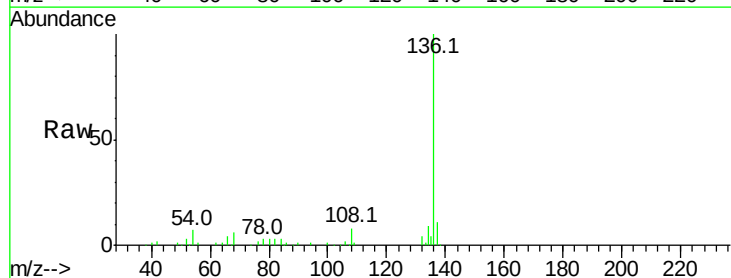
Delta R.T. 0.01 min

Lab File: BF095494.D

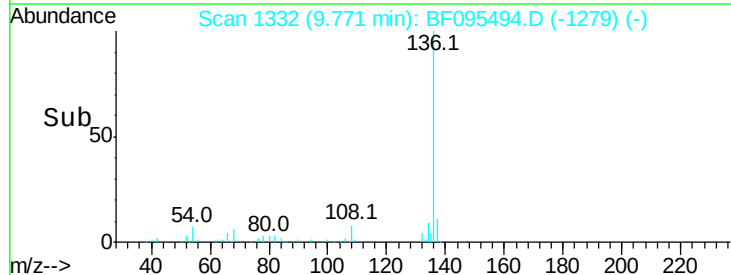
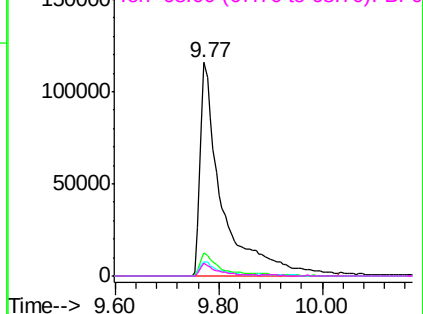
Acq: 27 May 2017 10:19

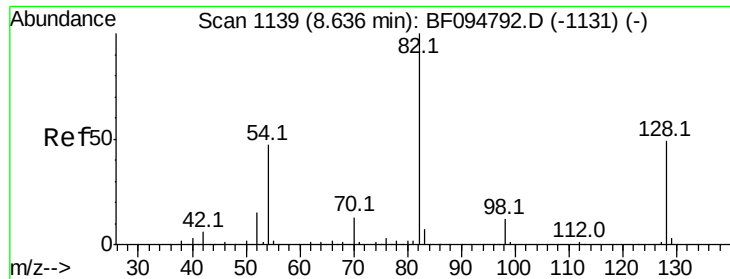
Tgt Ion: 136 Resp: 342469

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 136 | 100   |       |       |
| 137 | 10.6  | 8.5   | 12.7  |
| 54  | 6.8   | 4.9   | 7.3   |
| 68  | 6.2   | 4.1   | 6.1#  |



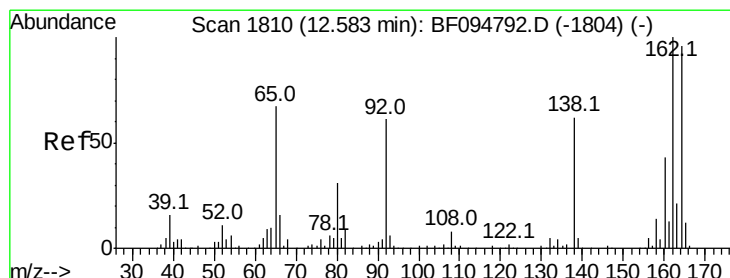
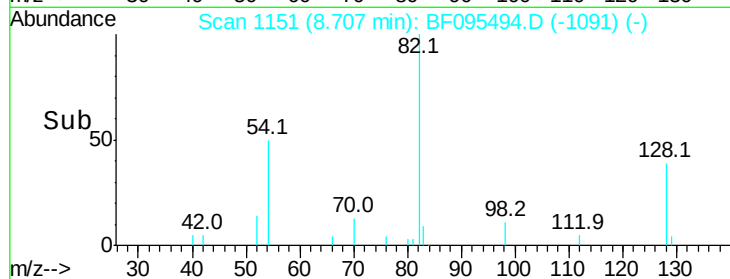
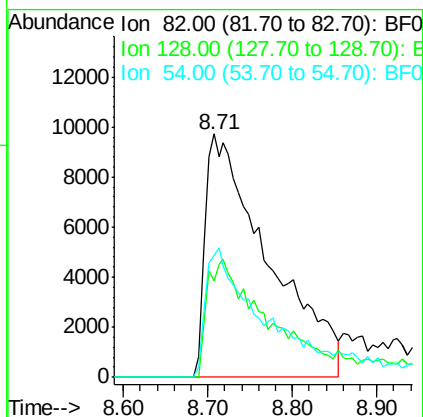
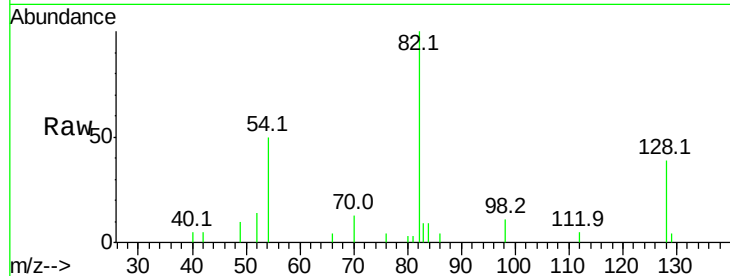
Abundance Ion 136.00 (135.70 to 136.70): E  
Ion 137.00 (136.70 to 137.70): E  
Ion 54.00 (53.70 to 54.70): BF0  
Ion 68.00 (67.70 to 68.70): BF0





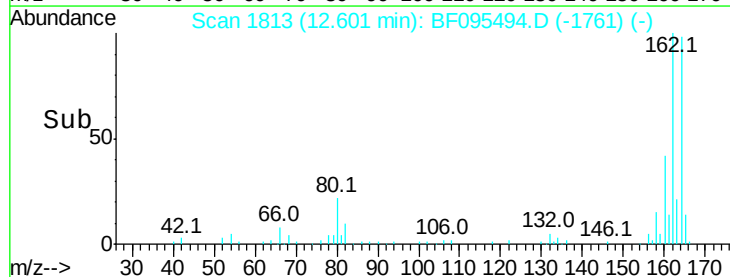
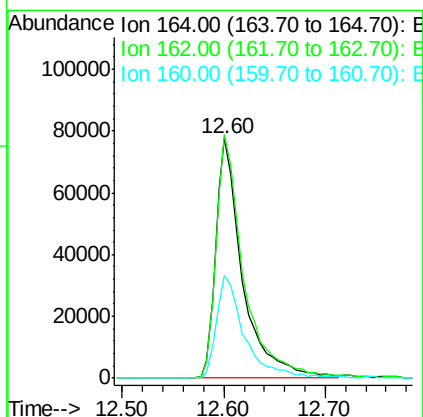
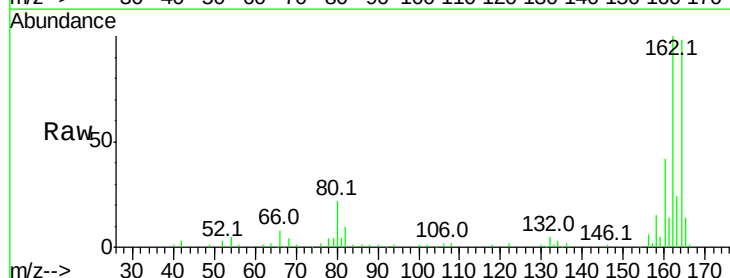
#23  
 Nitrobenzene-d5  
 Concen: 9.25 ng  
 RT: 8.71 min Scan# 1151  
 Delta R.T. 0.05 min  
 Lab File: BF095494.D  
 Acq: 27 May 2017 10:19

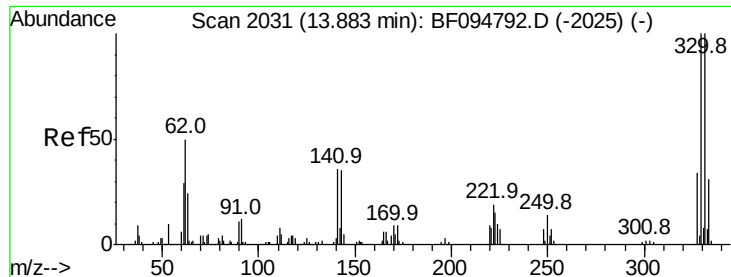
| Tot Ion   | 82   | Resp  | 50232 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 128       | 39.5 | 34.0  | 51.0  |
| 54        | 50.3 | 42.2  | 63.2  |



#38  
 Acenaphthene-d10  
 Concen: 20.00 ng  
 RT: 12.60 min Scan# 1813  
 Delta R.T. 0.01 min  
 Lab File: BF095494.D  
 Acq: 27 May 2017 10:19

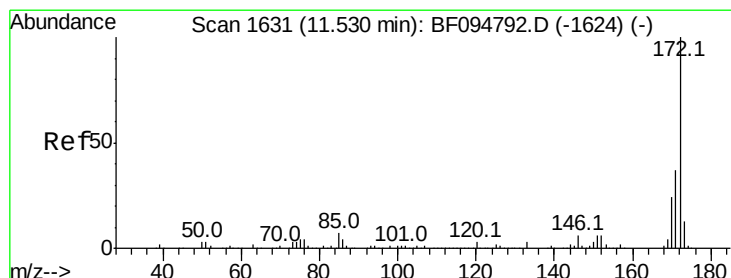
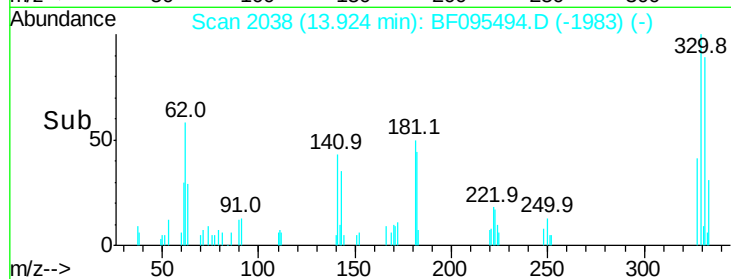
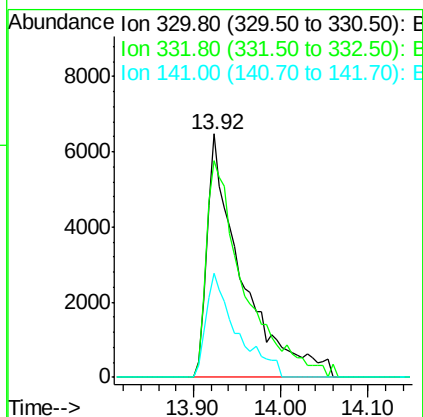
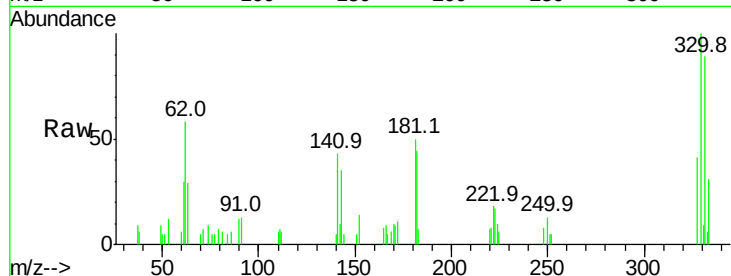
| Tgt Ion   | 164   | Resp  | 142004 |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 162       | 101.6 | 82.6  | 123.8  |
| 160       | 42.9  | 36.2  | 54.2   |





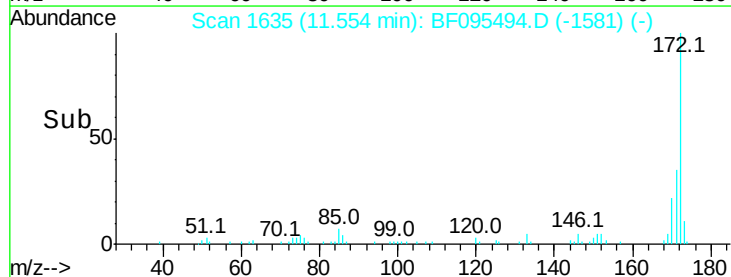
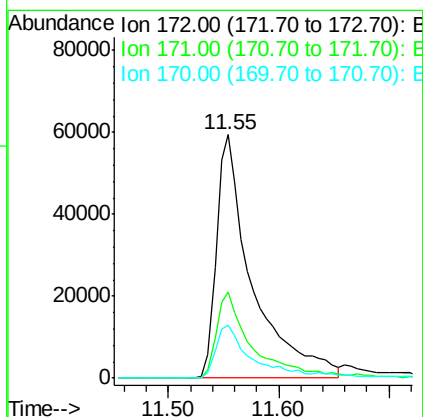
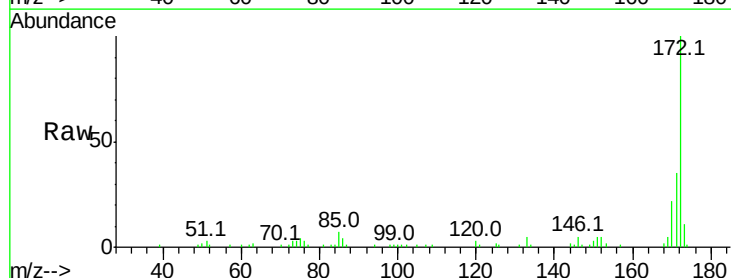
#41  
 2,4,6-Tribromophenol  
 Concen: 15.20 ng  
 RT: 13.92 min Scan# 2038  
 Delta R.T. 0.02 min  
 Lab File: BF095494.D  
 Acq: 27 May 2017 10:19

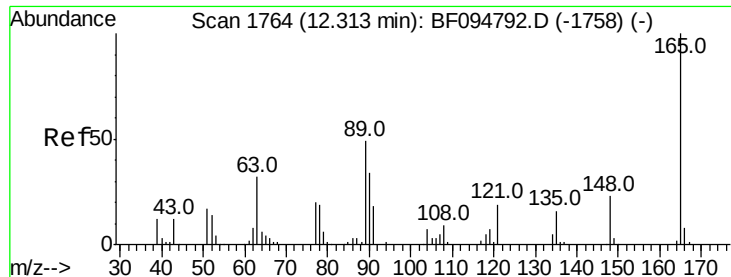
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 97.0  | 76.6  | 115.0 |
| 141     | 37.8  | 31.4  | 47.2  |



#44  
 2-Fluorobiphenyl  
 Concen: 13.50 ng  
 RT: 11.55 min Scan# 1635  
 Delta R.T. 0.02 min  
 Lab File: BF095494.D  
 Acq: 27 May 2017 10:19

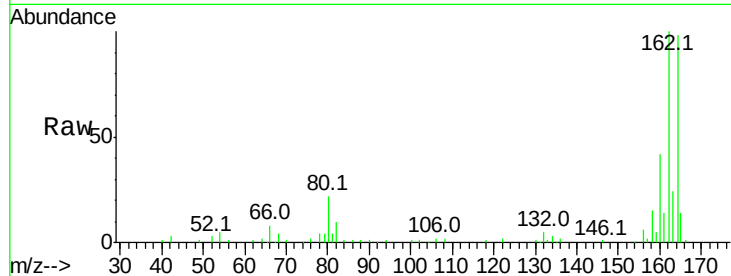
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 35.2  | 29.6  | 44.4  |
| 170     | 21.6  | 19.8  | 29.8  |



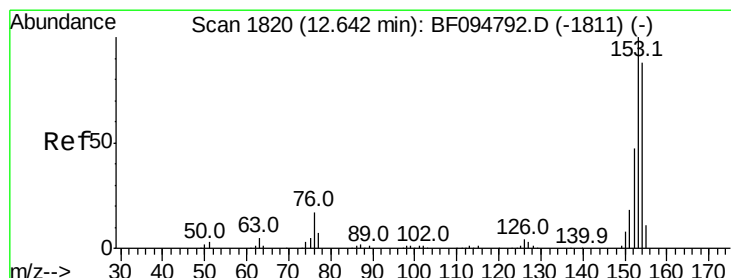
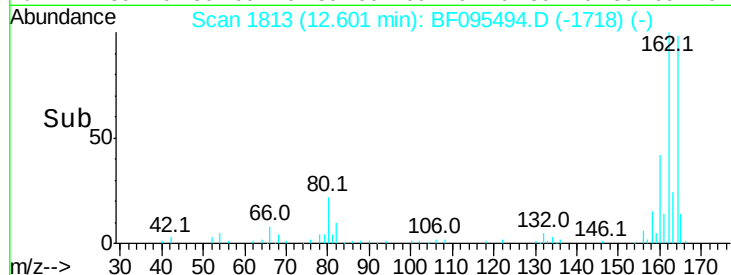
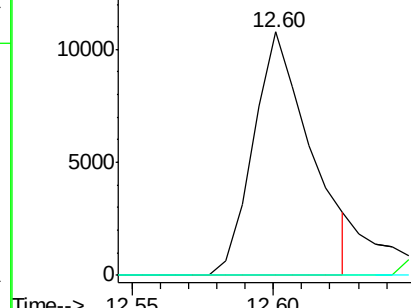


#50  
 2,6-Dinitrotoluene  
 Concen: 6.37 ng  
 RT: 12.60 min Scan# 1813  
 Delta R.T. 0.26 min  
 Lab File: BF095494.D  
 Acq: 27 May 2017 10:19

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 165     | 100   |       |       |
| 63      | 0.0   | 34.3  | 51.5# |
| 89      | 0.0   | 37.1  | 55.7# |

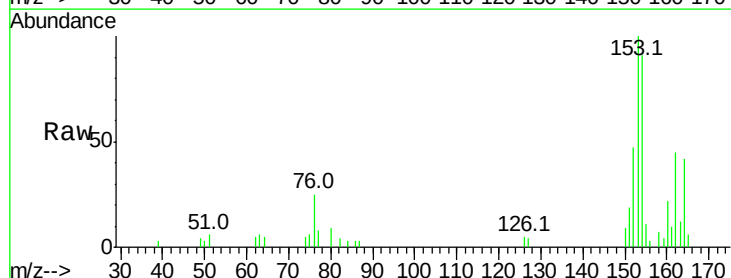


Abundance Ion 165.00 (164.70 to 165.70): E  
 Ion 63.00 (62.70 to 63.70): BF0  
 Ion 89.00 (88.70 to 89.70): BF0

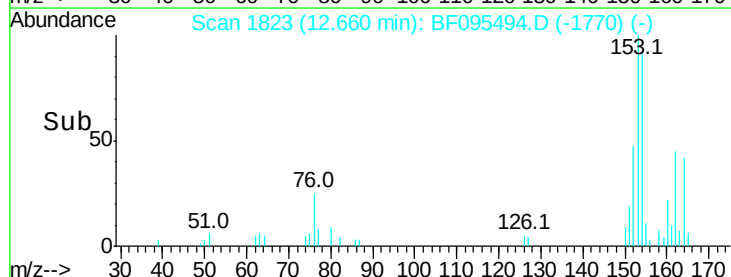
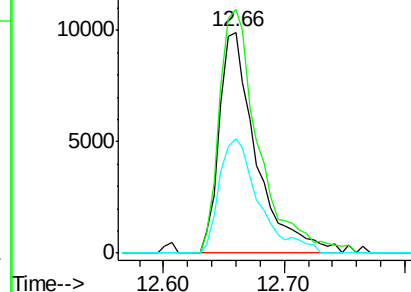


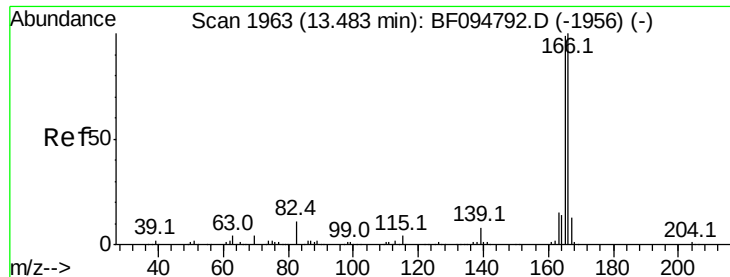
#51  
 Acenaphthene  
 Concen: 2.33 ng  
 RT: 12.66 min Scan# 1823  
 Delta R.T. 0.01 min  
 Lab File: BF095494.D  
 Acq: 27 May 2017 10:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 110.2 | 90.5  | 135.7 |
| 152     | 51.7  | 43.6  | 65.4  |



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





#57

Fluorene

Concen: 2.26 ng

RT: 13.51 min Scan# 1968

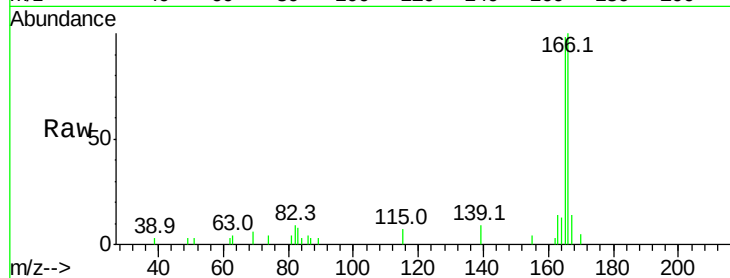
Delta R.T. 0.02 min

Lab File: BF095494.D

Acq: 27 May 2017 10:19

Tot Ion:166 Resp: 24610

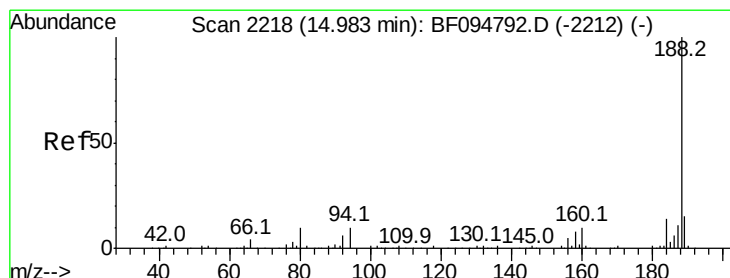
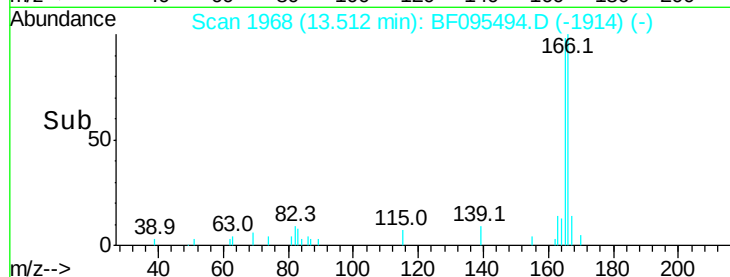
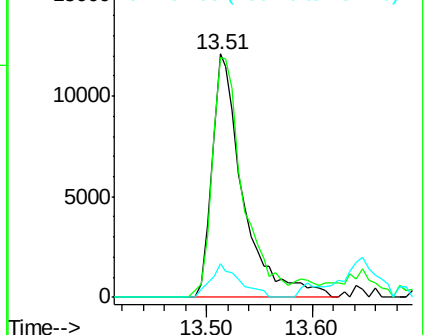
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 166 | 100   |       |       |
| 165 | 98.5  | 78.8  | 118.2 |
| 167 | 14.0  | 10.6  | 16.0  |



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: 20.00 ng

RT: 15.00 min Scan# 2221

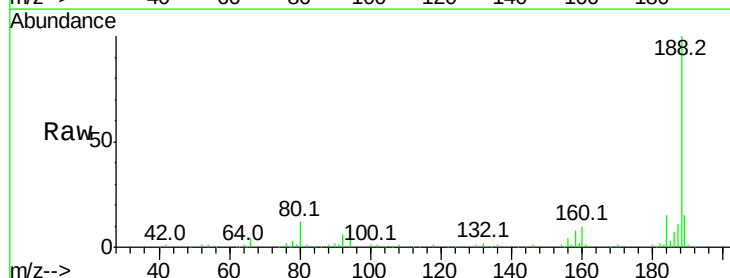
Delta R.T. -0.00 min

Lab File: BF095494.D

Acq: 27 May 2017 10:19

Tgt Ion:188 Resp: 213227

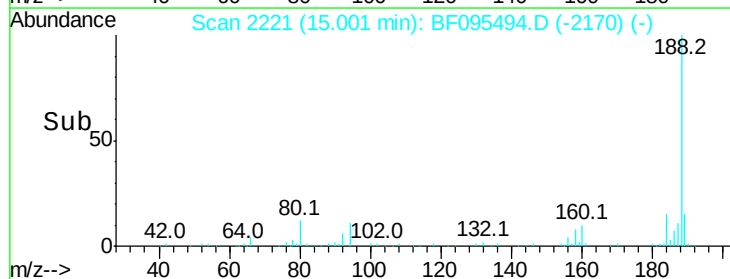
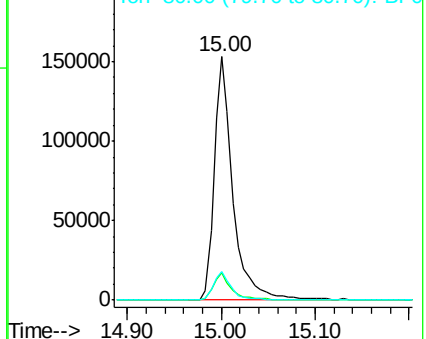
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 188 | 100   |       |       |
| 94  | 11.0  | 9.4   | 14.2  |
| 80  | 12.0  | 10.2  | 15.2  |



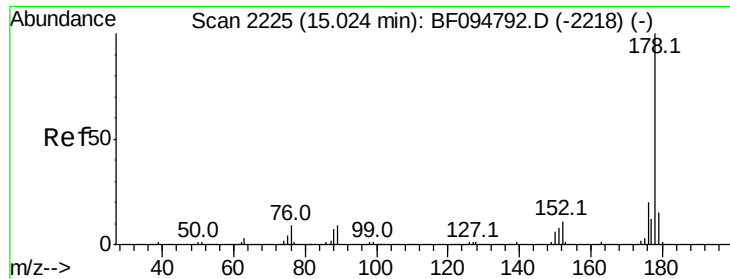
Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BF0

Ion 80.00 (79.70 to 80.70): BF0

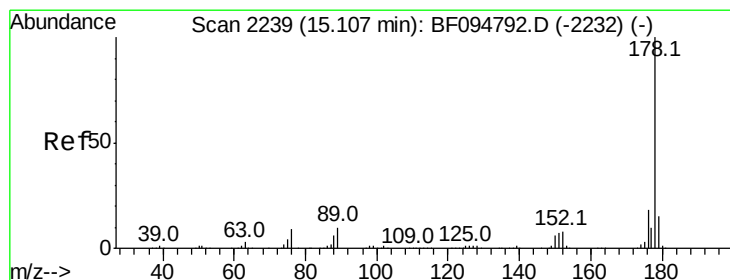
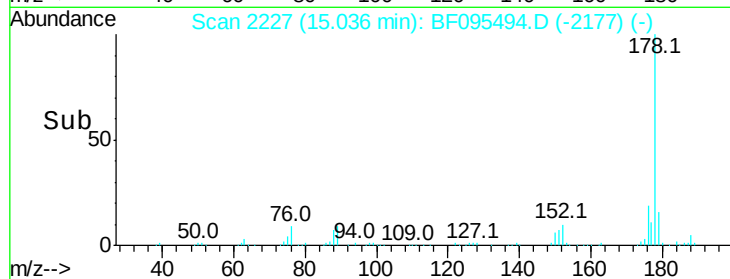
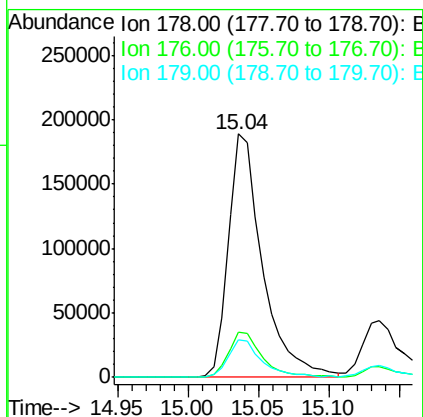
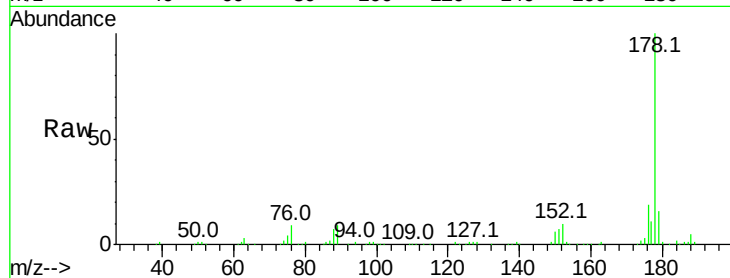






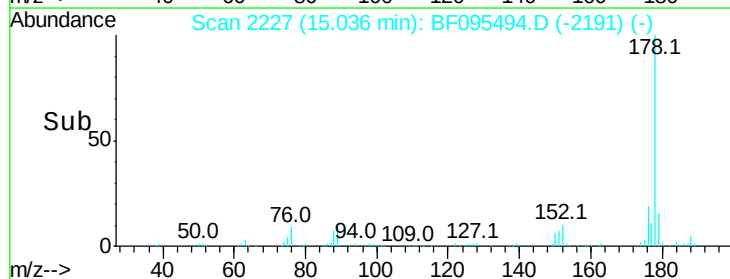
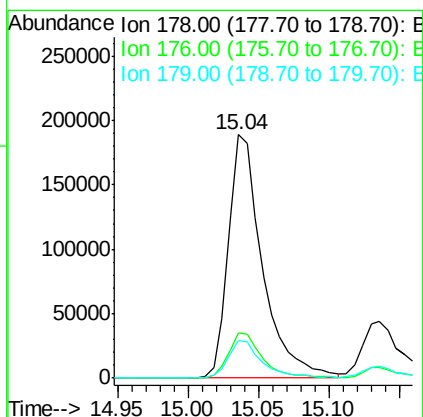
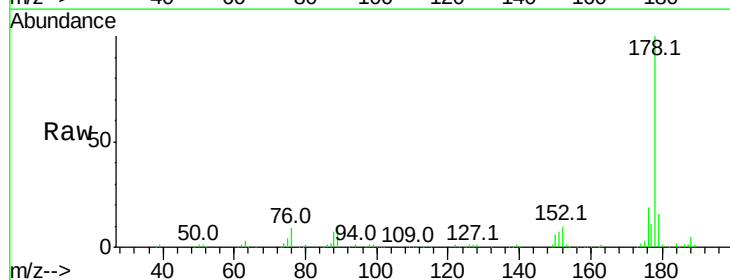
#70  
Phenanthrene  
Concen: 26.05 ng  
RT: 15.04 min Scan# 2227  
Delta R.T. -0.01 min  
Lab File: BF095494.D  
Acq: 27 May 2017 10:19

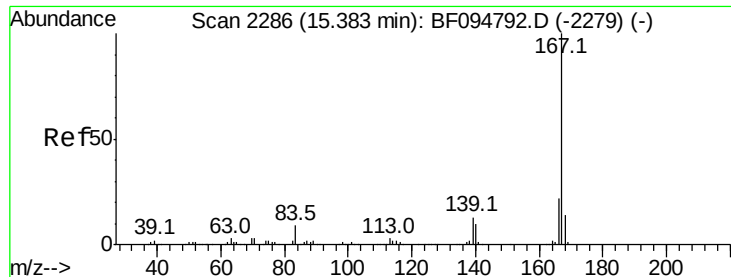
Tot Ion:178 Resp: 319103  
Ion Ratio Lower Upper  
178 100  
176 18.8 16.2 24.4  
179 15.6 12.6 19.0



#71  
Anthracene  
Concen: 25.50 ng  
RT: 15.04 min Scan# 2227  
Delta R.T. -0.09 min  
Lab File: BF095494.D  
Acq: 27 May 2017 10:19

Tgt Ion:178 Resp: 319103  
Ion Ratio Lower Upper  
178 100  
176 18.8 15.8 23.8  
179 15.6 12.7 19.1





#72

Carbazole

Concen: 2.38 ng

RT: 15.44 min Scan# 2296

Delta R.T. 0.04 min

Lab File: BF095494.D

Acq: 27 May 2017 10:19

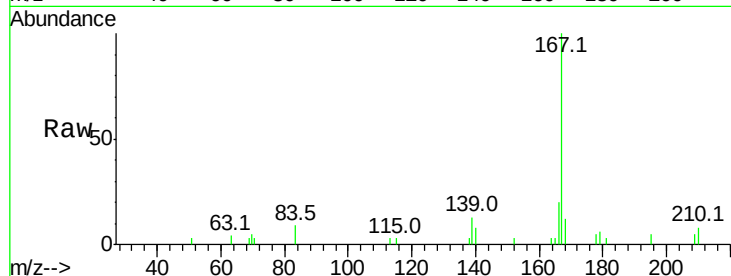
Tot Ion:167 Resp: 27147

Ion Ratio Lower Upper

167 100

166 20.4 18.1 27.1

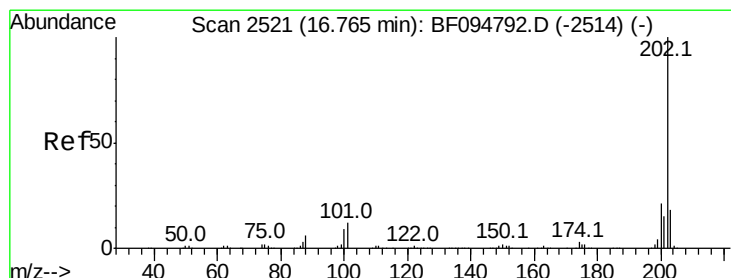
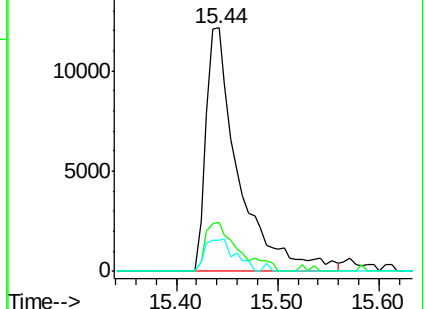
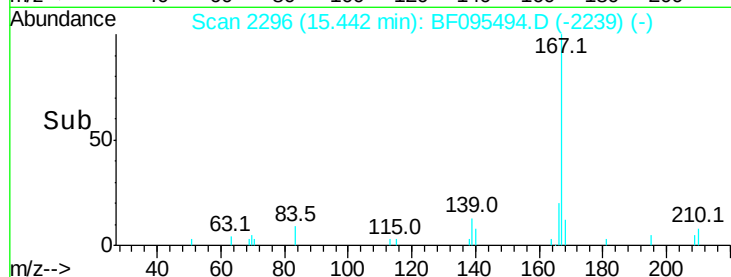
139 12.8 11.7 17.5



Abundance Ion 167.00 (166.70 to 167.70): E

Ion 166.00 (165.70 to 166.70): E

Ion 139.00 (138.70 to 139.70): E



#74

Fluoranthene

Concen: 30.45 ng

RT: 16.78 min Scan# 2524

Delta R.T. -0.00 min

Lab File: BF095494.D

Acq: 27 May 2017 10:19

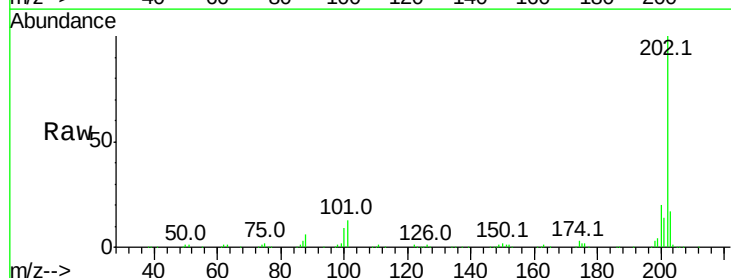
Tgt Ion:202 Resp: 382737

Ion Ratio Lower Upper

202 100

101 13.3 0.0 33.2

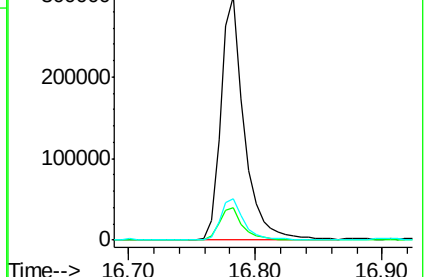
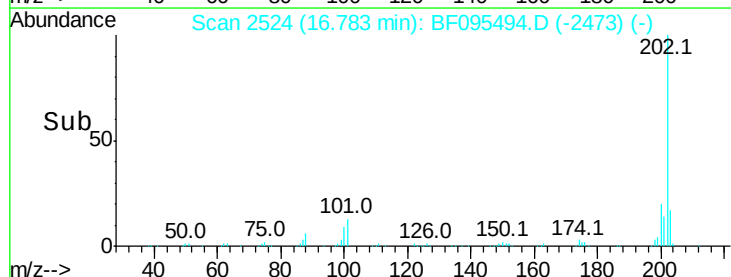
203 17.0 0.0 38.1

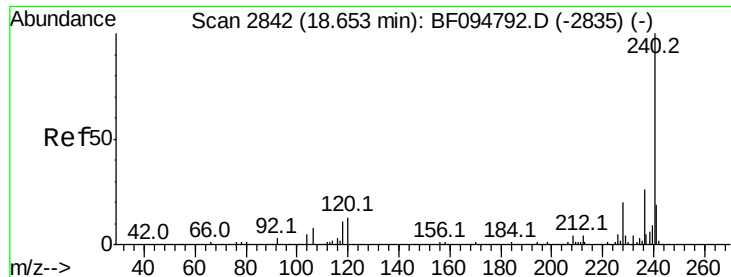


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 203.00 (202.70 to 203.70): E





#75

Chrysene-d12

Concen: 20.00 ng

RT: 18.67 min Scan# 2845

Delta R.T. -0.01 min

Lab File: BF095494.D

Acq: 27 May 2017 10:19

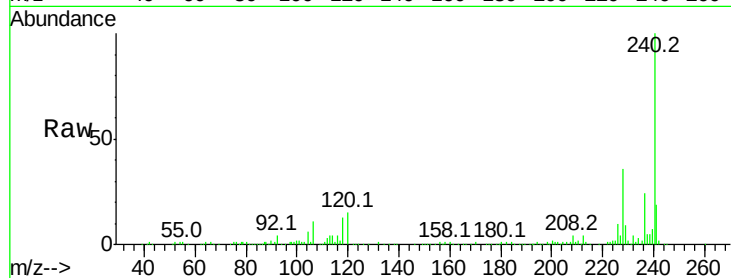
Tot Ion:240 Resp: 188367

Ion Ratio Lower Upper

240 100

120 14.5 5.8 8.8#

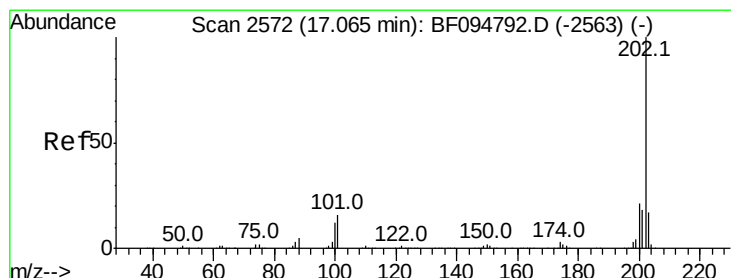
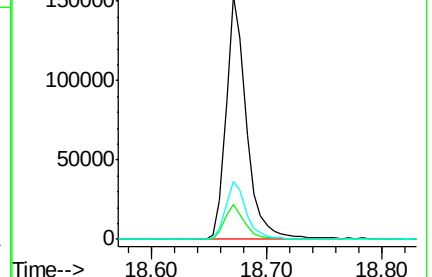
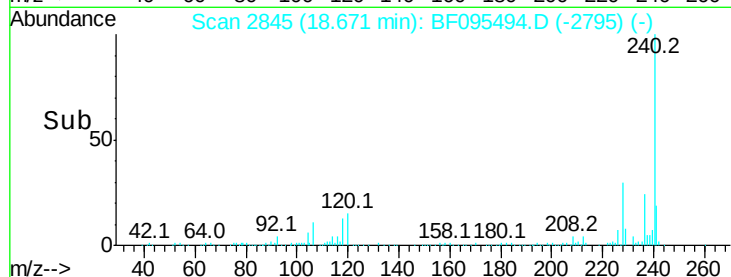
236 24.1 20.5 30.7



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: 20.12 ng

RT: 17.08 min Scan# 2575

Delta R.T. -0.01 min

Lab File: BF095494.D

Acq: 27 May 2017 10:19

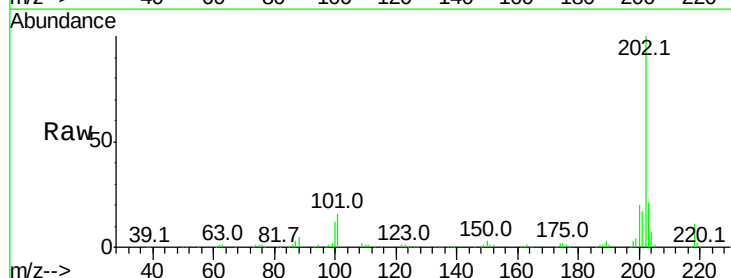
Tgt Ion:202 Resp: 283431

Ion Ratio Lower Upper

202 100

200 20.4 17.6 26.4

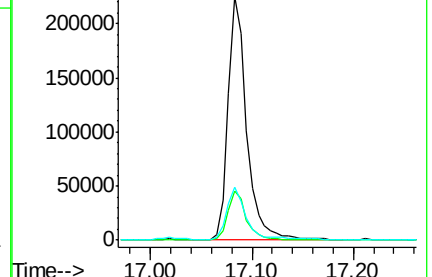
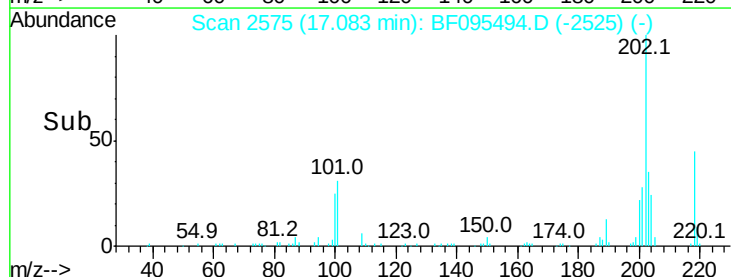
203 21.5 14.4 21.6

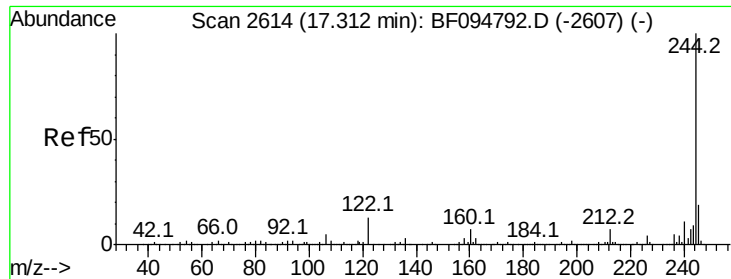


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

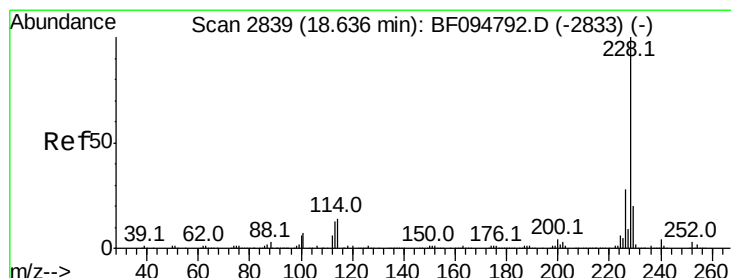
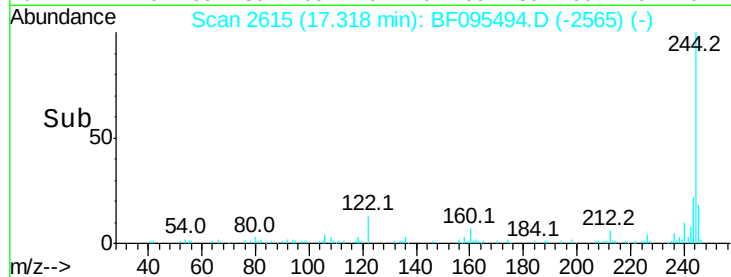
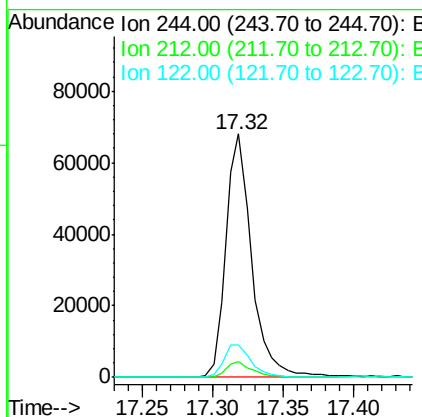
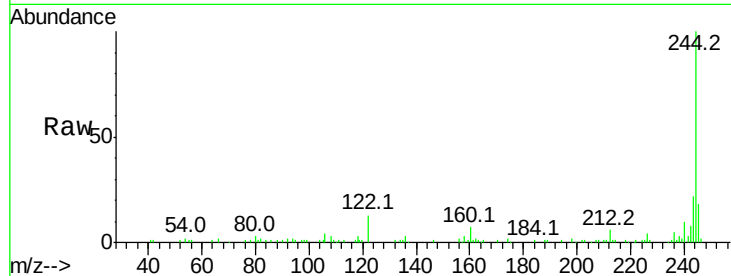
Ion 203.00 (202.70 to 203.70): E





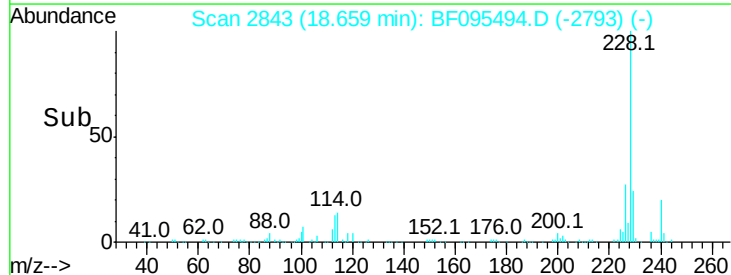
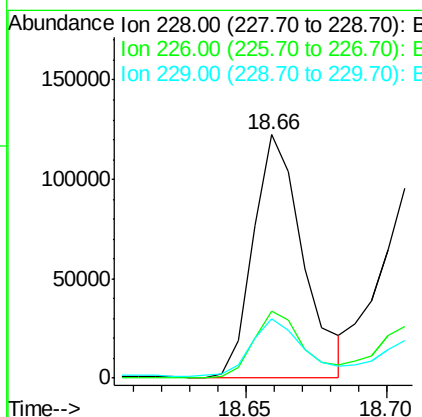
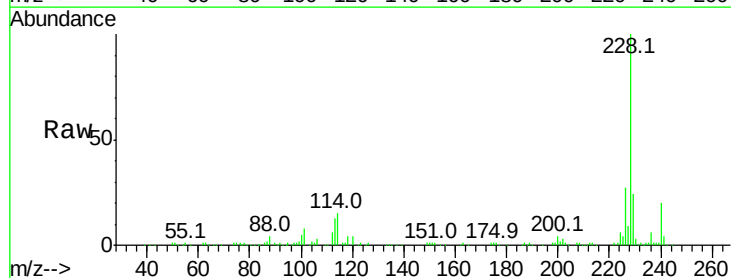
#78  
 Terphenyl-d14  
 Concen: 10.10 ng  
 RT: 17.32 min Scan# 2615  
 Delta R.T. -0.01 min  
 Lab File: BF095494.D  
 Acq: 27 May 2017 10:19

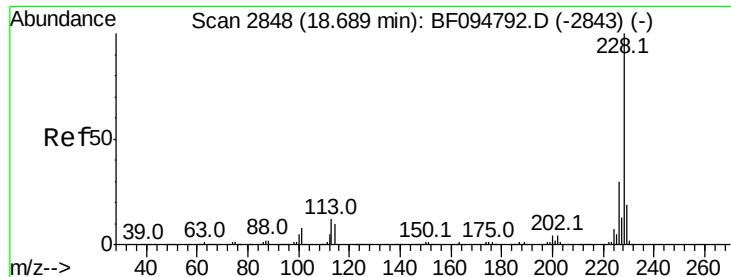
Tot Ion:244 Resp: 86395  
 Ion Ratio Lower Upper  
 244 100  
 212 6.3 6.0 9.0  
 122 13.1 10.3 15.5



#80  
 Benzo(a)anthracene  
 Concen: 13.63 ng  
 RT: 18.66 min Scan# 2843  
 Delta R.T. -0.01 min  
 Lab File: BF095494.D  
 Acq: 27 May 2017 10:19

Tgt Ion:228 Resp: 149393  
 Ion Ratio Lower Upper  
 228 100  
 226 27.5 22.6 33.8  
 229 24.2 16.3 24.5





#82

Chrysene

Concen: 13.57 ng

RT: 18.71 min Scan# 2851

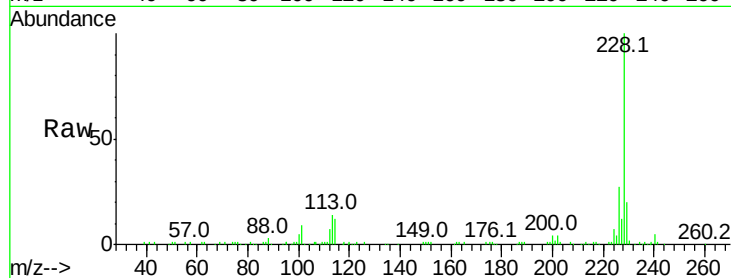
Delta R.T. -0.01 min

Lab File: BF095494.D

Acq: 27 May 2017 10:19

Tot Ion:228 Resp: 143875

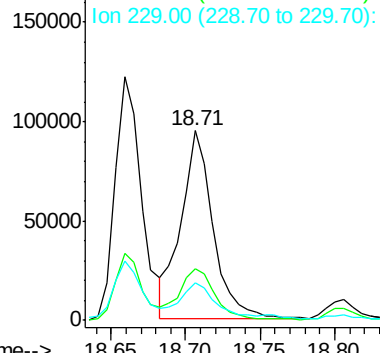
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 228 | 100   |       |       |
| 226 | 27.5  | 24.9  | 37.3  |
| 229 | 19.7  | 15.8  | 23.6  |



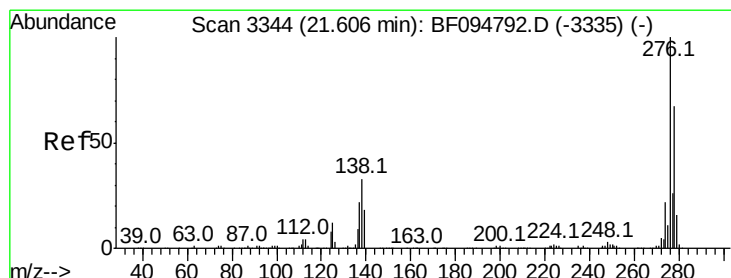
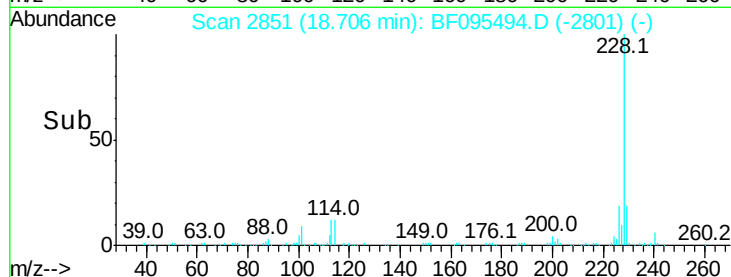
Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E



Time-->



#85

Indeno(1,2,3-cd)pyrene

Concen: 4.19 ng

RT: 21.70 min Scan# 3360

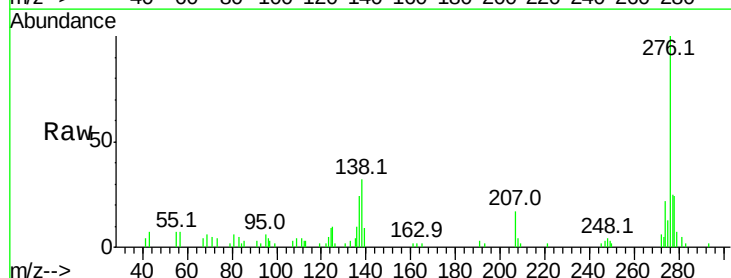
Delta R.T. 0.02 min

Lab File: BF095494.D

Acq: 27 May 2017 10:19

Tgt Ion:276 Resp: 36053

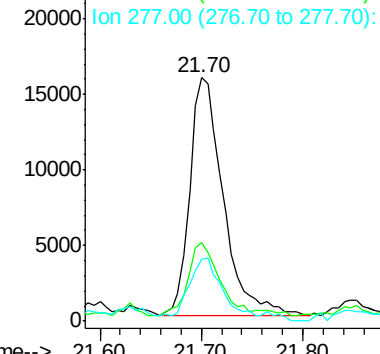
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 276 | 100   |       |       |
| 138 | 31.6  | 27.8  | 41.6  |
| 277 | 23.1  | 20.2  | 30.4  |



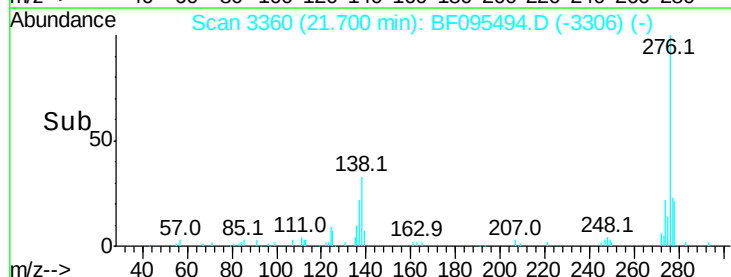
Abundance Ion 276.00 (275.70 to 276.70): E

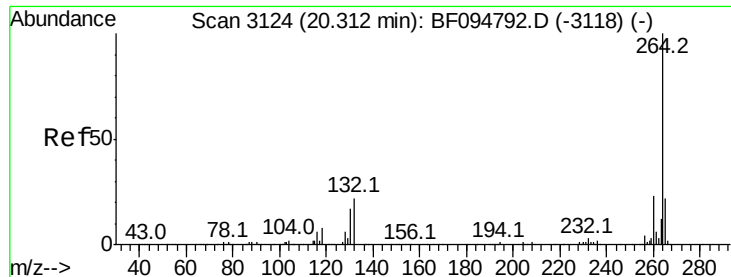
Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E



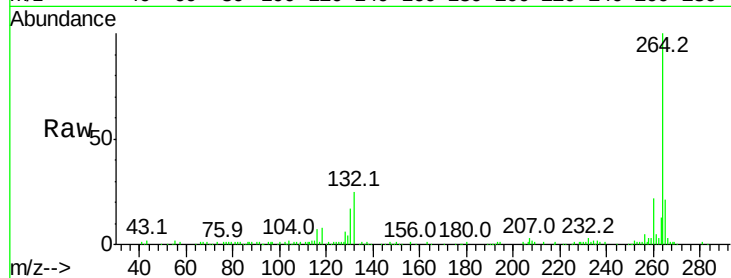
Time-->



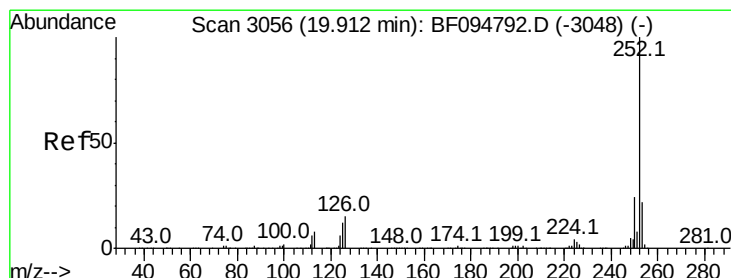
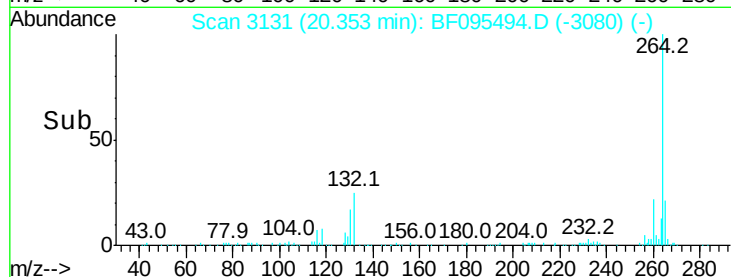
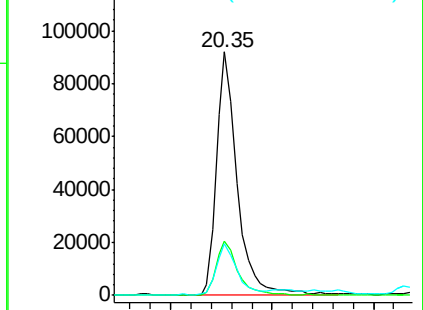


#86  
Pervlene-d12  
Concen: 20.00 ng  
RT: 20.35 min Scan# 3131  
Delta R.T. -0.00 min  
Lab File: BF095494.D  
Acq: 27 May 2017 10:19

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 22.3  | 19.5  | 29.3  |
| 265     | 21.2  | 17.2  | 25.8  |

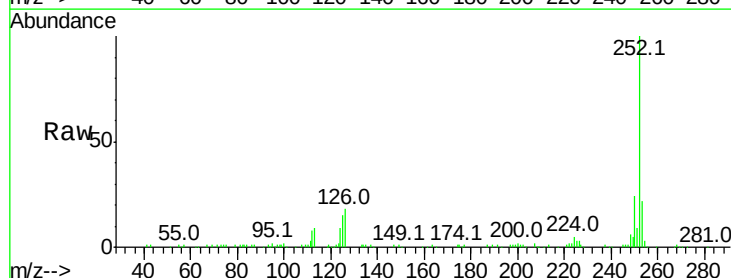


Abundance Ion 264.00 (263.70 to 264.70): E  
Ion 260.00 (259.70 to 260.70): E  
Ion 265.00 (264.70 to 265.70): E

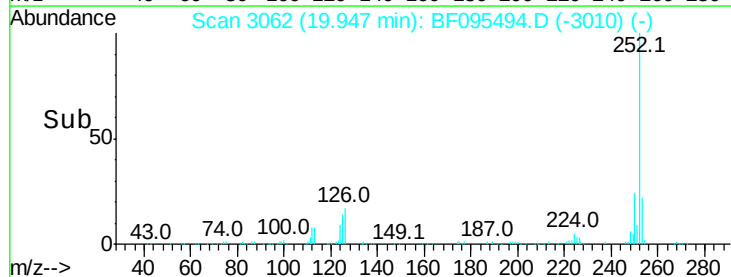
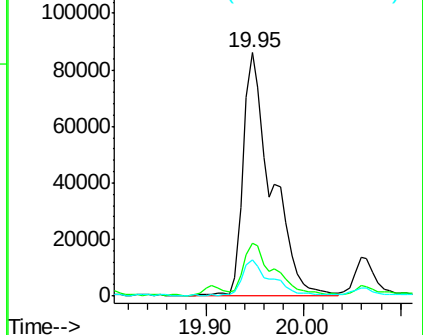


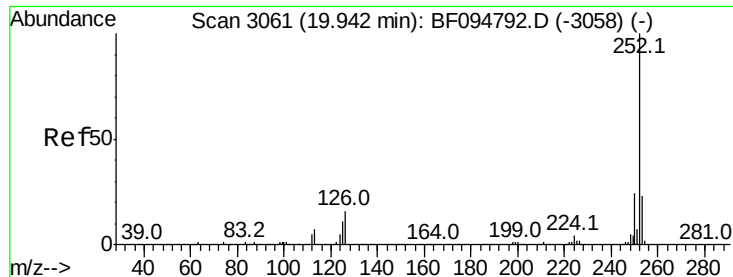
#87  
Benzo(b)fluoranthene  
Concen: 21.62 ng  
RT: 19.95 min Scan# 3062  
Delta R.T. 0.01 min  
Lab File: BF095494.D  
Acq: 27 May 2017 10:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.8  | 18.1  | 27.1  |
| 125     | 14.9  | 9.8   | 14.8  |



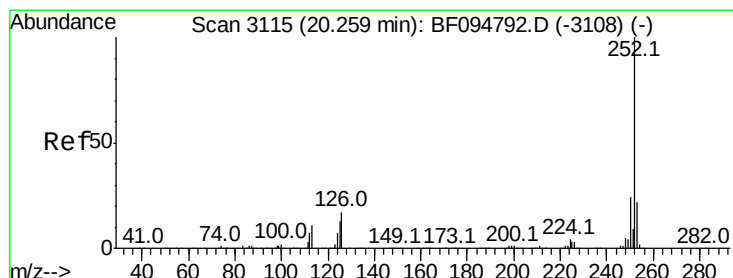
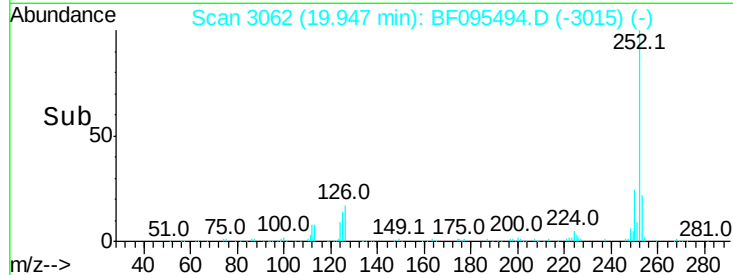
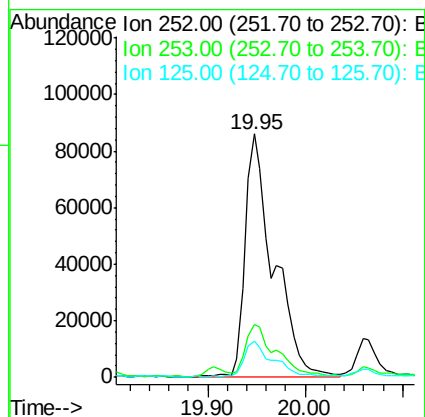
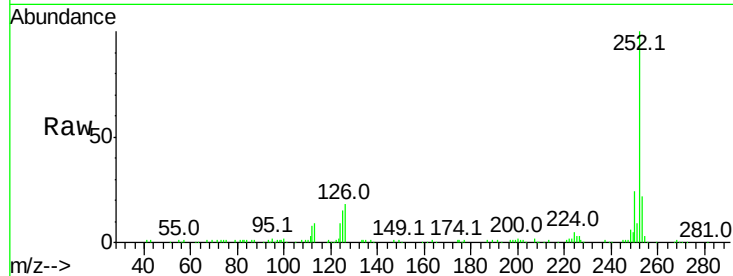
Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E





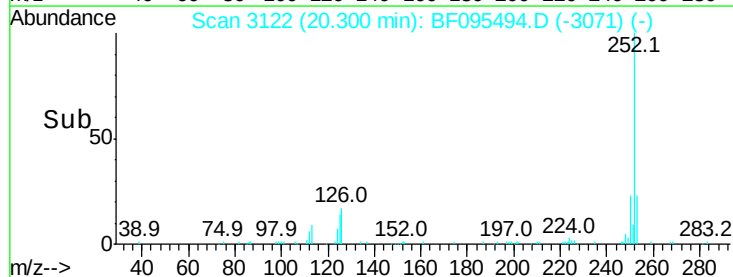
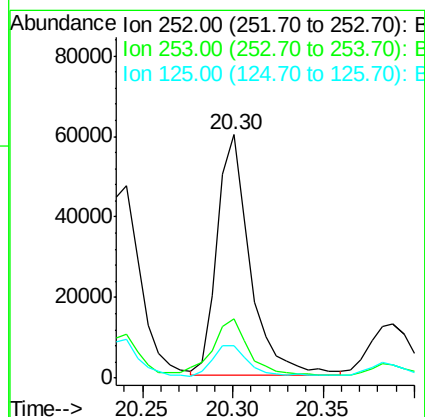
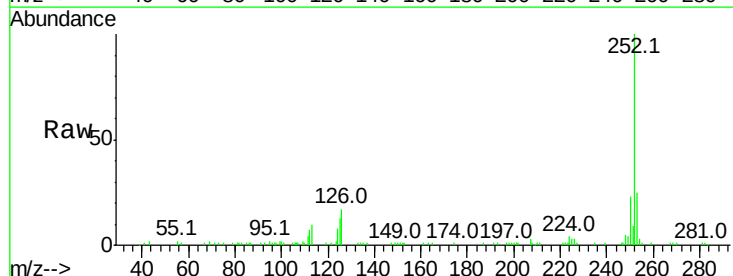
#88  
Benzo(k)fluoranthene  
Concen: 22.41 ng  
RT: 19.95 min Scan# 3062  
Delta R.T. -0.02 min  
Lab File: BF095494.D  
Acq: 27 May 2017 10:19

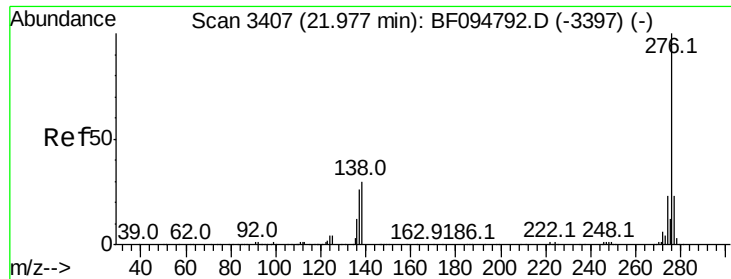
Tot Ion:252 Resp: 175779  
Ion Ratio Lower Upper  
252 100  
253 21.8 18.4 27.6  
125 14.9 13.1 19.7



#89  
Benzo(a)pyrene  
Concen: 10.13 ng  
RT: 20.30 min Scan# 3122  
Delta R.T. -0.00 min  
Lab File: BF095494.D  
Acq: 27 May 2017 10:19

Tgt Ion:252 Resp: 76003  
Ion Ratio Lower Upper  
252 100  
253 24.5 17.5 26.3  
125 13.1 11.0 16.4





#91  
 Benzo(a,h,i)perylene  
 Concen: 6.72 ng  
 RT: 22.09 min Scan# 3427  
 Delta R.T. 0.02 min  
 Lab File: BF095494.D  
 Acq: 27 May 2017 10:19

|             |             |
|-------------|-------------|
| Tot Ion:276 | Resp: 40838 |
| Ion Ratio   | Lower Upper |
| 276 100     |             |
| 277 25.2    | 18.6 28.0   |
| 138 31.4    | 25.4 38.0   |

