

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_N\DATA\BN042319\  
 Data File : BN005243.D  
 Acq On : 24 Apr 2019 08:18  
 Operator : JU/SJ  
 Sample : K2402-10 10X  
 Misc :  
 ALS Vial : 32 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 GAHJO

Manual Integrations  
 APPROVED

Sohil  
 4/25/2019 6:35:49 PM

Quant Time: Apr 26 23:06:07 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_N\METHODS\SOM-EPA-BN041919MA.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Tue Apr 23 03:50:45 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.60  | 152  | 620530   | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.37 | 136  | 2452187  | 20.00 | ng/ul | 0.01     |
| 35) Acenaphthene-d10      | 14.23 | 164  | 1395778  | 20.00 | ng/ul | 0.00     |
| 61) Phenanthrene-d10      | 16.99 | 188  | 2669229  | 20.00 | ng/ul | 0.00     |
| 77) Chrysene-d12          | 21.22 | 240  | 2154102  | 20.00 | ng/ul | 0.00     |
| 85) Perylene-d12          | 23.42 | 264  | 2501318  | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |      |       |      |
|--------------------------------|-------|-----|--------|------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.22  | 96  | 13845  | 1.08 | ng/uL | 0.00 |
| 5) Phenol-d5                   | 6.78  | 99  | 85162  | 1.75 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 6.95  | 67  | 59560  | 1.96 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.13  | 132 | 68333  | 1.83 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.29  | 113 | 43758  | 1.15 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 8.74  | 128 | 40423  | 2.68 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.46  | 143 | 32827  | 2.15 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 9.99  | 165 | 67363  | 1.92 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.49 | 131 | 116763 | 3.23 | ng/ul | 0.00 |
| 43) Dimethylphthalate-d6       | 13.65 | 166 | 276456 | 2.73 | ng/ul | 0.00 |
| 46) Acenaphthylene-d8          | 13.93 | 160 | 306908 | 2.47 | ng/ul | 0.01 |
| 51) 4-Nitrophenol-d4           | 14.44 | 143 | 34559  | 2.16 | ng/ul | 0.00 |
| 57) Fluorene-d10               | 15.23 | 176 | 216944 | 2.55 | ng/ul | 0.00 |
| 62) 4,6-Dinitro-2-methylphenol | 15.38 | 200 | 3841m  | 0.32 | ng/ul | 0.03 |
| 70) Anthracene-d10             | 17.09 | 188 | 287815 | 2.57 | ng/ul | 0.00 |
| 78) Pyrene-d10                 | 19.40 | 212 | 295157 | 2.68 | ng/ul | 0.00 |
| 89) Benzo(a)pyrene-d12         | 23.27 | 264 | 280645 | 2.57 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |           |         |        | Qvalue |
|----------------------------|-------|-----|-----------|---------|--------|--------|
| 28) Naphthalene            | 10.42 | 128 | 39441340m | 345.982 | ng/ul  |        |
| 34) 2-Methylnaphthalene    | 12.05 | 142 | 32580969m | 390.328 | ng/ul  |        |
| 40) 1,1'-Biphenyl          | 13.06 | 154 | 5157207   | 49.589  | ng/ul  | 100    |
| 47) Acenaphthylene         | 13.96 | 152 | 17424920  | 142.479 | ng/ul# | 84     |
| 49) Acenaphthene           | 14.30 | 153 | 1849746   | 22.155  | ng/ul  | 98     |
| 53) Dibenzofuran           | 14.63 | 168 | 2181950   | 18.151  | ng/ul  | 95     |
| 58) Fluorene               | 15.30 | 166 | 9258810   | 98.707  | ng/ul  | 98     |
| 69) Phenanthrene           | 17.03 | 178 | 21607731m | 166.219 | ng/ul  |        |
| 71) Anthracene             | 17.13 | 178 | 8027715   | 60.620  | ng/ul  | 99     |
| 74) Carbazole              | 17.39 | 167 | 314618    | 2.766   | ng/ul# | 92     |
| 76) Fluoranthene           | 19.06 | 202 | 7873302   | 54.604  | ng/ul  | 99     |
| 79) Pyrene                 | 19.43 | 202 | 11544463  | 83.236  | ng/ul  | 99     |
| 82) Benzo(a)anthracene     | 21.20 | 228 | 4326208m  | 32.283  | ng/ul  |        |
| 84) Chrysene               | 21.25 | 228 | 3686791   | 29.643  | ng/ul  | 98     |
| 87) Benzo(b)fluoranthene   | 22.77 | 252 | 2295830   | 16.328  | ng/ul  | 99     |
| 88) Benzo(k)fluoranthene   | 22.80 | 252 | 761358m   | 5.670   | ng/ul  |        |
| 90) Benzo(a)pyrene         | 23.32 | 252 | 2819619   | 21.334  | ng/ul  | 98     |
| 91) Indeno(1,2,3-cd)pyrene | 25.59 | 276 | 994701    | 6.807   | ng/ul  | 96     |
| 92) Dibenzo(a,h)anthracene | 25.60 | 278 | 332135    | 2.678   | ng/ul  | 93     |
| 93) Benzo(g,h,i)perylene   | 26.25 | 276 | 835058    | 6.911   | ng/ul  | 99     |

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

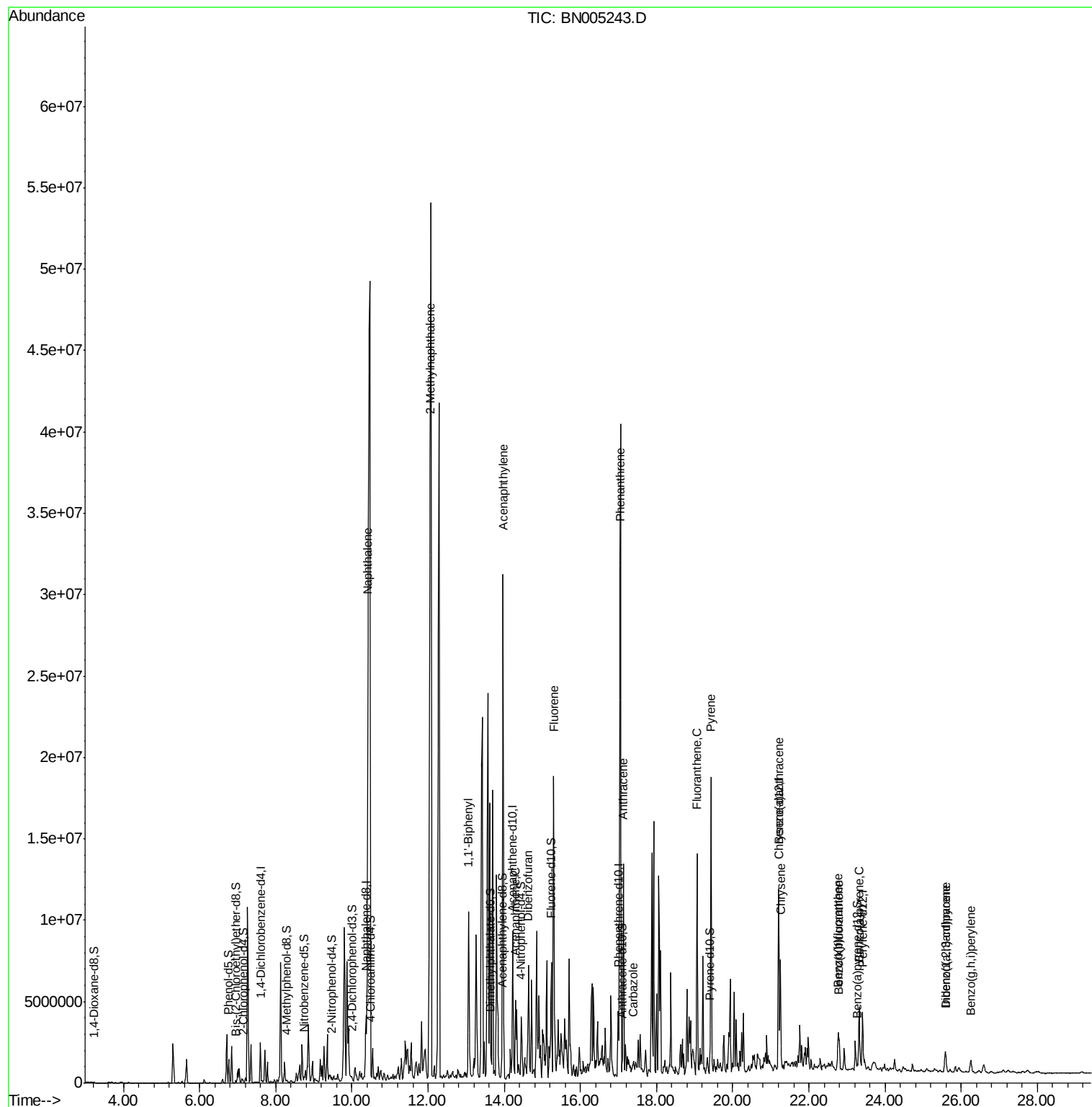
Data Path : Z:\SVOASRV\HPCHEM1\BNA\_N\DATA\BN042319\  
Data File : BN005243.D  
Acq On : 24 Apr 2019 08:18  
Operator : JU/SJ  
Sample : K2402-10 10X  
Misc :  
ALS Vial : 32 Sample Multiplier: 1

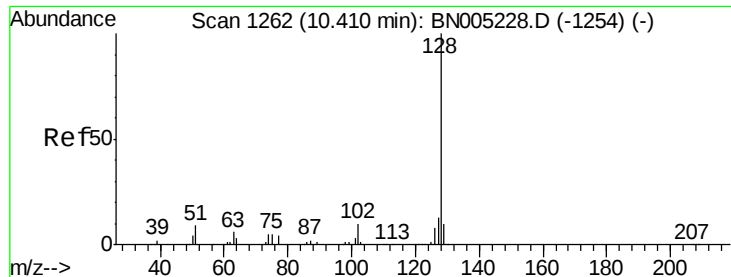
Instrument :  
BNA\_N  
ClientSampleId :  
GAHJ0

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Quant Time: Apr 26 23:06:07 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_N\METHODS\SOM-EPA-BN041919MA.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Tue Apr 23 03:50:45 2019  
Response via : Initial Calibration





#28

Naphthalene

Concen: 345.982 ng/ul m

RT: 10.42 min Scan# 1263

Delta R.T. 0.01 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Instrument :

BNA\_N

ClientSampled :

GAHJO

Tgt Ion:128 Resp:39441340

Ion Ratio Lower Upper

128 100

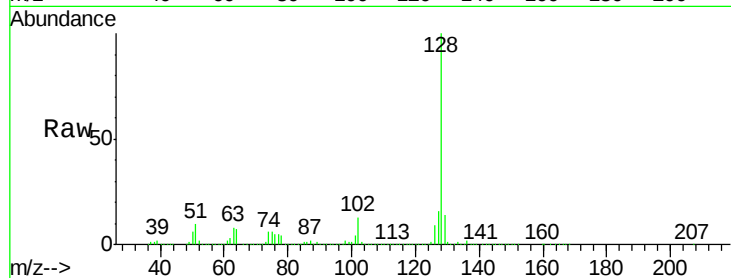
129 14.0 9.2 13.8#

127 16.1 10.7 16.1#

Manual Integrations  
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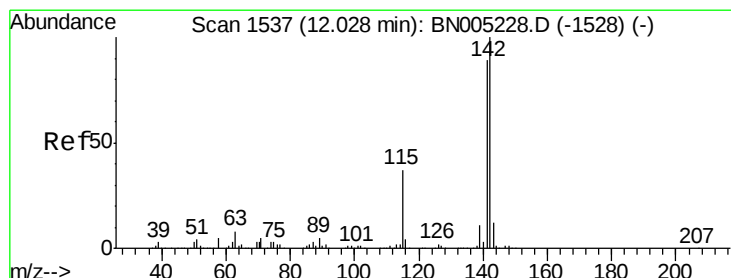
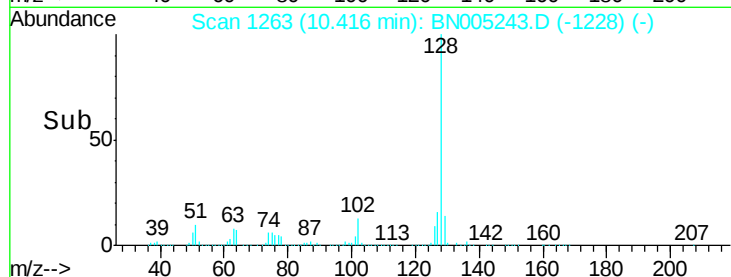
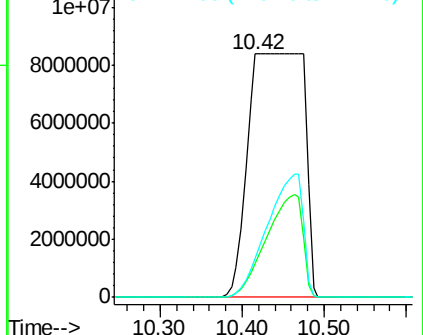
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Abundance Ion 128.00 (127.70 to 128.70): E

Ion 129.00 (128.70 to 129.70): E

Ion 127.00 (126.70 to 127.70): E



#34

2-Methylnaphthalene

Concen: 390.328 ng/ul m

RT: 12.05 min Scan# 1540

Delta R.T. 0.01 min

Lab File: BN005243.D

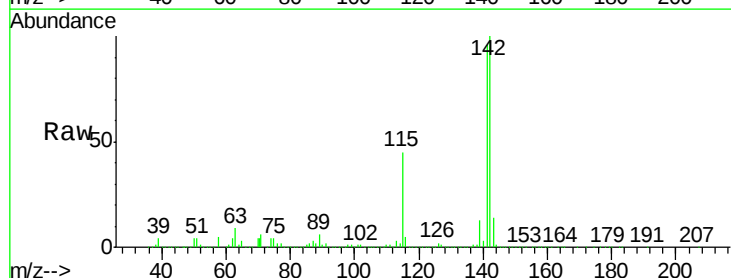
Acq: 24 Apr 2019 08:18

Tgt Ion:142 Resp:32580969

Ion Ratio Lower Upper

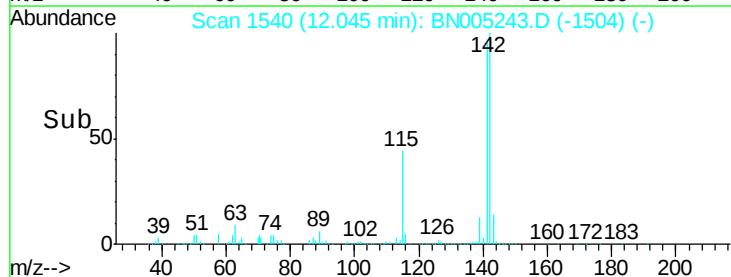
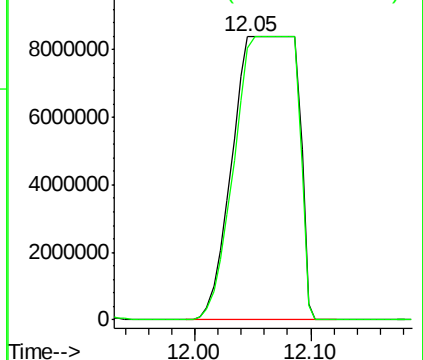
142 100

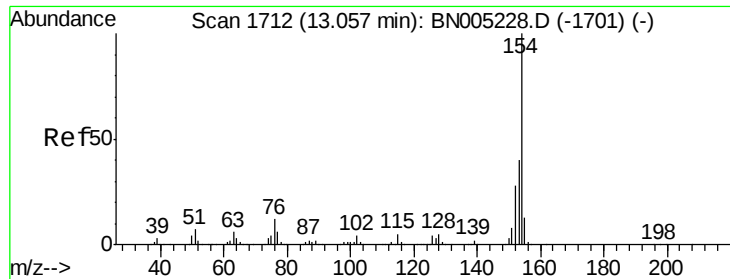
141 96.0 72.0 108.0



Abundance Ion 142.00 (141.70 to 142.70): E

Ion 141.00 (140.70 to 141.70): E





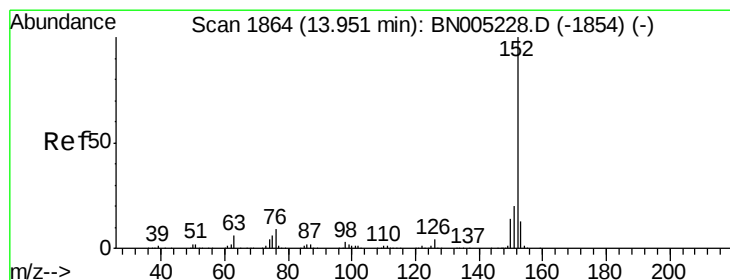
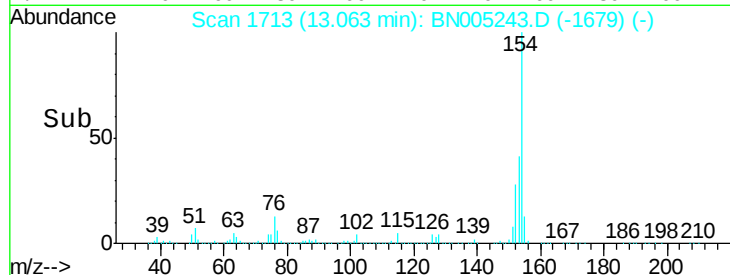
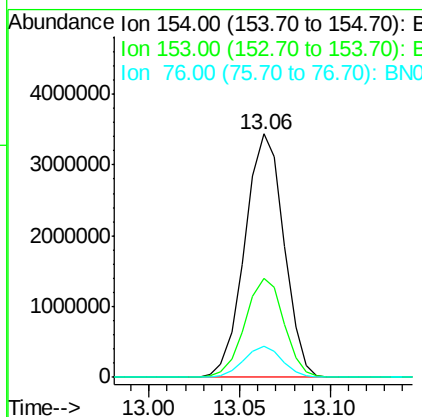
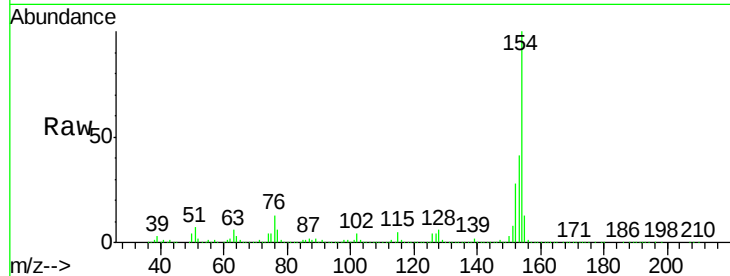
#40  
 1,1'-Biphenyl  
 Concen: 49.589 ng/ul  
 RT: 13.06 min Scan# 1713  
 Delta R.T. -0.00 min  
 Lab File: BN005243.D  
 Acq: 24 Apr 2019 08:18

Instrument :  
 BNA\_N  
 ClientSampleId :  
 GAHJO

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 40.8  | 32.6  | 49.0  |
| 76      | 12.8  | 10.4  | 15.6  |

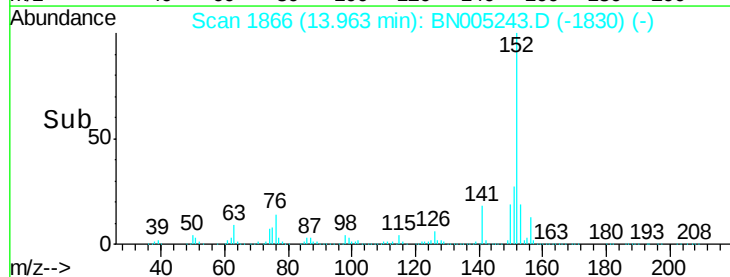
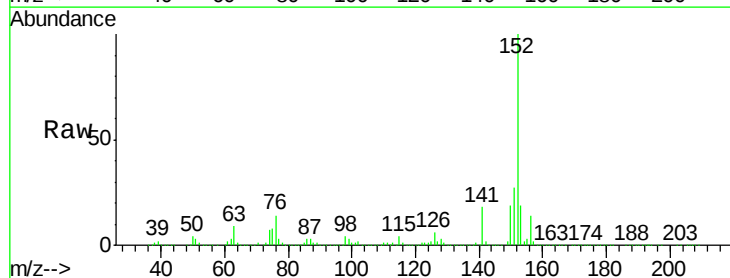
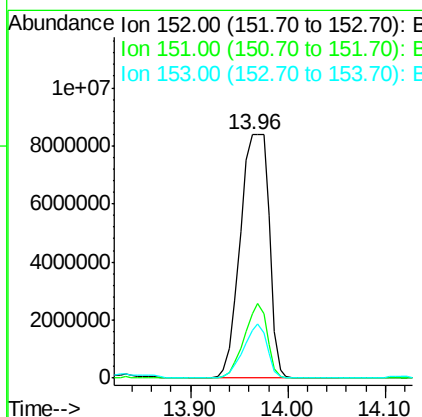
Manual Integrations  
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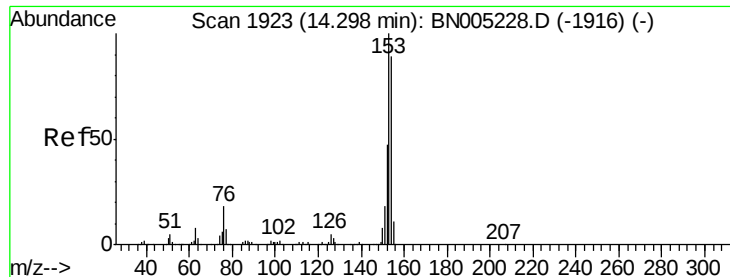
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#47  
 Acenaphthylene  
 Concen: 142.479 ng/ul  
 RT: 13.96 min Scan# 1866  
 Delta R.T. 0.01 min  
 Lab File: BN005243.D  
 Acq: 24 Apr 2019 08:18

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 26.6  | 15.8  | 23.8# |
| 153     | 19.4  | 9.8   | 14.8# |





#49

Acenaphthene

Concen: 22.155 ng/ul

RT: 14.30 min Scan# 1923

Delta R.T. -0.00 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Instrument :

BNA\_N

ClientSampled :

GAHJO

Tgt Ion:153 Resp: 1849746

Ion Ratio Lower Upper

153 100

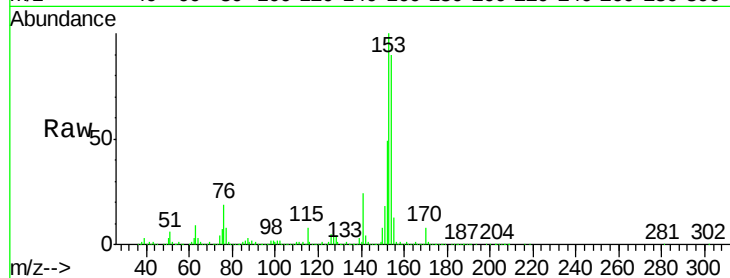
152 48.7 37.4 56.0

154 90.0 71.2 106.8

Manual Integrations  
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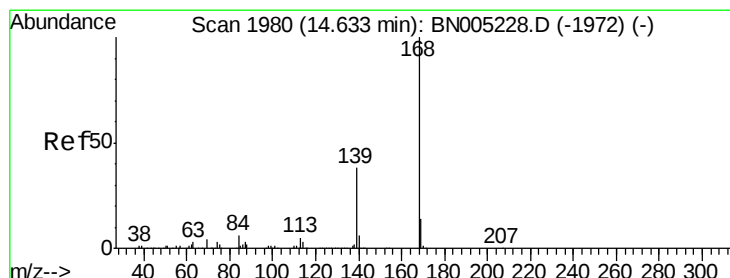
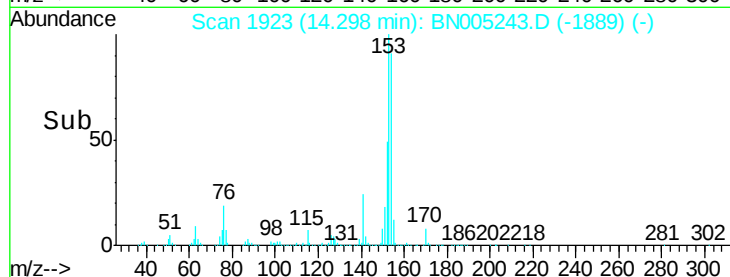
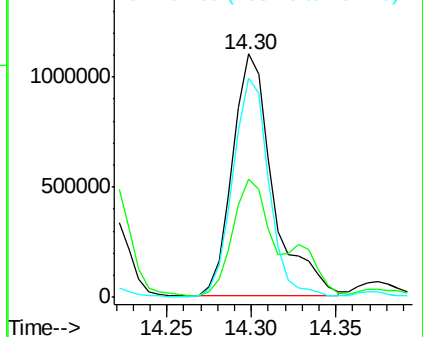
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Abundance Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E

Ion 154.00 (153.70 to 154.70): E



#53

Dibenzofuran

Concen: 18.151 ng/ul

RT: 14.63 min Scan# 1980

Delta R.T. -0.00 min

Lab File: BN005243.D

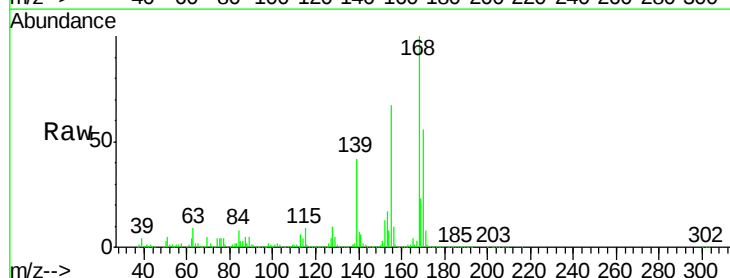
Acq: 24 Apr 2019 08:18

Tgt Ion:168 Resp: 2181950

Ion Ratio Lower Upper

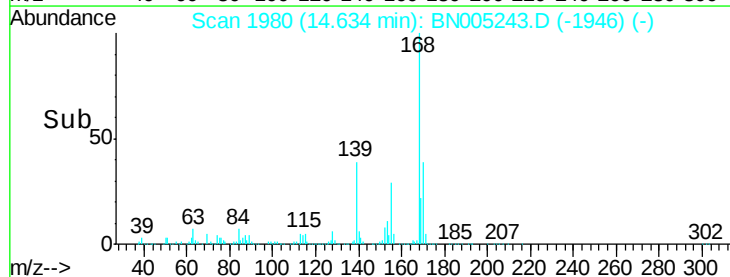
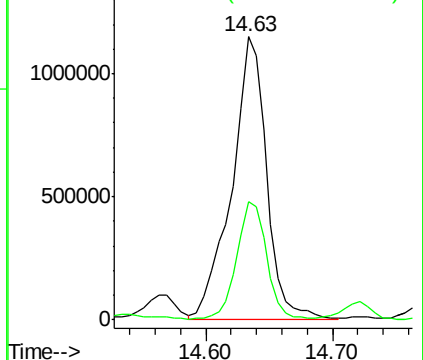
168 100

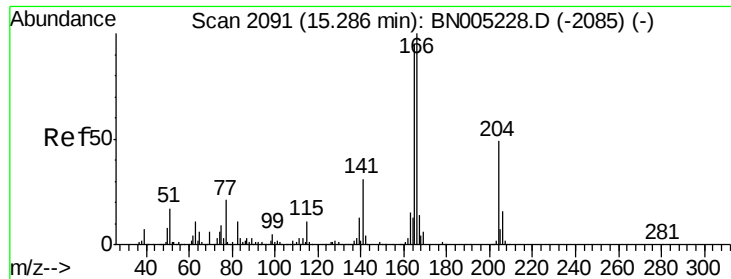
139 41.8 30.9 46.3



Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E





#58

Fluorene

Concen: 98.707 ng/ul

RT: 15.30 min Scan# 2093

Delta R.T. 0.01 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Instrument :

BNA\_N

ClientSampleId :

GAHJO

Tgt Ion:166 Resp: 9258810

Ion Ratio Lower Upper

166 100

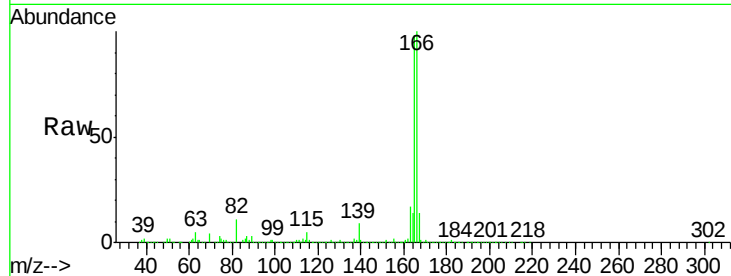
165 98.1 80.0 120.0

167 14.4 10.7 16.1

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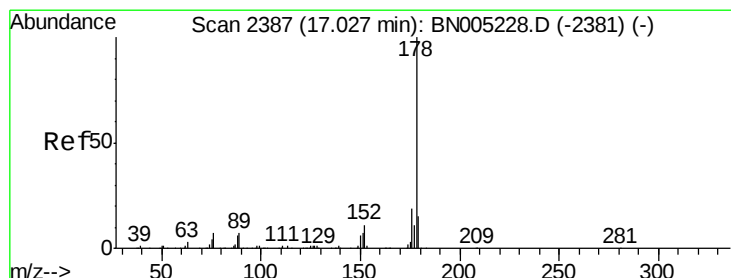
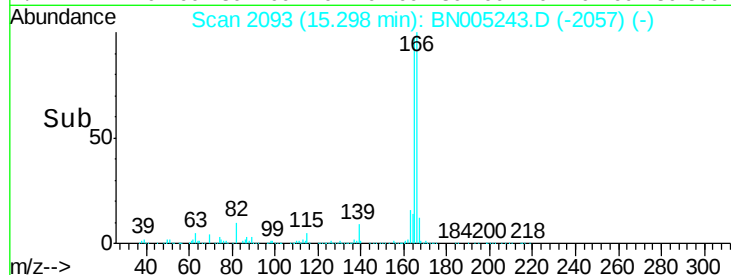
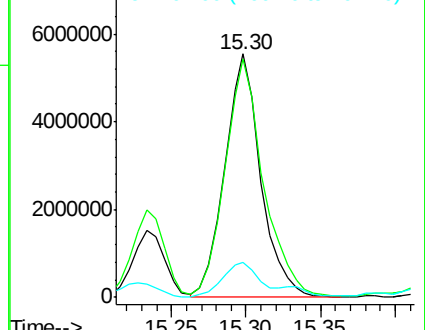
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Abundance Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E



#69

Phenanthrene

Concen: 166.219 ng/ul m

RT: 17.03 min Scan# 2388

Delta R.T. 0.01 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Tgt Ion:178 Resp:21607731

Ion Ratio Lower Upper

178 100

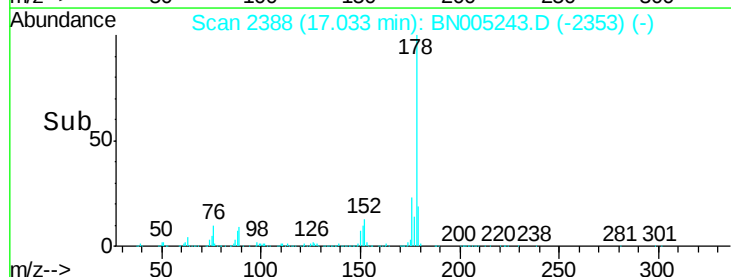
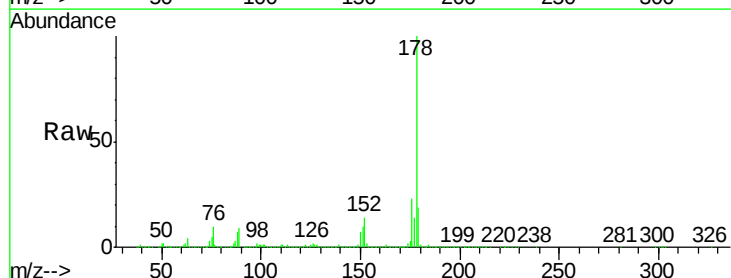
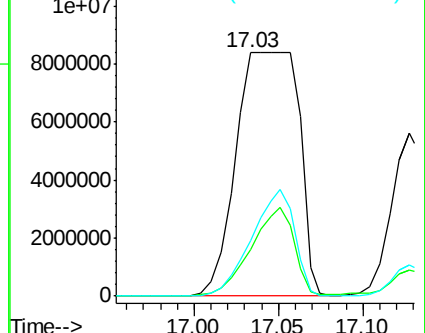
179 19.0 12.2 18.4#

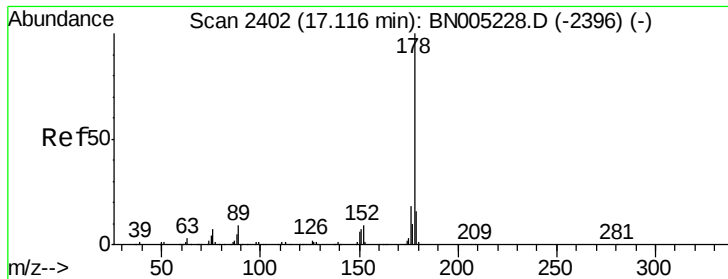
176 22.8 15.1 22.7#

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





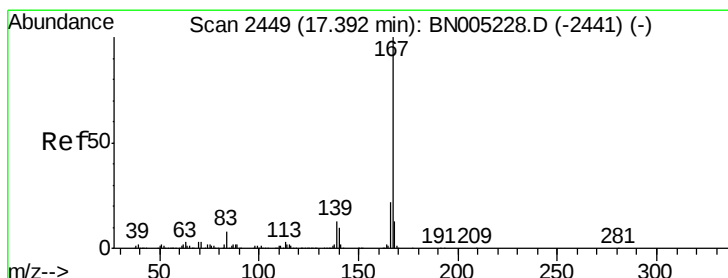
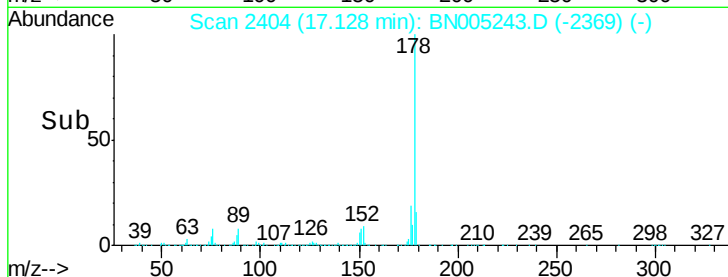
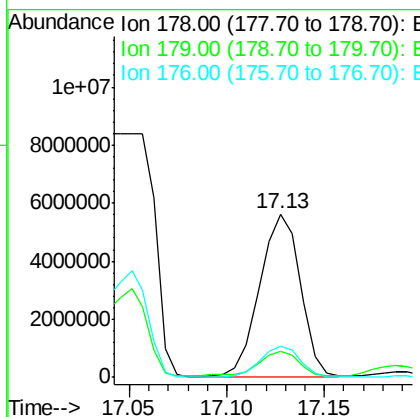
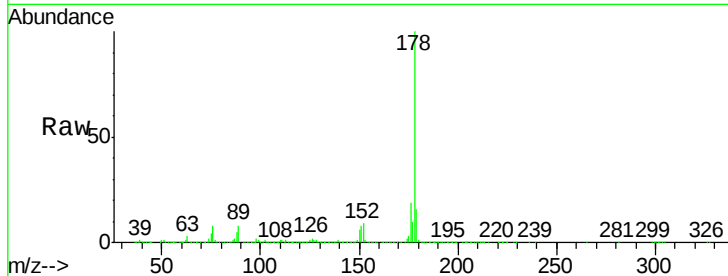
#71  
 Anthracene  
 Concen: 60.620 ng/ul  
 RT: 17.13 min Scan# 2404  
 Delta R.T. 0.01 min  
 Lab File: BN005243.D  
 Acq: 24 Apr 2019 08:18

Instrument :  
 BNA\_N  
 ClientSampled :  
 GAHJO

Tgt Ion:178 Resp: 8027715  
 Ion Ratio Lower Upper  
 178 100  
 179 16.1 12.3 18.5  
 176 18.9 15.1 22.7

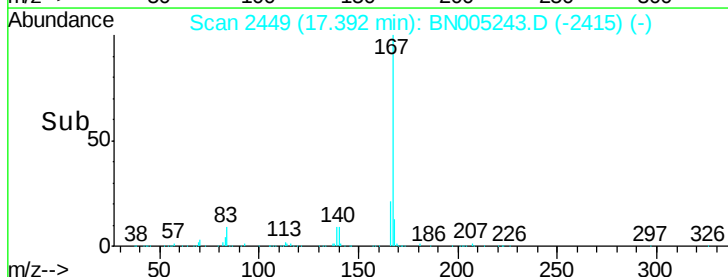
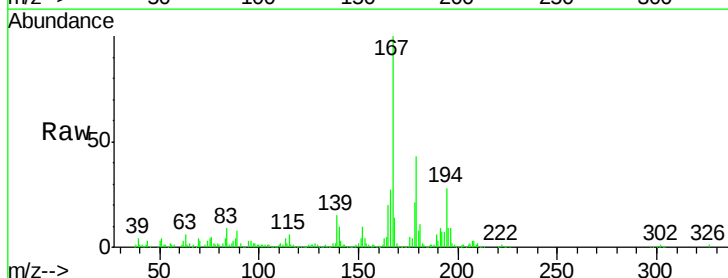
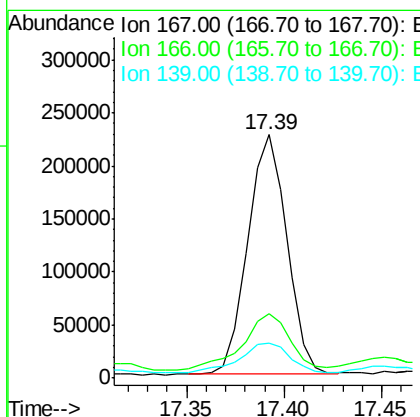
Manual Integrations  
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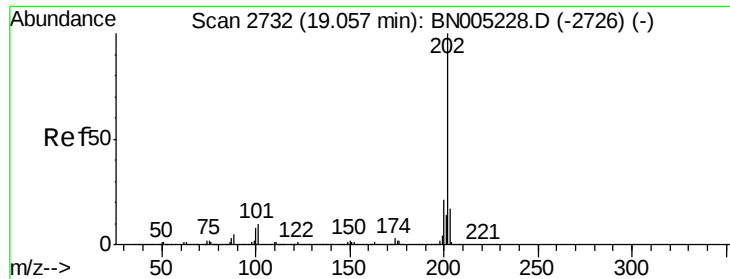
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#74  
 Carbazole  
 Concen: 2.766 ng/ul  
 RT: 17.39 min Scan# 2449  
 Delta R.T. -0.00 min  
 Lab File: BN005243.D  
 Acq: 24 Apr 2019 08:18

Tgt Ion:167 Resp: 314618  
 Ion Ratio Lower Upper  
 167 100  
 166 26.7 17.2 25.8#  
 139 14.6 10.6 16.0





#76

Fluoranthene

Concen: 54.604 ng/ul

RT: 19.06 min Scan# 2733

Delta R.T. 0.01 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Instrument :

BNA\_N

ClientSampleId :

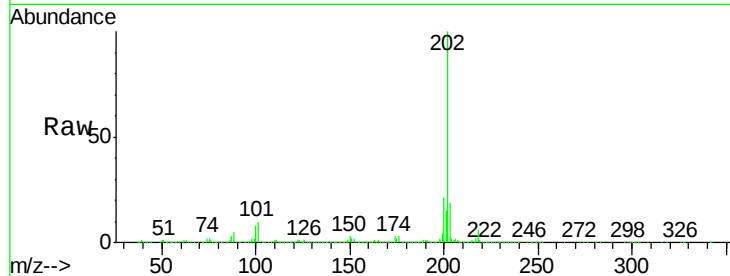
GAHJO

Tgt Ion:202 Resp: 7873302

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 202 | 100   |       |       |
| 101 | 10.4  | 8.6   | 12.8  |
| 100 | 7.8   | 6.3   | 9.5   |

Manual Integrations  
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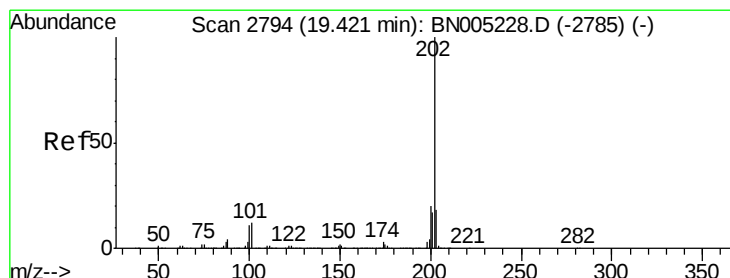
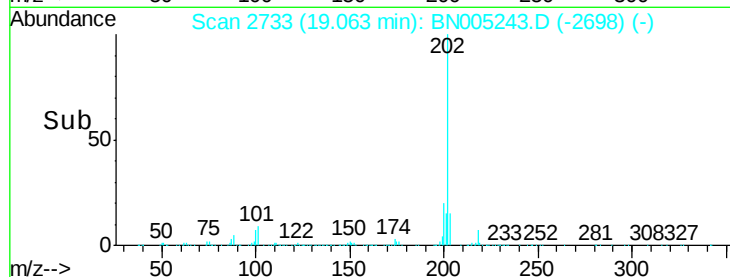
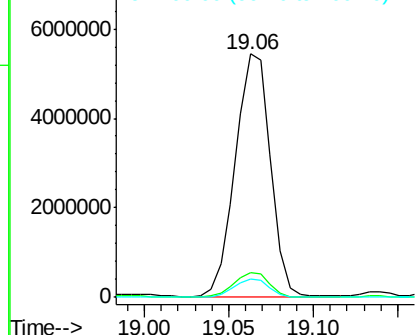
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Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 100.00 (99.70 to 100.70): B



#79

Pyrene

Concen: 83.236 ng/ul

RT: 19.43 min Scan# 2796

Delta R.T. 0.01 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

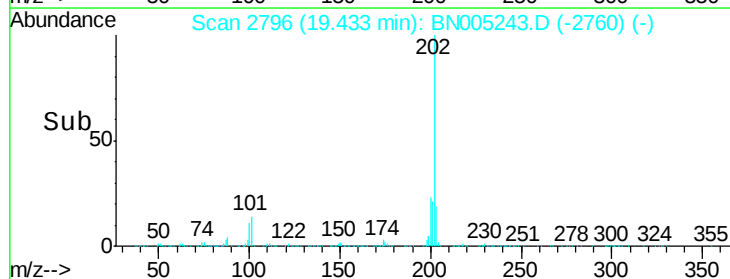
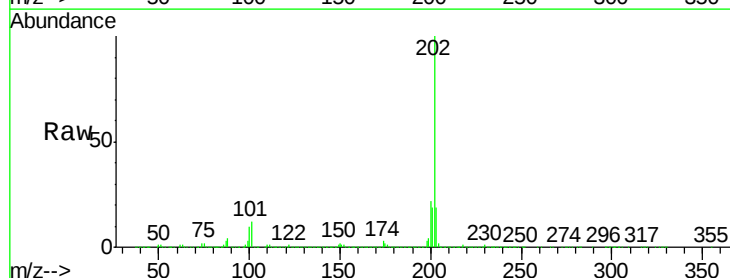
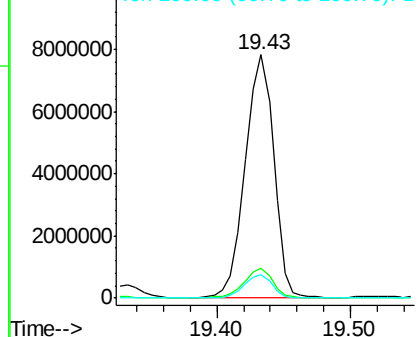
Tgt Ion:202 Resp:11544463

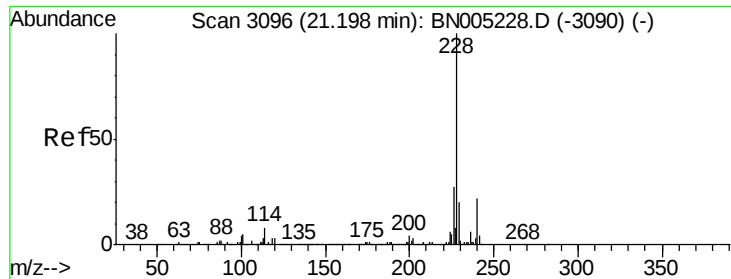
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 202 | 100   |       |       |
| 101 | 12.1  | 10.3  | 15.5  |
| 100 | 9.7   | 7.9   | 11.9  |

Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 100.00 (99.70 to 100.70): B





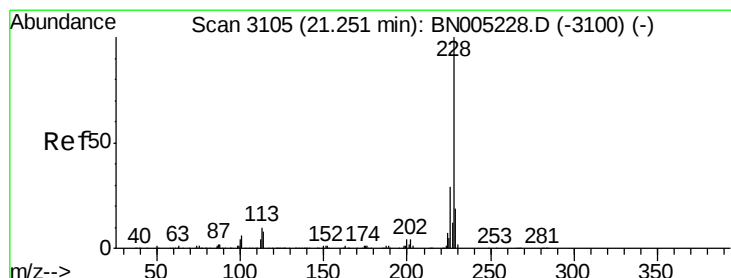
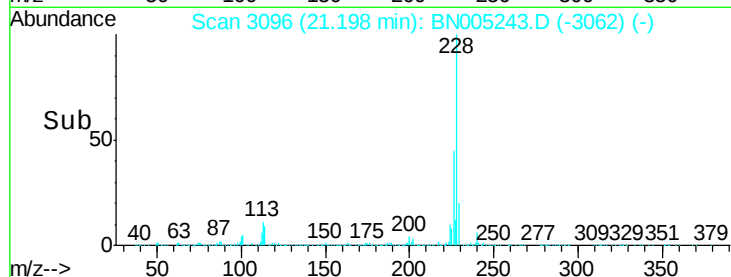
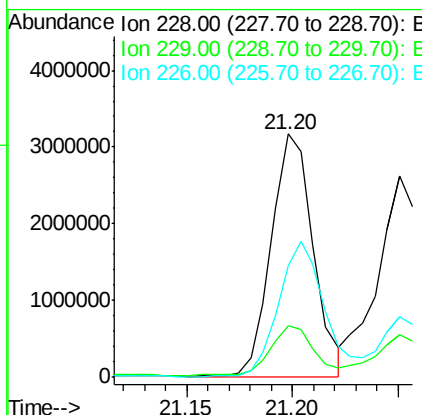
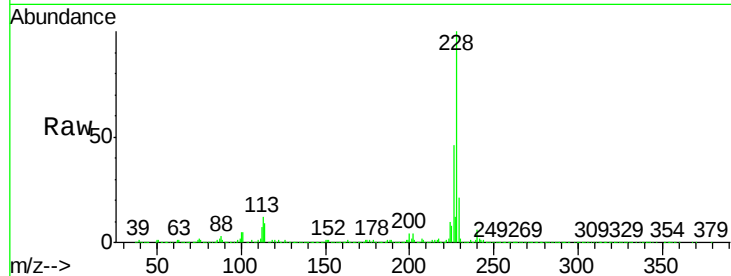
#82  
Benzo(a)anthracene  
Concen: 32.283 ng/ul m  
RT: 21.20 min Scan# 3096  
Delta R.T. -0.00 min  
Lab File: BN005243.D  
Acq: 24 Apr 2019 08:18

Instrument :  
BNA\_N  
ClientSampleId :  
GAHJO

Tgt Ion:228 Resp: 4326208  
Ion Ratio Lower Upper  
228 100  
229 21.3 15.8 23.6  
226 45.7 21.4 32.2#

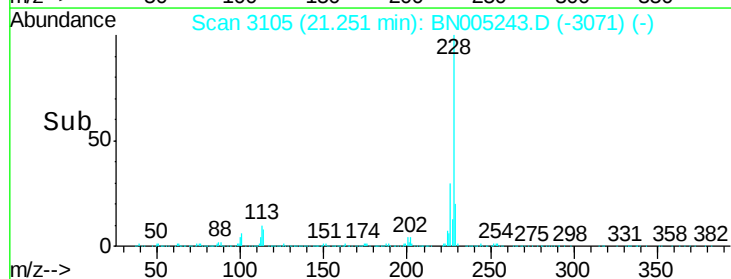
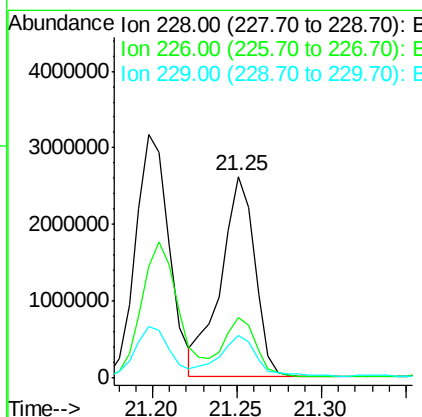
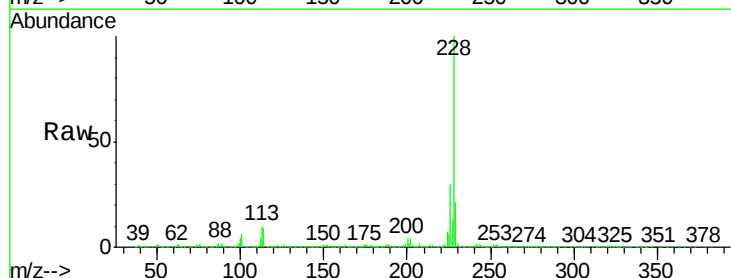
Manual Integrations  
APPROVED

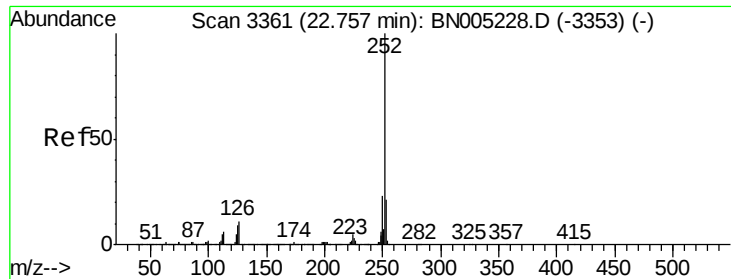
Sohil  
4/25/2019 6:35:49 PM



#84  
Chrysene  
Concen: 29.643 ng/ul  
RT: 21.25 min Scan# 3105  
Delta R.T. -0.00 min  
Lab File: BN005243.D  
Acq: 24 Apr 2019 08:18

Tgt Ion:228 Resp: 3686791  
Ion Ratio Lower Upper  
228 100  
226 30.2 24.0 36.0  
229 20.9 15.4 23.0





#87

Benzo(b)fluoranthene

Concen: 16.328 ng/ul

RT: 22.77 min Scan# 3363

Delta R.T. -0.00 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Instrument :

BNA\_N

ClientSampleId :

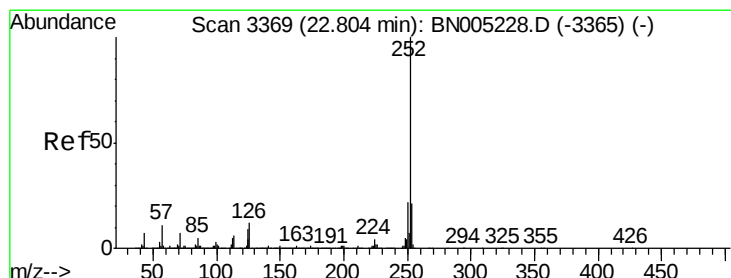
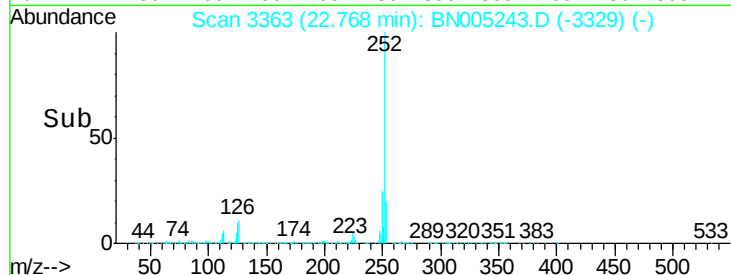
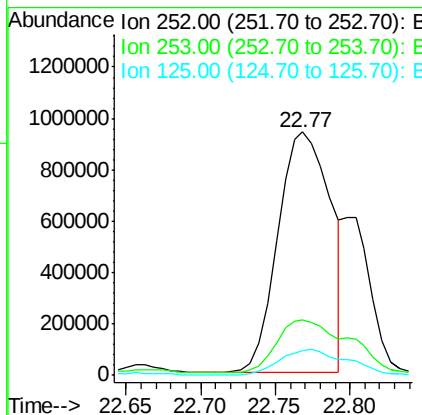
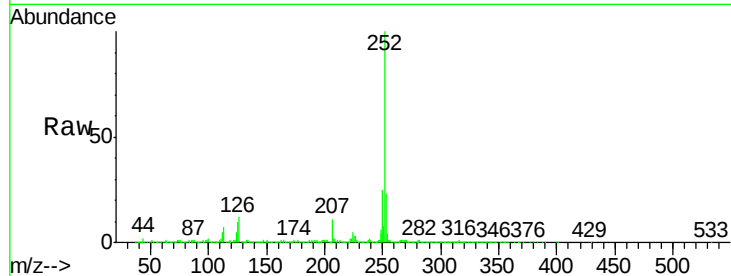
GAHJO

Tgt Ion:252 Resp: 2295830

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 22.8  | 17.7  | 26.5  |
| 125 | 10.1  | 8.4   | 12.6  |

Manual Integrations  
APPROVED

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4/25/2019 6:35:49 PM



#88

Benzo(k)fluoranthene

Concen: 5.670 ng/ul m

RT: 22.80 min Scan# 3368

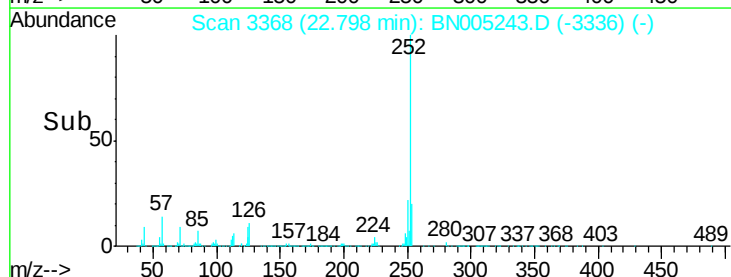
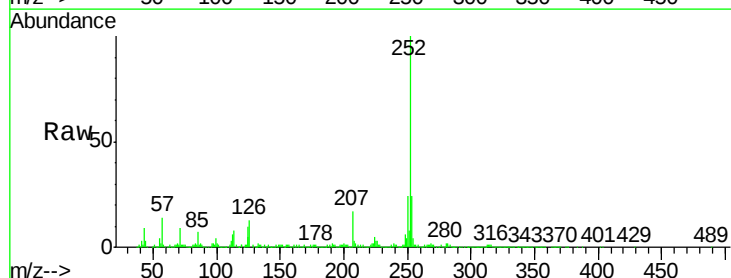
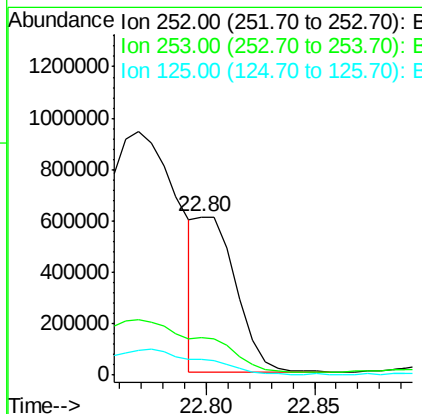
Delta R.T. -0.01 min

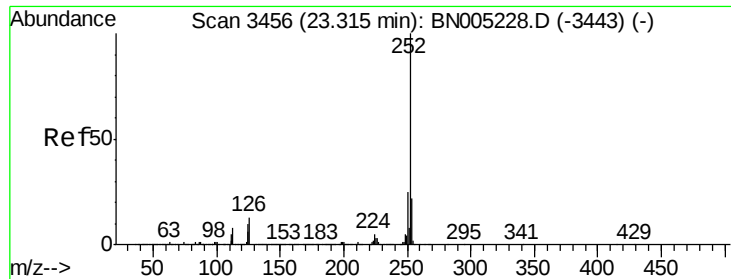
Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Tgt Ion:252 Resp: 761358

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 23.7  | 17.4  | 26.0  |
| 125 | 9.7   | 7.5   | 11.3  |





#90

Benzo(a)pyrene

Concen: 21.334 ng/ul

RT: 23.32 min Scan# 3457

Delta R.T. -0.01 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Instrument :

BNA\_N

ClientSampleId :

GAHJO

Tgt Ion:252 Resp: 2819619

Ion Ratio Lower Upper

252 100

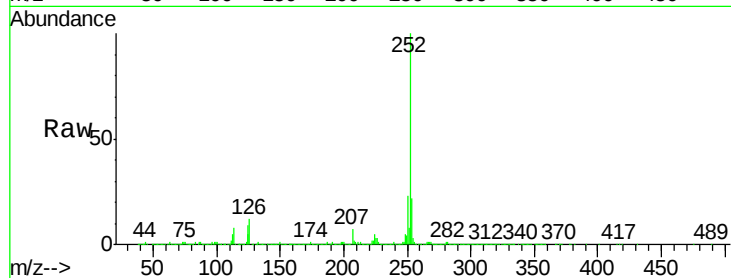
253 22.0 17.3 25.9

125 9.2 8.6 13.0

Manual Integrations  
APPROVED

Sohil

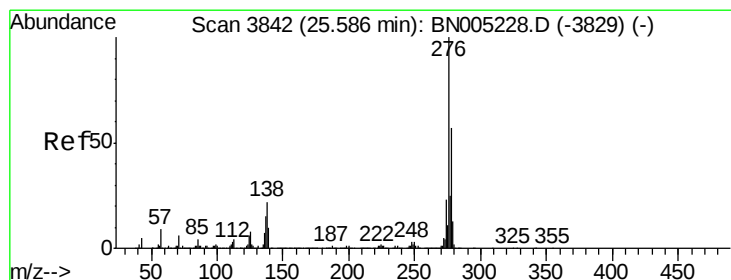
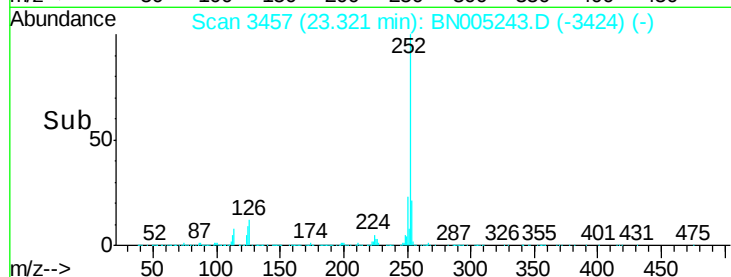
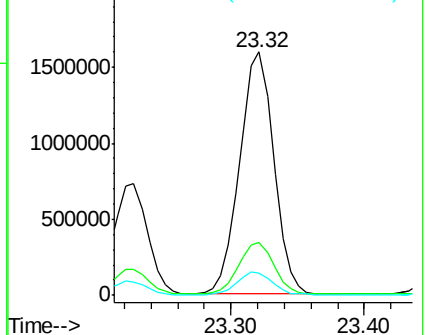
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Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E



#91

Indeno(1,2,3-cd)pyrene

Concen: 6.807 ng/ul

RT: 25.59 min Scan# 3843

Delta R.T. -0.01 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Tgt Ion:276 Resp: 994701

Ion Ratio Lower Upper

276 100

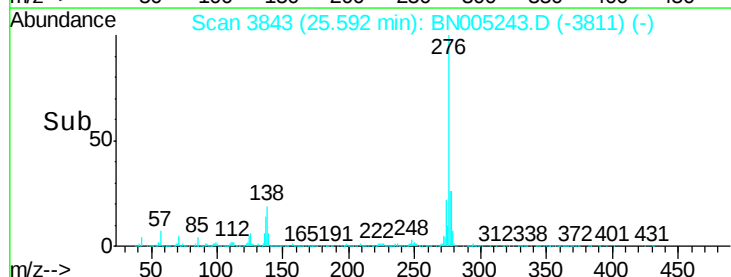
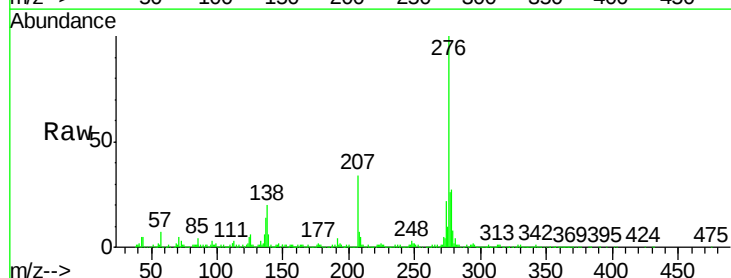
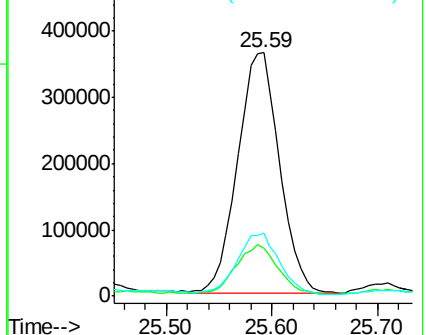
138 25.1 17.9 26.9

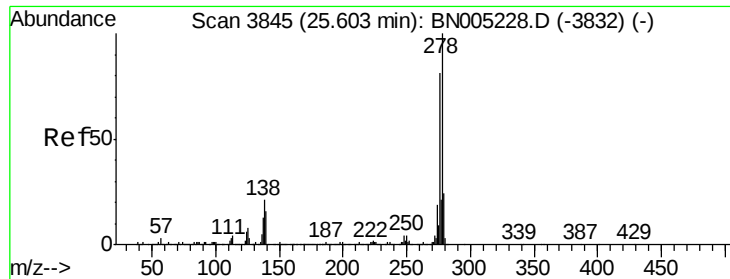
277 26.0 19.7 29.5

Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E





#92

Dibenzo(a,h)anthracene

Concen: 2.678 ng/ul

RT: 25.60 min Scan# 3844

Delta R.T. -0.02 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

Instrument :

BNA\_N

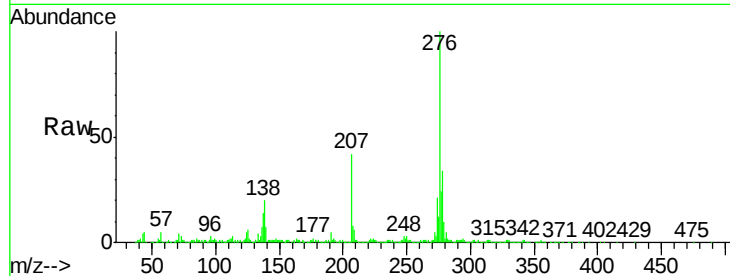
ClientSampled :

GAHJO

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 278   | Resp: | 332135 |
| Ion Ratio | Lower | Upper |        |
| 278       | 100   |       |        |
| 139       | 19.2  | 13.1  | 19.7   |
| 279       | 28.2  | 19.4  | 29.0   |

Manual Integrations  
APPROVED

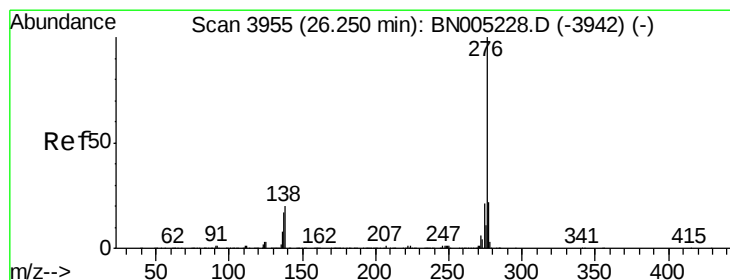
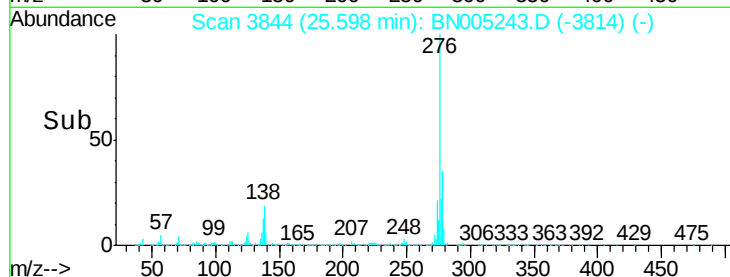
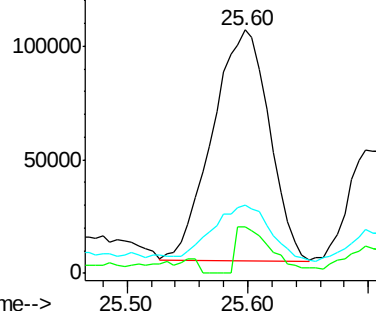
Sohil  
4/25/2019 6:35:49 PM



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



#93

Benzo(g,h,i)perylene

Concen: 6.911 ng/ul

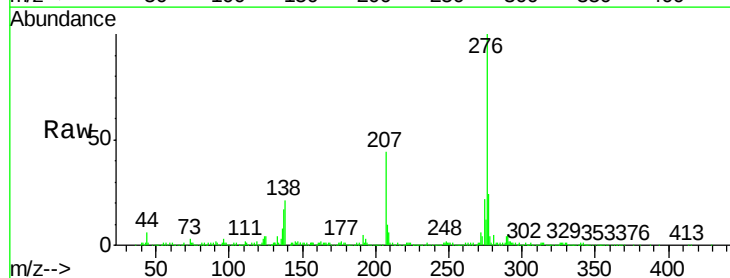
RT: 26.25 min Scan# 3955

Delta R.T. -0.01 min

Lab File: BN005243.D

Acq: 24 Apr 2019 08:18

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 276   | Resp: | 835058 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 20.7  | 16.7  | 25.1   |
| 277       | 23.5  | 18.2  | 27.2   |



Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E

