

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF080619\  
 Data File : BF116038.D  
 Acq On : 7 Aug 2019 4:32  
 Operator : HP/JU  
 Sample : K4095-03 5X  
 Misc :  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SU-02-080219-B

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-BF073019.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         | 5.463       | 571           | 574         | 597          | rBV      | 314495         | 437762        | 23.24%          | 1.419%        |
| 2         | 6.475       | 743           | 746         | 764          | rBV      | 380779         | 502695        | 26.68%          | 1.629%        |
| 3         | 6.616       | 766           | 770         | 779          | rBV      | 519945         | 514710        | 27.32%          | 1.668%        |
| 4         | 6.845       | 805           | 809         | 817          | rBV      | 556563         | 545320        | 28.94%          | 1.767%        |
| 5         | 6.998       | 832           | 835         | 845          | rBV      | 477461         | 430009        | 22.82%          | 1.394%        |
| 6         | 7.404       | 901           | 904         | 915          | rBV      | 223281         | 288777        | 15.33%          | 0.936%        |
| 7         | 8.122       | 1021          | 1026        | 1035         | rBV      | 741926         | 779512        | 41.38%          | 2.526%        |
| 8         | 8.839       | 1145          | 1148        | 1153         | rBV      | 56522          | 52655         | 2.79%           | 0.171%        |
| 9         | 8.933       | 1161          | 1164        | 1172         | rBV2     | 67513          | 84678         | 4.49%           | 0.274%        |
| 10        | 9.192       | 1205          | 1208        | 1214         | rBV      | 635263         | 599870        | 31.84%          | 1.944%        |
| 11        | 9.280       | 1219          | 1223        | 1225         | rBV      | 54985          | 49714         | 2.64%           | 0.161%        |
| 12        | 9.469       | 1250          | 1255        | 1258         | rBV2     | 40465          | 53139         | 2.82%           | 0.172%        |
| 13        | 9.533       | 1263          | 1266        | 1269         | rBV      | 74250          | 73972         | 3.93%           | 0.240%        |
| 14        | 9.598       | 1273          | 1277        | 1279         | rBV3     | 57186          | 80617         | 4.28%           | 0.261%        |
| 15        | 9.657       | 1284          | 1287        | 1292         | rVB2     | 48089          | 53479         | 2.84%           | 0.173%        |
| 16        | 9.739       | 1297          | 1301        | 1305         | rBV      | 208466         | 199868        | 10.61%          | 0.648%        |
| 17        | 9.804       | 1305          | 1312        | 1317         | rVB      | 65965          | 68632         | 3.64%           | 0.222%        |
| 18        | 9.874       | 1317          | 1324        | 1328         | rBV      | 886763         | 793646        | 42.13%          | 2.572%        |
| 19        | 9.910       | 1328          | 1330        | 1334         | rVB      | 86864          | 71573         | 3.80%           | 0.232%        |
| 20        | 10.080      | 1354          | 1359        | 1363         | rVV      | 124609         | 129642        | 6.88%           | 0.420%        |
| 21        | 10.122      | 1363          | 1366        | 1372         | rVB3     | 40303          | 49333         | 2.62%           | 0.160%        |
| 22        | 10.192      | 1375          | 1378        | 1381         | rBV2     | 44231          | 50150         | 2.66%           | 0.163%        |
| 23        | 10.304      | 1395          | 1397        | 1400         | rVV      | 110403         | 84966         | 4.51%           | 0.275%        |
| 24        | 10.422      | 1414          | 1417        | 1423         | rVV      | 284658         | 297556        | 15.79%          | 0.964%        |
| 25        | 10.527      | 1430          | 1435        | 1441         | rVV3     | 43609          | 71606         | 3.80%           | 0.232%        |
| 26        | 10.580      | 1441          | 1444        | 1447         | rVV      | 55898          | 54429         | 2.89%           | 0.176%        |
| 27        | 10.669      | 1456          | 1459        | 1470         | rVB      | 267192         | 357526        | 18.98%          | 1.159%        |
| 28        | 10.774      | 1475          | 1477        | 1486         | rVB2     | 102480         | 159185        | 8.45%           | 0.516%        |
| 29        | 10.974      | 1506          | 1511        | 1513         | rBV2     | 77737          | 100834        | 5.35%           | 0.327%        |
| 30        | 10.998      | 1513          | 1515        | 1519         | rVV2     | 52058          | 56073         | 2.98%           | 0.182%        |
| 31        | 11.057      | 1522          | 1525        | 1528         | rVV2     | 43885          | 44095         | 2.34%           | 0.143%        |
| 32        | 11.098      | 1528          | 1532        | 1534         | rVV2     | 35401          | 43777         | 2.32%           | 0.142%        |
| 33        | 11.121      | 1534          | 1536        | 1542         | rVV3     | 43892          | 56235         | 2.98%           | 0.182%        |
| 34        | 11.174      | 1542          | 1545        | 1548         | rVV2     | 34165          | 40028         | 2.12%           | 0.130%        |

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 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SU-02-080219-B

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-BF073019.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |        |        |
|----|--------|------|------|------|------|---------|---------|--------|--------|
| 35 | 11.227 | 1548 | 1554 | 1556 | rVV2 | 98378   | 121117  | 6.43%  | 0.393% |
| 36 | 11.257 | 1556 | 1559 | 1565 | rVB  | 147824  | 159865  | 8.49%  | 0.518% |
| 37 | 11.363 | 1573 | 1577 | 1579 | rBV  | 787121  | 735419  | 39.03% | 2.383% |
| 38 | 11.386 | 1579 | 1581 | 1585 | rVV  | 1709329 | 1377229 | 73.10% | 4.463% |
| 39 | 11.439 | 1586 | 1590 | 1594 | rVV  | 441178  | 437579  | 23.23% | 1.418% |
| 40 | 11.474 | 1594 | 1596 | 1599 | rVV3 | 51747   | 66022   | 3.50%  | 0.214% |
| 41 | 11.533 | 1602 | 1606 | 1609 | rVV2 | 24466   | 45487   | 2.41%  | 0.147% |
| 42 | 11.592 | 1613 | 1616 | 1623 | rVV  | 132215  | 184334  | 9.78%  | 0.597% |
| 43 | 11.651 | 1623 | 1626 | 1628 | rVV2 | 127425  | 116382  | 6.18%  | 0.377% |
| 44 | 11.692 | 1632 | 1633 | 1639 | rVV2 | 46542   | 60537   | 3.21%  | 0.196% |
| 45 | 11.751 | 1639 | 1643 | 1646 | rVV  | 613784  | 486079  | 25.80% | 1.575% |
| 46 | 11.863 | 1659 | 1662 | 1665 | rBV  | 202938  | 193358  | 10.26% | 0.627% |
| 47 | 11.892 | 1665 | 1667 | 1671 | rVV  | 285052  | 235541  | 12.50% | 0.763% |
| 48 | 11.939 | 1672 | 1675 | 1678 | rVV  | 97907   | 96350   | 5.11%  | 0.312% |
| 49 | 11.974 | 1678 | 1681 | 1684 | rVV  | 388190  | 426873  | 22.66% | 1.383% |
| 50 | 11.998 | 1684 | 1685 | 1690 | rVB  | 148672  | 97580   | 5.18%  | 0.316% |
| 51 | 12.057 | 1690 | 1695 | 1700 | rBV3 | 78503   | 99824   | 5.30%  | 0.323% |
| 52 | 12.157 | 1709 | 1712 | 1715 | rVV  | 138137  | 123843  | 6.57%  | 0.401% |
| 53 | 12.192 | 1715 | 1718 | 1723 | rVB  | 71109   | 73956   | 3.93%  | 0.240% |
| 54 | 12.339 | 1740 | 1743 | 1745 | rVV  | 68280   | 54728   | 2.90%  | 0.177% |
| 55 | 12.433 | 1756 | 1759 | 1761 | rVV  | 1300819 | 1255285 | 66.63% | 4.068% |
| 56 | 12.457 | 1761 | 1763 | 1769 | rVV  | 1997768 | 1753077 | 93.05% | 5.681% |
| 57 | 12.504 | 1769 | 1771 | 1774 | rVV3 | 100145  | 105396  | 5.59%  | 0.342% |
| 58 | 12.539 | 1774 | 1777 | 1780 | rVB  | 248909  | 193501  | 10.27% | 0.627% |
| 59 | 12.574 | 1780 | 1783 | 1787 | rBV  | 1890728 | 1734306 | 92.05% | 5.620% |
| 60 | 12.639 | 1792 | 1794 | 1797 | rVB  | 52900   | 44769   | 2.38%  | 0.145% |
| 61 | 12.674 | 1797 | 1800 | 1803 | rVB  | 114379  | 104837  | 5.56%  | 0.340% |
| 62 | 12.727 | 1805 | 1809 | 1812 | rBV  | 67516   | 77731   | 4.13%  | 0.252% |
| 63 | 12.804 | 1815 | 1822 | 1828 | rBV  | 1572998 | 1807714 | 95.95% | 5.858% |
| 64 | 12.857 | 1828 | 1831 | 1835 | rVB2 | 84061   | 96191   | 5.11%  | 0.312% |
| 65 | 12.939 | 1839 | 1845 | 1848 | rBV2 | 658271  | 657780  | 34.91% | 2.132% |
| 66 | 12.968 | 1848 | 1850 | 1854 | rVB  | 69586   | 71306   | 3.78%  | 0.231% |
| 67 | 13.021 | 1855 | 1859 | 1863 | rBV3 | 132144  | 230475  | 12.23% | 0.747% |
| 68 | 13.133 | 1870 | 1878 | 1881 | rBV  | 344246  | 494125  | 26.23% | 1.601% |
| 69 | 13.174 | 1882 | 1885 | 1886 | rBV2 | 52276   | 54408   | 2.89%  | 0.176% |
| 70 | 13.198 | 1886 | 1889 | 1892 | rVV  | 283054  | 260143  | 13.81% | 0.843% |
| 71 | 13.239 | 1892 | 1896 | 1899 | rVV2 | 175439  | 194890  | 10.34% | 0.632% |

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Instrument :  
 BNA\_F  
 ClientSampleId :  
 SU-02-080219-B

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-BF073019.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|     |        |      |      |      |      |         |         |         |        |
|-----|--------|------|------|------|------|---------|---------|---------|--------|
| 72  | 13.298 | 1903 | 1906 | 1909 | rBV3 | 31852   | 43222   | 2.29%   | 0.140% |
| 73  | 13.327 | 1909 | 1911 | 1914 | rBV  | 109595  | 97456   | 5.17%   | 0.316% |
| 74  | 13.362 | 1914 | 1917 | 1920 | rBV  | 111051  | 121241  | 6.44%   | 0.393% |
| 75  | 13.510 | 1940 | 1942 | 1944 | rBV2 | 43724   | 39347   | 2.09%   | 0.128% |
| 76  | 13.615 | 1957 | 1960 | 1962 | rBV2 | 52760   | 63065   | 3.35%   | 0.204% |
| 77  | 13.645 | 1962 | 1965 | 1969 | rVB  | 107612  | 113799  | 6.04%   | 0.369% |
| 78  | 13.751 | 1980 | 1983 | 1985 | rBV  | 150261  | 143271  | 7.60%   | 0.464% |
| 79  | 13.780 | 1985 | 1988 | 1990 | rVB  | 129329  | 107129  | 5.69%   | 0.347% |
| 80  | 13.804 | 1990 | 1992 | 1999 | rBV3 | 126118  | 239288  | 12.70%  | 0.775% |
| 81  | 13.998 | 2018 | 2025 | 2028 | rBV2 | 1251660 | 1884005 | 100.00% | 6.105% |
| 82  | 14.027 | 2028 | 2030 | 2038 | rVB  | 922131  | 816977  | 43.36%  | 2.648% |
| 83  | 14.110 | 2042 | 2044 | 2046 | rVV  | 109667  | 80149   | 4.25%   | 0.260% |
| 84  | 14.151 | 2049 | 2051 | 2057 | rVV3 | 128883  | 161741  | 8.58%   | 0.524% |
| 85  | 14.227 | 2061 | 2064 | 2067 | rBV2 | 82102   | 107187  | 5.69%   | 0.347% |
| 86  | 14.351 | 2083 | 2085 | 2087 | rBV  | 67751   | 64605   | 3.43%   | 0.209% |
| 87  | 14.392 | 2087 | 2092 | 2094 | rVV  | 221107  | 286078  | 15.18%  | 0.927% |
| 88  | 14.421 | 2095 | 2097 | 2101 | rVV  | 99841   | 101319  | 5.38%   | 0.328% |
| 89  | 14.462 | 2101 | 2104 | 2106 | rVV3 | 92769   | 115499  | 6.13%   | 0.374% |
| 90  | 14.515 | 2110 | 2113 | 2115 | rVV  | 124079  | 142074  | 7.54%   | 0.460% |
| 91  | 14.533 | 2115 | 2116 | 2121 | rVB  | 123602  | 97596   | 5.18%   | 0.316% |
| 92  | 14.886 | 2173 | 2176 | 2179 | rBV  | 79834   | 87913   | 4.67%   | 0.285% |
| 93  | 15.045 | 2198 | 2203 | 2206 | rBV  | 746107  | 1184494 | 62.87%  | 3.839% |
| 94  | 15.151 | 2218 | 2221 | 2225 | rVB  | 155920  | 161168  | 8.55%   | 0.522% |
| 95  | 15.345 | 2250 | 2254 | 2260 | rVB  | 423793  | 508122  | 26.97%  | 1.647% |
| 96  | 15.409 | 2260 | 2265 | 2270 | rVV  | 645269  | 794764  | 42.18%  | 2.576% |
| 97  | 15.468 | 2271 | 2275 | 2278 | rVV  | 555071  | 710814  | 37.73%  | 2.304% |
| 98  | 15.498 | 2278 | 2280 | 2290 | rVB2 | 167389  | 226322  | 12.01%  | 0.733% |
| 99  | 16.933 | 2519 | 2524 | 2532 | rBV  | 203047  | 391534  | 20.78%  | 1.269% |
| 100 | 17.380 | 2595 | 2600 | 2613 | rVB  | 151748  | 363338  | 19.29%  | 1.177% |

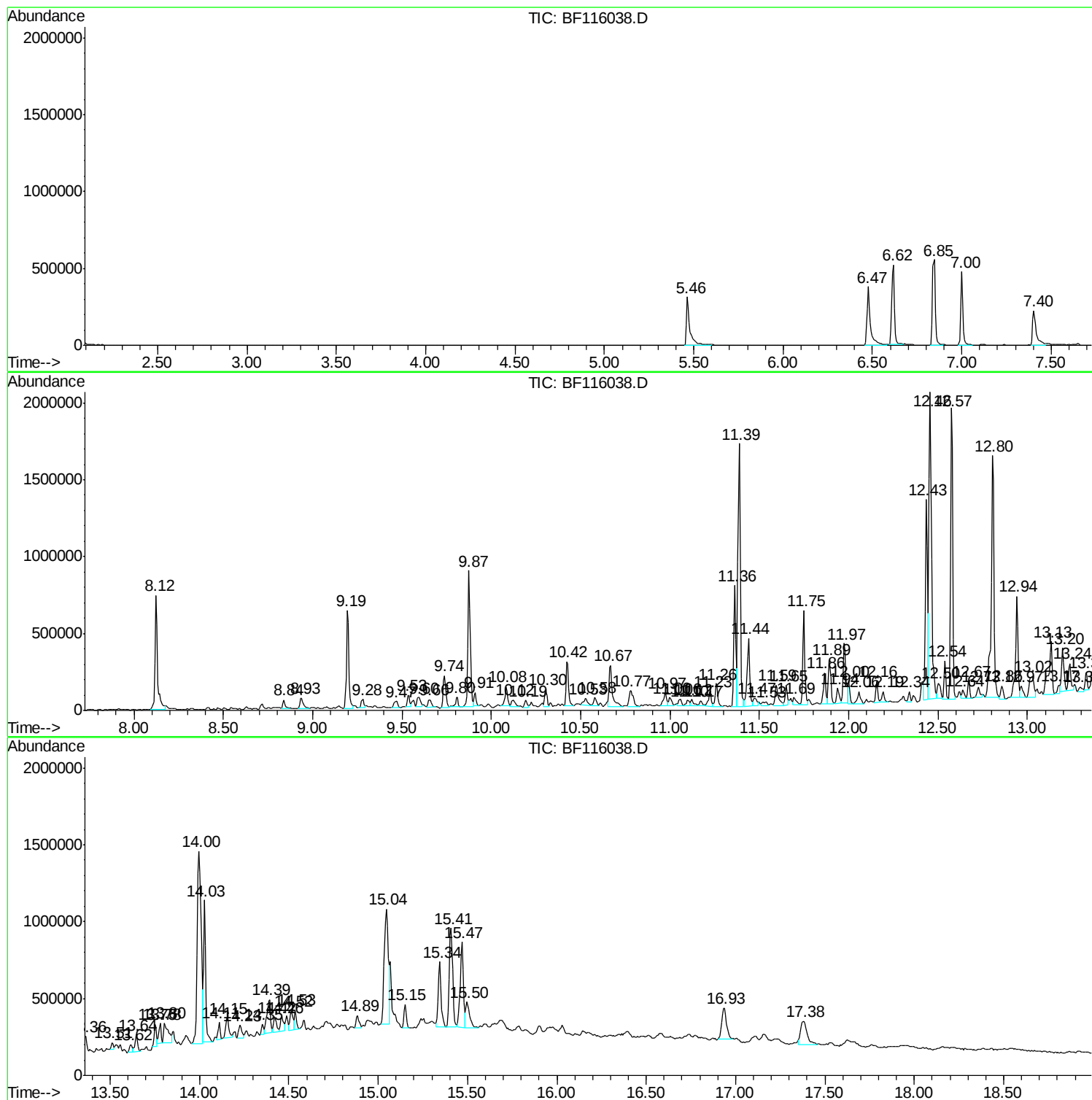
Sum of corrected areas: 30857617

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ALS Vial : 24 Sample Multiplier: 1

Instrument :  
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ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
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Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
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ClientSampleId :  
SU-02-080219-B

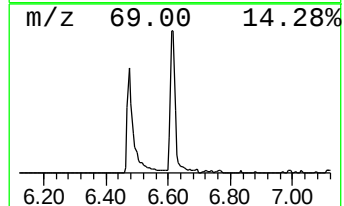
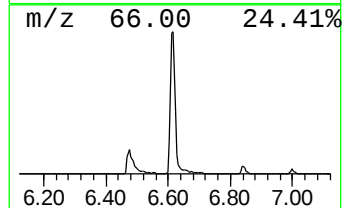
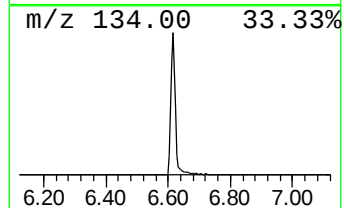
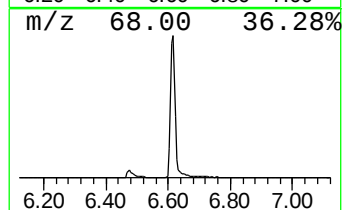
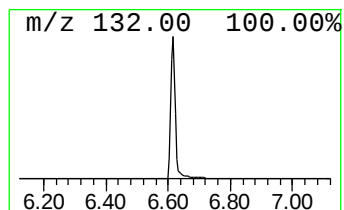
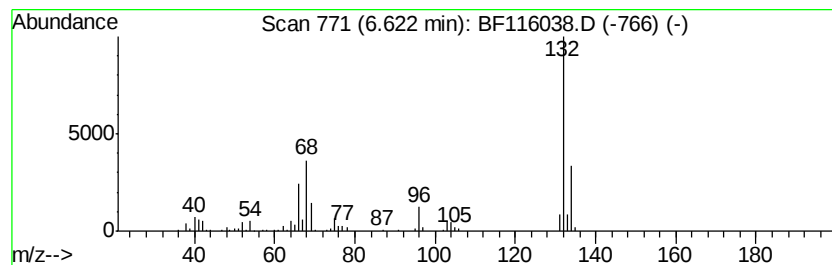
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 1 unknown6.62 Concentration Rank 3

| R.T. | EstConc  | Area   | Relative to ISTD       | R.T. |
|------|----------|--------|------------------------|------|
| 6.62 | 18.88 ng | 514710 | 1,4-Dichlorobenzene-d4 | 6.85 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 3-Chloro-6-fluoro-pyrazine          | 132 | C4H2ClFN2 | 1000146-10-7 | 16   |
| 2    |    | (E)-3-Chloro-2-methyl-2-pentenal    | 132 | C6H9ClO   | 031357-76-3  | 16   |
| 3    |    | Tranvlcvpromine-propionyl           | 189 | C12H15NO  | 1000123-86-3 | 12   |
| 4    |    | Xenon                               | 132 | Xe        | 007440-63-3  | 9    |
| 5    |    | 2H-Cyclopenta[d]pyridazine, 2-me... | 132 | C8H8N2    | 022291-85-6  | 9    |



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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

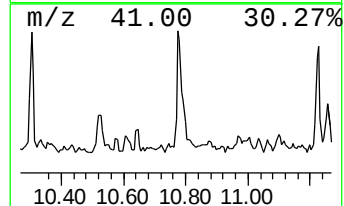
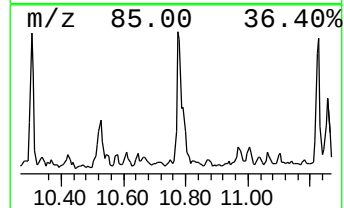
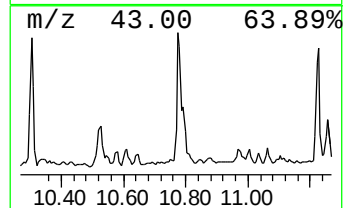
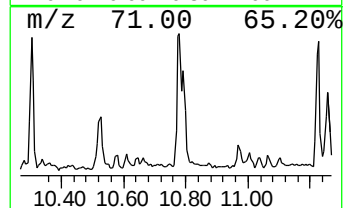
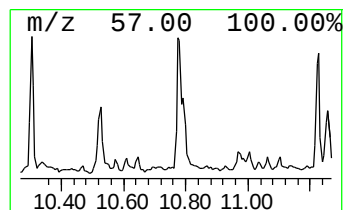
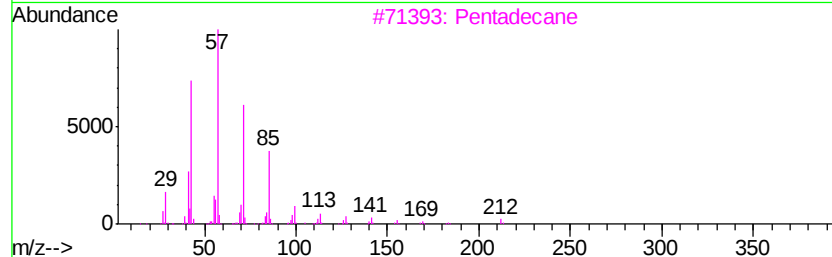
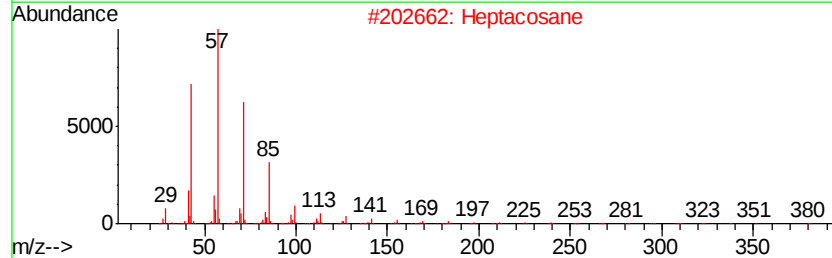
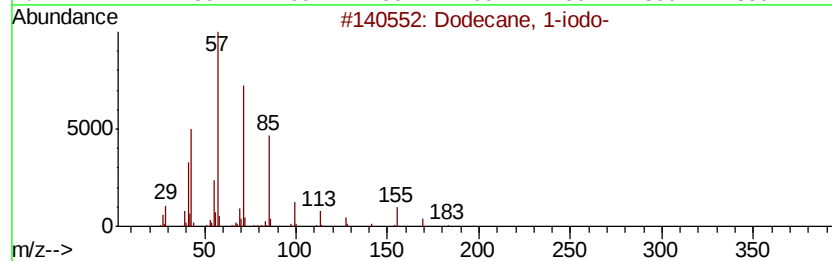
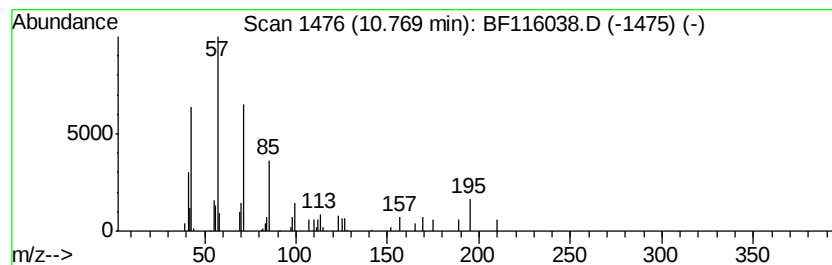
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 3 Dodecane, 1-iodo- Concentration Rank 13

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 10.77 | 4.33 ng | 159185 | Phenanthrene-d10 | 11.36 |

| Hit# | of | Tentative ID      | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------|-----|---------|-------------|------|
| 1    | 5  | Dodecane, 1-iodo- | 296 | C12H25I | 004292-19-7 | 87   |
| 2    |    | Heptacosane       | 380 | C27H56  | 000593-49-7 | 87   |
| 3    |    | Pentadecane       | 212 | C15H32  | 000629-62-9 | 86   |
| 4    |    | Tridecane         | 184 | C13H28  | 000629-50-5 | 86   |
| 5    |    | Hexadecane        | 226 | C16H34  | 000544-76-3 | 86   |



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Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

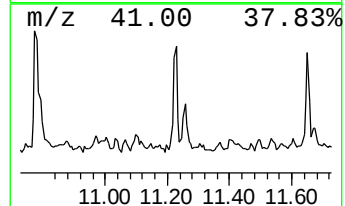
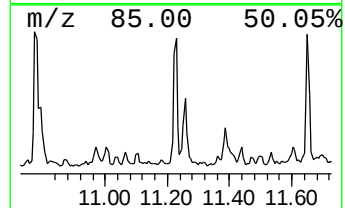
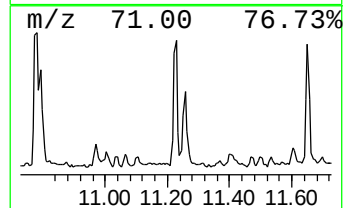
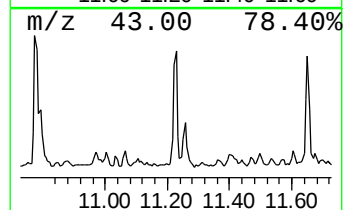
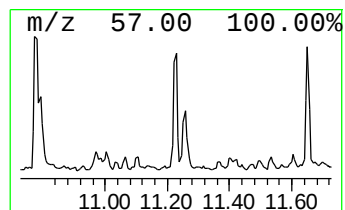
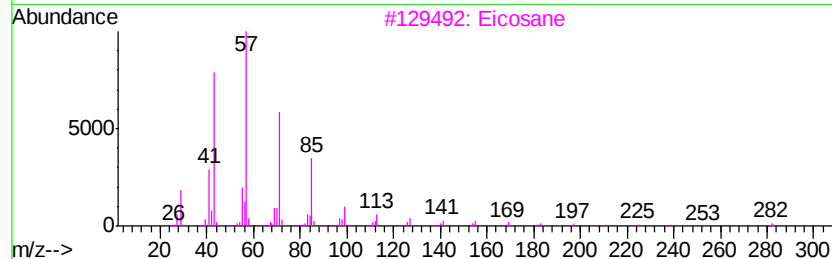
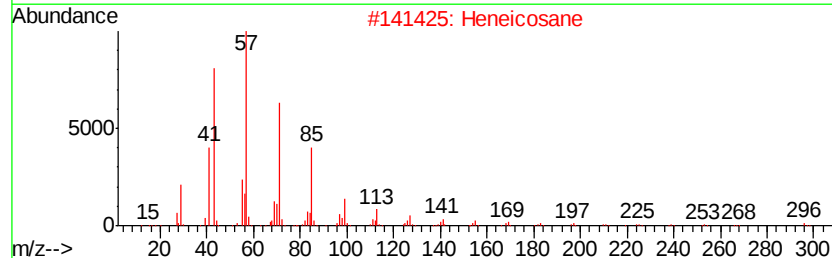
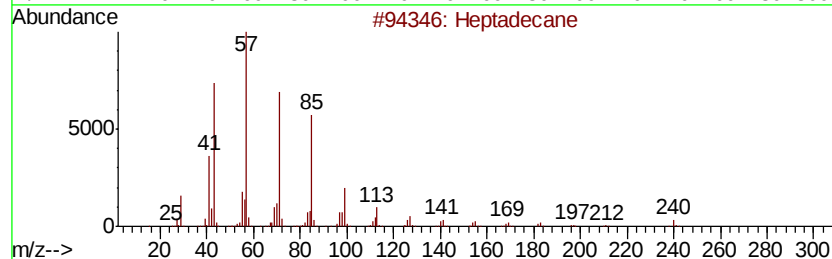
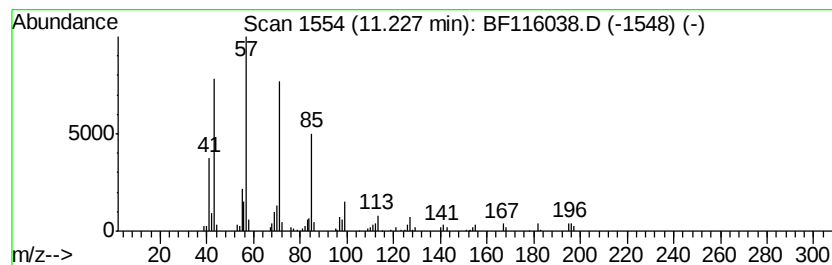
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 4 Heptadecane Concentration Rank 15

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.23 | 3.29 ng | 121117 | Phenanthrene-d10 | 11.36 |

| Hit# of 5 | Tentative ID | MW  | MolForm | CAS#        | Qual |
|-----------|--------------|-----|---------|-------------|------|
| 1         | Heptadecane  | 240 | C17H36  | 000629-78-7 | 87   |
| 2         | Heneicosane  | 296 | C21H44  | 000629-94-7 | 83   |
| 3         | Eicosane     | 282 | C20H42  | 000112-95-8 | 83   |
| 4         | Heptacosane  | 380 | C27H56  | 000593-49-7 | 80   |
| 5         | Docosane     | 310 | C22H46  | 000629-97-0 | 80   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

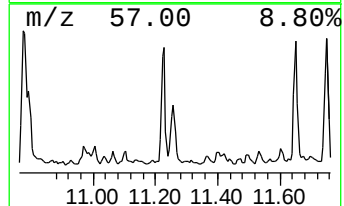
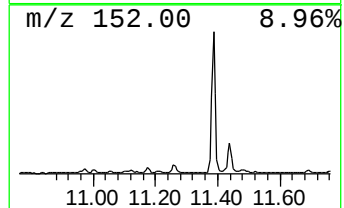
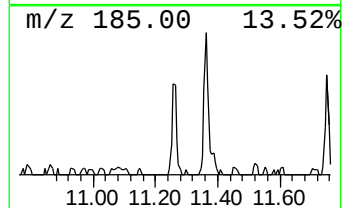
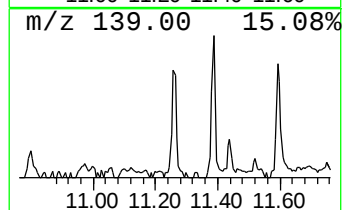
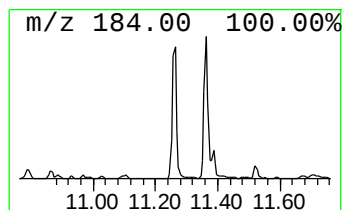
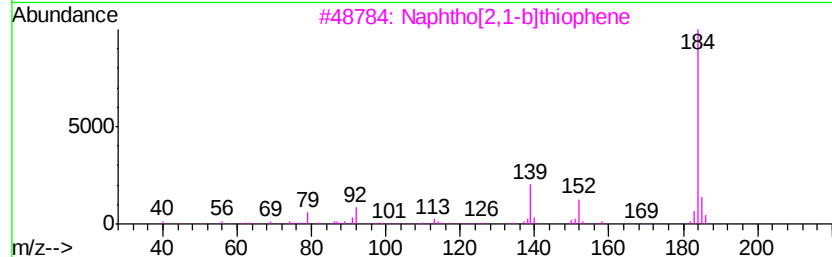
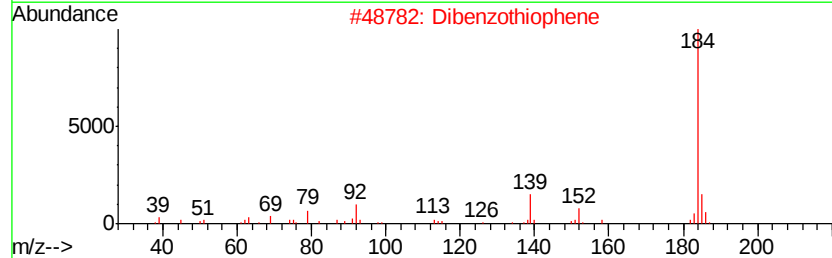
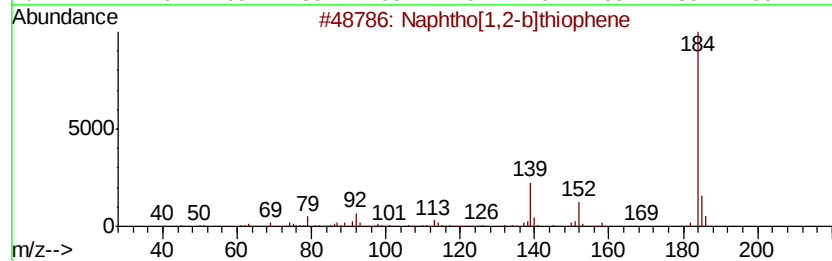
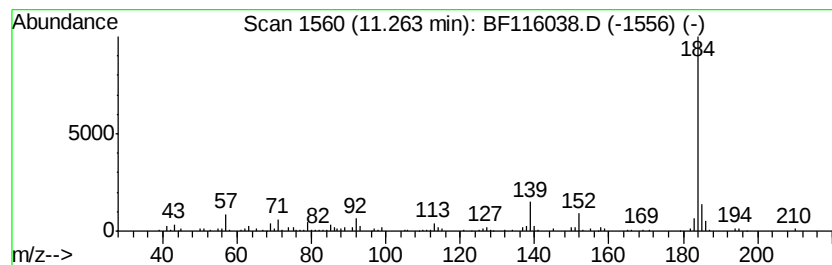
Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.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 5 Naphtho[1,2-b]thiophene Concentration Rank 12

| R.T.      | EstConc                   | Area   | Relative to ISTD | R.T.        |      |
|-----------|---------------------------|--------|------------------|-------------|------|
| 11.26     | 4.35 ng                   | 159865 | Phenanthrene-d10 | 11.36       |      |
| Hit# of 5 | Tentative ID              | MW     | MolForm          | CAS#        | Qual |
| 1         | Naphtho[1,2-b]thiophene   | 184    | C12H8S           | 000234-41-3 | 96   |
| 2         | Dibenzothiophene          | 184    | C12H8S           | 000132-65-0 | 96   |
| 3         | Naphtho[2,1-b]thiophene   | 184    | C12H8S           | 000233-02-3 | 96   |
| 4         | Azuleno(2,1-b)thiophene   | 184    | C12H8S           | 000248-13-5 | 87   |
| 5         | 1,1'-Biphenyl, 2-methoxy- | 184    | C13H12O          | 000086-26-0 | 64   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

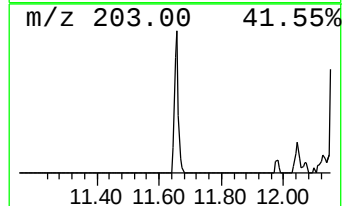
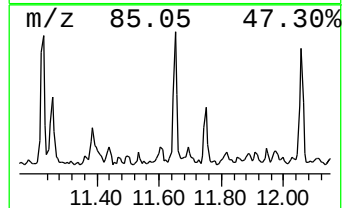
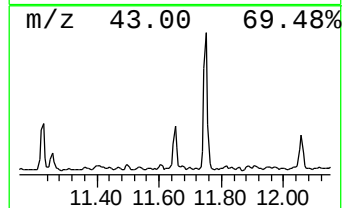
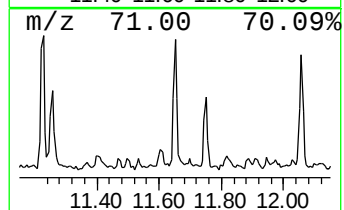
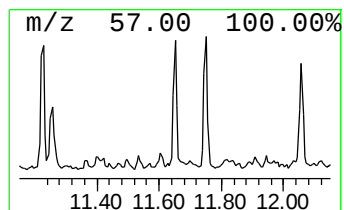
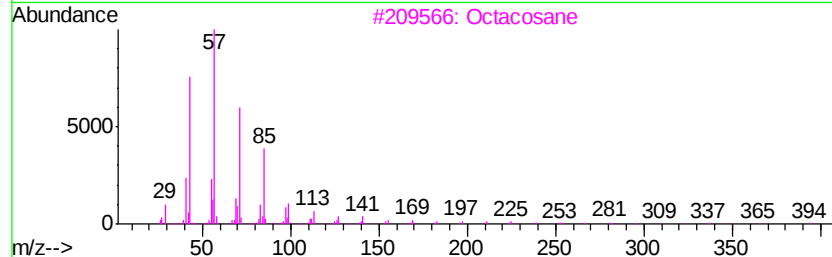
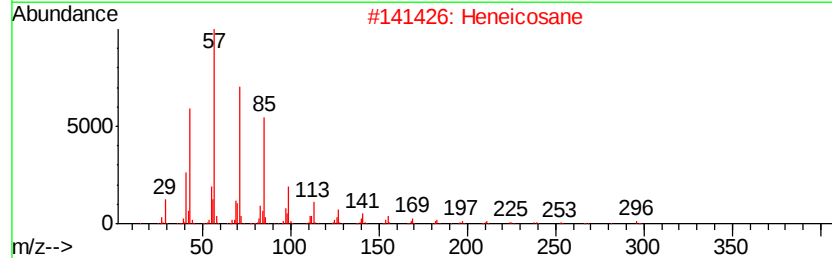
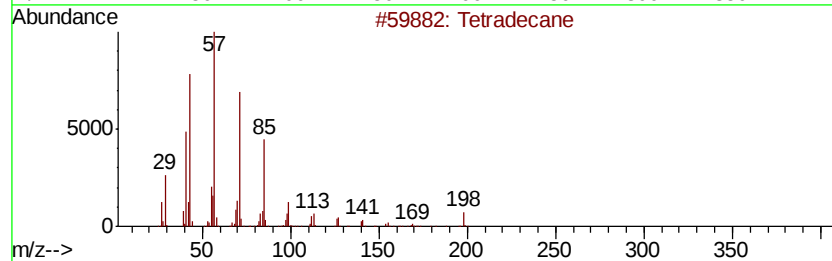
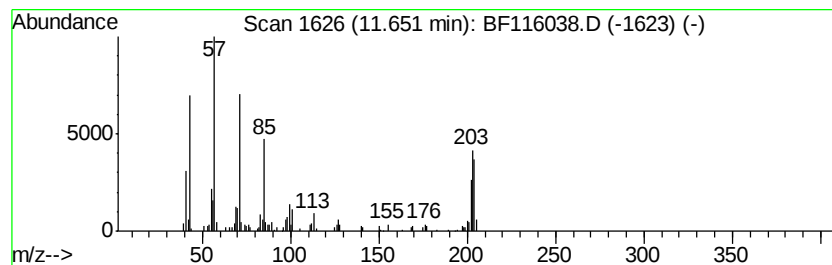
Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 6 Tetradecane Concentration Rank 16

| R.T.      | EstConc            | Area   | Relative to ISTD |             | R.T.  |
|-----------|--------------------|--------|------------------|-------------|-------|
| 11.65     | 3.17 ng            | 116382 | Phenanthrene-d10 |             | 11.36 |
| Hit# of 5 | Tentative ID       | MW     | MolForm          | CAS#        | Qual  |
| 1         | Tetradecane        | 198    | C14H30           | 000629-59-4 | 52    |
| 2         | Heneicosane        | 296    | C21H44           | 000629-94-7 | 50    |
| 3         | Octacosane         | 394    | C28H58           | 000630-02-4 | 45    |
| 4         | Heptadecane        | 240    | C17H36           | 000629-78-7 | 45    |
| 5         | Tridecane, 1-iodo- | 310    | C13H27I          | 035599-77-0 | 45    |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

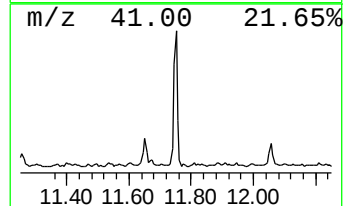
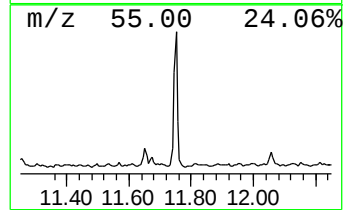
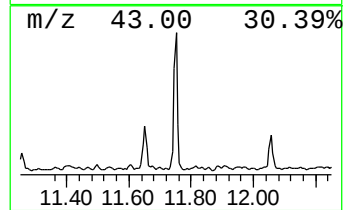
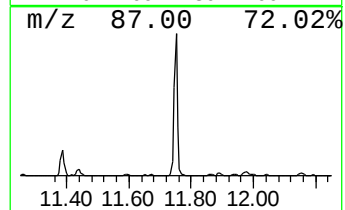
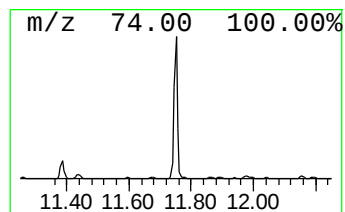
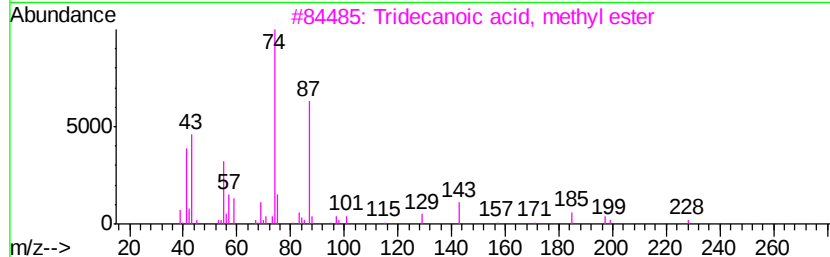
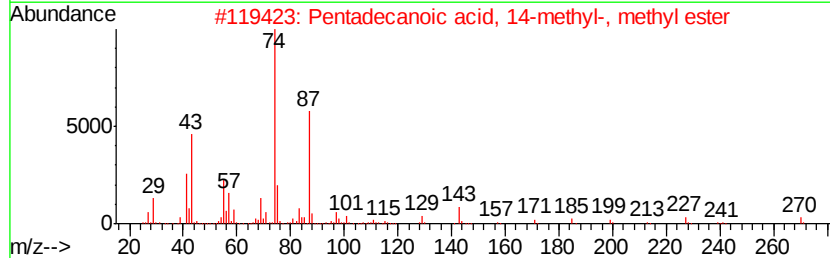
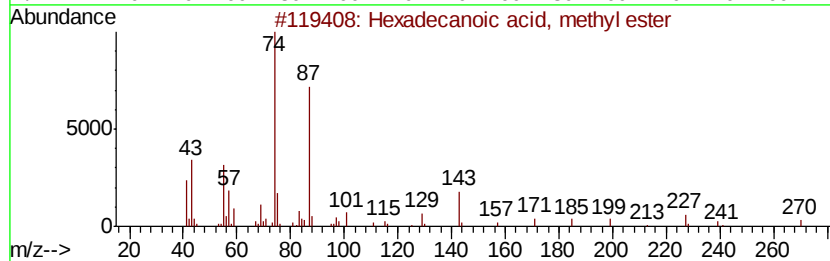
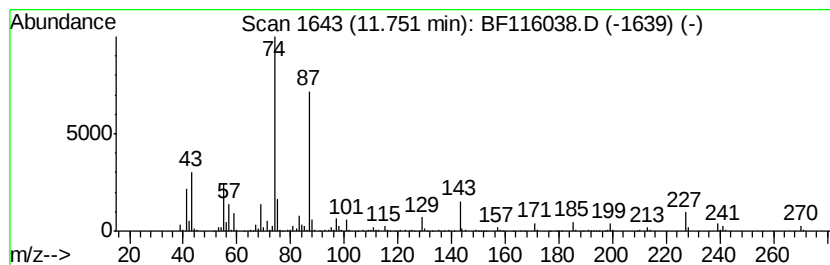
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 7 Hexadecanoic acid, methyl e... Concentration Rank 6

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 11.75 | 13.22 ng | 486079 | Phenanthrene-d10 | 11.36 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | Hexadecanoic acid, methyl ester     | 270 | C17H34O2 | 000112-39-0 | 99   |
| 2    |    | Pentadecanoic acid, 14-methyl-, ... | 270 | C17H34O2 | 005129-60-2 | 96   |
| 3    |    | Tridecanoic acid, methyl ester      | 228 | C14H28O2 | 001731-88-0 | 89   |
| 4    |    | Pentadecanoic acid, methyl ester    | 256 | C16H32O2 | 007132-64-1 | 86   |
| 5    |    | Hexadecanoic acid, 2-methyl-        | 270 | C17H34O2 | 027147-71-3 | 83   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

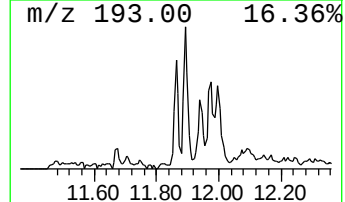
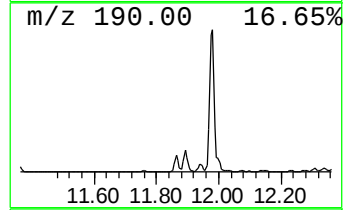
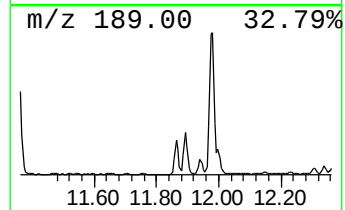
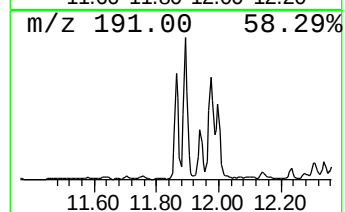
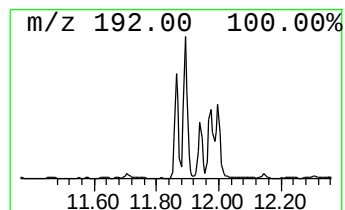
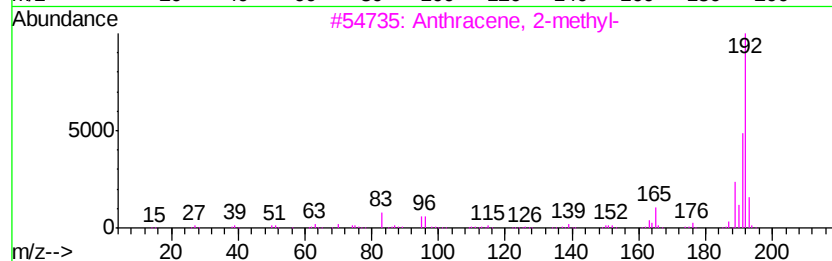
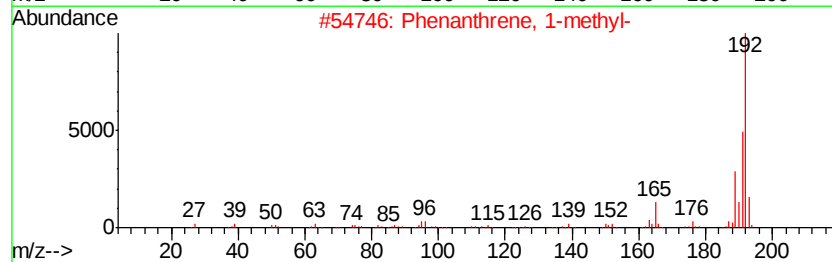
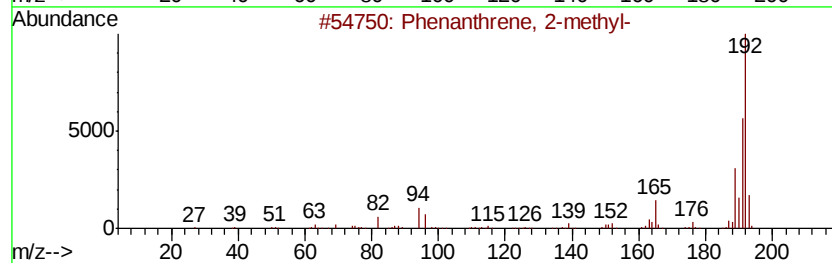
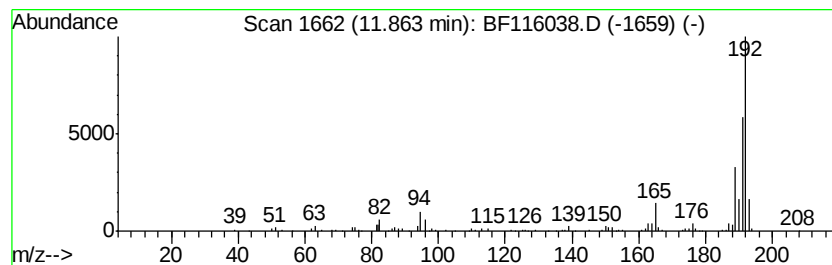
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ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 8 Phenanthrene, 2-methyl- Concentration Rank 9

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.        |      |
|-----------|-------------------------------------|--------|------------------|-------------|------|
| 11.86     | 5.26 ng                             | 193358 | Phenanthrene-d10 | 11.36       |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#        | Qual |
| 1         | 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         | 1H-Cyclopropa[1]phenanthrene,1a,... | 192    | C15H12           | 000949-41-7 | 96   |
| 5         | Anthracene, 1-methyl-               | 192    | C15H12           | 000610-48-0 | 95   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

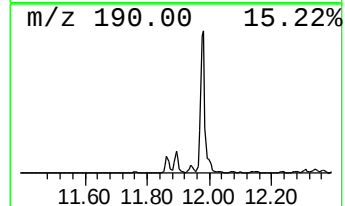
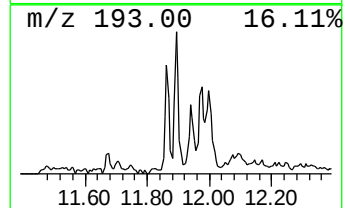
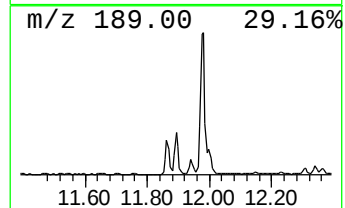
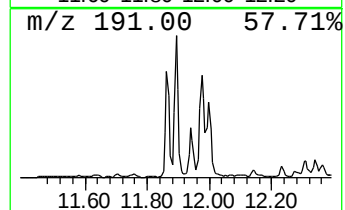
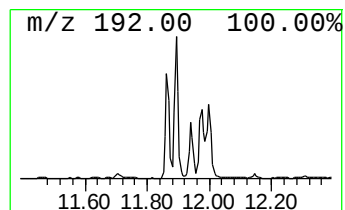
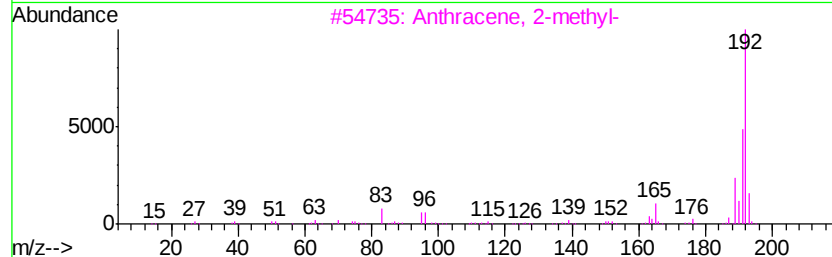
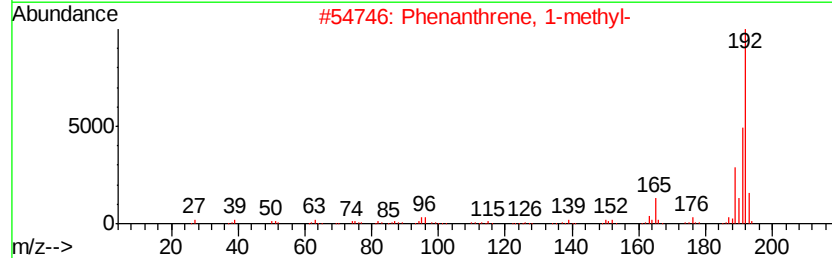
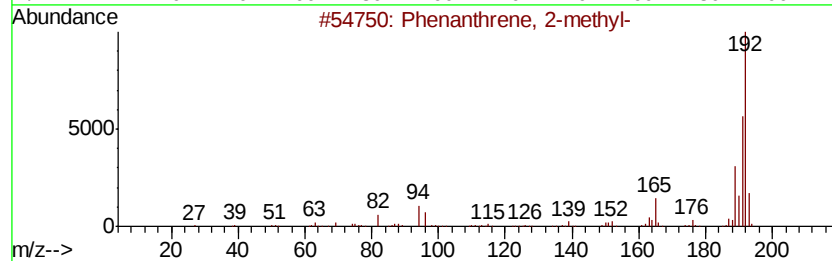
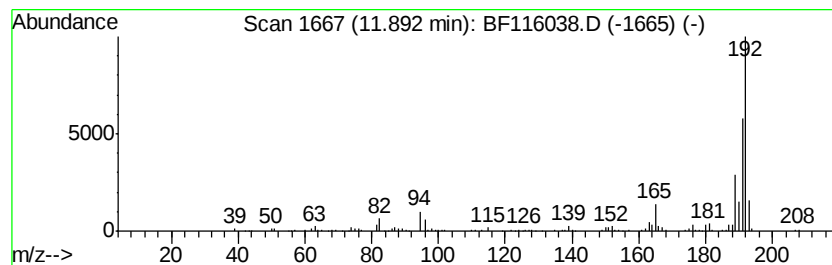
Instrument :  
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ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.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 9 Phenanthrene, 1-methyl- Concentration Rank 8

| R.T.      | EstConc                 | Area   | Relative to ISTD | R.T.        |      |
|-----------|-------------------------|--------|------------------|-------------|------|
| 11.89     | 6.41 ng                 | 235541 | Phenanthrene-d10 | 11.36       |      |
| Hit# of 5 | Tentative ID            | MW     | MolForm          | CAS#        | Qual |
| 1         | 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         | Anthracene, 1-methyl-   | 192    | C15H12           | 000610-48-0 | 95   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
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Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

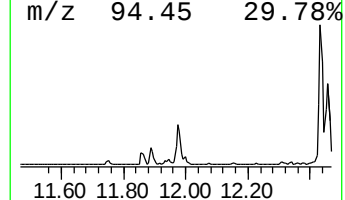
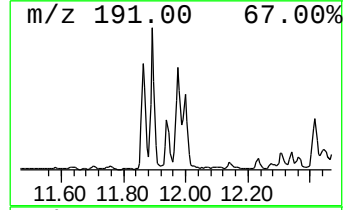
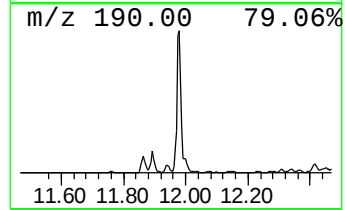
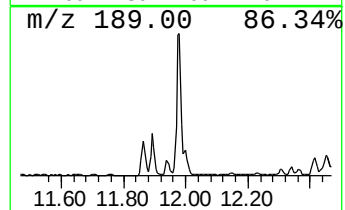
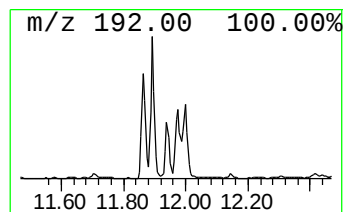
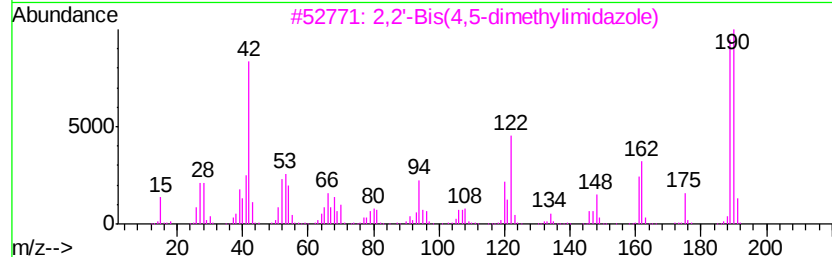
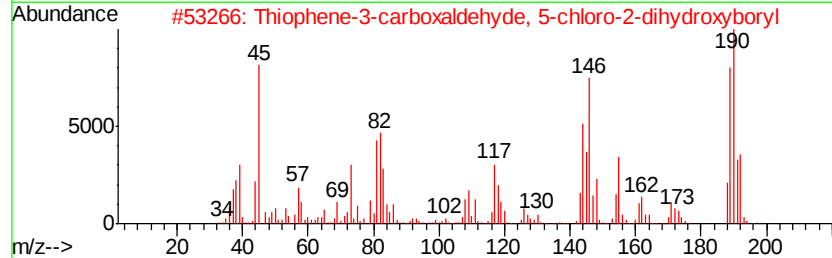
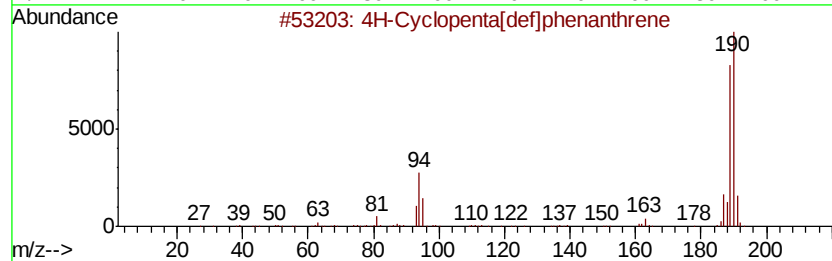
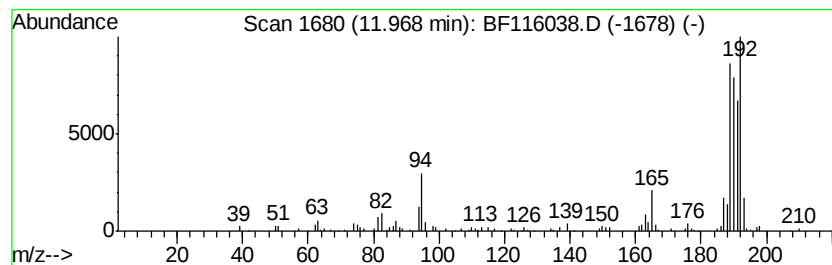
Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 10 4H-Cyclopenta[def]phenanthrene Concentration Rank 7

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.         |      |
|-----------|-------------------------------------|--------|------------------|--------------|------|
| 11.97     | 11.61 ng                            | 426873 | Phenanthrene-d10 | 11.36        |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#         | Qual |
| 1         | 4H-Cyclopenta[def]phenanthrene      | 190    | C15H10           | 000203-64-5  | 93   |
| 2         | Thiophene-3-carboxaldehyde, 5-ch... | 190    | C5H4BClO3S       | 036155-87-0  | 53   |
| 3         | 2,2'-Bis(4,5-dimethylimidazole)     | 190    | C10H14N4         | 069286-06-2  | 40   |
| 4         | 6H-Cyclobuta[flk]phenanthrene       | 190    | C15H10           | 083469-43-6  | 40   |
| 5         | Carbonic acid, ethyl 2-formyl-4,... | 262    | C10H8Cl2O4       | 1000331-34-4 | 33   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

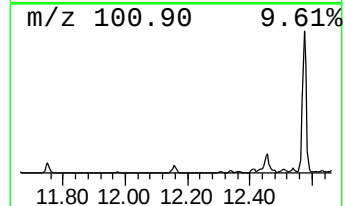
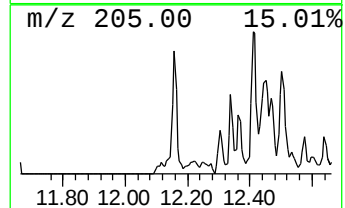
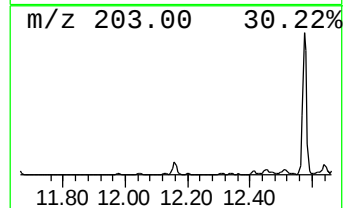
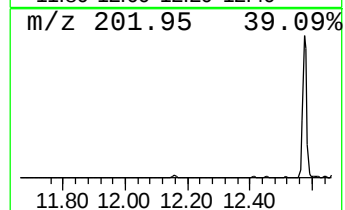
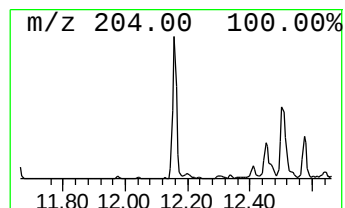
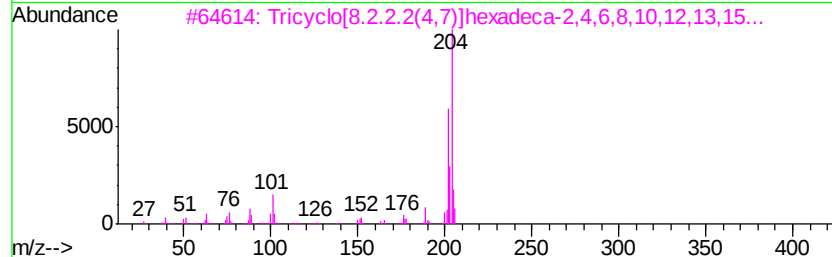
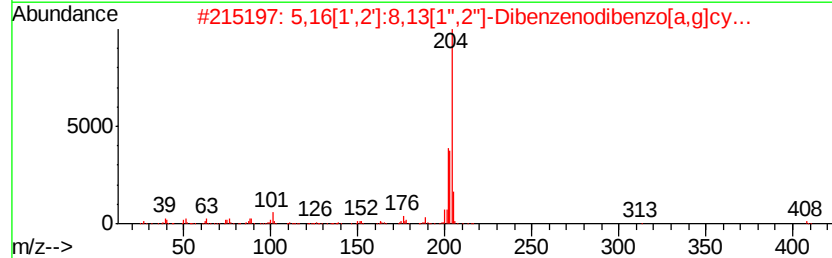
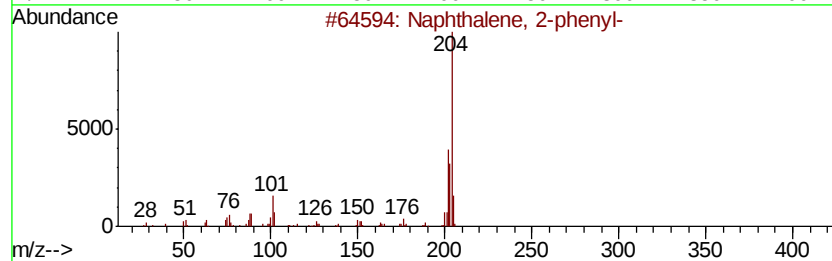
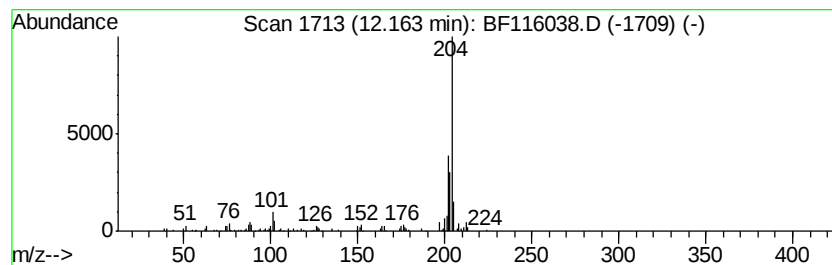
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 11 Naphthalene, 2-phenyl- Concentration Rank 14

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.16 | 3.37 ng | 123843 | Phenanthrene-d10 | 11.36 |

| Hit# | of | Tentative ID                          | MW  | MolForm   | CAS#        | Qual |
|------|----|---------------------------------------|-----|-----------|-------------|------|
| 1    | 5  | Naphthalene, 2-phenyl-                | 204 | C16H12    | 000612-94-2 | 94   |
| 2    |    | 5,16[1',2'] : 8,13[1'',2'']-Dibenz... | 408 | C32H24    | 005672-97-9 | 86   |
| 3    |    | Tricyclo[8.2.2.2(4,7)]hexadeca-2...   | 204 | C16H12    | 006572-60-7 | 70   |
| 4    |    | 9,10-Bis(bromomethyl)anthracene       | 362 | C16H12Br2 | 034373-96-1 | 62   |
| 5    |    | Naphthalene, 1-phenyl-                | 204 | C16H12    | 000605-02-7 | 49   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

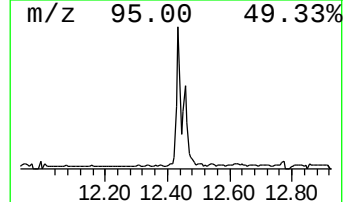
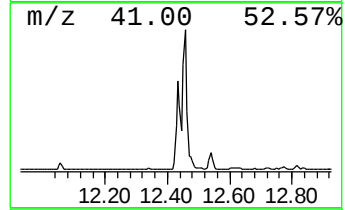
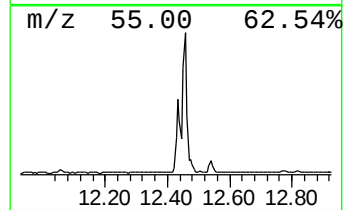
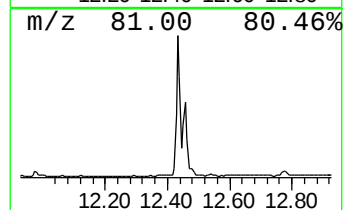
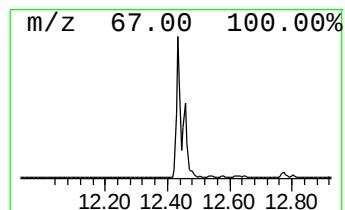
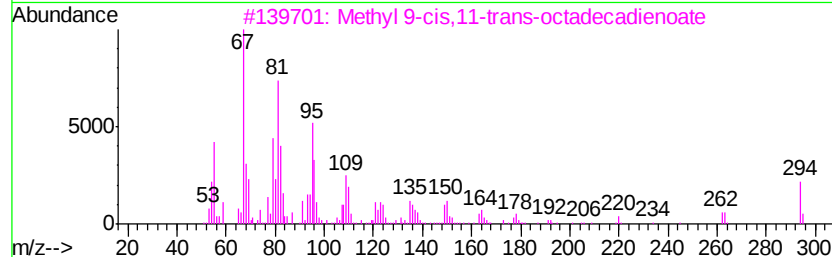
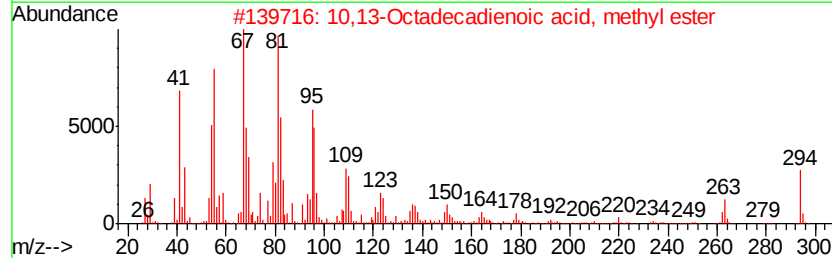
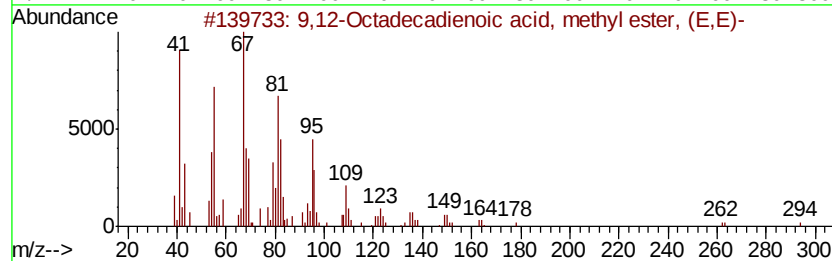
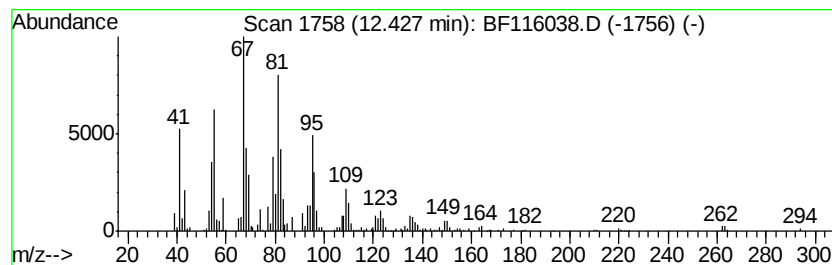
Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 12 9,12-Octadecadienoic acid, ... Concentration Rank 2

| R.T.      | EstConc                             | Area    | Relative to ISTD | R.T.         |      |
|-----------|-------------------------------------|---------|------------------|--------------|------|
| 12.43     | 34.14 ng                            | 1255290 | Phenanthrene-d10 | 11.36        |      |
| Hit# of 5 | Tentative ID                        | MW      | MolForm          | CAS#         | Qual |
| 1         | 9,12-Octadecadienoic acid, methy... | 294     | C19H34O2         | 002566-97-4  | 99   |
| 2         | 10,13-Octadecadienoic acid, meth... | 294     | C19H34O2         | 056554-62-2  | 99   |
| 3         | Methyl 9-cis,11-trans-octadecadi... | 294     | C19H34O2         | 1000336-44-0 | 99   |
| 4         | 9,15-Octadecadienoic acid, methy... | 294     | C19H34O2         | 017309-05-6  | 99   |
| 5         | 8,11-Octadecadienoic acid, methy... | 294     | C19H34O2         | 056599-58-7  | 98   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

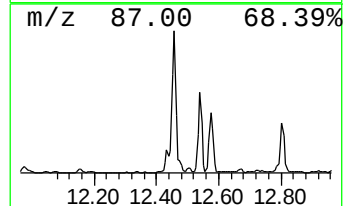
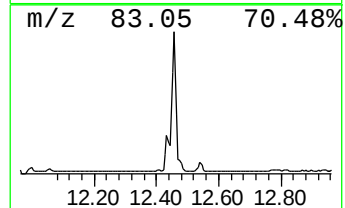
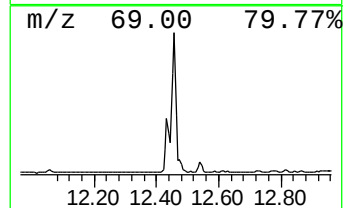
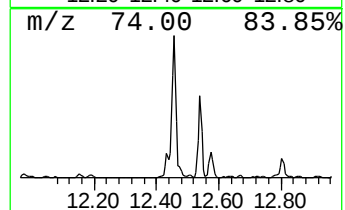
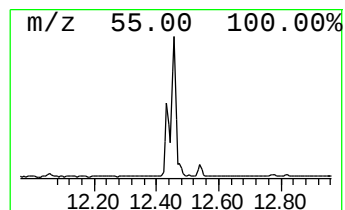
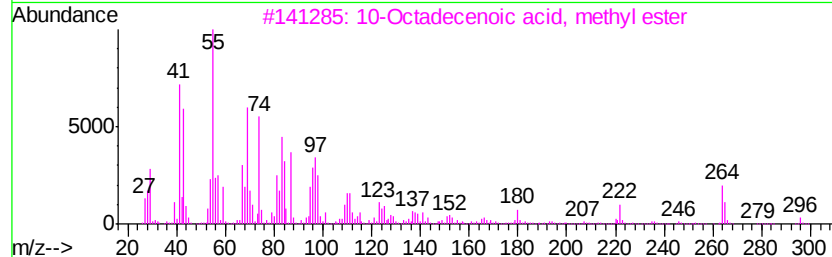
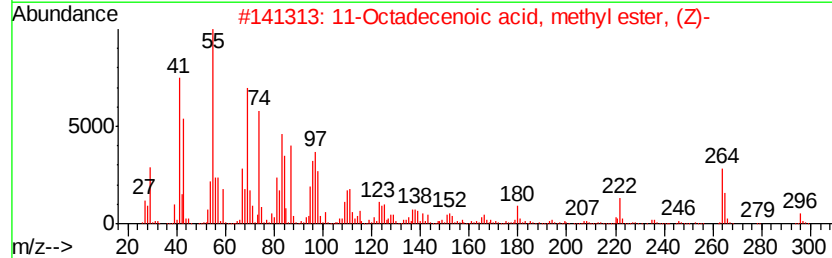
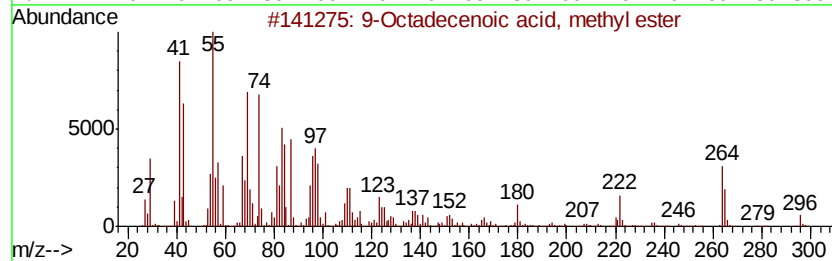
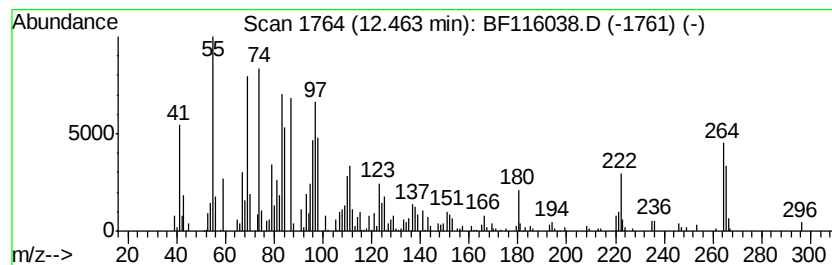
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 13 9-Octadecenoic acid, methyl... Concentration Rank 1

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 12.46 | 47.68 ng | 1753080 | Phenanthrene-d10 | 11.36 |

| Hit# | of | 5 | Tentative ID                          | MW  | MolForm  | CAS#        | Qual |
|------|----|---|---------------------------------------|-----|----------|-------------|------|
| 1    |    |   | 9-Octadecenoic acid, methyl ester     | 296 | C19H36O2 | 002462-84-2 | 99   |
| 2    |    |   | 11-Octadecenoic acid, methyl ester... | 296 | C19H36O2 | 001937-63-9 | 99   |
| 3    |    |   | 10-Octadecenoic acid, methyl ester    | 296 | C19H36O2 | 013481-95-3 | 99   |
| 4    |    |   | 8-Octadecenoic acid, methyl ester...  | 296 | C19H36O2 | 026528-50-7 | 99   |
| 5    |    |   | 9-Octadecenoic acid, methyl ester...  | 296 | C19H36O2 | 001937-62-8 | 99   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

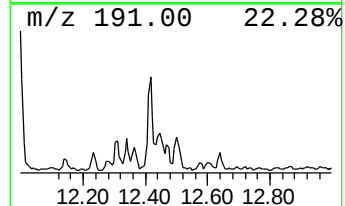
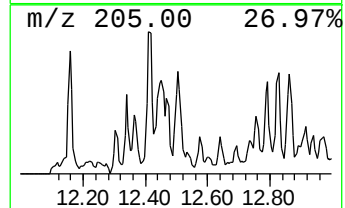
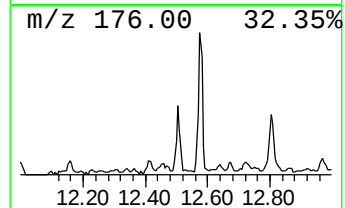
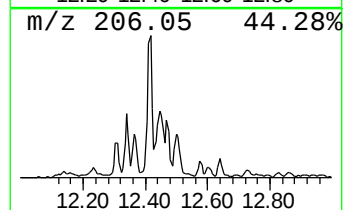
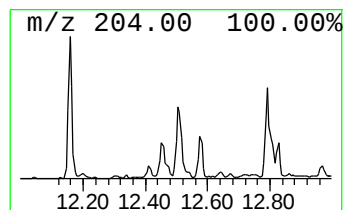
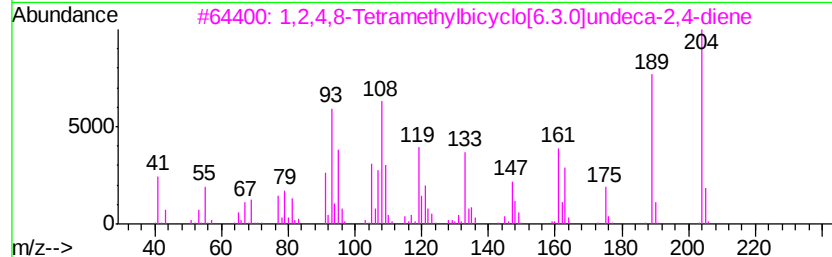
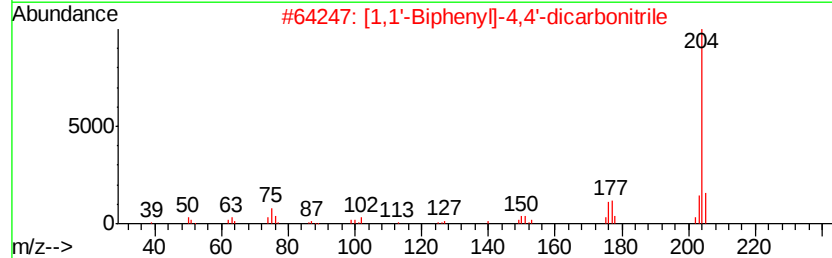
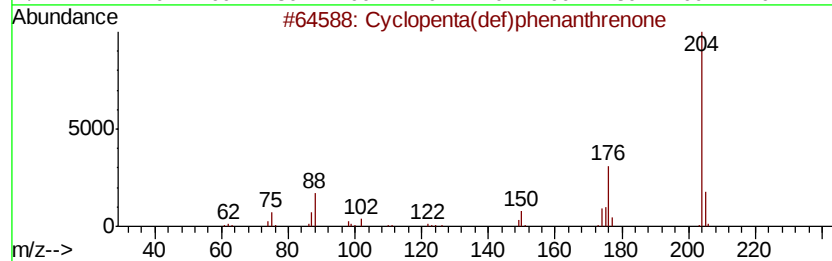
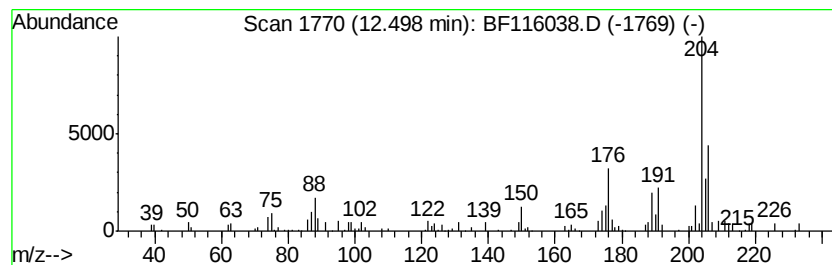
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 14 Cyclopenta(def)phenanthrenone Concentration Rank 18

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.50 | 2.87 ng | 105396 | Phenanthrene-d10 | 11.36 |

| Hit# | of | Tentative ID                                      | MW  | MolForm    | CAS#         | Qual |
|------|----|---------------------------------------------------|-----|------------|--------------|------|
| 1    | 5  | Cyclopenta(def)phenanthrenone                     | 204 | C15H8O     | 005737-13-3  | 93   |
| 2    |    | [1,1'-Biphenyl]-4,4'-dicarbonitrile               | 204 | C14H8N2    | 001591-30-6  | 58   |
| 3    |    | 1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-2,4-diene | 204 | C15H24     | 137235-51-9  | 49   |
| 4    |    | 3'-Carboxybenzo[1',2',-b]-1,4-diene               | 204 | C11H12N2O2 | 138023-41-3  | 49   |
| 5    |    | Quinoline, 8-methoxy-5-nitro-                     | 204 | C10H8N2O3  | 1000298-88-7 | 46   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

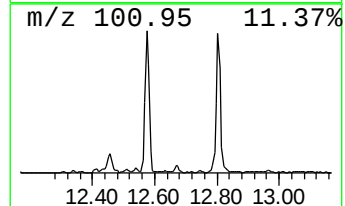
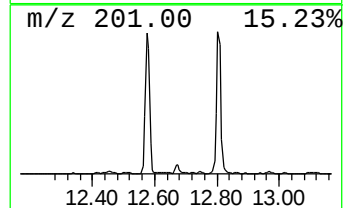
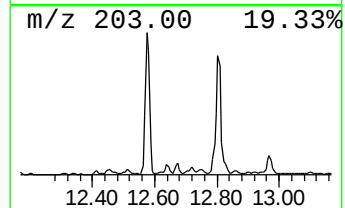
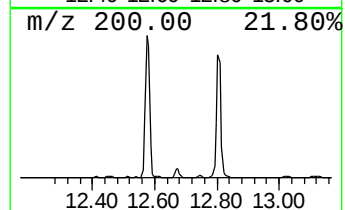
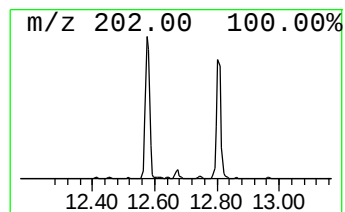
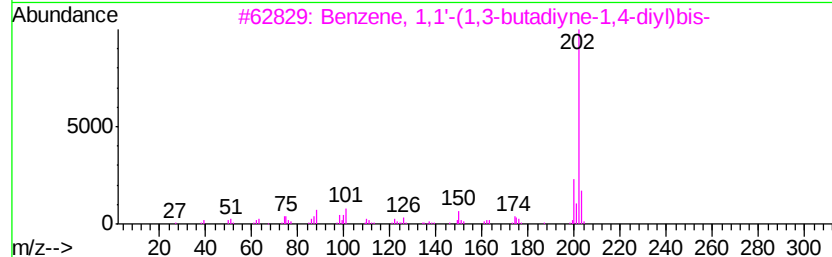
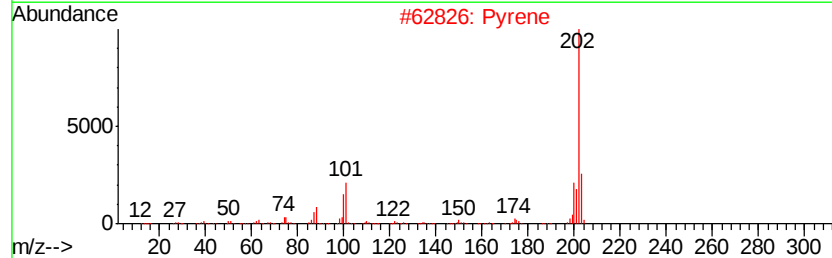
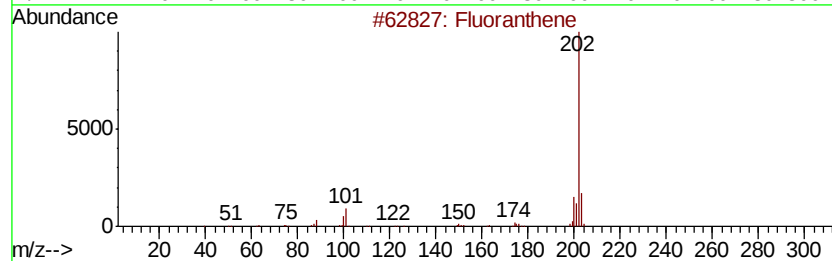
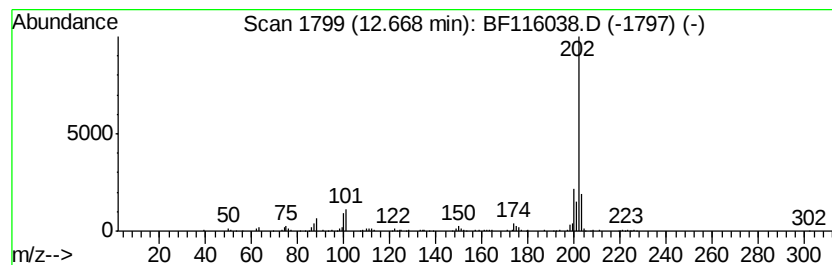
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 15 Benzene, 1,1'-(1,3-butadiyn... Concentration Rank 19

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.67 | 2.85 ng | 104837 | Phenanthrene-d10 | 11.36 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#         | Qual |
|------|----|-------------------------------------|-----|----------|--------------|------|
| 1    | 5  | Fluoranthene                        | 202 | C16H10   | 000206-44-0  | 95   |
| 2    |    | Pyrene                              | 202 | C16H10   | 000129-00-0  | 81   |
| 3    |    | Benzene, 1,1'-(1,3-butadiyne-1,4... | 202 | C16H10   | 000886-66-8  | 68   |
| 4    |    | 1-Methyl-7,11-dithiaspiro[5.5] u... | 202 | C10H18S2 | 107678-22-8  | 43   |
| 5    |    | 5-(4-Methylphenyl)furan-2-carbox... | 202 | C12H10O3 | 1000305-27-5 | 9    |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

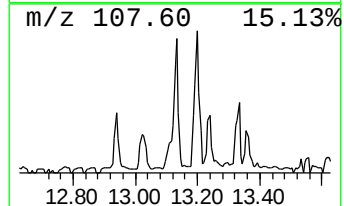
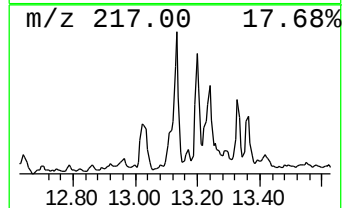
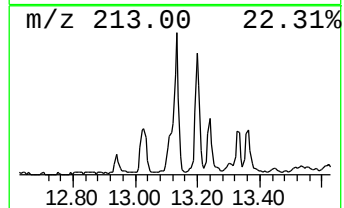
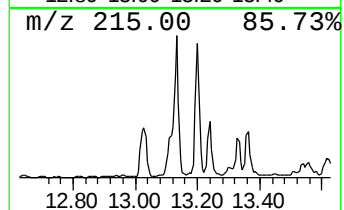
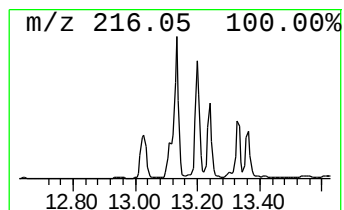
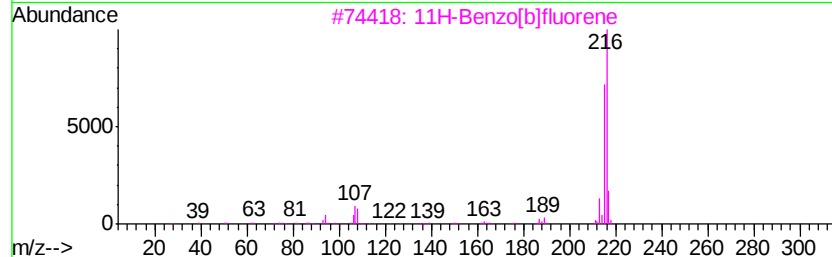
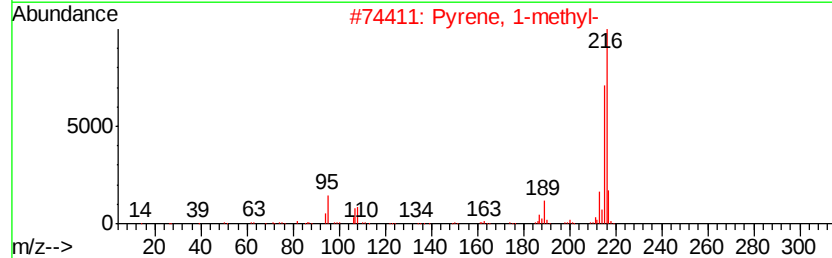
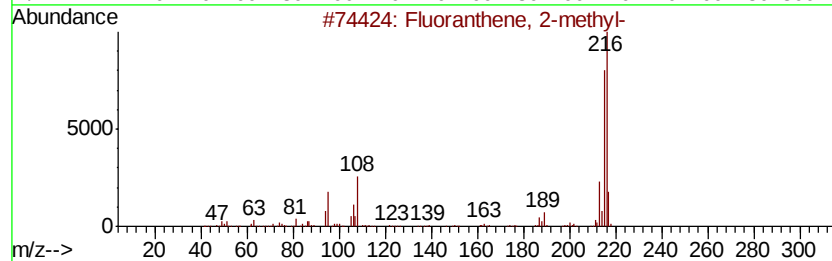
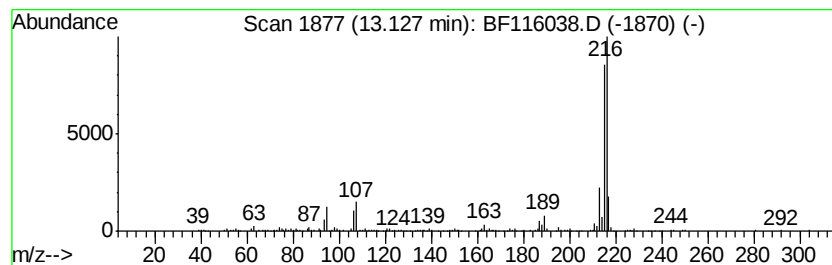
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 16 Fluoranthene, 2-methyl- Concentration Rank 10

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 13.13 | 5.25 ng | 494125 | Chrysene-d12     | 14.00 |

| Hit# | of | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------|-----|---------|-------------|------|
| 1    | 5  | Fluoranthene, 2-methyl- | 216 | C17H12  | 033543-31-6 | 95   |
| 2    |    | Pyrene, 1-methyl-       | 216 | C17H12  | 002381-21-7 | 94   |
| 3    |    | 11H-Benzo[b]fluorene    | 216 | C17H12  | 000243-17-4 | 94   |
| 4    |    | 11H-Benzo[a]fluorene    | 216 | C17H12  | 000238-84-6 | 91   |
| 5    |    | 7H-Benzo[c]fluorene     | 216 | C17H12  | 000205-12-9 | 81   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

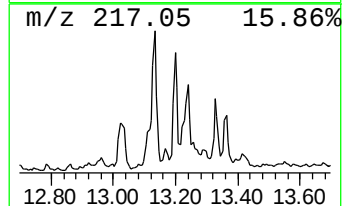
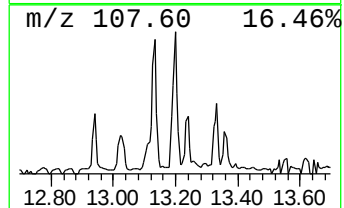
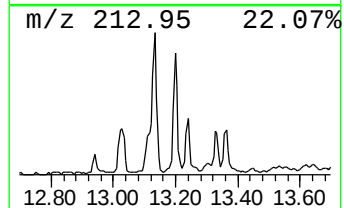
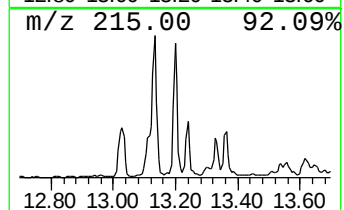
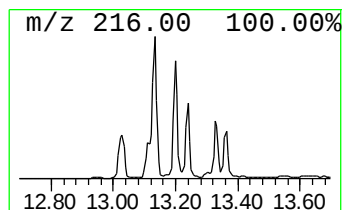
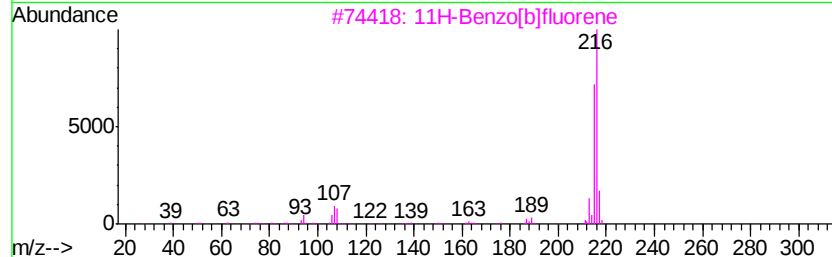
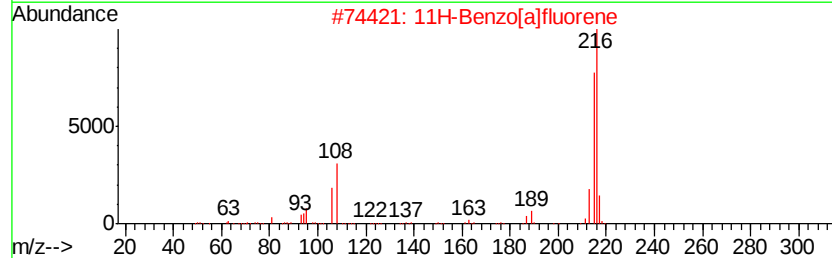
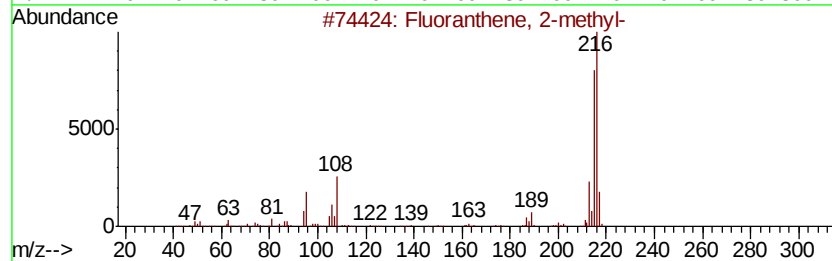
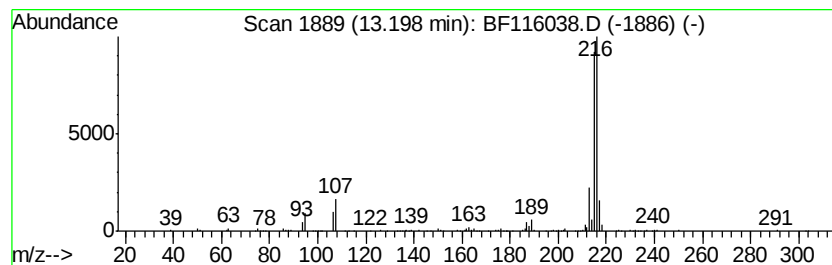
Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 17 Pyrene, 1-methyl- Concentration Rank 20

| R.T.    | EstConc | Area                    | Relative to ISTD | R.T.    |             |      |
|---------|---------|-------------------------|------------------|---------|-------------|------|
| 13.20   | 2.76 ng | 260143                  | Chrysene-d12     | 14.00   |             |      |
| Hit# of | 5       | Tentative ID            | MW               | MolForm | CAS#        | Qual |
| 1       |         | Fluoranthene, 2-methyl- | 216              | C17H12  | 033543-31-6 | 94   |
| 2       |         | 11H-Benzo[a]fluorene    | 216              | C17H12  | 000238-84-6 | 91   |
| 3       |         | 11H-Benzo[b]fluorene    | 216              | C17H12  | 000243-17-4 | 90   |
| 4       |         | Pyrene, 1-methyl-       | 216              | C17H12  | 002381-21-7 | 87   |
| 5       |         | 7H-Benzo[c]fluorene     | 216              | C17H12  | 000205-12-9 | 81   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

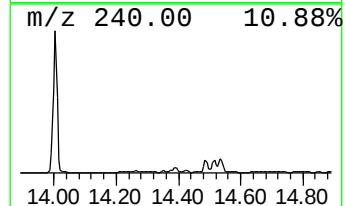
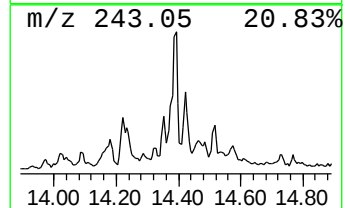
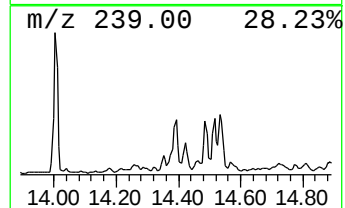
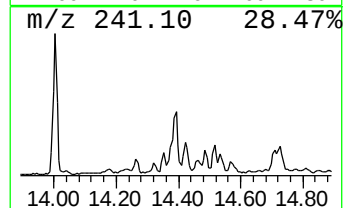
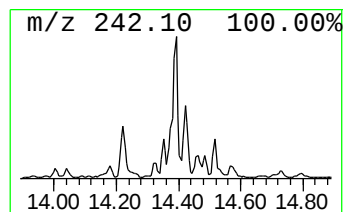
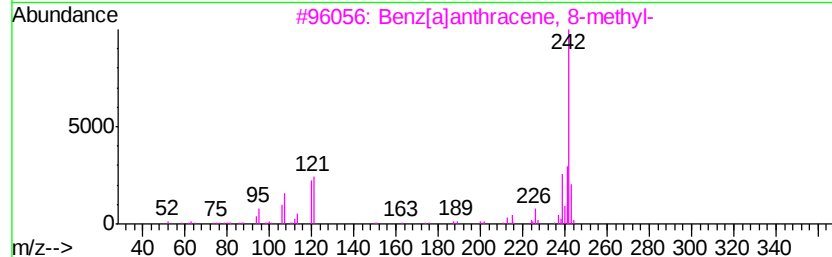
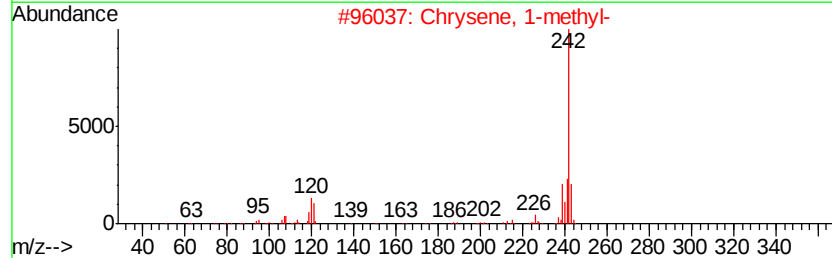
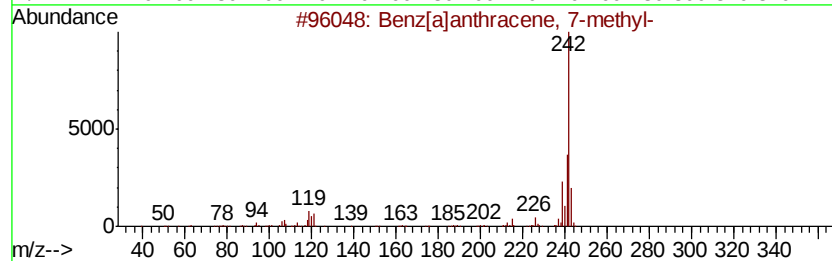
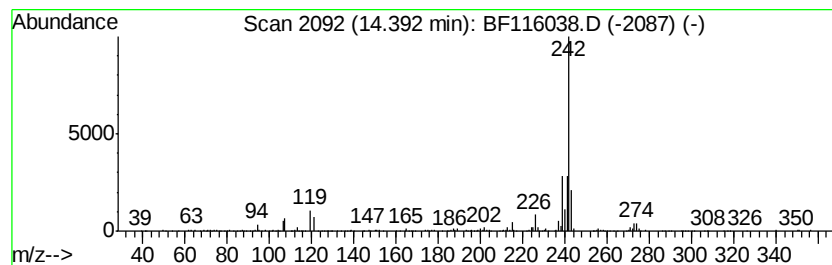
Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 18 Benz[a]anthracene, 7-methyl- Concentration Rank 17

| R.T.    | EstConc | Area                                  | Relative to ISTD | R.T.    |             |      |
|---------|---------|---------------------------------------|------------------|---------|-------------|------|
| 14.39   | 3.04 ng | 286078                                | Chrysene-d12     | 14.00   |             |      |
| Hit# of | 5       | Tentative ID                          | MW               | MolForm | CAS#        | Qual |
| 1       |         | Benz[ <i>a</i> ]anthracene, 7-methyl- | 242              | C19H14  | 002541-69-7 | 92   |
| 2       |         | Chrysene, 1-methyl-                   | 242              | C19H14  | 003351-28-8 | 90   |
| 3       |         | Benz[ <i>a</i> ]anthracene, 8-methyl- | 242              | C19H14  | 002381-31-9 | 86   |
| 4       |         | Chrysene, 5-methyl-                   | 242              | C19H14  | 003697-24-3 | 86   |
| 5       |         | Triphenylene, 2-methyl-               | 242              | C19H14  | 001705-84-6 | 86   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

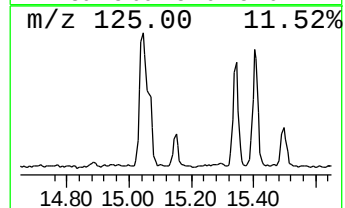
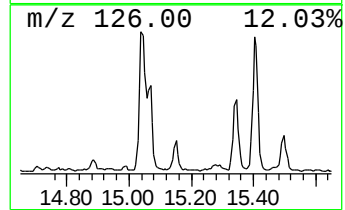
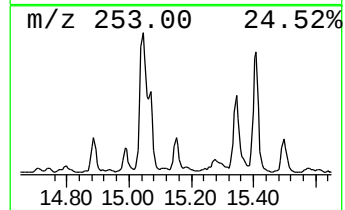
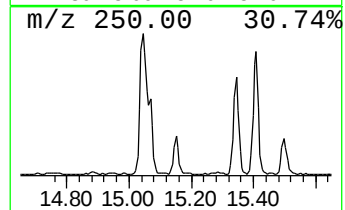
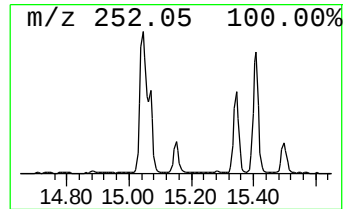
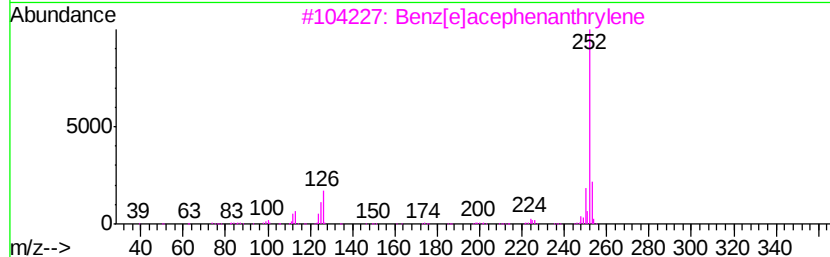
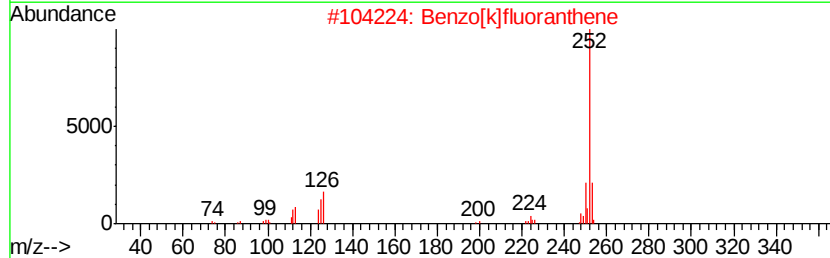
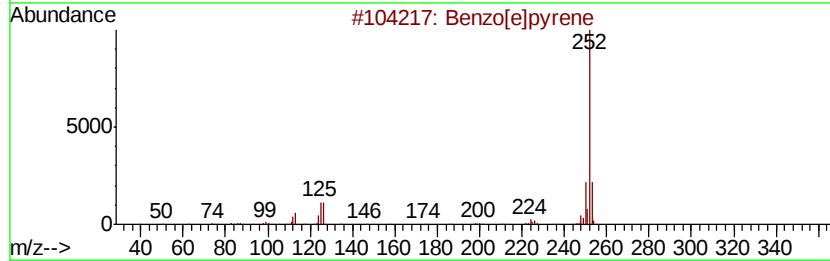
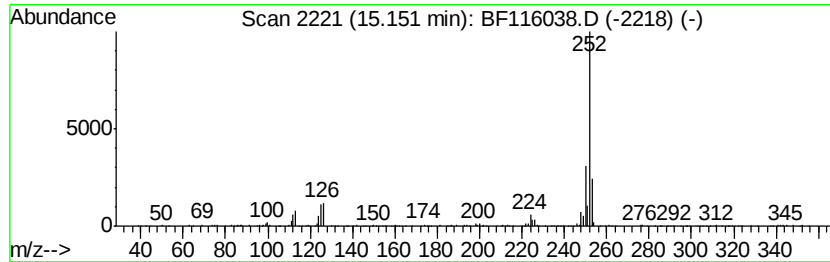
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 19 Benzo[e]pyrene Concentration Rank 11

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 15.15 | 4.53 ng | 161168 | Perylene-d12     | 15.47 |

| Hit# | of | 5 | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|------|----|---|---------------------------|-----|---------|-------------|------|
| 1    |    |   | Benzo[e]pyrene            | 252 | C20H12  | 000192-97-2 | 98   |
| 2    |    |   | Benzo[k]fluoranthene      | 252 | C20H12  | 000207-08-9 | 97   |
| 3    |    |   | Benzo[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 94   |
| 4    |    |   | Benzo[a]pyrene            | 252 | C20H12  | 000050-32-8 | 93   |
| 5    |    |   | Perylene                  | 252 | C20H12  | 000198-55-0 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080619\  
Data File : BF116038.D  
Acq On : 7 Aug 2019 4:32  
Operator : HP/JU  
Sample : K4095-03 5X  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

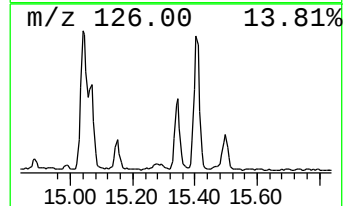
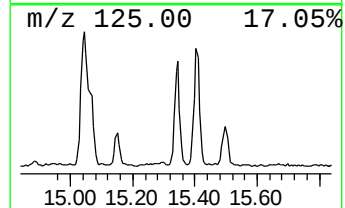
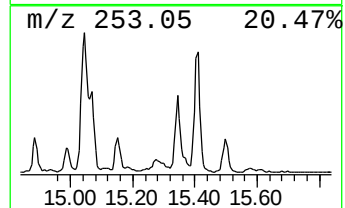
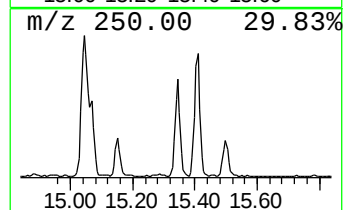
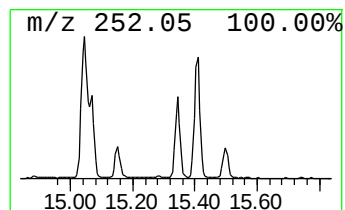
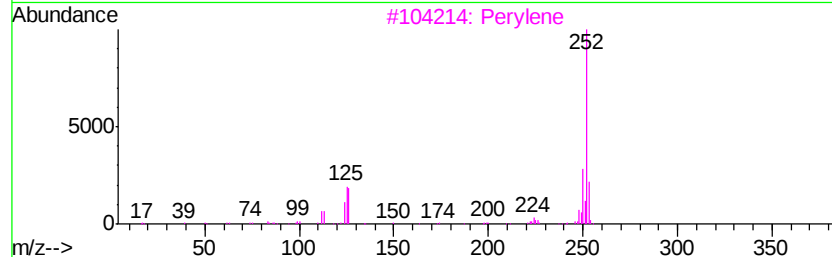
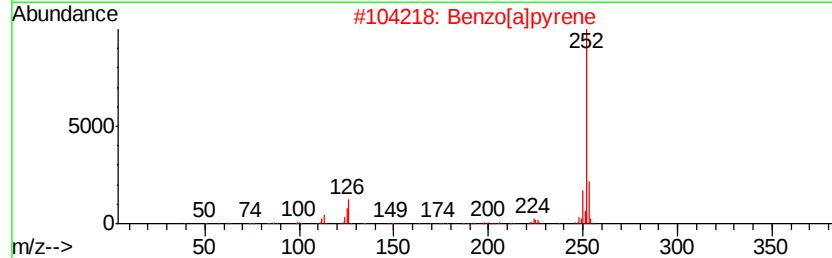
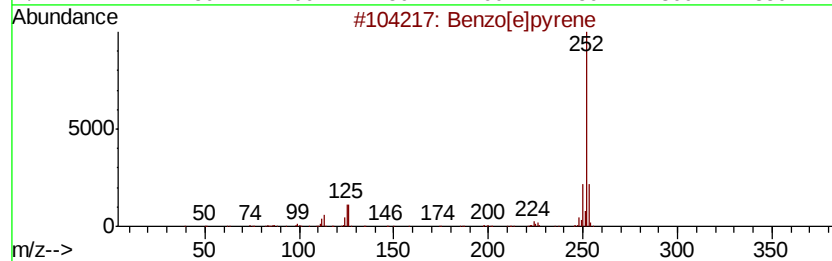
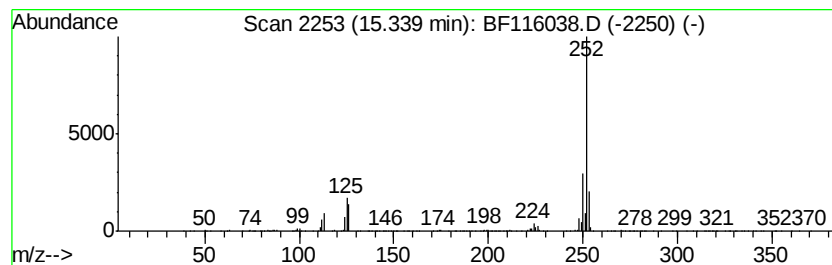
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 20 Perylene Concentration Rank 5

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.34 | 14.30 ng | 508122 | Perylene-d12     | 15.47 |

| Hit# | of | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[e]pyrene            | 252 | C20H12  | 000192-97-2 | 99   |
| 2    |    | Benzo[a]pyrene            | 252 | C20H12  | 000050-32-8 | 97   |
| 3    |    | Perylene                  | 252 | C20H12  | 000198-55-0 | 95   |
| 4    |    | Benzo[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 94   |
| 5    |    | Benzo[k]fluoranthene      | 252 | C20H12  | 000207-08-9 | 89   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF080619\  
 Data File : BF116038.D  
 Acq On : 7 Aug 2019 4:32  
 Operator : HP/JU  
 Sample : K4095-03 5X  
 Misc :  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SU-02-080219-B

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF073019.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 |
| unknown6.62          | 6.62  | 18.9    | ng    | 514710   | 1                     | 6.85  | 545320  | 20.0 |
| Dodecane, 1-iodo-    | 10.77 | 4.3     | ng    | 159185   | 4                     | 11.36 | 735419  | 20.0 |
| Heptadecane          | 11.23 | 3.3     | ng    | 121117   | 4                     | 11.36 | 735419  | 20.0 |
| Naphtho[1,2-b]thi... | 11.26 | 4.3     | ng    | 159865   | 4                     | 11.36 | 735419  | 20.0 |
| Tetradecane          | 11.65 | 3.2     | ng    | 116382   | 4                     | 11.36 | 735419  | 20.0 |
| Hexadecanoic acid... | 11.75 | 13.2    | ng    | 486079   | 4                     | 11.36 | 735419  | 20.0 |
| Phenanthrene, 2-m... | 11.86 | 5.3     | ng    | 193358   | 4                     | 11.36 | 735419  | 20.0 |
| Phenanthrene, 1-m... | 11.89 | 6.4     | ng    | 235541   | 4                     | 11.36 | 735419  | 20.0 |
| 4H-Cyclopenta[def... | 11.97 | 11.6    | ng    | 426873   | 4                     | 11.36 | 735419  | 20.0 |
| Naphthalene, 2-ph... | 12.16 | 3.4     | ng    | 123843   | 4                     | 11.36 | 735419  | 20.0 |
| 9,12-Octadecadien... | 12.43 | 34.1    | ng    | 1255290  | 4                     | 11.36 | 735419  | 20.0 |
| 9-Octadecenoic ac... | 12.46 | 47.7    | ng    | 1753080  | 4                     | 11.36 | 735419  | 20.0 |
| Cyclopenta(def)ph... | 12.50 | 2.9     | ng    | 105396   | 4                     | 11.36 | 735419  | 20.0 |
| Benzene, 1,1'-(1,... | 12.67 | 2.9     | ng    | 104837   | 4                     | 11.36 | 735419  | 20.0 |
| Fluoranthene, 2-m... | 13.13 | 5.3     | ng    | 494125   | 5                     | 14.00 | 1884010 | 20.0 |
| Pyrene, 1-methyl-    | 13.20 | 2.8     | ng    | 260143   | 5                     | 14.00 | 1884010 | 20.0 |
| Benz[a]anthracene... | 14.39 | 3.0     | ng    | 286078   | 5                     | 14.00 | 1884010 | 20.0 |
| Benzo[e]pyrene       | 15.15 | 4.5     | ng    | 161168   | 6                     | 15.47 | 710814  | 20.0 |
| Perylene             | 15.34 | 14.3    | ng    | 508122   | 6                     | 15.47 | 710814  | 20.0 |