

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF051515\  
 Data File : BF079307.D  
 Acq On : 16 May 2015 11:32  
 Operator : TP/IZ  
 Sample : G2251-13 2X  
 Misc :  
 ALS Vial : 40 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 WC-11-D1

Quant Time: May 18 01:01:37 2015  
 Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF043015.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri May 15 01:57:52 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 0.00  | 152  | 0        | 0.00  | ng    | -7.22    |
| 21) Naphthalene-d8        | 8.75  | 136  | 305437   | 20.00 | ng    | -0.05    |
| 38) Acenaphthene-d10      | 10.92 | 164  | 143977   | 20.00 | ng    | -0.05    |
| 63) Phenanthrene-d10      | 12.77 | 188  | 265711   | 20.00 | ng    | -0.06    |
| 75) Chrysene-d12          | 16.06 | 240  | 275359   | 20.00 | ng    | -0.45    |
| 86) Perylene-d12          | 18.39 | 264  | 2953     | 20.00 | ng    | -0.49    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 5) 2-Fluorophenol           | 0.00  | 112  | 0        | 0.00  | ng    |          |
| 7) Phenol-d6                | 0.00  | 99   | 0        | 0.00  | ng    |          |
| 23) Nitrobenzene-d5         | 7.87  | 82   | 135130   | 25.43 | ng    | -0.05    |
| 41) 2,4,6-Tribromophenol    | 11.91 | 330  | 63902    | 41.03 | ng    | -0.05    |
| 44) 2-Fluorobiphenyl        | 10.10 | 172  | 280007   | 27.10 | ng    | -0.05    |
| 78) Terphenyl-d14           | 0.00  | 244  | 0        | 0.00  | ng    |          |

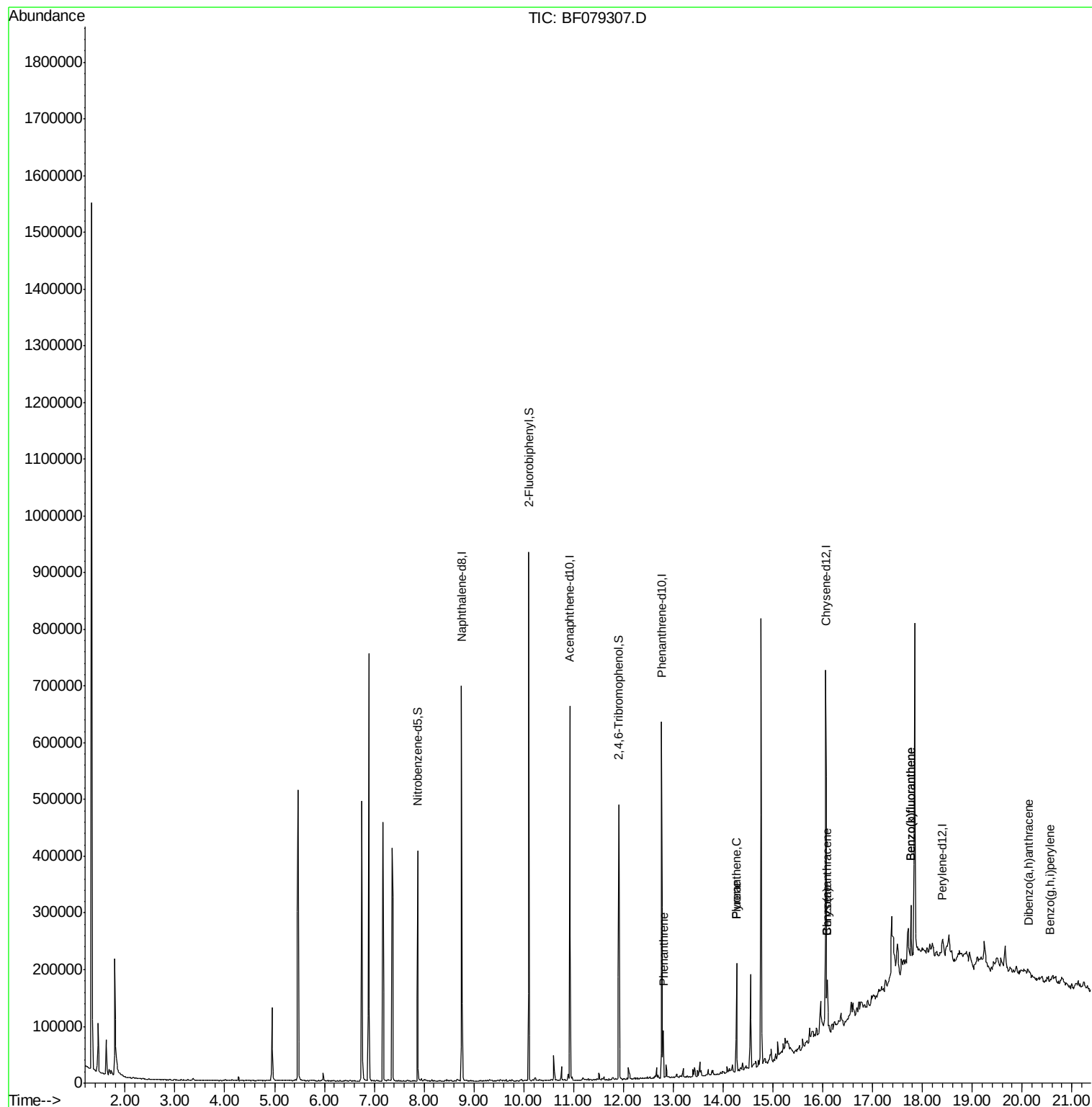
| Target Compounds           | R.T.  | QIon | Response | Conc   | Units | Qvalue |
|----------------------------|-------|------|----------|--------|-------|--------|
| 70) Phenanthrene           | 12.80 | 178  | 35746    | 2.40   | ng    | 98     |
| 74) Fluoranthene           | 14.27 | 202  | 81196    | 5.24   | ng    | 95     |
| 77) Pyrene                 | 14.27 | 202  | 81196    | 5.12   | ng    | 97     |
| 80) Benzo(a)anthracene     | 16.09 | 228  | 38221    | 2.53   | ng    | 95     |
| 82) Chrysene               | 16.09 | 228  | 37983    | 2.62   | ng    | 97     |
| 87) Benzo(b)fluoranthene   | 17.77 | 252  | 42737    | 264.41 | ng    | # 95   |
| 88) Benzo(k)fluoranthene   | 17.77 | 252  | 43221    | 276.22 | ng    | # 90   |
| 90) Dibenzo(a,h)anthracene | 20.13 | 278  | 528      | 3.34   | ng    | # 1    |
| 91) Benzo(g,h,i)perylene   | 20.56 | 276  | 843      | 5.32   | ng    | # 1    |

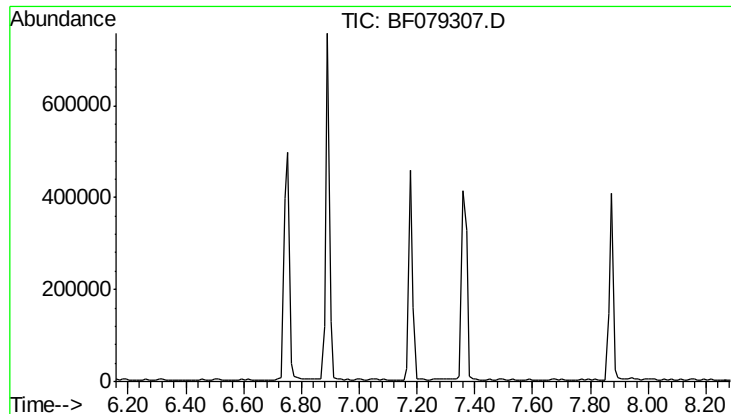
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

1,4-Dichlorobenzene-d4

Concen: 0.00 ng

Expected RT: 7.22 min

Lab File: BF079307.D

Acq: 16 May 2015 11:32

Instrument :

BNA\_F

ClientSampleId :

WC-11-D1

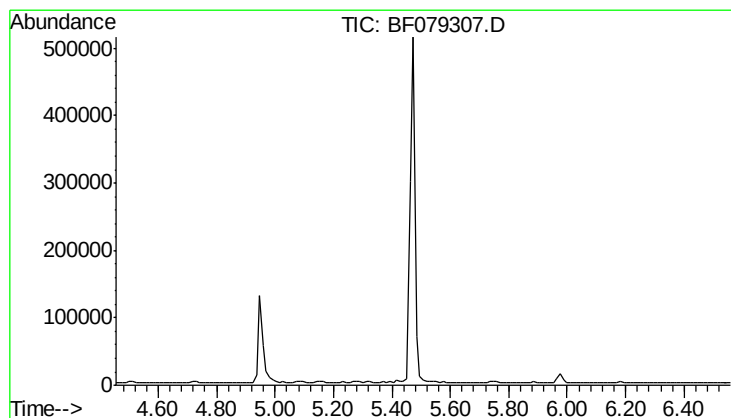
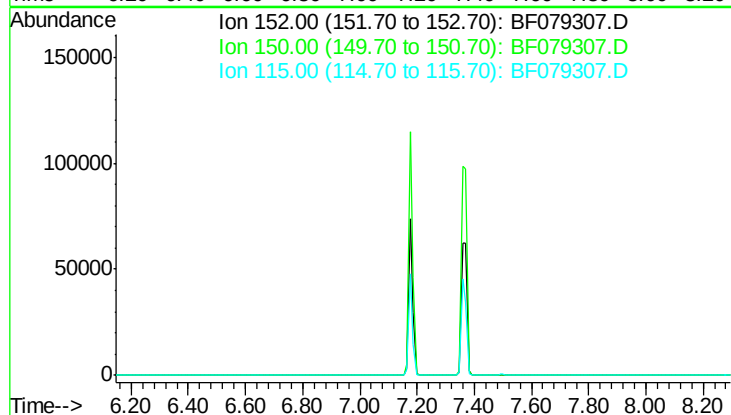
Tgt Ion: 152

Sig Exp Ratio

152 100

150 154.8

115 61.7



#5

2-Fluorophenol

Concen: 0.00 ng

Expected RT: 5.51 min

Lab File: BF079307.D

Acq: 16 May 2015 11:32

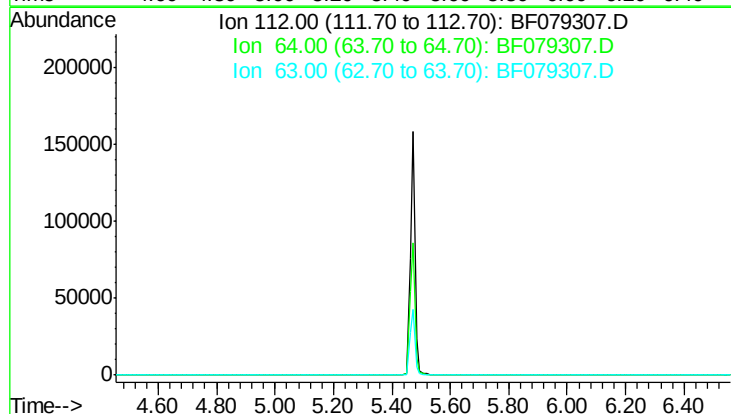
Tgt Ion: 112

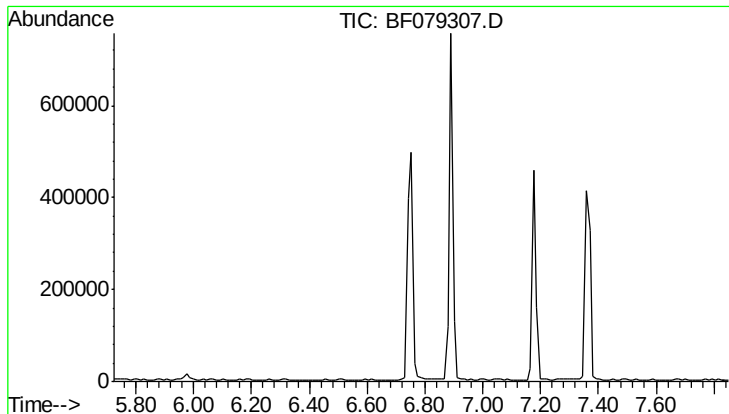
Sig Exp Ratio

112 100

64 55.2

63 28.4





#7

Phenol-d6

Concen: 0.00 ng

Expected RT: 6.79 min

Lab File: BF079307.D

Acq: 16 May 2015 11:32

Instrument :

BNA\_F

ClientSampleId :

WC-11-D1

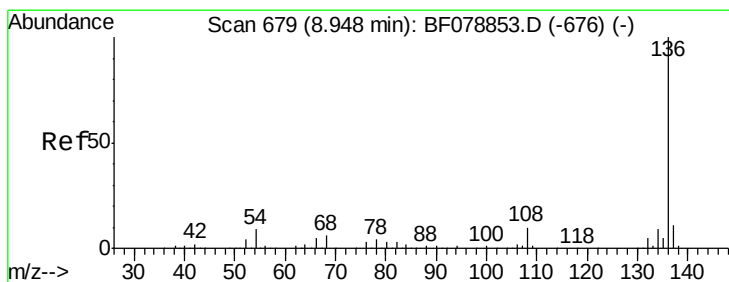
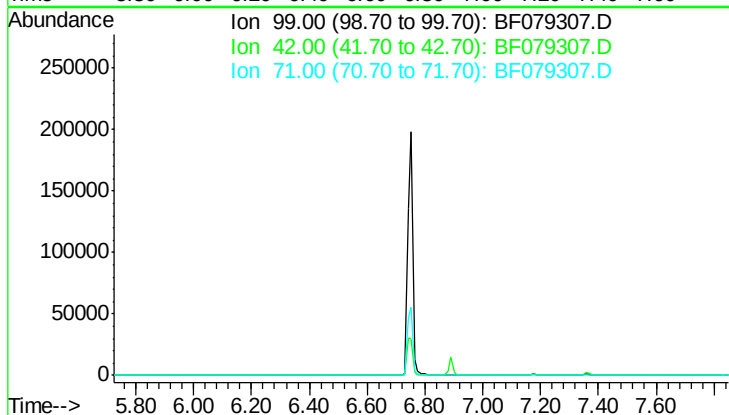
Tgt Ion: 99

Sig Exp Ratio

99 100

42 21.4

71 32.9



#21

Naphthalene-d8

Concen: 20.00 ng

RT: 8.75 min Scan# 662

Delta R.T. -0.05 min

Lab File: BF079307.D

Acq: 16 May 2015 11:32

Tgt Ion:136 Resp: 305437

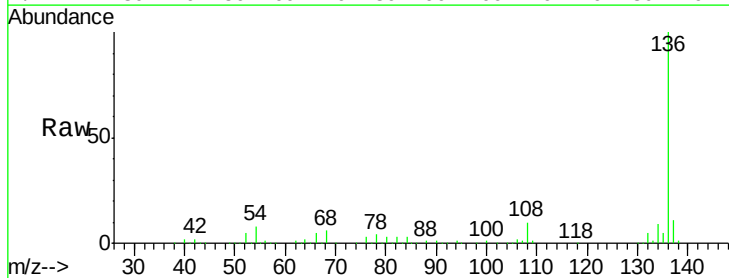
Ion Ratio Lower Upper

136 100

137 11.2 8.8 13.2

54 8.3 6.9 10.3

68 5.9 4.9 7.3

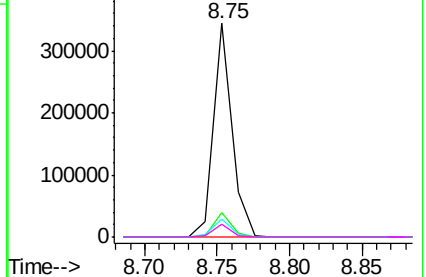
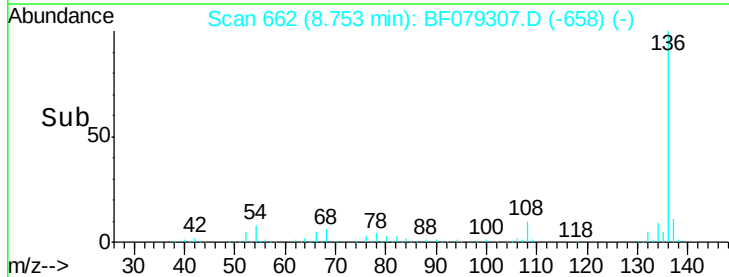


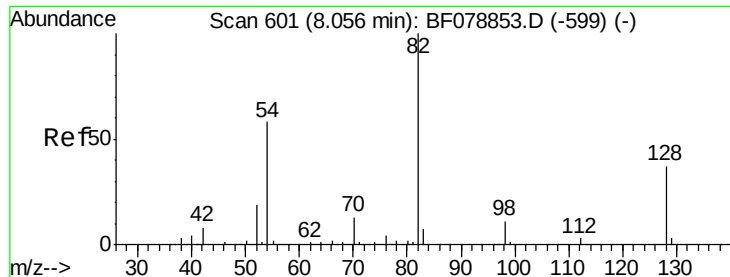
Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BF0

Ion 68.00 (67.70 to 68.70): BF0





#23

Nitrobenzene-d5

Concen: 25.43 ng

RT: 7.87 min Scan# 585

Delta R.T. -0.05 min

Lab File: BF079307.D

Acq: 16 May 2015 11:32

Instrument :

BNA\_F

ClientSampleId :

WC-11-D1

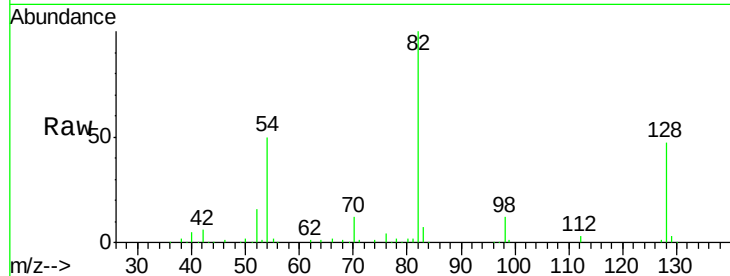
Tgt Ion: 82 Resp: 135130

Ion Ratio Lower Upper

82 100

128 47.3 29.7 44.5#

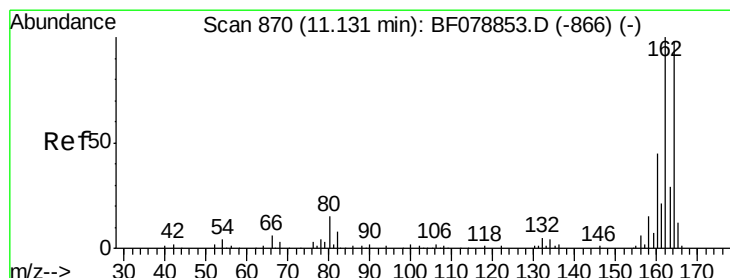
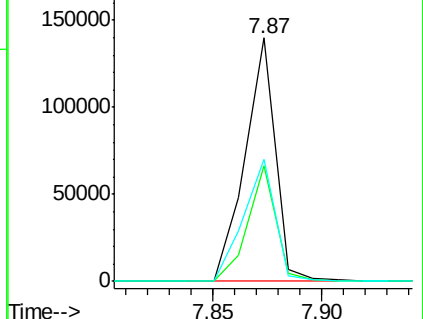
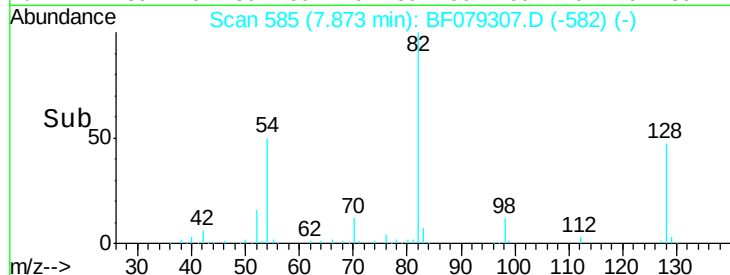
54 50.1 46.2 69.4



Abundance Ion 82.00 (81.70 to 82.70): BF079307.D (-582) (-)

Ion 128.00 (127.70 to 128.70): BF079307.D (-582) (-)

Ion 54.00 (53.70 to 54.70): BF079307.D (-582) (-)



#38

Acenaphthene-d10

Concen: 20.00 ng

RT: 10.92 min Scan# 852

Delta R.T. -0.05 min

Lab File: BF079307.D

Acq: 16 May 2015 11:32

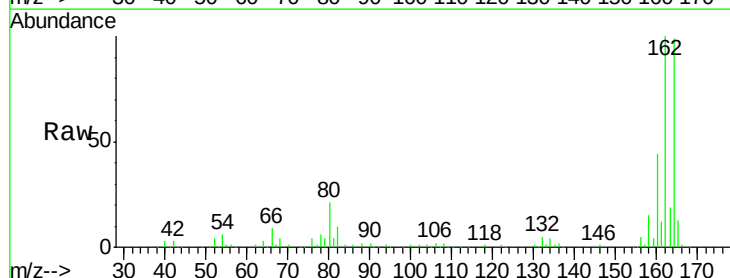
Tgt Ion: 164 Resp: 143977

Ion Ratio Lower Upper

164 100

162 100.5 81.4 122.0

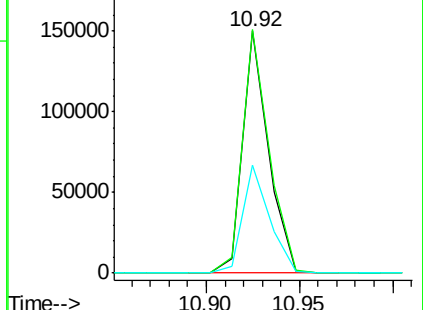
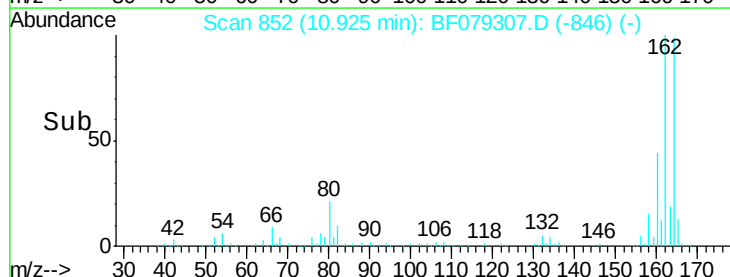
160 44.5 36.6 54.8

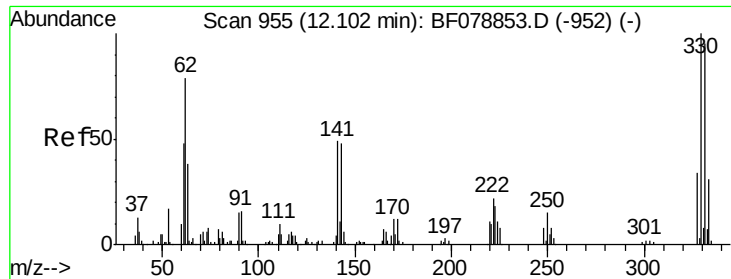


Abundance Ion 164.00 (163.70 to 164.70): BF079307.D (-846) (-)

Ion 162.00 (161.70 to 162.70): BF079307.D (-846) (-)

Ion 160.00 (159.70 to 160.70): BF079307.D (-846) (-)

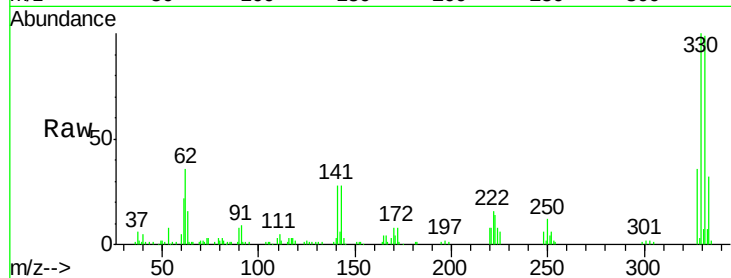




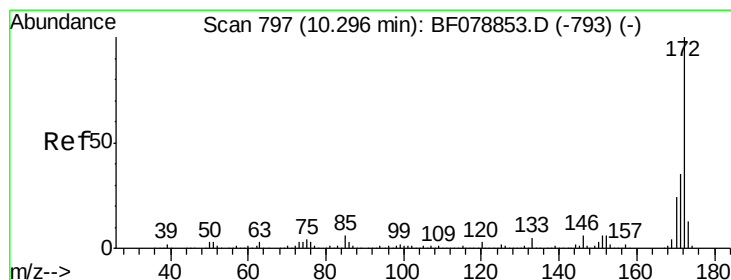
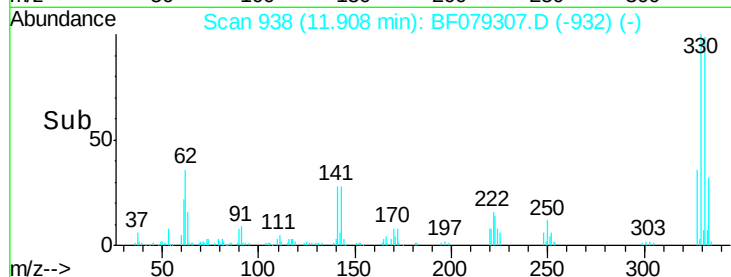
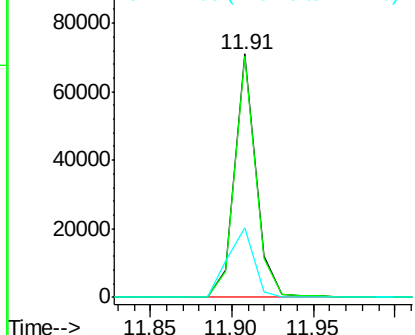
#41  
 2,4,6-Tribromophenol  
 Concen: 41.03 ng  
 RT: 11.91 min Scan# 938  
 Delta R.T. -0.05 min  
 Lab File: BF079307.D  
 Acq: 16 May 2015 11:32

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 BNA\_F  
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Tgt Ion:330 Resp: 63902  
 Ion Ratio Lower Upper  
 330 100  
 332 97.6 76.9 115.3  
 141 35.0 27.8 41.8

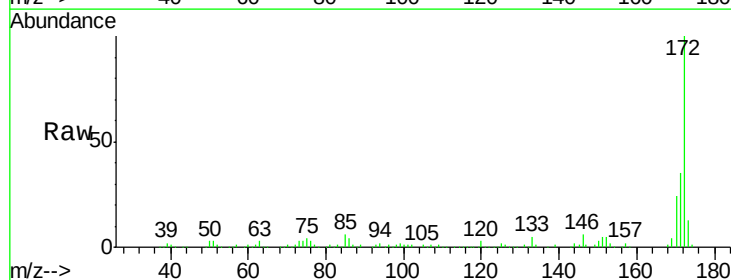


Abundance Ion 329.80 (329.50 to 330.50): E  
 Ion 331.80 (331.50 to 332.50): E  
 Ion 141.00 (140.70 to 141.70): E

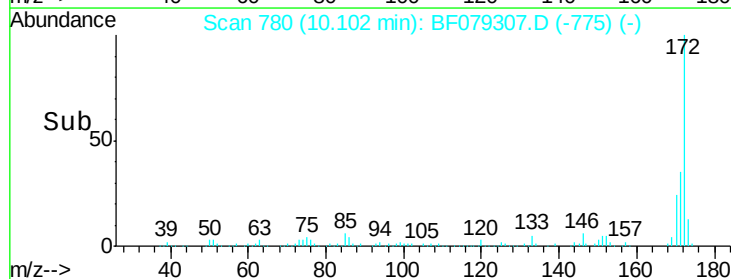
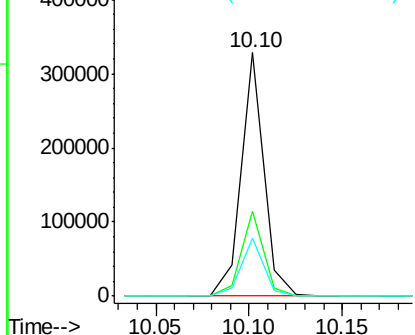


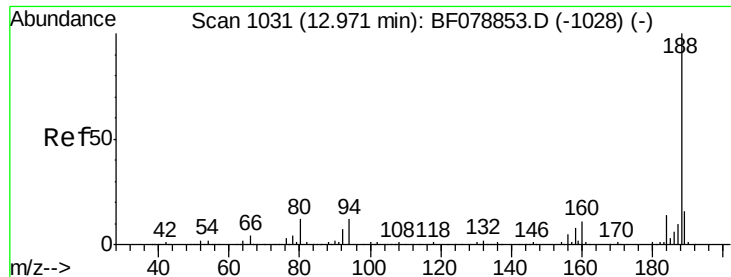
#44  
 2-Fluorobiphenyl  
 Concen: 27.10 ng  
 RT: 10.10 min Scan# 780  
 Delta R.T. -0.05 min  
 Lab File: BF079307.D  
 Acq: 16 May 2015 11:32

Tgt Ion:172 Resp: 280007  
 Ion Ratio Lower Upper  
 172 100  
 171 34.8 28.3 42.5  
 170 23.8 19.4 29.2



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

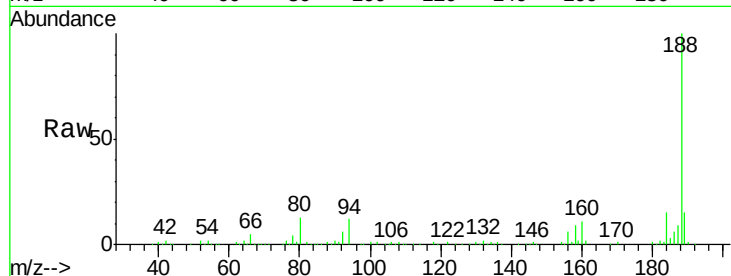




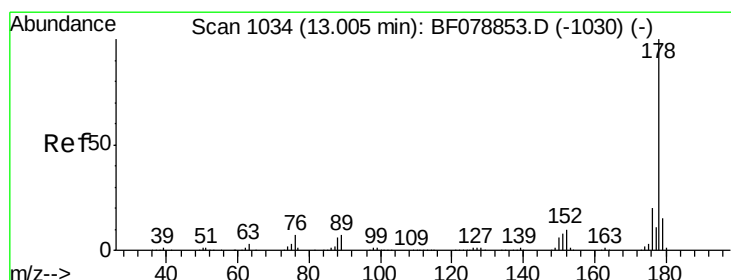
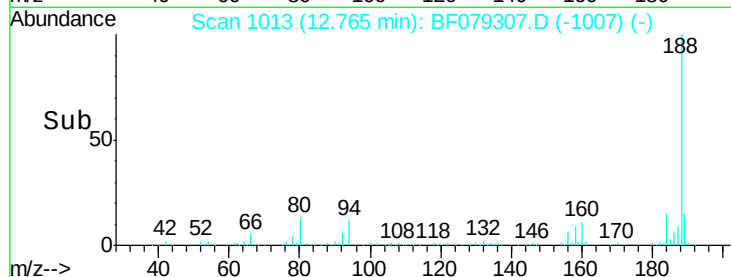
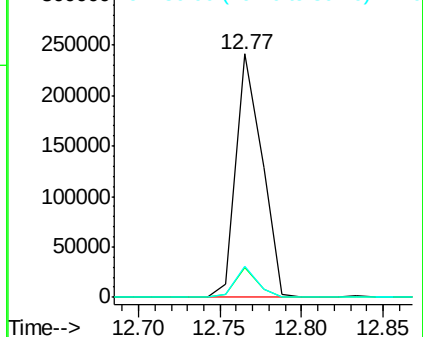
#63  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 12.77 min Scan# 1013  
Delta R.T. -0.06 min  
Lab File: BF079307.D  
Acq: 16 May 2015 11:32

Instrument :  
BNA\_F  
ClientSampleId :  
WC-11-D1

Tgt Ion:188 Resp: 265711  
Ion Ratio Lower Upper  
188 100  
94 12.2 9.4 14.0  
80 12.6 9.8 14.6

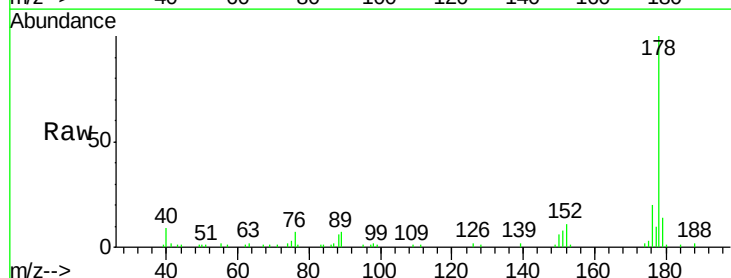


Abundance Ion 188.00 (187.70 to 188.70): E  
Ion 94.00 (93.70 to 94.70): BF0  
Ion 80.00 (79.70 to 80.70): BF0

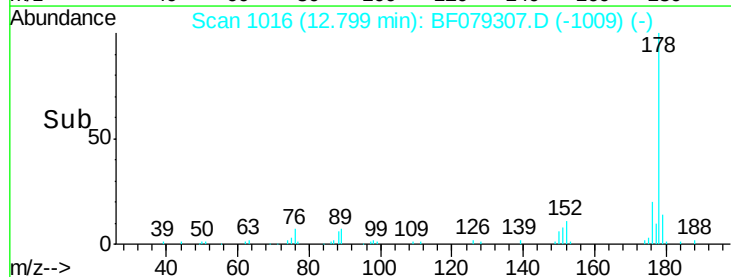
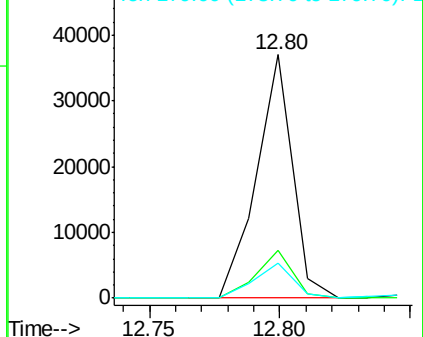


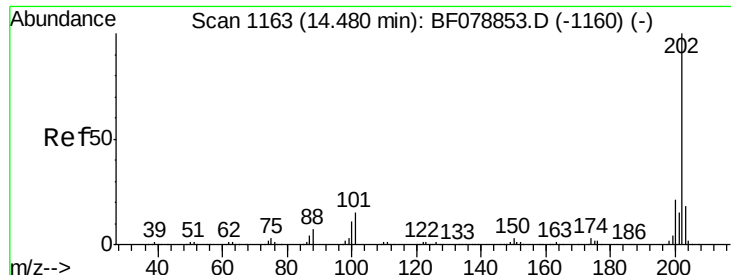
#70  
Phenanthrene  
Concen: 2.40 ng  
RT: 12.80 min Scan# 1016  
Delta R.T. -0.05 min  
Lab File: BF079307.D  
Acq: 16 May 2015 11:32

Tgt Ion:178 Resp: 35746  
Ion Ratio Lower Upper  
178 100  
176 19.5 15.9 23.9  
179 14.1 12.2 18.4



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

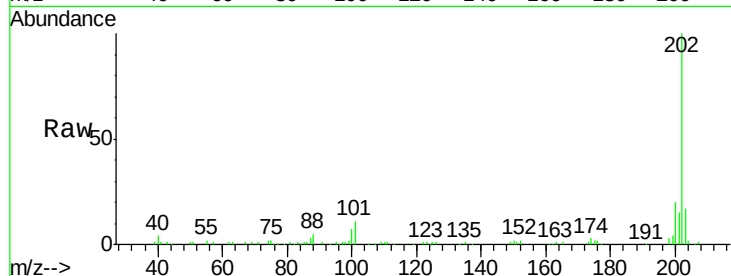




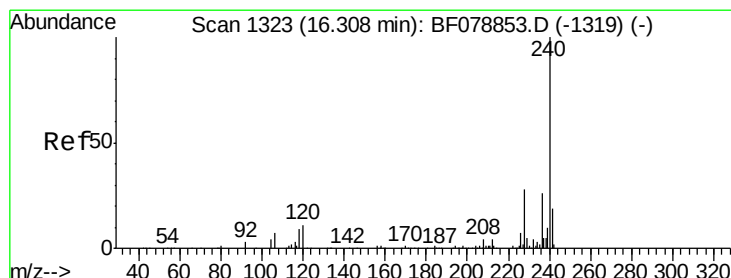
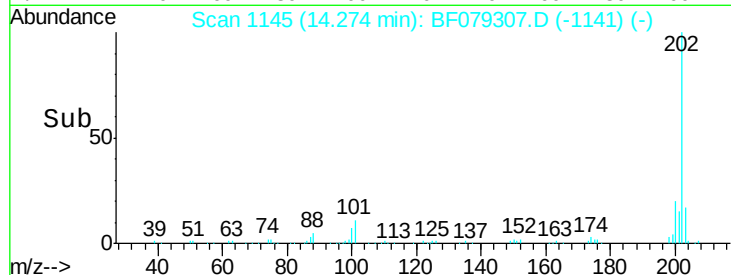
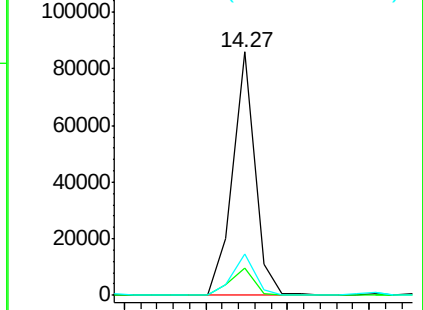
#74  
 Fluoranthene  
 Concen: 5.24 ng  
 RT: 14.27 min Scan# 1145  
 Delta R.T. -0.10 min  
 Lab File: BF079307.D  
 Acq: 16 May 2015 11:32

Instrument :  
 BNA\_F  
 ClientSampleId :  
 WC-11-D1

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 202     | 100   | 81196 |       |       |
| 101     | 11.0  | 0.0   | 34.7  |       |
| 203     | 16.8  | 0.0   | 37.9  |       |

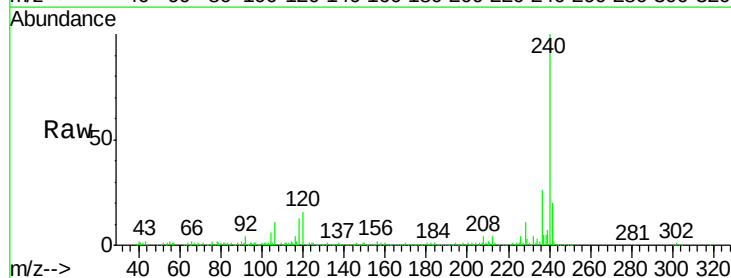


Abundance Ion 202.00 (201.70 to 202.70): E  
 Ion 101.00 (100.70 to 101.70): E  
 Ion 203.00 (202.70 to 203.70): E

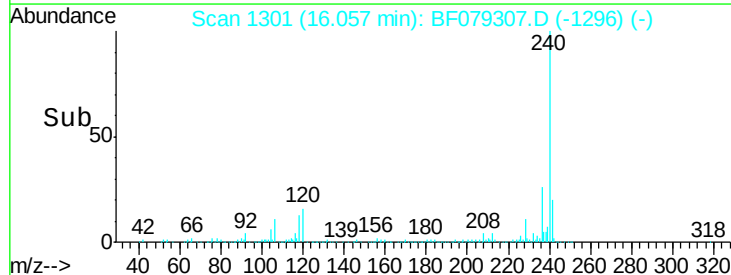
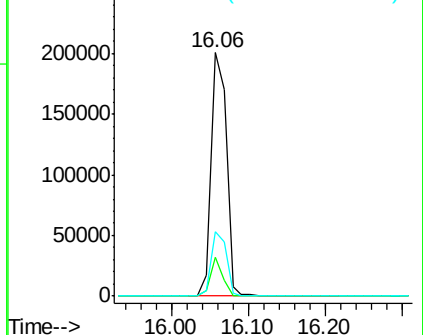


#75  
 Chrysene-d12  
 Concen: 20.00 ng  
 RT: 16.06 min Scan# 1301  
 Delta R.T. -0.45 min  
 Lab File: BF079307.D  
 Acq: 16 May 2015 11:32

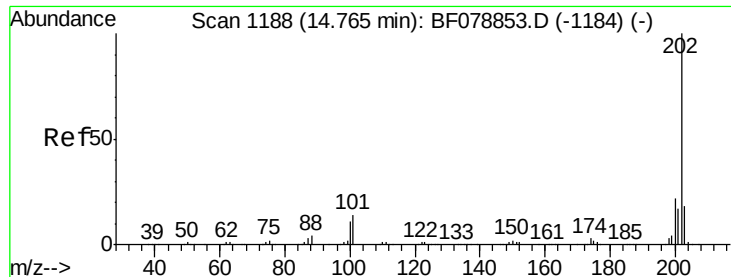
| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 240     | 100   | 275359 |       |       |
| 120     | 16.0  | 8.6    | 12.8# |       |
| 236     | 26.3  | 21.0   | 31.6  |       |



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



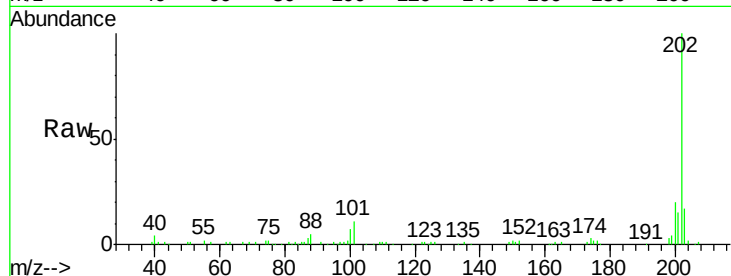




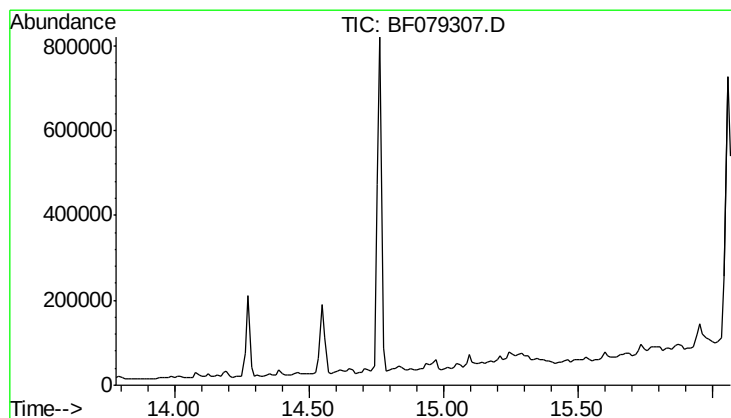
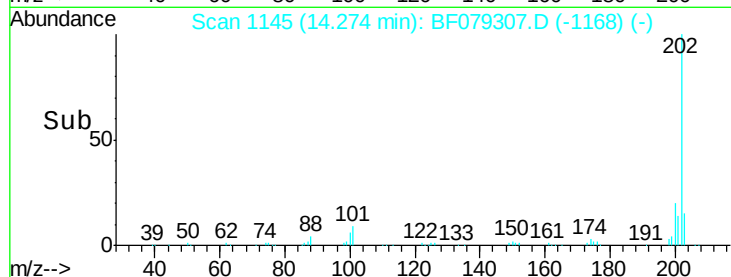
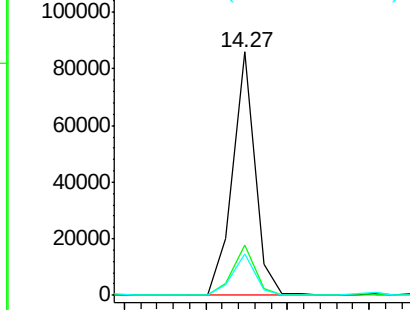
#77  
 Pyrene  
 Concen: 5.12 ng  
 RT: 14.27 min Scan# 1145  
 Delta R.T. -0.41 min  
 Lab File: BF079307.D  
 Acq: 16 May 2015 11:32

Instrument :  
 BNA\_F  
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 WC-11-D1

Tgt Ion: 202 Resp: 81196  
 Ion Ratio Lower Upper  
 202 100  
 200 20.5 17.5 26.3  
 203 16.8 14.7 22.1



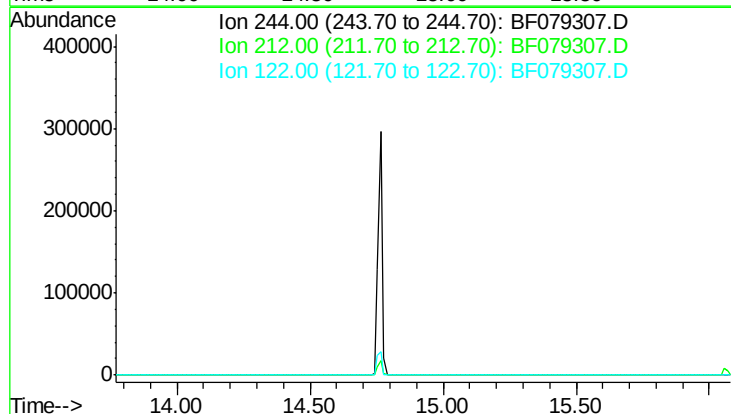
Abundance Ion 202.00 (201.70 to 202.70): E  
 Ion 200.00 (199.70 to 200.70): E  
 Ion 203.00 (202.70 to 203.70): E

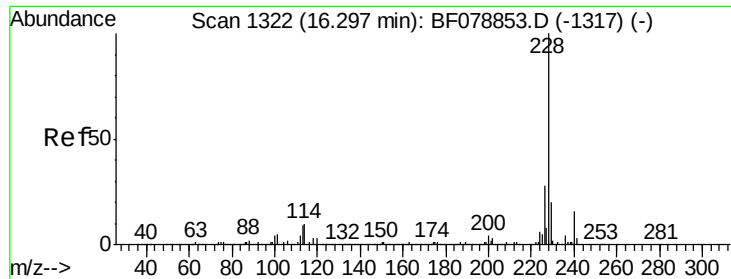


#78  
 Terphenyl-d14  
 Concen: 0.00 ng  
 Expected RT: 14.93 min

Lab File: BF079307.D  
 Acq: 16 May 2015 11:32

Tgt Ion: 244  
 Sig Exp Ratio  
 244 100  
 212 7.0  
 122 13.1





#80

Benzo(a)anthracene

Concen: 2.53 ng

RT: 16.09 min Scan# 1304

Delta R.T. -0.40 min

Lab File: BF079307.D

Acq: 16 May 2015 11:32

Instrument :

BNA\_F

ClientSampleId :

WC-11-D1

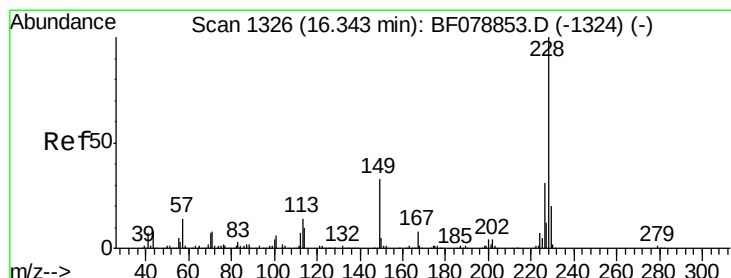
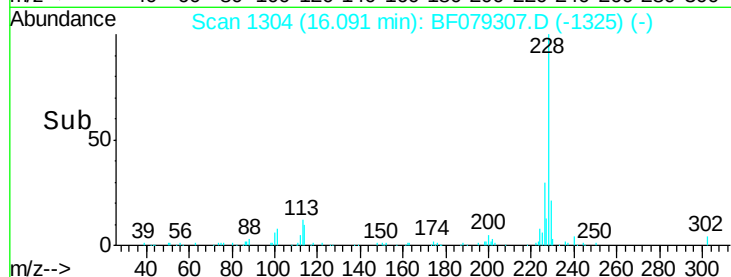
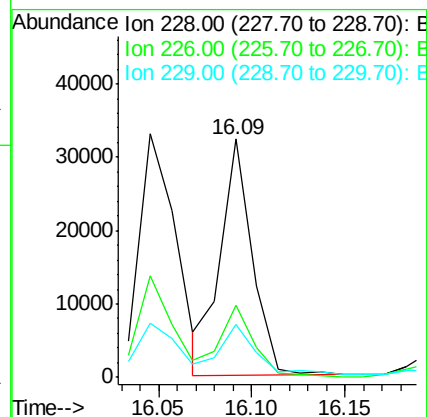
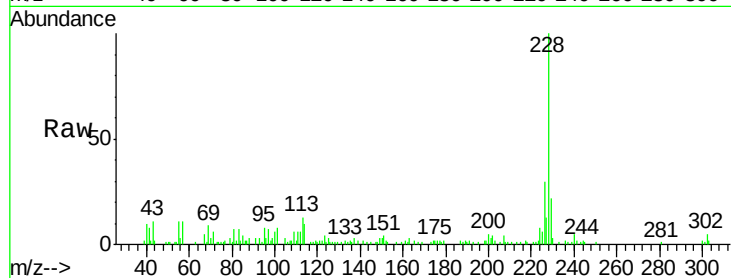
Tgt Ion:228 Resp: 38221

Ion Ratio Lower Upper

228 100

226 30.4 22.3 33.5

229 22.3 16.1 24.1



#82

Chrysene

Concen: 2.62 ng

RT: 16.09 min Scan# 1304

Delta R.T. -0.46 min

Lab File: BF079307.D

Acq: 16 May 2015 11:32

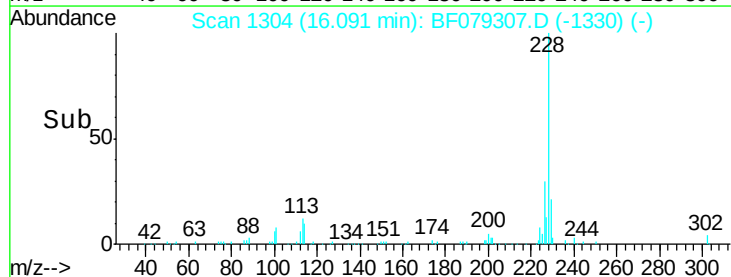
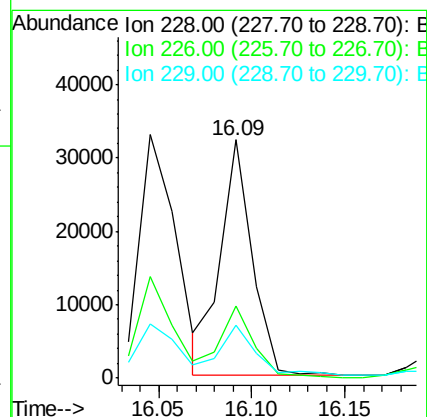
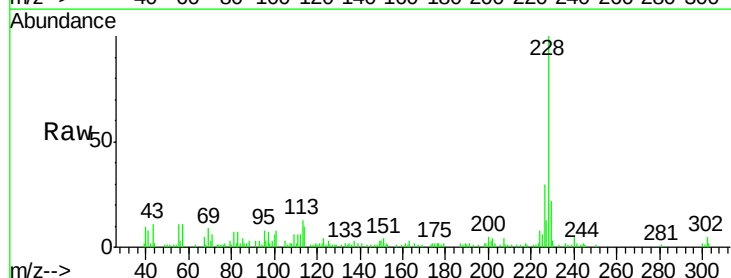
Tgt Ion:228 Resp: 37983

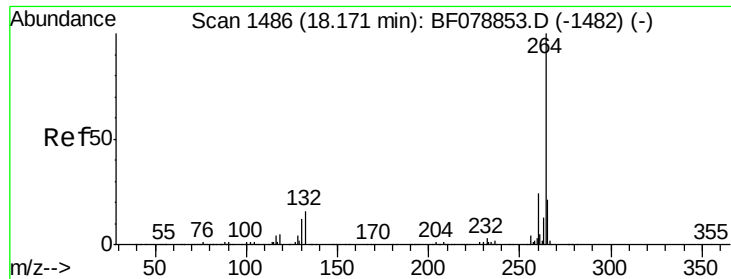
Ion Ratio Lower Upper

228 100

226 30.4 24.8 37.2

229 22.3 16.1 24.1



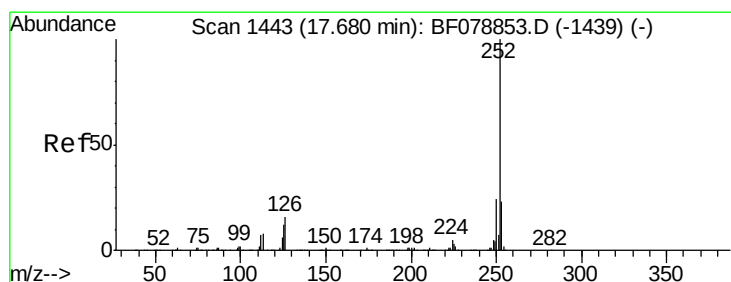
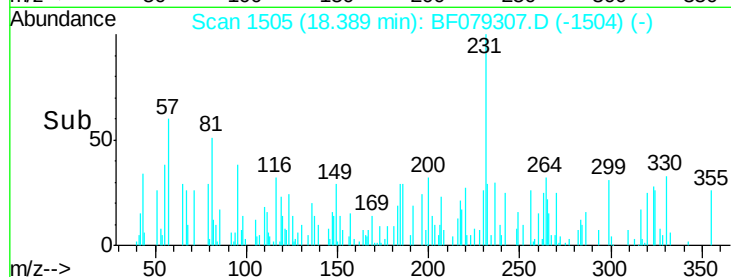
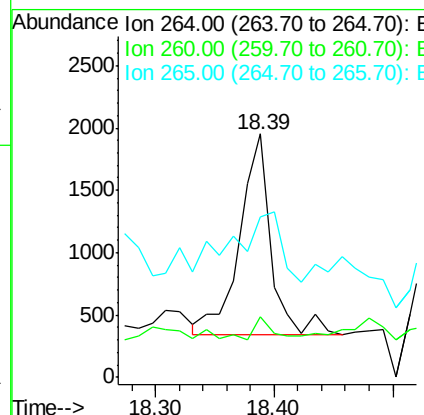
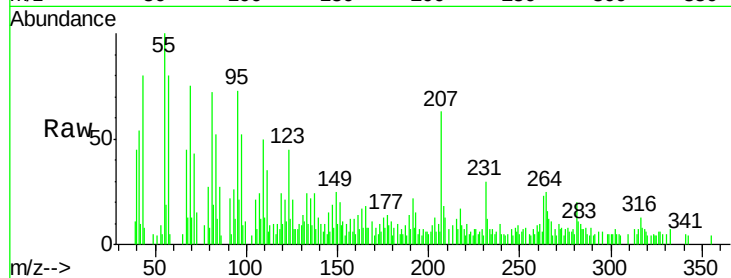


#86  
Perylene-d12  
Concen: 20.00 ng  
RT: 18.39 min Scan# 1505  
Delta R.T. -0.49 min  
Lab File: BF079307.D  
Acq: 16 May 2015 11:32

Instrument :  
BNA\_F  
ClientSampleId :  
WC-11-D1

Tgt Ion: 264 Resp: 2953  

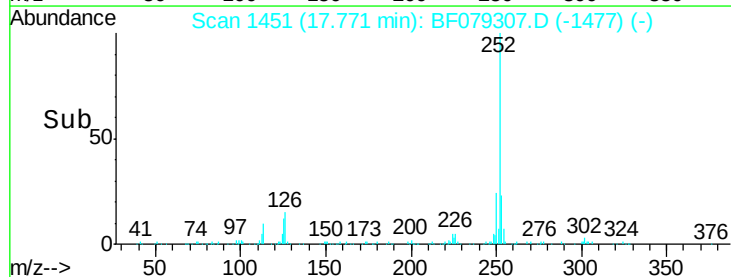
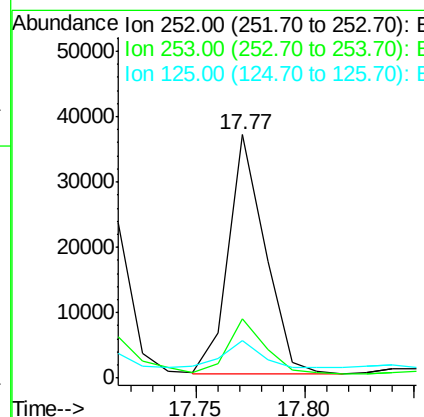
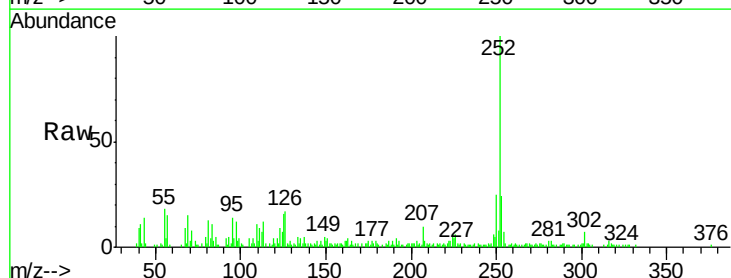
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 264 | 100   |       |       |
| 260 | 25.1  | 19.2  | 28.8  |
| 265 | 65.7  | 17.2  | 25.8# |

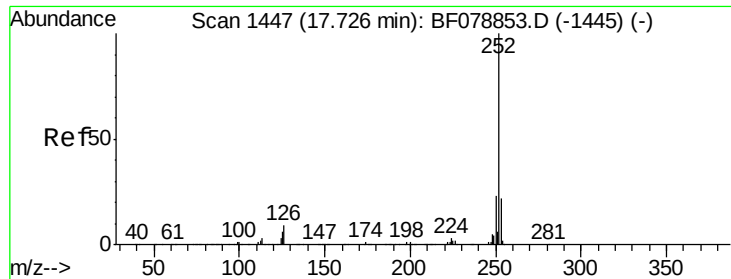


#87  
Benzo(b)fluoranthene  
Concen: 264.41 ng  
RT: 17.77 min Scan# 1451  
Delta R.T. -0.48 min  
Lab File: BF079307.D  
Acq: 16 May 2015 11:32

Tgt Ion: 252 Resp: 42737  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 24.1  | 18.1  | 27.1  |
| 125 | 15.6  | 9.4   | 14.2# |

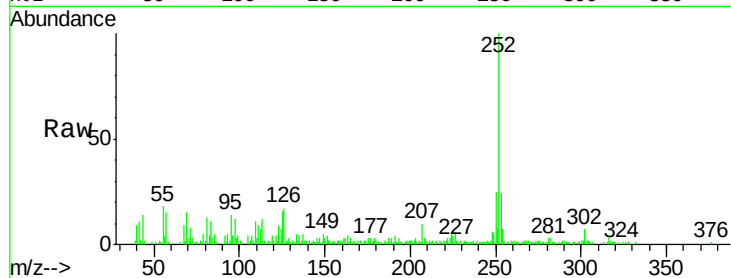




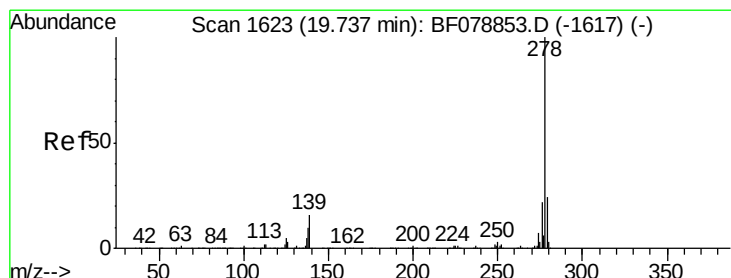
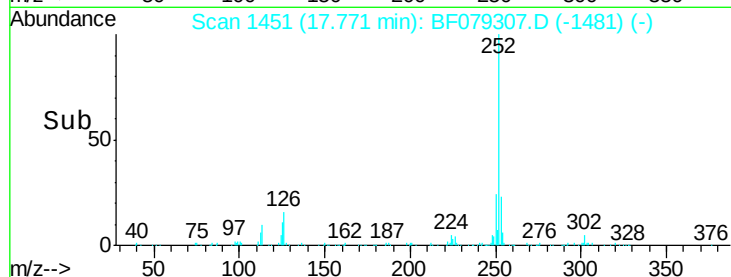
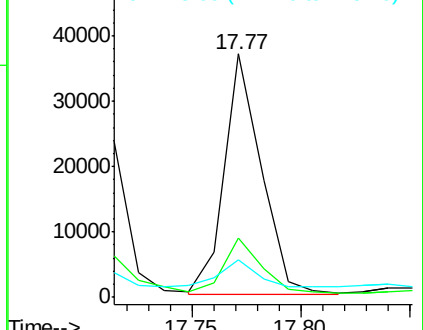
#88  
Benzo(k)fluoranthene  
Concen: 276.22 ng  
RT: 17.77 min Scan# 1451  
Delta R.T. -0.53 min  
Lab File: BF079307.D  
Acq: 16 May 2015 11:32

Instrument :  
BNA\_F  
ClientSampleId :  
WC-11-D1

Tgt Ion: 252 Resp: 43221  
Ion Ratio Lower Upper  
252 100  
253 24.1 17.4 26.0  
125 15.6 6.1 9.1#

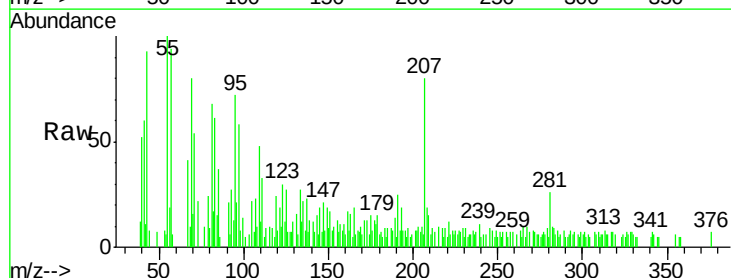


Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E

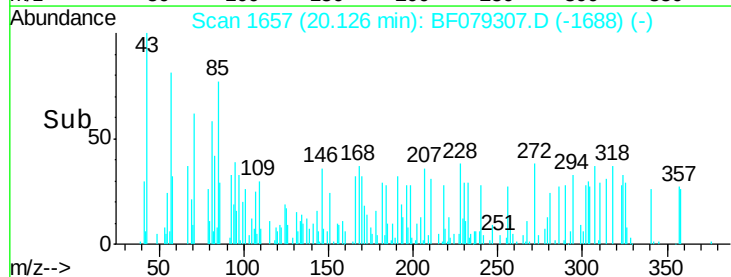
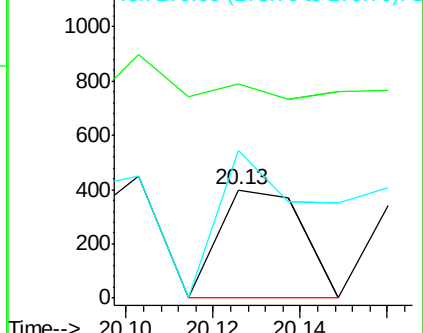


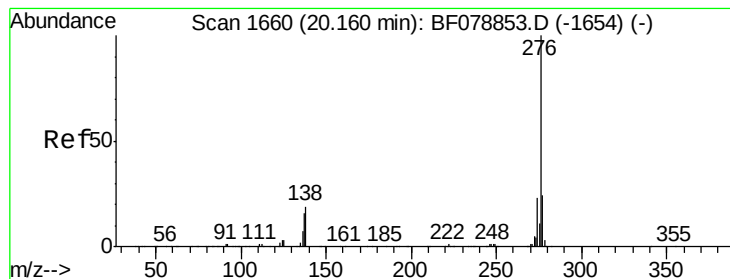
#90  
Dibenzo(a,h)anthracene  
Concen: 3.34 ng  
RT: 20.13 min Scan# 1657  
Delta R.T. -0.56 min  
Lab File: BF079307.D  
Acq: 16 May 2015 11:32

Tgt Ion: 278 Resp: 528  
Ion Ratio Lower Upper  
278 100  
139 197.8 13.1 19.7#  
279 136.3 19.1 28.7#



Abundance Ion 278.00 (277.70 to 278.70): E  
Ion 139.00 (138.70 to 139.70): E  
Ion 279.00 (278.70 to 279.70): E





#91

Benzo(g,h,i)perylene

Concen: 5.32 ng

RT: 20.56 min Scan# 1695

Delta R.T. -0.53 min

Lab File: BF079307.D

Acq: 16 May 2015 11:32

Instrument :

BNA\_F

ClientSampleId :

WC-11-D1

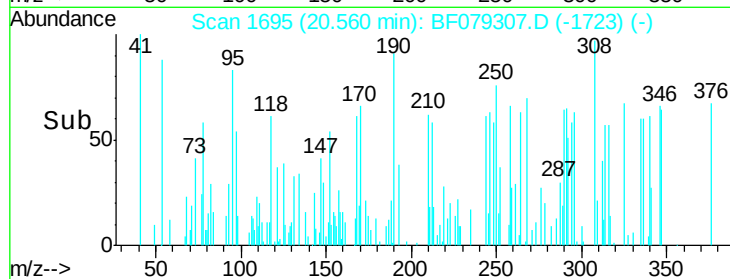
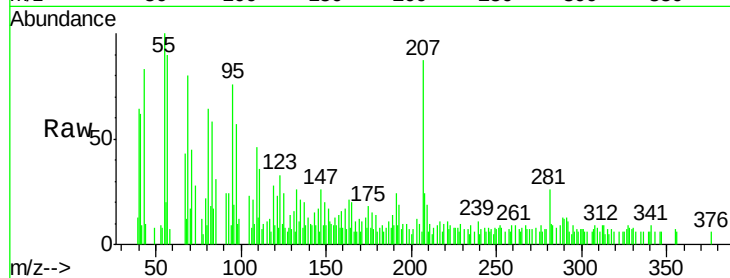
Tgt Ion: 276 Resp: 843

Ion Ratio Lower Upper

276 100

277 71.0 18.8 28.2#

138 108.6 15.2 22.8#



Abundance Ion 276.00 (275.70 to 276.70): E

Ion 277.00 (276.70 to 277.70): E

Ion 138.00 (137.70 to 138.70): E

