

Data Path : Z:\HPCHEM1\BNA F\Data\BF040618\  
 Data File : BF104326.D  
 Acq On : 7 Apr 2018 00:35  
 Operator : JU/SJ  
 Sample : J2248-05  
 Misc :  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 RT3059

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         | 5.022       | 490           | 499         | 507          | rVB      | 119521         | 165462        | 5.24%           | 0.466%        |
| 2         | 5.416       | 560           | 566         | 569          | rBV      | 2962223        | 3134510       | 99.21%          | 8.819%        |
| 3         | 6.434       | 732           | 739         | 742          | rBV      | 2941168        | 3115456       | 98.60%          | 8.765%        |
| 4         | 6.575       | 758           | 763         | 766          | rBV      | 3168049        | 3159577       | 100.00%         | 8.889%        |
| 5         | 6.628       | 769           | 772         | 776          | rVB      | 100459         | 72575         | 2.30%           | 0.204%        |
| 6         | 6.804       | 798           | 802         | 805          | rBV      | 1157100        | 895394        | 28.34%          | 2.519%        |
| 7         | 6.963       | 824           | 829         | 832          | rVB      | 2531287        | 2276089       | 72.04%          | 6.404%        |
| 8         | 7.369       | 892           | 898         | 901          | rBV      | 2012639        | 1901770       | 60.19%          | 5.351%        |
| 9         | 8.087       | 1016          | 1020        | 1023         | rBV      | 1481517        | 1191346       | 37.71%          | 3.352%        |
| 10        | 9.163       | 1198          | 1203        | 1206         | rBV      | 3173913        | 2696263       | 85.34%          | 7.586%        |
| 11        | 9.557       | 1266          | 1270        | 1273         | rBV      | 236520         | 196157        | 6.21%           | 0.552%        |
| 12        | 9.704       | 1292          | 1295        | 1299         | rBV      | 45635          | 43318         | 1.37%           | 0.122%        |
| 13        | 9.775       | 1304          | 1307        | 1310         | rVV      | 115165         | 93359         | 2.95%           | 0.263%        |
| 14        | 9.839       | 1314          | 1318        | 1322         | rVV      | 1273050        | 1218849       | 38.58%          | 3.429%        |
| 15        | 9.875       | 1322          | 1324        | 1327         | rVB      | 82446          | 62318         | 1.97%           | 0.175%        |
| 16        | 9.998       | 1341          | 1345        | 1349         | rBV5     | 23793          | 31860         | 1.01%           | 0.090%        |
| 17        | 10.045      | 1349          | 1353        | 1355         | rBV2     | 42364          | 44268         | 1.40%           | 0.125%        |
| 18        | 10.275      | 1389          | 1392        | 1394         | rVB      | 155440         | 112591        | 3.56%           | 0.317%        |
| 19        | 10.386      | 1408          | 1411        | 1416         | rBV      | 73247          | 66614         | 2.11%           | 0.187%        |
| 20        | 10.492      | 1424          | 1429        | 1432         | rBV2     | 42203          | 58759         | 1.86%           | 0.165%        |
| 21        | 10.628      | 1447          | 1452        | 1456         | rBV      | 1736908        | 1682638       | 53.26%          | 4.734%        |
| 22        | 10.745      | 1469          | 1472        | 1478         | rBV2     | 141103         | 182393        | 5.77%           | 0.513%        |
| 23        | 10.845      | 1485          | 1489        | 1492         | rVB3     | 29297          | 35065         | 1.11%           | 0.099%        |
| 24        | 10.939      | 1501          | 1505        | 1507         | rBV3     | 38842          | 40751         | 1.29%           | 0.115%        |
| 25        | 11.127      | 1534          | 1537        | 1542         | rVB2     | 258878         | 210710        | 6.67%           | 0.593%        |
| 26        | 11.198      | 1546          | 1549        | 1551         | rVV2     | 69383          | 70522         | 2.23%           | 0.198%        |
| 27        | 11.222      | 1551          | 1553        | 1558         | rVB      | 43191          | 46238         | 1.46%           | 0.130%        |
| 28        | 11.327      | 1567          | 1571        | 1574         | rBV      | 1100000        | 979343        | 31.00%          | 2.755%        |
| 29        | 11.351      | 1574          | 1575        | 1578         | rVV      | 277101         | 161321        | 5.11%           | 0.454%        |
| 30        | 11.404      | 1578          | 1584        | 1587         | rVV      | 229102         | 205058        | 6.49%           | 0.577%        |
| 31        | 11.433      | 1587          | 1589        | 1593         | rVB      | 47364          | 45376         | 1.44%           | 0.128%        |
| 32        | 11.622      | 1619          | 1621        | 1626         | rVB      | 52852          | 46415         | 1.47%           | 0.131%        |
| 33        | 11.827      | 1651          | 1656        | 1658         | rBV2     | 43966          | 47494         | 1.50%           | 0.134%        |
| 34        | 11.857      | 1658          | 1661        | 1666         | rVV      | 161799         | 135222        | 4.28%           | 0.380%        |

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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 | 11.904 | 1666 | 1669 | 1672 | rVB  | 57972   | 48100   | 1.52%  | 0.135% |
| 36 | 11.945 | 1672 | 1676 | 1678 | rBV  | 137438  | 142925  | 4.52%  | 0.402% |
| 37 | 12.033 | 1684 | 1691 | 1693 | rBV4 | 26284   | 37521   | 1.19%  | 0.106% |
| 38 | 12.127 | 1704 | 1707 | 1709 | rBV  | 44725   | 34057   | 1.08%  | 0.096% |
| 39 | 12.380 | 1746 | 1750 | 1753 | rBV  | 49622   | 53464   | 1.69%  | 0.150% |
| 40 | 12.416 | 1753 | 1756 | 1758 | rVV2 | 39476   | 42348   | 1.34%  | 0.119% |
| 41 | 12.463 | 1761 | 1764 | 1769 | rBV  | 166801  | 147432  | 4.67%  | 0.415% |
| 42 | 12.545 | 1774 | 1778 | 1781 | rVV  | 1164837 | 1036602 | 32.81% | 2.916% |
| 43 | 12.604 | 1781 | 1788 | 1791 | rVB2 | 39052   | 52906   | 1.67%  | 0.149% |
| 44 | 12.692 | 1796 | 1803 | 1808 | rBV3 | 37773   | 70409   | 2.23%  | 0.198% |
| 45 | 12.774 | 1809 | 1817 | 1820 | rBV2 | 1008882 | 1153298 | 36.50% | 3.245% |
| 46 | 12.822 | 1822 | 1825 | 1830 | rVB2 | 41961   | 53842   | 1.70%  | 0.151% |
| 47 | 12.892 | 1833 | 1837 | 1838 | rBV  | 73173   | 73147   | 2.32%  | 0.206% |
| 48 | 12.916 | 1838 | 1841 | 1848 | rVB  | 1747811 | 1726337 | 54.64% | 4.857% |
| 49 | 12.992 | 1848 | 1854 | 1857 | rBV3 | 101193  | 154206  | 4.88%  | 0.434% |
| 50 | 13.074 | 1865 | 1868 | 1870 | rBV3 | 86487   | 110460  | 3.50%  | 0.311% |
| 51 | 13.098 | 1870 | 1872 | 1875 | rVB  | 180931  | 153894  | 4.87%  | 0.433% |
| 52 | 13.169 | 1880 | 1884 | 1886 | rVB  | 142084  | 130659  | 4.14%  | 0.368% |
| 53 | 13.204 | 1886 | 1890 | 1892 | rBV2 | 130647  | 150431  | 4.76%  | 0.423% |
| 54 | 13.227 | 1892 | 1894 | 1897 | rVB  | 48383   | 44865   | 1.42%  | 0.126% |
| 55 | 13.292 | 1903 | 1905 | 1908 | rVB  | 76338   | 68004   | 2.15%  | 0.191% |
| 56 | 13.327 | 1908 | 1911 | 1914 | rBV2 | 62958   | 72652   | 2.30%  | 0.204% |
| 57 | 13.580 | 1951 | 1954 | 1956 | rBV4 | 27999   | 36133   | 1.14%  | 0.102% |
| 58 | 13.604 | 1956 | 1958 | 1963 | rVB  | 89843   | 90330   | 2.86%  | 0.254% |
| 59 | 13.721 | 1972 | 1978 | 1980 | rBV2 | 111458  | 152421  | 4.82%  | 0.429% |
| 60 | 13.751 | 1980 | 1983 | 1984 | rVV  | 110388  | 106771  | 3.38%  | 0.300% |
| 61 | 13.769 | 1984 | 1986 | 1991 | rVV2 | 120963  | 159738  | 5.06%  | 0.449% |
| 62 | 13.816 | 1991 | 1994 | 1999 | rVV2 | 176206  | 196360  | 6.21%  | 0.552% |
| 63 | 13.863 | 1999 | 2002 | 2004 | rVV  | 65129   | 57875   | 1.83%  | 0.163% |
| 64 | 13.892 | 2004 | 2007 | 2012 | rVB2 | 37359   | 43303   | 1.37%  | 0.122% |
| 65 | 13.974 | 2012 | 2021 | 2023 | rBV2 | 1030106 | 1545105 | 48.90% | 4.347% |
| 66 | 13.998 | 2023 | 2025 | 2031 | rVB  | 678022  | 576673  | 18.25% | 1.622% |
| 67 | 14.080 | 2033 | 2039 | 2040 | rBV3 | 77550   | 85927   | 2.72%  | 0.242% |
| 68 | 14.098 | 2040 | 2042 | 2046 | rVB2 | 70424   | 61124   | 1.93%  | 0.172% |
| 69 | 14.186 | 2054 | 2057 | 2062 | rBV3 | 44315   | 58530   | 1.85%  | 0.165% |
| 70 | 14.357 | 2084 | 2086 | 2090 | rVV  | 81069   | 97648   | 3.09%  | 0.275% |
| 71 | 14.392 | 2090 | 2092 | 2096 | rVV2 | 77395   | 83977   | 2.66%  | 0.236% |

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Misc :  
ALS Vial : 22 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
RT3059

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 | 14.451 | 2099 | 2102 | 2105 | rVV2 | 73703  | 80520  | 2.55%  | 0.227% |
| 73 | 14.486 | 2105 | 2108 | 2110 | rVV2 | 63714  | 72617  | 2.30%  | 0.204% |
| 74 | 14.510 | 2110 | 2112 | 2115 | rVV2 | 49889  | 52078  | 1.65%  | 0.147% |
| 75 | 14.663 | 2135 | 2138 | 2141 | rBV2 | 51775  | 57077  | 1.81%  | 0.161% |
| 76 | 14.751 | 2150 | 2153 | 2156 | rBV3 | 33722  | 37659  | 1.19%  | 0.106% |
| 77 | 14.833 | 2164 | 2167 | 2169 | rBV2 | 33402  | 42614  | 1.35%  | 0.120% |
| 78 | 15.004 | 2192 | 2196 | 2200 | rBV  | 339444 | 537423 | 17.01% | 1.512% |
| 79 | 15.110 | 2212 | 2214 | 2218 | rVB  | 60627  | 64995  | 2.06%  | 0.183% |
| 80 | 15.304 | 2243 | 2247 | 2253 | rVB  | 147096 | 177704 | 5.62%  | 0.500% |
| 81 | 15.363 | 2253 | 2257 | 2260 | rBV  | 142109 | 170386 | 5.39%  | 0.479% |
| 82 | 15.433 | 2264 | 2269 | 2272 | rBV  | 605008 | 709335 | 22.45% | 1.996% |
| 83 | 15.598 | 2293 | 2297 | 2302 | rVB  | 29201  | 36763  | 1.16%  | 0.103% |
| 84 | 15.898 | 2345 | 2348 | 2352 | rBV4 | 32219  | 47786  | 1.51%  | 0.134% |
| 85 | 16.857 | 2507 | 2511 | 2517 | rBV4 | 27659  | 48071  | 1.52%  | 0.135% |
| 86 | 17.445 | 2608 | 2611 | 2618 | rVB8 | 34187  | 73751  | 2.33%  | 0.207% |

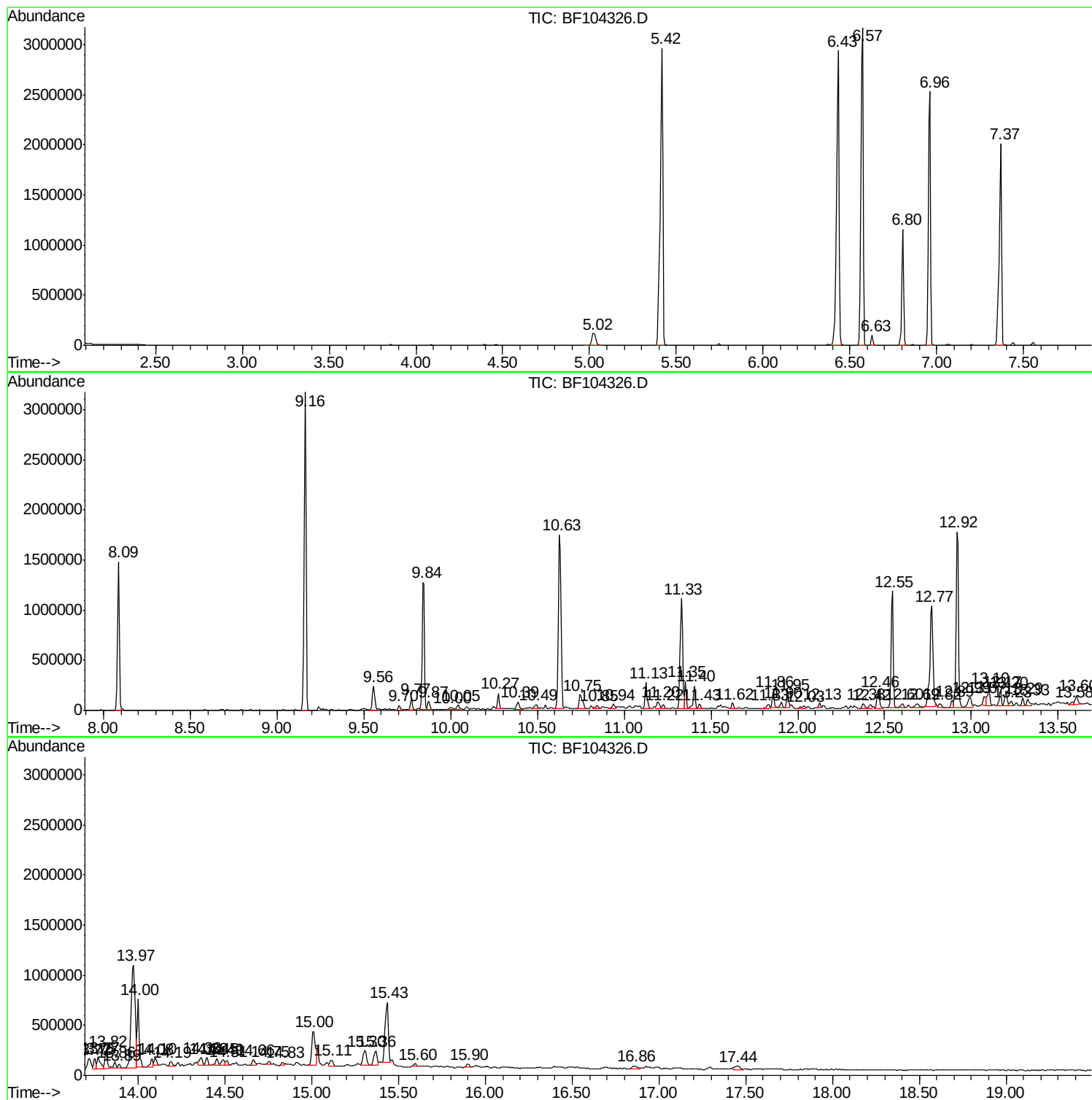
Sum of corrected areas: 35543334

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ALS Vial : 22 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampled :  
RT3059

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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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

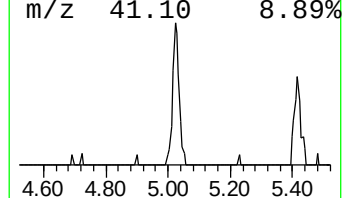
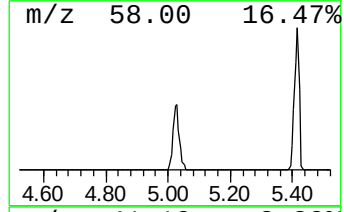
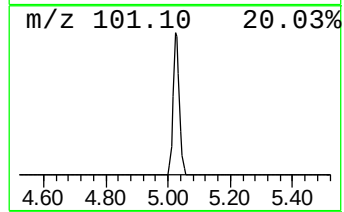
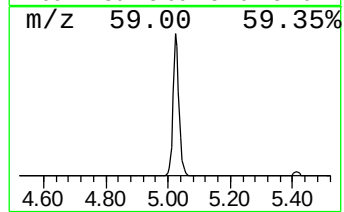
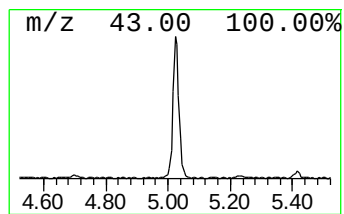
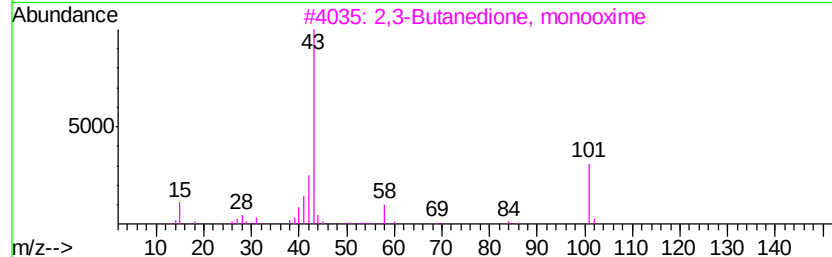
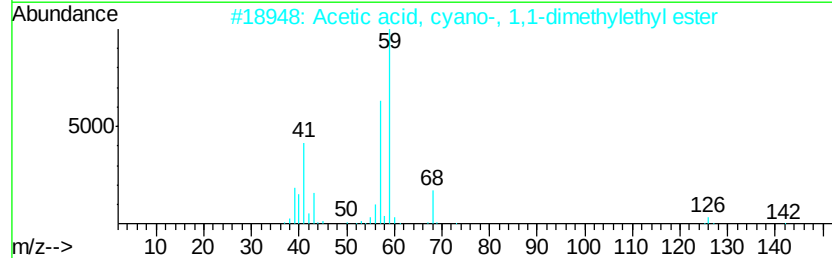
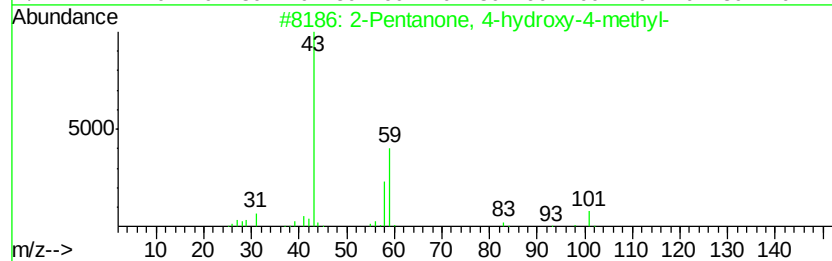
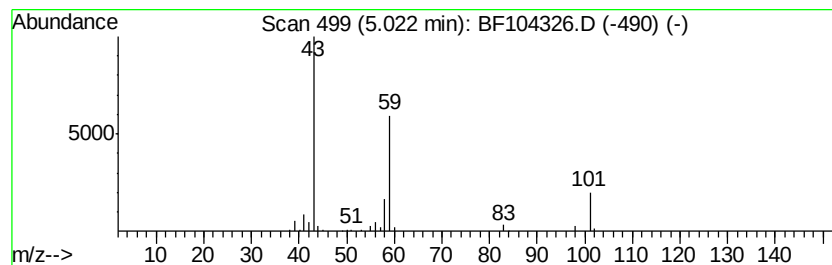
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 5

| R.T. | EstConc | Area   | Relative to ISTD       | R.T. |
|------|---------|--------|------------------------|------|
| 5.02 | 3.70 ng | 165462 | 1,4-Dichlorobenzene-d4 | 6.80 |

| Hit# | of | Tentative ID                         | MW  | MolForm  | CAS#        | Qual |
|------|----|--------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 2-Pentanone, 4-hydroxy-4-methyl-     | 116 | C6H12O2  | 000123-42-2 | 56   |
| 2    |    | Acetic acid, cyano-, 1,1-dimethyl... | 141 | C7H11NO2 | 001116-98-9 | 17   |
| 3    |    | 2,3-Butanedione, monooxime           | 101 | C4H7NO2  | 000057-71-6 | 9    |
| 4    |    | (+)-4-Amino-4,5-dihydro-2(3H)-f...   | 101 | C4H7NO2  | 016504-58-8 | 9    |
| 5    |    | Butane, 1-ethoxy-                    | 102 | C6H14O   | 000628-81-9 | 9    |



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

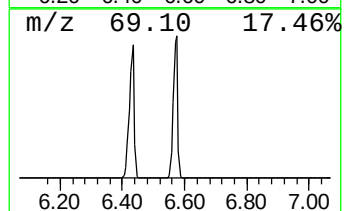
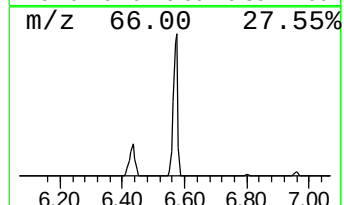
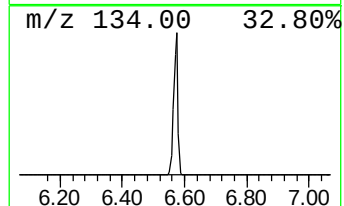
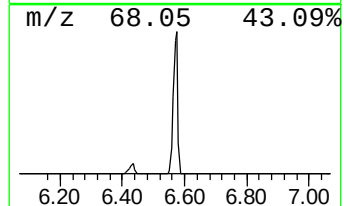
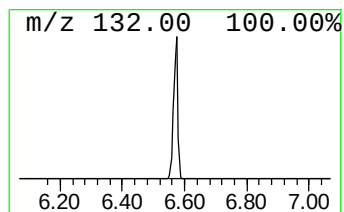
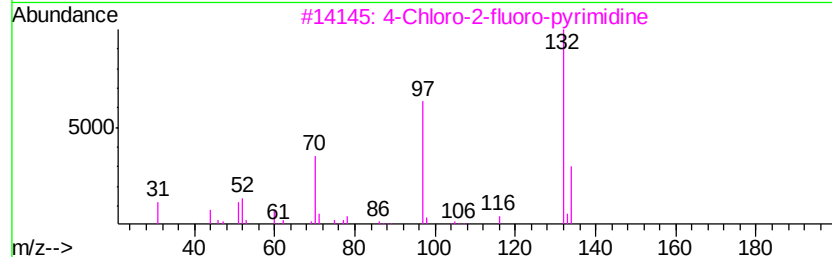
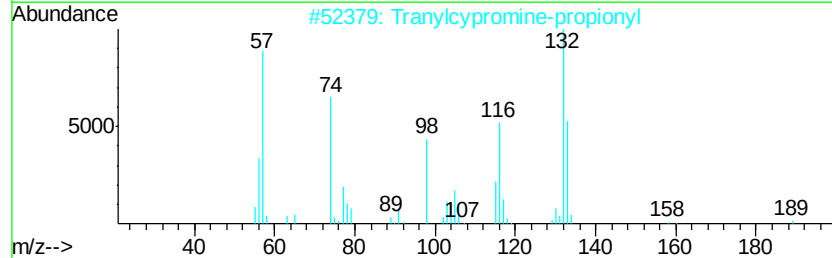
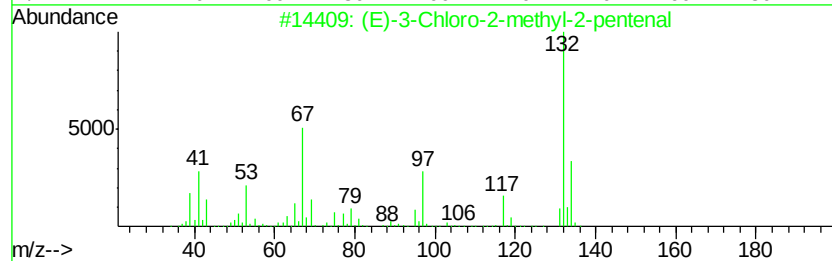
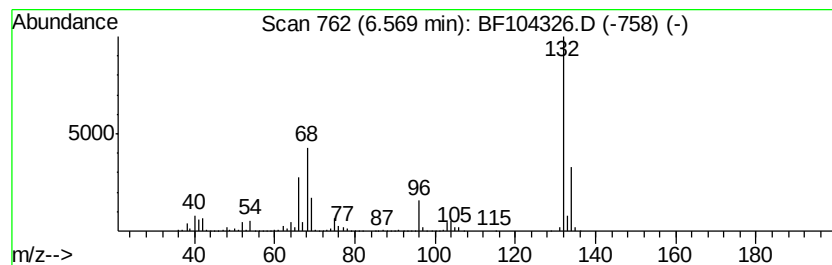
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 unknown6.57 Concentration Rank 1

| R.T. | EstConc  | Area    | Relative to ISTD       | R.T. |
|------|----------|---------|------------------------|------|
| 6.57 | 70.57 ng | 3159580 | 1,4-Dichlorobenzene-d4 | 6.80 |

| Hit# | of | Tentative ID                     | MW  | MolForm   | CAS#         | Qual |
|------|----|----------------------------------|-----|-----------|--------------|------|
| 1    | 5  | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO   | 031357-76-3  | 27   |
| 2    |    | Tranylcypromine-propionyl        | 189 | C12H15NO  | 1000123-86-3 | 10   |
| 3    |    | 4-Chloro-2-fluoro-pyrimidine     | 132 | C4H2ClFN2 | 051422-00-5  | 9    |
| 4    |    | 4-Chloro-6-fluoro-pyrimidine     | 132 | C4H2ClFN2 | 051422-01-6  | 9    |
| 5    |    | 1-Methylpyrrolo[1,2-a]pyrazine   | 132 | C8H8N2    | 064608-59-9  | 9    |



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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

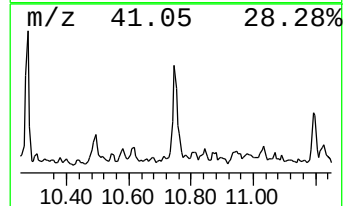
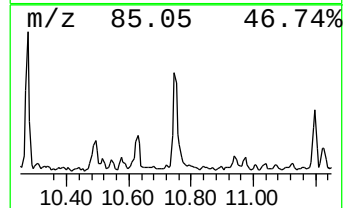
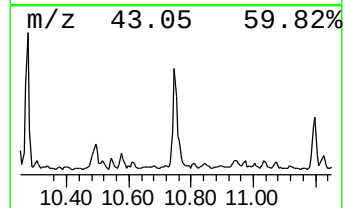
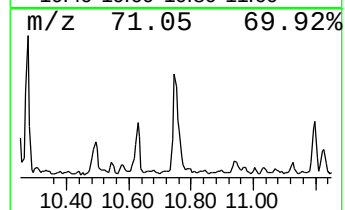
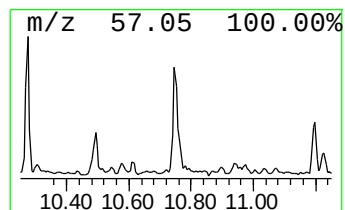
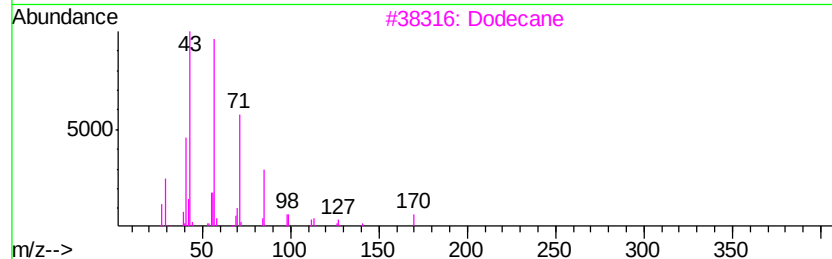
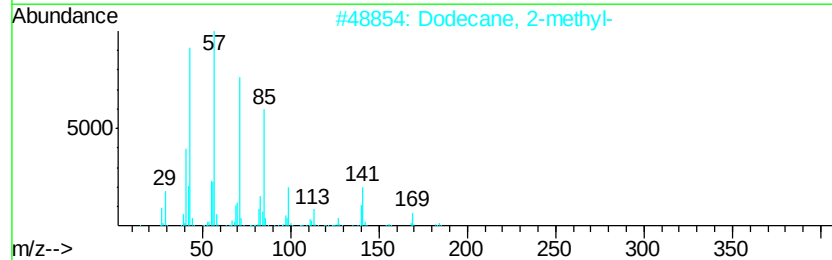
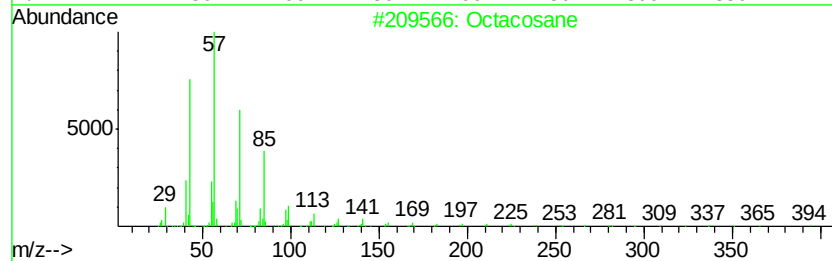
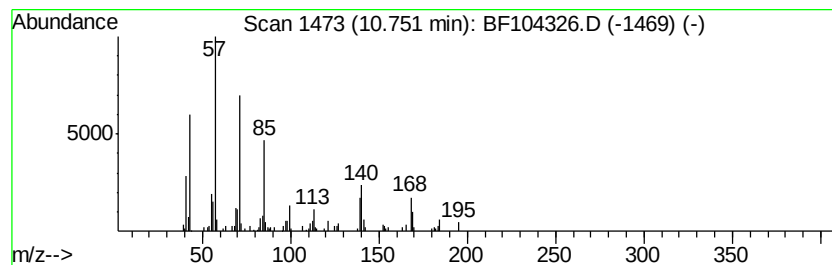
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TIC Integration Parameters: LSCINT.P

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Peak Number 4 Octacosane Concentration Rank 4

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 10.75 | 3.72 ng | 182393 | Phenanthrene-d10 | 11.33 |

| Hit# of | 5                   | Tentative ID | MW  | MolForm | CAS#        | Qual |
|---------|---------------------|--------------|-----|---------|-------------|------|
| 1       | Octacosane          |              | 394 | C28H58  | 000630-02-4 | 81   |
| 2       | Dodecane, 2-methyl- |              | 184 | C13H28  | 001560-97-0 | 81   |
| 3       | Dodecane            |              | 170 | C12H26  | 000112-40-3 | 81   |
| 4       | Heptacosane         |              | 380 | C27H56  | 000593-49-7 | 74   |
| 5       | Eicosane            |              | 282 | C20H42  | 000112-95-8 | 74   |



Data Path : Z:\HPCHEM1\BNA\_F\Data\BF040618\  
Data File : BF104326.D  
Acq On : 7 Apr 2018 00:35  
Operator : JU/SJ  
Sample : J2248-05  
Misc :  
ALS Vial : 22 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

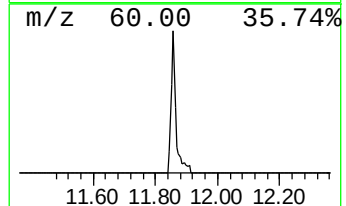
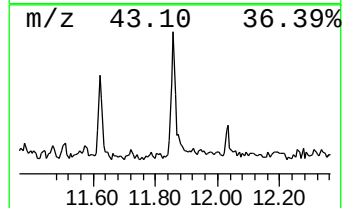
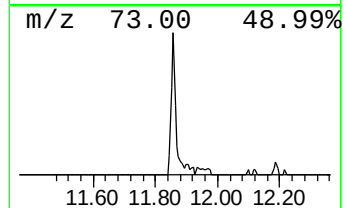
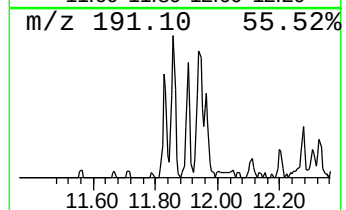
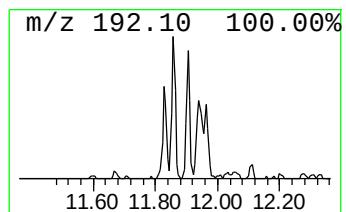
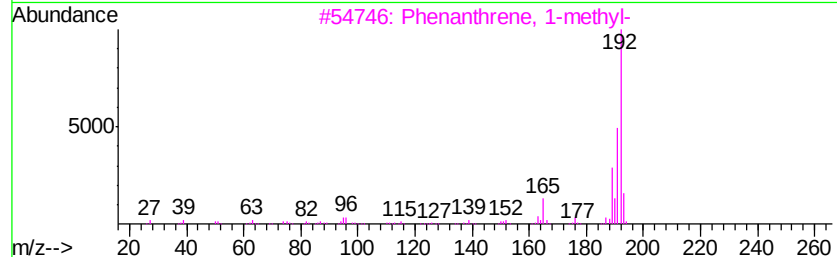
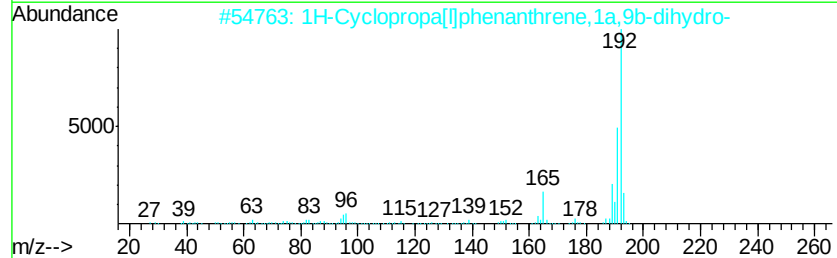
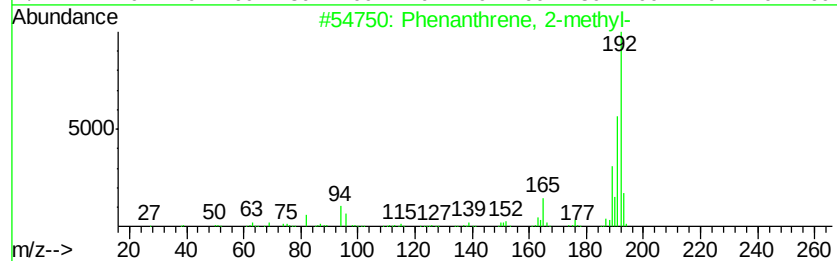
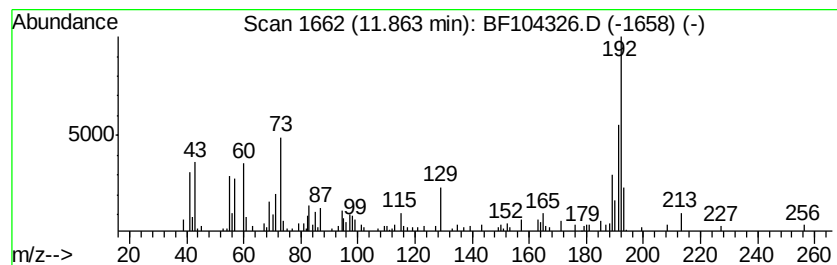
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TIC Integration Parameters: LSCINT.P

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Peak Number 5 Phenanthrene, 2-methyl- Concentration Rank 8

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.86 | 2.76 ng | 135222 | Phenanthrene-d10 | 11.33 |

| Hit# of | 5 | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|---------|---|-------------------------------------|-----|---------|-------------|------|
| 1       |   | Phenanthrene, 2-methyl-             | 192 | C15H12  | 002531-84-2 | 97   |
| 2       |   | 1H-Cyclopropa[1]phenanthrene,1a,... | 192 | C15H12  | 000949-41-7 | 96   |
| 3       |   | Phenanthrene, 1-methyl-             | 192 | C15H12  | 000832-69-9 | 96   |
| 4       |   | Anthracene, 2-methyl-               | 192 | C15H12  | 000613-12-7 | 92   |
| 5       |   | Anthracene, 1-methyl-               | 192 | C15H12  | 000610-48-0 | 91   |





Data Path : Z:\HPCHEM1\BNA F\Data\BF040618\  
Data File : BF104326.D  
Acq On : 7 Apr 2018 00:35  
Operator : JU/SJ  
Sample : J2248-05  
Misc :  
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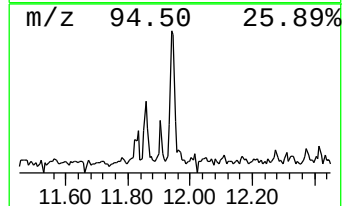
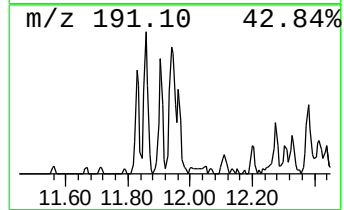
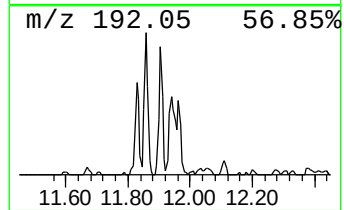
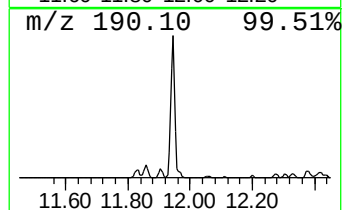
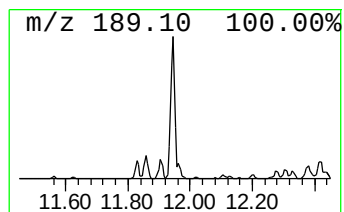
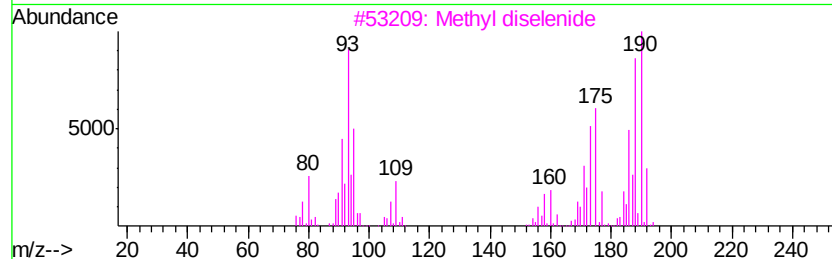
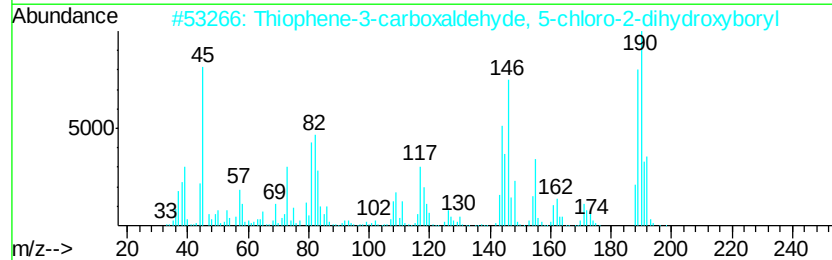
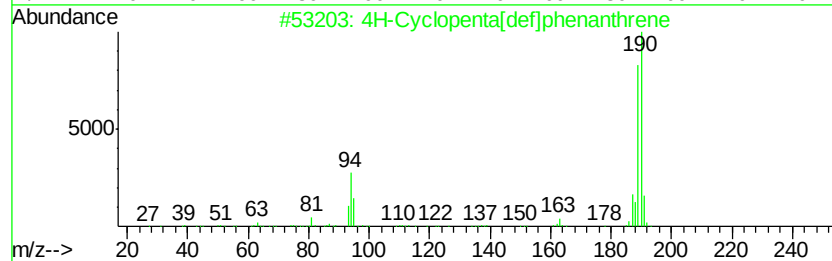
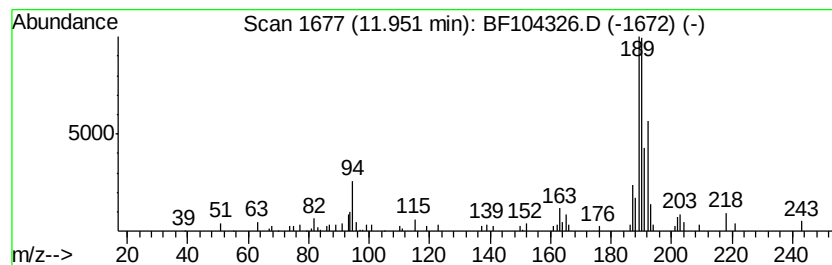
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ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 6 4H-Cyclopenta[def]phenanthrene Concentration Rank 7

| R.T.    | EstConc | Area                                | Relative to ISTD |            | R.T.        |      |
|---------|---------|-------------------------------------|------------------|------------|-------------|------|
| 11.95   | 2.92 ng | 142925                              | Phenanthrene-d10 |            | 11.33       |      |
| Hit# of | 5       | Tentative ID                        | MW               | MolForm    | CAS#        | Qual |
| 1       |         | 4H-Cyclopenta[def]phenanthrene      | 190              | C15H10     | 000203-64-5 | 94   |
| 2       |         | Thiophene-3-carboxaldehyde, 5-ch... | 190              | C5H4BClO3S | 036155-87-0 | 59   |
| 3       |         | Methyl diselenide                   | 190              | C2H6Se2    | 007101-31-7 | 45   |
| 4       |         | 1,4-Naphthalenedione, 2,5-dihydr... | 190              | C10H6O4    | 004923-55-1 | 25   |
| 5       |         | 2,6-Dichlorobenzaldoxime            | 189              | C7H5Cl2NO  | 025185-95-9 | 18   |



Data Path : Z:\HPCHEM1\BNA F\Data\BF040618\  
Data File : BF104326.D  
Acq On : 7 Apr 2018 00:35  
Operator : JU/SJ  
Sample : J2248-05  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

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

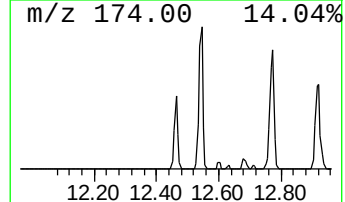
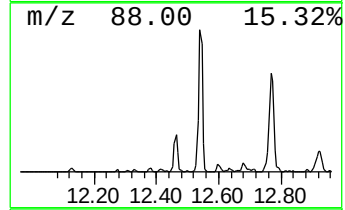
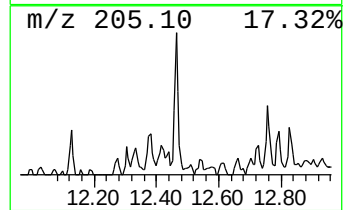
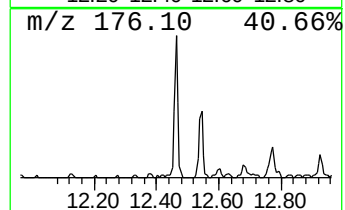
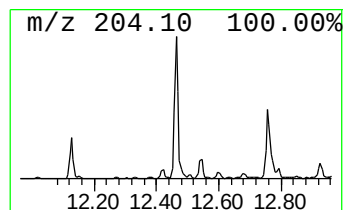
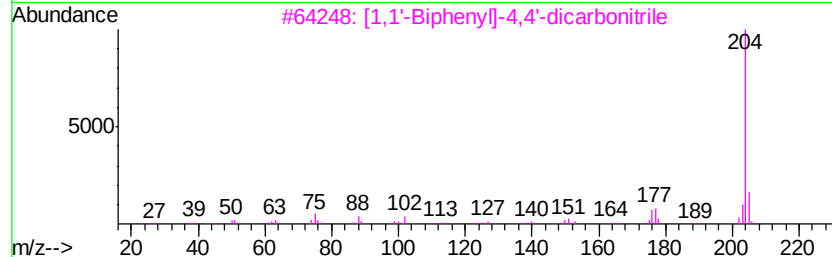
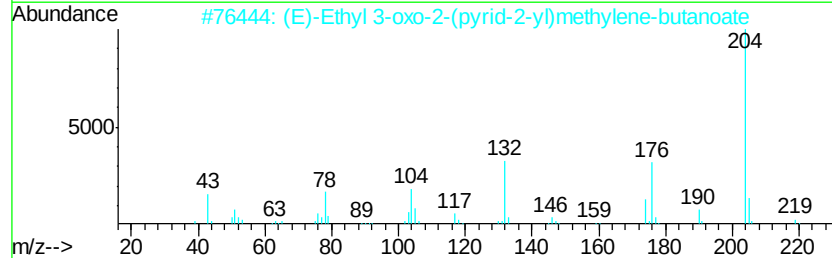
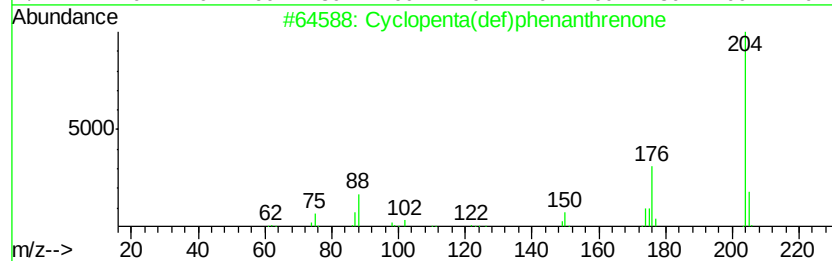
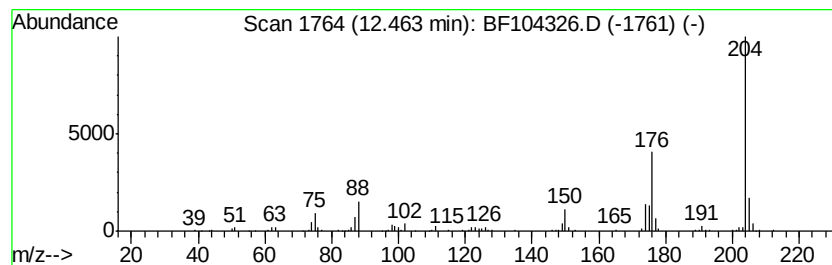
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TIC Integration Parameters: LSCINT.P

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Peak Number 7 Cyclopenta(def)phenanthrenone Concentration Rank 6

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.46 | 3.01 ng | 147432 | Phenanthrene-d10 | 11.33 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | Cyclopenta(def)phenanthrenone       | 204 | C15H8O    | 005737-13-3  | 97   |
| 2    |    | (E)-Ethyl 3-oxo-2-(pyrid-2-yl)me... | 219 | C12H13N03 | 1000147-59-7 | 50   |
| 3    |    | [1,1'-Biphenyl]-4,4'-dicarbonitrile | 204 | C14H8N2   | 001591-30-6  | 47   |
| 4    |    | 3,4-Biphenyldicarbonitrile          | 204 | C14H8N2   | 004128-63-6  | 45   |
| 5    |    | Quinoline, 8-methoxy-5-nitro-       | 204 | C10H8N2O3 | 1000298-88-7 | 43   |



Data Path : Z:\HPCHEM1\BNA F\Data\BF040618\  
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Operator : JU/SJ  
Sample : J2248-05  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

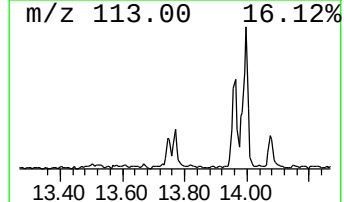
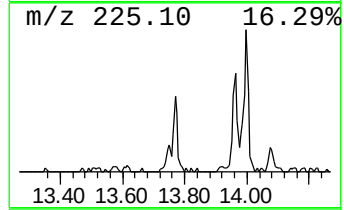
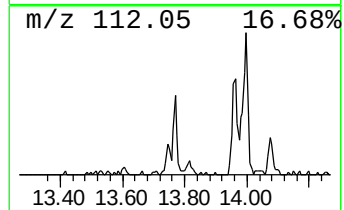
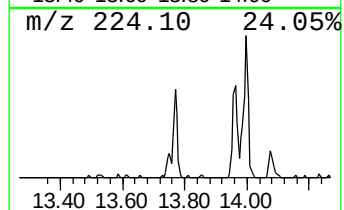
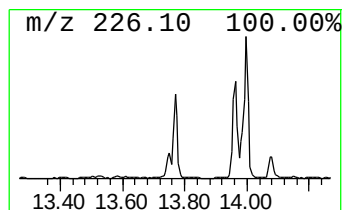
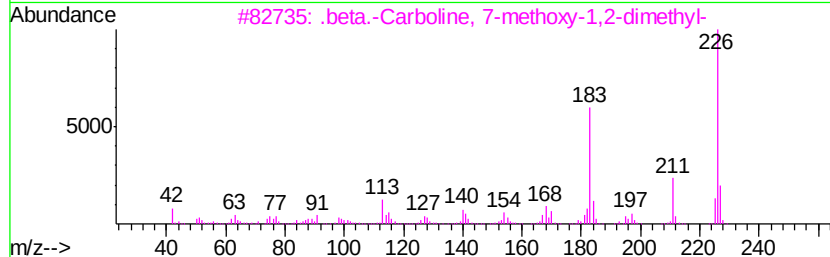
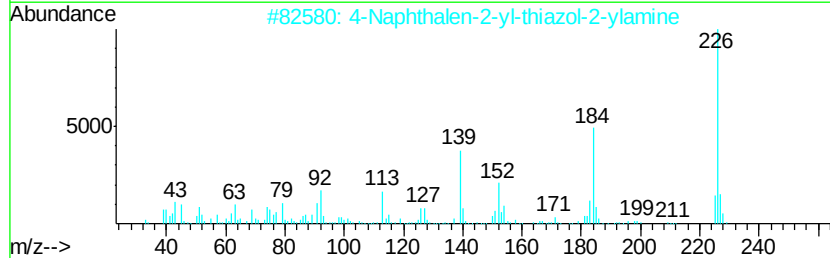
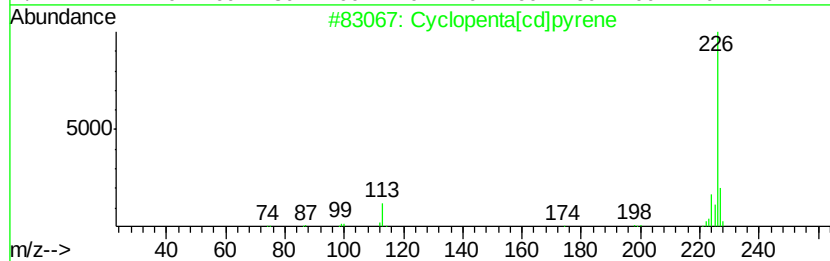
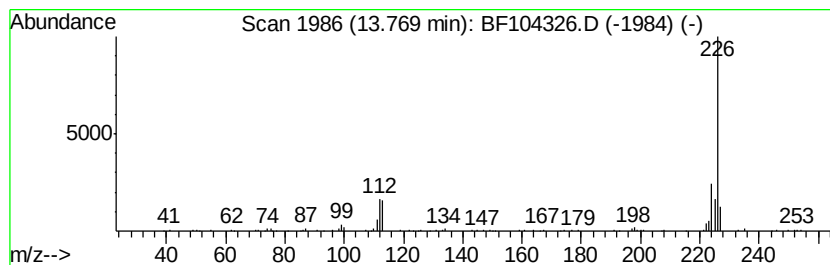
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 8 Cyclopenta[cd]pyrene Concentration Rank 11

| R.T.    | EstConc | Area                                | Relative to ISTD | R.T.            |
|---------|---------|-------------------------------------|------------------|-----------------|
| 13.77   | 2.07 ng | 159738                              | Chrysene-d12     | 13.97           |
| Hit# of | 5       | Tentative ID                        | MW MolForm       | CAS# Qual       |
| 1       |         | Cyclopenta[cd]pyrene                | 226 C18H10       | 027208-37-3 70  |
| 2       |         | 4-Naphthalen-2-yl-thiazol-2-ylamine | 226 C13H10N2S    | 1000300-53-4 53 |
| 3       |         | .beta.-Carboline, 7-methoxy-1,2-... | 226 C14H14N2O    | 006519-18-2 40  |
| 4       |         | Anthracene, 1,8-diethynyl-          | 226 C18H10       | 078053-58-4 37  |
| 5       |         | 9H-Xanthen-9-one, 3-methoxy-        | 226 C14H10O3     | 003722-52-9 28  |



Data Path : Z:\HPCHEM1\BNA F\Data\BF040618\  
Data File : BF104326.D  
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Operator : JU/SJ  
Sample : J2248-05  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

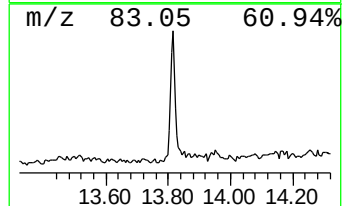
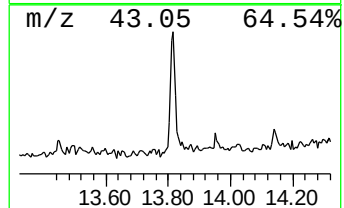
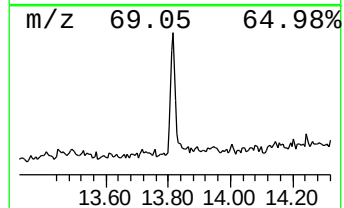
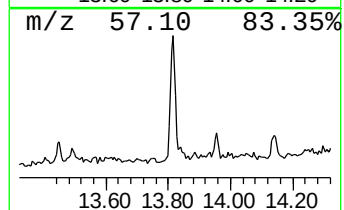
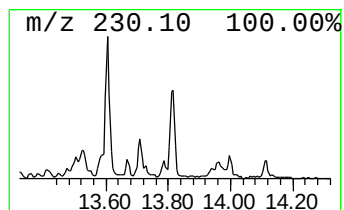
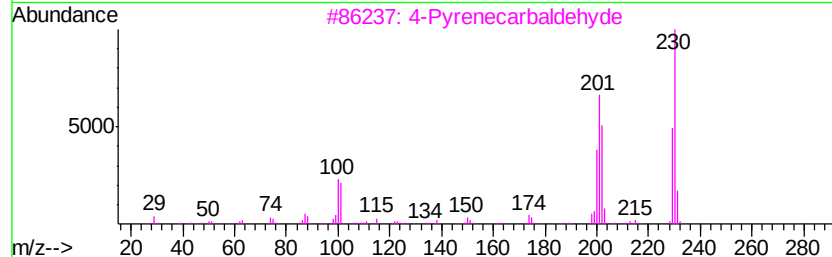
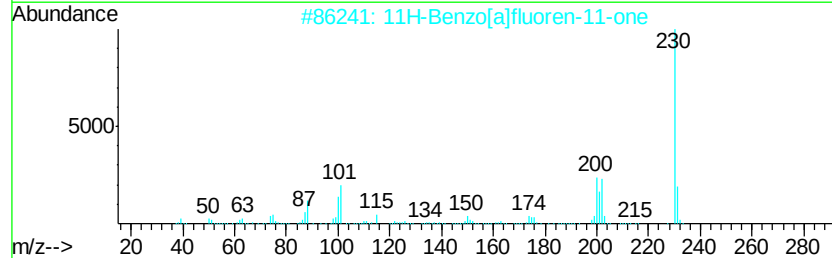
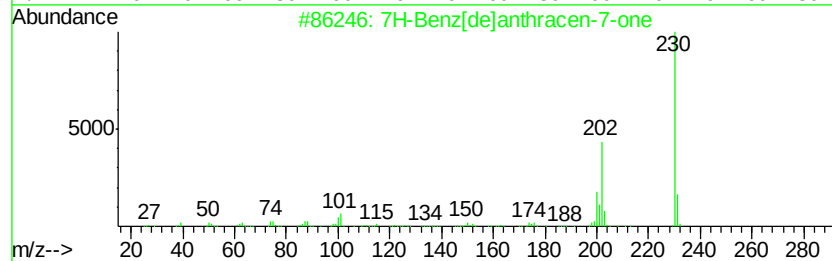
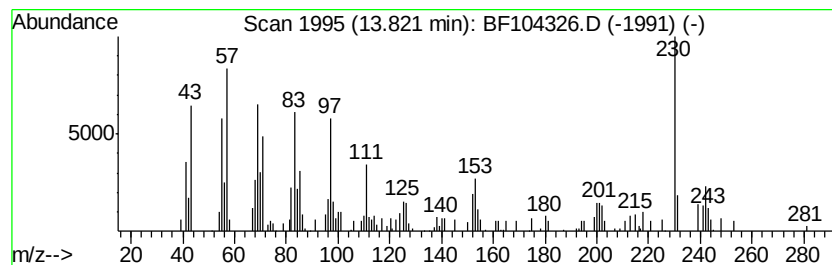
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 9 7H-Benz[de]anthracen-7-one Concentration Rank 9

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.        |      |
|-----------|-------------------------------------|--------|------------------|-------------|------|
| 13.82     | 2.54 ng                             | 196360 | Chrysene-d12     | 13.97       |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#        | Qual |
| 1         | 7H-Benz[de]anthracen-7-one          | 230    | C17H10O          | 000082-05-3 | 53   |
| 2         | 11H-Benzo[a]fluoren-11-one          | 230    | C17H10O          | 000479-79-8 | 45   |
| 3         | 4-Pyrenecarbaldehyde                | 230    | C17H10O          | 022245-51-8 | 32   |
| 4         | 1-Pyrenecarboxaldehyde              | 230    | C17H10O          | 003029-19-4 | 32   |
| 5         | 1,1'-Biphenyl, 5-hydroxy-3,4'-di... | 230    | C14H14O3         | 119101-26-7 | 27   |



Data Path : Z:\HPCHEM1\BNA F\Data\BF040618\  
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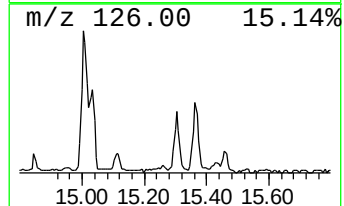
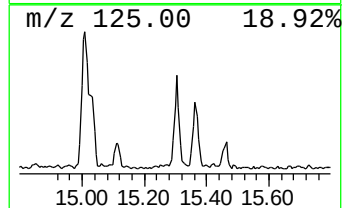
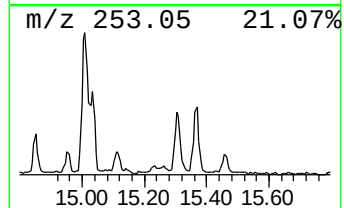
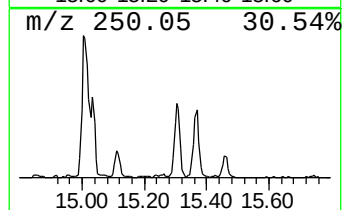
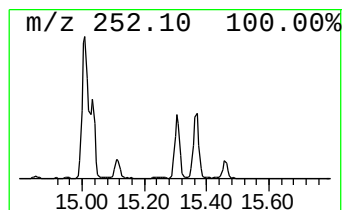
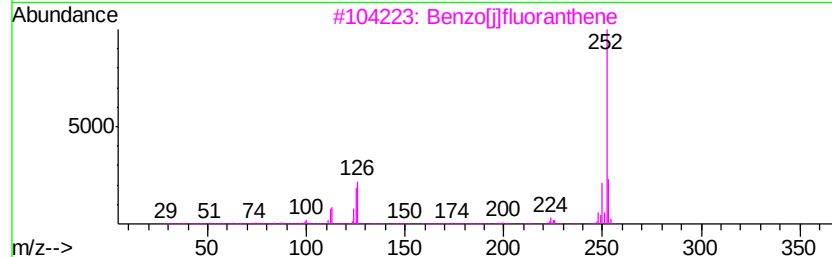
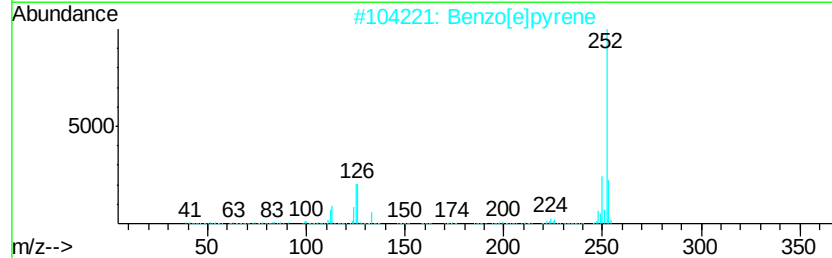
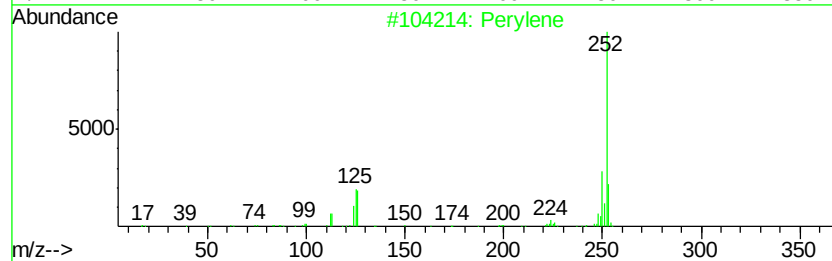
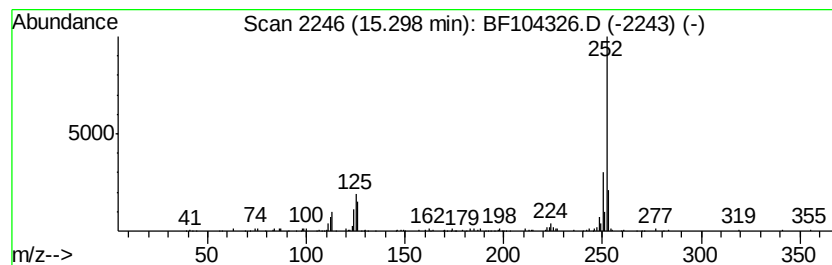
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ClientSampleId :  
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 10 Perylene Concentration Rank 3

| R.T.      | EstConc                   | Area   | Relative to ISTD | R.T.        |      |
|-----------|---------------------------|--------|------------------|-------------|------|
| 15.30     | 5.01 ng                   | 177704 | Perylene-d12     | 15.43       |      |
| Hit# of 5 | Tentative ID              | MW     | MolForm          | CAS#        | Qual |
| 1         | Perylene                  | 252    | C20H12           | 000198-55-0 | 99   |
| 2         | Benzo[el]pyrene           | 252    | C20H12           | 000192-97-2 | 98   |
| 3         | Benzo[i]lfluoranthene     | 252    | C20H12           | 000205-82-3 | 97   |
| 4         | Benz[el]acephenanthrylene | 252    | C20H12           | 000205-99-2 | 96   |
| 5         | Benzo[k]fluoranthene      | 252    | C20H12           | 000207-08-9 | 95   |



Data Path : Z:\HPCHEM1\BNA F\Data\BF040618\  
Data File : BF104326.D  
Acq On : 7 Apr 2018 00:35  
Operator : JU/SJ  
Sample : J2248-05  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleID :  
RT3059

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

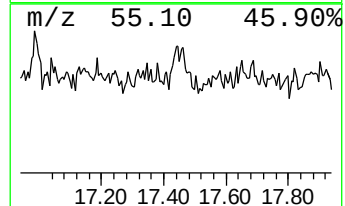
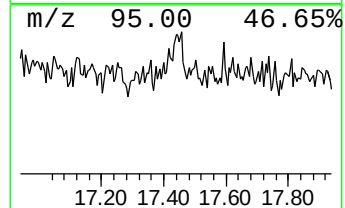
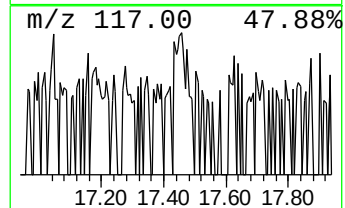
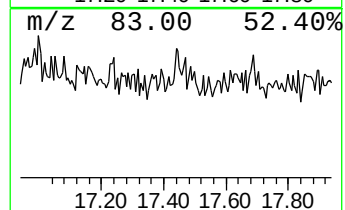
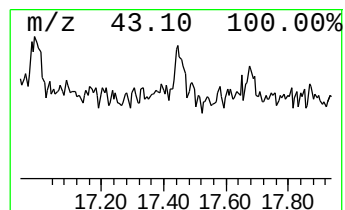
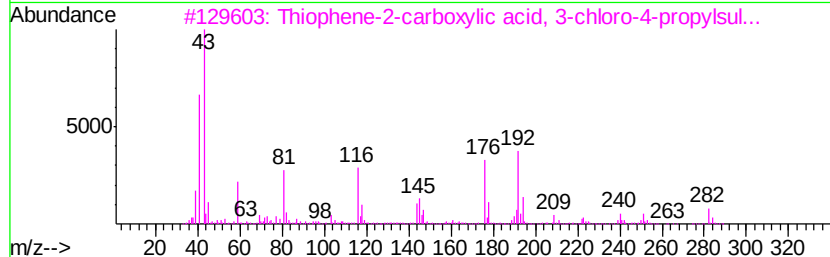
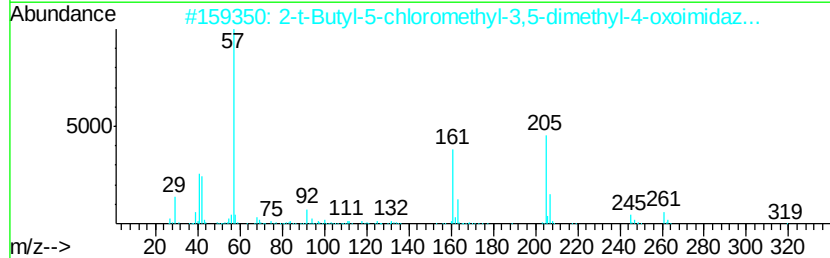
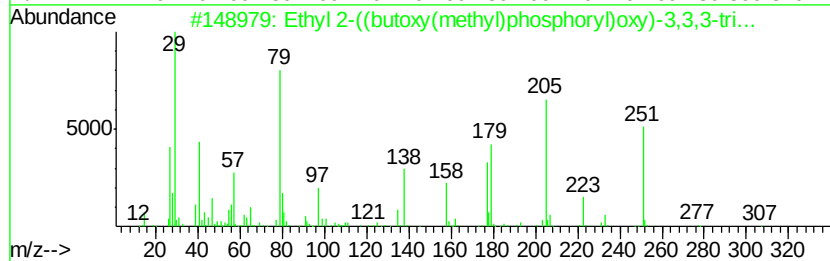
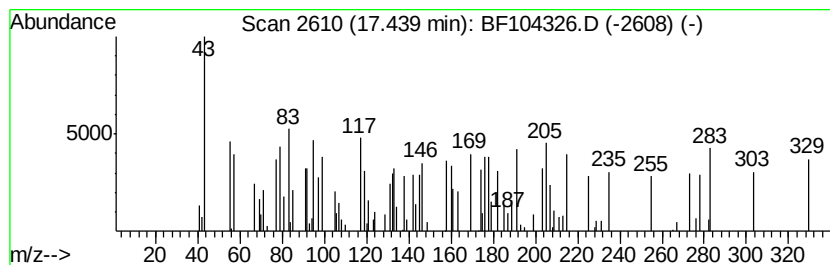
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 11 unknown17.44 Concentration Rank 10

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 17.44 | 2.08 ng | 73751 | Perylene-d12     | 15.43 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm      | CAS#         | Qual |
|------|----|---|-------------------------------------|-----|--------------|--------------|------|
| 1    |    |   | Ethyl 2-((butoxy(methyl)phosphor... | 306 | C10H18F305P  | 1000298-09-5 | 9    |
| 2    |    |   | 2-t-Butyl-5-chloromethyl-3,5-dim... | 318 | C15H27ClN2O3 | 1000192-00-2 | 9    |
| 3    |    |   | Thiophene-2-carboxylic acid, 3-c... | 282 | C9H11ClO4S2  | 1000268-09-4 | 9    |
| 4    |    |   | 3-Buten-2-amine, 4-(2,6,6-trimet... | 193 | C13H23N      | 092158-04-8  | 8    |
| 5    |    |   | 3-Penten-2-one, 3-bromo-4-methyl-   | 176 | C6H9BrO      | 005682-80-4  | 7    |



Data Path : Z:\HPCHEM1\BNA\_F\Data\BF040618\  
 Data File : BF104326.D  
 Acq On : 7 Apr 2018 00:35  
 Operator : JU/SJ  
 Sample : J2248-05  
 Misc :  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 RT3059

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... | 5.02  | 3.7     | ng    | 165462   | 1                     | 6.80  | 895394  | 20.0 |
| unknown6.57          | 6.57  | 70.6    | ng    | 3159580  | 1                     | 6.80  | 895394  | 20.0 |
| Octacosane           | 10.75 | 3.7     | ng    | 182393   | 4                     | 11.33 | 979343  | 20.0 |
| Phenanthrene, 2-m... | 11.86 | 2.8     | ng    | 135222   | 4                     | 11.33 | 979343  | 20.0 |
| 4H-Cyclopenta[def... | 11.95 | 2.9     | ng    | 142925   | 4                     | 11.33 | 979343  | 20.0 |
| Cyclopenta(def)ph... | 12.46 | 3.0     | ng    | 147432   | 4                     | 11.33 | 979343  | 20.0 |
| Cyclopenta[cd]pyrene | 13.77 | 2.1     | ng    | 159738   | 5                     | 13.97 | 1545110 | 20.0 |
| 7H-Benz[de]anthra... | 13.82 | 2.5     | ng    | 196360   | 5                     | 13.97 | 1545110 | 20.0 |
| Perylene             | 15.30 | 5.0     | ng    | 177704   | 6                     | 15.43 | 709335  | 20.0 |
| unknown17.44         | 17.44 | 2.1     | ng    | 73751    | 6                     | 15.43 | 709335  | 20.0 |