

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF041318\  
 Data File : BF104478.D  
 Acq On : 13 Apr 2018 15:07  
 Operator : JU/SJ  
 Sample : J2348-09  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 281

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:\HPCHEM1\BNA\_F\METHODS\8270-BF040618.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         | 5.034       | 497           | 501         | 509          | rVB      | 120417         | 177771        | 4.71%           | 0.422%        |
| 2         | 5.428       | 562           | 568         | 571          | rBV      | 3220877        | 3517909       | 93.30%          | 8.358%        |
| 3         | 6.098       | 678           | 682         | 693          | rVB3     | 23850          | 41129         | 1.09%           | 0.098%        |
| 4         | 6.446       | 735           | 741         | 745          | rVB      | 2814908        | 3661663       | 97.11%          | 8.700%        |
| 5         | 6.581       | 759           | 764         | 767          | rBV      | 3434103        | 3623805       | 96.11%          | 8.610%        |
| 6         | 6.810       | 799           | 803         | 806          | rBV      | 956732         | 761290        | 20.19%          | 1.809%        |
| 7         | 6.969       | 825           | 830         | 833          | rBV      | 3055534        | 2778119       | 73.68%          | 6.600%        |
| 8         | 7.381       | 893           | 900         | 902          | rBV      | 2107152        | 2369179       | 62.83%          | 5.629%        |
| 9         | 7.457       | 908           | 913         | 917          | rBV      | 50702          | 63743         | 1.69%           | 0.151%        |
| 10        | 8.092       | 1017          | 1021        | 1024         | rBV      | 1311882        | 1033141       | 27.40%          | 2.455%        |
| 11        | 9.169       | 1199          | 1204        | 1207         | rBV      | 3734013        | 3770623       | 100.00%         | 8.958%        |
| 12        | 9.504       | 1255          | 1261        | 1263         | rBV2     | 42952          | 44359         | 1.18%           | 0.105%        |
| 13        | 9.563       | 1267          | 1271        | 1274         | rBV      | 553374         | 452237        | 11.99%          | 1.074%        |
| 14        | 9.775       | 1304          | 1307        | 1310         | rBV      | 130531         | 93705         | 2.49%           | 0.223%        |
| 15        | 9.851       | 1316          | 1320        | 1323         | rBV      | 1285506        | 1126923       | 29.89%          | 2.677%        |
| 16        | 9.881       | 1323          | 1325        | 1328         | rVB      | 82093          | 59354         | 1.57%           | 0.141%        |
| 17        | 10.004      | 1342          | 1346        | 1349         | rBV5     | 29113          | 39818         | 1.06%           | 0.095%        |
| 18        | 10.051      | 1349          | 1354        | 1358         | rVV      | 71218          | 81871         | 2.17%           | 0.195%        |
| 19        | 10.092      | 1358          | 1361        | 1366         | rVB3     | 36627          | 42983         | 1.14%           | 0.102%        |
| 20        | 10.251      | 1385          | 1388        | 1390         | rBV2     | 66937          | 61792         | 1.64%           | 0.147%        |
| 21        | 10.275      | 1390          | 1392        | 1395         | rVB      | 160539         | 121889        | 3.23%           | 0.290%        |
| 22        | 10.392      | 1409          | 1412        | 1417         | rVB2     | 64248          | 65604         | 1.74%           | 0.156%        |
| 23        | 10.498      | 1425          | 1430        | 1436         | rVV2     | 32010          | 53882         | 1.43%           | 0.128%        |
| 24        | 10.551      | 1436          | 1439        | 1442         | rVB      | 57989          | 49079         | 1.30%           | 0.117%        |
| 25        | 10.645      | 1448          | 1455        | 1458         | rBV      | 2432032        | 2497046       | 66.22%          | 5.933%        |
| 26        | 10.751      | 1470          | 1473        | 1481         | rBV2     | 129765         | 152135        | 4.03%           | 0.361%        |
| 27        | 10.945      | 1500          | 1506        | 1509         | rBV5     | 42241          | 65991         | 1.75%           | 0.157%        |
| 28        | 11.075      | 1523          | 1528        | 1530         | rBV2     | 46782          | 53091         | 1.41%           | 0.126%        |
| 29        | 11.139      | 1537          | 1539        | 1543         | rVB      | 78514          | 69027         | 1.83%           | 0.164%        |
| 30        | 11.198      | 1543          | 1549        | 1552         | rVV2     | 81758          | 117346        | 3.11%           | 0.279%        |
| 31        | 11.233      | 1552          | 1555        | 1560         | rVB2     | 84912          | 83965         | 2.23%           | 0.199%        |
| 32        | 11.339      | 1569          | 1573        | 1575         | rBV      | 1289302        | 1118094       | 29.65%          | 2.656%        |
| 33        | 11.363      | 1575          | 1577        | 1580         | rVV      | 1066656        | 765161        | 20.29%          | 1.818%        |
| 34        | 11.410      | 1582          | 1585        | 1588         | rVB      | 289408         | 261181        | 6.93%           | 0.621%        |

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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:\HPCHEM1\BNA\_F\METHODS\8270-BF040618.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |        |        |
|----|--------|------|------|------|------|---------|---------|--------|--------|
| 35 | 11.563 | 1606 | 1611 | 1614 | rBV3 | 71379   | 115357  | 3.06%  | 0.274% |
| 36 | 11.628 | 1619 | 1622 | 1626 | rVV2 | 68305   | 72616   | 1.93%  | 0.173% |
| 37 | 11.669 | 1626 | 1629 | 1634 | rVB5 | 36782   | 41000   | 1.09%  | 0.097% |
| 38 | 11.839 | 1652 | 1658 | 1660 | rBV  | 157828  | 138869  | 3.68%  | 0.330% |
| 39 | 11.869 | 1660 | 1663 | 1666 | rVV  | 229008  | 187690  | 4.98%  | 0.446% |
| 40 | 11.916 | 1667 | 1671 | 1674 | rVB  | 112146  | 92451   | 2.45%  | 0.220% |
| 41 | 11.951 | 1674 | 1677 | 1679 | rBV  | 162107  | 183744  | 4.87%  | 0.437% |
| 42 | 11.975 | 1679 | 1681 | 1685 | rVB  | 104476  | 84073   | 2.23%  | 0.200% |
| 43 | 12.033 | 1685 | 1691 | 1695 | rBV5 | 40396   | 67921   | 1.80%  | 0.161% |
| 44 | 12.133 | 1706 | 1708 | 1711 | rBV  | 104486  | 90616   | 2.40%  | 0.215% |
| 45 | 12.339 | 1741 | 1743 | 1746 | rVB  | 50576   | 39669   | 1.05%  | 0.094% |
| 46 | 12.386 | 1746 | 1751 | 1755 | rBV2 | 100731  | 152769  | 4.05%  | 0.363% |
| 47 | 12.427 | 1755 | 1758 | 1760 | rVV2 | 72512   | 92625   | 2.46%  | 0.220% |
| 48 | 12.475 | 1763 | 1766 | 1771 | rVB  | 118267  | 121993  | 3.24%  | 0.290% |
| 49 | 12.557 | 1776 | 1780 | 1783 | rBV  | 1187478 | 1082434 | 28.71% | 2.572% |
| 50 | 12.704 | 1802 | 1805 | 1808 | rVB2 | 44715   | 47100   | 1.25%  | 0.112% |
| 51 | 12.786 | 1812 | 1819 | 1824 | rVV2 | 960564  | 1089213 | 28.89% | 2.588% |
| 52 | 12.827 | 1824 | 1826 | 1832 | rVB2 | 69063   | 79853   | 2.12%  | 0.190% |
| 53 | 12.933 | 1839 | 1844 | 1847 | rVB  | 3108541 | 3156951 | 83.72% | 7.500% |
| 54 | 13.004 | 1850 | 1856 | 1859 | rBV2 | 90127   | 156457  | 4.15%  | 0.372% |
| 55 | 13.086 | 1867 | 1870 | 1872 | rBV4 | 70653   | 84771   | 2.25%  | 0.201% |
| 56 | 13.110 | 1872 | 1874 | 1877 | rVB  | 73828   | 61318   | 1.63%  | 0.146% |
| 57 | 13.216 | 1887 | 1892 | 1895 | rBV2 | 130562  | 150828  | 4.00%  | 0.358% |
| 58 | 13.304 | 1905 | 1907 | 1910 | rVB  | 52629   | 48397   | 1.28%  | 0.115% |
| 59 | 13.339 | 1910 | 1913 | 1916 | rBV2 | 59895   | 67286   | 1.78%  | 0.160% |
| 60 | 13.416 | 1923 | 1926 | 1930 | rVB5 | 26367   | 38180   | 1.01%  | 0.091% |
| 61 | 13.498 | 1936 | 1940 | 1942 | rBV5 | 28754   | 50983   | 1.35%  | 0.121% |
| 62 | 13.616 | 1957 | 1960 | 1964 | rBV  | 145888  | 136519  | 3.62%  | 0.324% |
| 63 | 13.727 | 1975 | 1979 | 1982 | rBV2 | 77690   | 119092  | 3.16%  | 0.283% |
| 64 | 13.763 | 1982 | 1985 | 1986 | rVV  | 89442   | 87527   | 2.32%  | 0.208% |
| 65 | 13.780 | 1986 | 1988 | 1992 | rVV2 | 70326   | 104137  | 2.76%  | 0.247% |
| 66 | 13.821 | 1992 | 1995 | 2003 | rVB3 | 205088  | 269221  | 7.14%  | 0.640% |
| 67 | 13.986 | 2015 | 2023 | 2025 | rBV2 | 977630  | 1415797 | 37.55% | 3.364% |
| 68 | 14.010 | 2025 | 2027 | 2032 | rVB  | 486944  | 413587  | 10.97% | 0.983% |
| 69 | 14.210 | 2057 | 2061 | 2064 | rBV2 | 33079   | 41801   | 1.11%  | 0.099% |
| 70 | 14.374 | 2086 | 2089 | 2092 | rVB  | 87567   | 85915   | 2.28%  | 0.204% |
| 71 | 14.404 | 2092 | 2094 | 2098 | rVB  | 50630   | 40529   | 1.07%  | 0.096% |

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ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
281

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:\HPCHEM1\BNA\_F\METHODS\8270-BF040618.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |        |        |        |        |
|----|--------|------|------|------|------|--------|--------|--------|--------|
| 72 | 14.498 | 2107 | 2110 | 2112 | rBV3 | 45072  | 45447  | 1.21%  | 0.108% |
| 73 | 15.027 | 2195 | 2200 | 2203 | rBV2 | 335897 | 547181 | 14.51% | 1.300% |
| 74 | 15.133 | 2215 | 2218 | 2221 | rVB  | 76684  | 73141  | 1.94%  | 0.174% |
| 75 | 15.327 | 2247 | 2251 | 2257 | rVB  | 179083 | 234259 | 6.21%  | 0.557% |
| 76 | 15.386 | 2257 | 2261 | 2267 | rBV  | 289241 | 350447 | 9.29%  | 0.833% |
| 77 | 15.451 | 2267 | 2272 | 2276 | rBV  | 537499 | 742233 | 19.68% | 1.763% |
| 78 | 16.904 | 2513 | 2519 | 2526 | rVB2 | 117006 | 240815 | 6.39%  | 0.572% |
| 79 | 17.086 | 2545 | 2550 | 2554 | rVB  | 31426  | 54920  | 1.46%  | 0.130% |
| 80 | 17.345 | 2589 | 2594 | 2603 | rVB  | 86454  | 171795 | 4.56%  | 0.408% |
| 81 | 17.574 | 2630 | 2633 | 2638 | rVB2 | 28607  | 45522  | 1.21%  | 0.108% |

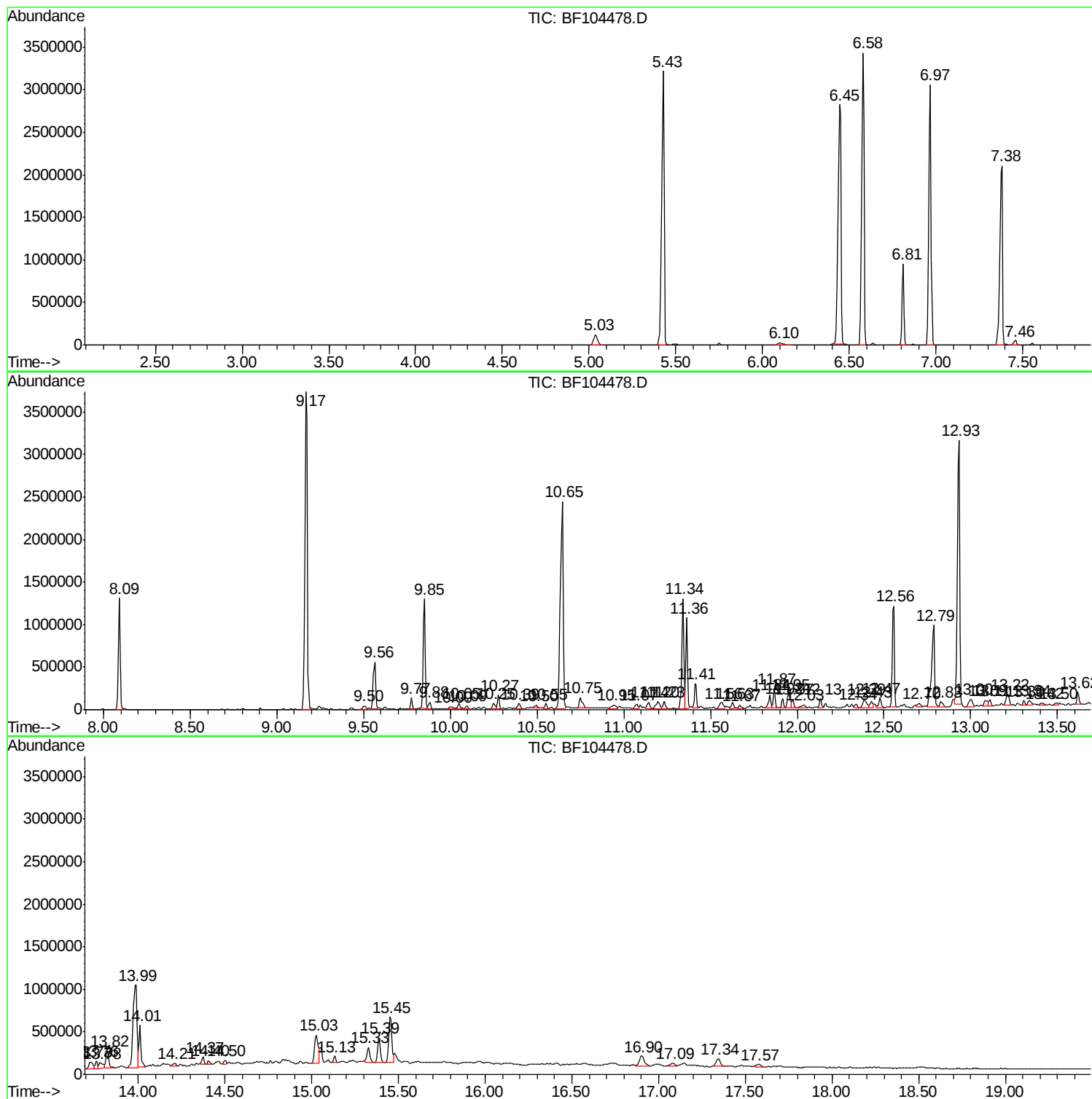
Sum of corrected areas: 42089954

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ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampled :  
281

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
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Instrument :  
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Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

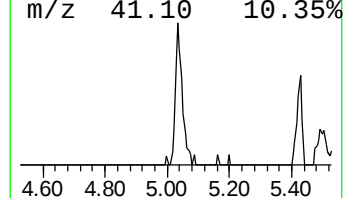
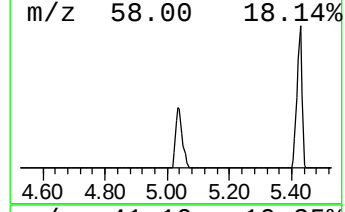
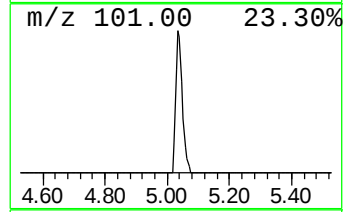
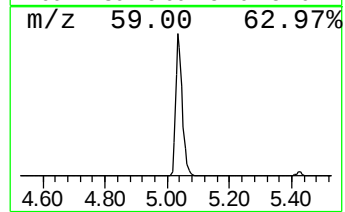
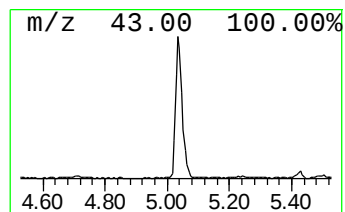
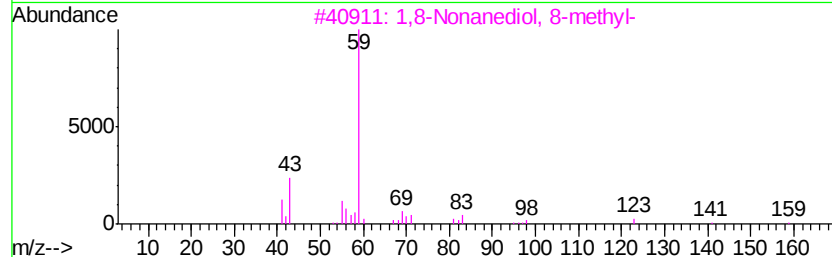
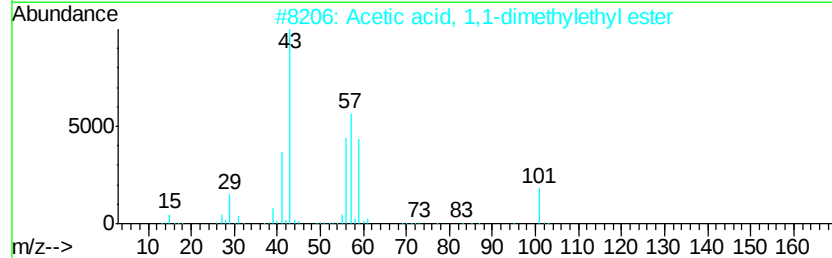
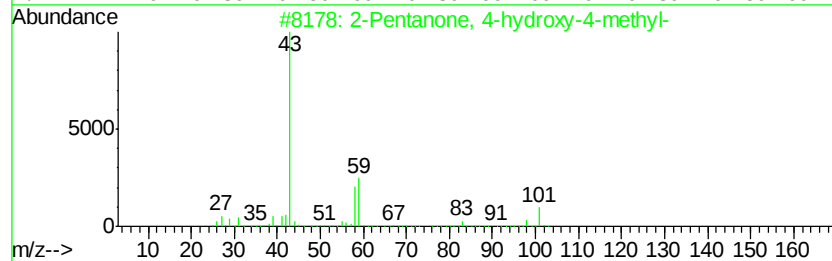
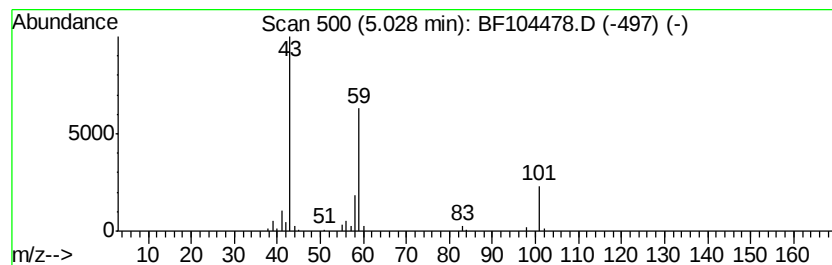
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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

| R.T. | EstConc | Area   | Relative to ISTD       | R.T. |
|------|---------|--------|------------------------|------|
| 5.03 | 4.67 ng | 177771 | 1,4-Dichlorobenzene-d4 | 6.81 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|----------|-------------|------|
| 1    |    |   | 2-Pentanone, 4-hydroxy-4-methyl-    | 116 | C6H12O2  | 000123-42-2 | 59   |
| 2    |    |   | Acetic acid, 1,1-dimethylethyl e... | 116 | C6H12O2  | 000540-88-5 | 50   |
| 3    |    |   | 1,8-Nonanediol, 8-methyl-           | 174 | C10H22O2 | 054725-73-4 | 23   |
| 4    |    |   | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 17   |
| 5    |    |   | Acetone                             | 58  | C3H6O    | 000067-64-1 | 9    |



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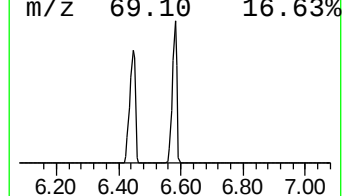
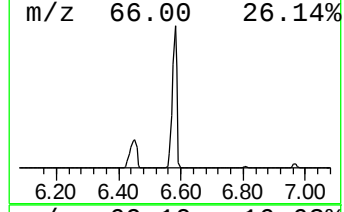
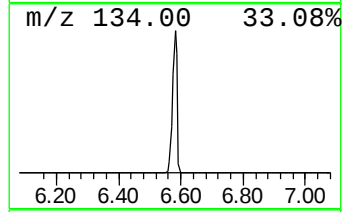
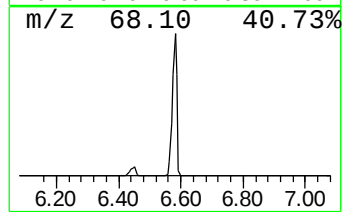
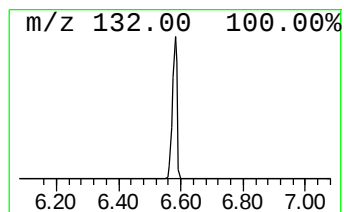
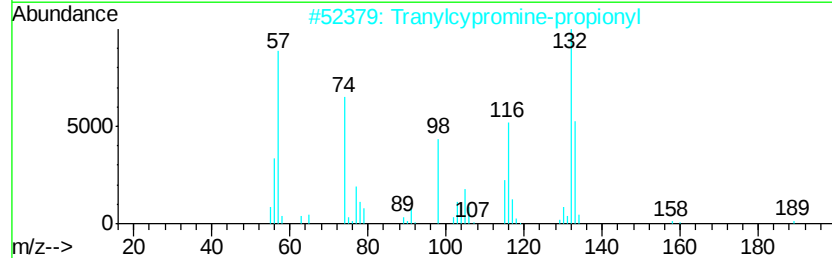
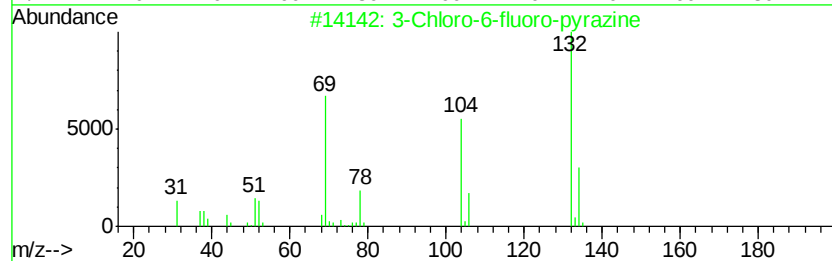
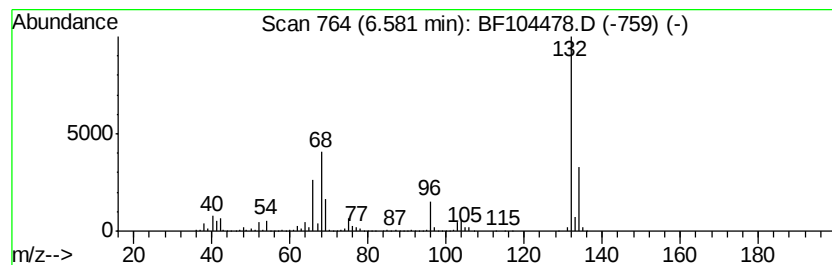
Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 unknown6.58 Concentration Rank 1

| R.T. | EstConc  | Area    | Relative to ISTD       | R.T. |
|------|----------|---------|------------------------|------|
| 6.58 | 95.20 ng | 3623810 | 1,4-Dichlorobenzene-d4 | 6.81 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 3-Chloro-6-fluoro-pyrazine          | 132 | C4H2ClFN2 | 1000146-10-7 | 27   |
| 2    |    | Tranylcypromine-propionyl           | 189 | C12H15NO  | 1000123-86-3 | 10   |
| 3    |    | Bicyclo[4.2.0]octa-1,3,5-triene,... | 132 | C10H12    | 028749-81-7  | 9    |
| 4    |    | 5-Fluoro-2-chloropyrimidine         | 132 | C4H2ClFN2 | 062802-42-0  | 9    |
| 5    |    | 4-Chloro-2-fluoro-pyrimidine        | 132 | C4H2ClFN2 | 051422-00-5  | 9    |



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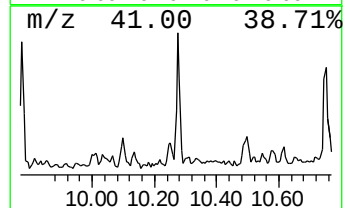
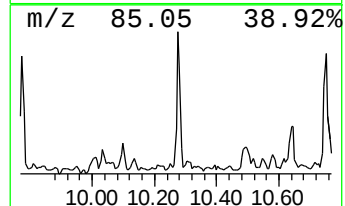
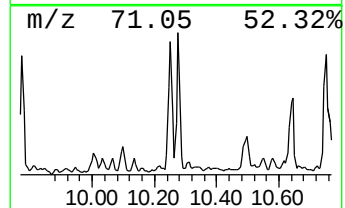
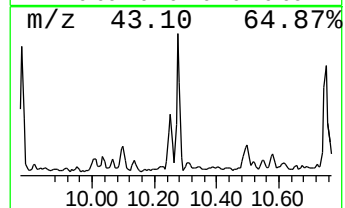
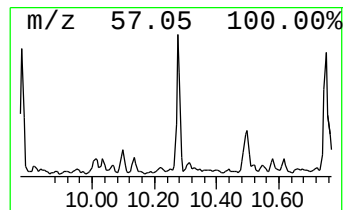
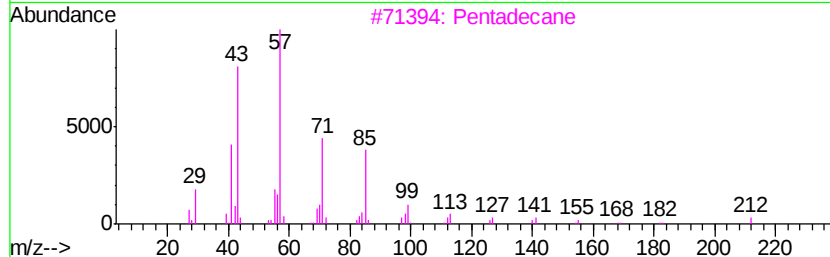
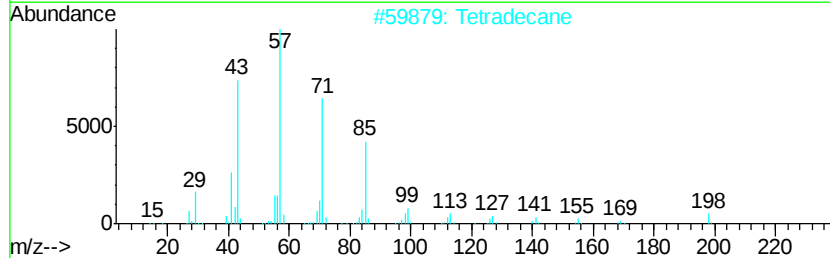
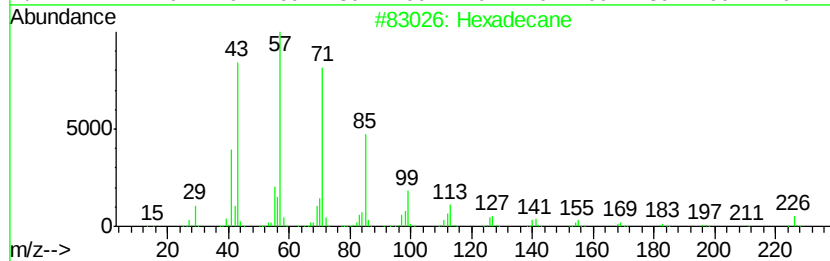
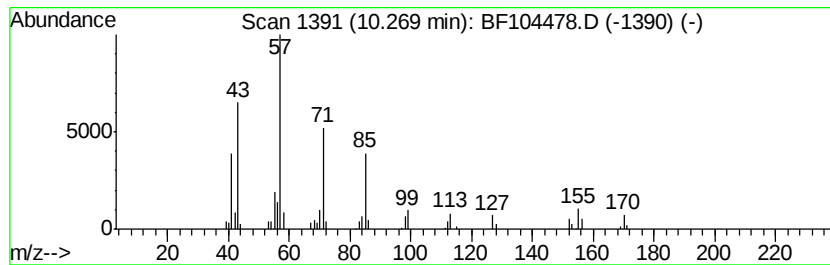
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ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 4 Hexadecane Concentration Rank 13

| R.T.    | EstConc                           | Area          | Relative to ISTD | R.T.      |
|---------|-----------------------------------|---------------|------------------|-----------|
| 10.27   | 2.16 ng                           | 121889        | Acenaphthene-d10 | 9.85      |
| Hit# of | 5                                 | Tentative ID  | MW MolForm       | CAS# Qual |
| 1       | Hexadecane                        | 226 C16H34    | 000544-76-3      | 95        |
| 2       | Tetradecane                       | 198 C14H30    | 000629-59-4      | 91        |
| 3       | Pentadecane                       | 212 C15H32    | 000629-62-9      | 91        |
| 4       | Dodecane                          | 170 C12H26    | 000112-40-3      | 86        |
| 5       | Sulfurous acid, 2-propyl tetra... | 320 C17H36O3S | 1000309-12-5     | 86        |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104478.D  
Acq On : 13 Apr 2018 15:07  
Operator : JU/SJ  
Sample : J2348-09  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

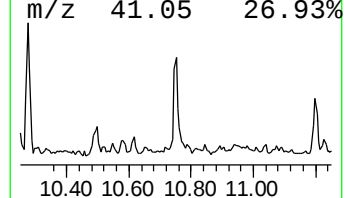
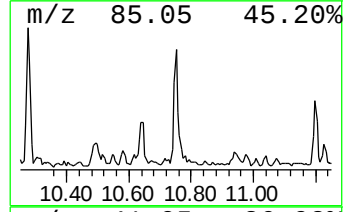
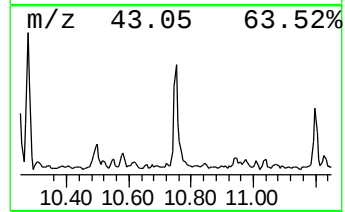
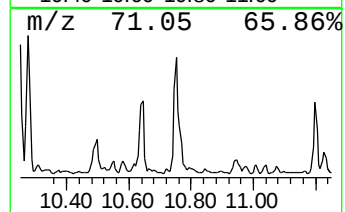
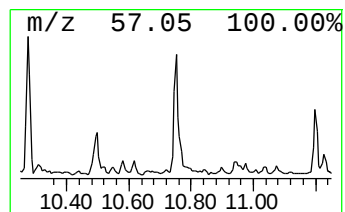
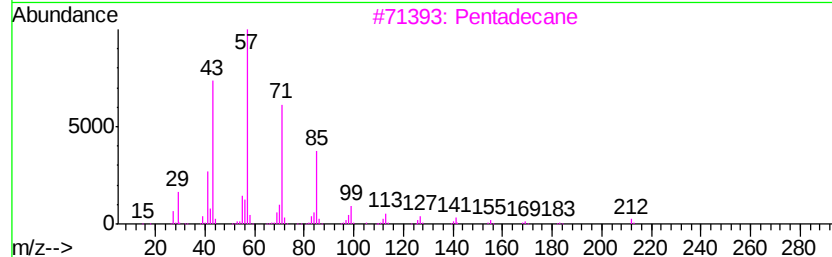
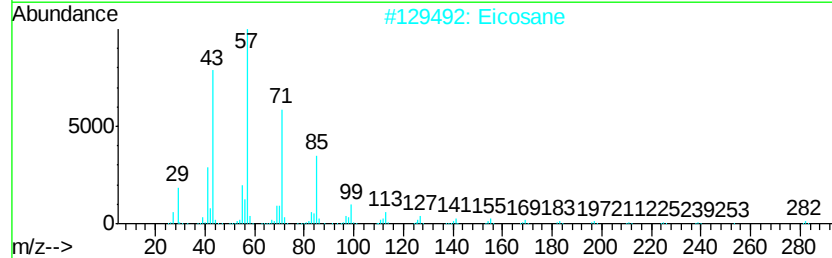
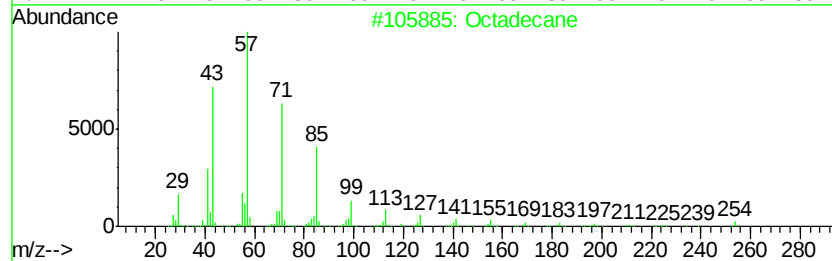
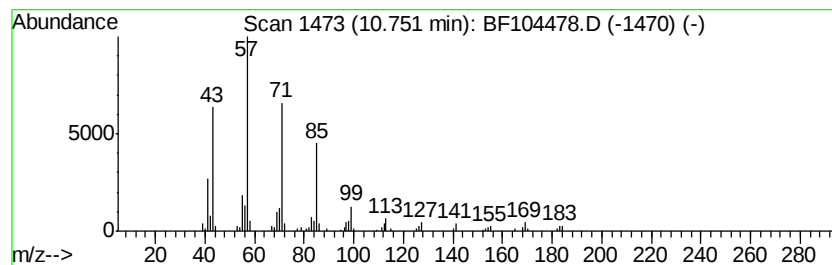
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TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 5 Octadecane Concentration Rank 9

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 10.75 | 2.72 ng | 152135 | Phenanthrene-d10 | 11.34 |

| Hit# of | 5           | Tentative ID | MW  | MolForm | CAS#        | Qual |
|---------|-------------|--------------|-----|---------|-------------|------|
| 1       | Octadecane  |              | 254 | C18H38  | 000593-45-3 | 91   |
| 2       | Eicosane    |              | 282 | C20H42  | 000112-95-8 | 91   |
| 3       | Pentadecane |              | 212 | C15H32  | 000629-62-9 | 91   |
| 4       | Heneicosane |              | 296 | C21H44  | 000629-94-7 | 91   |
| 5       | Tridecane   |              | 184 | C13H28  | 000629-50-5 | 90   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104478.D  
Acq On : 13 Apr 2018 15:07  
Operator : JU/SJ  
Sample : J2348-09  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

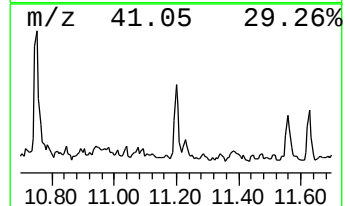
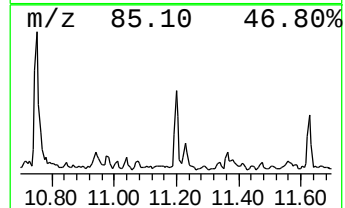
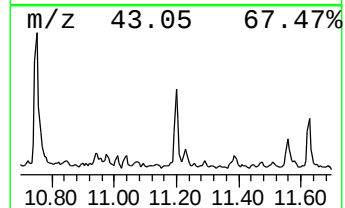
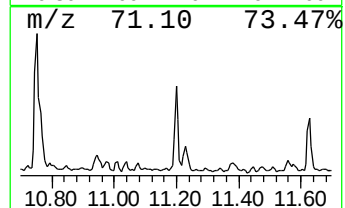
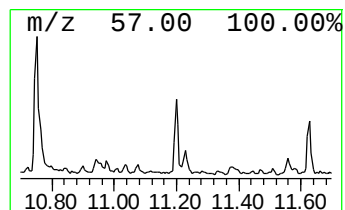
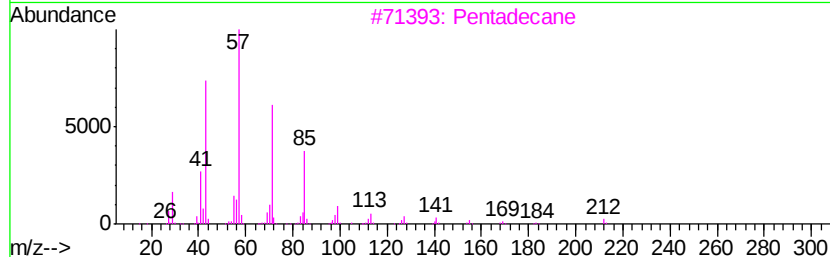
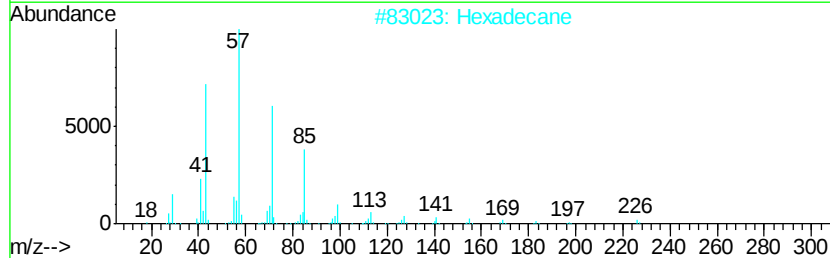
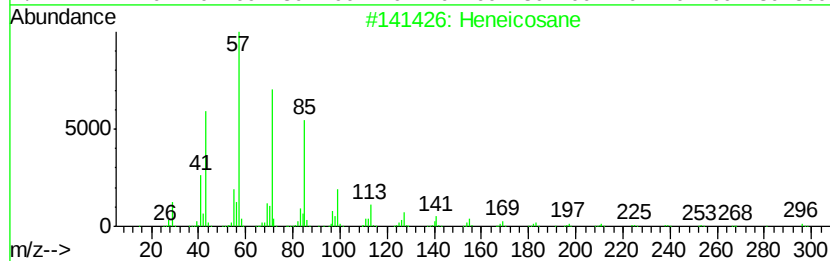
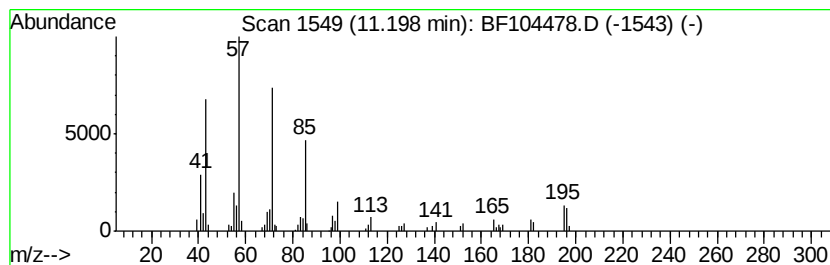
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 6 Heneicosane Concentration Rank 15

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.20 | 2.10 ng | 117346 | Phenanthrene-d10 | 11.34 |

| Hit# of | 5                 | Tentative ID | MW  | MolForm | CAS#        | Qual |
|---------|-------------------|--------------|-----|---------|-------------|------|
| 1       | Heneicosane       |              | 296 | C21H44  | 000629-94-7 | 68   |
| 2       | Hexadecane        |              | 226 | C16H34  | 000544-76-3 | 64   |
| 3       | Pentadecane       |              | 212 | C15H32  | 000629-62-9 | 64   |
| 4       | Tritetracontane   |              | 605 | C43H88  | 007098-21-7 | 64   |
| 5       | Dodecane, 1-iodo- |              | 296 | C12H25I | 004292-19-7 | 64   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF041318\  
Data File : BF104478.D  
Acq On : 13 Apr 2018 15:07  
Operator : JU/SJ  
Sample : J2348-09  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

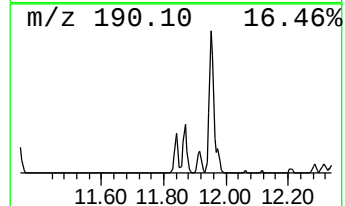
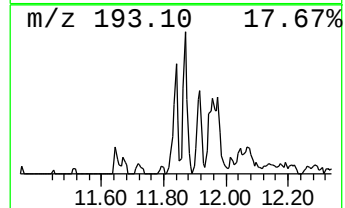
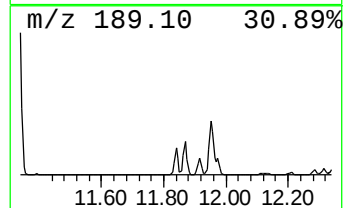
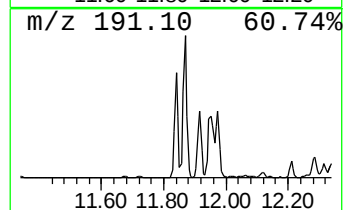
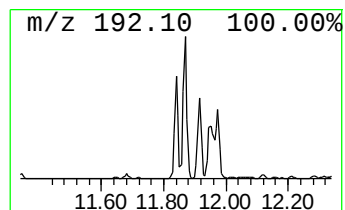
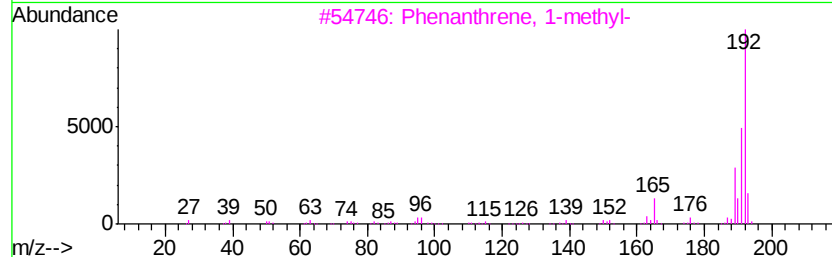
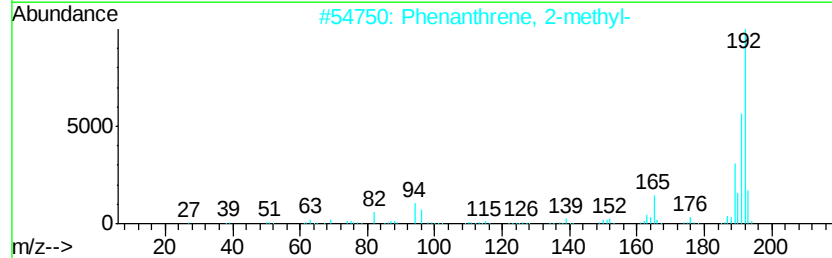
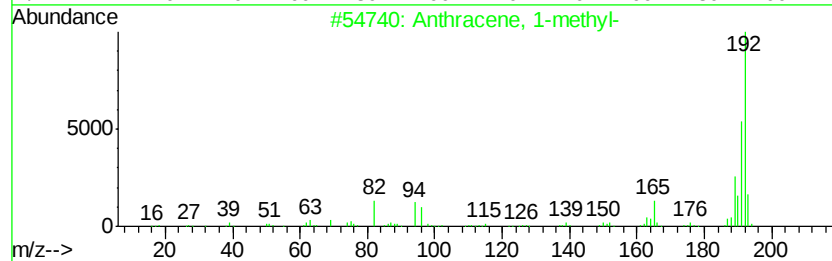
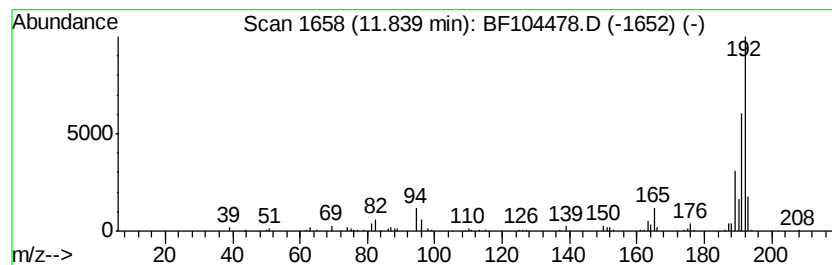
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 8 Anthracene, 1-methyl- Concentration Rank 10

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.84 | 2.48 ng | 138869 | Phenanthrene-d10 | 11.34 |

| Hit# of | 5 | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|---------|---|-------------------------|-----|---------|-------------|------|
| 1       |   | Anthracene, 1-methyl-   | 192 | C15H12  | 000610-48-0 | 95   |
| 2       |   | Phenanthrene, 2-methyl- | 192 | C15H12  | 002531-84-2 | 93   |
| 3       |   | Phenanthrene, 1-methyl- | 192 | C15H12  | 000832-69-9 | 93   |
| 4       |   | Anthracene, 2-methyl-   | 192 | C15H12  | 000613-12-7 | 93   |
| 5       |   | Anthracene, 9-methyl-   | 192 | C15H12  | 000779-02-2 | 91   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104478.D  
Acq On : 13 Apr 2018 15:07  
Operator : JU/SJ  
Sample : J2348-09  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

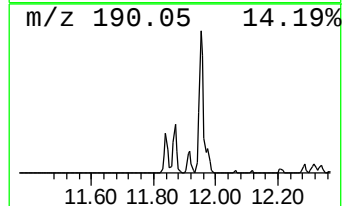
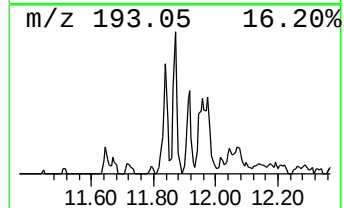
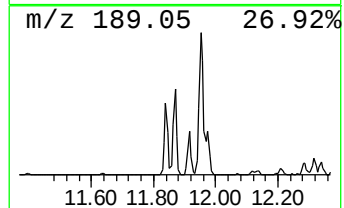
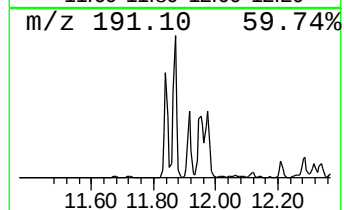
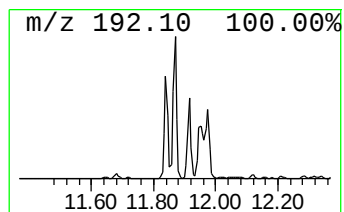
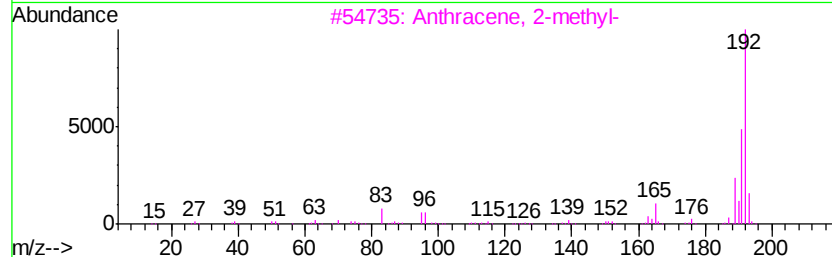
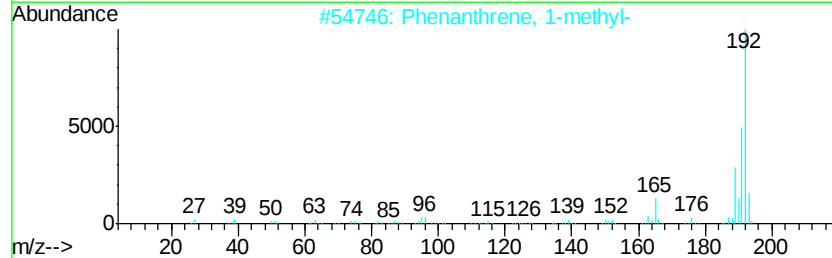
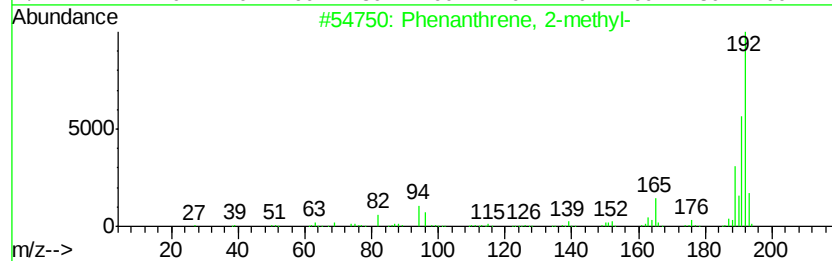
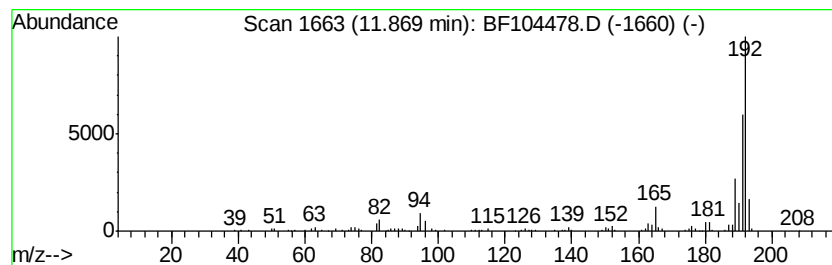
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 9 Phenanthrene, 2-methyl- Concentration Rank 6

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.87 | 3.36 ng | 187690 | Phenanthrene-d10 | 11.34 |

| Hit# | of | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------|-----|---------|-------------|------|
| 1    | 5  | Phenanthrene, 2-methyl- | 192 | C15H12  | 002531-84-2 | 98   |
| 2    |    | Phenanthrene, 1-methyl- | 192 | C15H12  | 000832-69-9 | 97   |
| 3    |    | Anthracene, 2-methyl-   | 192 | C15H12  | 000613-12-7 | 96   |
| 4    |    | Phenanthrene, 4-methyl- | 192 | C15H12  | 000832-64-4 | 95   |
| 5    |    | 1H-Indene, 2-phenyl-    | 192 | C15H12  | 004505-48-0 | 95   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104478.D  
Acq On : 13 Apr 2018 15:07  
Operator : JU/SJ  
Sample : J2348-09  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

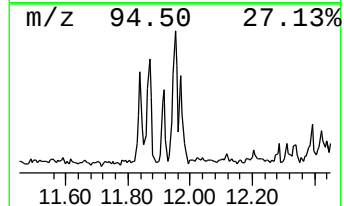
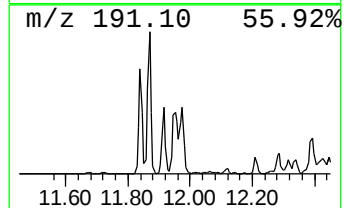
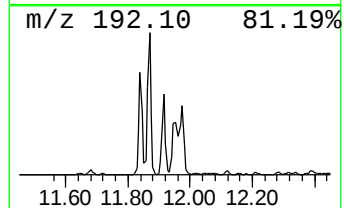
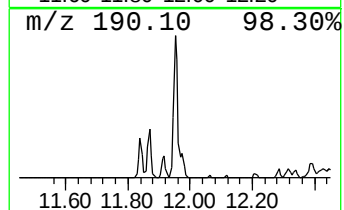
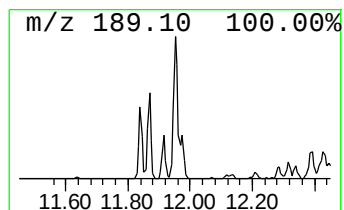
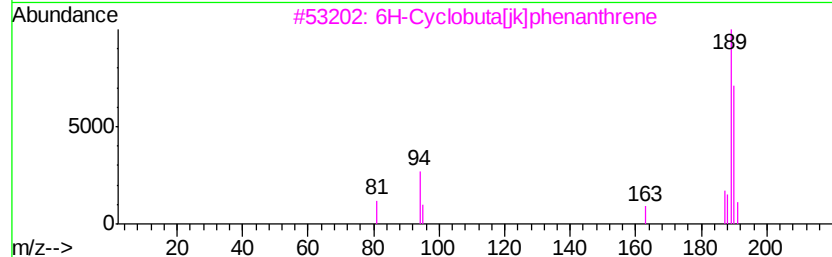
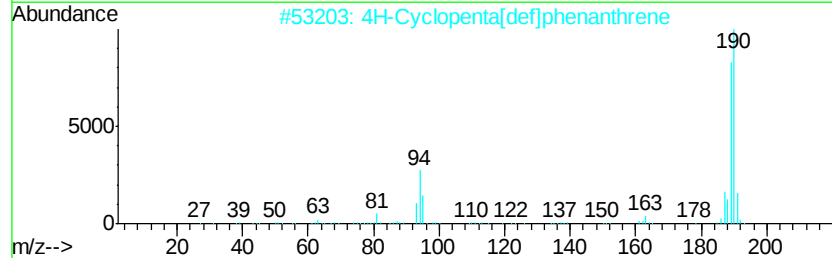
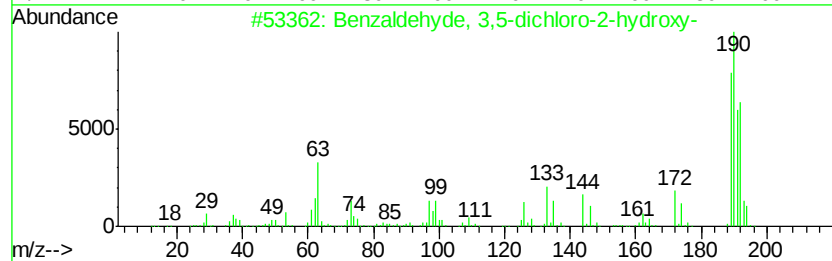
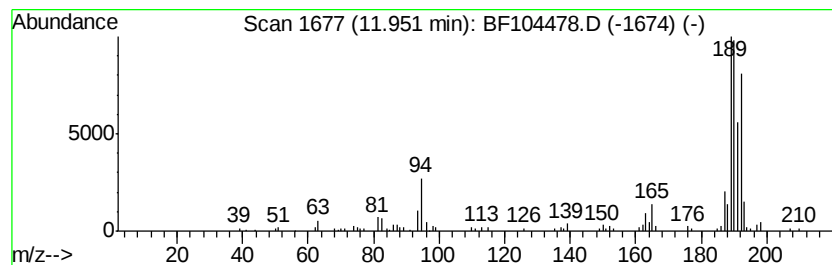
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 10 Benzaldehyde, 3,5-dichloro-... Concentration Rank 7

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.95 | 3.29 ng | 183744 | Phenanthrene-d10 | 11.34 |

| Hit# of 5 | Tentative ID                         | MW  | MolForm   | CAS#        | Qual |
|-----------|--------------------------------------|-----|-----------|-------------|------|
| 1         | Benzaldehydve, 3,5-dichloro-2-hvd... | 190 | C7H4Cl2O2 | 000090-60-8 | 72   |
| 2         | 4H-Cyclopenta[def]phenanthrene       | 190 | C15H10    | 000203-64-5 | 60   |
| 3         | 6H-Cyclobuta[f]iklphenanthrene       | 190 | C15H10    | 083469-43-6 | 49   |
| 4         | Phenanthrene, 2-methyl-              | 192 | C15H12    | 002531-84-2 | 46   |
| 5         | 1H-Indene, 2-phenyl-                 | 192 | C15H12    | 004505-48-0 | 42   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF041318\  
Data File : BF104478.D  
Acq On : 13 Apr 2018 15:07  
Operator : JU/SJ  
Sample : J2348-09  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

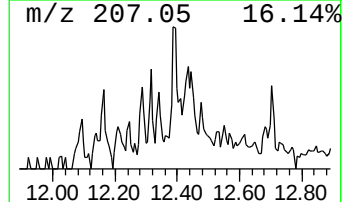
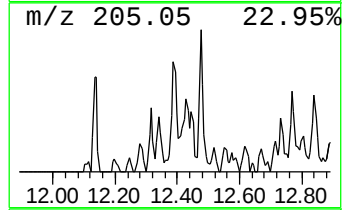
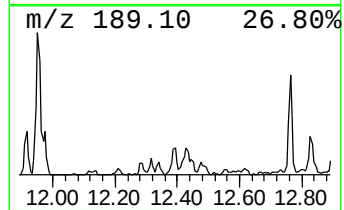
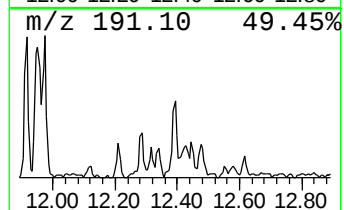
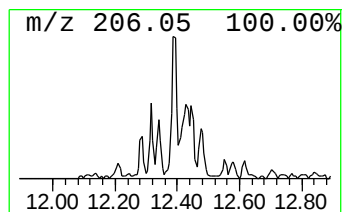
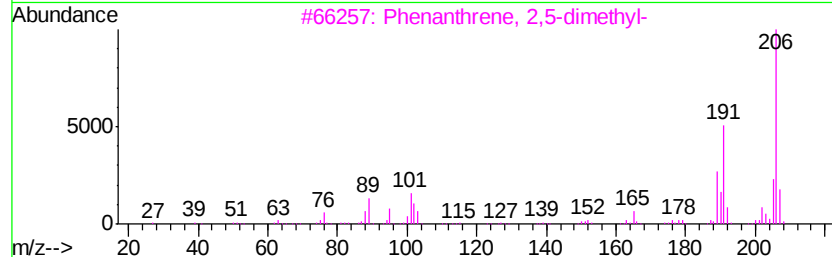
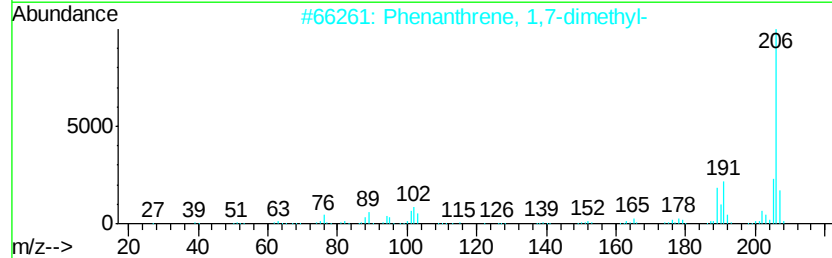
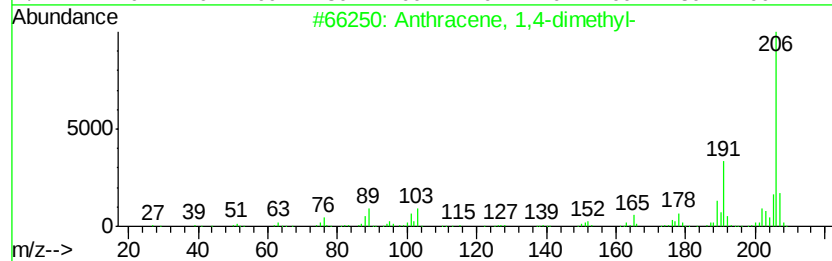
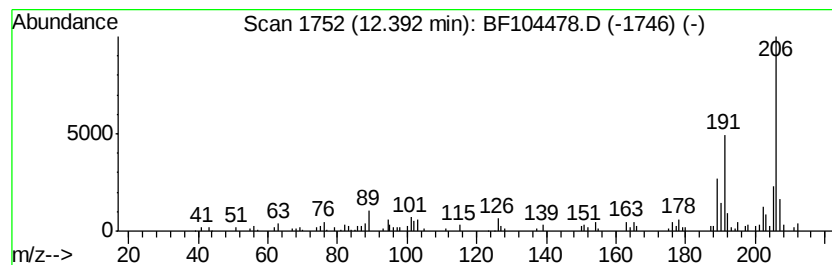
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 11 Anthracene, 1,4-dimethyl- Concentration Rank 8

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.39 | 2.73 ng | 152769 | Phenanthrene-d10 | 11.34 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Anthracene, 1,4-dimethyl-   | 206 | C16H14  | 000781-92-0 | 93   |
| 2    |    | Phenanthrene, 1,7-dimethyl- | 206 | C16H14  | 000483-87-4 | 93   |
| 3    |    | Phenanthrene, 2,5-dimethyl- | 206 | C16H14  | 003674-66-6 | 93   |
| 4    |    | di-p-Tolylacetylene         | 206 | C16H14  | 002789-88-0 | 92   |
| 5    |    | 9,10-Dimethylantracene      | 206 | C16H14  | 000781-43-1 | 91   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF041318\  
Data File : BF104478.D  
Acq On : 13 Apr 2018 15:07  
Operator : JU/SJ  
Sample : J2348-09  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
281

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

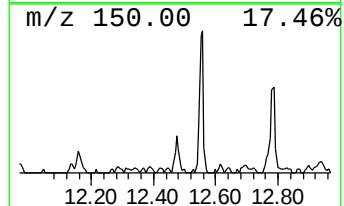
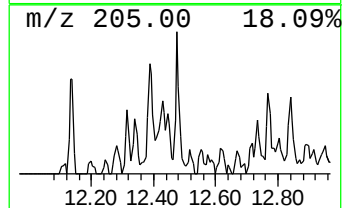
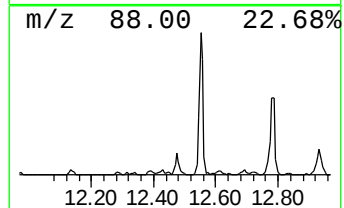
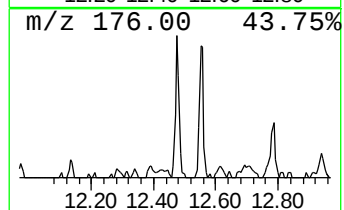
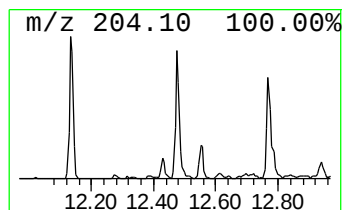
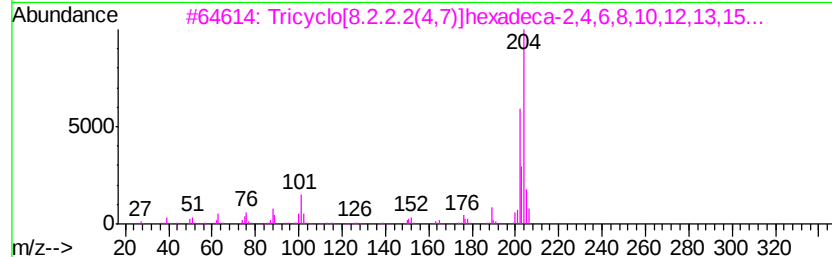
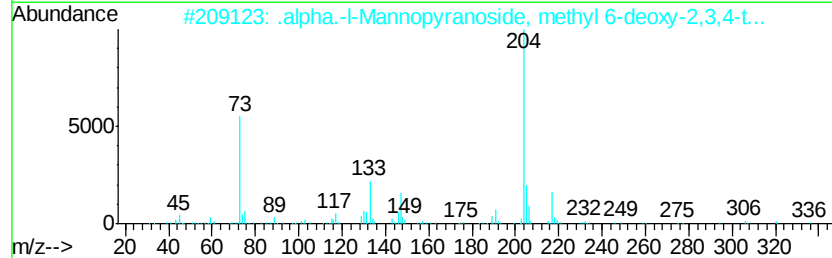
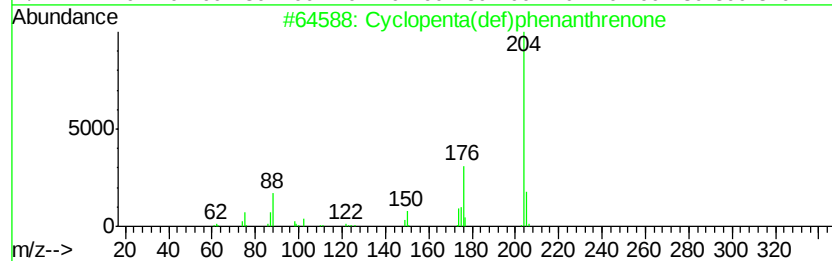
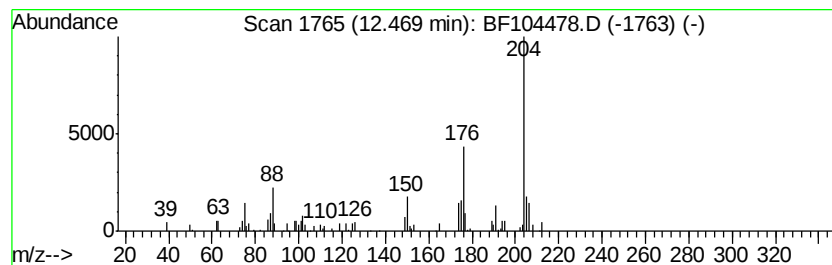
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 12 Cyclopenta(def)phenanthrenone Concentration Rank 12

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.47 | 2.18 ng | 121993 | Phenanthrene-d10 | 11.34 |

| Hit# | of | Tentative ID                        | MW  | MolForm     | CAS#        | Qual |
|------|----|-------------------------------------|-----|-------------|-------------|------|
| 1    | 5  | Cyclopenta(def)phenanthrenone       | 204 | C15H8O      | 005737-13-3 | 93   |
| 2    |    | .alpha.-l-Mannopyranoside, methy... | 394 | C16H38O5Si3 | 056271-60-4 | 47   |
| 3    |    | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12      | 006572-60-7 | 47   |
| 4    |    | [1,1'-Biphenyl]-4-ol, 4'-chloro-    | 204 | C12H9ClO    | 028034-99-3 | 43   |
| 5    |    | 3,4-Biphenyldicarbonitrile          | 204 | C14H8N2     | 004128-63-6 | 42   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104478.D  
Acq On : 13 Apr 2018 15:07  
Operator : JU/SJ  
Sample : J2348-09  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

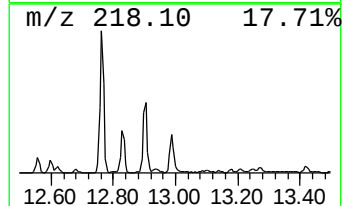
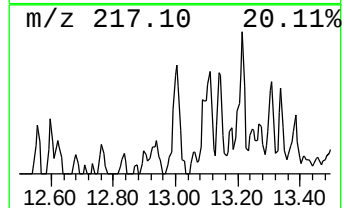
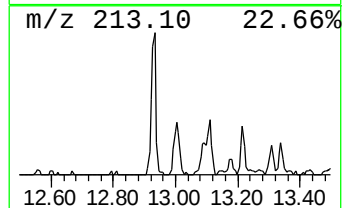
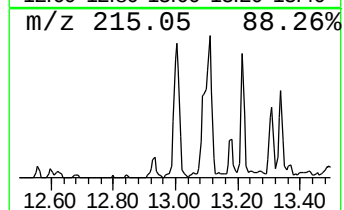
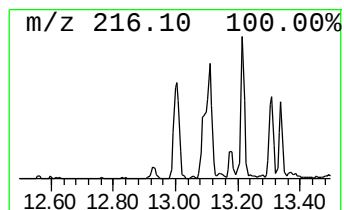
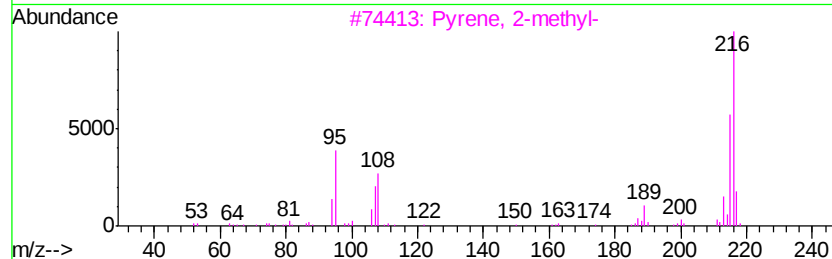
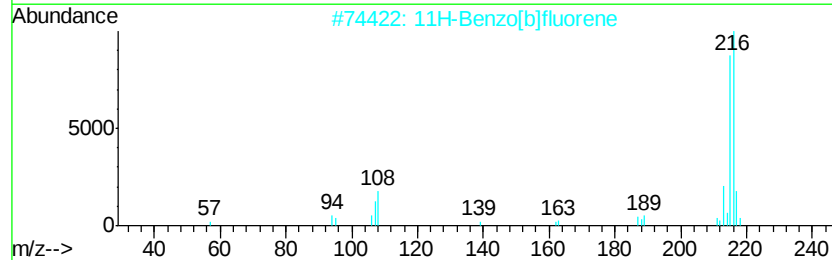
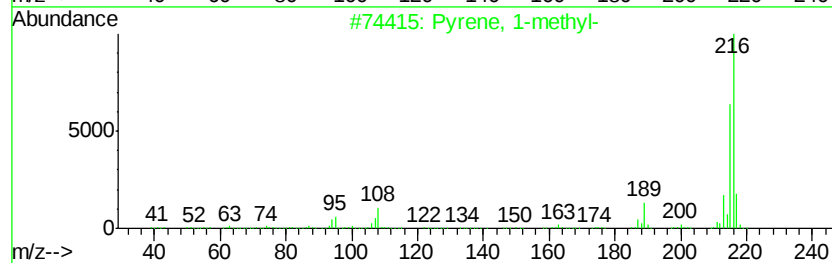
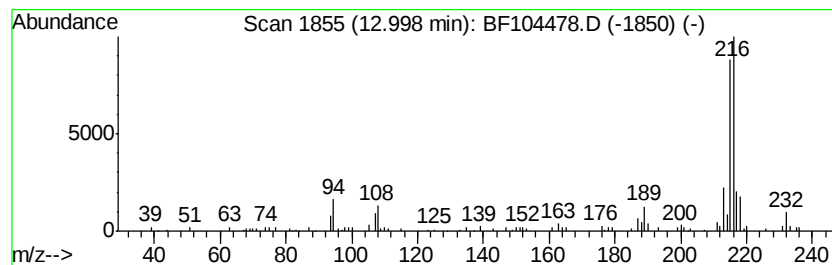
Instrument :  
BNA\_F  
ClientSampleId :  
281

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 13 Pyrene, 1-methyl- Concentration Rank 11

| R.T.      | EstConc                 | Area   | Relative to ISTD | R.T.        |      |
|-----------|-------------------------|--------|------------------|-------------|------|
| 13.00     | 2.21 ng                 | 156457 | Chrysene-d12     | 13.99       |      |
| Hit# of 5 | Tentative ID            | MW     | MolForm          | CAS#        | Qual |
| 1         | Pyrene, 1-methyl-       | 216    | C17H12           | 002381-21-7 | 95   |
| 2         | 11H-Benzo[b]fluorene    | 216    | C17H12           | 000243-17-4 | 90   |
| 3         | Pyrene, 2-methyl-       | 216    | C17H12           | 003442-78-2 | 89   |
| 4         | Fluoranthene, 2-methyl- | 216    | C17H12           | 033543-31-6 | 81   |
| 5         | 11H-Benzo[a]fluorene    | 216    | C17H12           | 000238-84-6 | 81   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104478.D  
Acq On : 13 Apr 2018 15:07  
Operator : JU/SJ  
Sample : J2348-09  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
281

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

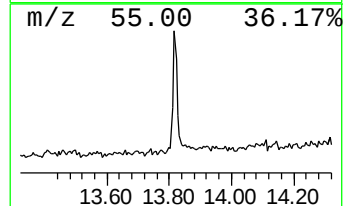
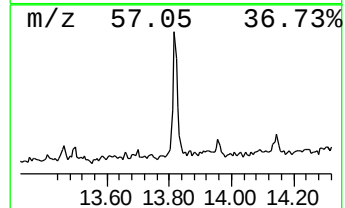
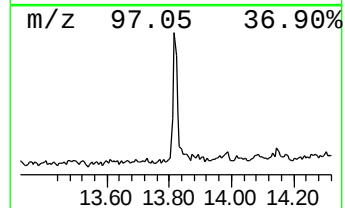
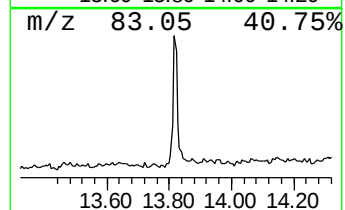
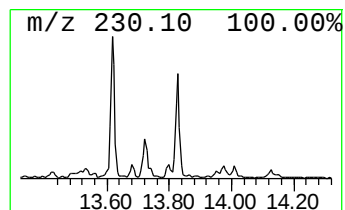
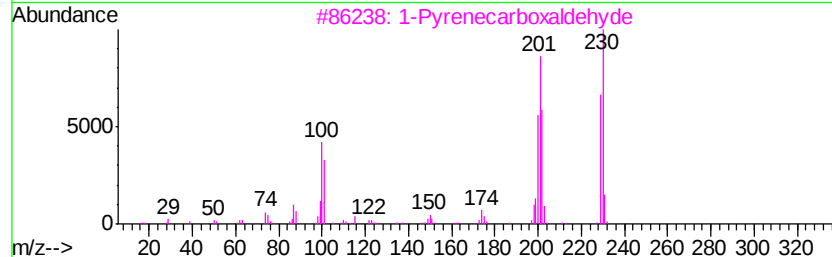
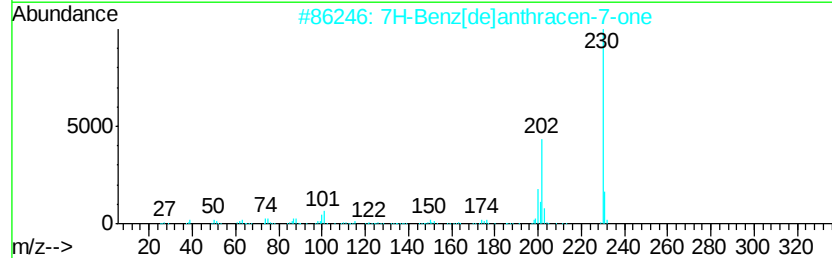
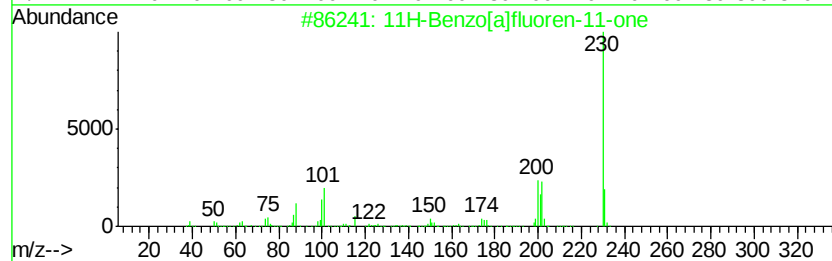
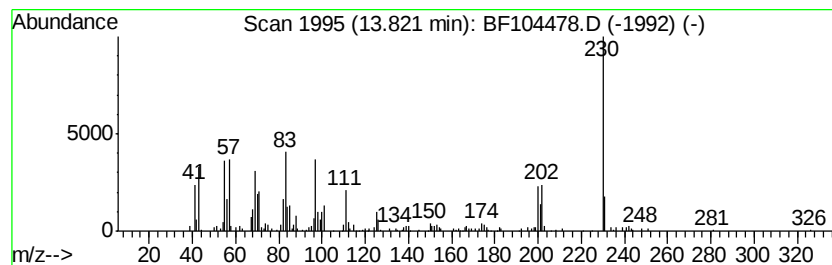
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 15 11H-Benzo[a]fluoren-11-one Concentration Rank 5

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 13.82 | 3.80 ng | 269221 | Chrysene-d12     | 13.99 |

| Hit# | of | Tentative ID               | MW  | MolForm   | CAS#        | Qual |
|------|----|----------------------------|-----|-----------|-------------|------|
| 1    | 5  | 11H-Benzo[a]fluoren-11-one | 230 | C17H10O   | 000479-79-8 | 78   |
| 2    |    | 7H-Benz[de]anthracen-7-one | 230 | C17H10O   | 000082-05-3 | 55   |
| 3    |    | 1-Pyrenecarboxaldehyde     | 230 | C17H10O   | 003029-19-4 | 43   |
| 4    |    | 6H-Benz[de]anthracen-6-one | 230 | C17H10O   | 080252-14-8 | 43   |
| 5    |    | 2-Chloro-9-xanthenone      | 230 | C13H7ClO2 | 013210-15-6 | 38   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF041318\  
 Data File : BF104478.D  
 Acq On : 13 Apr 2018 15:07  
 Operator : JU/SJ  
 Sample : J2348-09  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 281

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF040618.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
 TIC Integration Parameters: LSCINT.P

| TIC Top Hit name     | RT    | EstConc | Units | Response | --Internal Standard-- |       |         |      |
|----------------------|-------|---------|-------|----------|-----------------------|-------|---------|------|
|                      |       |         |       |          | #                     | RT    | Resp    | Conc |
| 2-Pentanone, 4-hy... | 5.03  | 4.7     | ng    | 177771   | 1                     | 6.81  | 761290  | 20.0 |
| unknown6.58          | 6.58  | 95.2    | ng    | 3623810  | 1                     | 6.81  | 761290  | 20.0 |
| Hexadecane           | 10.27 | 2.2     | ng    | 121889   | 3                     | 9.85  | 1126920 | 20.0 |
| Octadecane           | 10.75 | 2.7     | ng    | 152135   | 4                     | 11.34 | 1118090 | 20.0 |
| Heneicosane          | 11.20 | 2.1     | ng    | 117346   | 4                     | 11.34 | 1118090 | 20.0 |
| Anthracene, 1-met... | 11.84 | 2.5     | ng    | 138869   | 4                     | 11.34 | 1118090 | 20.0 |
| Phenanthrene, 2-m... | 11.87 | 3.4     | ng    | 187690   | 4                     | 11.34 | 1118090 | 20.0 |
| Benzaldehyde, 3,5... | 11.95 | 3.3     | ng    | 183744   | 4                     | 11.34 | 1118090 | 20.0 |
| Anthracene, 1,4-d... | 12.39 | 2.7     | ng    | 152769   | 4                     | 11.34 | 1118090 | 20.0 |
| Cyclopenta(def)ph... | 12.47 | 2.2     | ng    | 121993   | 4                     | 11.34 | 1118090 | 20.0 |
| Pyrene, 1-methyl-    | 13.00 | 2.2     | ng    | 156457   | 5                     | 13.99 | 1415800 | 20.0 |
| 11H-Benzo[a]fluor... | 13.82 | 3.8     | ng    | 269221   | 5                     | 13.99 | 1415800 | 20.0 |