

Data Path : Z:\SVOASRV\HPCHEM1\BNA E\DATA\BE113018\  
 Data File : BE098286.D  
 Acq On : 30 Nov 2018 14:46  
 Operator : SJ/JU  
 Sample : PB115203BS  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 PB115203BS

Manual Integrations  
 APPROVED

mohammad  
 12/3/2018 3:33:55 PM

Quant Time: Nov 30 15:20:23 2018  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA E\METHODS\8270-SIM-BE112918.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Nov 29 13:50:43 2018  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.89  | 152  | 1455     | 0.40 | ng    | 0.02     |
| 7) Naphthalene-d8         | 10.68 | 136  | 5987     | 0.40 | ng    | 0.01     |
| 13) Acenaphthene-d10      | 14.54 | 164  | 3209     | 0.40 | ng    | 0.02     |
| 19) Phenanthrene-d10      | 17.29 | 188  | 7716     | 0.40 | ng    | 0.01     |
| 27) Chrysene-d12          | 21.48 | 240  | 10744    | 0.40 | ng    | 0.01     |
| 34) Perylene-d12          | 24.02 | 264  | 10568    | 0.40 | ng    | 0.00     |

|                             |       |     |       |      |    |      |
|-----------------------------|-------|-----|-------|------|----|------|
| System Monitoring Compounds |       |     |       |      |    |      |
| 4) 2-Fluorophenol           | 5.47  | 112 | 1276  | 0.33 | ng | 0.02 |
| 5) Phenol-d6                | 7.07  | 99  | 1556  | 0.28 | ng | 0.02 |
| 8) Nitrobenzene-d5          | 9.04  | 82  | 1768  | 0.29 | ng | 0.03 |
| 11) 2-Methylnaphthalene-d10 | 12.28 | 152 | 2938m | 0.30 | ng | 0.02 |
| 14) 2,4,6-Tribromophenol    | 16.03 | 330 | 357   | 0.23 | ng | 0.01 |
| 15) 2-Fluorobiphenyl        | 13.16 | 172 | 4287  | 0.32 | ng | 0.02 |
| 25) Fluoranthene-d10        | 19.32 | 212 | 33595 | 0.32 | ng | 0.01 |
| 29) Terphenyl-d14           | 19.91 | 244 | 6006  | 0.25 | ng | 0.00 |

|                                |       |     |       |        |    |       |
|--------------------------------|-------|-----|-------|--------|----|-------|
| Target Compounds               |       |     |       | Qvalue |    |       |
| 2) 1,4-Dioxane                 | 3.37  | 88  | 638   | 0.236  | ng | # 50  |
| 3) n-Nitrosodimethylamine      | 3.69  | 42  | 950   | 0.340  | ng | # 100 |
| 6) bis(2-Chloroethyl)ether     | 7.30  | 93  | 1460  | 0.290  | ng | 94    |
| 9) Naphthalene                 | 10.73 | 128 | 21400 | 0.356  | ng | 99    |
| 10) Hexachlorobutadiene        | 11.02 | 225 | 1205  | 0.312  | ng | 98    |
| 12) 2-Methylnaphthalene        | 12.35 | 142 | 3465  | 0.347  | ng | 99    |
| 16) Acenaphthylene             | 14.26 | 152 | 5613  | 0.375  | ng | 99    |
| 17) Acenaphthene               | 14.60 | 154 | 3140  | 0.352  | ng | 100   |
| 18) Fluorene                   | 15.58 | 166 | 4150  | 0.351  | ng | 99    |
| 20) 4-Bromophenyl-phenylether  | 16.48 | 248 | 1393  | 0.319  | ng | 91    |
| 21) Hexachlorobenzene          | 16.59 | 284 | 1450  | 0.321  | ng | 96    |
| 22) Pentachlorophenol          | 16.95 | 266 | 794   | 0.531  | ng | 93    |
| 23) Phenanthrene               | 17.33 | 178 | 6785  | 0.354  | ng | 99    |
| 24) Anthracene                 | 17.42 | 178 | 6221  | 0.349  | ng | 99    |
| 26) Fluoranthene               | 19.35 | 202 | 9188  | 0.351  | ng | 100   |
| 28) Pyrene                     | 19.71 | 202 | 9494  | 0.319  | ng | 100   |
| 30) Benzo(a)anthracene         | 21.45 | 228 | 11695 | 0.370  | ng | 99    |
| 31) Chrysene                   | 21.51 | 228 | 11284 | 0.351  | ng | 100   |
| 32) Bis(2-ethylhexyl)phthalate | 21.37 | 149 | 22435 | 0.296  | ng | 100   |
| 33) Indeno(1,2,3-cd)pyrene     | 26.71 | 276 | 12616 | 0.388  | ng | 99    |
| 35) Benzo(b)fluoranthene       | 23.24 | 252 | 11333 | 0.366  | ng | 99    |
| 36) Benzo(k)fluoranthene       | 23.29 | 252 | 11935 | 0.367  | ng | 98    |
| 37) Benzo(a)pyrene             | 23.91 | 252 | 10973 | 0.368  | ng | 99    |
| 38) Dibenzo(a,h)anthracene     | 26.74 | 278 | 10432 | 0.369  | ng | 99    |
| 39) Benzo(g,h,i)perylene       | 27.54 | 276 | 10798 | 0.381  | ng | 99    |

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

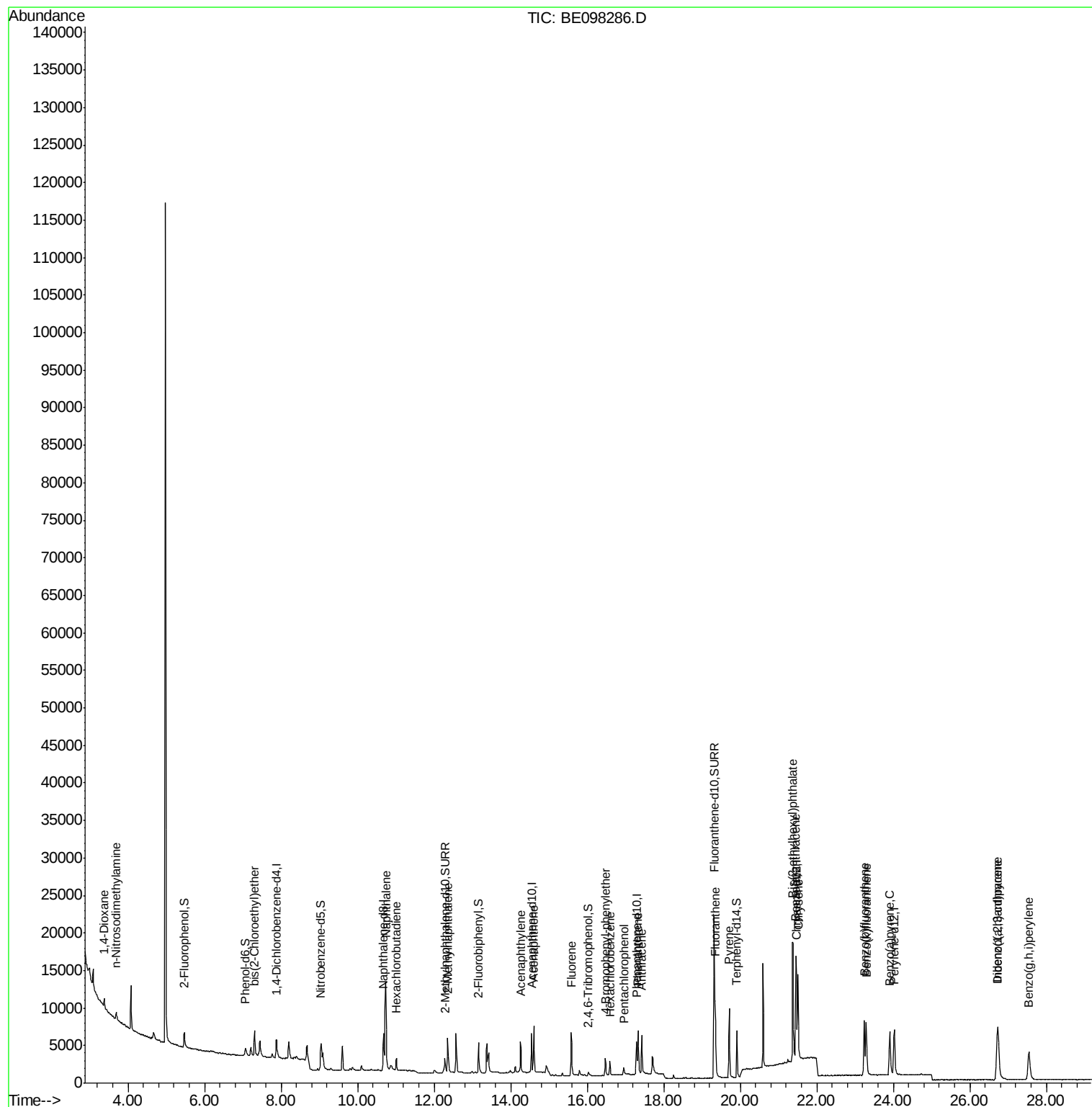
Data Path : Z:\SVOASRV\HPCHEM1\BNA E\DATA\BE113018\  
Data File : BE098286.D  
Acq On : 30 Nov 2018 14:46  
Operator : SJ/JU  
Sample : PB115203BS  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

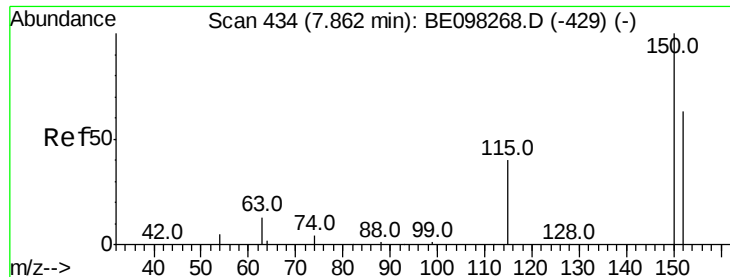
Instrument :  
BNA\_E  
ClientSampleId :  
PB115203BS

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM

Quant Time: Nov 30 15:20:23 2018  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA E\METHODS\8270-SIM-BE112918.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Nov 29 13:50:43 2018  
Response via : Initial Calibration





#1

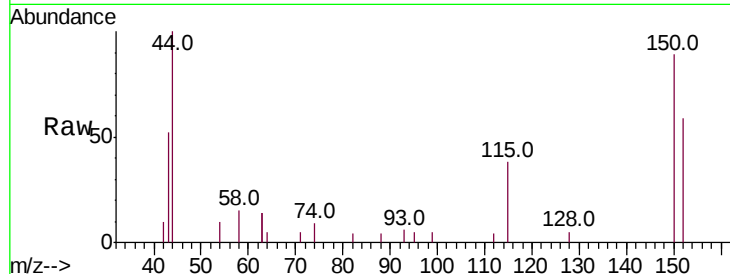
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.89 min Scan# 436  
Delta R.T. 0.02 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

Instrument :  
BNA\_E  
ClientSampleId :  
PB115203BS

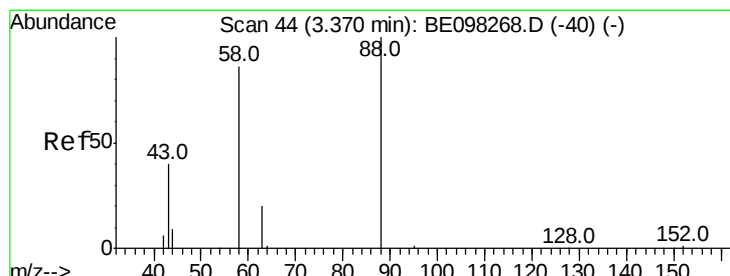
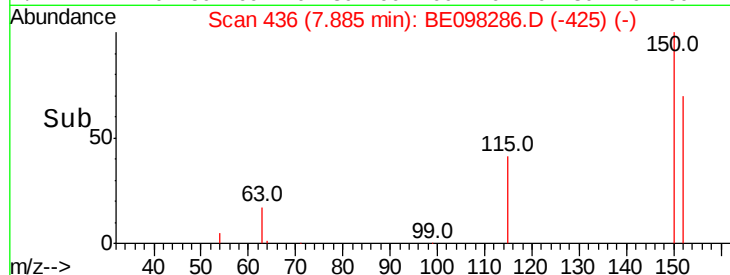
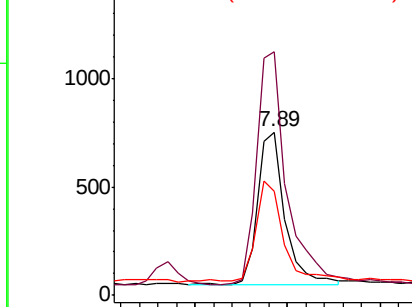
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 149.1 | 124.2 | 186.4 |
| 115     | 63.4  | 53.9  | 80.9  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



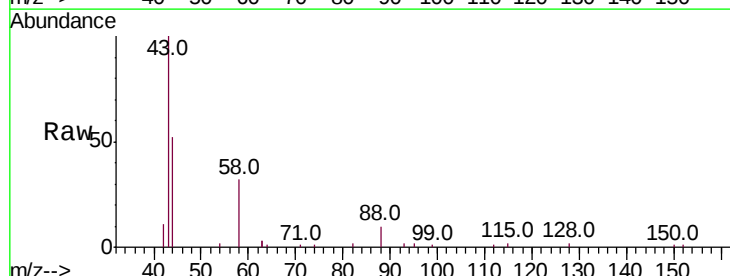
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



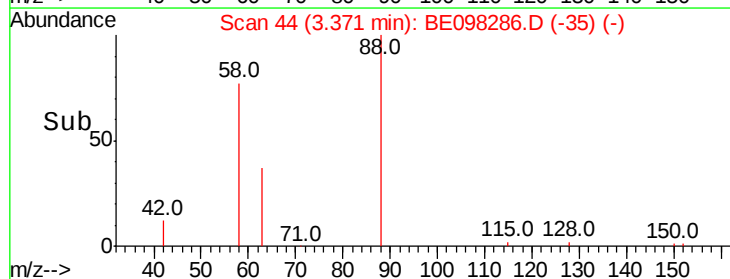
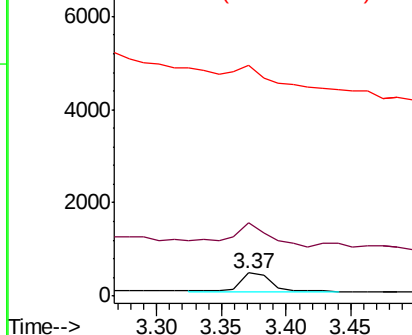
#2

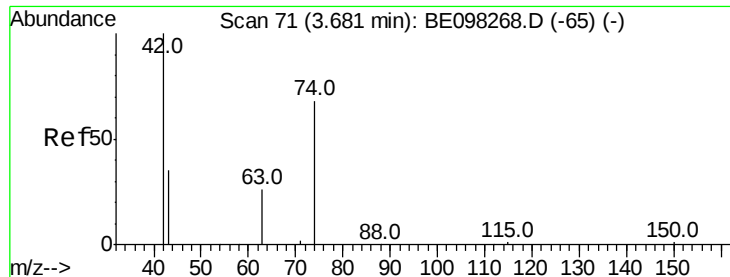
1,4-Dioxane  
Concen: 0.236 ng  
RT: 3.37 min Scan# 44  
Delta R.T. 0.00 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 88      | 100   |       |        |
| 58      | 131.5 | 75.0  | 112.6# |
| 43      | 0.0   | 38.3  | 57.5#  |



Abundance Ion 88.00 (87.70 to 88.70): BE0  
Ion 58.00 (57.70 to 58.70): BE0  
Ion 43.00 (42.70 to 43.70): BE0





#3

n-Nitrosodimethylamine

Concen: 0.340 ng

RT: 3.69 min Scan# 72

Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

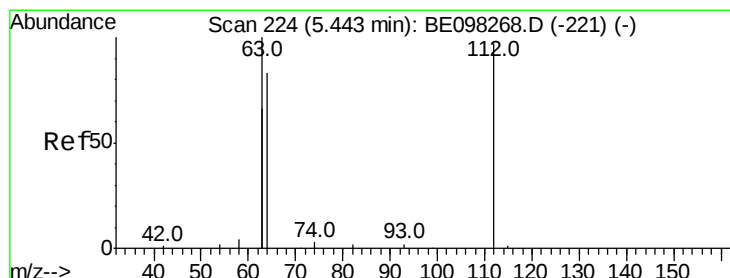
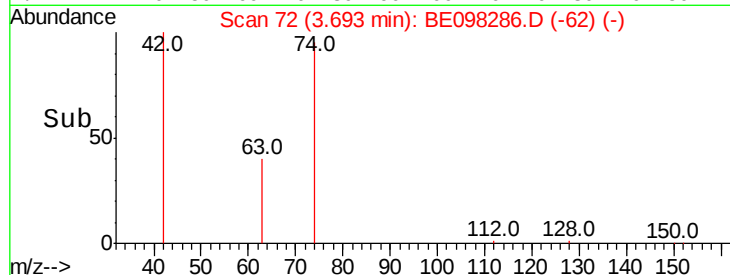
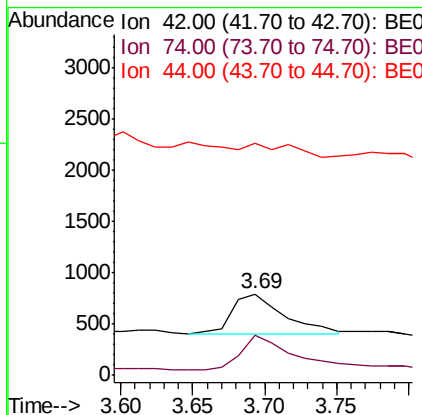
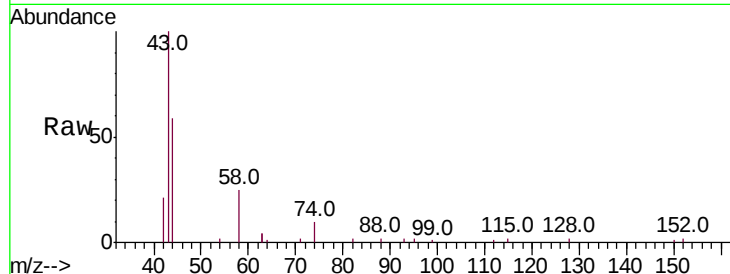
ClientSampleId :

PB115203BS

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 42    | Resp: | 950   |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 74       | 81.8  | 0.0   | 0.0#  |
| 44       | 27.6  | 0.0   | 0.0#  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



#4

2-Fluorophenol

Concen: 0.328 ng

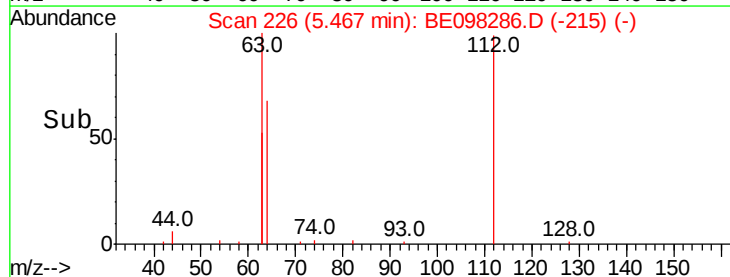
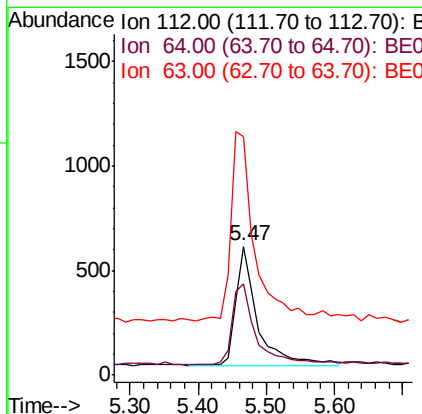
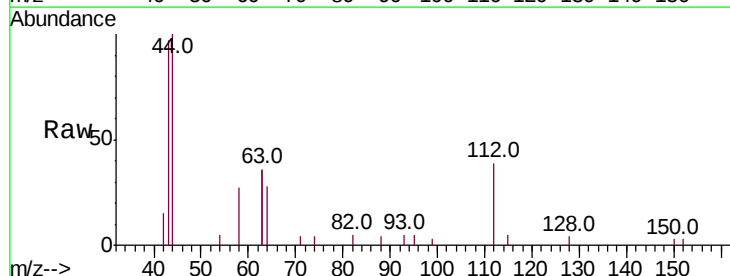
RT: 5.47 min Scan# 226

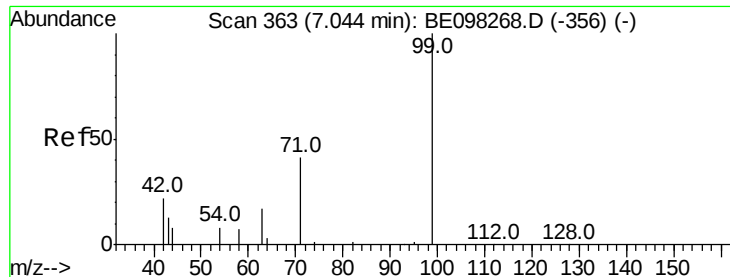
Delta R.T. 0.02 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 112   | Resp: | 1276  |
| Ion      | Ratio | Lower | Upper |
| 112      | 100   |       |       |
| 64       | 76.6  | 59.8  | 89.8  |
| 63       | 170.1 | 133.7 | 200.5 |





#5

Phenol-d6

Concen: 0.284 ng

RT: 7.07 min Scan# 365

Delta R.T. 0.02 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

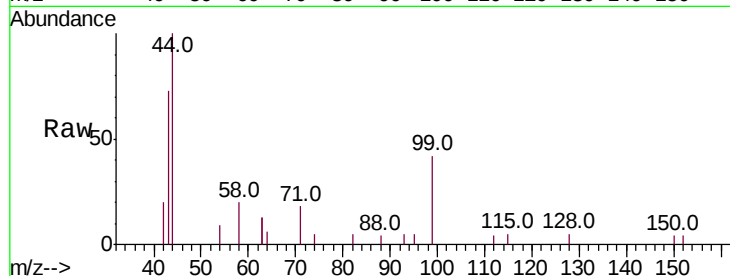
ClientSampleId :

PB115203BS

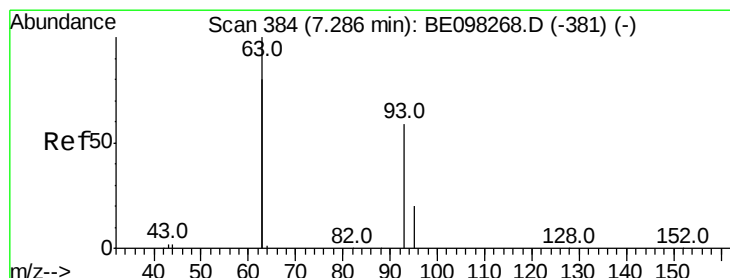
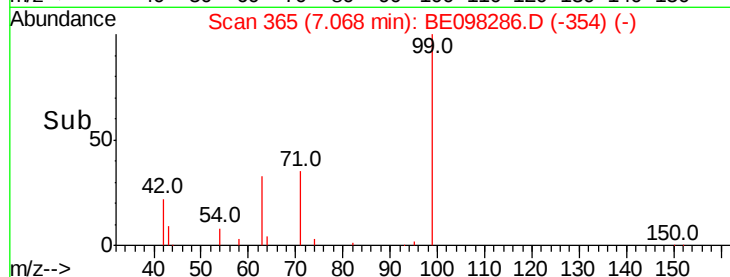
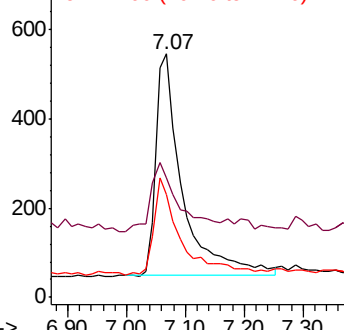
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 99    | Resp: | 1556  |
| Ion      | Ratio | Lower | Upper |
| 99       | 100   |       |       |
| 42       | 33.7  | 26.3  | 39.5  |
| 71       | 43.8  | 33.6  | 50.4  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



Abundance Ion 99.00 (98.70 to 99.70): BE0  
Ion 42.00 (41.70 to 42.70): BE0  
Ion 71.00 (70.70 to 71.70): BE0



#6

bis(2-Chloroethyl)ether

Concen: 0.290 ng

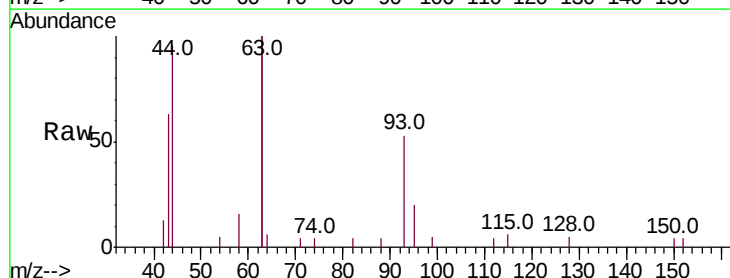
RT: 7.30 min Scan# 385

Delta R.T. 0.01 min

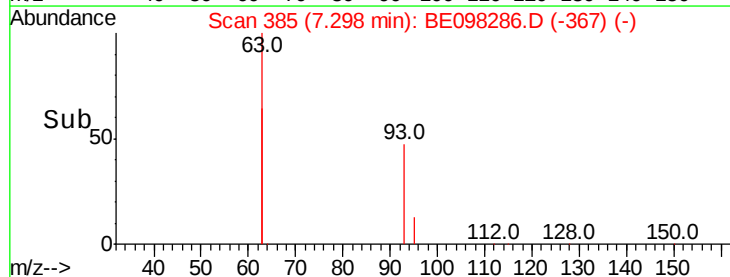
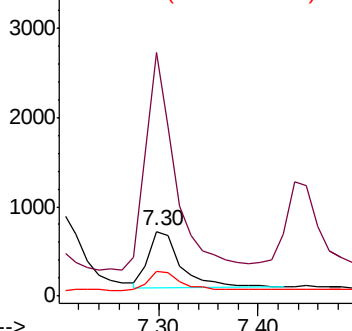
Lab File: BE098286.D

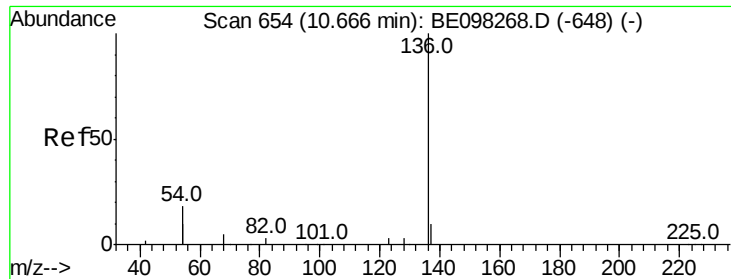
Acq: 30 Nov 2018 14:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 93    | Resp: | 1460  |
| Ion      | Ratio | Lower | Upper |
| 93       | 100   |       |       |
| 63       | 343.4 | 264.4 | 396.6 |
| 95       | 33.3  | 26.6  | 40.0  |



Abundance Ion 93.00 (92.70 to 93.70): BE0  
Ion 63.00 (62.70 to 63.70): BE0  
Ion 95.00 (94.70 to 95.70): BE0





#7

Naphthalene-d8

Concen: 0.400 ng

RT: 10.68 min Scan# 655

Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

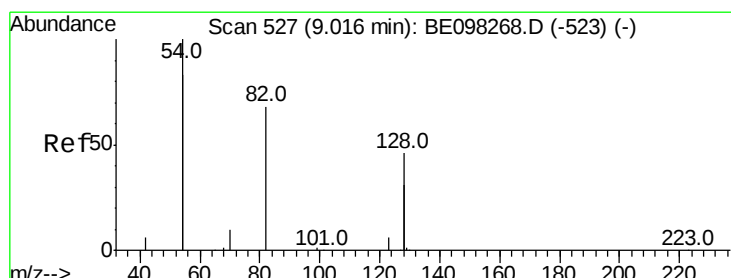
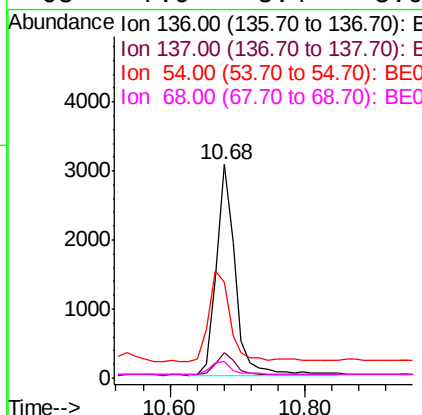
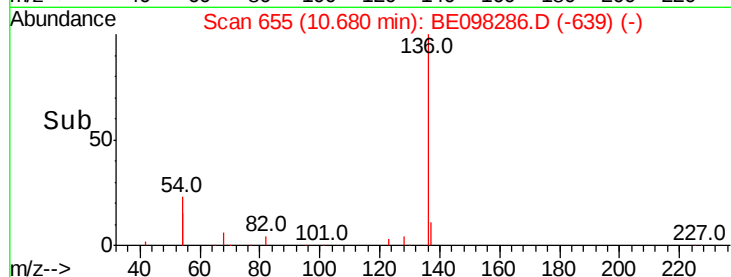
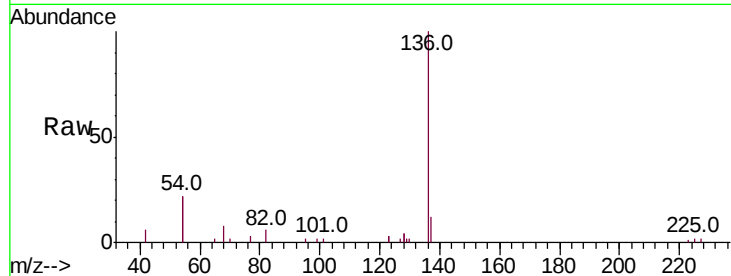
ClientSampleId :

PB115203BS

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 136     | 100   |       |       |
| 137     | 12.1  | 9.2   | 13.8  |
| 54      | 45.0  | 28.4  | 42.6  |
| 68      | 7.9   | 5.4   | 8.0   |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



#8

Nitrobenzene-d5

Concen: 0.292 ng

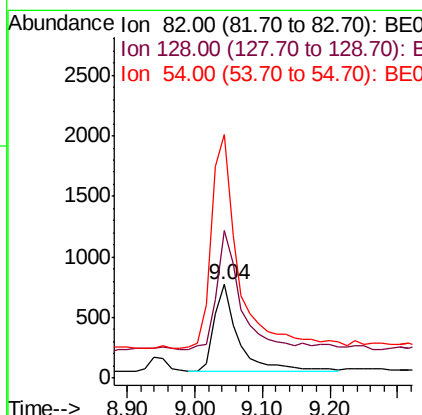
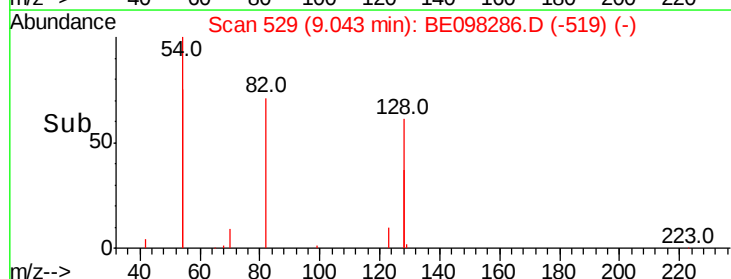
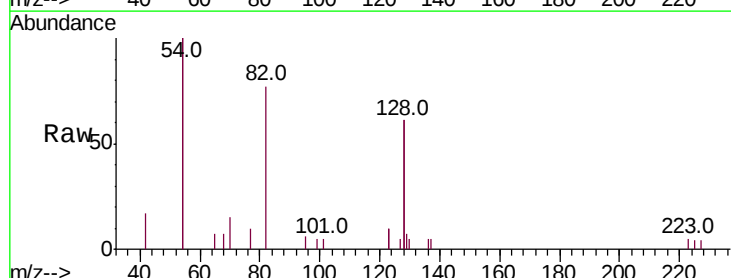
RT: 9.04 min Scan# 529

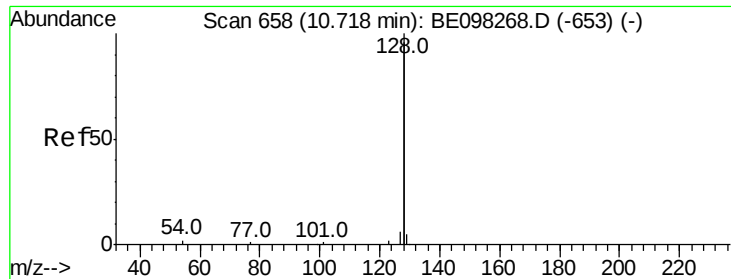
Delta R.T. 0.03 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 82      | 100   |       |       |
| 128     | 157.8 | 102.4 | 153.6 |
| 54      | 260.4 | 221.8 | 332.8 |





#9

Naphthalene

Concen: 0.356 ng

RT: 10.73 min Scan# 659

Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

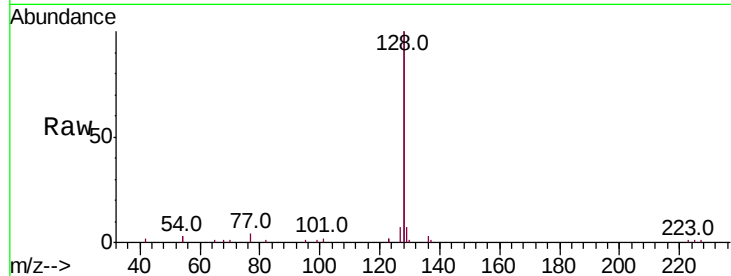
ClientSampleId :

PB115203BS

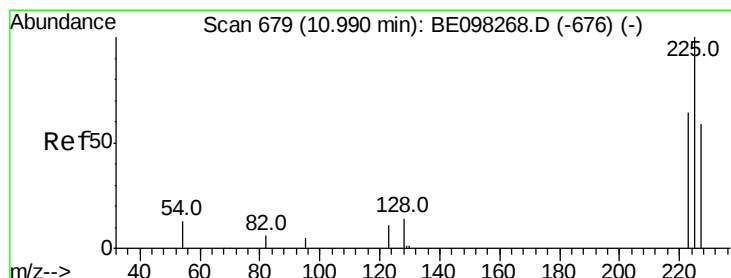
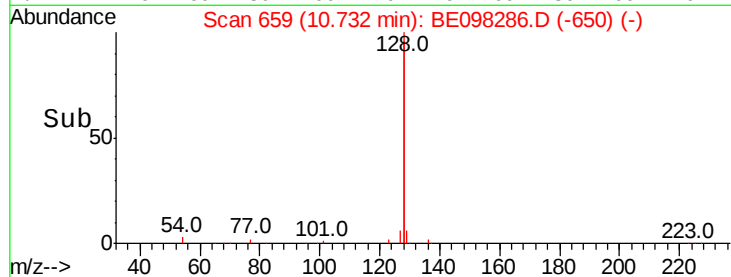
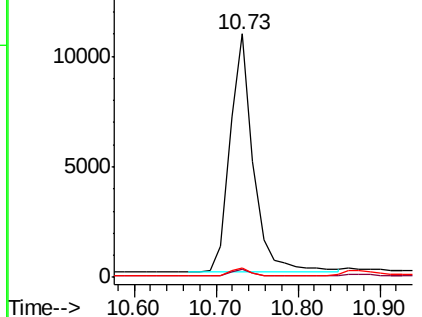
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 128   | Resp: | 21400 |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 129       | 3.3   | 2.5   | 3.7   |
| 127       | 3.7   | 2.7   | 4.1   |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



Abundance Ion 128.00 (127.70 to 128.70): E  
15000 Ion 129.00 (128.70 to 129.70): E  
Ion 127.00 (126.70 to 127.70): E



#10

Hexachlorobutadiene

Concen: 0.312 ng

RT: 11.02 min Scan# 681

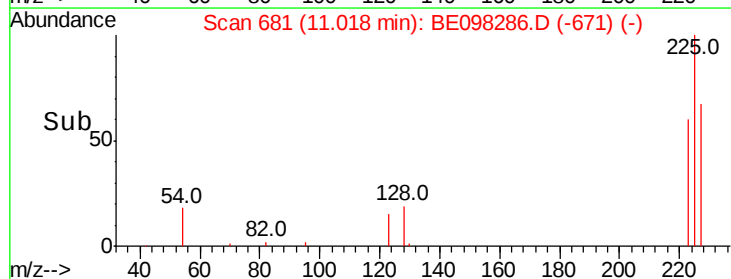
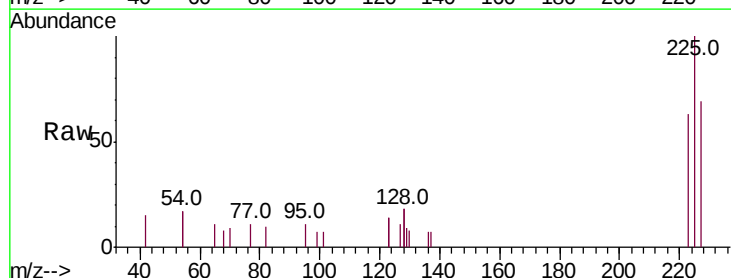
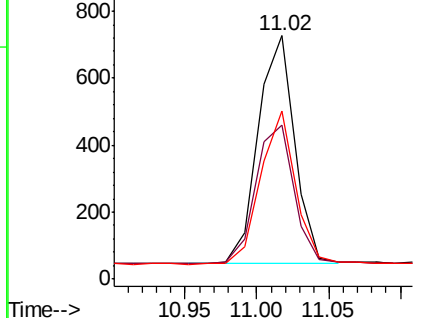
Delta R.T. 0.03 min

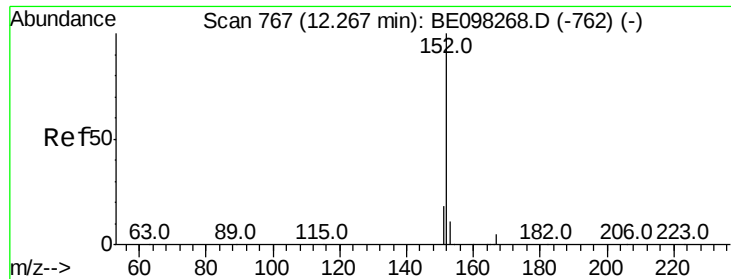
Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 225   | Resp: | 1205 |
| Ion Ratio | Lower | Upper |      |
| 225       | 100   |       |      |
| 223       | 63.9  | 49.4  | 74.0 |
| 227       | 64.4  | 52.0  | 78.0 |

Abundance Ion 225.00 (224.70 to 225.70): E  
1000 Ion 223.00 (222.70 to 223.70): E  
Ion 227.00 (226.70 to 227.70): E





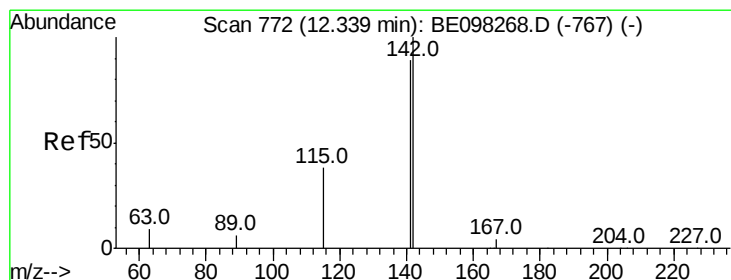
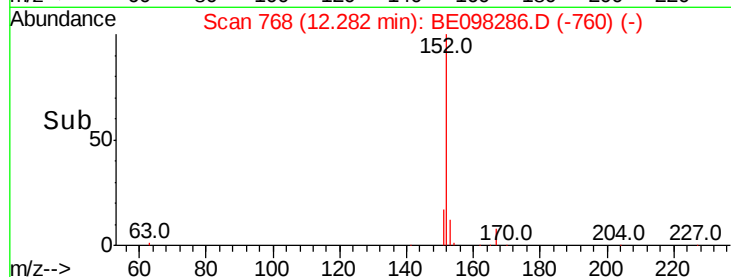
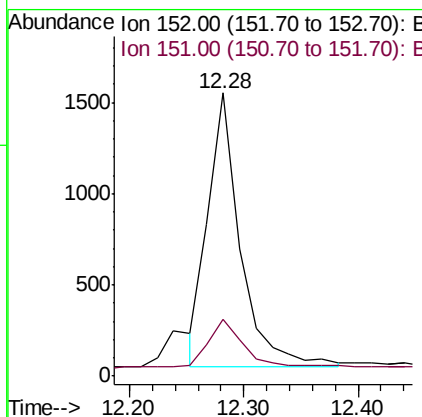
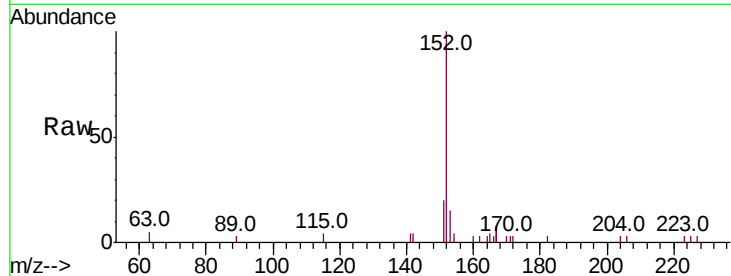
#11  
 2-Methylnaphthalene-d10  
 Concen: 0.302 ng/ml  
 RT: 12.28 min Scan# 768  
 Delta R.T. 0.02 min  
 Lab File: BE098286.D  
 Acq: 30 Nov 2018 14:46

Instrument :  
 BNA\_E  
 ClientSampleId :  
 PB115203BS

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.9  | 16.2  | 24.4  |

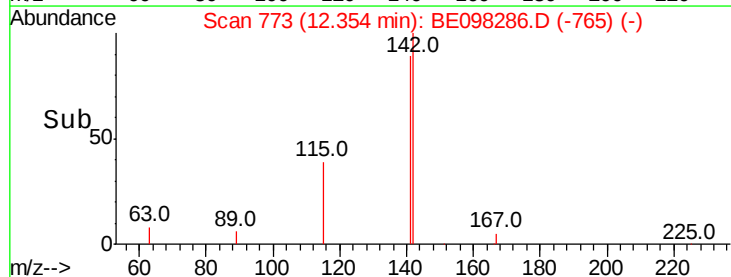
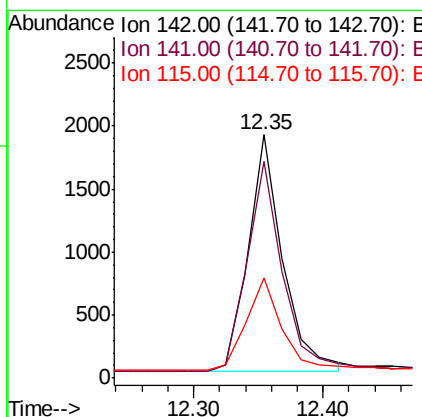
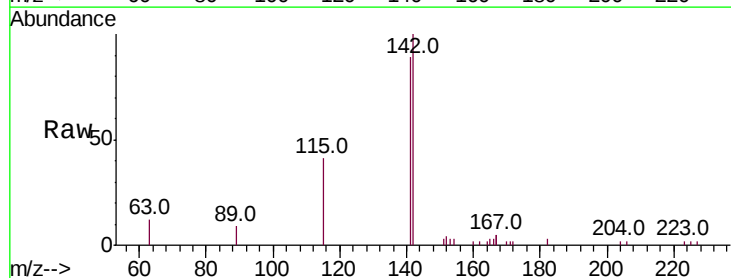
Manual Integrations  
 APPROVED

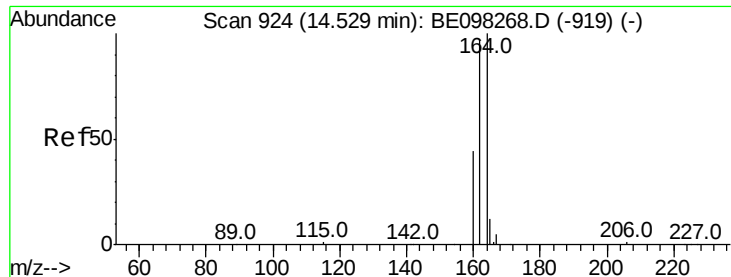
mohammad  
 12/3/2018 3:33:55 PM



#12  
 2-Methylnaphthalene  
 Concen: 0.347 ng/ml  
 RT: 12.35 min Scan# 773  
 Delta R.T. 0.02 min  
 Lab File: BE098286.D  
 Acq: 30 Nov 2018 14:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 89.0  | 71.0  | 106.6 |
| 115     | 41.4  | 32.2  | 48.2  |





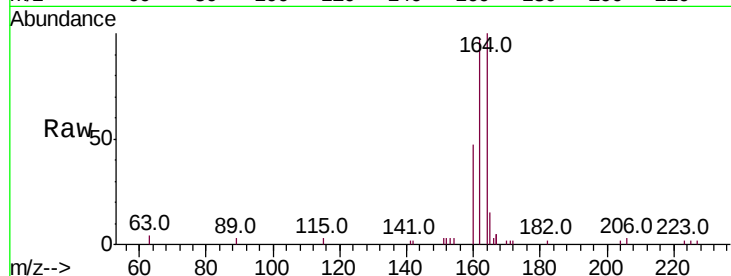
#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.54 min Scan# 925  
Delta R.T. 0.02 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

Instrument :  
BNA\_E  
ClientSampleId :  
PB115203BS

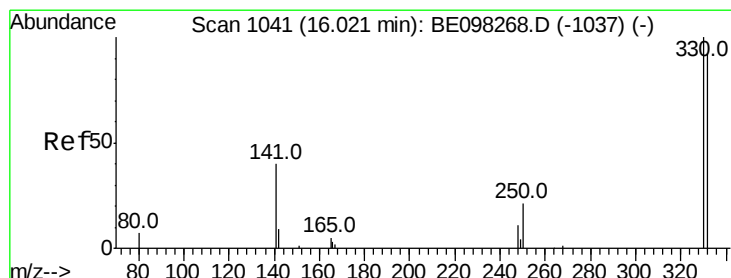
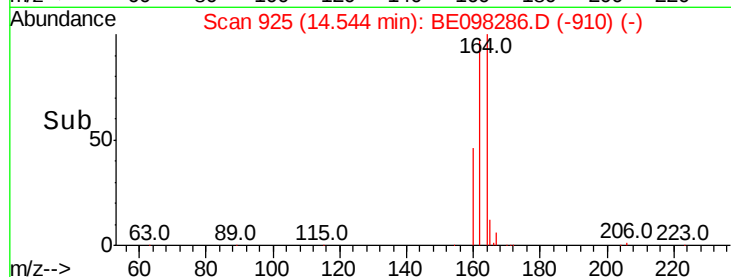
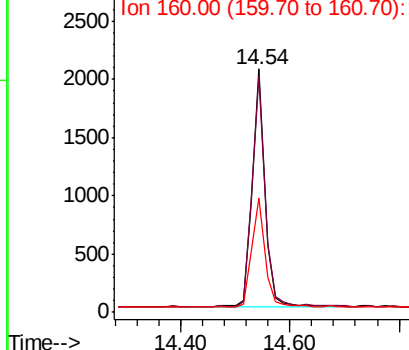
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 162     | 96.7  | 77.6  | 116.4 |
| 160     | 46.8  | 36.0  | 54.0  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



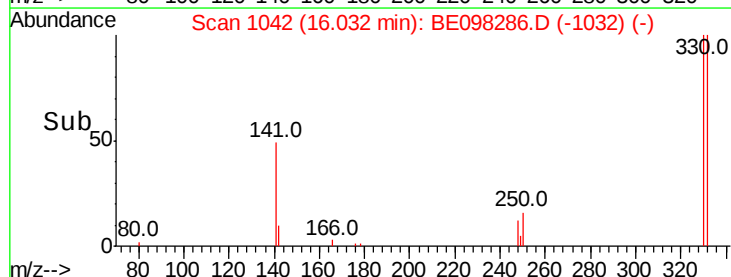
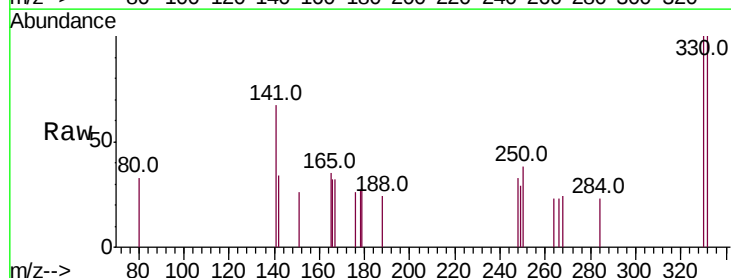
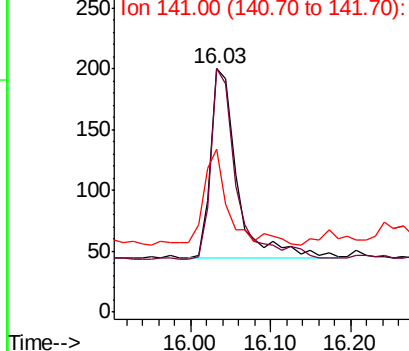
Abundance Ion 164.00 (163.70 to 164.70): E  
Ion 162.00 (161.70 to 162.70): E  
Ion 160.00 (159.70 to 160.70): E

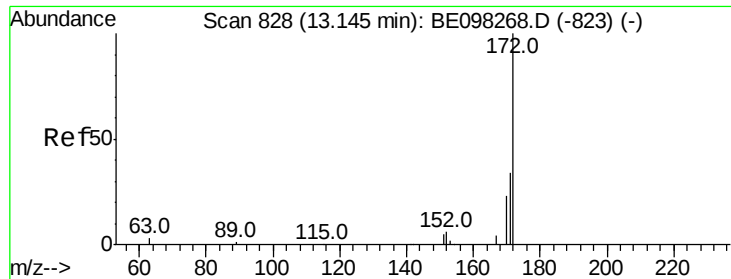


#14  
2,4,6-Tribromophenol  
Concen: 0.235 ng  
RT: 16.03 min Scan# 1042  
Delta R.T. 0.01 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 100.3 | 76.2  | 114.4 |
| 141     | 48.2  | 39.0  | 58.4  |

Abundance Ion 330.00 (329.70 to 330.70): E  
Ion 331.80 (331.50 to 332.50): E  
Ion 141.00 (140.70 to 141.70): E





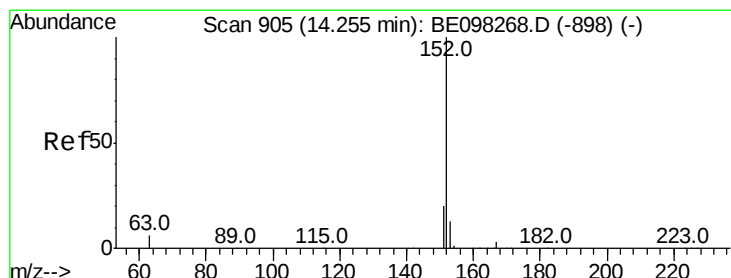
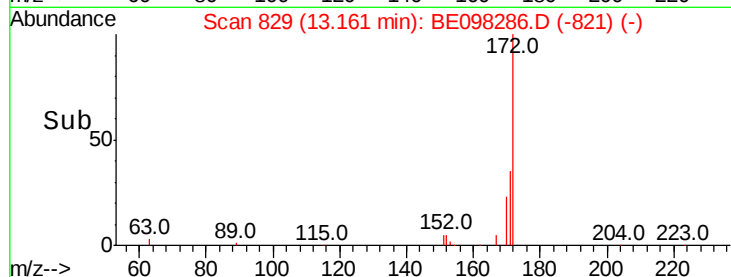
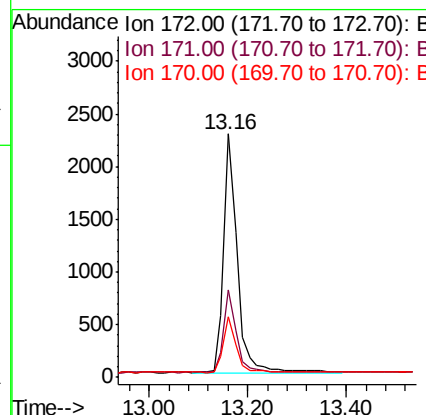
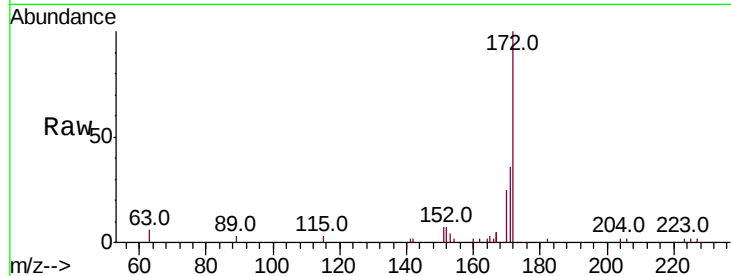
#15  
2-Fluorobiphenyl  
Concen: 0.323 ng  
RT: 13.16 min Scan# 829  
Delta R.T. 0.02 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

Instrument :  
BNA\_E  
ClientSampleId :  
PB115203BS

Tot Ion:172 Resp: 4287  
Ion Ratio Lower Upper  
172 100  
171 35.8 27.5 41.3  
170 25.0 19.6 29.4

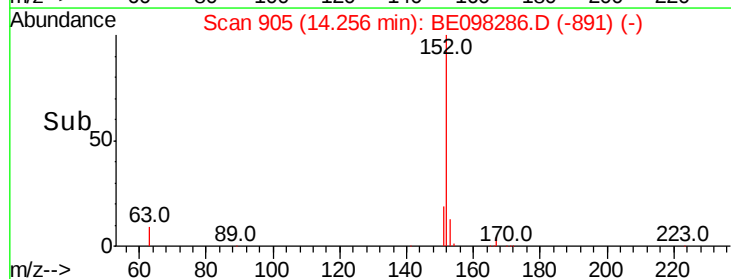
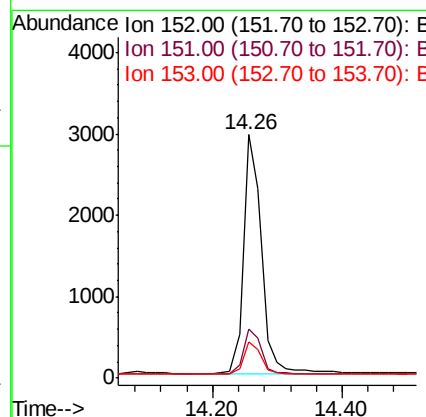
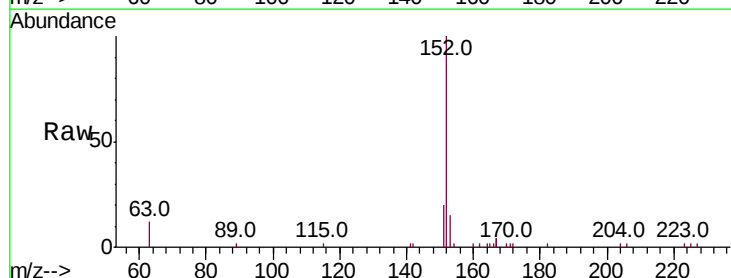
Manual Integrations  
APPROVED

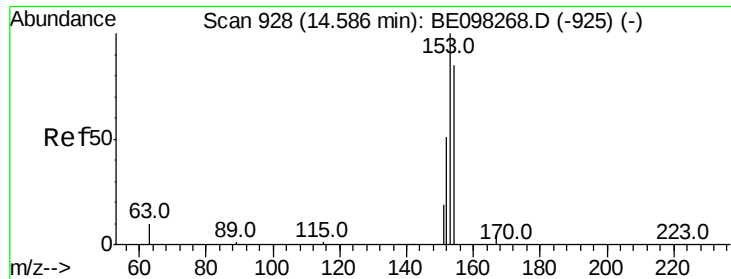
mohammad  
12/3/2018 3:33:55 PM



#16  
Acenaphthylene  
Concen: 0.375 ng  
RT: 14.26 min Scan# 905  
Delta R.T. 0.00 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

Tgt Ion:152 Resp: 5613  
Ion Ratio Lower Upper  
152 100  
151 18.7 15.5 23.3  
153 13.1 10.6 16.0





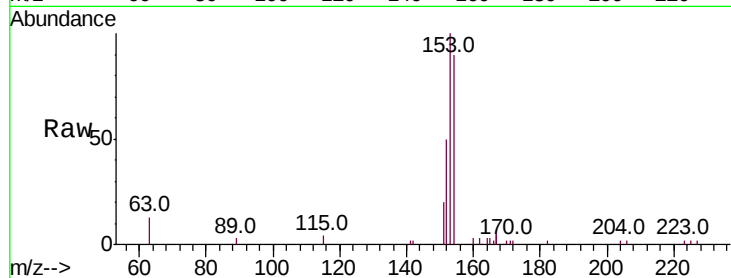
#17  
Acenaphthene  
Concen: 0.352 ng  
RT: 14.60 min Scan# 929  
Delta R.T. 0.02 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

Instrument :  
BNA\_E  
ClientSampleId :  
PB115203BS

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 114.7 | 91.8  | 137.6 |
| 152     | 56.5  | 45.5  | 68.3  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM

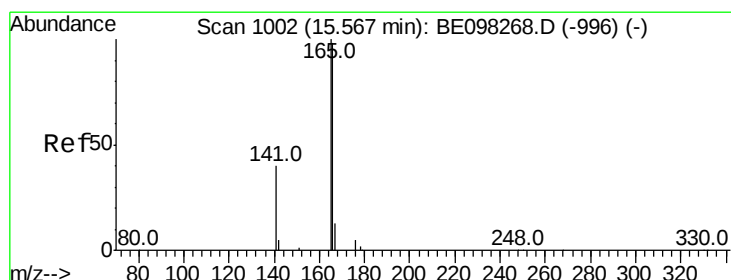
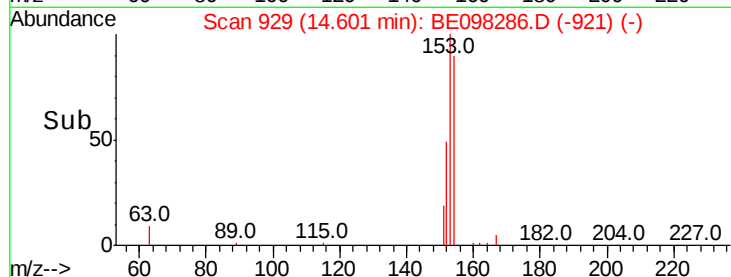
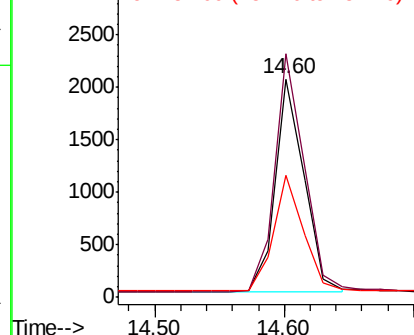


Abundance

Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E



#18  
Fluorene  
Concen: 0.351 ng  
RT: 15.58 min Scan# 1003  
Delta R.T. 0.01 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

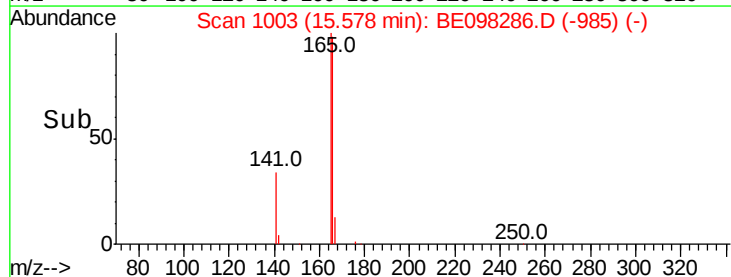
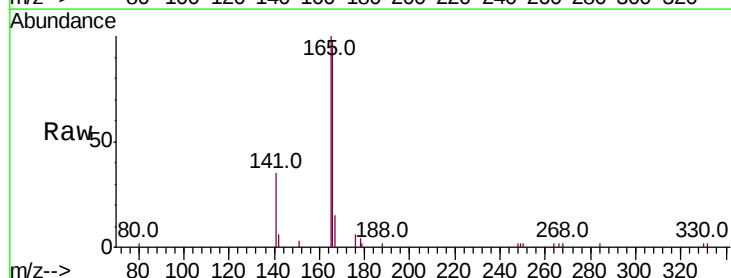
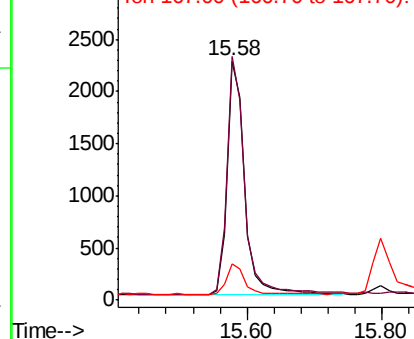
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 100.3 | 79.3  | 118.9 |
| 167     | 13.2  | 11.3  | 16.9  |

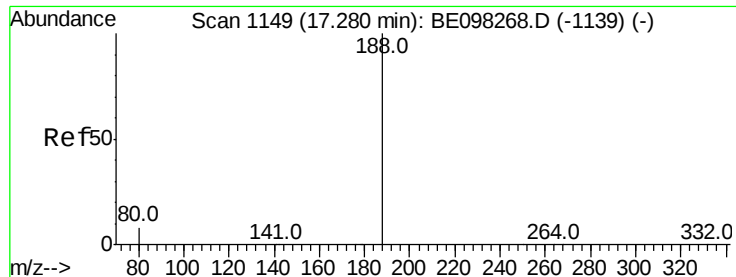
Abundance

Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.29 min Scan# 1150

Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

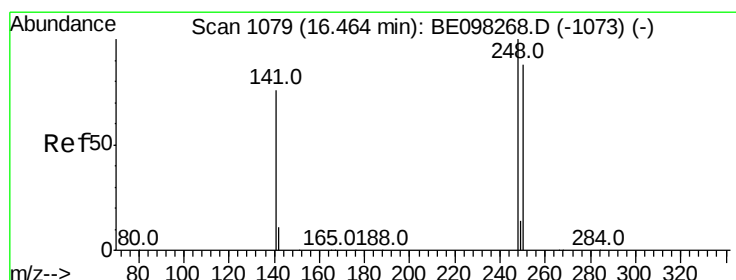
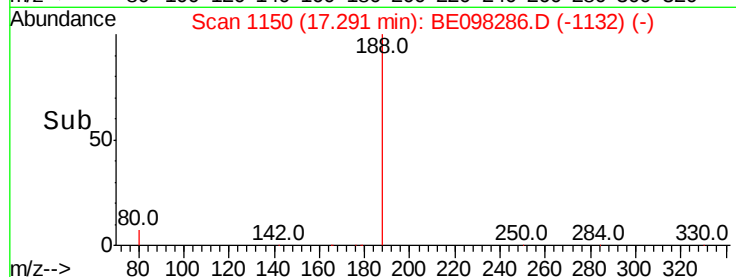
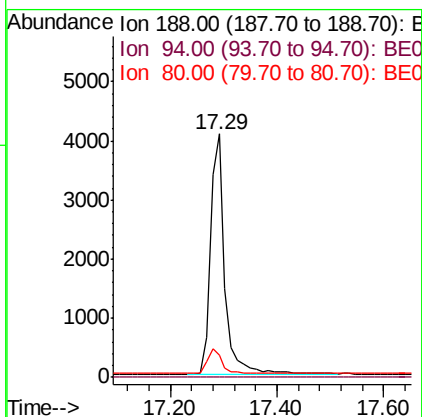
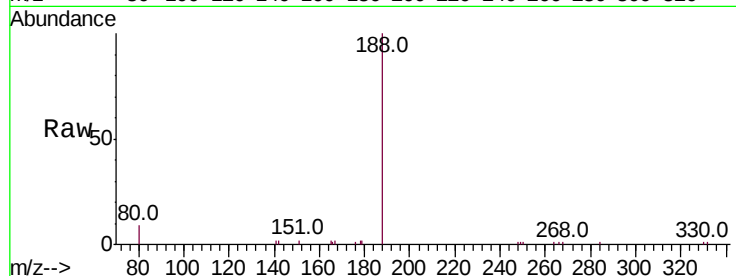
ClientSampled :

PB115203BS

|           |       |       |      |
|-----------|-------|-------|------|
| Tot Ion:  | 188   | Resp: | 7716 |
| Ion Ratio | Lower | Upper |      |
| 188       | 100   |       |      |
| 94        | 0.0   | 0.0   | 0.0  |
| 80        | 8.9   | 7.2   | 10.8 |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



#20

4-Bromophenyl-phenylether

Concen: 0.319 ng

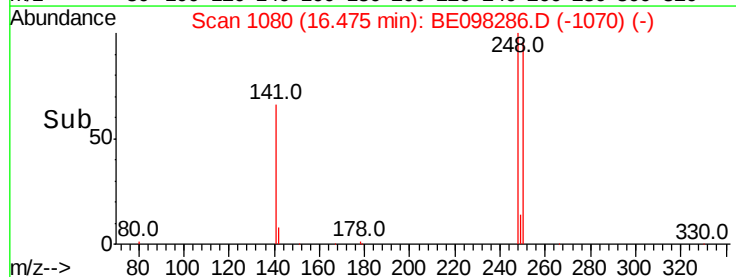
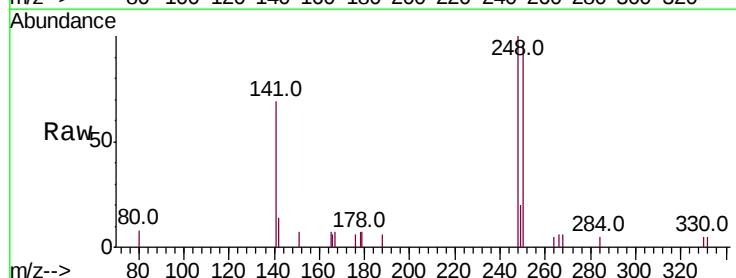
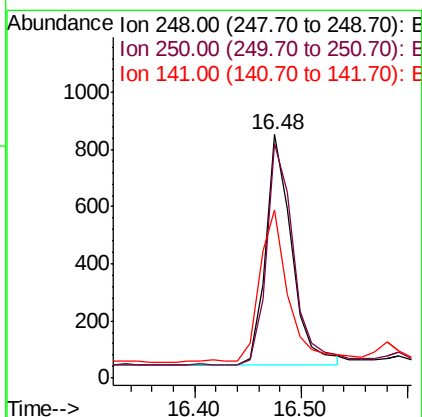
RT: 16.48 min Scan# 1080

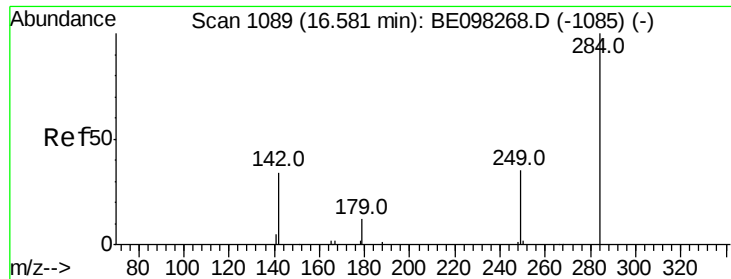
Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 248   | Resp: | 1393  |
| Ion Ratio | Lower | Upper |       |
| 248       | 100   |       |       |
| 250       | 96.1  | 71.0  | 106.6 |
| 141       | 68.9  | 62.1  | 93.1  |





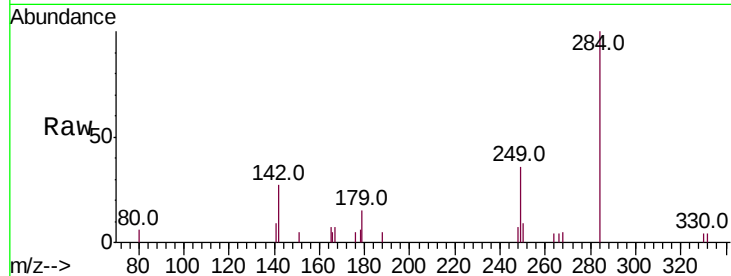
#21  
Hexachlorobenzene  
Concen: 0.321 ng  
RT: 16.59 min Scan# 1090  
Delta R.T. 0.01 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

Instrument :  
BNA\_E  
ClientSampleId :  
PB115203BS

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 36.1  | 26.3  | 39.5  |
| 249     | 33.4  | 26.0  | 39.0  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM

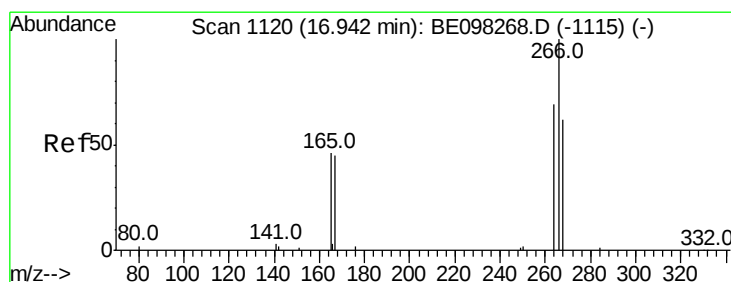
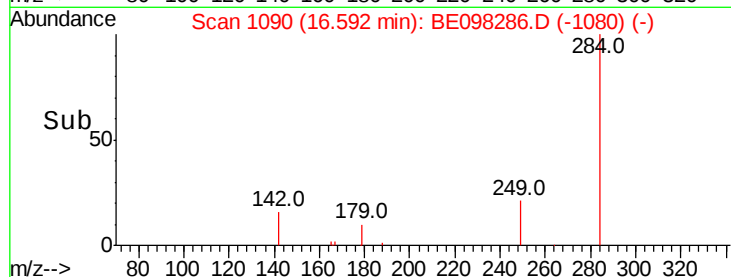
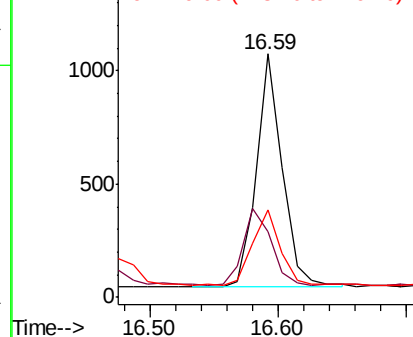


Abundance

Ion 283.80 (283.50 to 284.50): E

Ion 142.00 (141.70 to 142.70): E

Ion 249.00 (248.70 to 249.70): E



#22  
Pentachlorophenol  
Concen: 0.531 ng  
RT: 16.95 min Scan# 1121  
Delta R.T. 0.01 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

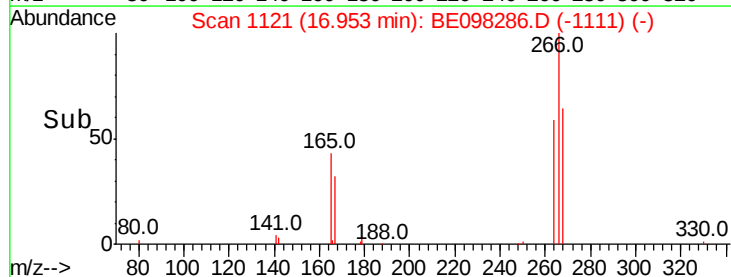
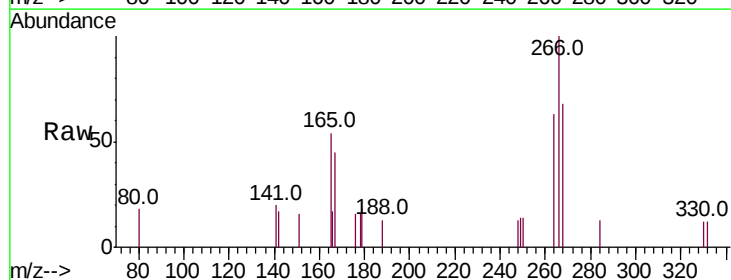
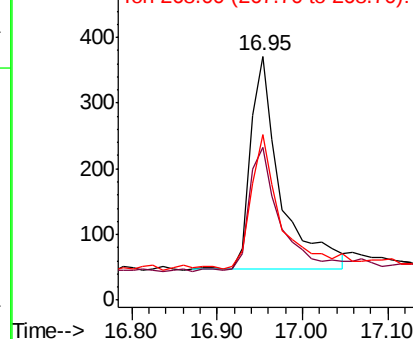
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 266     | 100   |       |       |
| 264     | 62.5  | 59.0  | 88.4  |
| 268     | 67.9  | 55.1  | 82.7  |

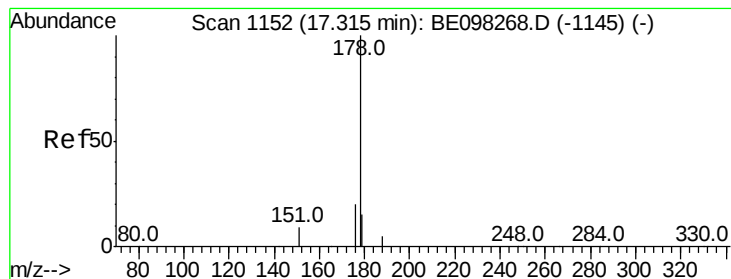
Abundance

Ion 266.00 (265.70 to 266.70): E

Ion 264.00 (263.70 to 264.70): E

Ion 268.00 (267.70 to 268.70): E





#23

Phenanthrene

Concen: 0.354 ng

RT: 17.33 min Scan# 1153

Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

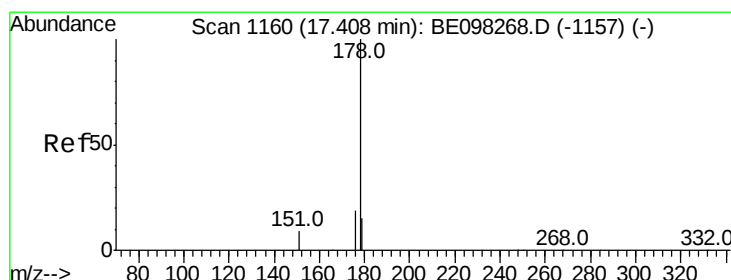
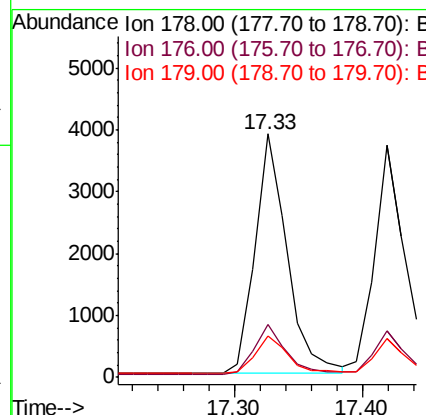
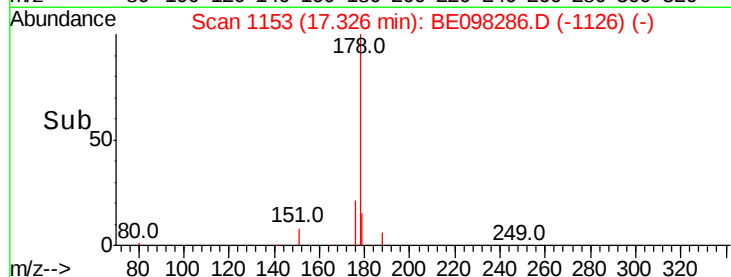
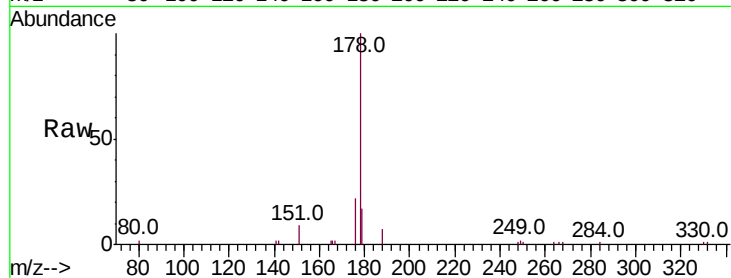
ClientSampleId :

PB115203BS

|             |       |           |
|-------------|-------|-----------|
| Tot Ion:178 | Resp: | 6785      |
| Ion Ratio   | Lower | Upper     |
| 178         | 100   |           |
| 176         | 19.6  | 15.9 23.9 |
| 179         | 15.9  | 12.3 18.5 |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



#24

Anthracene

Concen: 0.349 ng

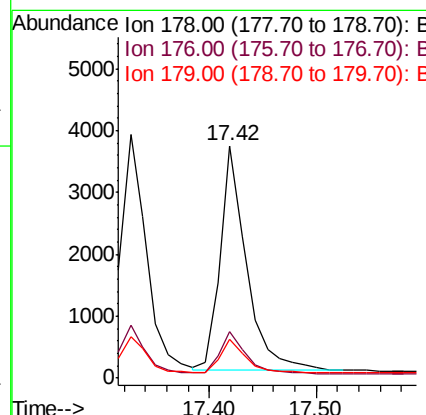
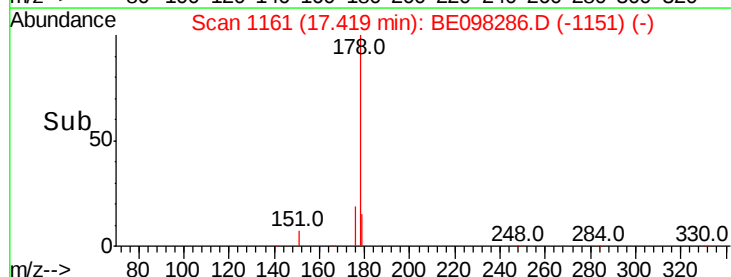
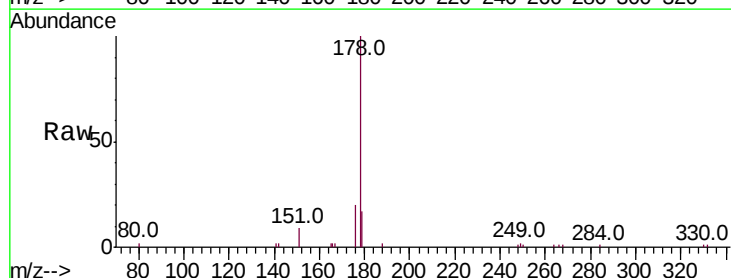
RT: 17.42 min Scan# 1161

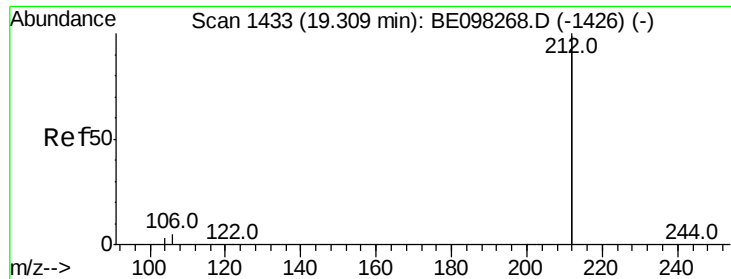
Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:178 | Resp: | 6221      |
| Ion Ratio   | Lower | Upper     |
| 178         | 100   |           |
| 176         | 18.6  | 15.0 22.4 |
| 179         | 14.3  | 12.3 18.5 |





#25

Fluoranthene-d10

Concen: 0.323 ng

RT: 19.32 min Scan# 1435

Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

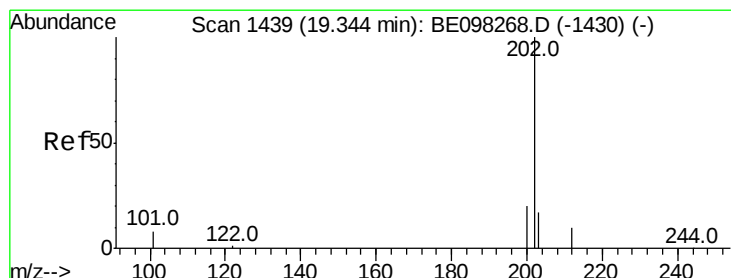
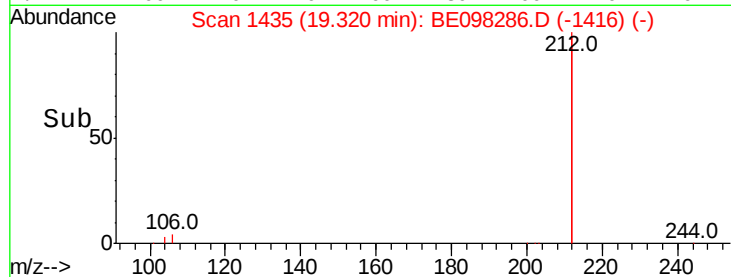
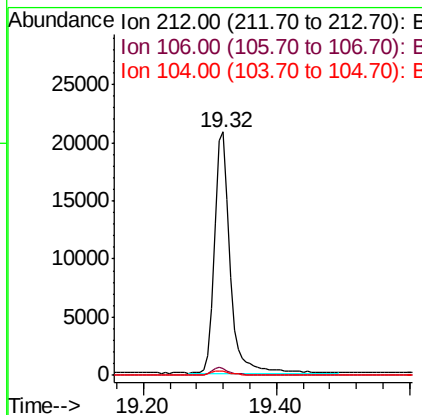
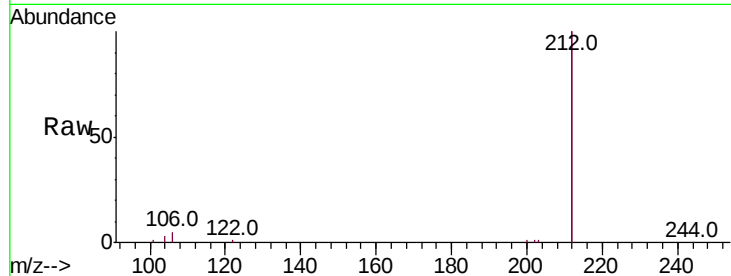
ClientSampleId :

PB115203BS

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 212   | Resp: | 33595 |
| Ion Ratio | Lower | Upper |       |
| 212       | 100   |       |       |
| 106       | 2.7   | 2.2   | 3.2   |
| 104       | 1.6   | 1.3   | 1.9   |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



#26

Fluoranthene

Concen: 0.351 ng

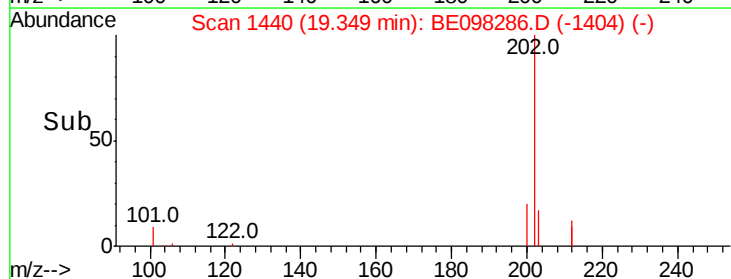
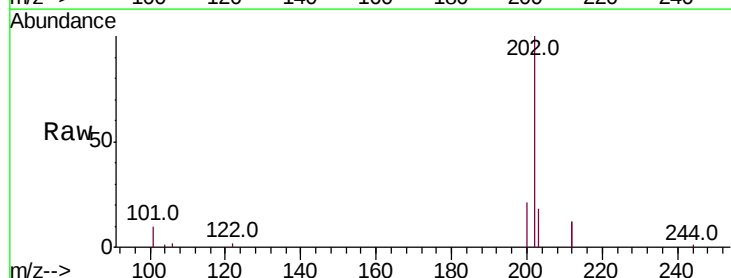
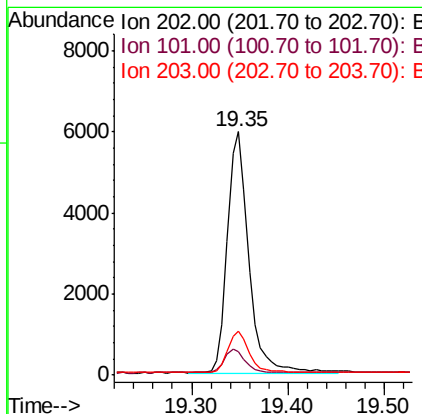
RT: 19.35 min Scan# 1440

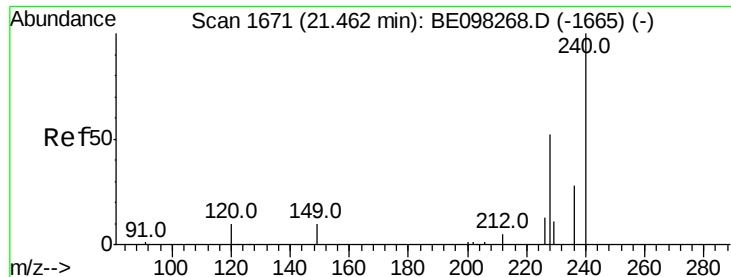
Delta R.T. 0.00 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 202   | Resp: | 9188 |
| Ion Ratio | Lower | Upper |      |
| 202       | 100   |       |      |
| 101       | 10.0  | 8.0   | 12.0 |
| 203       | 16.9  | 13.8  | 20.6 |





#27

Chrysene-d12

Concen: 0.400 ng

RT: 21.48 min Scan# 1672

Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

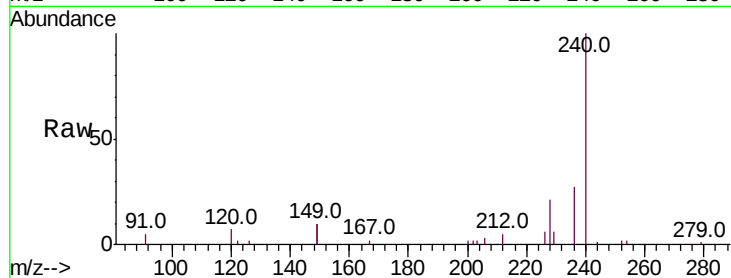
ClientSampleId :

PB115203BS

| Tot Ion | Ion  | Ratio | Resp | Lower | Upper |
|---------|------|-------|------|-------|-------|
| 240     | 100  |       |      |       |       |
| 120     | 6.9  | 9.5   | 14.3 |       |       |
| 236     | 26.5 | 22.7  | 34.1 |       |       |

Manual Integrations  
APPROVED

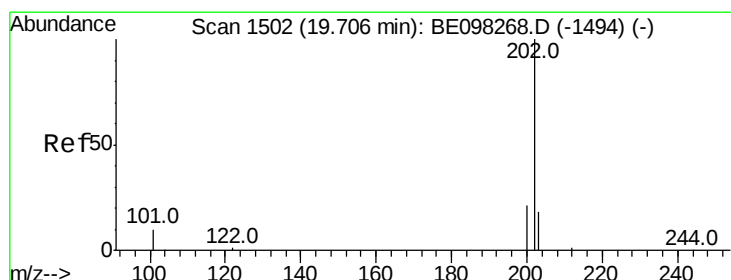
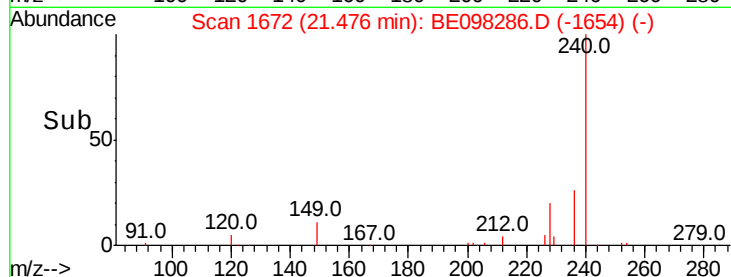
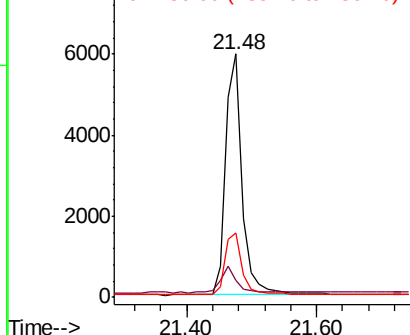
mohammad  
12/3/2018 3:33:55 PM



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



#28

Pyrene

Concen: 0.319 ng

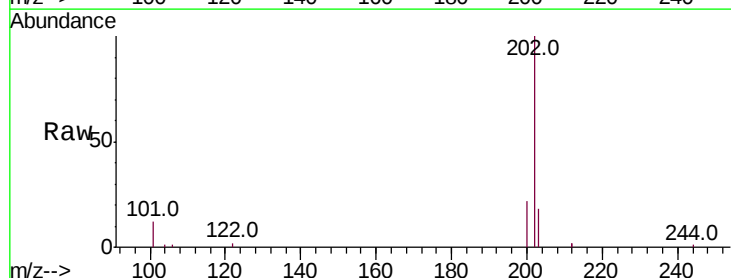
RT: 19.71 min Scan# 1503

Delta R.T. 0.00 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

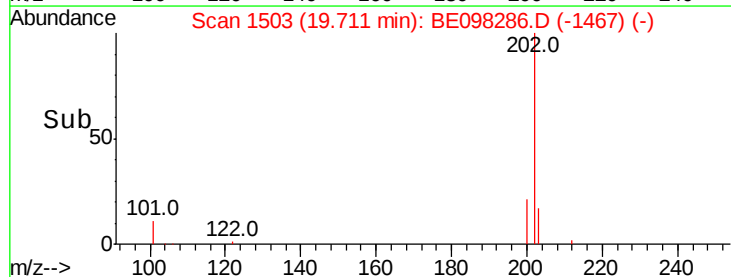
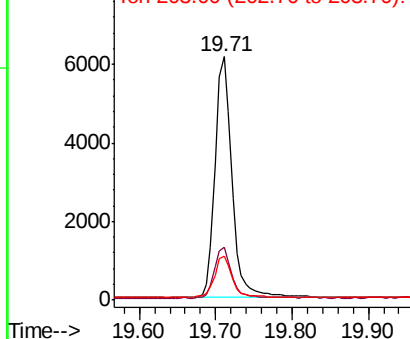
| Tgt Ion | Ion  | Ratio | Resp | Lower | Upper |
|---------|------|-------|------|-------|-------|
| 202     | 100  |       |      |       |       |
| 200     | 21.3 | 16.7  | 25.1 |       |       |
| 203     | 17.6 | 14.1  | 21.1 |       |       |

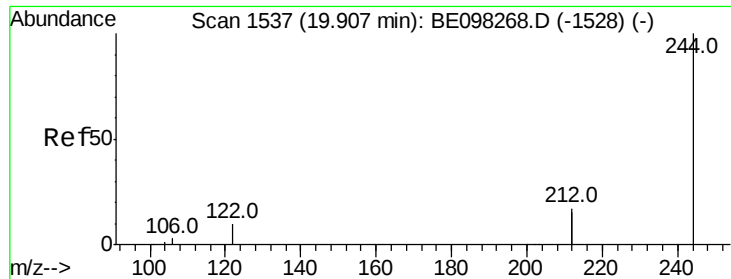


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E





#29

Terphenyl-d14

Concen: 0.249 ng

RT: 19.91 min Scan# 1538

Delta R.T. 0.00 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

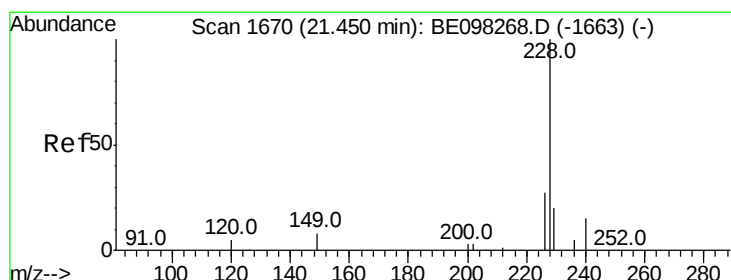
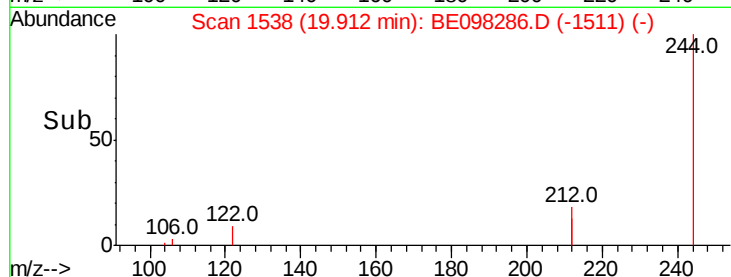
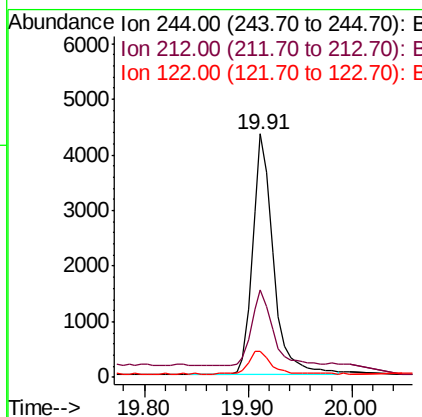
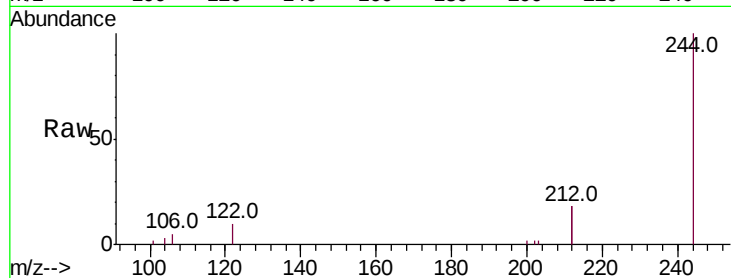
ClientSampleId :

PB115203BS

|           |       |       |      |
|-----------|-------|-------|------|
| Tot Ion:  | 244   | Resp: | 6006 |
| Ion Ratio | Lower | Upper |      |
| 244       | 100   |       |      |
| 212       | 36.0  | 27.4  | 41.0 |
| 122       | 10.4  | 8.3   | 12.5 |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



#30

Benzo(a)anthracene

Concen: 0.370 ng

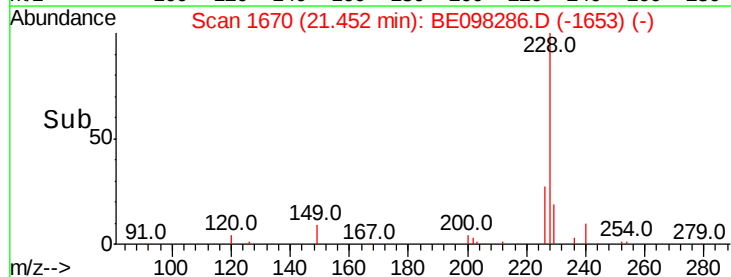
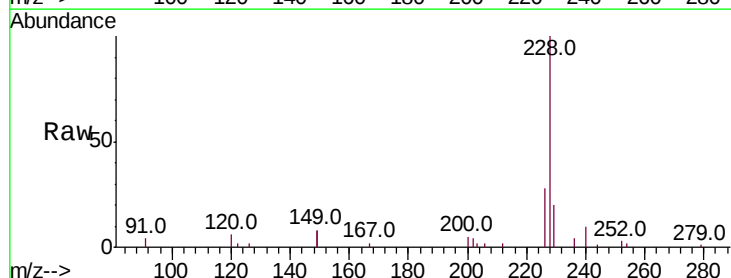
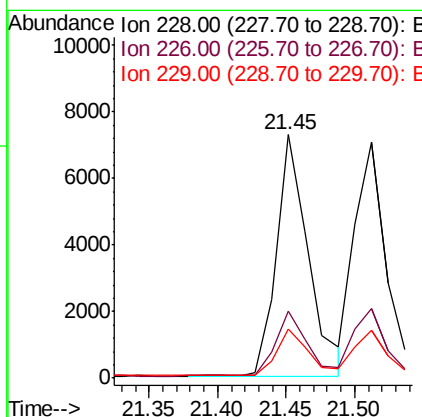
RT: 21.45 min Scan# 1670

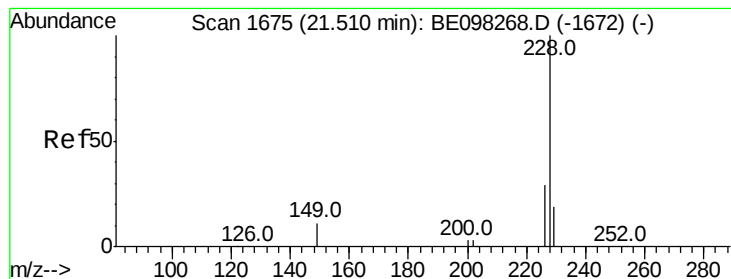
Delta R.T. 0.00 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 11695 |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 27.7  | 21.8  | 32.8  |
| 229       | 20.2  | 16.3  | 24.5  |





#31

Chrysene

Concen: 0.351 ng

RT: 21.51 min Scan# 1675

Delta R.T. 0.00 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

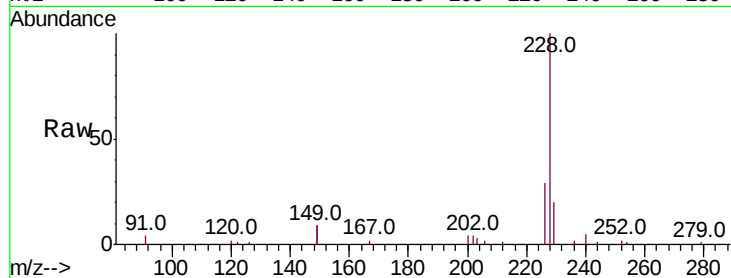
ClientSampleId :

PB115203BS

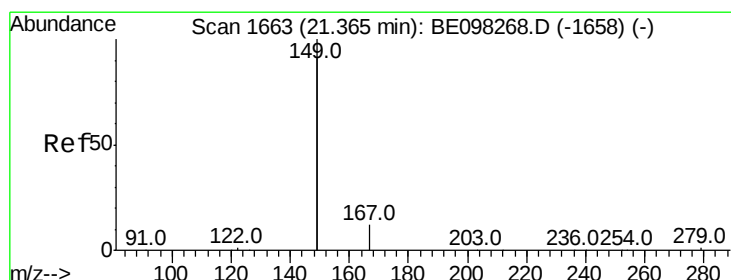
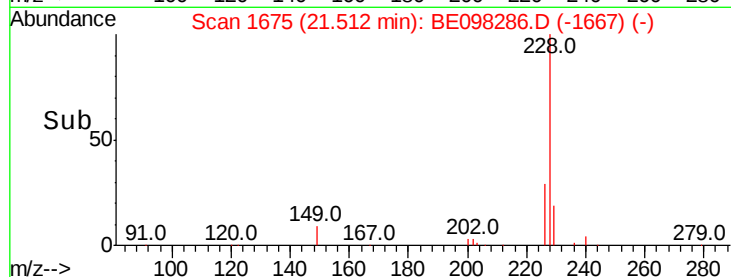
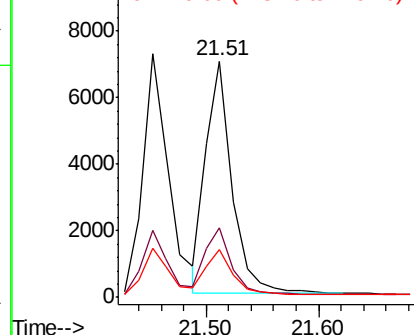
|             |       |       |
|-------------|-------|-------|
| Tot Ion:228 | Resp: | 11284 |
| Ion Ratio   | Lower | Upper |
| 228 100     |       |       |
| 226 29.4    | 23.4  | 35.0  |
| 229 20.2    | 16.2  | 24.4  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E



#32

Bis(2-ethylhexyl)phthalate

Concen: 0.296 ng

RT: 21.37 min Scan# 1663

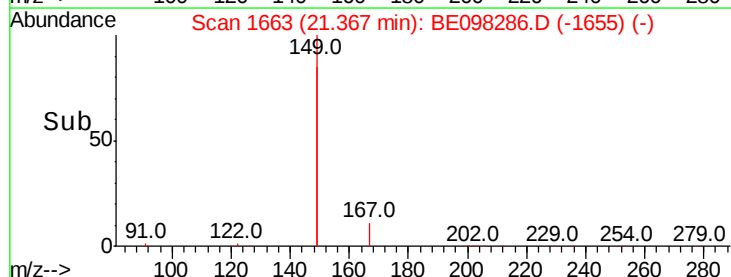
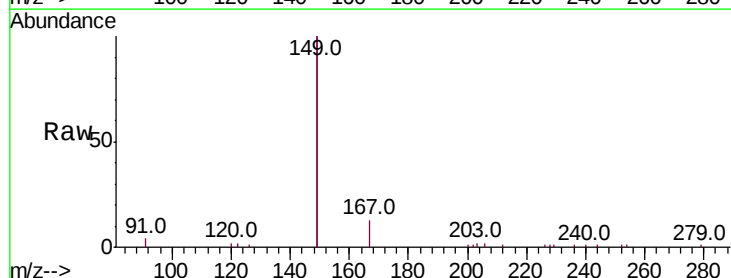
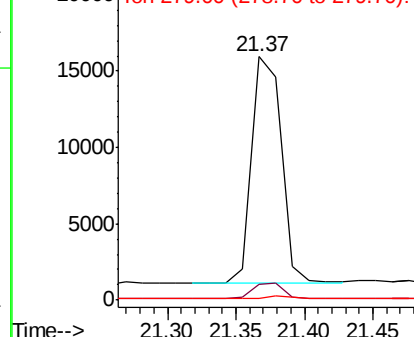
Delta R.T. 0.00 min

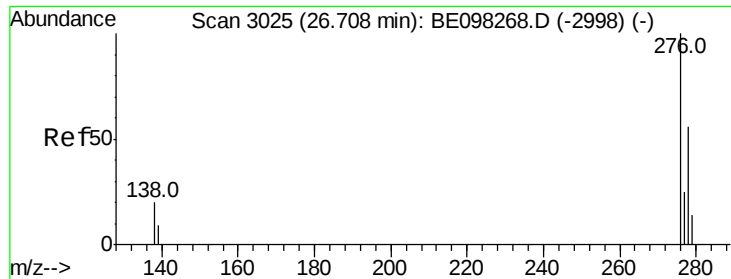
Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

|             |       |       |
|-------------|-------|-------|
| Tgt Ion:149 | Resp: | 22435 |
| Ion Ratio   | Lower | Upper |
| 149 100     |       |       |
| 167 7.0     | 5.7   | 8.5   |
| 279 1.2     | 1.0   | 1.4   |

Abundance Ion 149.00 (148.70 to 149.70): E  
Ion 167.00 (166.70 to 167.70): E  
Ion 279.00 (278.70 to 279.70): E





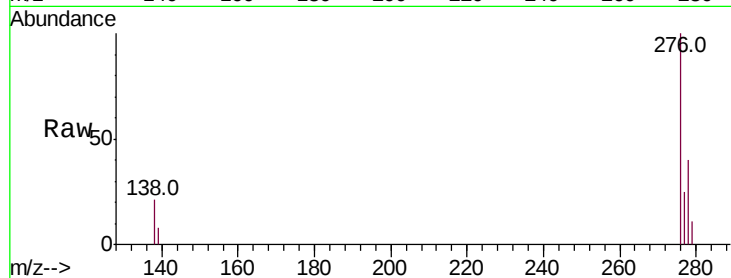
#33  
Indeno(1,2,3-cd)pyrene  
Concen: 0.388 ng  
RT: 26.71 min Scan# 3026  
Delta R.T. 0.00 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

Instrument :  
BNA\_E  
ClientSampleId :  
PB115203BS

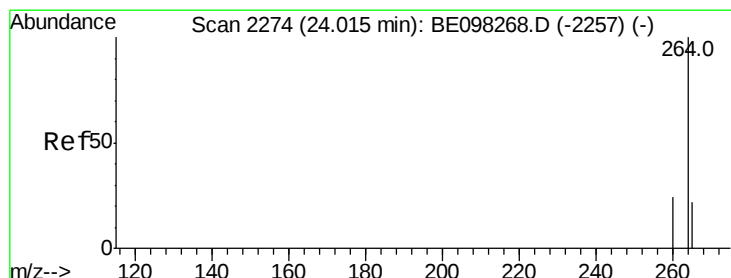
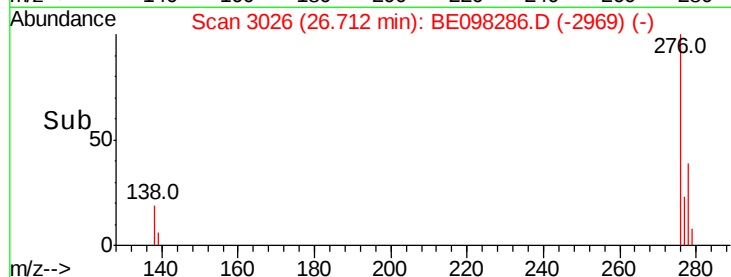
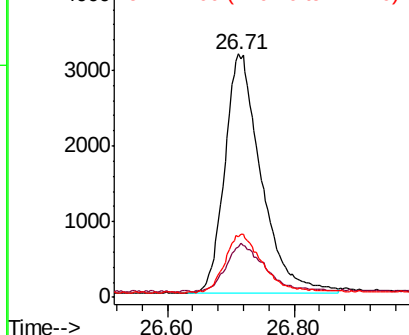
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 20.3  | 16.3  | 24.5  |
| 277     | 24.7  | 20.2  | 30.4  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



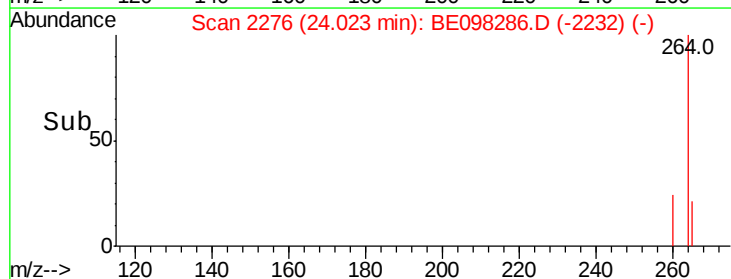
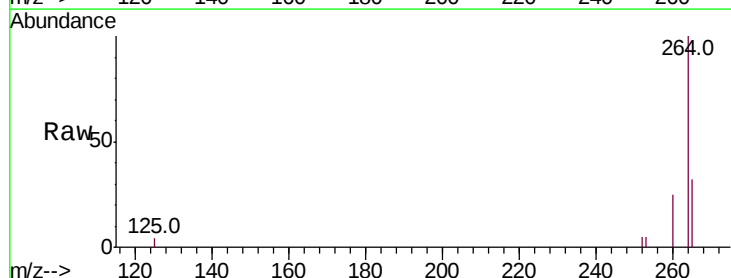
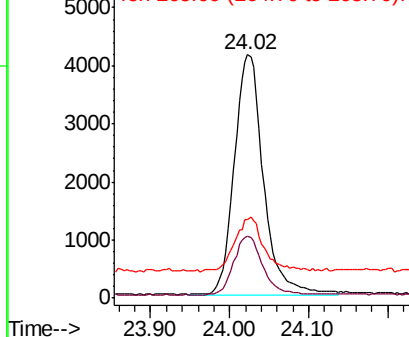
Abundance Ion 276.00 (275.70 to 276.70): E  
Ion 138.00 (137.70 to 138.70): E  
Ion 277.00 (276.70 to 277.70): E

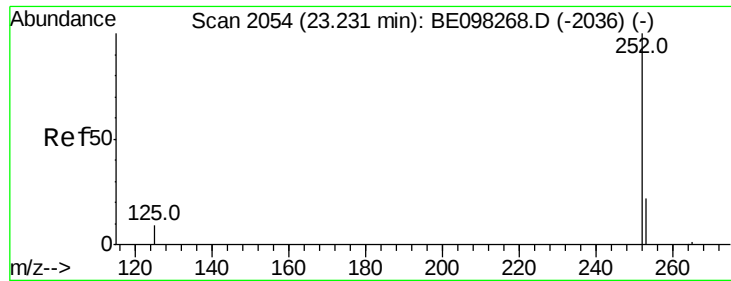


#34  
Perylene-d12  
Concen: 0.400 ng  
RT: 24.02 min Scan# 2276  
Delta R.T. 0.01 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 25.4  | 20.2  | 30.2  |
| 265     | 32.2  | 25.2  | 37.8  |

Abundance Ion 264.00 (263.70 to 264.70): E  
Ion 260.00 (259.70 to 260.70): E  
Ion 265.00 (264.70 to 265.70): E





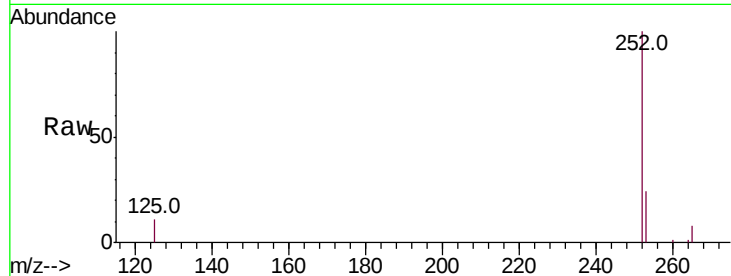
#35  
Benzo(b)fluoranthene  
Concen: 0.366 ng  
RT: 23.24 min Scan# 2055  
Delta R.T. 0.00 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

Instrument :  
BNA\_E  
ClientSampleId :  
PB115203BS

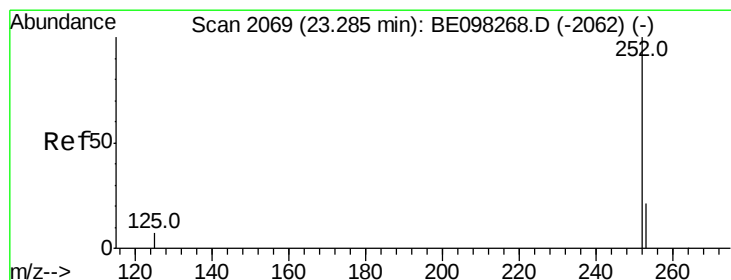
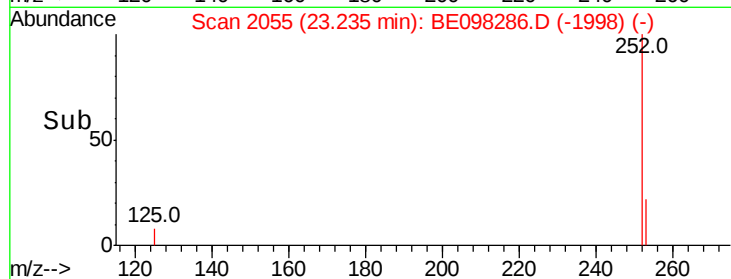
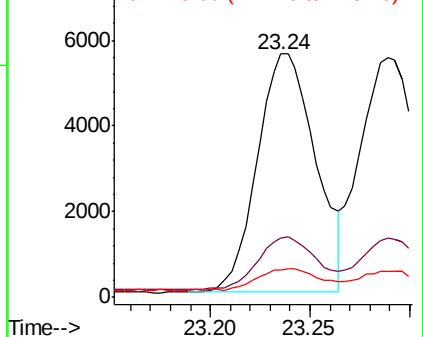
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.5  | 20.0  | 30.0  |
| 125     | 11.4  | 9.6   | 14.4  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM



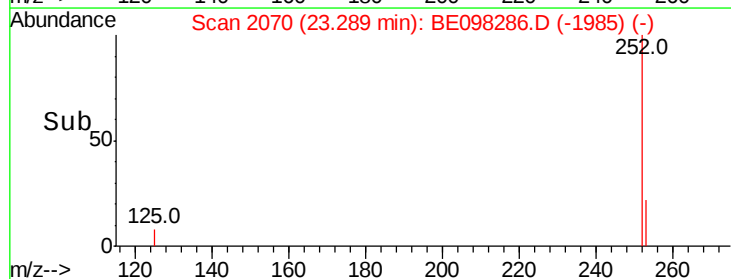
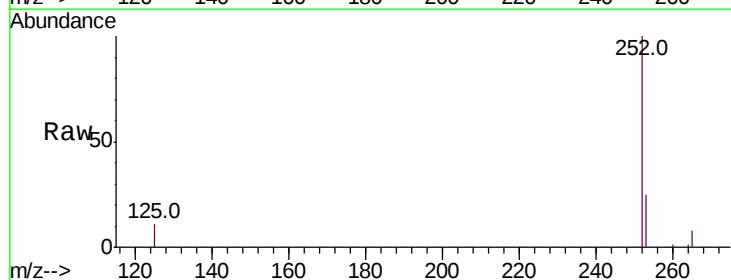
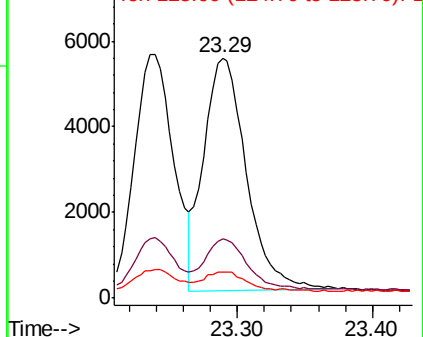
Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E

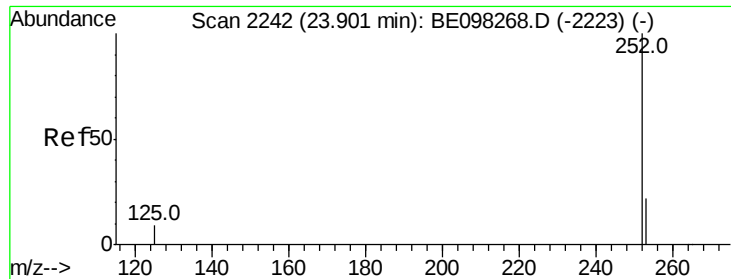


#36  
Benzo(k)fluoranthene  
Concen: 0.367 ng  
RT: 23.29 min Scan# 2070  
Delta R.T. 0.00 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.6  | 19.0  | 28.6  |
| 125     | 10.7  | 9.1   | 13.7  |

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





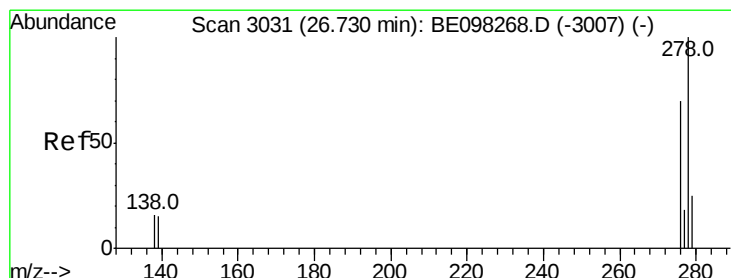
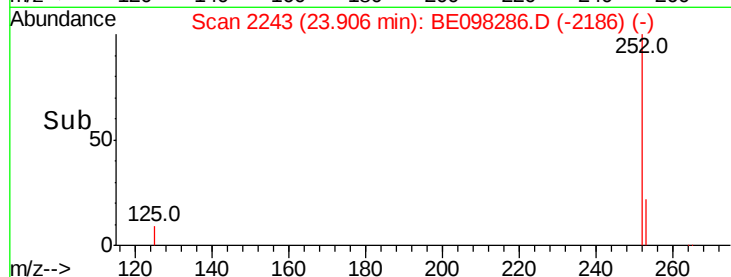
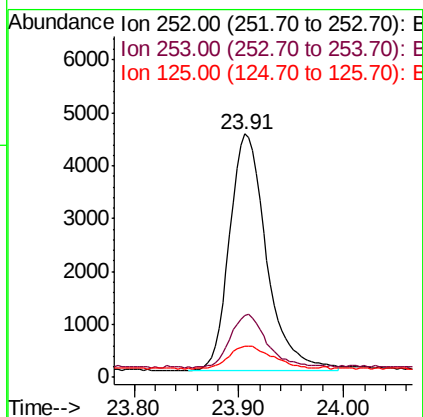
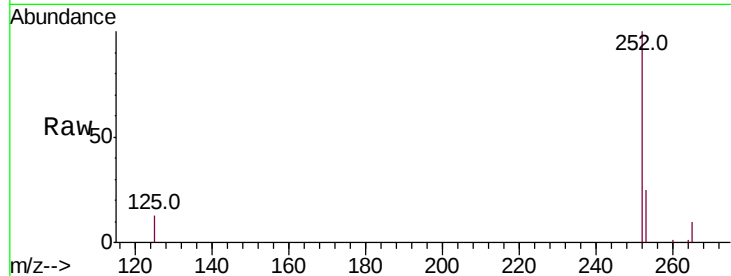
#37  
Benzo(a)pyrene  
Concen: 0.368 ng  
RT: 23.91 min Scan# 2243  
Delta R.T. 0.00 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

Instrument :  
BNA\_E  
ClientSampleId :  
PB115203BS

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 25.2  | 20.6  | 30.8  |
| 125     | 12.7  | 10.5  | 15.7  |

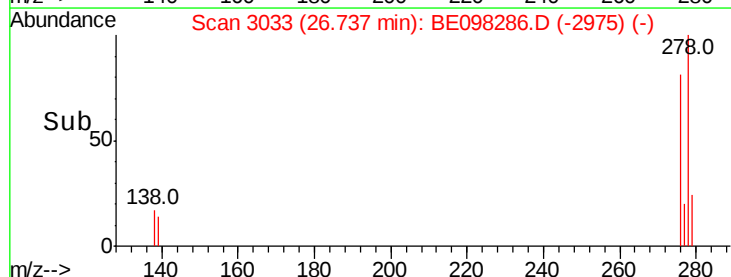
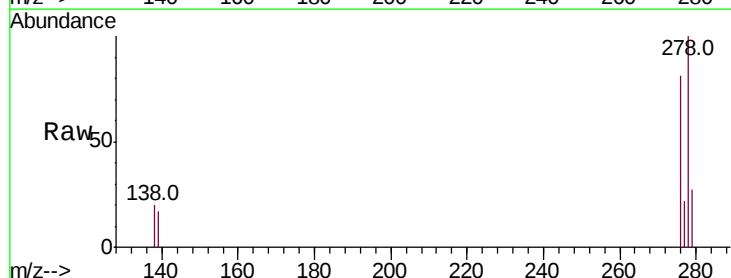
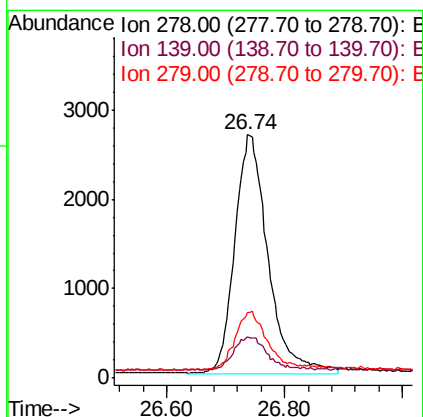
Manual Integrations  
APPROVED

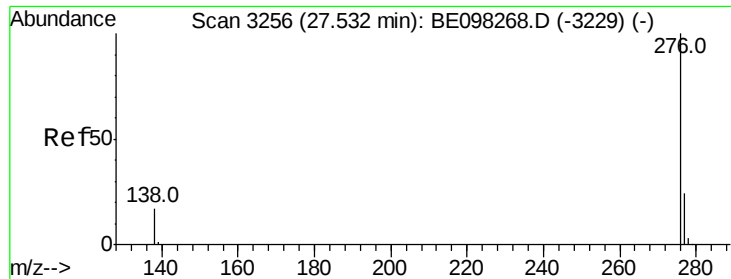
mohammad  
12/3/2018 3:33:55 PM



#38  
Dibenzo(a,h)anthracene  
Concen: 0.369 ng  
RT: 26.74 min Scan# 3033  
Delta R.T. 0.01 min  
Lab File: BE098286.D  
Acq: 30 Nov 2018 14:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 17.0  | 14.5  | 21.7  |
| 279     | 27.1  | 21.8  | 32.8  |





#39

Benzo(a,h,i)perylene

Concen: 0.381 ng

RT: 27.54 min Scan# 3259

Delta R.T. 0.01 min

Lab File: BE098286.D

Acq: 30 Nov 2018 14:46

Instrument :

BNA\_E

ClientSampleId :

PB115203BS

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 276   | Resp: | 10798 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 277       | 26.1  | 20.8  | 31.2  |
| 138       | 20.2  | 15.8  | 23.6  |

Manual Integrations  
APPROVED

mohammad  
12/3/2018 3:33:55 PM

