

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE010915\  
 Data File : BE089389.D  
 Acq On : 9 Jan 2015 20:06  
 Operator : TP/IZ  
 Sample : PB81206BSD  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 PB81206BSD

Manual Integrations  
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 1/12/2015 4:10:17 PM

Quant Time: Jan 10 00:40:54 2015  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BASE-BE010715.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Sat Jan 10 00:23:37 2015  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.93  | 152  | 21537    | 5.00 | ng    | 0.00     |
| 2) Naphthalene-d8           | 8.49  | 136  | 84951    | 5.00 | ng    | 0.00     |
| 6) Acenaphthene-d10         | 10.63 | 164  | 39622    | 5.00 | ng    | 0.00     |
| 11) Phenanthrene-d10        | 12.68 | 188  | 64762    | 5.00 | ng    | 0.00     |
| 15) Chrysene-d12            | 18.03 | 240  | 49134    | 5.00 | ng    | 0.00     |
| 21) Perylene-d12            | 21.07 | 264  | 45119    | 5.00 | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |      |       |          |
| 3) Nitrobenzene-d5          | 7.63  | 82   | 45215    | 7.66 | ng    | 0.00     |
| 7) 2-Fluorobiphenyl         | 9.83  | 172  | 74603    | 6.90 | ng    | 0.00     |
| 17) Terphenyl-d14           | 15.80 | 244  | 57907    | 6.66 | ng    | 0.00     |
| Target Compounds            |       |      |          |      |       | Qvalue   |
| 4) Naphthalene              | 8.52  | 128  | 128499   | 6.72 | ng    | 99       |
| 5) 2-Methylnaphthalene      | 9.37  | 142  | 80541    | 6.73 | ng    | 99       |
| 8) Acenaphthylene           | 10.45 | 152  | 469755   | 6.93 | ng    | 99       |
| 9) Acenaphthene             | 10.67 | 154  | 68813    | 6.51 | ng    | 90       |
| 10) Fluorene                | 11.32 | 166  | 77583    | 6.86 | ng    | 100      |
| 12) Phenanthrene            | 12.72 | 178  | 444555   | 6.58 | ng    | 97       |
| 13) Anthracene              | 12.80 | 178  | 457920   | 7.02 | ng    | 99       |
| 14) Fluoranthene            | 14.91 | 202  | 103746   | 6.95 | ng    | 99       |
| 16) Pyrene                  | 15.36 | 202  | 110068   | 6.82 | ng    | 99       |
| 18) Benzo(a)anthracene      | 18.00 | 228  | 351542   | 7.06 | ng    | 99       |
| 19) Chrysene                | 18.08 | 228  | 354687   | 7.10 | ng    | 99       |
| 20) Indeno(1,2,3-cd)pyrene  | 23.15 | 276  | 339732m  | 7.10 | ng    |          |
| 22) Benzo(b)fluoranthene    | 20.32 | 252  | 76364    | 7.75 | ng    | 98       |
| 23) Benzo(k)fluoranthene    | 20.37 | 252  | 91338    | 7.36 | ng    | 98       |
| 24) Benzo(a)pyrene          | 20.96 | 252  | 76508    | 7.87 | ng    | 97       |
| 25) Dibenzo(a,h)anthracene  | 23.23 | 278  | 65177    | 7.32 | ng    | 95       |
| 26) Benzo(g,h,i)perylene    | 23.73 | 276  | 298560   | 6.65 | ng    | 96       |

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

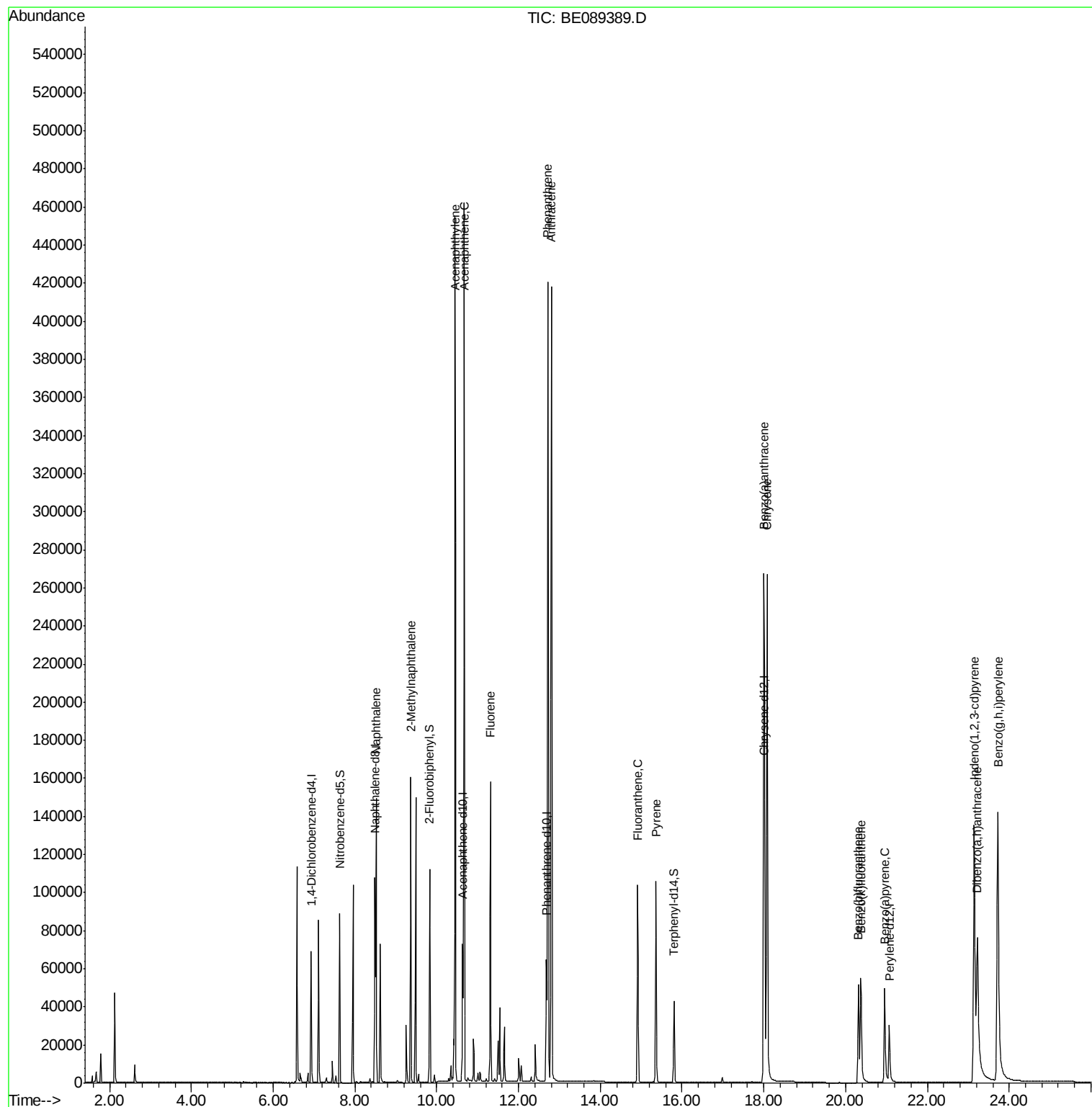
Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE010915\  
Data File : BE089389.D  
Acq On : 9 Jan 2015 20:06  
Operator : TP/IZ  
Sample : PB81206BSD  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

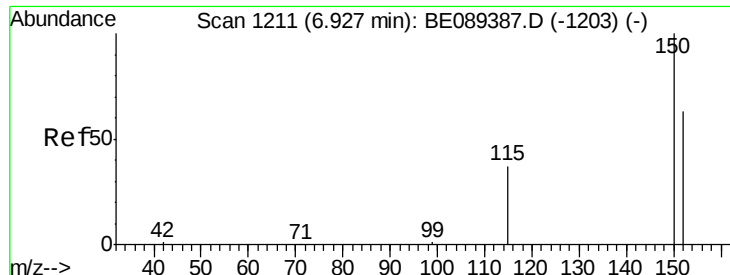
Instrument :  
BNA\_E  
ClientSampleId :  
PB81206BSD

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Quant Time: Jan 10 00:40:54 2015  
Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BASE-BE010715.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Sat Jan 10 00:23:37 2015  
Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 6.93 min Scan# 1212

Delta R.T. 0.00 min

Lab File: BE089389.D

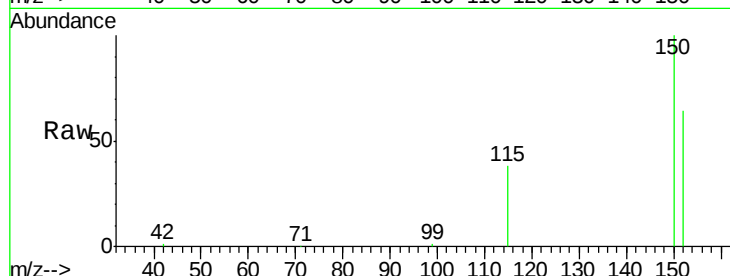
Acq: 9 Jan 2015 20:06

Instrument :

BNA\_E

ClientSampleId :

PB81206BSD



Tgt Ion:152 Resp: 21537

Ion Ratio Lower Upper

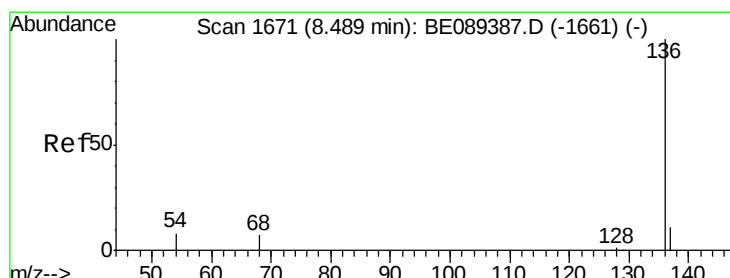
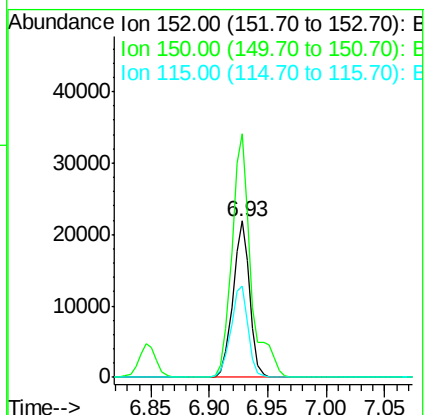
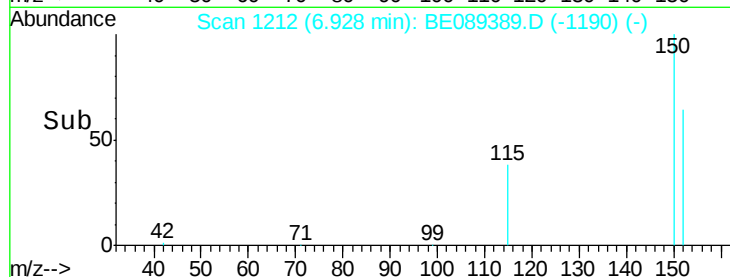
152 100

150 155.9 121.5 182.3

115 58.7 45.2 67.8

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#2

Naphthalene-d8

Concen: 5.00 ng

RT: 8.49 min Scan# 1672

Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

Tgt Ion:136 Resp: 84951

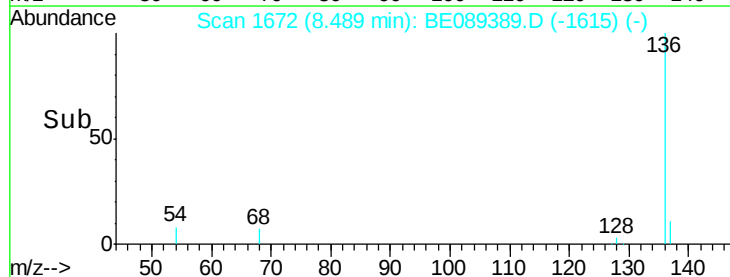
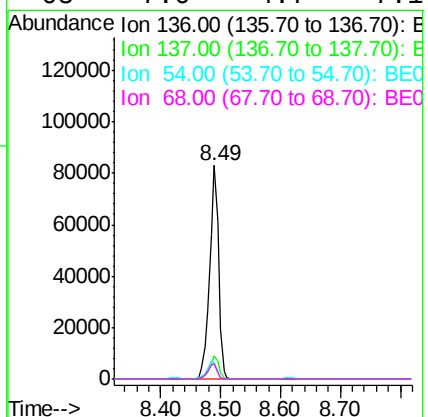
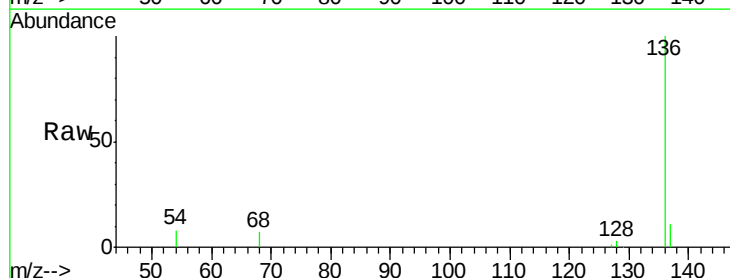
Ion Ratio Lower Upper

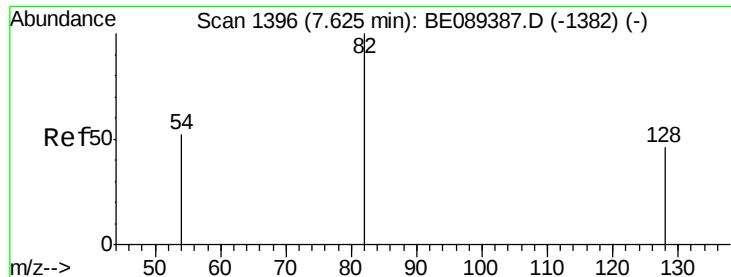
136 100

137 10.9 9.0 13.4

54 8.1 5.4 8.0#

68 7.0 4.7 7.1





#3

Nitrobenzene-d5

Concen: 7.66 ng

RT: 7.63 min Scan# 1397

Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

Instrument :

BNA\_E

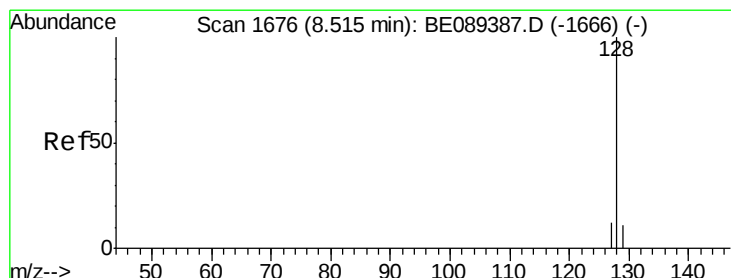
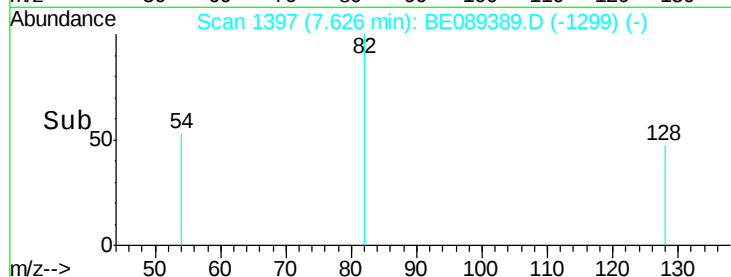
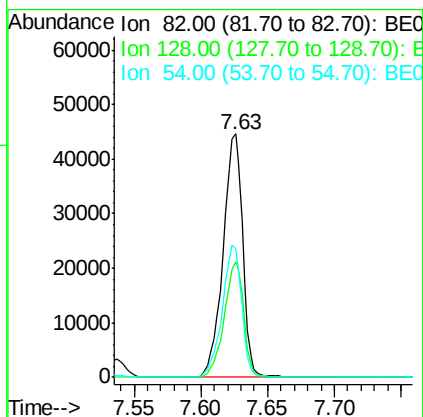
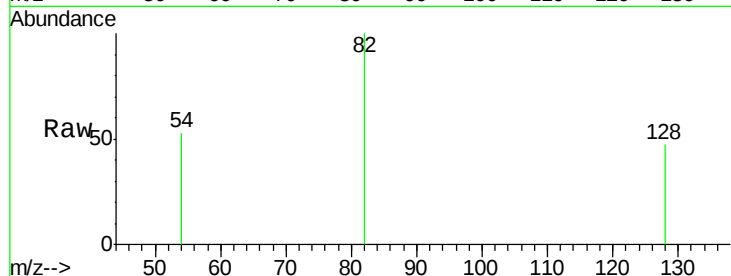
ClientSampleId :

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| Tgt Ion   | 82    | Resp  | 45215 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 82        | 100   |       |       |
| 128       | 47.5  | 36.5  | 54.7  |
| 54        | 52.7  | 43.5  | 65.3  |



#4

Naphthalene

Concen: 6.72 ng

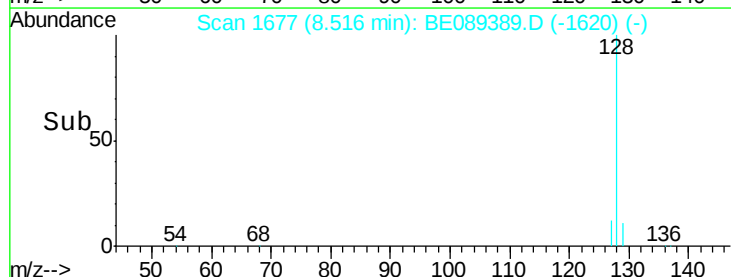
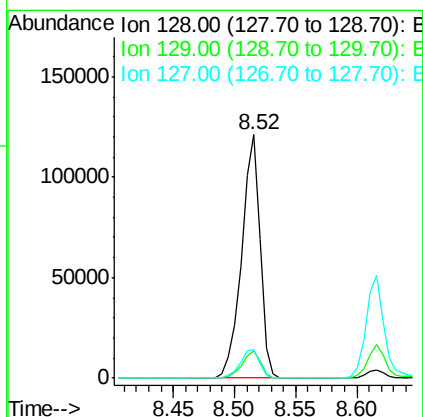
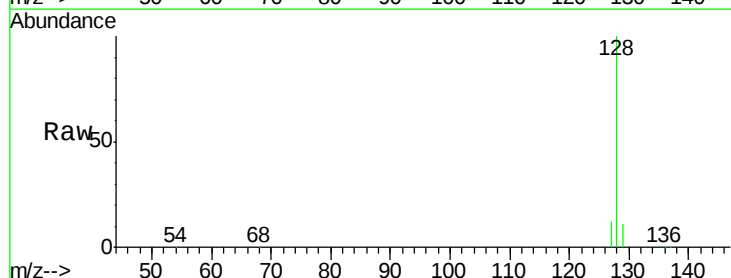
RT: 8.52 min Scan# 1677

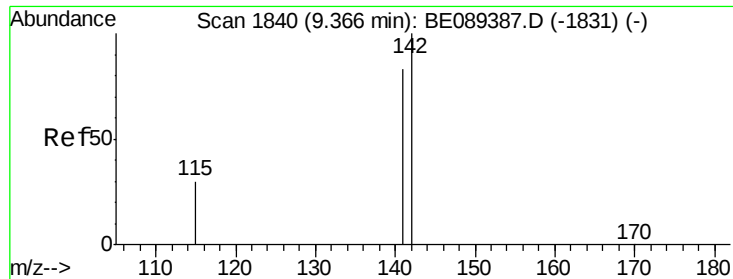
Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

| Tgt Ion   | 128   | Resp  | 128499 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 128       | 100   |       |        |
| 129       | 11.1  | 8.8   | 13.2   |
| 127       | 12.0  | 10.0  | 15.0   |





#5

2-Methylnaphthalene

Concen: 6.73 ng

RT: 9.37 min Scan# 1841

Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

Instrument :

BNA\_E

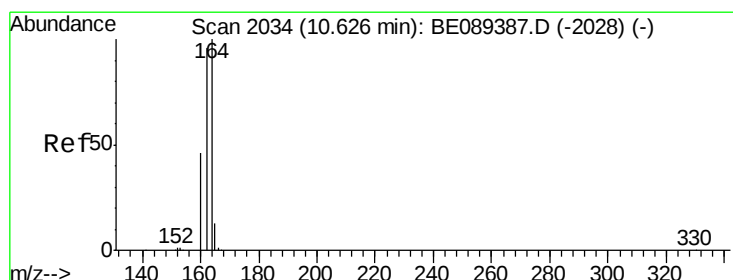
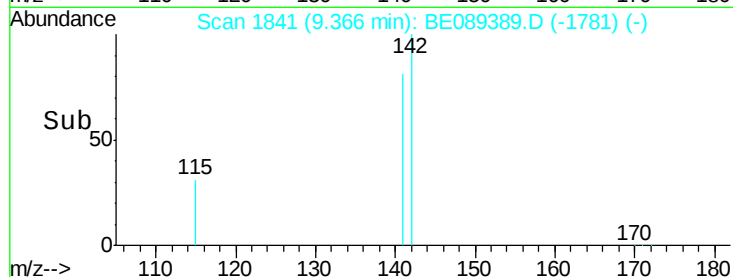
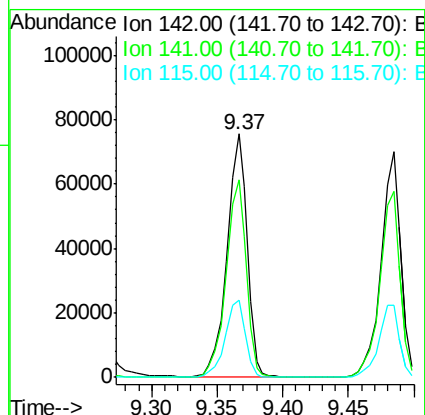
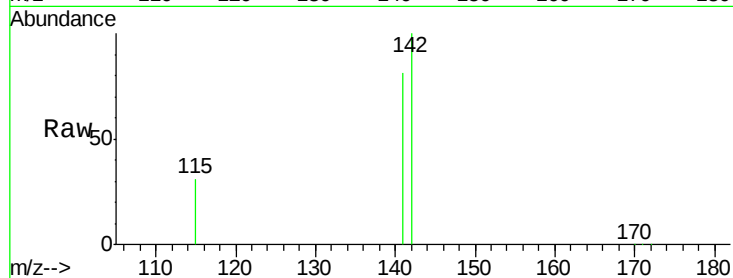
ClientSampleId :

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|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 142   | Resp: | 80541 |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 141       | 81.2  | 66.3  | 99.5  |
| 115       | 31.5  | 25.2  | 37.8  |



#6

Acenaphthene-d10

Concen: 5.00 ng

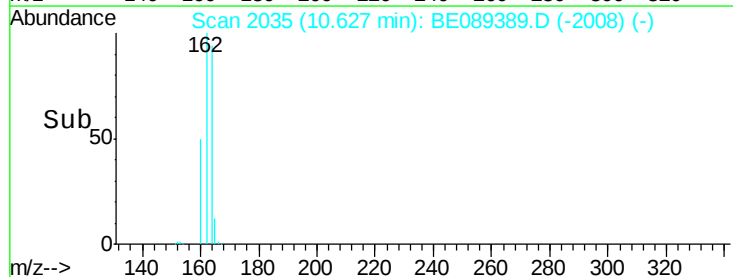
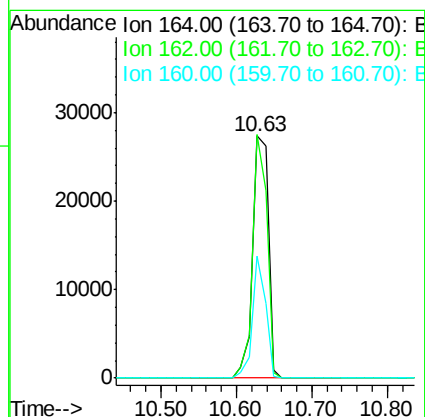
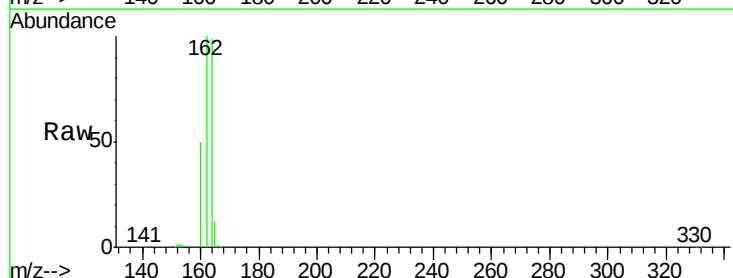
RT: 10.63 min Scan# 2035

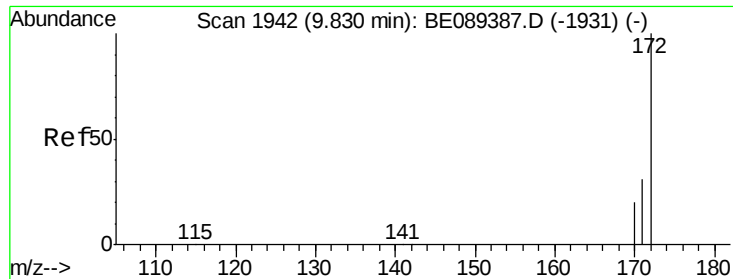
Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 164   | Resp: | 39622 |
| Ion Ratio | Lower | Upper |       |
| 164       | 100   |       |       |
| 162       | 100.6 | 77.4  | 116.2 |
| 160       | 50.5  | 38.2  | 57.4  |





#7

2-Fluorobiphenyl

Concen: 6.90 ng

RT: 9.83 min Scan# 1943

Delta R.T. 0.00 min

Lab File: BE089389.D

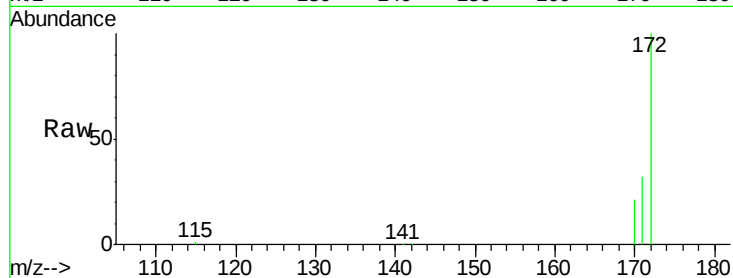
Acq: 9 Jan 2015 20:06

Instrument :

BNA\_E

ClientSampleId :

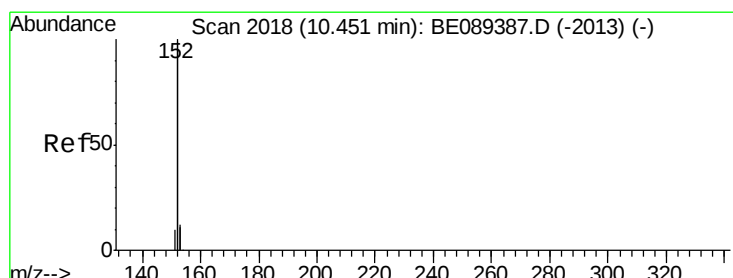
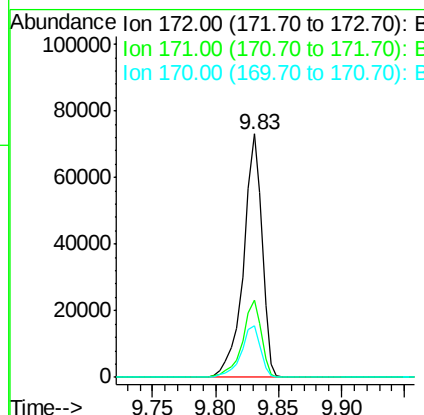
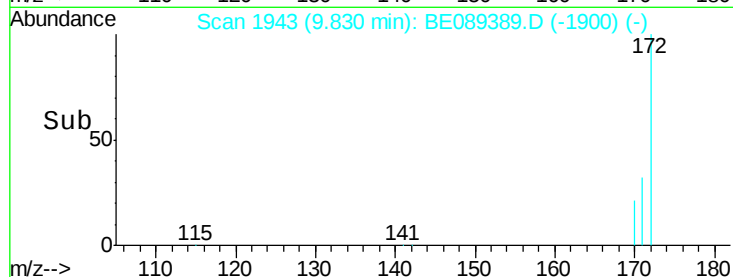
PB81206BSD



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 172   | Resp: | 74603 |
| Ion Ratio | Lower | Upper |       |
| 172       | 100   |       |       |
| 171       | 31.8  | 26.4  | 39.6  |
| 170       | 21.4  | 18.0  | 27.0  |

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#8

Acenaphthylene

Concen: 6.93 ng

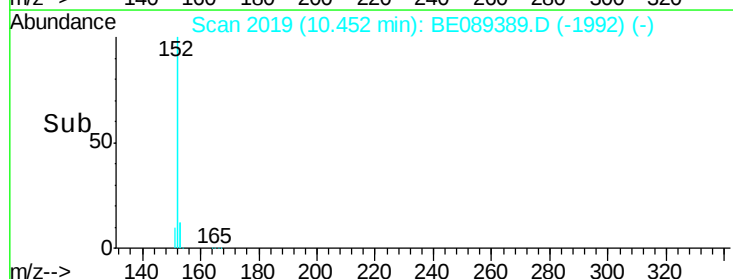
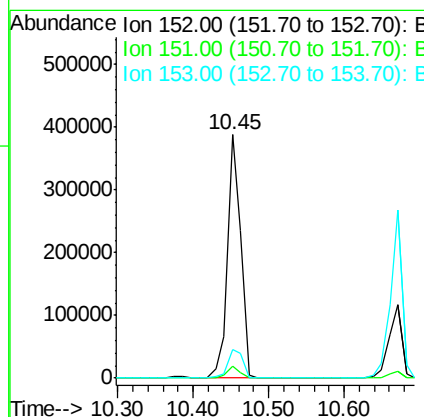
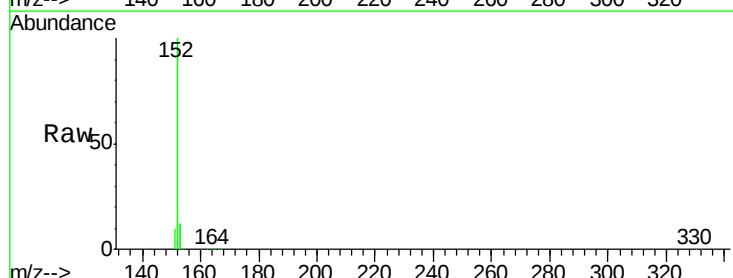
RT: 10.45 min Scan# 2019

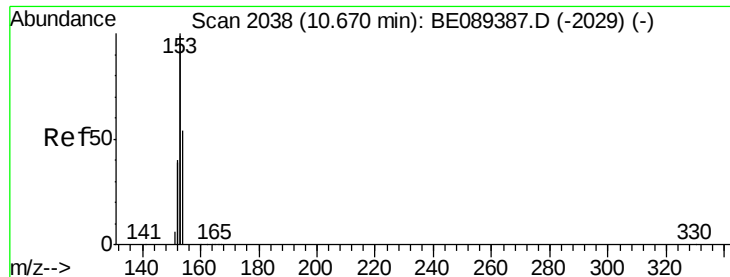
Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 152   | Resp: | 469755 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 151       | 5.1   | 4.1   | 6.1    |
| 153       | 11.9  | 9.8   | 14.6   |





#9

Acenaphthene

Concen: 6.51 ng

RT: 10.67 min Scan# 2039

Delta R.T. 0.00 min

Lab File: BE089389.D

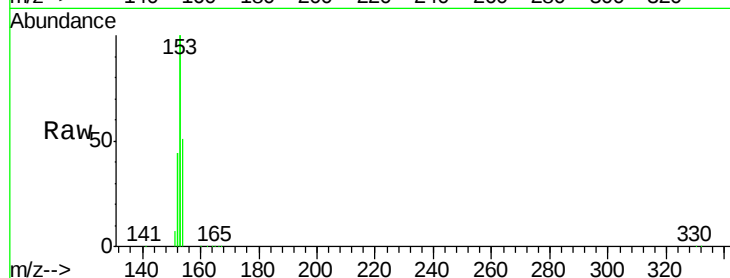
Acq: 9 Jan 2015 20:06

Instrument :

BNA\_E

ClientSampleId :

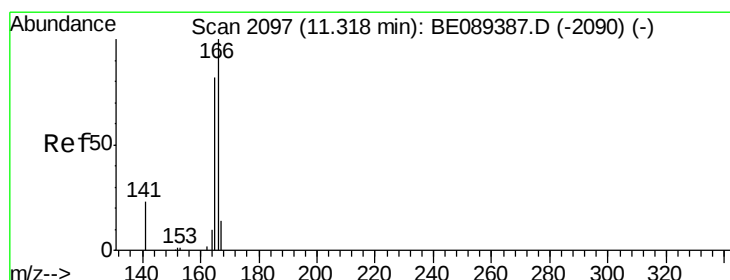
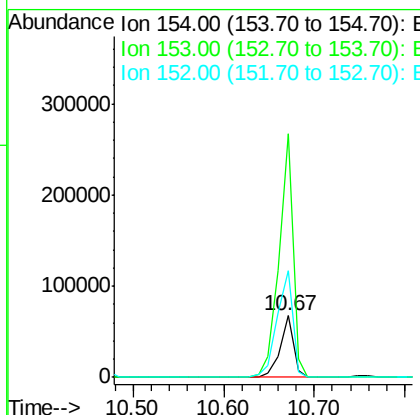
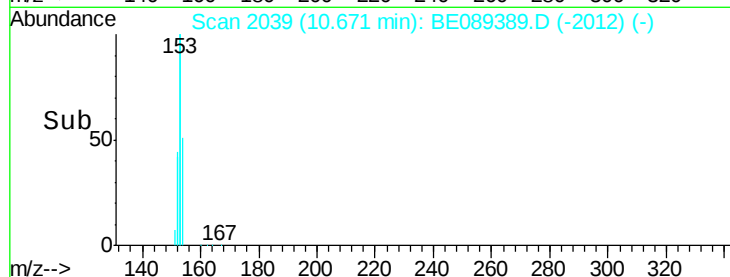
PB81206BSD



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 154   | Resp: | 68813 |
| Ion Ratio | Lower | Upper |       |
| 154       | 100   |       |       |
| 153       | 394.9 | 300.6 | 450.8 |
| 152       | 172.8 | 123.3 | 184.9 |

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#10

Fluorene

Concen: 6.86 ng

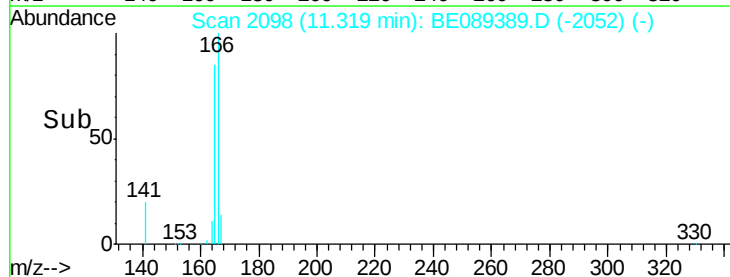
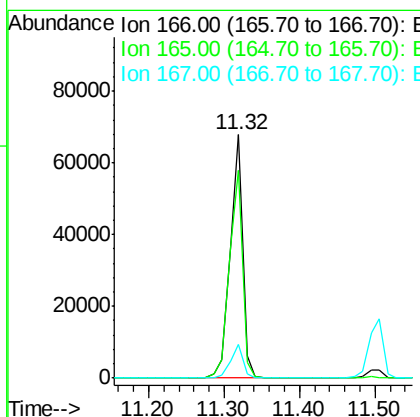
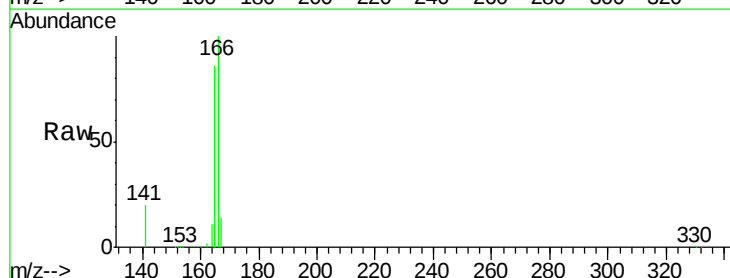
RT: 11.32 min Scan# 2098

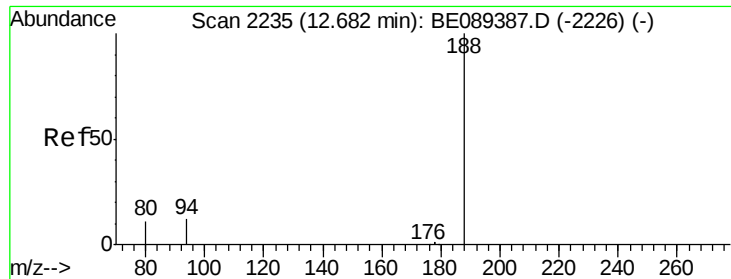
Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 166   | Resp: | 77583 |
| Ion Ratio | Lower | Upper |       |
| 166       | 100   |       |       |
| 165       | 90.2  | 72.1  | 108.1 |
| 167       | 13.6  | 11.0  | 16.4  |





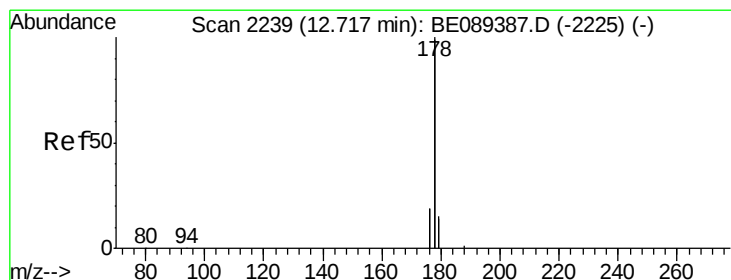
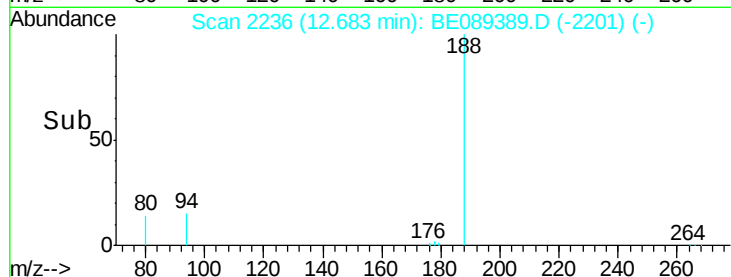
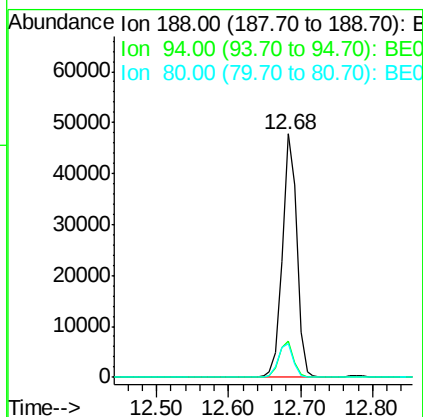
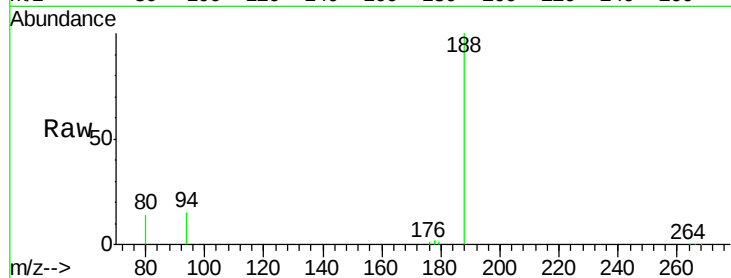
#11  
 Phenanthrene-d10  
 Concen: 5.00 ng  
 RT: 12.68 min Scan# 2236  
 Delta R.T. 0.00 min  
 Lab File: BE089389.D  
 Acq: 9 Jan 2015 20:06

Instrument :  
 BNA\_E  
 ClientSampleId :  
 PB81206BSD

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 188     | 100   |       |       |
| 94      | 14.9  | 11.0  | 12.2# |
| 80      | 14.0  | 10.1  | 11.1# |

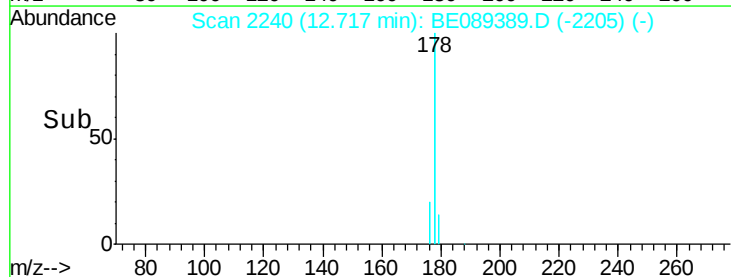
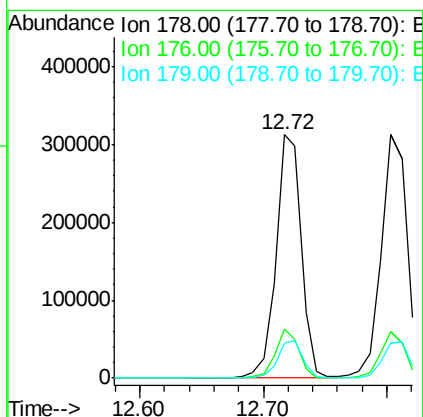
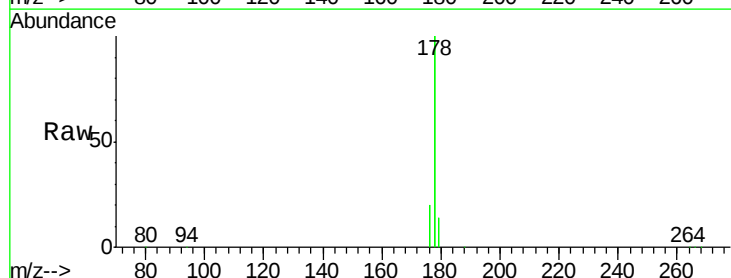
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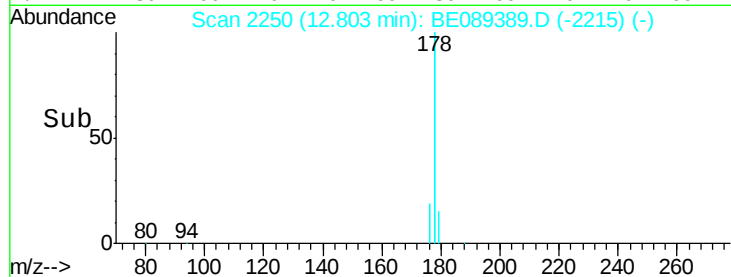
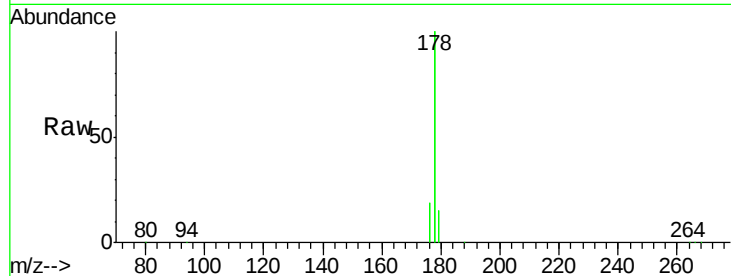
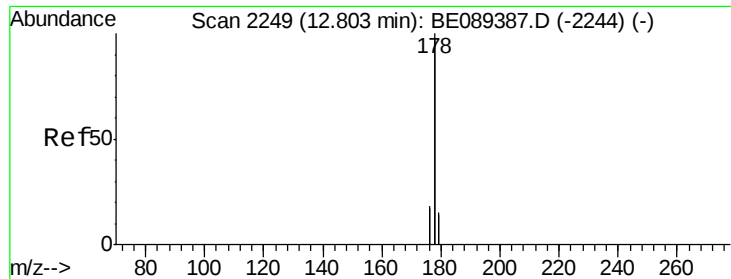
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#12  
 Phenanthrene  
 Concen: 6.58 ng  
 RT: 12.72 min Scan# 2240  
 Delta R.T. 0.00 min  
 Lab File: BE089389.D  
 Acq: 9 Jan 2015 20:06

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 20.1  | 15.1  | 22.7  |
| 179     | 14.2  | 12.2  | 18.2  |





#13

Anthracene

Concen: 7.02 ng

RT: 12.80 min Scan# 2250

Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 457920 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 176       | 19.1  | 14.7  | 22.1   |
| 179       | 14.6  | 12.0  | 18.0   |

Instrument :

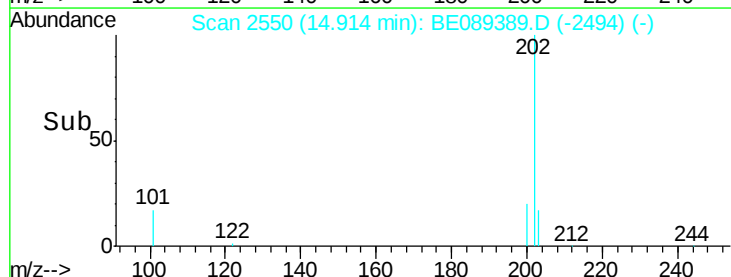
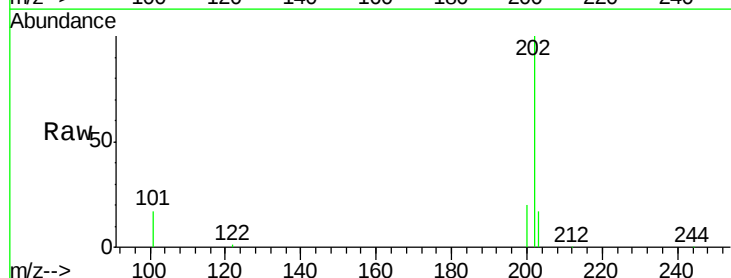
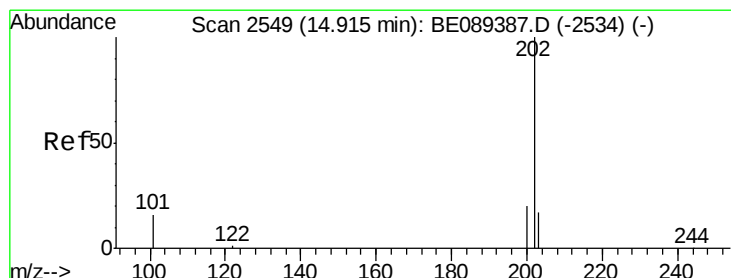
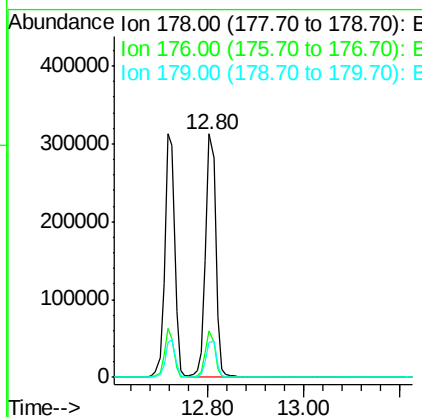
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#14

Fluoranthene

Concen: 6.95 ng

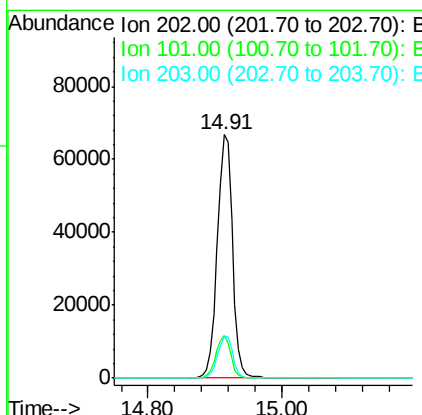
RT: 14.91 min Scan# 2550

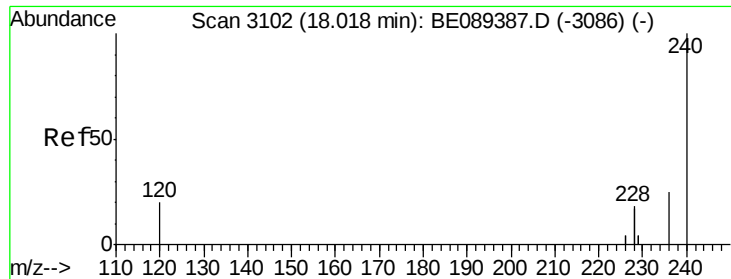
Delta R.T. -0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 103746 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 17.3  | 0.0   | 37.9   |
| 203       | 17.2  | 0.0   | 37.5   |





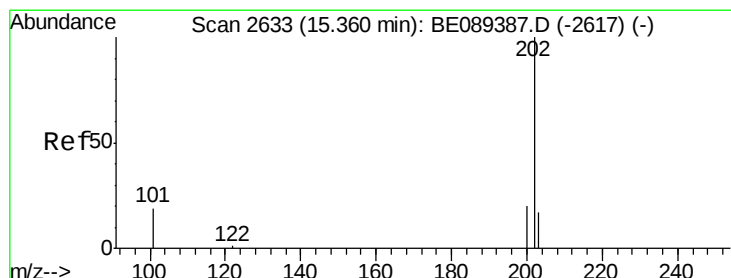
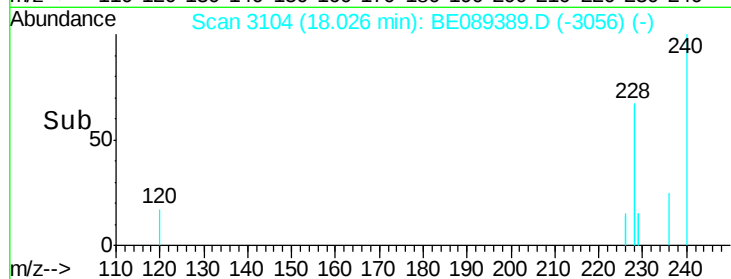
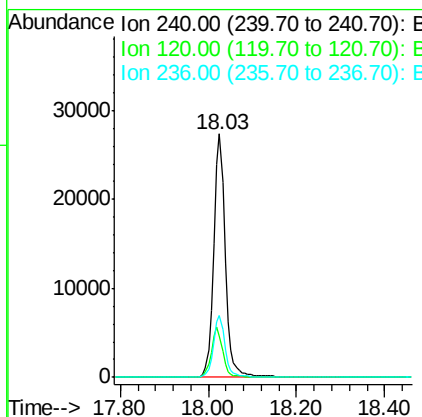
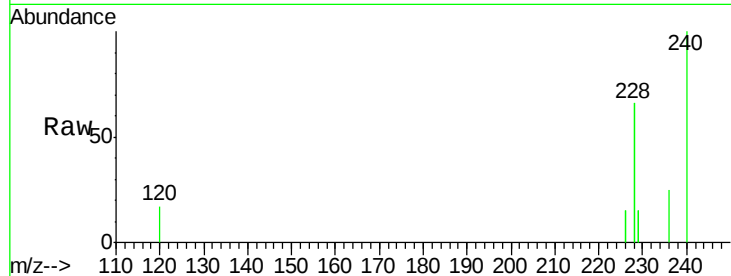
#15  
Chrysene-d12  
Concen: 5.00 ng  
RT: 18.03 min Scan# 3104  
Delta R.T. 0.01 min  
Lab File: BE089389.D  
Acq: 9 Jan 2015 20:06

Instrument :  
BNA\_E  
ClientSampleId :  
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| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 17.0  | 11.8  | 17.6  |
| 236     | 25.3  | 20.0  | 30.0  |

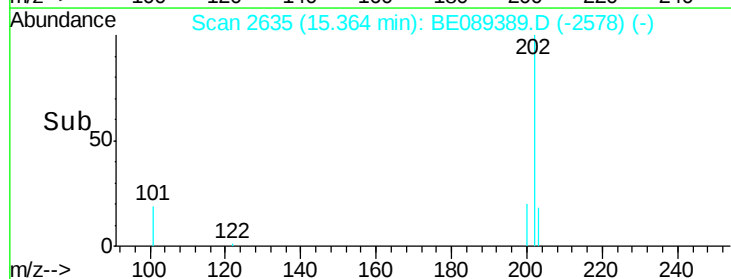
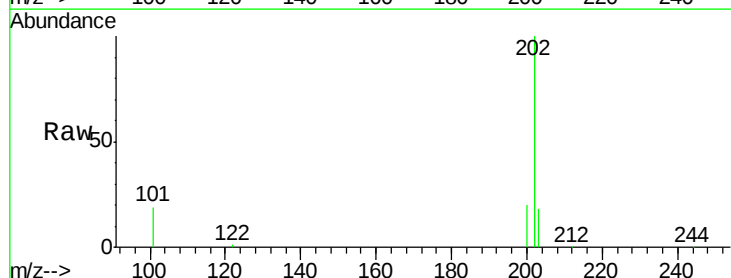
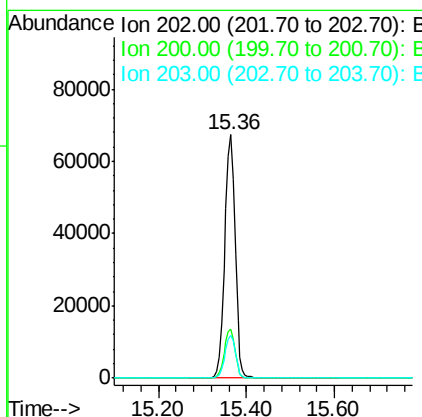
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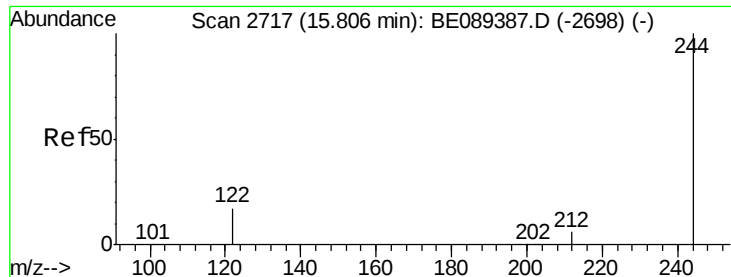
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#16  
Pyrene  
Concen: 6.82 ng  
RT: 15.36 min Scan# 2635  
Delta R.T. 0.00 min  
Lab File: BE089389.D  
Acq: 9 Jan 2015 20:06

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 20.3  | 16.8  | 25.2  |
| 203     | 17.7  | 14.0  | 21.0  |





#17

Terphenyl-d14

Concen: 6.66 ng

RT: 15.80 min Scan# 2718

Delta R.T. -0.00 min

Lab File: BE089389.D

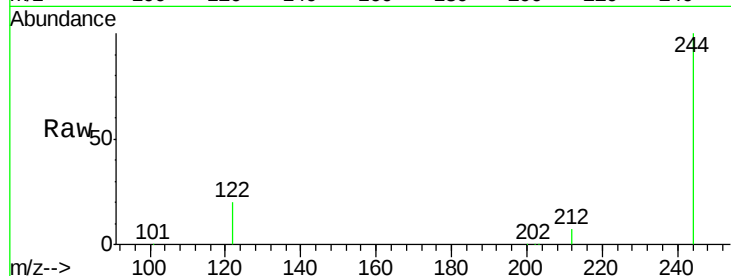
Acq: 9 Jan 2015 20:06

Instrument :

BNA\_E

ClientSampleId :

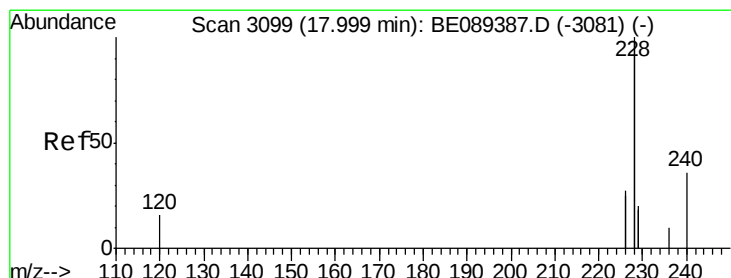
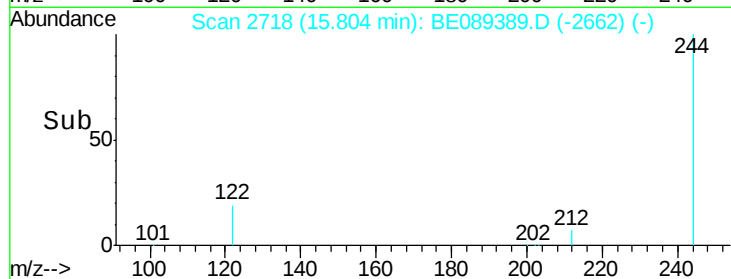
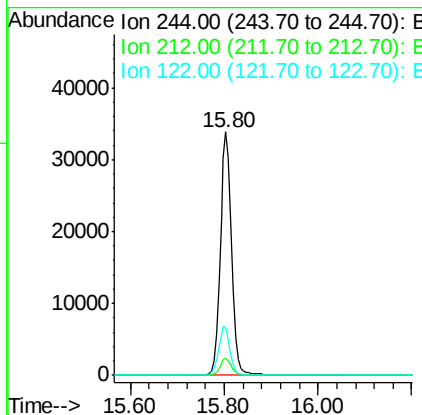
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|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 244   | Resp: | 57907 |
| Ion Ratio | Lower | Upper |       |
| 244       | 100   |       |       |
| 212       | 7.0   | 6.3   | 9.5   |
| 122       | 19.5  | 17.7  | 26.5  |

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#18

Benzo(a)anthracene

Concen: 7.06 ng

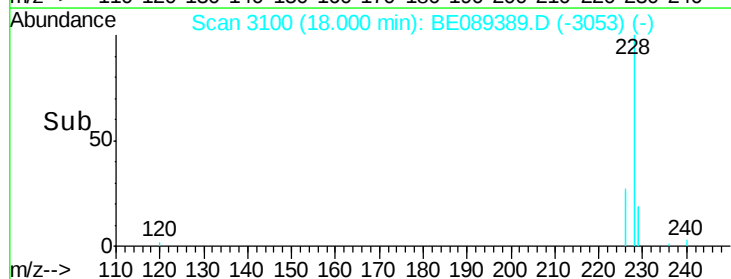
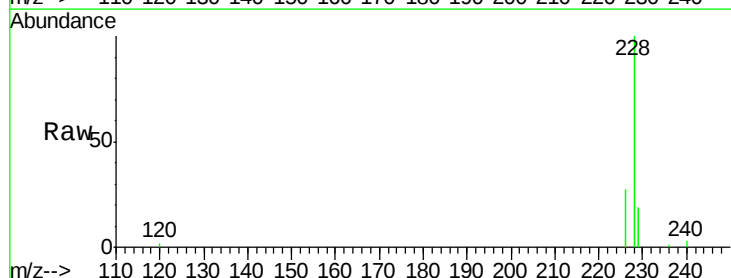
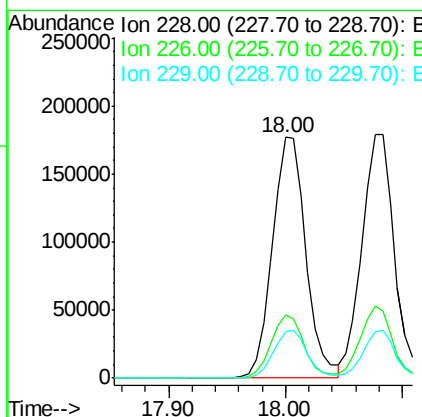
RT: 18.00 min Scan# 3100

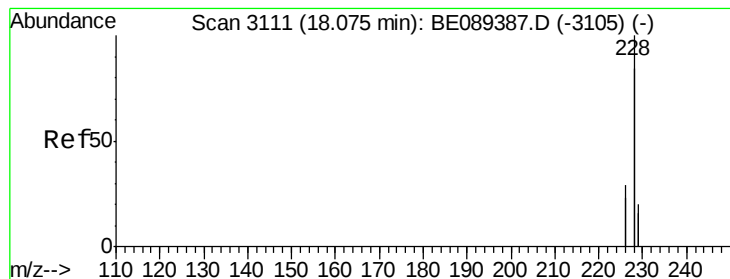
Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 228   | Resp: | 351542 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 26.5  | 21.0  | 31.6   |
| 229       | 19.1  | 16.0  | 24.0   |





#19

Chrysene

Concen: 7.10 ng

RT: 18.08 min Scan# 3112

Delta R.T. 0.00 min

Lab File: BE089389.D

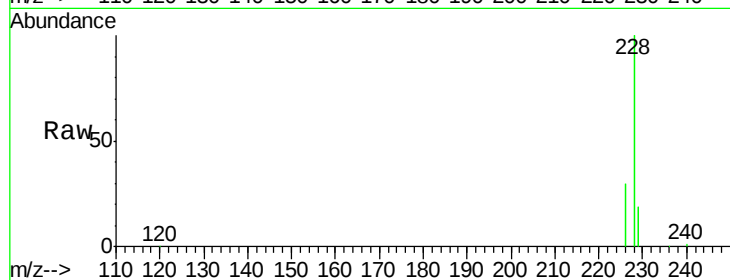
Acq: 9 Jan 2015 20:06

Instrument :

BNA\_E

ClientSampleId :

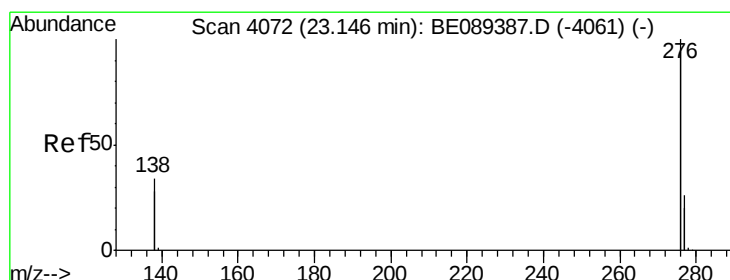
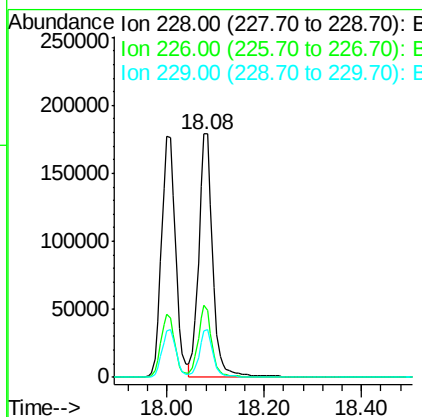
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|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 228   | Resp: | 354687 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 29.7  | 23.5  | 35.3   |
| 229       | 19.1  | 16.1  | 24.1   |

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#20

Indeno(1,2,3-cd)pyrene

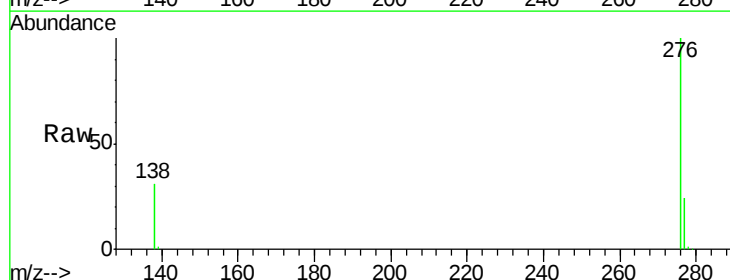
Concen: 7.10 ng m

RT: 23.15 min Scan# 4073

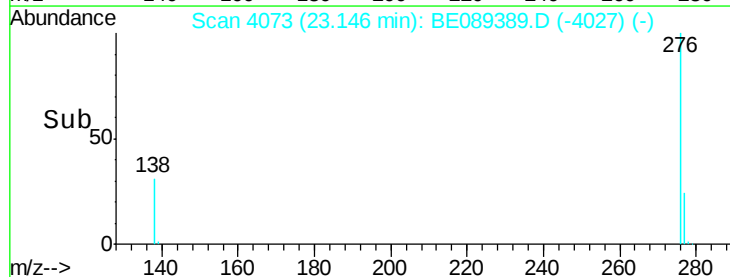
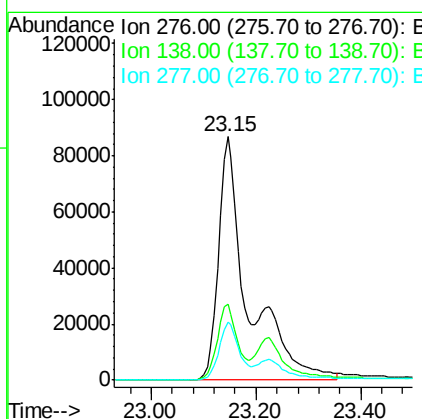
Delta R.T. -0.00 min

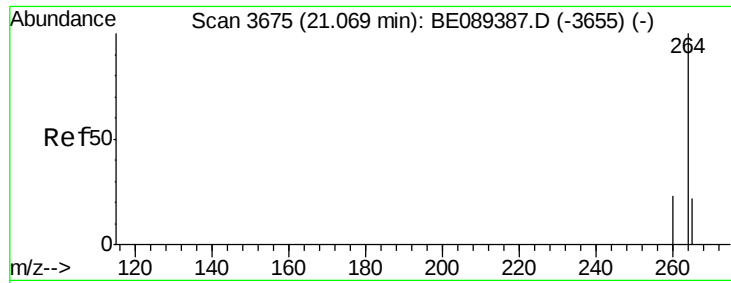
Lab File: BE089389.D

Acq: 9 Jan 2015 20:06



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 276   | Resp: | 339732 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 21.0  | 23.8  | 35.8#  |
| 277       | 16.1  | 18.2  | 27.4#  |





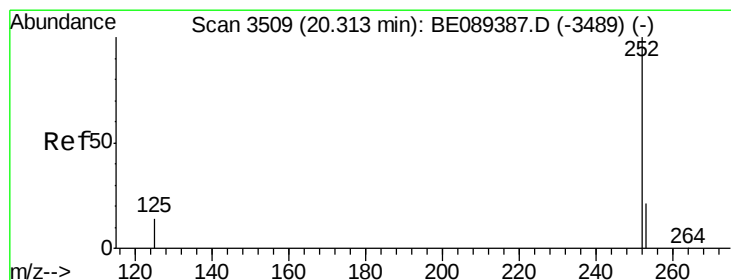
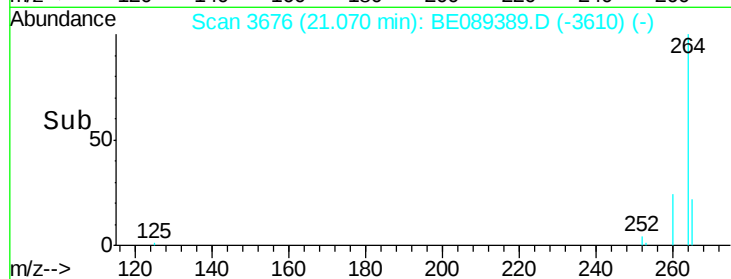
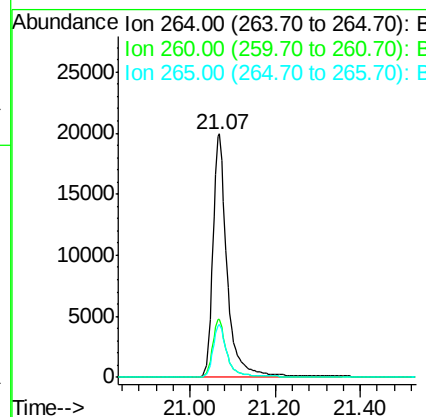
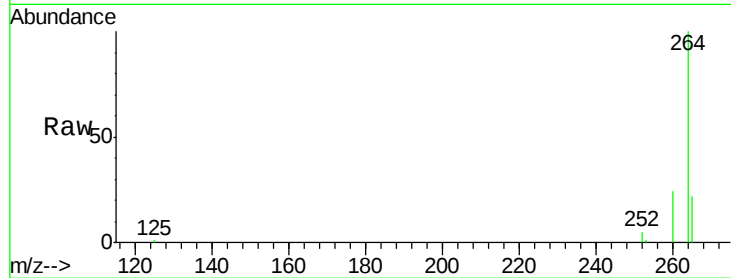
#21  
 Perylene-d12  
 Concen: 5.00 ng  
 RT: 21.07 min Scan# 3676  
 Delta R.T. 0.00 min  
 Lab File: BE089389.D  
 Acq: 9 Jan 2015 20:06

Instrument :  
 BNA\_E  
 ClientSampleId :  
 PB81206BSD

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 23.7  | 18.9  | 28.3  |
| 265     | 21.8  | 17.4  | 26.2  |

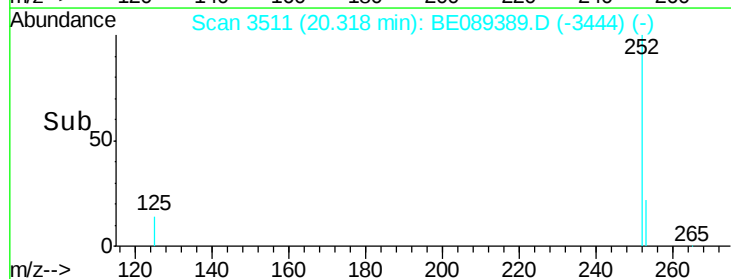
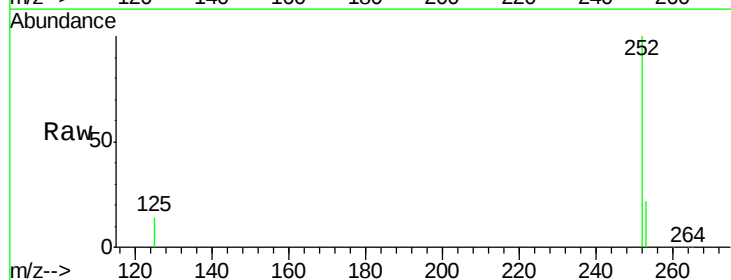
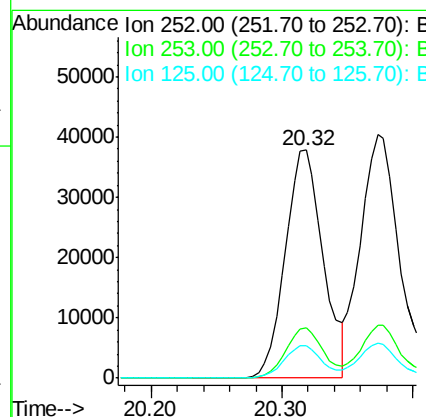
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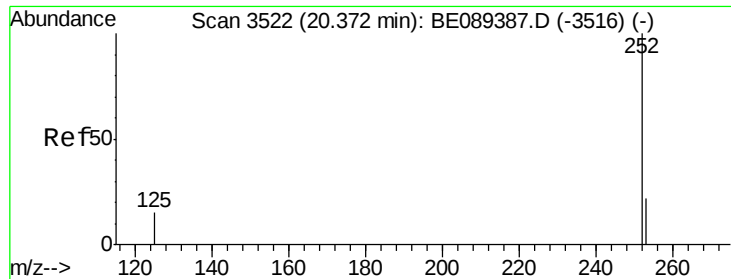
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#22  
 Benzo(b)fluoranthene  
 Concen: 7.75 ng  
 RT: 20.32 min Scan# 3511  
 Delta R.T. 0.01 min  
 Lab File: BE089389.D  
 Acq: 9 Jan 2015 20:06

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.0  | 17.8  | 26.6  |
| 125     | 14.2  | 12.6  | 18.8  |





#23

Benzo(k)fluoranthene

Concen: 7.36 ng

RT: 20.37 min Scan# 3523

Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

Instrument :

BNA\_E

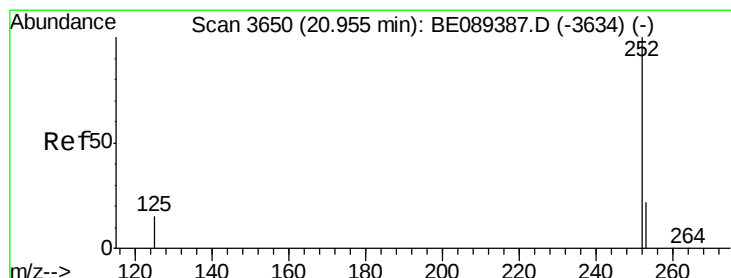
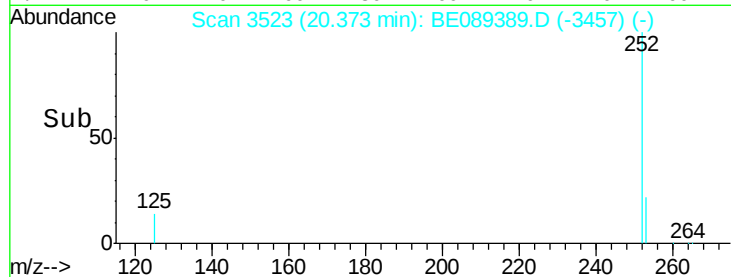
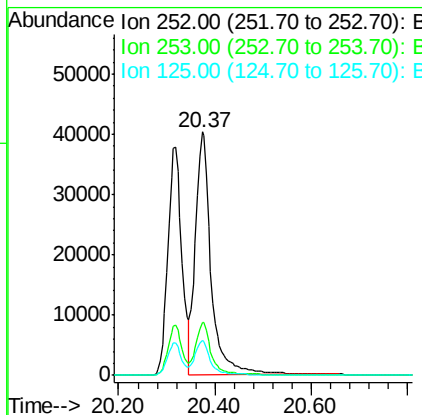
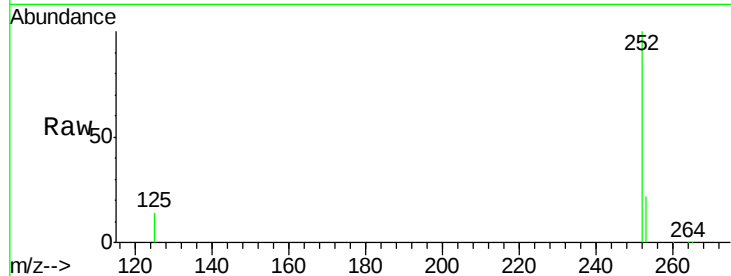
ClientSampleId :

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|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 91338 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 21.7  | 18.0  | 27.0  |
| 125       | 14.3  | 12.4  | 18.6  |



#24

Benzo(a)pyrene

Concen: 7.87 ng

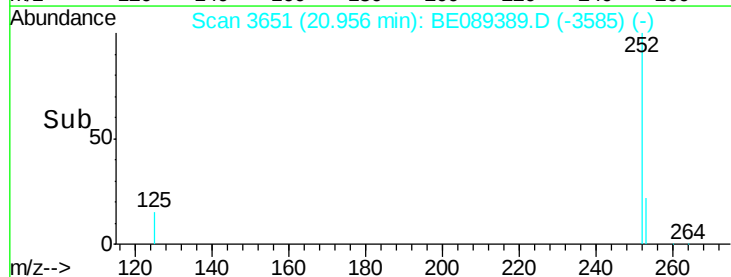
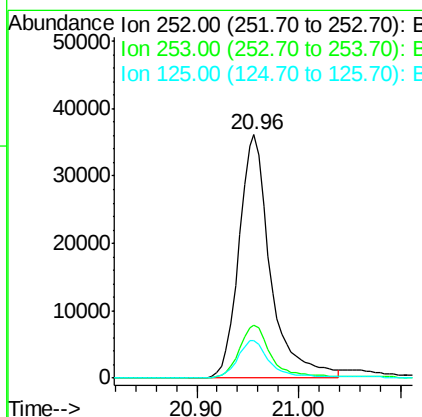
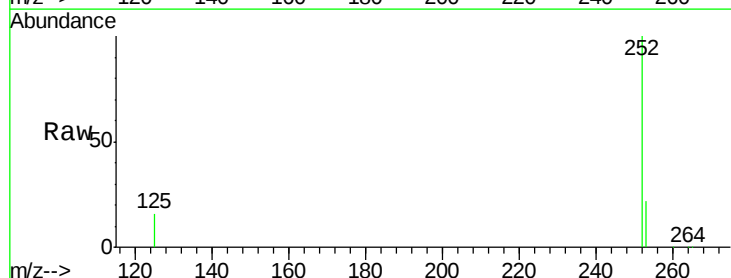
RT: 20.96 min Scan# 3651

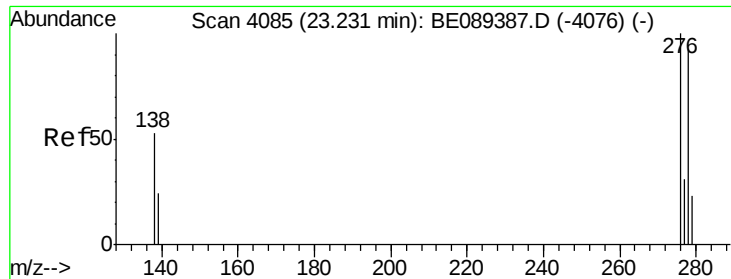
Delta R.T. 0.00 min

Lab File: BE089389.D

Acq: 9 Jan 2015 20:06

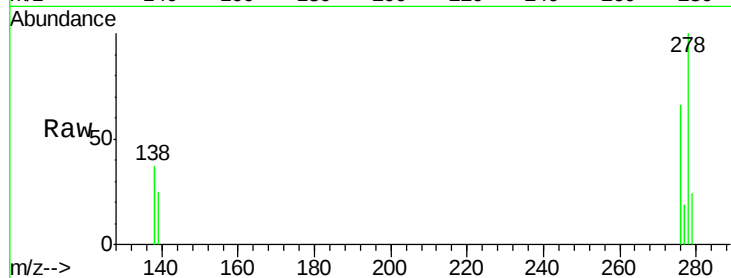
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 76508 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 21.9  | 18.3  | 27.5  |
| 125       | 15.6  | 13.8  | 20.8  |





#25  
Dibenzo(a,h)anthracene  
Concen: 7.32 ng  
RT: 23.23 min Scan# 4086  
Delta R.T. -0.00 min  
Lab File: BE089389.D  
Acq: 9 Jan 2015 20:06

Instrument :  
BNA\_E  
ClientSampleId :  
PB81206BSD

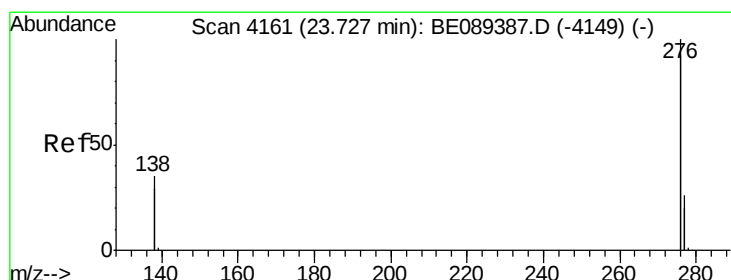
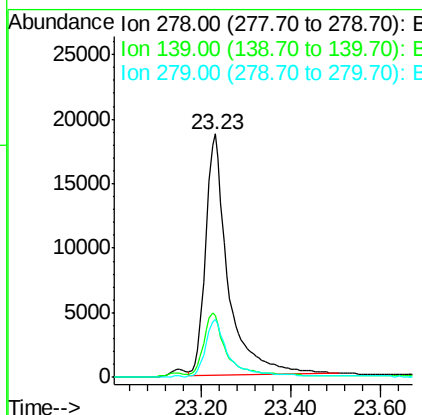
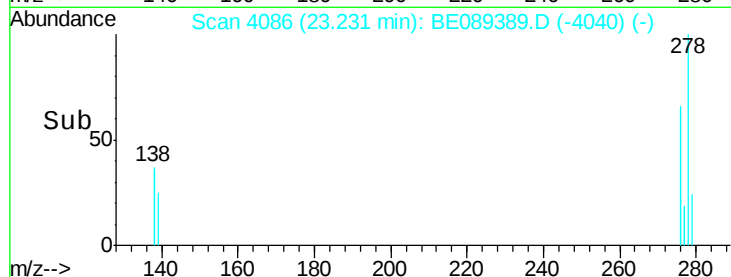


Tgt Ion: 278 Resp: 65177  

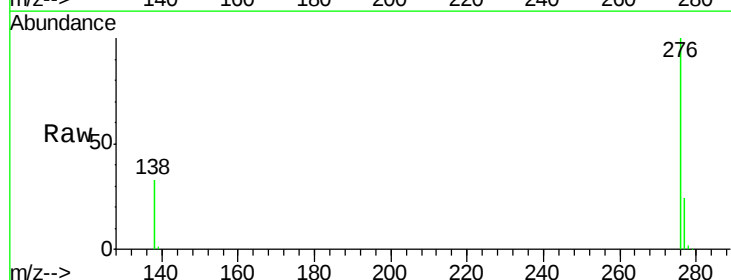
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 278 | 100   |       |       |
| 139 | 25.4  | 22.9  | 34.3  |
| 279 | 24.0  | 20.8  | 31.2  |

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#26  
Benzo(g,h,i)perylene  
Concen: 6.65 ng  
RT: 23.73 min Scan# 4162  
Delta R.T. -0.00 min  
Lab File: BE089389.D  
Acq: 9 Jan 2015 20:06



Tgt Ion: 276 Resp: 298560  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 276 | 100   |       |       |
| 277 | 23.8  | 20.0  | 30.0  |
| 138 | 33.0  | 28.5  | 42.7  |

