

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100120\  
 Data File : BF121770.D  
 Acq On : 1 Oct 2020 16:40  
 Operator : JU/CG  
 Sample : L4179-03 5X  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 B-9(12-14)

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Quant Time: Oct 01 17:20:43 2020  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Oct 01 14:29:14 2020  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min)   |
|-----------------------------|-------|------|----------|--------|-------|------------|
| 1) 1,4-Dichlorobenzene-d4   | 6.77  | 152  | 148856   | 20.00  | ng    | 0.00       |
| 21) Naphthalene-d8          | 8.05  | 136  | 564394   | 20.00  | ng    | 0.00       |
| 39) Acenaphthene-d10        | 9.80  | 164  | 277743   | 20.00  | ng    | 0.00       |
| 64) Phenanthrene-d10        | 11.29 | 188  | 470961   | 20.00  | ng    | 0.00       |
| 76) Chrysene-d12            | 13.93 | 240  | 315230   | 20.00  | ng    | 0.00       |
| 86) Perylene-d12            | 15.36 | 264  | 323431   | 20.00  | ng    | 0.00       |
| System Monitoring Compounds |       |      |          |        |       |            |
| 5) 2-Fluorophenol           | 5.38  | 112  | 148617   | 14.84  | ng    | 0.00       |
| 7) Phenol-d6                | 6.40  | 99   | 192334   | 14.64  | ng    | -0.02      |
| 23) Nitrobenzene-d5         | 7.33  | 82   | 122131   | 11.62  | ng    | -0.01      |
| 42) 2,4,6-Tribromophenol    | 10.59 | 330  | 43826    | 12.70  | ng    | -0.01      |
| 45) 2-Fluorobiphenyl        | 9.13  | 172  | 237199   | 12.93  | ng    | 0.00       |
| 79) Terphenyl-d14           | 12.87 | 244  | 193580   | 12.44  | ng    | -0.01      |
| Target Compounds            |       |      |          |        |       |            |
| 71) Phenanthrene            | 11.31 | 178  | 397781   | 15.502 | ng    | Qvalue 100 |
| 72) Anthracene              | 11.36 | 178  | 125013   | 4.721  | ng    | 98         |
| 75) Fluoranthene            | 12.50 | 202  | 642397   | 23.452 | ng    | 97         |
| 78) Pyrene                  | 12.73 | 202  | 556089   | 24.145 | ng    | 99         |
| 81) Benzo(a)anthracene      | 13.92 | 228  | 299767   | 15.031 | ng    | 96         |
| 83) Chrysene                | 13.95 | 228  | 223378   | 11.061 | ng    | 97         |
| 87) Indeno(1,2,3-cd)pyrene  | 16.77 | 276  | 189265   | 8.986  | ng    | 95         |
| 88) Benzo(b)fluoranthene    | 14.95 | 252  | 345737m  | 15.990 | ng    |            |
| 89) Benzo(k)fluoranthene    | 14.97 | 252  | 90649m   | 4.578  | ng    |            |
| 90) Benzo(a)pyrene          | 15.30 | 252  | 239835   | 13.049 | ng    | 98         |
| 91) Dibenzo(a,h)anthracene  | 16.77 | 278  | 47293m   | 2.697  | ng    |            |
| 92) Benzo(a,h,i)perylene    | 17.20 | 276  | 207899   | 12.063 | ng    | 99         |

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

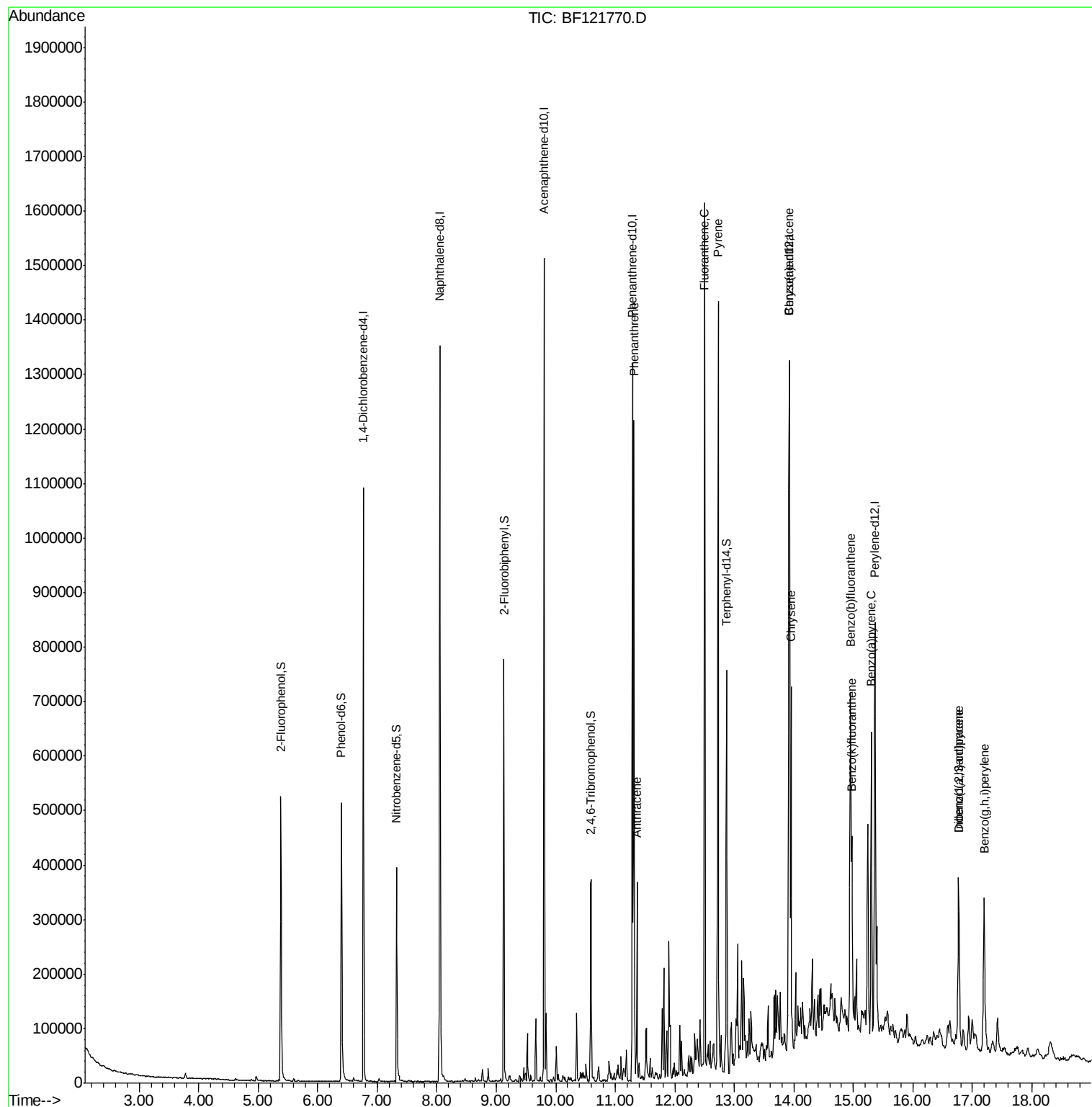
Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100120\  
Data File : BF121770.D  
Acq On : 1 Oct 2020 16:40  
Operator : JU/CG  
Sample : L4179-03 5X  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

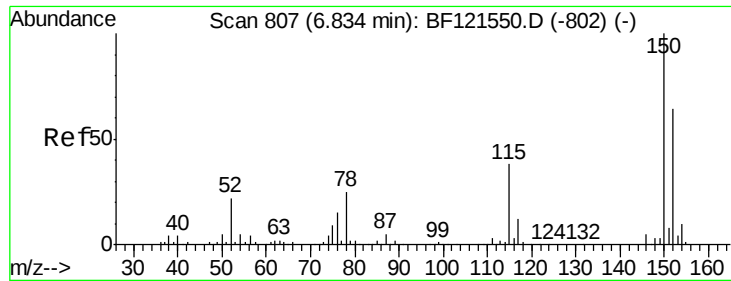
Instrument :  
BNA\_F  
ClientSampleId :  
B-9(12-14)

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Quant Time: Oct 01 17:20:43 2020  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Oct 01 14:29:14 2020  
Response via : Initial Calibration





#1

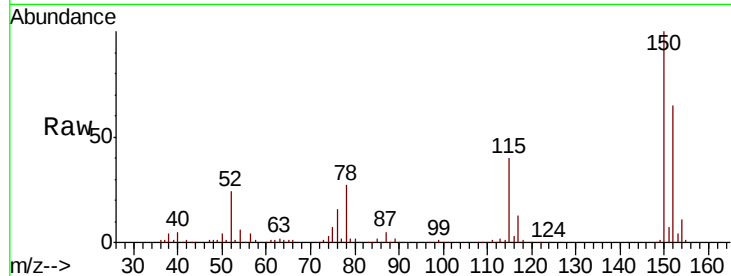
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.77 min Scan# 796  
Delta R.T. 0.00 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

Instrument :  
BNA\_F  
ClientSampleId :  
B-9(12-14)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 152.8 | 125.3 | 187.9 |
| 115     | 61.5  | 51.9  | 77.9  |

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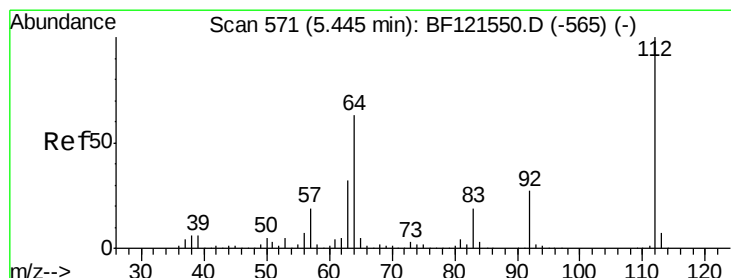
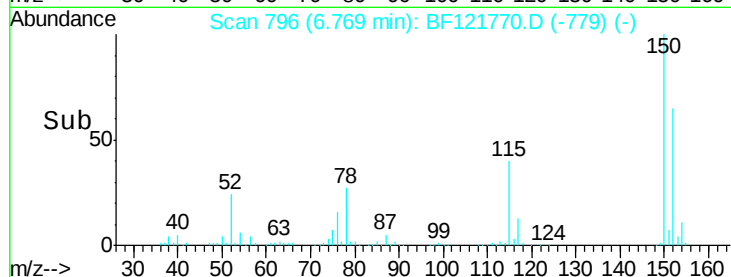
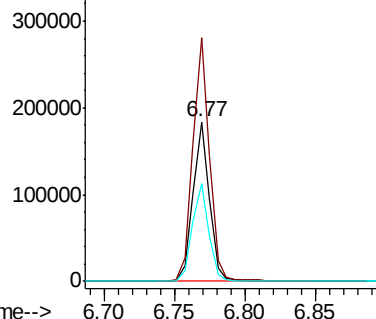


Abundance

Ion 152.00 (151.70 to 152.70): E

Ion 150.00 (149.70 to 150.70): E

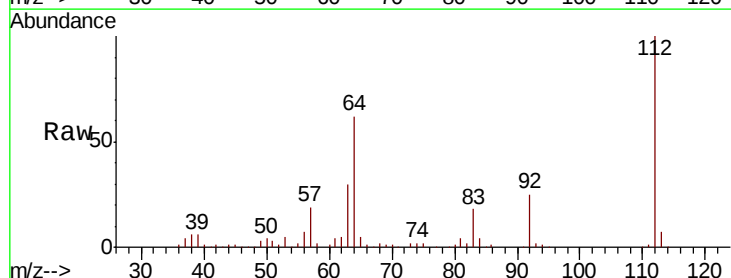
Ion 115.00 (114.70 to 115.70): E



#5

2-Fluorophenol  
Concen: 14.837 ng  
RT: 5.38 min Scan# 560  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 62.4  | 50.4  | 75.6  |
| 63      | 30.5  | 25.8  | 38.6  |

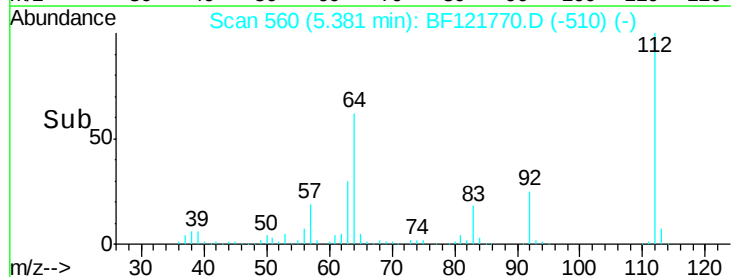
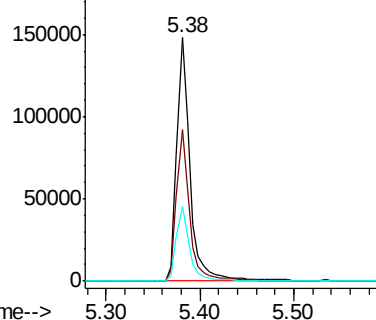


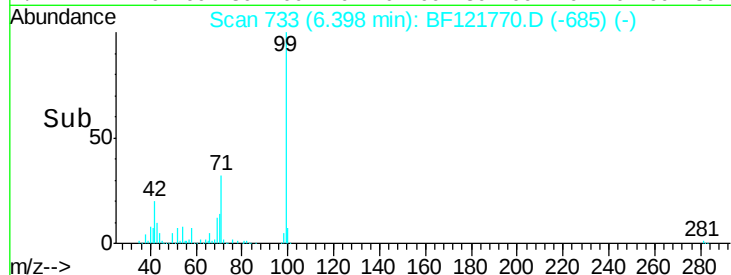
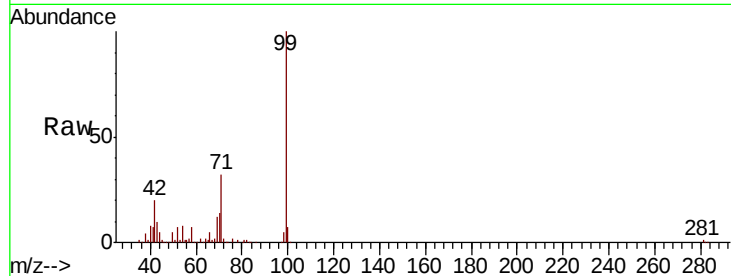
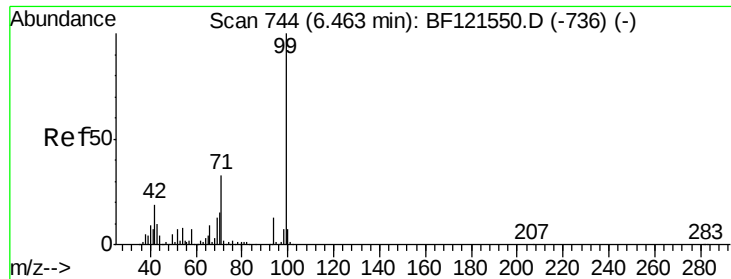
Abundance

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: 14.636 ng

RT: 6.40 min Scan# 733

Delta R.T. -0.02 min

Lab File: BF121770.D

Acq: 1 Oct 2020 16:40

| Tot Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 99      | 100  |       | 192334 |       |       |
| 42      | 19.9 | 15.9  | 23.9   |       |       |
| 71      | 32.0 | 27.1  | 40.7   |       |       |

Instrument :

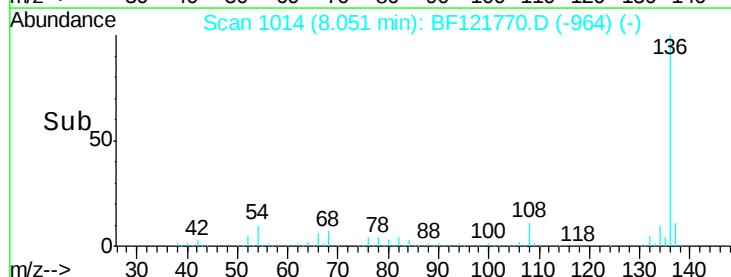
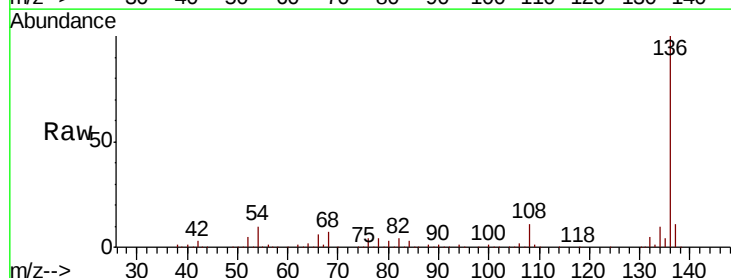
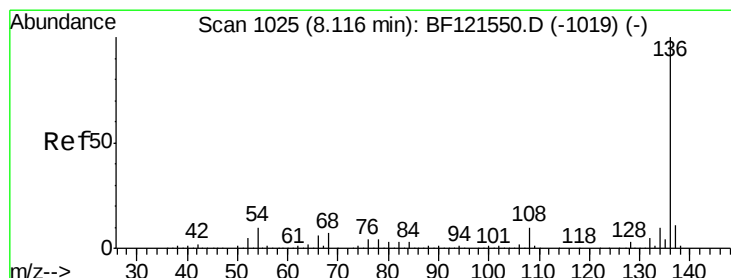
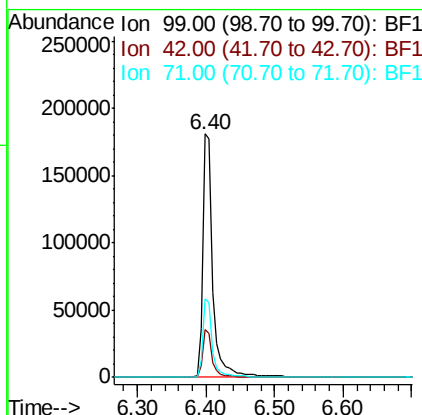
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ClientSampleId :

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#21

Naphthalene-d8

Concen: 20.000 ng

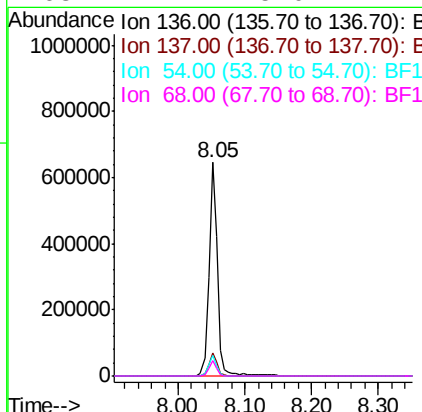
RT: 8.05 min Scan# 1014

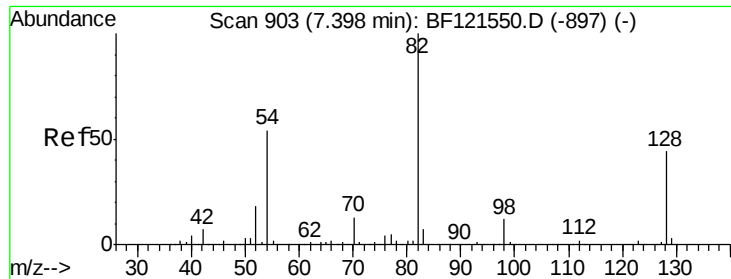
Delta R.T. -0.01 min

Lab File: BF121770.D

Acq: 1 Oct 2020 16:40

| Tgt Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 136     | 100  |       | 564394 |       |       |
| 137     | 10.8 | 8.6   | 13.0   |       |       |
| 54      | 9.5  | 7.1   | 10.7   |       |       |
| 68      | 7.2  | 5.0   | 7.4    |       |       |





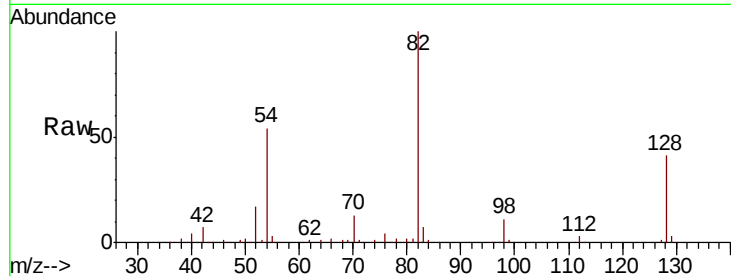
#23  
Nitrobenzene-d5  
Concen: 11.619 ng  
RT: 7.33 min Scan# 891  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

Instrument :  
BNA\_F  
ClientSampleId :  
B-9(12-14)

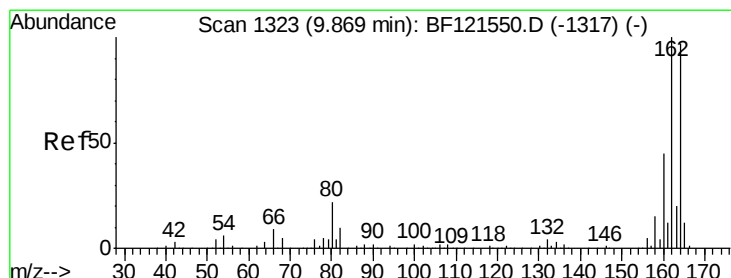
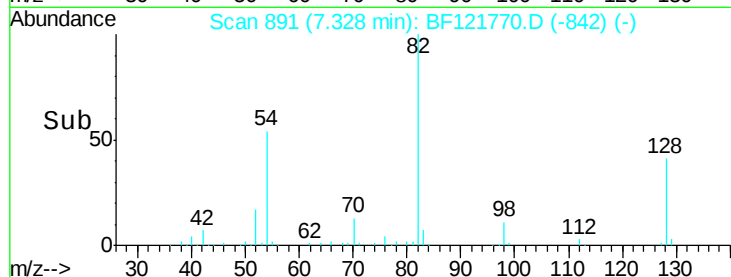
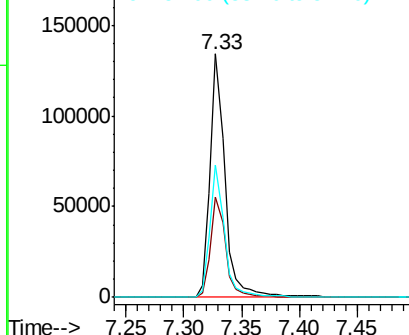
| Tot Ion   | 82   | Resp  | 122131 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 128       | 41.2 | 35.0  | 52.4   |
| 54        | 54.3 | 43.9  | 65.9   |

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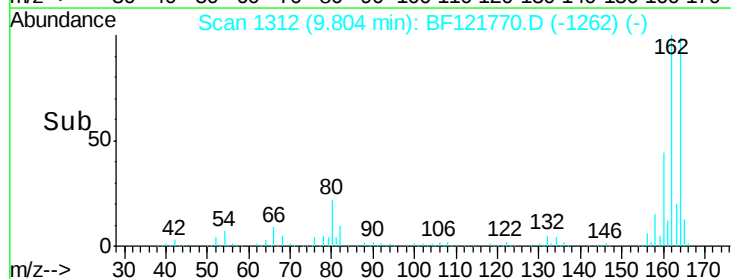
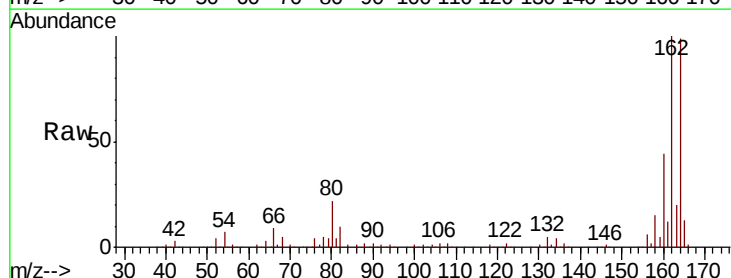
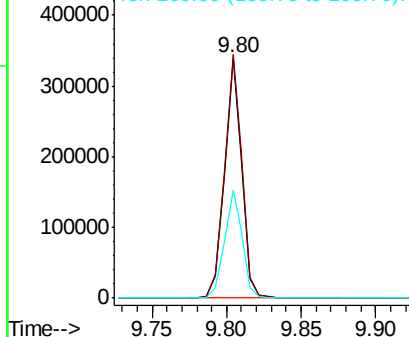
Abundance Ion 82.00 (81.70 to 82.70): BF1  
Ion 128.00 (127.70 to 128.70): E  
Ion 54.00 (53.70 to 54.70): BF1

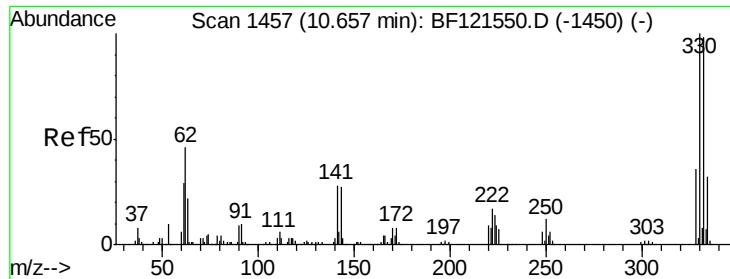


#39  
Acenaphthene-d10  
Concen: 20.000 ng  
RT: 9.80 min Scan# 1312  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

| Tgt Ion   | 164   | Resp  | 277743 |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 162       | 101.5 | 83.2  | 124.8  |
| 160       | 45.1  | 37.5  | 56.3   |

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: 12.696 ng

RT: 10.59 min Scan# 1446

Delta R.T. -0.01 min

Lab File: BF121770.D

Acq: 1 Oct 2020 16:40

Instrument :

BNA\_F

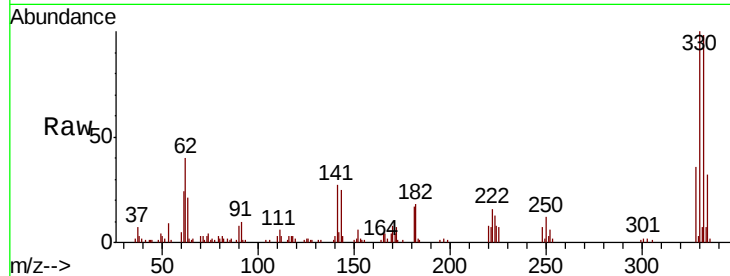
ClientSampleId :

B-9(12-14)

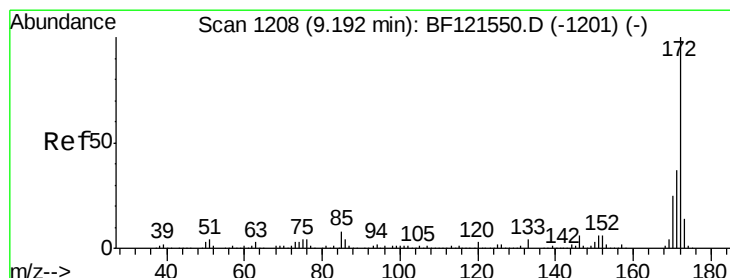
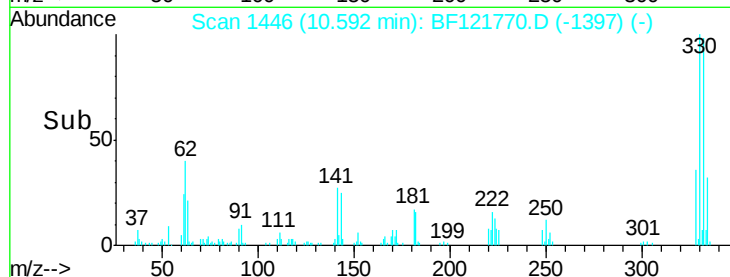
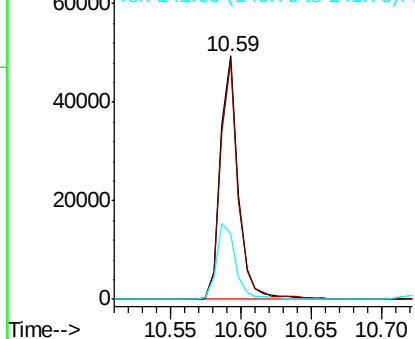
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 330   | Resp: | 43826 |
| Ion Ratio | Lower | Upper |       |
| 330       | 100   |       |       |
| 332       | 97.2  | 77.3  | 115.9 |
| 141       | 33.2  | 22.3  | 33.5  |

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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: 12.934 ng

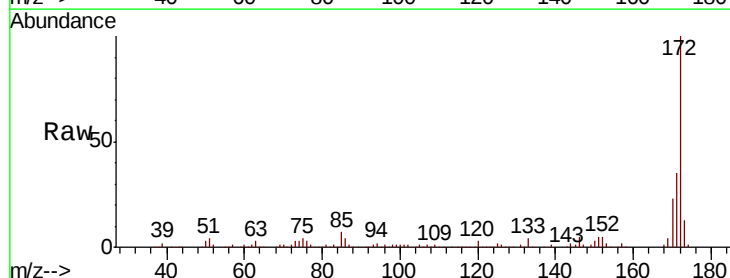
RT: 9.13 min Scan# 1197

Delta R.T. -0.01 min

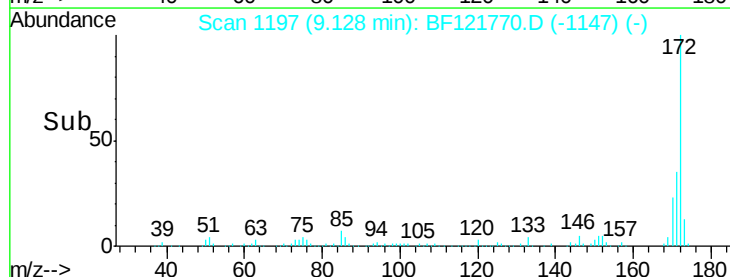
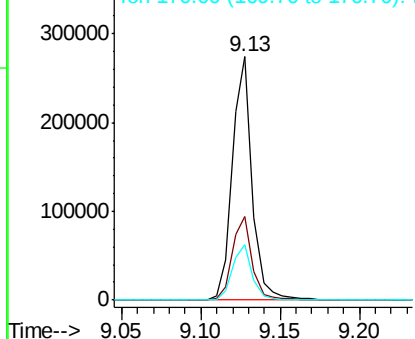
Lab File: BF121770.D

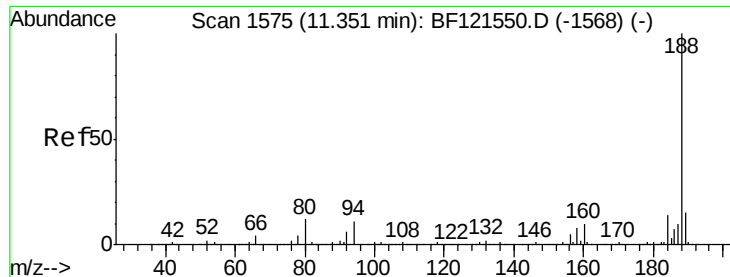
Acq: 1 Oct 2020 16:40

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 172   | Resp: | 237199 |
| Ion Ratio | Lower | Upper |        |
| 172       | 100   |       |        |
| 171       | 34.6  | 29.1  | 43.7   |
| 170       | 23.0  | 19.8  | 29.6   |



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





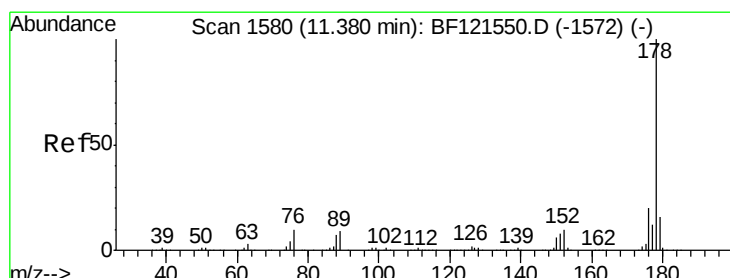
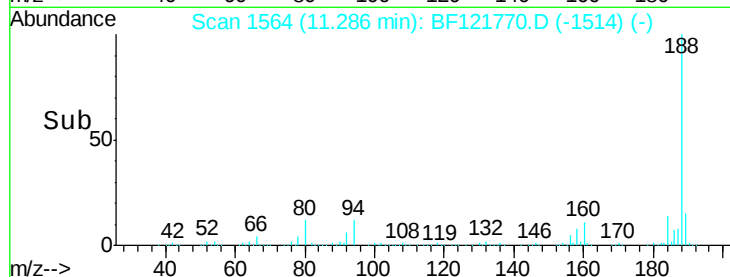
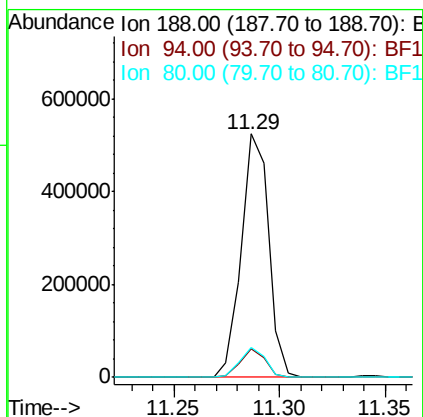
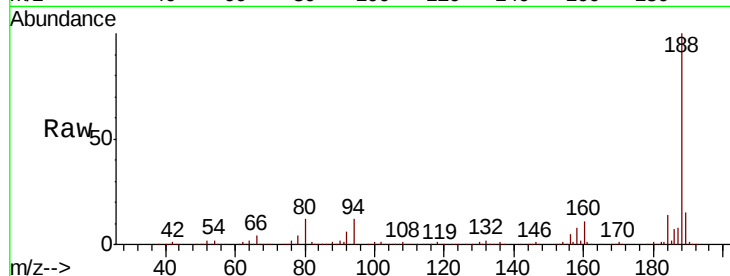
#64  
Phenanthrene-d10  
Concen: 20.000 ng  
RT: 11.29 min Scan# 1564  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

Instrument :  
BNA\_F  
ClientSampleId :  
B-9(12-14)

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 188     | 100   | 470961 |       |       |
| 94      | 11.6  |        | 8.3   | 12.5  |
| 80      | 12.4  |        | 9.1   | 13.7  |

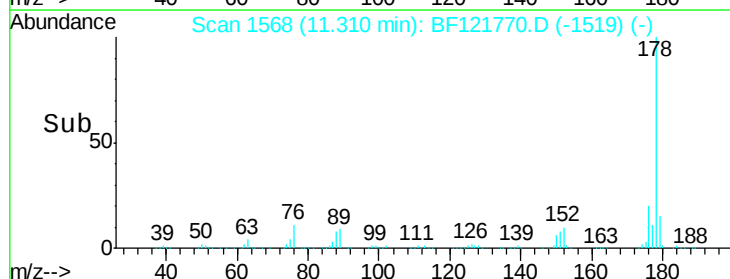
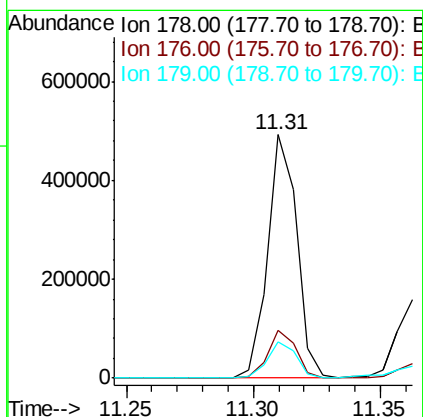
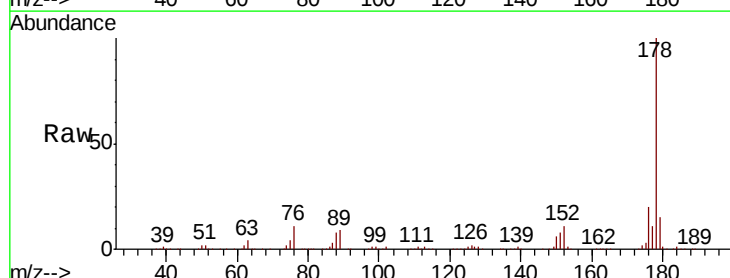
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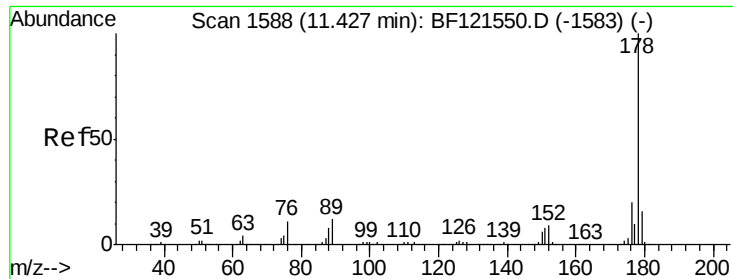
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#71  
Phenanthrene  
Concen: 15.502 ng  
RT: 11.31 min Scan# 1568  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 178     | 100   | 397781 |       |       |
| 176     | 19.6  |        | 15.9  | 23.9  |
| 179     | 15.1  |        | 12.2  | 18.4  |





#72

Anthracene

Concen: 4.721 ng

RT: 11.36 min Scan# 1577

Delta R.T. -0.01 min

Lab File: BF121770.D

Acq: 1 Oct 2020 16:40

Instrument :

BNA\_F

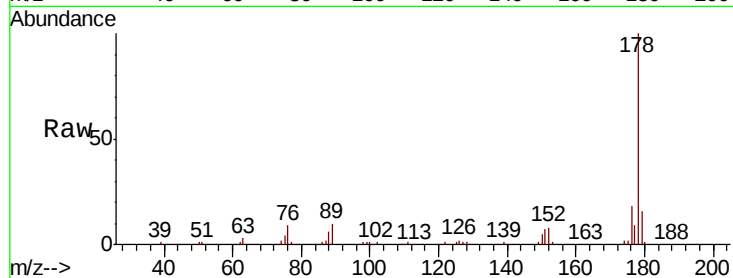
ClientSampleId :

B-9(12-14)

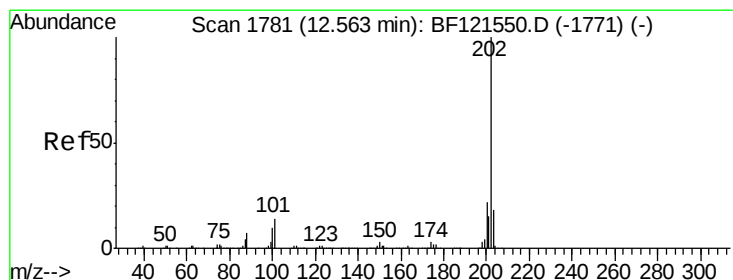
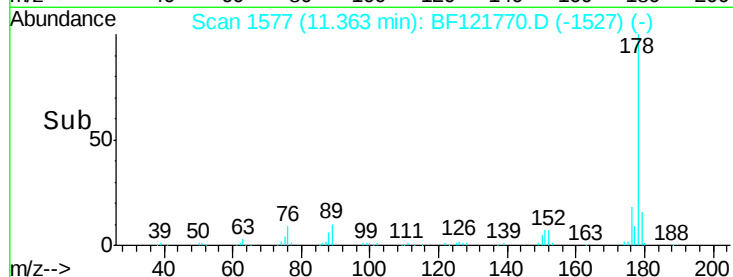
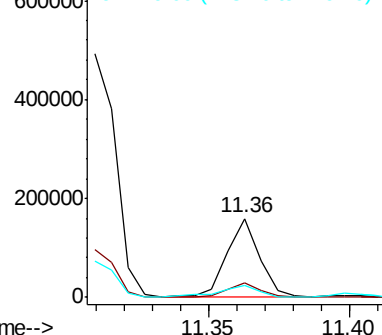
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 178   | Resp: | 125013 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 176       | 18.3  | 15.7  | 23.5   |
| 179       | 15.6  | 12.7  | 19.1   |

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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: 23.452 ng

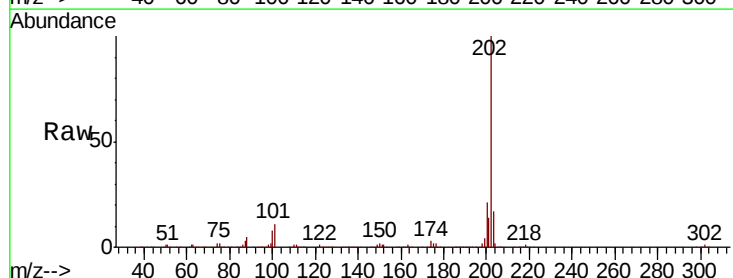
RT: 12.50 min Scan# 1771

Delta R.T. 0.00 min

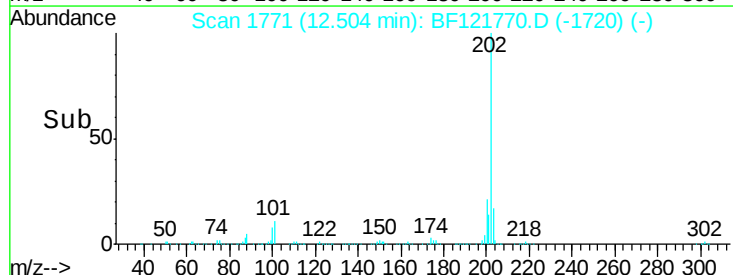
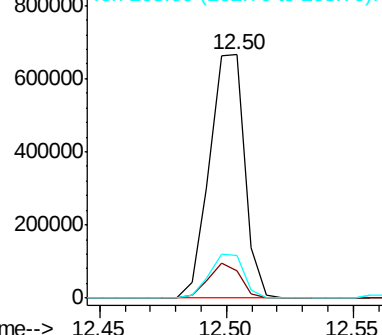
Lab File: BF121770.D

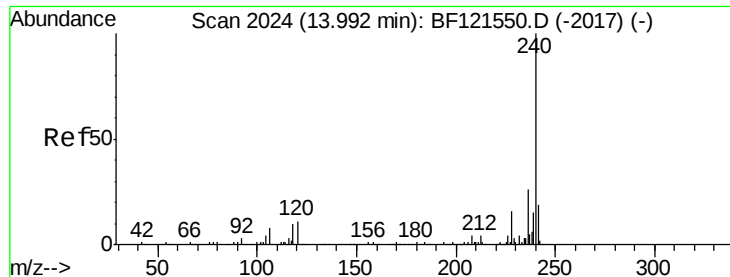
Acq: 1 Oct 2020 16:40

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 642397 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 11.1  | 0.0   | 33.4   |
| 203       | 17.4  | 0.0   | 37.9   |



Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 101.00 (100.70 to 101.70): E  
Ion 203.00 (202.70 to 203.70): E





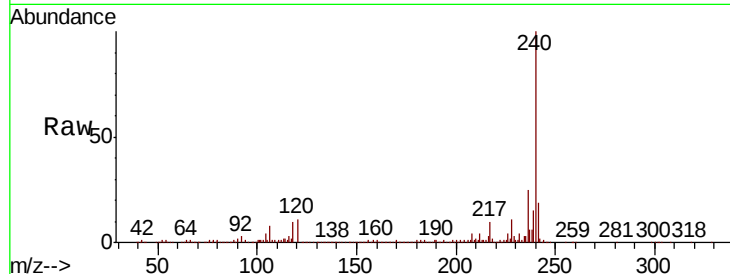
#76  
Chrysene-d12  
Concen: 20.000 ng  
RT: 13.93 min Scan# 2013  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

Instrument :  
BNA\_F  
ClientSampled :  
B-9(12-14)

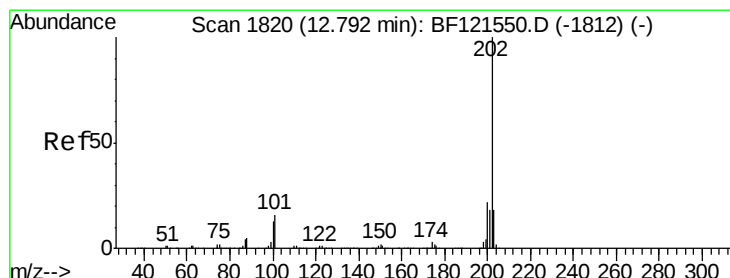
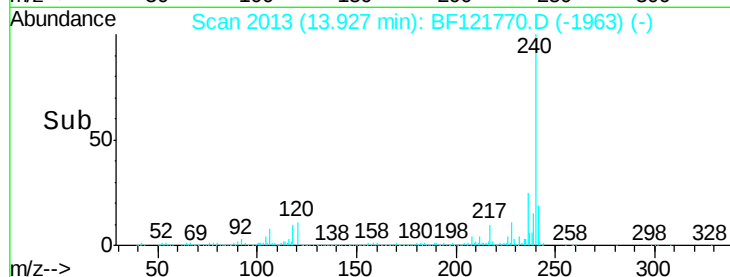
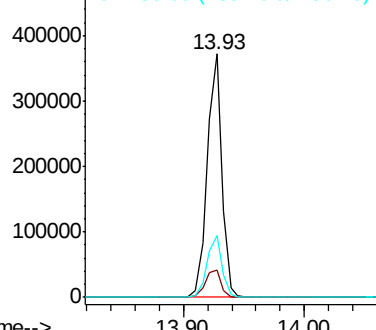
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 11.0  | 9.2   | 13.8  |
| 236     | 25.5  | 20.9  | 31.3  |

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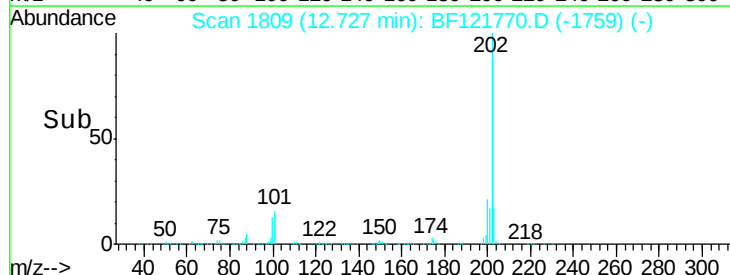
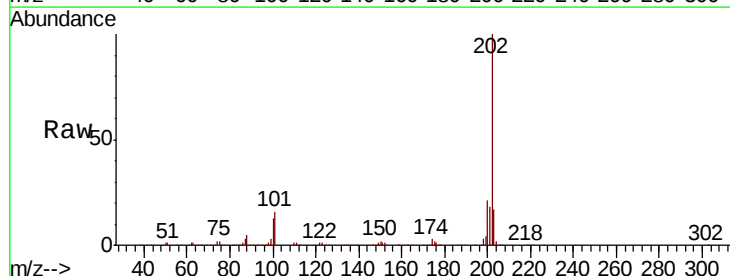
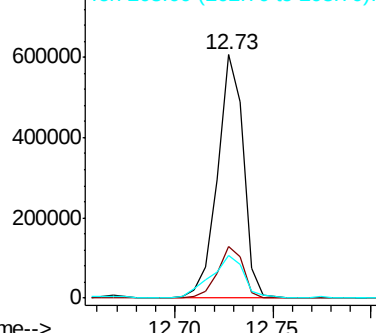
Abundance Ion 240.00 (239.70 to 240.70): E  
Ion 120.00 (119.70 to 120.70): E  
Ion 236.00 (235.70 to 236.70): E

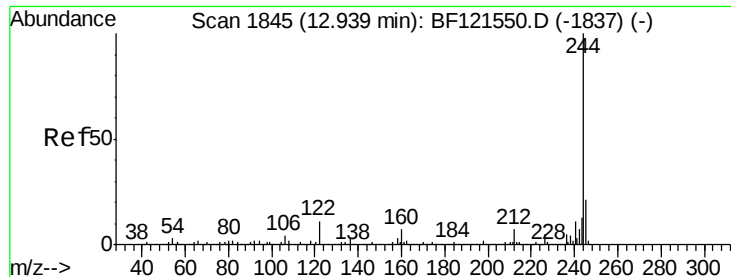


#78  
Pyrene  
Concen: 24.145 ng  
RT: 12.73 min Scan# 1809  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.3  | 17.4  | 26.2  |
| 203     | 17.4  | 14.6  | 21.8  |

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: 12.441 ng

RT: 12.87 min Scan# 1833

Delta R.T. -0.01 min

Lab File: BF121770.D

Acq: 1 Oct 2020 16:40

Instrument :

BNA\_F

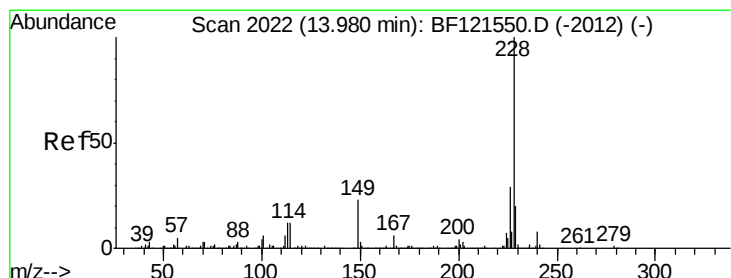
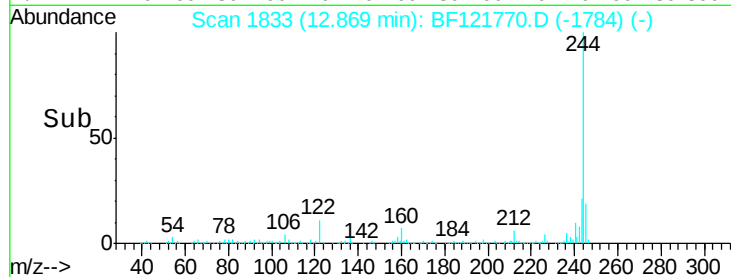
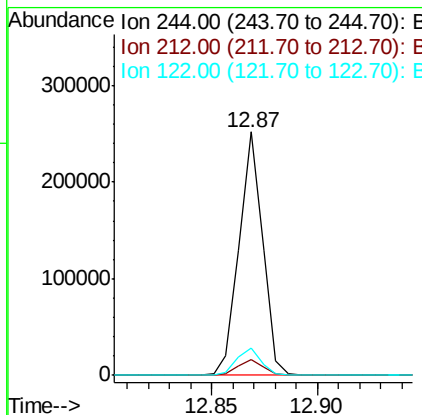
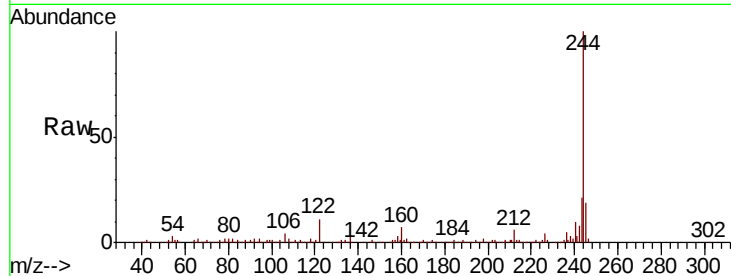
ClientSampleId :

B-9(12-14)

|           |      |       |        |
|-----------|------|-------|--------|
| Tot Ion:  | 244  | Resp: | 193580 |
| Ion Ratio |      | Lower | Upper  |
| 244       | 100  |       |        |
| 212       | 6.4  | 5.4   | 8.2    |
| 122       | 11.1 | 8.1   | 12.1   |

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#81

Benzo(a)anthracene

Concen: 15.031 ng

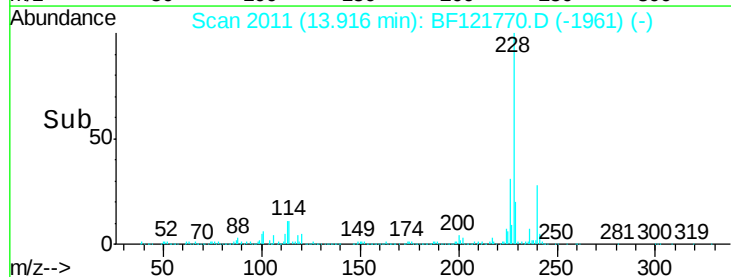
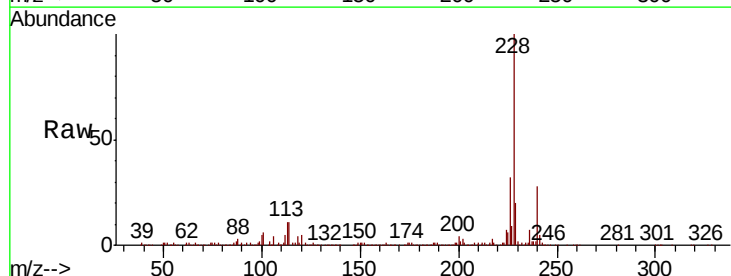
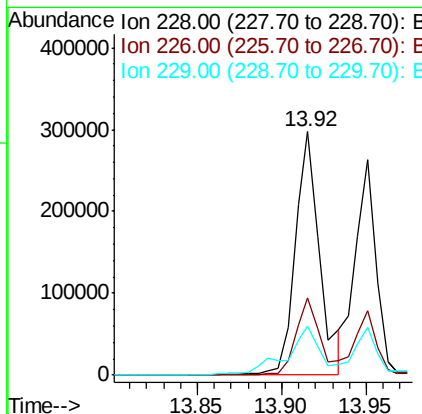
RT: 13.92 min Scan# 2011

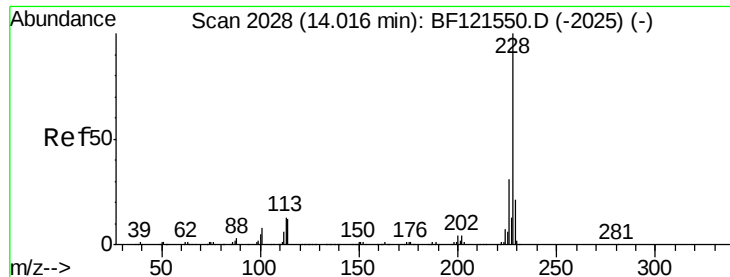
Delta R.T. -0.01 min

Lab File: BF121770.D

Acq: 1 Oct 2020 16:40

|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 228  | Resp: | 299767 |
| Ion Ratio |      | Lower | Upper  |
| 228       | 100  |       |        |
| 226       | 31.6 | 22.3  | 33.5   |
| 229       | 20.0 | 16.2  | 24.4   |





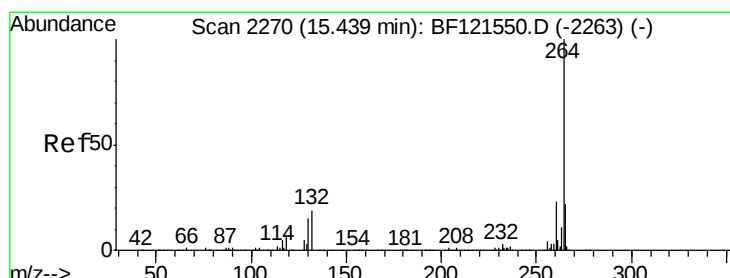
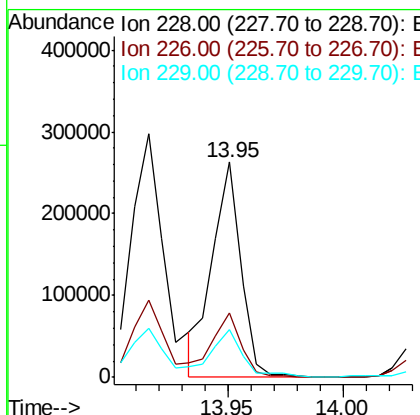
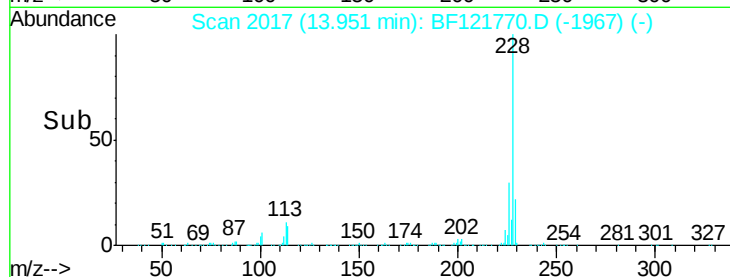
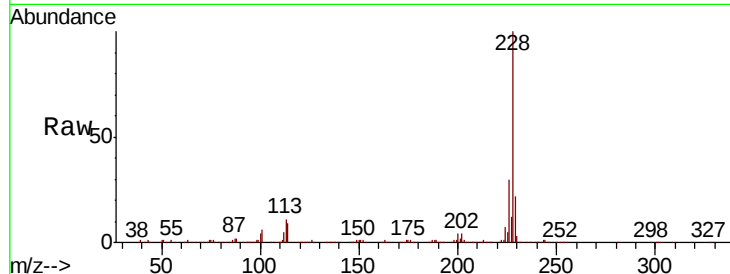
#83  
Chrysene  
Concen: 11.061 ng  
RT: 13.95 min Scan# 2017  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

Instrument :  
BNA\_F  
ClientSampleId :  
B-9(12-14)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.9  | 24.6  | 37.0  |
| 229     | 22.1  | 15.9  | 23.9  |

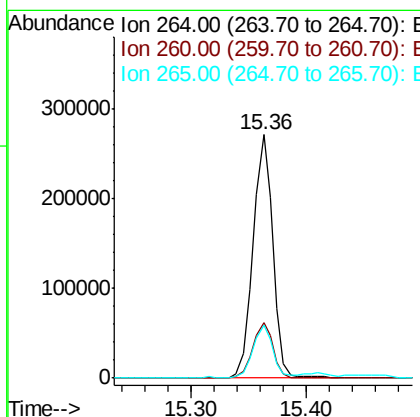
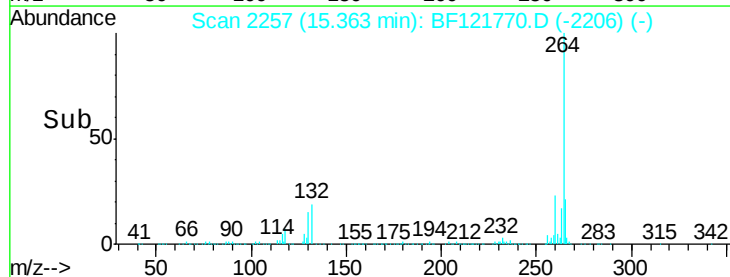
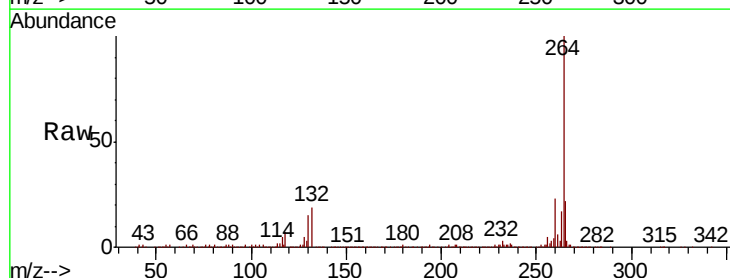
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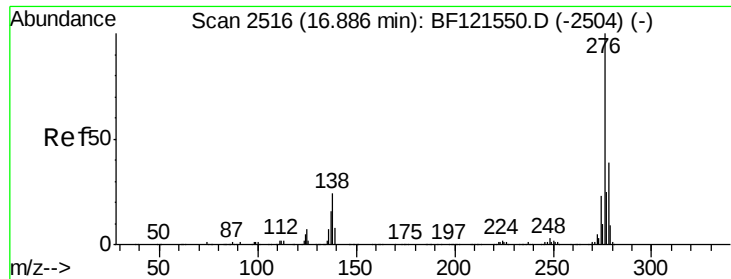
mohammad  
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#86  
Perylene-d12  
Concen: 20.000 ng  
RT: 15.36 min Scan# 2257  
Delta R.T. 0.00 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 22.6  | 18.7  | 28.1  |
| 265     | 21.6  | 17.3  | 25.9  |





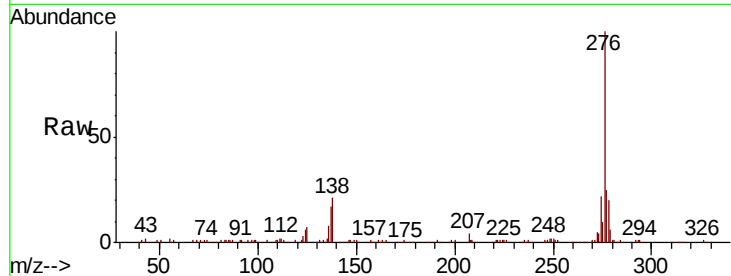
#87  
 Indeno(1,2,3-cd)pyrene  
 Concen: 8.986 ng  
 RT: 16.77 min Scan# 2496  
 Delta R.T. -0.02 min  
 Lab File: BF121770.D  
 Acq: 1 Oct 2020 16:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 B-9(12-14)

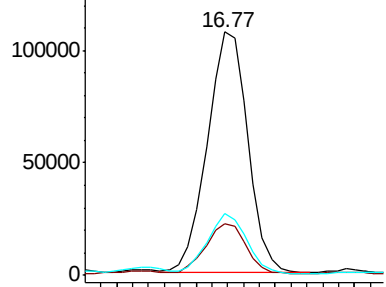
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 276   | Resp: | 189265 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 21.4  | 19.9  | 29.9   |
| 277       | 24.3  | 20.4  | 30.6   |

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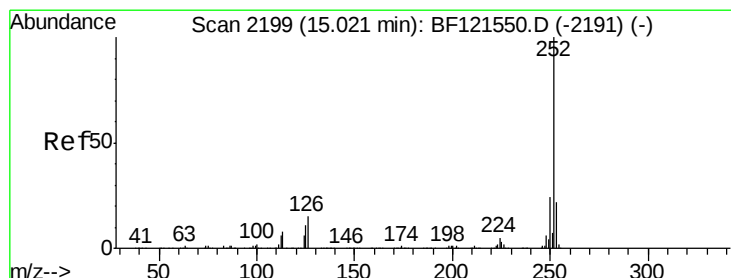
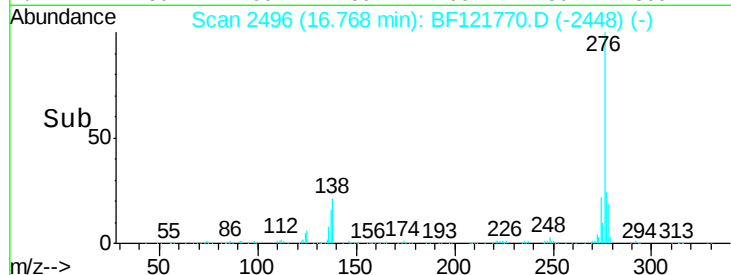
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Abundance Ion 276.00 (275.70 to 276.70): E  
 Ion 138.00 (137.70 to 138.70): E  
 Ion 277.00 (276.70 to 277.70): E

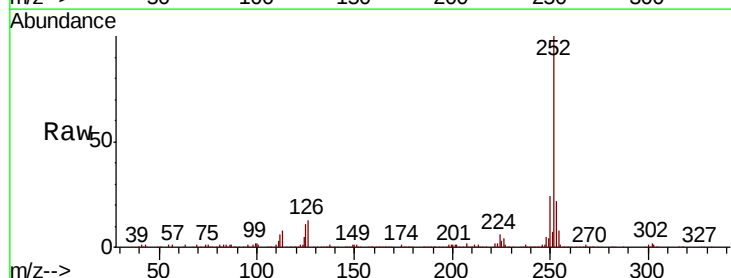


Time-->

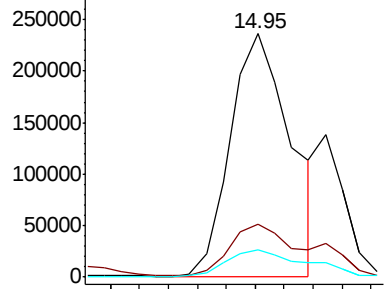


#88  
 Benzo(b)fluoranthene  
 Concen: 15.990 ng m  
 RT: 14.95 min Scan# 2187  
 Delta R.T. -0.01 min  
 Lab File: BF121770.D  
 Acq: 1 Oct 2020 16:40

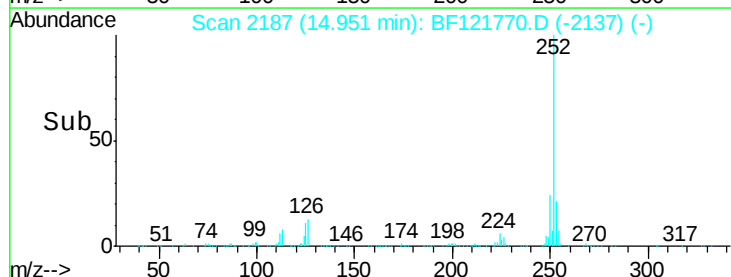
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 252   | Resp: | 345737 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 21.9  | 18.2  | 27.2   |
| 125       | 11.0  | 8.0   | 12.0   |

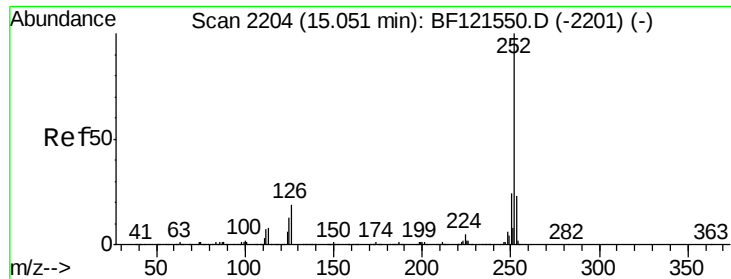


Abundance Ion 252.00 (251.70 to 252.70): E  
 Ion 253.00 (252.70 to 253.70): E  
 Ion 125.00 (124.70 to 125.70): E



Time-->





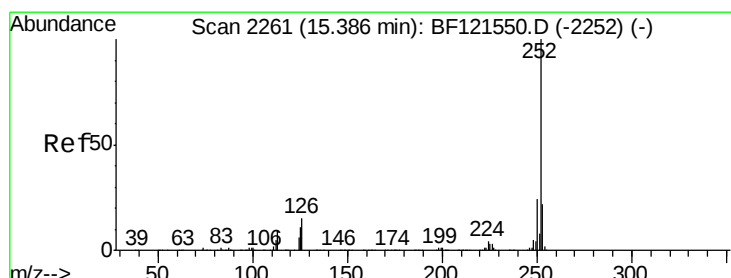
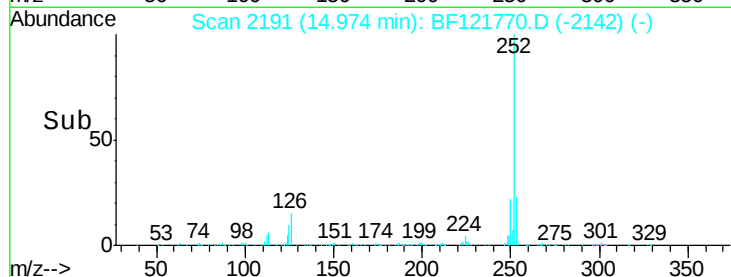
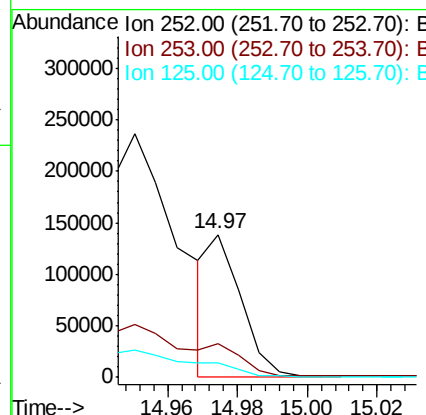
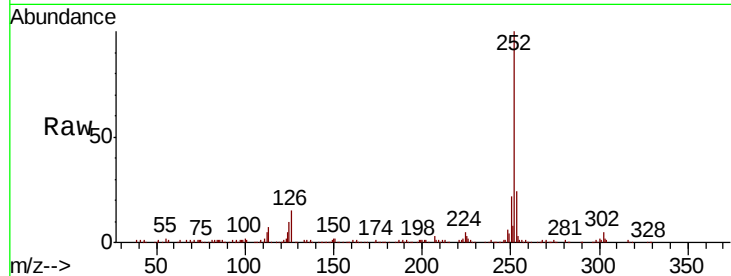
#89  
Benzo(k)fluoranthene  
Concen: 4.578 ng m  
RT: 14.97 min Scan# 2191  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

Instrument :  
BNA\_F  
ClientSampleId :  
B-9(12-14)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.7  | 17.8  | 26.6  |
| 125     | 10.2  | 7.7   | 11.5  |

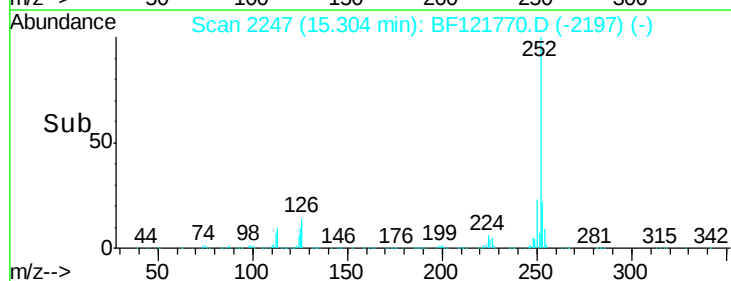
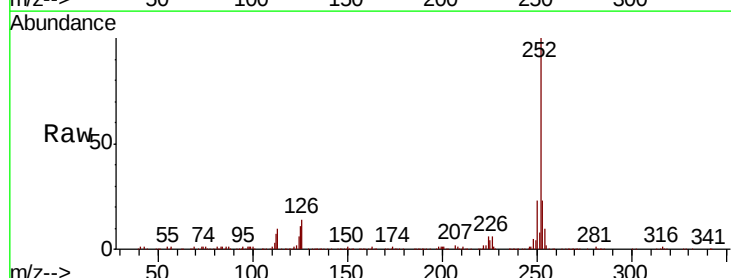
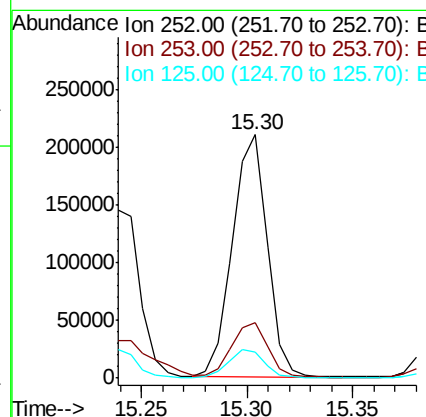
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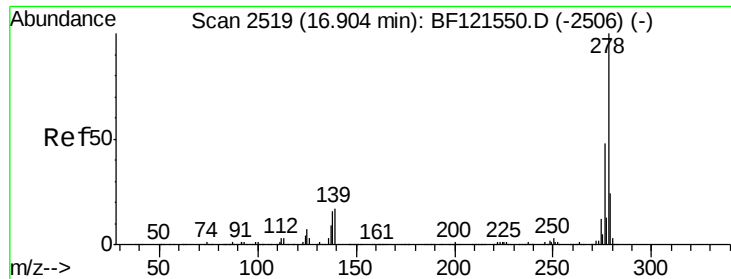
mohammad  
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#90  
Benzo(a)pyrene  
Concen: 13.049 ng  
RT: 15.30 min Scan# 2247  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.6  | 17.3  | 25.9  |
| 125     | 10.6  | 8.6   | 13.0  |





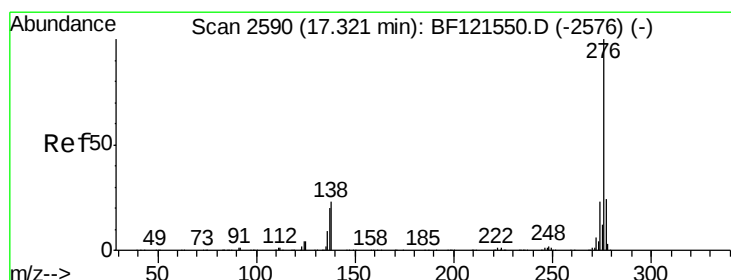
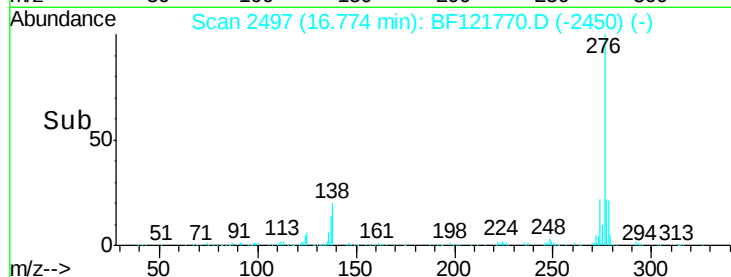
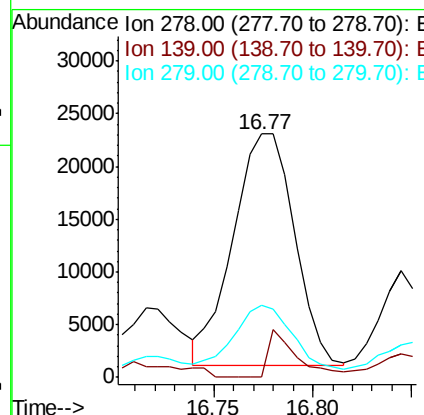
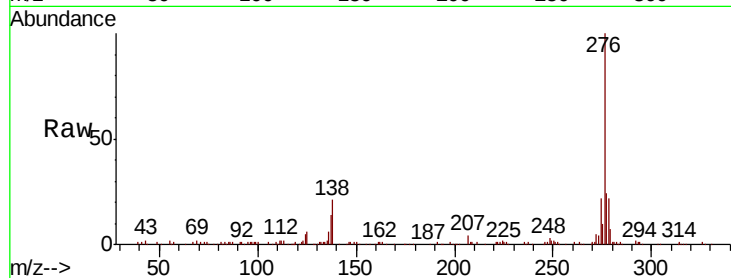
#91  
Dibenzo(a,h)anthracene  
Concen: 2.697 ng m  
RT: 16.77 min Scan# 2497  
Delta R.T. -0.02 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

Instrument :  
BNA\_F  
ClientSampleId :  
B-9(12-14)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 0.0   | 13.0  | 19.4# |
| 279     | 29.8  | 19.0  | 28.4# |

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#92  
Benzo(g,h,i)perylene  
Concen: 12.063 ng  
RT: 17.20 min Scan# 2569  
Delta R.T. -0.01 min  
Lab File: BF121770.D  
Acq: 1 Oct 2020 16:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 24.3  | 19.4  | 29.2  |
| 138     | 21.6  | 17.8  | 26.6  |

