

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF050323\
 Data File : BF133220.D
 Acq On : 03 May 2023 21:54
 Operator : CG\JU
 Sample : 02582-01 5X
 Misc :
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 HD-02-050223

Manual Integrations
 APPROVED

Reviewed By : Christian Giraldo 05/04/2023
 Supervised By : Jagrut Upadhyay 05/04/2023

Quant Time: May 04 01:42:24 2023
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF042123.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Wed May 03 17:31:52 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.728	152	214229	20.000	ng	0.00
21) Naphthalene-d8	8.010	136	878666	20.000	ng	0.00
39) Acenaphthene-d10	9.763	164	421862	20.000	ng	0.00
64) Phenanthrene-d10	11.251	188	642134	20.000	ng	# 0.00
76) Chrysene-d12	13.886	240	401971	20.000	ng	0.00
86) Perylene-d12	15.310	264	370058	20.000	ng	# 0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.328	112	238072	16.787	ng	-0.01
7) Phenol-d6	6.357	99	301042	17.102	ng	-0.02
23) Nitrobenzene-d5	7.287	82	185066	11.369	ng	-0.01
42) 2,4,6-Tribromophenol	10.551	330	37533	8.847	ng	0.00
45) 2-Fluorobiphenyl	9.086	172	356770	14.149	ng	0.00
79) Terphenyl-d14	12.833	244	276483	11.863	ng	0.00
Target Compounds						Qvalue
31) Naphthalene	8.034	128	160825	3.661	ng	98
37) 2-Methylnaphthalene	8.722	142	199537	6.644	ng	97
38) 1-Methylnaphthalene	8.822	142	151332	5.386	ng	98
49) Acenaphthylene	9.622	152	267312	6.833	ng	99
52) Acenaphthene	9.798	154	310709	11.858	ng	98
55) Dibenzofuran	9.969	168	431839	12.082	ng	99
58) Fluorene	10.310	166	673168	25.707	ng	100
71) Phenanthrene	11.280	178	2753242	79.774	ng	98
72) Anthracene	11.327	178	1219442	34.526	ng	100
73) Carbazole	11.475	167	204733	6.510	ng	99
75) Fluoranthene	12.469	202	2805657	81.001	ng	98
78) Pyrene	12.692	202	2528156	73.369	ng	98
81) Benzo(a)anthracene	13.880	228	1584126	57.308	ng	95
83) Chrysene	13.916	228	1345786	48.698	ng	97
87) Indeno(1,2,3-cd)pyrene	16.686	276	409565	19.457	ng	93
88) Benzo(b)fluoranthene	14.910	252	1350301m	57.355	ng	
89) Benzo(k)fluoranthene	14.927	252	465577m	19.950	ng	
90) Benzo(a)pyrene	15.251	252	931169	43.454	ng	98
91) Dibenzo(a,h)anthracene	16.692	278	121135m	6.900	ng	
92) Benzo(g,h,i)perylene	17.098	276	333873	19.263	ng	97

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

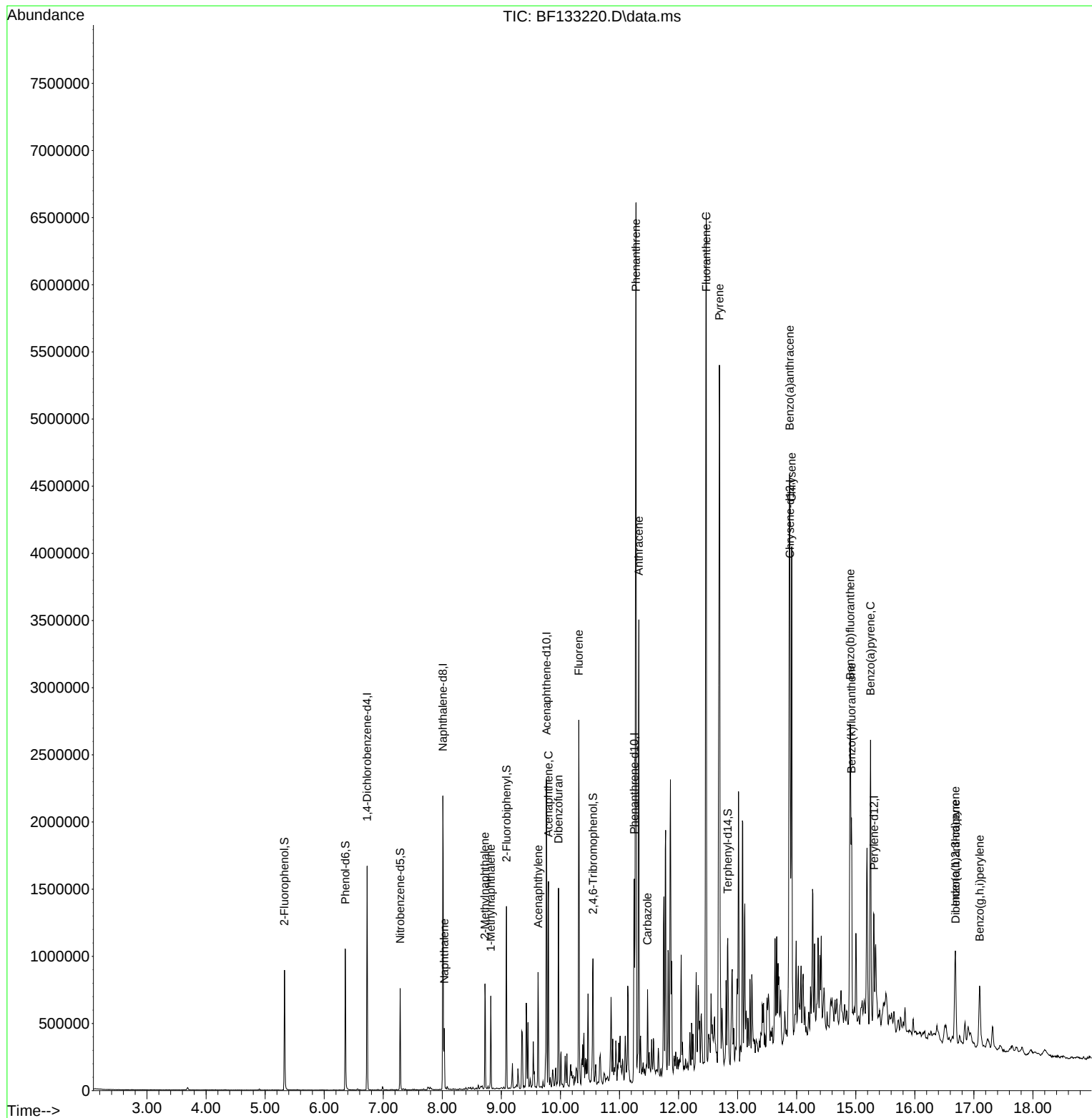
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF050323\
Data File : BF133220.D
Acq On : 03 May 2023 21:54
Operator : CG\JU
Sample : 02582-01 5X
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ALS Vial : 22 Sample Multiplier: 1

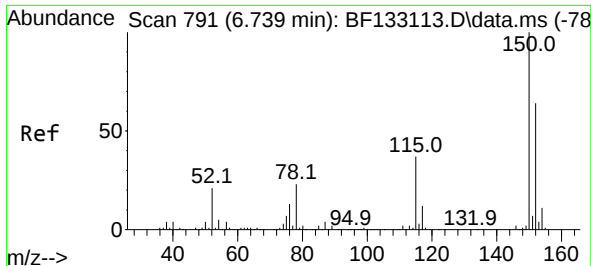
Instrument :
BNA_F
ClientSampleId :
HD-02-050223

Quant Time: May 04 01:42:24 2023
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF042123.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed May 03 17:31:52 2023
Response via : Initial Calibration

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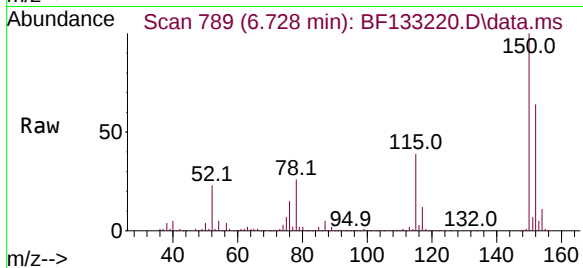
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.728 min Scan# 791
Delta R.T. -0.006 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

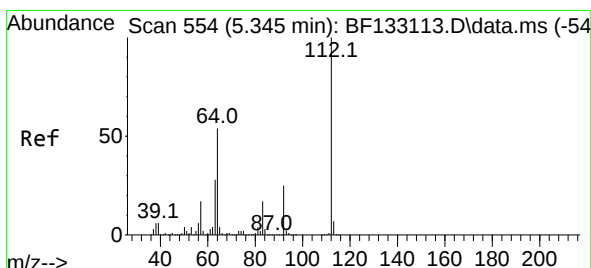
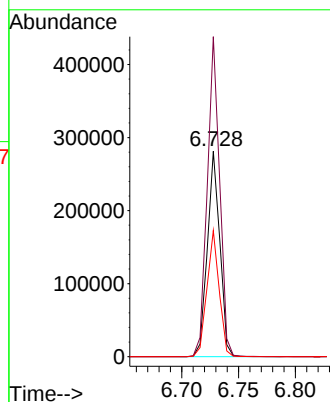
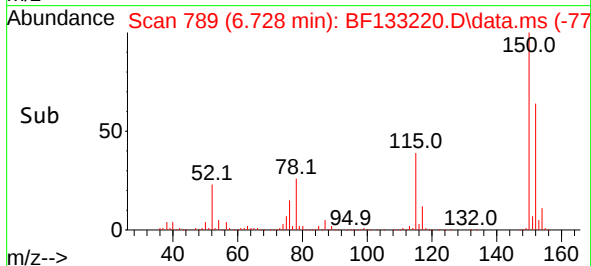


Tgt Ion:152 Resp: 214229
Ion Ratio Lower Upper
152 100
150 155.7 124.8 187.2
115 61.4 49.9 74.9

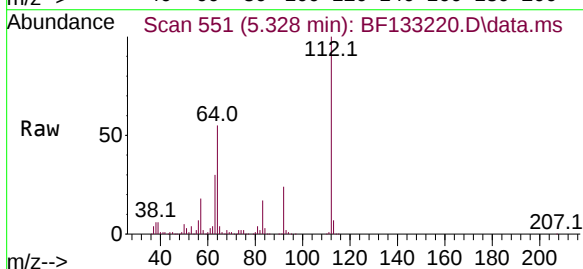
Manual Integrations

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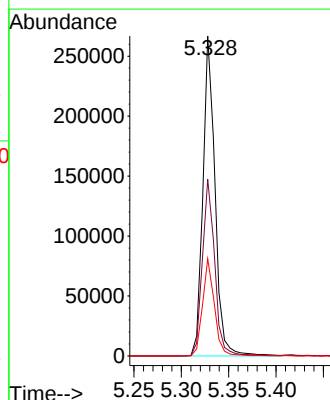
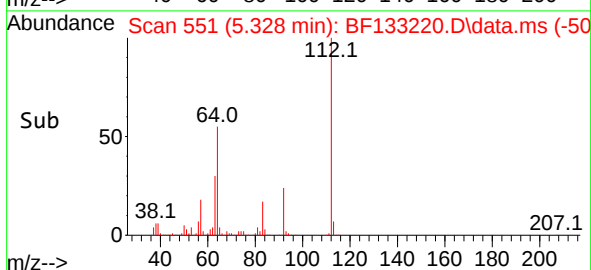
Reviewed By :Christian Giraldo 05/04/2023
Supervised By :Jagrut Upadhyay 05/04/2023



#5
2-Fluorophenol
Concen: 16.787 ng
RT: 5.328 min Scan# 551
Delta R.T. -0.012 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54



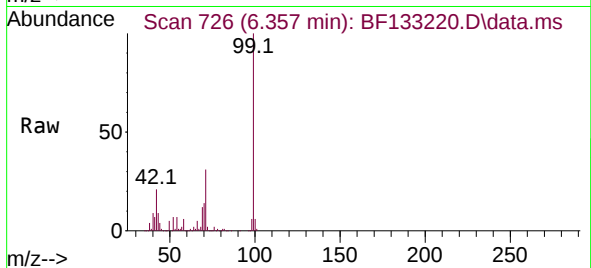
Tgt Ion:112 Resp: 238072
Ion Ratio Lower Upper
112 100
64 55.2 46.8 70.2
63 30.4 23.8 35.8





#7
Phenol-d6
Concen: 17.102 ng
RT: 6.357 min Scan# 71
Delta R.T. -0.018 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

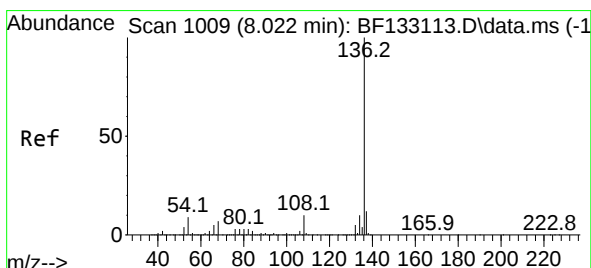
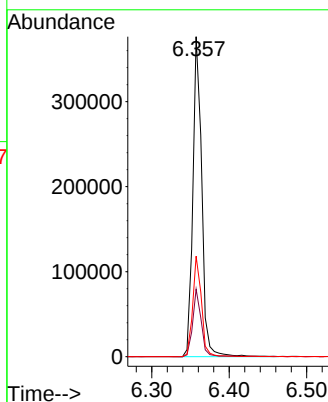
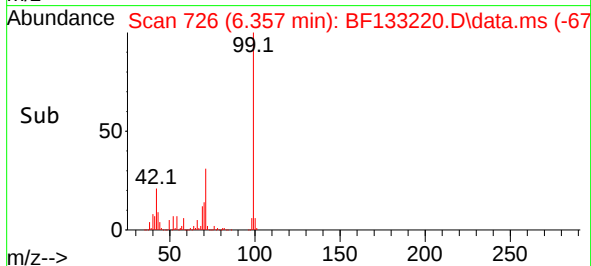
Instrument :
BNA_F
ClientSampleId :
HD-02-050223



Tgt Ion: 99 Resp: 30104
Ion Ratio Lower Upper
99 100
42 21.1 16.3 24.5
71 31.4 25.6 38.4

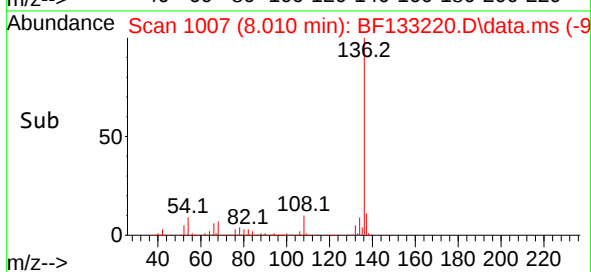
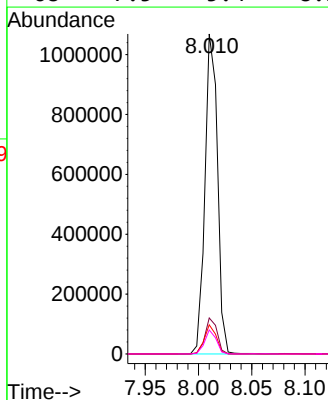
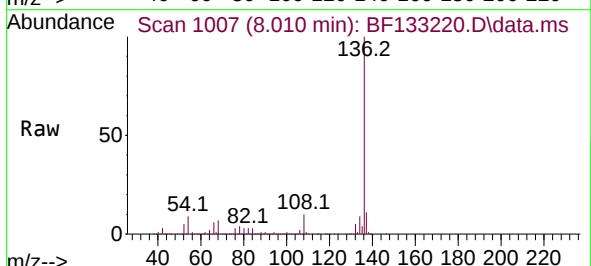
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Supervised By :Jagrut Upadhyay 05/04/2023



#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.010 min Scan# 1007
Delta R.T. -0.006 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

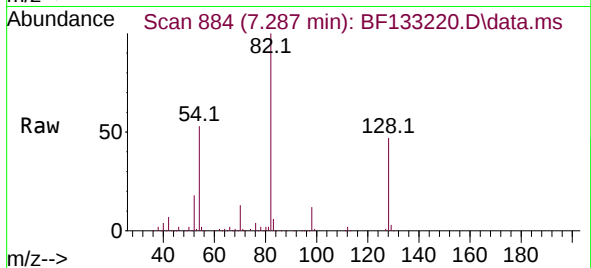
Tgt Ion:136 Resp: 878666
Ion Ratio Lower Upper
136 100
137 11.2 8.6 13.0
54 9.1 7.0 10.4
68 7.5 5.4 8.2





#23
Nitrobenzene-d5
Concen: 11.369 ng
RT: 7.287 min Scan# 81
Delta R.T. -0.012 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

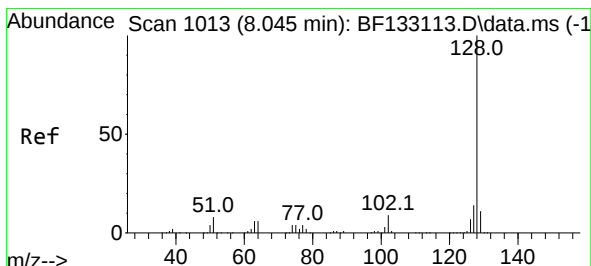
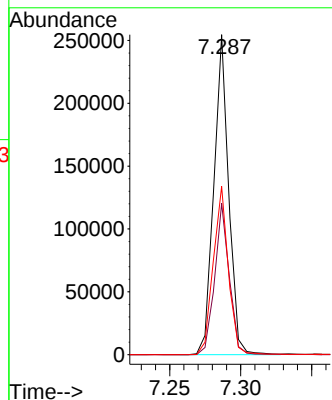
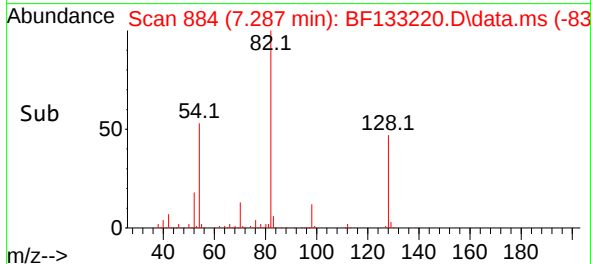
Instrument :
BNA_F
ClientSampleId :
HD-02-050223



Tgt Ion: 82 Resp: 185060
Ion Ratio Lower Upper
82 100
128 47.3 37.7 56.5
54 52.6 43.0 64.4

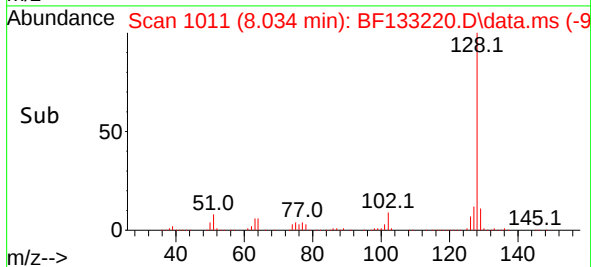
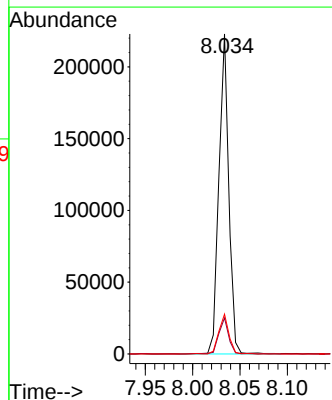
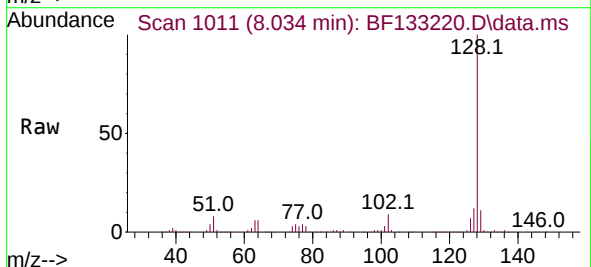
Manual Integrations
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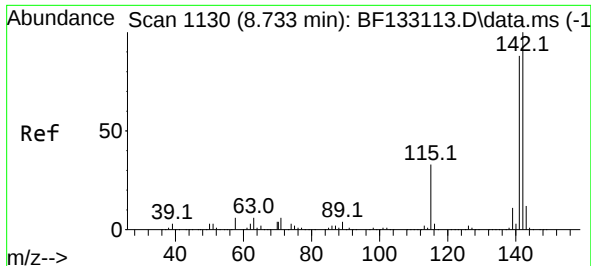
Reviewed By :Christian Giraldo 05/04/2023
Supervised By :Jagrut Upadhyay 05/04/2023



#31
Naphthalene
Concen: 3.661 ng
RT: 8.034 min Scan# 1011
Delta R.T. -0.006 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

Tgt Ion:128 Resp: 160825
Ion Ratio Lower Upper
128 100
129 11.2 8.8 13.2
127 12.5 10.7 16.1





#37

2-Methylnaphthalene

Concen: 6.644 ng

RT: 8.722 min Scan# 1128

Delta R.T. -0.006 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

Tgt Ion:142 Resp: 19953

Ion Ratio Lower Upper

142 100

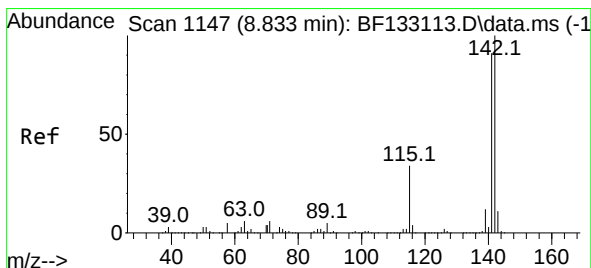
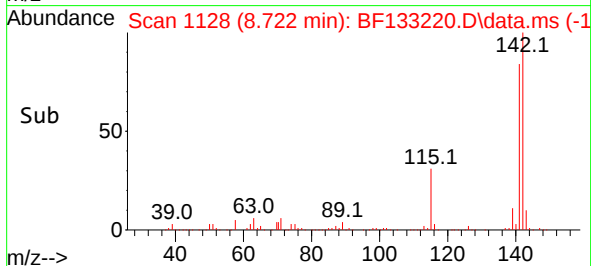
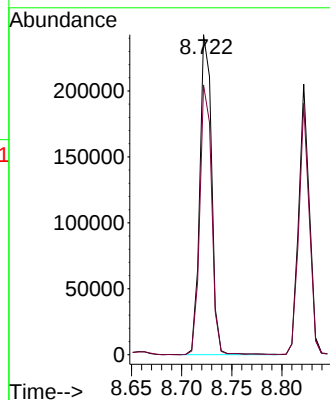
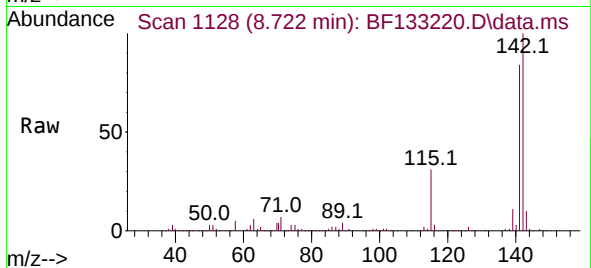
141 84.3 69.4 104.0

Manual Integrations

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Supervised By :Jagrut Upadhyay 05/04/2023



#38

1-Methylnaphthalene

Concen: 5.386 ng

RT: 8.822 min Scan# 1145

Delta R.T. -0.006 min

Lab File: BF133220.D

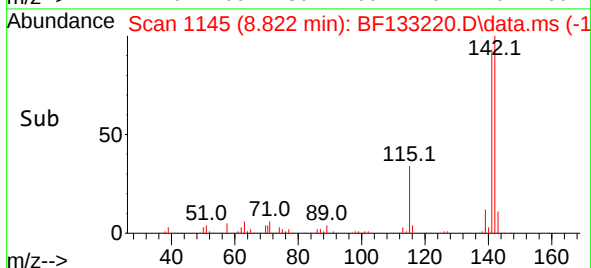
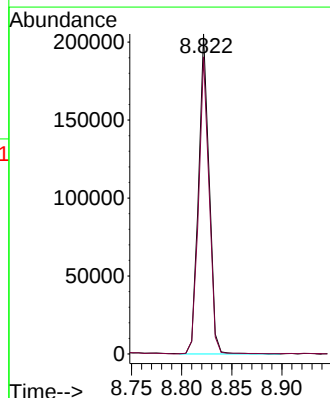
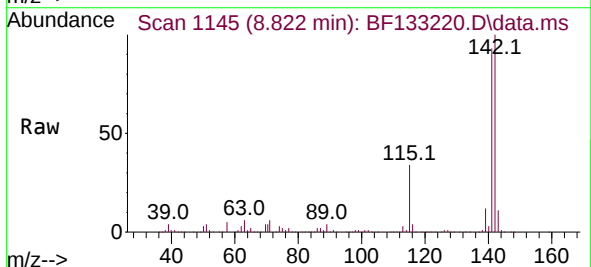
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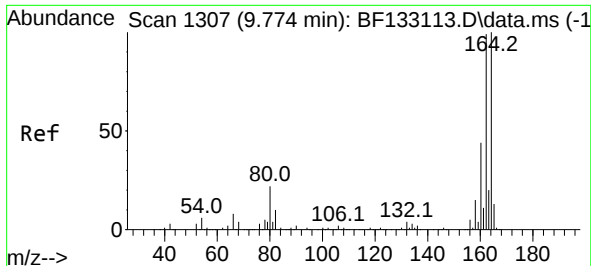
Tgt Ion:142 Resp: 151332

Ion Ratio Lower Upper

142 100

141 92.8 73.1 109.7





#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.763 min Scan# 11

Delta R.T. -0.006 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

Tgt Ion:164 Resp: 42186

Ion Ratio Lower Upper

164 100

162 98.4 78.7 118.1

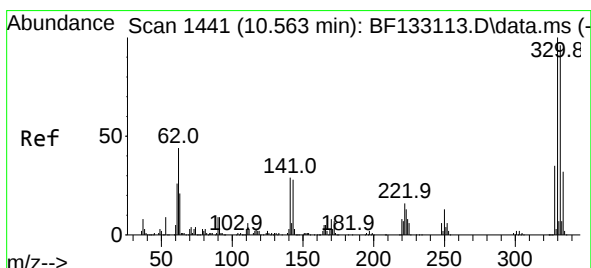
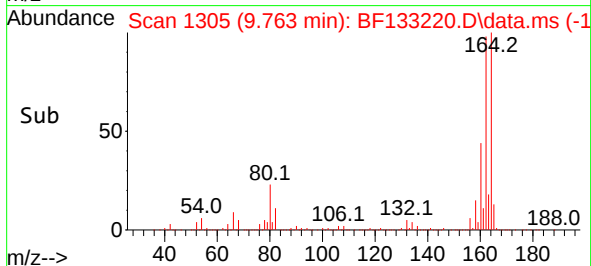
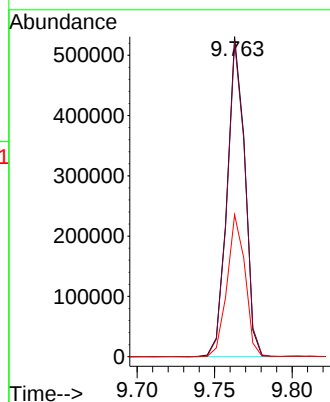
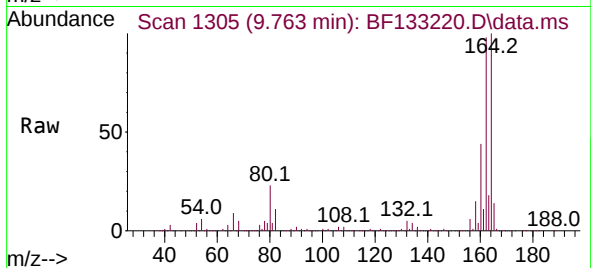
160 44.3 35.8 53.6

Manual Integrations

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Supervised By :Jagrut Upadhyay 05/04/2023



#42

2,4,6-Tribromophenol

Concen: 8.847 ng

RT: 10.551 min Scan# 1439

Delta R.T. -0.006 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

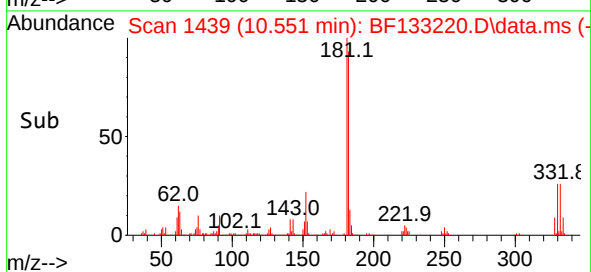
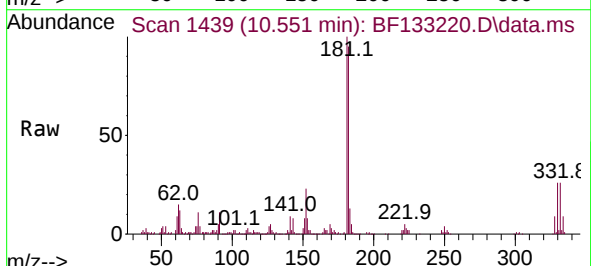
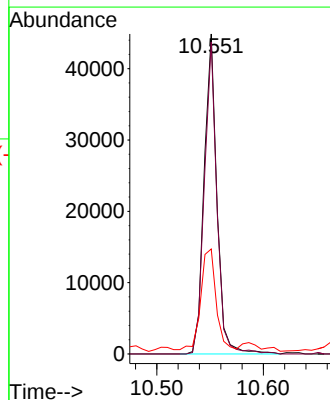
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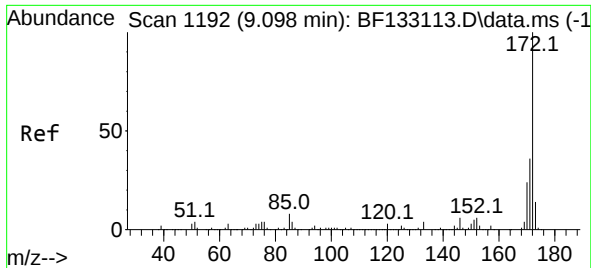
Ion Ratio Lower Upper

330 100

332 96.1 77.1 115.7

141 37.1 25.8 38.8





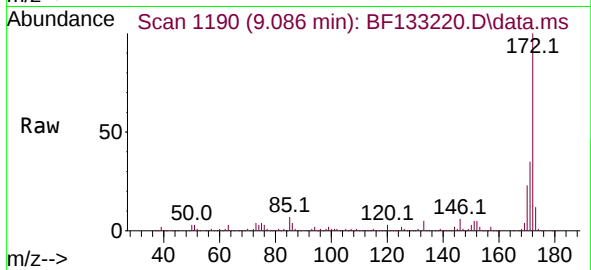
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2-Fluorobiphenyl
Concen: 14.149 ng
RT: 9.086 min Scan# 1192
Delta R.T. -0.006 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

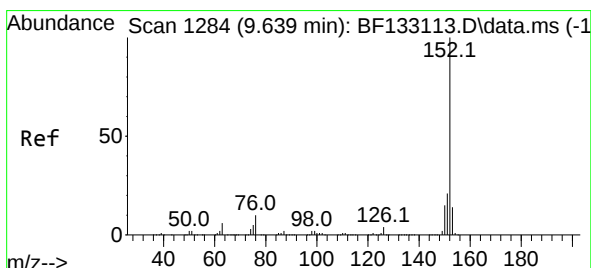
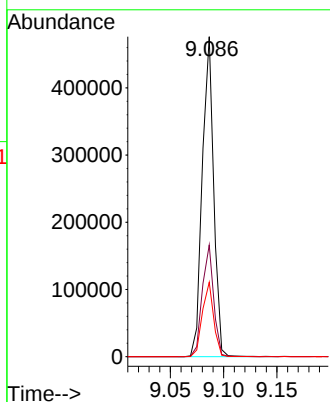
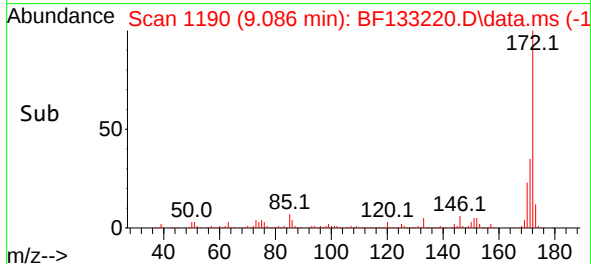


Tgt Ion:172 Resp: 356770
Ion Ratio Lower Upper
172 100
171 34.9 28.8 43.2
170 23.2 19.4 29.2

Manual Integrations

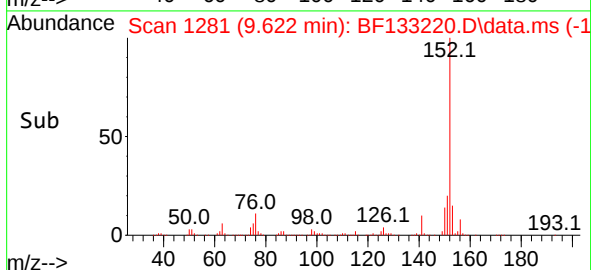
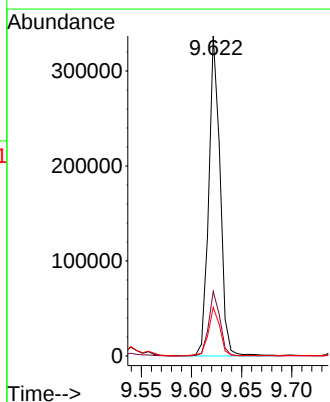
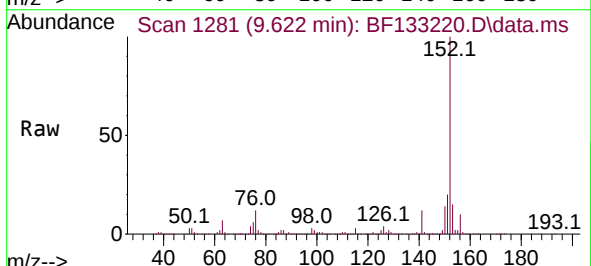
APPROVED

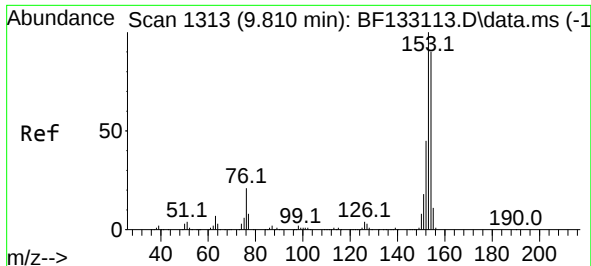
Reviewed By :Christian Giraldo 05/04/2023
Supervised By :Jagrut Upadhyay 05/04/2023



#49
Acenaphthylene
Concen: 6.833 ng
RT: 9.622 min Scan# 1281
Delta R.T. -0.012 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

Tgt Ion:152 Resp: 267312
Ion Ratio Lower Upper
152 100
151 20.2 16.6 24.8
153 15.1 11.5 17.3





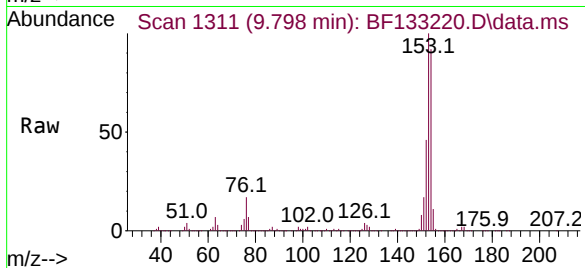
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Acenaphthene
Concen: 11.858 ng
RT: 9.798 min Scan# 11
Delta R.T. -0.006 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

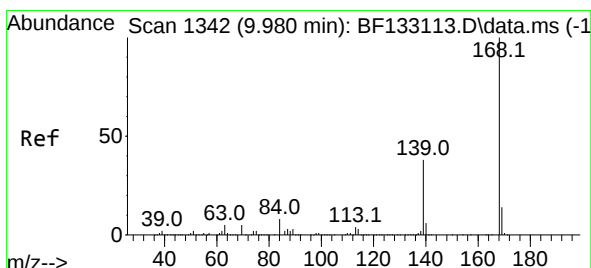
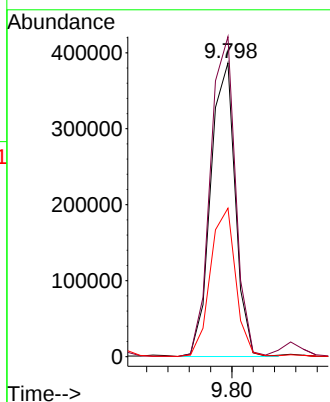
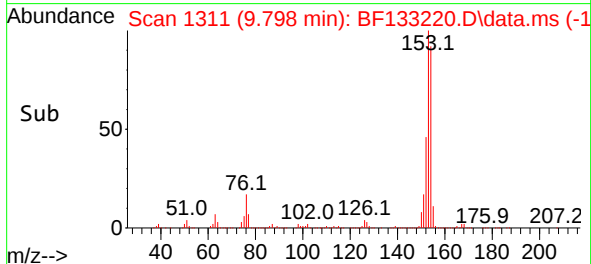


Tgt Ion:154 Resp: 310709
Ion Ratio Lower Upper
154 100
153 108.9 89.0 133.6
152 50.5 40.4 60.6

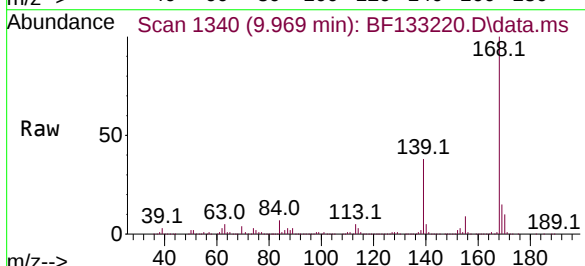
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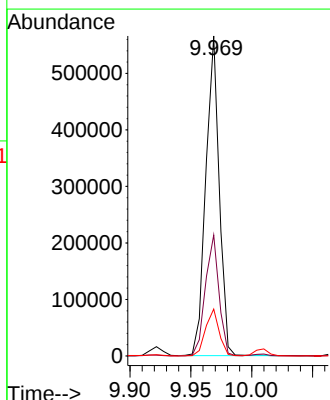
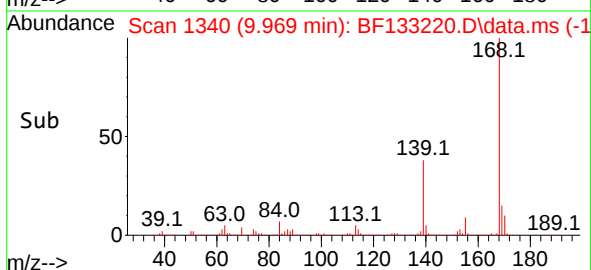
Reviewed By :Christian Giraldo 05/04/2023
Supervised By :Jagrut Upadhyay 05/04/2023

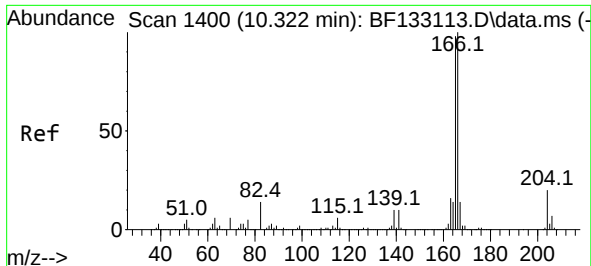


#55
Dibenzofuran
Concen: 12.082 ng
RT: 9.969 min Scan# 1340
Delta R.T. -0.006 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54



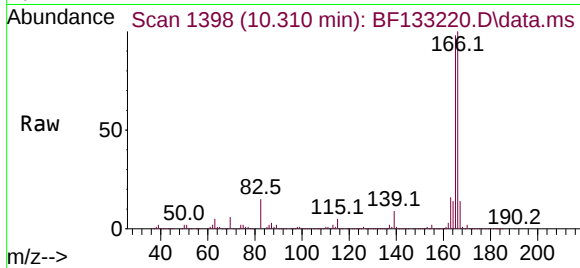
Tgt Ion:168 Resp: 431839
Ion Ratio Lower Upper
168 100
139 37.8 29.8 44.8
169 14.7 10.8 16.2





#58
Fluorene
Concen: 25.707 ng
RT: 10.310 min Scan# 1398
Delta R.T. -0.006 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

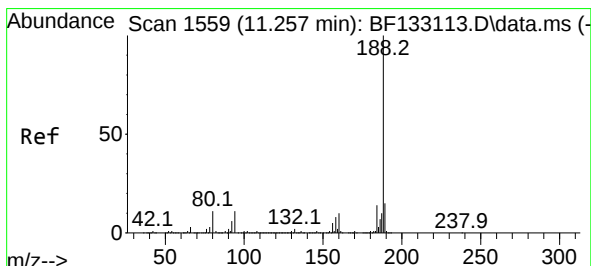
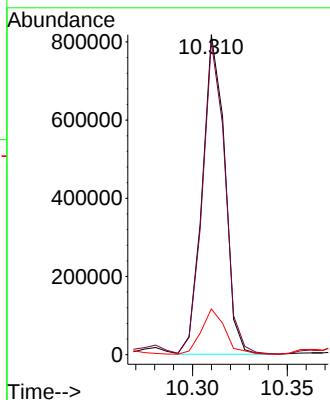
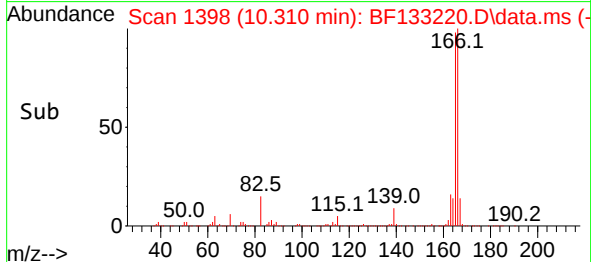
Instrument :
BNA_F
ClientSampleId :
HD-02-050223



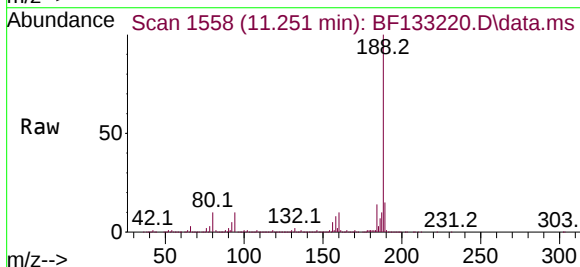
Tgt Ion:166 Resp: 673168
Ion Ratio Lower Upper
166 100
165 97.9 78.6 117.8
167 14.3 11.0 16.4

Manual Integrations
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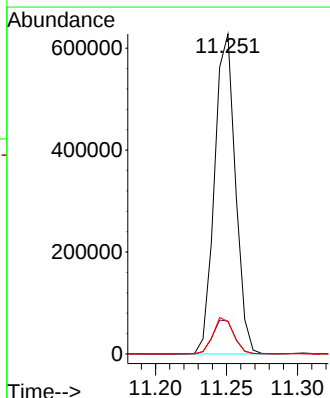
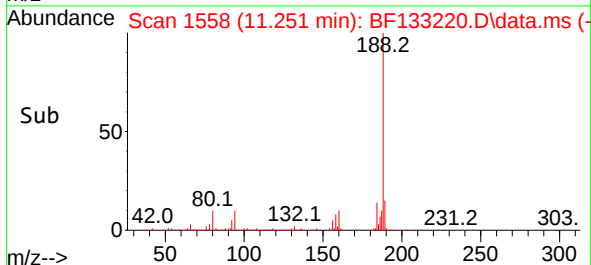
Reviewed By :Christian Giraldo 05/04/2023
Supervised By :Jagrut Upadhyay 05/04/2023

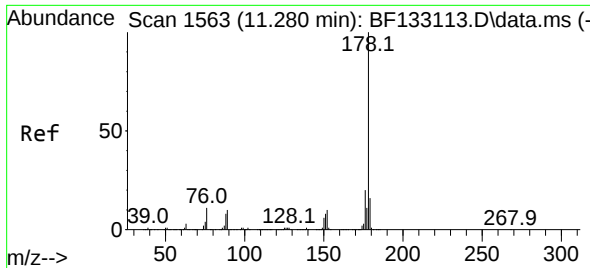


#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.251 min Scan# 1558
Delta R.T. -0.000 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54



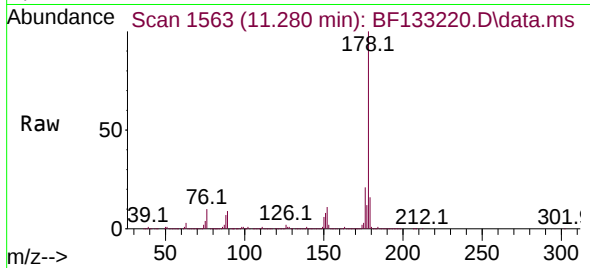
Tgt Ion:188 Resp: 642134
Ion Ratio Lower Upper
188 100
94 10.3 9.7 14.5
80 10.2 10.4 15.6#





#71
Phenanthrene
Concen: 79.774 ng
RT: 11.280 min Scan# 1563
Delta R.T. 0.006 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

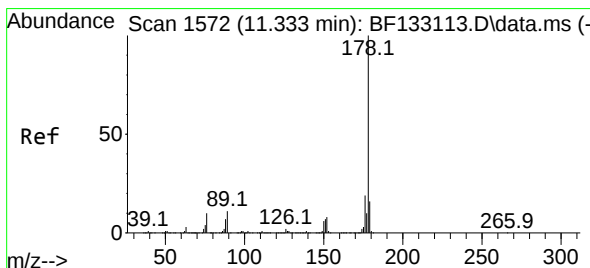
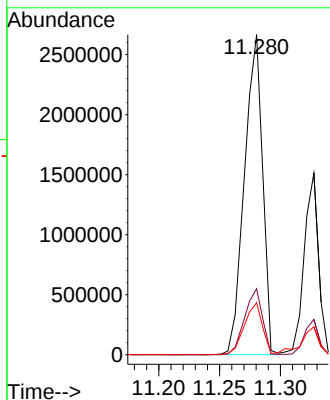
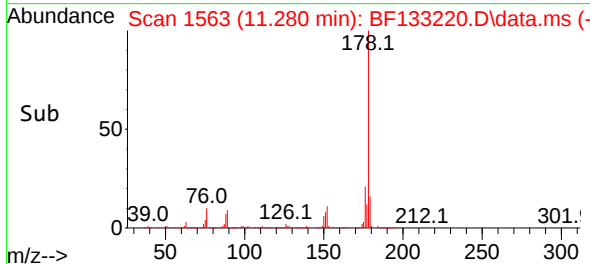
Instrument :
BNA_F
ClientSampleId :
HD-02-050223



Tgt Ion:178 Resp: 275324
Ion Ratio Lower Upper
178 100
176 20.6 15.9 23.9
179 16.2 12.5 18.7

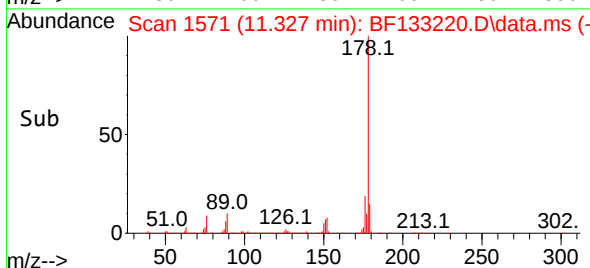
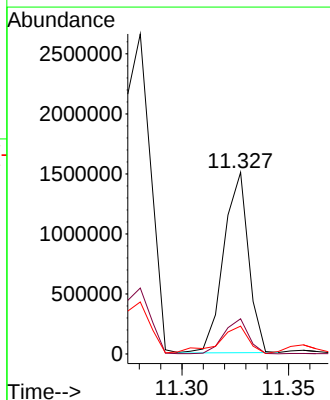
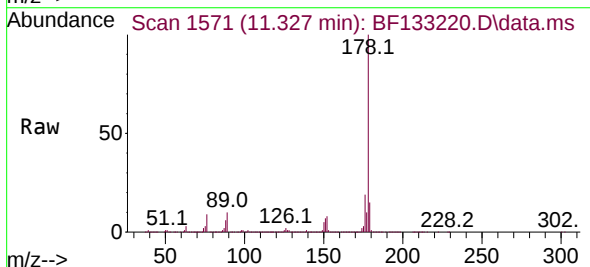
Manual Integrations
APPROVED

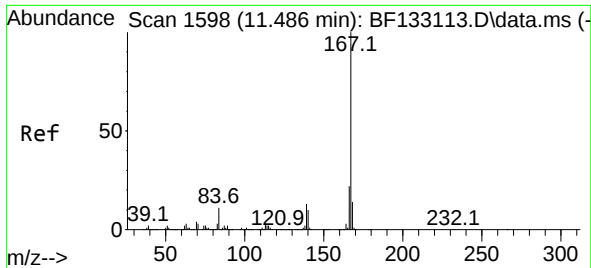
Reviewed By :Christian Giraldo 05/04/2023
Supervised By :Jagrut Upadhyay 05/04/2023



#72
Anthracene
Concen: 34.526 ng
RT: 11.327 min Scan# 1571
Delta R.T. -0.000 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

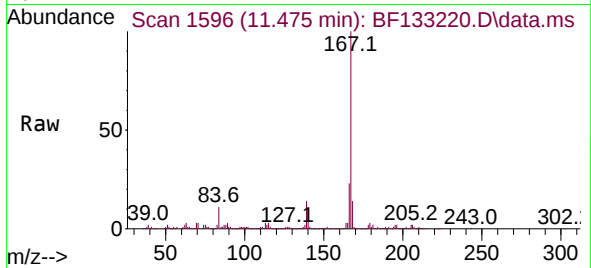
Tgt Ion:178 Resp: 1219442
Ion Ratio Lower Upper
178 100
176 19.3 15.4 23.0
179 15.3 12.4 18.6





#73
 Carbazole
 Concen: 6.510 ng
 RT: 11.475 min Scan# 1596
 Delta R.T. -0.012 min
 Lab File: BF133220.D
 Acq: 03 May 2023 21:54

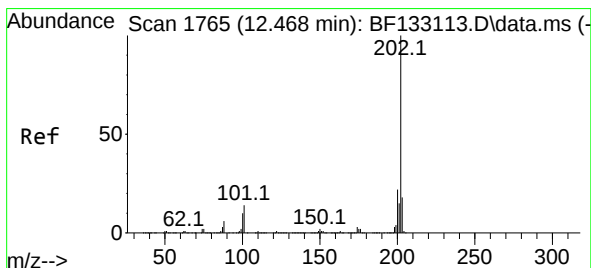
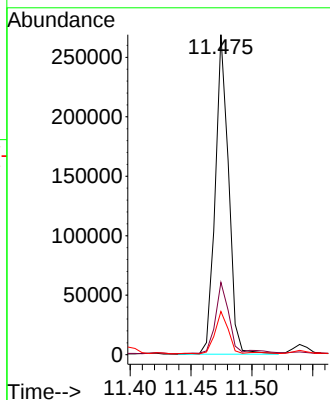
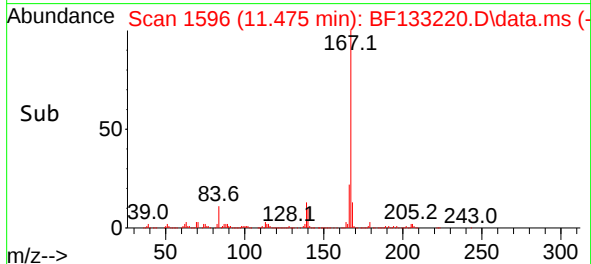
Instrument :
 BNA_F
 ClientSampleId :
 HD-02-050223



Tgt Ion:167 Resp: 204733
 Ion Ratio Lower Upper
 167 100
 166 22.6 17.4 26.0
 139 13.5 10.6 16.0

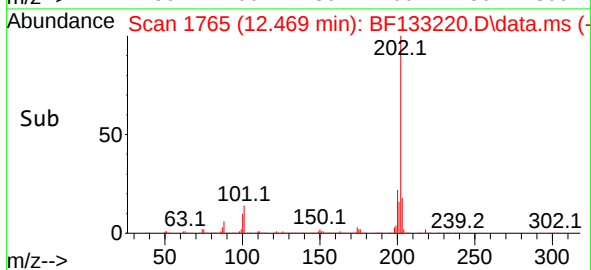
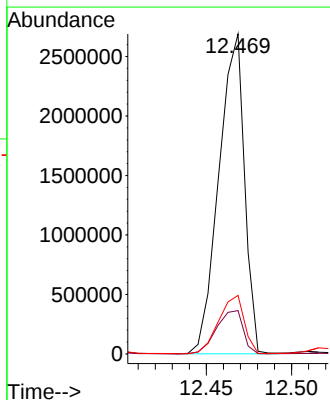
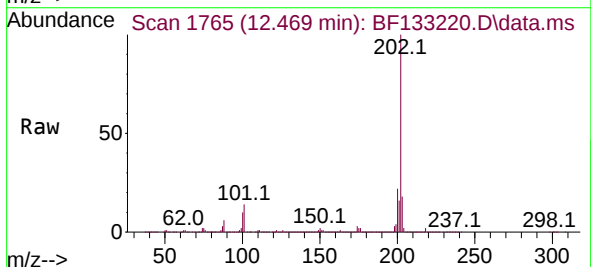
Manual Integrations
 APPROVED

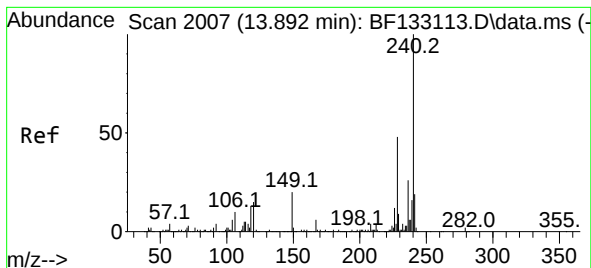
Reviewed By :Christian Giraldo 05/04/2023
 Supervised By :Jagrut Upadhyay 05/04/2023



#75
 Fluoranthene
 Concen: 81.001 ng
 RT: 12.469 min Scan# 1765
 Delta R.T. 0.006 min
 Lab File: BF133220.D
 Acq: 03 May 2023 21:54

Tgt Ion:202 Resp: 2805657
 Ion Ratio Lower Upper
 202 100
 101 13.6 0.0 35.3
 203 18.3 0.0 38.1





#76

Chrysene-d12

Concen: 20.000 ng

RT: 13.886 min Scan# 2006

Delta R.T. -0.006 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

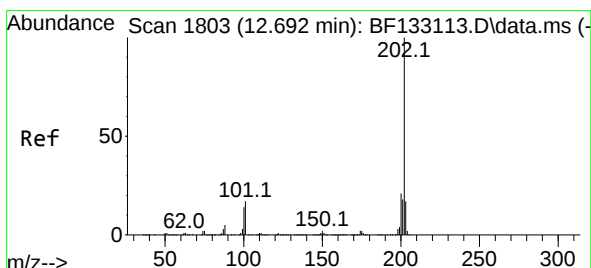
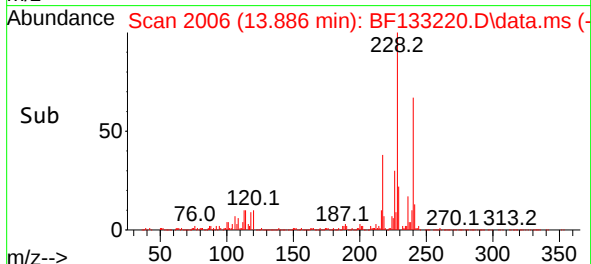
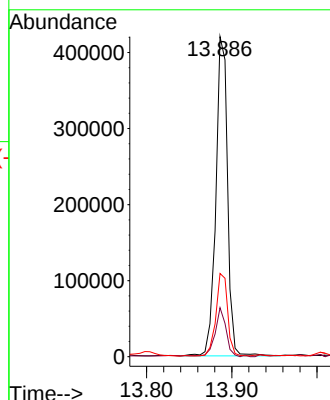
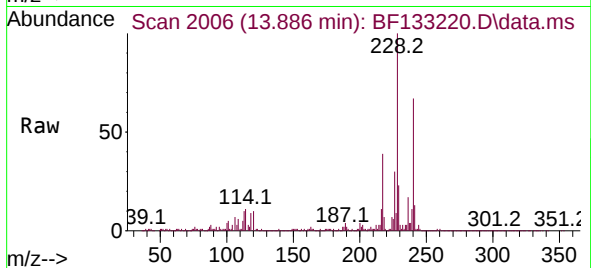
Tgt Ion:240 Resp: 40197

Ion	Ratio	Lower	Upper
240	100		
120	15.3	10.5	15.7
236	26.0	21.5	32.3

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 05/04/2023
Supervised By :Jagrut Upadhyay 05/04/2023



#78

Pyrene

Concen: 73.369 ng

RT: 12.692 min Scan# 1803

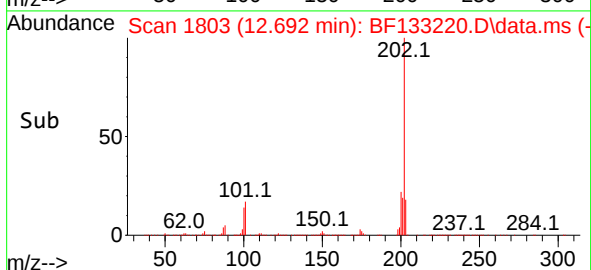
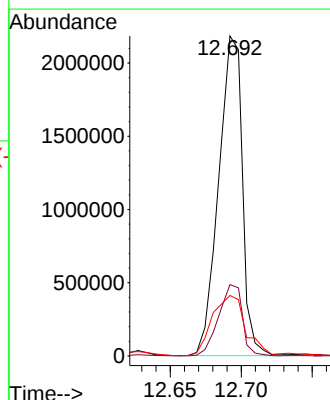
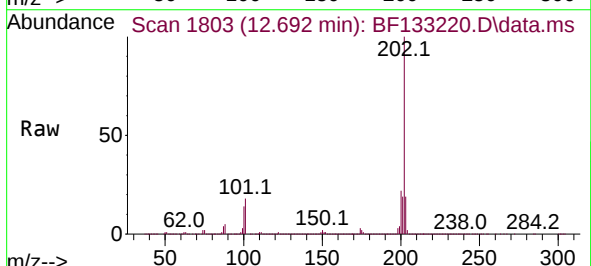
Delta R.T. -0.000 min

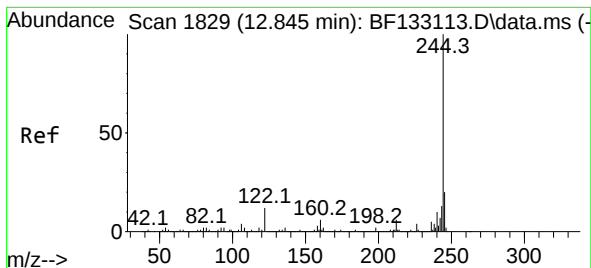
Lab File: BF133220.D

Acq: 03 May 2023 21:54

Tgt Ion:202 Resp: 2528156

Ion	Ratio	Lower	Upper
202	100		
200	22.3	17.1	25.7
203	18.9	14.1	21.1





#79

Terphenyl-d14

Concen: 11.863 ng

RT: 12.833 min Scan# 1827

Delta R.T. -0.006 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

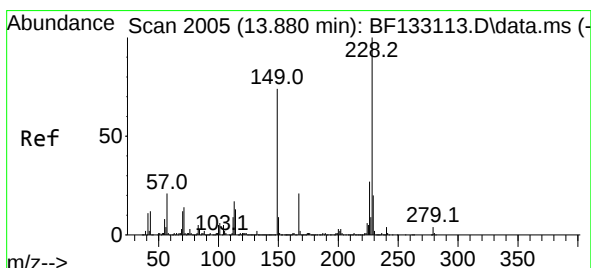
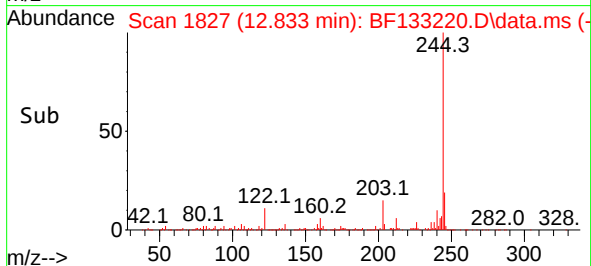
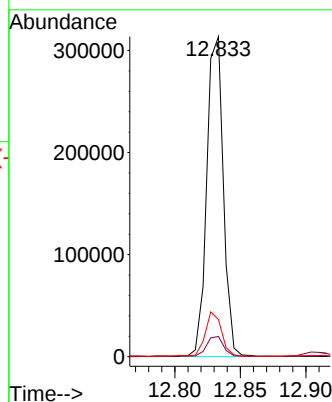
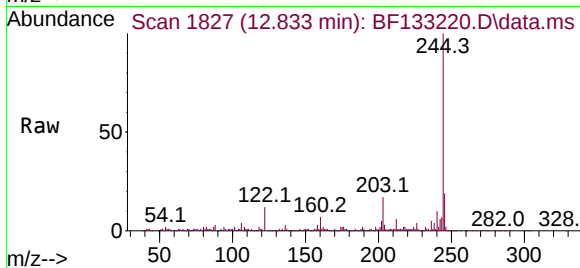
Tgt Ion:244 Resp: 27648

Ion	Ratio	Lower	Upper
244	100		
212	6.3	5.1	7.7
122	11.6	8.6	13.0

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 05/04/2023
Supervised By :Jagrut Upadhyay 05/04/2023



#81

Benzo(a)anthracene

Concen: 57.308 ng

RT: 13.880 min Scan# 2005

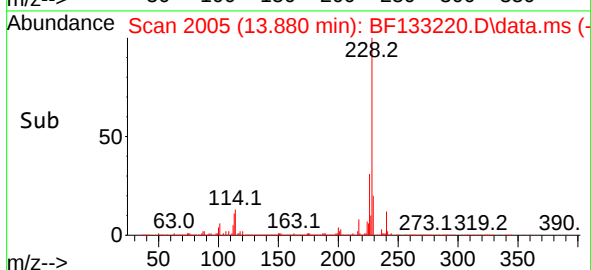
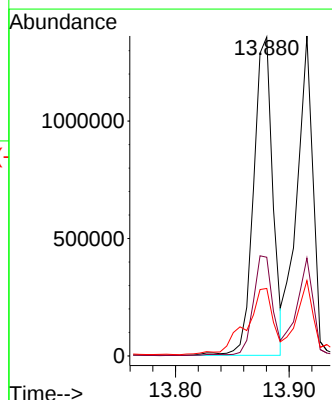
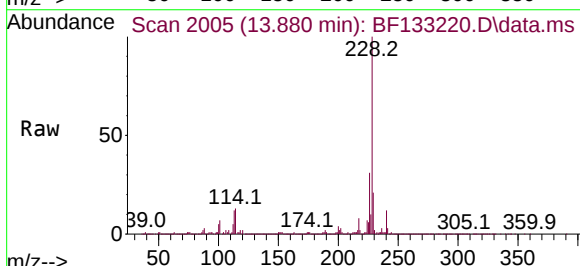
Delta R.T. -0.000 min

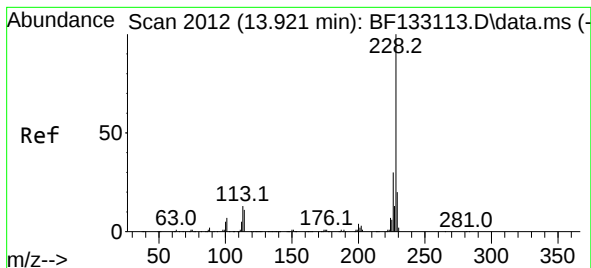
Lab File: BF133220.D

Acq: 03 May 2023 21:54

Tgt Ion:228 Resp: 1584126

Ion	Ratio	Lower	Upper
228	100		
226	31.0	22.2	33.4
229	21.2	16.0	24.0





#83

Chrysene

Concen: 48.698 ng

RT: 13.916 min Scan# 2012

Delta R.T. -0.000 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

Tgt Ion:228 Resp: 134578

Ion Ratio Lower Upper

228 100

226 30.6 24.7 37.1

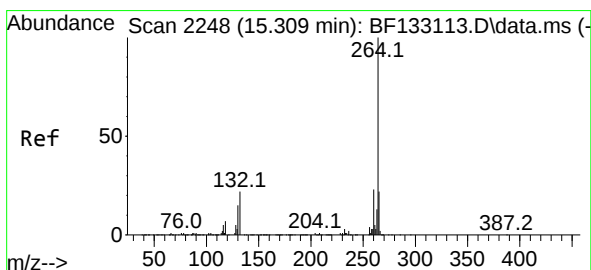
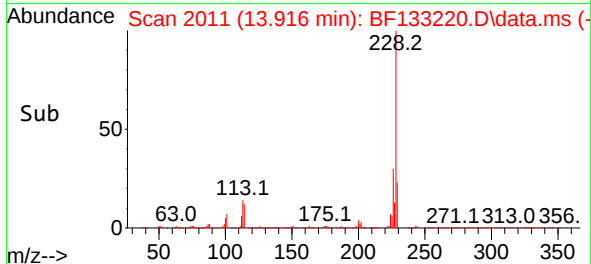
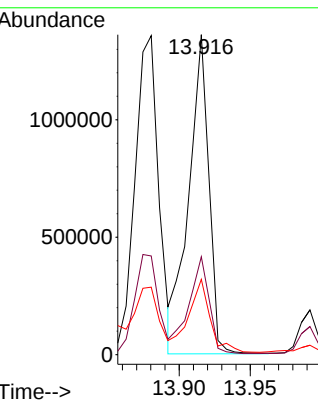
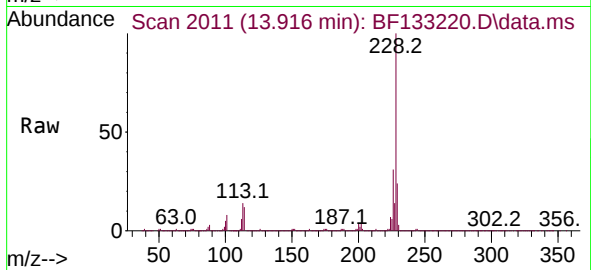
229 23.6 16.1 24.1

Manual Integrations

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Reviewed By :Christian Giraldo 05/04/2023

Supervised By :Jagrut Upadhyay 05/04/2023



#86

Perylene-d12

Concen: 20.000 ng

RT: 15.310 min Scan# 2248

Delta R.T. 0.006 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

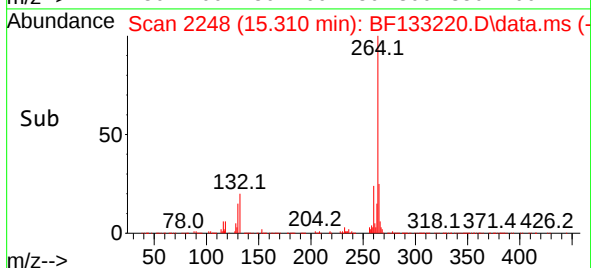
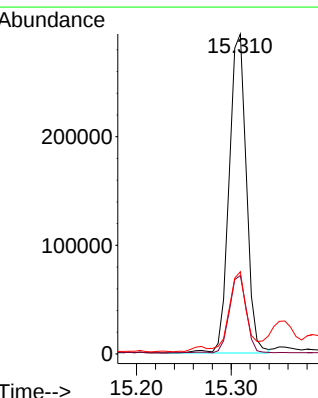
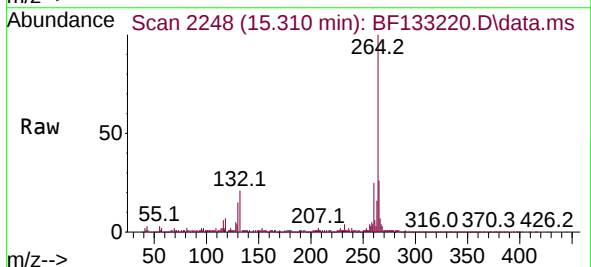
Tgt Ion:264 Resp: 370058

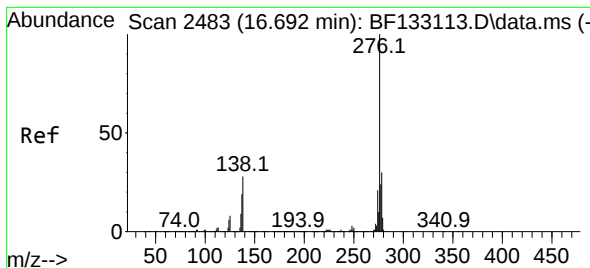
Ion Ratio Lower Upper

264 100

260 24.5 18.8 28.2

265 25.7 17.0 25.4#





#87

Indeno(1,2,3-cd)pyrene

Concen: 19.457 ng

RT: 16.686 min Scan# 2483

Delta R.T. -0.006 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

Tgt Ion:276 Resp: 40956

Ion Ratio Lower Upper

276 100

138 25.8 25.5 38.3

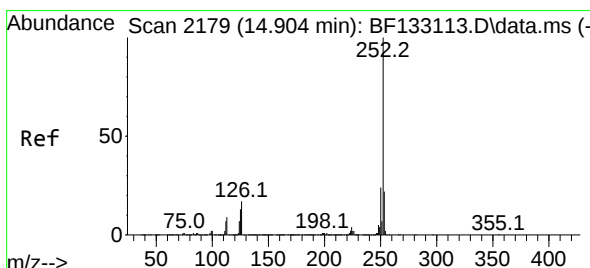
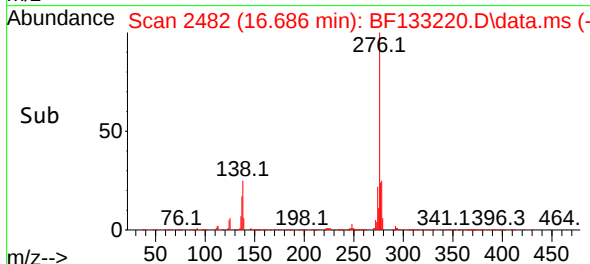
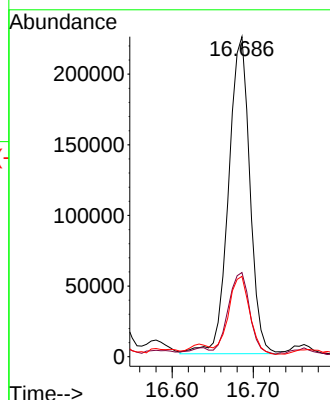
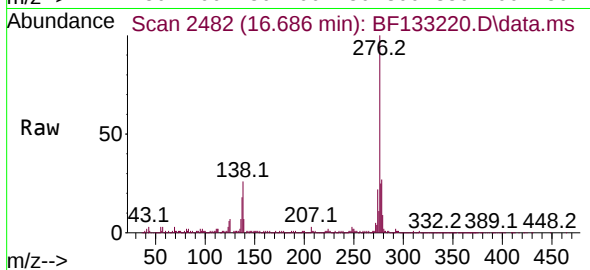
277 24.3 20.4 30.6

Manual Integrations

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Reviewed By :Christian Giraldo 05/04/2023

Supervised By :Jagrut Upadhyay 05/04/2023



#88

Benzo(b)fluoranthene

Concen: 57.355 ng m

RT: 14.910 min Scan# 2180

Delta R.T. 0.006 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

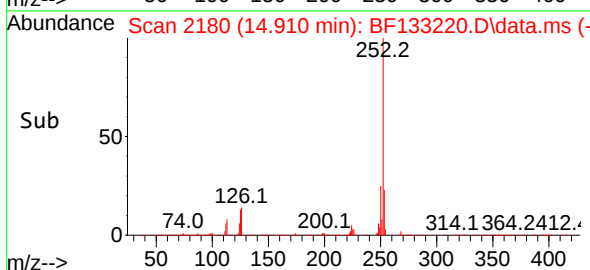
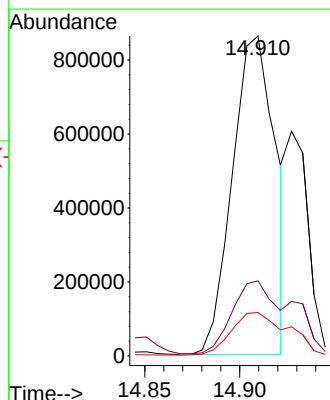
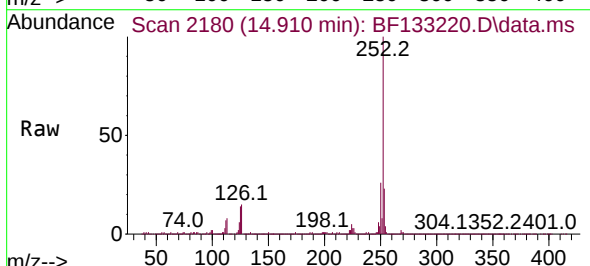
Tgt Ion:252 Resp: 1350301

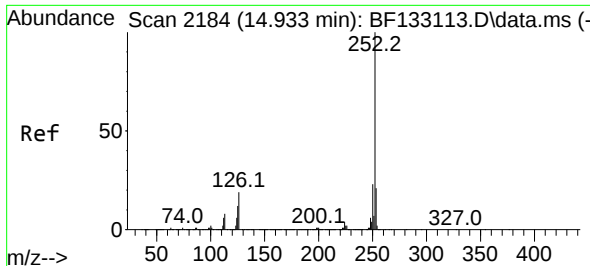
Ion Ratio Lower Upper

252 100

253 23.5 17.6 26.4

125 13.6 8.9 13.3#





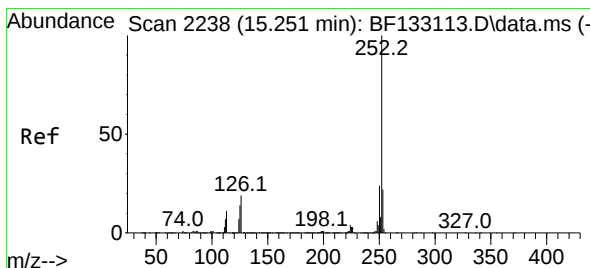
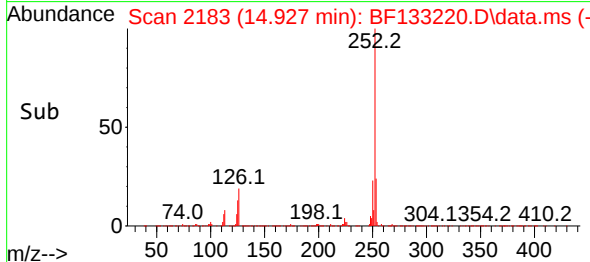
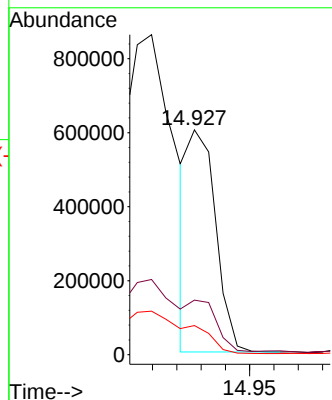
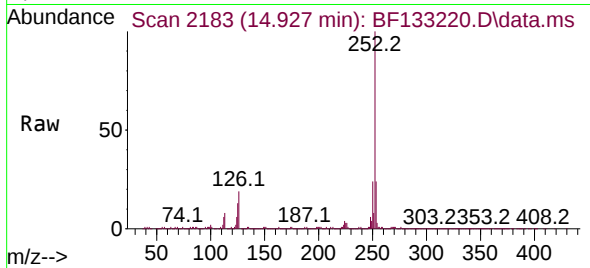
#89
Benzo(k)fluoranthene
Concen: 19.950 ng m
RT: 14.927 min Scan# 2184
Delta R.T. -0.006 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

Instrument :
BNA_F
ClientSampleId :
HD-02-050223

Tgt Ion:252 Resp: 46557
Ion Ratio Lower Upper
252 100
253 24.3 17.7 26.5
125 13.0 9.0 13.4

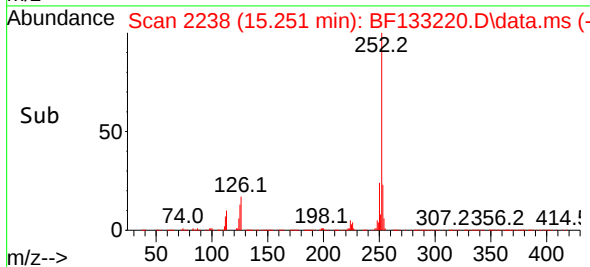
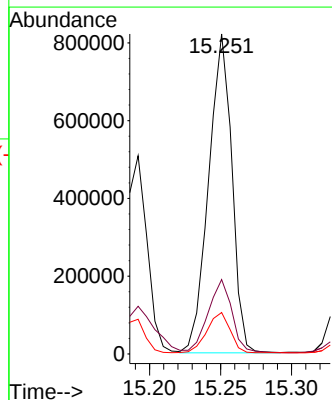
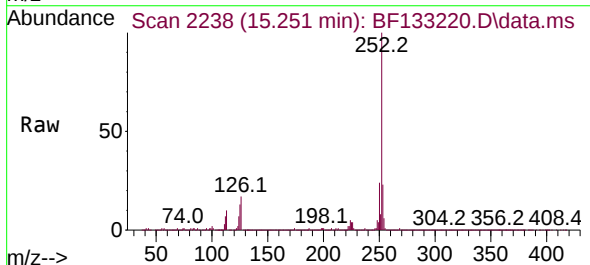
Manual Integrations
APPROVED

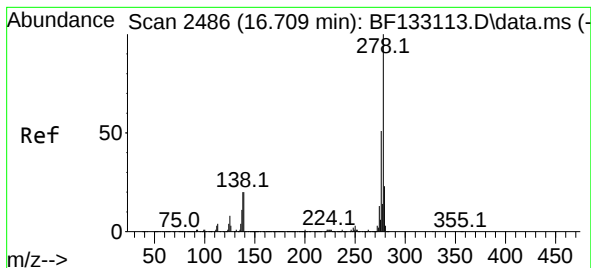
Reviewed By :Christian Giraldo 05/04/2023
Supervised By :Jagrut Upadhyay 05/04/2023



#90
Benzo(a)pyrene
Concen: 43.454 ng
RT: 15.251 min Scan# 2238
Delta R.T. -0.000 min
Lab File: BF133220.D
Acq: 03 May 2023 21:54

Tgt Ion:252 Resp: 931169
Ion Ratio Lower Upper
252 100
253 23.3 17.7 26.5
125 13.0 10.5 15.7





#91

Dibenzo(a,h)anthracene

Concen: 6.900 ng m

RT: 16.692 min Scan# 2486

Delta R.T. -0.012 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

Instrument :

BNA_F

ClientSampleId :

HD-02-050223

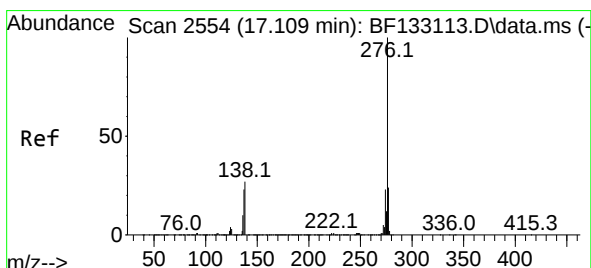
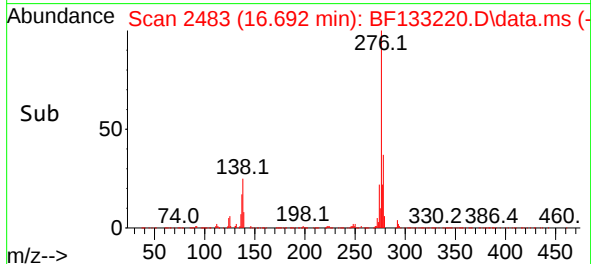
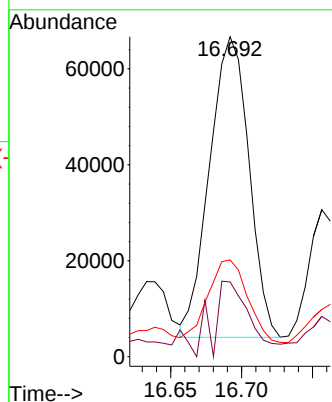
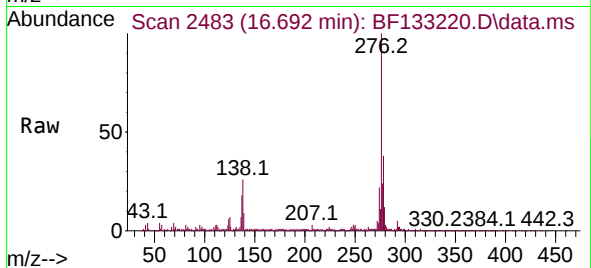
Tgt Ion:278 Resp: 121135
 Ion Ratio Lower Upper
 278 100
 139 23.3 16.6 24.8
 279 30.3 18.8 28.2

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 05/04/2023

Supervised By :Jagrut Upadhyay 05/04/2023



#92

Benzo(g,h,i)perylene

Concen: 19.263 ng

RT: 17.098 min Scan# 2552

Delta R.T. -0.006 min

Lab File: BF133220.D

Acq: 03 May 2023 21:54

Tgt Ion:276 Resp: 333873
 Ion Ratio Lower Upper
 276 100
 277 24.2 19.4 29.0
 138 25.8 22.7 34.1

