Quantitation Report (Not Reviewed)

Data Path : U:\HPCHEM1\BNA F\DATA\BF020518\
Data File : BF102736.D
Acq On : 5 Feb 2018 14:28
Operator : SJ/JU
Sample : J1399-01 2X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId :

Quant Time: Feb 05 15:58:32 2018
Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF020318.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Feb 05 12:44:16 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.88	152	220240	20.00	ng		0.00
21) Naphthalene-d8	8.16	136	878574	20.00	ng		0.00
38) Acenaphthene-d10	9.92	164	379245	20.00	ng		0.00
63) Phenanthrene-d10	11.40	188	553744	20.00	ng		0.00
75) Chrysene-d12	14.04	240	363814	20.00	ng		0.00
86) Perylene-d12	15.53	264	350839	20.00	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.49	112	774760	53.42	ng		0.00
7) Phenol-d6	6.50	99	904895	51.82	ng		0.00
23) Nitrobenzene-d5	7.44	82	548053	43.27	ng		-0.01
41) 2,4,6-Tribromophenol	10.70	330	165336	54.16	ng		0.00
44) 2-Fluorobiphenyl	9.24	172	909660	39.80	ng		0.00
78) Terphenyl-d14	12.99	244	601469	39.14	ng		0.00
Target Compounds							Qvalue
10) Phenol	6.51	94	41339	2.209	ng		97
19) n-Nitroso-di-n-propylamine	7.44	70	69471	6.034	ng	#	84
24) Nitrobenzene	7.49	77	650	Below Cal		#	1
25) Isophorone	7.44	82	545229	18.696	ng	#	64
26) 2-Nitrophenol	7.77	139	289	8.705	ng	#	1
31) Naphthalene	8.19	128	222422	5.182	ng		97
32) Benzoic acid	7.93	122	1053	8.660	ng	#	1
37) 2-Methylnaphthalene	8.87	142	122935	4.374	ng		99
47) 2-Nitroaniline	9.49	65	1856	3.694	ng	#	39
48) Acenaphthylene	9.78	152	95861	2.454	ng		99
49) Dimethylphthalate	9.63	163	102515	3.467	ng	#	98
51) Acenaphthene	9.95	154	127897	5.475	ng		99
53) 2,4-Dinitrophenol	10.21	184	262	8.185	ng	#	29
54) Dibenzofuran	10.12	168	136906	4.159	ng		95
55) 4-Nitrophenol	10.02	139	2050	4.366	ng	#	47
56) 2,4-Dinitrotoluene	10.23	165	3218	3.475	ng	#	66
57) Fluorene	10.46	166	213333	8.907	ng		98
64) 4,6-Dinitro-2-methylphenol	10.70	198	340	8.929	ng	#	1
70) Phenanthrene	11.43	178	1015647	32.933	ng		99
71) Anthracene	11.48	178	331100	10.556	ng		99
72) Carbazole	11.63	167	108400	3.528	ng		99
74) Fluoranthene	12.62	202	923034	29.748	ng		99
77) Pyrene	12.86	202	877710	30.766	ng		99
80) Benzo(a)anthracene	14.03	228	403555	17.638	ng		94
82) Chrysene	14.07	228	378232	16.399	ng		97
85) Indeno(1,2,3-cd)pyrene	17.01	276	156447	8.178	ng		94
87) Benzo(b)fluoranthene	15.09	252	571876	25.142	ng	#	96
88) Benzo(k)fluoranthene	15.09	252	571876	26.313	ng		98
89) Benzo(a)pyrene	15.46	252	331887	16.210	ng		95
90) Dibenzo(a,h)anthracene	17.02	278	39820	2.396	ng	#	77
91) Benzo(g,h,i)perylene	17.46	276	154981	9.528	ng		97

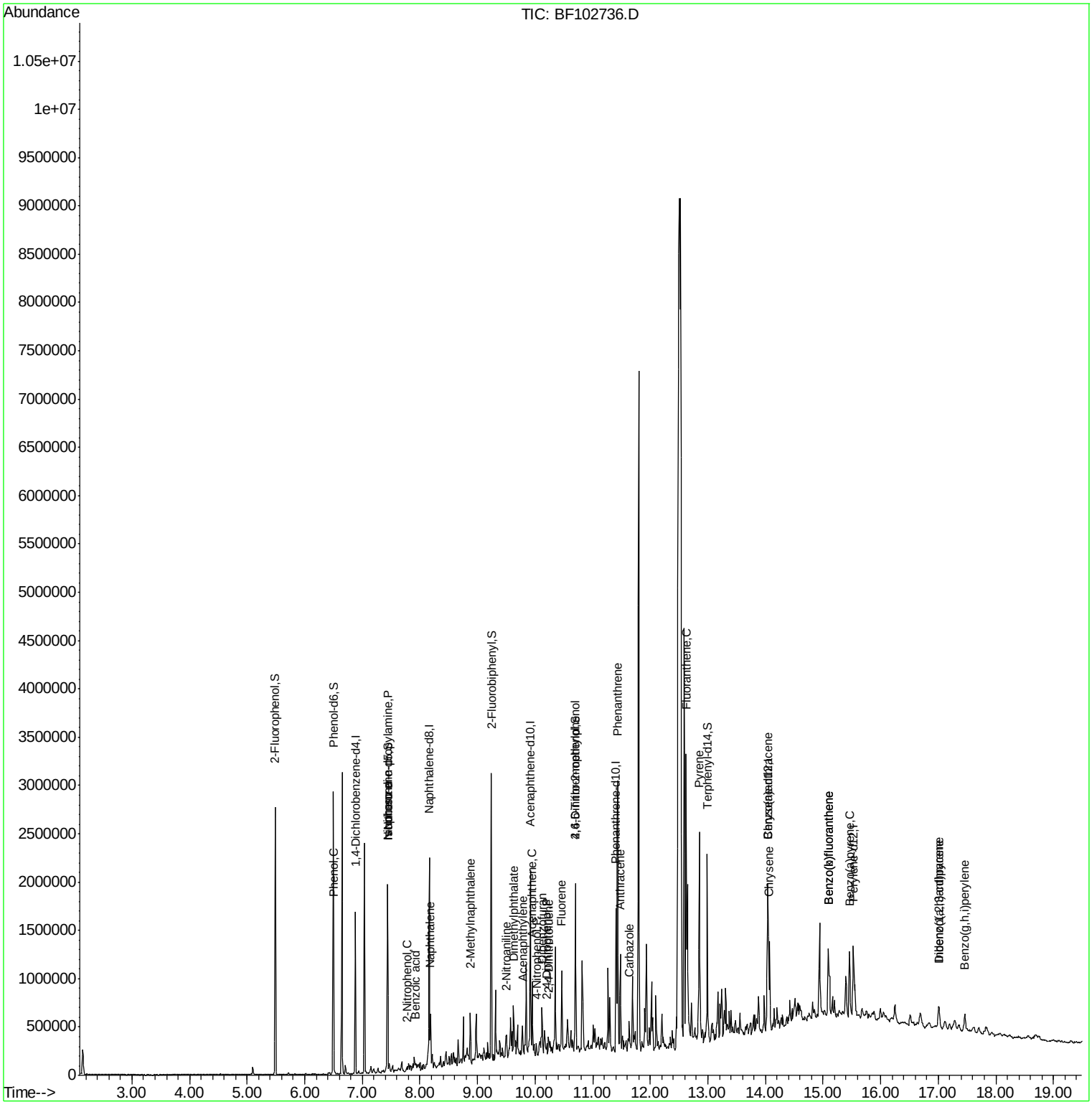
(#) = qualifier out of range (m) = manual integration (+) = signals summed

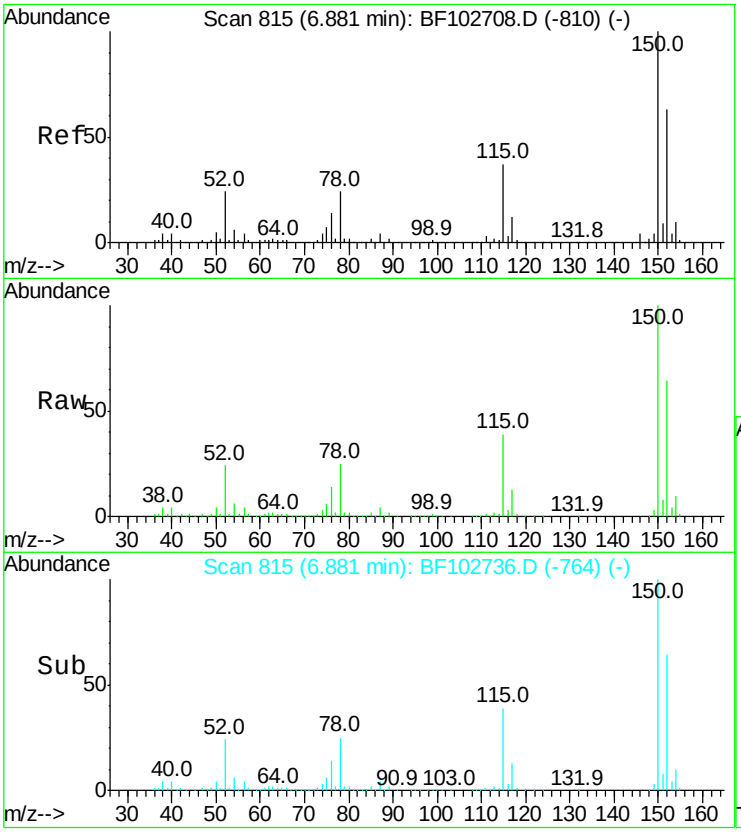
Quantitation Report (Not Reviewed)

Data Path : U:\HPCHEM1\BNA F\DATA\BF020518\
Data File : BF102736.D
Acq On : 5 Feb 2018 14:28
Operator : SJ/JU
Sample : J1399-01 2X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :

Quant Time: Feb 05 15:58:32 2018
Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF020318.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Feb 05 12:44:16 2018
Response via : Initial Calibration



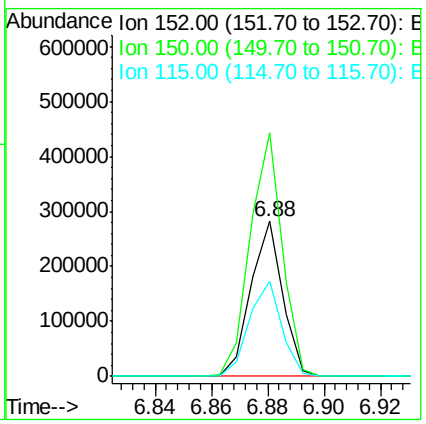


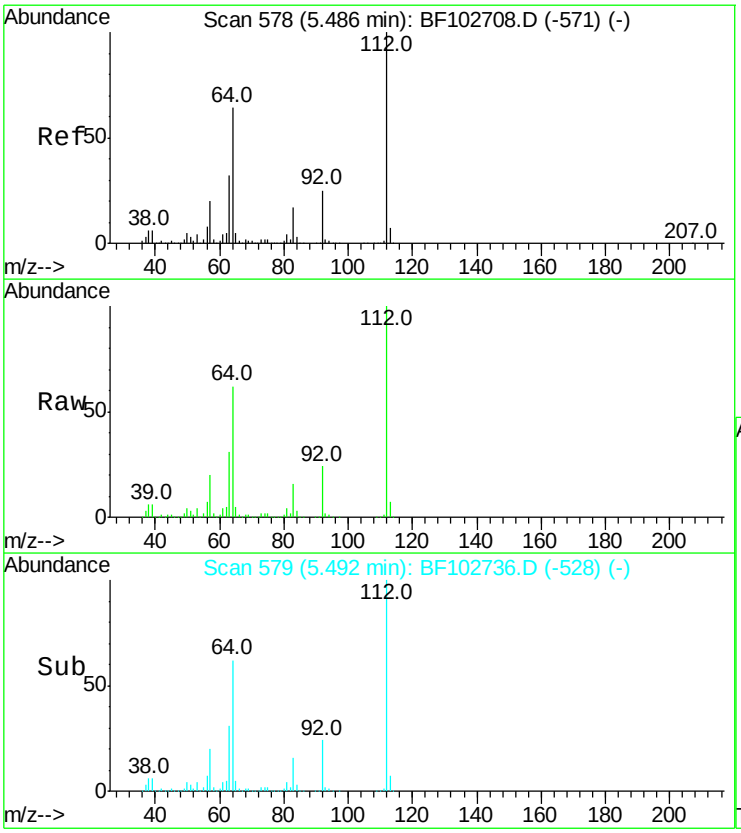
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.88 min Scan# 815
Delta R.T. 0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:152 Resp: 220240

Ion	Ratio	Lower	Upper
152	100		
150	157.0	124.6	186.8
115	61.2	50.1	75.1

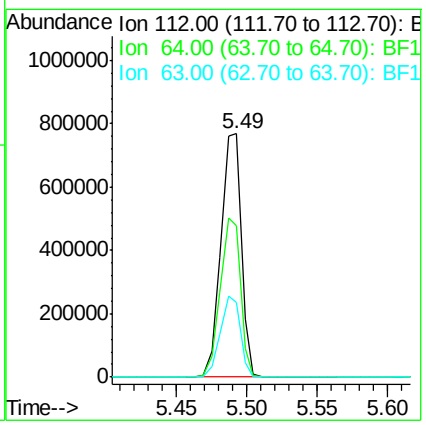


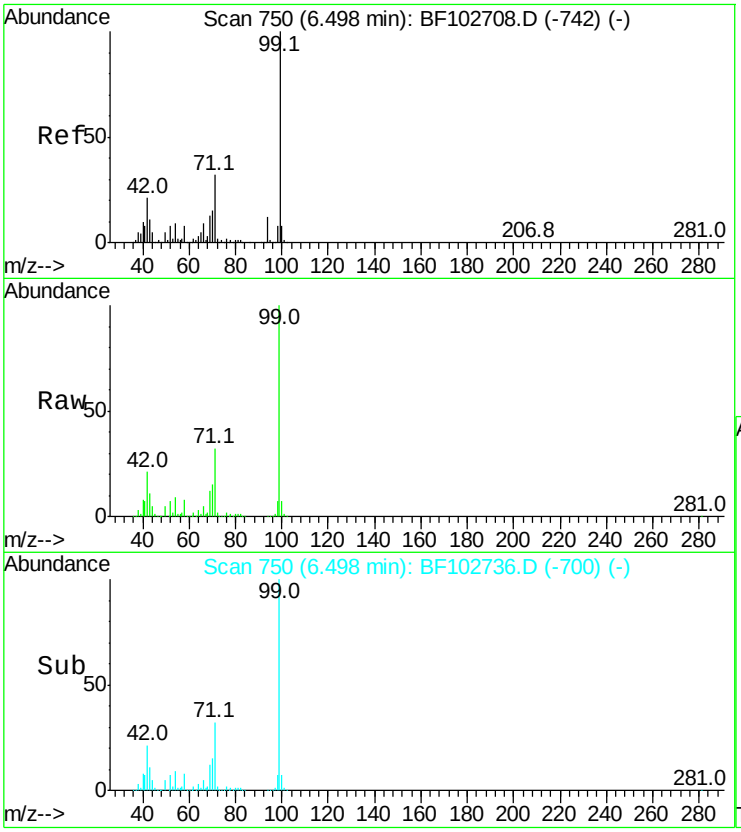


#5
2-Fluorophenol
Concen: 53.424 ng
RT: 5.49 min Scan# 579
Delta R.T. -0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:112 Resp: 774760

Ion	Ratio	Lower	Upper
112	100		
64	62.0	47.9	71.9
63	30.8	23.7	35.5

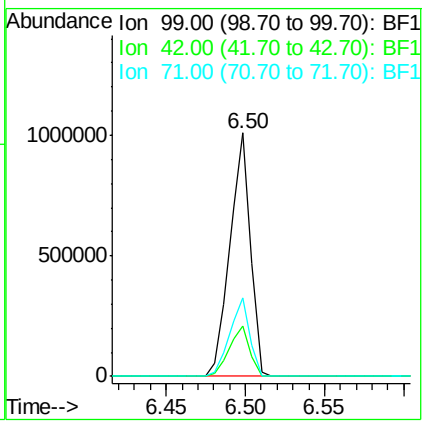




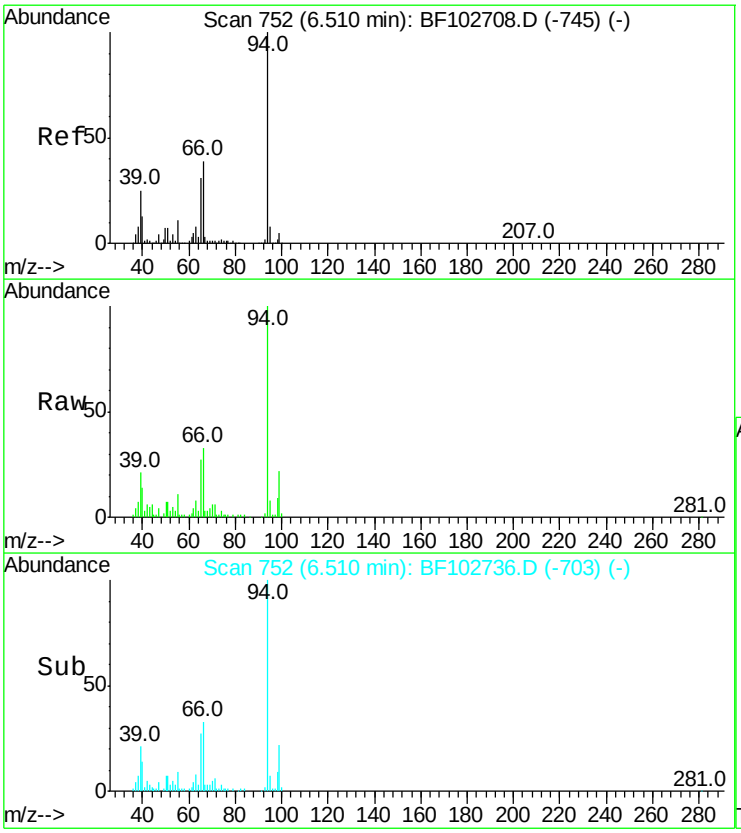
#7
Phenol-d6
Concen: 51.822 ng
RT: 6.50 min Scan# 750
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion: 99 Resp: 904895

Ion	Ratio	Lower	Upper
99	100		
42	20.7	14.5	21.7
71	32.1	25.4	38.0



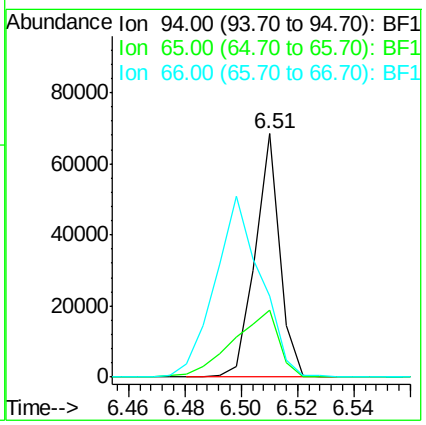
Instrument :
BNA_F
ClientSampleId :

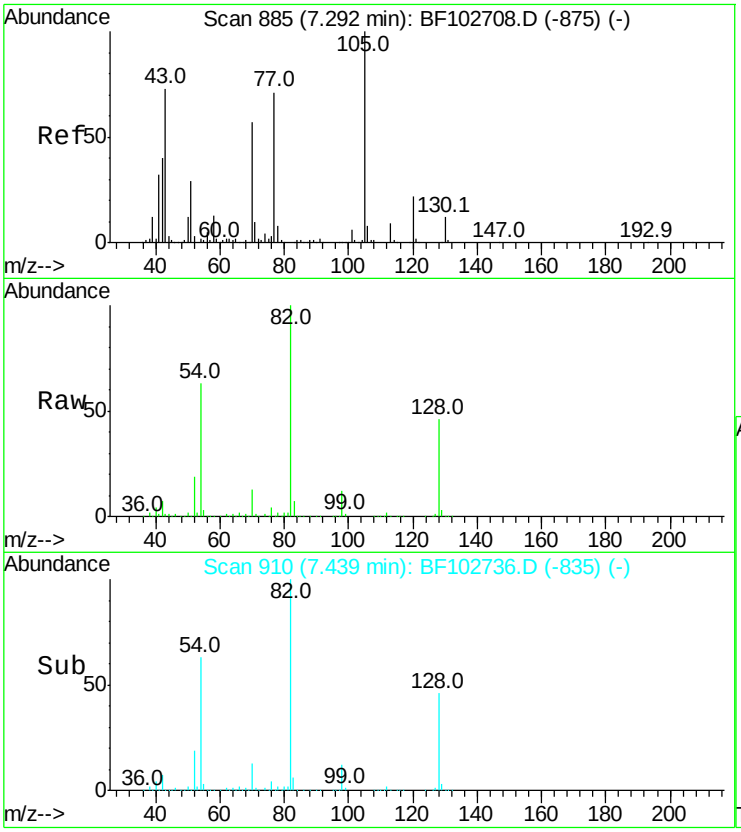


#10
Phenol
Concen: 2.209 ng
RT: 6.51 min Scan# 752
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion: 94 Resp: 41339

Ion	Ratio	Lower	Upper
94	100		
65	27.3	7.9	47.9
66	33.1	16.2	56.2



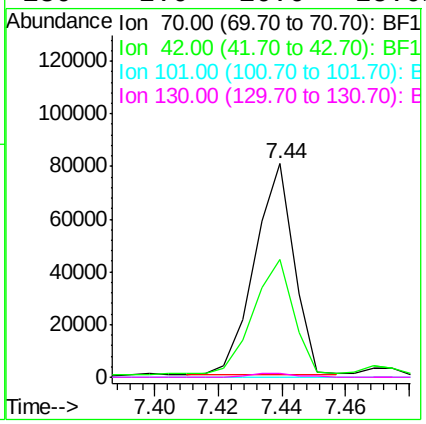


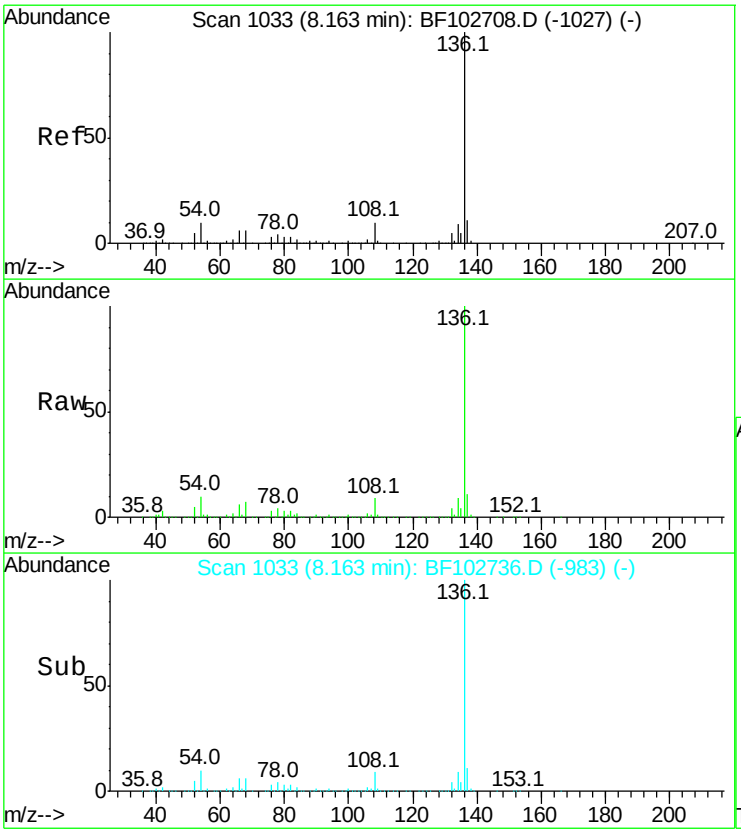
#19
n-Nitroso-di-n-propylamine
Concen: 6.034 ng
RT: 7.44 min Scan# 910
Delta R.T. 0.14 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion: 70 Resp: 69471

Ion	Ratio	Lower	Upper
70	100		
42	55.2	47.5	71.3
101	0.0	7.4	11.2#
130	2.0	16.6	25.0#

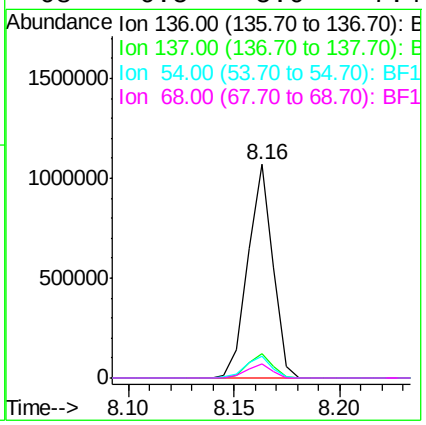


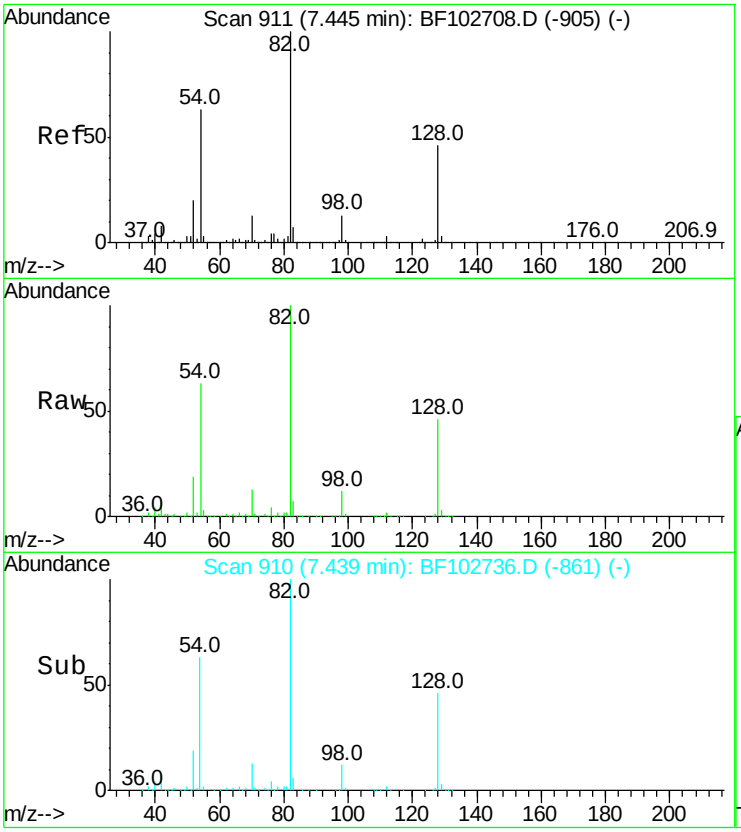


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.16 min Scan# 1033
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:136 Resp: 878574

Ion	Ratio	Lower	Upper
136	100		
137	11.3	8.9	13.3
54	9.9	6.6	9.8#
68	6.5	5.0	7.4



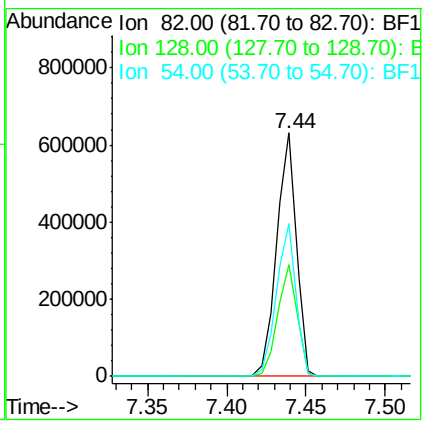


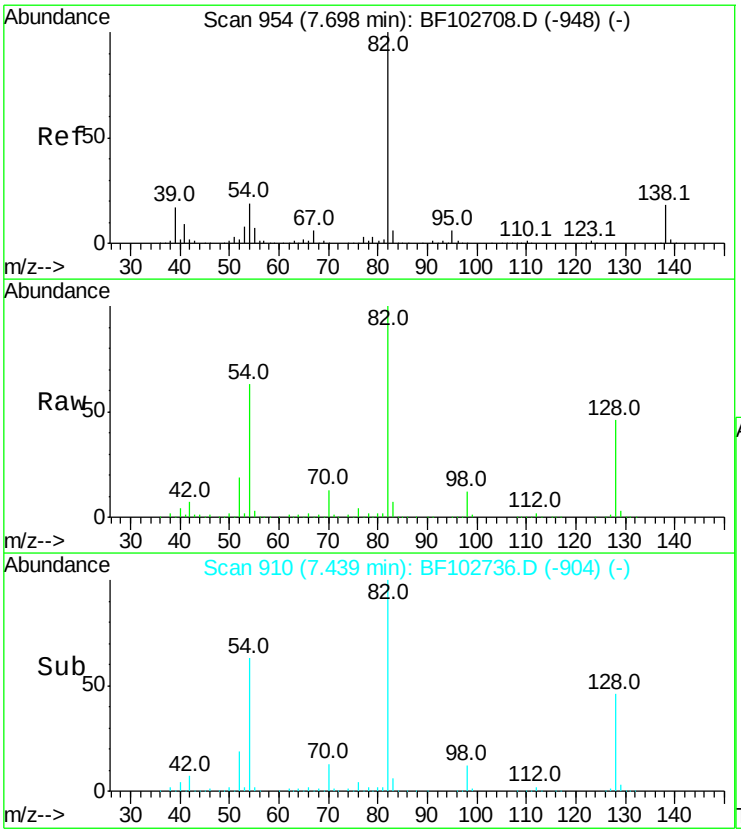
#23
Nitrobenzene-d5
Concen: 43.273 ng
RT: 7.44 min Scan# 910
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion: 82 Resp: 548053

Ion	Ratio	Lower	Upper
82	100		
128	46.2	36.1	54.1
54	62.7	41.4	62.2#

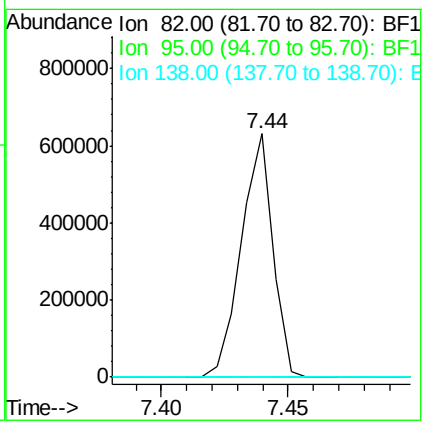


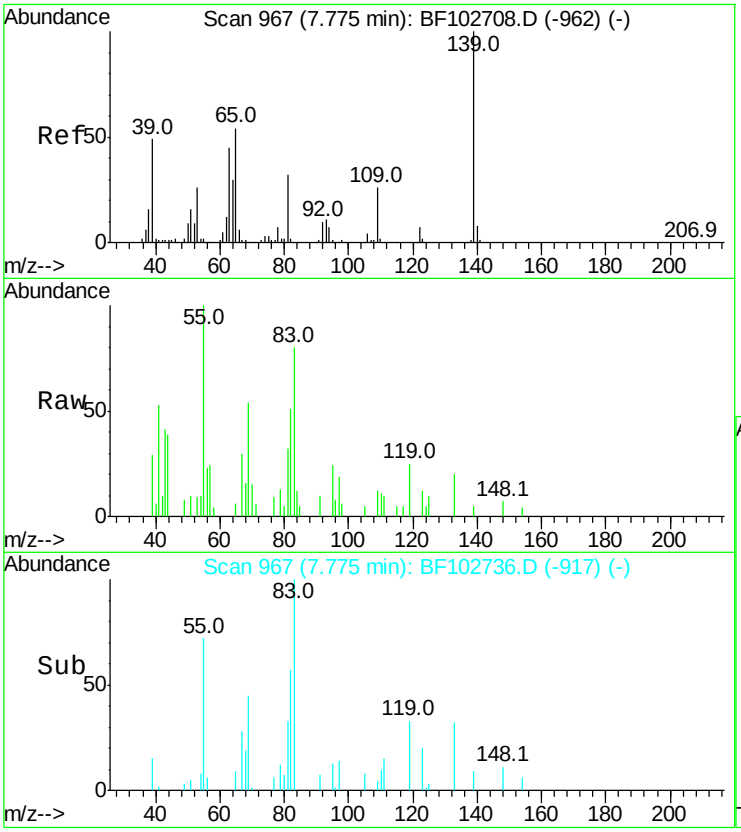


#25
Isophorone
Concen: 18.696 ng
RT: 7.44 min Scan# 910
Delta R.T. -0.26 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion: 82 Resp: 545229

Ion	Ratio	Lower	Upper
82	100		
95	0.1	5.2	7.8#
138	0.0	14.9	22.3#



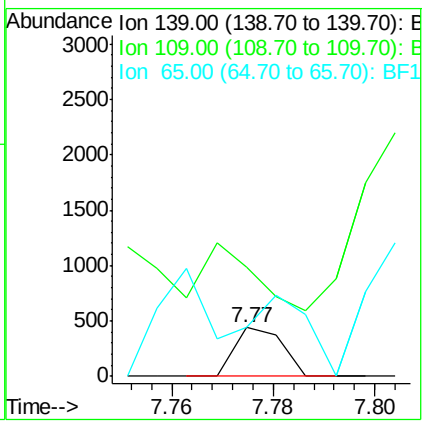


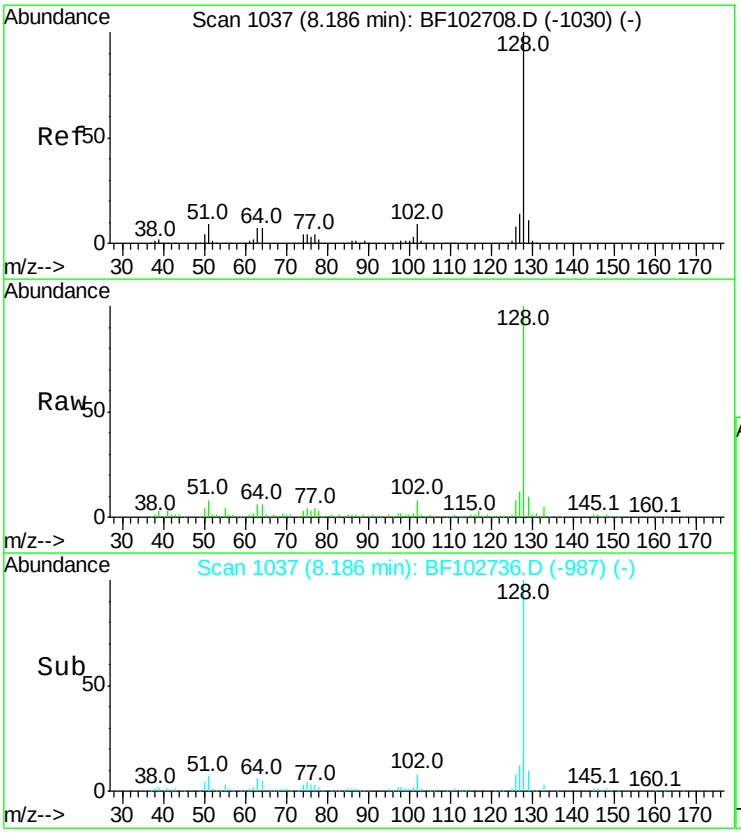
#26
2-Nitrophenol
Concen: 8.705 ng
RT: 7.77 min Scan# 967
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:139 Resp: 289

Ion	Ratio	Lower	Upper
139	100		
109	223.8	22.7	34.1#
65	101.4	40.5	60.7#

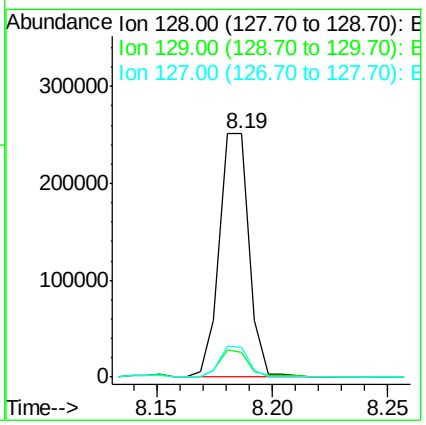


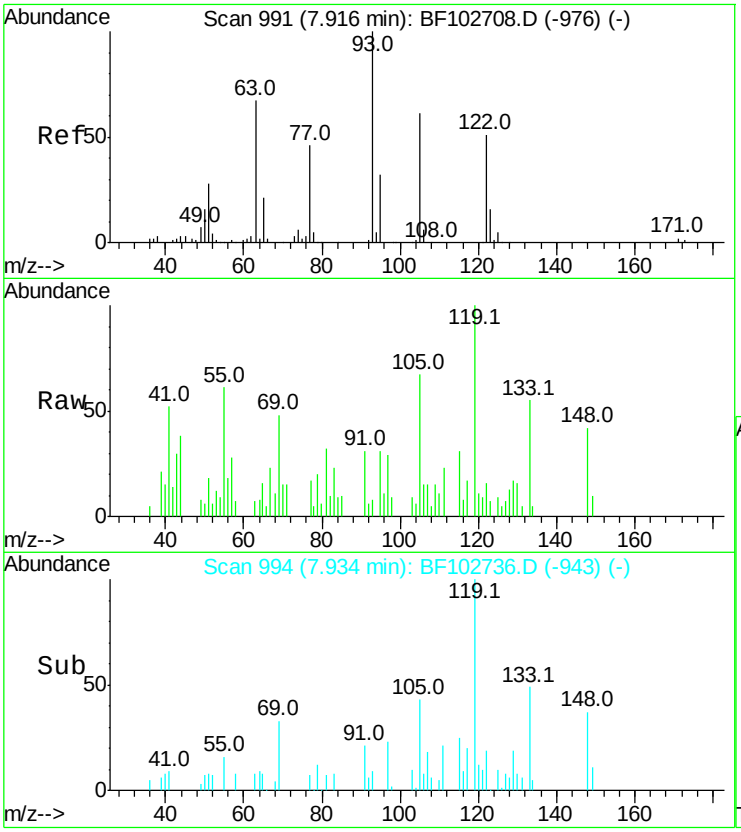


#31
Naphthalene
Concen: 5.182 ng
RT: 8.19 min Scan# 1037
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:128 Resp: 222422

Ion	Ratio	Lower	Upper
128	100		
129	10.0	8.8	13.2
127	12.4	10.9	16.3



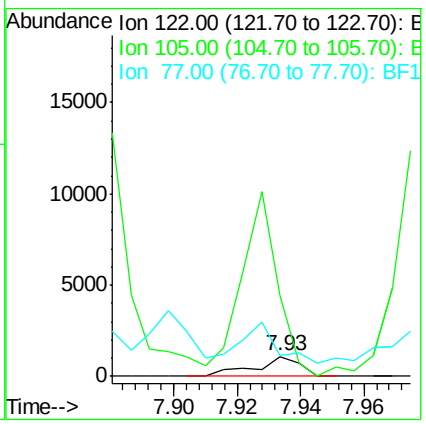


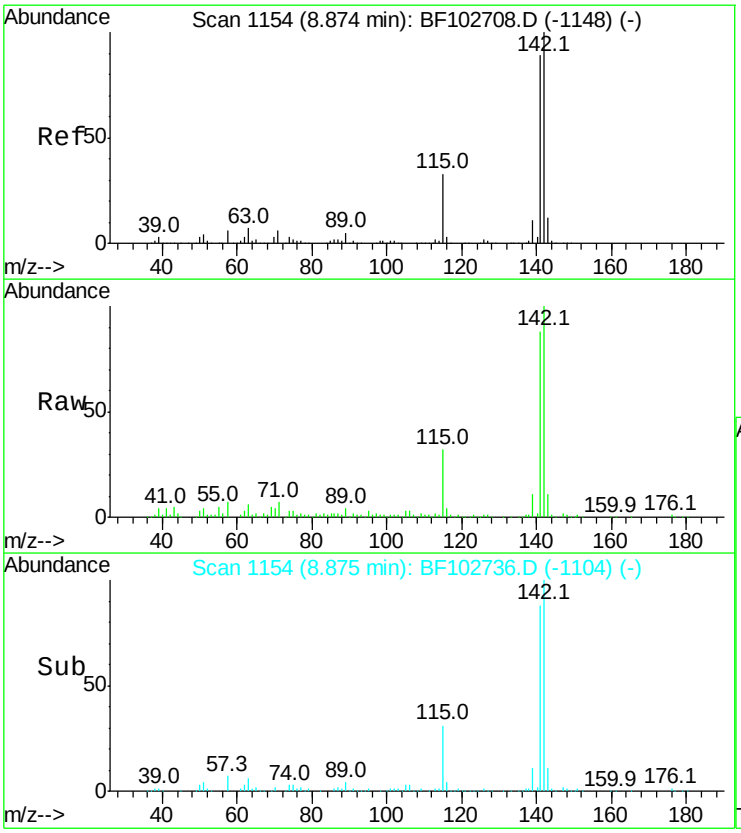
#32
Benzoic acid
Concen: 8.660 ng
RT: 7.93 min Scan# 994
Delta R.T. -0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:122 Resp: 1053

Ion	Ratio	Lower	Upper
122	100		
105	409.1	101.1	141.1#
77	105.0	70.7	110.7

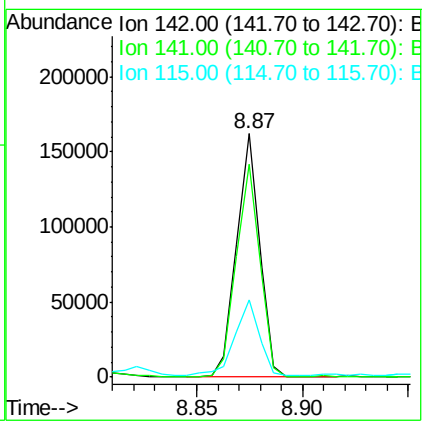


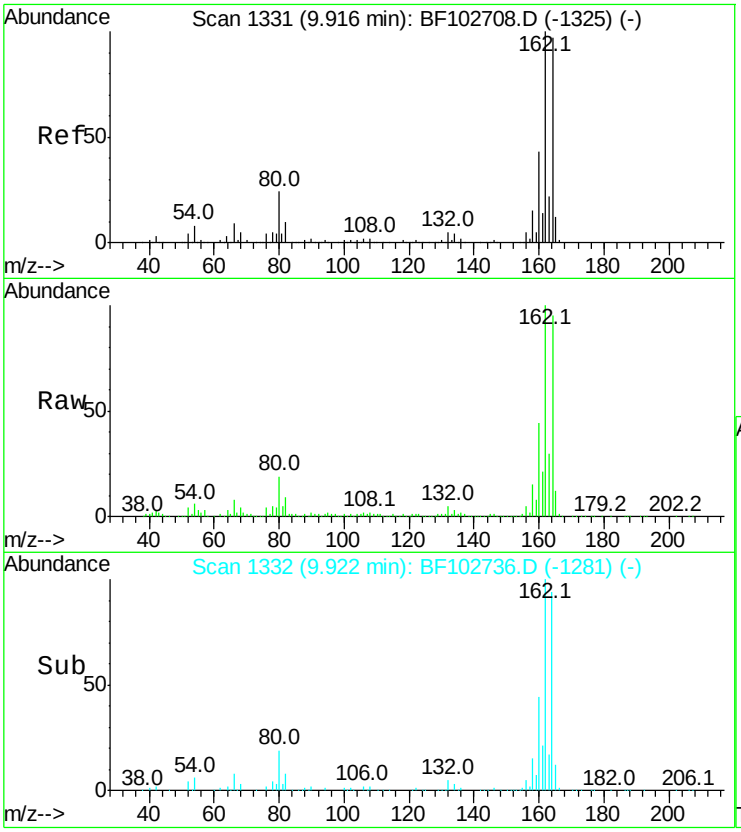


#37
2-Methylnaphthalene
Concen: 4.374 ng
RT: 8.87 min Scan# 1154
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:142 Resp: 122935

Ion	Ratio	Lower	Upper
142	100		
141	87.5	70.8	106.2
115	31.6	26.1	39.1



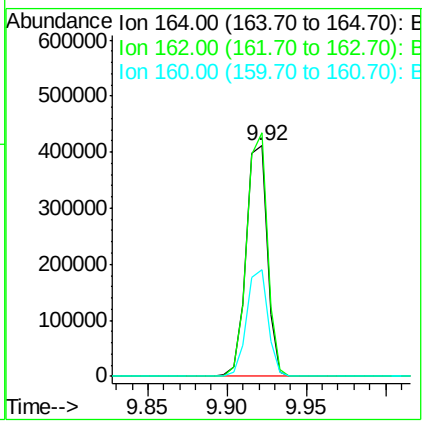


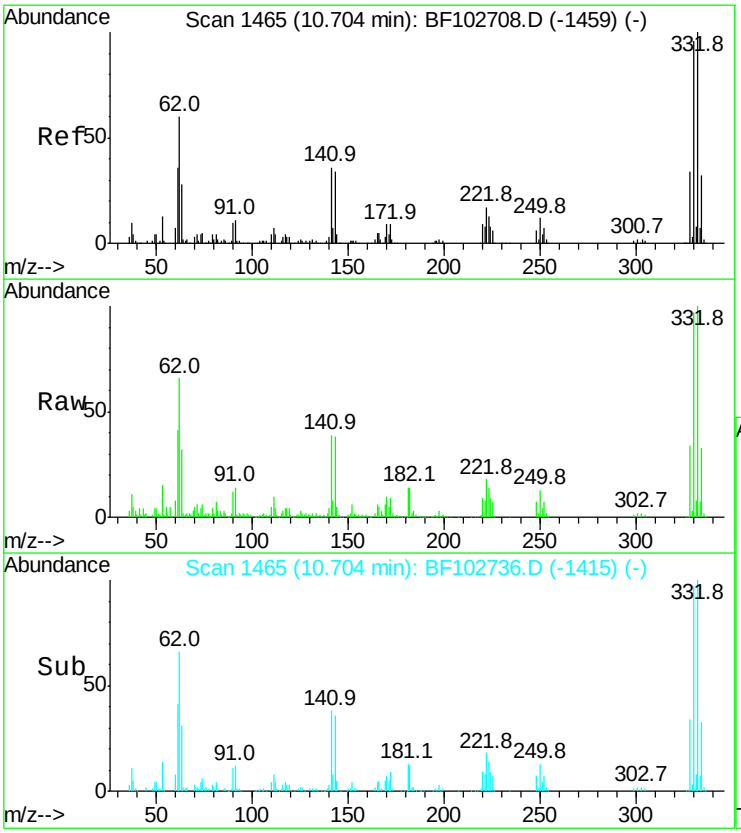
#38
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.92 min Scan# 1332
Delta R.T. 0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:164 Resp: 379245

Ion	Ratio	Lower	Upper
164	100		
162	105.6	86.1	129.1
160	46.1	38.3	57.5

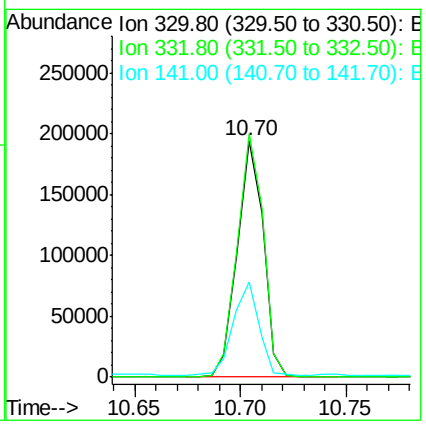


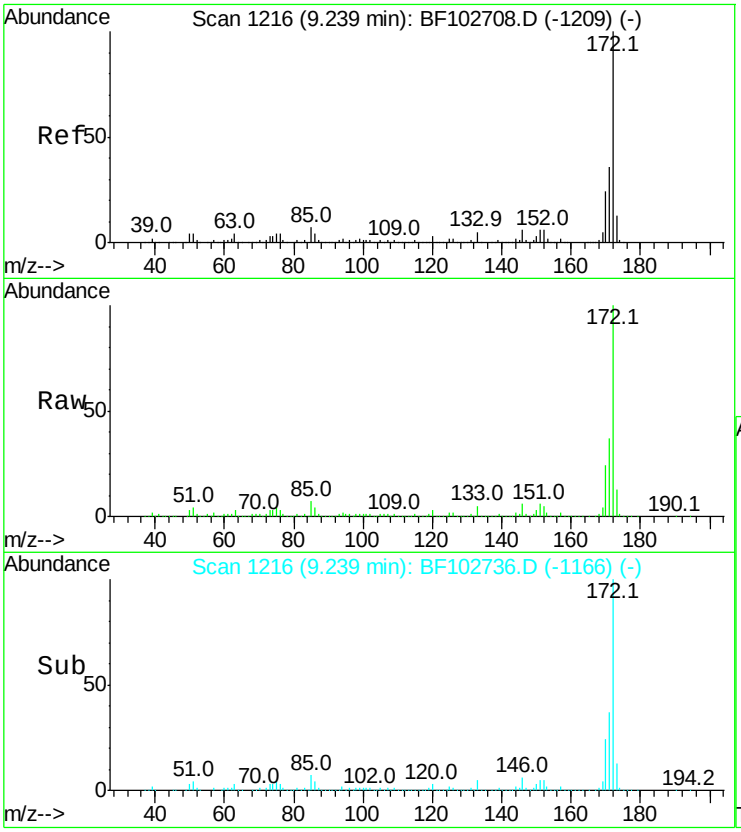


#41
2,4,6-Tribromophenol
Concen: 54.164 ng
RT: 10.70 min Scan# 1465
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:330 Resp: 165336

Ion	Ratio	Lower	Upper
330	100		
332	103.3	77.0	115.6
141	39.3	29.9	44.9

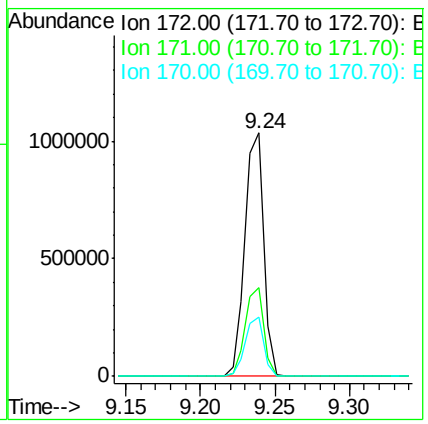




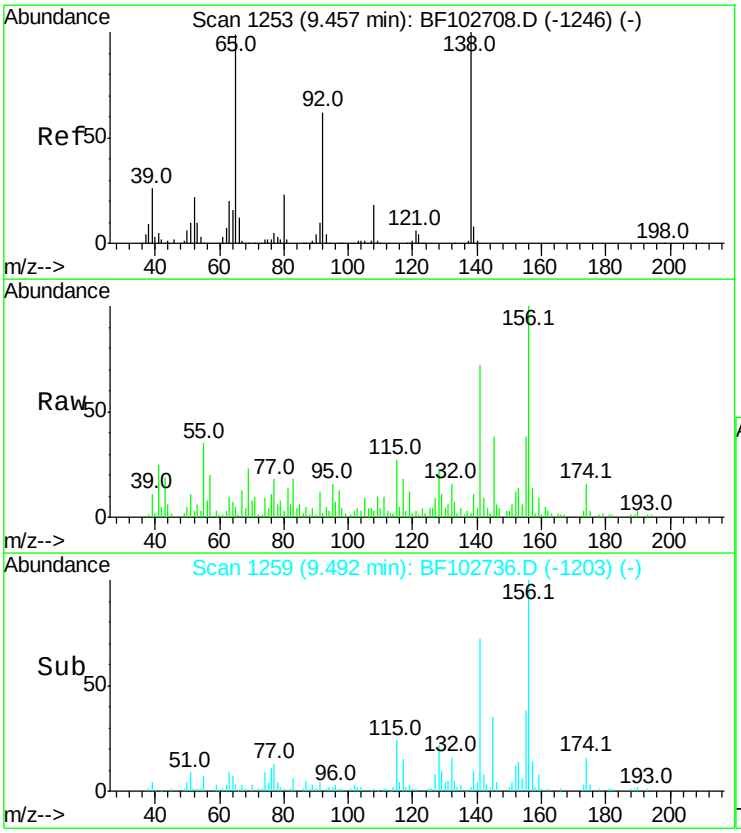
#44
2-Fluorobiphenyl
Concen: 39.801 ng
RT: 9.24 min Scan# 1216
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:172 Resp: 909660

Ion	Ratio	Lower	Upper
172	100		
171	36.7	29.7	44.5
170	24.5	19.6	29.4



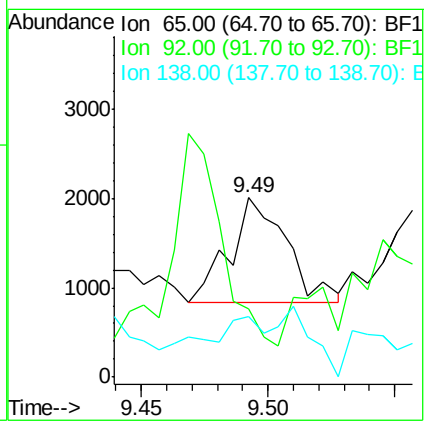
Instrument :
BNA_F
ClientSampleId :

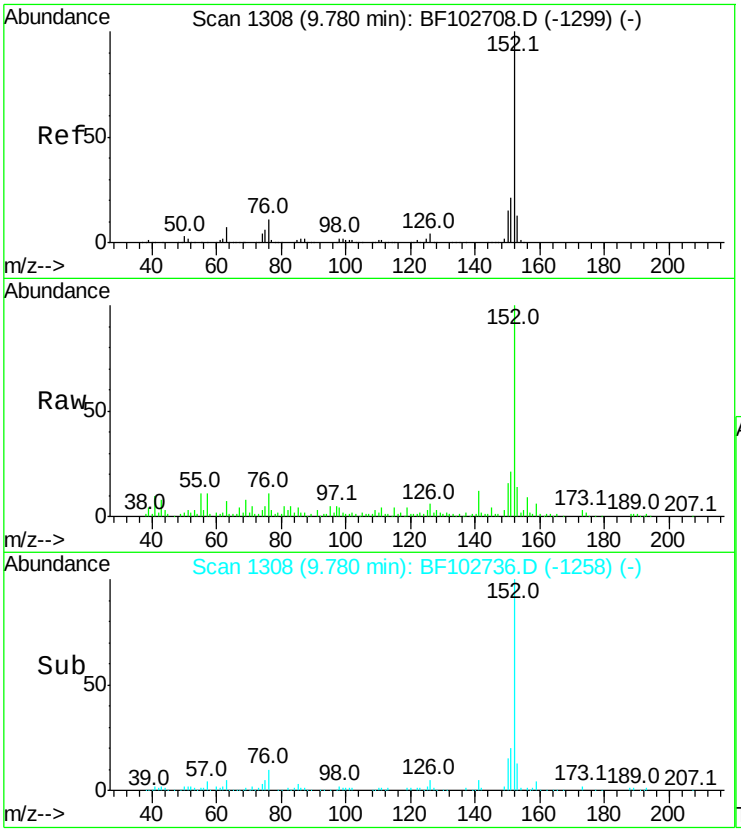


#47
2-Nitroaniline
Concen: 3.694 ng
RT: 9.49 min Scan# 1259
Delta R.T. 0.03 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion: 65 Resp: 1856

Ion	Ratio	Lower	Upper
65	100		
92	38.3	55.8	83.6#
138	34.0	91.2	136.8#



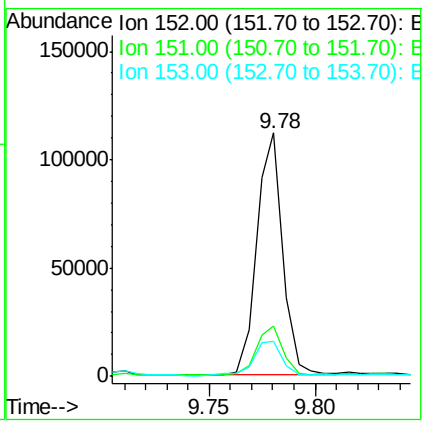


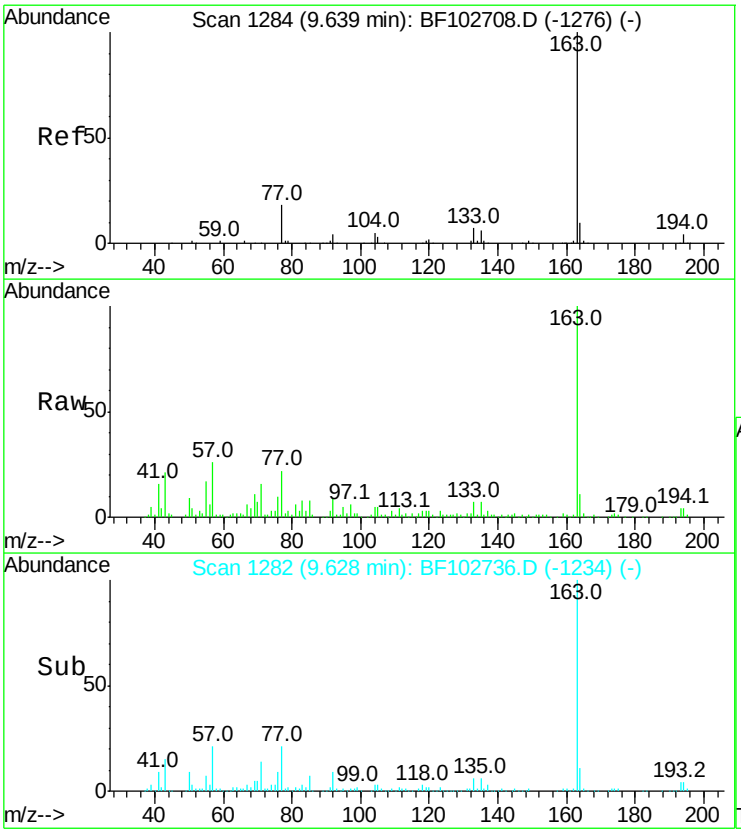
#48
Acenaphthylene
Concen: 2.454 ng
RT: 9.78 min Scan# 1308
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:152 Resp: 95861

Ion	Ratio	Lower	Upper
152	100		
151	20.9	16.3	24.5
153	14.2	10.7	16.1

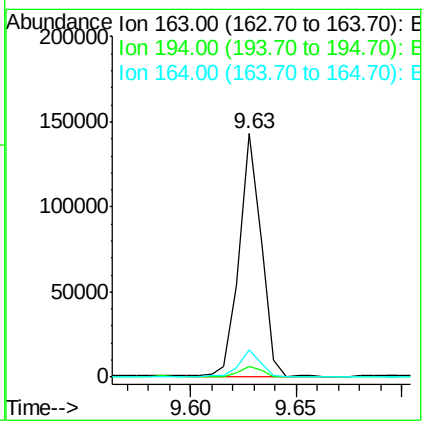


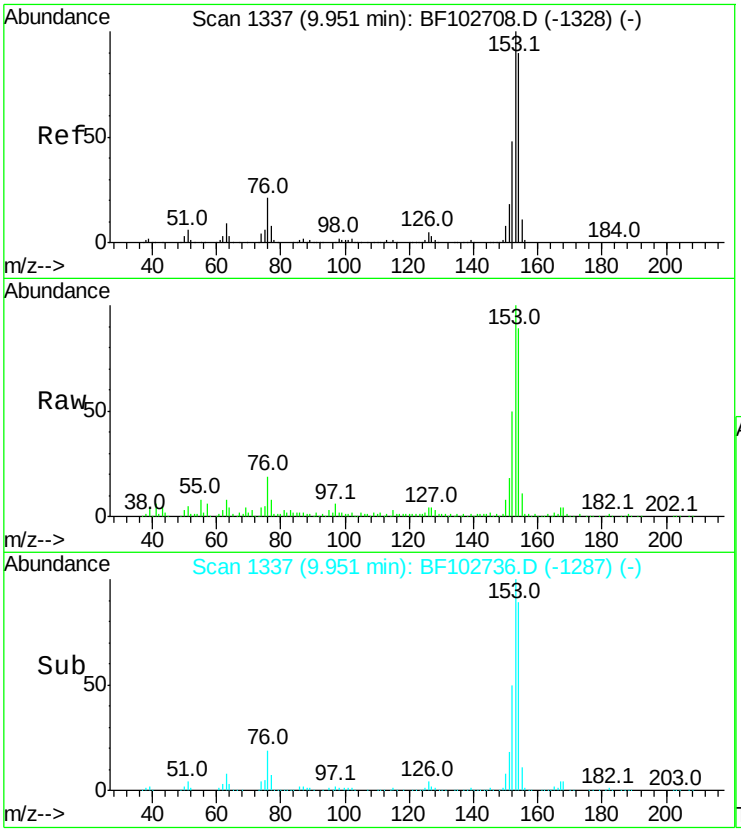


#49
Dimethylphthalate
Concen: 3.467 ng
RT: 9.63 min Scan# 1282
Delta R.T. -0.02 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:163 Resp: 102515

Ion	Ratio	Lower	Upper
163	100		
194	4.5	2.7	4.1#
164	11.0	8.2	12.2



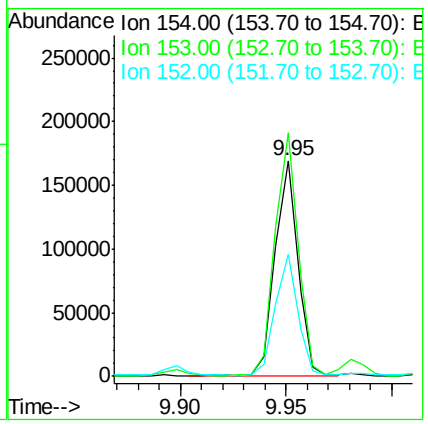


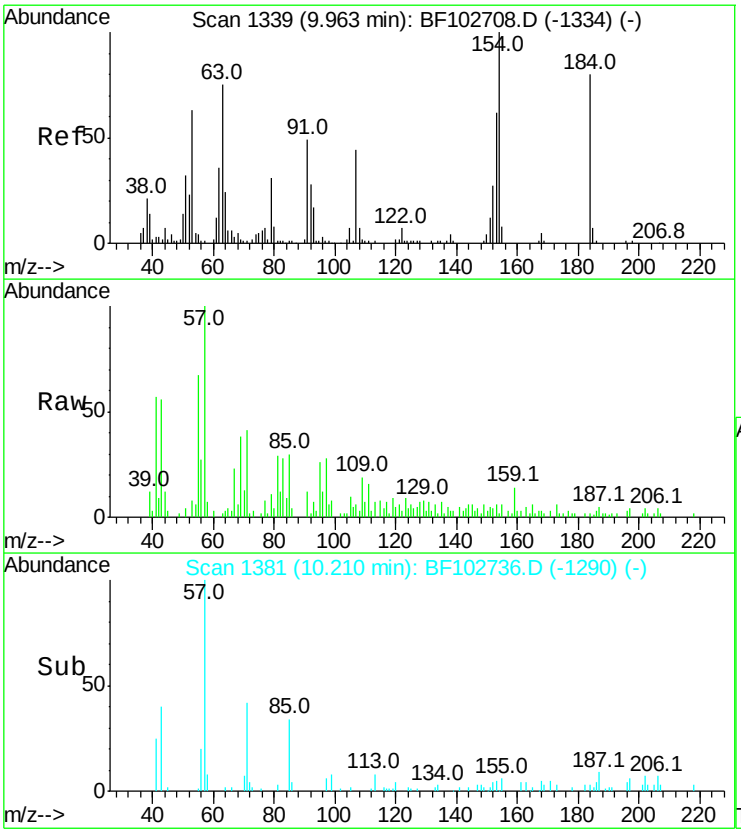
#51
Acenaphthene
Concen: 5.475 ng
RT: 9.95 min Scan# 1337
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:154 Resp: 127897

Ion	Ratio	Lower	Upper
154	100		
153	113.0	91.2	136.8
152	56.5	43.8	65.8

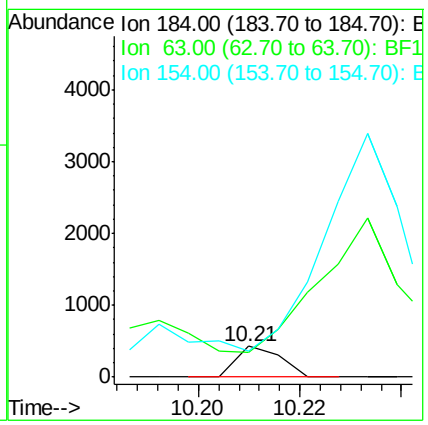


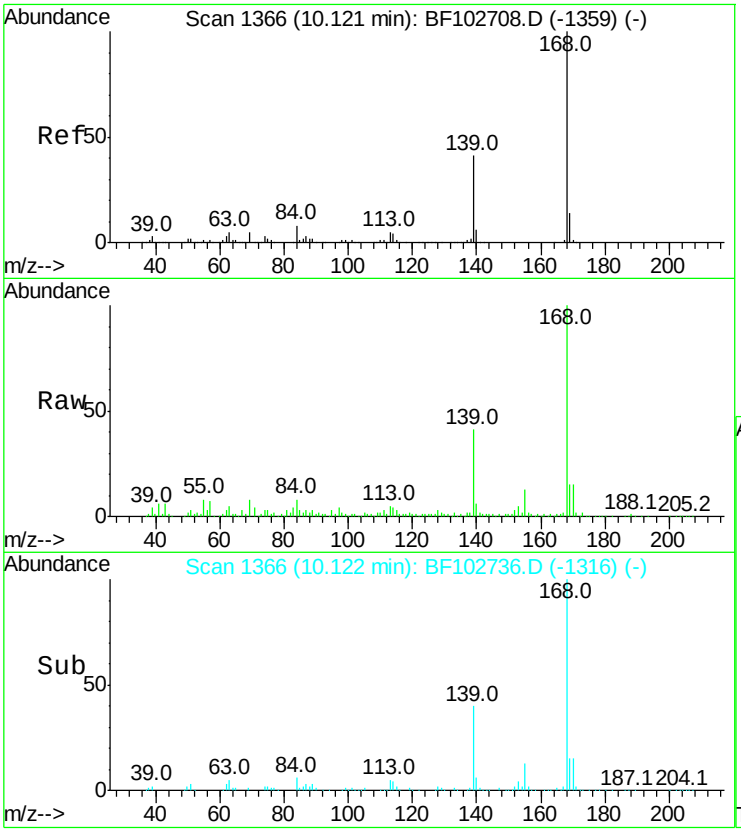


#53
2,4-Dinitrophenol
Concen: 8.185 ng
RT: 10.21 min Scan# 1381
Delta R.T. 0.24 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:184 Resp: 262

Ion	Ratio	Lower	Upper
184	100		
63	80.6	54.2	81.2
154	86.0	184.0	276.0#



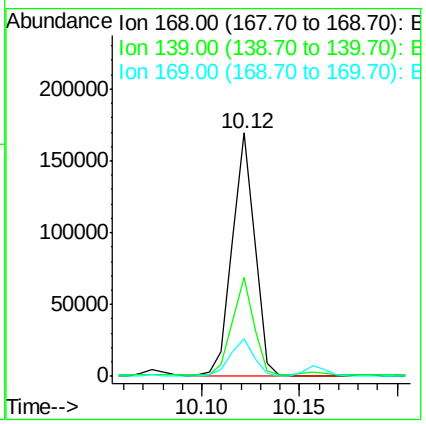


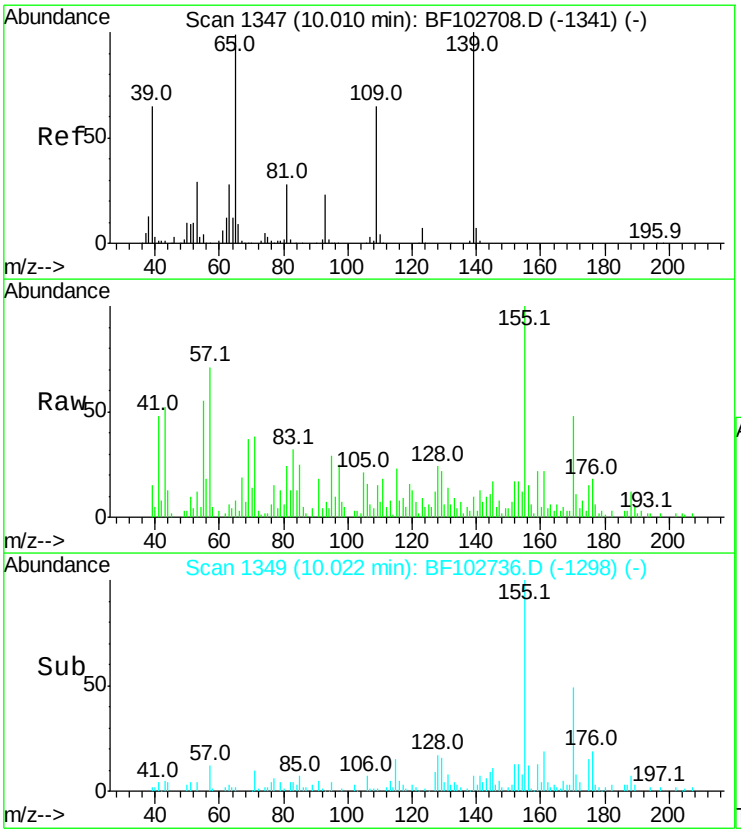
#54
Dibenzofuran
Concen: 4.159 ng
RT: 10.12 min Scan# 1366
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:168 Resp: 136906

Ion	Ratio	Lower	Upper
168	100		
139	40.5	30.1	45.1
169	15.3	10.9	16.3

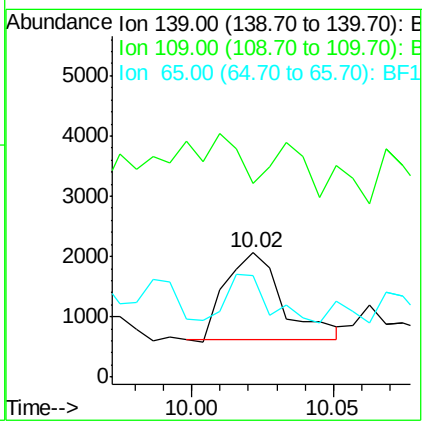


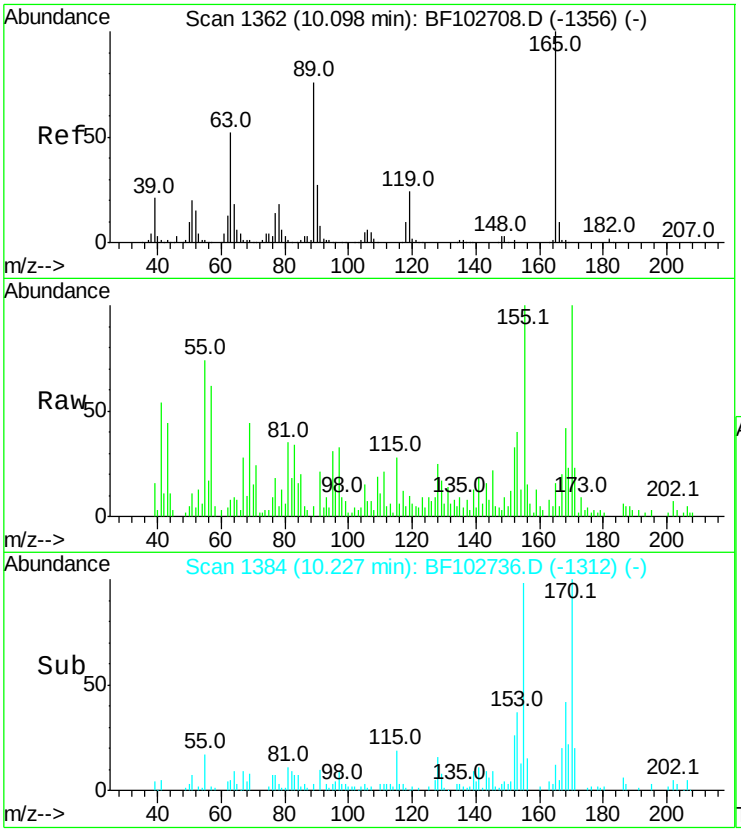


#55
4-Nitrophenol
Concen: 4.366 ng
RT: 10.02 min Scan# 1349
Delta R.T. -0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:139 Resp: 2050

Ion	Ratio	Lower	Upper
139	100		
109	156.5	48.4	88.4#
65	81.6	72.6	112.6



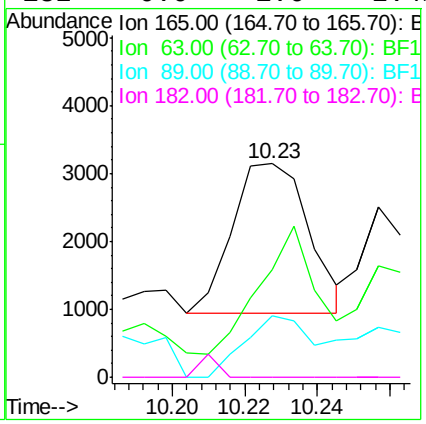


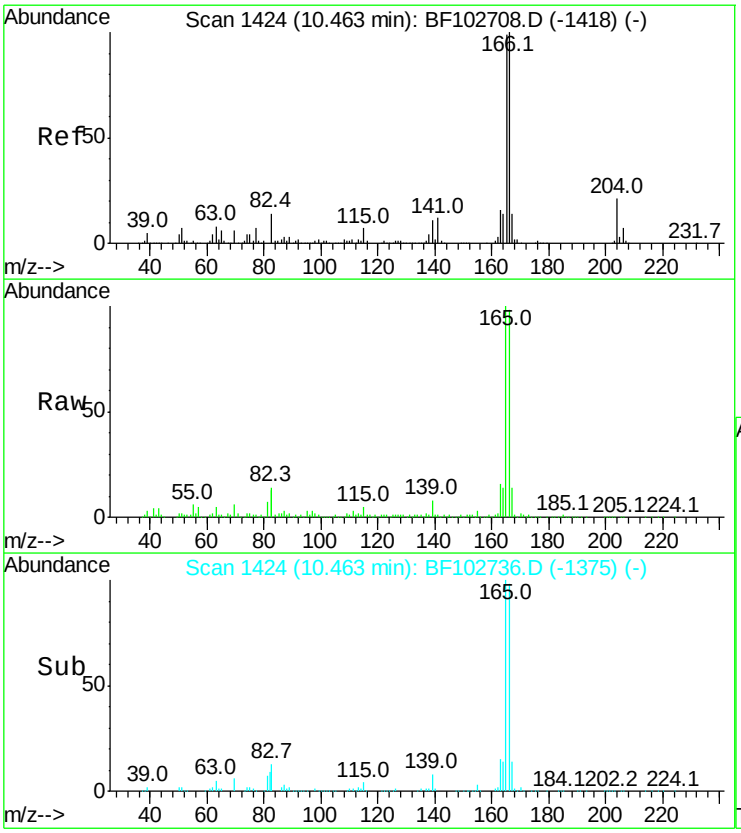
#56
2,4-Dinitrotoluene
Concen: 3.475 ng
RT: 10.23 min Scan# 1384
Delta R.T. 0.12 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:165 Resp: 3218

Ion	Ratio	Lower	Upper
165	100		
63	50.2	36.4	54.6
89	29.0	57.8	86.6#
182	0.0	1.6	2.4#

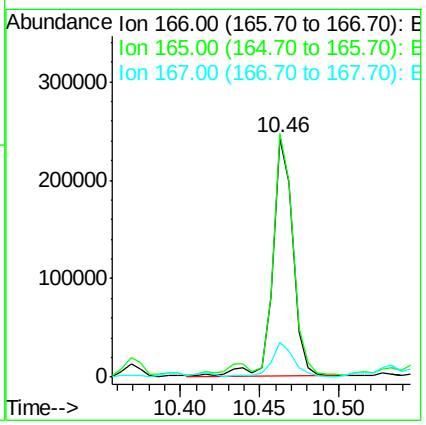


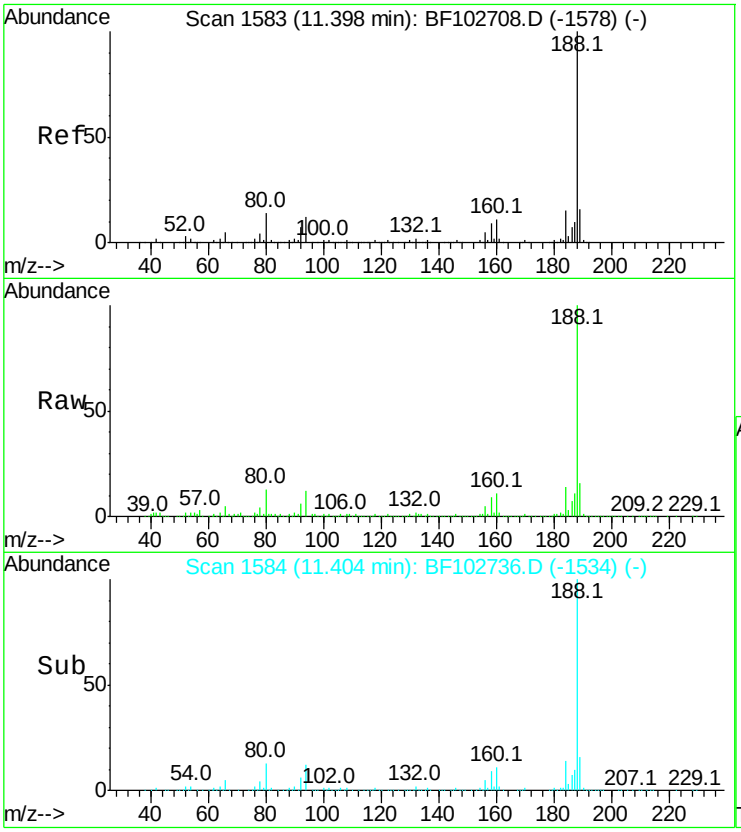


#57
Fluorene
Concen: 8.907 ng
RT: 10.46 min Scan# 1424
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:166 Resp: 213333

Ion	Ratio	Lower	Upper
166	100		
165	101.8	79.8	119.8
167	14.7	10.6	16.0



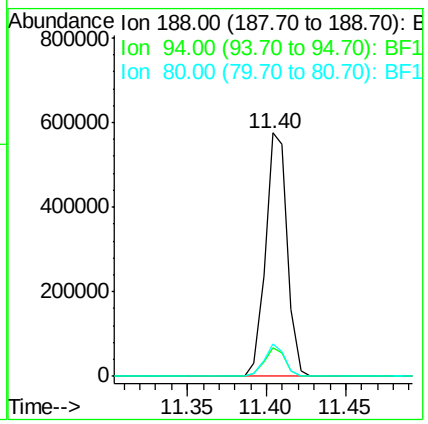


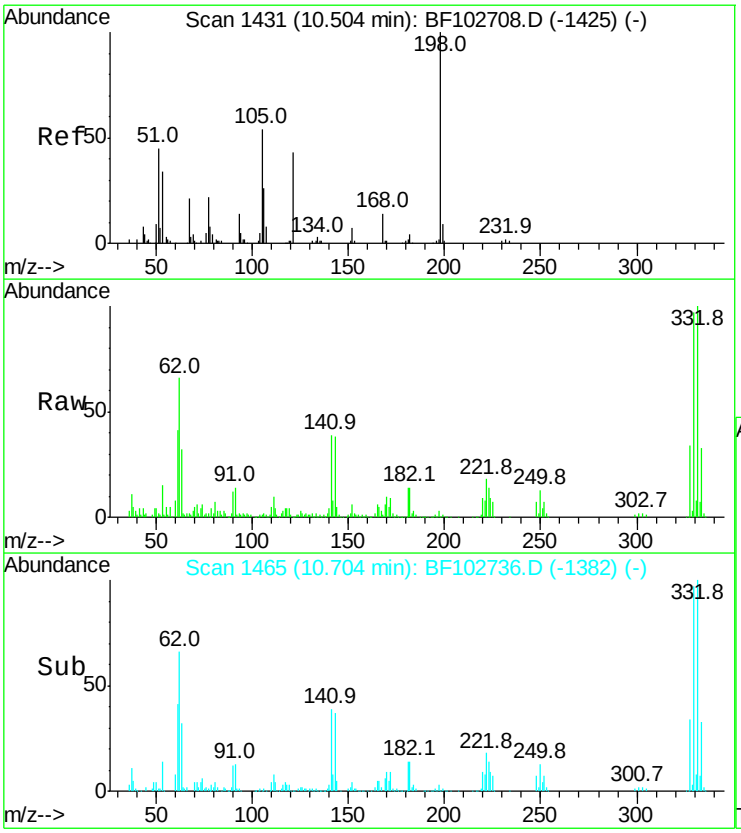
#63
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.40 min Scan# 1584
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:188 Resp: 553744

Ion	Ratio	Lower	Upper
188	100		
94	11.9	8.5	12.7
80	13.2	9.2	13.8

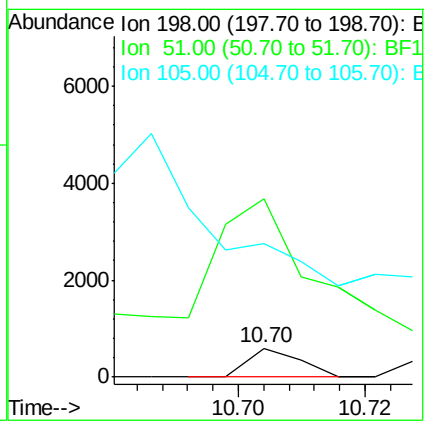


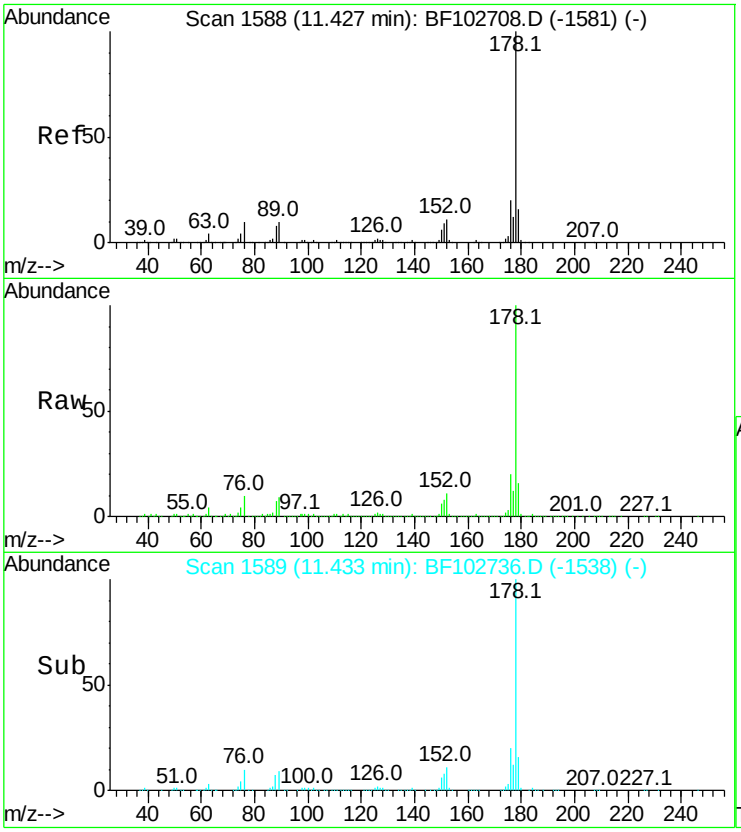


#64
4,6-Dinitro-2-methylphenol
Concen: 8.929 ng
RT: 10.70 min Scan# 1465
Delta R.T. 0.19 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:198 Resp: 340

Ion	Ratio	Lower	Upper
198	100		
51	610.8	37.7	77.7#
105	459.3	36.3	76.3#



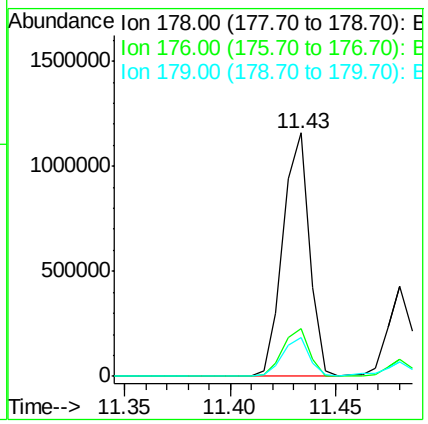


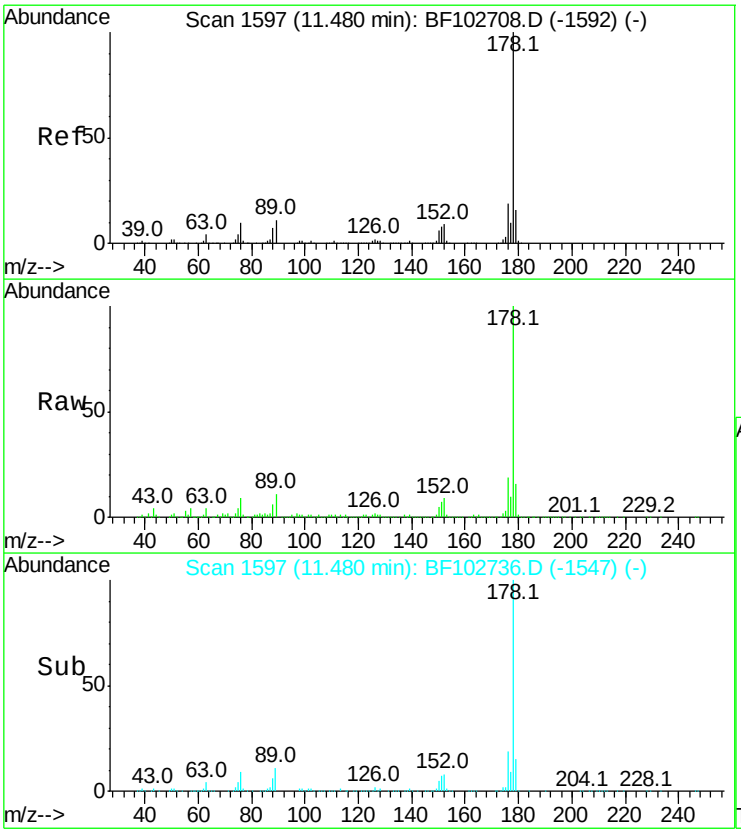
#70
Phenanthrene
Concen: 32.933 ng
RT: 11.43 min Scan# 1589
Delta R.T. 0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:178 Resp: 1015647

Ion	Ratio	Lower	Upper
178	100		
176	19.7	15.8	23.8
179	15.7	13.0	19.6

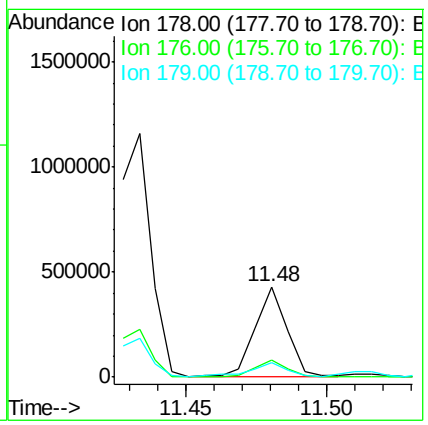


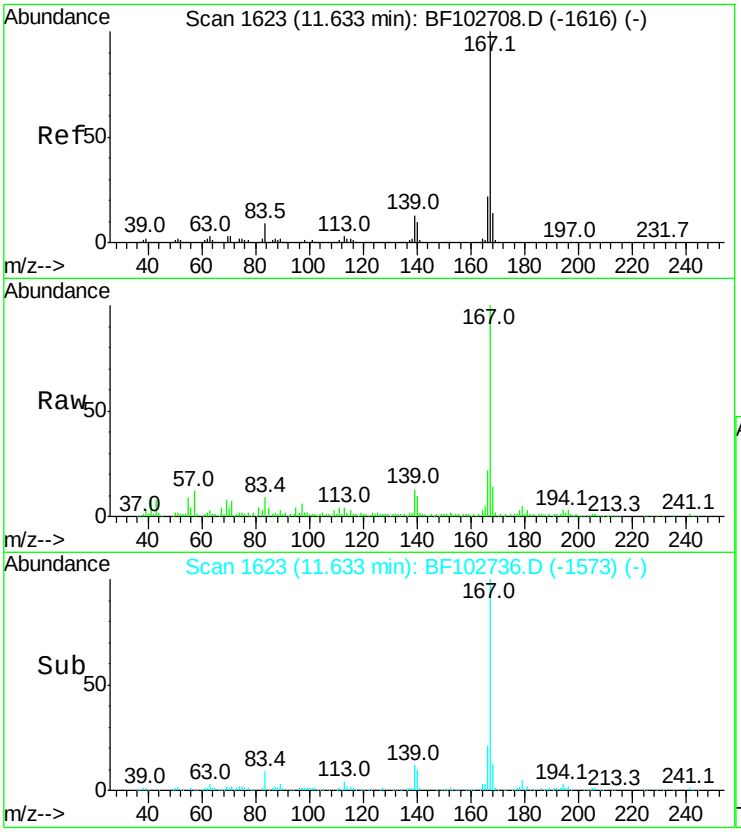


#71
Anthracene
Concen: 10.556 ng
RT: 11.48 min Scan# 1597
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:178 Resp: 331100

Ion	Ratio	Lower	Upper
178	100		
176	19.0	15.4	23.2
179	15.6	12.6	19.0



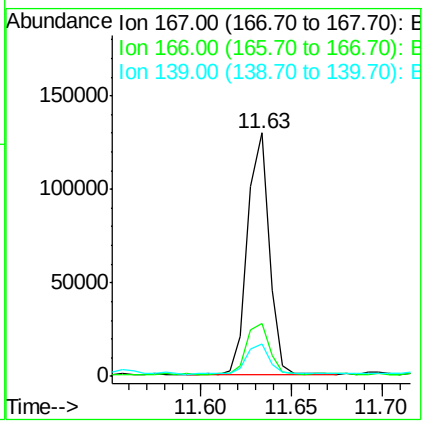


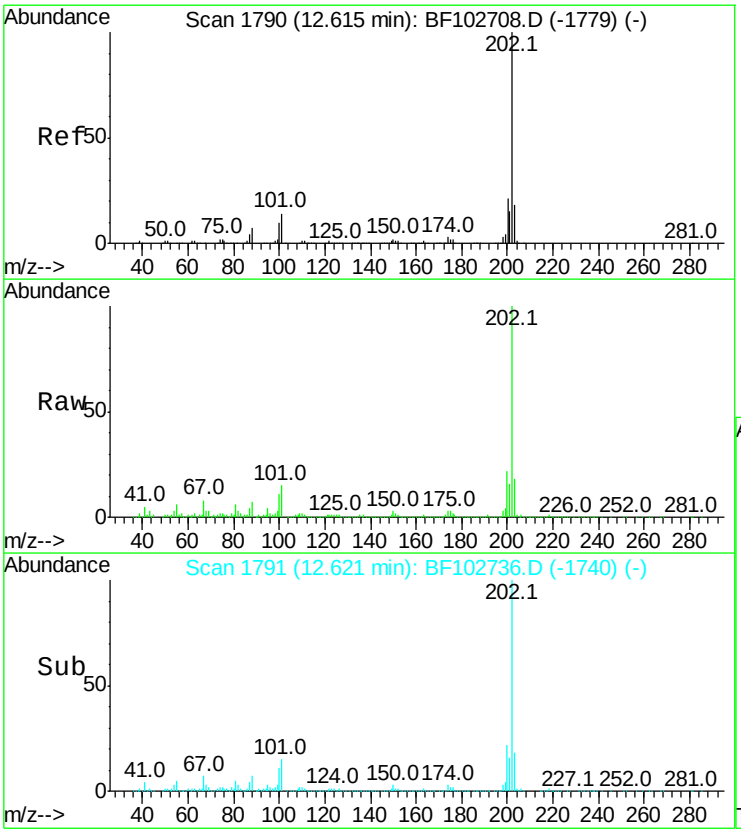
#72
Carbazole
Concen: 3.528 ng
RT: 11.63 min Scan# 1623
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:167 Resp: 108400

Ion	Ratio	Lower	Upper
167	100		
166	21.8	17.6	26.4
139	13.1	10.9	16.3

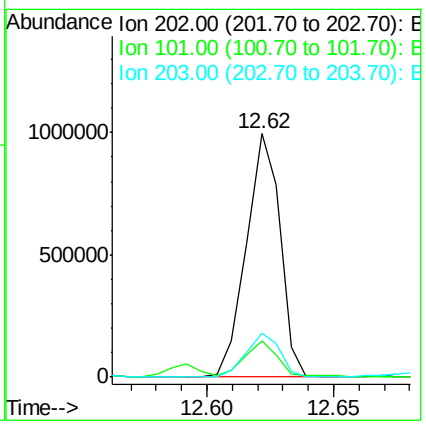


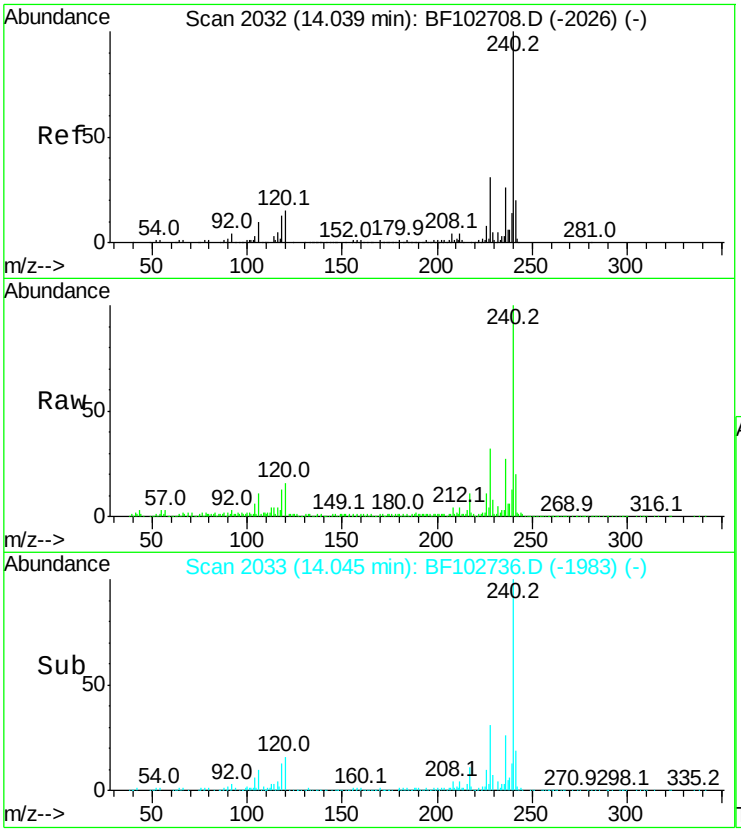


#74
Fluoranthene
Concen: 29.748 ng
RT: 12.62 min Scan# 1791
Delta R.T. 0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:202 Resp: 923034

Ion	Ratio	Lower	Upper
202	100		
101	14.8	0.0	34.1
203	17.8	0.0	38.1



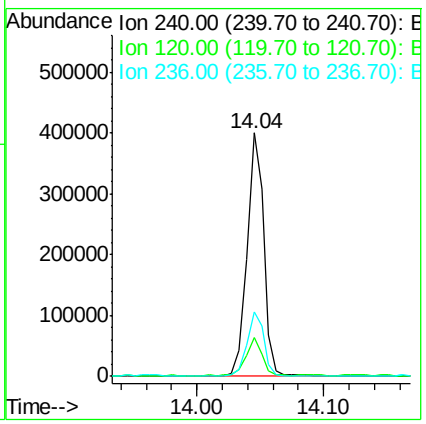


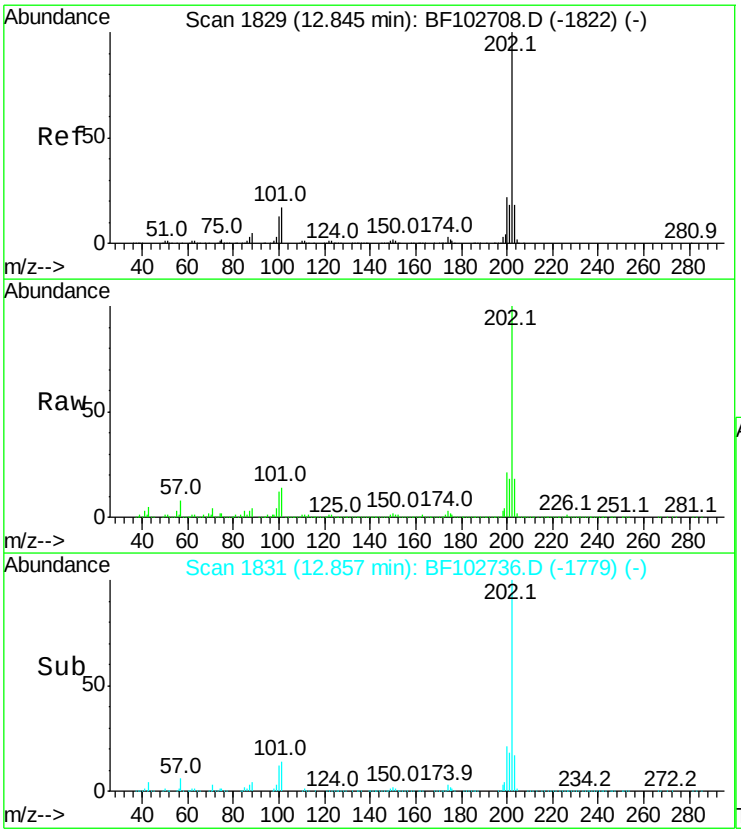
#75
Chrysene-d12
Concen: 20.000 ng
RT: 14.04 min Scan# 2033
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:240 Resp: 363814

Ion	Ratio	Lower	Upper
240	100		
120	16.0	9.5	14.3#
236	26.7	20.7	31.1

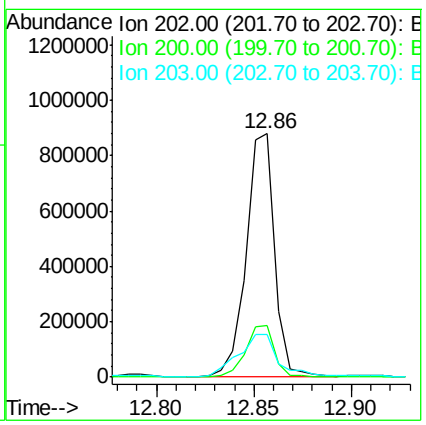


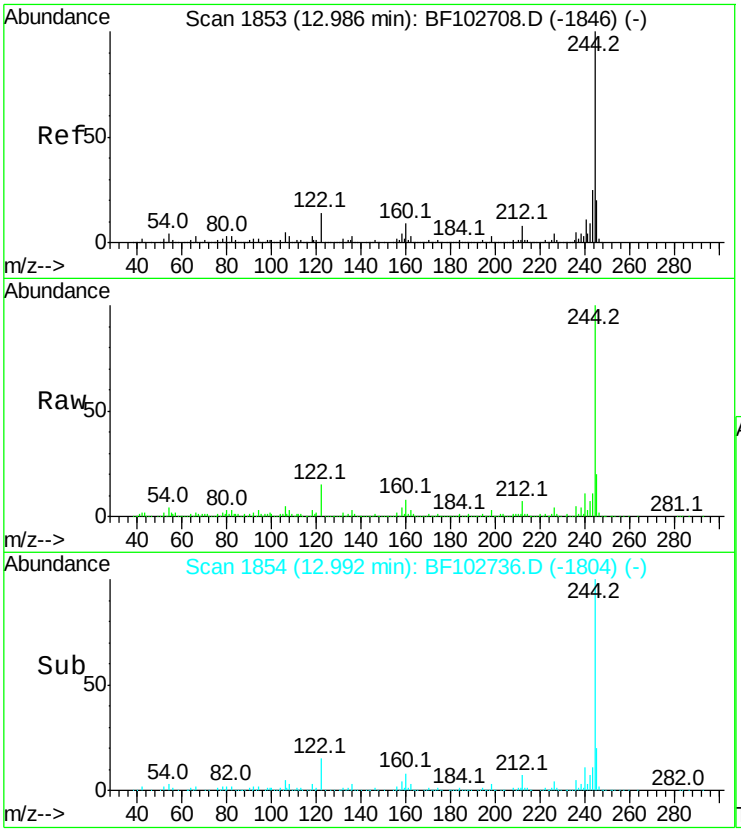


#77
Pyrene
Concen: 30.766 ng
RT: 12.86 min Scan# 1831
Delta R.T. 0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:202 Resp: 877710

Ion	Ratio	Lower	Upper
202	100		
200	21.0	17.4	26.2
203	17.6	14.3	21.5



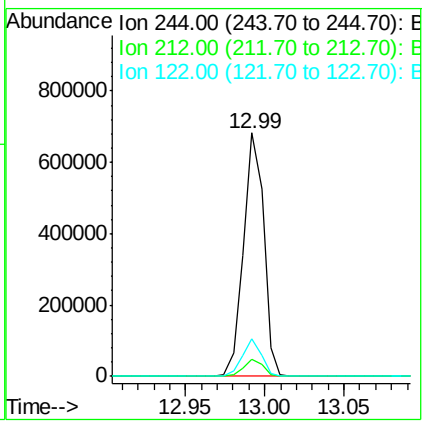


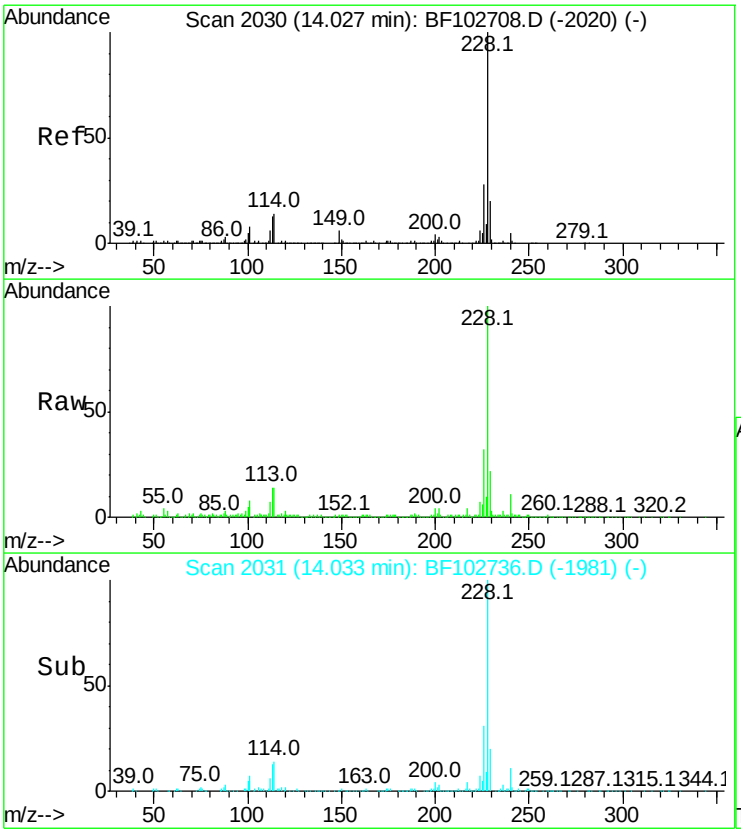
#78
Terphenyl-d14
Concen: 39.145 ng
RT: 12.99 min Scan# 1854
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:244 Resp: 601469

Ion	Ratio	Lower	Upper
244	100		
212	7.1	5.4	8.0
122	15.2	11.0	16.4

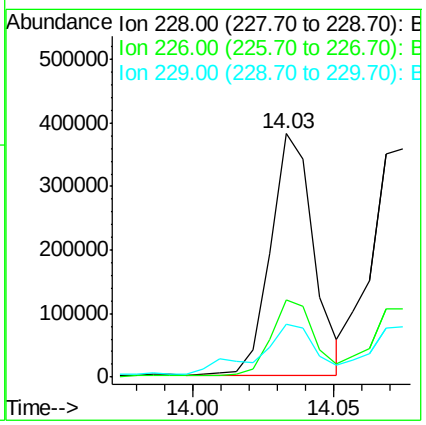


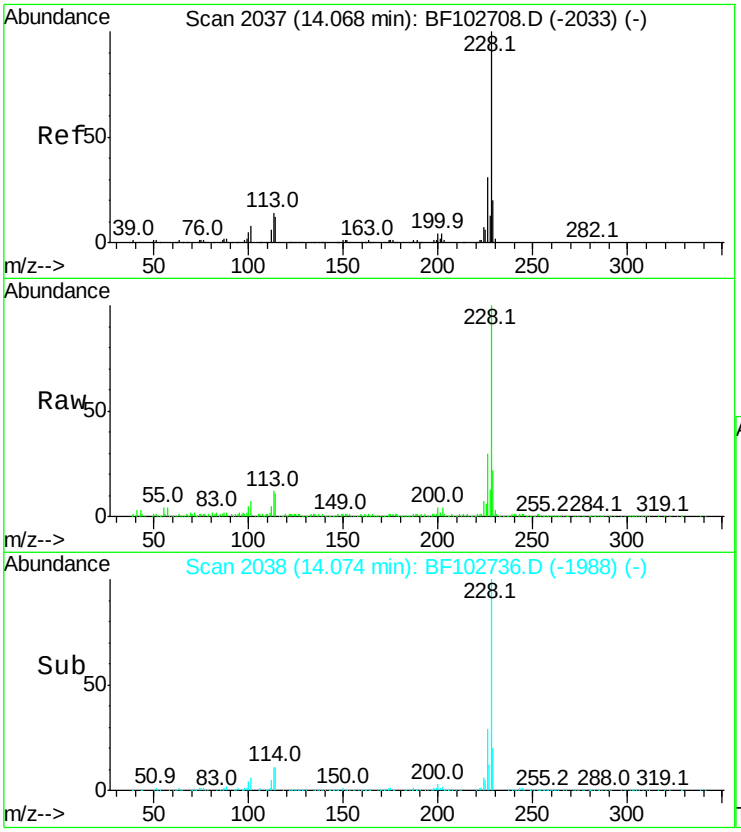


#80
Benzo(a)anthracene
Concen: 17.638 ng
RT: 14.03 min Scan# 2031
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:228 Resp: 403555

Ion	Ratio	Lower	Upper
228	100		
226	31.7	22.6	33.8
229	21.7	15.8	23.6



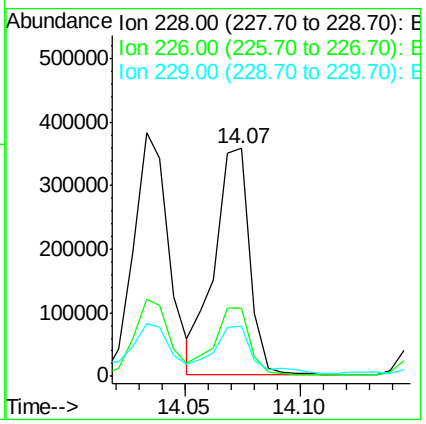


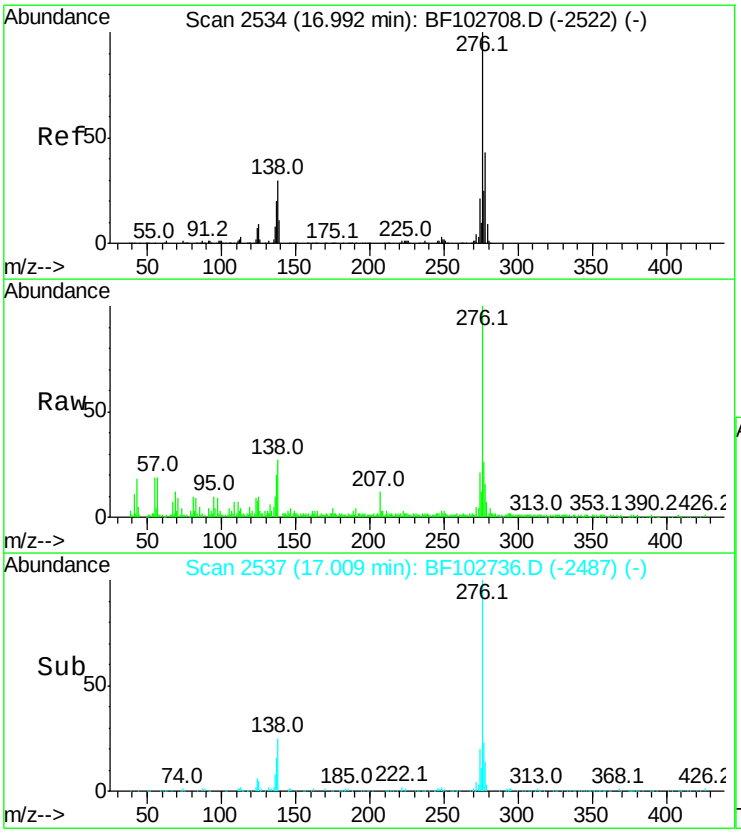
#82
Chrysene
Concen: 16.399 ng
RT: 14.07 min Scan# 2038
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:228 Resp: 378232

Ion	Ratio	Lower	Upper
228	100		
226	29.8	25.0	37.6
229	21.8	16.2	24.4

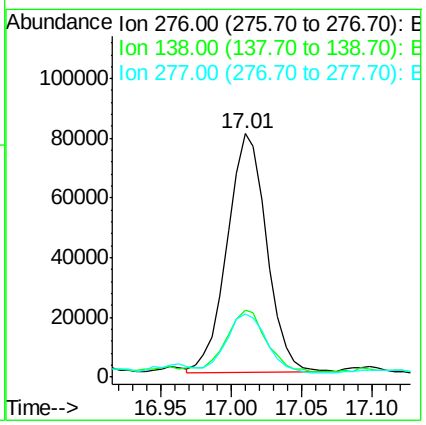


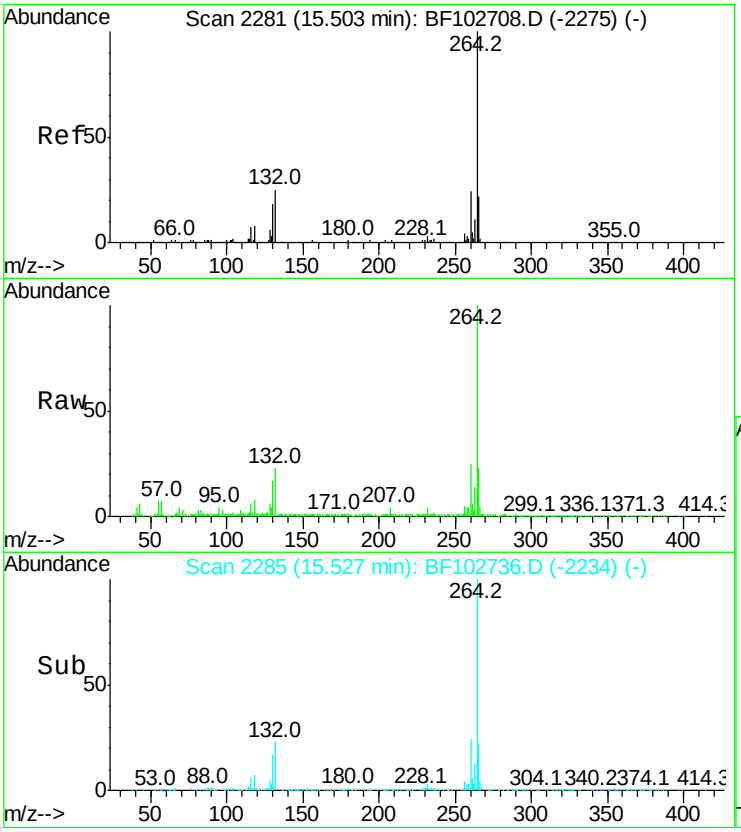


#85
Indeno(1,2,3-cd)pyrene
Concen: 8.178 ng
RT: 17.01 min Scan# 2537
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:276 Resp: 156447

Ion	Ratio	Lower	Upper
276	100		
138	26.1	25.0	37.6
277	25.7	20.1	30.1



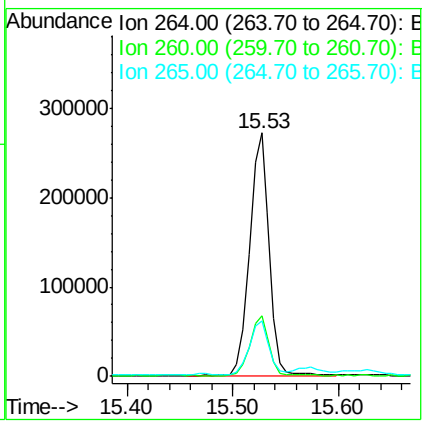


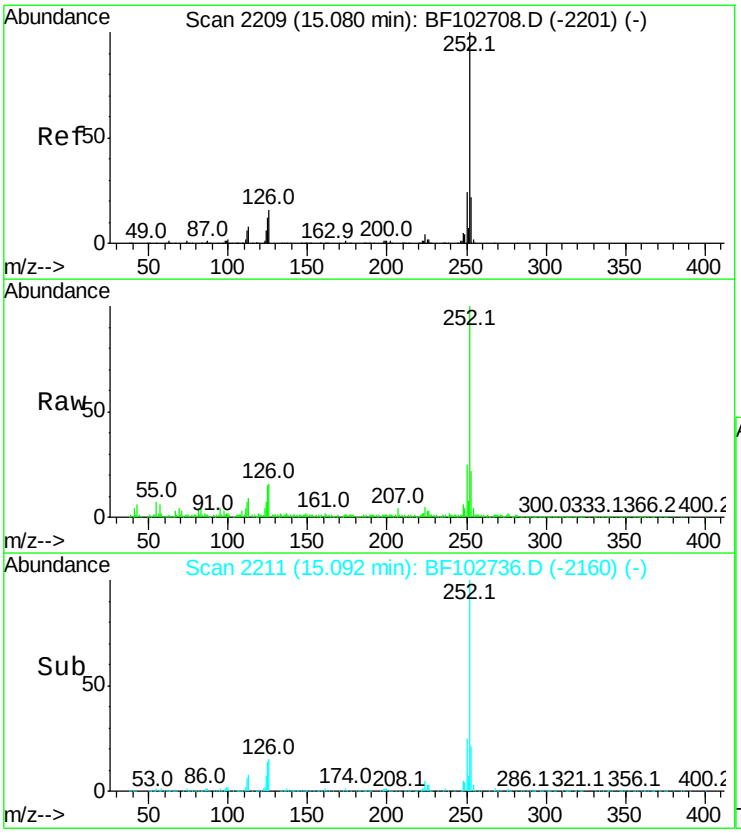
#86
Perylene-d12
Concen: 20.000 ng
RT: 15.53 min Scan# 2285
Delta R.T. 0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:264 Resp: 350839

Ion	Ratio	Lower	Upper
264	100		
260	24.8	19.2	28.8
265	22.9	17.5	26.3

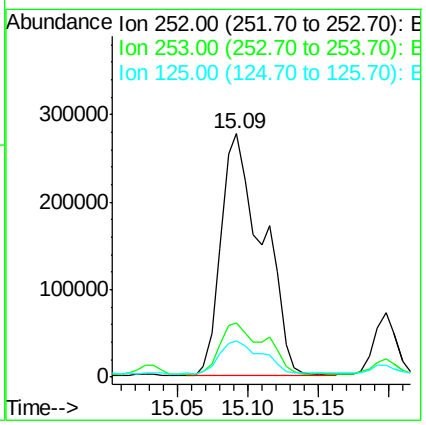


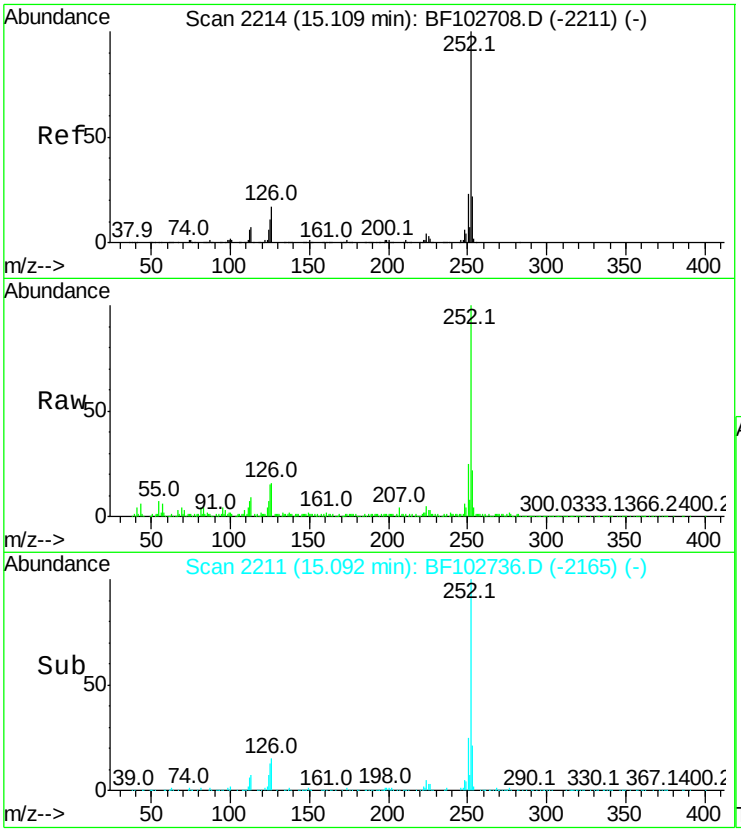


#87
Benzo(b)fluoranthene
Concen: 25.142 ng
RT: 15.09 min Scan# 2211
Delta R.T. 0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:252 Resp: 571876

Ion	Ratio	Lower	Upper
252	100		
253	22.2	17.0	25.6
125	14.8	9.0	13.6#



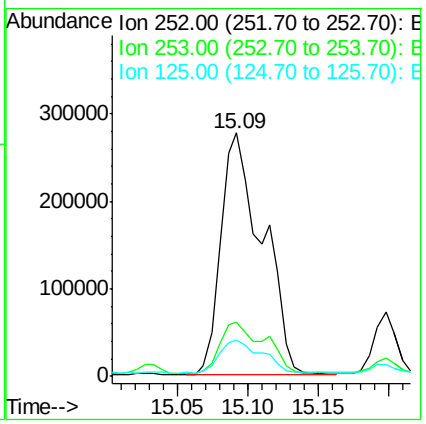


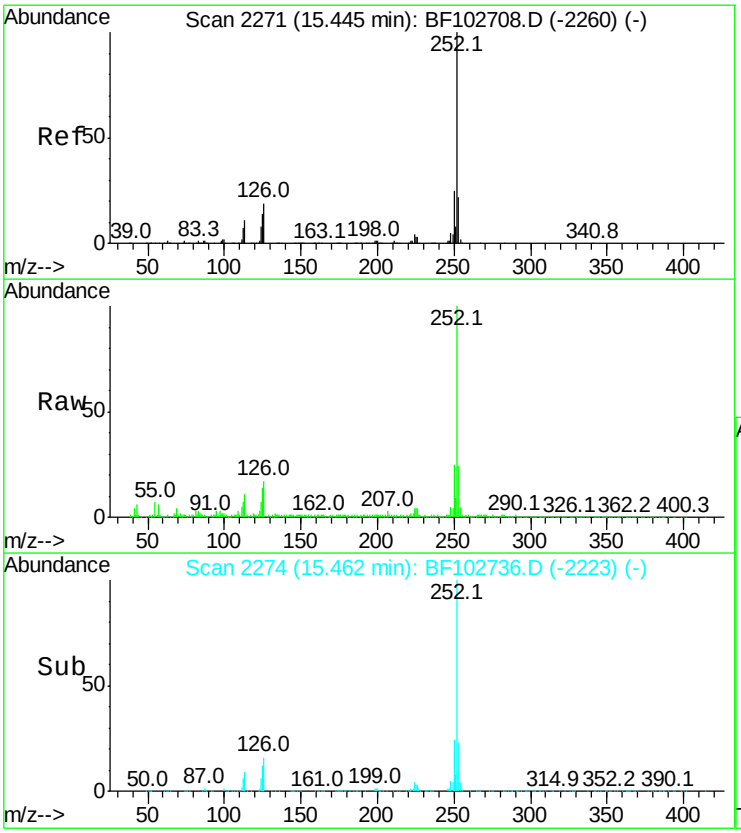
#88
Benzo(k)fluoranthene
Concen: 26.313 ng
RT: 15.09 min Scan# 2211
Delta R.T. -0.03 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:252 Resp: 571876

Ion	Ratio	Lower	Upper
252	100		
253	22.2	17.9	26.9
125	14.8	10.2	15.2

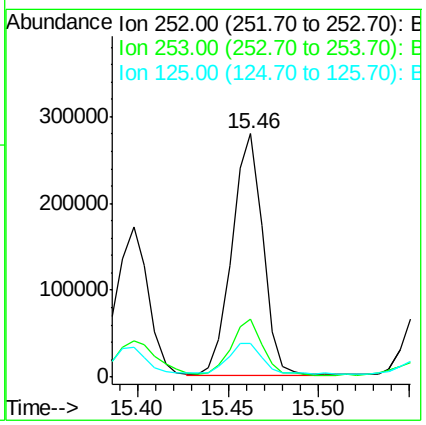


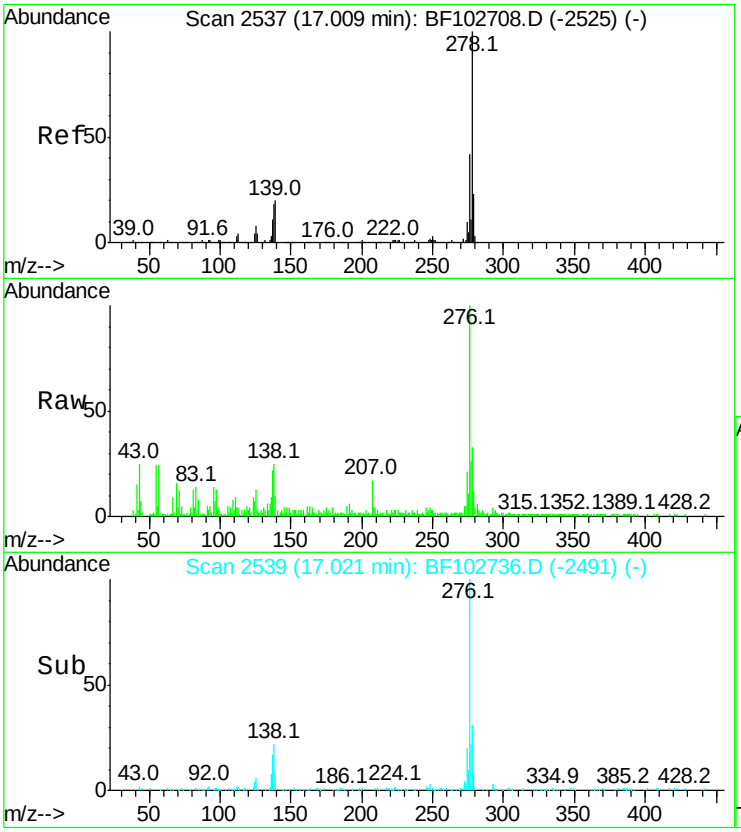


#89
Benzo(a)pyrene
Concen: 16.210 ng
RT: 15.46 min Scan# 2274
Delta R.T. 0.00 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:252 Resp: 331887

Ion	Ratio	Lower	Upper
252	100		
253	23.7	17.1	25.7
125	13.9	9.8	14.6



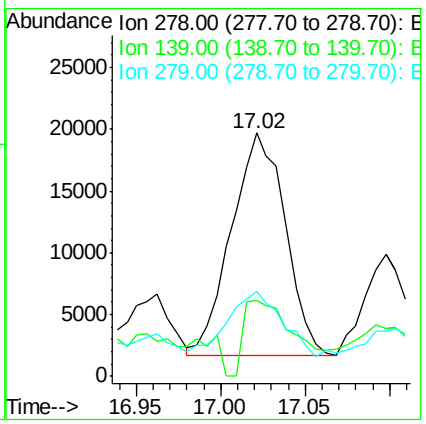


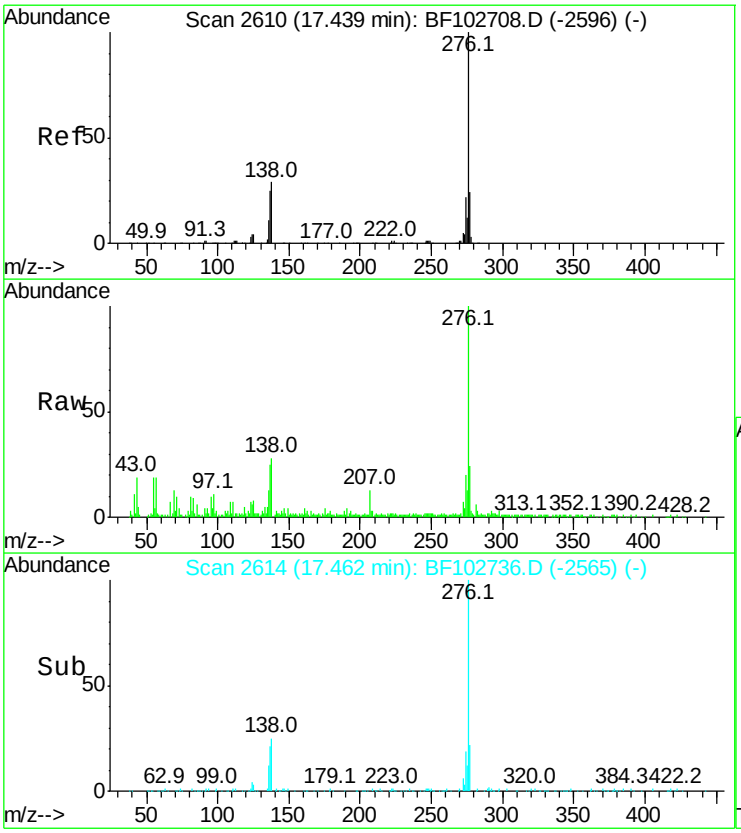
#90
Dibenzo(a,h)anthracene
Concen: 2.396 ng
RT: 17.02 min Scan# 2539
Delta R.T. -0.02 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Instrument :
BNA_F
ClientSampleId :

Tgt Ion:278 Resp: 39820

Ion	Ratio	Lower	Upper
278	100		
139	31.1	15.9	23.9#
279	34.6	19.0	28.4#





#91
Benzo(g,h,i)perylene
Concen: 9.528 ng
RT: 17.46 min Scan# 2614
Delta R.T. -0.01 min
Lab File: BF102736.D
Acq: 5 Feb 2018 14:28

Tgt Ion:276 Resp: 154981

Ion	Ratio	Lower	Upper
276	100		
277	24.4	17.9	26.9
138	28.1	21.8	32.8