

Data Path : Z:\HPCHEM1\BNA F\DATA\BF063017\  
 Data File : BF096362.D  
 Acq On : 1 Jul 2017 3:20  
 Operator : SJ/MA  
 Sample : I3930-11  
 Misc :  
 ALS Vial : 39 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 B3-6-8.5

Manual Integrations  
 APPROVED

mohammad  
 7/3/2017 11:37:53 AM

Quant Time: Jul 01 04:26:06 2017  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF062717.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Jun 28 15:41:49 2017  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min)  |
|-----------------------------|-------|------|----------|--------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.76  | 152  | 160035   | 20.00  | ng    | -0.02     |
| 21) Naphthalene-d8          | 8.04  | 136  | 629777   | 20.00  | ng    | -0.02     |
| 38) Acenaphthene-d10        | 9.79  | 164  | 232564   | 20.00  | ng    | -0.02     |
| 63) Phenanthrene-d10        | 11.27 | 188  | 355098   | 20.00  | ng    | -0.01     |
| 75) Chrysene-d12            | 13.90 | 240  | 291786   | 20.00  | ng    | -0.01     |
| 86) Perylene-d12            | 15.33 | 264  | 199604   | 20.00  | ng    | -0.01     |
| System Monitoring Compounds |       |      |          |        |       |           |
| 5) 2-Fluorophenol           | 5.38  | 112  | 1202020  | 108.21 | ng    | 0.00      |
| 7) Phenol-d6                | 6.40  | 99   | 1446096  | 107.51 | ng    | 0.00      |
| 23) Nitrobenzene-d5         | 7.32  | 82   | 822375   | 90.40  | ng    | -0.04     |
| 41) 2,4,6-Tribromophenol    | 10.58 | 330  | 251349   | 137.33 | ng    | -0.01     |
| 44) 2-Fluorobiphenyl        | 9.12  | 172  | 1103228  | 86.88  | ng    | -0.03     |
| 78) Terphenyl-d14           | 12.86 | 244  | 759149   | 64.92  | ng    | -0.01     |
| Target Compounds            |       |      |          |        |       |           |
| 10) Phenol                  | 6.40  | 94   | 33505    | 2.27   | ng    | Qvalue 89 |
| 31) Naphthalene             | 8.06  | 128  | 68159    | 2.25   | ng    | 99        |
| 37) 2-Methylnaphthalene     | 8.75  | 142  | 48688    | 2.47   | ng    | 95        |
| 49) Dimethylphthalate       | 9.51  | 163  | 233512   | 14.03  | ng    | 98        |
| 74) Fluoranthene            | 12.48 | 202  | 123974   | 6.28   | ng    | 96        |
| 77) Pyrene                  | 12.71 | 202  | 125423   | 5.23   | ng    | 97        |
| 80) Benzo(a)anthracene      | 13.89 | 228  | 52128    | 2.93   | ng    | 93        |
| 82) Chrysene                | 13.93 | 228  | 52368    | 2.85   | ng    | 97        |
| 87) Benzo(b)fluoranthene    | 14.92 | 252  | 58531m   | 4.46   | ng    |           |
| 89) Benzo(a)pyrene          | 15.26 | 252  | 30101    | 2.60   | ng    | # 73      |
| 91) Benzo(g,h,i)perylene    | 17.12 | 276  | 22560    | 2.39   | ng    | # 87      |

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

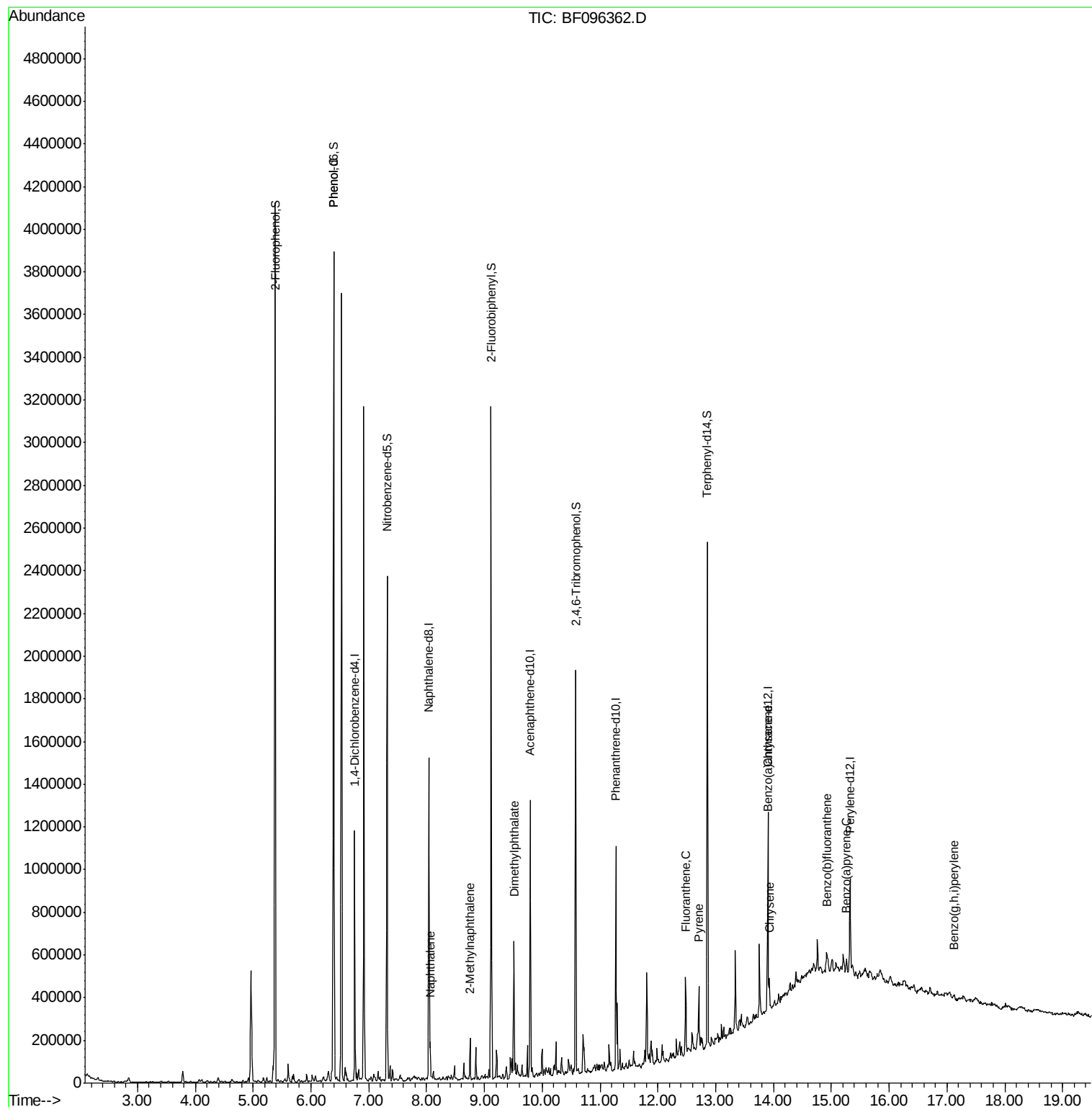
Data Path : Z:\HPCHEM1\BNA F\DATA\BF063017\  
Data File : BF096362.D  
Acq On : 1 Jul 2017 3:20  
Operator : SJ/MA  
Sample : I3930-11  
Misc :  
ALS Vial : 39 Sample Multiplier: 1

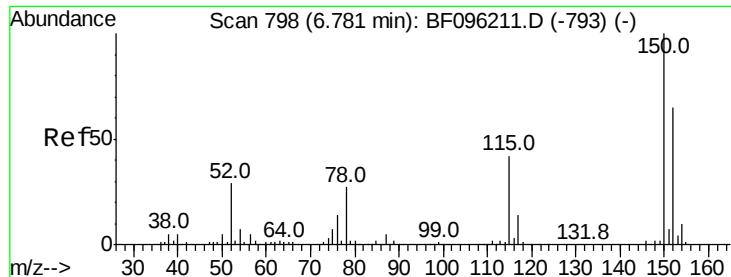
Instrument :  
BNA\_F  
ClientSampleId :  
B3-6-8.5

Manual Integrations  
APPROVED

mohammad  
7/3/2017 11:37:53 AM

Quant Time: Jul 01 04:26:06 2017  
Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF062717.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Jun 28 15:41:49 2017  
Response via : Initial Calibration





#1

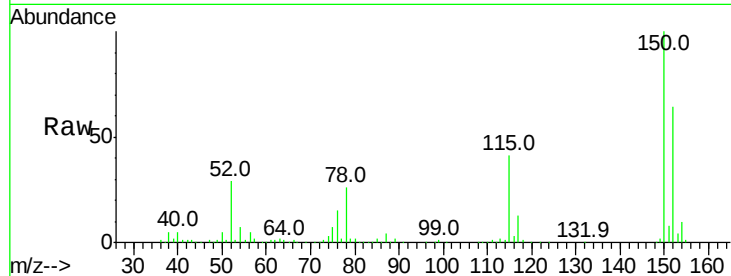
1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 6.76 min Scan# 794  
Delta R.T. -0.02 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

Instrument :  
BNA\_F  
ClientSampleId :  
B3-6-8.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 156.3 | 126.2 | 189.2 |
| 115     | 64.8  | 52.2  | 78.2  |

Manual Integrations  
APPROVED

mohammad  
7/3/2017 11:37:53 AM

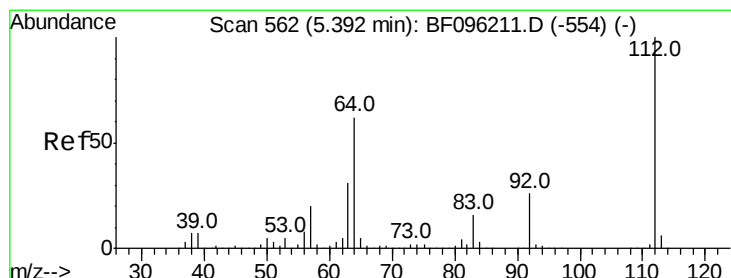
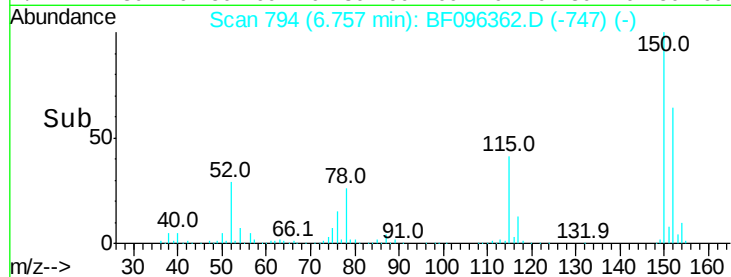
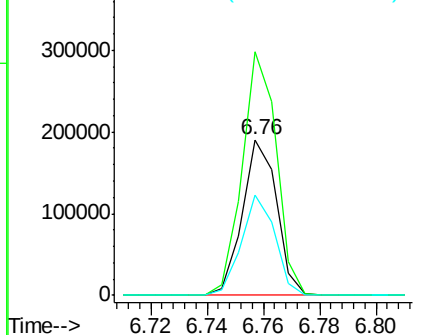


Abundance

Ion 152.00 (151.70 to 152.70): E

Ion 150.00 (149.70 to 150.70): E

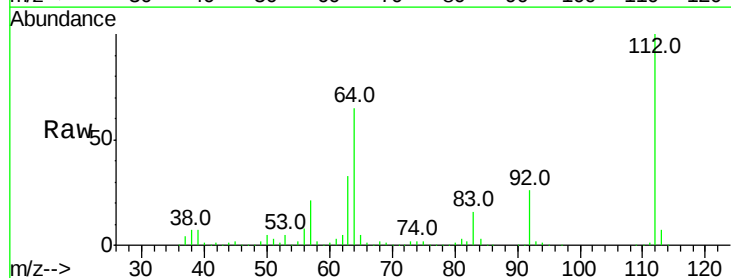
Ion 115.00 (114.70 to 115.70): E



#5

2-Fluorophenol  
Concen: 108.21 ng  
RT: 5.38 min Scan# 560  
Delta R.T. 0.00 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 65.0  | 46.0  | 69.0  |
| 63      | 33.0  | 23.4  | 35.0  |

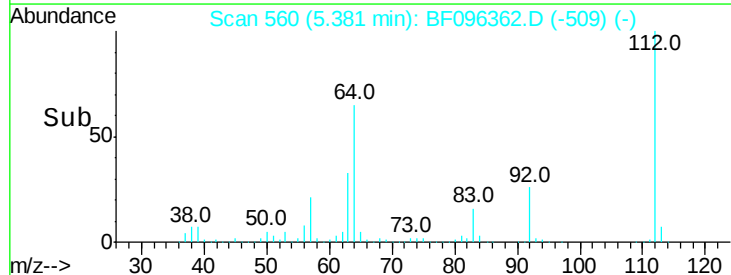
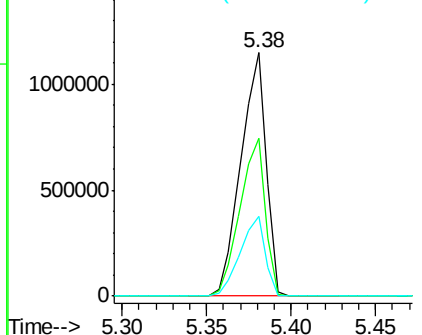


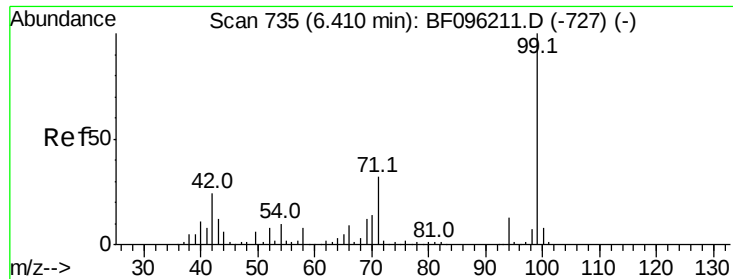
Abundance

Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BF0

Ion 63.00 (62.70 to 63.70): BF0





#7

Phenol-d6

Concen: 107.51 ng

RT: 6.40 min Scan# 733

Delta R.T. 0.01 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

Instrument :

BNA\_F

ClientSampleId :

B3-6-8.5

Tot Ion: 99 Resp: 1446096

Ion Ratio Lower Upper

99 100

42 21.0 13.5 20.3#

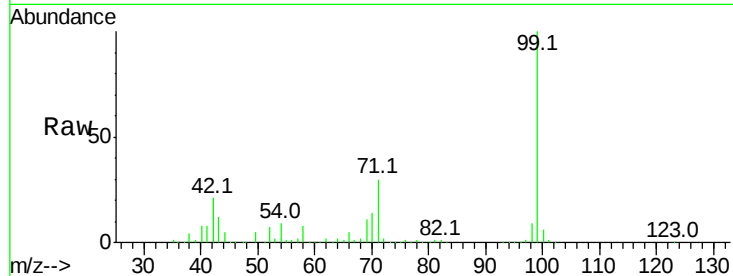
71 29.8 24.5 36.7

Manual Integrations

APPROVED

mohammad

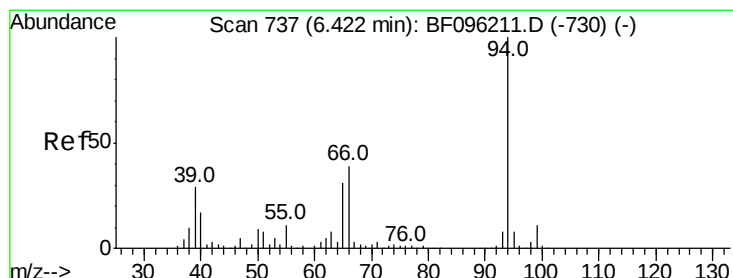
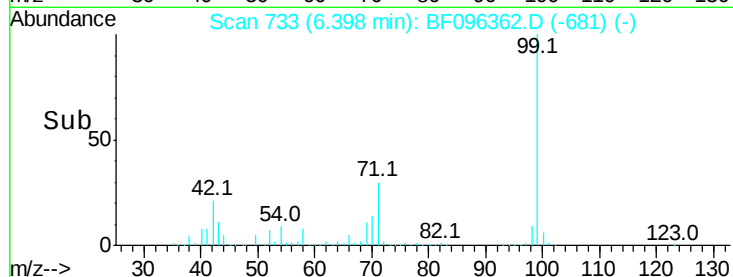
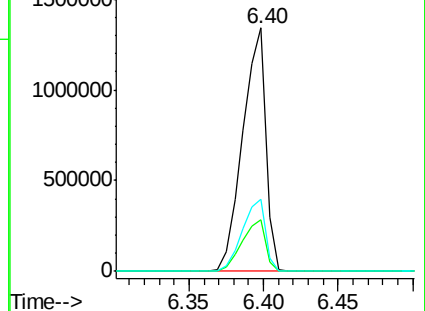
7/3/2017 11:37:53 AM



Abundance Ion 99.00 (98.70 to 99.70): BF0

Ion 42.00 (41.70 to 42.70): BF0

Ion 71.00 (70.70 to 71.70): BF0



#10

Phenol

Concen: 2.27 ng

RT: 6.40 min Scan# 734

Delta R.T. -0.00 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

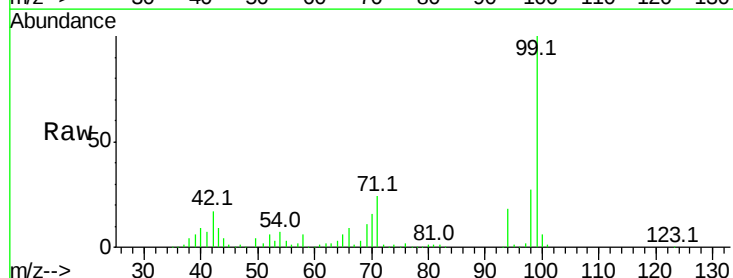
Tgt Ion: 94 Resp: 33505

Ion Ratio Lower Upper

94 100

65 33.2 9.9 49.9

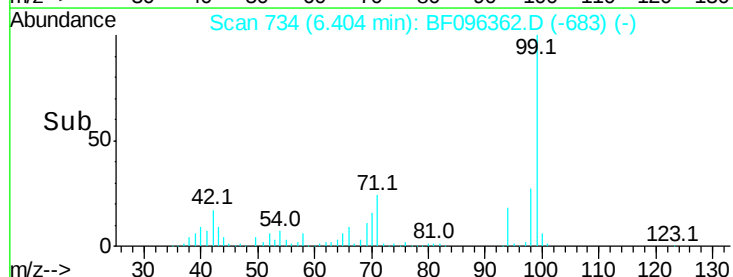
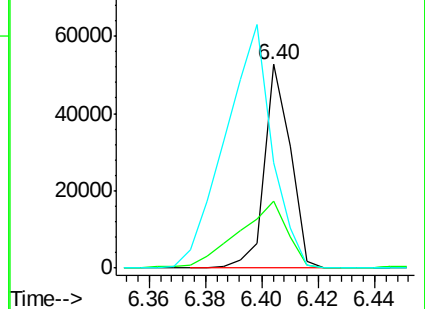
66 51.8 23.1 63.1

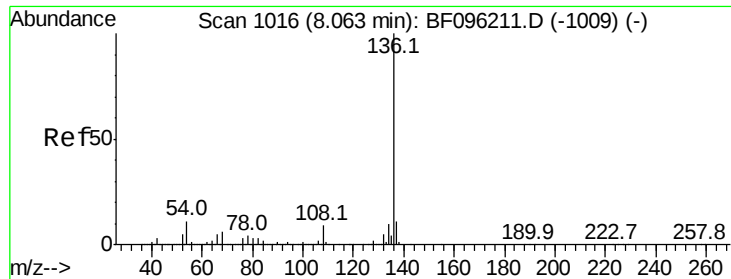


Abundance Ion 94.00 (93.70 to 94.70): BF0

Ion 65.00 (64.70 to 65.70): BF0

Ion 66.00 (65.70 to 66.70): BF0





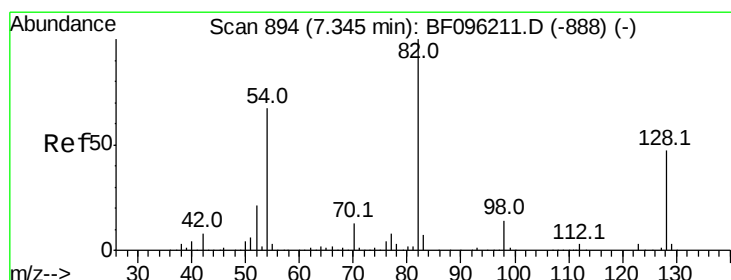
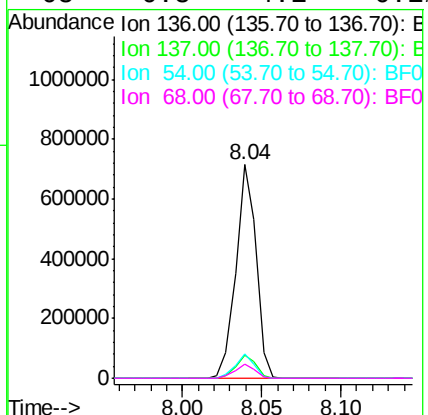
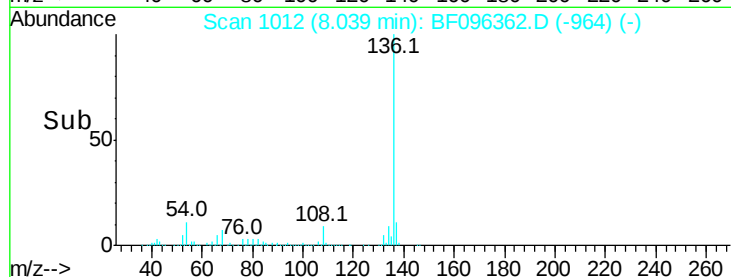
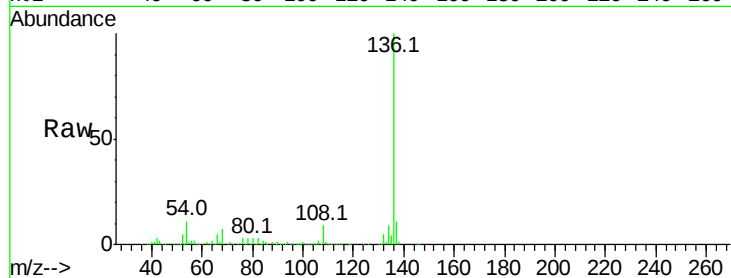
#21  
Naphthalene-d8  
Concen: 20.00 ng  
RT: 8.04 min Scan# 1012  
Delta R.T. -0.02 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

Instrument :  
BNA\_F  
ClientSampleId :  
B3-6-8.5

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 136     | 100   | 629777 |       |       |
| 137     | 10.9  |        | 8.5   | 12.7  |
| 54      | 11.3  |        | 4.9   | 7.3#  |
| 68      | 6.8   |        | 4.1   | 6.1#  |

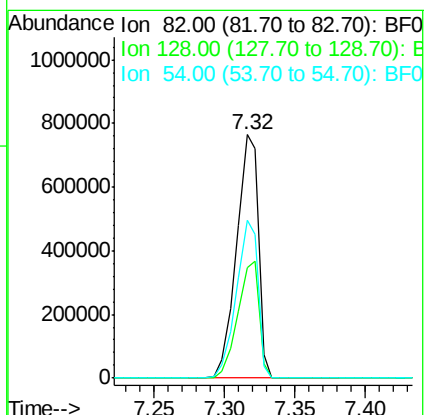
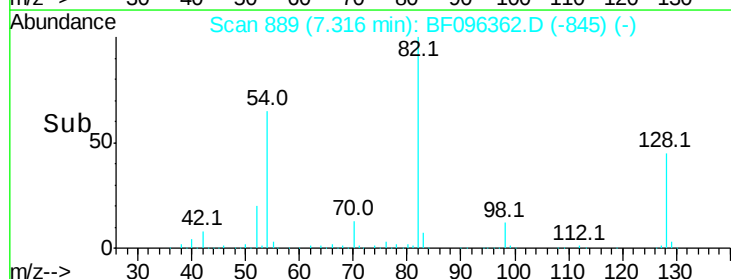
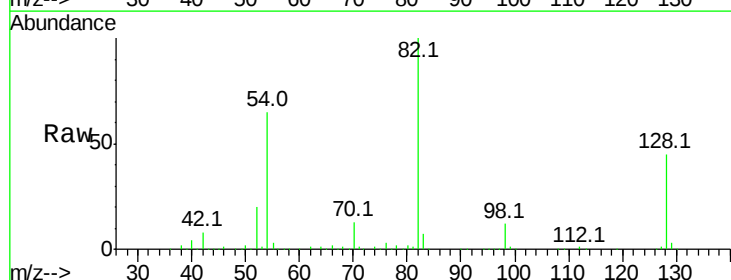
Manual Integrations  
APPROVED

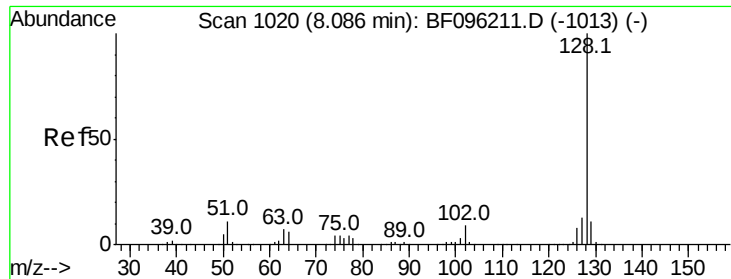
mohammad  
7/3/2017 11:37:53 AM



#23  
Nitrobenzene-d5  
Concen: 90.40 ng  
RT: 7.32 min Scan# 889  
Delta R.T. -0.04 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 82      | 100   | 822375 |       |       |
| 128     | 45.4  |        | 34.0  | 51.0  |
| 54      | 65.0  |        | 42.2  | 63.2# |





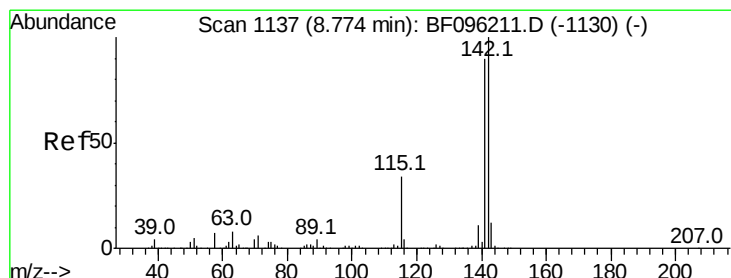
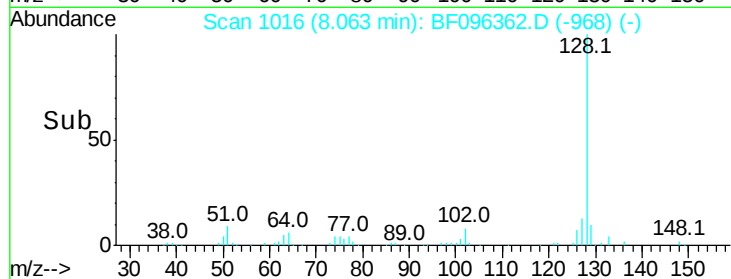
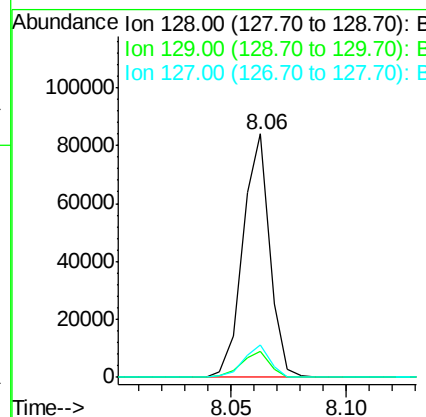
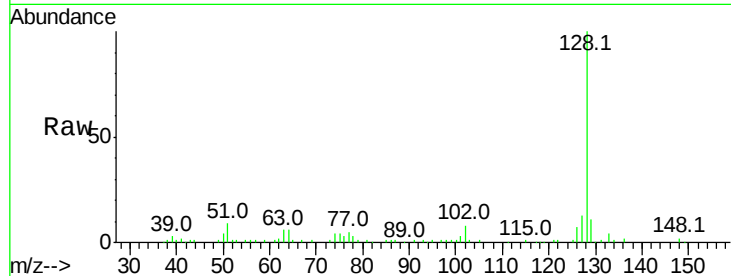
#31  
Naphthalene  
Concen: 2.25 ng  
RT: 8.06 min Scan# 1016  
Delta R.T. -0.02 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

Instrument :  
BNA\_F  
ClientSampleId :  
B3-6-8.5

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 128     | 100   | 68159 |       |       |
| 129     | 10.6  |       | 9.0   | 13.6  |
| 127     | 13.1  |       | 10.8  | 16.2  |

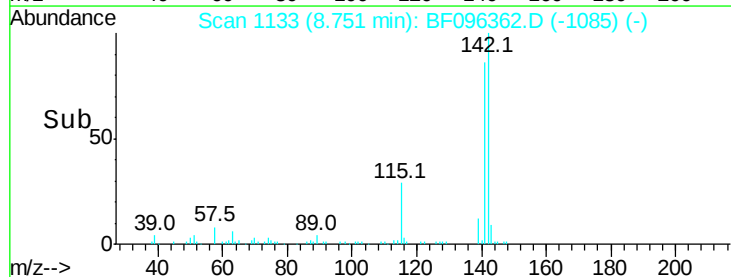
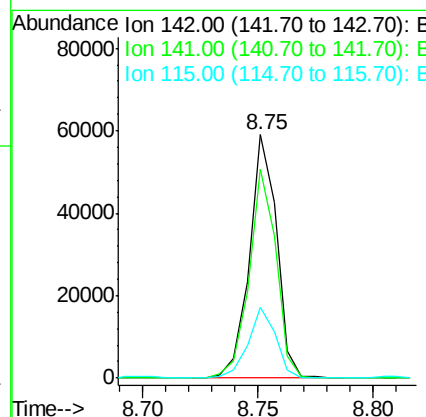
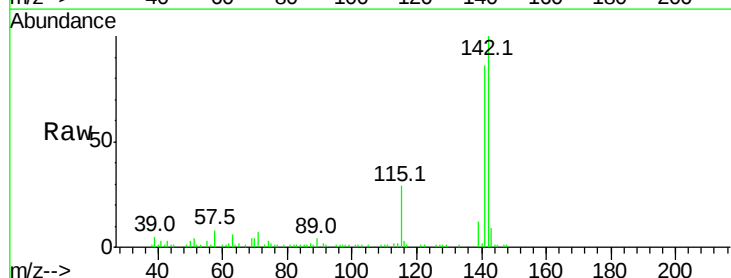
Manual Integrations  
APPROVED

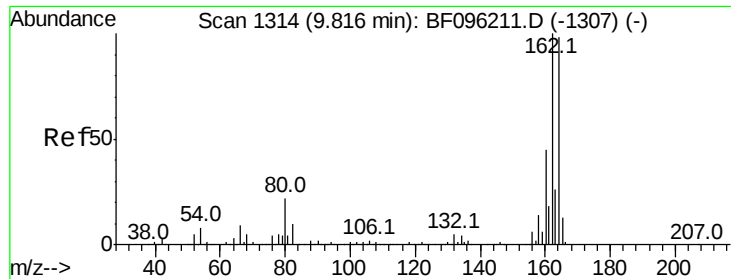
mohammad  
7/3/2017 11:37:53 AM



#37  
2-Methylnaphthalene  
Concen: 2.47 ng  
RT: 8.75 min Scan# 1133  
Delta R.T. -0.02 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 142     | 100   | 48688 |       |       |
| 141     | 86.0  |       | 71.3  | 106.9 |
| 115     | 29.3  |       | 27.1  | 40.7  |





#38

Acenaphthene-d10

Concen: 20.00 ng

RT: 9.79 min Scan# 1310

Delta R.T. -0.02 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

Instrument :

BNA\_F

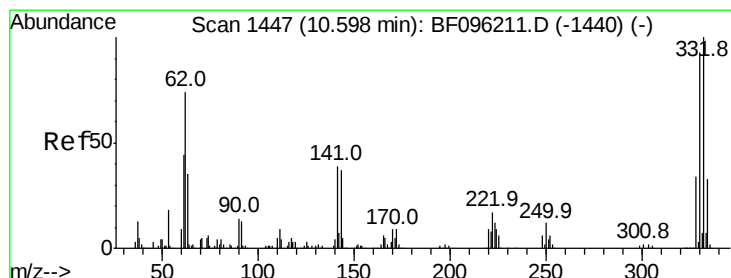
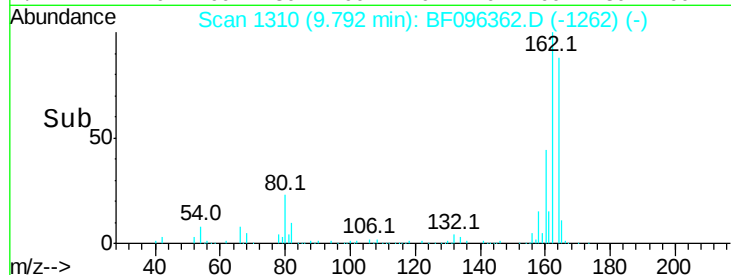
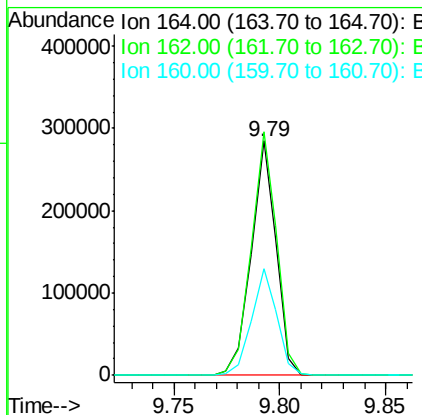
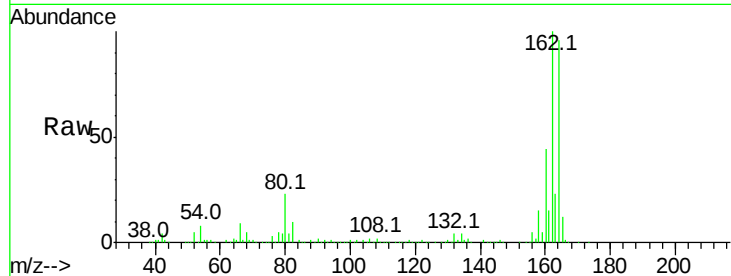
ClientSampleId :

B3-6-8.5

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 164   | Resp: | 232564 |
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 162       | 103.8 | 82.6  | 123.8  |
| 160       | 45.5  | 36.2  | 54.2   |

Manual Integrations  
APPROVED

mohammad  
7/3/2017 11:37:53 AM



#41

2,4,6-Tribromophenol

Concen: 137.33 ng

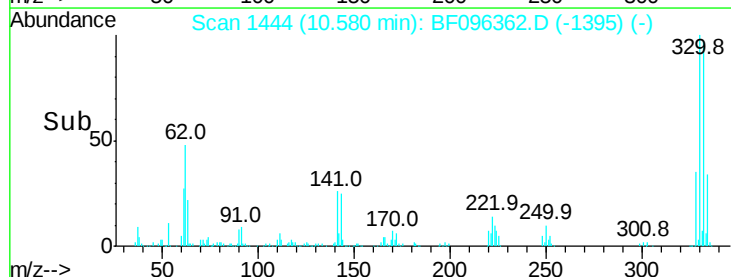
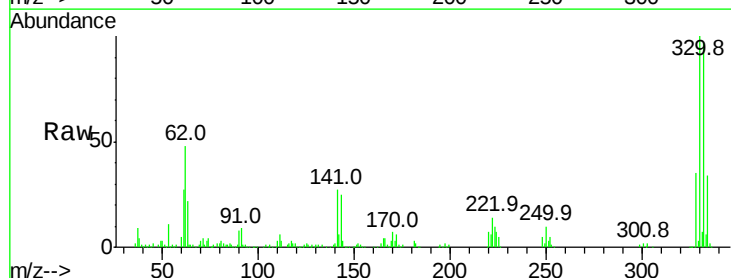
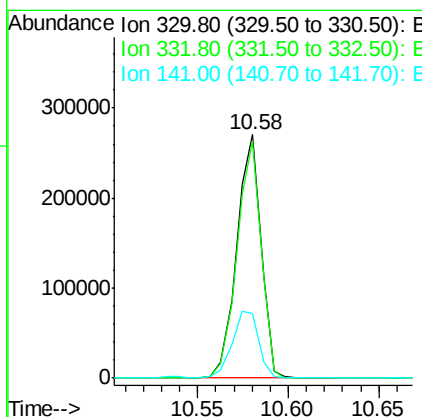
RT: 10.58 min Scan# 1444

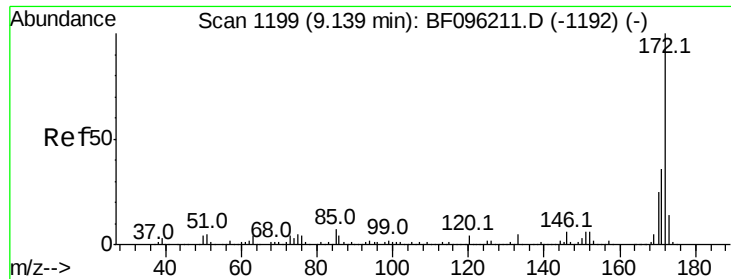
Delta R.T. -0.01 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 330   | Resp: | 251349 |
| Ion Ratio | Lower | Upper |        |
| 330       | 100   |       |        |
| 332       | 96.8  | 76.6  | 115.0  |
| 141       | 30.0  | 31.4  | 47.2#  |





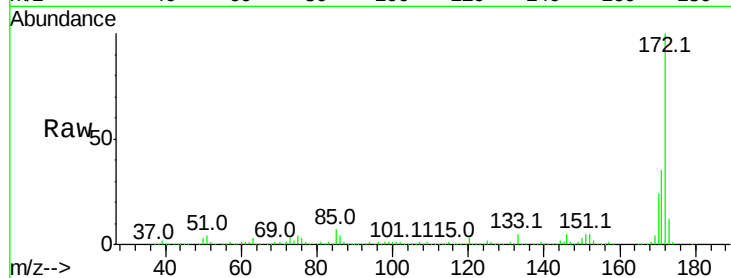
#44  
2-Fluorobiphenyl  
Concen: 86.88 ng  
RT: 9.12 min Scan# 1196  
Delta R.T. -0.03 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

Instrument :  
BNA\_F  
ClientSampleId :  
B3-6-8.5

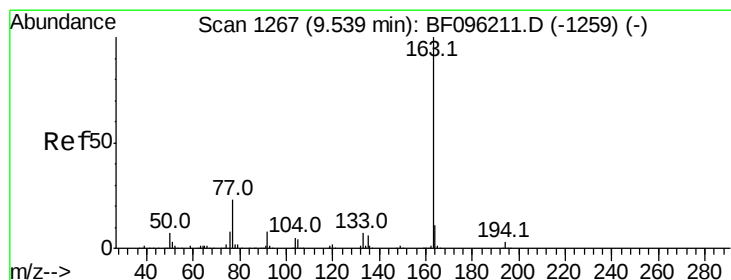
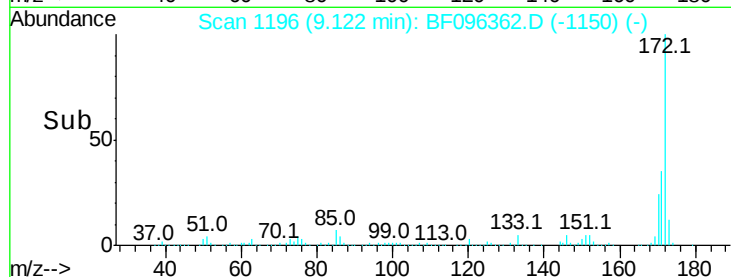
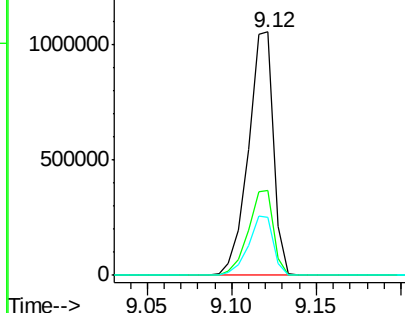
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 35.1  | 29.6  | 44.4  |
| 170     | 23.7  | 19.8  | 29.8  |

Manual Integrations  
APPROVED

mohammad  
7/3/2017 11:37:53 AM

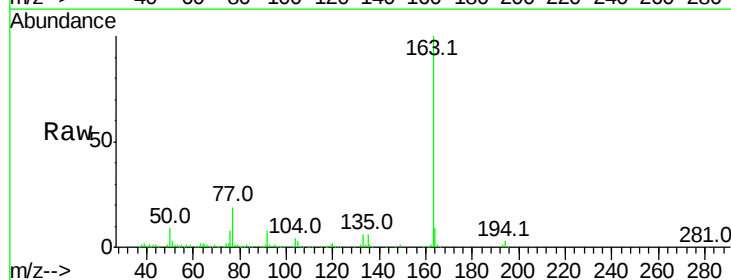


Abundance Ion 172.00 (171.70 to 172.70): E  
Ion 171.00 (170.70 to 171.70): E  
Ion 170.00 (169.70 to 170.70): E

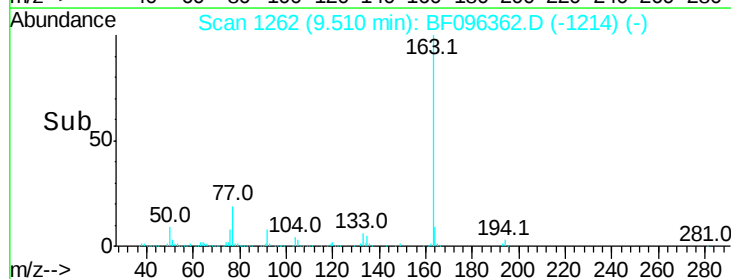
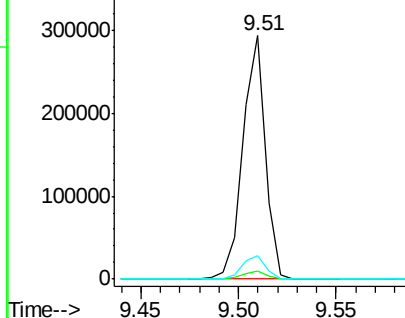


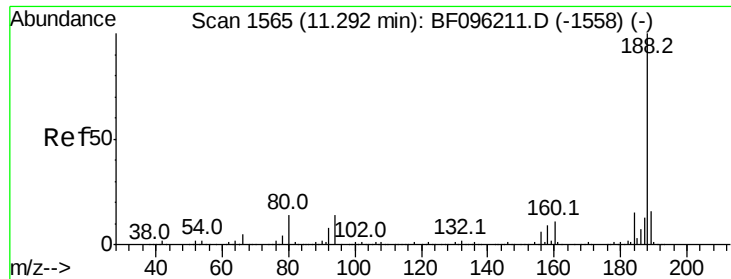
#49  
Dimethylphthalate  
Concen: 14.03 ng  
RT: 9.51 min Scan# 1262  
Delta R.T. -0.02 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 163     | 100   |       |       |
| 194     | 3.2   | 2.6   | 4.0   |
| 164     | 9.4   | 8.4   | 12.6  |



Abundance Ion 163.00 (162.70 to 163.70): E  
Ion 194.00 (193.70 to 194.70): E  
Ion 164.00 (163.70 to 164.70): E





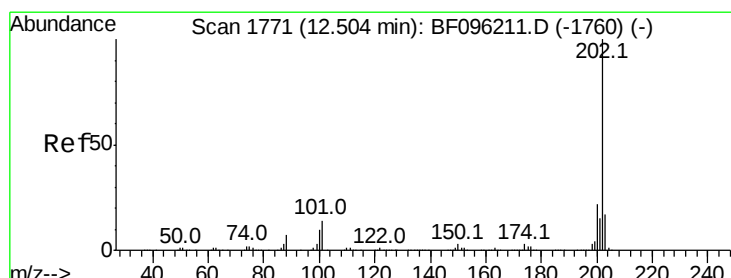
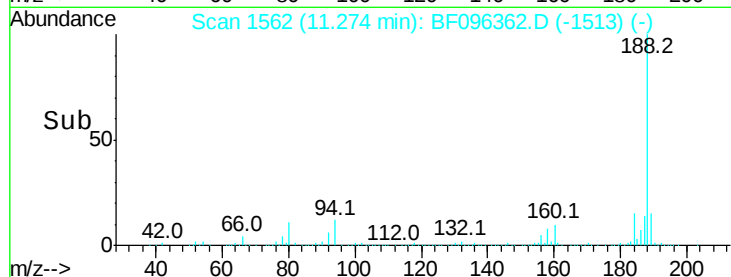
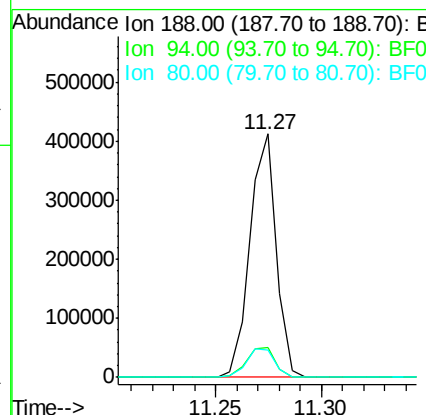
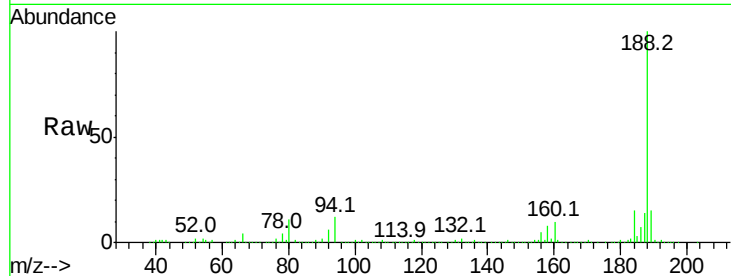
#63  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 11.27 min Scan# 1562  
Delta R.T. -0.01 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

Instrument :  
BNA\_F  
ClientSampled :  
B3-6-8.5

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 188     | 100   |            |       |
| 94      | 12.3  | 9.4        | 14.2  |
| 80      | 11.3  | 10.2       | 15.2  |

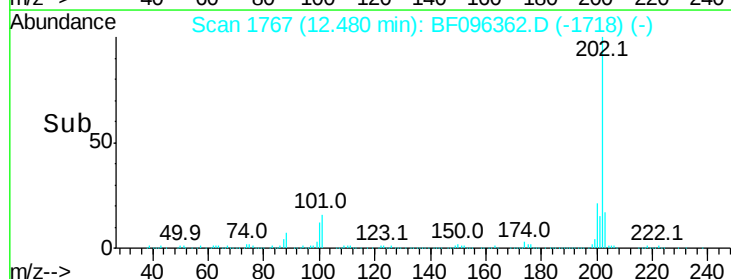
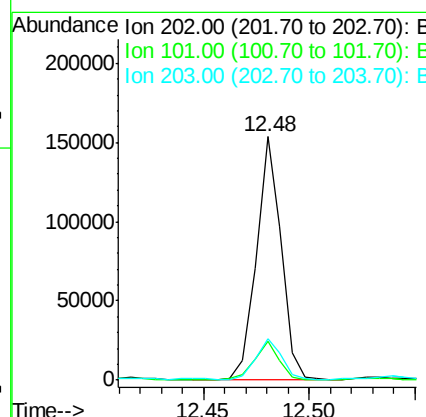
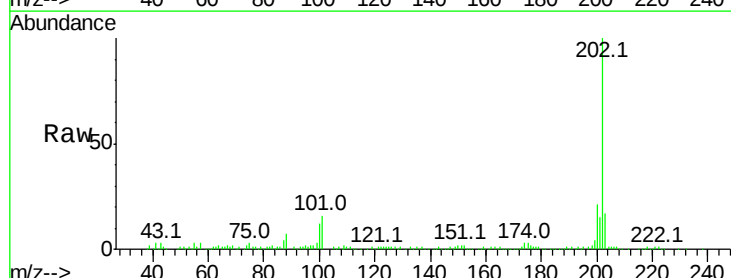
Manual Integrations  
APPROVED

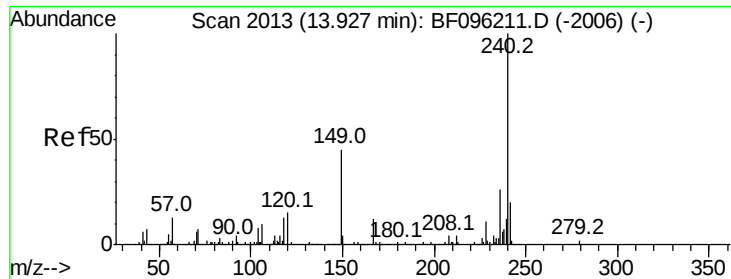
mohammad  
7/3/2017 11:37:53 AM



#74  
Fluoranthene  
Concen: 6.28 ng  
RT: 12.48 min Scan# 1767  
Delta R.T. -0.01 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 202     | 100   |            |       |
| 101     | 15.9  | 0.0        | 33.2  |
| 203     | 17.2  | 0.0        | 38.1  |





#75

Chrysene-d12

Concen: 20.00 ng

RT: 13.90 min Scan# 2009

Delta R.T. -0.01 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

Instrument :

BNA\_F

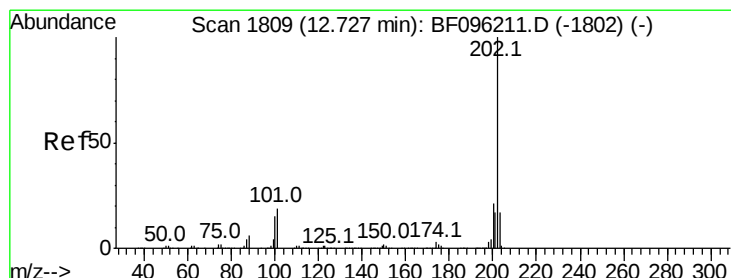
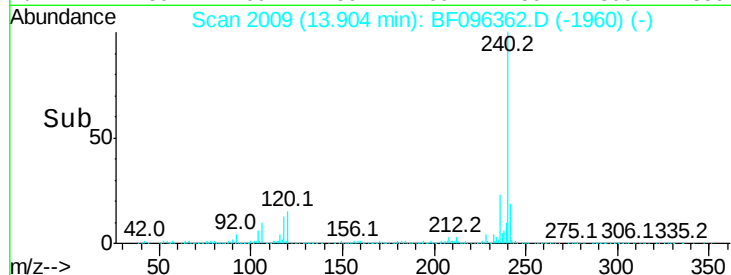
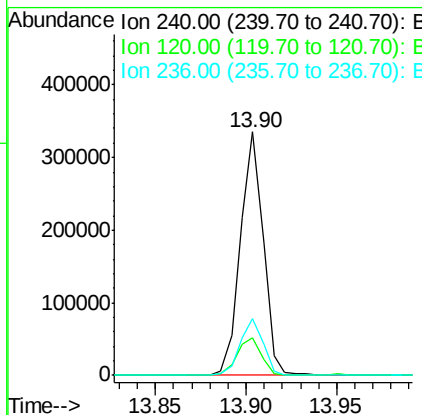
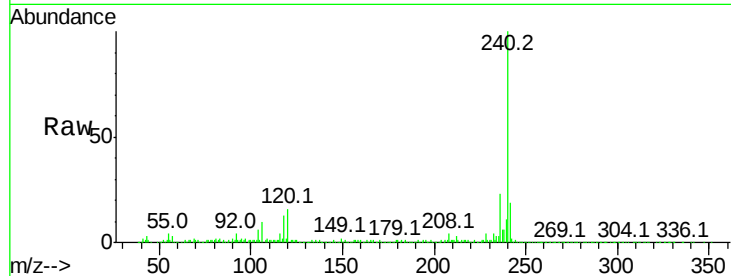
ClientSampled :

B3-6-8.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 15.6  | 5.8   | 8.8#  |
| 236     | 23.5  | 20.5  | 30.7  |

Manual Integrations  
APPROVED

mohammad  
7/3/2017 11:37:53 AM



#77

Pyrene

Concen: 5.23 ng

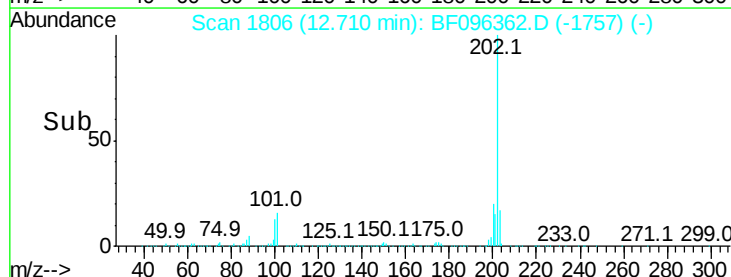
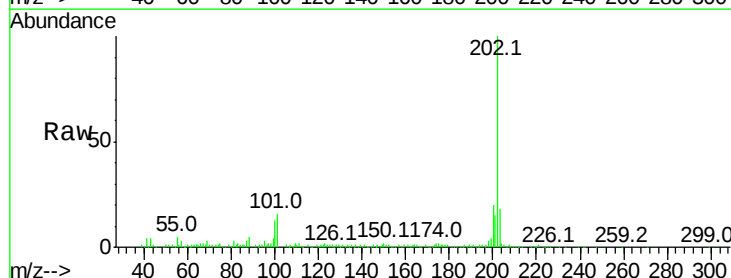
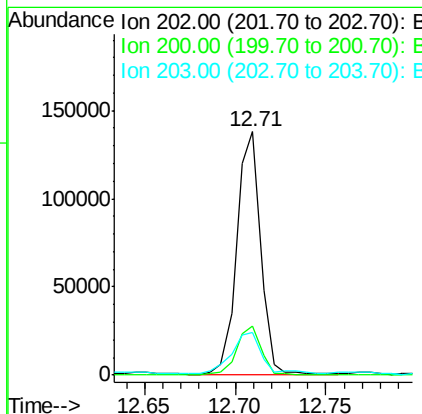
RT: 12.71 min Scan# 1806

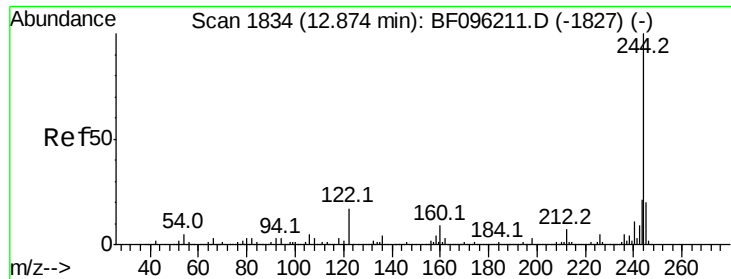
Delta R.T. -0.01 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 20.0  | 17.6  | 26.4  |
| 203     | 17.5  | 14.4  | 21.6  |





#78

Terphenyl-d14

Concen: 64.92 ng

RT: 12.86 min Scan# 1831

Delta R.T. -0.01 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

Instrument :

BNA\_F

ClientSampleId :

B3-6-8.5

Tot Ion:244 Resp: 759149

Ion Ratio Lower Upper

244 100

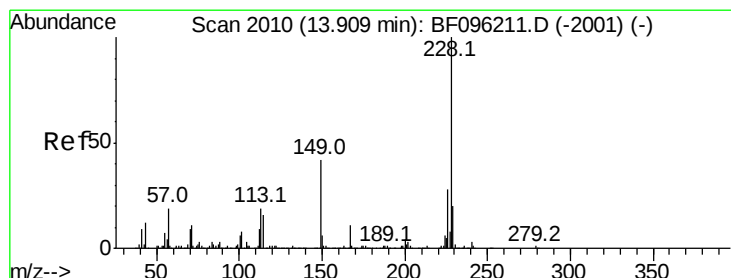
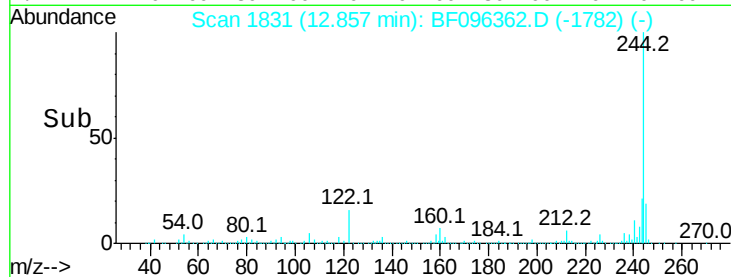
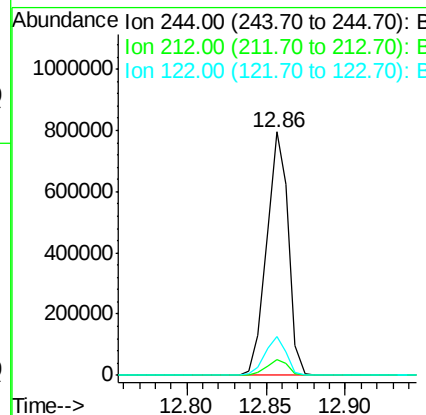
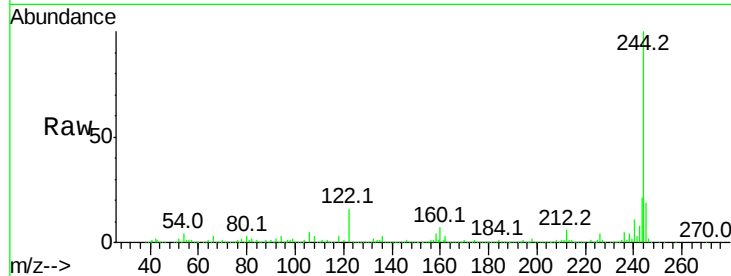
212 6.4 6.0 9.0

122 15.9 10.3 15.5#

Manual Integrations  
APPROVED

mohammad

7/3/2017 11:37:53 AM



#80

Benzo(a)anthracene

Concen: 2.93 ng

RT: 13.89 min Scan# 2007

Delta R.T. -0.01 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

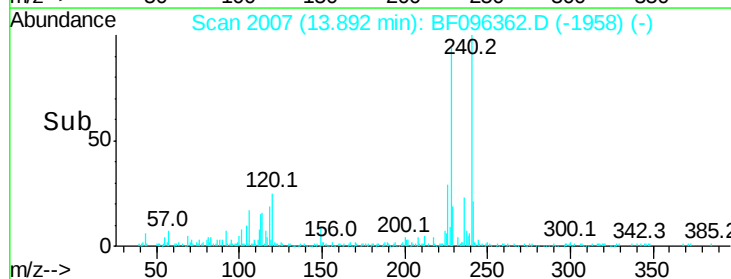
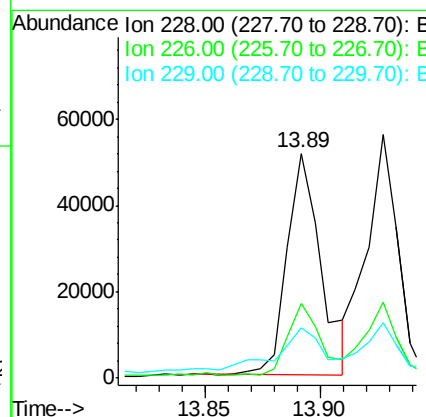
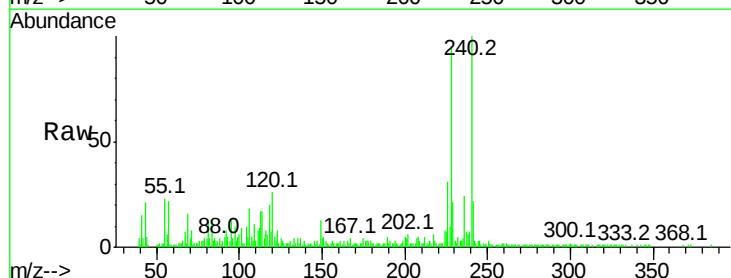
Tgt Ion:228 Resp: 52128

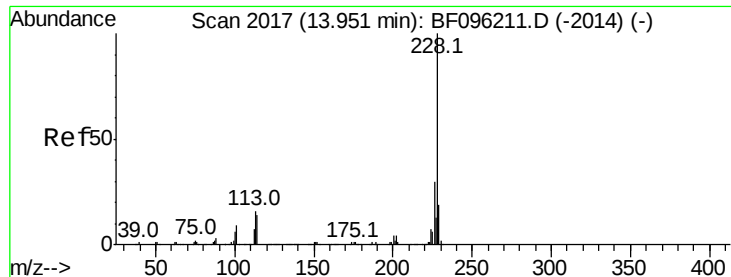
Ion Ratio Lower Upper

228 100

226 32.9 22.6 33.8

229 22.3 16.3 24.5





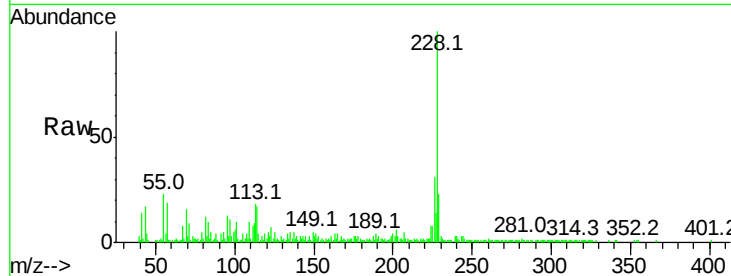
#82  
Chrysene  
Concen: 2.85 ng  
RT: 13.93 min Scan# 2013  
Delta R.T. -0.01 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

Instrument :  
BNA\_F  
ClientSampleId :  
B3-6-8.5

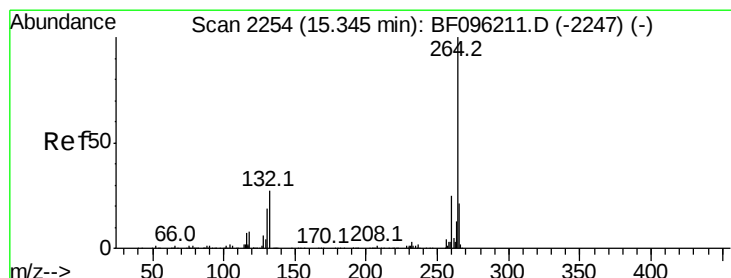
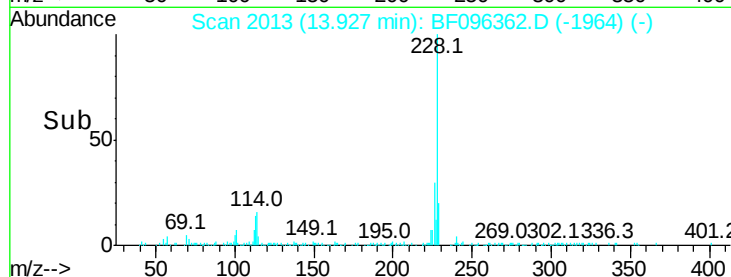
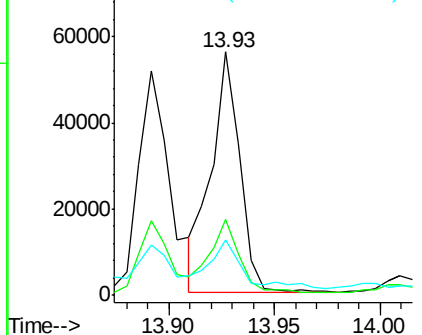
|             |       |       |
|-------------|-------|-------|
| Tot Ion:228 | Resp: | 52368 |
| Ion Ratio   | Lower | Upper |
| 228 100     |       |       |
| 226 31.4    | 24.9  | 37.3  |
| 229 22.8    | 15.8  | 23.6  |

Manual Integrations  
APPROVED

mohammad  
7/3/2017 11:37:53 AM

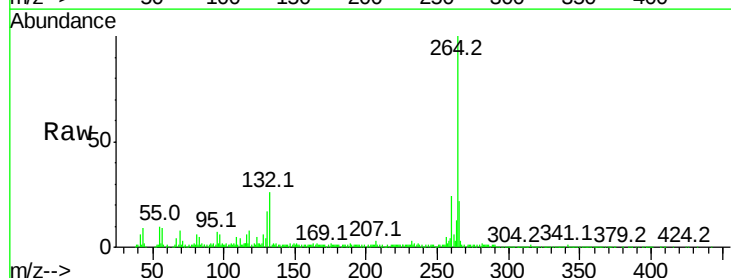


Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E

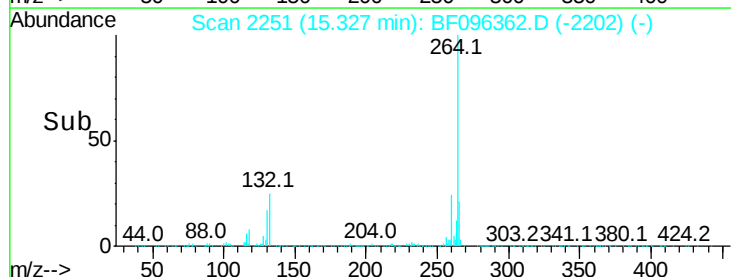
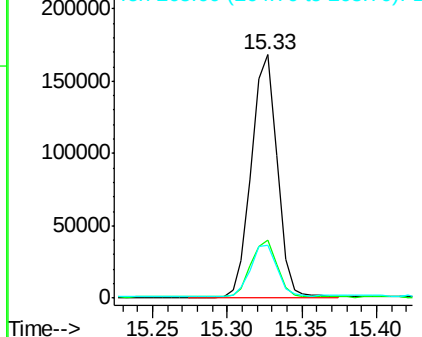


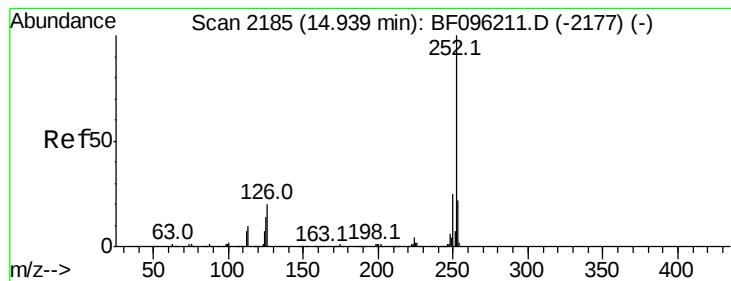
#86  
Perylene-d12  
Concen: 20.00 ng  
RT: 15.33 min Scan# 2251  
Delta R.T. -0.01 min  
Lab File: BF096362.D  
Acq: 1 Jul 2017 3:20

|             |       |        |
|-------------|-------|--------|
| Tgt Ion:264 | Resp: | 199604 |
| Ion Ratio   | Lower | Upper  |
| 264 100     |       |        |
| 260 23.7    | 19.5  | 29.3   |
| 265 21.7    | 17.2  | 25.8   |



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





#87

Benzo(b)fluoranthene

Concen: 4.46 ng/mL

RT: 14.92 min Scan# 2181

Delta R.T. -0.04 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

Instrument :

BNA\_F

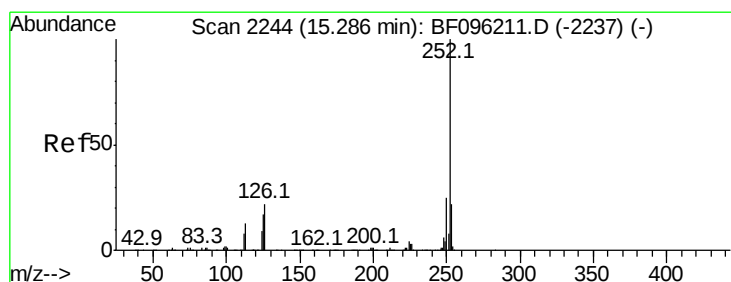
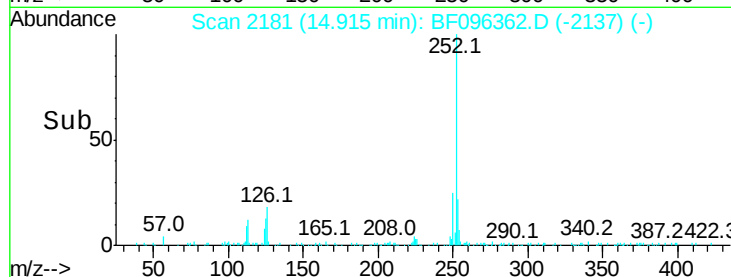
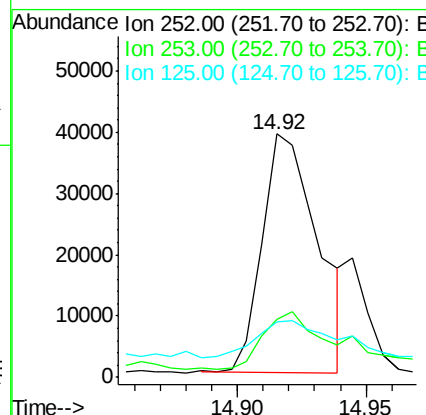
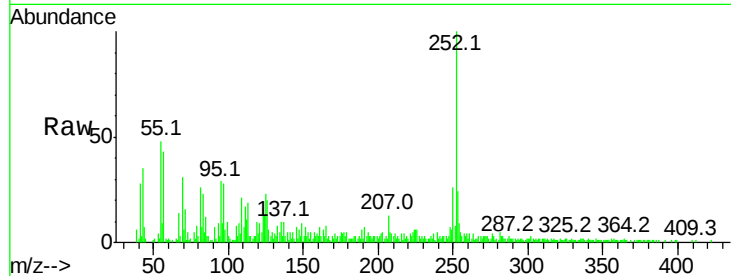
ClientSampleId :

B3-6-8.5

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 252   | Resp: | 58531 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 23.9  | 18.1  | 27.1  |
| 125       | 22.9  | 9.8   | 14.8# |

Manual Integrations  
APPROVED

mohammad  
7/3/2017 11:37:53 AM



#89

Benzo(a)pyrene

Concen: 2.60 ng/mL

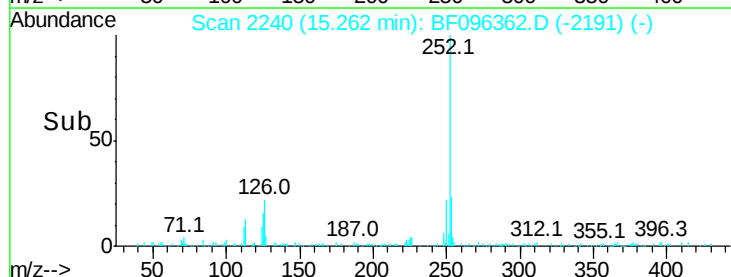
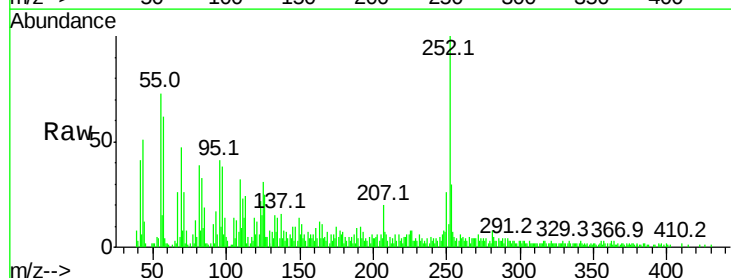
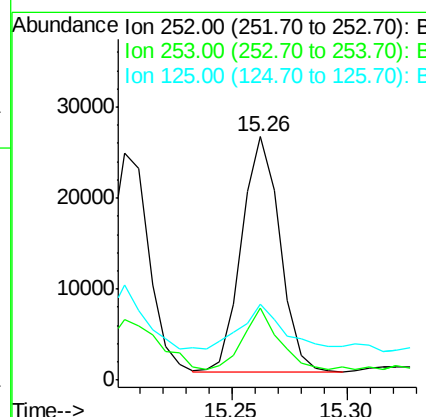
RT: 15.26 min Scan# 2240

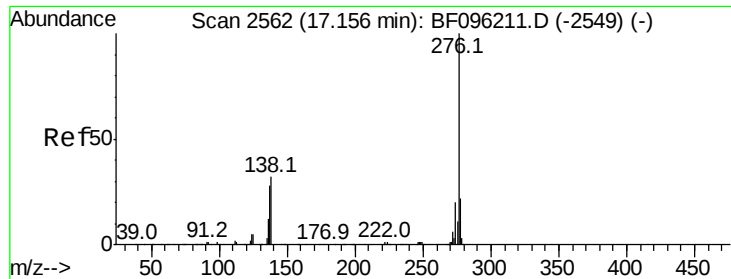
Delta R.T. -0.01 min

Lab File: BF096362.D

Acq: 1 Jul 2017 3:20

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 30101 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 29.7  | 17.5  | 26.3# |
| 125       | 31.2  | 11.0  | 16.4# |





#91  
 Benzo(a,h,i)perylene  
 Concen: 2.39 ng  
 RT: 17.12 min Scan# 2556  
 Delta R.T. -0.01 min  
 Lab File: BF096362.D  
 Acq: 1 Jul 2017 3:20

Instrument :  
 BNA\_F  
 ClientSampleId :  
 B3-6-8.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 27.6  | 18.6  | 28.0  |
| 138     | 40.6  | 25.4  | 38.0  |

Manual Integrations  
 APPROVED

mohammad  
 7/3/2017 11:37:53 AM

