Quantitation Report (Not Reviewed)

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN041125\
Data File : BN036873.D
Acq On : 11 Apr 2025 11:42
Operator : RC/JU
Sample : SSTDICC0.1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Quant Time: Apr 11 15:34:30 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_N\Methods\8270-SIM-BN041125.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Apr 11 15:32:59 2025
Response via : Initial Calibration

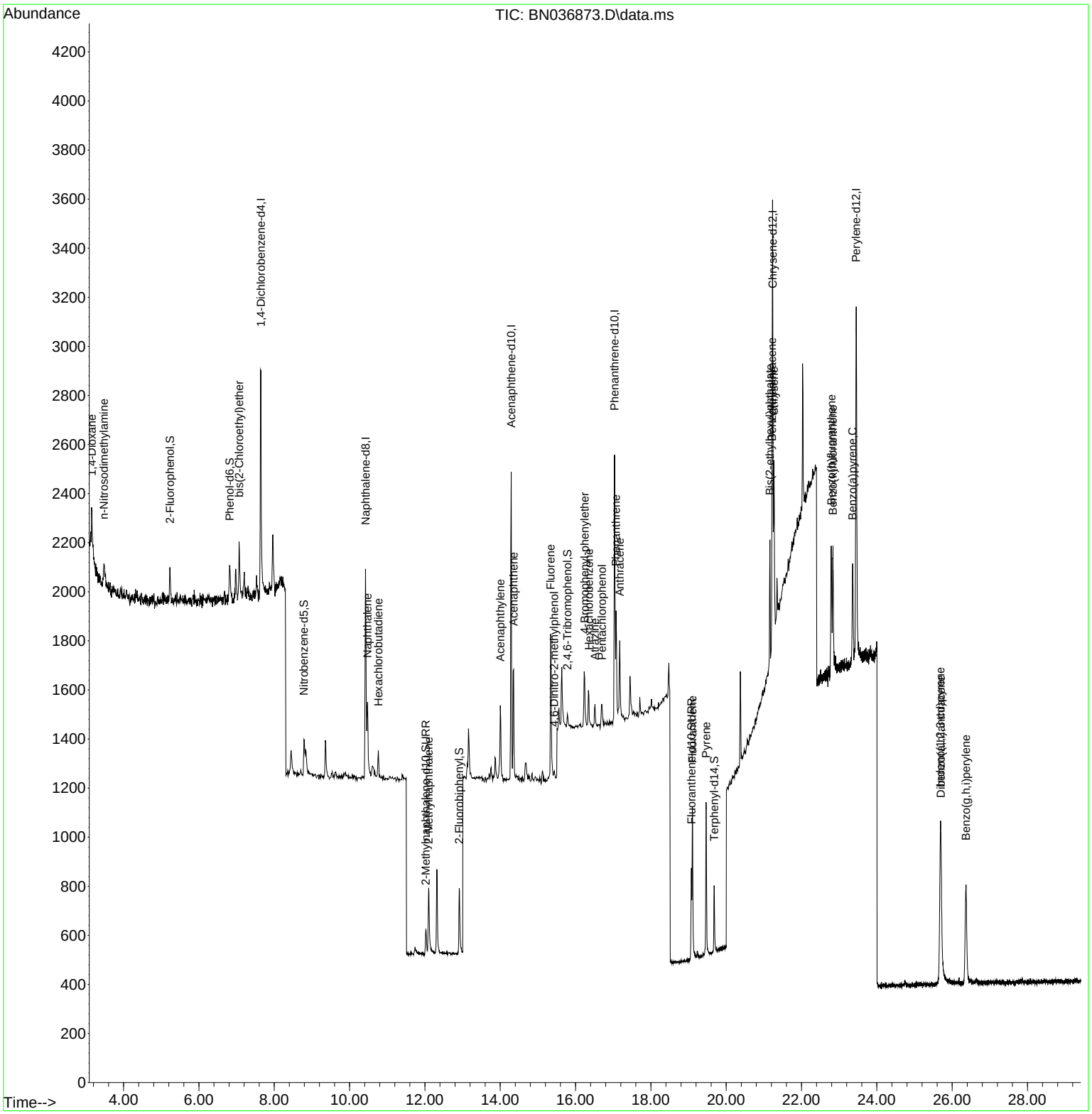
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.645	152	496	0.400	ng		0.00
7) Naphthalene-d8	10.424	136	1266	0.400	ng	#	0.00
13) Acenaphthene-d10	14.291	164	727	0.400	ng		0.00
19) Phenanthrene-d10	17.037	188	1622	0.400	ng		0.00
29) Chrysene-d12	21.232	240	1643	0.400	ng		0.00
35) Perylene-d12	23.452	264	2037	0.400	ng		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	5.233	112	124	0.105	ng		0.00
5) Phenol-d6	6.814	99	163	0.109	ng		0.00
8) Nitrobenzene-d5	8.790	82	182	0.128	ng		0.00
11) 2-Methylnaphthalene-d10	12.025	152	190	0.103	ng		0.00
14) 2,4,6-Tribromophenol	15.783	330	39	0.111	ng		0.00
15) 2-Fluorobiphenyl	12.912	172	375	0.107	ng		0.00
27) Fluoranthene-d10	19.076	212	446	0.098	ng		0.00
31) Terphenyl-d14	19.680	244	305	0.097	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.160	88	98	0.167	ng		91
3) n-Nitrosodimethylamine	3.478	42	127	0.098	ng	#	68
6) bis(2-Chloroethyl)ether	7.067	93	183	0.123	ng		88
9) Naphthalene	10.477	128	423	0.115	ng	#	75
10) Hexachlorobutadiene	10.765	225	95	0.113	ng	#	91
12) 2-Methylnaphthalene	12.101	142	254	0.108	ng	#	93
16) Acenaphthylene	14.003	152	356	0.105	ng	#	96
17) Acenaphthene	14.356	154	223	0.101	ng		98
18) Fluorene	15.339	166	308	0.101	ng		98
20) 4,6-Dinitro-2-methylph...	15.435	198	33	0.087	ng	#	18
21) 4-Bromophenyl-phenylether	16.243	248	97	0.099	ng	#	91
22) Hexachlorobenzene	16.354	284	125	0.107	ng		95
23) Atrazine	16.516	200	96	0.100	ng	#	68
24) Pentachlorophenol	16.702	266	62	0.103	ng	#	85
25) Phenanthrene	17.074	178	500	0.103	ng		99
26) Anthracene	17.173	178	419	0.097	ng		98
28) Fluoranthene	19.104	202	587	0.097	ng		98
30) Pyrene	19.466	202	611	0.098	ng		99
32) Benzo(a)anthracene	21.214	228	559	0.097	ng	#	83
33) Chrysene	21.268	228	590	0.092	ng	#	89
34) Bis(2-ethylhexyl)phtha...	21.161	149	495	0.113	ng	#	98
36) Indeno(1,2,3-cd)pyrene	25.686	276	907	0.093	ng	#	88
37) Benzo(b)fluoranthene	22.791	252	699	0.097	ng	#	54
38) Benzo(k)fluoranthene	22.832	252	630	0.087	ng	#	53
39) Benzo(a)pyrene	23.356	252	571	0.091	ng	#	53
40) Dibenzo(a,h)anthracene	25.703	278	678	0.088	ng	#	54
41) Benzo(g,h,i)perylene	26.367	276	838	0.096	ng	#	80

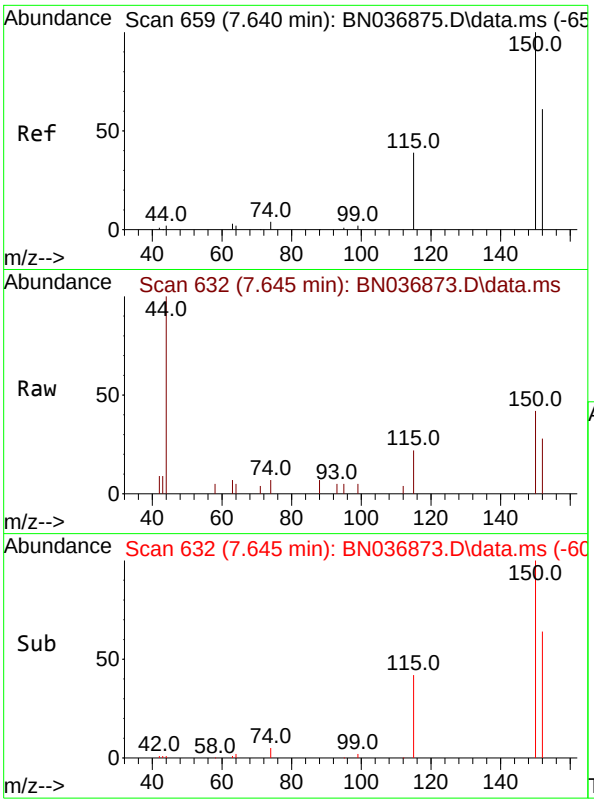
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN041125\
Data File : BN036873.D
Acq On : 11 Apr 2025 11:42
Operator : RC/JU
Sample : SSTDICC0.1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Quant Time: Apr 11 15:34:30 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_N\Methods\8270-SIM-BN041125.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Apr 11 15:32:59 2025
Response via : Initial Calibration



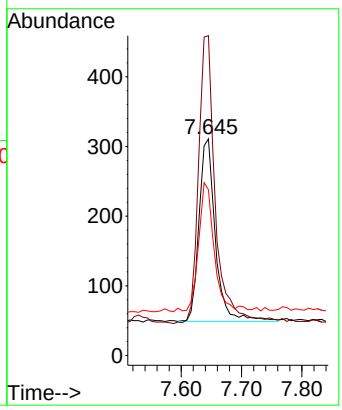


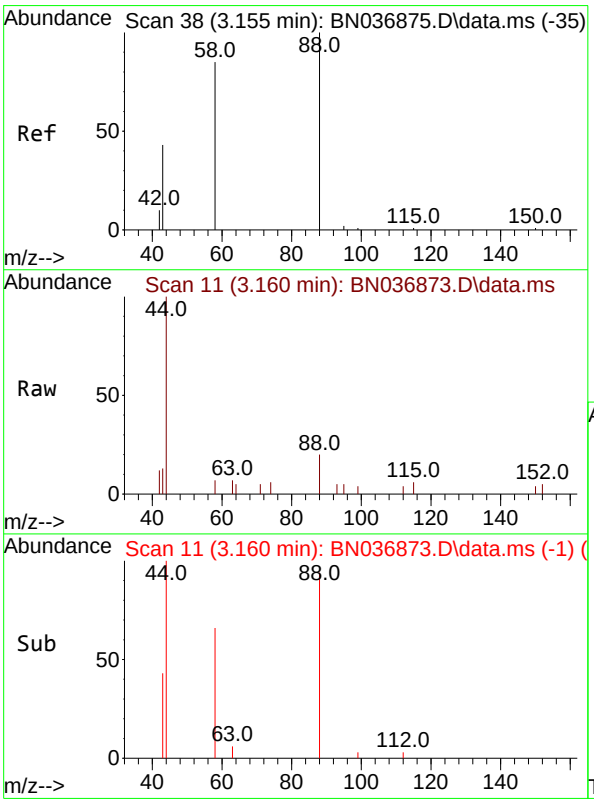
#1
1,4-Dichlorobenzene-d4
Concen: 0.400 ng
RT: 7.645 min Scan# 6
Delta R.T. 0.005 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:152 Resp: 496

Ion	Ratio	Lower	Upper
152	100		
150	147.6	123.0	184.6
115	76.5	60.1	90.1

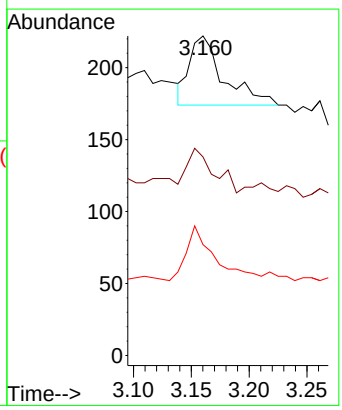


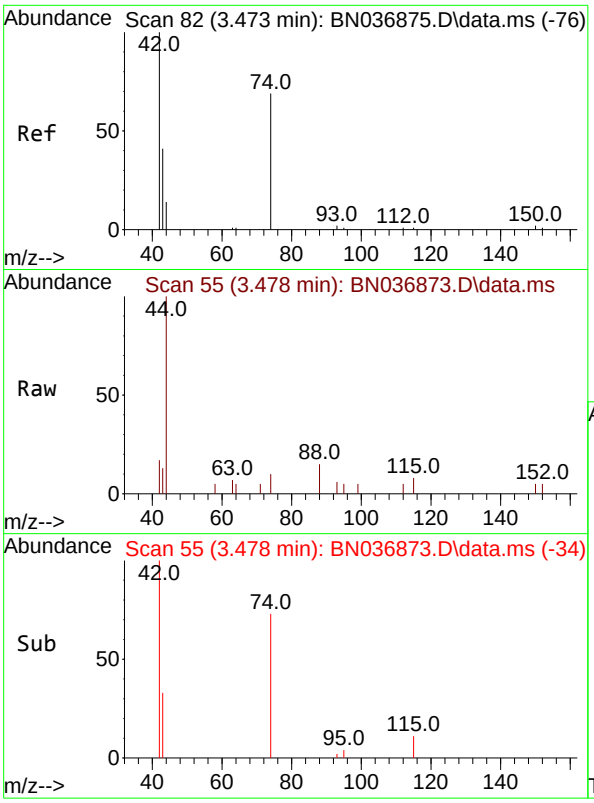


#2
1,4-Dioxane
Concen: 0.167 ng
RT: 3.160 min Scan# 11
Delta R.T. 0.005 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion: 88 Resp: 98

Ion	Ratio	Lower	Upper
88	100		
43	49.0	39.2	58.8
58	66.3	63.5	95.3



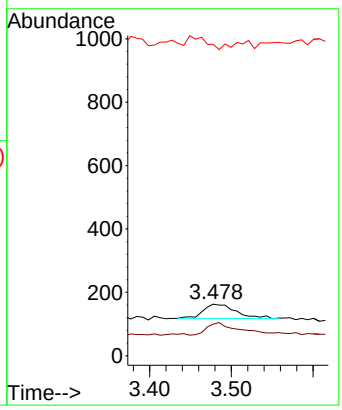


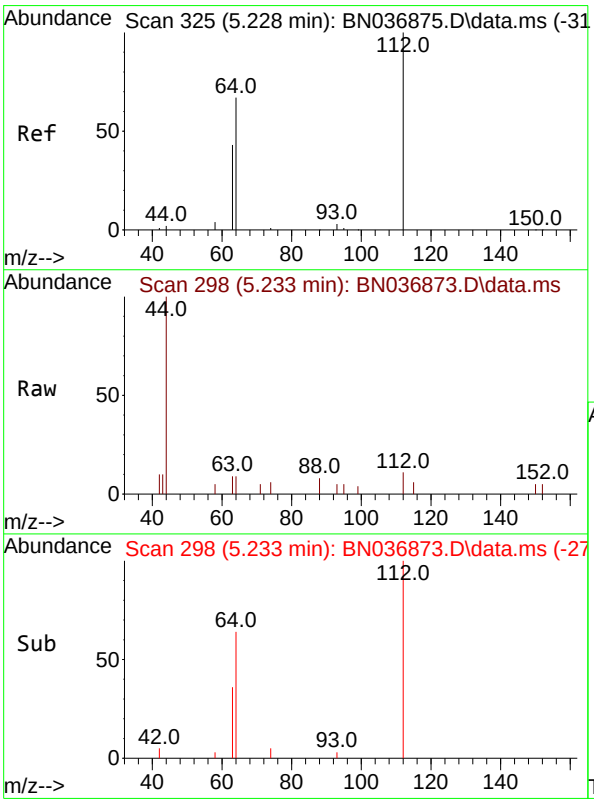
#3
n-Nitrosodimethylamine
Concen: 0.098 ng
RT: 3.478 min Scan# 5
Delta R.T. 0.005 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion: 42 Resp: 127

Ion	Ratio	Lower	Upper
42	100		
74	94.5	54.6	81.8#
44	0.0	0.0	0.0

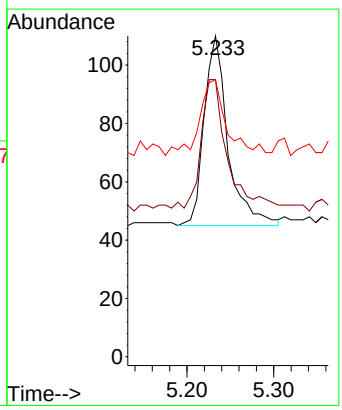


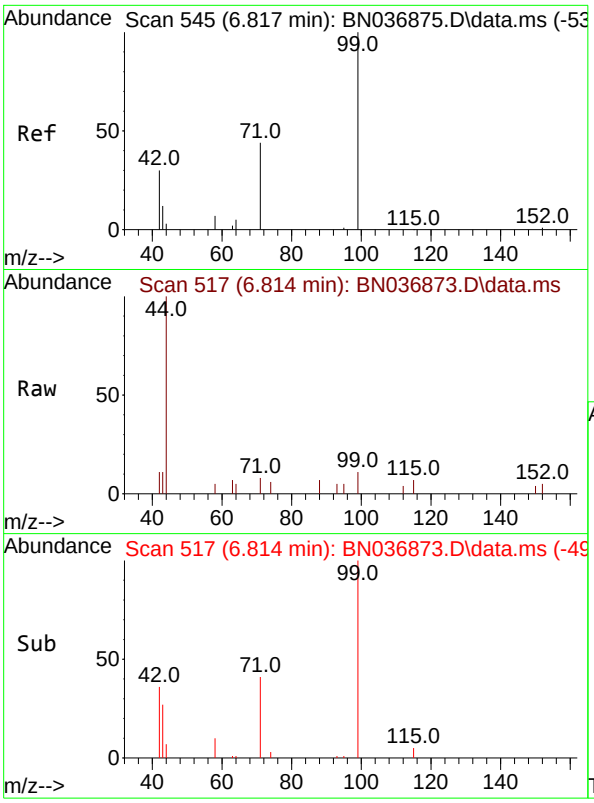


#4
2-Fluorophenol
Concen: 0.105 ng
RT: 5.233 min Scan# 298
Delta R.T. 0.005 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:112 Resp: 124

Ion	Ratio	Lower	Upper
112	100		
64	81.5	54.0	81.0#
63	46.0	35.1	52.7



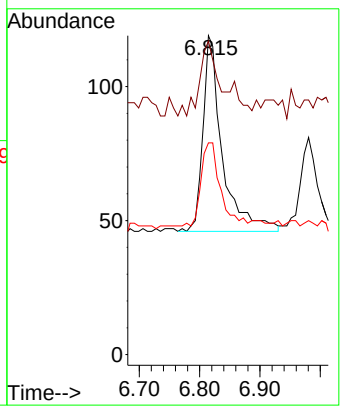


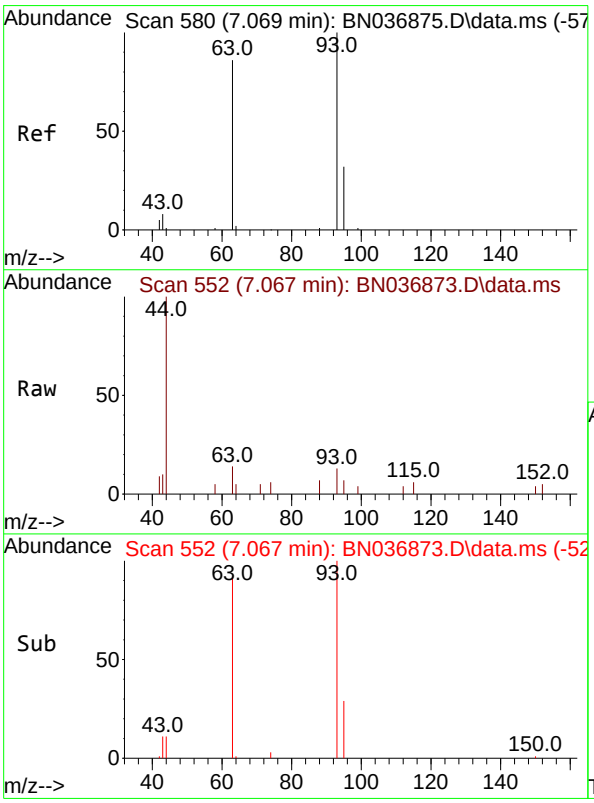
#5
Phenol-d6
Concen: 0.109 ng
RT: 6.814 min Scan# 5
Delta R.T. -0.002 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion: 99 Resp: 163

Ion	Ratio	Lower	Upper
99	100		
42	35.0	30.9	46.3
71	41.7	38.6	58.0

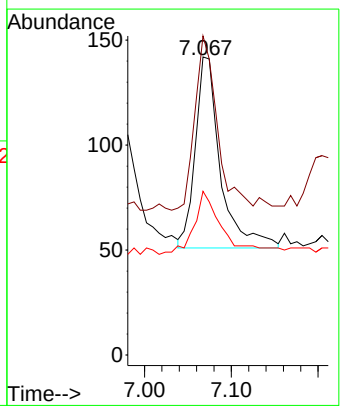


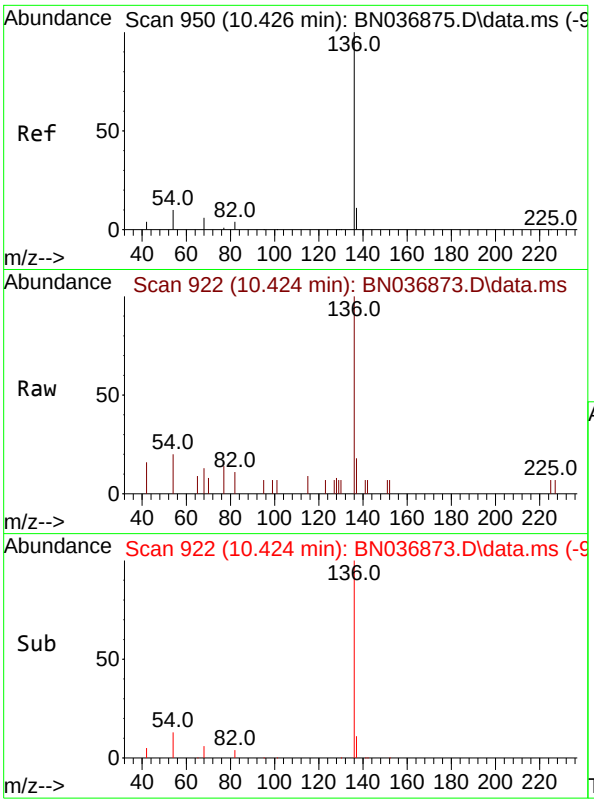


#6
bis(2-Chloroethyl)ether
Concen: 0.123 ng
RT: 7.067 min Scan# 552
Delta R.T. -0.002 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion: 93 Resp: 183

Ion	Ratio	Lower	Upper
93	100		
63	83.1	76.4	114.6
95	37.7	26.1	39.1



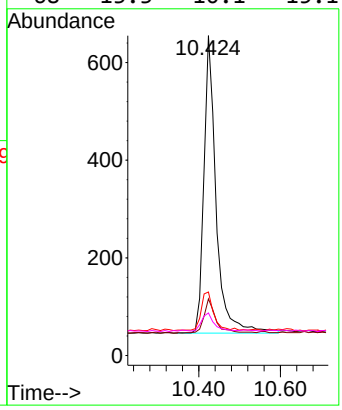


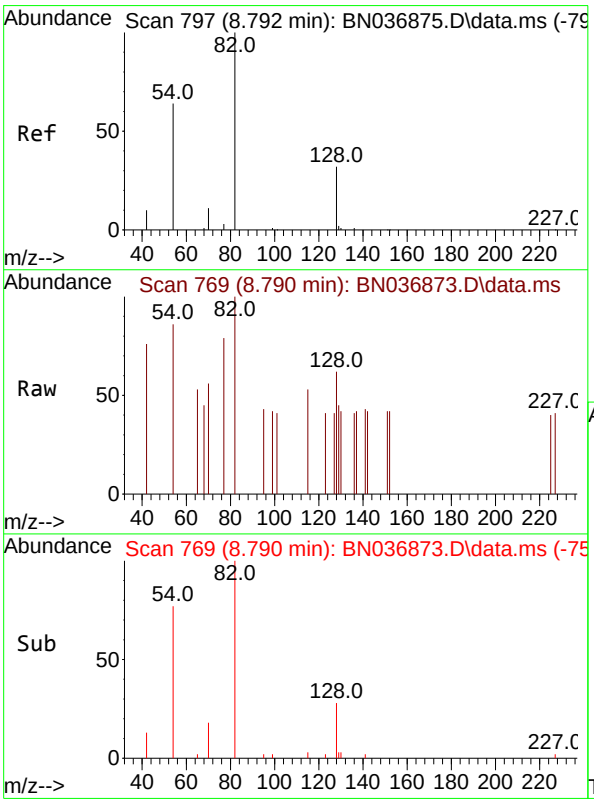
#7
Naphthalene-d8
Concen: 0.400 ng
RT: 10.424 min Scan# 9
Delta R.T. -0.002 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:136 Resp: 1266

Ion	Ratio	Lower	Upper
136	100		
137	17.7	13.5	20.3
54	19.8	12.8	19.2#
68	13.3	10.1	15.1

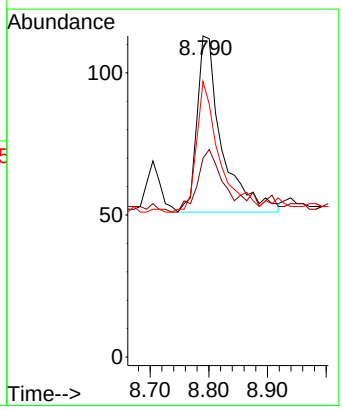


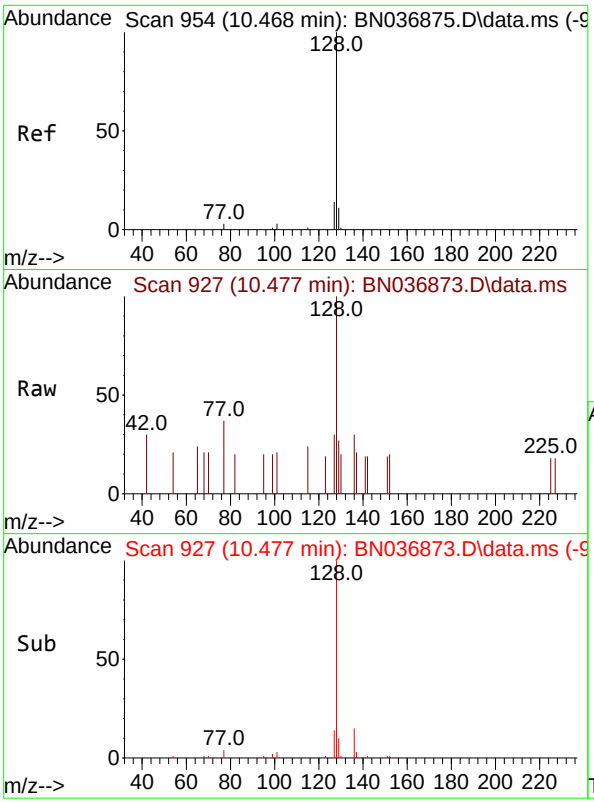


#8
Nitrobenzene-d5
Concen: 0.128 ng
RT: 8.790 min Scan# 769
Delta R.T. -0.002 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion: 82 Resp: 182

Ion	Ratio	Lower	Upper
82	100		
128	61.9	35.5	53.3#
54	85.8	56.2	84.4#



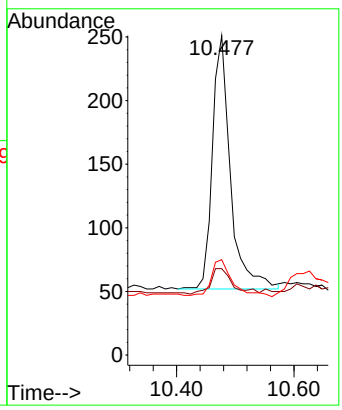


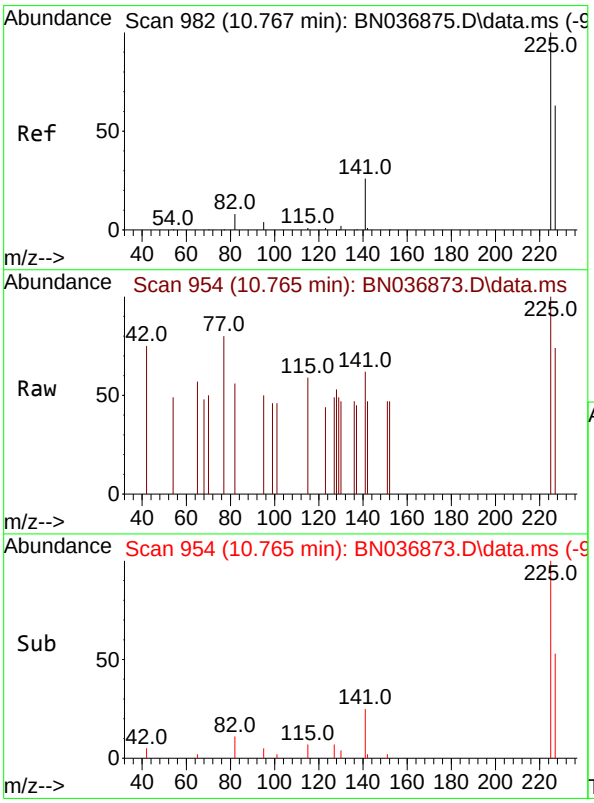
#9
Naphthalene
Concen: 0.115 ng
RT: 10.477 min Scan# 9
Delta R.T. 0.009 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:128 Resp: 423

Ion	Ratio	Lower	Upper
128	100		
129	27.1	12.9	19.3#
127	29.9	15.0	22.6#

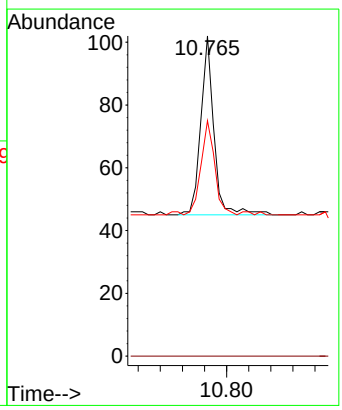


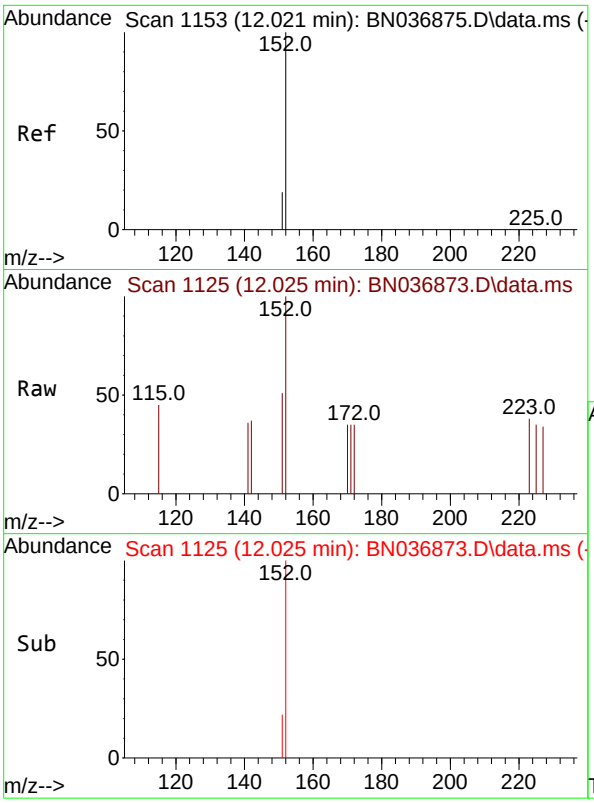


#10
Hexachlorobutadiene
Concen: 0.113 ng
RT: 10.765 min Scan# 954
Delta R.T. -0.002 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:225 Resp: 95

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	55.8	50.5	75.7



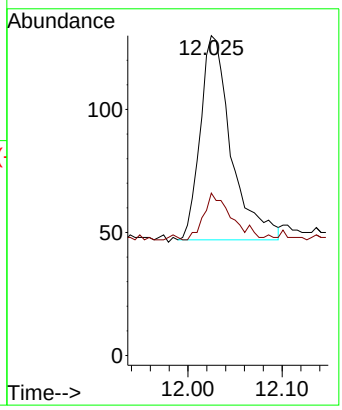


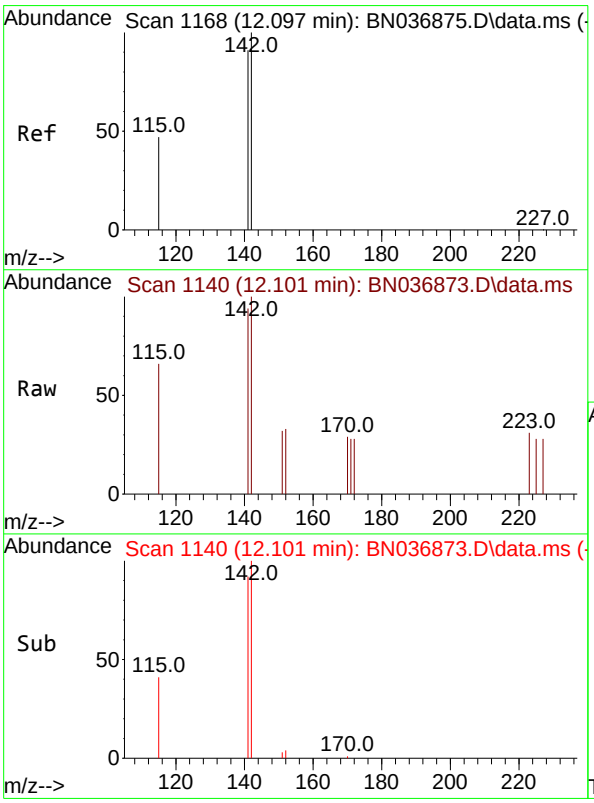
#11
2-Methylnaphthalene-d10
Concen: 0.103 ng
RT: 12.025 min Scan# 11
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:152 Resp: 190

Ion	Ratio	Lower	Upper
152	100		
151	20.5	17.8	26.8

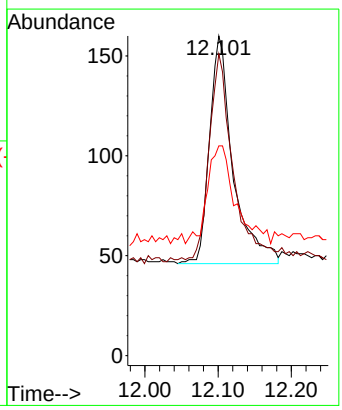


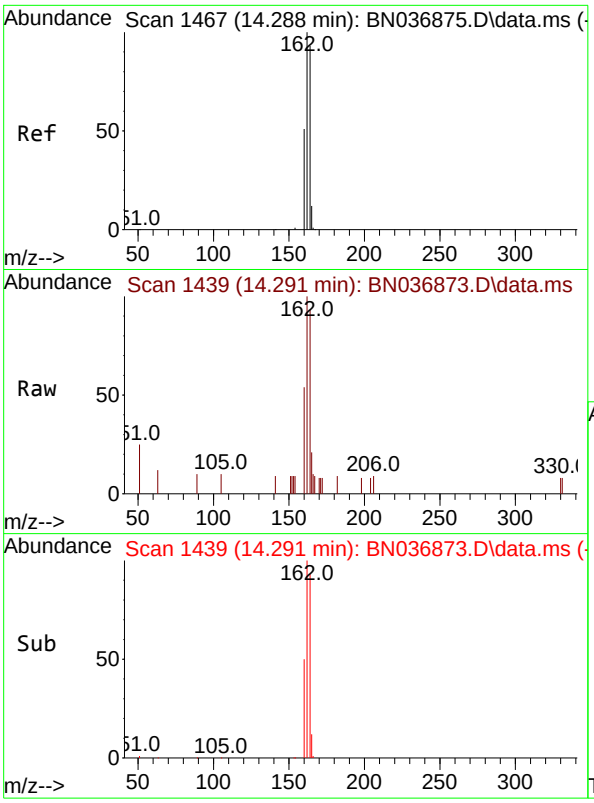


#12
2-Methylnaphthalene
Concen: 0.108 ng
RT: 12.101 min Scan# 1140
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:142 Resp: 254

Ion	Ratio	Lower	Upper
142	100		
141	94.4	73.8	110.8
115	65.6	43.3	64.9#



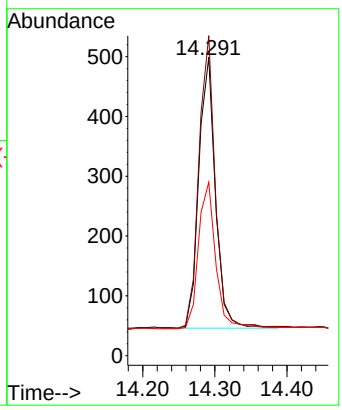


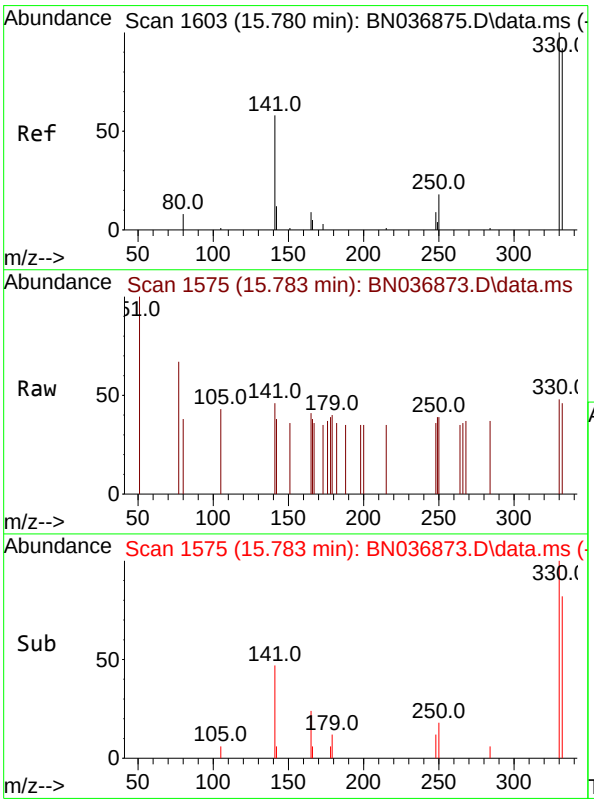
#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.291 min Scan# 14
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:164 Resp: 727

Ion	Ratio	Lower	Upper
164	100		
162	107.2	85.7	128.5
160	58.1	46.9	70.3

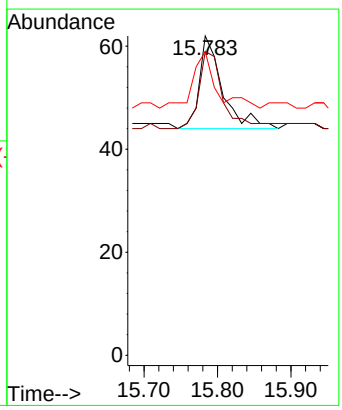


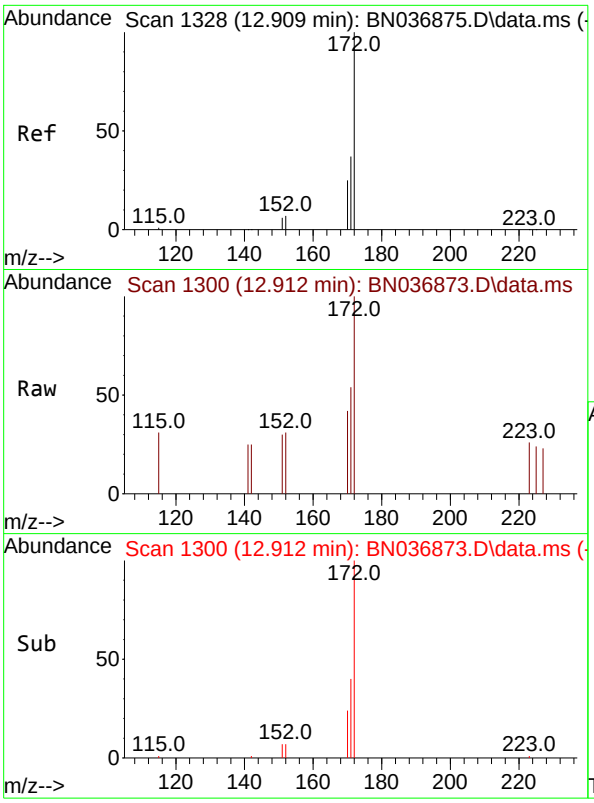


#14
2,4,6-Tribromophenol
Concen: 0.111 ng
RT: 15.783 min Scan# 1575
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:330 Resp: 39

Ion	Ratio	Lower	Upper
330	100		
332	87.2	87.0	130.6
141	61.5	45.3	67.9



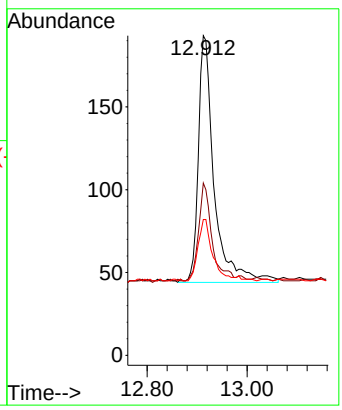


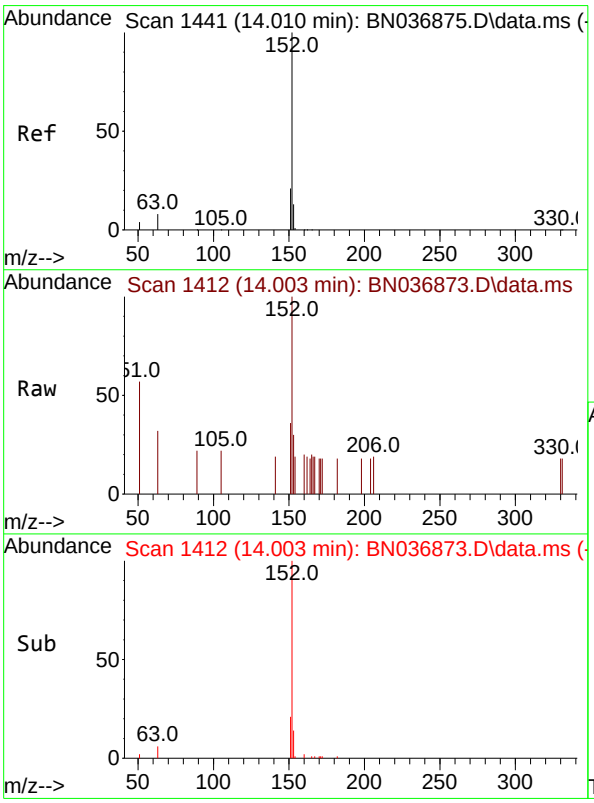
#15
2-Fluorobiphenyl
Concen: 0.107 ng
RT: 12.912 min Scan# 1
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:172 Resp: 375

Ion	Ratio	Lower	Upper
172	100		
171	53.9	32.7	49.1#
170	42.5	23.3	34.9#

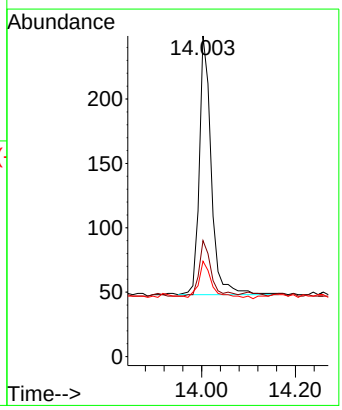


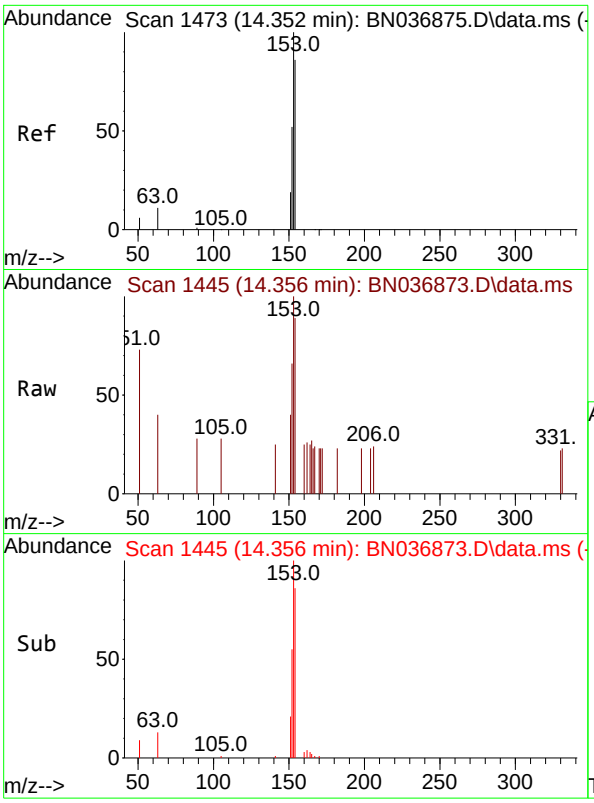


#16
Acenaphthylene
Concen: 0.105 ng
RT: 14.003 min Scan# 1412
Delta R.T. -0.007 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:152 Resp: 356

Ion	Ratio	Lower	Upper
152	100		
151	21.1	16.4	24.6
153	16.6	10.3	15.5#



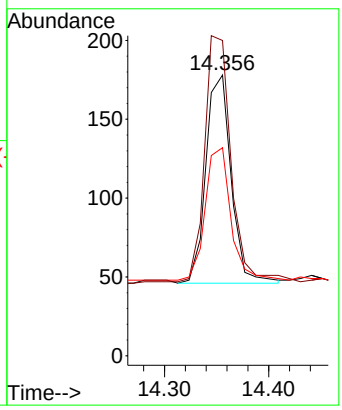


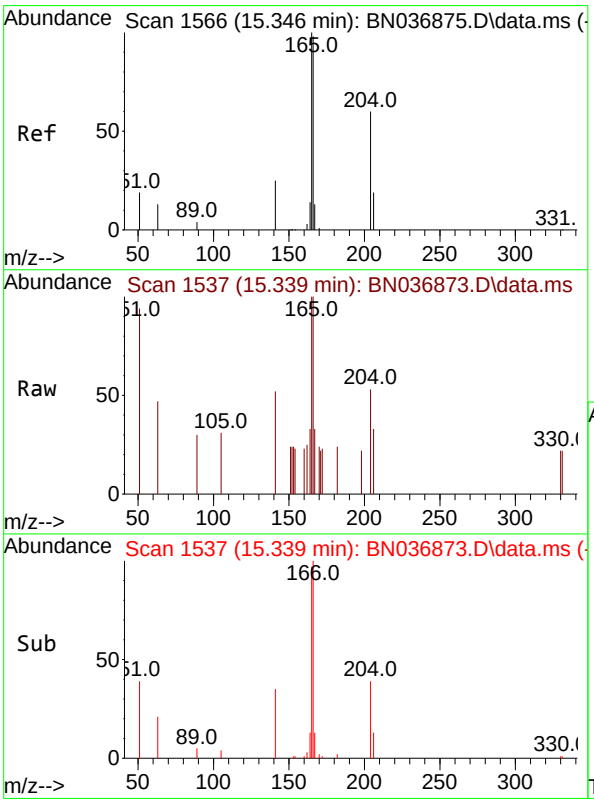
#17
Acenaphthene
Concen: 0.101 ng
RT: 14.356 min Scan# 14
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:154 Resp: 223

Ion	Ratio	Lower	Upper
154	100		
153	124.7	97.8	146.6
152	64.1	52.7	79.1

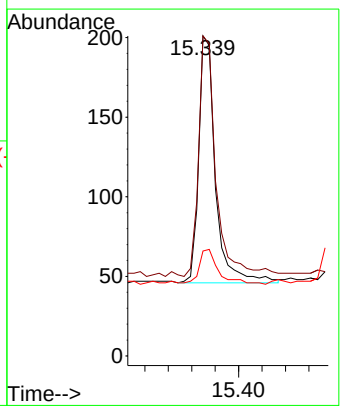


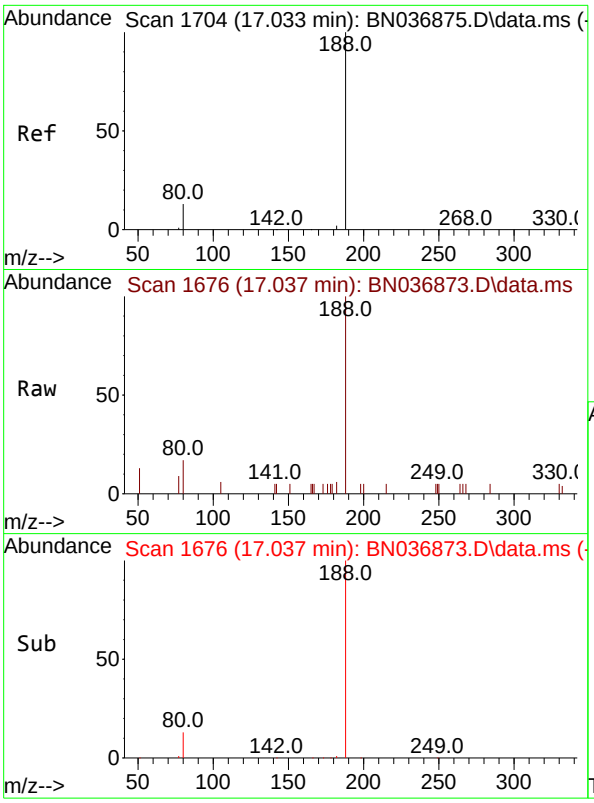


#18
Fluorene
Concen: 0.101 ng
RT: 15.339 min Scan# 1537
Delta R.T. -0.007 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:166 Resp: 308

Ion	Ratio	Lower	Upper
166	100		
165	102.6	83.2	124.8
167	16.6	11.1	16.7





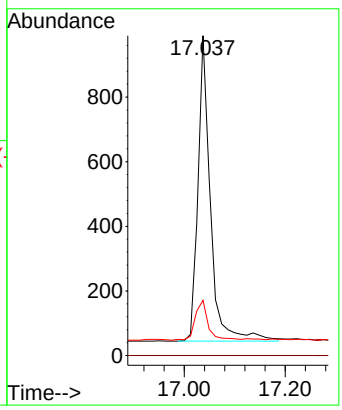
#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 17.037 min Scan# 1

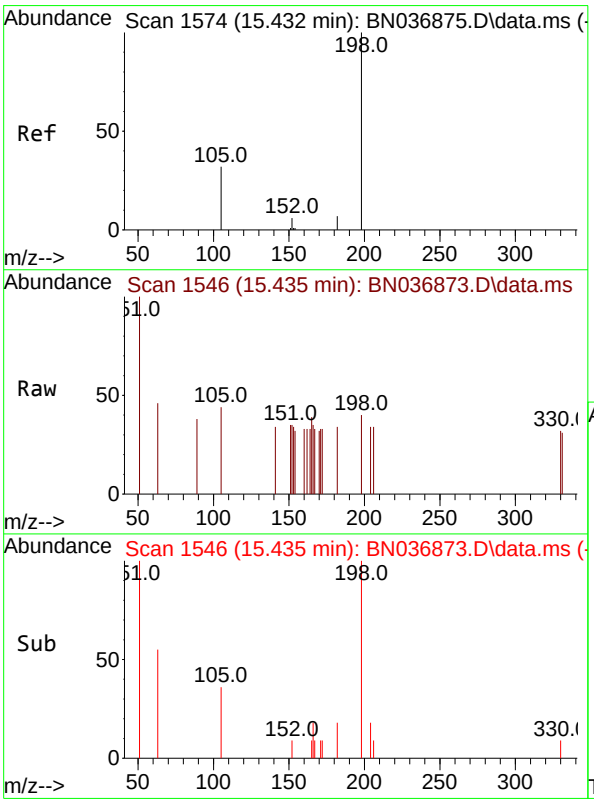
Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:188 Resp: 1622

Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	17.3	13.9	20.9

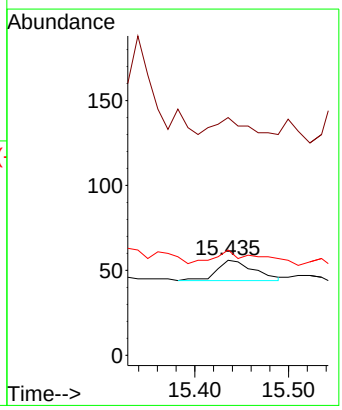


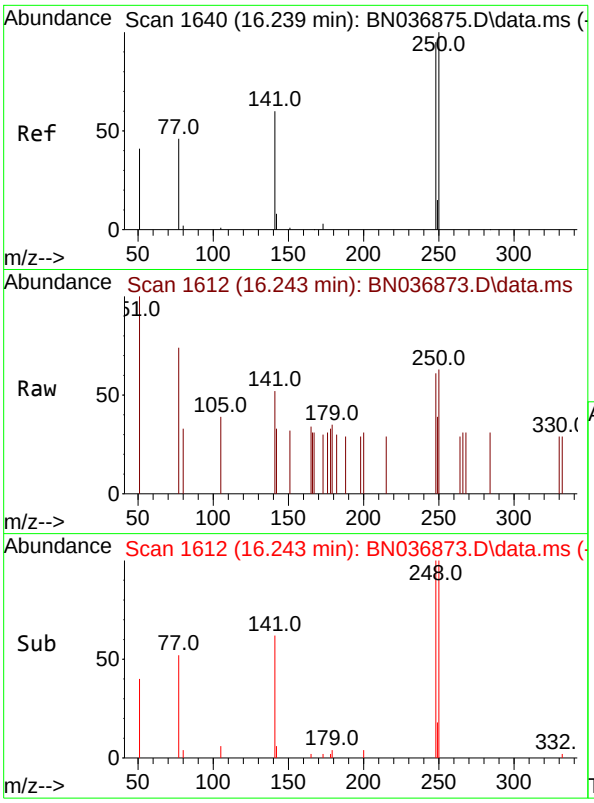


#20
4,6-Dinitro-2-methylphenol
Concen: 0.087 ng
RT: 15.435 min Scan# 1546
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:198 Resp: 33

Ion	Ratio	Lower	Upper
198	100		
51	250.0	107.6	161.4#
105	110.7	55.2	82.8#



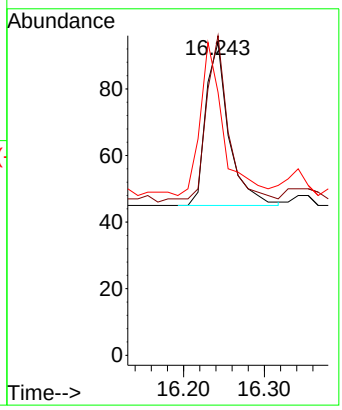


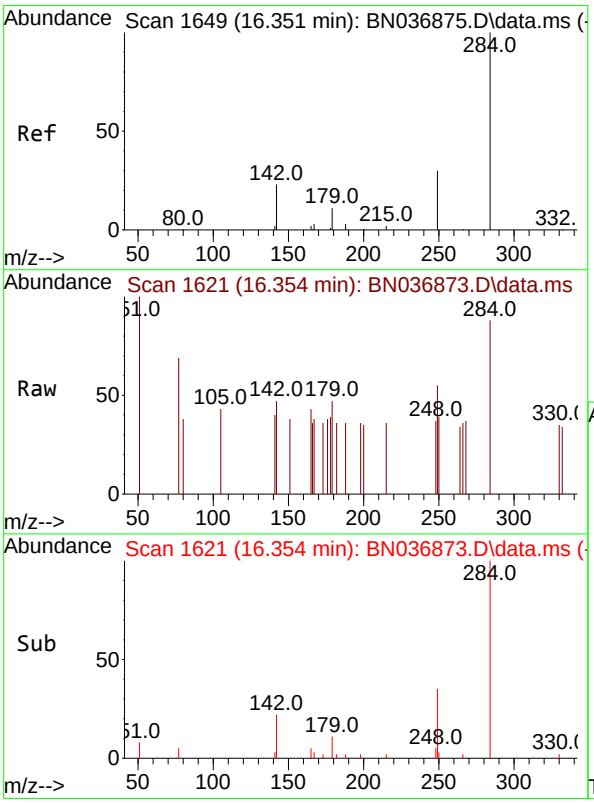
#21
4-Bromophenyl-phenylether
Concen: 0.099 ng
RT: 16.243 min Scan# 1
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:248 Resp: 97

Ion	Ratio	Lower	Upper
248	100		
250	102.1	83.5	125.3
141	84.0	55.3	82.9#

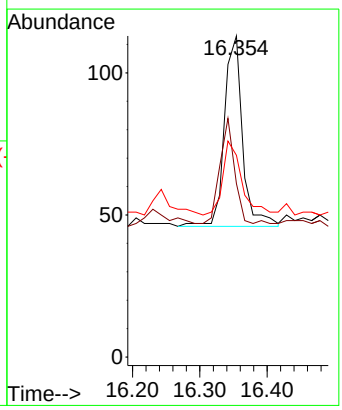


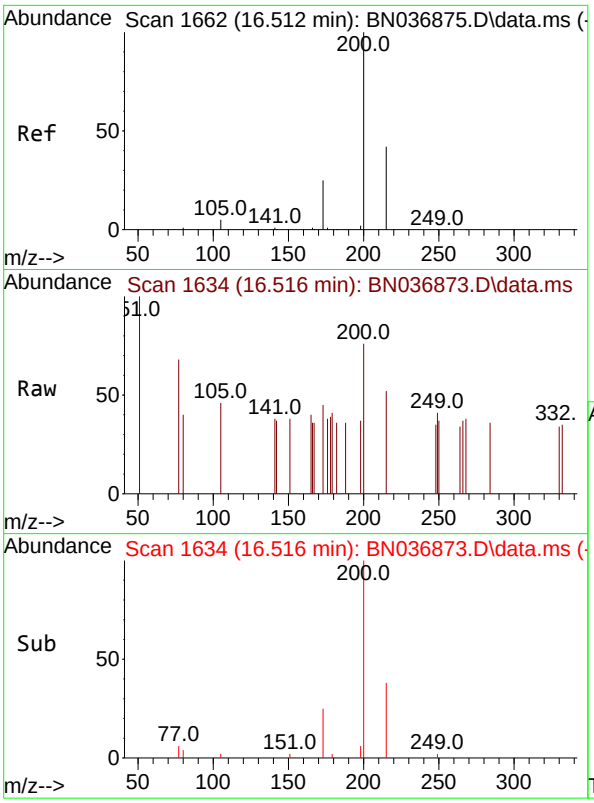


#22
Hexachlorobenzene
Concen: 0.107 ng
RT: 16.354 min Scan# 1621
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:284 Resp: 125

Ion	Ratio	Lower	Upper
284	100		
142	49.6	37.7	56.5
249	40.8	29.0	43.6



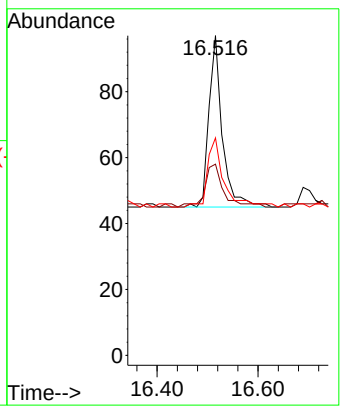


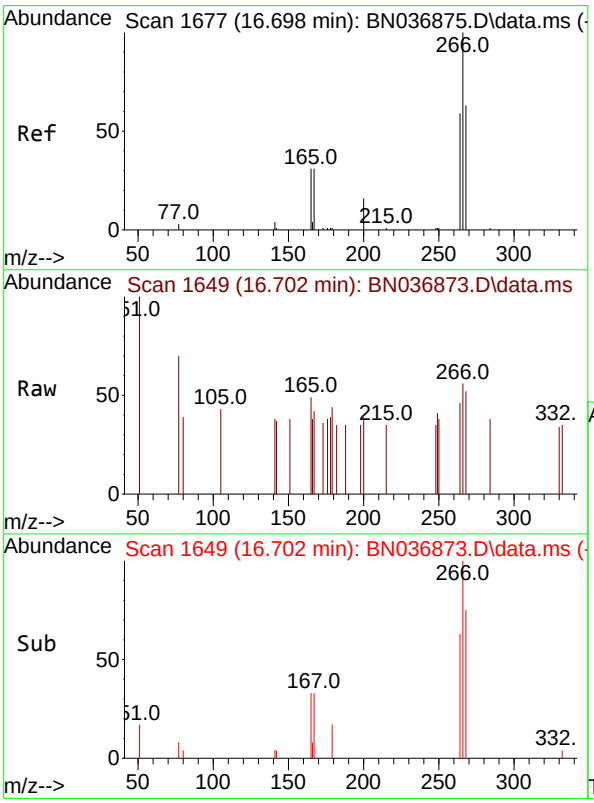
#23
Atrazine
Concen: 0.100 ng
RT: 16.516 min Scan# 1
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:200 Resp: 96

Ion	Ratio	Lower	Upper
200	100		
173	59.8	28.6	43.0#
215	68.0	40.5	60.7#

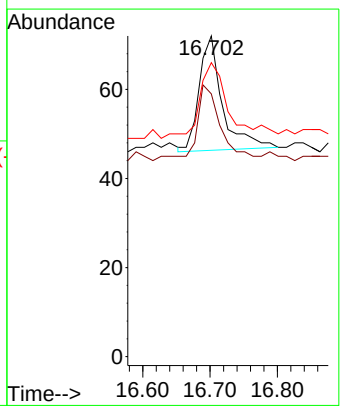


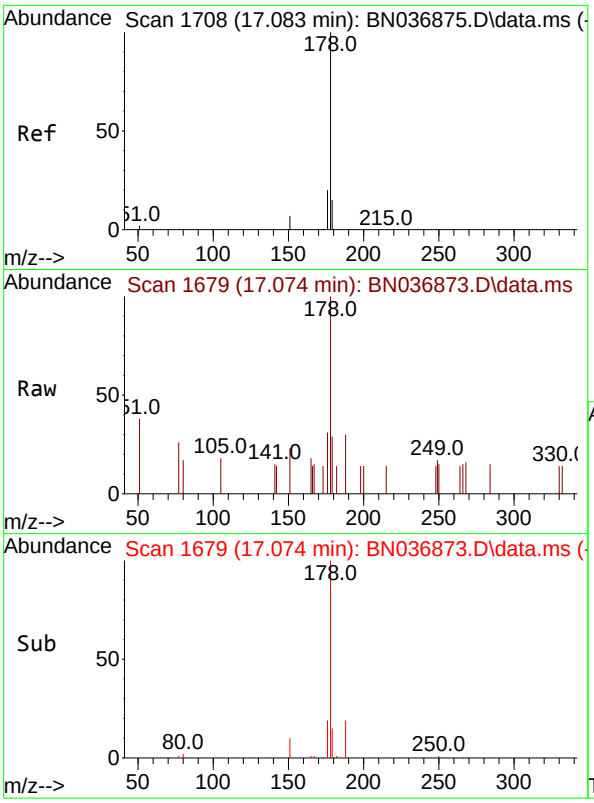


#24
Pentachlorophenol
Concen: 0.103 ng
RT: 16.702 min Scan# 1649
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:266 Resp: 62

Ion	Ratio	Lower	Upper
266	100		
264	69.4	44.6	66.8#
268	74.2	51.8	77.6



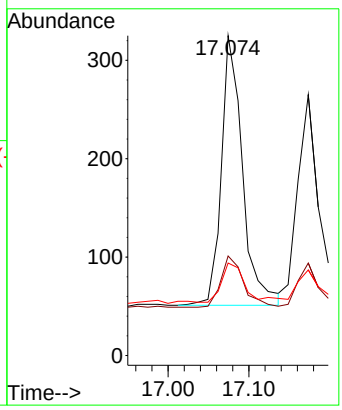


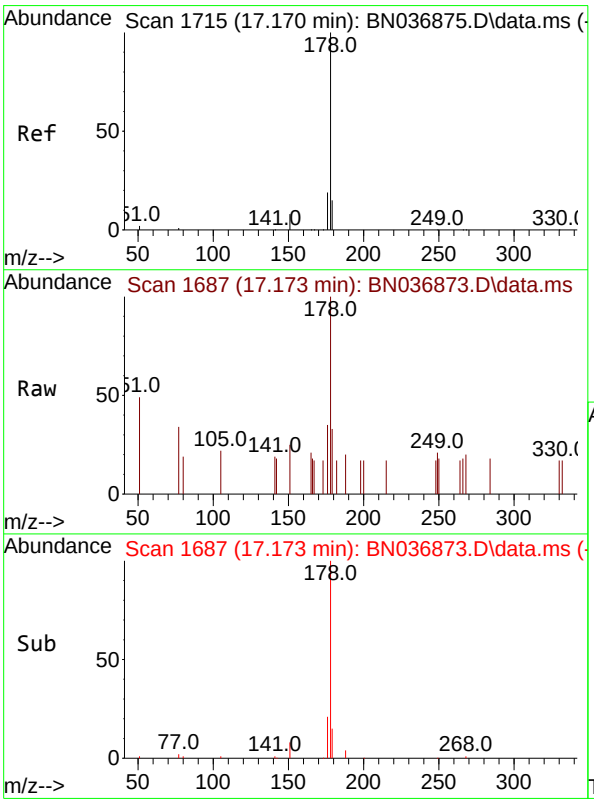
#25
Phenanthrene
Concen: 0.103 ng
RT: 17.074 min Scan# 1
Delta R.T. -0.009 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:178 Resp: 500

Ion	Ratio	Lower	Upper
178	100		
176	20.2	16.6	25.0
179	16.0	12.8	19.2

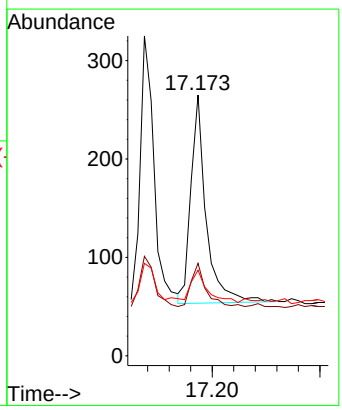


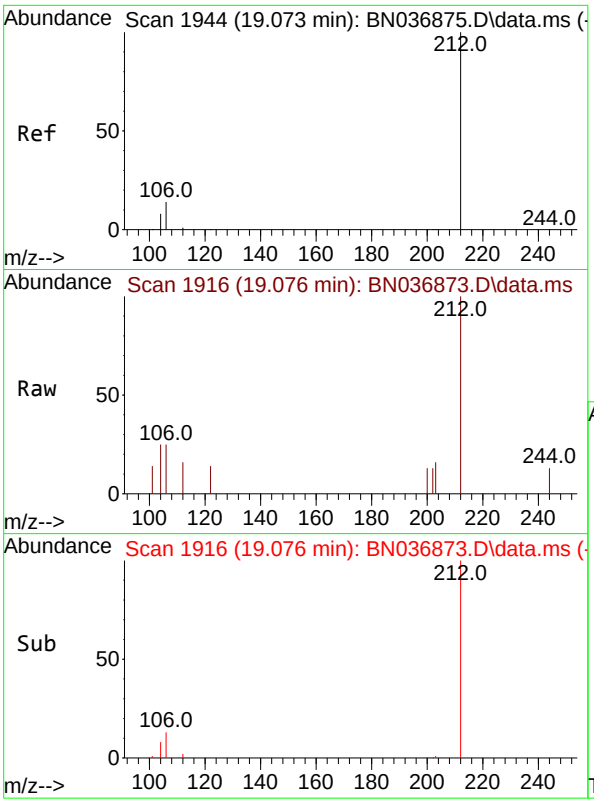


#26
Anthracene
Concen: 0.097 ng
RT: 17.173 min Scan# 1687
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:178 Resp: 419

Ion	Ratio	Lower	Upper
178	100		
176	20.5	15.8	23.6
179	16.7	12.6	18.8



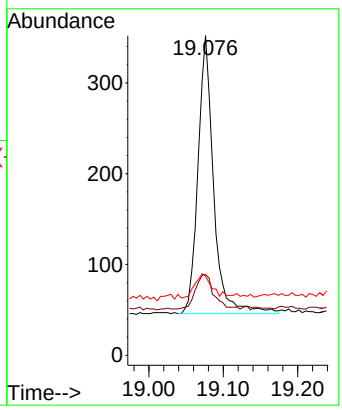


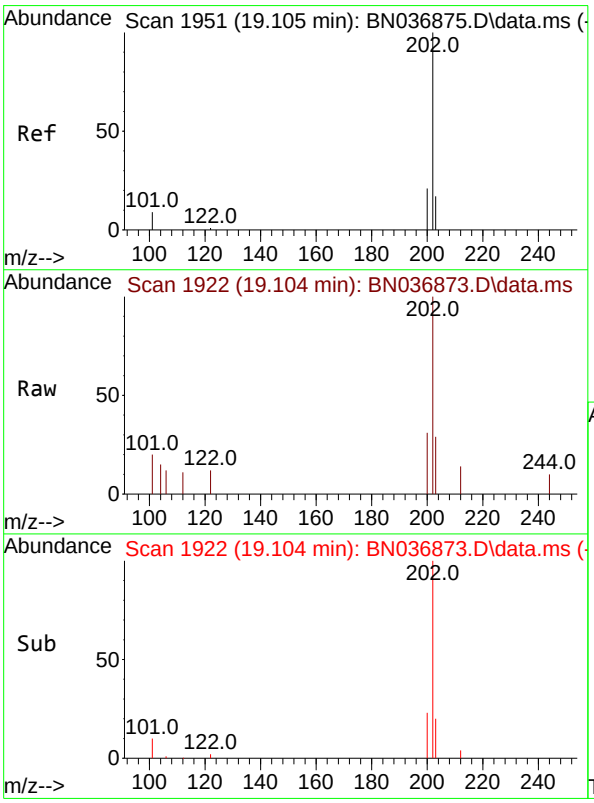
#27
Fluoranthene-d10
Concen: 0.098 ng
RT: 19.076 min Scan# 1
Delta R.T. 0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:212 Resp: 446

Ion	Ratio	Lower	Upper
212	100		
106	14.8	11.2	16.8
104	9.6	7.5	11.3

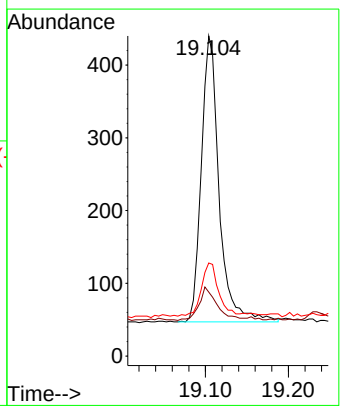


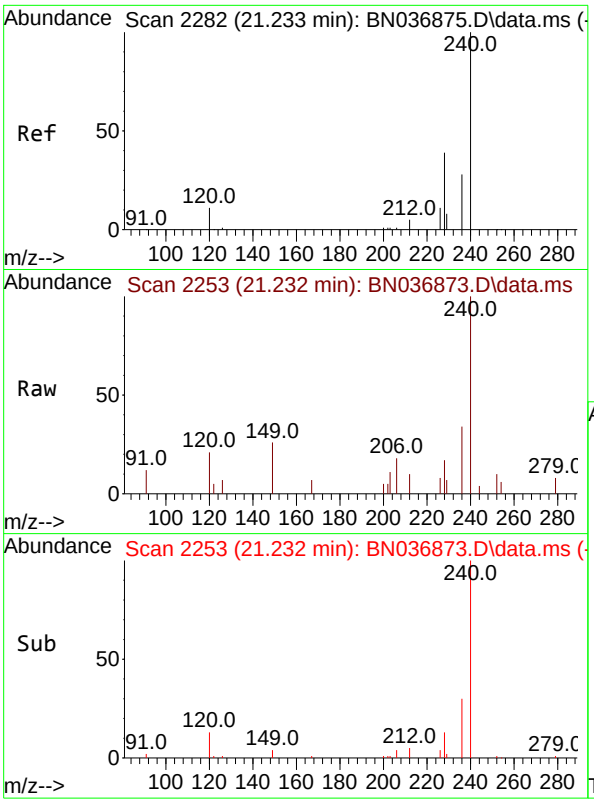


#28
Fluoranthene
Concen: 0.097 ng
RT: 19.104 min Scan# 1922
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:202 Resp: 587

Ion	Ratio	Lower	Upper
202	100		
101	11.8	8.5	12.7
203	17.9	13.8	20.6



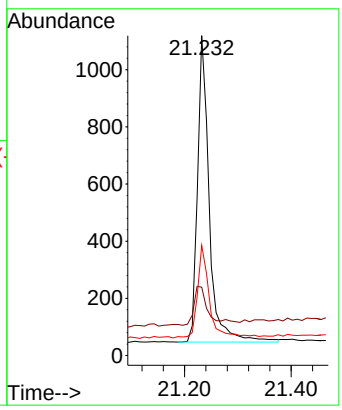


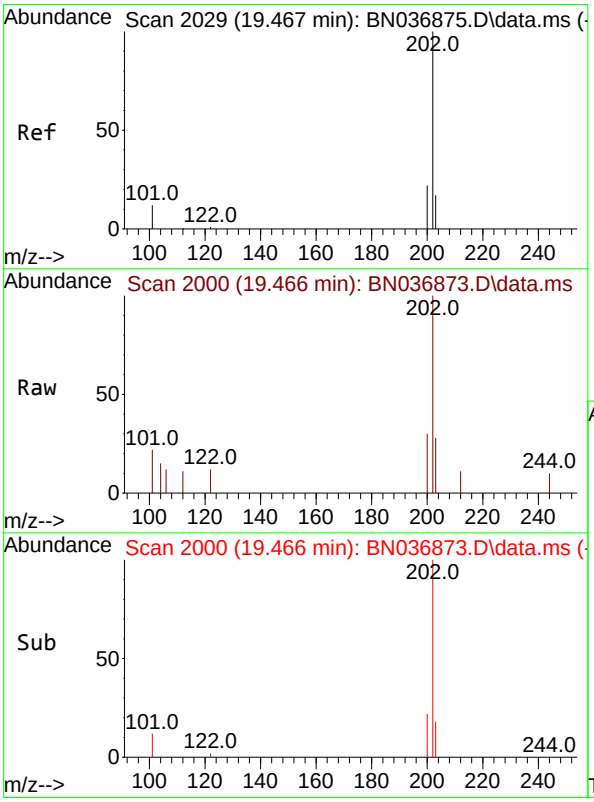
#29
Chrysene-d12
Concen: 0.400 ng
RT: 21.232 min Scan# 2
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:240 Resp: 1643

Ion	Ratio	Lower	Upper
240	100		
120	21.4	15.8	23.6
236	34.4	25.8	38.8

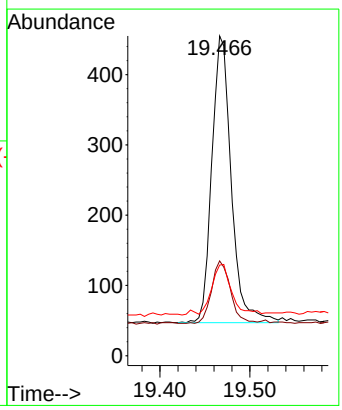


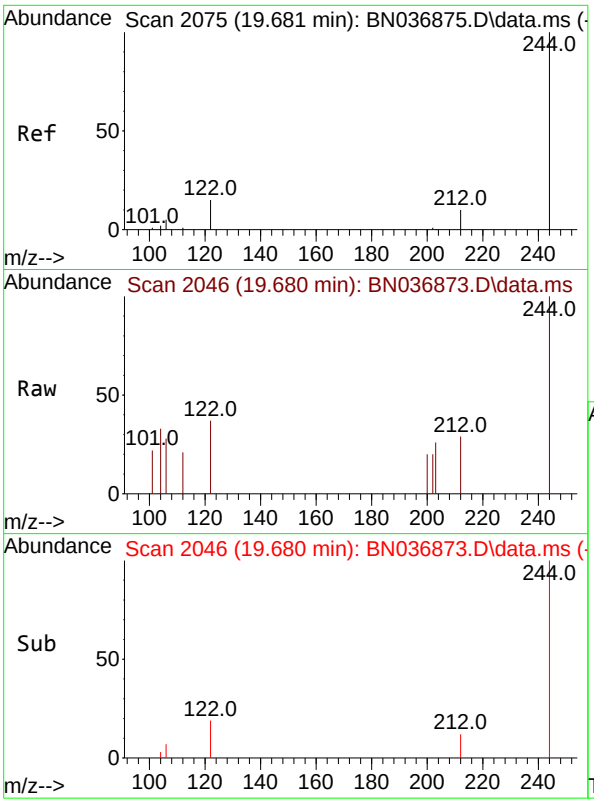


#30
Pyrene
Concen: 0.098 ng
RT: 19.466 min Scan# 2000
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:202 Resp: 611

Ion	Ratio	Lower	Upper
202	100		
200	21.1	17.1	25.7
203	17.2	14.5	21.7



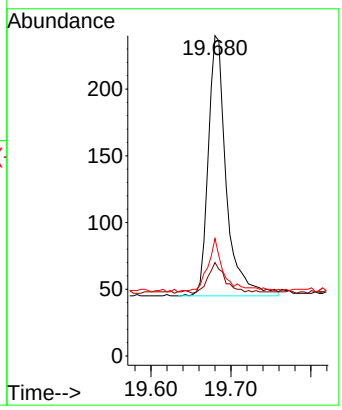


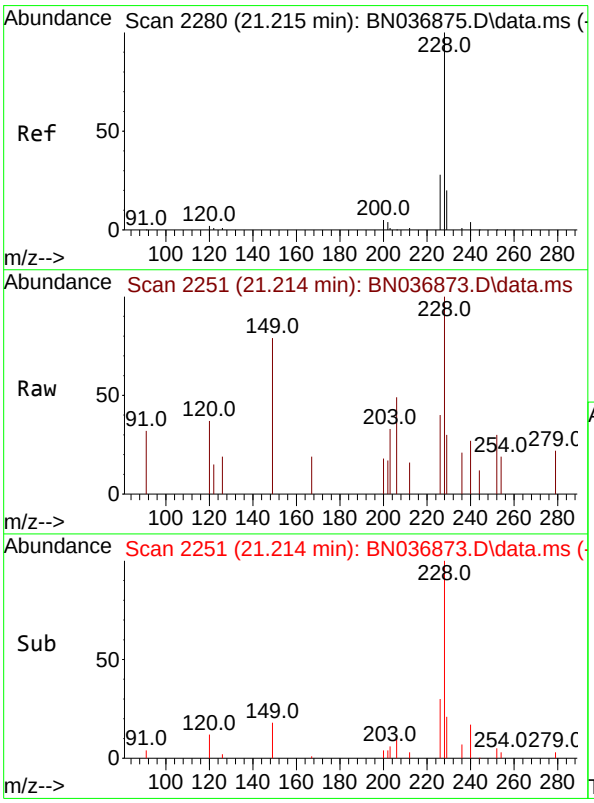
#31
Terphenyl-d14
Concen: 0.097 ng
RT: 19.680 min Scan# 2
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:244 Resp: 305

Ion	Ratio	Lower	Upper
244	100		
212	29.2	11.6	17.4#
122	36.7	14.9	22.3#

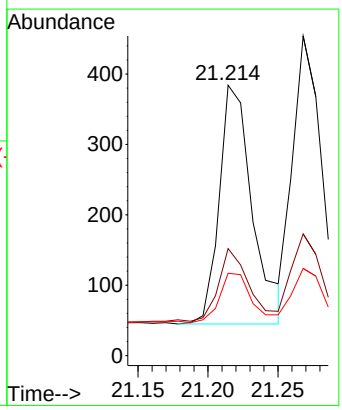


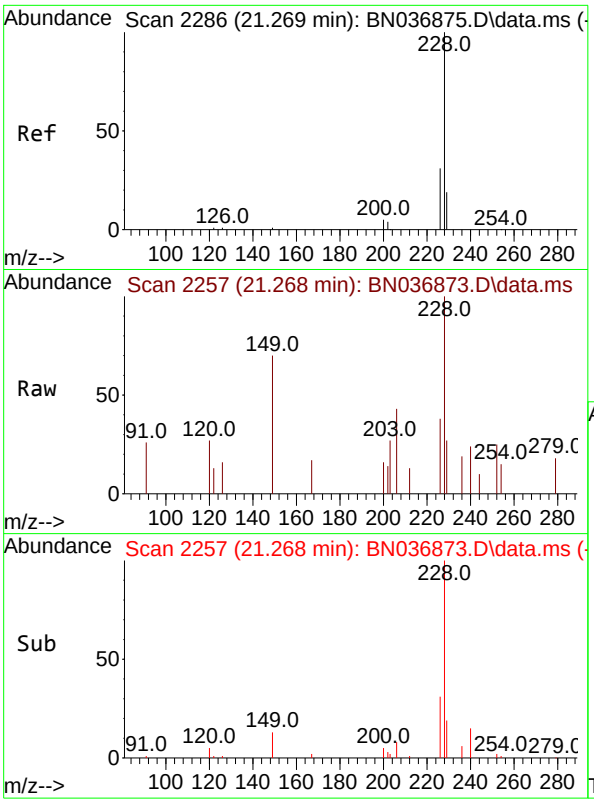


#32
Benzo(a)anthracene
Concen: 0.097 ng
RT: 21.214 min Scan# 2251
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:228 Resp: 559

Ion	Ratio	Lower	Upper
228	100		
226	39.6	24.5	36.7#
229	30.5	17.7	26.5#



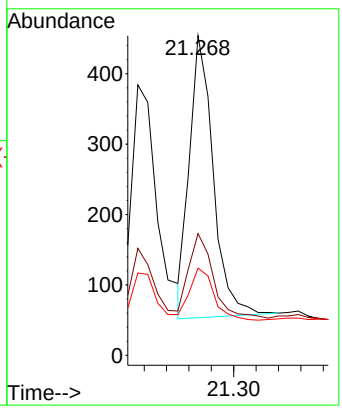


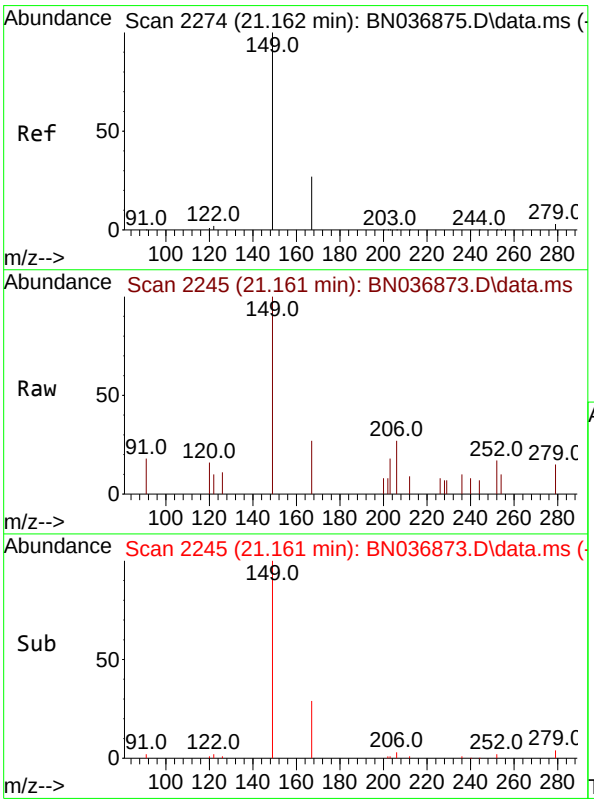
#33
Chrysene
Concen: 0.092 ng
RT: 21.268 min Scan# 2
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:228 Resp: 590

Ion	Ratio	Lower	Upper
228	100		
226	38.1	26.1	39.1
229	27.3	17.0	25.4#

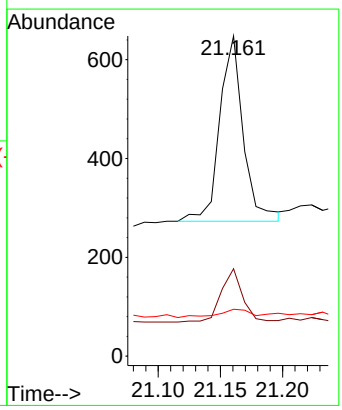


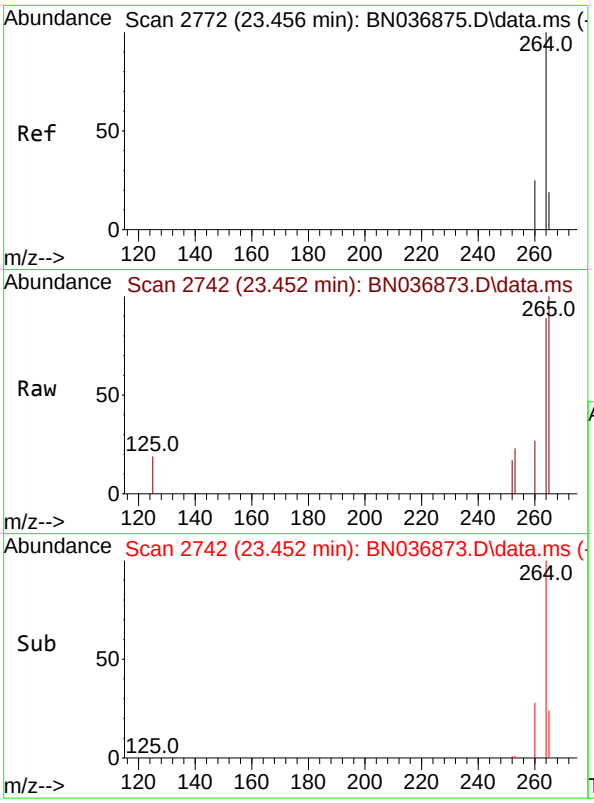


#34
Bis(2-ethylhexyl)phthalate
Concen: 0.113 ng
RT: 21.161 min Scan# 2245
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:149 Resp: 495

Ion	Ratio	Lower	Upper
149	100		
167	25.9	21.0	31.4
279	6.9	3.6	5.4#



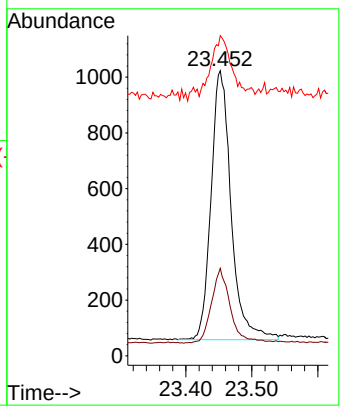


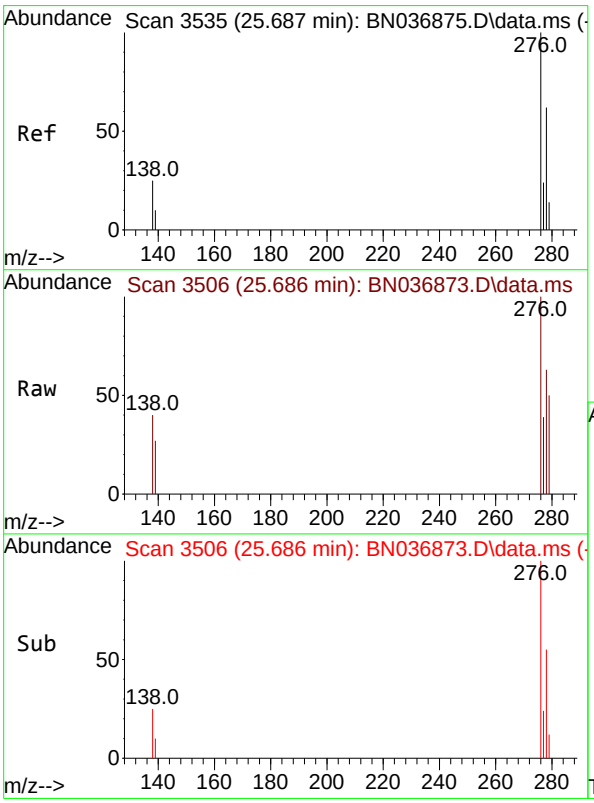
#35
Perylene-d12
Concen: 0.400 ng
RT: 23.452 min Scan# 2
Delta R.T. -0.004 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:264 Resp: 2037

Ion	Ratio	Lower	Upper
264	100		
260	30.7	22.9	34.3
265	112.3	88.6	132.8

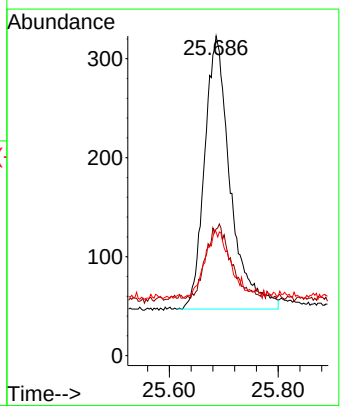


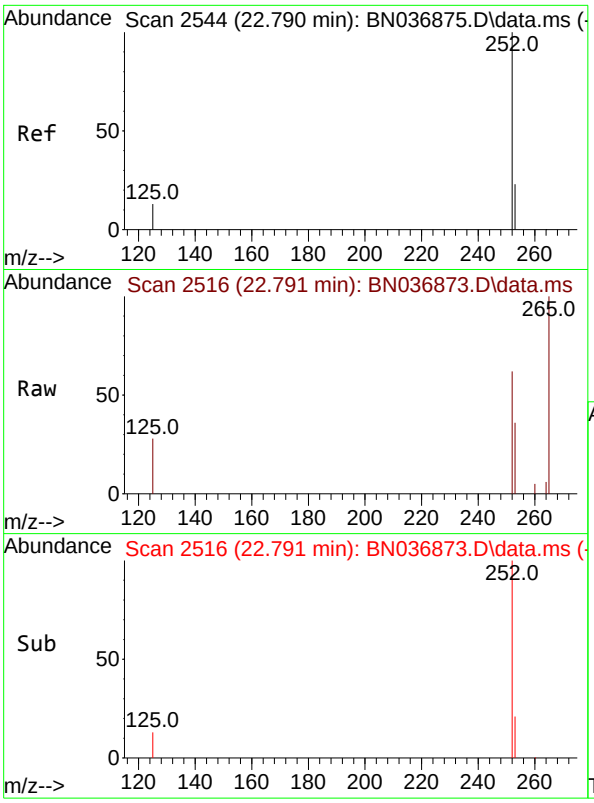


#36
Indeno(1,2,3-cd)pyrene
Concen: 0.093 ng
RT: 25.686 min Scan# 3506
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:276 Resp: 907

Ion	Ratio	Lower	Upper
276	100		
138	25.4	21.0	31.6
277	12.7	19.3	28.9#



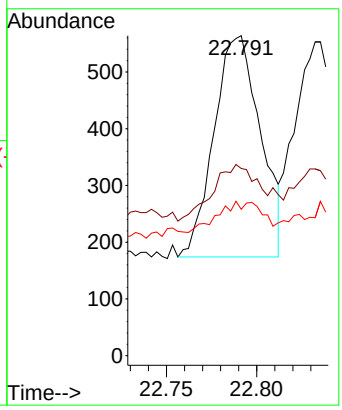


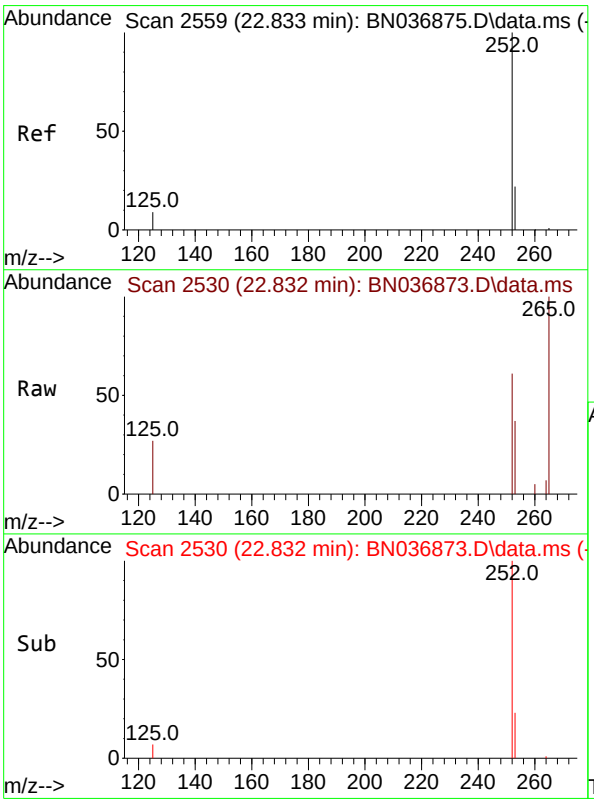
#37
Benzo(b)fluoranthene
Concen: 0.097 ng
RT: 22.791 min Scan# 2
Delta R.T. 0.002 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:252 Resp: 699

Ion	Ratio	Lower	Upper
252	100		
253	58.5	27.0	40.6#
125	45.7	17.7	26.5#

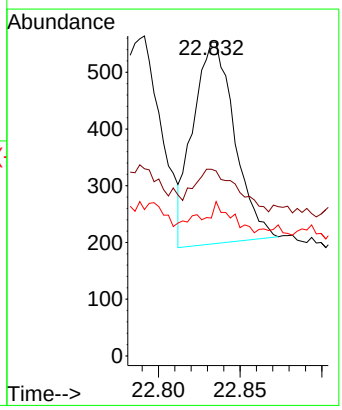


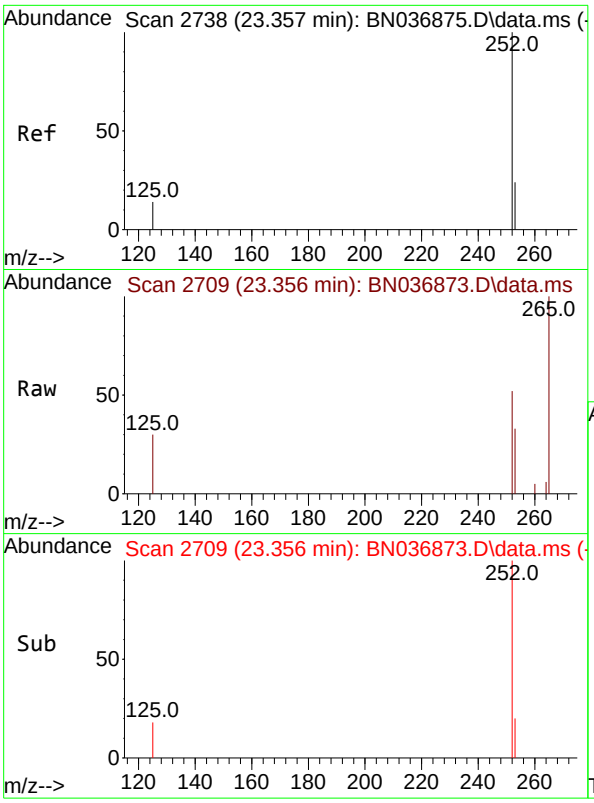


#38
Benzo(k)fluoranthene
Concen: 0.087 ng
RT: 22.832 min Scan# 2530
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:252 Resp: 630

Ion	Ratio	Lower	Upper
252	100		
253	59.5	26.7	40.1#
125	43.9	16.9	25.3#



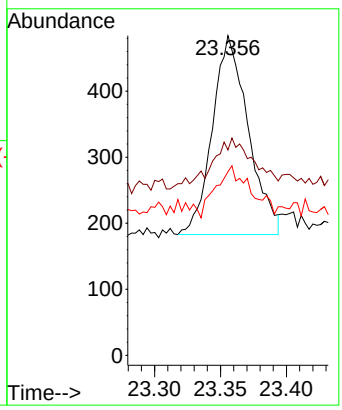


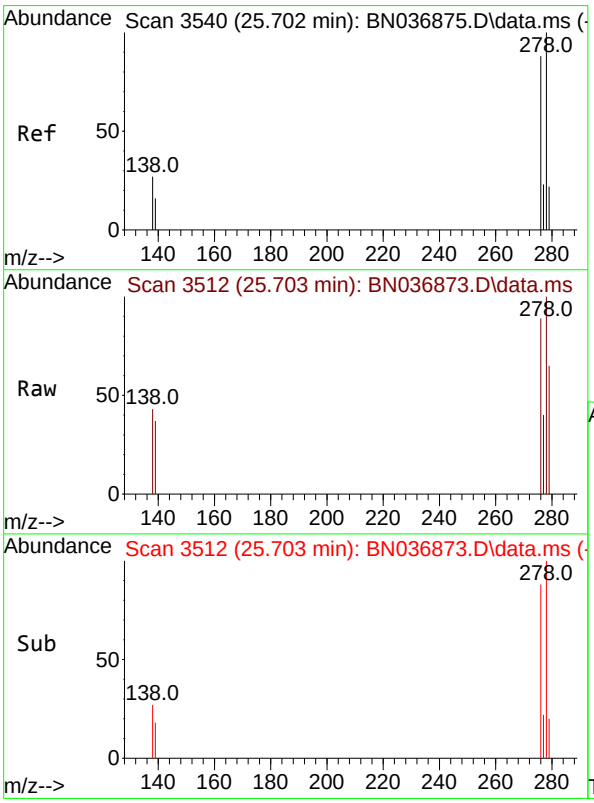
#39
Benzo(a)pyrene
Concen: 0.091 ng
RT: 23.356 min Scan# 2
Delta R.T. -0.001 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:252 Resp: 571

Ion	Ratio	Lower	Upper
252	100		
253	64.3	31.5	47.3#
125	57.4	22.6	34.0#

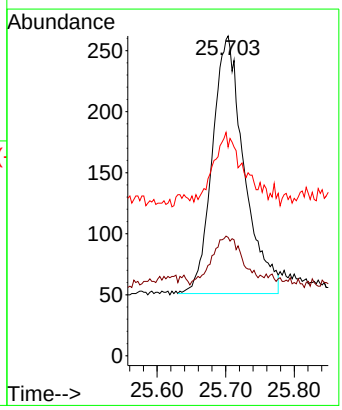


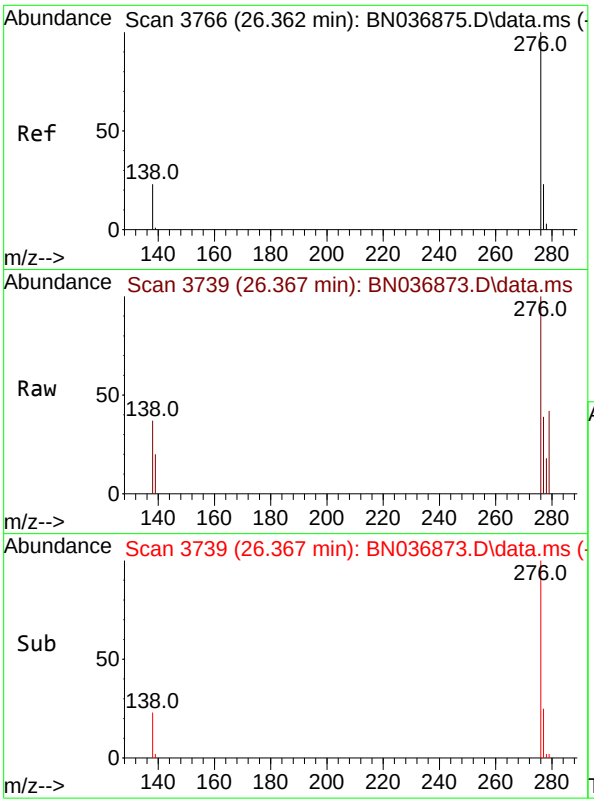


#40
Dibenzo(a,h)anthracene
Concen: 0.088 ng
RT: 25.703 min Scan# 3512
Delta R.T. 0.002 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Tgt Ion:278 Resp: 678

Ion	Ratio	Lower	Upper
278	100		
139	37.0	17.6	26.4#
279	65.3	26.7	40.1#





#41
Benzo(g,h,i)perylene
Concen: 0.096 ng
RT: 26.367 min Scan# 3
Delta R.T. 0.005 min
Lab File: BN036873.D
Acq: 11 Apr 2025 11:42

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:276 Resp: 838

Ion	Ratio	Lower	Upper
276	100		
277	39.0	21.8	32.8#
138	36.5	21.6	32.4#