Quantitation Report (Not Reviewed)

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN062622\
Data File : BN020466.D
Acq On : 26 Jun 2022 15:13
Operator : CG/JU
Sample : SSTDICC0.8
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Quant Time: Jun 27 01:37:49 2022
Quant Method : Z:\SVOASRV\HPCHEM1\BNA_N\METHODS\8270-SIM-BN062622.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Jun 27 01:36:24 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.739	152	2672	0.400	ng	0.00
7) Naphthalene-d8	10.520	136	8058	0.400	ng	# 0.00
13) Acenaphthene-d10	14.367	164	4732	0.400	ng	0.00
19) Phenanthrene-d10	17.113	188	9923	0.400	ng	0.00
29) Chrysene-d12	21.306	240	9022	0.400	ng	0.00
35) Perylene-d12	23.598	264	8274	0.400	ng	# 0.00
System Monitoring Compounds						
4) 2-Fluorophenol	5.348	112	6156	0.786	ng	0.00
5) Phenol-d6	6.944	99	7393	0.733	ng	0.00
8) Nitrobenzene-d5	8.886	82	5326	0.947	ng	-0.01
11) 2-Methylnaphthalene-d10	12.117	152	11717	0.782	ng	0.00
14) 2,4,6-Tribromophenol	15.861	330	1402	0.623	ng	0.00
15) 2-Fluorobiphenyl	12.999	172	16531	0.976	ng	0.00
27) Fluoranthene-d10	19.147	212	24655	0.709	ng	0.00
31) Terphenyl-d14	19.750	244	17968	0.999	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.232	88	2980	0.974	ng	96
3) n-Nitrosodimethylamine	3.557	42	2704	0.970	ng	95
6) bis(2-Chloroethyl)ether	7.168	93	6618	0.845	ng	98
9) Naphthalene	10.573	128	20272	0.844	ng	100
10) Hexachlorobutadiene	10.872	225	3652	0.902	ng	# 99
12) 2-Methylnaphthalene	12.193	142	13433	0.762	ng	100
16) Acenaphthylene	14.089	152	18620	0.839	ng	98
17) Acenaphthene	14.431	154	12909	0.836	ng	96
18) Fluorene	15.415	166	16862	0.759	ng	100
20) 4,6-Dinitro-2-methylph...	15.511	198	1006	0.649	ng	# 92
21) 4-Bromophenyl-phenylether	16.313	248	4781	0.872	ng	# 84
22) Hexachlorobenzene	16.426	284	5298	0.857	ng	99
23) Atrazine	16.579	200	3601	0.883	ng	100
24) Pentachlorophenol	16.774	266	1132	0.417	ng	97
25) Phenanthrene	17.154	178	27632	0.809	ng	100
26) Anthracene	17.246	178	23943	0.814	ng	100
28) Fluoranthene	19.177	202	30754	0.682	ng	99
30) Pyrene	19.539	202	31528	0.947	ng	100
32) Benzo(a)anthracene	21.288	228	25972	0.802	ng	98
33) Chrysene	21.342	228	30295	0.821	ng	98
34) Bis(2-ethylhexyl)phtha...	21.234	149	13019	0.876	ng	100
36) Indeno(1,2,3-cd)pyrene	25.928	276	31093	0.765	ng	99
37) Benzo(b)fluoranthene	22.902	252	26643	0.815	ng	99
38) Benzo(k)fluoranthene	22.948	252	27744	0.824	ng	100
39) Benzo(a)pyrene	23.492	252	23156	0.812	ng	99
40) Dibenzo(a,h)anthracene	25.942	278	25106	0.778	ng	99
41) Benzo(g,h,i)perylene	26.644	276	27529	0.764	ng	99

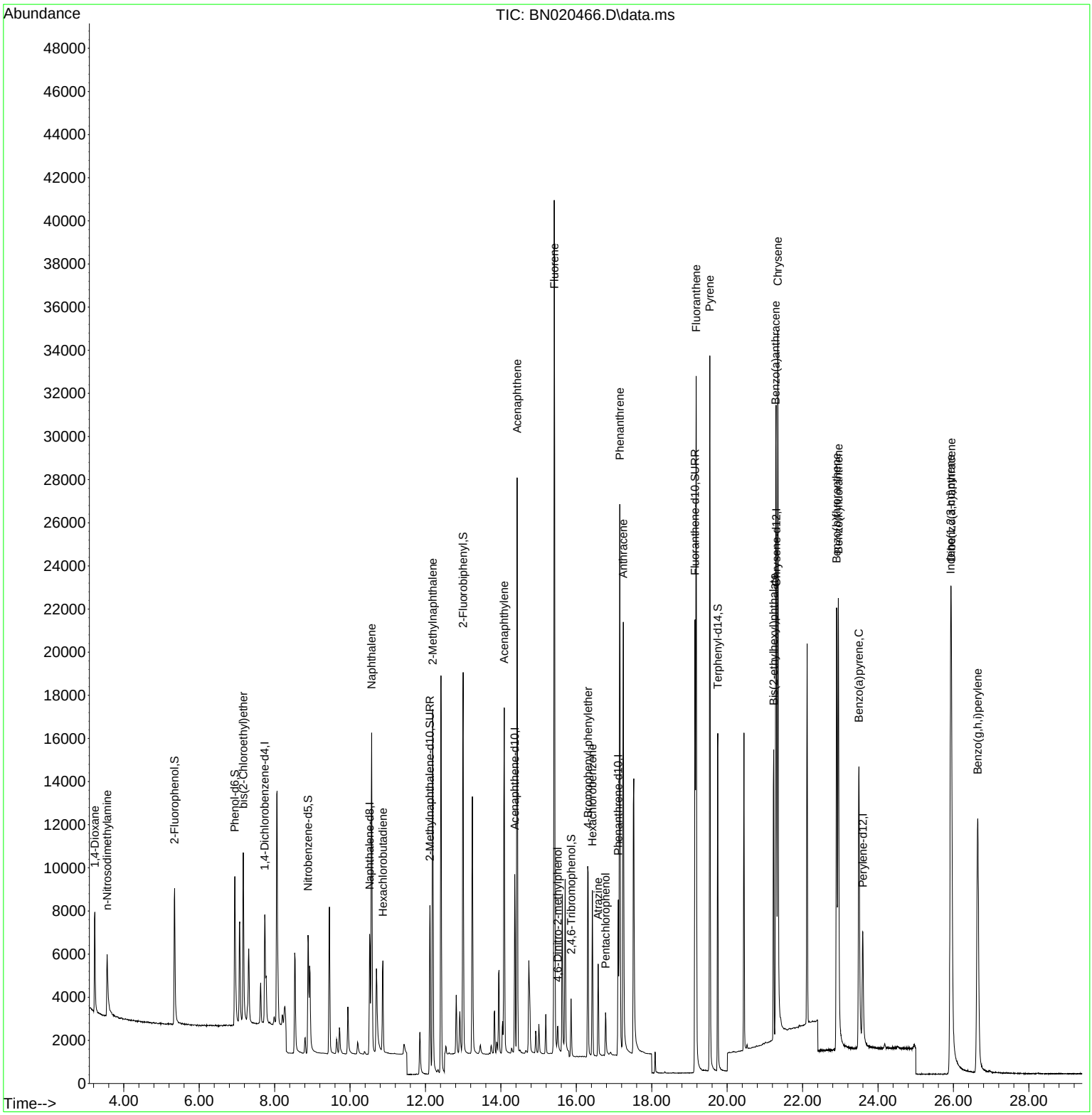
(#) = qualifier out of range (m) = manual integration (+) = signals summed

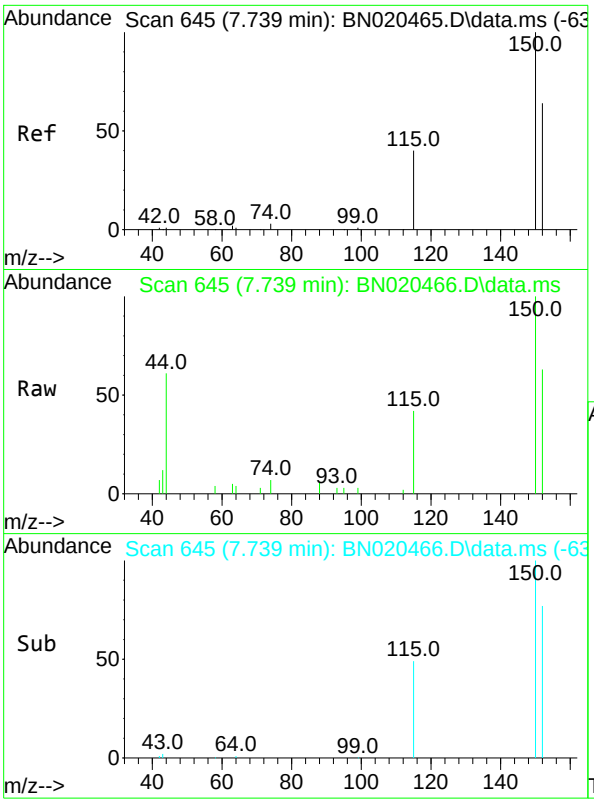
Quantitation Report (Not Reviewed)

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN062622\
Data File : BN020466.D
Acq On : 26 Jun 2022 15:13
Operator : CG/JU
Sample : SSTDICC0.8
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Quant Time: Jun 27 01:37:49 2022
Quant Method : Z:\SVOASRV\HPCHEM1\BNA_N\METHODS\8270-SIM-BN062622.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Jun 27 01:36:24 2022
Response via : Initial Calibration



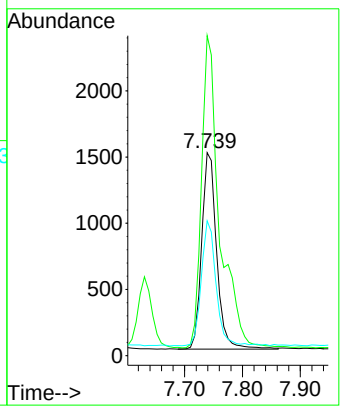


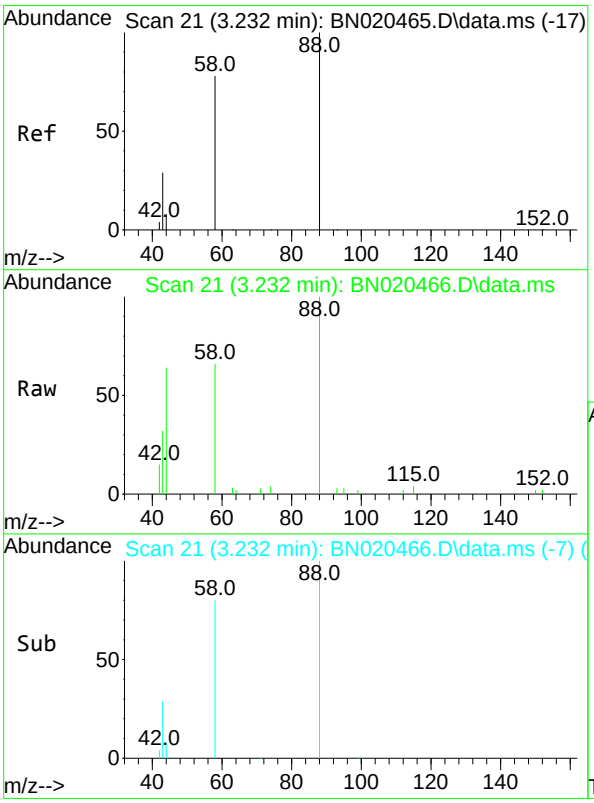
#1
1,4-Dichlorobenzene-d4
Concen: 0.400 ng
RT: 7.739 min Scan# 64
Delta R.T. -0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:152 Resp: 2672

Ion	Ratio	Lower	Upper
152	100		
150	157.6	127.9	191.9
115	66.4	51.4	77.2

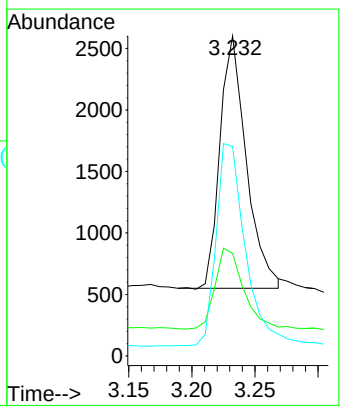


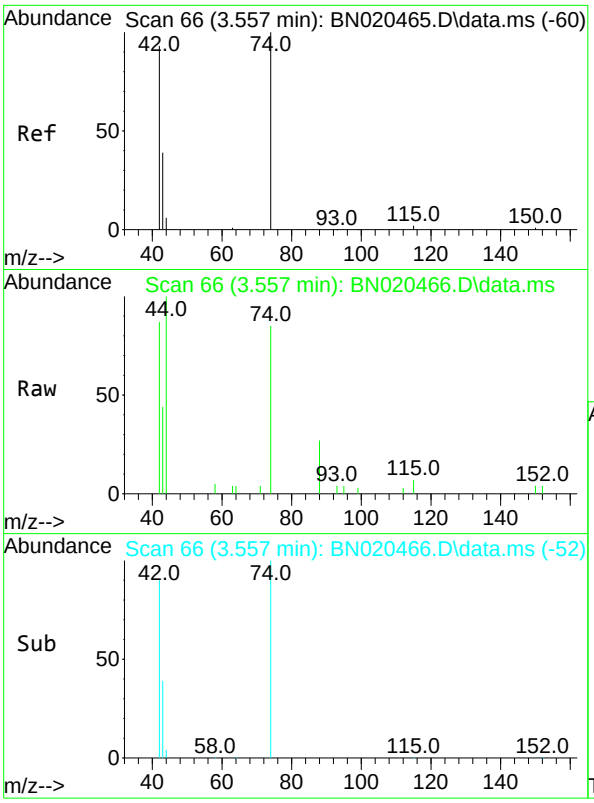


#2
1,4-Dioxane
Concen: 0.974 ng
RT: 3.232 min Scan# 21
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion: 88 Resp: 2980

Ion	Ratio	Lower	Upper
88	100		
43	34.3	30.2	45.2
58	88.3	73.0	109.6



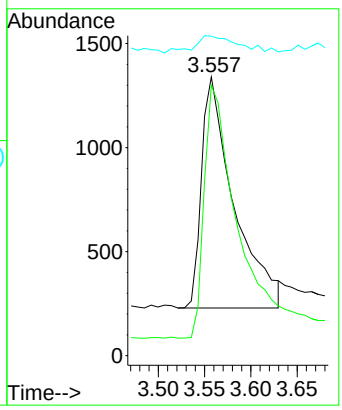


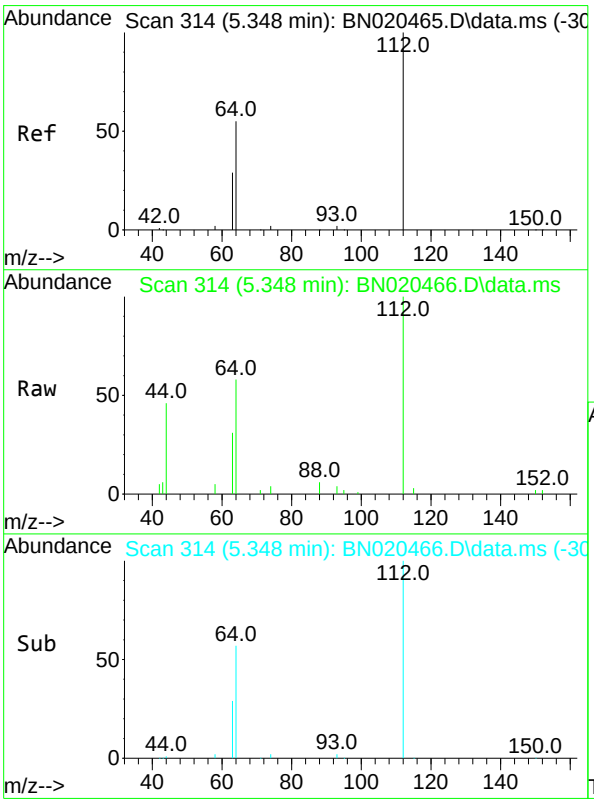
#3
n-Nitrosodimethylamine
Concen: 0.970 ng
RT: 3.557 min Scan# 6
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion: 42 Resp: 2704

Ion	Ratio	Lower	Upper
42	100		
74	110.2	84.0	126.0
44	10.6	9.8	14.8

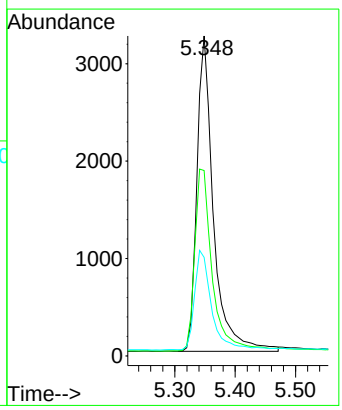


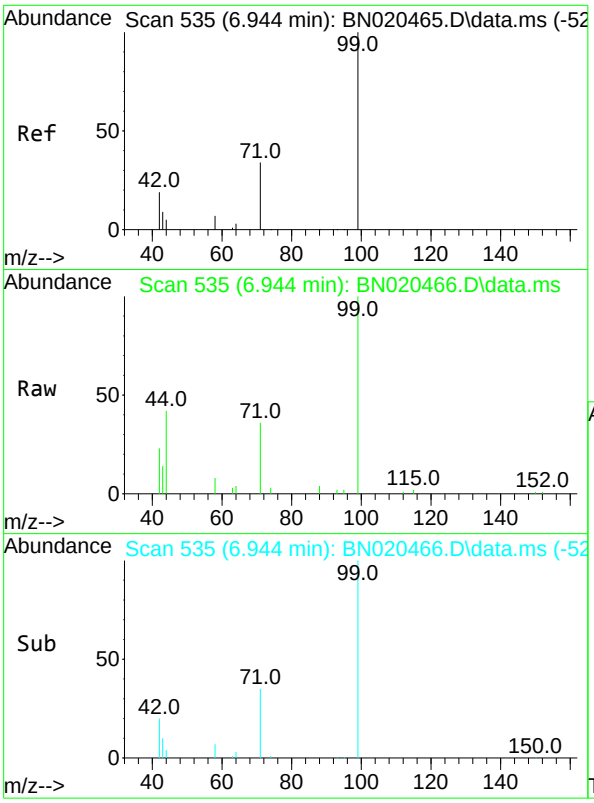


#4
2-Fluorophenol
Concen: 0.786 ng
RT: 5.348 min Scan# 314
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:112 Resp: 6156

Ion	Ratio	Lower	Upper
112	100		
64	61.4	49.1	73.7
63	33.0	26.3	39.5



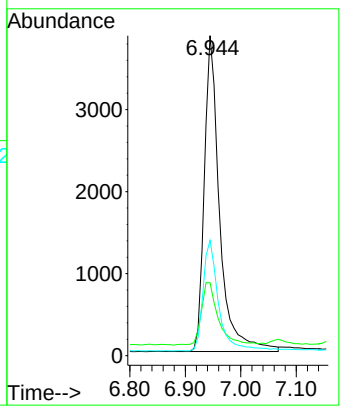


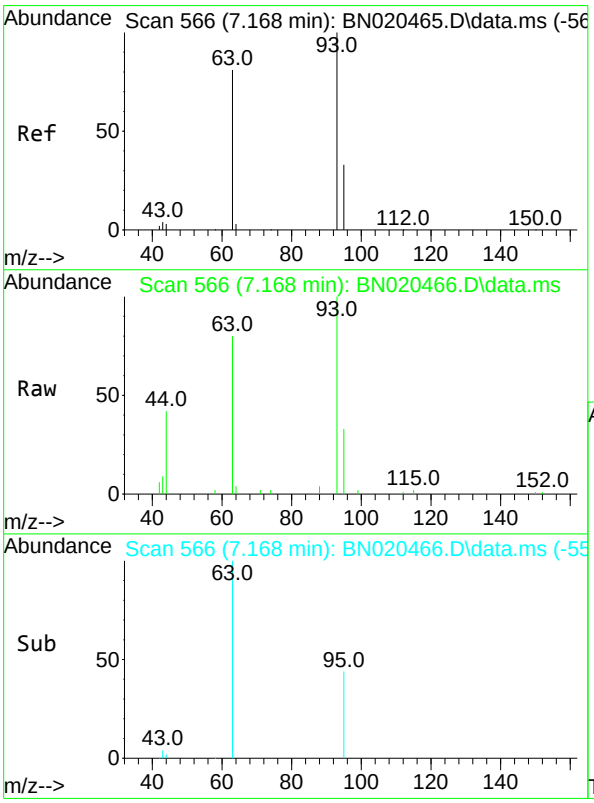
#5
Phenol-d6
Concen: 0.733 ng
RT: 6.944 min Scan# 5
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion: 99 Resp: 7393

Ion	Ratio	Lower	Upper
99	100		
42	22.1	19.3	28.9
71	35.5	27.5	41.3

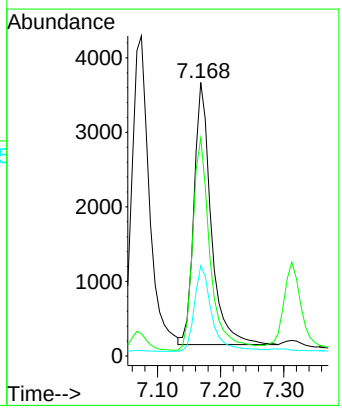


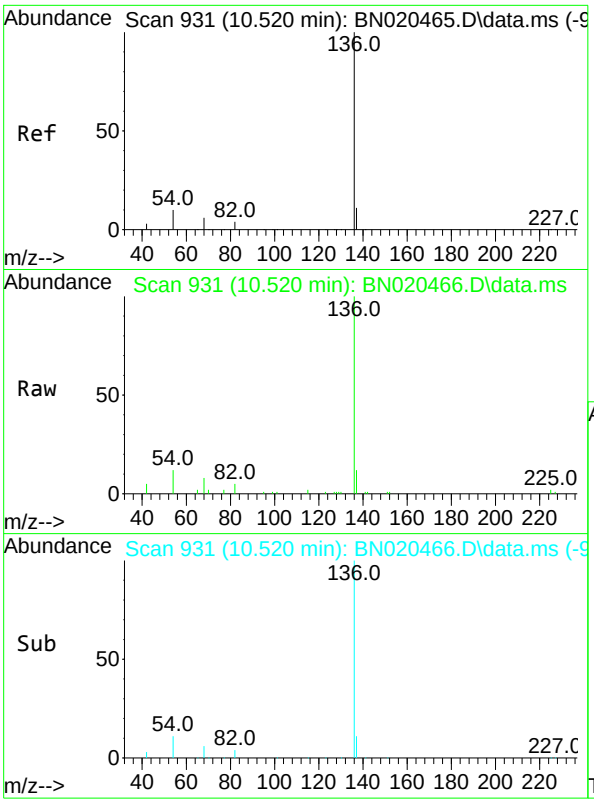


#6
bis(2-Chloroethyl)ether
Concen: 0.845 ng
RT: 7.168 min Scan# 566
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion: 93 Resp: 6618

Ion	Ratio	Lower	Upper
93	100		
63	82.0	67.4	101.0
95	33.1	26.5	39.7



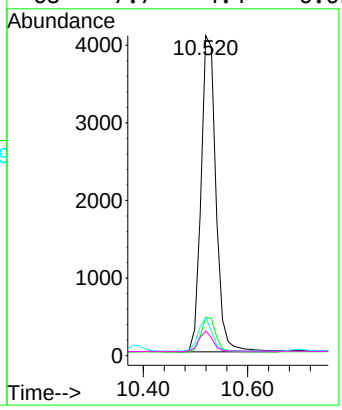


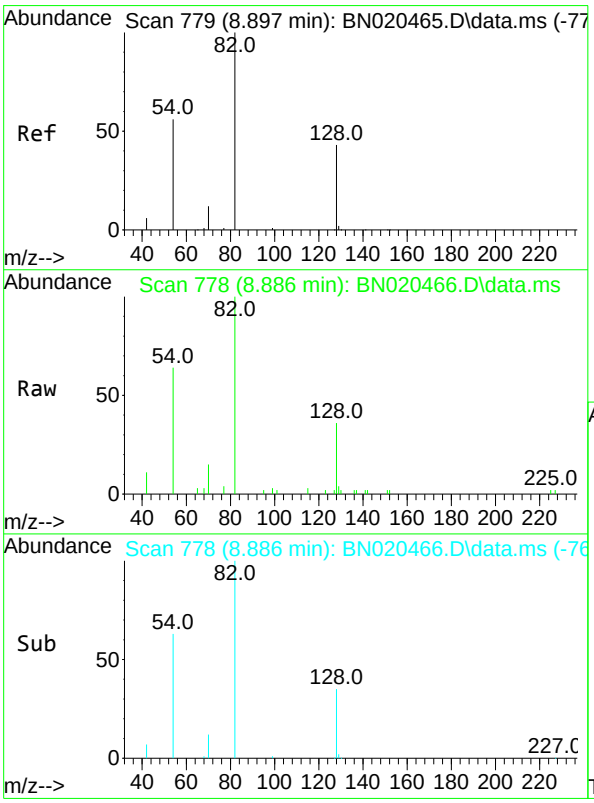
#7
Naphthalene-d8
Concen: 0.400 ng
RT: 10.520 min Scan# 9
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:136 Resp: 8058

Ion	Ratio	Lower	Upper
136	100		
137	12.1	9.0	13.6
54	11.9	6.2	9.2#
68	7.7	4.4	6.6#

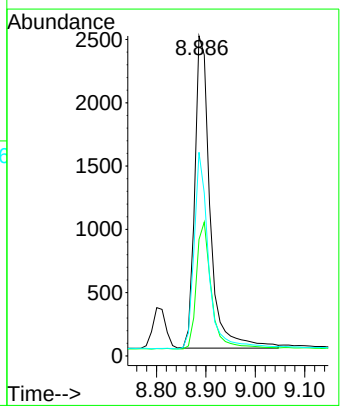


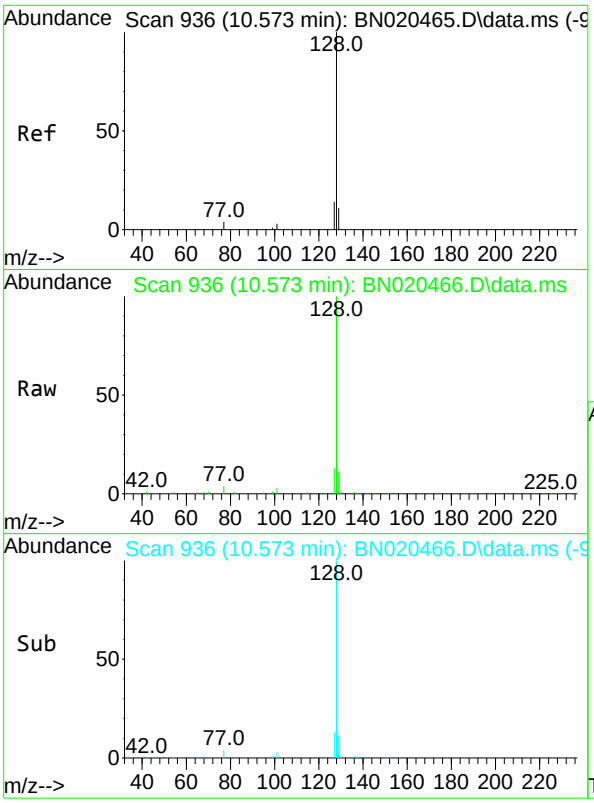


#8
Nitrobenzene-d5
Concen: 0.947 ng
RT: 8.886 min Scan# 778
Delta R.T. -0.011 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion: 82 Resp: 5326

Ion	Ratio	Lower	Upper
82	100		
128	36.4	35.0	52.6
54	63.6	46.2	69.4



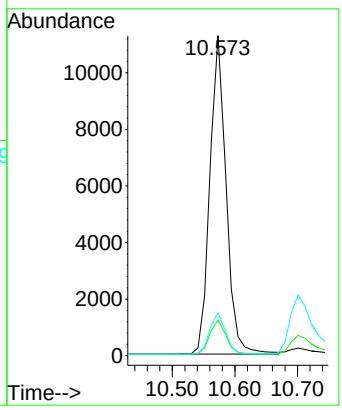


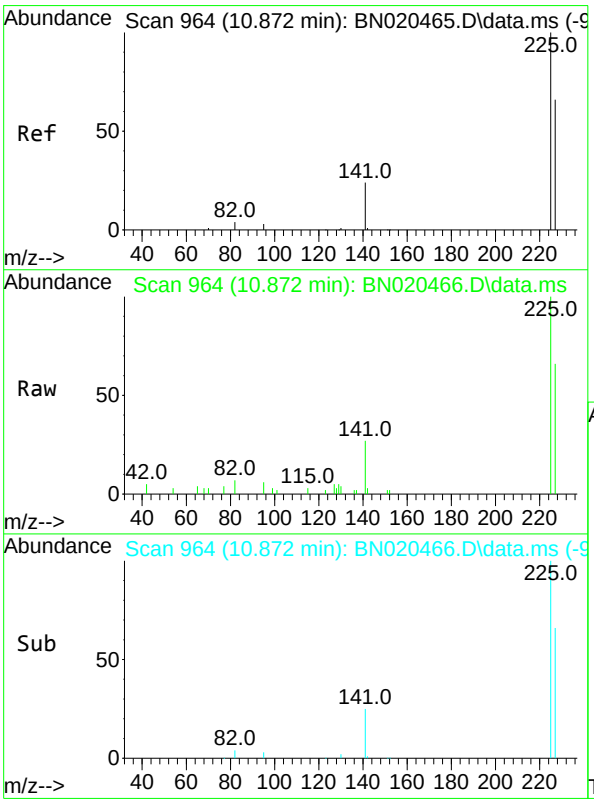
#9
Naphthalene
Concen: 0.844 ng
RT: 10.573 min Scan# 9
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:128 Resp: 20272

Ion	Ratio	Lower	Upper
128	100		
129	11.1	8.9	13.3
127	13.4	10.8	16.2

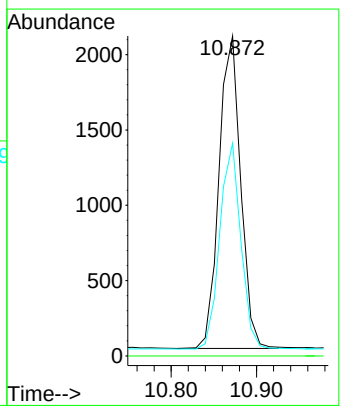


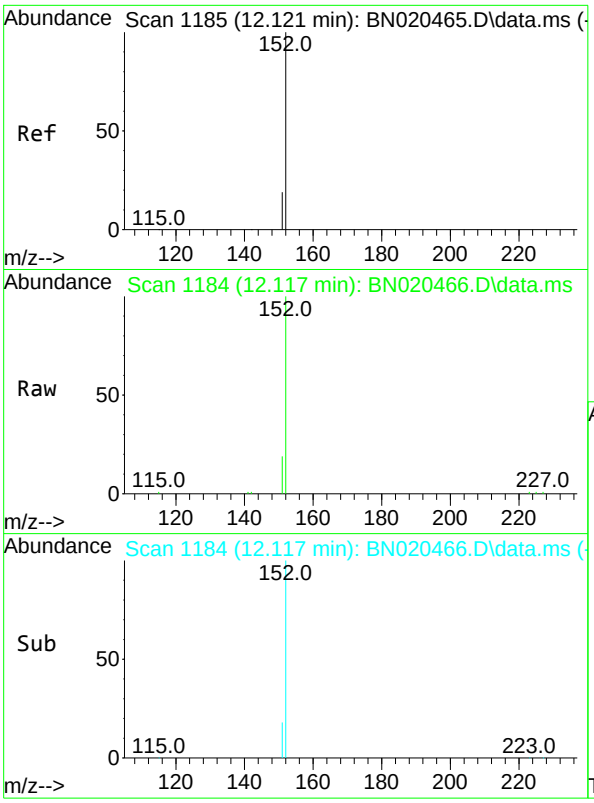


#10
Hexachlorobutadiene
Concen: 0.902 ng
RT: 10.872 min Scan# 964
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:225 Resp: 3652

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	64.1	50.9	76.3



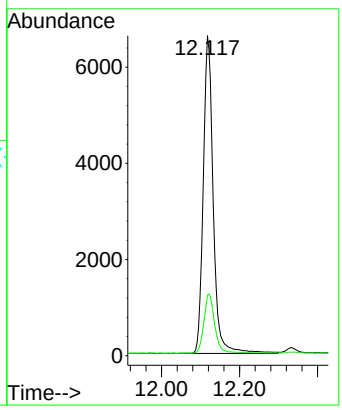


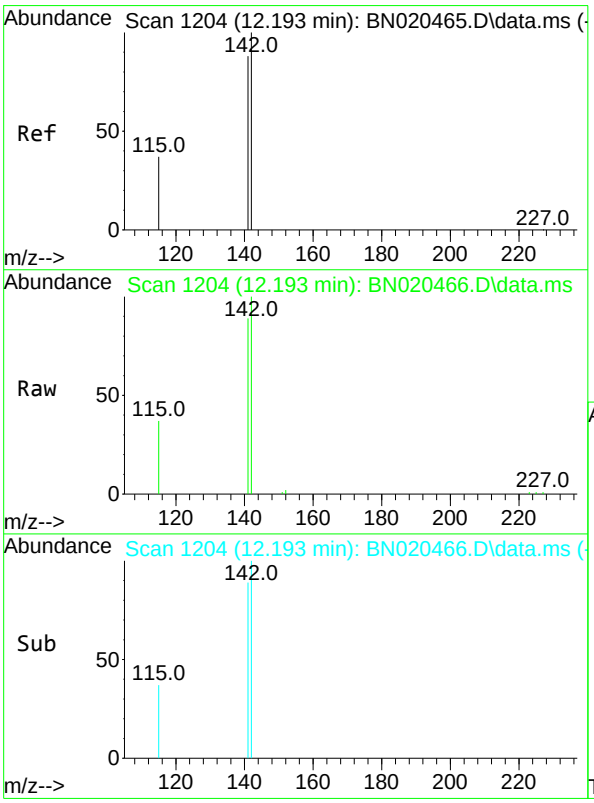
#11
2-Methylnaphthalene-d10
Concen: 0.782 ng
RT: 12.117 min Scan# 11
Delta R.T. -0.004 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:152 Resp: 11717

Ion	Ratio	Lower	Upper
152	100		
151	20.3	16.2	24.4

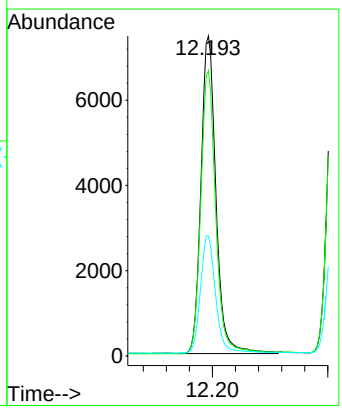


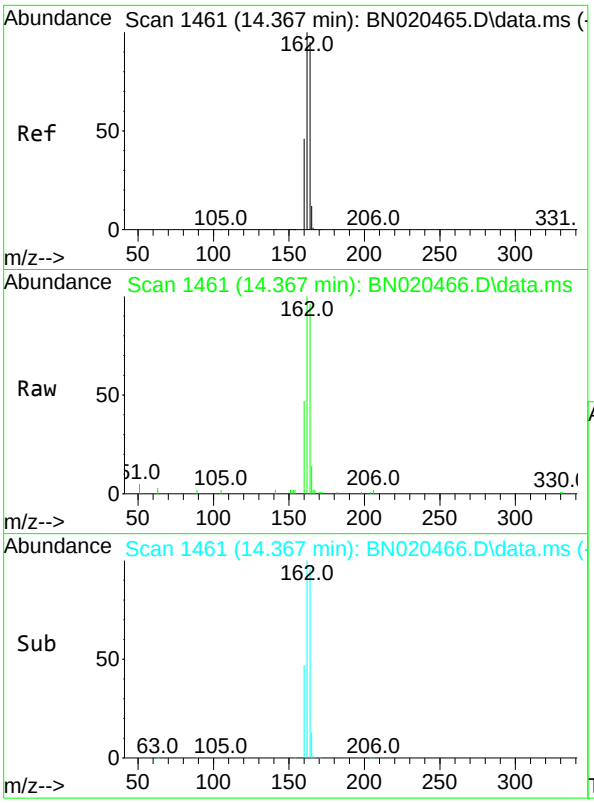


#12
2-Methylnaphthalene
Concen: 0.762 ng
RT: 12.193 min Scan# 1204
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:142 Resp: 13433

Ion	Ratio	Lower	Upper
142	100		
141	89.2	71.6	107.4
115	37.4	29.8	44.8



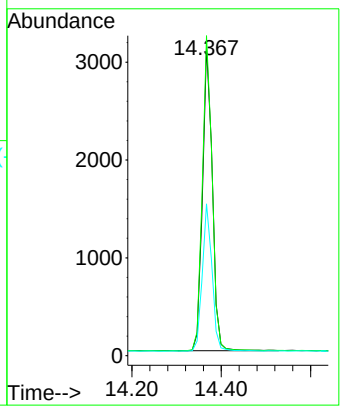


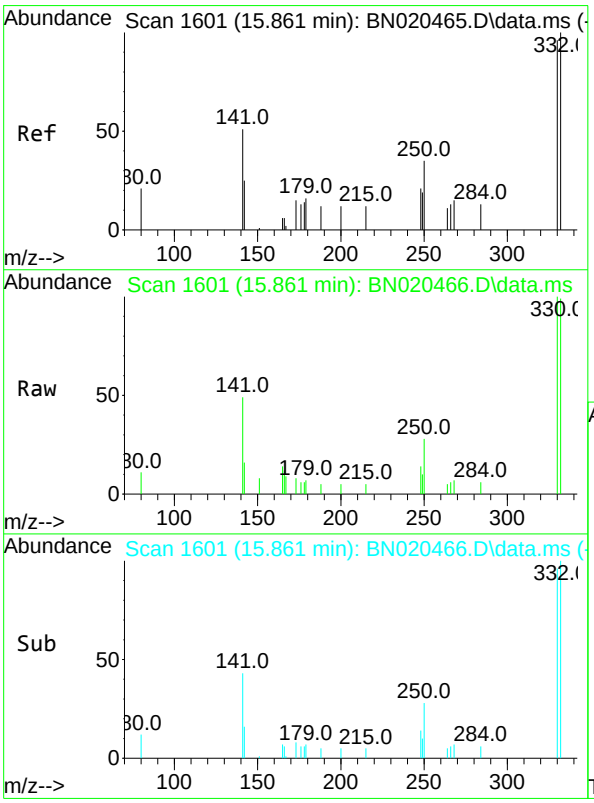
#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.367 min Scan# 14
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:164 Resp: 4732

Ion	Ratio	Lower	Upper
164	100		
162	103.7	82.1	123.1
160	49.2	38.6	58.0

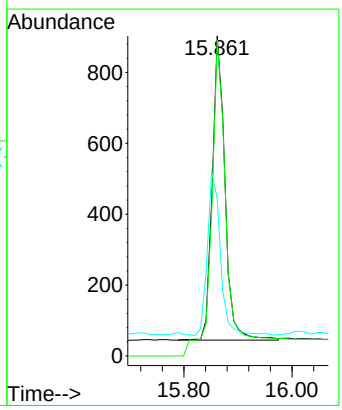


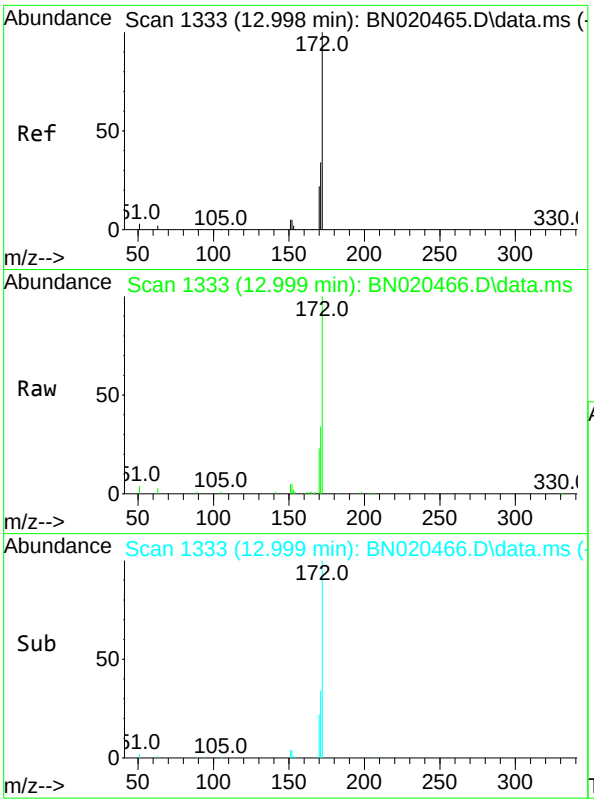


#14
2,4,6-Tribromophenol
Concen: 0.623 ng
RT: 15.861 min Scan# 1601
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:330 Resp: 1402

Ion	Ratio	Lower	Upper
330	100		
332	128.0	77.6	116.4#
141	56.1	41.0	61.4



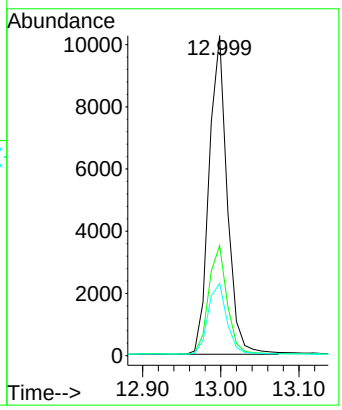


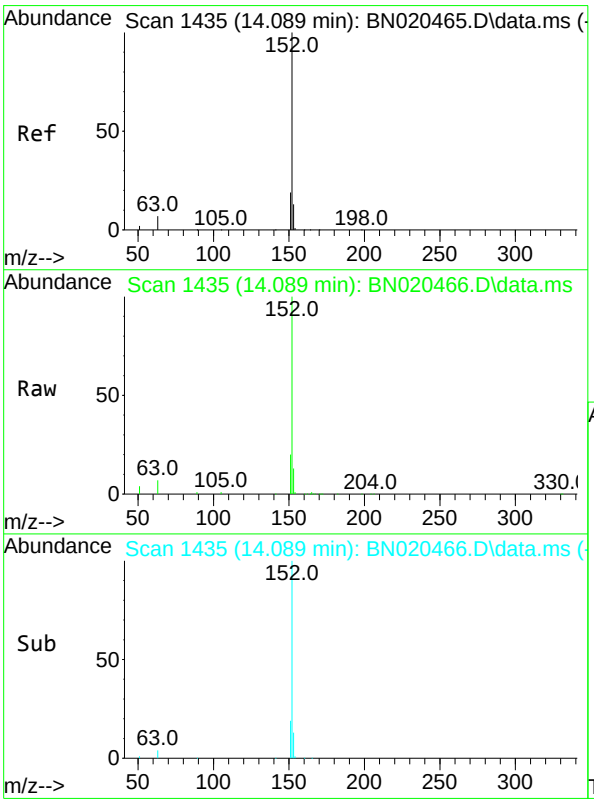
#15
2-Fluorobiphenyl
Concen: 0.976 ng
RT: 12.999 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:172 Resp: 16531

Ion	Ratio	Lower	Upper
172	100		
171	34.4	27.2	40.8
170	22.6	18.2	27.4

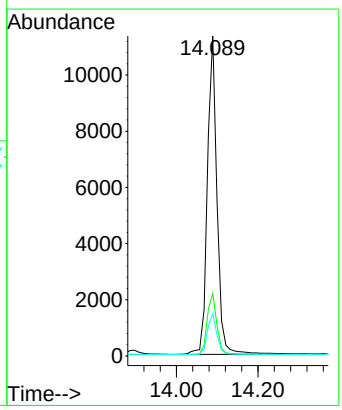


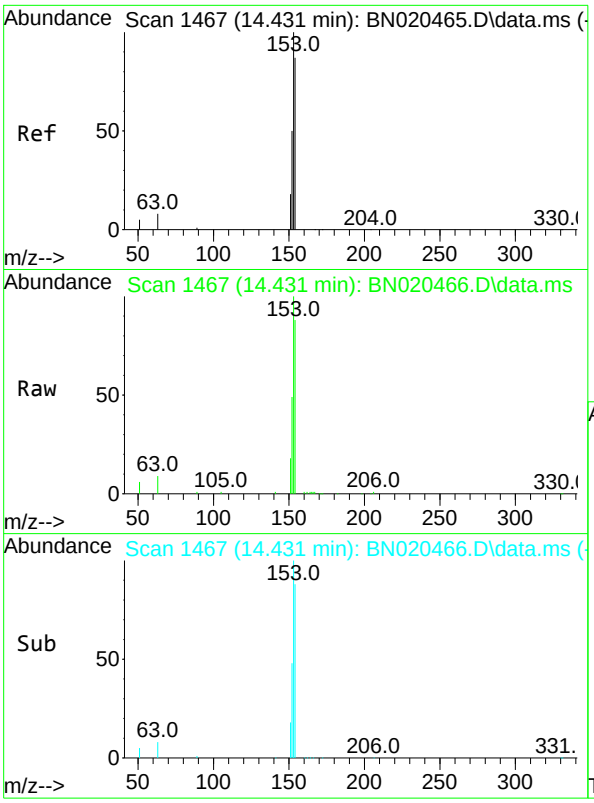


#16
Acenaphthylene
Concen: 0.839 ng
RT: 14.089 min Scan# 1435
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:152 Resp: 18620

Ion	Ratio	Lower	Upper
152	100		
151	19.5	16.2	24.4
153	12.9	10.7	16.1



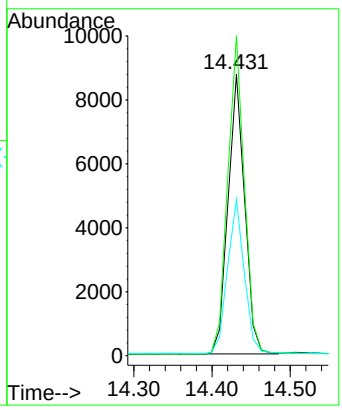


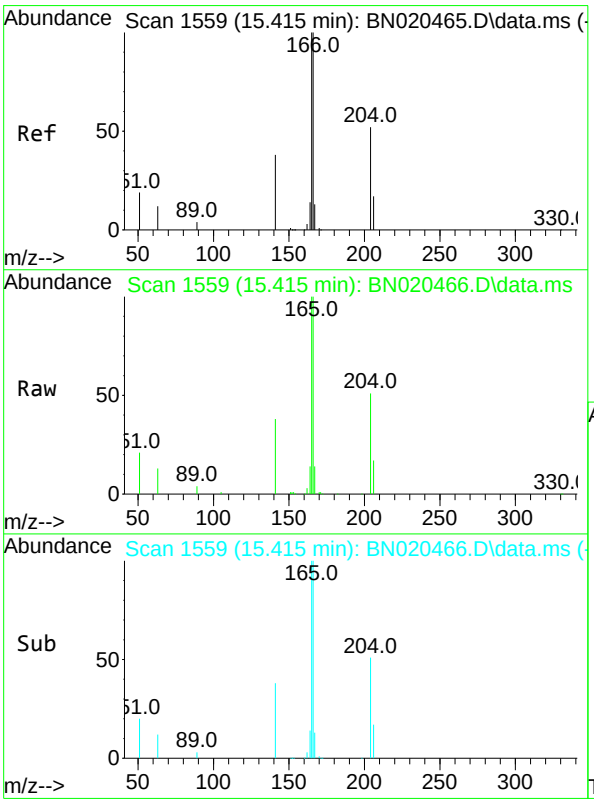
#17
Acenaphthene
Concen: 0.836 ng
RT: 14.431 min Scan# 14
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:154 Resp: 12909

Ion	Ratio	Lower	Upper
154	100		
153	114.8	87.5	131.3
152	55.9	43.8	65.6

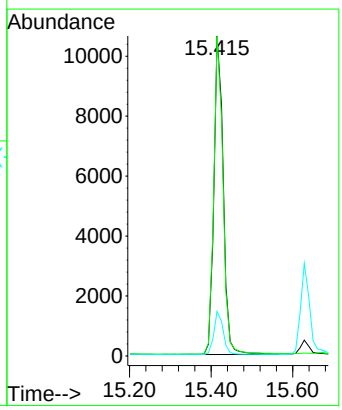


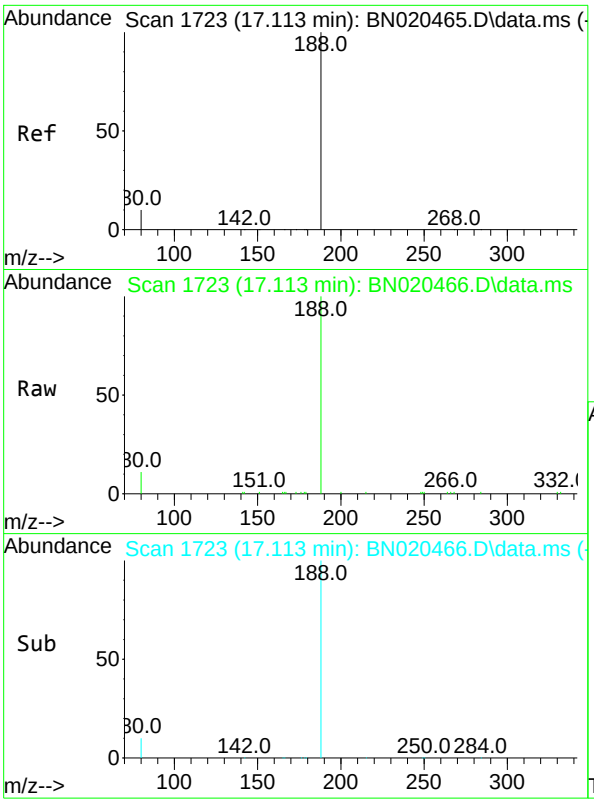


#18
Fluorene
Concen: 0.759 ng
RT: 15.415 min Scan# 1559
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:166 Resp: 16862

Ion	Ratio	Lower	Upper
166	100		
165	98.2	78.6	118.0
167	13.4	10.8	16.2



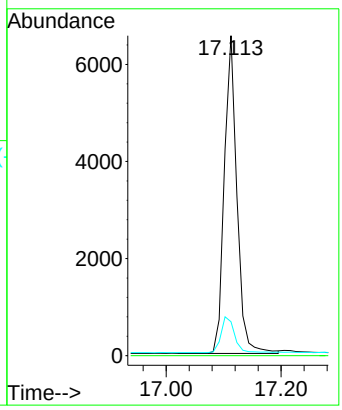


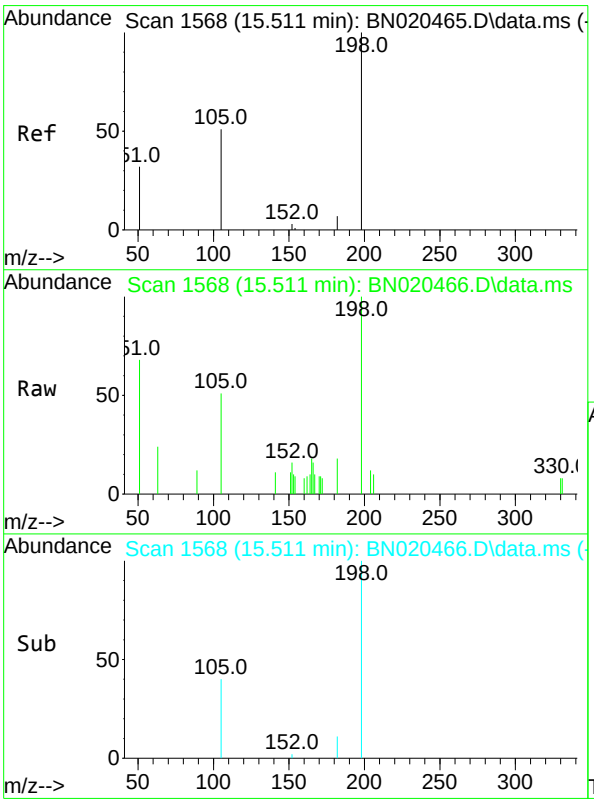
#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 17.113 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:188 Resp: 9923

Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	10.6	7.4	11.2

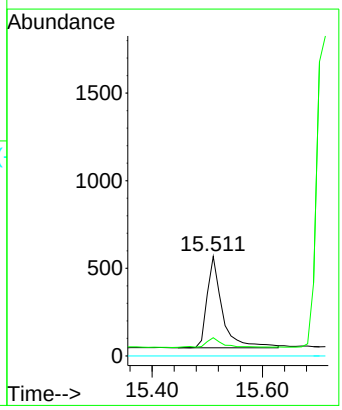


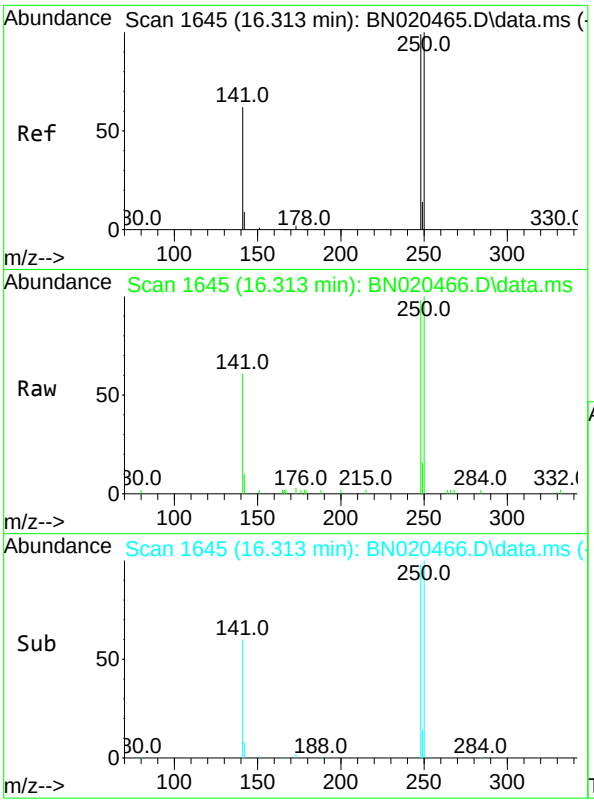


#20
4,6-Dinitro-2-methylphenol
Concen: 0.649 ng
RT: 15.511 min Scan# 1568
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:198 Resp: 1006

Ion	Ratio	Lower	Upper
198	100		
182	18.3	12.1	18.1#
77	0.0	0.0	0.0



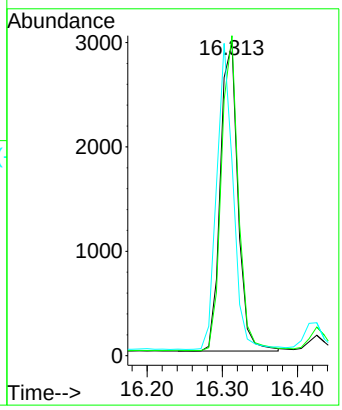


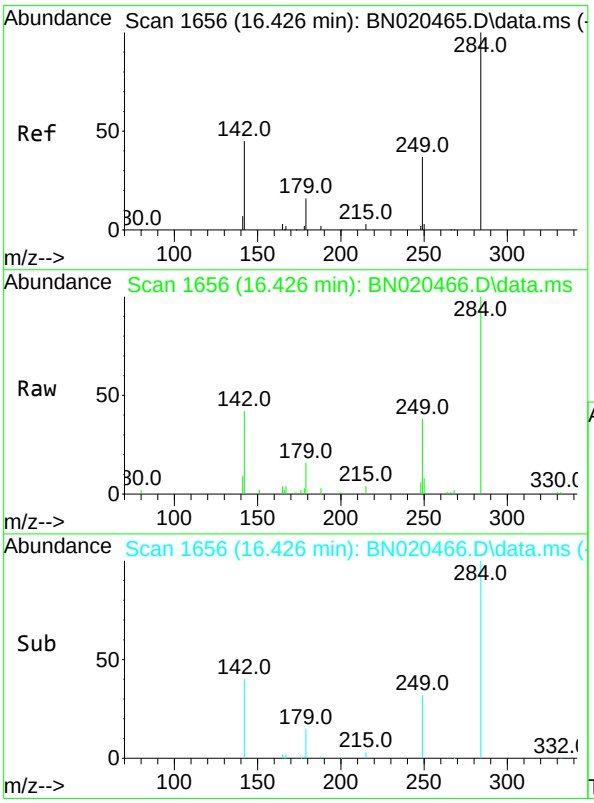
#21
4-Bromophenyl-phenylether
Concen: 0.872 ng
RT: 16.313 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:248 Resp: 4781

Ion	Ratio	Lower	Upper
248	100		
250	102.3	75.3	112.9
141	62.1	67.3	100.9#

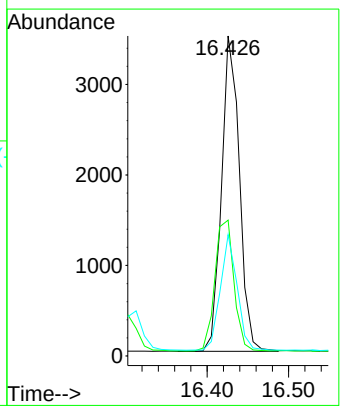


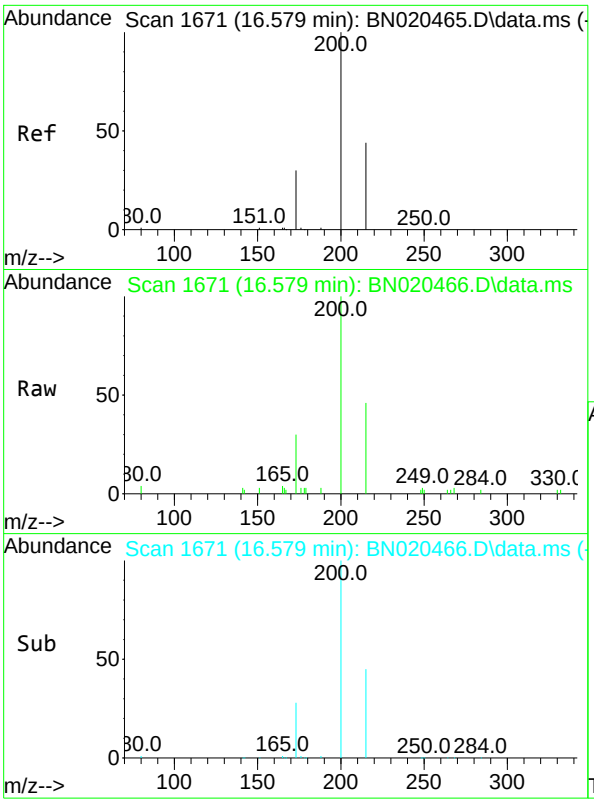


#22
Hexachlorobenzene
Concen: 0.857 ng
RT: 16.426 min Scan# 1656
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:284 Resp: 5298

Ion	Ratio	Lower	Upper
284	100		
142	44.3	35.2	52.8
249	34.6	26.6	40.0



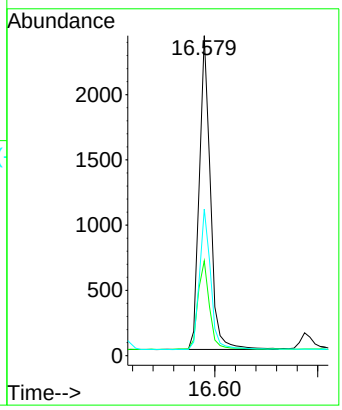


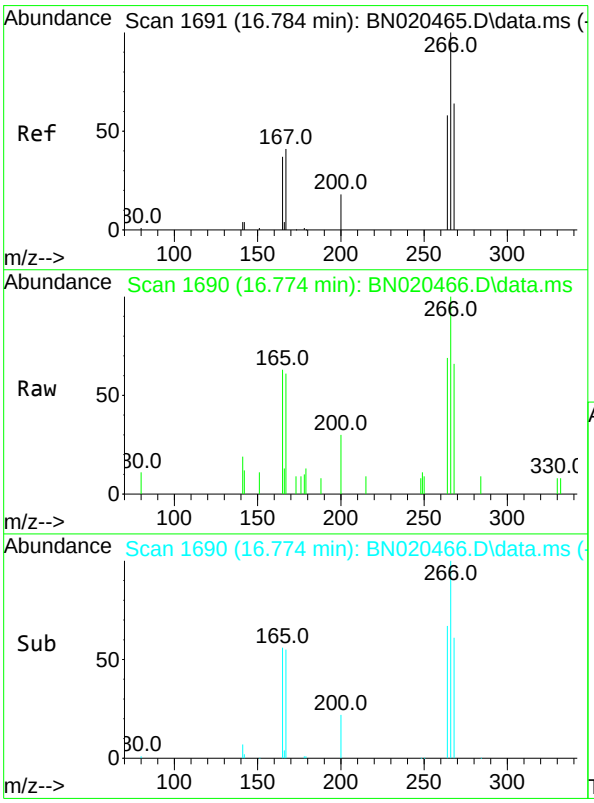
#23
Atrazine
Concen: 0.883 ng
RT: 16.579 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:200 Resp: 3601

Ion	Ratio	Lower	Upper
200	100		
173	29.6	23.6	35.4
215	45.8	36.6	54.8

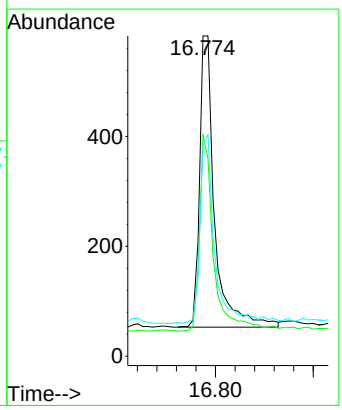


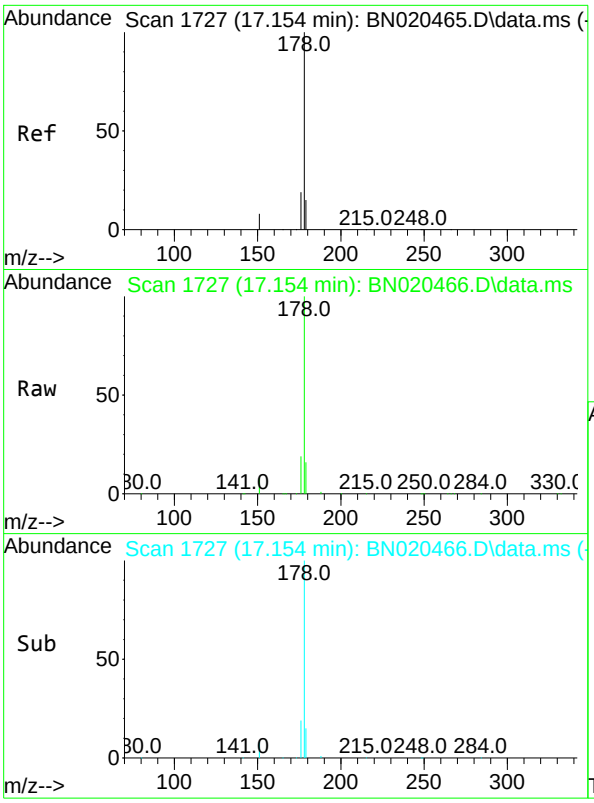


#24
Pentachlorophenol
Concen: 0.417 ng
RT: 16.774 min Scan# 1690
Delta R.T. -0.010 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:266 Resp: 1132

Ion	Ratio	Lower	Upper
266	100		
264	63.1	51.3	76.9
268	62.0	52.6	79.0



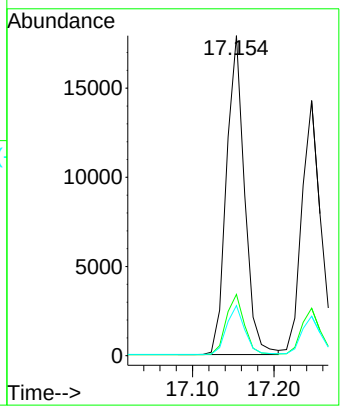


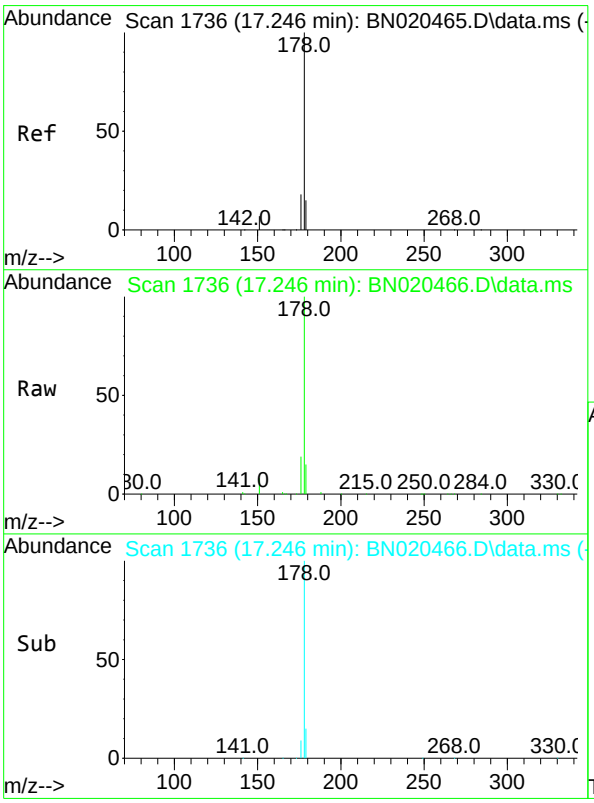
#25
Phenanthrene
Concen: 0.809 ng
RT: 17.154 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:178 Resp: 27632

Ion	Ratio	Lower	Upper
178	100		
176	19.1	15.3	22.9
179	15.3	12.2	18.4

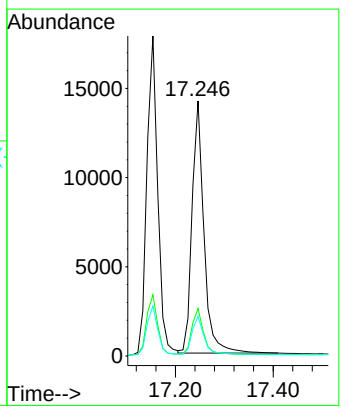


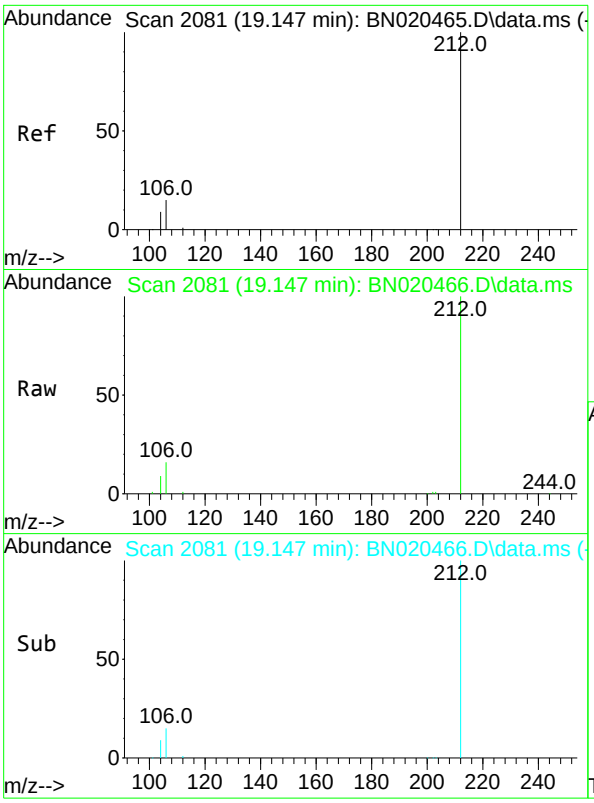


#26
Anthracene
Concen: 0.814 ng
RT: 17.246 min Scan# 1736
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:178 Resp: 23943

Ion	Ratio	Lower	Upper
178	100		
176	18.3	14.9	22.3
179	15.3	12.2	18.4



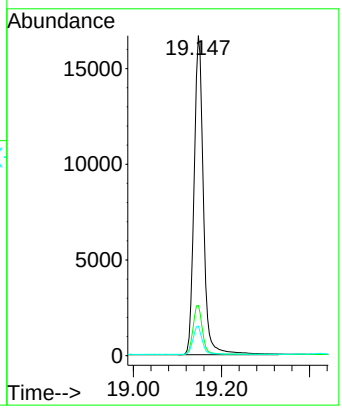


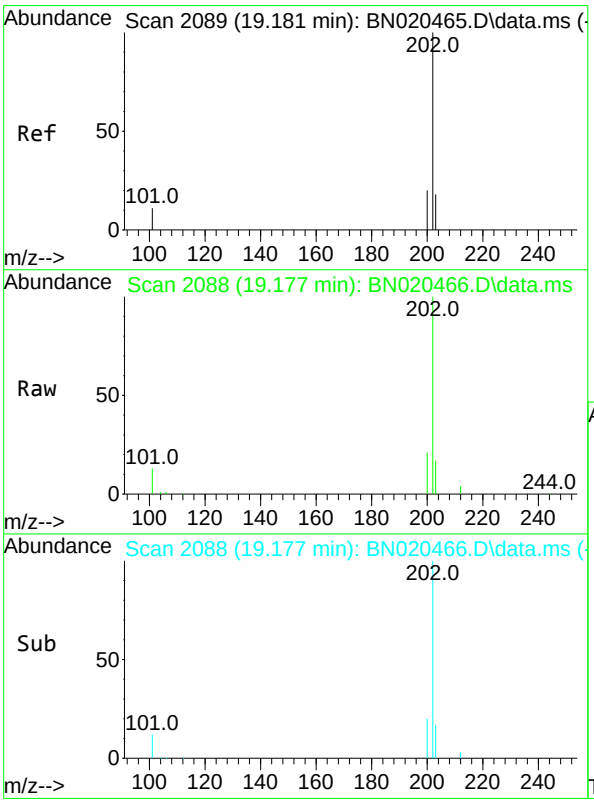
#27
Fluoranthene-d10
Concen: 0.709 ng
RT: 19.147 min Scan# 2
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:212 Resp: 24655

Ion	Ratio	Lower	Upper
212	100		
106	15.6	12.6	19.0
104	8.8	7.2	10.8

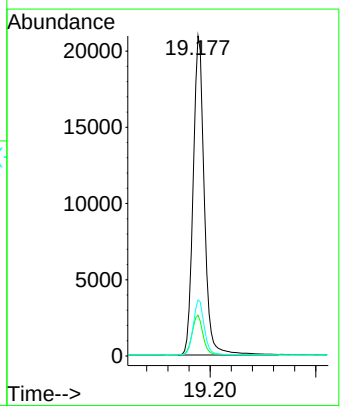


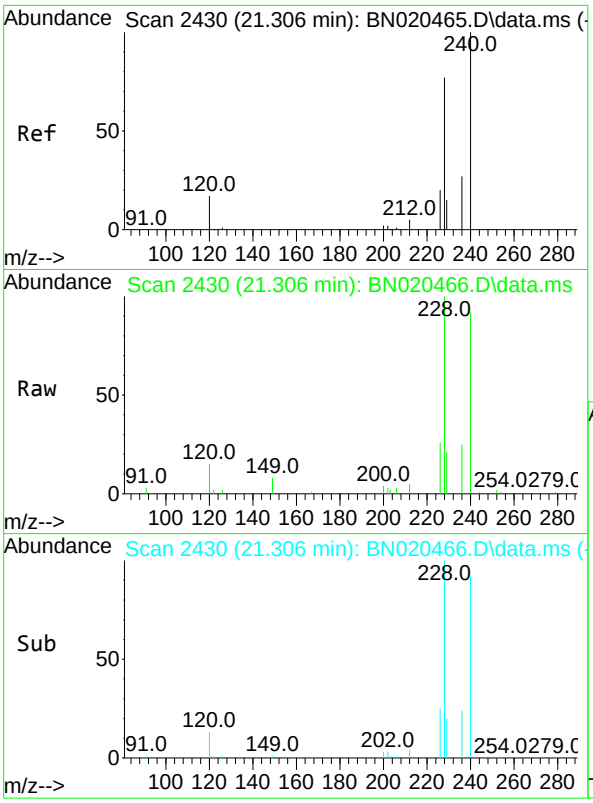


#28
Fluoranthene
Concen: 0.682 ng
RT: 19.177 min Scan# 2088
Delta R.T. -0.004 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:202 Resp: 30754

Ion	Ratio	Lower	Upper
202	100		
101	12.6	9.6	14.4
203	16.9	13.5	20.3



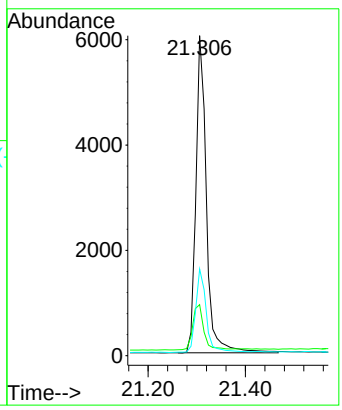


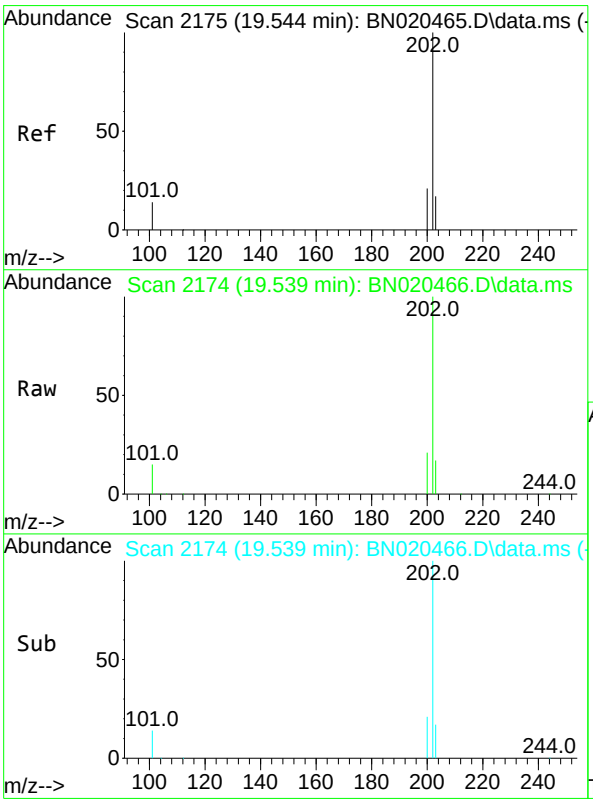
#29
Chrysene-d12
Concen: 0.400 ng
RT: 21.306 min Scan# 24
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:240 Resp: 9022

Ion	Ratio	Lower	Upper
240	100		
120	16.0	14.6	21.8
236	27.1	22.6	33.8

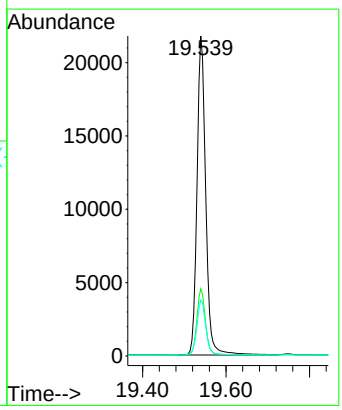


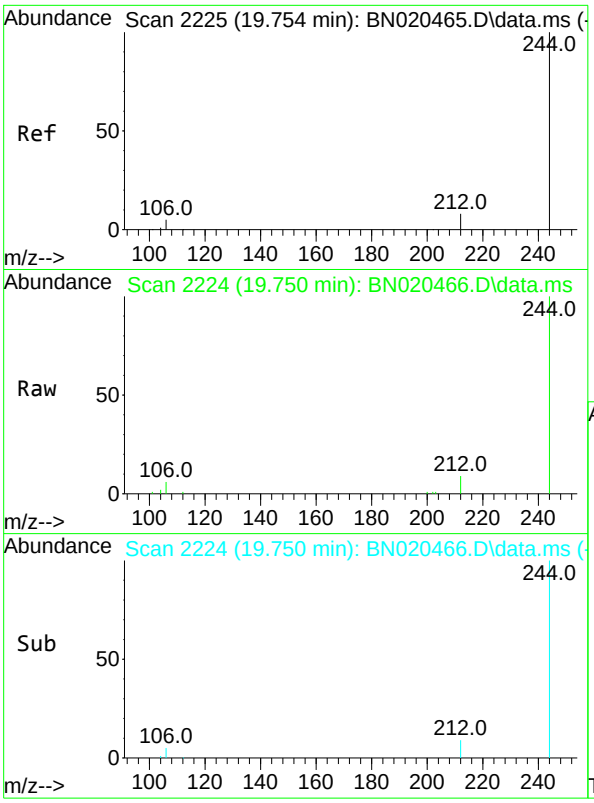


#30
Pyrene
Concen: 0.947 ng
RT: 19.539 min Scan# 2174
Delta R.T. -0.004 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:202 Resp: 31528

Ion	Ratio	Lower	Upper
202	100		
200	20.7	16.6	25.0
203	17.6	14.2	21.2



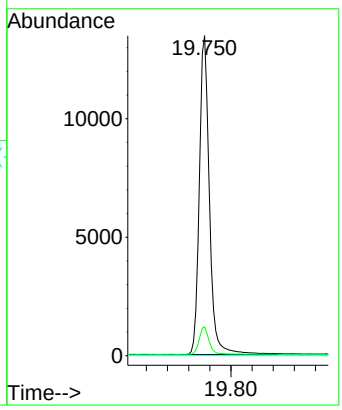


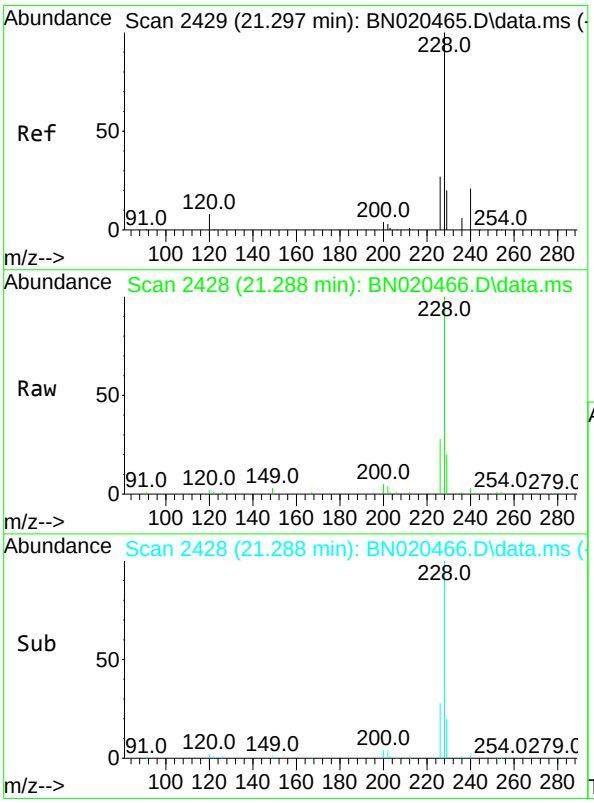
#31
Terphenyl-d14
Concen: 0.999 ng
RT: 19.750 min Scan# 2
Delta R.T. -0.004 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:244 Resp: 17968

Ion	Ratio	Lower	Upper
244	100		
212	9.0	7.1	10.7
122	0.0	0.0	0.0

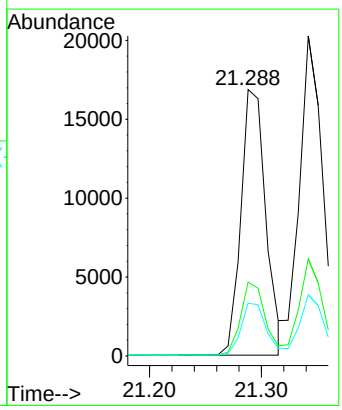


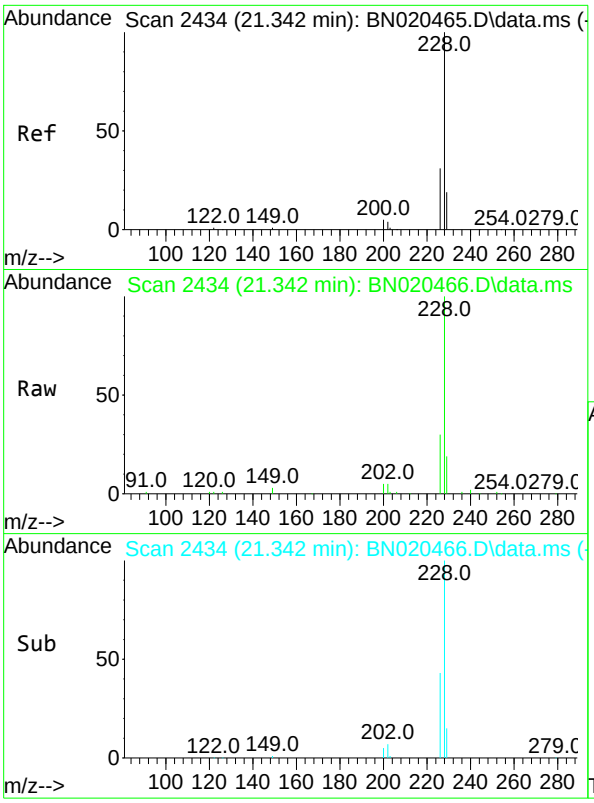


#32
Benzo(a)anthracene
Concen: 0.802 ng
RT: 21.288 min Scan# 2428
Delta R.T. -0.009 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:228 Resp: 25972

Ion	Ratio	Lower	Upper
228	100		
226	27.8	21.2	31.8
229	19.8	15.6	23.4



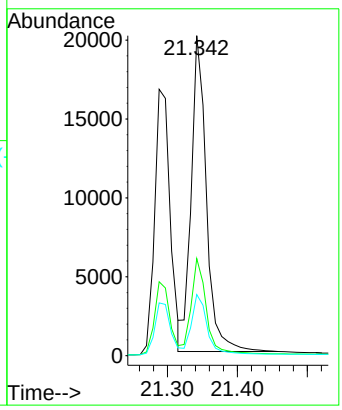


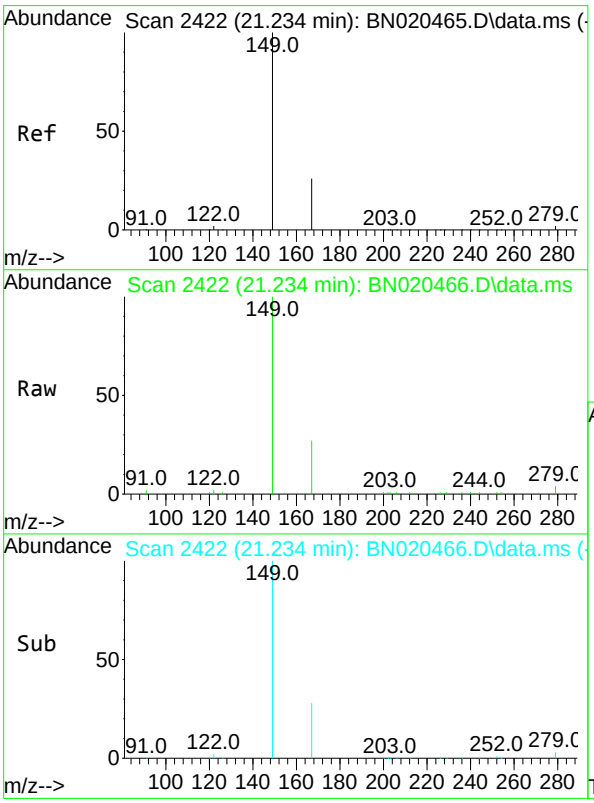
#33
Chrysene
Concen: 0.821 ng
RT: 21.342 min Scan# 24
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:228 Resp: 30295

Ion	Ratio	Lower	Upper
228	100		
226	30.4	23.4	35.0
229	19.1	15.7	23.5

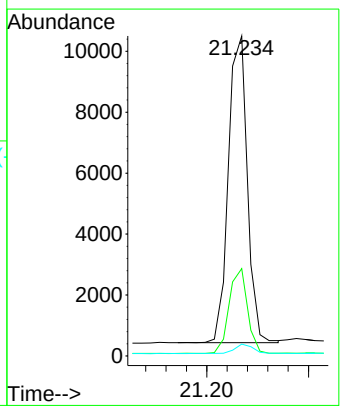


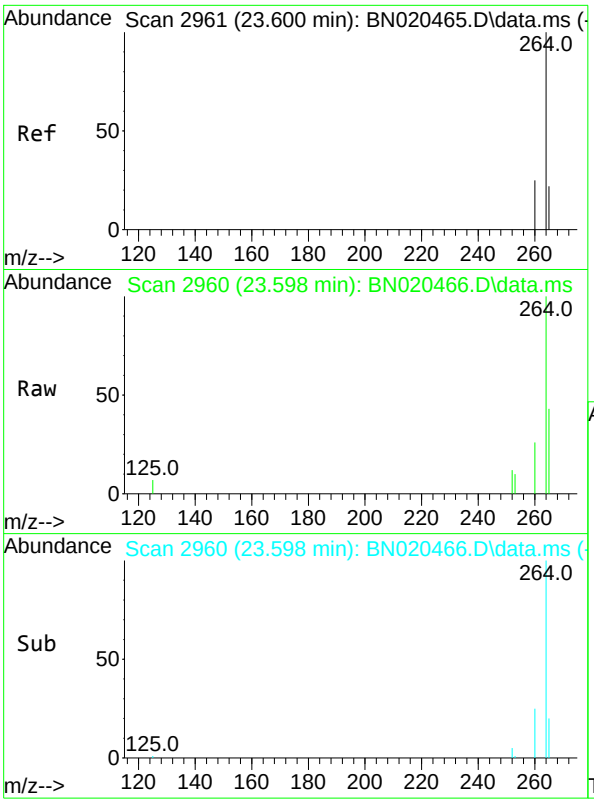


#34
Bis(2-ethylhexyl)phthalate
Concen: 0.876 ng
RT: 21.234 min Scan# 2422
Delta R.T. 0.000 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:149 Resp: 13019

Ion	Ratio	Lower	Upper
149	100		
167	27.0	21.7	32.5
279	3.1	2.2	3.2



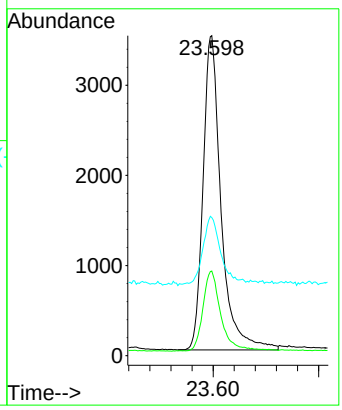


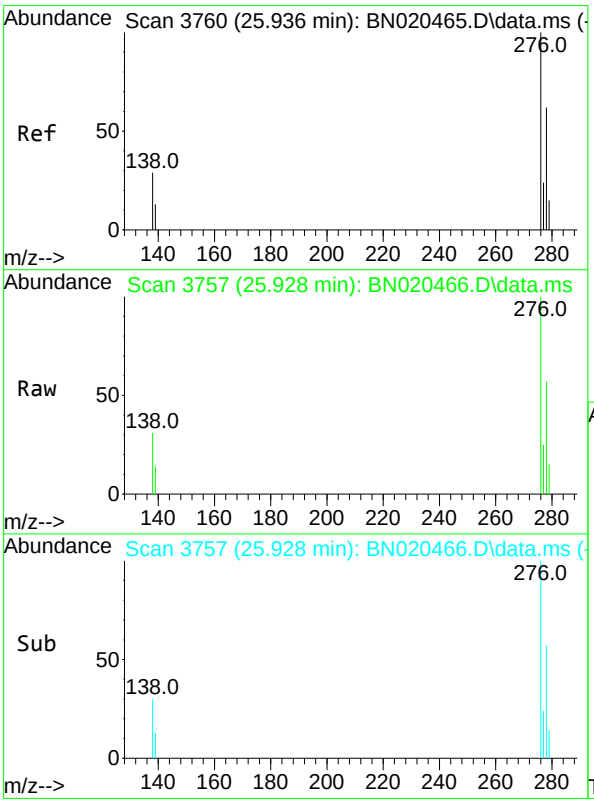
#35
Perylene-d12
Concen: 0.400 ng
RT: 23.598 min Scan# 2
Delta R.T. -0.003 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:264 Resp: 8274

Ion	Ratio	Lower	Upper
264	100		
260	26.4	20.9	31.3
265	43.1	28.0	42.0#

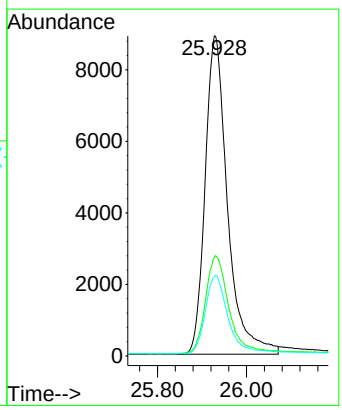


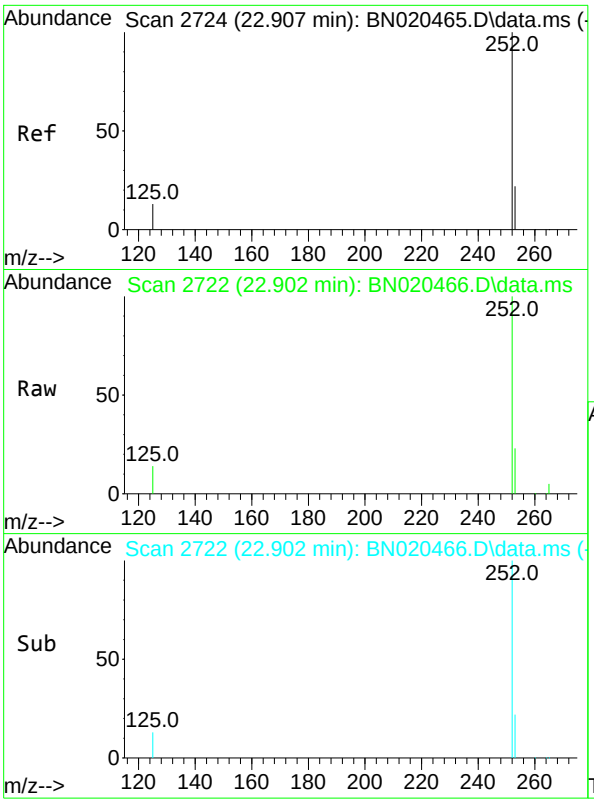


#36
Indeno(1,2,3-cd)pyrene
Concen: 0.765 ng
RT: 25.928 min Scan# 3757
Delta R.T. -0.009 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:276 Resp: 31093

Ion	Ratio	Lower	Upper
276	100		
138	32.0	25.9	38.9
277	25.0	19.8	29.8



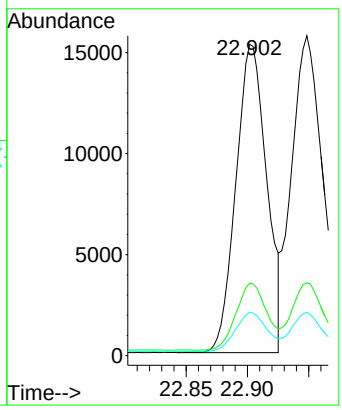


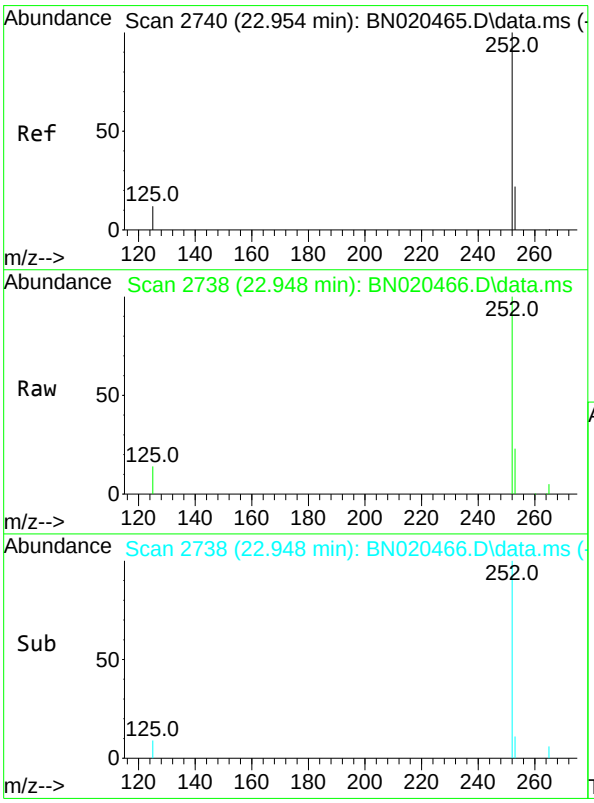
#37
Benzo(b)fluoranthene
Concen: 0.815 ng
RT: 22.902 min Scan# 2
Delta R.T. -0.006 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:252 Resp: 26643

Ion	Ratio	Lower	Upper
252	100		
253	23.3	18.5	27.7
125	13.9	11.4	17.0

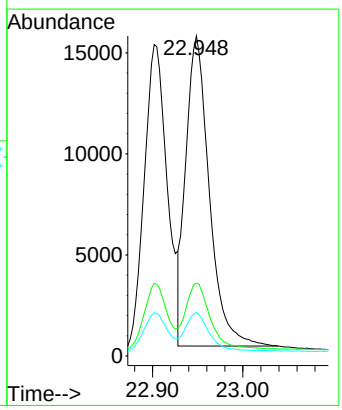


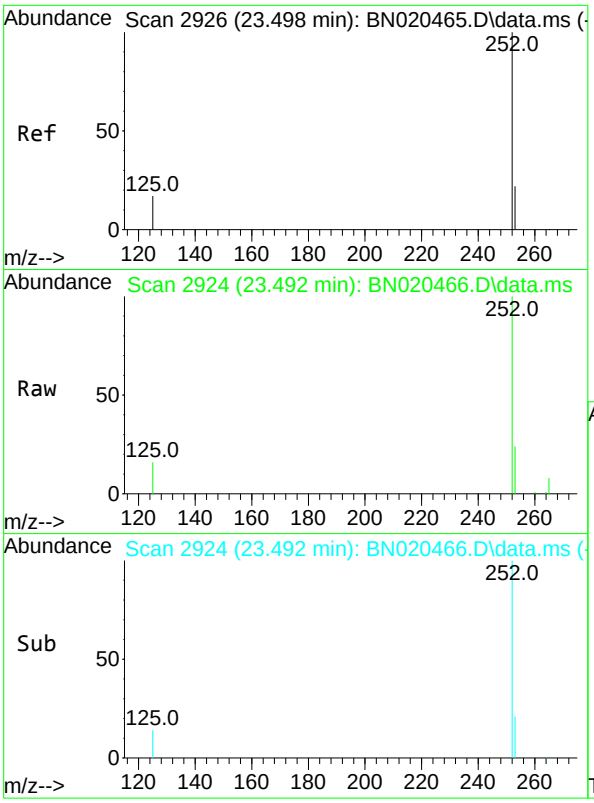


#38
Benzo(k)fluoranthene
Concen: 0.824 ng
RT: 22.948 min Scan# 2738
Delta R.T. -0.006 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:252 Resp: 27744

Ion	Ratio	Lower	Upper
252	100		
253	22.8	18.0	27.0
125	13.6	11.0	16.4



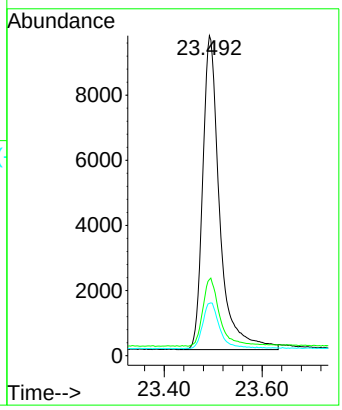


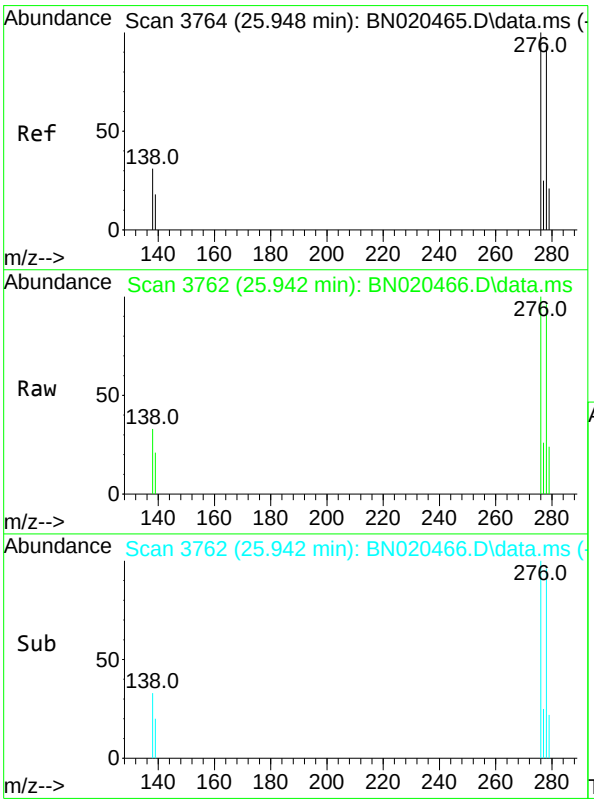
#39
Benzo(a)pyrene
Concen: 0.812 ng
RT: 23.492 min Scan# 2
Delta R.T. -0.006 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:252 Resp: 23156

Ion	Ratio	Lower	Upper
252	100		
253	23.8	19.0	28.4
125	16.4	13.8	20.8

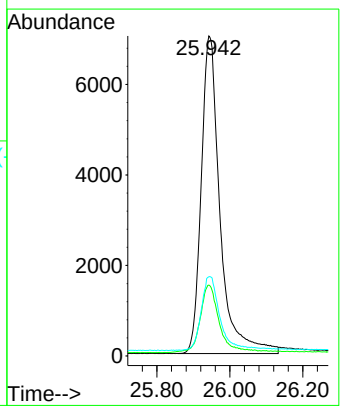


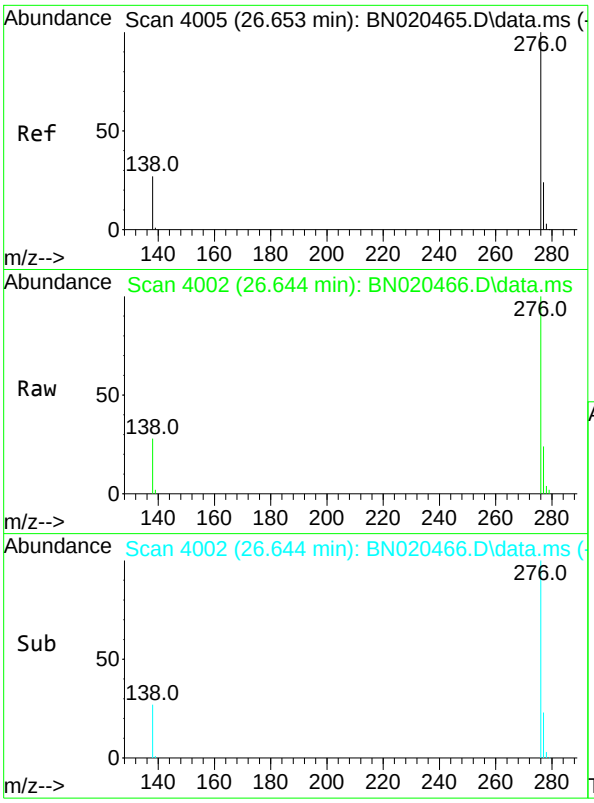


#40
Dibenzo(a,h)anthracene
Concen: 0.778 ng
RT: 25.942 min Scan# 3762
Delta R.T. -0.006 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Tgt Ion:278 Resp: 25106

Ion	Ratio	Lower	Upper
278	100		
139	22.2	18.6	28.0
279	24.7	19.7	29.5





#41
Benzo(g,h,i)perylene
Concen: 0.764 ng
RT: 26.644 min Scan# 4
Delta R.T. -0.009 min
Lab File: BN020466.D
Acq: 26 Jun 2022 15:13

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.8

Tgt Ion:276 Resp: 27529

Ion	Ratio	Lower	Upper
276	100		
277	23.9	19.5	29.3
138	27.6	22.6	34.0