LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

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:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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 | 5.351 | 552 | 555 | 576 | rBV | 807074 | 878583 | 38.72% | 3.065% |
| 2 | 6.381 | 726 | 730 | 743 | rBV | 1011475 | 983905 | 43.36% | 3.432% |
| 3 | 6.504 | 748 | 751 | 768 | rVB | 1127444 | 1027024 | 45.26% | 3.582% |
| 4 | 6.734 | 786 | 790 | 800 | rBV | 265814 | 263221 | 11.60% | 0.918% |
| 5 | 6.887 | 812 | 816 | 833 | rBV | 787303 | 678551 | 29.90% | 2.367% |
| 6 | 7.298 | 882 | 886 | 905 | rBV | 564665 | 587625 | 25.89% | 2.050% |
| 7 | 8.010 | 1004 | 1007 | 1020 | rBV | 363601 | 351500 | 15.49% | 1.226% |
| 8 | 9.086 | 1186 | 1190 | 1202 | rBV | 1052167 | 905372 | 39.90% | 3.158% |
| 9 | 9.481 | 1254 | 1257 | 1265 | rVB | 108698 | 88988 | 3.92% | 0.310% |
| 10 | 9.622 | 1279 | 1281 | 1291 | rBV | 78180 | 75745 | 3.34% | 0.264% |
| 11 | 9.763 | 1301 | 1305 | 1308 | rBV | 491799 | 408063 | 17.98% | 1.423% |
| 12 | 9.792 | 1308 | 1310 | 1319 | rVB | 51911 | 50454 | 2.22% | 0.176% |
| 13 | 10.310 | 1395 | 1398 | 1404 | rVB2 | 77352 | 79162 | 3.49% | 0.276% |
| 14 | 10.469 | 1419 | 1425 | 1429 | rVB3 | 43141 | 45559 | 2.01% | 0.159% |
| 15 | 10.551 | 1436 | 1439 | 1446 | rBV | 594679 | 603448 | 26.59% | 2.105% |
| 16 | 10.675 | 1455 | 1460 | 1466 | rVB5 | 30382 | 50200 | 2.21% | 0.175% |
| 17 | 10.863 | 1484 | 1492 | 1494 | rBV2 | 61768 | 77990 | 3.44% | 0.272% |
| 18 | 10.986 | 1508 | 1513 | 1515 | rVV3 | 59880 | 71161 | 3.14% | 0.248% |
| 19 | 11.010 | 1515 | 1517 | 1523 | rVV | 61276 | 74867 | 3.30% | 0.261% |
| 20 | 11.098 | 1529 | 1532 | 1538 | rVV3 | 72691 | 112020 | 4.94% | 0.391% |
| 21 | 11.145 | 1538 | 1540 | 1546 | rVB | 58263 | 63098 | 2.78% | 0.220% |
| 22 | 11.251 | 1554 | 1558 | 1559 | rBV | 400901 | 368139 | 16.22% | 1.284% |
| 23 | 11.275 | 1559 | 1562 | 1565 | rVV | 1277915 | 1108784 | 48.86% | 3.868% |
| 24 | 11.328 | 1567 | 1571 | 1574 | rVV | 356570 | 339681 | 14.97% | 1.185% |
| 25 | 11.357 | 1574 | 1576 | 1582 | rVB4 | 33323 | 56205 | 2.48% | 0.196% |
| 26 | 11.498 | 1594 | 1600 | 1605 | rBV5 | 52283 | 109164 | 4.81% | 0.381% |
| 27 | 11.539 | 1605 | 1607 | 1610 | rVB | 69843 | 50080 | 2.21% | 0.175% |
| 28 | 11.751 | 1639 | 1643 | 1645 | rBV | 242922 | 208734 | 9.20% | 0.728% |
| 29 | 11.780 | 1645 | 1648 | 1652 | rVV | 417867 | 355895 | 15.68% | 1.241% |
| 30 | 11.827 | 1652 | 1656 | 1659 | rVV | 180092 | 163268 | 7.19% | 0.570% |
| 31 | 11.863 | 1659 | 1662 | 1664 | rVV | 417797 | 417419 | 18.39% | 1.456% |
| 32 | 11.886 | 1664 | 1666 | 1672 | rVB | 183614 | 157942 | 6.96% | 0.551% |
| 33 | 12.045 | 1689 | 1693 | 1698 | rVB | 184930 | 160473 | 7.07% | 0.560% |
| 34 | 12.192 | 1713 | 1718 | 1722 | rBV | 70255 | 73386 | 3.23% | 0.256% |

LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

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:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 12.227 | 1722 | 1724 | 1726 | rVV | 83164 | 62998 | 2.78% | 0.220% |
| 36 | 12.251 | 1726 | 1728 | 1732 | rVB | 53614 | 47502 | 2.09% | 0.166% |
| 37 | 12.298 | 1732 | 1736 | 1739 | rBV | 174989 | 185759 | 8.19% | 0.648% |
| 38 | 12.339 | 1739 | 1743 | 1745 | rVV2 | 126544 | 159798 | 7.04% | 0.557% |
| 39 | 12.363 | 1745 | 1747 | 1749 | rVV2 | 60370 | 53809 | 2.37% | 0.188% |
| 40 | 12.398 | 1749 | 1753 | 1757 | rVV2 | 105177 | 141534 | 6.24% | 0.494% |
| 41 | 12.475 | 1760 | 1766 | 1769 | rBV | 2282343 | 2245652 | 98.96% | 7.833% |
| 42 | 12.533 | 1773 | 1776 | 1778 | rVB2 | 57605 | 55595 | 2.45% | 0.194% |
| 43 | 12.563 | 1778 | 1781 | 1784 | rBV | 58986 | 55017 | 2.42% | 0.192% |
| 44 | 12.616 | 1787 | 1790 | 1793 | rVV2 | 99572 | 96455 | 4.25% | 0.336% |
| 45 | 12.704 | 1798 | 1805 | 1809 | rBV2 | 1734979 | 2269281 | 100.00% | 7.916% |
| 46 | 12.745 | 1809 | 1812 | 1817 | rVB2 | 116034 | 141319 | 6.23% | 0.493% |
| 47 | 12.827 | 1817 | 1826 | 1829 | rBV2 | 706299 | 812462 | 35.80% | 2.834% |
| 48 | 12.857 | 1829 | 1831 | 1836 | rVB2 | 66697 | 74426 | 3.28% | 0.260% |
| 49 | 12.916 | 1836 | 1841 | 1845 | rBV3 | 148243 | 267156 | 11.77% | 0.932% |
| 50 | 12.998 | 1852 | 1855 | 1856 | rBV2 | 110055 | 110777 | 4.88% | 0.386% |
| 51 | 13.022 | 1856 | 1859 | 1862 | rVB | 335041 | 330861 | 14.58% | 1.154% |
| 52 | 13.086 | 1867 | 1870 | 1873 | rVV | 268592 | 230060 | 10.14% | 0.802% |
| 53 | 13.127 | 1873 | 1877 | 1884 | rVB2 | 208512 | 284461 | 12.54% | 0.992% |
| 54 | 13.180 | 1884 | 1886 | 1889 | rVB3 | 48902 | 46485 | 2.05% | 0.162% |
| 55 | 13.216 | 1889 | 1892 | 1895 | rBV | 95033 | 89639 | 3.95% | 0.313% |
| 56 | 13.251 | 1895 | 1898 | 1901 | rBV3 | 105752 | 121915 | 5.37% | 0.425% |
| 57 | 13.398 | 1920 | 1923 | 1925 | rBV2 | 55332 | 54393 | 2.40% | 0.190% |
| 58 | 13.445 | 1929 | 1931 | 1934 | rVB | 51913 | 38147 | 1.68% | 0.133% |
| 59 | 13.504 | 1937 | 1941 | 1944 | rBV3 | 59392 | 78794 | 3.47% | 0.275% |
| 60 | 13.539 | 1944 | 1947 | 1950 | rVB | 110951 | 95496 | 4.21% | 0.333% |
| 61 | 13.645 | 1960 | 1965 | 1966 | rBV | 157198 | 170021 | 7.49% | 0.593% |
| 62 | 13.663 | 1966 | 1968 | 1971 | rVB | 153254 | 133006 | 5.86% | 0.464% |
| 63 | 13.692 | 1971 | 1973 | 1975 | rBV | 114240 | 105889 | 4.67% | 0.369% |
| 64 | 13.751 | 1980 | 1983 | 1988 | rVB | 135010 | 154729 | 6.82% | 0.540% |
| 65 | 13.810 | 1988 | 1993 | 1999 | rVB | 49635 | 72772 | 3.21% | 0.254% |
| 66 | 13.886 | 1999 | 2006 | 2010 | rBV2 | 1086356 | 1609748 | 70.94% | 5.615% |
| 67 | 13.921 | 2010 | 2012 | 2019 | rVV | 909199 | 869589 | 38.32% | 3.033% |
| 68 | 13.998 | 2023 | 2025 | 2029 | rVB | 162696 | 135357 | 5.96% | 0.472% |
| 69 | 14.045 | 2029 | 2033 | 2039 | rBV6 | 67572 | 136012 | 5.99% | 0.474% |
| 70 | 14.121 | 2042 | 2046 | 2050 | rVB3 | 61866 | 99977 | 4.41% | 0.349% |
| 71 | 14.245 | 2064 | 2067 | 2069 | rVV2 | 58680 | 66701 | 2.94% | 0.233% |

LSC Area Percent Report

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Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

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:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 14.280 | 2069 | 2073 | 2076 | rVV | 234245 | 269294 | 11.87% | 0.939% |
| 73 | 14.316 | 2076 | 2079 | 2081 | rVV2 | 102170 | 106988 | 4.71% | 0.373% |
| 74 | 14.351 | 2082 | 2085 | 2088 | rVV2 | 113042 | 139217 | 6.13% | 0.486% |
| 75 | 14.380 | 2088 | 2090 | 2092 | rVV | 89023 | 85049 | 3.75% | 0.297% |
| 76 | 14.404 | 2092 | 2094 | 2096 | rVV | 107985 | 110604 | 4.87% | 0.386% |
| 77 | 14.427 | 2096 | 2098 | 2101 | rVV2 | 102834 | 98862 | 4.36% | 0.345% |
| 78 | 14.474 | 2104 | 2106 | 2109 | rVV2 | 58639 | 51444 | 2.27% | 0.179% |
| 79 | 14.604 | 2124 | 2128 | 2133 | rBV5 | 69485 | 125195 | 5.52% | 0.437% |
| 80 | 14.645 | 2133 | 2135 | 2140 | rVV3 | 66536 | 79718 | 3.51% | 0.278% |
| 81 | 14.768 | 2153 | 2156 | 2159 | rBV2 | 98897 | 101247 | 4.46% | 0.353% |
| 82 | 14.921 | 2177 | 2182 | 2185 | rBV | 735230 | 1153546 | 50.83% | 4.024% |
| 83 | 15.021 | 2196 | 2199 | 2203 | rBV | 158527 | 159670 | 7.04% | 0.557% |
| 84 | 15.116 | 2210 | 2215 | 2218 | rBV5 | 50583 | 107985 | 4.76% | 0.377% |
| 85 | 15.151 | 2218 | 2221 | 2226 | rVV3 | 44510 | 97860 | 4.31% | 0.341% |
| 86 | 15.210 | 2226 | 2231 | 2237 | rVV | 409581 | 523985 | 23.09% | 1.828% |
| 87 | 15.274 | 2237 | 2242 | 2246 | rVV | 626992 | 760638 | 33.52% | 2.653% |
| 88 | 15.327 | 2246 | 2251 | 2253 | rVV2 | 256357 | 341896 | 15.07% | 1.193% |
| 89 | 15.357 | 2253 | 2256 | 2262 | rVB2 | 182935 | 248883 | 10.97% | 0.868% |
| 90 | 15.492 | 2274 | 2279 | 2282 | rBV | 45509 | 71029 | 3.13% | 0.248% |
| 91 | 15.539 | 2282 | 2287 | 2295 | rVB6 | 49135 | 109571 | 4.83% | 0.382% |
| 92 | 15.721 | 2314 | 2318 | 2321 | rBV | 54485 | 79591 | 3.51% | 0.278% |
| 93 | 16.186 | 2392 | 2397 | 2403 | rVB3 | 50770 | 87995 | 3.88% | 0.307% |
| 94 | 16.539 | 2451 | 2457 | 2460 | rBV3 | 29133 | 49023 | 2.16% | 0.171% |
| 95 | 16.733 | 2483 | 2490 | 2497 | rBV | 209264 | 400843 | 17.66% | 1.398% |
| 96 | 16.798 | 2497 | 2501 | 2506 | rVB2 | 20057 | 38195 | 1.68% | 0.133% |
| 97 | 16.892 | 2511 | 2517 | 2522 | rBV3 | 49274 | 100867 | 4.44% | 0.352% |
| 98 | 16.951 | 2522 | 2527 | 2533 | rVB2 | 25783 | 51171 | 2.25% | 0.178% |
| 99 | 17.151 | 2552 | 2561 | 2575 | rBV | 112859 | 257573 | 11.35% | 0.898% |
| 100 | 17.398 | 2594 | 2603 | 2613 | rVB3 | 41772 | 110905 | 4.89% | 0.387% |

Sum of corrected areas: 28668142

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
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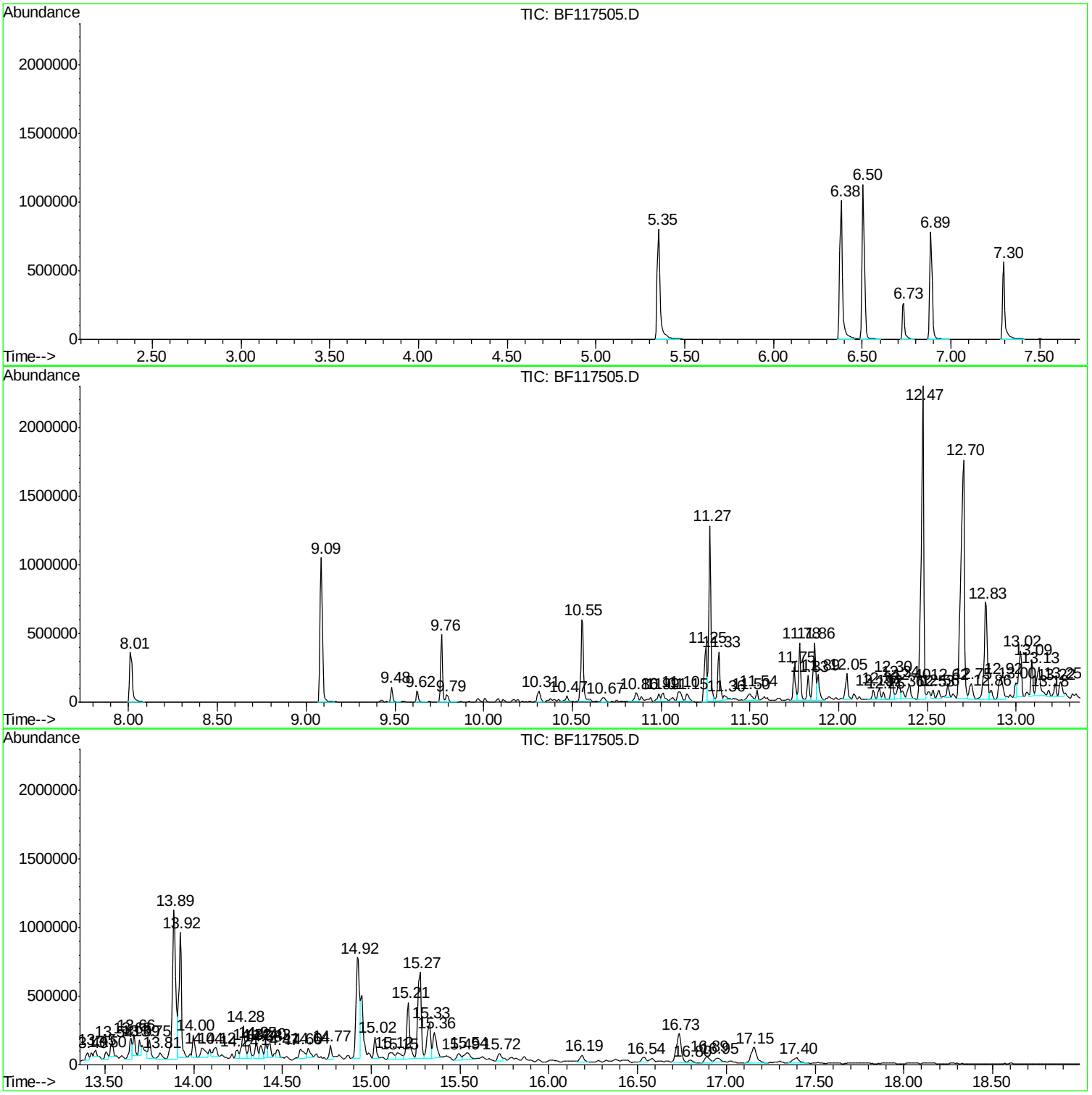
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

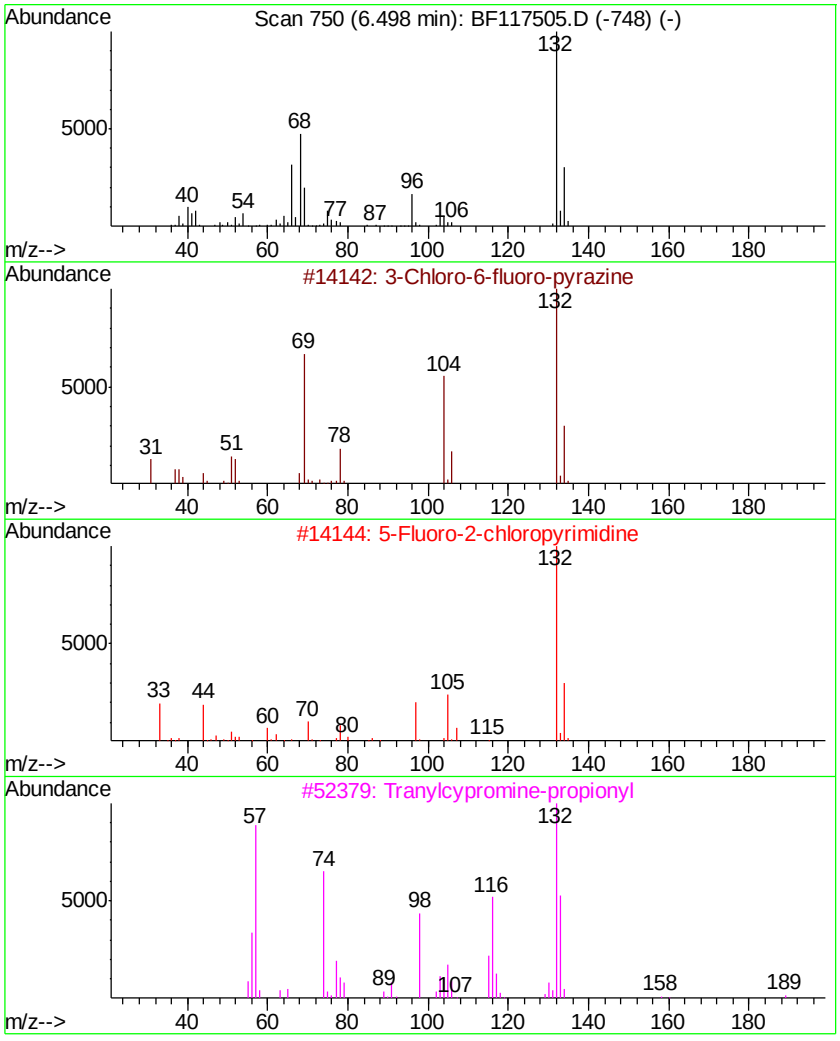
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

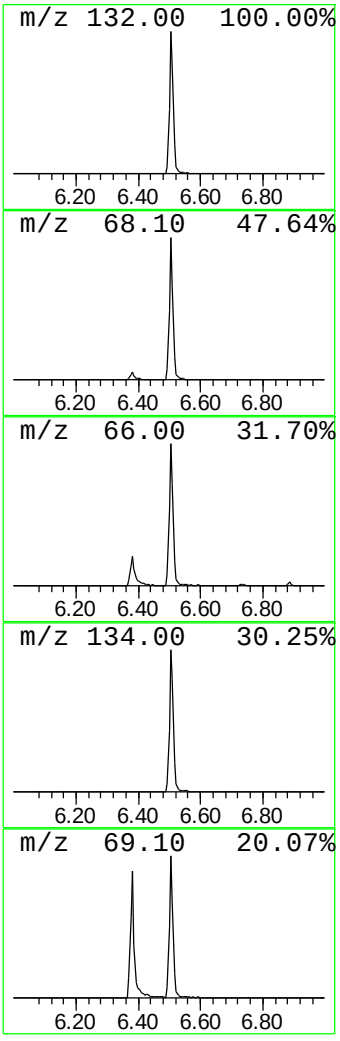
**********

Peak Number 1 unknown6.50 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.50 | 78.04 ng | 1027020 | 1,4-Dichlorobenzene-d4 | 6.73 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 25 |
| 2 | 5-Fluoro-2-chloropyrimidine | 132 | C4H2ClFN2 | 062802-42-0 | 12 |
| 3 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 10 |
| 4 | 1,2,4-Trifluorobenzene | 132 | C6H3F3 | 000367-23-7 | 9 |
| 5 | 1,3,5-Trifluorobenzene | 132 | C6H3F3 | 000372-38-3 | 9 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

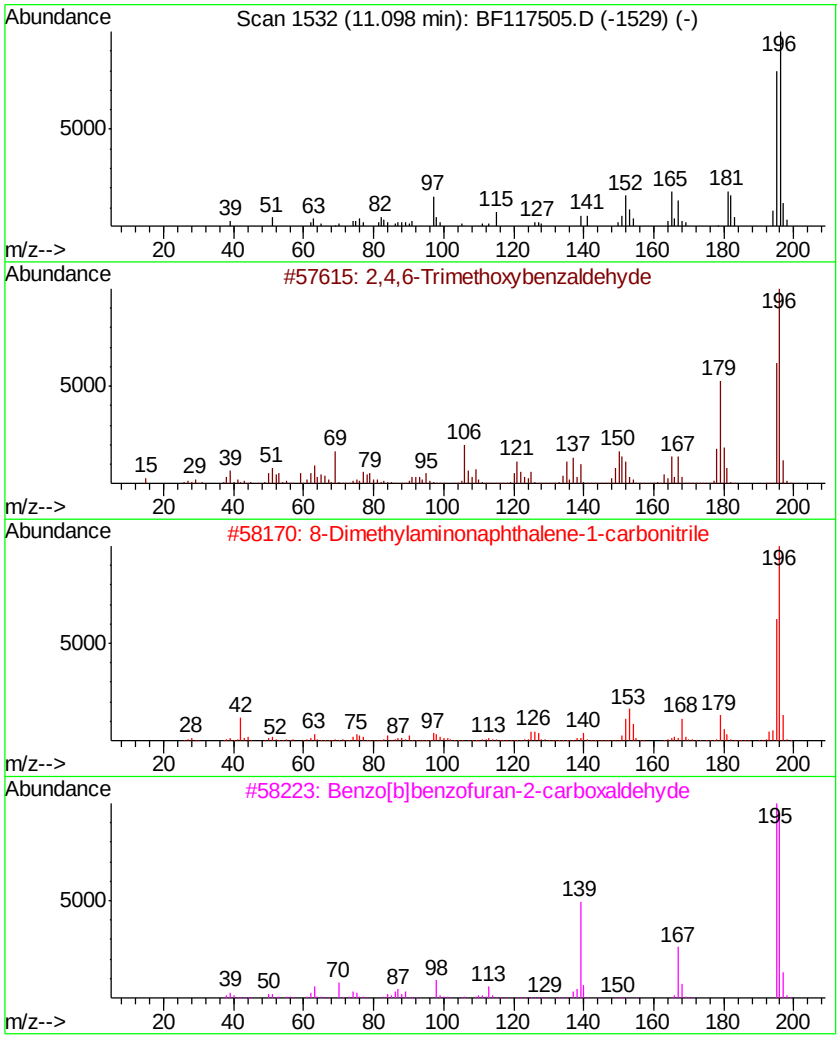
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

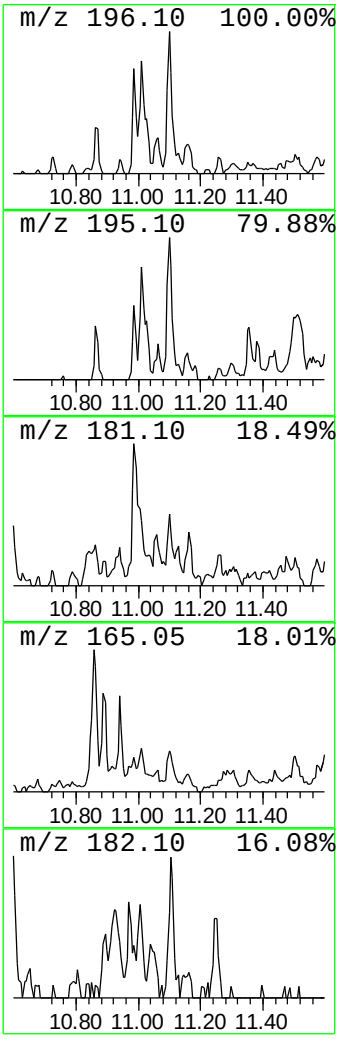
**********

Peak Number 3 2,4,6-Trimethoxybenzaldehyde Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.10 | 6.09 ng | 112020 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2,4,6-Trimethoxybenzaldehyde | 196 | C10H12O4 | 000830-79-5 | 86 |
| 2 | 8-Dimethylaminonaphthalene-1-car... | 196 | C13H12N2 | 128644-69-9 | 72 |
| 3 | Benzo[b]benzofuran-2-carboxaldehyde | 196 | C13H8O2 | 1000351-56-0 | 68 |
| 4 | Phenol, 4-(2-phenylethenyl)- | 196 | C14H12O | 003839-46-1 | 52 |
| 5 | Phenol, 4-(2-phenylethenyl)-, (E)- | 196 | C14H12O | 006554-98-9 | 50 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
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Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

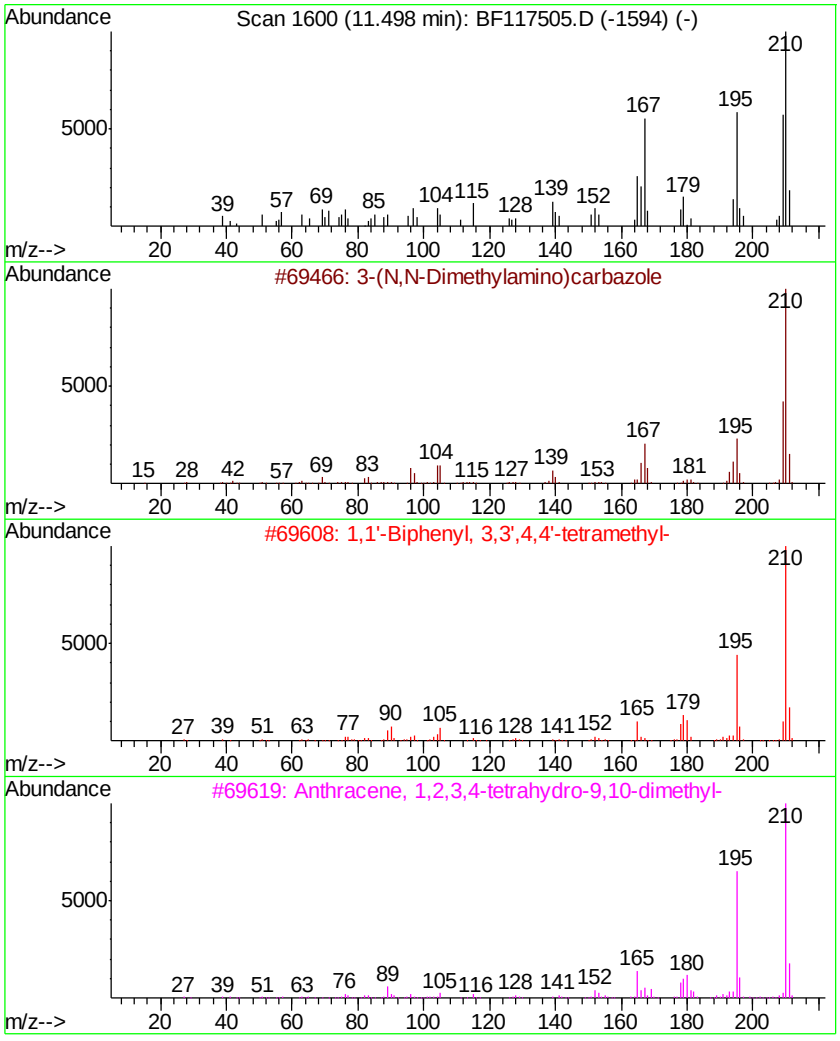
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

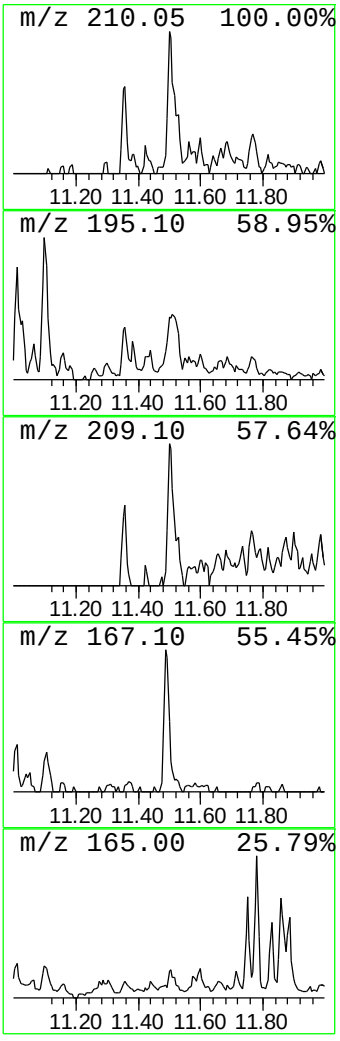
**********

Peak Number 4 3-(N,N-Dimethylamino)carbazole Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.50 | 5.93 ng | 109164 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-(N,N-Dimethylamino)carbazole | 210 | C14H14N2 | 001140-50-7 | 70 |
| 2 | 1,1'-Biphenyl, 3,3',4,4'-tetrame... | 210 | C16H18 | 004920-95-0 | 53 |
| 3 | Anthracene, 1,2,3,4-tetrahydro-9... | 210 | C16H18 | 094573-50-9 | 53 |
| 4 | Altretamine | 210 | C9H18N6 | 000645-05-6 | 52 |
| 5 | 7H-Cyclopenta[b]pyridine-3,6-dic... | 210 | C12H10N4 | 1000264-64-4 | 49 |



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Sample : K5497-07
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**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

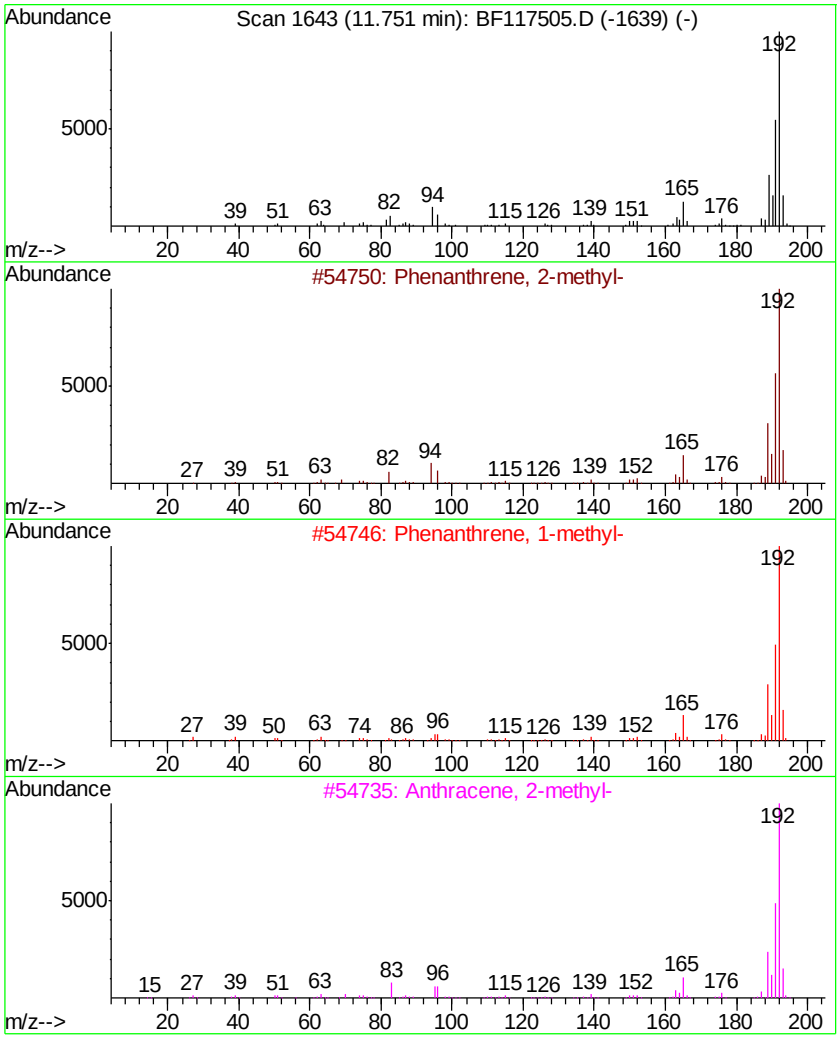
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

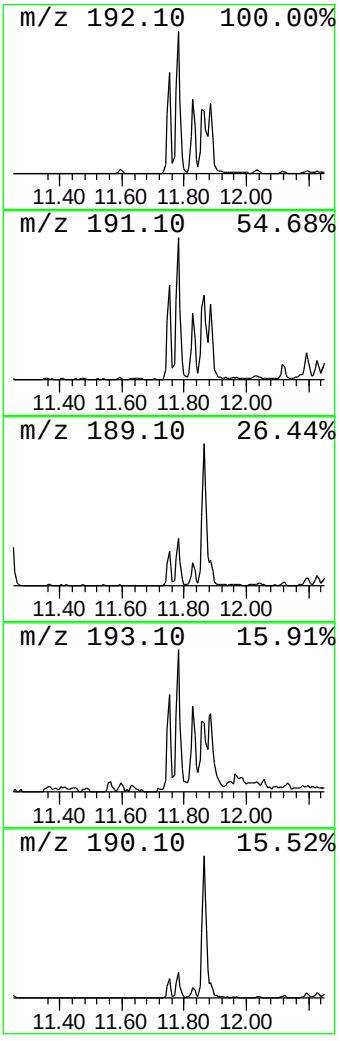
**********

Peak Number 5 Phenanthrene, 2-methyl- Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.75 | 11.34 ng | 208734 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 98 |
| 2 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 96 |
| 3 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 96 |
| 4 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 96 |
| 5 | 1H-Indene, 2-phenyl- | 192 | C15H12 | 004505-48-0 | 94 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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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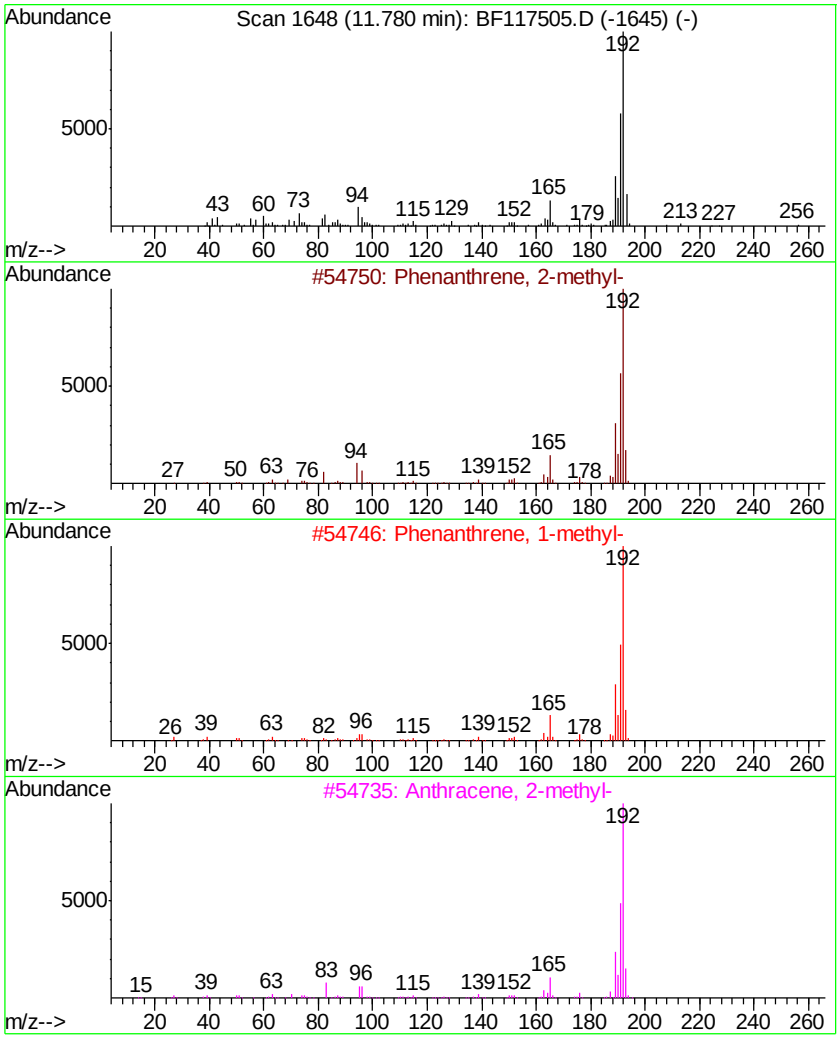
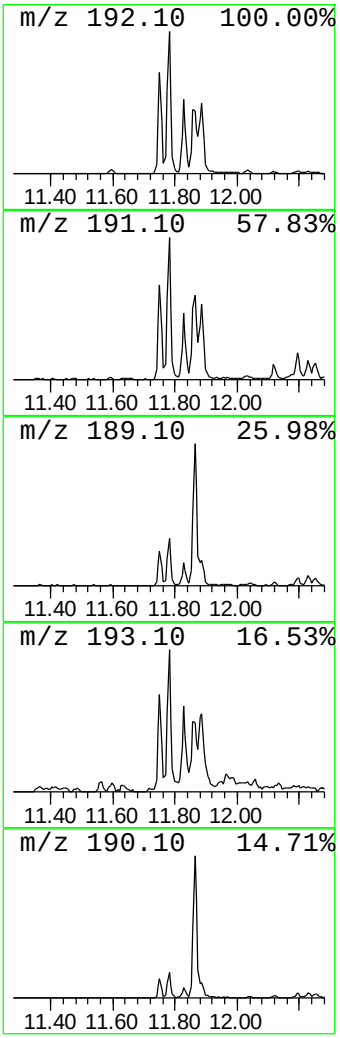
Peak Number 6 Phenanthrene, 1-methyl- Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.78 | 19.33 ng | 355895 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 98 |
| 2 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 97 |
| 3 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 95 |
| 4 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 95 |
| 5 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 94 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

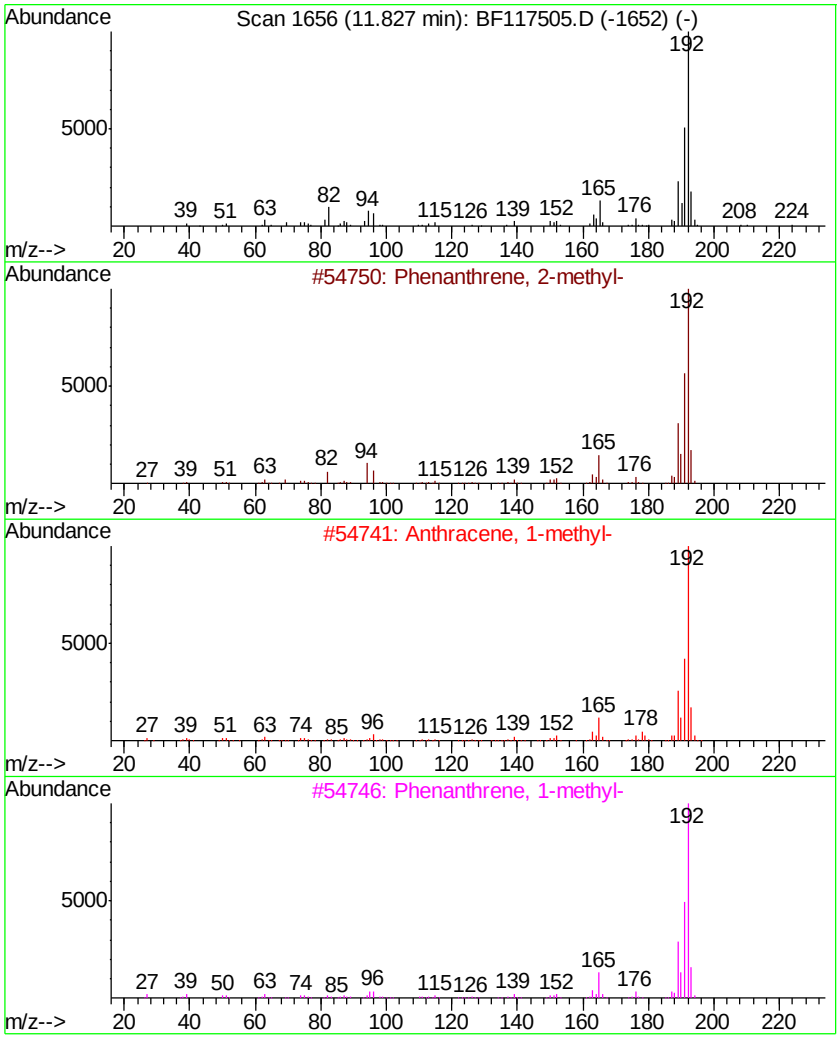
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

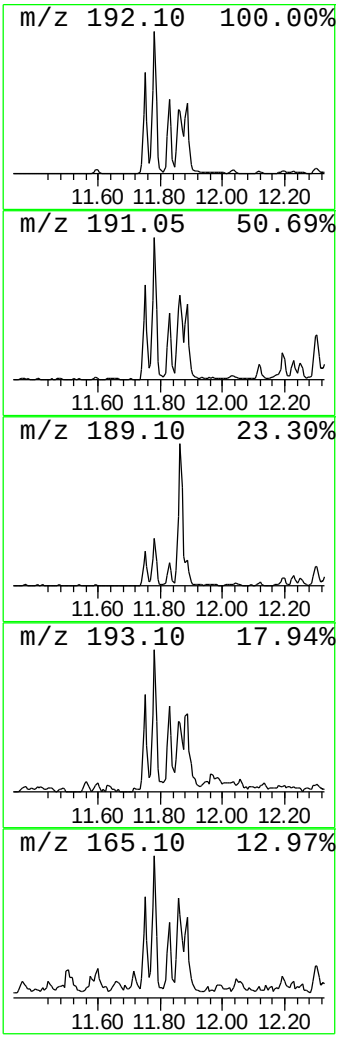
**********

Peak Number 7 Anthracene, 2-methyl- Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.83 | 8.87 ng | 163268 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 97 |
| 2 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 96 |
| 3 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 96 |
| 4 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 96 |
| 5 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 95 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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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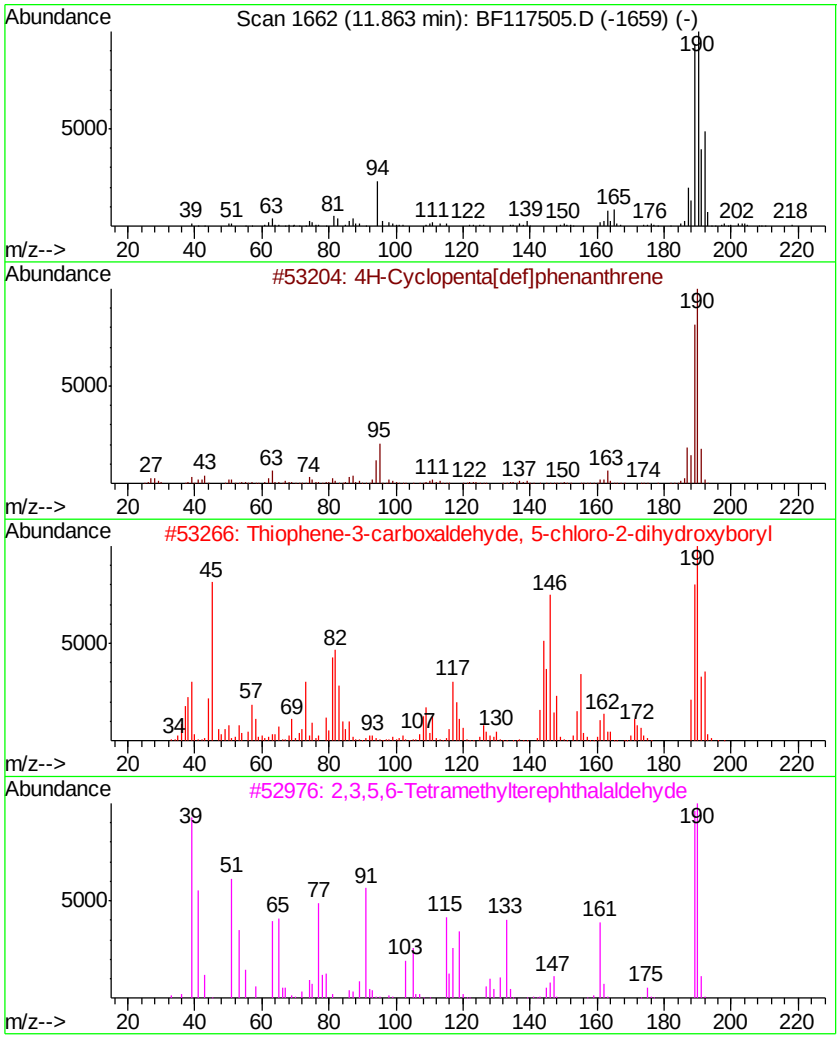
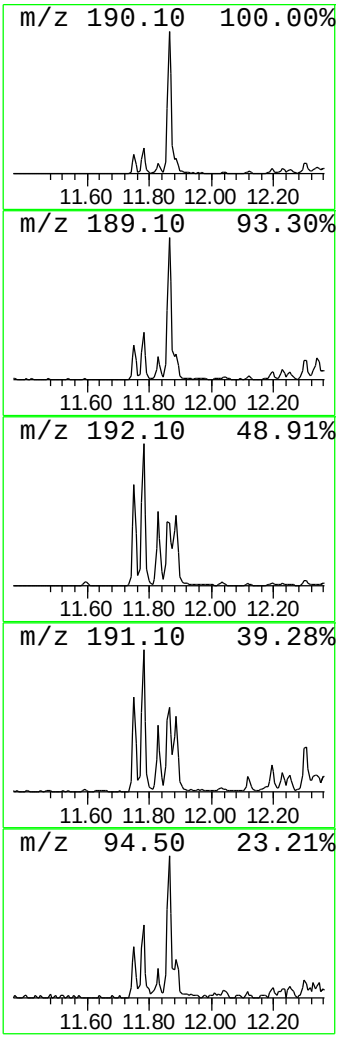
Peak Number 8 4H-Cyclopenta[def]phenanthrene Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.86 | 22.68 ng | 417419 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 64 |
| 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[jk]phenanthrene | 190 | C15H10 | 083469-43-6 | 42 |
| 5 | 2,2'-Bis(4,5-dimethylimidazole) | 190 | C10H14N4 | 069286-06-2 | 40 |



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Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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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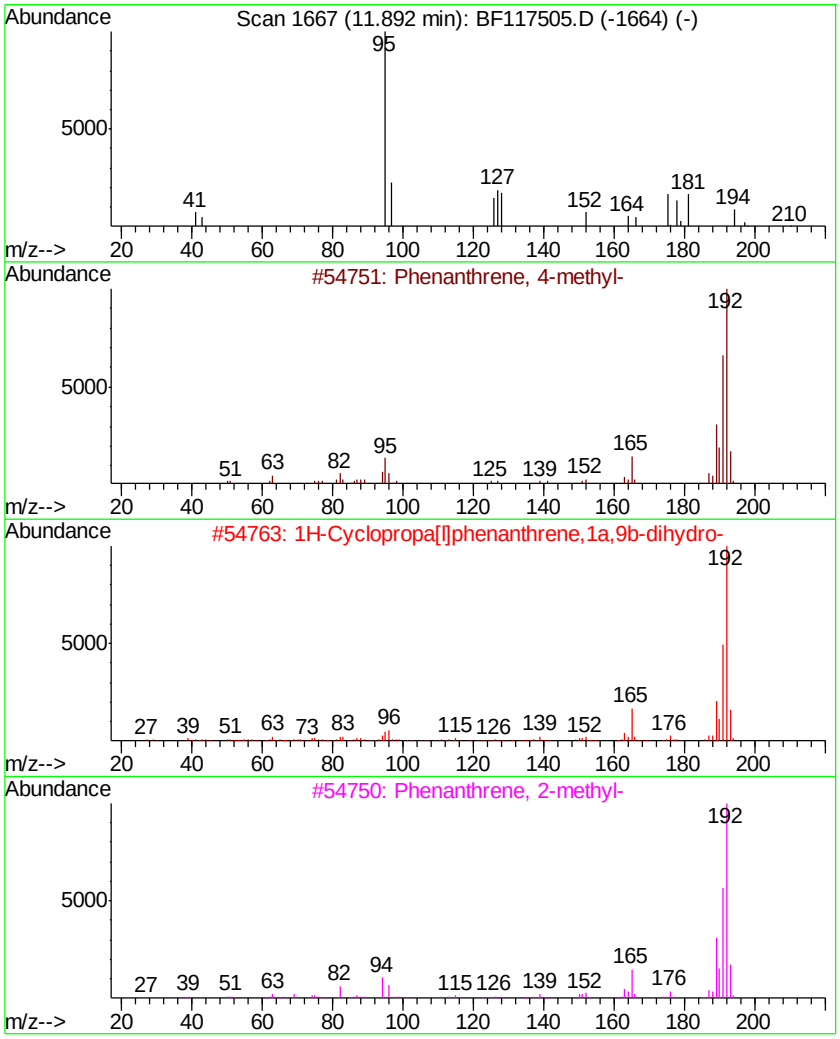
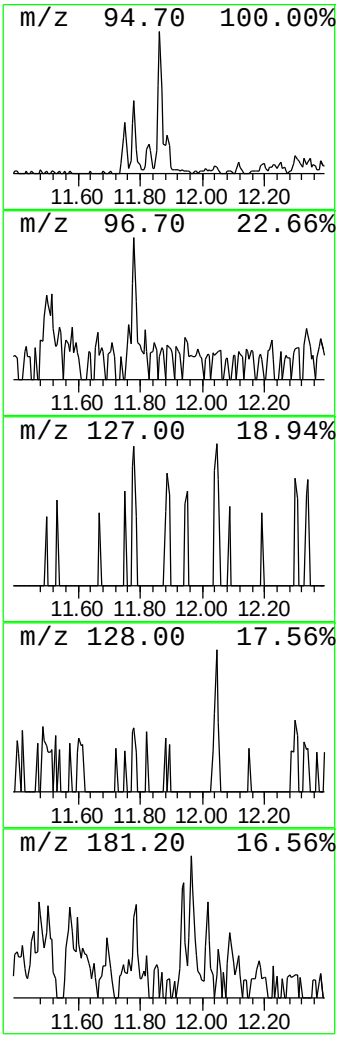
Peak Number 9 Phenanthrene, 4-methyl- Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.89 | 8.58 ng | 157942 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 97 |
| 2 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 95 |
| 3 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 94 |
| 4 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 94 |
| 5 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 91 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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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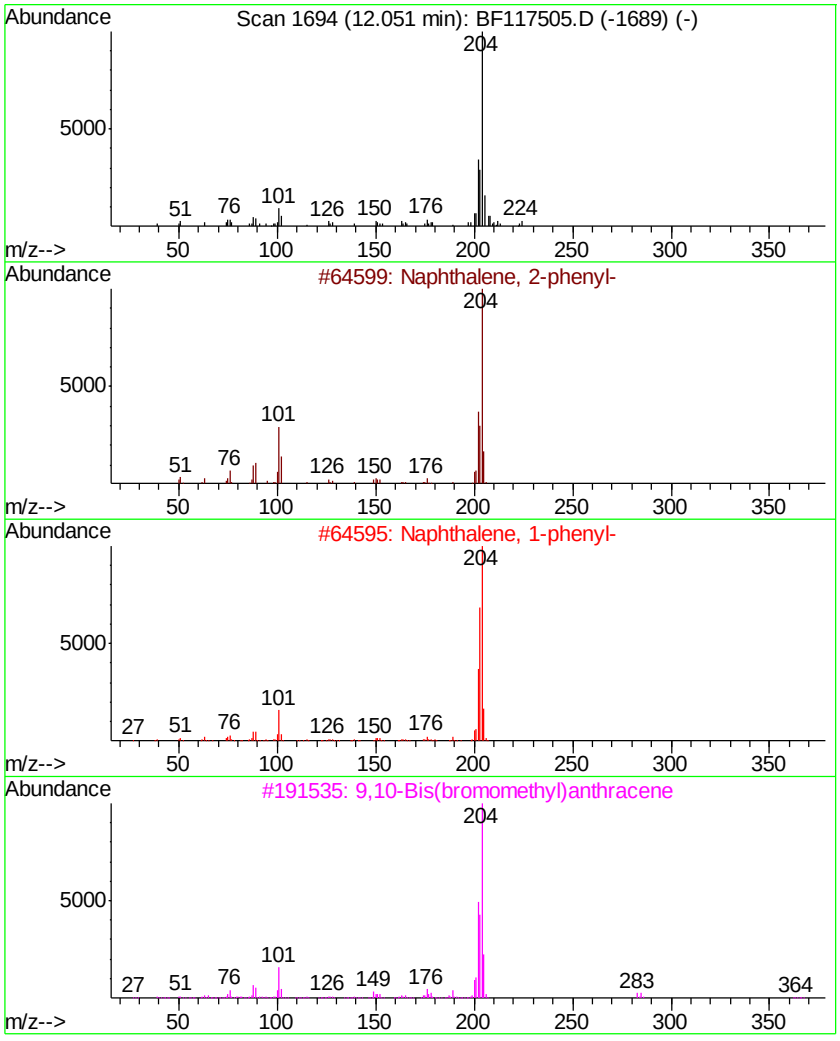
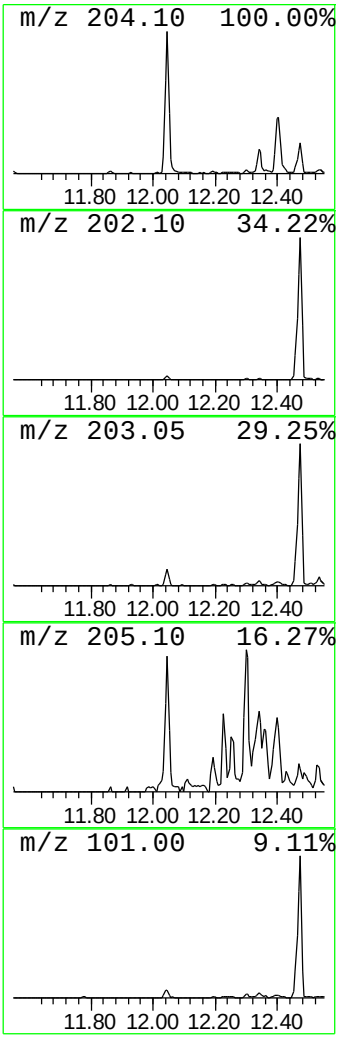
Peak Number 10 Naphthalene, 2-phenyl- Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.05 | 8.72 ng | 160473 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 90 |
| 2 | Naphthalene, 1-phenyl- | 204 | C16H12 | 000605-02-7 | 86 |
| 3 | 9,10-Bis(bromomethyl)anthracene | 362 | C16H12Br2 | 034373-96-1 | 78 |
| 4 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 74 |
| 5 | Levamisole | 204 | C11H12N2S | 014769-73-4 | 53 |



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Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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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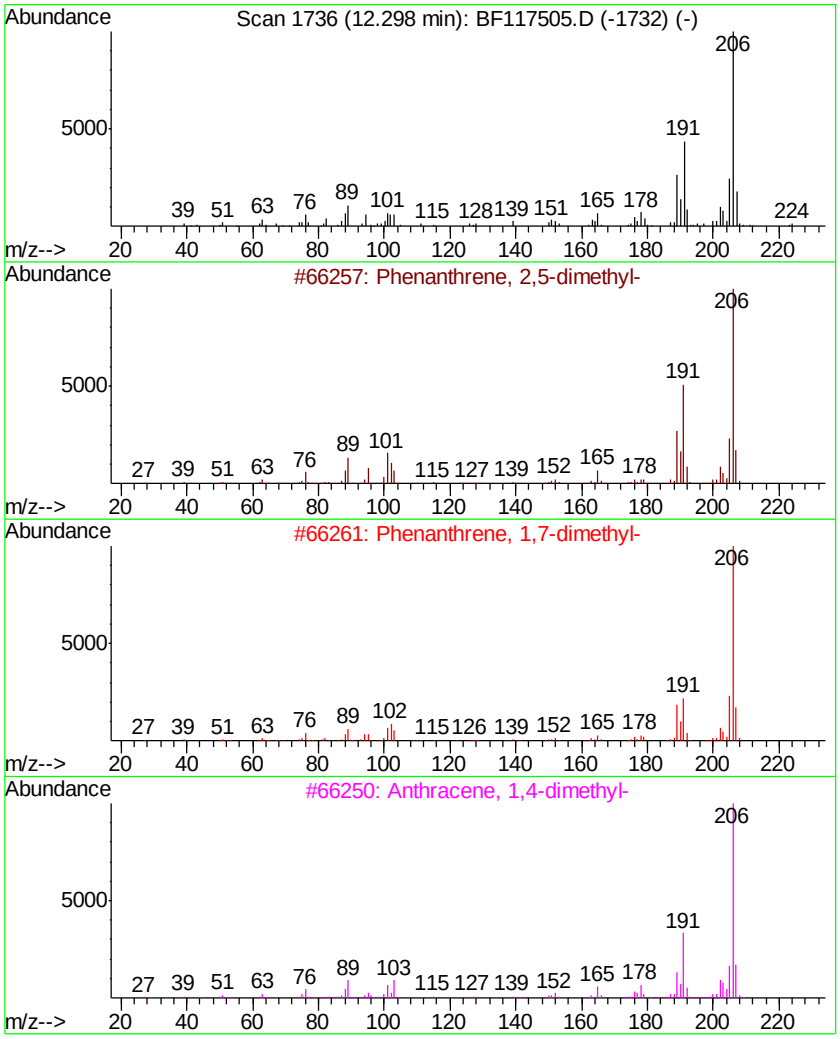
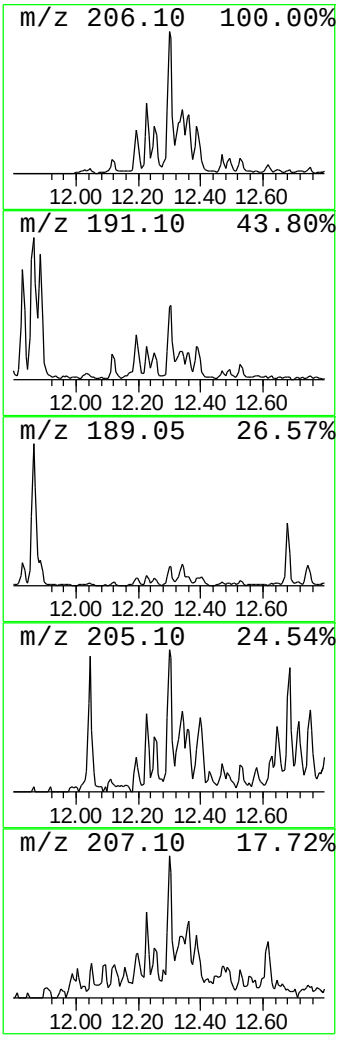
Peak Number 11 Phenanthrene, 2,5-dimethyl- Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.30 | 10.09 ng | 185759 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 95 |
| 2 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 94 |
| 3 | Anthracene, 1,4-dimethyl- | 206 | C16H14 | 000781-92-0 | 93 |
| 4 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 93 |
| 5 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 91 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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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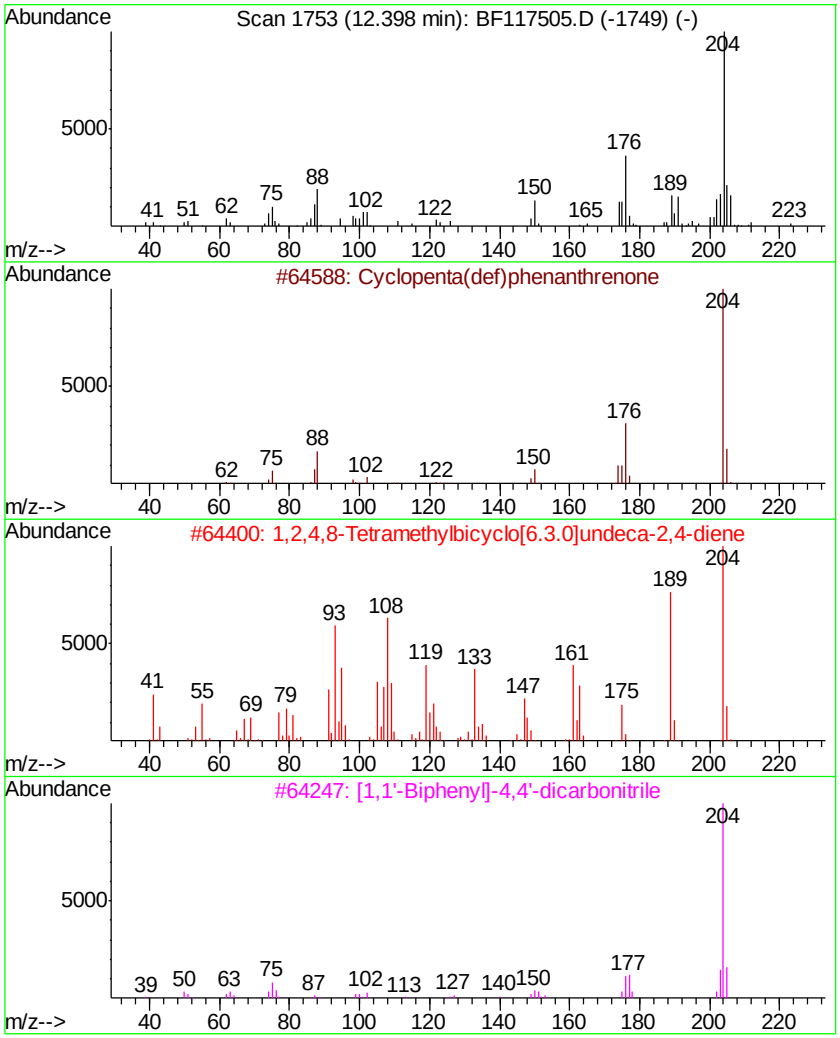
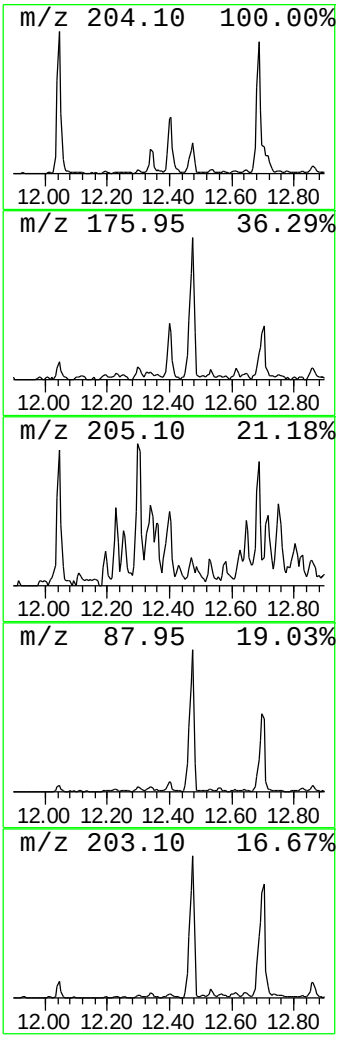
Peak Number 13 Cyclopenta(def)phenanthrenone Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.40 | 7.69 ng | 141534 | Phenanthrene-d10 | 11.25 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 94 |
| 2 | 1,2,4,8-Tetramethylbicyclo[6.3.0... | 204 | C15H24 | 137235-51-9 | 60 |
| 3 | [1,1'-Biphenyl]-4,4'-dicarbonitrile | 204 | C14H8N2 | 001591-30-6 | 58 |
| 4 | [1,1'-Biphenyl]-2,2'-dicarbonitrile | 204 | C14H8N2 | 004341-02-0 | 49 |
| 5 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 46 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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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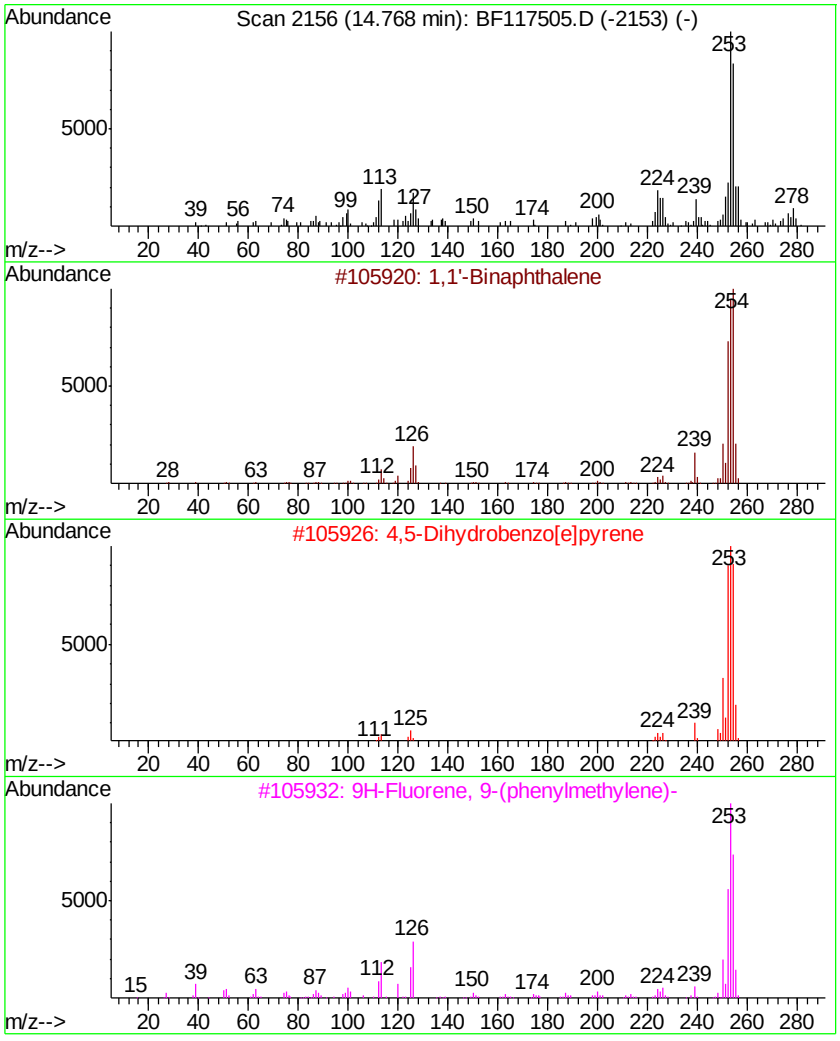
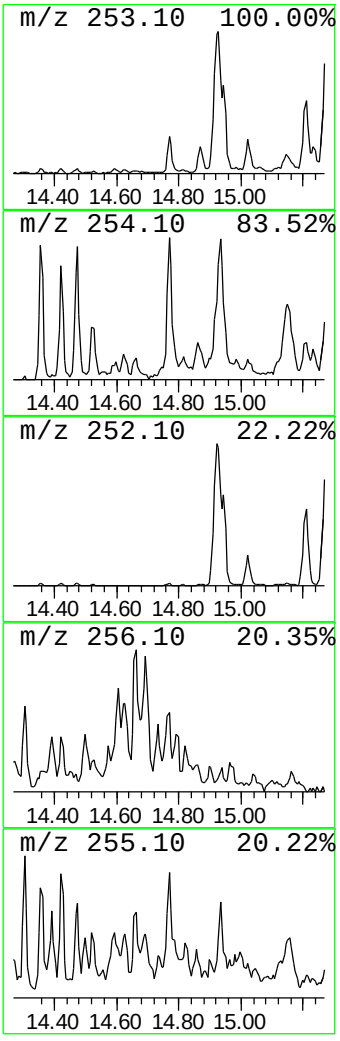
Peak Number 14 1,1'-Binaphthalene Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.77 | 5.92 ng | 101247 | Perylene-d12 | 15.33 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Binaphthalene | 254 | C20H14 | 000604-53-5 | 95 |
| 2 | 4,5-Dihydrobenzo[e]pyrene | 254 | C20H14 | 095676-42-9 | 76 |
| 3 | 9H-Fluorene, 9-(phenylmethylene)- | 254 | C20H14 | 001836-87-9 | 76 |
| 4 | 9,10[1',2']-Benzenoanthracene, 9... | 254 | C20H14 | 000477-75-8 | 62 |
| 5 | 1,2'-Binaphthalene | 254 | C20H14 | 004325-74-0 | 58 |



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Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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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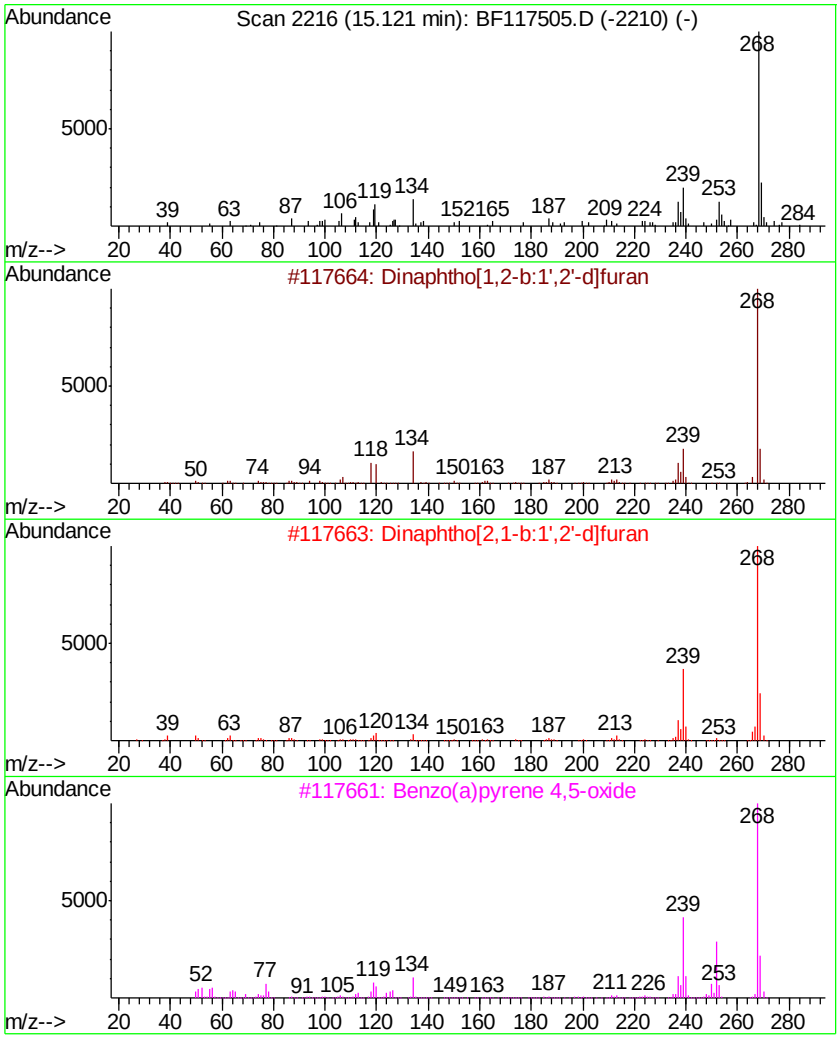
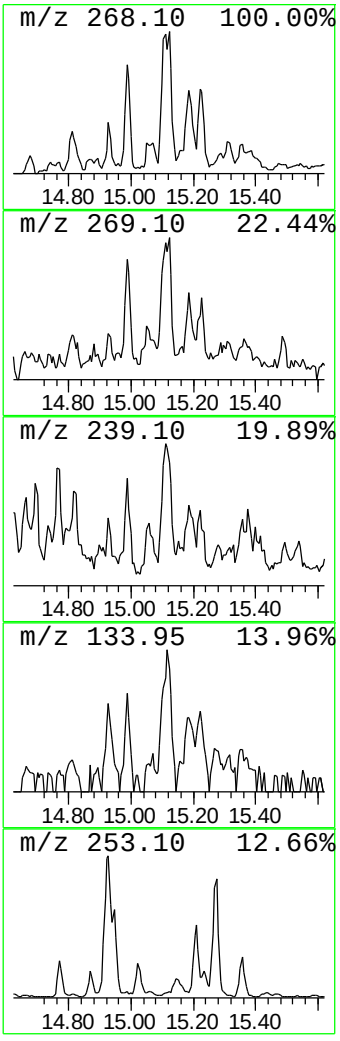
Peak Number 16 Dinaphtho[1,2-b:1',2'-d]furan Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.12 | 6.32 ng | 107985 | Perylene-d12 | 15.33 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dinaphtho[1,2-b:1',2'-d]furan | 268 | C20H12O | 000207-93-2 | 95 |
| 2 | Dinaphtho[2,1-b:1',2'-d]furan | 268 | C20H12O | 000194-63-8 | 81 |
| 3 | Benzo(a)pyrene 4,5-oxide | 268 | C20H12O | 037574-47-3 | 72 |
| 4 | 9,10-Anthracenedione, 1,4,5,8-te... | 268 | C14H12N4O2 | 002475-45-8 | 58 |
| 5 | Benzo(a)pyren-7-ol | 268 | C20H12O | 037994-82-4 | 53 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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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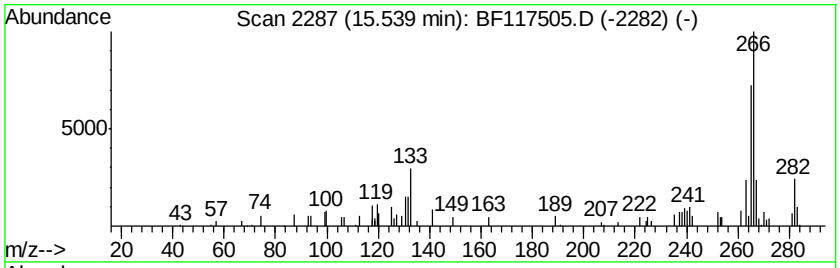
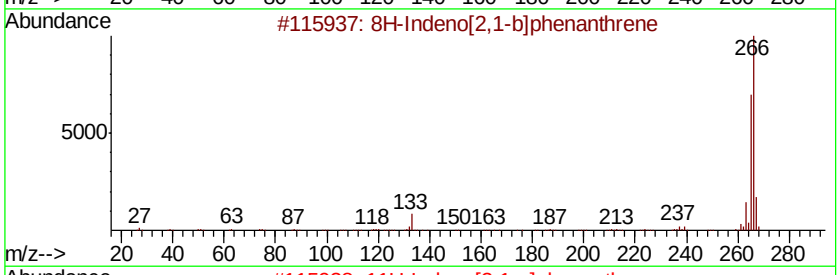
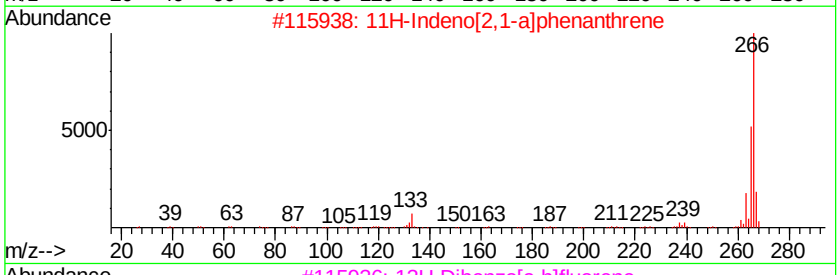
Peak Number 18 8H-Indeno[2,1-b]phenanthrene Concentration Rank 15

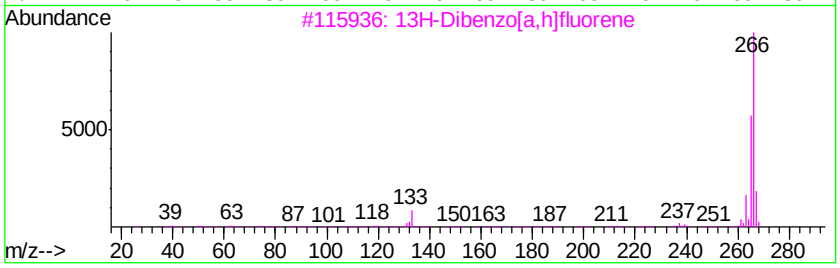
| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.54 | 6.41 ng | 109571 | Perylene-d12 | 15.33 |

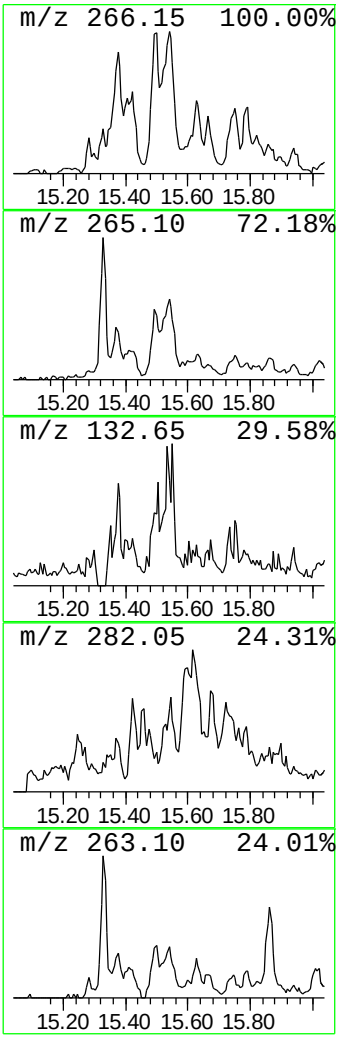
| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 8H-Indeno[2,1-b]phenanthrene | 266 | C21H14 | 000241-28-1 | 81 |
| 2 | 11H-Indeno[2,1-a]phenanthrene | 266 | C21H14 | 000220-97-3 | 58 |
| 3 | 13H-Dibenzo[a,h]fluorene | 266 | C21H14 | 000239-85-0 | 58 |
| 4 | Benz[j]aceanthrylene, 3-methyl- | 266 | C21H14 | 003343-10-0 | 53 |
| 5 | 4H-1-Benzopyran-4-one, 3-hydroxy... | 266 | C17H14O3 | 078396-37-9 | 52 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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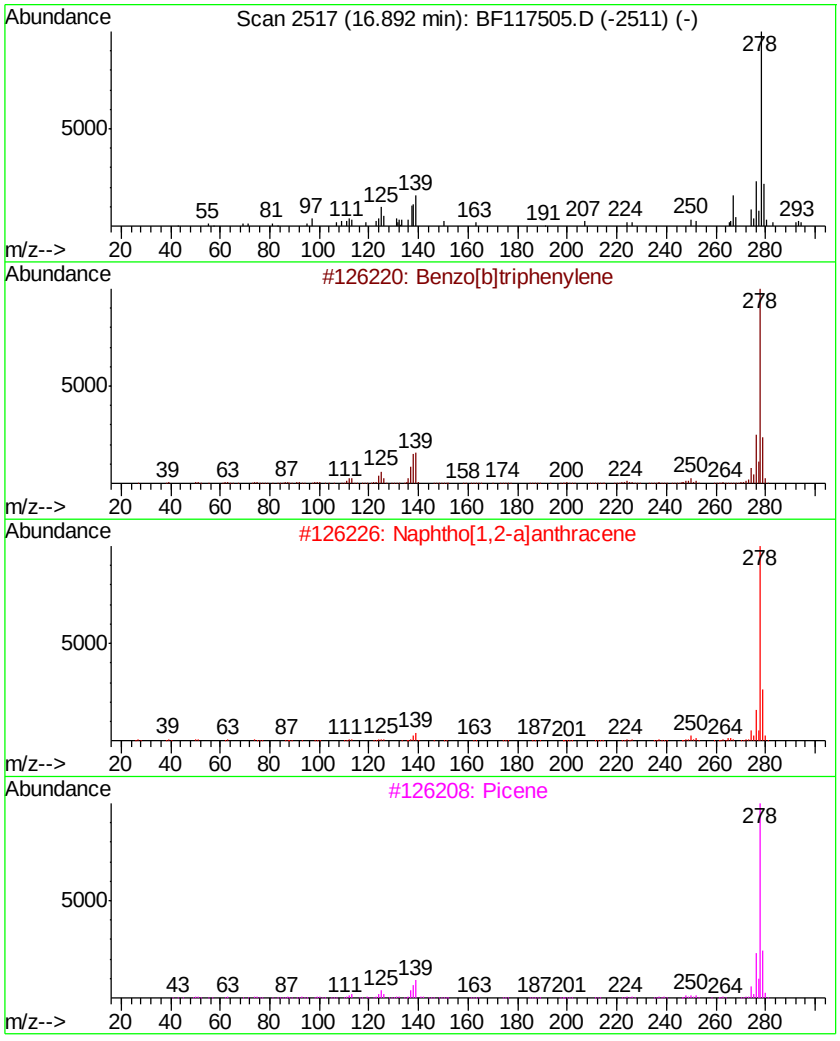
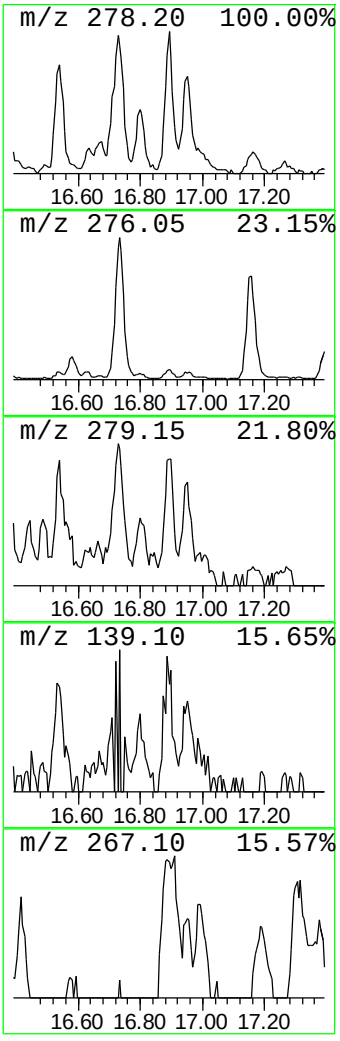
Peak Number 19 Benzo[b]triphenylene Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.89 | 5.90 ng | 100867 | Perylene-d12 | 15.33 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]triphenylene | 278 | C22H14 | 000215-58-7 | 94 |
| 2 | Naphtho[1,2-a]anthracene | 278 | C22H14 | 000195-06-2 | 93 |
| 3 | Picene | 278 | C22H14 | 000213-46-7 | 89 |
| 4 | Dibenz[a,h]anthracene | 278 | C22H14 | 000053-70-3 | 86 |
| 5 | Pentaphene | 278 | C22H14 | 000222-93-5 | 76 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF102319\
Data File : BF117505.D
Acq On : 24 Oct 2019 1:10
Operator : JU
Sample : K5497-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** 168-74-(0-1)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF101819.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 |
| unknown6.50 | 6.50 | 78.0 | ng | 1027020 | 1 | 6.73 | 263221 | 20.0 |
| 2,4,6-Trimethoxyb... | 11.10 | 6.1 | ng | 112020 | 4 | 11.25 | 368139 | 20.0 |
| 3-(N,N-Dimethylam... | 11.50 | 5.9 | ng | 109164 | 4 | 11.25 | 368139 | 20.0 |
| Phenanthrene, 2-m... | 11.75 | 11.3 | ng | 208734 | 4 | 11.25 | 368139 | 20.0 |
| Phenanthrene, 1-m... | 11.78 | 19.3 | ng | 355895 | 4 | 11.25 | 368139 | 20.0 |
| Anthracene, 2-met... | 11.83 | 8.9 | ng | 163268 | 4 | 11.25 | 368139 | 20.0 |
| 4H-Cyclopenta[def... | 11.86 | 22.7 | ng | 417419 | 4 | 11.25 | 368139 | 20.0 |
| Phenanthrene, 4-m... | 11.89 | 8.6 | ng | 157942 | 4 | 11.25 | 368139 | 20.0 |
| Naphthalene, 2-ph... | 12.05 | 8.7 | ng | 160473 | 4 | 11.25 | 368139 | 20.0 |
| Phenanthrene, 2,5... | 12.30 | 10.1 | ng | 185759 | 4 | 11.25 | 368139 | 20.0 |
| Cyclopenta(def)ph... | 12.40 | 7.7 | ng | 141534 | 4 | 11.25 | 368139 | 20.0 |
| 1,1'-Binaphthalene | 14.77 | 5.9 | ng | 101247 | 6 | 15.33 | 341896 | 20.0 |
| Dinaphtho[1,2-b:1... | 15.12 | 6.3 | ng | 107985 | 6 | 15.33 | 341896 | 20.0 |
| 8H-Indeno[2,1-b]p... | 15.54 | 6.4 | ng | 109571 | 6 | 15.33 | 341896 | 20.0 |
| Benzo[b]triphenylene | 16.89 | 5.9 | ng | 100867 | 6 | 15.33 | 341896 | 20.0 |