

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF082819\  
 Data File : BF116629.D  
 Acq On : 28 Aug 2019 21:51  
 Operator : HP/JU  
 Sample : K4543-15  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :

Quant Time: Aug 29 03:32:57 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  | 103449   | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 8.15  | 136  | 390752   | 20.00 | ng    | 0.00     |
| 39) Acenaphthene-d10      | 9.90  | 164  | 204365   | 20.00 | ng    | 0.00     |
| 64) Phenanthrene-d10      | 11.37 | 188  | 357645   | 20.00 | ng    | 0.00     |
| 76) Chrysene-d12          | 14.00 | 240  | 189111   | 20.00 | ng    | 0.00     |
| 87) Perylene-d12          | 15.46 | 264  | 233473   | 20.00 | ng    | 0.00     |

|                             |       |     |         |        |    |      |
|-----------------------------|-------|-----|---------|--------|----|------|
| System Monitoring Compounds |       |     |         |        |    |      |
| 5) 2-Fluorophenol           | 5.49  | 112 | 835914  | 139.57 | ng | 0.00 |
| 7) Phenol-d6                | 6.49  | 99  | 1115711 | 137.40 | ng | 0.00 |
| 23) Nitrobenzene-d5         | 7.42  | 82  | 689737  | 101.00 | ng | 0.00 |
| 42) 2,4,6-Tribromophenol    | 10.68 | 330 | 269805  | 138.73 | ng | 0.00 |
| 45) 2-Fluorobiphenyl        | 9.22  | 172 | 1173305 | 95.55  | ng | 0.00 |
| 79) Terphenyl-d14           | 12.96 | 244 | 1094728 | 94.15  | ng | 0.00 |

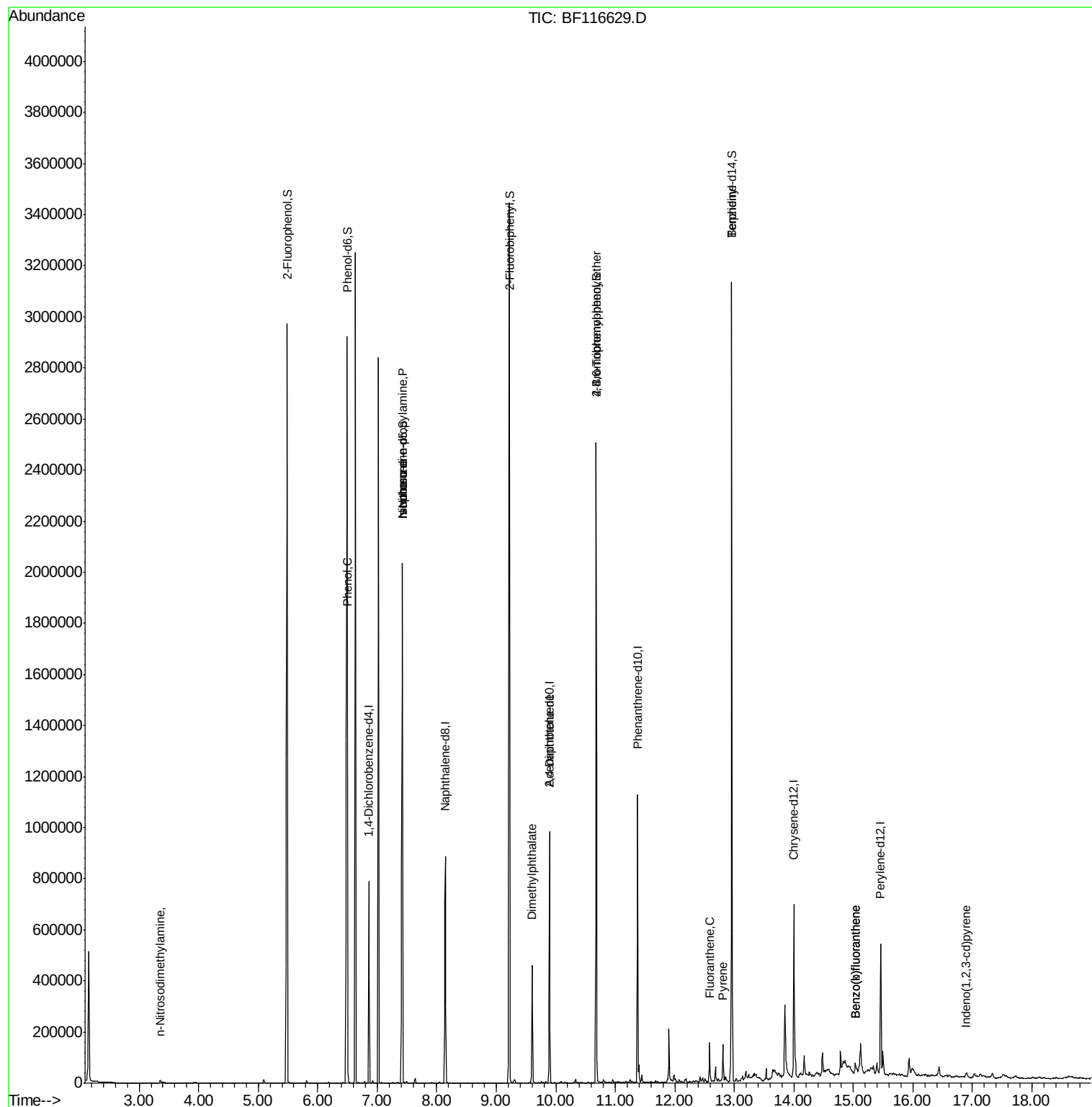
|                                |       |     |        |           |    |      |
|--------------------------------|-------|-----|--------|-----------|----|------|
| Target Compounds               |       |     |        | Qvalue    |    |      |
| 4) n-Nitrosodimethylamine      | 3.35  | 42  | 387    | 4.088     | ng | # 1  |
| 9) Benzaldehyde                | 6.49  | 77  | 2472   | Below Cal |    | # 1  |
| 10) Phenol                     | 6.50  | 94  | 82088  | 9.216     | ng | 96   |
| 19) n-Nitroso-di-n-propylamine | 7.42  | 70  | 92460  | 17.906    | ng | # 78 |
| 25) Isophorone                 | 7.42  | 82  | 688036 | 55.345    | ng | # 65 |
| 50) Dimethylphthalate          | 9.60  | 163 | 171045 | 12.449    | ng | 99   |
| 57) 2,4-Dinitrotoluene         | 9.89  | 165 | 26406  | 6.605     | ng | # 27 |
| 67) 4-Bromophenyl-phenylether  | 10.68 | 248 | 17655  | 4.654     | ng | # 1  |
| 75) Fluoranthene               | 12.58 | 202 | 54421  | 3.159     | ng | 97   |
| 77) Benzidine                  | 12.96 | 184 | 14430  | 2.109     | ng | # 93 |
| 78) Pyrene                     | 12.81 | 202 | 52886  | 3.041     | ng | 99   |
| 86) Indeno(1,2,3-cd)pyrene     | 16.90 | 276 | 12522  | 5.076     | ng | 95   |
| 88) Benzo(b)fluoranthene       | 15.03 | 252 | 31469  | 2.195     | ng | 95   |
| 89) Benzo(k)fluoranthene       | 15.03 | 252 | 31469  | 2.309     | ng | # 94 |

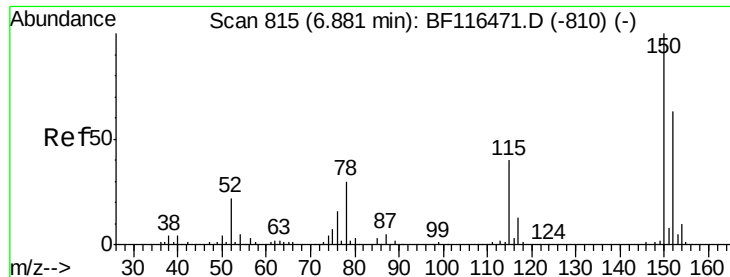
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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BNA\_F  
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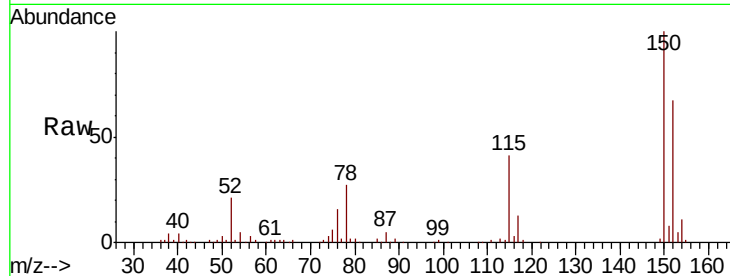


#1

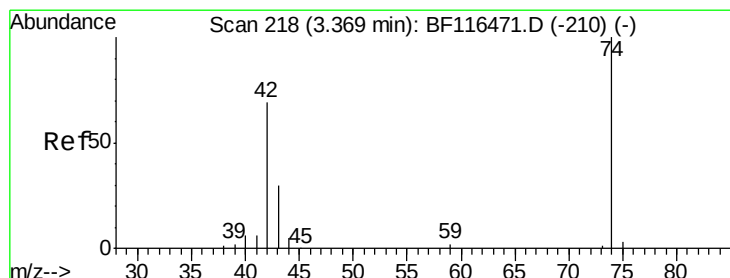
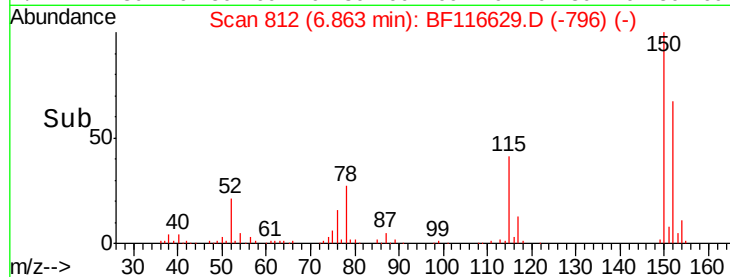
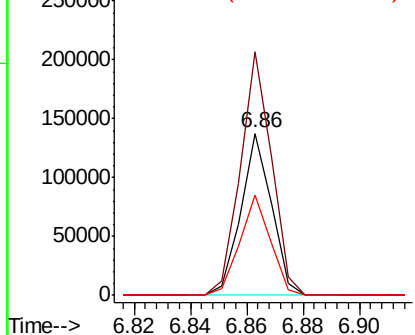
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.86 min Scan# 812  
Delta R.T. -0.01 min  
Lab File: BF116629.D  
Acq: 28 Aug 2019 21:51

Instrument :  
BNA\_F  
ClientSampled :

Tot Ion:152 Resp: 103449  
Ion Ratio Lower Upper  
152 100  
150 150.3 123.4 185.2  
115 61.8 48.2 72.2



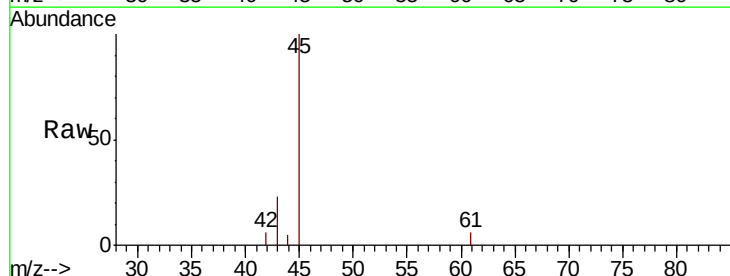
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



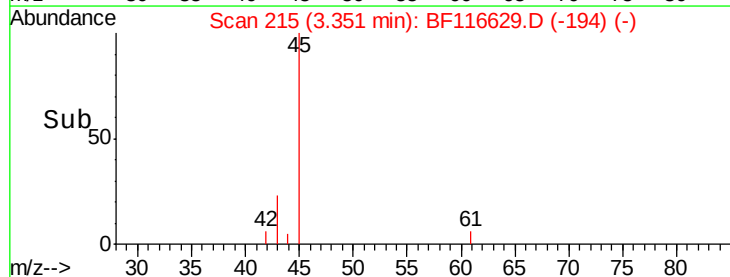
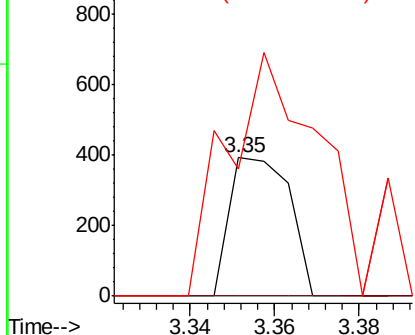
#4

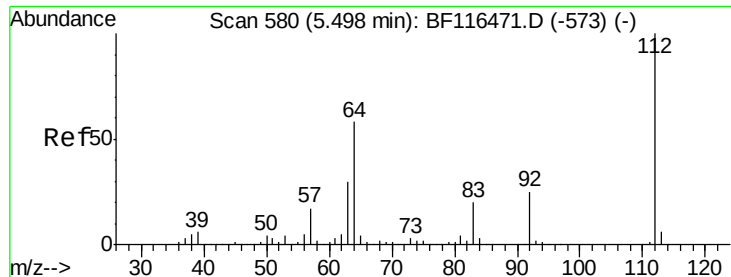
n-Nitrosodimethylamine  
Concen: 4.088 ng  
RT: 3.35 min Scan# 215  
Delta R.T. 0.02 min  
Lab File: BF116629.D  
Acq: 28 Aug 2019 21:51

Tgt Ion: 42 Resp: 387  
Ion Ratio Lower Upper  
42 100  
74 0.0 120.0 180.0#  
44 91.9 5.4 8.2#



Abundance Ion 42.00 (41.70 to 42.70): BF1  
Ion 74.00 (73.70 to 74.70): BF1  
Ion 44.00 (43.70 to 44.70): BF1





#5

2-Fluorophenol

Concen: 139.568 ng

RT: 5.49 min Scan# 578

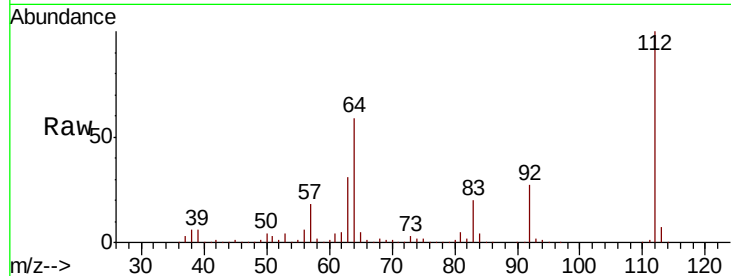
Delta R.T. 0.01 min

Lab File: BF116629.D

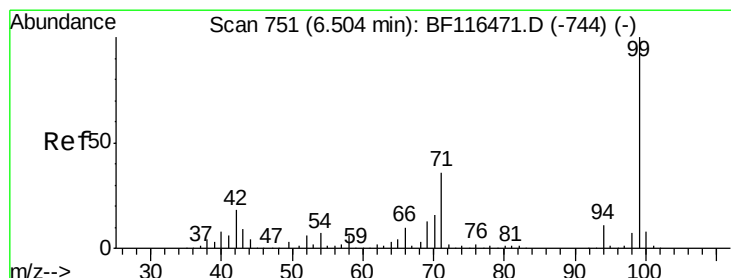
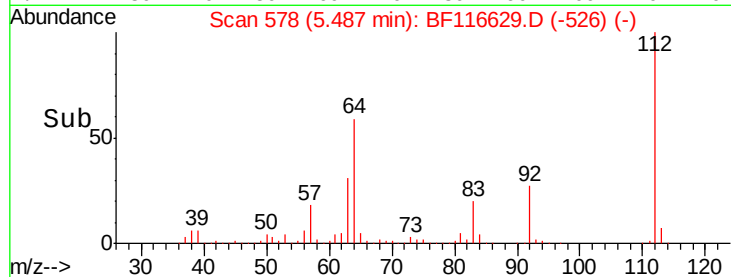
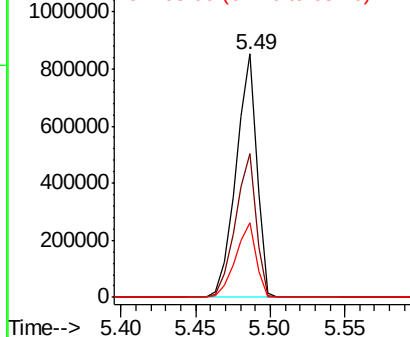
Acq: 28 Aug 2019 21:51

Instrument :  
BNA\_F  
ClientSampled :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 112   | Resp: | 835914 |
| Ion      | Ratio | Lower | Upper  |
| 112      | 100   |       |        |
| 64       | 59.0  | 48.0  | 72.0   |
| 63       | 30.8  | 24.6  | 36.8   |



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



#7

Phenol-d6

Concen: 137.403 ng

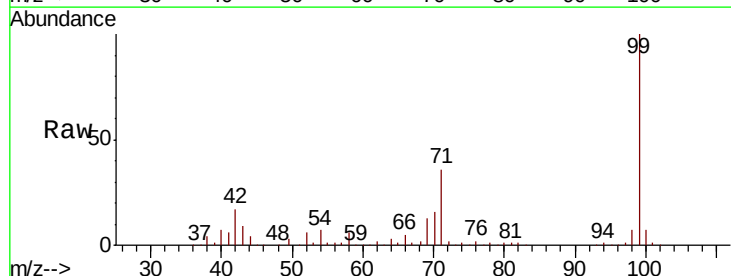
RT: 6.49 min Scan# 749

Delta R.T. -0.00 min

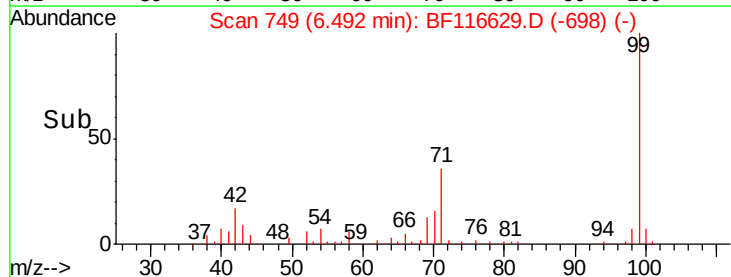
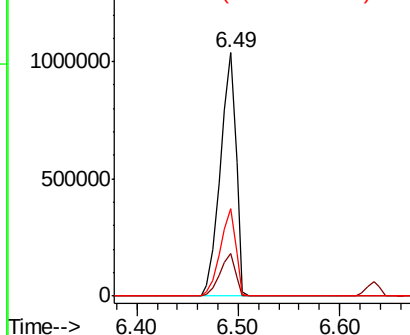
Lab File: BF116629.D

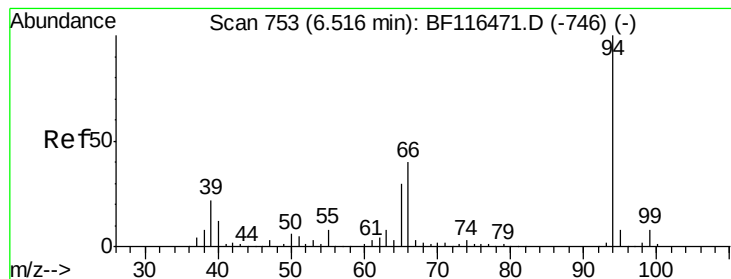
Acq: 28 Aug 2019 21:51

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 99    | Resp: | 1115711 |
| Ion      | Ratio | Lower | Upper   |
| 99       | 100   |       |         |
| 42       | 17.4  | 13.2  | 19.8    |
| 71       | 36.1  | 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: 9.216 ng

RT: 6.50 min Scan# 751

Delta R.T. -0.00 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

Instrument :

BNA\_F

ClientSampleId :

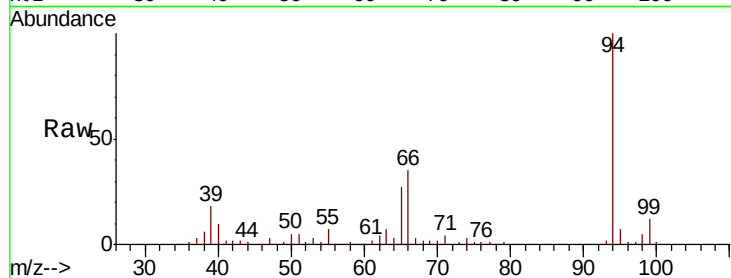
Tot Ion: 94 Resp: 82088

Ion Ratio Lower Upper

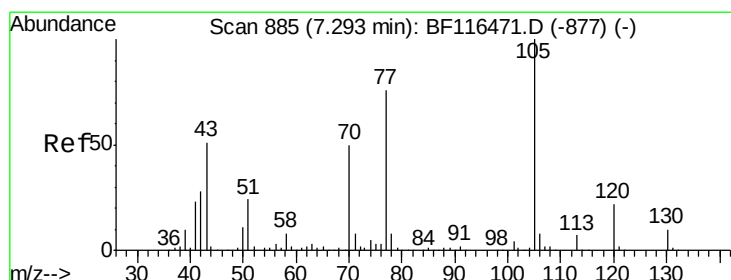
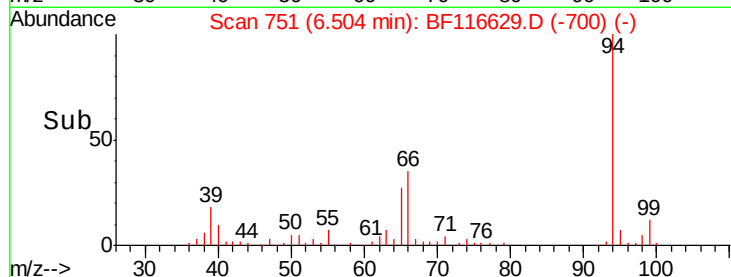
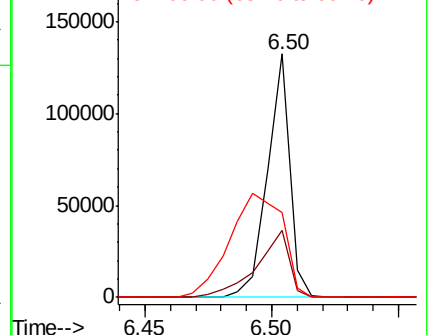
94 100

65 27.3 8.6 48.6

66 35.0 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: 17.906 ng

RT: 7.42 min Scan# 907

Delta R.T. 0.14 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

Tgt Ion: 70 Resp: 92460

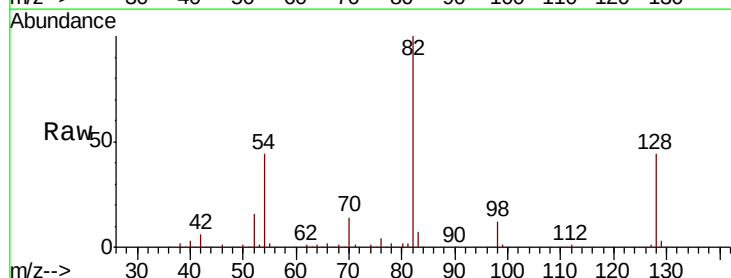
Ion Ratio Lower Upper

70 100

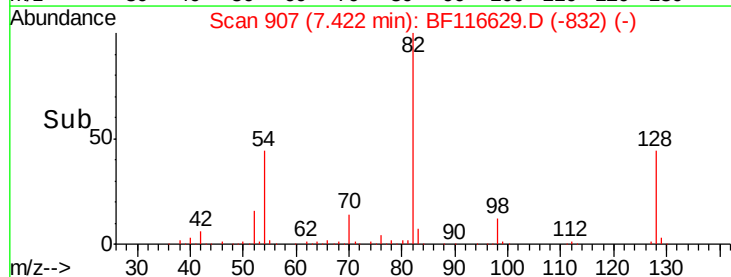
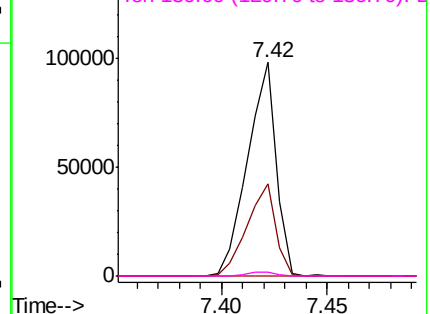
42 42.9 41.2 61.8

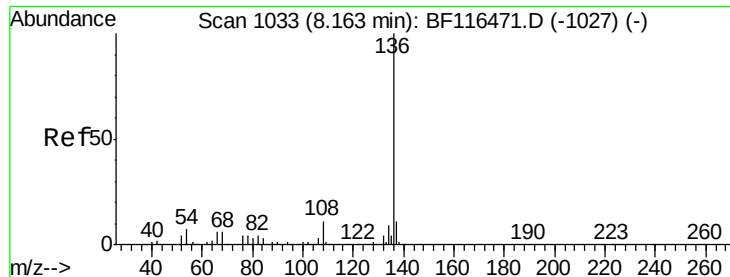
101 0.0 7.7 11.5#

130 1.8 17.9 26.9#



Abundance Ion 70.00 (69.70 to 70.70): BF1  
Ion 42.00 (41.70 to 42.70): BF1  
Ion 101.00 (100.70 to 101.70): BF1  
Ion 130.00 (129.70 to 130.70): BF1





#21

Naphthalene-d8

Concen: 20.000 ng

RT: 8.15 min Scan# 1030

Delta R.T. -0.01 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

Instrument :

BNA\_F

ClientSampleId :

Tot Ion:136 Resp: 390752

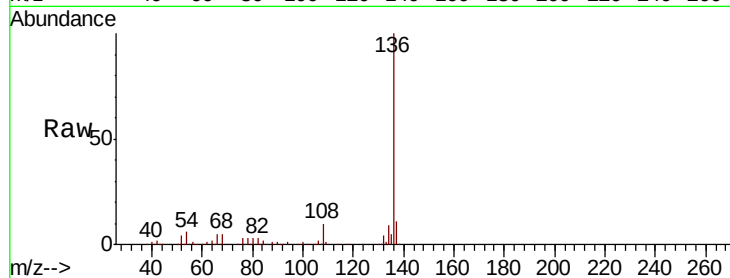
Ion Ratio Lower Upper

136 100

137 10.8 8.7 13.1

54 6.2 5.0 7.4

68 5.5 4.5 6.7

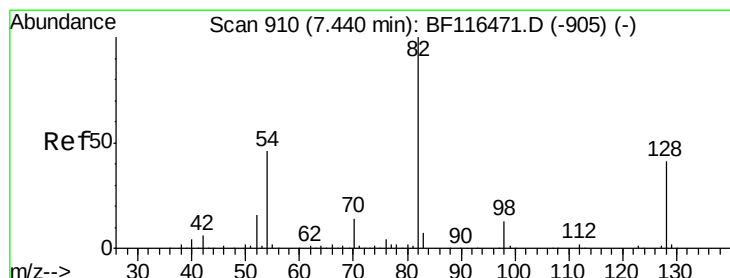
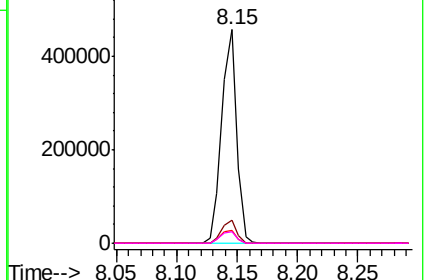
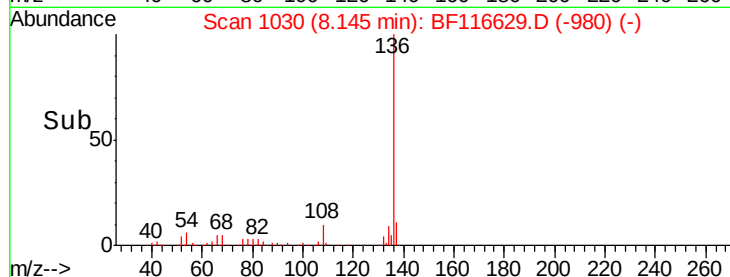


Abundance Ion 136.00 (135.70 to 136.70): E

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: 101.002 ng

RT: 7.42 min Scan# 907

Delta R.T. -0.01 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

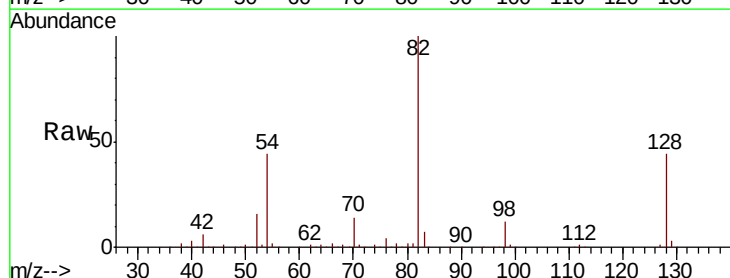
Tgt Ion: 82 Resp: 689737

Ion Ratio Lower Upper

82 100

128 43.9 35.0 52.6

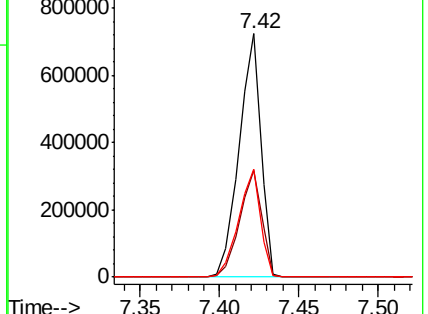
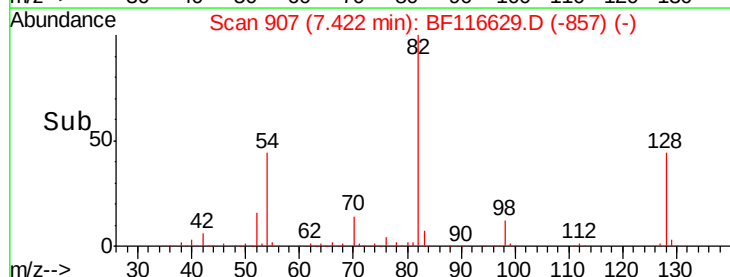
54 44.1 34.4 51.6

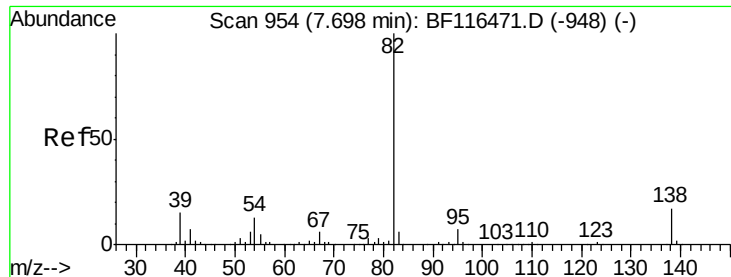


Abundance Ion 82.00 (81.70 to 82.70): BF1

Ion 128.00 (127.70 to 128.70): E

Ion 54.00 (53.70 to 54.70): BF1





#25

Isophorone

Concen: 55.345 ng

RT: 7.42 min Scan# 907

Delta R.T. -0.26 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

Instrument :

BNA\_F

ClientSampled :

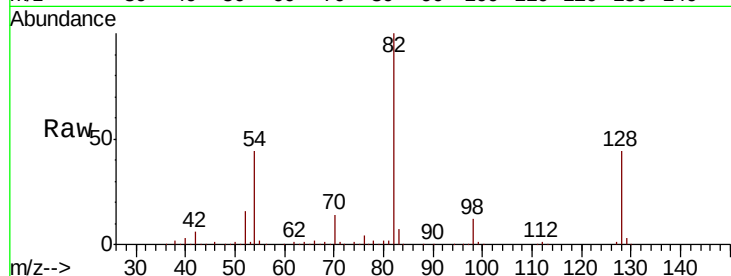
Tot Ion: 82 Resp: 688036

Ion Ratio Lower Upper

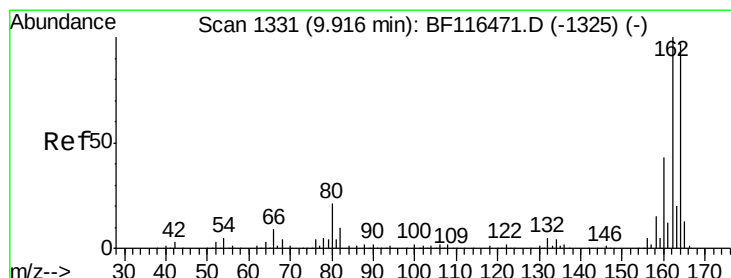
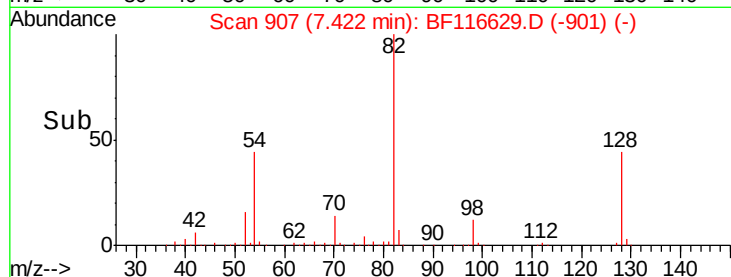
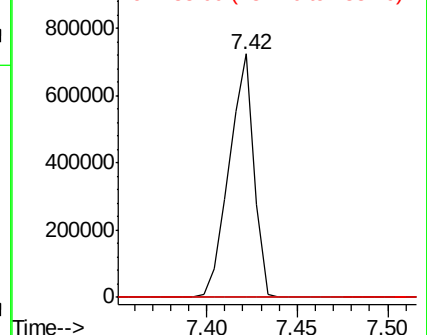
82 100

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): E



#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.90 min Scan# 1328

Delta R.T. -0.01 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

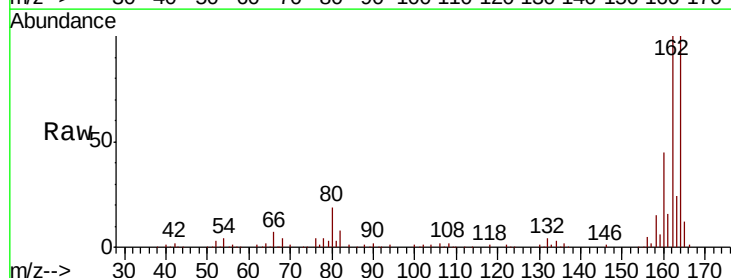
Tgt Ion: 164 Resp: 204365

Ion Ratio Lower Upper

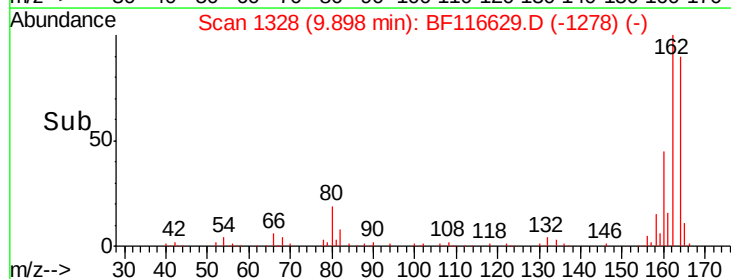
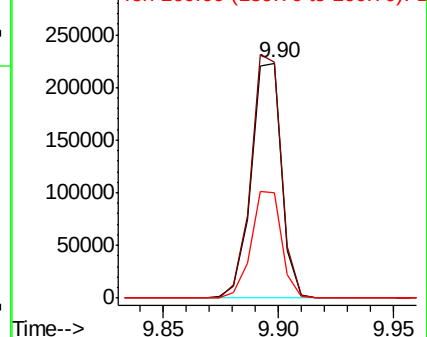
164 100

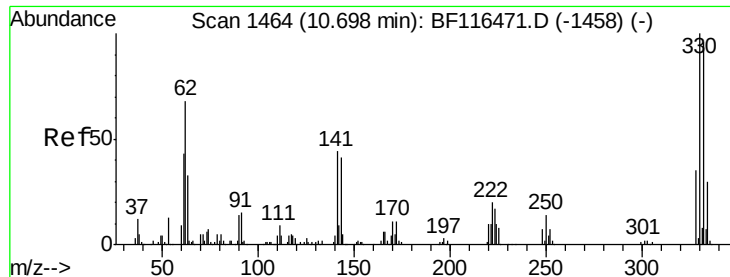
162 100.4 83.4 125.0

160 44.8 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: 138.735 ng

RT: 10.68 min Scan# 1461

Delta R.T. -0.01 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

Instrument :

BNA\_F

ClientSampleId :

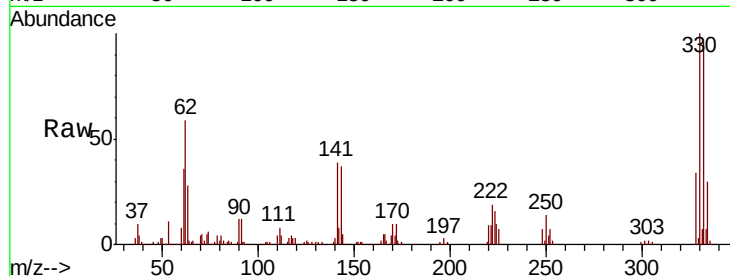
Tot Ion:330 Resp: 269805

Ion Ratio Lower Upper

330 100

332 96.1 77.5 116.3

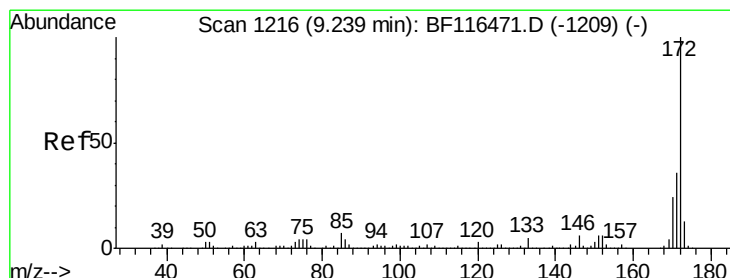
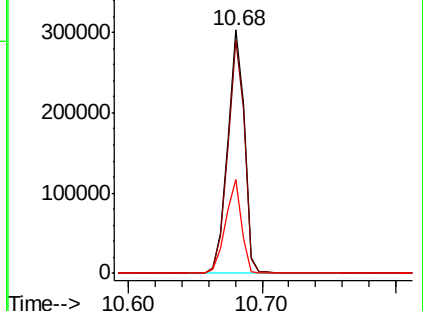
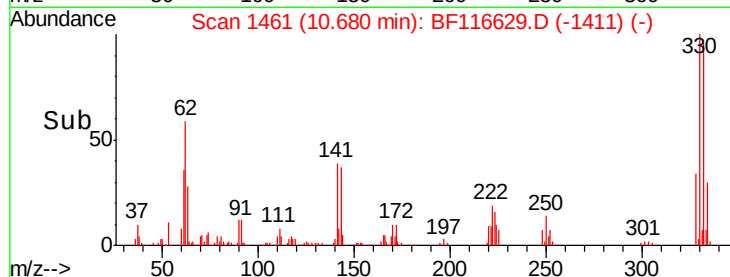
141 37.1 28.2 42.2



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: 95.545 ng

RT: 9.22 min Scan# 1213

Delta R.T. -0.00 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

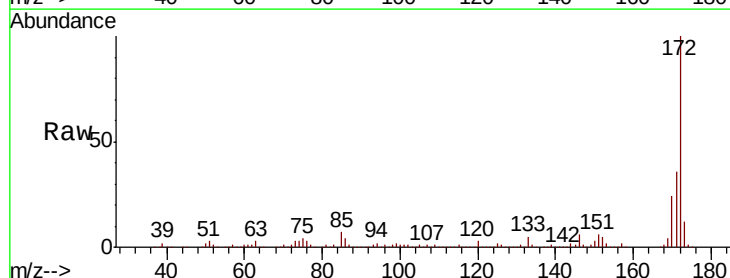
Tgt Ion:172 Resp: 1173305

Ion Ratio Lower Upper

172 100

171 36.1 29.0 43.6

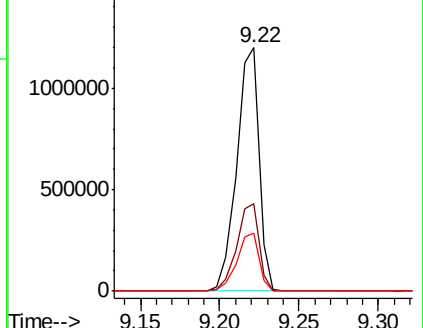
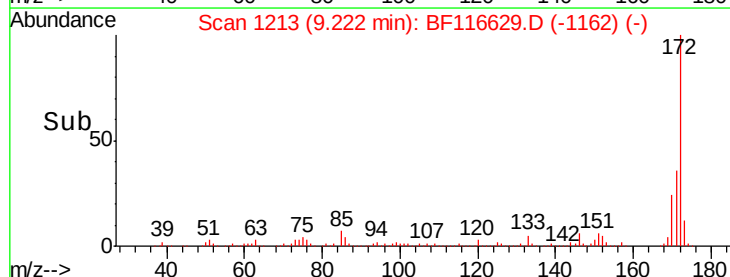
170 23.9 19.3 28.9



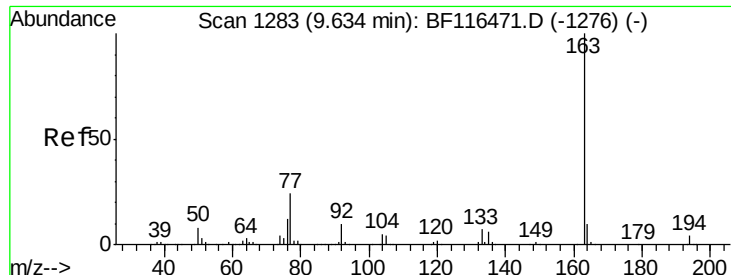
Abundance Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E



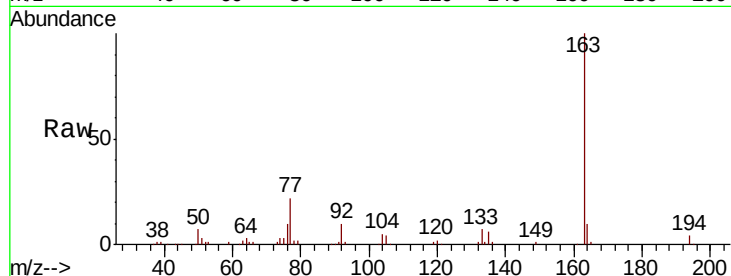




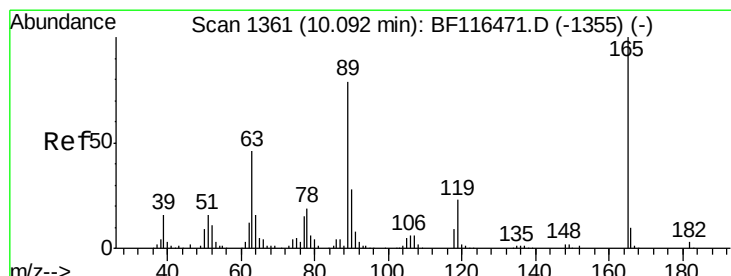
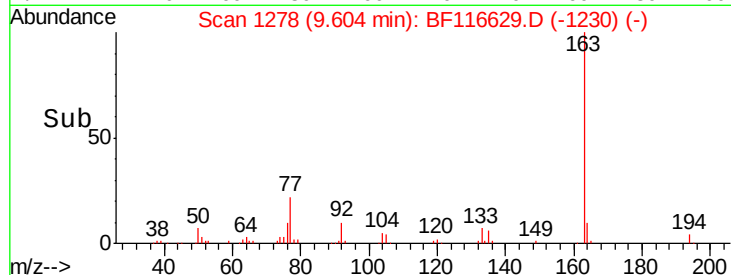
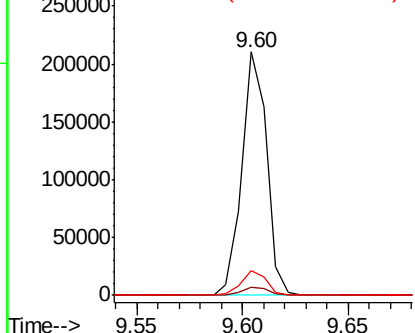
#50  
Dimethylphthalate  
Concen: 12.449 ng  
RT: 9.60 min Scan# 1278  
Delta R.T. -0.02 min  
Lab File: BF116629.D  
Acq: 28 Aug 2019 21:51

Instrument :  
BNA\_F  
ClientSampleId :

Tot Ion:163 Resp: 171045  
Ion Ratio Lower Upper  
163 100  
194 3.5 3.0 4.6  
164 10.4 8.2 12.2

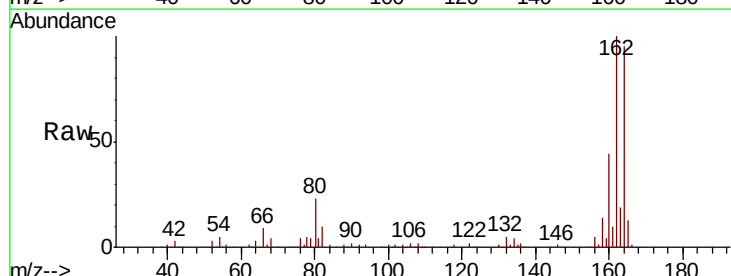


Abundance Ion 163.00 (162.70 to 163.70): E  
Ion 194.00 (193.70 to 194.70): E  
Ion 164.00 (163.70 to 164.70): E

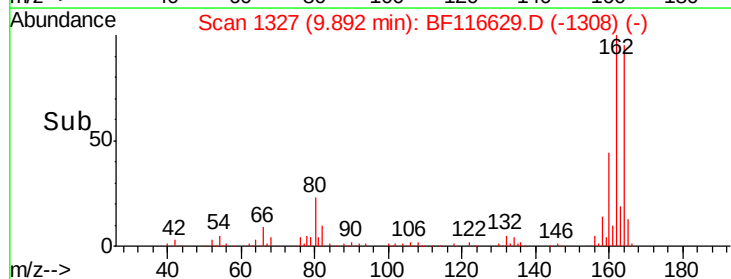
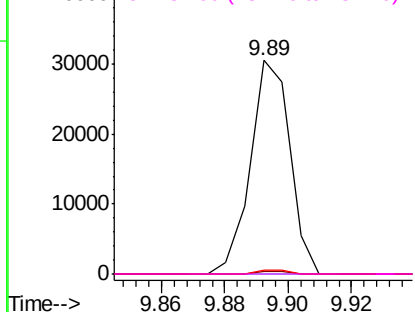


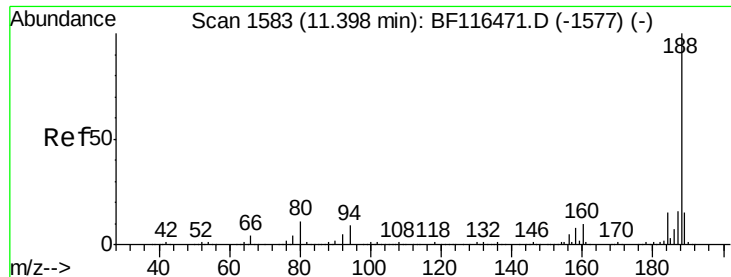
#57  
2,4-Dinitrotoluene  
Concen: 6.605 ng  
RT: 9.89 min Scan# 1327  
Delta R.T. -0.19 min  
Lab File: BF116629.D  
Acq: 28 Aug 2019 21:51

Tgt Ion:165 Resp: 26406  
Ion Ratio Lower Upper  
165 100  
63 1.1 30.9 46.3#  
89 1.6 55.0 82.6#  
182 0.0 2.2 3.2#



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

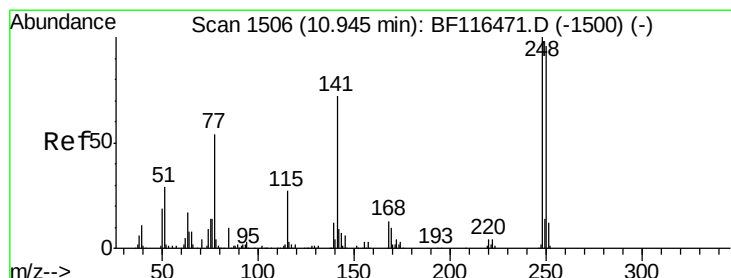
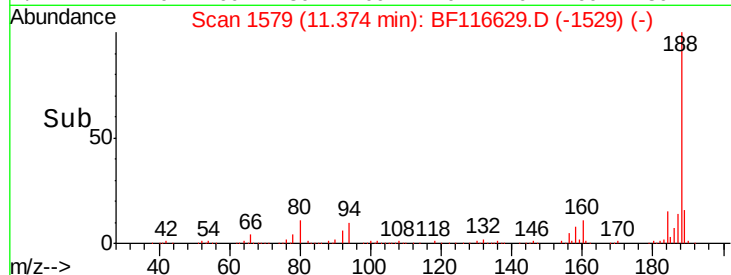
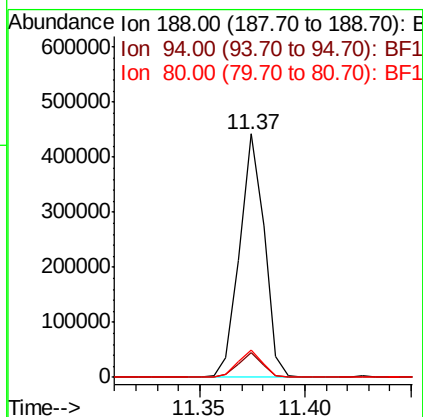
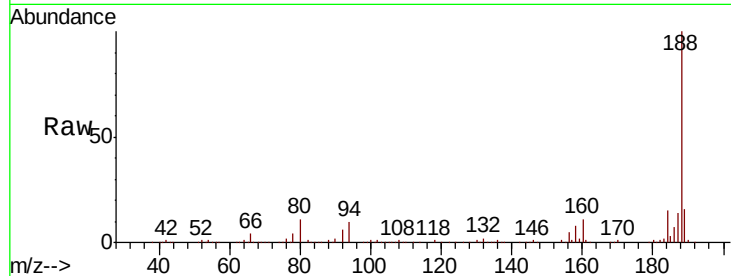




#64  
 Phenanthrene-d10  
 Concen: 20.000 ng  
 RT: 11.37 min Scan# 1579  
 Delta R.T. -0.01 min  
 Lab File: BF116629.D  
 Acq: 28 Aug 2019 21:51

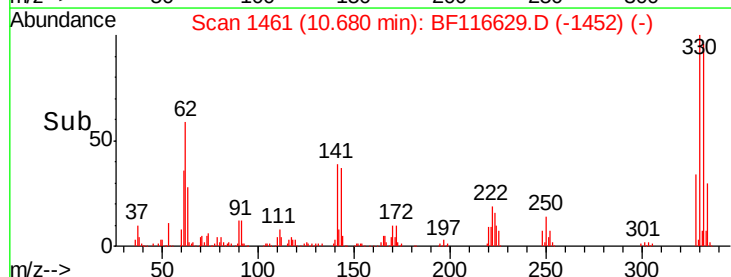
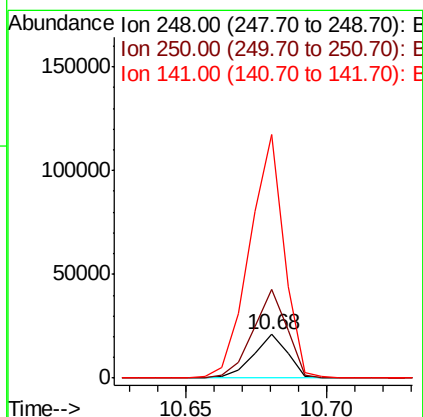
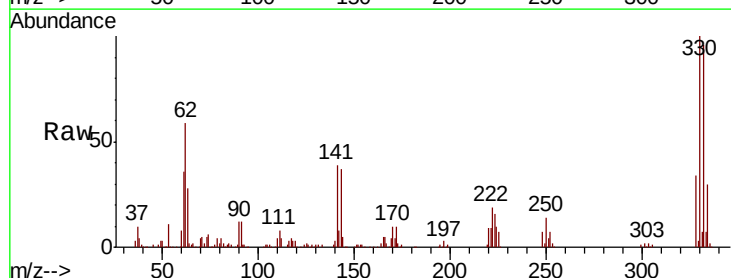
Instrument :  
 BNA\_F  
 ClientSampled :

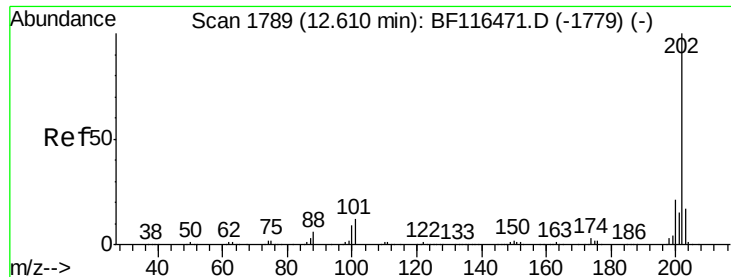
Tot Ion:188 Resp: 357645  
 Ion Ratio Lower Upper  
 188 100  
 94 10.2 8.2 12.4  
 80 11.4 8.9 13.3



#67  
 4-Bromophenyl-phenylether  
 Concen: 4.654 ng  
 RT: 10.68 min Scan# 1461  
 Delta R.T. -0.25 min  
 Lab File: BF116629.D  
 Acq: 28 Aug 2019 21:51

Tgt Ion:248 Resp: 17655  
 Ion Ratio Lower Upper  
 248 100  
 250 204.2 76.6 115.0#  
 141 562.2 60.8 91.2#

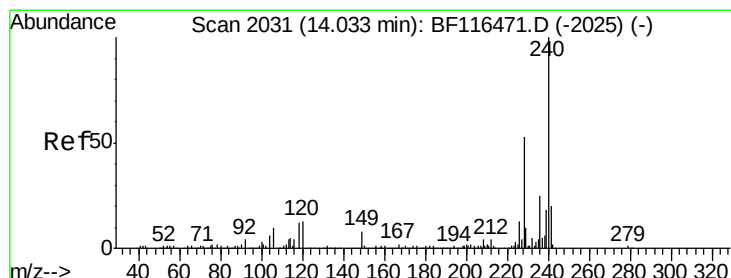
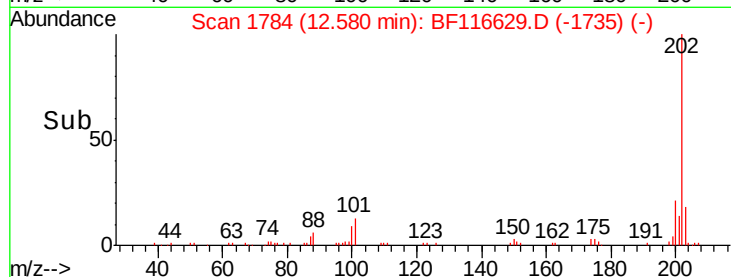
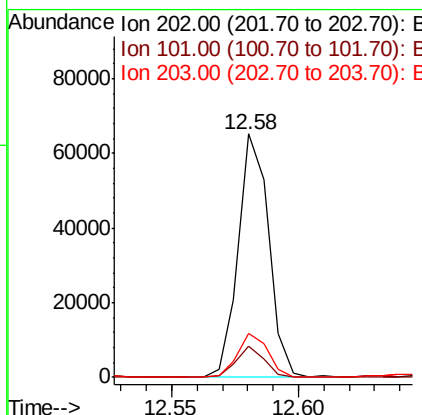
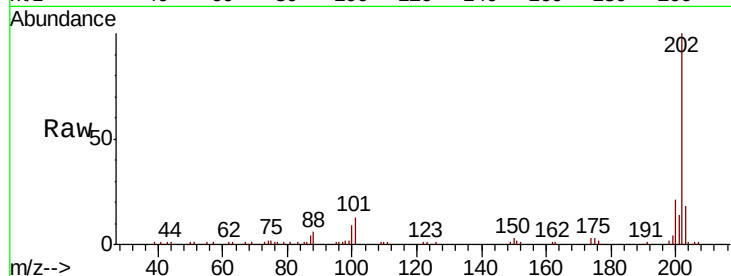




#75  
Fluoranthene  
Concen: 3.159 ng  
RT: 12.58 min Scan# 1784  
Delta R.T. -0.01 min  
Lab File: BF116629.D  
Acq: 28 Aug 2019 21:51

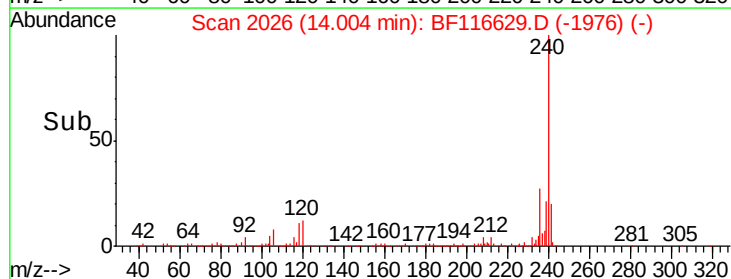
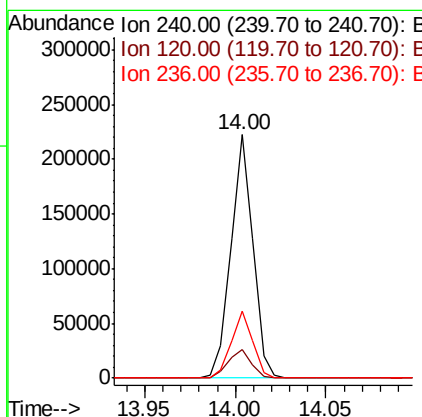
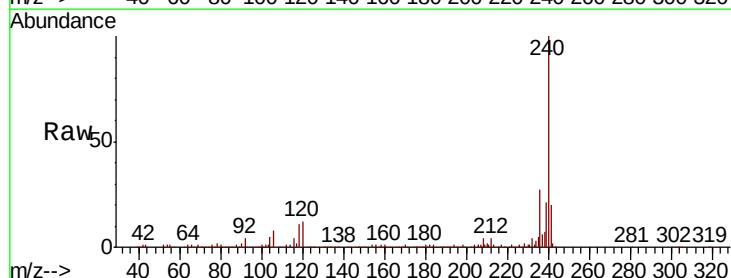
Instrument :  
BNA\_F  
ClientSampled :

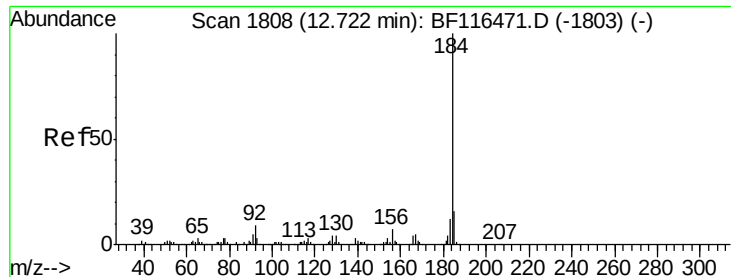
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 13.0  | 0.0   | 31.8  |
| 203     | 18.1  | 0.0   | 37.1  |



#76  
Chrysene-d12  
Concen: 20.000 ng  
RT: 14.00 min Scan# 2026  
Delta R.T. -0.01 min  
Lab File: BF116629.D  
Acq: 28 Aug 2019 21:51

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 11.8  | 11.3  | 16.9  |
| 236     | 27.3  | 21.4  | 32.2  |





#77

Benzidine

Concen: 2.109 ng

RT: 12.96 min Scan# 1848

Delta R.T. 0.25 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

Instrument :

BNA\_F

ClientSampleId :

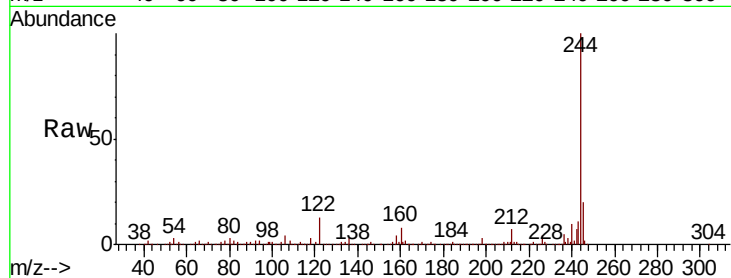
Tot Ion:184 Resp: 14430

Ion Ratio Lower Upper

184 100

185 17.2 11.5 17.3

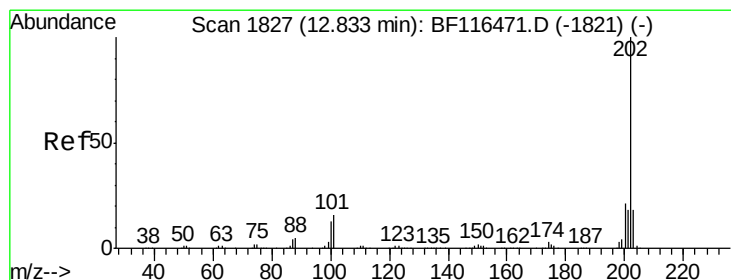
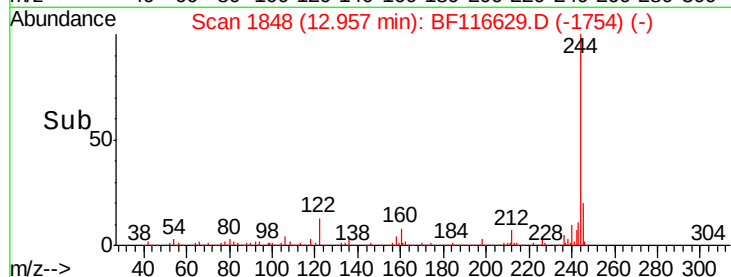
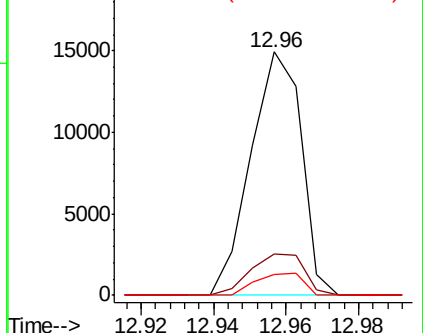
183 8.8 9.3 13.9#



Abundance Ion 184.00 (183.70 to 184.70): E

Ion 185.00 (184.70 to 185.70): E

Ion 183.00 (182.70 to 183.70): E



#78

Pyrene

Concen: 3.041 ng

RT: 12.81 min Scan# 1823

Delta R.T. -0.01 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

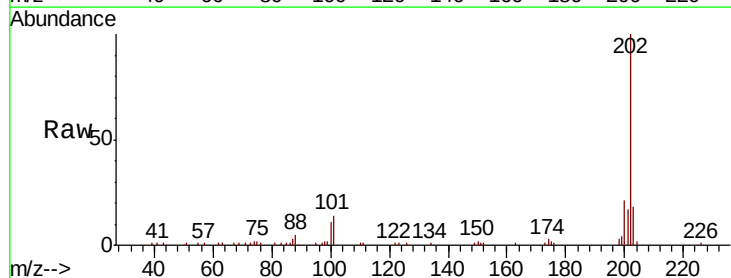
Tgt Ion:202 Resp: 52886

Ion Ratio Lower Upper

202 100

200 21.2 17.4 26.0

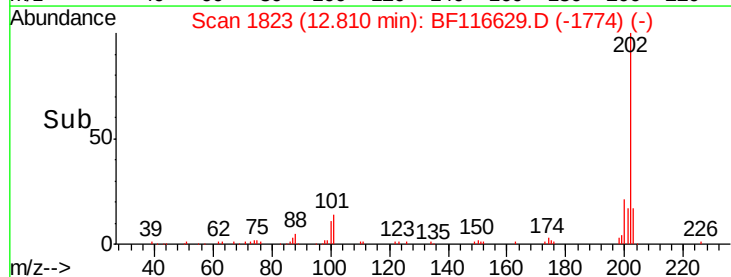
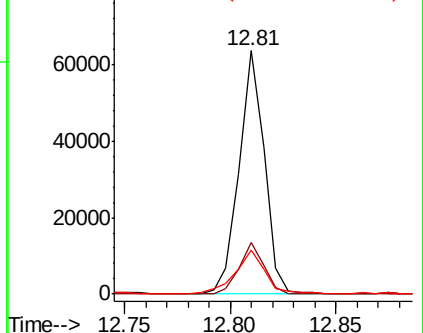
203 18.1 14.2 21.4

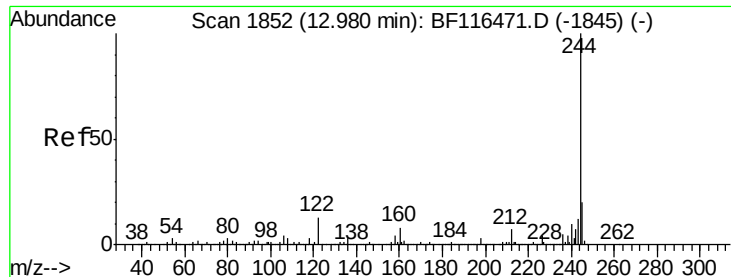


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E





#79

Terphenyl-d14

Concen: 94.146 ng

RT: 12.96 min Scan# 1848

Delta R.T. -0.01 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

Instrument :

BNA\_F

ClientSampled :

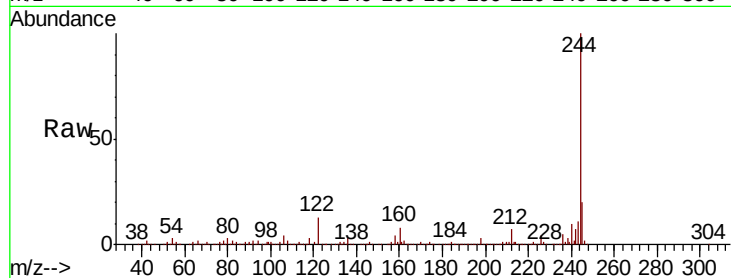
Tot Ion:244 Resp: 1094728

Ion Ratio Lower Upper

244 100

212 6.9 5.9 8.9

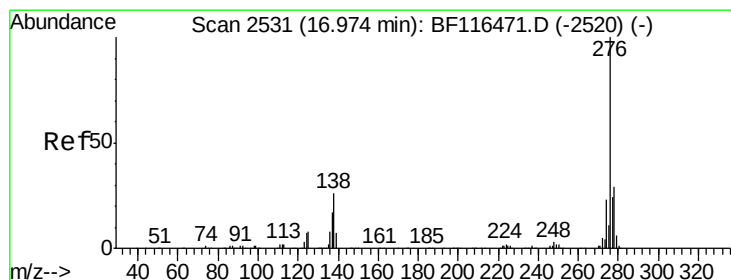
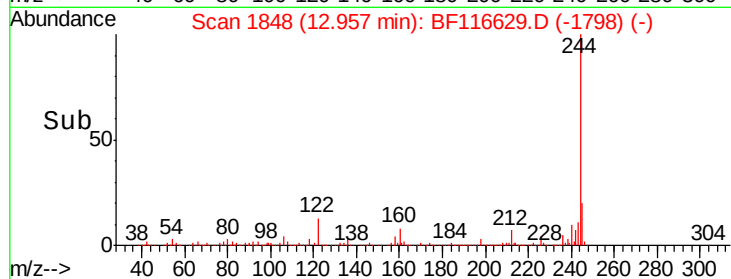
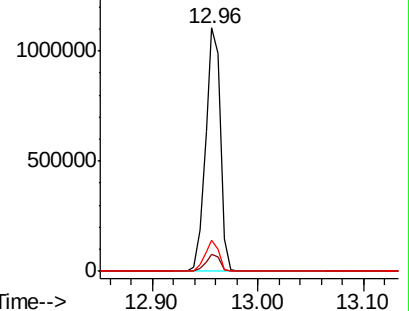
122 12.7 10.0 15.0



Abundance Ion 244.00 (243.70 to 244.70): E

Ion 212.00 (211.70 to 212.70): E

Ion 122.00 (121.70 to 122.70): E



#86

Indeno(1,2,3-cd)pyrene

Concen: 5.076 ng

RT: 16.90 min Scan# 2518

Delta R.T. -0.02 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

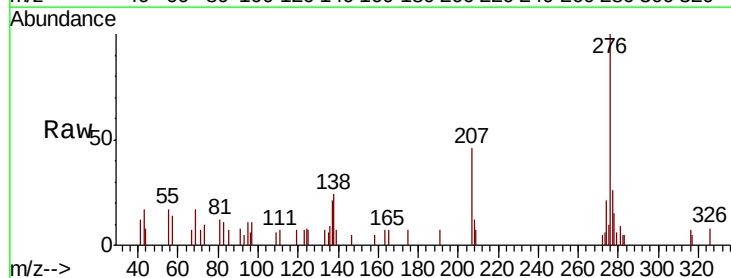
Tgt Ion:276 Resp: 12522

Ion Ratio Lower Upper

276 100

138 31.5 21.5 32.3

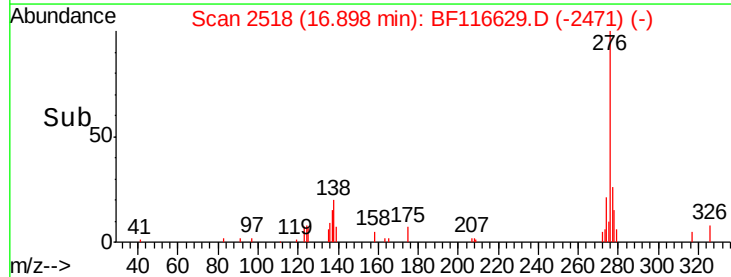
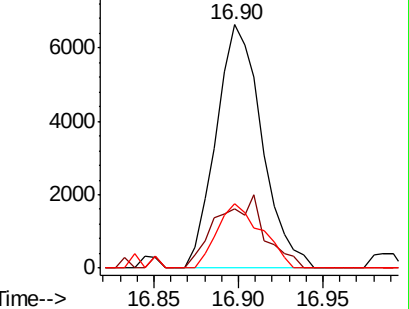
277 25.5 20.0 30.0

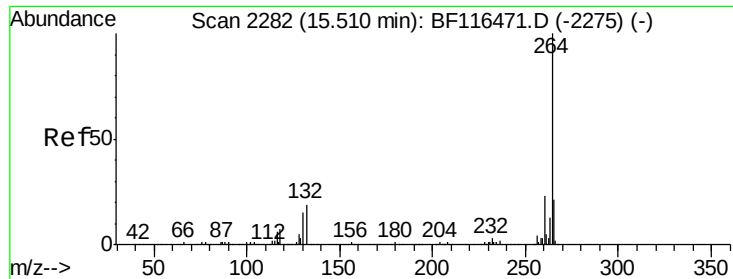


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E





#87

Pervlene-d12

Concen: 20.000 ng

RT: 15.46 min Scan# 2274

Delta R.T. -0.01 min

Lab File: BF116629.D

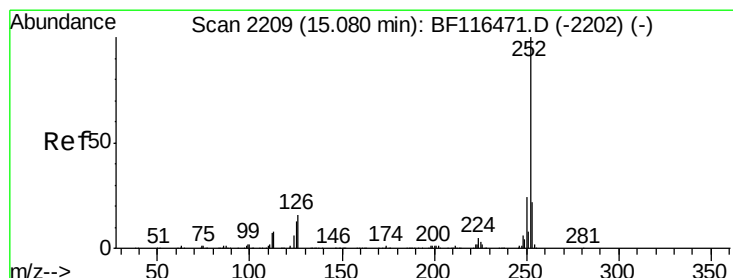
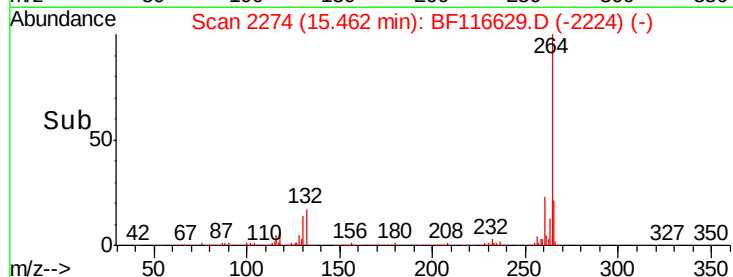
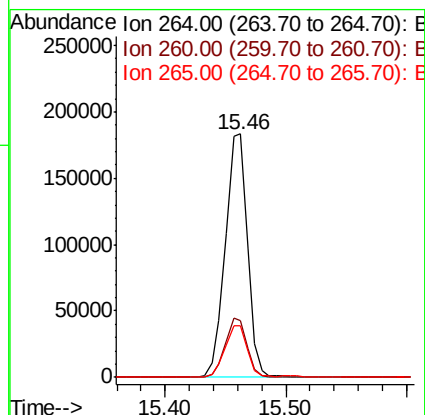
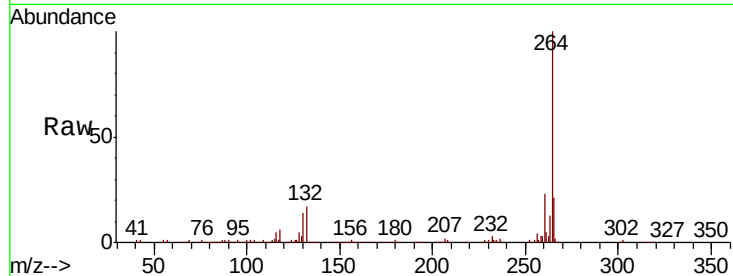
Acq: 28 Aug 2019 21:51

Instrument :

BNA\_F

ClientSampled :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 264   | Resp: | 233473 |
| Ion      | Ratio | Lower | Upper  |
| 264      | 100   |       |        |
| 260      | 23.2  | 20.0  | 30.0   |
| 265      | 21.0  | 17.6  | 26.4   |



#88

Benzo(b)fluoranthene

Concen: 2.195 ng

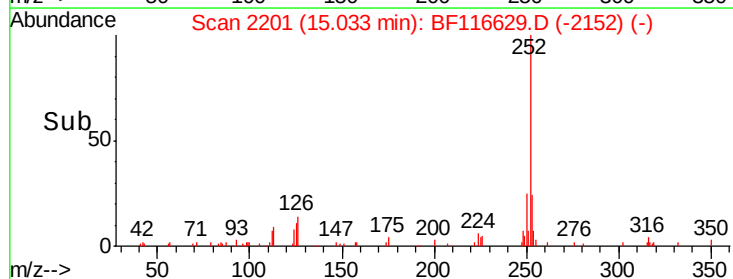
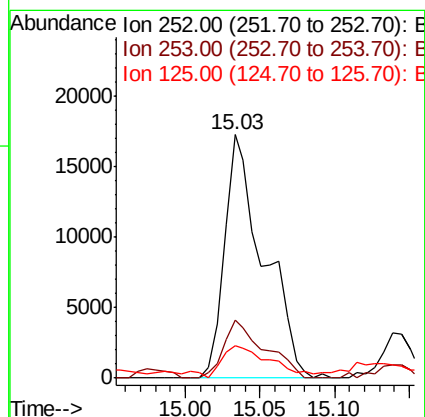
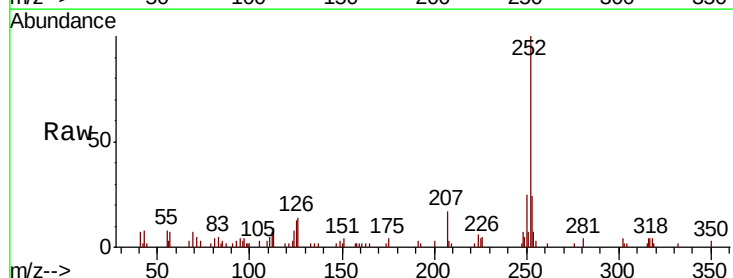
RT: 15.03 min Scan# 2201

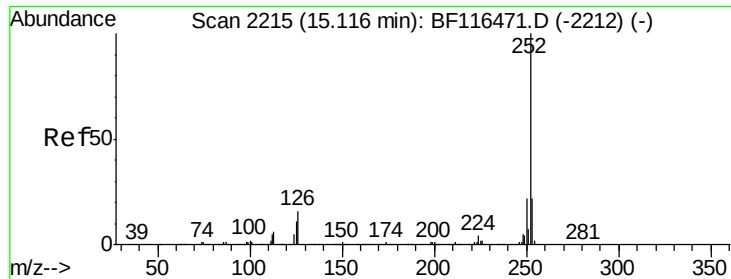
Delta R.T. -0.01 min

Lab File: BF116629.D

Acq: 28 Aug 2019 21:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 252   | Resp: | 31469 |
| Ion      | Ratio | Lower | Upper |
| 252      | 100   |       |       |
| 253      | 24.1  | 17.3  | 25.9  |
| 125      | 13.2  | 9.0   | 13.6  |





#89  
 Benzo(k)fluoranthene  
 Concen: 2.309 ng  
 RT: 15.03 min Scan# 2201  
 Delta R.T. -0.04 min  
 Lab File: BF116629.D  
 Acq: 28 Aug 2019 21:51

Instrument :  
 BNA\_F  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.1  | 17.2  | 25.8  |
| 125     | 13.2  | 8.6   | 13.0  |

