

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022620\
 Data File : BF119095.D
 Acq On : 26 Feb 2020 15:24
 Operator : CG/JU
 Sample : L1678-01
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :

Quant Time: Feb 26 16:13:17 2020
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF022020.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Wed Feb 26 16:03:05 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.75	152	158254	20.00	ng	0.00
21) Naphthalene-d8	8.03	136	601142	20.00	ng	0.00
39) Acenaphthene-d10	9.77	164	312505	20.00	ng	-0.01
64) Phenanthrene-d10	11.26	188	508965	20.00	ng	0.00
76) Chrysene-d12	13.89	240	317035	20.00	ng	-0.01
87) Perylene-d12	15.32	264	374546	20.00	ng	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	5.37	112	876281	92.54	ng	0.00
7) Phenol-d6	6.39	99	1064314	92.41	ng	-0.01
23) Nitrobenzene-d5	7.31	82	710511	62.41	ng	-0.01
42) 2,4,6-Tribromophenol	10.56	330	337317	82.51	ng	-0.01
45) 2-Fluorobiphenyl	9.10	172	1325746	62.50	ng	-0.01
79) Terphenyl-d14	12.84	244	1151008	62.51	ng	-0.01

Target Compounds				Qvalue		
19) n-Nitroso-di-n-propylamine	7.31	70	97519	14.532	ng	# 74
25) Isophorone	7.31	82	700392	35.422	ng	# 63
32) Benzoic acid	7.84	122	106	6.696	ng	# 54
50) Dimethylphthalate	9.49	163	93555	3.915	ng	99
51) 2,6-Dinitrotoluene	9.77	165	40561	7.640	ng	# 33
56) 4-Nitrophenol	9.98	139	7374	2.085	ng	# 12
57) 2,4-Dinitrotoluene	9.77	165	40561	5.894	ng	# 21
67) 4-Bromophenyl-phenylether	10.56	248	21749	3.269	ng	# 1
71) Phenanthrene	11.28	178	367729	13.248	ng	98
72) Anthracene	11.33	178	102530	3.697	ng	97
75) Fluoranthene	12.47	202	649697	22.052	ng	98
78) Pyrene	12.70	202	521455	20.483	ng	98
81) Benzo(a)anthracene	13.89	228	207693	9.615	ng	99
83) Chrysene	13.92	228	197725	9.186	ng	97
86) Indeno(1,2,3-cd)pyrene	16.72	276	113684	5.455	ng	94
88) Benzo(b)fluoranthene	14.92	252	308489	12.495	ng	# 97
89) Benzo(k)fluoranthene	14.92	252	308489	13.484	ng	# 97
90) Benzo(a)pyrene	15.26	252	162978	7.314	ng	# 97
92) Benzo(a,h,i)perylene	17.14	276	111520	5.757	ng	94

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

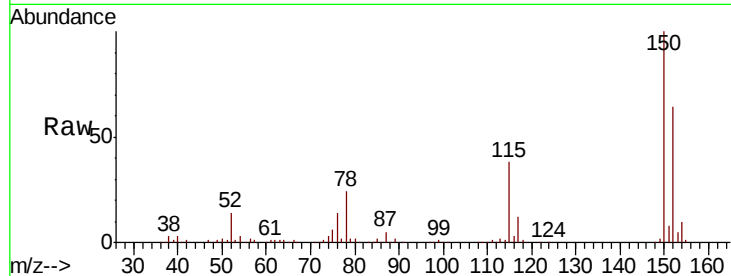


#1

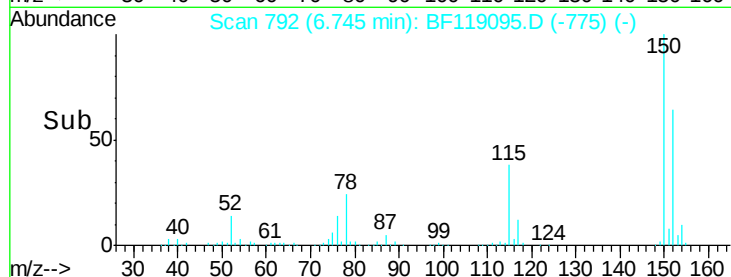
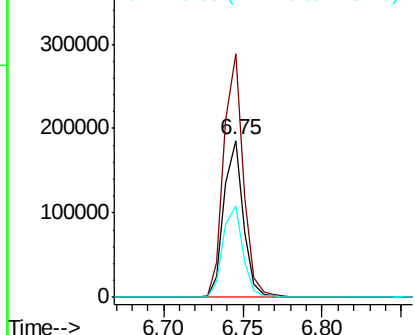
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.75 min Scan# 792
Delta R.T. -0.00 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Instrument :
BNA_F
ClientSampleId :

Tot Ion:152 Resp: 158254
Ion Ratio Lower Upper
152 100
150 155.1 123.0 184.6
115 58.3 49.5 74.3



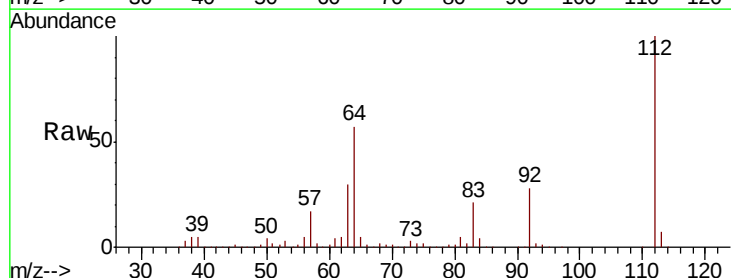
Abundance Ion 152.00 (151.70 to 152.70): E
Ion 150.00 (149.70 to 150.70): E
Ion 115.00 (114.70 to 115.70): E



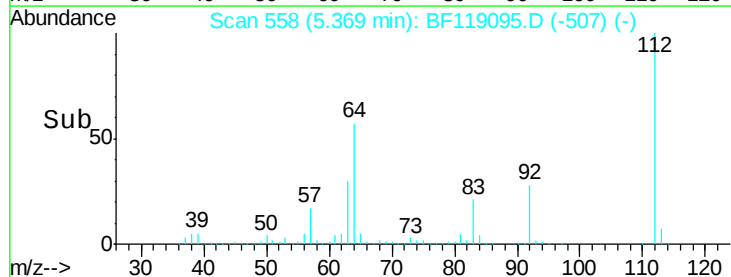
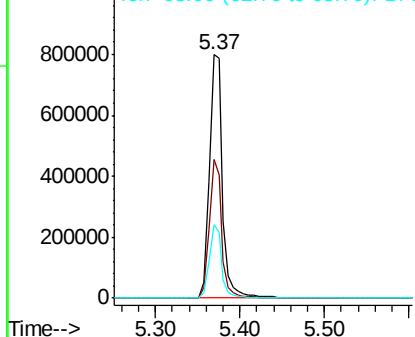
#5

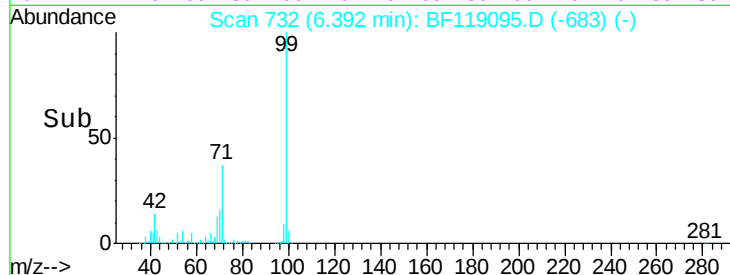
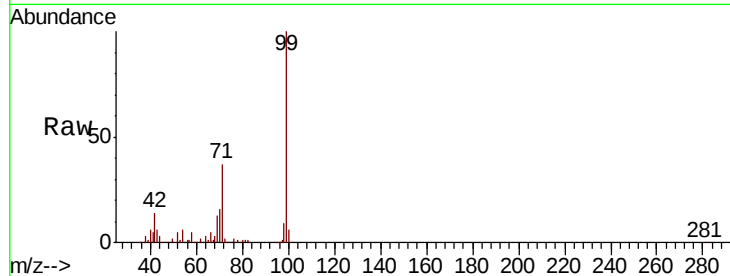
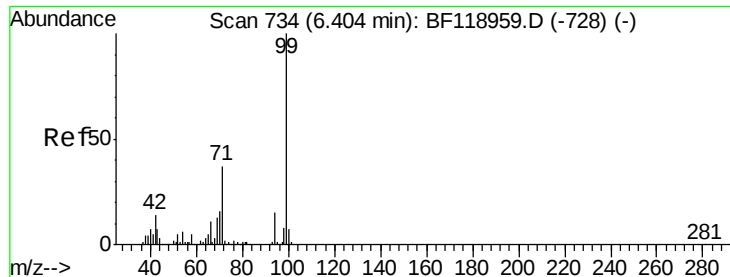
2-Fluorophenol
Concen: 92.536 ng
RT: 5.37 min Scan# 558
Delta R.T. -0.00 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Tgt Ion:112 Resp: 876281
Ion Ratio Lower Upper
112 100
64 56.9 45.0 67.4
63 30.4 24.2 36.4



Abundance Ion 112.00 (111.70 to 112.70): E
Ion 64.00 (63.70 to 64.70): BF1
Ion 63.00 (62.70 to 63.70): BF1





#7

Phenol-d6

Concen: 92.414 ng

RT: 6.39 min Scan# 732

Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

Instrument :

BNA_F

ClientSampled :

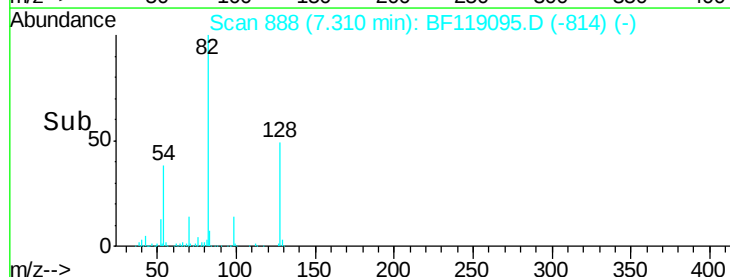
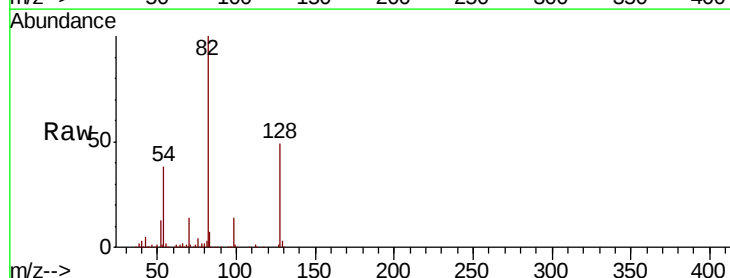
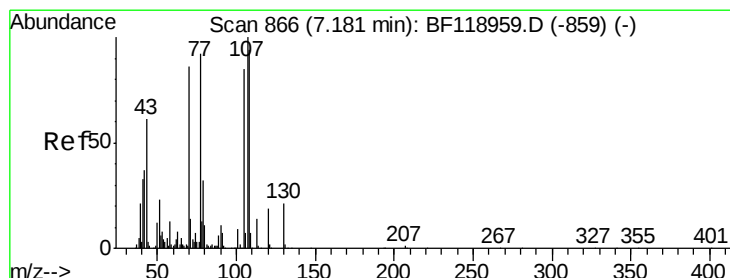
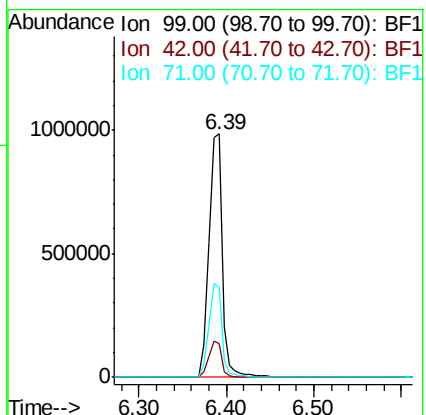
Tot Ion: 99 Resp: 1064314

Ion Ratio Lower Upper

99 100

42 13.9 12.6 18.8

71 36.9 31.0 46.4



#19

n-Nitroso-di-n-propylamine

Concen: 14.532 ng

RT: 7.31 min Scan# 888

Delta R.T. 0.14 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

Tgt Ion: 70 Resp: 97519

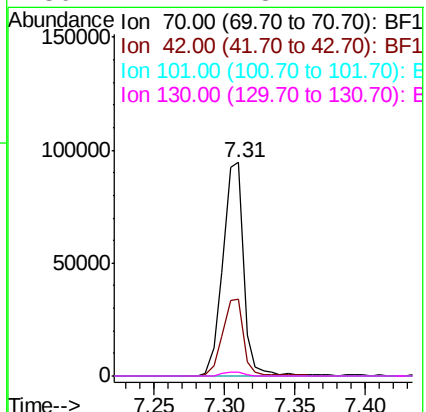
Ion Ratio Lower Upper

70 100

42 35.9 38.0 57.0#

101 0.0 8.2 12.4#

130 2.1 18.2 27.4#





#21

Naphthalene-d8

Concen: 20.000 ng

RT: 8.03 min Scan# 1010

Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

Instrument :

BNA_F

ClientSampleId :

Tot Ion:136 Resp: 601142

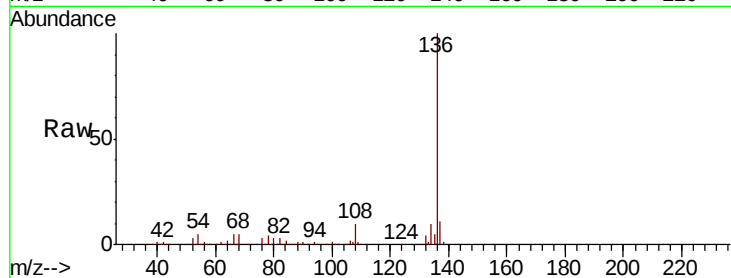
Ion Ratio Lower Upper

136 100

137 10.9 8.8 13.2

54 4.6 3.8 5.6

68 4.8 3.9 5.9

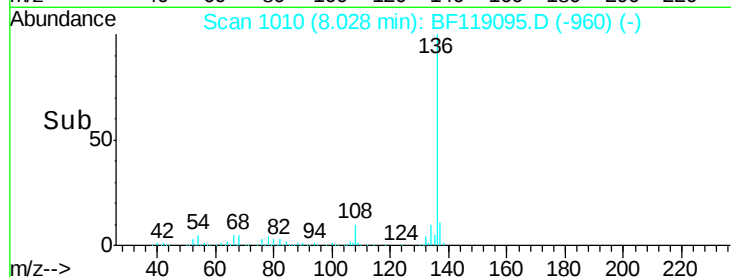


Abundance Ion 136.00 (135.70 to 136.70): E

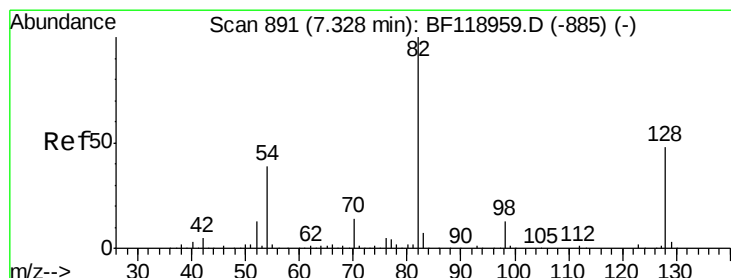
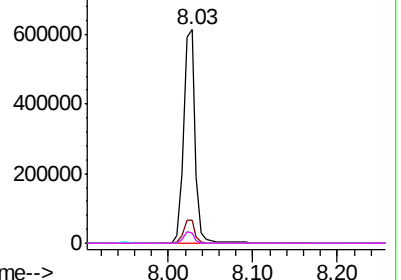
Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BF1

Ion 68.00 (67.70 to 68.70): BF1



Time-->



#23

Nitrobenzene-d5

Concen: 62.406 ng

RT: 7.31 min Scan# 888

Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

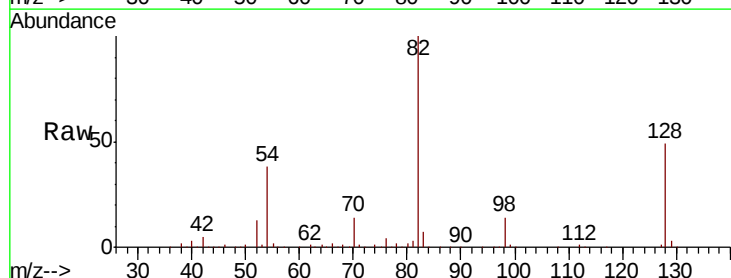
Tgt Ion: 82 Resp: 710511

Ion Ratio Lower Upper

82 100

128 48.8 37.9 56.9

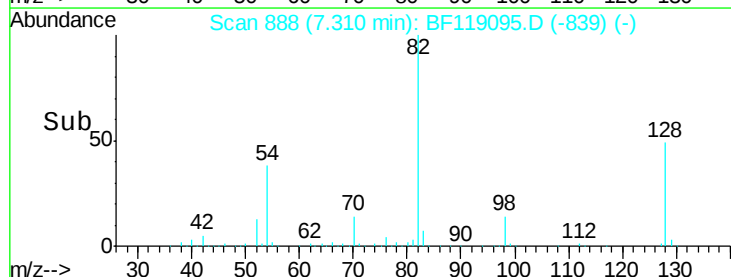
54 38.2 33.4 50.2



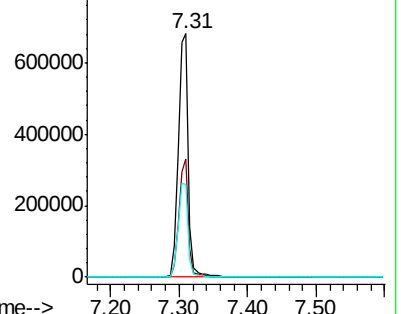
Abundance Ion 82.00 (81.70 to 82.70): BF1

Ion 128.00 (127.70 to 128.70): E

Ion 54.00 (53.70 to 54.70): BF1



Time-->





#25

Isophorone

Concen: 35.422 ng

RT: 7.31 min Scan# 888

Delta R.T. -0.27 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

Instrument :

BNA_F

ClientSampleId :

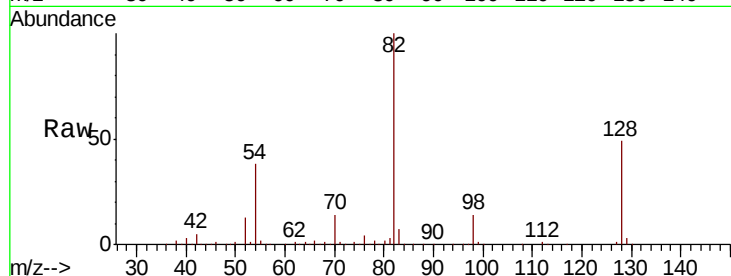
Tot Ion: 82 Resp: 700392

Ion Ratio Lower Upper

82 100

95 0.0 6.4 9.6#

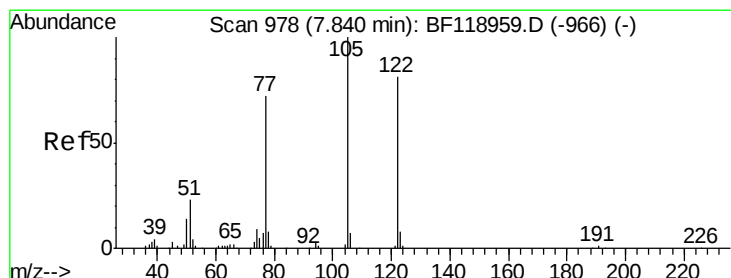
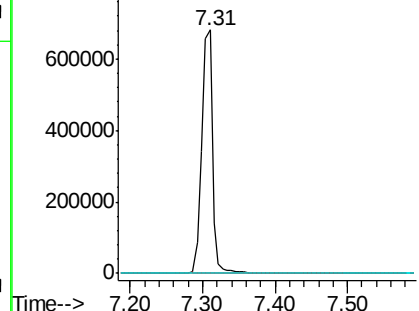
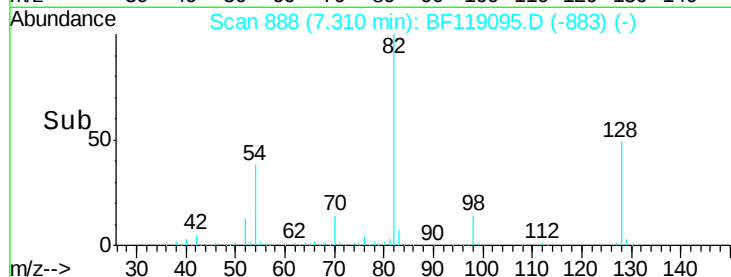
138 0.0 15.7 23.5#



Abundance Ion 82.00 (81.70 to 82.70): BF1

Ion 95.00 (94.70 to 95.70): BF1

Ion 138.00 (137.70 to 138.70): BF1



#32

Benzoic acid

Concen: 6.696 ng

RT: 7.84 min Scan# 978

Delta R.T. -0.02 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

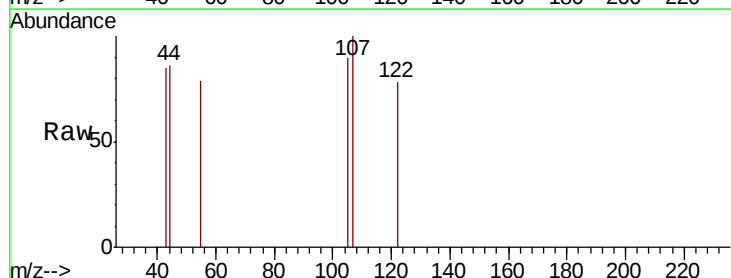
Tgt Ion: 122 Resp: 106

Ion Ratio Lower Upper

122 100

105 116.3 106.3 146.3

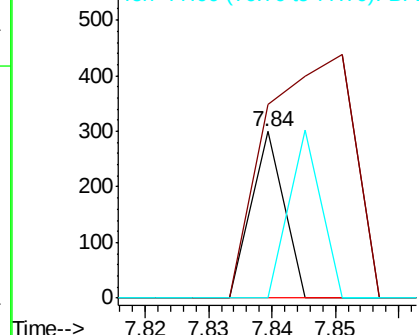
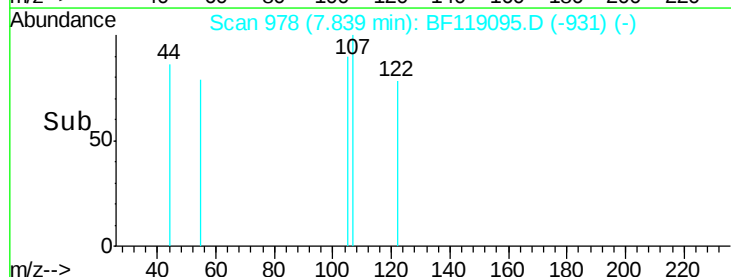
77 0.0 73.1 113.1#

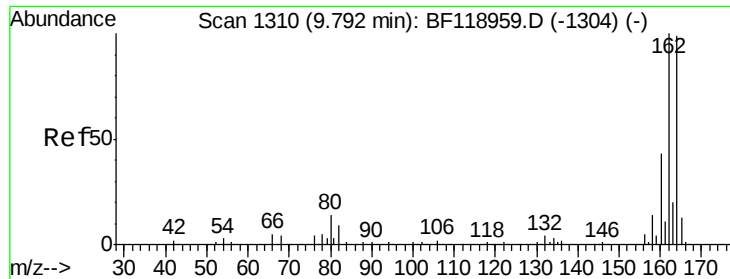


Abundance Ion 122.00 (121.70 to 122.70): E

Ion 105.00 (104.70 to 105.70): E

Ion 77.00 (76.70 to 77.70): BF1

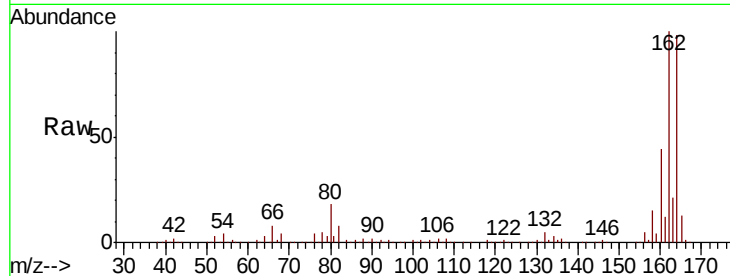




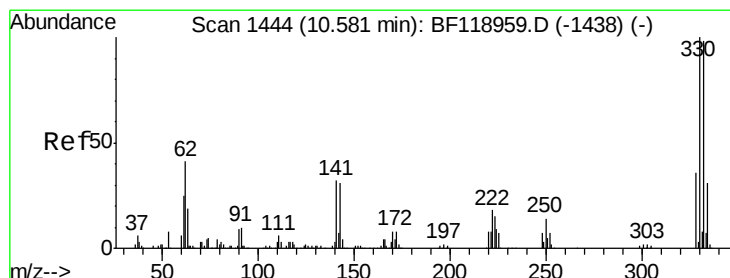
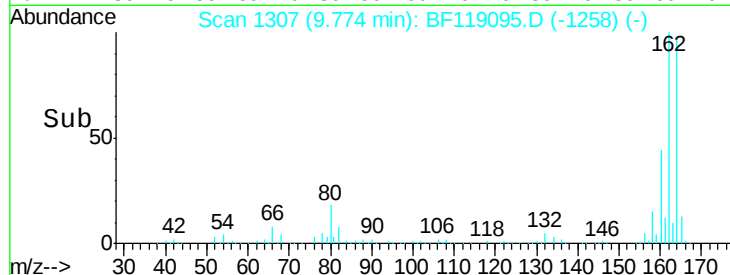
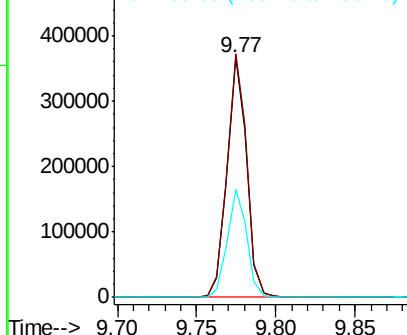
#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.77 min Scan# 1307
Delta R.T. -0.01 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Instrument :
BNA_F
ClientSampleId :

Tot Ion:164 Resp: 312505
Ion Ratio Lower Upper
164 100
162 101.7 81.8 122.8
160 44.9 36.0 54.0

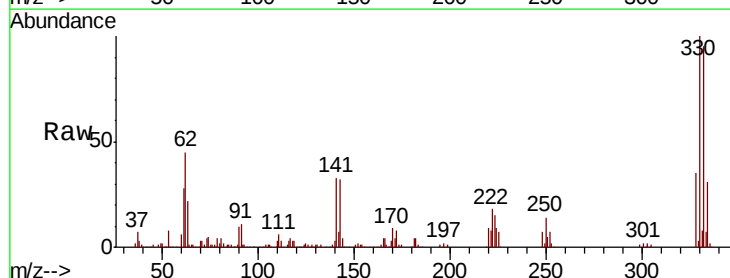


Abundance Ion 164.00 (163.70 to 164.70): E
Ion 162.00 (161.70 to 162.70): E
Ion 160.00 (159.70 to 160.70): E

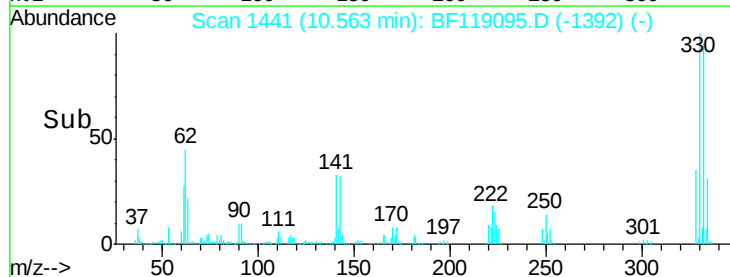
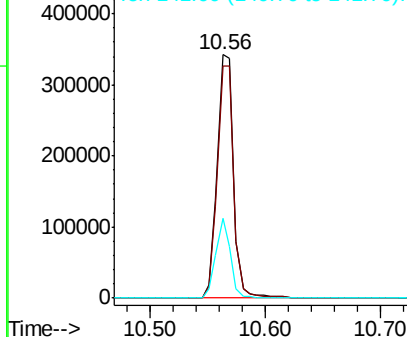


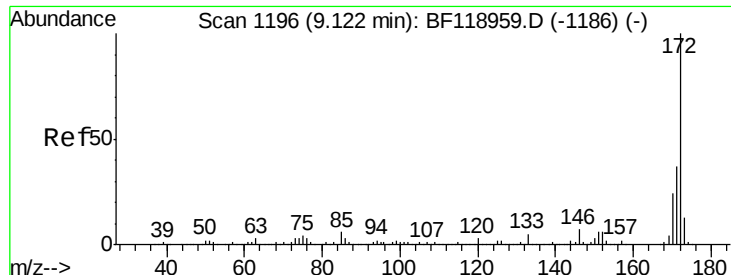
#42
2,4,6-Tribromophenol
Concen: 82.512 ng
RT: 10.56 min Scan# 1441
Delta R.T. -0.01 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Tgt Ion:330 Resp: 337317
Ion Ratio Lower Upper
330 100
332 96.1 76.0 114.0
141 29.7 22.9 34.3



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

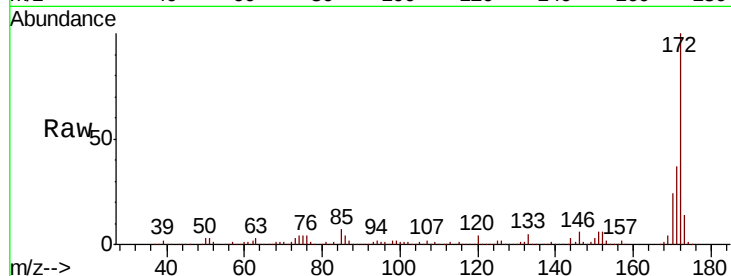




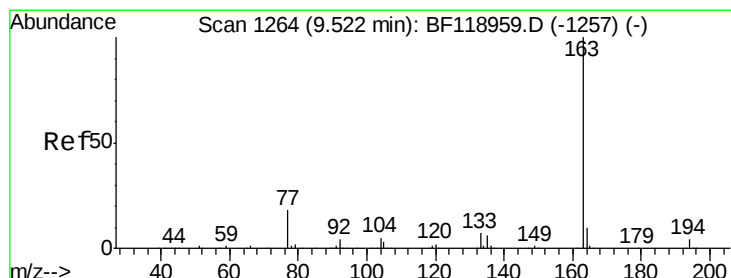
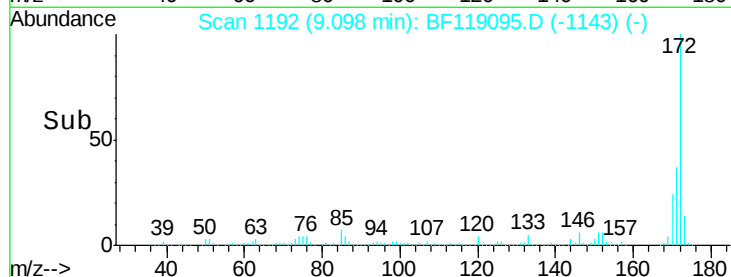
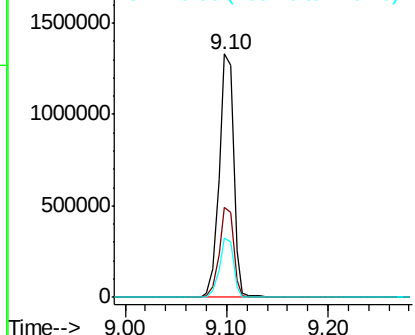
#45
2-Fluorobiphenyl
Concen: 62.497 ng
RT: 9.10 min Scan# 1192
Delta R.T. -0.01 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Instrument :
BNA_F
ClientSampleId :

Tot Ion:172 Resp: 1325746
Ion Ratio Lower Upper
172 100
171 36.8 30.6 45.8
170 24.3 20.2 30.2

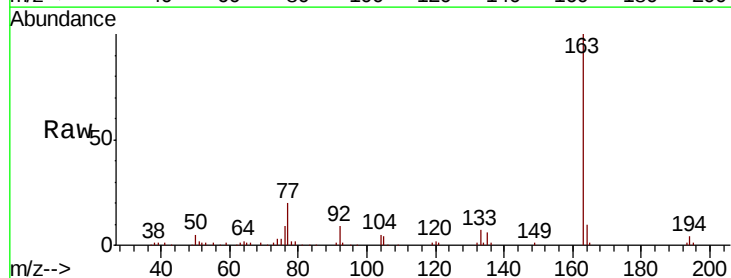


Abundance Ion 172.00 (171.70 to 172.70): E
Ion 171.00 (170.70 to 171.70): E
Ion 170.00 (169.70 to 170.70): E

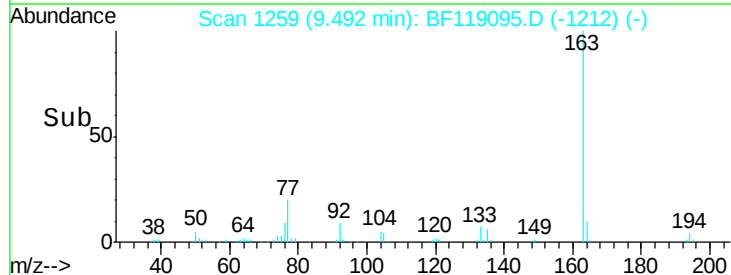
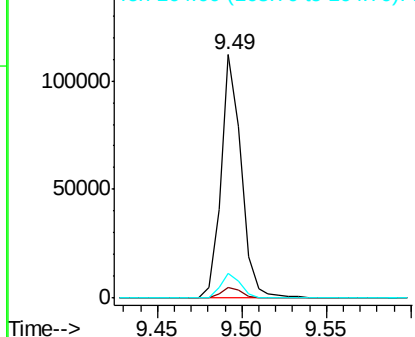


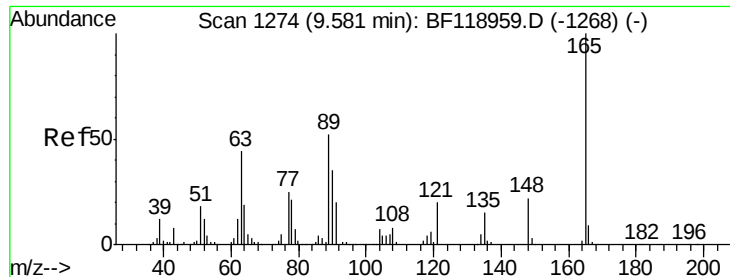
#50
Dimethylphthalate
Concen: 3.915 ng
RT: 9.49 min Scan# 1259
Delta R.T. -0.02 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Tgt Ion:163 Resp: 93555
Ion Ratio Lower Upper
163 100
194 4.3 3.5 5.3
164 9.9 8.4 12.6



Abundance Ion 163.00 (162.70 to 163.70): E
Ion 194.00 (193.70 to 194.70): E
Ion 164.00 (163.70 to 164.70): E





#51

2,6-Dinitrotoluene

Concen: 7.640 ng

RT: 9.77 min Scan# 1307

Delta R.T. 0.19 min

Lab File: BF119095.D

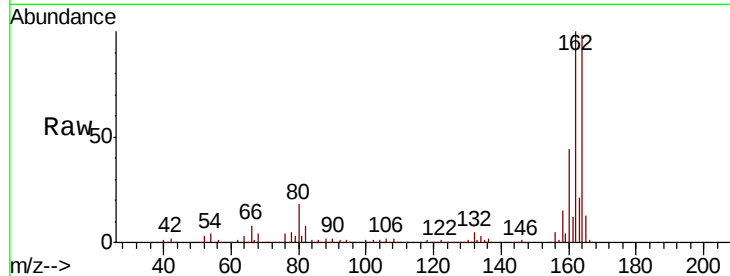
Acq: 26 Feb 2020 15:24

Instrument :

BNA_F

ClientSampleId :

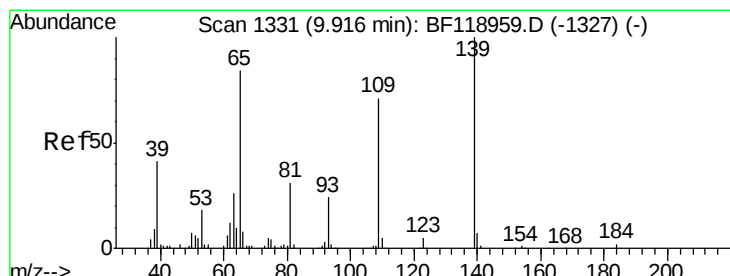
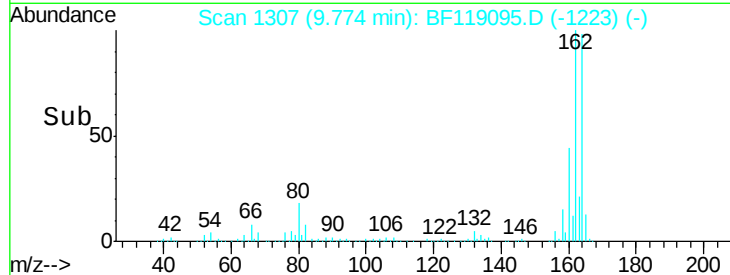
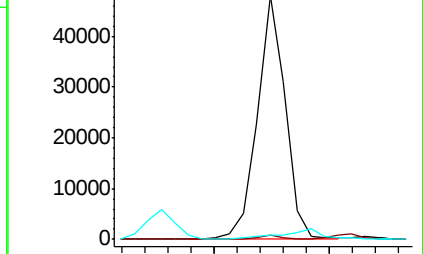
Tot Ion:165	Resp:	40561
Ion Ratio	Lower	Upper
165	100	
63	1.6	34.3 51.5#
89	1.8	38.3 57.5#



Abundance Ion 165.00 (164.70 to 165.70): E

Ion 63.00 (62.70 to 63.70): BF1

Ion 89.00 (88.70 to 89.70): BF1



#56

4-Nitrophenol

Concen: 2.085 ng

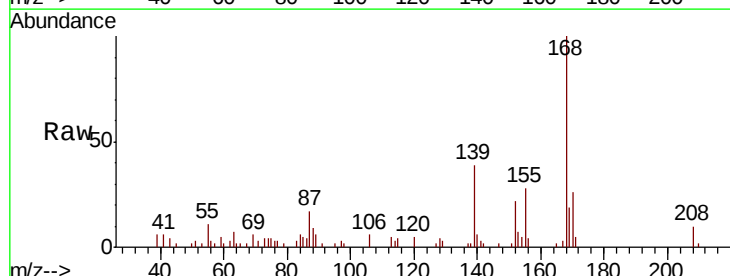
RT: 9.98 min Scan# 1342

Delta R.T. 0.06 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

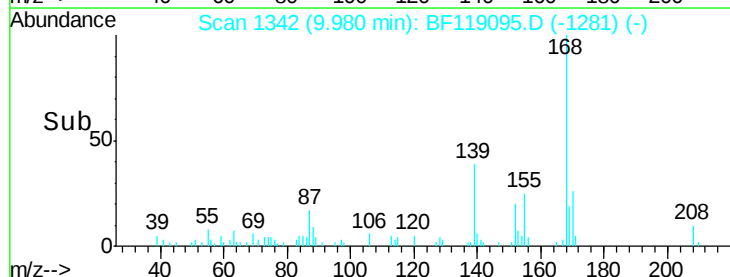
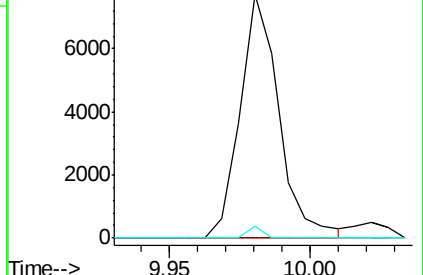
Tgt Ion:139	Resp:	7374
Ion Ratio	Lower	Upper
139	100	
109	0.0	56.7 96.7#
65	4.7	65.0 105.0#

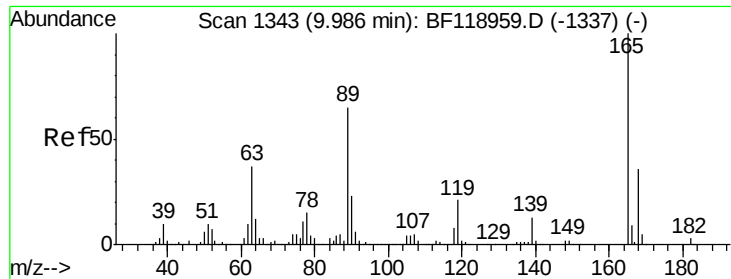


Abundance Ion 139.00 (138.70 to 139.70): E

Ion 109.00 (108.70 to 109.70): E

Ion 65.00 (64.70 to 65.70): BF1





#57

2,4-Dinitrotoluene

Concen: 5.894 ng

RT: 9.77 min Scan# 1307

Delta R.T. -0.21 min

Lab File: BF119095.D

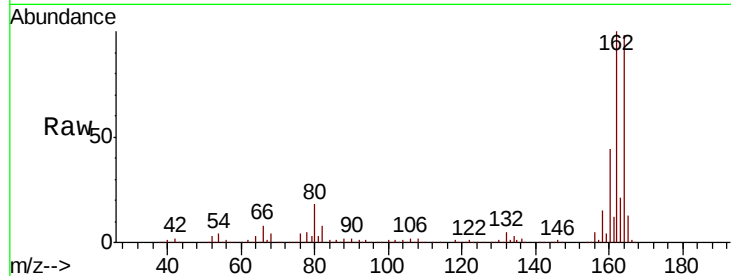
Acq: 26 Feb 2020 15:24

Instrument :

BNA_F

ClientSampleId :

Tot Ion:165	Resp:	40561
Ion Ratio	Lower	Upper
165	100	
63	1.6	42.3 63.5#
89	1.8	60.2 90.4#
182	0.0	2.3 3.5#

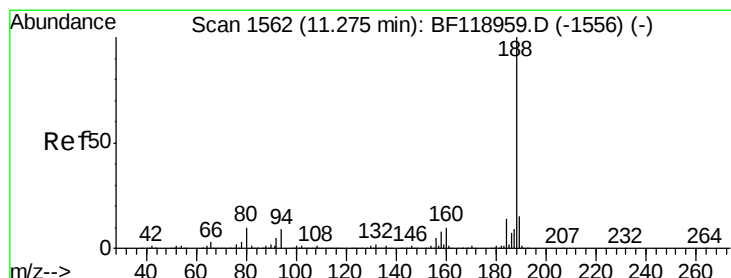
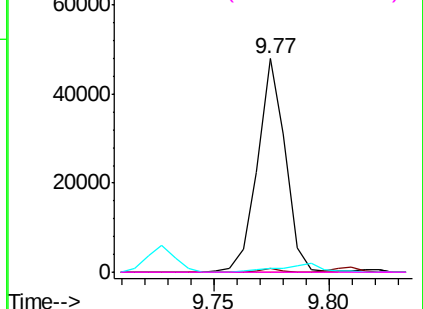
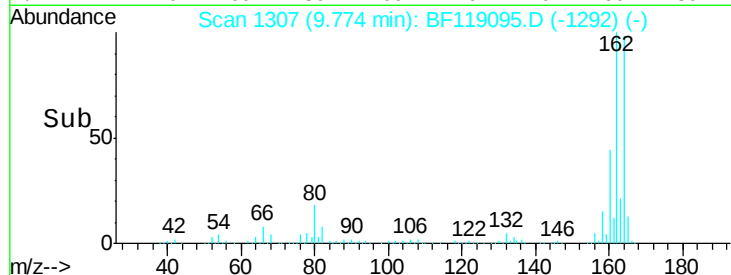


Abundance Ion 165.00 (164.70 to 165.70): E

Ion 63.00 (62.70 to 63.70): BF1

Ion 89.00 (88.70 to 89.70): BF1

Ion 182.00 (181.70 to 182.70): E



#64

Phenanthrene-d10

Concen: 20.000 ng

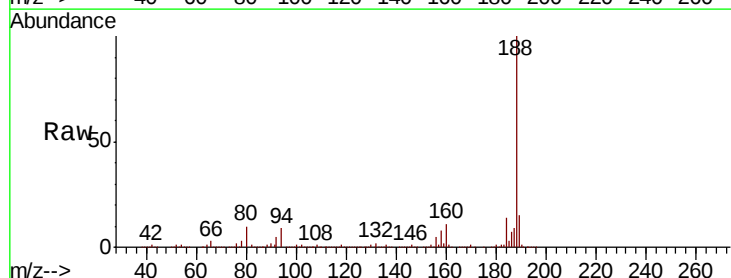
RT: 11.26 min Scan# 1559

Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

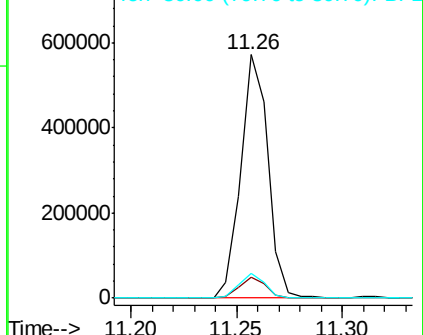
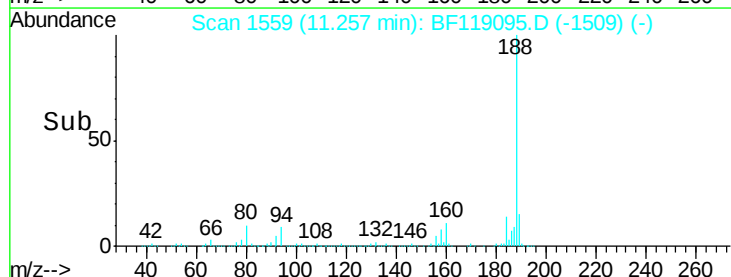
Tgt Ion:188	Resp:	508965
Ion Ratio	Lower	Upper
188	100	
94	8.5	7.1 10.7
80	10.0	7.8 11.8

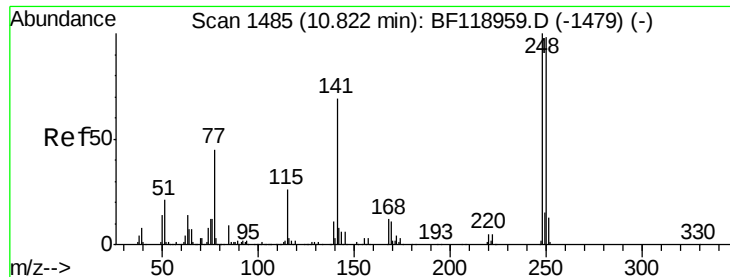


Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BF1

Ion 80.00 (79.70 to 80.70): BF1

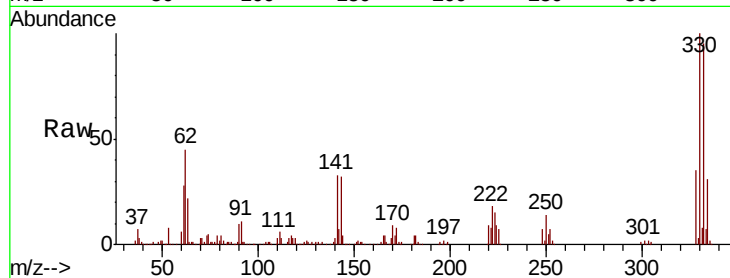




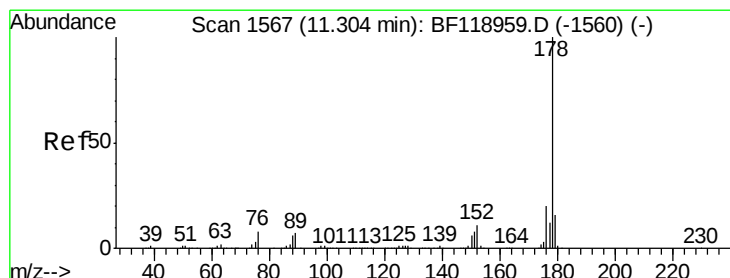
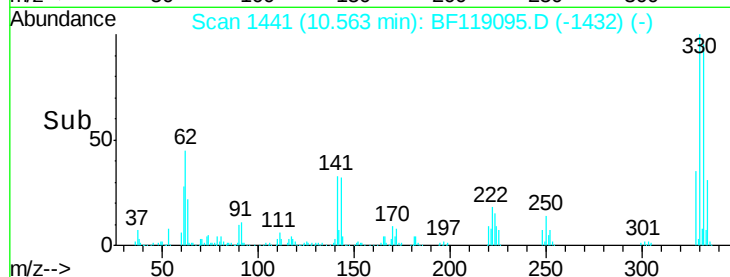
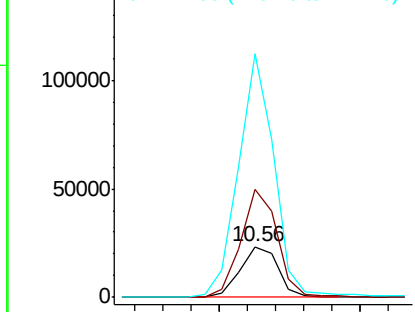
#67
4-Bromophenyl-phenylether
Concen: 3.269 ng
RT: 10.56 min Scan# 1441
Delta R.T. -0.25 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Instrument :
BNA_F
ClientSampled :

Tot Ion:248 Resp: 21749
Ion Ratio Lower Upper
248 100
250 212.0 76.7 115.1#
141 480.5 60.7 91.1#

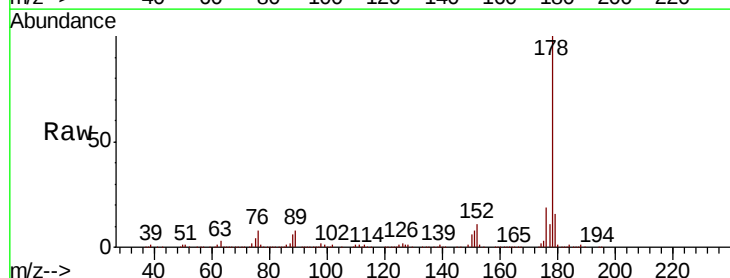


Abundance Ion 248.00 (247.70 to 248.70): E
Ion 250.00 (249.70 to 250.70): E
Ion 141.00 (140.70 to 141.70): E

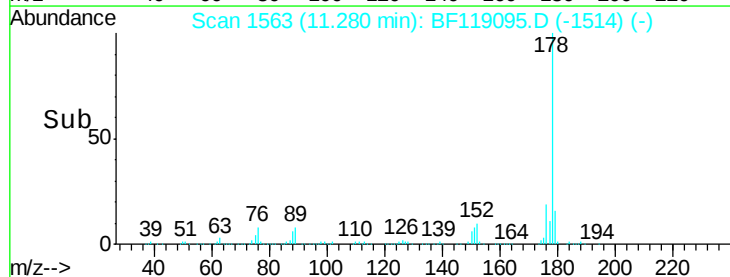
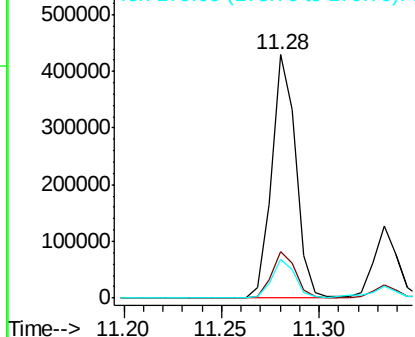


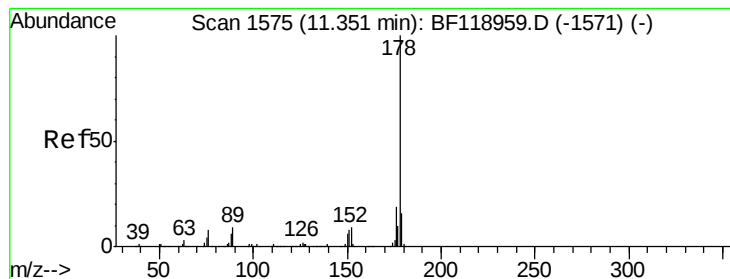
#71
Phenanthrene
Concen: 13.248 ng
RT: 11.28 min Scan# 1563
Delta R.T. -0.01 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Tgt Ion:178 Resp: 367729
Ion Ratio Lower Upper
178 100
176 19.1 16.5 24.7
179 15.7 13.0 19.6



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





#72

Anthracene

Concen: 3.697 ng

RT: 11.33 min Scan# 1572

Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

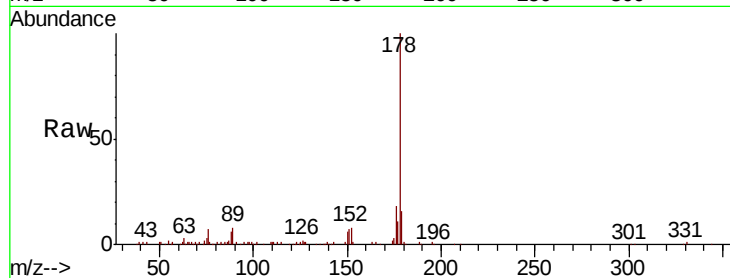
Instrument :

BNA_F

ClientSampleId :

Tot Ion:178 Resp: 102530

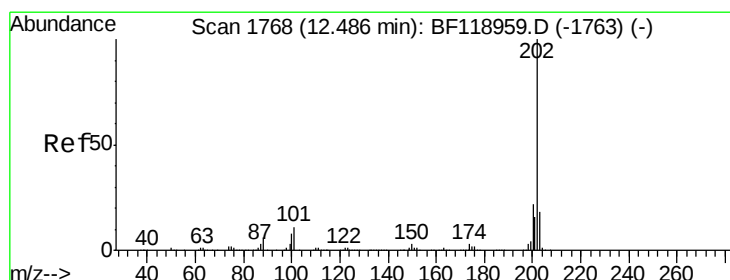
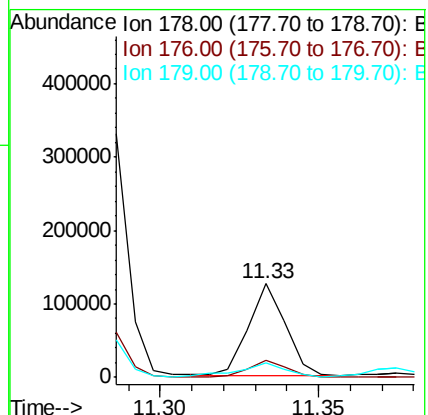
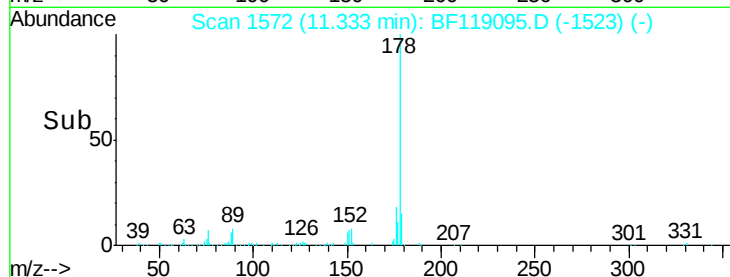
Ion	Ratio	Lower	Upper
178	100		
176	18.3	16.0	24.0
179	15.8	13.1	19.7



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



#75

Fluoranthene

Concen: 22.052 ng

RT: 12.47 min Scan# 1765

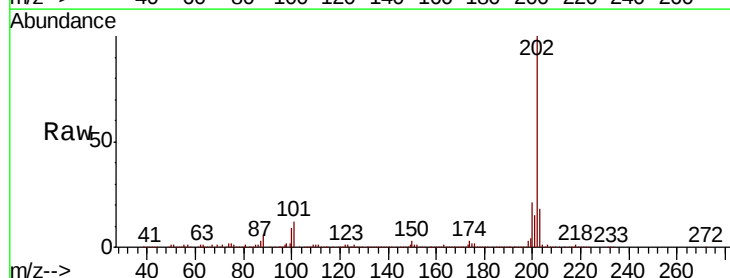
Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

Tgt Ion:202 Resp: 649697

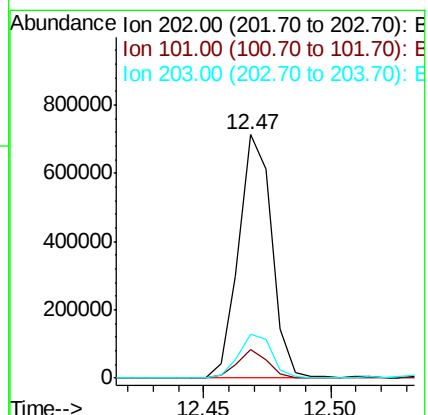
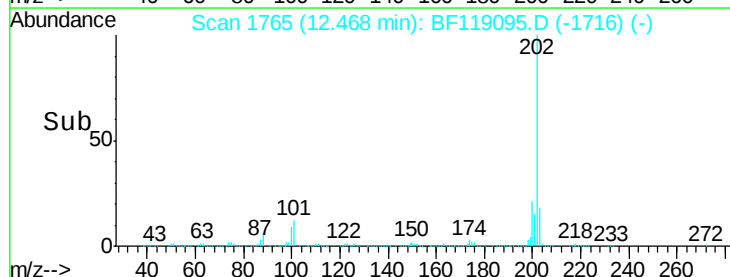
Ion	Ratio	Lower	Upper
202	100		
101	11.7	0.0	30.3
203	18.1	0.0	38.4

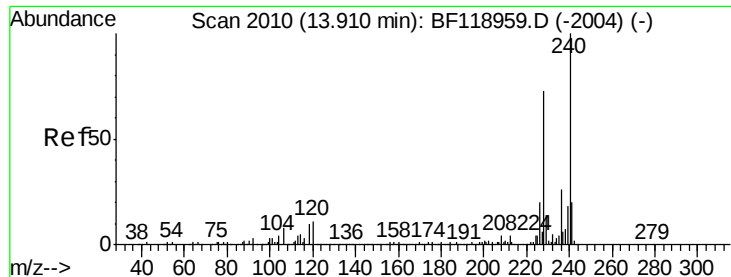


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 203.00 (202.70 to 203.70): E





#76

Chrysene-d12

Concen: 20.000 ng

RT: 13.89 min Scan# 2007

Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

Instrument :

BNA_F

ClientSampleId :

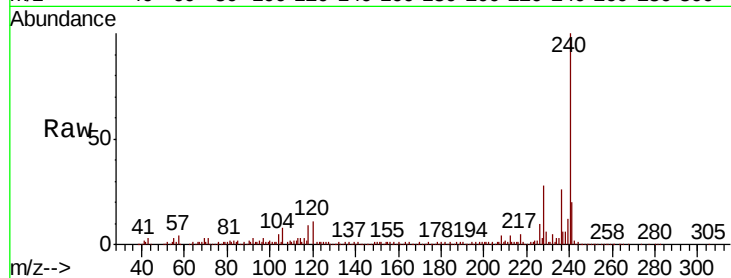
Tot Ion:240 Resp: 317035

Ion Ratio Lower Upper

240 100

120 10.8 8.4 12.6

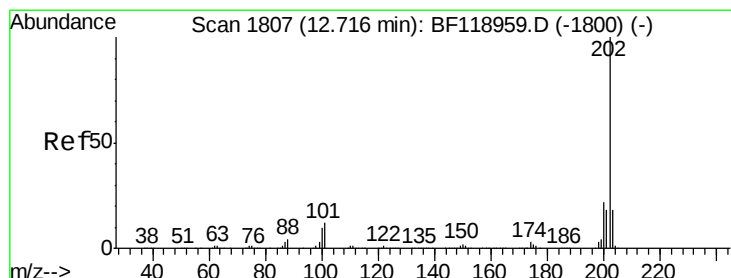
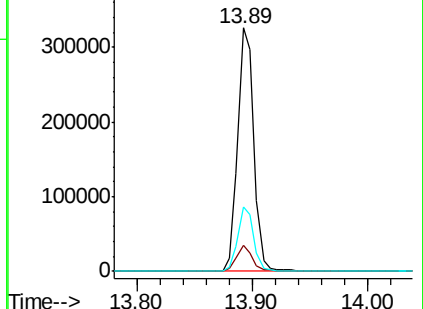
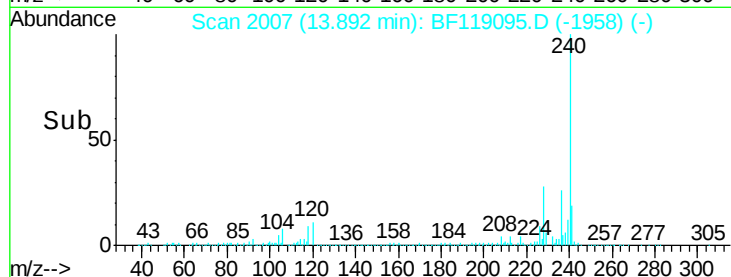
236 26.4 21.0 31.4



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



#78

Pyrene

Concen: 20.483 ng

RT: 12.70 min Scan# 1804

Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

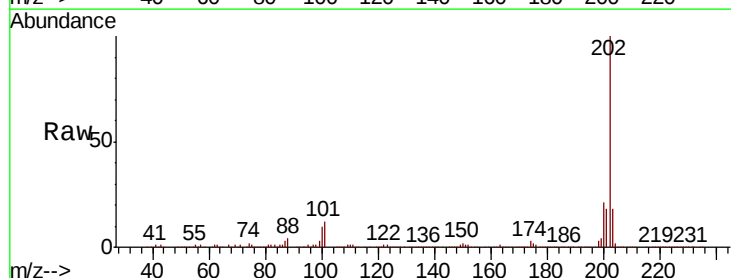
Tgt Ion:202 Resp: 521455

Ion Ratio Lower Upper

202 100

200 21.0 18.0 27.0

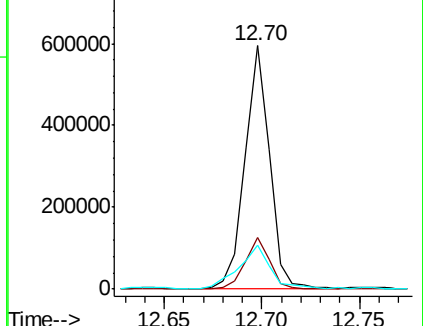
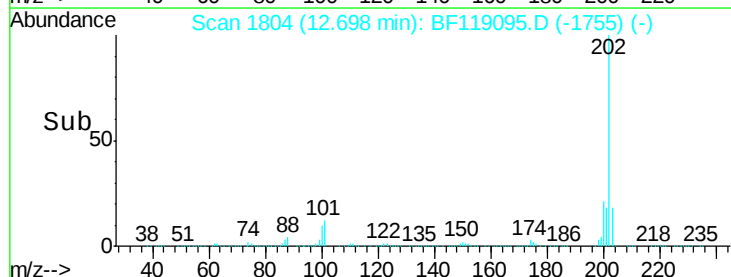
203 18.2 14.6 22.0

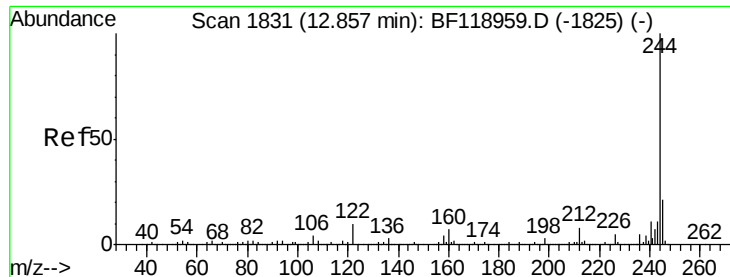


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E





#79

Terphenyl-d14

Concen: 62.506 ng

RT: 12.84 min Scan# 1828

Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

Instrument :

BNA_F

ClientSampleId :

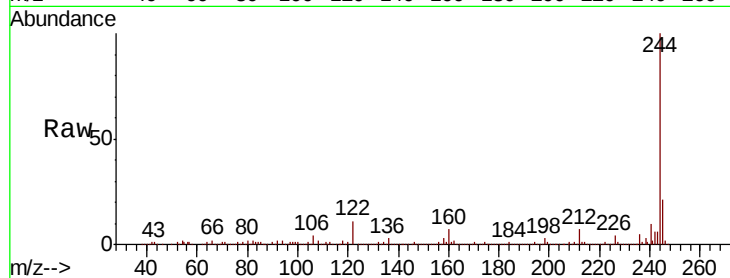
Tot Ion:244 Resp: 1151008

Ion	Ratio	Lower	Upper
244	100		
212	7.2	6.6	10.0
122	11.0	8.2	12.2

244 100

212 7.2 6.6 10.0

122 11.0 8.2 12.2



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

12.84

1500000

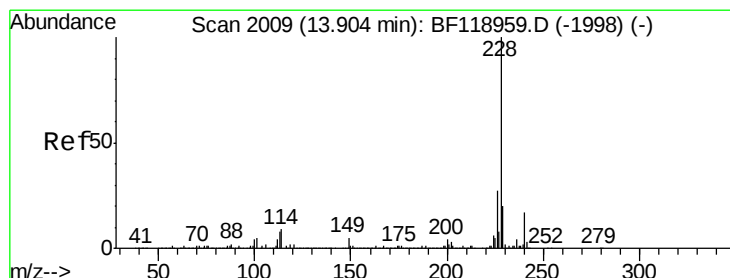
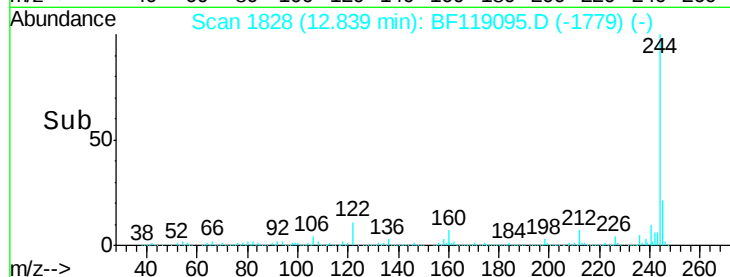
1000000

500000

0

Time-->

12.80 12.90



#81

Benzo(a)anthracene

Concen: 9.615 ng

RT: 13.89 min Scan# 2006

Delta R.T. -0.01 min

Lab File: BF119095.D

Acq: 26 Feb 2020 15:24

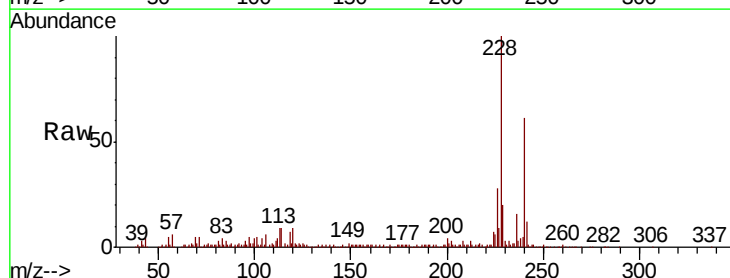
Tgt Ion:228 Resp: 207693

Ion	Ratio	Lower	Upper
228	100		
226	28.1	22.6	33.8
229	20.2	16.6	24.8

228 100

226 28.1 22.6 33.8

229 20.2 16.6 24.8



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

13.89

300000

250000

200000

150000

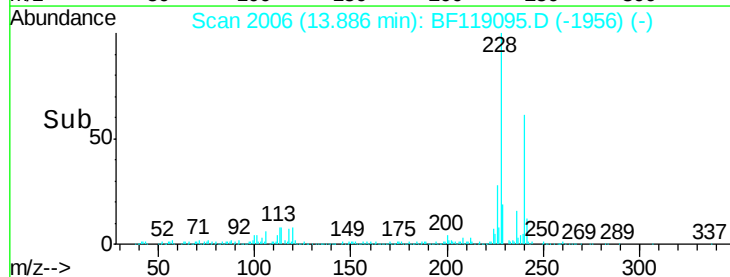
100000

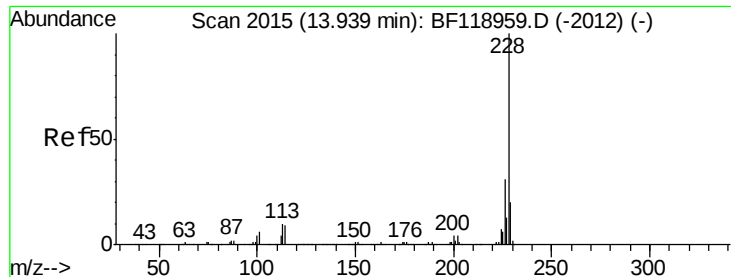
50000

0

Time-->

13.80 13.85 13.90

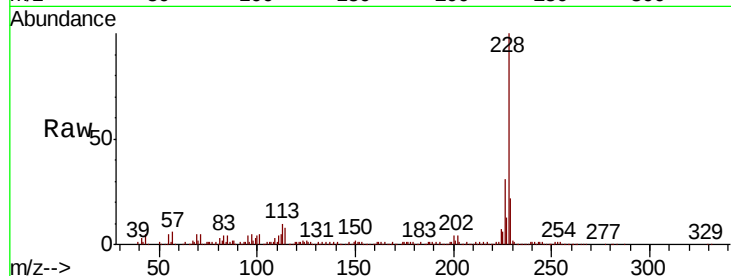




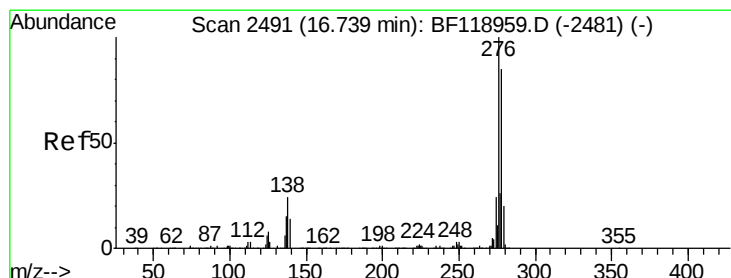
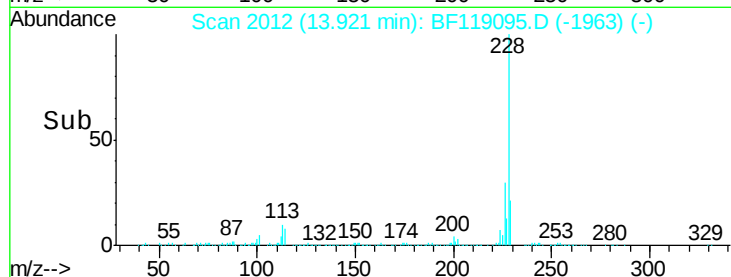
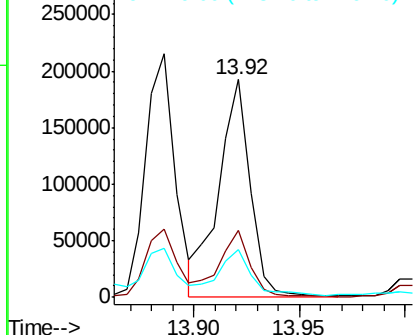
#83
Chrysene
Concen: 9.186 ng
RT: 13.92 min Scan# 2012
Delta R.T. -0.01 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Instrument :
BNA_F
ClientSampled :

Tot	Ion:228	Resp:	197725
Ion	Ratio	Lower	Upper
228	100		
226	30.5	25.1	37.7
229	22.3	16.3	24.5

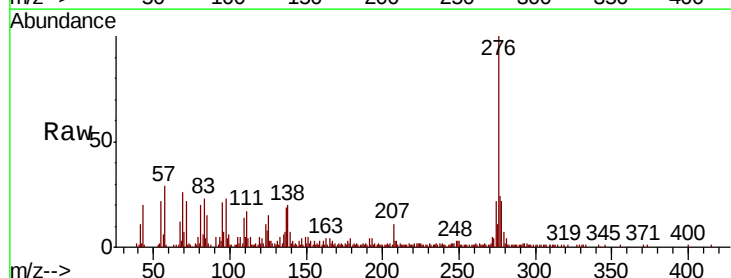


Abundance Ion 228.00 (227.70 to 228.70): E
Ion 226.00 (225.70 to 226.70): E
Ion 229.00 (228.70 to 229.70): E

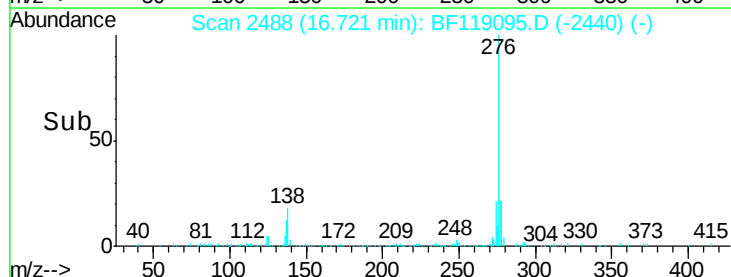
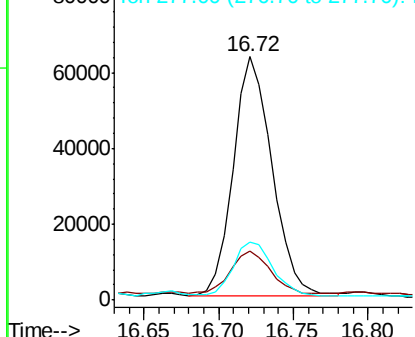


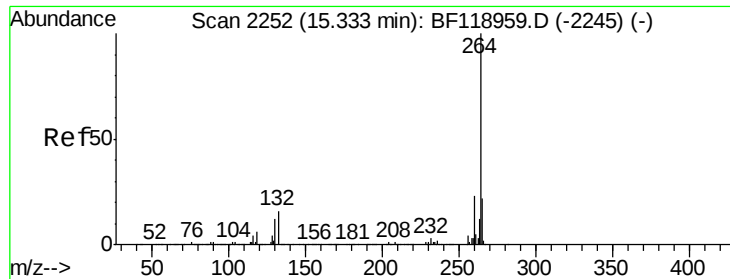
#86
Indeno(1,2,3-cd)pyrene
Concen: 5.455 ng
RT: 16.72 min Scan# 2488
Delta R.T. -0.02 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Tgt	Ion:276	Resp:	113684
Ion	Ratio	Lower	Upper
276	100		
138	18.2	17.4	26.0
277	22.9	20.3	30.5



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

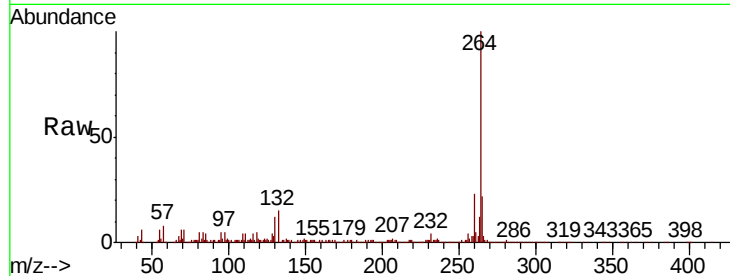




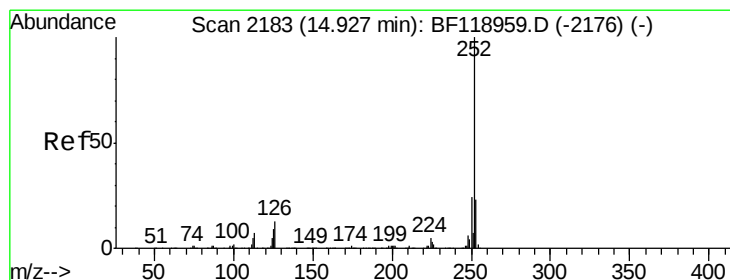
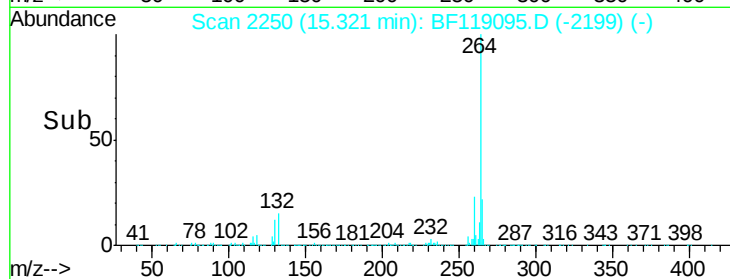
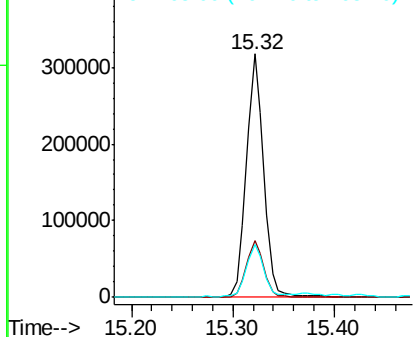
#87
Pervlene-d12
Concen: 20.000 ng
RT: 15.32 min Scan# 2250
Delta R.T. -0.00 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Instrument :
BNA_F
ClientSampleId :

Tot Ion	Ratio	Lower	Upper
264	100		
260	23.5	19.4	29.2
265	21.9	17.7	26.5

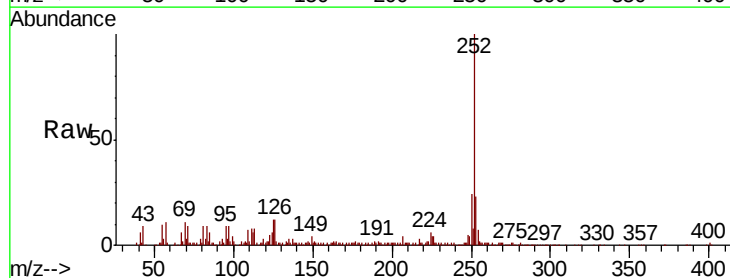


Abundance Ion 264.00 (263.70 to 264.70): E
Ion 260.00 (259.70 to 260.70): E
Ion 265.00 (264.70 to 265.70): E

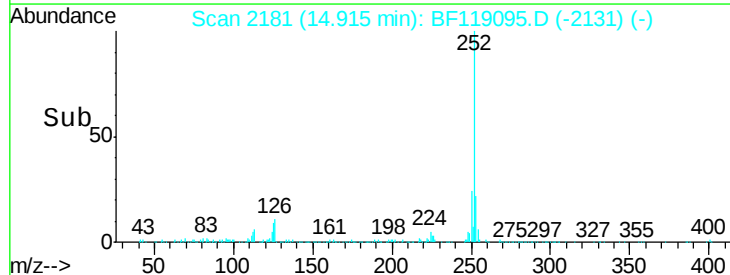
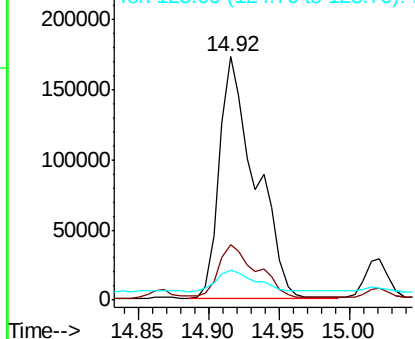


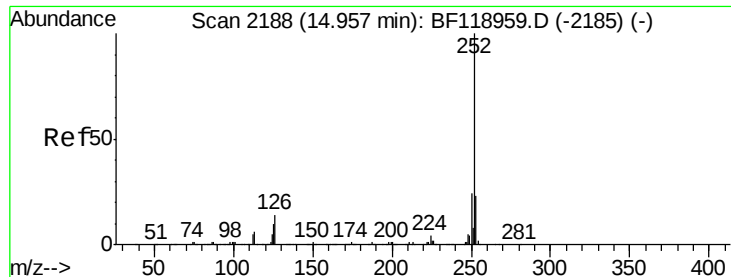
#88
Benzo(b)fluoranthene
Concen: 12.495 ng
RT: 14.92 min Scan# 2181
Delta R.T. -0.01 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.7	18.1	27.1
125	12.2	7.4	11.0



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

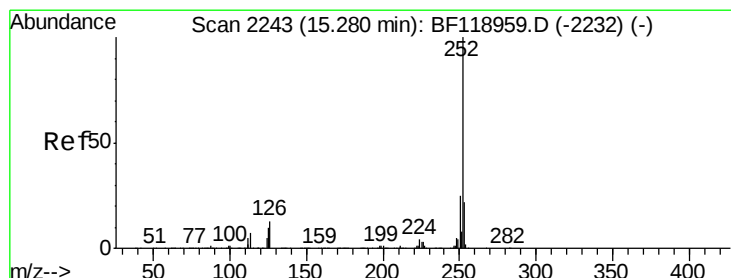
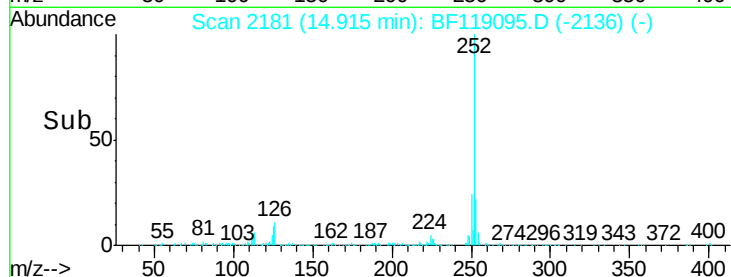
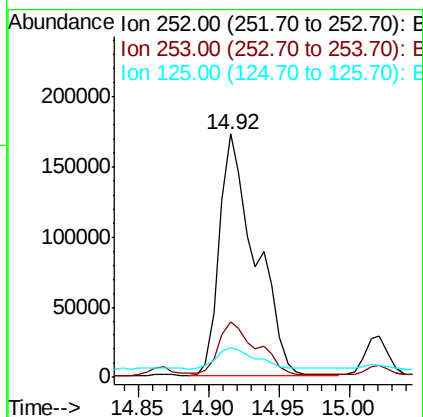
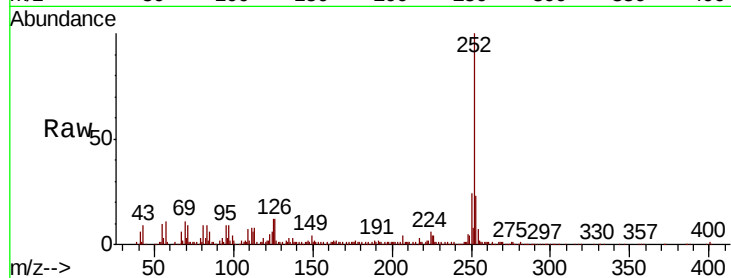




#89
Benzo(k)fluoranthene
Concen: 13.484 ng
RT: 14.92 min Scan# 2181
Delta R.T. -0.04 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

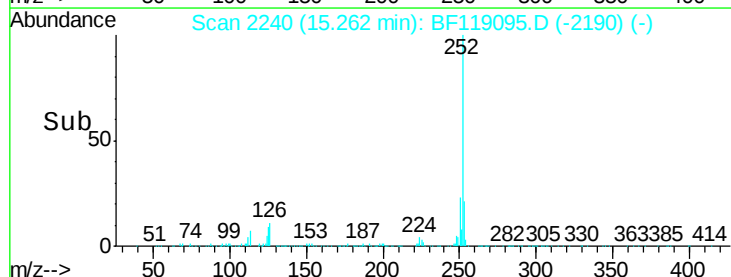
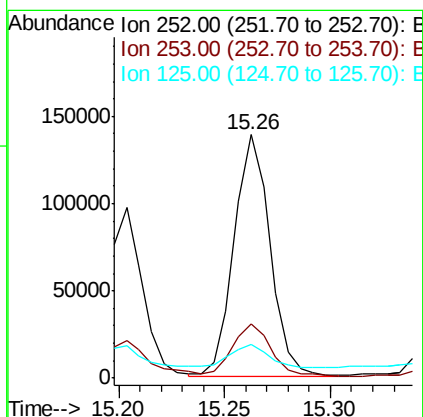
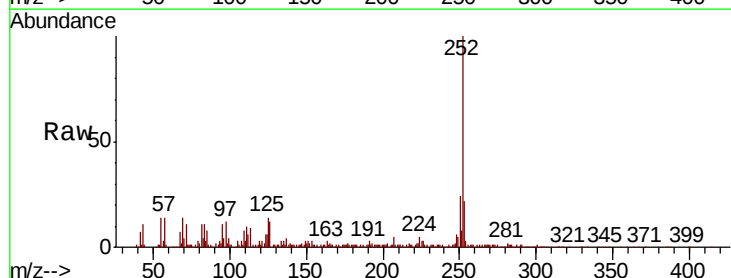
Instrument :
BNA_F
ClientSampleId :

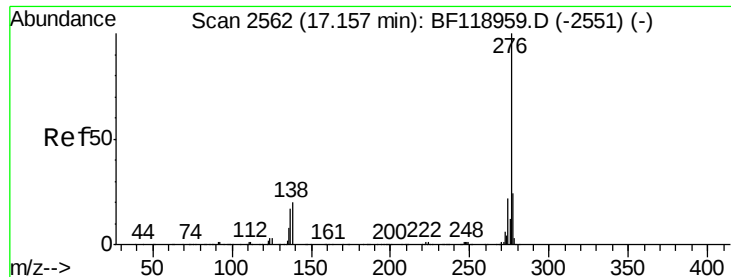
Tot Ion:252 Resp: 308489
Ion Ratio Lower Upper
252 100
253 22.7 17.8 26.8
125 12.2 7.5 11.3#



#90
Benzo(a)pyrene
Concen: 7.314 ng
RT: 15.26 min Scan# 2240
Delta R.T. -0.01 min
Lab File: BF119095.D
Acq: 26 Feb 2020 15:24

Tgt Ion:252 Resp: 162978
Ion Ratio Lower Upper
252 100
253 22.3 18.0 27.0
125 13.8 8.6 12.8#

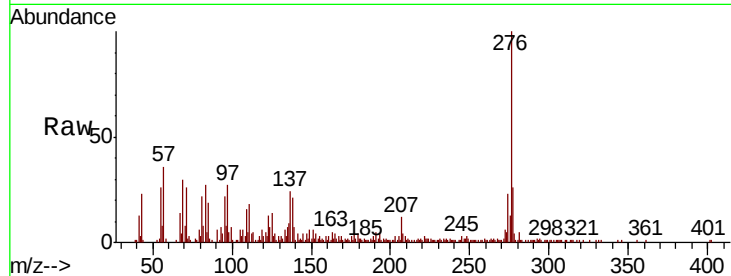




#92
 Benzo(a,h,i)perylene
 Concen: 5.757 ng
 RT: 17.14 min Scan# 2560
 Delta R.T. -0.01 min
 Lab File: BF119095.D
 Acq: 26 Feb 2020 15:24

Instrument :
 BNA_F
 ClientSampleId :

Tot Ion	Ratio	Lower	Upper
276	100		
277	25.7	18.7	28.1
138	21.4	14.3	21.5



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

