

Data Path : Z:\HPCHEM1\BNA M\DATA\BM122915\
 Data File : BM003826.D
 Acq On : 28 Dec 2015 13:40
 Operator : UM/SJ
 Sample : G4889-04
 Misc :
 ALS Vial : 3 Sample Multiplier: 4

Instrument :
 BNA_M
 ClientSampleId :
 LIBERTY-SF-121815

Quant Time: Dec 29 12:49:27 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\8270-SIM-BM122415.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Thu Dec 24 10:08:49 2015
 Response via : Initial Calibration

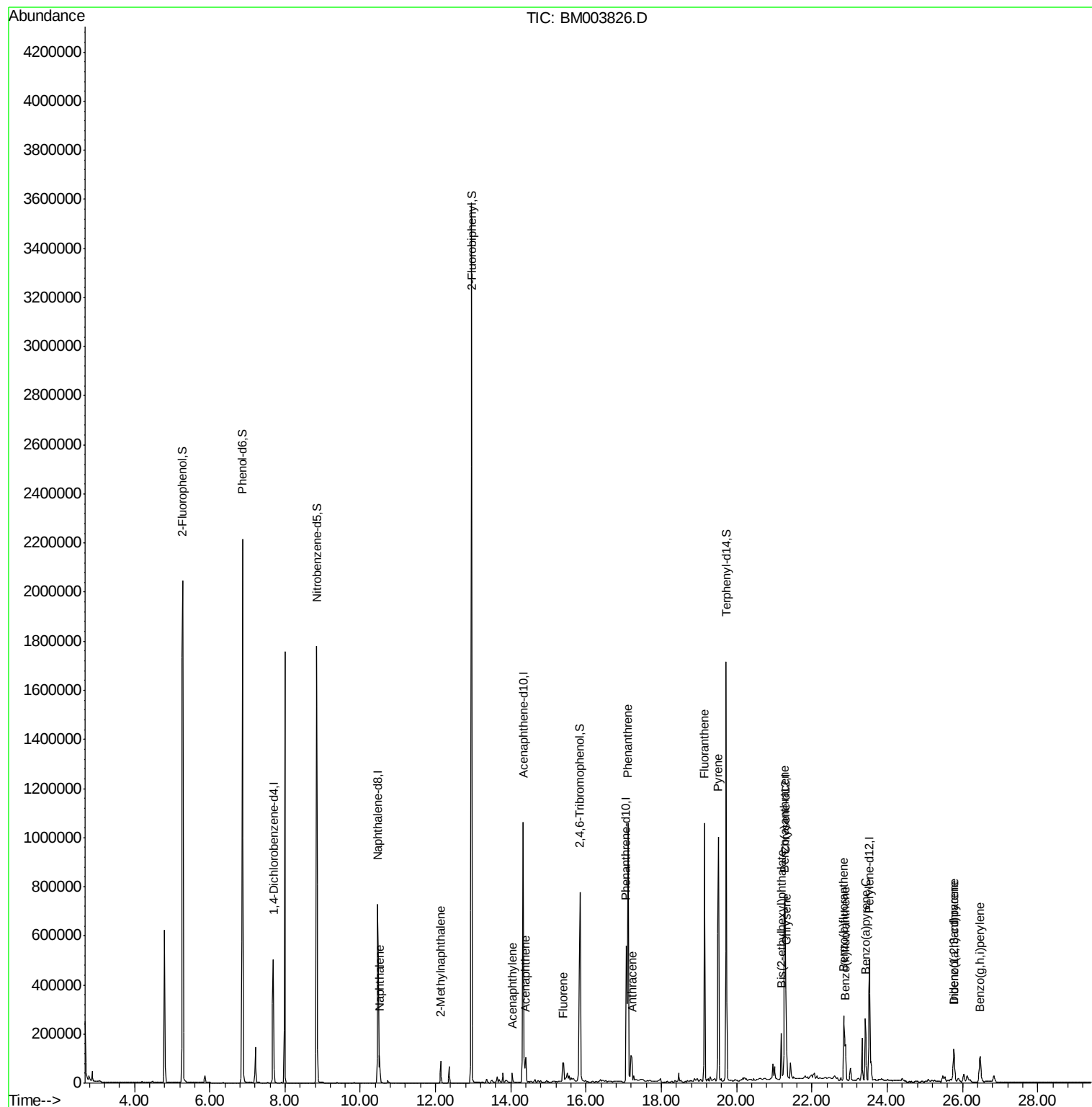
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.69	152	289070	20.00	ng	0.00
7) Naphthalene-d8	10.46	136	1168556	20.00	ng	-0.02
13) Acenaphthene-d10	14.33	164	611104	20.00	ng	0.00
19) Phenanthrene-d10	17.06	188	1012266	20.00	ng	0.00
26) Chrysene-d12	21.29	240	753949	20.00	ng	0.00
35) Perylene-d12	23.53	264	648116	20.00	ng	0.01
System Monitoring Compounds						
4) 2-Fluorophenol	5.28	112	2093115	122.58	ng	0.02
5) Phenol-d6	6.87	99	2629819	125.76	ng	0.00
8) Nitrobenzene-d5	8.85	82	1554994	100.45	ng	0.00
14) 2,4,6-Tribromophenol	15.84	330	588401	120.77	ng	0.00
15) 2-Fluorobiphenyl	12.96	172	3484332	74.55	ng	0.00
29) Terphenyl-d14	19.72	244	1903620	64.48	ng	0.00
Target Compounds						Qvalue
10) Naphthalene	10.51	128	148783	2.23	ng	99
12) 2-Methylnaphthalene	12.13	142	70290	1.58	ng	90
16) Acenaphthylene	14.04	152	37406	0.54	ng	# 93
17) Acenaphthene	14.39	154	77482	1.86	ng	95
18) Fluorene	15.39	166	93250m	1.78	ng	
23) Phenanthrene	17.11	178	1259499	18.43	ng	99
24) Anthracene	17.22	178	238777m	4.01	ng	
25) Fluoranthene	19.14	202	1252880	15.51	ng	100
28) Pyrene	19.52	202	1138392	18.21	ng	# 93
30) Benzo(a)anthracene	21.27	228	510463m	9.03	ng	
32) Chrysene	21.31	228	373449m	6.92	ng	
33) Bis(2-ethylhexyl)phthalate	21.19	149	195923	5.33	ng	# 100
34) Indeno(1,2,3-cd)pyrene	25.77	276	207345	5.21	ng	94
36) Benzo(b)fluoranthene	22.85	252	469240m	8.86	ng	
37) Benzo(k)fluoranthene	22.89	252	130985m	2.68	ng	
38) Benzo(a)pyrene	23.42	252	336947	7.43	ng	97
39) Dibenzo(a,h)anthracene	25.78	278	50788	1.43	ng	# 84
40) Benzo(g,h,i)perylene	26.47	276	207444	5.58	ng	97

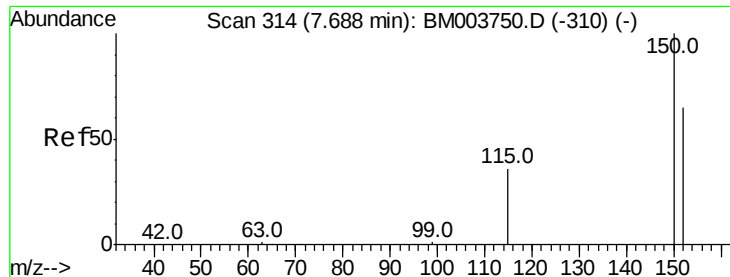
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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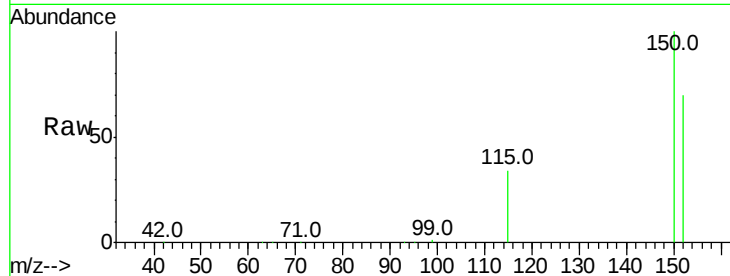


#1

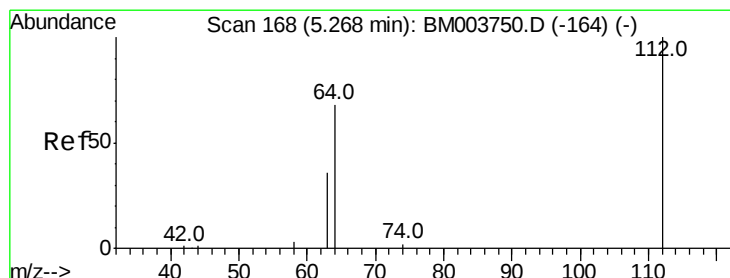
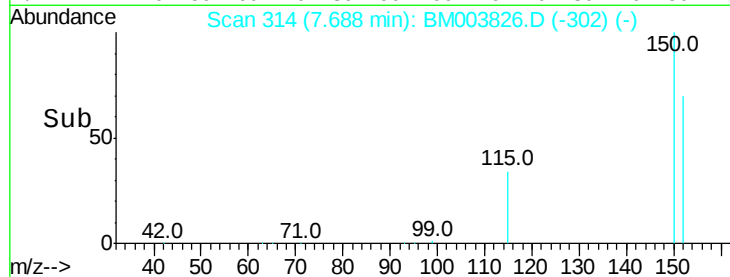
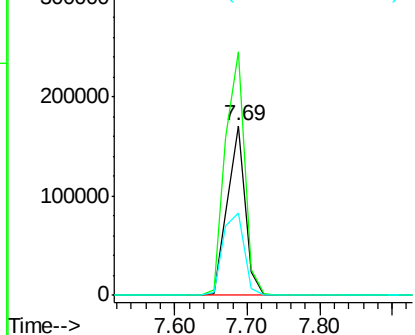
1,4-Dichlorobenzene-d4
Concen: 20.00 ng
RT: 7.69 min Scan# 314
Delta R.T. 0.00 min
Lab File: BM003826.D
Acq: 28 Dec 2015 13:40

Instrument :
BNA_M
ClientSampleId :
LIBERTY-SF-121815

Tot Ion:152 Resp: 289070
Ion Ratio Lower Upper
152 100
150 143.4 122.9 184.3
115 48.4 44.4 66.6



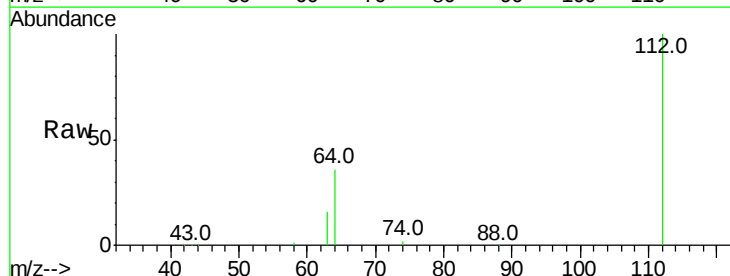
Abundance Ion 152.00 (151.70 to 152.70): E
Ion 150.00 (149.70 to 150.70): E
Ion 115.00 (114.70 to 115.70): E



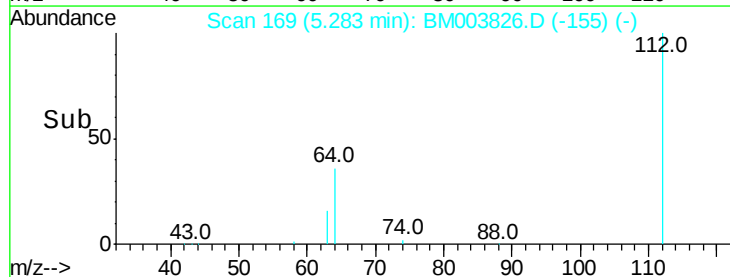
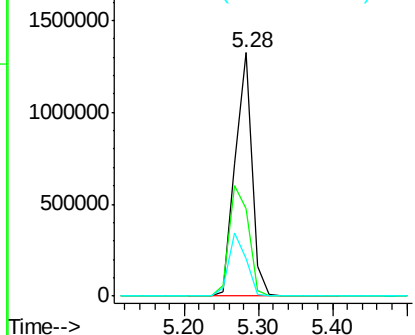
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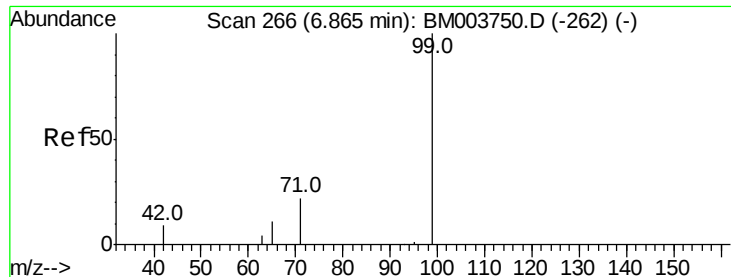
2-Fluorophenol
Concen: 122.58 ng
RT: 5.28 min Scan# 169
Delta R.T. 0.02 min
Lab File: BM003826.D
Acq: 28 Dec 2015 13:40

Tgt Ion:112 Resp: 2093115
Ion Ratio Lower Upper
112 100
64 52.0 41.8 62.8
63 27.1 22.1 33.1



Abundance Ion 112.00 (111.70 to 112.70): E
Ion 64.00 (63.70 to 64.70): BM0
Ion 63.00 (62.70 to 63.70): BM0





#5

Phenol-d6

Concen: 125.76 ng

RT: 6.87 min Scan# 266

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

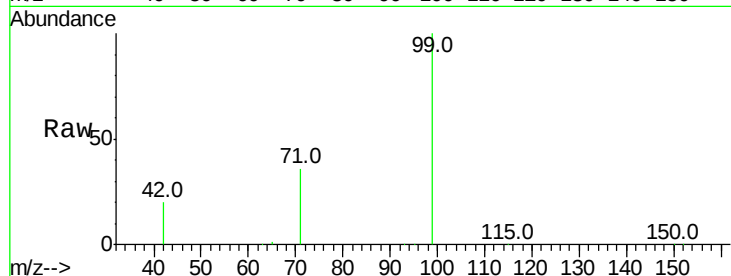
Tot Ion: 99 Resp: 2629819

Ion Ratio Lower Upper

99 100

42 18.9 16.2 24.2

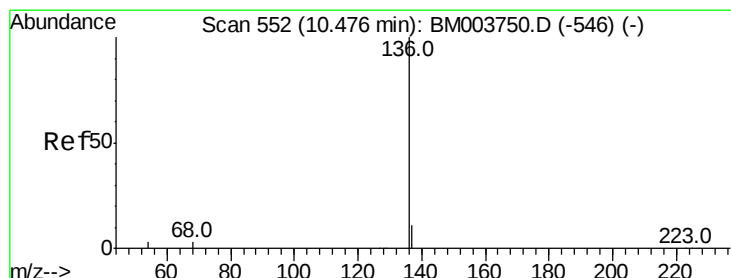
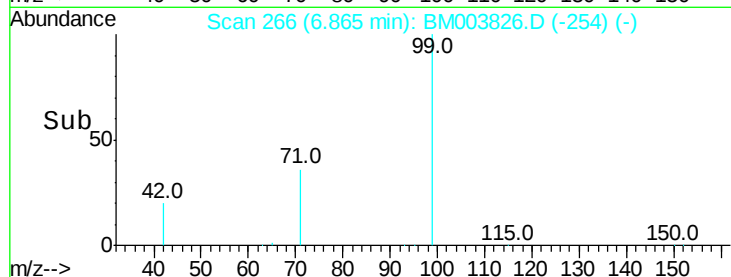
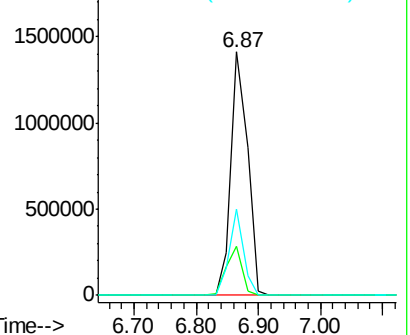
71 30.8 24.4 36.6



Abundance Ion 99.00 (98.70 to 99.70): BM003750.D (-262) (-)

Ion 42.00 (41.70 to 42.70): BM003750.D (-262) (-)

Ion 71.00 (70.70 to 71.70): BM003750.D (-262) (-)



#7

Naphthalene-d8

Concen: 20.00 ng

RT: 10.46 min Scan# 551

Delta R.T. -0.02 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Tgt Ion:136 Resp: 1168556

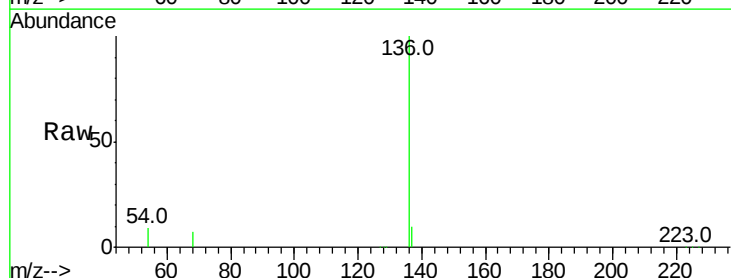
Ion Ratio Lower Upper

136 100

137 10.3 9.2 13.8

54 9.1 2.8 4.2#

68 6.7 2.5 3.7#

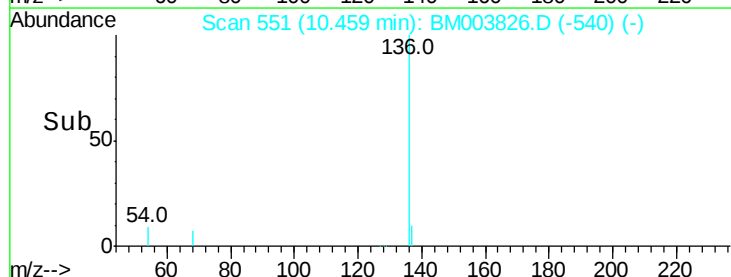
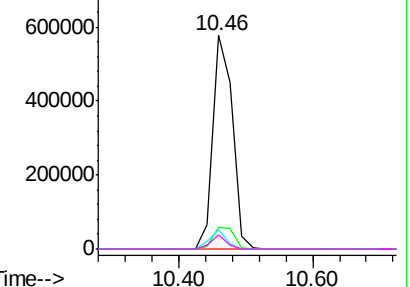


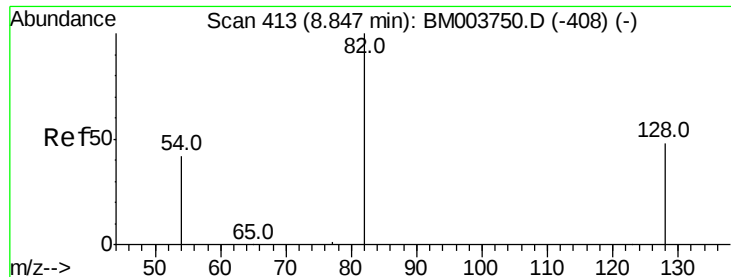
Abundance Ion 136.00 (135.70 to 136.70): BM003750.D (-546) (-)

Ion 137.00 (136.70 to 137.70): BM003750.D (-546) (-)

Ion 54.00 (53.70 to 54.70): BM003750.D (-546) (-)

Ion 68.00 (67.70 to 68.70): BM003750.D (-546) (-)





#8

Nitrobenzene-d5

Concen: 100.45 ng

RT: 8.85 min Scan# 413

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

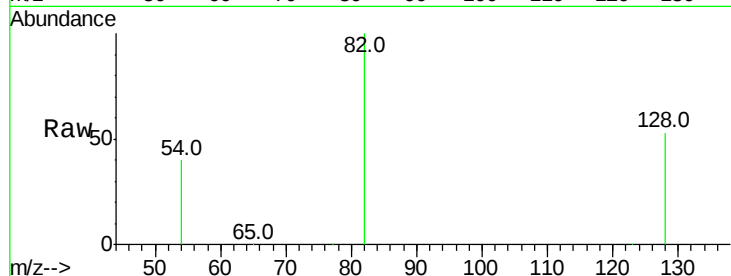
Tot Ion: 82 Resp: 1554994

Ion Ratio Lower Upper

82 100

128 53.4 39.1 58.7

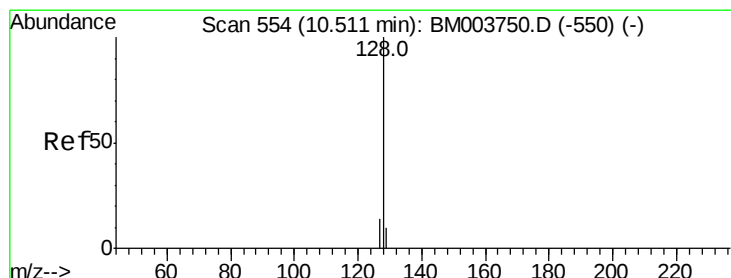
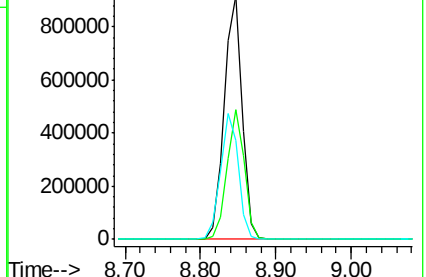
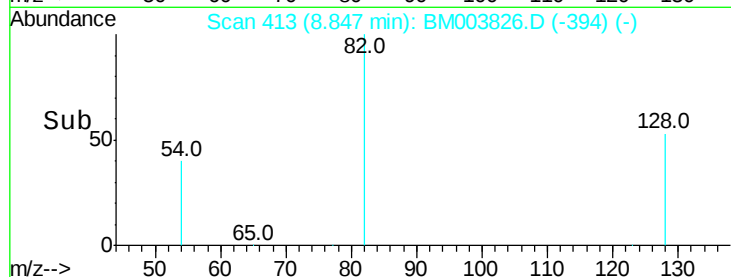
54 40.5 34.8 52.2



Abundance Ion 82.00 (81.70 to 82.70): BM003750.D (-408) (-)

Ion 128.00 (127.70 to 128.70): BM003750.D (-408) (-)

Ion 54.00 (53.70 to 54.70): BM003750.D (-408) (-)



#10

Naphthalene

Concen: 2.23 ng

RT: 10.51 min Scan# 554

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

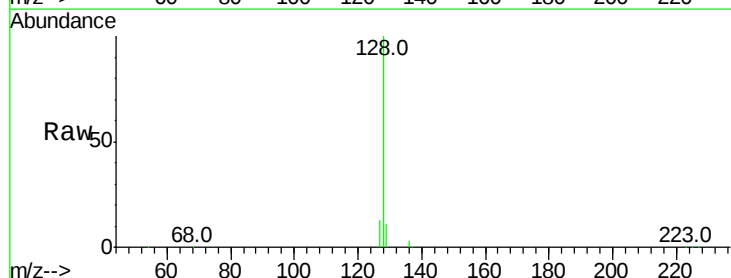
Tgt Ion: 128 Resp: 148783

Ion Ratio Lower Upper

128 100

129 11.0 8.5 12.7

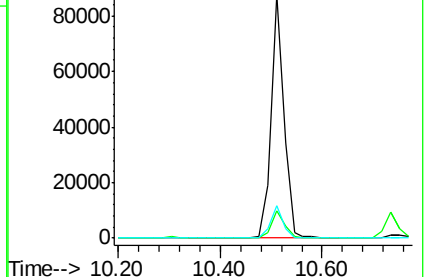
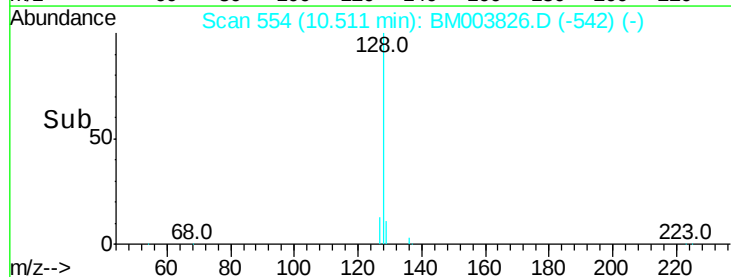
127 13.1 11.0 16.4

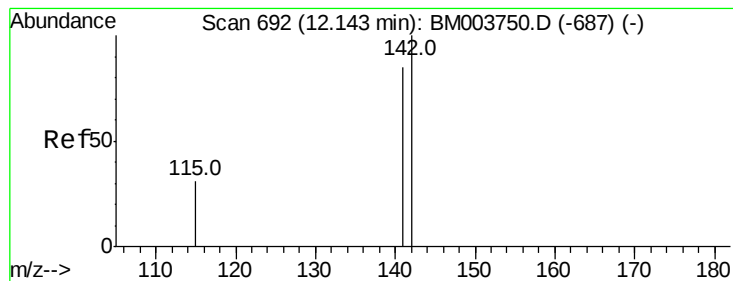


Abundance Ion 128.00 (127.70 to 128.70): BM003750.D (-550) (-)

Ion 129.00 (128.70 to 129.70): BM003750.D (-550) (-)

Ion 127.00 (126.70 to 127.70): BM003750.D (-550) (-)





#12

2-Methylnaphthalene

Concen: 1.58 ng

RT: 12.13 min Scan# 691

Delta R.T. -0.01 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

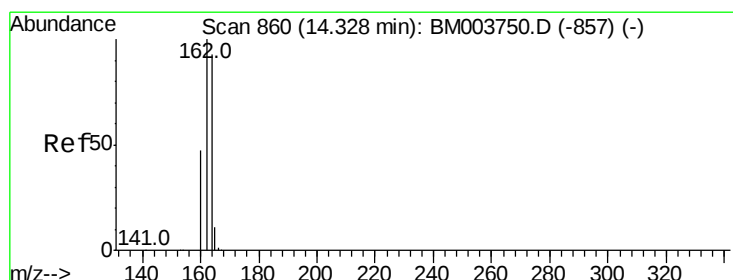
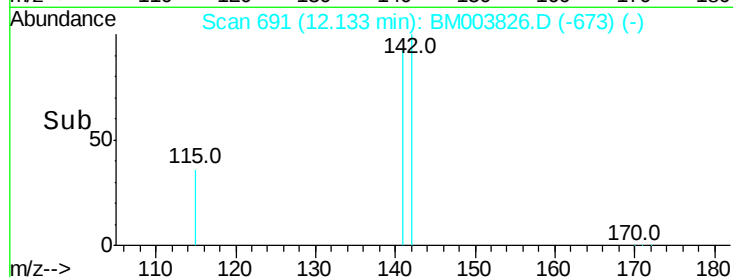
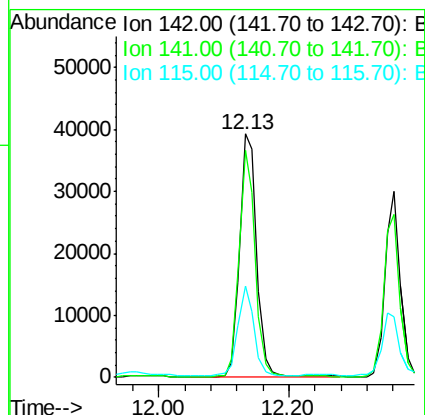
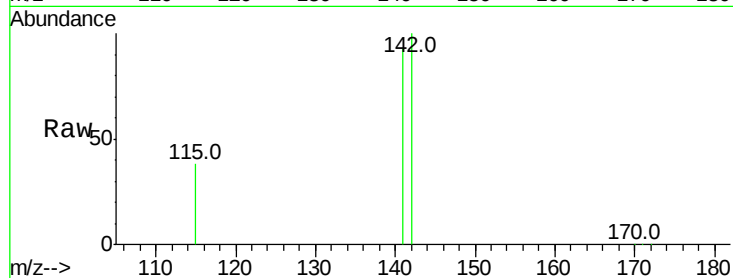
Tot Ion:142 Resp: 70290

Ion Ratio Lower Upper

142 100

141 93.0 67.8 101.8

115 37.6 25.3 37.9



#13

Acenaphthene-d10

Concen: 20.00 ng

RT: 14.33 min Scan# 860

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

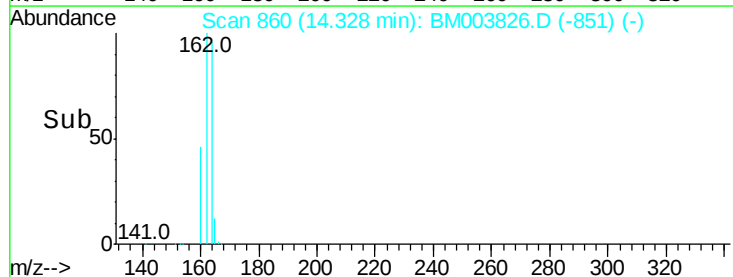
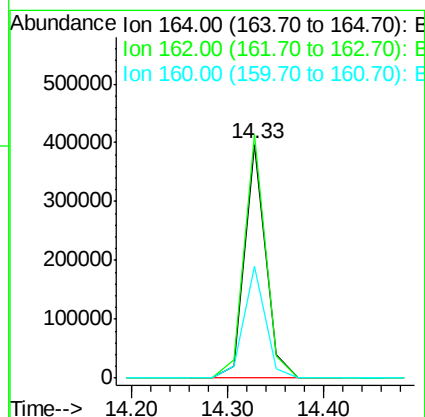
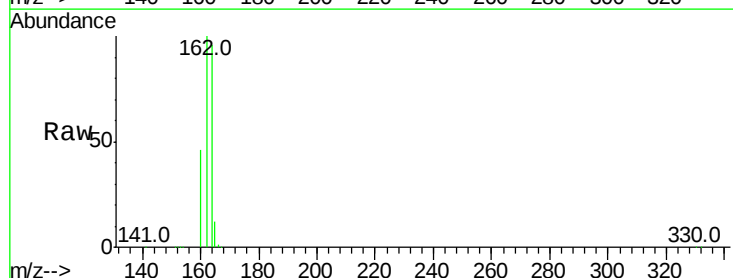
Tgt Ion:164 Resp: 611104

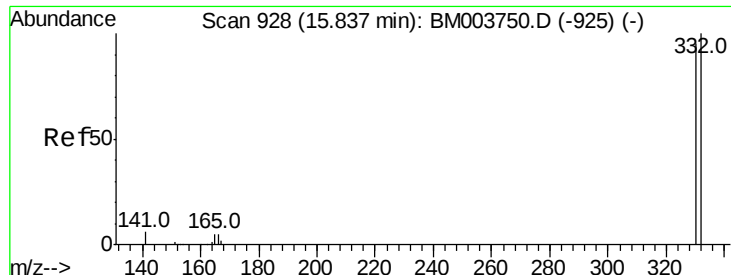
Ion Ratio Lower Upper

164 100

162 104.2 86.0 129.0

160 47.8 40.3 60.5

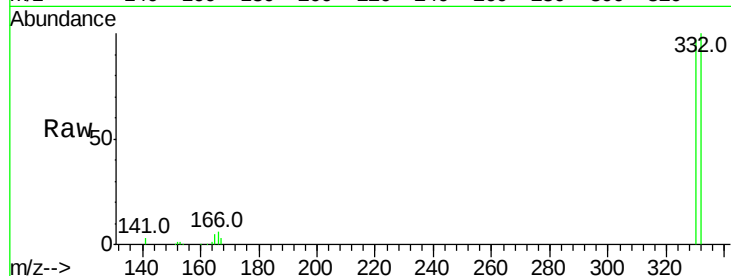




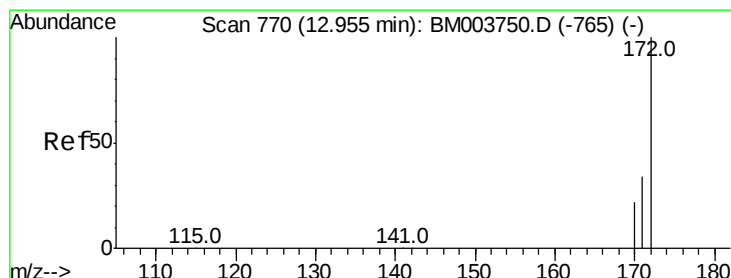
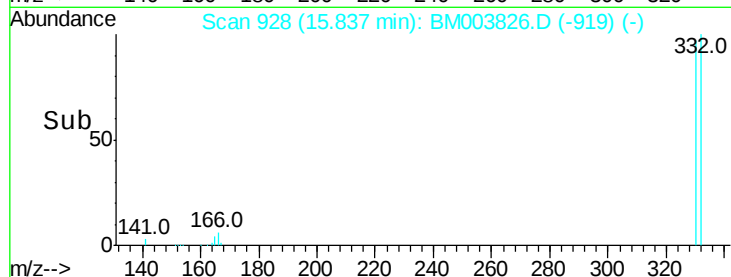
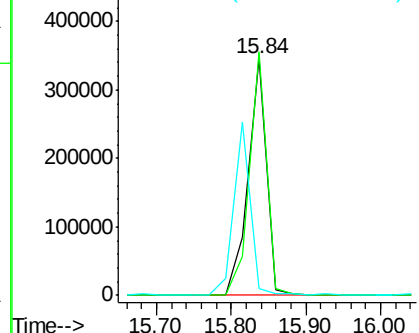
#14
 2,4,6-Tribromophenol
 Concen: 120.77 ng
 RT: 15.84 min Scan# 928
 Delta R.T. 0.00 min
 Lab File: BM003826.D
 Acq: 28 Dec 2015 13:40

Instrument :
 BNA_M
 ClientSampleId :
 LIBERTY-SF-121815

Tot Ion:330 Resp: 588401
 Ion Ratio Lower Upper
 330 100
 332 96.4 79.0 118.4
 141 0.0 0.0 0.0

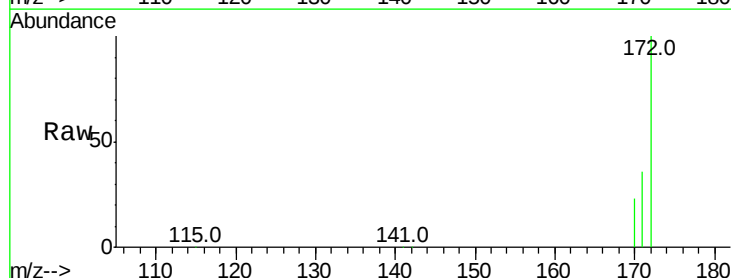


Abundance Ion 329.80 (329.50 to 330.50): E
 Ion 331.80 (331.50 to 332.50): E
 Ion 141.00 (140.70 to 141.70): E

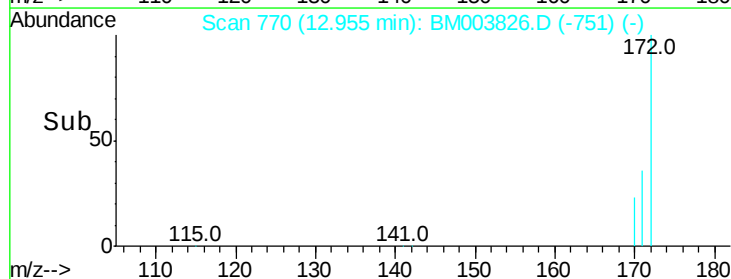
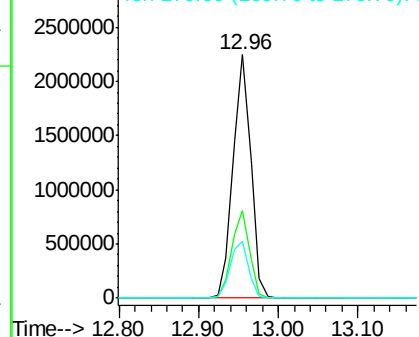


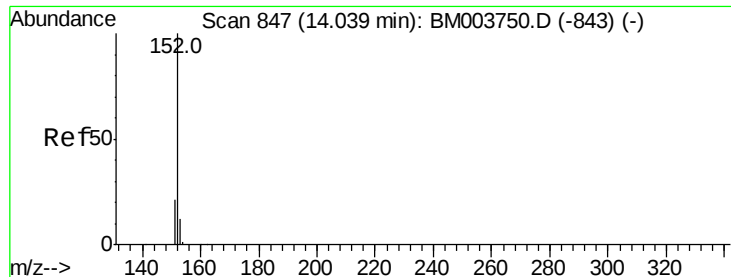
#15
 2-Fluorobiphenyl
 Concen: 74.55 ng
 RT: 12.96 min Scan# 770
 Delta R.T. 0.00 min
 Lab File: BM003826.D
 Acq: 28 Dec 2015 13:40

Tgt Ion:172 Resp: 3484332
 Ion Ratio Lower Upper
 172 100
 171 35.7 27.0 40.6
 170 23.4 17.9 26.9



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

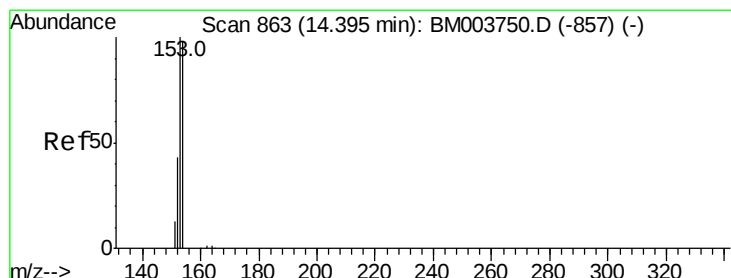
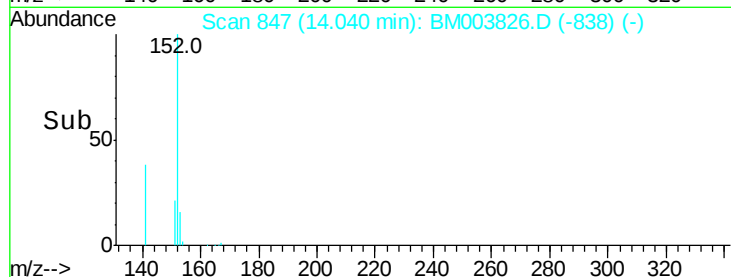
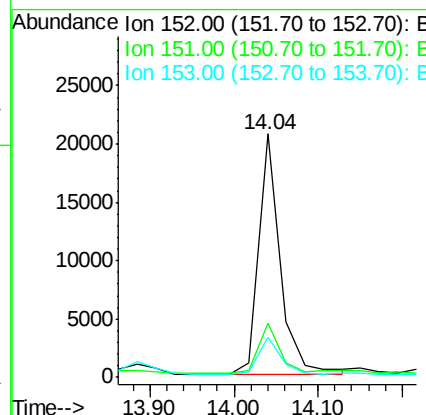
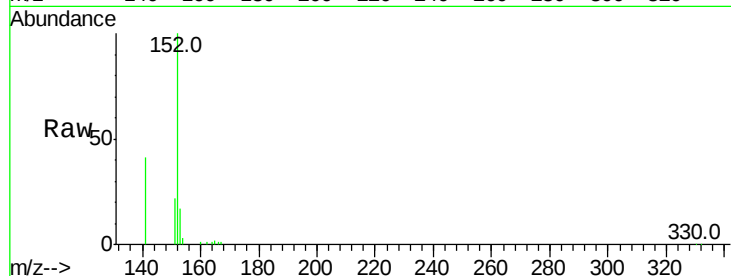




#16
Acenaphthylene
Concen: 0.54 ng
RT: 14.04 min Scan# 847
Delta R.T. 0.00 min
Lab File: BM003826.D
Acq: 28 Dec 2015 13:40

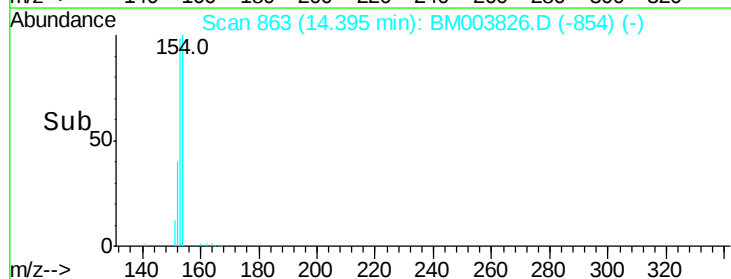
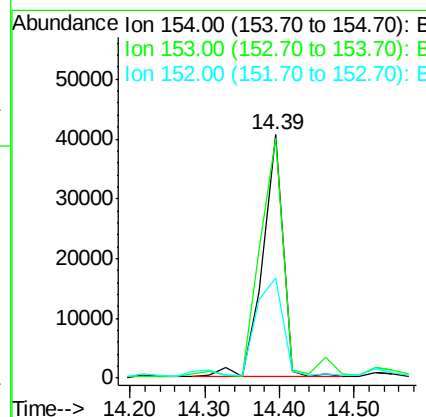
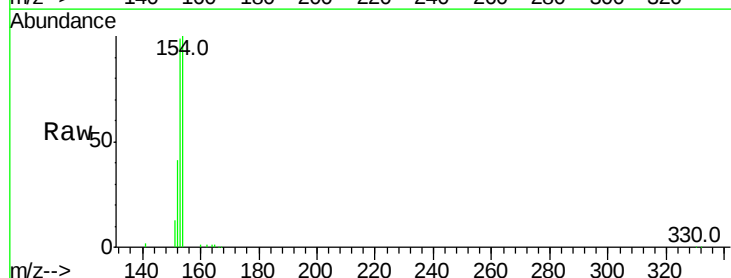
Instrument :
BNA_M
ClientSampleId :
LIBERTY-SF-121815

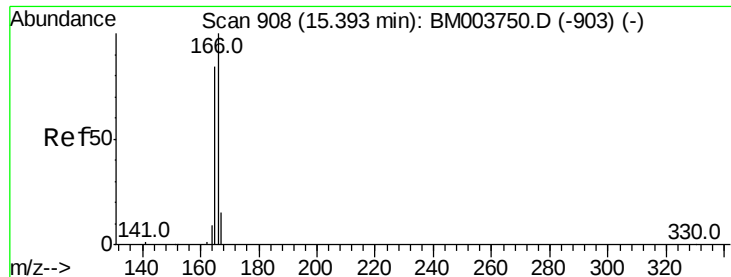
Tot Ion:152 Resp: 37406
Ion Ratio Lower Upper
152 100
151 21.9 15.8 23.8
153 17.3 10.2 15.4#



#17
Acenaphthene
Concen: 1.86 ng
RT: 14.39 min Scan# 863
Delta R.T. 0.00 min
Lab File: BM003826.D
Acq: 28 Dec 2015 13:40

Tgt Ion:154 Resp: 77482
Ion Ratio Lower Upper
154 100
153 111.0 85.4 128.2
152 56.0 40.6 60.8





#18

Fluorene

Concen: 1.78 ng/mL

RT: 15.39 min Scan# 908

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

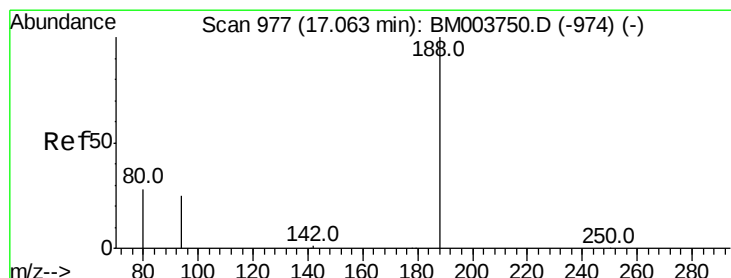
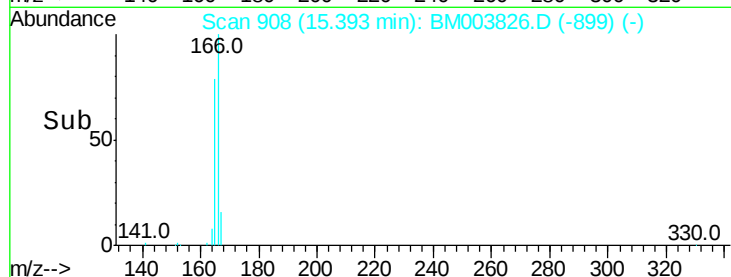
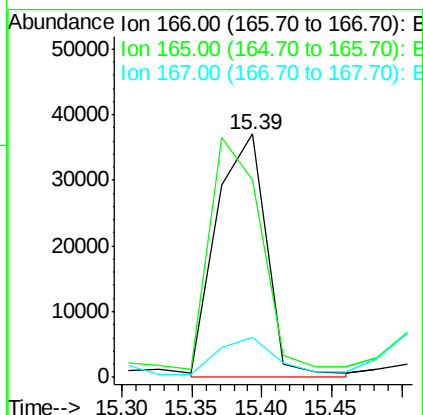
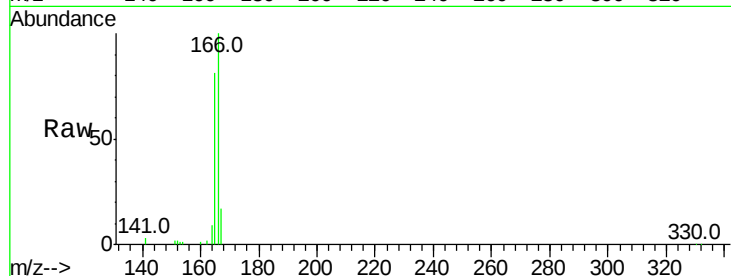
Tot Ion:166 Resp: 93250

Ion Ratio Lower Upper

166 100

165 0.0 77.2 115.8#

167 0.0 11.0 16.6#



#19

Phenanthrene-d10

Concen: 20.00 ng

RT: 17.06 min Scan# 977

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

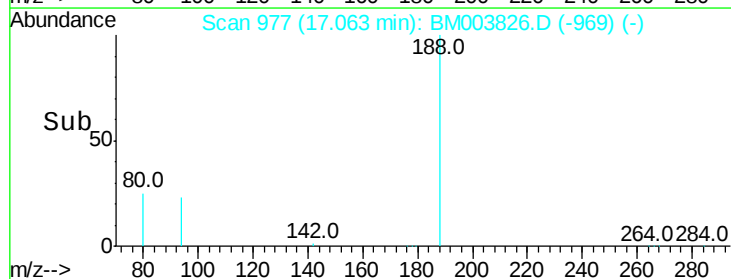
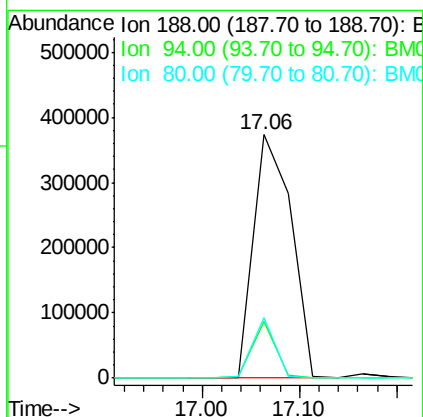
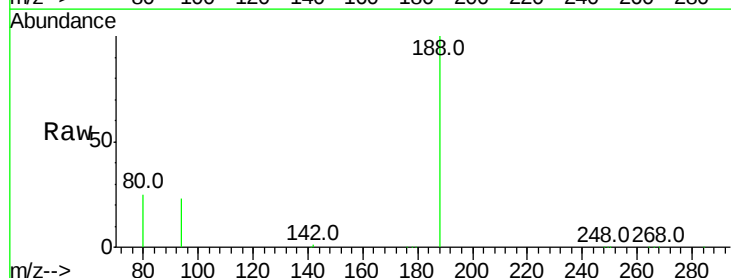
Tgt Ion:188 Resp: 1012266

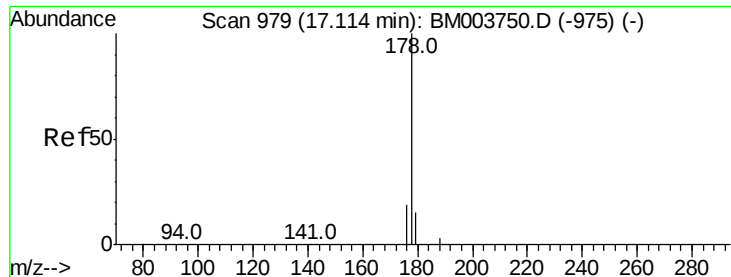
Ion Ratio Lower Upper

188 100

94 23.1 20.3 30.5

80 25.1 22.2 33.4





#23

Phenanthrene

Concen: 18.43 ng

RT: 17.11 min Scan# 979

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

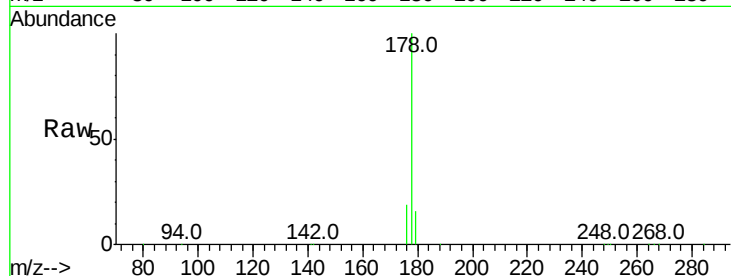
Tot Ion:178 Resp: 1259499

Ion Ratio Lower Upper

178 100

176 19.1 15.4 23.0

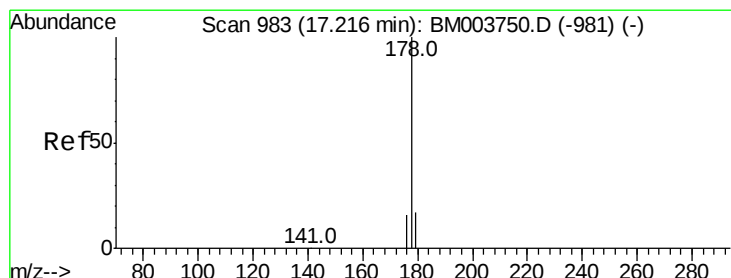
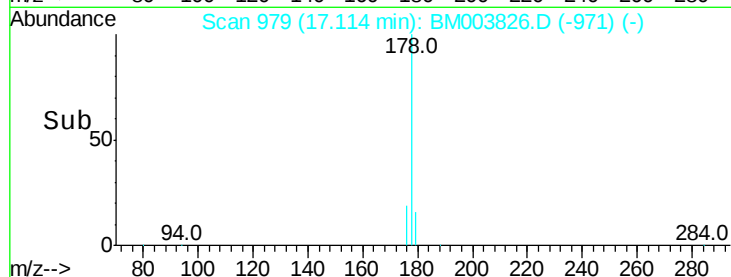
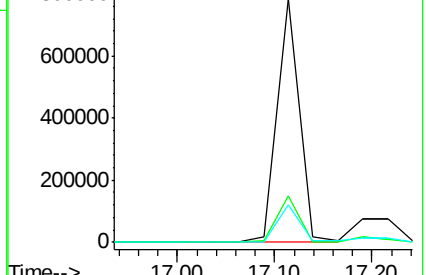
179 16.5 12.2 18.4



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



#24

Anthracene

Concen: 4.01 ng m

RT: 17.22 min Scan# 983

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

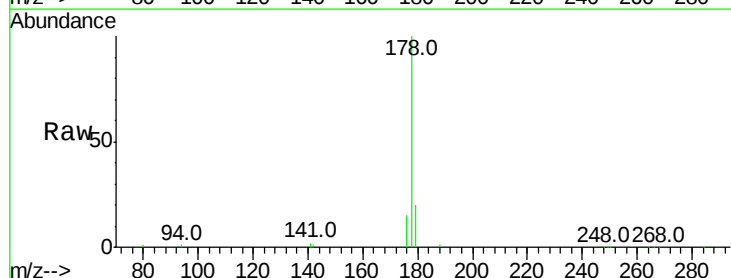
Tgt Ion:178 Resp: 238777

Ion Ratio Lower Upper

178 100

176 100.3 14.6 21.8#

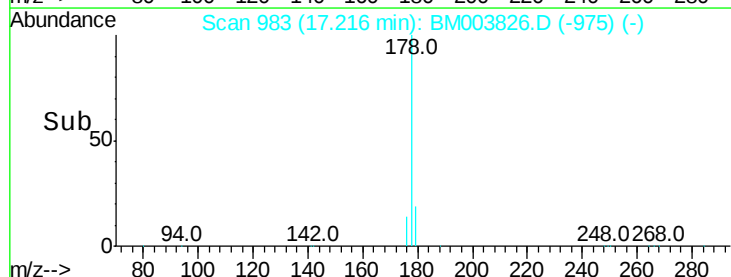
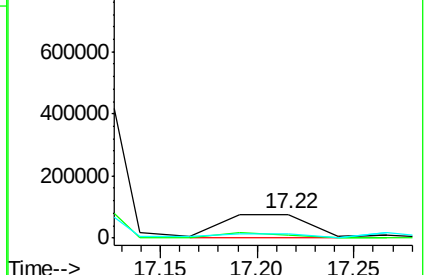
179 85.3 12.6 19.0#

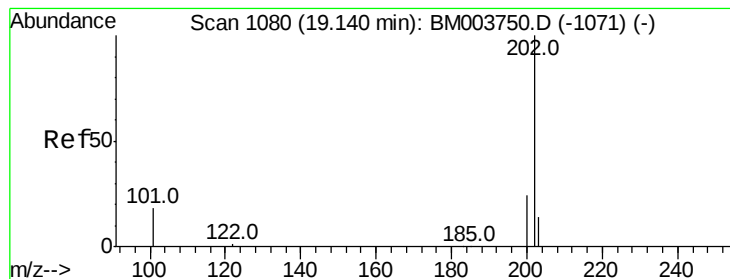


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#25

Fluoranthene

Concen: 15.51 ng

RT: 19.14 min Scan# 1080

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

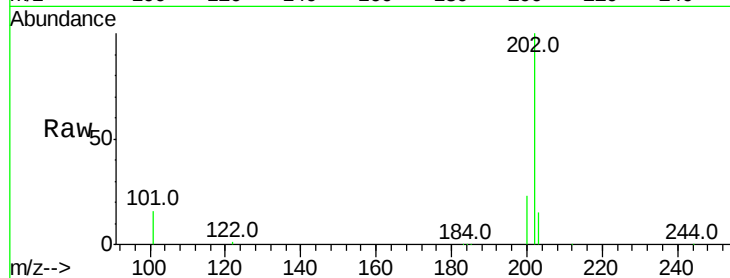
Tot Ion:202 Resp: 1252880

Ion Ratio Lower Upper

202 100

101 12.1 9.7 14.5

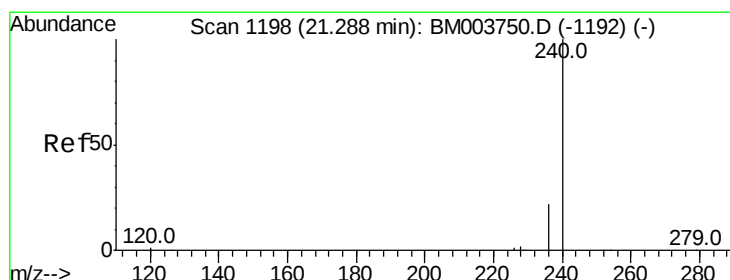
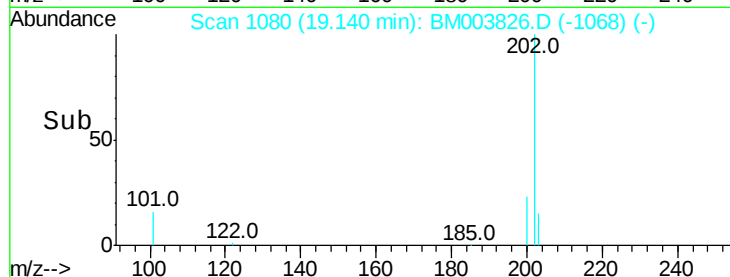
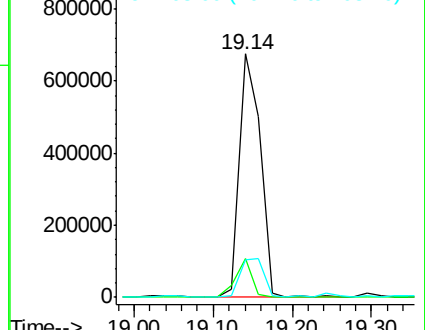
203 17.4 13.8 20.8



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



#26

Chrysene-d12

Concen: 20.00 ng

RT: 21.29 min Scan# 1198

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

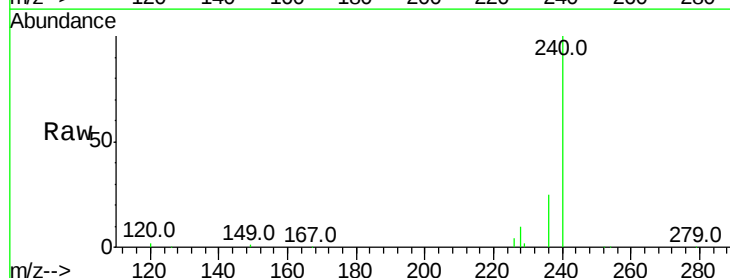
Tgt Ion:240 Resp: 753949

Ion Ratio Lower Upper

240 100

120 2.2 0.9 1.3#

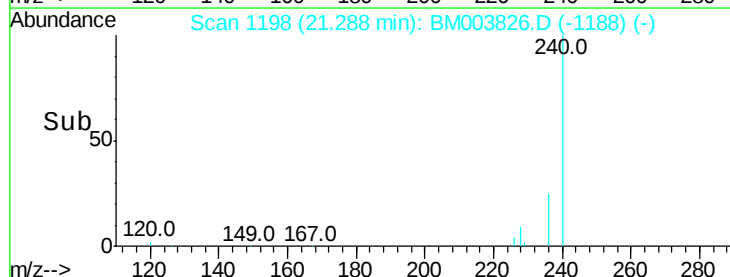
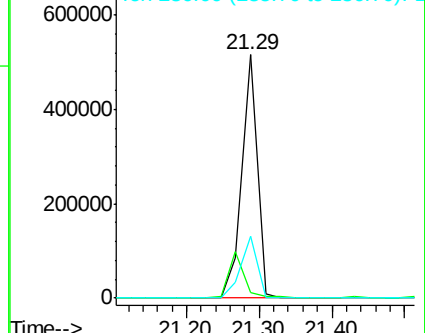
236 25.5 17.3 25.9

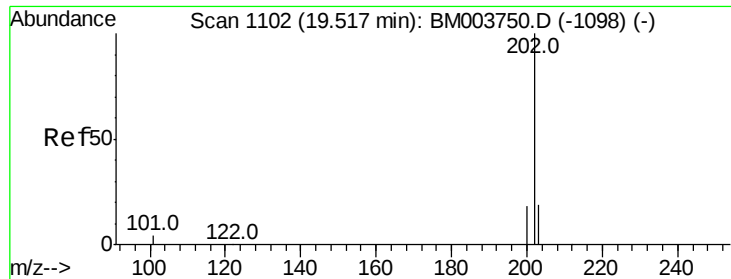


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E





#28

Pvrene

Concen: 18.21 ng

RT: 19.52 min Scan# 1102

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

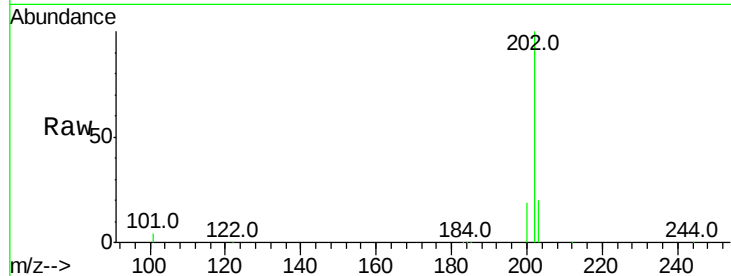
Tot Ion:202 Resp: 1138392

Ion Ratio Lower Upper

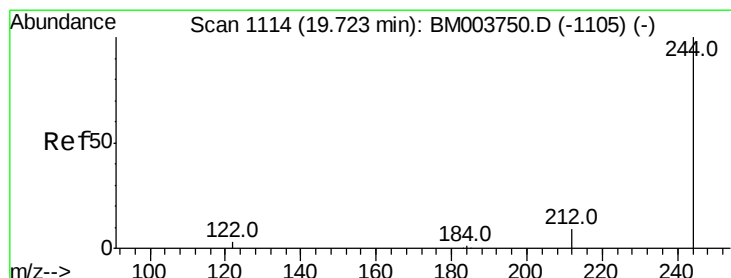
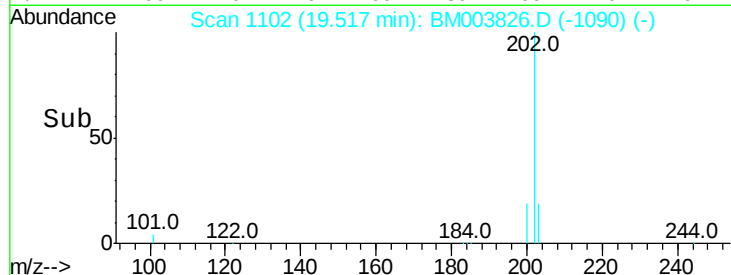
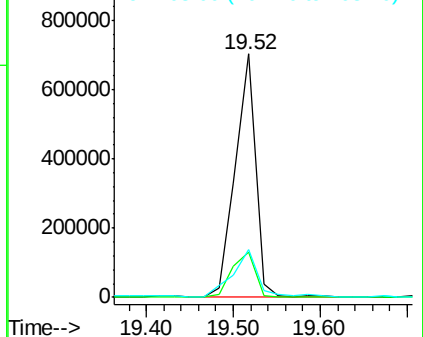
202 100

200 21.2 16.6 24.8

203 24.0 14.0 21.0#



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



#29

Terphenyl-d14

Concen: 64.48 ng

RT: 19.72 min Scan# 1114

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

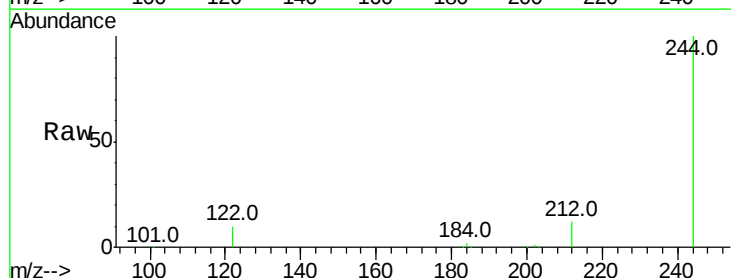
Tgt Ion:244 Resp: 1903620

Ion Ratio Lower Upper

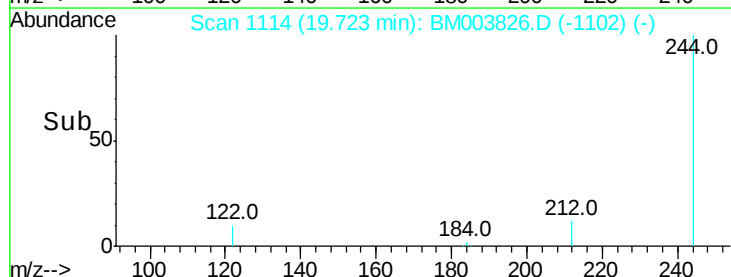
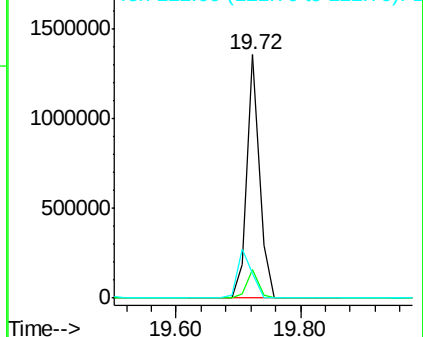
244 100

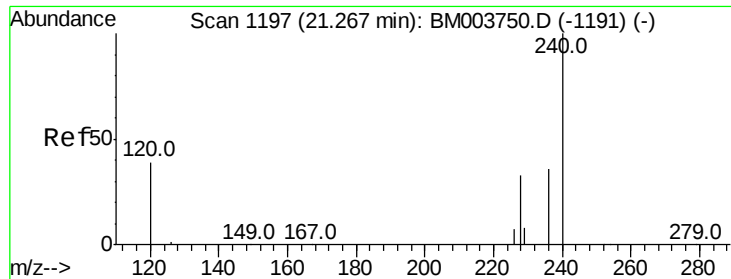
212 12.0 7.0 10.6#

122 10.1 3.0 4.6#



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





#30

Benzo(a)anthracene

Concen: 9.03 ng m

RT: 21.27 min Scan# 1197

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

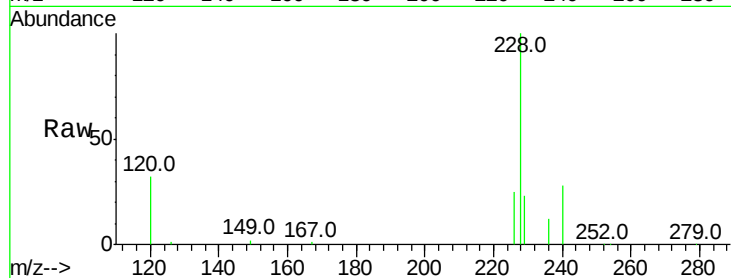
Tot Ion:228 Resp: 510463

Ion Ratio Lower Upper

228 100

226 25.3 17.2 25.8

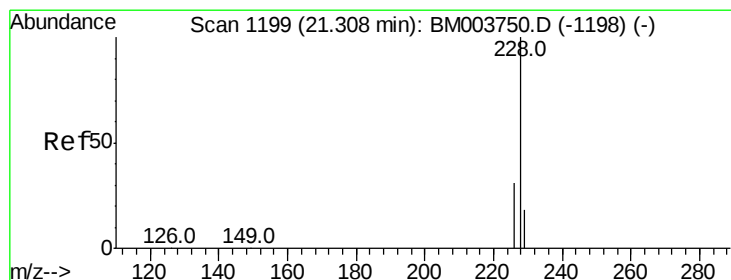
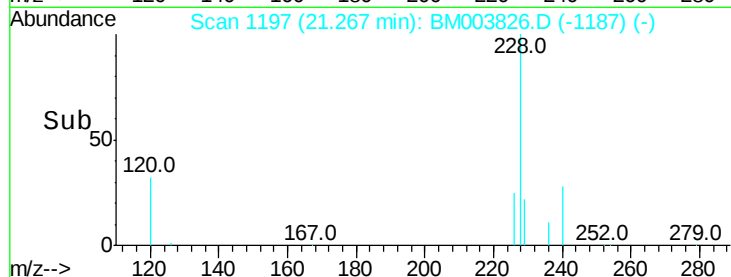
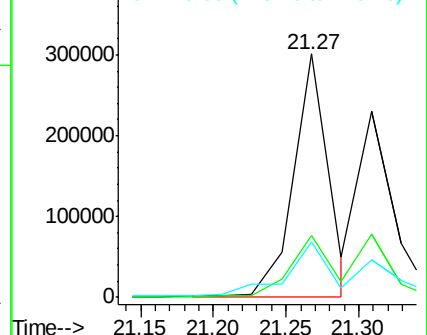
229 22.5 18.7 28.1



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



#32

Chrysene

Concen: 6.92 ng m

RT: 21.31 min Scan# 1199

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

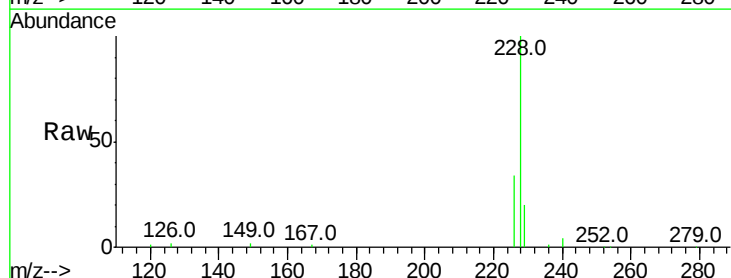
Tgt Ion:228 Resp: 373449

Ion Ratio Lower Upper

228 100

226 33.7 25.3 37.9

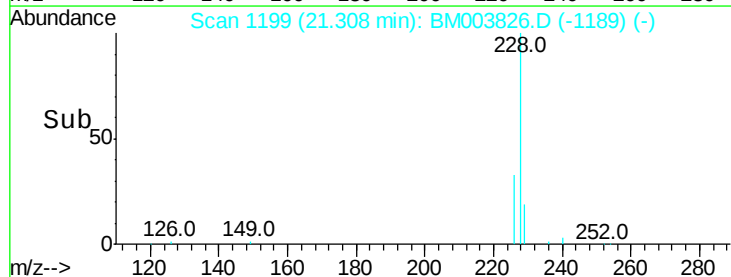
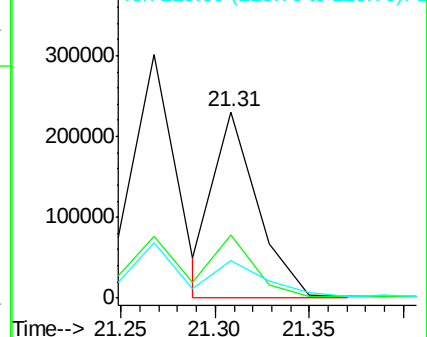
229 20.0 14.5 21.7

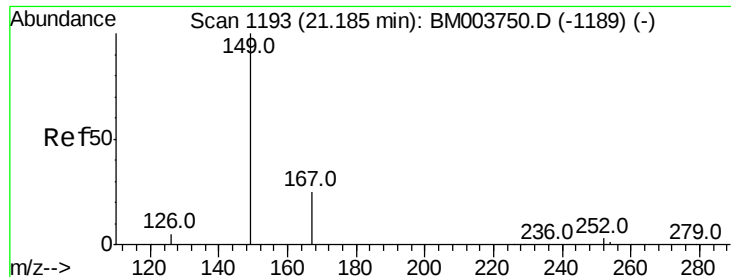


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#33

Bis(2-ethylhexyl)phthalate

Concen: 5.33 ng

RT: 21.19 min Scan# 1193

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

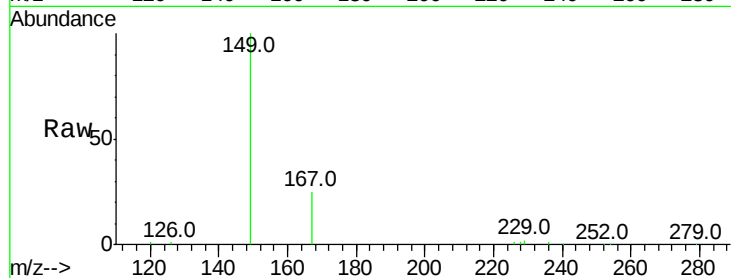
Tot Ion:149 Resp: 195923

Ion Ratio Lower Upper

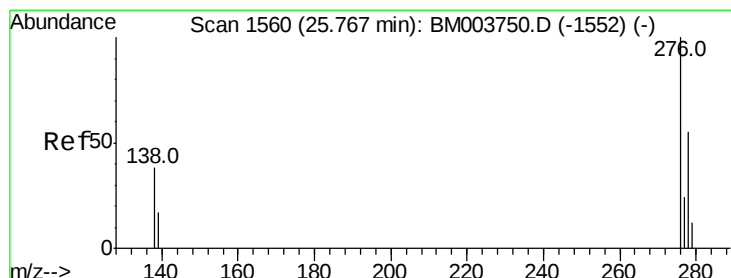
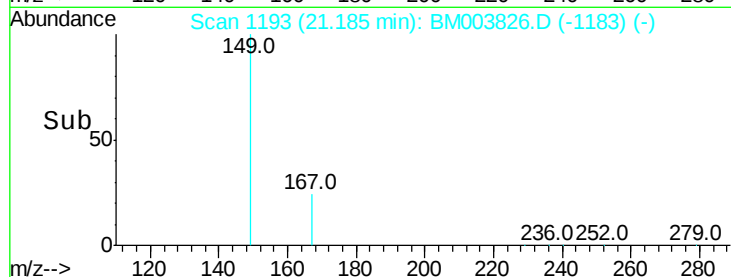
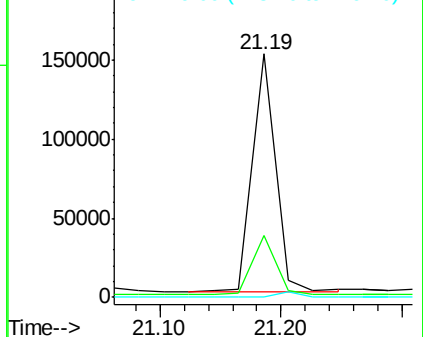
149 100

167 25.1 20.1 30.1

279 0.0 0.0 0.0



Abundance Ion 149.00 (148.70 to 149.70): E
Ion 167.00 (166.70 to 167.70): E
Ion 279.00 (278.70 to 279.70): E



#34

Indeno(1,2,3-cd)pyrene

Concen: 5.21 ng

RT: 25.77 min Scan# 1561

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

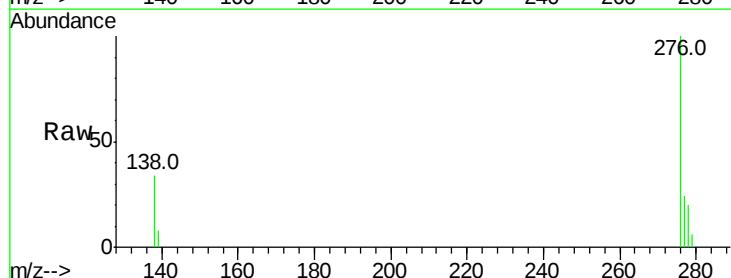
Tgt Ion:276 Resp: 207345

Ion Ratio Lower Upper

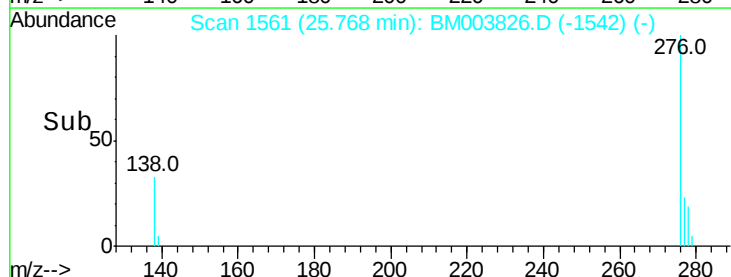
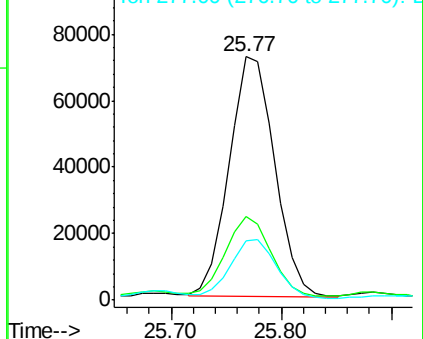
276 100

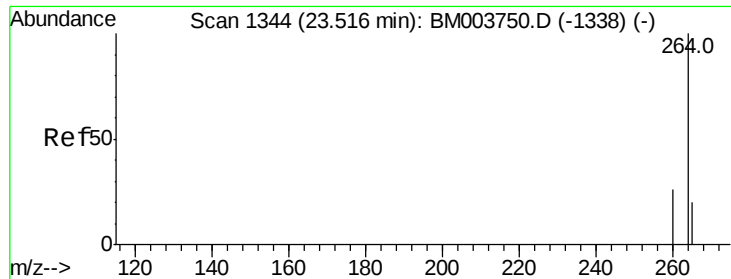
138 32.3 30.2 45.2

277 24.4 19.8 29.8



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



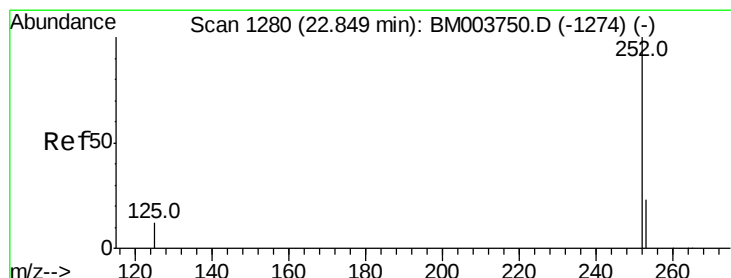
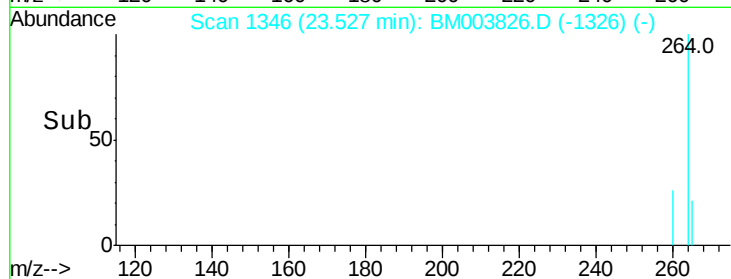
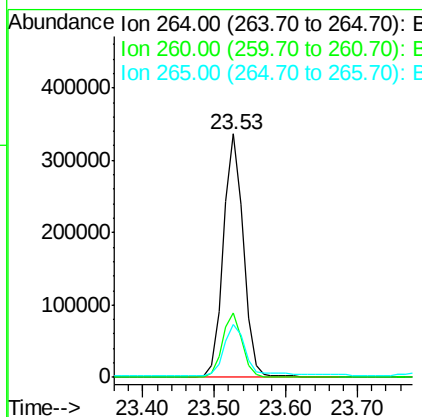
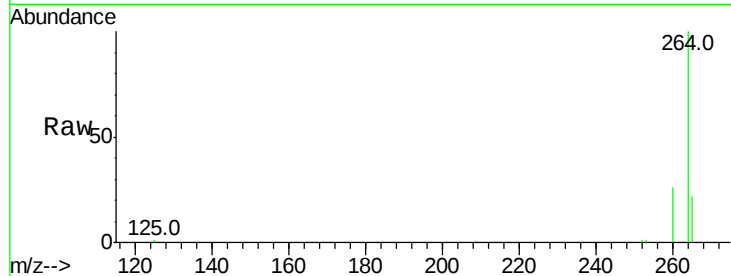


#35
Pervlene-d12
Concen: 20.00 ng
RT: 23.53 min Scan# 1346
Delta R.T. 0.01 min
Lab File: BM003826.D
Acq: 28 Dec 2015 13:40

Instrument :
BNA_M
ClientSampleId :
LIBERTY-SF-121815

Tot Ion:264 Resp: 648116

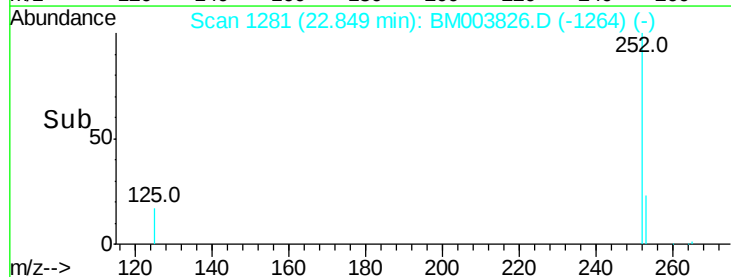
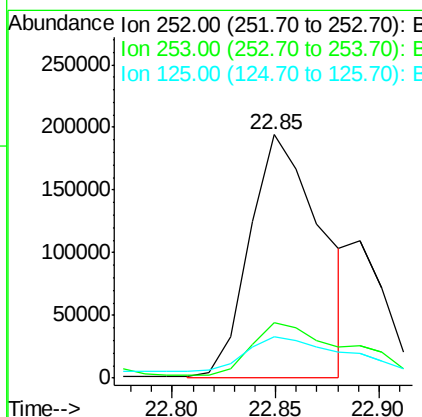
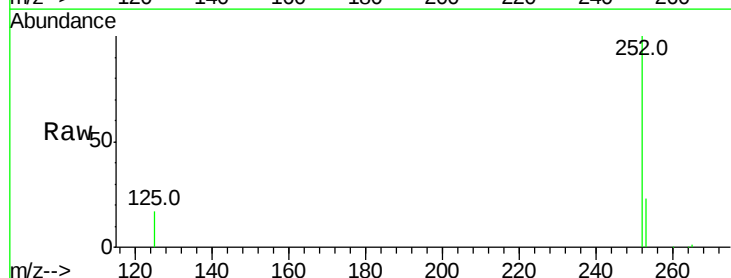
Ion	Ratio	Lower	Upper
264	100		
260	26.2	21.2	31.8
265	21.9	16.7	25.1

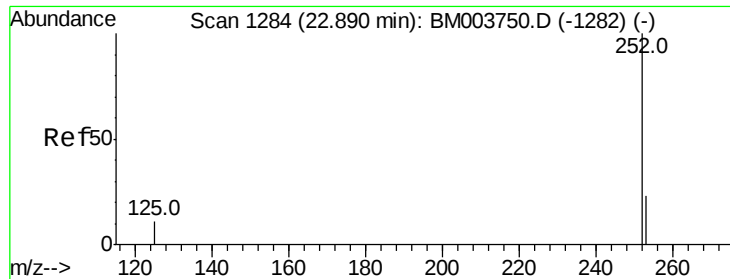


#36
Benzo(b)fluoranthene
Concen: 8.86 ng m
RT: 22.85 min Scan# 1281
Delta R.T. 0.00 min
Lab File: BM003826.D
Acq: 28 Dec 2015 13:40

Tgt Ion:252 Resp: 469240

Ion	Ratio	Lower	Upper
252	100		
253	22.8	18.8	28.2
125	17.0	10.2	15.4





#37

Benzo(k)fluoranthene

Concen: 2.68 ng/mL

RT: 22.89 min Scan# 1285

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument:

BNA_M

ClientSampleId:

LIBERTY-SF-121815

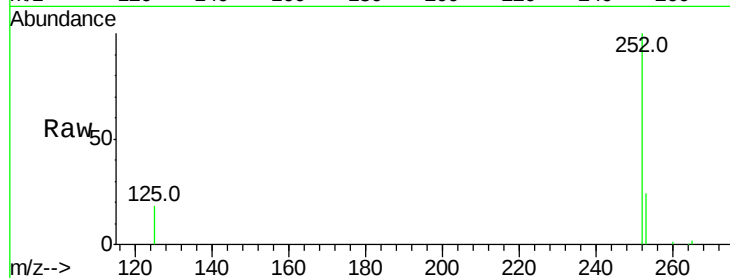
Tot Ion: 252 Resp: 130985

Ion Ratio Lower Upper

252 100

253 24.2 18.3 27.5

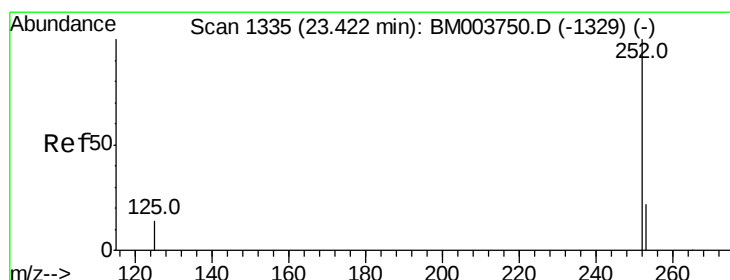
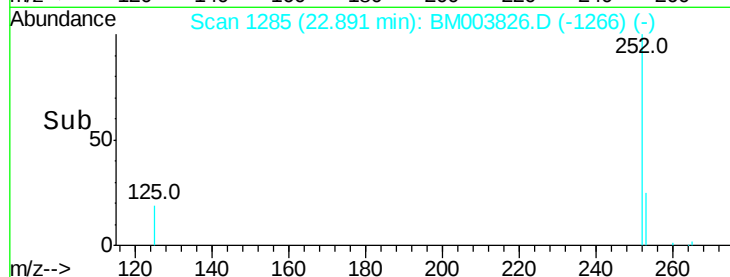
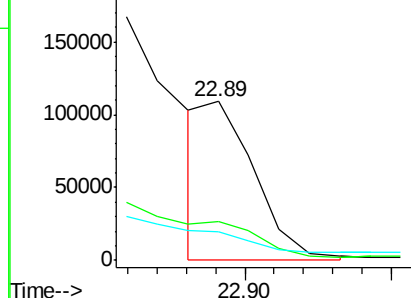
125 18.2 10.6 15.8#



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



#38

Benzo(a)pyrene

Concen: 7.43 ng/mL

RT: 23.42 min Scan# 1336

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

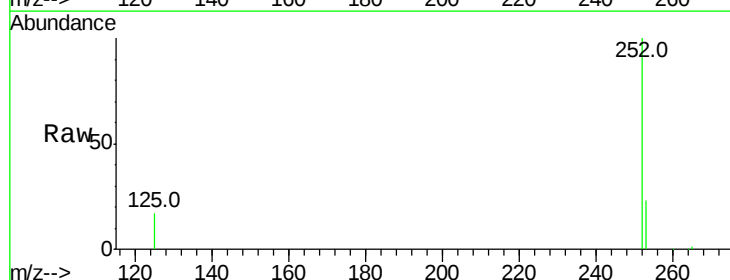
Tgt Ion: 252 Resp: 336947

Ion Ratio Lower Upper

252 100

253 23.0 18.7 28.1

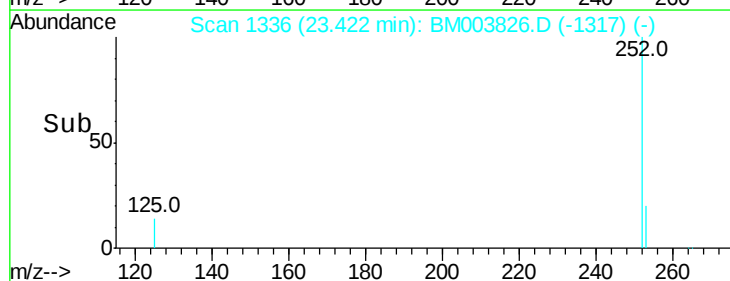
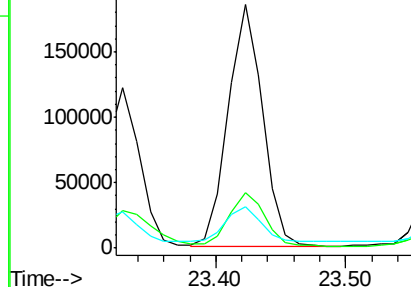
125 17.1 11.8 17.8

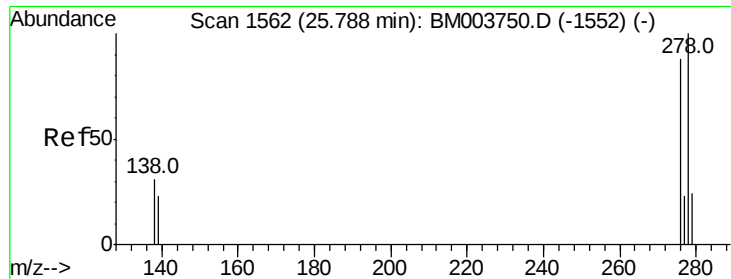


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#39

Dibenzo(a,h)anthracene

Concen: 1.43 ng

RT: 25.78 min Scan# 1562

Delta R.T. -0.01 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

Instrument :

BNA_M

ClientSampleId :

LIBERTY-SF-121815

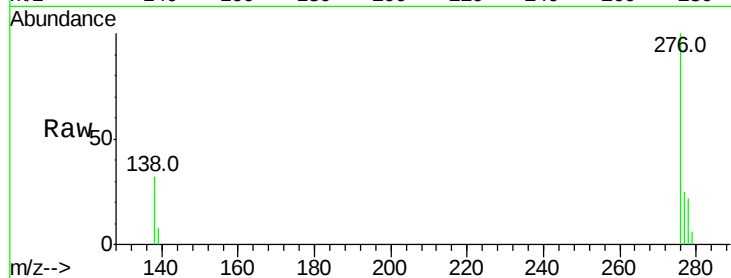
Tot Ion:278 Resp: 50788

Ion Ratio Lower Upper

278 100

139 35.3 19.0 28.6#

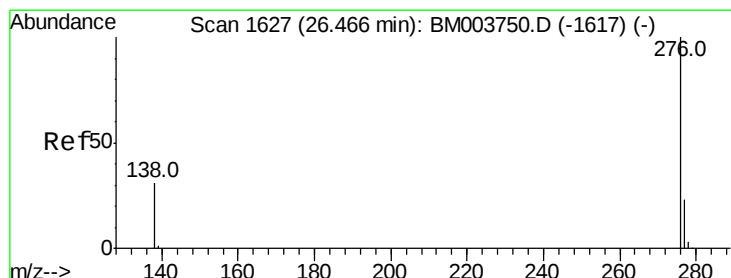
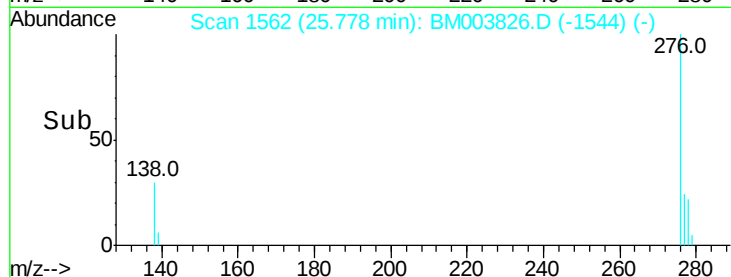
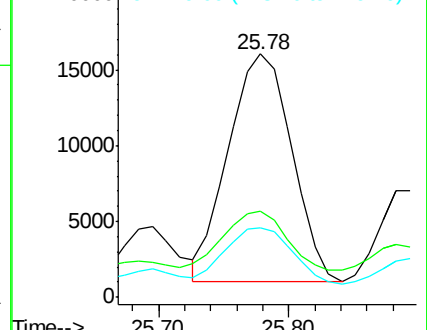
279 28.8 19.6 29.4



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



#40

Benzo(g,h,i)perylene

Concen: 5.58 ng

RT: 26.47 min Scan# 1628

Delta R.T. 0.00 min

Lab File: BM003826.D

Acq: 28 Dec 2015 13:40

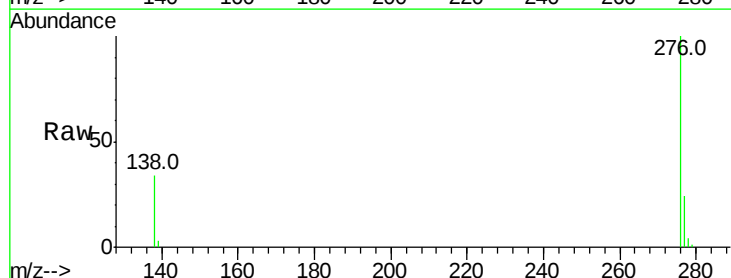
Tgt Ion:276 Resp: 207444

Ion Ratio Lower Upper

276 100

277 24.2 19.1 28.7

138 34.1 25.0 37.4



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

