

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN082523\  
 Data File : BN027144.D  
 Acq On : 26 Aug 2023 08:02  
 Operator : MA/JU  
 Sample : 04025-08  
 Misc :  
 ALS Vial : 32 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 RE104D1-20230814

Manual Integrations  
 APPROVED

Reviewed By :Yogesh Patel 08/28/2023  
 Supervised By :mohammad ahmed 08/28/2023

Quant Time: Aug 26 22:32:27 2023  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN081123.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Sat Aug 26 02:13:59 2023  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 8.081  | 152  | 6951     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.906 | 136  | 14543    | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.705 | 164  | 10887    | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.455 | 188  | 25741    | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.632 | 240  | 21314    | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 24.165 | 264  | 20441    | 0.400 | ng    | # 0.00   |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.596  | 112  | 2343     | 0.120 | ng    | 0.00     |
| 5) Phenol-d6                  | 7.221  | 99   | 1654     | 0.068 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 9.273  | 82   | 4702     | 0.383 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.479 | 152  | 9545     | 0.413 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 16.202 | 330  | 1256     | 0.217 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 13.336 | 172  | 15001    | 0.371 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.472 | 212  | 27894    | 0.423 | ng    | 0.00     |
| 31) Terphenyl-d14             | 20.057 | 244  | 24282    | 0.545 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.466  | 88   | 26912    | 3.600 | ng    | 96       |
| 25) Phenanthrene              | 17.492 | 178  | 2683m    | 0.036 | ng    |          |
| 26) Anthracene                | 17.592 | 178  | 1801     | 0.026 | ng    | 99       |
| 28) Fluoranthene              | 19.504 | 202  | 4259     | 0.049 | ng    | 95       |
| 30) Pyrene                    | 19.867 | 202  | 4331     | 0.053 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.614 | 228  | 3507     | 0.046 | ng    | 96       |
| 33) Chrysene                  | 21.668 | 228  | 3894     | 0.050 | ng    | 97       |
| 34) Bis(2-ethylhexyl)phtha... | 21.489 | 149  | 4505     | 0.081 | ng    | 98       |
| 36) Indeno(1,2,3-cd)pyrene    | 26.852 | 276  | 3491     | 0.042 | ng    | 97       |
| 37) Benzo(b)fluoranthene      | 23.376 | 252  | 3900     | 0.057 | ng    | # 50     |
| 38) Benzo(k)fluoranthene      | 23.429 | 252  | 3591     | 0.051 | ng    | # 49     |
| 39) Benzo(a)pyrene            | 24.051 | 252  | 2991     | 0.044 | ng    | # 24     |
| 40) Dibenzo(a,h)anthracene    | 26.878 | 278  | 2601     | 0.039 | ng    | # 54     |
| 41) Benzo(g,h,i)perylene      | 27.685 | 276  | 3169     | 0.044 | ng    | # 78     |

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

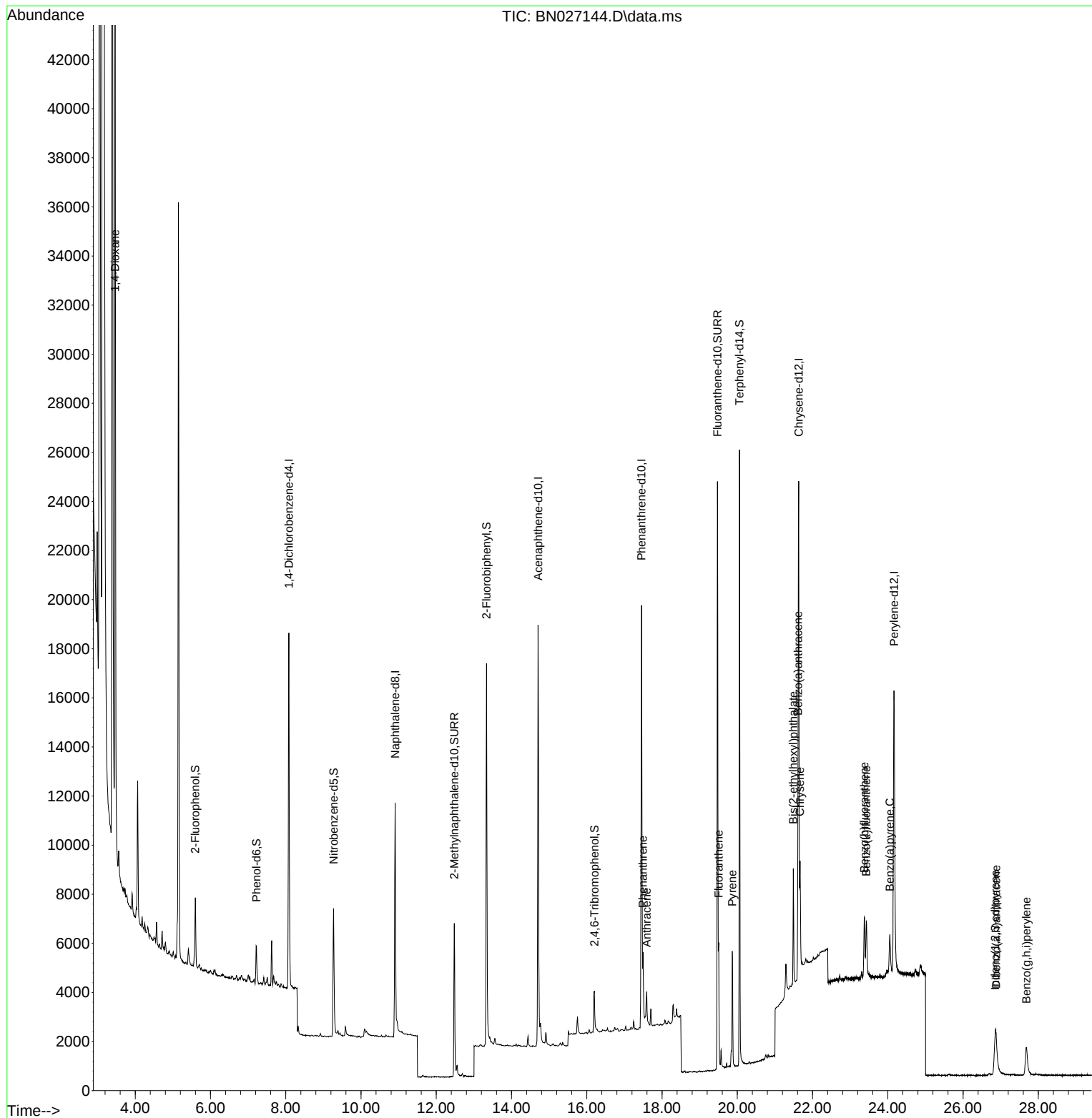
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN082523\  
Data File : BN027144.D  
Acq On : 26 Aug 2023 08:02  
Operator : MA/JU  
Sample : 04025-08  
Misc :  
ALS Vial : 32 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814

Quant Time: Aug 26 22:32:27 2023  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN081123.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Sat Aug 26 02:13:59 2023  
Response via : Initial Calibration

Manual Integrations  
APPROVED

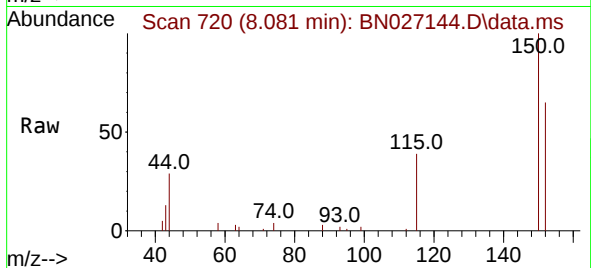
Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023





#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 8.081 min Scan# 71  
Delta R.T. -0.007 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

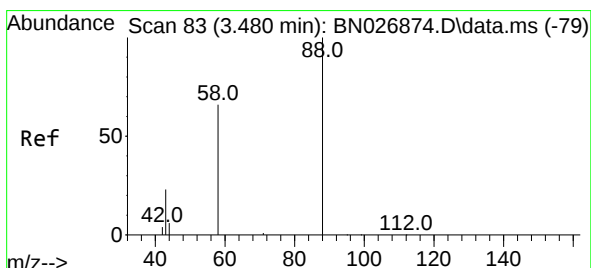
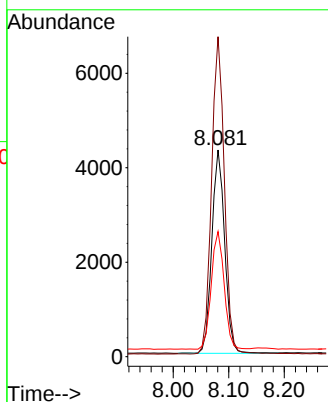
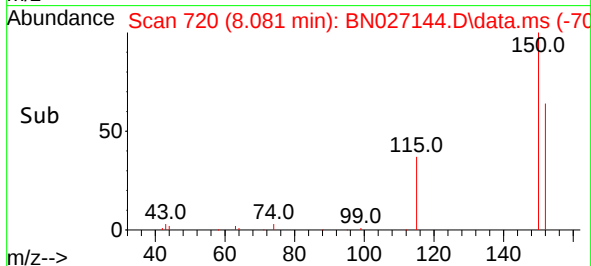
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



Tgt Ion:152 Resp: 695  
Ion Ratio Lower Upper  
152 100  
150 154.8 123.8 185.6  
115 60.6 49.7 74.5

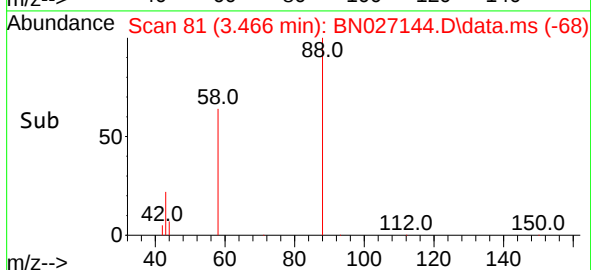
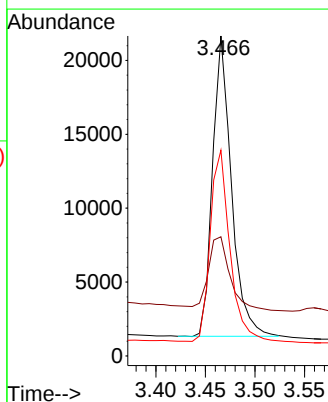
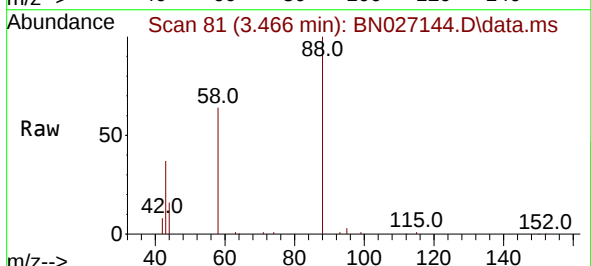
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023



#2  
1,4-Dioxane  
Concen: 3.600 ng  
RT: 3.466 min Scan# 81  
Delta R.T. -0.007 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

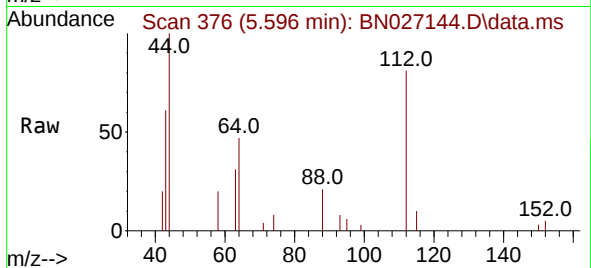
Tgt Ion: 88 Resp: 26912  
Ion Ratio Lower Upper  
88 100  
43 28.3 19.2 28.8  
58 66.2 54.5 81.7





#4  
2-Fluorophenol  
Concen: 0.120 ng  
RT: 5.596 min Scan# 31  
Delta R.T. -0.007 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

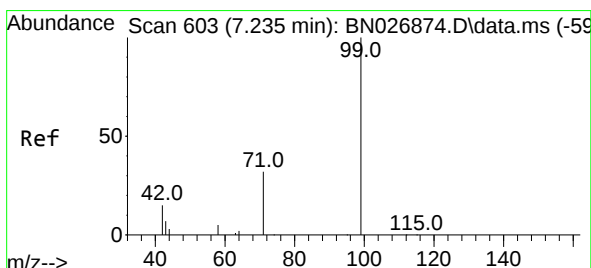
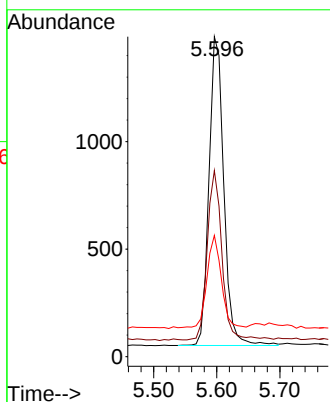
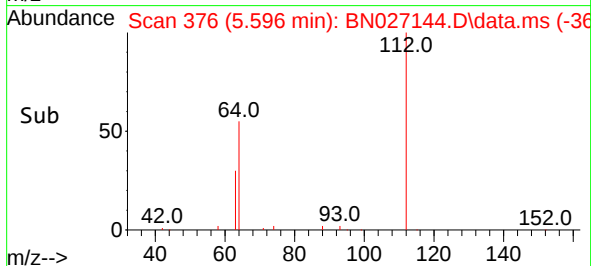
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



Tgt Ion:112 Resp: 234  
Ion Ratio Lower Upper  
112 100  
64 54.1 41.5 62.3  
63 29.7 21.7 32.5

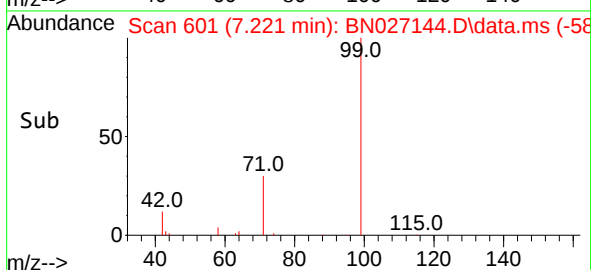
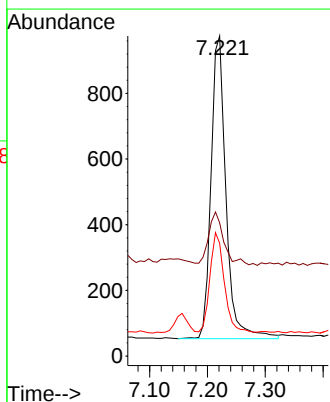
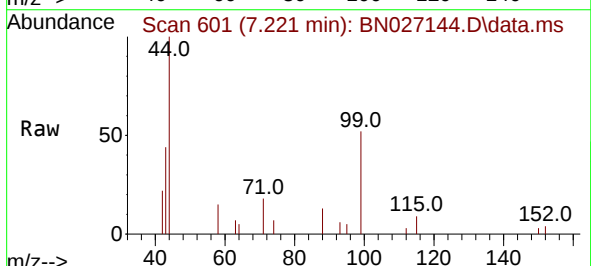
Manual Integrations  
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Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023



#5  
Phenol-d6  
Concen: 0.068 ng  
RT: 7.221 min Scan# 601  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

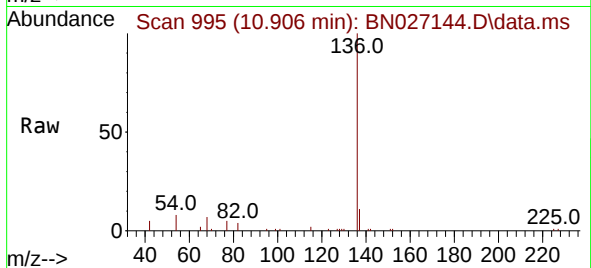
Tgt Ion: 99 Resp: 1654  
Ion Ratio Lower Upper  
99 100  
42 18.1 13.6 20.4  
71 31.1 26.0 39.0





#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.906 min Scan# 998  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

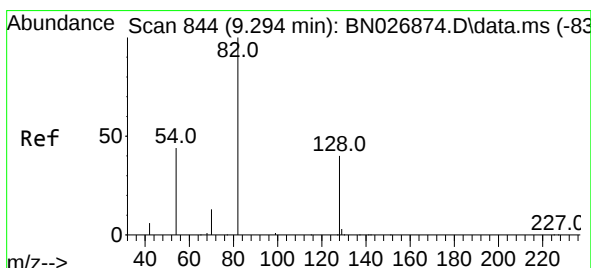
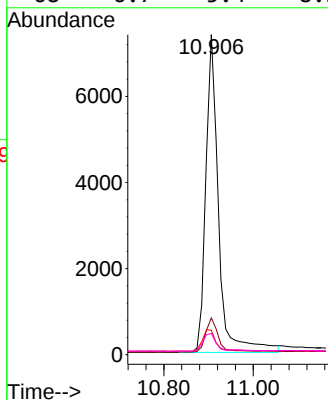
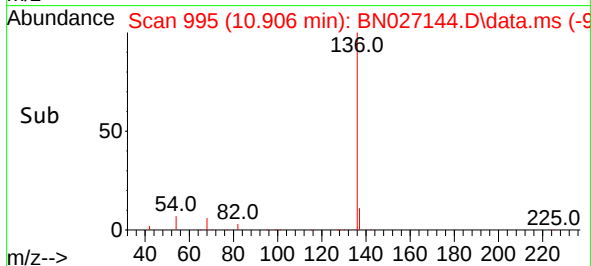
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 136   | Resp: | 1454 |
| Ion Ratio | Lower | Upper |      |
| 136       | 100   |       |      |
| 137       | 11.5  | 9.0   | 13.6 |
| 54        | 7.7   | 5.5   | 8.3  |
| 68        | 6.7   | 5.4   | 8.2  |

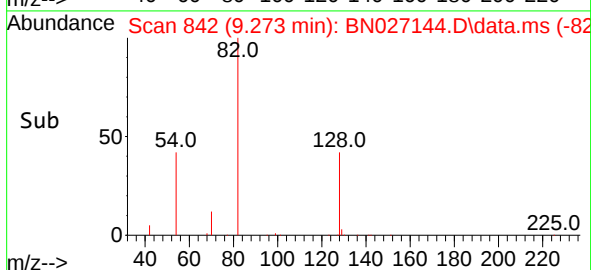
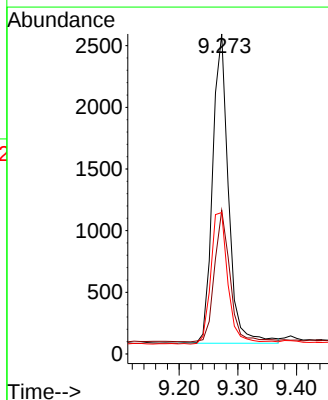
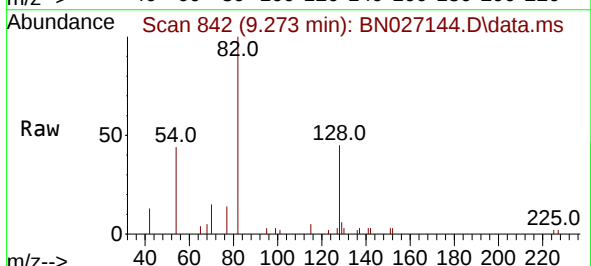
Manual Integrations  
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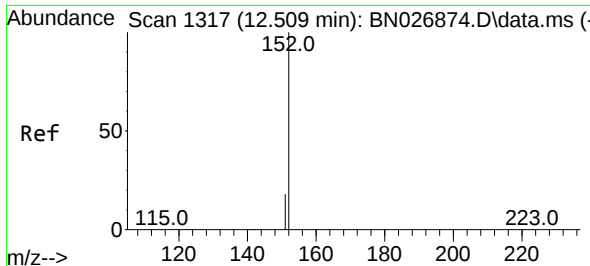
Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023



#8  
Nitrobenzene-d5  
Concen: 0.383 ng  
RT: 9.273 min Scan# 842  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

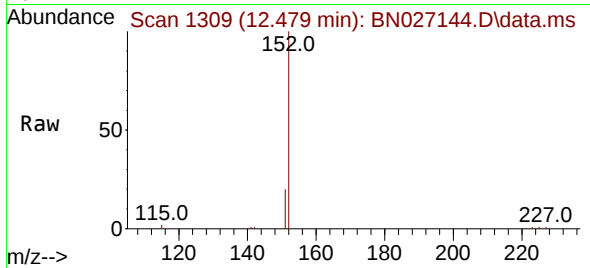
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 82    | Resp: | 4702 |
| Ion Ratio | Lower | Upper |      |
| 82        | 100   |       |      |
| 128       | 44.9  | 34.1  | 51.1 |
| 54        | 44.2  | 37.0  | 55.4 |





#11  
2-Methylnaphthalene-d10  
Concen: 0.413 ng  
RT: 12.479 min Scan# 11  
Delta R.T. -0.004 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

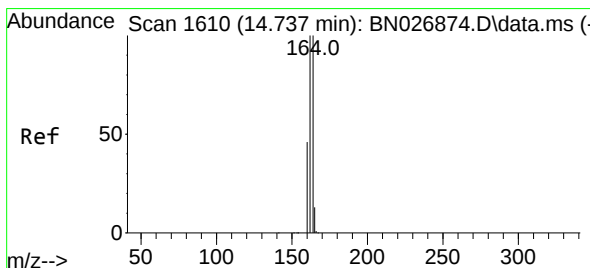
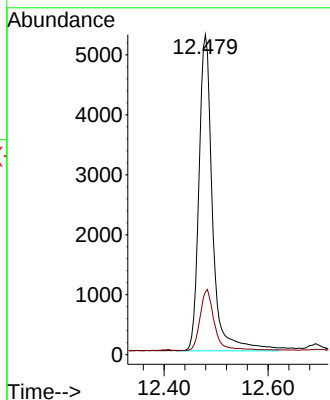
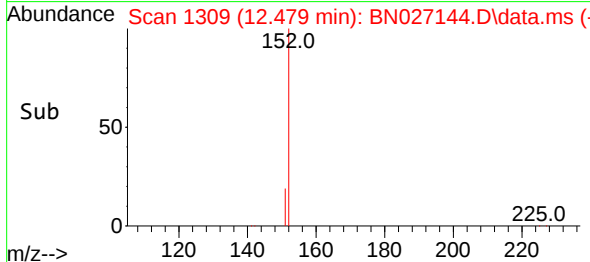
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



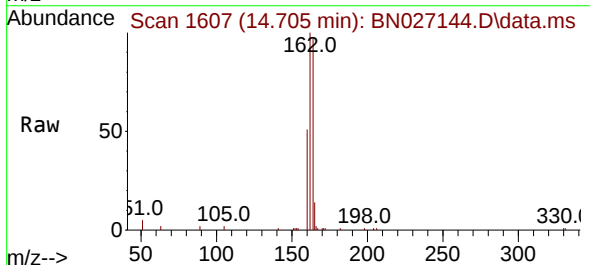
Tgt Ion:152 Resp: 954  
Ion Ratio Lower Upper  
152 100  
151 20.5 16.3 24.5

Manual Integrations  
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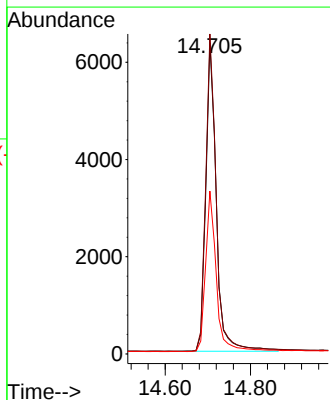
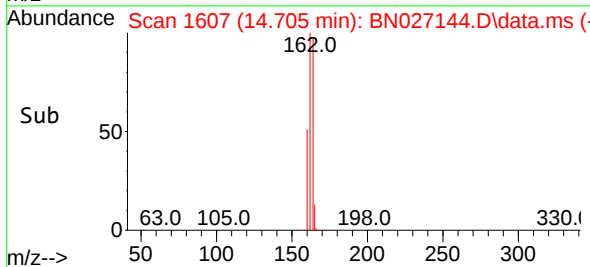
Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023

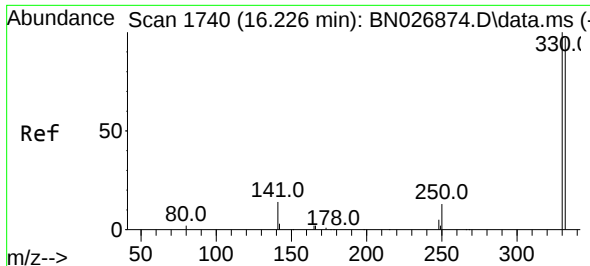


#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.705 min Scan# 1607  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02



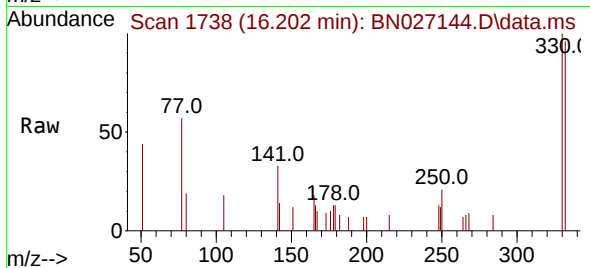
Tgt Ion:164 Resp: 10887  
Ion Ratio Lower Upper  
164 100  
162 102.8 79.7 119.5  
160 52.3 37.4 56.0





#14  
2,4,6-Tribromophenol  
Concen: 0.217 ng  
RT: 16.202 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

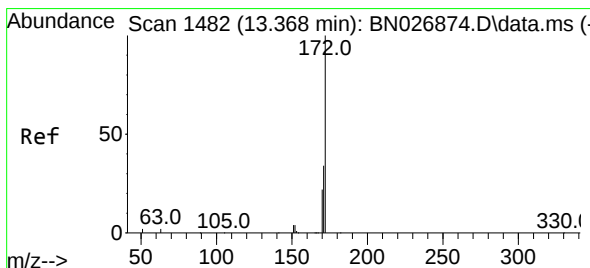
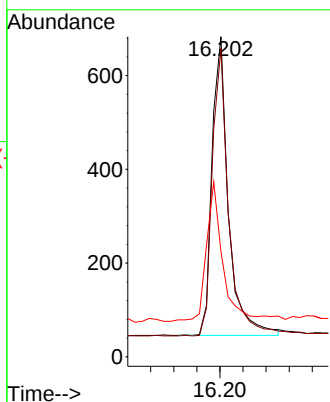
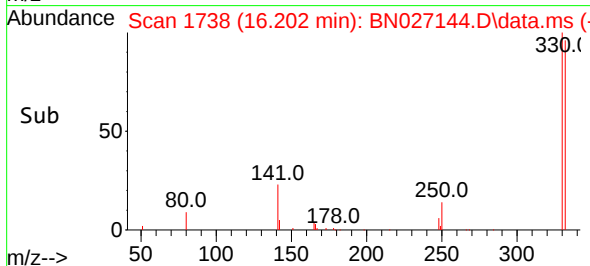
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



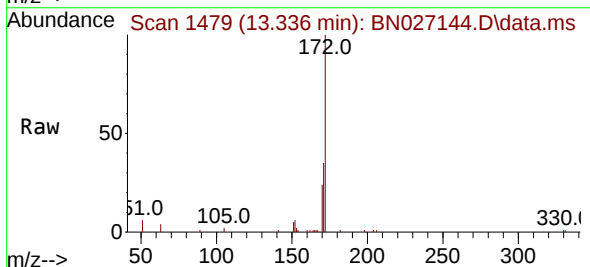
Tgt Ion:330 Resp: 1250  
Ion Ratio Lower Upper  
330 100  
332 96.3 76.6 114.8  
141 43.1 32.3 48.5

Manual Integrations  
APPROVED

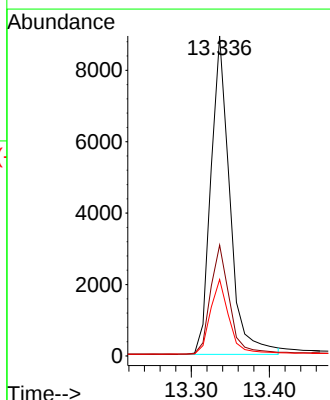
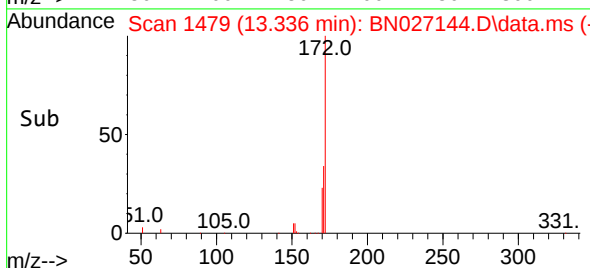
Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023

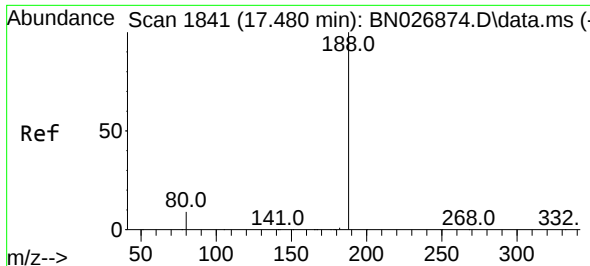


#15  
2-Fluorobiphenyl  
Concen: 0.371 ng  
RT: 13.336 min Scan# 1479  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02



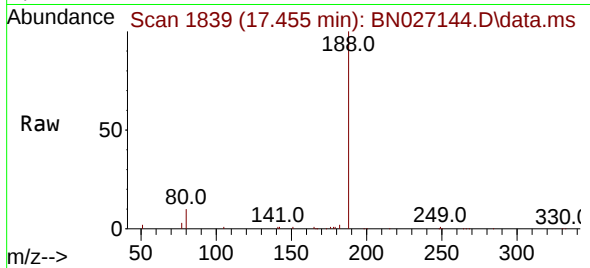
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Ion Ratio Lower Upper  
172 100  
171 34.6 27.4 41.0  
170 23.9 18.0 27.0





#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 17.455 min Scan# 1839  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

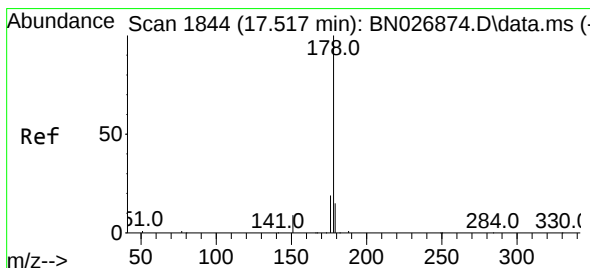
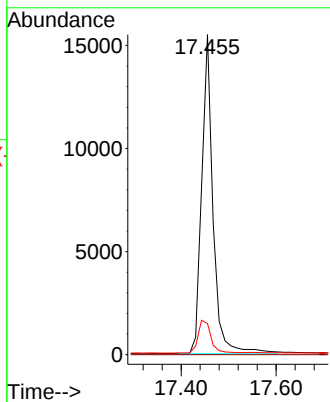
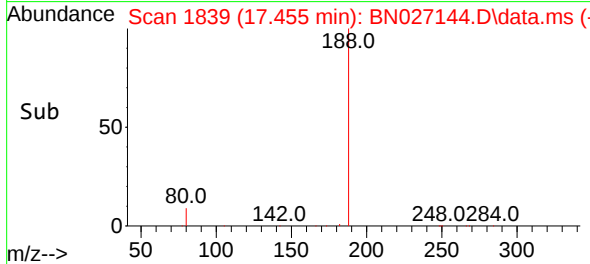
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



Tgt Ion:188 Resp: 2574  
Ion Ratio Lower Upper  
188 100  
94 0.0 0.0 0.0  
80 9.7 7.4 11.2

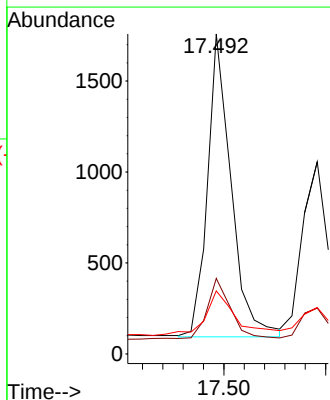
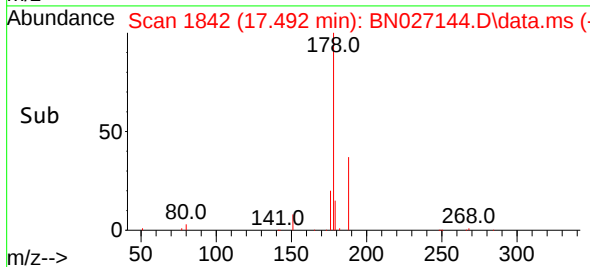
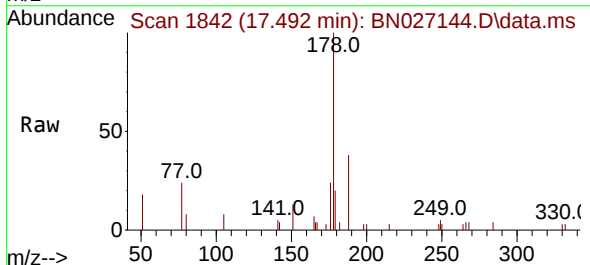
Manual Integrations  
APPROVED

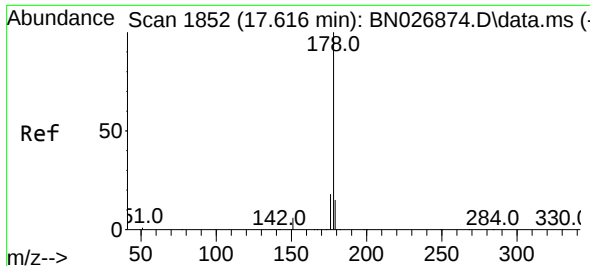
Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023



#25  
Phenanthrene  
Concen: 0.036 ng m  
RT: 17.492 min Scan# 1842  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

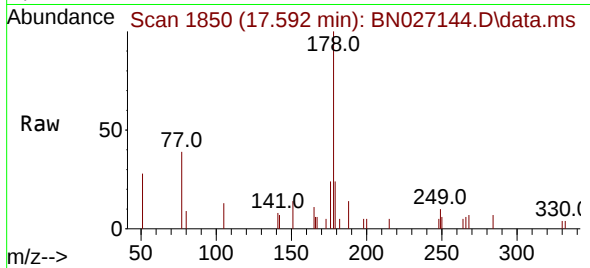
Tgt Ion:178 Resp: 2683  
Ion Ratio Lower Upper  
178 100  
176 12.6 15.3 22.9#  
179 12.8 12.2 18.4





#26  
 Anthracene  
 Concen: 0.026 ng  
 RT: 17.592 min Scan# 1850  
 Delta R.T. 0.000 min  
 Lab File: BN027144.D  
 Acq: 26 Aug 2023 08:02

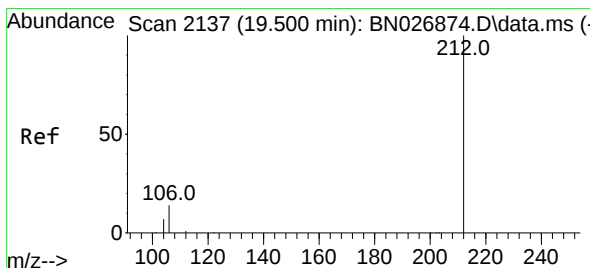
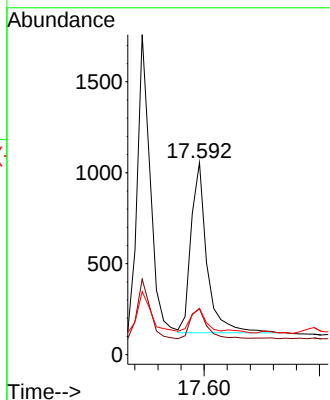
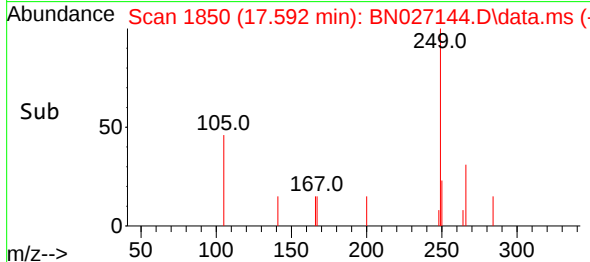
Instrument :  
 BNA\_N  
 ClientSampleId :  
 RE104D1-20230814



Tgt Ion:178 Resp: 180  
 Ion Ratio Lower Upper  
 178 100  
 176 18.3 14.8 22.2  
 179 16.1 12.1 18.1

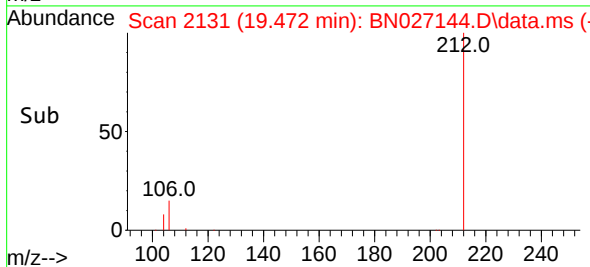
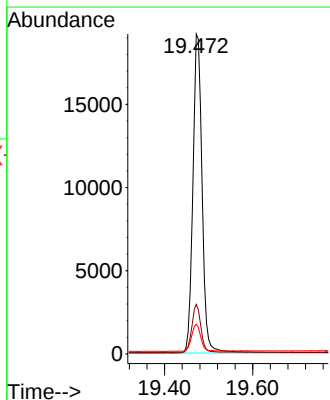
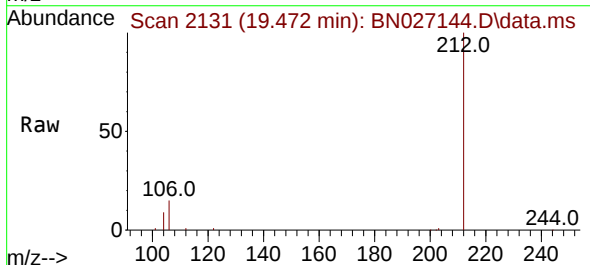
Manual Integrations  
 APPROVED

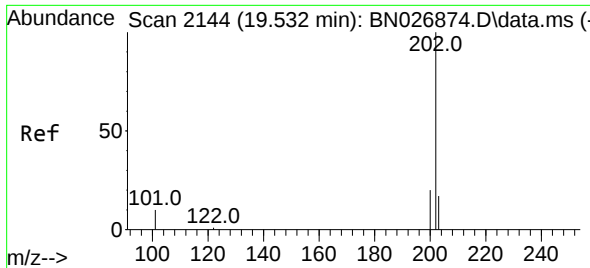
Reviewed By :Yogesh Patel 08/28/2023  
 Supervised By :mohammad ahmed 08/28/2023



#27  
 Fluoranthene-d10  
 Concen: 0.423 ng  
 RT: 19.472 min Scan# 2131  
 Delta R.T. -0.005 min  
 Lab File: BN027144.D  
 Acq: 26 Aug 2023 08:02

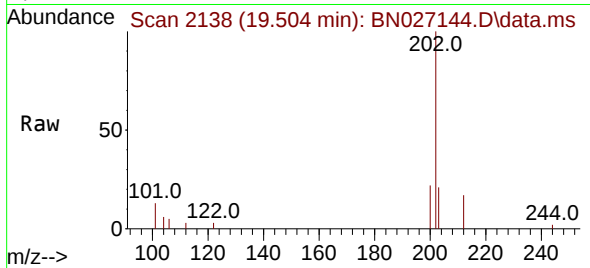
Tgt Ion:212 Resp: 27894  
 Ion Ratio Lower Upper  
 212 100  
 106 14.8 10.9 16.3  
 104 8.4 5.9 8.9





#28  
Fluoranthene  
Concen: 0.049 ng  
RT: 19.504 min Scan# 2144  
Delta R.T. -0.005 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

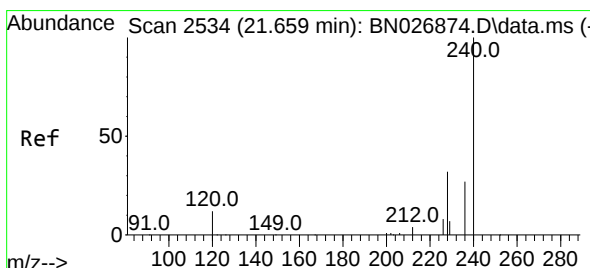
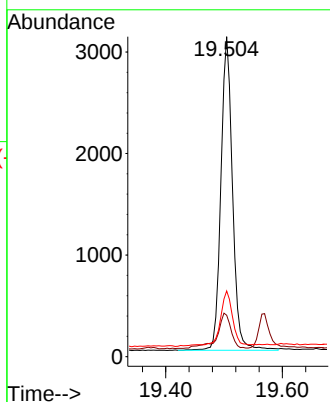
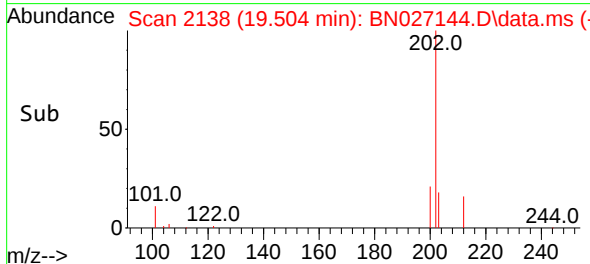
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



Tgt Ion:202 Resp: 4259  
Ion Ratio Lower Upper  
202 100  
101 13.0 8.9 13.3  
203 19.4 13.7 20.5

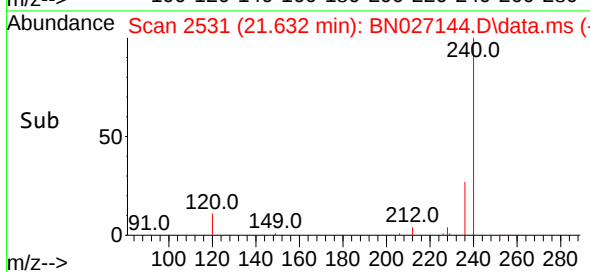
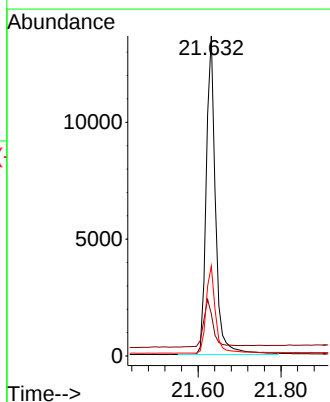
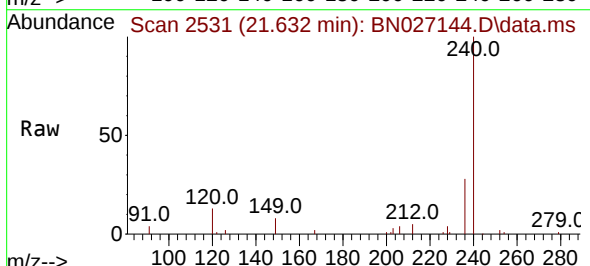
Manual Integrations  
APPROVED

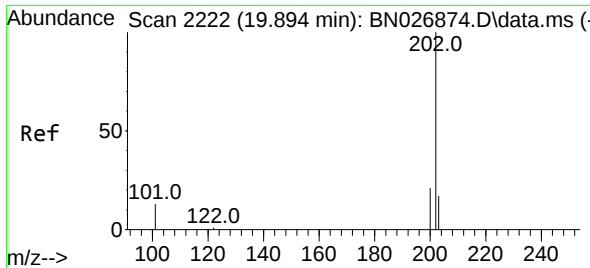
Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023



#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.632 min Scan# 2531  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

Tgt Ion:240 Resp: 21314  
Ion Ratio Lower Upper  
240 100  
120 13.2 11.1 16.7  
236 28.1 22.2 33.2





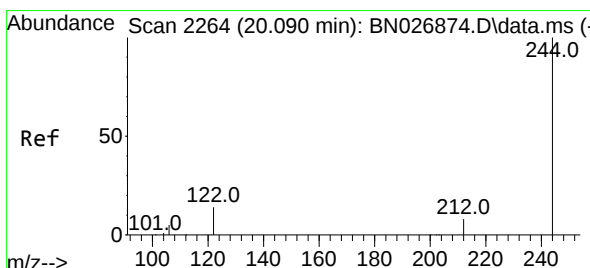
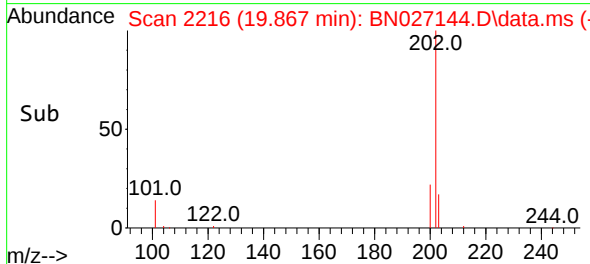
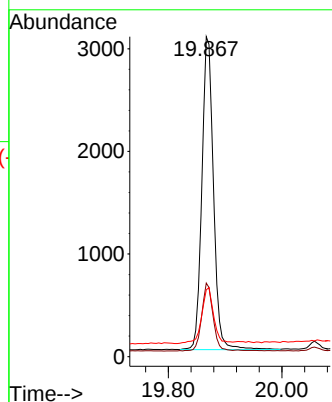
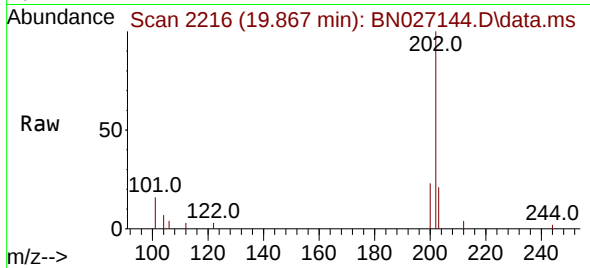
#30  
Pyrene  
Concen: 0.053 ng  
RT: 19.867 min Scan# 21  
Delta R.T. -0.005 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814

Tgt Ion:202 Resp: 433  
Ion Ratio Lower Upper  
202 100  
200 21.0 16.6 25.0  
203 18.3 14.4 21.6

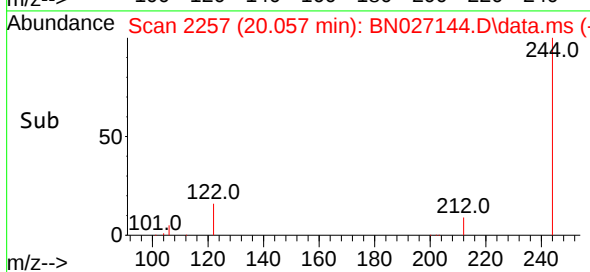
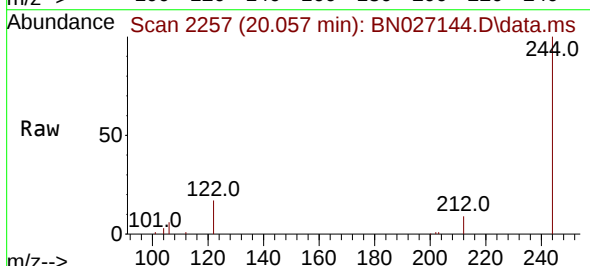
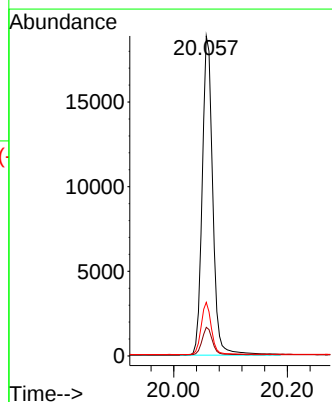
Manual Integrations  
APPROVED

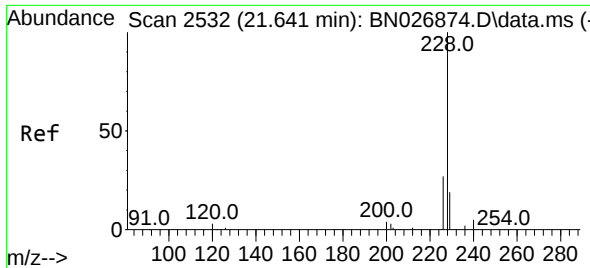
Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023



#31  
Terphenyl-d14  
Concen: 0.545 ng  
RT: 20.057 min Scan# 2257  
Delta R.T. -0.005 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

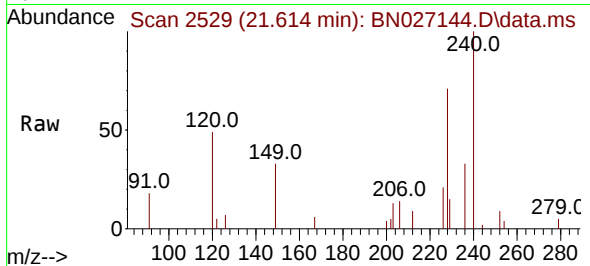
Tgt Ion:244 Resp: 24282  
Ion Ratio Lower Upper  
244 100  
212 9.0 6.9 10.3  
122 16.8 11.9 17.9





#32  
Benzo(a)anthracene  
Concen: 0.046 ng  
RT: 21.614 min Scan# 21  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

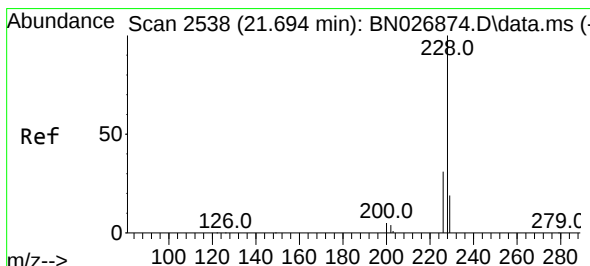
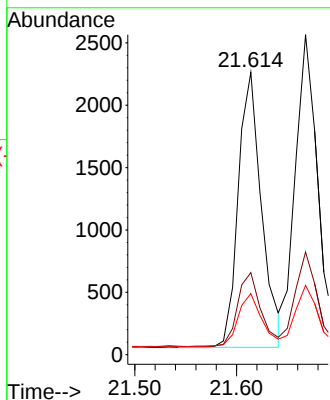
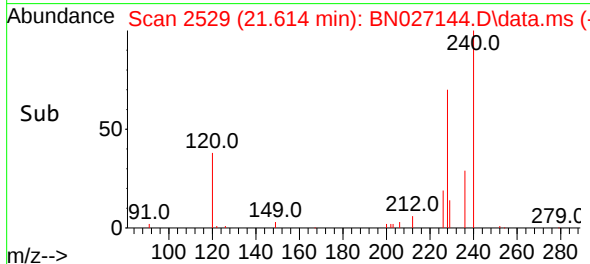
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



Tgt Ion:228 Resp: 350  
Ion Ratio Lower Upper  
228 100  
226 29.1 22.1 33.1  
229 21.6 15.5 23.3

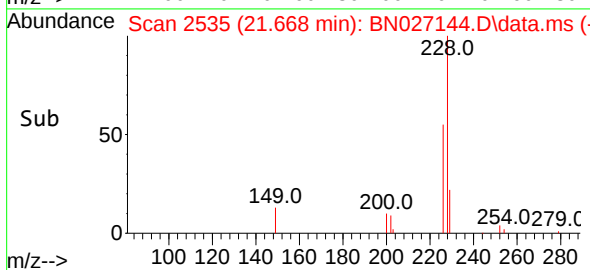
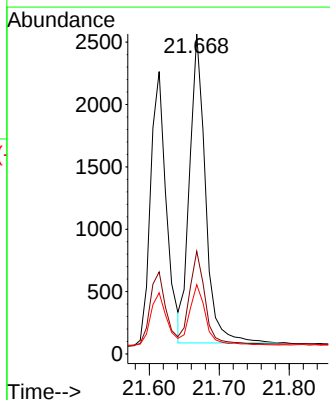
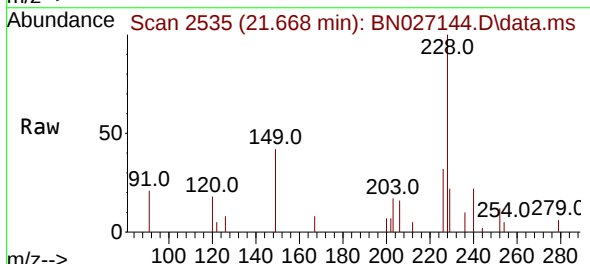
Manual Integrations  
APPROVED

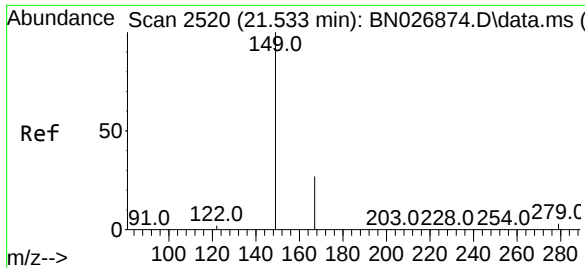
Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023



#33  
Chrysene  
Concen: 0.050 ng  
RT: 21.668 min Scan# 2535  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

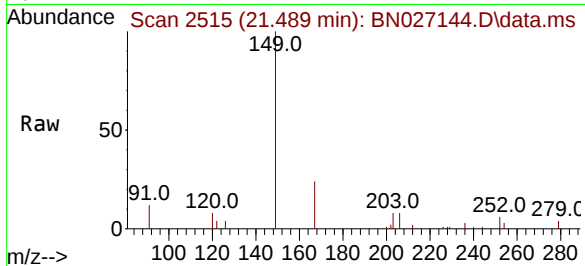
Tgt Ion:228 Resp: 3894  
Ion Ratio Lower Upper  
228 100  
226 32.1 24.6 37.0  
229 21.7 15.5 23.3





#34  
Bis(2-ethylhexyl)phthalate  
Concen: 0.081 ng  
RT: 21.489 min Scan# 2149  
Delta R.T. -0.009 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

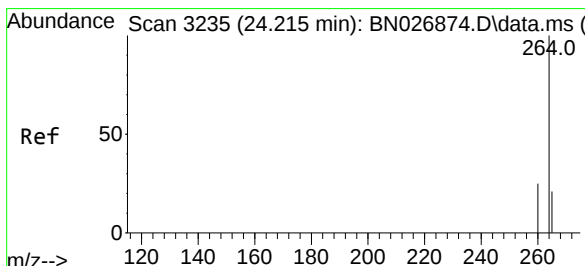
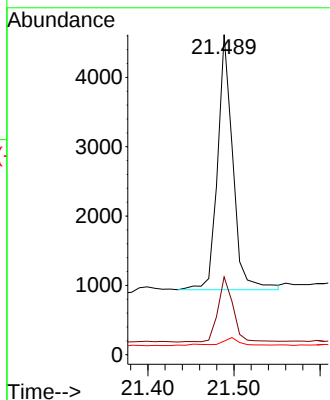
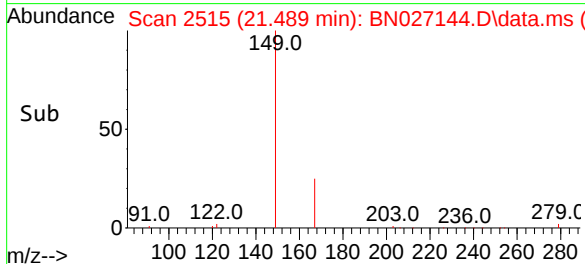
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



Tgt Ion:149 Resp: 4509  
Ion Ratio Lower Upper  
149 100  
167 25.5 21.4 32.0  
279 4.2 3.6 5.4

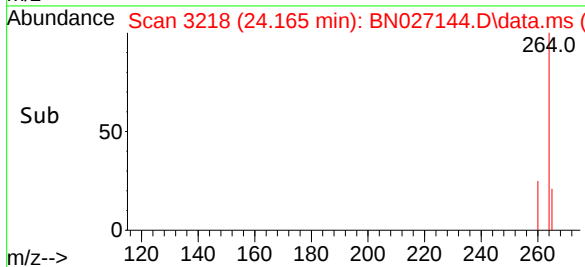
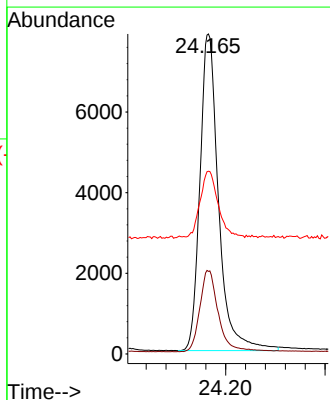
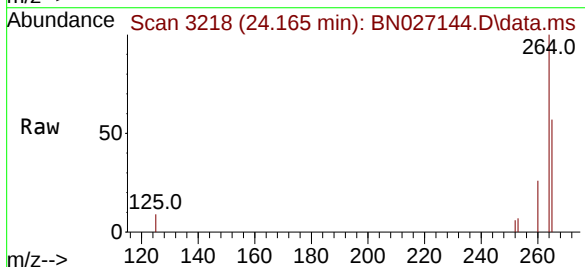
Manual Integrations  
APPROVED

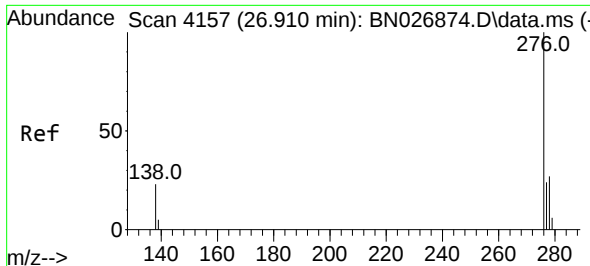
Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023



#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 24.165 min Scan# 3218  
Delta R.T. -0.006 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

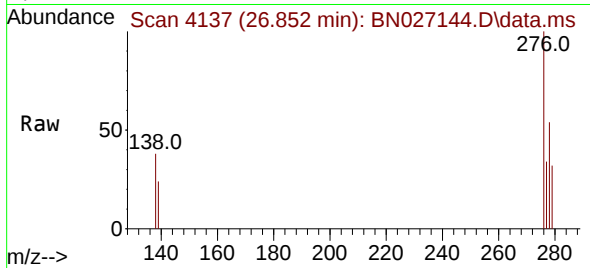
Tgt Ion:264 Resp: 20441  
Ion Ratio Lower Upper  
264 100  
260 25.8 20.4 30.6  
265 57.1 27.0 40.6#





#36  
Indeno(1,2,3-cd)pyrene  
Concen: 0.042 ng  
RT: 26.852 min Scan# 4157  
Delta R.T. 0.000 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

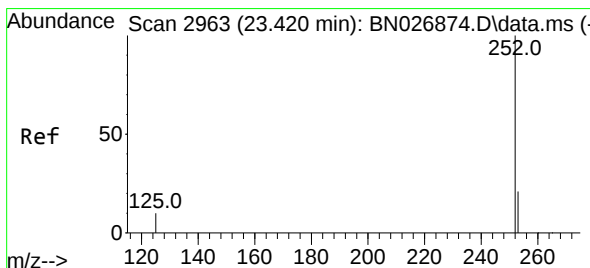
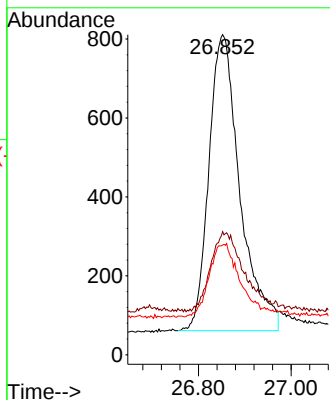
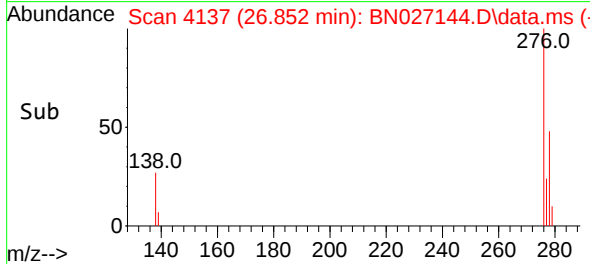
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



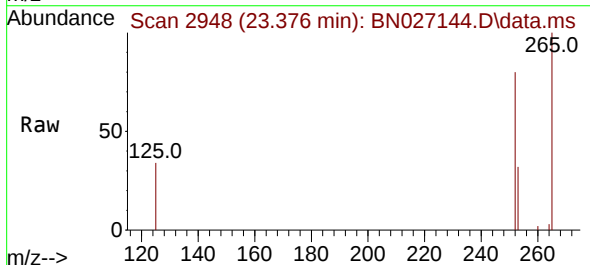
Tgt Ion: 276 Resp: 349  
Ion Ratio Lower Upper  
276 100  
138 29.0 21.1 31.7  
277 24.1 19.9 29.9

Manual Integrations  
APPROVED

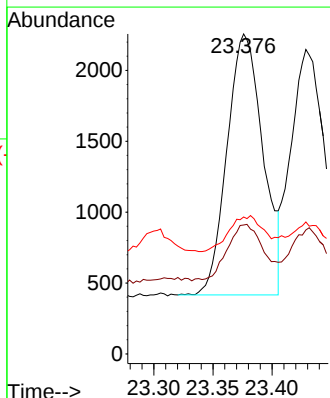
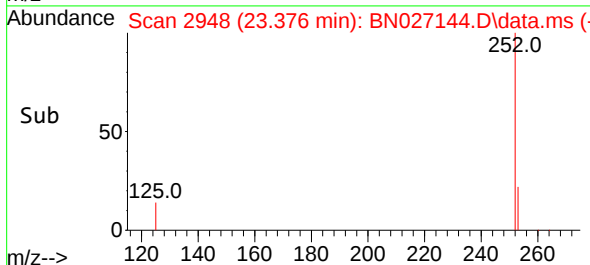
Reviewed By : Yogesh Patel 08/28/2023  
Supervised By : mohammad ahmed 08/28/2023

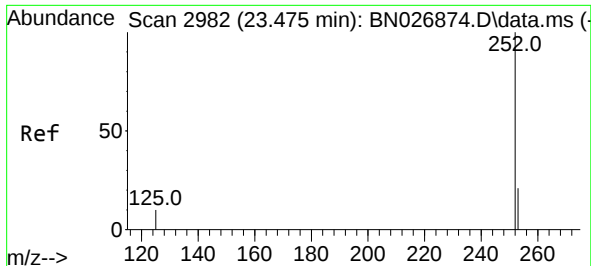


#37  
Benzo(b)fluoranthene  
Concen: 0.057 ng  
RT: 23.376 min Scan# 2948  
Delta R.T. -0.003 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02



Tgt Ion: 252 Resp: 3900  
Ion Ratio Lower Upper  
252 100  
253 40.3 18.4 27.6#  
125 42.8 10.2 15.2#





#38

Benzo(k)fluoranthene

Concen: 0.051 ng

RT: 23.429 min Scan# 2966

Delta R.T. -0.003 min

Lab File: BN027144.D

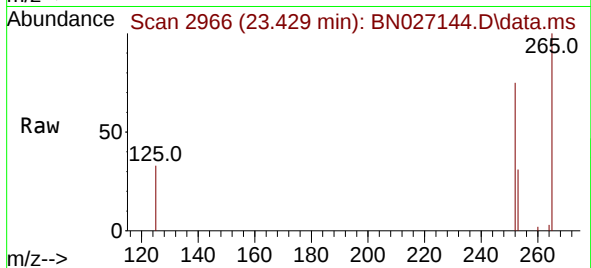
Acq: 26 Aug 2023 08:02

Instrument :

BN027144.D

ClientSampleId :

RE104D1-20230814



Tgt Ion:252 Resp: 3591

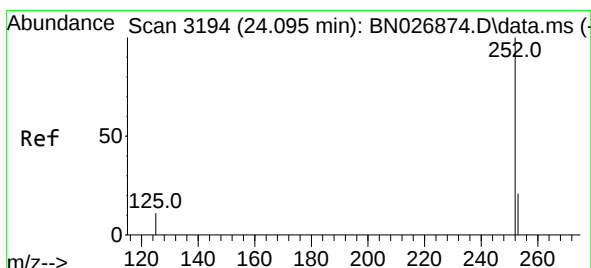
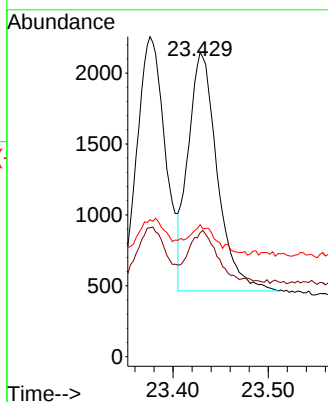
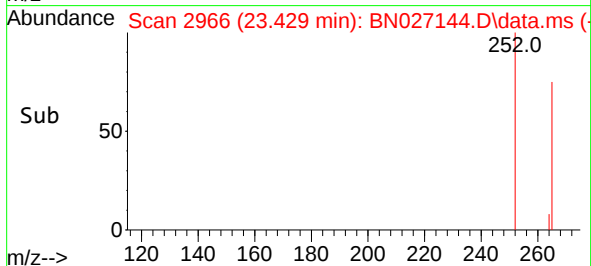
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 40.7  | 18.4  | 27.6  |
| 125 | 43.4  | 10.2  | 15.2  |

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 08/28/2023

Supervised By :mohammad ahmed 08/28/2023



#39

Benzo(a)pyrene

Concen: 0.044 ng

RT: 24.051 min Scan# 3179

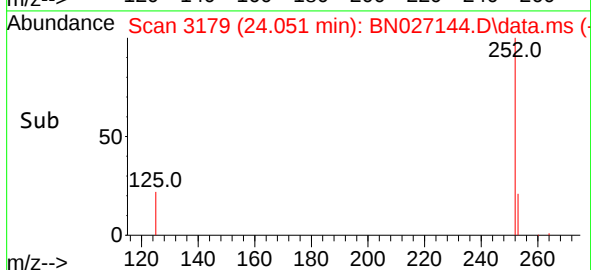
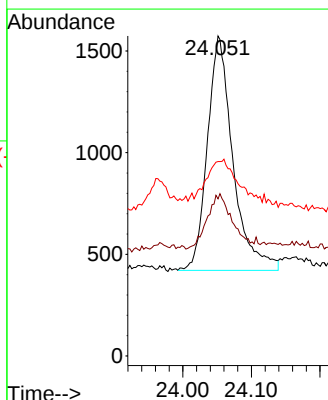
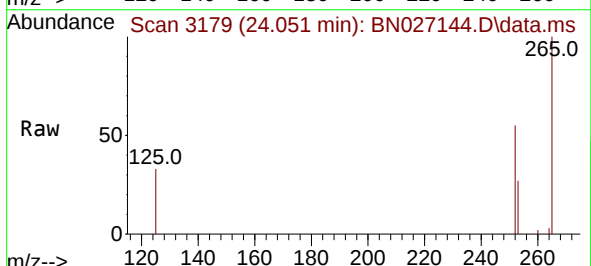
Delta R.T. -0.006 min

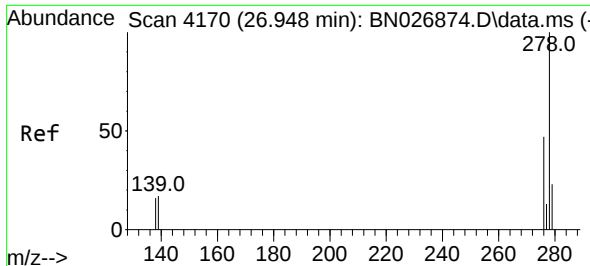
Lab File: BN027144.D

Acq: 26 Aug 2023 08:02

Tgt Ion:252 Resp: 2991

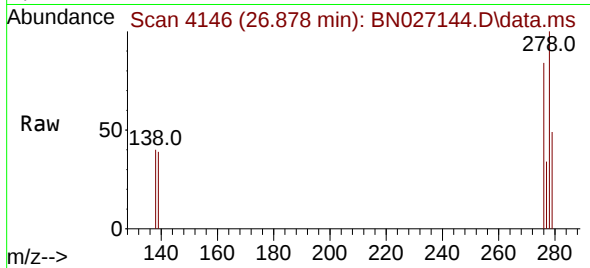
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 49.1  | 18.6  | 28.0  |
| 125 | 60.7  | 11.7  | 17.5  |





#40  
Dibenzo(a,h)anthracene  
Concen: 0.039 ng  
RT: 26.878 min Scan# 4170  
Delta R.T. -0.003 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

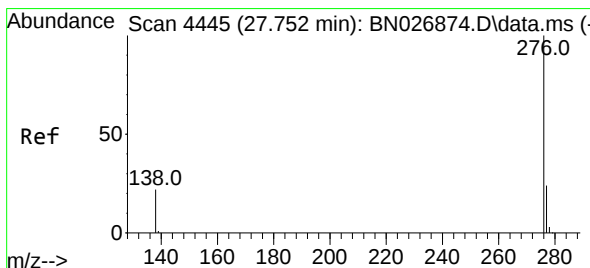
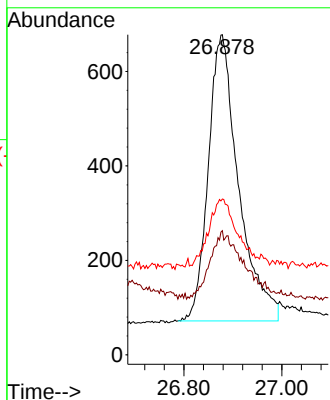
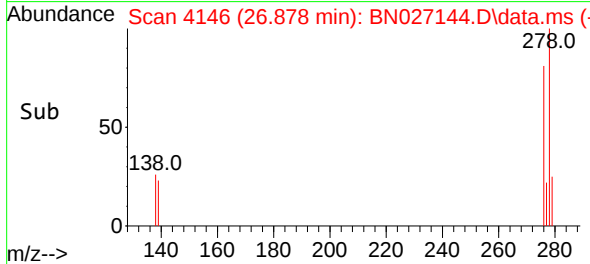
Instrument :  
BNA\_N  
ClientSampleId :  
RE104D1-20230814



Tgt Ion:278 Resp: 260  
Ion Ratio Lower Upper  
278 100  
139 38.8 15.3 22.9#  
279 48.7 19.9 29.9#

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 08/28/2023  
Supervised By :mohammad ahmed 08/28/2023



#41  
Benzo(g,h,i)perylene  
Concen: 0.044 ng  
RT: 27.685 min Scan# 4422  
Delta R.T. -0.003 min  
Lab File: BN027144.D  
Acq: 26 Aug 2023 08:02

Tgt Ion:276 Resp: 3169  
Ion Ratio Lower Upper  
276 100  
277 34.1 19.8 29.8#  
138 35.9 19.0 28.4#

