

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE011515\  
 Data File : BE089392.D  
 Acq On : 15 Jan 2015 14:39  
 Operator : TP/IZ  
 Sample : SSTDICC0.1  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 LabSampleId :  
 SSTDICC0.2

Quant Time: Jan 16 05:28:26 2015  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BE011515.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Jan 16 05:21:30 2015  
 Response via : Initial Calibration

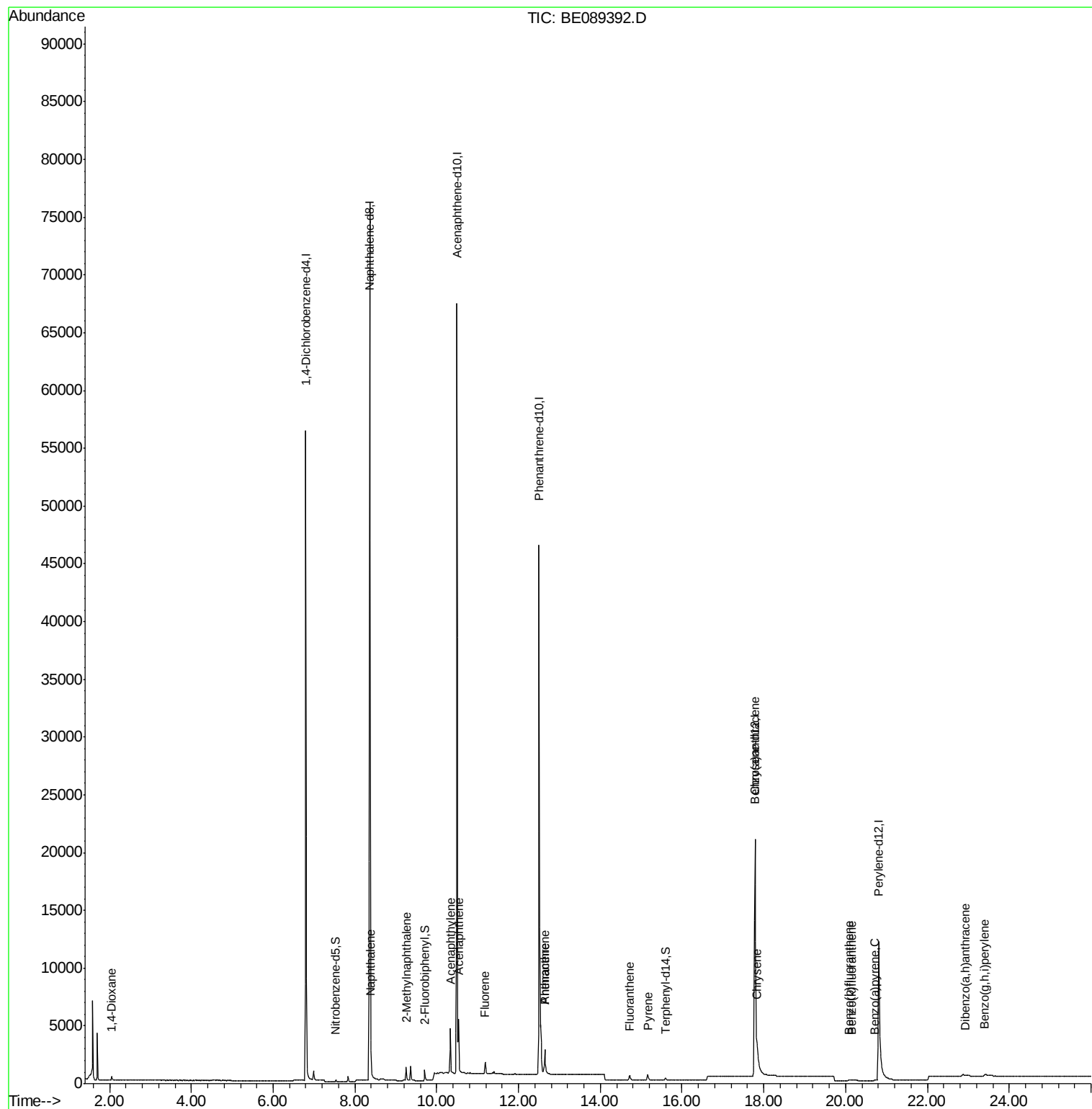
| Internal Standards          | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.80  | 152  | 18851    | 5.00 | ng    | 0.00     |
| 3) Naphthalene-d8           | 8.36  | 136  | 72049    | 5.00 | ng    | 0.00     |
| 7) Acenaphthene-d10         | 10.49 | 164  | 32802    | 5.00 | ng    | 0.00     |
| 12) Phenanthrene-d10        | 12.50 | 188  | 50790    | 5.00 | ng    | 0.00     |
| 17) Chrysene-d12            | 17.78 | 240  | 32348    | 5.00 | ng    | 0.00     |
| 23) Perylene-d12            | 20.81 | 264  | 23721    | 5.00 | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |      |       |          |
| 4) Nitrobenzene-d5          | 7.52  | 82   | 172      | 0.04 | ng    | 0.02     |
| 8) 2-Fluorobiphenyl         | 9.71  | 172  | 773      | 0.09 | ng    | 0.00     |
| 19) Terphenyl-d14           | 15.59 | 244  | 355      | 0.06 | ng    | 0.00     |
| Target Compounds            |       |      |          |      |       | Qvalue   |
| 2) 1,4-Dioxane              | 2.05  | 88   | 212      | 0.08 | ng    | # 76     |
| 5) Naphthalene              | 8.39  | 128  | 1493     | 0.09 | ng    | # 90     |
| 6) 2-Methylnaphthalene      | 9.25  | 142  | 821      | 0.08 | ng    | # 92     |
| 9) Acenaphthylene           | 10.33 | 152  | 4280     | 0.08 | ng    | 98       |
| 10) Acenaphthene            | 10.54 | 154  | 857      | 0.10 | ng    | 88       |
| 11) Fluorene                | 11.18 | 166  | 745      | 0.08 | ng    | 98       |
| 14) Phenanthrene            | 12.64 | 178  | 3226     | 0.06 | ng    | 99       |
| 15) Anthracene              | 12.64 | 178  | 3226     | 0.07 | ng    | 100      |
| 16) Fluoranthene            | 14.72 | 202  | 663      | 0.07 | ng    | 99       |
| 18) Pyrene                  | 15.16 | 202  | 697      | 0.07 | ng    | 99       |
| 20) Benzo(a)anthracene      | 17.77 | 228  | 1811     | 0.06 | ng    | # 76     |
| 21) Chrysene                | 17.84 | 228  | 2902     | 0.09 | ng    | # 77     |
| 24) Benzo(b)fluoranthene    | 20.09 | 252  | 133      | 0.03 | ng    | # 28     |
| 25) Benzo(k)fluoranthene    | 20.14 | 252  | 211      | 0.03 | ng    | # 22     |
| 26) Benzo(a)pyrene          | 20.71 | 252  | 124      | 0.03 | ng    | # 27     |
| 27) Dibenzo(a,h)anthracene  | 22.93 | 278  | 76       | 0.02 | ng    | # 12     |
| 28) Benzo(g,h,i)perylene    | 23.41 | 276  | 589      | 0.03 | ng    | # 34     |

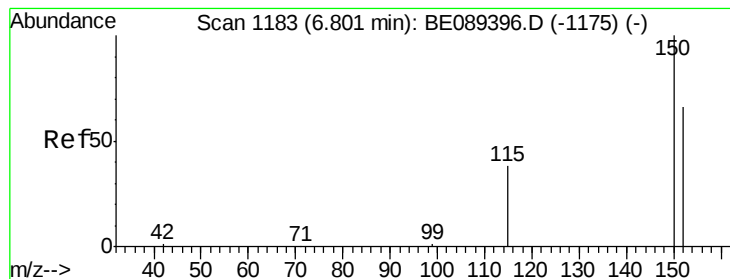
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 6.80 min Scan# 1183

Delta R.T. -0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDIC0.2

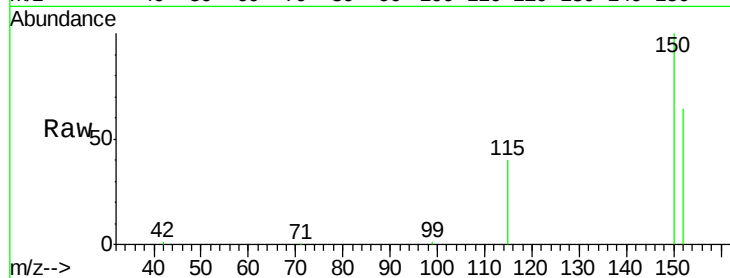
Tgt Ion: 152 Resp: 18851

Ion Ratio Lower Upper

152 100

150 156.6 121.9 182.9

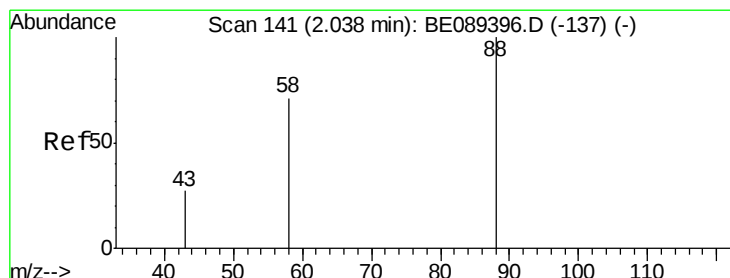
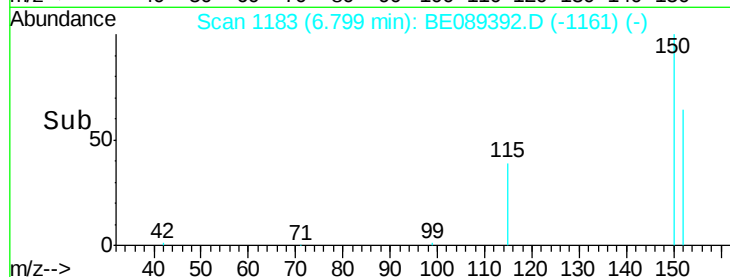
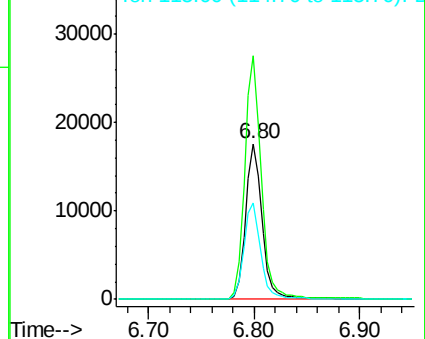
115 61.9 47.0 70.6



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

1,4-Dioxane

Concen: 0.08 ng

RT: 2.05 min Scan# 143

Delta R.T. 0.01 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

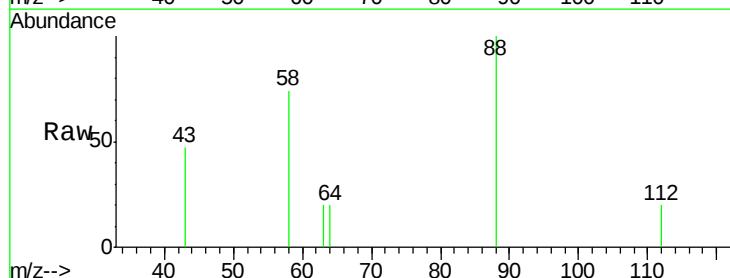
Tgt Ion: 88 Resp: 212

Ion Ratio Lower Upper

88 100

58 90.1 64.6 96.8

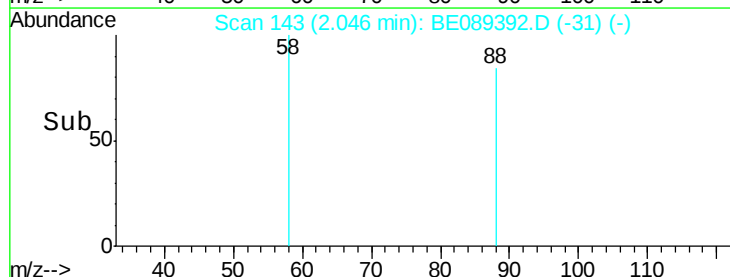
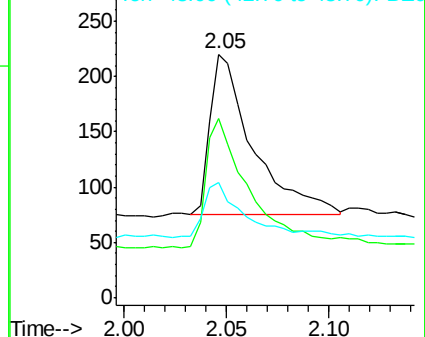
43 0.0 25.7 38.5#

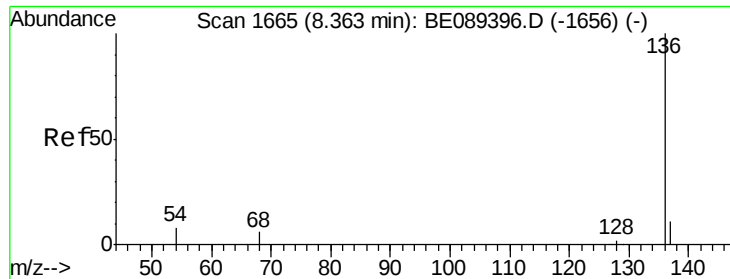


Abundance Ion 88.00 (87.70 to 88.70): BE0

Ion 58.00 (57.70 to 58.70): BE0

Ion 43.00 (42.70 to 43.70): BE0





#3

Naphthalene-d8

Concen: 5.00 ng

RT: 8.36 min Scan# 1666

Delta R.T. 0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDIC0.2

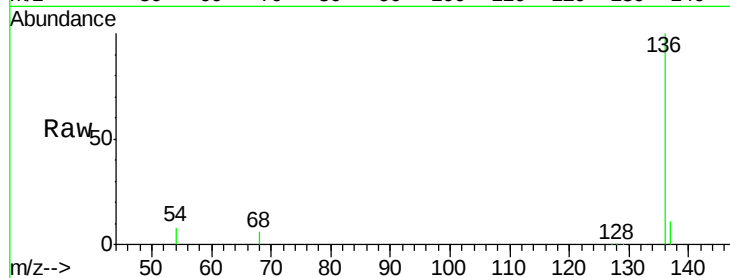
Tgt Ion: 136 Resp: 72049

Ion Ratio Lower Upper

136 100

137 11.1 8.7 13.1

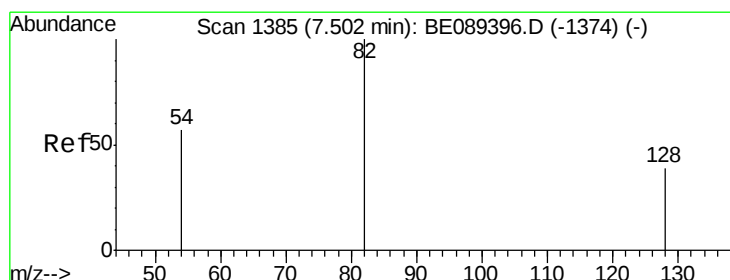
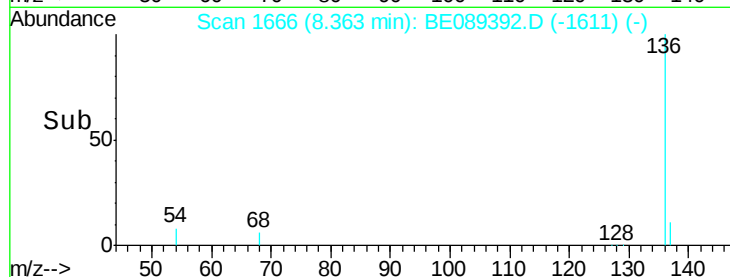
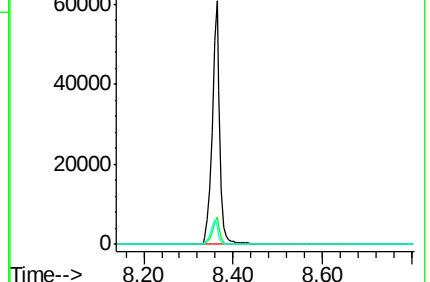
54 7.7 6.5 9.7



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



#4

Nitrobenzene-d5

Concen: 0.04 ng

RT: 7.52 min Scan# 1395

Delta R.T. 0.02 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

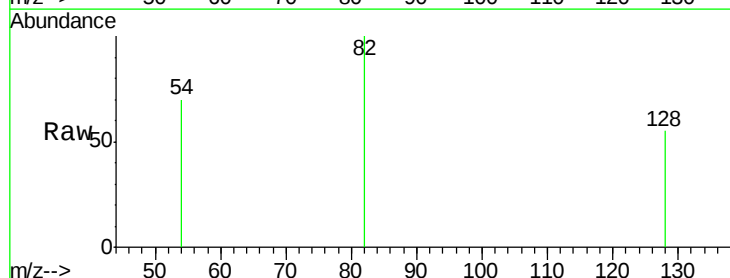
Tgt Ion: 82 Resp: 172

Ion Ratio Lower Upper

82 100

128 55.3 31.5 47.3#

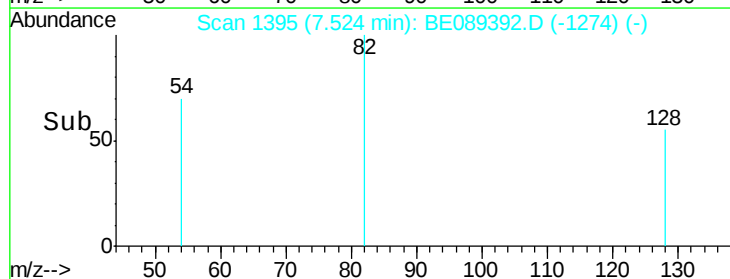
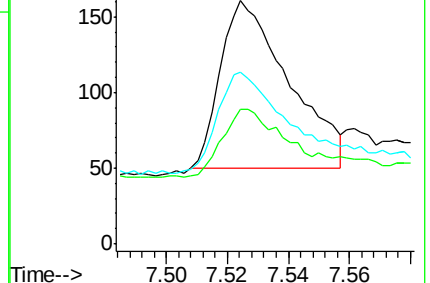
54 70.2 46.2 69.2#

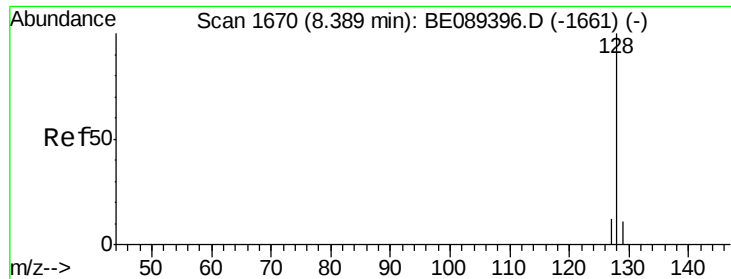


Abundance Ion 82.00 (81.70 to 82.70): BE0

Ion 128.00 (127.70 to 128.70): E

Ion 54.00 (53.70 to 54.70): BE0





#5

Naphthalene

Concen: 0.09 ng

RT: 8.39 min Scan# 1671

Delta R.T. 0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDICC0.2

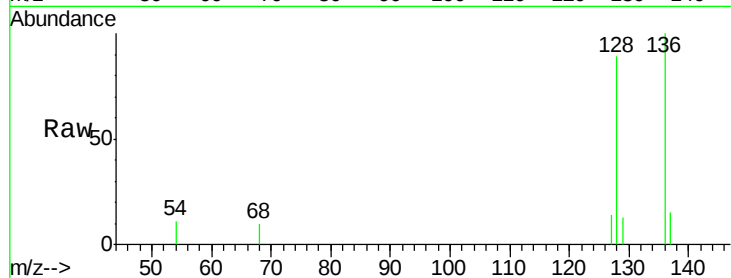
Tgt Ion:128 Resp: 1493

Ion Ratio Lower Upper

128 100

129 15.1 9.0 13.6#

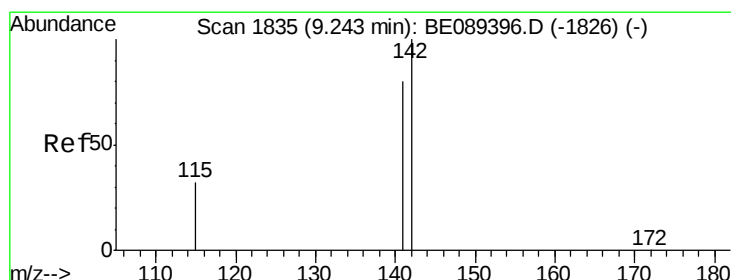
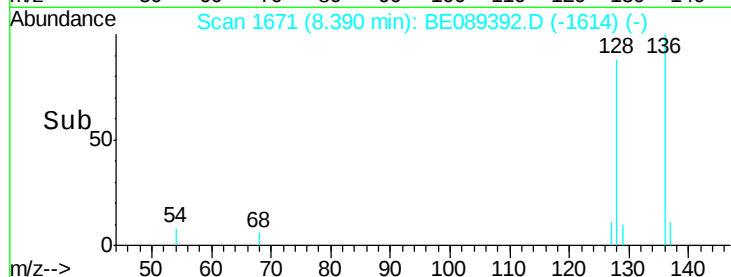
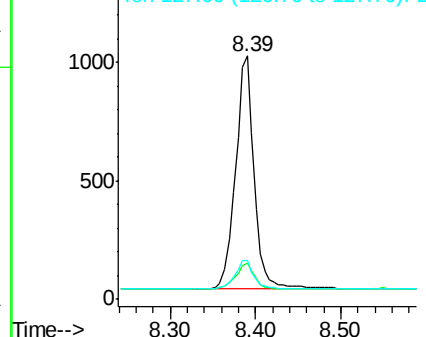
127 15.7 9.6 14.4#



Abundance Ion 128.00 (127.70 to 128.70): E

Ion 129.00 (128.70 to 129.70): E

Ion 127.00 (126.70 to 127.70): E



#6

2-Methylnaphthalene

Concen: 0.08 ng

RT: 9.25 min Scan# 1837

Delta R.T. 0.01 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

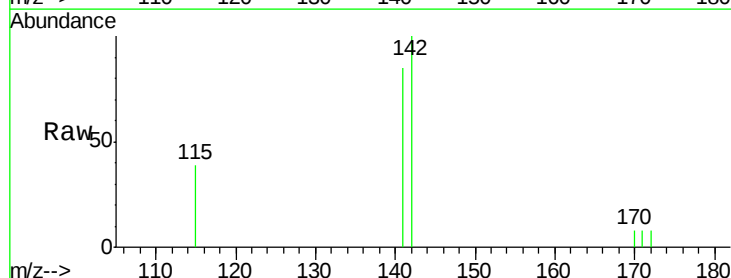
Tgt Ion:142 Resp: 821

Ion Ratio Lower Upper

142 100

141 85.1 63.7 95.5

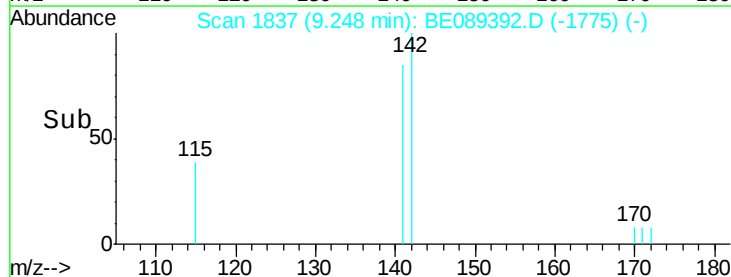
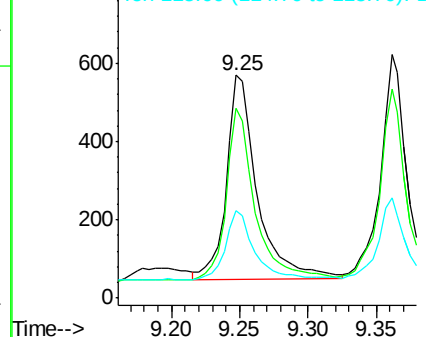
115 39.4 25.4 38.0#

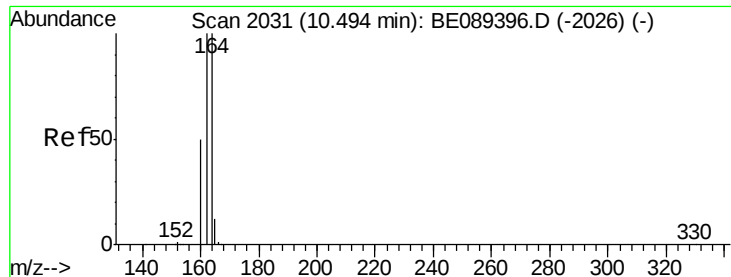


Abundance Ion 142.00 (141.70 to 142.70): E

Ion 141.00 (140.70 to 141.70): E

Ion 115.00 (114.70 to 115.70): E





#7

Acenaphthene-d10

Concen: 5.00 ng

RT: 10.49 min Scan# 2032

Delta R.T. 0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDIC0.2

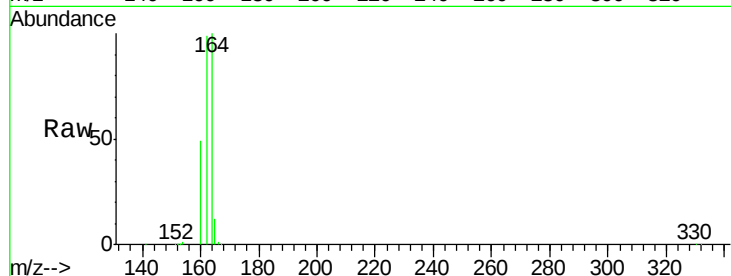
Tgt Ion:164 Resp: 32802

Ion Ratio Lower Upper

164 100

162 99.0 80.2 120.4

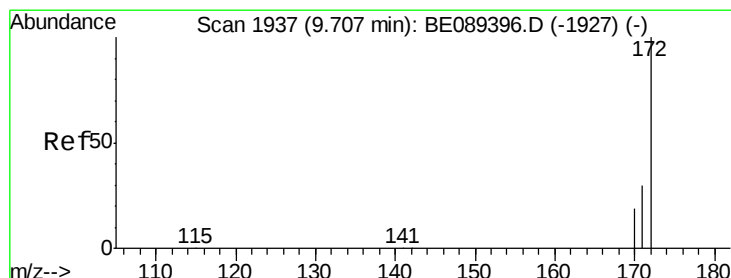
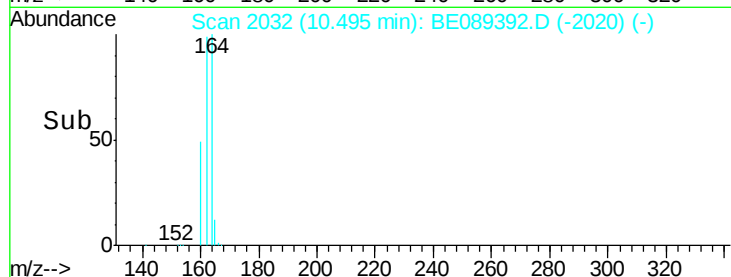
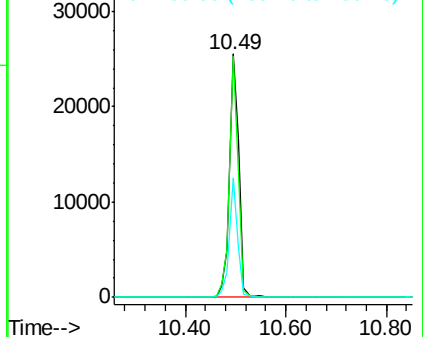
160 48.8 40.1 60.1



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



#8

2-Fluorobiphenyl

Concen: 0.09 ng

RT: 9.71 min Scan# 1939

Delta R.T. 0.01 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

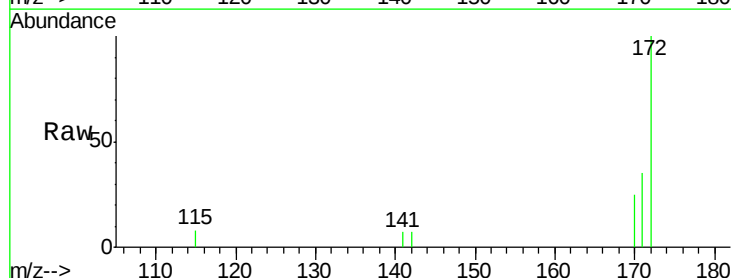
Tgt Ion:172 Resp: 773

Ion Ratio Lower Upper

172 100

171 35.4 24.4 36.6

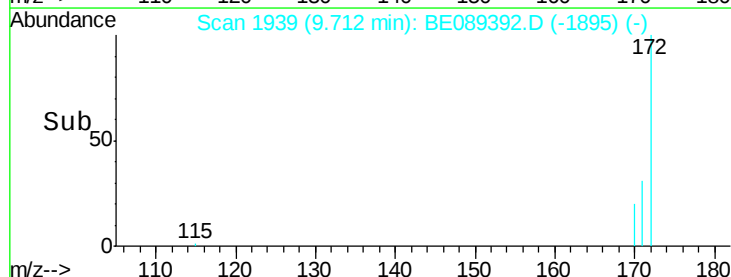
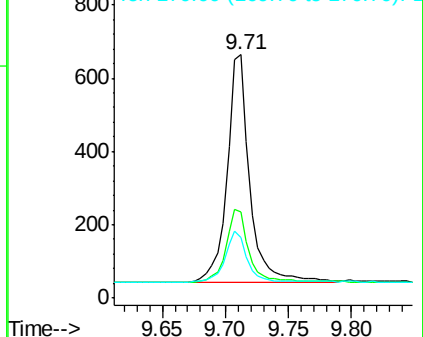
170 25.0 15.8 23.6#

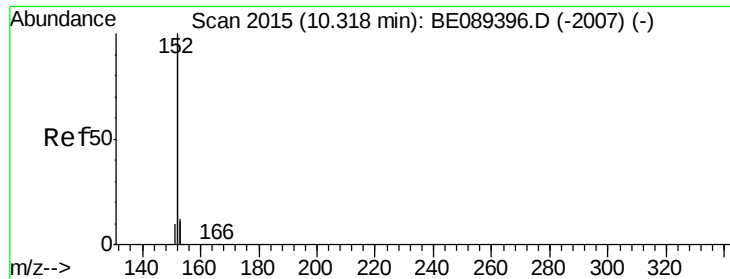


Abundance Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E





#9

Acenaphthylene

Concen: 0.08 ng

RT: 10.33 min Scan# 2017

Delta R.T. 0.01 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDICC0.2

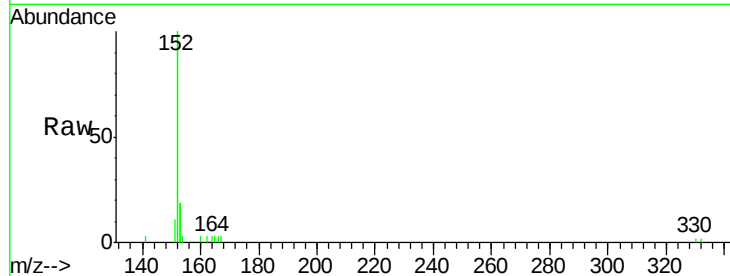
Tgt Ion:152 Resp: 4280

Ion Ratio Lower Upper

152 100

151 4.6 3.7 5.5

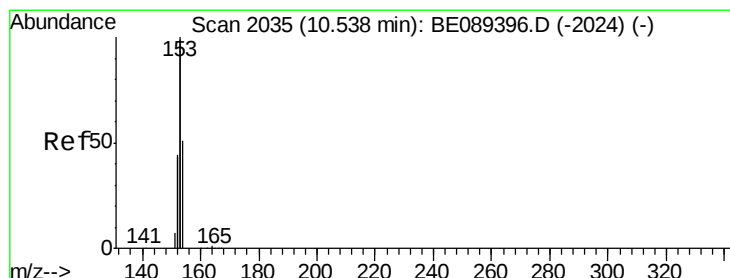
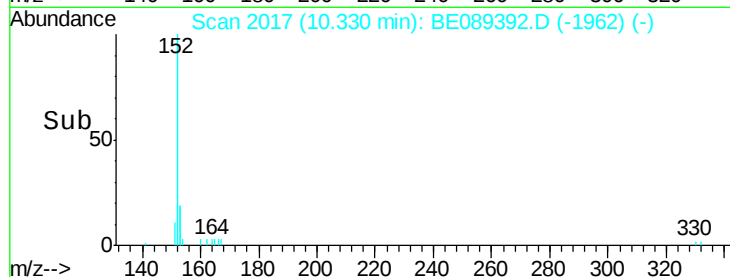
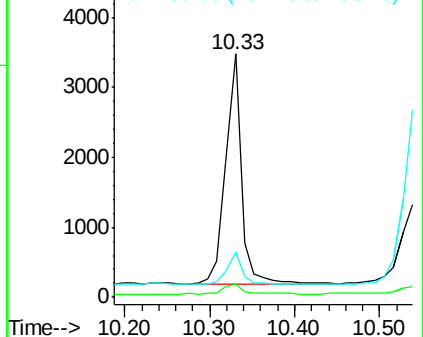
153 13.7 10.2 15.4



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



#10

Acenaphthene

Concen: 0.10 ng

RT: 10.54 min Scan# 2036

Delta R.T. 0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

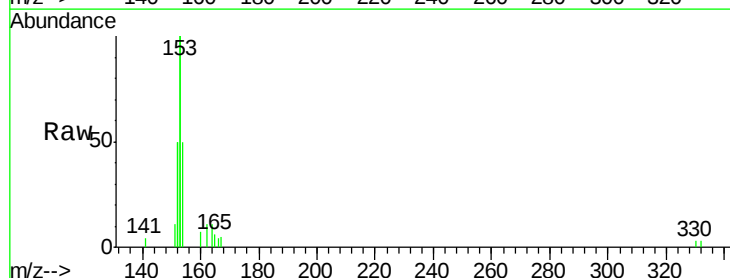
Tgt Ion:154 Resp: 857

Ion Ratio Lower Upper

154 100

153 373.6 327.0 490.4

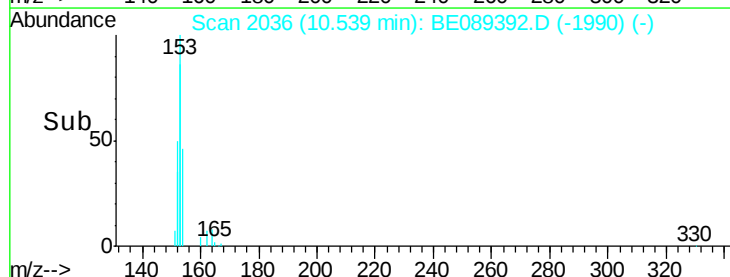
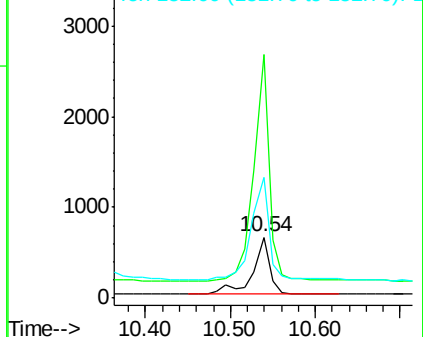
152 213.9 162.2 243.4

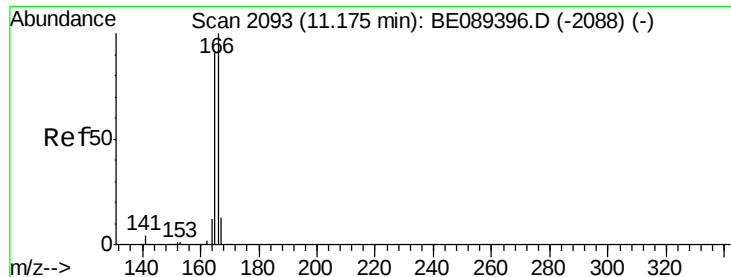


Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E





#11

Fluorene

Concen: 0.08 ng

RT: 11.18 min Scan# 2094

Delta R.T. 0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDIC0.2

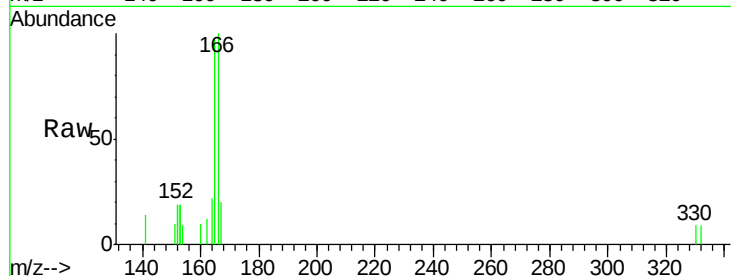
Tgt Ion:166 Resp: 745

Ion Ratio Lower Upper

166 100

165 89.0 72.5 108.7

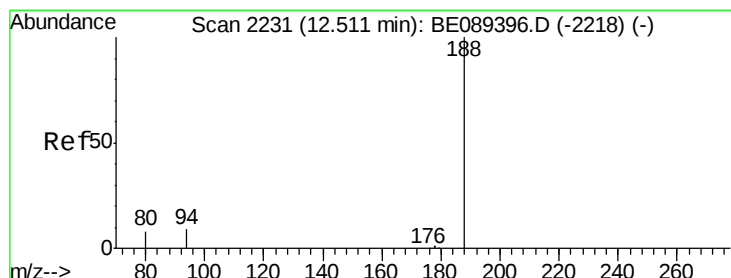
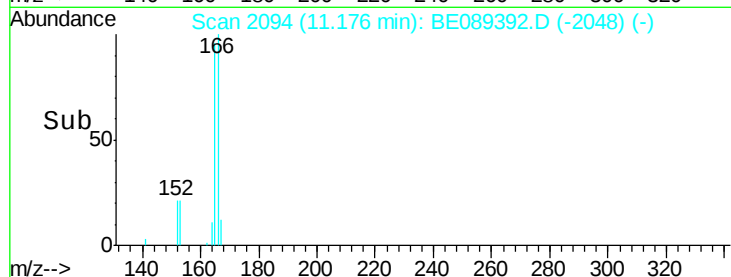
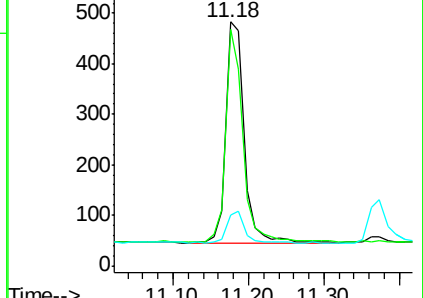
167 13.2 10.7 16.1



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



#12

Phenanthrene-d10

Concen: 5.00 ng

RT: 12.50 min Scan# 2231

Delta R.T. -0.01 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

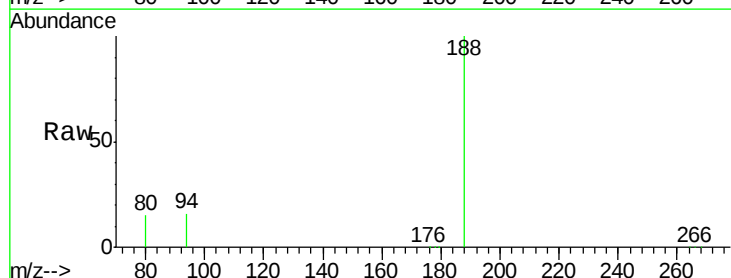
Tgt Ion:188 Resp: 50790

Ion Ratio Lower Upper

188 100

94 16.2 7.6 11.4#

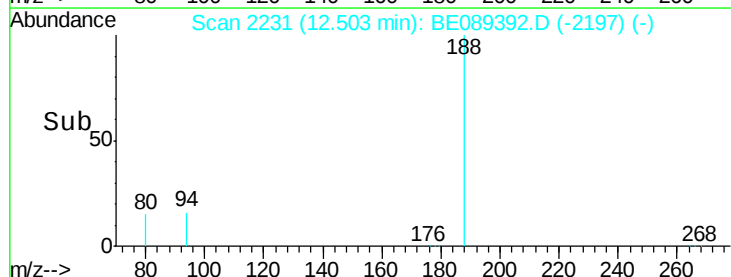
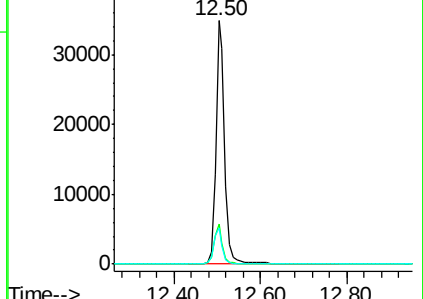
80 15.1 6.8 10.2#

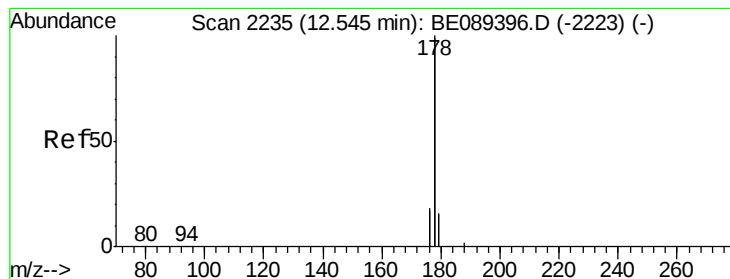


Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BE0

Ion 80.00 (79.70 to 80.70): BE0





#14

Phenanthrene

Concen: 0.06 ng

RT: 12.64 min Scan# 2247

Delta R.T. 0.10 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDIC0.2

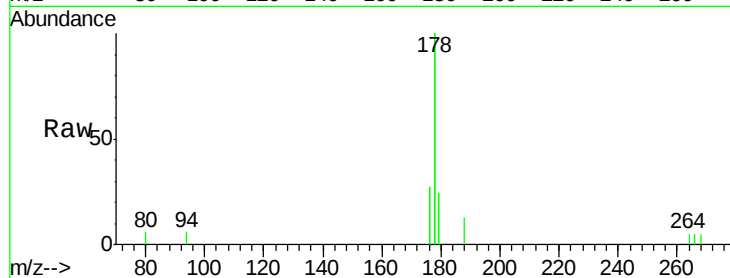
Tgt Ion:178 Resp: 3226

Ion Ratio Lower Upper

178 100

176 18.2 14.9 22.3

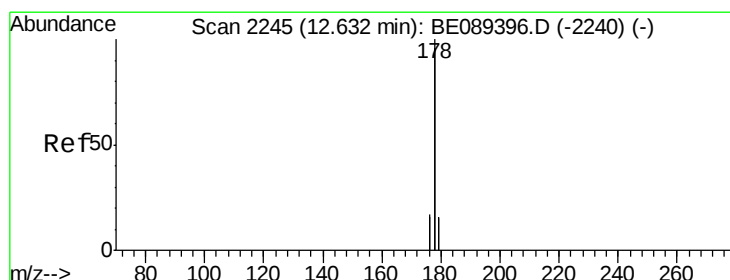
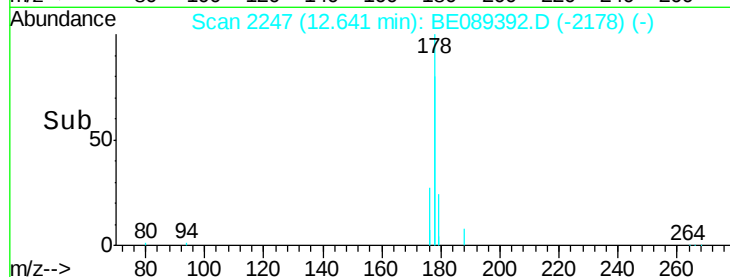
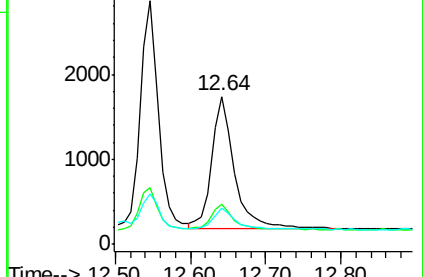
179 15.0 12.3 18.5



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



#15

Anthracene

Concen: 0.07 ng

RT: 12.64 min Scan# 2247

Delta R.T. 0.01 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

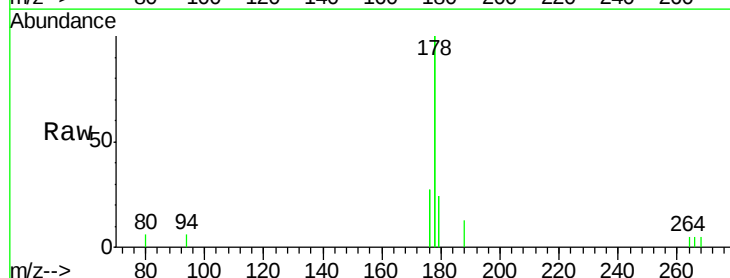
Tgt Ion:178 Resp: 3226

Ion Ratio Lower Upper

178 100

176 18.2 14.4 21.6

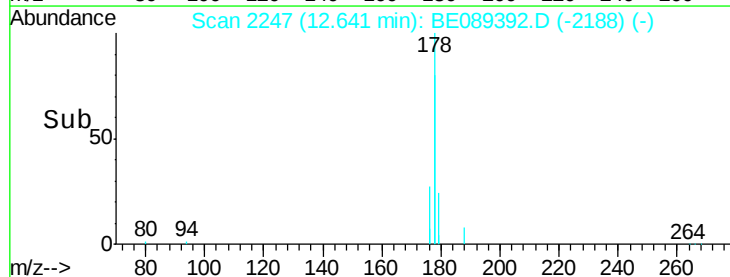
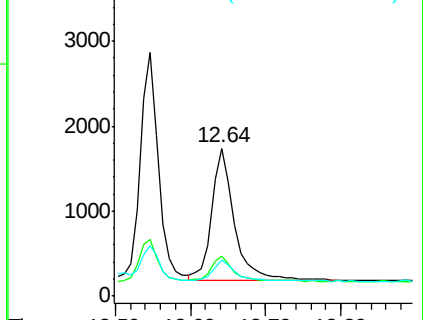
179 15.0 12.0 18.0

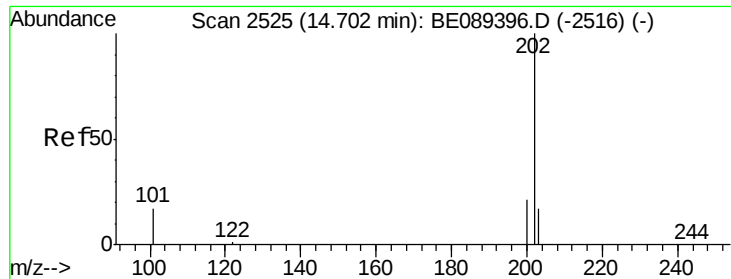


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#16

Fluoranthene

Concen: 0.07 ng

RT: 14.72 min Scan# 2529

Delta R.T. 0.02 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDICC0.2

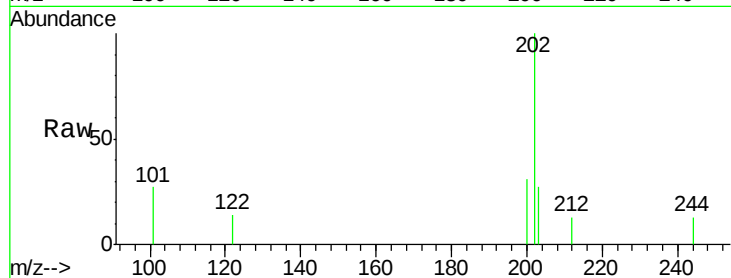
Tgt Ion:202 Resp: 663

Ion Ratio Lower Upper

202 100

101 16.3 13.2 19.8

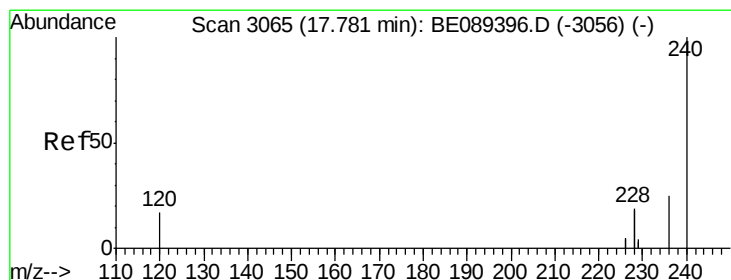
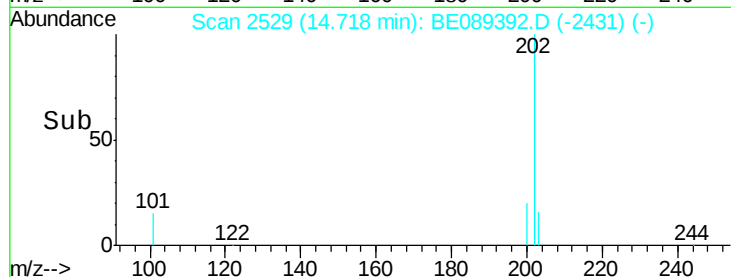
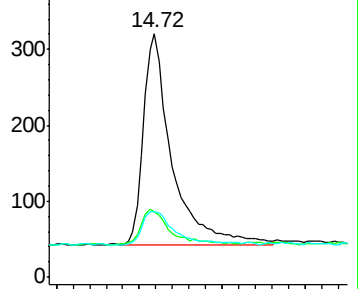
203 17.5 13.5 20.3



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



#17

Chrysene-d12

Concen: 5.00 ng

RT: 17.78 min Scan# 3066

Delta R.T. 0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

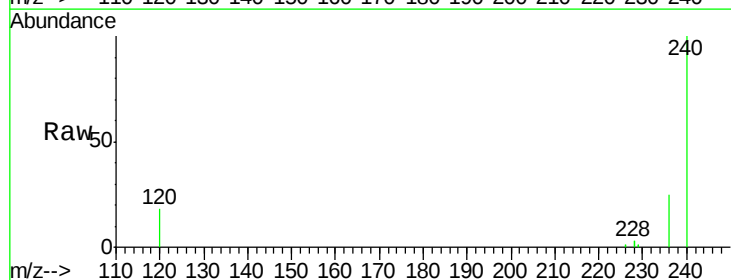
Tgt Ion:240 Resp: 32348

Ion Ratio Lower Upper

240 100

120 17.6 14.2 21.2

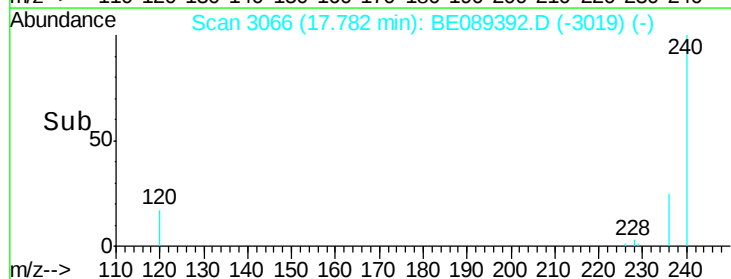
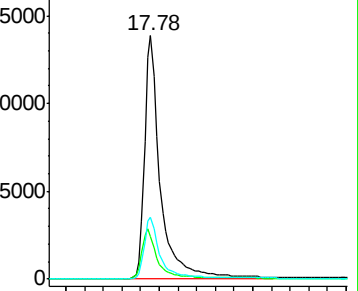
236 25.4 20.6 30.8

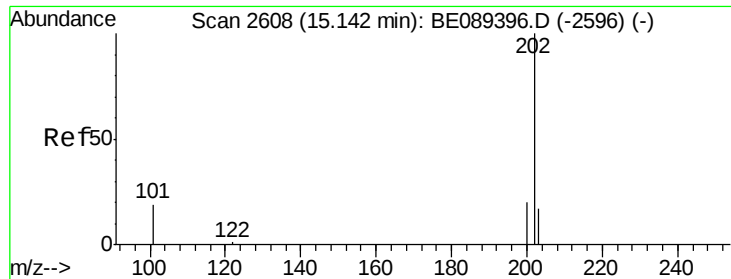


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E





#18

Pyrene

Concen: 0.07 ng

RT: 15.16 min Scan# 2612

Delta R.T. 0.02 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDIC0.2

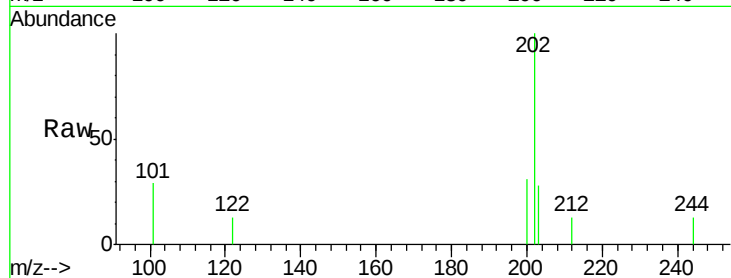
Tgt Ion:202 Resp: 697

Ion Ratio Lower Upper

202 100

200 20.1 16.2 24.2

203 16.5 13.7 20.5



Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E

15.16

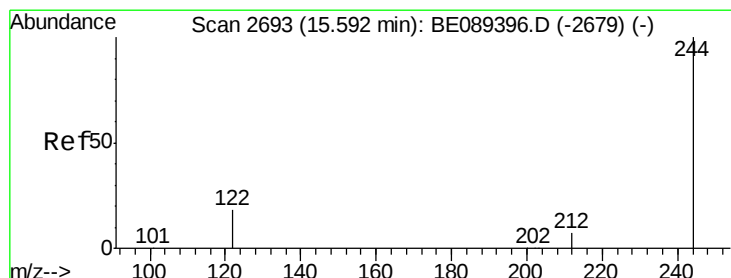
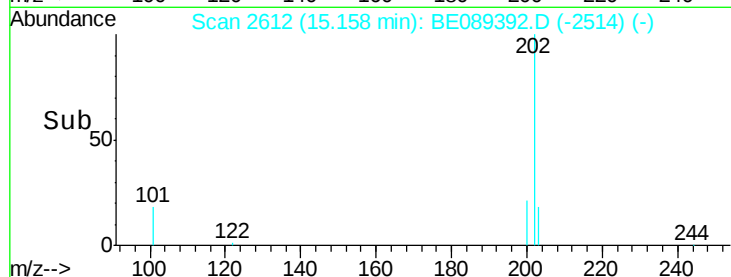
300

200

100

0

Time-->



#19

Terphenyl-d14

Concen: 0.06 ng

RT: 15.59 min Scan# 2694

Delta R.T. 0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

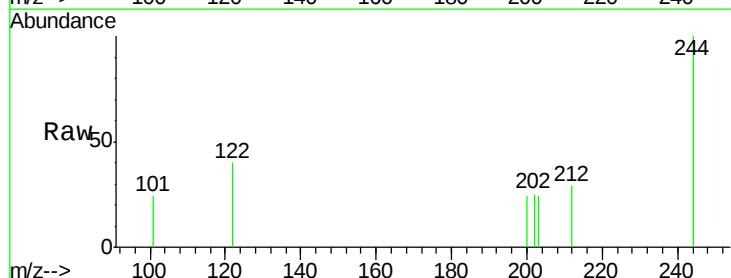
Tgt Ion:244 Resp: 355

Ion Ratio Lower Upper

244 100

212 29.3 6.7 10.1#

122 39.8 15.7 23.5#



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

15.59

200

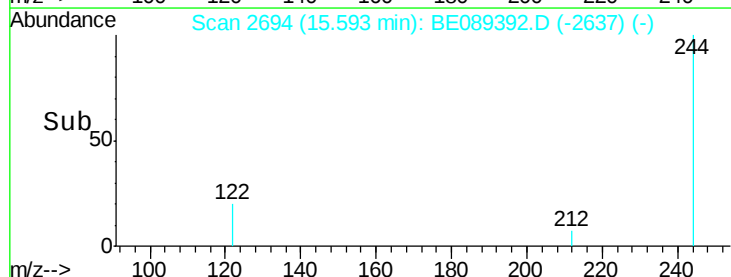
150

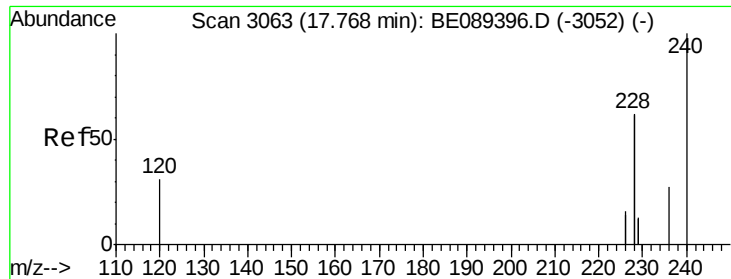
100

50

0

Time-->





#20

Benzo(a)anthracene

Concen: 0.06 ng

RT: 17.77 min Scan# 3064

Delta R.T. 0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDIC0.2

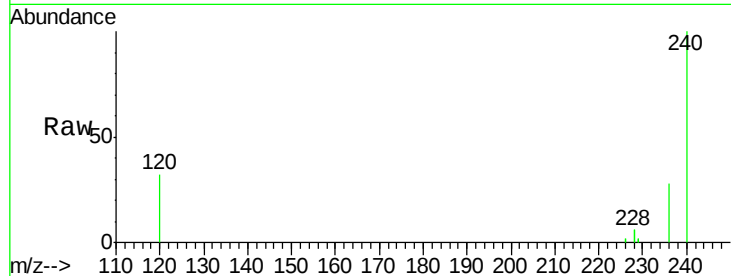
Tgt Ion:228 Resp: 1811

Ion Ratio Lower Upper

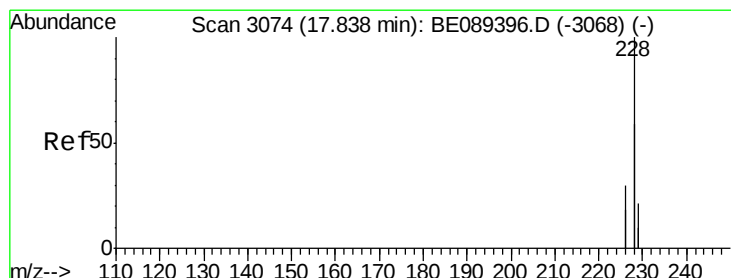
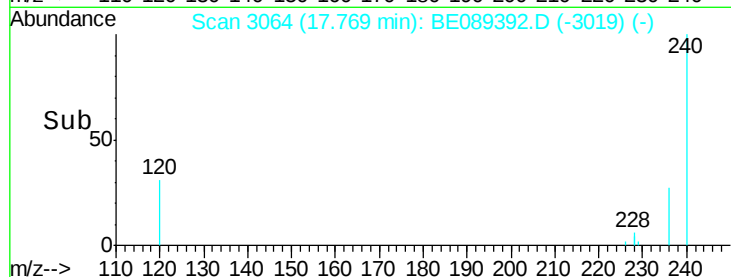
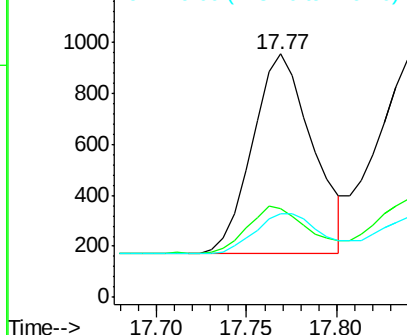
228 100

226 36.4 20.6 31.0#

229 34.5 17.1 25.7#



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

Chrysene

Concen: 0.09 ng

RT: 17.84 min Scan# 3075

Delta R.T. 0.00 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

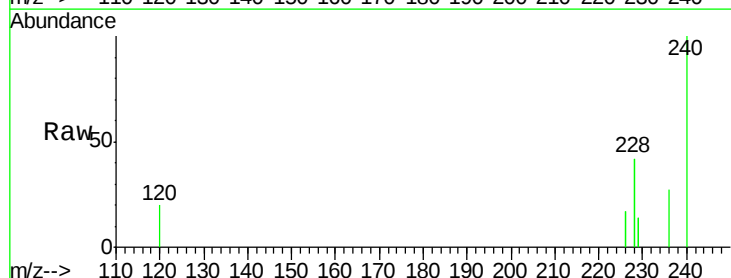
Tgt Ion:228 Resp: 2902

Ion Ratio Lower Upper

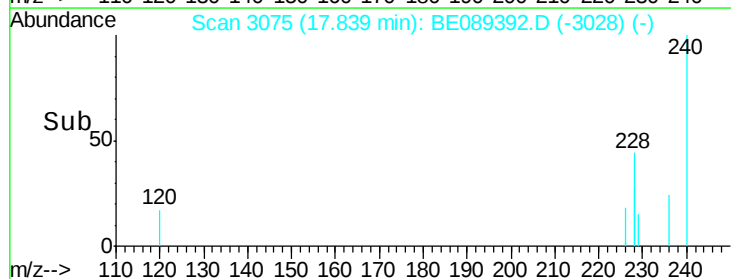
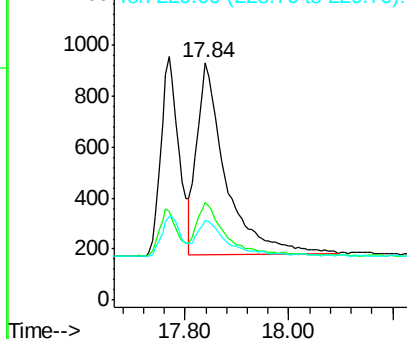
228 100

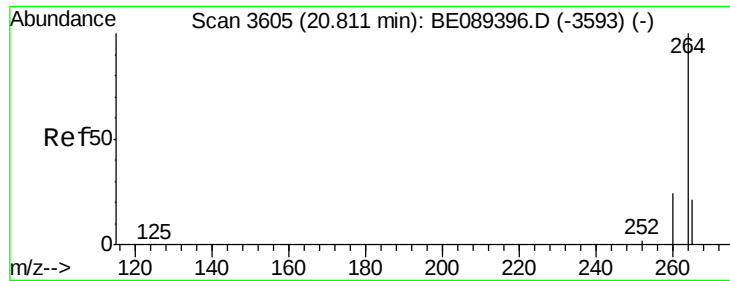
226 41.2 24.2 36.4#

229 33.5 16.5 24.7#



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

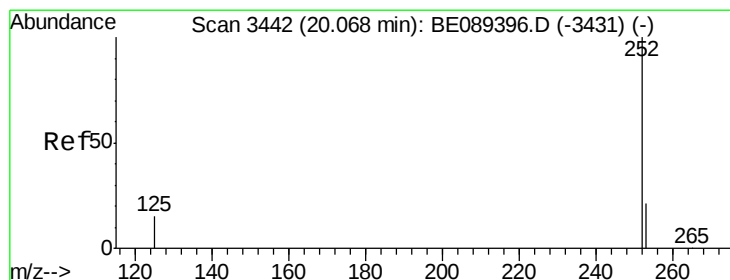
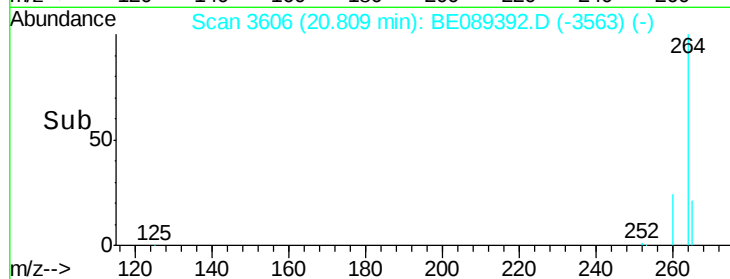
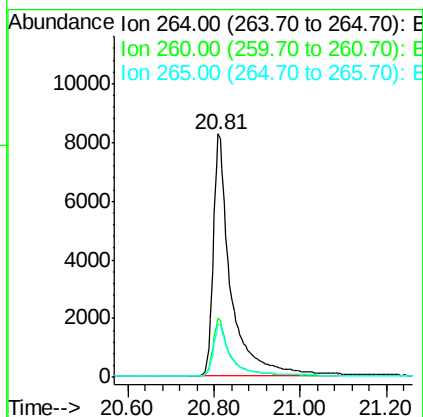
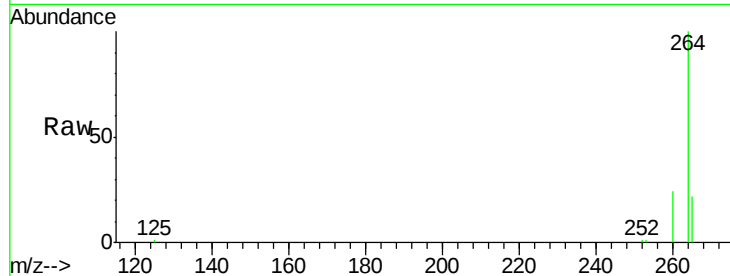




#23  
**Perylene-d12**  
 Concen: 5.00 ng  
 RT: 20.81 min Scan# 3606  
 Delta R.T. -0.00 min  
 Lab File: BE089392.D  
 Acq: 15 Jan 2015 14:39

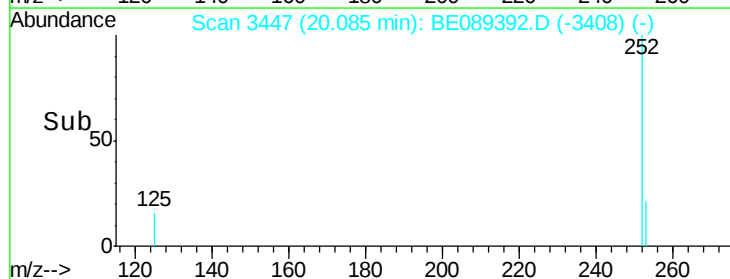
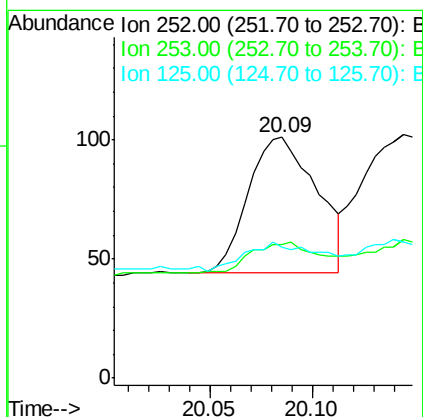
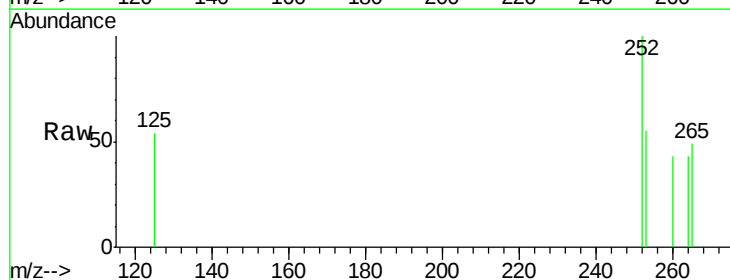
Instrument :  
 BNA\_M  
 LabSampleId :  
 SSTDICC0.2

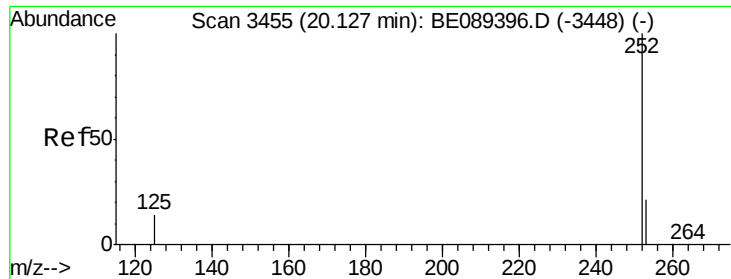
Tgt Ion: 264 Resp: 23721  
 Ion Ratio Lower Upper  
 264 100  
 260 24.4 19.2 28.8  
 265 21.6 17.3 25.9



#24  
**Benzo(b)fluoranthene**  
 Concen: 0.03 ng  
 RT: 20.09 min Scan# 3447  
 Delta R.T. 0.02 min  
 Lab File: BE089392.D  
 Acq: 15 Jan 2015 14:39

Tgt Ion: 252 Resp: 133  
 Ion Ratio Lower Upper  
 252 100  
 253 55.4 19.1 28.7#  
 125 54.5 14.5 21.7#





#25

Benzo(k)fluoranthene

Concen: 0.03 ng

RT: 20.14 min Scan# 3460

Delta R.T. 0.02 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

Instrument :

BNA\_M

LabSampleId :

SSTDIC0.2

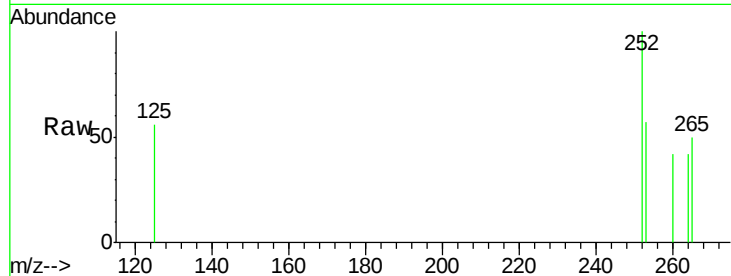
Tgt Ion:252 Resp: 211

Ion Ratio Lower Upper

252 100

253 56.9 18.7 28.1#

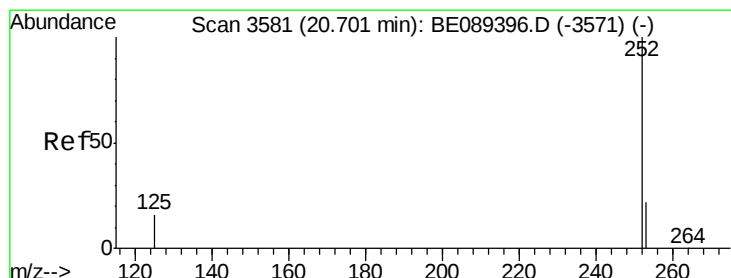
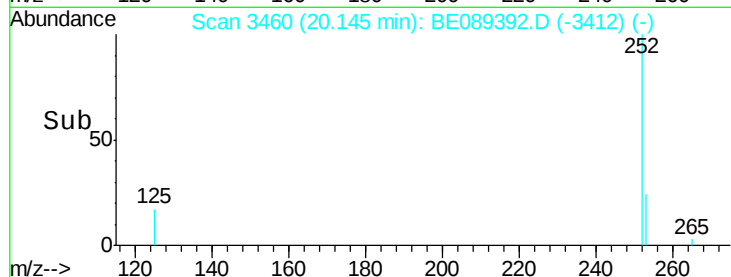
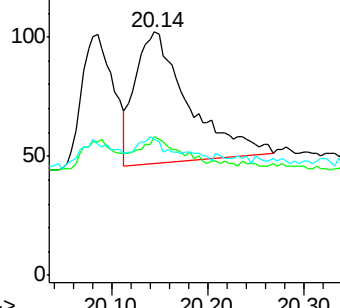
125 55.9 13.1 19.7#



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

Benzo(a)pyrene

Concen: 0.03 ng

RT: 20.71 min Scan# 3584

Delta R.T. 0.01 min

Lab File: BE089392.D

Acq: 15 Jan 2015 14:39

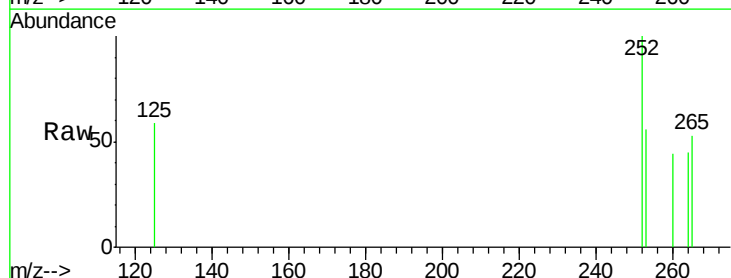
Tgt Ion:252 Resp: 124

Ion Ratio Lower Upper

252 100

253 56.1 20.0 30.0#

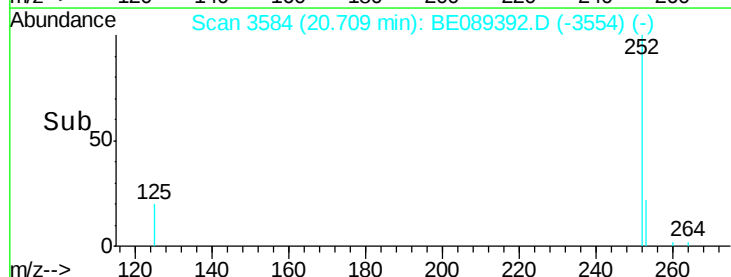
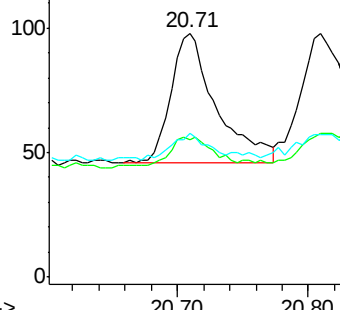
125 59.2 15.4 23.2#

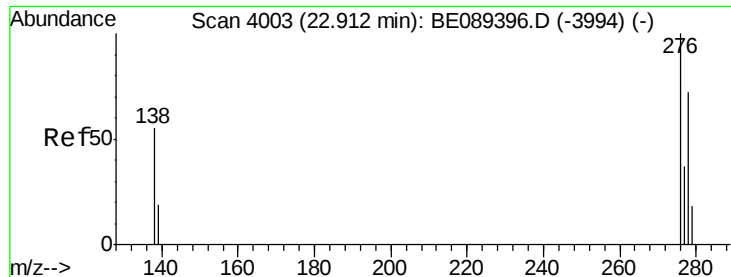


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E

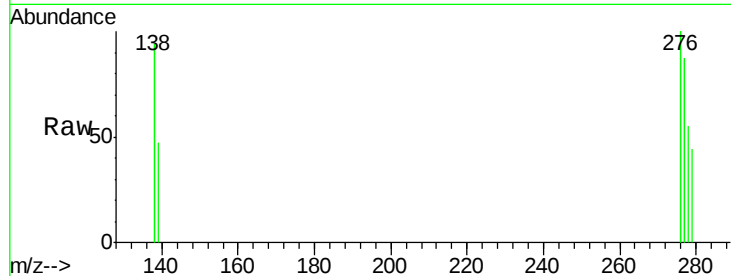




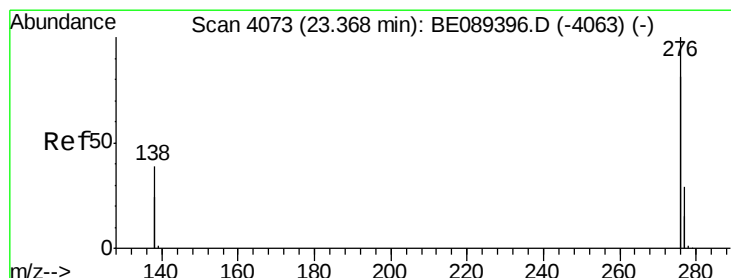
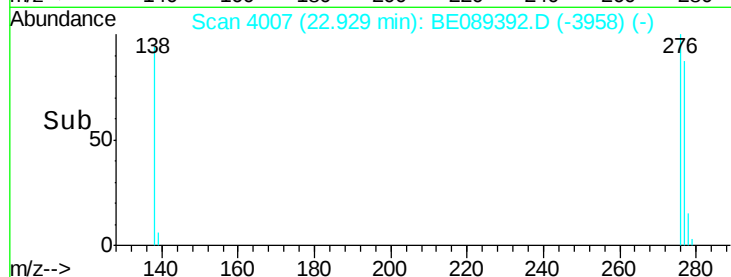
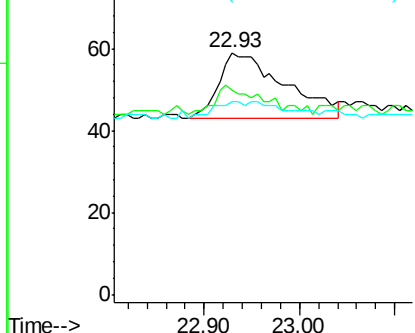
#27  
Dibenzo(a,h)anthracene  
Concen: 0.02 ng  
RT: 22.93 min Scan# 4007  
Delta R.T. 0.02 min  
Lab File: BE089392.D  
Acq: 15 Jan 2015 14:39

Instrument :  
BNA\_M  
LabSampleId :  
SSTDIC0.2

Tgt Ion: 278 Resp: 76  
Ion Ratio Lower Upper  
278 100  
139 84.7 26.8 40.2#  
279 79.7 25.4 38.0#

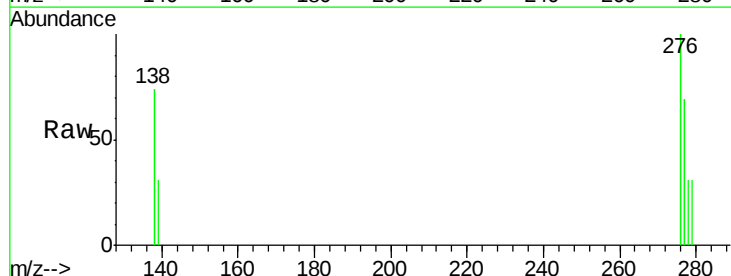


Abundance Ion 278.00 (277.70 to 278.70): E  
Ion 139.00 (138.70 to 139.70): E  
Ion 279.00 (278.70 to 279.70): E



#28  
Benzo(g,h,i)perylene  
Concen: 0.03 ng  
RT: 23.41 min Scan# 4081  
Delta R.T. 0.04 min  
Lab File: BE089392.D  
Acq: 15 Jan 2015 14:39

Tgt Ion: 276 Resp: 589  
Ion Ratio Lower Upper  
276 100  
277 69.4 22.9 34.3#  
138 74.3 31.2 46.8#



Abundance Ion 276.00 (275.70 to 276.70): E  
Ion 277.00 (276.70 to 277.70): E  
Ion 138.00 (137.70 to 138.70): E

