Quantitation Report (Not Reviewed)

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN081224\
Data File : BN033344.D
Acq On : 12 Aug 2024 10:34
Operator : MA/JU
Sample : SSTDCCC0.4
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Quant Time: Aug 12 11:16:58 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_N\Methods\8270-SIM-BN081024.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Aug 12 01:09:50 2024
Response via : Initial Calibration

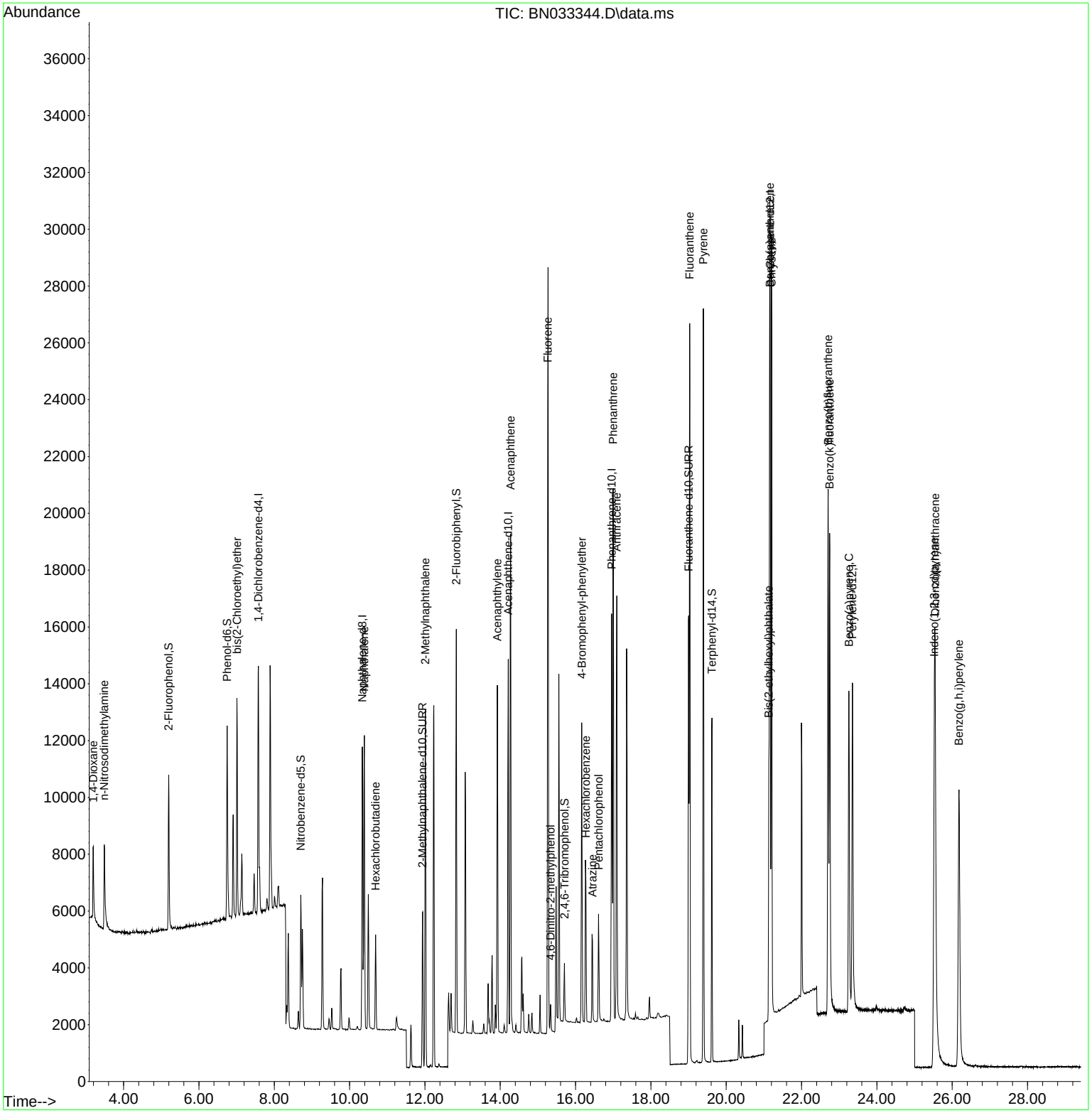
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.580	152	4255	0.400	ng	0.00
7) Naphthalene-d8	10.338	136	12204	0.400	ng	0.00
13) Acenaphthene-d10	14.212	164	7050	0.400	ng	0.00
19) Phenanthrene-d10	16.958	188	17355	0.400	ng	0.00
29) Chrysene-d12	21.166	240	14912	0.400	ng	# 0.00
35) Perylene-d12	23.352	264	15067	0.400	ng	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	5.197	112	4408	0.375	ng	0.00
5) Phenol-d6	6.749	99	5962	0.376	ng	0.00
8) Nitrobenzene-d5	8.704	82	3539	0.384	ng	0.00
11) 2-Methylnaphthalene-d10	11.936	152	7205	0.384	ng	0.00
14) 2,4,6-Tribromophenol	15.704	330	1144	0.316	ng	0.00
15) 2-Fluorobiphenyl	12.833	172	11755	0.407	ng	0.00
27) Fluoranthene-d10	19.002	212	17165	0.370	ng	0.00
31) Terphenyl-d14	19.620	244	11039	0.392	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.196	88	1782	0.377	ng	96
3) n-Nitrosodimethylamine	3.485	42	2384	0.391	ng	# 94
6) bis(2-Chloroethyl)ether	7.009	93	5005	0.389	ng	98
9) Naphthalene	10.391	128	13164	0.391	ng	100
10) Hexachlorobutadiene	10.690	225	2591	0.403	ng	# 98
12) 2-Methylnaphthalene	12.011	142	8718	0.384	ng	98
16) Acenaphthylene	13.924	152	12319	0.374	ng	100
17) Acenaphthene	14.276	154	8792	0.389	ng	99
18) Fluorene	15.260	166	11609	0.390	ng	100
20) 4,6-Dinitro-2-methylph...	15.335	198	694	0.329	ng	# 61
21) 4-Bromophenyl-phenylether	16.164	248	3870	0.372	ng	96
22) Hexachlorobenzene	16.275	284	4625	0.397	ng	99
23) Atrazine	16.449	200	2700	0.328	ng	99
24) Pentachlorophenol	16.611	266	1685	0.358	ng	98
25) Phenanthrene	16.995	178	19390	0.387	ng	100
26) Anthracene	17.095	178	16077	0.362	ng	99
28) Fluoranthene	19.030	202	23058	0.374	ng	100
30) Pyrene	19.392	202	23407	0.394	ng	100
32) Benzo(a)anthracene	21.157	228	20498	0.368	ng	100
33) Chrysene	21.201	228	22431	0.400	ng	100
34) Bis(2-ethylhexyl)phtha...	21.130	149	7722	0.305	ng	99
36) Indeno(1,2,3-cd)pyrene	25.524	276	22148	0.356	ng	99
37) Benzo(b)fluoranthene	22.706	252	22177	0.391	ng	99
38) Benzo(k)fluoranthene	22.747	252	22860	0.395	ng	98
39) Benzo(a)pyrene	23.255	252	17130	0.359	ng	97
40) Dibenzo(a,h)anthracene	25.548	278	17513	0.356	ng	99
41) Benzo(g,h,i)perylene	26.179	276	20215	0.371	ng	99

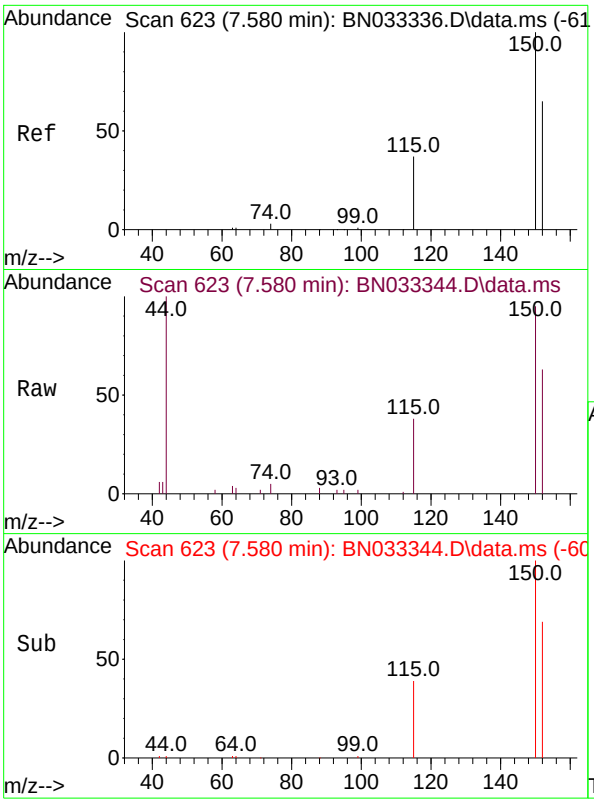
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN081224\
Data File : BN033344.D
Acq On : 12 Aug 2024 10:34
Operator : MA/JU
Sample : SSTDCCC0.4
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Quant Time: Aug 12 11:16:58 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_N\Methods\8270-SIM-BN081024.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Aug 12 01:09:50 2024
Response via : Initial Calibration



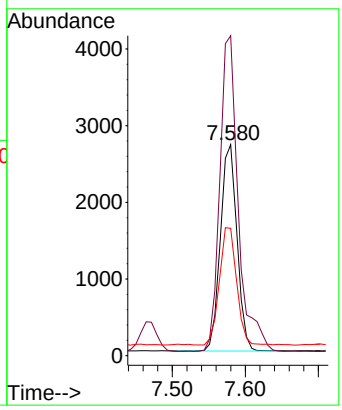


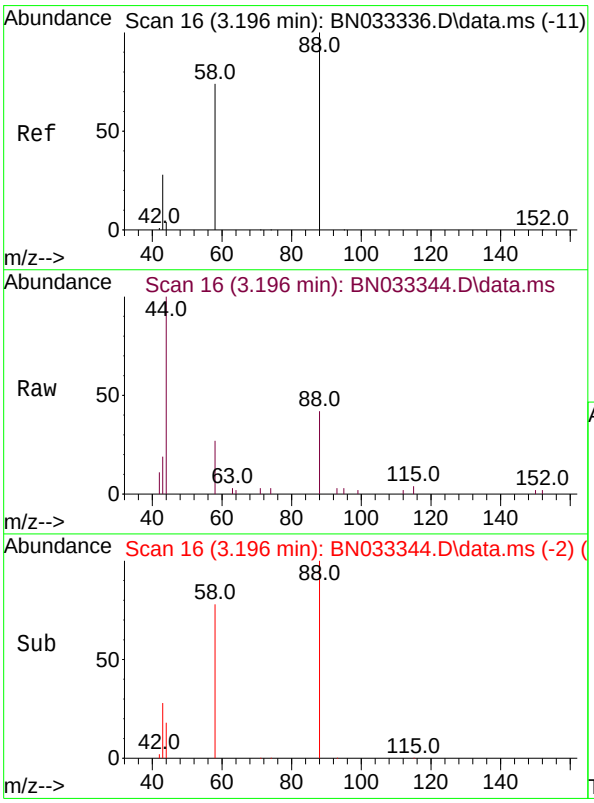
#1
1,4-Dichlorobenzene-d4
Concen: 0.400 ng
RT: 7.580 min Scan# 6
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:152 Resp: 4255

Ion	Ratio	Lower	Upper
152	100		
150	151.6	122.3	183.5
115	60.4	48.8	73.2

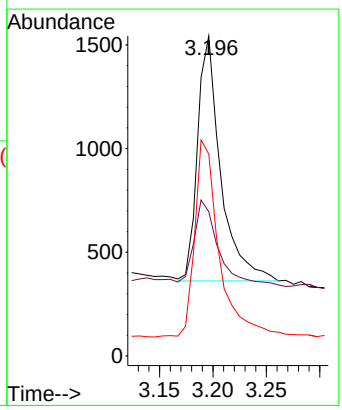


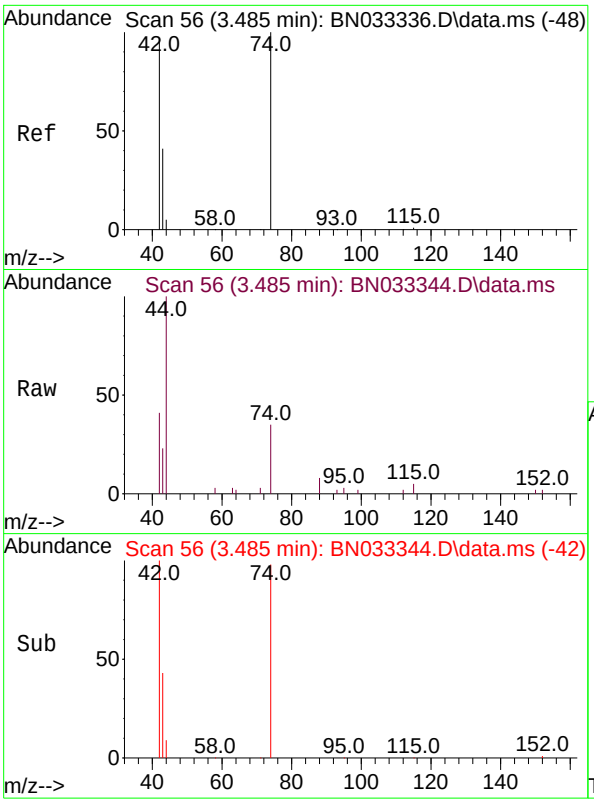


#2
1,4-Dioxane
Concen: 0.377 ng
RT: 3.196 min Scan# 16
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion: 88 Resp: 1782

Ion	Ratio	Lower	Upper
88	100		
43	37.9	30.6	46.0
58	85.1	64.5	96.7



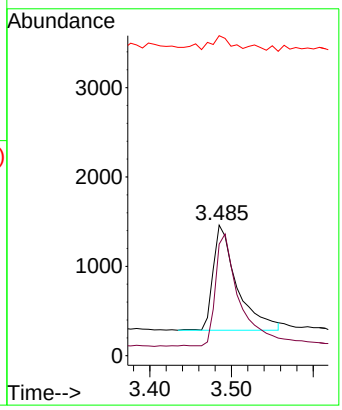


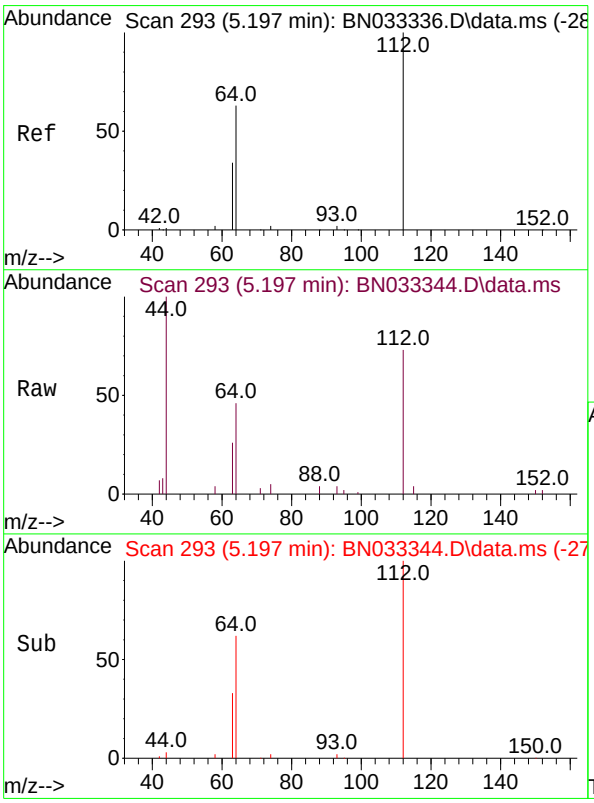
#3
n-Nitrosodimethylamine
Concen: 0.391 ng
RT: 3.485 min Scan# 5
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion: 42 Resp: 2384

Ion	Ratio	Lower	Upper
42	100		
74	105.0	89.0	133.6
44	10.5	11.0	16.4#

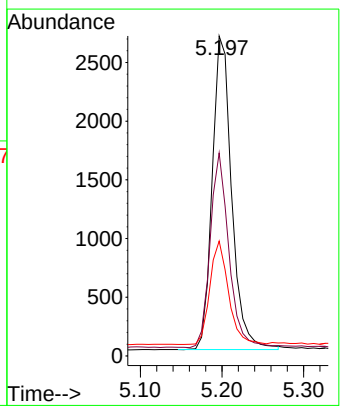


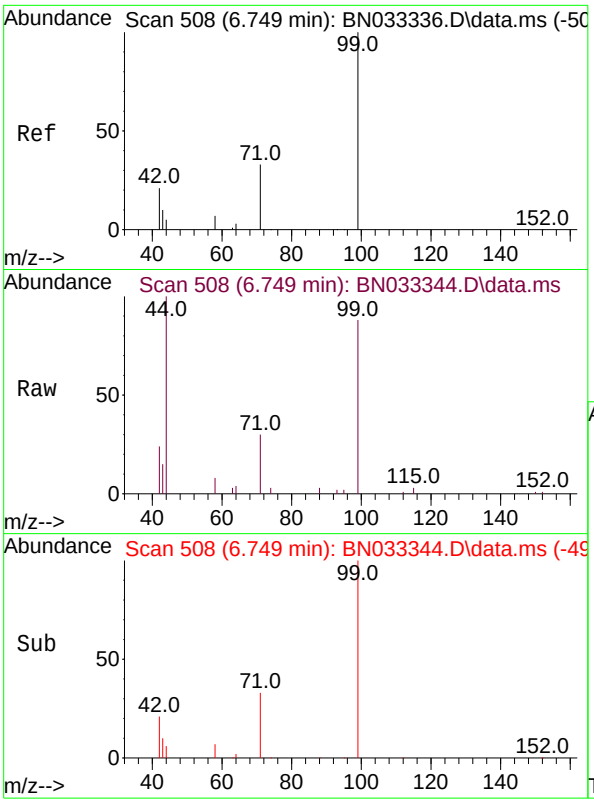


#4
2-Fluorophenol
Concen: 0.375 ng
RT: 5.197 min Scan# 293
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:112 Resp: 4408

Ion	Ratio	Lower	Upper
112	100		
64	59.4	48.1	72.1
63	31.7	25.4	38.2



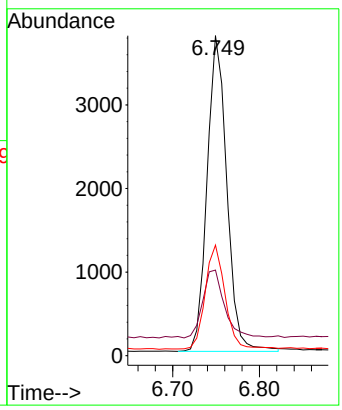


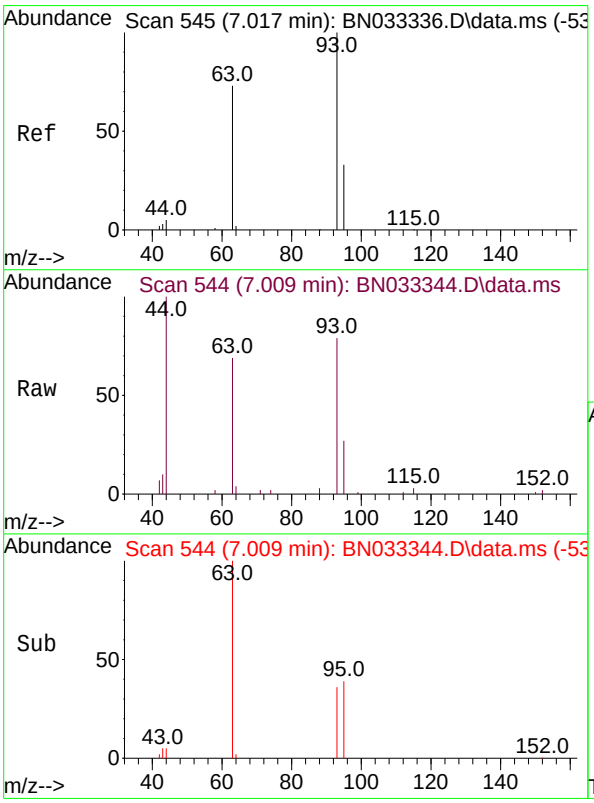
#5
Phenol-d6
Concen: 0.376 ng
RT: 6.749 min Scan# 5
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion: 99 Resp: 5962

Ion	Ratio	Lower	Upper
99	100		
42	24.0	18.5	27.7
71	33.2	26.2	39.2

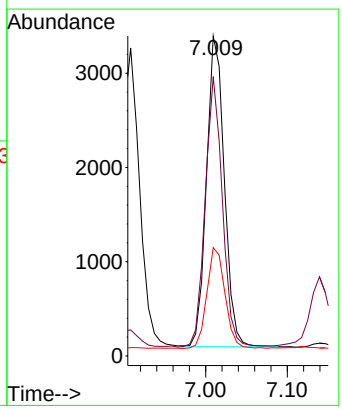


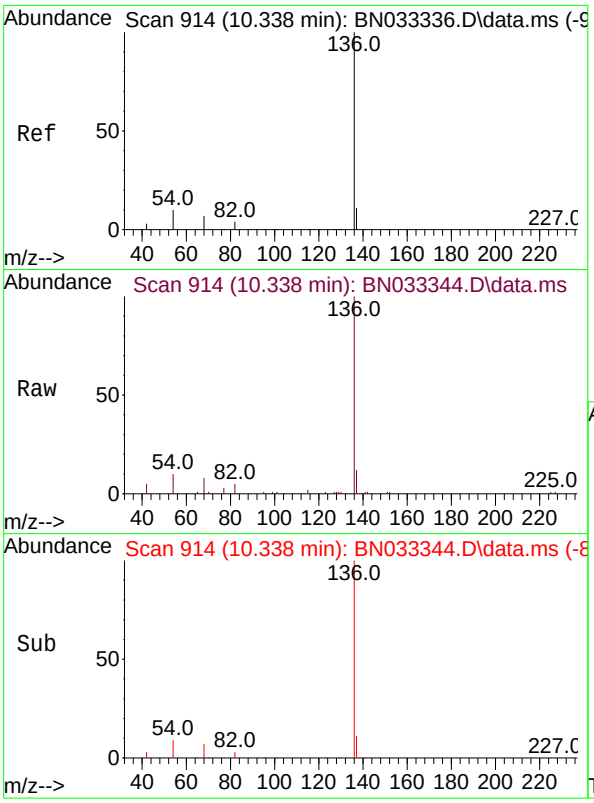


#6
bis(2-Chloroethyl)ether
Concen: 0.389 ng
RT: 7.009 min Scan# 544
Delta R.T. -0.007 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion: 93 Resp: 5005

Ion	Ratio	Lower	Upper
93	100		
63	84.3	65.2	97.8
95	33.2	26.2	39.4



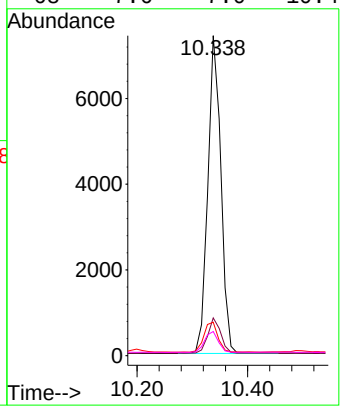


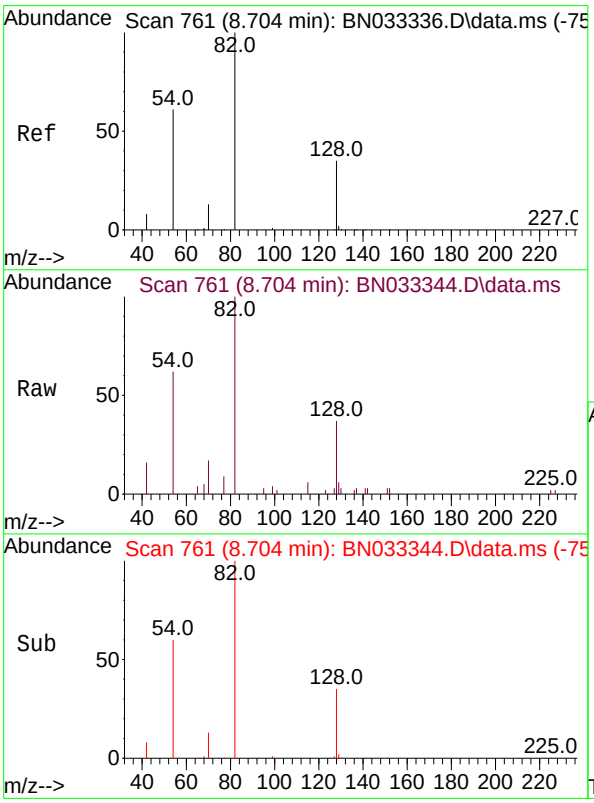
#7
Naphthalene-d8
Concen: 0.400 ng
RT: 10.338 min Scan# 91
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:136 Resp: 12204

Ion	Ratio	Lower	Upper
136	100		
137	11.8	9.1	13.7
54	10.4	9.4	14.0
68	7.6	7.0	10.4

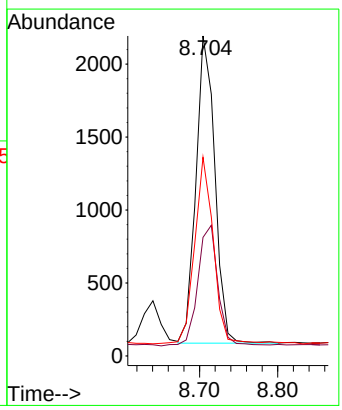


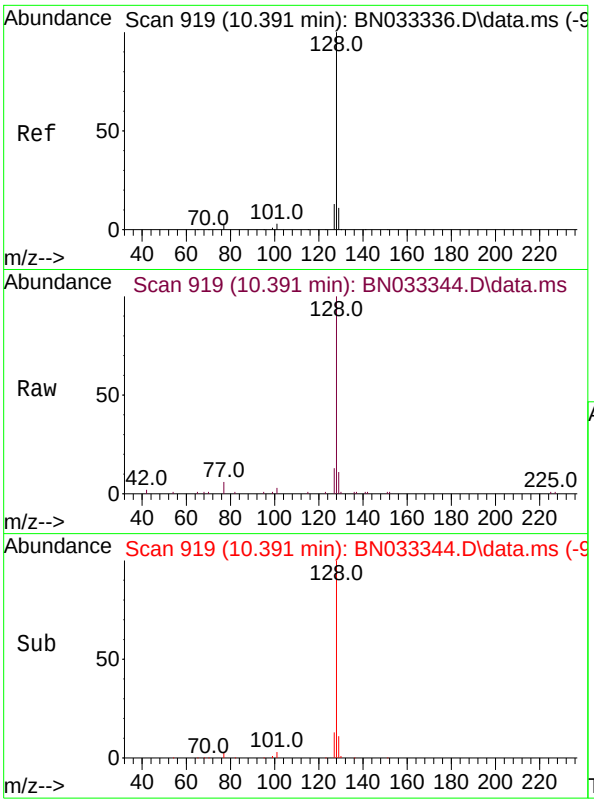


#8
Nitrobenzene-d5
Concen: 0.384 ng
RT: 8.704 min Scan# 761
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion: 82 Resp: 3539

Ion	Ratio	Lower	Upper
82	100		
128	37.0	29.0	43.4
54	62.1	50.2	75.4



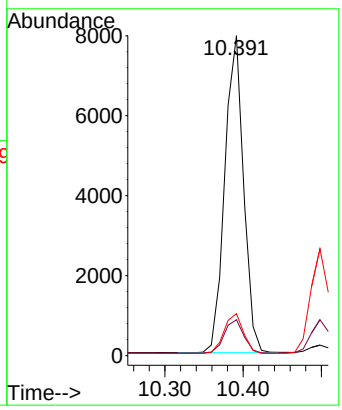


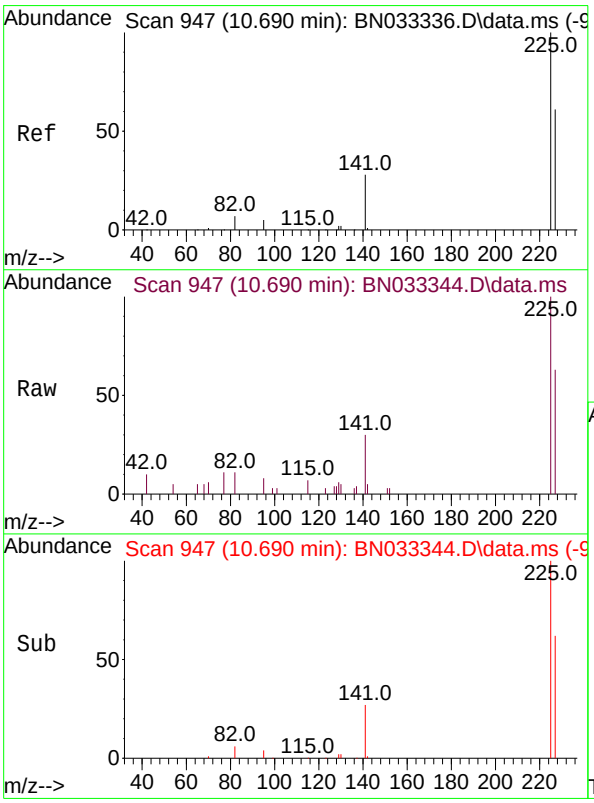
#9
Naphthalene
Concen: 0.391 ng
RT: 10.391 min Scan# 91
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:128 Resp: 13164

Ion	Ratio	Lower	Upper
128	100		
129	11.3	9.2	13.8
127	13.2	10.6	15.8

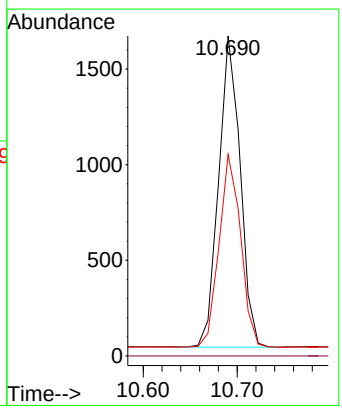


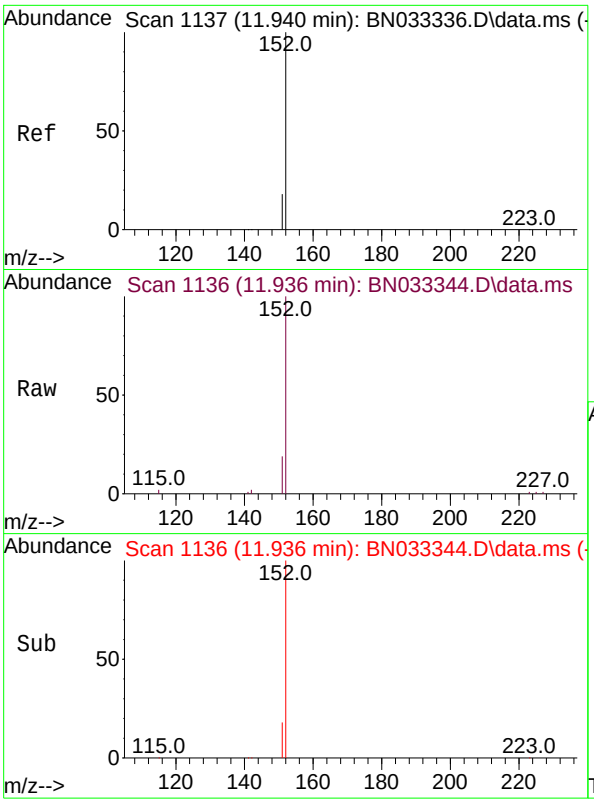


#10
Hexachlorobutadiene
Concen: 0.403 ng
RT: 10.690 min Scan# 947
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:225 Resp: 2591

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	62.1	50.8	76.2



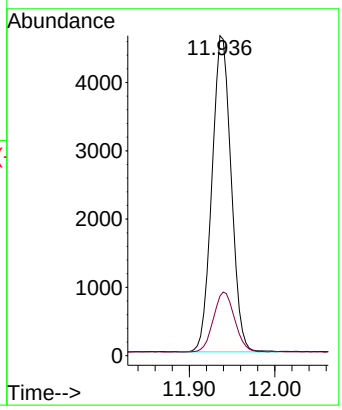


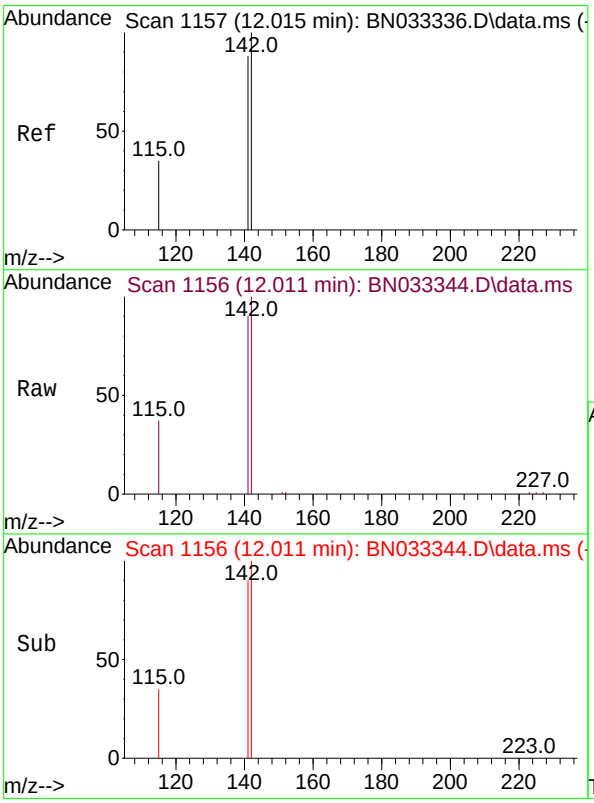
#11
2-Methylnaphthalene-d10
Concen: 0.384 ng
RT: 11.936 min Scan# 11
Delta R.T. -0.004 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:152 Resp: 7205

Ion	Ratio	Lower	Upper
152	100		
151	21.0	16.7	25.1

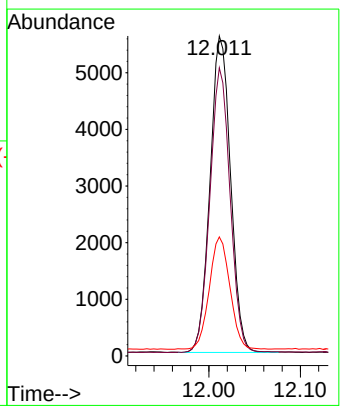


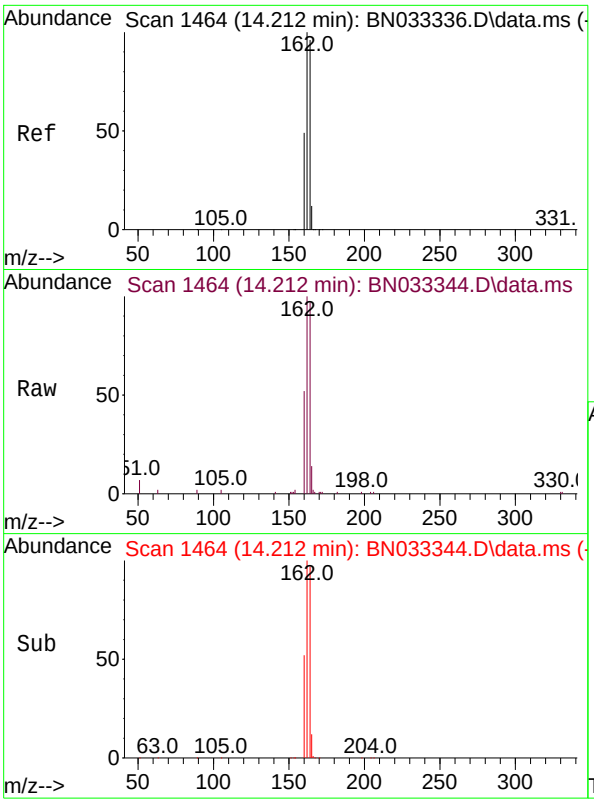


#12
2-Methylnaphthalene
Concen: 0.384 ng
RT: 12.011 min Scan# 1156
Delta R.T. -0.004 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:142 Resp: 8718

Ion	Ratio	Lower	Upper
142	100		
141	90.1	70.2	105.4
115	37.2	29.3	43.9



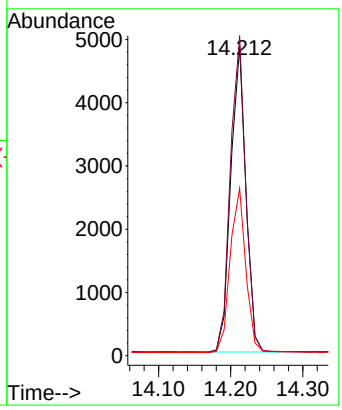


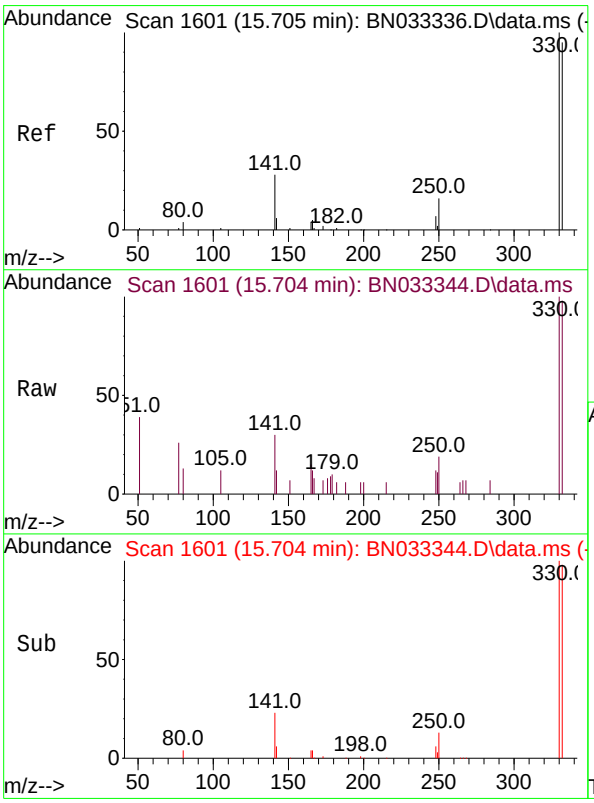
#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.212 min Scan# 14
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:164 Resp: 7050

Ion	Ratio	Lower	Upper
164	100		
162	103.5	83.1	124.7
160	54.1	41.1	61.7

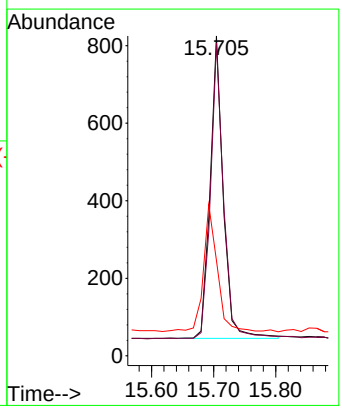


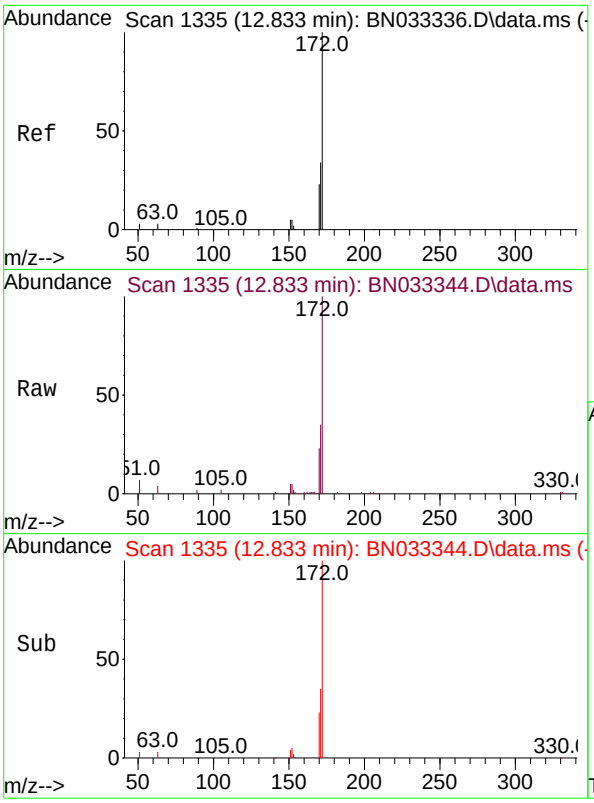


#14
2,4,6-Tribromophenol
Concen: 0.316 ng
RT: 15.704 min Scan# 1601
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:330 Resp: 1144

Ion	Ratio	Lower	Upper
330	100		
332	97.0	77.1	115.7
141	43.0	33.4	50.0



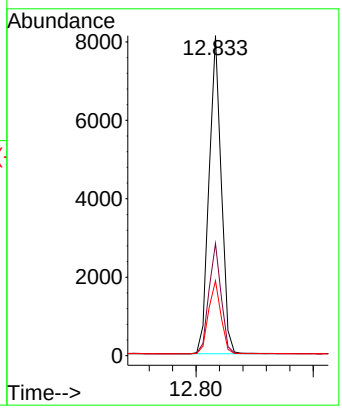


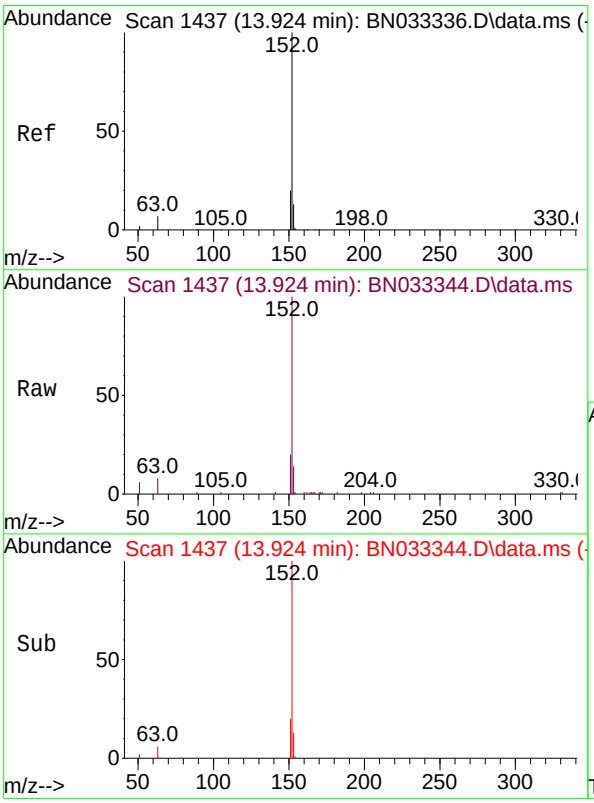
#15
2-Fluorobiphenyl
Concen: 0.407 ng
RT: 12.833 min Scan# 1
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:172 Resp: 11755

Ion	Ratio	Lower	Upper
172	100		
171	35.1	27.8	41.8
170	23.4	18.7	28.1

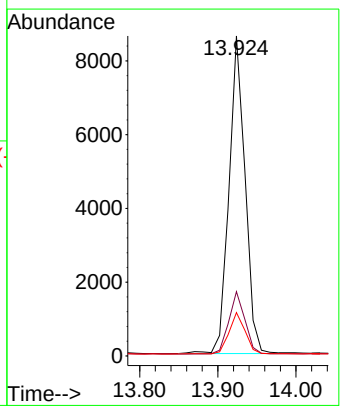


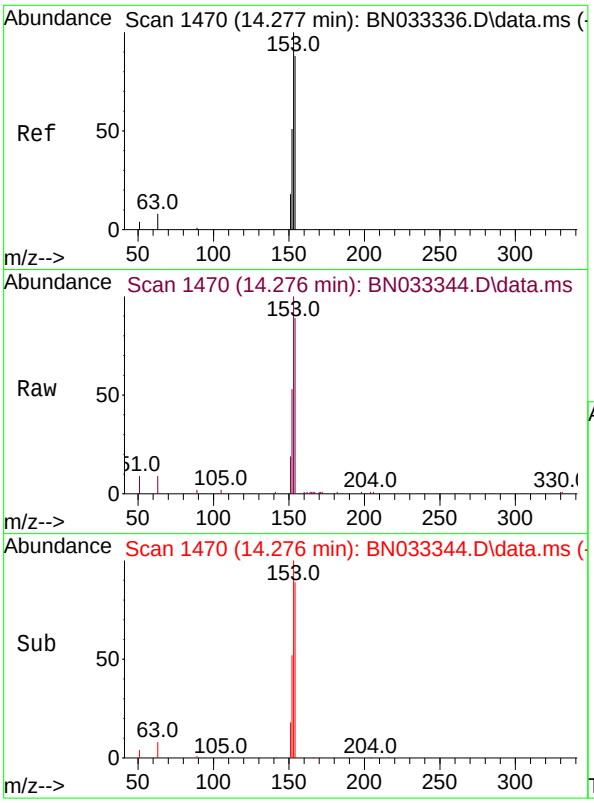


#16
Acenaphthylene
Concen: 0.374 ng
RT: 13.924 min Scan# 1437
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:152 Resp: 12319

Ion	Ratio	Lower	Upper
152	100		
151	19.6	15.7	23.5
153	12.9	10.4	15.6



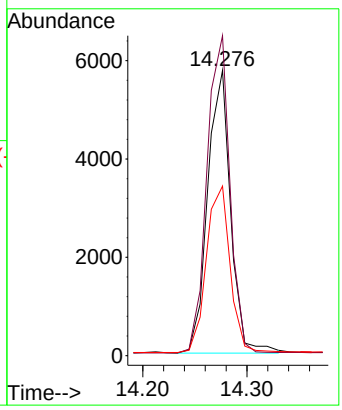


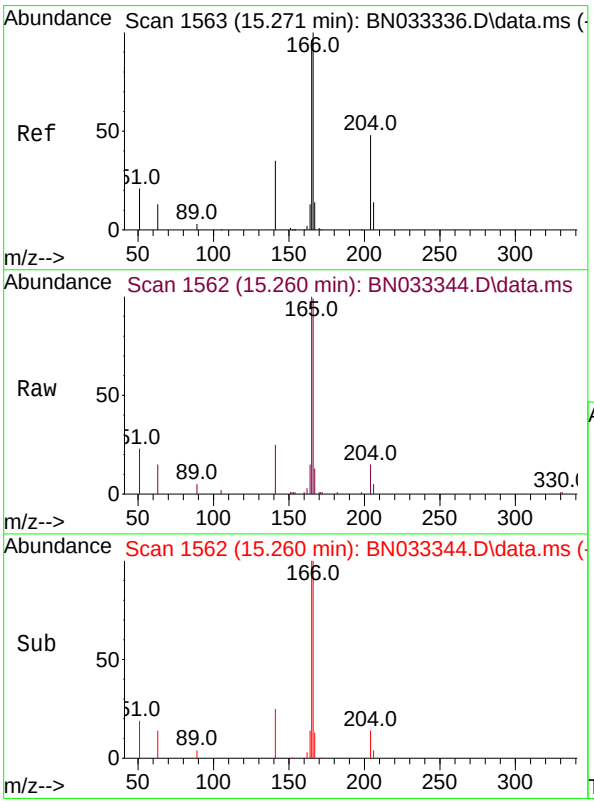
#17
Acenaphthene
Concen: 0.389 ng
RT: 14.276 min Scan# 14
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:154 Resp: 8792

Ion	Ratio	Lower	Upper
154	100		
153	112.1	89.7	134.5
152	60.8	47.2	70.8

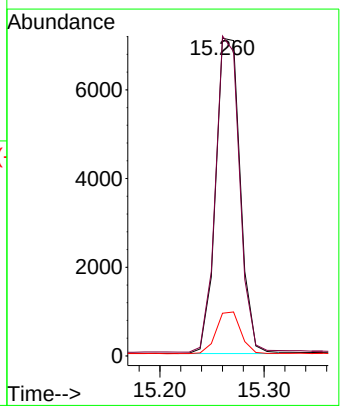


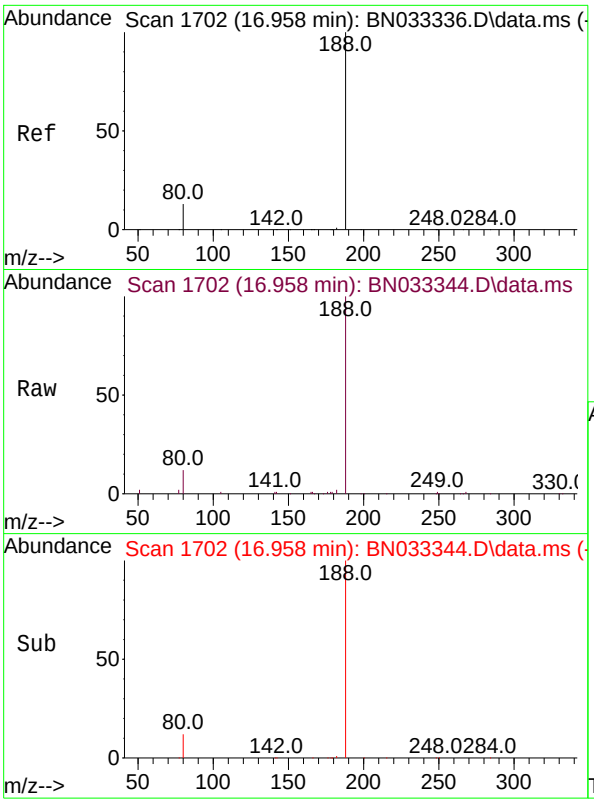


#18
Fluorene
Concen: 0.390 ng
RT: 15.260 min Scan# 1562
Delta R.T. -0.011 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:166 Resp: 11609

Ion	Ratio	Lower	Upper
166	100		
165	98.0	78.0	117.0
167	13.4	10.7	16.1



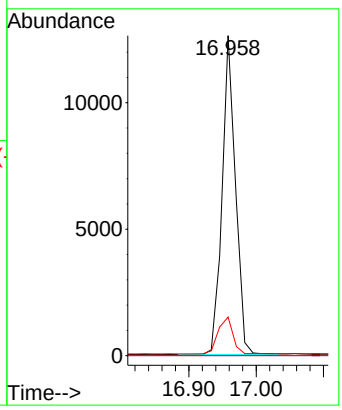


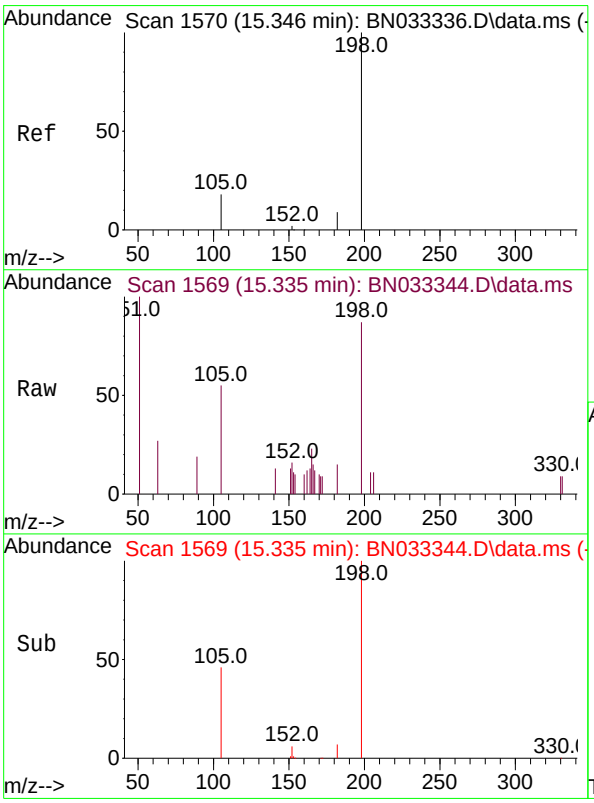
#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 16.958 min Scan# 1
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:188 Resp: 17355

Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	12.1	10.7	16.1

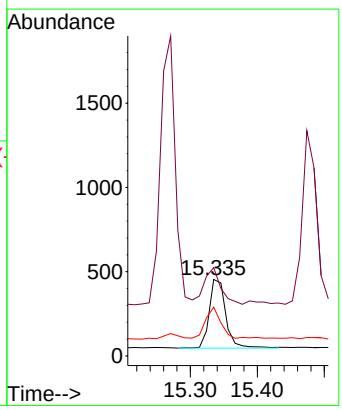


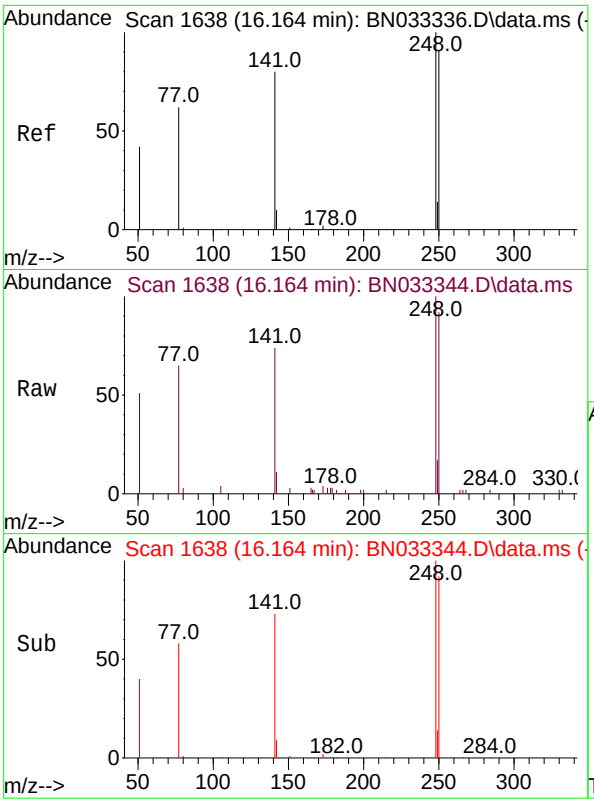


#20
4,6-Dinitro-2-methylphenol
Concen: 0.329 ng
RT: 15.335 min Scan# 1569
Delta R.T. -0.011 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:198 Resp: 694

Ion	Ratio	Lower	Upper
198	100		
51	115.4	62.8	94.2#
105	63.9	34.1	51.1#



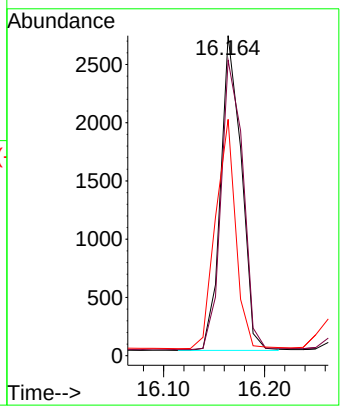


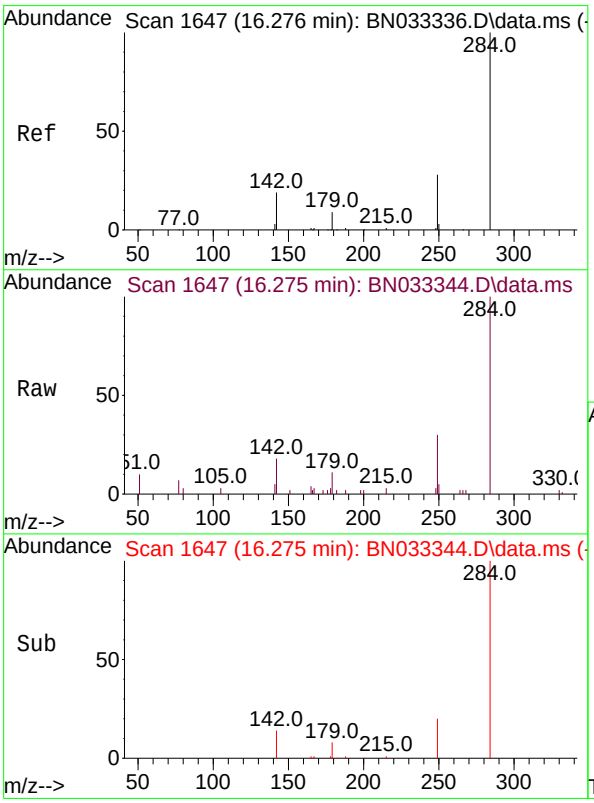
#21
4-Bromophenyl-phenylether
Concen: 0.372 ng
RT: 16.164 min Scan# 1
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:248 Resp: 3870

Ion	Ratio	Lower	Upper
248	100		
250	92.3	73.0	109.4
141	73.9	64.6	96.8

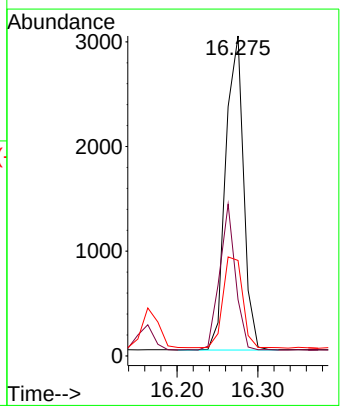


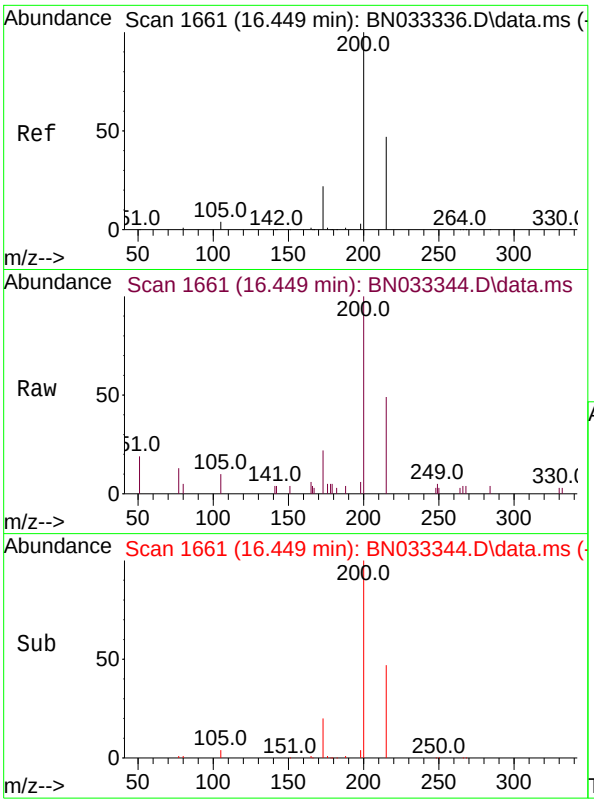


#22
Hexachlorobenzene
Concen: 0.397 ng
RT: 16.275 min Scan# 1647
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:284 Resp: 4625

Ion	Ratio	Lower	Upper
284	100		
142	41.3	32.2	48.4
249	31.4	25.3	37.9



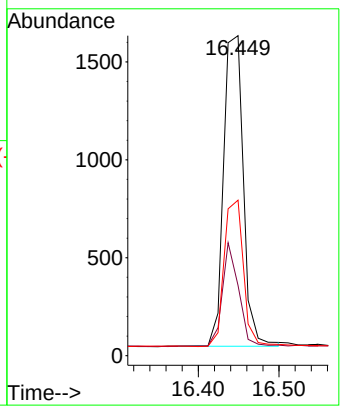


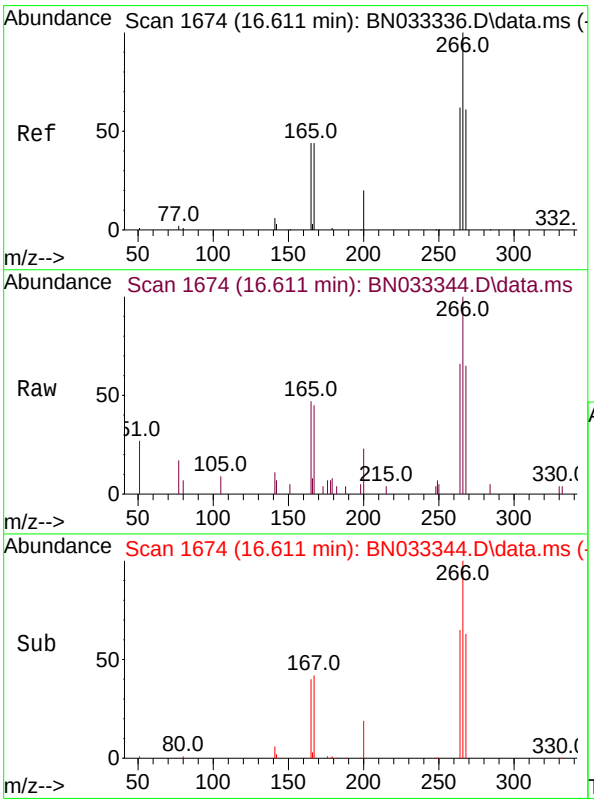
#23
Atrazine
Concen: 0.328 ng
RT: 16.449 min Scan# 1
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:200 Resp: 2700

Ion	Ratio	Lower	Upper
200	100		
173	22.0	18.7	28.1
215	48.6	38.6	58.0

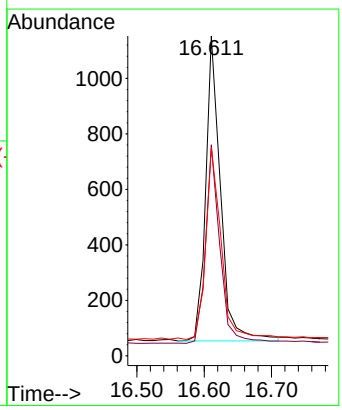


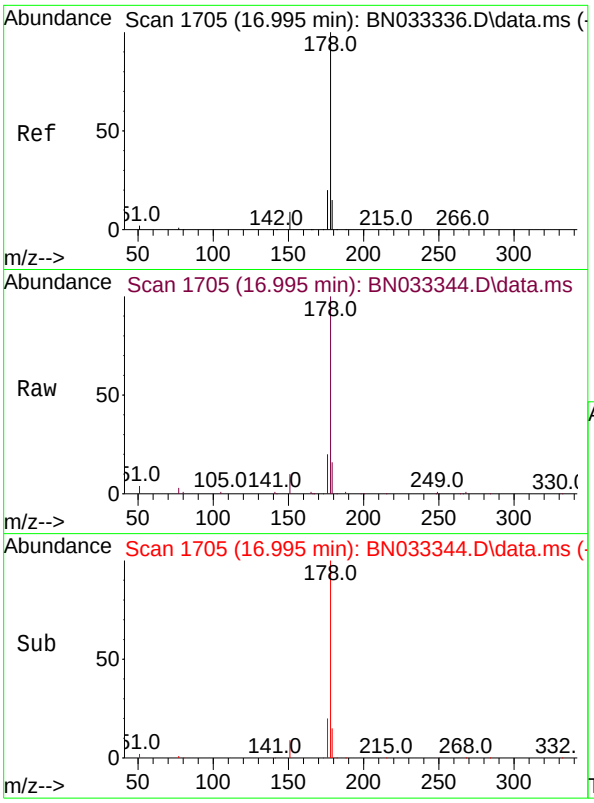


#24
Pentachlorophenol
Concen: 0.358 ng
RT: 16.611 min Scan# 1674
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:266 Resp: 1685

Ion	Ratio	Lower	Upper
266	100		
264	62.9	49.2	73.8
268	65.3	51.2	76.8



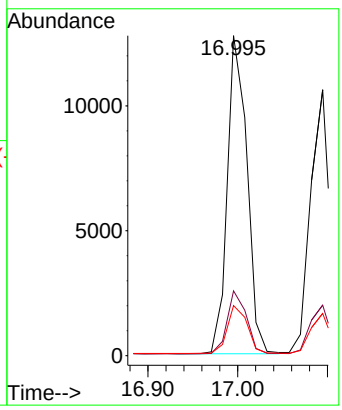


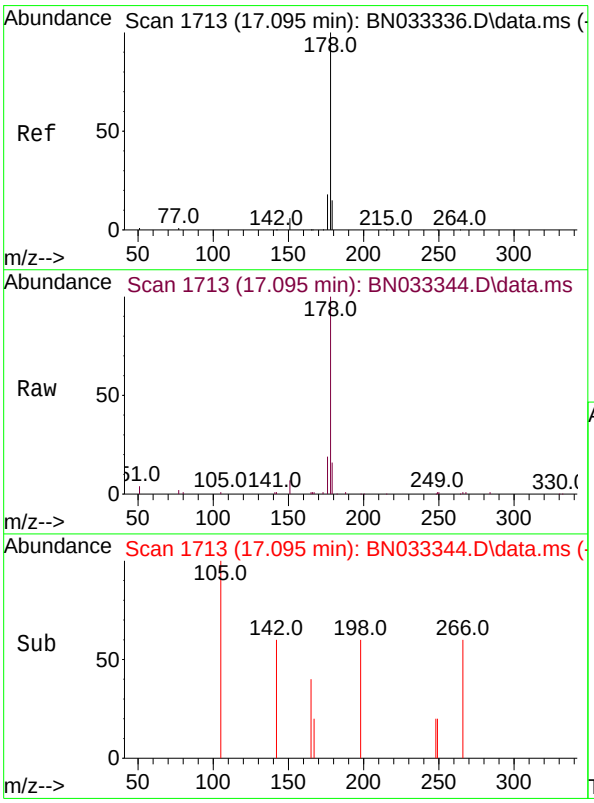
#25
Phenanthrene
Concen: 0.387 ng
RT: 16.995 min Scan# 1
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:178 Resp: 19390

Ion	Ratio	Lower	Upper
178	100		
176	19.4	15.4	23.0
179	15.2	12.2	18.2

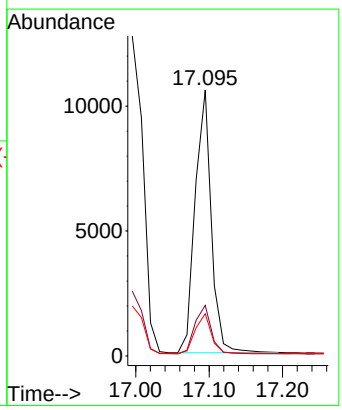


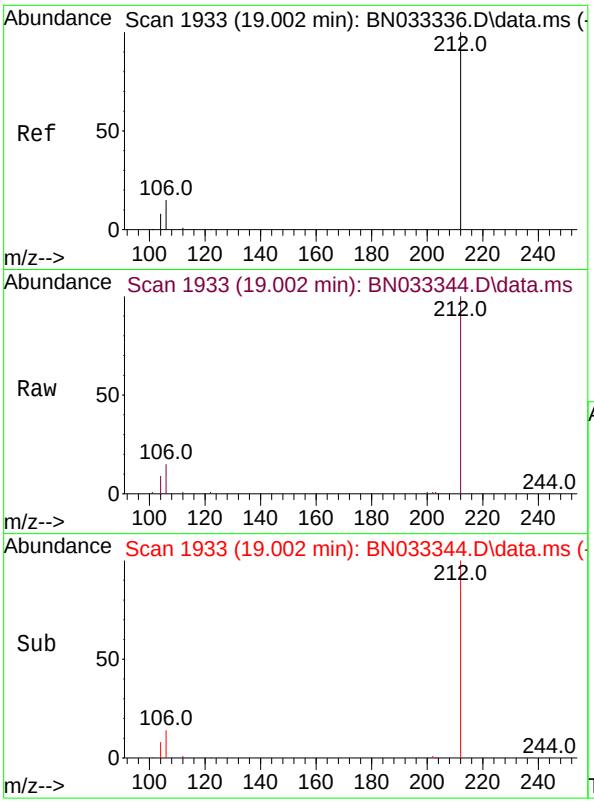


#26
Anthracene
Concen: 0.362 ng
RT: 17.095 min Scan# 1713
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:178 Resp: 16077

Ion	Ratio	Lower	Upper
178	100		
176	18.9	14.7	22.1
179	15.3	12.2	18.2



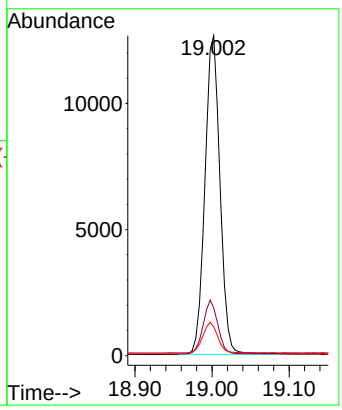


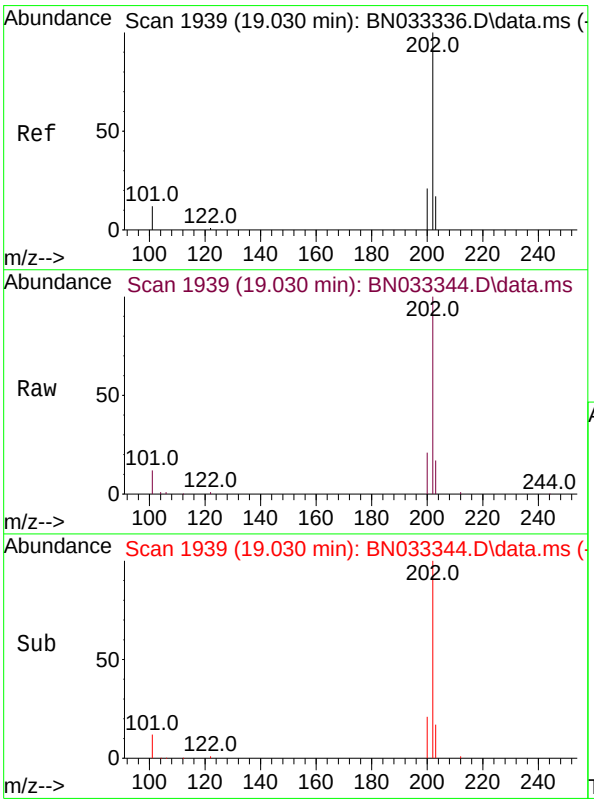
#27
Fluoranthene-d10
Concen: 0.370 ng
RT: 19.002 min Scan# 1
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:212 Resp: 17165

Ion	Ratio	Lower	Upper
212	100		
106	16.3	12.8	19.2
104	9.4	7.1	10.7

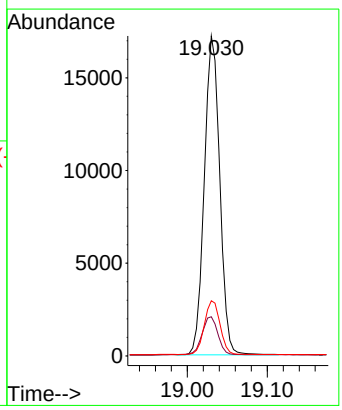


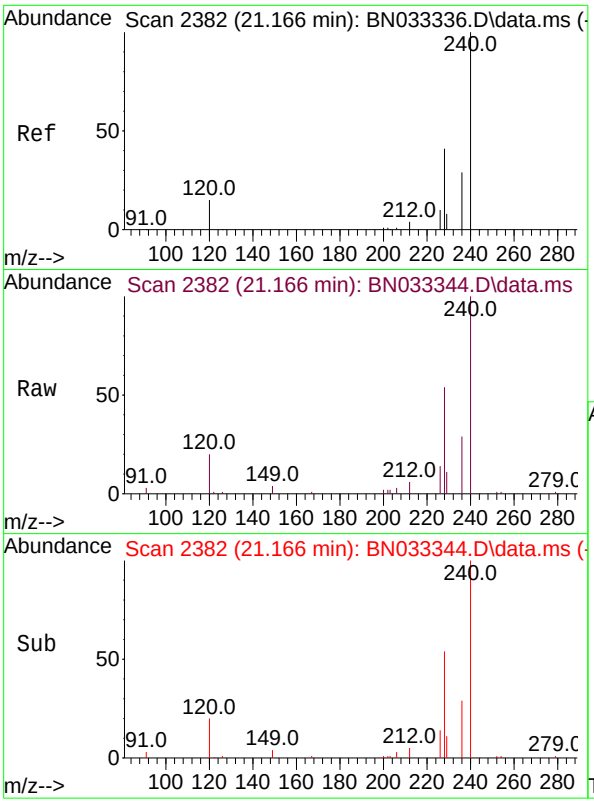


#28
Fluoranthene
Concen: 0.374 ng
RT: 19.030 min Scan# 1939
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:202 Resp: 23058

Ion	Ratio	Lower	Upper
202	100		
101	12.4	9.8	14.6
203	17.2	13.8	20.6



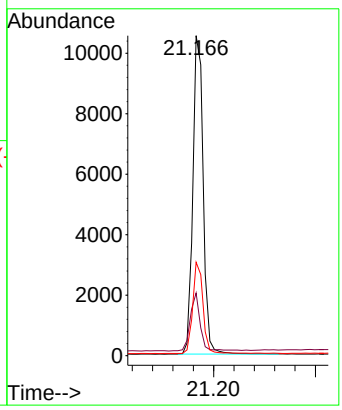


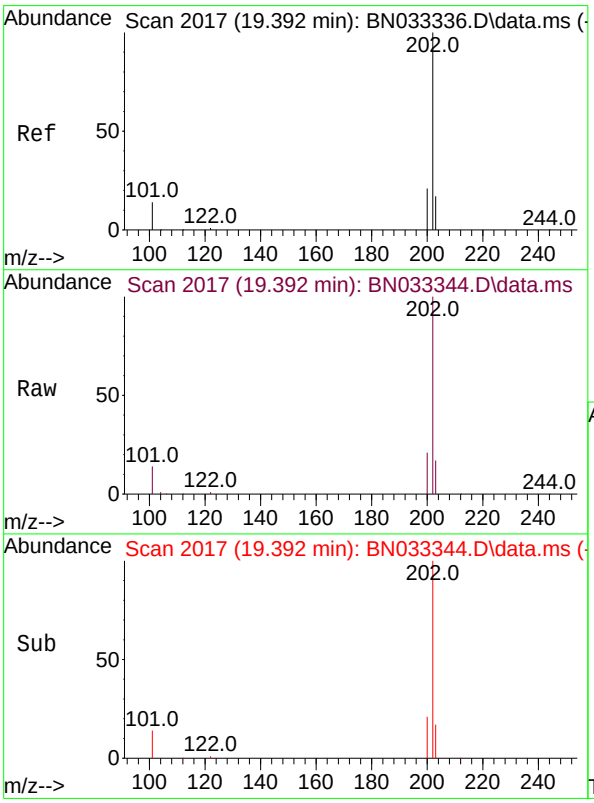
#29
Chrysene-d12
Concen: 0.400 ng
RT: 21.166 min Scan# 2
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:240 Resp: 14912

Ion	Ratio	Lower	Upper
240	100		
120	19.6	13.0	19.6#
236	29.2	23.2	34.8

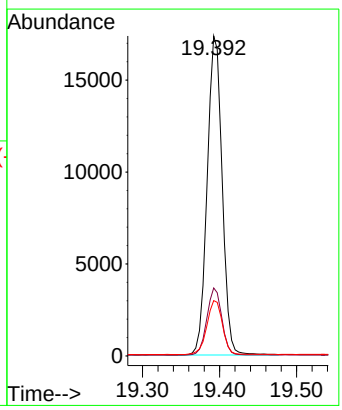


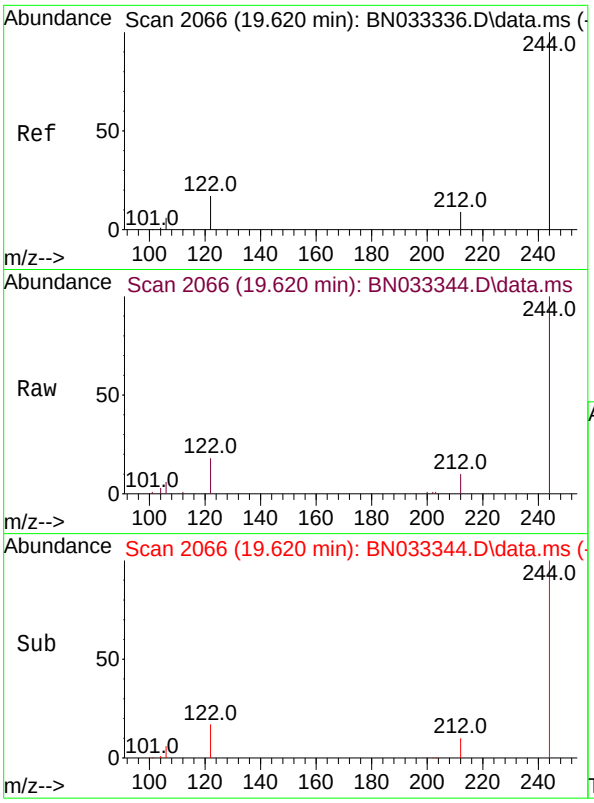


#30
Pyrene
Concen: 0.394 ng
RT: 19.392 min Scan# 2017
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:202 Resp: 23407

Ion	Ratio	Lower	Upper
202	100		
200	20.9	16.7	25.1
203	17.7	14.2	21.4



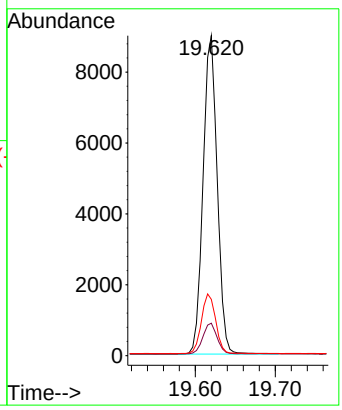


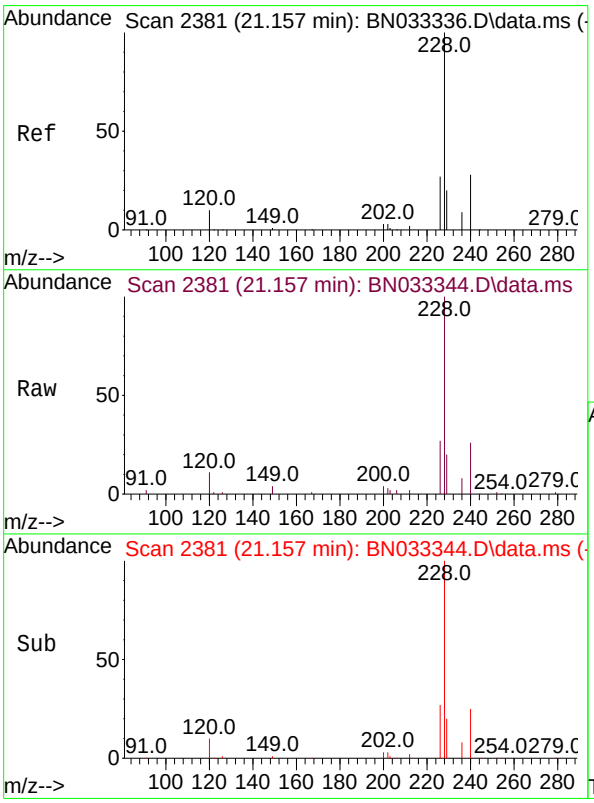
#31
Terphenyl-d14
Concen: 0.392 ng
RT: 19.620 min Scan# 2
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:244 Resp: 11039

Ion	Ratio	Lower	Upper
244	100		
212	10.1	7.7	11.5
122	17.6	14.0	21.0

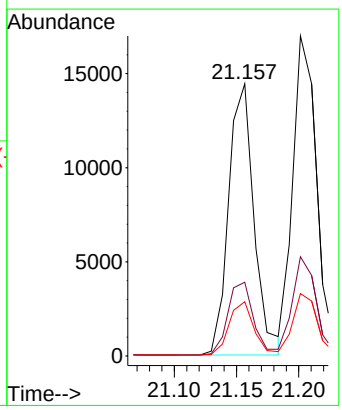


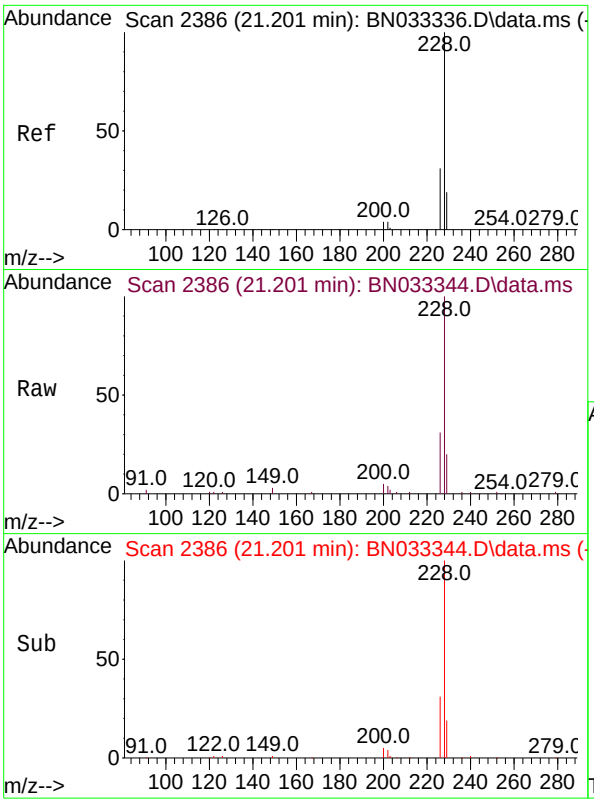


#32
Benzo(a)anthracene
Concen: 0.368 ng
RT: 21.157 min Scan# 2381
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:228 Resp: 20498

Ion	Ratio	Lower	Upper
228	100		
226	27.1	21.6	32.4
229	19.9	15.9	23.9



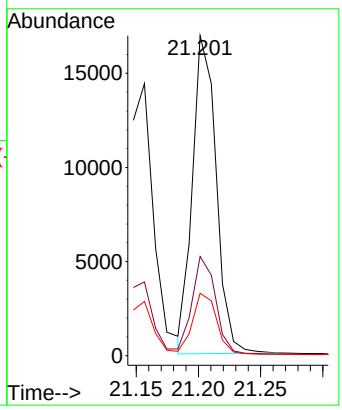


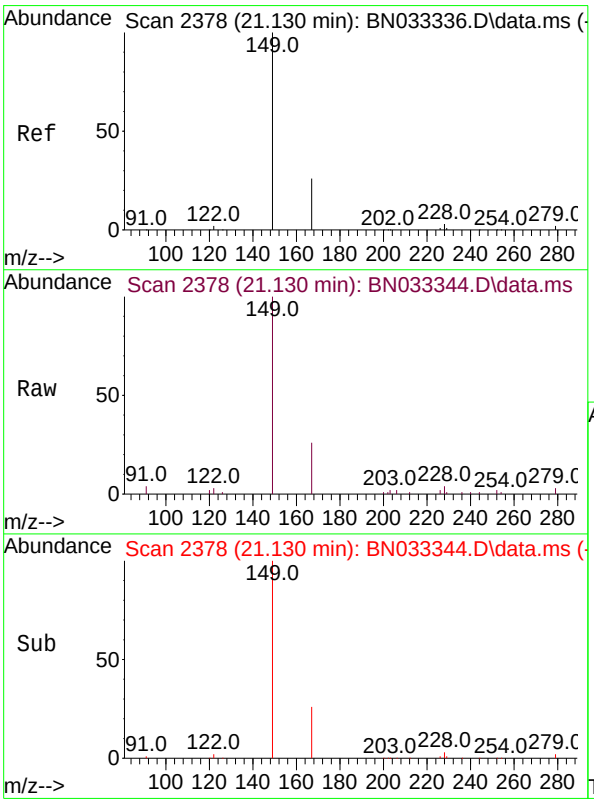
#33
Chrysene
Concen: 0.400 ng
RT: 21.201 min Scan# 2
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:228 Resp: 22431

Ion	Ratio	Lower	Upper
228	100		
226	31.0	24.7	37.1
229	19.5	15.4	23.2

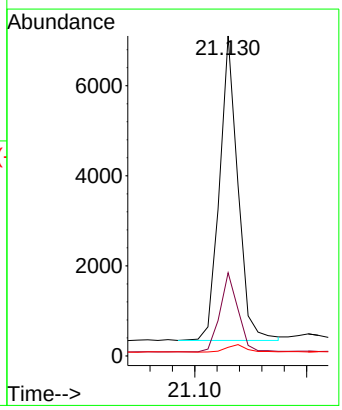


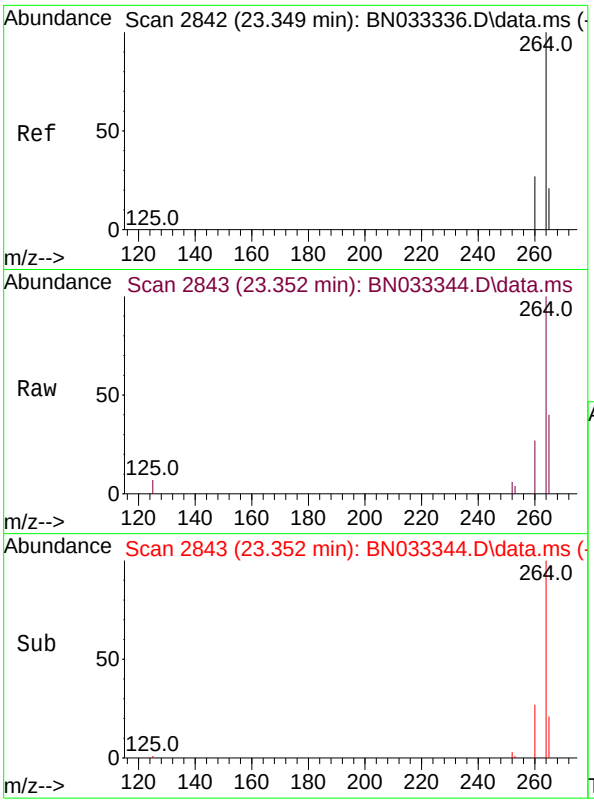


#34
Bis(2-ethylhexyl)phthalate
Concen: 0.305 ng
RT: 21.130 min Scan# 2378
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:149 Resp: 7722

Ion	Ratio	Lower	Upper
149	100		
167	25.8	20.9	31.3
279	2.7	2.2	3.4



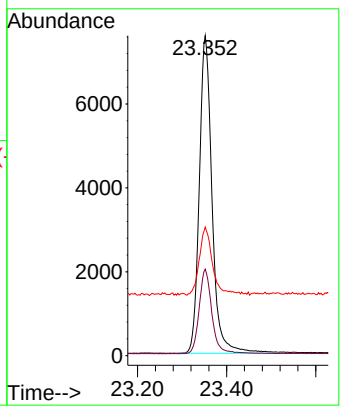


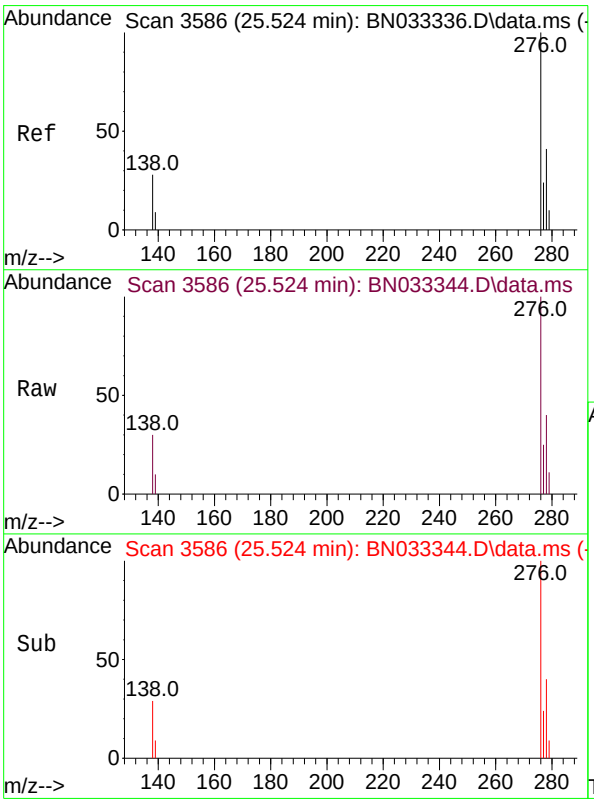
#35
Perylene-d12
Concen: 0.400 ng
RT: 23.352 min Scan# 2
Delta R.T. 0.003 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:264 Resp: 15067

Ion	Ratio	Lower	Upper
264	100		
260	27.1	21.6	32.4
265	40.2	29.3	43.9

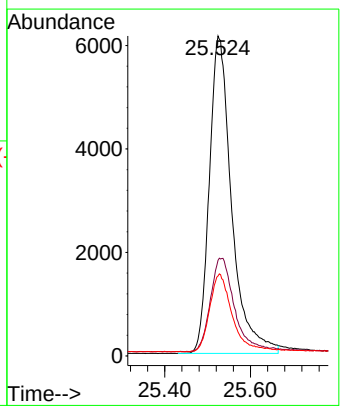


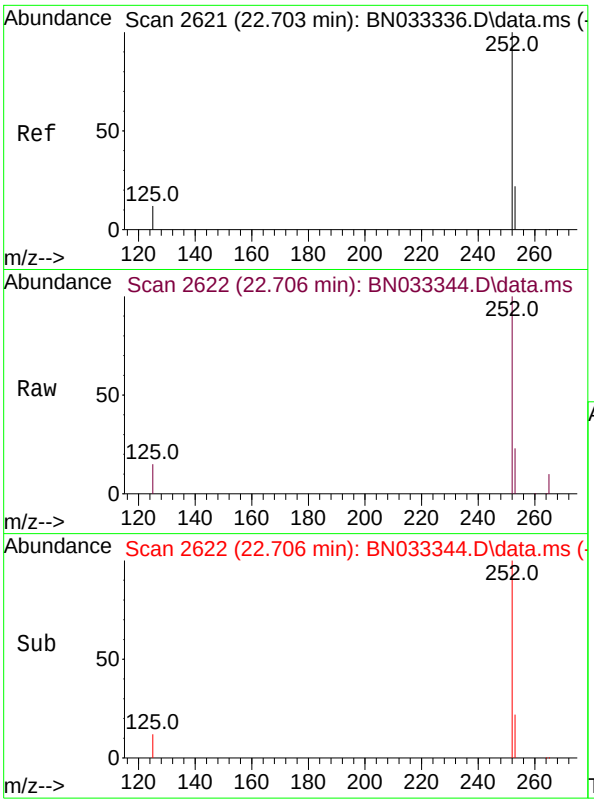


#36
Indeno(1,2,3-cd)pyrene
Concen: 0.356 ng
RT: 25.524 min Scan# 3586
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:276 Resp: 22148

Ion	Ratio	Lower	Upper
276	100		
138	31.5	24.9	37.3
277	24.4	19.8	29.6



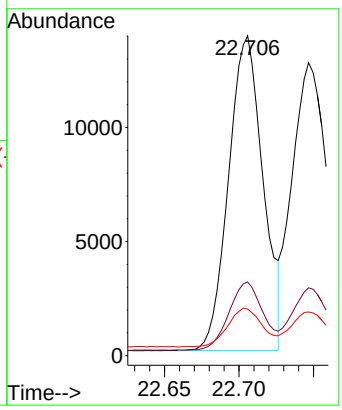


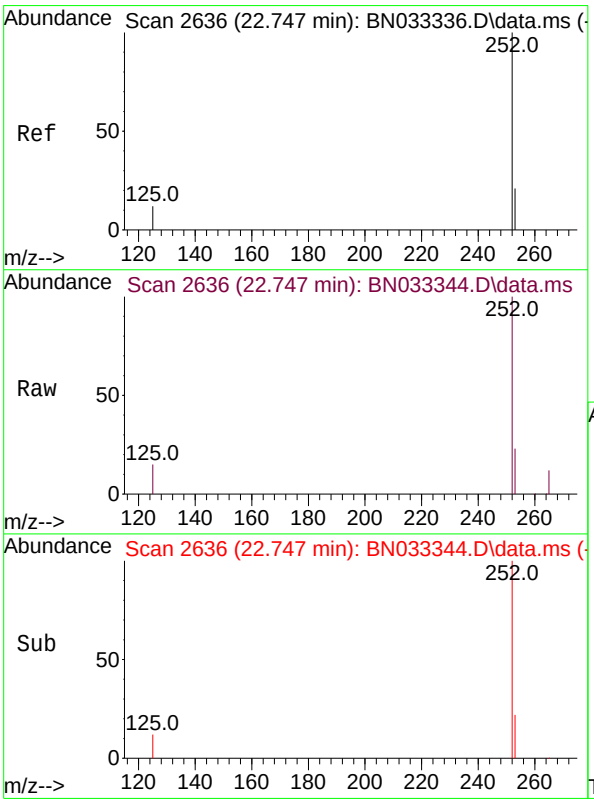
#37
Benzo(b)fluoranthene
Concen: 0.391 ng
RT: 22.706 min Scan# 2
Delta R.T. 0.003 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:252 Resp: 22177

Ion	Ratio	Lower	Upper
252	100		
253	23.0	18.2	27.2
125	14.6	11.3	16.9

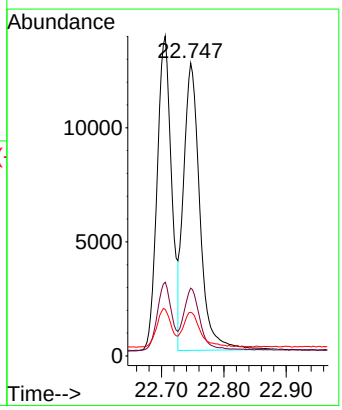


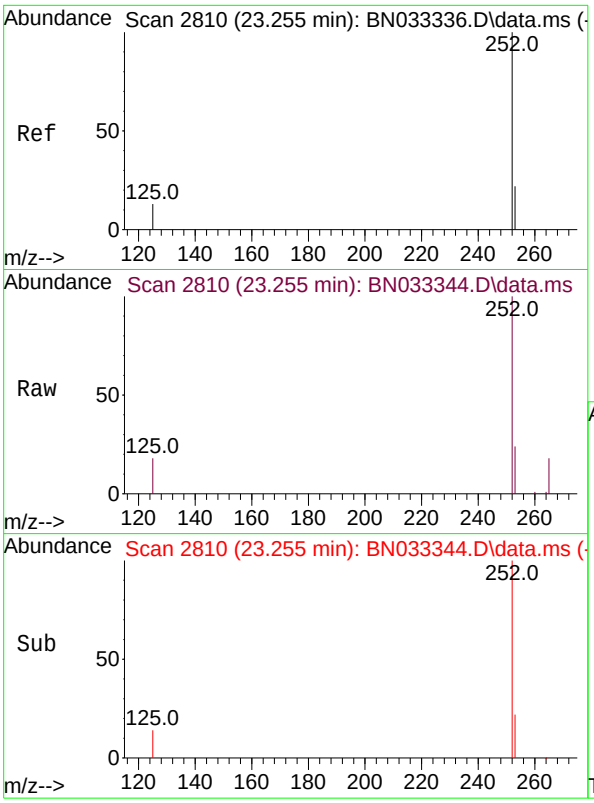


#38
Benzo(k)fluoranthene
Concen: 0.395 ng
RT: 22.747 min Scan# 2636
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:252 Resp: 22860

Ion	Ratio	Lower	Upper
252	100		
253	23.2	17.9	26.9
125	14.9	11.3	16.9



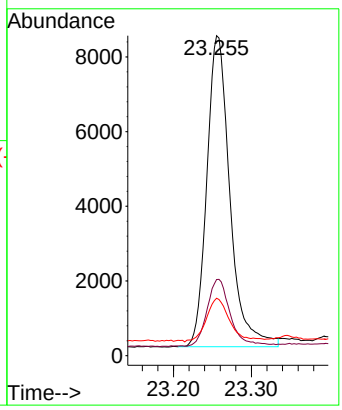


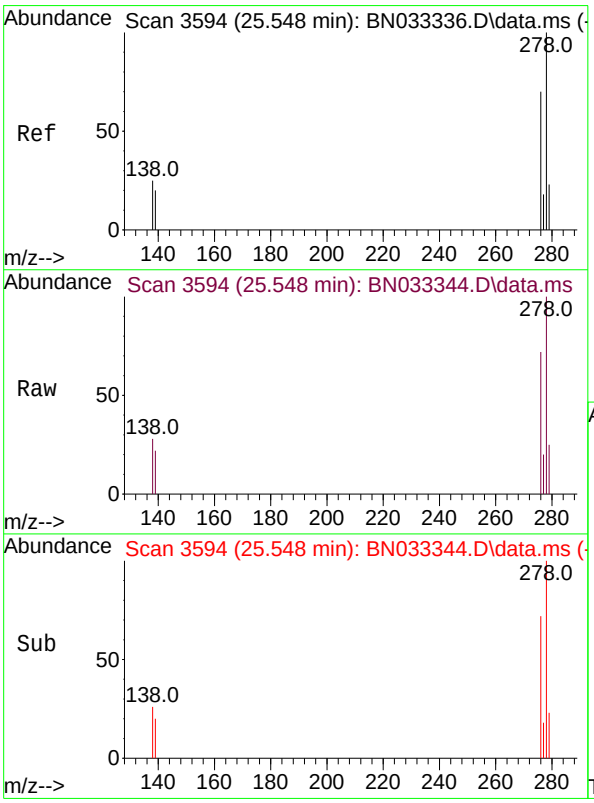
#39
Benzo(a)pyrene
Concen: 0.359 ng
RT: 23.255 min Scan# 2
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:252 Resp: 17130

Ion	Ratio	Lower	Upper
252	100		
253	23.8	18.6	28.0
125	17.9	12.6	19.0

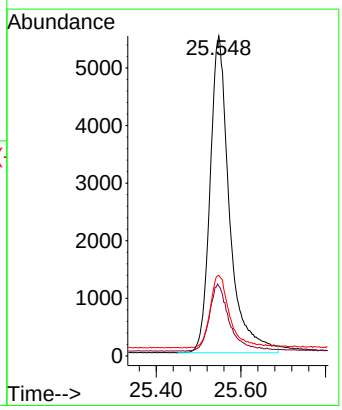


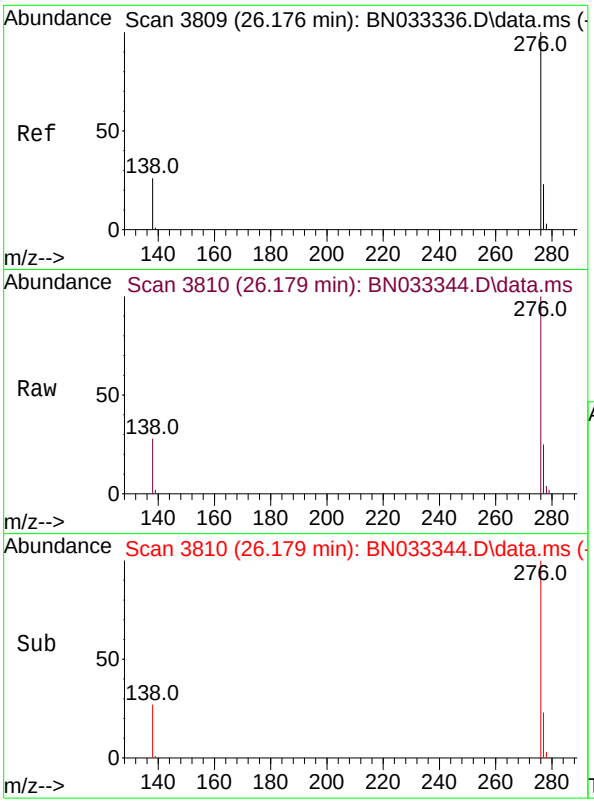


#40
Dibenzo(a,h)anthracene
Concen: 0.356 ng
RT: 25.548 min Scan# 3594
Delta R.T. -0.000 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Tgt Ion:278 Resp: 17513

Ion	Ratio	Lower	Upper
278	100		
139	21.8	17.0	25.6
279	25.2	20.0	30.0





#41
Benzo(g,h,i)perylene
Concen: 0.371 ng
RT: 26.179 min Scan# 3
Delta R.T. 0.003 min
Lab File: BN033344.D
Acq: 12 Aug 2024 10:34

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:276 Resp: 20215

Ion	Ratio	Lower	Upper
276	100		
277	24.6	19.4	29.2
138	27.7	21.6	32.4