

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE020515\  
 Data File : BE089510.D  
 Acq On : 5 Feb 2015 19:34  
 Operator : TP/IZ  
 Sample : PB81495BSD  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 PB81495BSD

Quant Time: Feb 06 04:02:58 2015  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIMPAH-BE020515.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Feb 06 03:21:38 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.49  | 152  | 30122    | 5.00 | ng    | 0.00     |
| 2) Naphthalene-d8         | 12.40 | 136  | 121332   | 5.00 | ng    | 0.00     |
| 6) Acenaphthene-d10       | 16.59 | 164  | 53893    | 5.00 | ng    | 0.00     |
| 11) Phenanthrene-d10      | 19.91 | 188  | 103888   | 5.00 | ng    | 0.00     |
| 16) Chrysene-d12          | 23.77 | 240  | 116084   | 5.00 | ng    | 0.00     |
| 22) Perylene-d12          | 25.46 | 264  | 114093   | 5.00 | ng    | 0.00     |

|                             |       |     |        |      |    |      |
|-----------------------------|-------|-----|--------|------|----|------|
| System Monitoring Compounds |       |     |        |      |    |      |
| 3) Nitrobenzene-d5          | 10.76 | 82  | 63588  | 6.87 | ng | 0.00 |
| 7) 2-Fluorobiphenyl         | 15.03 | 172 | 109276 | 6.44 | ng | 0.00 |
| 18) Terphenyl-d14           | 22.41 | 244 | 139350 | 6.90 | ng | 0.00 |

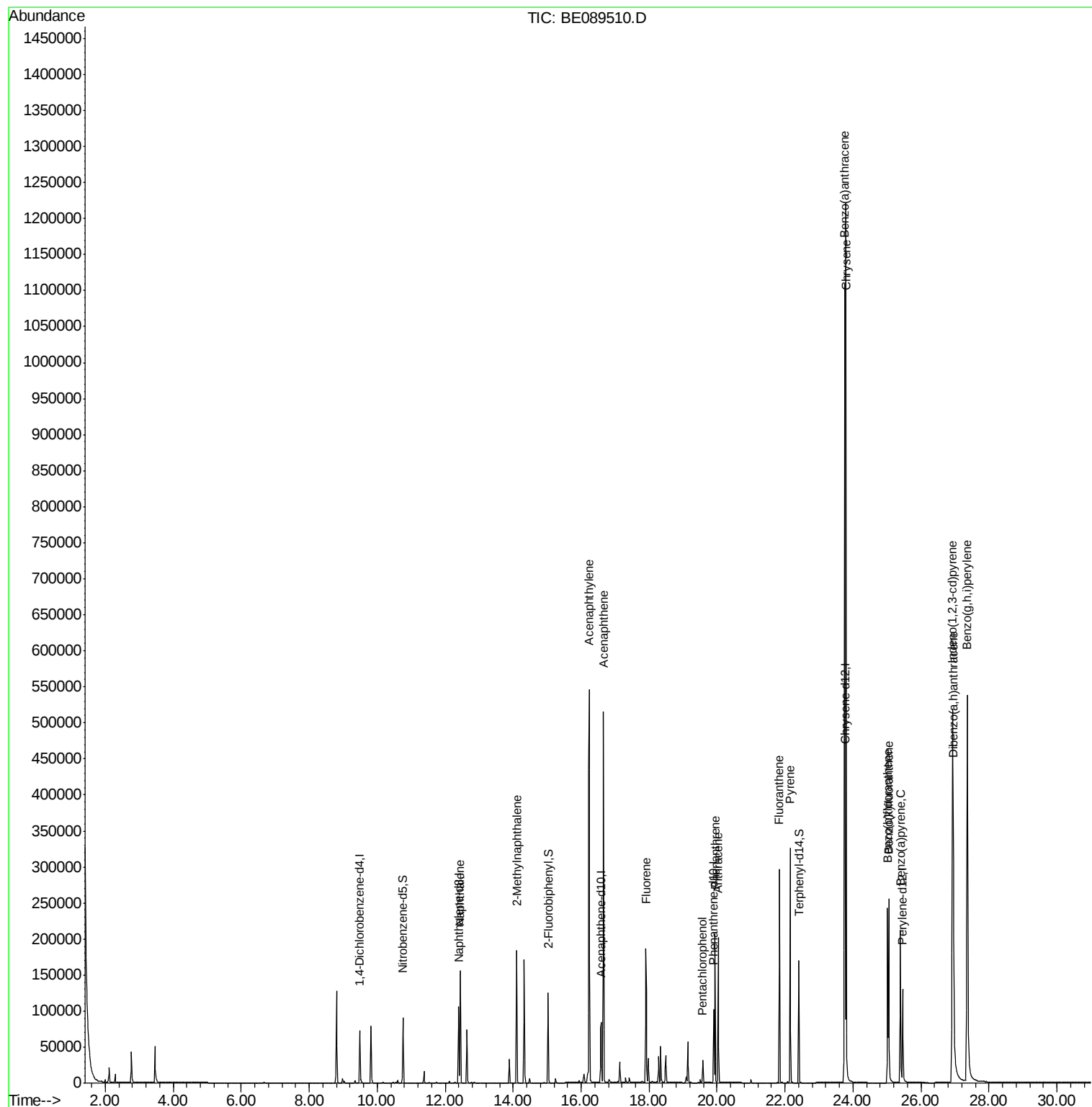
|                            |       |     |        |        |    |     |
|----------------------------|-------|-----|--------|--------|----|-----|
| Target Compounds           |       |     |        | Qvalue |    |     |
| 4) Naphthalene             | 12.44 | 128 | 173222 | 5.67   | ng | 100 |
| 5) 2-Methylnaphthalene     | 14.10 | 142 | 111738 | 5.58   | ng | 96  |
| 8) Acenaphthylene          | 16.24 | 152 | 710453 | 6.14   | ng | 100 |
| 9) Acenaphthene            | 16.65 | 154 | 104227 | 5.87   | ng | 99  |
| 10) Fluorene               | 17.91 | 166 | 126137 | 6.81   | ng | 99  |
| 12) Pentachlorophenol      | 19.58 | 266 | 17542  | 0.35   | ng | 94  |
| 13) Phenanthrene           | 19.94 | 178 | 195764 | 6.21   | ng | 99  |
| 14) Anthracene             | 20.04 | 178 | 197220 | 7.29   | ng | 100 |
| 15) Fluoranthene           | 21.83 | 202 | 202850 | 7.22   | ng | 99  |
| 17) Pyrene                 | 22.15 | 202 | 216333 | 6.52   | ng | 99  |
| 19) Benzo(a)anthracene     | 23.75 | 228 | 830740 | 7.11   | ng | 99  |
| 20) Chrysene               | 23.79 | 228 | 838053 | 7.29   | ng | 98  |
| 21) Indeno(1,2,3-cd)pyrene | 26.93 | 276 | 959805 | 7.51   | ng | 98  |
| 23) Benzo(b)fluoranthene   | 25.02 | 252 | 192742 | 6.91   | ng | 99  |
| 24) Benzo(k)fluoranthene   | 25.05 | 252 | 240277 | 6.61   | ng | 97  |
| 25) Benzo(a)pyrene         | 25.39 | 252 | 208283 | 7.54   | ng | 98  |
| 26) Dibenzo(a,h)anthracene | 26.95 | 278 | 212980 | 7.43   | ng | 98  |
| 27) Benzo(g,h,i)perylene   | 27.36 | 276 | 813102 | 7.44   | ng | 97  |

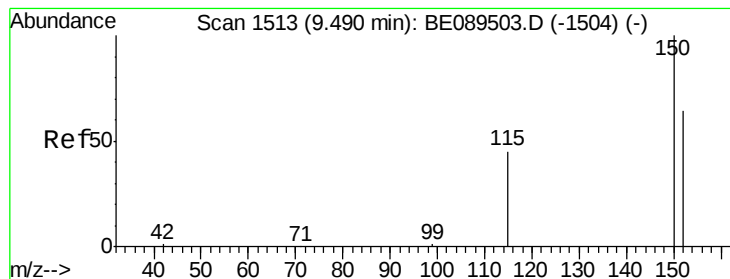
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 9.49 min Scan# 1513

Delta R.T. -0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

Instrument :

BNA\_E

ClientSampleId :

PB81495BSD

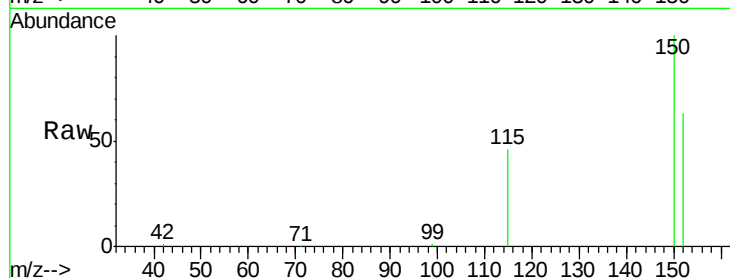
Tgt Ion:152 Resp: 30122

Ion Ratio Lower Upper

152 100

150 158.7 125.0 187.6

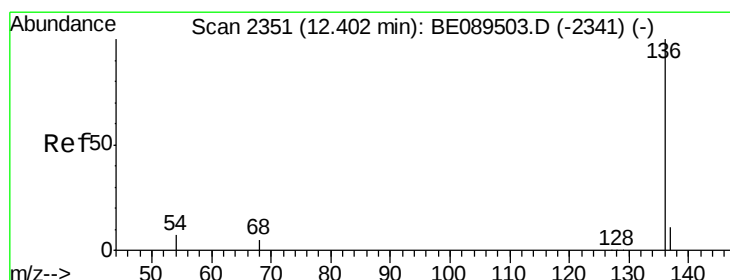
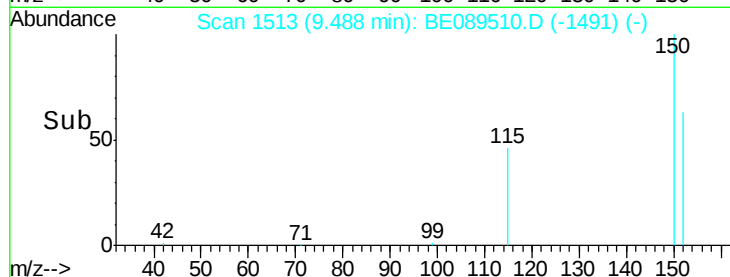
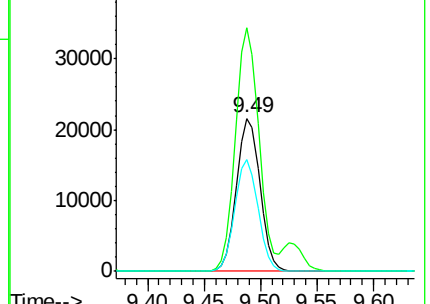
115 72.9 56.6 85.0



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



#2

Naphthalene-d8

Concen: 5.00 ng

RT: 12.40 min Scan# 2352

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

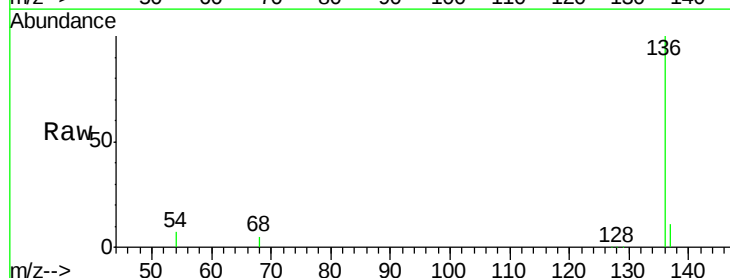
Tgt Ion:136 Resp: 121332

Ion Ratio Lower Upper

136 100

137 10.9 8.6 12.8

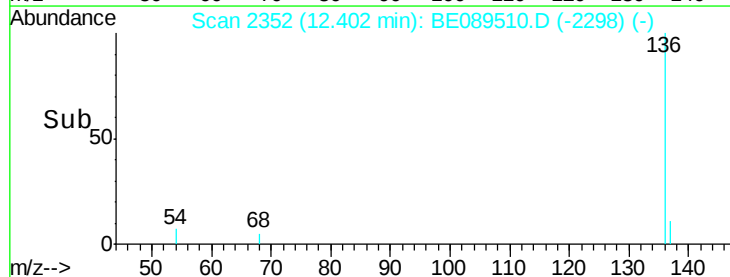
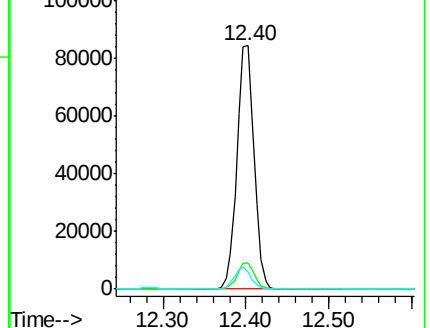
54 7.1 6.0 9.0

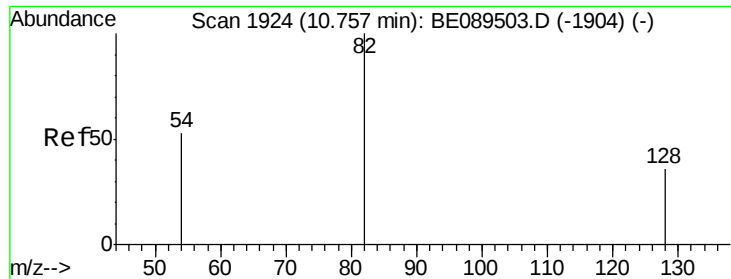


Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BE0





#3

Nitrobenzene-d5

Concen: 6.87 ng

RT: 10.76 min Scan# 1925

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

Instrument :

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ClientSampleId :

PB81495BSD

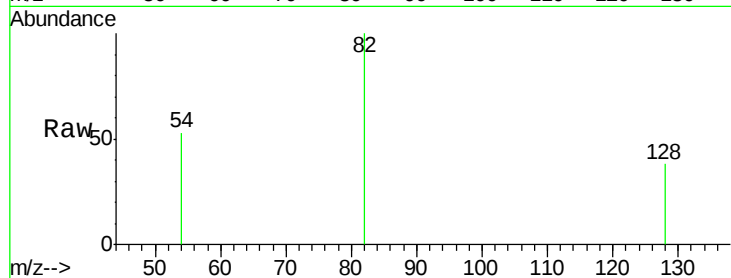
Tgt Ion: 82 Resp: 63588

Ion Ratio Lower Upper

82 100

128 37.5 29.3 43.9

54 52.9 42.6 64.0

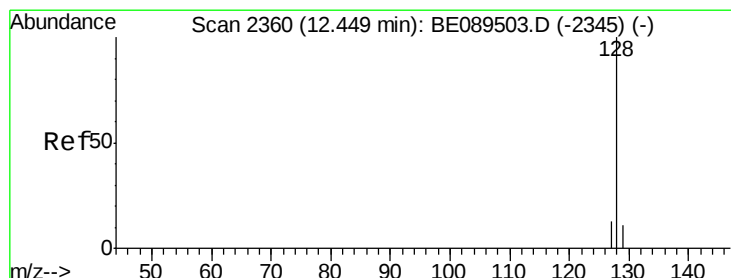
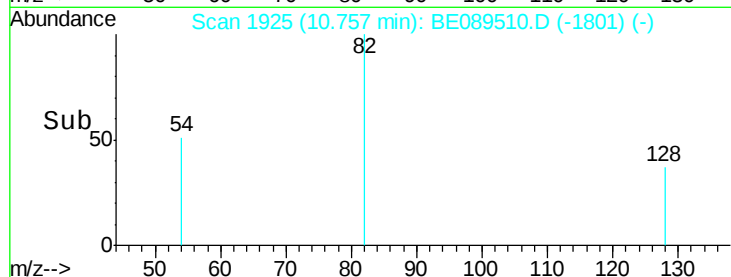


Abundance Ion 82.00 (81.70 to 82.70): BE089510.D (-1904) (-)

Ion 128.00 (127.70 to 128.70): BE089510.D (-1904) (-)

Ion 54.00 (53.70 to 54.70): BE089510.D (-1904) (-)

Time-->



#4

Naphthalene

Concen: 5.67 ng

RT: 12.44 min Scan# 2360

Delta R.T. -0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

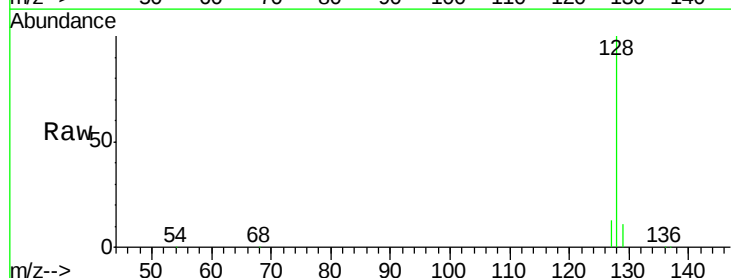
Tgt Ion: 128 Resp: 173222

Ion Ratio Lower Upper

128 100

129 11.0 8.8 13.2

127 13.1 10.3 15.5

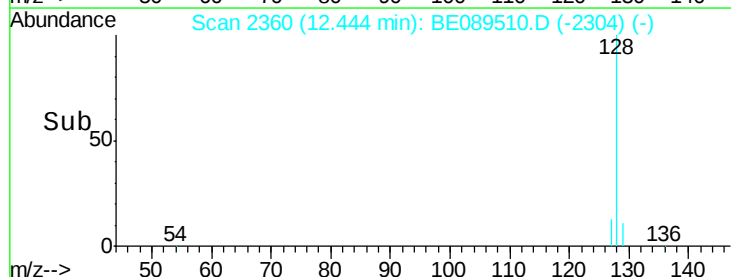


Abundance Ion 128.00 (127.70 to 128.70): BE089510.D (-2304) (-)

Ion 129.00 (128.70 to 129.70): BE089510.D (-2304) (-)

Ion 127.00 (126.70 to 127.70): BE089510.D (-2304) (-)

Time-->





#5

2-Methylnaphthalene

Concen: 5.58 ng

RT: 14.10 min Scan# 2694

Delta R.T. -0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

Instrument :

BNA\_E

ClientSampleId :

PB81495BSD

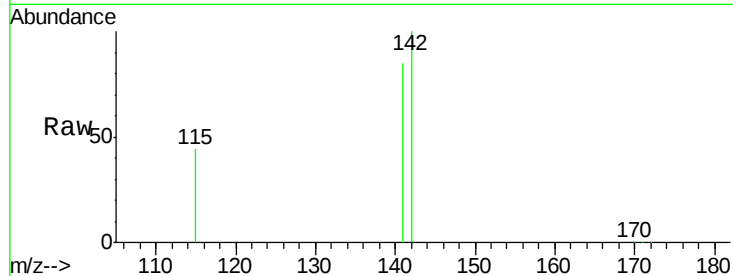
Tgt Ion:142 Resp: 111738

Ion Ratio Lower Upper

142 100

141 85.2 66.3 99.5

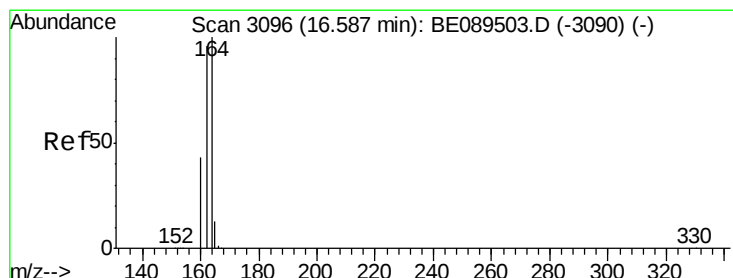
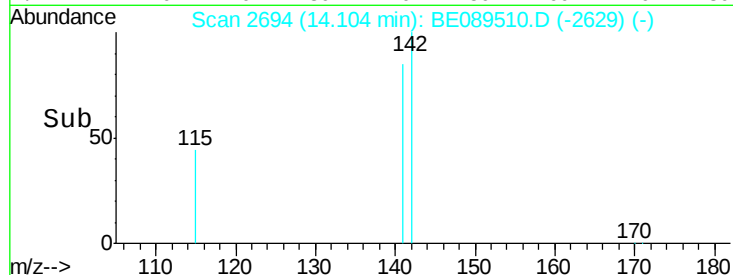
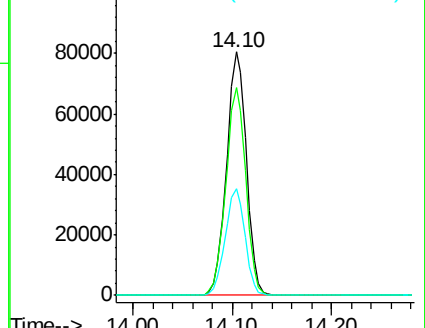
115 43.6 31.1 46.7



Abundance Ion 142.00 (141.70 to 142.70): E

Ion 141.00 (140.70 to 141.70): E

Ion 115.00 (114.70 to 115.70): E



#6

Acenaphthene-d10

Concen: 5.00 ng

RT: 16.59 min Scan# 3097

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

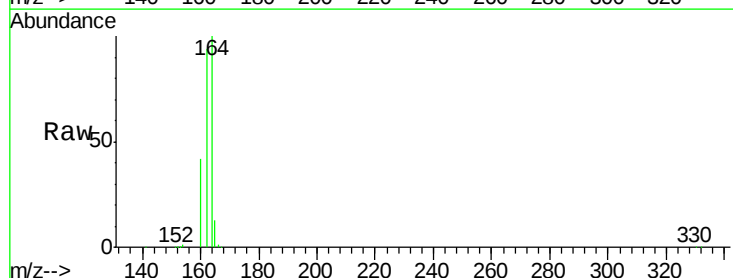
Tgt Ion:164 Resp: 53893

Ion Ratio Lower Upper

164 100

162 93.7 76.6 115.0

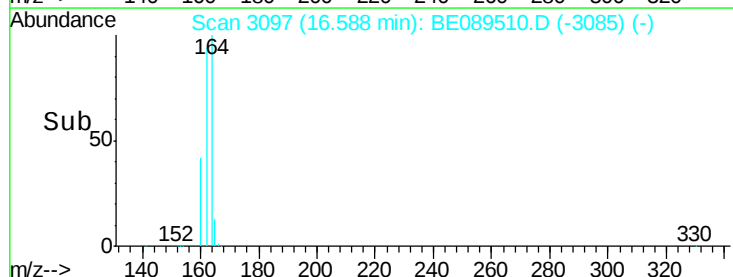
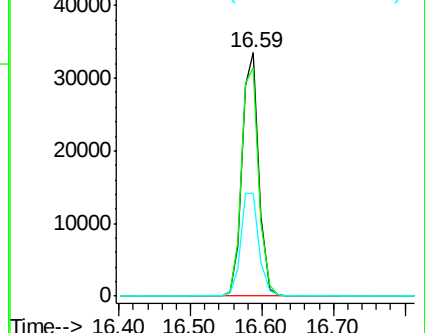
160 42.2 34.6 52.0



Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E





#7

2-Fluorobiphenyl

Concen: 6.44 ng

RT: 15.03 min Scan# 2898

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

Instrument :

BNA\_E

ClientSampleId :

PB81495BSD

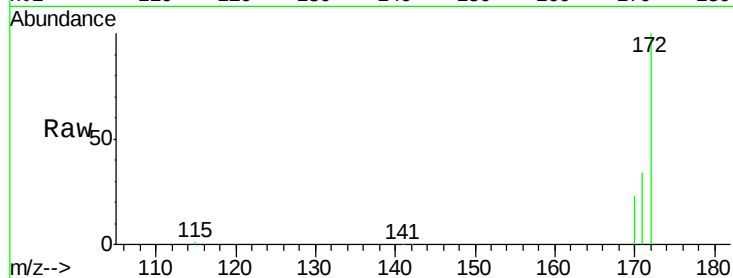
Tgt Ion:172 Resp: 109276

Ion Ratio Lower Upper

172 100

171 34.2 27.4 41.0

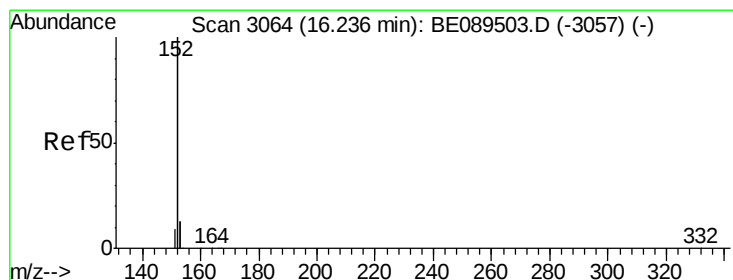
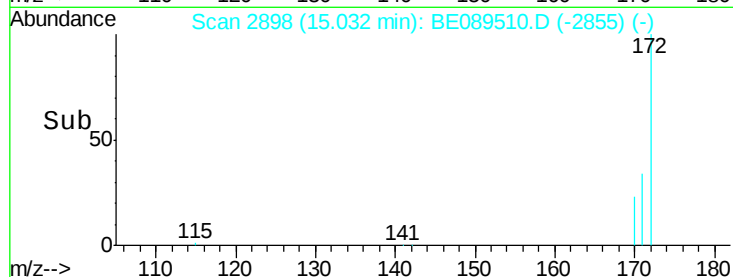
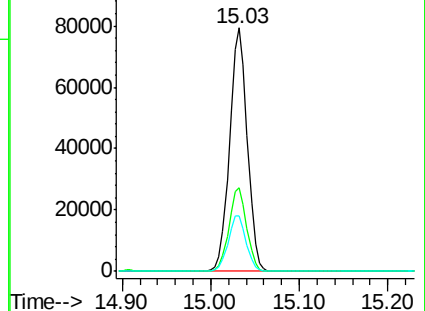
170 22.6 18.4 27.6



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



#8

Acenaphthylene

Concen: 6.14 ng

RT: 16.24 min Scan# 3065

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

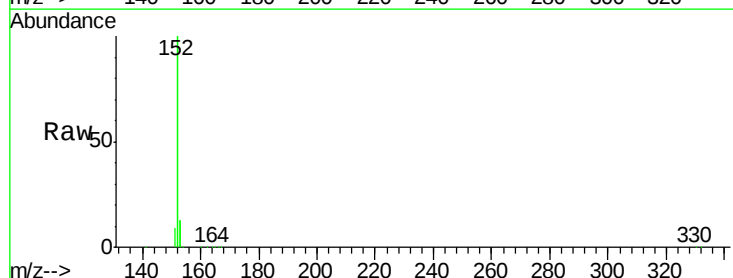
Tgt Ion:152 Resp: 710453

Ion Ratio Lower Upper

152 100

151 4.9 3.9 5.9

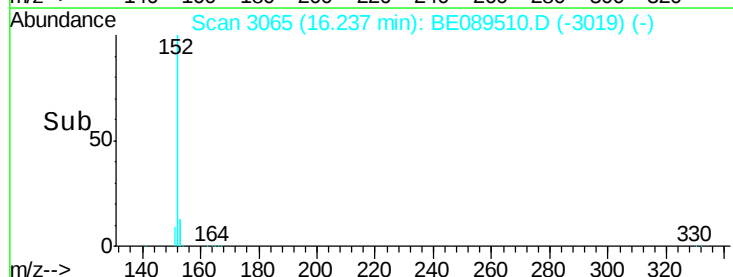
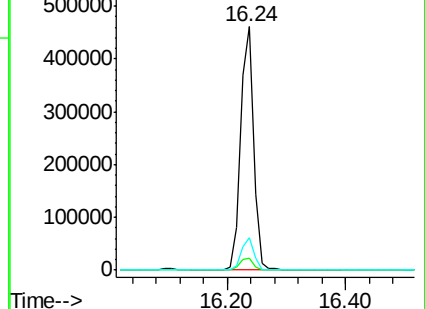
153 12.9 10.4 15.6

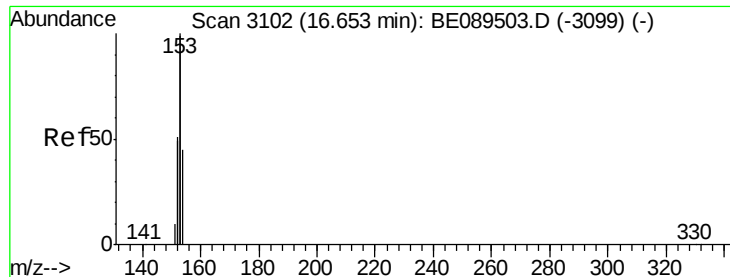


Abundance Ion 152.00 (151.70 to 152.70): E

Ion 151.00 (150.70 to 151.70): E

Ion 153.00 (152.70 to 153.70): E





#9

Acenaphthene

Concen: 5.87 ng

RT: 16.65 min Scan# 3103

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

Instrument :

BNA\_E

ClientSampleId :

PB81495BSD

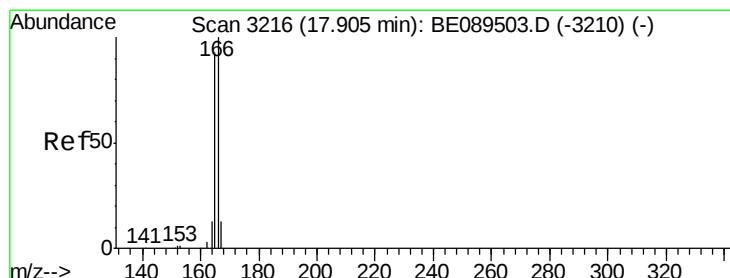
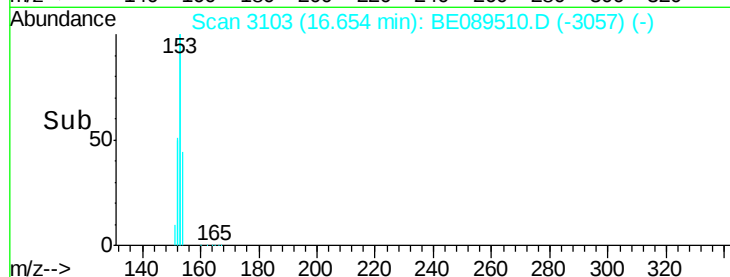
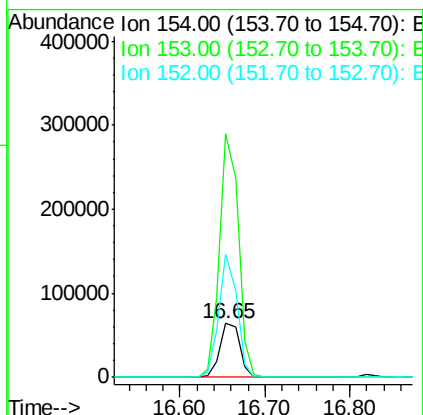
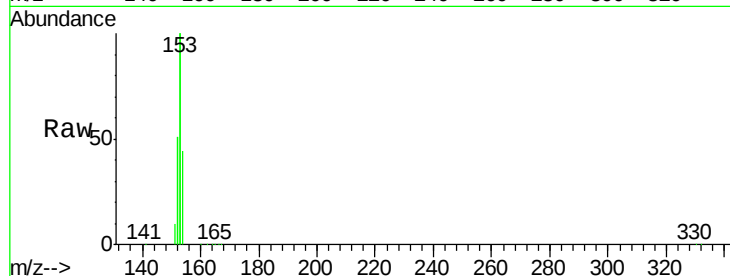
Tgt Ion:154 Resp: 104227

Ion Ratio Lower Upper

154 100

153 429.0 341.5 512.3

152 207.1 166.6 249.8



#10

Fluorene

Concen: 6.81 ng

RT: 17.91 min Scan# 3217

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

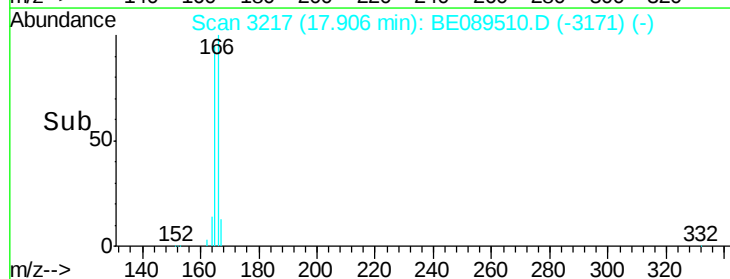
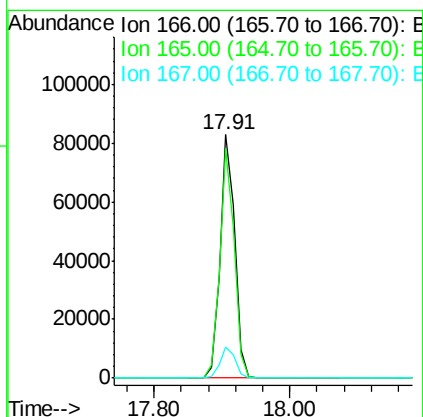
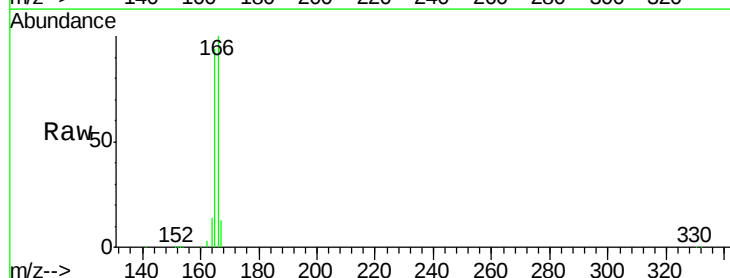
Tgt Ion:166 Resp: 126137

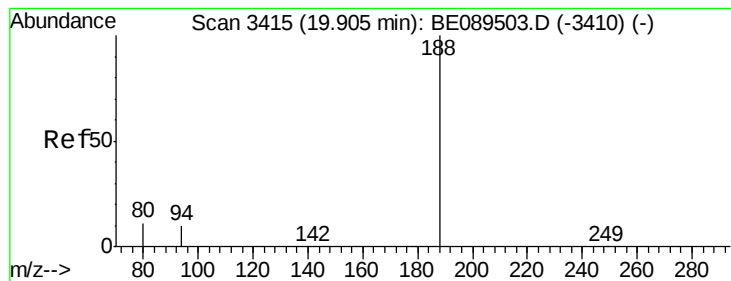
Ion Ratio Lower Upper

166 100

165 93.1 73.6 110.4

167 13.0 10.6 15.8





#11

Phenanthrene-d10

Concen: 5.00 ng

RT: 19.91 min Scan# 3416

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

Instrument :

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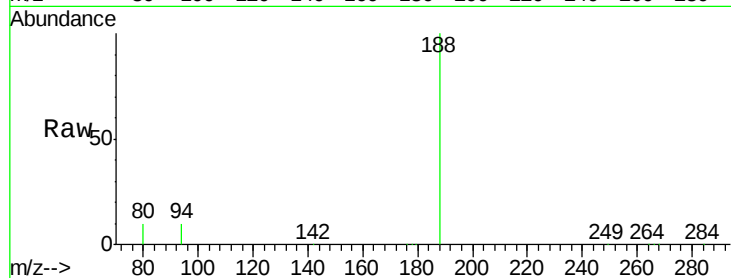
Tgt Ion:188 Resp: 103888

Ion Ratio Lower Upper

188 100

94 9.6 8.2 12.4

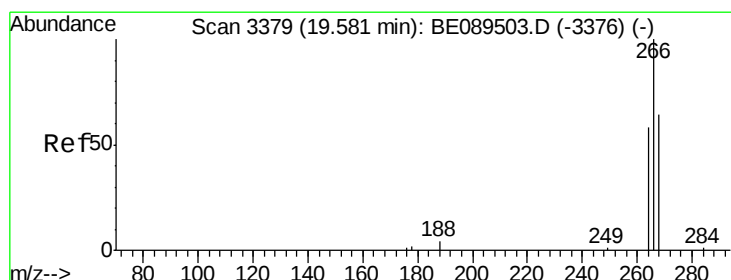
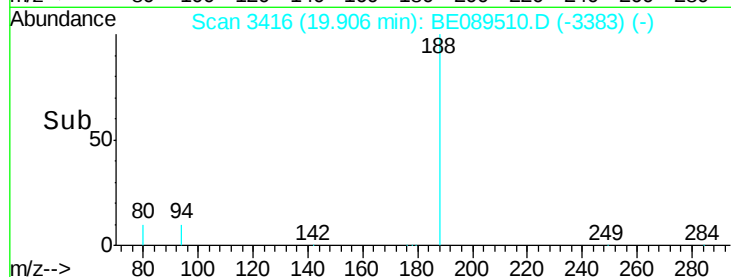
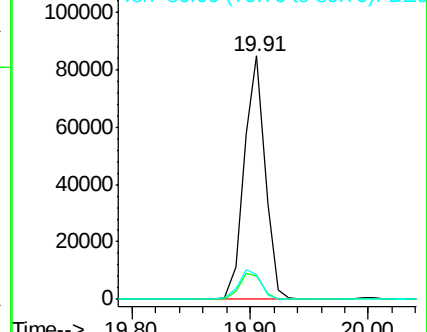
80 9.9 8.7 13.1



Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BE0

Ion 80.00 (79.70 to 80.70): BE0



#12

Pentachlorophenol

Concen: 0.35 ng

RT: 19.58 min Scan# 3380

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

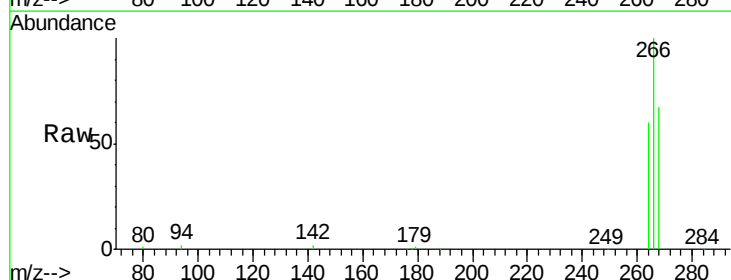
Tgt Ion:266 Resp: 17542

Ion Ratio Lower Upper

266 100

268 66.8 56.7 85.1

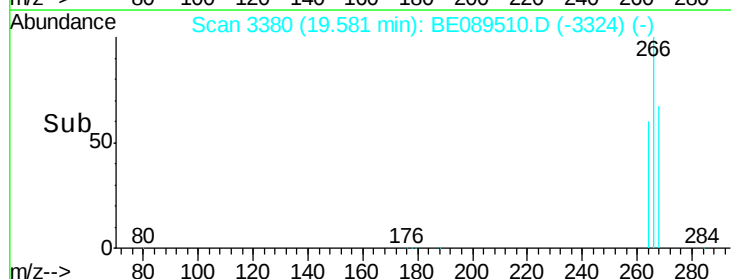
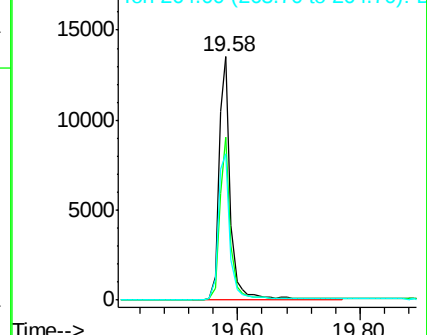
264 60.1 51.9 77.9

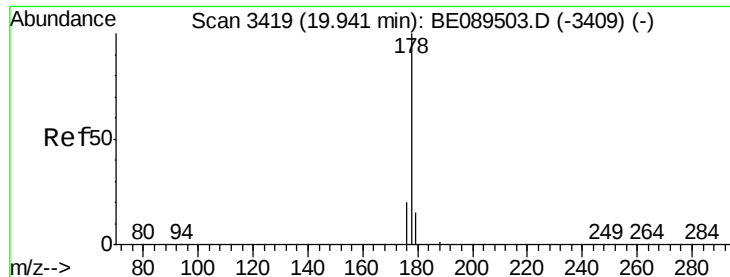


Abundance Ion 265.70 (265.40 to 266.40): E

Ion 268.00 (267.70 to 268.70): E

Ion 264.00 (263.70 to 264.70): E

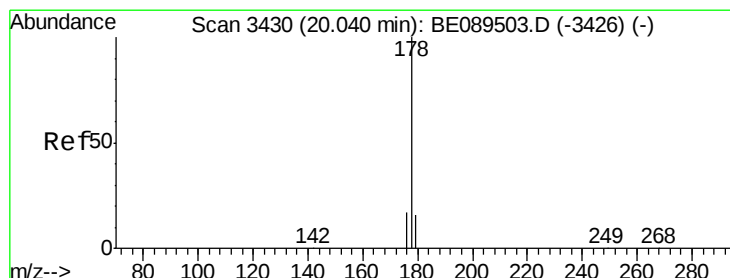
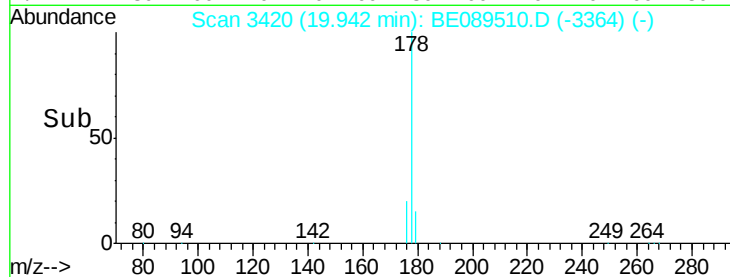
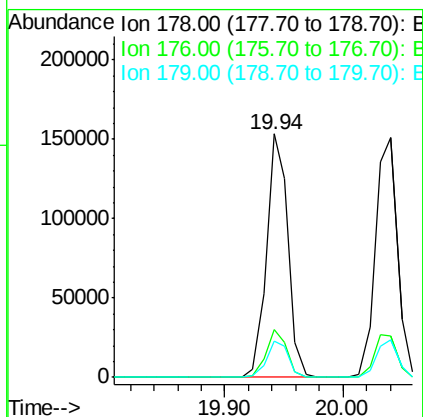
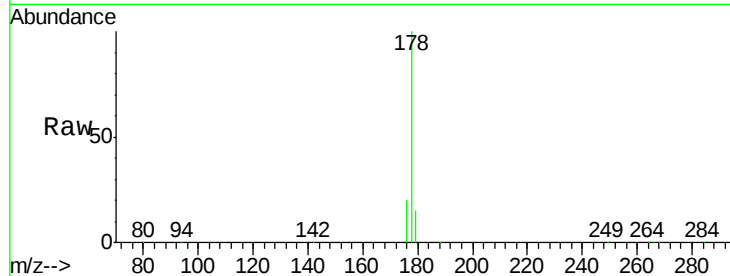




#13  
Phenanthrene  
Concen: 6.21 ng  
RT: 19.94 min Scan# 3420  
Delta R.T. 0.00 min  
Lab File: BE089510.D  
Acq: 5 Feb 2015 19:34

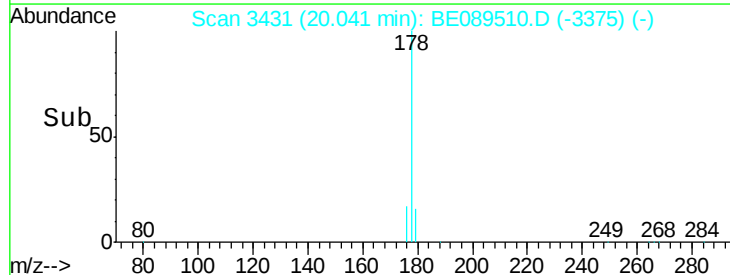
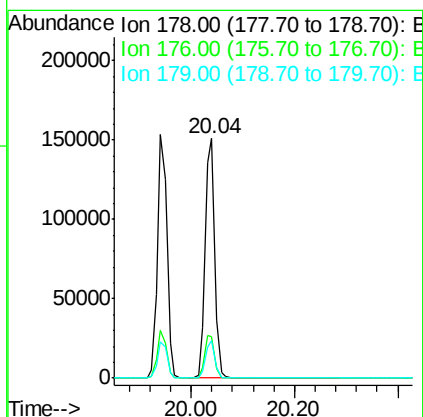
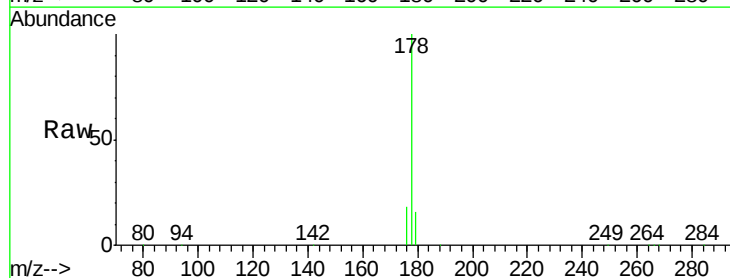
Instrument :  
BNA\_E  
ClientSampleId :  
PB81495BSD

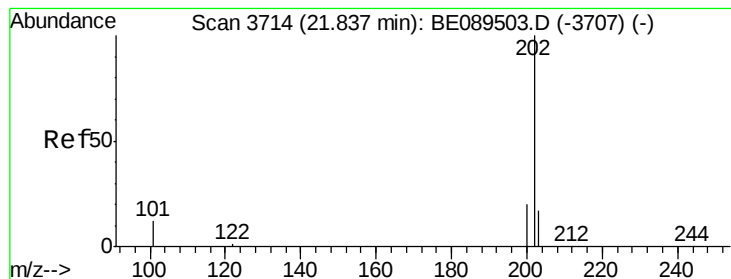
Tgt Ion:178 Resp: 195764  
Ion Ratio Lower Upper  
178 100  
176 18.9 15.4 23.0  
179 15.1 12.4 18.6



#14  
Anthracene  
Concen: 7.29 ng  
RT: 20.04 min Scan# 3431  
Delta R.T. 0.00 min  
Lab File: BE089510.D  
Acq: 5 Feb 2015 19:34

Tgt Ion:178 Resp: 197220  
Ion Ratio Lower Upper  
178 100  
176 18.5 14.6 22.0  
179 15.0 12.1 18.1





#15

Fluoranthene

Concen: 7.22 ng

RT: 21.83 min Scan# 3714

Delta R.T. -0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

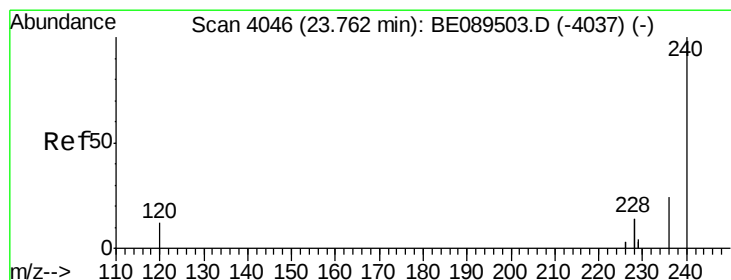
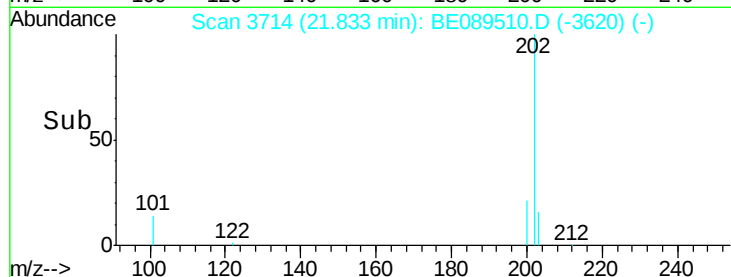
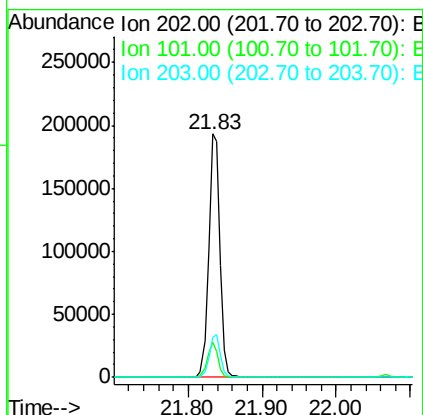
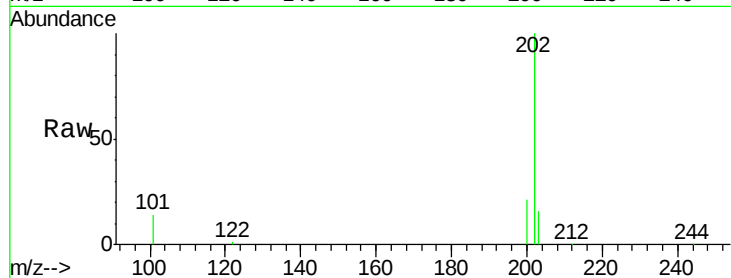
Instrument :

BNA\_E

ClientSampleId :

PB81495BSD

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 202850 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 13.3  | 11.3  | 16.9   |
| 203       | 17.1  | 13.8  | 20.6   |



#16

Chrysene-d12

Concen: 5.00 ng

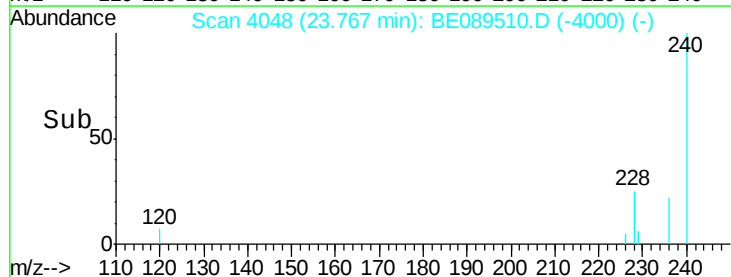
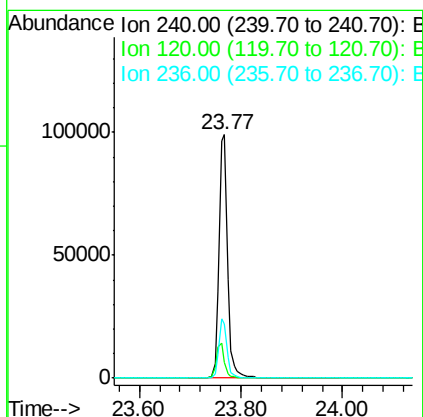
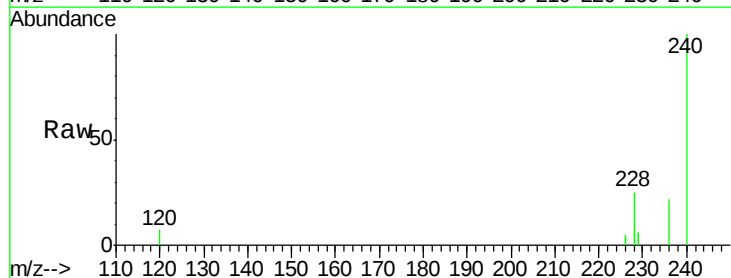
RT: 23.77 min Scan# 4048

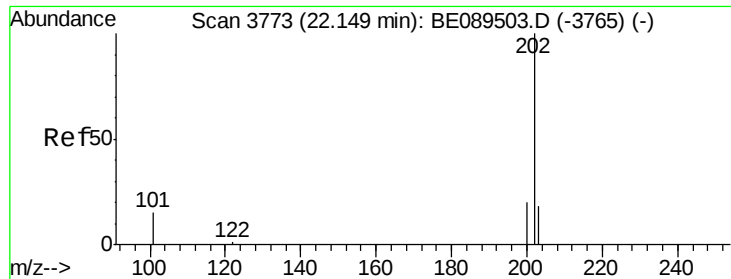
Delta R.T. 0.01 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 240   | Resp: | 116084 |
| Ion Ratio | Lower | Upper |        |
| 240       | 100   |       |        |
| 120       | 6.6   | 9.6   | 14.4#  |
| 236       | 22.4  | 19.4  | 29.2   |

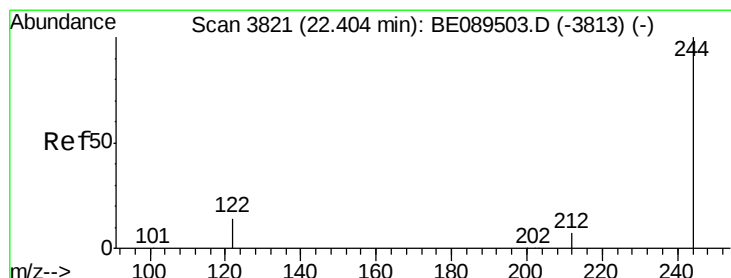
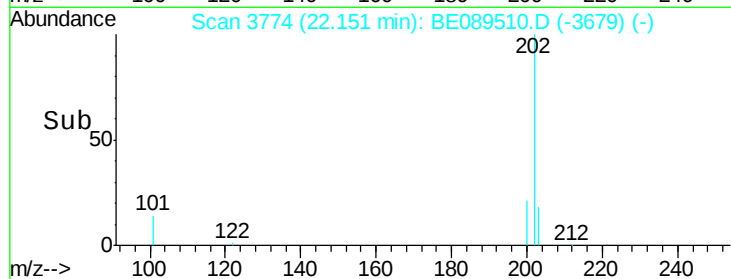
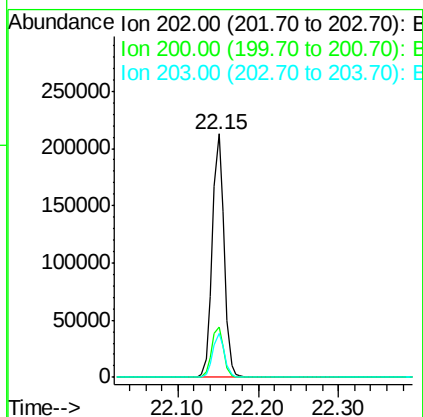
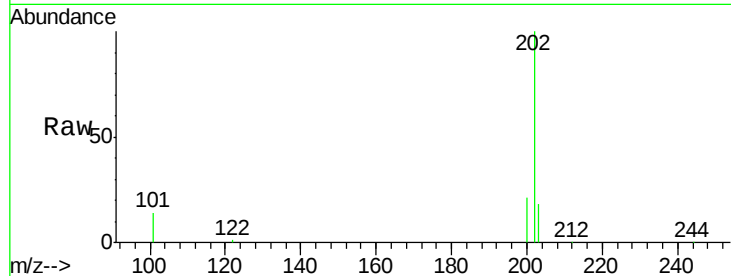




#17  
 Pyrene  
 Concen: 6.52 ng  
 RT: 22.15 min Scan# 3774  
 Delta R.T. 0.00 min  
 Lab File: BE089510.D  
 Acq: 5 Feb 2015 19:34

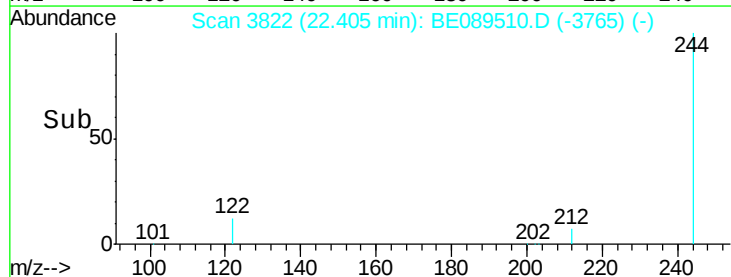
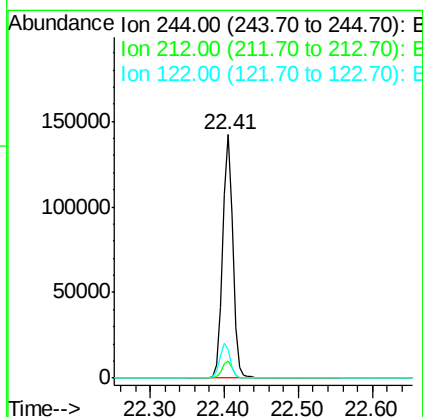
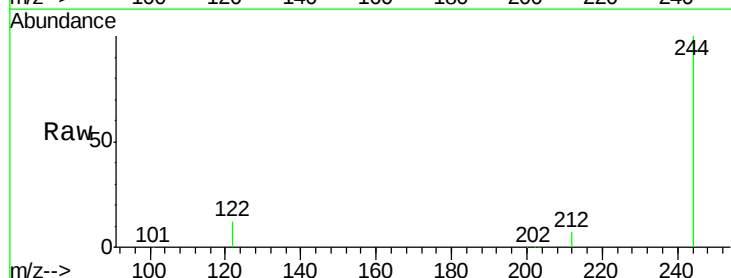
Instrument :  
 BNA\_E  
 ClientSampled :  
 PB81495BSD

Tgt Ion: 202 Resp: 216333  
 Ion Ratio Lower Upper  
 202 100  
 200 21.1 16.5 24.7  
 203 17.9 14.0 21.0



#18  
 Terphenyl-d14  
 Concen: 6.90 ng  
 RT: 22.41 min Scan# 3822  
 Delta R.T. 0.00 min  
 Lab File: BE089510.D  
 Acq: 5 Feb 2015 19:34

Tgt Ion: 244 Resp: 139350  
 Ion Ratio Lower Upper  
 244 100  
 212 7.1 5.5 8.3  
 122 11.8 11.1 16.7





#19

Benzo(a)anthracene

Concen: 7.11 ng

RT: 23.75 min Scan# 4045

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

Instrument :

BNA\_E

ClientSampleId :

PB81495BSD

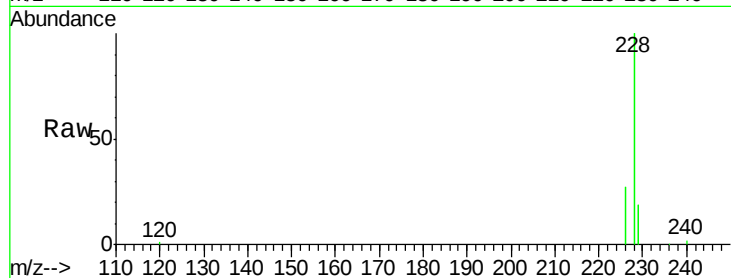
Tgt Ion:228 Resp: 830740

Ion Ratio Lower Upper

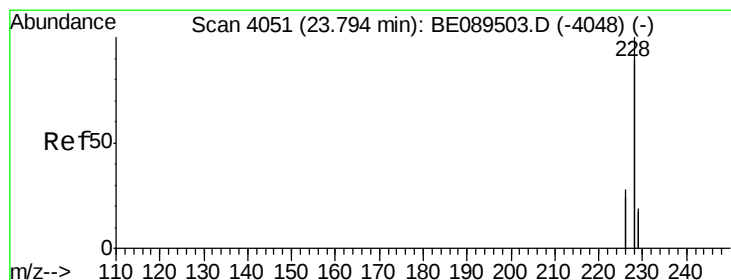
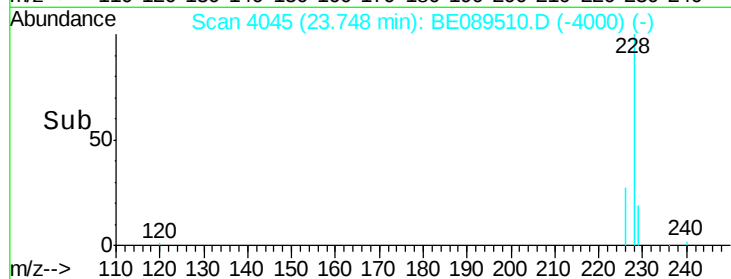
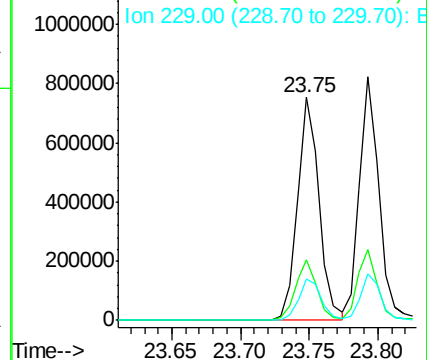
228 100

226 27.0 21.0 31.6

229 18.8 15.5 23.3



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



#20

Chrysene

Concen: 7.29 ng

RT: 23.79 min Scan# 4052

Delta R.T. -0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

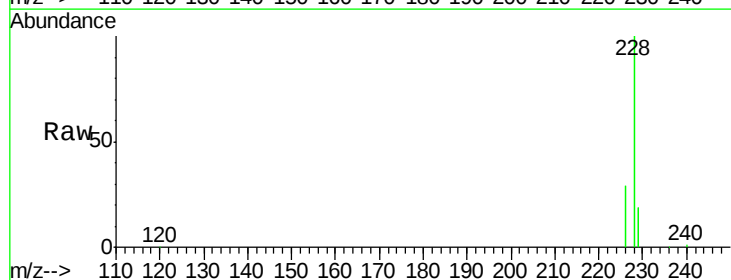
Tgt Ion:228 Resp: 838053

Ion Ratio Lower Upper

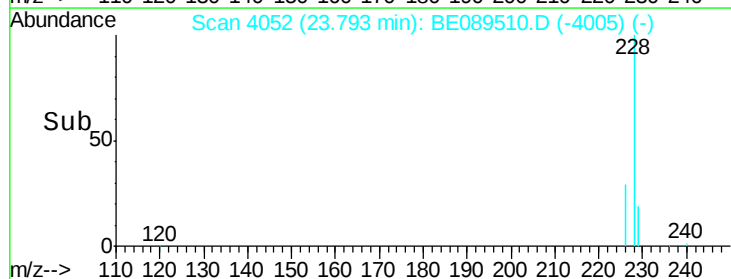
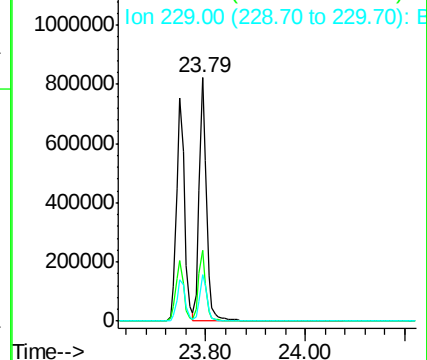
228 100

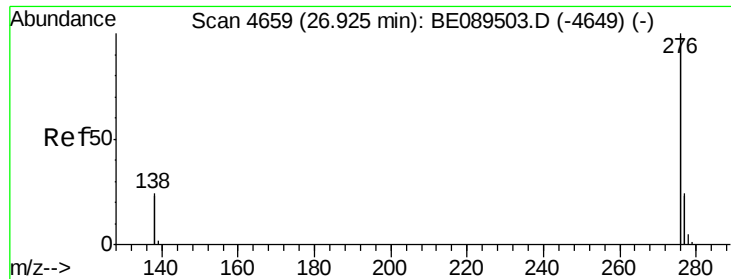
226 29.2 22.3 33.5

229 18.9 15.4 23.0



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

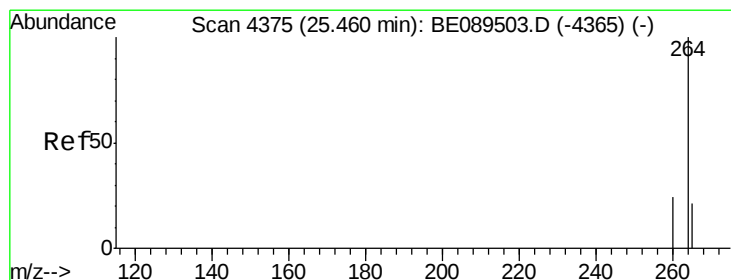
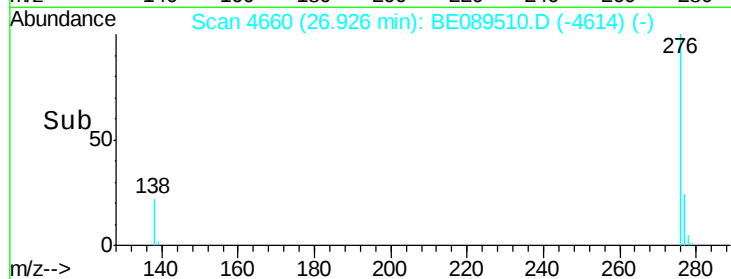
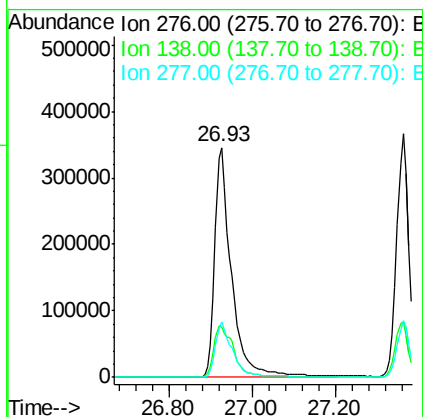
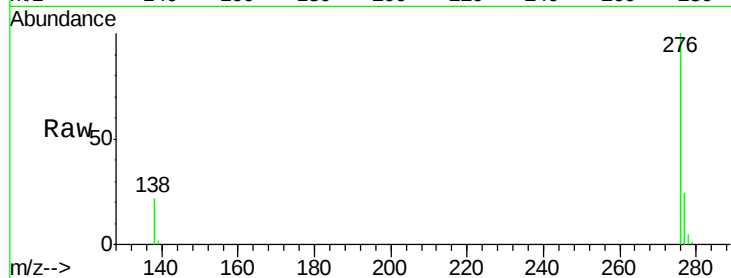




#21  
 Indeno(1,2,3-cd)pyrene  
 Concen: 7.51 ng  
 RT: 26.93 min Scan# 4660  
 Delta R.T. 0.00 min  
 Lab File: BE089510.D  
 Acq: 5 Feb 2015 19:34

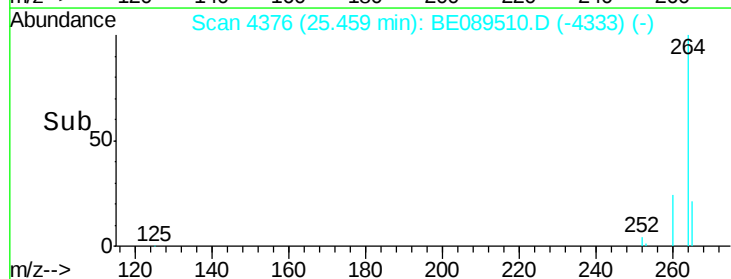
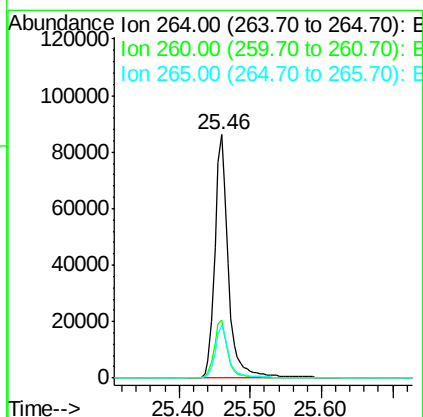
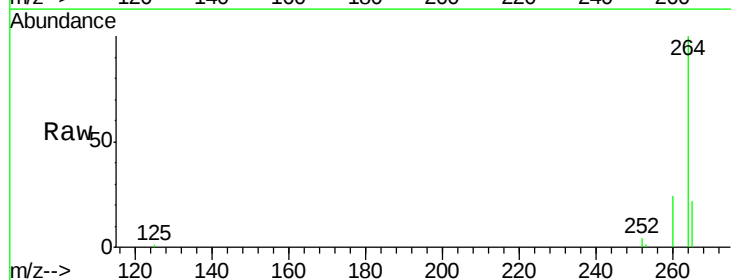
Instrument :  
 BNA\_E  
 ClientSampleId :  
 PB81495BSD

Tgt Ion: 276 Resp: 959805  
 Ion Ratio Lower Upper  
 276 100  
 138 27.3 23.2 34.8  
 277 25.2 19.8 29.6



#22  
 Perylene-d12  
 Concen: 5.00 ng  
 RT: 25.46 min Scan# 4376  
 Delta R.T. -0.00 min  
 Lab File: BE089510.D  
 Acq: 5 Feb 2015 19:34

Tgt Ion: 264 Resp: 114093  
 Ion Ratio Lower Upper  
 264 100  
 260 24.0 19.0 28.6  
 265 21.6 17.0 25.6

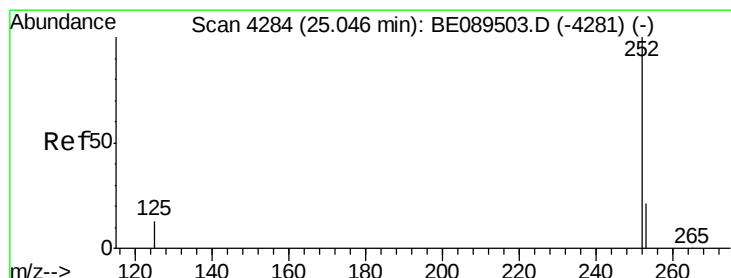
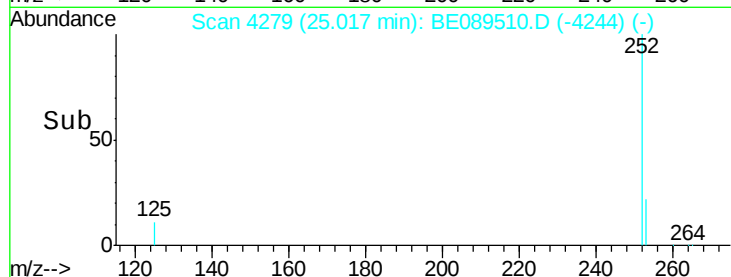
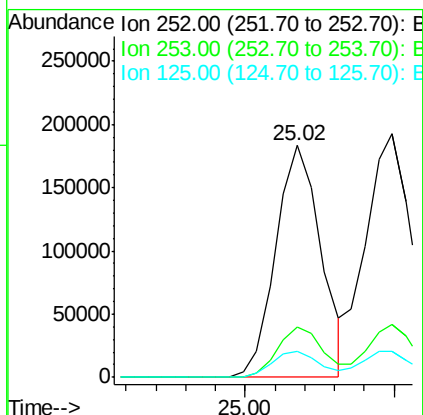
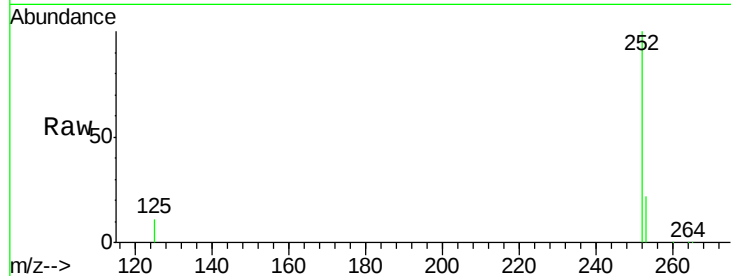




#23  
Benzo(b)fluoranthene  
Concen: 6.91 ng  
RT: 25.02 min Scan# 4279  
Delta R.T. -0.00 min  
Lab File: BE089510.D  
Acq: 5 Feb 2015 19:34

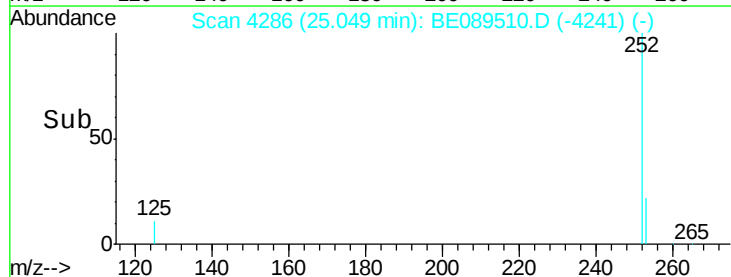
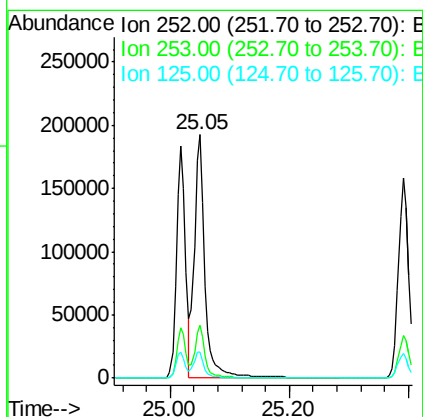
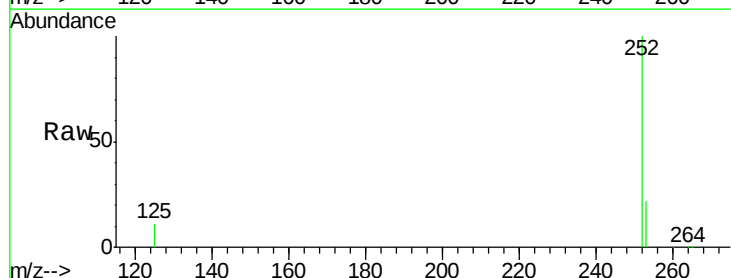
Instrument :  
BNA\_E  
ClientSampleId :  
PB81495BSD

Tgt Ion: 252 Resp: 192742  
Ion Ratio Lower Upper  
252 100  
253 21.5 17.4 26.0  
125 11.2 9.6 14.4



#24  
Benzo(k)fluoranthene  
Concen: 6.61 ng  
RT: 25.05 min Scan# 4286  
Delta R.T. 0.00 min  
Lab File: BE089510.D  
Acq: 5 Feb 2015 19:34

Tgt Ion: 252 Resp: 240277  
Ion Ratio Lower Upper  
252 100  
253 21.8 17.0 25.6  
125 10.7 10.2 15.4





#25

Benzo(a)pyrene

Concen: 7.54 ng

RT: 25.39 min Scan# 4361

Delta R.T. -0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

Instrument :

BNA\_E

ClientSampleId :

PB81495BSD

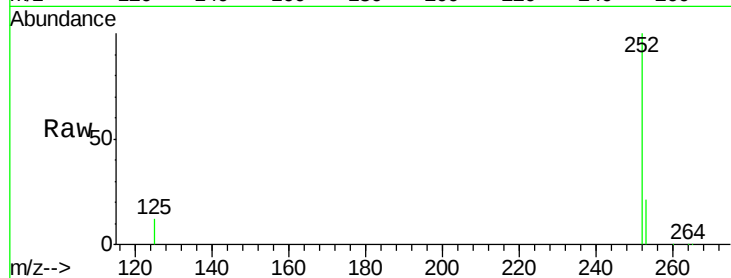
Tgt Ion:252 Resp: 208283

Ion Ratio Lower Upper

252 100

253 21.5 17.8 26.6

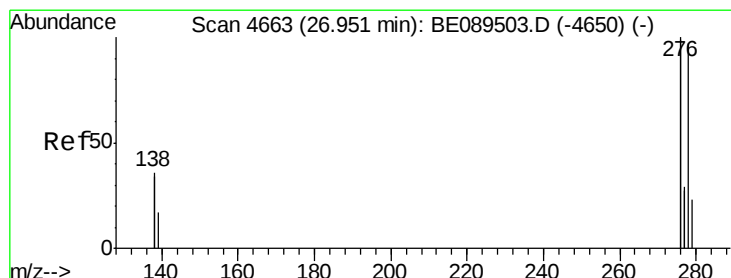
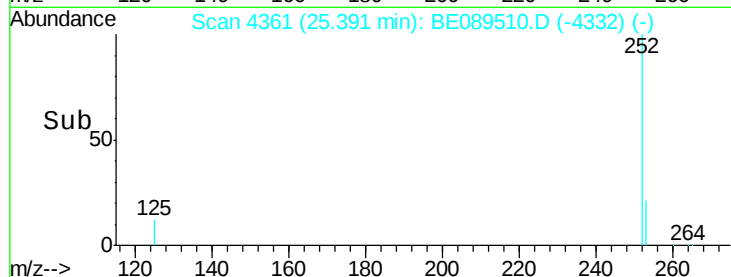
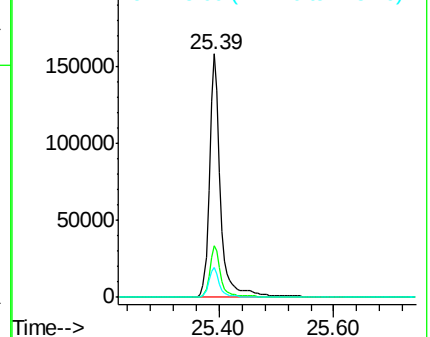
125 12.3 10.7 16.1



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



#26

Dibenzo(a,h)anthracene

Concen: 7.43 ng

RT: 26.95 min Scan# 4664

Delta R.T. 0.00 min

Lab File: BE089510.D

Acq: 5 Feb 2015 19:34

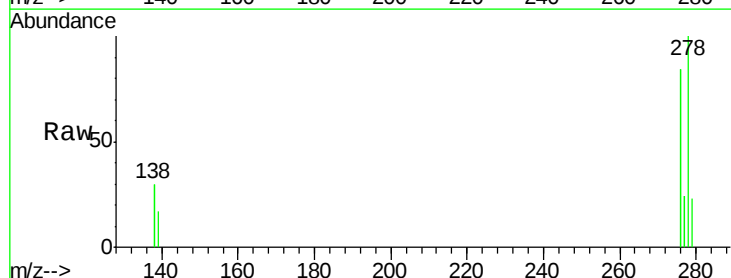
Tgt Ion:278 Resp: 212980

Ion Ratio Lower Upper

278 100

139 17.1 14.6 22.0

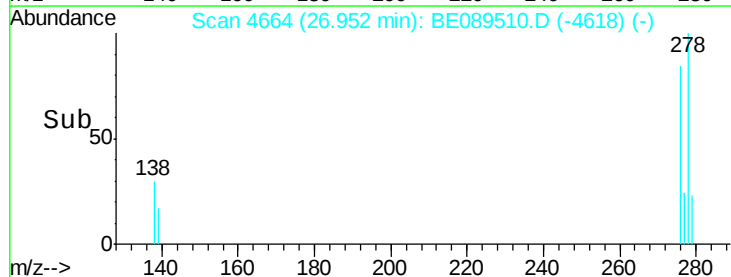
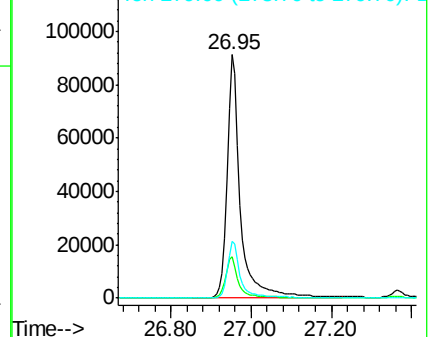
279 23.4 19.0 28.4



Abundance Ion 278.00 (277.70 to 278.70): E

Ion 139.00 (138.70 to 139.70): E

Ion 279.00 (278.70 to 279.70): E





#27

Benzo(g,h,i)perylene

Concen: 7.44 ng

RT: 27.36 min Scan# 4727

Delta R.T. 0.01 min

Lab File: BE089510.D

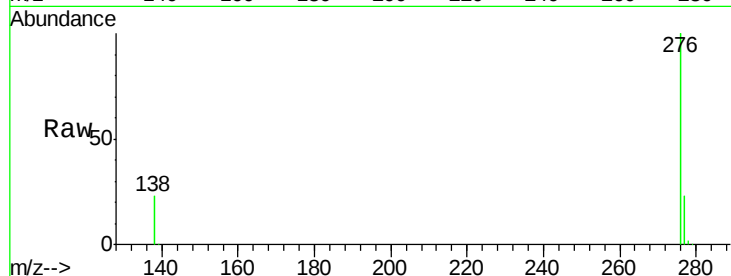
Acq: 5 Feb 2015 19:34

Instrument :

BNA\_E

ClientSampleId :

PB81495BSD



Tgt Ion: 276 Resp: 813102

Ion Ratio Lower Upper

276 100

277 23.3 18.6 28.0

138 22.8 20.8 31.2

