

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\  
 Data File : BM002456.D  
 Acq On : 17 Aug 2015 18:03  
 Operator : UM/IZ  
 Sample : G3227-07  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :

Quant Time: Aug 18 02:02:25 2015  
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Tue Aug 18 01:54:16 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.87  | 152  | 156609   | 20.00 | ng/ul | 0.00     |
| 2) Naphthalene-d8         | 11.75 | 136  | 700621   | 20.00 | ng/ul | 0.00     |
| 6) Acenaphthene-d10       | 15.46 | 164  | 362612   | 20.00 | ng/ul | 0.00     |
| 12) Phenanthrene-d10      | 18.16 | 188  | 708298   | 20.00 | ng/ul | 0.00     |
| 17) Chrysene-d12          | 22.24 | 240  | 469785   | 20.00 | ng/ul | 0.00     |
| 22) Perylene-d12          | 24.92 | 264  | 440392   | 20.00 | ng/ul | 0.01     |

## System Monitoring Compounds

|                        |       |     |        |       |       |      |
|------------------------|-------|-----|--------|-------|-------|------|
| 7) Acenaphthylene-d8   | 15.16 | 160 | 594403 | 16.03 | ng/ul | 0.00 |
| 10) Fluorene-d10       | 16.43 | 176 | 396918 | 15.24 | ng/ul | 0.00 |
| 14) Anthracene-d10     | 18.26 | 188 | 556776 | 16.30 | ng/ul | 0.00 |
| 18) Pyrene-d10         | 20.48 | 212 | 467216 | 22.44 | ng/ul | 0.00 |
| 25) Benzo(a)pyrene-d12 | 24.74 | 264 | 357746 | 15.46 | ng/ul | 0.00 |

## Target Compounds

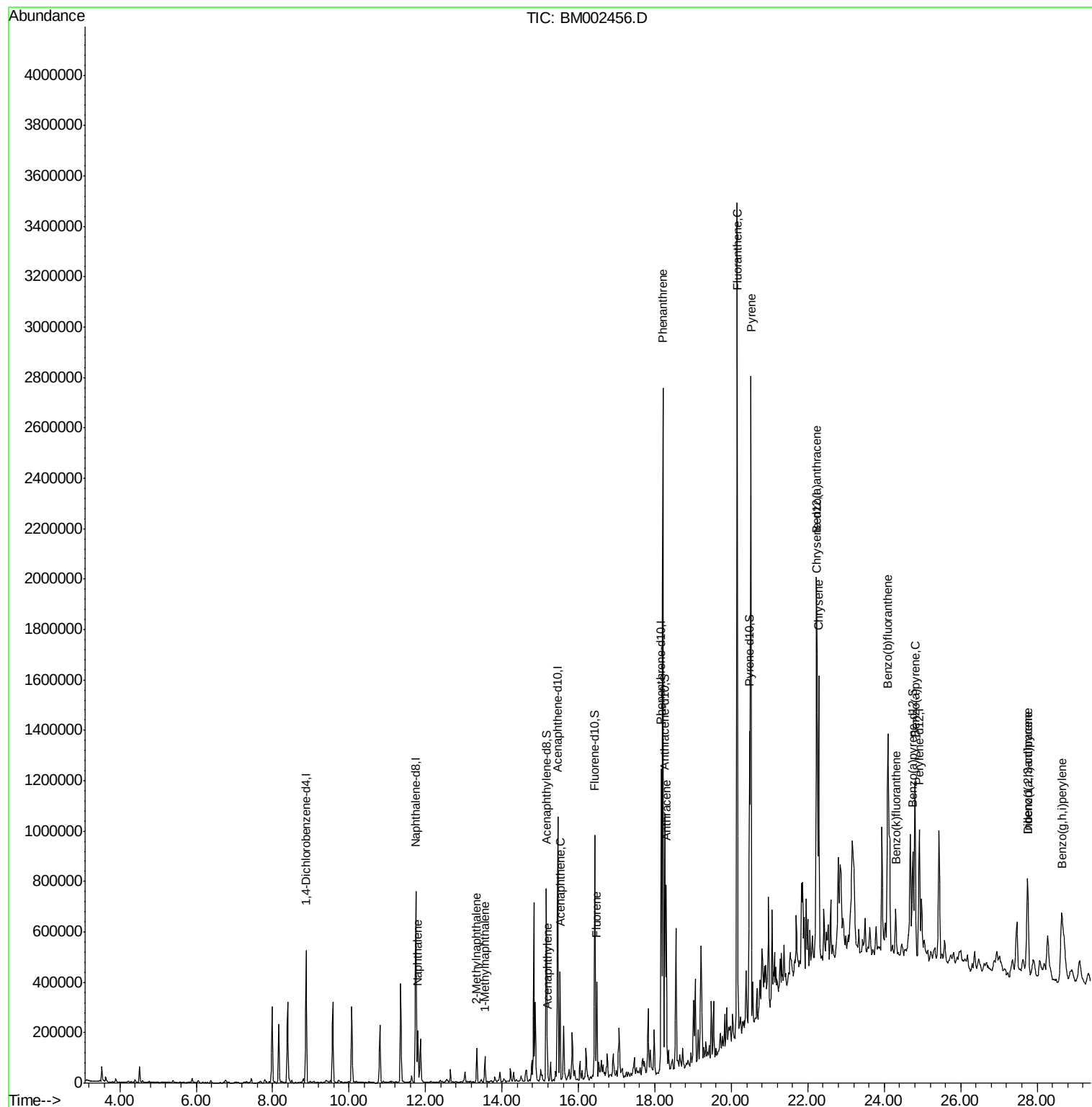
|                            |       |     |         |       |        | Ovalue |
|----------------------------|-------|-----|---------|-------|--------|--------|
| 3) Naphthalene             | 11.80 | 128 | 185048  | 5.18  | ng/ul  | 100    |
| 4) 2-Methylnaphthalene     | 13.34 | 142 | 66138   | 2.47  | ng/ul  | 99     |
| 5) 1-Methylnaphthalene     | 13.55 | 142 | 49503   | 1.87  | ng/ul  | 99     |
| 8) Acenaphthylene          | 15.19 | 152 | 52129   | 1.34  | ng/ul  | 99     |
| 9) Acenaphthene            | 15.52 | 153 | 179004  | 7.00  | ng/ul  | 99     |
| 11) Fluorene               | 16.48 | 166 | 173327  | 5.92  | ng/ul  | 99     |
| 13) Phenanthrene           | 18.21 | 178 | 1806311 | 44.16 | ng/ul  | 100    |
| 15) Anthracene             | 18.30 | 178 | 475141  | 11.46 | ng/ul  | 99     |
| 16) Fluoranthene           | 20.16 | 202 | 2109485 | 45.56 | ng/ul  | 99     |
| 19) Pyrene                 | 20.51 | 202 | 1488314 | 54.08 | ng/ul  | 100    |
| 20) Benzo(a)anthracene     | 22.23 | 228 | 727157  | 25.88 | ng/ul  | 98     |
| 21) Chrysene               | 22.29 | 228 | 652915  | 24.85 | ng/ul  | 97     |
| 23) Benzo(b)fluoranthene   | 24.09 | 252 | 870466  | 32.70 | ng/ul  | 97     |
| 24) Benzo(k)fluoranthene   | 24.30 | 252 | 122459  | 4.85  | ng/ul# | 86     |
| 26) Benzo(a)pyrene         | 24.80 | 252 | 567646  | 22.32 | ng/ul  | 98     |
| 27) Indeno(1,2,3-cd)pyrene | 27.75 | 276 | 424793  | 14.53 | ng/ul  | 94     |
| 28) Dibenzo(a,h)anthracene | 27.74 | 278 | 112446  | 4.60  | ng/ul# | 72     |
| 29) Benzo(a,h,i)perylene   | 28.64 | 276 | 354808  | 14.57 | ng/ul  | 98     |

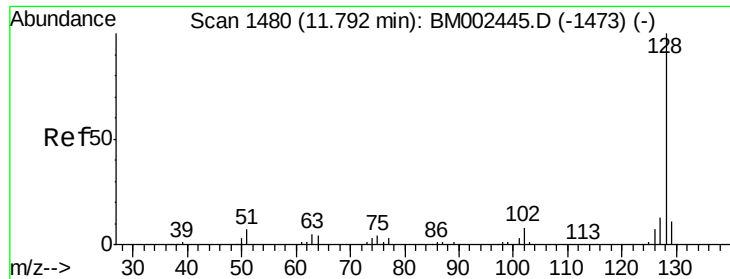
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\  
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ALS Vial : 14 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :

Quant Time: Aug 18 02:02:25 2015  
Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Tue Aug 18 01:54:16 2015  
Response via : Initial Calibration





#3

Naphthalene

Concen: 5.18 ng/ul

RT: 11.80 min Scan# 1481

Delta R.T. 0.01 min

Lab File: BM002456.D

Acq: 17 Aug 2015 18:03

Instrument :

BNA\_M

ClientSampleId :

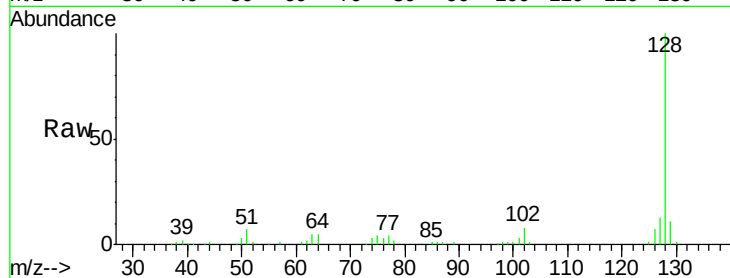
Tot Ion:128 Resp: 185048

Ion Ratio Lower Upper

128 100

129 10.9 8.6 12.8

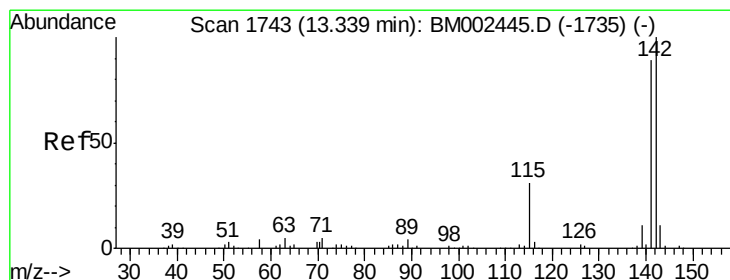
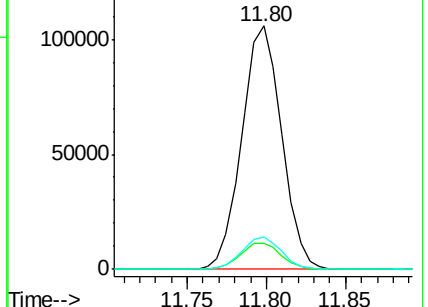
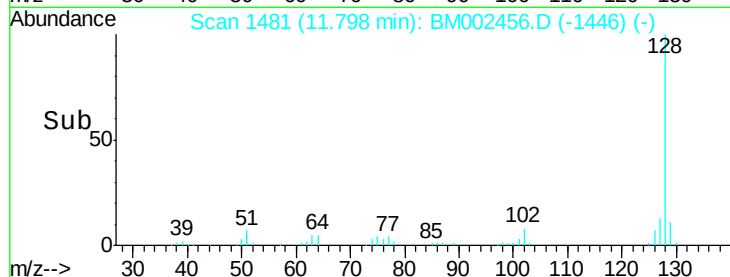
127 13.1 10.4 15.6



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



#4

2-Methylnaphthalene

Concen: 2.47 ng/ul

RT: 13.34 min Scan# 1743

Delta R.T. 0.00 min

Lab File: BM002456.D

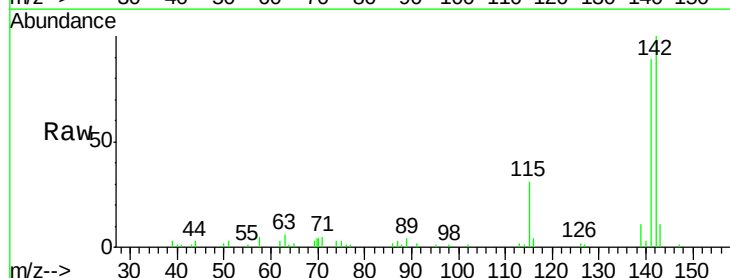
Acq: 17 Aug 2015 18:03

Tgt Ion:142 Resp: 66138

Ion Ratio Lower Upper

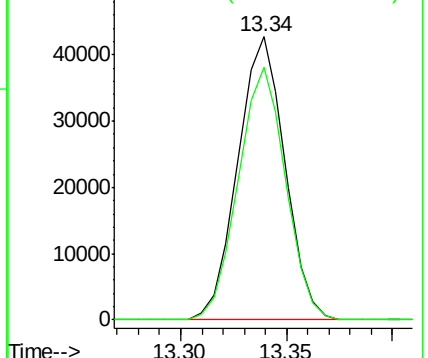
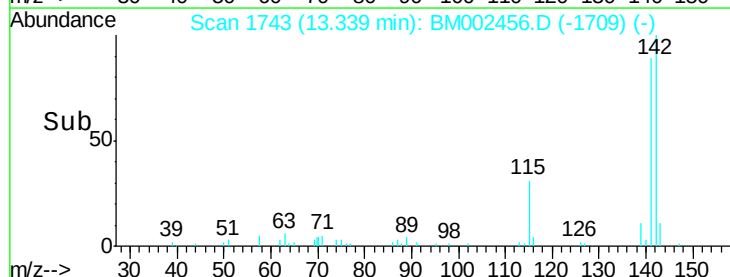
142 100

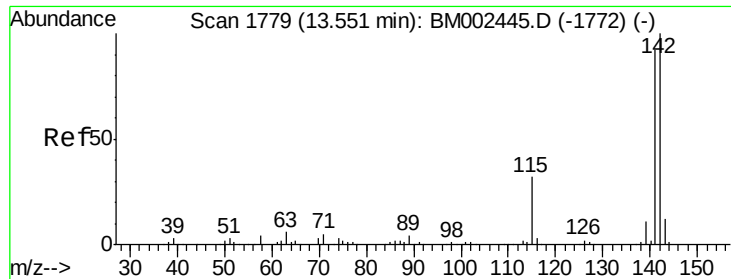
141 89.5 72.2 108.2



Abundance Ion 142.00 (141.70 to 142.70): E

Ion 141.00 (140.70 to 141.70): E





#5

1-Methylnaphthalene

Concen: 1.87 ng/ul

RT: 13.55 min Scan# 1779

Delta R.T. 0.00 min

Lab File: BM002456.D

Acq: 17 Aug 2015 18:03

Instrument :

BNA\_M

ClientSampleId :

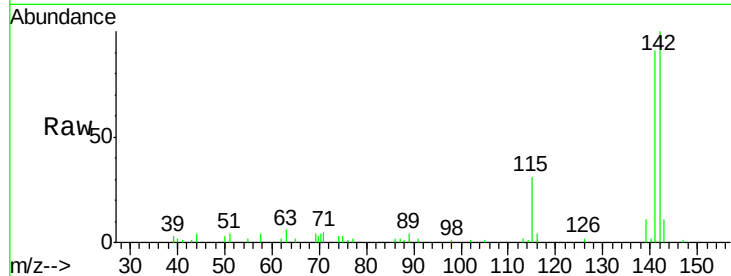
Tot Ion:142 Resp: 49503

Ion Ratio Lower Upper

142 100

141 91.4 73.9 110.9

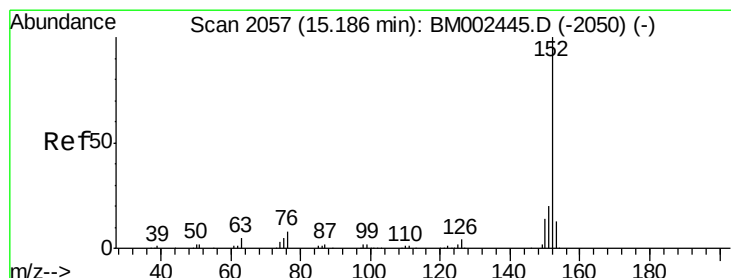
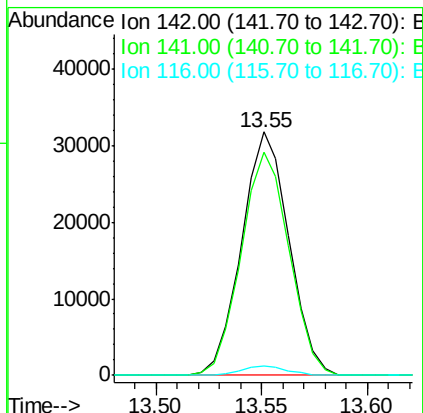
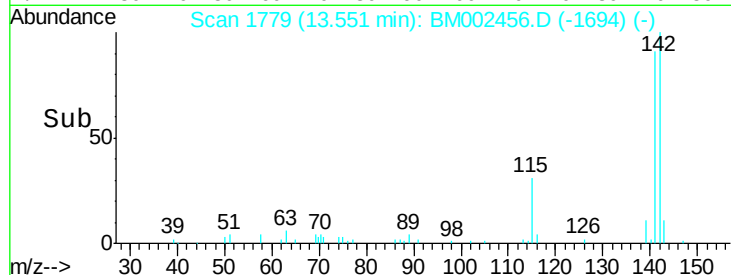
116 3.9 3.0 4.4



Abundance Ion 142.00 (141.70 to 142.70): E

Ion 141.00 (140.70 to 141.70): E

Ion 116.00 (115.70 to 116.70): E



#8

Acenaphthylene

Concen: 1.34 ng/ul

RT: 15.19 min Scan# 2058

Delta R.T. 0.01 min

Lab File: BM002456.D

Acq: 17 Aug 2015 18:03

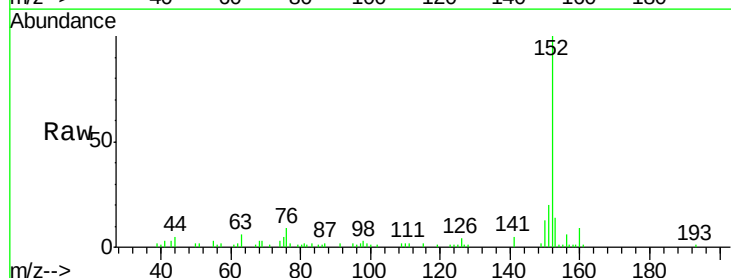
Tgt Ion:152 Resp: 52129

Ion Ratio Lower Upper

152 100

151 19.6 15.7 23.5

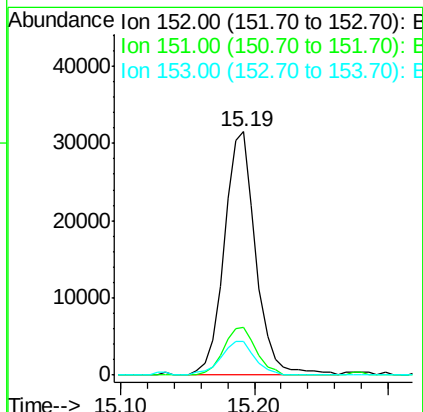
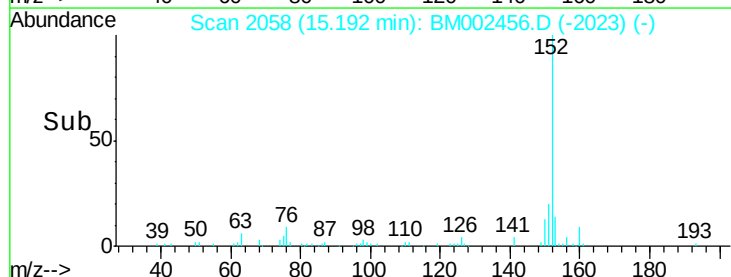
153 13.9 10.2 15.4

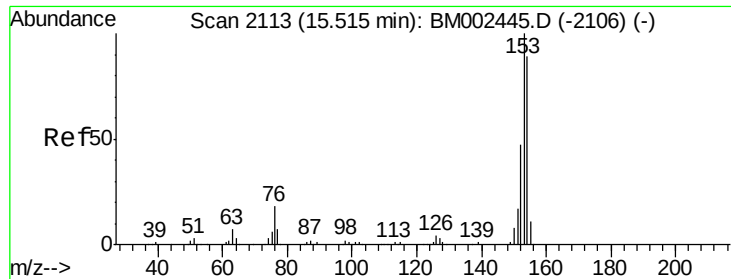


Abundance Ion 152.00 (151.70 to 152.70): E

Ion 151.00 (150.70 to 151.70): E

Ion 153.00 (152.70 to 153.70): E





#9

Acenaphthene

Concen: 7.00 ng/ul

RT: 15.52 min Scan# 2113

Delta R.T. 0.00 min

Lab File: BM002456.D

Acq: 17 Aug 2015 18:03

Instrument :

BNA\_M

ClientSampleId :

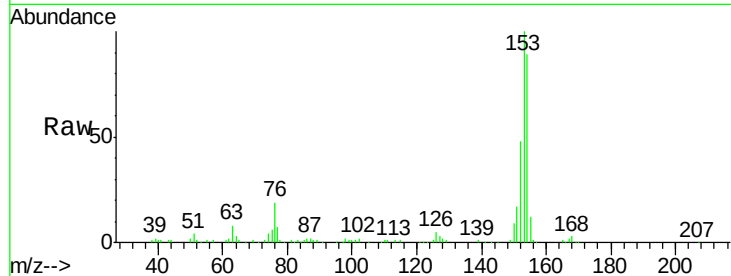
Tot Ion:153 Resp: 179004

Ion Ratio Lower Upper

153 100

152 47.9 36.9 55.3

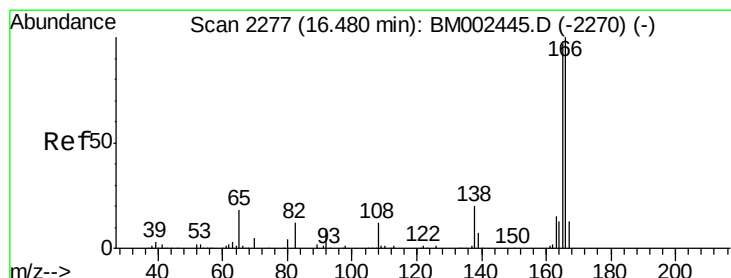
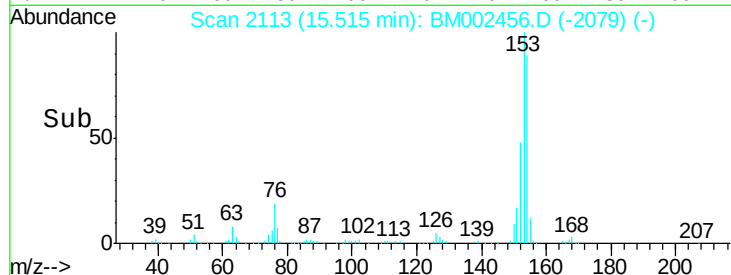
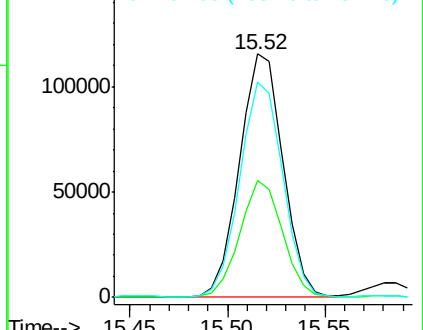
154 88.6 71.3 106.9



Abundance Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E

Ion 154.00 (153.70 to 154.70): E



#11

Fluorene

Concen: 5.92 ng/ul

RT: 16.48 min Scan# 2277

Delta R.T. 0.00 min

Lab File: BM002456.D

Acq: 17 Aug 2015 18:03

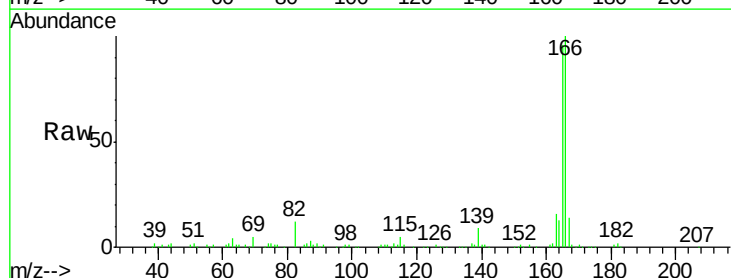
Tgt Ion:166 Resp: 173327

Ion Ratio Lower Upper

166 100

165 96.4 77.6 116.4

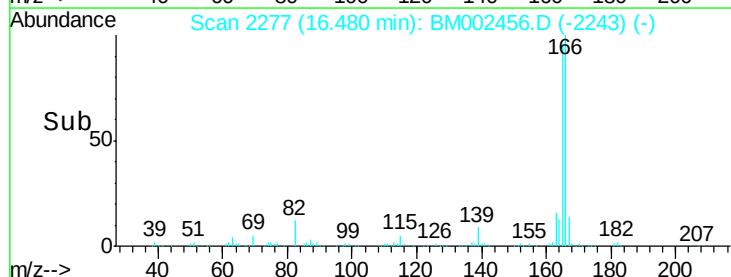
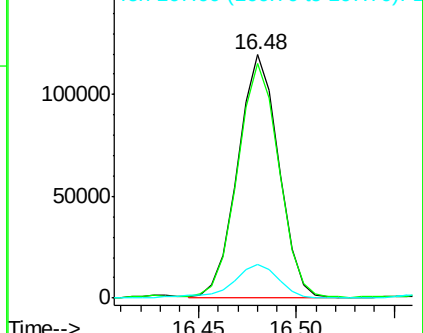
167 14.0 10.7 16.1

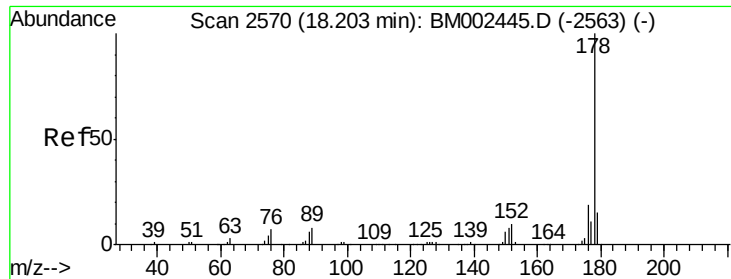


Abundance Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E

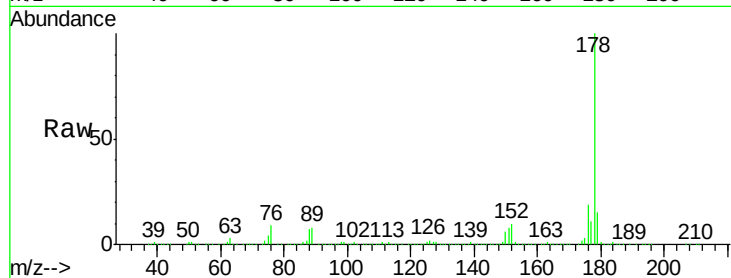




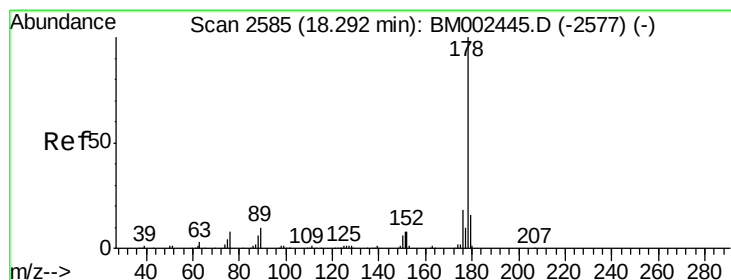
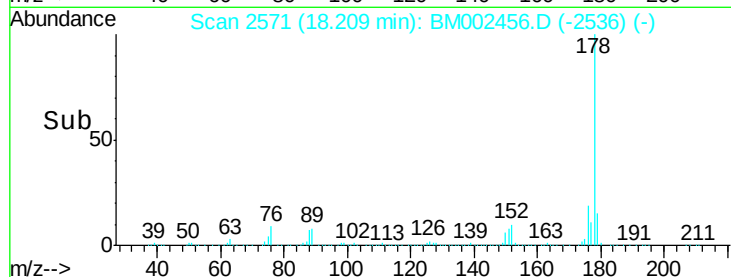
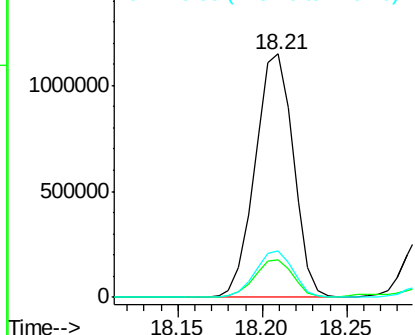
#13  
Phenanthrene  
Concen: 44.16 ng/ul  
RT: 18.21 min Scan# 2571  
Delta R.T. 0.01 min  
Lab File: BM002456.D  
Acq: 17 Aug 2015 18:03

Instrument :  
BNA\_M  
ClientSampleId :

Tot Ion:178 Resp: 1806311  
Ion Ratio Lower Upper  
178 100  
179 15.3 12.4 18.6  
176 18.9 15.1 22.7

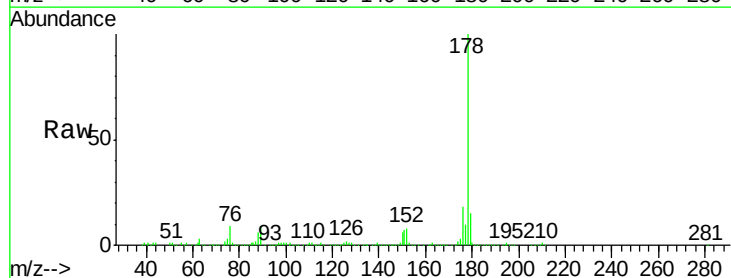


Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 179.00 (178.70 to 179.70): E  
Ion 176.00 (175.70 to 176.70): E

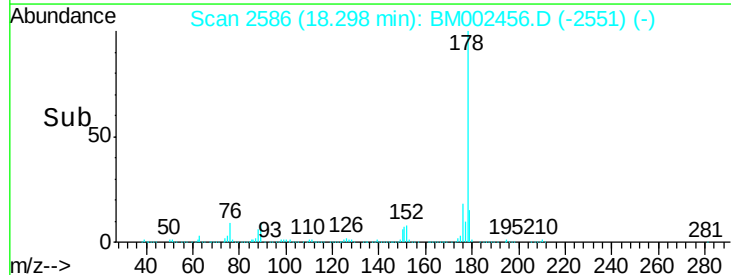
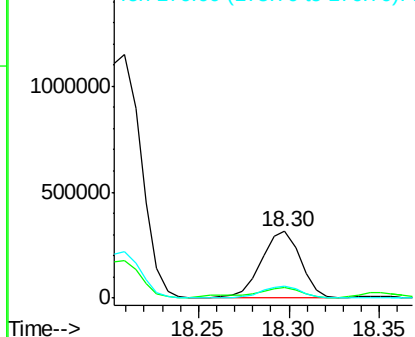


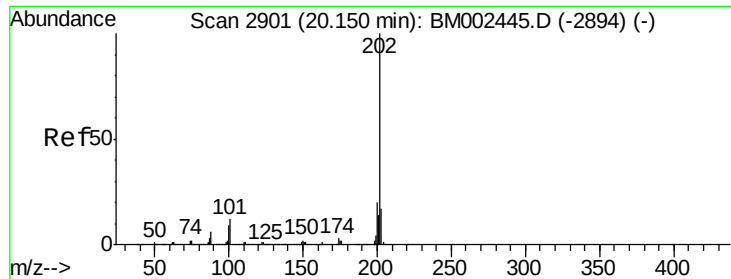
#15  
Anthracene  
Concen: 11.46 ng/ul  
RT: 18.30 min Scan# 2586  
Delta R.T. 0.01 min  
Lab File: BM002456.D  
Acq: 17 Aug 2015 18:03

Tgt Ion:178 Resp: 475141  
Ion Ratio Lower Upper  
178 100  
179 15.5 12.6 18.8  
176 18.4 14.5 21.7



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

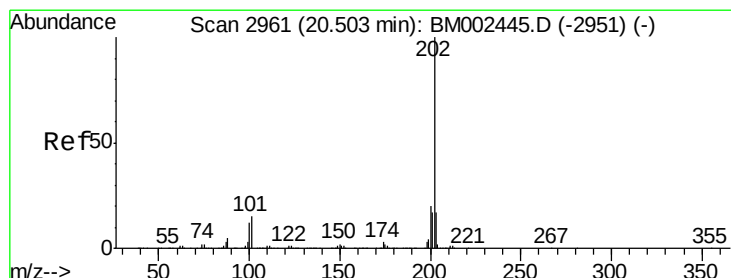
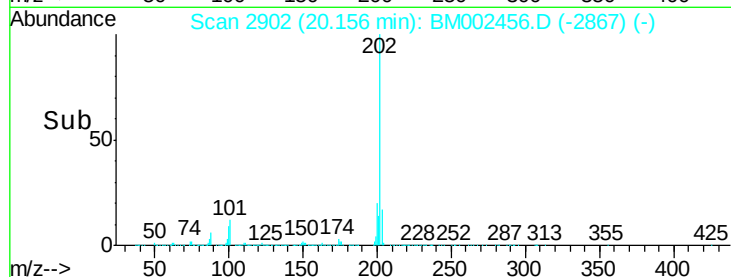
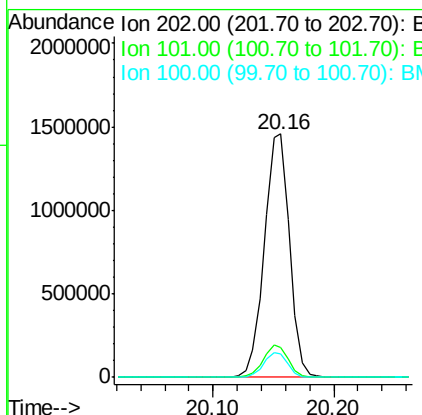
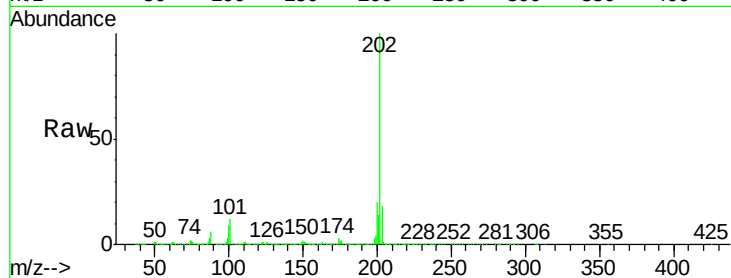




#16  
 Fluoranthene  
 Concen: 45.56 ng/ul  
 RT: 20.16 min Scan# 2902  
 Delta R.T. 0.01 min  
 Lab File: BM002456.D  
 Acq: 17 Aug 2015 18:03

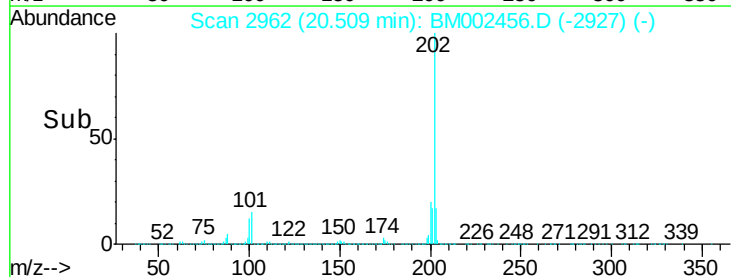
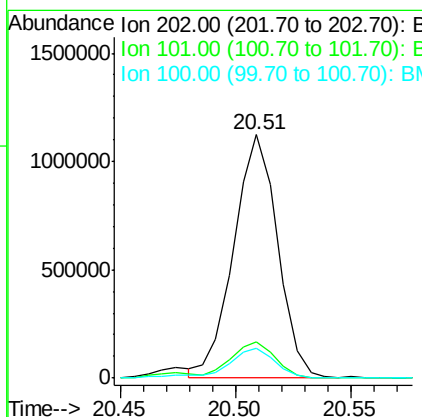
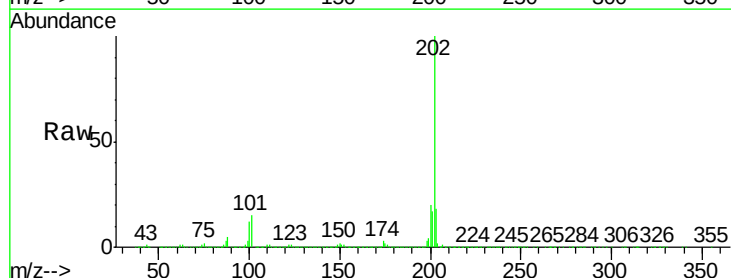
Instrument :  
 BNA\_M  
 ClientSampleId :

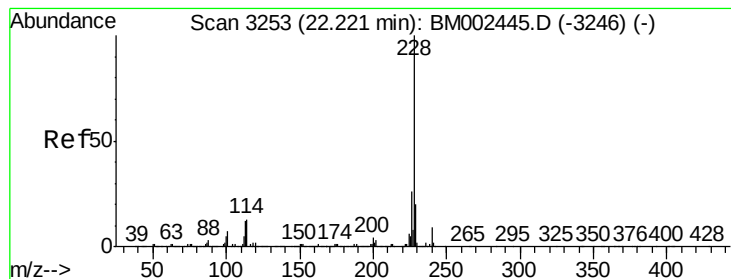
Tot Ion:202 Resp: 2109485  
 Ion Ratio Lower Upper  
 202 100  
 101 12.4 9.7 14.5  
 100 9.5 7.4 11.2



#19  
 Pyrene  
 Concen: 54.08 ng/ul  
 RT: 20.51 min Scan# 2962  
 Delta R.T. 0.01 min  
 Lab File: BM002456.D  
 Acq: 17 Aug 2015 18:03

Tgt Ion:202 Resp: 1488314  
 Ion Ratio Lower Upper  
 202 100  
 101 14.9 12.0 18.0  
 100 12.2 9.7 14.5





#20

Benzo(a)anthracene

Concen: 25.88 ng/ul

RT: 22.23 min Scan# 3254

Delta R.T. 0.01 min

Lab File: BM002456.D

Acq: 17 Aug 2015 18:03

Instrument :

BNA\_M

ClientSampleId :

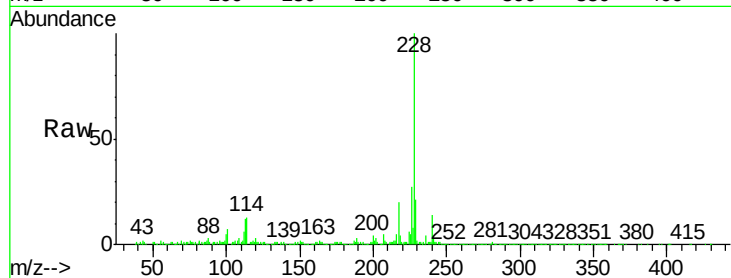
Tot Ion:228 Resp: 727157

Ion Ratio Lower Upper

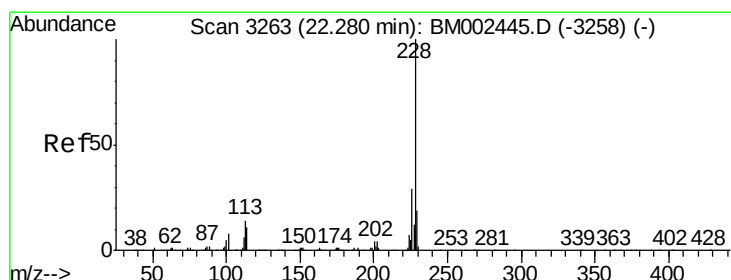
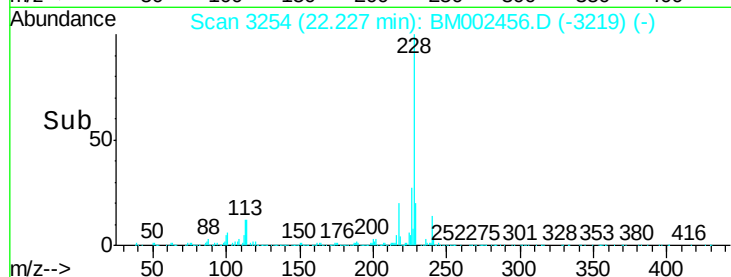
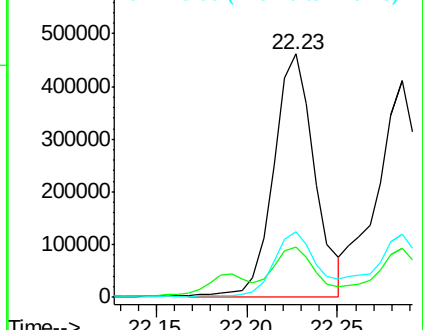
228 100

229 20.7 15.8 23.6

226 26.9 21.1 31.7



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



#21

Chrysene

Concen: 24.85 ng/ul

RT: 22.29 min Scan# 3264

Delta R.T. 0.01 min

Lab File: BM002456.D

Acq: 17 Aug 2015 18:03

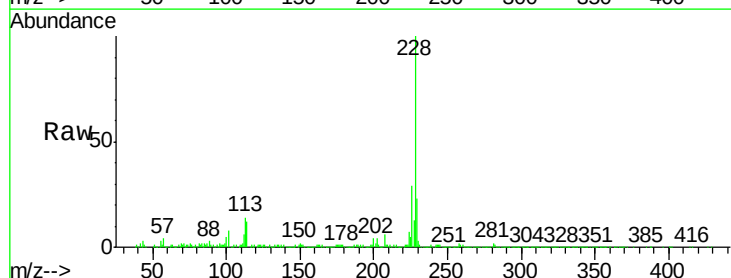
Tgt Ion:228 Resp: 652915

Ion Ratio Lower Upper

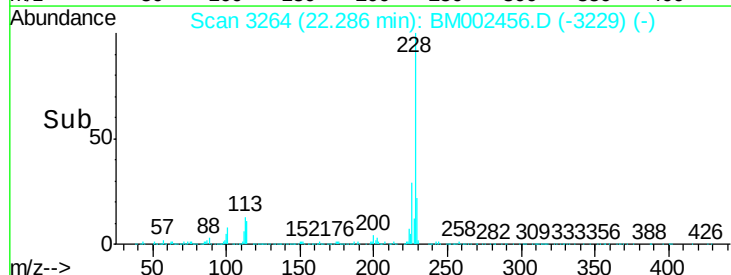
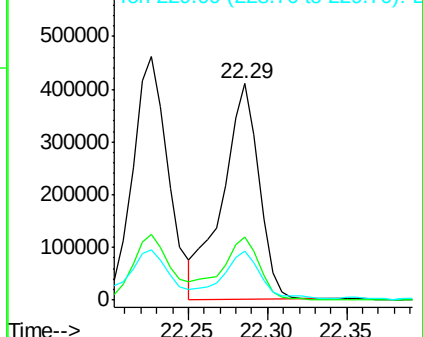
228 100

226 29.2 23.4 35.2

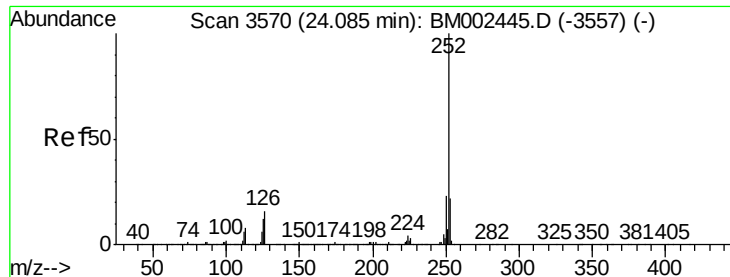
229 22.8 15.7 23.5



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



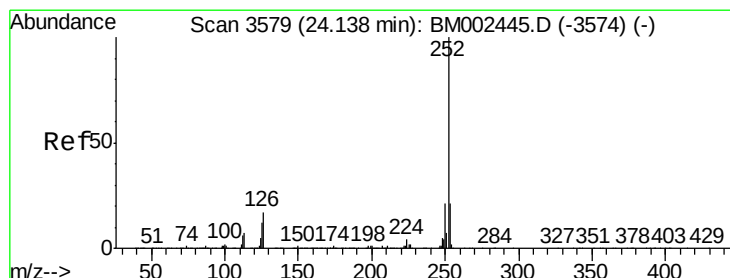
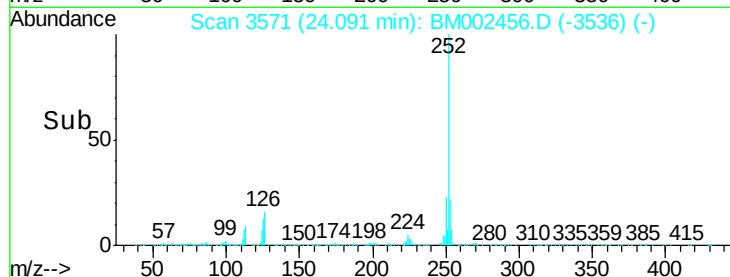
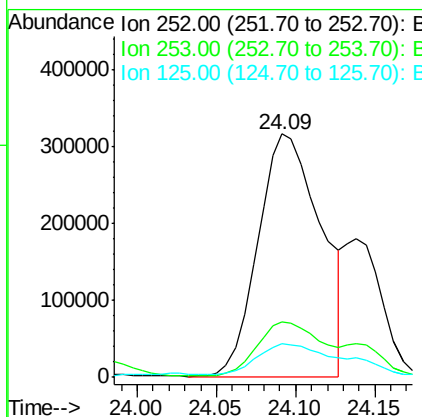
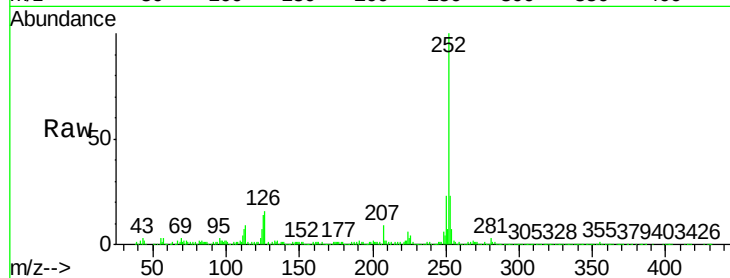




#23  
Benzo(b)fluoranthene  
Concen: 32.70 ng/ul  
RT: 24.09 min Scan# 3571  
Delta R.T. 0.01 min  
Lab File: BM002456.D  
Acq: 17 Aug 2015 18:03

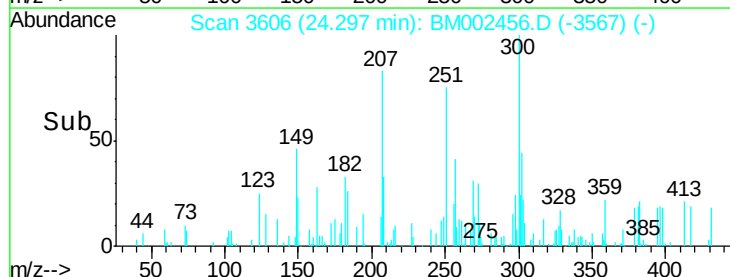
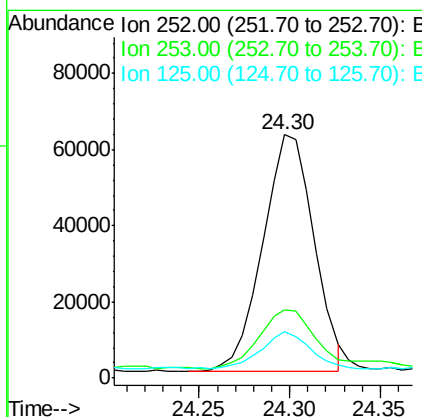
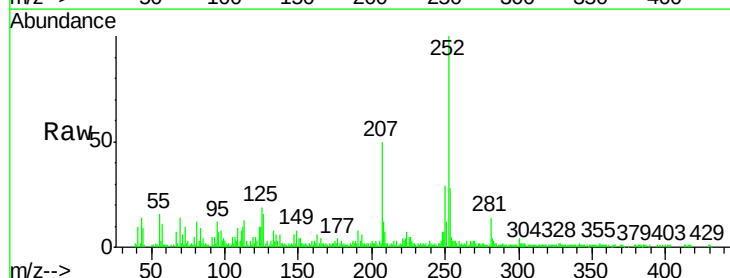
Instrument :  
BNA\_M  
ClientSampleId :

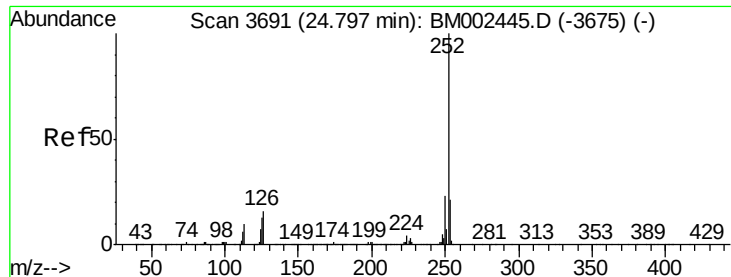
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.7  | 17.4  | 26.0  |
| 125     | 13.9  | 10.0  | 15.0  |



#24  
Benzo(k)fluoranthene  
Concen: 4.85 ng/ul  
RT: 24.30 min Scan# 3606  
Delta R.T. 0.16 min  
Lab File: BM002456.D  
Acq: 17 Aug 2015 18:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 28.1  | 17.8  | 26.6# |
| 125     | 19.1  | 9.8   | 14.8# |





#26

Benzo(a)pyrene

Concen: 22.32 ng/ul

RT: 24.80 min Scan# 3692

Delta R.T. 0.01 min

Lab File: BM002456.D

Acq: 17 Aug 2015 18:03

Instrument :

BNA\_M

ClientSampleId :

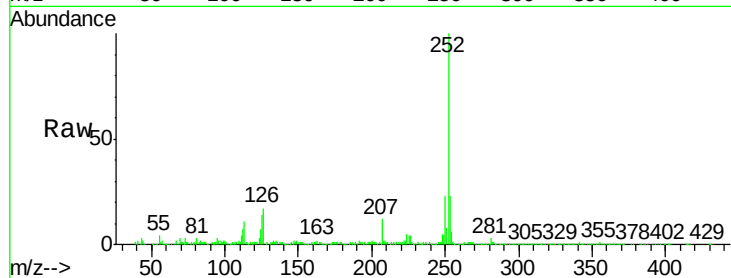
Tot Ion:252 Resp: 567646

Ion Ratio Lower Upper

252 100

253 23.1 17.6 26.4

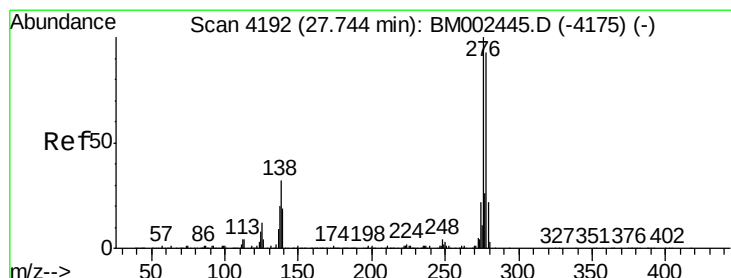
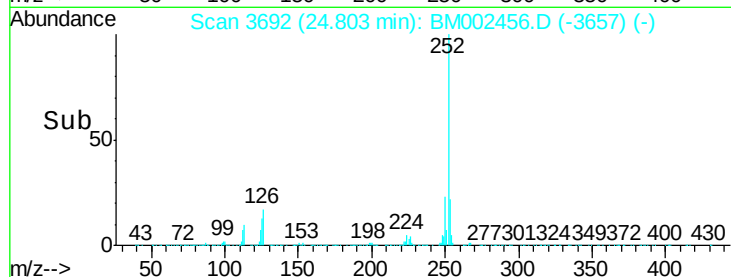
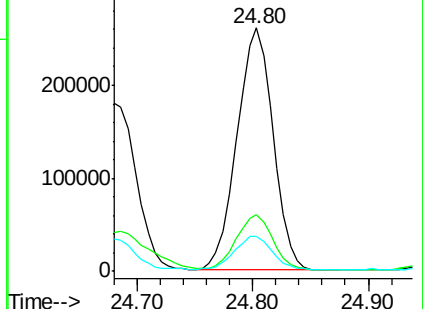
125 14.2 10.7 16.1



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



#27

Indeno(1,2,3-cd)pyrene

Concen: 14.53 ng/ul

RT: 27.75 min Scan# 4193

Delta R.T. 0.01 min

Lab File: BM002456.D

Acq: 17 Aug 2015 18:03

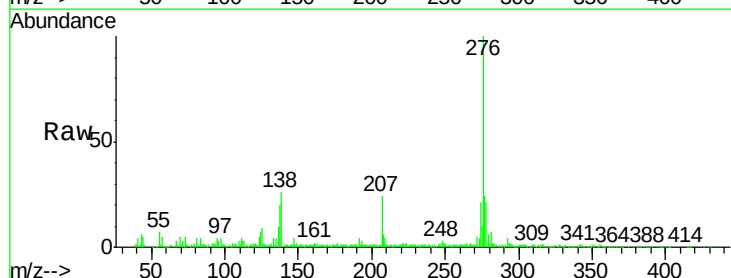
Tgt Ion:276 Resp: 424793

Ion Ratio Lower Upper

276 100

138 26.5 25.3 37.9

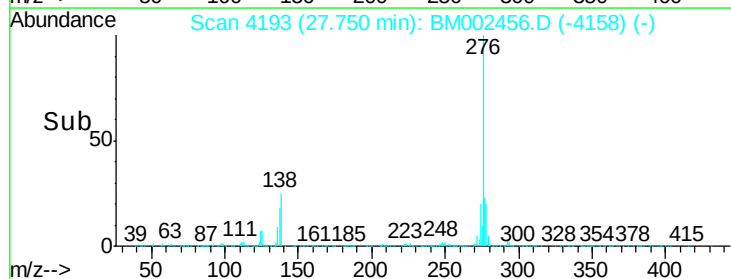
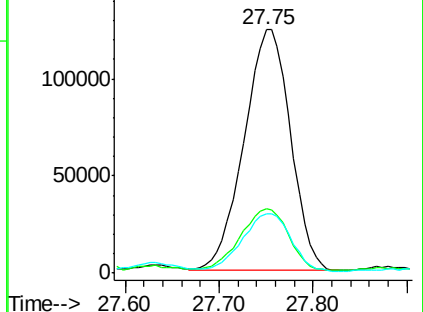
277 24.3 20.2 30.2

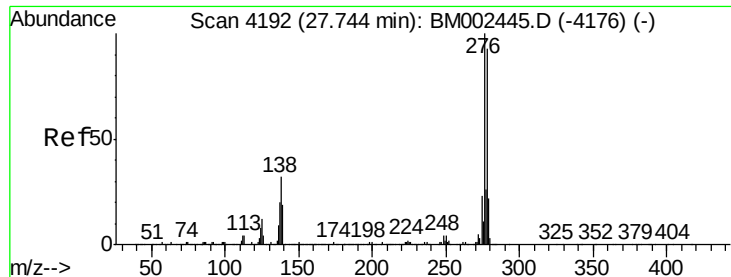


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E

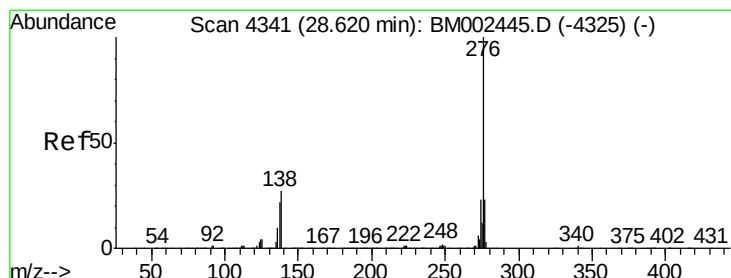
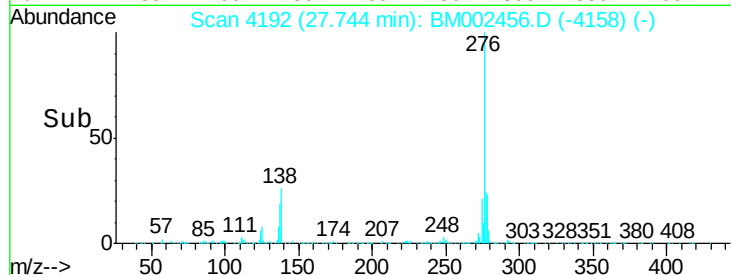
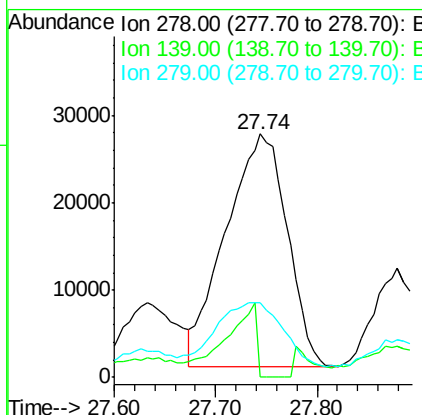
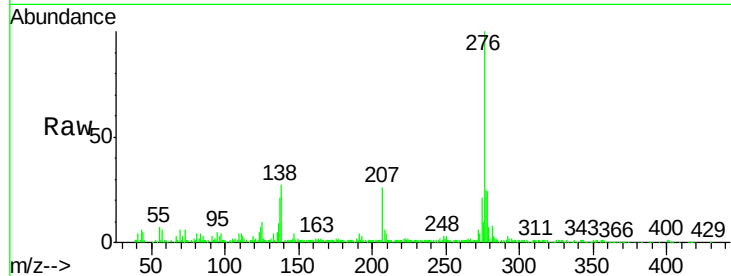




#28  
Dibenzo(a,h)anthracene  
Concen: 4.60 ng/ul  
RT: 27.74 min Scan# 4192  
Delta R.T. 0.00 min  
Lab File: BM002456.D  
Acq: 17 Aug 2015 18:03

Instrument :  
BNA\_M  
ClientSampleId :

Tot Ion:278 Resp: 112446  
Ion Ratio Lower Upper  
278 100  
139 0.0 16.5 24.7#  
279 30.6 18.8 28.2#



#29  
Benzo(g,h,i)perylene  
Concen: 14.57 ng/ul  
RT: 28.64 min Scan# 4344  
Delta R.T. 0.02 min  
Lab File: BM002456.D  
Acq: 17 Aug 2015 18:03

Tgt Ion:276 Resp: 354808  
Ion Ratio Lower Upper  
276 100  
138 27.5 21.0 31.6  
277 24.5 19.2 28.8

