

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE013015\  
 Data File : BE089461.D  
 Acq On : 31 Jan 2015 7:42  
 Operator : TP/IZ  
 Sample : MDL-04-W  
 Misc : MDL-WATER-0.1/0.2  
 ALS Vial : 26 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :

Quant Time: Feb 02 00:33:06 2015  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIMPAH-BE013015.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Sat Jan 31 05:05:18 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.59  | 152  | 50436    | 5.00 | ng    | 0.00     |
| 2) Naphthalene-d8         | 12.50 | 136  | 215408   | 5.00 | ng    | 0.00     |
| 6) Acenaphthene-d10       | 16.69 | 164  | 118744   | 5.00 | ng    | -0.01    |
| 11) Phenanthrene-d10      | 19.99 | 188  | 194009   | 5.00 | ng    | 0.00     |
| 16) Chrysene-d12          | 23.85 | 240  | 130788   | 5.00 | ng    | 0.00     |
| 22) Perylene-d12          | 25.55 | 264  | 105619   | 5.00 | ng    | 0.00     |

|                             |       |     |        |      |    |      |
|-----------------------------|-------|-----|--------|------|----|------|
| System Monitoring Compounds |       |     |        |      |    |      |
| 3) Nitrobenzene-d5          | 10.85 | 82  | 122761 | 8.61 | ng | 0.00 |
| 7) 2-Fluorobiphenyl         | 15.13 | 172 | 230712 | 7.38 | ng | 0.00 |
| 18) Terphenyl-d14           | 22.48 | 244 | 192624 | 9.84 | ng | 0.00 |

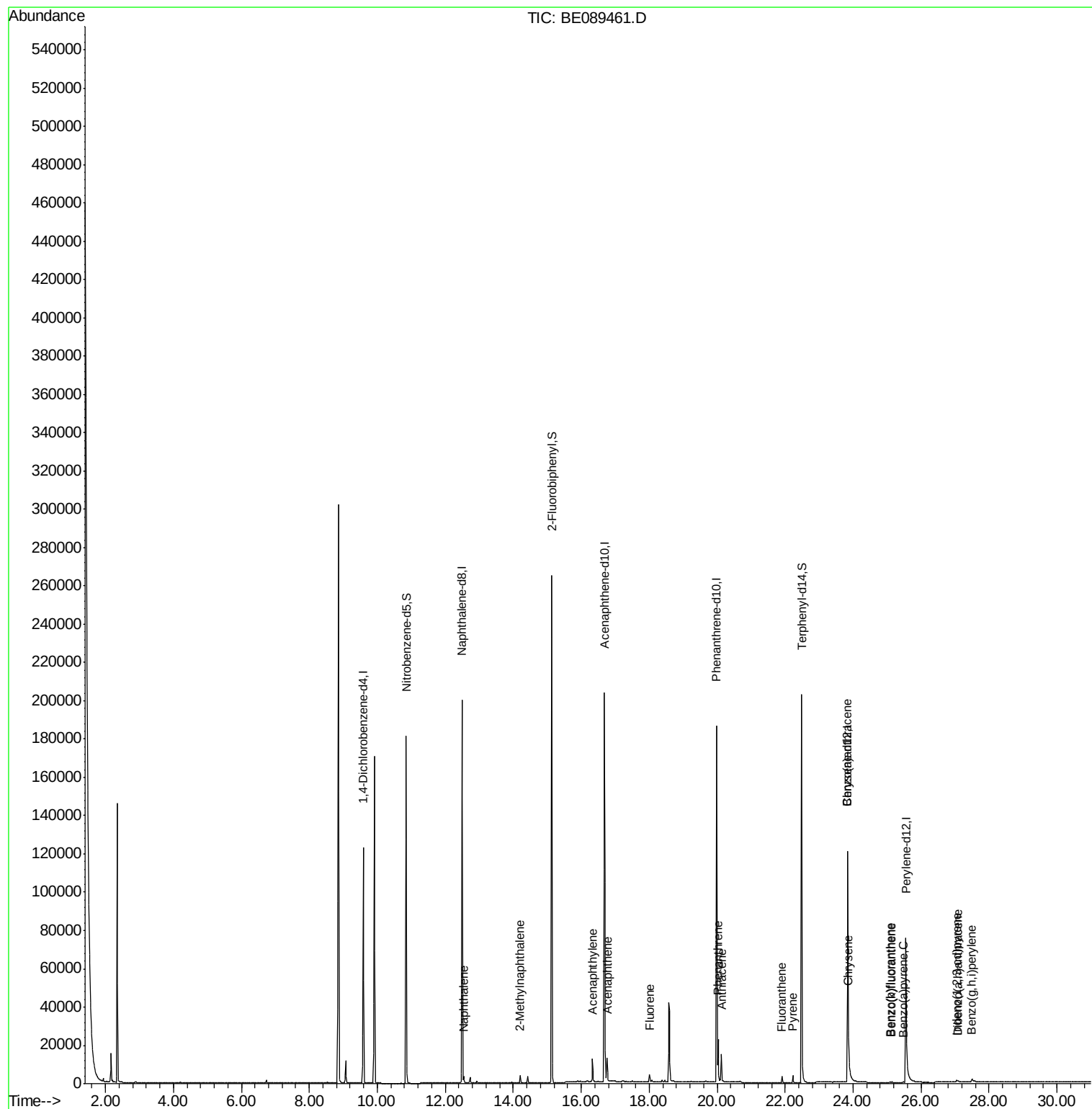
|                            |       |     |       |           |    |      |
|----------------------------|-------|-----|-------|-----------|----|------|
| Target Compounds           |       |     |       | Qvalue    |    |      |
| 4) Naphthalene             | 12.54 | 128 | 3913  | 0.08      | ng | 99   |
| 5) 2-Methylnaphthalene     | 14.20 | 142 | 2566  | 0.08      | ng | 98   |
| 8) Acenaphthylene          | 16.33 | 152 | 15009 | 0.07      | ng | 99   |
| 9) Acenaphthene            | 16.76 | 154 | 2621  | 0.08      | ng | 89   |
| 10) Fluorene               | 18.02 | 166 | 2833  | 0.08      | ng | 98   |
| 12) Pentachlorophenol      | 19.66 | 266 | 282   | Below Cal |    | 97   |
| 13) Phenanthrene           | 20.03 | 178 | 19036 | 0.10      | ng | 99   |
| 14) Anthracene             | 20.12 | 178 | 14338 | 0.08      | ng | 99   |
| 15) Fluoranthene           | 21.91 | 202 | 3077  | 0.07      | ng | 98   |
| 17) Pyrene                 | 22.23 | 202 | 3358  | 0.10      | ng | 99   |
| 19) Benzo(a)anthracene     | 23.83 | 228 | 7743  | 0.07      | ng | 95   |
| 20) Chrysene               | 23.87 | 228 | 13860 | 0.11      | ng | # 96 |
| 21) Indeno(1,2,3-cd)pyrene | 27.05 | 276 | 2164  | 0.02      | ng | # 78 |
| 23) Benzo(b)fluoranthene   | 25.09 | 252 | 511   | 0.21      | ng | # 71 |
| 24) Benzo(k)fluoranthene   | 25.13 | 252 | 688   | 0.03      | ng | # 72 |
| 25) Benzo(a)pyrene         | 25.48 | 252 | 620   | 0.15      | ng | # 54 |
| 26) Dibenzo(a,h)anthracene | 27.08 | 278 | 405   | 0.15      | ng | # 36 |
| 27) Benzo(g,h,i)perylene   | 27.50 | 276 | 3111  | 0.04      | ng | # 71 |

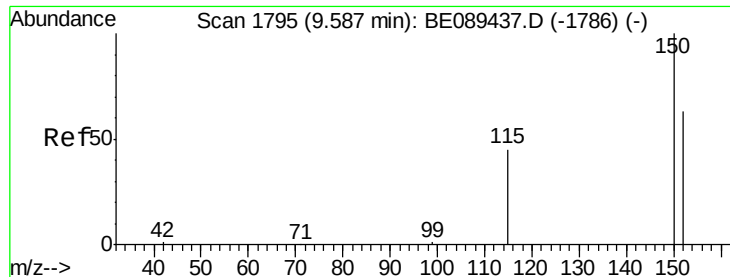
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Sat Jan 31 05:05:18 2015  
Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 9.59 min Scan# 1795

Delta R.T. -0.00 min

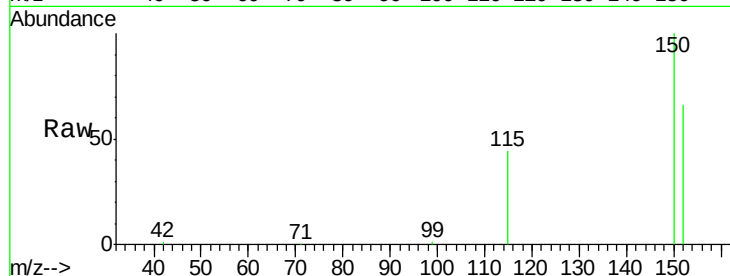
Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :



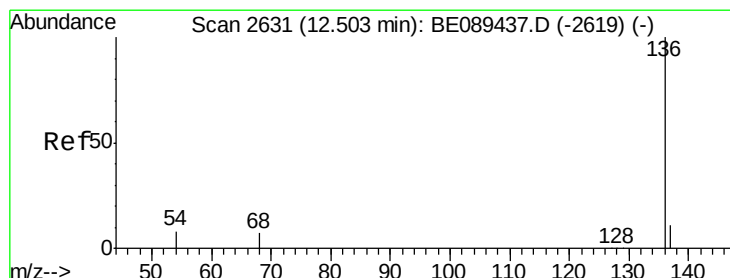
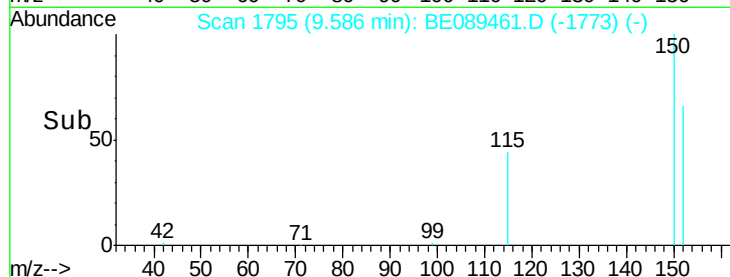
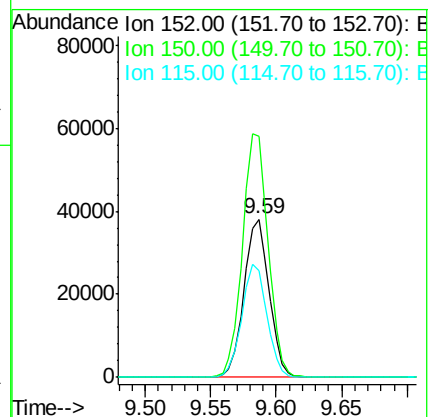
Tgt Ion:152 Resp: 50436

Ion Ratio Lower Upper

152 100

150 152.3 127.2 190.8

115 67.2 57.5 86.3



#2

Naphthalene-d8

Concen: 5.00 ng

RT: 12.50 min Scan# 2630

Delta R.T. -0.01 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

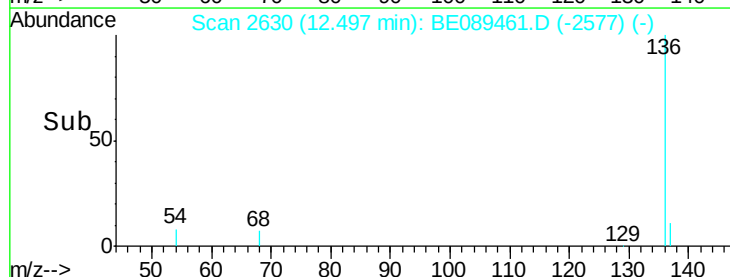
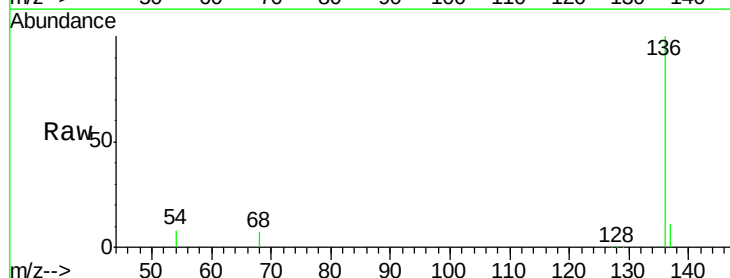
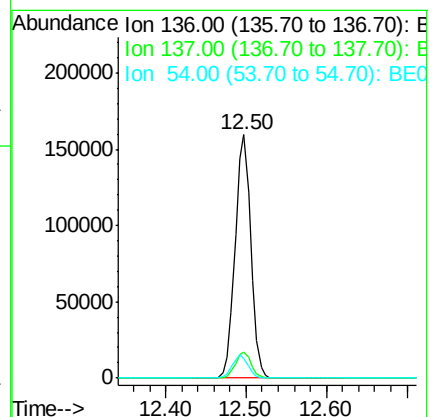
Tgt Ion:136 Resp: 215408

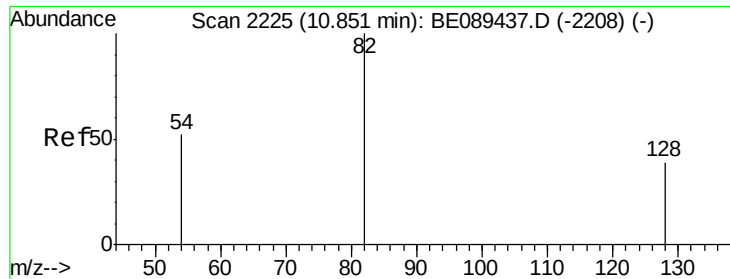
Ion Ratio Lower Upper

136 100

137 10.7 8.7 13.1

54 8.0 6.6 10.0





#3

Nitrobenzene-d5

Concen: 8.61 ng

RT: 10.85 min Scan# 2224

Delta R.T. -0.00 min

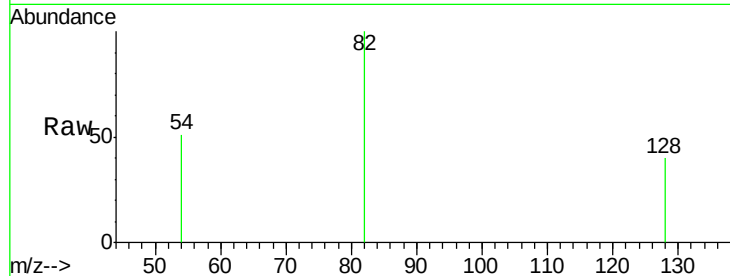
Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :



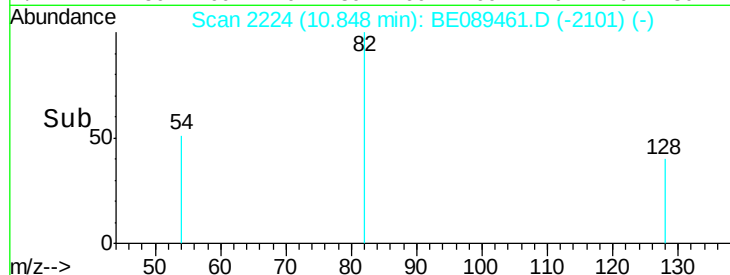
Tgt Ion: 82 Resp: 122761

Ion Ratio Lower Upper

82 100

128 39.7 31.2 46.8

54 51.4 41.9 62.9

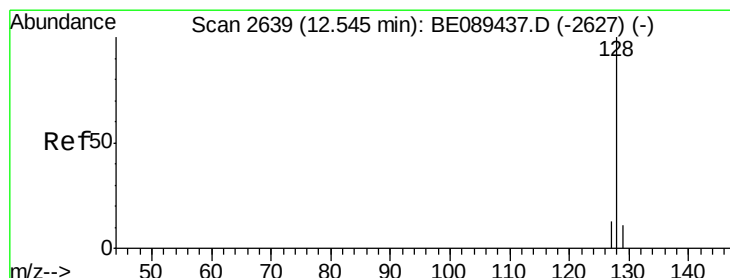
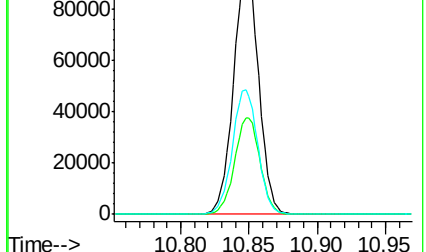


Abundance Ion 82.00 (81.70 to 82.70): BE089437.D (-2208) (-)

Ion 128.00 (127.70 to 128.70): BE089437.D (-2208) (-)

Ion 54.00 (53.70 to 54.70): BE089437.D (-2208) (-)

Time-->



#4

Naphthalene

Concen: 0.08 ng

RT: 12.54 min Scan# 2639

Delta R.T. -0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

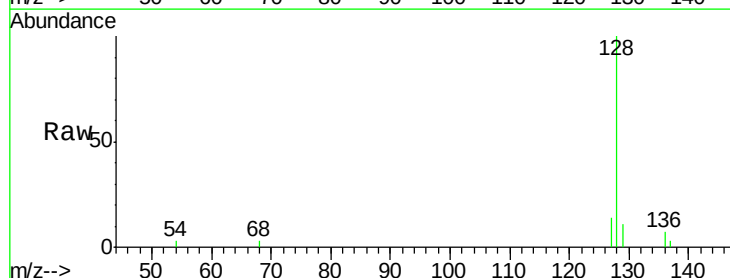
Tgt Ion: 128 Resp: 3913

Ion Ratio Lower Upper

128 100

129 11.4 8.8 13.2

127 13.8 10.6 16.0

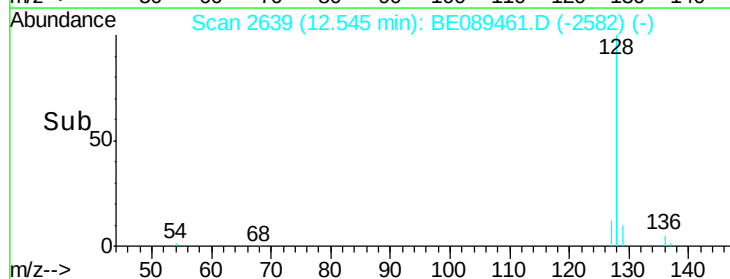
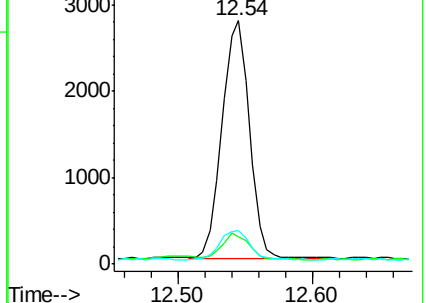


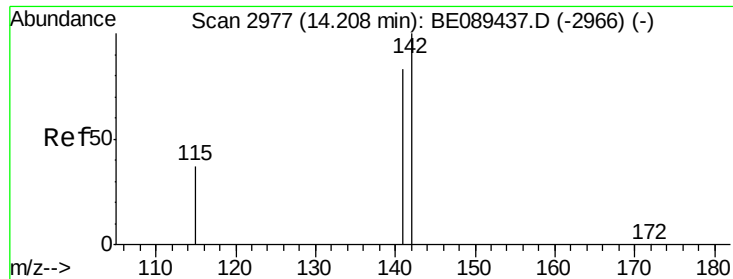
Abundance Ion 128.00 (127.70 to 128.70): BE089437.D (-2627) (-)

Ion 129.00 (128.70 to 129.70): BE089437.D (-2627) (-)

Ion 127.00 (126.70 to 127.70): BE089437.D (-2627) (-)

Time-->





#5

2-Methylnaphthalene

Concen: 0.08 ng

RT: 14.20 min Scan# 2976

Delta R.T. -0.01 min

Lab File: BE089461.D

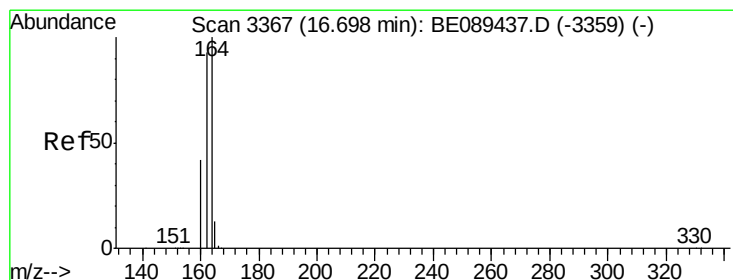
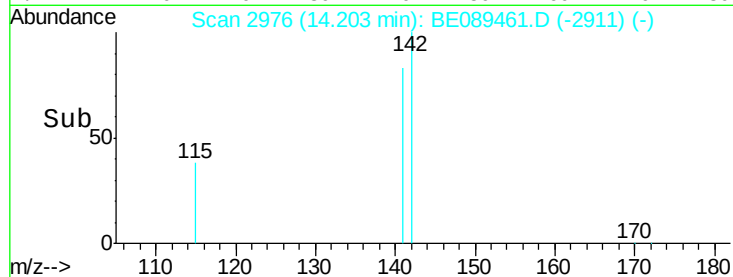
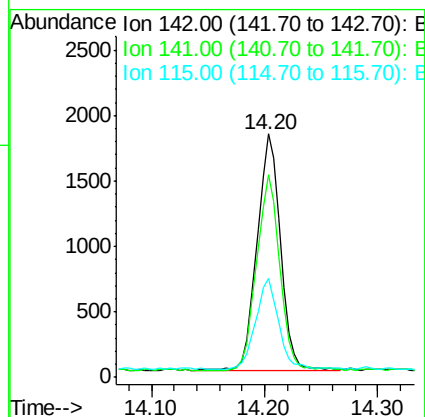
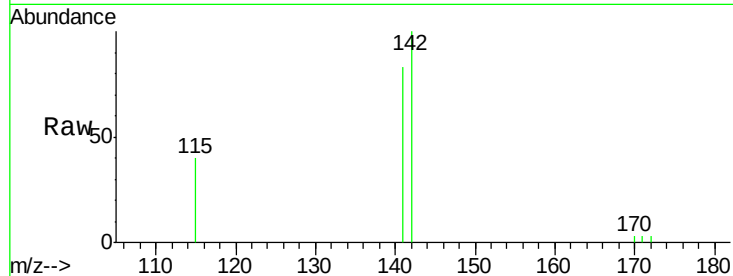
Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 142   | Resp: | 2566 |
| Ion Ratio | Lower | Upper |      |
| 142       | 100   |       |      |
| 141       | 83.3  | 66.1  | 99.1 |
| 115       | 40.5  | 29.9  | 44.9 |



#6

Acenaphthene-d10

Concen: 5.00 ng

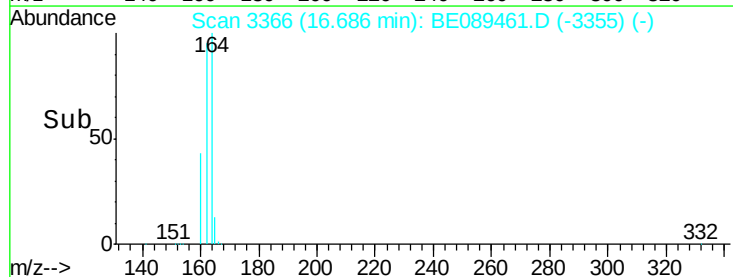
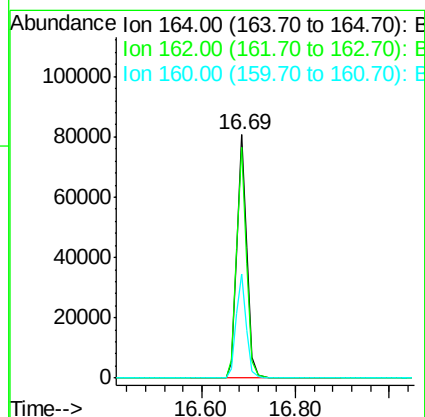
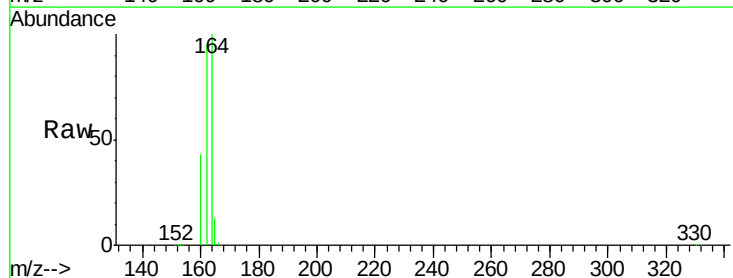
RT: 16.69 min Scan# 3366

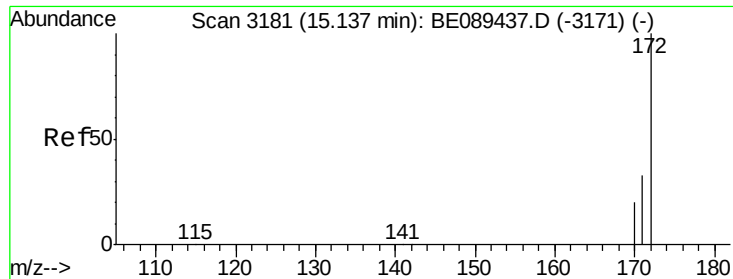
Delta R.T. -0.01 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 164   | Resp: | 118744 |
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 162       | 94.6  | 74.7  | 112.1  |
| 160       | 42.9  | 33.4  | 50.0   |





#7

2-Fluorobiphenyl

Concen: 7.38 ng

RT: 15.13 min Scan# 3180

Delta R.T. -0.01 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :

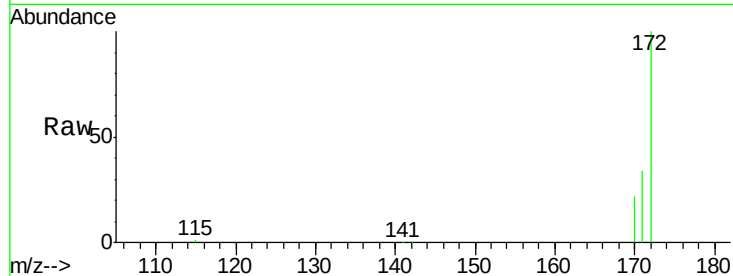
Tgt Ion:172 Resp: 230712

Ion Ratio Lower Upper

172 100

171 34.2 26.2 39.4

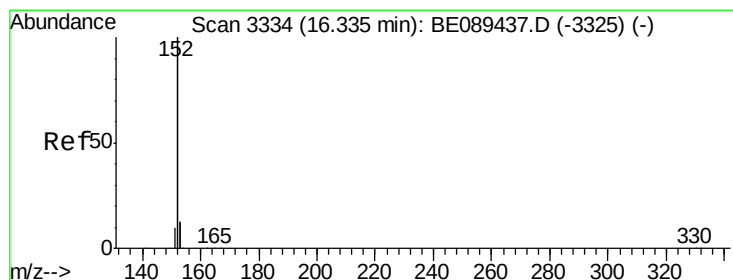
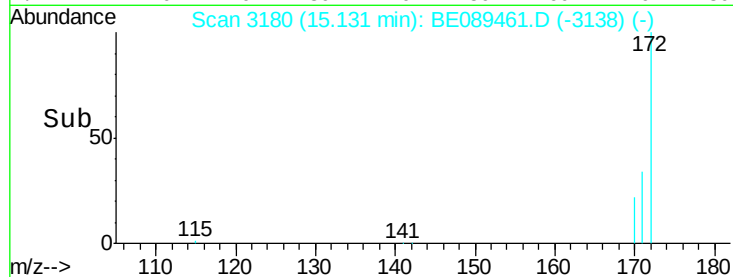
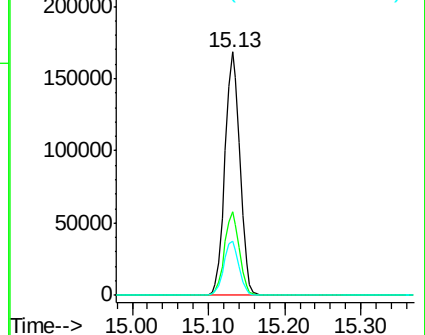
170 22.4 16.5 24.7



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: 0.07 ng

RT: 16.33 min Scan# 3334

Delta R.T. -0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

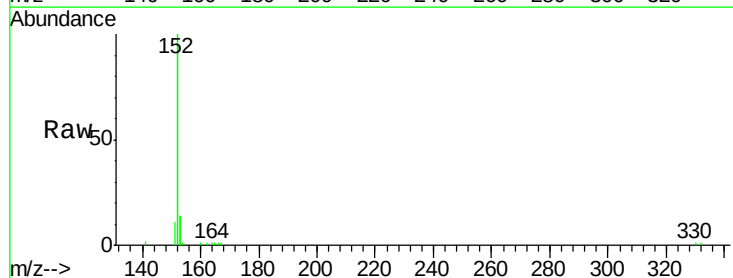
Tgt Ion:152 Resp: 15009

Ion Ratio Lower Upper

152 100

151 5.2 3.9 5.9

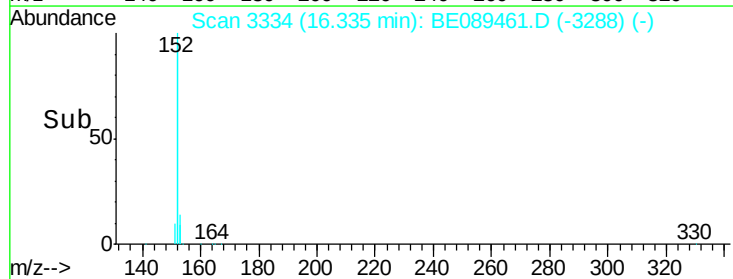
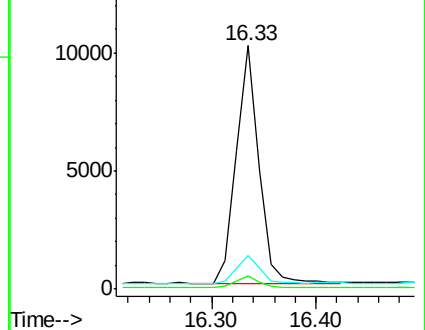
153 13.2 10.3 15.5

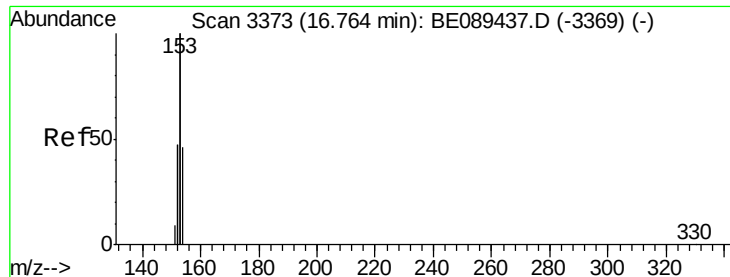


Abundance Ion 152.00 (151.70 to 152.70): E

Ion 151.00 (150.70 to 151.70): E

Ion 153.00 (152.70 to 153.70): E





#9

Acenaphthene

Concen: 0.08 ng

RT: 16.76 min Scan# 3373

Delta R.T. -0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :

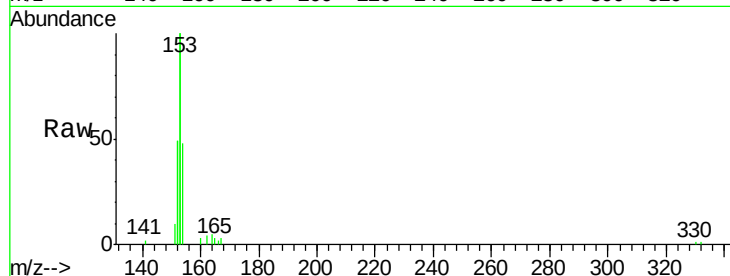
Tgt Ion:154 Resp: 2621

Ion Ratio Lower Upper

154 100

153 444.6 342.3 513.5

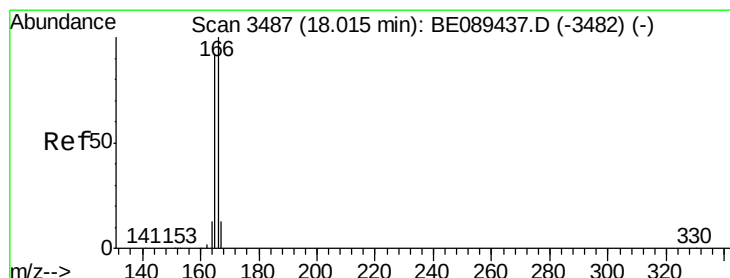
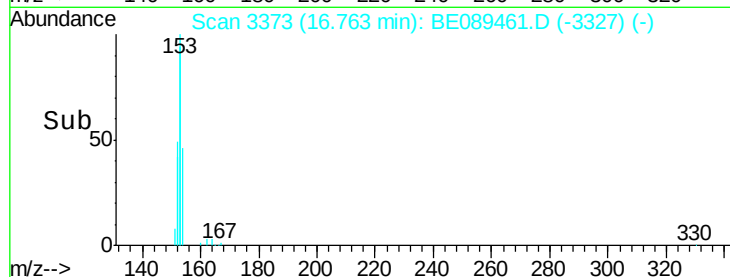
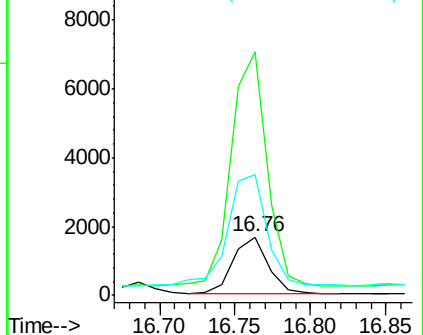
152 235.6 165.5 248.3



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



#10

Fluorene

Concen: 0.08 ng

RT: 18.02 min Scan# 3487

Delta R.T. -0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

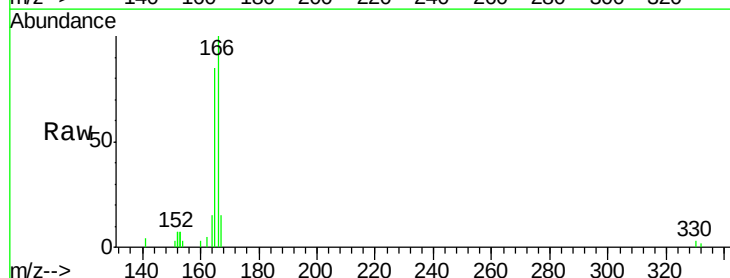
Tgt Ion:166 Resp: 2833

Ion Ratio Lower Upper

166 100

165 91.0 74.4 111.6

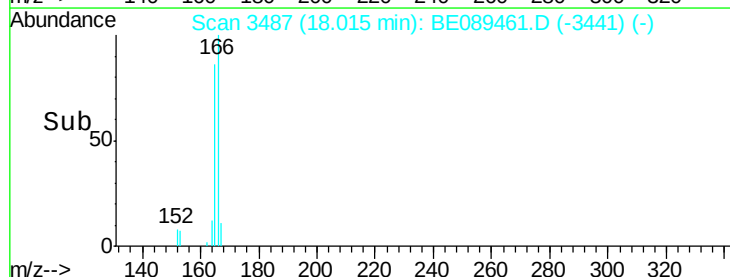
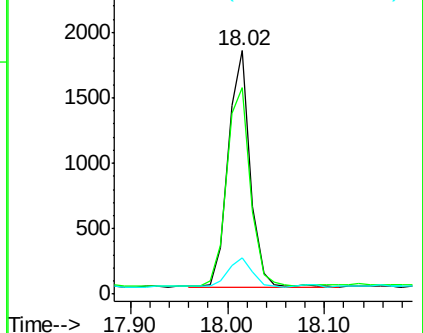
167 13.5 10.6 15.8

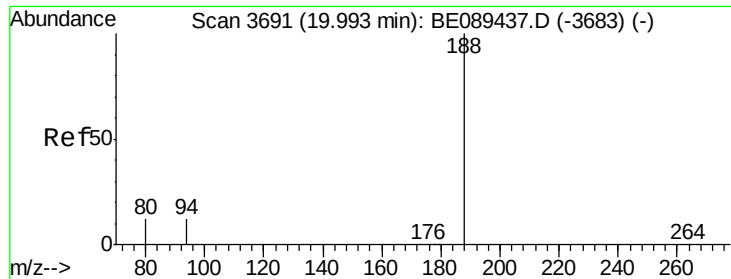


Abundance Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E

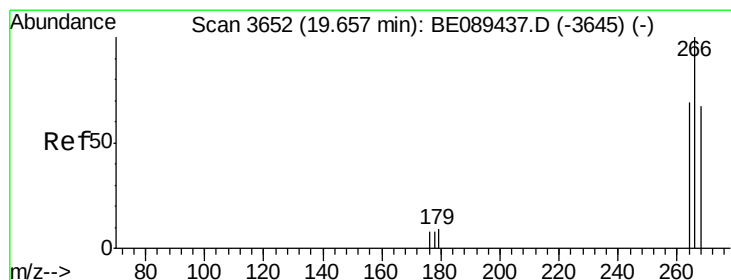
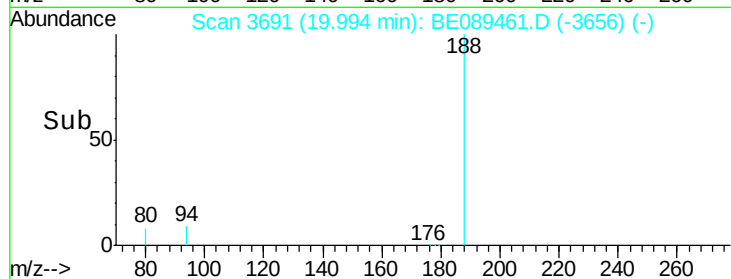
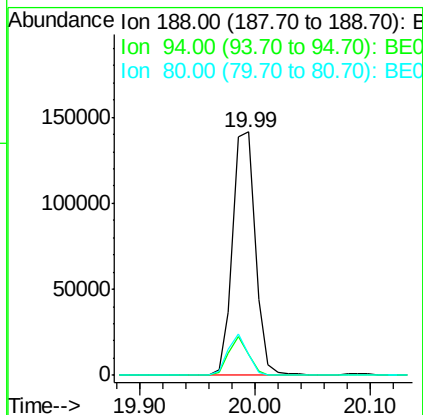
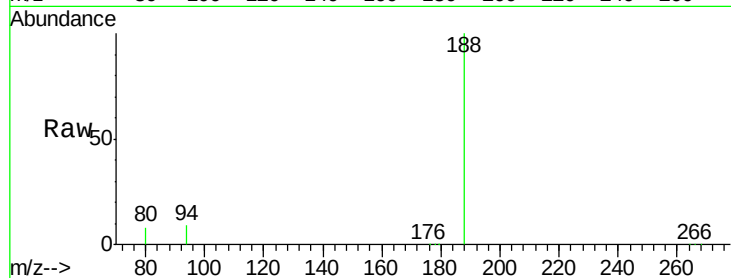




#11  
 Phenanthrene-d10  
 Concen: 5.00 ng  
 RT: 19.99 min Scan# 3691  
 Delta R.T. 0.00 min  
 Lab File: BE089461.D  
 Acq: 31 Jan 2015 7:42

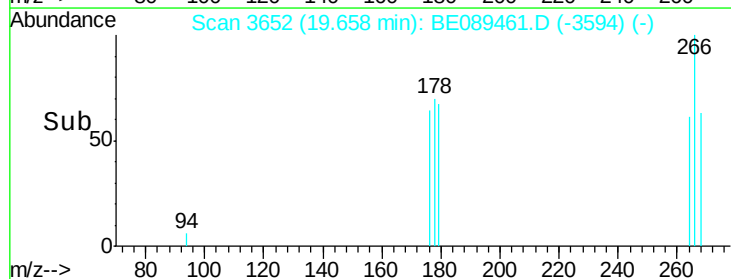
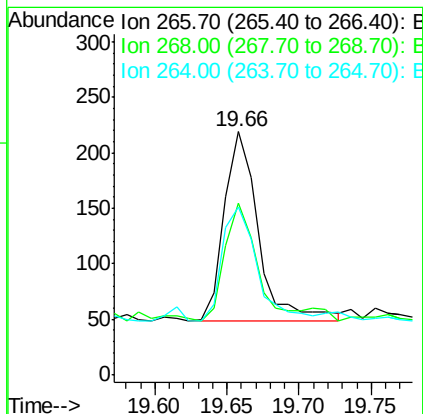
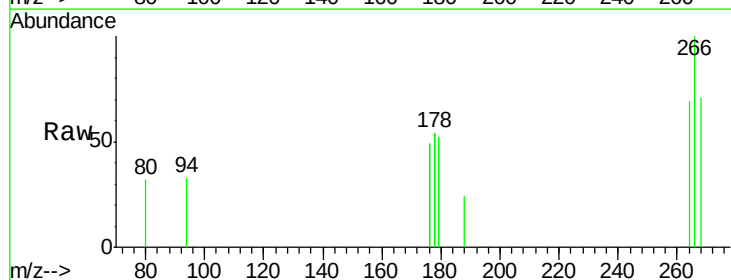
Instrument :  
 BNA\_E  
 ClientSampleId :

Tgt Ion:188 Resp: 194009  
 Ion Ratio Lower Upper  
 188 100  
 94 8.6 9.4 14.0#  
 80 8.3 9.3 13.9#

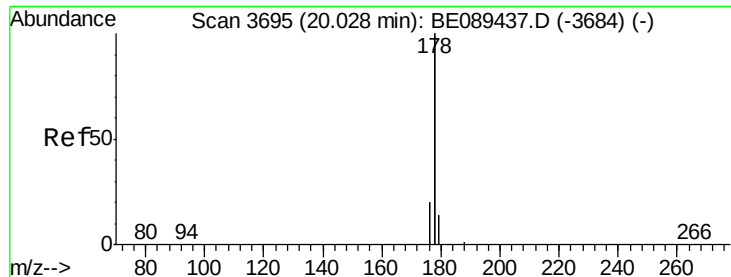


#12  
 Pentachlorophenol  
 Concen: Below Cal  
 RT: 19.66 min Scan# 3652  
 Delta R.T. 0.00 min  
 Lab File: BE089461.D  
 Acq: 31 Jan 2015 7:42

Tgt Ion:266 Resp: 282  
 Ion Ratio Lower Upper  
 266 100  
 268 70.8 54.2 81.4  
 264 68.9 56.2 84.2



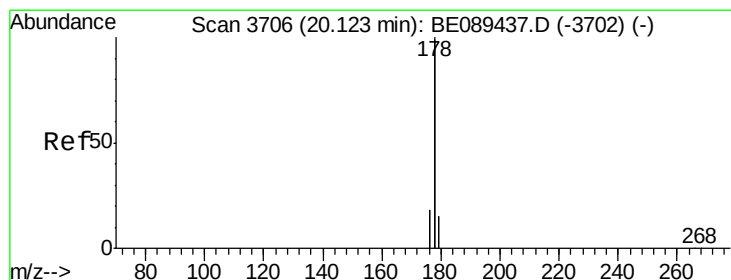
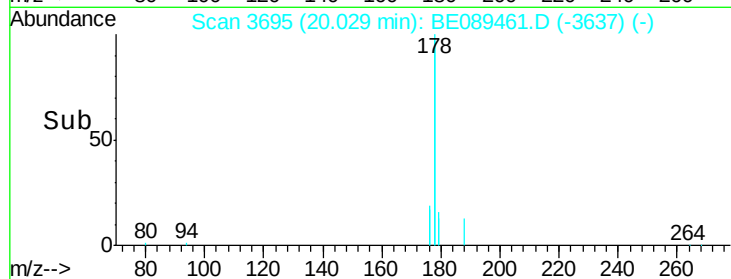
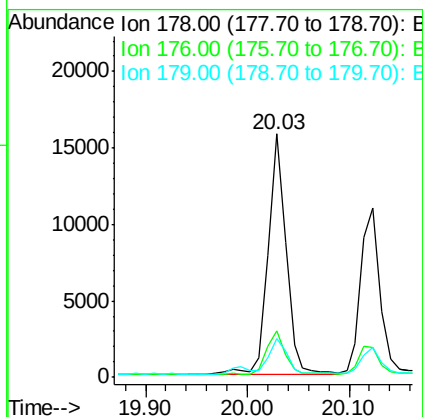
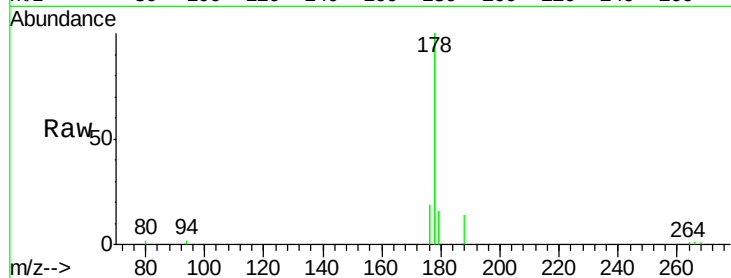




#13  
Phenanthrene  
Concen: 0.10 ng  
RT: 20.03 min Scan# 3695  
Delta R.T. 0.00 min  
Lab File: BE089461.D  
Acq: 31 Jan 2015 7:42

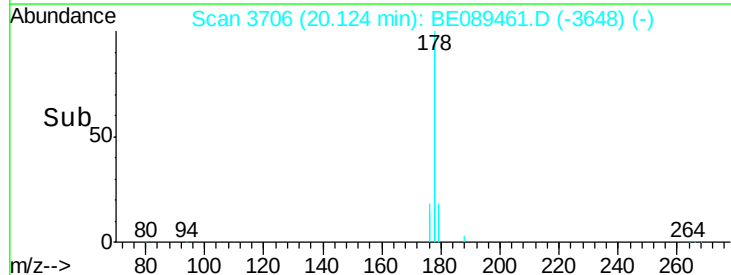
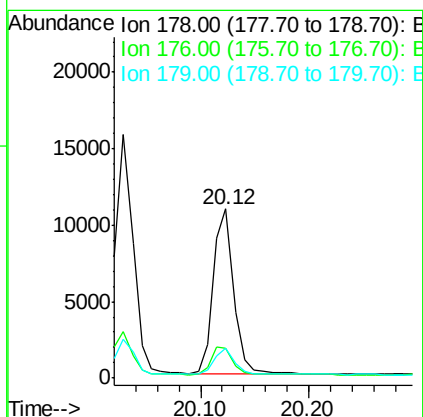
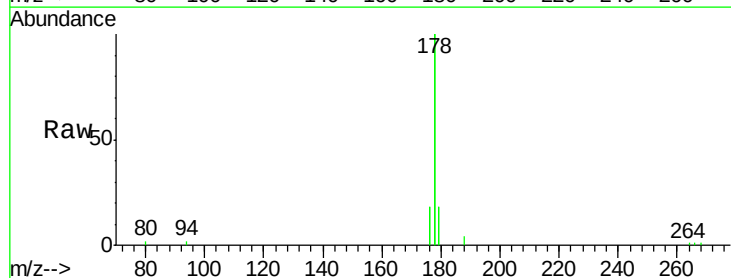
Instrument :  
BNA\_E  
ClientSampleId :

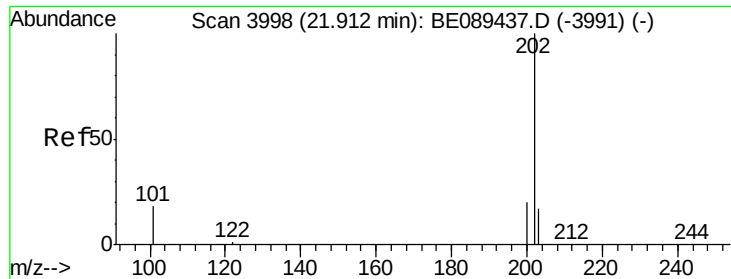
Tgt Ion:178 Resp: 19036  
Ion Ratio Lower Upper  
178 100  
176 18.7 15.1 22.7  
179 14.4 12.3 18.5



#14  
Anthracene  
Concen: 0.08 ng  
RT: 20.12 min Scan# 3706  
Delta R.T. 0.00 min  
Lab File: BE089461.D  
Acq: 31 Jan 2015 7:42

Tgt Ion:178 Resp: 14338  
Ion Ratio Lower Upper  
178 100  
176 17.7 14.6 22.0  
179 15.6 12.2 18.2

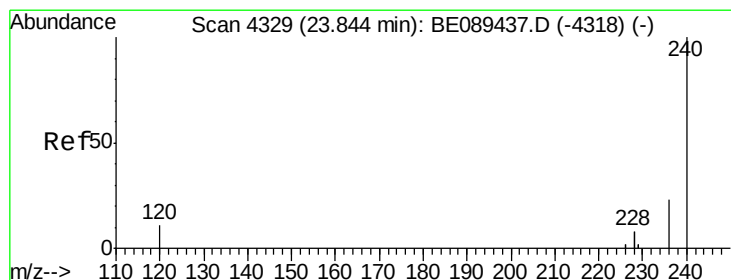
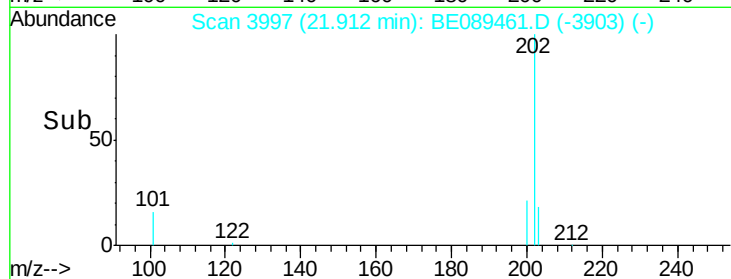
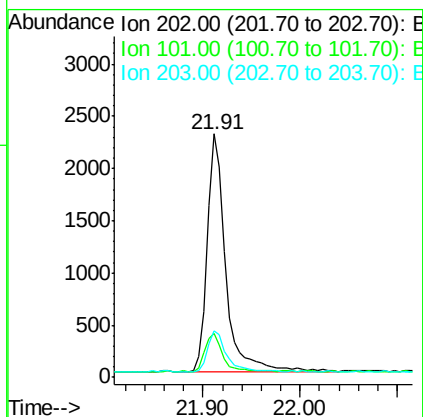
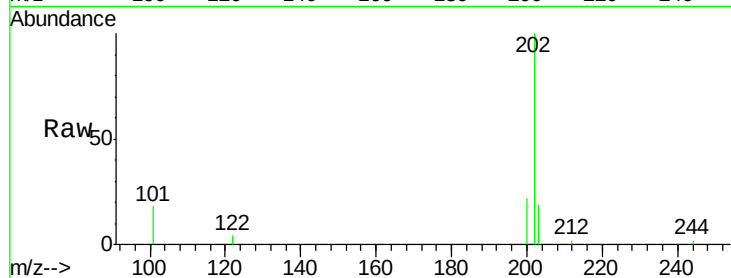




#15  
 Fluoranthene  
 Concen: 0.07 ng  
 RT: 21.91 min Scan# 3997  
 Delta R.T. -0.00 min  
 Lab File: BE089461.D  
 Acq: 31 Jan 2015 7:42

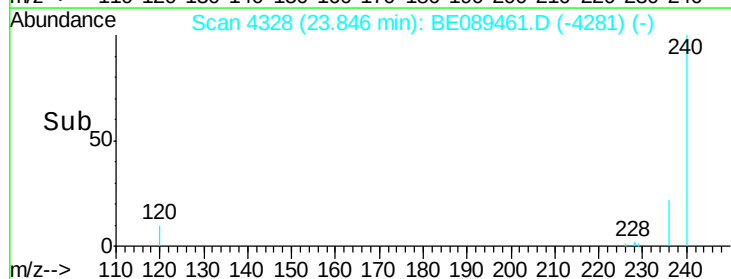
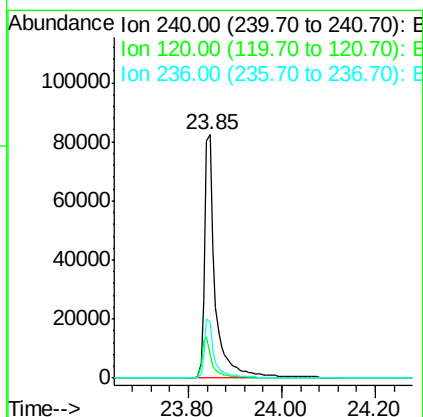
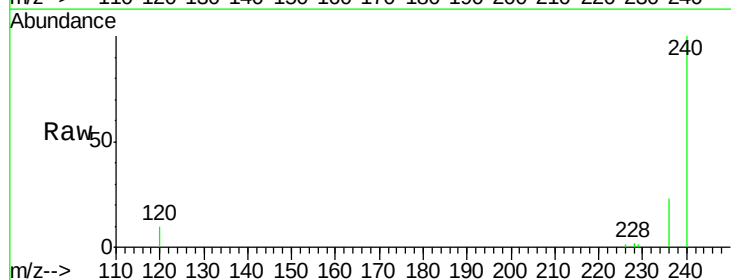
Instrument :  
 BNA\_E  
 ClientSampleId :

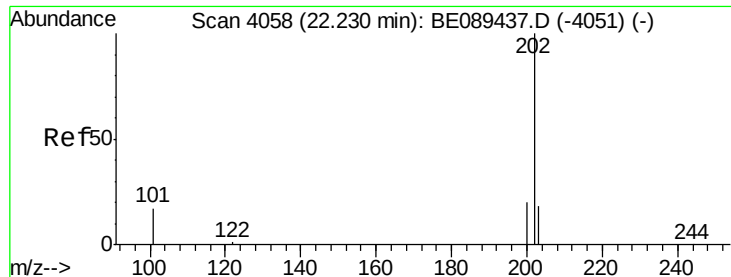
Tgt Ion: 202 Resp: 3077  
 Ion Ratio Lower Upper  
 202 100  
 101 15.3 13.6 20.4  
 203 17.4 13.8 20.6



#16  
 Chrysene-d12  
 Concen: 5.00 ng  
 RT: 23.85 min Scan# 4328  
 Delta R.T. 0.00 min  
 Lab File: BE089461.D  
 Acq: 31 Jan 2015 7:42

Tgt Ion: 240 Resp: 130788  
 Ion Ratio Lower Upper  
 240 100  
 120 9.7 8.6 13.0  
 236 22.5 18.7 28.1





#17

Pyrene

Concen: 0.10 ng

RT: 22.23 min Scan# 4057

Delta R.T. -0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :

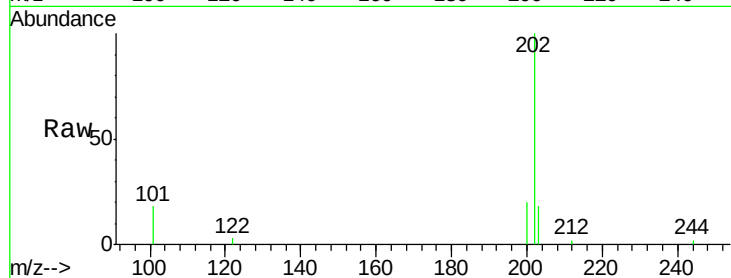
Tgt Ion:202 Resp: 3358

Ion Ratio Lower Upper

202 100

200 19.7 16.2 24.4

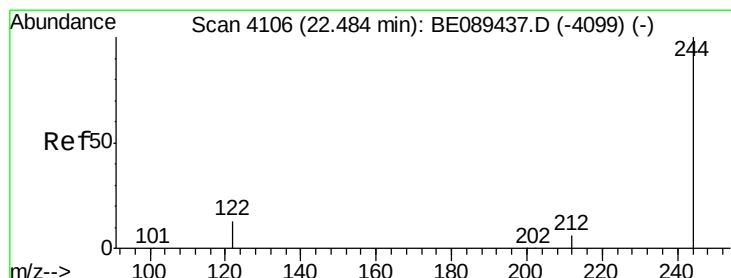
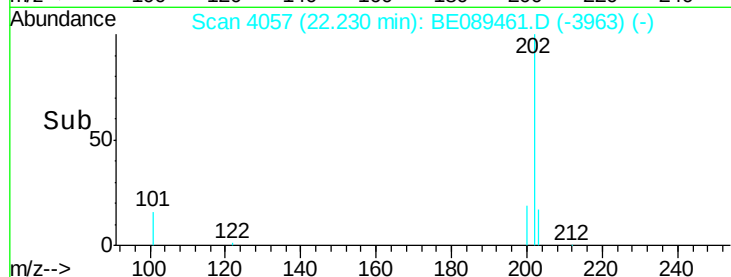
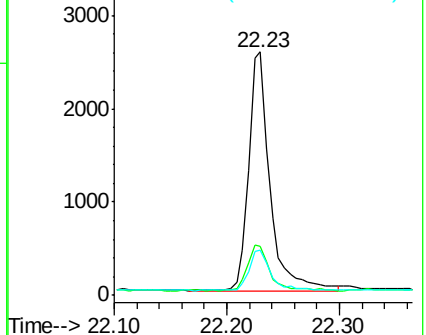
203 17.0 13.8 20.8



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



#18

Terphenyl-d14

Concen: 9.84 ng

RT: 22.48 min Scan# 4105

Delta R.T. -0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

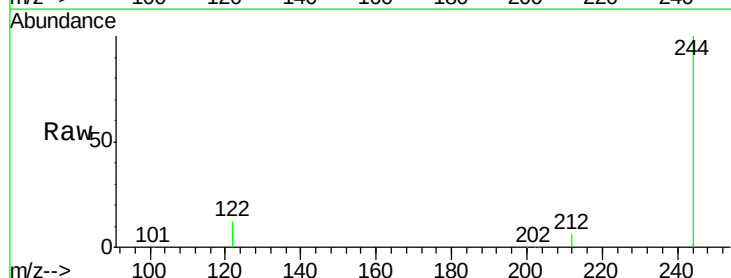
Tgt Ion:244 Resp: 192624

Ion Ratio Lower Upper

244 100

212 6.3 5.0 7.6

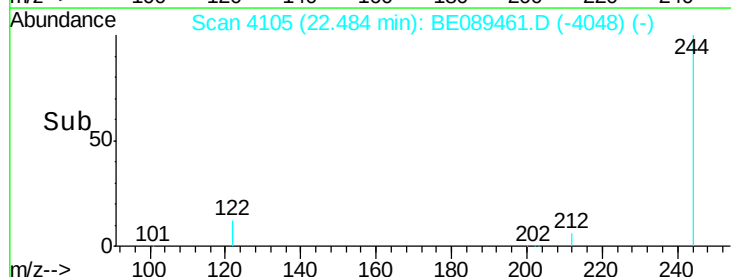
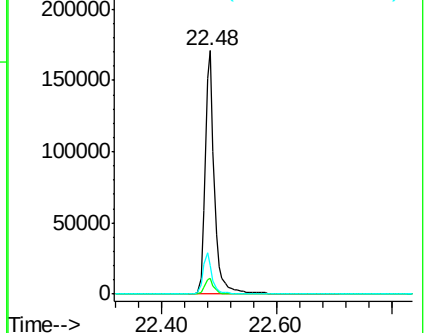
122 11.9 10.2 15.4

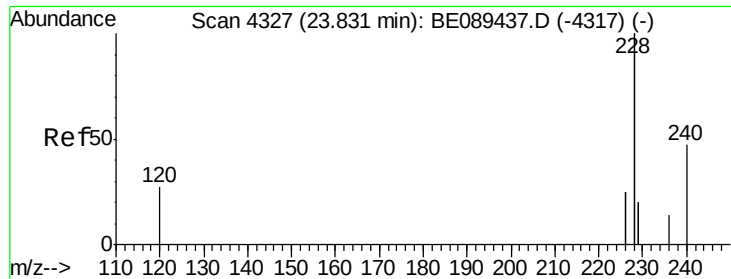


Abundance Ion 244.00 (243.70 to 244.70): E

Ion 212.00 (211.70 to 212.70): E

Ion 122.00 (121.70 to 122.70): E





#19

Benzo(a)anthracene

Concen: 0.07 ng

RT: 23.83 min Scan# 4326

Delta R.T. 0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :

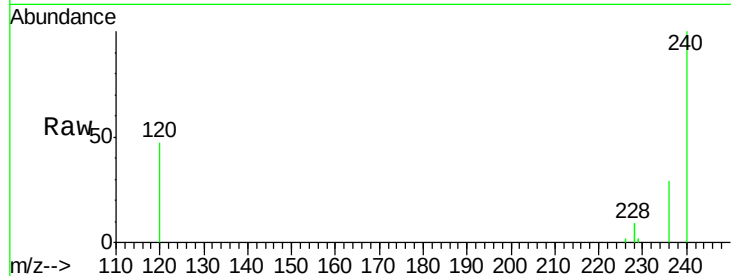
Tgt Ion:228 Resp: 7743

Ion Ratio Lower Upper

228 100

226 25.6 20.0 30.0

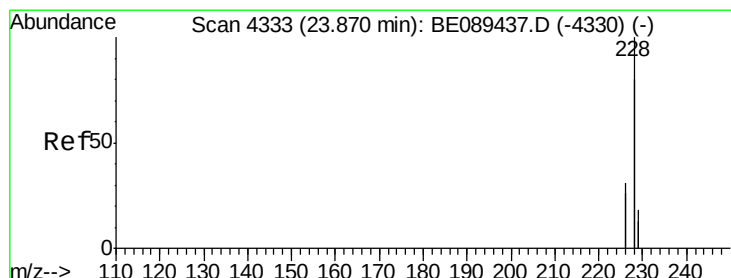
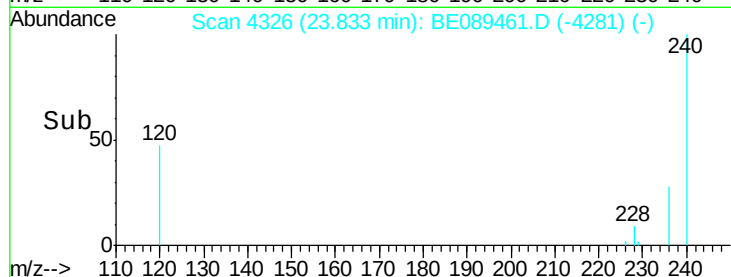
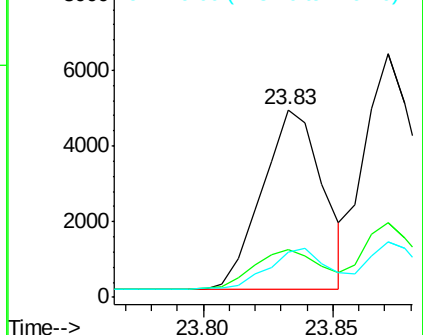
229 24.0 16.0 24.0



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



#20

Chrysene

Concen: 0.11 ng

RT: 23.87 min Scan# 4332

Delta R.T. 0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

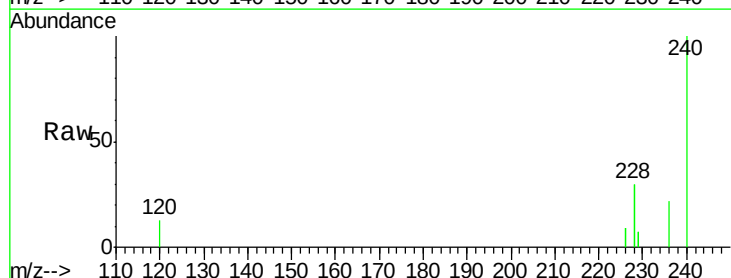
Tgt Ion:228 Resp: 13860

Ion Ratio Lower Upper

228 100

226 30.8 24.5 36.7

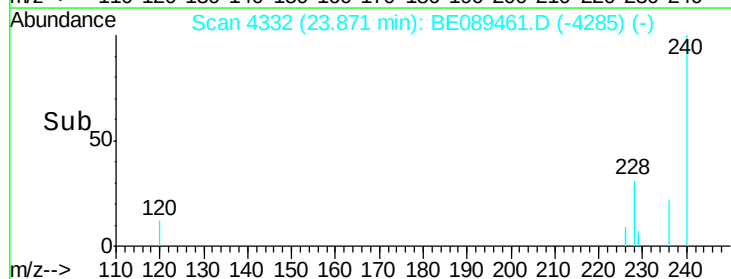
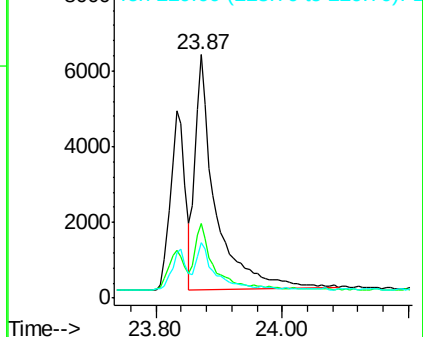
229 22.7 14.1 21.1#

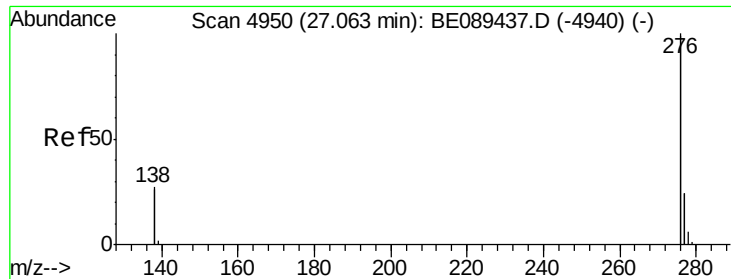


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E

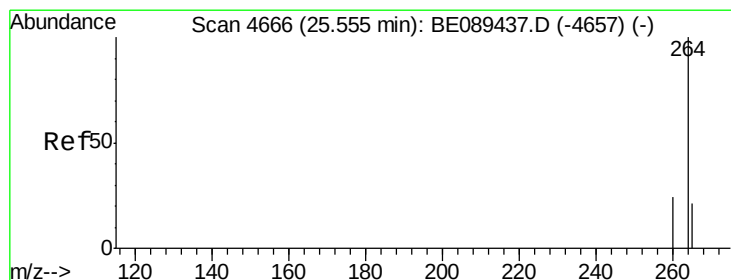
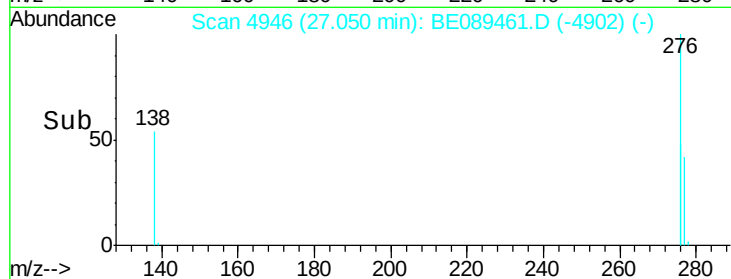
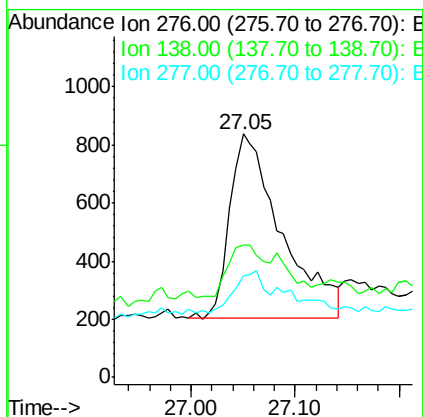
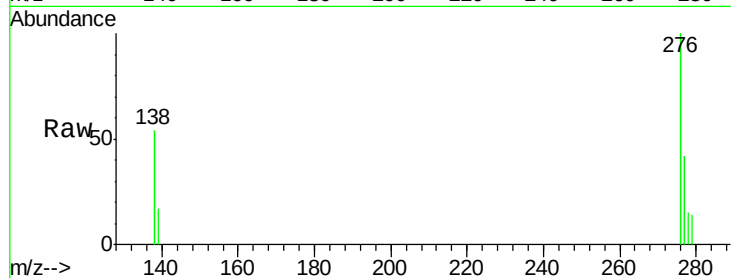




#21  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.02 ng  
 RT: 27.05 min Scan# 4946  
 Delta R.T. -0.01 min  
 Lab File: BE089461.D  
 Acq: 31 Jan 2015 7:42

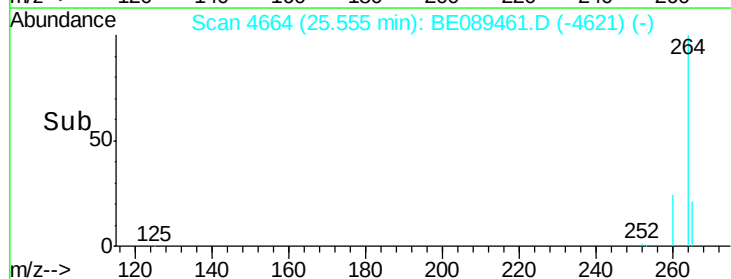
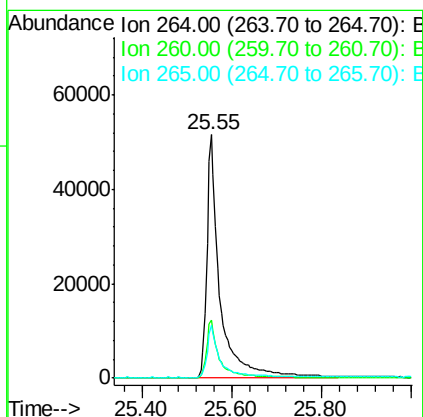
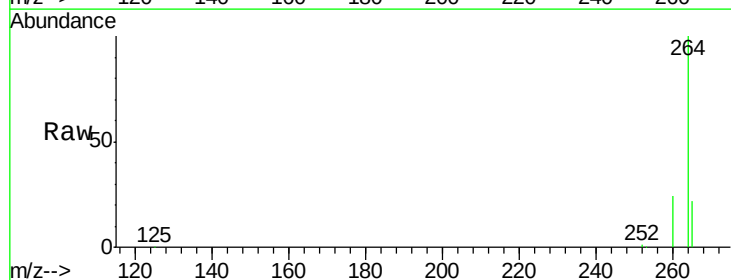
Instrument :  
 BNA\_E  
 ClientSampleId :

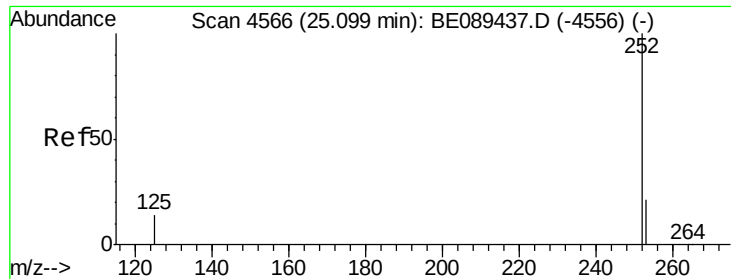
Tgt Ion: 276 Resp: 2164  
 Ion Ratio Lower Upper  
 276 100  
 138 19.6 25.4 38.0#  
 277 13.0 19.8 29.6#



#22  
 Perylene-d12  
 Concen: 5.00 ng  
 RT: 25.55 min Scan# 4664  
 Delta R.T. 0.00 min  
 Lab File: BE089461.D  
 Acq: 31 Jan 2015 7:42

Tgt Ion: 264 Resp: 105619  
 Ion Ratio Lower Upper  
 264 100  
 260 23.7 19.4 29.0  
 265 21.6 17.0 25.6





#23

Benzo(b)fluoranthene

Concen: 0.21 ng

RT: 25.09 min Scan# 4563

Delta R.T. -0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :

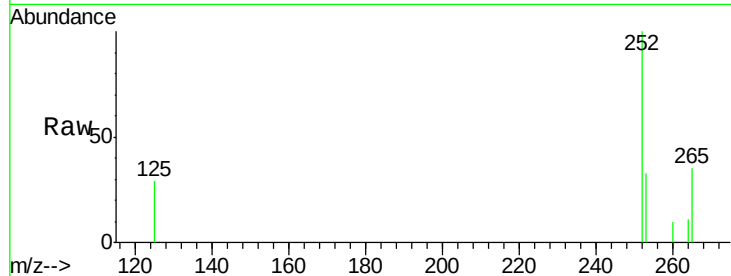
Tgt Ion:252 Resp: 511

Ion Ratio Lower Upper

252 100

253 32.6 17.0 25.6#

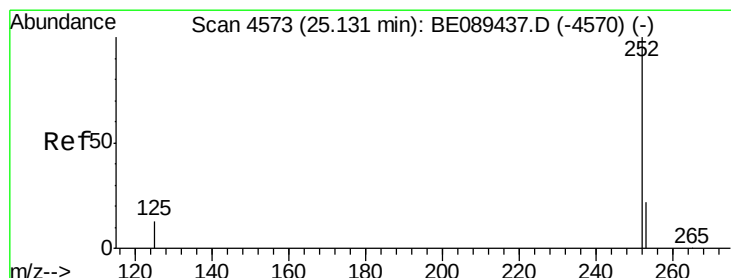
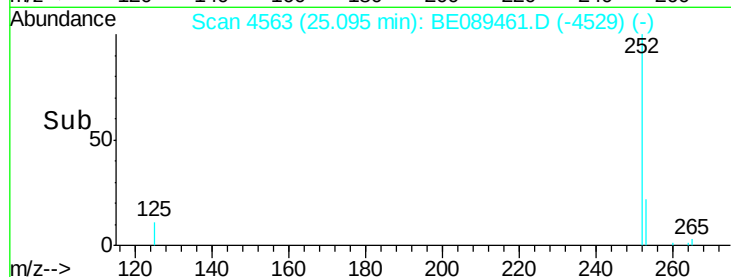
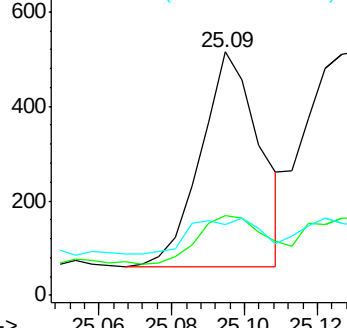
125 28.9 11.4 17.0#



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



#24

Benzo(k)fluoranthene

Concen: 0.03 ng

RT: 25.13 min Scan# 4571

Delta R.T. 0.00 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

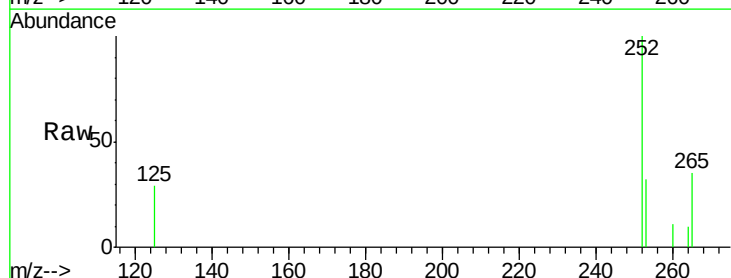
Tgt Ion:252 Resp: 688

Ion Ratio Lower Upper

252 100

253 32.2 17.4 26.2#

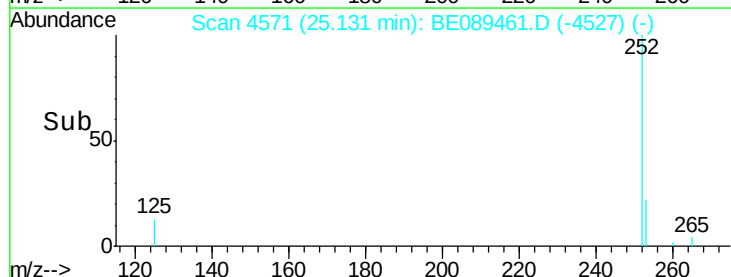
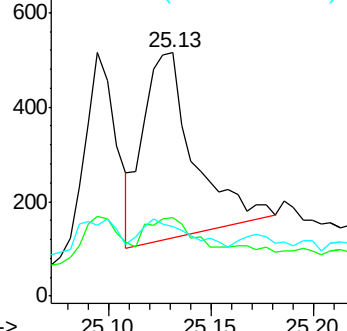
125 28.7 10.9 16.3#

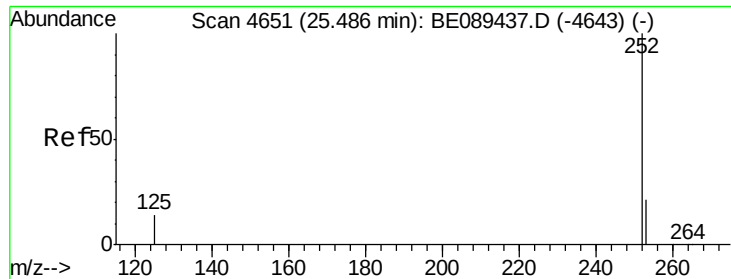


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#25

Benzo(a)pyrene

Concen: 0.15 ng

RT: 25.48 min Scan# 4647

Delta R.T. -0.01 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :

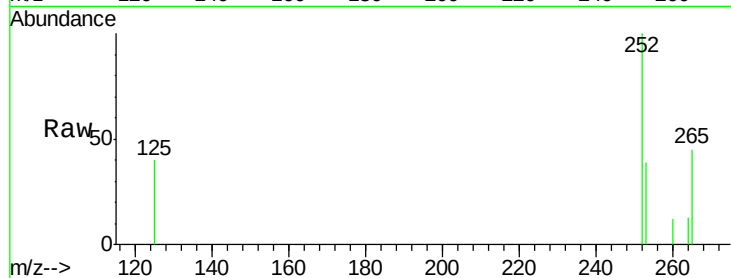
Tgt Ion: 252 Resp: 620

Ion Ratio Lower Upper

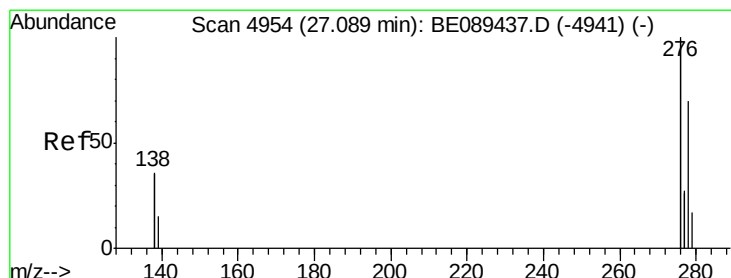
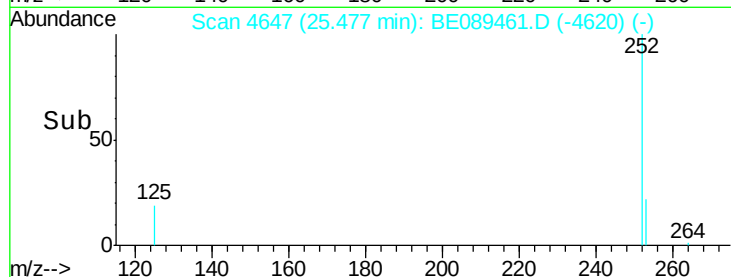
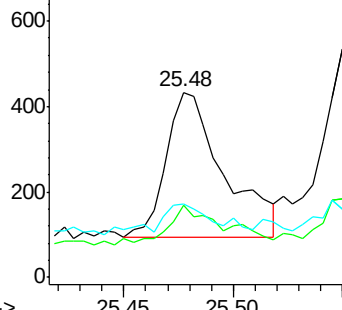
252 100

253 39.0 17.3 25.9#

125 39.7 12.0 18.0#



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: 0.15 ng

RT: 27.08 min Scan# 4951

Delta R.T. -0.01 min

Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

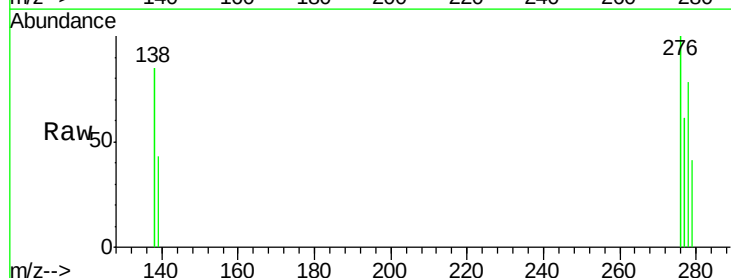
Tgt Ion: 278 Resp: 405

Ion Ratio Lower Upper

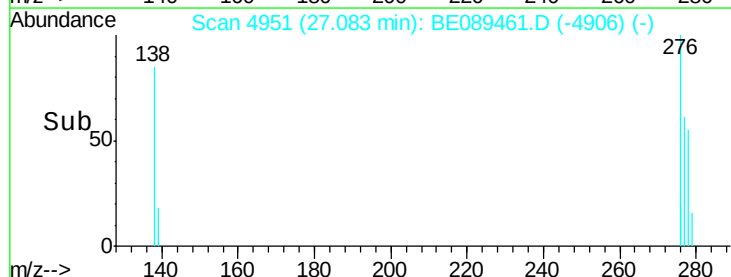
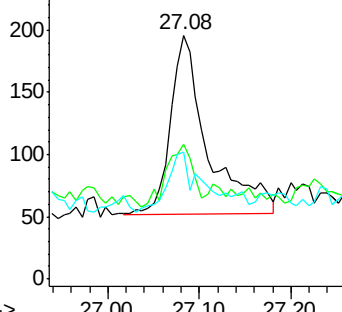
278 100

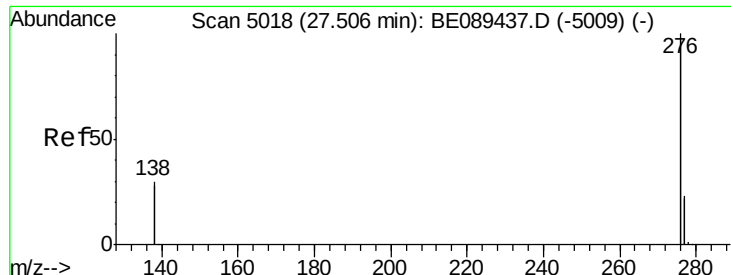
139 55.1 17.0 25.4#

279 52.0 19.1 28.7#



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: 0.04 ng

RT: 27.50 min Scan# 5015

Delta R.T. -0.01 min

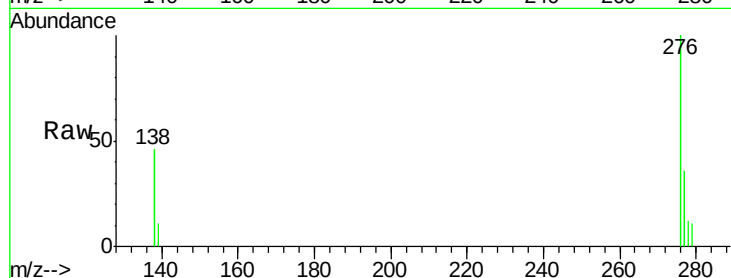
Lab File: BE089461.D

Acq: 31 Jan 2015 7:42

Instrument :

BNA\_E

ClientSampleId :



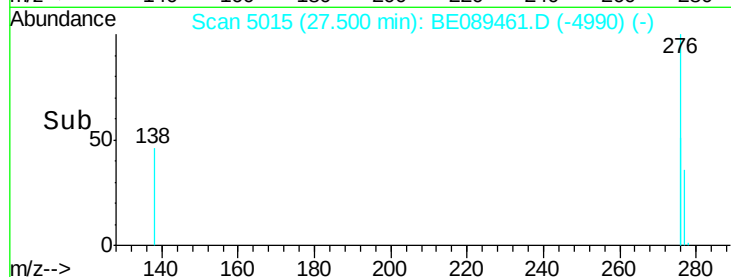
Tgt Ion: 276 Resp: 3111

Ion Ratio Lower Upper

276 100

277 36.0 18.4 27.6#

138 46.0 23.7 35.5#



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

