

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM080219\  
 Data File : BM021773.D  
 Acq On : 03 Aug 2019 04:08  
 Operator : HP/JU  
 Sample : MDL-W-04  
 Misc : 0.07PPM  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 MDL-W-04

Manual Integrations  
 APPROVED

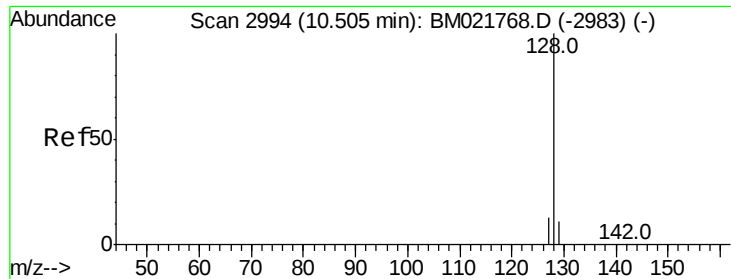
mohammad  
 8/5/2019 8:35:04 AM

Quant Time: Aug 03 07:25:50 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080219.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Sat Aug 03 05:33:59 2019  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|--------|--------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.67  | 152  | 755      | 0.40   | ng/ul  | 0.00     |
| 2) Naphthalene-d8           | 10.50 | 136  | 3394     | 0.40   | ng/ul  | 0.05     |
| 6) Acenaphthene-d10         | 14.33 | 164  | 1643     | 0.40   | ng/ul  | 0.02     |
| 10) Phenanthrene-d10        | 17.10 | 188  | 2884     | 0.40   | ng/ul  | 0.02     |
| 16) Chrysene-d12            | 21.27 | 240  | 1914     | 0.40   | ng/ul  | 0.00     |
| 20) Perylene-d12            | 23.49 | 264  | 1887     | 0.40   | ng/ul  | 0.00     |
| System Monitoring Compounds |       |      |          |        |        |          |
| 4) 2-Methylnaphthalene-d10  | 12.12 | 152  | 1741     | 0.39   | ng/ul  | 0.05     |
| 14) Fluoranthene-d10        | 19.11 | 212  | 2532     | 0.38   | ng/ul  | 0.01     |
| Target Compounds            |       |      |          | Ovalue |        |          |
| 3) Naphthalene              | 10.56 | 128  | 855      | 0.090  | ng/ul# | 47       |
| 5) 2-Methylnaphthalene      | 12.20 | 142  | 509      | 0.093  | ng/ul  | 95       |
| 7) Acenaphthylene           | 14.06 | 152  | 683      | 0.083  | ng/ul# | 70       |
| 8) Acenaphthene             | 14.39 | 153  | 614      | 0.088  | ng/ul  | 96       |
| 9) Fluorene                 | 15.42 | 166  | 573      | 0.078  | ng/ul# | 93       |
| 11) Pentachlorophenol       | 16.82 | 266  | 27m      | 0.067  | ng/ul  |          |
| 12) Phenanthrene            | 17.14 | 178  | 825      | 0.085  | ng/ul# | 76       |
| 13) Anthracene              | 17.25 | 178  | 559      | 0.076  | ng/ul# | 63       |
| 15) Fluoranthene            | 19.14 | 202  | 838      | 0.087  | ng/ul  | 75       |
| 17) Pyrene                  | 19.51 | 202  | 881      | 0.104  | ng/ul# | 75       |
| 18) Benzo(a)anthracene      | 21.27 | 228  | 507      | 0.089  | ng/ul# | 81       |
| 19) Chrysene                | 21.31 | 228  | 965      | 0.100  | ng/ul# | 84       |
| 21) Benzo(b)fluoranthene    | 22.83 | 252  | 676      | 0.080  | ng/ul# | 40       |
| 22) Benzo(k)fluoranthene    | 22.88 | 252  | 872      | 0.098  | ng/ul# | 40       |
| 23) Benzo(a)pyrene          | 23.42 | 252  | 557      | 0.084  | ng/ul# | 22       |
| 24) Indeno(1,2,3-cd)pyrene  | 25.77 | 276  | 594      | 0.078  | ng/ul# | 95       |
| 25) Dibenzo(a,h)anthracene  | 25.80 | 278  | 440      | 0.074  | ng/ul# | 19       |
| 26) Benzo(g,h,i)perylene    | 26.44 | 276  | 588      | 0.080  | ng/ul# | 66       |

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





#3

Naphthalene

Concen: 0.090 ng/ul

RT: 10.56 min Scan# 3006

Delta R.T. 0.05 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

Instrument :

BNA\_M

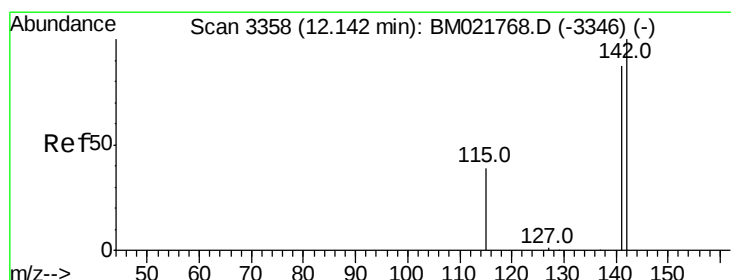
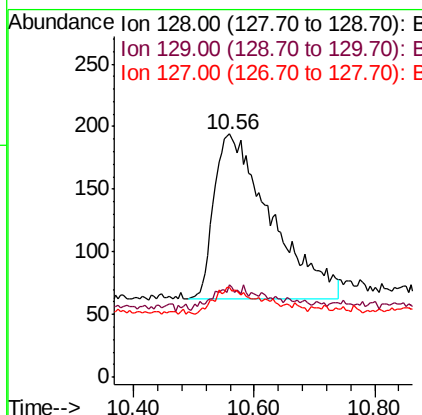
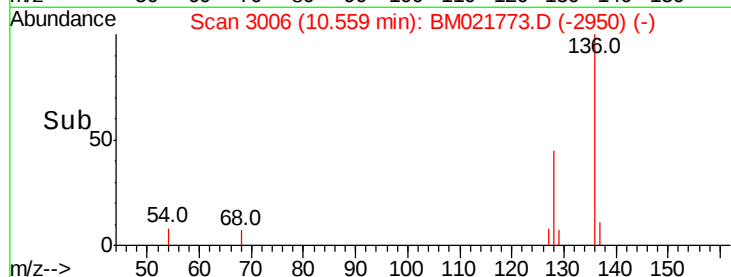
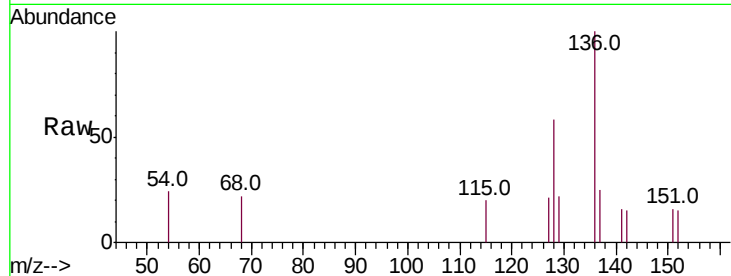
ClientSampleId :

MDL-W-04

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 128   | Resp: | 855   |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 129       | 38.1  | 11.5  | 17.3# |
| 127       | 37.1  | 13.1  | 19.7# |

Manual Integrations  
APPROVED

mohammad  
8/5/2019 8:35:04 AM



#5

2-Methylnaphthalene

Concen: 0.093 ng/ul

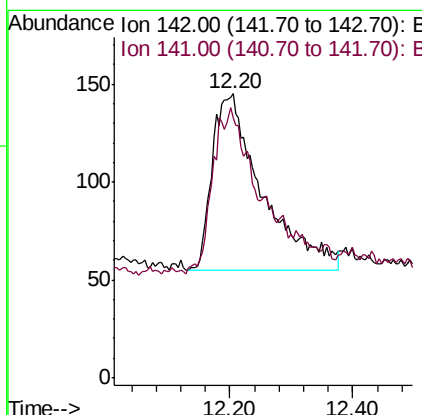
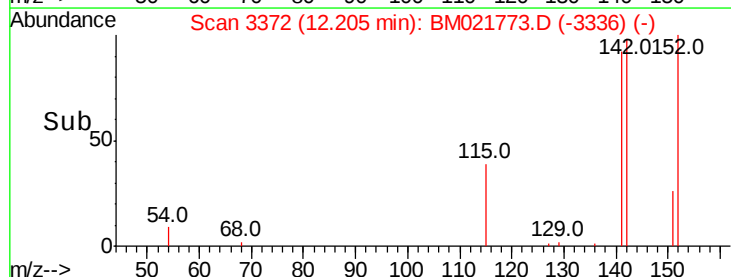
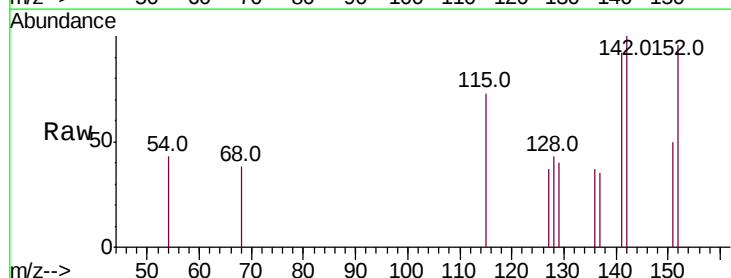
RT: 12.20 min Scan# 3372

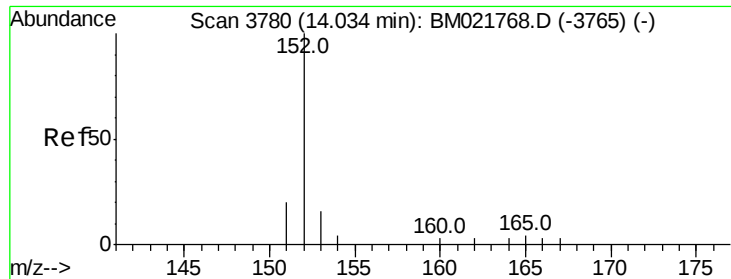
Delta R.T. 0.06 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 142   | Resp: | 509   |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 141       | 94.7  | 72.0  | 108.0 |





#7

Acenaphthylene

Concen: 0.083 ng/ul

RT: 14.06 min Scan# 3788

Delta R.T. 0.03 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

Instrument :

BNA\_M

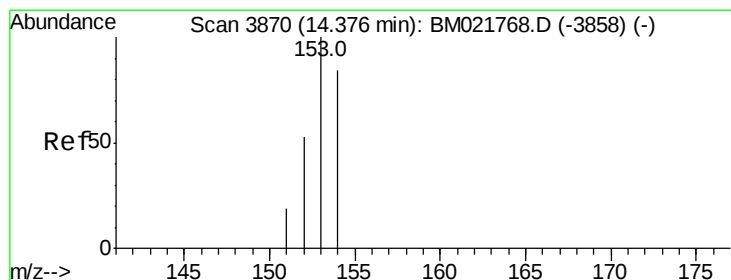
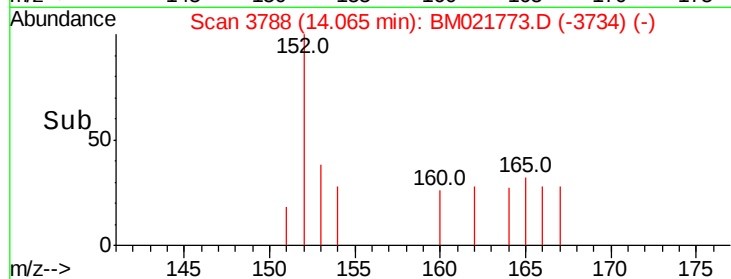
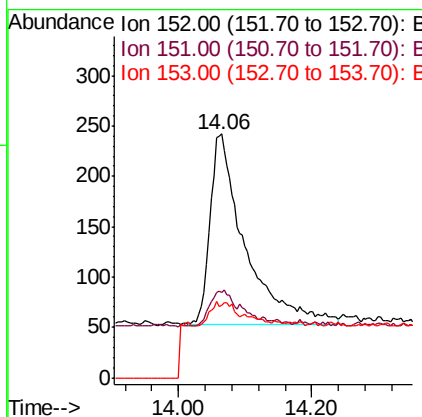
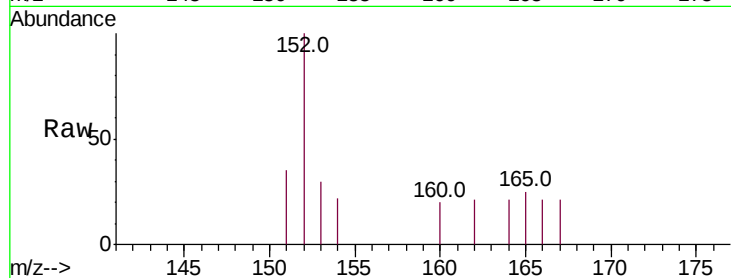
ClientSampleId :

MDL-W-04

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 152   | Resp: | 683   |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 35.1  | 17.8  | 26.6# |
| 153       | 29.8  | 12.6  | 18.8# |

Manual Integrations  
APPROVED

mohammad  
8/5/2019 8:35:04 AM



#8

Acenaphthene

Concen: 0.088 ng/ul

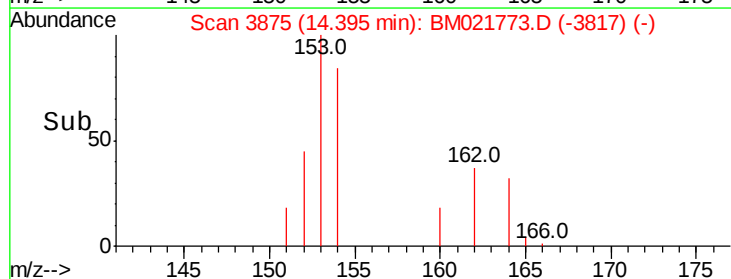
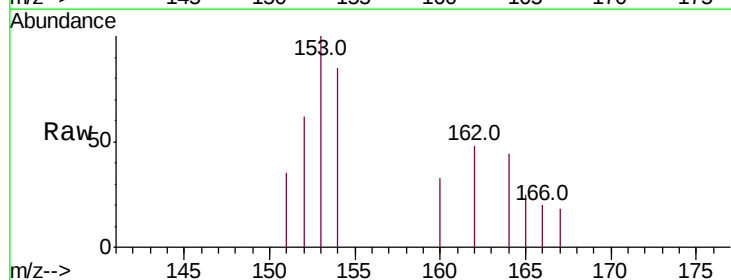
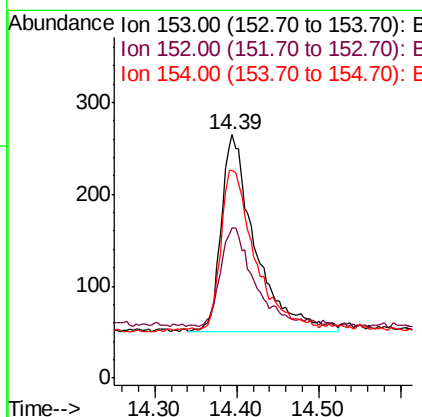
RT: 14.39 min Scan# 3875

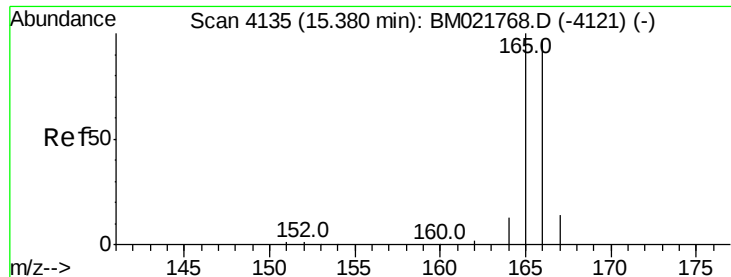
Delta R.T. 0.02 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 153   | Resp: | 614   |
| Ion Ratio | Lower | Upper |       |
| 153       | 100   |       |       |
| 152       | 61.9  | 44.0  | 66.0  |
| 154       | 85.3  | 68.0  | 102.0 |





#9

Fluorene

Concen: 0.078 ng/ul

RT: 15.42 min Scan# 4145

Delta R.T. 0.04 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

Instrument :

BNA\_M

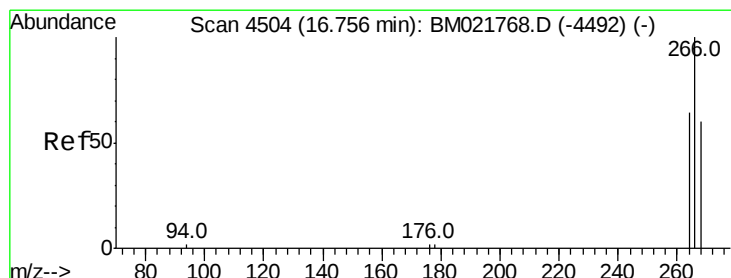
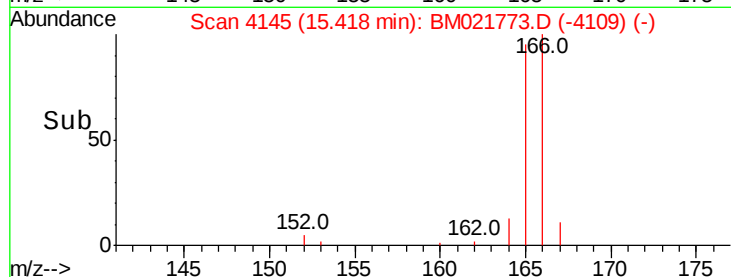
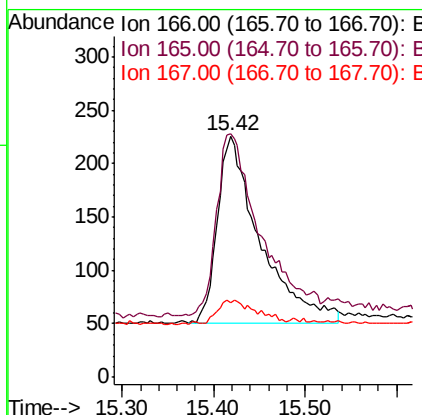
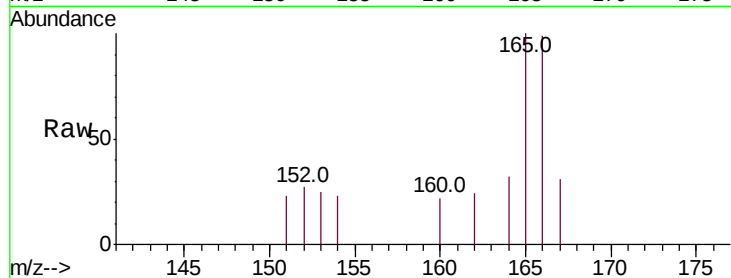
ClientSampleId :

MDL-W-04

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 100.9 | 83.0  | 124.4 |
| 167     | 31.0  | 13.4  | 20.2  |

Manual Integrations  
APPROVED

mohammad  
8/5/2019 8:35:04 AM



#11

Pentachlorophenol

Concen: 0.067 ng/ul m

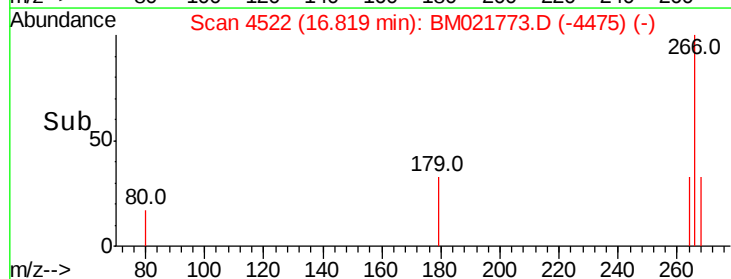
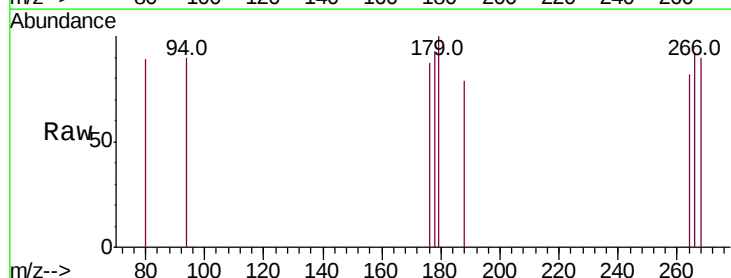
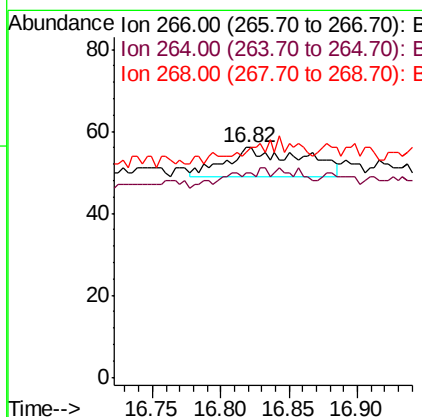
RT: 16.82 min Scan# 4522

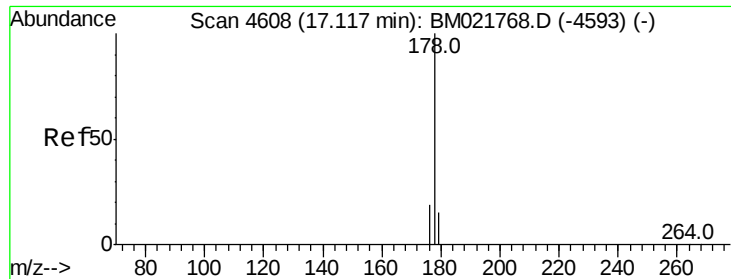
Delta R.T. 0.06 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 266     | 100   |       |       |
| 264     | 7.4   | 50.9  | 76.3  |
| 268     | 7.4   | 45.4  | 68.2  |





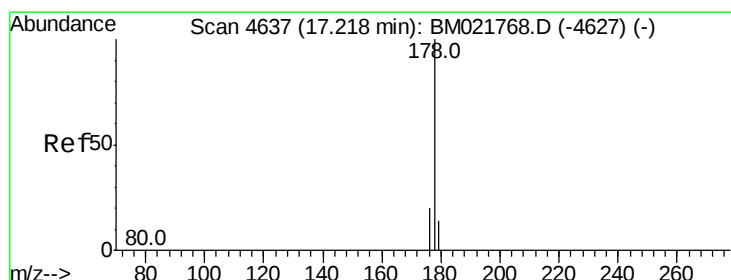
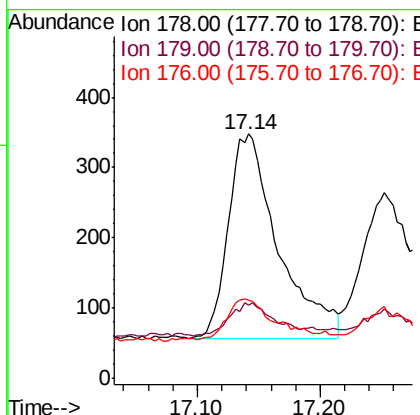
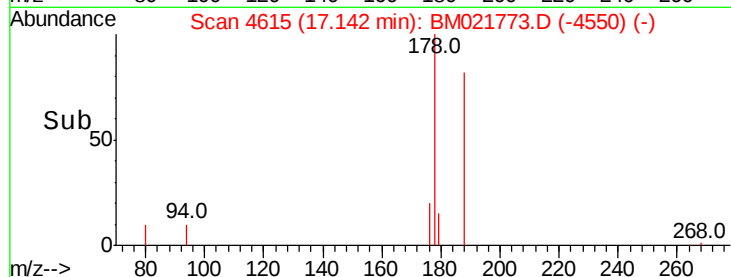
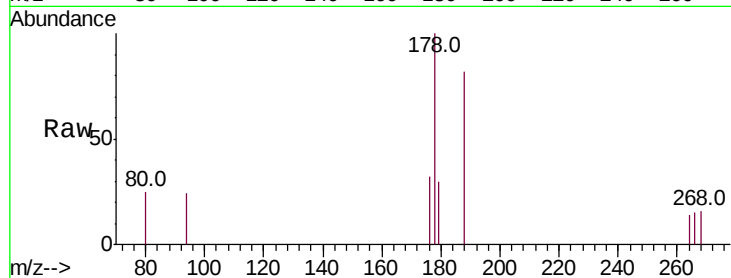
#12  
Phenanthrene  
Concen: 0.085 ng/ul  
RT: 17.14 min Scan# 4615  
Delta R.T. 0.02 min  
Lab File: BM021773.D  
Acq: 03 Aug 2019 04:08

Instrument :  
BNA\_M  
ClientSampleId :  
MDL-W-04

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 29.6  | 14.0  | 21.0# |
| 176     | 31.6  | 17.0  | 25.6# |

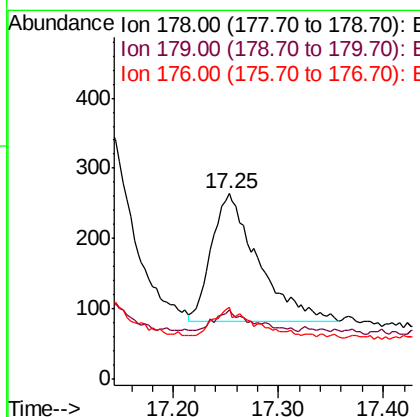
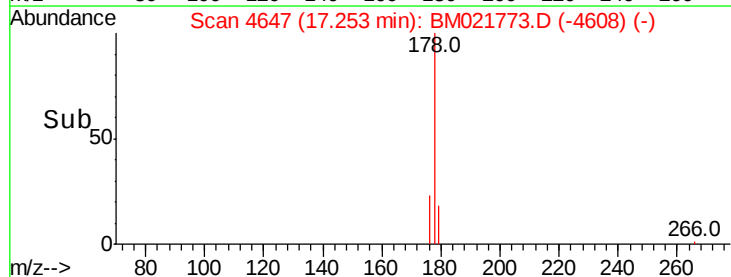
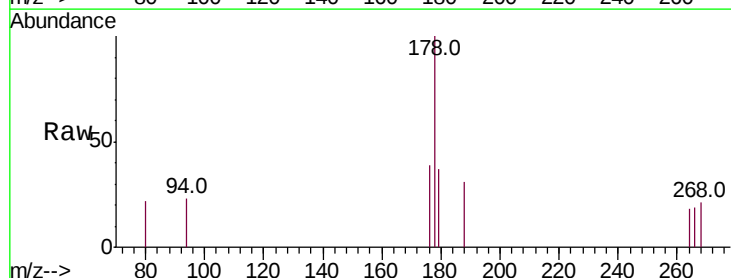
Manual Integrations  
APPROVED

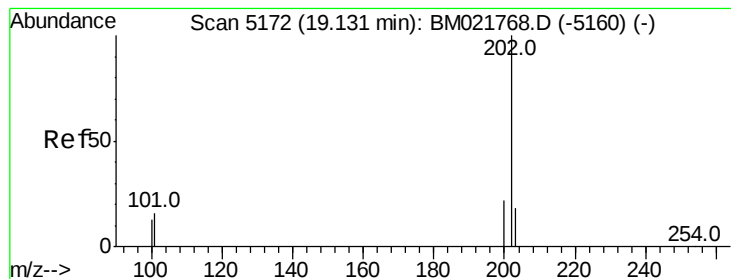
mohammad  
8/5/2019 8:35:04 AM



#13  
Anthracene  
Concen: 0.076 ng/ul  
RT: 17.25 min Scan# 4647  
Delta R.T. 0.03 min  
Lab File: BM021773.D  
Acq: 03 Aug 2019 04:08

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 36.7  | 14.5  | 21.7# |
| 176     | 38.6  | 18.1  | 27.1# |





#15

Fluoranthene

Concen: 0.087 ng/ul

RT: 19.14 min Scan# 5175

Delta R.T. 0.01 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

Instrument :

BNA\_M

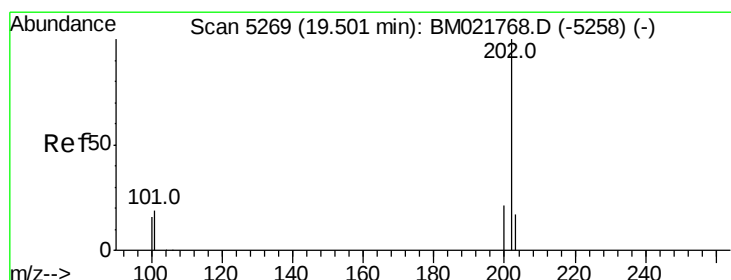
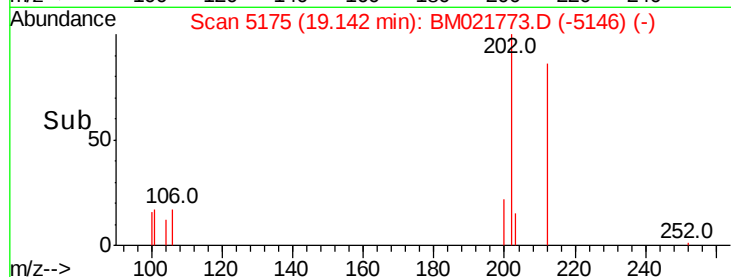
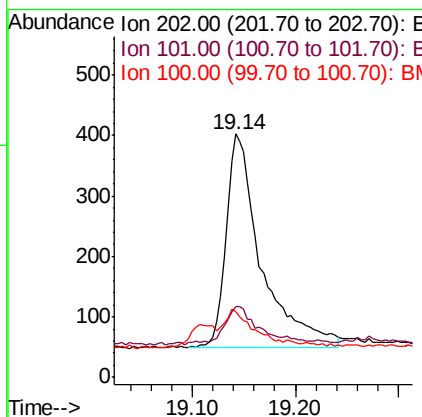
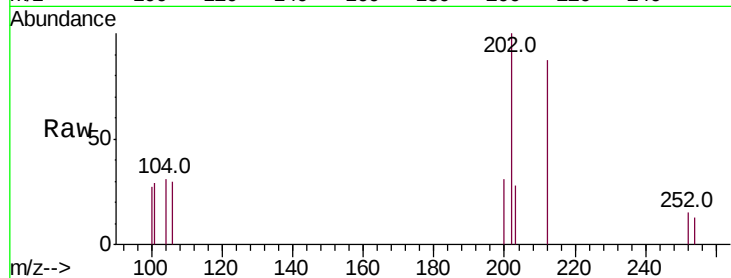
ClientSampled :

MDL-W-04

|           |       |       |      |
|-----------|-------|-------|------|
| Tot Ion:  | 202   | Resp: | 838  |
| Ion Ratio | Lower | Upper |      |
| 202       | 100   |       |      |
| 101       | 29.3  | 0.0   | 38.6 |
| 100       | 26.8  | 0.0   | 35.6 |

Manual Integrations  
APPROVED

mohammad  
8/5/2019 8:35:04 AM



#17

Pyrene

Concen: 0.104 ng/ul

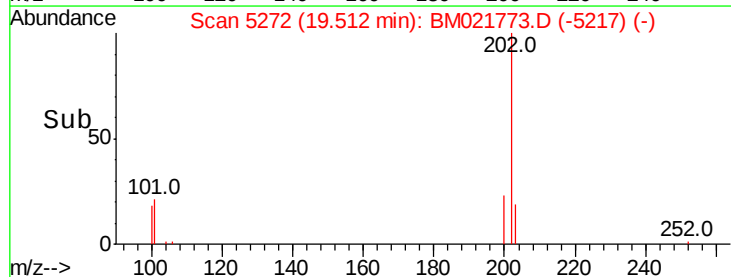
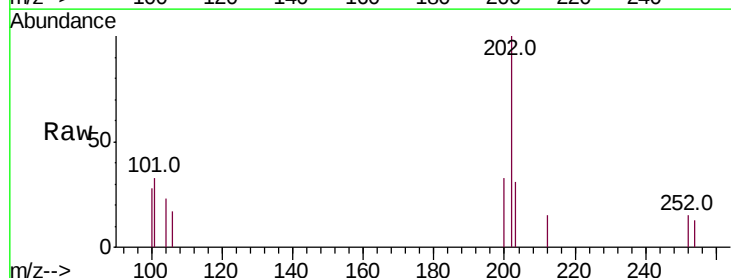
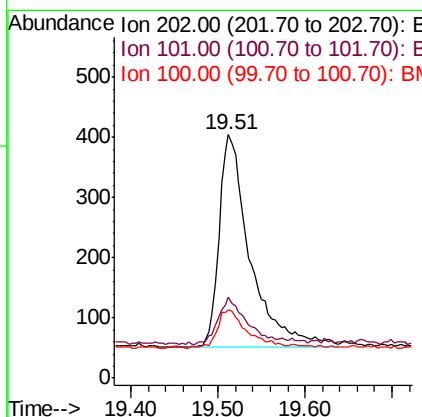
RT: 19.51 min Scan# 5272

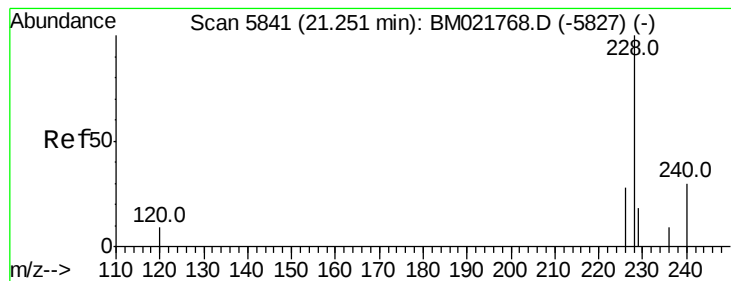
Delta R.T. 0.01 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 202   | Resp: | 881   |
| Ion Ratio | Lower | Upper |       |
| 202       | 100   |       |       |
| 101       | 33.4  | 17.0  | 25.6# |
| 100       | 28.2  | 14.3  | 21.5# |





#18

Benzo(a)anthracene

Concen: 0.089 ng/ul

RT: 21.27 min Scan# 5849

Delta R.T. 0.02 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

Instrument :

BNA\_M

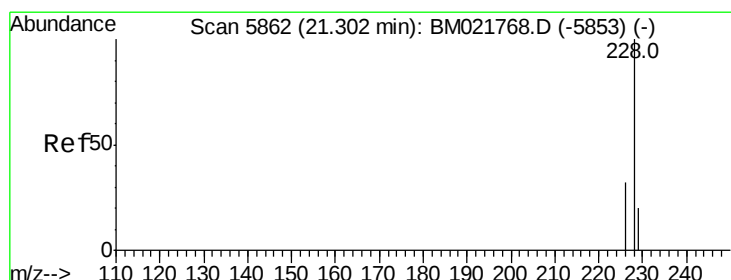
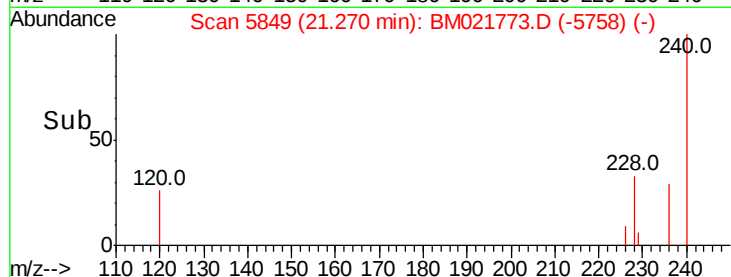
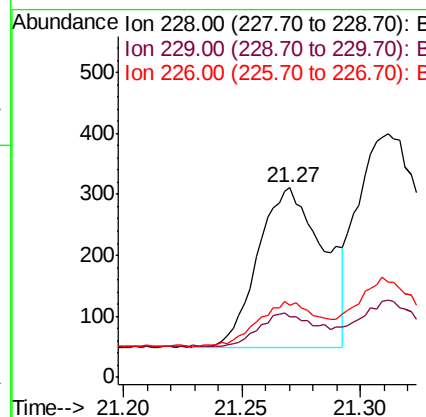
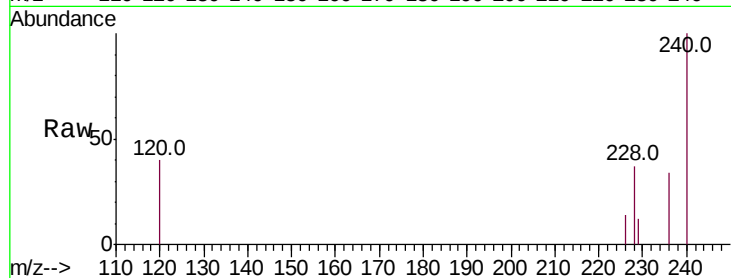
ClientSampled :

MDL-W-04

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 228   | Resp: | 507   |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 229       | 32.2  | 16.6  | 24.8# |
| 226       | 38.3  | 24.2  | 36.2# |

Manual Integrations  
APPROVED

mohammad  
8/5/2019 8:35:04 AM



#19

Chrysene

Concen: 0.100 ng/ul

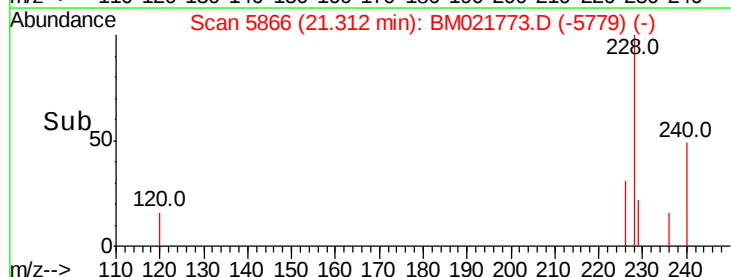
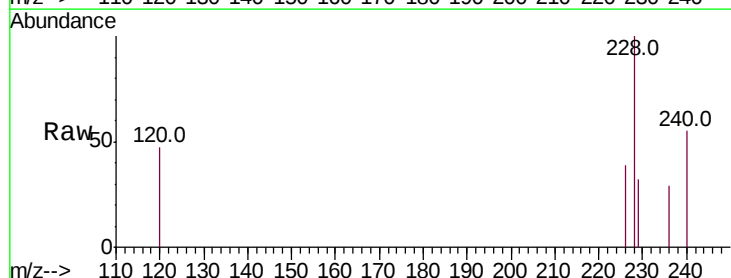
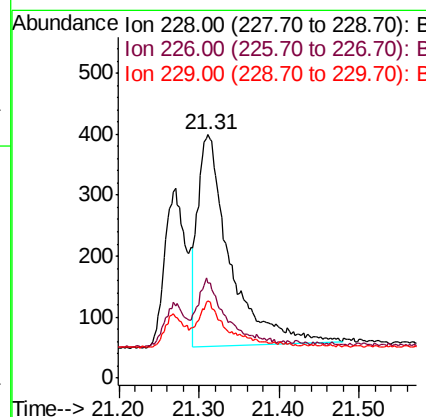
RT: 21.31 min Scan# 5866

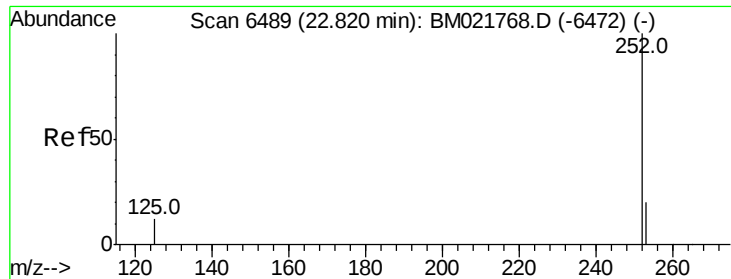
Delta R.T. 0.01 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 965   |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 39.3  | 25.6  | 38.4# |
| 229       | 31.6  | 17.6  | 26.4# |





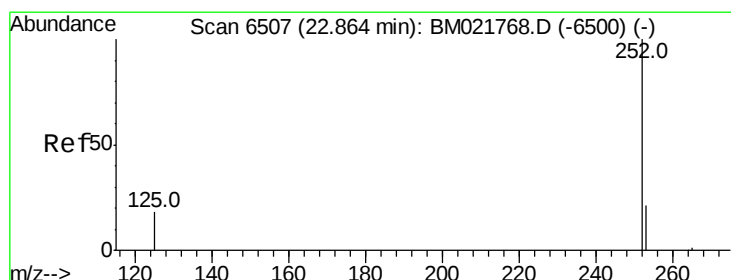
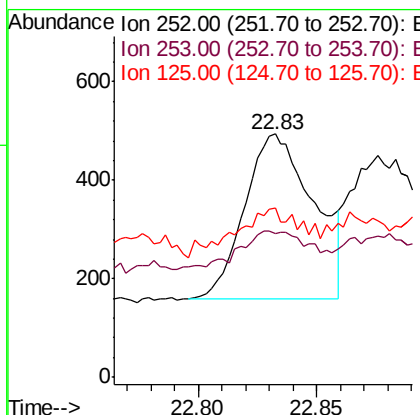
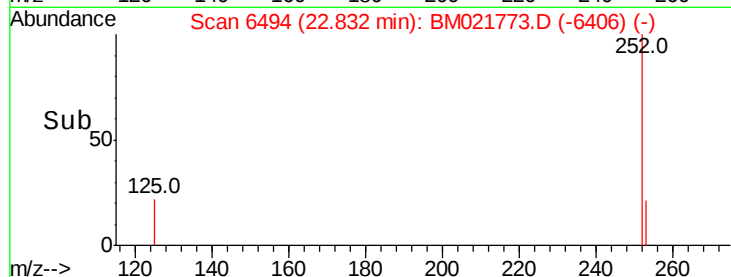
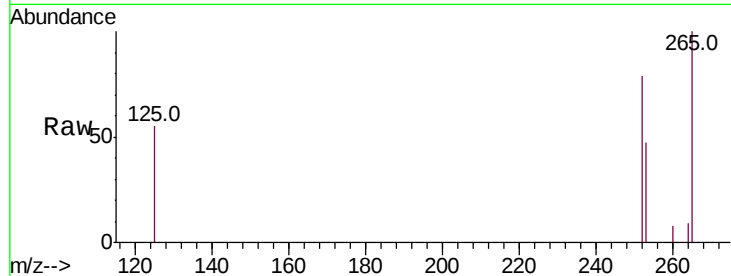
#21  
Benzo(b)fluoranthene  
Concen: 0.080 ng/u1  
RT: 22.83 min Scan# 6494  
Delta R.T. 0.01 min  
Lab File: BM021773.D  
Acq: 03 Aug 2019 04:08

Instrument :  
BNA\_M  
ClientSampled :  
MDL-W-04

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 58.9  | 0.0   | 62.8  |
| 125     | 69.4  | 0.0   | 62.2  |

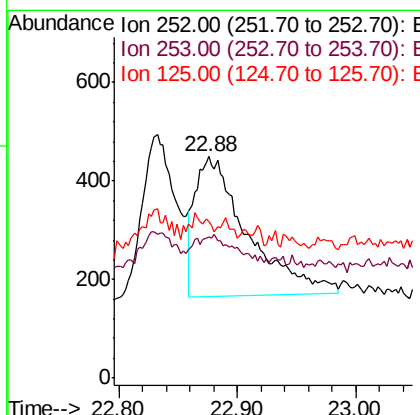
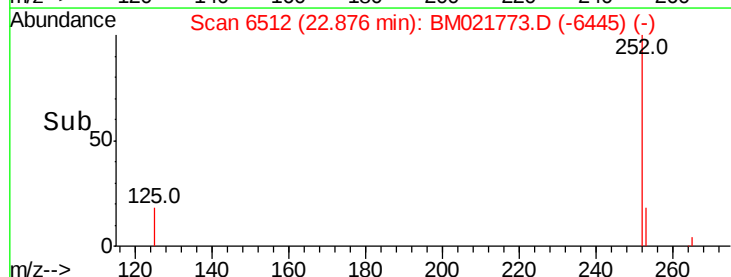
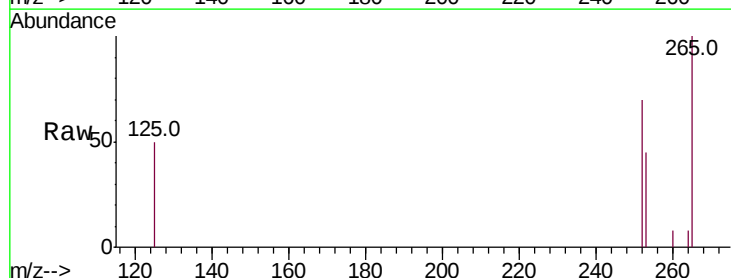
Manual Integrations  
APPROVED

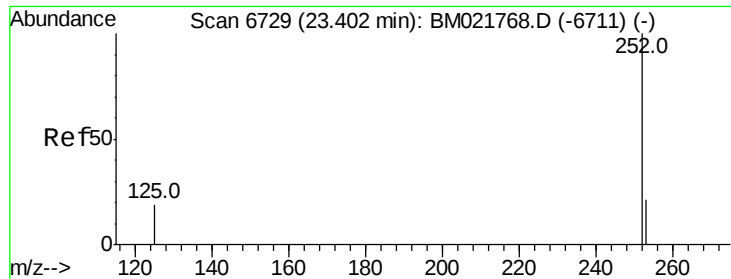
mohammad  
8/5/2019 8:35:04 AM



#22  
Benzo(k)fluoranthene  
Concen: 0.098 ng/u1  
RT: 22.88 min Scan# 6512  
Delta R.T. 0.01 min  
Lab File: BM021773.D  
Acq: 03 Aug 2019 04:08

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 63.6  | 25.8  | 38.8  |
| 125     | 70.4  | 27.0  | 40.4  |





#23

Benzo(a)pyrene

Concen: 0.084 ng/ul

RT: 23.42 min Scan# 6737

Delta R.T. 0.02 min

Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

Instrument :

BNA\_M

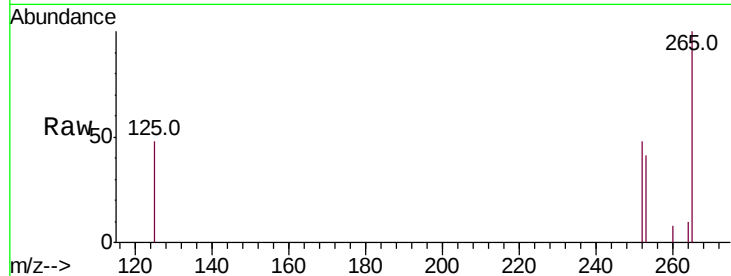
ClientSampleId :

MDL-W-04

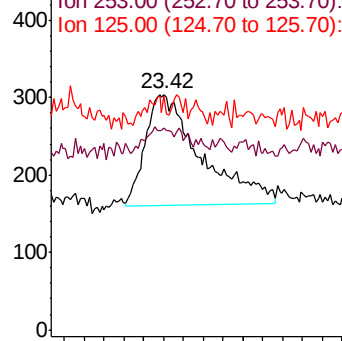
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 252   | Resp: | 557   |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 85.5  | 32.4  | 48.6# |
| 125       | 99.3  | 35.9  | 53.9# |

Manual Integrations  
APPROVED

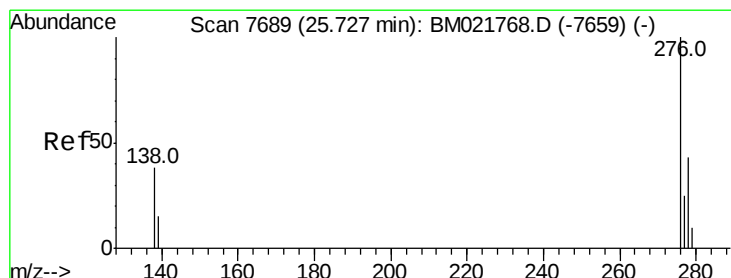
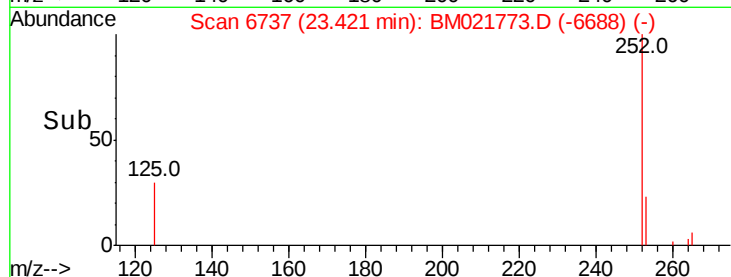
mohammad  
8/5/2019 8:35:04 AM



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-->



#24

Indeno(1,2,3-cd)pyrene

Concen: 0.078 ng/ul

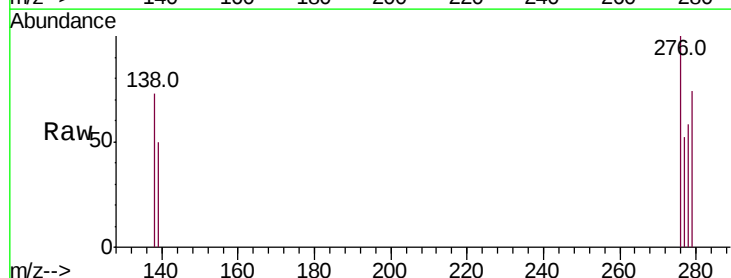
RT: 25.77 min Scan# 7705

Delta R.T. 0.04 min

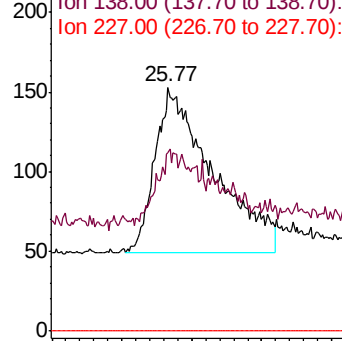
Lab File: BM021773.D

Acq: 03 Aug 2019 04:08

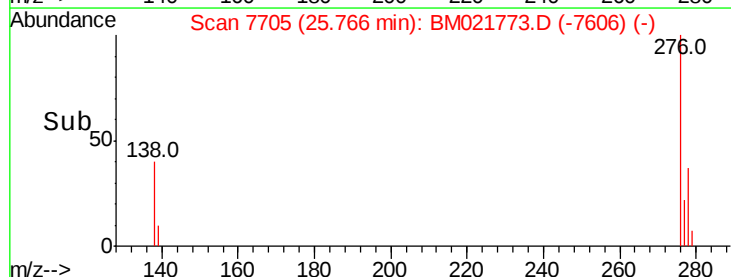
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 276   | Resp: | 594  |
| Ion Ratio | Lower | Upper |      |
| 276       | 100   |       |      |
| 138       | 39.4  | 33.8  | 50.8 |
| 227       | 0.0   | 0.0   | 0.0  |

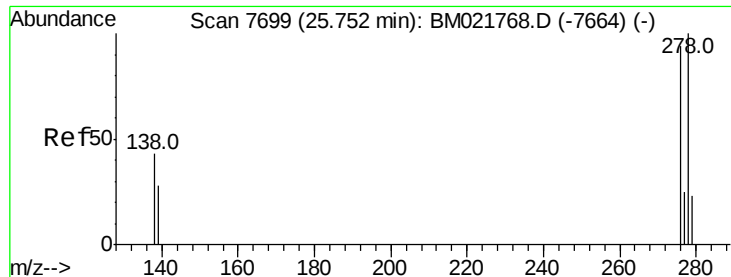


Abundance Ion 276.00 (275.70 to 276.70): E  
Ion 138.00 (137.70 to 138.70): E  
Ion 227.00 (226.70 to 227.70): E



Time-->





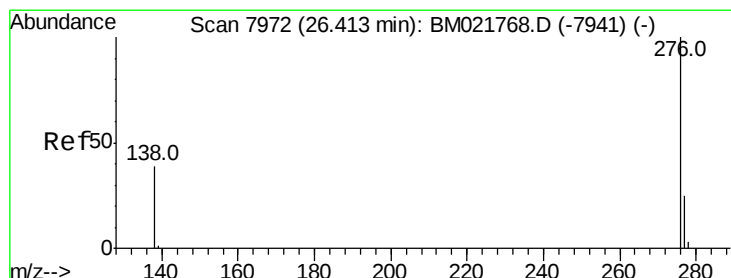
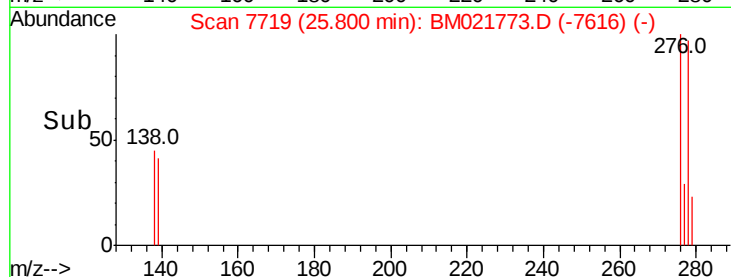
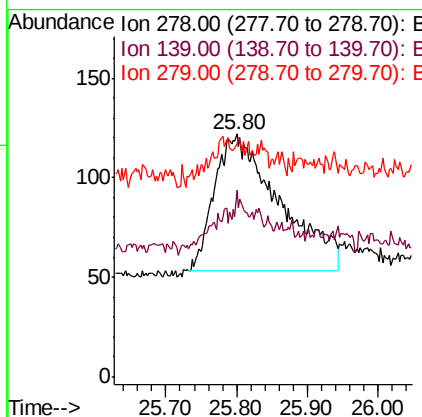
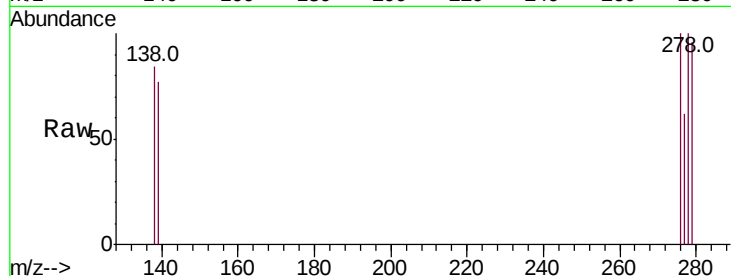
#25  
Dibenzo(a,h)anthracene  
Concen: 0.074 ng/ul  
RT: 25.80 min Scan# 7719  
Delta R.T. 0.05 min  
Lab File: BM021773.D  
Acq: 03 Aug 2019 04:08

Instrument :  
BNA\_M  
ClientSampleId :  
MDL-W-04

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 77.0  | 29.5  | 44.3# |
| 279     | 95.9  | 31.1  | 46.7# |

Manual Integrations  
APPROVED

mohammad  
8/5/2019 8:35:04 AM



#26  
Benzo(g,h,i)perylene  
Concen: 0.080 ng/ul  
RT: 26.44 min Scan# 7983  
Delta R.T. 0.03 min  
Lab File: BM021773.D  
Acq: 03 Aug 2019 04:08

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 67.1  | 36.2  | 54.2# |
| 277     | 49.4  | 24.2  | 36.2# |

