

Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
 Data File : BF104489.D  
 Acq On : 13 Apr 2018 20:01  
 Operator : JU/SJ  
 Sample : J2348-05 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 155

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         | 5.410       | 561           | 565         | 577          | rVB      | 335544         | 286287        | 8.86%           | 0.744%        |
| 2         | 6.428       | 735           | 738         | 745          | rBV      | 341567         | 296683        | 9.18%           | 0.771%        |
| 3         | 6.575       | 759           | 763         | 766          | rBV      | 350633         | 308195        | 9.54%           | 0.801%        |
| 4         | 6.810       | 799           | 803         | 806          | rBV      | 897293         | 707240        | 21.88%          | 1.838%        |
| 5         | 6.963       | 825           | 829         | 832          | rBV      | 315429         | 236978        | 7.33%           | 0.616%        |
| 6         | 7.369       | 894           | 898         | 908          | rBV      | 205773         | 166623        | 5.16%           | 0.433%        |
| 7         | 8.092       | 1017          | 1021        | 1023         | rBV      | 1174849        | 932383        | 28.85%          | 2.423%        |
| 8         | 8.116       | 1023          | 1025        | 1028         | rVB      | 163242         | 122640        | 3.79%           | 0.319%        |
| 9         | 8.804       | 1139          | 1142        | 1149         | rBV      | 130371         | 104763        | 3.24%           | 0.272%        |
| 10        | 8.904       | 1155          | 1159        | 1164         | rVB      | 104722         | 79016         | 2.44%           | 0.205%        |
| 11        | 9.163       | 1200          | 1203        | 1209         | rBV      | 394974         | 346251        | 10.71%          | 0.900%        |
| 12        | 9.433       | 1245          | 1249        | 1254         | rBV      | 74504          | 98769         | 3.06%           | 0.257%        |
| 13        | 9.504       | 1257          | 1261        | 1264         | rBV      | 133852         | 128852        | 3.99%           | 0.335%        |
| 14        | 9.533       | 1264          | 1266        | 1268         | rVV      | 95454          | 70470         | 2.18%           | 0.183%        |
| 15        | 9.622       | 1277          | 1281        | 1287         | rBV      | 65587          | 70083         | 2.17%           | 0.182%        |
| 16        | 9.851       | 1313          | 1320        | 1323         | rBV      | 1118705        | 1005921       | 31.12%          | 2.614%        |
| 17        | 9.880       | 1323          | 1325        | 1329         | rVB      | 335144         | 257205        | 7.96%           | 0.668%        |
| 18        | 10.051      | 1350          | 1354        | 1358         | rVV      | 353684         | 314275        | 9.72%           | 0.817%        |
| 19        | 10.092      | 1358          | 1361        | 1364         | rVB      | 71885          | 63922         | 1.98%           | 0.166%        |
| 20        | 10.163      | 1370          | 1373        | 1376         | rBV      | 72747          | 69815         | 2.16%           | 0.181%        |
| 21        | 10.257      | 1384          | 1389        | 1390         | rBV      | 56607          | 62391         | 1.93%           | 0.162%        |
| 22        | 10.398      | 1409          | 1413        | 1418         | rVB      | 412963         | 377580        | 11.68%          | 0.981%        |
| 23        | 10.551      | 1437          | 1439        | 1444         | rVB      | 178461         | 161003        | 4.98%           | 0.418%        |
| 24        | 10.639      | 1450          | 1454        | 1458         | rVV      | 360102         | 390557        | 12.08%          | 1.015%        |
| 25        | 10.763      | 1470          | 1475        | 1479         | rVB3     | 73492          | 80652         | 2.50%           | 0.210%        |
| 26        | 10.945      | 1500          | 1506        | 1509         | rBV3     | 125479         | 154465        | 4.78%           | 0.401%        |
| 27        | 11.074      | 1523          | 1528        | 1530         | rBV2     | 135016         | 152574        | 4.72%           | 0.396%        |
| 28        | 11.098      | 1530          | 1532        | 1534         | rVV      | 121508         | 112075        | 3.47%           | 0.291%        |
| 29        | 11.145      | 1537          | 1540        | 1543         | rVV2     | 107140         | 109830        | 3.40%           | 0.285%        |
| 30        | 11.186      | 1543          | 1547        | 1551         | rVV2     | 141250         | 169640        | 5.25%           | 0.441%        |
| 31        | 11.233      | 1553          | 1555        | 1560         | rVB      | 232266         | 204923        | 6.34%           | 0.532%        |
| 32        | 11.339      | 1570          | 1573        | 1575         | rBV      | 897155         | 860847        | 26.64%          | 2.237%        |
| 33        | 11.369      | 1575          | 1578        | 1581         | rVV      | 2809400        | 2404635       | 74.40%          | 6.248%        |
| 34        | 11.416      | 1581          | 1586        | 1589         | rVV      | 1150487        | 930833        | 28.80%          | 2.419%        |

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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 | 11.569 | 1606 | 1612 | 1614 | rBV2 | 126818  | 136017  | 4.21%   | 0.353% |
| 36 | 11.586 | 1614 | 1615 | 1620 | rVV3 | 66006   | 93225   | 2.88%   | 0.242% |
| 37 | 11.633 | 1620 | 1623 | 1627 | rVV3 | 115811  | 117580  | 3.64%   | 0.306% |
| 38 | 11.669 | 1627 | 1629 | 1634 | rVB5 | 66341   | 74472   | 2.30%   | 0.194% |
| 39 | 11.839 | 1653 | 1658 | 1661 | rBV  | 367848  | 370260  | 11.46%  | 0.962% |
| 40 | 11.869 | 1661 | 1663 | 1667 | rVB  | 591887  | 488319  | 15.11%  | 1.269% |
| 41 | 11.916 | 1667 | 1671 | 1674 | rBV  | 358454  | 303737  | 9.40%   | 0.789% |
| 42 | 11.957 | 1674 | 1678 | 1680 | rVV  | 573710  | 627444  | 19.41%  | 1.630% |
| 43 | 11.974 | 1680 | 1681 | 1685 | rVV  | 273406  | 182655  | 5.65%   | 0.475% |
| 44 | 12.139 | 1705 | 1709 | 1711 | rBV  | 309252  | 260258  | 8.05%   | 0.676% |
| 45 | 12.163 | 1711 | 1713 | 1716 | rVB  | 107320  | 81513   | 2.52%   | 0.212% |
| 46 | 12.286 | 1729 | 1734 | 1737 | rBV2 | 112092  | 121692  | 3.77%   | 0.316% |
| 47 | 12.339 | 1741 | 1743 | 1746 | rVB  | 102505  | 83607   | 2.59%   | 0.217% |
| 48 | 12.392 | 1746 | 1752 | 1755 | rBV  | 210351  | 285656  | 8.84%   | 0.742% |
| 49 | 12.433 | 1755 | 1759 | 1761 | rVV2 | 126852  | 159121  | 4.92%   | 0.413% |
| 50 | 12.480 | 1764 | 1767 | 1772 | rVB  | 226449  | 247569  | 7.66%   | 0.643% |
| 51 | 12.563 | 1776 | 1781 | 1784 | rBV  | 3100279 | 3167855 | 98.02%  | 8.231% |
| 52 | 12.616 | 1789 | 1790 | 1794 | rVB2 | 97511   | 69876   | 2.16%   | 0.182% |
| 53 | 12.704 | 1798 | 1805 | 1809 | rBV2 | 162170  | 305004  | 9.44%   | 0.792% |
| 54 | 12.792 | 1813 | 1820 | 1823 | rBV2 | 2635358 | 3231970 | 100.00% | 8.398% |
| 55 | 12.833 | 1824 | 1827 | 1832 | rVB2 | 200431  | 220471  | 6.82%   | 0.573% |
| 56 | 12.904 | 1832 | 1839 | 1841 | rBV  | 273509  | 304034  | 9.41%   | 0.790% |
| 57 | 12.927 | 1841 | 1843 | 1844 | rVV  | 252225  | 212351  | 6.57%   | 0.552% |
| 58 | 12.939 | 1844 | 1845 | 1850 | rVB  | 180230  | 154672  | 4.79%   | 0.402% |
| 59 | 13.004 | 1850 | 1856 | 1859 | rBV2 | 258779  | 447422  | 13.84%  | 1.163% |
| 60 | 13.086 | 1867 | 1870 | 1872 | rBV2 | 167694  | 204595  | 6.33%   | 0.532% |
| 61 | 13.110 | 1872 | 1874 | 1877 | rVB  | 300170  | 288979  | 8.94%   | 0.751% |
| 62 | 13.145 | 1877 | 1880 | 1883 | rBV2 | 44757   | 63981   | 1.98%   | 0.166% |
| 63 | 13.180 | 1883 | 1886 | 1888 | rVB  | 158317  | 123875  | 3.83%   | 0.322% |
| 64 | 13.216 | 1888 | 1892 | 1896 | rBV2 | 367533  | 416542  | 12.89%  | 1.082% |
| 65 | 13.274 | 1899 | 1902 | 1904 | rBV  | 76499   | 68124   | 2.11%   | 0.177% |
| 66 | 13.310 | 1905 | 1908 | 1911 | rBV  | 164692  | 123334  | 3.82%   | 0.320% |
| 67 | 13.339 | 1911 | 1913 | 1917 | rBV2 | 167475  | 176798  | 5.47%   | 0.459% |
| 68 | 13.415 | 1923 | 1926 | 1931 | rVB5 | 38313   | 60206   | 1.86%   | 0.156% |
| 69 | 13.498 | 1936 | 1940 | 1942 | rBV3 | 75142   | 124298  | 3.85%   | 0.323% |
| 70 | 13.621 | 1958 | 1961 | 1965 | rVV  | 299291  | 294489  | 9.11%   | 0.765% |
| 71 | 13.733 | 1975 | 1980 | 1983 | rVV2 | 216627  | 305659  | 9.46%   | 0.794% |

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Integration Parameters: rteint.p

Integrator: RTE

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Sampling : 1

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Stop Thrs : 0

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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

|     |        |      |      |      |      |         |         |        |        |
|-----|--------|------|------|------|------|---------|---------|--------|--------|
| 72  | 13.763 | 1983 | 1985 | 1987 | rVV  | 318400  | 265688  | 8.22%  | 0.690% |
| 73  | 13.786 | 1987 | 1989 | 1993 | rVV2 | 245826  | 331535  | 10.26% | 0.861% |
| 74  | 13.833 | 1993 | 1997 | 2001 | rVB2 | 227950  | 250657  | 7.76%  | 0.651% |
| 75  | 13.904 | 2004 | 2009 | 2015 | rBV  | 67015   | 132662  | 4.10%  | 0.345% |
| 76  | 13.980 | 2015 | 2022 | 2026 | rBV2 | 1617376 | 2543009 | 78.68% | 6.607% |
| 77  | 14.015 | 2026 | 2028 | 2033 | rVB  | 1415628 | 1268209 | 39.24% | 3.295% |
| 78  | 14.092 | 2039 | 2041 | 2043 | rBV  | 156234  | 110376  | 3.42%  | 0.287% |
| 79  | 14.215 | 2058 | 2062 | 2065 | rVV2 | 112373  | 157629  | 4.88%  | 0.410% |
| 80  | 14.374 | 2086 | 2089 | 2092 | rVV  | 270378  | 275162  | 8.51%  | 0.715% |
| 81  | 14.410 | 2092 | 2095 | 2099 | rVB  | 162501  | 134647  | 4.17%  | 0.350% |
| 82  | 14.468 | 2099 | 2105 | 2108 | rBV3 | 93508   | 154317  | 4.77%  | 0.401% |
| 83  | 14.504 | 2108 | 2111 | 2113 | rVV2 | 127673  | 113956  | 3.53%  | 0.296% |
| 84  | 14.527 | 2113 | 2115 | 2119 | rVV2 | 89556   | 89537   | 2.77%  | 0.233% |
| 85  | 14.574 | 2121 | 2123 | 2129 | rVB3 | 90344   | 104213  | 3.22%  | 0.271% |
| 86  | 14.762 | 2153 | 2155 | 2158 | rBV2 | 60458   | 59132   | 1.83%  | 0.154% |
| 87  | 14.868 | 2169 | 2173 | 2177 | rBV2 | 84829   | 118620  | 3.67%  | 0.308% |
| 88  | 14.939 | 2182 | 2185 | 2188 | rBV2 | 63081   | 78823   | 2.44%  | 0.205% |
| 89  | 15.039 | 2196 | 2202 | 2204 | rBV  | 995238  | 1604664 | 49.65% | 4.169% |
| 90  | 15.139 | 2216 | 2219 | 2223 | rVB  | 249694  | 248001  | 7.67%  | 0.644% |
| 91  | 15.227 | 2231 | 2234 | 2235 | rBV3 | 67924   | 77970   | 2.41%  | 0.203% |
| 92  | 15.333 | 2247 | 2252 | 2258 | rVB  | 570098  | 779973  | 24.13% | 2.027% |
| 93  | 15.398 | 2258 | 2263 | 2268 | rVB  | 921974  | 1139042 | 35.24% | 2.960% |
| 94  | 15.457 | 2268 | 2273 | 2276 | rBV  | 443316  | 596306  | 18.45% | 1.549% |
| 95  | 15.486 | 2276 | 2278 | 2285 | rVB2 | 283343  | 381495  | 11.80% | 0.991% |
| 96  | 16.915 | 2515 | 2521 | 2527 | rVB2 | 335832  | 655480  | 20.28% | 1.703% |
| 97  | 17.092 | 2545 | 2551 | 2555 | rBV  | 88886   | 170086  | 5.26%  | 0.442% |
| 98  | 17.145 | 2557 | 2560 | 2566 | rVB2 | 56190   | 101271  | 3.13%  | 0.263% |
| 99  | 17.356 | 2590 | 2596 | 2610 | rVB  | 257385  | 546075  | 16.90% | 1.419% |
| 100 | 17.586 | 2630 | 2635 | 2643 | rVB  | 80652   | 162225  | 5.02%  | 0.422% |

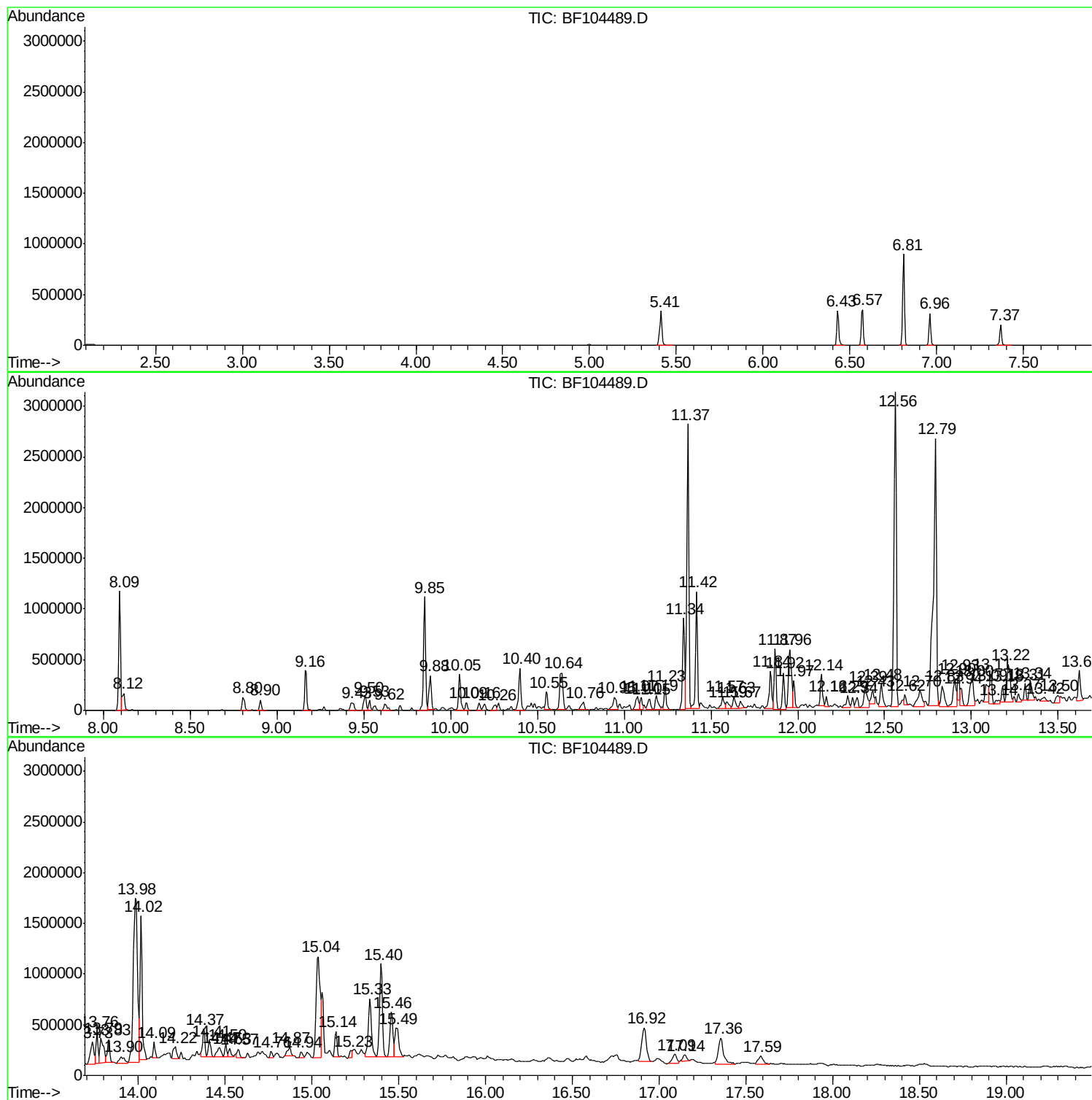
Sum of corrected areas: 38486796

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ClientSampled :  
155

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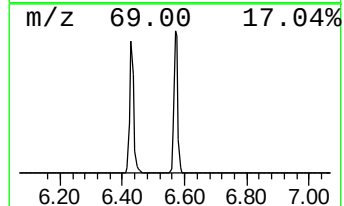
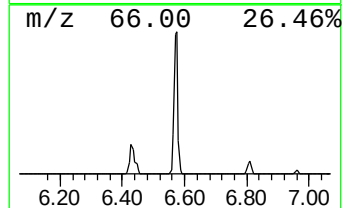
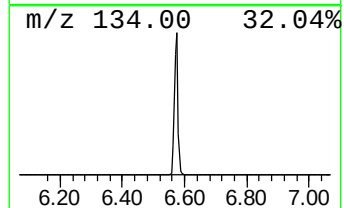
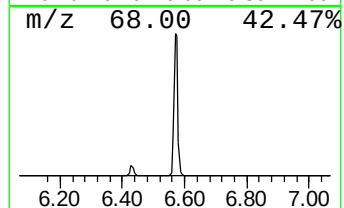
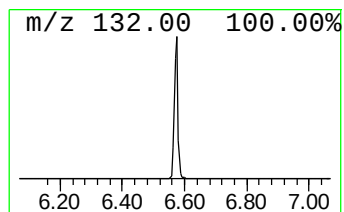
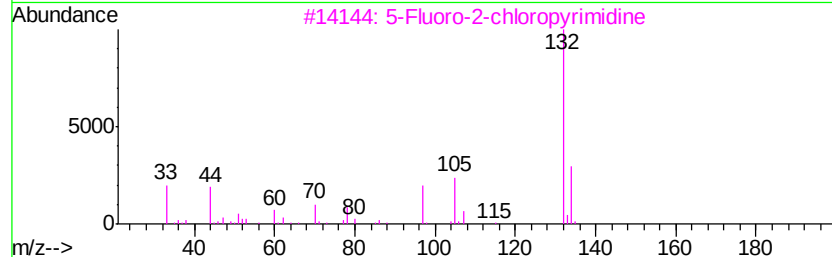
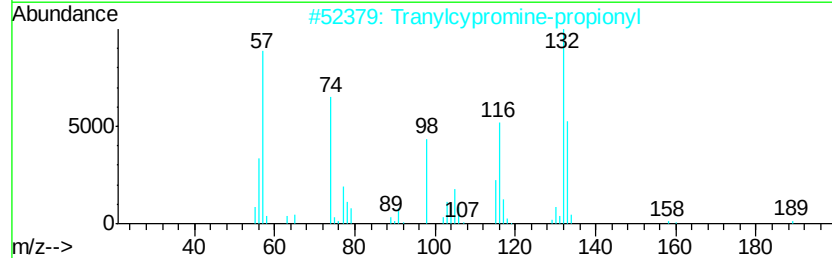
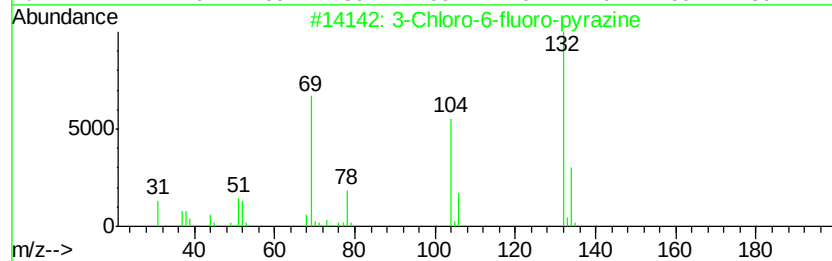
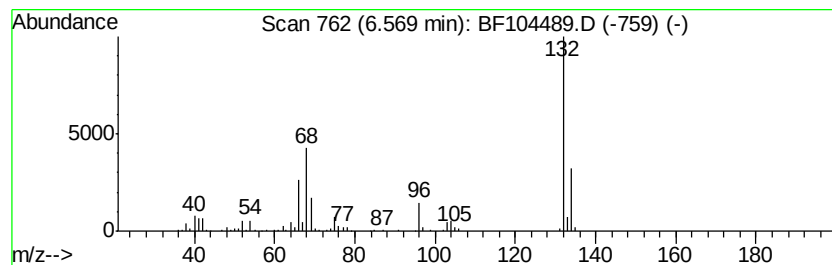
Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 1 unknown6.57 Concentration Rank 4

| R.T. | EstConc | Area   | Relative to ISTD       | R.T. |
|------|---------|--------|------------------------|------|
| 6.57 | 8.72 ng | 308195 | 1,4-Dichlorobenzene-d4 | 6.81 |

| Hit# | of | Tentative ID                   | MW  | MolForm   | CAS#         | Qual |
|------|----|--------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 3-Chloro-6-fluoro-pyrazine     | 132 | C4H2ClFN2 | 1000146-10-7 | 35   |
| 2    |    | Tranylcypromine-propionyl      | 189 | C12H15NO  | 1000123-86-3 | 12   |
| 3    |    | 5-Fluoro-2-chloropyrimidine    | 132 | C4H2ClFN2 | 062802-42-0  | 9    |
| 4    |    | 4-Methylpyrrolo[1,2-a]pyrazine | 132 | C8H8N2    | 064608-60-2  | 9    |
| 5    |    | 1,3,5-Trifluorobenzene         | 132 | C6H3F3    | 000372-38-3  | 9    |



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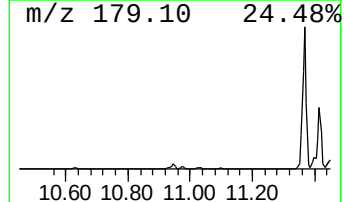
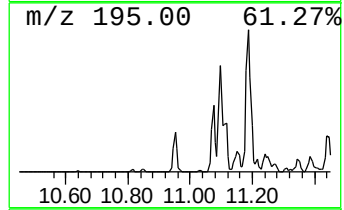
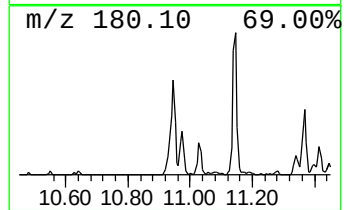
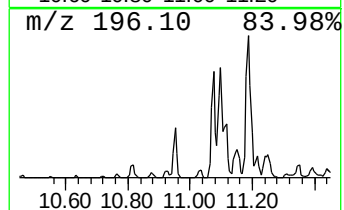
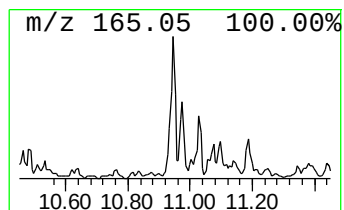
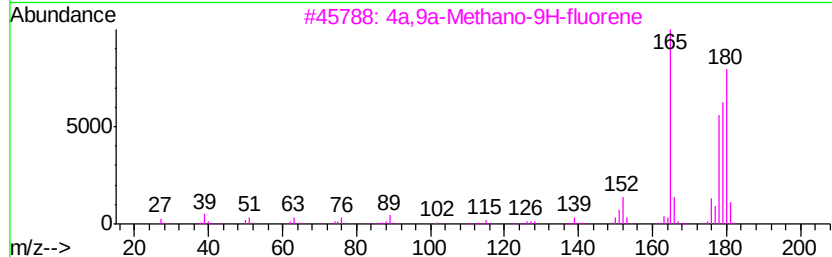
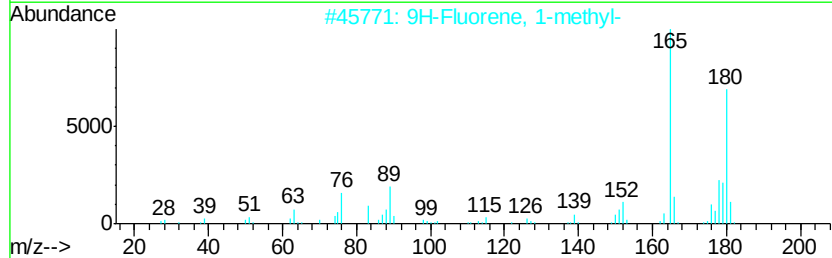
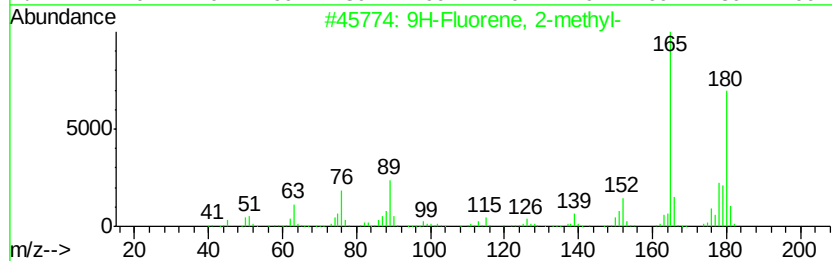
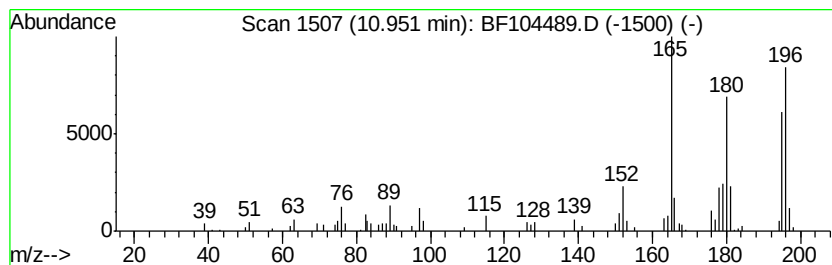
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\*\*\*\*\*  
Peak Number 3 9H-Fluorene, 2-methyl- Concentration Rank 19

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 10.95 | 3.59 ng | 154465 | Phenanthrene-d10 | 11.34 |

| Hit# | of | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------------|-----|---------|-------------|------|
| 1    | 5  | 9H-Fluorene, 2-methyl-    | 180 | C14H12  | 001430-97-3 | 96   |
| 2    |    | 9H-Fluorene, 1-methyl-    | 180 | C14H12  | 001730-37-6 | 96   |
| 3    |    | 4a,9a-Methano-9H-fluorene | 180 | C14H12  | 019540-84-2 | 78   |
| 4    |    | 9H-Fluorene, 9-methyl-    | 180 | C14H12  | 002523-37-7 | 60   |
| 5    |    | 9H-Fluorene, 3-methyl-    | 180 | C14H12  | 002523-39-9 | 60   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104489.D  
Acq On : 13 Apr 2018 20:01  
Operator : JU/SJ  
Sample : J2348-05 10X  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

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

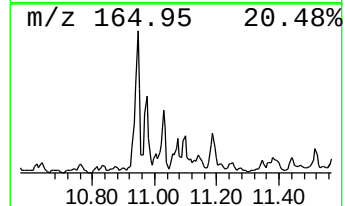
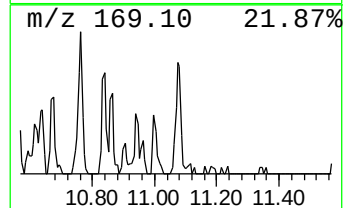
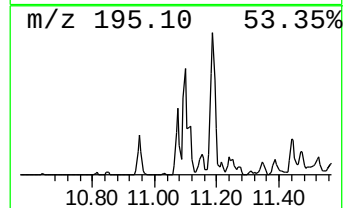
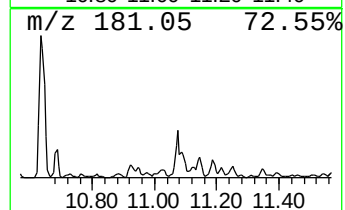
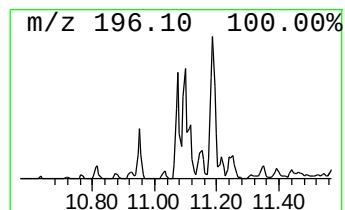
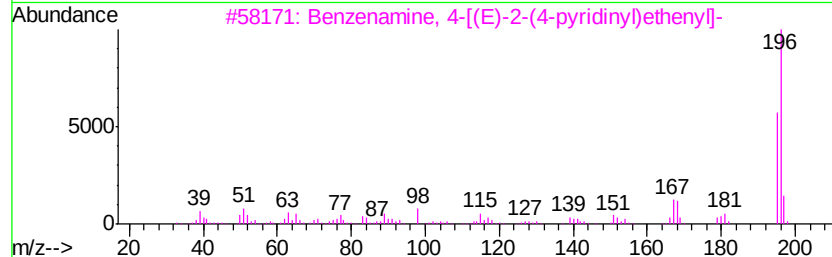
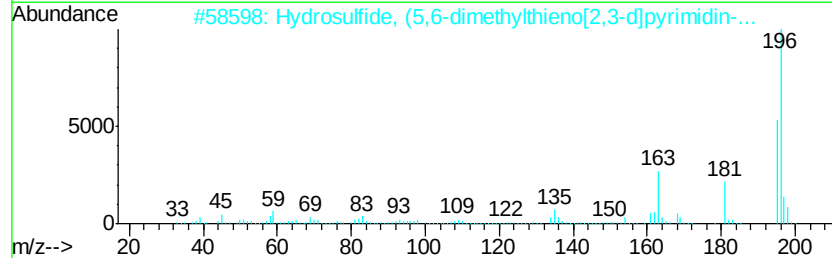
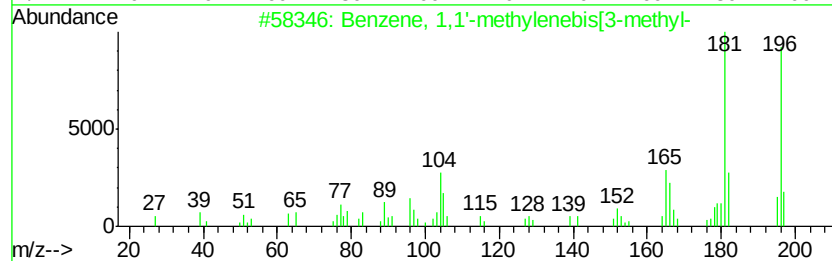
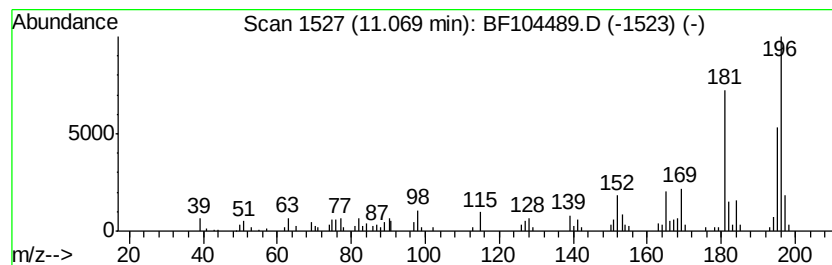
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TIC Integration Parameters: LSCINT.P

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Peak Number 4 unknown11.07 Concentration Rank 20

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.07 | 3.54 ng | 152574 | Phenanthrene-d10 | 11.34 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#         | Qual |
|------|----|-------------------------------------|-----|----------|--------------|------|
| 1    | 5  | Benzene, 1,1'-methylenebis[3-met... | 196 | C15H16   | 021895-14-7  | 49   |
| 2    |    | Hydrosulfide, (5,6-dimethylthien... | 196 | C8H8N2S2 | 1000362-41-8 | 47   |
| 3    |    | Benzenamine, 4-[(E)-2-(4-pyridin... | 196 | C13H12N2 | 1000351-61-4 | 46   |
| 4    |    | Phenol, 3-(2-phenylethenyl)-, (E)-  | 196 | C14H12O  | 017861-18-6  | 46   |
| 5    |    | Perimidine, 2-ethyl-                | 196 | C13H12N2 | 028478-13-9  | 43   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104489.D  
Acq On : 13 Apr 2018 20:01  
Operator : JU/SJ  
Sample : J2348-05 10X  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

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

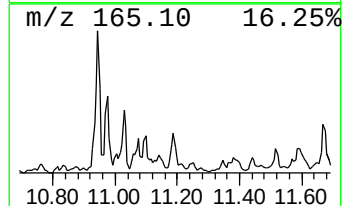
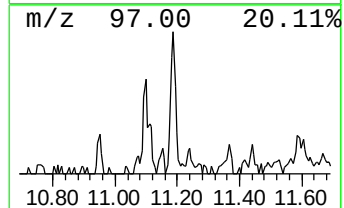
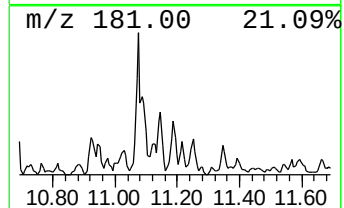
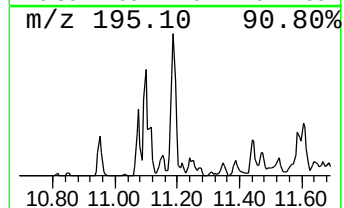
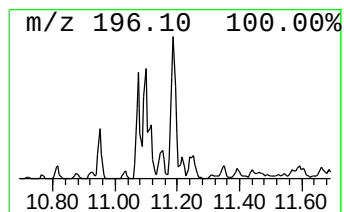
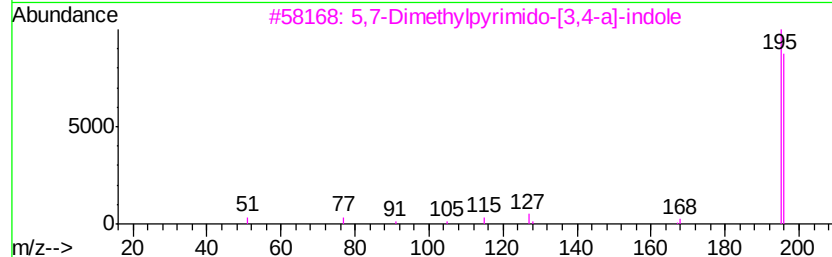
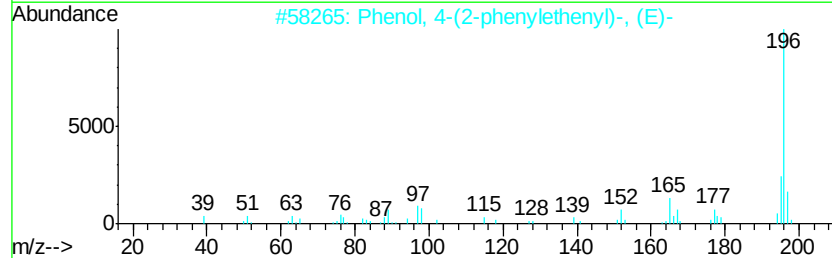
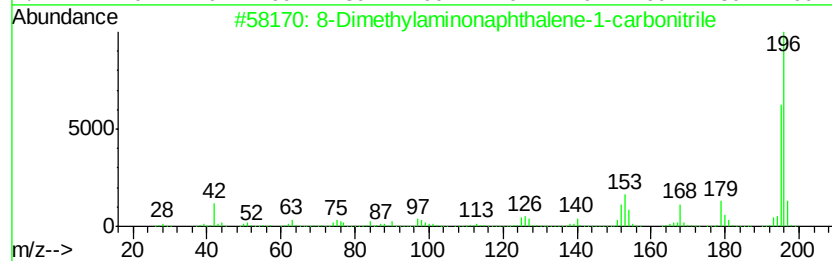
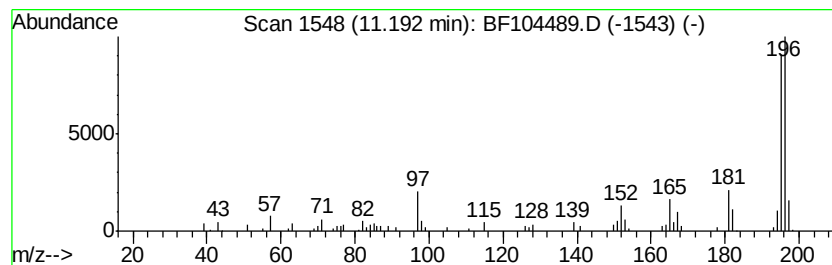
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 5 8-Dimethylaminonaphthalene-... Concentration Rank 17

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.19 | 3.94 ng | 169640 | Phenanthrene-d10 | 11.34 |

| Hit# of | 5 | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|---------|---|-------------------------------------|-----|----------|-------------|------|
| 1       |   | 8-Dimethylaminonaphthalene-1-car... | 196 | C13H12N2 | 128644-69-9 | 72   |
| 2       |   | Phenol, 4-(2-phenylethenyl)-, (E)-  | 196 | C14H12O  | 006554-98-9 | 53   |
| 3       |   | 5,7-Dimethylpyrimido-[3,4-a]-indole | 196 | C13H12N2 | 038349-21-2 | 50   |
| 4       |   | Naphtho[2,1-b]furan, 1,2-dimethyl-  | 196 | C14H12O  | 129812-23-3 | 47   |
| 5       |   | Phenol, 4-(2-phenylethenyl)-        | 196 | C14H12O  | 003839-46-1 | 46   |





Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104489.D  
Acq On : 13 Apr 2018 20:01  
Operator : JU/SJ  
Sample : J2348-05 10X  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

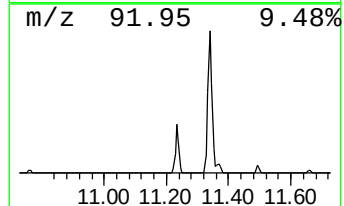
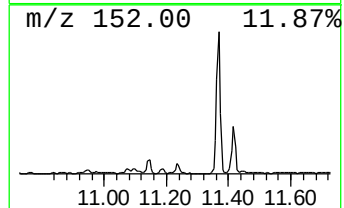
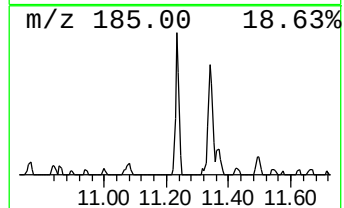
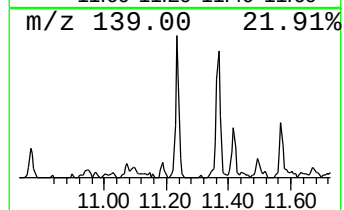
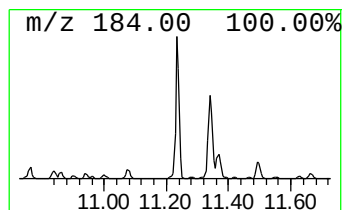
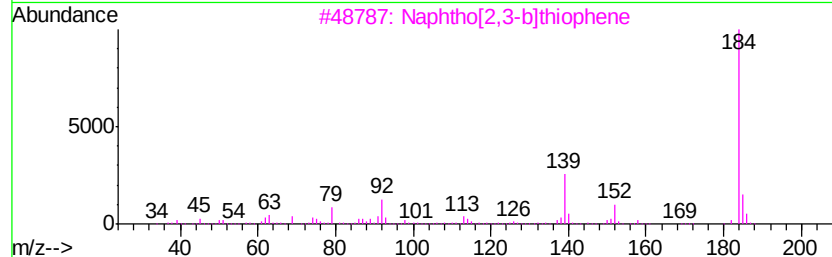
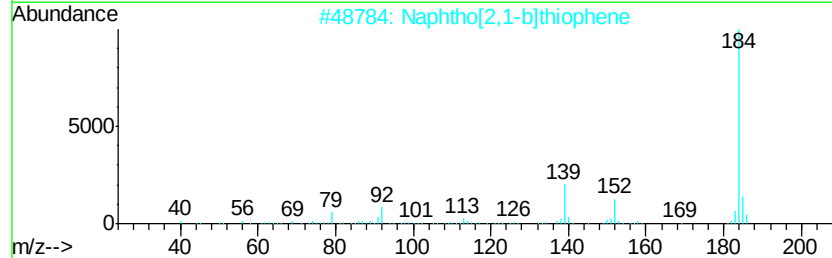
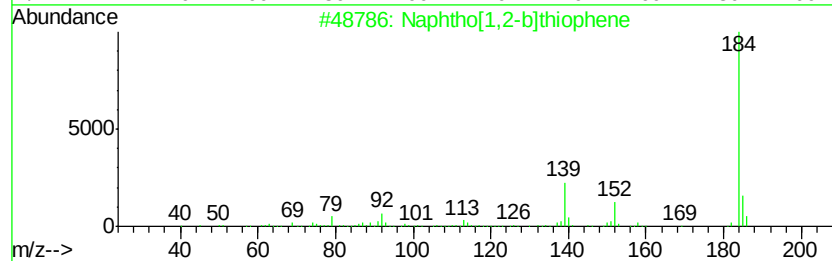
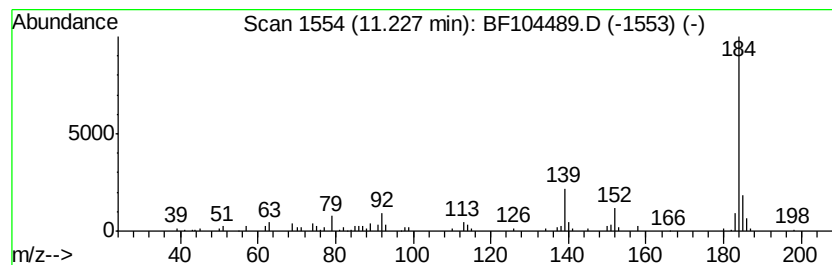
Instrument :  
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ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF040618.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 6 Naphtho[1,2-b]thiophene Concentration Rank 14

| R.T.    | EstConc | Area                    | Relative to ISTD |         | R.T.        |      |
|---------|---------|-------------------------|------------------|---------|-------------|------|
| 11.23   | 4.76 ng | 204923                  | Phenanthrene-d10 |         | 11.34       |      |
| Hit# of | 5       | Tentative ID            | MW               | MolForm | CAS#        | Qual |
| 1       |         | Naphtho[1,2-b]thiophene | 184              | C12H8S  | 000234-41-3 | 97   |
| 2       |         | Naphtho[2,1-b]thiophene | 184              | C12H8S  | 000233-02-3 | 97   |
| 3       |         | Naphtho[2,3-b]thiophene | 184              | C12H8S  | 000268-77-9 | 97   |
| 4       |         | Dibenzothiophene        | 184              | C12H8S  | 000132-65-0 | 96   |
| 5       |         | Azuleno(2,1-b)thiophene | 184              | C12H8S  | 000248-13-5 | 91   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104489.D  
Acq On : 13 Apr 2018 20:01  
Operator : JU/SJ  
Sample : J2348-05 10X  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

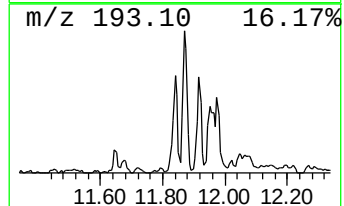
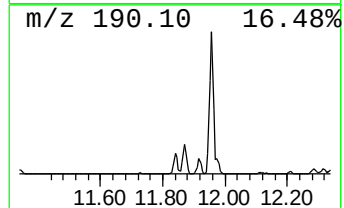
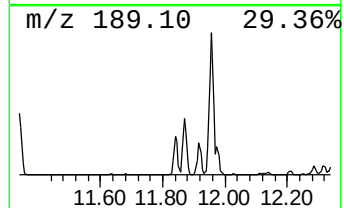
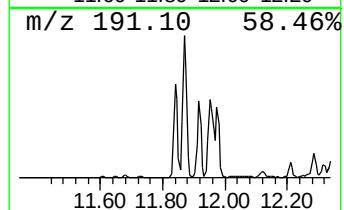
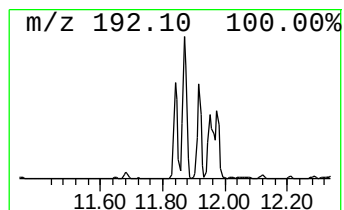
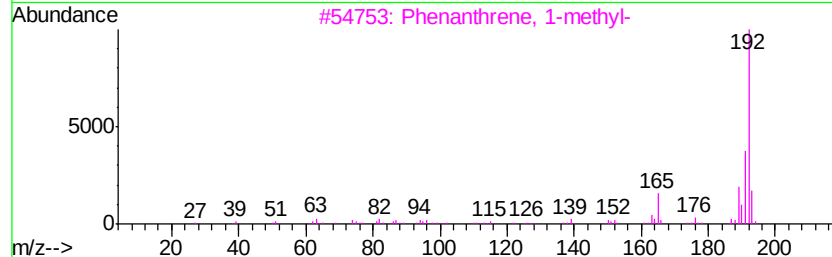
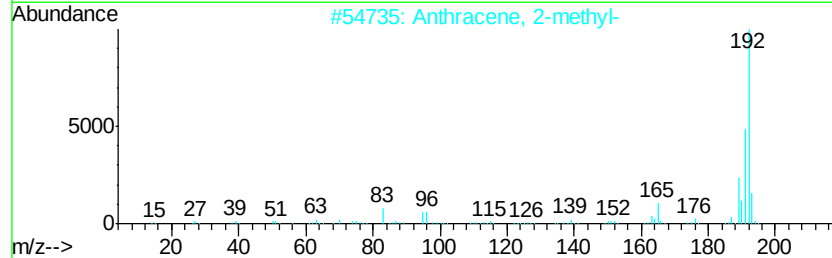
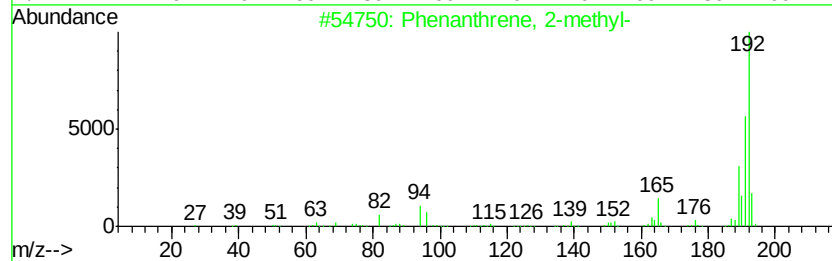
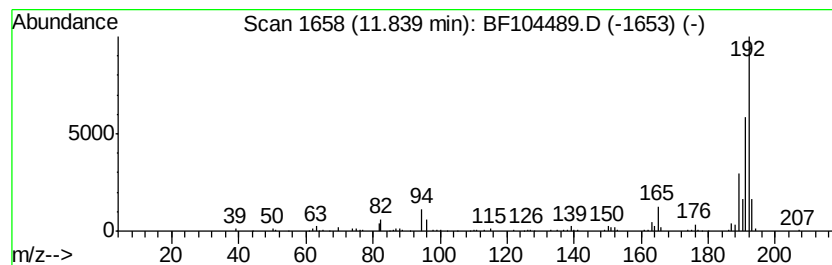
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ClientSampleId :  
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 7 Phenanthrene, 2-methyl- Concentration Rank 5

| R.T.      | EstConc                               | Area   | Relative to ISTD | R.T.        |      |
|-----------|---------------------------------------|--------|------------------|-------------|------|
| 11.84     | 8.60 ng                               | 370260 | Phenanthrene-d10 | 11.34       |      |
| Hit# of 5 | Tentative ID                          | MW     | MolForm          | CAS#        | Qual |
| 1         | Phenanthrene, 2-methyl-               | 192    | C15H12           | 002531-84-2 | 98   |
| 2         | Anthracene, 2-methyl-                 | 192    | C15H12           | 000613-12-7 | 96   |
| 3         | Phenanthrene, 1-methyl-               | 192    | C15H12           | 000832-69-9 | 95   |
| 4         | 1H-Cyclopropa[1,1]phenanthrene,1a,... | 192    | C15H12           | 000949-41-7 | 93   |
| 5         | 1H-Indene, 1-phenyl-                  | 192    | C15H12           | 001961-96-2 | 93   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF041318\  
Data File : BF104489.D  
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Operator : JU/SJ  
Sample : J2348-05 10X  
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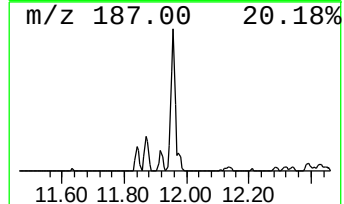
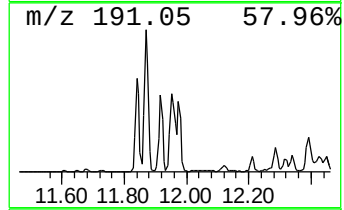
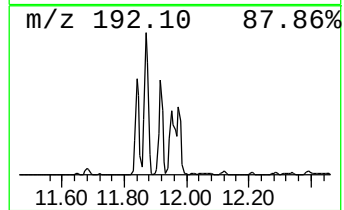
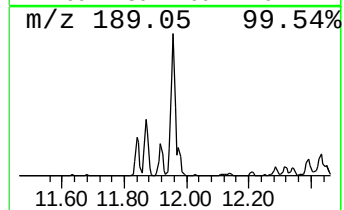
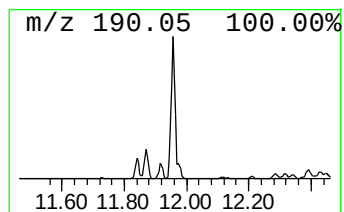
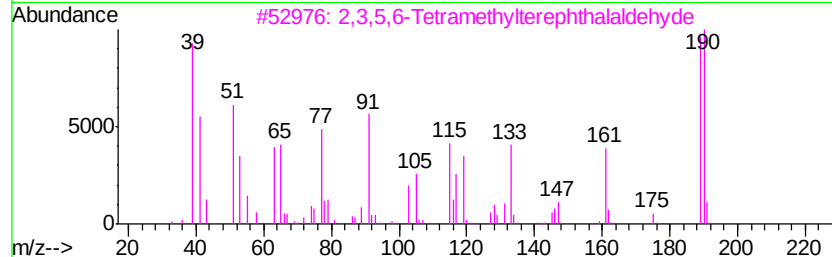
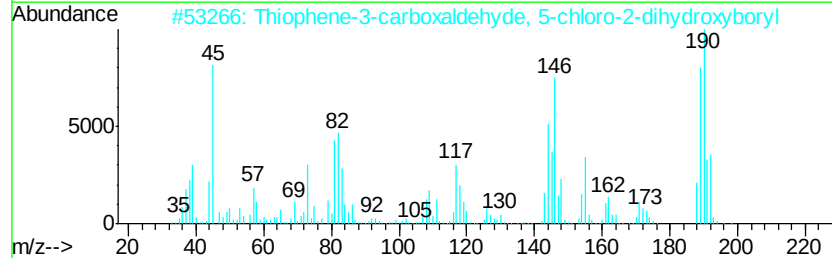
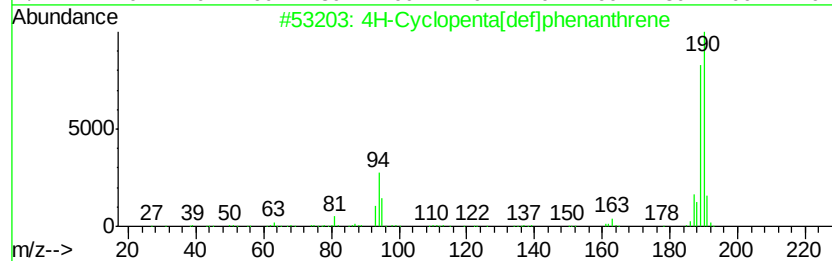
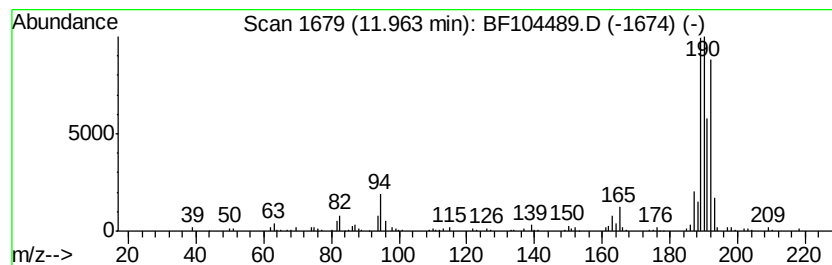
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 10 4H-Cyclopenta[def]phenanthrene Concentration Rank 2

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.         |      |
|-----------|-------------------------------------|--------|------------------|--------------|------|
| 11.96     | 14.58 ng                            | 627444 | Phenanthrene-d10 | 11.34        |      |
| 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  | 53   |
| 3         | 2,3,5,6-Tetramethylterephthalald... | 190    | C12H14O2         | 007072-01-7  | 43   |
| 4         | 6H-Cyclobuta[flk]phenanthrene       | 190    | C15H10           | 083469-43-6  | 42   |
| 5         | Carbonic acid, ethyl 2-formyl-4,... | 262    | C10H8Cl2O4       | 1000331-34-4 | 40   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF041318\  
Data File : BF104489.D  
Acq On : 13 Apr 2018 20:01  
Operator : JU/SJ  
Sample : J2348-05 10X  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

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

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

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Peak Number 11 Anthracene, 9-methyl- Concentration Rank 15

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.97 | 4.24 ng | 182655 | Phenanthrene-d10 | 11.34 |

| Hit# | of | 5 | Tentative ID                       | MW  | MolForm | CAS#        | Qual |
|------|----|---|------------------------------------|-----|---------|-------------|------|
| 1    |    |   | Anthracene, 9-methyl-              | 192 | C15H12  | 000779-02-2 | 87   |
| 2    |    |   | Phenanthrene, 2-methyl-            | 192 | C15H12  | 002531-84-2 | 87   |
| 3    |    |   | Benzene, 1,1'-(1,2-propadienyld... | 192 | C15H12  | 014251-57-1 | 83   |
| 4    |    |   | Phenanthrene, 1-methyl-            | 192 | C15H12  | 000832-69-9 | 81   |
| 5    |    |   | Anthracene, 1-methyl-              | 192 | C15H12  | 000610-48-0 | 81   |

