

Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF051521\  
 Data File : BF123954.D  
 Acq On : 15 May 2021 19:58  
 Operator : JU/CG  
 Sample : M2383-06 5X  
 Misc :  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DUP-01-05112021

Manual Integrations  
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Quant Time: May 16 05:21:18 2021  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF051421.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri May 14 19:05:57 2021  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|--------|------|----------|-------|-------|----------|
| -----                       |        |      |          |       |       |          |
| Internal Standards          |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4   | 6.904  | 152  | 35355    | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8          | 8.186  | 136  | 131626   | 20.00 | ng    | 0.00     |
| 39) Acenaphthene-d10        | 9.939  | 164  | 65198    | 20.00 | ng    | 0.00     |
| 64) Phenanthrene-d10        | 11.427 | 188  | 103823   | 20.00 | ng    | # 0.00   |
| 76) Chrysene-d12            | 14.068 | 240  | 90702    | 20.00 | ng    | # 0.00   |
| 86) Perylene-d12            | 15.562 | 264  | 57845    | 20.00 | ng    | 0.01     |
|                             |        |      |          |       |       |          |
| System Monitoring Compounds |        |      |          |       |       |          |
| 5) 2-Fluorophenol           | 5.516  | 112  | 41908    | 16.64 | ng    | 0.00     |
| 7) Phenol-d6                | 6.516  | 99   | 52065    | 15.94 | ng    | 0.00     |
| 23) Nitrobenzene-d5         | 7.457  | 82   | 36896    | 12.08 | ng    | 0.00     |
| 42) 2,4,6-Tribromophenol    | 10.727 | 330  | 11836    | 15.11 | ng    | 0.00     |
| 45) 2-Fluorobiphenyl        | 9.263  | 172  | 59882    | 11.30 | ng    | 0.00     |
| 79) Terphenyl-d14           | 13.016 | 244  | 57168    | 9.55  | ng    | 0.00     |
|                             |        |      |          |       |       |          |
| Target Compounds            |        |      |          |       |       | Qvalue   |
| 3) Pyridine                 | 3.440  | 79   | 7283m    | 2.55  | ng    |          |
| 31) Naphthalene             | 8.210  | 128  | 513552   | 65.93 | ng    | 99       |
| 37) 2-Methylnaphthalene     | 8.898  | 142  | 52462    | 9.94  | ng    | 91       |
| 38) 1-Methylnaphthalene     | 8.998  | 142  | 21989    | 4.46  | ng    | 96       |
| 46) 1,1'-Biphenyl           | 9.363  | 154  | 14793    | 2.58  | ng    | 95       |
| 49) Acenaphthylene          | 9.804  | 152  | 15473    | 2.30  | ng    | # 90     |
| 55) Dibenzofuran            | 10.145 | 168  | 37152    | 5.61  | ng    | 98       |
| 58) Fluorene                | 10.492 | 166  | 57307    | 11.48 | ng    | 95       |
| 71) Phenanthrene            | 11.451 | 178  | 127631   | 19.40 | ng    | 97       |
| 72) Anthracene              | 11.504 | 178  | 34544    | 5.18  | ng    | 96       |
| 75) Fluoranthene            | 12.657 | 202  | 66312    | 9.73  | ng    | 98       |
| 78) Pyrene                  | 12.874 | 202  | 58660    | 7.28  | ng    | 98       |
| 81) Benzo(a)anthracene      | 14.063 | 228  | 26362m   | 4.02  | ng    |          |
| 83) Chrysene                | 14.092 | 228  | 23097    | 3.66  | ng    | 94       |
| 88) Benzo(b)fluoranthene    | 15.127 | 252  | 24413m   | 5.46  | ng    |          |
| 90) Benzo(a)pyrene          | 15.492 | 252  | 15053    | 3.89  | ng    | # 77     |
| 92) Benzo(g,h,i)perylene    | 17.509 | 276  | 13592    | 3.60  | ng    | # 93     |
| -----                       |        |      |          |       |       |          |

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

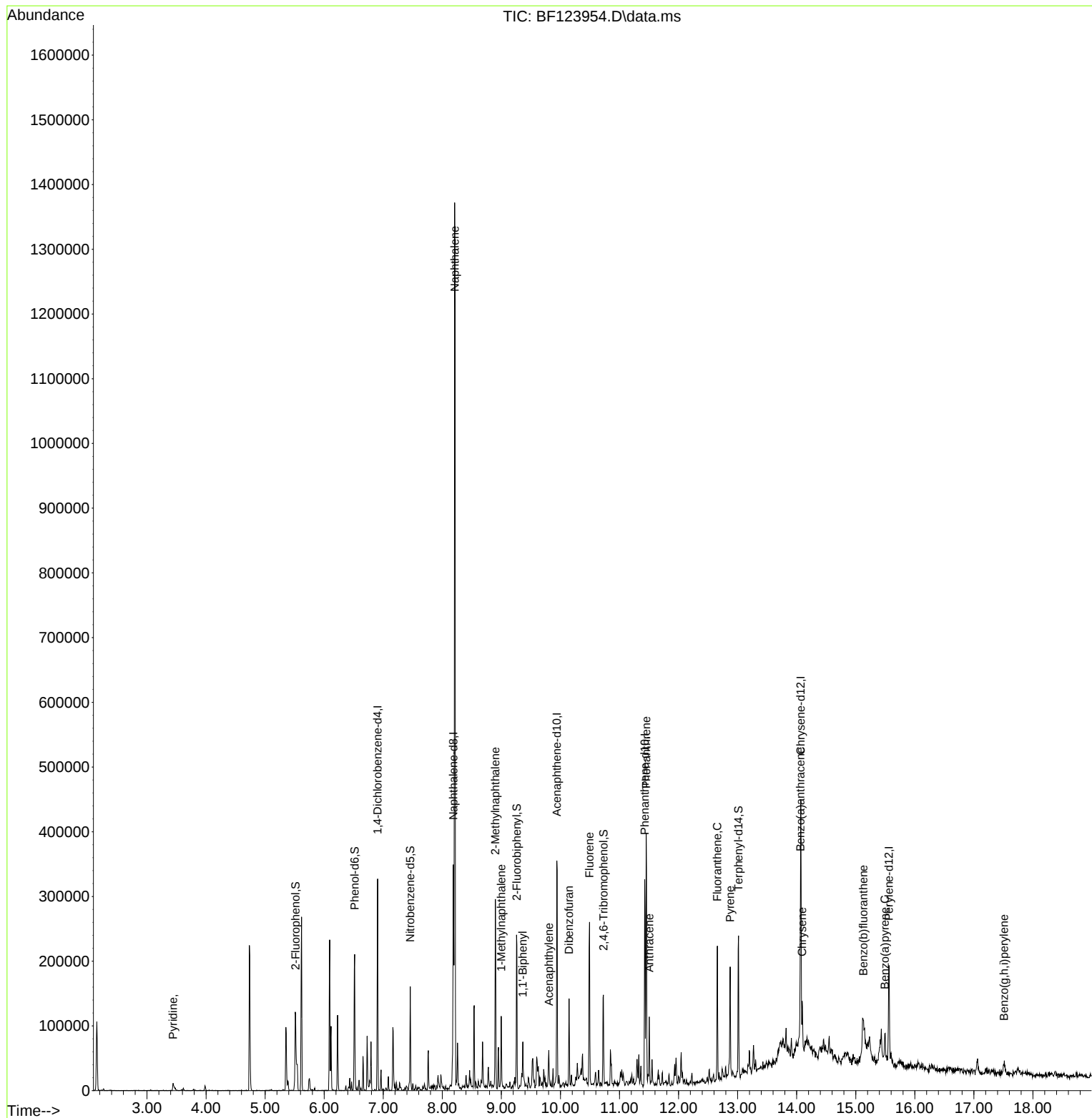
Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF051521\  
Data File : BF123954.D  
Acq On : 15 May 2021 19:58  
Operator : JU/CG  
Sample : M2383-06 5X  
Misc :  
ALS Vial : 21 Sample Multiplier: 1

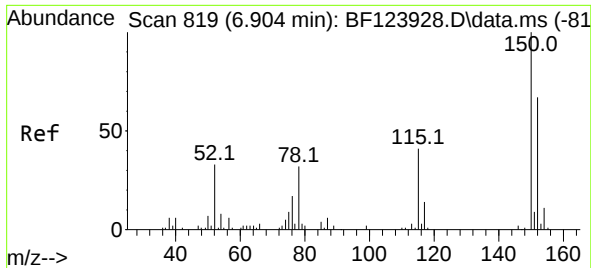
Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021

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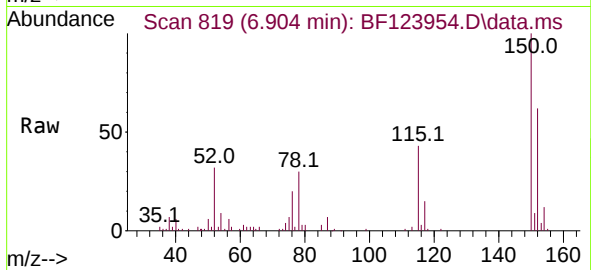
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Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF051421.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Fri May 14 19:05:57 2021  
Response via : Initial Calibration





#1  
1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 6.904 min Scan# 819  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

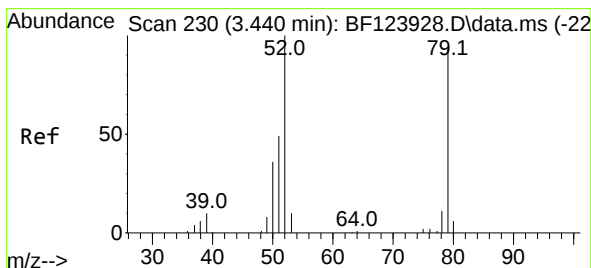
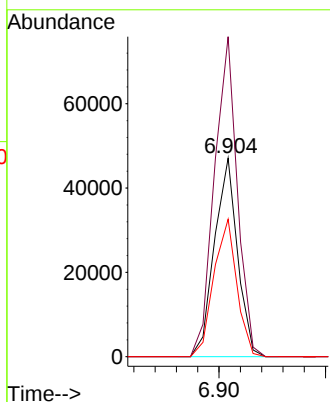
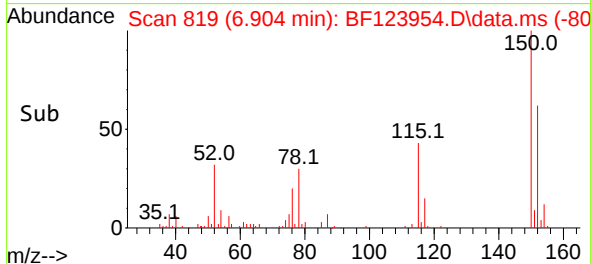
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BNA\_F  
ClientSampleId :  
DUP-01-05112021



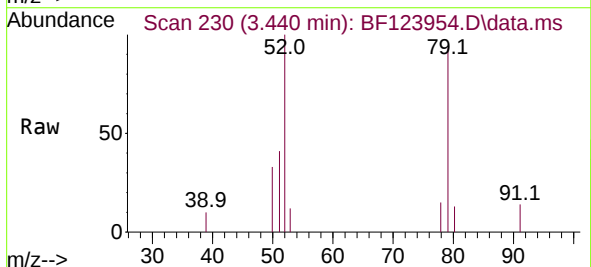
Tgt Ion:152 Resp: 35355  
Ion Ratio Lower Upper  
152 100  
150 161.2 127.0 190.6  
115 69.2 54.3 81.5

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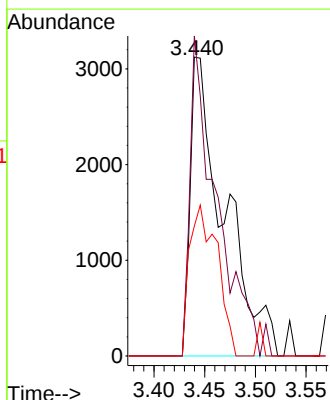
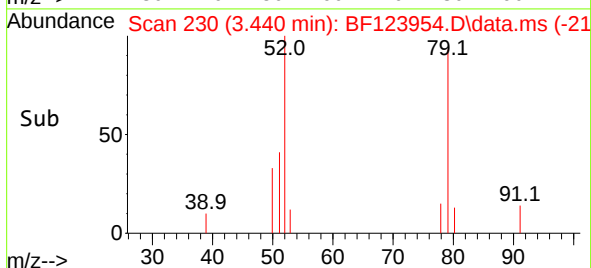
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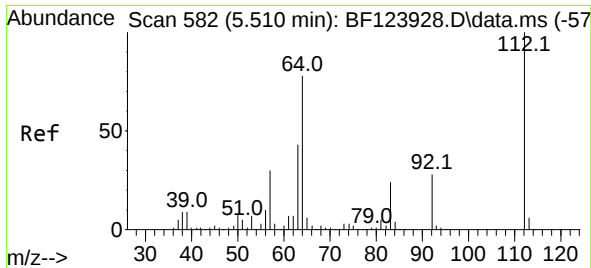


#3  
Pyridine  
Concen: 2.55 ng m  
RT: 3.440 min Scan# 230  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58



Tgt Ion: 79 Resp: 7283  
Ion Ratio Lower Upper  
79 100  
52 107.0 87.4 131.0  
51 43.5 41.4 62.0





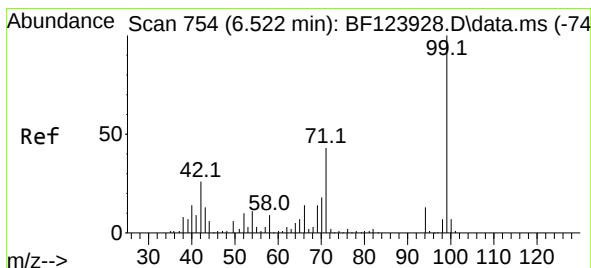
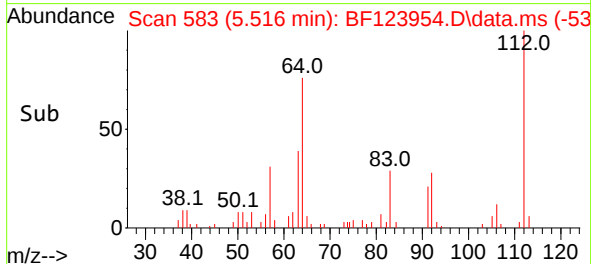
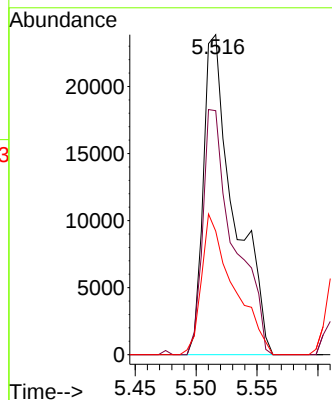
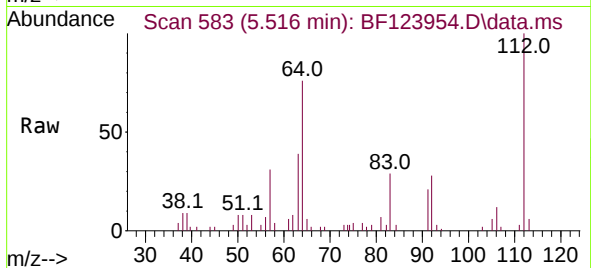
#5  
2-Fluorophenol  
Concen: 16.64 ng  
RT: 5.516 min Scan# 583  
Delta R.T. 0.006 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

Tgt Ion: 112 Resp: 41908  
Ion Ratio Lower Upper  
112 100  
64 76.2 61.4 92.0  
63 38.6 33.0 49.4

Instrument :  
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ClientSampleId :  
DUP-01-05112021

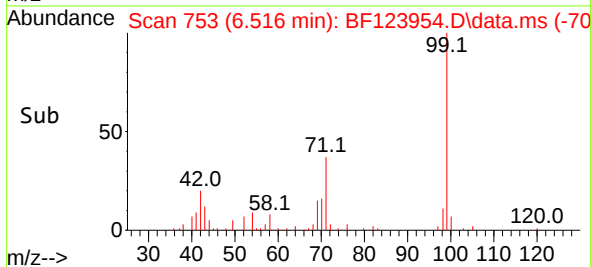
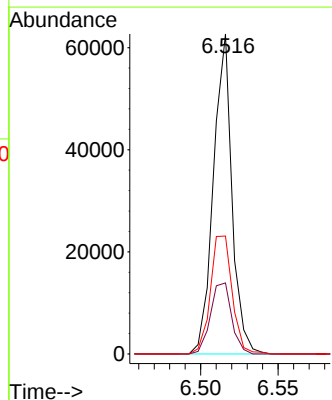
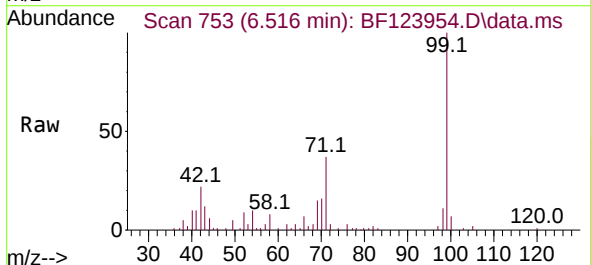
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#7  
Phenol-d6  
Concen: 15.94 ng  
RT: 6.516 min Scan# 753  
Delta R.T. -0.006 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

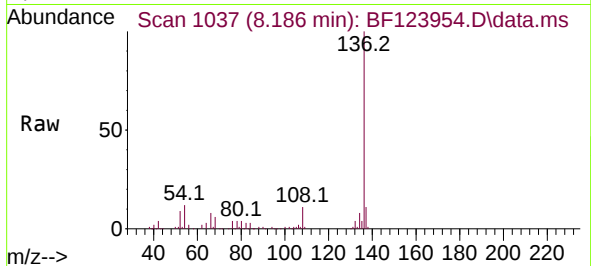
Tgt Ion: 99 Resp: 52065  
Ion Ratio Lower Upper  
99 100  
42 22.2 19.8 29.8  
71 36.8 31.1 46.7





#21  
Naphthalene-d8  
Concen: 20.00 ng  
RT: 8.186 min Scan# 1037  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

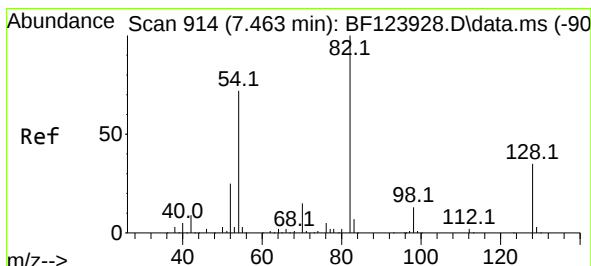
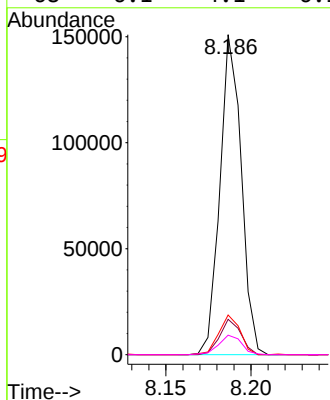
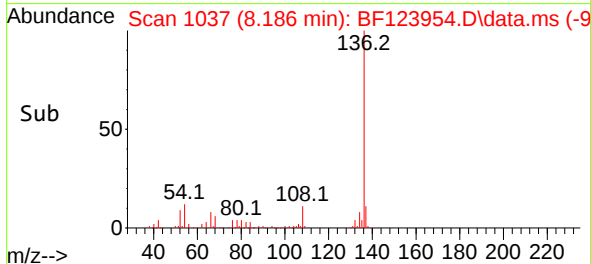
Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021



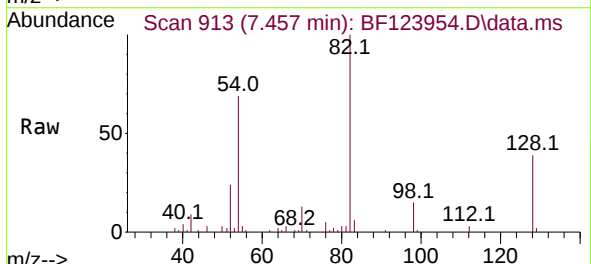
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 136   | Resp: | 131626 |
| Ion Ratio | Lower | Upper |        |
| 136       | 100   |       |        |
| 137       | 11.0  | 8.7   | 13.1   |
| 54        | 12.4  | 9.8   | 14.6   |
| 68        | 6.1   | 4.1   | 6.1    |

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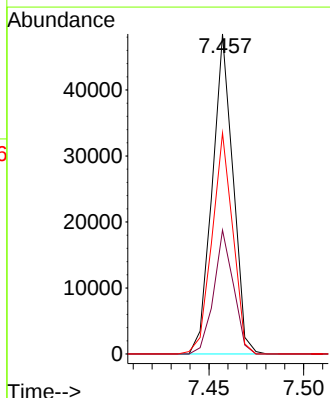
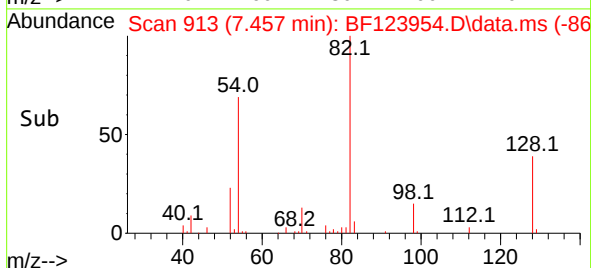
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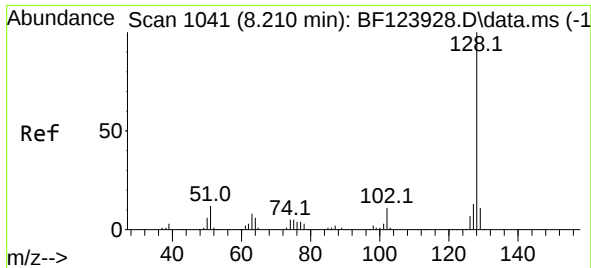


#23  
Nitrobenzene-d5  
Concen: 12.08 ng  
RT: 7.457 min Scan# 913  
Delta R.T. -0.006 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 82    | Resp: | 36896 |
| Ion Ratio | Lower | Upper |       |
| 82        | 100   |       |       |
| 128       | 38.7  | 29.4  | 44.2  |
| 54        | 69.0  | 54.1  | 81.1  |





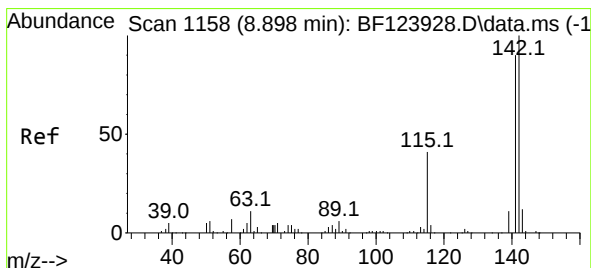
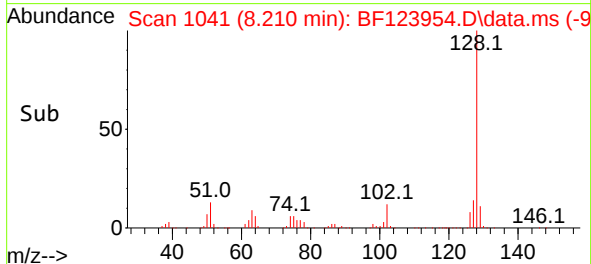
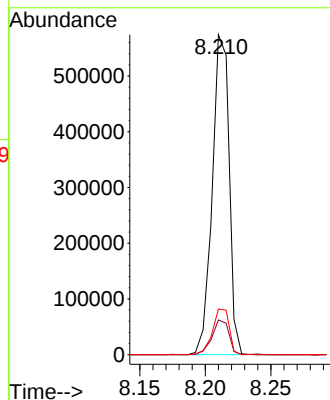
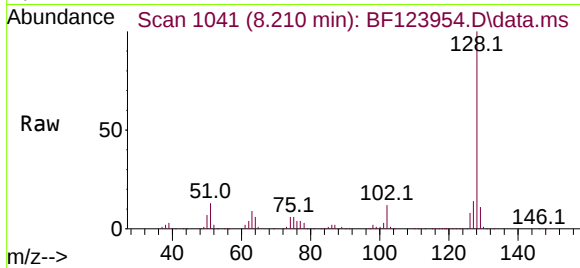
#31  
Naphthalene  
Concen: 65.93 ng  
RT: 8.210 min Scan# 1041  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

Tgt Ion:128 Resp: 513552  
Ion Ratio Lower Upper  
128 100  
129 10.8 8.9 13.3  
127 14.3 10.8 16.2

Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021

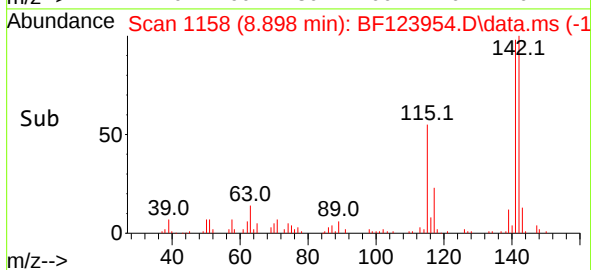
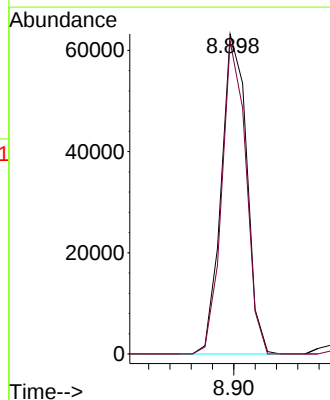
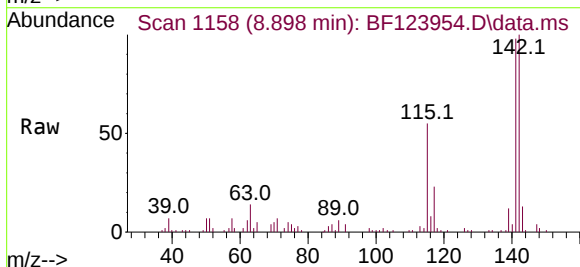
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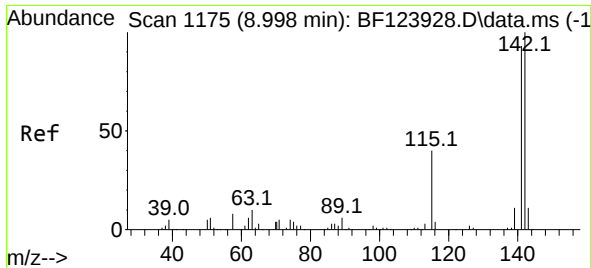
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#37  
2-Methylnaphthalene  
Concen: 9.94 ng  
RT: 8.898 min Scan# 1158  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

Tgt Ion:142 Resp: 52462  
Ion Ratio Lower Upper  
142 100  
141 97.7 71.8 107.6





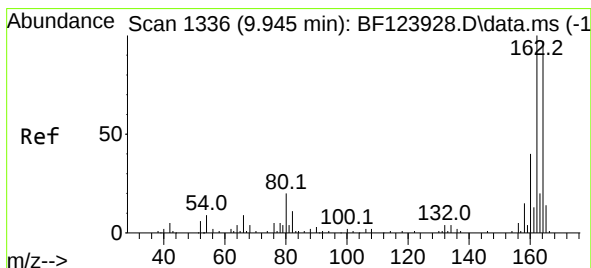
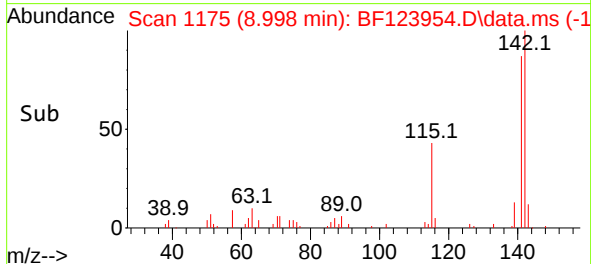
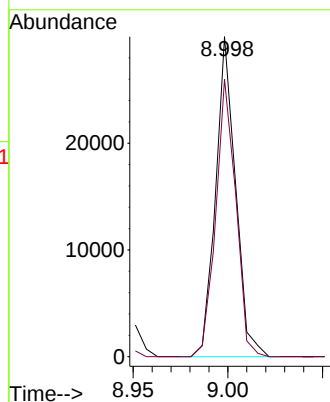
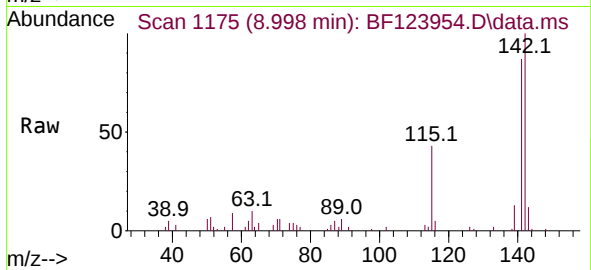
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1-Methylnaphthalene  
Concen: 4.46 ng  
RT: 8.998 min Scan# 1175  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021

Tgt Ion:142 Resp: 21989  
Ion Ratio Lower Upper  
142 100  
141 86.7 72.8 109.2

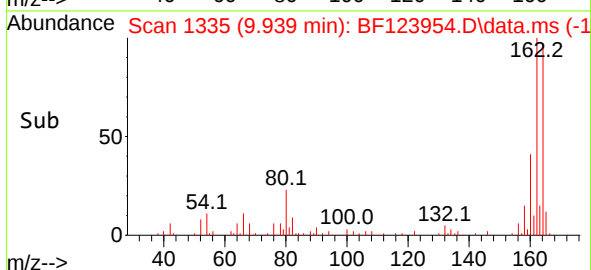
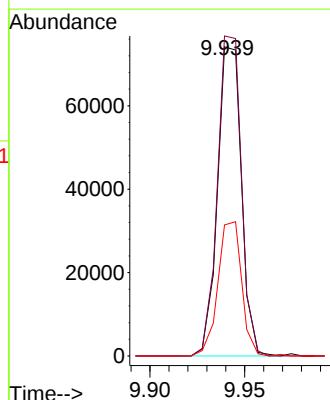
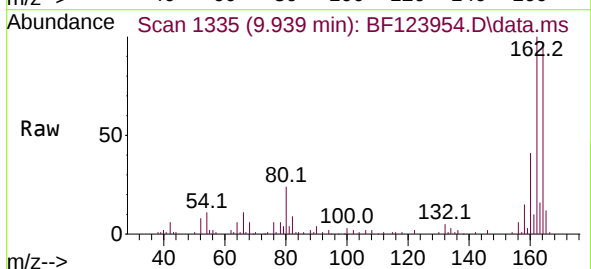
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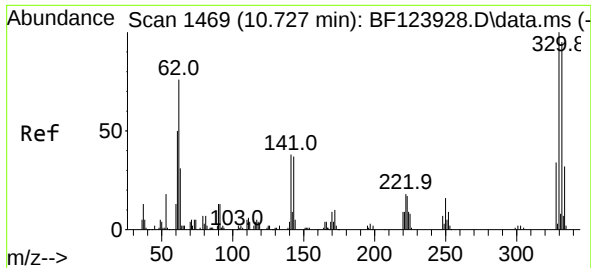
mohammad  
5/17/2021 11:30:27 AM



#39  
Acenaphthene-d10  
Concen: 20.00 ng  
RT: 9.939 min Scan# 1335  
Delta R.T. -0.006 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

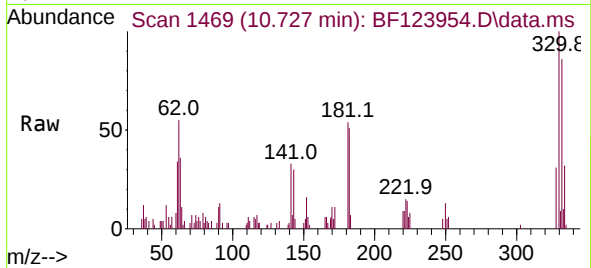
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Ion Ratio Lower Upper  
164 100  
162 103.5 80.7 121.1  
160 42.4 37.3 55.9





#42  
2,4,6-Tribromophenol  
Concen: 15.11 ng  
RT: 10.727 min Scan# 1469  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

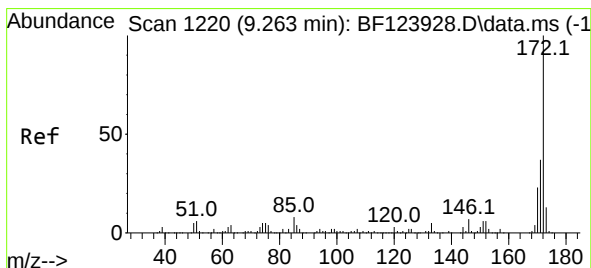
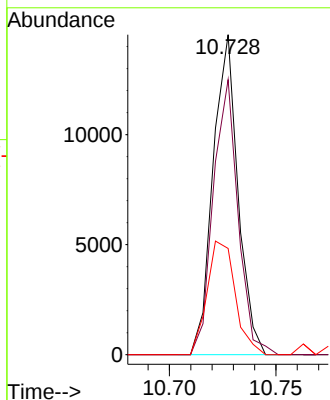
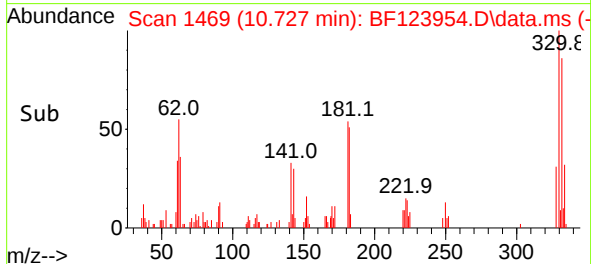
Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021



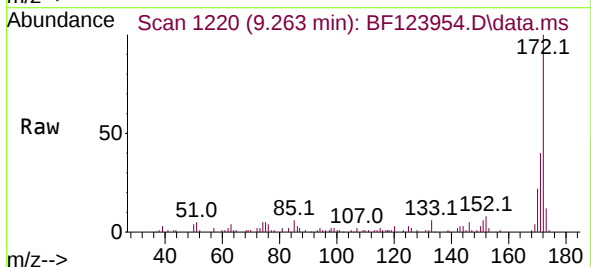
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Ion Ratio Lower Upper  
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141 40.1 27.9 41.9

Manual Integrations  
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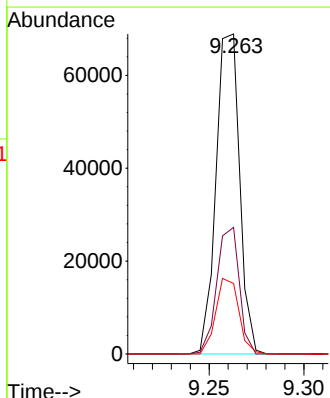
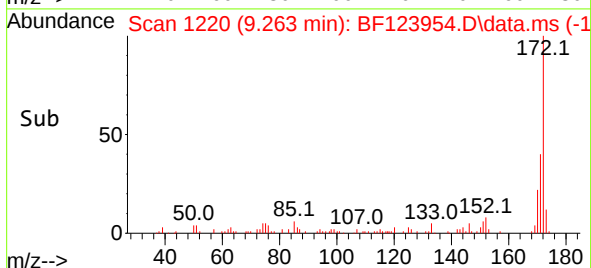
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5/17/2021 11:30:27 AM

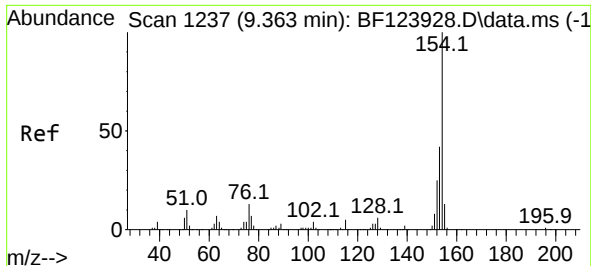


#45  
2-Fluorobiphenyl  
Concen: 11.30 ng  
RT: 9.263 min Scan# 1220  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58



Tgt Ion: 172 Resp: 59882  
Ion Ratio Lower Upper  
172 100  
171 39.6 28.1 42.1  
170 22.1 19.2 28.8





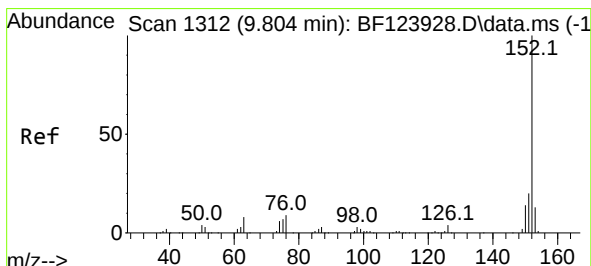
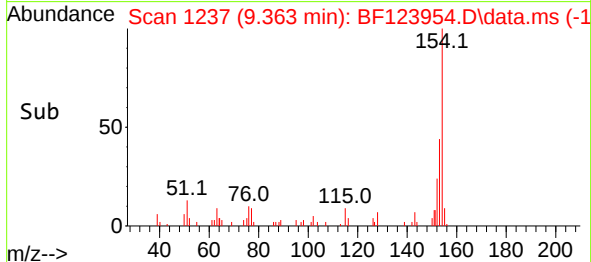
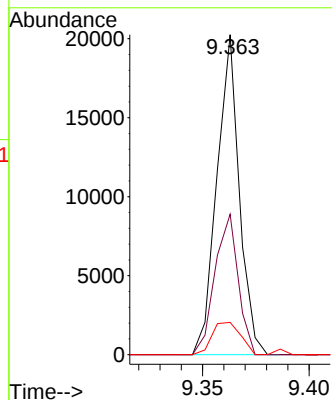
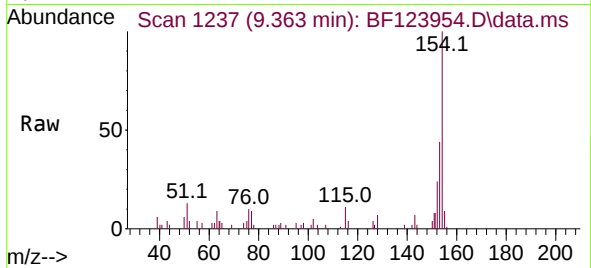
#46  
1,1'-Biphenyl  
Concen: 2.58 ng  
RT: 9.363 min Scan# 1237  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

Tgt Ion:154 Resp: 14793  
Ion Ratio Lower Upper  
154 100  
153 43.9 20.7 60.7  
76 10.1 0.0 31.7

Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021

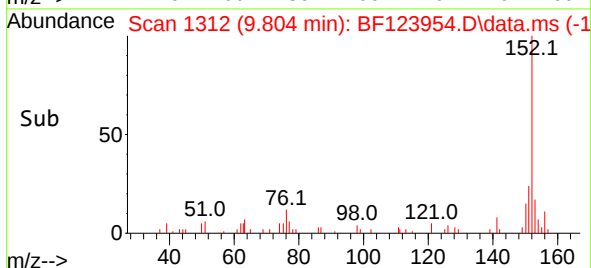
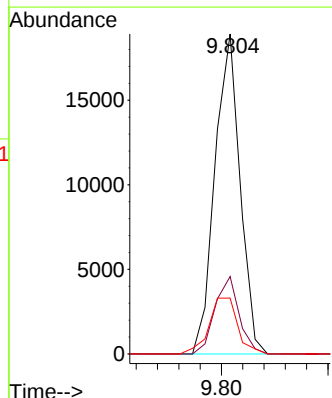
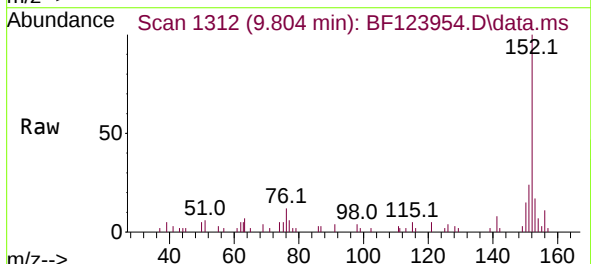
Manual Integrations  
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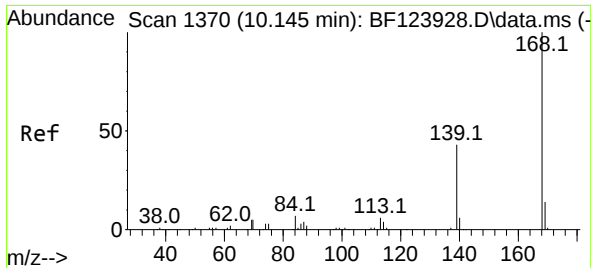
mohammad  
5/17/2021 11:30:27 AM



#49  
Acenaphthylene  
Concen: 2.30 ng  
RT: 9.804 min Scan# 1312  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

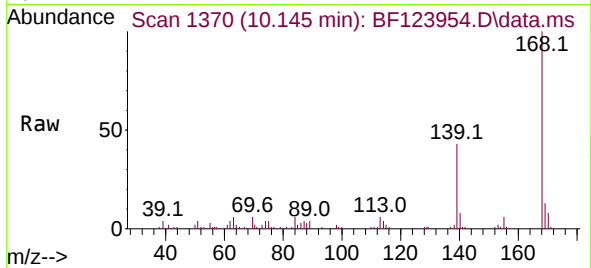
Tgt Ion:152 Resp: 15473  
Ion Ratio Lower Upper  
152 100  
151 24.2 16.0 24.0#  
153 17.4 10.4 15.6#





#55  
Dibenzofuran  
Concen: 5.61 ng  
RT: 10.145 min Scan# 1370  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

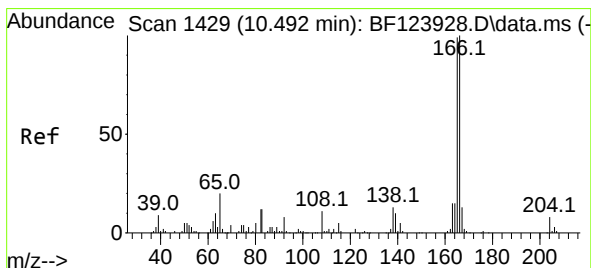
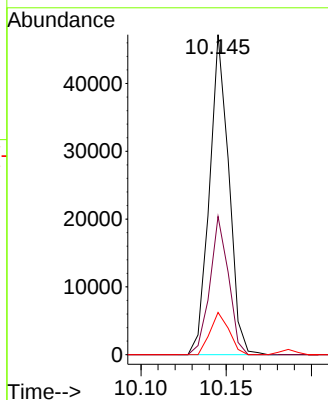
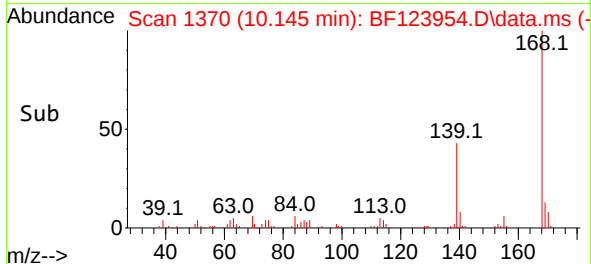
Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021



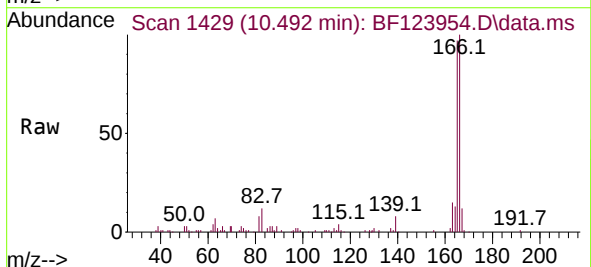
Tgt Ion:168 Resp: 37152  
Ion Ratio Lower Upper  
168 100  
139 43.2 33.2 49.8  
169 13.2 10.8 16.2

Manual Integrations  
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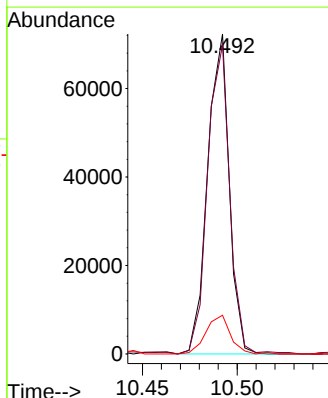
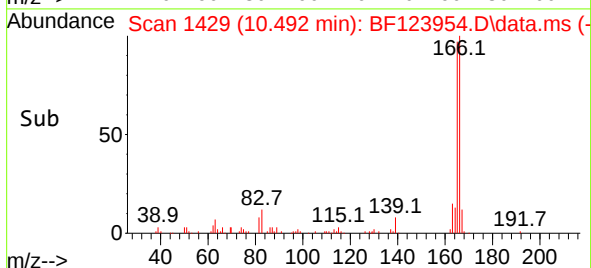
mohammad  
5/17/2021 11:30:27 AM

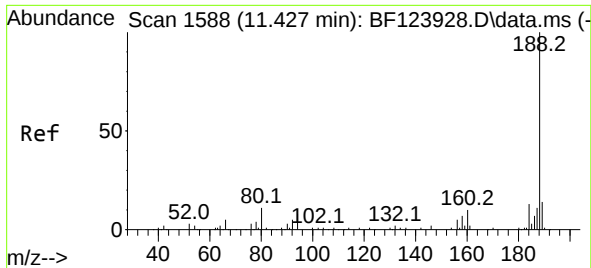


#58  
Fluorene  
Concen: 11.48 ng  
RT: 10.492 min Scan# 1429  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58



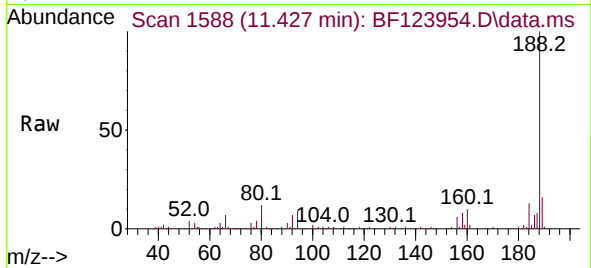
Tgt Ion:166 Resp: 57307  
Ion Ratio Lower Upper  
166 100  
165 96.6 73.5 110.3  
167 12.1 10.7 16.1





#64  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 11.427 min Scan# 1588  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

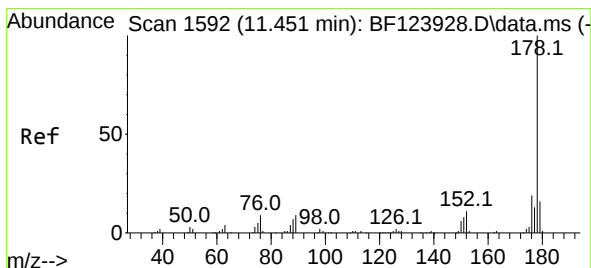
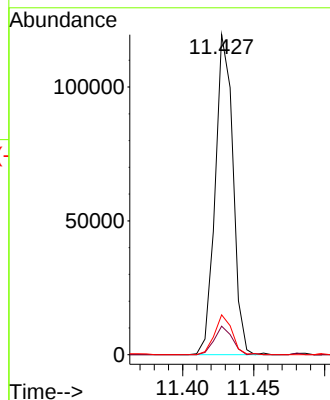
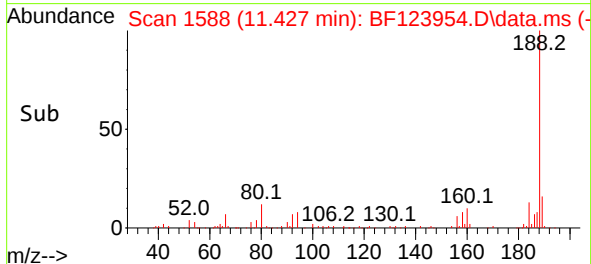
Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021



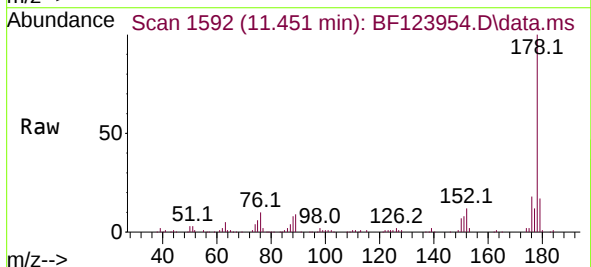
Tgt Ion:188 Resp: 103823  
Ion Ratio Lower Upper  
188 100  
94 8.9 6.9 10.3  
80 12.5 8.2 12.2#

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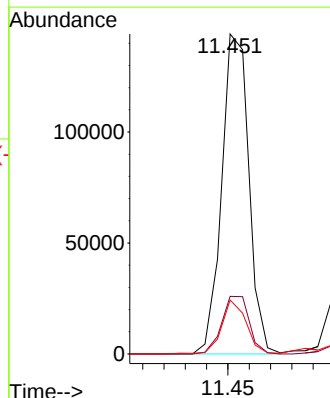
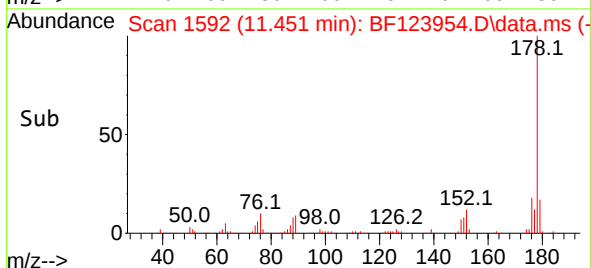
mohammad  
5/17/2021 11:30:27 AM

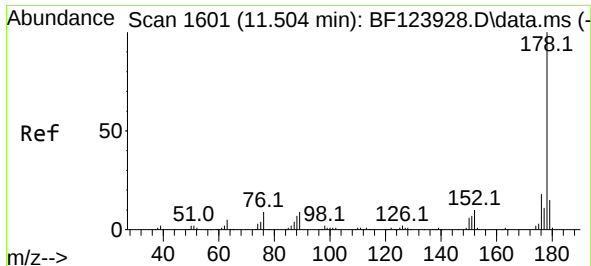


#71  
Phenanthrene  
Concen: 19.40 ng  
RT: 11.451 min Scan# 1592  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58



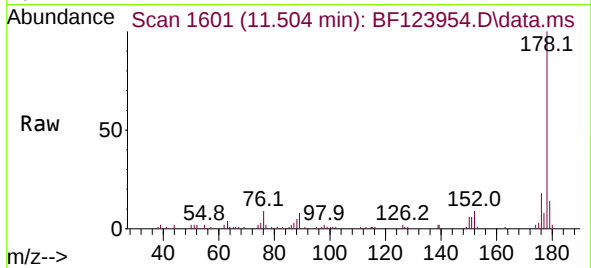
Tgt Ion:178 Resp: 127631  
Ion Ratio Lower Upper  
178 100  
176 18.0 15.6 23.4  
179 16.9 12.5 18.7





#72  
 Anthracene  
 Concen: 5.18 ng  
 RT: 11.504 min Scan# 1601  
 Delta R.T. 0.000 min  
 Lab File: BF123954.D  
 Acq: 15 May 2021 19:58

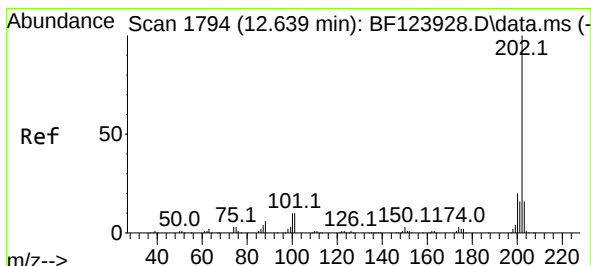
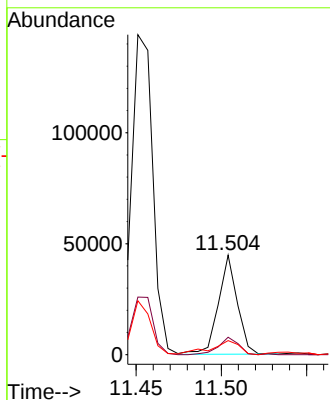
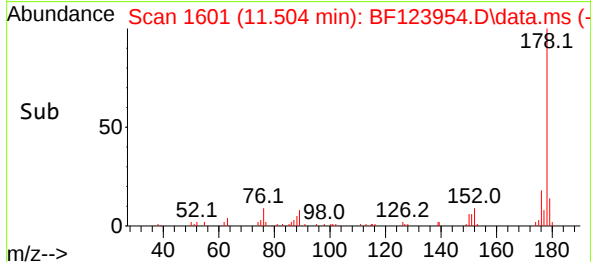
Instrument :  
 BNA\_F  
 ClientSampleId :  
 DUP-01-05112021



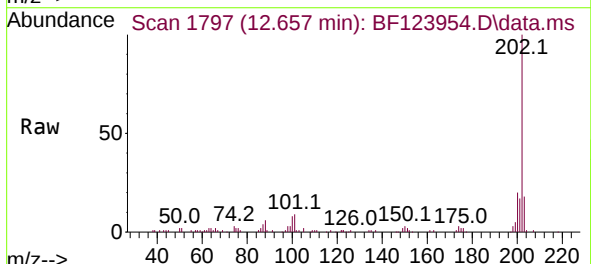
Tgt Ion:178 Resp: 34544  
 Ion Ratio Lower Upper  
 178 100  
 176 17.5 15.4 23.0  
 179 14.1 12.6 18.8

Manual Integrations  
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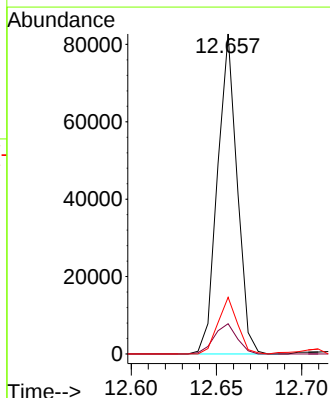
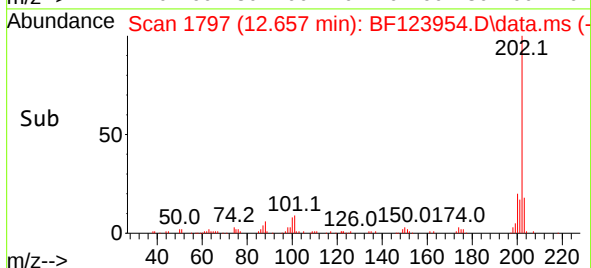
mohammad  
 5/17/2021 11:30:27 AM

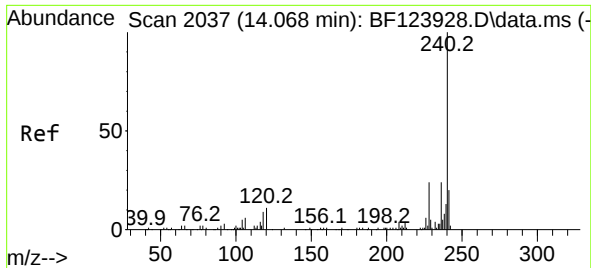


#75  
 Fluoranthene  
 Concen: 9.73 ng  
 RT: 12.657 min Scan# 1797  
 Delta R.T. 0.018 min  
 Lab File: BF123954.D  
 Acq: 15 May 2021 19:58



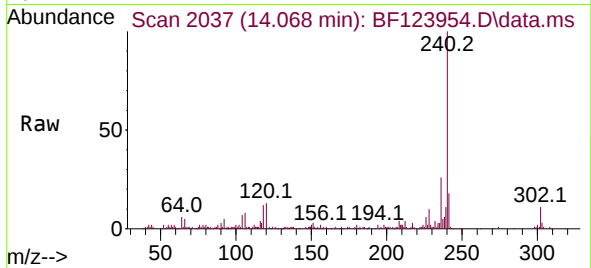
Tgt Ion:202 Resp: 66312  
 Ion Ratio Lower Upper  
 202 100  
 101 9.5 0.0 30.9  
 203 17.7 0.0 37.5





#76  
Chrysene-d12  
Concen: 20.00 ng  
RT: 14.068 min Scan# 2037  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

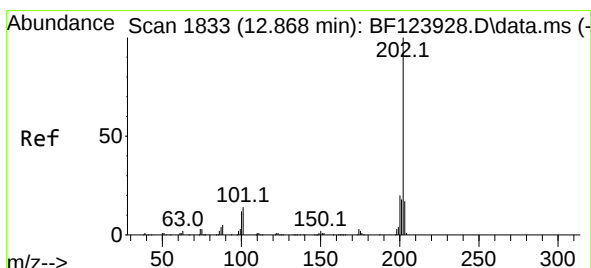
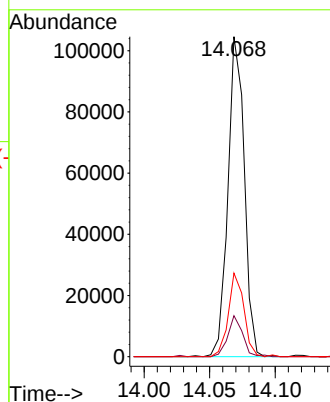
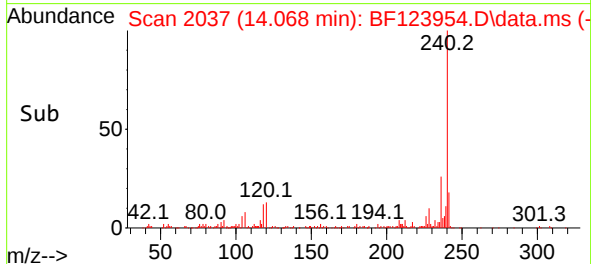
Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021



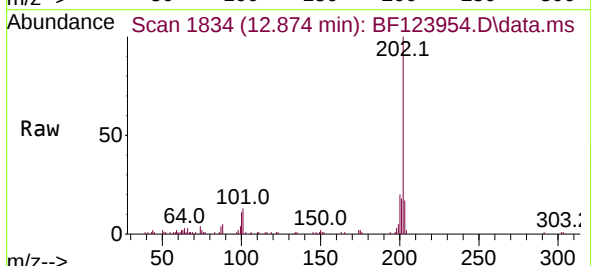
Tgt Ion:240 Resp: 90702  
Ion Ratio Lower Upper  
240 100  
120 12.8 7.2 10.8#  
236 26.1 19.0 28.4

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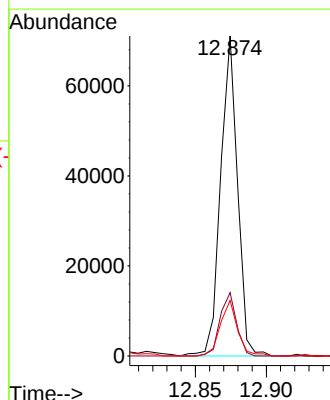
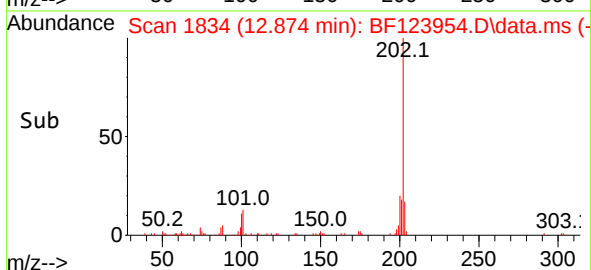
mohammad  
5/17/2021 11:30:27 AM

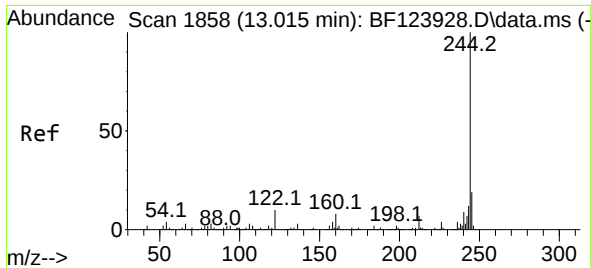


#78  
Pyrene  
Concen: 7.28 ng  
RT: 12.874 min Scan# 1834  
Delta R.T. 0.006 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58



Tgt Ion:202 Resp: 58660  
Ion Ratio Lower Upper  
202 100  
200 19.8 16.1 24.1  
203 17.4 14.8 22.2





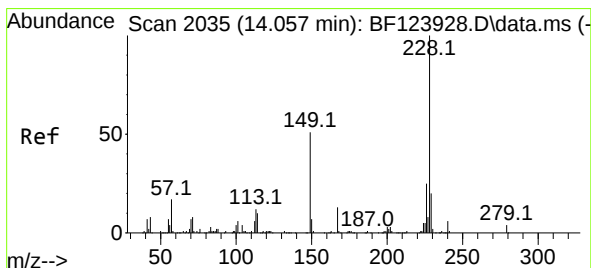
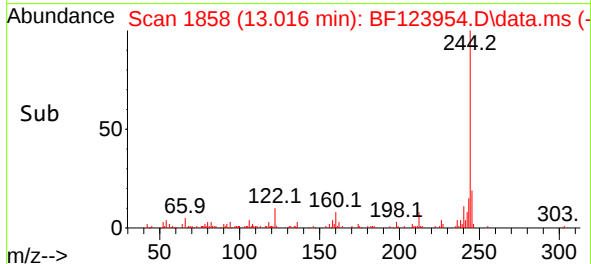
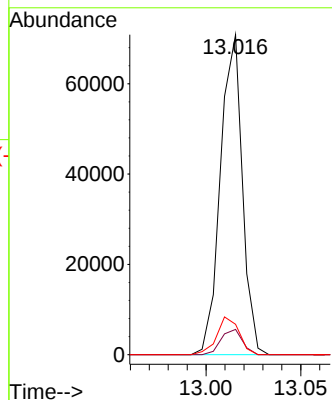
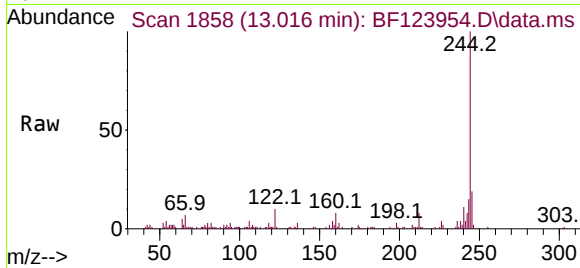
#79  
Terphenyl-d14  
Concen: 9.55 ng  
RT: 13.016 min Scan# 1858  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

Tgt Ion:244 Resp: 57168  
Ion Ratio Lower Upper  
244 100  
212 7.9 5.7 8.5  
122 9.5 9.7 14.5#

Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021

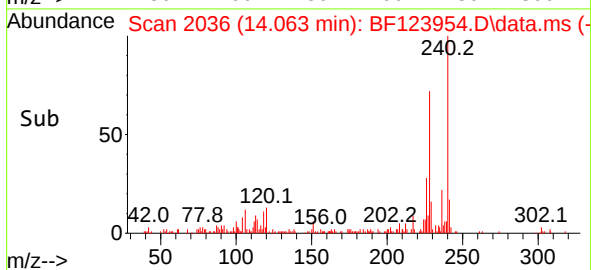
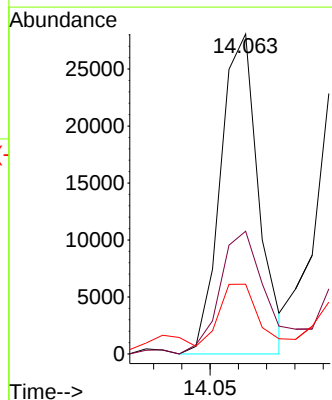
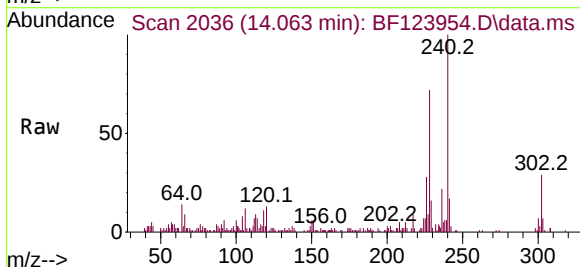
Manual Integrations  
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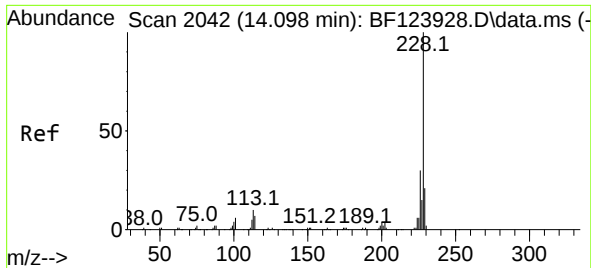
mohammad  
5/17/2021 11:30:27 AM



#81  
Benzo(a)anthracene  
Concen: 4.02 ng m  
RT: 14.063 min Scan# 2036  
Delta R.T. 0.006 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

Tgt Ion:228 Resp: 26362  
Ion Ratio Lower Upper  
228 100  
226 38.3 22.4 33.6#  
229 21.8 16.0 24.0





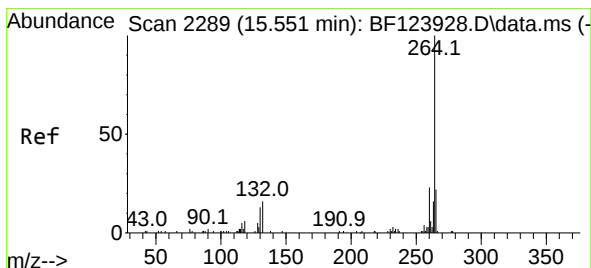
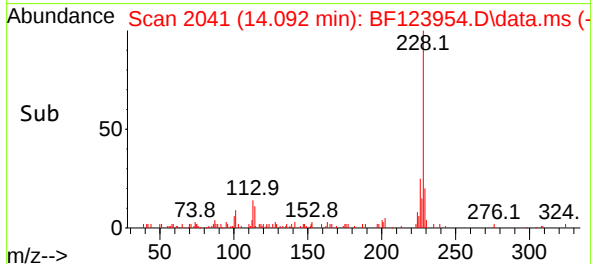
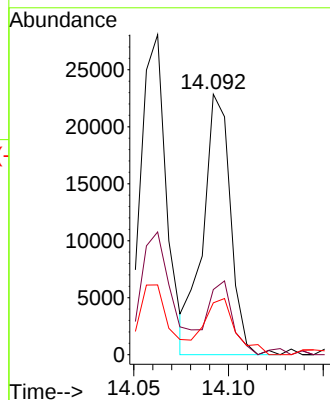
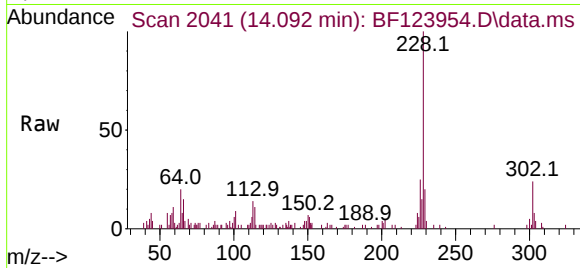
#83  
Chrysene  
Concen: 3.66 ng  
RT: 14.092 min Scan# 2041  
Delta R.T. -0.006 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

|              |             |
|--------------|-------------|
| Tgt Ion: 228 | Resp: 23097 |
| Ion Ratio    | Lower Upper |
| 228 100      |             |
| 226 25.0     | 24.3 36.5   |
| 229 19.9     | 16.2 24.2   |

Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021

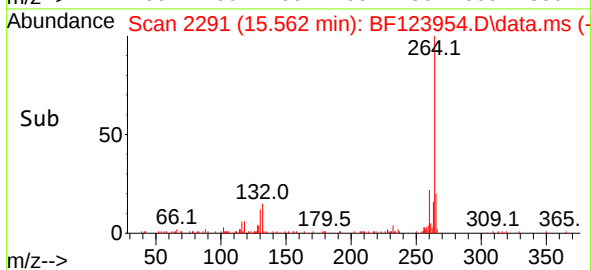
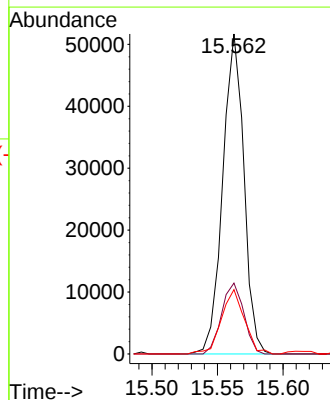
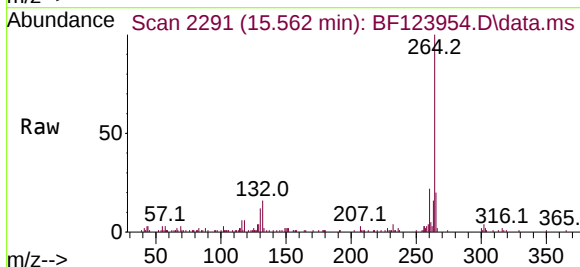
Manual Integrations  
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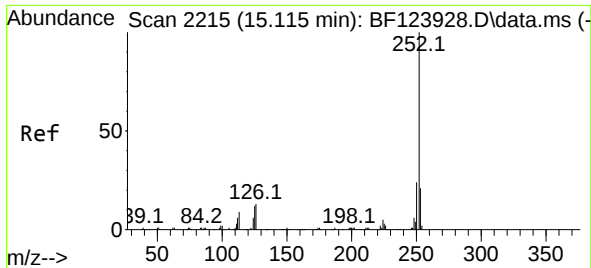
mohammad  
5/17/2021 11:30:27 AM



#86  
Perylene-d12  
Concen: 20.00 ng  
RT: 15.562 min Scan# 2291  
Delta R.T. 0.012 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

|              |             |
|--------------|-------------|
| Tgt Ion: 264 | Resp: 57845 |
| Ion Ratio    | Lower Upper |
| 264 100      |             |
| 260 22.2     | 18.7 28.1   |
| 265 20.1     | 17.8 26.8   |





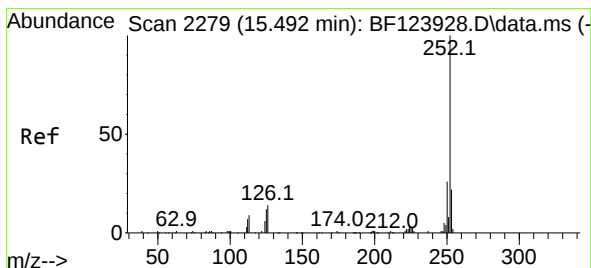
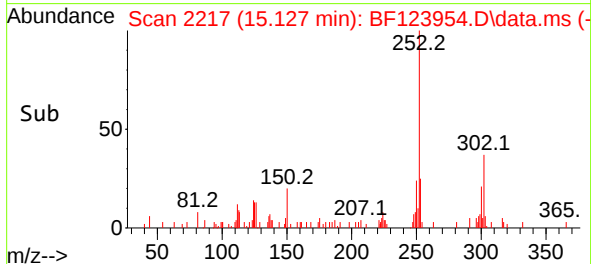
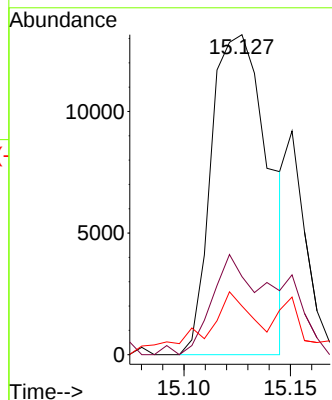
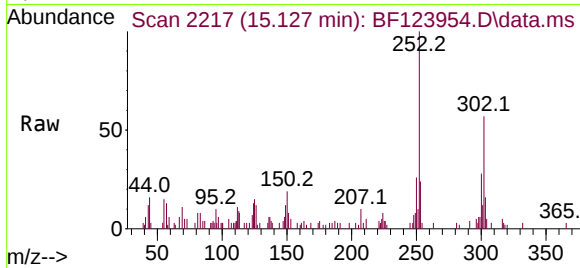
#88  
Benzo(b)fluoranthene  
Concen: 5.46 ng m  
RT: 15.127 min Scan# 2217  
Delta R.T. 0.012 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

Tgt Ion:252 Resp: 24413  
Ion Ratio Lower Upper  
252 100  
253 24.4 18.1 27.1  
125 15.2 6.2 9.4#

Instrument :  
BNA\_F  
ClientSampleId :  
DUP-01-05112021

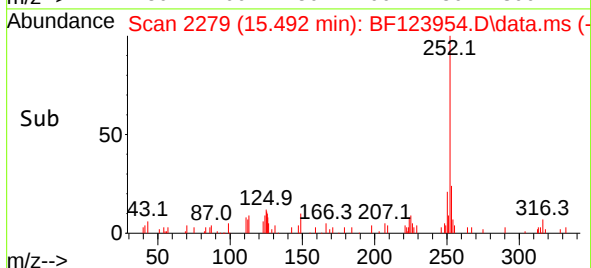
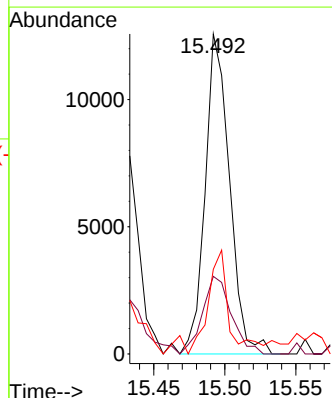
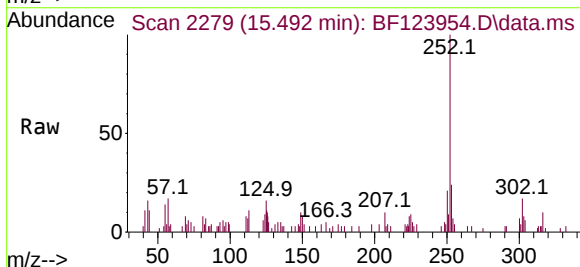
Manual Integrations  
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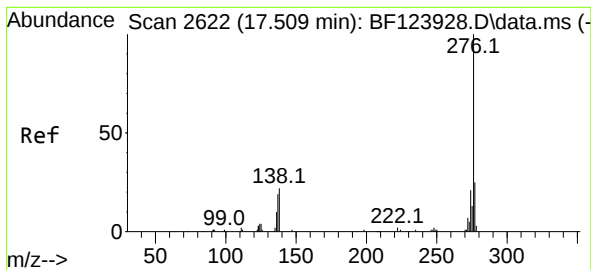
mohammad  
5/17/2021 11:30:27 AM



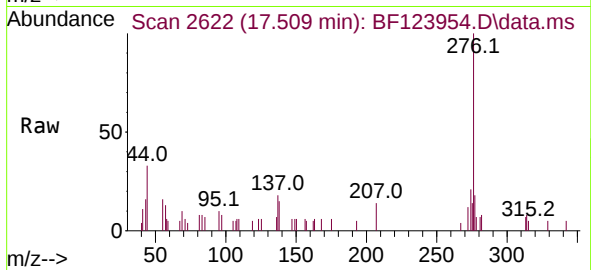
#90  
Benzo(a)pyrene  
Concen: 3.89 ng  
RT: 15.492 min Scan# 2279  
Delta R.T. 0.000 min  
Lab File: BF123954.D  
Acq: 15 May 2021 19:58

Tgt Ion:252 Resp: 15053  
Ion Ratio Lower Upper  
252 100  
253 24.2 18.4 27.6  
125 36.2 8.0 12.0#

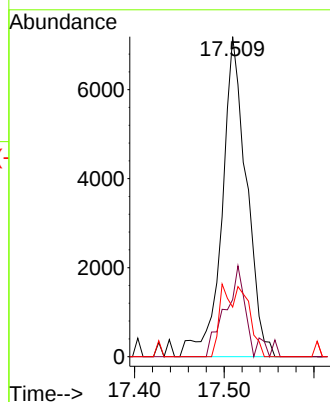
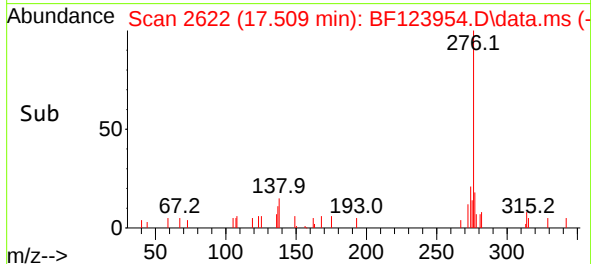




#92  
 Benzo(g,h,i)perylene  
 Concen: 3.60 ng  
 RT: 17.509 min Scan# 2622  
 Delta R.T. 0.000 min  
 Lab File: BF123954.D  
 Acq: 15 May 2021 19:58



Tgt Ion: 276 Resp: 13592  
 Ion Ratio Lower Upper  
 276 100  
 277 17.9 18.2 27.2#  
 138 15.5 13.8 20.6



Instrument :  
 BNA\_F  
 ClientSampleId :  
 DUP-01-05112021

Manual Integrations  
 APPROVED

mohammad  
 5/17/2021 11:30:27 AM