

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF123119\  
 Data File : BF118420.D  
 Acq On : 31 Dec 2019 22:12  
 Operator : JU  
 Sample : K6441-06DL 10X  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 K321-WC-01DL

Manual Integrations  
 APPROVED

mohammad  
 1/2/2020 11:50:25 AM

Quant Time: Jan 01 03:32:11 2020  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF122419.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Dec 24 15:58:52 2019  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|-------|------|----------|--------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.85  | 152  | 68339    | 20.00  | ng    | 0.00     |
| 21) Naphthalene-d8          | 8.14  | 136  | 275030   | 20.00  | ng    | 0.00     |
| 39) Acenaphthene-d10        | 9.90  | 164  | 137409   | 20.00  | ng    | 0.00     |
| 64) Phenanthrene-d10        | 11.40 | 188  | 222011   | 20.00  | ng    | 0.00     |
| 76) Chrysene-d12            | 14.05 | 240  | 165684   | 20.00  | ng    | 0.00     |
| 87) Perylene-d12            | 15.55 | 264  | 158383   | 20.00  | ng    | 0.02     |
| System Monitoring Compounds |       |      |          |        |       |          |
| 5) 2-Fluorophenol           | 5.48  | 112  | 45205    | 11.29  | ng    | 0.02     |
| 7) Phenol-d6                | 6.50  | 99   | 53581    | 10.79  | ng    | 0.01     |
| 23) Nitrobenzene-d5         | 7.43  | 82   | 33482    | 6.96   | ng    | 0.00     |
| 42) 2,4,6-Tribromophenol    | 10.70 | 330  | 14323    | 8.44   | ng    | 0.01     |
| 45) 2-Fluorobiphenyl        | 9.22  | 172  | 80514    | 8.94   | ng    | 0.00     |
| 79) Terphenyl-d14           | 12.98 | 244  | 84788    | 8.49   | ng    | 0.00     |
| Target Compounds            |       |      |          |        |       |          |
| 71) Phenanthrene            | 11.42 | 178  | 258446   | 21.354 | ng    | 100      |
| 72) Anthracene              | 11.47 | 178  | 61959    | 5.115  | ng    | 99       |
| 75) Fluoranthene            | 12.62 | 202  | 298653   | 24.451 | ng    | 98       |
| 78) Pyrene                  | 12.85 | 202  | 300677   | 22.223 | ng    | 100      |
| 81) Benzo(a)anthracene      | 14.04 | 228  | 159790   | 13.778 | ng    | 99       |
| 83) Chrysene                | 14.08 | 228  | 108700   | 9.789  | ng    | 99       |
| 86) Indeno(1,2,3-cd)pyrene  | 17.07 | 276  | 45757    | 4.836  | ng    | 98       |
| 88) Benzo(b)fluoranthene    | 15.11 | 252  | 150232m  | 14.290 | ng    |          |
| 89) Benzo(k)fluoranthene    | 15.14 | 252  | 52857m   | 5.236  | ng    |          |
| 90) Benzo(a)pyrene          | 15.49 | 252  | 96871    | 10.460 | ng    | 97       |
| 92) Benzo(g,h,i)perylene    | 17.53 | 276  | 43472    | 5.599  | ng    | 96       |

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

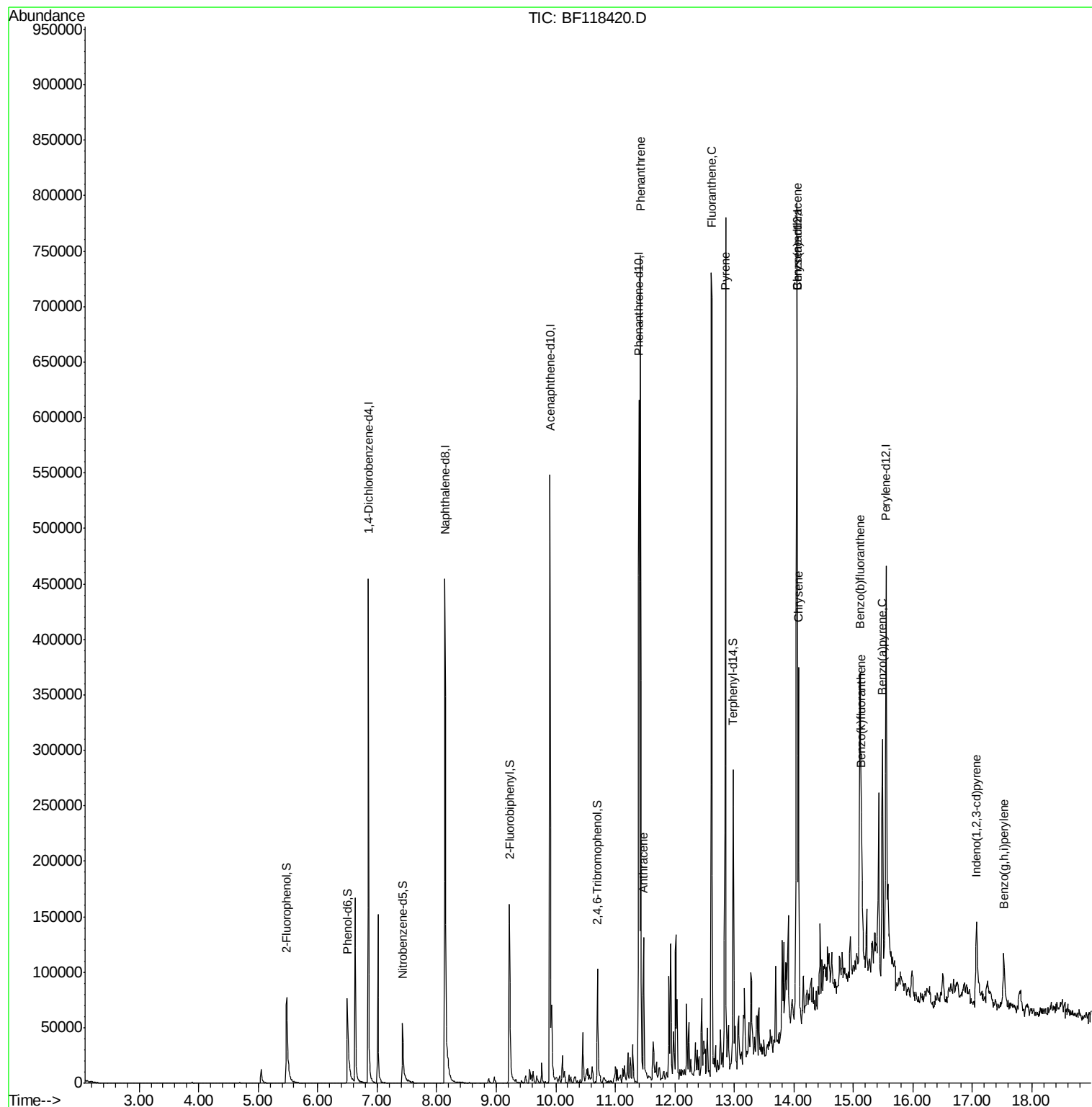
Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF123119\  
Data File : BF118420.D  
Acq On : 31 Dec 2019 22:12  
Operator : JU  
Sample : K6441-06DL 10X  
Misc :  
ALS Vial : 23 Sample Multiplier: 1

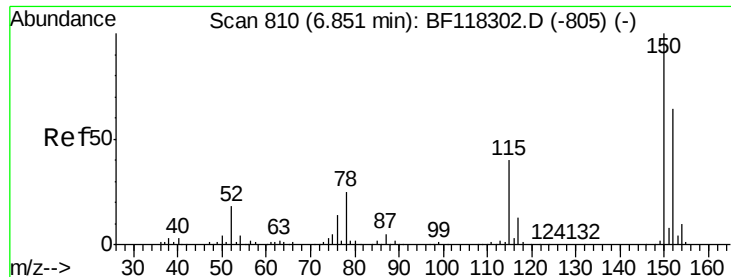
Instrument :  
BNA\_F  
ClientSampleId :  
K321-WC-01DL

Manual Integrations  
APPROVED

mohammad  
1/2/2020 11:50:25 AM

Quant Time: Jan 01 03:32:11 2020  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF122419.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Tue Dec 24 15:58:52 2019  
Response via : Initial Calibration





#1

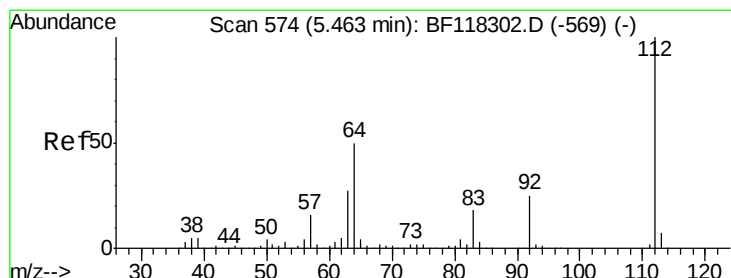
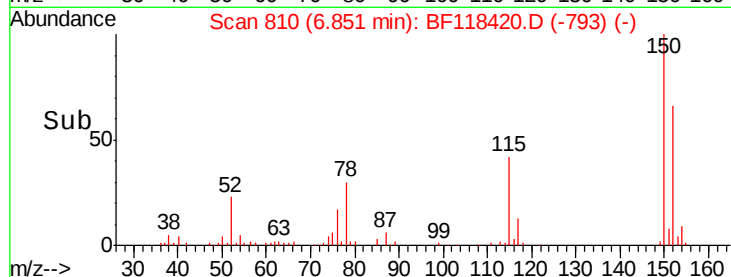
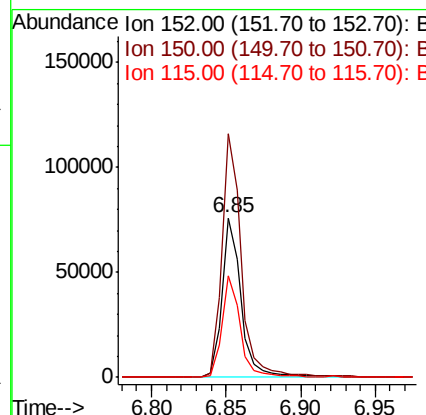
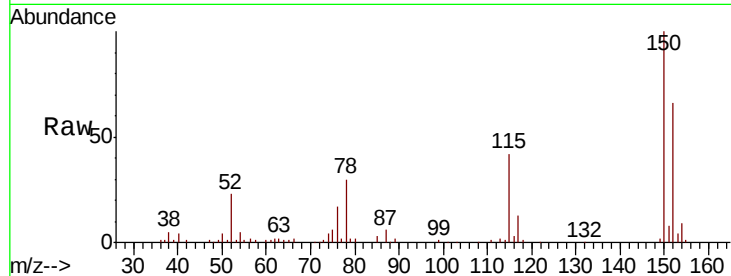
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.85 min Scan# 810  
Delta R.T. -0.00 min  
Lab File: BF118420.D  
Acq: 31 Dec 2019 22:12

Instrument :  
BNA\_F  
ClientSampleId :  
K321-WC-01DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 152.5 | 125.4 | 188.2 |
| 115     | 63.7  | 50.2  | 75.4  |

Manual Integrations  
APPROVED

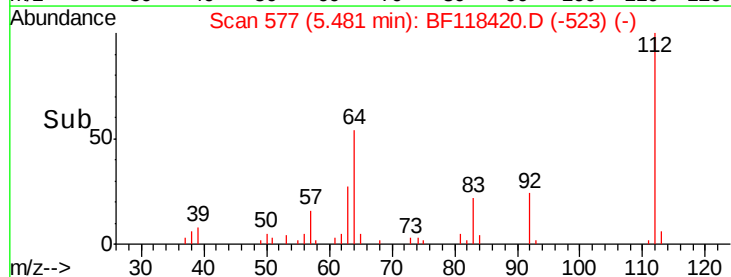
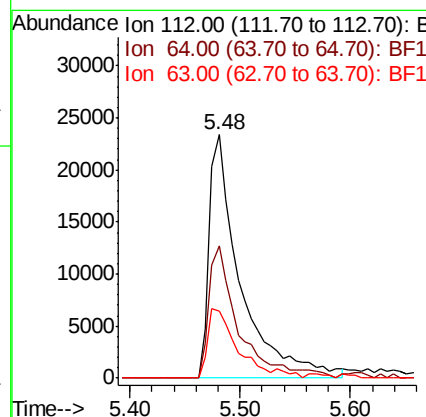
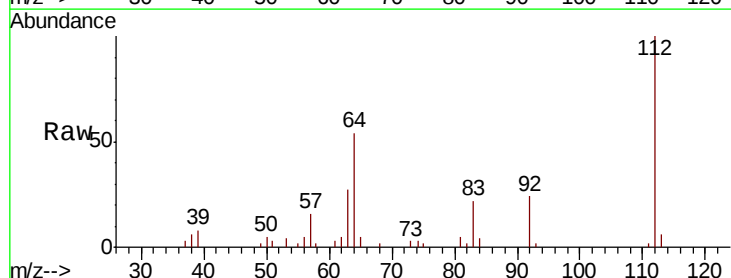
mohammad  
1/2/2020 11:50:25 AM

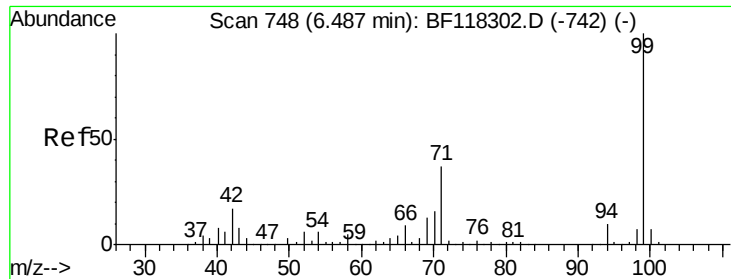


#5

2-Fluorophenol  
Concen: 11.291 ng  
RT: 5.48 min Scan# 577  
Delta R.T. 0.02 min  
Lab File: BF118420.D  
Acq: 31 Dec 2019 22:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 54.4  | 39.7  | 59.5  |
| 63      | 27.5  | 21.7  | 32.5  |





#7

Phenol-d6

Concen: 10.789 ng

RT: 6.50 min Scan# 750

Delta R.T. 0.01 min

Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

Instrument :

BNA\_F

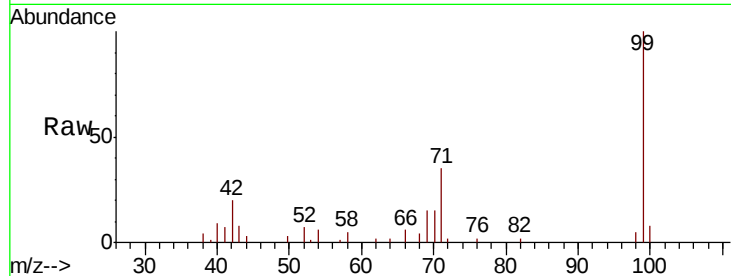
ClientSampleId :

K321-WC-01DL

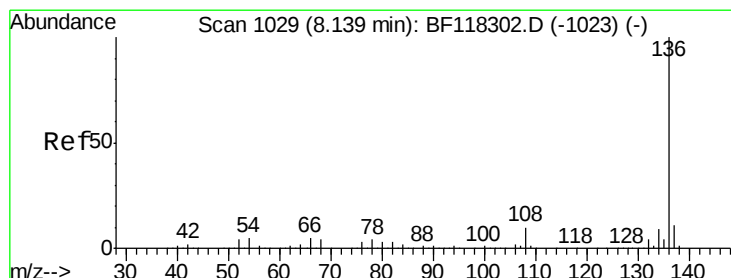
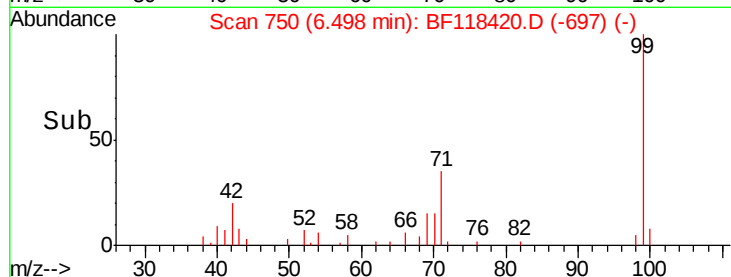
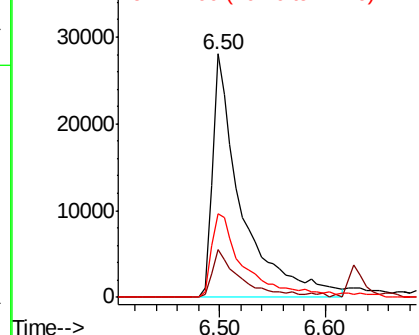
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 99    | Resp: | 53581 |
| Ion Ratio | Lower | Upper |       |
| 99        | 100   |       |       |
| 42        | 19.6  | 13.5  | 20.3  |
| 71        | 34.6  | 29.4  | 44.2  |

Manual Integrations  
APPROVED

mohammad  
1/2/2020 11:50:25 AM



Abundance Ion 99.00 (98.70 to 99.70): BF1  
Ion 42.00 (41.70 to 42.70): BF1  
Ion 71.00 (70.70 to 71.70): BF1



#21

Naphthalene-d8

Concen: 20.000 ng

RT: 8.14 min Scan# 1029

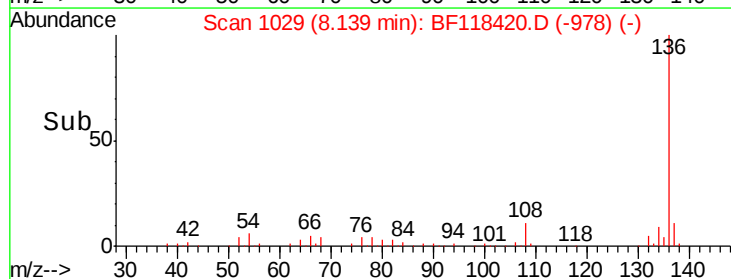
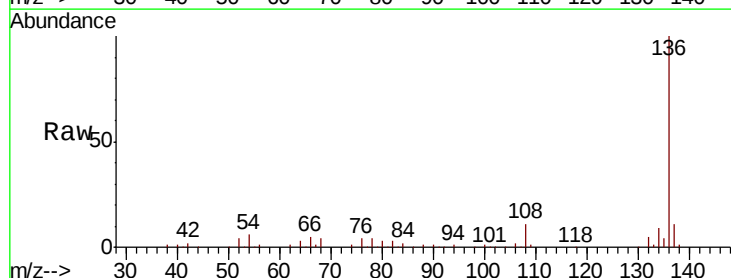
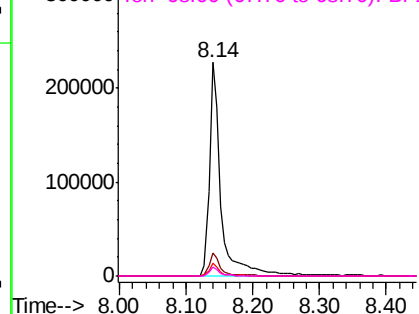
Delta R.T. -0.00 min

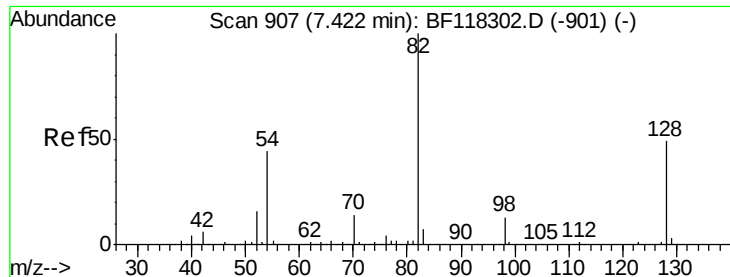
Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 136   | Resp: | 275030 |
| Ion Ratio | Lower | Upper |        |
| 136       | 100   |       |        |
| 137       | 11.0  | 8.9   | 13.3   |
| 54        | 6.0   | 4.2   | 6.4    |
| 68        | 4.4   | 3.5   | 5.3    |

Abundance Ion 136.00 (135.70 to 136.70): E  
Ion 137.00 (136.70 to 137.70): E  
Ion 54.00 (53.70 to 54.70): BF1  
Ion 68.00 (67.70 to 68.70): BF1





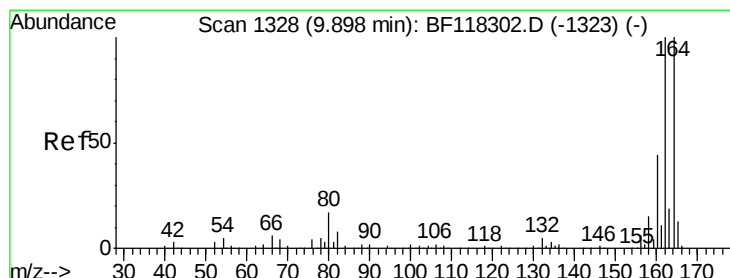
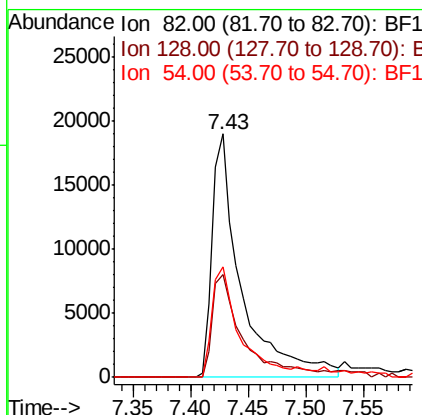
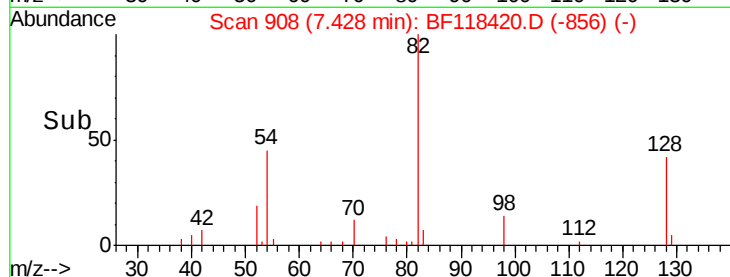
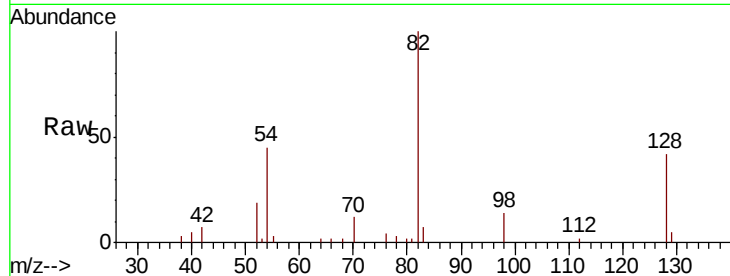
#23  
 Nitrobenzene-d5  
 Concen: 6.963 ng  
 RT: 7.43 min Scan# 908  
 Delta R.T. 0.01 min  
 Lab File: BF118420.D  
 Acq: 31 Dec 2019 22:12

Instrument :  
 BNA\_F  
 ClientSampleID :  
 K321-WC-01DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 82    | Resp: | 33482 |
| Ion Ratio | Lower | Upper |       |
| 82        | 100   |       |       |
| 128       | 42.1  | 39.6  | 59.4  |
| 54        | 45.4  | 34.9  | 52.3  |

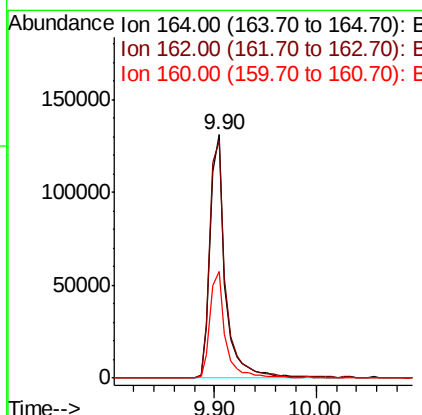
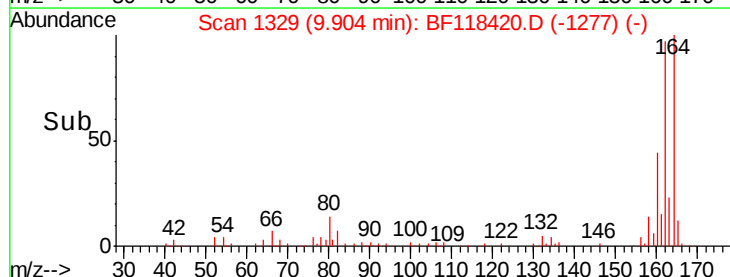
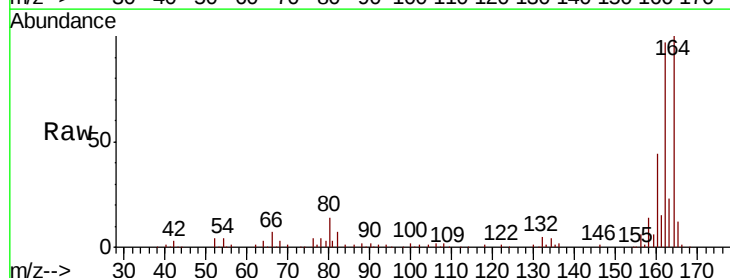
Manual Integrations  
 APPROVED

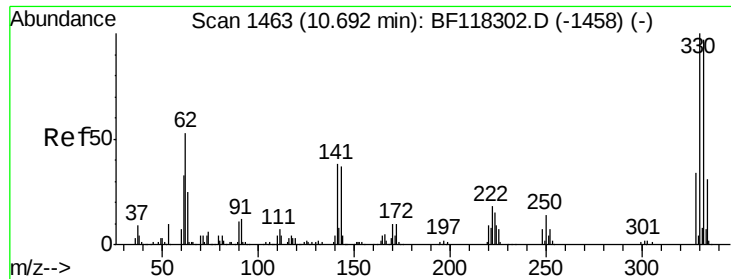
mohammad  
 1/2/2020 11:50:25 AM



#39  
 Acenaphthene-d10  
 Concen: 20.000 ng  
 RT: 9.90 min Scan# 1329  
 Delta R.T. 0.01 min  
 Lab File: BF118420.D  
 Acq: 31 Dec 2019 22:12

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 164   | Resp: | 137409 |
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 162       | 97.4  | 80.0  | 120.0  |
| 160       | 44.0  | 34.8  | 52.2   |





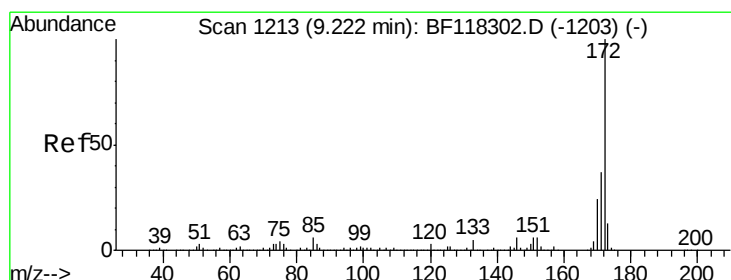
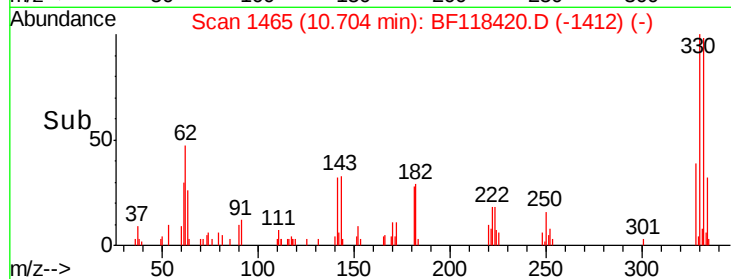
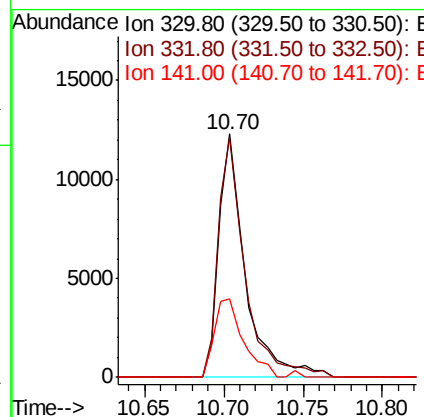
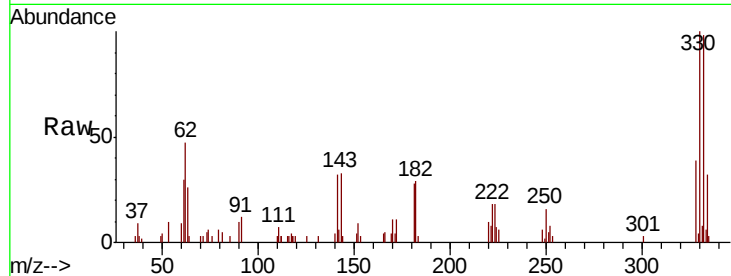
#42  
 2,4,6-Tribromophenol  
 Concen: 8.441 ng  
 RT: 10.70 min Scan# 1465  
 Delta R.T. 0.01 min  
 Lab File: BF118420.D  
 Acq: 31 Dec 2019 22:12

Instrument :  
 BNA\_F  
 ClientSampleId :  
 K321-WC-01DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 99.7  | 76.6  | 114.8 |
| 141     | 35.4  | 26.0  | 39.0  |

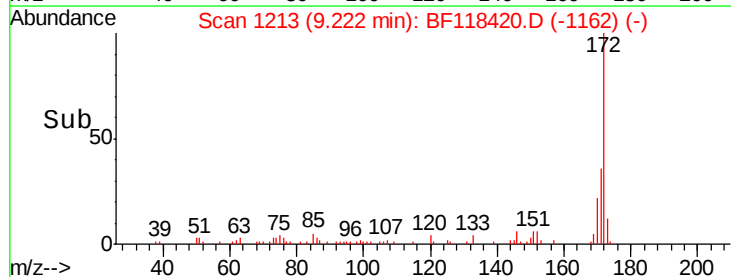
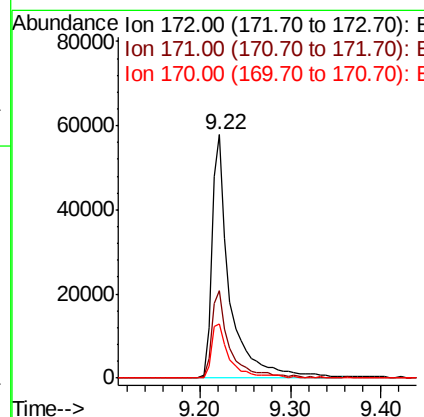
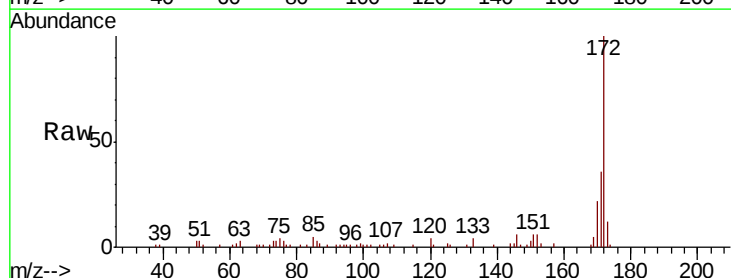
Manual Integrations  
 APPROVED

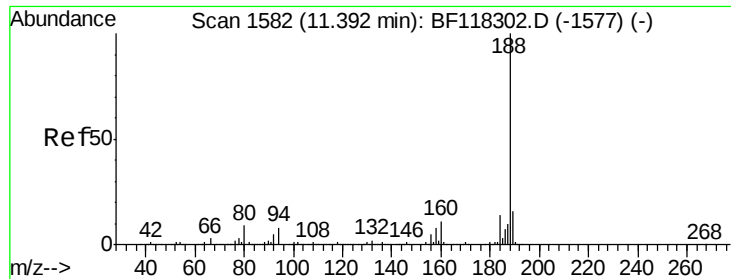
mohammad  
 1/2/2020 11:50:25 AM



#45  
 2-Fluorobiphenyl  
 Concen: 8.944 ng  
 RT: 9.22 min Scan# 1213  
 Delta R.T. -0.00 min  
 Lab File: BF118420.D  
 Acq: 31 Dec 2019 22:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 35.9  | 29.3  | 43.9  |
| 170     | 22.1  | 19.2  | 28.8  |





#64

Phenanthrene-d10

Concen: 20.000 ng

RT: 11.40 min Scan# 1583

Delta R.T. 0.01 min

Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

Instrument :

BNA\_F

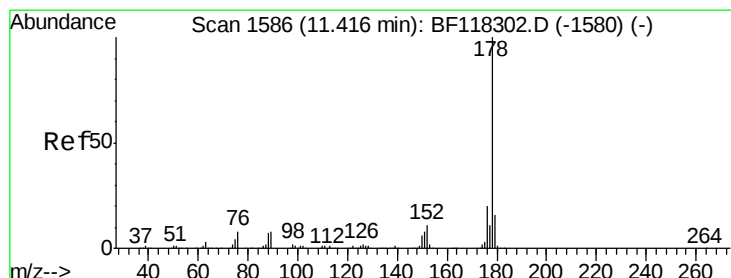
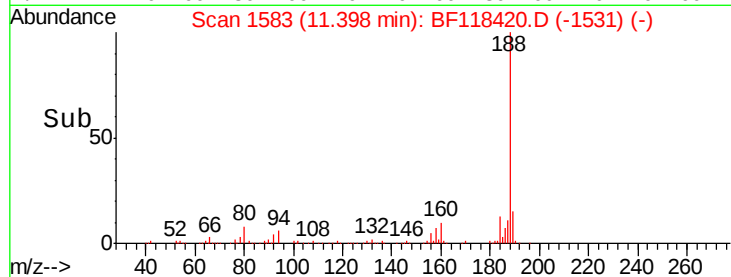
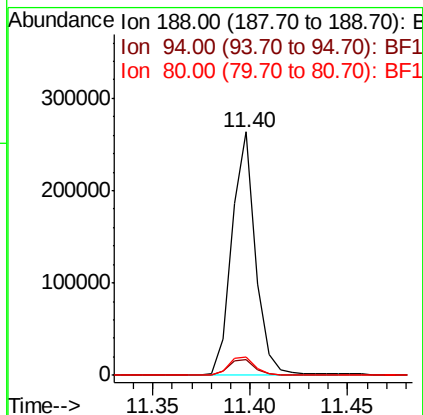
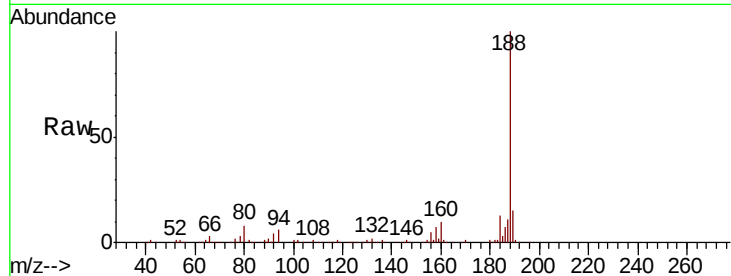
ClientSampleId :

K321-WC-01DL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 188   | Resp: | 222011 |
| Ion Ratio | Lower | Upper |        |
| 188       | 100   |       |        |
| 94        | 6.4   | 6.7   | 10.1#  |
| 80        | 7.5   | 7.2   | 10.8   |

Manual Integrations  
APPROVED

mohammad  
1/2/2020 11:50:25 AM



#71

Phenanthrene

Concen: 21.354 ng

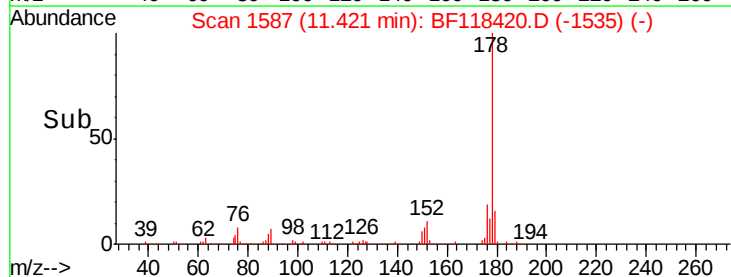
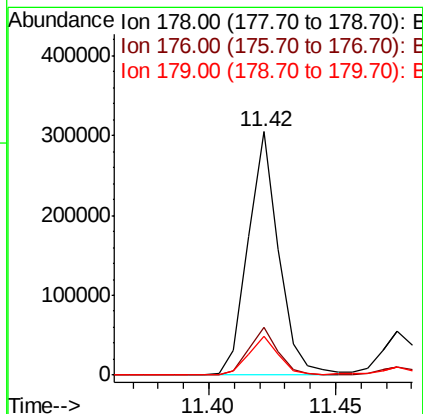
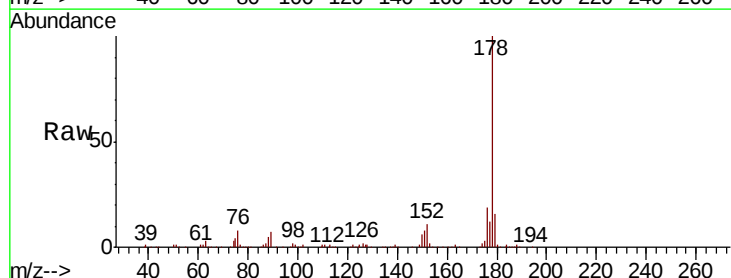
RT: 11.42 min Scan# 1587

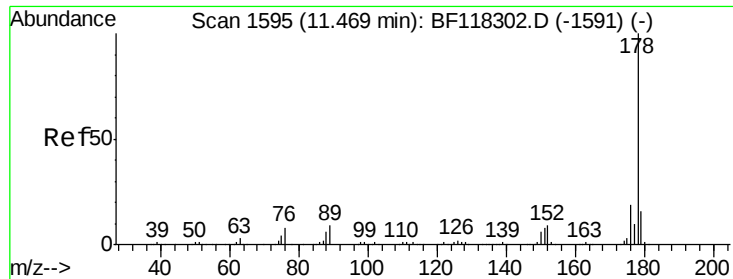
Delta R.T. 0.01 min

Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 258446 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 176       | 19.4  | 15.6  | 23.4   |
| 179       | 15.8  | 12.6  | 19.0   |





#72

Anthracene

Concen: 5.115 ng

RT: 11.47 min Scan# 1596

Delta R.T. 0.01 min

Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

Instrument :

BNA\_F

ClientSampleId :

K321-WC-01DL

Tot Ion:178 Resp: 61959

Ion Ratio Lower Upper

178 100

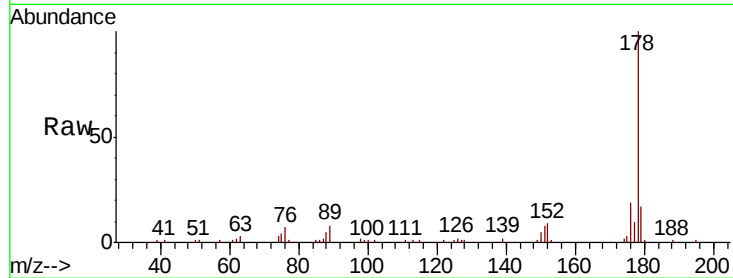
176 19.4 15.2 22.8

179 17.0 12.9 19.3

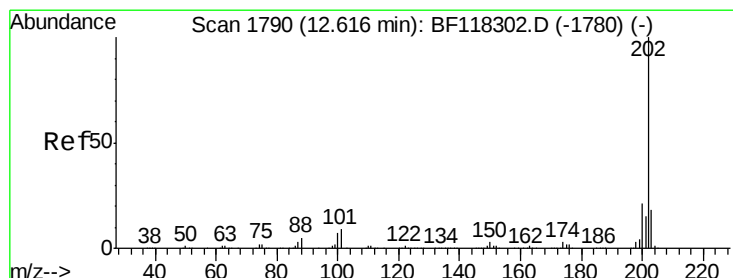
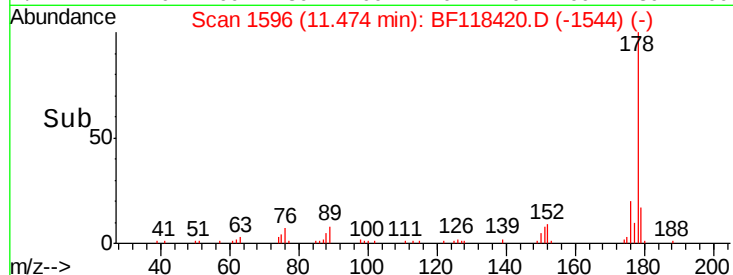
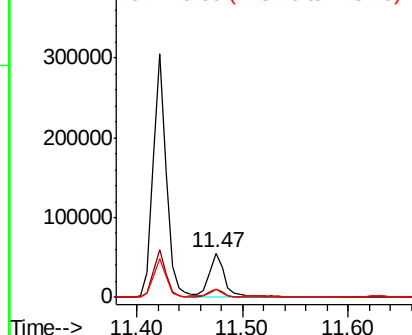
Manual Integrations  
APPROVED

mohammad

1/2/2020 11:50:25 AM



Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 176.00 (175.70 to 176.70): E  
Ion 179.00 (178.70 to 179.70): E



#75

Fluoranthene

Concen: 24.451 ng

RT: 12.62 min Scan# 1791

Delta R.T. 0.01 min

Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

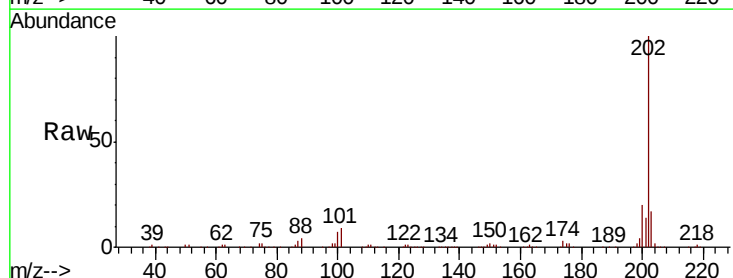
Tgt Ion:202 Resp: 298653

Ion Ratio Lower Upper

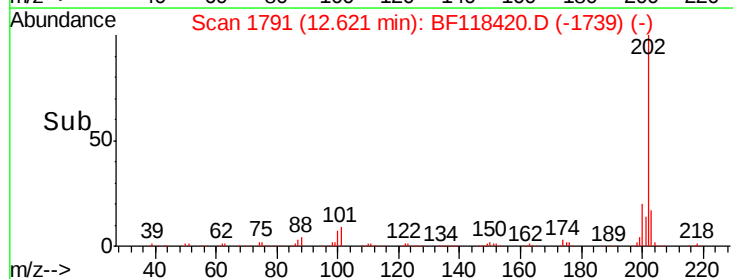
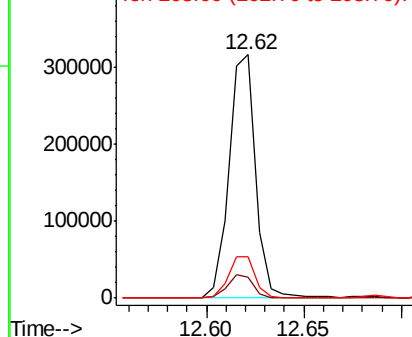
202 100

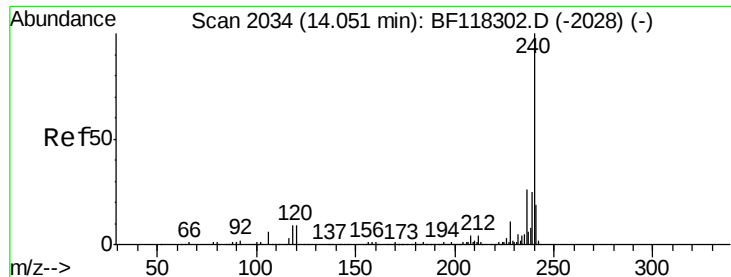
101 8.7 0.0 29.5

203 16.8 0.0 37.6



Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 101.00 (100.70 to 101.70): E  
Ion 203.00 (202.70 to 203.70): E





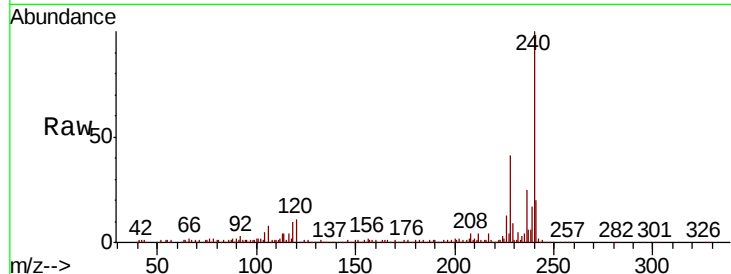
#76  
Chrysene-d12  
Concen: 20.000 ng  
RT: 14.05 min Scan# 2034  
Delta R.T. -0.00 min  
Lab File: BF118420.D  
Acq: 31 Dec 2019 22:12

Instrument :  
BNA\_F  
ClientSampleId :  
K321-WC-01DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 11.2  | 7.1   | 10.7# |
| 236     | 25.2  | 21.0  | 31.6  |

Manual Integrations  
APPROVED

mohammad  
1/2/2020 11:50:25 AM

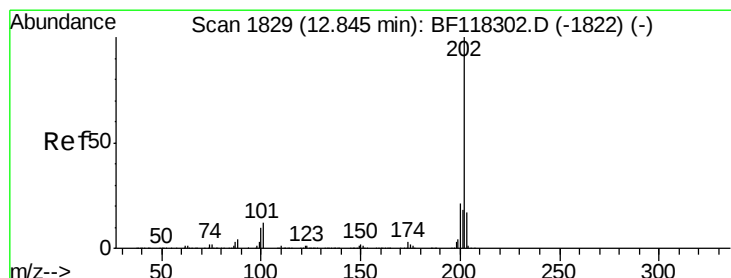
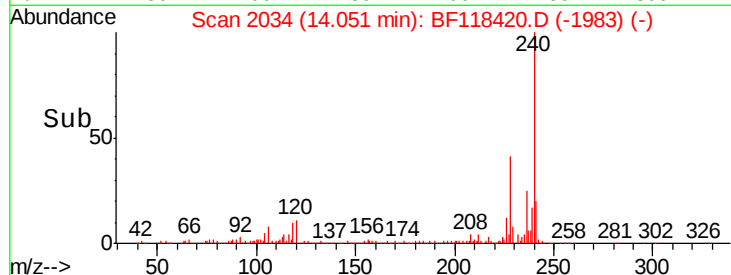
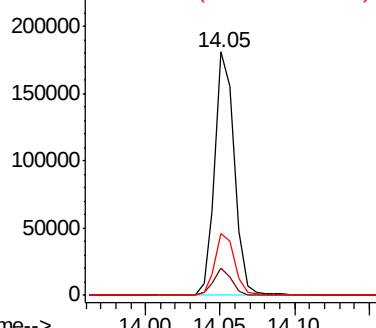


Abundance

Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E



#78  
Pyrene  
Concen: 22.223 ng  
RT: 12.85 min Scan# 1830  
Delta R.T. 0.01 min  
Lab File: BF118420.D  
Acq: 31 Dec 2019 22:12

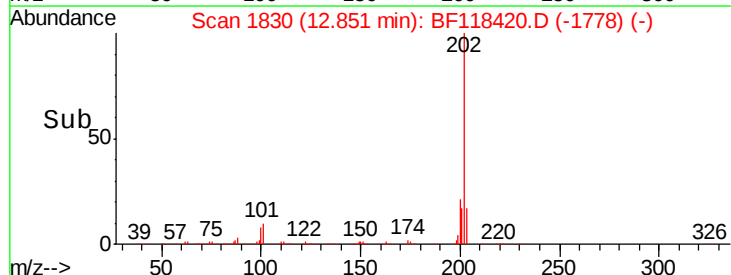
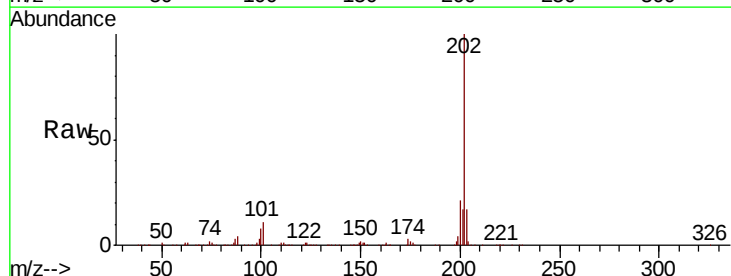
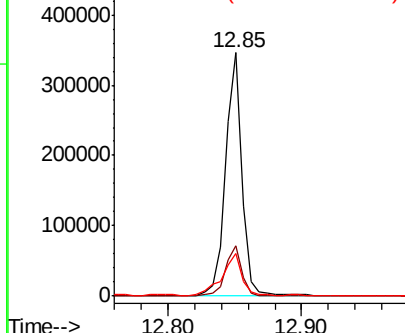
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 20.9  | 16.8  | 25.2  |
| 203     | 17.4  | 13.9  | 20.9  |

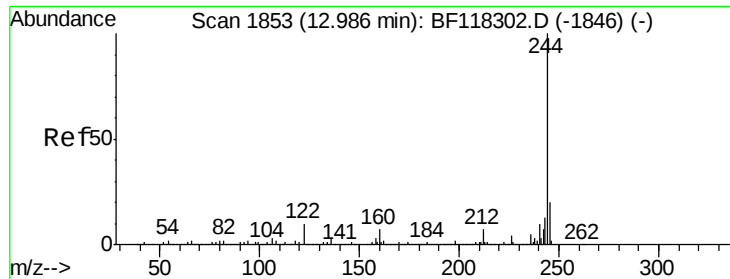
Abundance

Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E





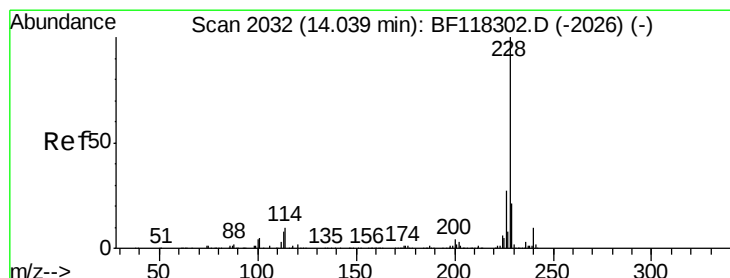
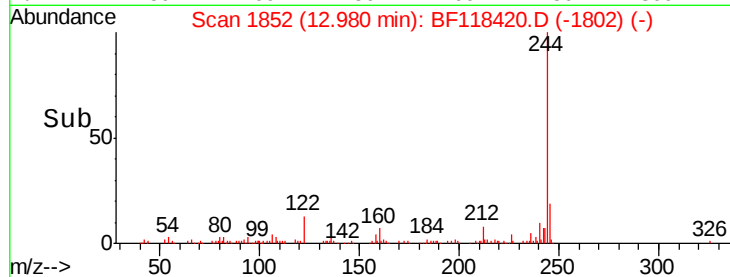
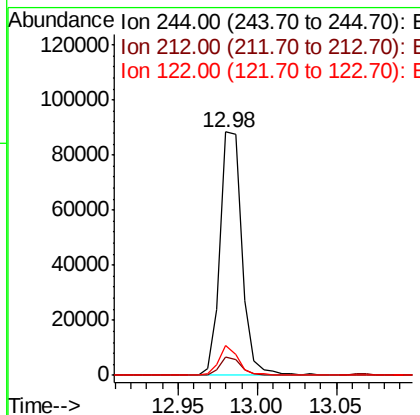
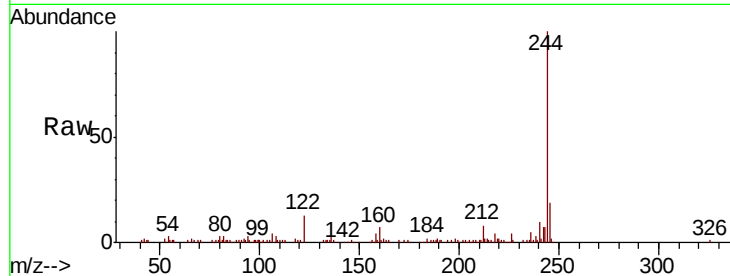
#79  
 Terphenyl-d14  
 Concen: 8.490 ng  
 RT: 12.98 min Scan# 1852  
 Delta R.T. -0.01 min  
 Lab File: BF118420.D  
 Acq: 31 Dec 2019 22:12

Instrument :  
 BNA\_F  
 ClientSampleId :  
 K321-WC-01DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 7.7   | 5.4   | 8.2   |
| 122     | 12.5  | 7.8   | 11.8  |

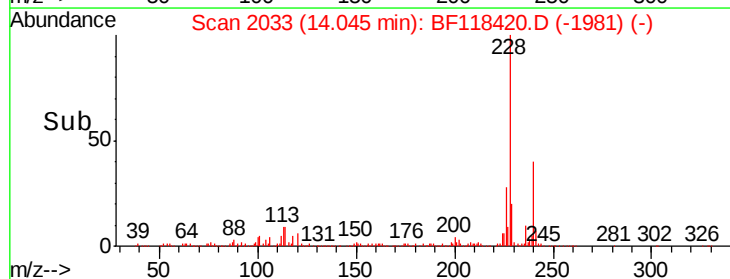
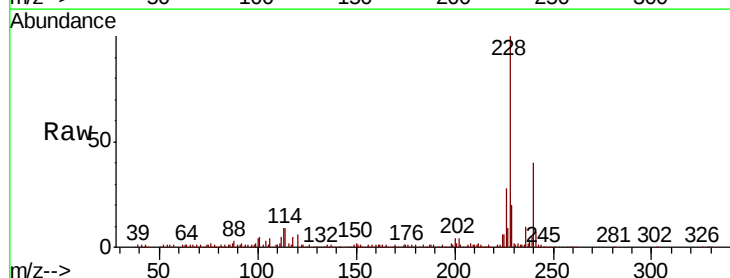
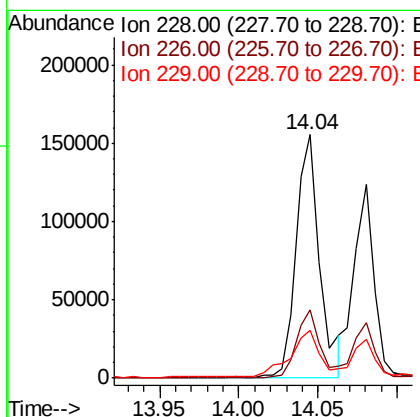
Manual Integrations  
 APPROVED

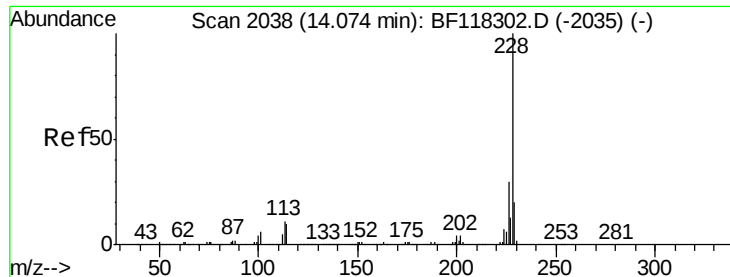
mohammad  
 1/2/2020 11:50:25 AM



#81  
 Benzo(a)anthracene  
 Concen: 13.778 ng  
 RT: 14.04 min Scan# 2033  
 Delta R.T. 0.01 min  
 Lab File: BF118420.D  
 Acq: 31 Dec 2019 22:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.8  | 22.0  | 33.0  |
| 229     | 19.8  | 16.6  | 24.8  |





#83

Chrysene

Concen: 9.789 ng

RT: 14.08 min Scan# 2039

Delta R.T. 0.01 min

Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

Instrument :

BNA\_F

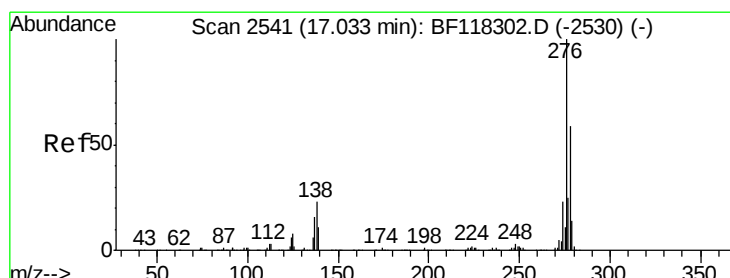
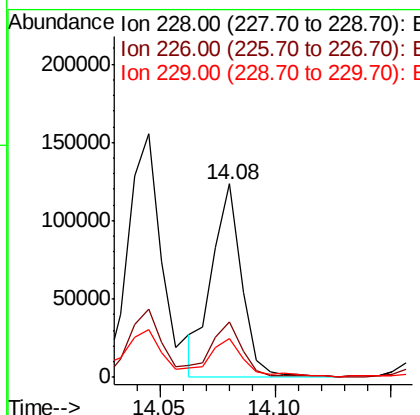
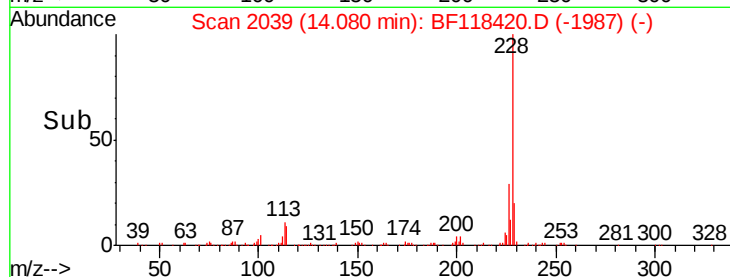
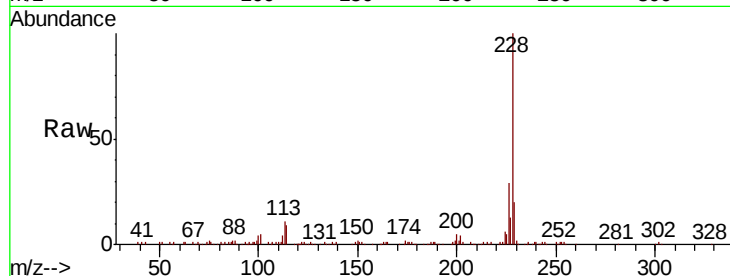
ClientSampleId :

K321-WC-01DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.8  | 23.9  | 35.9  |
| 229     | 20.3  | 16.1  | 24.1  |

Manual Integrations  
APPROVED

mohammad  
1/2/2020 11:50:25 AM



#86

Indeno(1,2,3-cd)pyrene

Concen: 4.836 ng

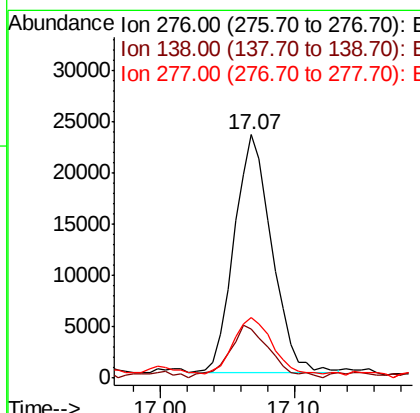
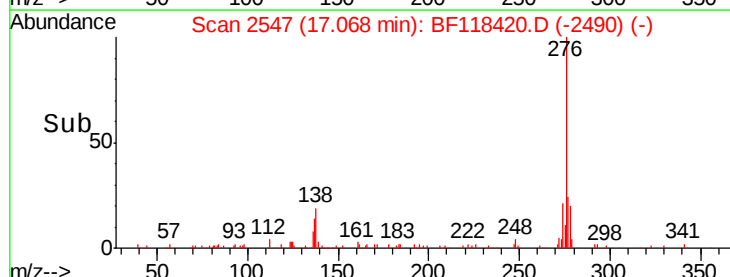
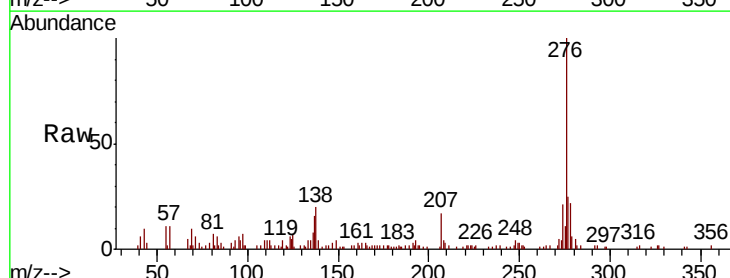
RT: 17.07 min Scan# 2547

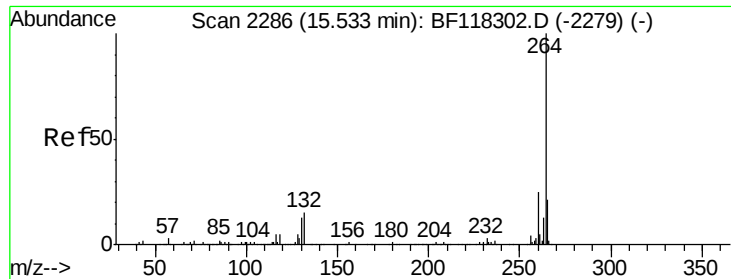
Delta R.T. 0.04 min

Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 23.8  | 19.5  | 29.3  |
| 277     | 23.9  | 20.6  | 30.8  |





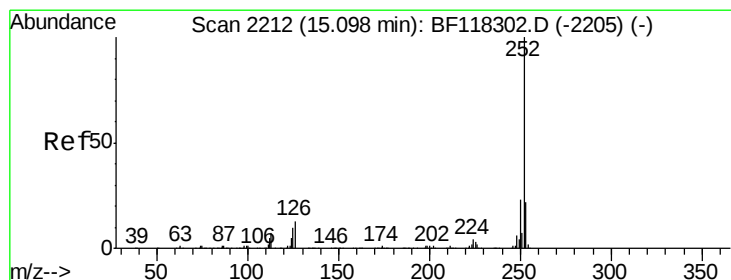
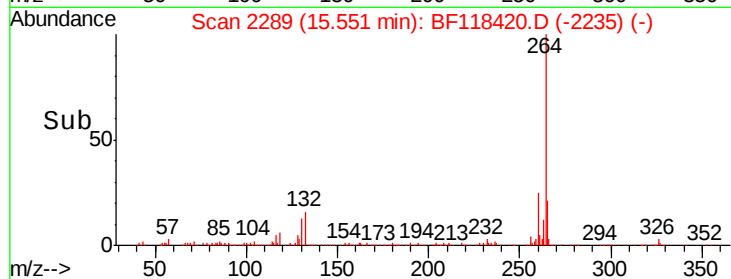
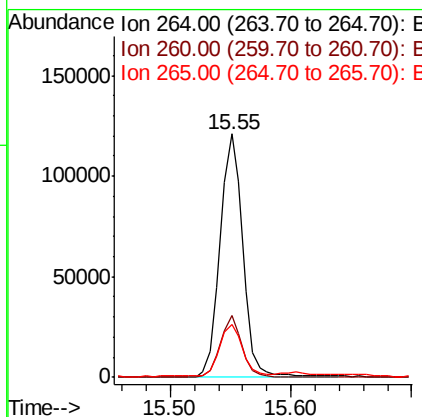
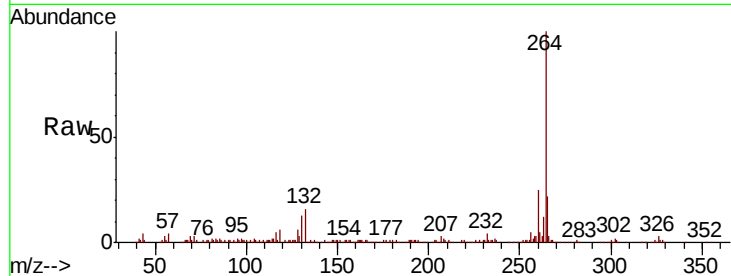
#87  
Pervlene-d12  
Concen: 20.000 ng  
RT: 15.55 min Scan# 2289  
Delta R.T. 0.02 min  
Lab File: BF118420.D  
Acq: 31 Dec 2019 22:12

Instrument :  
BNA\_F  
ClientSampleId :  
K321-WC-01DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 25.4  | 19.8  | 29.6  |
| 265     | 21.5  | 17.0  | 25.4  |

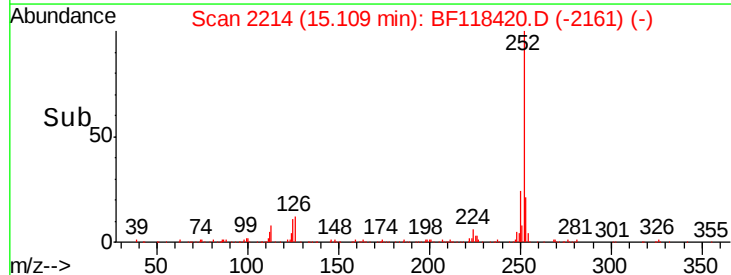
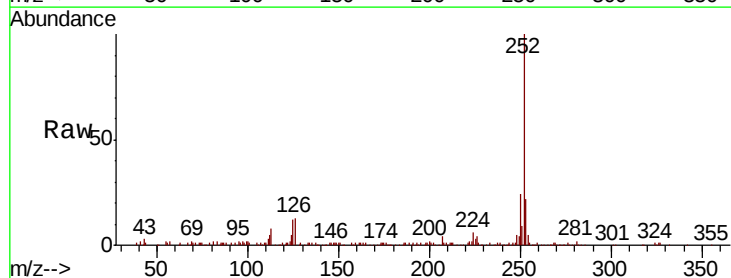
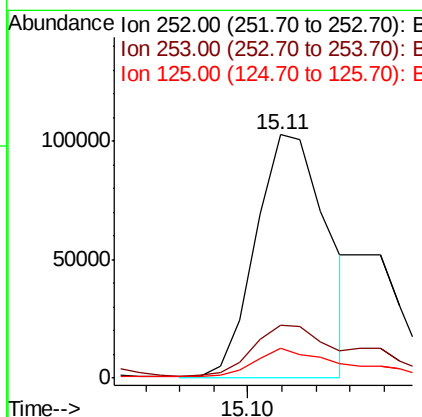
Manual Integrations  
APPROVED

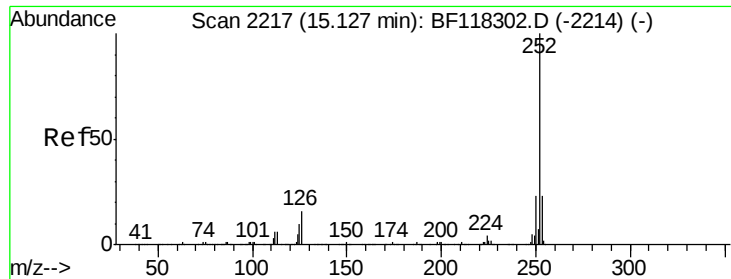
mohammad  
1/2/2020 11:50:25 AM



#88  
Benzo(b)fluoranthene  
Concen: 14.290 ng m  
RT: 15.11 min Scan# 2214  
Delta R.T. 0.01 min  
Lab File: BF118420.D  
Acq: 31 Dec 2019 22:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.6  | 17.5  | 26.3  |
| 125     | 12.2  | 7.7   | 11.5  |





#89

Benzo(k)fluoranthene

Concen: 5.236 ng

RT: 15.14 min Scan# 2219

Delta R.T. 0.01 min

Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

Instrument :

BNA\_F

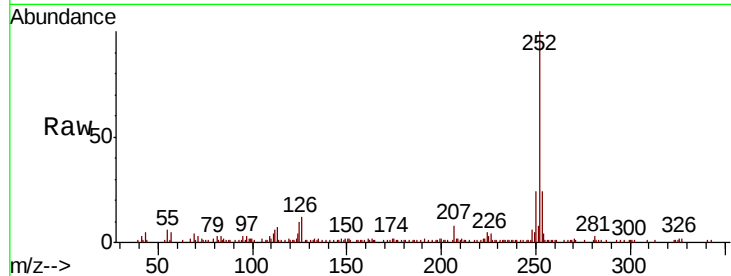
ClientSampleId :

K321-WC-01DL

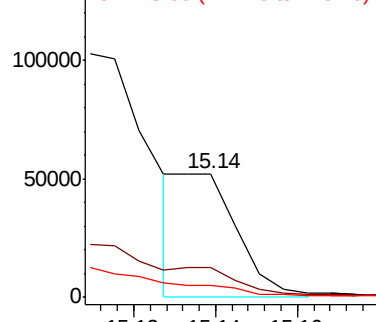
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 252   | Resp: | 52857 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 24.0  | 18.0  | 27.0  |
| 125       | 10.0  | 8.0   | 12.0  |

Manual Integrations  
APPROVED

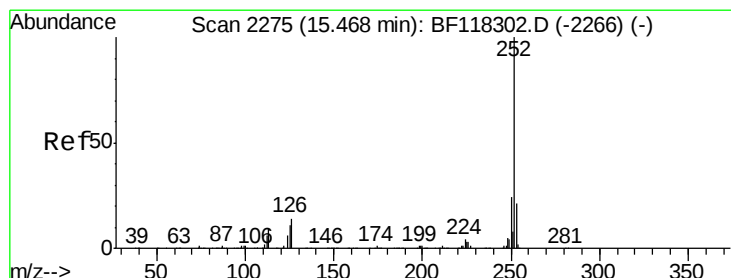
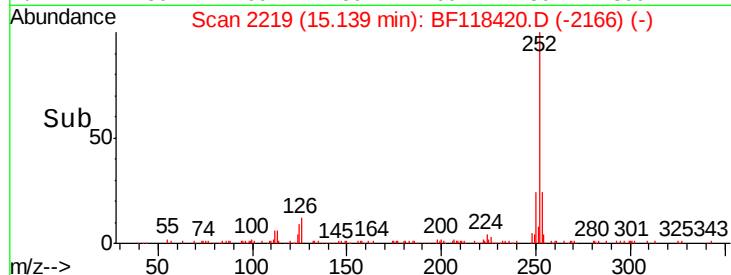
mohammad  
1/2/2020 11:50:25 AM



Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E



Time-->



#90

Benzo(a)pyrene

Concen: 10.460 ng

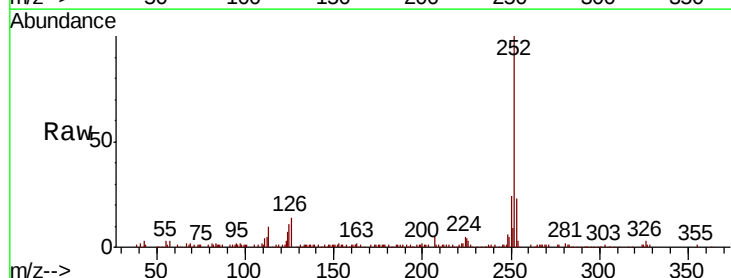
RT: 15.49 min Scan# 2278

Delta R.T. 0.02 min

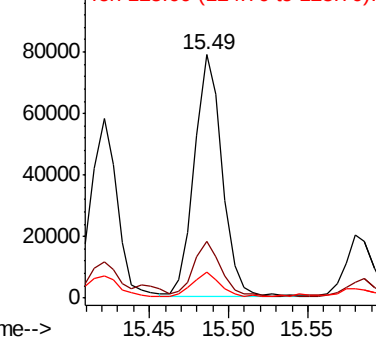
Lab File: BF118420.D

Acq: 31 Dec 2019 22:12

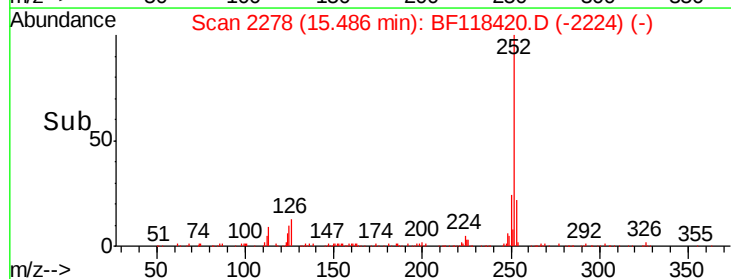
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 96871 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 23.3  | 17.0  | 25.6  |
| 125       | 10.8  | 9.0   | 13.4  |

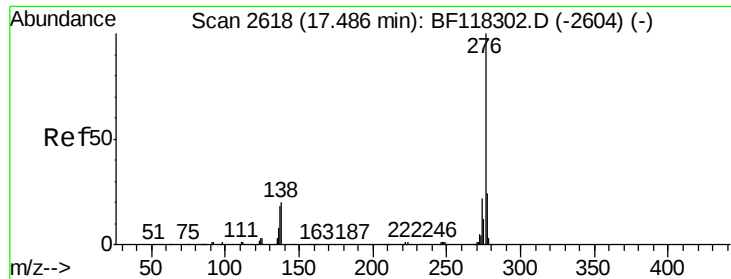


Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E



Time-->





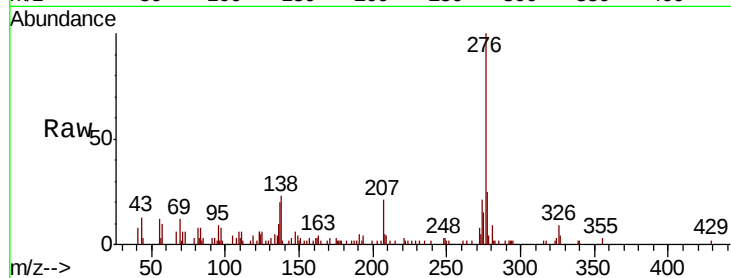
#92  
 Benzo(a,h,i)perylene  
 Concen: 5.599 ng  
 RT: 17.53 min Scan# 2626  
 Delta R.T. 0.05 min  
 Lab File: BF118420.D  
 Acq: 31 Dec 2019 22:12

Instrument :  
 BNA\_F  
 ClientSampleId :  
 K321-WC-01DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 276   | Resp: | 43472 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 277       | 25.3  | 19.1  | 28.7  |
| 138       | 22.5  | 16.1  | 24.1  |

Manual Integrations  
 APPROVED

mohammad  
 1/2/2020 11:50:25 AM



Abundance

Ion 276.00 (275.70 to 276.70): E

Ion 277.00 (276.70 to 277.70): E

Ion 138.00 (137.70 to 138.70): E

