Quantitation Report (QT Reviewed)

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN042122\
Data File : BN019511.D
Acq On : 20 Apr 2022 13:45
Operator : CG/JU
Sample : SSTDICC0.2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Quant Time: Apr 20 15:57:44 2022
Quant Method : Z:\SVOASRV\HPCHEM1\BNA_N\METHODS\8270-SIM-BN042122.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Apr 20 15:55:07 2022
Response via : Initial Calibration

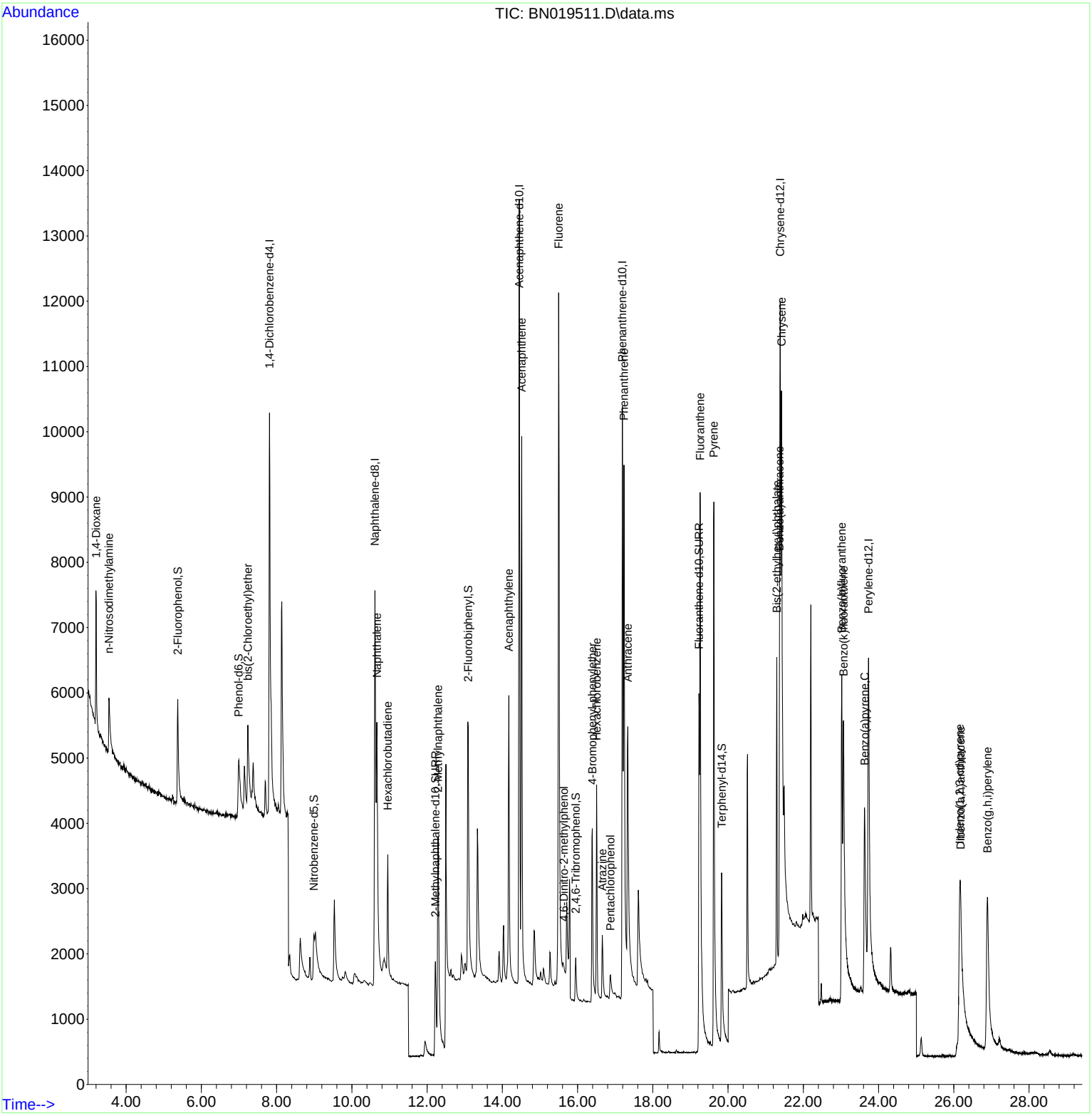
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.812	152	4421	0.400	ng		0.00
7) Naphthalene-d8	10.613	136	11986	0.400	ng		# 0.00
13) Acenaphthene-d10	14.450	164	7580	0.400	ng		0.00
19) Phenanthrene-d10	17.192	188	16621	0.400	ng		0.00
29) Chrysene-d12	21.386	240	12137	0.400	ng		# 0.00
35) Perylene-d12	23.734	264	10338	0.400	ng		# 0.00
System Monitoring Compounds							
4) 2-Fluorophenol	5.371	112	1876	0.158	ng		0.00
5) Phenol-d6	6.989	99	1560	0.109	ng		0.00
8) Nitrobenzene-d5	8.990	82	1502	0.138	ng		0.01
11) 2-Methylnaphthalene-d10	12.221	152	3620	0.172	ng		0.01
14) 2,4,6-Tribromophenol	15.951	330	544	0.118	ng		0.00
15) 2-Fluorobiphenyl	13.092	172	5773	0.183	ng		0.00
27) Fluoranthene-d10	19.227	212	8920	0.167	ng		0.00
31) Terphenyl-d14	19.830	244	5399	0.205	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.204	88	1147	0.217	ng		91
3) n-Nitrosodimethylamine	3.544	42	930	0.133	ng	#	98
6) bis(2-Chloroethyl)ether	7.234	93	1888	0.132	ng		98
9) Naphthalene	10.667	128	6851	0.194	ng		97
10) Hexachlorobutadiene	10.955	225	1546	0.201	ng	#	99
12) 2-Methylnaphthalene	12.293	142	4236	0.173	ng		95
16) Acenaphthylene	14.172	152	5827	0.155	ng		100
17) Acenaphthene	14.514	154	4584	0.183	ng		98
18) Fluorene	15.498	166	5773	0.175	ng		99
20) 4,6-Dinitro-2-methylph...	15.637	198	228	0.075	ng	#	1
21) 4-Bromophenyl-phenylether	16.392	248	1799	0.161	ng	#	92
22) Hexachlorobenzene	16.505	284	2456	0.187	ng		98
23) Atrazine	16.659	200	1300	0.141	ng		92
24) Pentachlorophenol	16.874	266	418	0.082	ng		99
25) Phenanthrene	17.233	178	9588	0.172	ng		100
26) Anthracene	17.336	178	6922	0.141	ng		100
28) Fluoranthene	19.261	202	11024	0.167	ng		99
30) Pyrene	19.623	202	11222	0.199	ng		99
32) Benzo(a)anthracene	21.368	228	5716	0.127	ng		98
33) Chrysene	21.422	228	9239	0.185	ng		98
34) Bis(2-ethylhexyl)phtha...	21.296	149	4363	0.131	ng	#	99
36) Indeno(1,2,3-cd)pyrene	26.158	276	6743	0.156	ng	#	89
37) Benzo(b)fluoranthene	23.024	252	6767	0.167	ng	#	85
38) Benzo(k)fluoranthene	23.068	252	6732	0.159	ng	#	90
39) Benzo(a)pyrene	23.632	252	6309	0.173	ng	#	64
40) Dibenzo(a,h)anthracene	26.181	278	4790	0.143	ng	#	84
41) Benzo(g,h,i)perylene	26.895	276	7606	0.190	ng		95

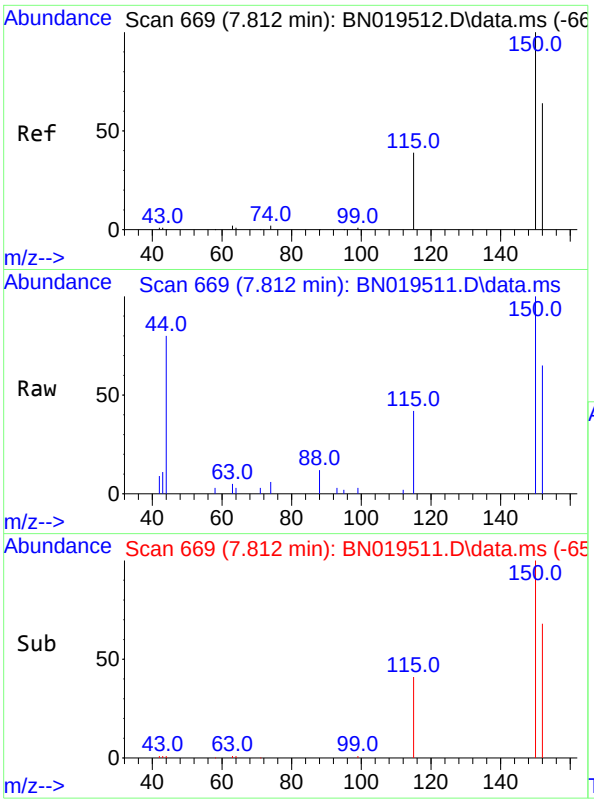
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN042122\
Data File : BN019511.D
Acq On : 20 Apr 2022 13:45
Operator : CG/JU
Sample : SSTDICC0.2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Quant Time: Apr 20 15:57:44 2022
Quant Method : Z:\SVOASRV\HPCHEM1\BNA_N\METHODS\8270-SIM-BN042122.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Apr 20 15:55:07 2022
Response via : Initial Calibration



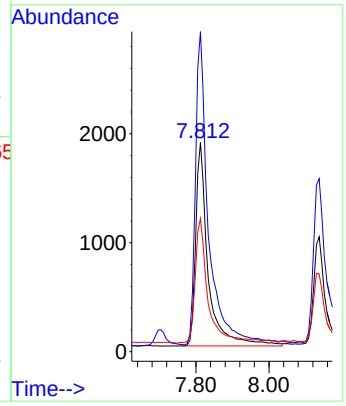


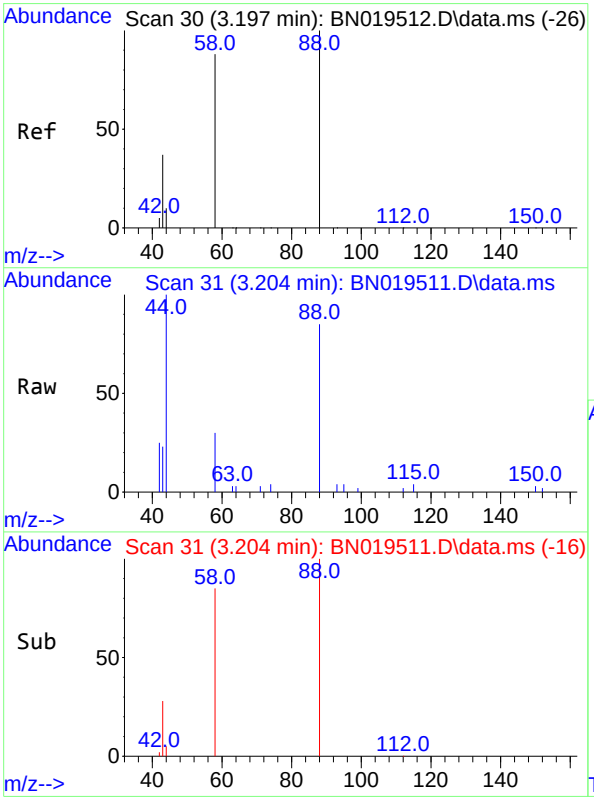
#1
1,4-Dichlorobenzene-d4
Concen: 0.400 ng
RT: 7.812 min Scan# 6
Delta R.T. 0.000 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:152 Resp: 4421

Ion	Ratio	Lower	Upper
152	100		
150	153.0	123.9	185.9
115	63.7	48.2	72.4

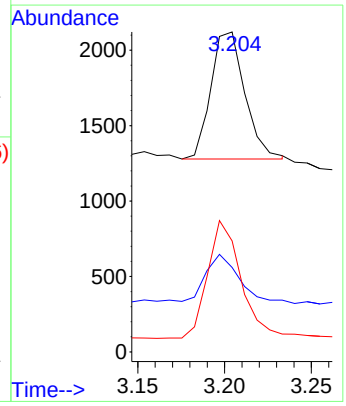


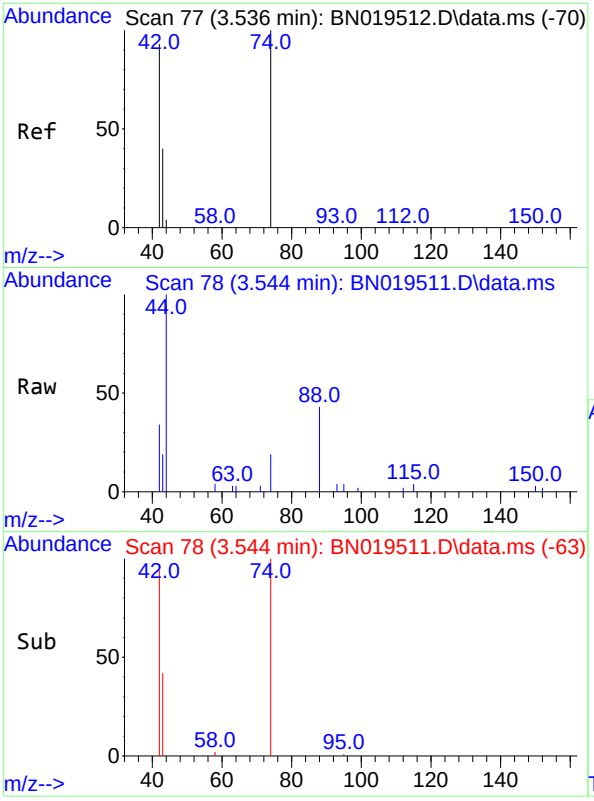


#2
1,4-Dioxane
Concen: 0.217 ng
RT: 3.204 min Scan# 31
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion: 88 Resp: 1147

Ion	Ratio	Lower	Upper
88	100		
43	34.2	24.6	37.0
58	91.1	65.4	98.2



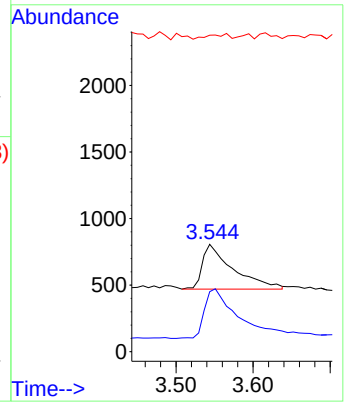


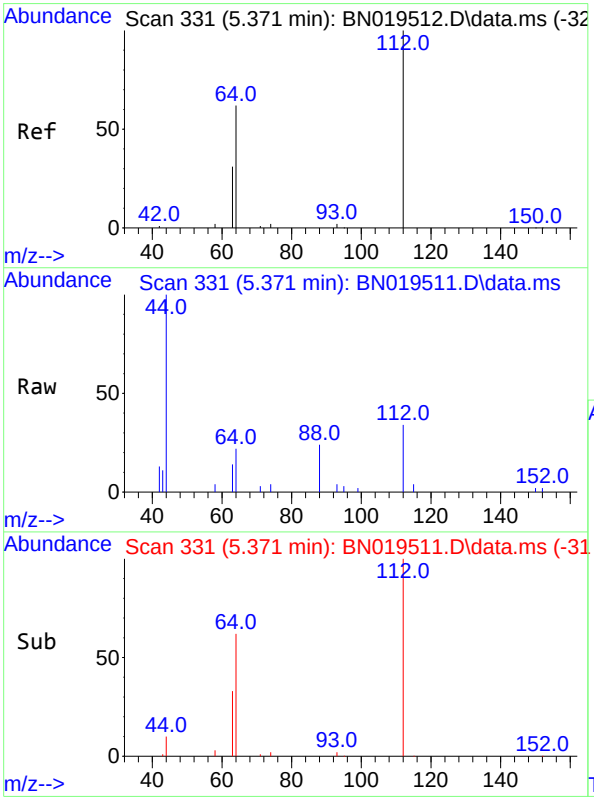
#3
n-Nitrosodimethylamine
Concen: 0.133 ng
RT: 3.544 min Scan# 7
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion: 42 Resp: 930

Ion	Ratio	Lower	Upper
42	100		
74	121.7	96.9	145.3
44	0.0	7.3	10.9#

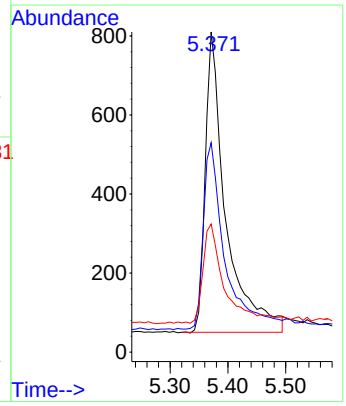


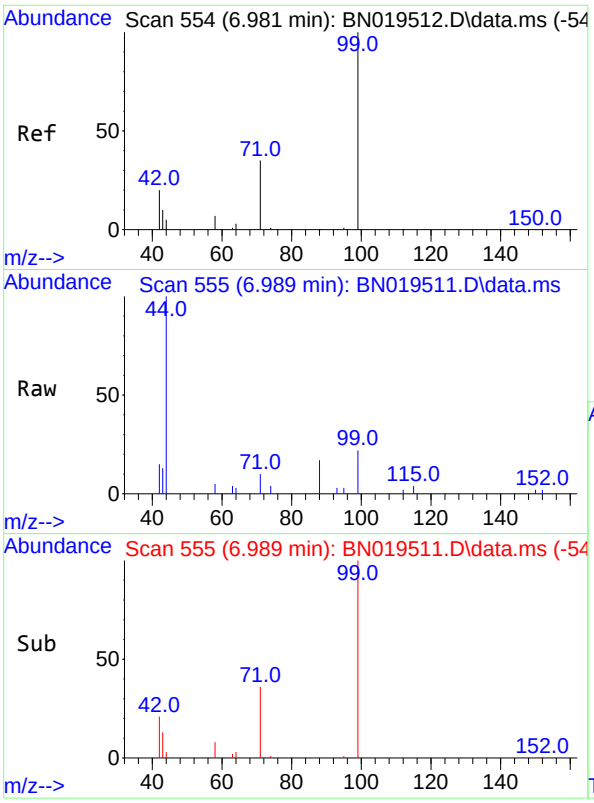


#4
2-Fluorophenol
Concen: 0.158 ng
RT: 5.371 min Scan# 331
Delta R.T. 0.000 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:112 Resp: 1876

Ion	Ratio	Lower	Upper
112	100		
64	65.2	47.8	71.8
63	34.1	25.7	38.5



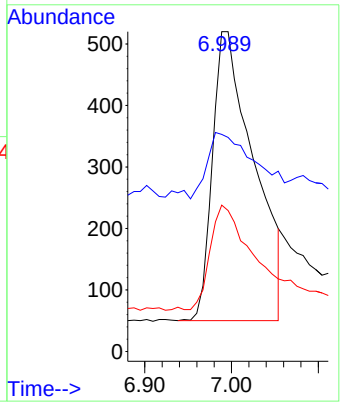


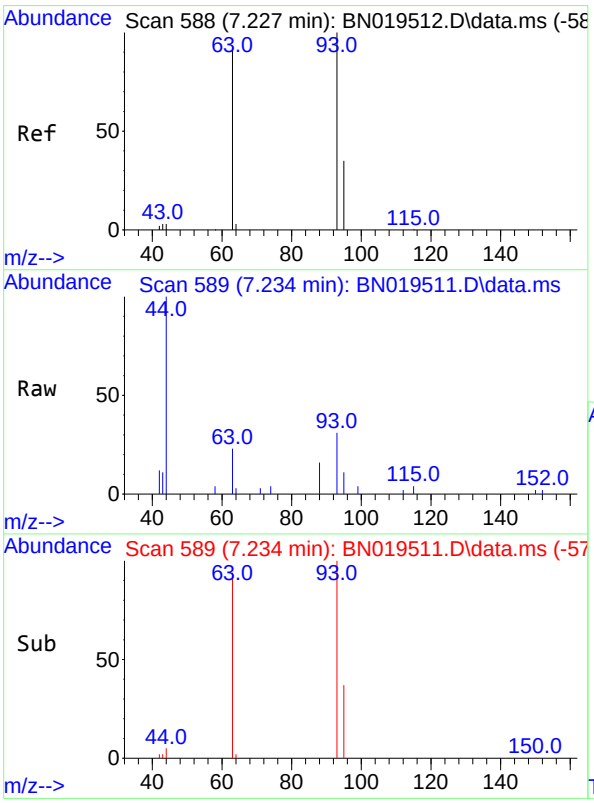
#5
Phenol-d6
Concen: 0.109 ng
RT: 6.989 min Scan# 5
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion: 99 Resp: 1560

Ion	Ratio	Lower	Upper
99	100		
42	24.6	16.2	24.4#
71	37.1	27.7	41.5

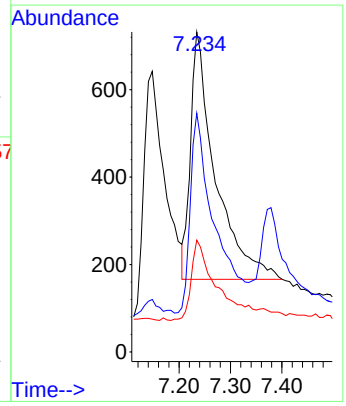


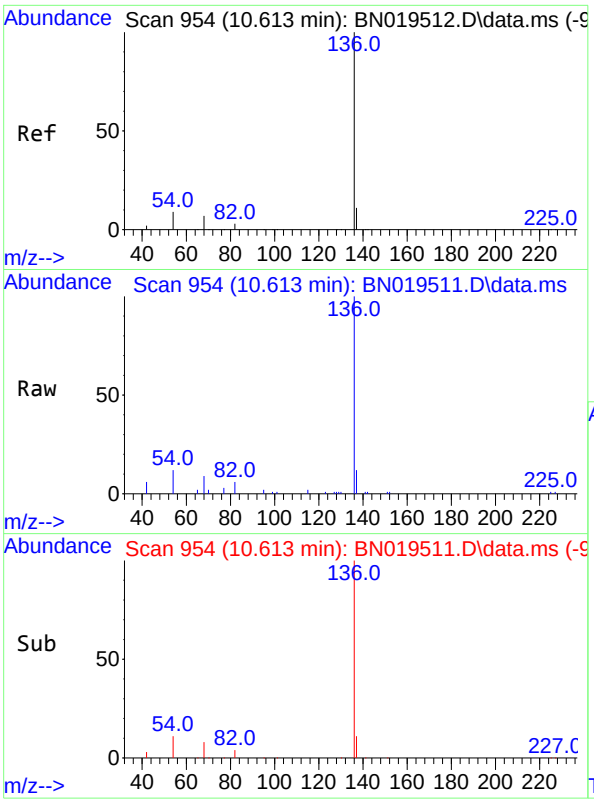


#6
bis(2-Chloroethyl)ether
Concen: 0.132 ng
RT: 7.234 min Scan# 589
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion: 93 Resp: 1888

Ion	Ratio	Lower	Upper
93	100		
63	80.1	62.8	94.2
95	33.5	26.2	39.4



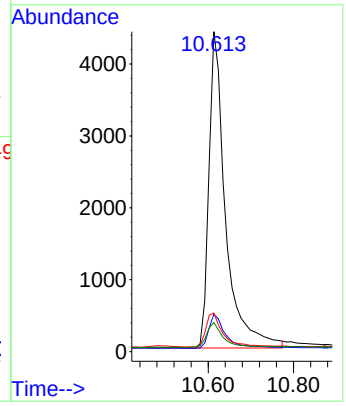


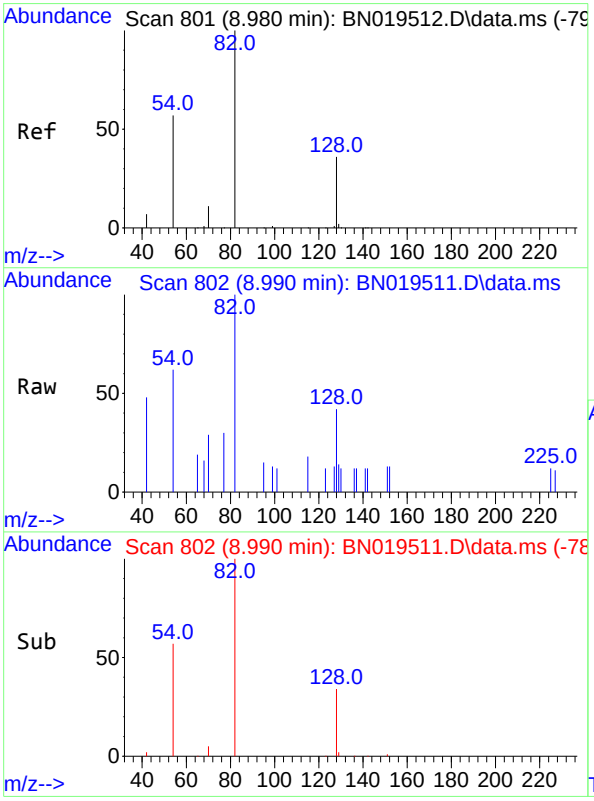
#7
Naphthalene-d8
Concen: 0.400 ng
RT: 10.613 min Scan# 9
Delta R.T. 0.000 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:136 Resp: 11986

Ion	Ratio	Lower	Upper
136	100		
137	11.7	9.0	13.4
54	12.1	5.8	8.6#
68	9.1	4.6	7.0#

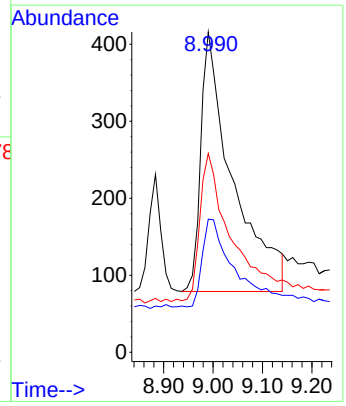


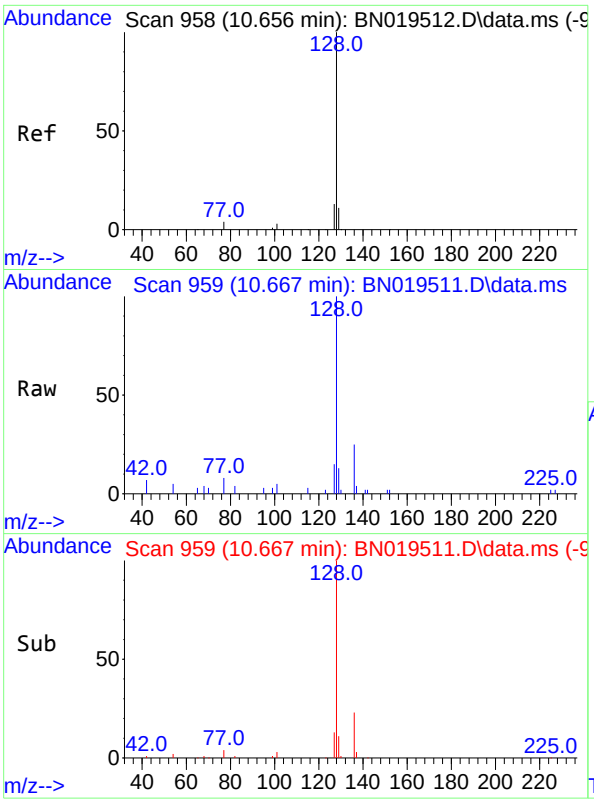


#8
Nitrobenzene-d5
Concen: 0.138 ng
RT: 8.990 min Scan# 802
Delta R.T. 0.011 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion: 82 Resp: 1502

Ion	Ratio	Lower	Upper
82	100		
128	41.6	33.0	49.6
54	62.0	42.5	63.7



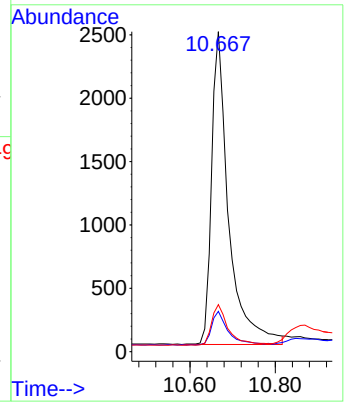


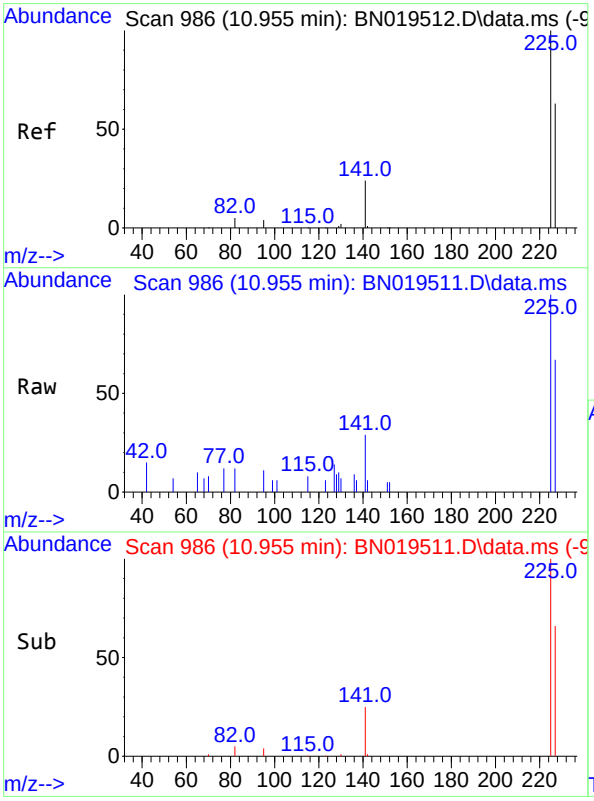
#9
Naphthalene
Concen: 0.194 ng
RT: 10.667 min Scan# 9
Delta R.T. 0.011 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:128 Resp: 6851

Ion	Ratio	Lower	Upper
128	100		
129	12.6	9.0	13.4
127	14.7	10.7	16.1

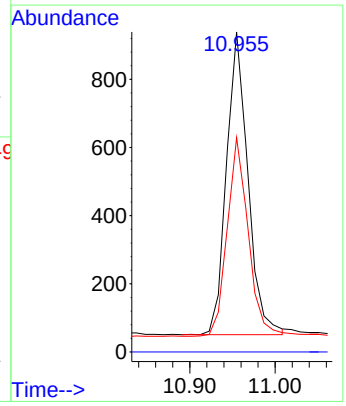


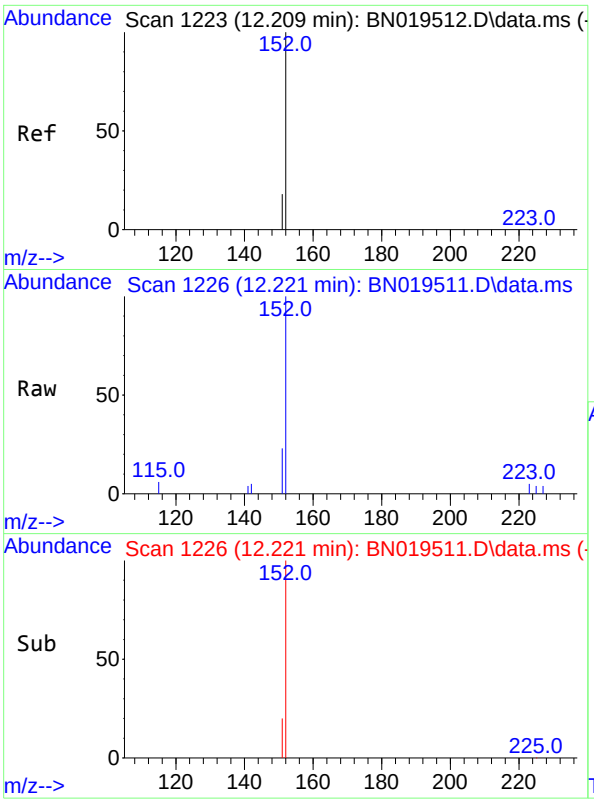


#10
Hexachlorobutadiene
Concen: 0.201 ng
RT: 10.955 min Scan# 986
Delta R.T. 0.000 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:225 Resp: 1546

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	64.6	51.0	76.6



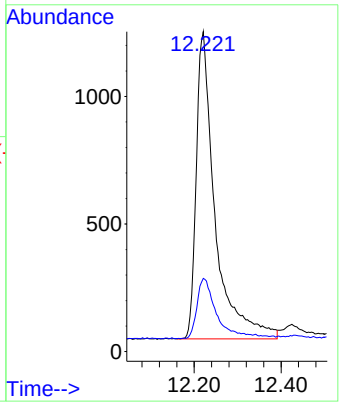


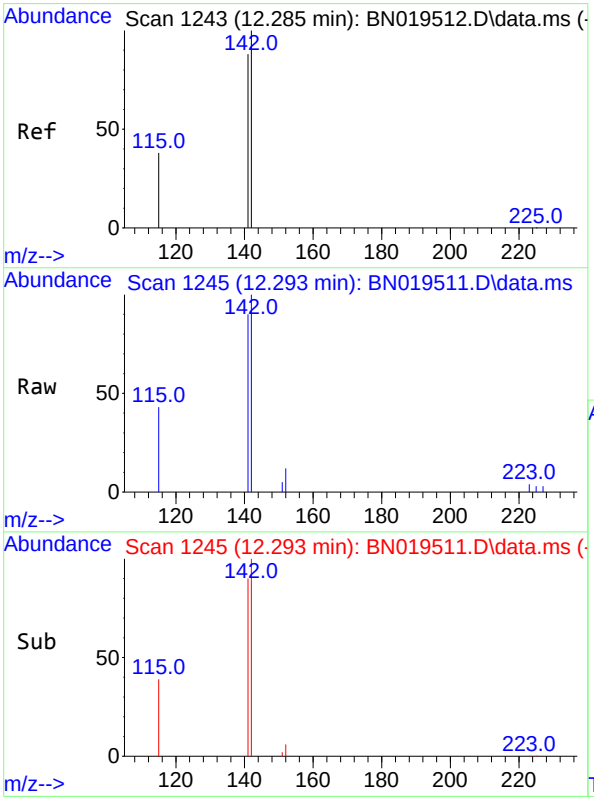
#11
2-Methylnaphthalene-d10
Concen: 0.172 ng
RT: 12.221 min Scan# 1
Delta R.T. 0.011 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:152 Resp: 3620

Ion	Ratio	Lower	Upper
152	100		
151	20.1	16.5	24.7

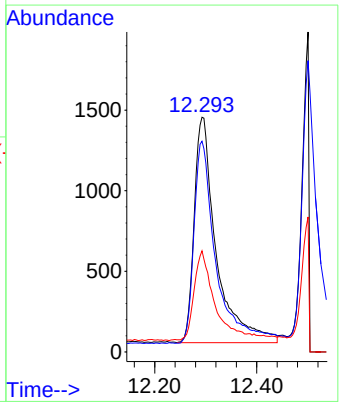


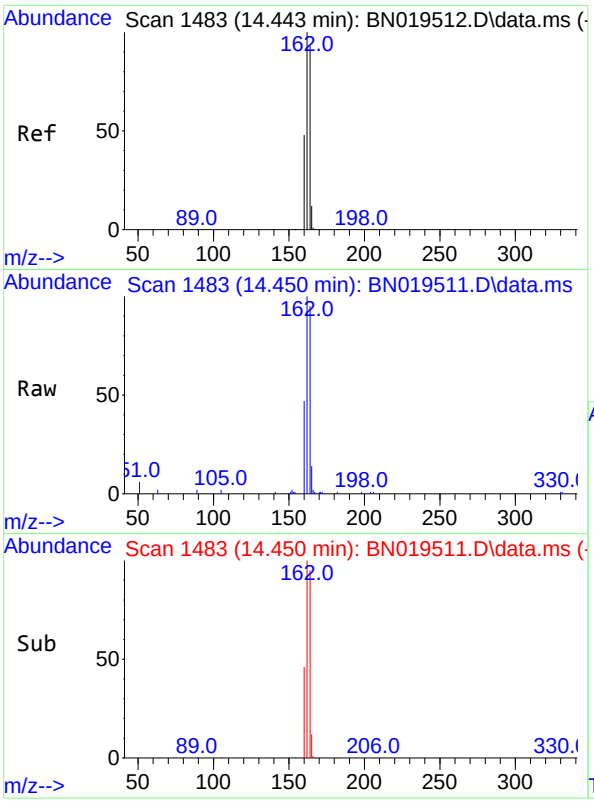


#12
2-Methylnaphthalene
Concen: 0.173 ng
RT: 12.293 min Scan# 1245
Delta R.T. 0.008 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:142 Resp: 4236

Ion	Ratio	Lower	Upper
142	100		
141	89.8	70.0	105.0
115	43.1	29.8	44.8



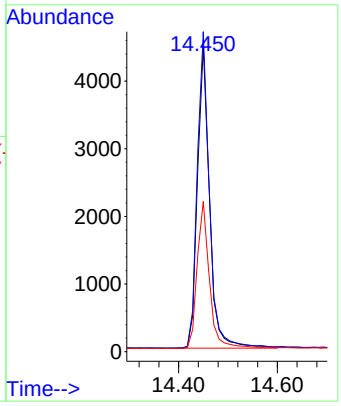


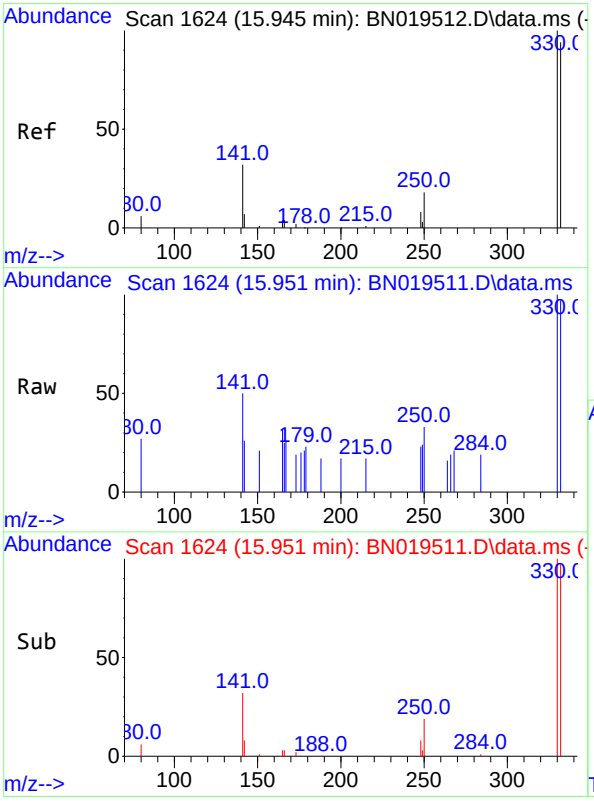
#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.450 min Scan# 14
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:164 Resp: 7580

Ion	Ratio	Lower	Upper
164	100		
162	104.8	85.2	127.8
160	49.2	41.5	62.3

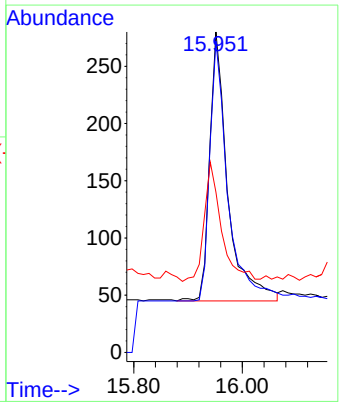


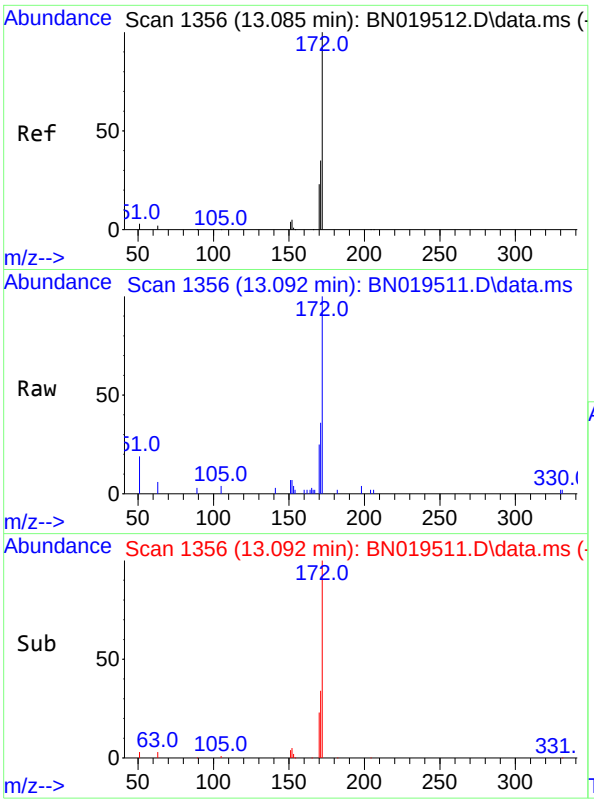


#14
2,4,6-Tribromophenol
Concen: 0.118 ng
RT: 15.951 min Scan# 1624
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:330 Resp: 544

Ion	Ratio	Lower	Upper
330	100		
332	96.3	76.8	115.2
141	42.5	32.2	48.2



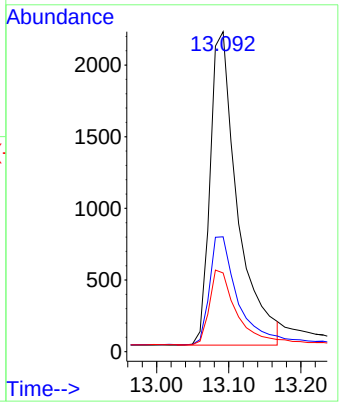


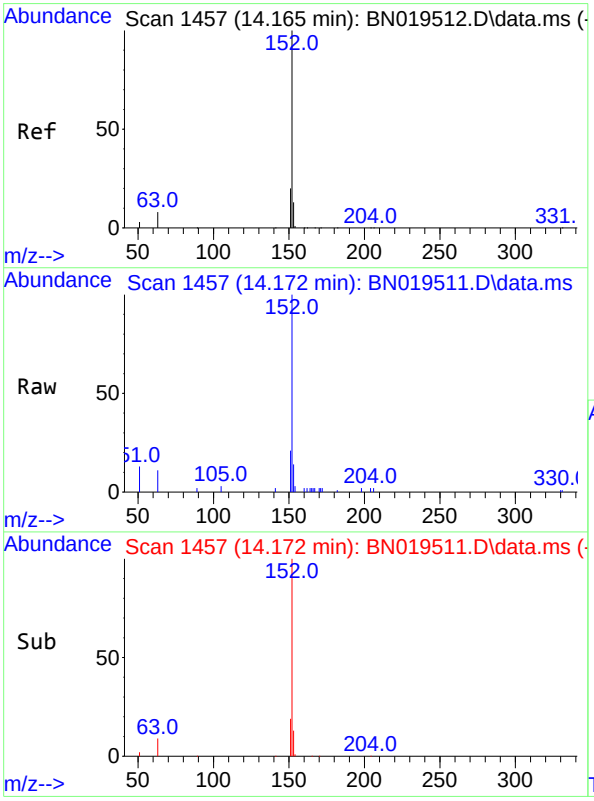
#15
2-Fluorobiphenyl
Concen: 0.183 ng
RT: 13.092 min Scan# 1
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:172 Resp: 5773

Ion	Ratio	Lower	Upper
172	100		
171	35.9	28.2	42.2
170	24.6	18.7	28.1

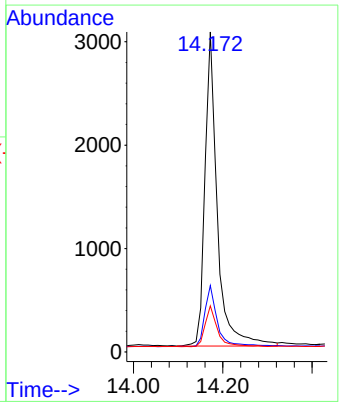


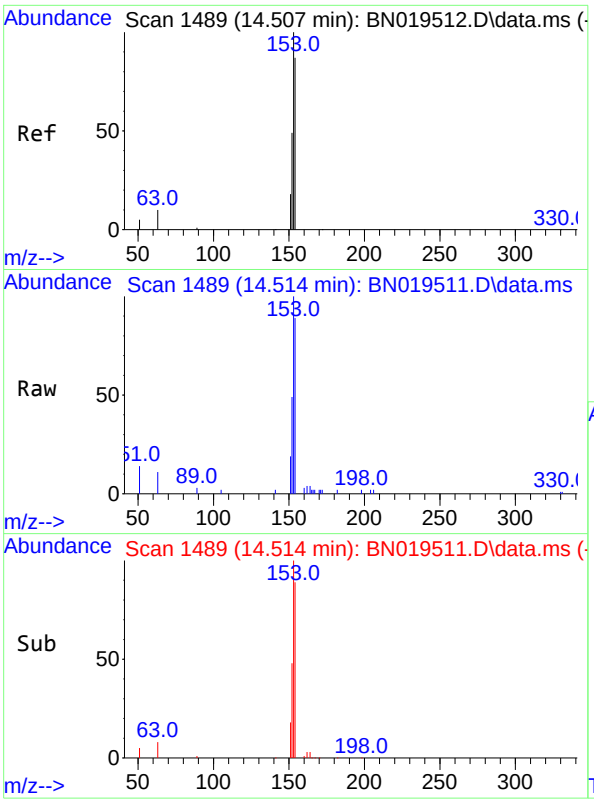


#16
Acenaphthylene
Concen: 0.155 ng
RT: 14.172 min Scan# 1457
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:152 Resp: 5827

Ion	Ratio	Lower	Upper
152	100		
151	20.1	15.9	23.9
153	13.0	10.6	15.8



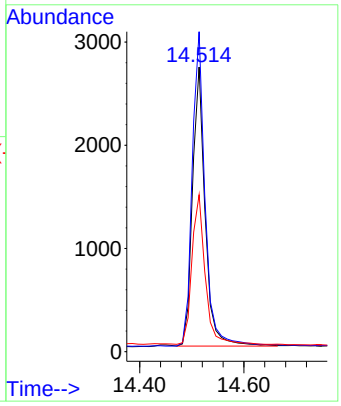


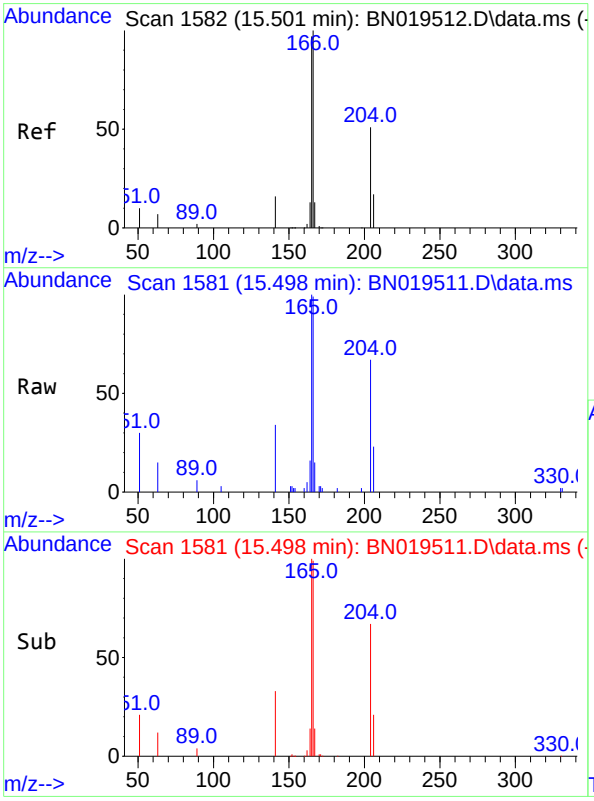
#17
Acenaphthene
Concen: 0.183 ng
RT: 14.514 min Scan# 14
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:154 Resp: 4584

Ion	Ratio	Lower	Upper
154	100		
153	114.9	89.7	134.5
152	55.7	44.7	67.1

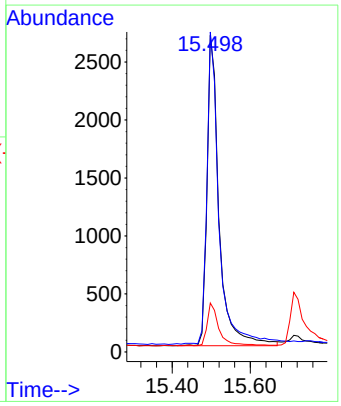


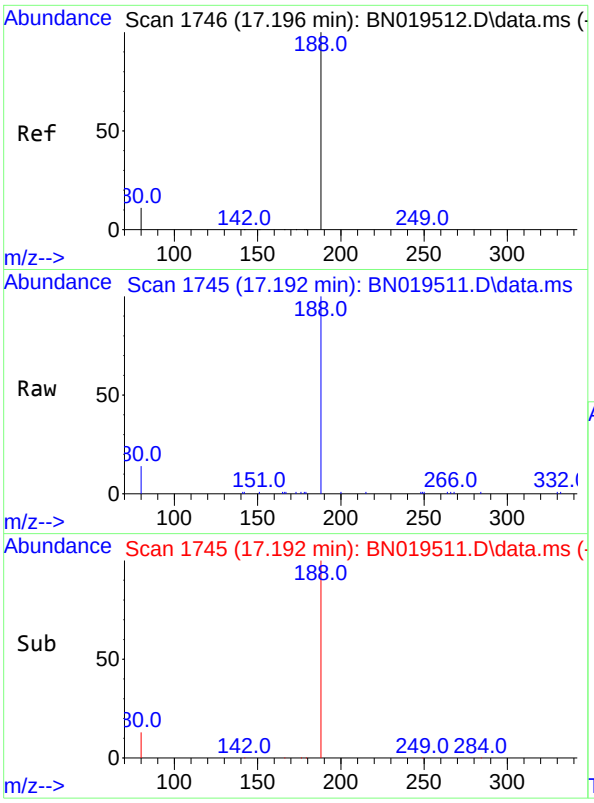


#18
Fluorene
Concen: 0.175 ng
RT: 15.498 min Scan# 1581
Delta R.T. -0.004 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:166 Resp: 5773

Ion	Ratio	Lower	Upper
166	100		
165	99.8	79.2	118.8
167	13.3	10.7	16.1



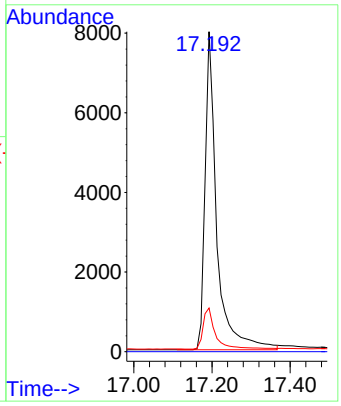


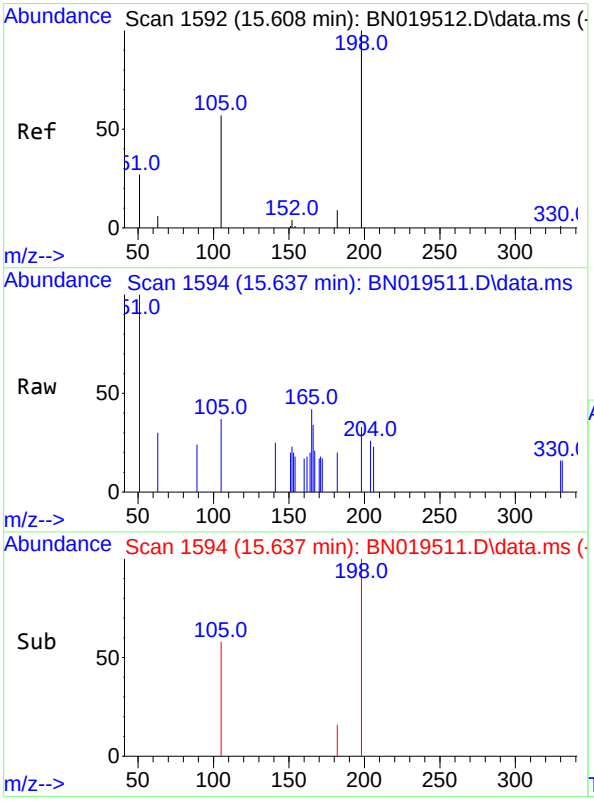
#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 17.192 min Scan# 1
Delta R.T. -0.004 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:188 Resp: 16621

Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	13.7	11.8	17.8

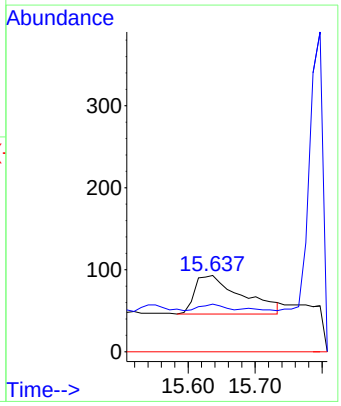


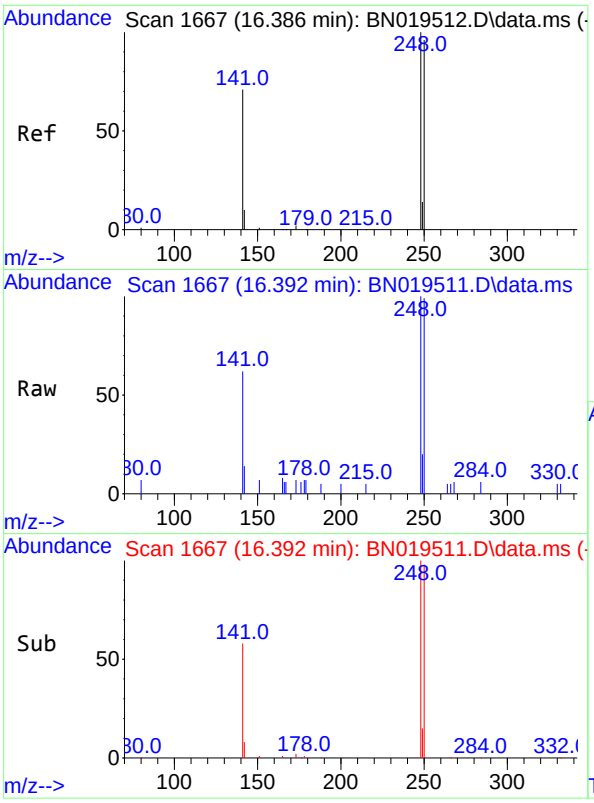


#20
4,6-Dinitro-2-methylphenol
Concen: 0.075 ng
RT: 15.637 min Scan# 1594
Delta R.T. 0.028 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:198 Resp: 228

Ion	Ratio	Lower	Upper
198	100		
182	62.4	13.0	19.4#
77	0.0	0.0	0.0



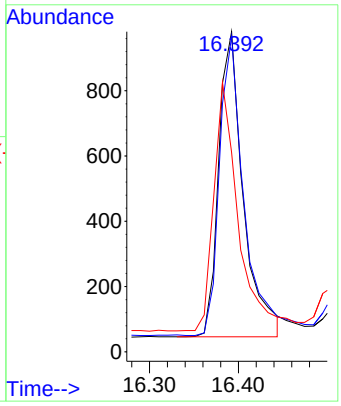


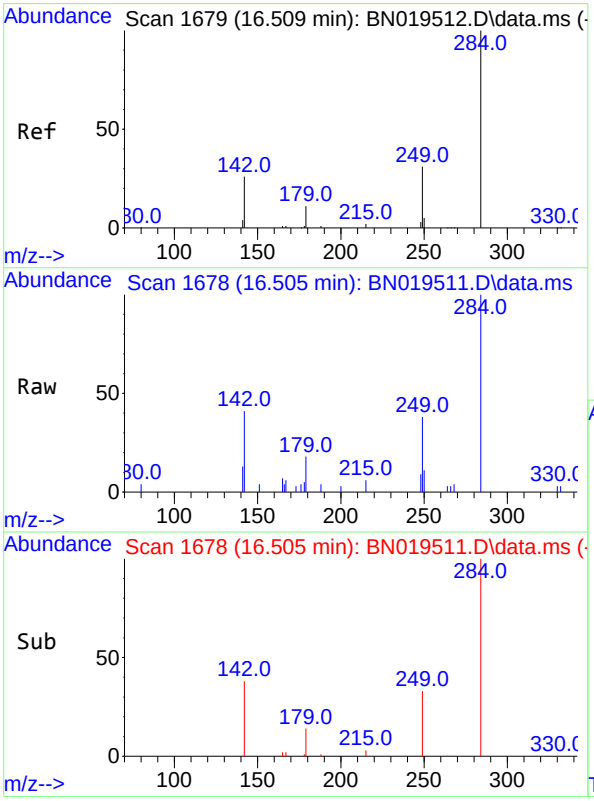
#21
4-Bromophenyl-phenylether
Concen: 0.161 ng
RT: 16.392 min Scan# 1
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:248 Resp: 1799

Ion	Ratio	Lower	Upper
248	100		
250	98.6	80.7	121.1
141	62.3	39.6	59.4#

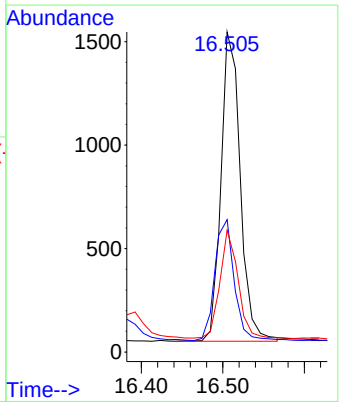


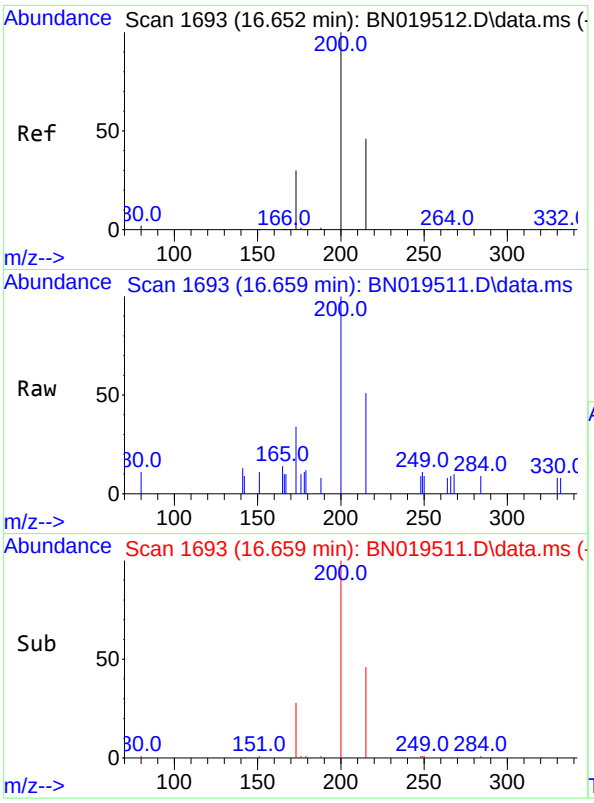


#22
Hexachlorobenzene
Concen: 0.187 ng
RT: 16.505 min Scan# 1678
Delta R.T. -0.004 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:284 Resp: 2456

Ion	Ratio	Lower	Upper
284	100		
142	39.5	29.8	44.8
249	32.4	26.2	39.2



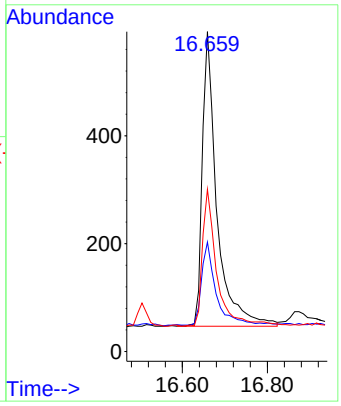


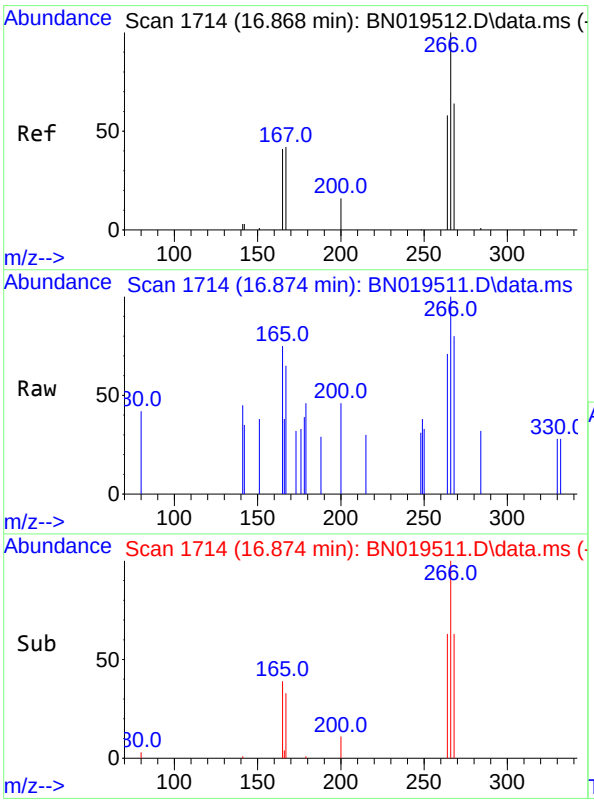
#23
Atrazine
Concen: 0.141 ng
RT: 16.659 min Scan# 1
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:200 Resp: 1300

Ion	Ratio	Lower	Upper
200	100		
173	34.2	23.9	35.9
215	50.8	36.6	54.8

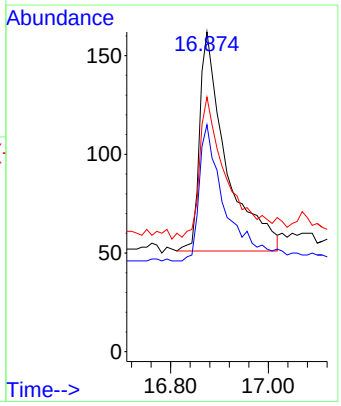


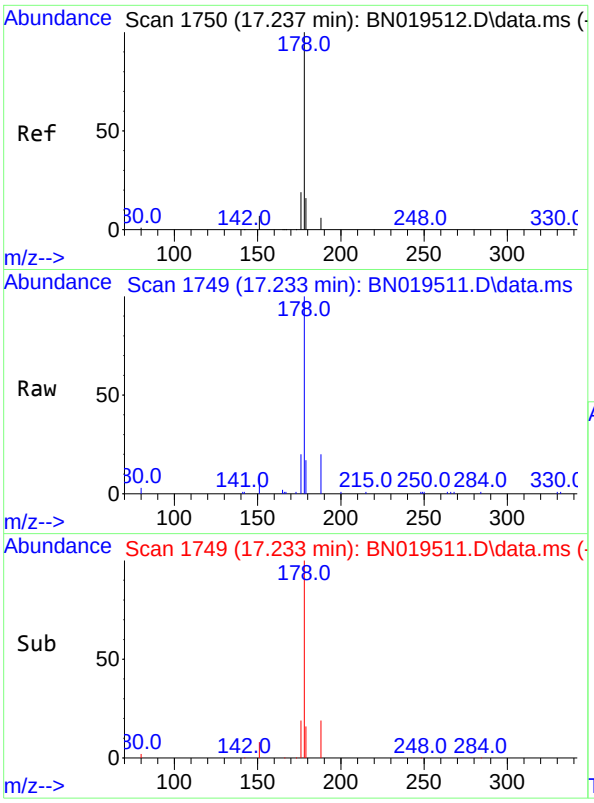


#24
Pentachlorophenol
Concen: 0.082 ng
RT: 16.874 min Scan# 1714
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:266 Resp: 418

Ion	Ratio	Lower	Upper
266	100		
264	61.2	50.2	75.4
268	64.8	51.9	77.9



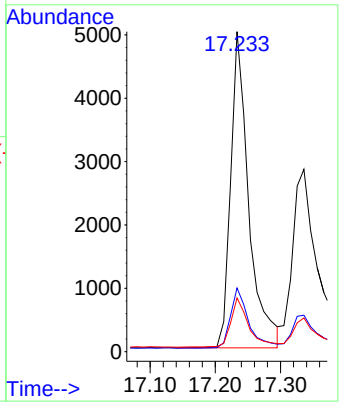


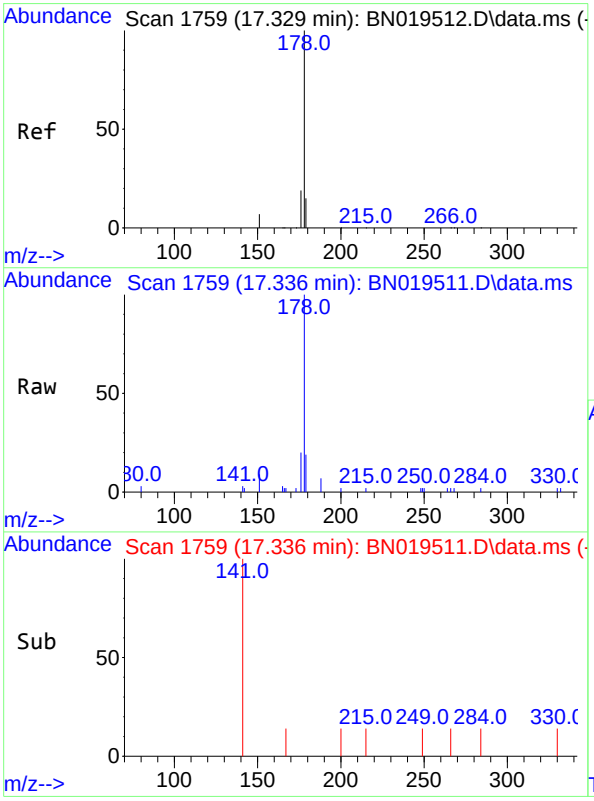
#25
Phenanthrene
Concen: 0.172 ng
RT: 17.233 min Scan# 1
Delta R.T. -0.004 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:178 Resp: 9588

Ion	Ratio	Lower	Upper
178	100		
176	19.1	15.4	23.0
179	15.5	12.2	18.2

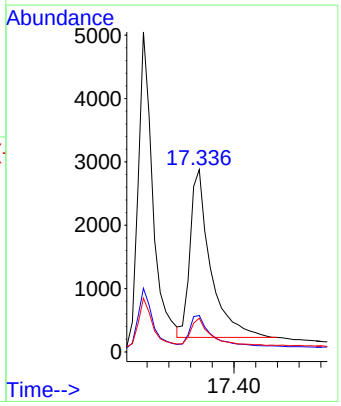


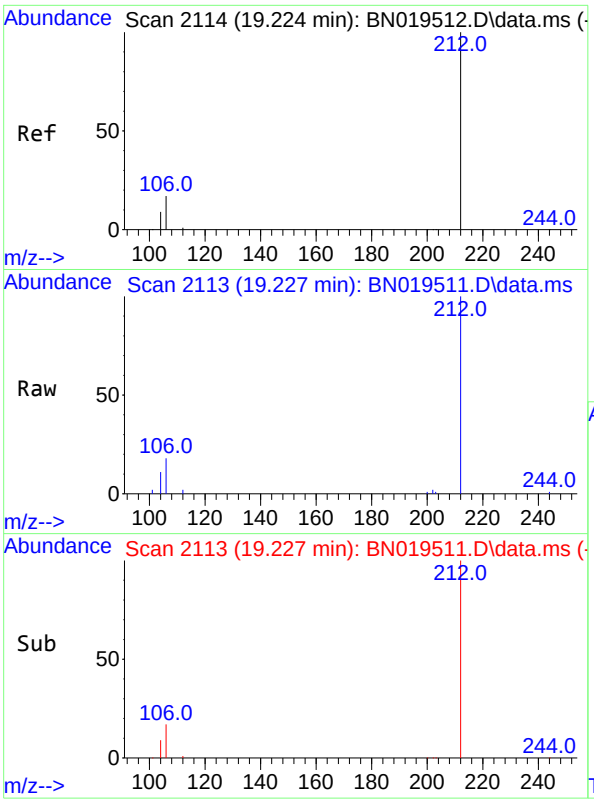


#26
Anthracene
Concen: 0.141 ng
RT: 17.336 min Scan# 1759
Delta R.T. 0.007 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:178 Resp: 6922

Ion	Ratio	Lower	Upper
178	100		
176	18.5	14.8	22.2
179	15.3	12.2	18.4



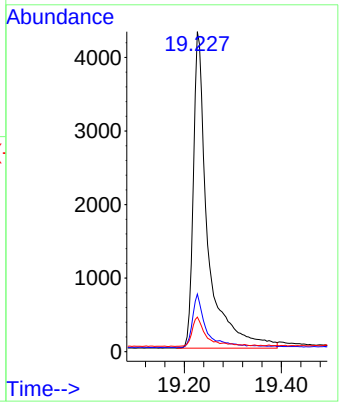


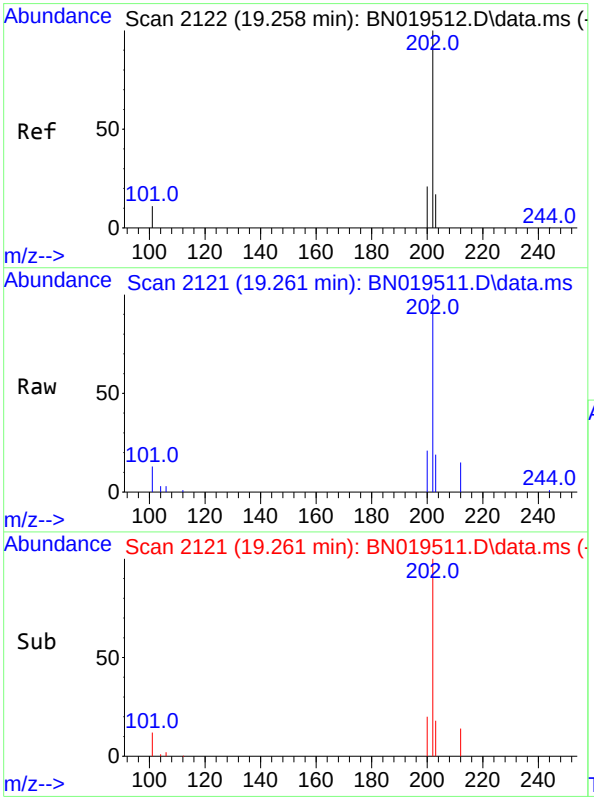
#27
Fluoranthene-d10
Concen: 0.167 ng
RT: 19.227 min Scan# 21
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:212 Resp: 8920

Ion	Ratio	Lower	Upper
212	100		
106	15.5	12.7	19.1
104	8.9	7.1	10.7

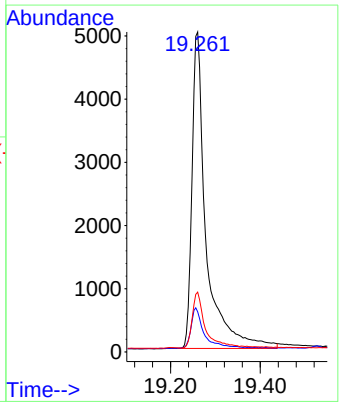


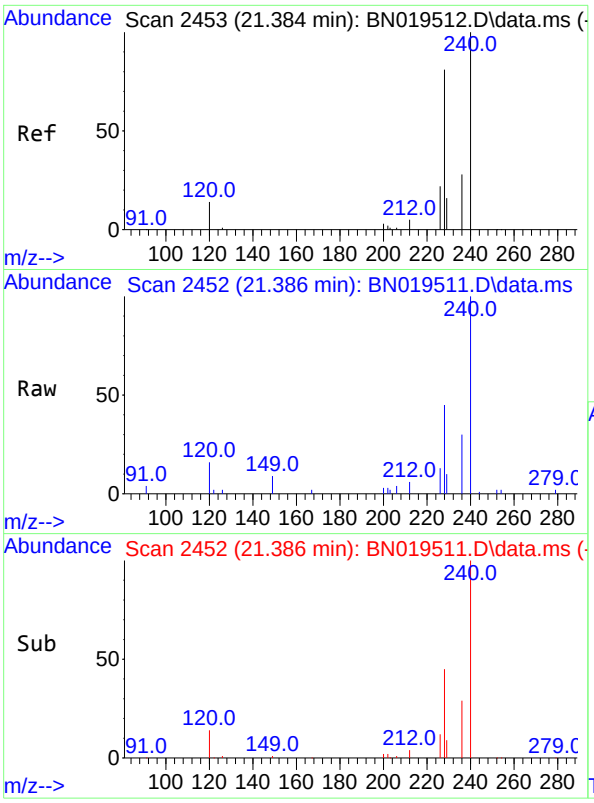


#28
Fluoranthene
Concen: 0.167 ng
RT: 19.261 min Scan# 2121
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:202 Resp: 11024

Ion	Ratio	Lower	Upper
202	100		
101	12.1	9.8	14.6
203	16.4	13.7	20.5



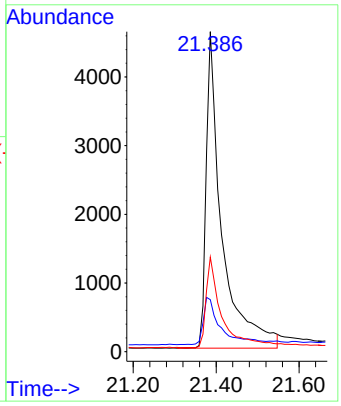


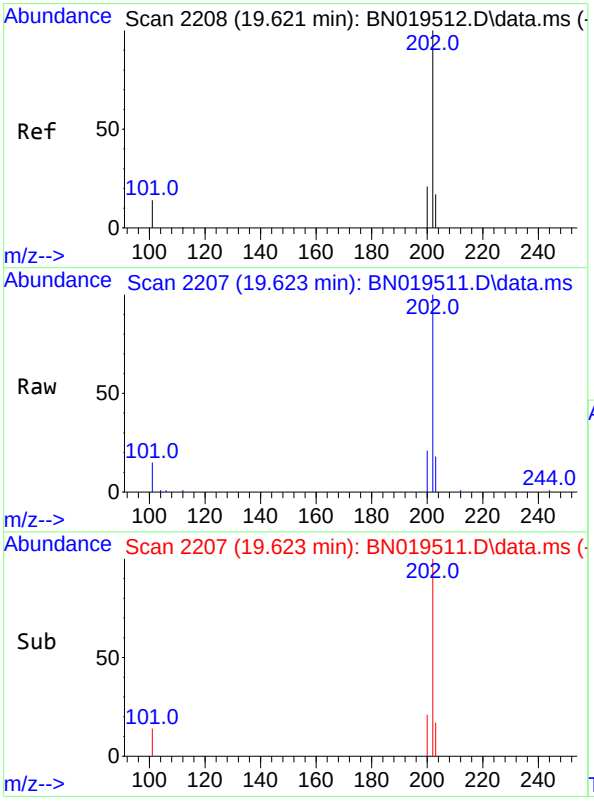
#29
Chrysene-d12
Concen: 0.400 ng
RT: 21.386 min Scan# 24
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:240 Resp: 12137

Ion	Ratio	Lower	Upper
240	100		
120	16.2	8.5	12.7#
236	29.6	22.4	33.6

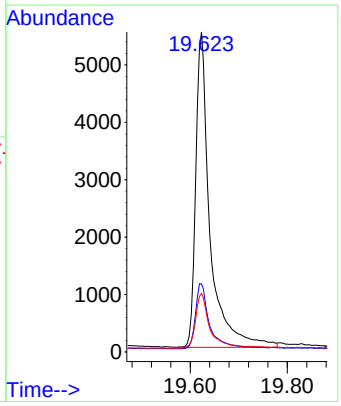


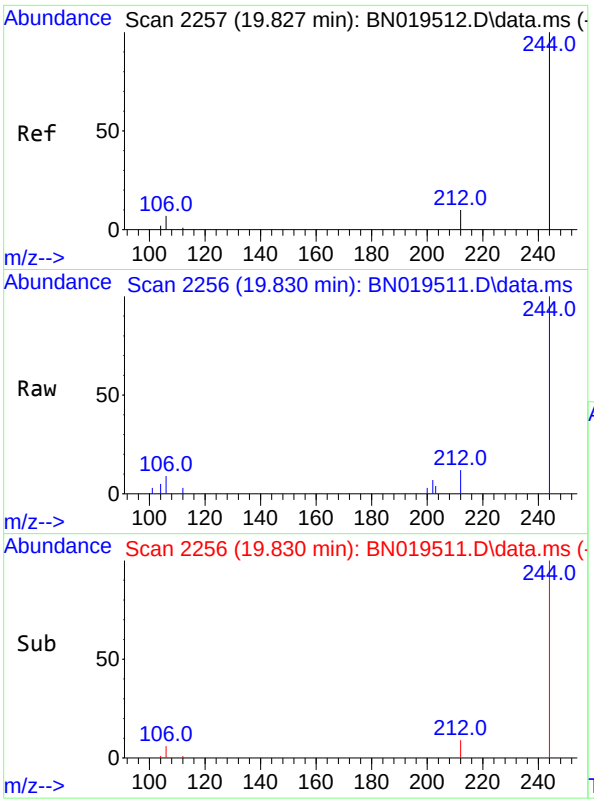


#30
Pyrene
Concen: 0.199 ng
RT: 19.623 min Scan# 2207
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:202 Resp: 11222

Ion	Ratio	Lower	Upper
202	100		
200	20.2	16.9	25.3
203	17.8	14.2	21.2



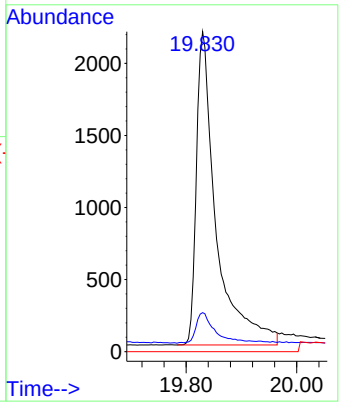


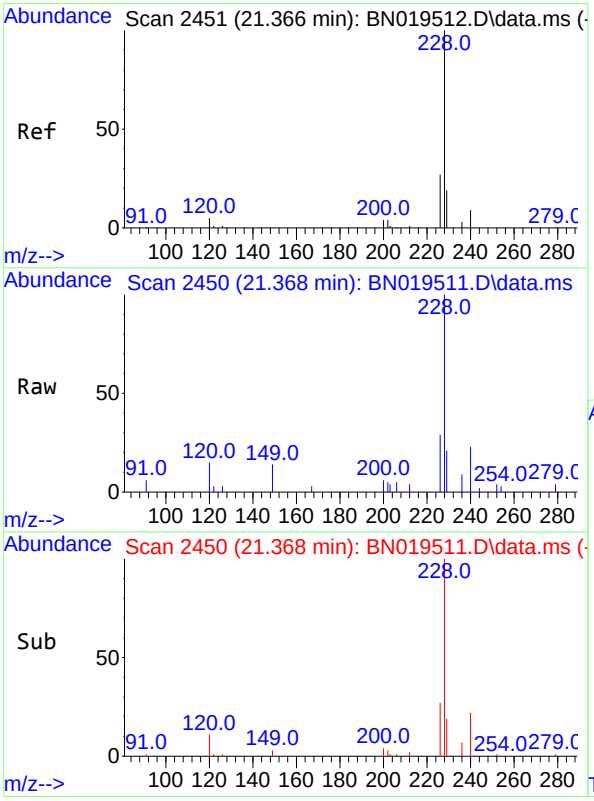
#31
Terphenyl-d14
Concen: 0.205 ng
RT: 19.830 min Scan# 2
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:244 Resp: 5399

Ion	Ratio	Lower	Upper
244	100		
212	12.2	8.2	12.4
122	0.0	0.0	0.0

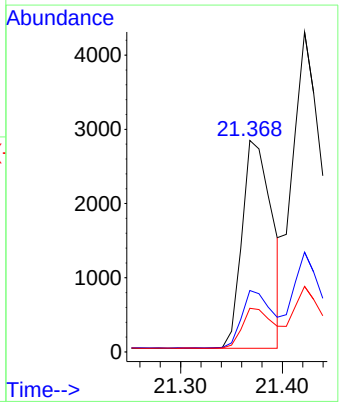


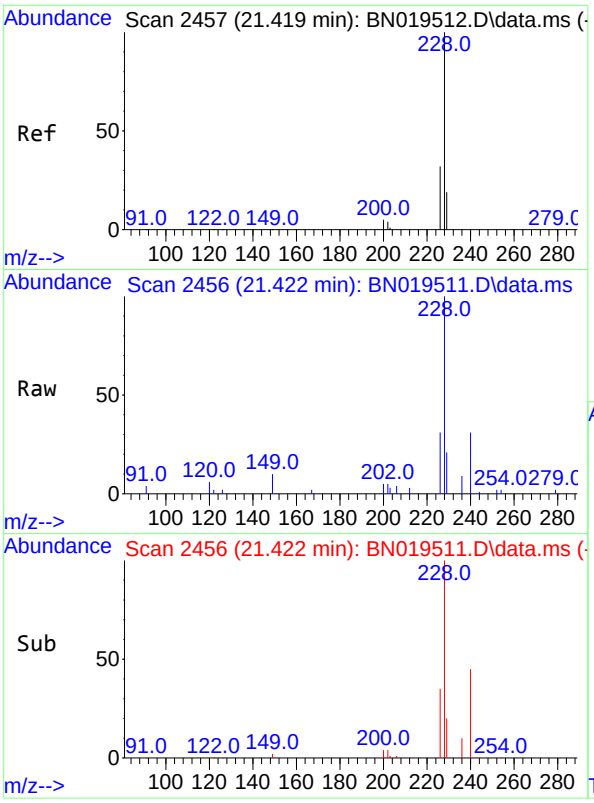


#32
Benzo(a)anthracene
Concen: 0.127 ng
RT: 21.368 min Scan# 2450
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:228 Resp: 5716

Ion	Ratio	Lower	Upper
228	100		
226	29.1	21.9	32.9
229	20.6	16.0	24.0



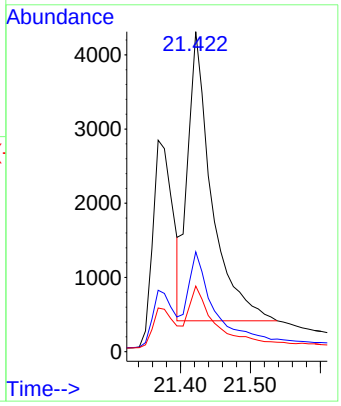


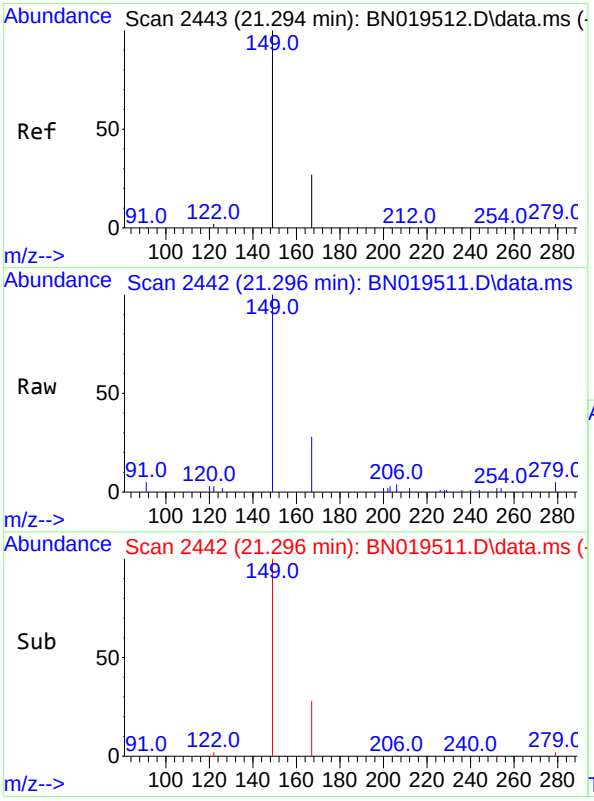
#33
Chrysene
Concen: 0.185 ng
RT: 21.422 min Scan# 24
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:228 Resp: 9239

Ion	Ratio	Lower	Upper
228	100		
226	31.2	24.0	36.0
229	20.5	15.9	23.9

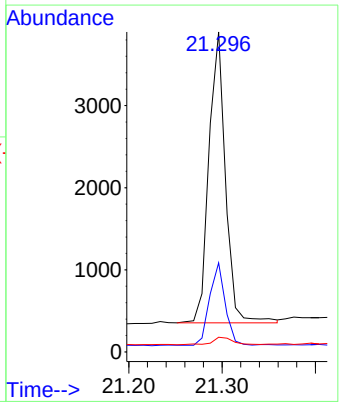


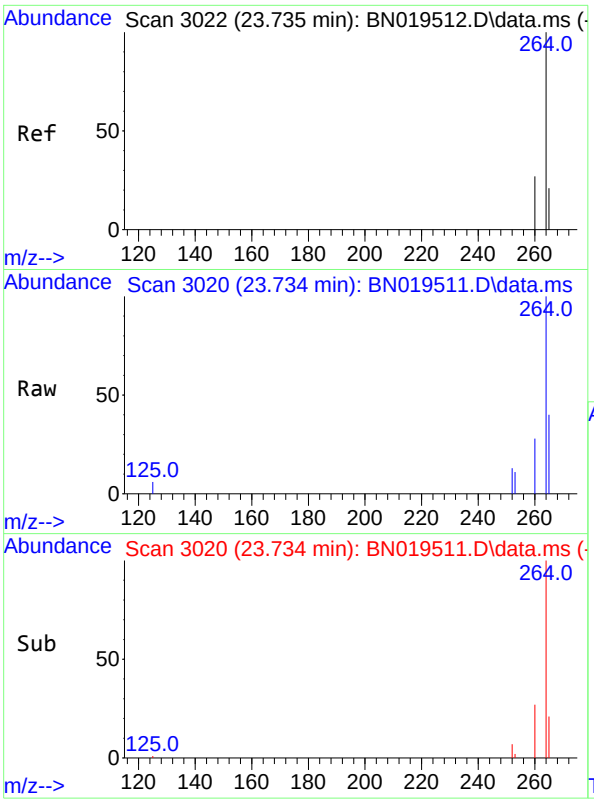


#34
Bis(2-ethylhexyl)phthalate
Concen: 0.131 ng
RT: 21.296 min Scan# 2442
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:149 Resp: 4363

Ion	Ratio	Lower	Upper
149	100		
167	26.7	21.8	32.8
279	3.2	2.0	3.0#



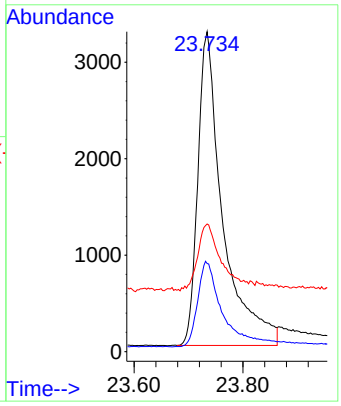


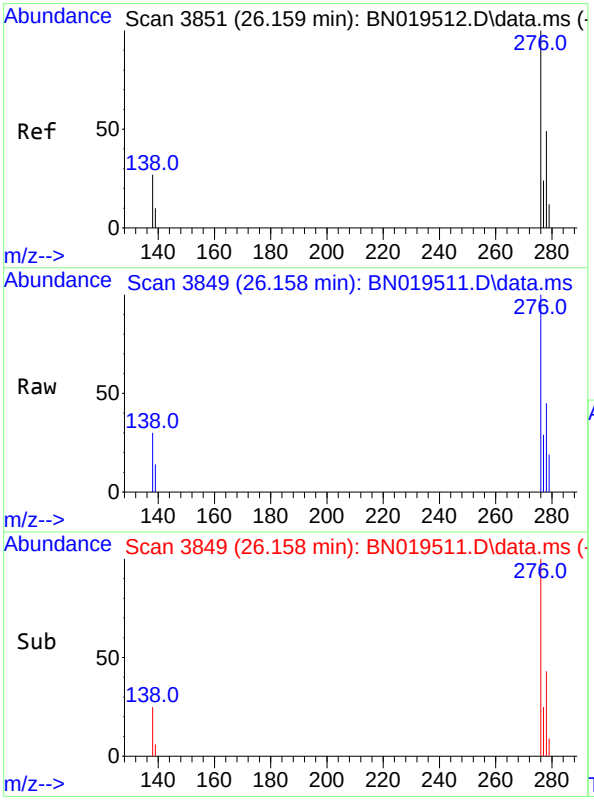
#35
Perylene-d12
Concen: 0.400 ng
RT: 23.734 min Scan# 3
Delta R.T. -0.001 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:264 Resp: 10338

Ion	Ratio	Lower	Upper
264	100		
260	27.6	22.4	33.6
265	39.9	25.3	37.9#

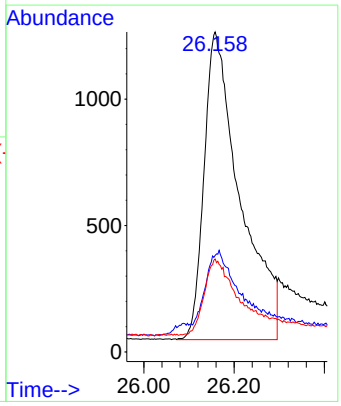


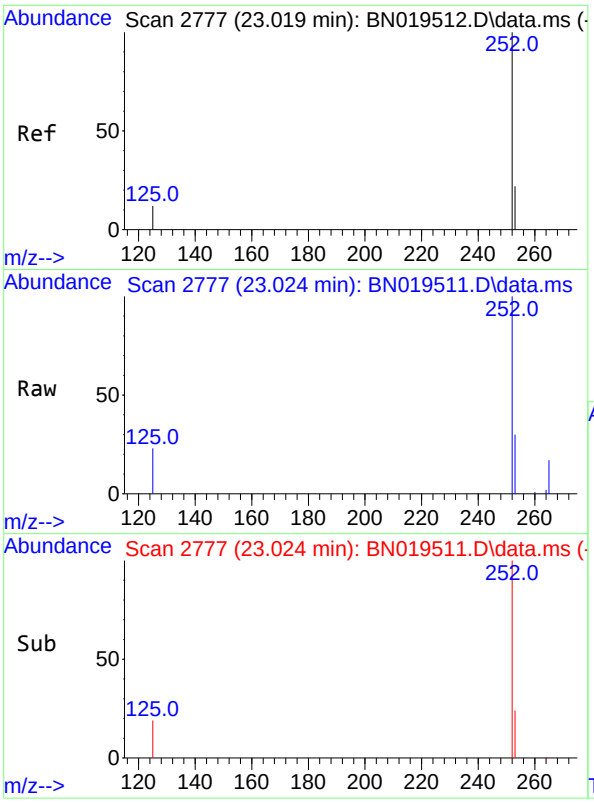


#36
Indeno(1,2,3-cd)pyrene
Concen: 0.156 ng
RT: 26.158 min Scan# 3849
Delta R.T. -0.001 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:276 Resp: 6743

Ion	Ratio	Lower	Upper
276	100		
138	20.6	24.5	36.7#
277	24.1	19.8	29.8



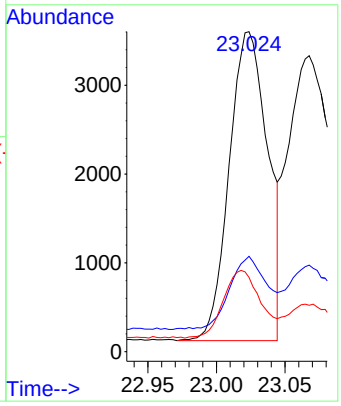


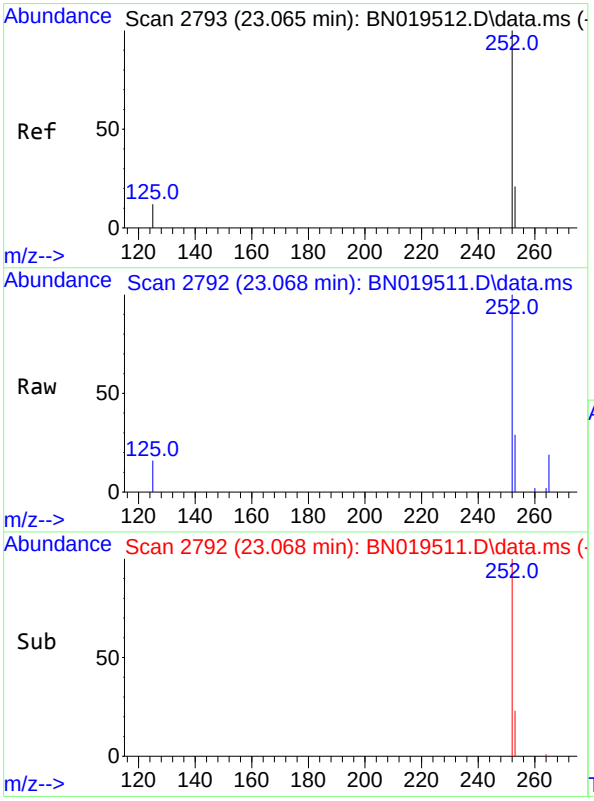
#37
Benzo(b)fluoranthene
Concen: 0.167 ng
RT: 23.024 min Scan# 2
Delta R.T. 0.005 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:252 Resp: 6767

Ion	Ratio	Lower	Upper
252	100		
253	29.8	18.9	28.3#
125	23.2	12.1	18.1#

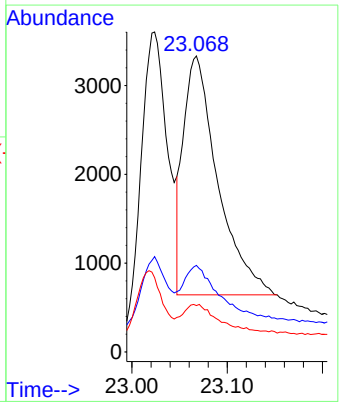


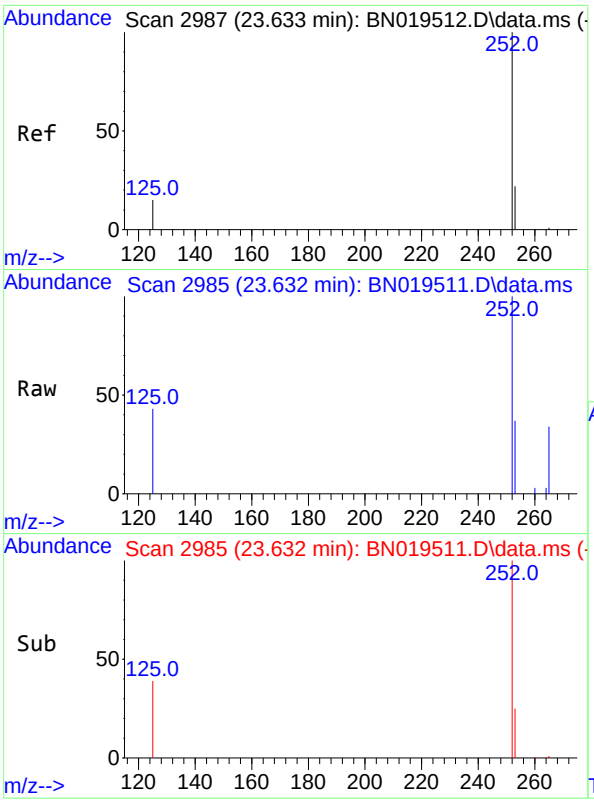


#38
Benzo(k)fluoranthene
Concen: 0.159 ng
RT: 23.068 min Scan# 2792
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:252 Resp: 6732

Ion	Ratio	Lower	Upper
252	100		
253	29.2	18.9	28.3#
125	15.7	10.3	15.5#



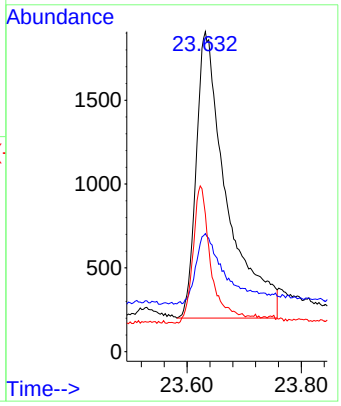


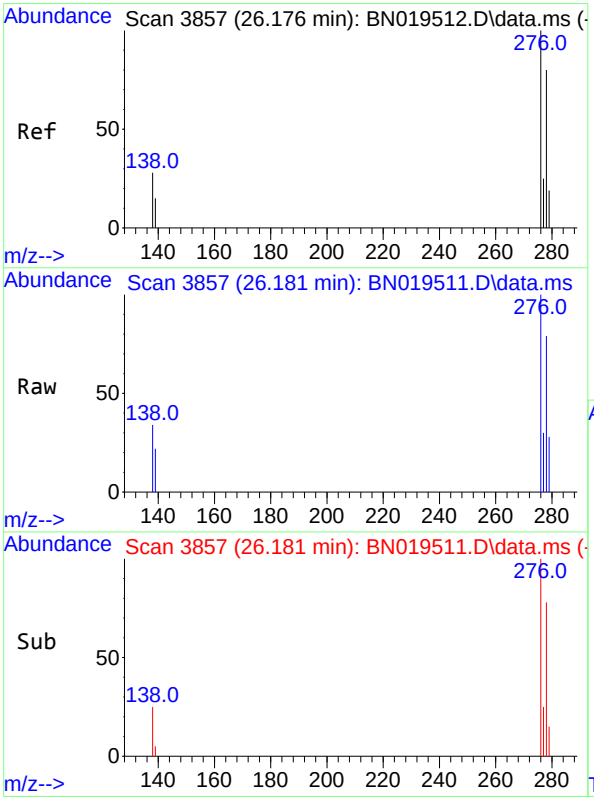
#39
Benzo(a)pyrene
Concen: 0.173 ng
RT: 23.632 min Scan# 2
Delta R.T. -0.001 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:252 Resp: 6309

Ion	Ratio	Lower	Upper
252	100		
253	36.9	20.1	30.1#
125	43.0	15.2	22.8#

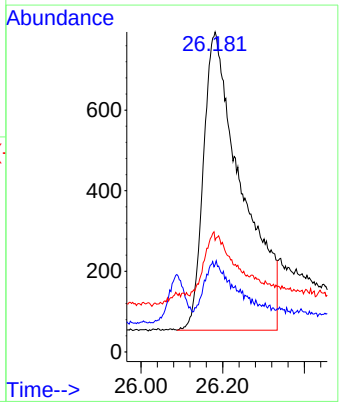


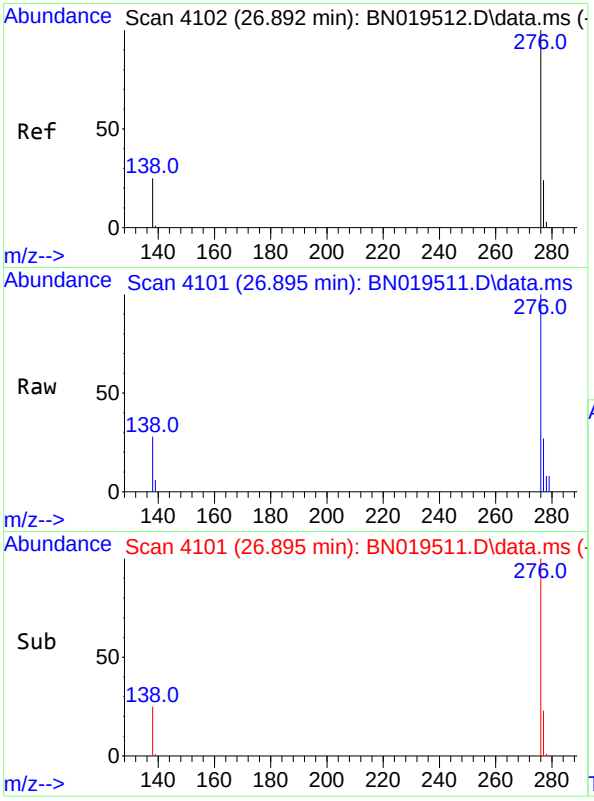


#40
Dibenzo(a,h)anthracene
Concen: 0.143 ng
RT: 26.181 min Scan# 3857
Delta R.T. 0.005 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Tgt Ion:278 Resp: 4790

Ion	Ratio	Lower	Upper
278	100		
139	27.3	17.2	25.8#
279	34.9	19.9	29.9#





#41
Benzo(g,h,i)perylene
Concen: 0.190 ng
RT: 26.895 min Scan# 4
Delta R.T. 0.002 min
Lab File: BN019511.D
Acq: 20 Apr 2022 13:45

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.2

Tgt Ion:276 Resp: 7606

Ion	Ratio	Lower	Upper
276	100		
277	26.9	19.4	29.0
138	28.4	21.0	31.6