Quantitation Report (Not Reviewed)

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN122321\
Data File : BN018176.D
Acq On : 23 Dec 2021 11:21
Operator : CG/JU
Sample : SSTDICC0.8
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Quant Time: Dec 23 13:17:20 2021
Quant Method : Z:\SVOASRV\HPCHEM1\BNA_N\METHODS\8270-SIM-BN122321.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Dec 23 13:14:13 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.624	152	21714	0.400	ng	0.00
7) Naphthalene-d8	10.394	136	89142	0.400	ng	# 0.00
13) Acenaphthene-d10	14.256	164	53146	0.400	ng	0.00
19) Phenanthrene-d10	16.993	188	104198	0.400	ng	0.00
29) Chrysene-d12	21.195	240	108156	0.400	ng	# 0.00
35) Perylene-d12	23.419	264	97770	0.400	ng	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	5.226	112	41920	0.891	ng	0.00
5) Phenol-d6	6.812	99	45388	0.962	ng	0.00
8) Nitrobenzene-d5	8.772	82	49792	0.787	ng	0.00
11) 2-Methylnaphthalene-d10	11.994	152	137291	0.929	ng	0.00
14) 2,4,6-Tribromophenol	15.753	330	20943	0.858	ng	0.00
15) 2-Fluorobiphenyl	12.886	172	176861	0.955	ng	0.00
27) Fluoranthene-d10	19.033	212	303814	0.873	ng	0.00
31) Terphenyl-d14	19.639	244	210298	0.933	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.161	88	11926	0.881	ng	# 57
3) n-Nitrosodimethylamine	3.493	42	17245	0.852	ng	97
6) bis(2-Chloroethyl)ether	7.052	93	49892	0.895	ng	100
9) Naphthalene	10.445	128	194996	0.872	ng	100
10) Hexachlorobutadiene	10.749	225	51421	0.835	ng	# 100
12) 2-Methylnaphthalene	12.069	142	131745	0.943	ng	99
16) Acenaphthylene	13.964	152	180634	0.822	ng	100
17) Acenaphthene	14.319	154	121687	0.870	ng	99
18) Fluorene	15.309	166	153660	0.896	ng	100
20) 4,6-Dinitro-2-methylph...	15.398	198	4410	0.450	ng	# 85
21) 4-Bromophenyl-phenylether	16.202	248	58808	0.932	ng	# 77
22) Hexachlorobenzene	16.312	284	68776	0.913	ng	99
23) Atrazine	16.470	200	35097	0.804	ng	99
24) Pentachlorophenol	16.665	266	15570	0.914	ng	99
25) Phenanthrene	17.030	178	249070	0.939	ng	100
26) Anthracene	17.127	178	211664	0.884	ng	100
28) Fluoranthene	19.063	202	304595	0.921	ng	99
30) Pyrene	19.425	202	307059	0.865	ng	100
32) Benzo(a)anthracene	21.174	228	287466	0.883	ng	99
33) Chrysene	21.227	228	298493	0.860	ng	99
34) Bis(2-ethylhexyl)phtha...	21.121	149	83723	0.524	ng	99
36) Indeno(1,2,3-cd)pyrene	25.682	276	260022	0.795	ng	99
37) Benzo(b)fluoranthene	22.748	252	270745	0.932	ng	99
38) Benzo(k)fluoranthene	22.793	252	284233	1.003	ng	99
39) Benzo(a)pyrene	23.320	252	243674	0.824	ng	99
40) Dibenzo(a,h)anthracene	25.696	278	192523	0.754	ng	98
41) Benzo(g,h,i)perylene	26.370	276	233374	0.762	ng	99

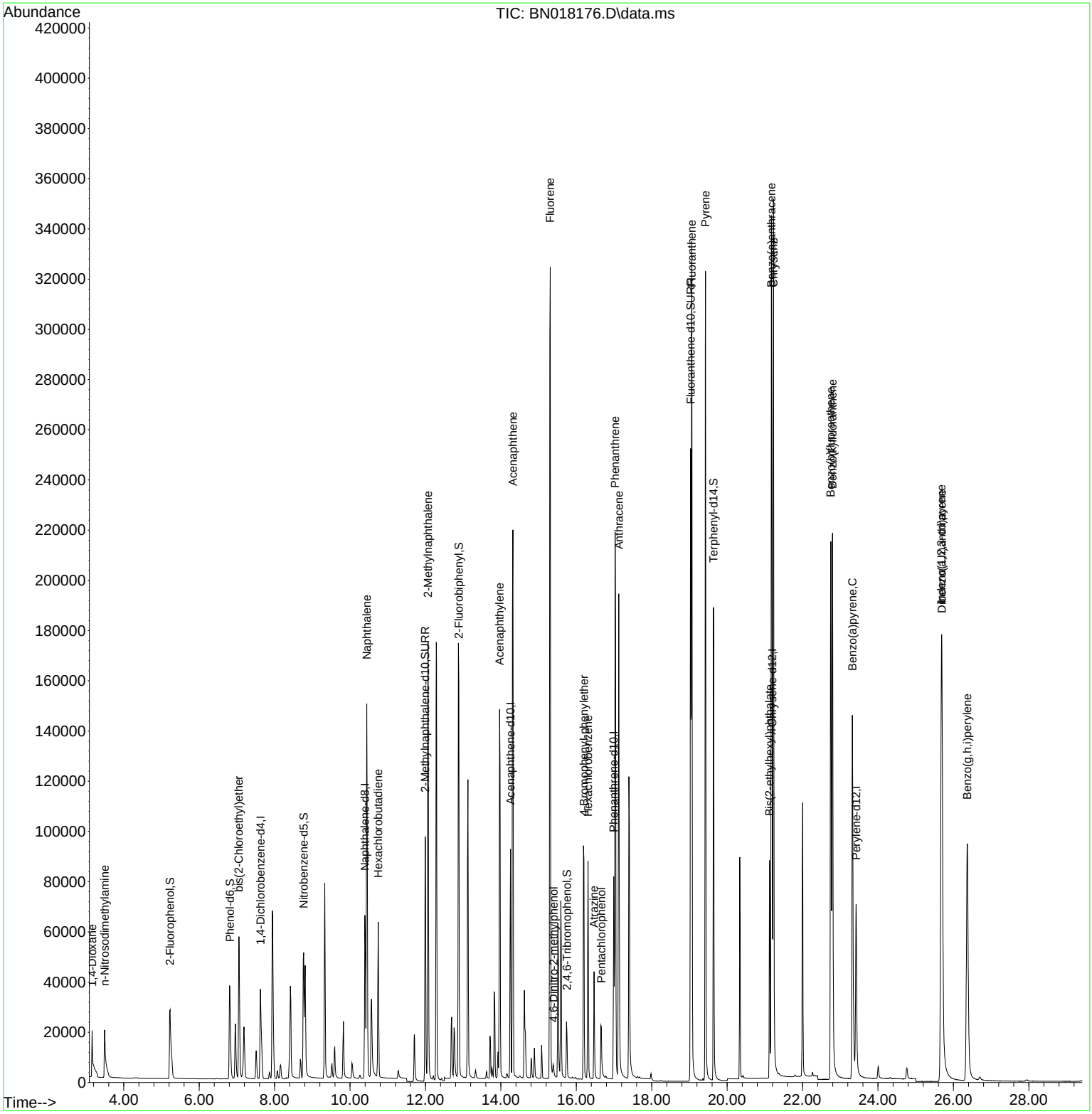
(#) = qualifier out of range (m) = manual integration (+) = signals summed

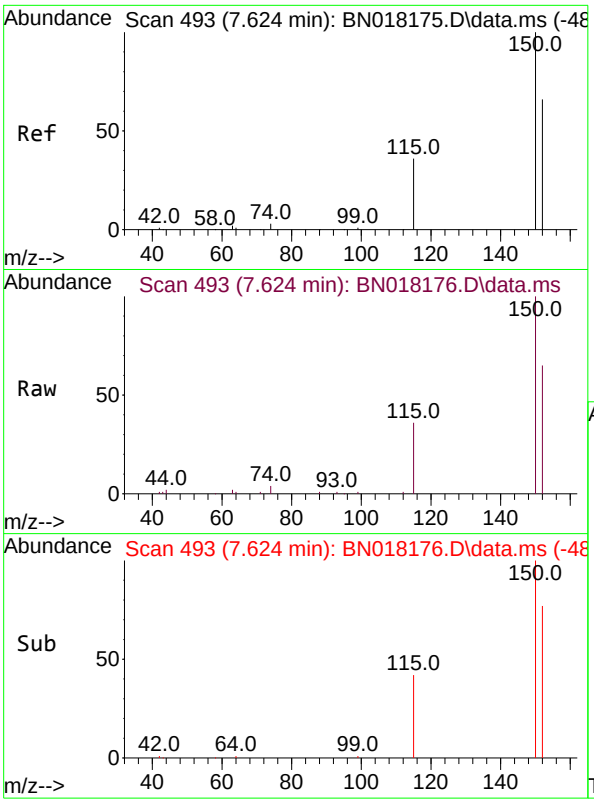
Quantitation Report (Not Reviewed)

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN122321\
Data File : BN018176.D
Acq On : 23 Dec 2021 11:21
Operator : CG/JU
Sample : SSTDICC0.8
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Quant Time: Dec 23 13:17:20 2021
Quant Method : Z:\SVOASRV\HPCHEM1\BNA_N\METHODS\8270-SIM-BN122321.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Dec 23 13:14:13 2021
Response via : Initial Calibration



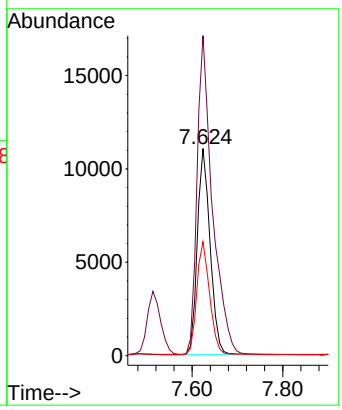


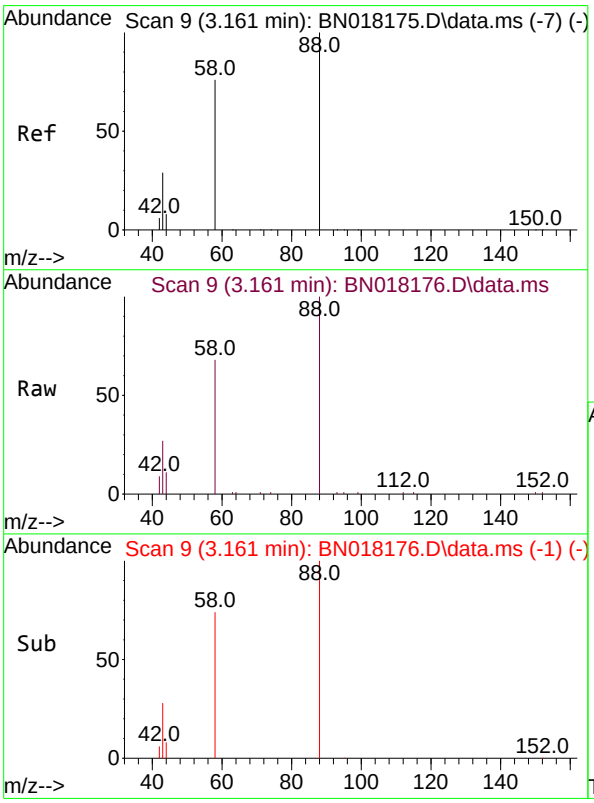
#1
1,4-Dichlorobenzene-d4
Concen: 0.400 ng
RT: 7.624 min Scan# 4
Delta R.T. -0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:152 Resp: 21714

Ion	Ratio	Lower	Upper
152	100		
150	154.4	121.7	182.5
115	55.0	43.8	65.8

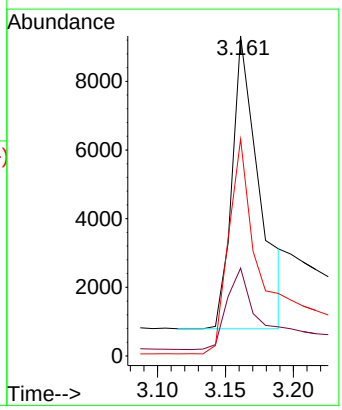


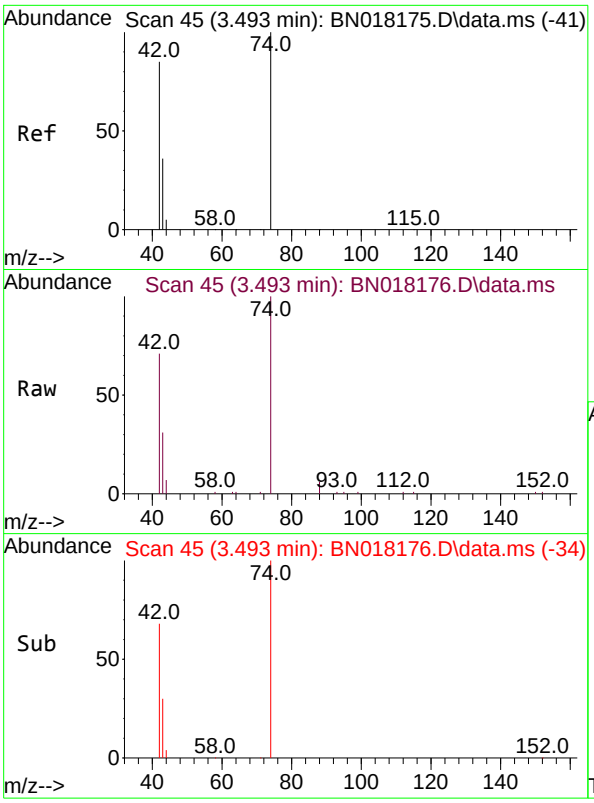


#2
1,4-Dioxane
Concen: 0.881 ng
RT: 3.161 min Scan# 9
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion: 88 Resp: 11926

Ion	Ratio	Lower	Upper
88	100		
43	30.2	69.7	104.5#
58	76.3	83.8	125.8#



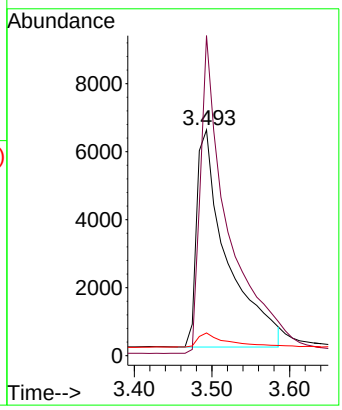


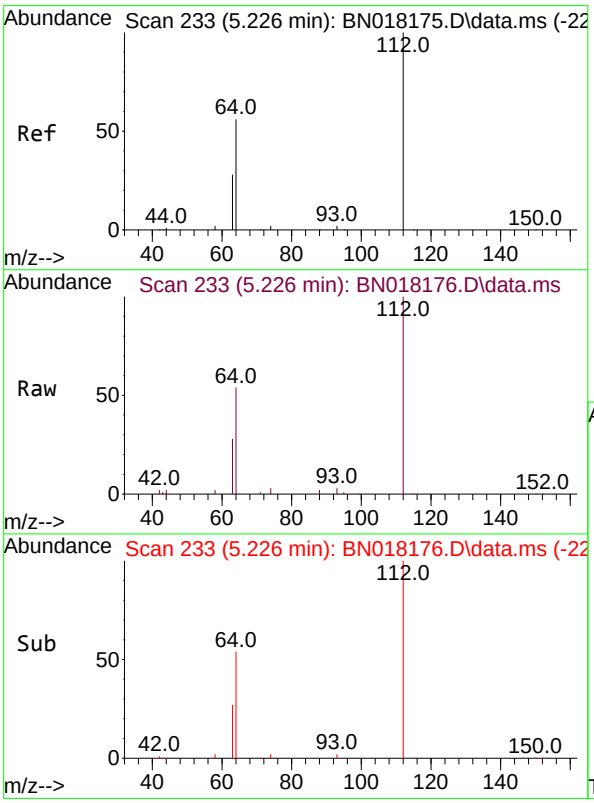
#3
n-Nitrosodimethylamine
Concen: 0.852 ng
RT: 3.493 min Scan# 4
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion: 42 Resp: 17245

Ion	Ratio	Lower	Upper
42	100		
74	131.7	108.6	163.0
44	6.6	5.8	8.8

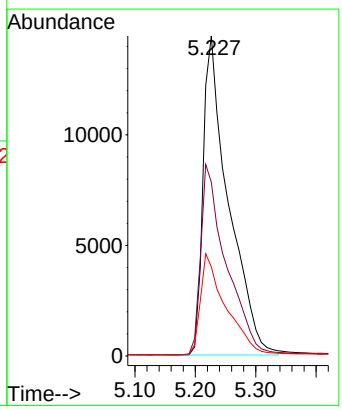


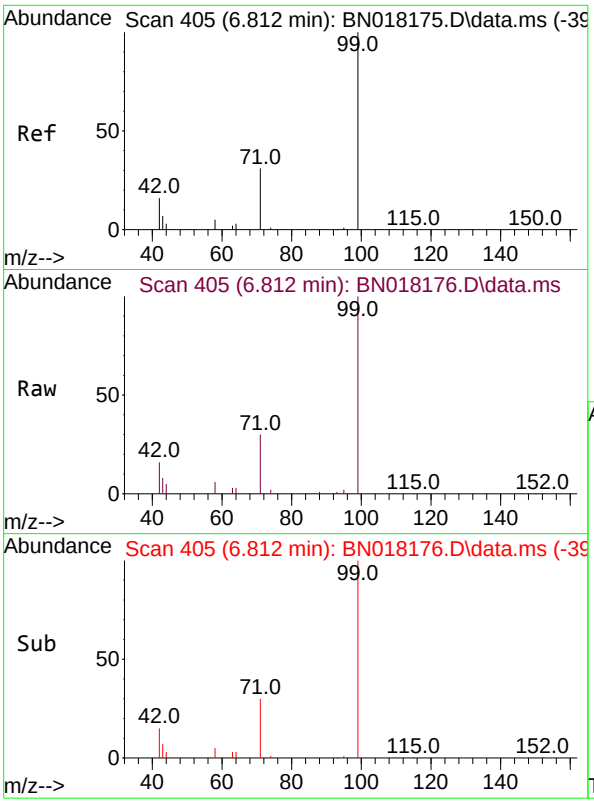


#4
2-Fluorophenol
Concen: 0.891 ng
RT: 5.226 min Scan# 233
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:112 Resp: 41920

Ion	Ratio	Lower	Upper
112	100		
64	60.0	48.0	72.0
63	31.4	25.3	37.9



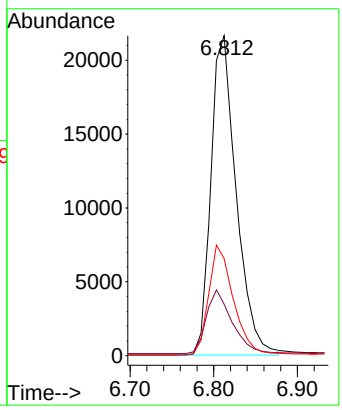


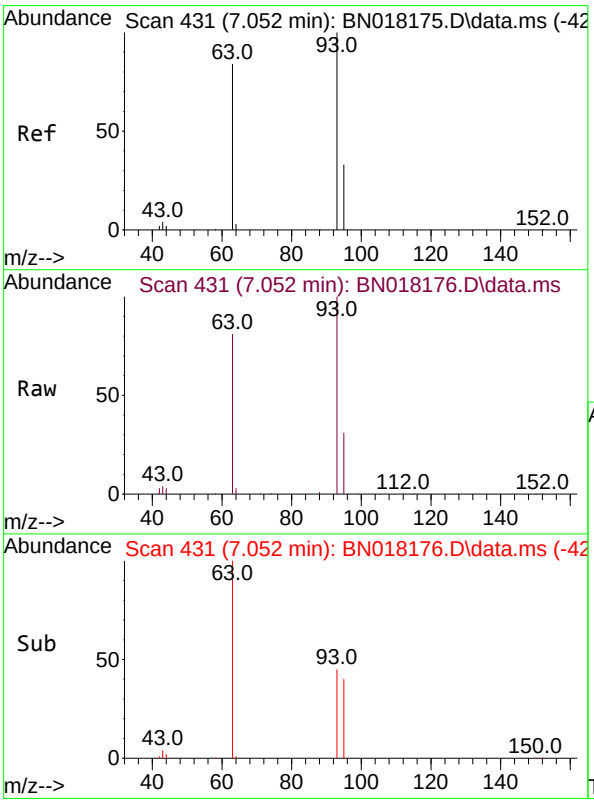
#5
Phenol-d6
Concen: 0.962 ng
RT: 6.812 min Scan# 4(
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion: 99 Resp: 45388

Ion	Ratio	Lower	Upper
99	100		
42	20.3	16.3	24.5
71	33.5	26.8	40.2

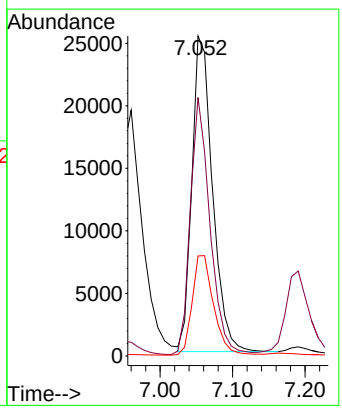


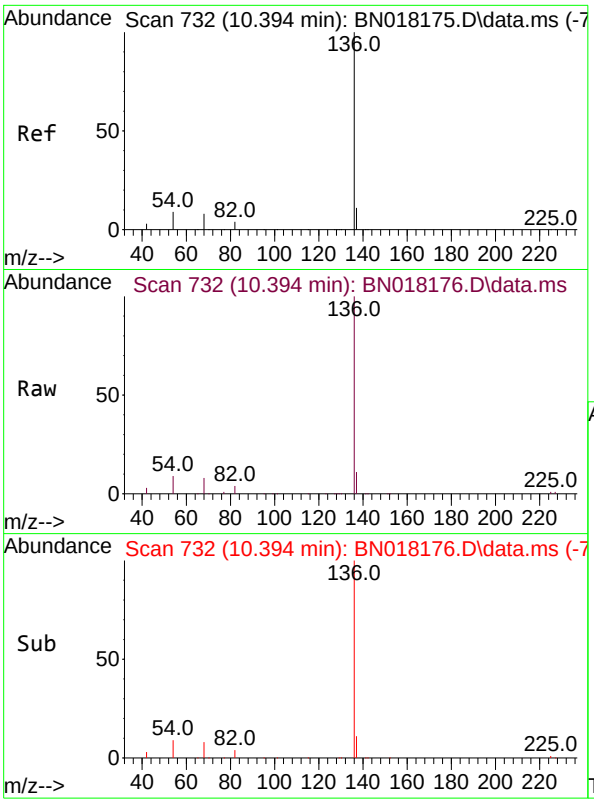


#6
bis(2-Chloroethyl)ether
Concen: 0.895 ng
RT: 7.052 min Scan# 431
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion: 93 Resp: 49892

Ion	Ratio	Lower	Upper
93	100		
63	77.5	61.7	92.5
95	32.7	26.2	39.4



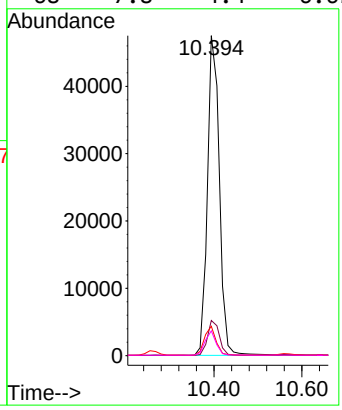


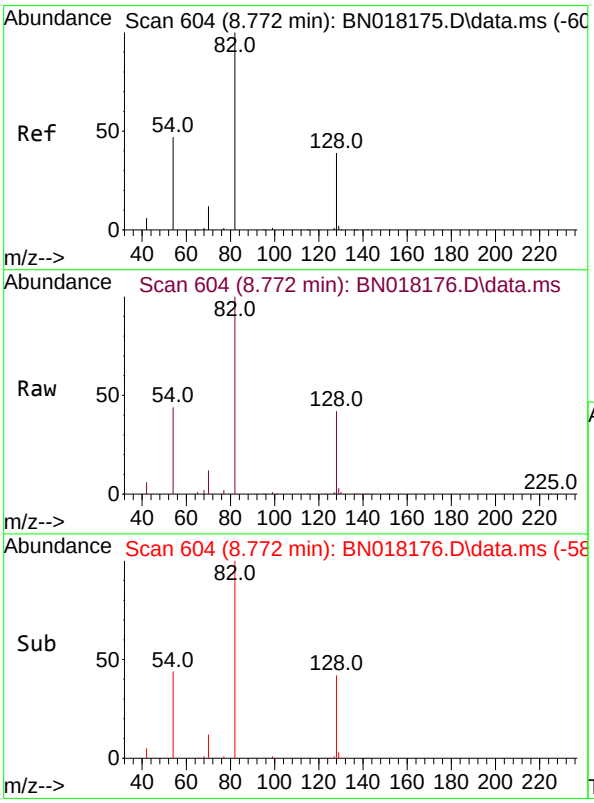
#7
Naphthalene-d8
Concen: 0.400 ng
RT: 10.394 min Scan# 7
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:136 Resp: 89142

Ion	Ratio	Lower	Upper
136	100		
137	11.0	8.8	13.2
54	9.2	5.0	7.6#
68	7.8	4.4	6.6#

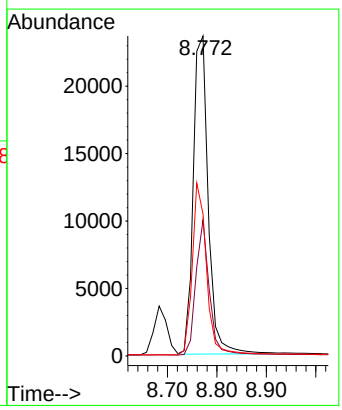


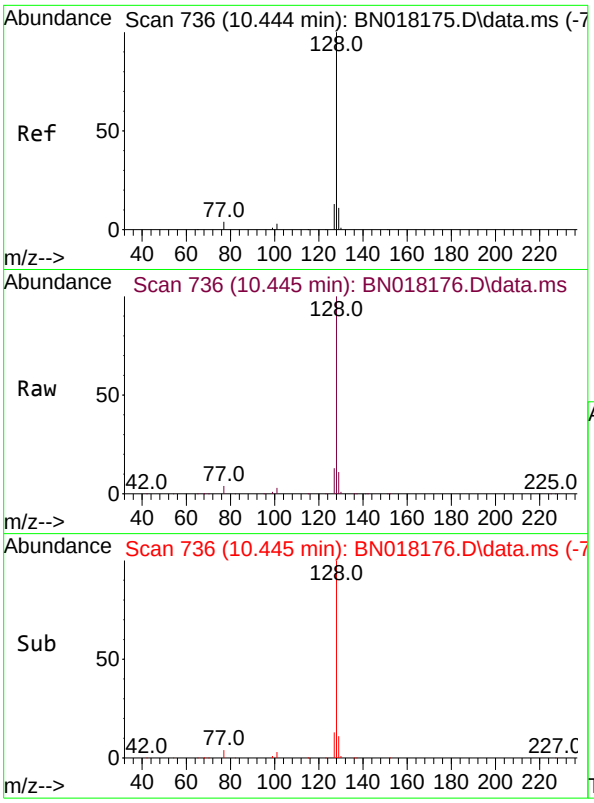


#8
Nitrobenzene-d5
Concen: 0.787 ng
RT: 8.772 min Scan# 604
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion: 82 Resp: 49792

Ion	Ratio	Lower	Upper
82	100		
128	42.5	33.7	50.5
54	44.4	36.6	55.0



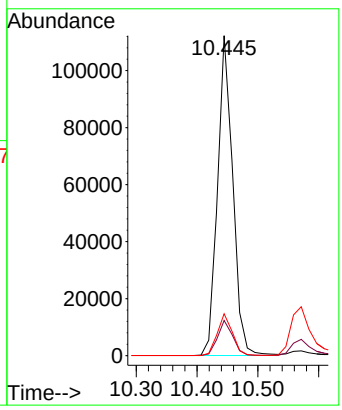


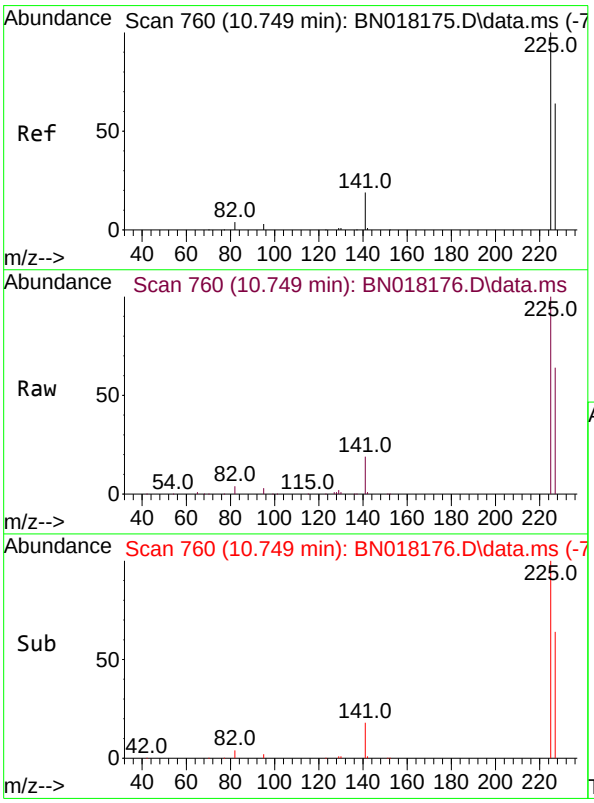
#9
Naphthalene
Concen: 0.872 ng
RT: 10.445 min Scan# 7
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:128 Resp: 194996

Ion	Ratio	Lower	Upper
128	100		
129	11.0	8.7	13.1
127	13.1	10.4	15.6

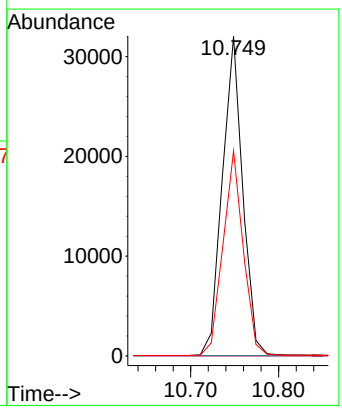


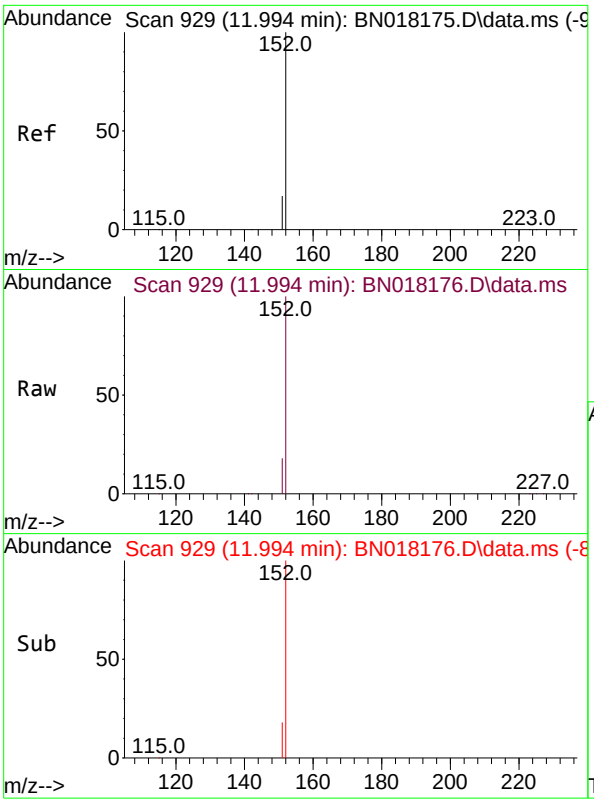


#10
Hexachlorobutadiene
Concen: 0.835 ng
RT: 10.749 min Scan# 760
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:225 Resp: 51421

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.7	51.0	76.6



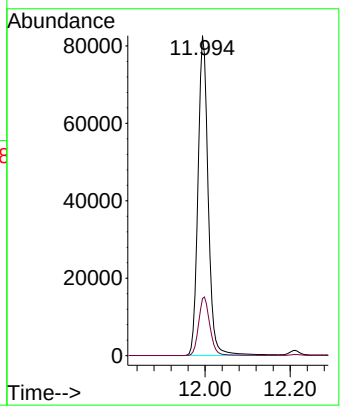


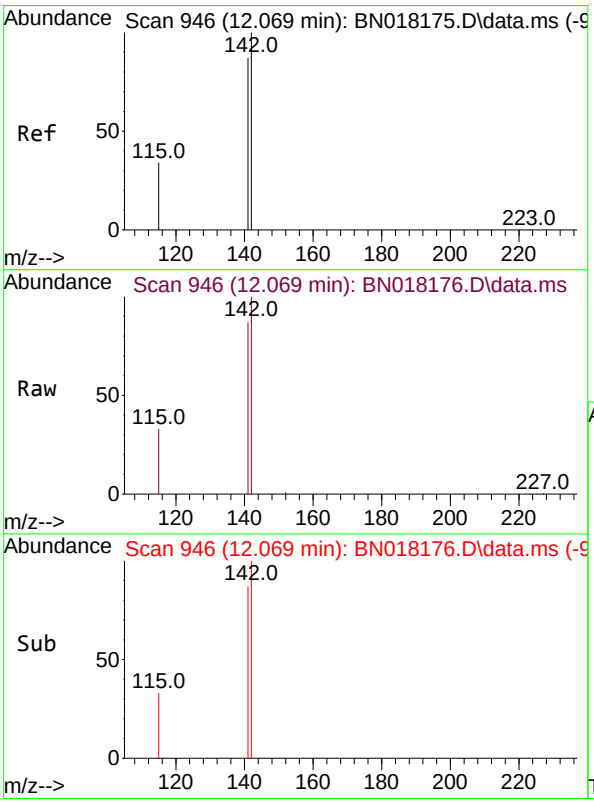
#11
2-Methylnaphthalene-d10
Concen: 0.929 ng
RT: 11.994 min Scan# 9
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:152 Resp: 137291

Ion	Ratio	Lower	Upper
152	100		
151	20.3	16.2	24.2

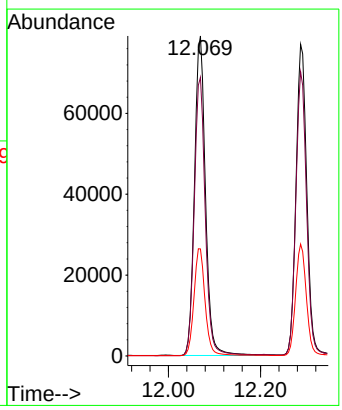


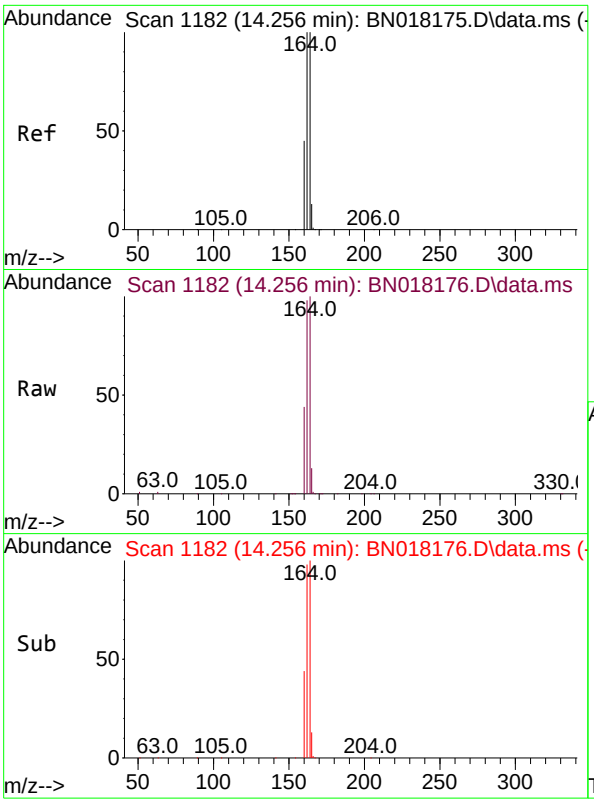


#12
2-Methylnaphthalene
Concen: 0.943 ng
RT: 12.069 min Scan# 946
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:142 Resp: 131745

Ion	Ratio	Lower	Upper
142	100		
141	87.1	70.0	105.0
115	33.5	27.8	41.8



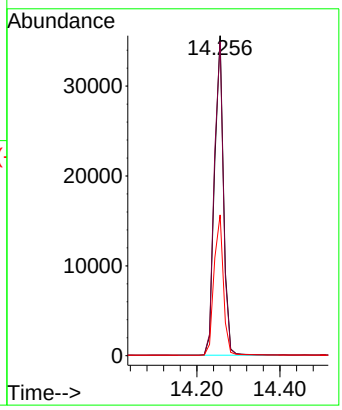


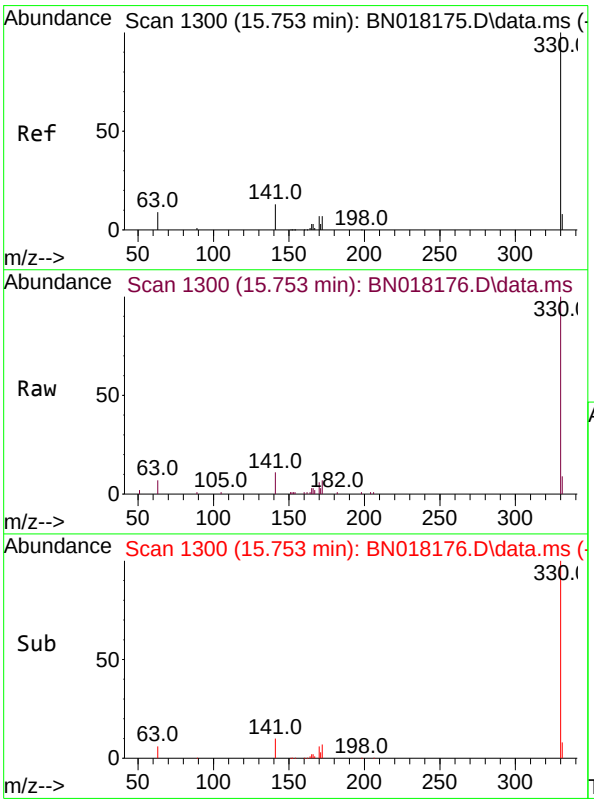
#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.256 min Scan# 11
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:164 Resp: 53146

Ion	Ratio	Lower	Upper
164	100		
162	98.1	80.2	120.2
160	44.0	36.9	55.3

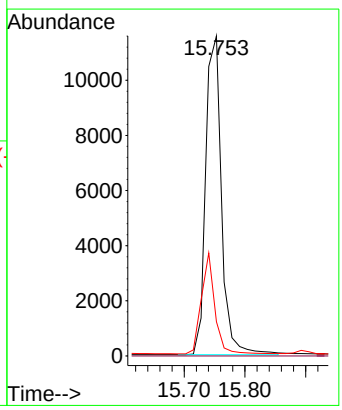


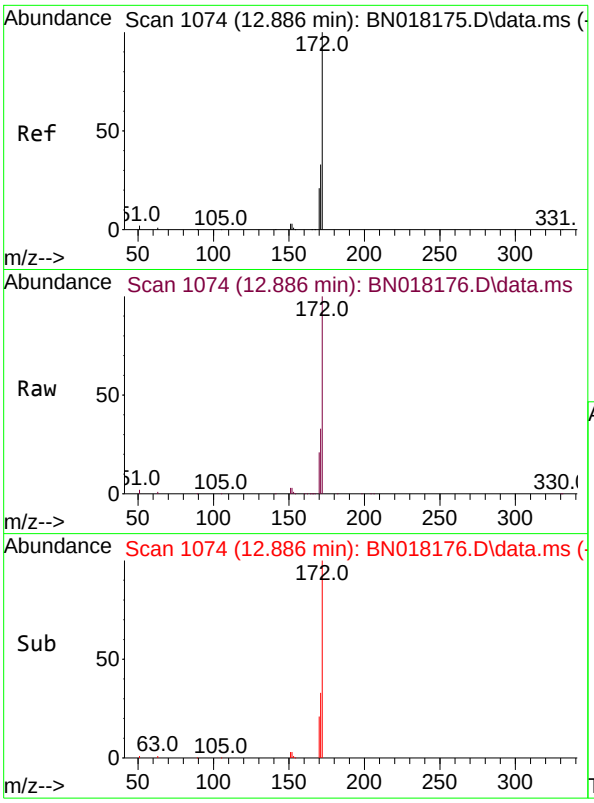


#14
2,4,6-Tribromophenol
Concen: 0.858 ng
RT: 15.753 min Scan# 1300
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:330 Resp: 20943

Ion	Ratio	Lower	Upper
330	100		
332	0.0	0.0	0.0
141	26.8	21.3	31.9



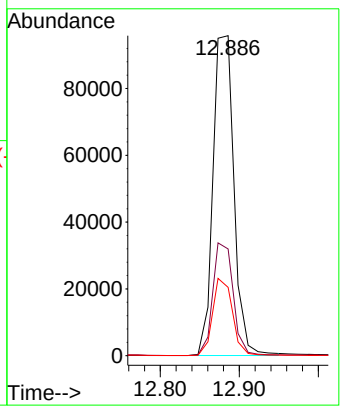


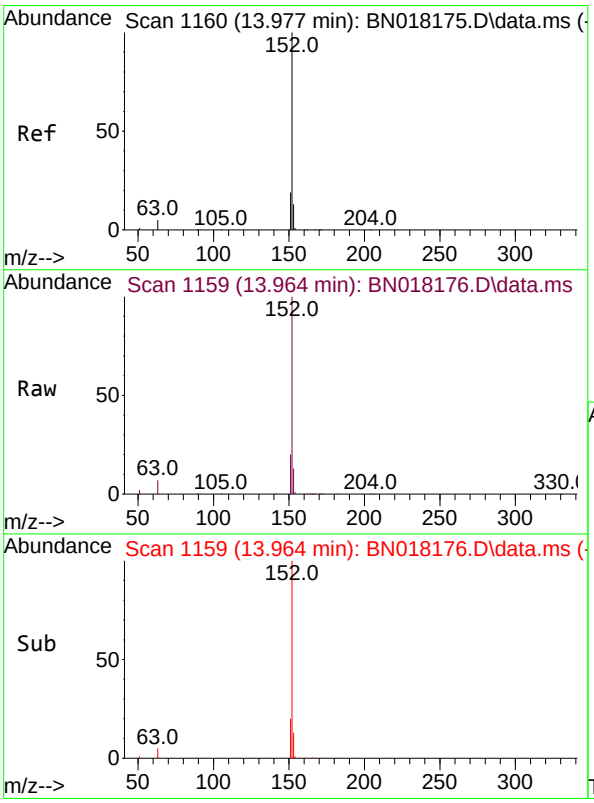
#15
2-Fluorobiphenyl
Concen: 0.955 ng
RT: 12.886 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:172 Resp: 176861

Ion	Ratio	Lower	Upper
172	100		
171	33.4	27.4	41.0
170	21.3	18.4	27.6

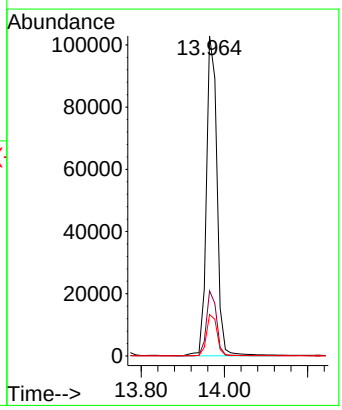


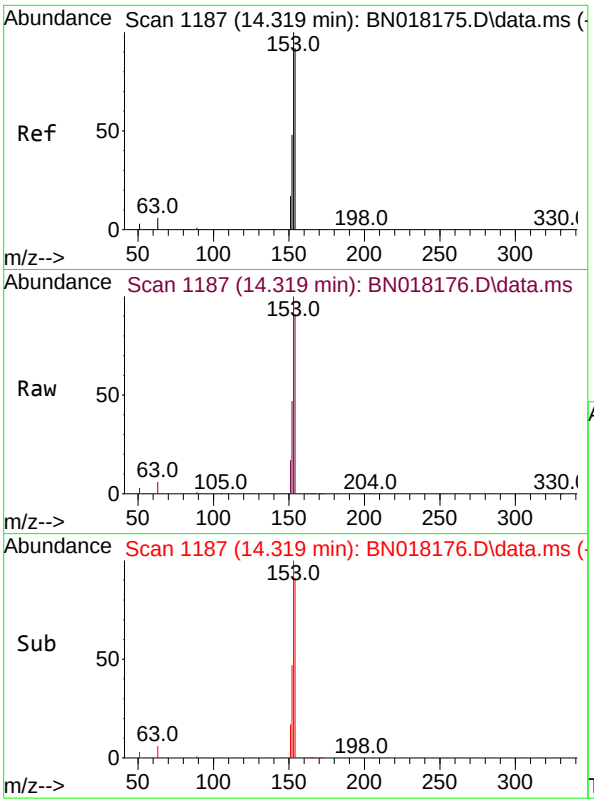


#16
Acenaphthylene
Concen: 0.822 ng
RT: 13.964 min Scan# 1159
Delta R.T. -0.013 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:152 Resp: 180634

Ion	Ratio	Lower	Upper
152	100		
151	19.6	15.8	23.6
153	13.0	10.5	15.7



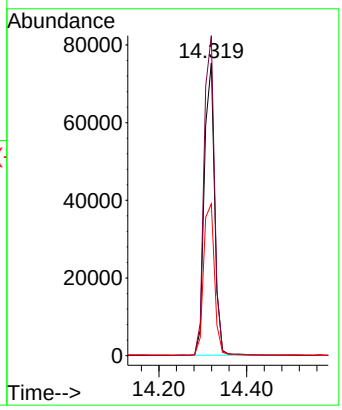


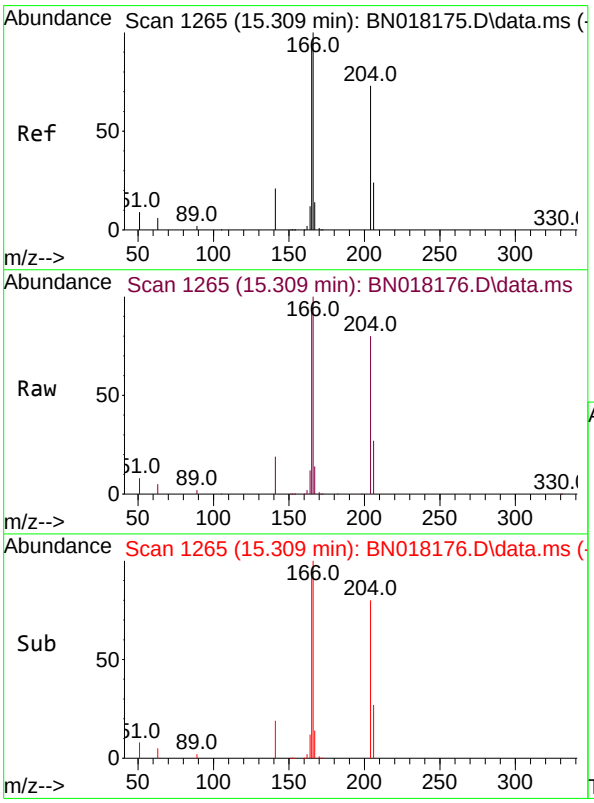
#17
Acenaphthene
Concen: 0.870 ng
RT: 14.319 min Scan# 11
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:154 Resp: 121687

Ion	Ratio	Lower	Upper
154	100		
153	112.4	90.9	136.3
152	55.2	45.0	67.4

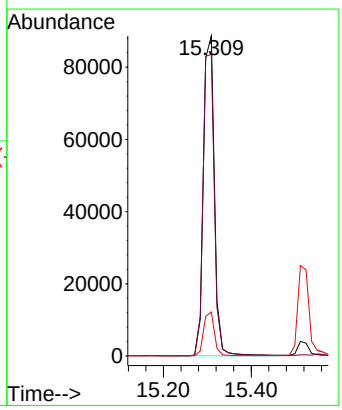


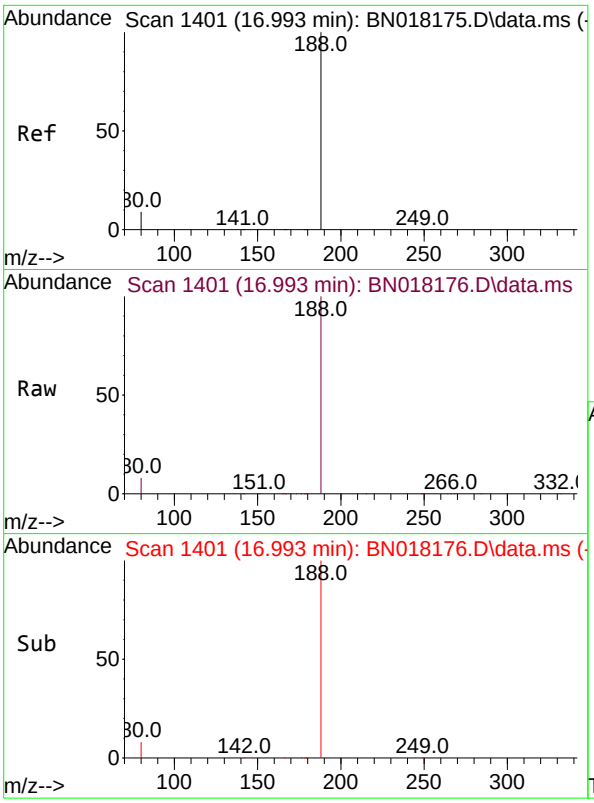


#18
Fluorene
Concen: 0.896 ng
RT: 15.309 min Scan# 1265
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:166 Resp: 153660

Ion	Ratio	Lower	Upper
166	100		
165	97.2	77.8	116.6
167	13.5	10.9	16.3



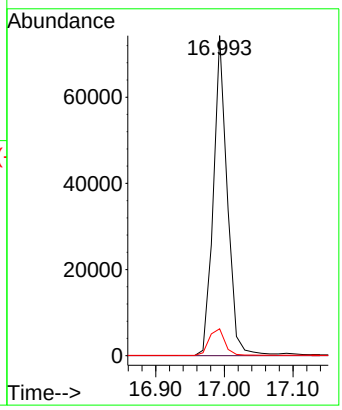


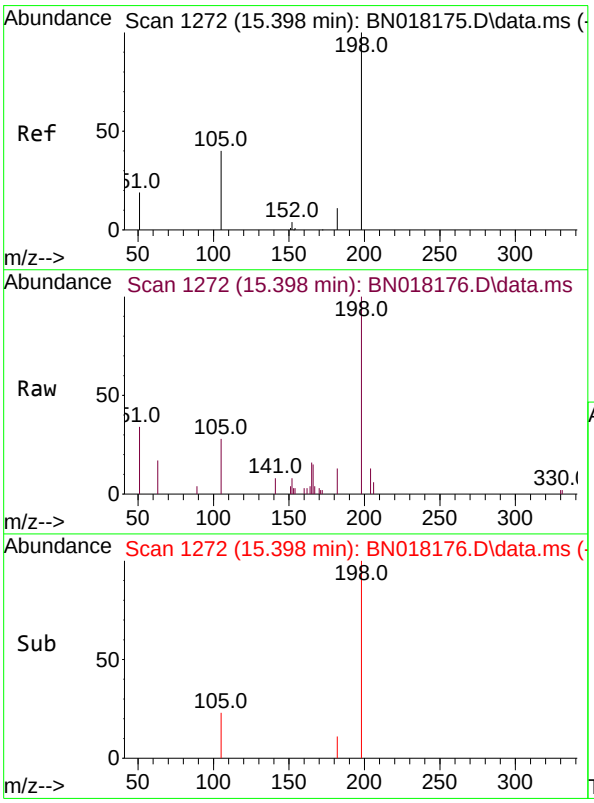
#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 16.993 min Scan# 14
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:188 Resp: 104198

Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	8.4	7.0	10.4

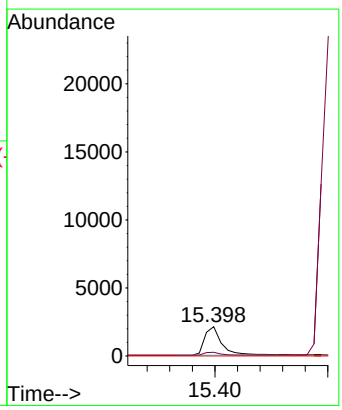


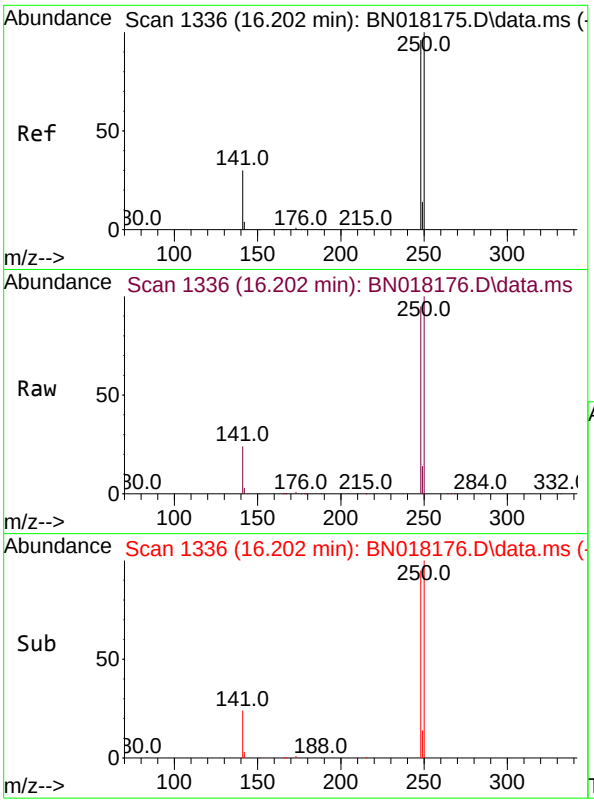


#20
4,6-Dinitro-2-methylphenol
Concen: 0.450 ng
RT: 15.398 min Scan# 1272
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:198 Resp: 4410

Ion	Ratio	Lower	Upper
198	100		
182	12.6	15.5	23.3#
77	0.0	0.0	0.0



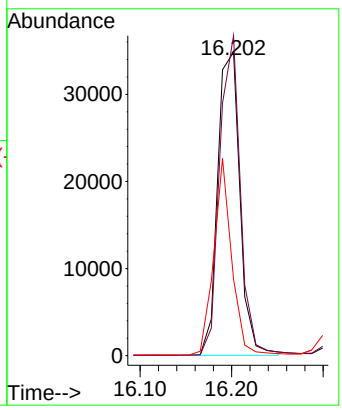


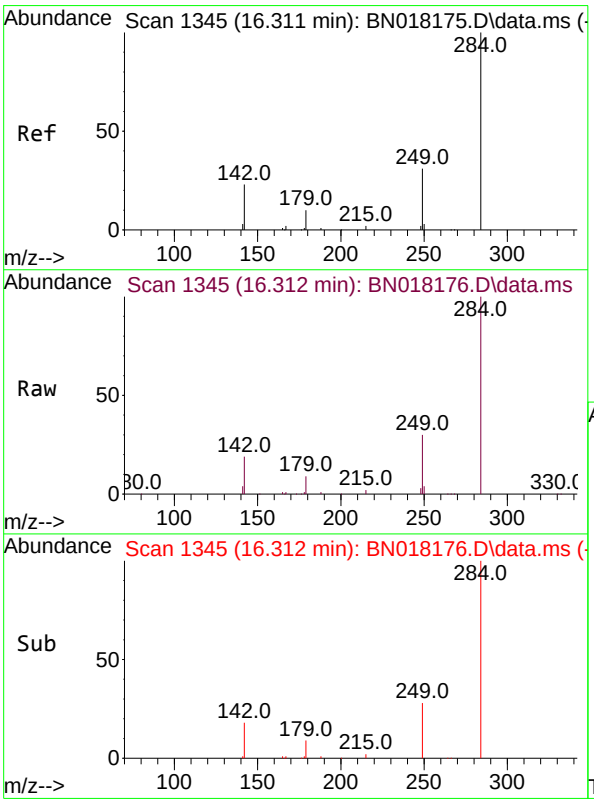
#21
4-Bromophenyl-phenylether
Concen: 0.932 ng
RT: 16.202 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:248 Resp: 58808

Ion	Ratio	Lower	Upper
248	100		
250	105.4	74.4	111.6
141	25.2	43.7	65.5#

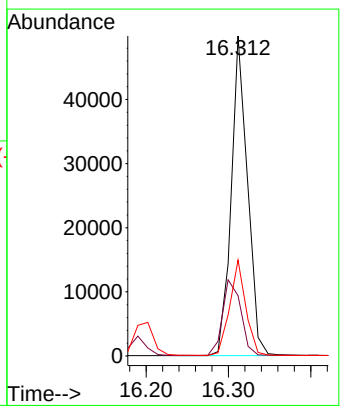


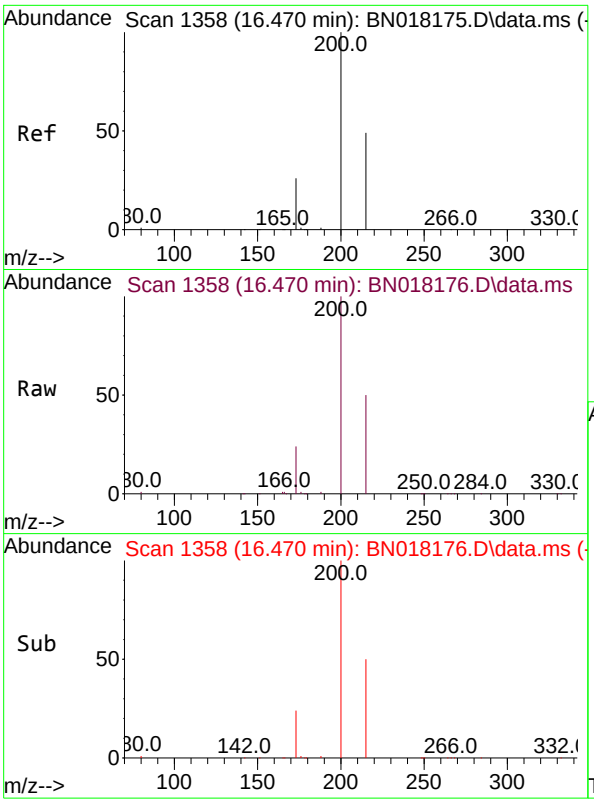


#22
Hexachlorobenzene
Concen: 0.913 ng
RT: 16.312 min Scan# 1345
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:284 Resp: 68776

Ion	Ratio	Lower	Upper
284	100		
142	26.6	21.6	32.4
249	29.3	23.5	35.3



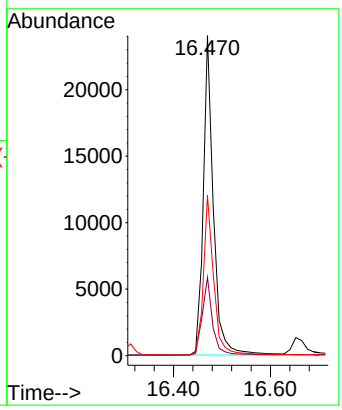


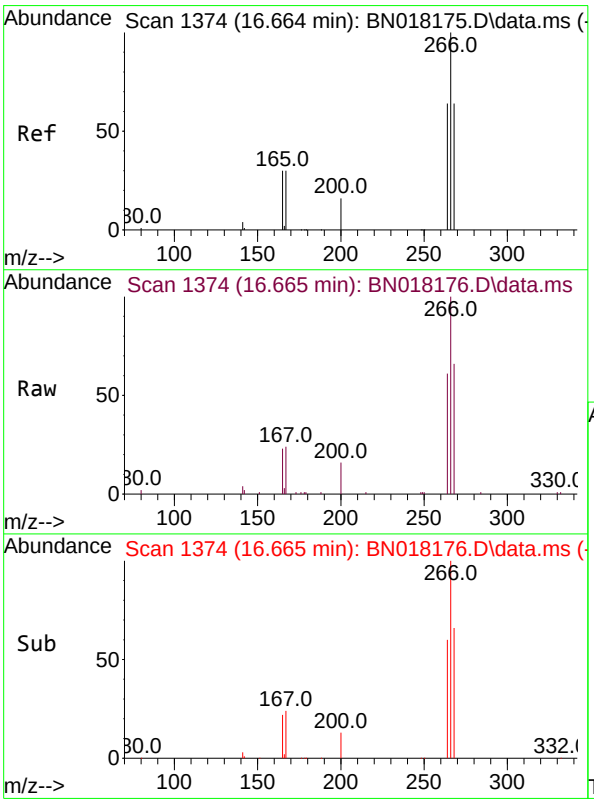
#23
Atrazine
Concen: 0.804 ng
RT: 16.470 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:200 Resp: 35097

Ion	Ratio	Lower	Upper
200	100		
173	24.5	20.3	30.5
215	50.0	40.4	60.6

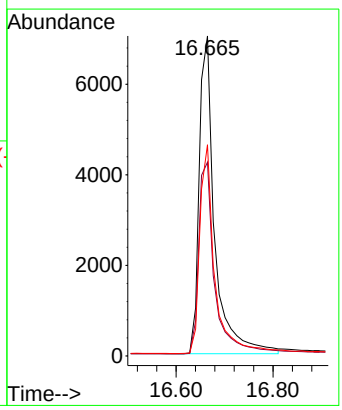


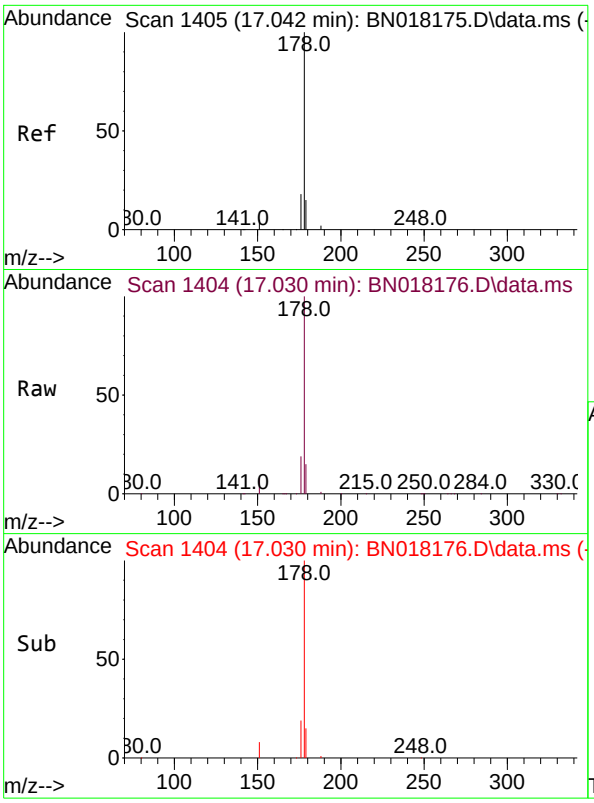


#24
Pentachlorophenol
Concen: 0.914 ng
RT: 16.665 min Scan# 1374
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:266 Resp: 15570

Ion	Ratio	Lower	Upper
266	100		
264	62.4	49.5	74.3
268	63.7	50.6	76.0



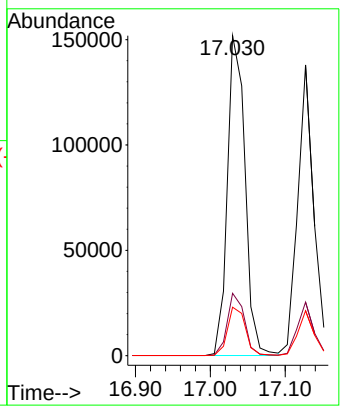


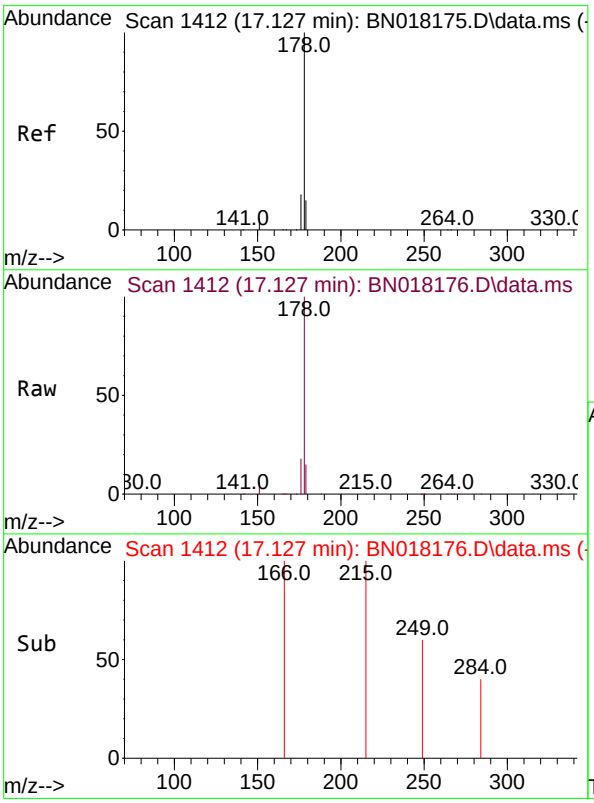
#25
Phenanthrene
Concen: 0.939 ng
RT: 17.030 min Scan# 14
Delta R.T. -0.012 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:178 Resp: 249070

Ion	Ratio	Lower	Upper
178	100		
176	19.0	15.3	22.9
179	15.4	12.3	18.5

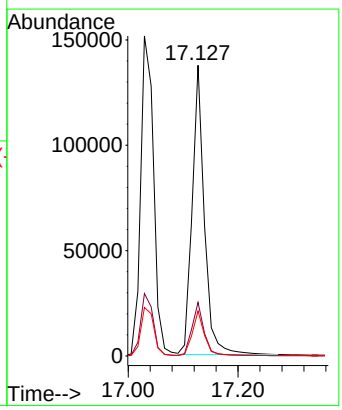


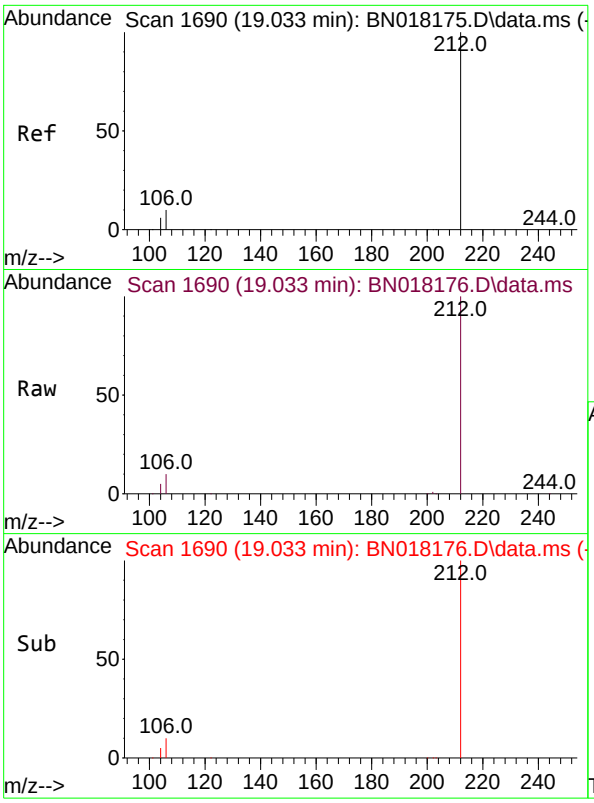


#26
Anthracene
Concen: 0.884 ng
RT: 17.127 min Scan# 1412
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:178 Resp: 211664

Ion	Ratio	Lower	Upper
178	100		
176	18.4	14.8	22.2
179	15.3	12.2	18.4



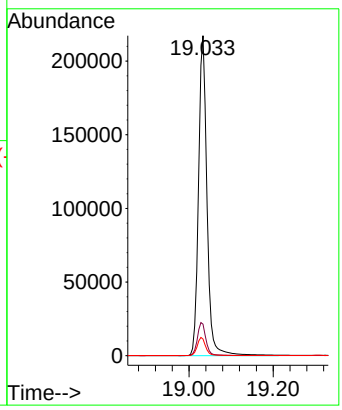


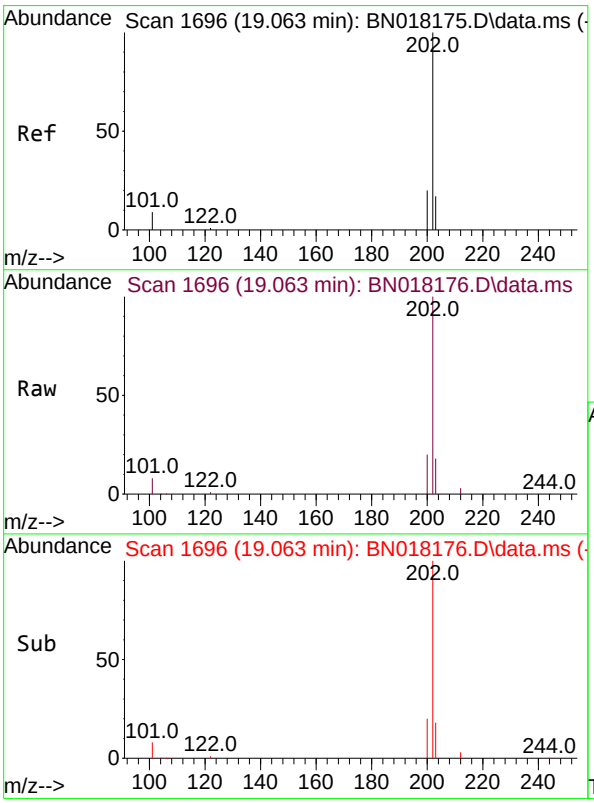
#27
Fluoranthene-d10
Concen: 0.873 ng
RT: 19.033 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:212 Resp: 303814

Ion	Ratio	Lower	Upper
212	100		
106	10.5	8.4	12.6
104	5.7	4.5	6.7

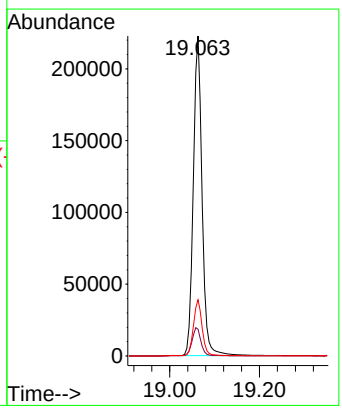


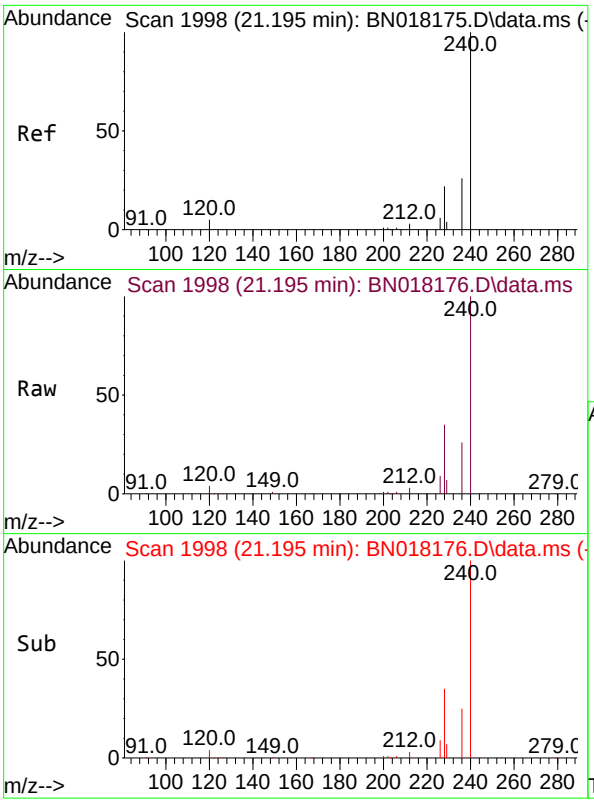


#28
Fluoranthene
Concen: 0.921 ng
RT: 19.063 min Scan# 1696
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:202 Resp: 304595

Ion	Ratio	Lower	Upper
202	100		
101	9.2	7.2	10.8
203	17.4	13.7	20.5



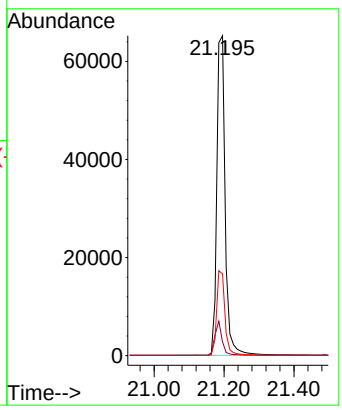


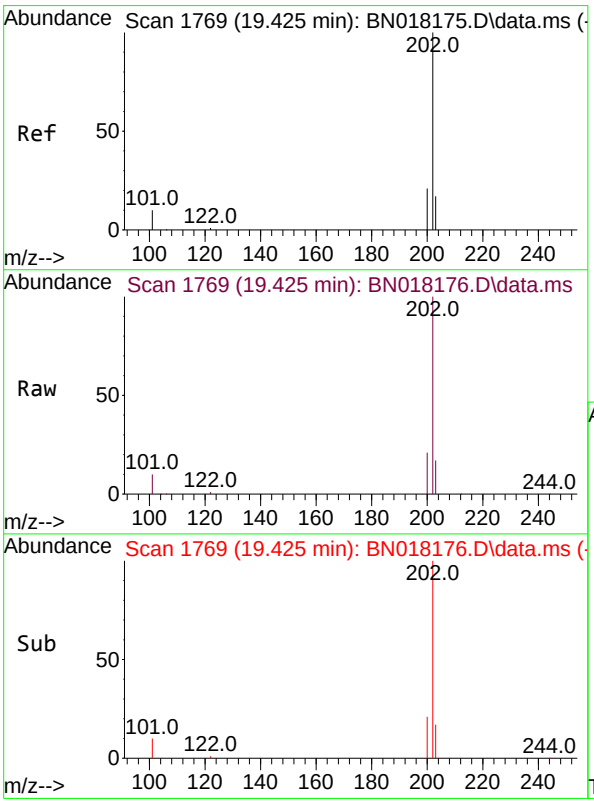
#29
Chrysene-d12
Concen: 0.400 ng
RT: 21.195 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:240 Resp: 108156

Ion	Ratio	Lower	Upper
240	100		
120	4.3	6.0	9.0#
236	25.5	21.4	32.2

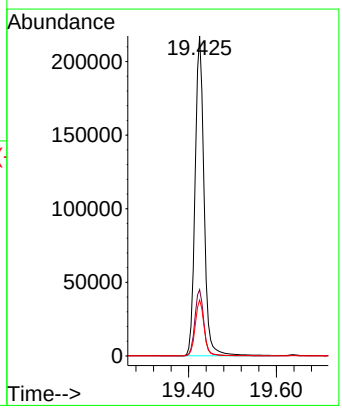


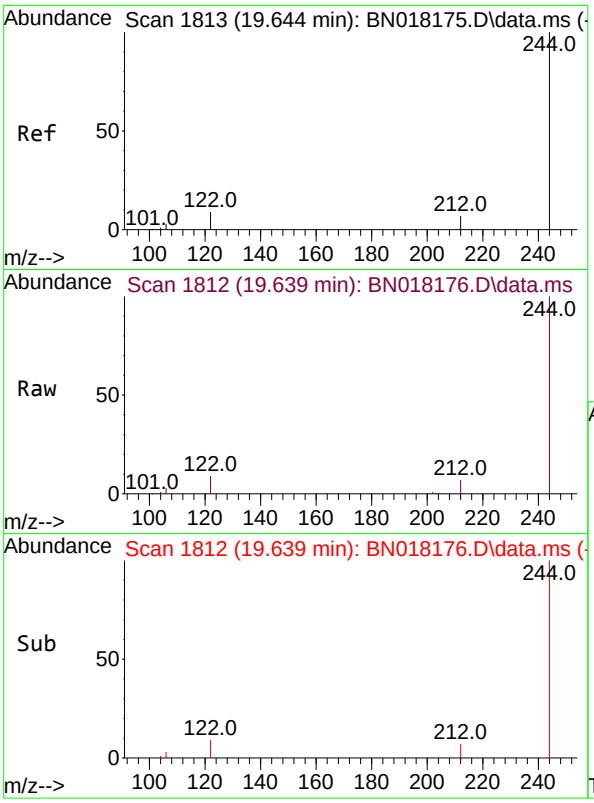


#30
Pyrene
Concen: 0.865 ng
RT: 19.425 min Scan# 1769
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:202 Resp: 307059

Ion	Ratio	Lower	Upper
202	100		
200	20.8	16.6	25.0
203	17.5	14.1	21.1



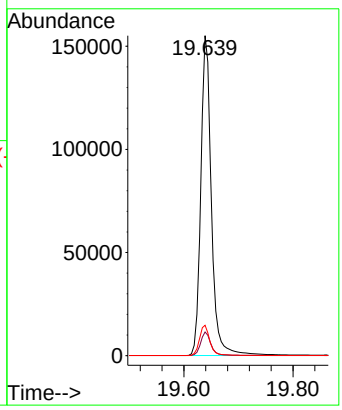


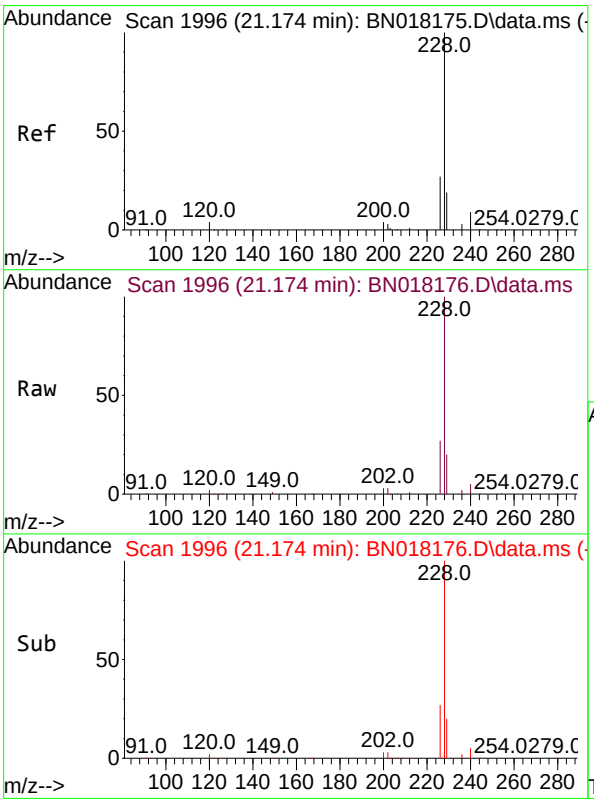
#31
Terphenyl-d14
Concen: 0.933 ng
RT: 19.639 min Scan# 1
Delta R.T. -0.005 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:244 Resp: 210298

Ion	Ratio	Lower	Upper
244	100		
212	7.4	6.2	9.2
122	9.5	7.9	11.9

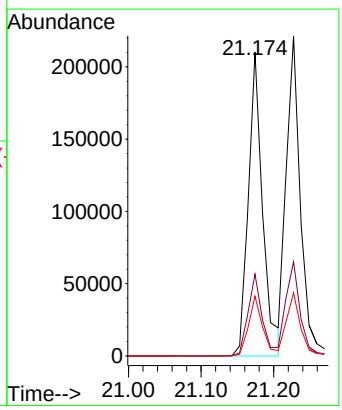


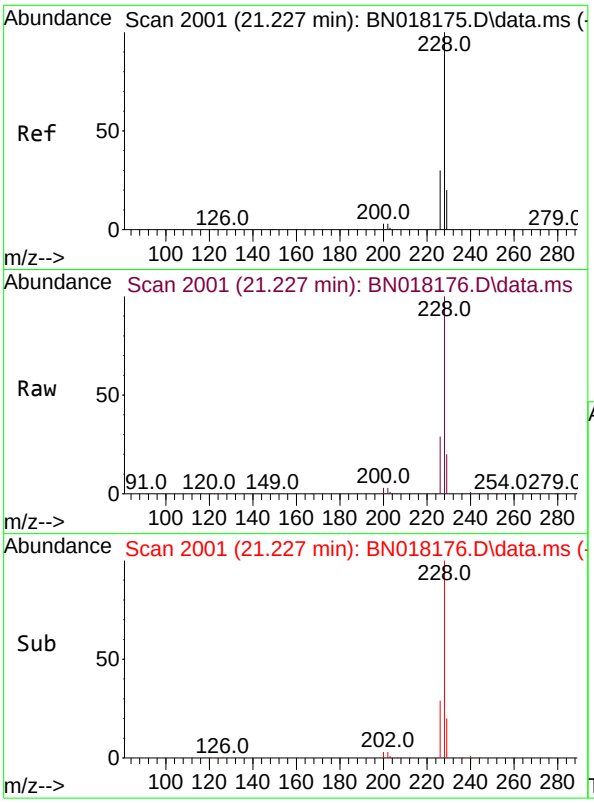


#32
Benzo(a)anthracene
Concen: 0.883 ng
RT: 21.174 min Scan# 1996
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:228 Resp: 287466

Ion	Ratio	Lower	Upper
228	100		
226	26.9	21.3	31.9
229	19.6	15.9	23.9



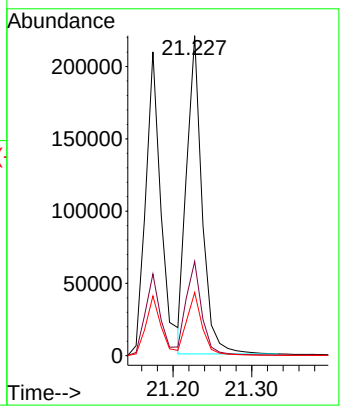


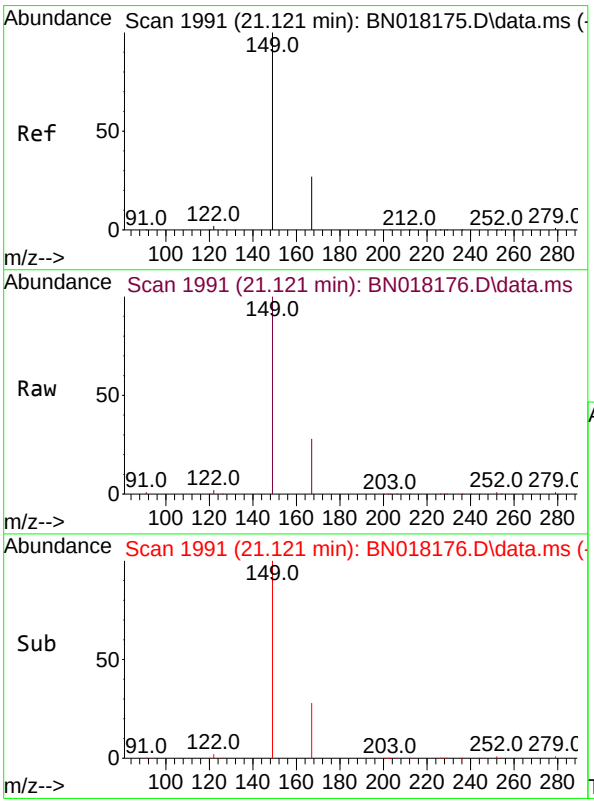
#33
Chrysene
Concen: 0.860 ng
RT: 21.227 min Scan# 2
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:228 Resp: 298493

Ion	Ratio	Lower	Upper
228	100		
226	29.4	24.2	36.4
229	19.8	15.5	23.3

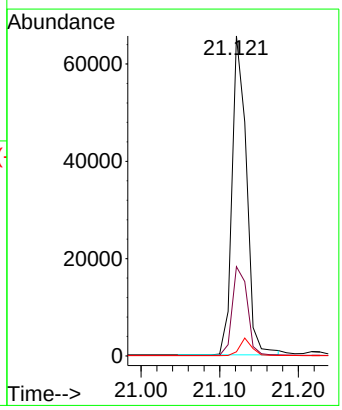


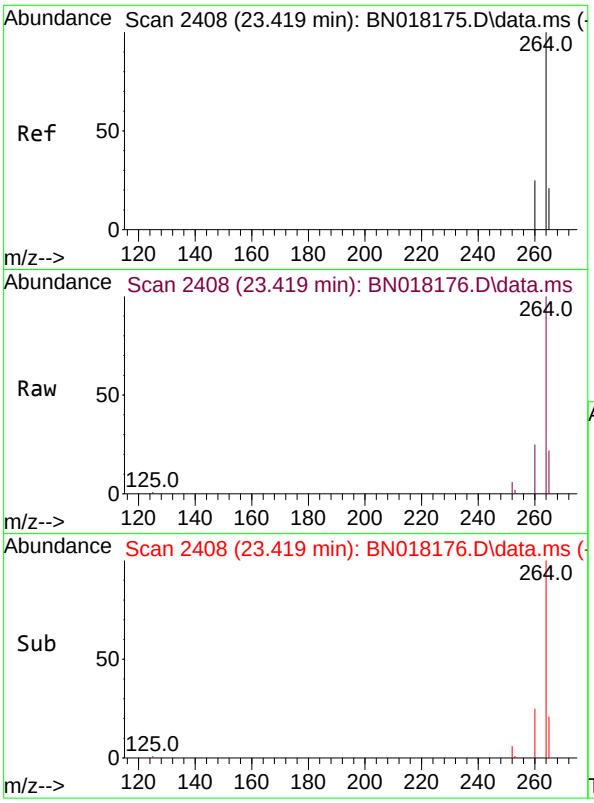


#34
Bis(2-ethylhexyl)phthalate
Concen: 0.524 ng
RT: 21.121 min Scan# 1991
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:149 Resp: 83723

Ion	Ratio	Lower	Upper
149	100		
167	29.2	23.7	35.5
279	4.6	3.6	5.4



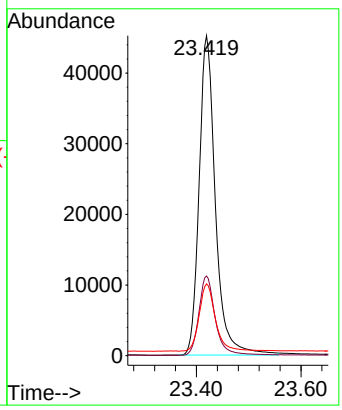


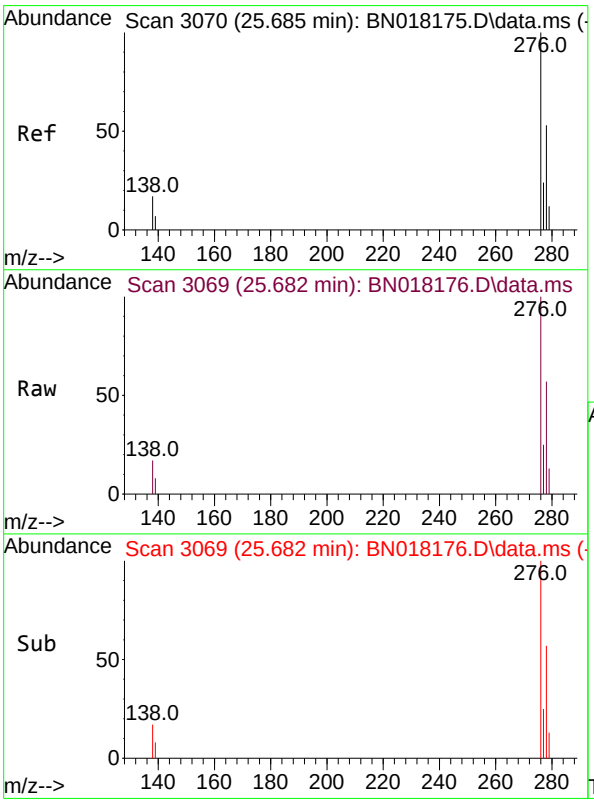
#35
Perylene-d12
Concen: 0.400 ng
RT: 23.419 min Scan# 24
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:264 Resp: 97770

Ion	Ratio	Lower	Upper
264	100		
260	24.9	20.2	30.4
265	22.5	18.2	27.2

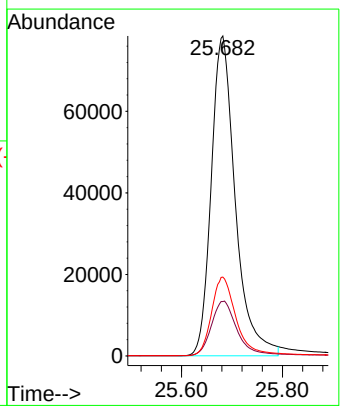


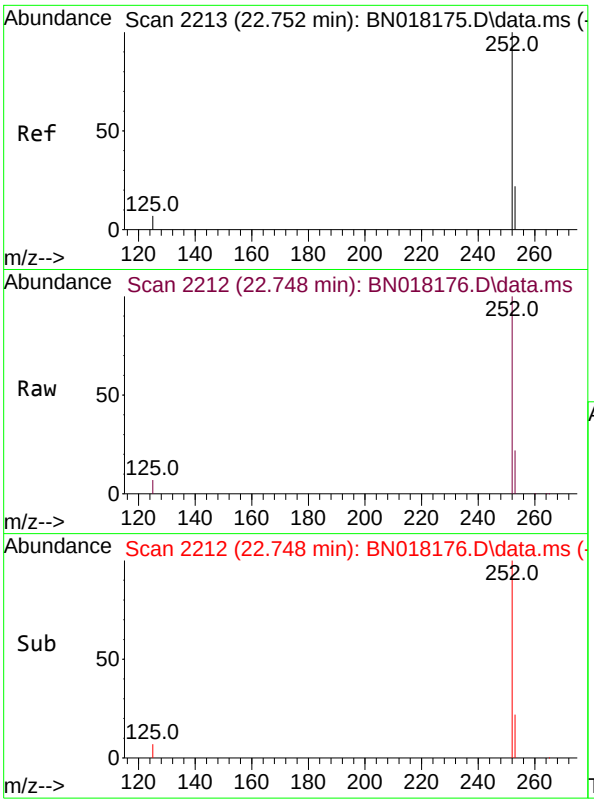


#36
Indeno(1,2,3-cd)pyrene
Concen: 0.795 ng
RT: 25.682 min Scan# 3069
Delta R.T. -0.003 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:276 Resp: 260022

Ion	Ratio	Lower	Upper
276	100		
138	18.1	14.9	22.3
277	24.9	19.9	29.9



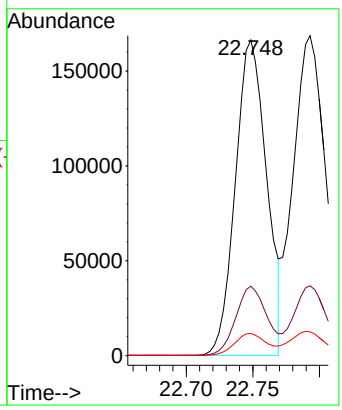


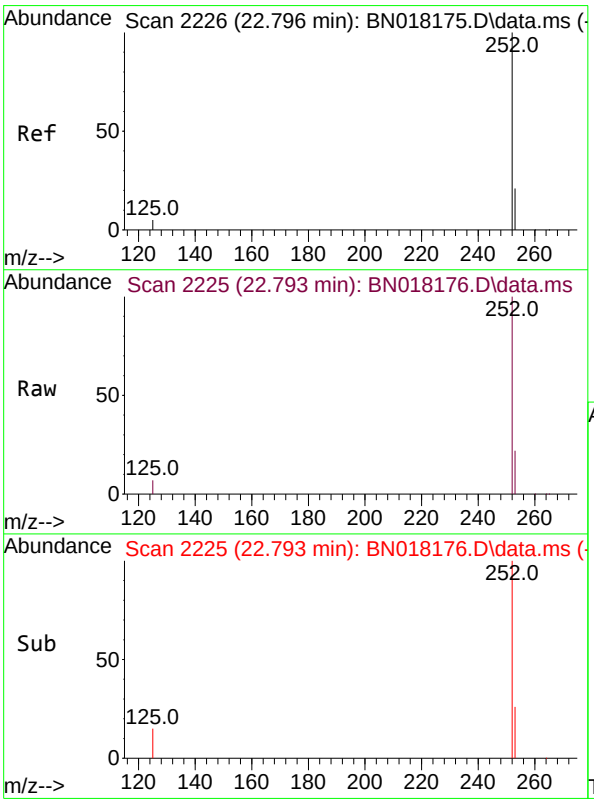
#37
Benzo(b)fluoranthene
Concen: 0.932 ng
RT: 22.748 min Scan# 2
Delta R.T. -0.003 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:252 Resp: 270745

Ion	Ratio	Lower	Upper
252	100		
253	22.0	17.8	26.6
125	7.0	6.0	9.0

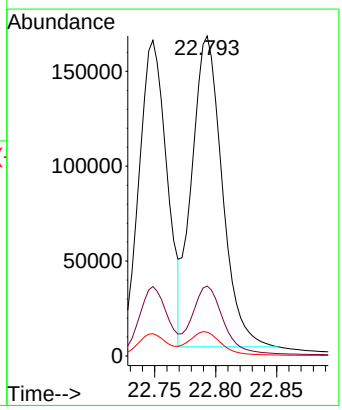


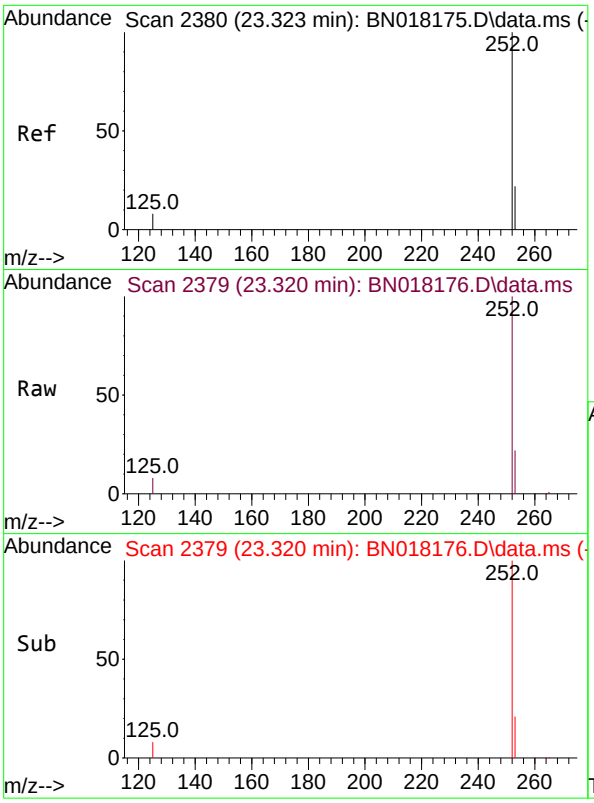


#38
Benzo(k)fluoranthene
Concen: 1.003 ng
RT: 22.793 min Scan# 2225
Delta R.T. -0.003 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:252 Resp: 284233

Ion	Ratio	Lower	Upper
252	100		
253	21.8	17.7	26.5
125	7.5	6.2	9.2



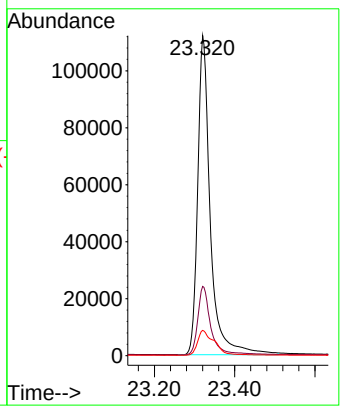


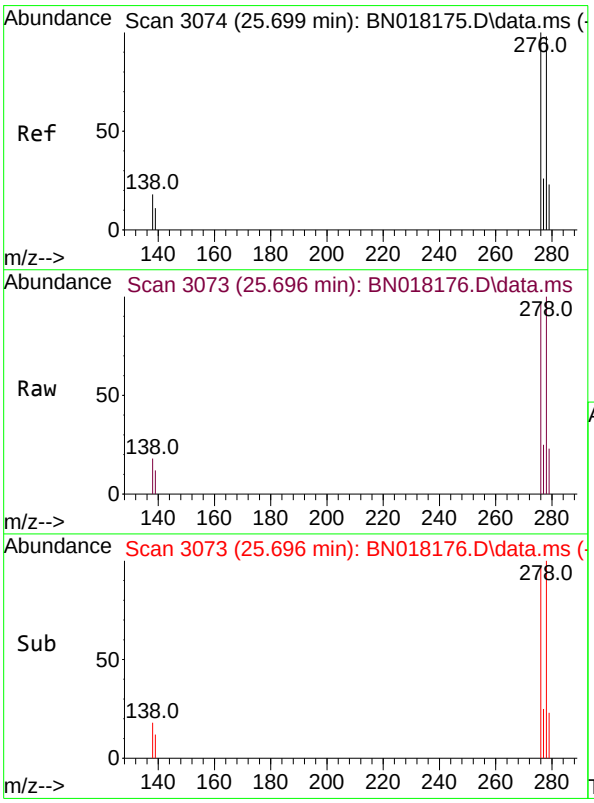
#39
Benzo(a)pyrene
Concen: 0.824 ng
RT: 23.320 min Scan# 2
Delta R.T. -0.003 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:252 Resp: 243674

Ion	Ratio	Lower	Upper
252	100		
253	21.7	17.8	26.6
125	7.9	7.0	10.4

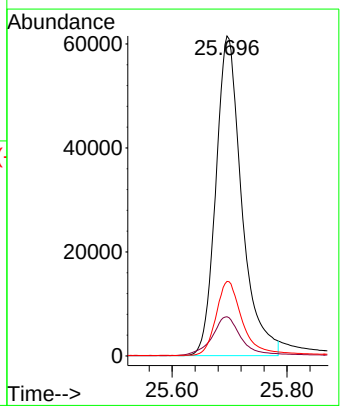


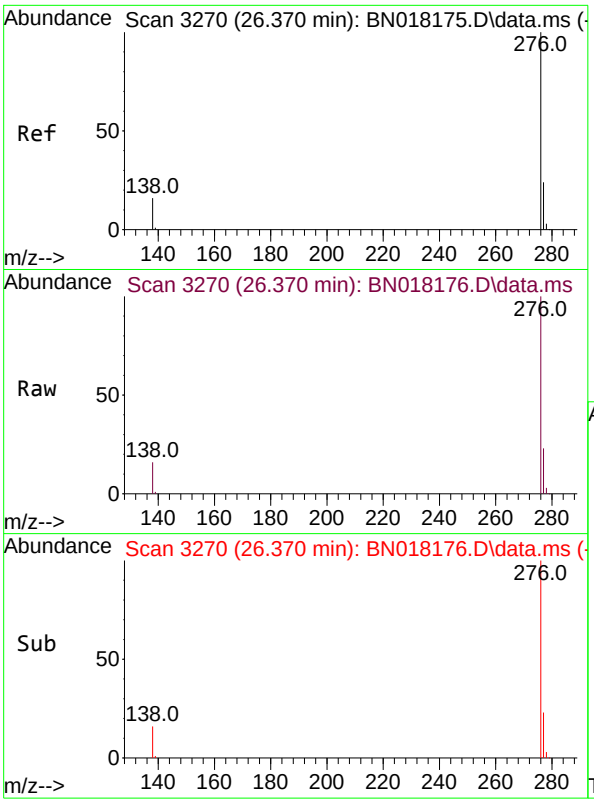


#40
Dibenzo(a,h)anthracene
Concen: 0.754 ng
RT: 25.696 min Scan# 3073
Delta R.T. -0.003 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Tgt Ion:278 Resp: 192523

Ion	Ratio	Lower	Upper
278	100		
139	12.2	10.8	16.2
279	23.3	19.0	28.4





#41
Benzo(g,h,i)perylene
Concen: 0.762 ng
RT: 26.370 min Scan# 3
Delta R.T. 0.000 min
Lab File: BN018176.D
Acq: 23 Dec 2021 11:21

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:276 Resp: 233374

Ion	Ratio	Lower	Upper
276	100		
277	23.4	19.0	28.6
138	15.7	12.6	19.0