Quantitation Report (Not Reviewed)

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN022425\
Data File : BN036492.D
Acq On : 24 Feb 2025 10:49
Operator : RC/JU
Sample : SSTDCCC0.4
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Quant Time: Feb 24 11:35:46 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_N\Methods\8270-SIM-BN021025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Feb 11 01:17:14 2025
Response via : Initial Calibration

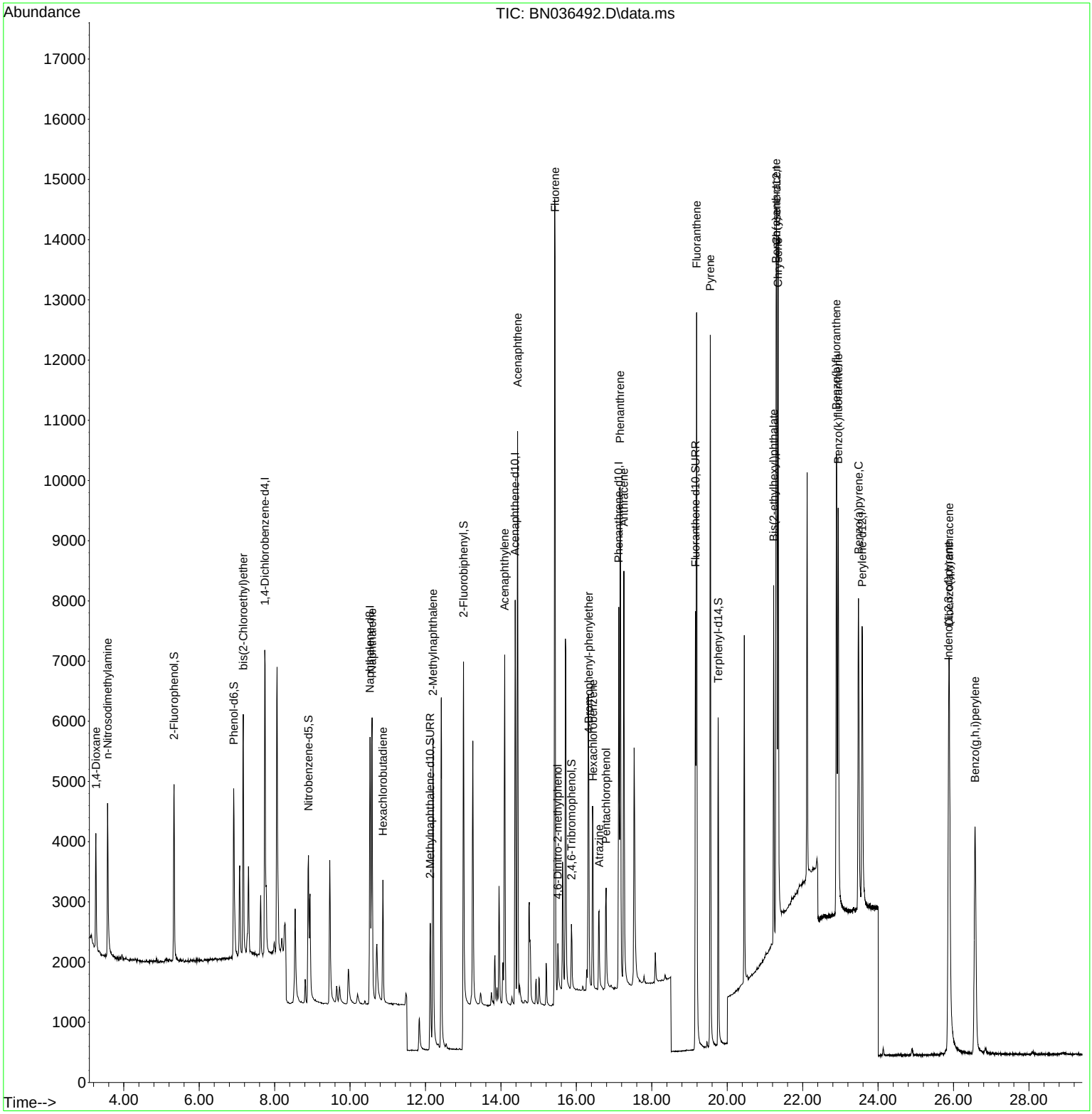
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.739	152	2546	0.400	ng		-0.01
7) Naphthalene-d8	10.530	136	6147	0.400	ng		-0.01
13) Acenaphthene-d10	14.377	164	4030	0.400	ng		-0.01
19) Phenanthrene-d10	17.124	188	8380	0.400	ng		-0.01
29) Chrysene-d12	21.313	240	7132	0.400	ng		0.00
35) Perylene-d12	23.581	264	6830	0.400	ng		-0.01
System Monitoring Compounds							
4) 2-Fluorophenol	5.334	112	2226	0.370	ng		-0.01
5) Phenol-d6	6.915	99	2650	0.375	ng		-0.02
8) Nitrobenzene-d5	8.897	82	2368	0.390	ng		-0.01
11) 2-Methylnaphthalene-d10	12.126	152	3539	0.375	ng		-0.02
14) 2,4,6-Tribromophenol	15.870	330	667	0.334	ng		-0.01
15) 2-Fluorobiphenyl	13.008	172	6941	0.458	ng		-0.01
27) Fluoranthene-d10	19.160	212	8784	0.377	ng		0.00
31) Terphenyl-d14	19.763	244	5976	0.393	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.261	88	1119	0.402	ng		97
3) n-Nitrosodimethylamine	3.571	42	2070	0.428	ng	#	96
6) bis(2-Chloroethyl)ether	7.168	93	2949	0.399	ng		98
9) Naphthalene	10.583	128	6900	0.389	ng		99
10) Hexachlorobutadiene	10.872	225	1653	0.383	ng	#	100
12) 2-Methylnaphthalene	12.202	142	4471	0.384	ng		99
16) Acenaphthylene	14.099	152	6457	0.363	ng		99
17) Acenaphthene	14.441	154	4421	0.372	ng		99
18) Fluorene	15.435	166	6280	0.371	ng		100
20) 4,6-Dinitro-2-methylph...	15.510	198	552	0.336	ng		94
21) 4-Bromophenyl-phenylether	16.329	248	1988	0.398	ng	#	74
22) Hexachlorobenzene	16.441	284	2485	0.403	ng		97
23) Atrazine	16.602	200	1521	0.364	ng		96
24) Pentachlorophenol	16.788	266	1028	0.351	ng		98
25) Phenanthrene	17.161	178	9637	0.398	ng		100
26) Anthracene	17.260	178	8338	0.390	ng		99
28) Fluoranthene	19.187	202	11461	0.385	ng		99
30) Pyrene	19.550	202	11612	0.423	ng		99
32) Benzo(a)anthracene	21.295	228	9088	0.387	ng		98
33) Chrysene	21.348	228	10688	0.421	ng		99
34) Bis(2-ethylhexyl)phtha...	21.232	149	5314	0.363	ng		100
36) Indeno(1,2,3-cd)pyrene	25.870	276	9456	0.396	ng		99
37) Benzo(b)fluoranthene	22.896	252	9651	0.429	ng		97
38) Benzo(k)fluoranthene	22.943	252	9731	0.420	ng		100
39) Benzo(a)pyrene	23.481	252	8162	0.416	ng		95
40) Dibenzo(a,h)anthracene	25.887	278	7176	0.381	ng		98
41) Benzo(g,h,i)perylene	26.571	276	8331	0.390	ng		97

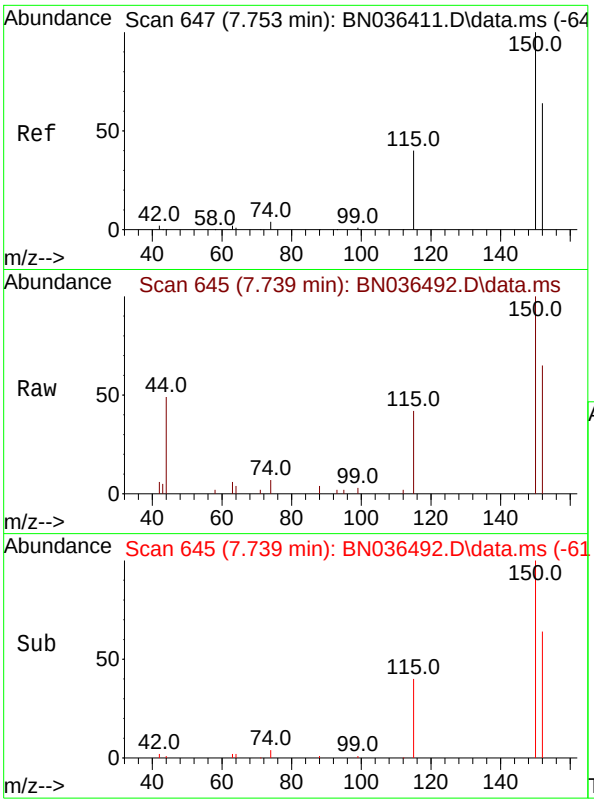
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN022425\
Data File : BN036492.D
Acq On : 24 Feb 2025 10:49
Operator : RC/JU
Sample : SSTDCCC0.4
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Quant Time: Feb 24 11:35:46 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_N\Methods\8270-SIM-BN021025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Feb 11 01:17:14 2025
Response via : Initial Calibration



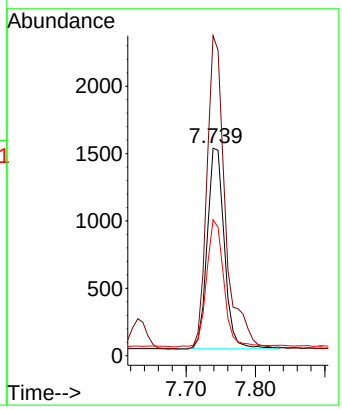


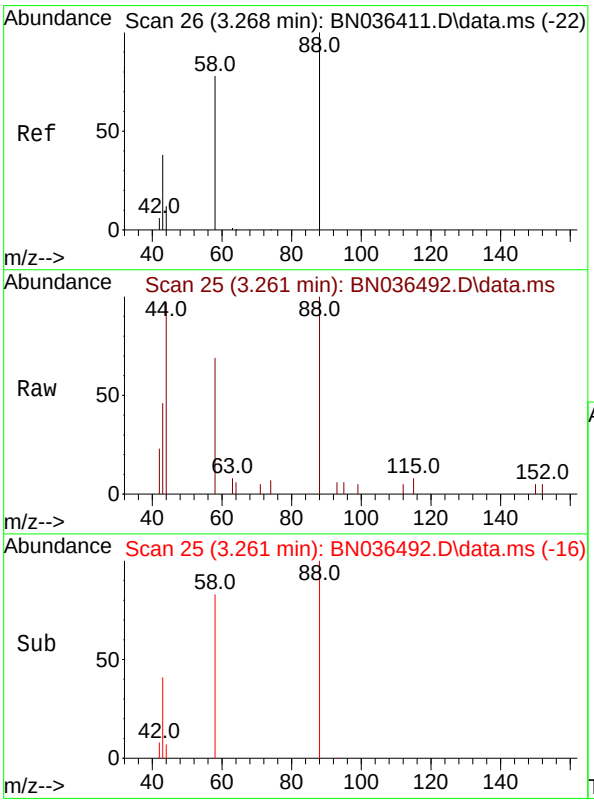
#1
1,4-Dichlorobenzene-d4
Concen: 0.400 ng
RT: 7.739 min Scan# 6
Delta R.T. -0.014 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:152 Resp: 2546

Ion	Ratio	Lower	Upper
152	100		
150	154.2	123.7	185.5
115	65.5	52.5	78.7

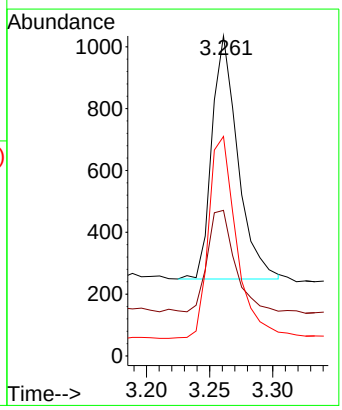


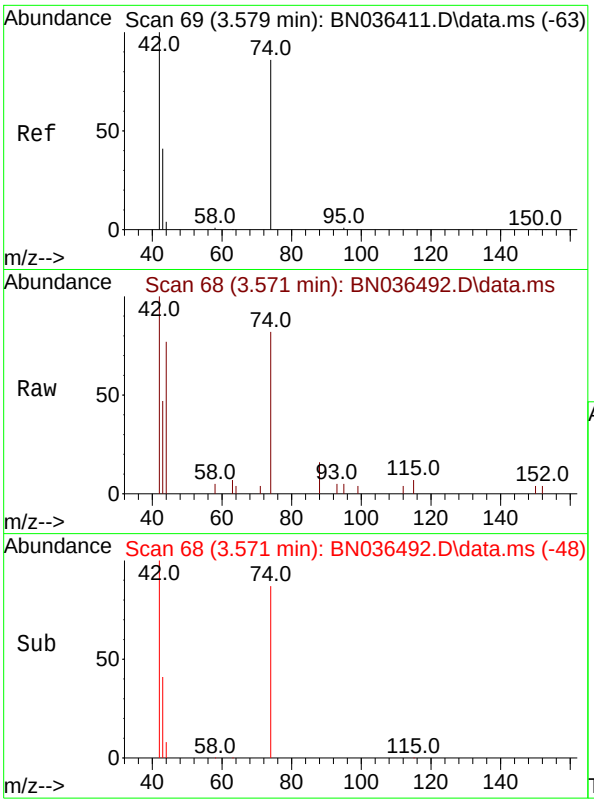


#2
1,4-Dioxane
Concen: 0.402 ng
RT: 3.261 min Scan# 25
Delta R.T. -0.007 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion: 88 Resp: 1119

Ion	Ratio	Lower	Upper
88	100		
43	43.5	33.7	50.5
58	89.5	68.9	103.3



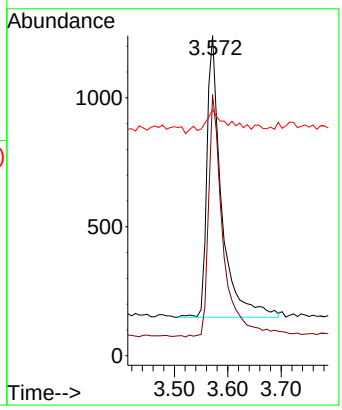


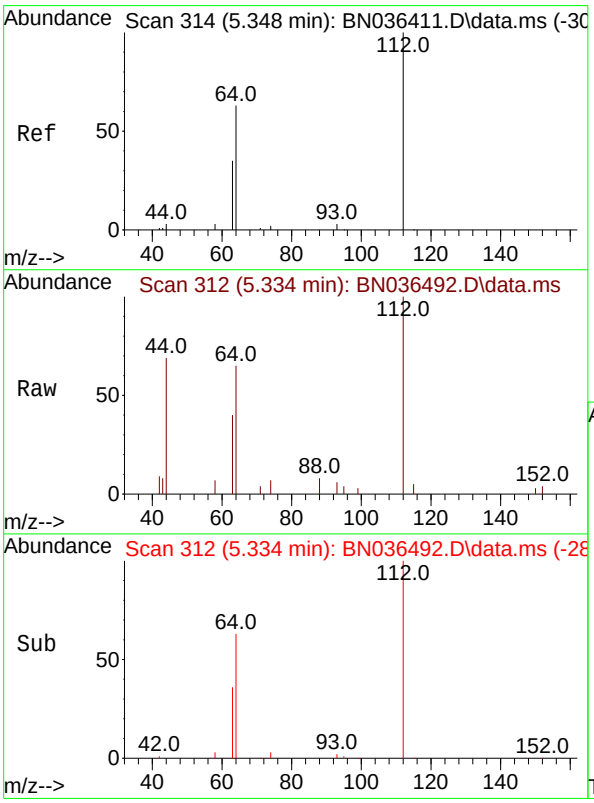
#3
n-Nitrosodimethylamine
Concen: 0.428 ng
RT: 3.571 min Scan# 6
Delta R.T. -0.007 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion: 42 Resp: 2070

Ion	Ratio	Lower	Upper
42	100		
74	86.0	71.8	107.6
44	6.4	7.8	11.6#

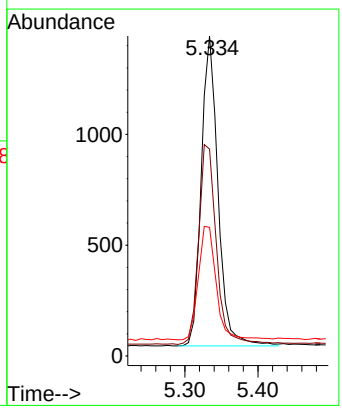


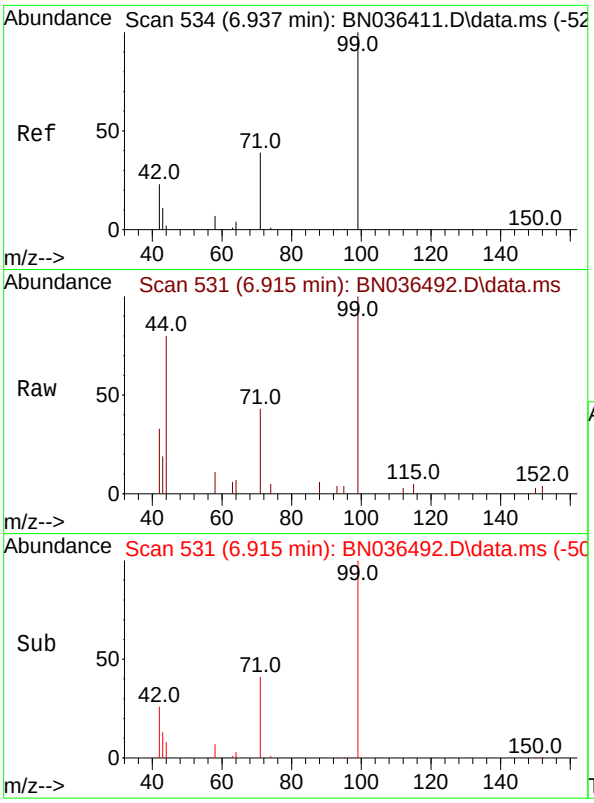


#4
2-Fluorophenol
Concen: 0.370 ng
RT: 5.334 min Scan# 312
Delta R.T. -0.015 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:112 Resp: 2226

Ion	Ratio	Lower	Upper
112	100		
64	67.7	53.4	80.0
63	39.2	30.3	45.5



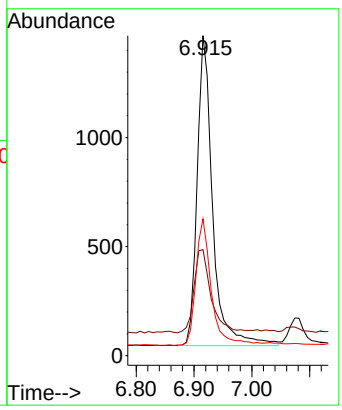


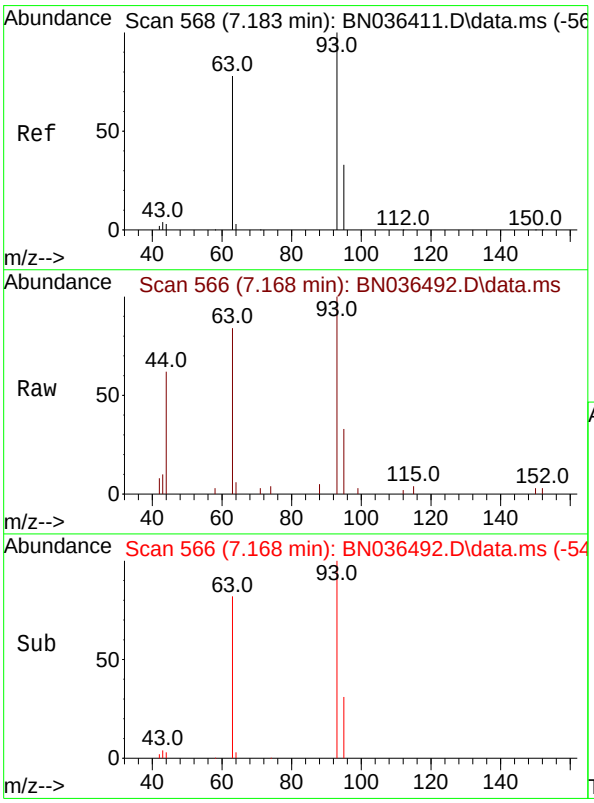
#5
Phenol-d6
Concen: 0.375 ng
RT: 6.915 min Scan# 5
Delta R.T. -0.022 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion: 99 Resp: 2650

Ion	Ratio	Lower	Upper
99	100		
42	29.7	21.7	32.5
71	40.7	32.6	49.0

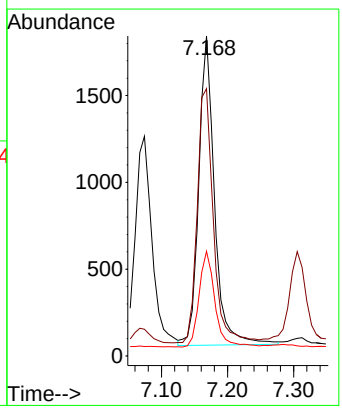


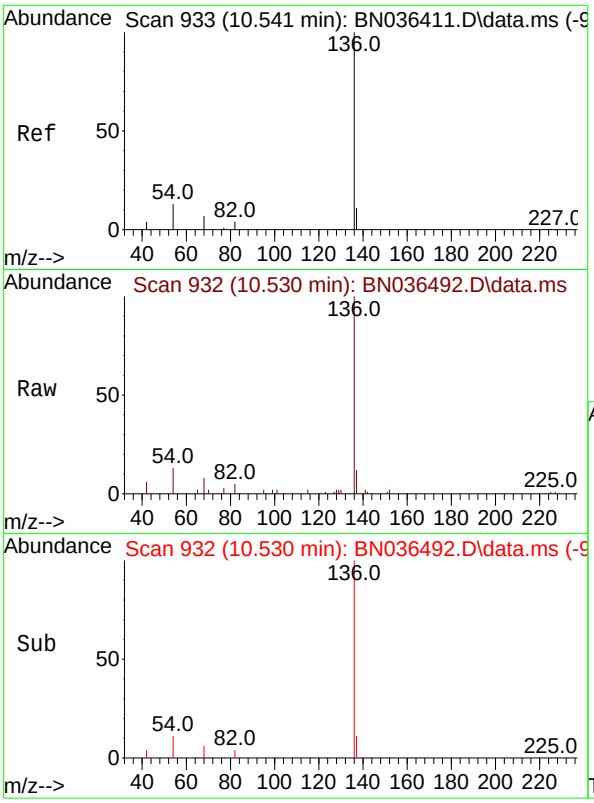


#6
bis(2-Chloroethyl)ether
Concen: 0.399 ng
RT: 7.168 min Scan# 566
Delta R.T. -0.015 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion: 93 Resp: 2949

Ion	Ratio	Lower	Upper
93	100		
63	84.1	66.3	99.5
95	30.8	26.2	39.4



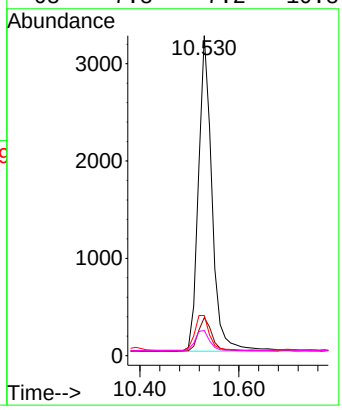


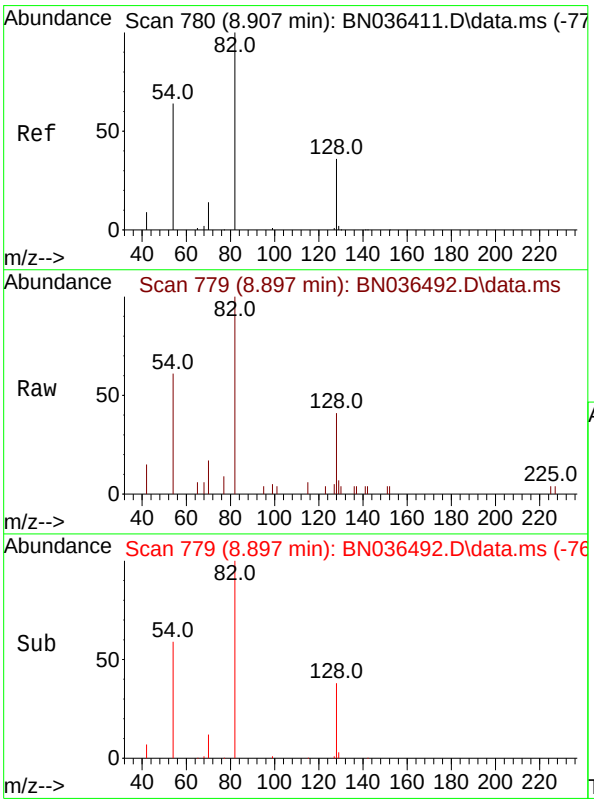
#7
Naphthalene-d8
Concen: 0.400 ng
RT: 10.530 min Scan# 9
Delta R.T. -0.011 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:136 Resp: 6147

Ion	Ratio	Lower	Upper
136	100		
137	11.9	10.1	15.1
54	12.6	11.8	17.6
68	7.8	7.2	10.8

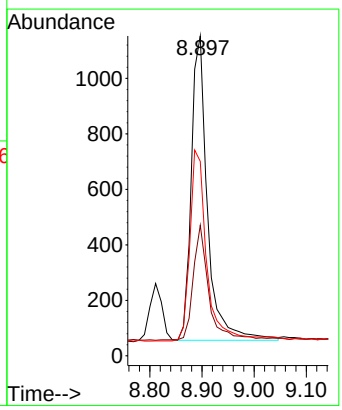


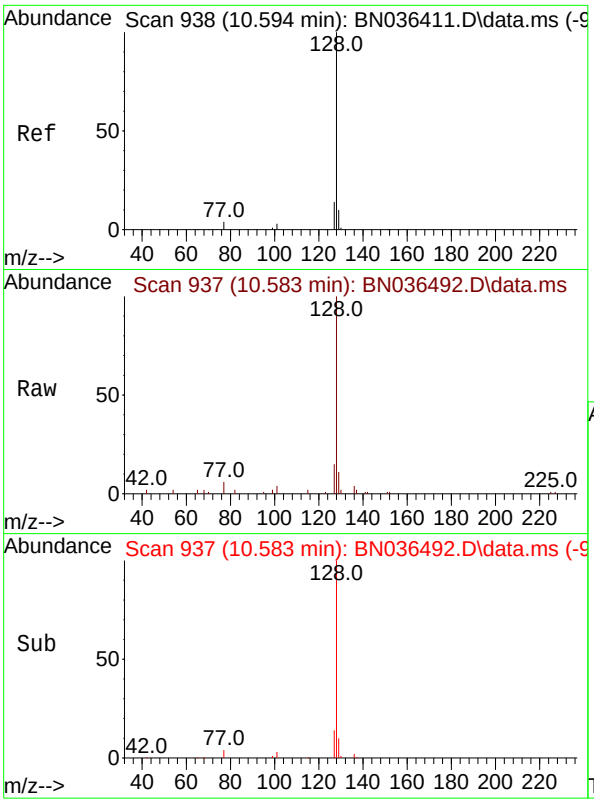


#8
Nitrobenzene-d5
Concen: 0.390 ng
RT: 8.897 min Scan# 779
Delta R.T. -0.011 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion: 82 Resp: 2368

Ion	Ratio	Lower	Upper
82	100		
128	40.8	31.9	47.9
54	60.8	53.1	79.7



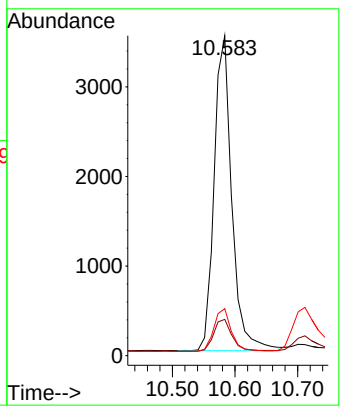


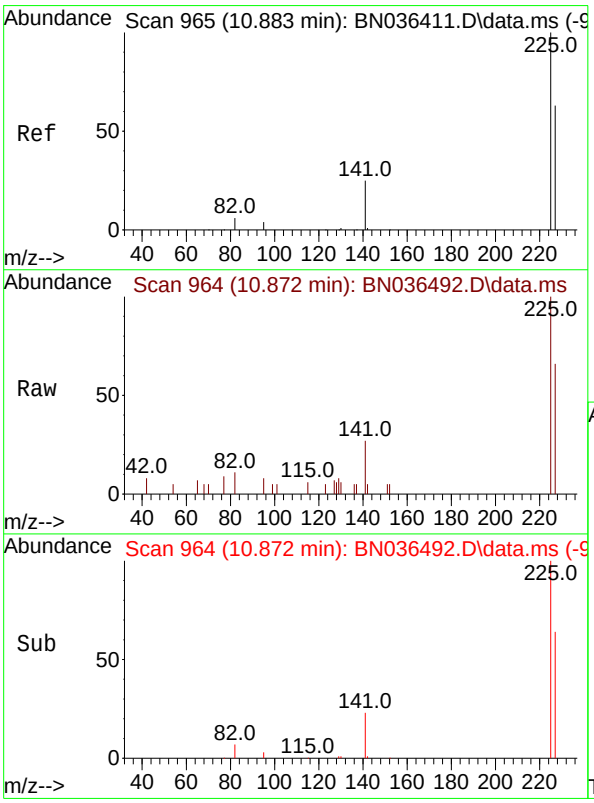
#9
Naphthalene
Concen: 0.389 ng
RT: 10.583 min Scan# 9
Delta R.T. -0.011 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:128 Resp: 6900

Ion	Ratio	Lower	Upper
128	100		
129	11.3	9.6	14.4
127	14.7	12.0	18.0

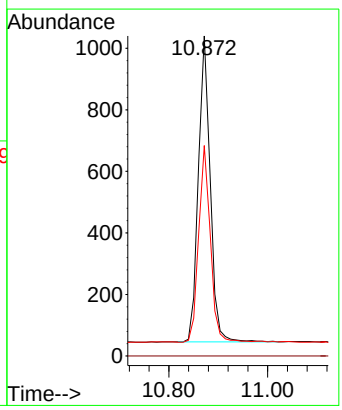


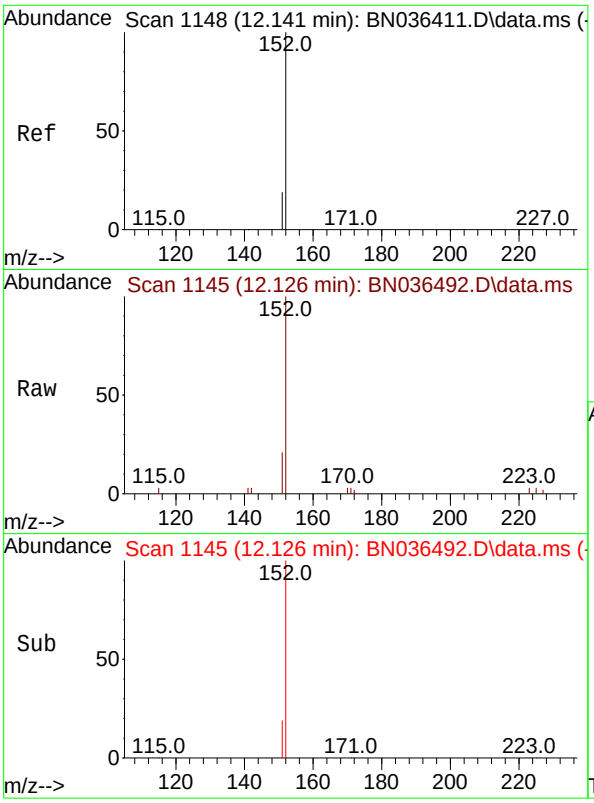


#10
Hexachlorobutadiene
Concen: 0.383 ng
RT: 10.872 min Scan# 964
Delta R.T. -0.011 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:225 Resp: 1653

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.5	50.9	76.3



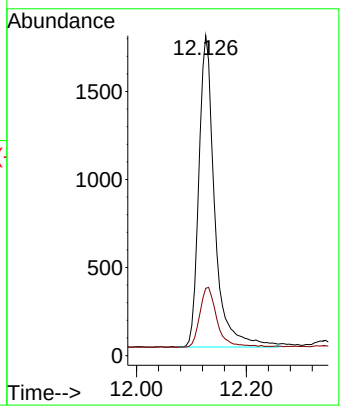


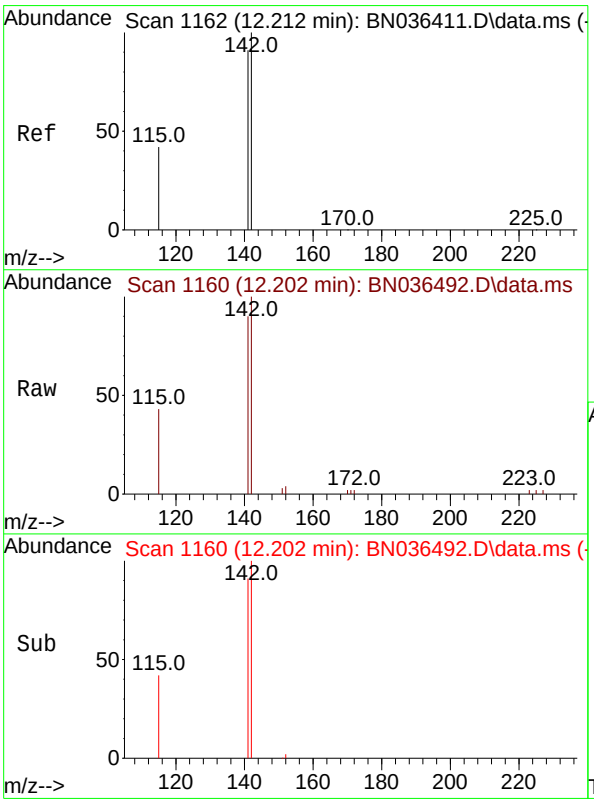
#11
2-Methylnaphthalene-d10
Concen: 0.375 ng
RT: 12.126 min Scan# 11
Delta R.T. -0.015 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:152 Resp: 3539

Ion	Ratio	Lower	Upper
152	100		
151	20.8	16.6	25.0

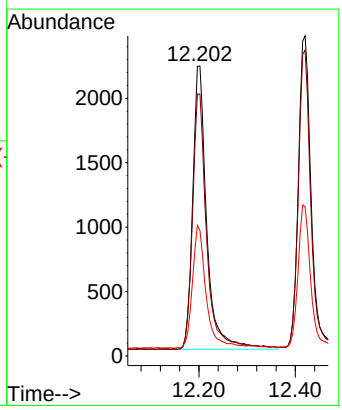


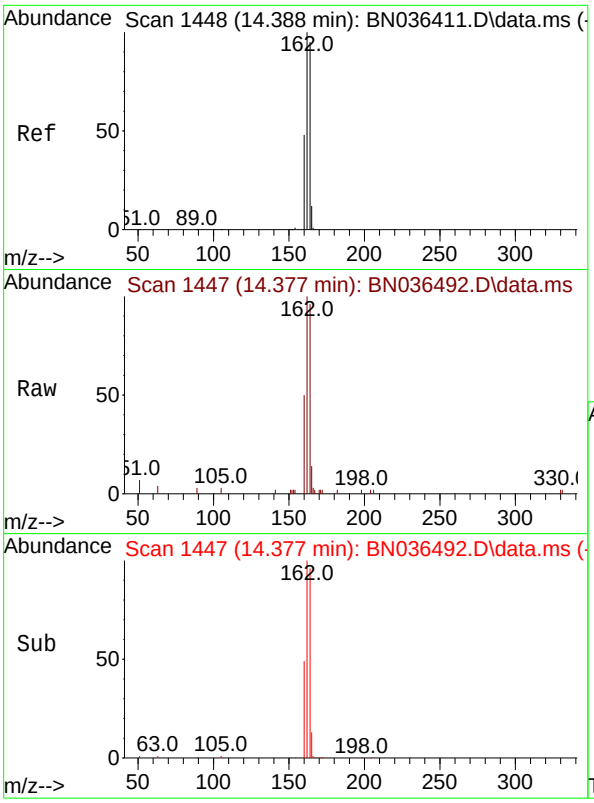


#12
2-Methylnaphthalene
Concen: 0.384 ng
RT: 12.202 min Scan# 1160
Delta R.T. -0.010 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:142 Resp: 4471

Ion	Ratio	Lower	Upper
142	100		
141	90.4	72.8	109.2
115	43.2	35.5	53.3



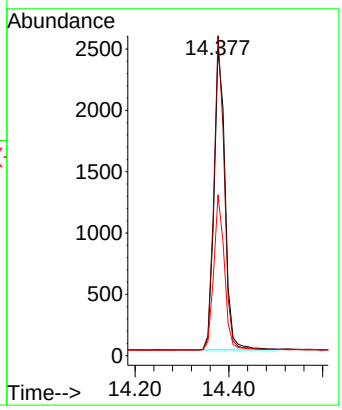


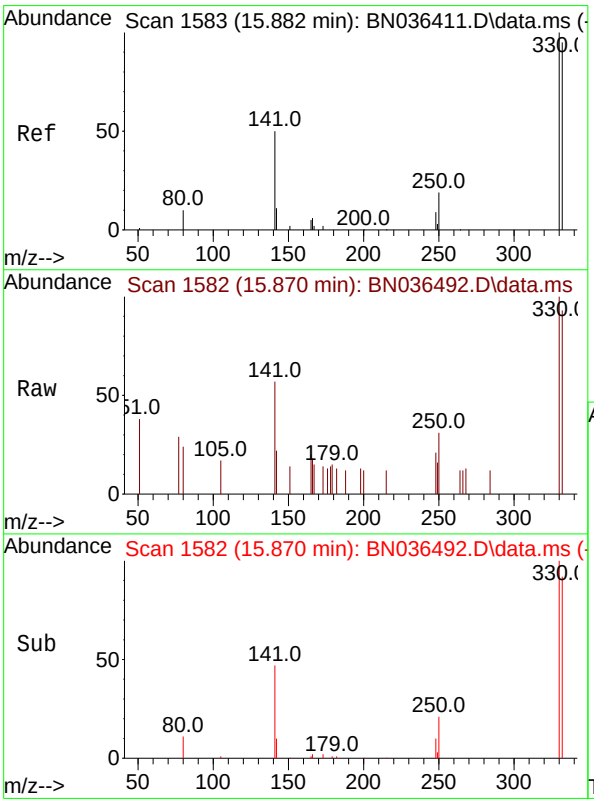
#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.377 min Scan# 14
Delta R.T. -0.011 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:164 Resp: 4030

Ion	Ratio	Lower	Upper
164	100		
162	104.4	84.1	126.1
160	52.5	41.4	62.0

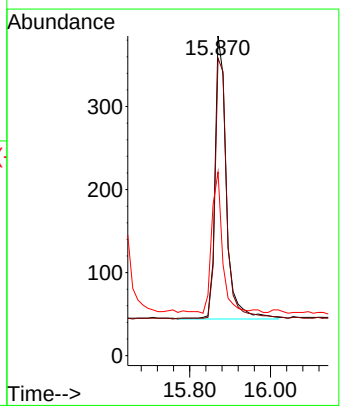


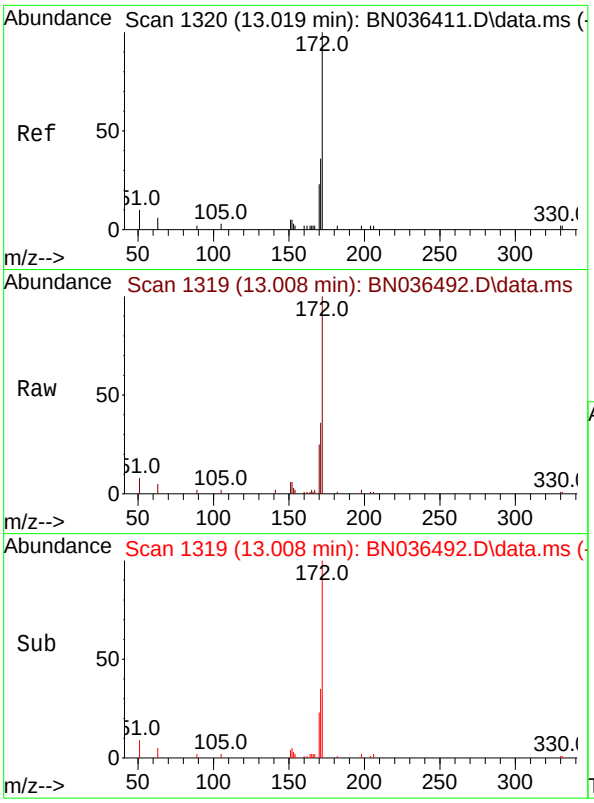


#14
2,4,6-Tribromophenol
Concen: 0.334 ng
RT: 15.870 min Scan# 1582
Delta R.T. -0.013 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:330 Resp: 667

Ion	Ratio	Lower	Upper
330	100		
332	93.0	76.6	114.8
141	46.9	37.8	56.8



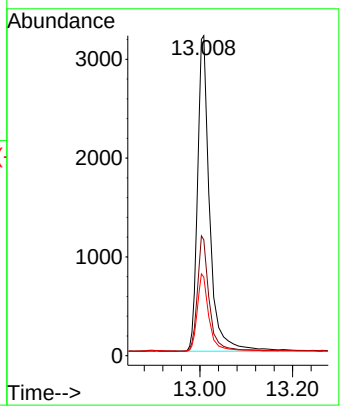


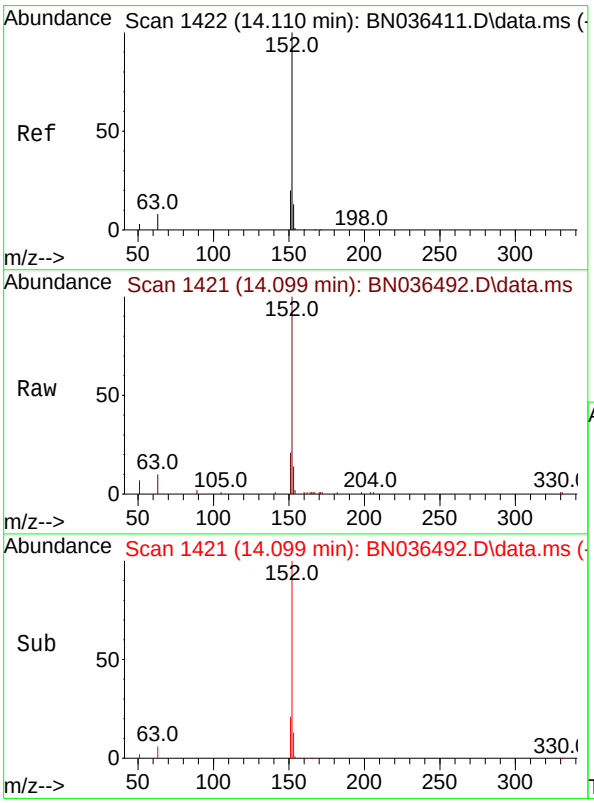
#15
2-Fluorobiphenyl
Concen: 0.458 ng
RT: 13.008 min Scan# 1
Delta R.T. -0.011 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:172 Resp: 6941

Ion	Ratio	Lower	Upper
172	100		
171	36.2	29.6	44.4
170	24.6	19.8	29.6

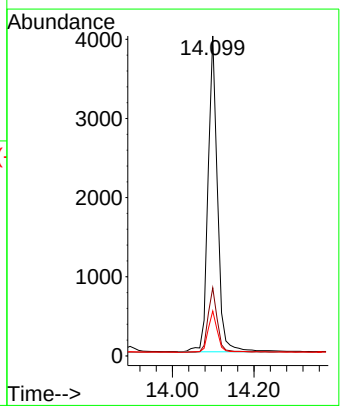


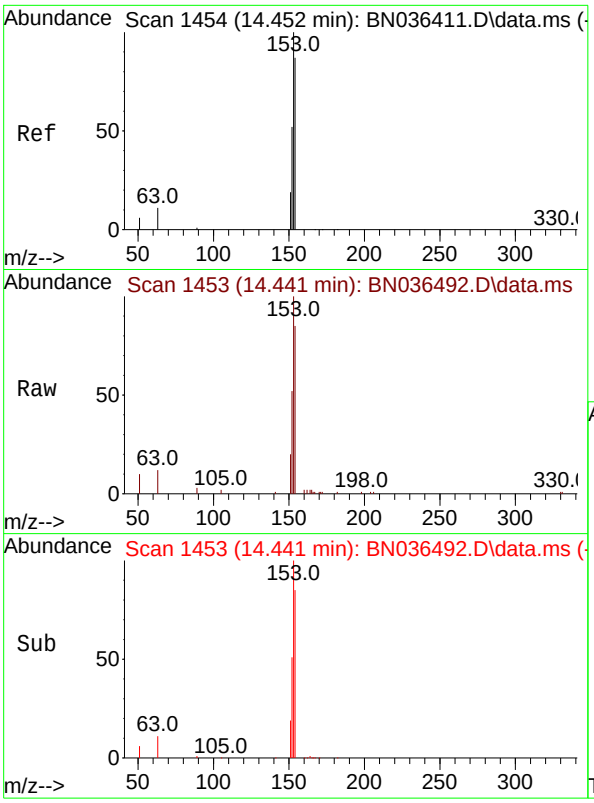


#16
Acenaphthylene
Concen: 0.363 ng
RT: 14.099 min Scan# 1421
Delta R.T. -0.011 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:152 Resp: 6457

Ion	Ratio	Lower	Upper
152	100		
151	20.1	15.8	23.8
153	13.3	10.2	15.2



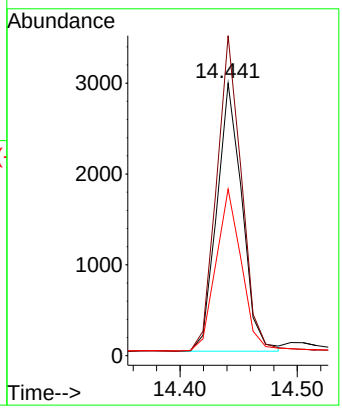


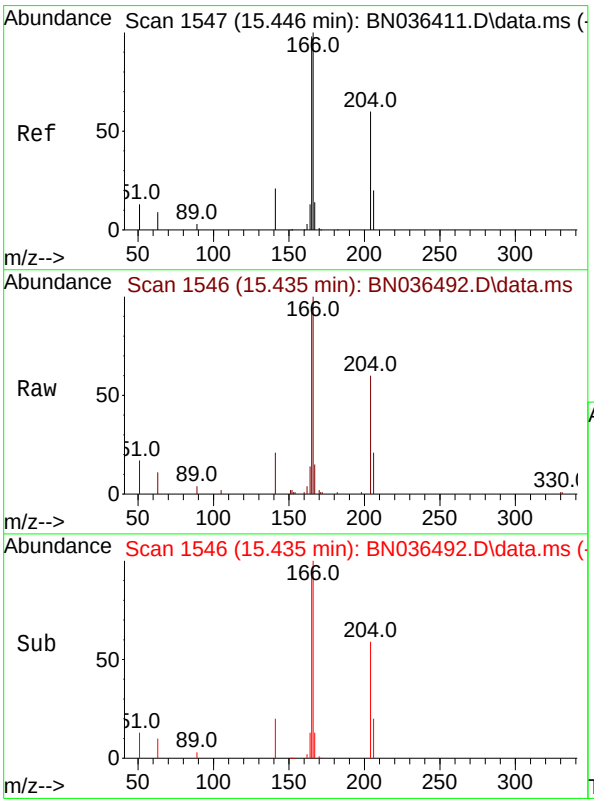
#17
Acenaphthene
Concen: 0.372 ng
RT: 14.441 min Scan# 14
Delta R.T. -0.011 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:154 Resp: 4421

Ion	Ratio	Lower	Upper
154	100		
153	117.5	93.3	139.9
152	62.3	48.8	73.2

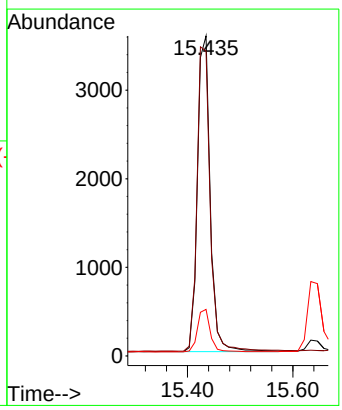


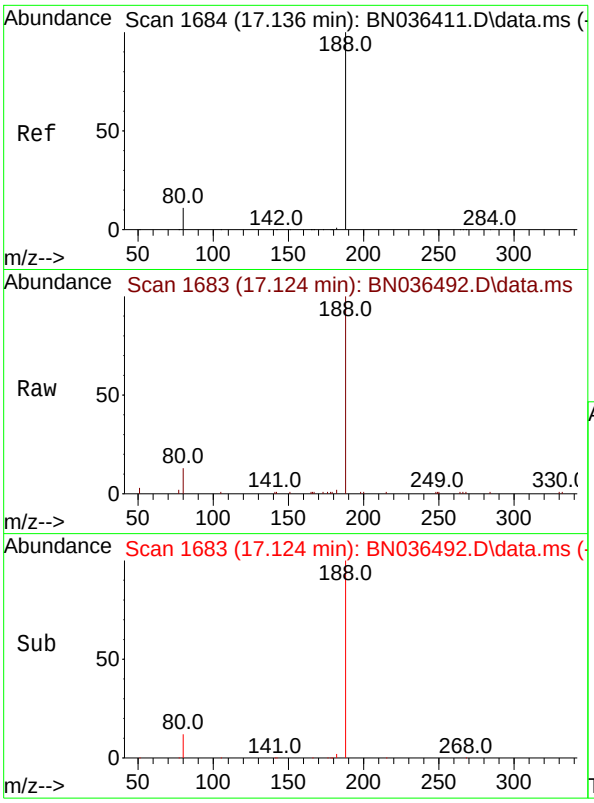


#18
Fluorene
Concen: 0.371 ng
RT: 15.435 min Scan# 1546
Delta R.T. -0.011 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:166 Resp: 6280

Ion	Ratio	Lower	Upper
166	100		
165	99.9	79.5	119.3
167	13.1	10.4	15.6



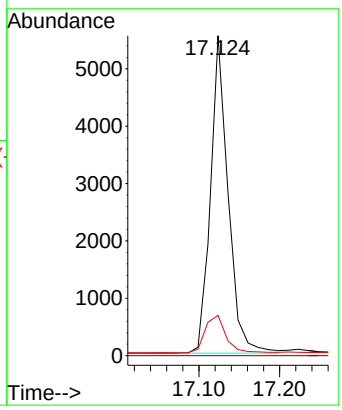


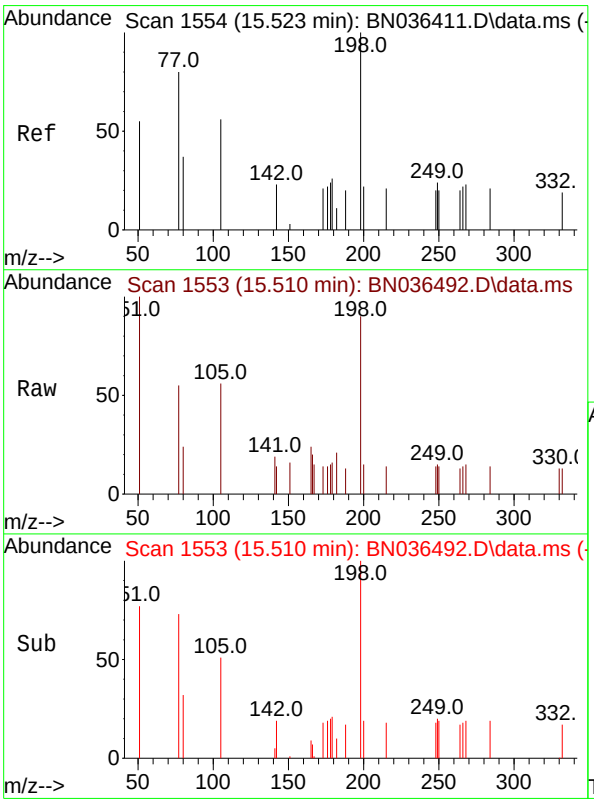
#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 17.124 min Scan# 1
Delta R.T. -0.013 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:188 Resp: 8380

Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	12.6	9.8	14.6

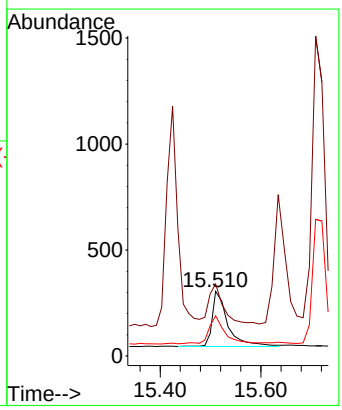


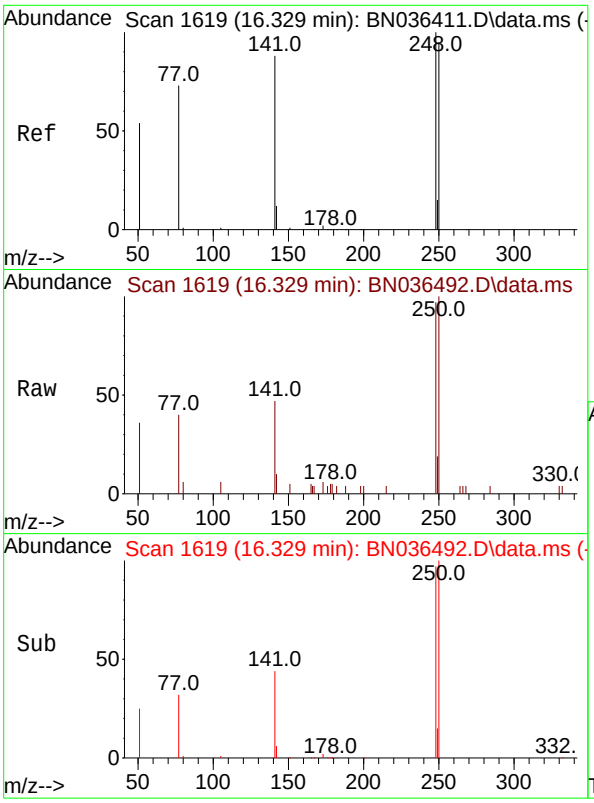


#20
4,6-Dinitro-2-methylphenol
Concen: 0.336 ng
RT: 15.510 min Scan# 1553
Delta R.T. -0.013 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:198 Resp: 552

Ion	Ratio	Lower	Upper
198	100		
51	111.5	86.6	129.8
105	62.3	57.5	86.3



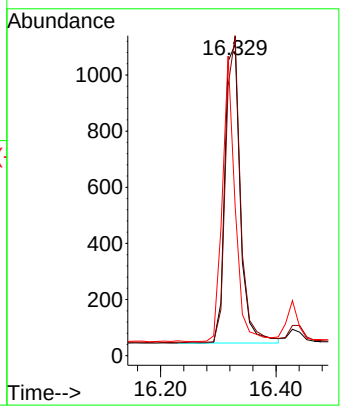


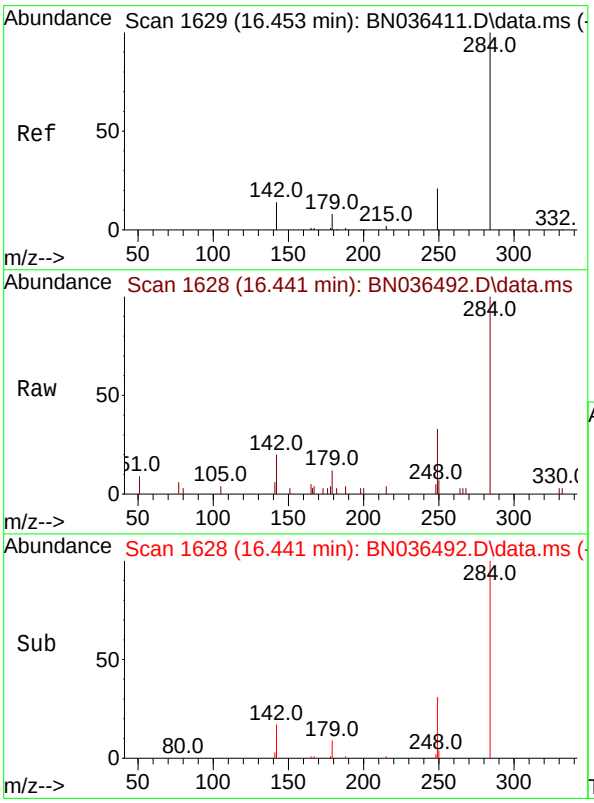
#21
4-Bromophenyl-phenylether
Concen: 0.398 ng
RT: 16.329 min Scan# 1
Delta R.T. -0.000 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:248 Resp: 1988

Ion	Ratio	Lower	Upper
248	100		
250	102.8	76.1	114.1
141	48.0	71.7	107.5#

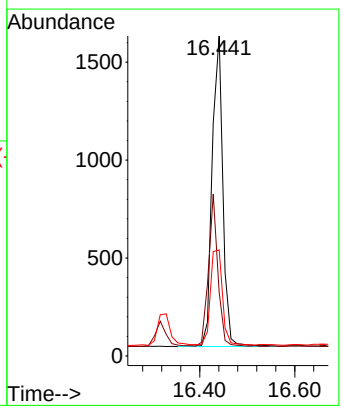


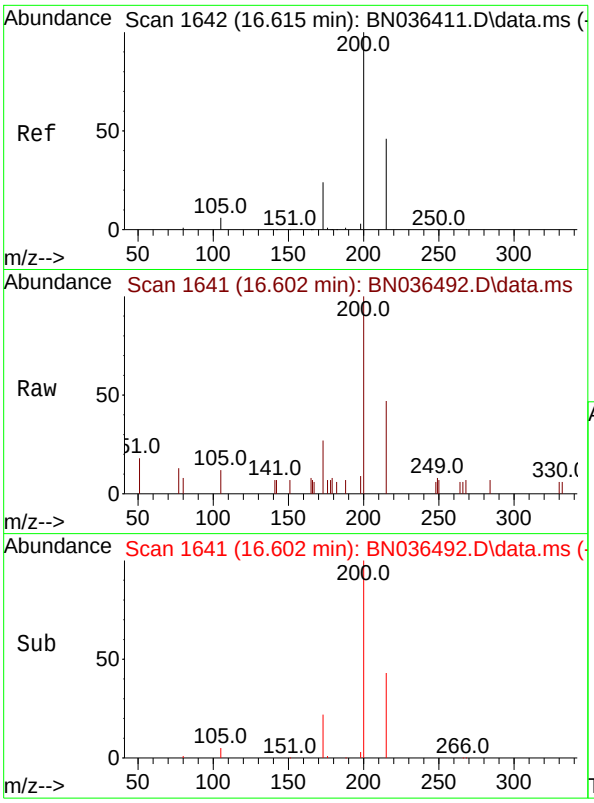


#22
Hexachlorobenzene
Concen: 0.403 ng
RT: 16.441 min Scan# 1628
Delta R.T. -0.013 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:284 Resp: 2485

Ion	Ratio	Lower	Upper
284	100		
142	43.5	33.4	50.0
249	34.2	28.6	43.0



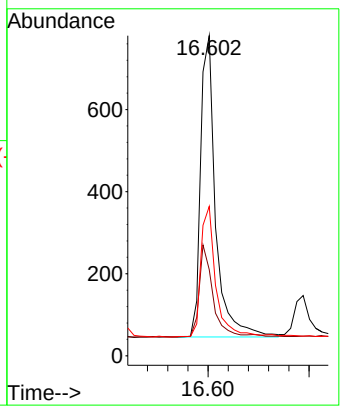


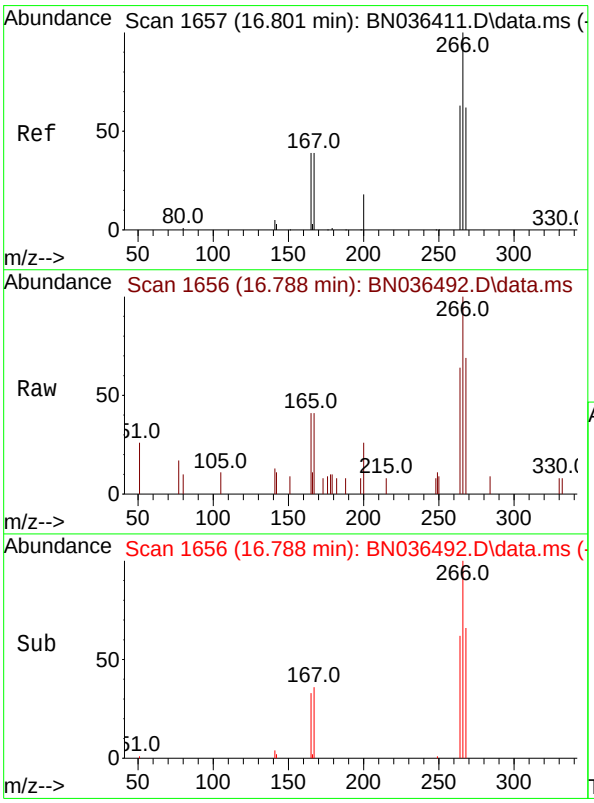
#23
Atrazine
Concen: 0.364 ng
RT: 16.602 min Scan# 1
Delta R.T. -0.013 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:200 Resp: 1521

Ion	Ratio	Lower	Upper
200	100		
173	26.9	23.2	34.8
215	46.7	40.0	60.0

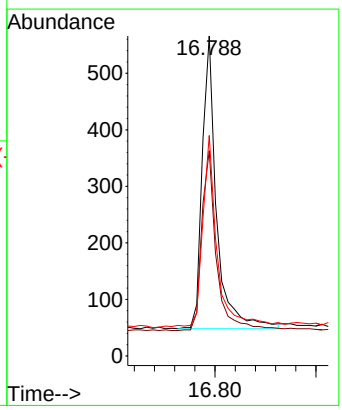


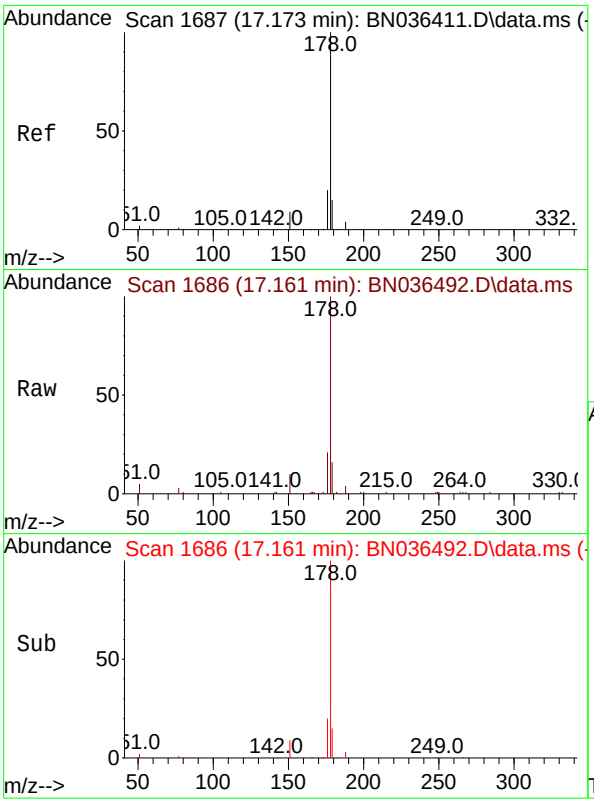


#24
Pentachlorophenol
Concen: 0.351 ng
RT: 16.788 min Scan# 1656
Delta R.T. -0.013 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:266 Resp: 1028

Ion	Ratio	Lower	Upper
266	100		
264	62.7	50.6	76.0
268	68.1	51.9	77.9



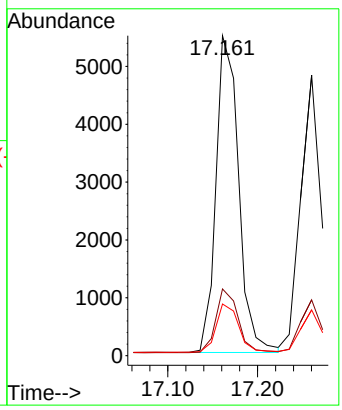


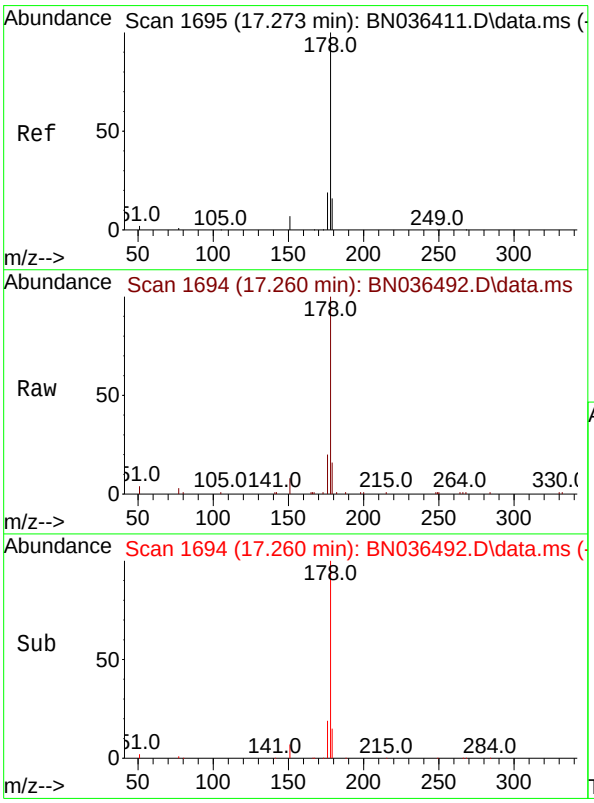
#25
Phenanthrene
Concen: 0.398 ng
RT: 17.161 min Scan# 1
Delta R.T. -0.013 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:178 Resp: 9637

Ion	Ratio	Lower	Upper
178	100		
176	19.7	15.7	23.5
179	15.3	12.4	18.6

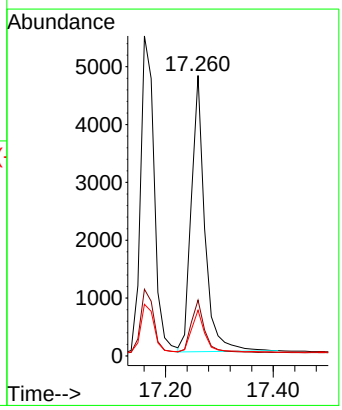


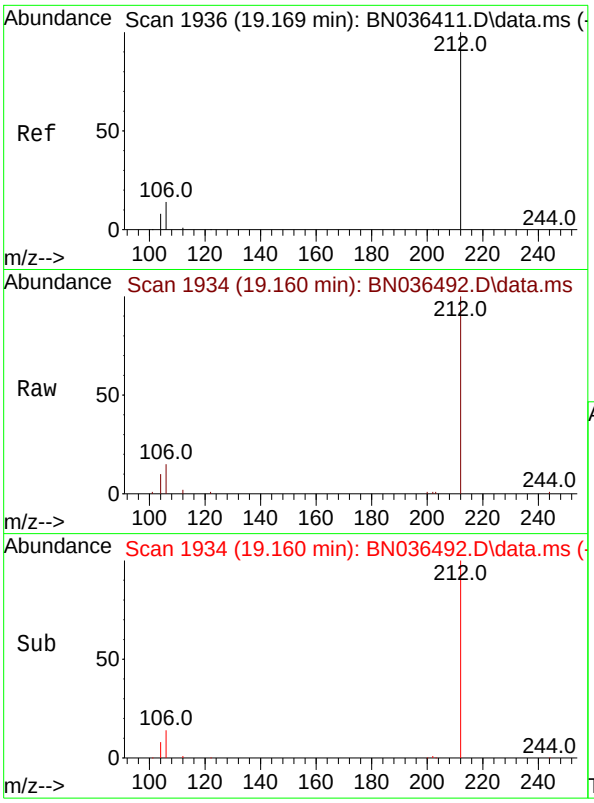


#26
Anthracene
Concen: 0.390 ng
RT: 17.260 min Scan# 1694
Delta R.T. -0.013 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:178 Resp: 8338

Ion	Ratio	Lower	Upper
178	100		
176	19.1	14.9	22.3
179	15.7	12.4	18.6



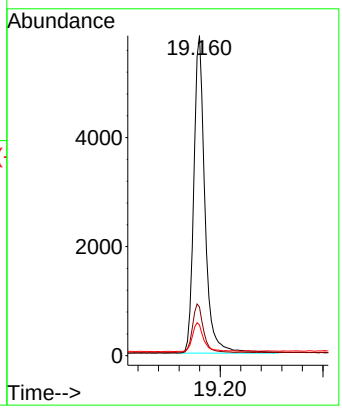


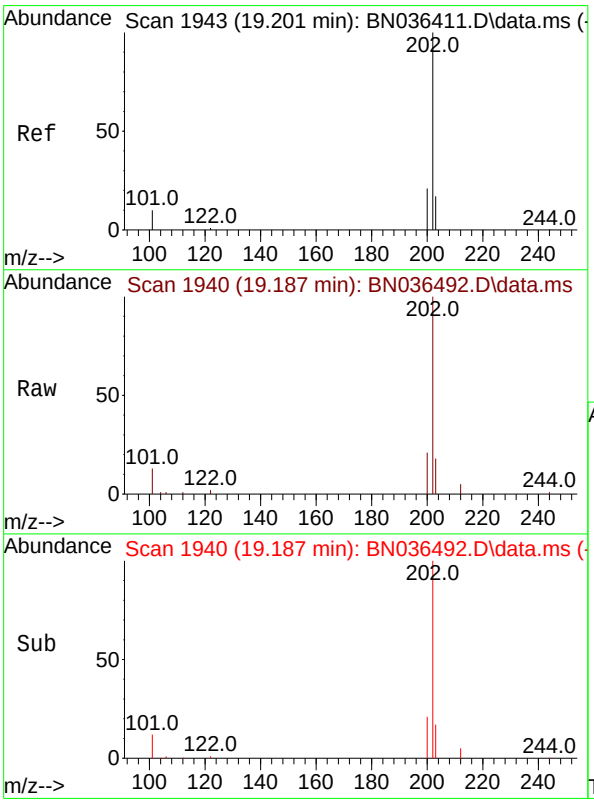
#27
Fluoranthene-d10
Concen: 0.377 ng
RT: 19.160 min Scan# 1
Delta R.T. -0.009 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:212 Resp: 8784

Ion	Ratio	Lower	Upper
212	100		
106	15.3	11.5	17.3
104	9.3	7.1	10.7

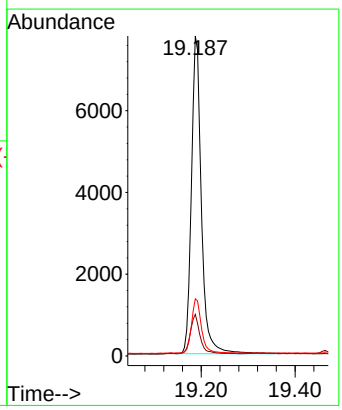


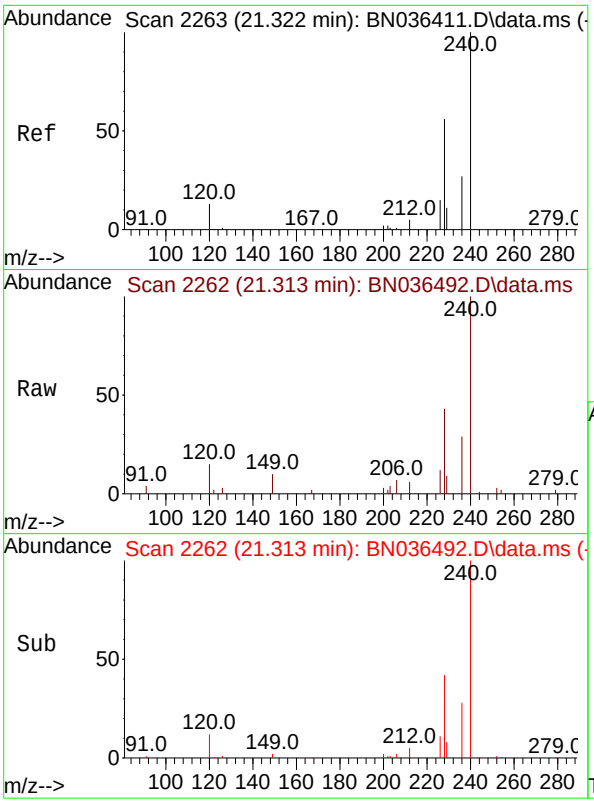


#28
Fluoranthene
Concen: 0.385 ng
RT: 19.187 min Scan# 1940
Delta R.T. -0.014 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:202 Resp: 11461

Ion	Ratio	Lower	Upper
202	100		
101	12.2	9.2	13.8
203	16.9	13.4	20.0



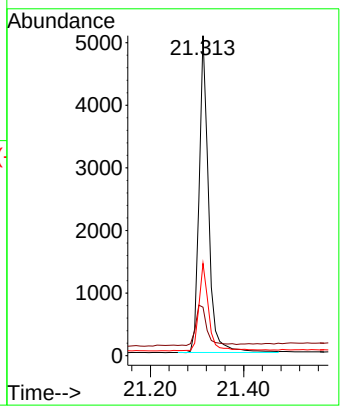


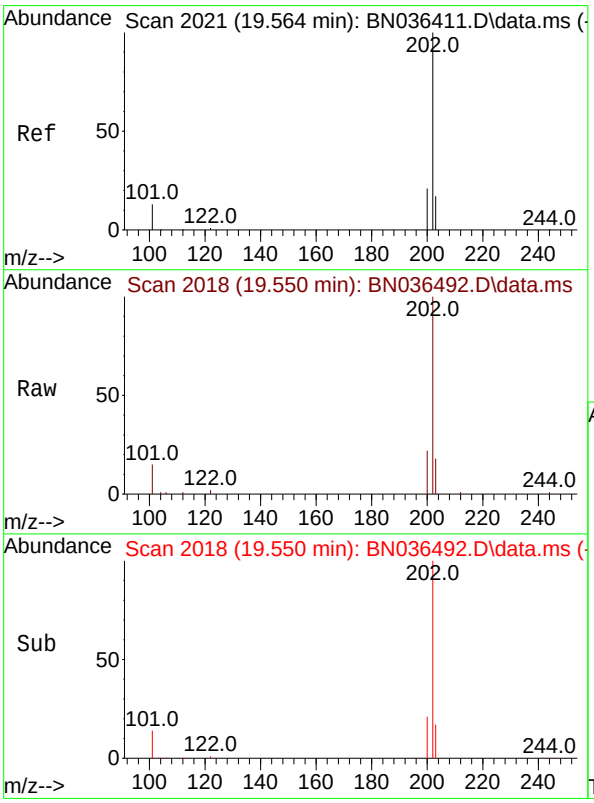
#29
Chrysene-d12
Concen: 0.400 ng
RT: 21.313 min Scan# 2
Delta R.T. -0.009 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:240 Resp: 7132

Ion	Ratio	Lower	Upper
240	100		
120	15.1	13.3	19.9
236	28.9	23.0	34.6

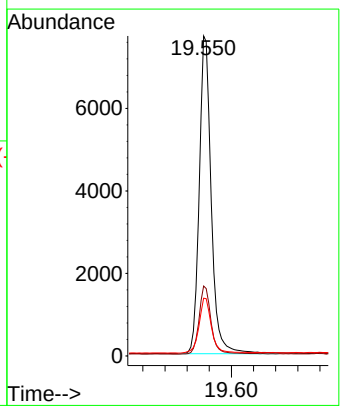


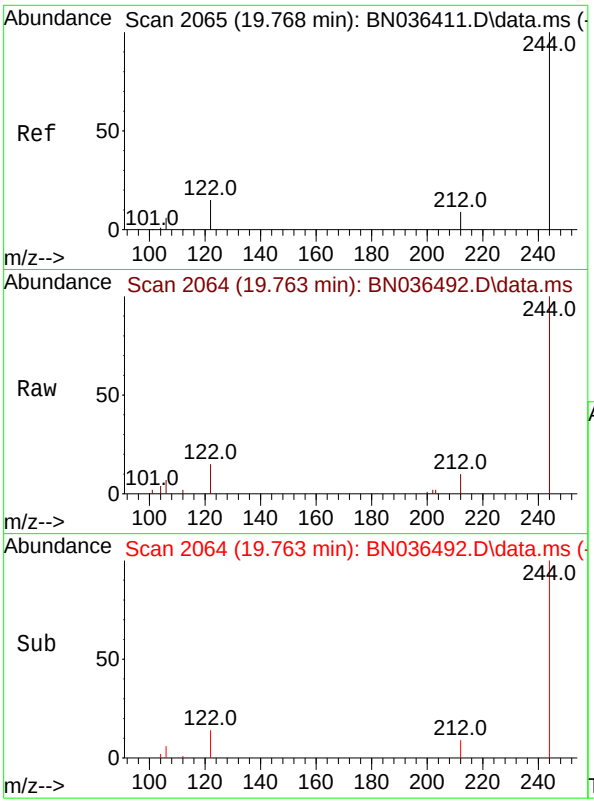


#30
Pyrene
Concen: 0.423 ng
RT: 19.550 min Scan# 2018
Delta R.T. -0.014 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:202 Resp: 11612

Ion	Ratio	Lower	Upper
202	100		
200	21.4	16.9	25.3
203	18.0	13.9	20.9



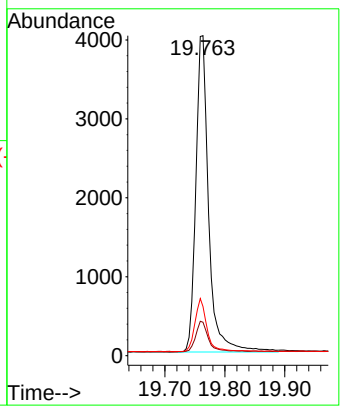


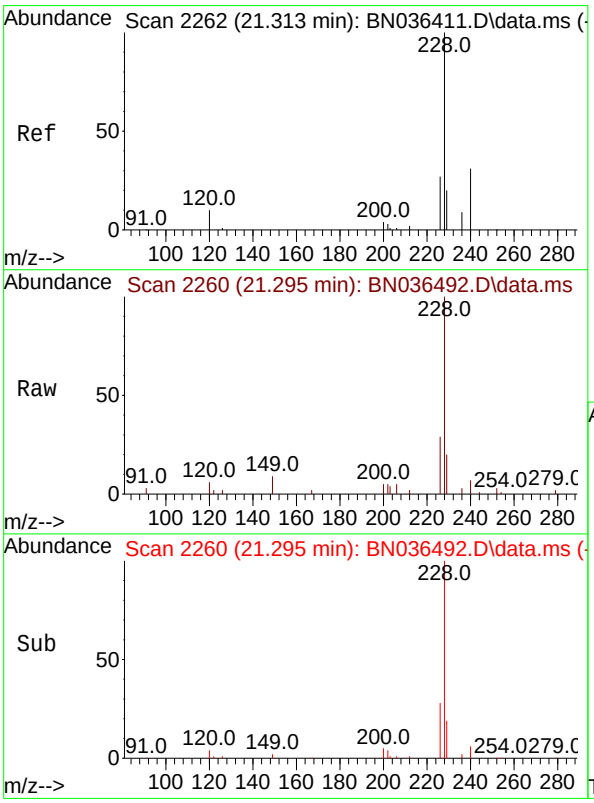
#31
Terphenyl-d14
Concen: 0.393 ng
RT: 19.763 min Scan# 2
Delta R.T. -0.005 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:244 Resp: 5976

Ion	Ratio	Lower	Upper
244	100		
212	10.4	8.1	12.1
122	15.4	12.8	19.2

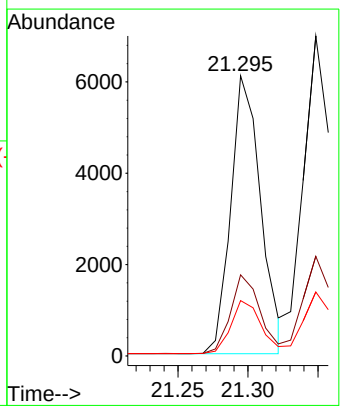


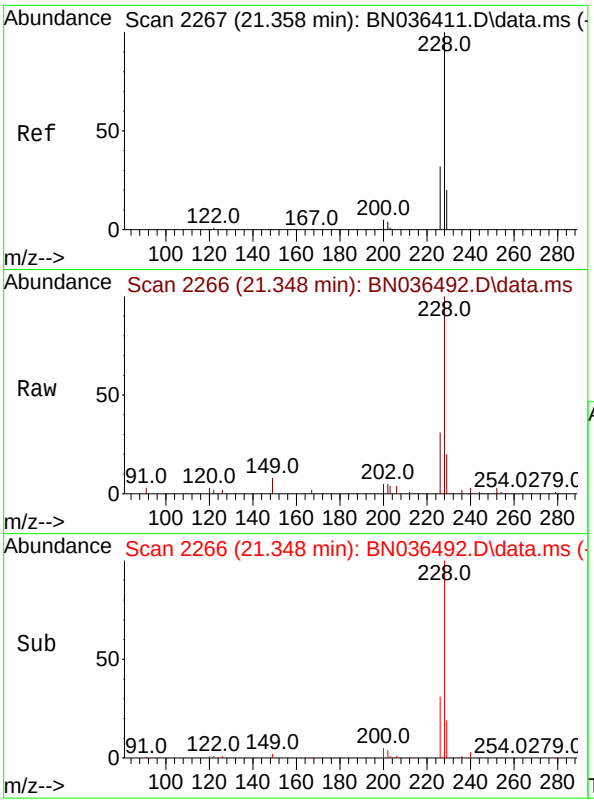


#32
Benzo(a)anthracene
Concen: 0.387 ng
RT: 21.295 min Scan# 2260
Delta R.T. -0.018 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:228 Resp: 9088

Ion	Ratio	Lower	Upper
228	100		
226	29.0	22.2	33.2
229	19.7	16.5	24.7



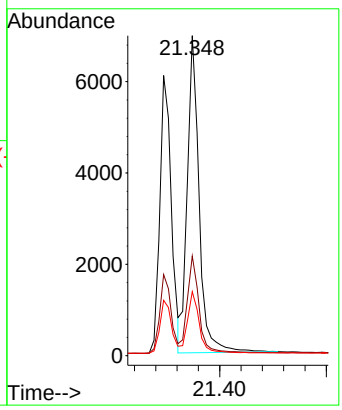


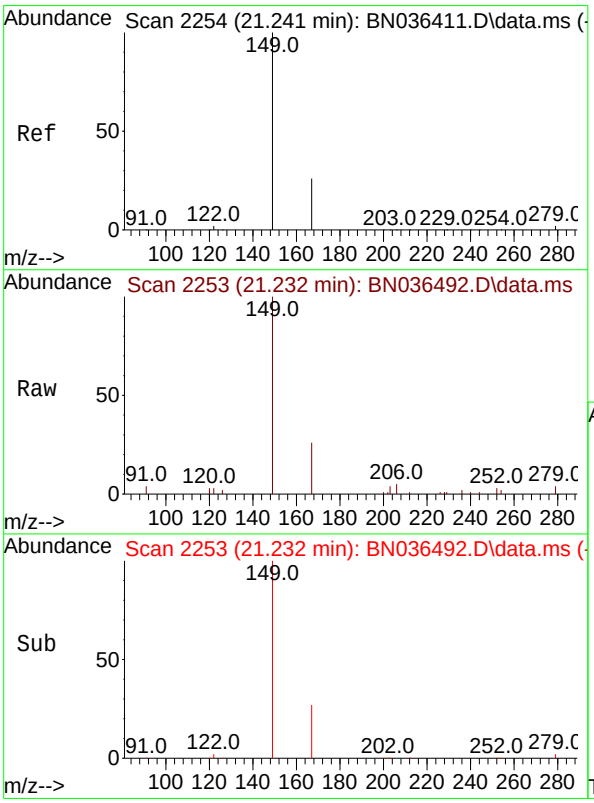
#33
Chrysene
Concen: 0.421 ng
RT: 21.348 min Scan# 2
Delta R.T. -0.009 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:228 Resp: 10688

Ion	Ratio	Lower	Upper
228	100		
226	31.1	25.5	38.3
229	20.0	16.4	24.6

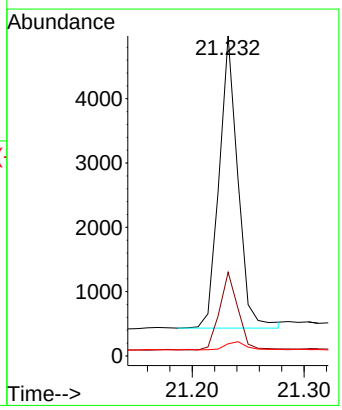


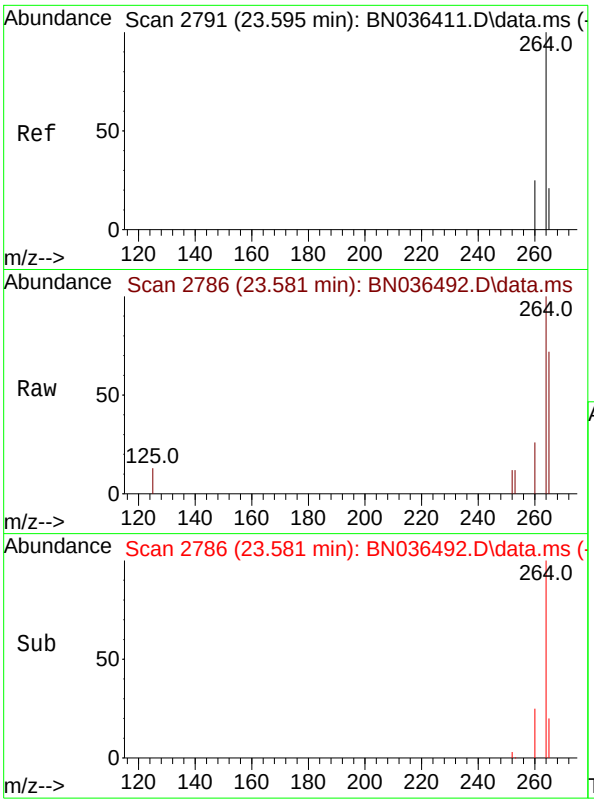


#34
Bis(2-ethylhexyl)phthalate
Concen: 0.363 ng
RT: 21.232 min Scan# 2253
Delta R.T. -0.009 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:149 Resp: 5314

Ion	Ratio	Lower	Upper
149	100		
167	26.3	21.2	31.8
279	3.3	2.7	4.1



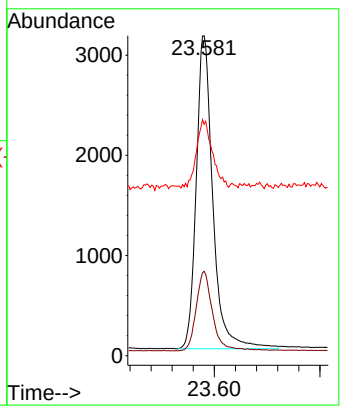


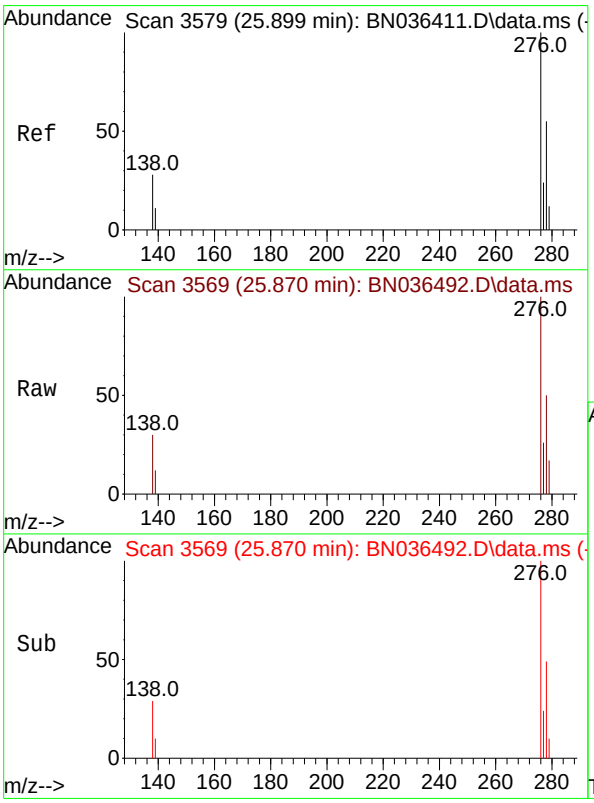
#35
Perylene-d12
Concen: 0.400 ng
RT: 23.581 min Scan# 2
Delta R.T. -0.015 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:264 Resp: 6830

Ion	Ratio	Lower	Upper
264	100		
260	26.4	20.9	31.3
265	72.3	60.7	91.1

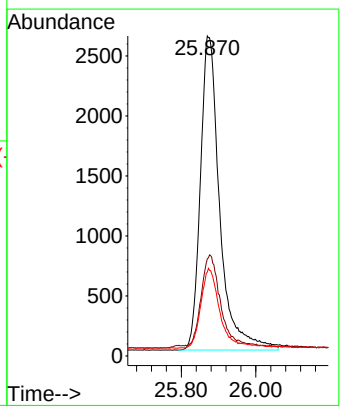


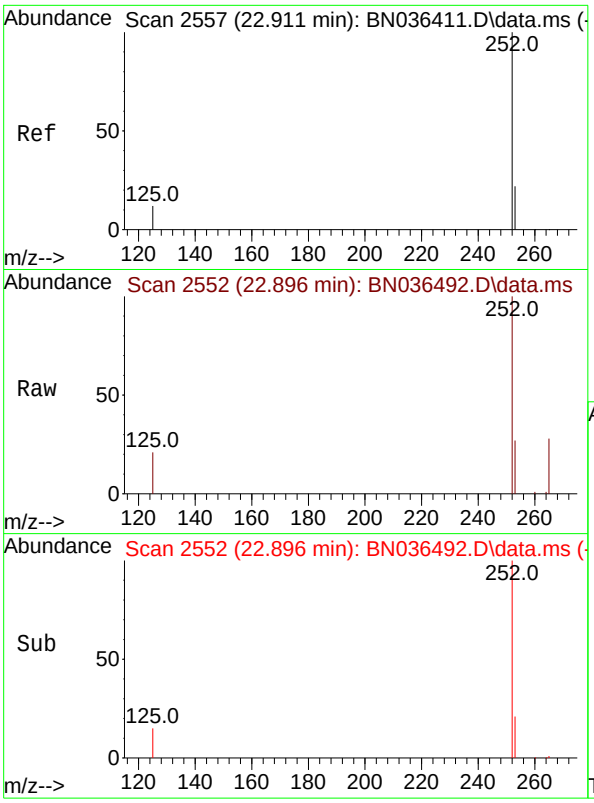


#36
Indeno(1,2,3-cd)pyrene
Concen: 0.396 ng
RT: 25.870 min Scan# 3569
Delta R.T. -0.029 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:276 Resp: 9456

Ion	Ratio	Lower	Upper
276	100		
138	27.3	22.2	33.2
277	24.5	19.8	29.6



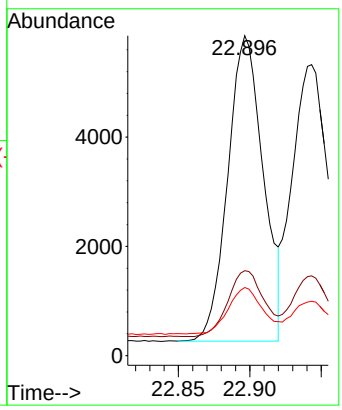


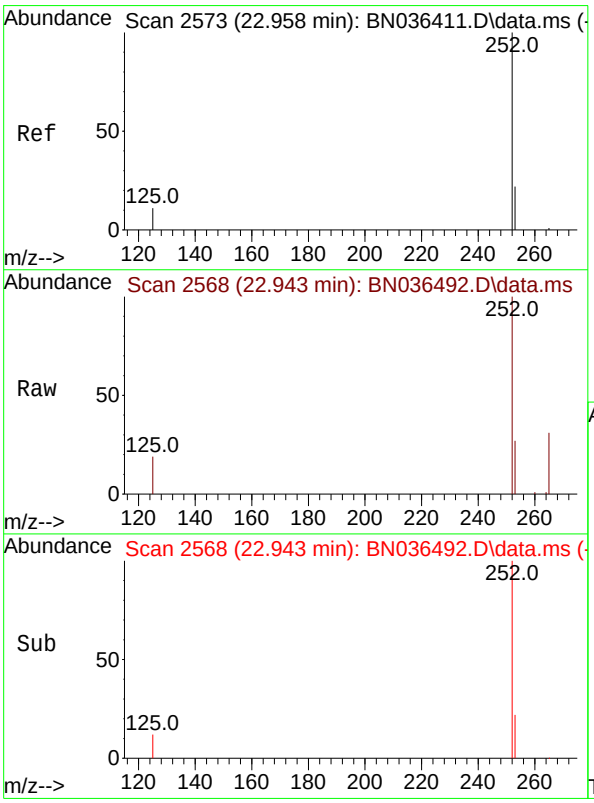
#37
Benzo(b)fluoranthene
Concen: 0.429 ng
RT: 22.896 min Scan# 2
Delta R.T. -0.015 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:252 Resp: 9651

Ion	Ratio	Lower	Upper
252	100		
253	26.5	21.9	32.9
125	21.3	15.0	22.6

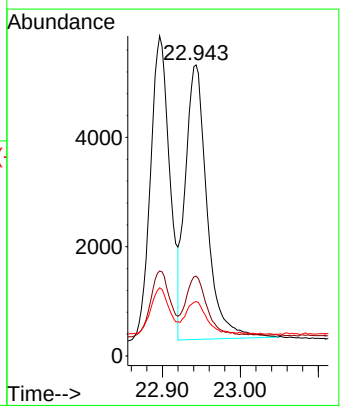


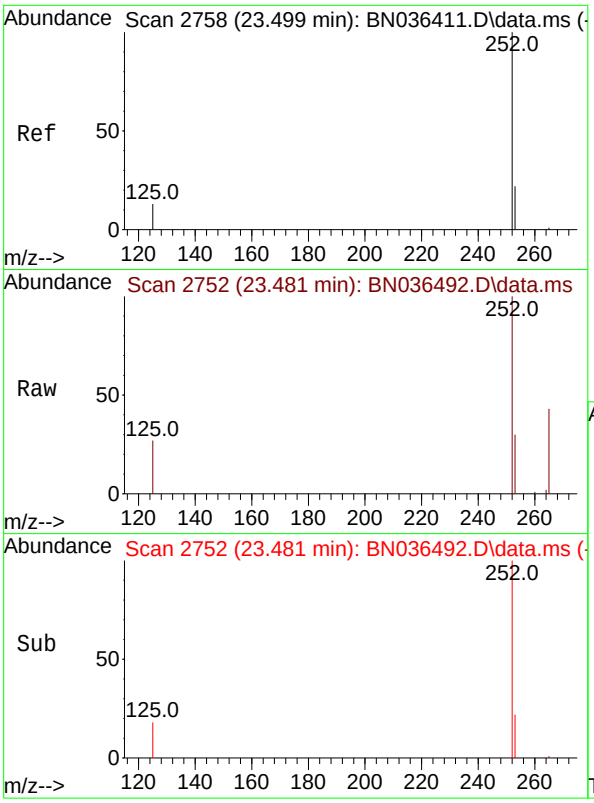


#38
Benzo(k)fluoranthene
Concen: 0.420 ng
RT: 22.943 min Scan# 2568
Delta R.T. -0.015 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:252 Resp: 9731

Ion	Ratio	Lower	Upper
252	100		
253	27.4	22.2	33.4
125	18.7	15.0	22.4



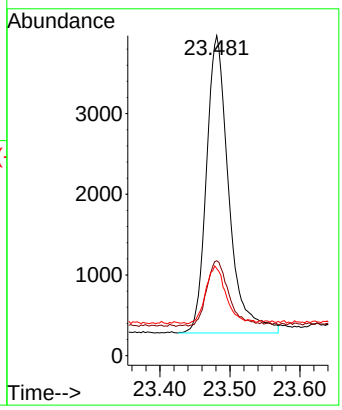


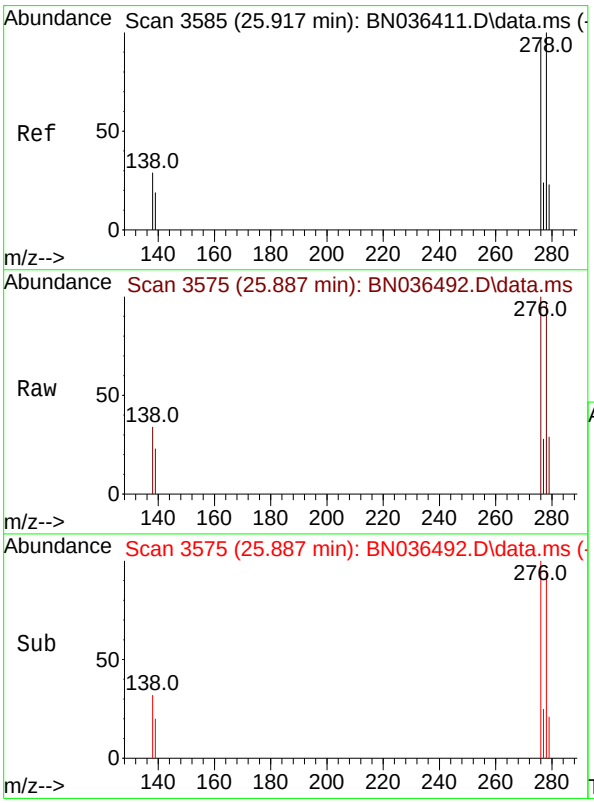
#39
Benzo(a)pyrene
Concen: 0.416 ng
RT: 23.481 min Scan# 2
Delta R.T. -0.018 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:252 Resp: 8162

Ion	Ratio	Lower	Upper
252	100		
253	29.6	24.4	36.6
125	27.2	18.2	27.2

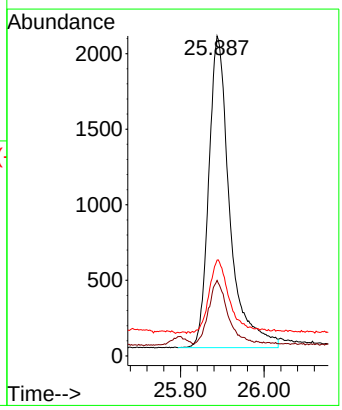


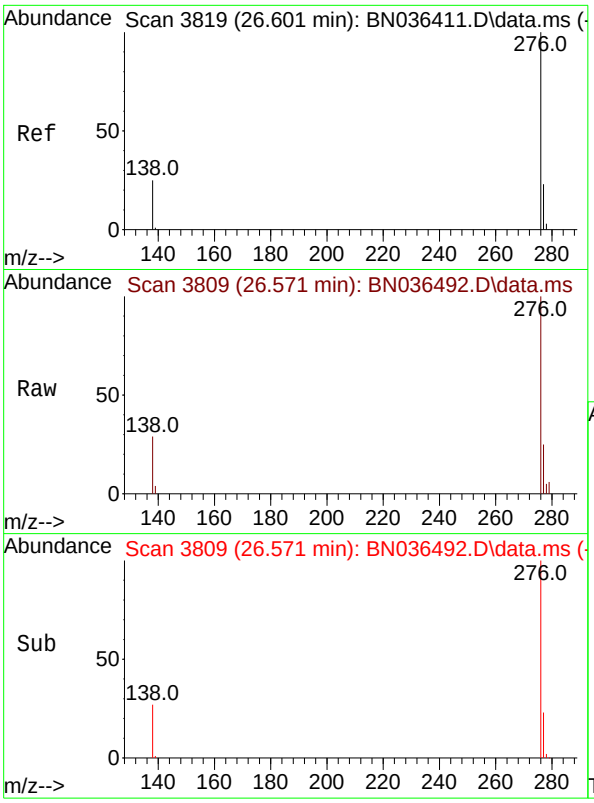


#40
Dibenzo(a,h)anthracene
Concen: 0.381 ng
RT: 25.887 min Scan# 3575
Delta R.T. -0.029 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Tgt Ion:278 Resp: 7176

Ion	Ratio	Lower	Upper
278	100		
139	23.6	18.5	27.7
279	29.9	24.8	37.2





#41
Benzo(g,h,i)perylene
Concen: 0.390 ng
RT: 26.571 min Scan# 3
Delta R.T. -0.029 min
Lab File: BN036492.D
Acq: 24 Feb 2025 10:49

Instrument :
BNA_N
ClientSampleId :
SSTDCCC0.4

Tgt Ion:276 Resp: 8331

Ion	Ratio	Lower	Upper
276	100		
277	24.9	20.7	31.1
138	28.9	21.8	32.6