

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF052319\  
 Data File : BF114545.D  
 Acq On : 24 May 2019 1:06  
 Operator : JU/SJ  
 Sample : K2998-01  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :

Quant Time: May 24 07:21:39 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF051019.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu May 23 03:49:15 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.81  | 152  | 150758   | 20.00 | ng    | -0.03    |
| 21) Naphthalene-d8        | 8.09  | 136  | 592026   | 20.00 | ng    | -0.03    |
| 39) Acenaphthene-d10      | 9.85  | 164  | 297592   | 20.00 | ng    | -0.03    |
| 64) Phenanthrene-d10      | 11.33 | 188  | 645681   | 20.00 | ng    | -0.02    |
| 76) Chrysene-d12          | 13.98 | 240  | 434158   | 20.00 | ng    | -0.02    |
| 87) Perylene-d12          | 15.44 | 264  | 445206   | 20.00 | ng    | -0.02    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|-------|------|----------|--------|-------|----------|
| 5) 2-Fluorophenol           | 5.44  | 112  | 872681   | 93.15  | ng    | -0.03    |
| 7) Phenol-d6                | 6.46  | 99   | 1161620  | 104.84 | ng    | -0.03    |
| 23) Nitrobenzene-d5         | 7.37  | 82   | 678319   | 64.30  | ng    | -0.03    |
| 42) 2,4,6-Tribromophenol    | 10.64 | 330  | 322879   | 104.95 | ng    | -0.02    |
| 45) 2-Fluorobiphenyl        | 9.17  | 172  | 1142382  | 58.07  | ng    | -0.02    |
| 79) Terphenyl-d14           | 12.92 | 244  | 1242549  | 59.00  | ng    | -0.02    |

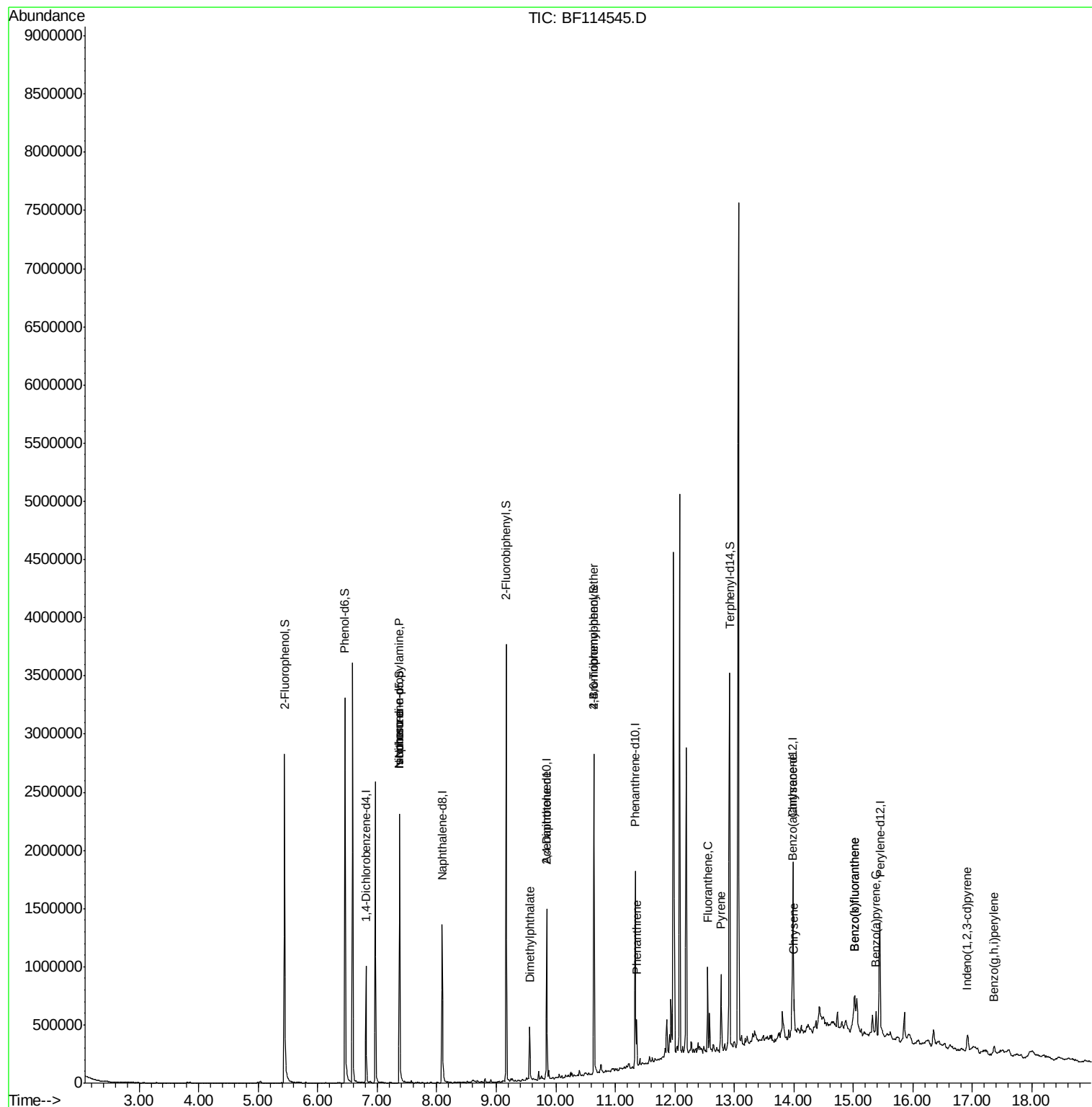
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units | Qvalue |
|--------------------------------|-------|------|----------|--------|-------|--------|
| 19) n-Nitroso-di-n-propylamine | 7.37  | 70   | 89966    | 12.810 | ng    | # 76   |
| 25) Isophorone                 | 7.37  | 82   | 678313   | 34.670 | ng    | # 64   |
| 50) Dimethylphthalate          | 9.56  | 163  | 179864   | 8.233  | ng    | 99     |
| 57) 2,4-Dinitrotoluene         | 9.85  | 165  | 38307    | 5.825  | ng    | # 25   |
| 67) 4-Bromophenyl-phenylether  | 10.64 | 248  | 20514    | 2.886  | ng    | # 1    |
| 71) Phenanthrene               | 11.36 | 178  | 147501   | 4.696  | ng    | 96     |
| 75) Fluoranthene               | 12.55 | 202  | 272476   | 8.055  | ng    | 98     |
| 78) Pyrene                     | 12.78 | 202  | 263215   | 7.536  | ng    | 98     |
| 81) Benzo(a)anthracene         | 13.97 | 228  | 113148   | 4.029  | ng    | 99     |
| 83) Chrysene                   | 14.00 | 228  | 106041   | 3.852  | ng    | 98     |
| 86) Indeno(1,2,3-cd)pyrene     | 16.92 | 276  | 56054    | 2.304  | ng    | 96     |
| 88) Benzo(b)fluoranthene       | 15.02 | 252  | 164524   | 5.768  | ng    | # 94   |
| 89) Benzo(k)fluoranthene       | 15.02 | 252  | 164524   | 6.279  | ng    | # 95   |
| 90) Benzo(a)pyrene             | 15.39 | 252  | 94684    | 3.772  | ng    | # 94   |
| 92) Benzo(a,h,i)perylene       | 17.36 | 276  | 53148    | 2.543  | ng    | 96     |

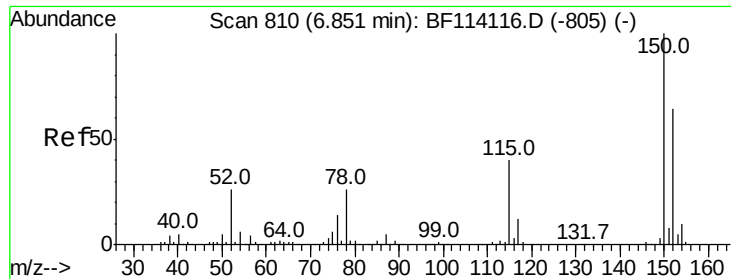
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF052319\  
Data File : BF114545.D  
Acq On : 24 May 2019 1:06  
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Sample : K2998-01  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :

Quant Time: May 24 07:21:39 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF051019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu May 23 03:49:15 2019  
Response via : Initial Calibration



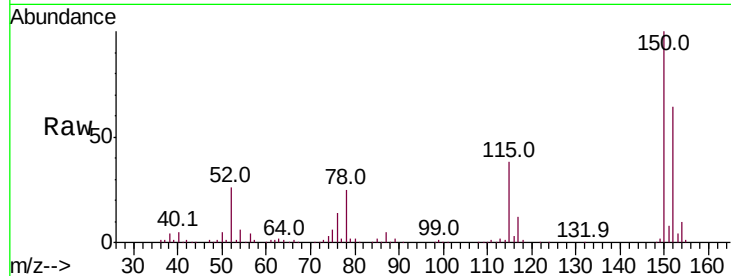


#1

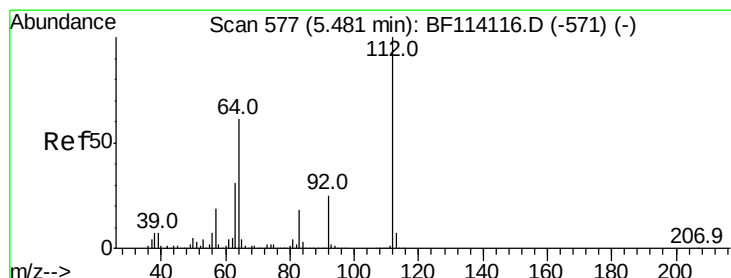
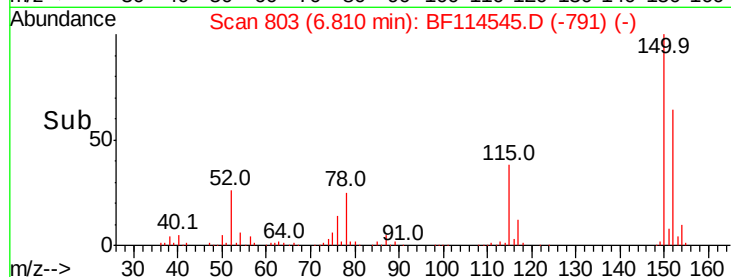
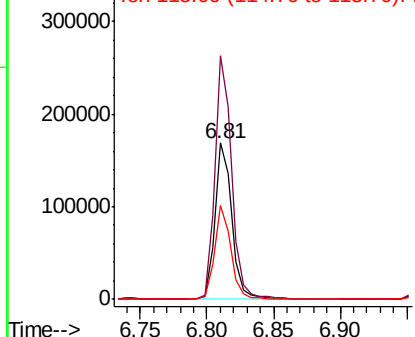
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.81 min Scan# 803  
Delta R.T. -0.03 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

Instrument :  
BNA\_F  
ClientSampleId :

Tot Ion:152 Resp: 150758  
Ion Ratio Lower Upper  
152 100  
150 155.7 124.3 186.5  
115 59.9 49.1 73.7



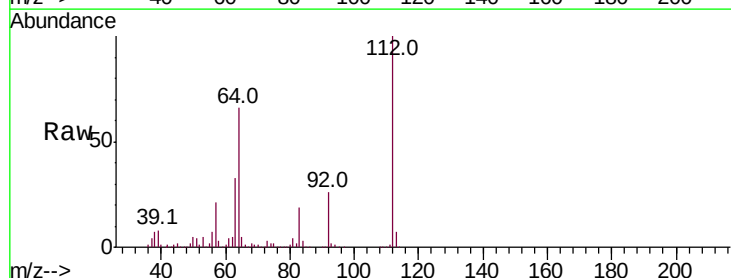
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



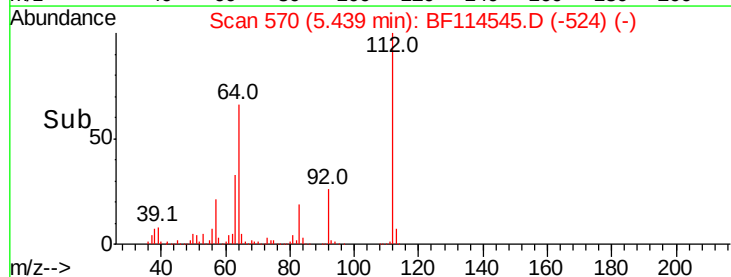
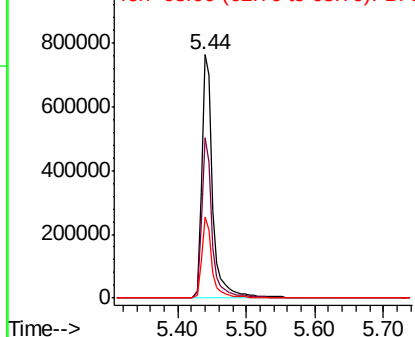
#5

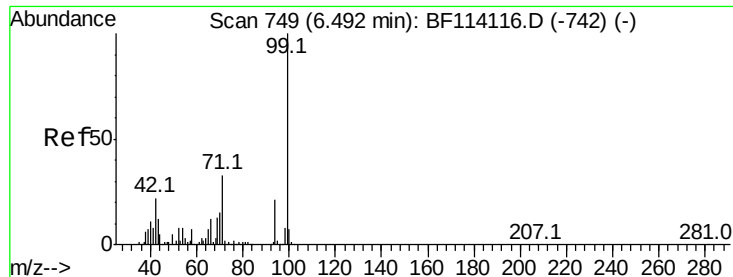
2-Fluorophenol  
Concen: 93.154 ng  
RT: 5.44 min Scan# 570  
Delta R.T. -0.03 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

Tgt Ion:112 Resp: 872681  
Ion Ratio Lower Upper  
112 100  
64 65.7 49.0 73.6  
63 33.5 24.6 37.0



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: 104.839 ng

RT: 6.46 min Scan# 743

Delta R.T. -0.03 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

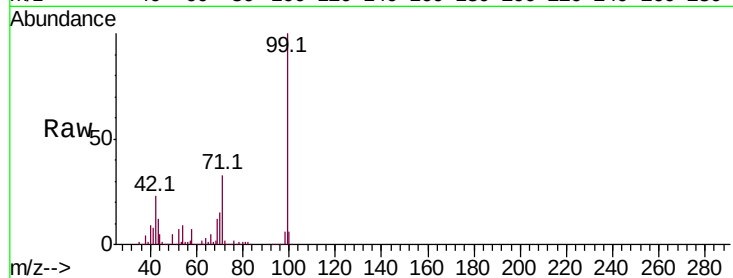
Instrument :

BNA\_F

ClientSampleId :

Tot Ion: 99 Resp: 1161620

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 99  | 100   |       |       |
| 42  | 22.5  | 17.9  | 26.9  |
| 71  | 33.3  | 26.2  | 39.2  |

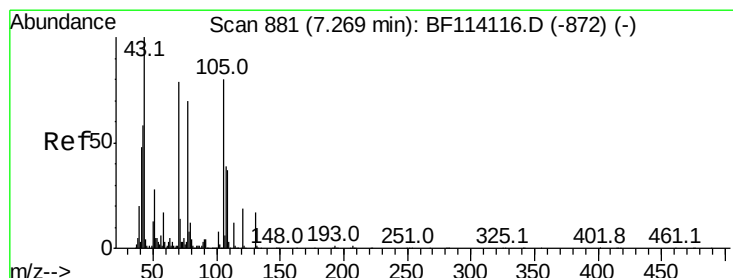
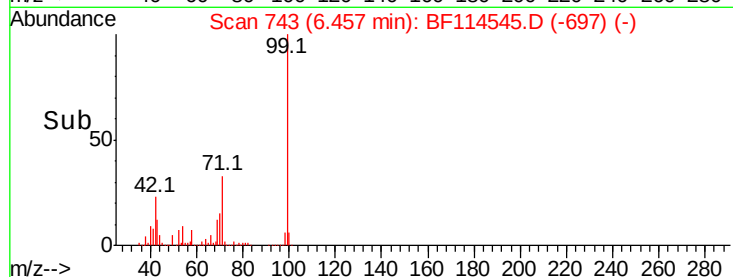
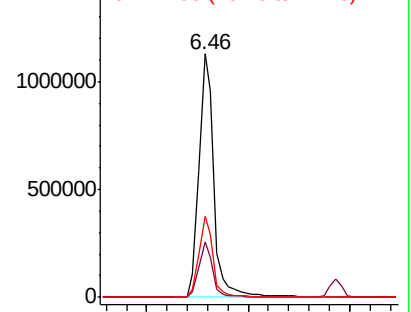


Abundance

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



#19

n-Nitroso-di-n-propylamine

Concen: 12.810 ng

RT: 7.37 min Scan# 899

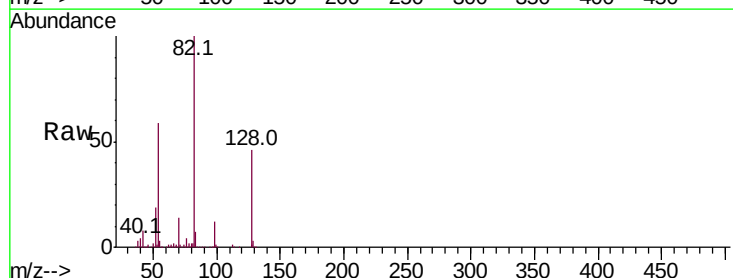
Delta R.T. 0.12 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

Tgt Ion: 70 Resp: 89966

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 70  | 100   |       |       |
| 42  | 57.0  | 58.6  | 87.8# |
| 101 | 0.0   | 7.8   | 11.8# |
| 130 | 2.1   | 17.1  | 25.7# |



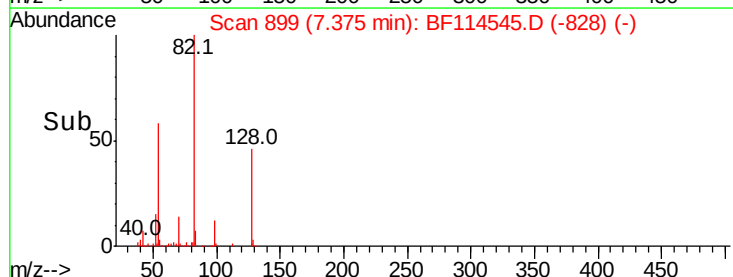
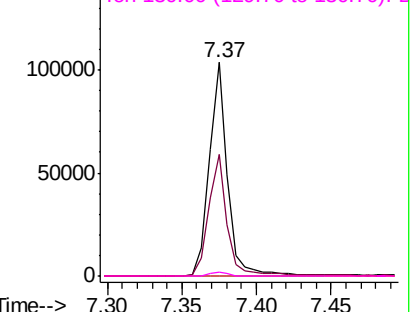
Abundance

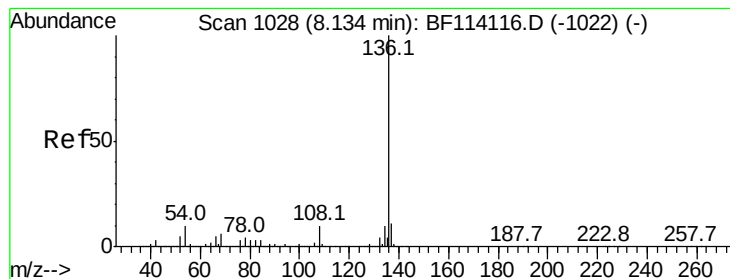
Ion 70.00 (69.70 to 70.70): BF1

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: 8.09 min Scan# 1021

Delta R.T. -0.03 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

Instrument :  
BNA\_F  
ClientSampled :

Tot Ion:136 Resp: 592026

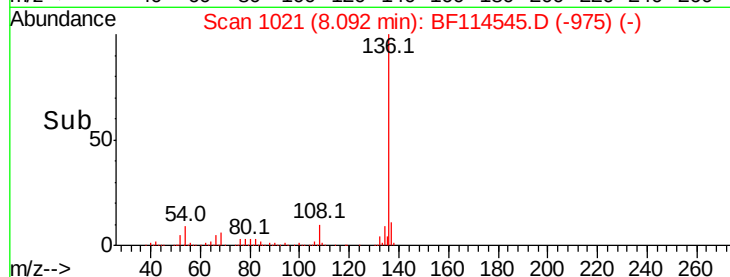
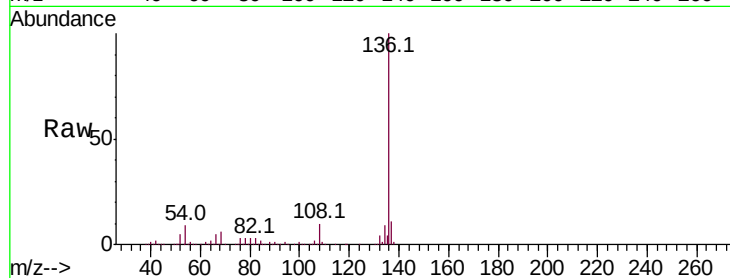
Ion Ratio Lower Upper

136 100

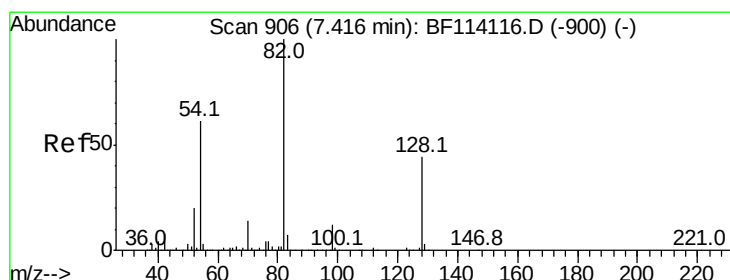
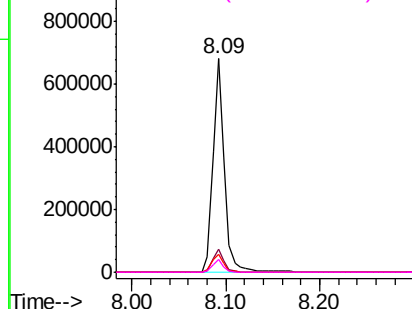
137 10.8 8.8 13.2

54 8.7 7.8 11.8

68 5.8 5.1 7.7



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: 64.300 ng

RT: 7.37 min Scan# 899

Delta R.T. -0.03 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

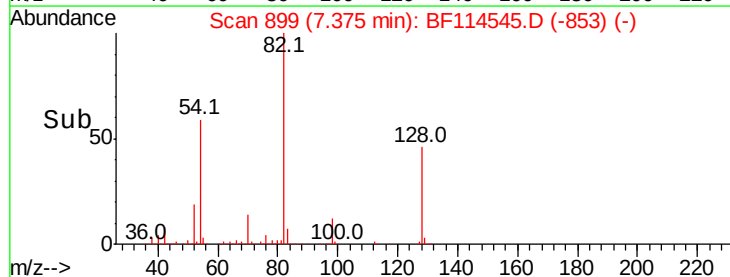
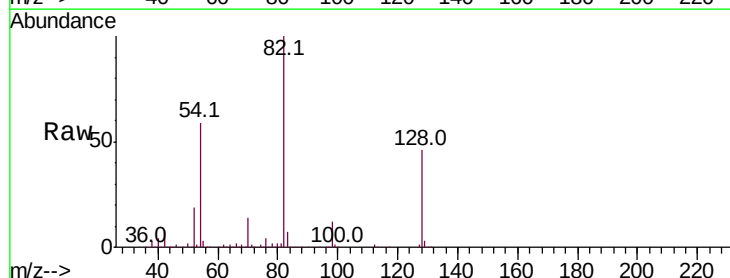
Tgt Ion: 82 Resp: 678319

Ion Ratio Lower Upper

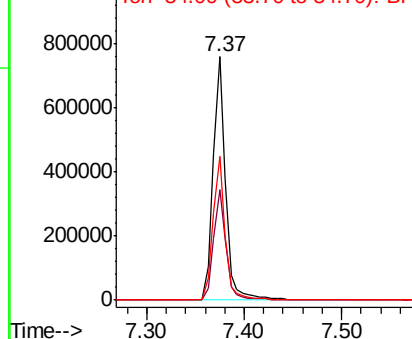
82 100

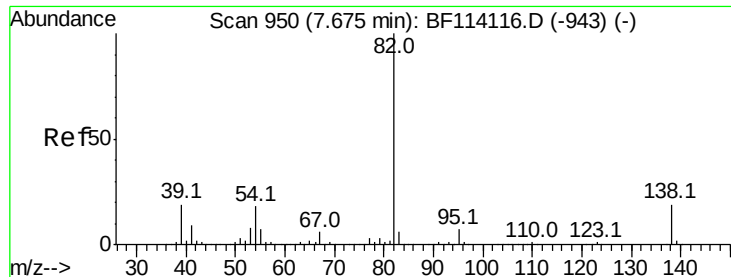
128 45.6 35.5 53.3

54 58.9 48.5 72.7



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: 34.670 ng

RT: 7.37 min Scan# 899

Delta R.T. -0.29 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

Instrument :

BNA\_F

ClientSampleId :

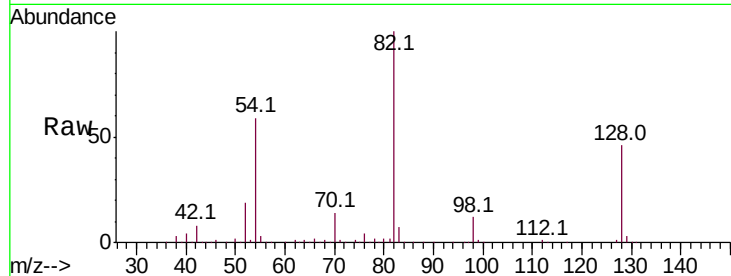
Tot Ion: 82 Resp: 678313

Ion Ratio Lower Upper

82 100

95 0.0 5.6 8.4#

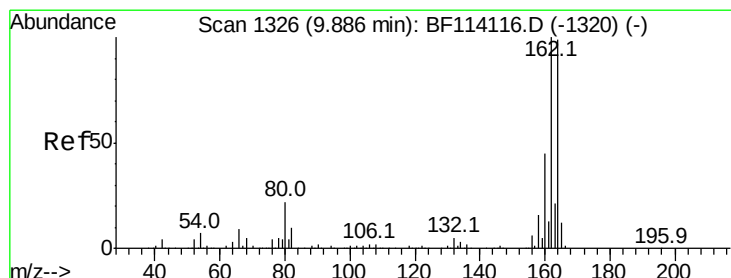
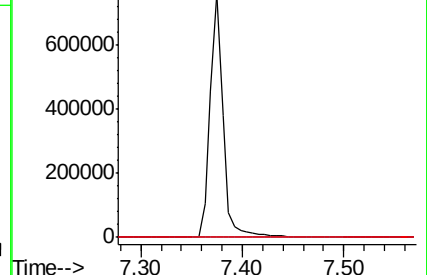
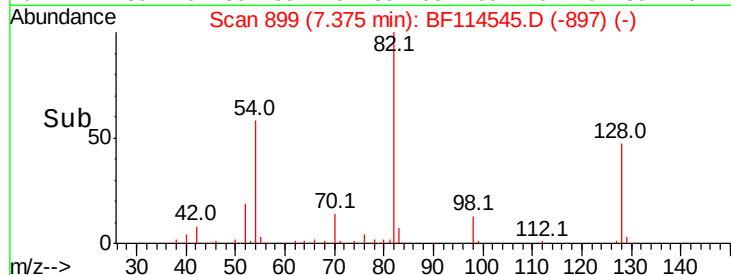
138 0.0 14.8 22.2#



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: 9.85 min Scan# 1319

Delta R.T. -0.03 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

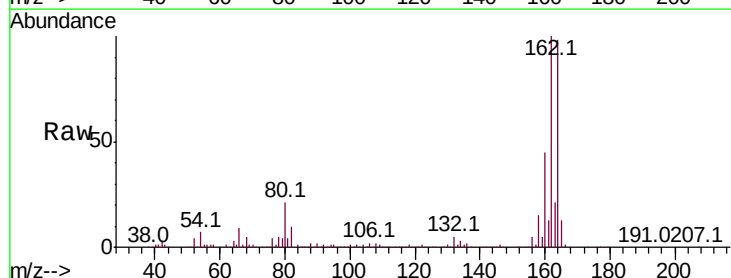
Tgt Ion:164 Resp: 297592

Ion Ratio Lower Upper

164 100

162 101.7 80.6 120.8

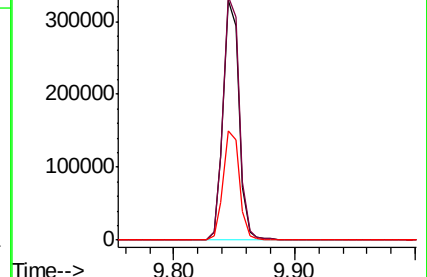
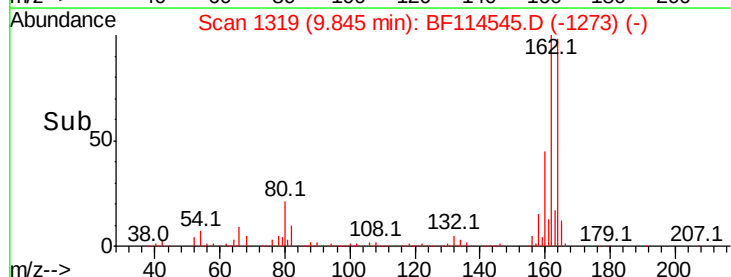
160 45.6 36.5 54.7

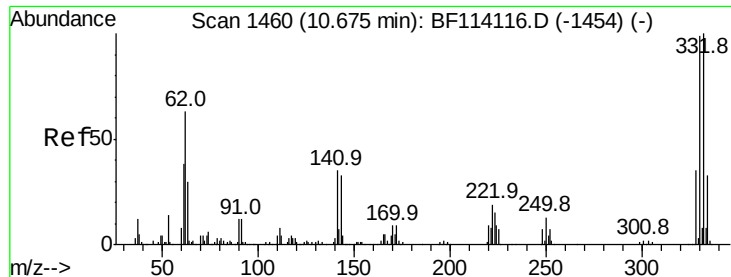


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E





#42

2,4,6-Tribromophenol

Concen: 104.947 ng

RT: 10.64 min Scan# 1454

Delta R.T. -0.02 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

Instrument :

BNA\_F

ClientSampleId :

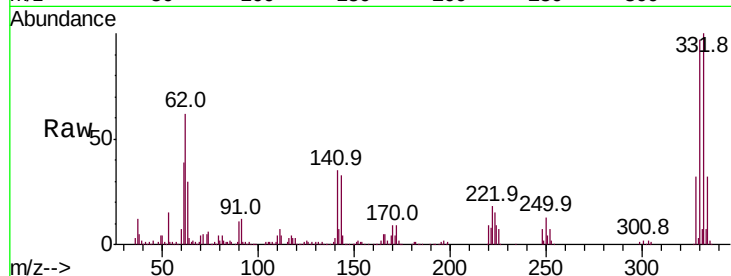
Tot Ion:330 Resp: 322879

Ion Ratio Lower Upper

330 100

332 102.6 81.4 122.2

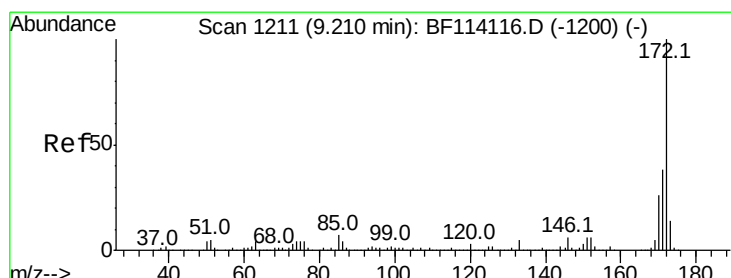
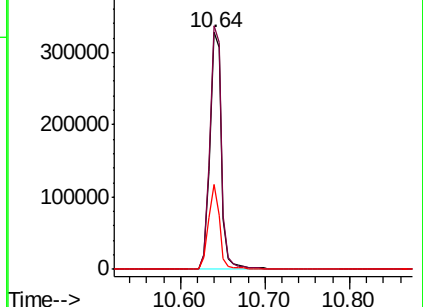
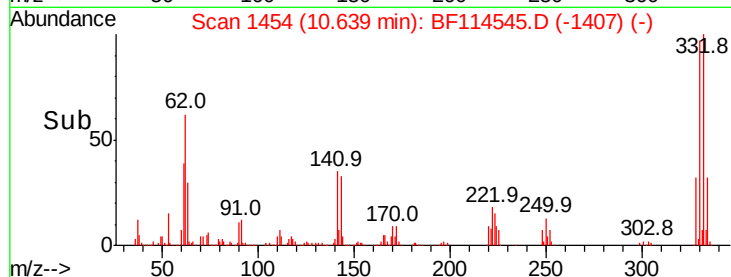
141 33.1 26.6 40.0



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: 58.067 ng

RT: 9.17 min Scan# 1204

Delta R.T. -0.02 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

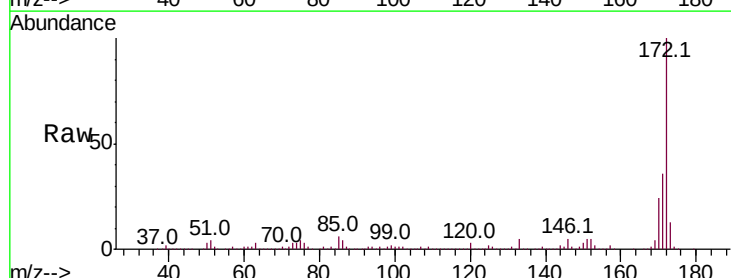
Tgt Ion:172 Resp: 1142382

Ion Ratio Lower Upper

172 100

171 35.9 30.7 46.1

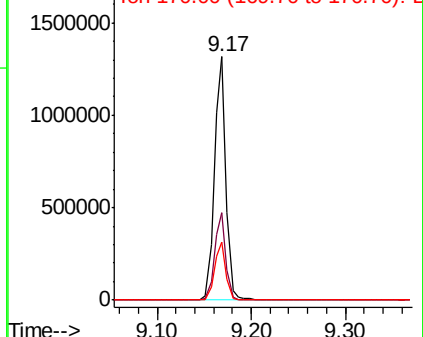
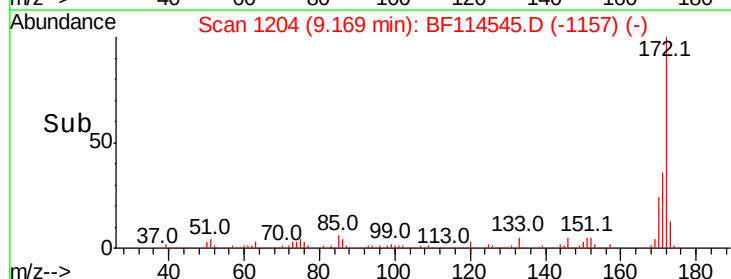
170 23.7 20.5 30.7

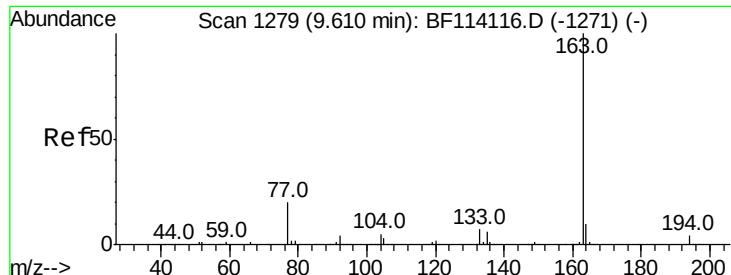


Abundance Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E

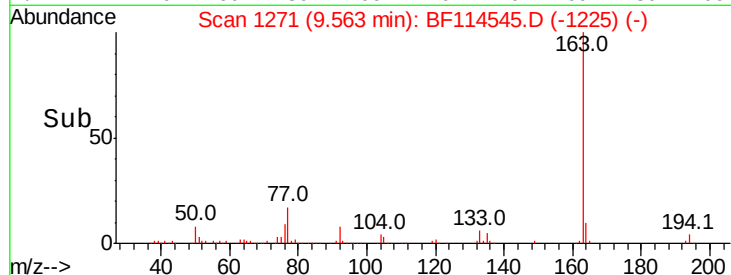
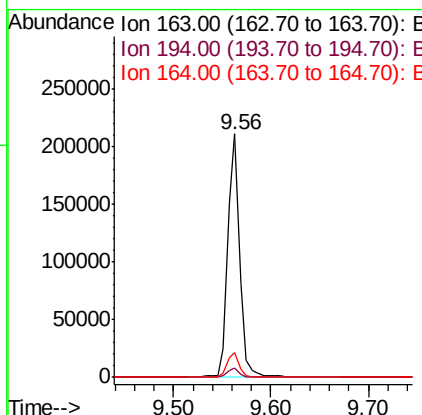
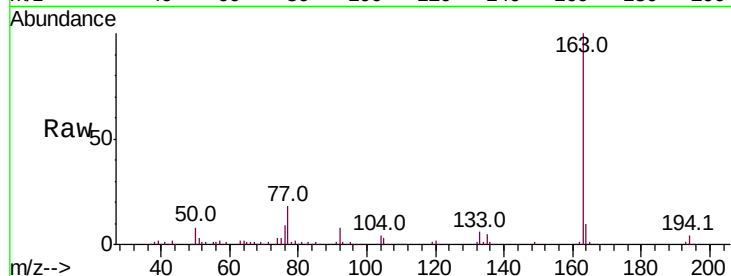




#50  
Dimethylphthalate  
Concen: 8.233 ng  
RT: 9.56 min Scan# 1271  
Delta R.T. -0.03 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

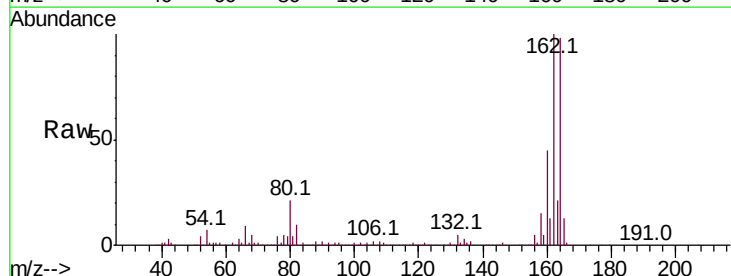
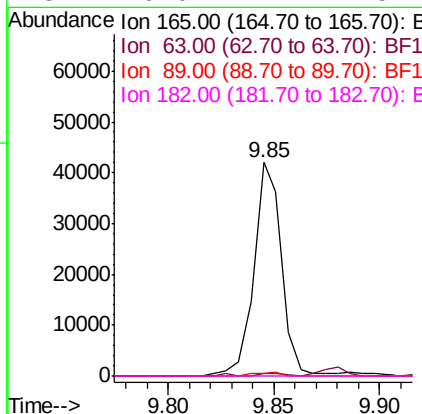
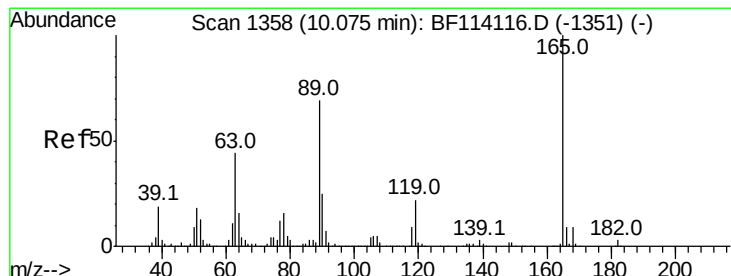
Instrument :  
BNA\_F  
ClientSampled :

Tot Ion:163 Resp: 179864  
Ion Ratio Lower Upper  
163 100  
194 3.9 3.4 5.0  
164 10.0 8.2 12.2

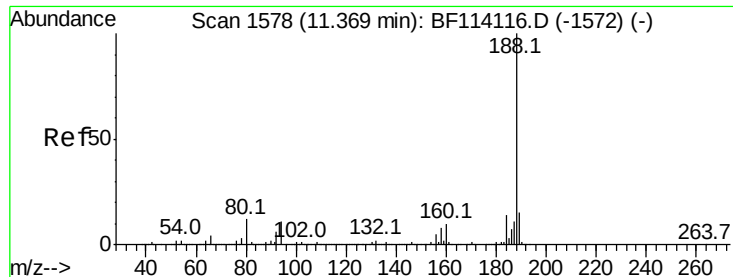


#57  
2,4-Dinitrotoluene  
Concen: 5.825 ng  
RT: 9.85 min Scan# 1319  
Delta R.T. -0.22 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

Tgt Ion:165 Resp: 38307  
Ion Ratio Lower Upper  
165 100  
63 1.3 35.5 53.3#  
89 1.1 55.2 82.8#  
182 0.0 2.2 3.2#



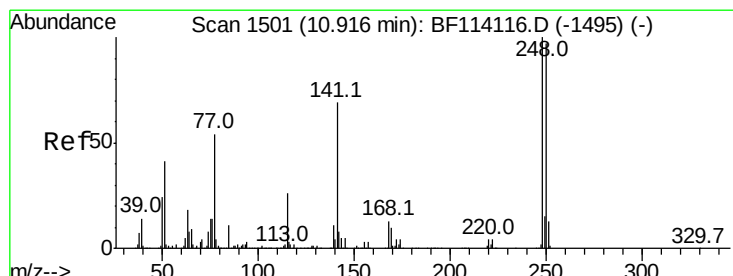
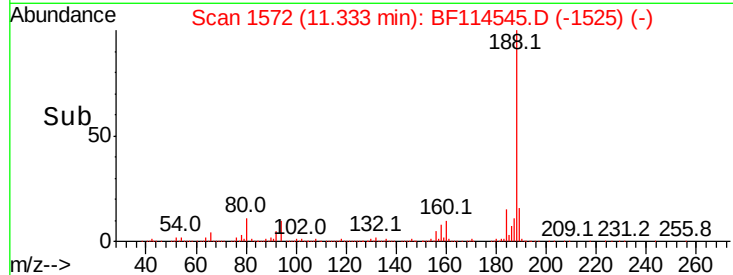
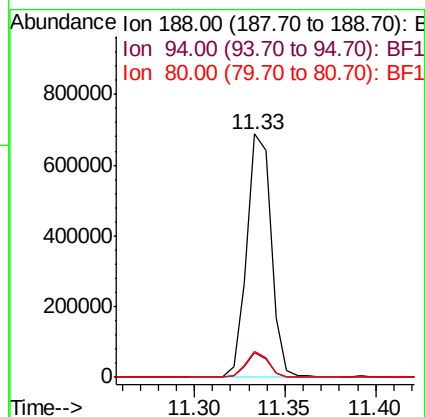
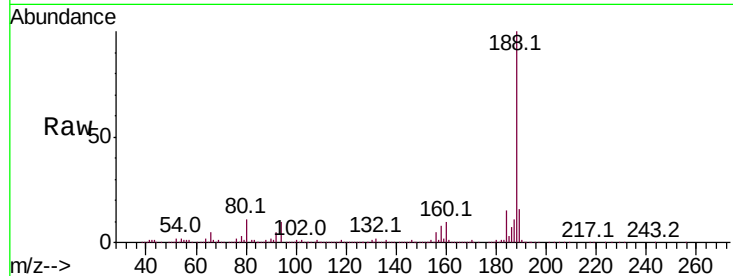




#64  
Phenanthrene-d10  
Concen: 20.000 ng  
RT: 11.33 min Scan# 1572  
Delta R.T. -0.02 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

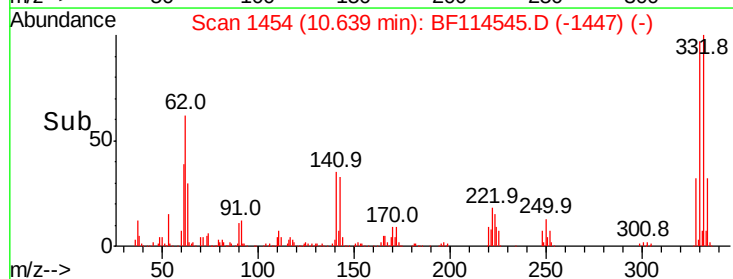
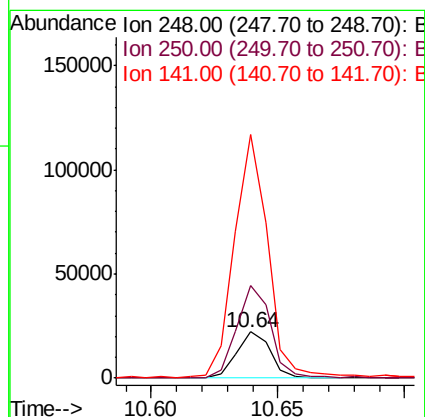
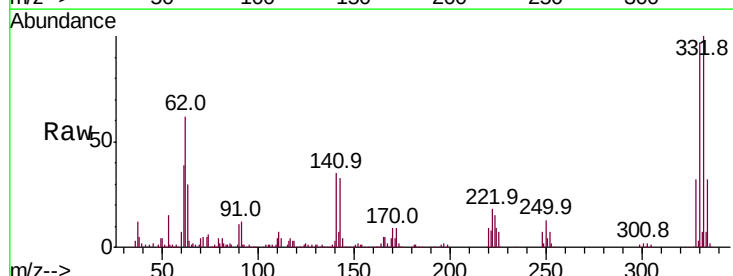
Instrument :  
BNA\_F  
ClientSampleId :

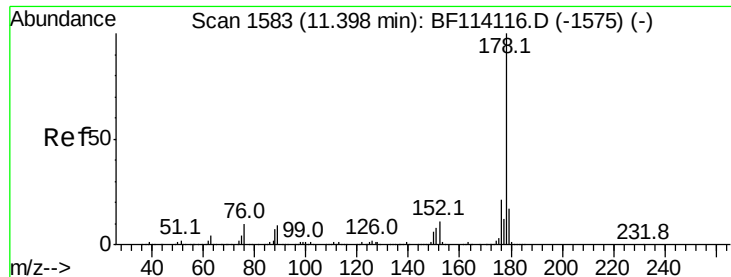
Tot Ion:188 Resp: 645681  
Ion Ratio Lower Upper  
188 100  
94 10.2 8.4 12.6  
80 10.7 9.2 13.8



#67  
4-Bromophenyl-phenylether  
Concen: 2.886 ng  
RT: 10.64 min Scan# 1454  
Delta R.T. -0.26 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

Tgt Ion:248 Resp: 20514  
Ion Ratio Lower Upper  
248 100  
250 202.4 77.4 116.2#  
141 529.8 55.6 83.4#

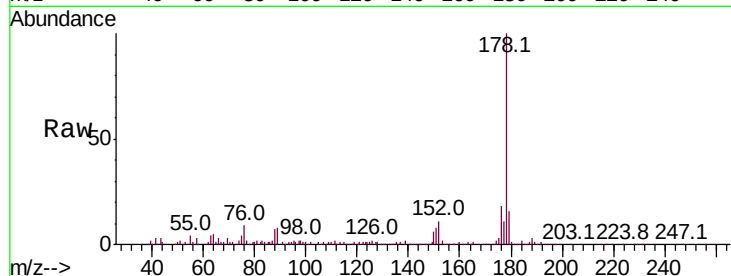




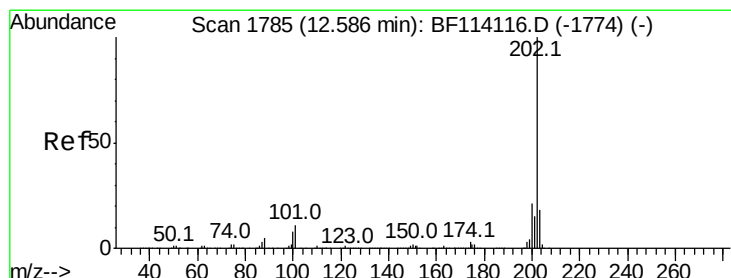
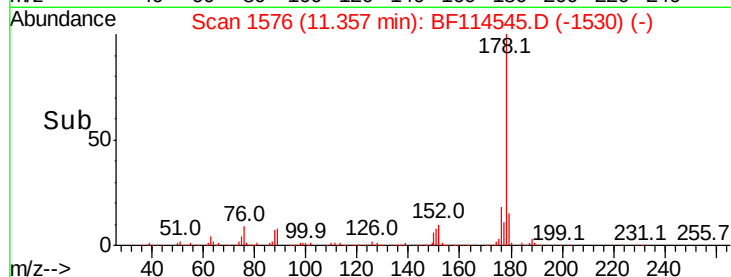
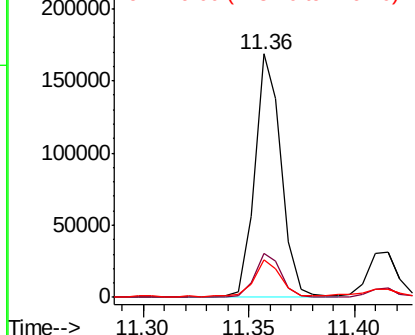
#71  
Phenanthrene  
Concen: 4.696 ng  
RT: 11.36 min Scan# 1576  
Delta R.T. -0.03 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

Instrument :  
BNA\_F  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 17.8  | 16.4  | 24.6  |
| 179     | 15.7  | 13.2  | 19.8  |

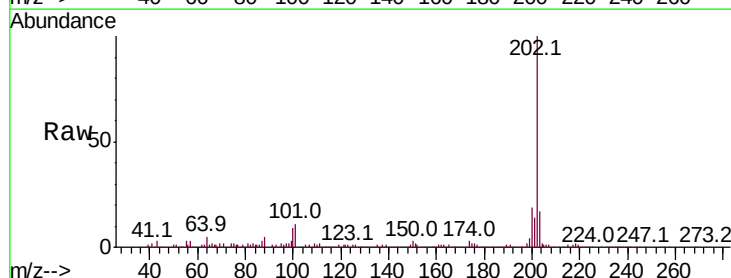


Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 176.00 (175.70 to 176.70): E  
Ion 179.00 (178.70 to 179.70): E

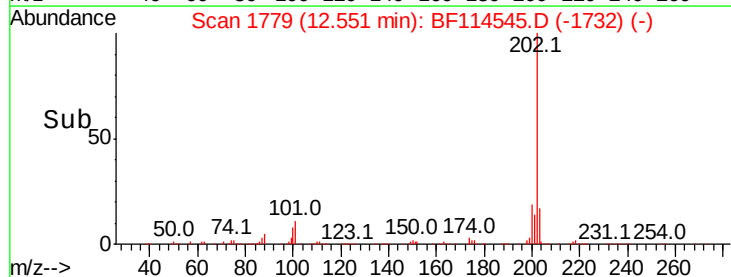
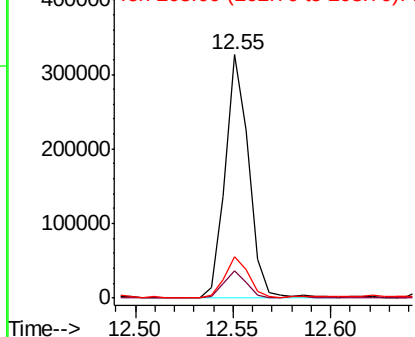


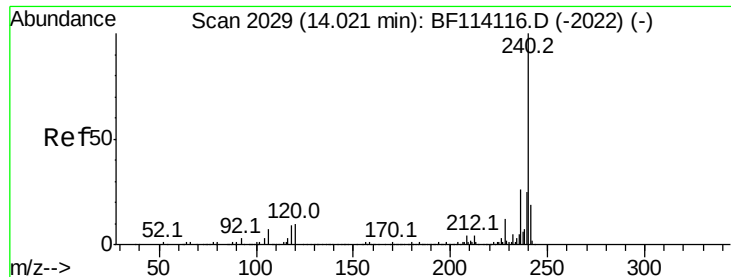
#75  
Fluoranthene  
Concen: 8.055 ng  
RT: 12.55 min Scan# 1779  
Delta R.T. -0.02 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 11.4  | 0.0   | 31.0  |
| 203     | 17.1  | 0.0   | 38.4  |



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

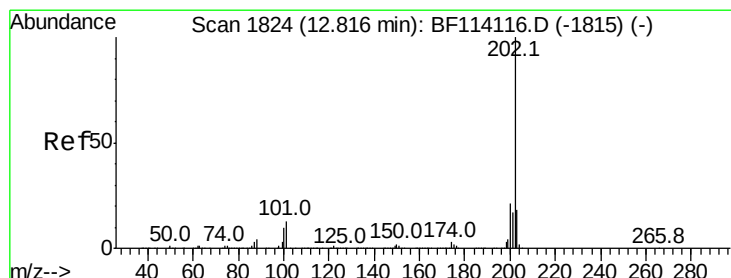
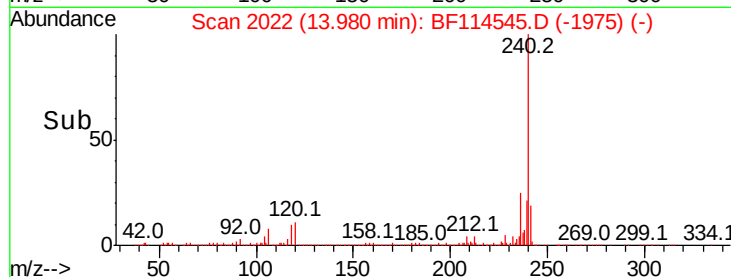
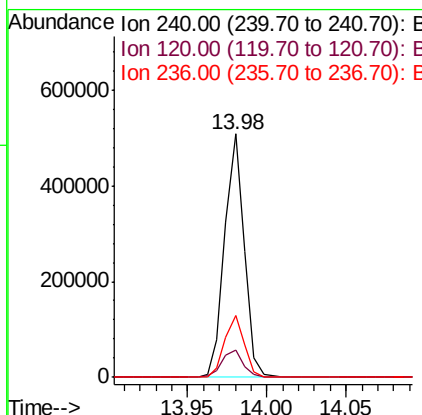
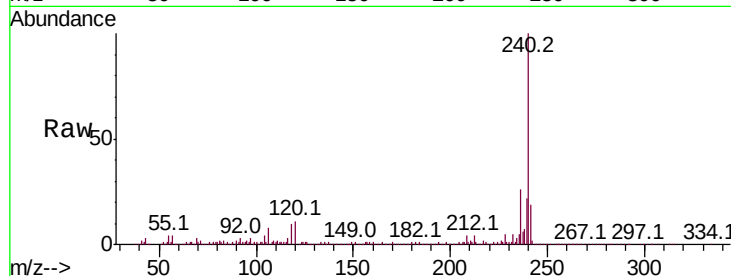




#76  
 Chrysene-d12  
 Concen: 20.000 ng  
 RT: 13.98 min Scan# 2022  
 Delta R.T. -0.02 min  
 Lab File: BF114545.D  
 Acq: 24 May 2019 1:06

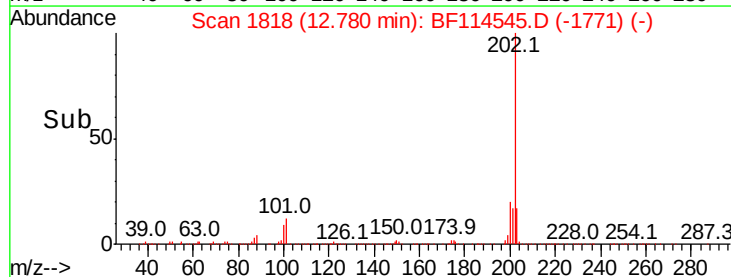
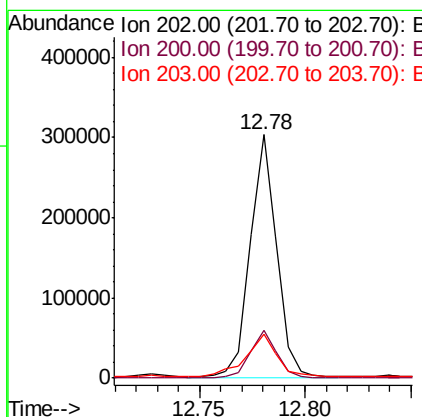
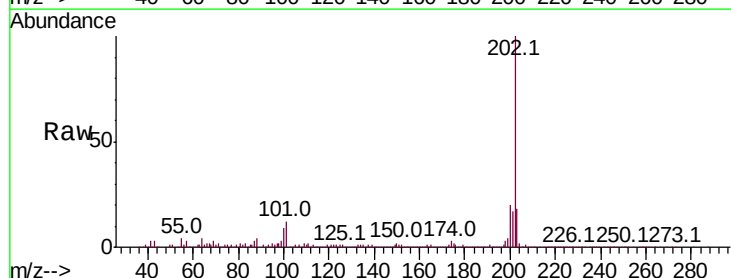
Instrument :  
 BNA\_F  
 ClientSampleId :

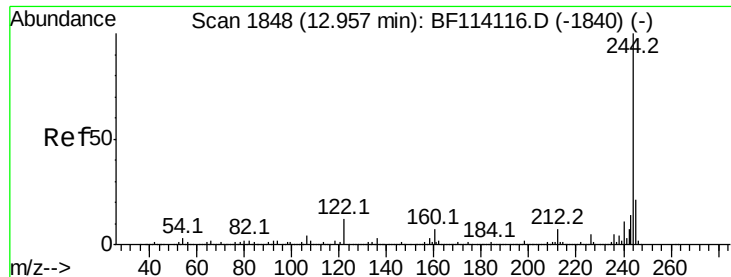
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 11.2  | 8.3   | 12.5  |
| 236     | 25.5  | 20.8  | 31.2  |



#78  
 Pyrene  
 Concen: 7.536 ng  
 RT: 12.78 min Scan# 1818  
 Delta R.T. -0.02 min  
 Lab File: BF114545.D  
 Acq: 24 May 2019 1:06

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 19.9  | 16.9  | 25.3  |
| 203     | 17.8  | 14.5  | 21.7  |





#79

Terphenyl-d14

Concen: 58.998 ng

RT: 12.92 min Scan# 1842

Delta R.T. -0.02 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

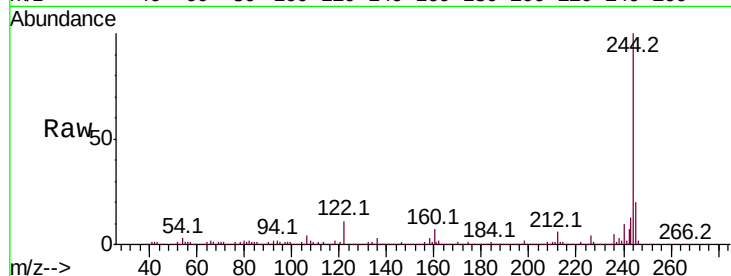
Instrument :

BNA\_F

ClientSampleId :

Tot Ion:244 Resp: 1242549

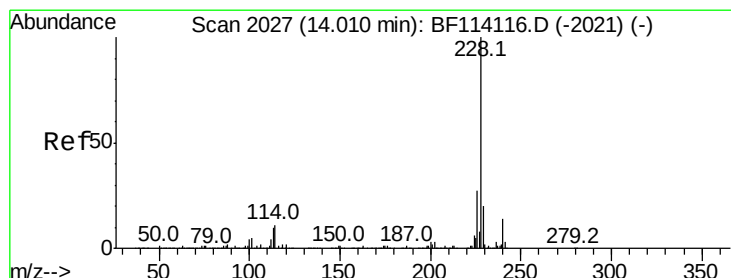
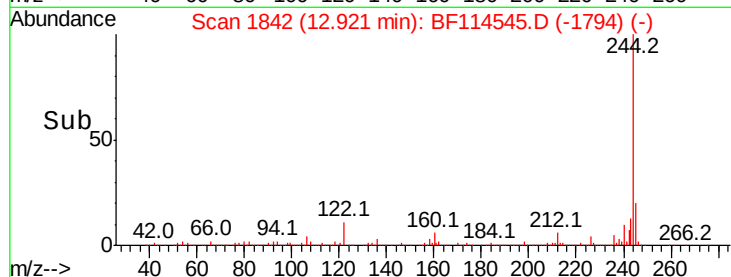
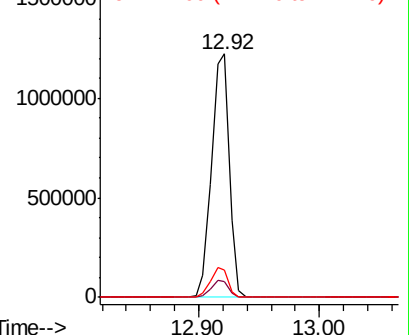
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 244 | 100   |       |       |
| 212 | 6.5   | 5.8   | 8.6   |
| 122 | 11.0  | 9.4   | 14.2  |



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



#81

Benzo(a)anthracene

Concen: 4.029 ng

RT: 13.97 min Scan# 2020

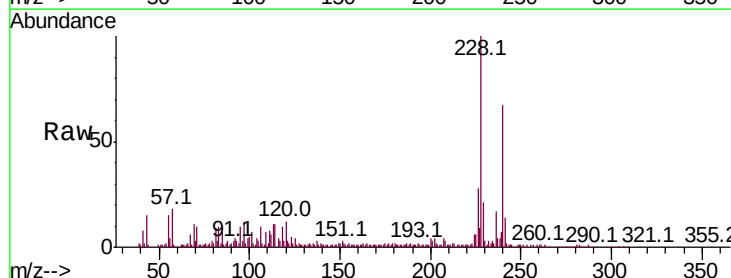
Delta R.T. -0.02 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

Tgt Ion:228 Resp: 113148

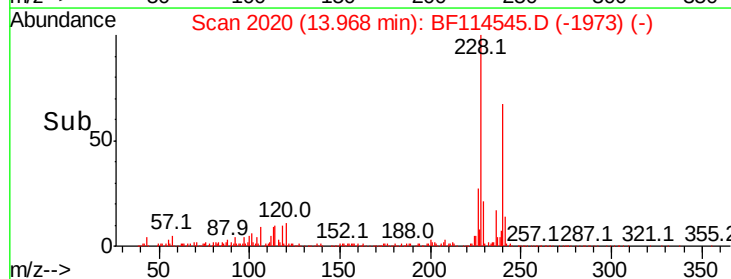
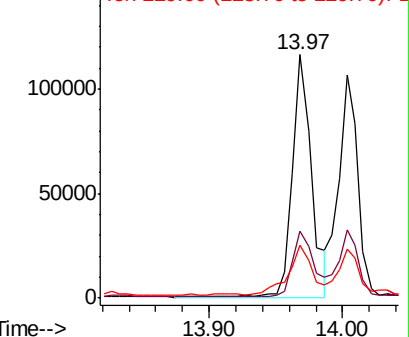
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 228 | 100   |       |       |
| 226 | 27.8  | 22.2  | 33.2  |
| 229 | 21.5  | 16.4  | 24.6  |

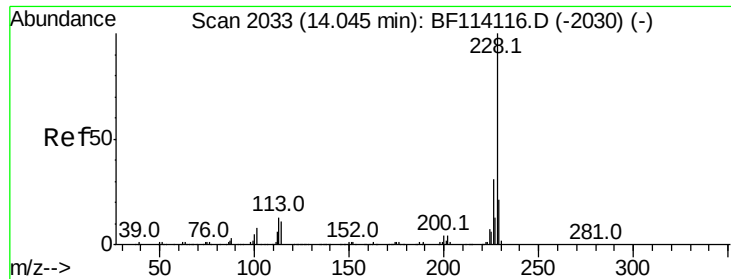


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E

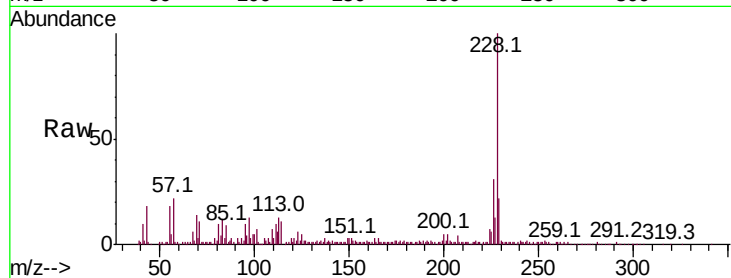




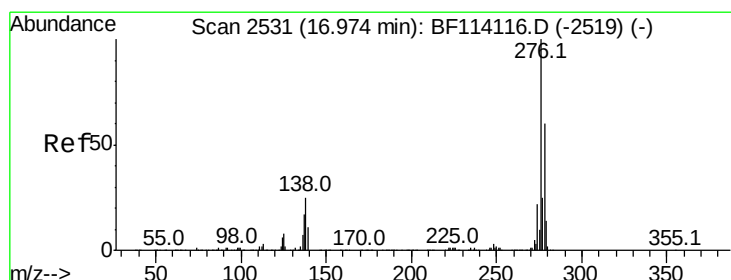
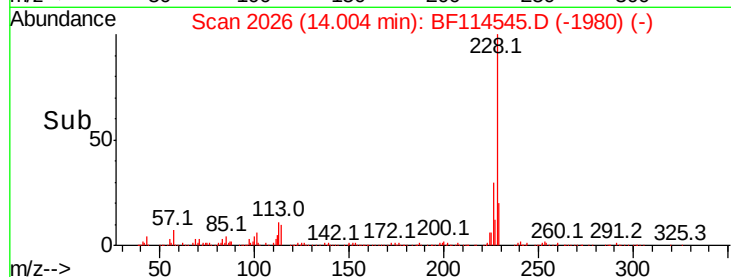
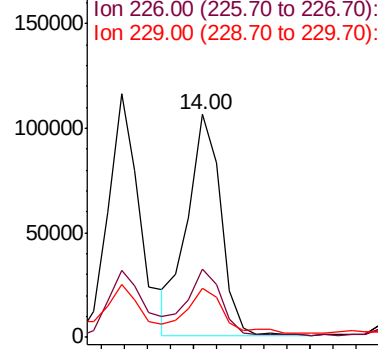
#83  
Chrysene  
Concen: 3.852 ng  
RT: 14.00 min Scan# 2026  
Delta R.T. -0.03 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

Instrument :  
BNA\_F  
ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 228   | Resp: | 106041 |
| Ion      | Ratio | Lower | Upper  |
| 228      | 100   |       |        |
| 226      | 30.6  | 25.0  | 37.6   |
| 229      | 22.2  | 17.0  | 25.6   |

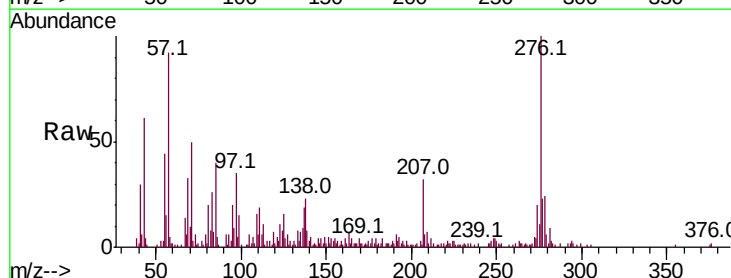


Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E

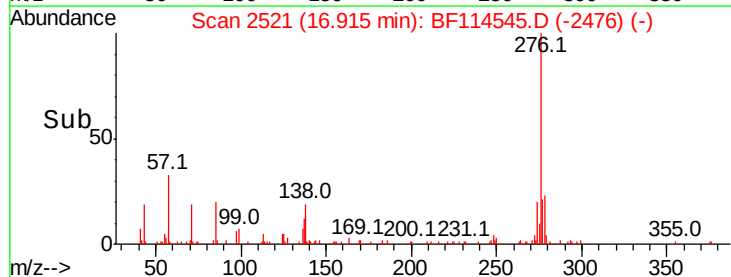
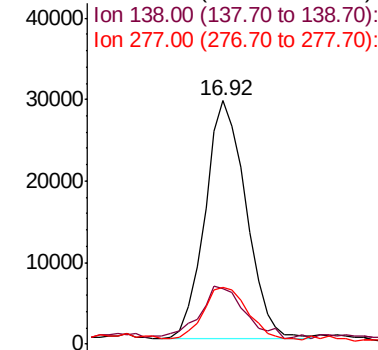


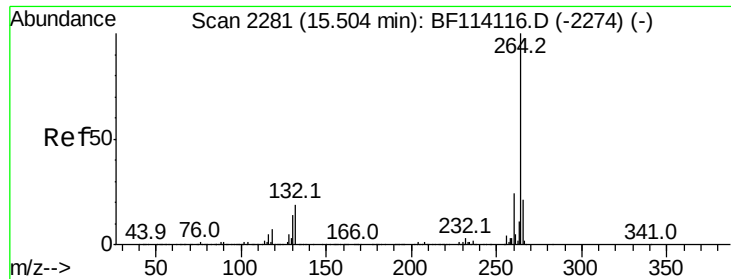
#86  
Indeno(1,2,3-cd)pyrene  
Concen: 2.304 ng  
RT: 16.92 min Scan# 2521  
Delta R.T. -0.04 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 276   | Resp: | 56054 |
| Ion      | Ratio | Lower | Upper |
| 276      | 100   |       |       |
| 138      | 23.5  | 20.2  | 30.2  |
| 277      | 23.1  | 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: 15.44 min Scan# 2271

Delta R.T. -0.02 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

Instrument :

BNA\_F

ClientSampled :

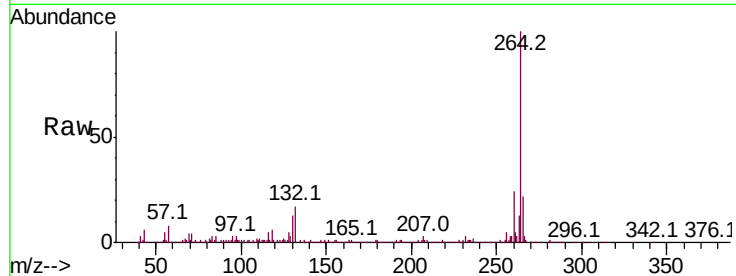
Tot Ion:264 Resp: 445206

Ion Ratio Lower Upper

264 100

260 23.9 19.4 29.0

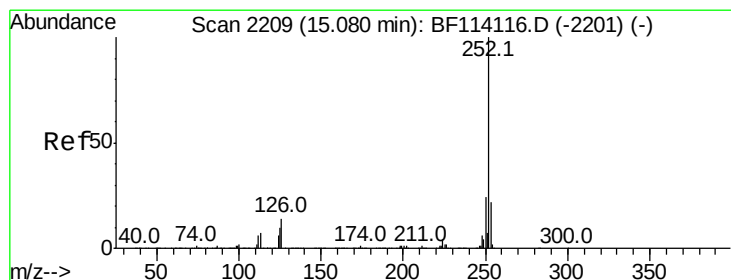
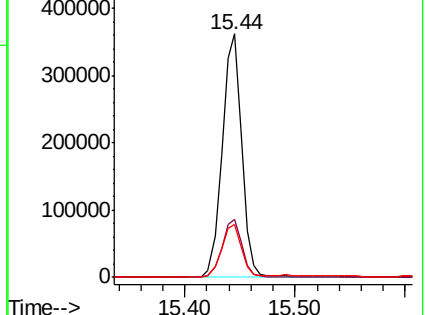
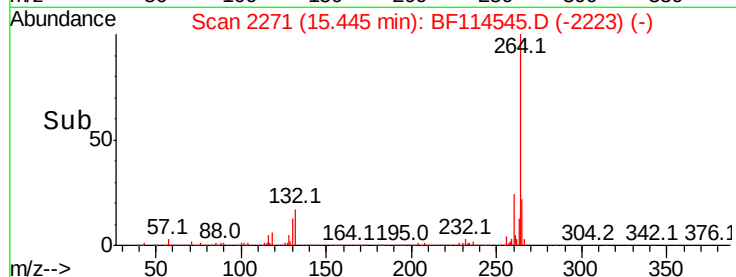
265 21.9 16.9 25.3



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: 5.768 ng

RT: 15.02 min Scan# 2199

Delta R.T. -0.02 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

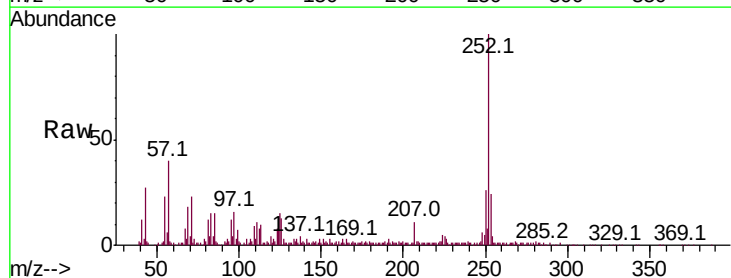
Tgt Ion:252 Resp: 164524

Ion Ratio Lower Upper

252 100

253 24.0 17.8 26.8

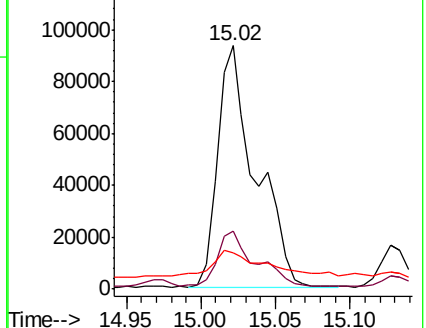
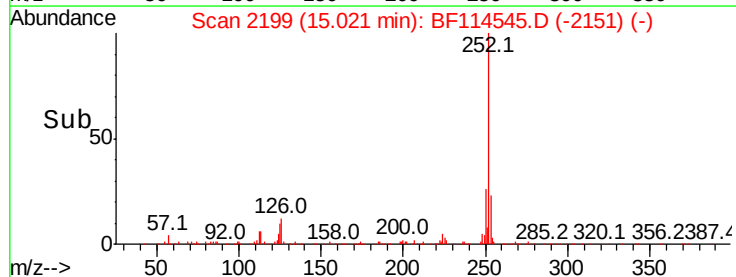
125 15.0 8.3 12.5#

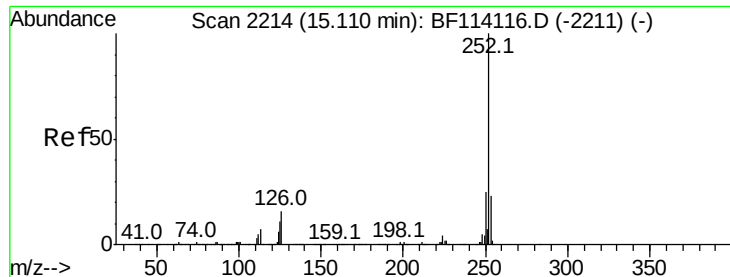


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E

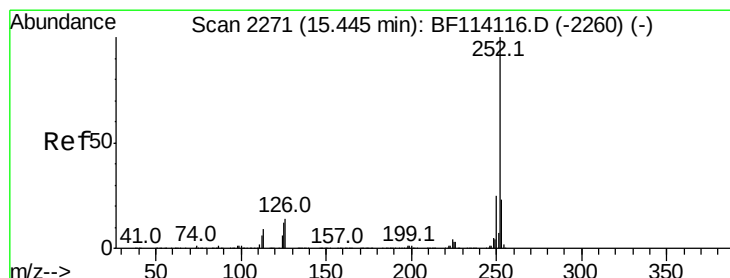
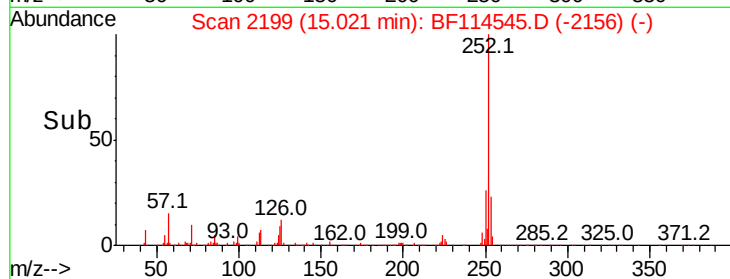
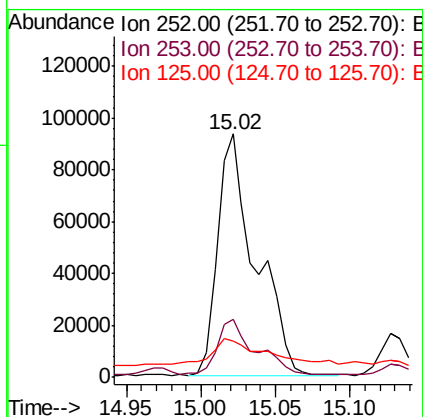
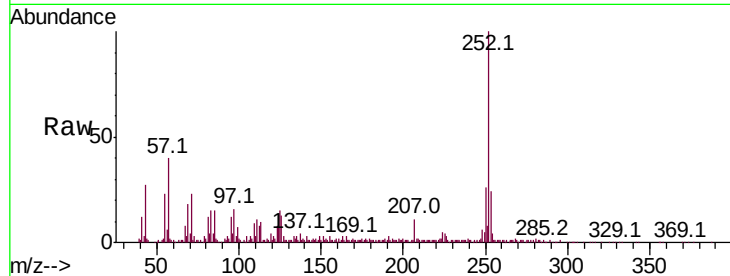




#89  
Benzo(k)fluoranthene  
Concen: 6.279 ng  
RT: 15.02 min Scan# 2199  
Delta R.T. -0.05 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

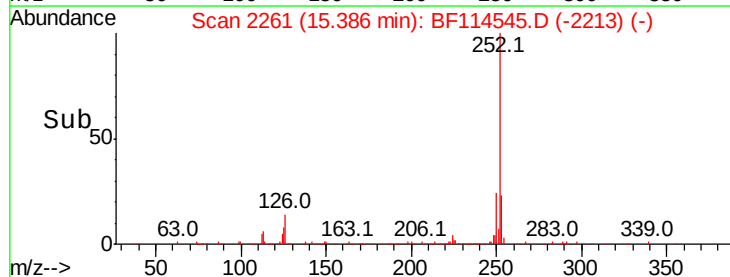
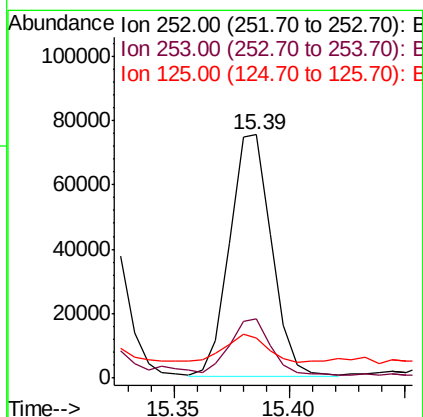
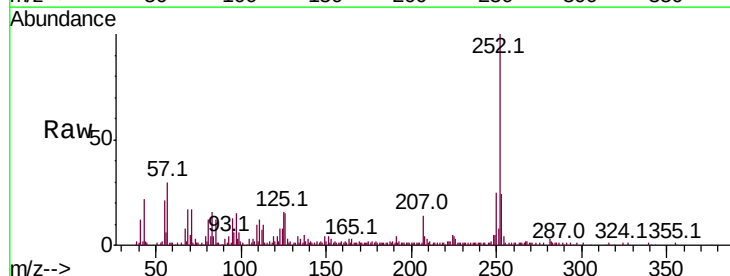
Instrument :  
BNA\_F  
ClientSampleId :

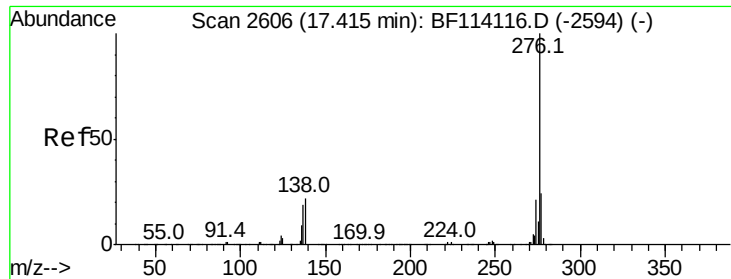
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.0  | 18.2  | 27.2  |
| 125     | 15.0  | 8.6   | 13.0  |



#90  
Benzo(a)pyrene  
Concen: 3.772 ng  
RT: 15.39 min Scan# 2261  
Delta R.T. -0.02 min  
Lab File: BF114545.D  
Acq: 24 May 2019 1:06

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.1  | 18.1  | 27.1  |
| 125     | 16.3  | 9.5   | 14.3  |





#92

Benzo(a,h,i)perylene

Concen: 2.543 ng

RT: 17.36 min Scan# 2597

Delta R.T. -0.02 min

Lab File: BF114545.D

Acq: 24 May 2019 1:06

Instrument :

BNA\_F

ClientSampleId :

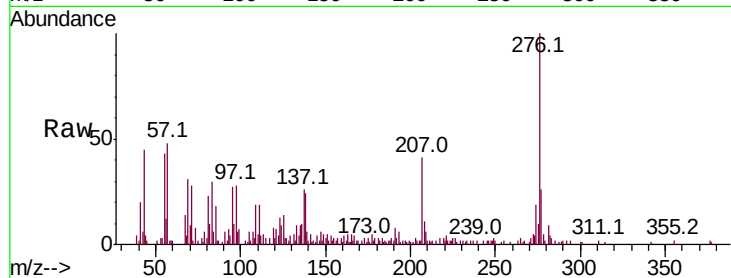
Tot Ion:276 Resp: 53148

Ion Ratio Lower Upper

276 100

277 25.5 19.0 28.4

138 24.0 17.8 26.6



Abundance

Ion 276.00 (275.70 to 276.70): E

Ion 277.00 (276.70 to 277.70): E

Ion 138.00 (137.70 to 138.70): E

