

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
 Data File : BF107623.D  
 Acq On : 24 Jul 2018 17:11  
 Operator : JU/SJ  
 Sample : J4096-08 2X  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DW-10

Integration Parameters: rteint.p

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % of largest Peak

Max Peaks: 100

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF072018.M

Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC

| peak<br># | R.T.<br>min | first<br>scan | max<br>scan | last<br>scan | PK<br>TY | peak<br>height | corr.<br>area | corr.<br>% max. | % of<br>total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1         | 5.190       | 482           | 485         | 498          | rBV      | 267778         | 345243        | 7.45%           | 0.680%        |
| 2         | 5.601       | 551           | 555         | 579          | rBV      | 1268937        | 2142151       | 46.20%          | 4.219%        |
| 3         | 6.242       | 660           | 664         | 670          | rVB      | 315214         | 276358        | 5.96%           | 0.544%        |
| 4         | 6.601       | 721           | 725         | 733          | rBV      | 1444875        | 1944007       | 41.93%          | 3.829%        |
| 5         | 6.660       | 733           | 735         | 739          | rVB      | 163430         | 179657        | 3.87%           | 0.354%        |
| 6         | 6.742       | 745           | 749         | 771          | rVB      | 1938347        | 2386872       | 51.48%          | 4.701%        |
| 7         | 6.966       | 784           | 787         | 796          | rBV      | 1345192        | 1453004       | 31.34%          | 2.862%        |
| 8         | 7.037       | 796           | 799         | 802          | rVV      | 95950          | 112200        | 2.42%           | 0.221%        |
| 9         | 7.072       | 802           | 805         | 808          | rVV      | 223414         | 175931        | 3.79%           | 0.346%        |
| 10        | 7.119       | 810           | 813         | 828          | rVB      | 1544537        | 1626431       | 35.08%          | 3.203%        |
| 11        | 7.531       | 879           | 883         | 900          | rBV      | 1024467        | 1360659       | 29.35%          | 2.680%        |
| 12        | 8.248       | 1001          | 1005        | 1025         | rBV      | 1826524        | 1977981       | 42.66%          | 3.895%        |
| 13        | 8.978       | 1124          | 1129        | 1133         | rBV2     | 78921          | 81657         | 1.76%           | 0.161%        |
| 14        | 9.319       | 1184          | 1187        | 1197         | rBV      | 2227785        | 2181314       | 47.05%          | 4.296%        |
| 15        | 9.713       | 1248          | 1254        | 1262         | rVB      | 201408         | 212990        | 4.59%           | 0.419%        |
| 16        | 10.007      | 1297          | 1304        | 1308         | rBV      | 1877663        | 1916637       | 41.34%          | 3.775%        |
| 17        | 10.042      | 1308          | 1310        | 1318         | rVB      | 195191         | 201284        | 4.34%           | 0.396%        |
| 18        | 10.154      | 1326          | 1329        | 1332         | rBV2     | 51406          | 54676         | 1.18%           | 0.108%        |
| 19        | 10.213      | 1335          | 1339        | 1342         | rBV2     | 101650         | 119542        | 2.58%           | 0.235%        |
| 20        | 10.560      | 1394          | 1398        | 1404         | rBV      | 421238         | 427580        | 9.22%           | 0.842%        |
| 21        | 10.642      | 1407          | 1412        | 1415         | rVV3     | 125838         | 161304        | 3.48%           | 0.318%        |
| 22        | 10.713      | 1422          | 1424        | 1429         | rVB      | 69017          | 71201         | 1.54%           | 0.140%        |
| 23        | 10.801      | 1435          | 1439        | 1453         | rBV      | 1212062        | 1402662       | 30.25%          | 2.762%        |
| 24        | 10.907      | 1453          | 1457        | 1464         | rVB2     | 168744         | 219515        | 4.73%           | 0.432%        |
| 25        | 10.972      | 1465          | 1468        | 1469         | rBV      | 88773          | 72276         | 1.56%           | 0.142%        |
| 26        | 11.001      | 1469          | 1473        | 1477         | rVB5     | 67133          | 108004        | 2.33%           | 0.213%        |
| 27        | 11.036      | 1477          | 1479        | 1482         | rBV      | 68844          | 71260         | 1.54%           | 0.140%        |
| 28        | 11.107      | 1486          | 1491        | 1495         | rBV3     | 110344         | 195097        | 4.21%           | 0.384%        |
| 29        | 11.189      | 1502          | 1505        | 1507         | rBV      | 103871         | 82920         | 1.79%           | 0.163%        |
| 30        | 11.372      | 1533          | 1536        | 1538         | rBV      | 186990         | 160559        | 3.46%           | 0.316%        |
| 31        | 11.401      | 1538          | 1541        | 1548         | rVB      | 311818         | 289289        | 6.24%           | 0.570%        |
| 32        | 11.507      | 1555          | 1559        | 1561         | rBV      | 1588937        | 1827570       | 39.42%          | 3.599%        |
| 33        | 11.530      | 1561          | 1563        | 1569         | rVV      | 4432570        | 4360368       | 94.04%          | 8.587%        |
| 34        | 11.583      | 1569          | 1572        | 1575         | rVV      | 732519         | 791805        | 17.08%          | 1.559%        |

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Integration Parameters: rteint.p  
Integrator: RTE  
Smoothing : ON Filtering: 5  
Sampling : 1 Min Area: 3 % of largest Peak  
Start Thrs: 0.2 Max Peaks: 100  
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
Peak separation: 5

Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF072018.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |         |        |
|----|--------|------|------|------|------|---------|---------|---------|--------|
| 35 | 11.613 | 1575 | 1577 | 1582 | rVB2 | 132865  | 158771  | 3.42%   | 0.313% |
| 36 | 11.724 | 1593 | 1596 | 1597 | rBV2 | 144735  | 128731  | 2.78%   | 0.254% |
| 37 | 12.007 | 1641 | 1644 | 1646 | rBV  | 406103  | 398563  | 8.60%   | 0.785% |
| 38 | 12.036 | 1646 | 1649 | 1653 | rVB2 | 320386  | 360001  | 7.76%   | 0.709% |
| 39 | 12.119 | 1660 | 1663 | 1672 | rVB2 | 895929  | 1123014 | 24.22%  | 2.212% |
| 40 | 12.301 | 1691 | 1694 | 1696 | rBV  | 258713  | 247241  | 5.33%   | 0.487% |
| 41 | 12.330 | 1696 | 1699 | 1702 | rVV  | 282316  | 263614  | 5.69%   | 0.519% |
| 42 | 12.677 | 1755 | 1758 | 1761 | rBV3 | 182496  | 222395  | 4.80%   | 0.438% |
| 43 | 12.730 | 1762 | 1767 | 1769 | rVV  | 4494803 | 4636623 | 100.00% | 9.131% |
| 44 | 12.754 | 1769 | 1771 | 1774 | rVB  | 1724249 | 1479164 | 31.90%  | 2.913% |
| 45 | 12.960 | 1799 | 1806 | 1811 | rBV  | 3502907 | 4269293 | 92.08%  | 8.408% |
| 46 | 13.060 | 1820 | 1823 | 1824 | rBV  | 392653  | 420599  | 9.07%   | 0.828% |
| 47 | 13.089 | 1825 | 1828 | 1831 | rVB  | 1501982 | 1413401 | 30.48%  | 2.784% |
| 48 | 13.348 | 1869 | 1872 | 1875 | rBV2 | 582348  | 541669  | 11.68%  | 1.067% |
| 49 | 14.113 | 1999 | 2002 | 2005 | rBV  | 1065607 | 1042510 | 22.48%  | 2.053% |
| 50 | 14.160 | 2006 | 2010 | 2013 | rVV2 | 1693734 | 2780054 | 59.96%  | 5.475% |
| 51 | 14.189 | 2013 | 2015 | 2021 | rVB  | 1397315 | 1385081 | 29.87%  | 2.728% |
| 52 | 15.636 | 2258 | 2261 | 2266 | rVB  | 713103  | 916175  | 19.76%  | 1.804% |

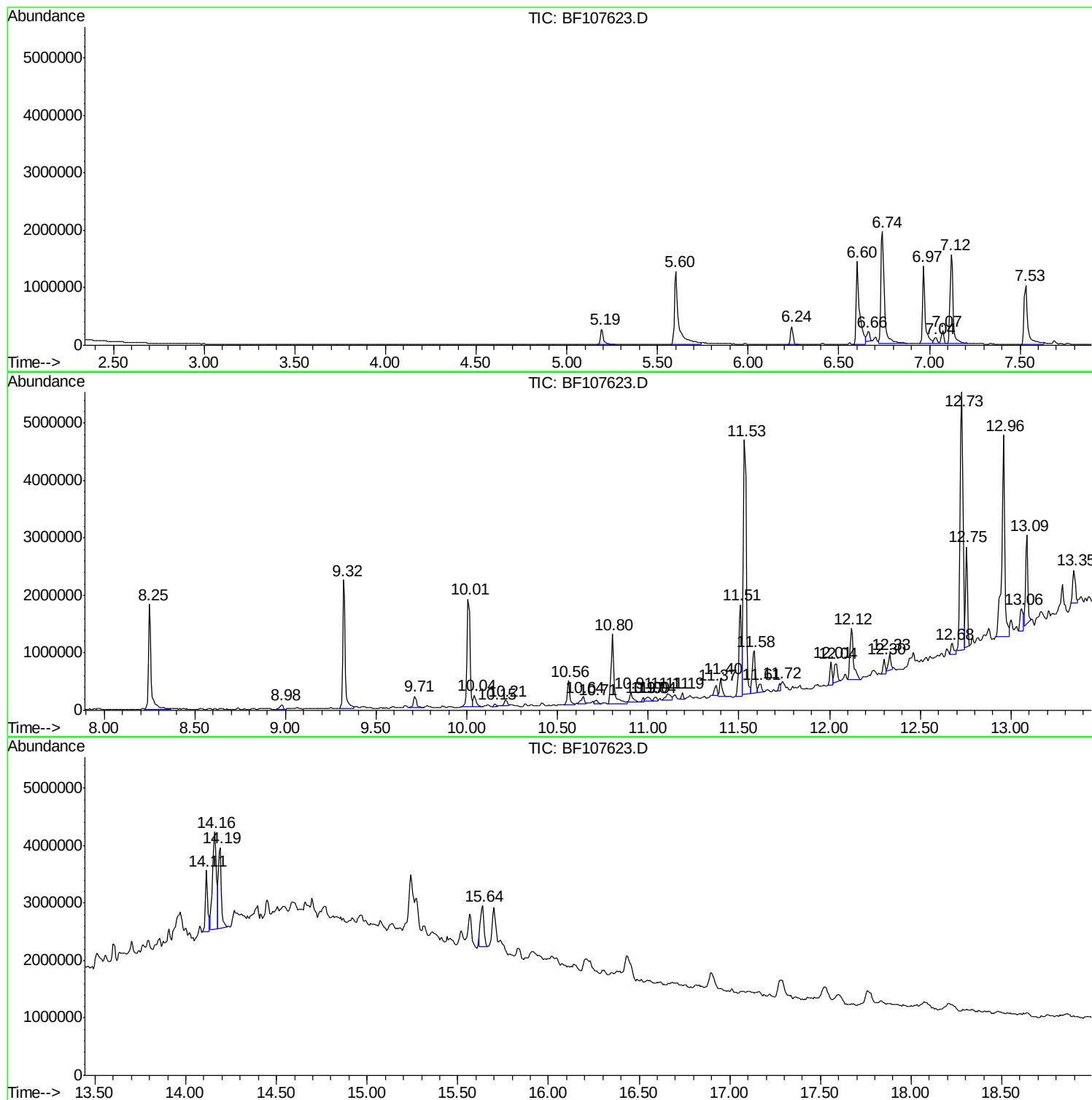
Sum of corrected areas: 50776903

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

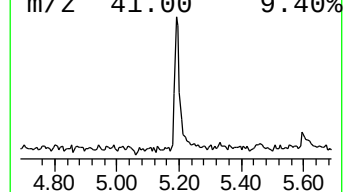
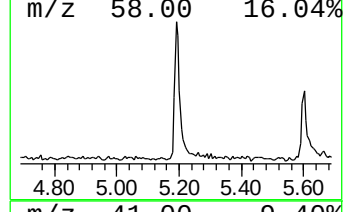
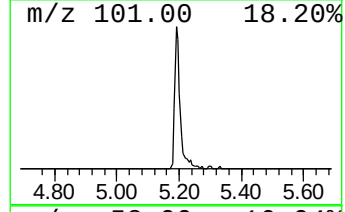
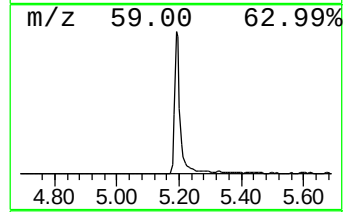
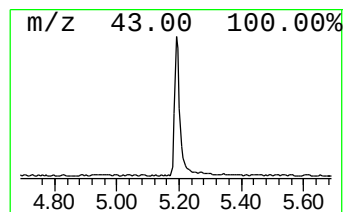
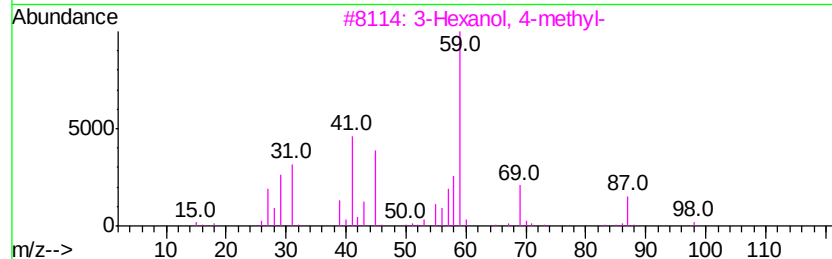
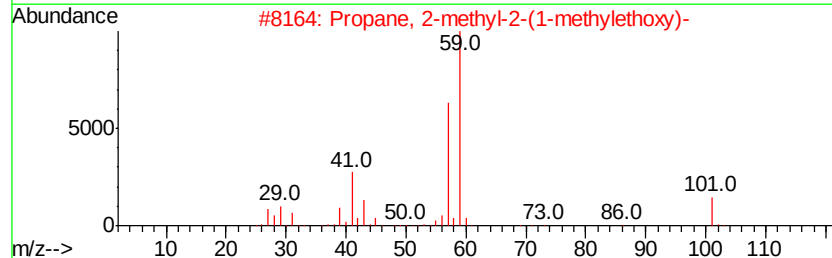
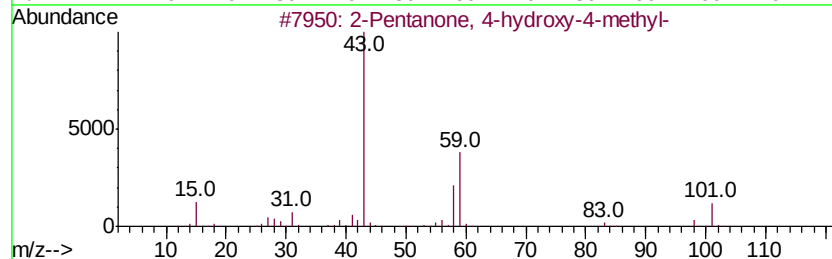
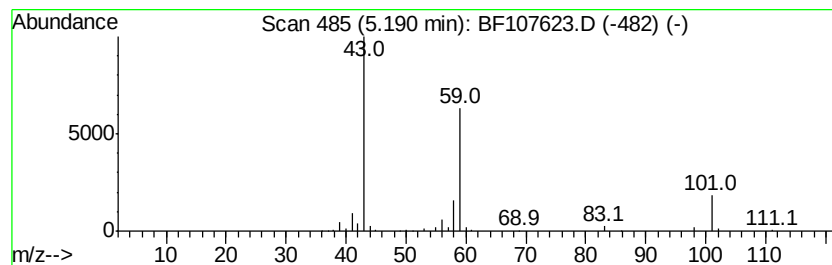
Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 2

| R.T.      | EstConc                             | Area   | Relative to ISTD       | R.T.        |      |
|-----------|-------------------------------------|--------|------------------------|-------------|------|
| 5.19      | 4.75 ng                             | 345243 | 1,4-Dichlorobenzene-d4 | 6.97        |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm                | CAS#        | Qual |
| 1         | 2-Pentanone, 4-hydroxy-4-methyl-    | 116    | C6H12O2                | 000123-42-2 | 64   |
| 2         | Propane, 2-methyl-2-(1-methyleth... | 116    | C7H16O                 | 017348-59-3 | 53   |
| 3         | 3-Hexanol, 4-methyl-                | 116    | C7H16O                 | 000615-29-2 | 33   |
| 4         | Acetic acid, cyano-, 1,1-dimethy... | 141    | C7H11NO2               | 001116-98-9 | 32   |
| 5         | 2-Hexanol, 2-methyl-                | 116    | C7H16O                 | 000625-23-0 | 28   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

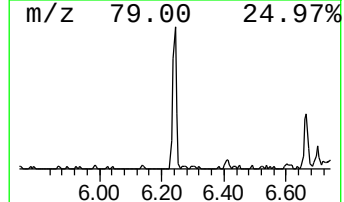
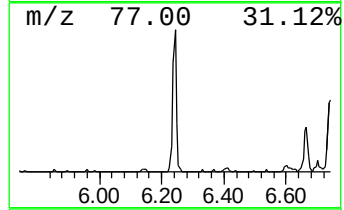
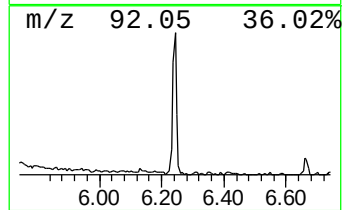
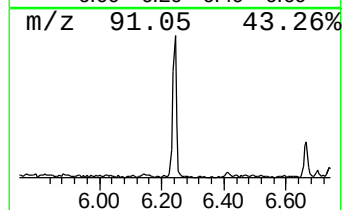
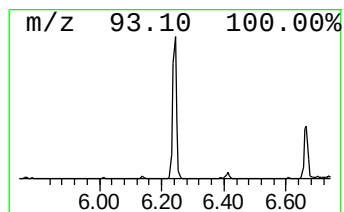
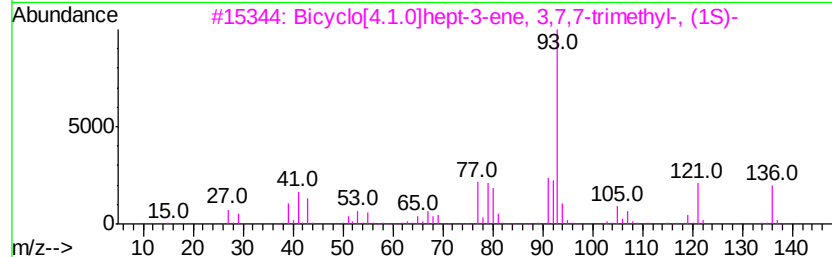
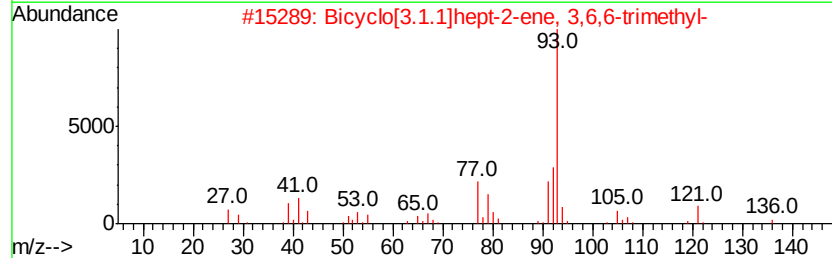
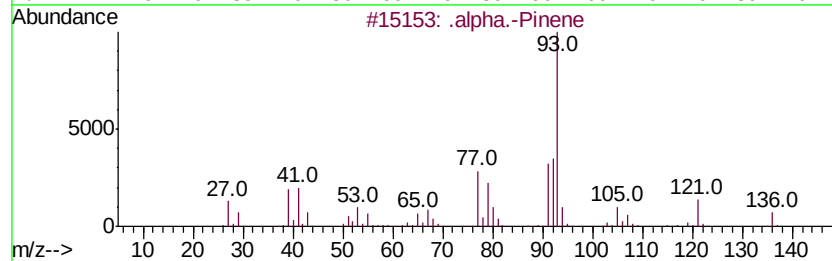
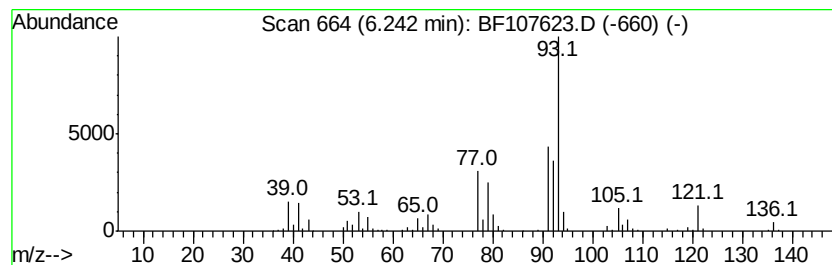
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 .alpha.-Pinene Concentration Rank 6

| R.T. | EstConc | Area   | Relative to ISTD       | R.T. |
|------|---------|--------|------------------------|------|
| 6.24 | 3.80 ng | 276358 | 1,4-Dichlorobenzene-d4 | 6.97 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | .alpha.-Pinene                      | 136 | C10H16  | 000080-56-8 | 95   |
| 2    |    | Bicyclo[3.1.1]hept-2-ene, 3,6,6-... | 136 | C10H16  | 004889-83-2 | 94   |
| 3    |    | Bicyclo[4.1.0]hept-3-ene, 3,7,7-... | 136 | C10H16  | 000498-15-7 | 91   |
| 4    |    | 1,3,6-Octatriene, 3,7-dimethyl-,... | 136 | C10H16  | 003779-61-1 | 91   |
| 5    |    | 1R-.alpha.-Pinene                   | 136 | C10H16  | 007785-70-8 | 91   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

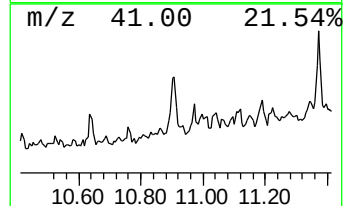
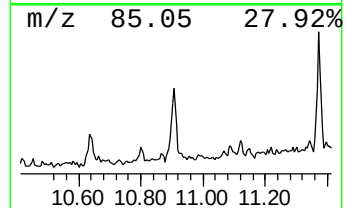
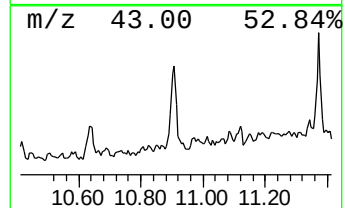
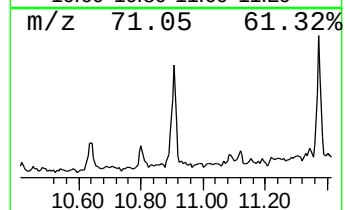
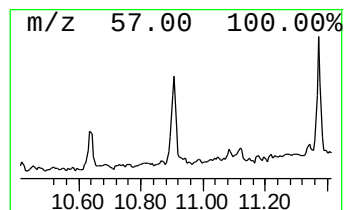
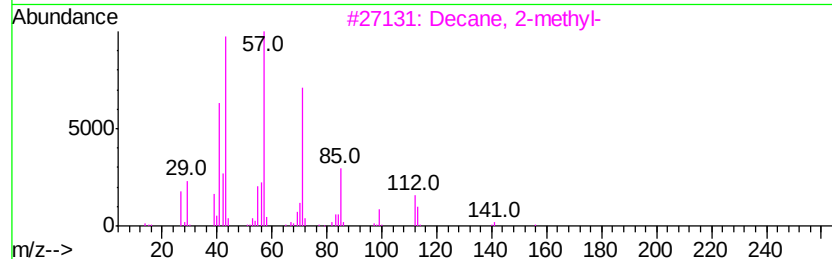
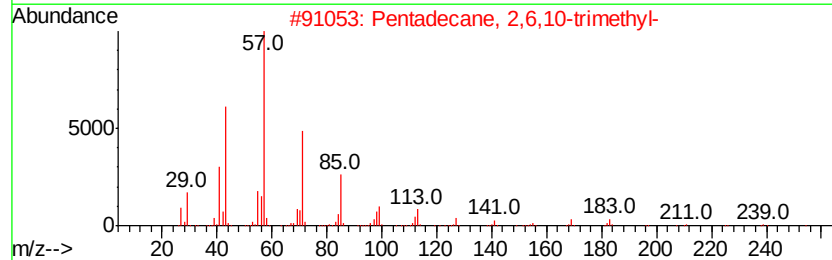
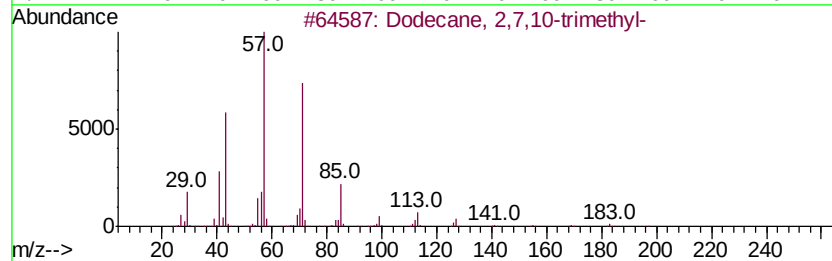
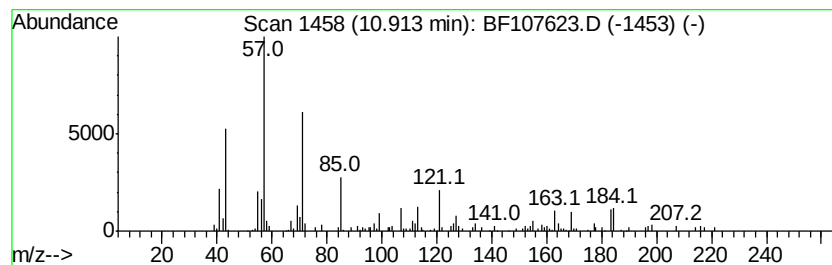
Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 3 Dodecane, 2,7,10-trimethyl- Concentration Rank 11

| R.T.      | EstConc                        | Area   | Relative to ISTD |             | R.T.  |
|-----------|--------------------------------|--------|------------------|-------------|-------|
| 10.91     | 2.40 ng                        | 219515 | Phenanthrene-d10 |             | 11.51 |
| Hit# of 5 | Tentative ID                   | MW     | MolForm          | CAS#        | Qual  |
| 1         | Dodecane, 2,7,10-trimethyl-    | 212    | C15H32           | 074645-98-0 | 86    |
| 2         | Pentadecane, 2,6,10-trimethyl- | 254    | C18H38           | 003892-00-0 | 86    |
| 3         | Decane, 2-methyl-              | 156    | C11H24           | 006975-98-0 | 80    |
| 4         | Hexadecane, 3-methyl-          | 240    | C17H36           | 006418-43-5 | 78    |
| 5         | Tridecane, 5-propyl-           | 226    | C16H34           | 055045-11-9 | 78    |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

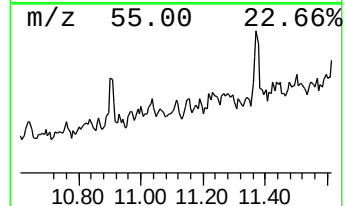
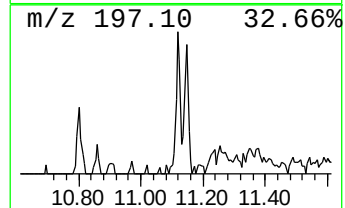
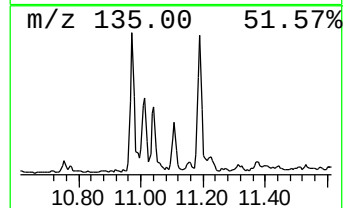
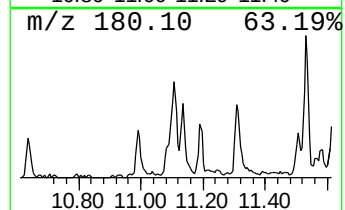
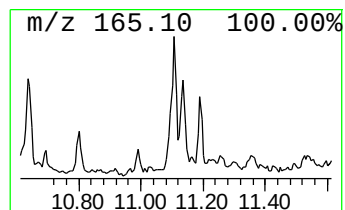
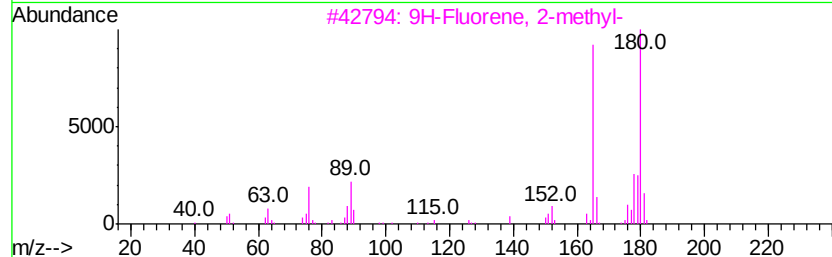
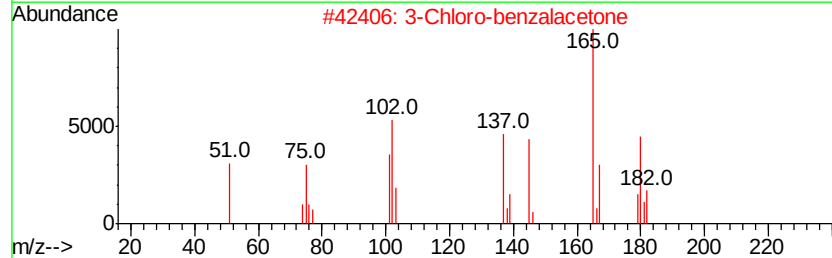
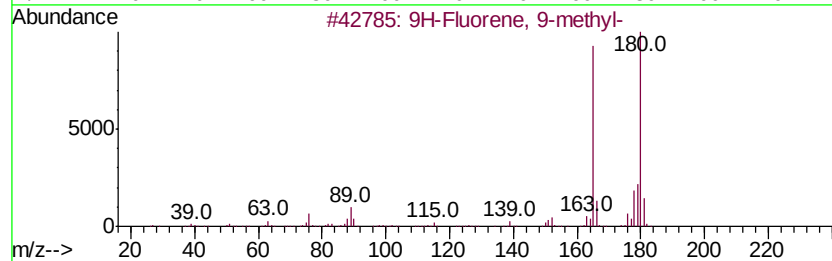
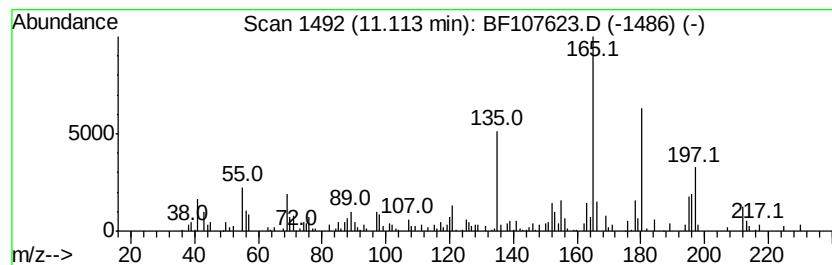
Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 4 9H-Fluorene, 9-methyl- Concentration Rank 12

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.         |      |
|-----------|-------------------------------------|--------|------------------|--------------|------|
| 11.11     | 2.14 ng                             | 195097 | Phenanthrene-d10 | 11.51        |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#         | Qual |
| 1         | 9H-Fluorene, 9-methyl-              | 180    | C14H12           | 002523-37-7  | 64   |
| 2         | 3-Chloro-benzalacetone              | 180    | C10H9ClO         | 1000146-90-5 | 55   |
| 3         | 9H-Fluorene, 2-methyl-              | 180    | C14H12           | 001430-97-3  | 53   |
| 4         | Benzenamine, N-ethyl-N-methyl-4-... | 180    | C9H12N2O2        | 056269-48-8  | 49   |
| 5         | Ethanone, 1-(3,4-dimethoxyphenyl)-  | 180    | C10H12O3         | 001131-62-0  | 46   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

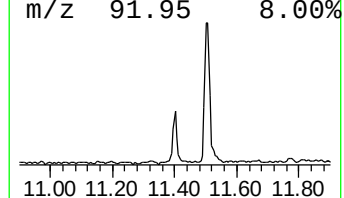
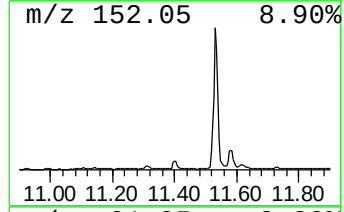
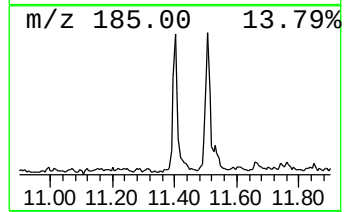
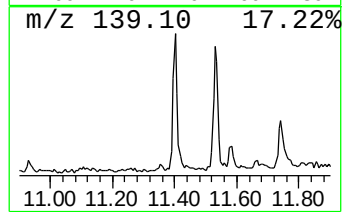
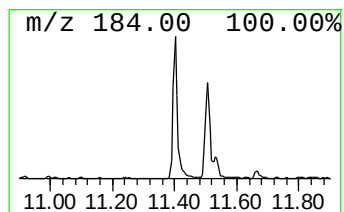
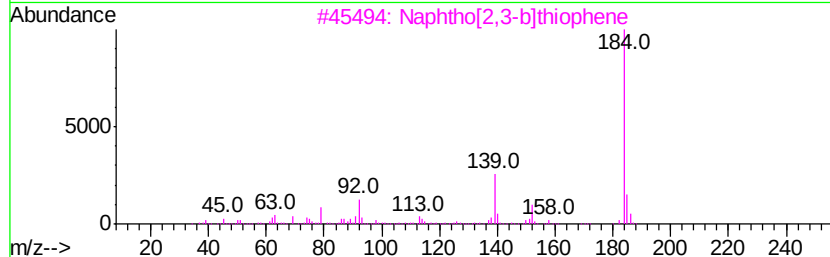
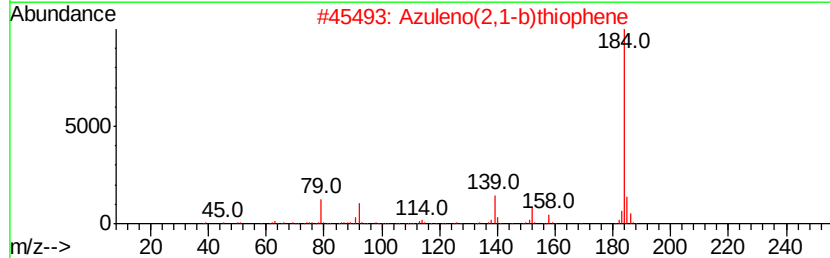
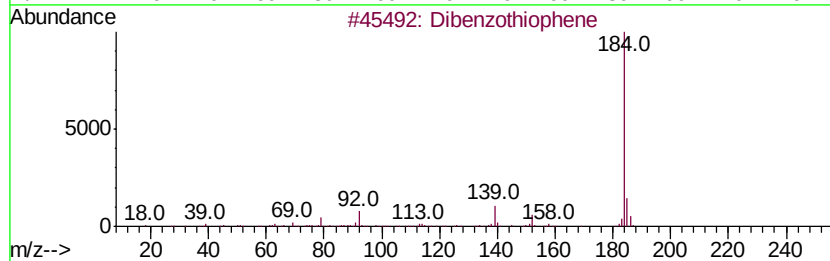
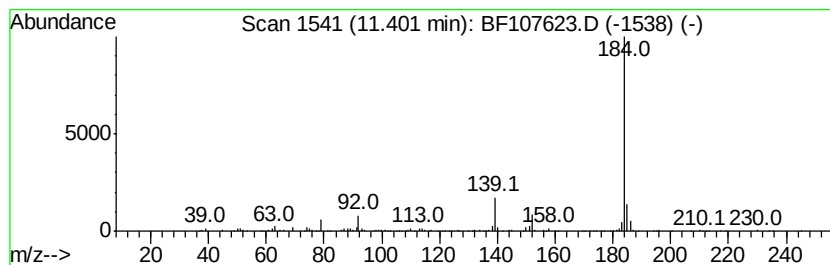
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 5 Dibenzothiophene Concentration Rank 7

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.40 | 3.17 ng | 289289 | Phenanthrene-d10 | 11.51 |

| Hit# of | 5 | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|---------|---|---------------------------|-----|---------|-------------|------|
| 1       |   | Dibenzothiophene          | 184 | C12H8S  | 000132-65-0 | 97   |
| 2       |   | Azuleno(2,1-b)thiophene   | 184 | C12H8S  | 000248-13-5 | 87   |
| 3       |   | Naphtho[2,3-b]thiophene   | 184 | C12H8S  | 000268-77-9 | 86   |
| 4       |   | Dibenzothiophene, 5-oxide | 200 | C12H8OS | 001013-23-6 | 72   |
| 5       |   | 1,1'-Biphenyl, 2-methoxy- | 184 | C13H12O | 000086-26-0 | 72   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

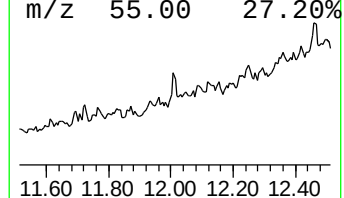
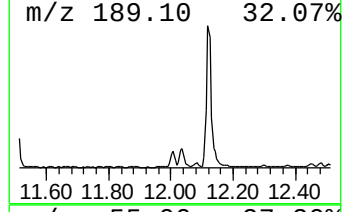
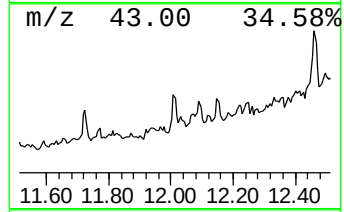
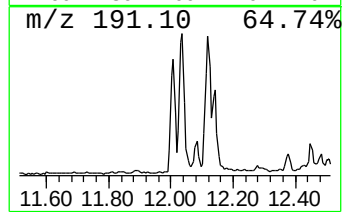
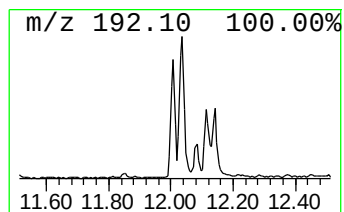
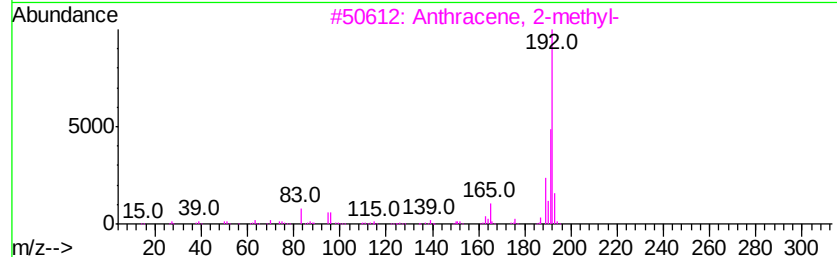
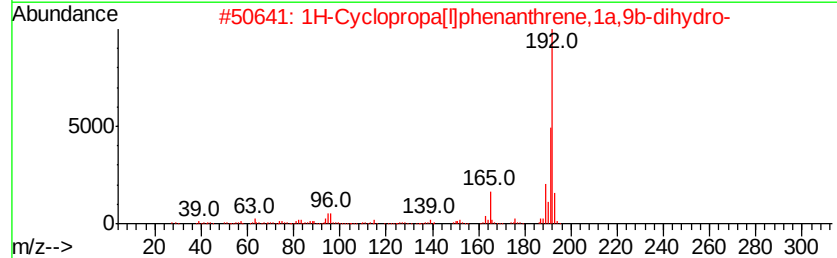
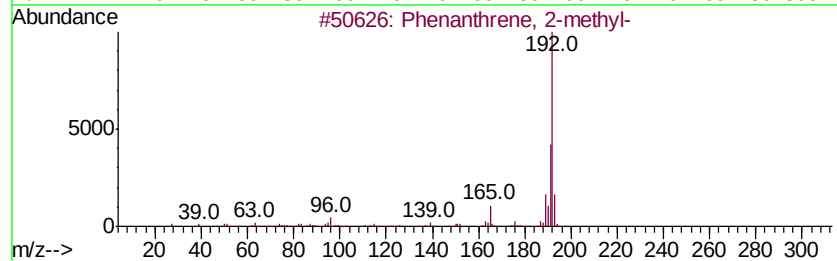
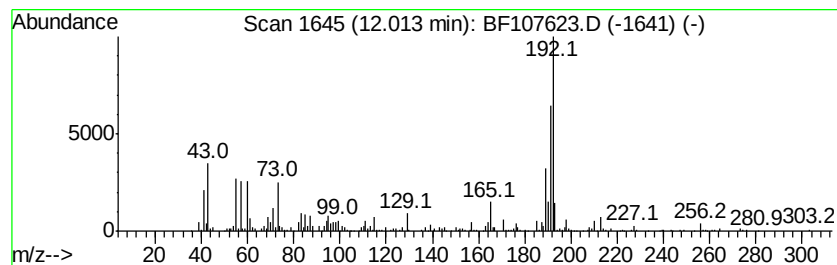
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 6 Phenanthrene, 2-methyl- Concentration Rank 3

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.01 | 4.36 ng | 398563 | Phenanthrene-d10 | 11.51 |

| Hit# of 5 | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|-----------|-------------------------------------|-----|---------|-------------|------|
| 1         | Phenanthrene, 2-methyl-             | 192 | C15H12  | 002531-84-2 | 96   |
| 2         | 1H-Cyclopropa[1]phenanthrene,1a,... | 192 | C15H12  | 000949-41-7 | 94   |
| 3         | Anthracene, 2-methyl-               | 192 | C15H12  | 000613-12-7 | 94   |
| 4         | Anthracene, 1-methyl-               | 192 | C15H12  | 000610-48-0 | 93   |
| 5         | Phenanthrene, 1-methyl-             | 192 | C15H12  | 000832-69-9 | 92   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

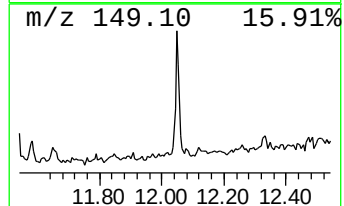
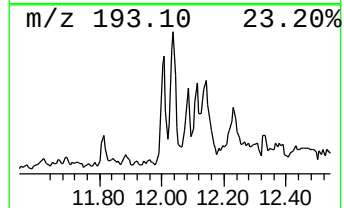
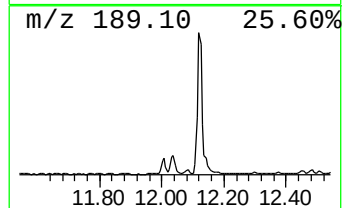
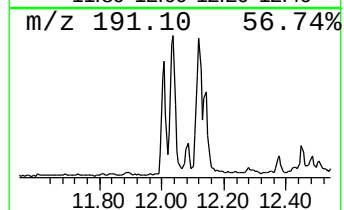
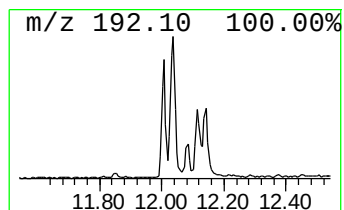
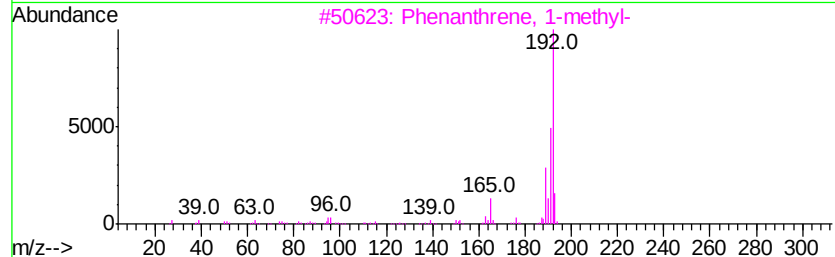
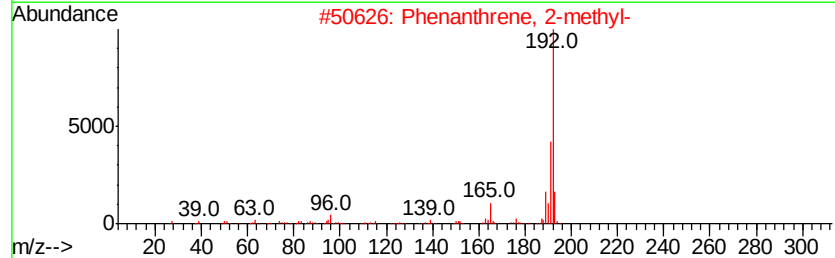
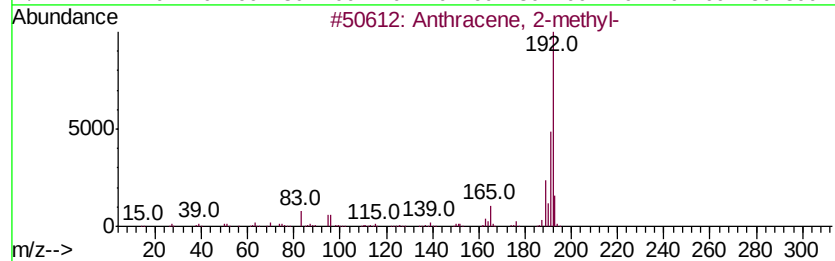
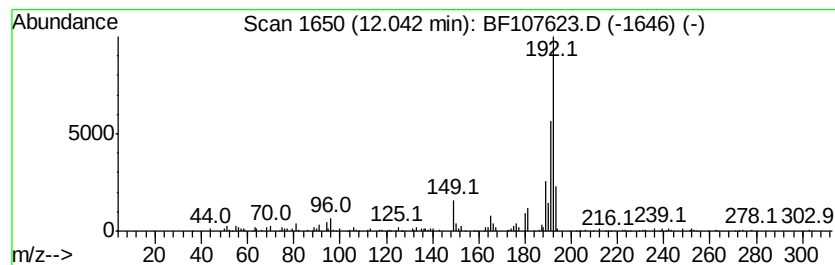
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 7 Anthracene, 2-methyl- Concentration Rank 4

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.04 | 3.94 ng | 360001 | Phenanthrene-d10 | 11.51 |

| Hit# | of | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------|-----|---------|-------------|------|
| 1    | 5  | Anthracene, 2-methyl-   | 192 | C15H12  | 000613-12-7 | 97   |
| 2    |    | Phenanthrene, 2-methyl- | 192 | C15H12  | 002531-84-2 | 96   |
| 3    |    | Phenanthrene, 1-methyl- | 192 | C15H12  | 000832-69-9 | 95   |
| 4    |    | Phenanthrene, 3-methyl- | 192 | C15H12  | 000832-71-3 | 92   |
| 5    |    | Anthracene, 9-methyl-   | 192 | C15H12  | 000779-02-2 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

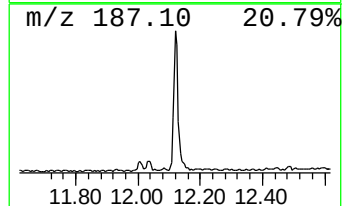
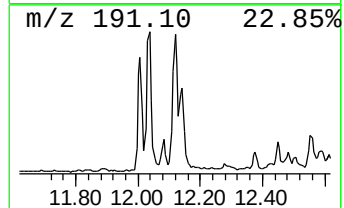
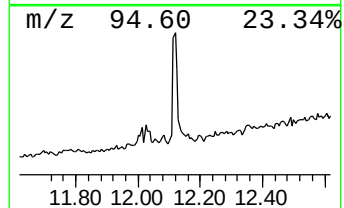
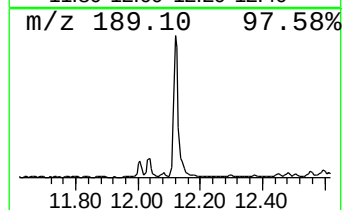
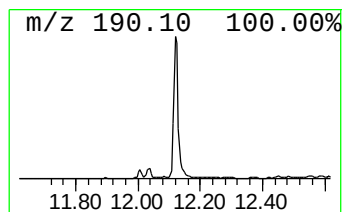
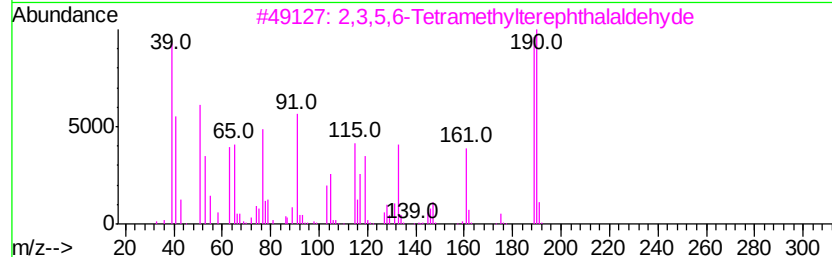
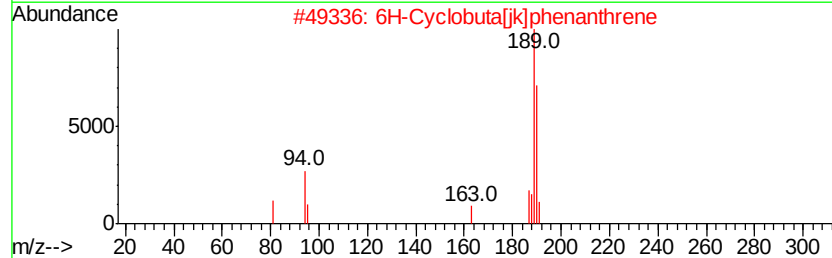
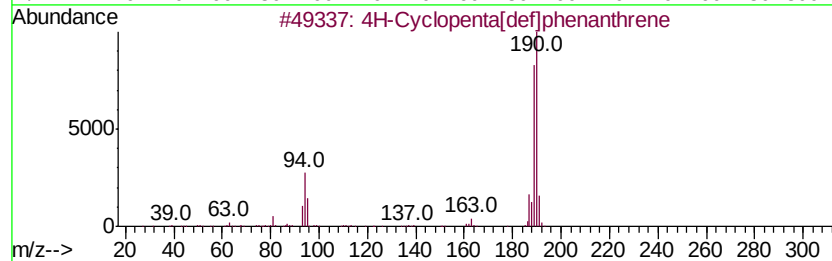
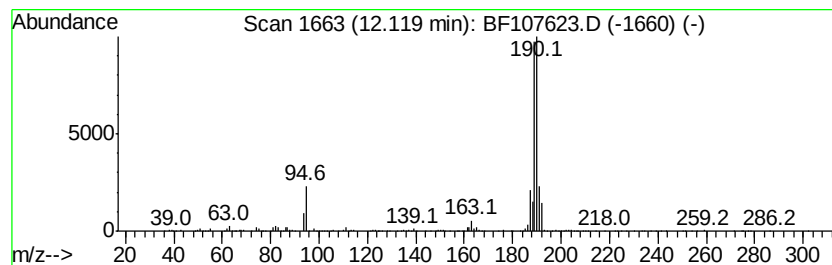
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 8 4H-Cyclopenta[def]phenanthrene Concentration Rank 1

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 12.12 | 12.29 ng | 1123010 | Phenanthrene-d10 | 11.51 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 4H-Cyclopenta[def]phenanthrene      | 190 | C15H10   | 000203-64-5 | 94   |
| 2    |    | 6H-Cyclobuta[jk]phenanthrene        | 190 | C15H10   | 083469-43-6 | 50   |
| 3    |    | 2,3,5,6-Tetramethylterephthalald... | 190 | C12H14O2 | 007072-01-7 | 50   |
| 4    |    | 2,2'-Bis(4,5-dimethylimidazole)     | 190 | C10H14N4 | 069286-06-2 | 45   |
| 5    |    | 1,4-Naphthalenedione, 2,5-dihydr... | 190 | C10H6O4  | 004923-55-1 | 25   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

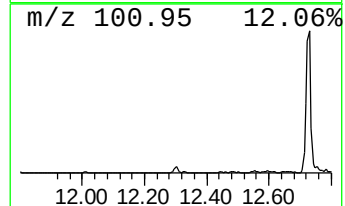
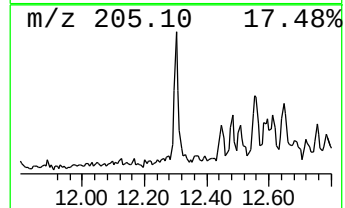
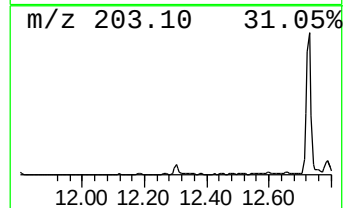
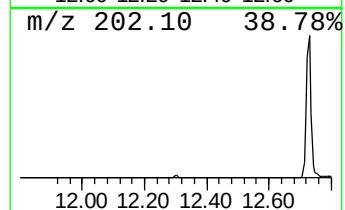
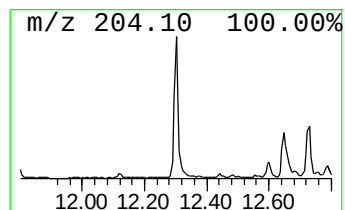
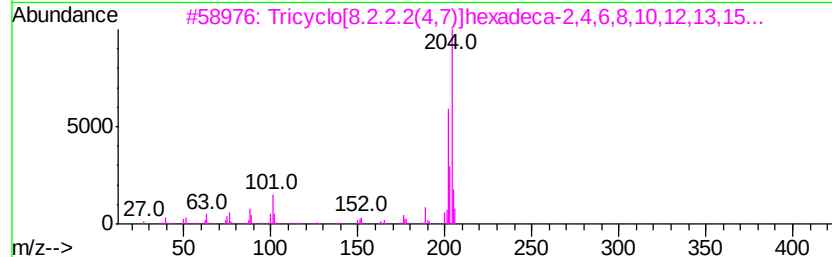
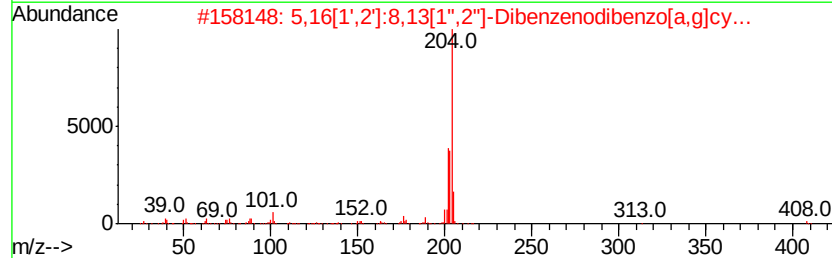
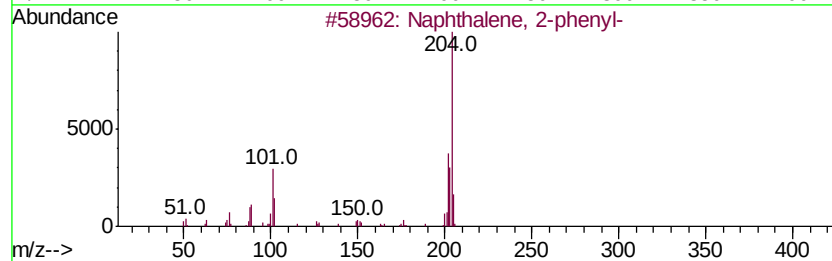
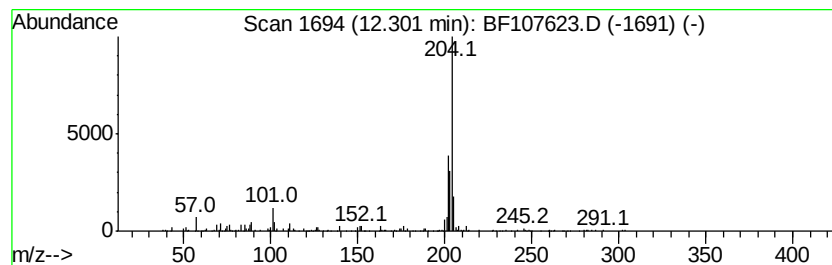
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 9 Naphthalene, 2-phenyl- Concentration Rank 9

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.30 | 2.71 ng | 247241 | Phenanthrene-d10 | 11.51 |

| Hit# | of | Tentative ID                         | MW  | MolForm   | CAS#         | Qual |
|------|----|--------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | Naphthalene, 2-phenyl-               | 204 | C16H12    | 000612-94-2  | 93   |
| 2    |    | 5,16[1',2'] :8,13[1'',2'']-Dibenz... | 408 | C32H24    | 005672-97-9  | 80   |
| 3    |    | Tricyclo[8.2.2.2(4,7)]hexadeca-2...  | 204 | C16H12    | 006572-60-7  | 53   |
| 4    |    | 2-Phenylnaphthalene                  | 204 | C16H12    | 035465-71-5  | 52   |
| 5    |    | Pyrazol-5-ol, 3-(3,4-methylenedi...  | 204 | C10H8N2O3 | 1000271-76-1 | 50   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

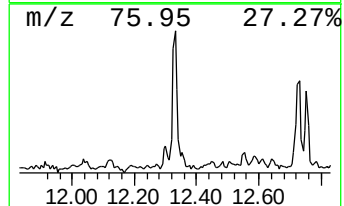
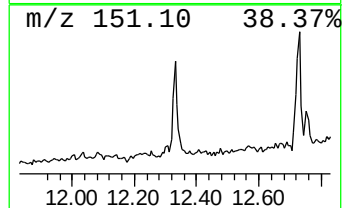
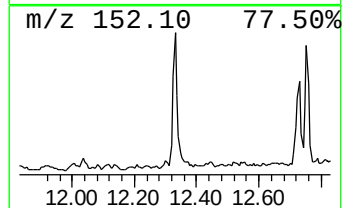
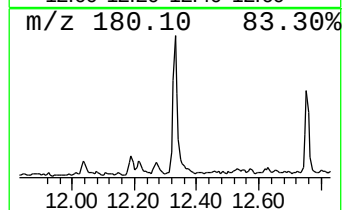
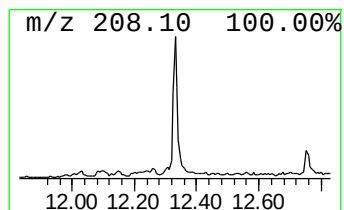
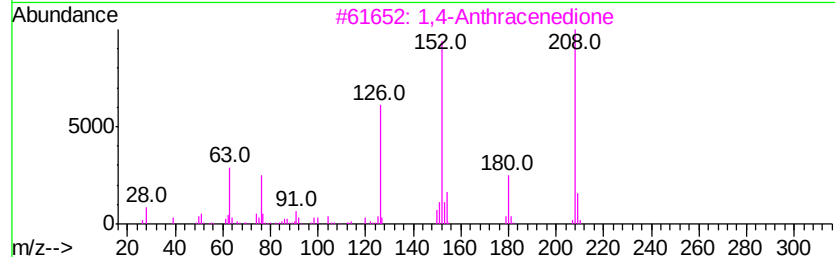
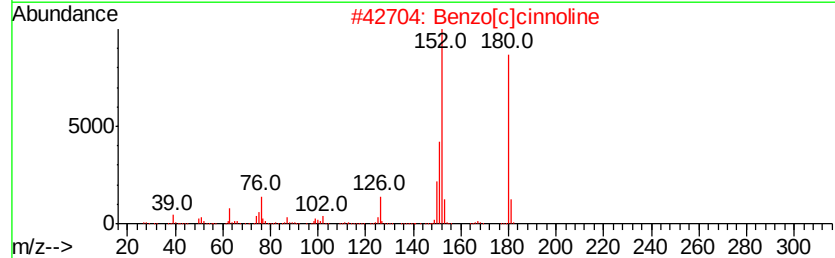
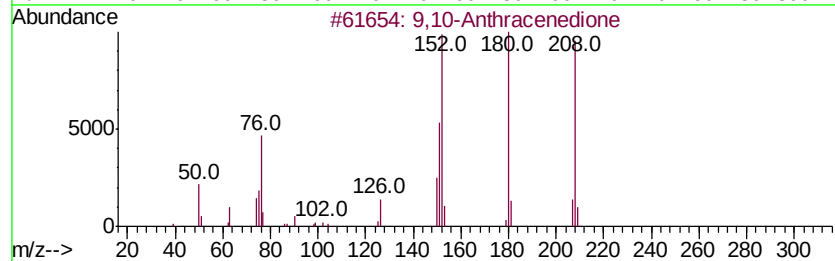
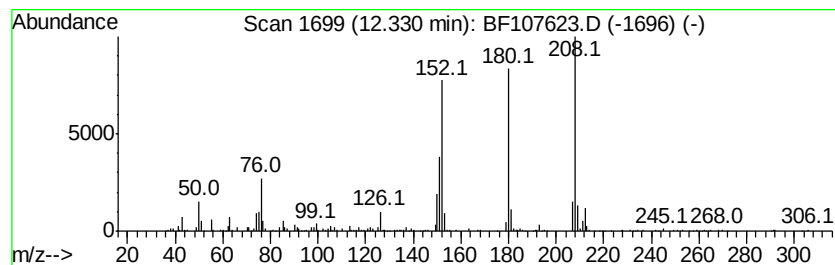
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 10 9,10-Anthracenedione Concentration Rank 8

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.33 | 2.88 ng | 263614 | Phenanthrene-d10 | 11.51 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm   | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|-----------|-------------|------|
| 1    |    |   | 9,10-Anthracenedione                | 208 | C14H8O2   | 000084-65-1 | 98   |
| 2    |    |   | Benzo[c]cinnoline                   | 180 | C12H8N2   | 000230-17-1 | 64   |
| 3    |    |   | 1,4-Anthracenedione                 | 208 | C14H8O2   | 000635-12-1 | 47   |
| 4    |    |   | 1H-Phenalen-1-one                   | 180 | C13H8O    | 000548-39-0 | 46   |
| 5    |    |   | 2,5-Cyclohexadiene-1,4-dione, 2,... | 208 | C6H2Cl2O4 | 000087-88-7 | 43   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

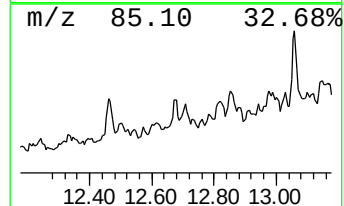
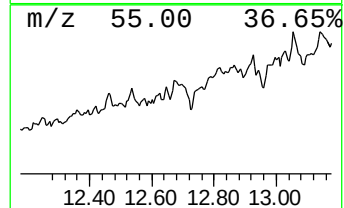
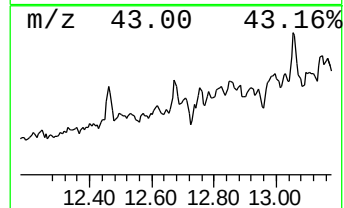
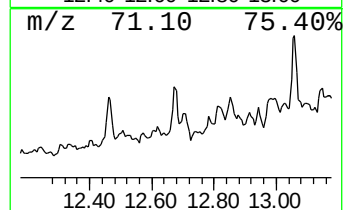
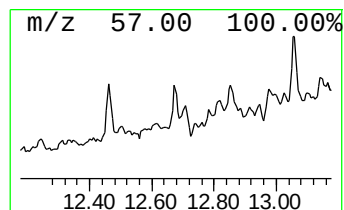
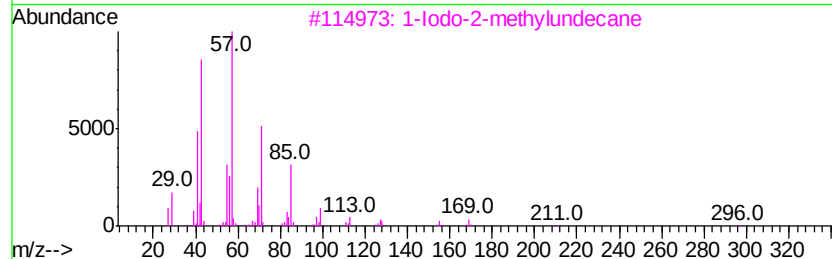
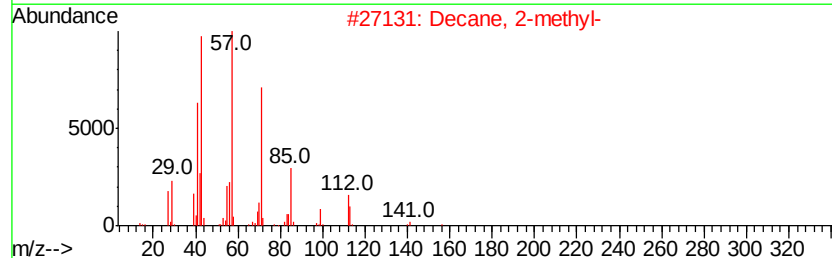
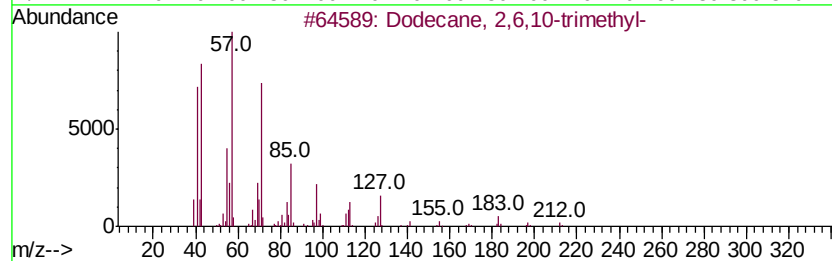
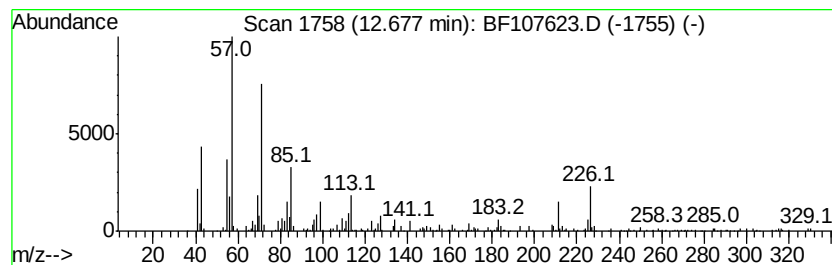
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 11 Dodecane, 2,6,10-trimethyl- Concentration Rank 10

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.68 | 2.43 ng | 222395 | Phenanthrene-d10 | 11.51 |

| Hit# | of | Tentative ID                       | MW  | MolForm | CAS#        | Qual |
|------|----|------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Dodecane, 2,6,10-trimethyl-        | 212 | C15H32  | 003891-98-3 | 76   |
| 2    |    | Decane, 2-methyl-                  | 156 | C11H24  | 006975-98-0 | 64   |
| 3    |    | 1-Iodo-2-methylundecane            | 296 | C12H25I | 073105-67-6 | 64   |
| 4    |    | Hexadecane, 2,6,10,14-tetramethyl- | 282 | C20H42  | 000638-36-8 | 64   |
| 5    |    | Nonane, 2-methyl-5-propyl-         | 184 | C13H28  | 031081-17-1 | 64   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072418\  
Data File : BF107623.D  
Acq On : 24 Jul 2018 17:11  
Operator : JU/SJ  
Sample : J4096-08 2X  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

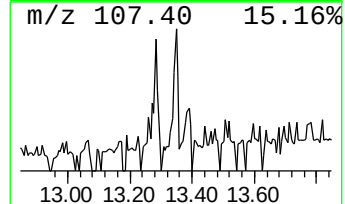
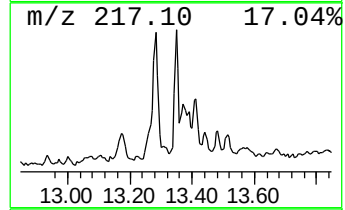
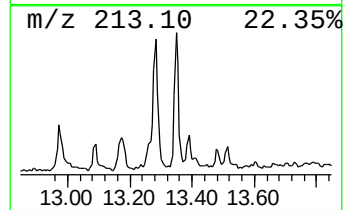
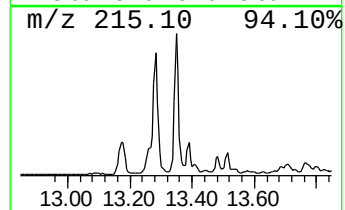
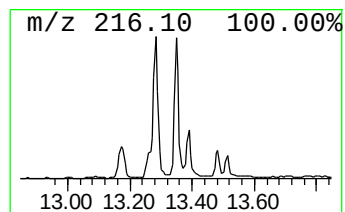
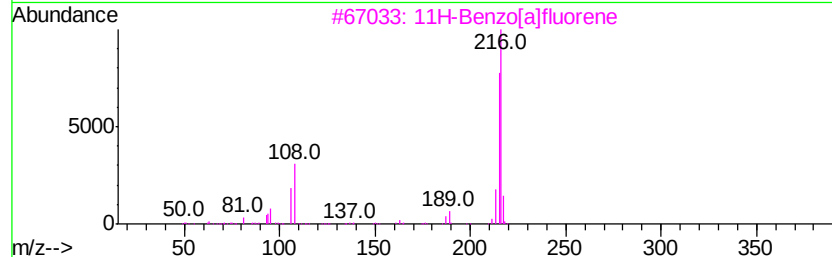
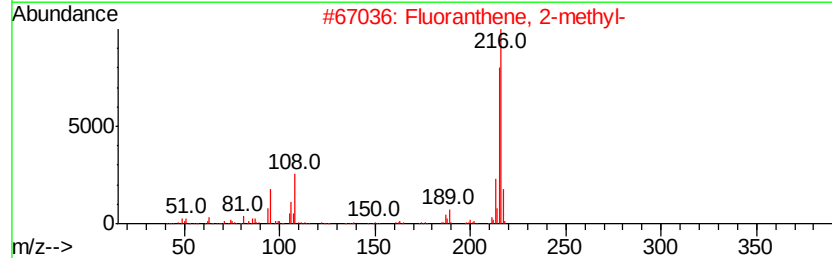
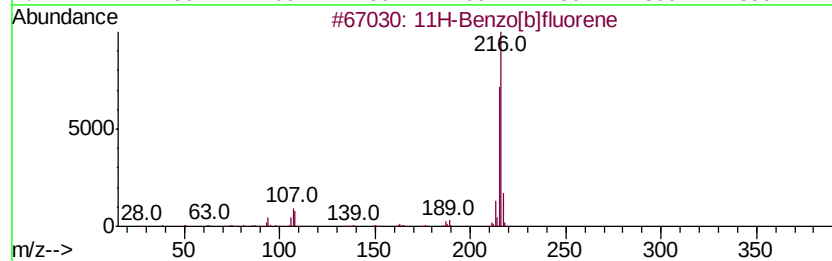
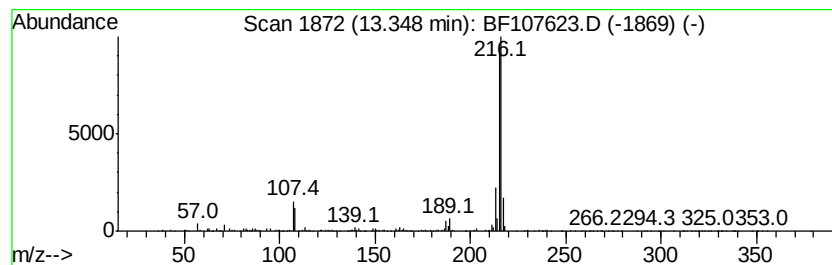
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 12 11H-Benzo[b]fluorene Concentration Rank 5

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 13.35 | 3.90 ng | 541669 | Chrysene-d12     | 14.16 |

| Hit# | of | Tentative ID                        | MW  | MolForm    | CAS#        | Qual |
|------|----|-------------------------------------|-----|------------|-------------|------|
| 1    | 5  | 11H-Benzo[b]fluorene                | 216 | C17H12     | 000243-17-4 | 94   |
| 2    |    | Fluoranthene, 2-methyl-             | 216 | C17H12     | 033543-31-6 | 87   |
| 3    |    | 11H-Benzo[a]fluorene                | 216 | C17H12     | 000238-84-6 | 87   |
| 4    |    | 7H-Benzo[c]fluorene                 | 216 | C17H12     | 000205-12-9 | 72   |
| 5    |    | Benzoic acid, 3-(3,5-dimethyl-1-... | 216 | C12H12N2O2 | 312531-88-7 | 64   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF072418\  
 Data File : BF107623.D  
 Acq On : 24 Jul 2018 17:11  
 Operator : JU/SJ  
 Sample : J4096-08 2X  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DW-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF072018.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L  
 TIC Integration Parameters: LSCINT.P

| TIC Top Hit name     | RT    | EstConc | Units | Response | ---Internal Standard--- |       |         |      |
|----------------------|-------|---------|-------|----------|-------------------------|-------|---------|------|
|                      |       |         |       |          | #                       | RT    | Resp    | Conc |
| 2-Pentanone, 4-hy... | 5.19  | 4.8 ng  |       | 345243   | 1                       | 6.97  | 1453000 | 20.0 |
| .alpha.-Pinene       | 6.24  | 3.8 ng  |       | 276358   | 1                       | 6.97  | 1453000 | 20.0 |
| Dodecane, 2,7,10-... | 10.91 | 2.4 ng  |       | 219515   | 4                       | 11.51 | 1827570 | 20.0 |
| 9H-Fluorene, 9-me... | 11.11 | 2.1 ng  |       | 195097   | 4                       | 11.51 | 1827570 | 20.0 |
| Dibenzothiophene     | 11.40 | 3.2 ng  |       | 289289   | 4                       | 11.51 | 1827570 | 20.0 |
| Phenanthrene, 2-m... | 12.01 | 4.4 ng  |       | 398563   | 4                       | 11.51 | 1827570 | 20.0 |
| Anthracene, 2-met... | 12.04 | 3.9 ng  |       | 360001   | 4                       | 11.51 | 1827570 | 20.0 |
| 4H-Cyclopenta[def... | 12.12 | 12.3 ng |       | 1123010  | 4                       | 11.51 | 1827570 | 20.0 |
| Naphthalene, 2-ph... | 12.30 | 2.7 ng  |       | 247241   | 4                       | 11.51 | 1827570 | 20.0 |
| 9,10-Anthracenedione | 12.33 | 2.9 ng  |       | 263614   | 4                       | 11.51 | 1827570 | 20.0 |
| Dodecane, 2,6,10-... | 12.68 | 2.4 ng  |       | 222395   | 4                       | 11.51 | 1827570 | 20.0 |
| 11H-Benzo[b]fluorene | 13.35 | 3.9 ng  |       | 541669   | 5                       | 14.16 | 2780050 | 20.0 |