

Data Path : Z:\SVOASRV\HPCHEM1\BNA N\DATA\BN030719\  
 Data File : BN004668.D  
 Acq On : 08 Mar 2019 09:32  
 Operator : JU/SJ  
 Sample : K1657-06  
 Misc :  
 ALS Vial : 37 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 DB650

Manual Integrations  
 APPROVED

Sohil  
 3/8/2019 3:59:38 PM

Quant Time: Mar 15 03:41:42 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_N\METHODS\SOM-EPA-BN030719MA.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Mar 08 00:36:35 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.72  | 152  | 39779    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.50 | 136  | 184716   | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.36 | 164  | 119982   | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.11 | 188  | 232064   | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.32 | 240  | 177689   | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 23.57 | 264  | 182016   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |       |       |      |
|--------------------------------|-------|-----|--------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.23  | 96  | 3251   | 4.61  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 6.88  | 99  | 54685  | 16.64 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.06  | 67  | 27775  | 16.20 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.25  | 132 | 49531  | 17.37 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.42  | 113 | 48318  | 16.90 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 8.88  | 128 | 24731  | 17.56 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.59  | 143 | 28842  | 18.04 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.12 | 165 | 53281  | 17.48 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.65 | 131 | 22460  | 6.14  | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 13.77 | 166 | 161157 | 15.53 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.06 | 160 | 196425 | 15.73 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.56 | 143 | 21662  | 11.25 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.36 | 176 | 137345 | 15.58 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.48 | 200 | 22799  | 14.23 | ng/ul | 0.00 |
| 71) Anthracene-d10             | 17.21 | 188 | 204197 | 18.06 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.52 | 212 | 184621 | 21.26 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 23.43 | 264 | 152736 | 15.63 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |         |               | Ovalue |
|----------------------------|-------|-----|---------|---------------|--------|
| 6) Phenol                  | 6.91  | 94  | 3351    | 1.002 ng/ul   | 95     |
| 28) Naphthalene            | 10.56 | 128 | 12826   | 1.333 ng/ul   | 99     |
| 34) 2-Methylnaphthalene    | 12.17 | 142 | 11474   | 1.591 ng/ul   | 98     |
| 41) 1,1'-Biphenyl          | 13.19 | 154 | 39243   | 3.888 ng/ul   | 99     |
| 45) Dimethylphthalate      | 13.82 | 163 | 255492  | 25.100 ng/ul  | 100    |
| 50) Acenaphthene           | 14.43 | 153 | 27980   | 3.354 ng/ul   | 98     |
| 54) Dibenzofuran           | 14.76 | 168 | 17029   | 1.421 ng/ul   | 97     |
| 59) Fluorene               | 15.41 | 166 | 28005   | 2.913 ng/ul   | 99     |
| 70) Phenanthrene           | 17.16 | 178 | 525833  | 40.748 ng/ul  | 99     |
| 72) Anthracene             | 17.25 | 178 | 131403  | 9.966 ng/ul   | 100    |
| 75) Carbazole              | 17.52 | 167 | 73503   | 6.419 ng/ul   | 100    |
| 76) Di-n-butylphthalate    | 18.07 | 149 | 15835   | 1.115 ng/ul   | 99     |
| 77) Fluoranthene           | 19.18 | 202 | 1004023 | 67.483 ng/ul  | 97     |
| 80) Pyrene                 | 19.55 | 202 | 776119  | 72.045 ng/ul  | 98     |
| 83) Benzo(a)anthracene     | 21.30 | 228 | 414347  | 37.067 ng/ul  | 98     |
| 85) Chrysene               | 21.35 | 228 | 366006  | 35.261 ng/ul  | 98     |
| 88) Benzo(b)fluoranthene   | 22.90 | 252 | 504832  | 44.686 ng/ul  | 99     |
| 89) Benzo(k)fluoranthene   | 22.93 | 252 | 202563m | 18.234 ng/ul  |        |
| 91) Benzo(a)pyrene         | 23.48 | 252 | 332079  | 31.247 ng/ul  | 98     |
| 92) Indeno(1,2,3-cd)pyrene | 25.86 | 276 | 264334  | 22.833 ng/ul# | 94     |
| 93) Dibenzo(a,h)anthracene | 25.86 | 278 | 68845   | 7.068 ng/ul#  | 79     |
| 94) Benzo(a,h,i)perylene   | 26.57 | 276 | 219889  | 23.355 ng/ul  | 97     |

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Sample : K1657-06  
Misc :  
ALS Vial : 37 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DB650

Manual Integrations  
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Quant Time: Mar 15 03:41:42 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_N\METHODS\SOM-EPA-BN030719MA.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Fri Mar 08 00:36:35 2019  
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|------|------|----------|------|-------|----------|
|--------------------|------|------|----------|------|-------|----------|

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

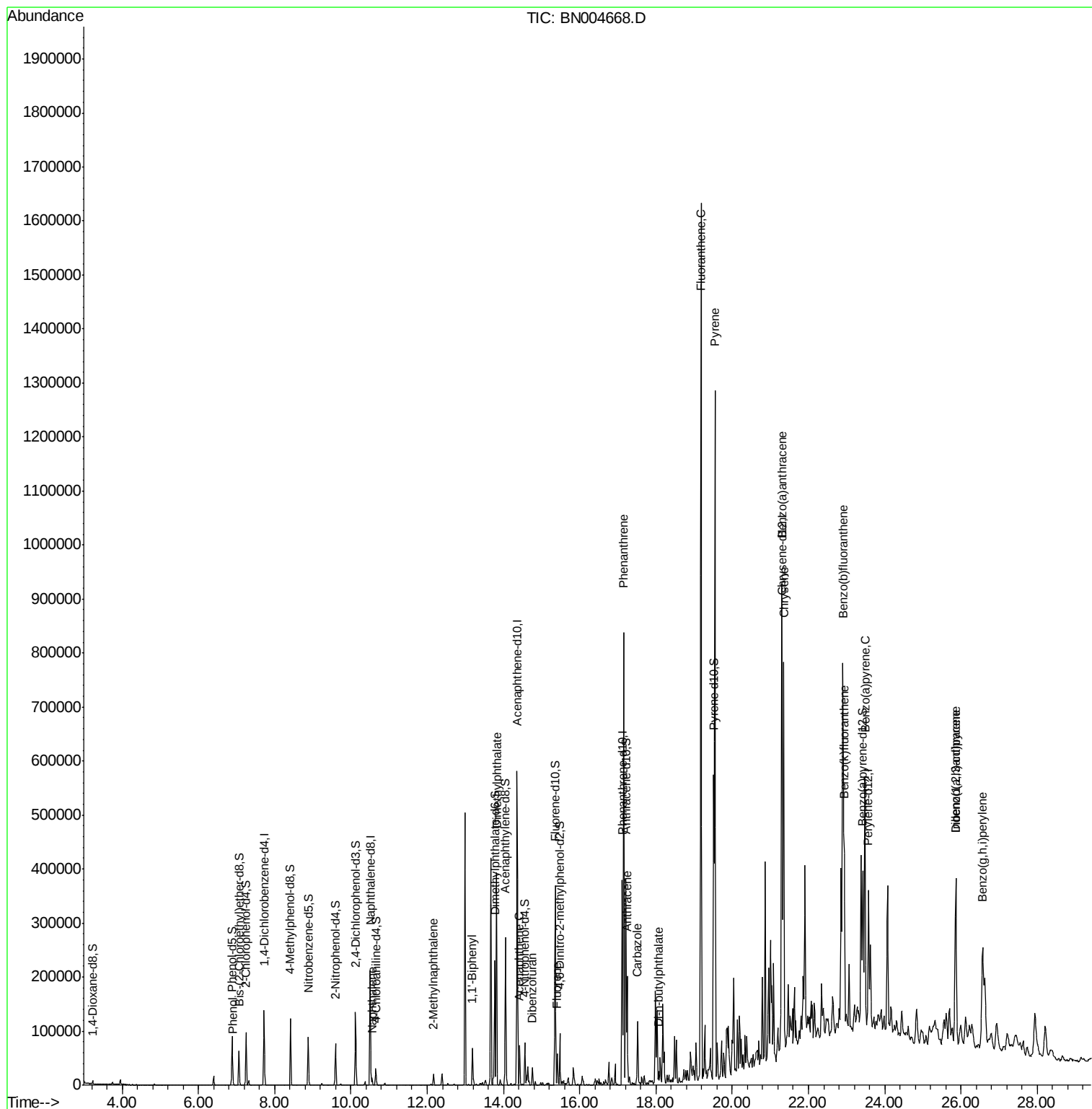
Data Path : Z:\SVOASRV\HPCHEM1\BNA\_N\DATA\BN030719\  
Data File : BN004668.D  
Acq On : 08 Mar 2019 09:32  
Operator : JU/SJ  
Sample : K1657-06  
Misc :  
ALS Vial : 37 Sample Multiplier: 1

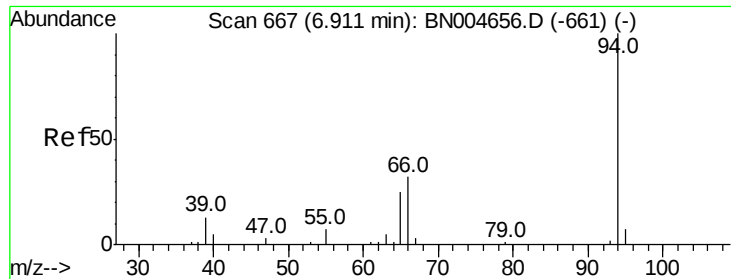
Instrument :  
BNA\_N  
ClientSampleId :  
DB650

Manual Integrations  
APPROVED

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3/8/2019 3:59:38 PM

Quant Time: Mar 15 03:41:42 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_N\METHODS\SOM-EPA-BN030719MA.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Fri Mar 08 00:36:35 2019  
Response via : Initial Calibration





#6

Phenol

Concen: 1.002 ng/ul

RT: 6.91 min Scan# 667

Delta R.T. 0.00 min

Lab File: BN004668.D

Acq: 08 Mar 2019 09:32

Instrument :

BNA\_N

ClientSampled :

DB650

Tot Ion: 94 Resp: 3351

Ion Ratio Lower Upper

94 100

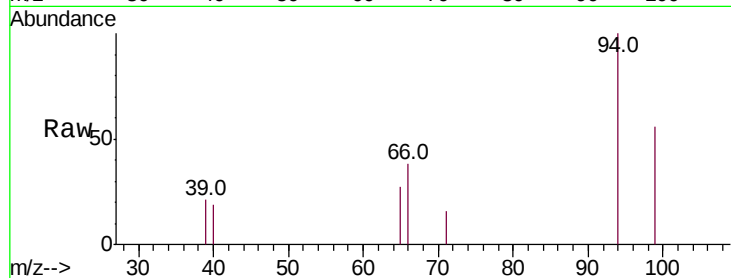
65 27.1 20.2 30.4

66 38.4 28.2 42.2

Manual Integrations  
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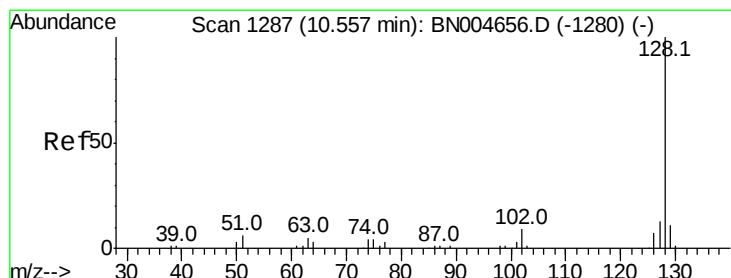
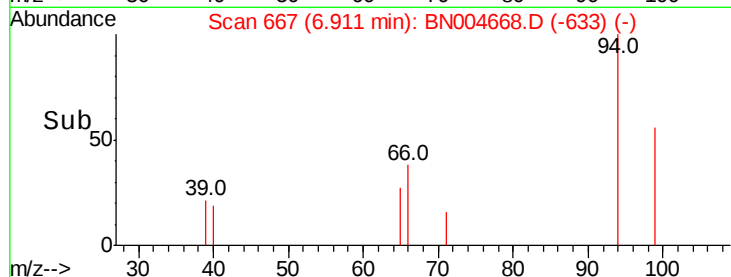
Abundance Ion 94.00 (93.70 to 94.70): BN004656.D (-661) (-)

Ion 65.00 (64.70 to 65.70): BN004656.D (-661) (-)

Ion 66.00 (65.70 to 66.70): BN004656.D (-661) (-)

6.91

Time-->



#28

Naphthalene

Concen: 1.333 ng/ul

RT: 10.56 min Scan# 1287

Delta R.T. 0.00 min

Lab File: BN004668.D

Acq: 08 Mar 2019 09:32

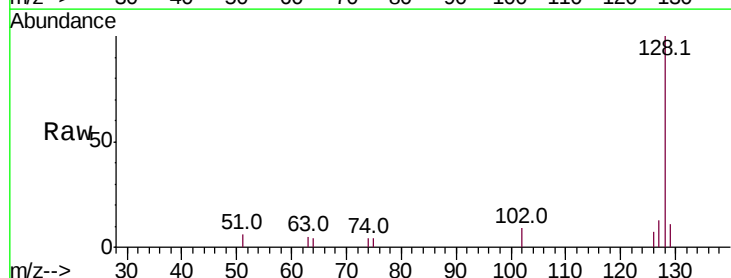
Tgt Ion: 128 Resp: 12826

Ion Ratio Lower Upper

128 100

129 10.8 8.7 13.1

127 13.3 10.2 15.4



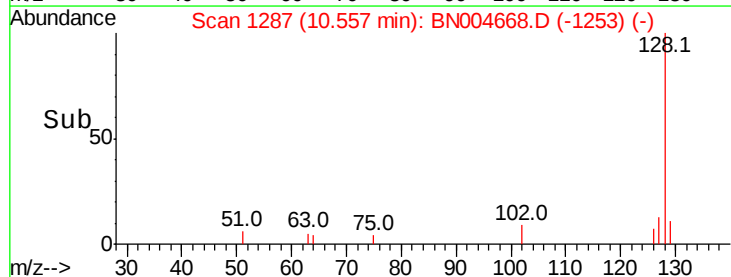
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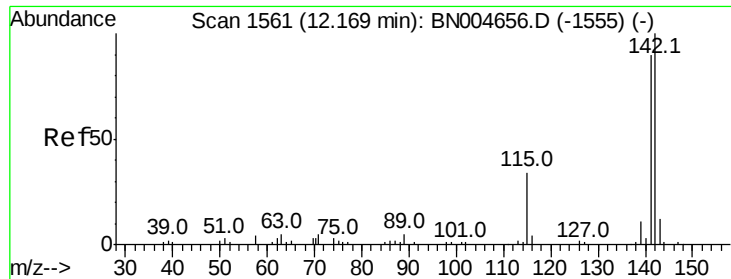
Ion 129.00 (128.70 to 129.70): BN004656.D (-1280) (-)

Ion 127.00 (126.70 to 127.70): BN004656.D (-1280) (-)

10.56

Time-->





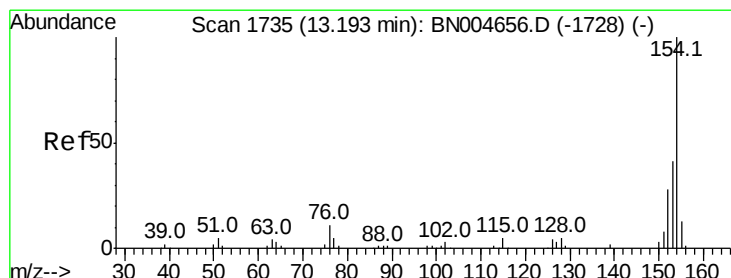
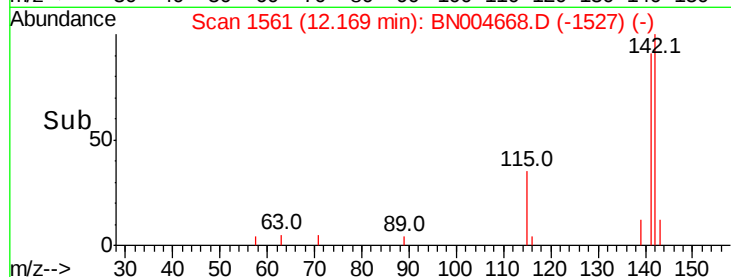
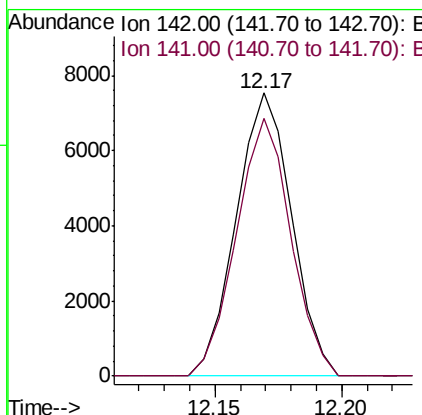
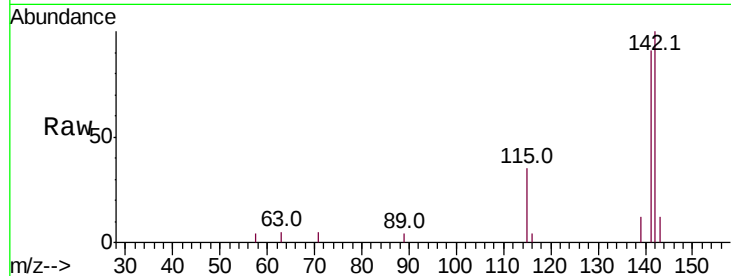
#34  
 2-Methylnaphthalene  
 Concen: 1.591 ng/ul  
 RT: 12.17 min Scan# 1561  
 Delta R.T. 0.00 min  
 Lab File: BN004668.D  
 Acq: 08 Mar 2019 09:32

Instrument :  
 BNA\_N  
 ClientSampleId :  
 DB650

Tot Ion:142 Resp: 11474  
 Ion Ratio Lower Upper  
 142 100  
 141 90.9 71.0 106.6

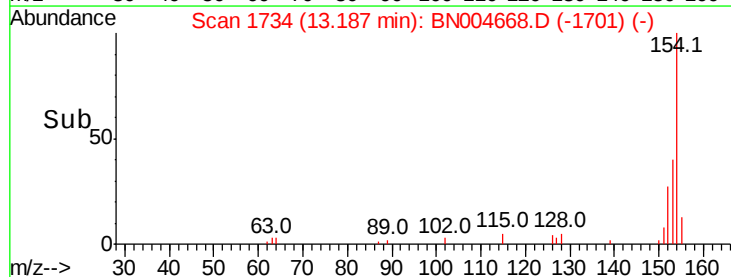
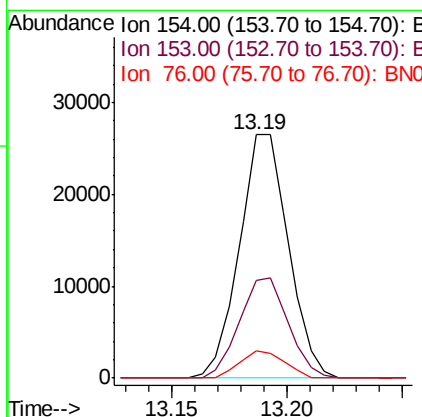
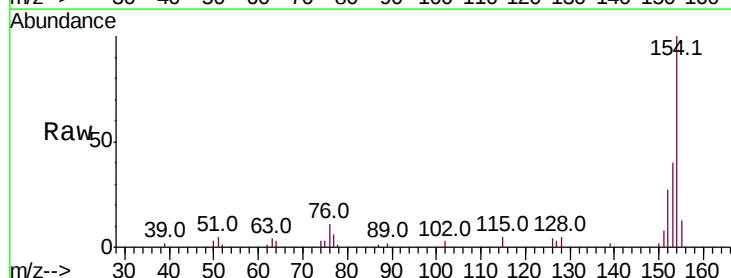
Manual Integrations  
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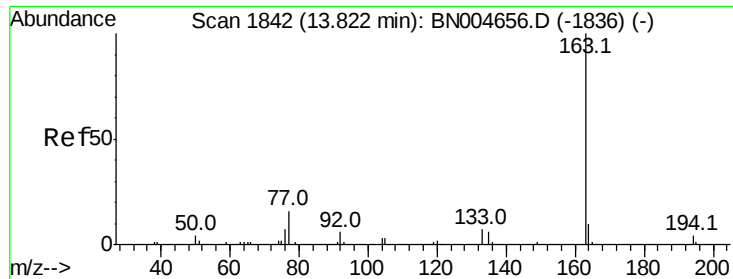
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#41  
 1,1'-Biphenyl  
 Concen: 3.888 ng/ul  
 RT: 13.19 min Scan# 1734  
 Delta R.T. -0.01 min  
 Lab File: BN004668.D  
 Acq: 08 Mar 2019 09:32

Tgt Ion:154 Resp: 39243  
 Ion Ratio Lower Upper  
 154 100  
 153 40.3 32.6 48.8  
 76 11.0 9.2 13.8





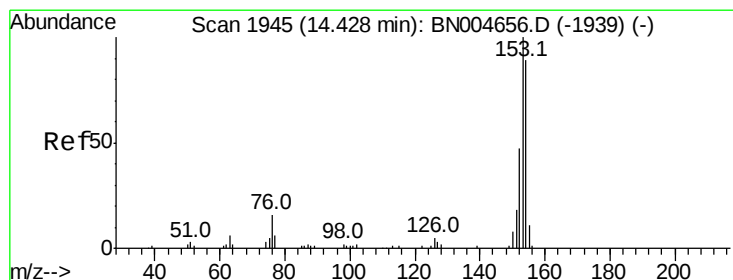
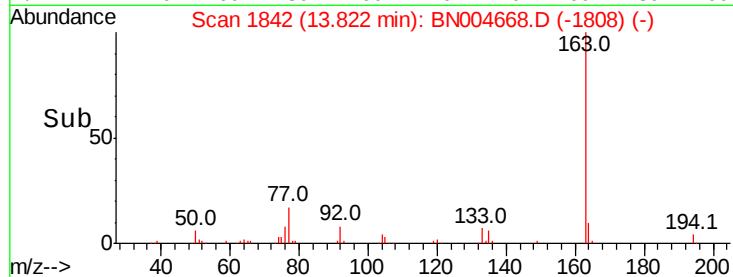
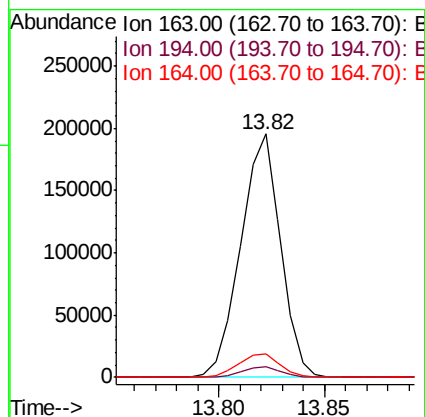
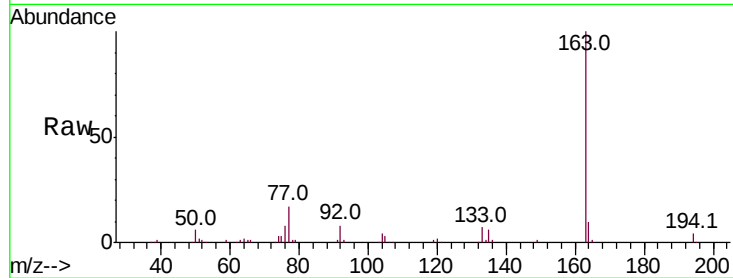
#45  
Dimethylphthalate  
Concen: 25.100 ng/ul  
RT: 13.82 min Scan# 1842  
Delta R.T. 0.00 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

Instrument :  
BNA\_N  
ClientSampleId :  
DB650

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 163     | 100   | 255492 |       |       |
| 194     | 4.4   |        | 3.4   | 5.2   |
| 164     | 9.9   |        | 7.9   | 11.9  |

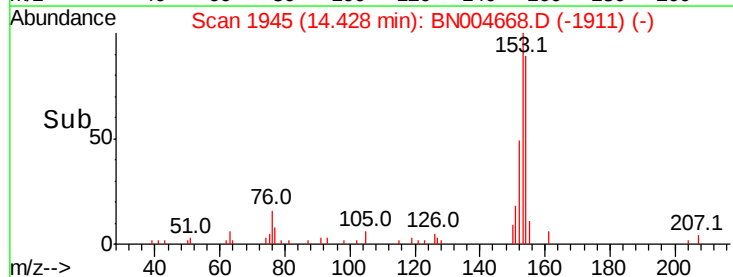
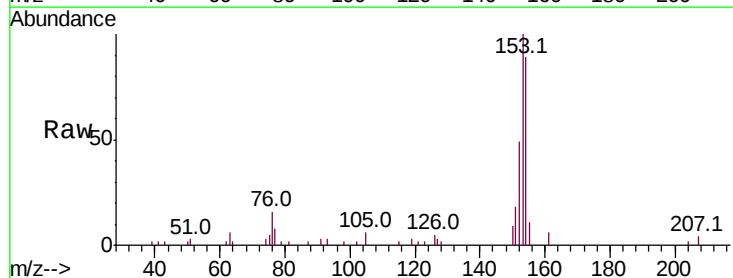
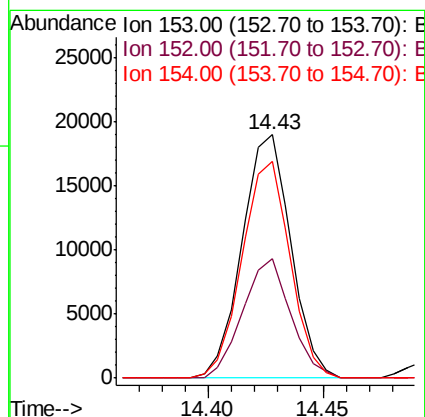
Manual Integrations  
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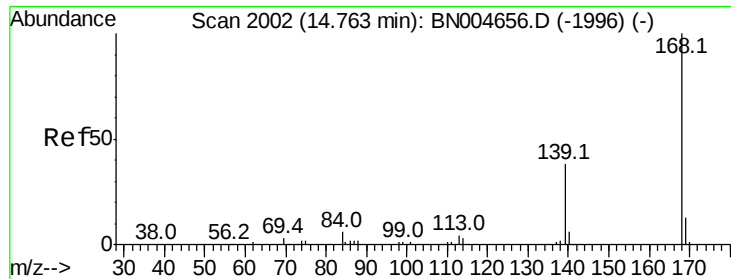
Sohil  
3/8/2019 3:59:38 PM



#50  
Acenaphthene  
Concen: 3.354 ng/ul  
RT: 14.43 min Scan# 1945  
Delta R.T. 0.00 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 153     | 100   | 27980 |       |       |
| 152     | 48.9  |       | 37.8  | 56.6  |
| 154     | 88.8  |       | 70.0  | 105.0 |





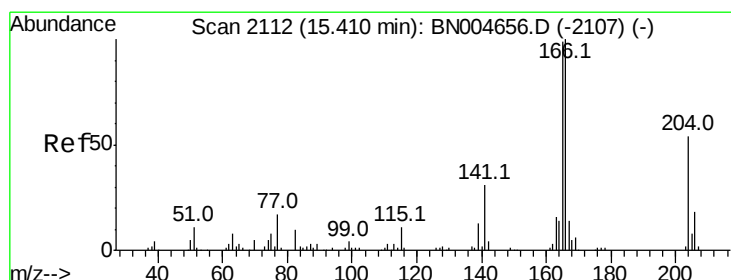
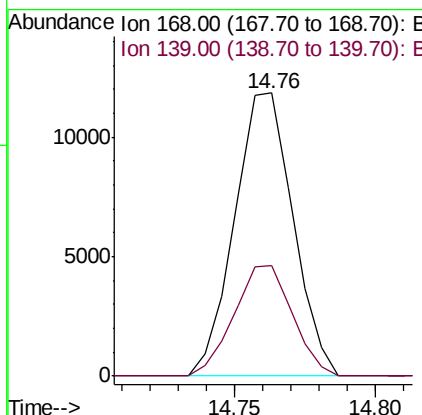
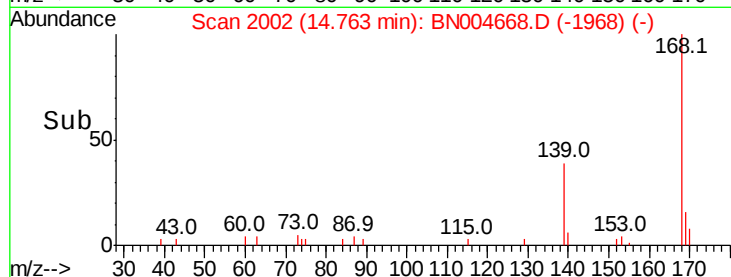
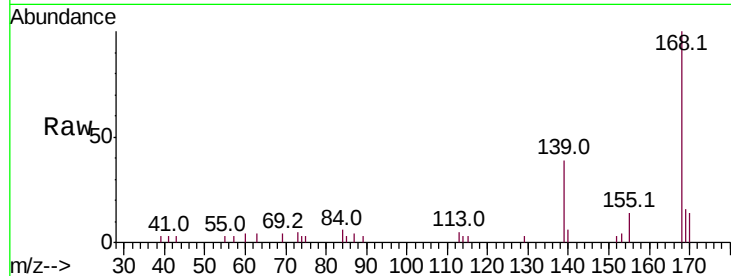
#54  
Dibenzenofuran  
Concen: 1.421 ng/ul  
RT: 14.76 min Scan# 2002  
Delta R.T. 0.00 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

Instrument :  
BNA\_N  
ClientSampleId :  
DB650

Tot Ion:168 Resp: 17029  
Ion Ratio Lower Upper  
168 100  
139 39.2 29.8 44.6

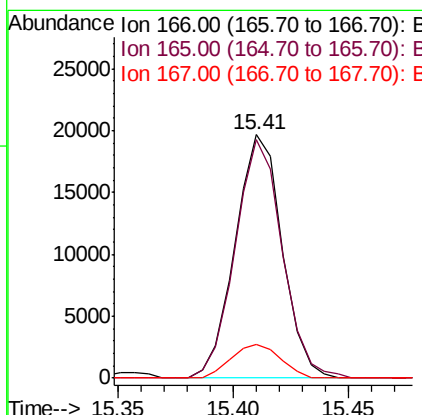
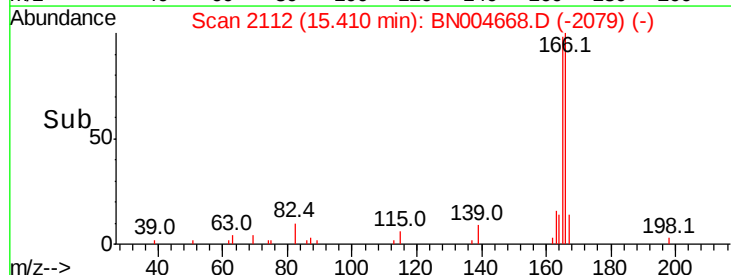
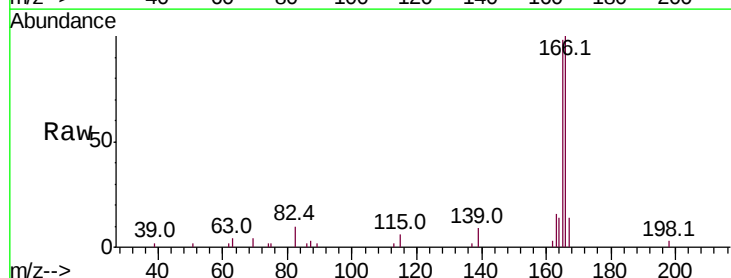
Manual Integrations  
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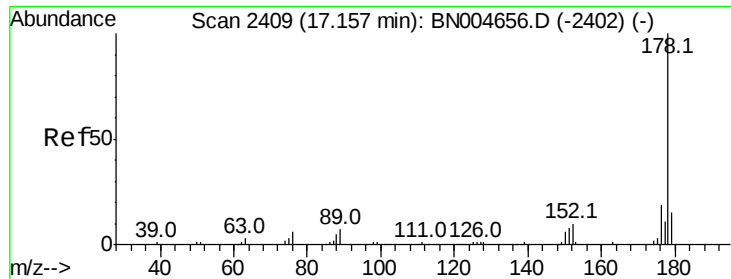
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#59  
Fluorene  
Concen: 2.913 ng/ul  
RT: 15.41 min Scan# 2112  
Delta R.T. -0.01 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

Tgt Ion:166 Resp: 28005  
Ion Ratio Lower Upper  
166 100  
165 98.0 78.0 117.0  
167 14.1 10.8 16.2





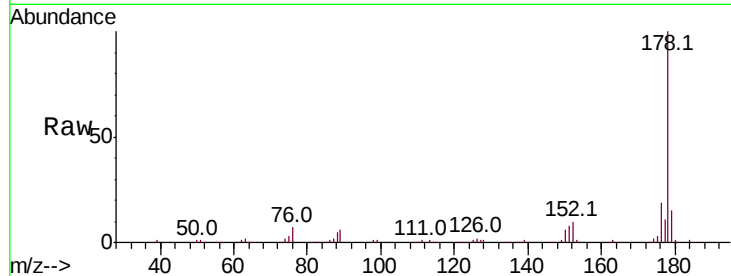
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Phenanthrene  
Concen: 40.748 ng/ul  
RT: 17.16 min Scan# 2409  
Delta R.T. 0.00 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

Instrument :  
BNA\_N  
ClientSampled :  
DB650

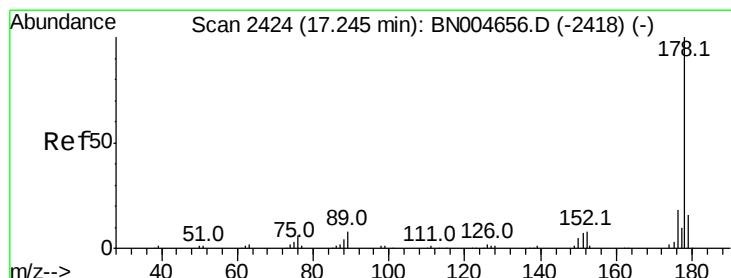
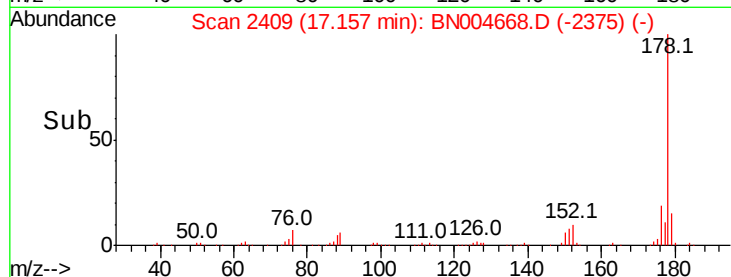
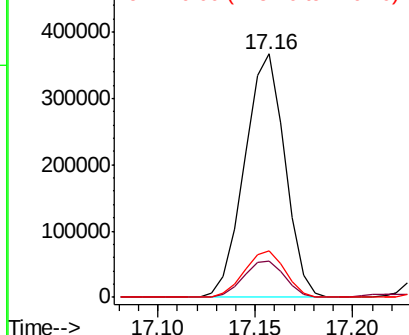
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.1  | 12.3  | 18.5  |
| 176     | 19.0  | 15.4  | 23.0  |

Manual Integrations  
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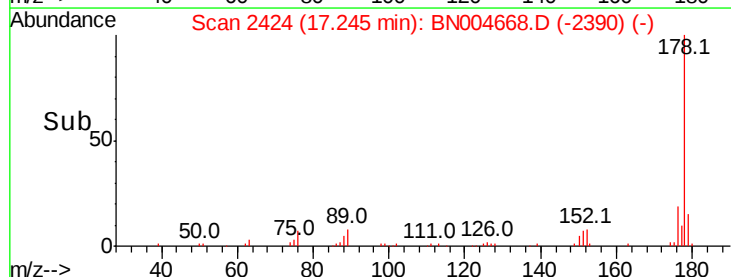
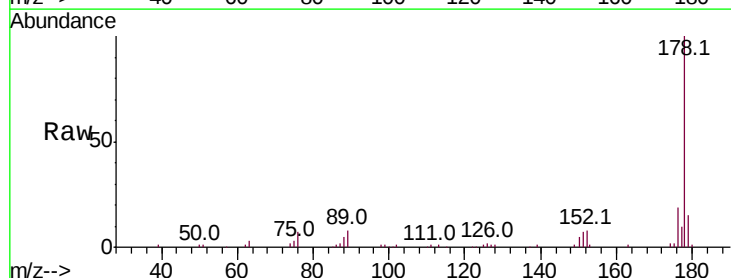
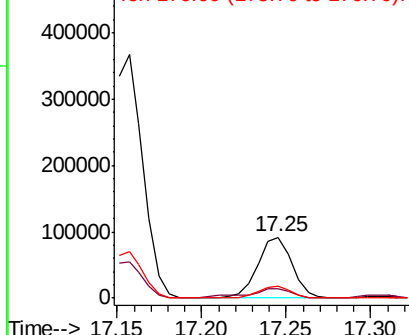
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Ion 179.00 (178.70 to 179.70): E  
Ion 176.00 (175.70 to 176.70): E

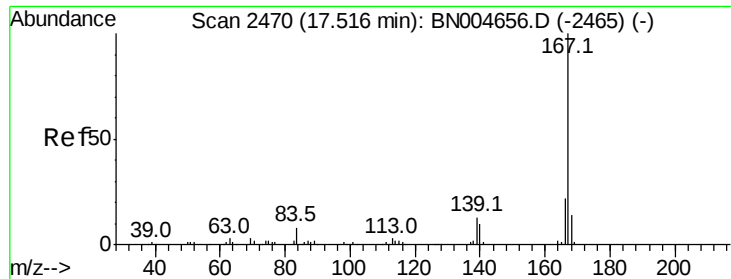


#72  
Anthracene  
Concen: 9.966 ng/ul  
RT: 17.25 min Scan# 2424  
Delta R.T. 0.00 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.2  | 12.2  | 18.4  |
| 176     | 18.6  | 14.9  | 22.3  |

Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 179.00 (178.70 to 179.70): E  
Ion 176.00 (175.70 to 176.70): E





#75

Carbazole

Concen: 6.419 ng/ul

RT: 17.52 min Scan# 2470

Delta R.T. -0.01 min

Lab File: BN004668.D

Acq: 08 Mar 2019 09:32

Instrument :

BNA\_N

ClientSampleId :

DB650

Tot Ion:167 Resp: 73503

Ion Ratio Lower Upper

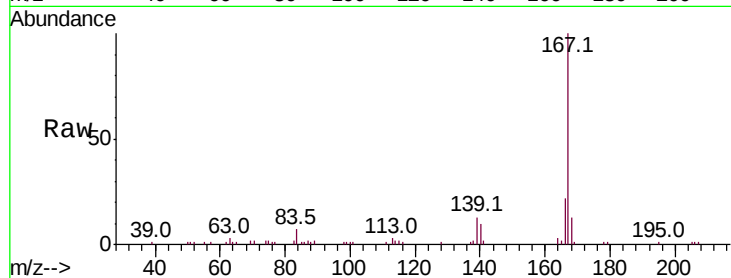
167 100

166 21.7 17.5 26.3

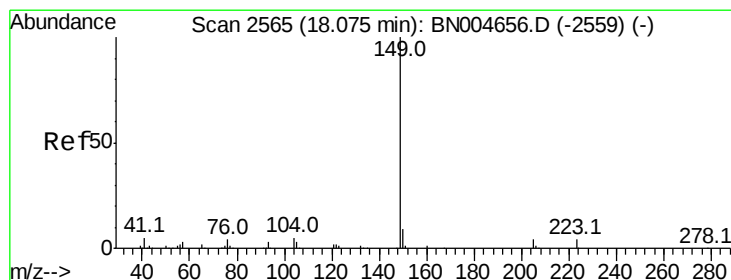
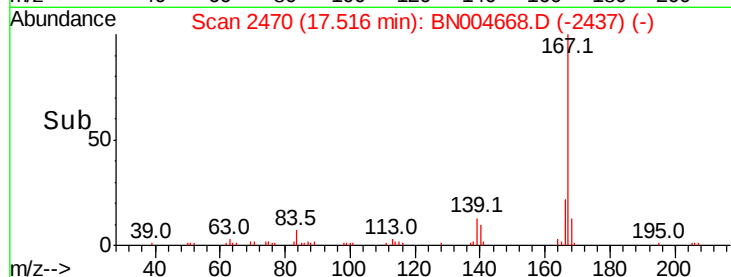
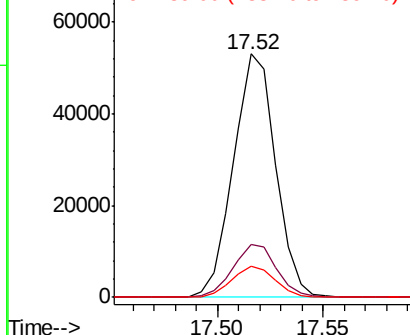
139 13.0 10.4 15.6

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Abundance Ion 167.00 (166.70 to 167.70): E  
Ion 166.00 (165.70 to 166.70): E  
Ion 139.00 (138.70 to 139.70): E



#76

Di-n-butylphthalate

Concen: 1.115 ng/ul

RT: 18.07 min Scan# 2564

Delta R.T. -0.01 min

Lab File: BN004668.D

Acq: 08 Mar 2019 09:32

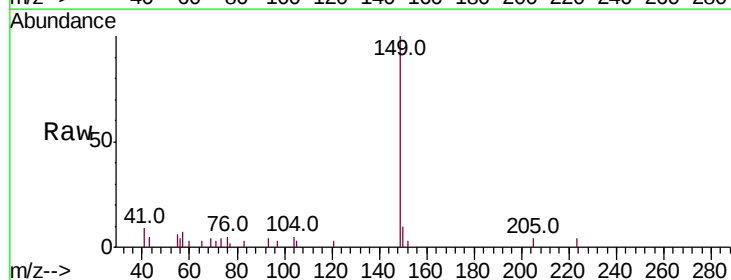
Tgt Ion:149 Resp: 15835

Ion Ratio Lower Upper

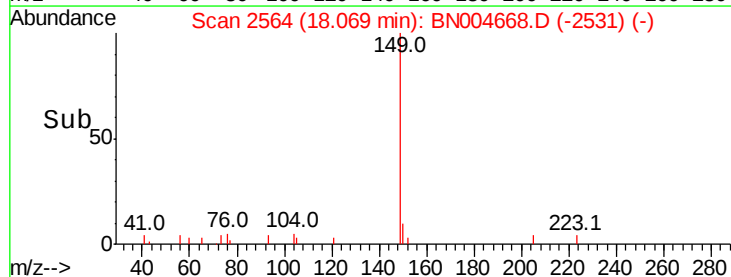
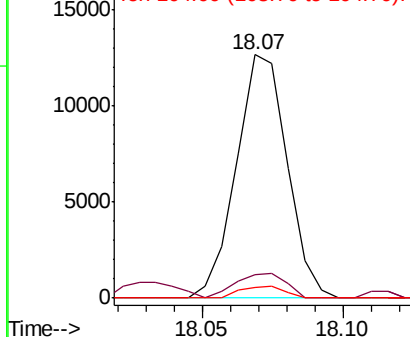
149 100

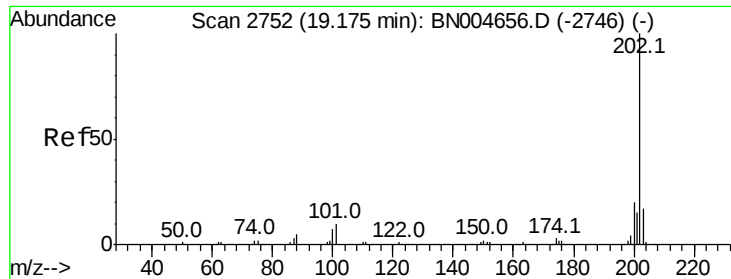
150 9.7 7.4 11.0

104 4.6 3.7 5.5



Abundance Ion 149.00 (148.70 to 149.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 104.00 (103.70 to 104.70): E





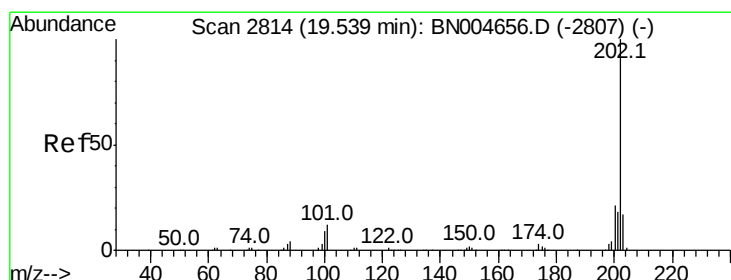
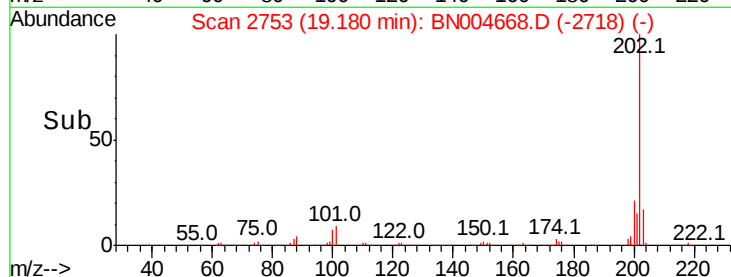
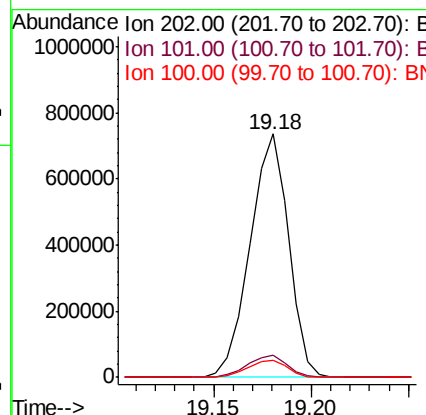
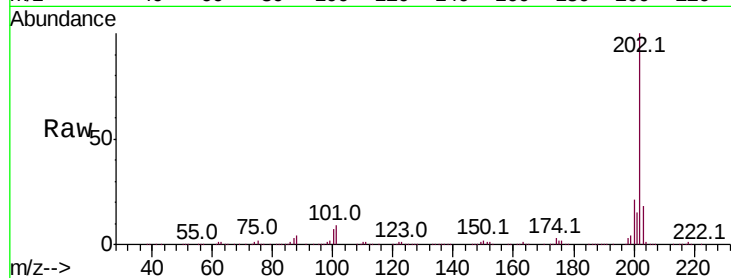
#77  
**Fluoranthene**  
 Concen: 67.483 ng/ul  
 RT: 19.18 min Scan# 2753  
 Delta R.T. 0.01 min  
 Lab File: BN004668.D  
 Acq: 08 Mar 2019 09:32

Instrument :  
 BNA\_N  
 ClientSampled :  
 DB650

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 9.0   | 8.2   | 12.4  |
| 100     | 7.0   | 6.6   | 9.8   |

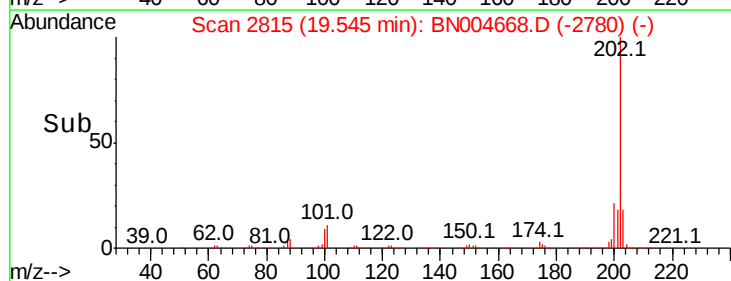
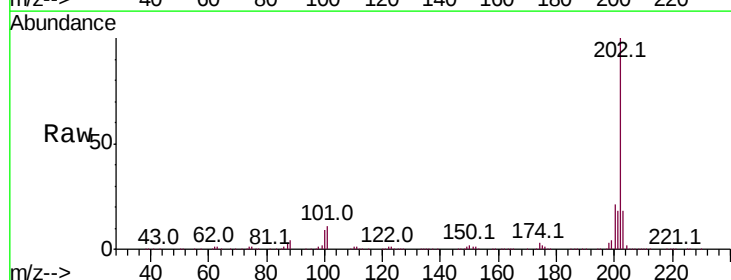
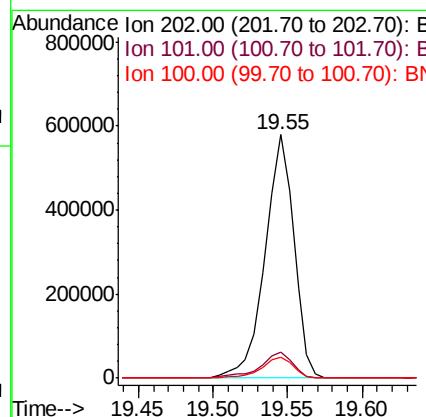
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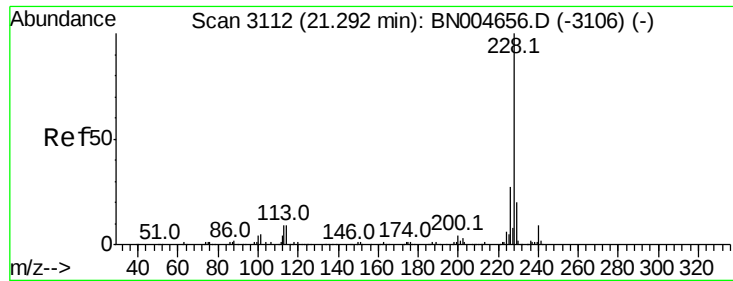
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#80  
**Pyrene**  
 Concen: 72.045 ng/ul  
 RT: 19.55 min Scan# 2815  
 Delta R.T. 0.01 min  
 Lab File: BN004668.D  
 Acq: 08 Mar 2019 09:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 10.6  | 9.2   | 13.8  |
| 100     | 8.8   | 7.5   | 11.3  |





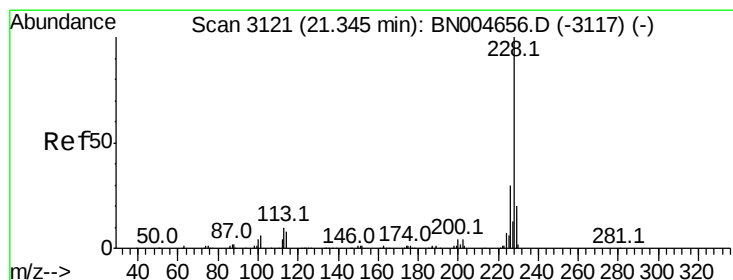
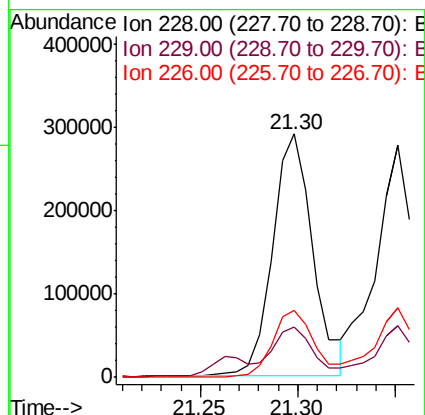
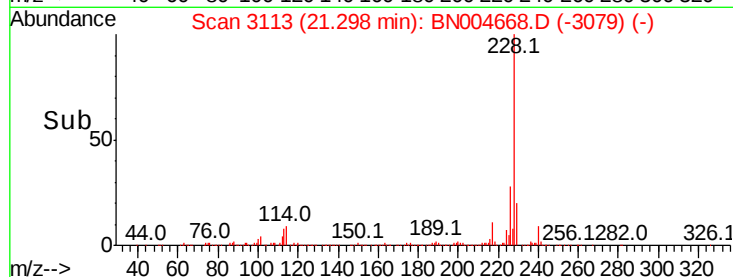
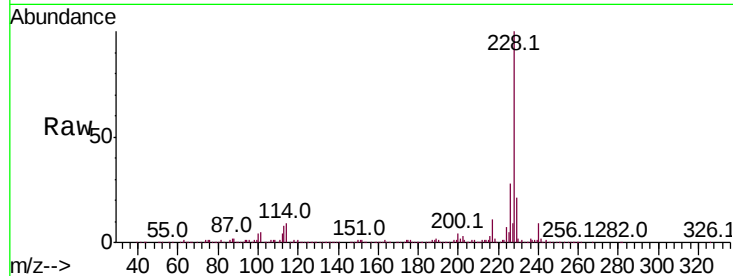
#83  
Benzo(a)anthracene  
Concen: 37.067 ng/ul  
RT: 21.30 min Scan# 3113  
Delta R.T. 0.00 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

Instrument :  
BNA\_N  
ClientSampled :  
DB650

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 20.8  | 15.4  | 23.2  |
| 226     | 27.8  | 21.4  | 32.2  |

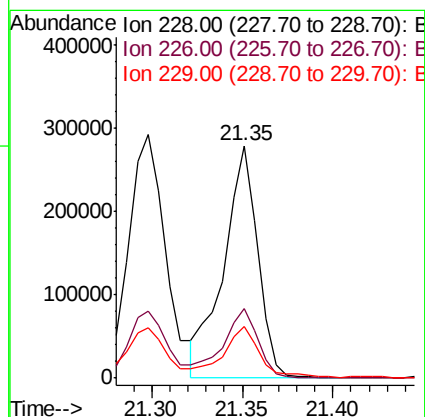
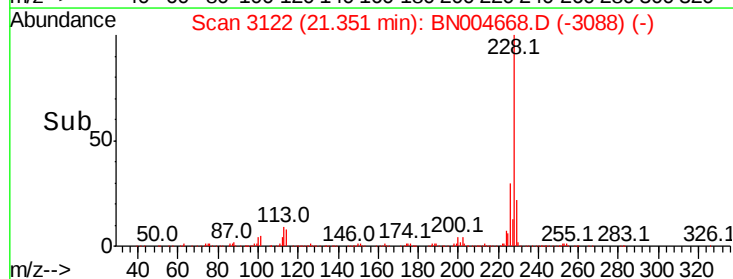
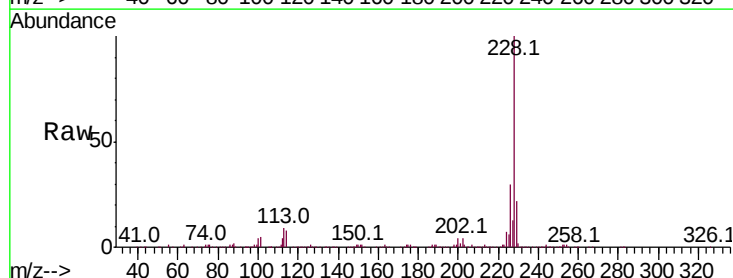
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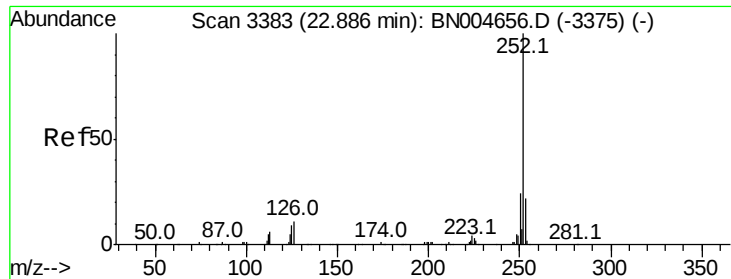
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#85  
Chrysene  
Concen: 35.261 ng/ul  
RT: 21.35 min Scan# 3122  
Delta R.T. 0.00 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 30.1  | 24.0  | 36.0  |
| 229     | 22.3  | 15.7  | 23.5  |





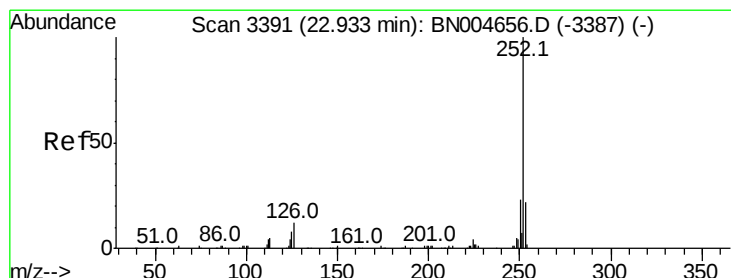
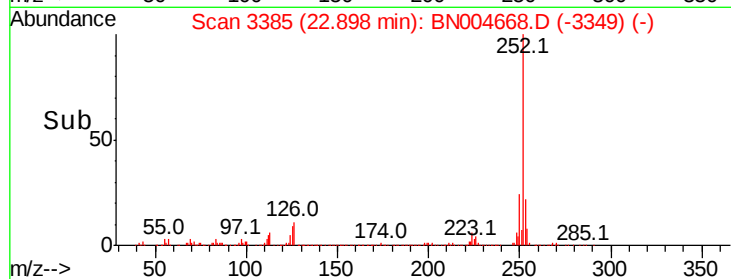
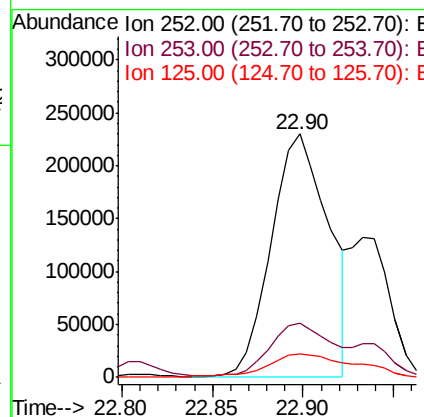
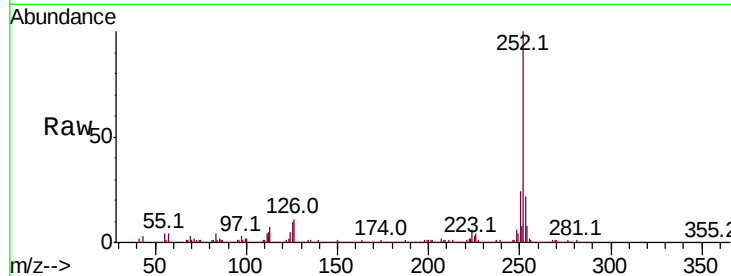
#88  
Benzo(b)fluoranthene  
Concen: 44.686 ng/u1  
RT: 22.90 min Scan# 3385  
Delta R.T. 0.01 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

Instrument :  
BNA\_N  
ClientSampleId :  
DB650

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.5  | 17.7  | 26.5  |
| 125     | 9.5   | 7.4   | 11.2  |

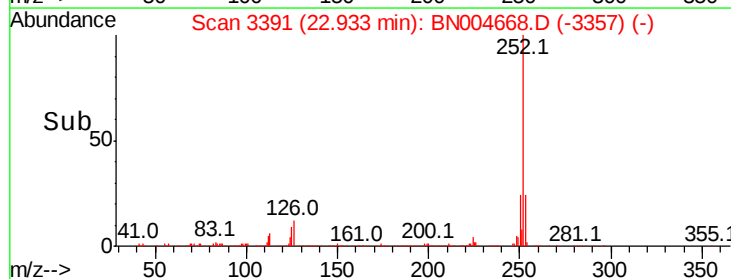
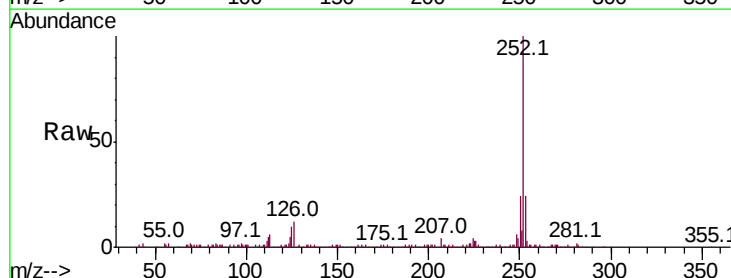
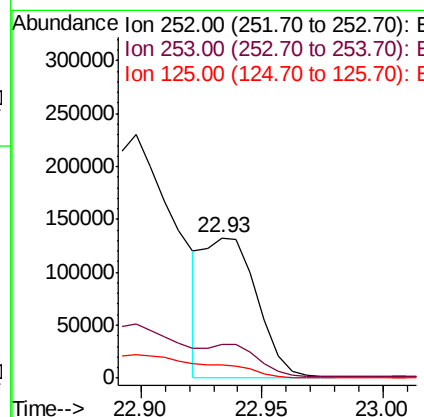
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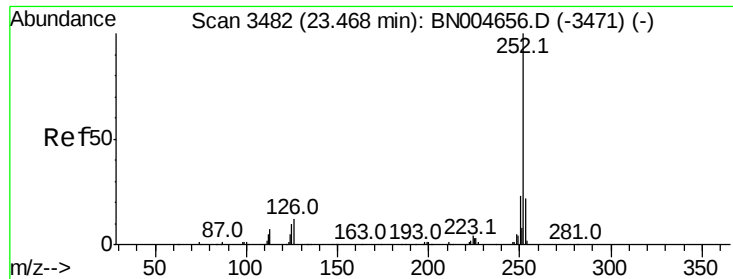
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#89  
Benzo(k)fluoranthene  
Concen: 18.234 ng/u1 m  
RT: 22.93 min Scan# 3391  
Delta R.T. 0.00 min  
Lab File: BN004668.D  
Acq: 08 Mar 2019 09:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.0  | 17.4  | 26.2  |
| 125     | 9.6   | 7.4   | 11.0  |





#91

Benzo(a)pyrene

Concen: 31.247 ng/ul

RT: 23.48 min Scan# 3484

Delta R.T. 0.01 min

Lab File: BN004668.D

Acq: 08 Mar 2019 09:32

Instrument :

BNA\_N

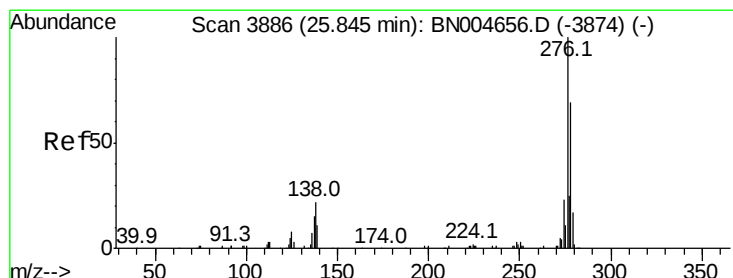
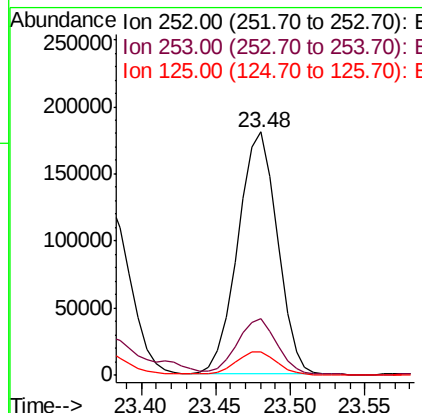
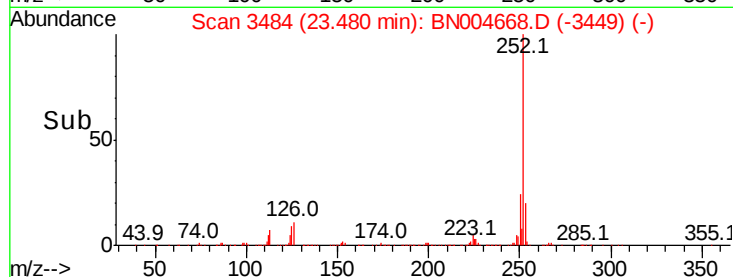
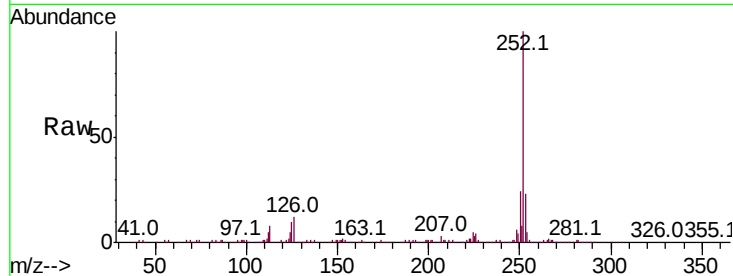
ClientSampled :

DB650

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 252   | Resp: | 332079 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 23.1  | 17.6  | 26.4   |
| 125       | 9.6   | 8.4   | 12.6   |

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#92

Indeno(1,2,3-cd)pyrene

Concen: 22.833 ng/ul

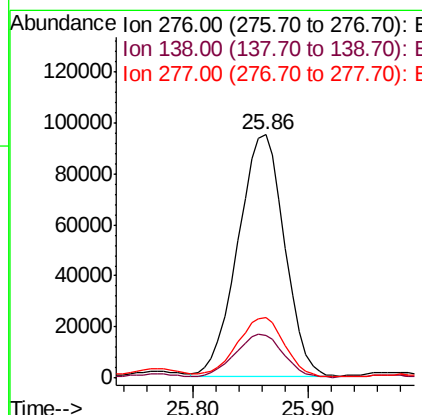
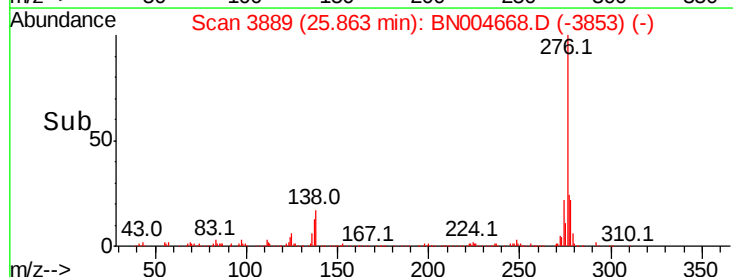
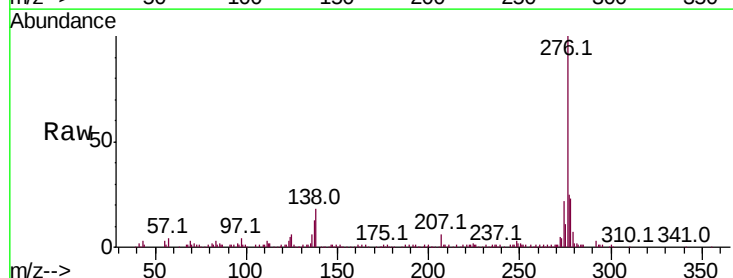
RT: 25.86 min Scan# 3889

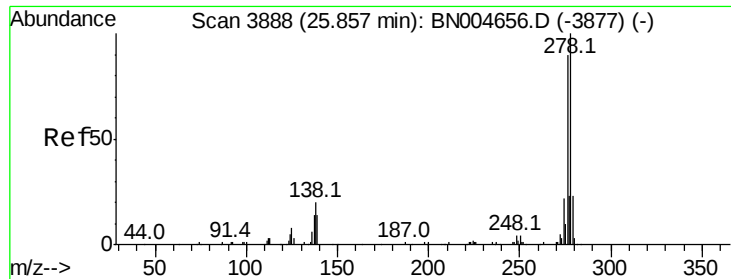
Delta R.T. 0.01 min

Lab File: BN004668.D

Acq: 08 Mar 2019 09:32

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 276   | Resp: | 264334 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 17.7  | 18.7  | 28.1#  |
| 277       | 24.9  | 19.8  | 29.8   |





#93

Dibenzo(a,h)anthracene

Concen: 7.068 ng/u1

RT: 25.86 min Scan# 3889

Delta R.T. 0.00 min

Lab File: BN004668.D

Acq: 08 Mar 2019 09:32

Instrument :

BNA\_N

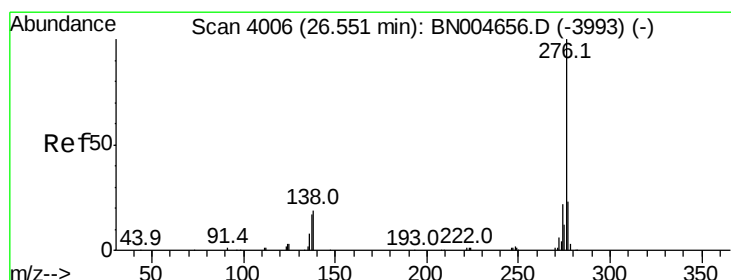
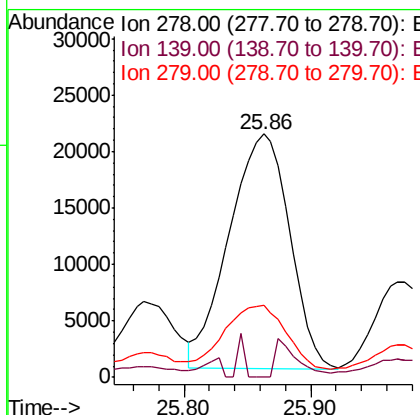
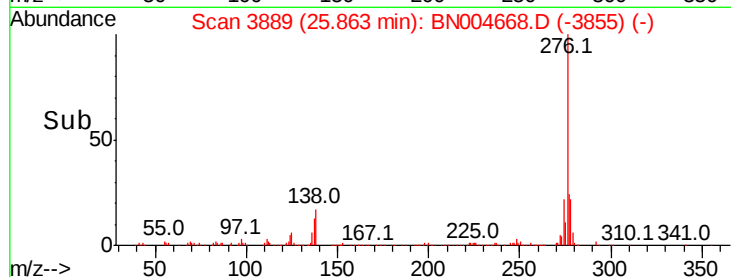
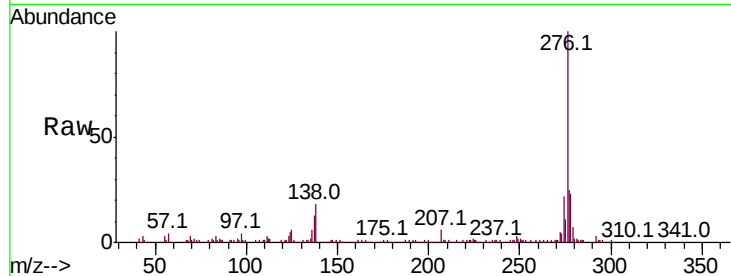
ClientSampled :

DB650

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 278   | Resp: | 68845 |
| Ion Ratio | Lower | Upper |       |
| 278       | 100   |       |       |
| 139       | 0.0   | 12.4  | 18.6# |
| 279       | 29.4  | 19.3  | 28.9# |

Manual Integrations  
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#94

Benzo(g,h,i)perylene

Concen: 23.355 ng/u1

RT: 26.57 min Scan# 4009

Delta R.T. 0.01 min

Lab File: BN004668.D

Acq: 08 Mar 2019 09:32

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 276   | Resp: | 219889 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 18.9  | 16.7  | 25.1   |
| 277       | 24.5  | 19.0  | 28.6   |

