Quantitation Report (Not Reviewed)

Data Path : Z:\SVOASRV\HPCHEM1\BNA N\DATA\BN071120\
Data File : BN011141.D
Acq On : 10 Jul 2020 10:10
Operator : CG/JU
Sample : SSTDICC0.2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument : BNA_N
ClientSampleId : SSTDICC0.2

Quant Time: Jul 10 11:23:59 2020
Quant Method : Z:\SVOASRV\HPCHEM1\BNA N\METHODS\8270-SIM-BN071120.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Jul 10 11:21:26 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.52	152	2824	0.40	ng		0.00
7) Naphthalene-d8	10.25	136	8012	0.40	ng		0.00
13) Acenaphthene-d10	14.13	164	4167	0.40	ng		0.00
19) Phenanthrene-d10	16.89	188	8875	0.40	ng		0.00
29) Chrysene-d12	21.10	240	7967	0.40	ng		0.00
36) Perylene-d12	23.24	264	7385	0.40	ng		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	5.19	112	1342	0.19	ng		0.00
5) Phenol-d6	6.72	99	1733	0.21	ng		0.00
8) Nitrobenzene-d5	8.66	82	1494	0.22	ng		0.00
11) 2-Methylnaphthalene-d10	11.86	152	2833	0.20	ng		0.00
14) 2,4,6-Tribromophenol	15.64	330	387	0.22	ng		0.00
15) 2-Fluorobiphenyl	12.76	172	4204	0.21	ng		0.01
27) Fluoranthene-d10	18.93	212	5469	0.20	ng		0.00
31) Terphenyl-d14	19.55	244	4555	0.22	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.25	88	363	0.091	ng	#	51
3) n-Nitrosodimethylamine	3.59	42	310	0.154	ng	#	98
6) bis(2-Chloroethyl)ether	6.97	93	1631	0.222	ng		98
9) Naphthalene	10.30	128	5181	0.217	ng		99
10) Hexachlorobutadiene	10.60	225	1338	0.221	ng	#	99
12) 2-Methylnaphthalene	11.93	142	3274	0.205	ng		98
16) Acenaphthylene	13.84	152	4472	0.214	ng		99
17) Acenaphthene	14.20	154	3097	0.219	ng		99
18) Fluorene	15.20	166	3809	0.215	ng		100
20) 4,6-Dinitro-2-methylphenol	15.32	198	189	0.199	ng	#	79
21) 4-Bromophenyl-phenylether	16.09	248	1292	0.219	ng		93
22) Hexachlorobenzene	16.20	284	1531	0.220	ng		98
23) Atrazine	16.39	200	856	0.205	ng		99
24) Pentachlorophenol	16.56	266	410	0.219	ng	#	91
25) Phenanthrene	16.92	178	6596	0.229	ng		99
26) Anthracene	17.02	178	4957	0.208	ng		100
28) Fluoranthene	18.96	202	6663	0.206	ng		99
30) Pyrene	19.32	202	6644	0.224	ng		99
32) Benzo(a)anthracene	21.09	228	5110	0.192	ng		98
33) Chrysene	21.14	228	6994	0.229	ng		99
34) Bis(2-ethylhexyl)phthalate	21.05	149	2213	0.206	ng		98
35) Indeno(1,2,3-cd)pyrene	25.35	276	7365	0.231	ng		99
37) Benzo(b)fluoranthene	22.61	252	6084	0.206	ng		96
38) Benzo(k)fluoranthene	22.66	252	7501	0.237	ng		96
39) Benzo(a)pyrene	23.15	252	5481	0.215	ng		94
40) Dibenzo(a,h)anthracene	25.37	278	5613	0.215	ng		95
41) Benzo(g,h,i)perylene	25.97	276	6127	0.213	ng		98

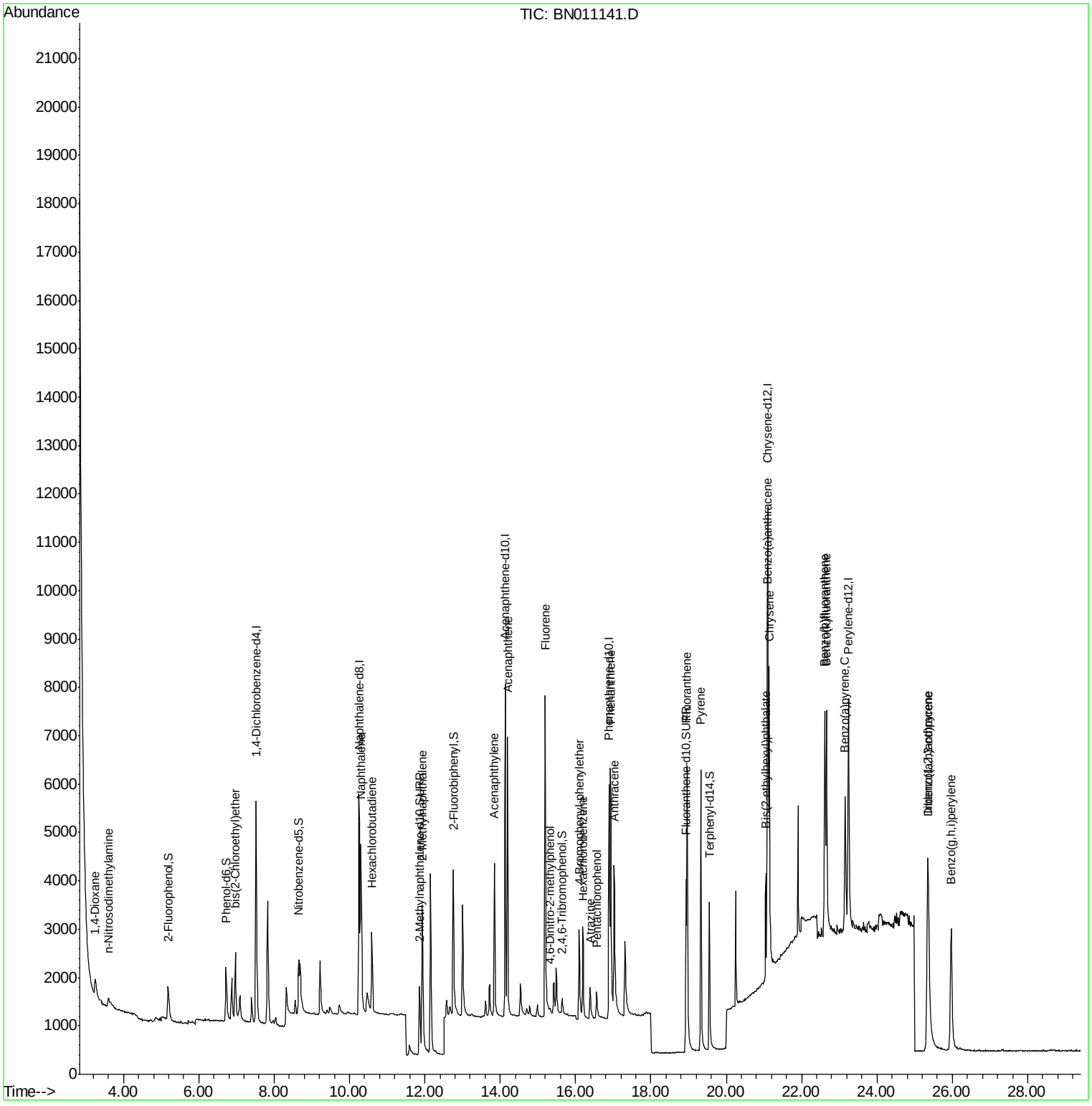
(#) = qualifier out of range (m) = manual integration (+) = signals summed

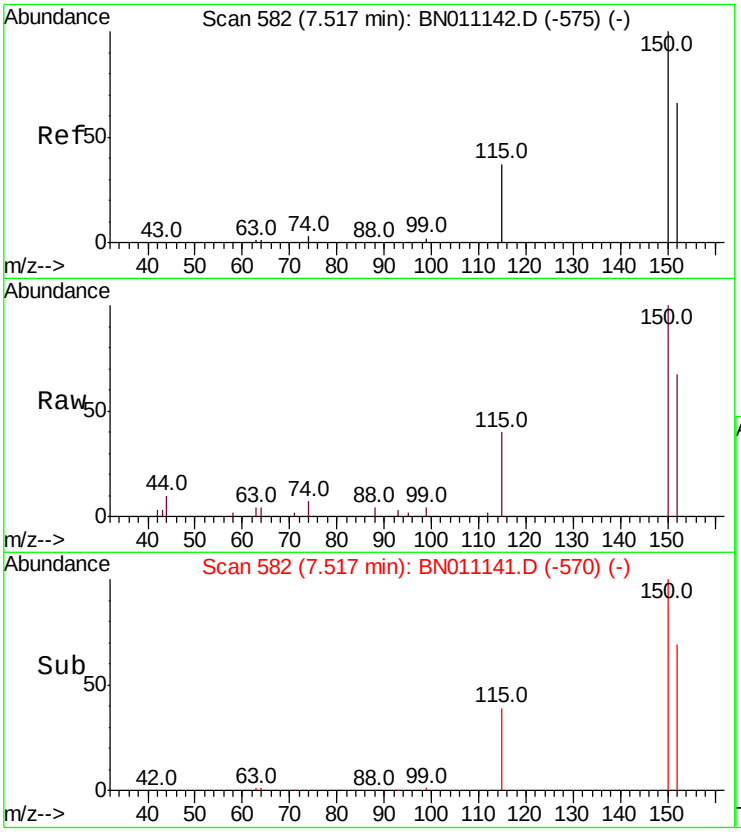
Quantitation Report (Not Reviewed)

Data Path : Z:\SVOASRV\HPCHEM1\BNA N\DATA\BN071120\
Data File : BN011141.D
Acq On : 10 Jul 2020 10:10
Operator : CG/JU
Sample : SSTDICC0.2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Quant Time: Jul 10 11:23:59 2020
Quant Method : Z:\SVOASRV\HPCHEM1\BNA N\METHODS\8270-SIM-BN071120.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Jul 10 11:21:26 2020
Response via : Initial Calibration



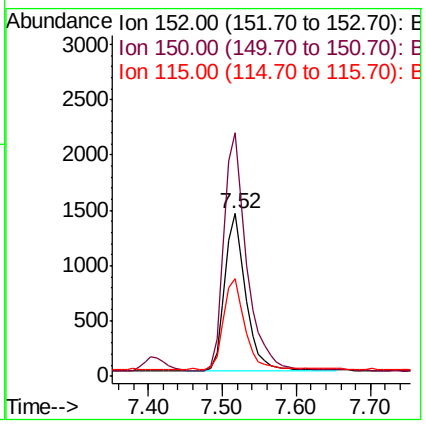


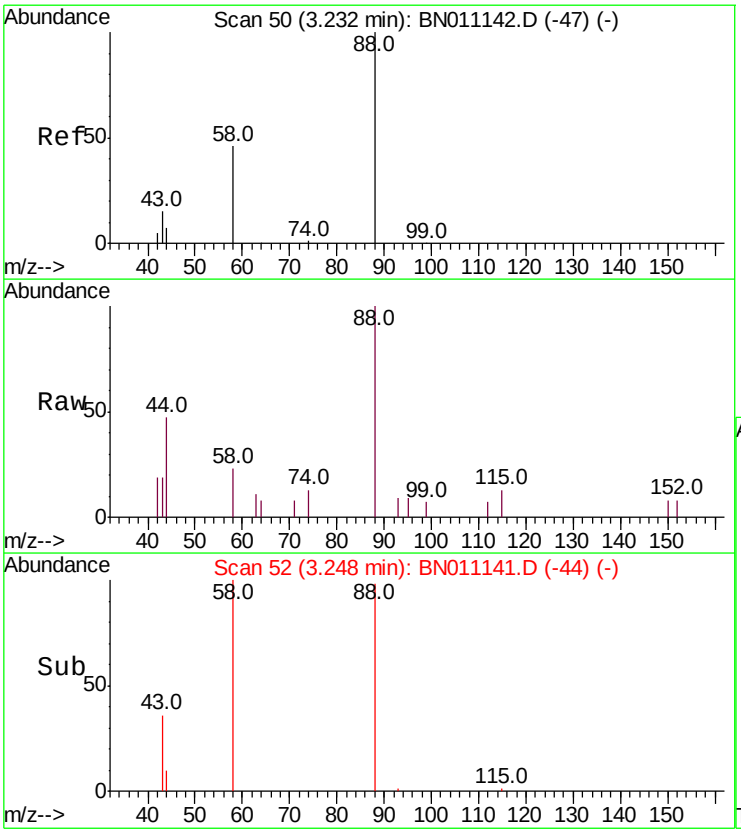
#1
1,4-Dichlorobenzene-d4
Concen: 0.400 ng
RT: 7.52 min Scan# 582
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:152 Resp: 2824

Ion	Ratio	Lower	Upper
152	100		
150	149.6	119.4	179.0
115	59.8	48.3	72.5

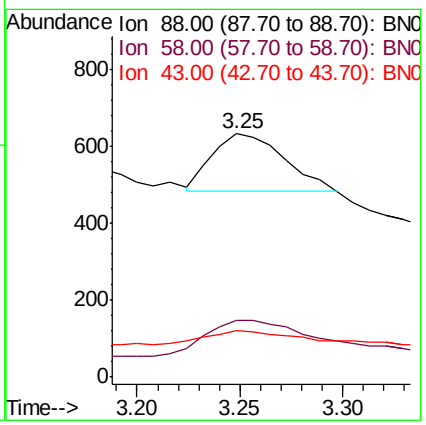


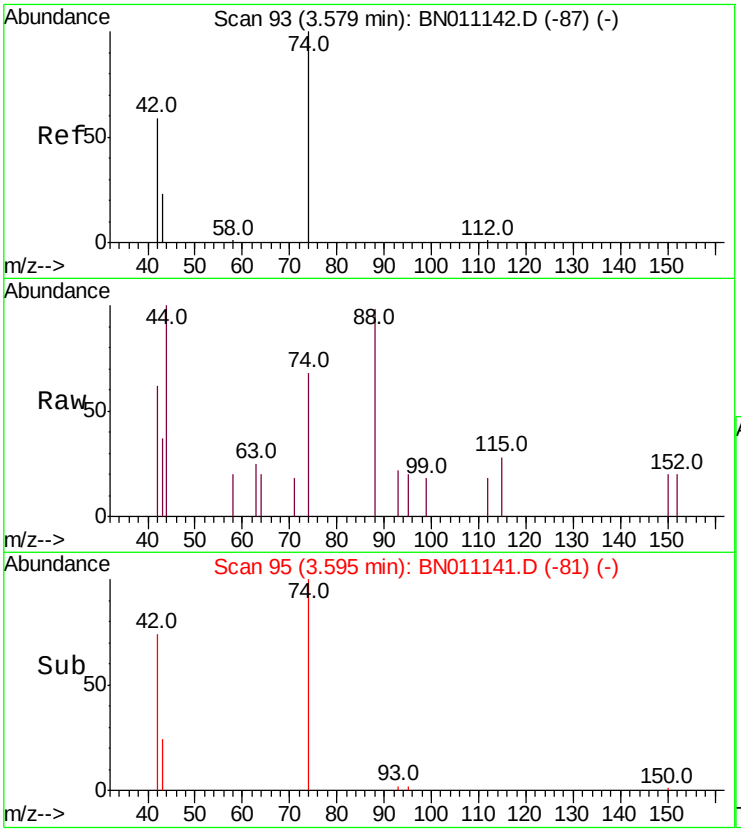


#2
1,4-Dioxane
Concen: 0.091 ng
RT: 3.25 min Scan# 52
Delta R.T. 0.02 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion: 88 Resp: 363

Ion	Ratio	Lower	Upper
88	100		
58	85.1	36.5	54.7#
43	27.0	14.3	21.5#



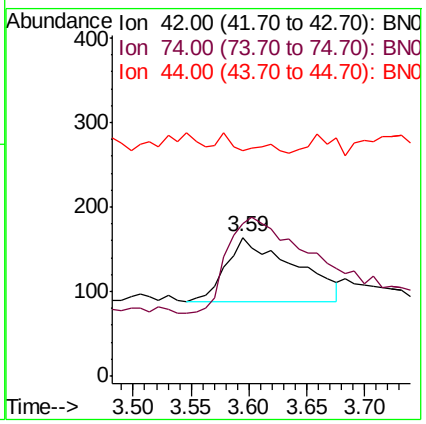


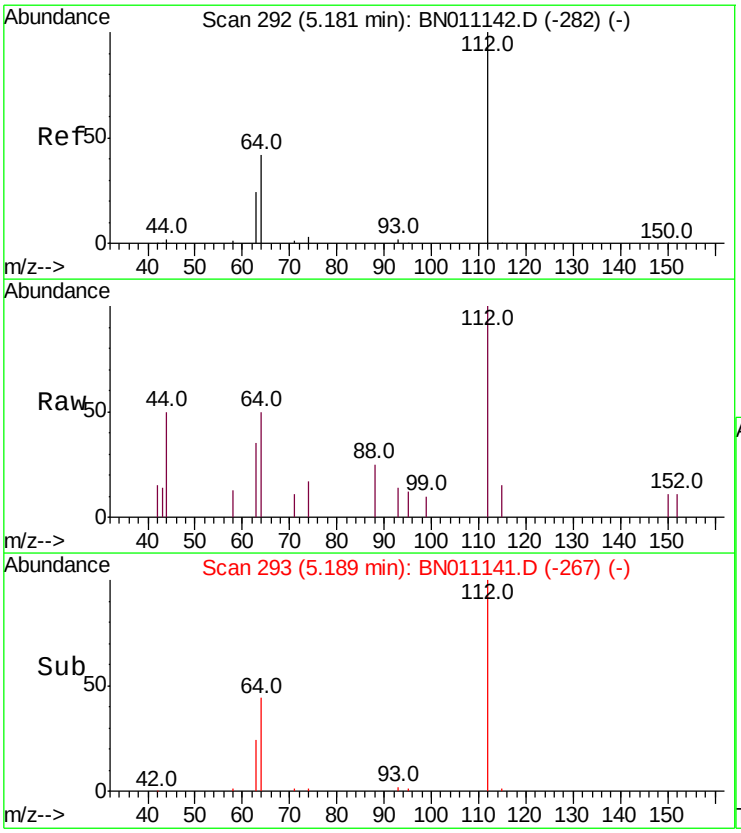
#3
n-Nitrosodimethylamine
Concen: 0.154 ng
RT: 3.59 min Scan# 95
Delta R.T. 0.02 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion: 42 Resp: 310

Ion	Ratio	Lower	Upper
42	100		
74	174.5	140.9	211.3
44	0.0	7.6	11.4#

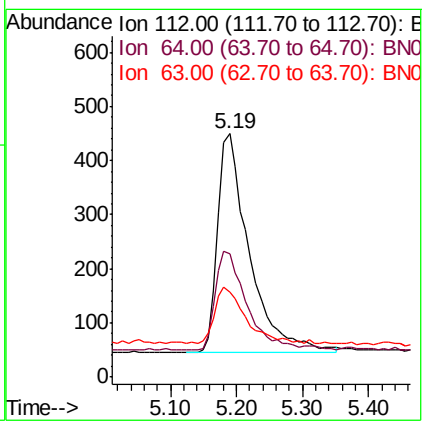


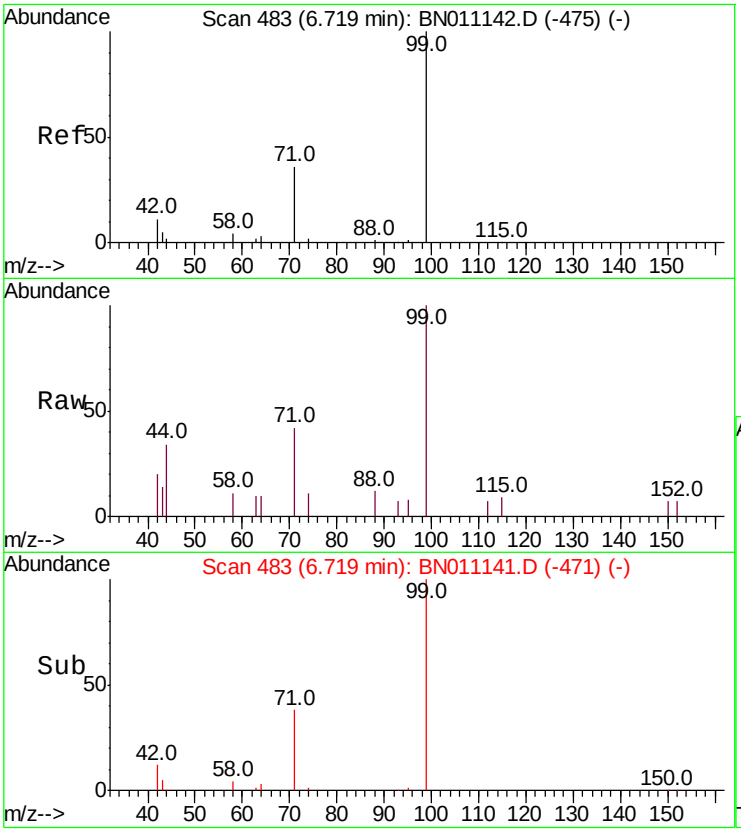


#4
2-Fluorophenol
Concen: 0.191 ng
RT: 5.19 min Scan# 293
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:112 Resp: 1342

Ion	Ratio	Lower	Upper
112	100		
64	44.1	36.7	55.1
63	25.6	20.4	30.6



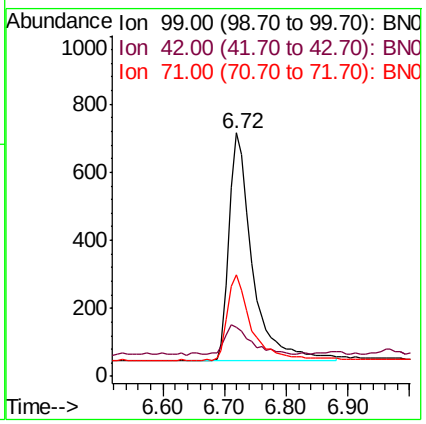


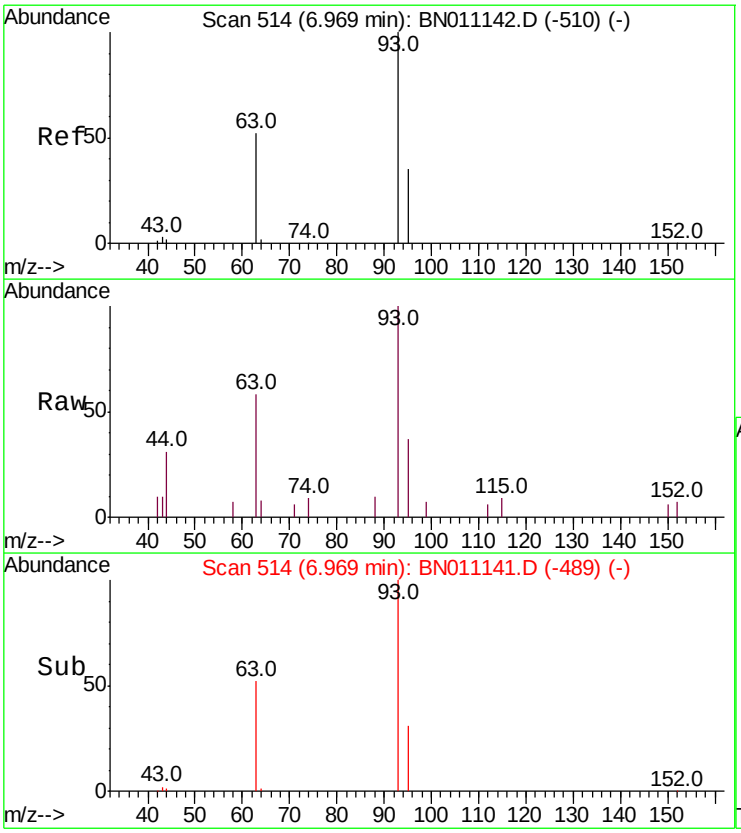
#5
Phenol-d6
Concen: 0.214 ng
RT: 6.72 min Scan# 483
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion: 99 Resp: 1733

Ion	Ratio	Lower	Upper
99	100		
42	14.2	10.8	16.2
71	39.0	31.3	46.9

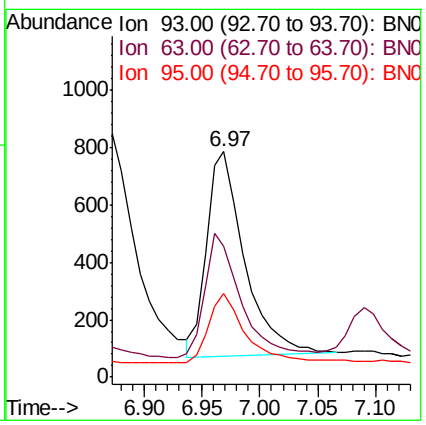


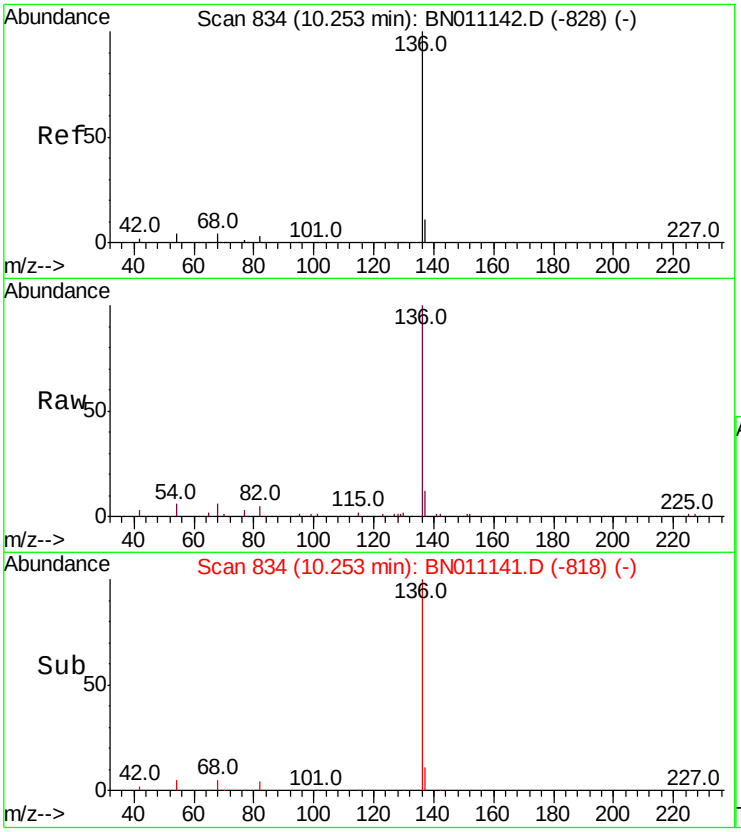


#6
bis(2-Chloroethyl)ether
Concen: 0.222 ng
RT: 6.97 min Scan# 514
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion: 93 Resp: 1631

Ion	Ratio	Lower	Upper
93	100		
63	57.9	47.4	71.0
95	33.0	28.1	42.1



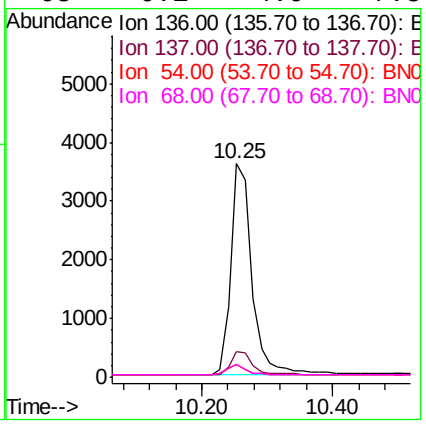


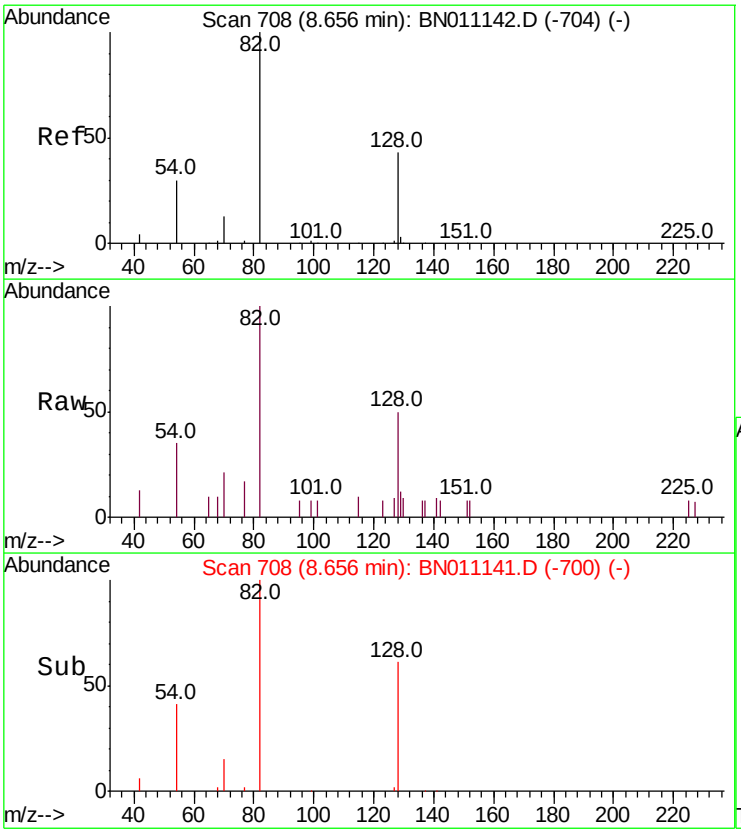
#7
Naphthalene-d8
Concen: 0.400 ng
RT: 10.25 min Scan# 834
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:136 Resp: 8012

Ion	Ratio	Lower	Upper
136	100		
137	11.8	10.3	15.5
54	6.1	4.9	7.3
68	6.1	4.9	7.3

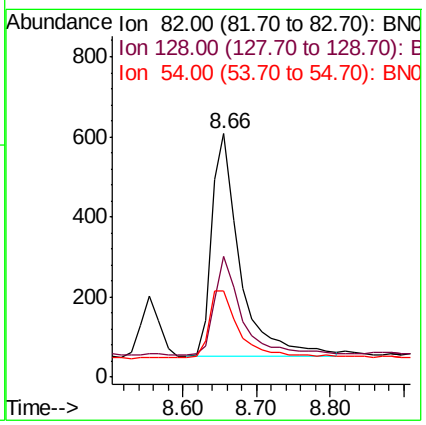


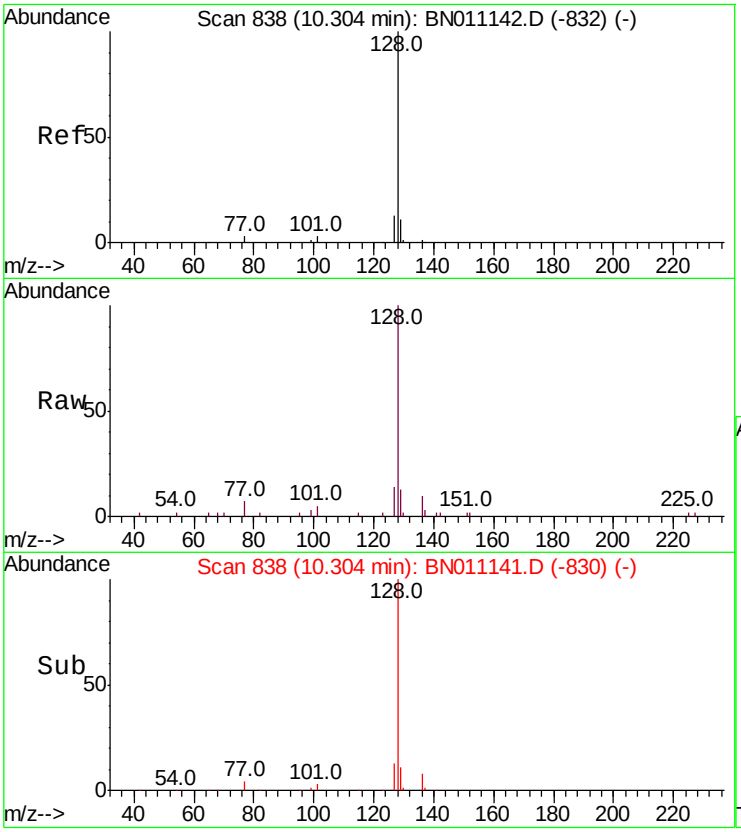


#8
Nitrobenzene-d5
Concen: 0.219 ng
RT: 8.66 min Scan# 708
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion: 82 Resp: 1494

Ion	Ratio	Lower	Upper
82	100		
128	49.8	38.1	57.1
54	35.4	27.1	40.7

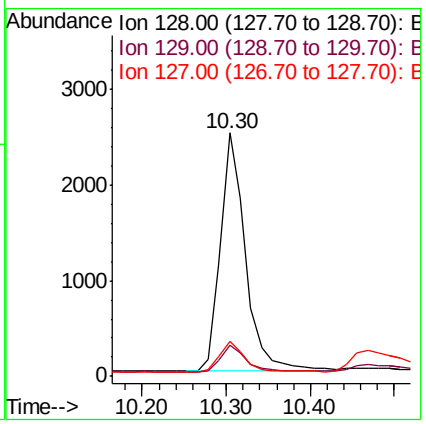




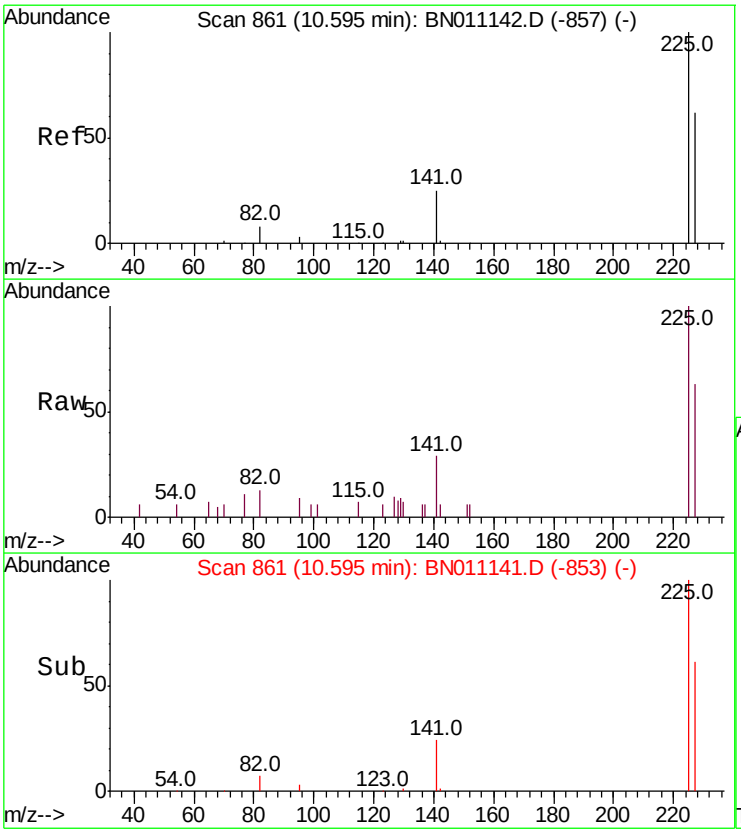
#9
Naphthalene
Concen: 0.217 ng
RT: 10.30 min Scan# 838
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:128 Resp: 5181

Ion	Ratio	Lower	Upper
128	100		
129	13.0	9.8	14.6
127	14.5	11.8	17.6



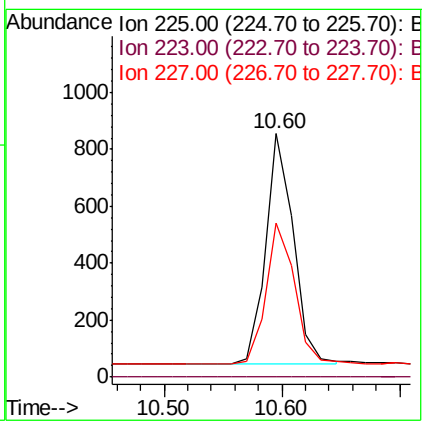
Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

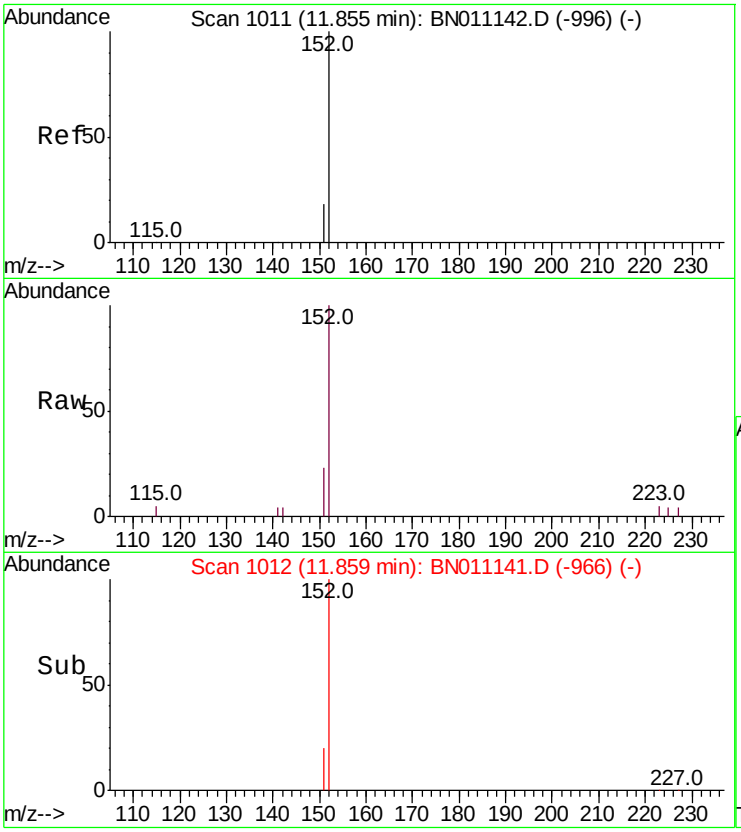


#10
Hexachlorobutadiene
Concen: 0.221 ng
RT: 10.60 min Scan# 861
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:225 Resp: 1338

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.2	51.2	76.8



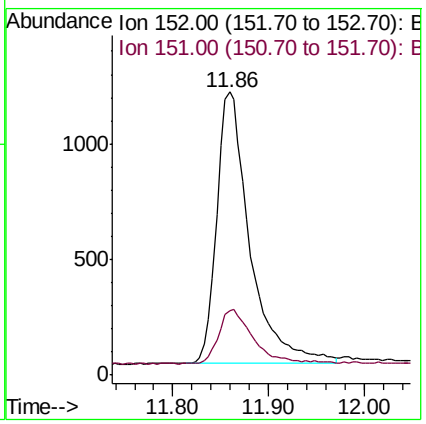


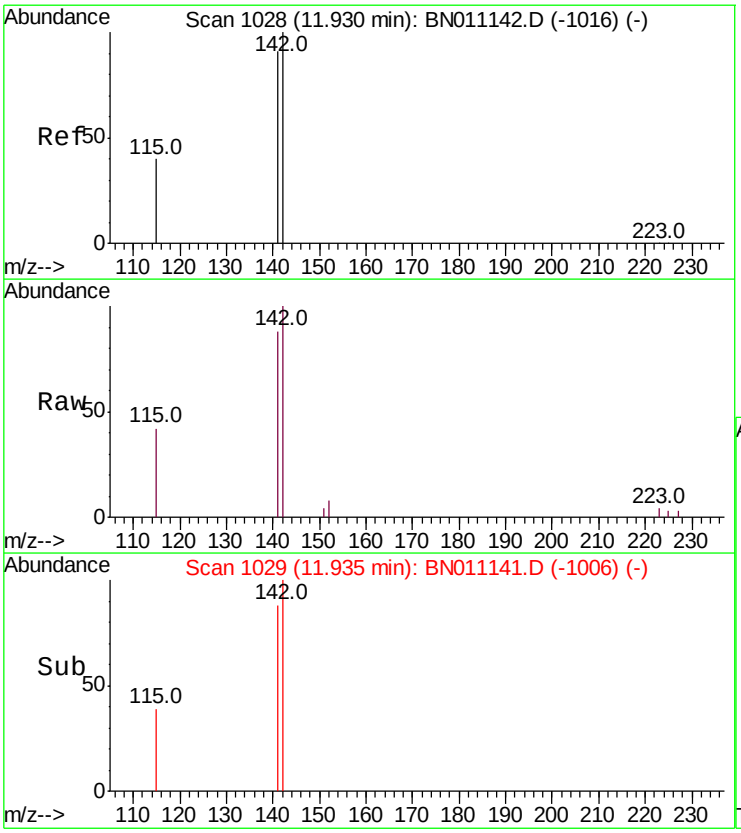
#11
2-Methylnaphthalene-d10
Concen: 0.204 ng
RT: 11.86 min Scan# 1012
Delta R.T. 0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:152 Resp: 2833

Ion	Ratio	Lower	Upper
152	100		
151	20.9	16.5	24.7

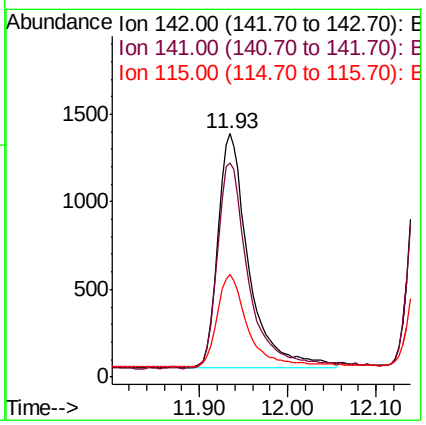


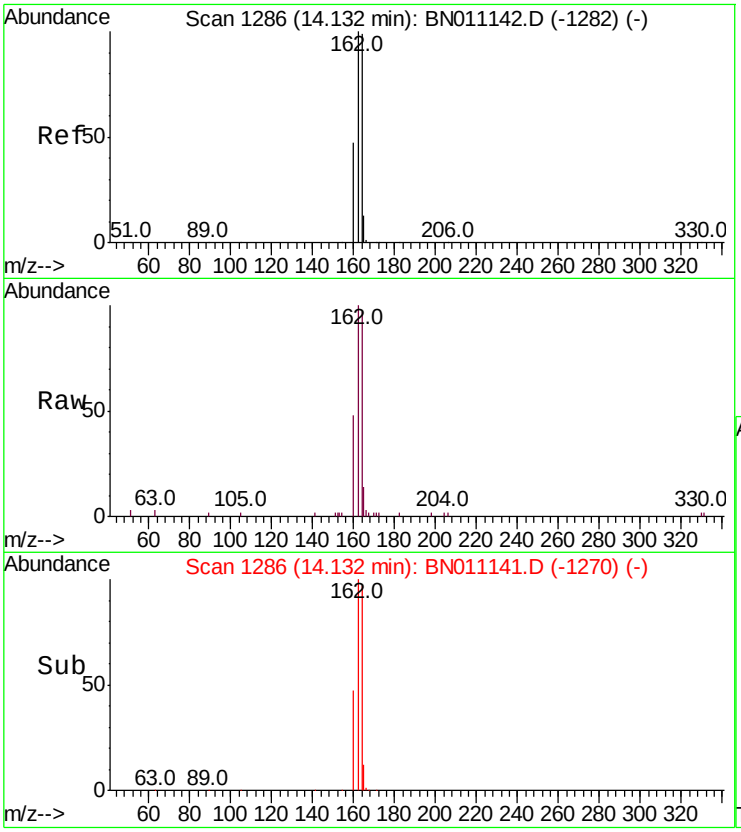


#12
2-Methylnaphthalene
Concen: 0.205 ng
RT: 11.93 min Scan# 1029
Delta R.T. 0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:142 Resp: 3274

Ion	Ratio	Lower	Upper
142	100		
141	88.1	72.7	109.1
115	42.1	33.8	50.6



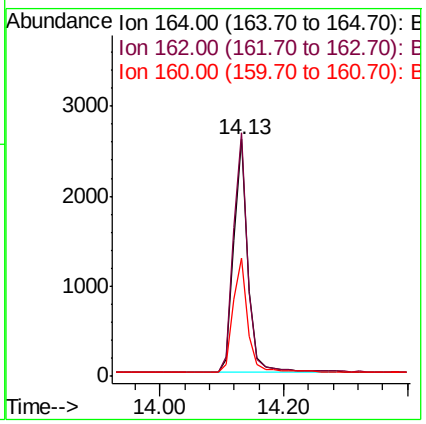


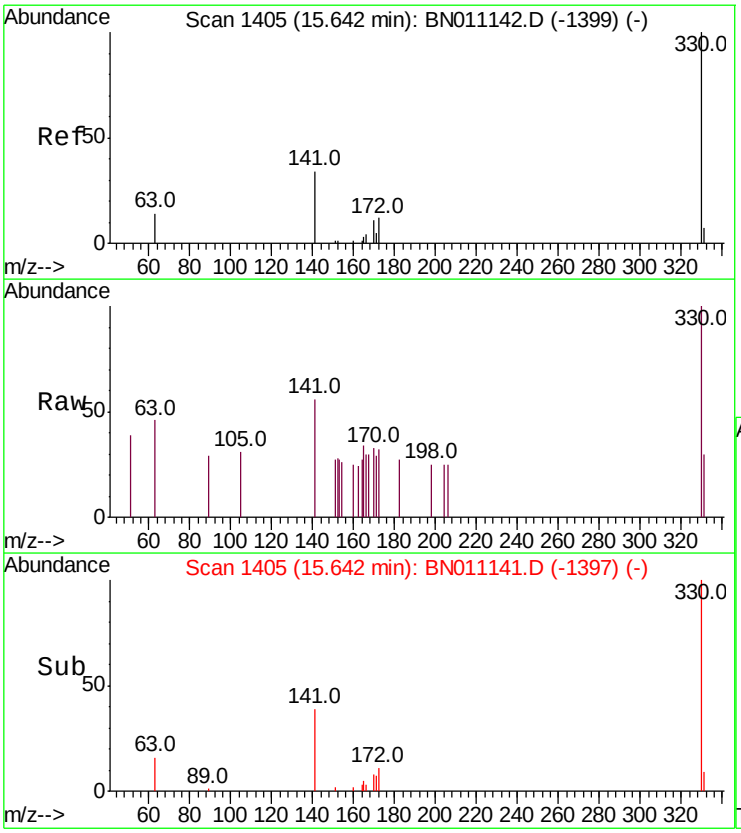
#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.13 min Scan# 1286
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:164 Resp: 4167

Ion	Ratio	Lower	Upper
164	100		
162	102.9	81.0	121.4
160	49.7	39.0	58.6

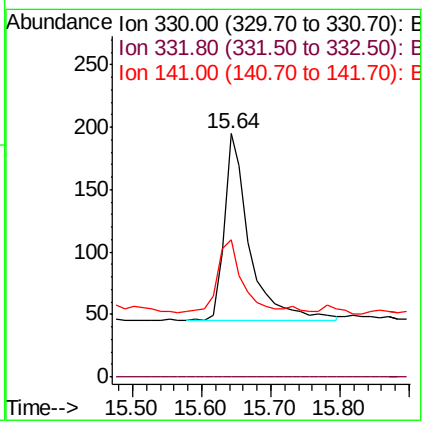


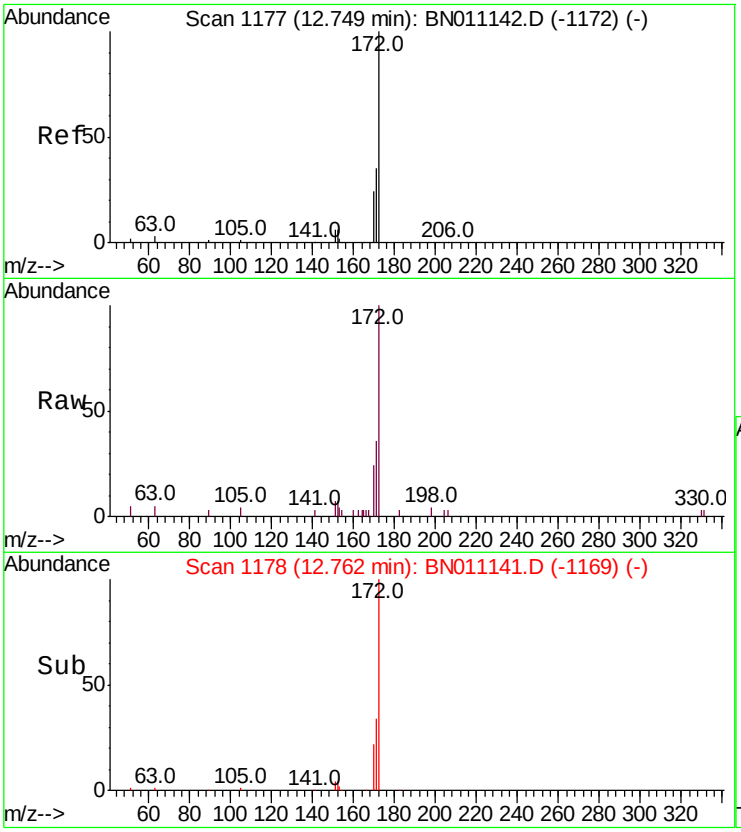


#14
2,4,6-Tribromophenol
Concen: 0.221 ng
RT: 15.64 min Scan# 1405
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:330 Resp: 387

Ion	Ratio	Lower	Upper
330	100		
332	0.0	0.0	0.0
141	42.4	31.5	47.3



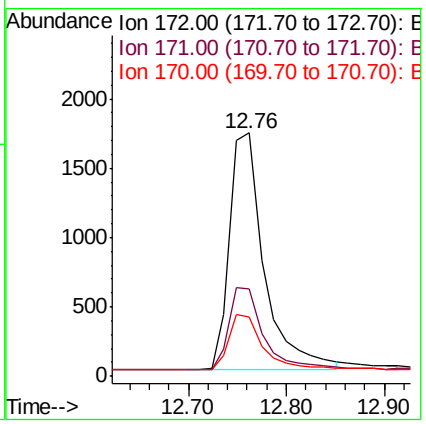


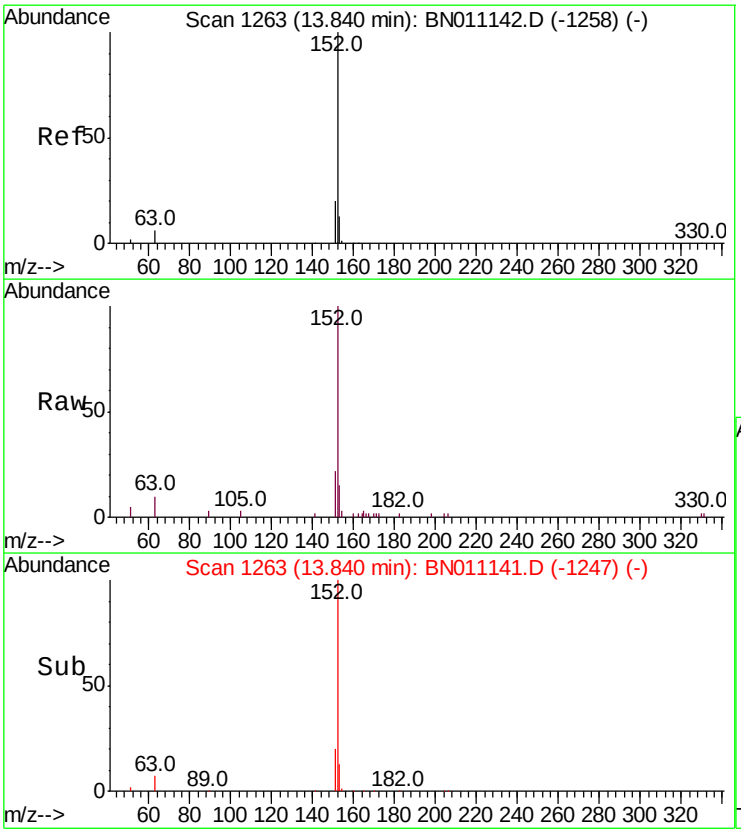
#15
2-Fluorobiphenyl
Concen: 0.214 ng
RT: 12.76 min Scan# 1178
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:172 Resp: 4204

Ion	Ratio	Lower	Upper
172	100		
171	36.1	29.0	43.6
170	24.3	20.3	30.5

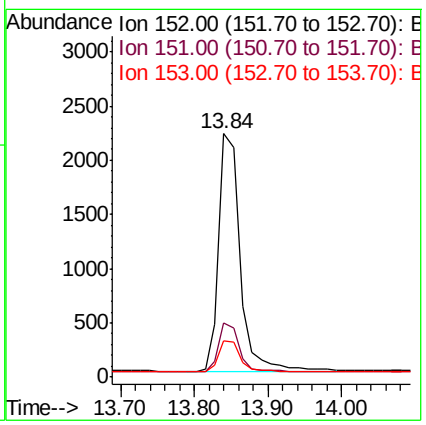


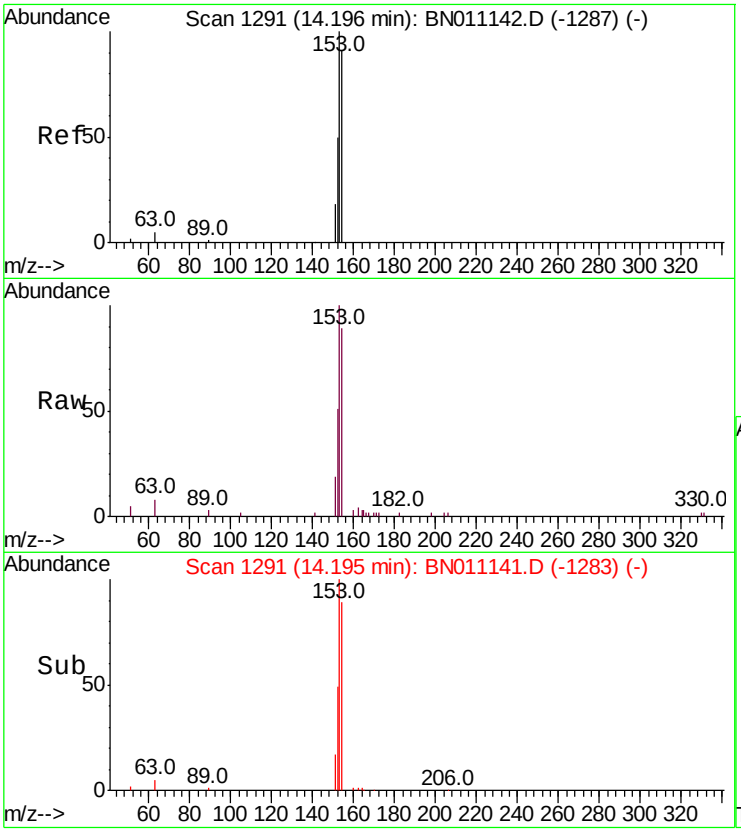


#16
Acenaphthylene
Concen: 0.214 ng
RT: 13.84 min Scan# 1263
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:152 Resp: 4472

Ion	Ratio	Lower	Upper
152	100		
151	19.8	15.7	23.5
153	13.6	10.6	15.8



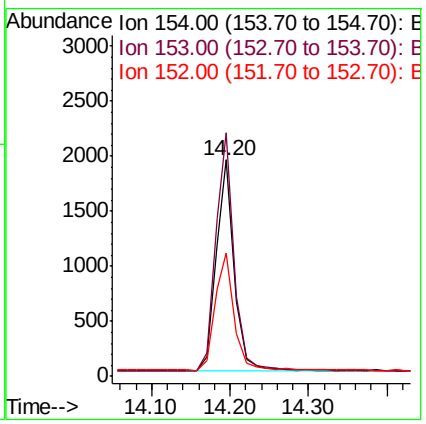


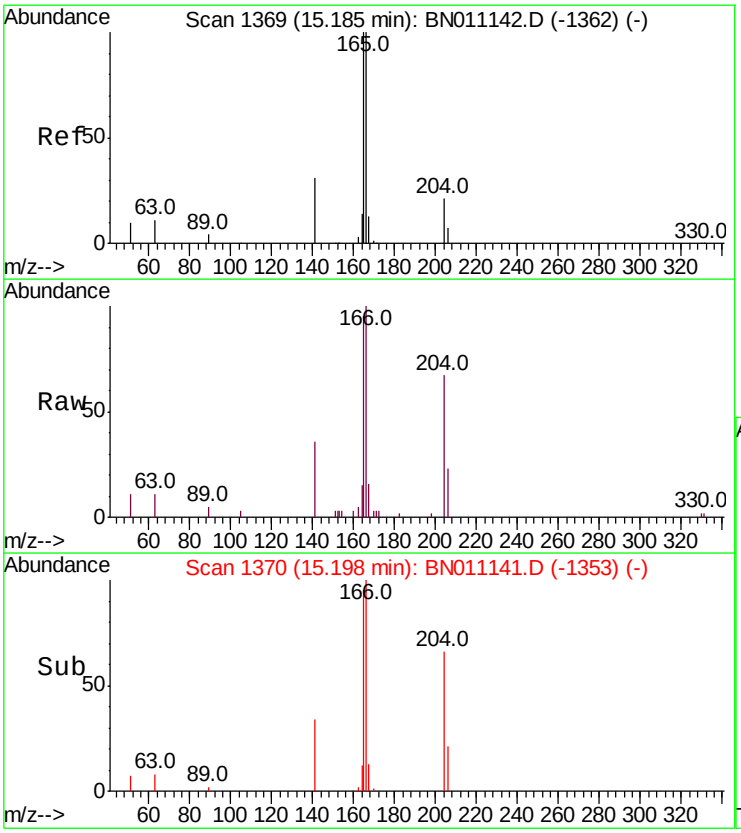
#17
Acenaphthene
Concen: 0.219 ng
RT: 14.20 min Scan# 1291
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:154 Resp: 3097

Ion	Ratio	Lower	Upper
154	100		
153	115.7	91.3	136.9
152	58.5	46.6	69.8

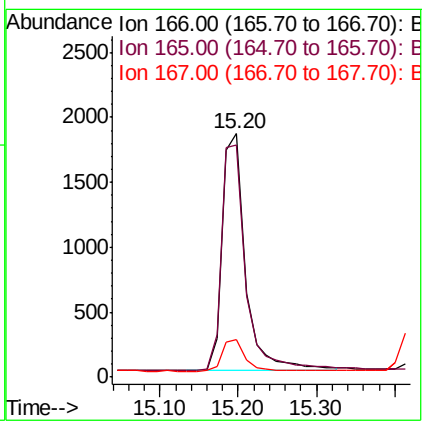


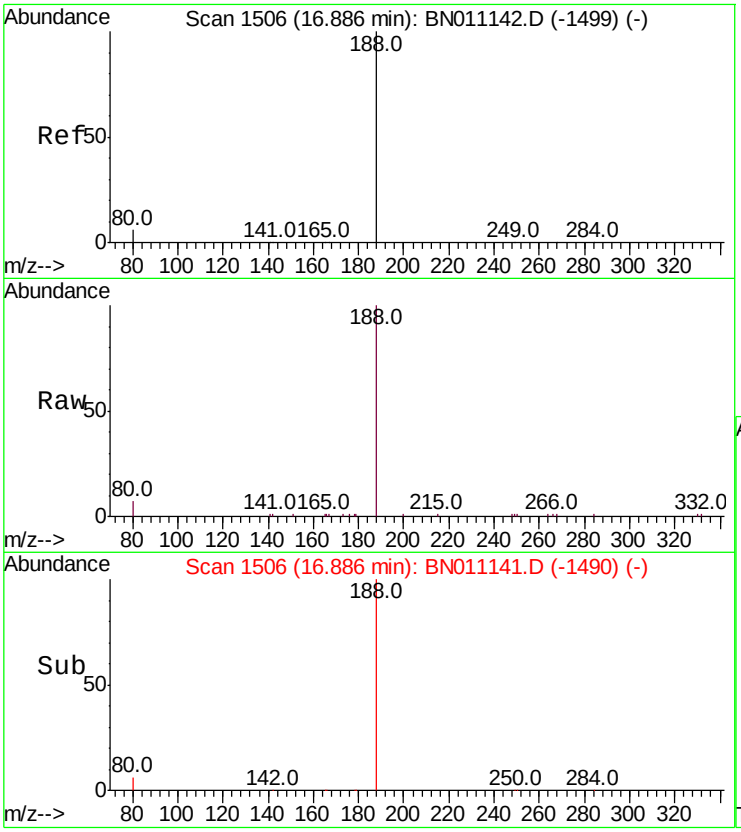


#18
Fluorene
Concen: 0.215 ng
RT: 15.20 min Scan# 1370
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:166 Resp: 3809

Ion	Ratio	Lower	Upper
166	100		
165	98.6	79.1	118.7
167	13.8	10.5	15.7



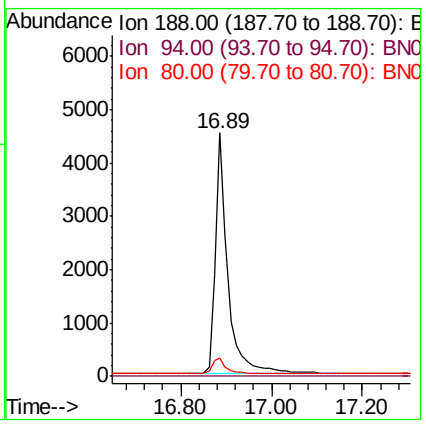


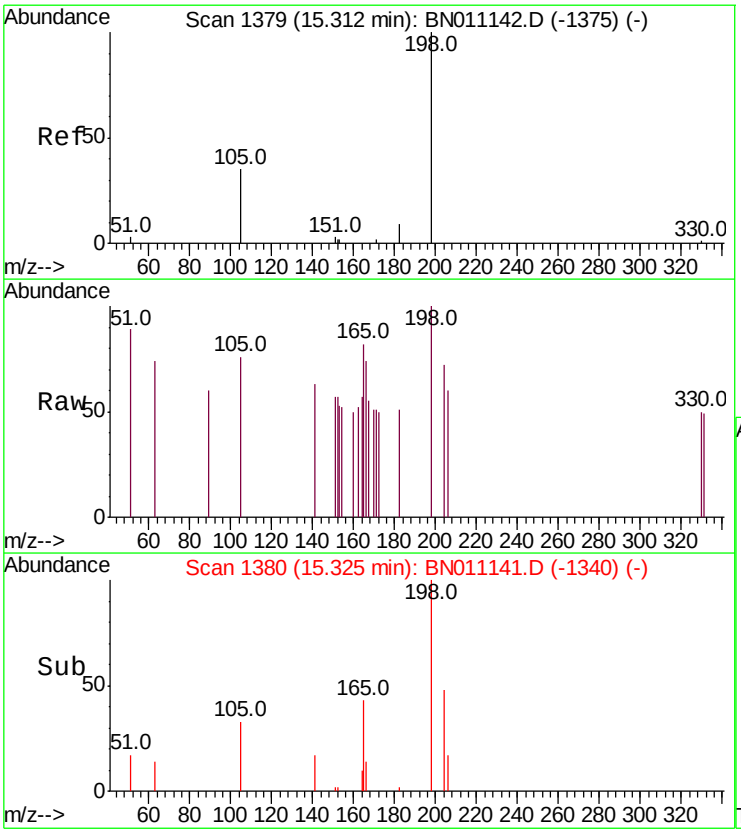
#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 16.89 min Scan# 1506
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:188 Resp: 8875

Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	7.4	6.3	9.5

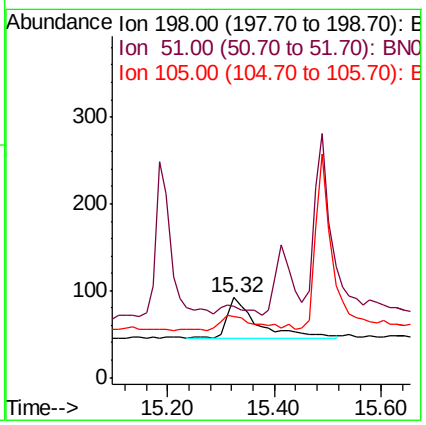


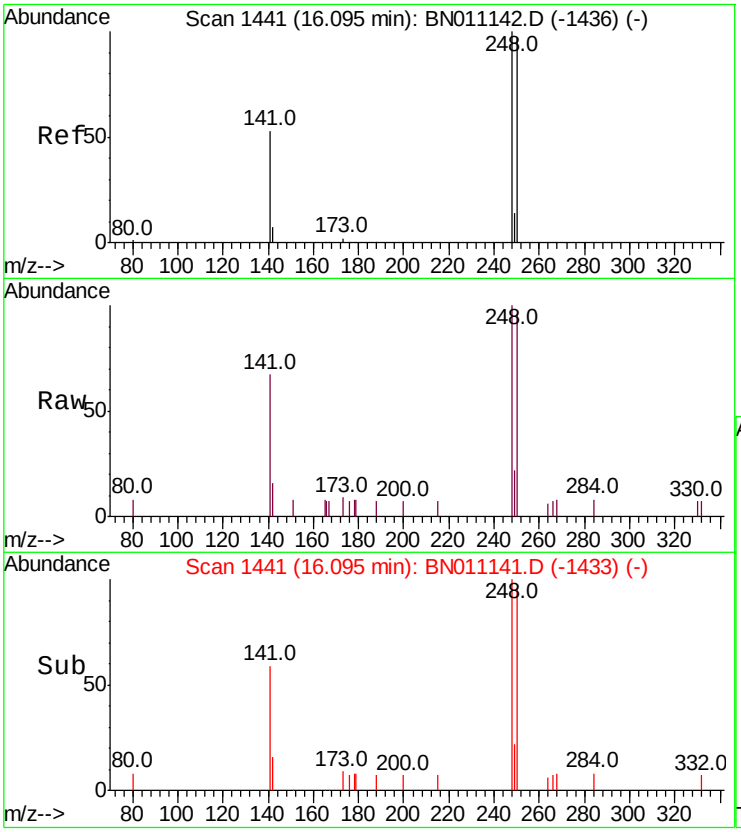


#20
4,6-Dinitro-2-methylphenol
Concen: 0.199 ng
RT: 15.32 min Scan# 1380
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:198 Resp: 189

Ion	Ratio	Lower	Upper
198	100		
51	89.1	53.1	79.7#
105	76.1	51.9	77.9



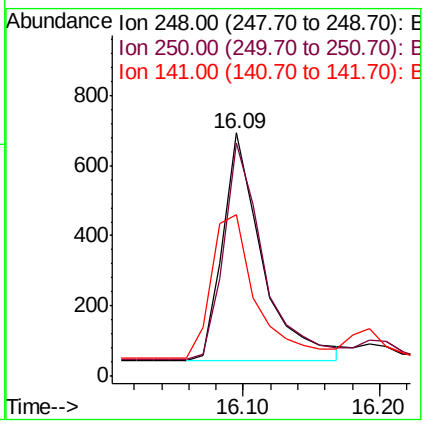


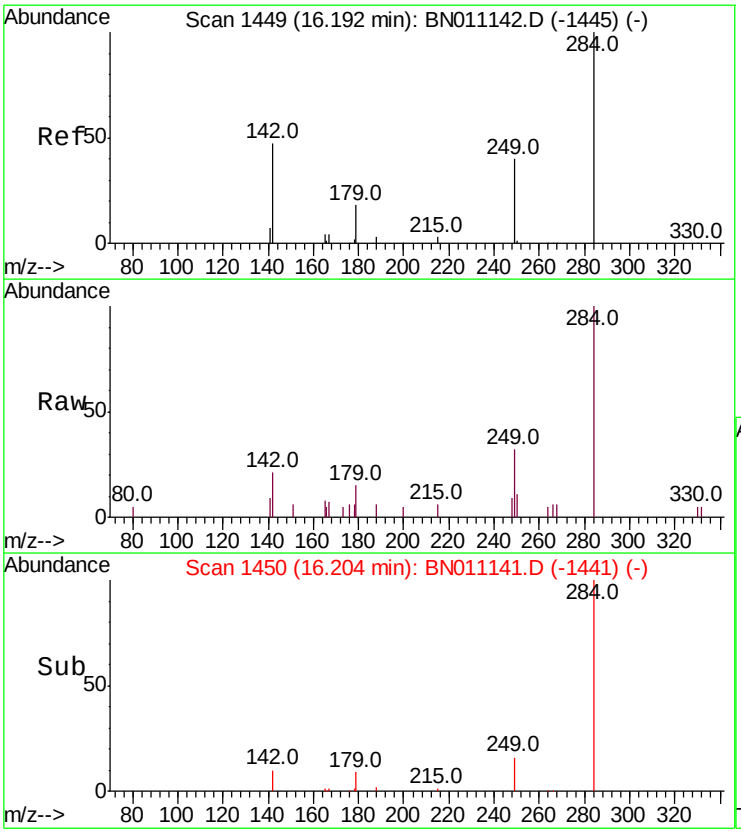
#21
4-Bromophenyl-phenylether
Concen: 0.219 ng
RT: 16.09 min Scan# 1441
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:248 Resp: 1292

Ion	Ratio	Lower	Upper
248	100		
250	95.7	78.4	117.6
141	66.5	45.1	67.7

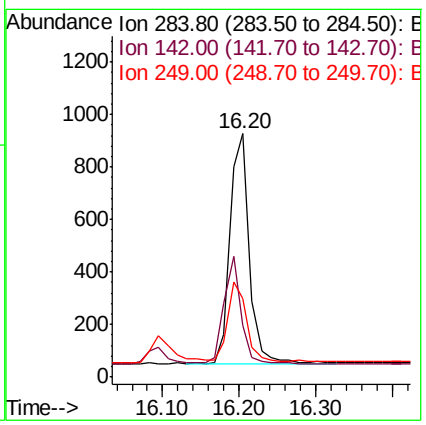


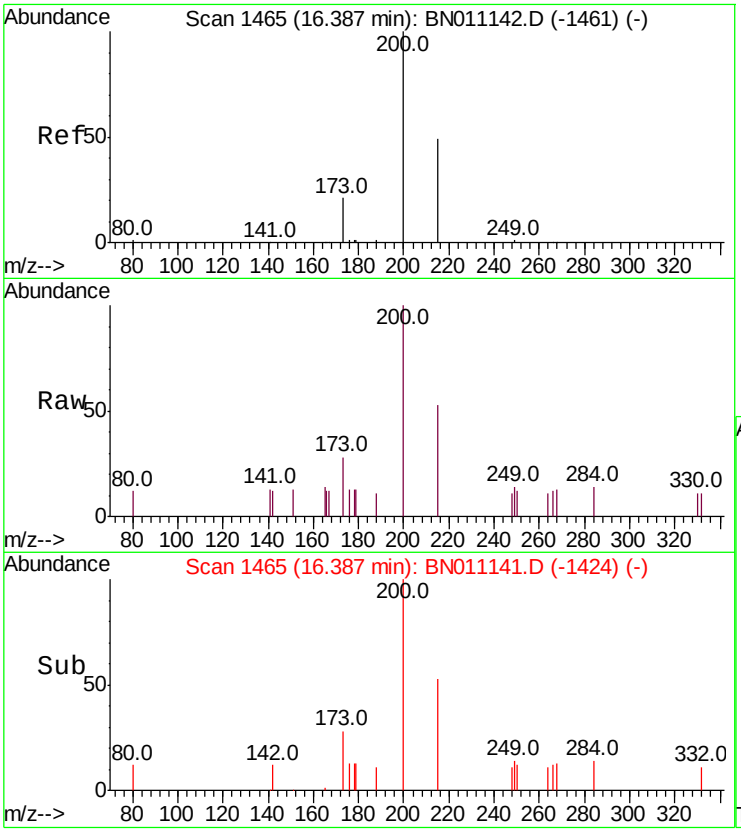


#22
Hexachlorobenzene
Concen: 0.220 ng
RT: 16.20 min Scan# 1450
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:284 Resp: 1531

Ion	Ratio	Lower	Upper
284	100		
142	41.5	32.6	48.8
249	34.2	28.4	42.6



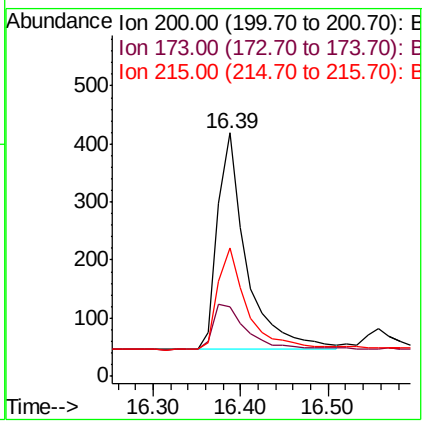


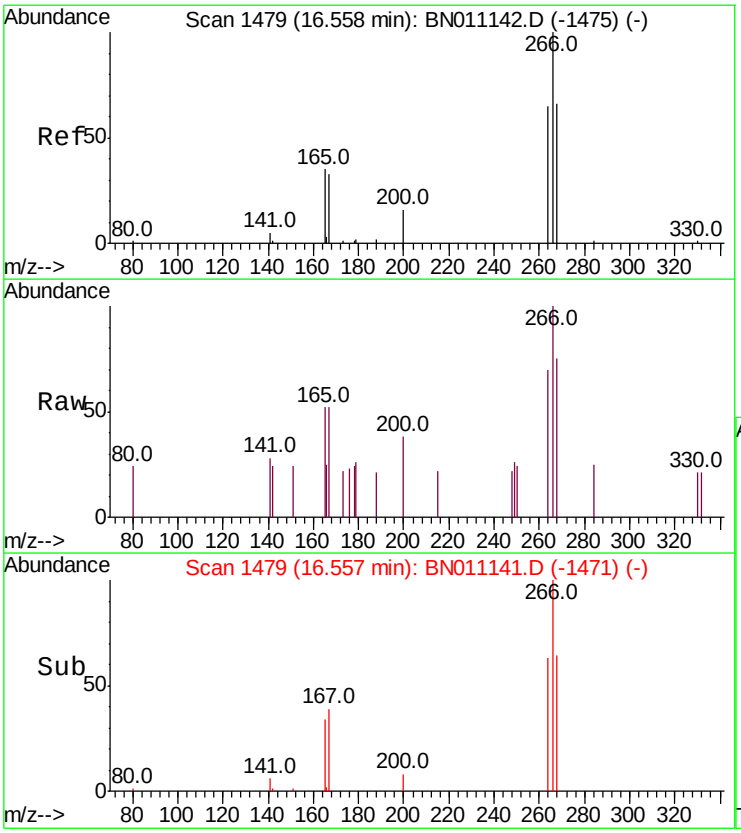
#23
Atrazine
Concen: 0.205 ng
RT: 16.39 min Scan# 1465
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:200 Resp: 856

Ion	Ratio	Lower	Upper
200	100		
173	28.4	23.0	34.4
215	52.5	42.6	63.8

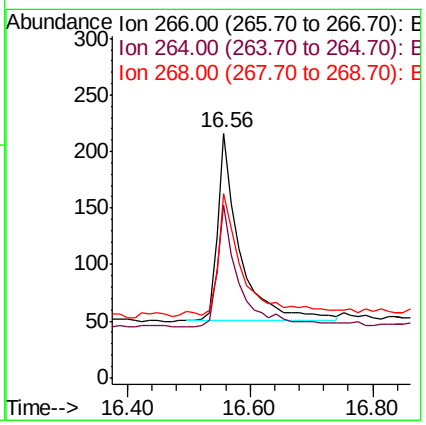


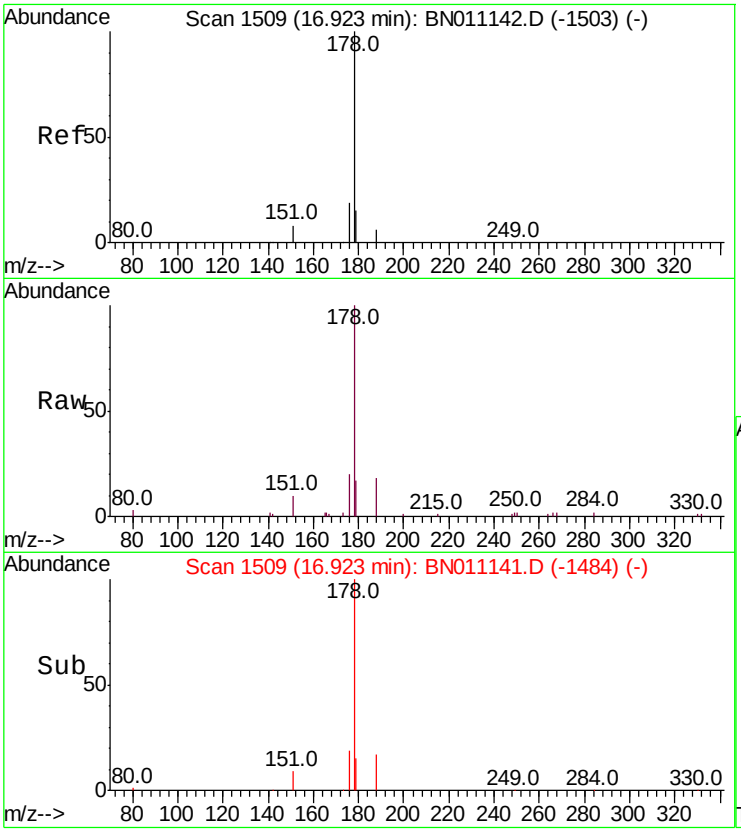


#24
Pentachlorophenol
Concen: 0.219 ng
RT: 16.56 min Scan# 1479
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:266 Resp: 410

Ion	Ratio	Lower	Upper
266	100		
264	65.4	52.5	78.7
268	75.1	48.9	73.3#



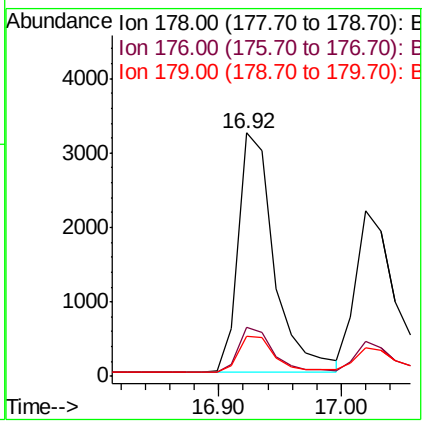


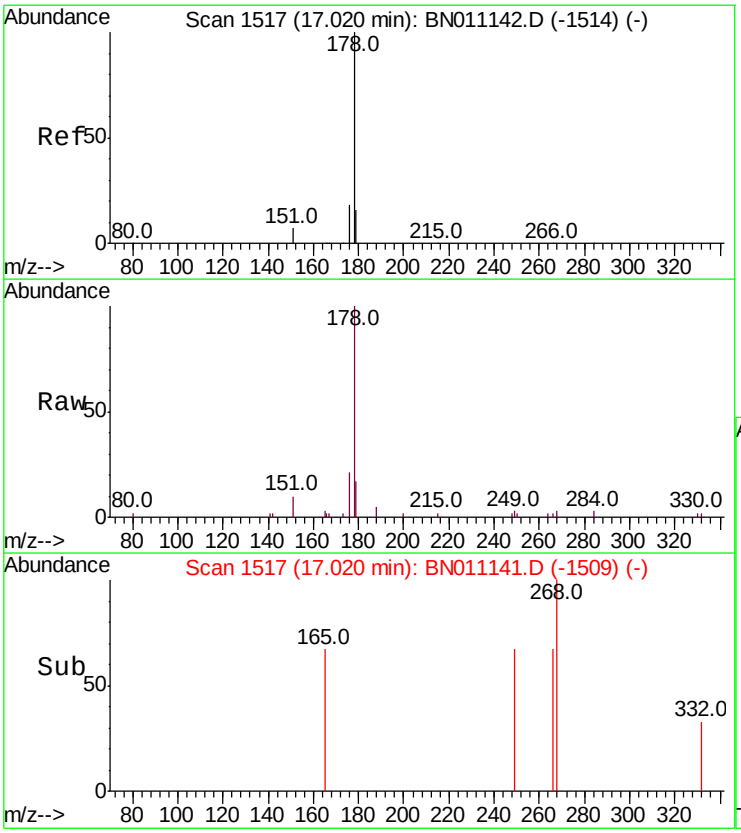
#25
Phenanthrene
Concen: 0.229 ng
RT: 16.92 min Scan# 1509
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:178 Resp: 6596

Ion	Ratio	Lower	Upper
178	100		
176	18.6	15.3	22.9
179	15.3	12.6	18.8

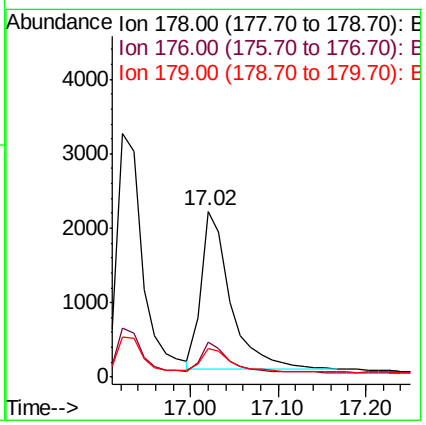


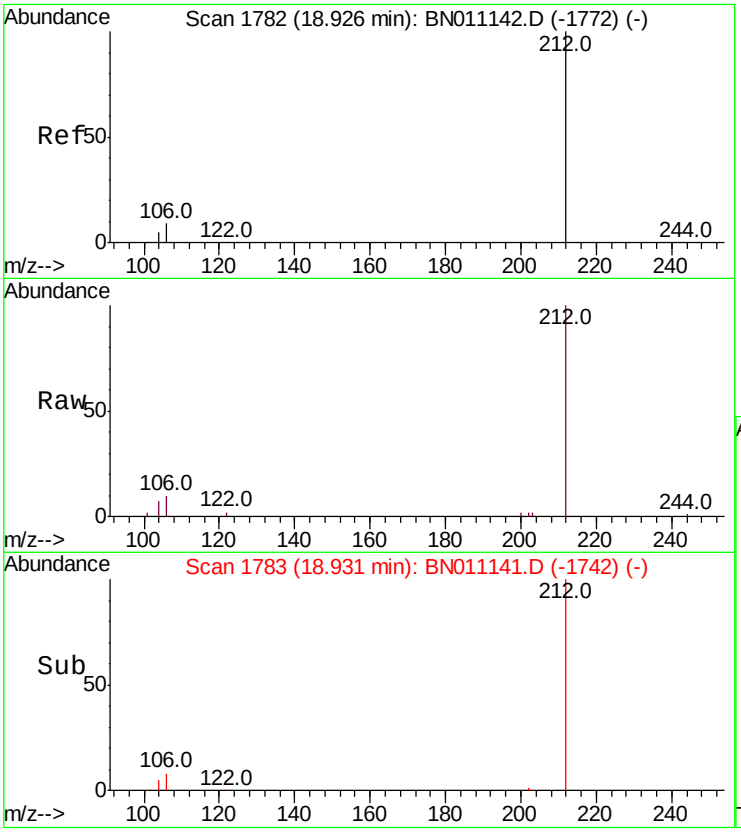


#26
Anthracene
Concen: 0.208 ng
RT: 17.02 min Scan# 1517
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:178 Resp: 4957

Ion	Ratio	Lower	Upper
178	100		
176	18.2	14.5	21.7
179	15.0	12.0	18.0



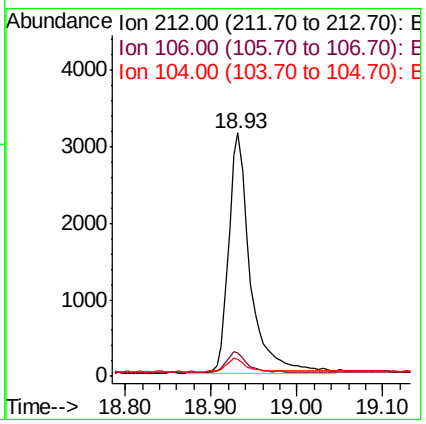


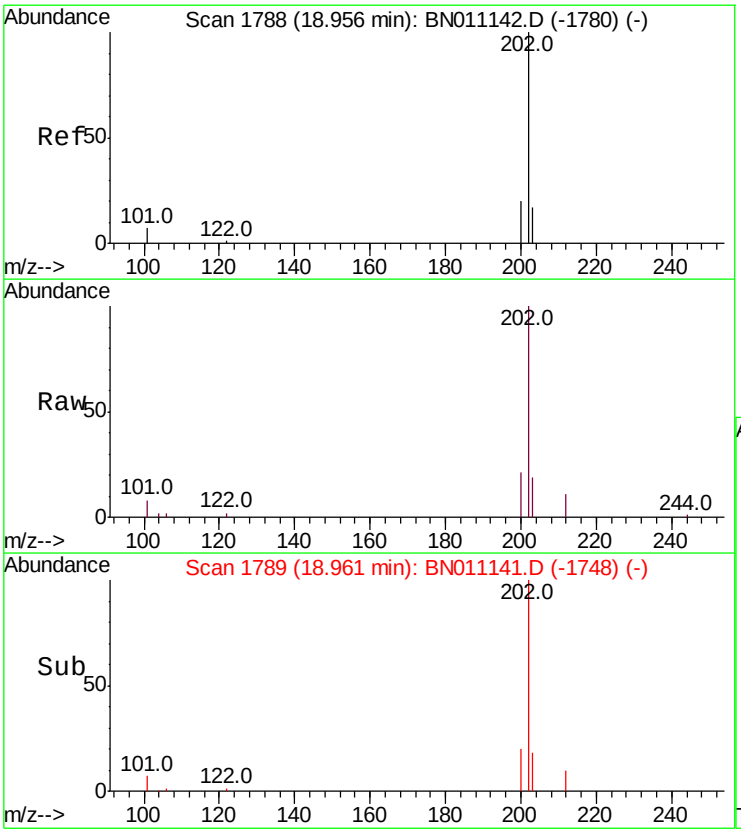
#27
Fluoranthene-d10
Concen: 0.204 ng
RT: 18.93 min Scan# 1783
Delta R.T. 0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:212 Resp: 5469

Ion	Ratio	Lower	Upper
212	100		
106	8.7	7.0	10.6
104	5.1	4.2	6.4

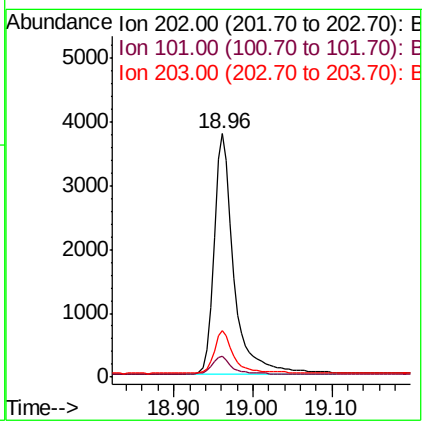


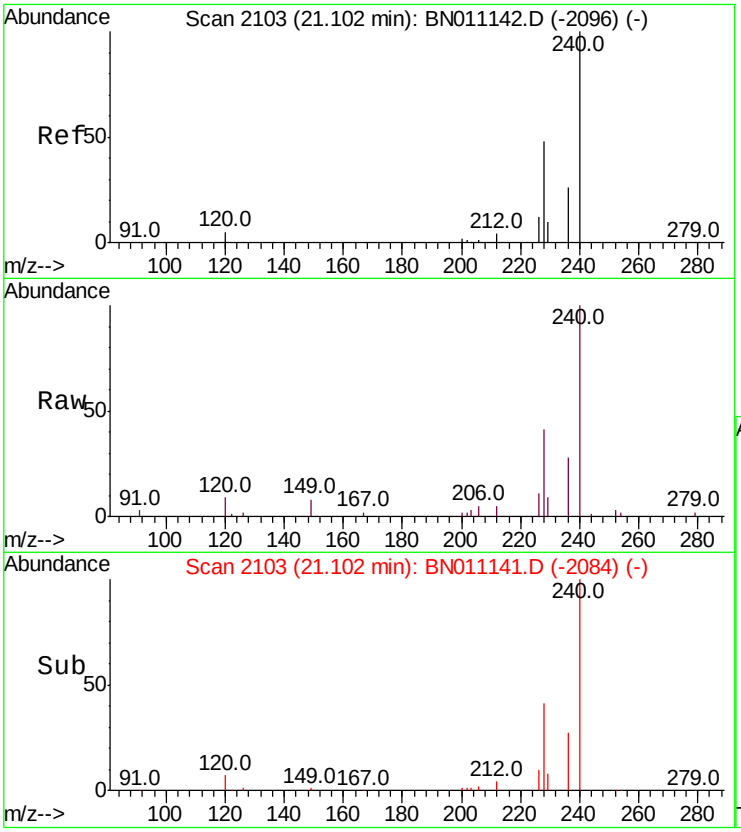


#28
Fluoranthene
Concen: 0.206 ng
RT: 18.96 min Scan# 1789
Delta R.T. 0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:202 Resp: 6663

Ion	Ratio	Lower	Upper
202	100		
101	7.2	5.9	8.9
203	16.6	13.6	20.4



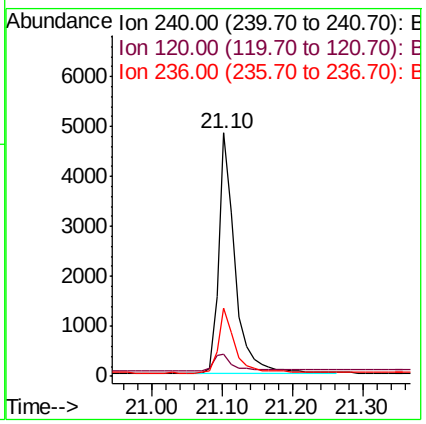


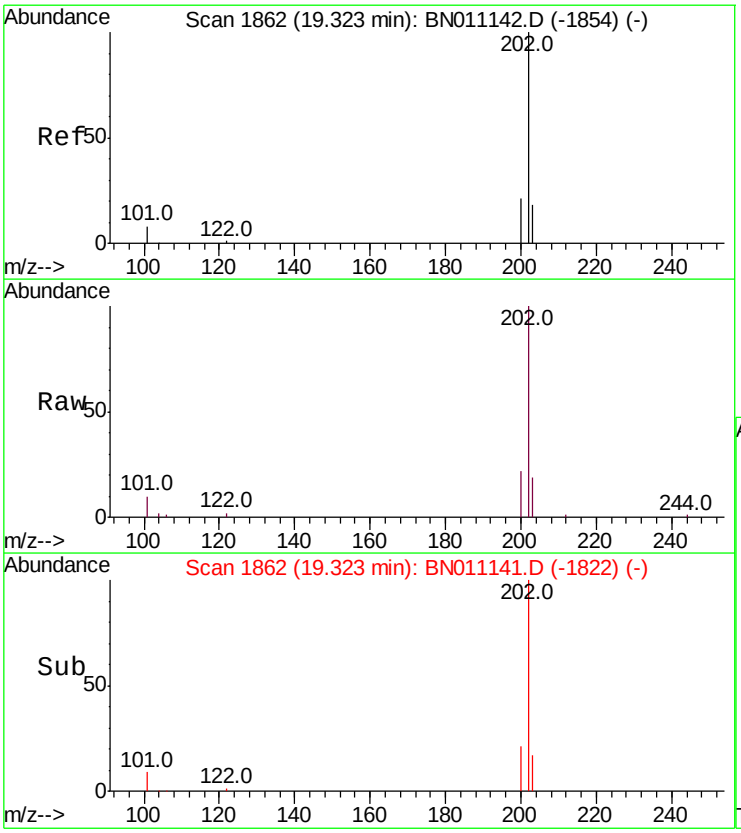
#29
Chrysene-d12
Concen: 0.400 ng
RT: 21.10 min Scan# 2103
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:240 Resp: 7967

Ion	Ratio	Lower	Upper
240	100		
120	9.1	6.5	9.7
236	27.8	21.9	32.9

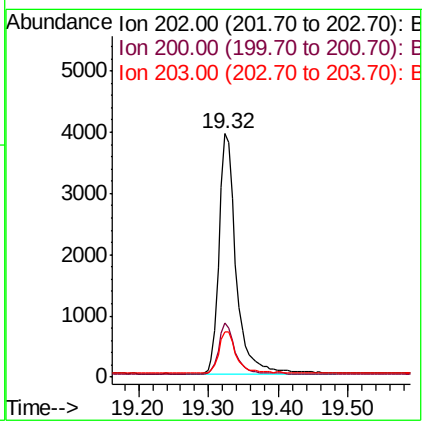


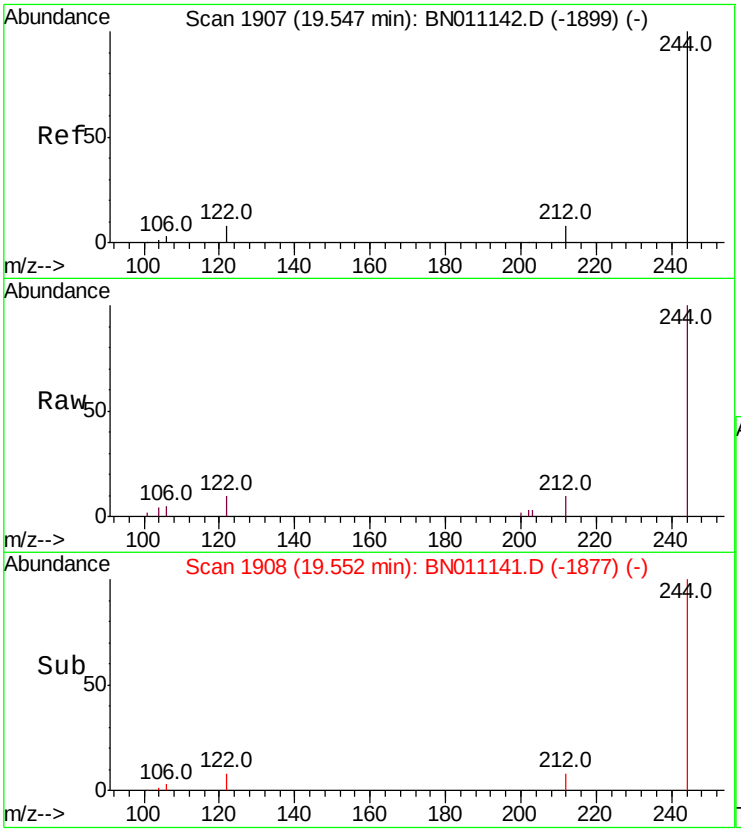


#30
Pyrene
Concen: 0.224 ng
RT: 19.32 min Scan# 1862
Delta R.T. -0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:202 Resp: 6644

Ion	Ratio	Lower	Upper
202	100		
200	20.6	16.5	24.7
203	17.3	14.2	21.4



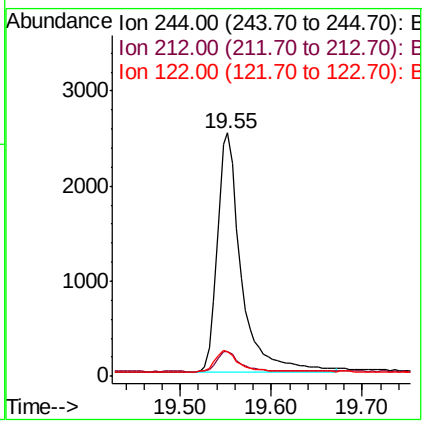


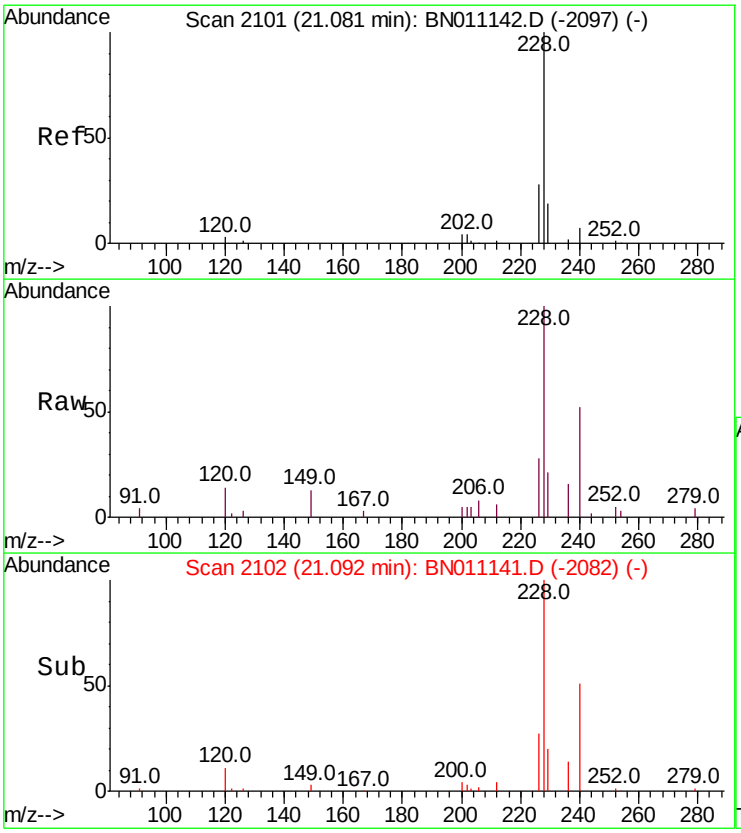
#31
Terphenyl-d14
Concen: 0.220 ng
RT: 19.55 min Scan# 1908
Delta R.T. 0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:244 Resp: 4555

Ion	Ratio	Lower	Upper
244	100		
212	10.1	7.8	11.6
122	10.0	7.4	11.0

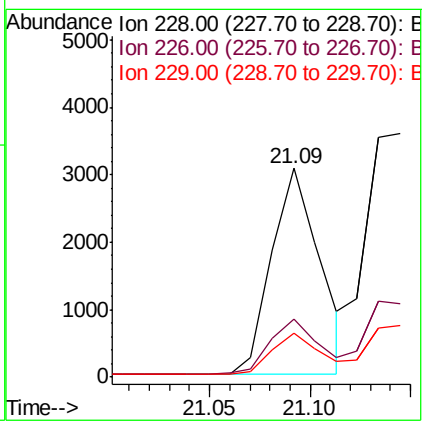


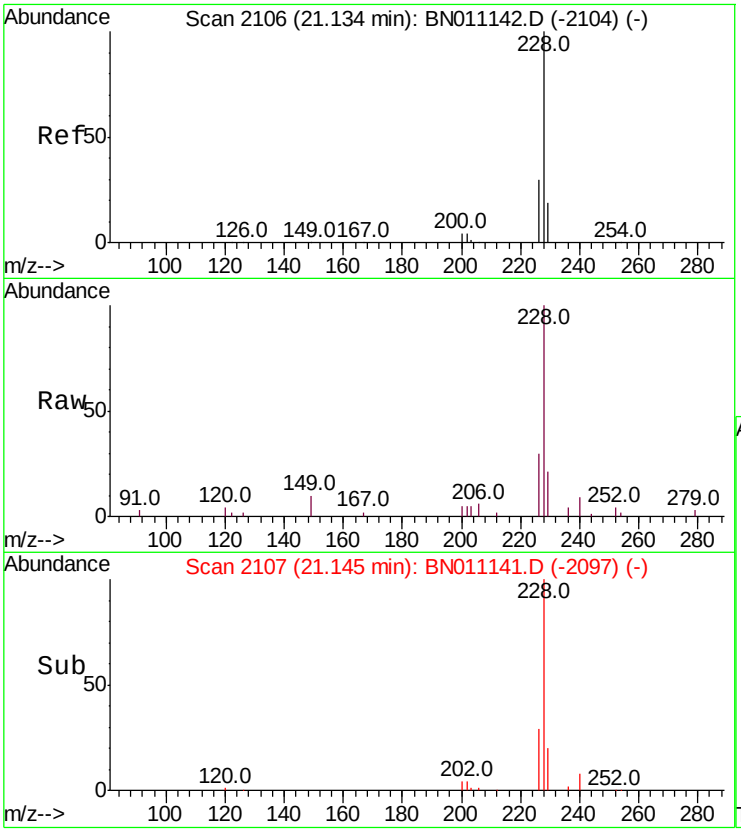


#32
Benzo(a)anthracene
Concen: 0.192 ng
RT: 21.09 min Scan# 2102
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:228 Resp: 5110

Ion	Ratio	Lower	Upper
228	100		
226	27.9	23.2	34.8
229	20.8	16.2	24.4



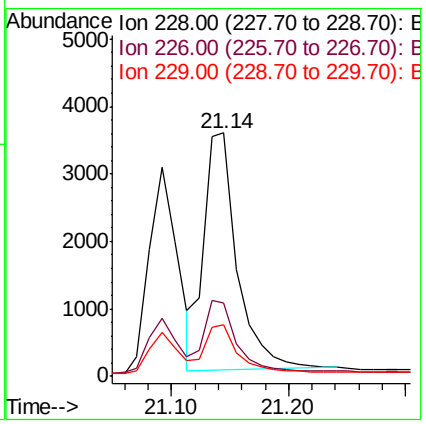


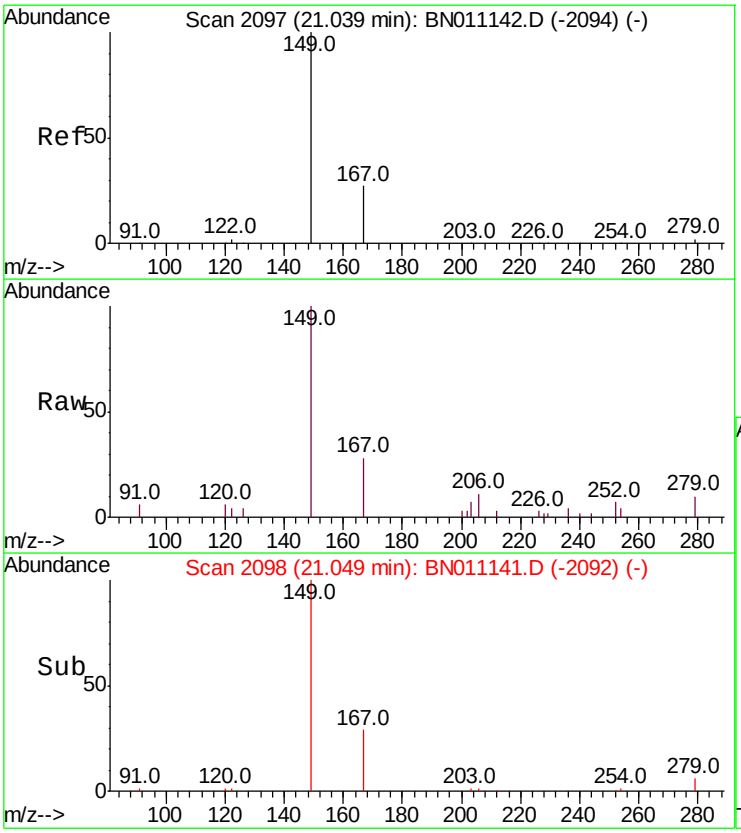
#33
Chrysene
Concen: 0.229 ng
RT: 21.14 min Scan# 2107
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:228 Resp: 6994

Ion	Ratio	Lower	Upper
228	100		
226	30.3	24.0	36.0
229	21.0	16.2	24.4

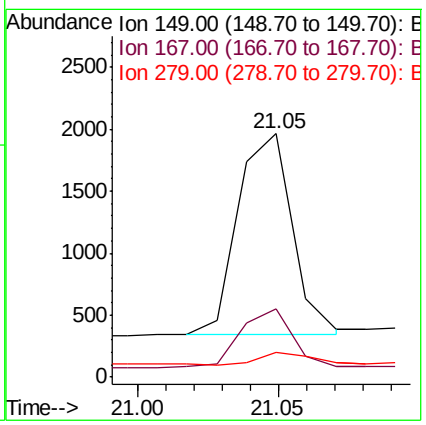


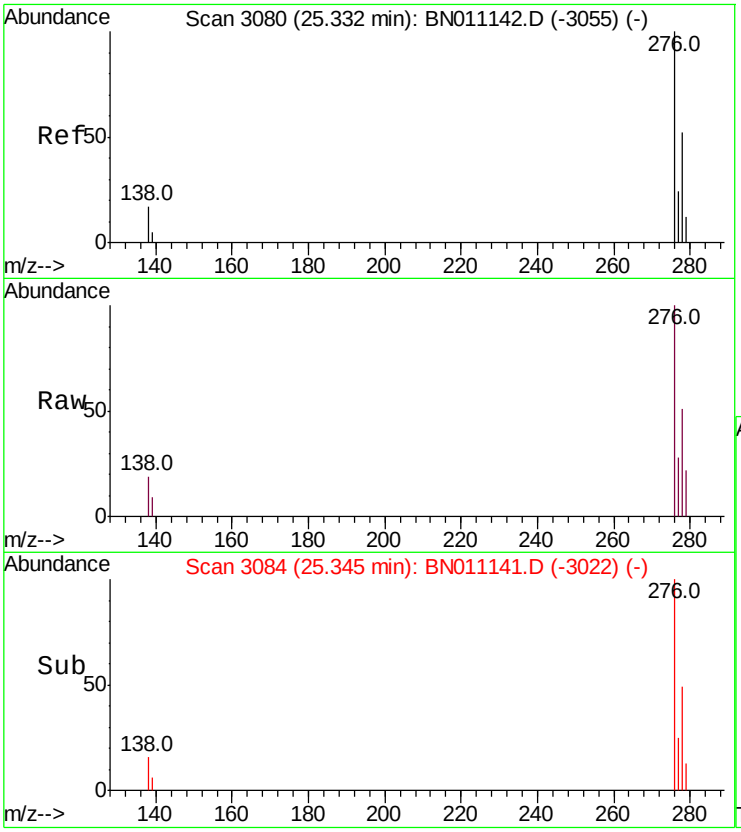


#34
Bis(2-ethylhexyl)phthalate
Concen: 0.206 ng
RT: 21.05 min Scan# 2098
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:149 Resp: 2213

Ion	Ratio	Lower	Upper
149	100		
167	28.4	23.4	35.0
279	6.4	4.5	6.7



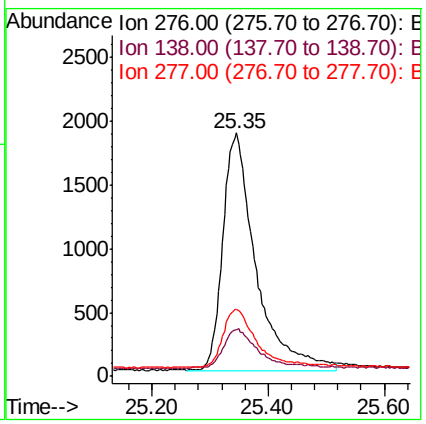


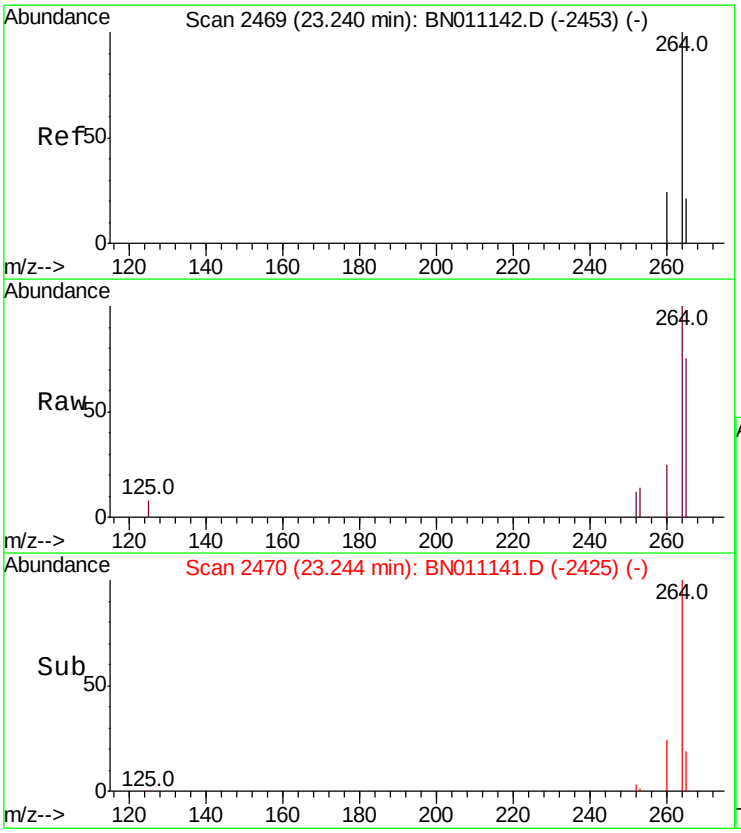
#35
Indeno(1,2,3-cd)pyrene
Concen: 0.231 ng
RT: 25.35 min Scan# 3084
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:276 Resp: 7365

Ion	Ratio	Lower	Upper
276	100		
138	17.0	13.0	19.6
277	24.0	19.7	29.5

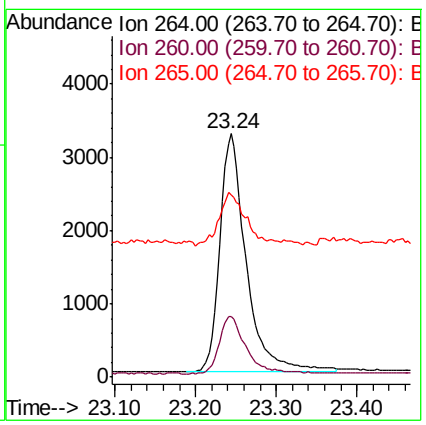


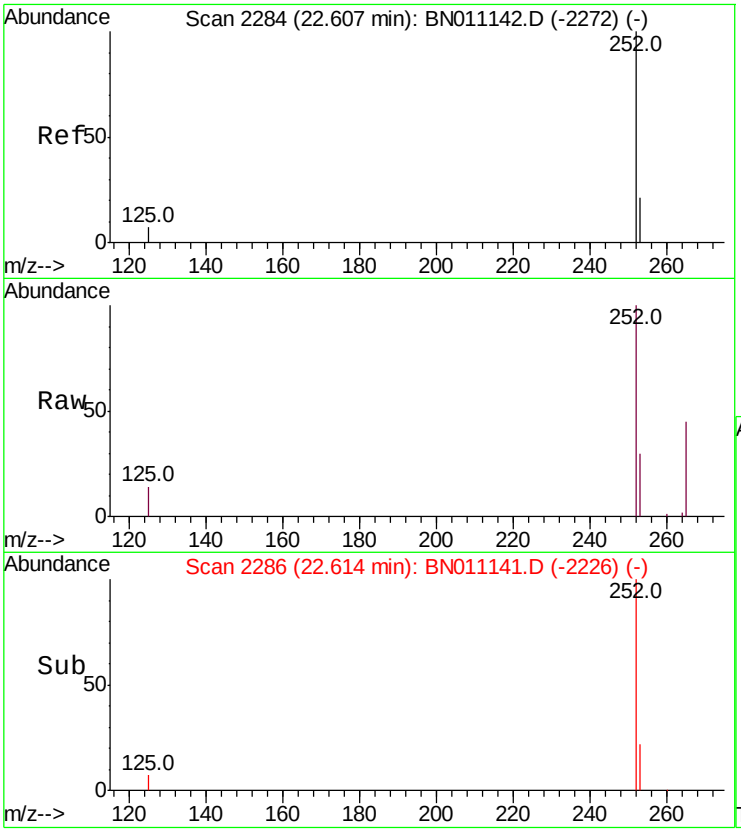


#36
Perylene-d12
Concen: 0.400 ng
RT: 23.24 min Scan# 2470
Delta R.T. 0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:264 Resp: 7385

Ion	Ratio	Lower	Upper
264	100		
260	24.8	20.1	30.1
265	74.7	76.6	115.0#



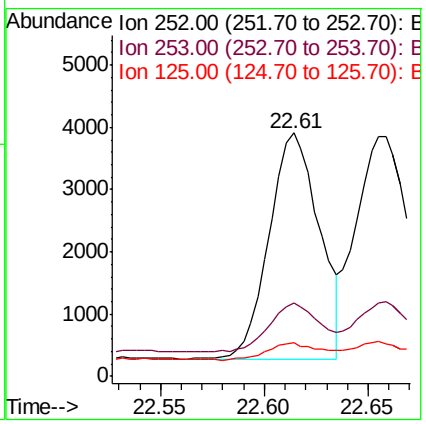


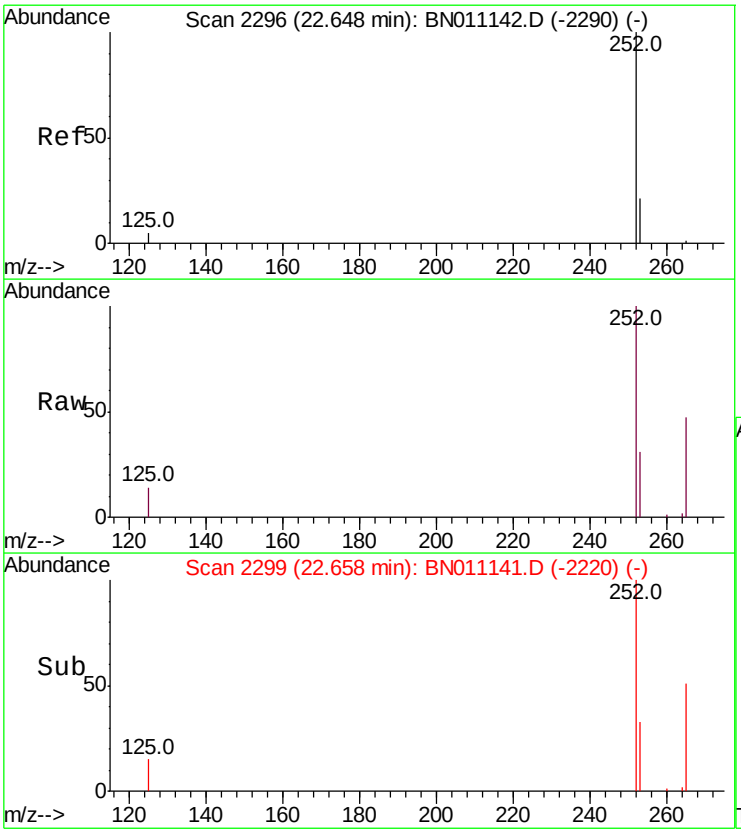
#37
Benzo(b)fluoranthene
Concen: 0.206 ng
RT: 22.61 min Scan# 2286
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:252 Resp: 6084

Ion	Ratio	Lower	Upper
252	100		
253	30.2	22.6	34.0
125	13.7	9.6	14.4

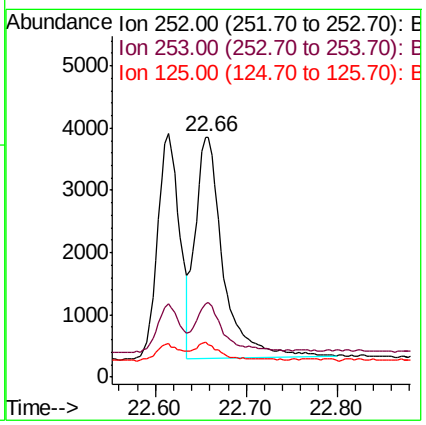


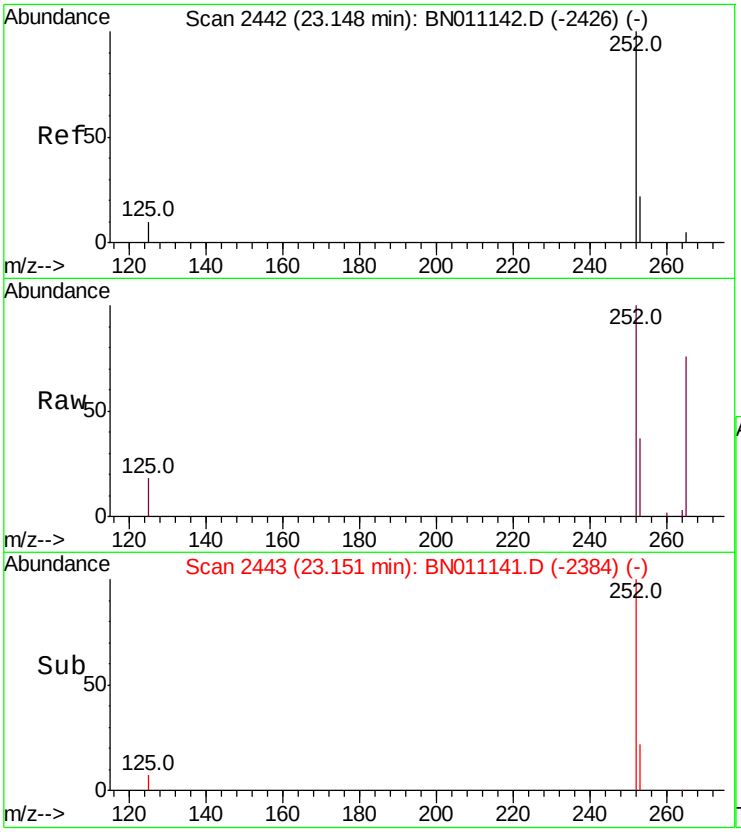


#38
Benzo(k)fluoranthene
Concen: 0.237 ng
RT: 22.66 min Scan# 2299
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:252 Resp: 7501

Ion	Ratio	Lower	Upper
252	100		
253	30.8	22.2	33.4
125	13.7	11.0	16.4



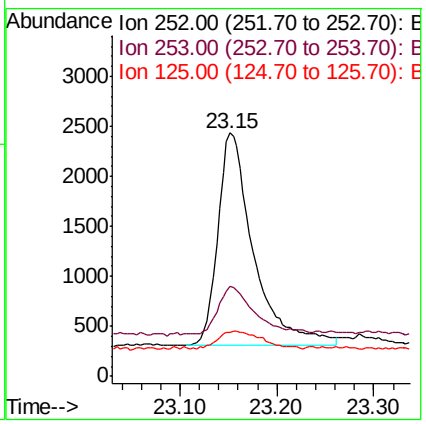


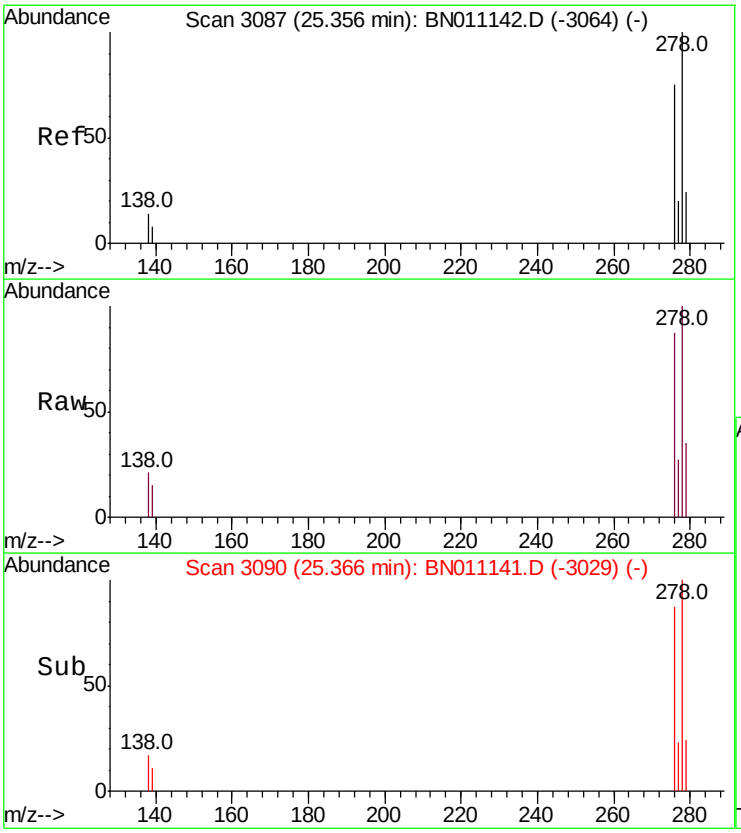
#39
Benzo(a)pyrene
Concen: 0.215 ng
RT: 23.15 min Scan# 2443
Delta R.T. 0.00 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:252 Resp: 5481

Ion	Ratio	Lower	Upper
252	100		
253	36.8	25.8	38.6
125	17.8	13.4	20.0

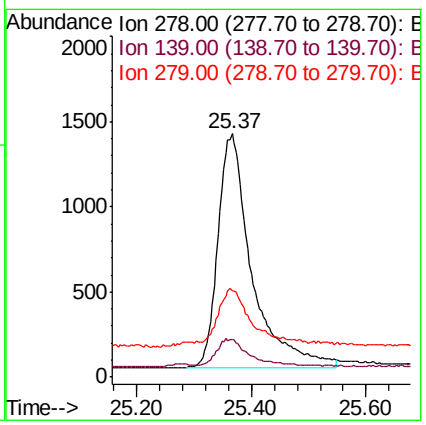


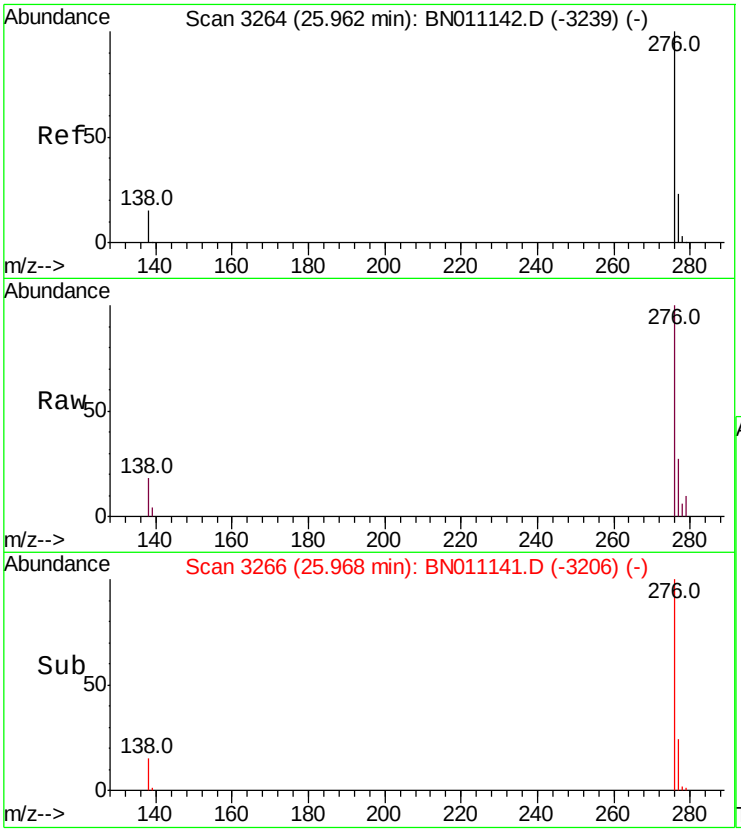


#40
Dibenzo(a,h)anthracene
Concen: 0.215 ng
RT: 25.37 min Scan# 3090
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Tgt Ion:278 Resp: 5613

Ion	Ratio	Lower	Upper
278	100		
139	15.2	11.7	17.5
279	35.4	25.0	37.6





#41
Benzo(g,h,i)perylene
Concen: 0.213 ng
RT: 25.97 min Scan# 3266
Delta R.T. 0.01 min
Lab File: BN011141.D
Acq: 10 Jul 2020 10:10

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:276 Resp: 6127

Ion	Ratio	Lower	Upper
276	100		
277	26.9	20.5	30.7
138	18.2	13.8	20.6