

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF021517\  
 Data File : BF092971.D  
 Acq On : 16 Feb 2017 00:31  
 Operator : SJ/MA  
 Sample : I1822-02  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 38-BC-01-0-2

Manual Integrations  
 APPROVED

mohammad  
 2/16/2017 11:39:03 AM

Quant Time: Feb 16 10:50:14 2017  
 Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF013017.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Feb 13 18:04:38 2017  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|-------|------|----------|--------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.88  | 152  | 149844   | 20.00  | ng    | -0.01    |
| 21) Naphthalene-d8          | 8.16  | 136  | 604404   | 20.00  | ng    | -0.01    |
| 38) Acenaphthene-d10        | 9.90  | 164  | 310981   | 20.00  | ng    | -0.02    |
| 63) Phenanthrene-d10        | 11.39 | 188  | 498090   | 20.00  | ng    | -0.01    |
| 75) Chrysene-d12            | 14.02 | 240  | 320677   | 20.00  | ng    | -0.03    |
| 86) Perylene-d12            | 15.46 | 264  | 306541   | 20.00  | ng    | -0.02    |
| System Monitoring Compounds |       |      |          |        |       |          |
| 5) 2-Fluorophenol           | 5.47  | 112  | 1020548  | 116.85 | ng    | -0.01    |
| 7) Phenol-d6                | 6.51  | 99   | 1315456  | 117.06 | ng    | -0.02    |
| 23) Nitrobenzene-d5         | 7.45  | 82   | 942878   | 86.87  | ng    | -0.01    |
| 41) 2,4,6-Tribromophenol    | 10.70 | 330  | 256272   | 113.94 | ng    | -0.01    |
| 44) 2-Fluorobiphenyl        | 9.24  | 172  | 1530776  | 89.18  | ng    | 0.00     |
| 78) Terphenyl-d14           | 12.98 | 244  | 1170029  | 85.73  | ng    | -0.01    |
| Target Compounds            |       |      |          |        |       | Qvalue   |
| 10) Phenol                  | 6.52  | 94   | 39110    | 2.97   | ng    | 80       |
| 49) Dimethylphthalate       | 9.63  | 163  | 504004   | 24.06  | ng    | 100      |
| 70) Phenanthrene            | 11.41 | 178  | 577059   | 20.22  | ng    | 98       |
| 71) Anthracene              | 11.47 | 178  | 129796   | 4.53   | ng    | 95       |
| 74) Fluoranthene            | 12.60 | 202  | 751560   | 25.53  | ng    | 97       |
| 77) Pyrene                  | 12.83 | 202  | 711045   | 29.63  | ng    | 98       |
| 80) Benzo(a)anthracene      | 14.02 | 228  | 312494   | 15.93  | ng    | 96       |
| 82) Chrysene                | 14.05 | 228  | 254997m  | 13.89  | ng    |          |
| 85) Indeno(1,2,3-cd)pyrene  | 16.87 | 276  | 135208   | 9.51   | ng    | 99       |
| 87) Benzo(b)fluoranthene    | 15.05 | 252  | 298696m  | 14.80  | ng    |          |
| 88) Benzo(k)fluoranthene    | 15.07 | 252  | 111481m  | 6.40   | ng    |          |
| 89) Benzo(a)pyrene          | 15.40 | 252  | 229271m  | 13.14  | ng    |          |
| 90) Dibenzo(a,h)anthracene  | 16.88 | 278  | 36769m   | 2.61   | ng    |          |
| 91) Benzo(g,h,i)perylene    | 17.29 | 276  | 124420   | 8.73   | ng    | # 88     |

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

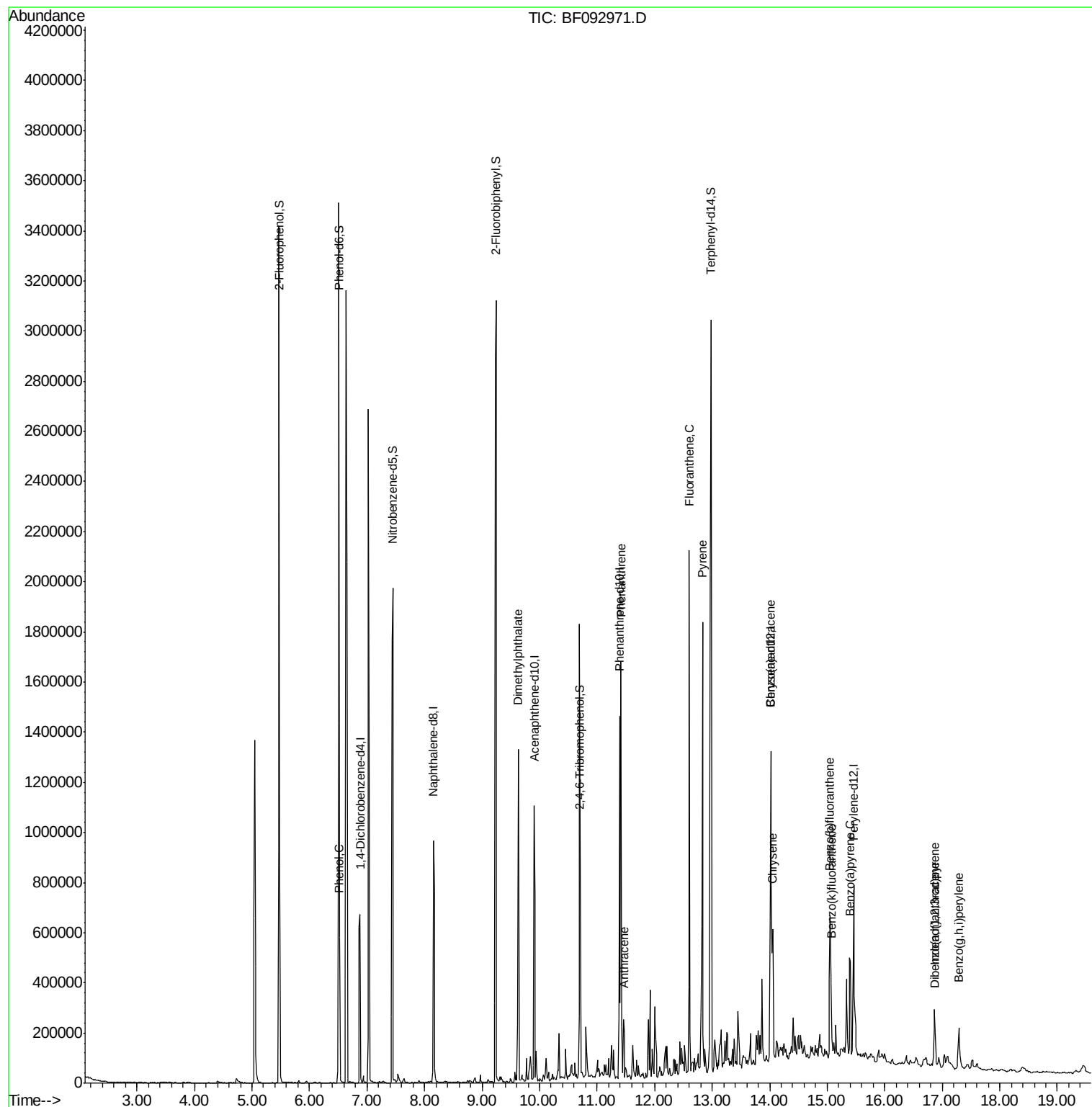
Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF021517\  
Data File : BF092971.D  
Acq On : 16 Feb 2017 00:31  
Operator : SJ/MA  
Sample : I1822-02  
Misc :  
ALS Vial : 23 Sample Multiplier: 1

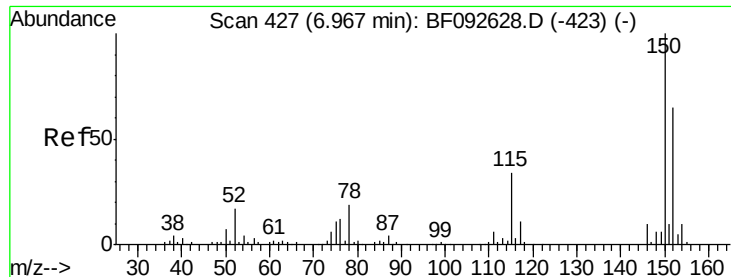
Instrument :  
BNA\_F  
ClientSampleId :  
38-BC-01-0-2

Manual Integrations  
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2/16/2017 11:39:03 AM

Quant Time: Feb 16 10:50:14 2017  
Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF013017.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Mon Feb 13 18:04:38 2017  
Response via : Initial Calibration





#1

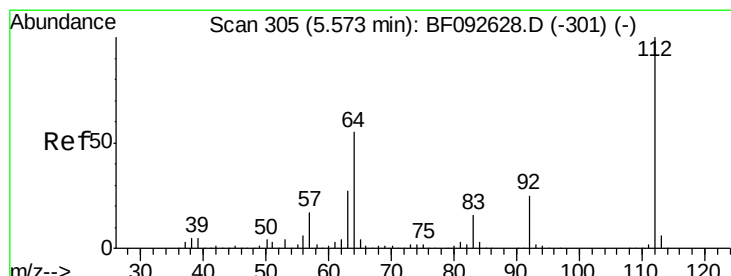
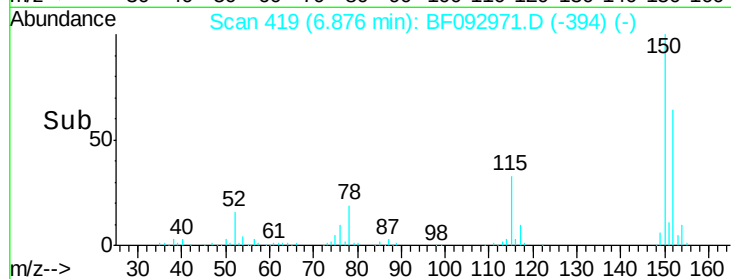
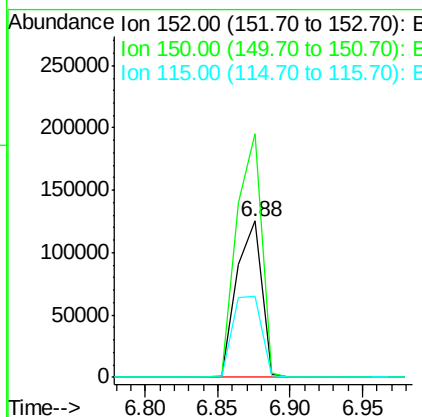
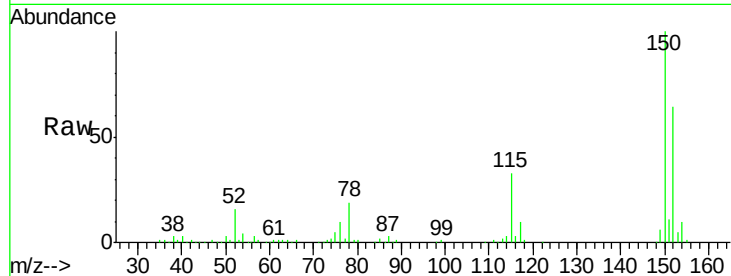
1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 6.88 min Scan# 419  
Delta R.T. -0.01 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

Instrument :  
BNA\_F  
ClientSampleId :  
38-BC-01-0-2

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 152     | 100   | 149844 |       |       |
| 150     | 155.9 | 124.9  | 187.3 |       |
| 115     | 52.1  | 46.0   | 69.0  |       |

Manual Integrations  
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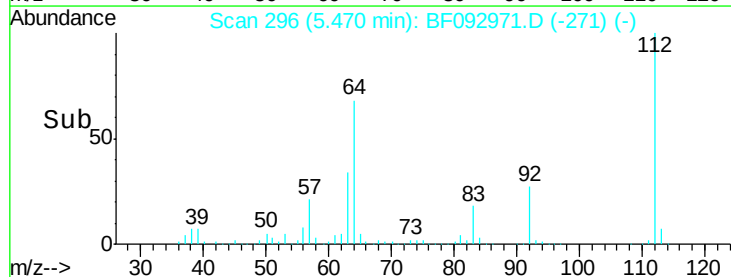
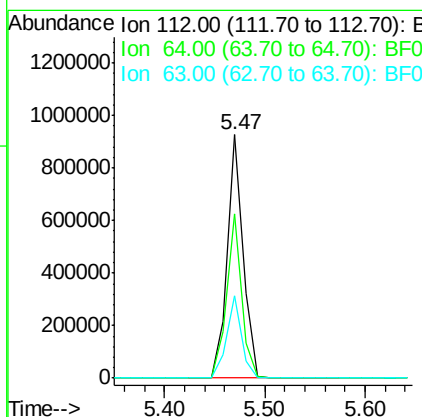
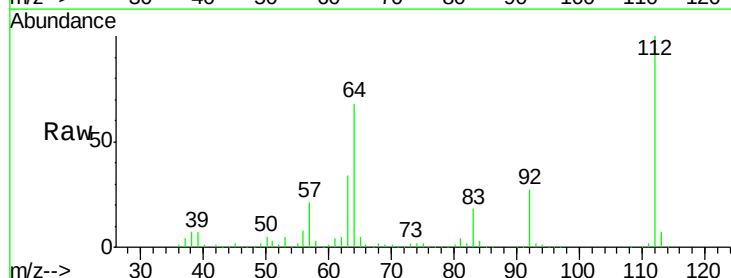
mohammad  
2/16/2017 11:39:03 AM

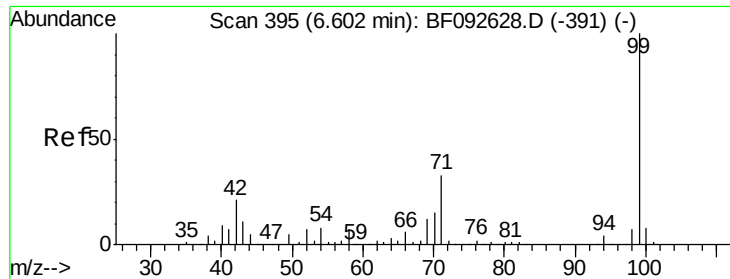


#5

2-Fluorophenol  
Concen: 116.85 ng  
RT: 5.47 min Scan# 296  
Delta R.T. -0.01 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

| Tgt Ion | Ratio | Resp    | Lower | Upper |
|---------|-------|---------|-------|-------|
| 112     | 100   | 1020548 |       |       |
| 64      | 67.6  | 46.1    | 69.1  |       |
| 63      | 33.6  | 23.8    | 35.6  |       |





#7

Phenol-d6

Concen: 117.06 ng

RT: 6.51 min Scan# 387

Delta R.T. -0.02 min

Lab File: BF092971.D

Acq: 16 Feb 2017 00:31

Instrument :

BNA\_F

ClientSampleId :

38-BC-01-0-2

Tgt Ion: 99 Resp: 1315456

Ion Ratio Lower Upper

99 100

42 19.5 15.6 23.4

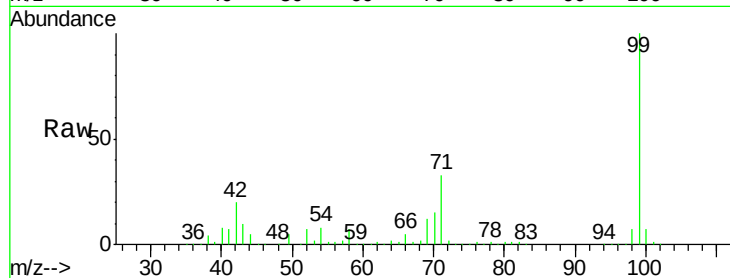
71 32.7 27.5 41.3

Manual Integrations

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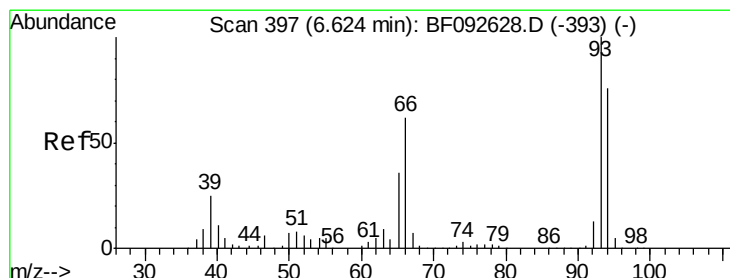
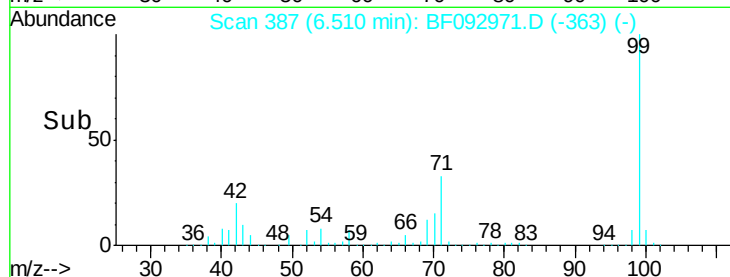
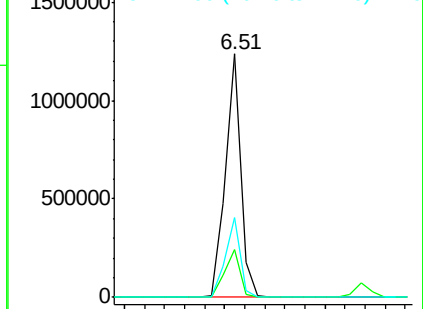
2/16/2017 11:39:03 AM



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: 2.97 ng

RT: 6.52 min Scan# 388

Delta R.T. -0.02 min

Lab File: BF092971.D

Acq: 16 Feb 2017 00:31

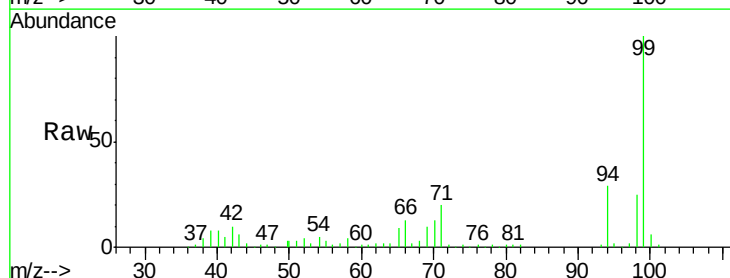
Tgt Ion: 94 Resp: 39110

Ion Ratio Lower Upper

94 100

65 32.1 21.4 61.4

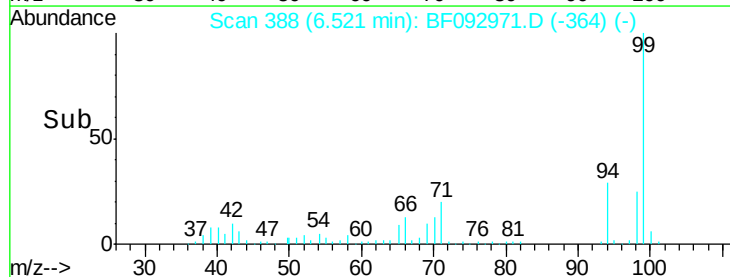
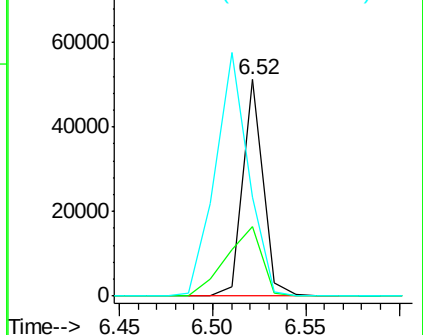
66 45.7 44.0 84.0

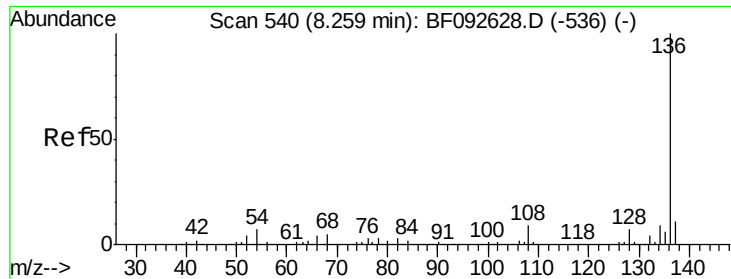


Abundance Ion 94.00 (93.70 to 94.70): BF0

Ion 65.00 (64.70 to 65.70): BF0

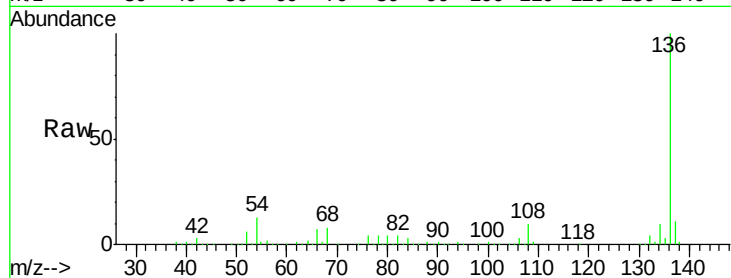
Ion 66.00 (65.70 to 66.70): BF0





#21  
Naphthalene-d8  
Concen: 20.00 ng  
RT: 8.16 min Scan# 531  
Delta R.T. -0.01 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

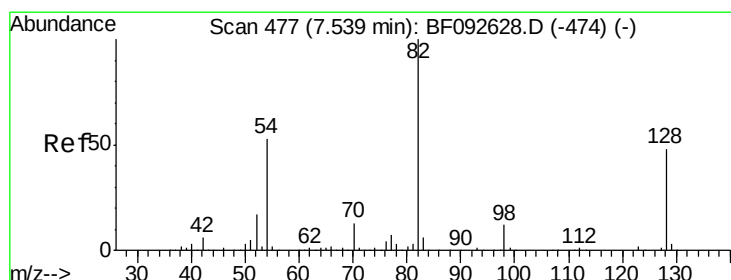
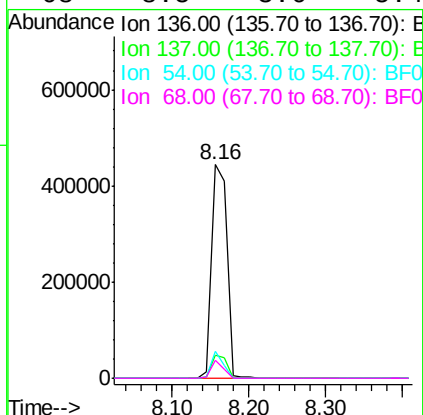
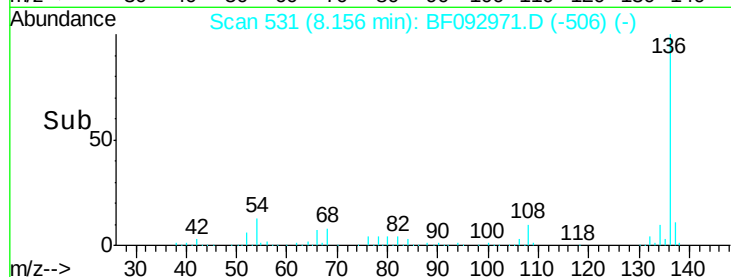
Instrument :  
BNA\_F  
ClientSampleId :  
38-BC-01-0-2



| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 136     | 100   |            |            |
| 137     | 11.1  | 8.4        | 12.6       |
| 54      | 12.8  | 4.5        | 6.7#       |
| 68      | 8.5   | 3.6        | 5.4#       |

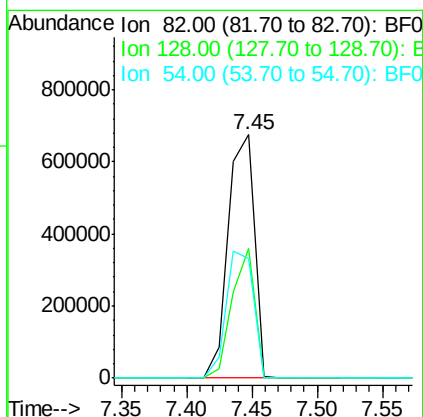
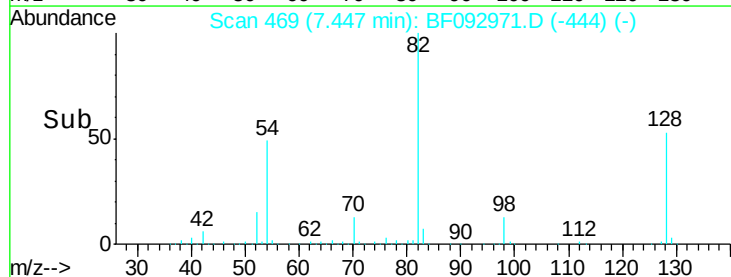
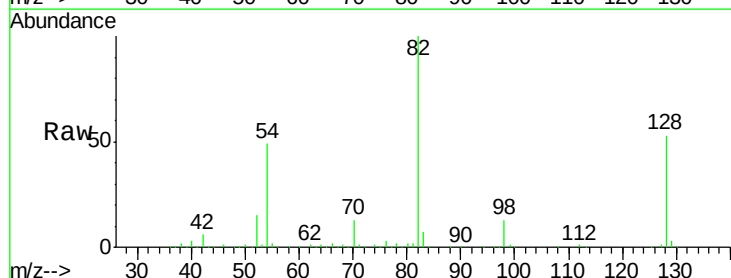
Manual Integrations  
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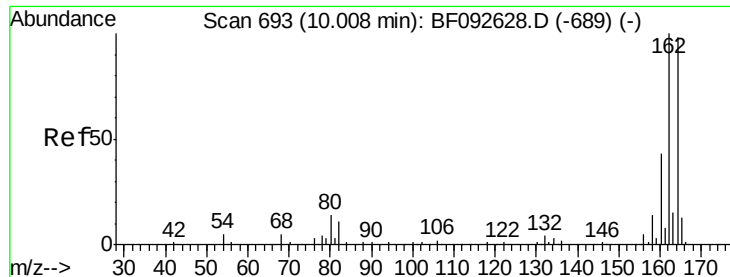
mohammad  
2/16/2017 11:39:03 AM



#23  
Nitrobenzene-d5  
Concen: 86.87 ng  
RT: 7.45 min Scan# 469  
Delta R.T. -0.01 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 82      | 100   |            |            |
| 128     | 53.1  | 34.6       | 52.0#      |
| 54      | 49.0  | 39.5       | 59.3       |





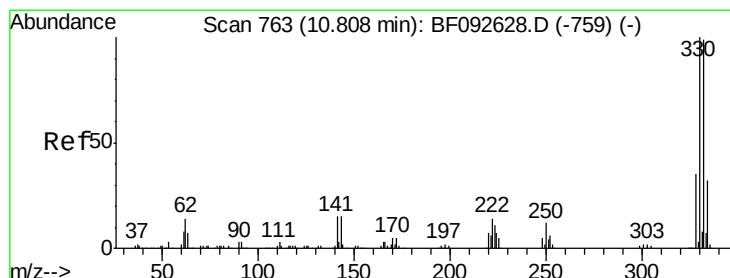
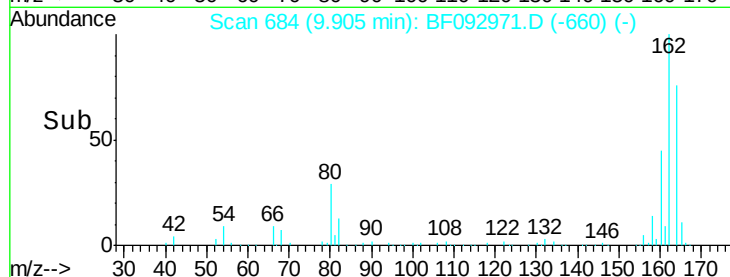
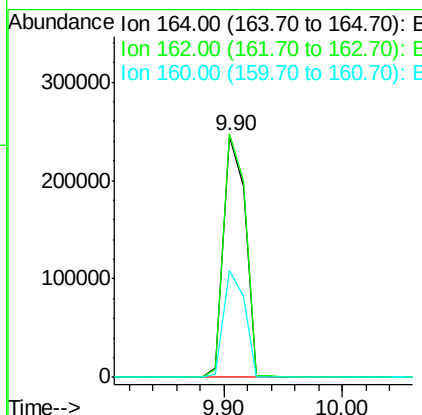
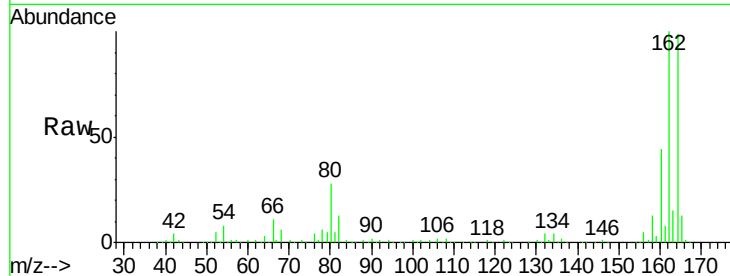
#38  
 Acenaphthene-d10  
 Concen: 20.00 ng  
 RT: 9.90 min Scan# 684  
 Delta R.T. -0.02 min  
 Lab File: BF092971.D  
 Acq: 16 Feb 2017 00:31

Instrument :  
 BNA\_F  
 ClientSampleId :  
 38-BC-01-0-2

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 164     | 100   | 310981 |       |       |
| 162     | 100.8 | 80.2   | 120.2 |       |
| 160     | 44.0  | 36.9   | 55.3  |       |

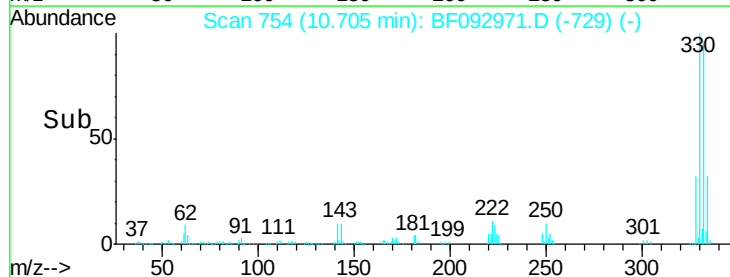
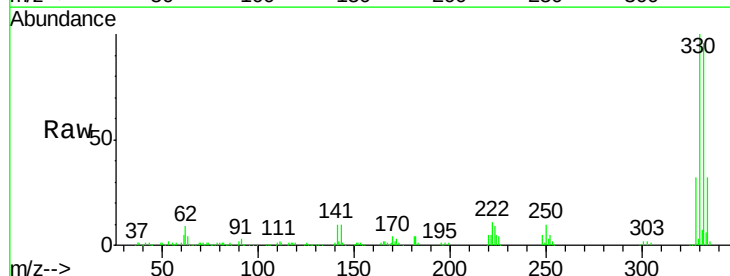
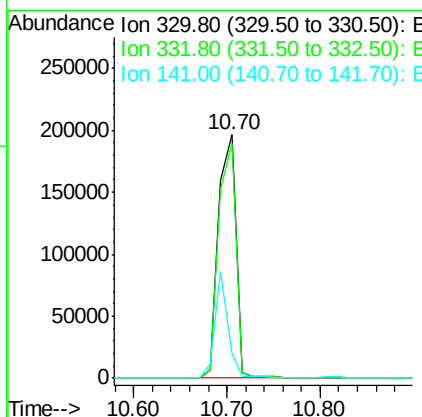
Manual Integrations  
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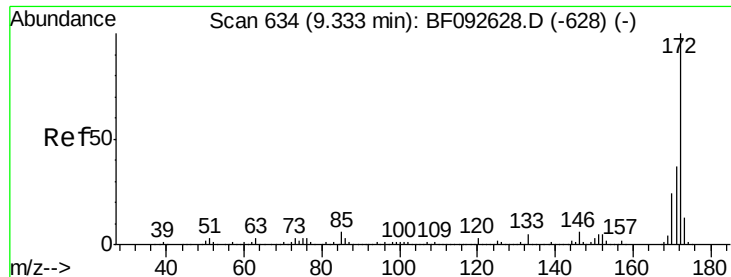
mohammad  
 2/16/2017 11:39:03 AM



#41  
 2,4,6-Tribromophenol  
 Concen: 113.94 ng  
 RT: 10.70 min Scan# 754  
 Delta R.T. -0.01 min  
 Lab File: BF092971.D  
 Acq: 16 Feb 2017 00:31

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 330     | 100   | 256272 |       |       |
| 332     | 95.9  | 77.4   | 116.2 |       |
| 141     | 33.2  | 34.1   | 51.1# |       |





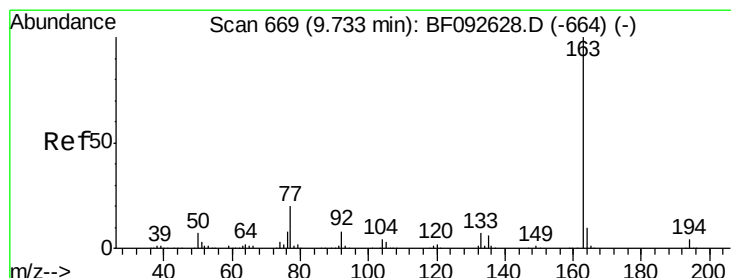
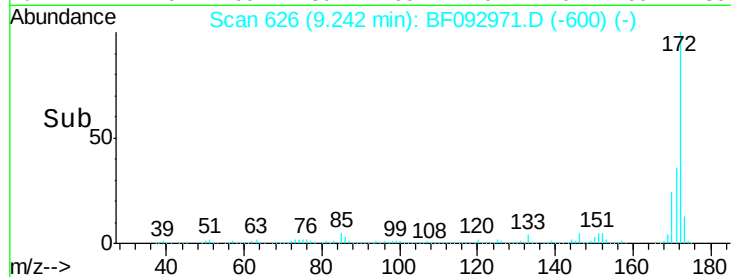
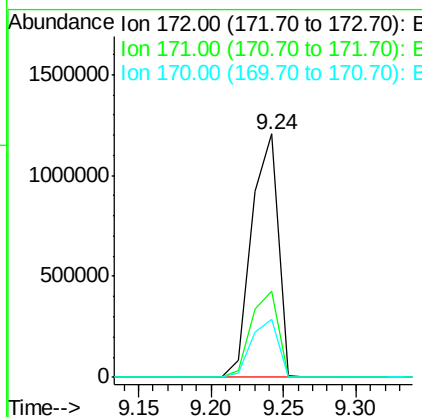
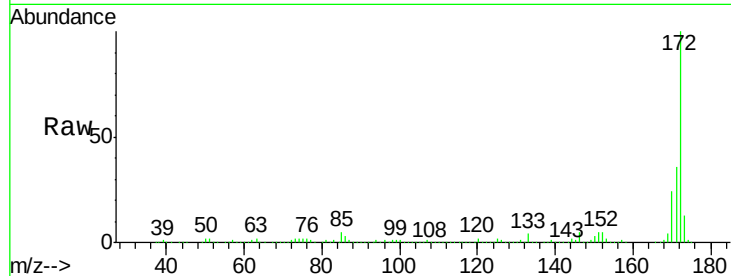
#44  
2-Fluorobiphenyl  
Concen: 89.18 ng  
RT: 9.24 min Scan# 626  
Delta R.T. -0.00 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

Instrument :  
BNA\_F  
ClientSampleId :  
38-BC-01-0-2

Tgt Ion:172 Resp: 1530776  
Ion Ratio Lower Upper  
172 100  
171 35.7 29.4 44.0  
170 23.9 20.2 30.4

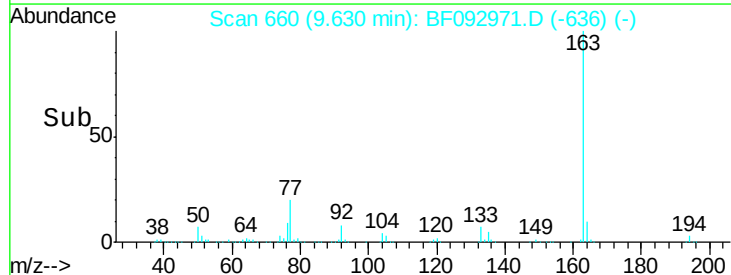
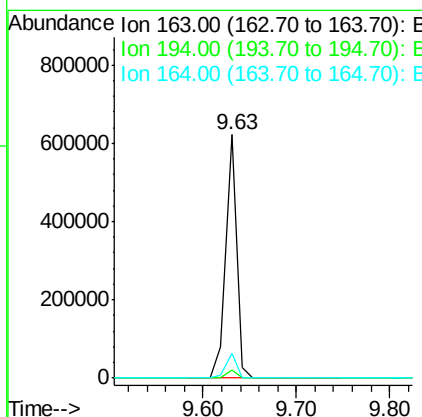
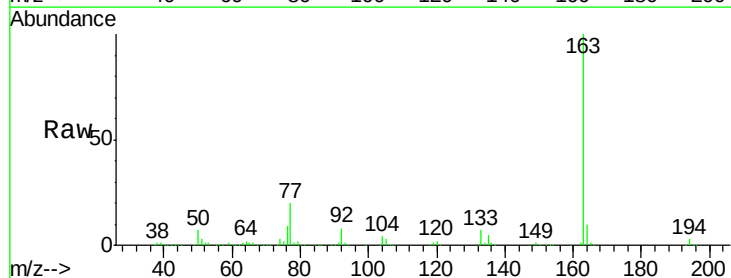
Manual Integrations  
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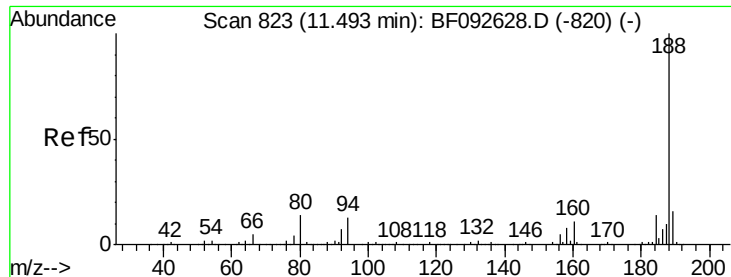
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#49  
Dimethylphthalate  
Concen: 24.06 ng  
RT: 9.63 min Scan# 660  
Delta R.T. -0.02 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

Tgt Ion:163 Resp: 504004  
Ion Ratio Lower Upper  
163 100  
194 3.5 3.0 4.4  
164 10.1 8.0 12.0





#63

Phenanthrene-d10

Concen: 20.00 ng

RT: 11.39 min Scan# 814

Delta R.T. -0.01 min

Lab File: BF092971.D

Acq: 16 Feb 2017 00:31

Instrument :

BNA\_F

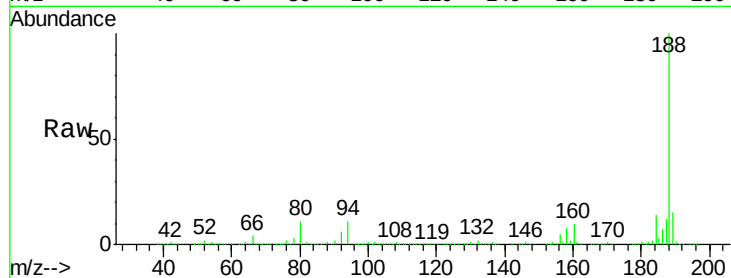
ClientSampleId :

38-BC-01-0-2

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 188   | Resp: | 498090 |
| Ion Ratio | Lower | Upper |        |
| 188       | 100   |       |        |
| 94        | 10.7  | 10.0  | 15.0   |
| 80        | 11.2  | 11.2  | 16.8   |

Manual Integrations  
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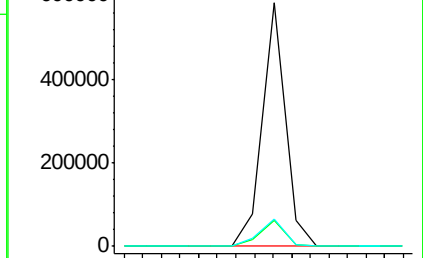
mohammad  
2/16/2017 11:39:03 AM



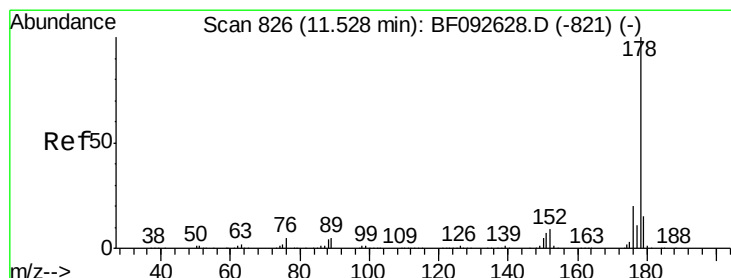
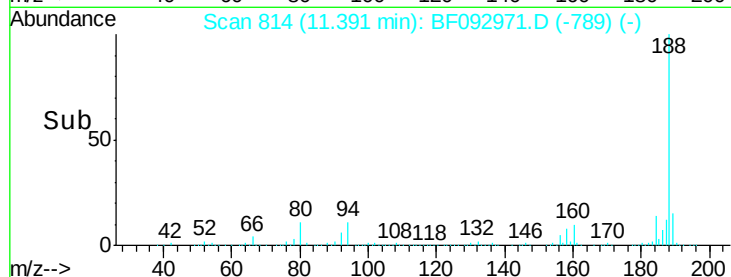
Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BF0

Ion 80.00 (79.70 to 80.70): BF0



Time-->



#70

Phenanthrene

Concen: 20.22 ng

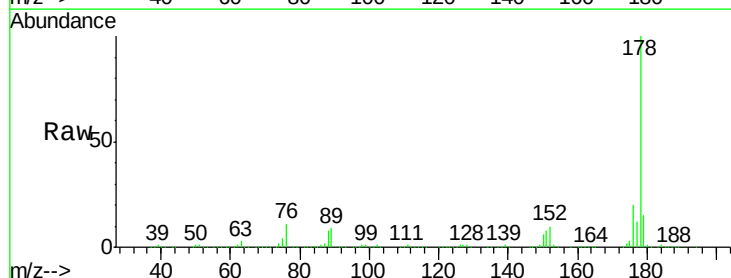
RT: 11.41 min Scan# 816

Delta R.T. -0.02 min

Lab File: BF092971.D

Acq: 16 Feb 2017 00:31

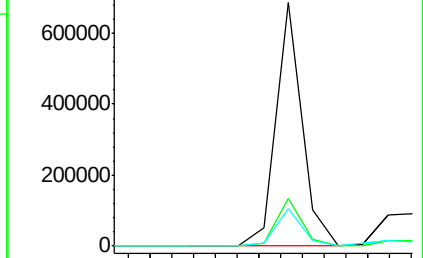
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 577059 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 176       | 19.6  | 16.6  | 25.0   |
| 179       | 15.5  | 12.8  | 19.2   |



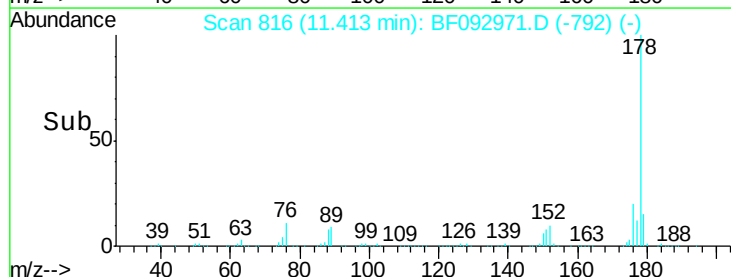
Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

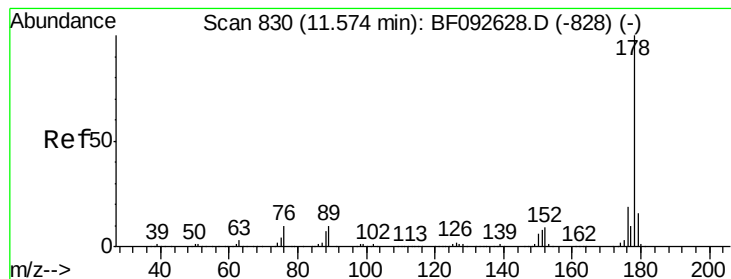
Ion 179.00 (178.70 to 179.70): E



Time-->







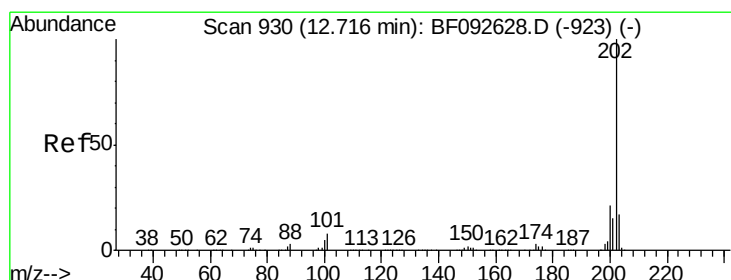
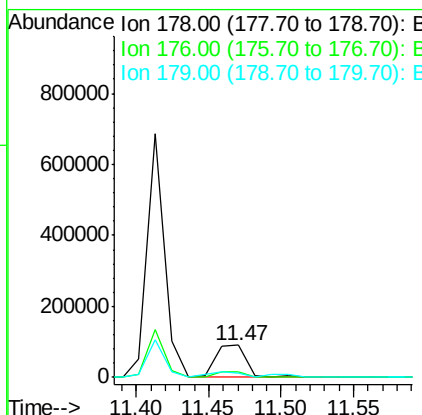
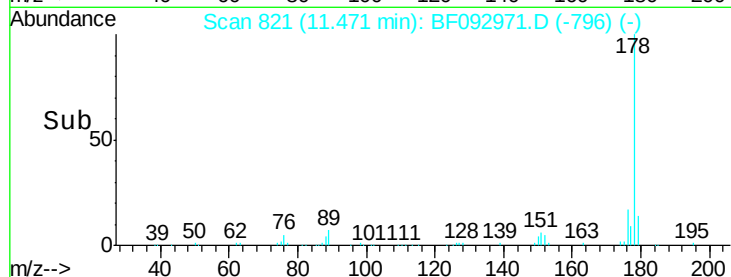
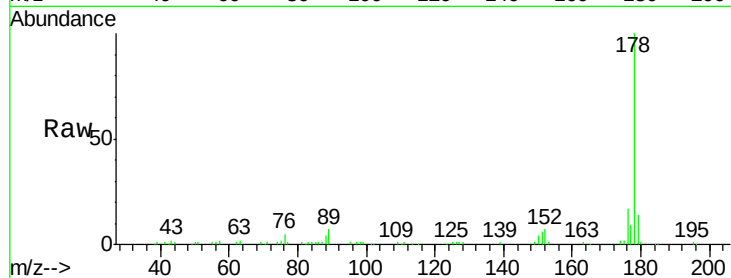
#71  
 Anthracene  
 Concen: 4.53 ng  
 RT: 11.47 min Scan# 821  
 Delta R.T. -0.01 min  
 Lab File: BF092971.D  
 Acq: 16 Feb 2017 00:31

Instrument :  
 BNA\_F  
 ClientSampleId :  
 38-BC-01-0-2

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 178     | 100   | 129796 |       |       |
| 176     | 17.2  | 15.9   | 23.9  |       |
| 179     | 14.5  | 13.2   | 19.8  |       |

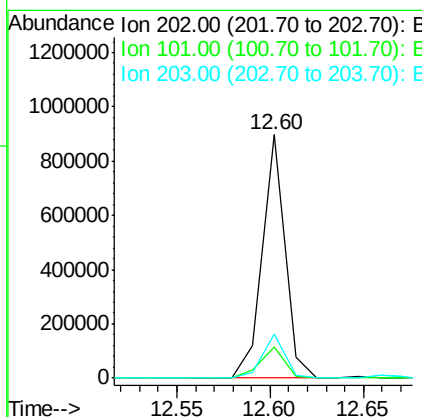
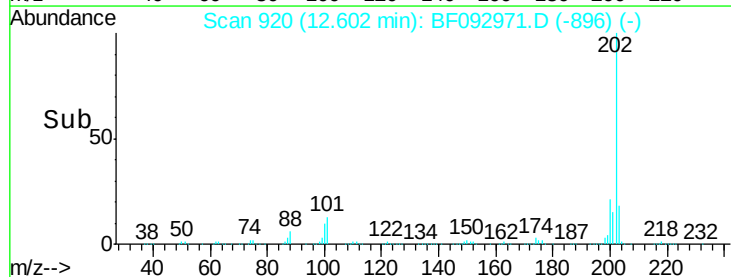
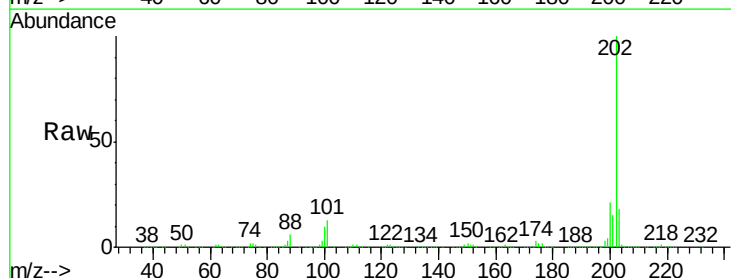
Manual Integrations  
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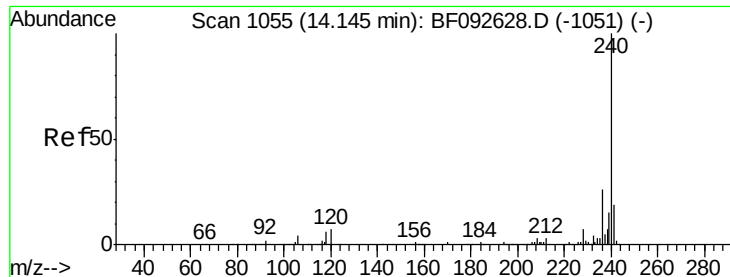
mohammad  
 2/16/2017 11:39:03 AM



#74  
 Fluoranthene  
 Concen: 25.53 ng  
 RT: 12.60 min Scan# 920  
 Delta R.T. -0.02 min  
 Lab File: BF092971.D  
 Acq: 16 Feb 2017 00:31

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 202     | 100   | 751560 |       |       |
| 101     | 13.0  | 0.0    | 34.6  |       |
| 203     | 17.8  | 0.0    | 38.7  |       |





#75

Chrysene-d12

Concen: 20.00 ng

RT: 14.02 min Scan# 1044

Delta R.T. -0.03 min

Lab File: BF092971.D

Acq: 16 Feb 2017 00:31

Instrument :

BNA\_F

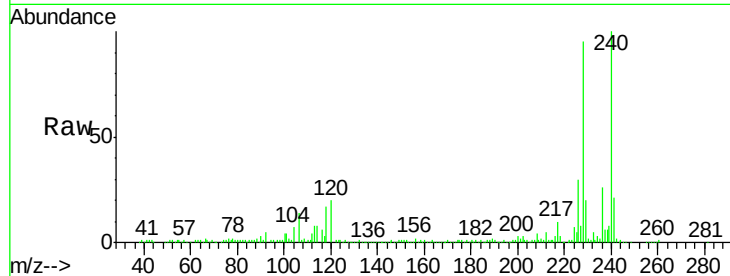
ClientSampleId :

38-BC-01-0-2

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 20.1  | 12.9  | 19.3# |
| 236     | 26.4  | 20.9  | 31.3  |

Manual Integrations  
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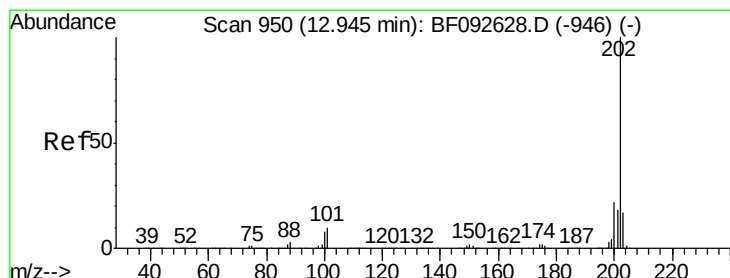
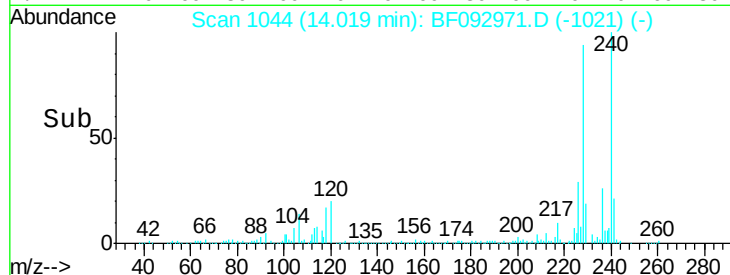
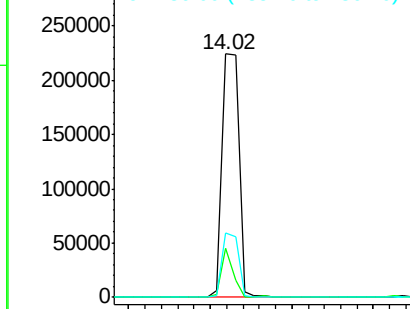
mohammad  
2/16/2017 11:39:03 AM



Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E



#77

Pyrene

Concen: 29.63 ng

RT: 12.83 min Scan# 940

Delta R.T. -0.02 min

Lab File: BF092971.D

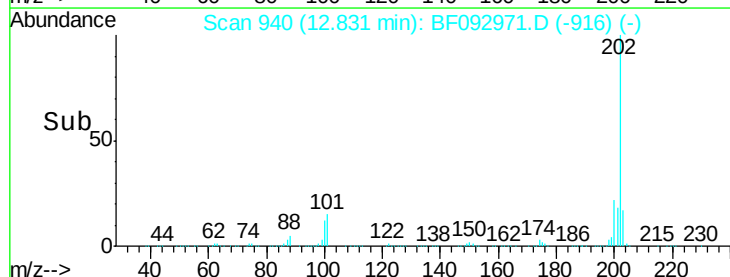
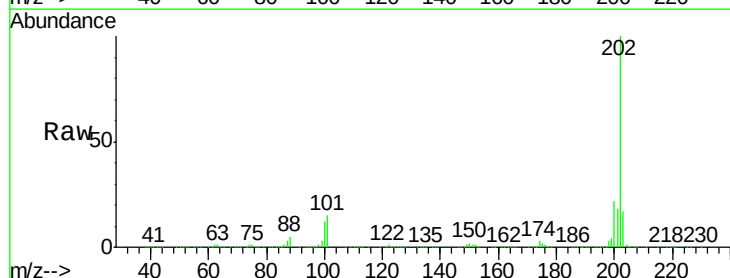
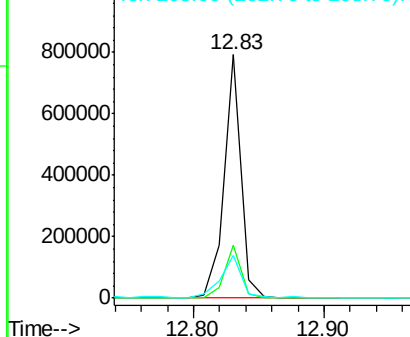
Acq: 16 Feb 2017 00:31

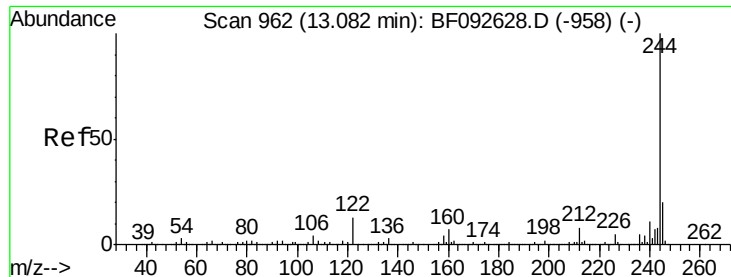
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.5  | 17.7  | 26.5  |
| 203     | 17.5  | 14.7  | 22.1  |

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





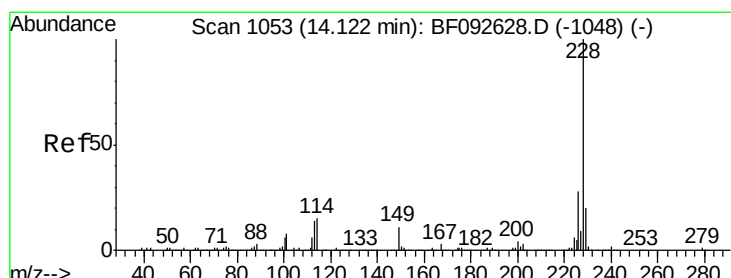
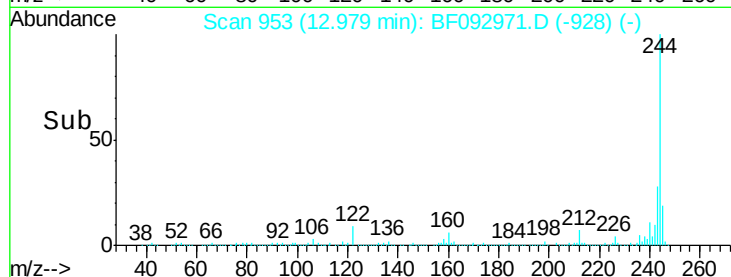
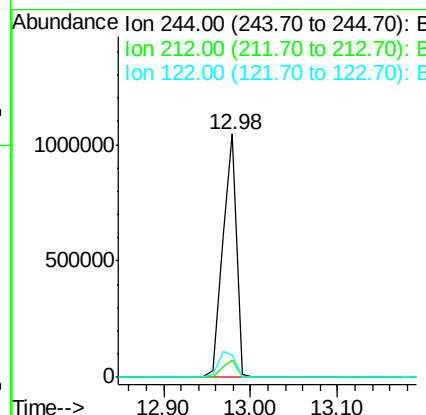
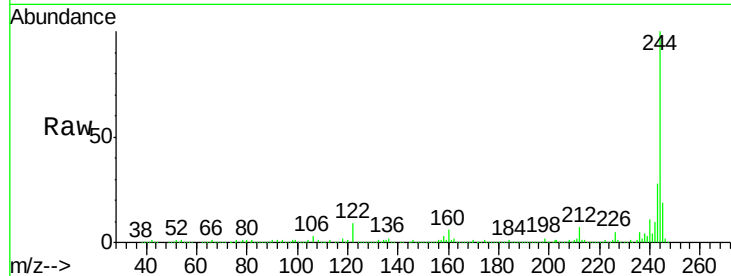
#78  
 Terphenyl-d14  
 Concen: 85.73 ng  
 RT: 12.98 min Scan# 953  
 Delta R.T. -0.01 min  
 Lab File: BF092971.D  
 Acq: 16 Feb 2017 00:31

Instrument :  
 BNA\_F  
 ClientSampleId :  
 38-BC-01-0-2

Tgt Ion:244 Resp: 1170029  
 Ion Ratio Lower Upper  
 244 100  
 212 7.1 6.2 9.2  
 122 9.1 11.4 17.2#

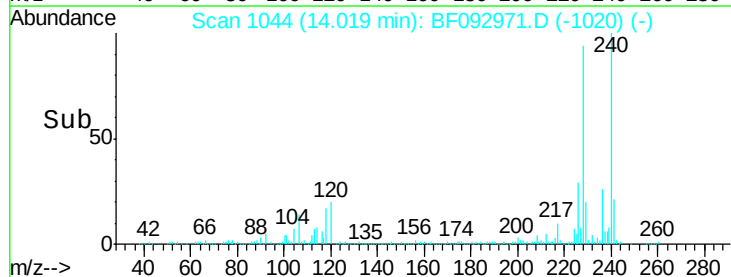
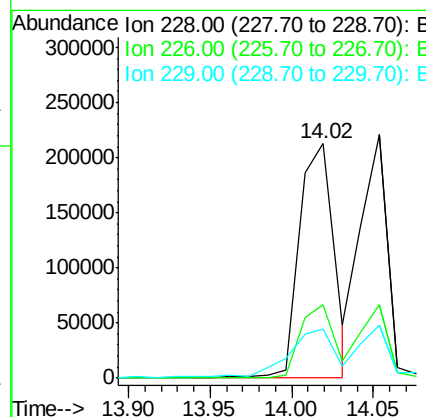
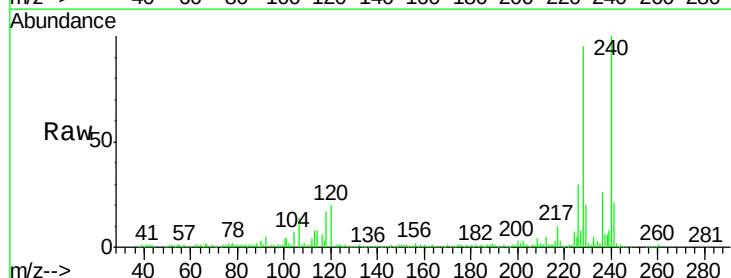
Manual Integrations  
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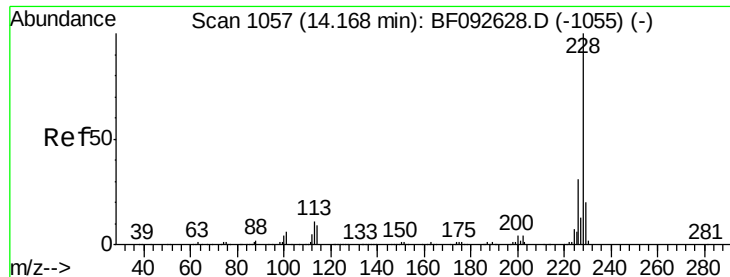
mohammad  
 2/16/2017 11:39:03 AM



#80  
 Benzo(a)anthracene  
 Concen: 15.93 ng  
 RT: 14.02 min Scan# 1044  
 Delta R.T. -0.02 min  
 Lab File: BF092971.D  
 Acq: 16 Feb 2017 00:31

Tgt Ion:228 Resp: 312494  
 Ion Ratio Lower Upper  
 228 100  
 226 31.2 22.4 33.6  
 229 21.0 16.2 24.4





#82

Chrysene

Concen: 13.89 ng m

RT: 14.05 min Scan# 1047

Delta R.T. -0.02 min

Lab File: BF092971.D

Acq: 16 Feb 2017 00:31

Instrument :

BNA\_F

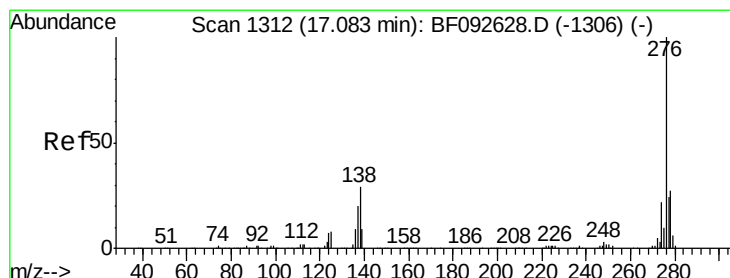
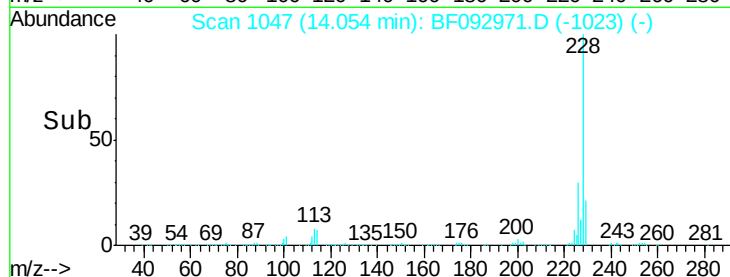
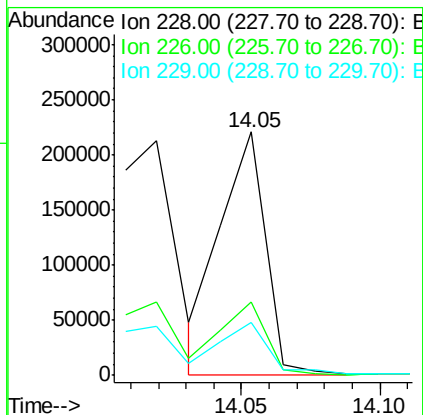
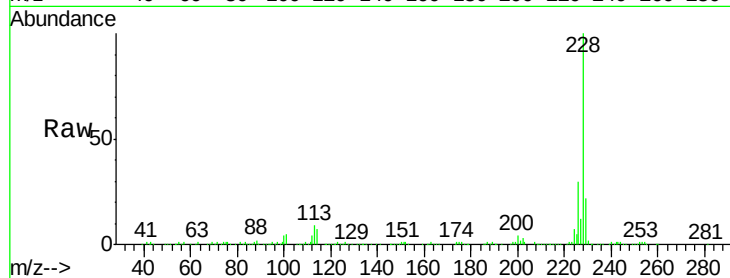
ClientSampleId :

38-BC-01-0-2

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 228   | Resp: | 254997 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 30.2  | 25.4  | 38.0   |
| 229       | 21.8  | 16.2  | 24.2   |

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#85

Indeno(1,2,3-cd)pyrene

Concen: 9.51 ng

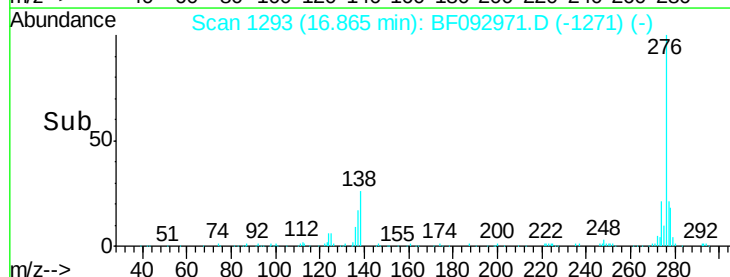
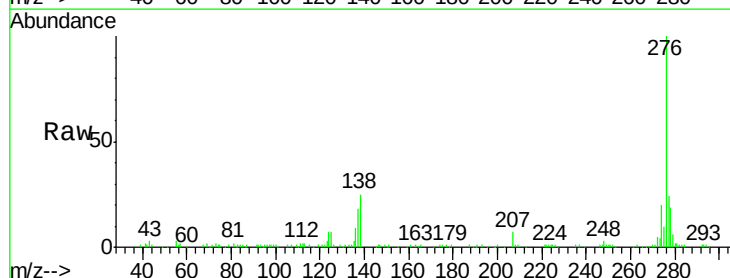
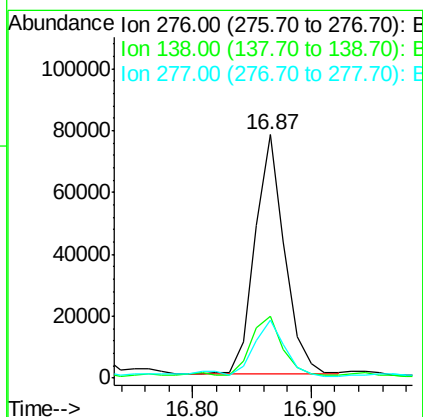
RT: 16.87 min Scan# 1293

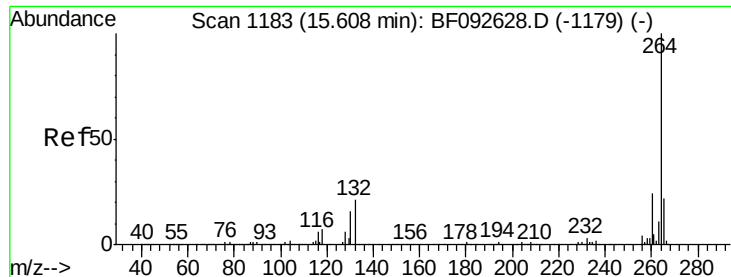
Delta R.T. -0.05 min

Lab File: BF092971.D

Acq: 16 Feb 2017 00:31

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 276   | Resp: | 135208 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 28.1  | 21.8  | 32.6   |
| 277       | 25.6  | 20.2  | 30.4   |





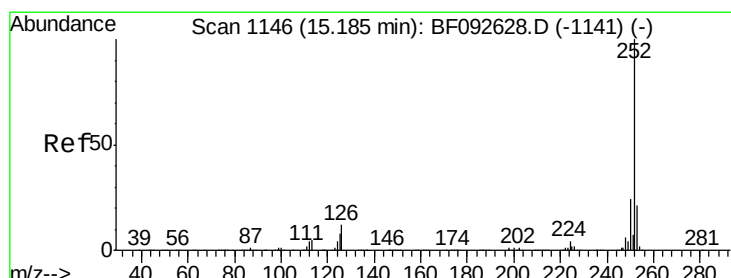
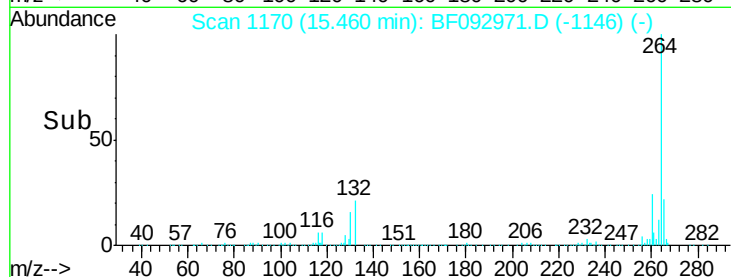
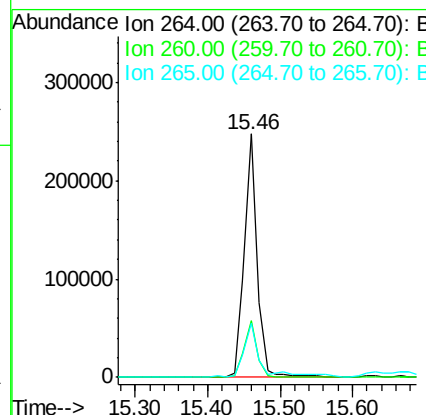
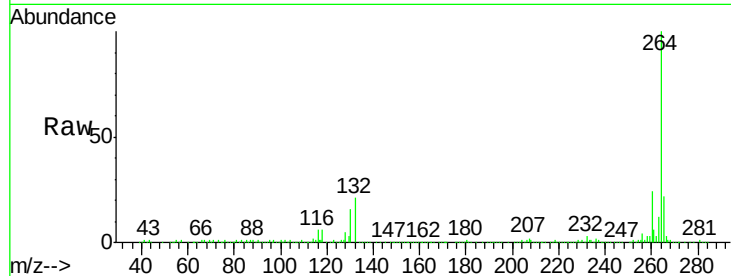
#86  
Perylene-d12  
Concen: 20.00 ng  
RT: 15.46 min Scan# 1170  
Delta R.T. -0.02 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

Instrument :  
BNA\_F  
ClientSampleId :  
38-BC-01-0-2

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 264     | 100   | 306541 |       |       |
| 260     | 23.5  | 19.2   | 28.8  |       |
| 265     | 22.2  | 17.4   | 26.0  |       |

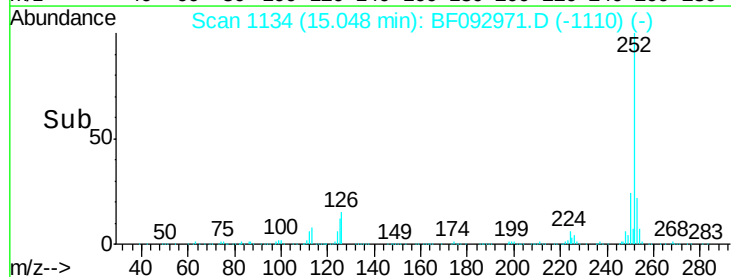
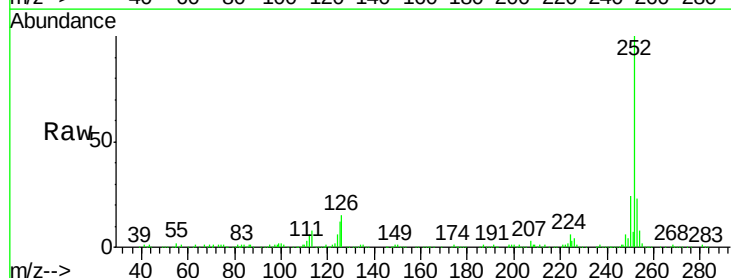
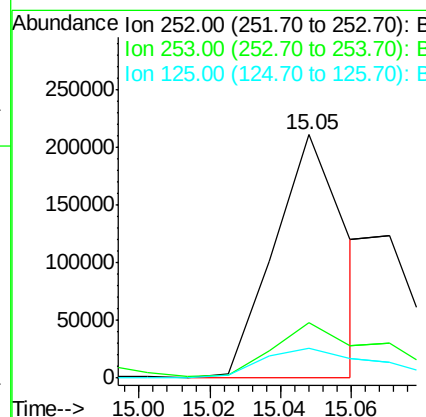
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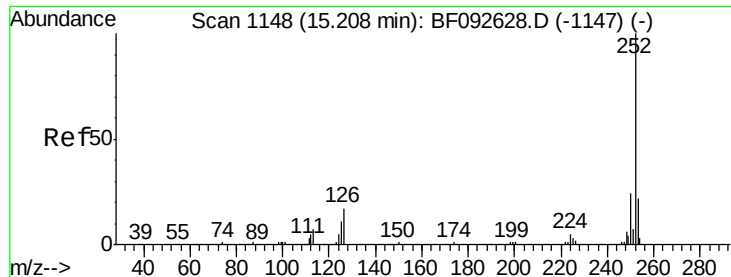
mohammad  
2/16/2017 11:39:03 AM



#87  
Benzo(b)fluoranthene  
Concen: 14.80 ng m  
RT: 15.05 min Scan# 1134  
Delta R.T. -0.02 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 252     | 100   | 298696 |       |       |
| 253     | 22.5  | 18.2   | 27.4  |       |
| 125     | 12.4  | 9.8    | 14.6  |       |





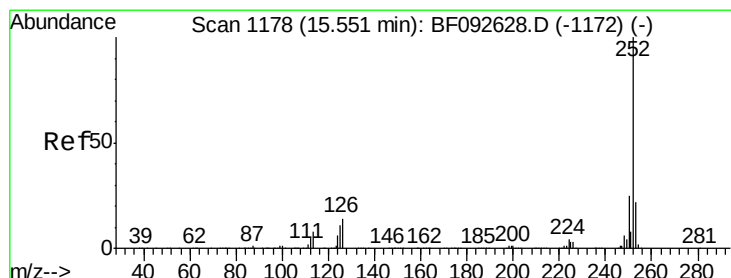
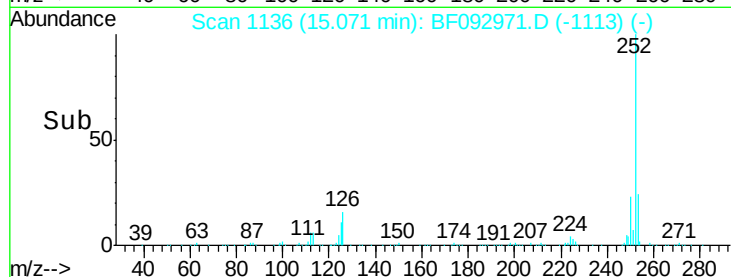
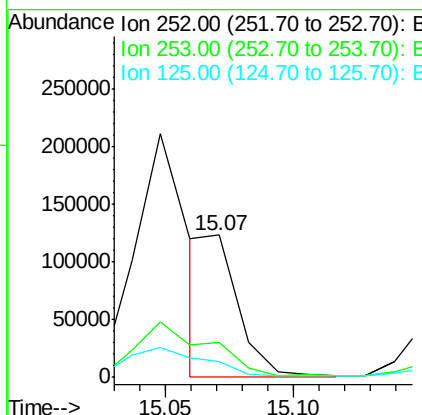
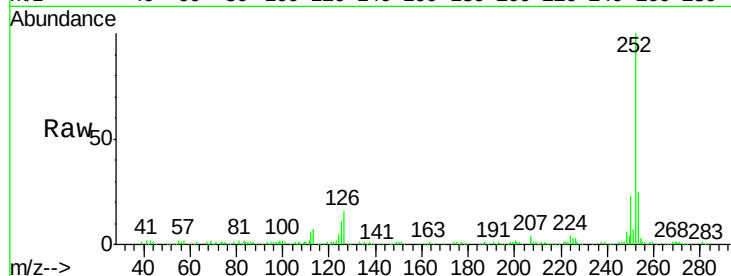
#88  
Benzo(k)fluoranthene  
Concen: 6.40 ng m  
RT: 15.07 min Scan# 1136  
Delta R.T. -0.03 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

Instrument :  
BNA\_F  
ClientSampleId :  
38-BC-01-0-2

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.5  | 18.5  | 27.7  |
| 125     | 11.2  | 8.9   | 13.3  |

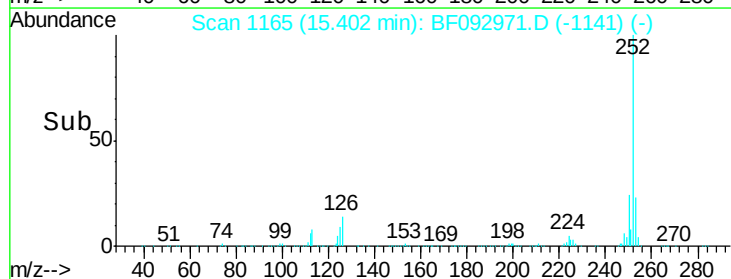
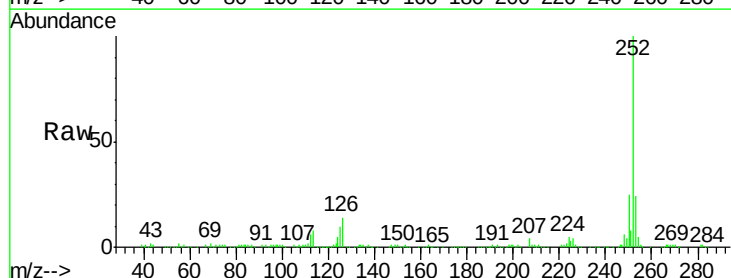
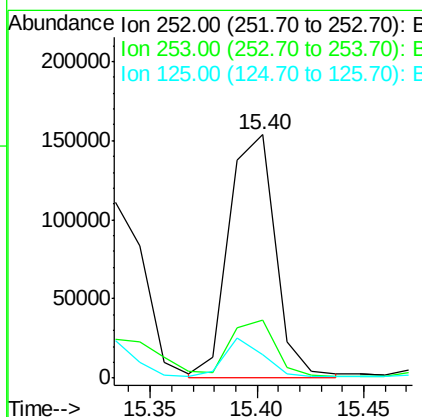
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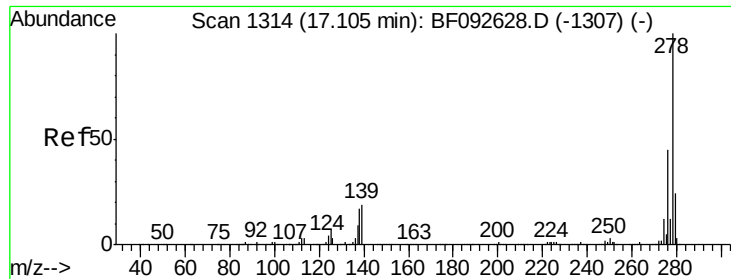
mohammad  
2/16/2017 11:39:03 AM



#89  
Benzo(a)pyrene  
Concen: 13.14 ng m  
RT: 15.40 min Scan# 1165  
Delta R.T. -0.02 min  
Lab File: BF092971.D  
Acq: 16 Feb 2017 00:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.8  | 18.2  | 27.2  |
| 125     | 9.8   | 10.0  | 15.0# |





#90

Dibenzo(a,h)anthracene

Concen: 2.61 ng m

RT: 16.88 min Scan# 1294

Delta R.T. -0.06 min

Lab File: BF092971.D

Acq: 16 Feb 2017 00:31

Instrument :

BNA\_F

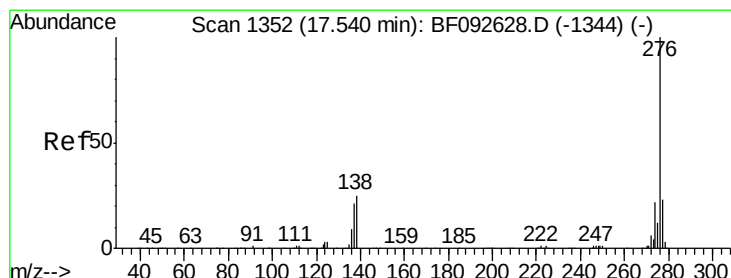
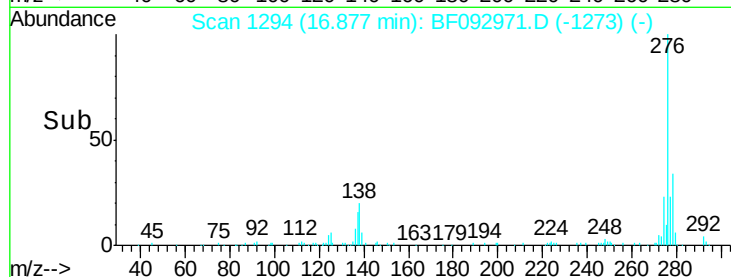
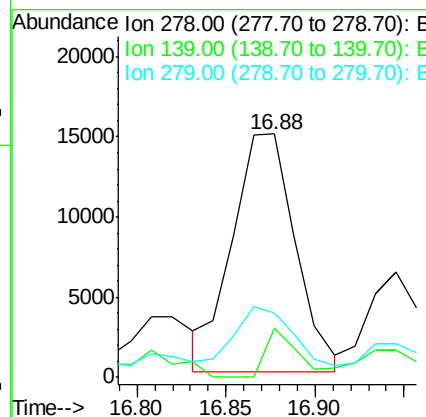
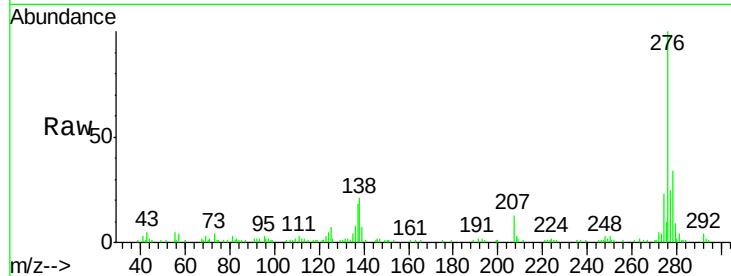
ClientSampleId :

38-BC-01-0-2

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 278   | Resp: | 36769 |
| Ion Ratio | Lower | Upper |       |
| 278       | 100   |       |       |
| 139       | 20.1  | 14.8  | 22.2  |
| 279       | 26.2  | 19.8  | 29.6  |

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2/16/2017 11:39:03 AM



#91

Benzo(g,h,i)perylene

Concen: 8.73 ng

RT: 17.29 min Scan# 1330

Delta R.T. -0.06 min

Lab File: BF092971.D

Acq: 16 Feb 2017 00:31

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 276   | Resp: | 124420 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 277       | 23.5  | 19.2  | 28.8   |
| 138       | 31.7  | 16.0  | 24.0#  |

