LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

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-BF092317.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.128 | 514 | 517 | 524 | rBV | 123429 | 125010 | 8.76% | 0.633% |
| 2 | 5.528 | 581 | 585 | 591 | rVB | 670233 | 565377 | 39.60% | 2.865% |
| 3 | 6.451 | 738 | 742 | 746 | rBV4 | 26943 | 36172 | 2.53% | 0.183% |
| 4 | 6.534 | 752 | 756 | 763 | rBV | 615905 | 576220 | 40.36% | 2.920% |
| 5 | 6.681 | 777 | 781 | 789 | rVB | 757229 | 618858 | 43.34% | 3.136% |
| 6 | 6.916 | 817 | 821 | 825 | rVV | 1049561 | 846644 | 59.29% | 4.290% |
| 7 | 7.069 | 842 | 847 | 851 | rBV | 563239 | 477680 | 33.45% | 2.421% |
| 8 | 7.187 | 862 | 867 | 869 | rBV3 | 33298 | 34911 | 2.44% | 0.177% |
| 9 | 7.310 | 881 | 888 | 890 | rBV6 | 34469 | 41488 | 2.91% | 0.210% |
| 10 | 7.439 | 904 | 910 | 912 | rBV4 | 27497 | 40635 | 2.85% | 0.206% |
| 11 | 7.469 | 912 | 915 | 919 | rVV | 378529 | 356840 | 24.99% | 1.808% |
| 12 | 7.504 | 919 | 921 | 925 | rVB2 | 37739 | 38862 | 2.72% | 0.197% |
| 13 | 7.557 | 925 | 930 | 933 | rBV5 | 32257 | 48956 | 3.43% | 0.248% |
| 14 | 7.604 | 933 | 938 | 942 | rBV4 | 21224 | 36850 | 2.58% | 0.187% |
| 15 | 7.722 | 955 | 958 | 963 | rVB4 | 32886 | 32583 | 2.28% | 0.165% |
| 16 | 7.839 | 975 | 978 | 983 | rBV5 | 44263 | 45160 | 3.16% | 0.229% |
| 17 | 8.198 | 1035 | 1039 | 1042 | rVV | 1220395 | 994130 | 69.62% | 5.038% |
| 18 | 8.251 | 1045 | 1048 | 1050 | rVB | 52491 | 46499 | 3.26% | 0.236% |
| 19 | 8.481 | 1081 | 1087 | 1093 | rVV8 | 29758 | 51341 | 3.60% | 0.260% |
| 20 | 8.610 | 1106 | 1109 | 1111 | rVV | 69958 | 57205 | 4.01% | 0.290% |
| 21 | 8.733 | 1127 | 1130 | 1133 | rBV | 29463 | 31522 | 2.21% | 0.160% |
| 22 | 8.781 | 1135 | 1138 | 1142 | rVB | 42695 | 35802 | 2.51% | 0.181% |
| 23 | 9.210 | 1209 | 1211 | 1217 | rVB | 50157 | 39276 | 2.75% | 0.199% |
| 24 | 9.269 | 1217 | 1221 | 1231 | rBV | 720364 | 569472 | 39.88% | 2.886% |
| 25 | 9.345 | 1231 | 1234 | 1237 | rBV2 | 57781 | 57424 | 4.02% | 0.291% |
| 26 | 9.610 | 1276 | 1279 | 1281 | rVV | 33339 | 33455 | 2.34% | 0.170% |
| 27 | 9.663 | 1285 | 1288 | 1295 | rVB | 146400 | 140985 | 9.87% | 0.714% |
| 28 | 9.816 | 1311 | 1314 | 1317 | rBV | 40866 | 40087 | 2.81% | 0.203% |
| 29 | 9.875 | 1317 | 1324 | 1326 | rVV2 | 39146 | 53700 | 3.76% | 0.272% |
| 30 | 9.957 | 1328 | 1338 | 1341 | rVV | 886673 | 842558 | 59.01% | 4.269% |
| 31 | 9.986 | 1341 | 1343 | 1346 | rVB | 51245 | 40464 | 2.83% | 0.205% |
| 32 | 10.157 | 1368 | 1372 | 1376 | rVV2 | 52026 | 52400 | 3.67% | 0.266% |
| 33 | 10.269 | 1387 | 1391 | 1393 | rBV | 30739 | 31915 | 2.24% | 0.162% |
| 34 | 10.375 | 1402 | 1409 | 1412 | rBV3 | 47130 | 60511 | 4.24% | 0.307% |

LSC Area Percent Report

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Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

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-BF092317.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 10.498 | 1427 | 1430 | 1436 | rVB3 | 38052 | 47869 | 3.35% | 0.243% |
| 36 | 10.657 | 1452 | 1457 | 1460 | rBV3 | 23086 | 33201 | 2.33% | 0.168% |
| 37 | 10.739 | 1468 | 1471 | 1475 | rVB | 277681 | 227088 | 15.90% | 1.151% |
| 38 | 10.845 | 1486 | 1489 | 1490 | rBV | 43300 | 32150 | 2.25% | 0.163% |
| 39 | 10.863 | 1490 | 1492 | 1498 | rVB3 | 44994 | 45630 | 3.20% | 0.231% |
| 40 | 11.051 | 1517 | 1524 | 1526 | rBV4 | 24425 | 37865 | 2.65% | 0.192% |
| 41 | 11.175 | 1540 | 1545 | 1547 | rBV3 | 32039 | 41920 | 2.94% | 0.212% |
| 42 | 11.198 | 1547 | 1549 | 1553 | rVB2 | 32431 | 30841 | 2.16% | 0.156% |
| 43 | 11.245 | 1553 | 1557 | 1560 | rBV2 | 58063 | 50901 | 3.56% | 0.258% |
| 44 | 11.292 | 1561 | 1565 | 1568 | rBV3 | 41678 | 40302 | 2.82% | 0.204% |
| 45 | 11.339 | 1570 | 1573 | 1577 | rVB | 43688 | 43432 | 3.04% | 0.220% |
| 46 | 11.439 | 1587 | 1590 | 1592 | rBV | 809988 | 709058 | 49.66% | 3.593% |
| 47 | 11.463 | 1592 | 1594 | 1598 | rVB | 629420 | 514804 | 36.05% | 2.609% |
| 48 | 11.516 | 1600 | 1603 | 1606 | rVB | 155900 | 114237 | 8.00% | 0.579% |
| 49 | 11.669 | 1626 | 1629 | 1631 | rBV | 39347 | 32830 | 2.30% | 0.166% |
| 50 | 11.769 | 1643 | 1646 | 1651 | rVB2 | 44342 | 49479 | 3.47% | 0.251% |
| 51 | 11.939 | 1672 | 1675 | 1678 | rVV | 138281 | 141411 | 9.90% | 0.717% |
| 52 | 11.969 | 1678 | 1680 | 1684 | rVB | 204914 | 161515 | 11.31% | 0.818% |
| 53 | 12.016 | 1684 | 1688 | 1691 | rBV | 76874 | 73691 | 5.16% | 0.373% |
| 54 | 12.051 | 1691 | 1694 | 1697 | rVV2 | 182499 | 230264 | 16.13% | 1.167% |
| 55 | 12.074 | 1697 | 1698 | 1702 | rVB | 110760 | 70778 | 4.96% | 0.359% |
| 56 | 12.127 | 1704 | 1707 | 1709 | rVV2 | 34858 | 31206 | 2.19% | 0.158% |
| 57 | 12.233 | 1722 | 1725 | 1728 | rBV | 126032 | 117454 | 8.23% | 0.595% |
| 58 | 12.263 | 1728 | 1730 | 1732 | rVB2 | 56941 | 46710 | 3.27% | 0.237% |
| 59 | 12.386 | 1749 | 1751 | 1754 | rVV2 | 47241 | 37612 | 2.63% | 0.191% |
| 60 | 12.416 | 1754 | 1756 | 1758 | rVV | 47622 | 38874 | 2.72% | 0.197% |
| 61 | 12.439 | 1758 | 1760 | 1763 | rVB | 46178 | 35312 | 2.47% | 0.179% |
| 62 | 12.492 | 1765 | 1769 | 1772 | rBV | 134290 | 140687 | 9.85% | 0.713% |
| 63 | 12.527 | 1772 | 1775 | 1777 | rVV3 | 65135 | 87760 | 6.15% | 0.445% |
| 64 | 12.574 | 1781 | 1783 | 1788 | rVV2 | 87763 | 95264 | 6.67% | 0.483% |
| 65 | 12.657 | 1793 | 1797 | 1800 | rBV | 1244432 | 1025314 | 71.81% | 5.196% |
| 66 | 12.716 | 1805 | 1807 | 1811 | rVB4 | 33443 | 30751 | 2.15% | 0.156% |
| 67 | 12.780 | 1815 | 1818 | 1820 | rBV4 | 30010 | 34448 | 2.41% | 0.175% |
| 68 | 12.886 | 1829 | 1836 | 1841 | rBV | 1181425 | 1199395 | 84.00% | 6.078% |
| 69 | 12.933 | 1841 | 1844 | 1848 | rVB2 | 75199 | 94167 | 6.59% | 0.477% |
| 70 | 13.021 | 1852 | 1859 | 1861 | rBV2 | 530689 | 512663 | 35.90% | 2.598% |
| 71 | 13.098 | 1868 | 1872 | 1876 | rBV3 | 100245 | 157774 | 11.05% | 0.799% |

LSC Area Percent Report

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Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

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-BF092317.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 13.186 | 1884 | 1887 | 1888 | rVV2 | 69116 | 71383 | 5.00% | 0.362% |
| 73 | 13.210 | 1888 | 1891 | 1894 | rVB | 165620 | 160019 | 11.21% | 0.811% |
| 74 | 13.245 | 1894 | 1897 | 1899 | rBV | 36383 | 39116 | 2.74% | 0.198% |
| 75 | 13.274 | 1899 | 1902 | 1905 | rBV | 82400 | 70356 | 4.93% | 0.357% |
| 76 | 13.316 | 1905 | 1909 | 1911 | rBV2 | 130519 | 136752 | 9.58% | 0.693% |
| 77 | 13.410 | 1922 | 1925 | 1927 | rBV | 67359 | 57647 | 4.04% | 0.292% |
| 78 | 13.439 | 1927 | 1930 | 1933 | rBV | 85311 | 85229 | 5.97% | 0.432% |
| 79 | 13.516 | 1941 | 1943 | 1947 | rVB3 | 32812 | 39699 | 2.78% | 0.201% |
| 80 | 13.586 | 1952 | 1955 | 1957 | rBV3 | 43877 | 45035 | 3.15% | 0.228% |
| 81 | 13.716 | 1975 | 1977 | 1982 | rVB | 131866 | 123824 | 8.67% | 0.627% |
| 82 | 13.827 | 1992 | 1996 | 1999 | rBV2 | 104880 | 151592 | 10.62% | 0.768% |
| 83 | 13.857 | 1999 | 2001 | 2003 | rVV | 111462 | 94513 | 6.62% | 0.479% |
| 84 | 13.886 | 2003 | 2006 | 2009 | rVV2 | 81647 | 128014 | 8.97% | 0.649% |
| 85 | 13.921 | 2010 | 2012 | 2017 | rVB | 126860 | 138214 | 9.68% | 0.700% |
| 86 | 14.080 | 2034 | 2039 | 2042 | rBV2 | 1028208 | 1427856 | 100.00% | 7.235% |
| 87 | 14.110 | 2042 | 2044 | 2050 | rVB | 589933 | 502917 | 35.22% | 2.548% |
| 88 | 14.186 | 2055 | 2057 | 2061 | rVB | 62142 | 51293 | 3.59% | 0.260% |
| 89 | 14.304 | 2073 | 2077 | 2080 | rBV3 | 51582 | 73786 | 5.17% | 0.374% |
| 90 | 14.333 | 2080 | 2082 | 2085 | rBV3 | 37846 | 36593 | 2.56% | 0.185% |
| 91 | 14.463 | 2102 | 2104 | 2108 | rVB | 122002 | 119923 | 8.40% | 0.608% |
| 92 | 14.498 | 2108 | 2110 | 2114 | rBV | 77063 | 70407 | 4.93% | 0.357% |
| 93 | 14.592 | 2124 | 2126 | 2128 | rBV | 57323 | 50872 | 3.56% | 0.258% |
| 94 | 15.133 | 2214 | 2218 | 2222 | rBV | 413874 | 695065 | 48.68% | 3.522% |
| 95 | 15.245 | 2234 | 2237 | 2240 | rVB | 84878 | 79165 | 5.54% | 0.401% |
| 96 | 15.445 | 2268 | 2271 | 2278 | rVB | 238106 | 318162 | 22.28% | 1.612% |
| 97 | 15.510 | 2278 | 2282 | 2288 | rBV | 328623 | 427349 | 29.93% | 2.166% |
| 98 | 15.580 | 2289 | 2294 | 2297 | rBV | 495224 | 634991 | 44.47% | 3.218% |
| 99 | 17.086 | 2545 | 2550 | 2557 | rVB2 | 129764 | 258086 | 18.08% | 1.308% |
| 100 | 17.545 | 2624 | 2628 | 2633 | rVB | 78303 | 130901 | 9.17% | 0.663% |

Sum of corrected areas: 19734408

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Data File : BF098929.D
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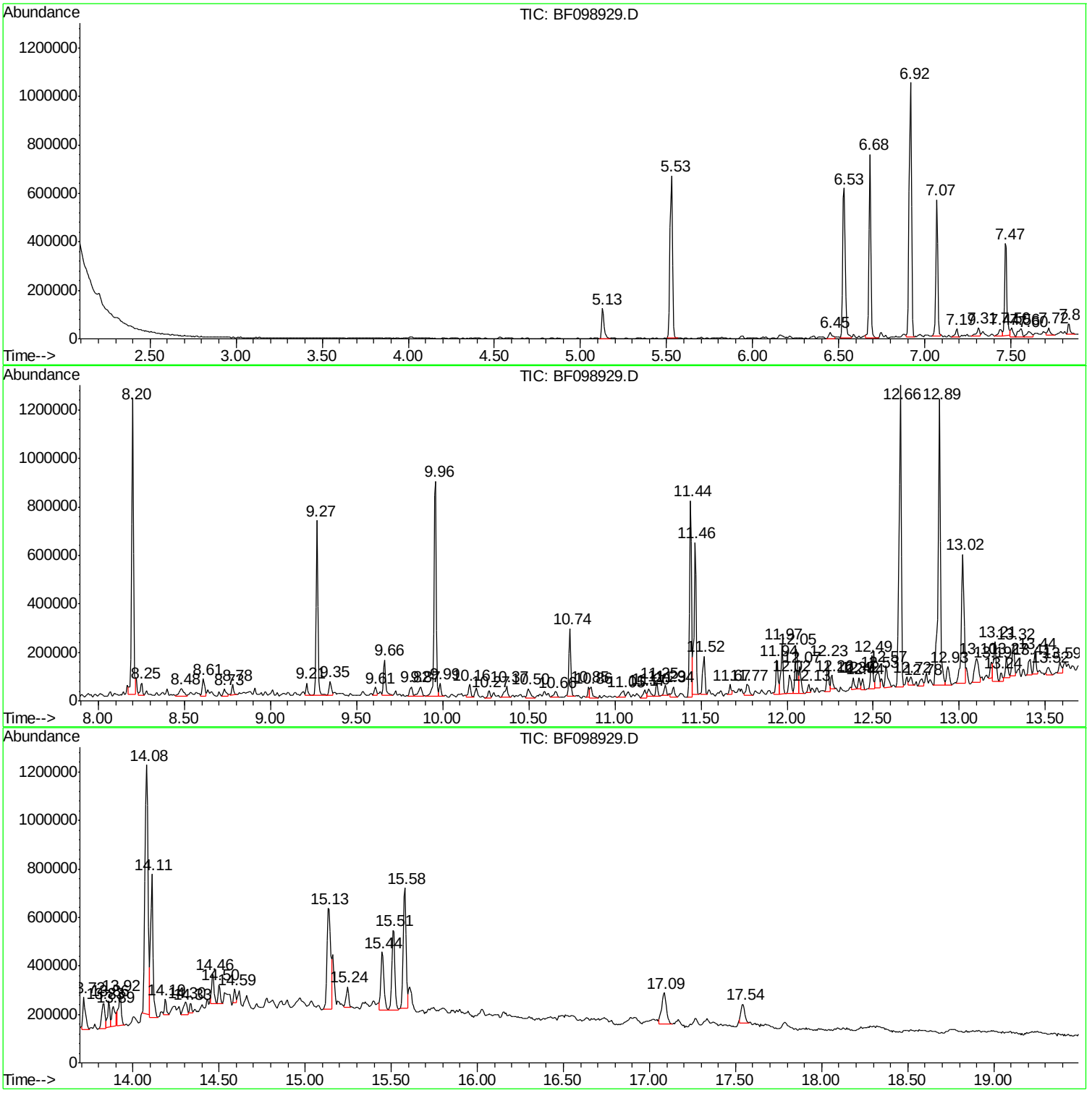
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.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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Misc :
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**Instrument :** BNA_F
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Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

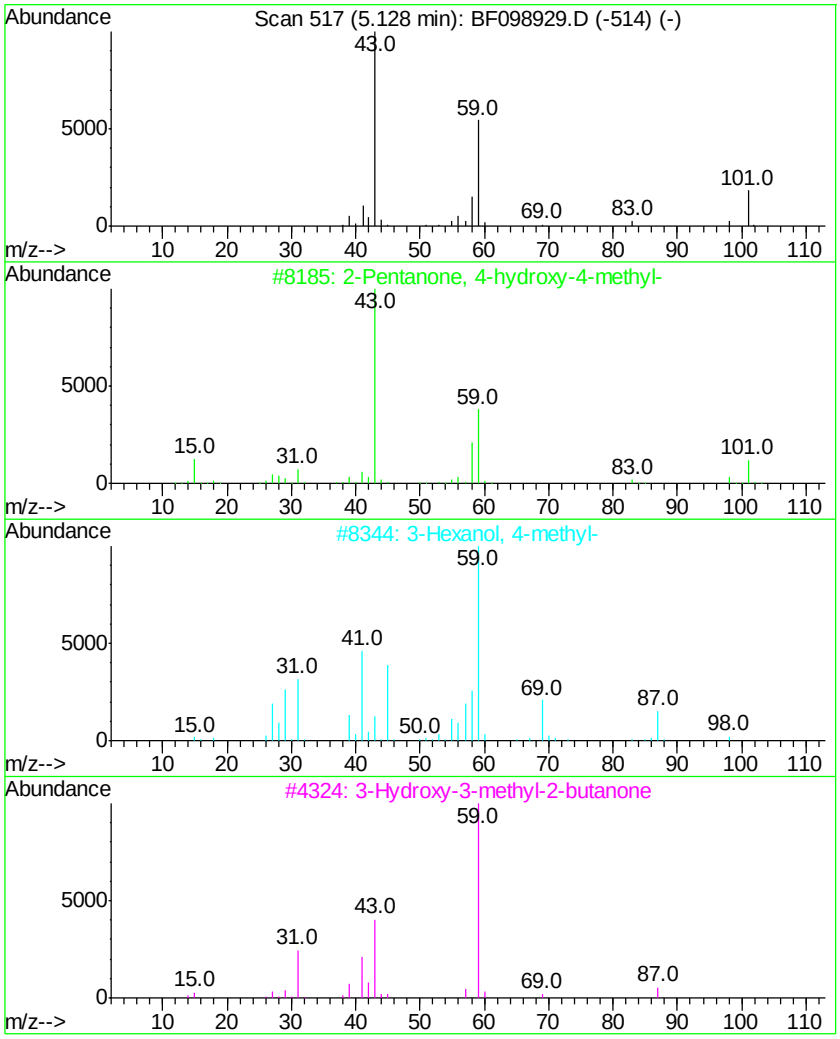
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

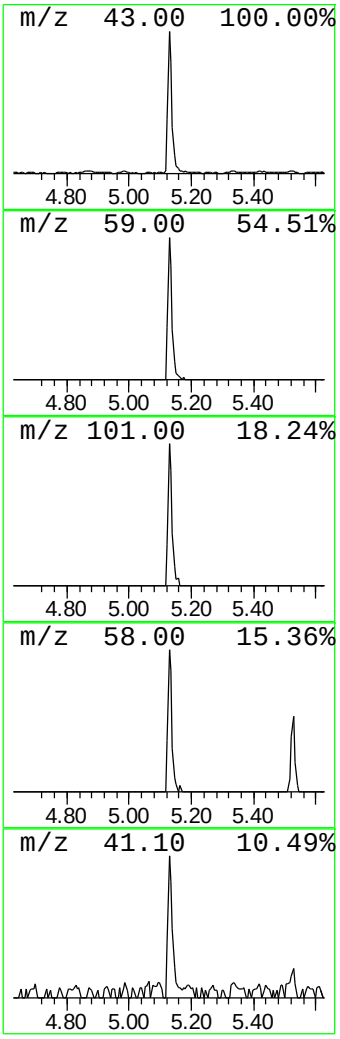
**********

Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.13 | 2.95 ng | 125010 | 1,4-Dichlorobenzene-d4 | 6.92 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 59 |
| 2 | 3-Hexanol, 4-methyl- | 116 | C7H16O | 000615-29-2 | 33 |
| 3 | 3-Hydroxy-3-methyl-2-butanone | 102 | C5H10O2 | 000115-22-0 | 23 |
| 4 | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 23 |
| 5 | 2,3-Butanedione, monooxime | 101 | C4H7NO2 | 000057-71-6 | 16 |



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Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

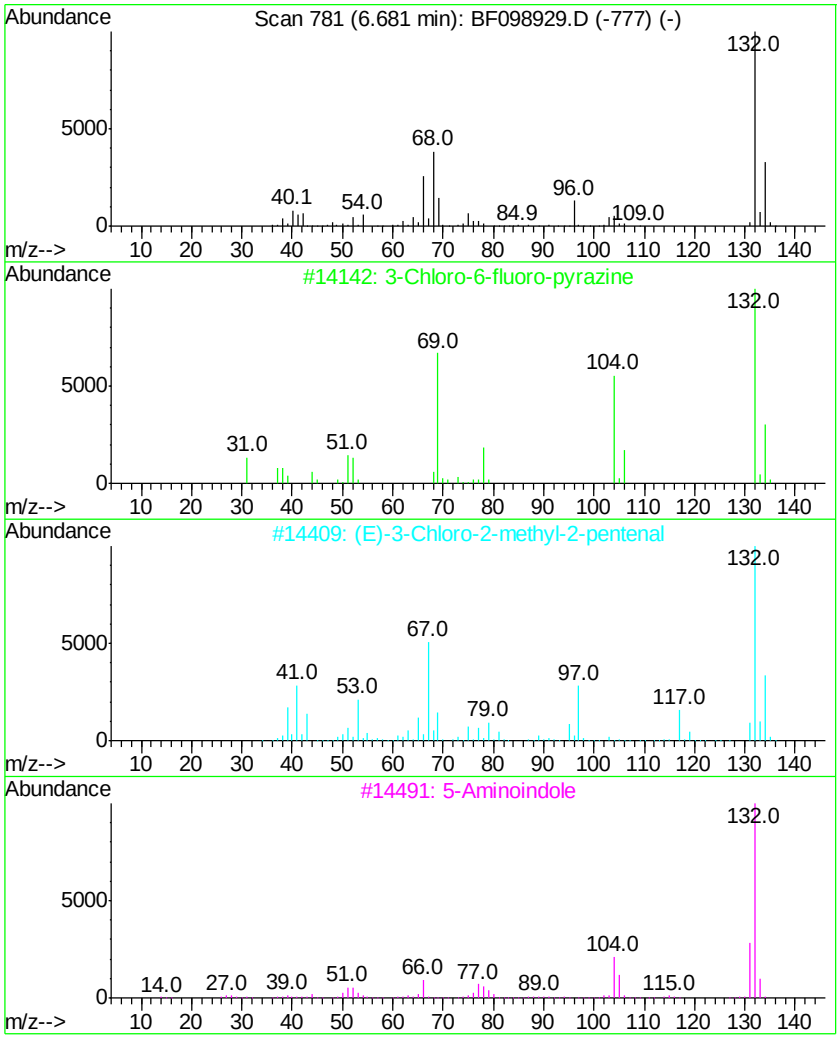
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

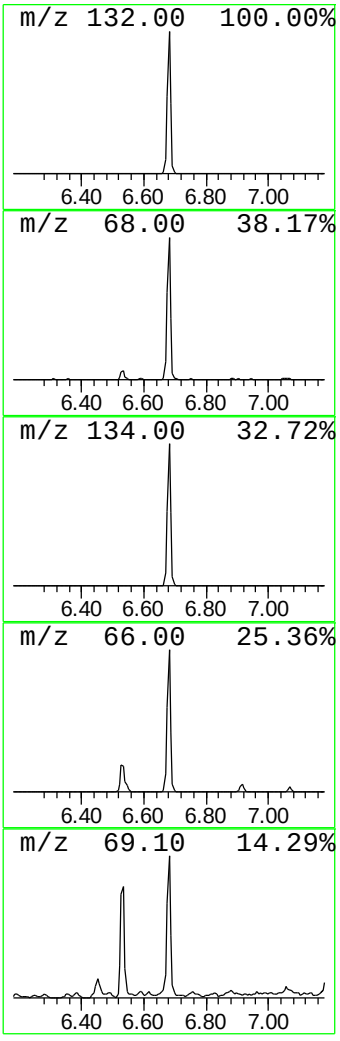
**********

Peak Number 2 unknown6.68 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.68 | 14.62 ng | 618858 | 1,4-Dichlorobenzene-d4 | 6.92 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 27 |
| 2 | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO | 031357-76-3 | 16 |
| 3 | 5-Aminoindole | 132 | C8H8N2 | 005192-03-0 | 12 |
| 4 | 4-Chloro-2-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-00-5 | 9 |
| 5 | 4-Methylpyrrolo[1,2-a]pyrazine | 132 | C8H8N2 | 064608-60-2 | 9 |



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Sample : I5457-13 5X
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**Instrument :** BNA_F
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Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

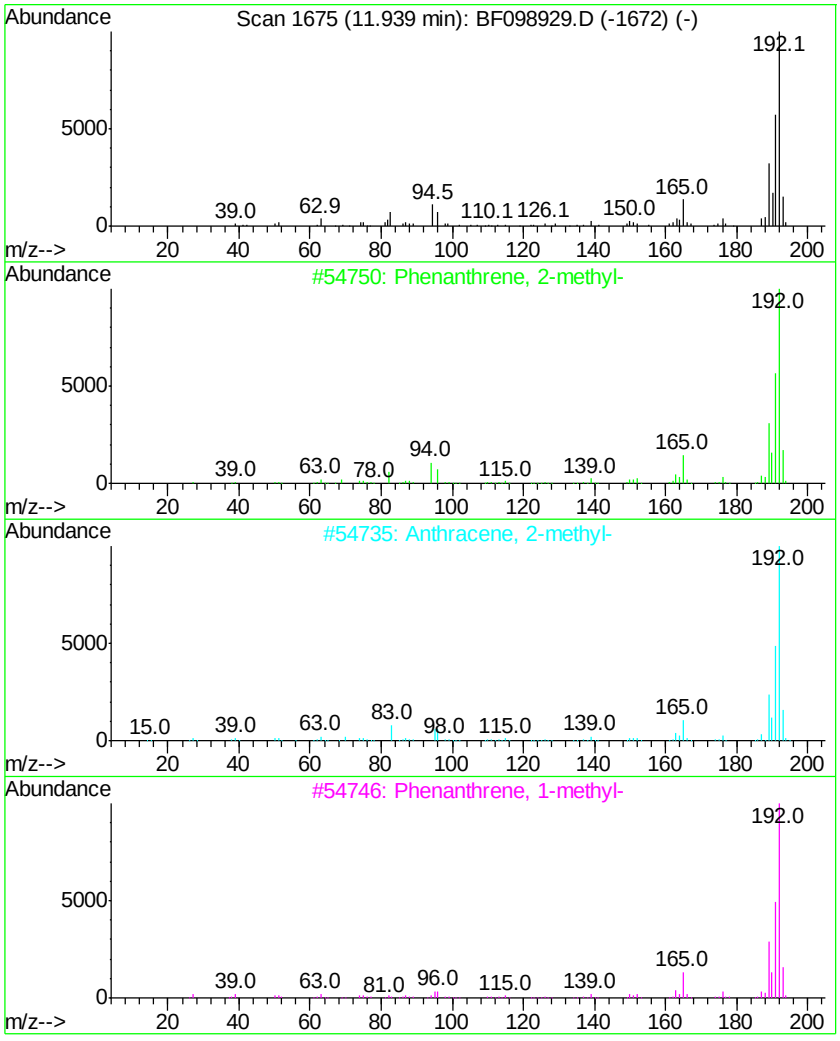
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

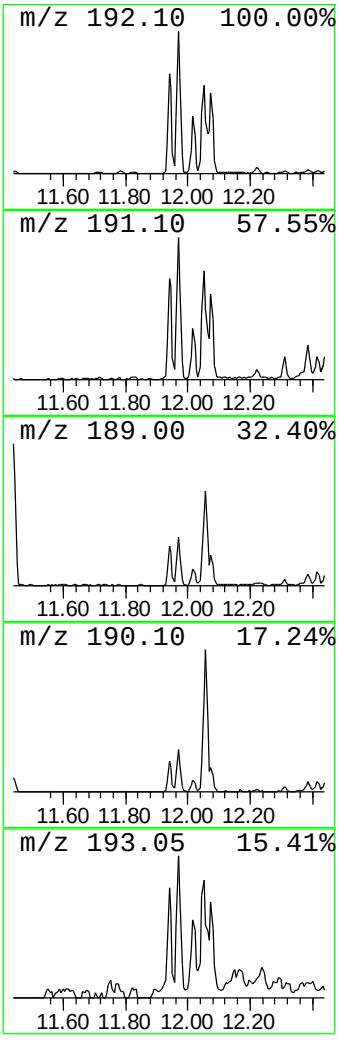
**********

Peak Number 4 Phenanthrene, 2-methyl- Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.94 | 3.99 ng | 141411 | Phenanthrene-d10 | 11.44 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 97 |
| 2 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 96 |
| 3 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 93 |
| 4 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 91 |
| 5 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 90 |



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Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

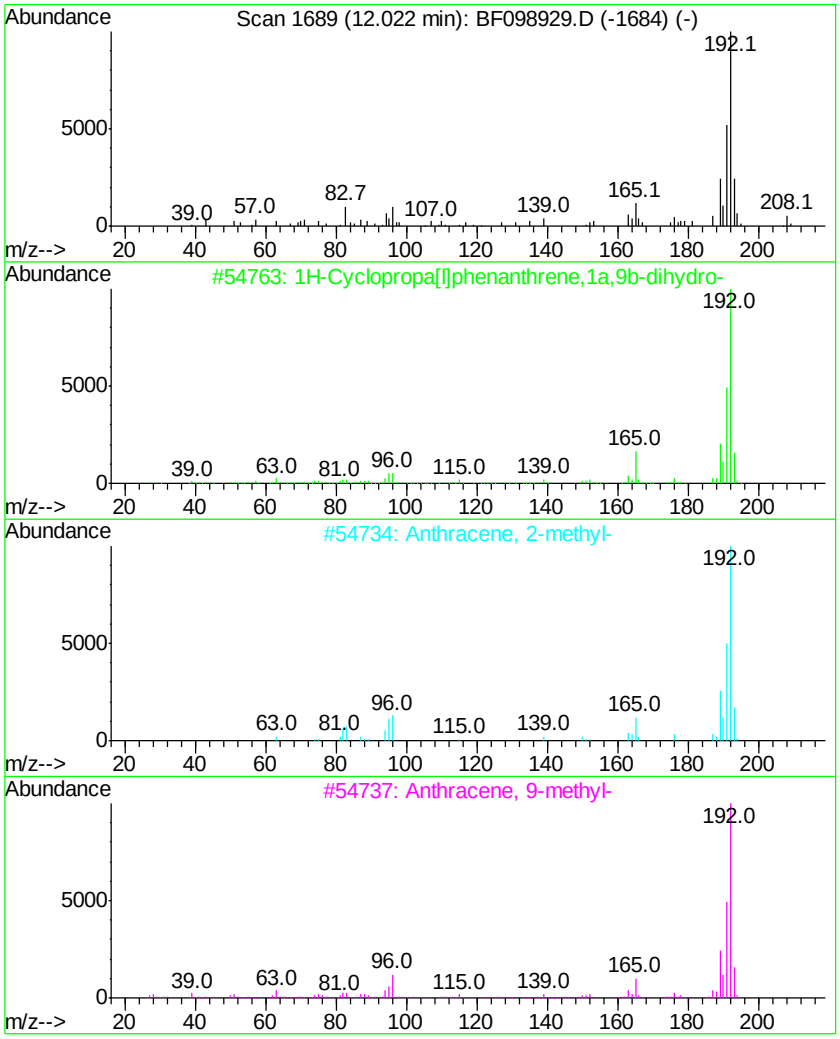
Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

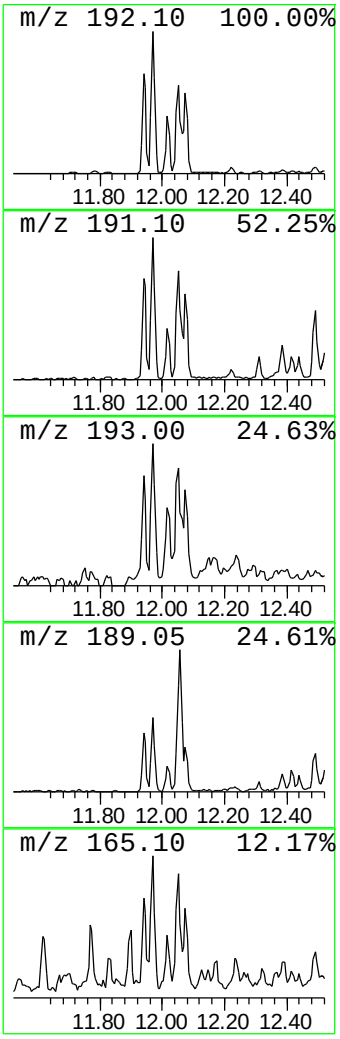
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

**********
Peak Number 6 1H-Cyclopropa[l]phenanthren... Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.02 | 2.08 ng | 73691 | Phenanthrene-d10 | 11.44 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 94 |
| 2 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 93 |
| 3 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 93 |
| 4 | Phenanthrene, 3-methyl- | 192 | C15H12 | 000832-71-3 | 93 |
| 5 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 90 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

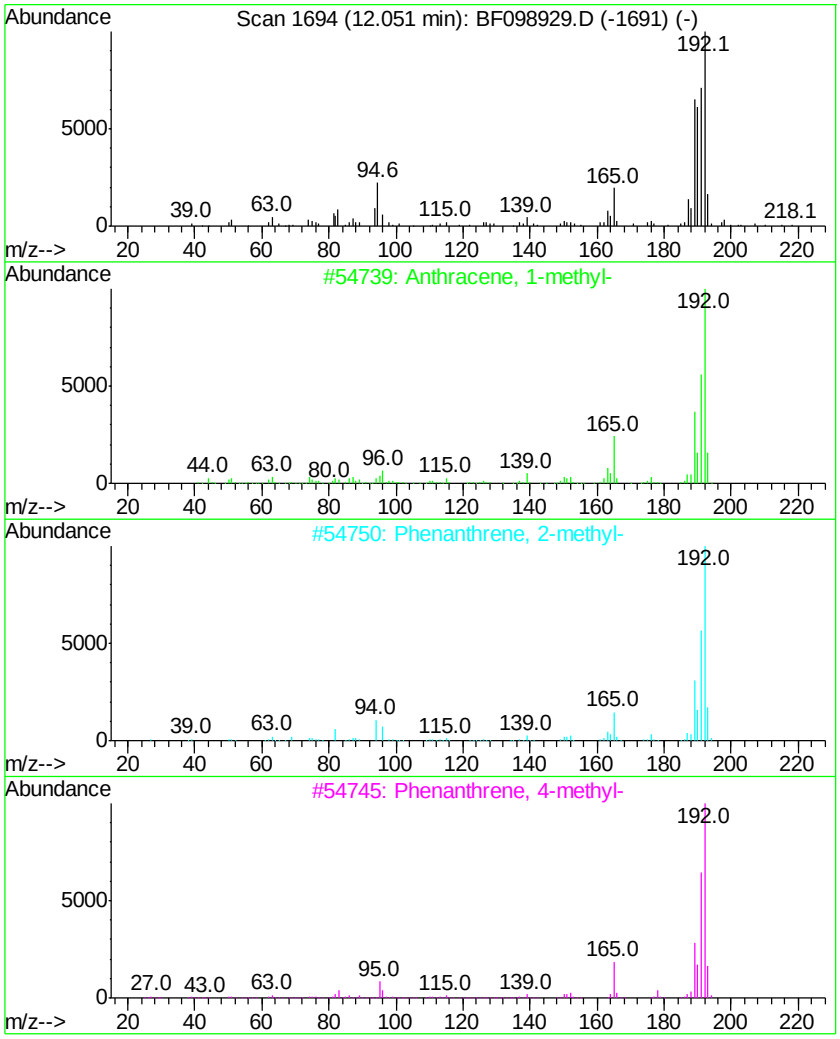
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

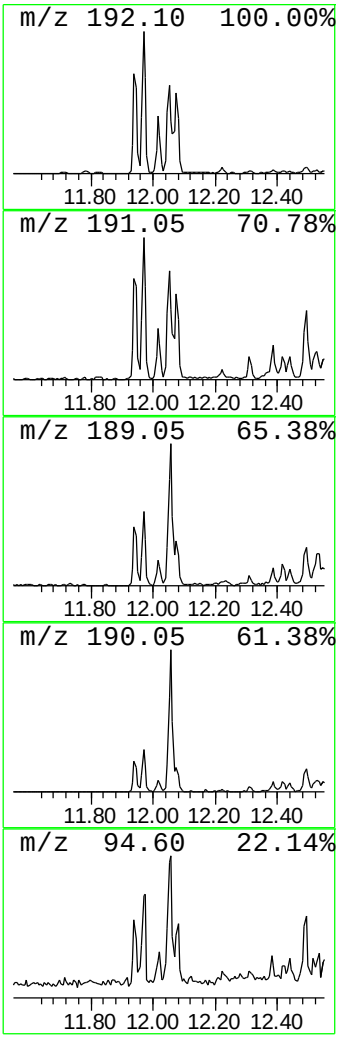
**********

Peak Number 7 Anthracene, 1-methyl- Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.05 | 6.49 ng | 230264 | Phenanthrene-d10 | 11.44 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 89 |
| 2 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 64 |
| 3 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 55 |
| 4 | 5H-Dibenzo[a,d]cycloheptene | 192 | C15H12 | 000256-81-5 | 55 |
| 5 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 55 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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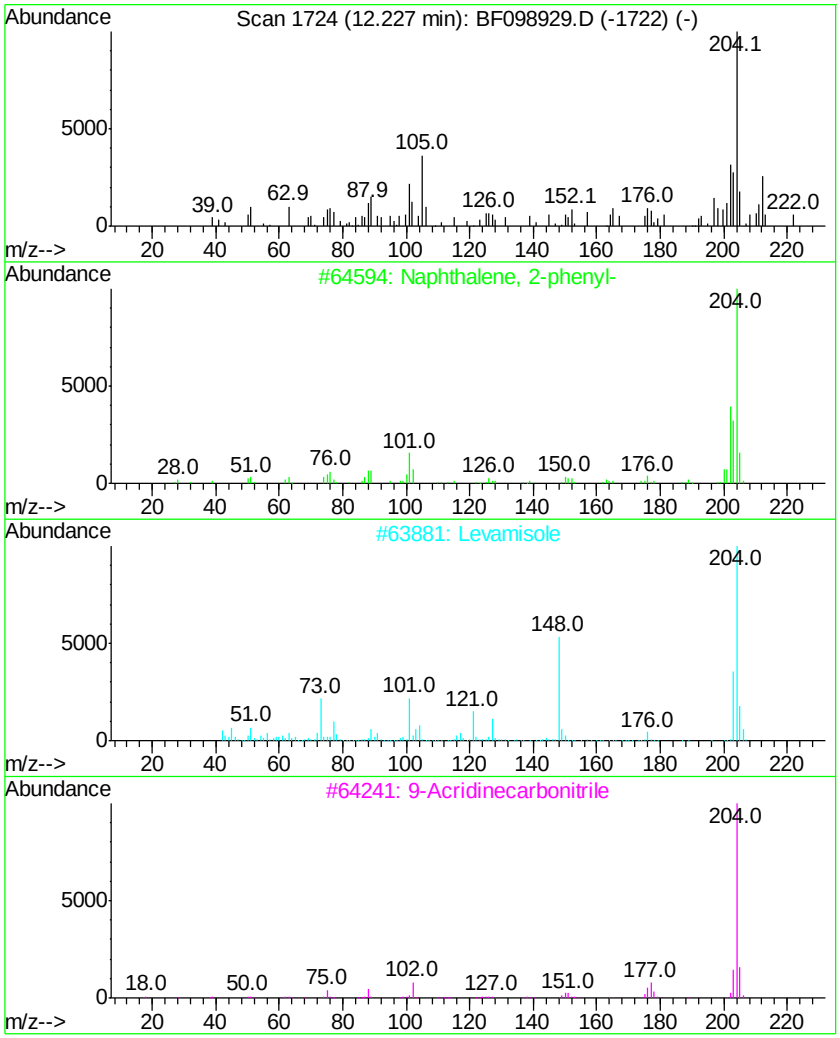
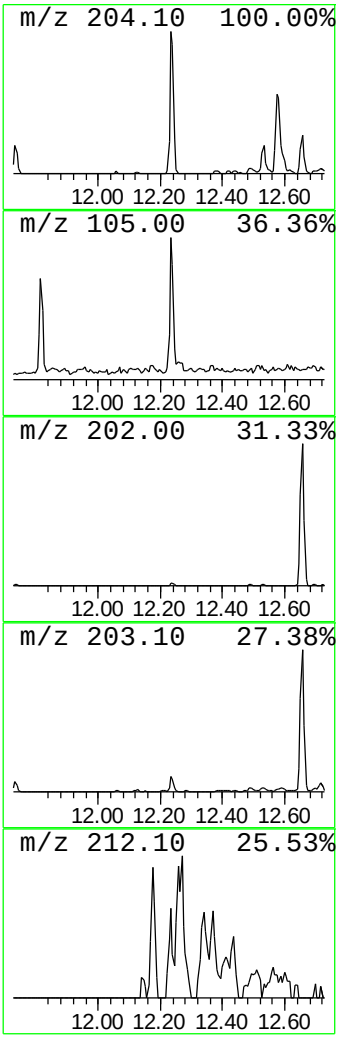
Peak Number 8 Naphthalene, 2-phenyl- Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.23 | 3.31 ng | 117454 | Phenanthrene-d10 | 11.44 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 91 |
| 2 | Levamisole | 204 | C11H12N2S | 014769-73-4 | 50 |
| 3 | 9-Acridinecarbonitrile | 204 | C14H8N2 | 005326-19-2 | 49 |
| 4 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 49 |
| 5 | 3,4-Biphenyldicarbonitrile | 204 | C14H8N2 | 004128-63-6 | 49 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.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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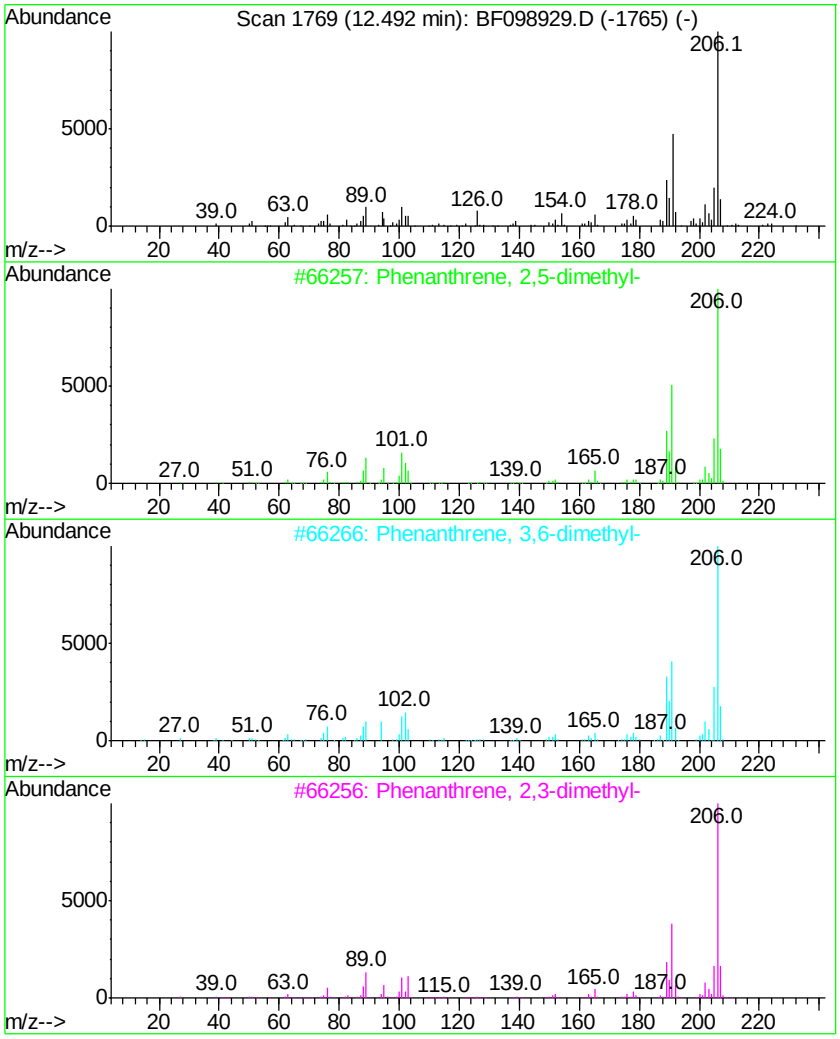
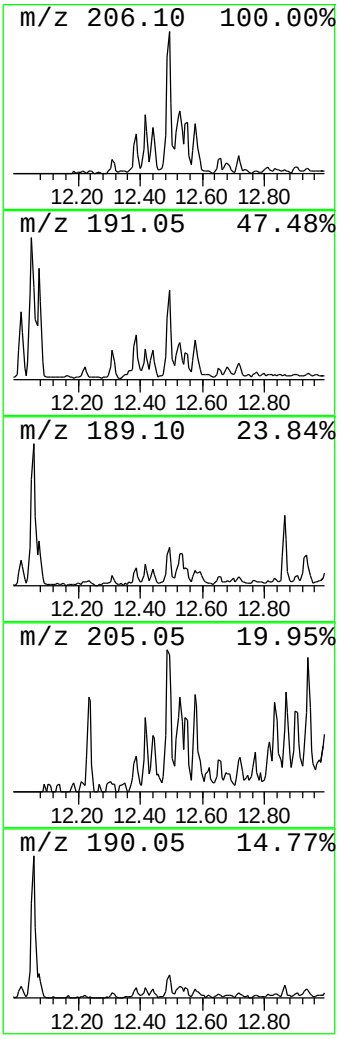
Peak Number 9 Phenanthrene, 2,5-dimethyl- Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.49 | 3.97 ng | 140687 | Phenanthrene-d10 | 11.44 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 97 |
| 2 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 94 |
| 3 | Phenanthrene, 2,3-dimethyl- | 206 | C16H14 | 003674-65-5 | 91 |
| 4 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 89 |
| 5 | Anthracene, 1,4-dimethyl- | 206 | C16H14 | 000781-92-0 | 83 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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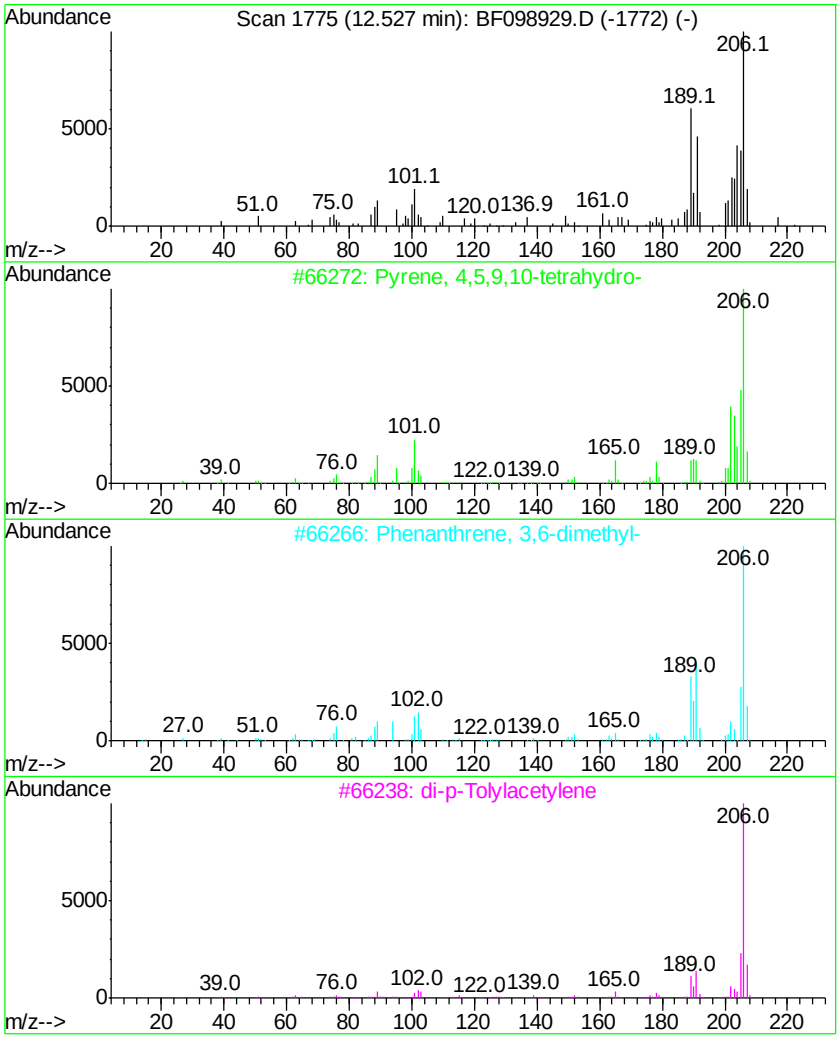
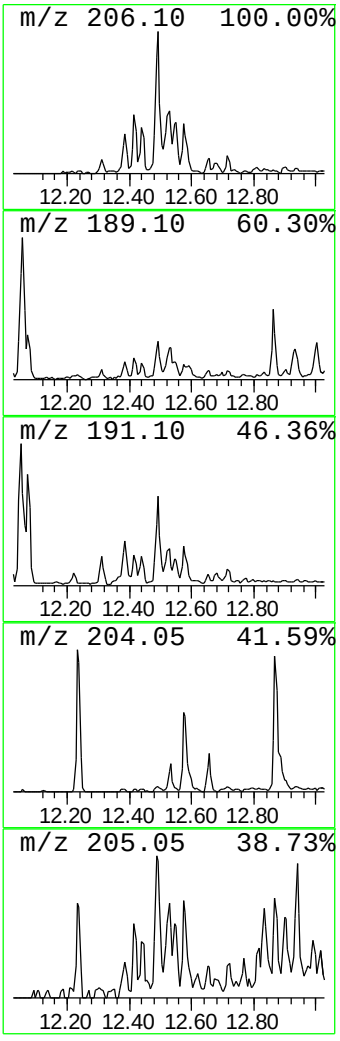
Peak Number 10 Pyrene, 4,5,9,10-tetrahydro- Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.53 | 2.48 ng | 87760 | Phenanthrene-d10 | 11.44 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 4,5,9,10-tetrahydro- | 206 | C16H14 | 000781-17-9 | 60 |
| 2 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 60 |
| 3 | di-p-Tolylacetylene | 206 | C16H14 | 002789-88-0 | 58 |
| 4 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 53 |
| 5 | Naphthalene, 1,2-dihydro-1-phenyl- | 206 | C16H14 | 016606-46-5 | 53 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.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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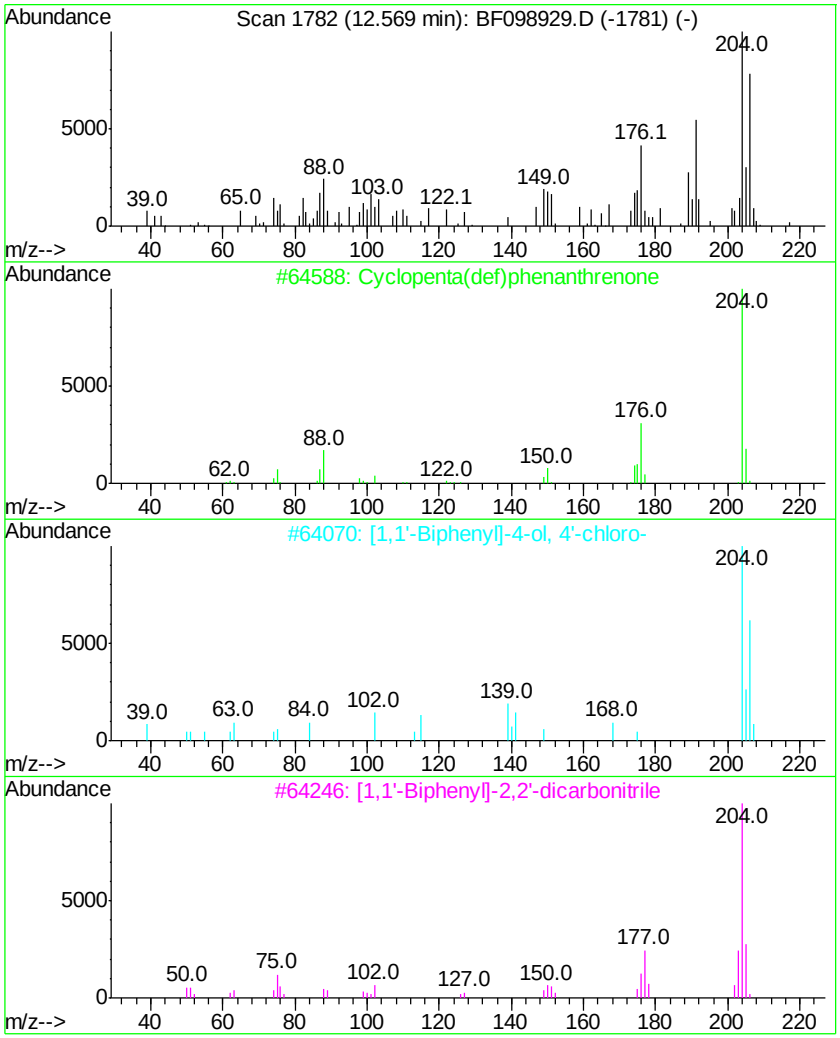
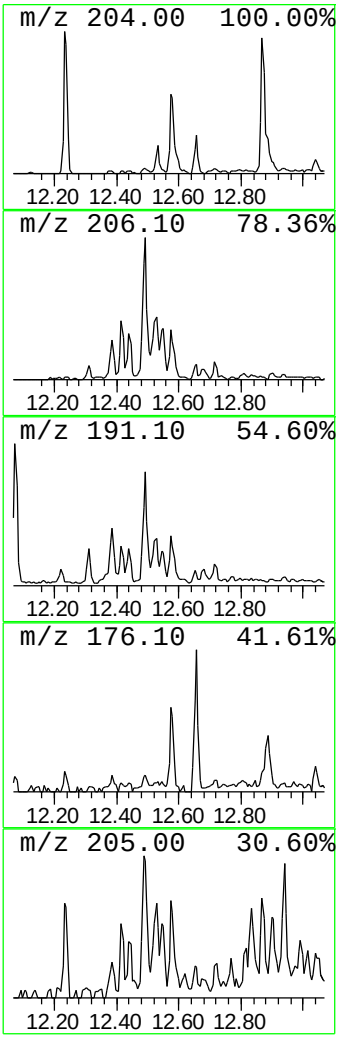
Peak Number 11 Cyclopenta(def)phenanthrenone Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.57 | 2.69 ng | 95264 | Phenanthrene-d10 | 11.44 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 90 |
| 2 | [1,1'-Biphenyl]-4-ol, 4'-chloro- | 204 | C12H9ClO | 028034-99-3 | 46 |
| 3 | [1,1'-Biphenyl]-2,2'-dicarbonitrile | 204 | C14H8N2 | 004341-02-0 | 43 |
| 4 | [14]Annulene, 1,6:8,13-bis(metha... | 206 | C16H14 | 085385-68-8 | 42 |
| 5 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 42 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.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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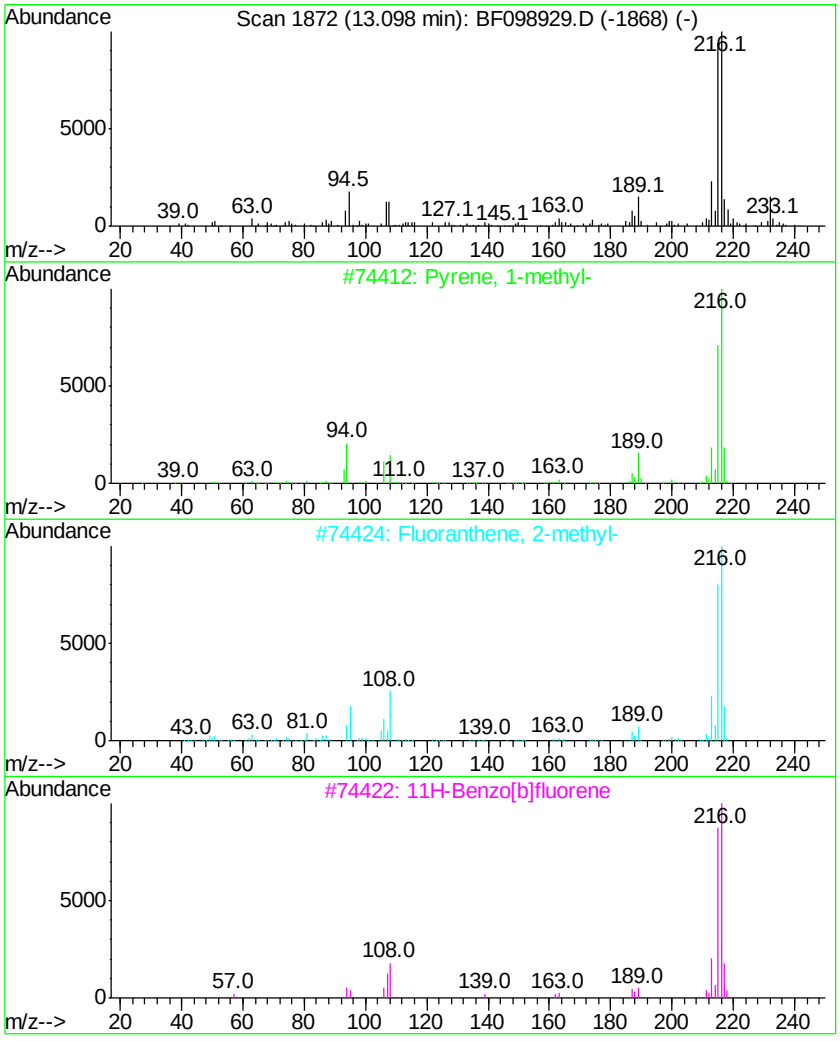
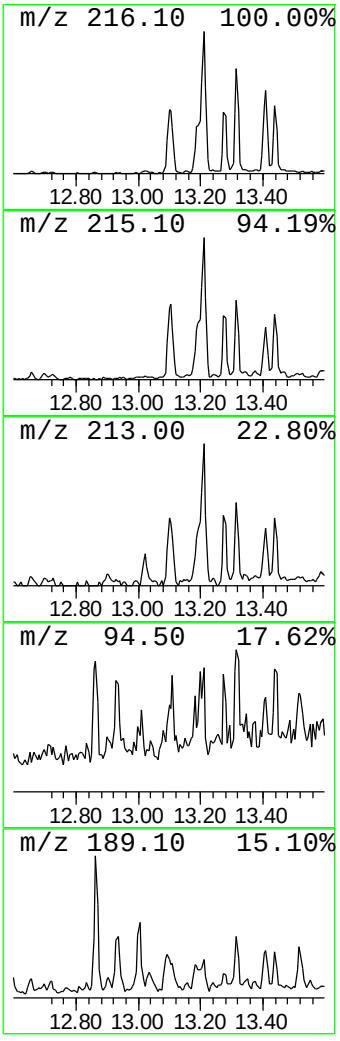
Peak Number 12 Pyrene, 1-methyl- Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.10 | 2.21 ng | 157774 | Chrysene-d12 | 14.09 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 96 |
| 2 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 81 |
| 3 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 81 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 80 |
| 5 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 74 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.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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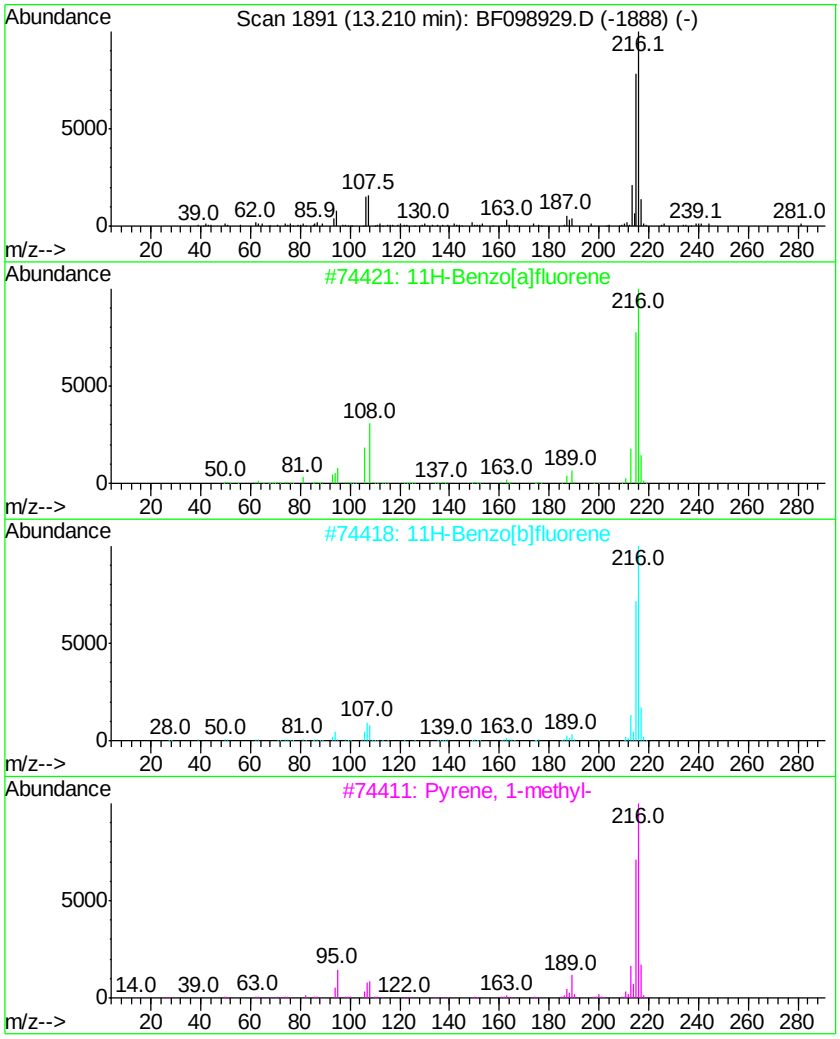
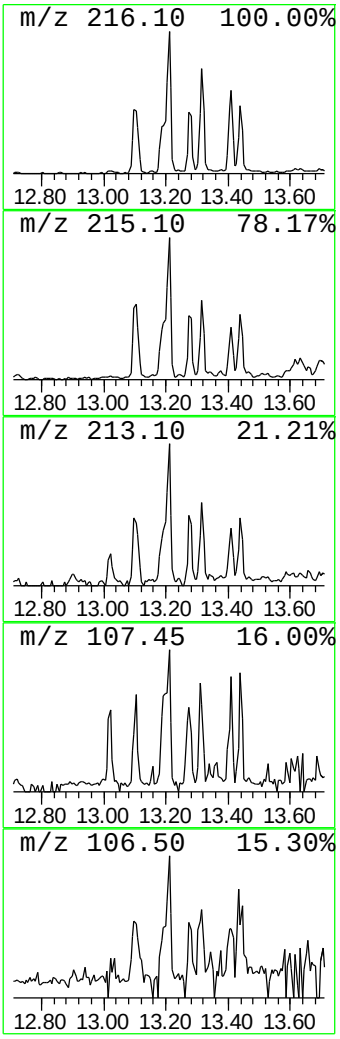
Peak Number 13 11H-Benzo[a]fluorene Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.21 | 2.24 ng | 160019 | Chrysene-d12 | 14.09 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 93 |
| 2 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 87 |
| 3 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 78 |
| 4 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 59 |
| 5 | 4-Trifluoromethylcinnamic acid | 216 | C10H7F3O2 | 002062-26-2 | 59 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.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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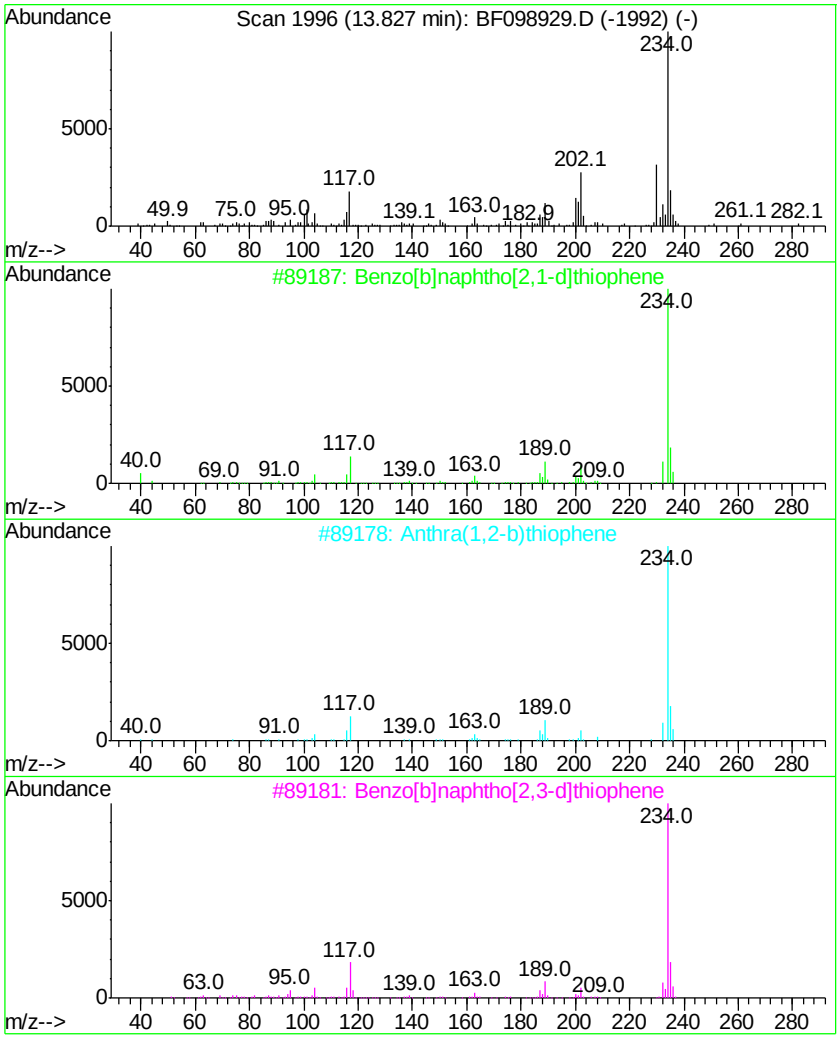
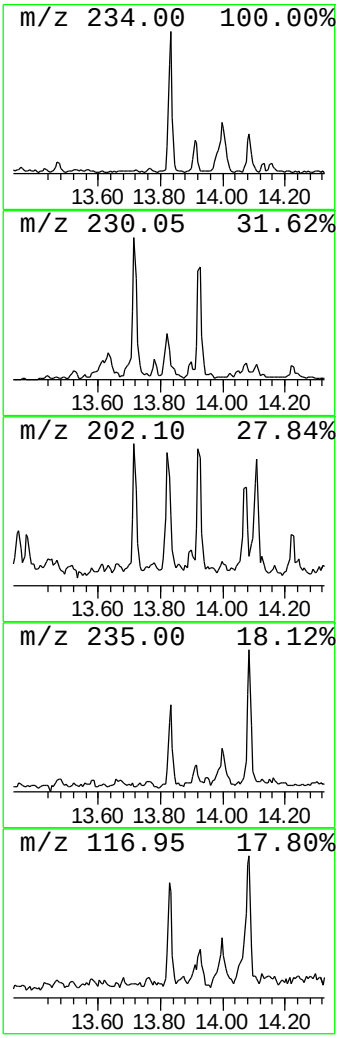
Peak Number 14 Benzo[b]naphtho[2,1-d]thiop... Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.83 | 2.12 ng | 151592 | Chrysene-d12 | 14.09 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]naphtho[2,1-d]thiophene | 234 | C16H10S | 000239-35-0 | 96 |
| 2 | Anthra(1,2-b)thiophene | 234 | C16H10S | 000227-86-1 | 96 |
| 3 | Benzo[b]naphtho[2,3-d]thiophene | 234 | C16H10S | 000243-46-9 | 86 |
| 4 | Benzo[b]naphtho[1,2-d]thiophene | 234 | C16H10S | 000205-43-6 | 64 |
| 5 | Quinoxalino[2,3-b]quinoxaline, 5... | 234 | C14H10N4 | 000531-46-4 | 43 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF092817\
Data File : BF098929.D
Acq On : 29 Sep 2017 1:44
Operator : SJ/JU
Sample : I5457-13 5X
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** LB-28(4-4.5)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF092317.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

| | | | | | Internal Standard | | | |
|---|---|---|---|---|---|---|---|---|
| TIC Top Hit name | RT | EstConc | Units | Response | # | RT | Resp | Conc |
| 2-Pentanone, 4-hy... | 5.13 | 3.0 | ng | 125010 | 1 | 6.92 | 846644 | 20.0 |
| unknown6.68 | 6.68 | 14.6 | ng | 618858 | 1 | 6.92 | 846644 | 20.0 |
| Phenanthrene, 2-m... | 11.94 | 4.0 | ng | 141411 | 4 | 11.44 | 709058 | 20.0 |
| 1H-Cyclopropa[l]p... | 12.02 | 2.1 | ng | 73691 | 4 | 11.44 | 709058 | 20.0 |
| Anthracene, 1-met... | 12.05 | 6.5 | ng | 230264 | 4 | 11.44 | 709058 | 20.0 |
| Naphthalene, 2-ph... | 12.23 | 3.3 | ng | 117454 | 4 | 11.44 | 709058 | 20.0 |
| Phenanthrene, 2,5... | 12.49 | 4.0 | ng | 140687 | 4 | 11.44 | 709058 | 20.0 |
| Pyrene, 4,5,9,10-... | 12.53 | 2.5 | ng | 87760 | 4 | 11.44 | 709058 | 20.0 |
| Cyclopenta(def)ph... | 12.57 | 2.7 | ng | 95264 | 4 | 11.44 | 709058 | 20.0 |
| Pyrene, 1-methyl- | 13.10 | 2.2 | ng | 157774 | 5 | 14.09 | 1427860 | 20.0 |
| 11H-Benzo[a]fluorene | 13.21 | 2.2 | ng | 160019 | 5 | 14.09 | 1427860 | 20.0 |
| Benzo[b]naphtho[2... | 13.83 | 2.1 | ng | 151592 | 5 | 14.09 | 1427860 | 20.0 |