

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
 Data File : BF116031.D  
 Acq On : 6 Aug 2019 23:22  
 Operator : HP/JU  
 Sample : K4164-01  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :

Quant Time: Aug 07 01:20:32 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Jul 31 15:31:51 2019  
 Response via : Initial Calibration

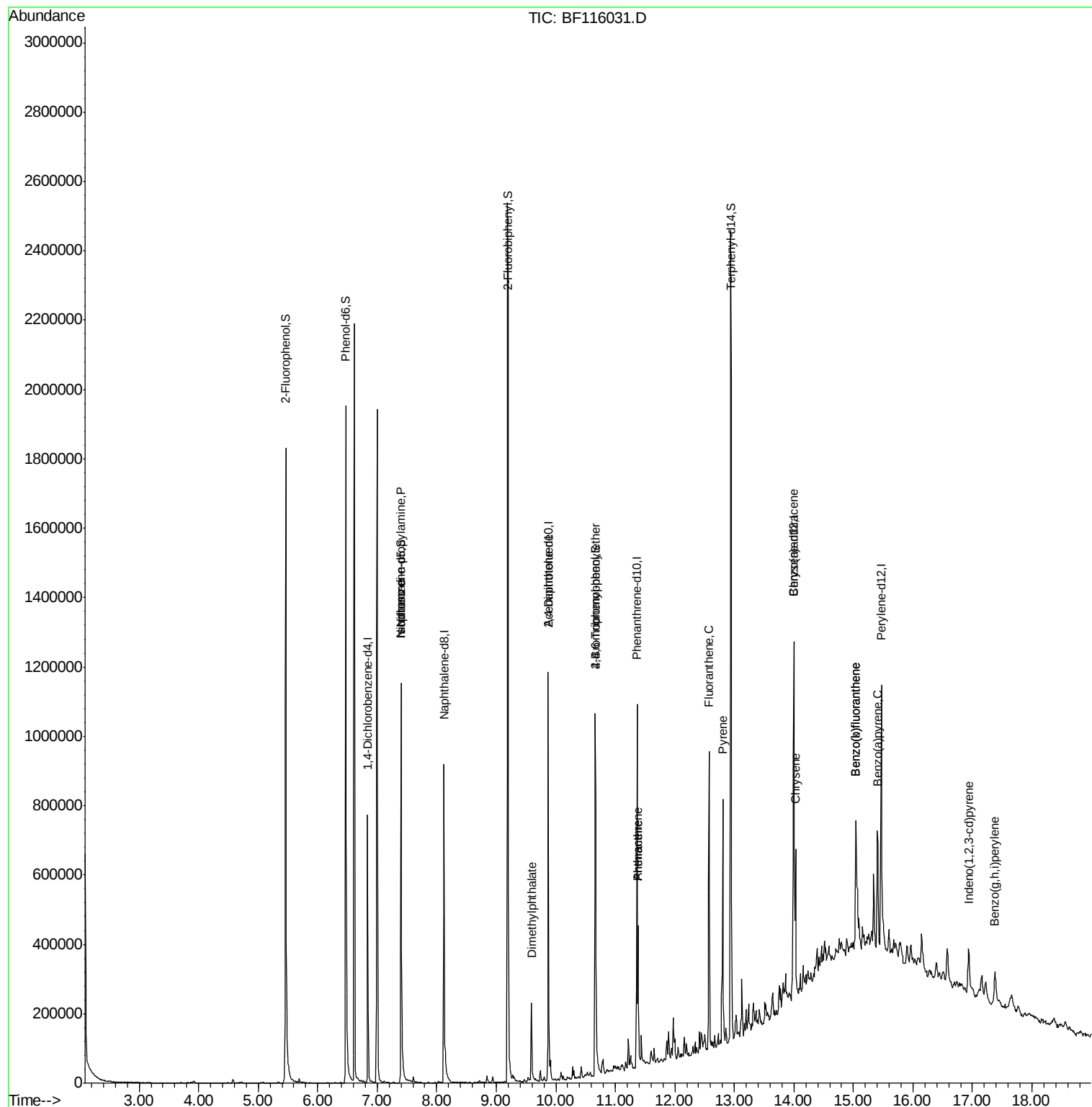
| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min)    |
|--------------------------------|-------|------|----------|--------|-------|-------------|
| 1) 1,4-Dichlorobenzene-d4      | 6.84  | 152  | 116807   | 20.00  | ng    | -0.01       |
| 21) Naphthalene-d8             | 8.12  | 136  | 457276   | 20.00  | ng    | -0.01       |
| 39) Acenaphthene-d10           | 9.87  | 164  | 237566   | 20.00  | ng    | -0.02       |
| 64) Phenanthrene-d10           | 11.36 | 188  | 384773   | 20.00  | ng    | -0.02       |
| 76) Chrysene-d12               | 14.00 | 240  | 294208   | 20.00  | ng    | -0.03       |
| 87) Perylene-d12               | 15.47 | 264  | 349634   | 20.00  | ng    | -0.02       |
| System Monitoring Compounds    |       |      |          |        |       |             |
| 5) 2-Fluorophenol              | 5.46  | 112  | 573182   | 82.15  | ng    | 0.00        |
| 7) Phenol-d6                   | 6.47  | 99   | 742877   | 84.39  | ng    | -0.01       |
| 23) Nitrobenzene-d5            | 7.40  | 82   | 474613   | 59.91  | ng    | -0.02       |
| 42) 2,4,6-Tribromophenol       | 10.66 | 330  | 149633   | 64.97  | ng    | -0.02       |
| 45) 2-Fluorobiphenyl           | 9.19  | 172  | 846464   | 66.74  | ng    | -0.02       |
| 79) Terphenyl-d14              | 12.94 | 244  | 777558   | 55.69  | ng    | -0.03       |
| Target Compounds               |       |      |          |        |       |             |
| 19) n-Nitroso-di-n-propylamine | 7.40  | 70   | 62080    | 11.380 | ng    | Qvalue # 80 |
| 25) Isophorone                 | 7.40  | 82   | 474611   | 31.332 | ng    | # 66        |
| 50) Dimethylphthalate          | 9.59  | 163  | 122832   | 7.594  | ng    | 100         |
| 57) 2,4-Dinitrotoluene         | 9.87  | 165  | 29760    | 6.359  | ng    | # 25        |
| 67) 4-Bromophenyl-phenylether  | 10.66 | 248  | 8696     | 2.111  | ng    | # 1         |
| 71) Phenanthrene               | 11.39 | 178  | 153113   | 7.784  | ng    | 96          |
| 72) Anthracene                 | 11.39 | 178  | 153113   | 7.691  | ng    | 98          |
| 75) Fluoranthene               | 12.57 | 202  | 315552   | 15.323 | ng    | 99          |
| 78) Pyrene                     | 12.80 | 202  | 296329   | 13.362 | ng    | 98          |
| 81) Benzo(a)anthracene         | 13.99 | 228  | 158089   | 8.407  | ng    | 99          |
| 83) Chrysene                   | 14.03 | 228  | 158631   | 8.689  | ng    | 98          |
| 86) Indeno(1,2,3-cd)pyrene     | 16.94 | 276  | 84872    | 5.535  | ng    | 97          |
| 88) Benzo(b)fluoranthene       | 15.04 | 252  | 281099   | 13.905 | ng    | # 94        |
| 89) Benzo(k)fluoranthene       | 15.04 | 252  | 281099   | 14.276 | ng    | # 97        |
| 90) Benzo(a)pyrene             | 15.40 | 252  | 153143   | 8.474  | ng    | # 96        |
| 92) Benzo(g,h,i)perylene       | 17.38 | 276  | 84109    | 5.475  | ng    | 99          |

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

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BNA\_F  
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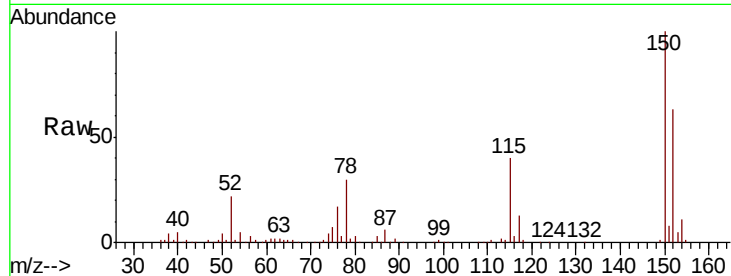


#1

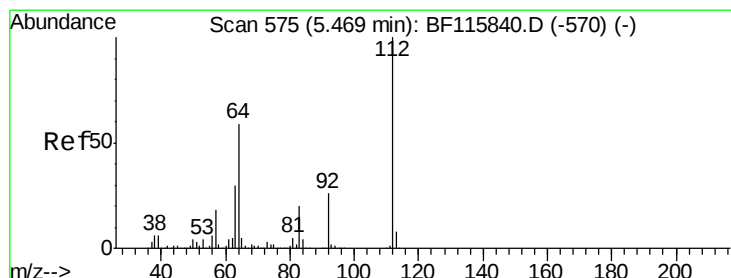
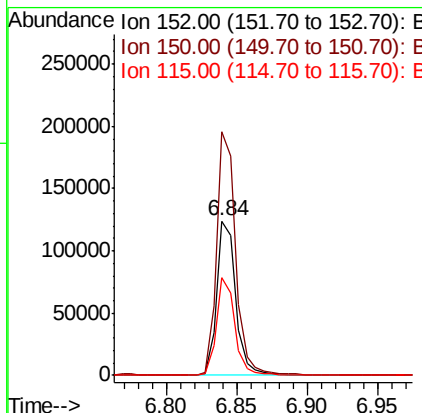
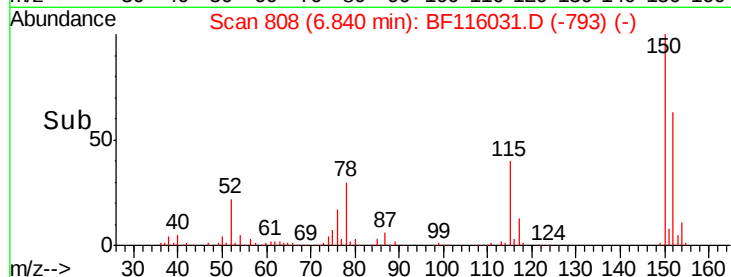
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.84 min Scan# 808  
Delta R.T. -0.01 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

Instrument :  
BNA\_F  
ClientSampled :

Tot Ion:152 Resp: 116807  
Ion Ratio Lower Upper  
152 100  
150 157.9 127.4 191.0  
115 63.4 51.8 77.8



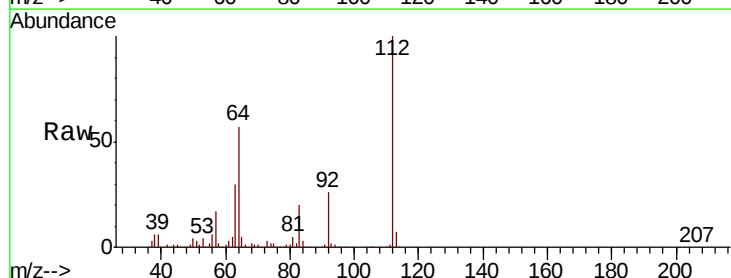
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



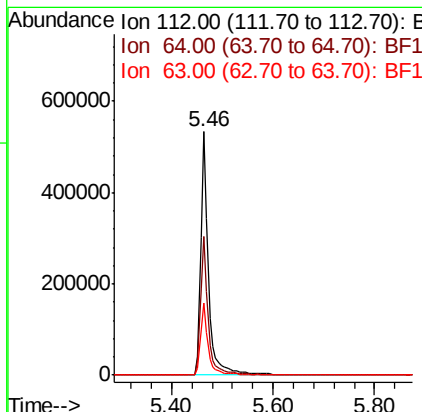
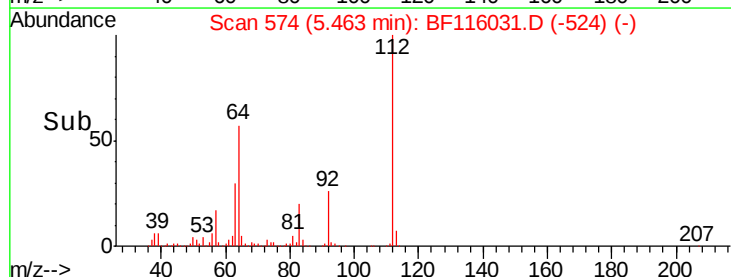
#5

2-Fluorophenol  
Concen: 82.148 ng  
RT: 5.46 min Scan# 574  
Delta R.T. -0.01 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

Tgt Ion:112 Resp: 573182  
Ion Ratio Lower Upper  
112 100  
64 56.9 46.8 70.2  
63 29.8 24.2 36.2



Abundance Ion 112.00 (111.70 to 112.70): E  
Ion 64.00 (63.70 to 64.70): BF1  
Ion 63.00 (62.70 to 63.70): BF1





#7

Phenol-d6

Concen: 84.386 ng

RT: 6.47 min Scan# 746

Delta R.T. -0.01 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

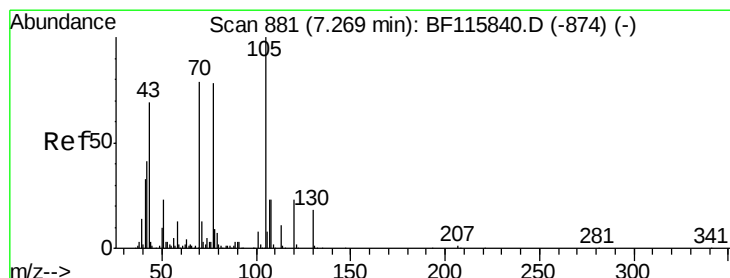
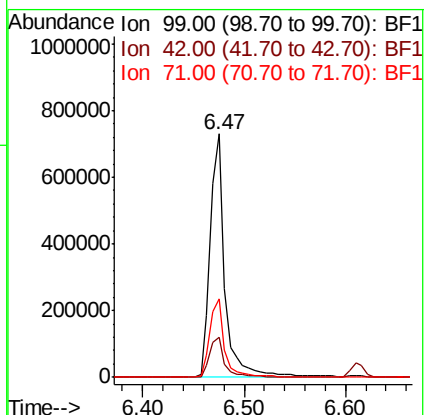
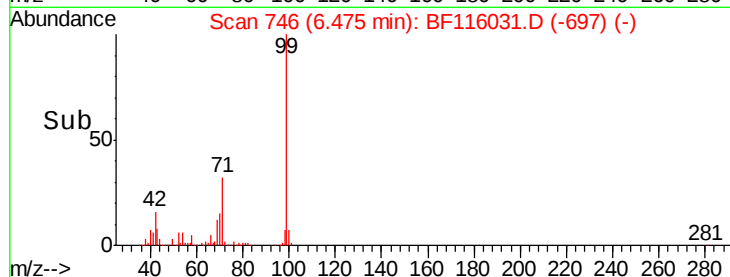
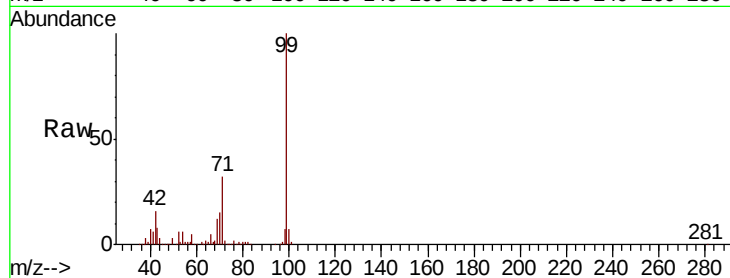
Instrument :

BNA\_F

ClientSampled :

Tot Ion: 99 Resp: 742877

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 99  | 100   |       |       |
| 42  | 16.4  | 13.8  | 20.6  |
| 71  | 32.4  | 27.1  | 40.7  |



#19

n-Nitroso-di-n-propylamine

Concen: 11.380 ng

RT: 7.40 min Scan# 903

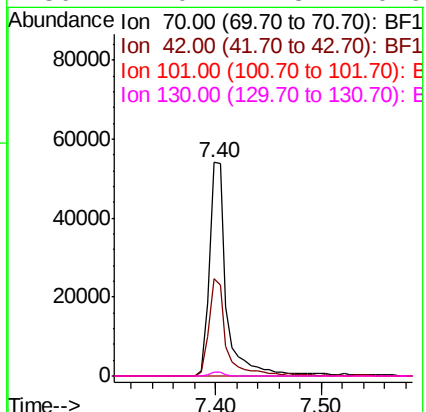
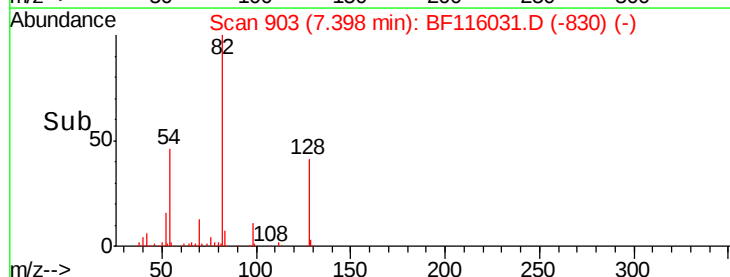
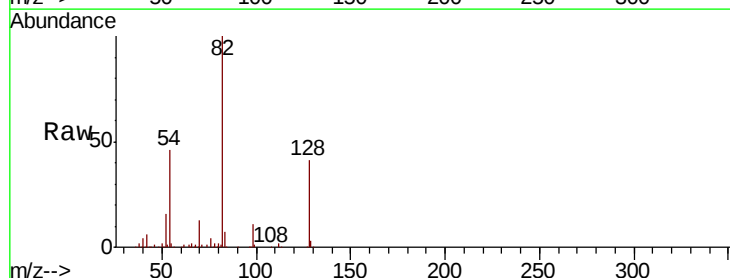
Delta R.T. 0.13 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

Tgt Ion: 70 Resp: 62080

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 70  | 100   |       |       |
| 42  | 45.7  | 41.8  | 62.8  |
| 101 | 0.0   | 7.7   | 11.5# |
| 130 | 2.0   | 17.8  | 26.6# |





#21

Naphthalene-d8

Concen: 20.000 ng

RT: 8.12 min Scan# 1026

Delta R.T. -0.01 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

Instrument :

BNA\_F

ClientSampleId :

Tot Ion:136 Resp: 457276

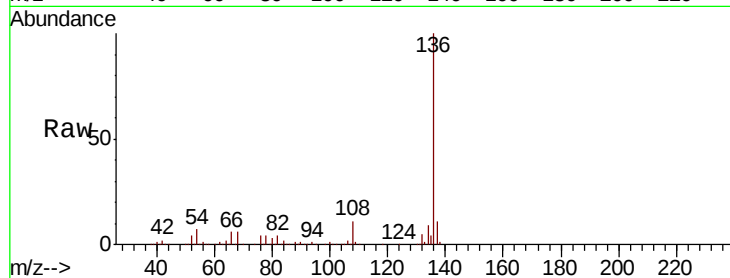
Ion Ratio Lower Upper

136 100

137 11.0 9.1 13.7

54 6.9 6.1 9.1

68 5.9 5.4 8.2

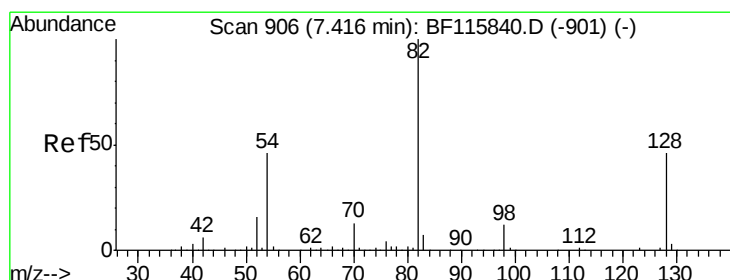
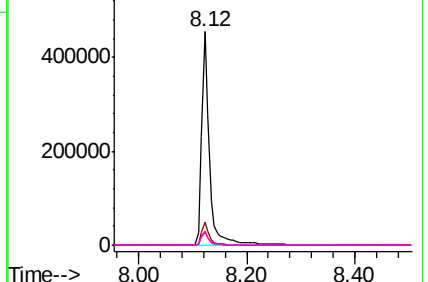
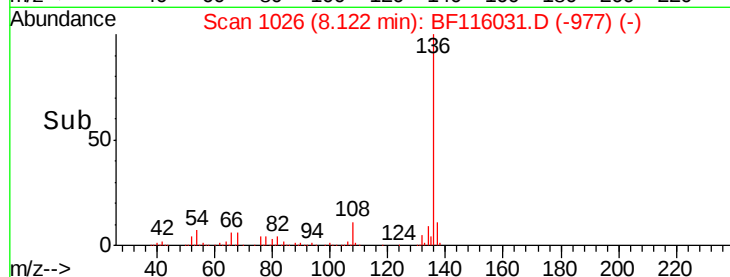


Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BF1

Ion 68.00 (67.70 to 68.70): BF1



#23

Nitrobenzene-d5

Concen: 59.912 ng

RT: 7.40 min Scan# 903

Delta R.T. -0.02 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

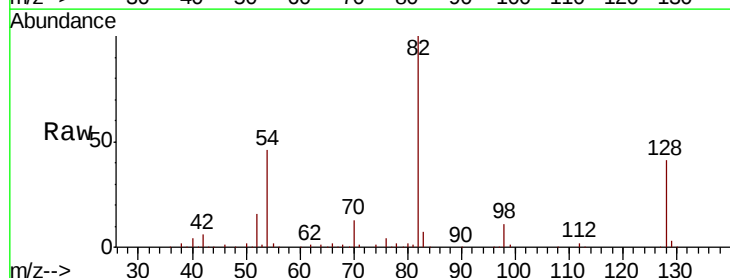
Tgt Ion: 82 Resp: 474613

Ion Ratio Lower Upper

82 100

128 41.4 36.6 55.0

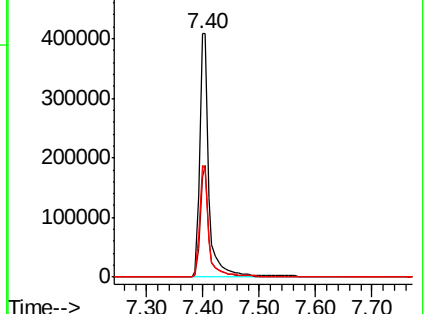
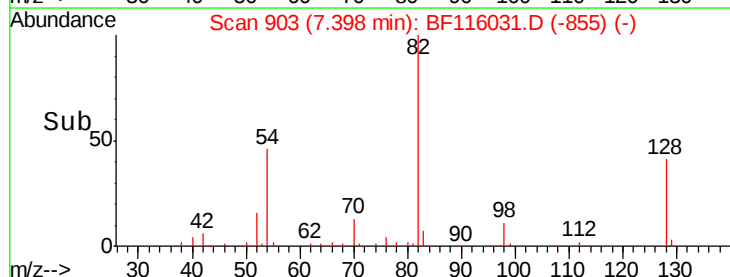
54 45.7 36.6 55.0



Abundance Ion 82.00 (81.70 to 82.70): BF1

Ion 128.00 (127.70 to 128.70): E

Ion 54.00 (53.70 to 54.70): BF1





#25

Isophorone

Concen: 31.332 ng

RT: 7.40 min Scan# 903

Delta R.T. -0.28 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

Instrument :

BNA\_F

ClientSampleId :

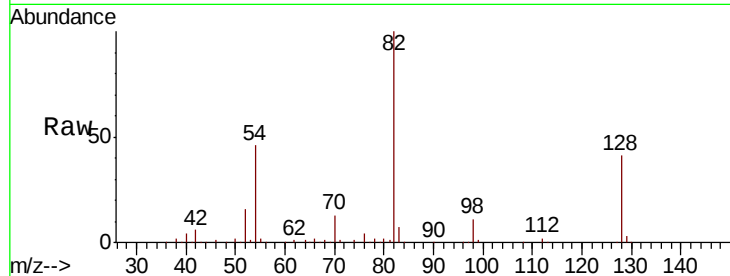
Tot Ion: 82 Resp: 474611

Ion Ratio Lower Upper

82 100

95 0.0 5.5 8.3#

138 0.0 13.9 20.9#

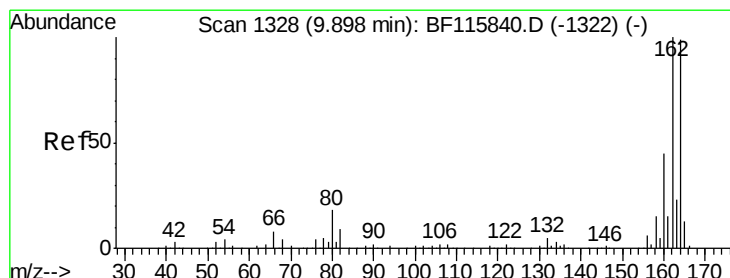
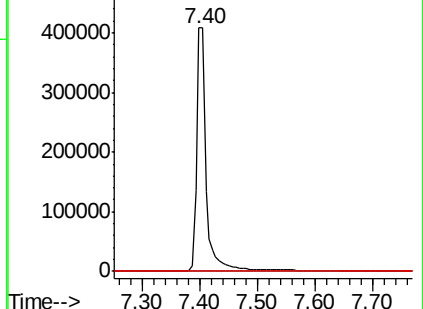
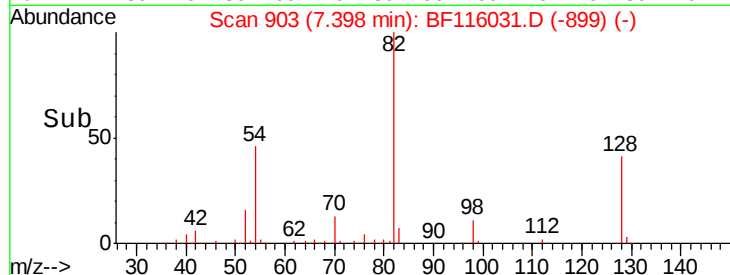


Abundance Ion 82.00 (81.70 to 82.70): BF115840.D (-944) (-)

Ion 95.00 (94.70 to 95.70): BF115840.D (-944) (-)

Ion 138.00 (137.70 to 138.70): BF115840.D (-944) (-)

Time-->



#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.87 min Scan# 1324

Delta R.T. -0.02 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

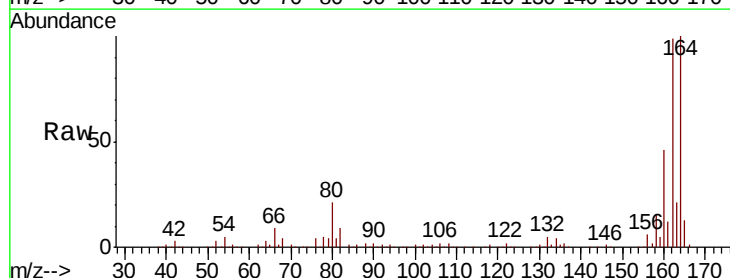
Tgt Ion: 164 Resp: 237566

Ion Ratio Lower Upper

164 100

162 99.1 80.8 121.2

160 45.7 36.2 54.4

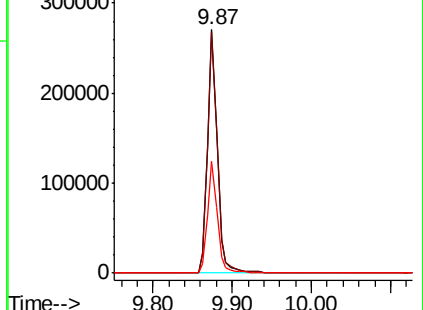
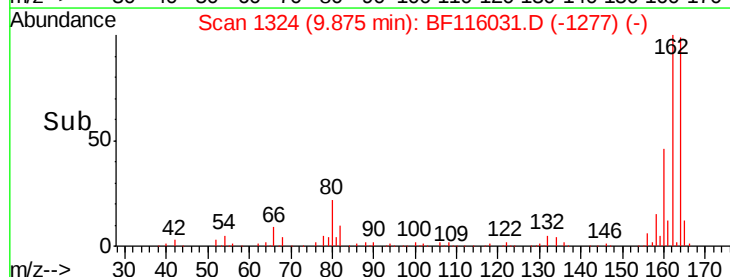


Abundance Ion 164.00 (163.70 to 164.70): BF115840.D (-1322) (-)

Ion 162.00 (161.70 to 162.70): BF115840.D (-1322) (-)

Ion 160.00 (159.70 to 160.70): BF115840.D (-1322) (-)

Time-->





#42

2,4,6-Tribromophenol

Concen: 64.966 ng

RT: 10.66 min Scan# 1458

Delta R.T. -0.02 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

Instrument :

BNA\_F

ClientSampleId :

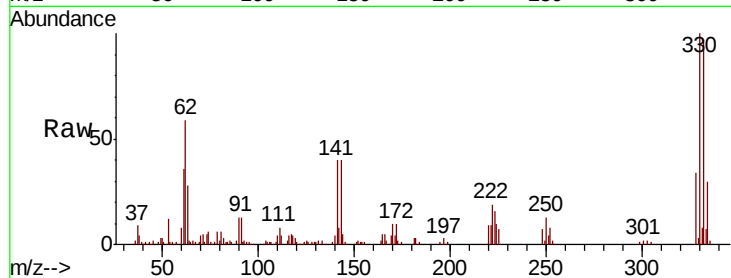
Tot Ion:330 Resp: 149633

Ion Ratio Lower Upper

330 100

332 96.1 77.7 116.5

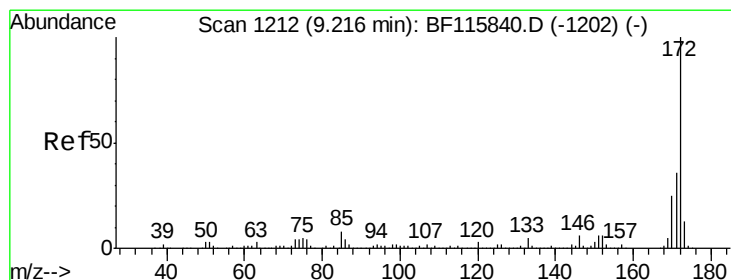
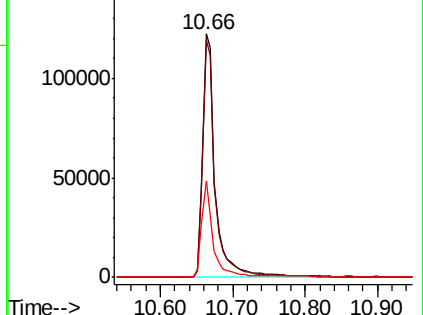
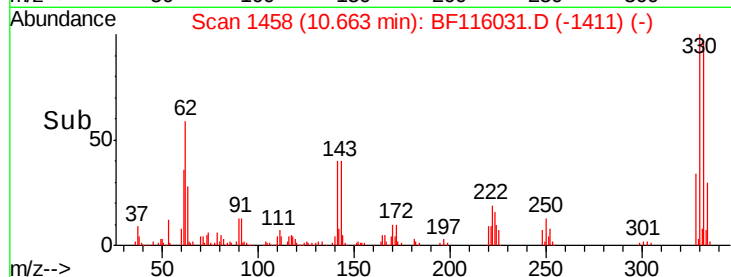
141 35.6 28.1 42.1



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



#45

2-Fluorobiphenyl

Concen: 66.739 ng

RT: 9.19 min Scan# 1208

Delta R.T. -0.02 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

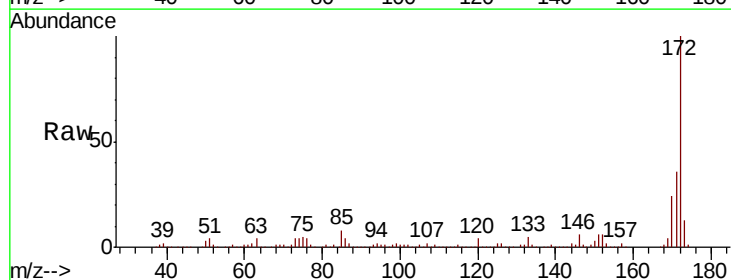
Tgt Ion:172 Resp: 846464

Ion Ratio Lower Upper

172 100

171 35.6 29.1 43.7

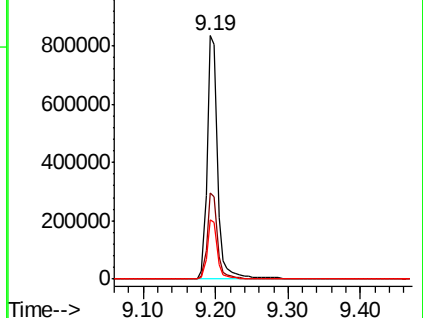
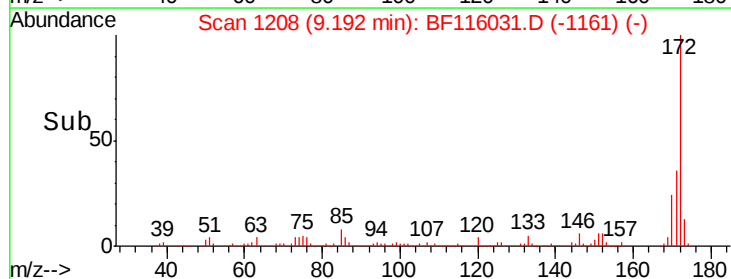
170 24.3 20.1 30.1

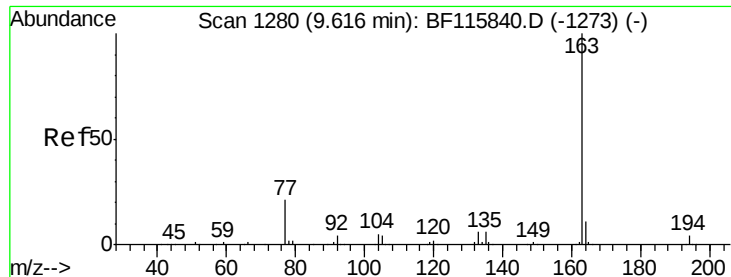


Abundance Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E

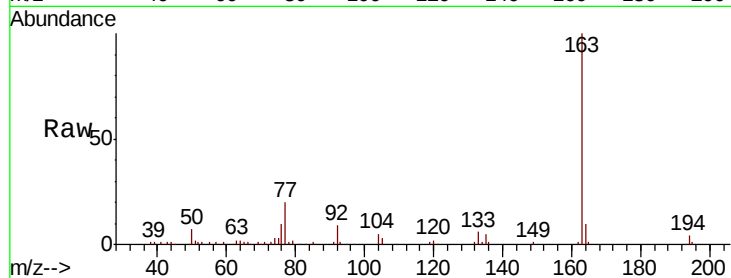




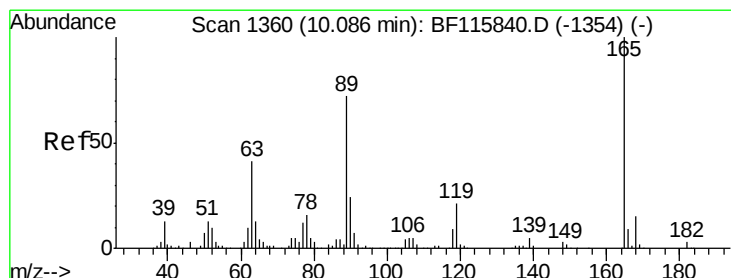
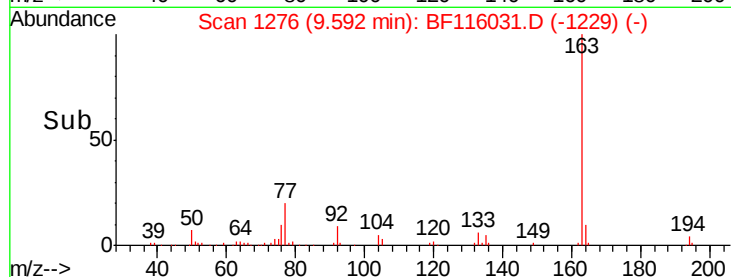
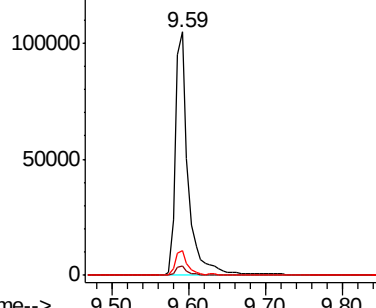
#50  
Dimethylphthalate  
Concen: 7.594 ng  
RT: 9.59 min Scan# 1276  
Delta R.T. -0.02 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

Instrument :  
BNA\_F  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 163     | 100   |       |       |
| 194     | 3.9   | 3.0   | 4.6   |
| 164     | 10.4  | 8.4   | 12.6  |



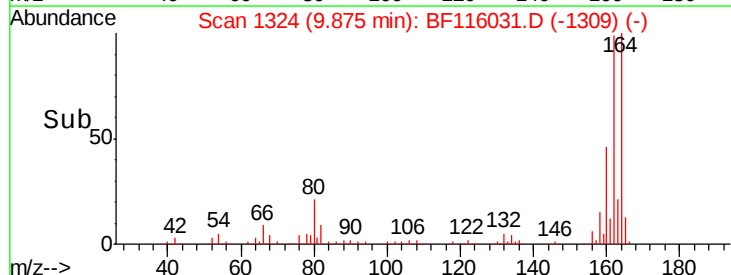
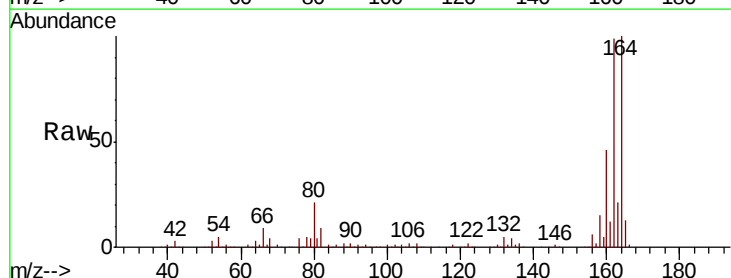
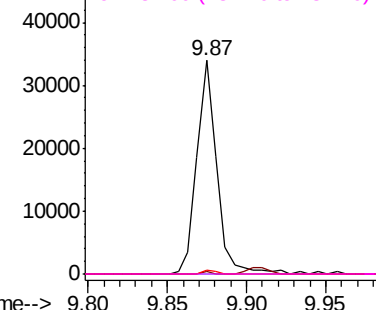
Abundance Ion 163.00 (162.70 to 163.70): E  
Ion 194.00 (193.70 to 194.70): E  
Ion 164.00 (163.70 to 164.70): E

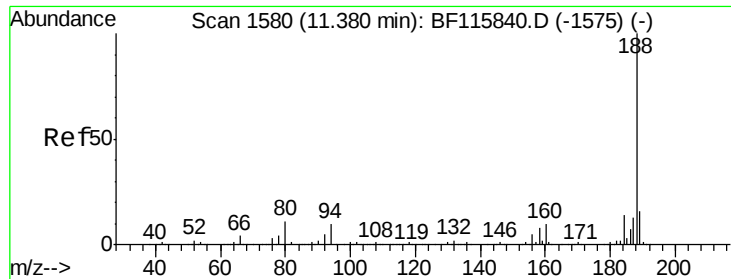


#57  
2,4-Dinitrotoluene  
Concen: 6.359 ng  
RT: 9.87 min Scan# 1324  
Delta R.T. -0.21 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 165     | 100   |       |       |
| 63      | 1.2   | 33.2  | 49.8# |
| 89      | 1.6   | 57.3  | 85.9# |
| 182     | 0.0   | 2.1   | 3.1#  |

Abundance Ion 165.00 (164.70 to 165.70): E  
Ion 63.00 (62.70 to 63.70): BF1  
Ion 89.00 (88.70 to 89.70): BF1  
Ion 182.00 (181.70 to 182.70): E

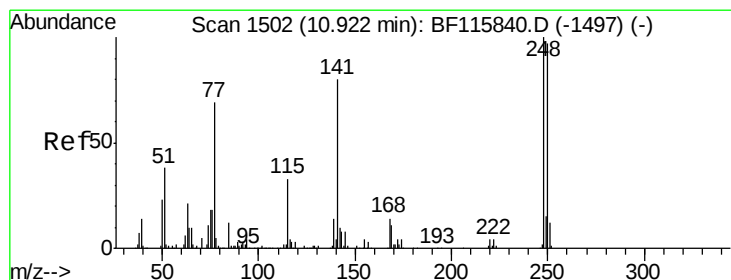
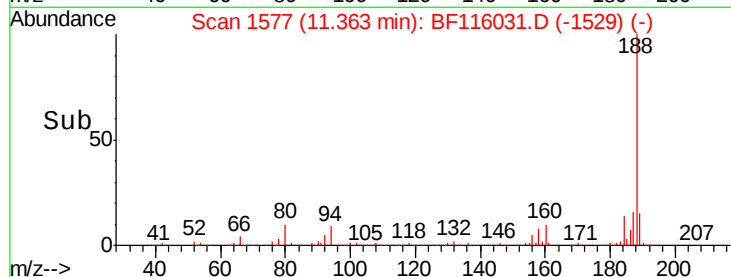
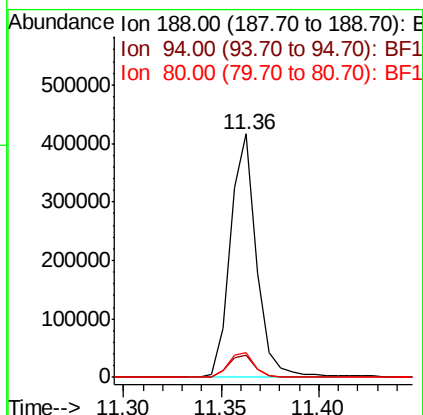
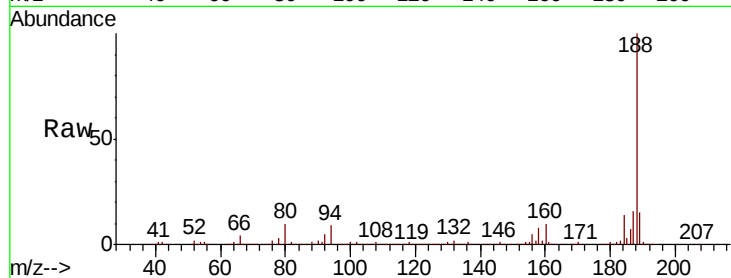




#64  
 Phenanthrene-d10  
 Concen: 20.000 ng  
 RT: 11.36 min Scan# 1577  
 Delta R.T. -0.02 min  
 Lab File: BF116031.D  
 Acq: 6 Aug 2019 23:22

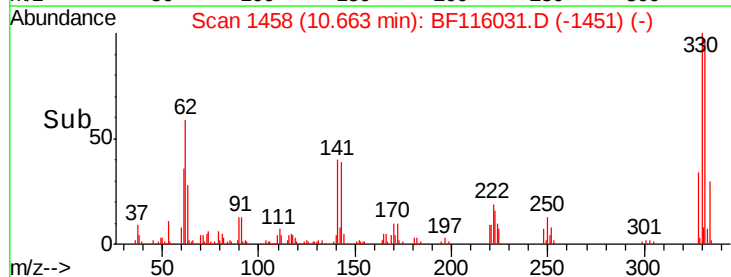
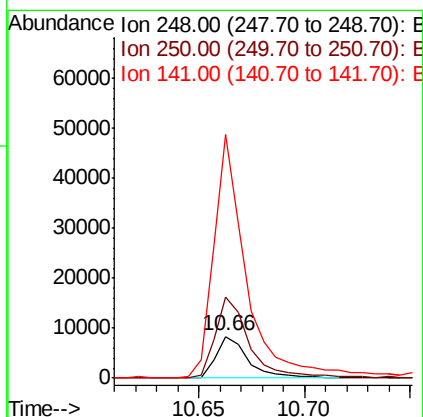
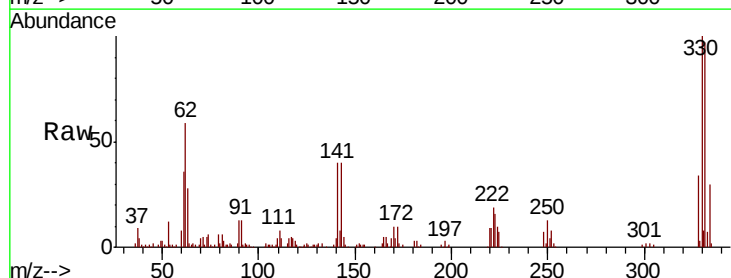
Instrument :  
 BNA\_F  
 ClientSampleId :

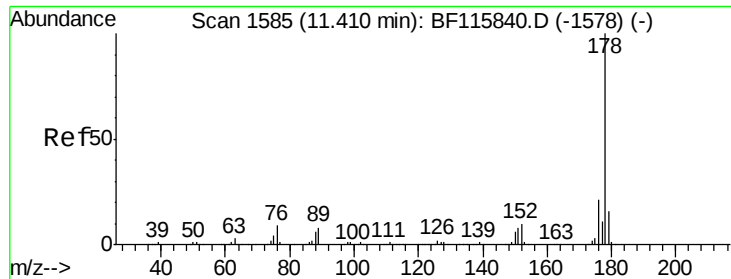
Tot Ion:188 Resp: 384773  
 Ion Ratio Lower Upper  
 188 100  
 94 9.1 8.0 12.0  
 80 10.2 8.6 12.8



#67  
 4-Bromophenyl-phenylether  
 Concen: 2.111 ng  
 RT: 10.66 min Scan# 1458  
 Delta R.T. -0.26 min  
 Lab File: BF116031.D  
 Acq: 6 Aug 2019 23:22

Tgt Ion:248 Resp: 8696  
 Ion Ratio Lower Upper  
 248 100  
 250 195.7 77.8 116.6#  
 141 587.8 64.3 96.5#

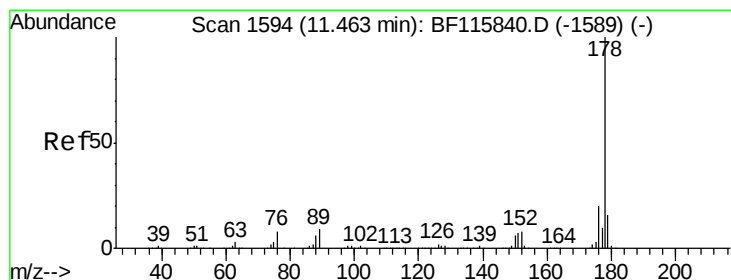
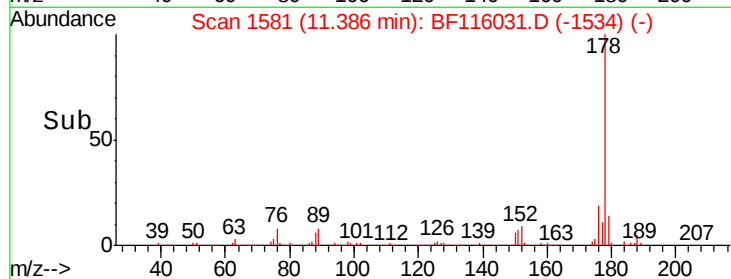
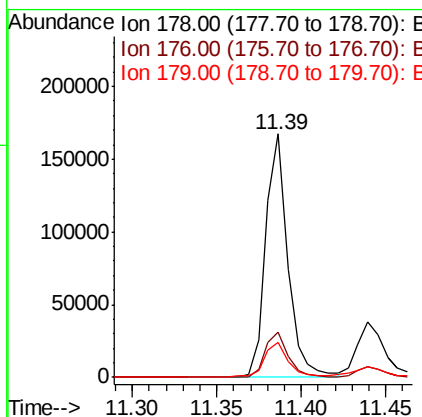
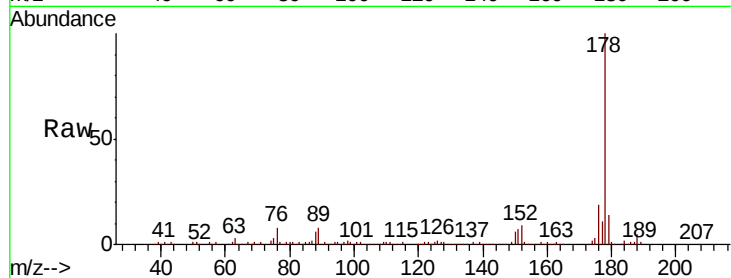




#71  
 Phenanthrene  
 Concen: 7.784 ng  
 RT: 11.39 min Scan# 1581  
 Delta R.T. -0.02 min  
 Lab File: BF116031.D  
 Acq: 6 Aug 2019 23:22

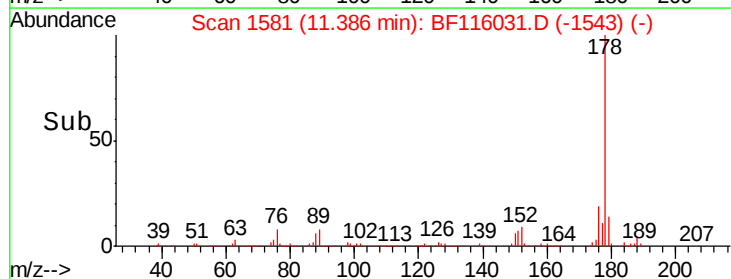
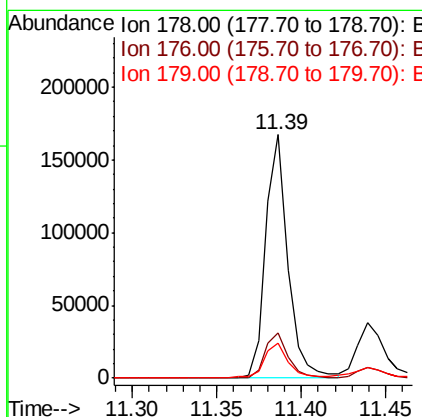
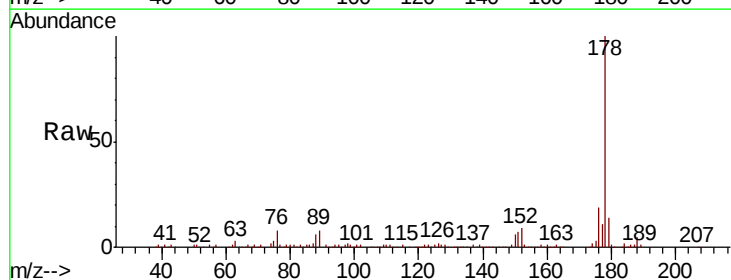
Instrument :  
 BNA\_F  
 ClientSampleId :

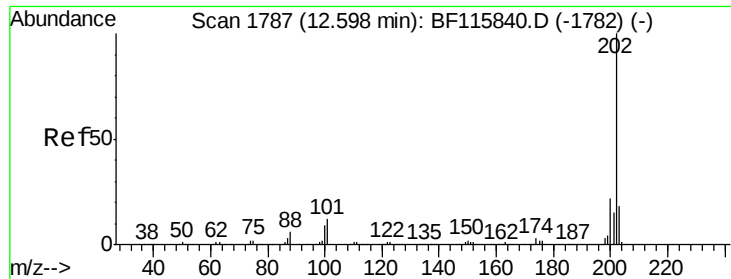
Tot Ion:178 Resp: 153113  
 Ion Ratio Lower Upper  
 178 100  
 176 18.6 16.5 24.7  
 179 14.5 12.6 18.8



#72  
 Anthracene  
 Concen: 7.691 ng  
 RT: 11.39 min Scan# 1581  
 Delta R.T. -0.08 min  
 Lab File: BF116031.D  
 Acq: 6 Aug 2019 23:22

Tgt Ion:178 Resp: 153113  
 Ion Ratio Lower Upper  
 178 100  
 176 18.6 15.7 23.5  
 179 14.5 12.4 18.6





#75

Fluoranthene

Concen: 15.323 ng

RT: 12.57 min Scan# 1783

Delta R.T. -0.02 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

Instrument :

BNA\_F

ClientSampleId :

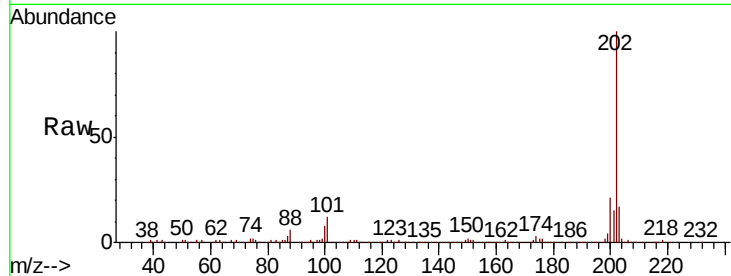
Tot Ion:202 Resp: 315552

Ion Ratio Lower Upper

202 100

101 11.5 0.0 31.5

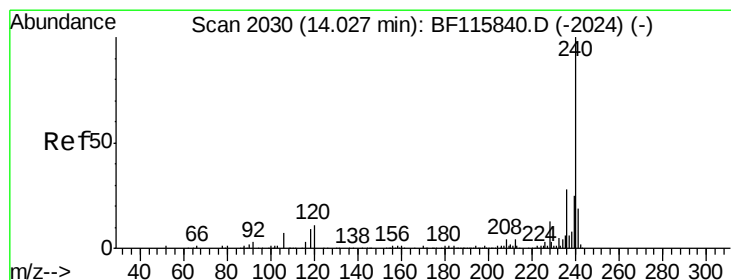
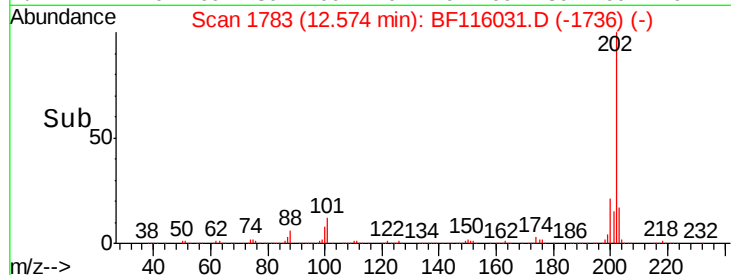
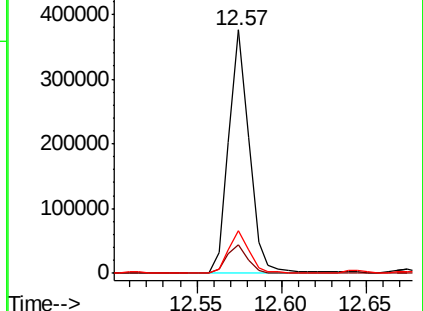
203 17.3 0.0 37.9



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



#76

Chrysene-d12

Concen: 20.000 ng

RT: 14.00 min Scan# 2025

Delta R.T. -0.03 min

Lab File: BF116031.D

Acq: 6 Aug 2019 23:22

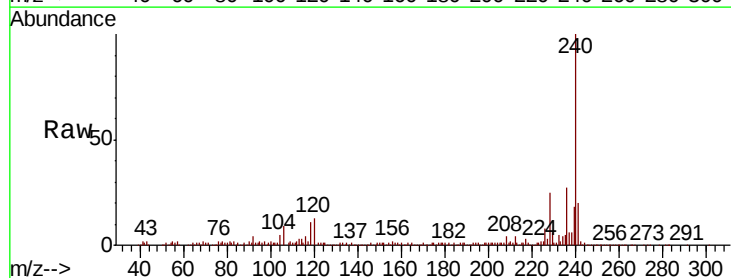
Tgt Ion:240 Resp: 294208

Ion Ratio Lower Upper

240 100

120 12.6 8.5 12.7

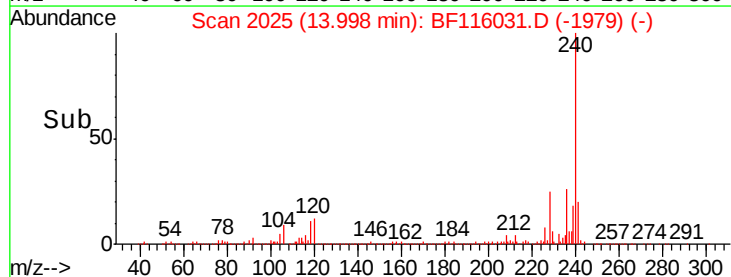
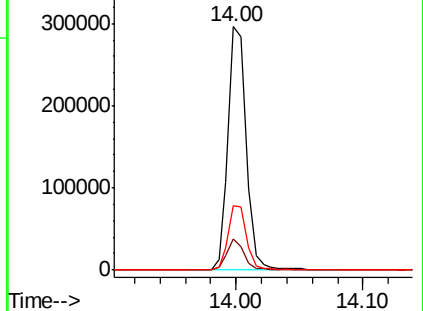
236 26.6 22.2 33.2

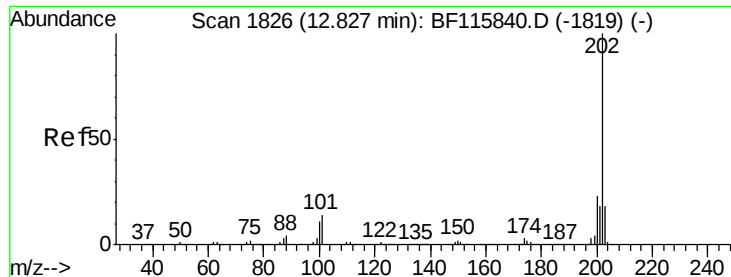


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E

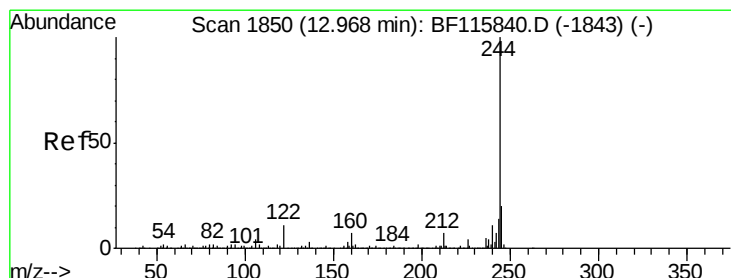
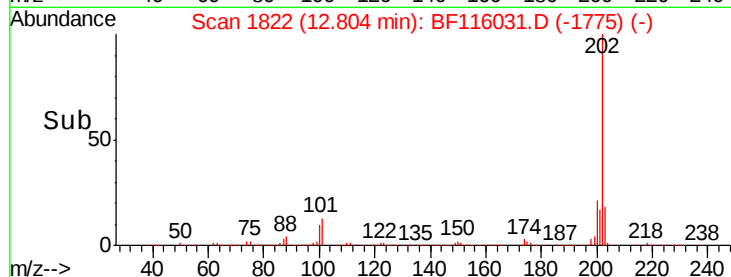
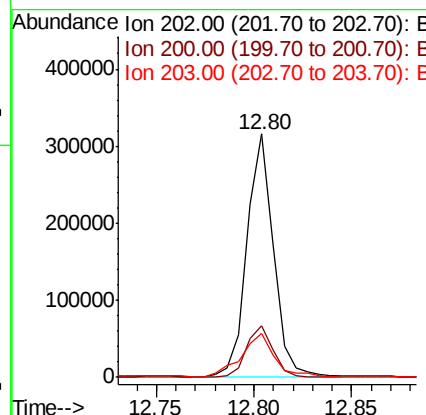
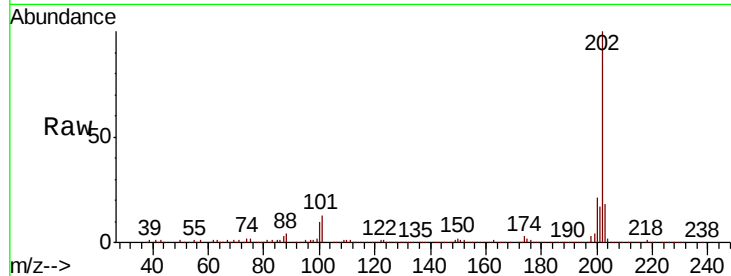




#78  
Pvrene  
Concen: 13.362 ng  
RT: 12.80 min Scan# 1822  
Delta R.T. -0.02 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

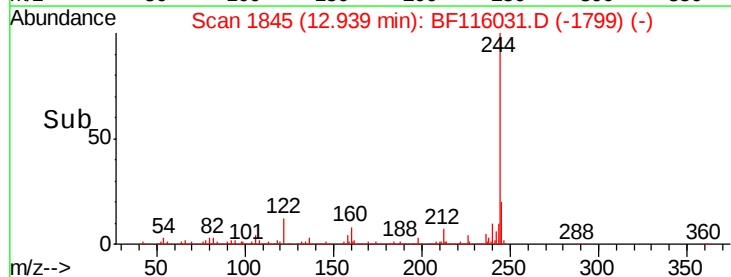
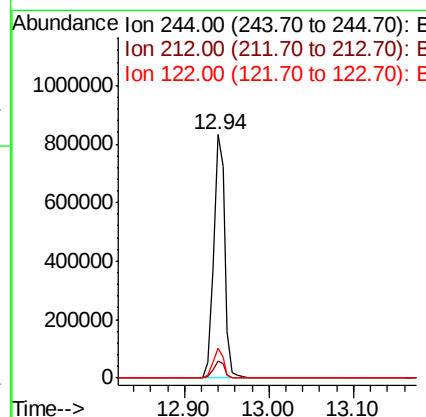
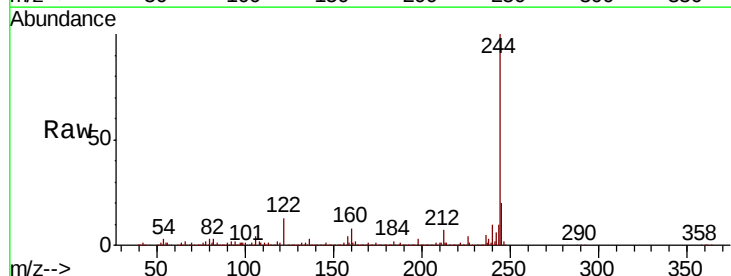
Instrument :  
BNA\_F  
ClientSampleId :

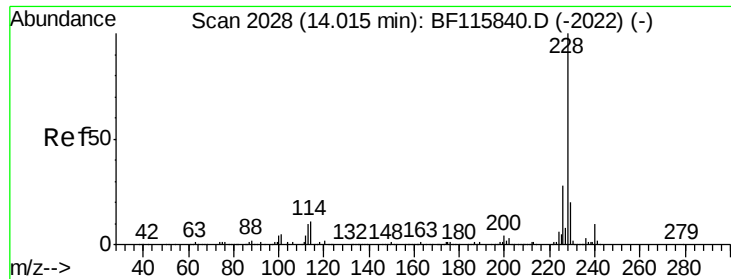
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.4  | 18.2  | 27.2  |
| 203     | 17.9  | 14.3  | 21.5  |



#79  
Terphenyl-d14  
Concen: 55.690 ng  
RT: 12.94 min Scan# 1845  
Delta R.T. -0.03 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 7.2   | 5.6   | 8.4   |
| 122     | 12.5  | 8.6   | 13.0  |

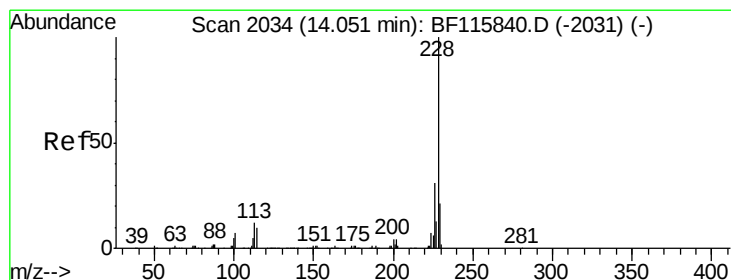
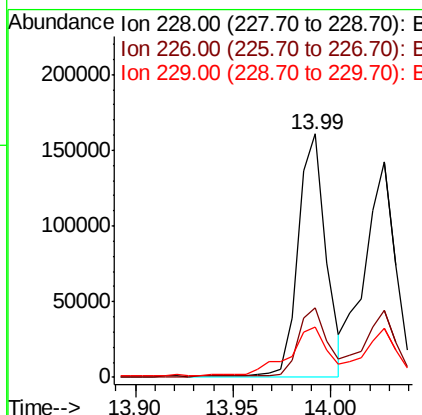
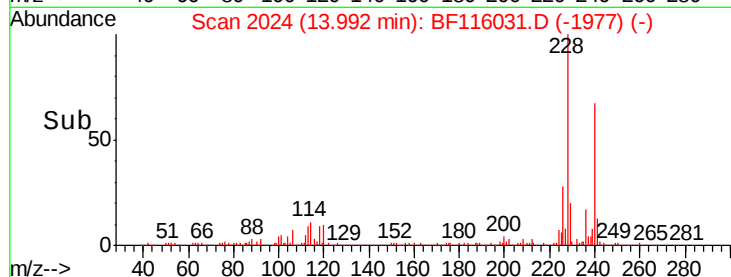
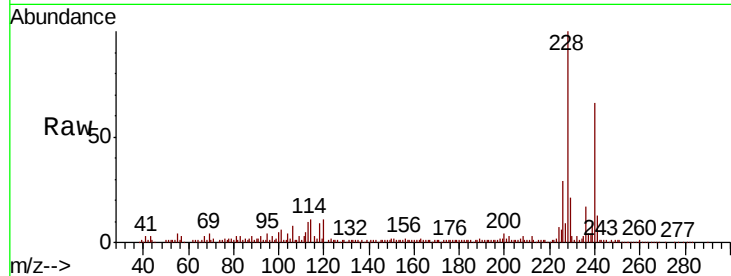




#81  
Benzo(a)anthracene  
Concen: 8.407 ng  
RT: 13.99 min Scan# 2024  
Delta R.T. -0.02 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

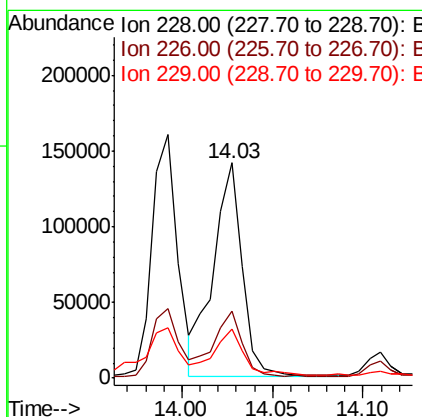
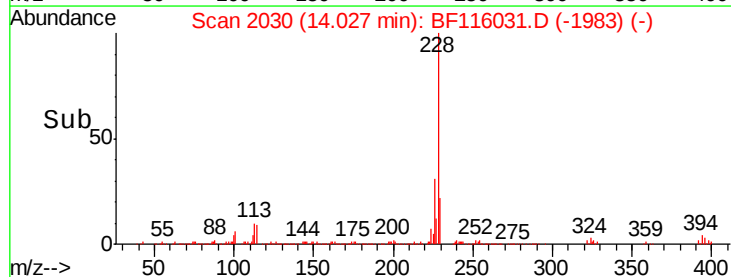
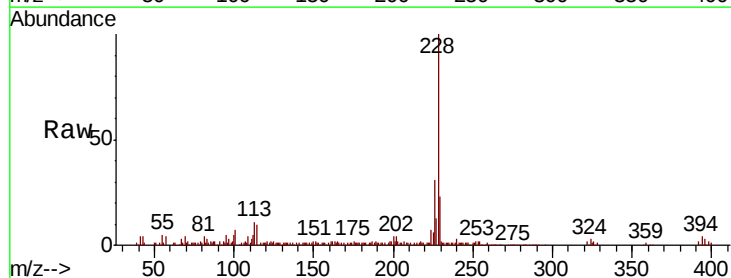
Instrument :  
BNA\_F  
ClientSampleId :

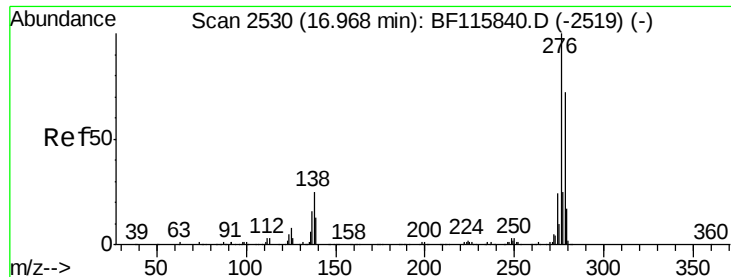
Tot Ion:228 Resp: 158089  
Ion Ratio Lower Upper  
228 100  
226 28.8 22.5 33.7  
229 20.8 16.1 24.1



#83  
Chrysene  
Concen: 8.689 ng  
RT: 14.03 min Scan# 2030  
Delta R.T. -0.02 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

Tgt Ion:228 Resp: 158631  
Ion Ratio Lower Upper  
228 100  
226 31.1 24.8 37.2  
229 22.7 16.4 24.6

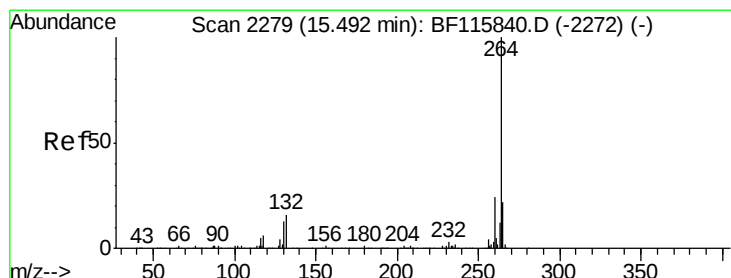
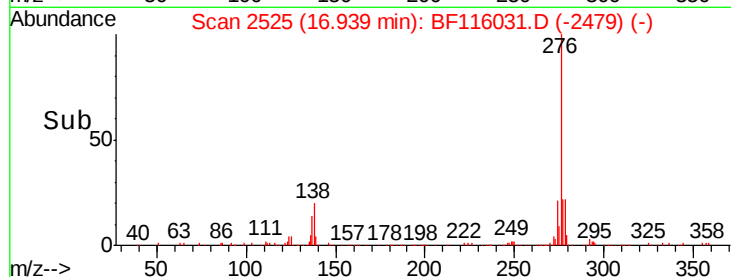
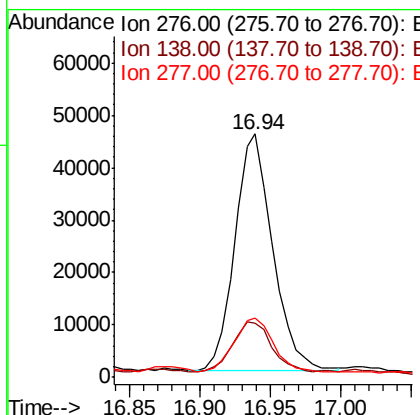
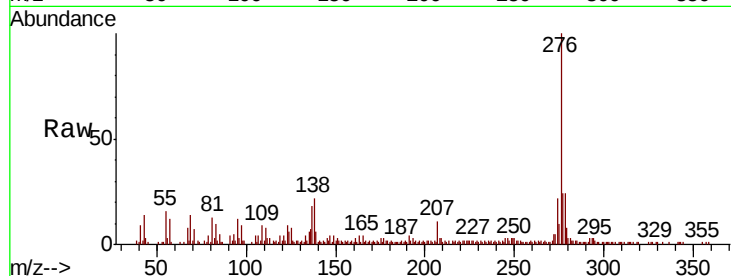




#86  
 Indeno(1,2,3-cd)pyrene  
 Concen: 5.535 ng  
 RT: 16.94 min Scan# 2525  
 Delta R.T. -0.03 min  
 Lab File: BF116031.D  
 Acq: 6 Aug 2019 23:22

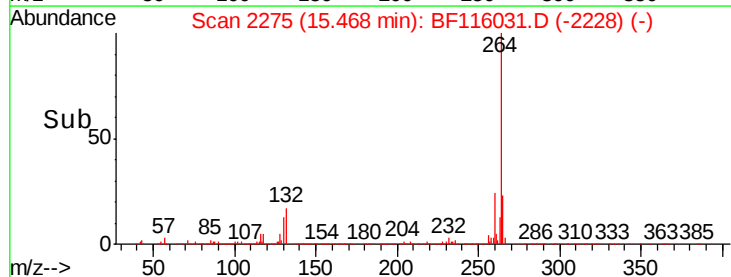
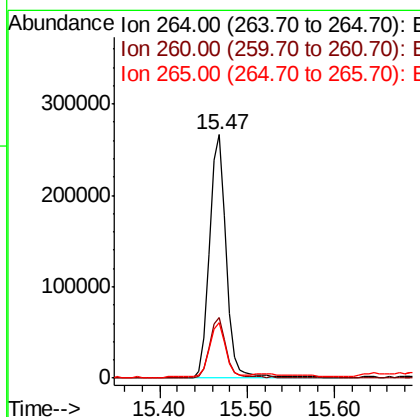
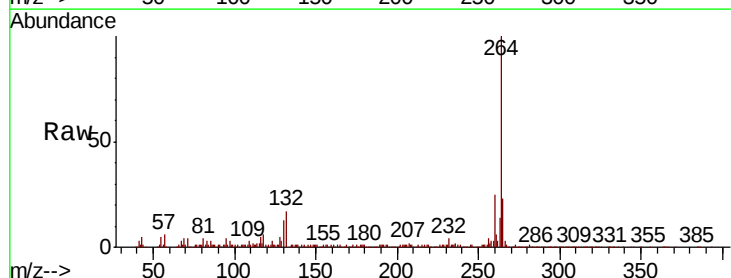
Instrument :  
 BNA\_F  
 ClientSampleId :

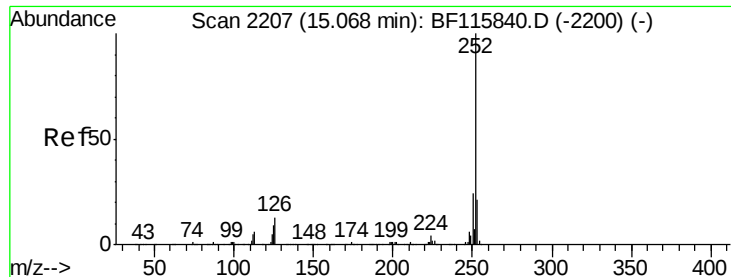
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 22.5  | 19.6  | 29.4  |
| 277     | 23.6  | 20.1  | 30.1  |



#87  
 Perylene-d12  
 Concen: 20.000 ng  
 RT: 15.47 min Scan# 2275  
 Delta R.T. -0.02 min  
 Lab File: BF116031.D  
 Acq: 6 Aug 2019 23:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 24.8  | 19.4  | 29.2  |
| 265     | 22.8  | 17.5  | 26.3  |

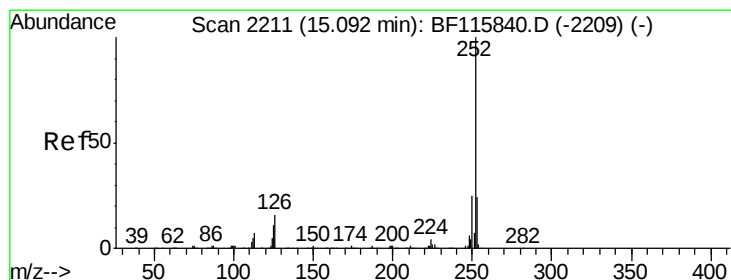
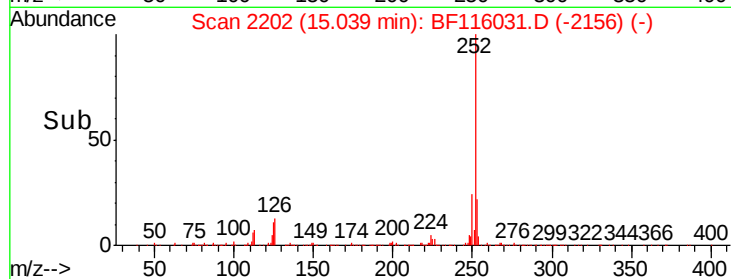
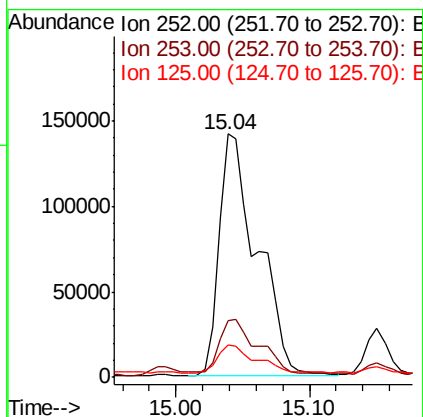
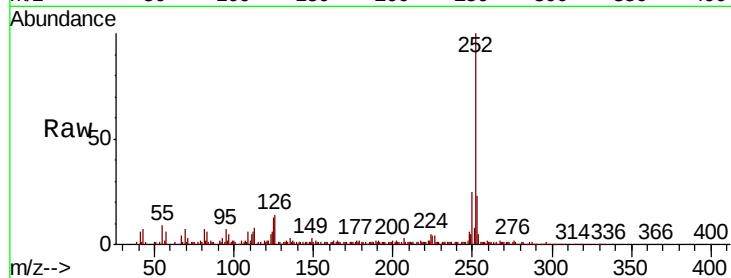




#88  
Benzo(b)fluoranthene  
Concen: 13.905 ng  
RT: 15.04 min Scan# 2202  
Delta R.T. -0.03 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

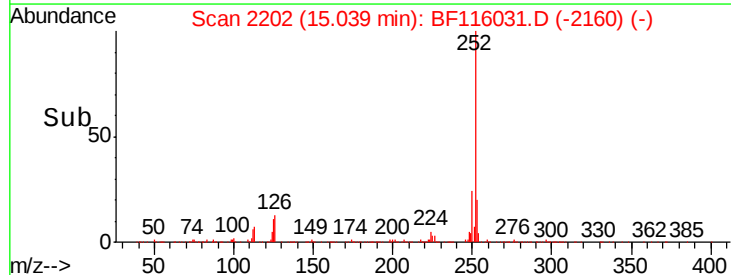
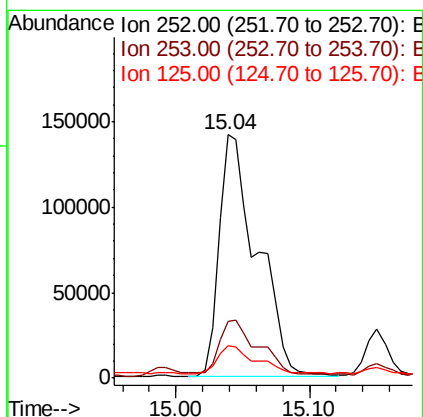
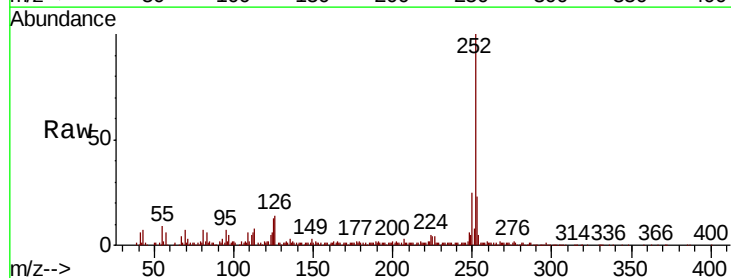
Instrument :  
BNA\_F  
ClientSampleId :

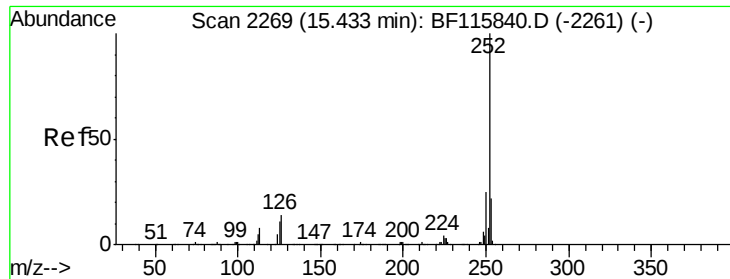
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.2  | 17.2  | 25.8  |
| 125     | 13.4  | 7.4   | 11.0  |



#89  
Benzo(k)fluoranthene  
Concen: 14.276 ng  
RT: 15.04 min Scan# 2202  
Delta R.T. -0.05 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.2  | 18.2  | 27.4  |
| 125     | 13.4  | 8.9   | 13.3  |

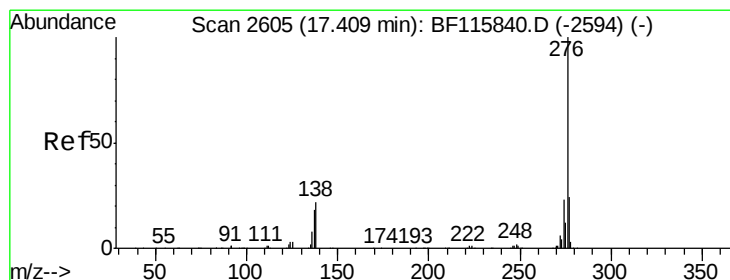
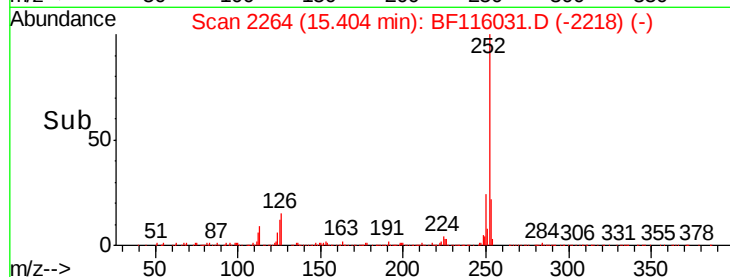
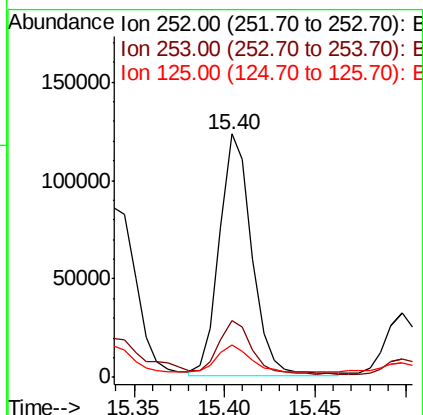
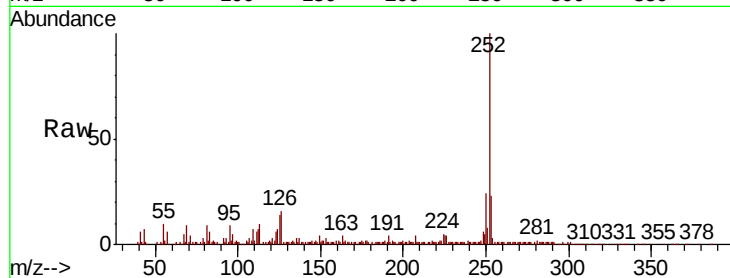




#90  
Benzo(a)pyrene  
Concen: 8.474 ng  
RT: 15.40 min Scan# 2264  
Delta R.T. -0.03 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

Instrument :  
BNA\_F  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.3  | 17.8  | 26.6  |
| 125     | 13.5  | 8.8   | 13.2# |



#92  
Benzo(g,h,i)perylene  
Concen: 5.475 ng  
RT: 17.38 min Scan# 2600  
Delta R.T. -0.03 min  
Lab File: BF116031.D  
Acq: 6 Aug 2019 23:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 23.9  | 19.5  | 29.3  |
| 138     | 22.9  | 17.8  | 26.8  |

