

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF081219\  
 Data File : BF116216.D  
 Acq On : 13 Aug 2019 3:44  
 Operator : HP/JU  
 Sample : K4095-07 5X  
 Misc :  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SU-04-080919-B

Manual Integrations  
 APPROVED

mohammad  
 8/14/2019 2:54:04 AM

Quant Time: Aug 13 07:18:20 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Aug 07 11:13:18 2019  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|-------|------|----------|--------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.83  | 152  | 107280   | 20.00  | ng    | -0.01    |
| 21) Naphthalene-d8          | 8.12  | 136  | 433552   | 20.00  | ng    | -0.01    |
| 39) Acenaphthene-d10        | 9.87  | 164  | 210749   | 20.00  | ng    | -0.02    |
| 64) Phenanthrene-d10        | 11.36 | 188  | 315655   | 20.00  | ng    | -0.01    |
| 76) Chrysene-d12            | 14.00 | 240  | 260359   | 20.00  | ng    | 0.00     |
| 87) Perylene-d12            | 15.47 | 264  | 231626   | 20.00  | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |        |       |          |
| 5) 2-Fluorophenol           | 5.46  | 112  | 135359   | 21.12  | ng    | 0.00     |
| 7) Phenol-d6                | 6.47  | 99   | 182450   | 22.57  | ng    | -0.01    |
| 23) Nitrobenzene-d5         | 7.40  | 82   | 105200   | 14.01  | ng    | -0.02    |
| 42) 2,4,6-Tribromophenol    | 10.67 | 330  | 32091    | 15.71  | ng    | 0.00     |
| 45) 2-Fluorobiphenyl        | 9.19  | 172  | 228977   | 20.35  | ng    | -0.02    |
| 79) Terphenyl-d14           | 12.94 | 244  | 201560   | 16.31  | ng    | -0.01    |
| Target Compounds            |       |      |          |        |       | Qvalue   |
| 49) Acenaphthylene          | 9.73  | 152  | 81160    | 4.492  | ng    | 97       |
| 71) Phenanthrene            | 11.38 | 178  | 86713    | 5.374  | ng    | 98       |
| 72) Anthracene              | 11.44 | 178  | 46262    | 2.833  | ng    | 99       |
| 75) Fluoranthene            | 12.57 | 202  | 271393   | 16.065 | ng    | 98       |
| 78) Pyrene                  | 12.80 | 202  | 272270   | 13.873 | ng    | 99       |
| 81) Benzo(a)anthracene      | 13.99 | 228  | 194752   | 11.703 | ng    | 99       |
| 83) Chrysene                | 14.03 | 228  | 168920   | 10.456 | ng    | 98       |
| 86) Indeno(1,2,3-cd)pyrene  | 16.96 | 276  | 112044   | 8.257  | ng    | 96       |
| 88) Benzo(b)fluoranthene    | 15.05 | 252  | 274775m  | 20.516 | ng    |          |
| 89) Benzo(k)fluoranthene    | 15.07 | 252  | 67649m   | 5.186  | ng    |          |
| 90) Benzo(a)pyrene          | 15.42 | 252  | 171752   | 14.346 | ng    | # 95     |
| 91) Dibenzo(a,h)anthracene  | 16.95 | 278  | 26675    | 2.574  | ng    | # 83     |
| 92) Benzo(a,h,i)perylene    | 17.41 | 276  | 115356   | 11.334 | ng    | 94       |

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

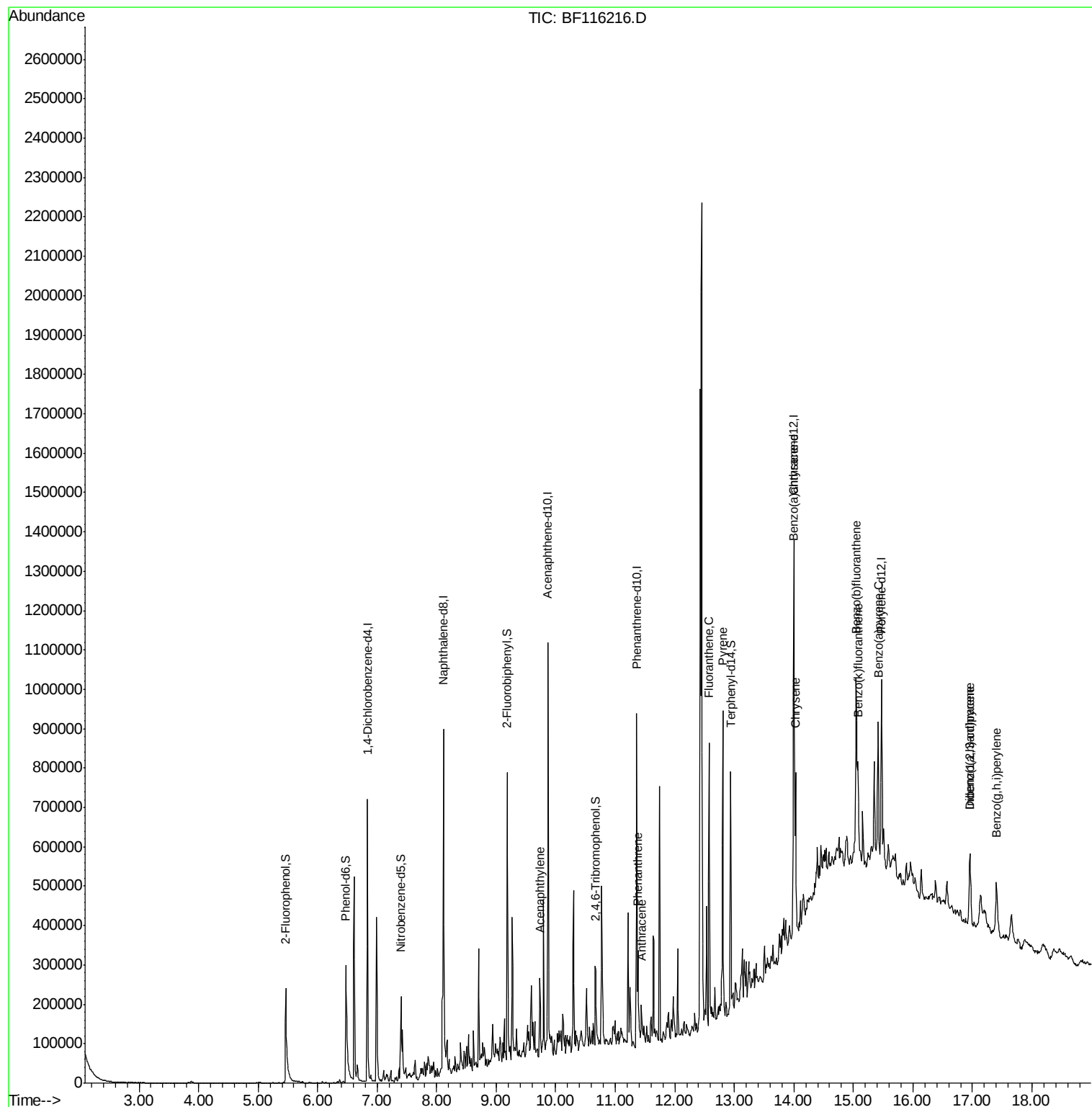
Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF081219\  
Data File : BF116216.D  
Acq On : 13 Aug 2019 3:44  
Operator : HP/JU  
Sample : K4095-07 5X  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

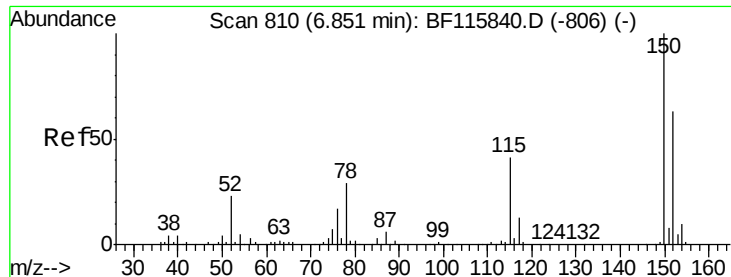
Instrument :  
BNA\_F  
ClientSampleId :  
SU-04-080919-B

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8/14/2019 2:54:04 AM

Quant Time: Aug 13 07:18:20 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Aug 07 11:13:18 2019  
Response via : Initial Calibration





#1

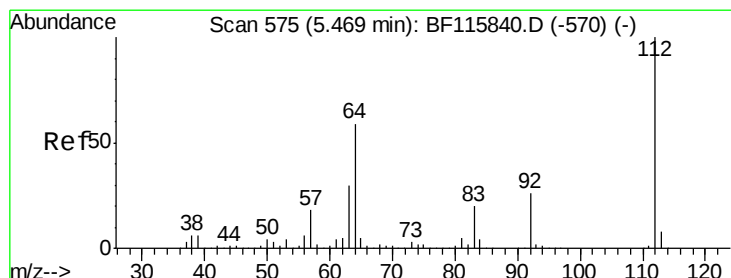
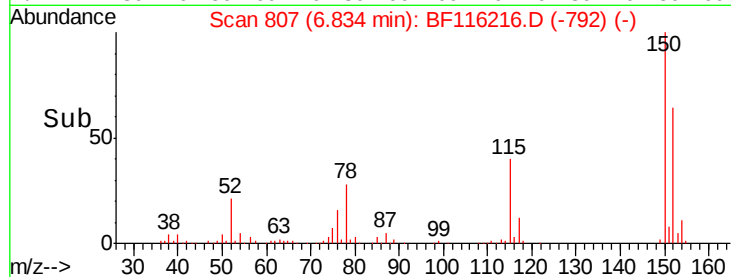
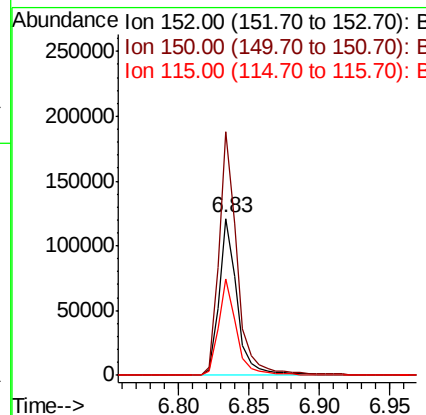
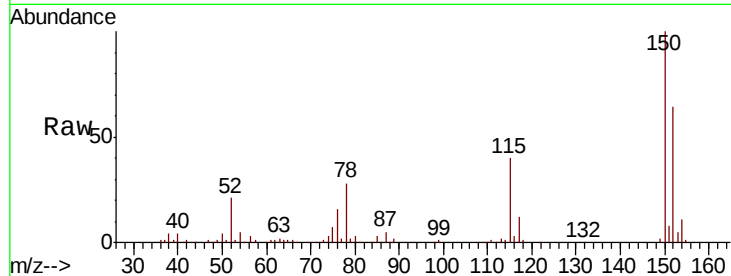
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.83 min Scan# 807  
Delta R.T. -0.01 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

Instrument :  
BNA\_F  
ClientSampleId :  
SU-04-080919-B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 155.3 | 126.2 | 189.2 |
| 115     | 61.7  | 49.9  | 74.9  |

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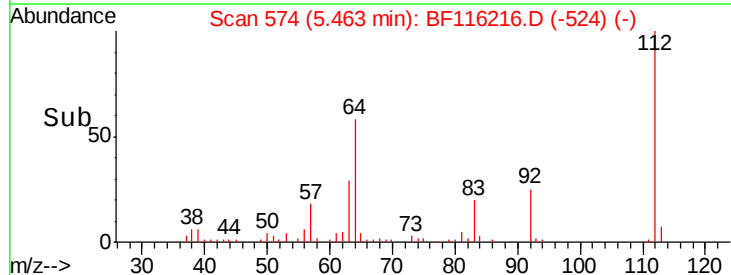
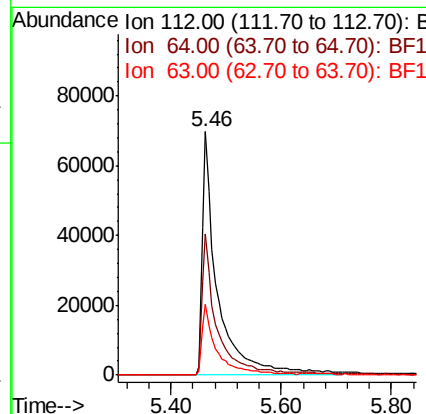
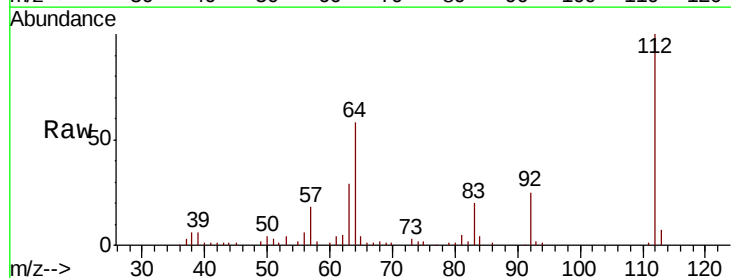
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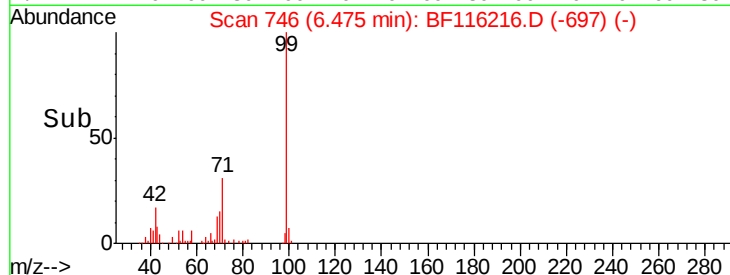
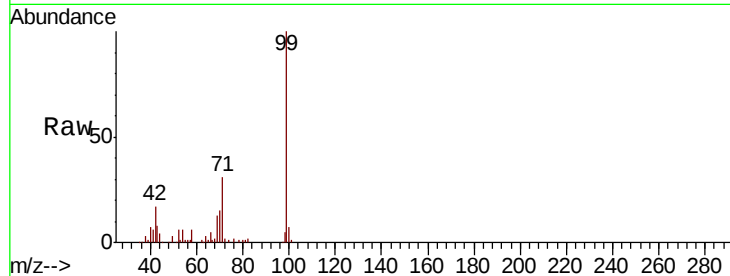
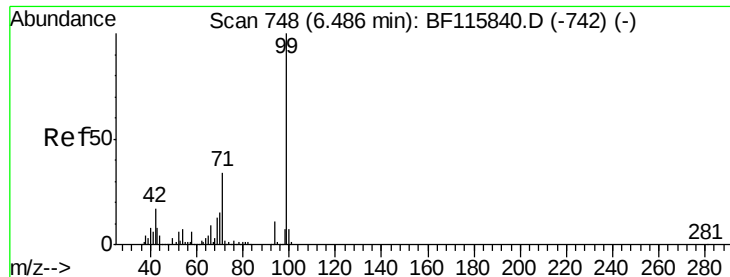


#5

2-Fluorophenol  
Concen: 21.122 ng  
RT: 5.46 min Scan# 574  
Delta R.T. -0.01 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 57.8  | 45.4  | 68.2  |
| 63      | 29.3  | 23.7  | 35.5  |





#7

Phenol-d6

Concen: 22.566 ng

RT: 6.47 min Scan# 746

Delta R.T. -0.01 min

Lab File: BF116216.D

Acq: 13 Aug 2019 3:44

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 99    | Resp: | 182450 |
| Ion Ratio | Lower | Upper |        |
| 99        | 100   |       |        |
| 42        | 17.1  | 13.8  | 20.8   |
| 71        | 30.6  | 27.3  | 40.9   |

Instrument :

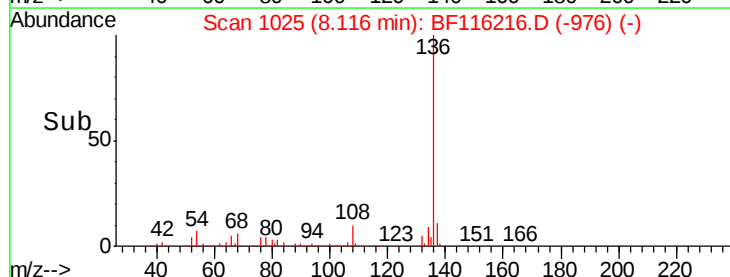
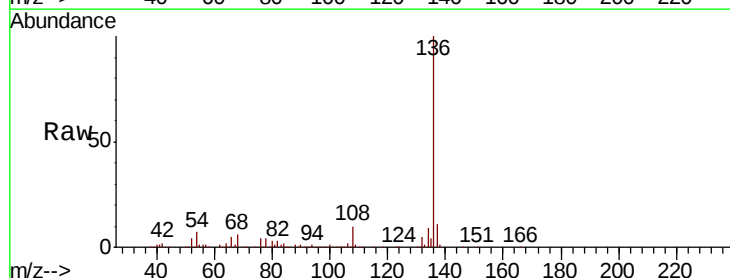
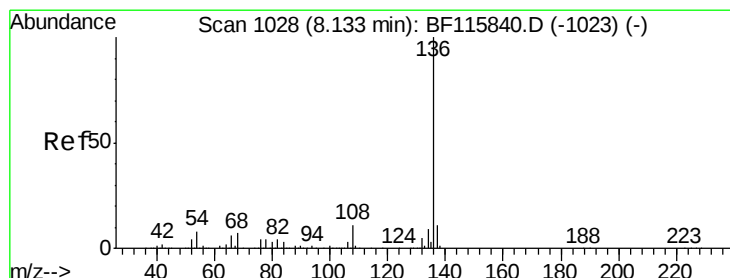
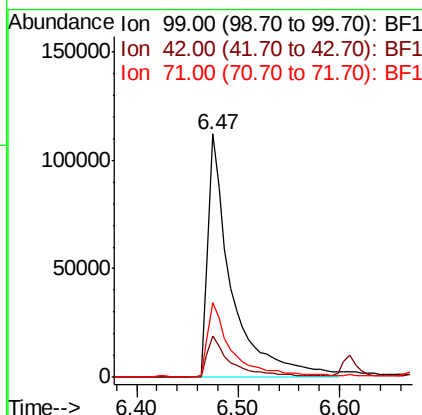
BNA\_F

ClientSampleId :

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#21

Naphthalene-d8

Concen: 20.000 ng

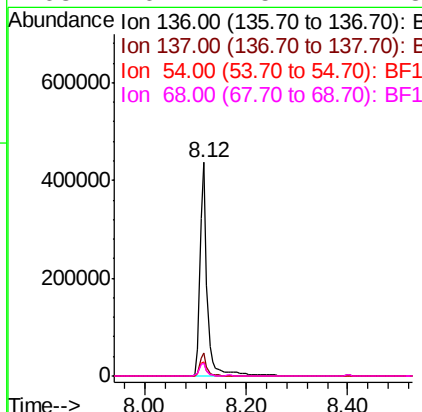
RT: 8.12 min Scan# 1025

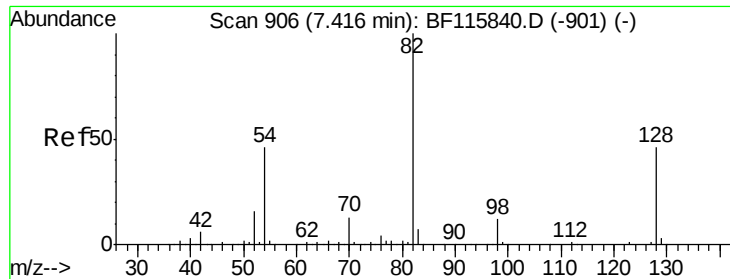
Delta R.T. -0.01 min

Lab File: BF116216.D

Acq: 13 Aug 2019 3:44

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 136   | Resp: | 433552 |
| Ion Ratio | Lower | Upper |        |
| 136       | 100   |       |        |
| 137       | 10.7  | 9.0   | 13.4   |
| 54        | 6.8   | 5.8   | 8.6    |
| 68        | 6.1   | 5.2   | 7.8    |





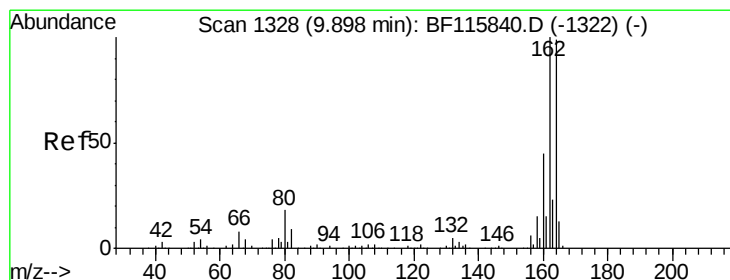
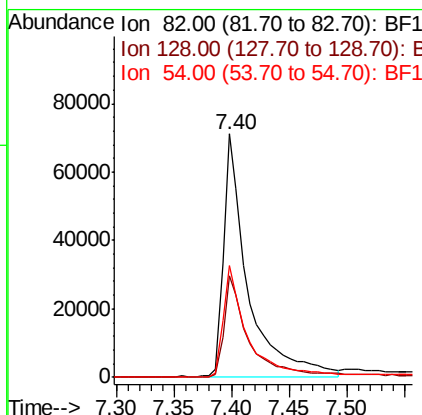
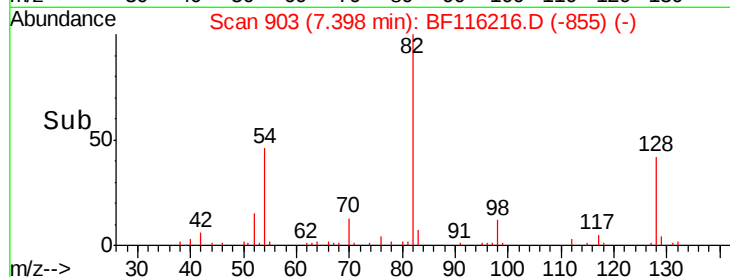
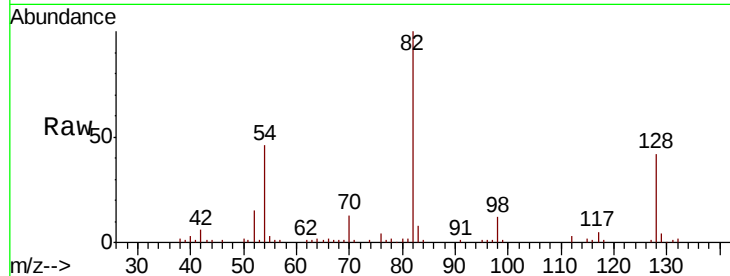
#23  
Nitrobenzene-d5  
Concen: 14.006 ng  
RT: 7.40 min Scan# 903  
Delta R.T. -0.02 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

Instrument :  
BNA\_F  
ClientSampleId :  
SU-04-080919-B

| Tot Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 82      | 100   |      |       |       |
| 128     | 41.8  | 36.5 | 54.7  |       |
| 54      | 46.0  | 36.0 | 54.0  |       |

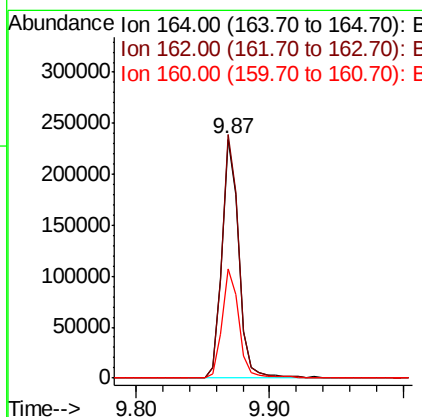
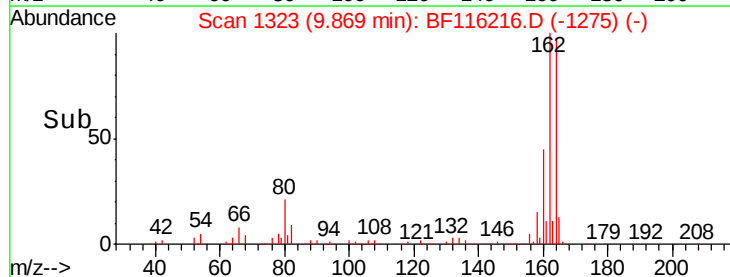
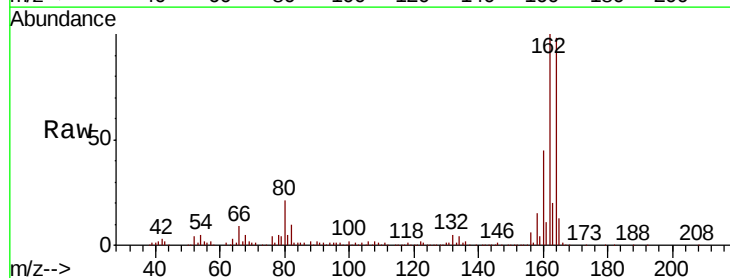
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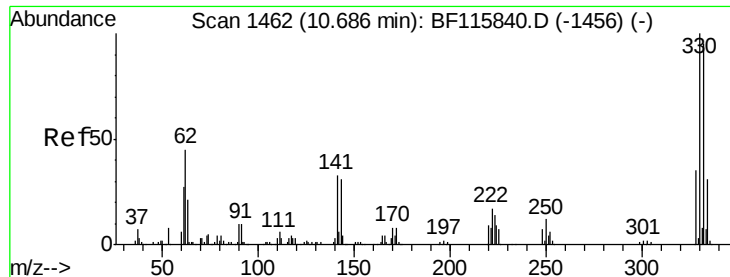
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#39  
Acenaphthene-d10  
Concen: 20.000 ng  
RT: 9.87 min Scan# 1323  
Delta R.T. -0.02 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 164     | 100   |      |       |       |
| 162     | 102.0 | 82.6 | 124.0 |       |
| 160     | 45.7  | 37.6 | 56.4  |       |





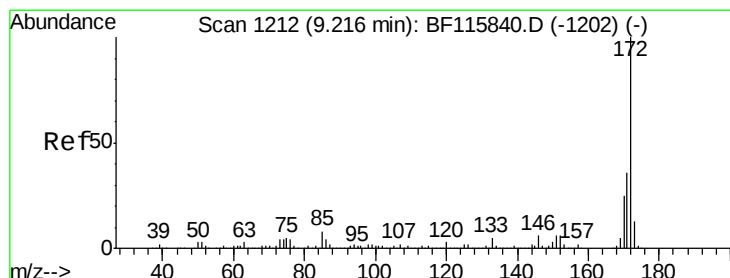
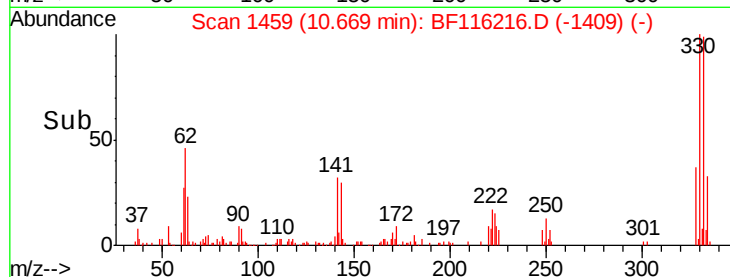
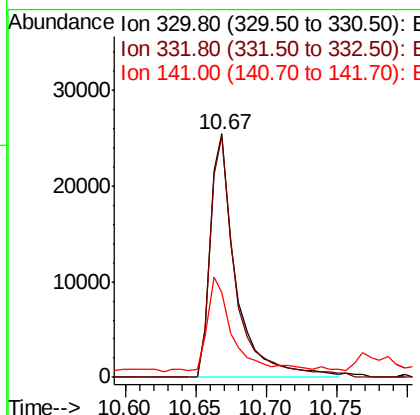
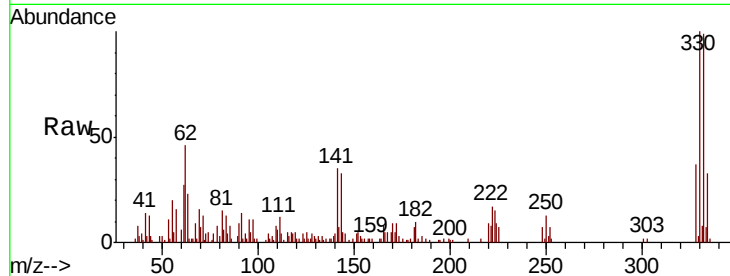
#42  
 2,4,6-Tribromophenol  
 Concen: 15.706 ng  
 RT: 10.67 min Scan# 1459  
 Delta R.T. -0.01 min  
 Lab File: BF116216.D  
 Acq: 13 Aug 2019 3:44

Instrument :  
 BNA\_F  
 ClientSampled :  
 SU-04-080919-B

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 330     | 100   | 32091 |       |       |
| 332     | 99.0  | 76.8  | 115.2 |       |
| 141     | 38.8  | 26.3  | 39.5  |       |

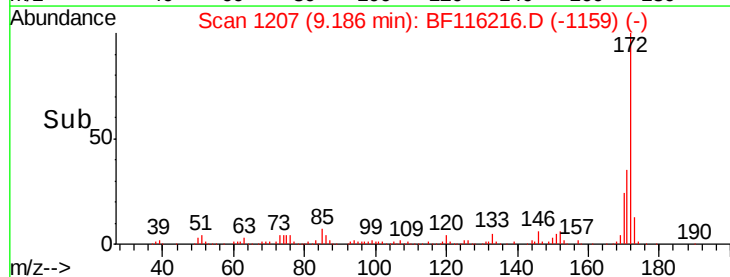
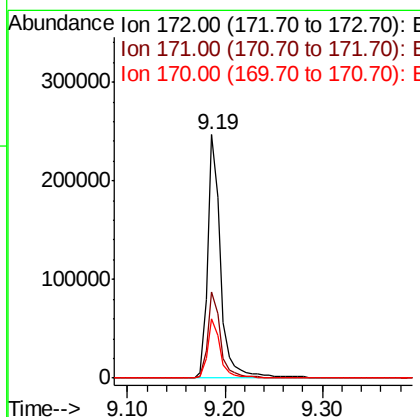
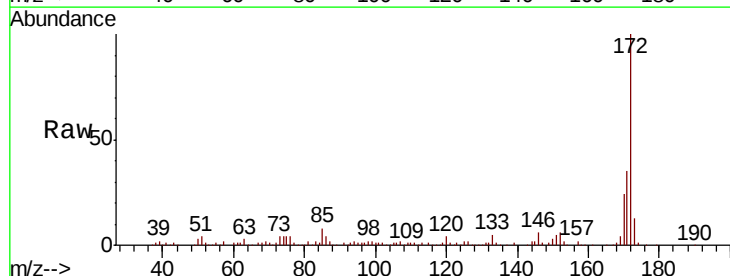
Manual Integrations  
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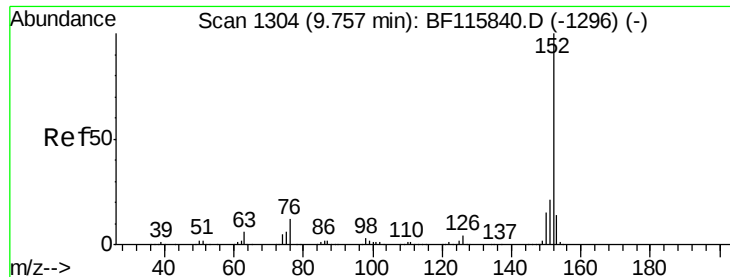
mohammad  
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#45  
 2-Fluorobiphenyl  
 Concen: 20.351 ng  
 RT: 9.19 min Scan# 1207  
 Delta R.T. -0.02 min  
 Lab File: BF116216.D  
 Acq: 13 Aug 2019 3:44

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 172     | 100   | 228977 |       |       |
| 171     | 35.4  | 29.6   | 44.4  |       |
| 170     | 24.1  | 20.1   | 30.1  |       |





#49

Acenaphthylene

Concen: 4.492 ng

RT: 9.73 min Scan# 1300

Delta R.T. -0.01 min

Lab File: BF116216.D

Acq: 13 Aug 2019 3:44

Instrument :

BNA\_F

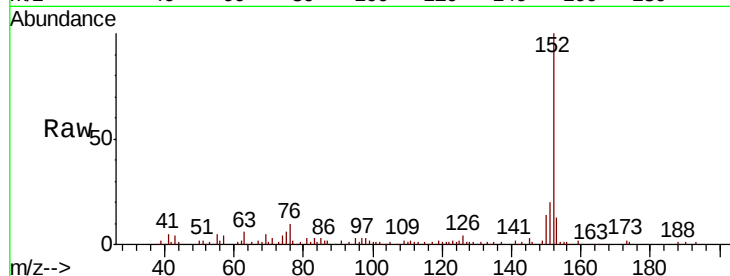
ClientSampleId :

SU-04-080919-B

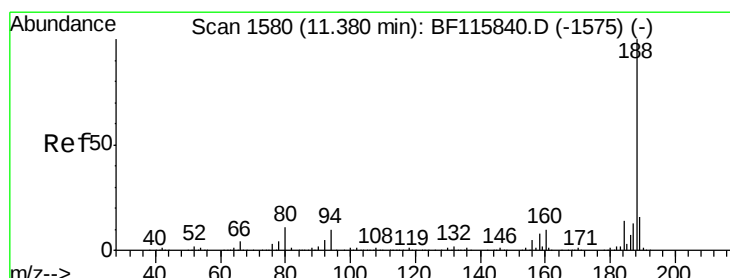
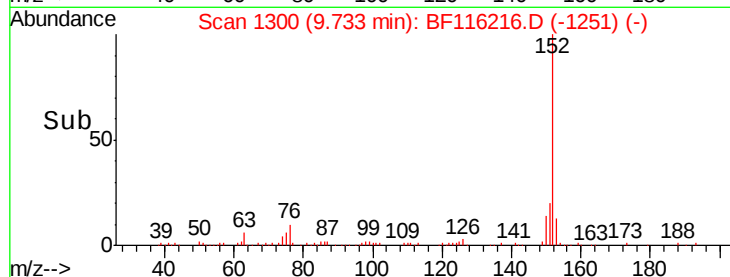
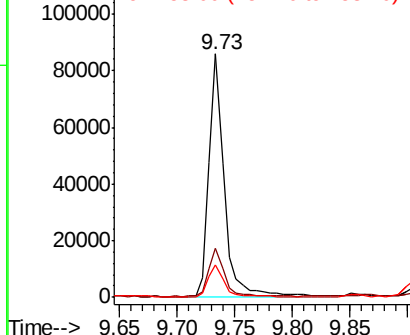
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 152   | Resp: | 81160 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 20.2  | 17.2  | 25.8  |
| 153       | 13.3  | 11.8  | 17.8  |

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Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 151.00 (150.70 to 151.70): E  
Ion 153.00 (152.70 to 153.70): E



#64

Phenanthrene-d10

Concen: 20.000 ng

RT: 11.36 min Scan# 1576

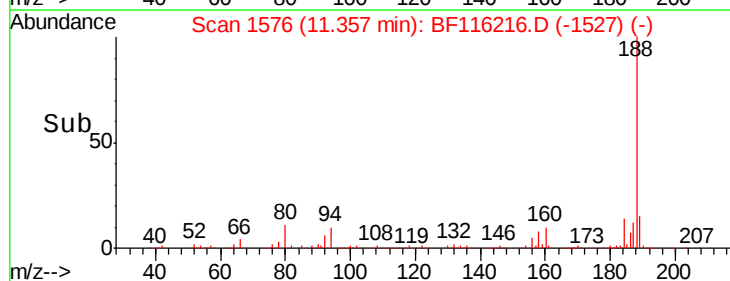
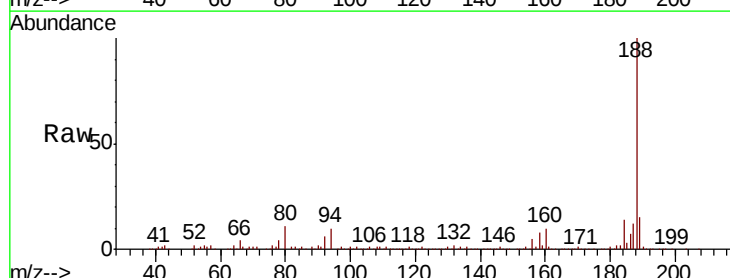
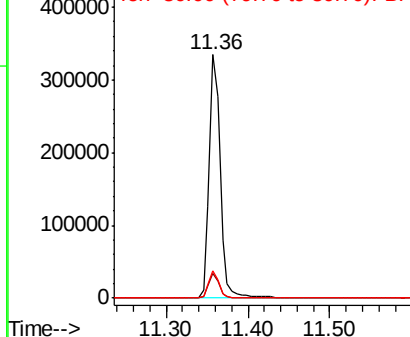
Delta R.T. -0.01 min

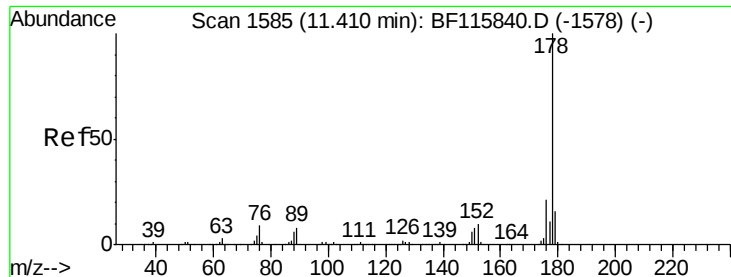
Lab File: BF116216.D

Acq: 13 Aug 2019 3:44

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 188   | Resp: | 315655 |
| Ion Ratio | Lower | Upper |        |
| 188       | 100   |       |        |
| 94        | 10.3  | 8.1   | 12.1   |
| 80        | 11.4  | 8.7   | 13.1   |

Abundance Ion 188.00 (187.70 to 188.70): E  
Ion 94.00 (93.70 to 94.70): BF1  
Ion 80.00 (79.70 to 80.70): BF1





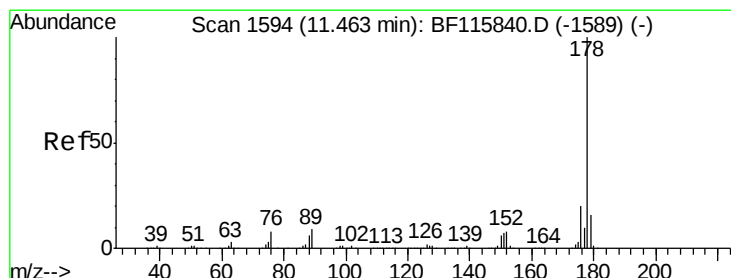
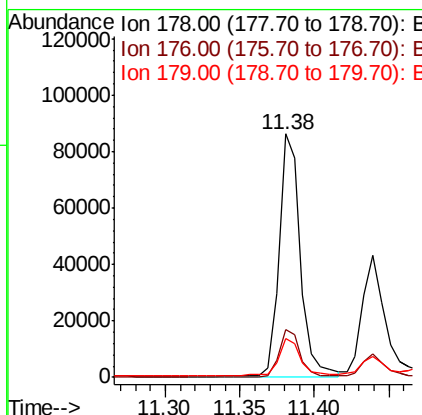
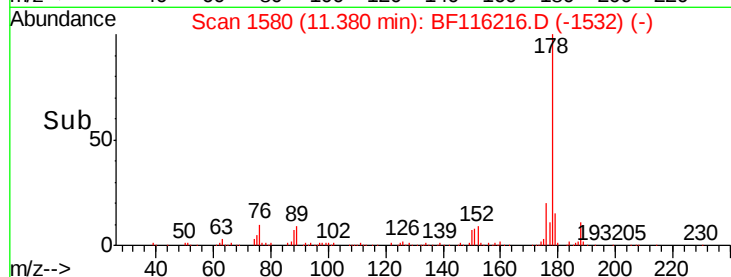
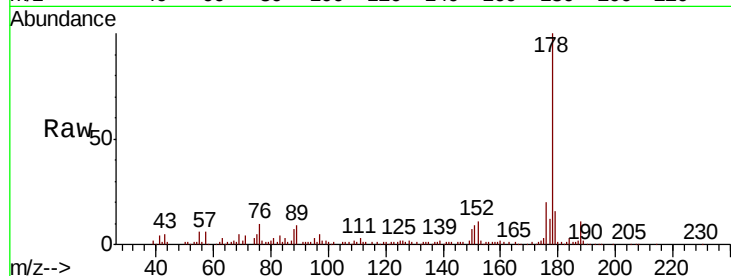
#71  
Phenanthrene  
Concen: 5.374 ng  
RT: 11.38 min Scan# 1580  
Delta R.T. -0.02 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

Instrument :  
BNA\_F  
ClientSampleId :  
SU-04-080919-B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 19.8  | 16.6  | 24.8  |
| 179     | 16.2  | 12.5  | 18.7  |

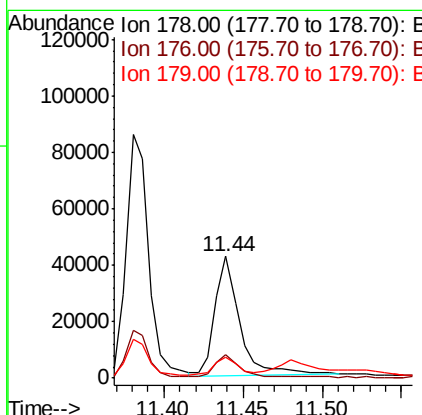
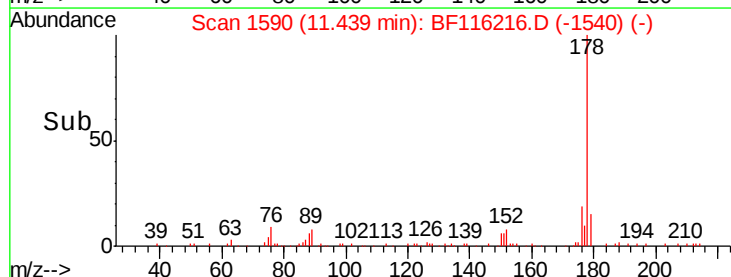
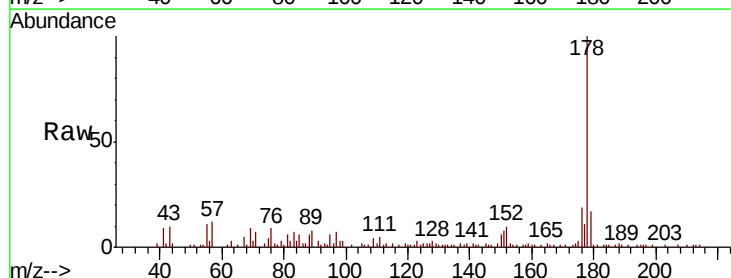
Manual Integrations  
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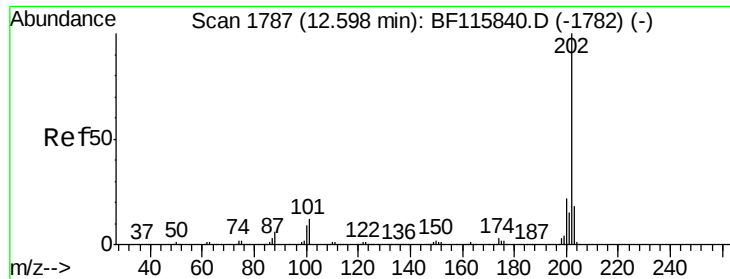
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#72  
Anthracene  
Concen: 2.833 ng  
RT: 11.44 min Scan# 1590  
Delta R.T. -0.01 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 19.1  | 15.7  | 23.5  |
| 179     | 16.9  | 13.0  | 19.6  |





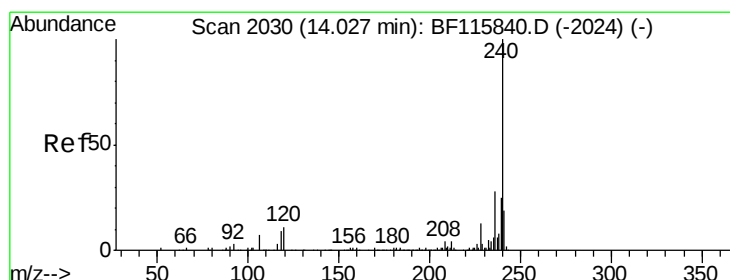
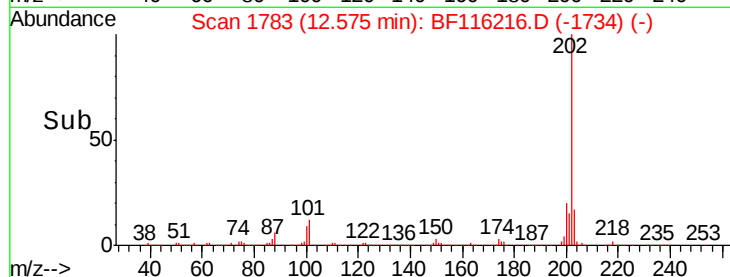
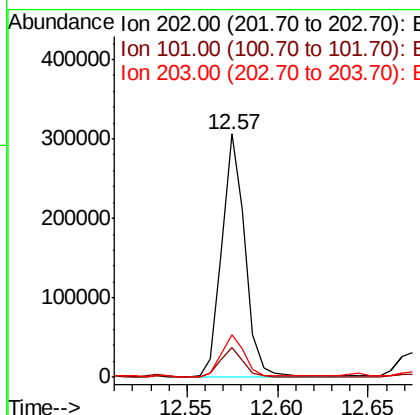
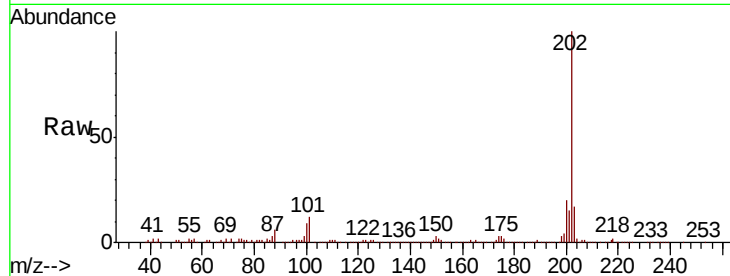
#75  
 Fluoranthene  
 Concen: 16.065 ng  
 RT: 12.57 min Scan# 1783  
 Delta R.T. -0.01 min  
 Lab File: BF116216.D  
 Acq: 13 Aug 2019 3:44

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SU-04-080919-B

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 202     | 100   |            |       |
| 101     | 12.2  | 0.0        | 31.2  |
| 203     | 17.4  | 0.0        | 37.8  |

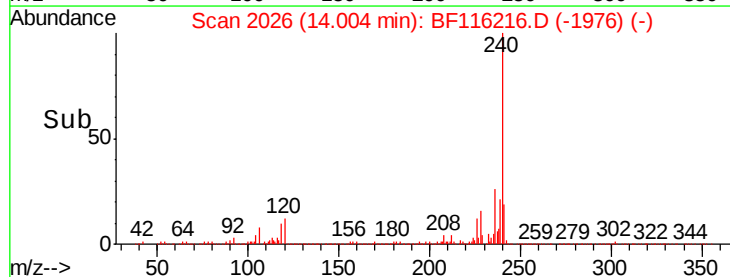
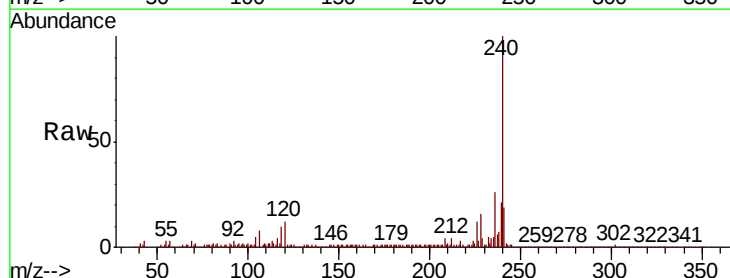
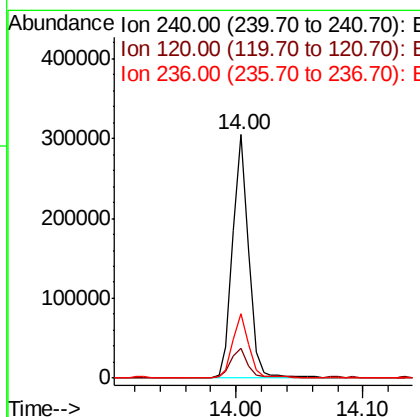
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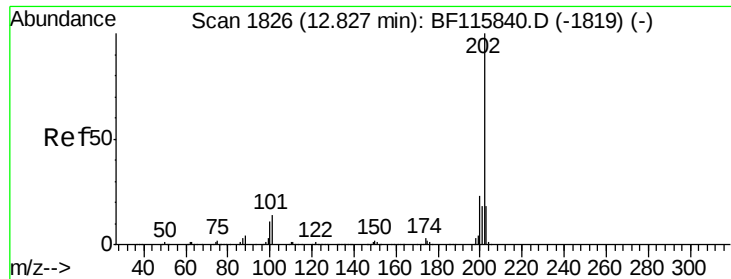
mohammad  
 8/14/2019 2:54:04 AM



#76  
 Chrysene-d12  
 Concen: 20.000 ng  
 RT: 14.00 min Scan# 2026  
 Delta R.T. -0.01 min  
 Lab File: BF116216.D  
 Acq: 13 Aug 2019 3:44

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 240     | 100   |            |       |
| 120     | 12.1  | 10.7       | 16.1  |
| 236     | 26.4  | 22.2       | 33.2  |





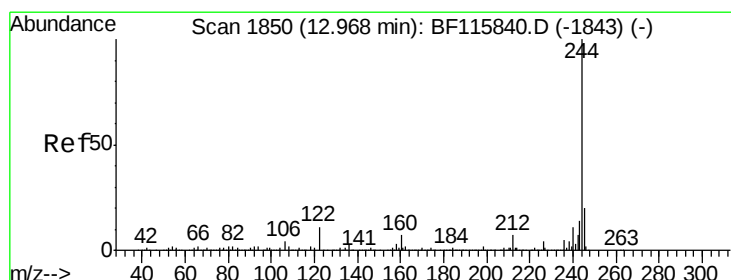
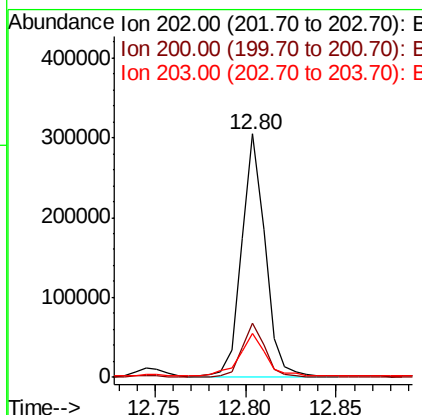
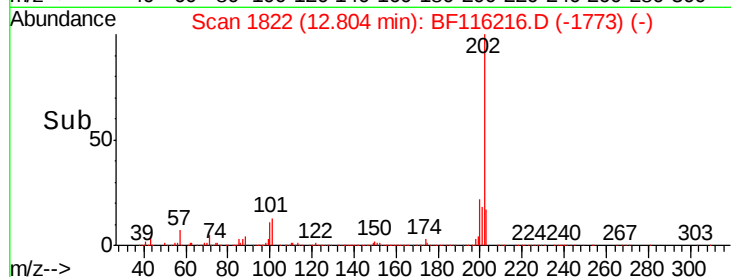
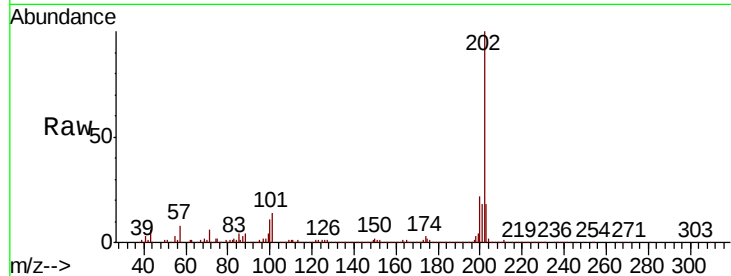
#78  
Pvrene  
Concen: 13.873 ng  
RT: 12.80 min Scan# 1822  
Delta R.T. -0.01 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

Instrument :  
BNA\_F  
ClientSampleId :  
SU-04-080919-B

| Tot Ion | Ion  | Ratio | Resp | Lower | Upper |
|---------|------|-------|------|-------|-------|
| 202     | 100  |       |      |       |       |
| 200     | 22.1 | 18.0  | 27.0 |       |       |
| 203     | 18.1 | 14.1  | 21.1 |       |       |

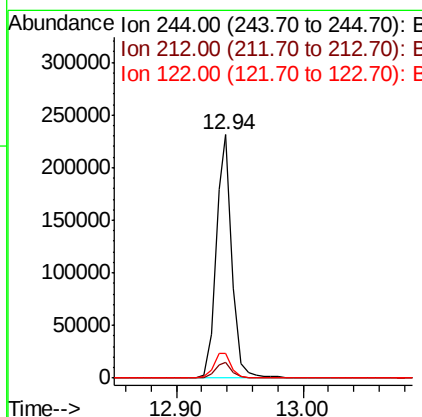
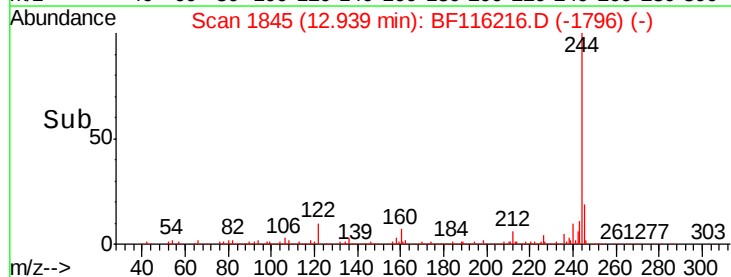
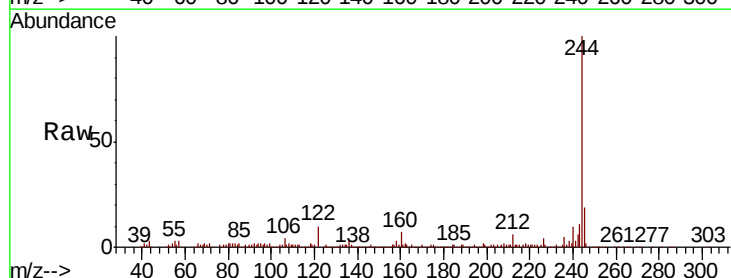
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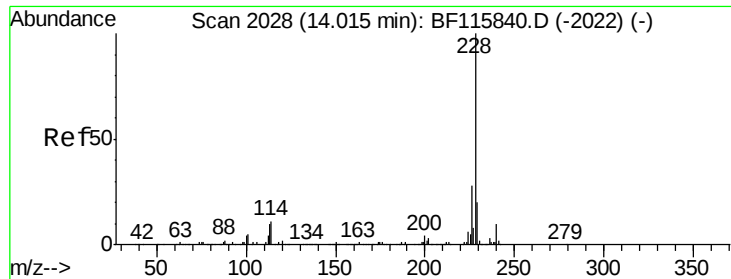
mohammad  
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#79  
Terphenyl-d14  
Concen: 16.313 ng  
RT: 12.94 min Scan# 1845  
Delta R.T. -0.01 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

| Tgt Ion | Ion  | Ratio | Resp | Lower | Upper |
|---------|------|-------|------|-------|-------|
| 244     | 100  |       |      |       |       |
| 212     | 6.4  | 5.8   | 8.8  |       |       |
| 122     | 10.1 | 9.0   | 13.4 |       |       |





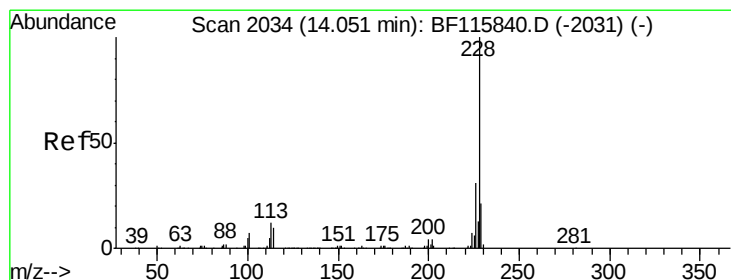
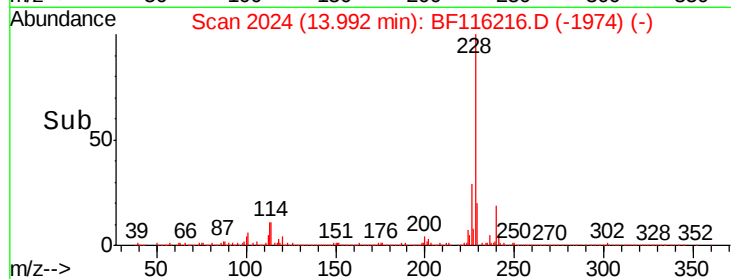
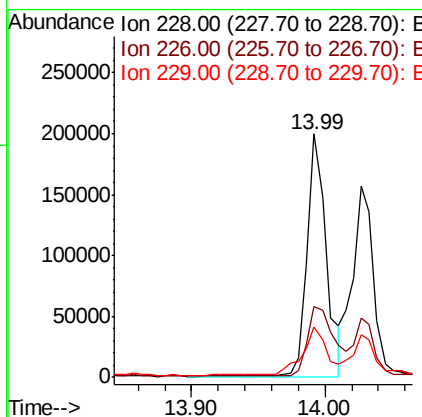
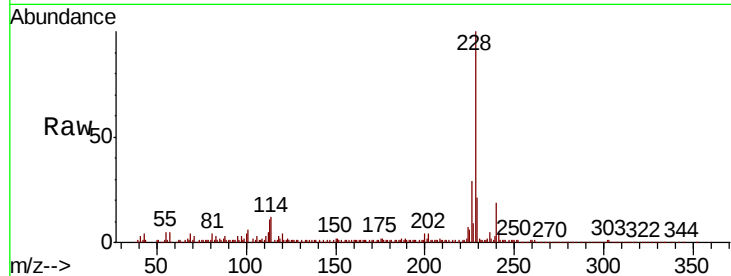
#81  
Benzo(a)anthracene  
Concen: 11.703 ng  
RT: 13.99 min Scan# 2024  
Delta R.T. -0.01 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

Instrument :  
BNA\_F  
ClientSampleId :  
SU-04-080919-B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.1  | 22.7  | 34.1  |
| 229     | 20.9  | 16.2  | 24.4  |

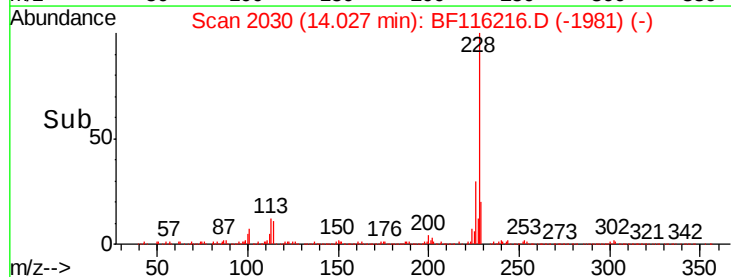
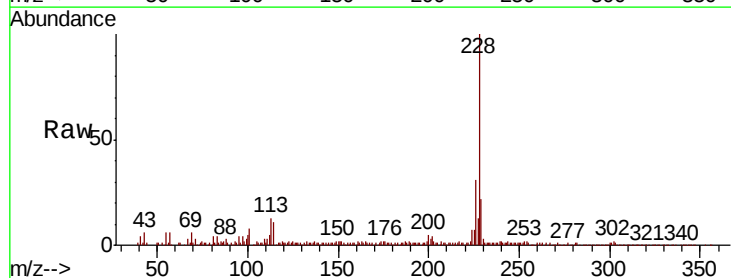
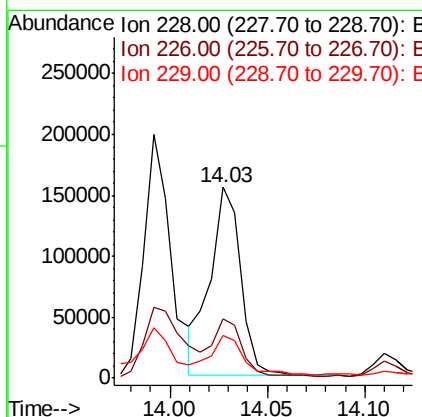
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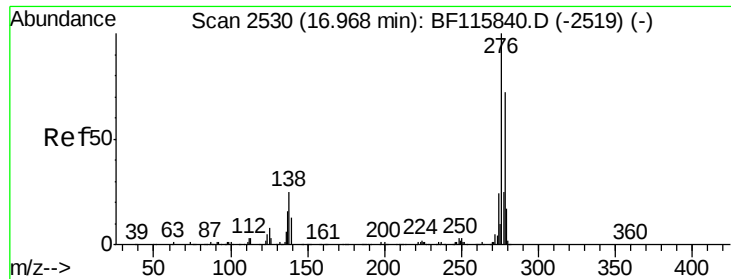
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#83  
Chrysene  
Concen: 10.456 ng  
RT: 14.03 min Scan# 2030  
Delta R.T. -0.01 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 31.0  | 25.5  | 38.3  |
| 229     | 22.1  | 16.6  | 24.8  |





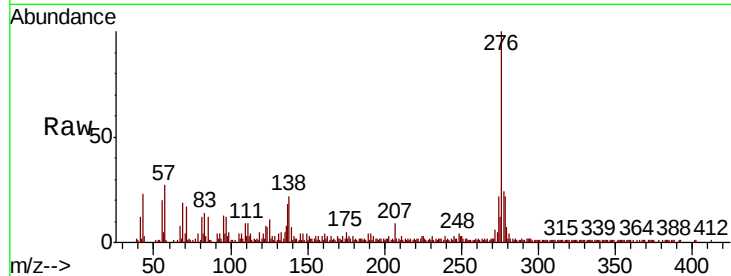
#86  
 Indeno(1,2,3-cd)pyrene  
 Concen: 8.257 ng  
 RT: 16.96 min Scan# 2528  
 Delta R.T. 0.01 min  
 Lab File: BF116216.D  
 Acq: 13 Aug 2019 3:44

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SU-04-080919-B

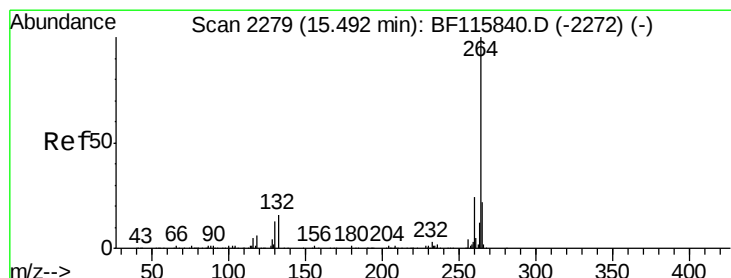
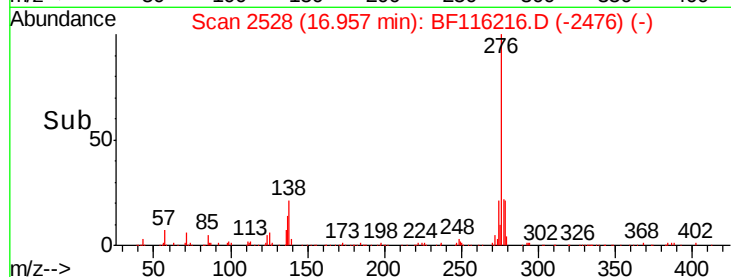
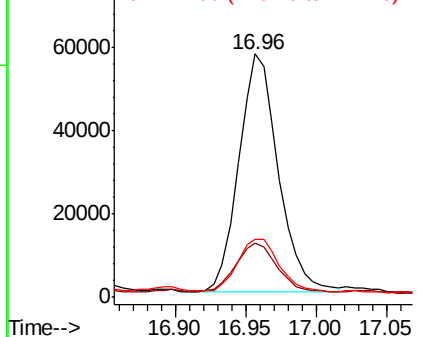
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 276   | Resp: | 112044 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 22.0  | 20.4  | 30.6   |
| 277       | 24.1  | 20.0  | 30.0   |

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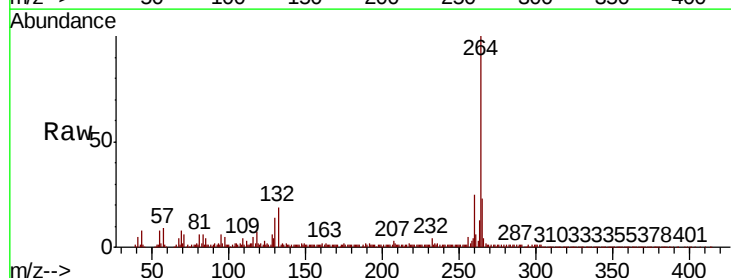


Abundance Ion 276.00 (275.70 to 276.70): E  
 Ion 138.00 (137.70 to 138.70): E  
 Ion 277.00 (276.70 to 277.70): E

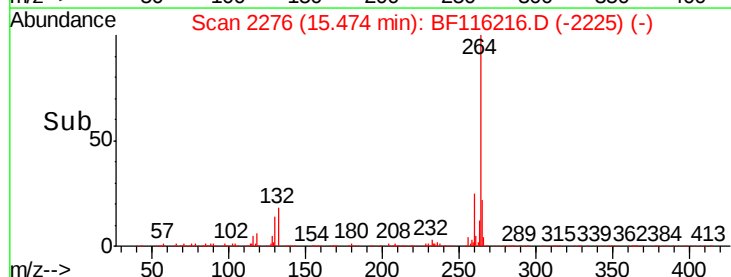
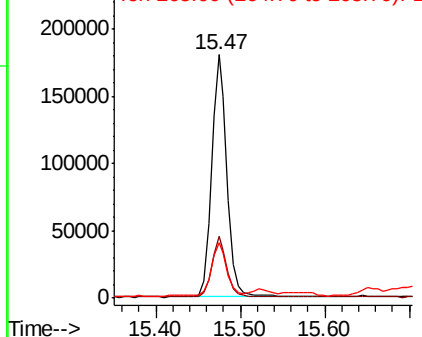


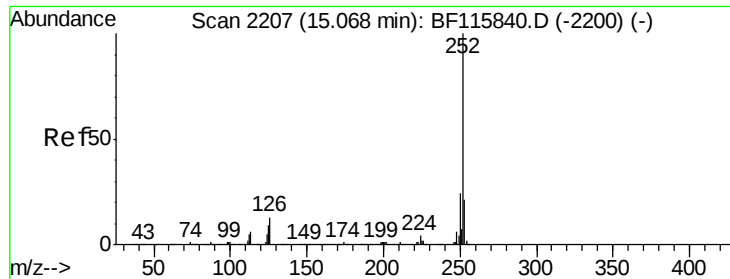
#87  
 Perylene-d12  
 Concen: 20.000 ng  
 RT: 15.47 min Scan# 2276  
 Delta R.T. 0.00 min  
 Lab File: BF116216.D  
 Acq: 13 Aug 2019 3:44

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 264   | Resp: | 231626 |
| Ion Ratio | Lower | Upper |        |
| 264       | 100   |       |        |
| 260       | 25.3  | 19.7  | 29.5   |
| 265       | 22.9  | 17.4  | 26.0   |



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: 20.516 ng m

RT: 15.05 min Scan# 2204

Delta R.T. 0.00 min

Lab File: BF116216.D

Acq: 13 Aug 2019 3:44

Instrument :

BNA\_F

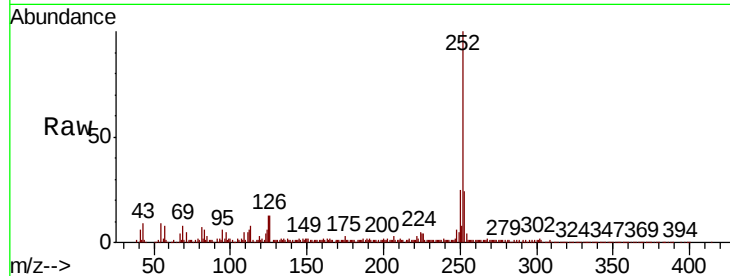
ClientSampleId :

SU-04-080919-B

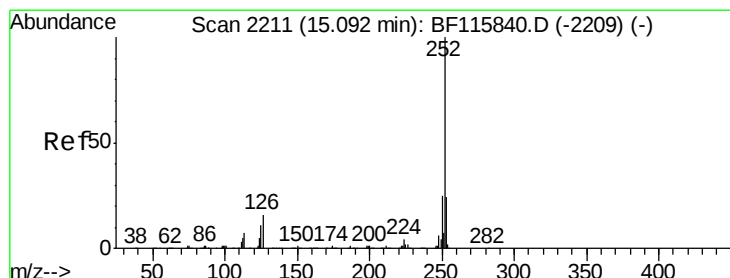
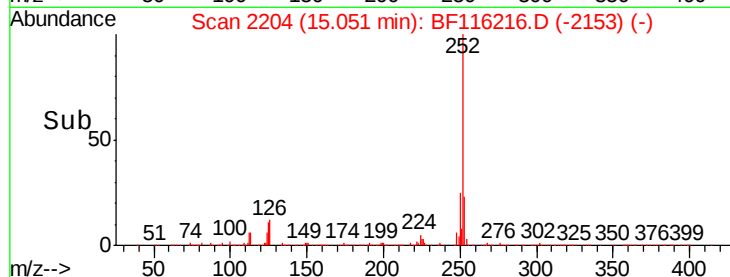
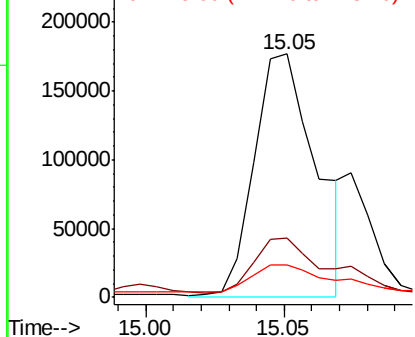
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 252   | Resp: | 274775 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 24.4  | 17.8  | 26.8   |
| 125       | 13.3  | 8.4   | 12.6#  |

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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: 5.186 ng m

RT: 15.07 min Scan# 2208

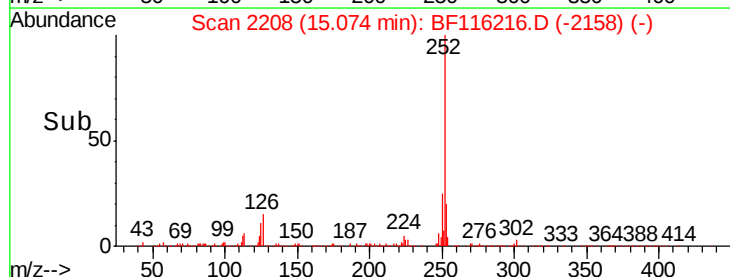
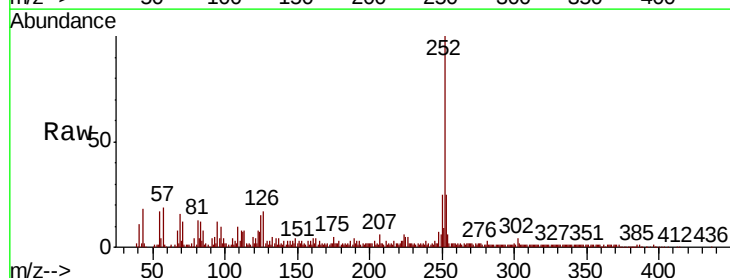
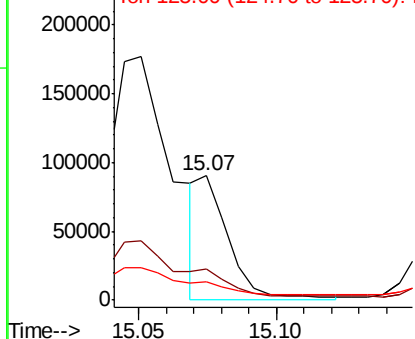
Delta R.T. -0.01 min

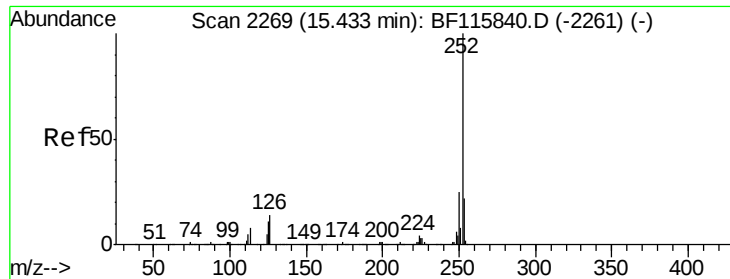
Lab File: BF116216.D

Acq: 13 Aug 2019 3:44

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 67649 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 25.2  | 17.8  | 26.8  |
| 125       | 14.9  | 7.7   | 11.5# |

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





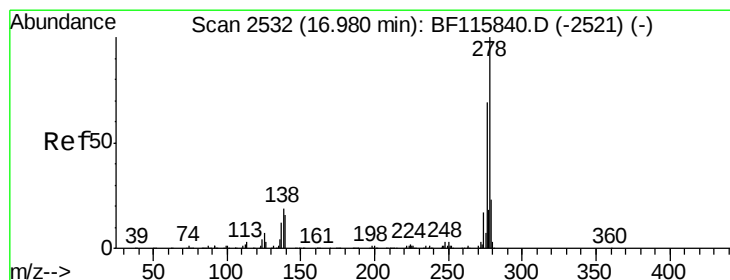
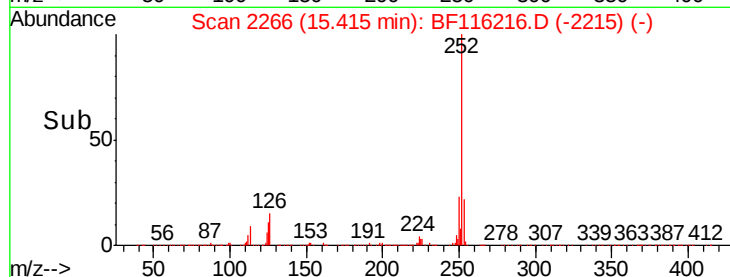
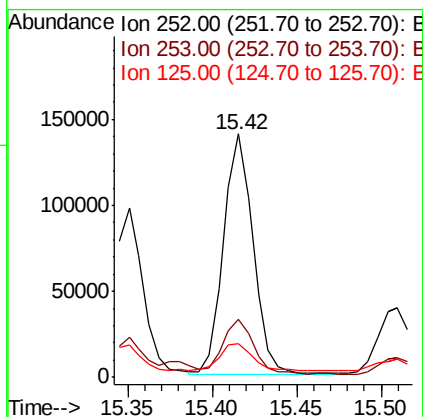
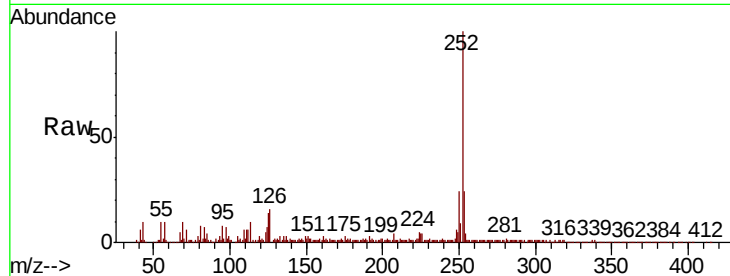
#90  
Benzo(a)pyrene  
Concen: 14.346 ng  
RT: 15.42 min Scan# 2266  
Delta R.T. 0.00 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

Instrument :  
BNA\_F  
ClientSampleId :  
SU-04-080919-B

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 252     | 100   |            |       |
| 253     | 24.1  | 18.0       | 27.0  |
| 125     | 13.9  | 8.9        | 13.3  |

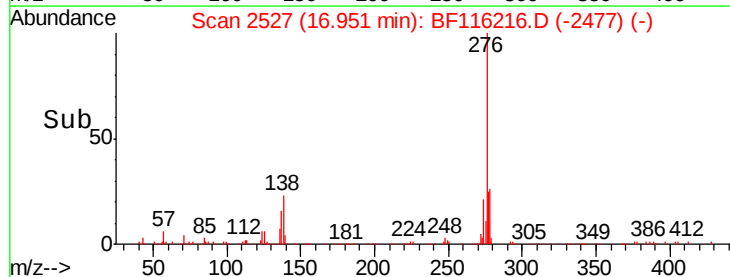
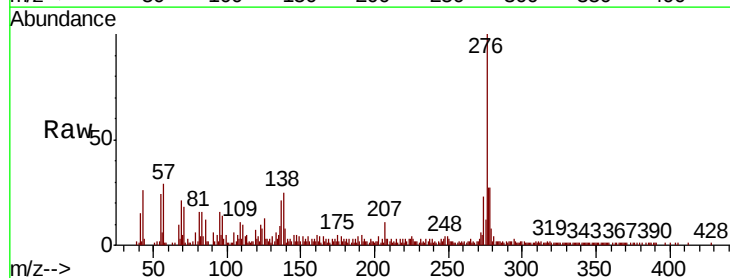
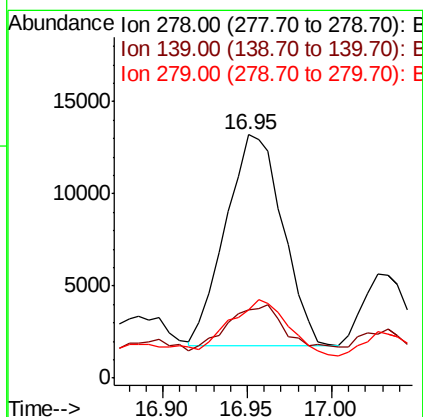
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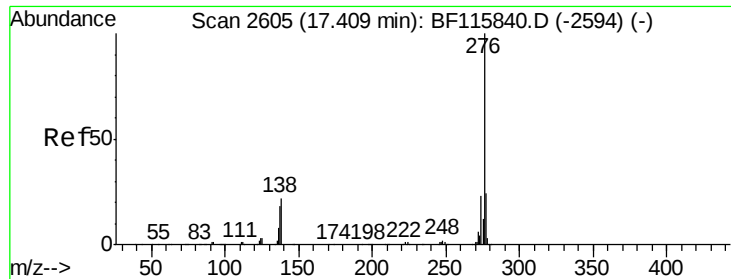
mohammad  
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#91  
Dibenzo(a,h)anthracene  
Concen: 2.574 ng  
RT: 16.95 min Scan# 2527  
Delta R.T. -0.01 min  
Lab File: BF116216.D  
Acq: 13 Aug 2019 3:44

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 278     | 100   |            |       |
| 139     | 28.2  | 12.8       | 19.2  |
| 279     | 27.8  | 18.8       | 28.2  |





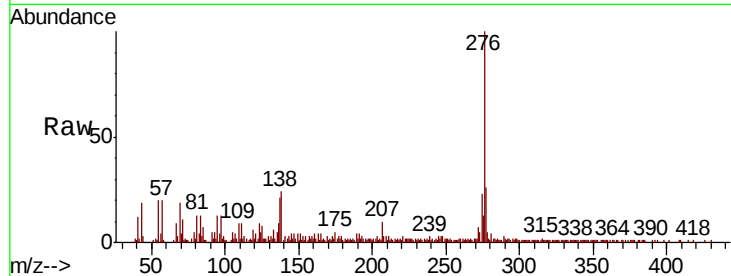
#92  
 Benzo(a,h,i)perylene  
 Concen: 11.334 ng  
 RT: 17.41 min Scan# 2605  
 Delta R.T. 0.02 min  
 Lab File: BF116216.D  
 Acq: 13 Aug 2019 3:44

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SU-04-080919-B

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 276   | Resp: | 115356 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 277       | 26.2  | 18.4  | 27.6   |
| 138       | 24.2  | 17.0  | 25.6   |

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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

