

Data Path : Z:\HPCHEM1\BNA F\DATA\BF031517\  
 Data File : BF093685.D  
 Acq On : 15 Mar 2017 23:11  
 Operator : SJ/MA  
 Sample : I2106-04DL 20X  
 Misc :  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 HY-SB413ADL

Quant Time: Mar 16 03:49:17 2017  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF030717.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Mar 13 15:05:08 2017  
 Response via : Initial Calibration

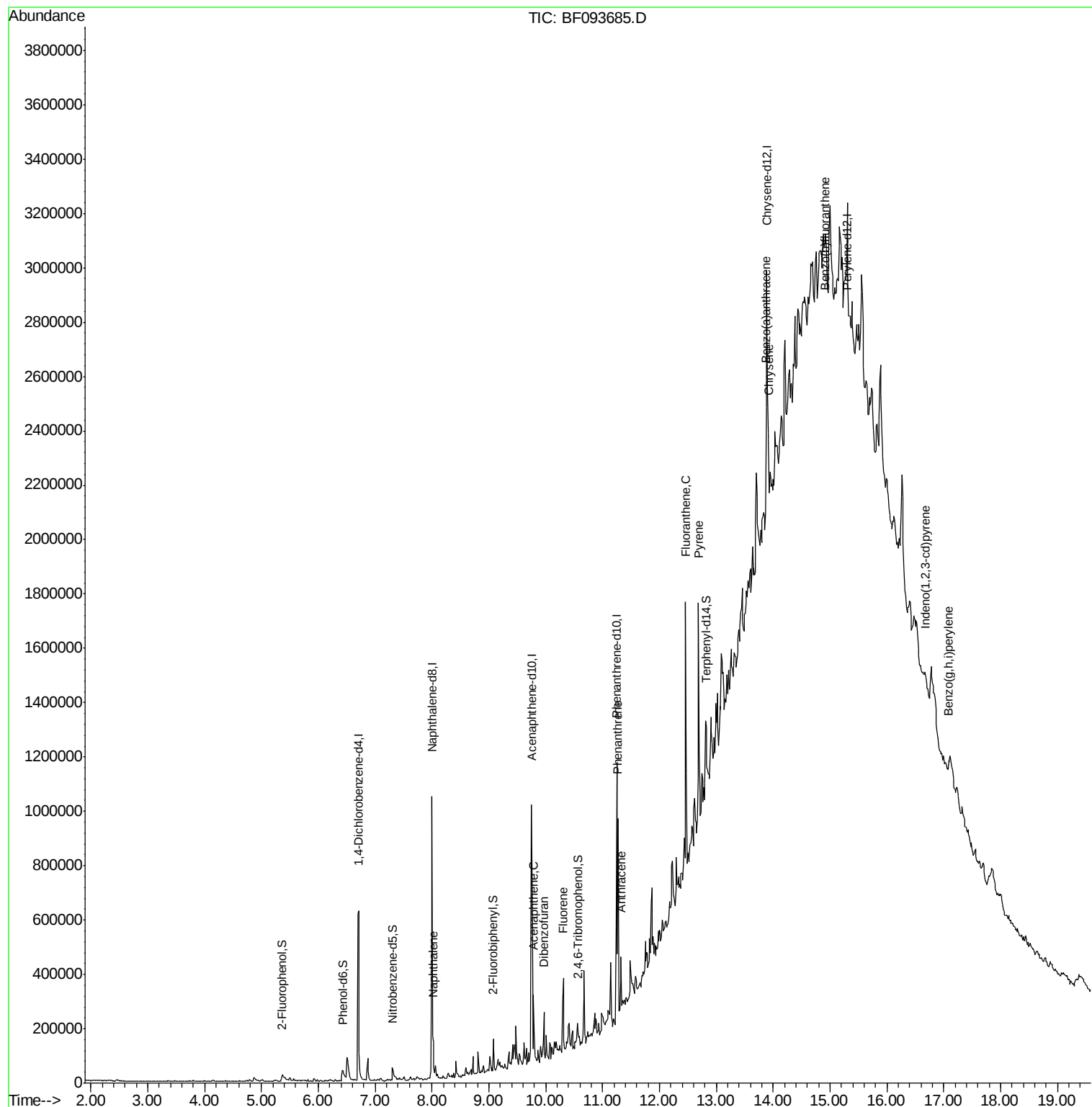
| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.71  | 152  | 150024   | 20.00 | ng    | -0.01    |
| 21) Naphthalene-d8          | 8.00  | 136  | 564459   | 20.00 | ng    | -0.01    |
| 38) Acenaphthene-d10        | 9.75  | 164  | 223891   | 20.00 | ng    | -0.01    |
| 63) Phenanthrene-d10        | 11.25 | 188  | 358370   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12            | 13.89 | 240  | 305699   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12            | 15.31 | 264  | 259479   | 20.00 | ng    | 0.02     |
| System Monitoring Compounds |       |      |          |       |       |          |
| 5) 2-Fluorophenol           | 5.36  | 112  | 33042    | 3.67  | ng    | 0.05     |
| 7) Phenol-d6                | 6.42  | 99   | 49667    | 4.37  | ng    | 0.05     |
| 23) Nitrobenzene-d5         | 7.30  | 82   | 31257    | 3.07  | ng    | 0.00     |
| 41) 2,4,6-Tribromophenol    | 10.56 | 330  | 4788     | 3.28  | ng    | 0.01     |
| 44) 2-Fluorobiphenyl        | 9.08  | 172  | 53812    | 4.47  | ng    | -0.01    |
| 78) Terphenyl-d14           | 12.82 | 244  | 33674    | 2.86  | ng    | 0.00     |
| Target Compounds            |       |      |          |       |       | Qvalue   |
| 31) Naphthalene             | 8.02  | 128  | 57845    | 2.04  | ng    | 98       |
| 51) Acenaphthene            | 9.78  | 154  | 51524    | 4.23  | ng    | 95       |
| 54) Dibenzofuran            | 9.97  | 168  | 59786    | 3.92  | ng    | 94       |
| 57) Fluorene                | 10.31 | 166  | 87218m   | 6.75  | ng    |          |
| 70) Phenanthrene            | 11.27 | 178  | 277531   | 13.57 | ng    | 98       |
| 71) Anthracene              | 11.33 | 178  | 105339   | 5.09  | ng    | 97       |
| 74) Fluoranthene            | 12.46 | 202  | 424721   | 21.50 | ng    | 99       |
| 77) Pyrene                  | 12.69 | 202  | 362428   | 16.30 | ng    | 99       |
| 80) Benzo(a)anthracene      | 13.88 | 228  | 149752   | 8.30  | ng    | # 85     |
| 82) Chrysene                | 13.92 | 228  | 121361m  | 7.27  | ng    |          |
| 85) Indeno(1,2,3-cd)pyrene  | 16.68 | 276  | 35065    | 2.51  | ng    | 92       |
| 87) Benzo(b)fluoranthene    | 14.92 | 252  | 133816m  | 8.47  | ng    |          |
| 91) Benzo(a,h,i)perylene    | 17.09 | 276  | 28530    | 2.33  | ng    | # 62     |

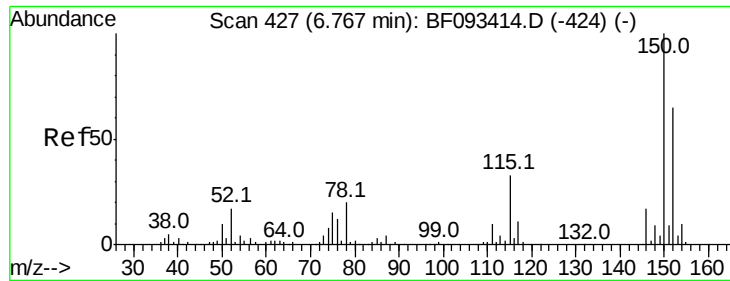
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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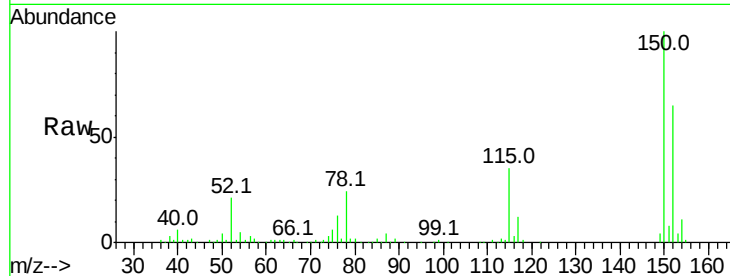


#1

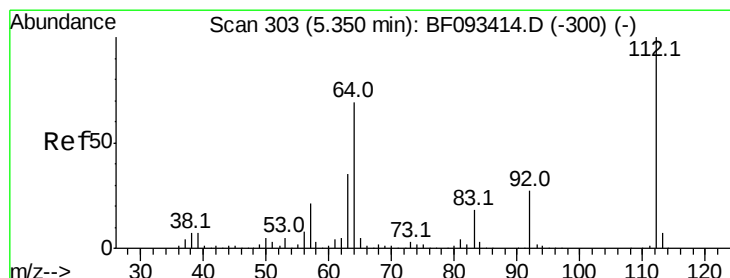
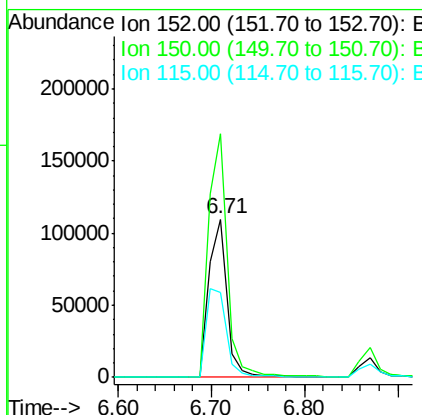
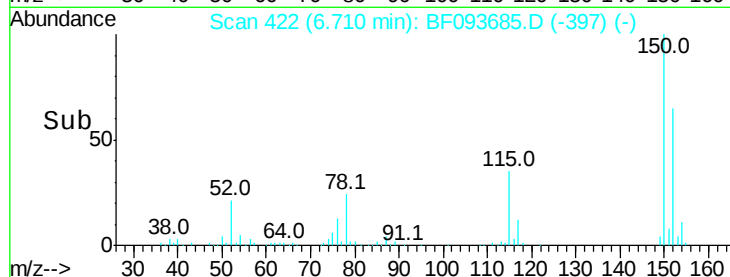
1,4-Dichlorobenzene-d4  
 Concen: 20.00 ng  
 RT: 6.71 min Scan# 422  
 Delta R.T. -0.01 min  
 Lab File: BF093685.D  
 Acq: 15 Mar 2017 23:11

Instrument :  
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Tot Ion:152 Resp: 150024  
 Ion Ratio Lower Upper  
 152 100  
 150 153.9 124.9 187.3  
 115 53.9 46.0 69.0



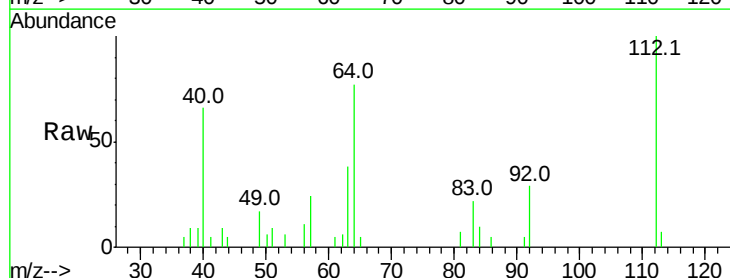
Abundance Ion 152.00 (151.70 to 152.70): E  
 Ion 150.00 (149.70 to 150.70): E  
 Ion 115.00 (114.70 to 115.70): E



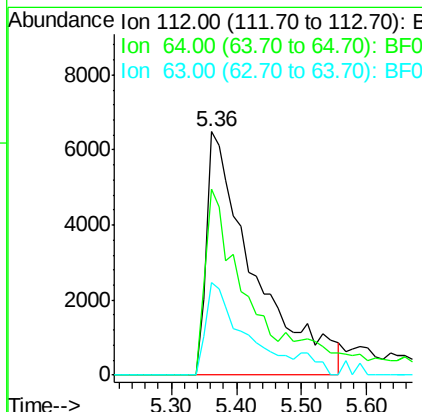
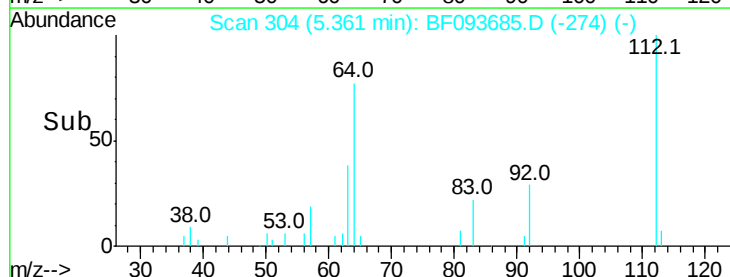
#5

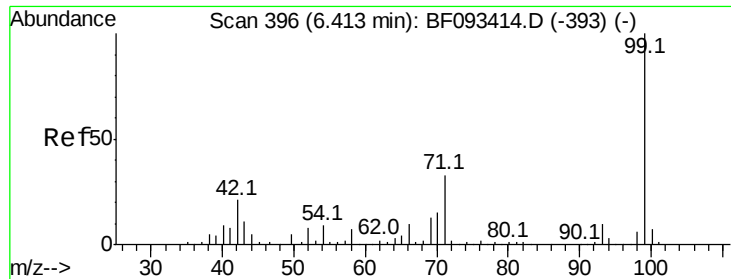
2-Fluorophenol  
 Concen: 3.67 ng  
 RT: 5.36 min Scan# 304  
 Delta R.T. 0.05 min  
 Lab File: BF093685.D  
 Acq: 15 Mar 2017 23:11

Tgt Ion:112 Resp: 33042  
 Ion Ratio Lower Upper  
 112 100  
 64 76.5 46.1 69.1#  
 63 38.2 23.8 35.6#



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: 4.37 ng

RT: 6.42 min Scan# 397

Delta R.T. 0.05 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

Instrument :

BNA\_F

ClientSampleId :

HY-SB413ADL

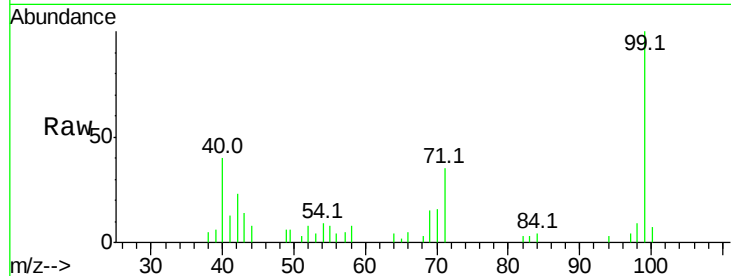
Tot Ion: 99 Resp: 49667

Ion Ratio Lower Upper

99 100

42 23.1 15.6 23.4

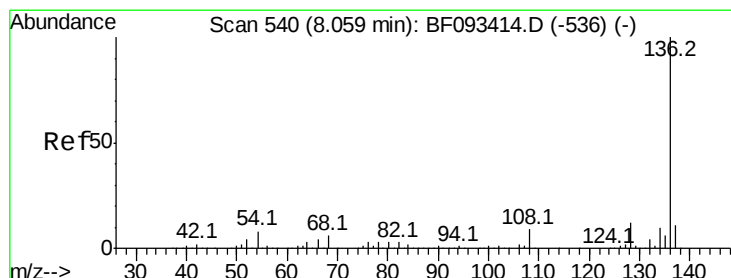
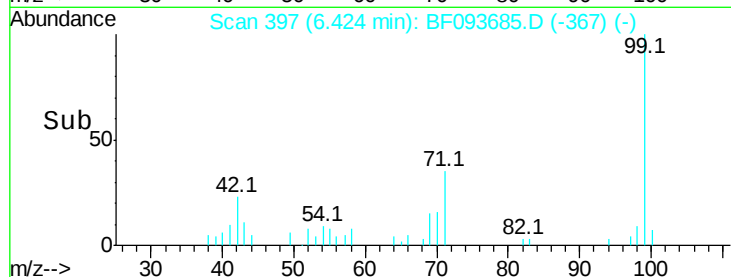
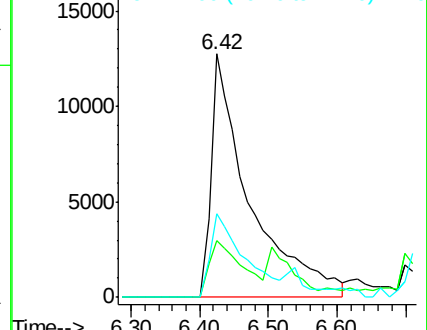
71 34.6 27.5 41.3



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: 8.00 min Scan# 535

Delta R.T. -0.01 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

Tgt Ion: 136 Resp: 564459

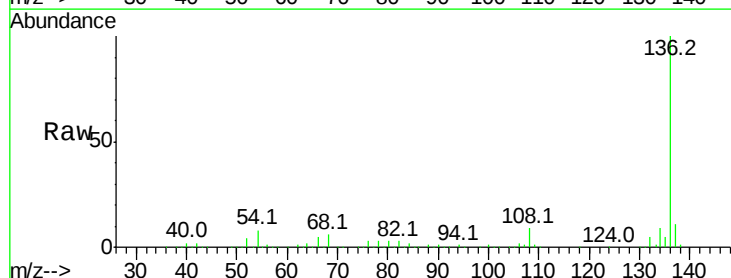
Ion Ratio Lower Upper

136 100

137 10.8 8.4 12.6

54 8.2 4.5 6.7#

68 6.1 3.6 5.4#

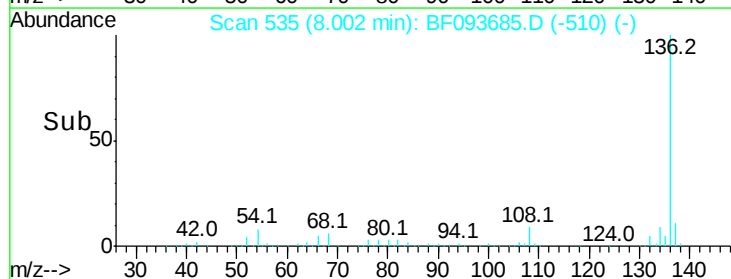
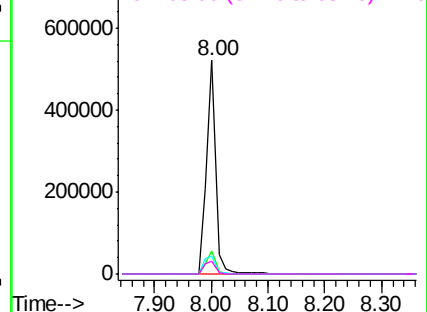


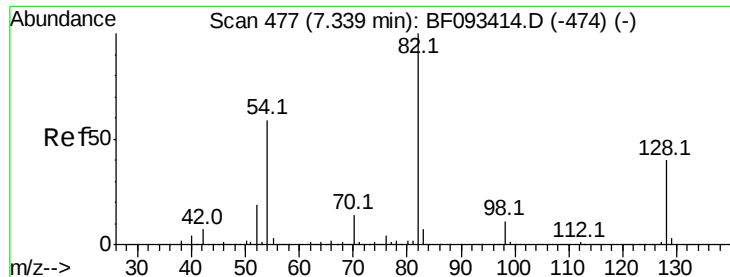
Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BF0

Ion 68.00 (67.70 to 68.70): BF0

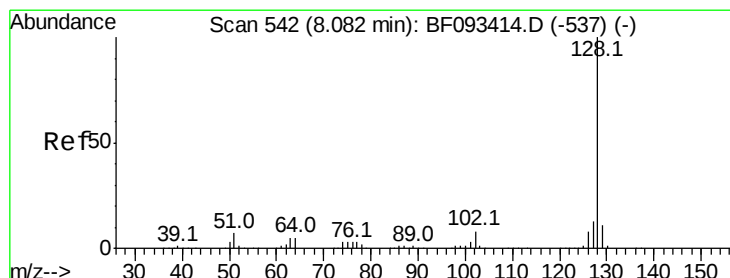
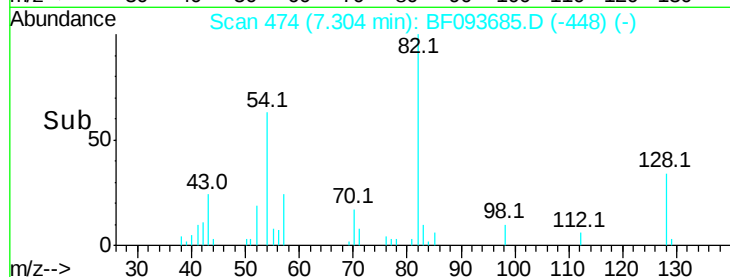
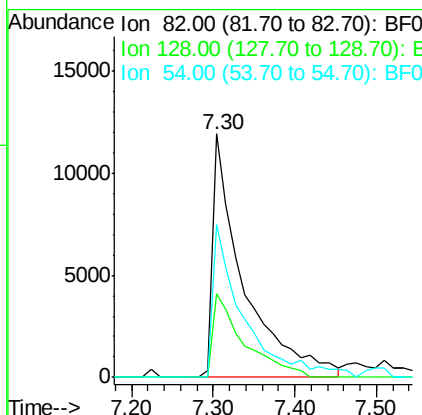
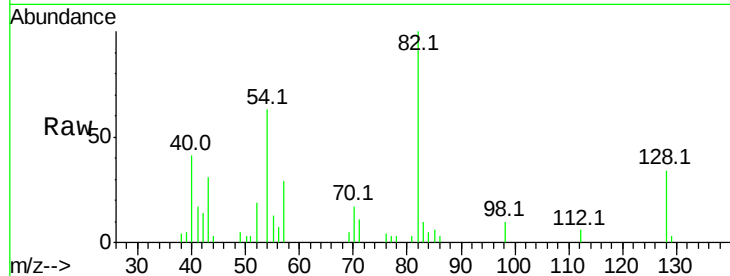




#23  
Nitrobenzene-d5  
Concen: 3.07 ng  
RT: 7.30 min Scan# 474  
Delta R.T. -0.00 min  
Lab File: BF093685.D  
Acq: 15 Mar 2017 23:11

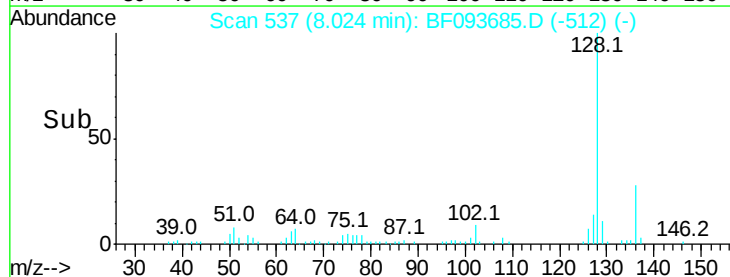
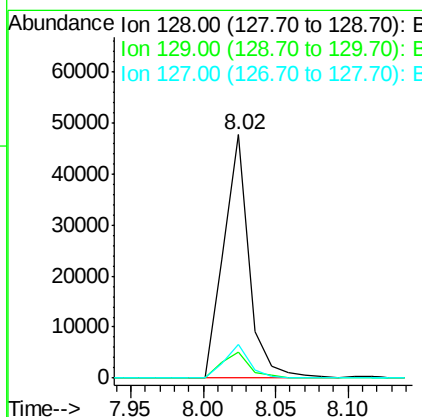
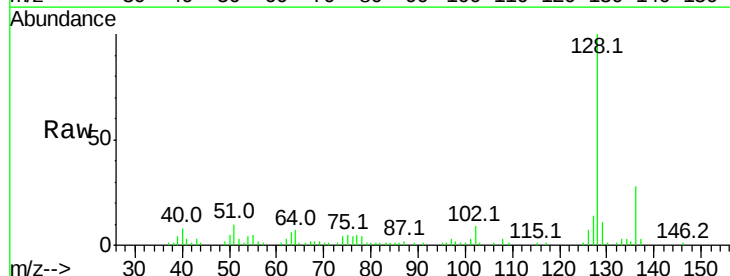
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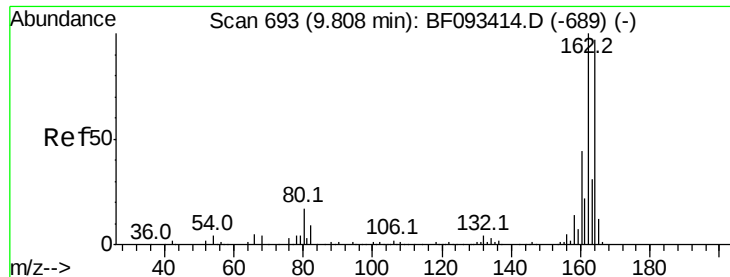
Tot Ion: 82 Resp: 31257  
Ion Ratio Lower Upper  
82 100  
128 34.2 34.6 52.0#  
54 62.6 39.5 59.3#



#31  
Naphthalene  
Concen: 2.04 ng  
RT: 8.02 min Scan# 537  
Delta R.T. -0.01 min  
Lab File: BF093685.D  
Acq: 15 Mar 2017 23:11

Tgt Ion:128 Resp: 57845  
Ion Ratio Lower Upper  
128 100  
129 10.9 9.5 14.3  
127 13.9 10.8 16.2

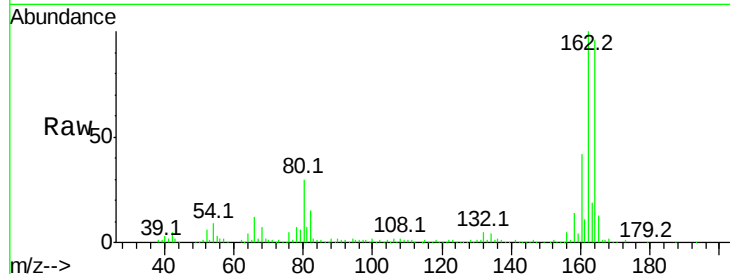




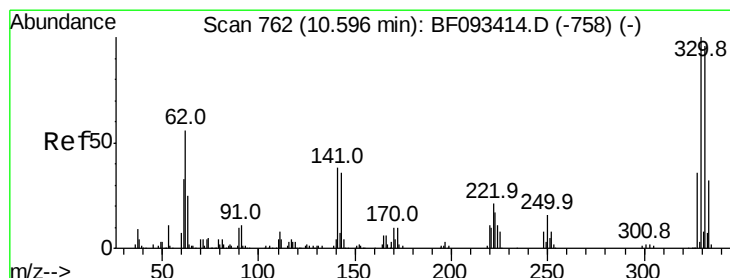
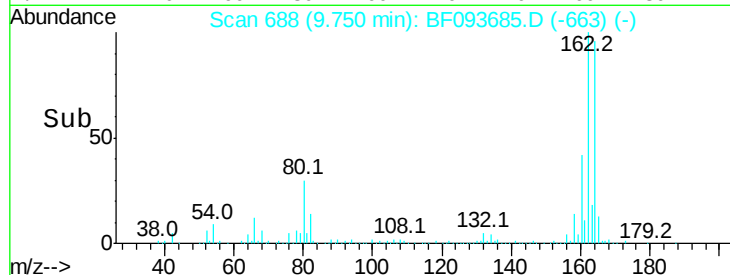
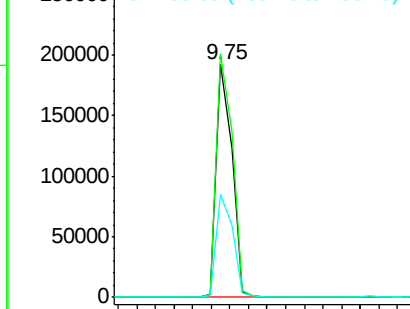
#38  
Acenaphthene-d10  
Concen: 20.00 ng  
RT: 9.75 min Scan# 688  
Delta R.T. -0.01 min  
Lab File: BF093685.D  
Acq: 15 Mar 2017 23:11

Instrument :  
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ClientSampleId :  
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Tot Ion:164 Resp: 223891  
Ion Ratio Lower Upper  
164 100  
162 104.4 80.2 120.2  
160 44.1 36.9 55.3

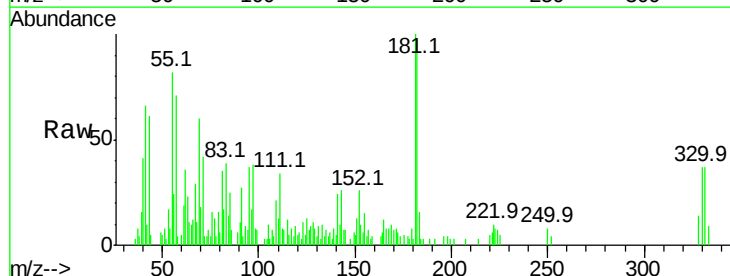


Abundance Ion 164.00 (163.70 to 164.70): E  
Ion 162.00 (161.70 to 162.70): E  
Ion 160.00 (159.70 to 160.70): E

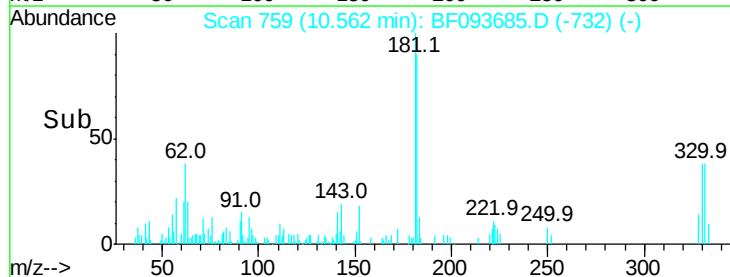
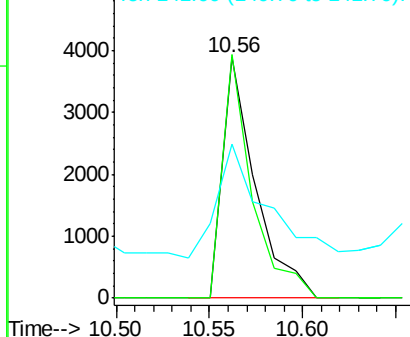


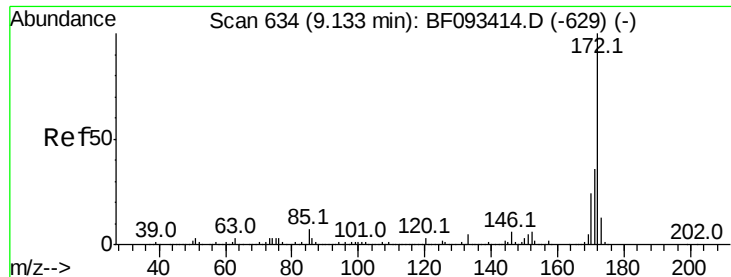
#41  
2,4,6-Tribromophenol  
Concen: 3.28 ng  
RT: 10.56 min Scan# 759  
Delta R.T. 0.01 min  
Lab File: BF093685.D  
Acq: 15 Mar 2017 23:11

Tgt Ion:330 Resp: 4788  
Ion Ratio Lower Upper  
330 100  
332 91.2 77.4 116.2  
141 62.7 34.1 51.1#



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: 4.47 ng

RT: 9.08 min Scan# 629

Delta R.T. -0.01 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

Instrument :

BNA\_F

ClientSampleId :

HY-SB413ADL

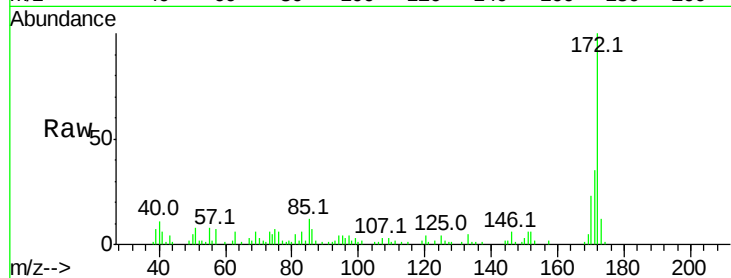
Tot Ion:172 Resp: 53812

Ion Ratio Lower Upper

172 100

171 35.5 29.4 44.0

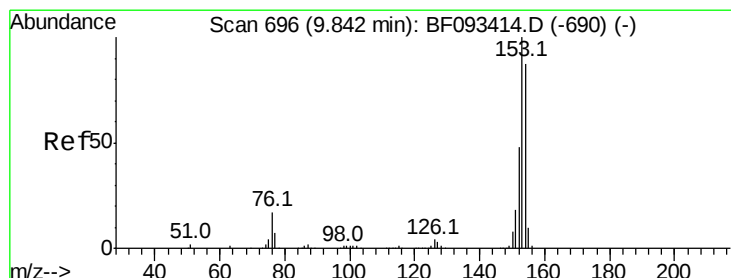
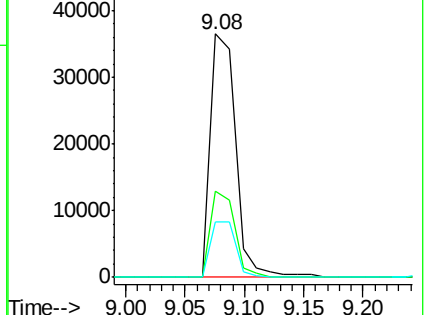
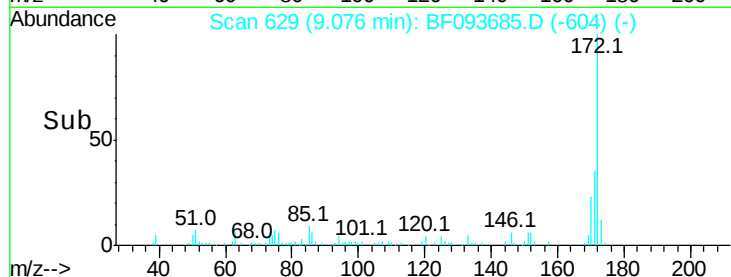
170 23.0 20.2 30.4



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



#51

Acenaphthene

Concen: 4.23 ng

RT: 9.78 min Scan# 691

Delta R.T. -0.01 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

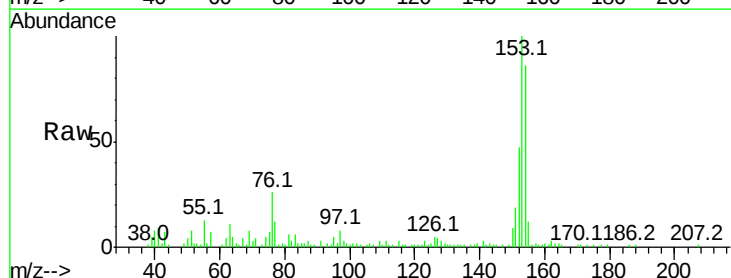
Tgt Ion:154 Resp: 51524

Ion Ratio Lower Upper

154 100

153 116.9 88.6 133.0

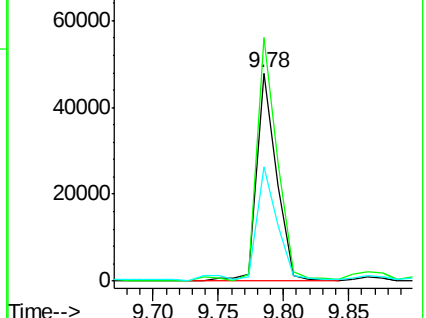
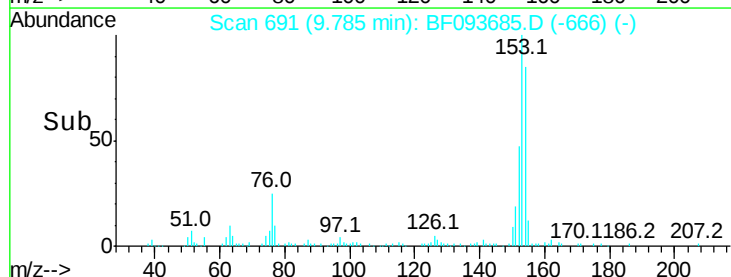
152 55.2 41.6 62.4

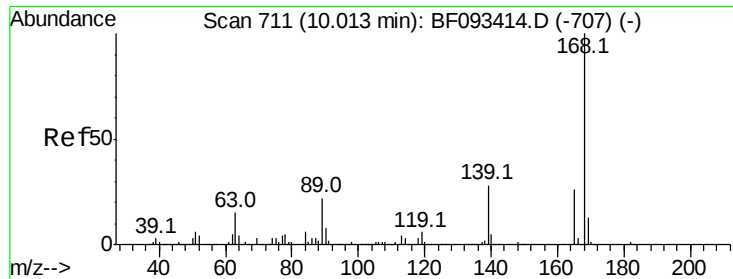


Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E

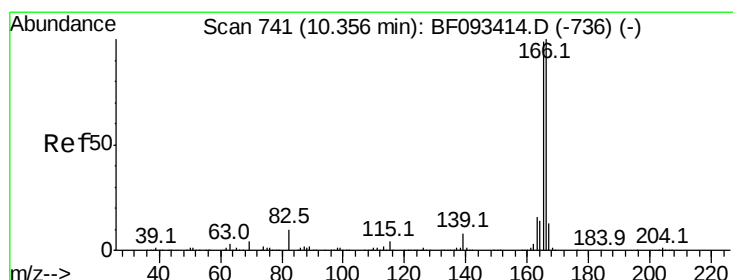
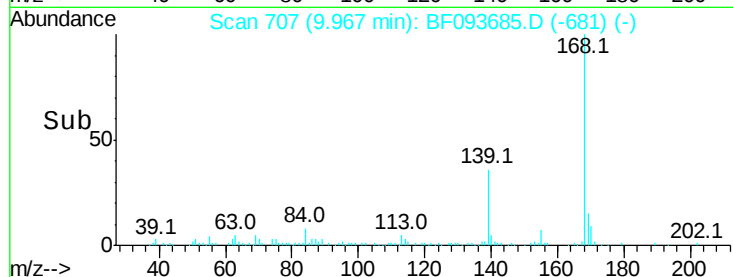
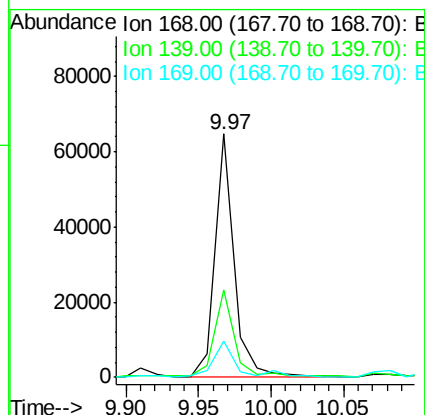
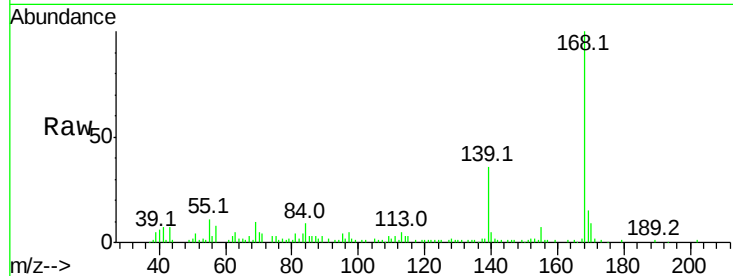




#54  
Dibenzofuran  
Concen: 3.92 ng  
RT: 9.97 min Scan# 707  
Delta R.T. -0.00 min  
Lab File: BF093685.D  
Acq: 15 Mar 2017 23:11

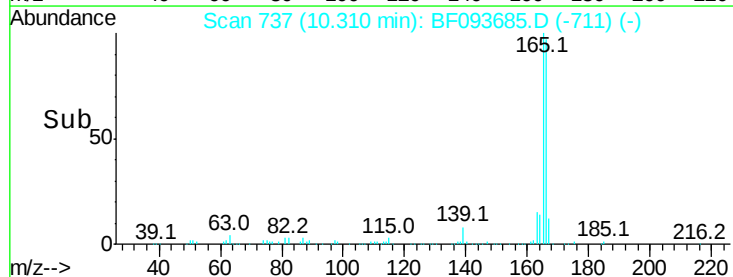
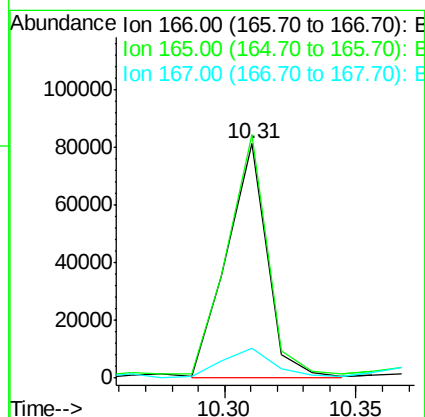
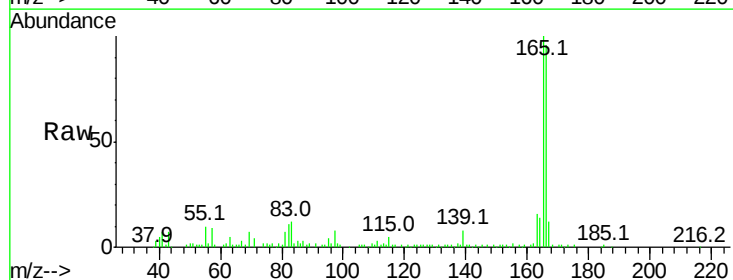
Instrument :  
BNA\_F  
ClientSampleId :  
HY-SB413ADL

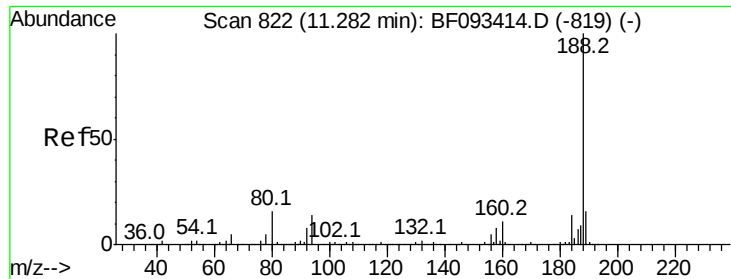
Tot Ion:168 Resp: 59786  
Ion Ratio Lower Upper  
168 100  
139 36.0 32.6 49.0  
169 14.9 11.3 16.9



#57  
Fluorene  
Concen: 6.75 ng m  
RT: 10.31 min Scan# 737  
Delta R.T. -0.00 min  
Lab File: BF093685.D  
Acq: 15 Mar 2017 23:11

Tgt Ion:166 Resp: 87218  
Ion Ratio Lower Upper  
166 100  
165 104.0 77.8 116.8  
167 12.8 10.8 16.2

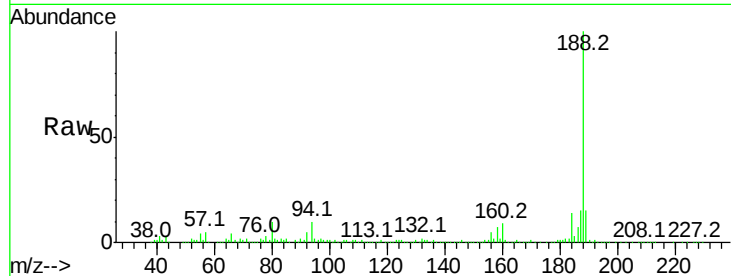




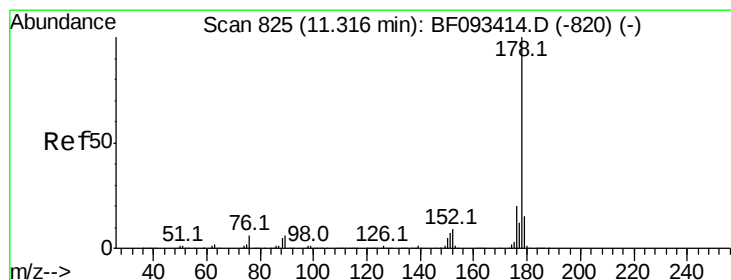
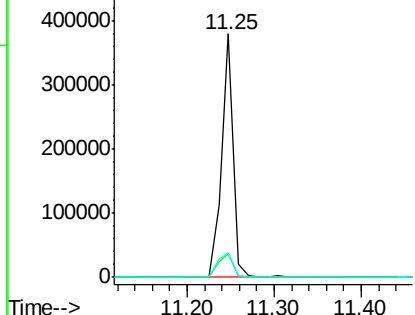
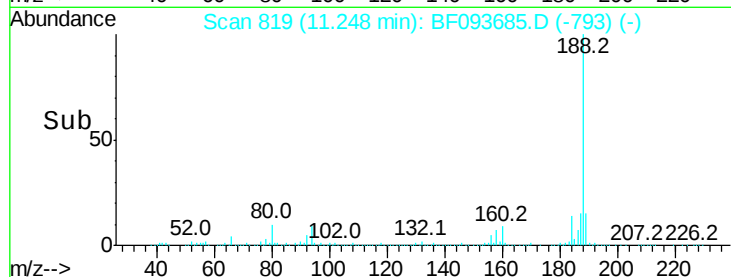
#63  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 11.25 min Scan# 819  
Delta R.T. -0.00 min  
Lab File: BF093685.D  
Acq: 15 Mar 2017 23:11

Instrument :  
BNA\_F  
ClientSampleId :  
HY-SB413ADL

Tot Ion:188 Resp: 358370  
Ion Ratio Lower Upper  
188 100  
94 9.6 10.0 15.0#  
80 10.4 11.2 16.8#

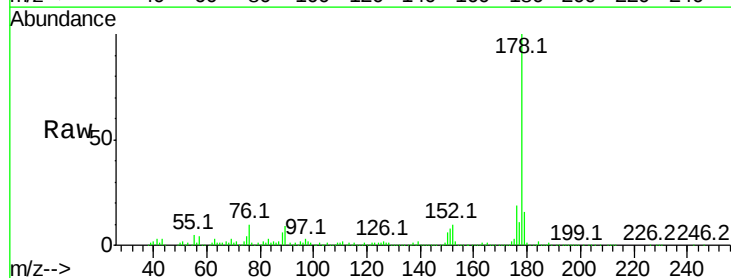


Abundance Ion 188.00 (187.70 to 188.70): E  
Ion 94.00 (93.70 to 94.70): BF0  
Ion 80.00 (79.70 to 80.70): BF0

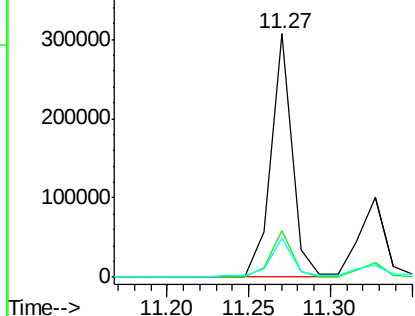
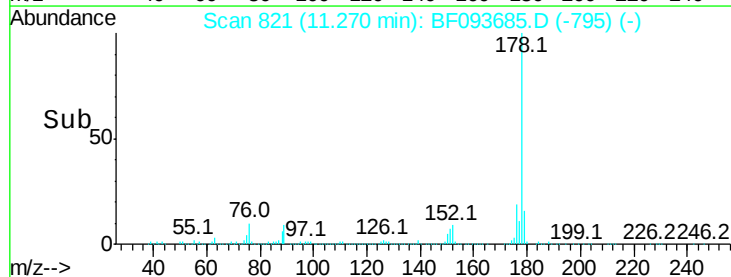


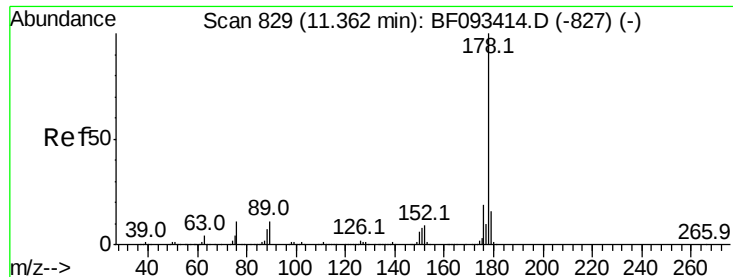
#70  
Phenanthrene  
Concen: 13.57 ng  
RT: 11.27 min Scan# 821  
Delta R.T. -0.00 min  
Lab File: BF093685.D  
Acq: 15 Mar 2017 23:11

Tgt Ion:178 Resp: 277531  
Ion Ratio Lower Upper  
178 100  
176 18.9 16.6 25.0  
179 16.0 12.8 19.2



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

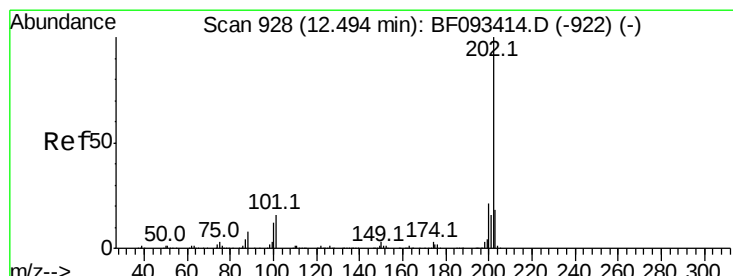
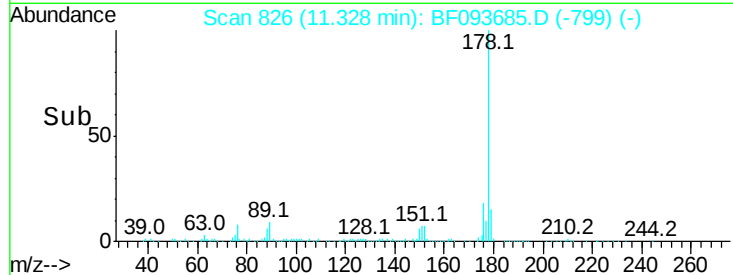
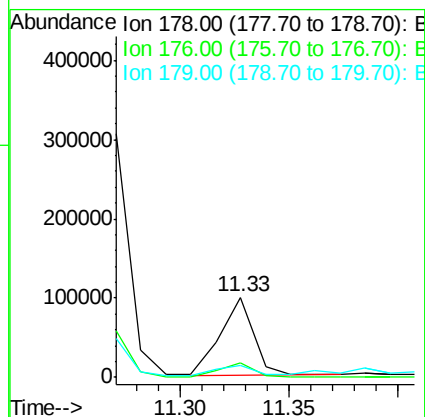
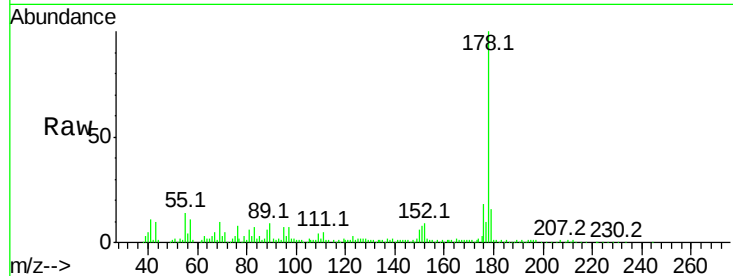




#71  
 Anthracene  
 Concen: 5.09 ng  
 RT: 11.33 min Scan# 826  
 Delta R.T. 0.01 min  
 Lab File: BF093685.D  
 Acq: 15 Mar 2017 23:11

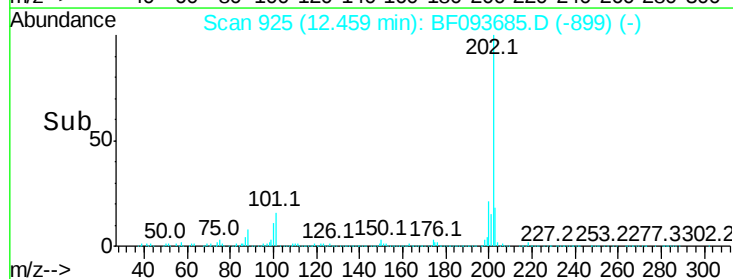
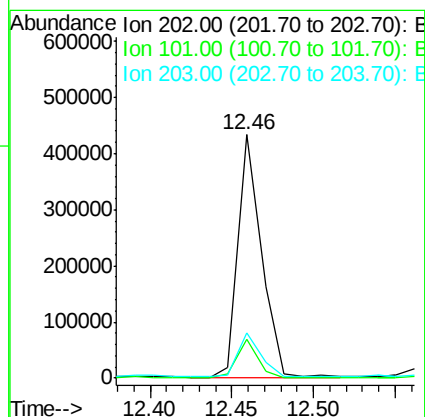
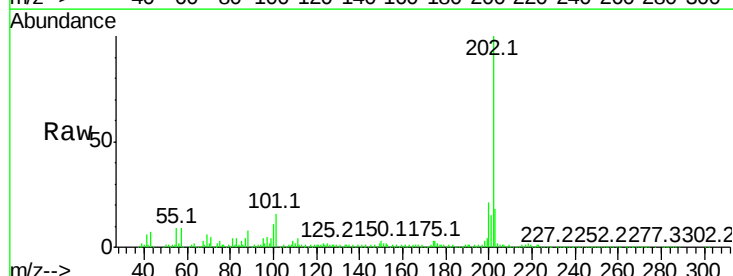
Instrument :  
 BNA\_F  
 ClientSampleId :  
 HY-SB413ADL

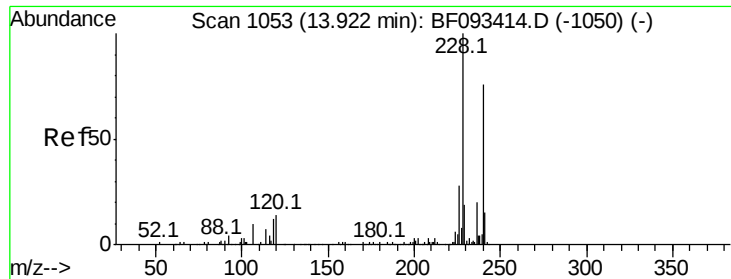
Tot Ion:178 Resp: 105339  
 Ion Ratio Lower Upper  
 178 100  
 176 18.1 15.9 23.9  
 179 15.7 13.2 19.8



#74  
 Fluoranthene  
 Concen: 21.50 ng  
 RT: 12.46 min Scan# 925  
 Delta R.T. -0.00 min  
 Lab File: BF093685.D  
 Acq: 15 Mar 2017 23:11

Tgt Ion:202 Resp: 424721  
 Ion Ratio Lower Upper  
 202 100  
 101 15.7 0.0 34.6  
 203 18.5 0.0 38.7





#75

Chrysene-d12

Concen: 20.00 ng

RT: 13.89 min Scan# 1050

Delta R.T. -0.00 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

Instrument :

BNA\_F

ClientSampleId :

HY-SB413ADL

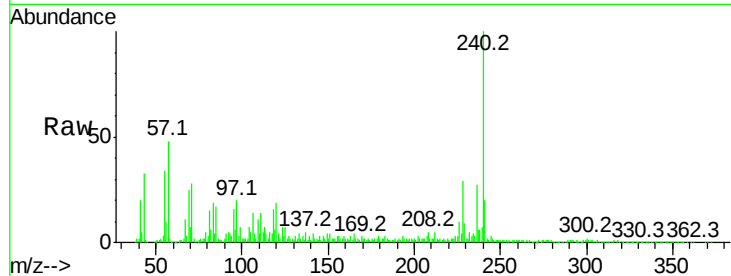
Tot Ion:240 Resp: 305699

Ion Ratio Lower Upper

240 100

120 19.4 12.9 19.3#

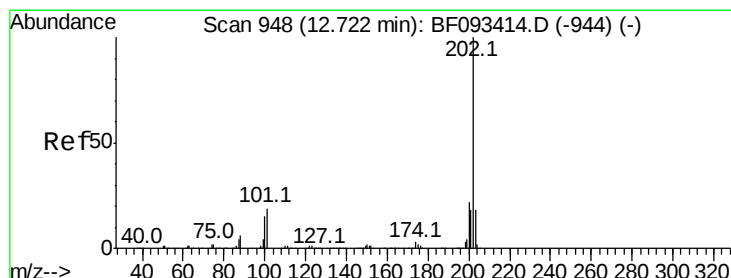
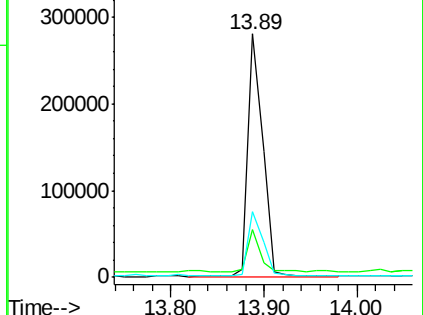
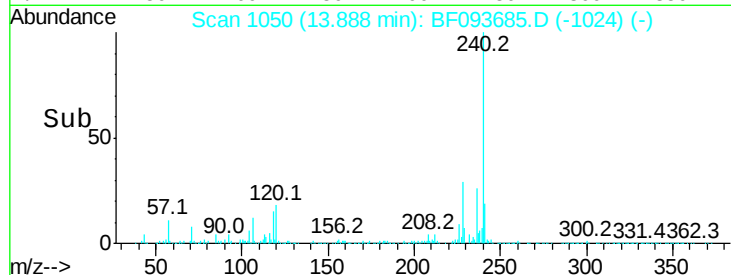
236 27.1 20.9 31.3



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: 16.30 ng

RT: 12.69 min Scan# 945

Delta R.T. 0.01 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

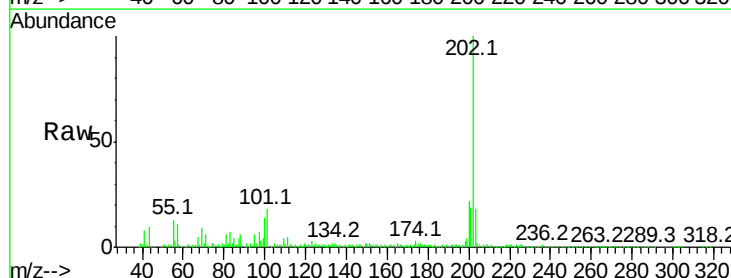
Tgt Ion:202 Resp: 362428

Ion Ratio Lower Upper

202 100

200 21.5 17.7 26.5

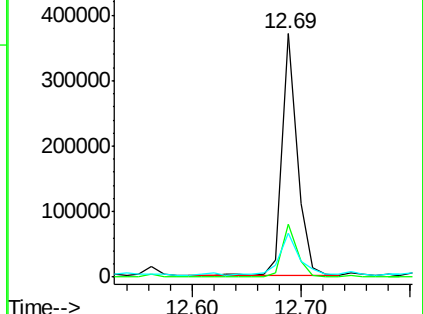
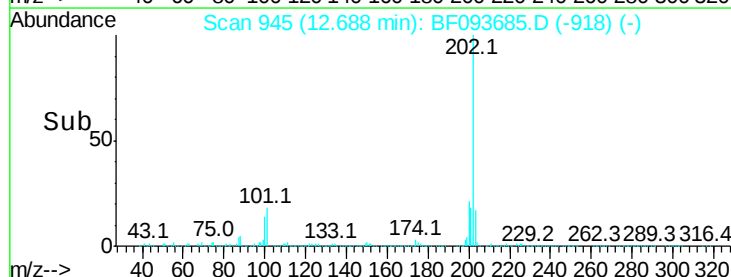
203 18.1 14.7 22.1

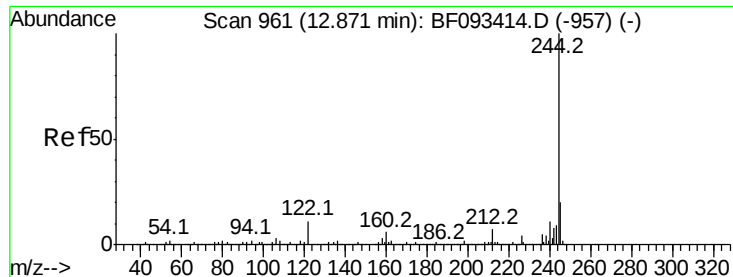


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E





#78

Terphenyl-d14

Concen: 2.86 ng

RT: 12.82 min Scan# 957

Delta R.T. -0.00 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

Instrument :

BNA\_F

ClientSampleId :

HY-SB413ADL

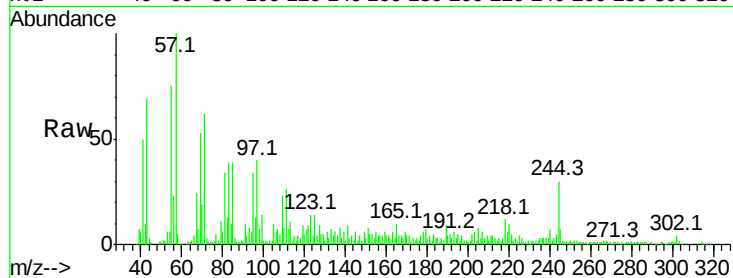
Tot Ion:244 Resp: 33674

Ion Ratio Lower Upper

244 100

212 12.9 6.2 9.2#

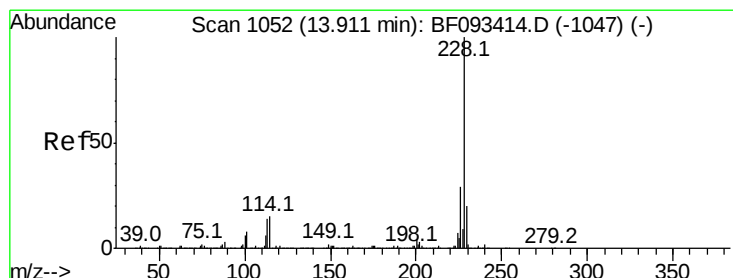
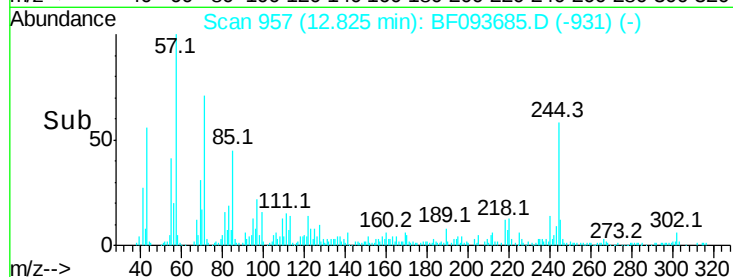
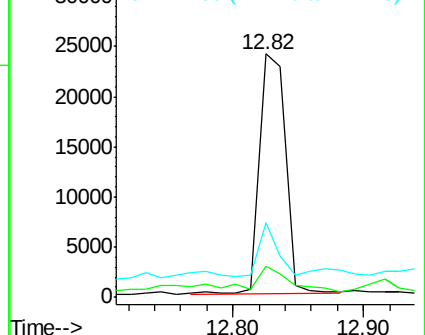
122 30.5 11.4 17.2#



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: 8.30 ng

RT: 13.88 min Scan# 1049

Delta R.T. 0.01 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

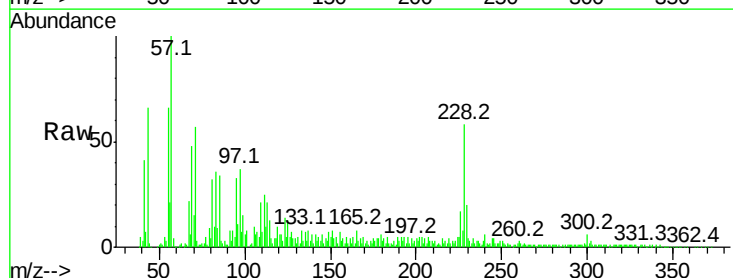
Tgt Ion:228 Resp: 149752

Ion Ratio Lower Upper

228 100

226 29.6 22.4 33.6

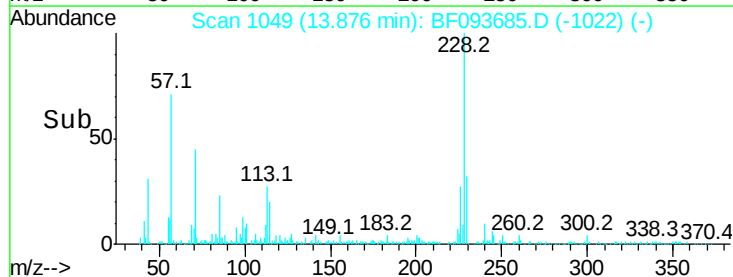
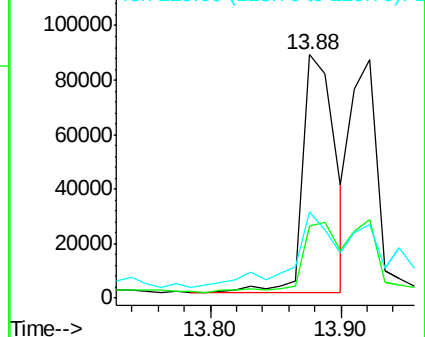
229 35.2 16.2 24.4#

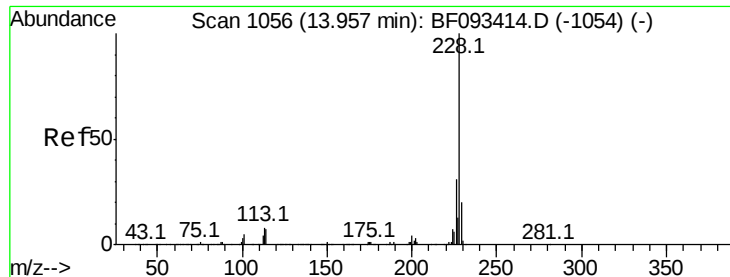


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#82

Chrysene

Concen: 7.27 ng/mL

RT: 13.92 min Scan# 1053

Delta R.T. 0.01 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

Instrument:

BNA\_F

ClientSampleID:

HY-SB413ADL

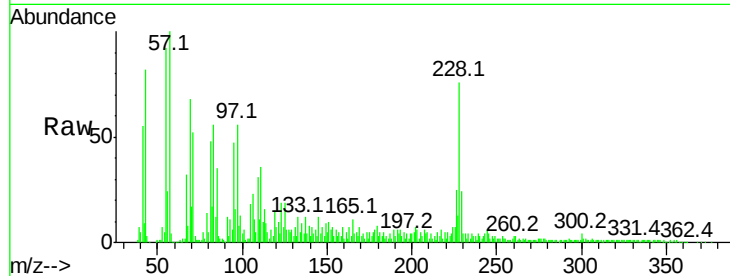
Tot Ion: 228 Resp: 121361

Ion Ratio Lower Upper

228 100

226 32.6 25.4 38.0

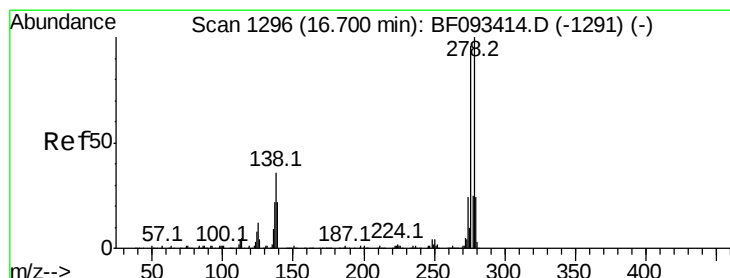
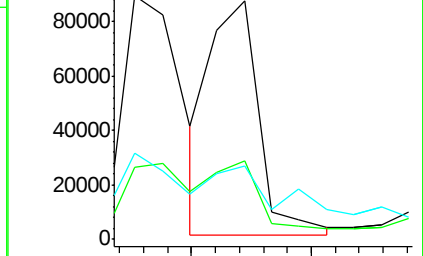
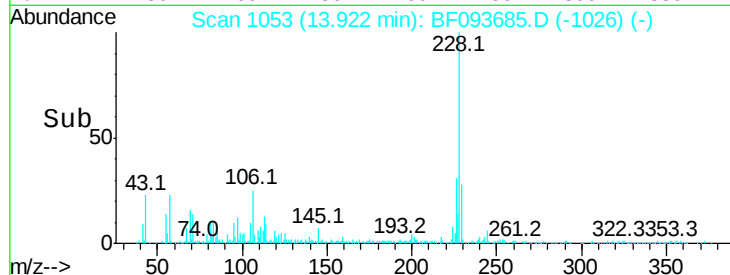
229 30.9 16.2 24.2#



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: 2.51 ng/mL

RT: 16.68 min Scan# 1294

Delta R.T. 0.06 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

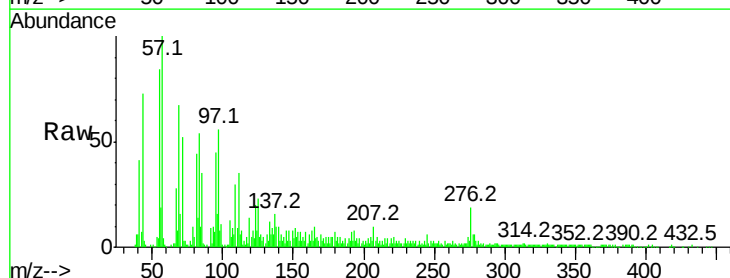
Tgt Ion: 276 Resp: 35065

Ion Ratio Lower Upper

276 100

138 32.0 21.8 32.6

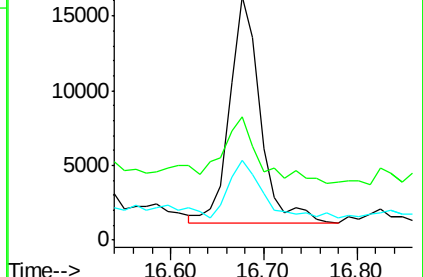
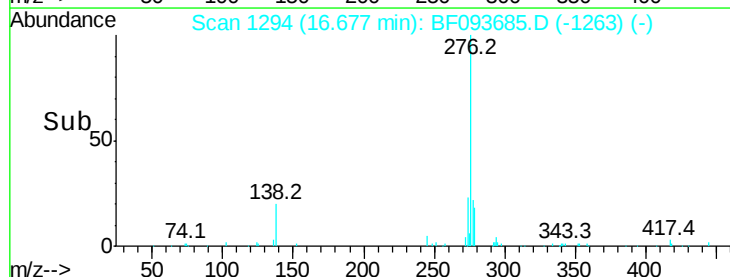
277 28.7 20.2 30.4

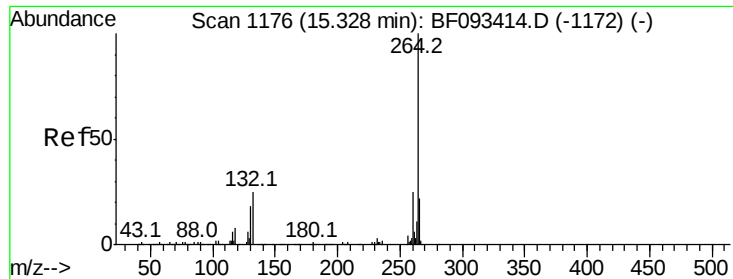


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E





#86

Pervlene-d12

Concen: 20.00 ng

RT: 15.31 min Scan# 1174

Delta R.T. 0.02 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

Instrument :

BNA\_F

ClientSampleId :

HY-SB413ADL

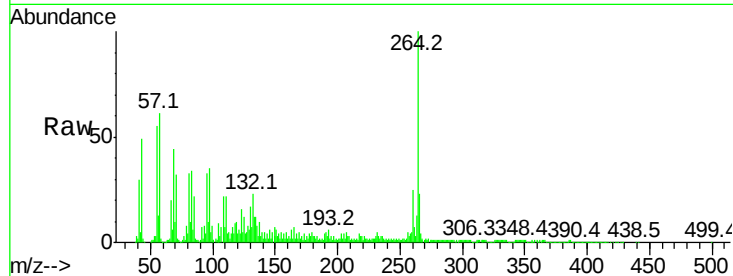
Tot Ion:264 Resp: 259479

Ion Ratio Lower Upper

264 100

260 24.6 19.2 28.8

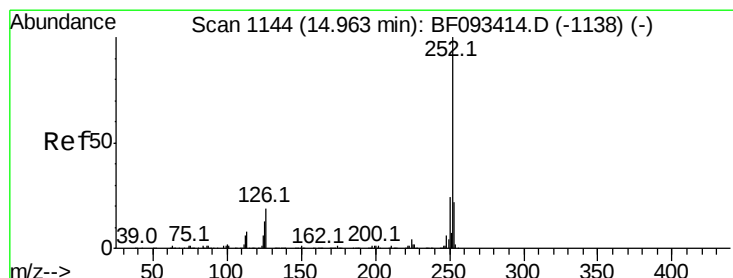
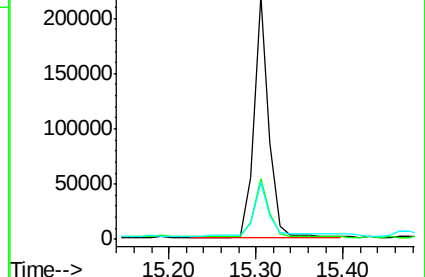
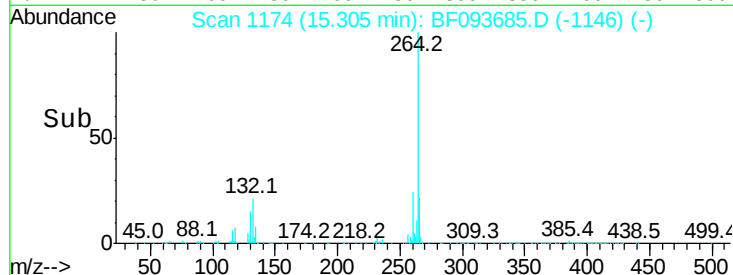
265 23.4 17.4 26.0



Abundance Ion 264.00 (263.70 to 264.70): E

Ion 260.00 (259.70 to 260.70): E

Ion 265.00 (264.70 to 265.70): E



#87

Benzo(b)fluoranthene

Concen: 8.47 ng m

RT: 14.92 min Scan# 1140

Delta R.T. 0.02 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

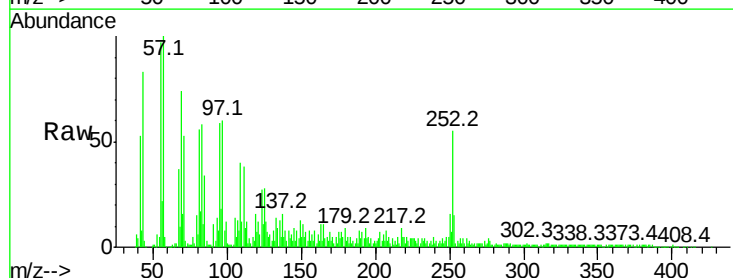
Tgt Ion:252 Resp: 133816

Ion Ratio Lower Upper

252 100

253 26.5 18.2 27.4

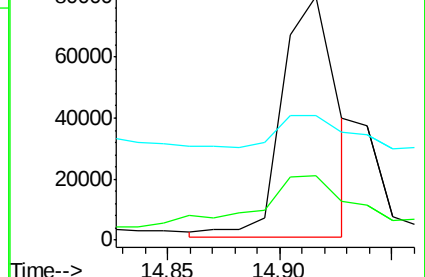
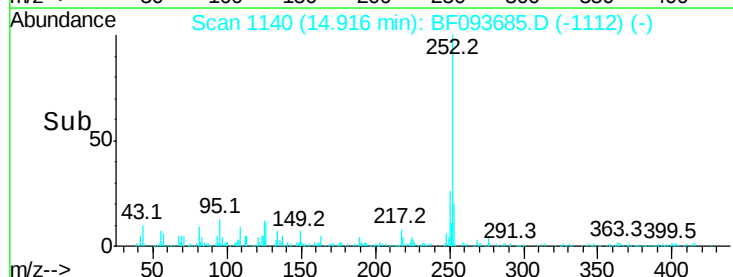
125 51.0 9.8 14.6#

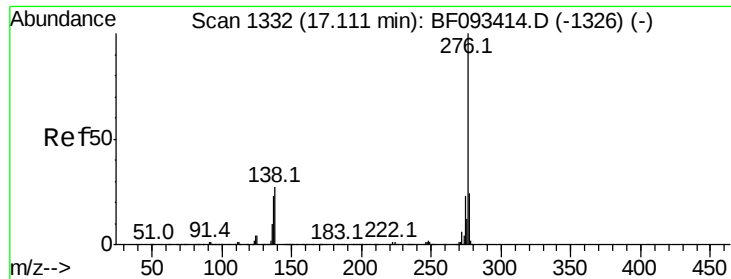


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#91

Benzo(a,h,i)perylene

Concen: 2.33 ng

RT: 17.09 min Scan# 1330

Delta R.T. 0.07 min

Lab File: BF093685.D

Acq: 15 Mar 2017 23:11

Instrument :

BNA\_F

ClientSampleId :

HY-SB413ADL

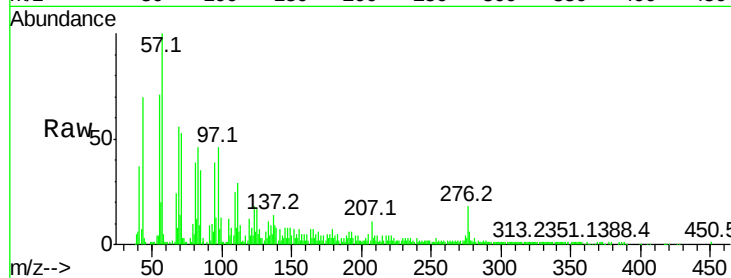
Tot Ion:276 Resp: 28530

Ion Ratio Lower Upper

276 100

277 32.6 19.2 28.8#

138 48.4 16.0 24.0#



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

