

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF082819\  
 Data File : BF116626.D  
 Acq On : 28 Aug 2019 20:29  
 Operator : HP/JU  
 Sample : K4567-11  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :

Quant Time: Aug 29 01:05:45 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF082819.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Aug 28 13:34:15 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.86  | 152  | 118268   | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 8.15  | 136  | 452226   | 20.00 | ng    | 0.00     |
| 39) Acenaphthene-d10      | 9.89  | 164  | 246202   | 20.00 | ng    | -0.01    |
| 64) Phenanthrene-d10      | 11.37 | 188  | 402476   | 20.00 | ng    | 0.00     |
| 76) Chrysene-d12          | 14.00 | 240  | 214130   | 20.00 | ng    | 0.00     |
| 87) Perylene-d12          | 15.46 | 264  | 231295   | 20.00 | ng    | 0.00     |

|                             |       |     |        |       |    |       |
|-----------------------------|-------|-----|--------|-------|----|-------|
| System Monitoring Compounds |       |     |        |       |    |       |
| 5) 2-Fluorophenol           | 5.48  | 112 | 572480 | 83.61 | ng | 0.00  |
| 7) Phenol-d6                | 6.49  | 99  | 790033 | 85.10 | ng | 0.00  |
| 23) Nitrobenzene-d5         | 7.42  | 82  | 541685 | 68.54 | ng | -0.01 |
| 42) 2,4,6-Tribromophenol    | 10.68 | 330 | 227603 | 97.15 | ng | 0.00  |
| 45) 2-Fluorobiphenyl        | 9.22  | 172 | 978000 | 66.11 | ng | 0.00  |
| 79) Terphenyl-d14           | 12.96 | 244 | 903135 | 68.59 | ng | 0.00  |

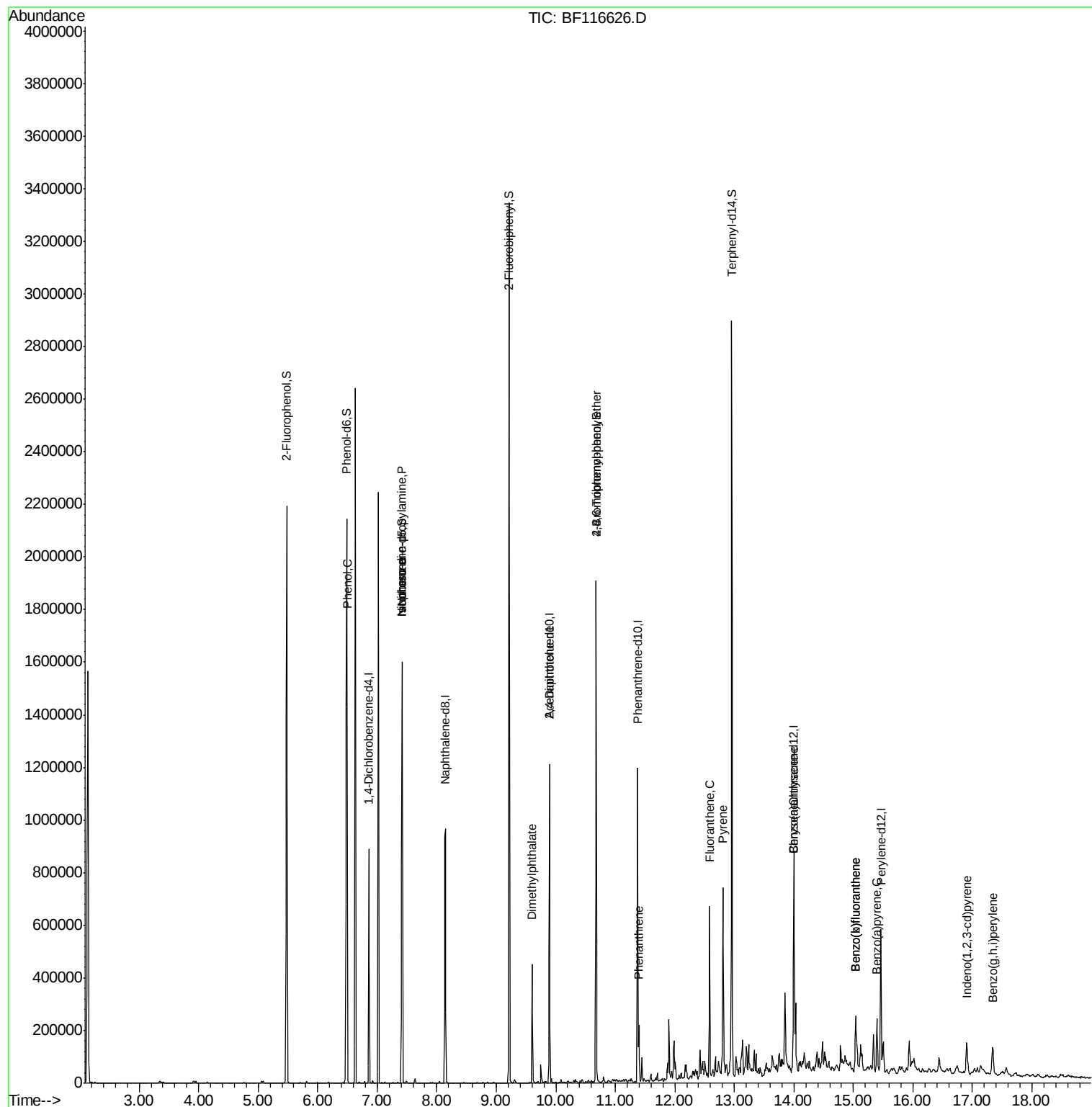
|                                |       |     |        |           |    |      |
|--------------------------------|-------|-----|--------|-----------|----|------|
| Target Compounds               |       |     |        | Qvalue    |    |      |
| 9) Benzaldehyde                | 6.49  | 77  | 1659   | Below Cal | #  | 1    |
| 10) Phenol                     | 6.50  | 94  | 56555  | 5.554     | ng | 99   |
| 19) n-Nitroso-di-n-propylamine | 7.42  | 70  | 71549  | 12.120    | ng | # 78 |
| 25) Isophorone                 | 7.42  | 82  | 539386 | 37.490    | ng | # 65 |
| 50) Dimethylphthalate          | 9.60  | 163 | 158827 | 9.596     | ng | 100  |
| 57) 2,4-Dinitrotoluene         | 9.89  | 165 | 32289  | 6.705     | ng | # 26 |
| 67) 4-Bromophenyl-phenylether  | 10.68 | 248 | 14978  | 3.508     | ng | # 1  |
| 71) Phenanthrene               | 11.40 | 178 | 69091  | 3.196     | ng | 99   |
| 75) Fluoranthene               | 12.59 | 202 | 259469 | 13.383    | ng | 98   |
| 78) Pyrene                     | 12.81 | 202 | 266549 | 13.537    | ng | 99   |
| 81) Benzo(a)anthracene         | 13.99 | 228 | 105188 | 7.368     | ng | 94   |
| 83) Chrysene                   | 13.99 | 228 | 105188 | 7.526     | ng | 98   |
| 86) Indeno(1,2,3-cd)pyrene     | 16.90 | 276 | 81006  | 10.756    | ng | 97   |
| 88) Benzo(b)fluoranthene       | 15.04 | 252 | 149090 | 10.496    | ng | 98   |
| 89) Benzo(k)fluoranthene       | 15.04 | 252 | 149090 | 11.043    | ng | 98   |
| 90) Benzo(a)pyrene             | 15.40 | 252 | 92138  | 7.268     | ng | 98   |
| 92) Benzo(a,h,i)perylene       | 17.34 | 276 | 79588  | 6.471     | ng | 97   |

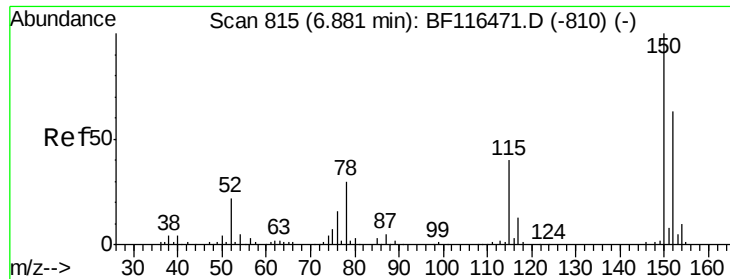
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF082819\  
Data File : BF116626.D  
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Sample : K4567-11  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :

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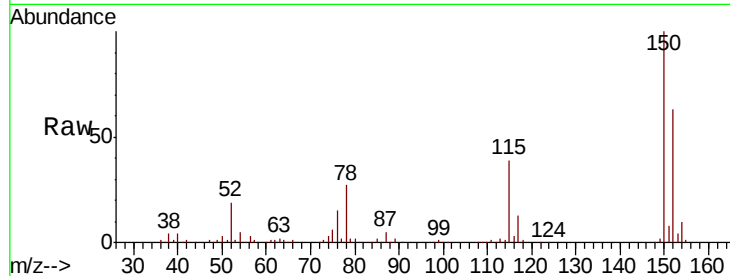


#1

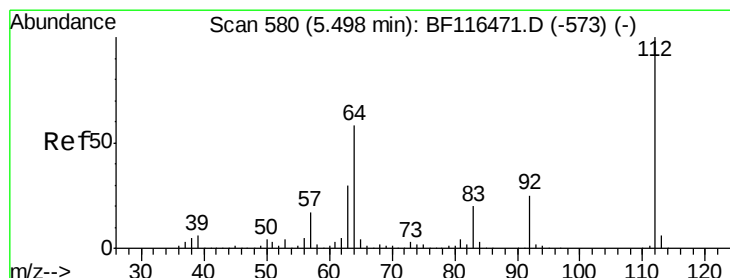
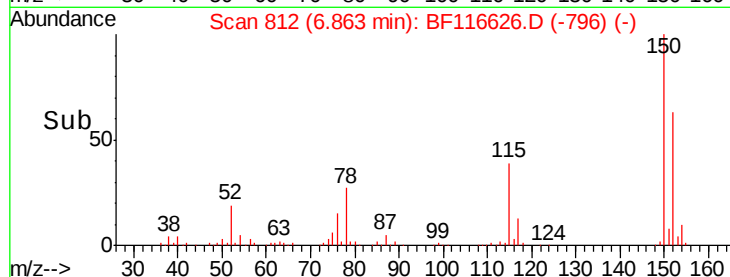
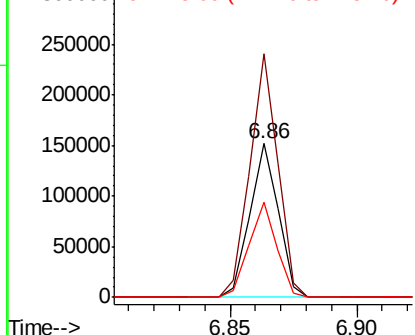
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.86 min Scan# 812  
Delta R.T. -0.01 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

Instrument :  
BNA\_F  
ClientSampleId :

Tot Ion:152 Resp: 118268  
Ion Ratio Lower Upper  
152 100  
150 158.4 123.4 185.2  
115 61.6 48.2 72.2



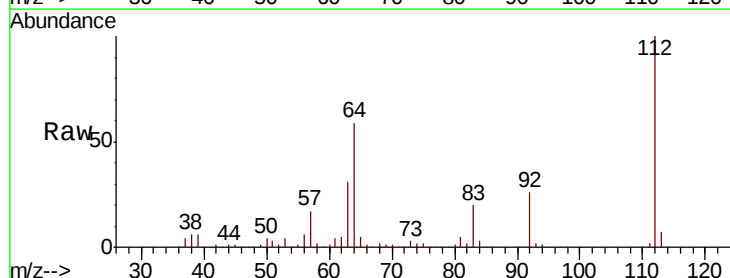
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



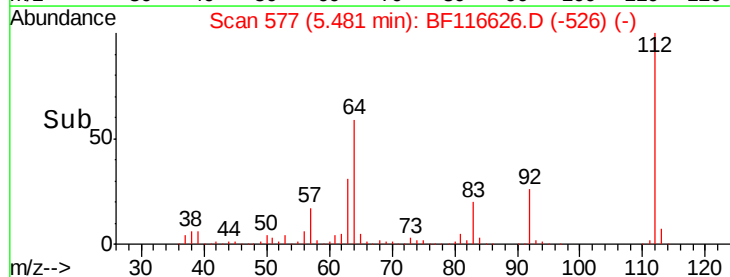
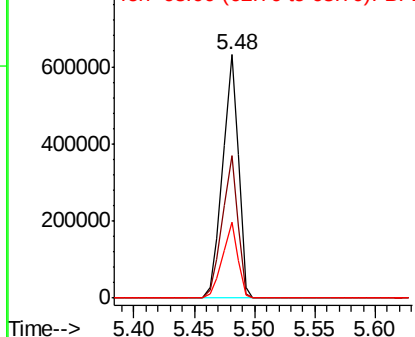
#5

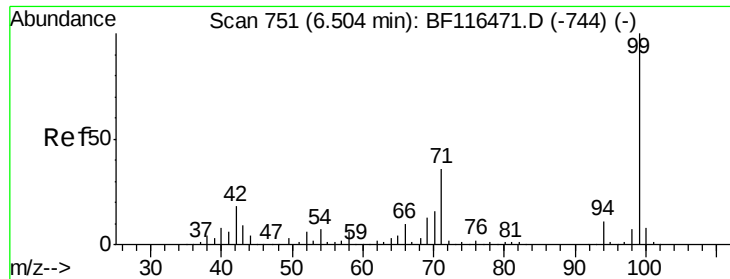
2-Fluorophenol  
Concen: 83.607 ng  
RT: 5.48 min Scan# 577  
Delta R.T. 0.00 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

Tgt Ion:112 Resp: 572480  
Ion Ratio Lower Upper  
112 100  
64 58.8 48.0 72.0  
63 31.4 24.6 36.8



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: 85.104 ng

RT: 6.49 min Scan# 748

Delta R.T. -0.01 min

Lab File: BF116626.D

Acq: 28 Aug 2019 20:29

Instrument :

BNA\_F

ClientSampleId :

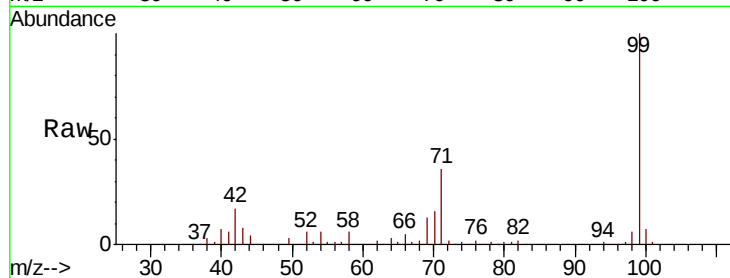
Tot Ion: 99 Resp: 790033

Ion Ratio Lower Upper

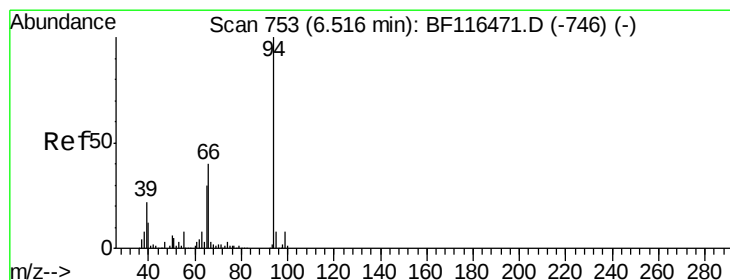
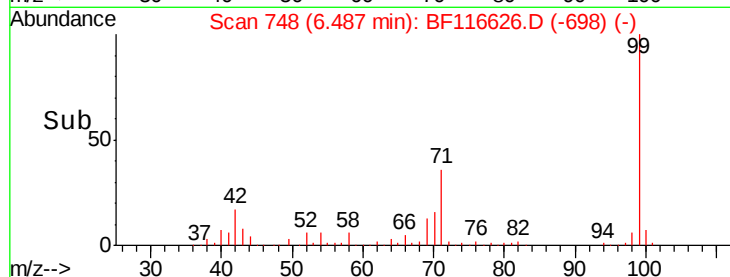
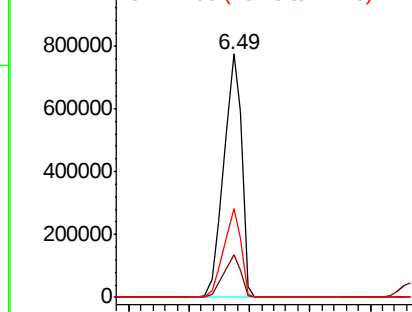
99 100

42 17.3 13.2 19.8

71 36.3 27.4 41.2



Abundance Ion 99.00 (98.70 to 99.70): BF1  
Ion 42.00 (41.70 to 42.70): BF1  
Ion 71.00 (70.70 to 71.70): BF1



#10

Phenol

Concen: 5.554 ng

RT: 6.50 min Scan# 750

Delta R.T. -0.01 min

Lab File: BF116626.D

Acq: 28 Aug 2019 20:29

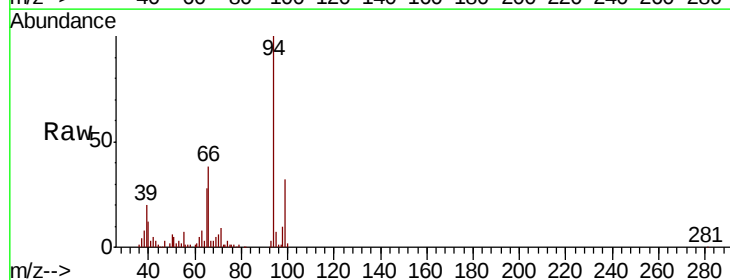
Tgt Ion: 94 Resp: 56555

Ion Ratio Lower Upper

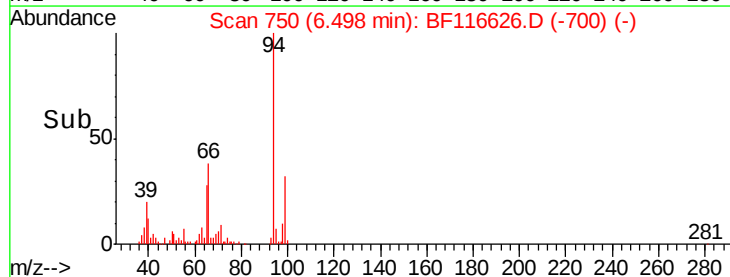
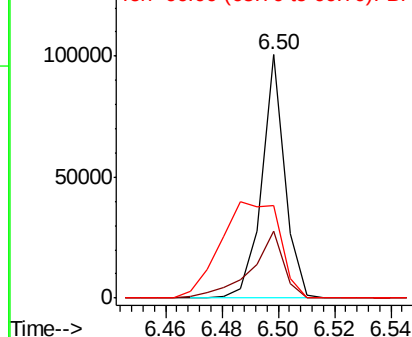
94 100

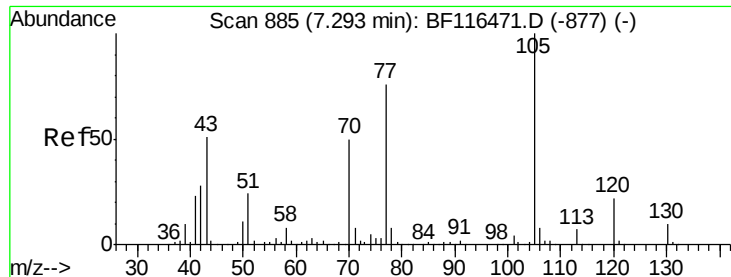
65 27.6 8.6 48.6

66 37.9 18.0 58.0



Abundance Ion 94.00 (93.70 to 94.70): BF1  
Ion 65.00 (64.70 to 65.70): BF1  
Ion 66.00 (65.70 to 66.70): BF1

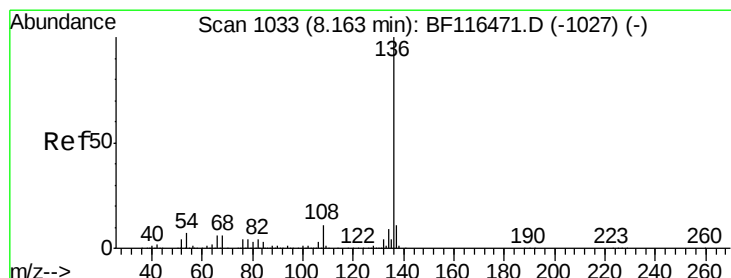
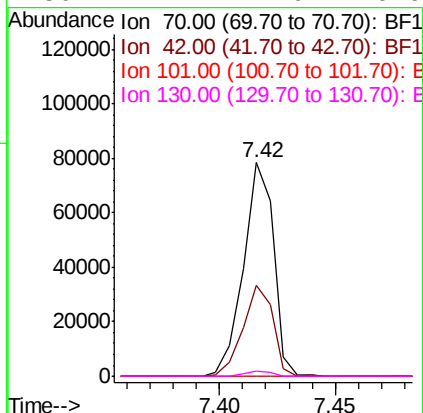
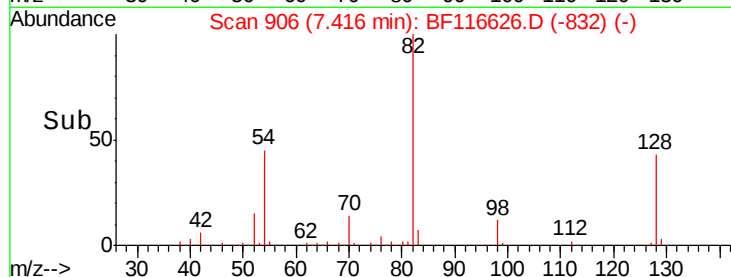
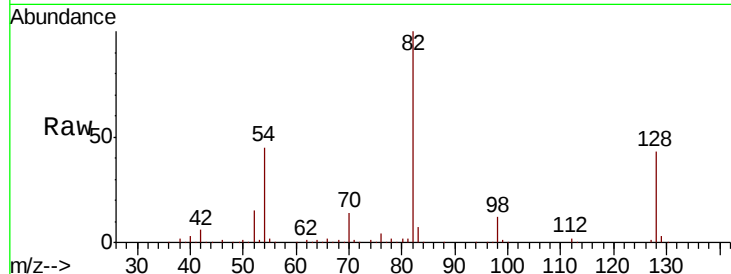




#19  
n-Nitroso-di-n-propylamine  
Concen: 12.120 ng  
RT: 7.42 min Scan# 906  
Delta R.T. 0.14 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

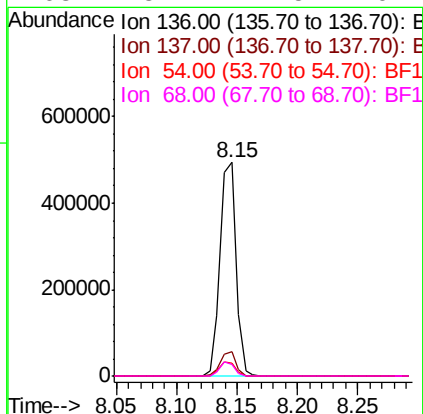
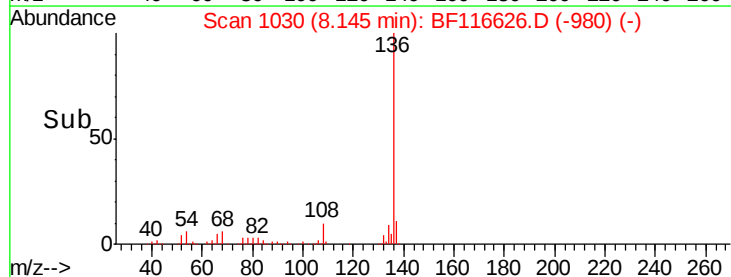
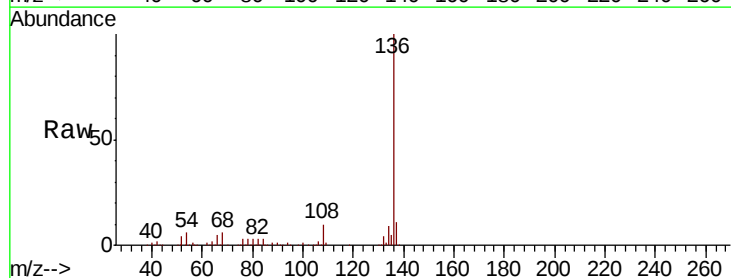
Instrument :  
BNA\_F  
ClientSampleId :

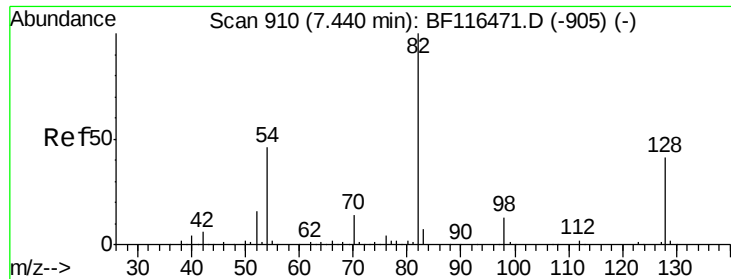
Tot Ion: 70 Resp: 71549  
Ion Ratio Lower Upper  
70 100  
42 42.8 41.2 61.8  
101 0.0 7.7 11.5#  
130 2.1 17.9 26.9#



#21  
Naphthalene-d8  
Concen: 20.000 ng  
RT: 8.15 min Scan# 1030  
Delta R.T. -0.01 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

Tgt Ion:136 Resp: 452226  
Ion Ratio Lower Upper  
136 100  
137 11.1 8.7 13.1  
54 6.3 5.0 7.4  
68 5.7 4.5 6.7

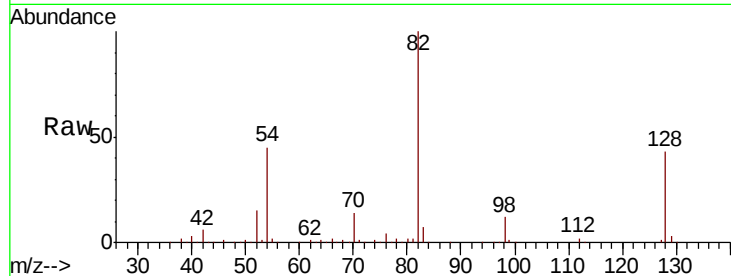




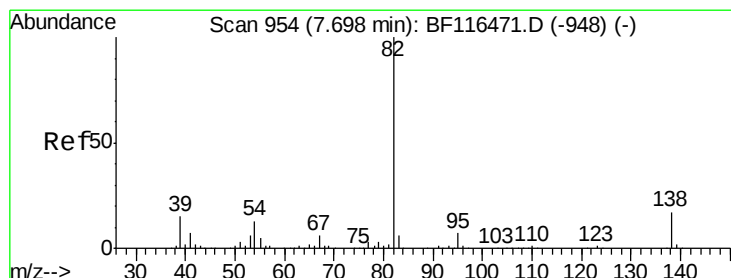
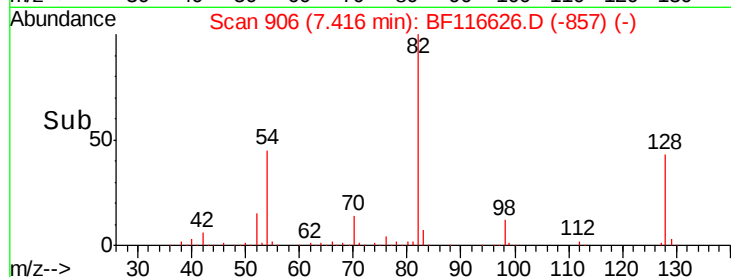
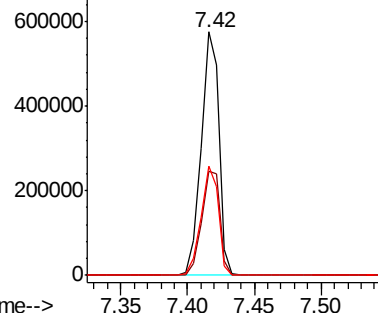
#23  
Nitrobenzene-d5  
Concen: 68.539 ng  
RT: 7.42 min Scan# 906  
Delta R.T. -0.01 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

Instrument :  
BNA\_F  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 82      | 100   |       |       |
| 128     | 42.9  | 35.0  | 52.6  |
| 54      | 44.6  | 34.4  | 51.6  |

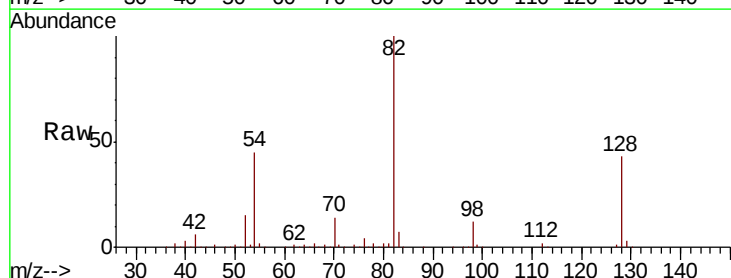


Abundance Ion 82.00 (81.70 to 82.70): BF1  
Ion 128.00 (127.70 to 128.70): BF1  
Ion 54.00 (53.70 to 54.70): BF1

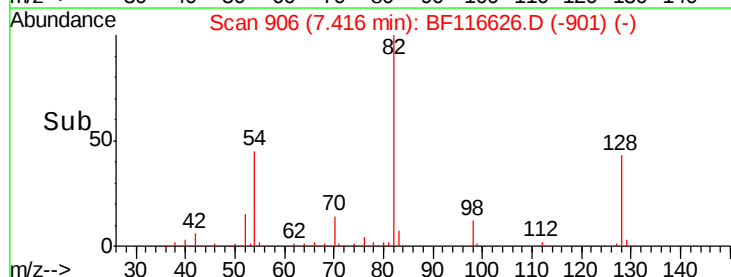
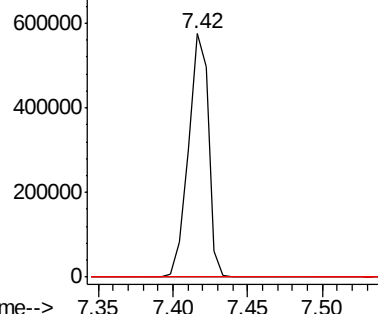


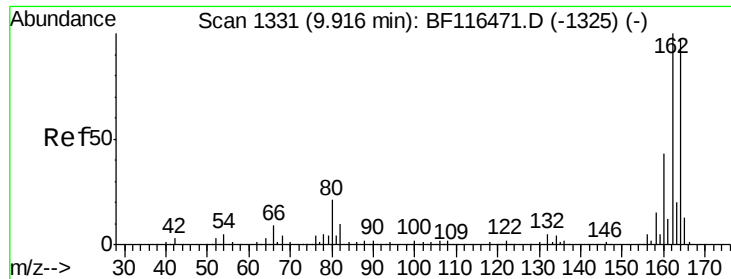
#25  
Isophorone  
Concen: 37.490 ng  
RT: 7.42 min Scan# 906  
Delta R.T. -0.27 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 82      | 100   |       |       |
| 95      | 0.0   | 5.6   | 8.4#  |
| 138     | 0.0   | 14.4  | 21.6# |



Abundance Ion 82.00 (81.70 to 82.70): BF1  
Ion 95.00 (94.70 to 95.70): BF1  
Ion 138.00 (137.70 to 138.70): BF1





#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.89 min Scan# 1327

Delta R.T. -0.01 min

Lab File: BF116626.D

Acq: 28 Aug 2019 20:29

Instrument :

BNA\_F

ClientSampleId :

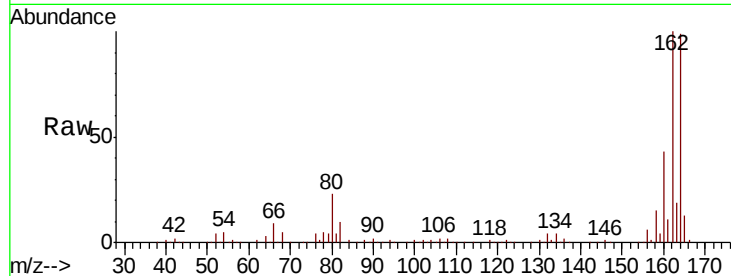
Tot Ion:164 Resp: 246202

Ion Ratio Lower Upper

164 100

162 101.1 83.4 125.0

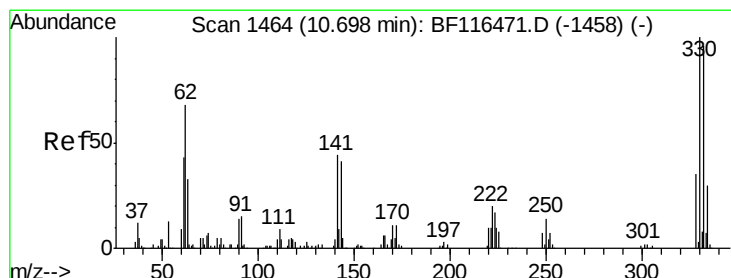
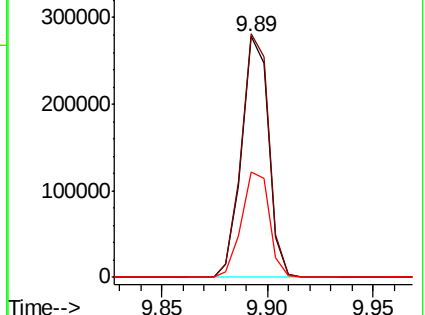
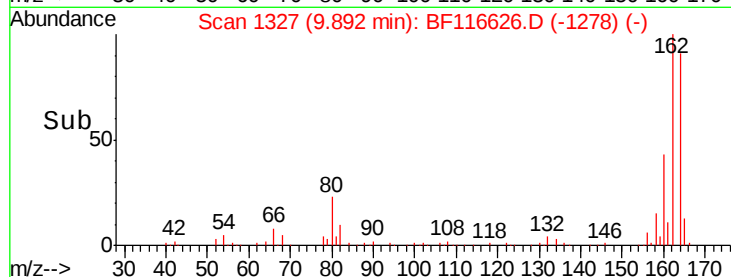
160 43.6 37.0 55.4



Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E



#42

2,4,6-Tribromophenol

Concen: 97.147 ng

RT: 10.68 min Scan# 1461

Delta R.T. -0.01 min

Lab File: BF116626.D

Acq: 28 Aug 2019 20:29

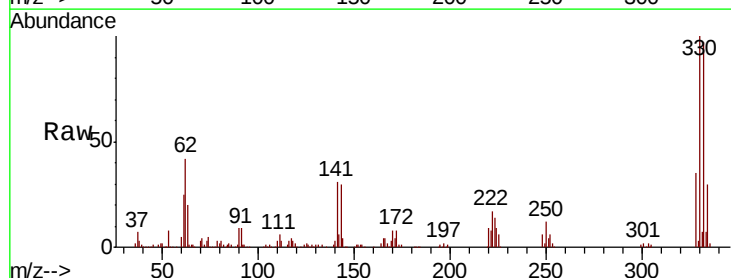
Tgt Ion:330 Resp: 227603

Ion Ratio Lower Upper

330 100

332 96.3 77.5 116.3

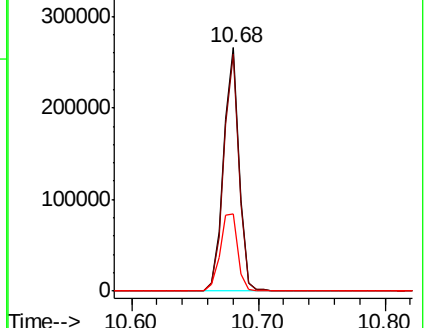
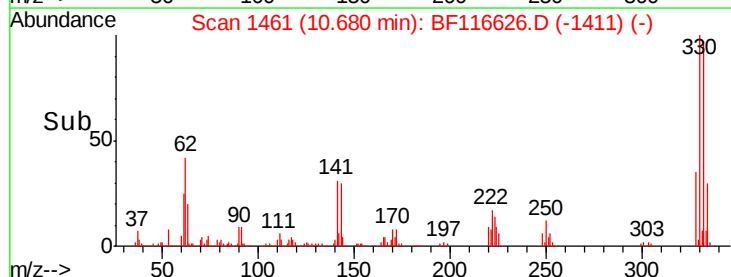
141 36.3 28.2 42.2

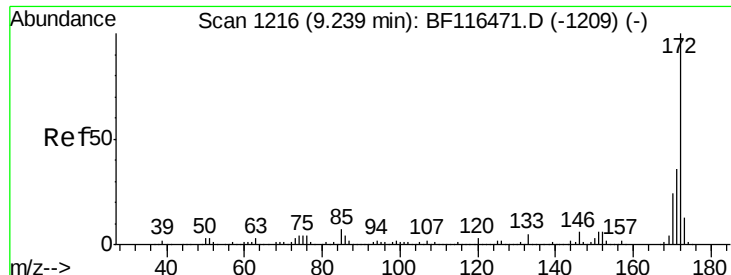


Abundance Ion 329.80 (329.50 to 330.50): E

Ion 331.80 (331.50 to 332.50): E

Ion 141.00 (140.70 to 141.70): E

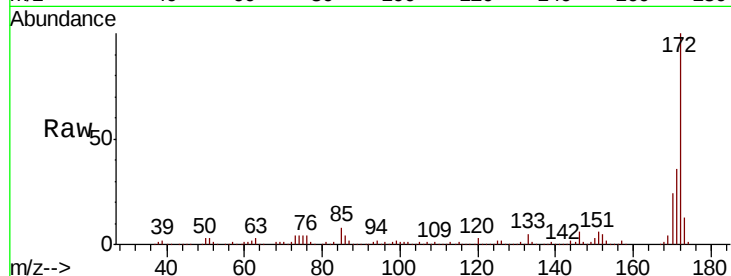




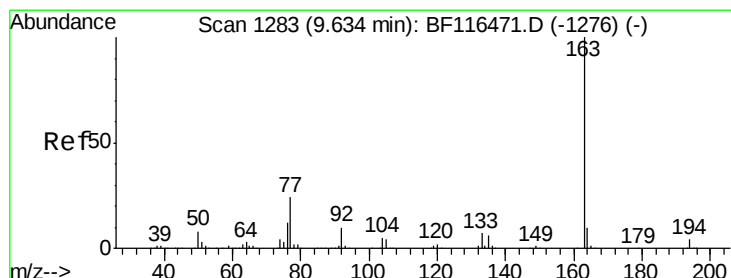
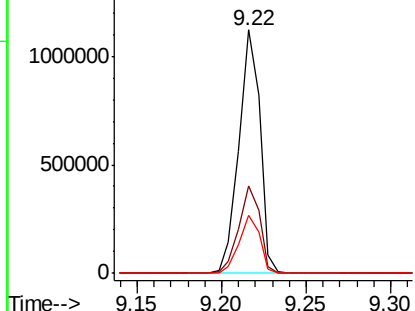
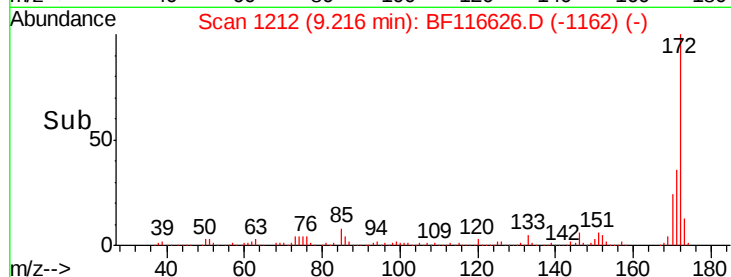
#45  
 2-Fluorobiphenyl  
 Concen: 66.108 ng  
 RT: 9.22 min Scan# 1212  
 Delta R.T. -0.01 min  
 Lab File: BF116626.D  
 Acq: 28 Aug 2019 20:29

Instrument :  
 BNA\_F  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 35.9  | 29.0  | 43.6  |
| 170     | 23.8  | 19.3  | 28.9  |

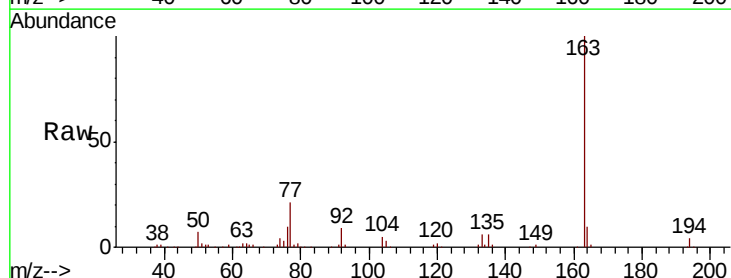


Abundance Ion 172.00 (171.70 to 172.70): E  
 Ion 171.00 (170.70 to 171.70): E  
 Ion 170.00 (169.70 to 170.70): E

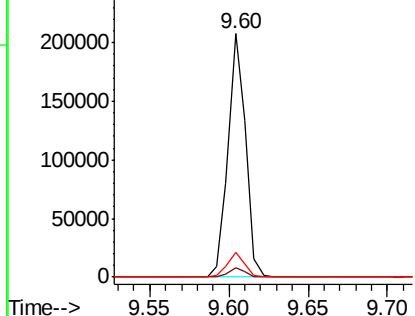
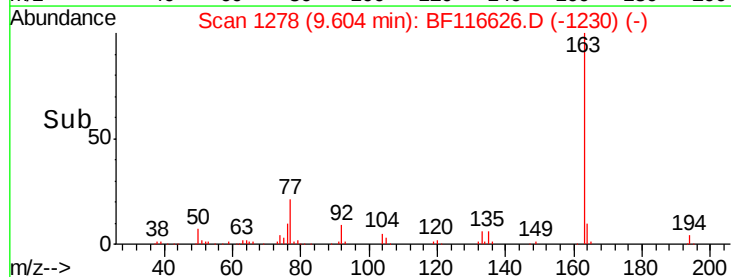


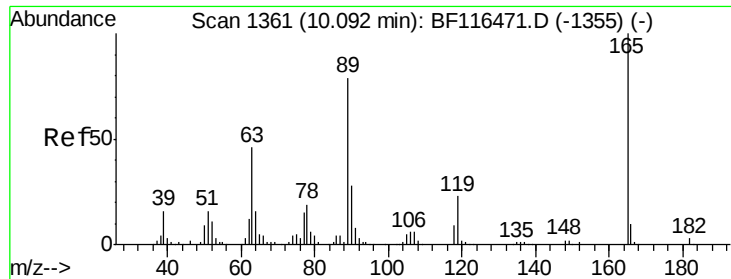
#50  
 Dimethylphthalate  
 Concen: 9.596 ng  
 RT: 9.60 min Scan# 1278  
 Delta R.T. -0.02 min  
 Lab File: BF116626.D  
 Acq: 28 Aug 2019 20:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 163     | 100   |       |       |
| 194     | 3.7   | 3.0   | 4.6   |
| 164     | 10.2  | 8.2   | 12.2  |



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

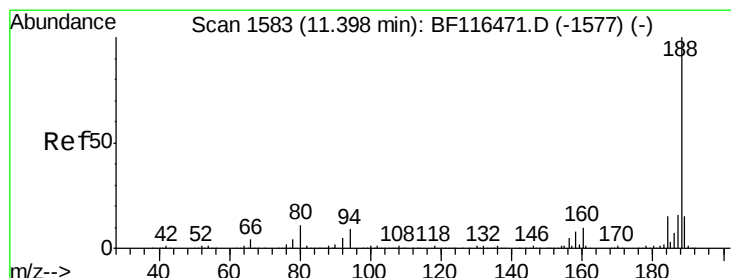
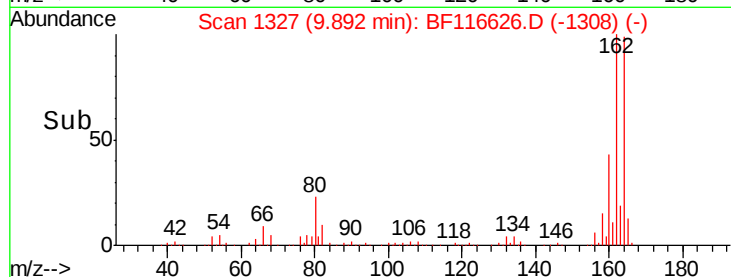
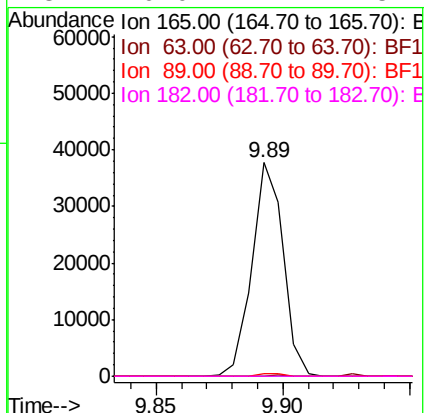
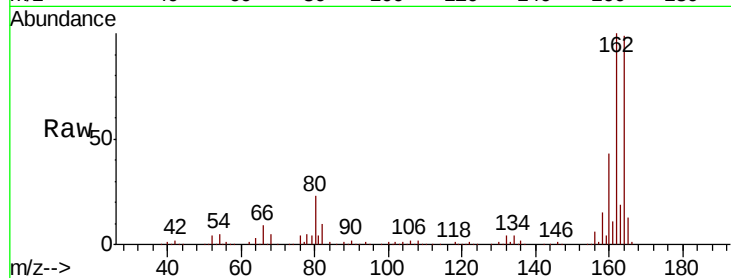




#57  
 2,4-Dinitrotoluene  
 Concen: 6.705 ng  
 RT: 9.89 min Scan# 1327  
 Delta R.T. -0.19 min  
 Lab File: BF116626.D  
 Acq: 28 Aug 2019 20:29

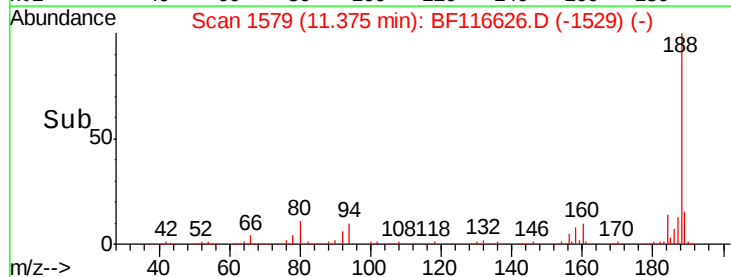
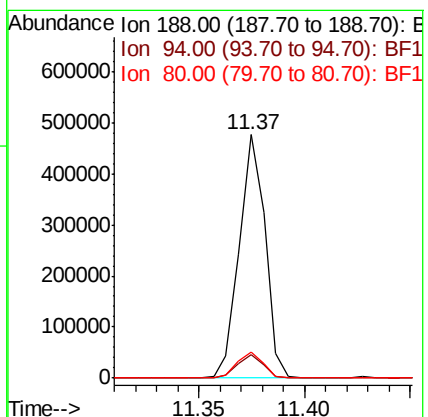
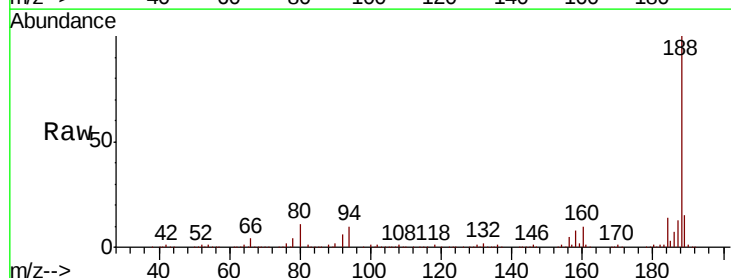
Instrument :  
 BNA\_F  
 ClientSampleId :

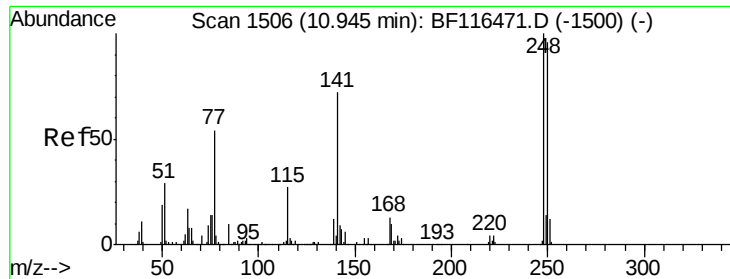
|             |       |            |
|-------------|-------|------------|
| Tot Ion:165 | Resp: | 32289      |
| Ion Ratio   | Lower | Upper      |
| 165         | 100   |            |
| 63          | 0.0   | 30.9 46.3# |
| 89          | 1.2   | 55.0 82.6# |
| 182         | 0.0   | 2.2 3.2#   |



#64  
 Phenanthrene-d10  
 Concen: 20.000 ng  
 RT: 11.37 min Scan# 1579  
 Delta R.T. -0.01 min  
 Lab File: BF116626.D  
 Acq: 28 Aug 2019 20:29

|             |       |          |
|-------------|-------|----------|
| Tgt Ion:188 | Resp: | 402476   |
| Ion Ratio   | Lower | Upper    |
| 188         | 100   |          |
| 94          | 9.8   | 8.2 12.4 |
| 80          | 10.7  | 8.9 13.3 |

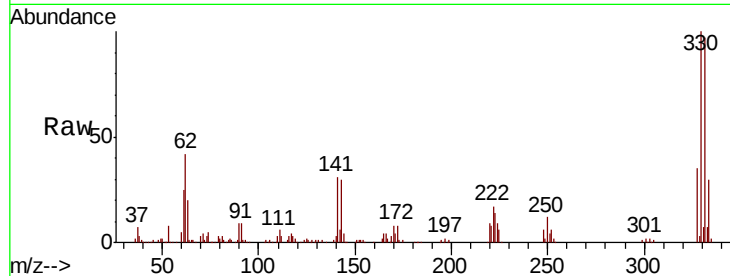




#67  
 4-Bromophenyl-phenylether  
 Concen: 3.508 ng  
 RT: 10.68 min Scan# 1461  
 Delta R.T. -0.25 min  
 Lab File: BF116626.D  
 Acq: 28 Aug 2019 20:29

Instrument :  
 BNA\_F  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 248     | 100   |       |        |
| 250     | 190.7 | 76.6  | 115.0# |
| 141     | 508.3 | 60.8  | 91.2#  |

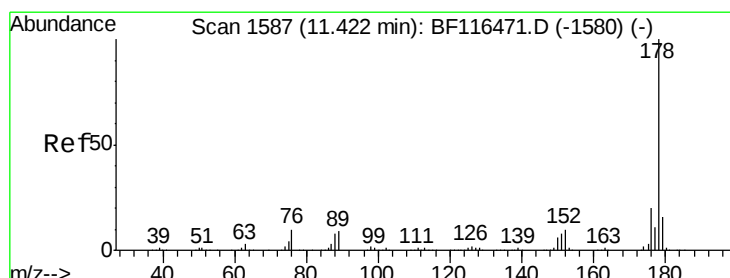
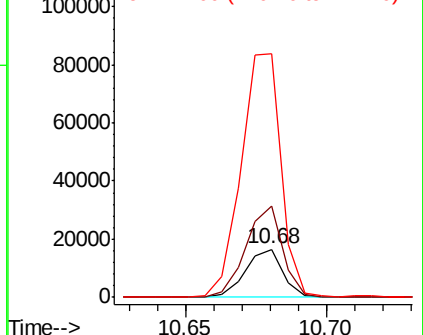
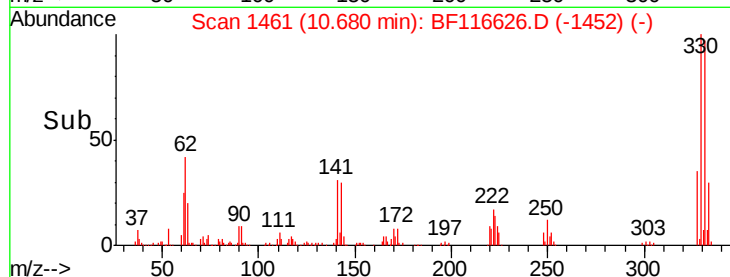


Abundance

Ion 248.00 (247.70 to 248.70): E

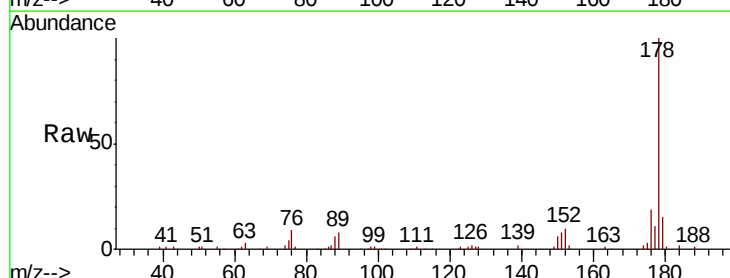
Ion 250.00 (249.70 to 250.70): E

Ion 141.00 (140.70 to 141.70): E



#71  
 Phenanthrene  
 Concen: 3.196 ng  
 RT: 11.40 min Scan# 1583  
 Delta R.T. -0.01 min  
 Lab File: BF116626.D  
 Acq: 28 Aug 2019 20:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 19.1  | 15.5  | 23.3  |
| 179     | 14.9  | 12.4  | 18.6  |

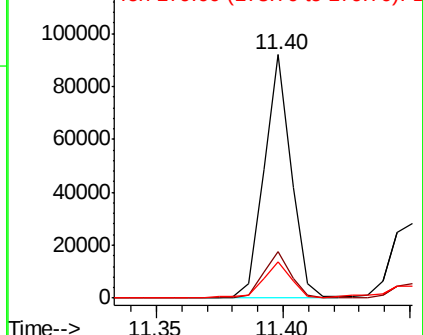
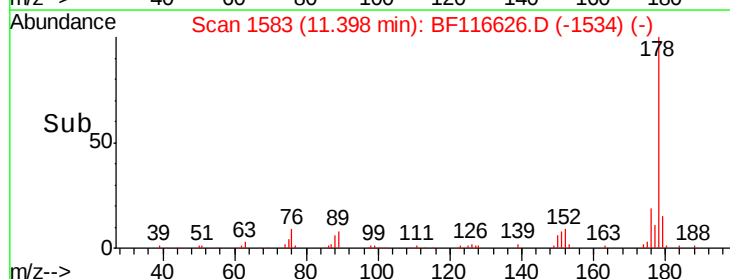


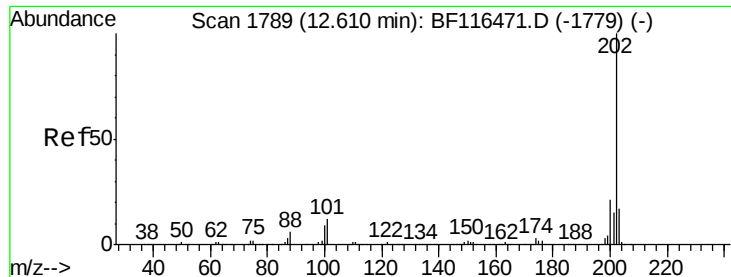
Abundance

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





#75

Fluoranthene

Concen: 13.383 ng

RT: 12.59 min Scan# 1785

Delta R.T. -0.01 min

Lab File: BF116626.D

Acq: 28 Aug 2019 20:29

Instrument :

BNA\_F

ClientSampleId :

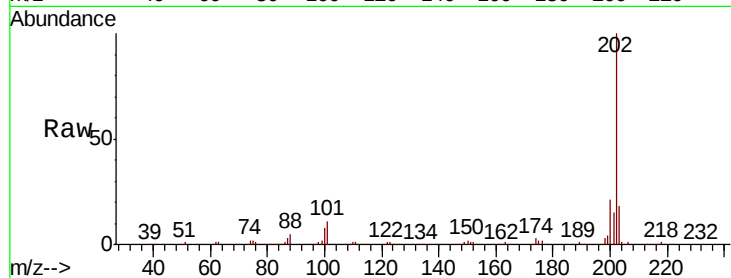
Tot Ion:202 Resp: 259469

Ion Ratio Lower Upper

202 100

101 10.7 0.0 31.8

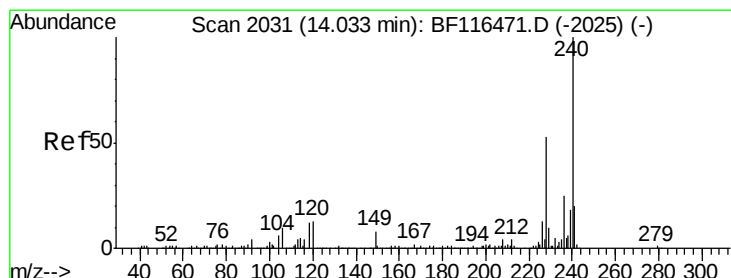
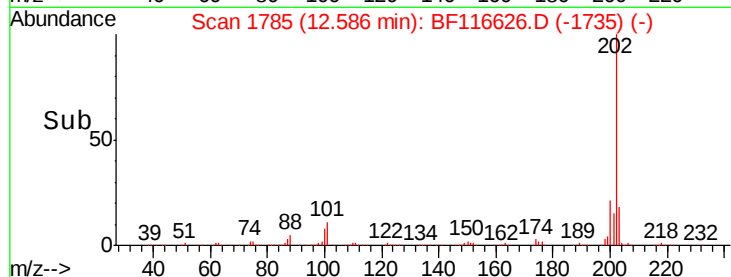
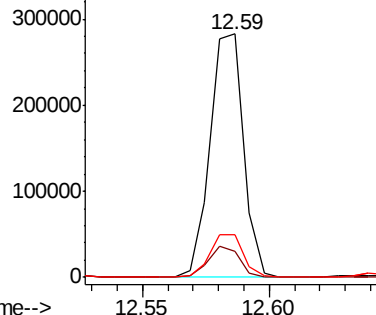
203 17.7 0.0 37.1



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# 2026

Delta R.T. -0.01 min

Lab File: BF116626.D

Acq: 28 Aug 2019 20:29

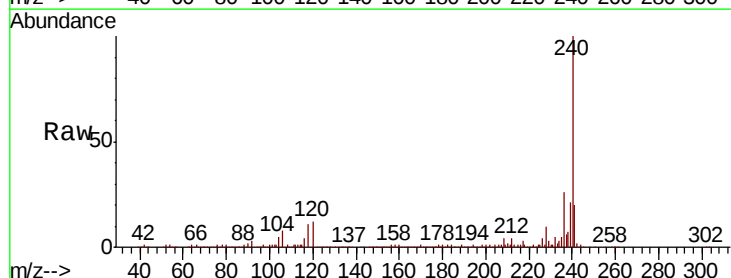
Tgt Ion:240 Resp: 214130

Ion Ratio Lower Upper

240 100

120 12.2 11.3 16.9

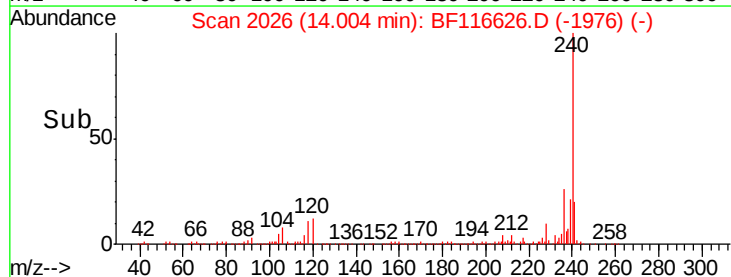
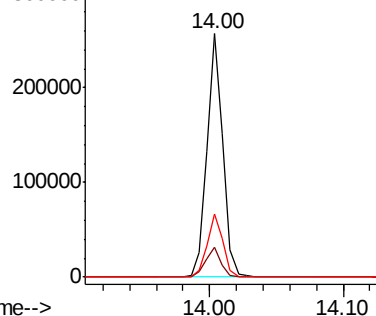
236 25.7 21.4 32.2

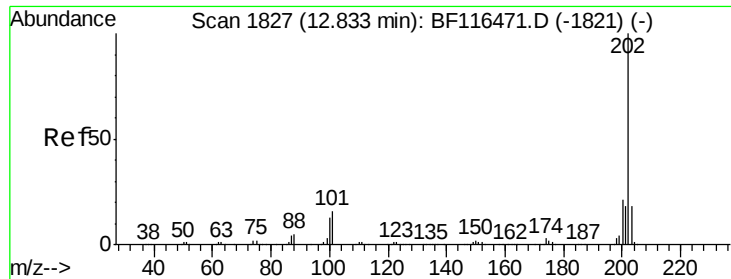


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E

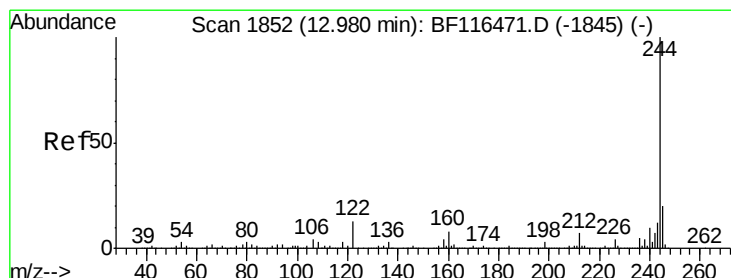
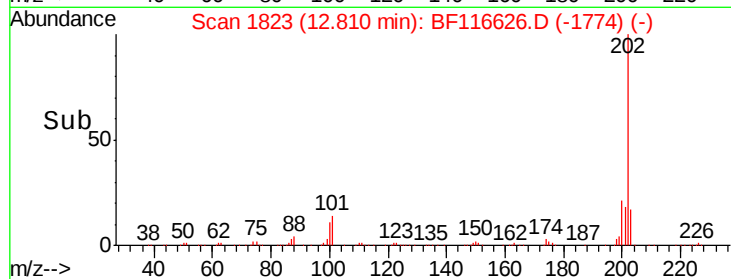
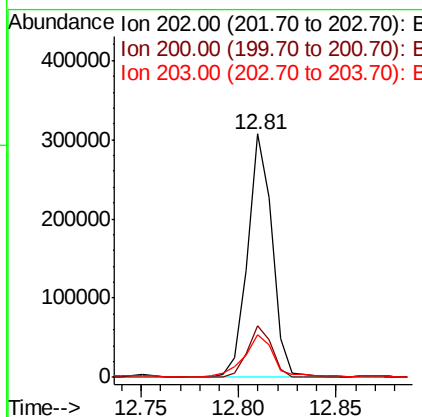
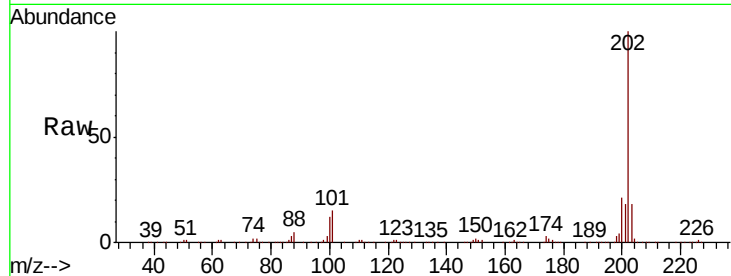




#78  
Pvrene  
Concen: 13.537 ng  
RT: 12.81 min Scan# 1823  
Delta R.T. -0.01 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

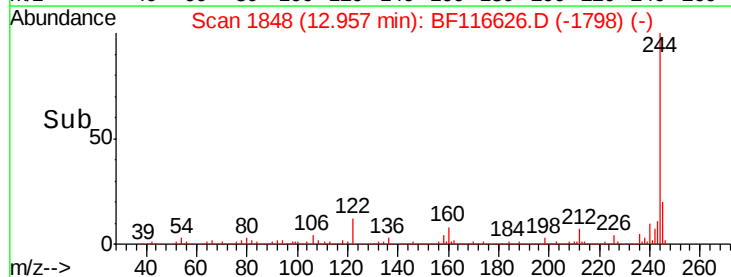
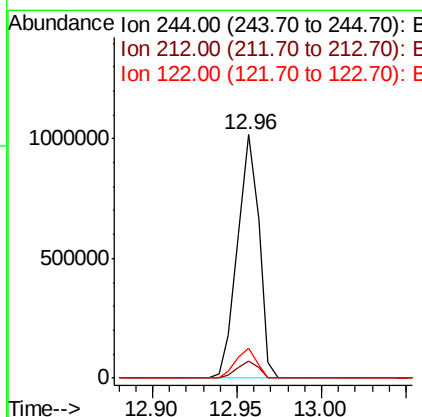
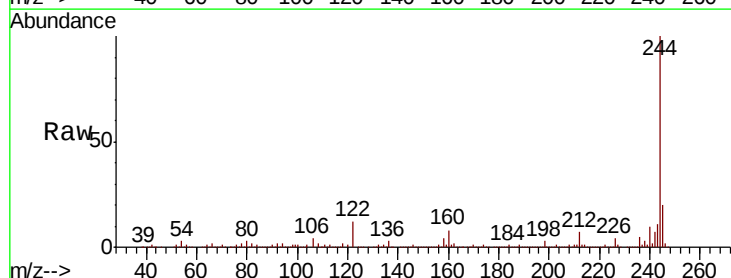
Instrument :  
BNA\_F  
ClientSampleId :

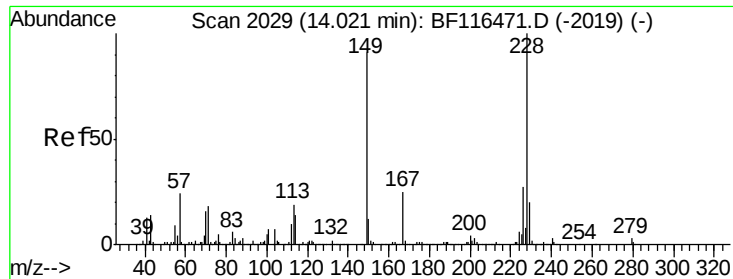
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.3  | 17.4  | 26.0  |
| 203     | 17.6  | 14.2  | 21.4  |



#79  
Terphenyl-d14  
Concen: 68.594 ng  
RT: 12.96 min Scan# 1848  
Delta R.T. -0.01 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 7.1   | 5.9   | 8.9   |
| 122     | 12.4  | 10.0  | 15.0  |

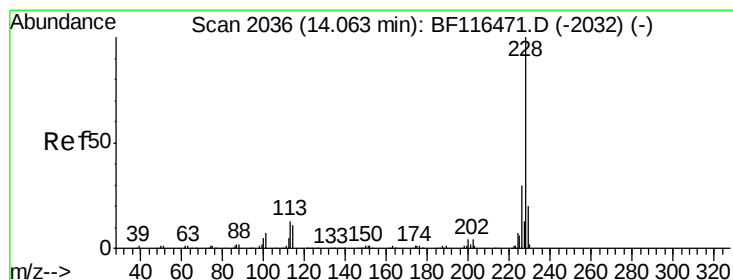
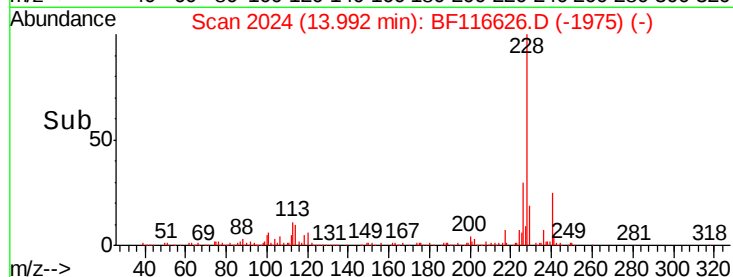
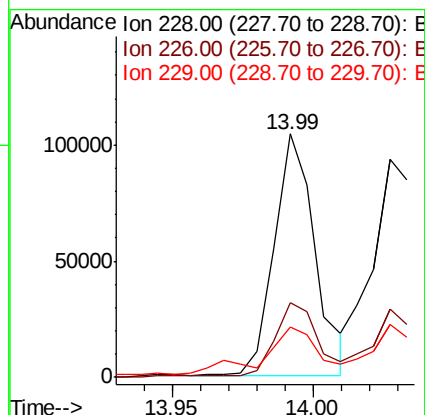
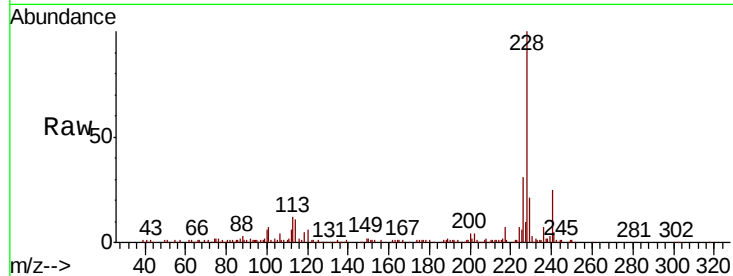




#81  
Benzo(a)anthracene  
Concen: 7.368 ng  
RT: 13.99 min Scan# 2024  
Delta R.T. -0.01 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

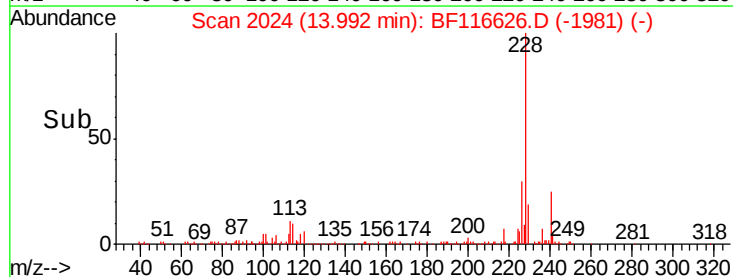
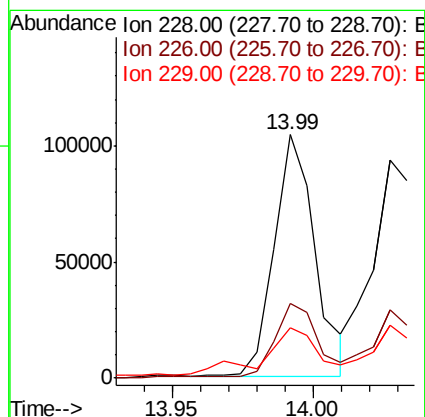
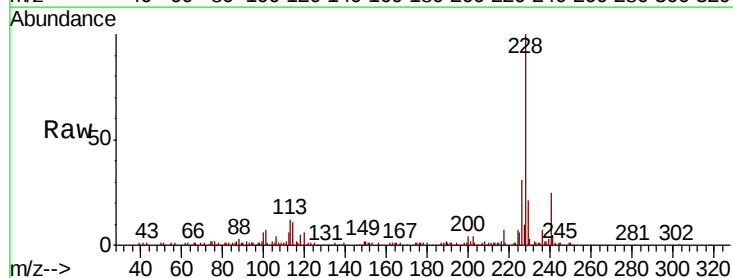
Instrument :  
BNA\_F  
ClientSampleId :

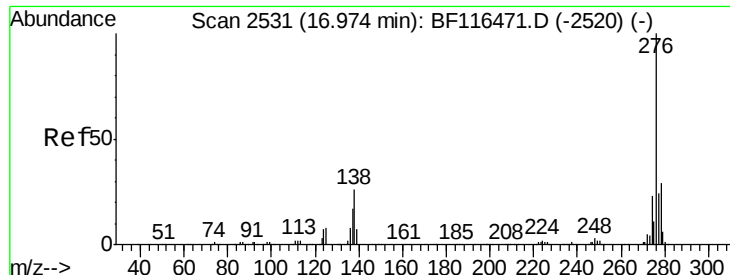
Tot Ion:228 Resp: 105188  
Ion Ratio Lower Upper  
228 100  
226 30.7 21.5 32.3  
229 20.7 15.4 23.0



#83  
Chrysene  
Concen: 7.526 ng  
RT: 13.99 min Scan# 2024  
Delta R.T. -0.05 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

Tgt Ion:228 Resp: 105188  
Ion Ratio Lower Upper  
228 100  
226 30.7 24.0 36.0  
229 20.7 15.8 23.8

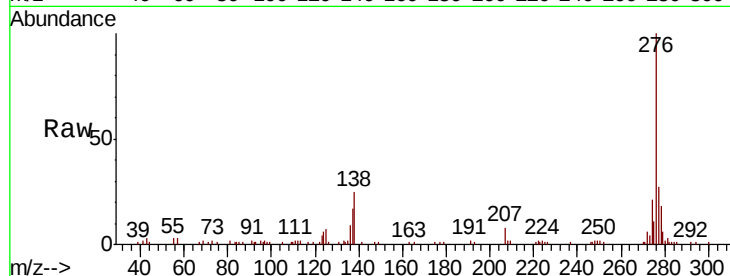




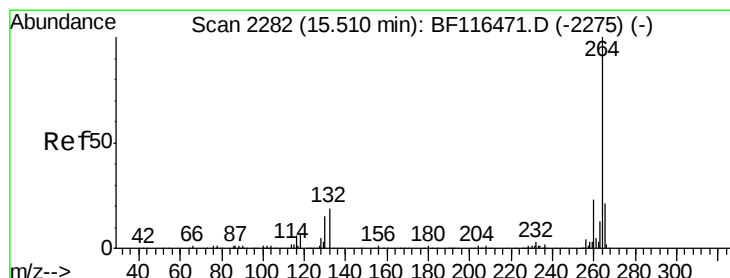
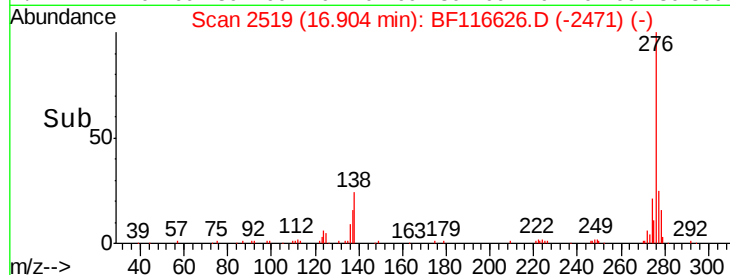
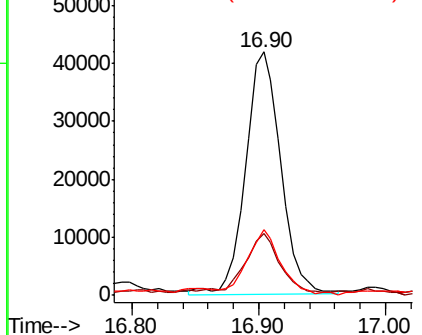
#86  
 Indeno(1,2,3-cd)pyrene  
 Concen: 10.756 ng  
 RT: 16.90 min Scan# 2519  
 Delta R.T. -0.02 min  
 Lab File: BF116626.D  
 Acq: 28 Aug 2019 20:29

Instrument :  
 BNA\_F  
 ClientSampled :

|             |       |           |
|-------------|-------|-----------|
| Tot Ion:276 | Resp: | 81006     |
| Ion Ratio   | Lower | Upper     |
| 276         | 100   |           |
| 138         | 25.3  | 21.5 32.3 |
| 277         | 26.2  | 20.0 30.0 |

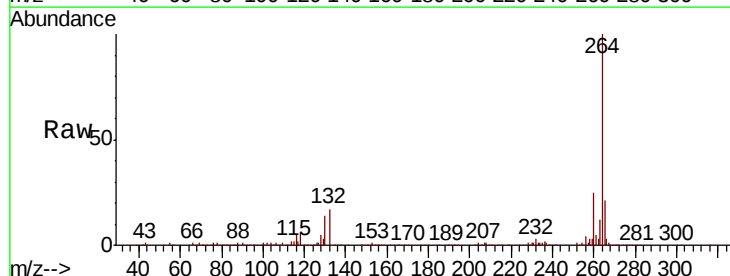


Abundance Ion 276.00 (275.70 to 276.70): E  
 Ion 138.00 (137.70 to 138.70): E  
 Ion 277.00 (276.70 to 277.70): E

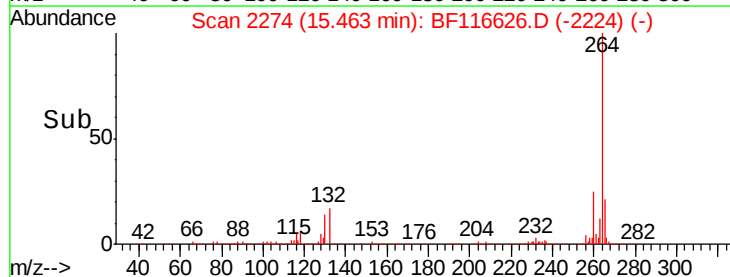
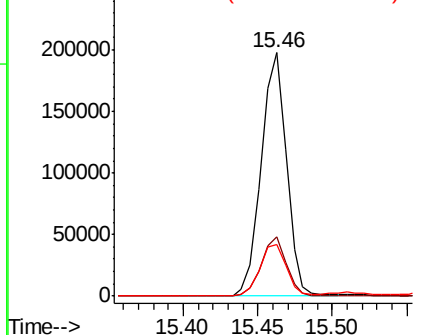


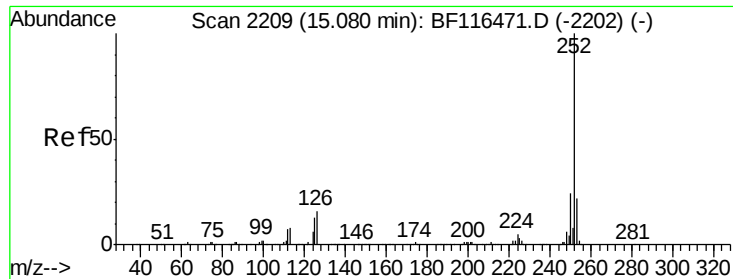
#87  
 Perylene-d12  
 Concen: 20.000 ng  
 RT: 15.46 min Scan# 2274  
 Delta R.T. -0.01 min  
 Lab File: BF116626.D  
 Acq: 28 Aug 2019 20:29

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:264 | Resp: | 231295    |
| Ion Ratio   | Lower | Upper     |
| 264         | 100   |           |
| 260         | 24.5  | 20.0 30.0 |
| 265         | 21.4  | 17.6 26.4 |



Abundance Ion 264.00 (263.70 to 264.70): E  
 Ion 260.00 (259.70 to 260.70): E  
 Ion 265.00 (264.70 to 265.70): E

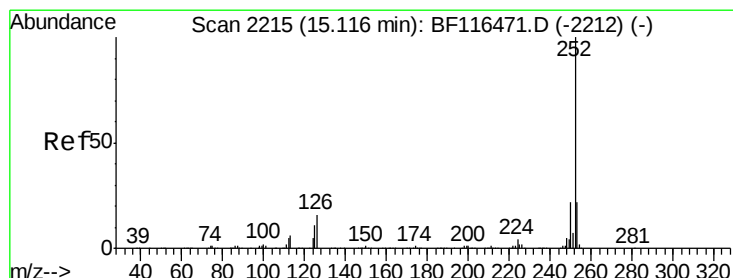
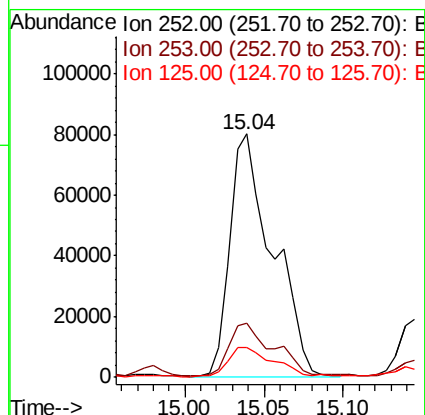
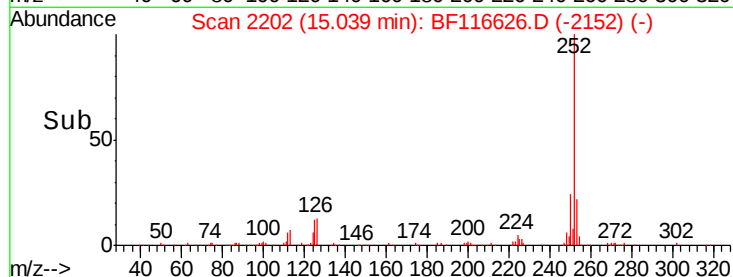
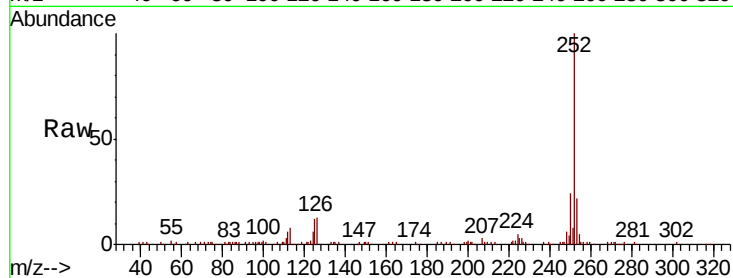




#88  
Benzo(b)fluoranthene  
Concen: 10.496 ng  
RT: 15.04 min Scan# 2202  
Delta R.T. -0.01 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

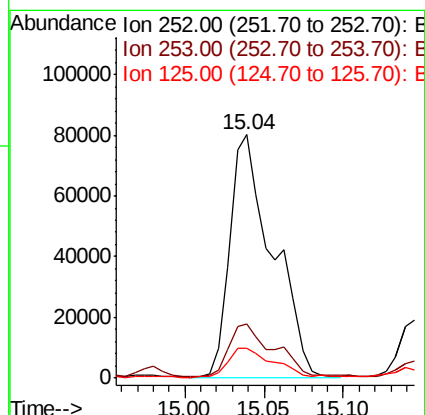
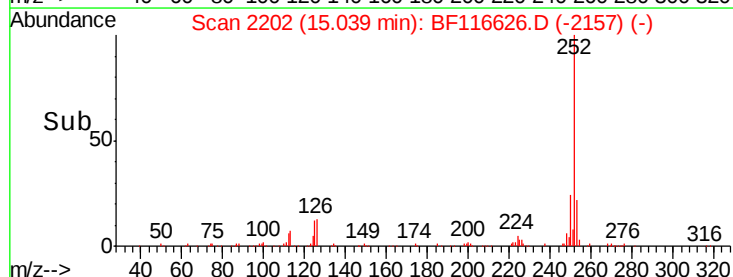
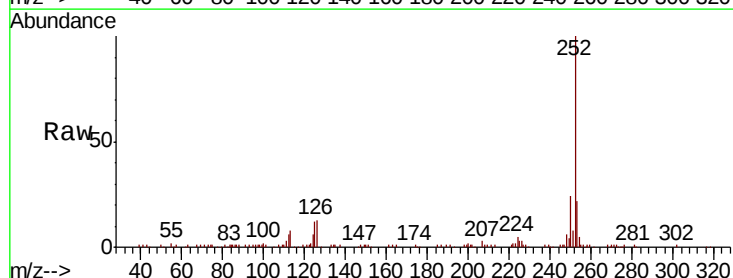
Instrument :  
BNA\_F  
ClientSampleId :

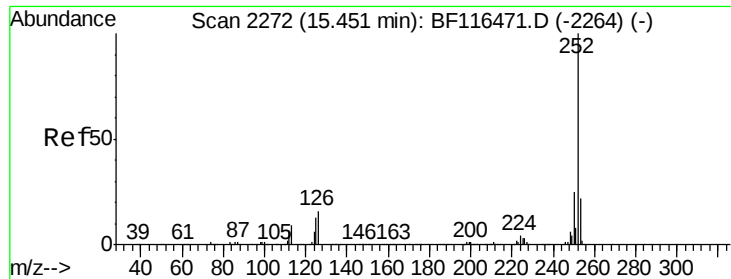
Tot Ion:252 Resp: 149090  
Ion Ratio Lower Upper  
252 100  
253 22.3 17.3 25.9  
125 12.1 9.0 13.6



#89  
Benzo(k)fluoranthene  
Concen: 11.043 ng  
RT: 15.04 min Scan# 2202  
Delta R.T. -0.04 min  
Lab File: BF116626.D  
Acq: 28 Aug 2019 20:29

Tgt Ion:252 Resp: 149090  
Ion Ratio Lower Upper  
252 100  
253 22.3 17.2 25.8  
125 12.1 8.6 13.0





#90

Benzo(a)pyrene

Concen: 7.268 ng

RT: 15.40 min Scan# 2263

Delta R.T. -0.01 min

Lab File: BF116626.D

Acq: 28 Aug 2019 20:29

Instrument :

BNA\_F

ClientSampleId :

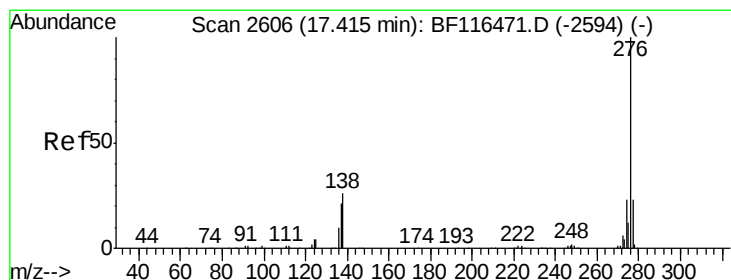
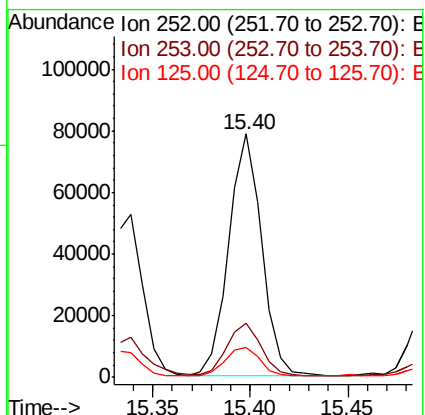
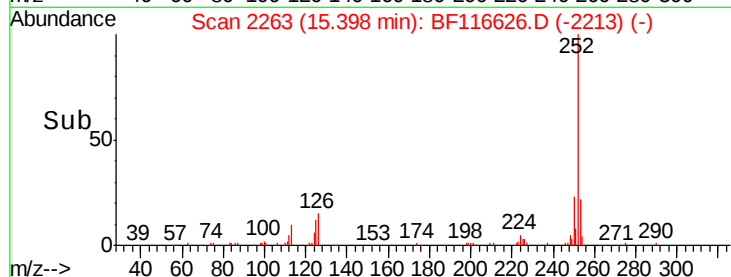
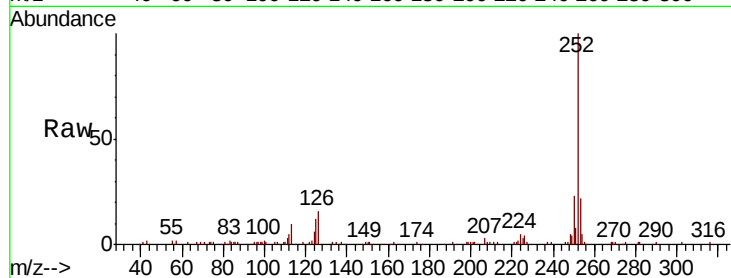
Tot Ion:252 Resp: 92138

Ion Ratio Lower Upper

252 100

253 22.3 17.4 26.0

125 12.1 10.6 16.0



#92

Benzo(g,h,i)perylene

Concen: 6.471 ng

RT: 17.34 min Scan# 2593

Delta R.T. -0.02 min

Lab File: BF116626.D

Acq: 28 Aug 2019 20:29

Tgt Ion:276 Resp: 79588

Ion Ratio Lower Upper

276 100

277 23.4 19.0 28.4

138 25.5 18.2 27.2

