LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

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-BF022719.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 | 5.339 | 549 | 553 | 556 | rBV | 950770 | 851659 | 22.06% | 1.931% |
| 2 | 6.363 | 723 | 727 | 734 | rBV | 988313 | 894117 | 23.16% | 2.027% |
| 3 | 6.504 | 747 | 751 | 754 | rBV | 1085213 | 876449 | 22.70% | 1.987% |
| 4 | 6.739 | 788 | 791 | 795 | rVB | 1318662 | 1068564 | 27.67% | 2.423% |
| 5 | 6.898 | 814 | 818 | 821 | rBV | 745039 | 654614 | 16.95% | 1.484% |
| 6 | 7.292 | 881 | 885 | 888 | rBV | 628948 | 465497 | 12.06% | 1.056% |
| 7 | 8.022 | 1005 | 1009 | 1011 | rBV | 1608661 | 1277421 | 33.08% | 2.897% |
| 8 | 8.039 | 1011 | 1012 | 1016 | rVB | 101466 | 73667 | 1.91% | 0.167% |
| 9 | 8.733 | 1127 | 1130 | 1133 | rBV | 72457 | 53423 | 1.38% | 0.121% |
| 10 | 9.092 | 1188 | 1191 | 1195 | rBV | 1004350 | 803719 | 20.81% | 1.822% |
| 11 | 9.486 | 1255 | 1258 | 1261 | rVB | 59835 | 41927 | 1.09% | 0.095% |
| 12 | 9.769 | 1300 | 1306 | 1309 | rBV2 | 1466754 | 1220825 | 31.62% | 2.768% |
| 13 | 9.798 | 1309 | 1311 | 1315 | rVB | 476658 | 390584 | 10.12% | 0.886% |
| 14 | 9.969 | 1337 | 1340 | 1344 | rVB | 266103 | 225970 | 5.85% | 0.512% |
| 15 | 10.310 | 1395 | 1398 | 1402 | rBV | 463121 | 416103 | 10.78% | 0.944% |
| 16 | 10.398 | 1412 | 1413 | 1416 | rVB | 59026 | 42079 | 1.09% | 0.095% |
| 17 | 10.469 | 1423 | 1425 | 1431 | rVB | 77290 | 69300 | 1.79% | 0.157% |
| 18 | 10.545 | 1435 | 1438 | 1443 | rVV2 | 584472 | 562835 | 14.58% | 1.276% |
| 19 | 10.857 | 1485 | 1491 | 1494 | rBV2 | 66191 | 84376 | 2.19% | 0.191% |
| 20 | 11.045 | 1521 | 1523 | 1529 | rVB | 57079 | 60445 | 1.57% | 0.137% |
| 21 | 11.098 | 1529 | 1532 | 1535 | rBV | 42853 | 46210 | 1.20% | 0.105% |
| 22 | 11.139 | 1535 | 1539 | 1542 | rVB | 215271 | 185792 | 4.81% | 0.421% |
| 23 | 11.245 | 1554 | 1557 | 1559 | rBV | 1466271 | 1312036 | 33.98% | 2.975% |
| 24 | 11.268 | 1559 | 1561 | 1565 | rVV | 2954399 | 2647667 | 68.57% | 6.004% |
| 25 | 11.321 | 1565 | 1570 | 1573 | rVB | 1196973 | 998532 | 25.86% | 2.264% |
| 26 | 11.468 | 1589 | 1595 | 1599 | rBV | 296709 | 262257 | 6.79% | 0.595% |
| 27 | 11.545 | 1603 | 1608 | 1611 | rBV3 | 52103 | 53433 | 1.38% | 0.121% |
| 28 | 11.745 | 1636 | 1642 | 1644 | rBV | 260792 | 232926 | 6.03% | 0.528% |
| 29 | 11.774 | 1644 | 1647 | 1651 | rVV | 406125 | 351125 | 9.09% | 0.796% |
| 30 | 11.821 | 1651 | 1655 | 1658 | rVV | 186208 | 174935 | 4.53% | 0.397% |
| 31 | 11.857 | 1658 | 1661 | 1663 | rVV | 649876 | 593131 | 15.36% | 1.345% |
| 32 | 11.880 | 1663 | 1665 | 1668 | rVB | 163718 | 129537 | 3.35% | 0.294% |
| 33 | 12.039 | 1689 | 1692 | 1699 | rVB2 | 241976 | 285276 | 7.39% | 0.647% |
| 34 | 12.192 | 1713 | 1718 | 1720 | rBV3 | 62280 | 67176 | 1.74% | 0.152% |

LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

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-BF022719.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 12.292 | 1731 | 1735 | 1738 | rBV | 109779 | 131911 | 3.42% | 0.299% |
| 36 | 12.333 | 1738 | 1742 | 1744 | rVV2 | 96581 | 103416 | 2.68% | 0.234% |
| 37 | 12.374 | 1746 | 1749 | 1755 | rVB3 | 106137 | 138802 | 3.59% | 0.315% |
| 38 | 12.457 | 1758 | 1763 | 1766 | rBV | 4222231 | 3796401 | 98.32% | 8.608% |
| 39 | 12.510 | 1766 | 1772 | 1776 | rBV2 | 74374 | 108829 | 2.82% | 0.247% |
| 40 | 12.604 | 1783 | 1788 | 1792 | rVB2 | 159823 | 187731 | 4.86% | 0.426% |
| 41 | 12.680 | 1795 | 1801 | 1804 | rBV | 3319426 | 3861366 | 100.00% | 8.756% |
| 42 | 12.727 | 1807 | 1809 | 1816 | rVB2 | 145878 | 146987 | 3.81% | 0.333% |
| 43 | 12.798 | 1816 | 1821 | 1823 | rBV | 234172 | 212244 | 5.50% | 0.481% |
| 44 | 12.827 | 1823 | 1826 | 1833 | rVB | 1121030 | 974543 | 25.24% | 2.210% |
| 45 | 12.898 | 1833 | 1838 | 1841 | rBV3 | 194502 | 343756 | 8.90% | 0.779% |
| 46 | 12.921 | 1841 | 1842 | 1845 | rVB | 125900 | 76330 | 1.98% | 0.173% |
| 47 | 12.957 | 1845 | 1848 | 1850 | rBV2 | 53963 | 60155 | 1.56% | 0.136% |
| 48 | 12.986 | 1850 | 1853 | 1854 | rBV2 | 140155 | 160906 | 4.17% | 0.365% |
| 49 | 13.004 | 1854 | 1856 | 1860 | rVB | 584066 | 517599 | 13.40% | 1.174% |
| 50 | 13.045 | 1860 | 1863 | 1865 | rBV3 | 36204 | 47595 | 1.23% | 0.108% |
| 51 | 13.074 | 1865 | 1868 | 1870 | rBV | 583347 | 481358 | 12.47% | 1.091% |
| 52 | 13.110 | 1870 | 1874 | 1877 | rVV | 332791 | 328143 | 8.50% | 0.744% |
| 53 | 13.139 | 1877 | 1879 | 1881 | rVV2 | 93743 | 79035 | 2.05% | 0.179% |
| 54 | 13.168 | 1881 | 1884 | 1886 | rVV | 72869 | 58684 | 1.52% | 0.133% |
| 55 | 13.198 | 1887 | 1889 | 1892 | rVB | 122493 | 108925 | 2.82% | 0.247% |
| 56 | 13.233 | 1892 | 1895 | 1904 | rBV3 | 138841 | 211977 | 5.49% | 0.481% |
| 57 | 13.304 | 1904 | 1907 | 1911 | rBV2 | 43874 | 61996 | 1.61% | 0.141% |
| 58 | 13.504 | 1935 | 1941 | 1947 | rBV2 | 134399 | 247680 | 6.41% | 0.562% |
| 59 | 13.621 | 1957 | 1961 | 1964 | rBV | 326327 | 372662 | 9.65% | 0.845% |
| 60 | 13.651 | 1964 | 1966 | 1968 | rVV | 266986 | 236642 | 6.13% | 0.537% |
| 61 | 13.674 | 1968 | 1970 | 1974 | rVV2 | 241759 | 314116 | 8.13% | 0.712% |
| 62 | 13.709 | 1974 | 1976 | 1978 | rVB2 | 65758 | 61141 | 1.58% | 0.139% |
| 63 | 13.786 | 1984 | 1989 | 1993 | rBV | 107157 | 169214 | 4.38% | 0.384% |
| 64 | 13.868 | 1995 | 2003 | 2006 | rBV3 | 2426676 | 3610767 | 93.51% | 8.187% |
| 65 | 13.898 | 2006 | 2008 | 2011 | rVB | 1562084 | 1164084 | 30.15% | 2.640% |
| 66 | 13.974 | 2018 | 2021 | 2024 | rBV | 463798 | 384435 | 9.96% | 0.872% |
| 67 | 14.057 | 2032 | 2035 | 2037 | rVB | 162873 | 150803 | 3.91% | 0.342% |
| 68 | 14.086 | 2037 | 2040 | 2045 | rBV2 | 185367 | 225236 | 5.83% | 0.511% |
| 69 | 14.186 | 2055 | 2057 | 2060 | rVB | 60721 | 62794 | 1.63% | 0.142% |
| 70 | 14.221 | 2060 | 2063 | 2065 | rBV | 109106 | 117988 | 3.06% | 0.268% |
| 71 | 14.257 | 2065 | 2069 | 2071 | rVV | 249891 | 292234 | 7.57% | 0.663% |

LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

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-BF022719.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 14.286 | 2072 | 2074 | 2077 | rVB | 125359 | 125937 | 3.26% | 0.286% |
| 73 | 14.345 | 2082 | 2084 | 2087 | rVV2 | 149828 | 151738 | 3.93% | 0.344% |
| 74 | 14.380 | 2087 | 2090 | 2091 | rVV | 106725 | 100160 | 2.59% | 0.227% |
| 75 | 14.398 | 2091 | 2093 | 2096 | rVB2 | 213860 | 197816 | 5.12% | 0.449% |
| 76 | 14.433 | 2097 | 2099 | 2101 | rBV2 | 86957 | 95165 | 2.46% | 0.216% |
| 77 | 14.727 | 2147 | 2149 | 2153 | rVB | 174432 | 165019 | 4.27% | 0.374% |
| 78 | 14.880 | 2170 | 2175 | 2178 | rBV | 1118749 | 1639904 | 42.47% | 3.718% |
| 79 | 14.980 | 2189 | 2192 | 2197 | rVB | 316453 | 326735 | 8.46% | 0.741% |
| 80 | 15.162 | 2219 | 2223 | 2228 | rVB | 606862 | 700293 | 18.14% | 1.588% |
| 81 | 15.215 | 2228 | 2232 | 2238 | rBV | 850376 | 1079761 | 27.96% | 2.448% |
| 82 | 15.280 | 2238 | 2243 | 2245 | rBV | 838303 | 967128 | 25.05% | 2.193% |
| 83 | 15.304 | 2245 | 2247 | 2250 | rVB | 242383 | 236135 | 6.12% | 0.535% |
| 84 | 16.627 | 2467 | 2472 | 2480 | rVB2 | 359490 | 663018 | 17.17% | 1.503% |
| 85 | 17.033 | 2536 | 2541 | 2553 | rVB | 279127 | 571056 | 14.79% | 1.295% |

Sum of corrected areas: 44101957

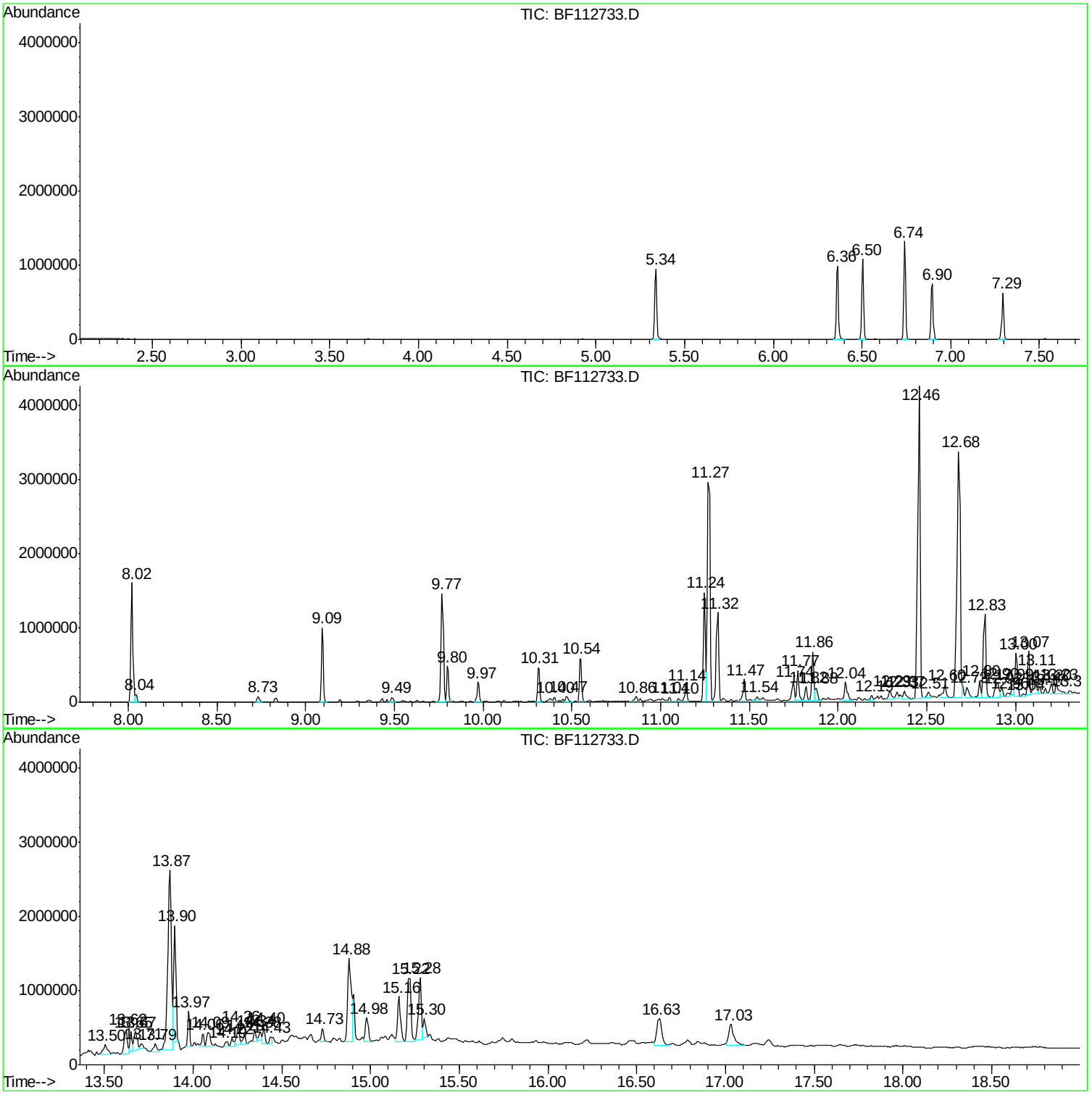
LSC Report - Integrated Chromatogram

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.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\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

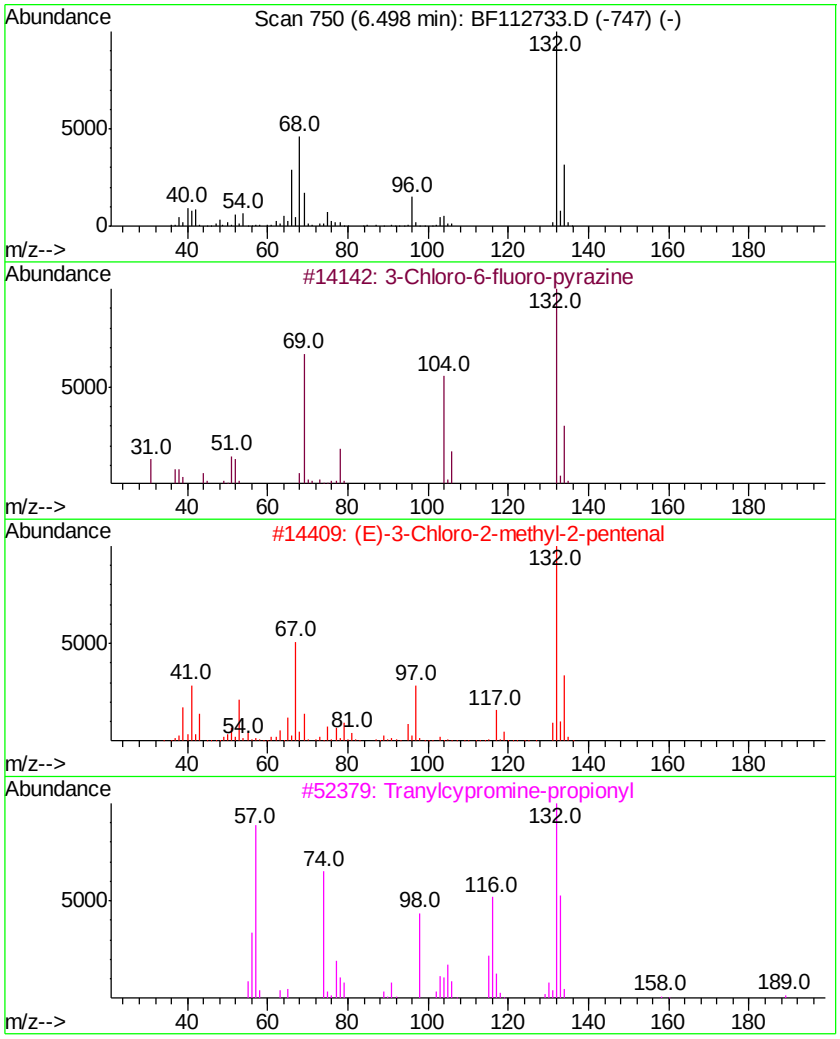
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

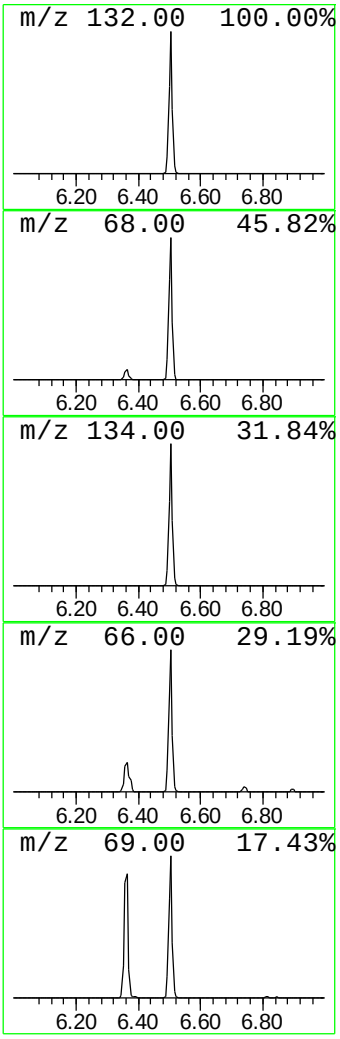
**********

Peak Number 1 unknown6.50 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.50 | 16.40 ng | 876449 | 1,4-Dichlorobenzene-d4 | 6.74 |

| 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 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 12 |
| 4 | 5-Aminoindole | 132 | C8H8N2 | 005192-03-0 | 12 |
| 5 | 4-Methylpyrrolo[1,2-a]pyrazine | 132 | C8H8N2 | 064608-60-2 | 9 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

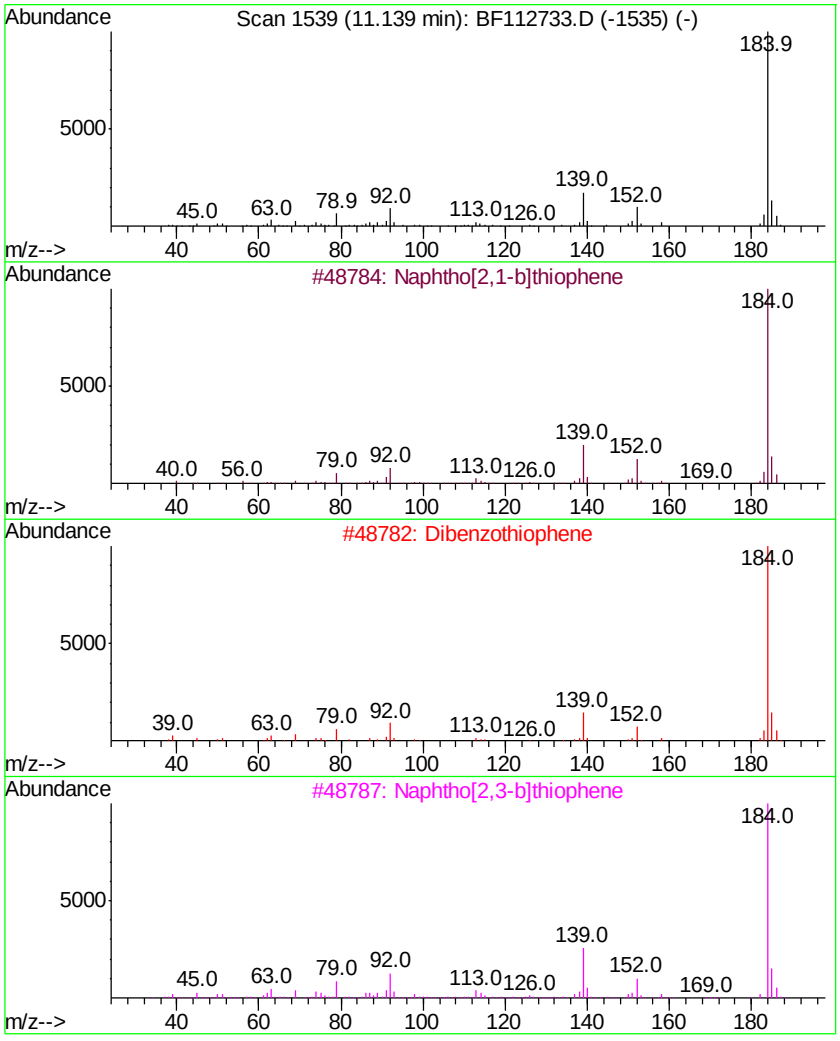
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

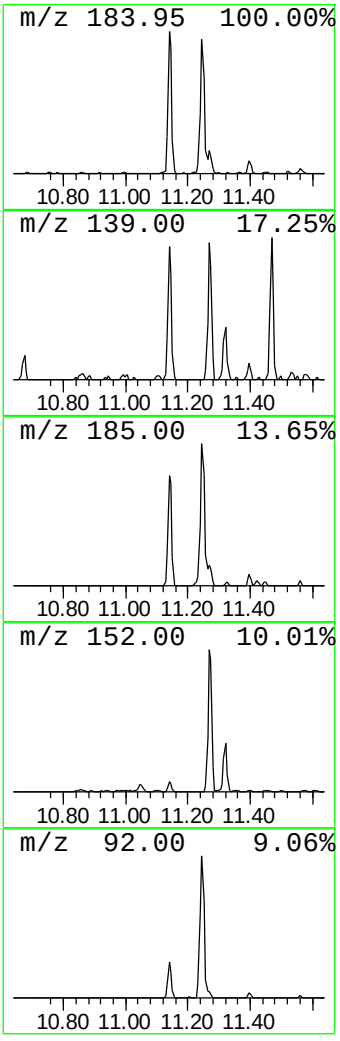
**********

Peak Number 3 Naphtho[2,1-b]thiophene Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.14 | 2.83 ng | 185792 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphtho[2,1-b]thiophene | 184 | C12H8S | 000233-02-3 | 97 |
| 2 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 96 |
| 3 | Naphtho[2,3-b]thiophene | 184 | C12H8S | 000268-77-9 | 95 |
| 4 | Azuleno(2,1-b)thiophene | 184 | C12H8S | 000248-13-5 | 90 |
| 5 | 1,1'-Biphenyl, 2-methoxy- | 184 | C13H12O | 000086-26-0 | 64 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

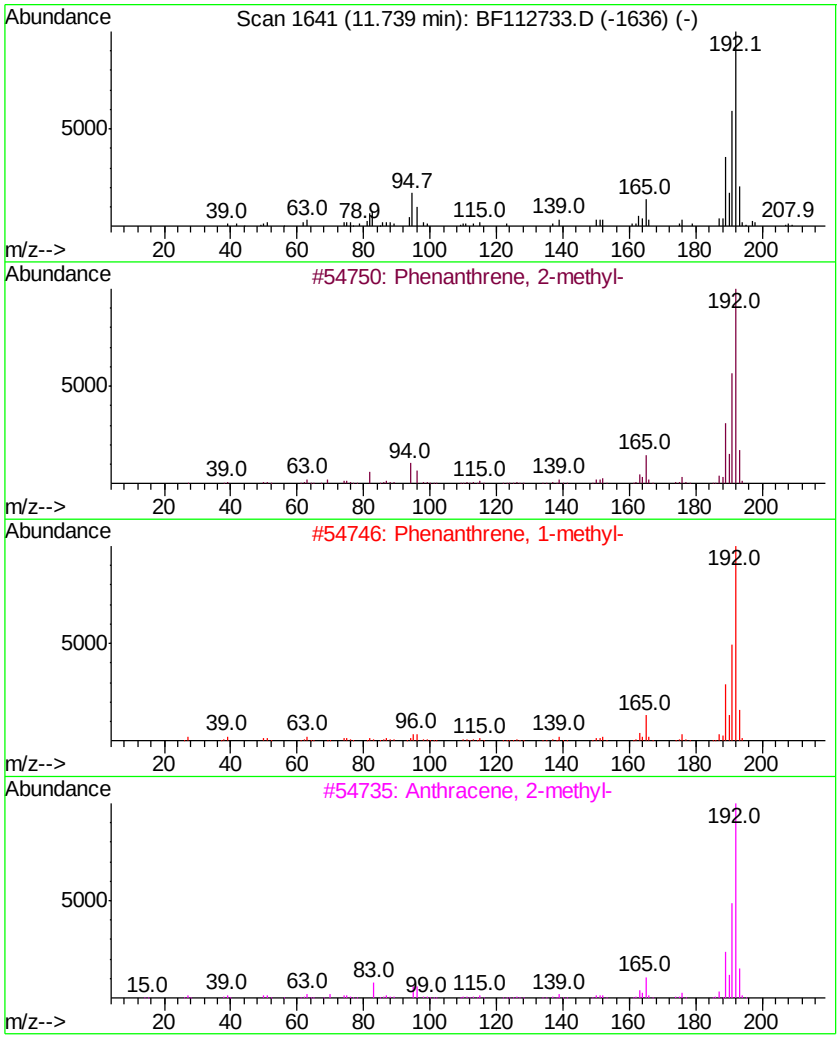
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

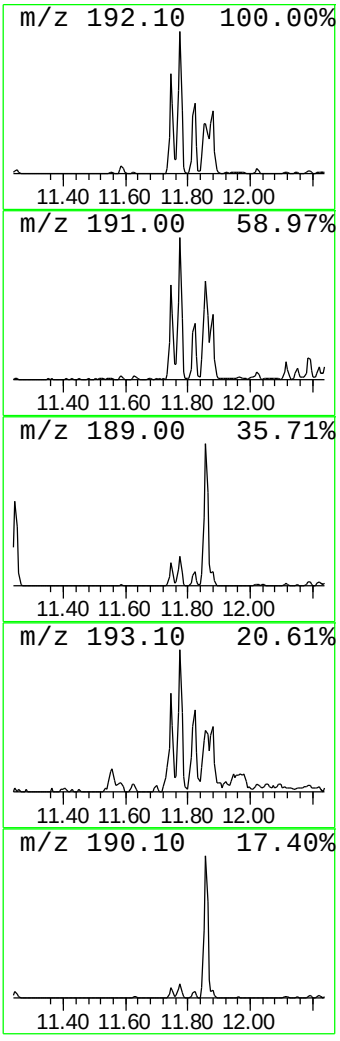
**********

Peak Number 4 Phenanthrene, 2-methyl- Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.74 | 3.55 ng | 232926 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 98 |
| 2 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 97 |
| 3 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 96 |
| 4 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 95 |
| 5 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 95 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

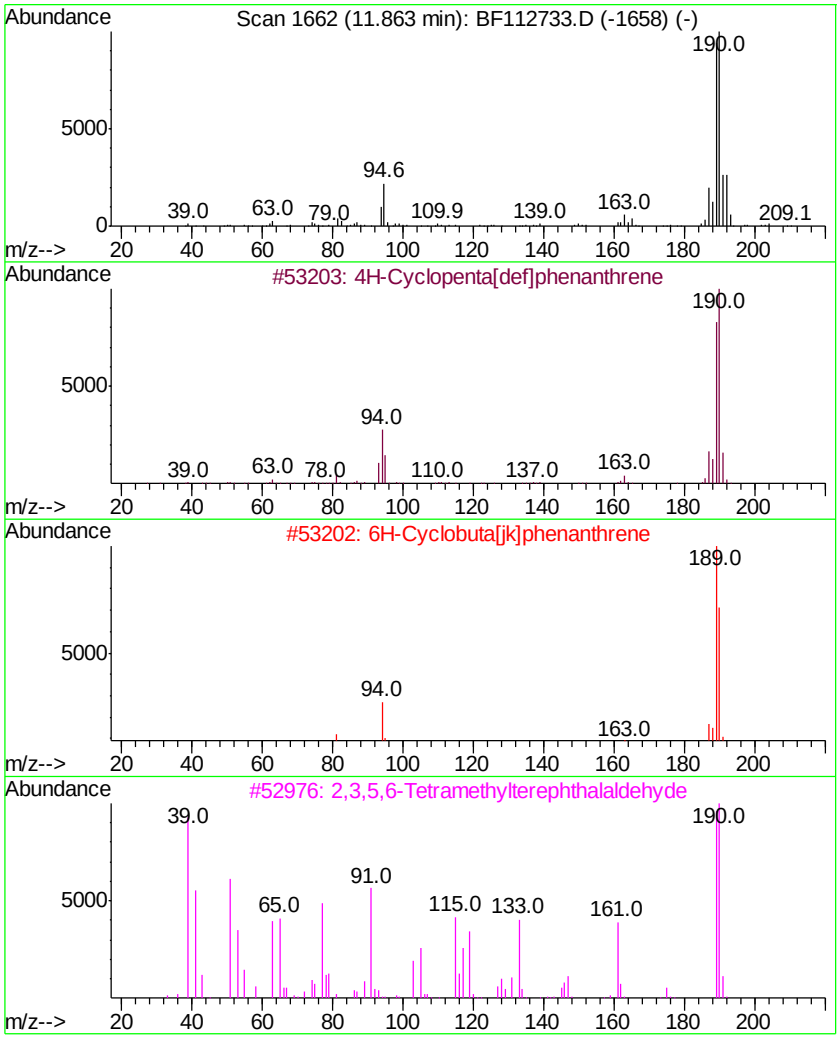
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

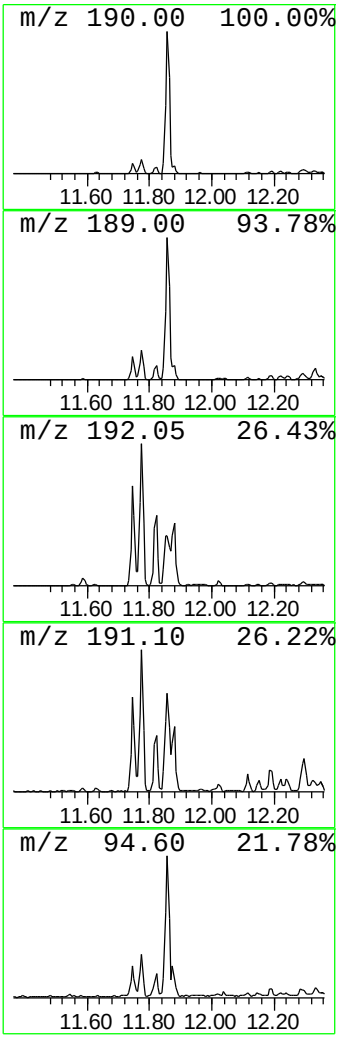
**********

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

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.86 | 9.04 ng | 593131 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 94 |
| 2 | 6H-Cyclobuta[jk]phenanthrene | 190 | C15H10 | 083469-43-6 | 64 |
| 3 | 2,3,5,6-Tetramethylterephthalald... | 190 | C12H14O2 | 007072-01-7 | 50 |
| 4 | Thiophene-3-carboxaldehyde, 5-ch... | 190 | C5H4BClO3S | 036155-87-0 | 40 |
| 5 | 2,2'-Bis(4,5-dimethylimidazole) | 190 | C10H14N4 | 069286-06-2 | 33 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

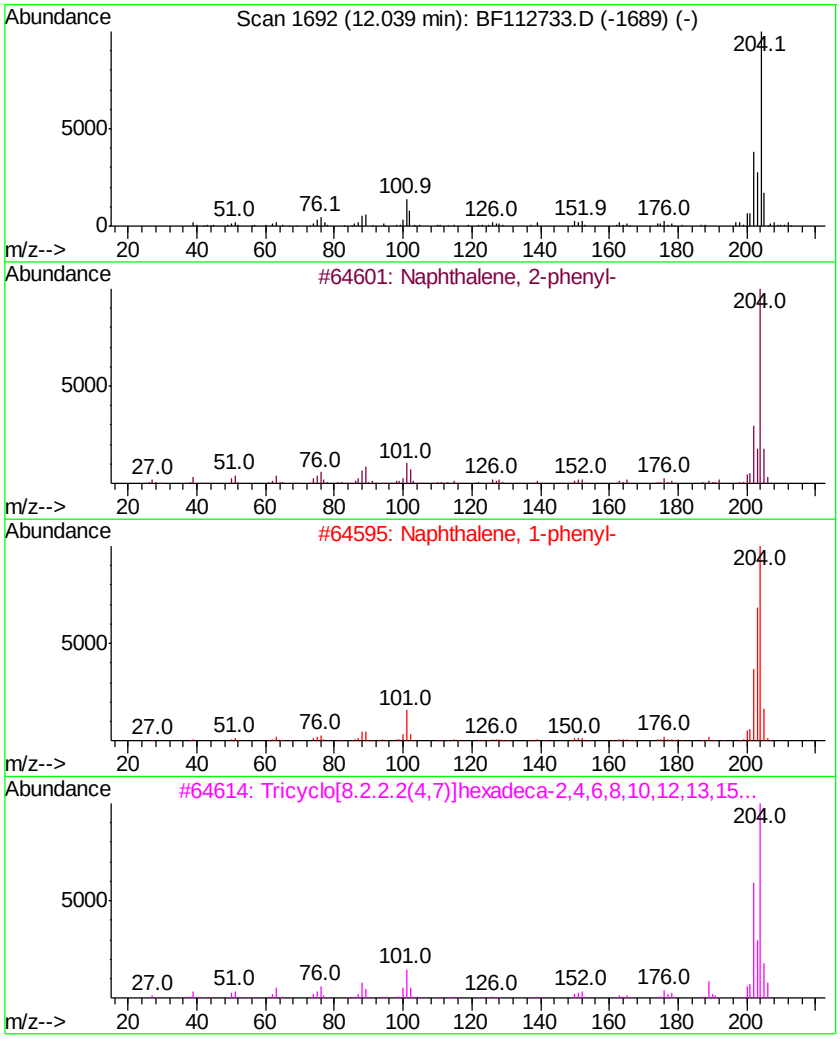
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

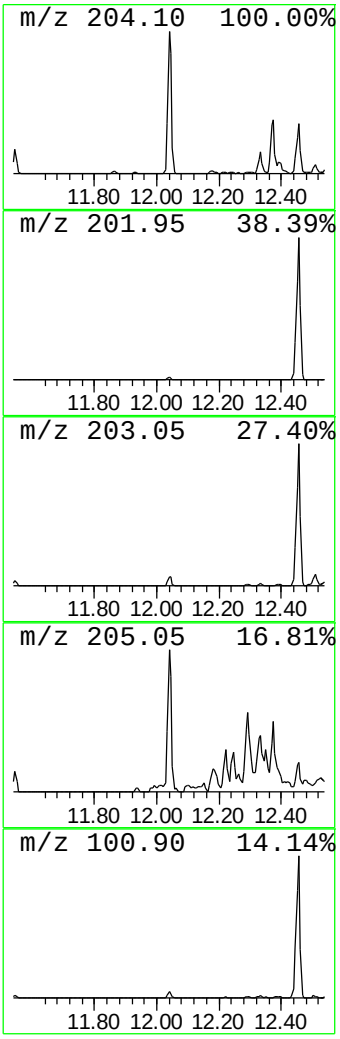
**********

Peak Number 8 Naphthalene, 2-phenyl- Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.04 | 4.35 ng | 285276 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 92 |
| 2 | Naphthalene, 1-phenyl- | 204 | C16H12 | 000605-02-7 | 78 |
| 3 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 62 |
| 4 | 9,10-Bis(bromomethyl)anthracene | 362 | C16H12Br2 | 034373-96-1 | 58 |
| 5 | [1,1'-Biphenyl]-2-ol, 5-chloro- | 204 | C12H9ClO | 000607-12-5 | 47 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

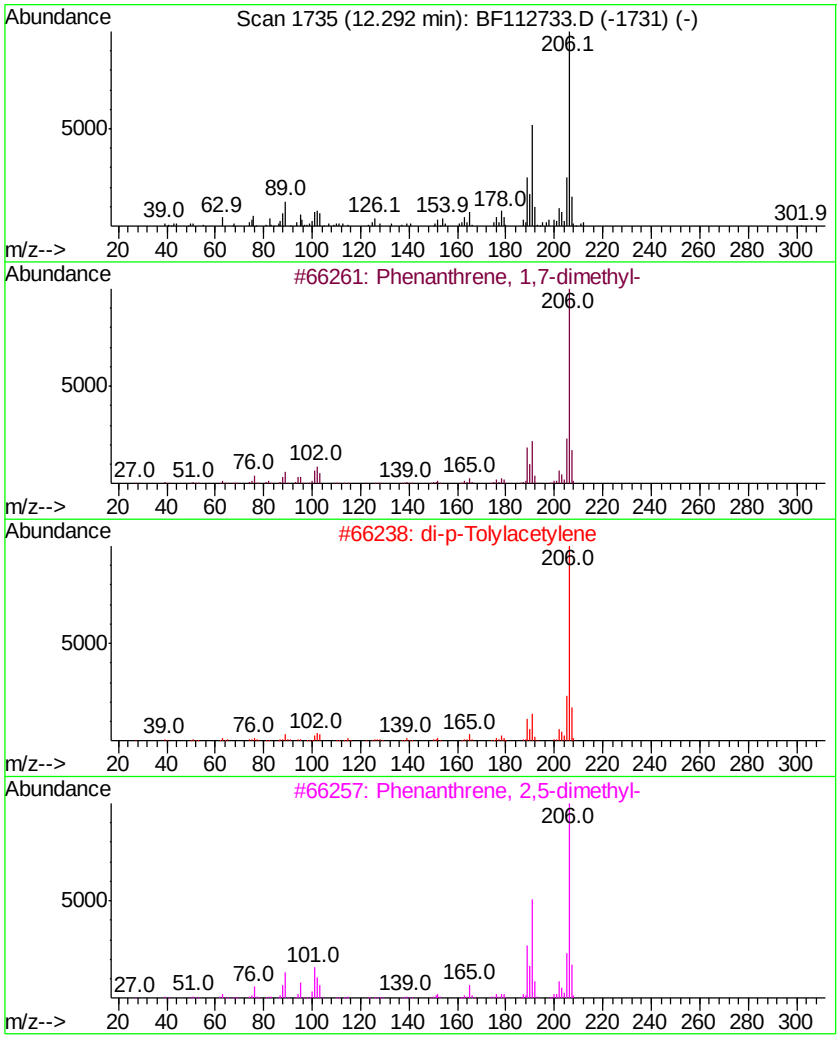
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

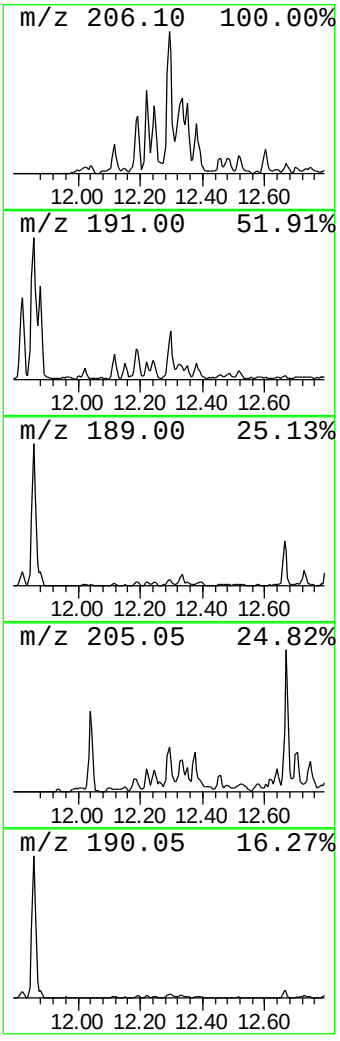
**********

Peak Number 9 Phenanthrene, 1,7-dimethyl- Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.29 | 2.01 ng | 131911 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 94 |
| 2 | di-p-Tolylacetylene | 206 | C16H14 | 002789-88-0 | 94 |
| 3 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 94 |
| 4 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 93 |
| 5 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 93 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

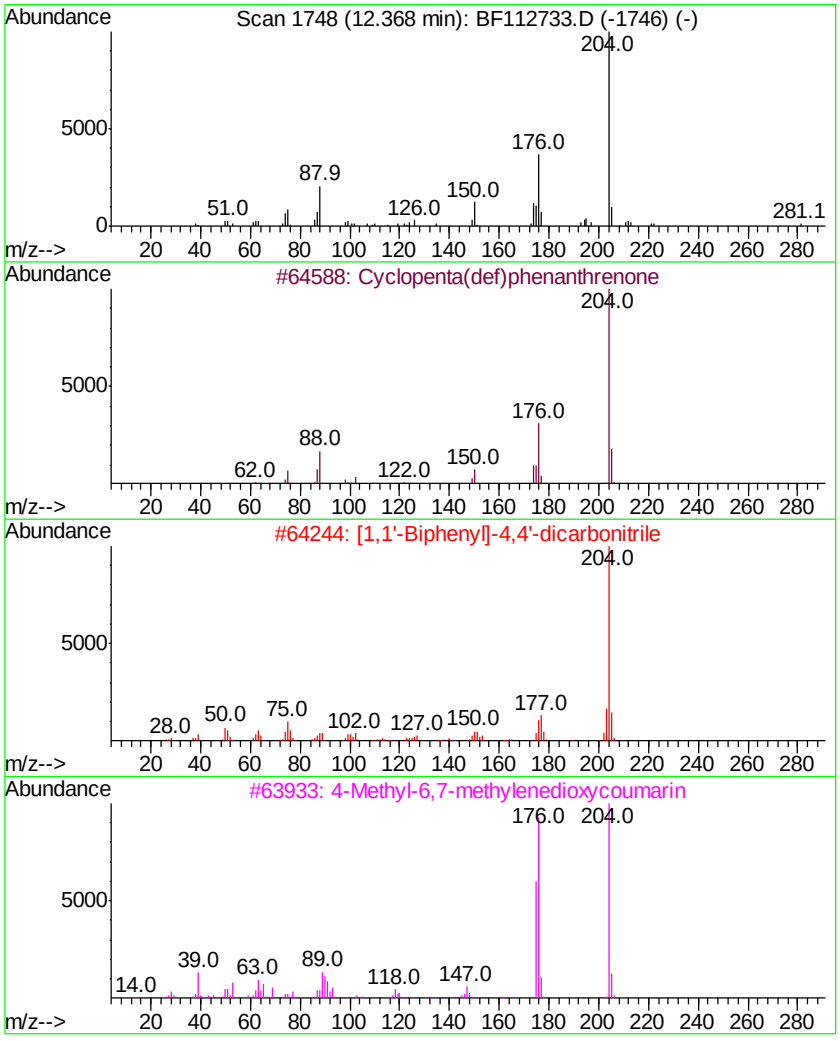
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

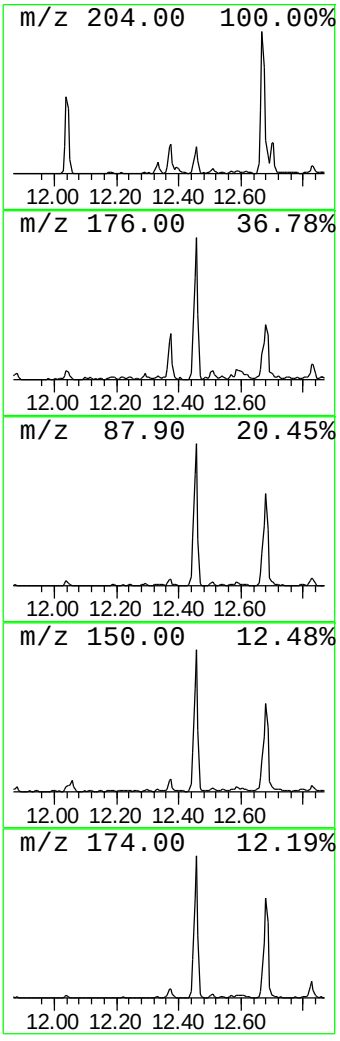
**********

Peak Number 10 Cyclopenta(def)phenanthrenone Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.37 | 2.12 ng | 138802 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 95 |
| 2 | [1,1'-Biphenyl]-4,4'-dicarbonitrile | 204 | C14H8N2 | 001591-30-6 | 53 |
| 3 | 4-Methyl-6,7-methylenedioxycoumarin | 204 | C11H8O4 | 015071-04-2 | 53 |
| 4 | (E)-Ethyl 3-oxo-2-(pyrid-2-yl)me... | 219 | C12H13NO3 | 1000147-59-7 | 50 |
| 5 | [1,1'-Biphenyl]-2,2'-dicarbonitrile | 204 | C14H8N2 | 004341-02-0 | 50 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

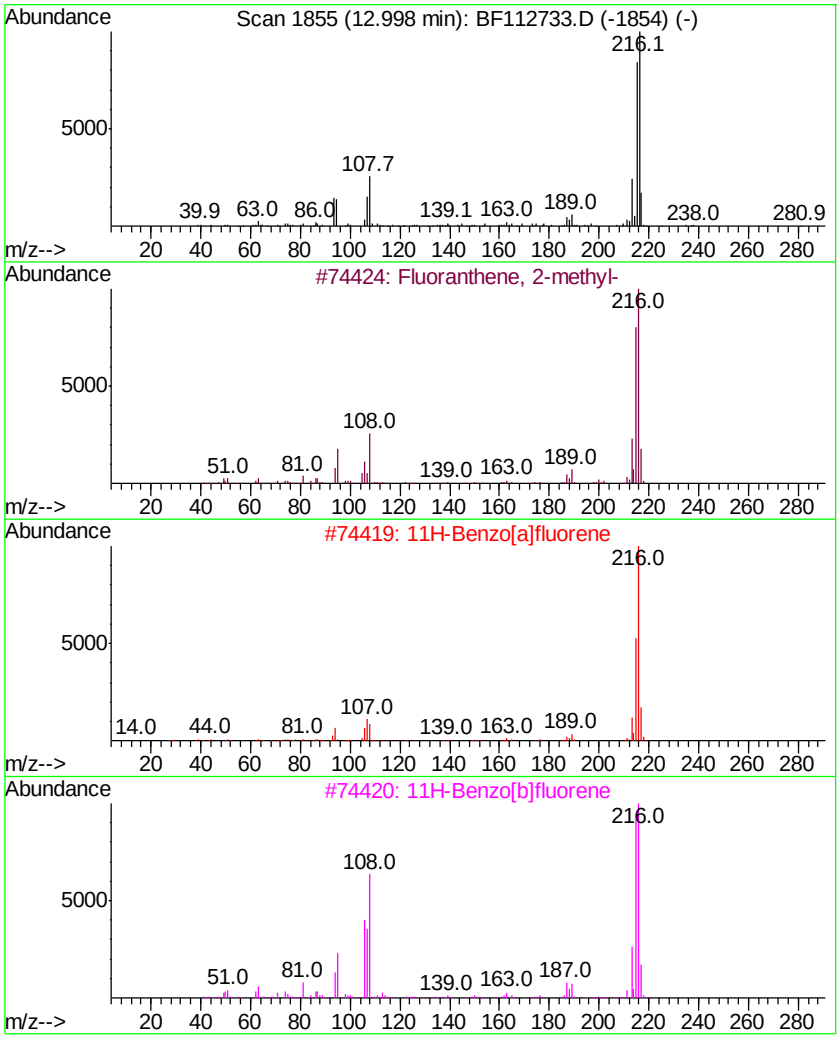
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

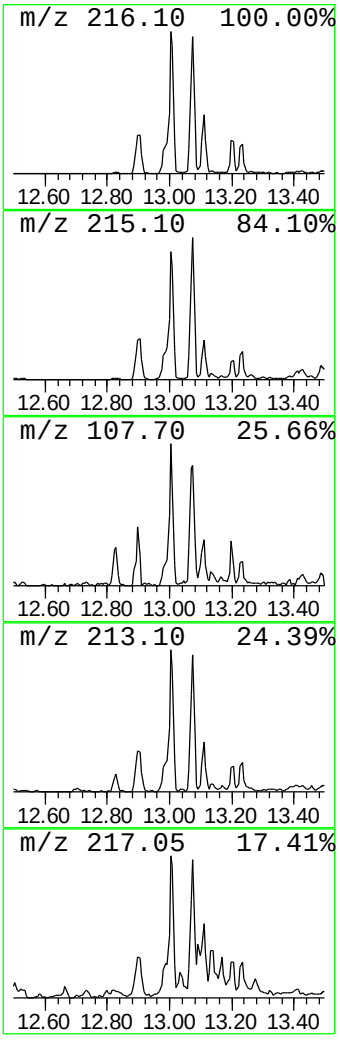
**********

Peak Number 11 Fluoranthene, 2-methyl- Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.00 | 2.87 ng | 517599 | Chrysene-d12 | 13.87 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 96 |
| 2 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 94 |
| 3 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 93 |
| 4 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 87 |
| 5 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 81 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

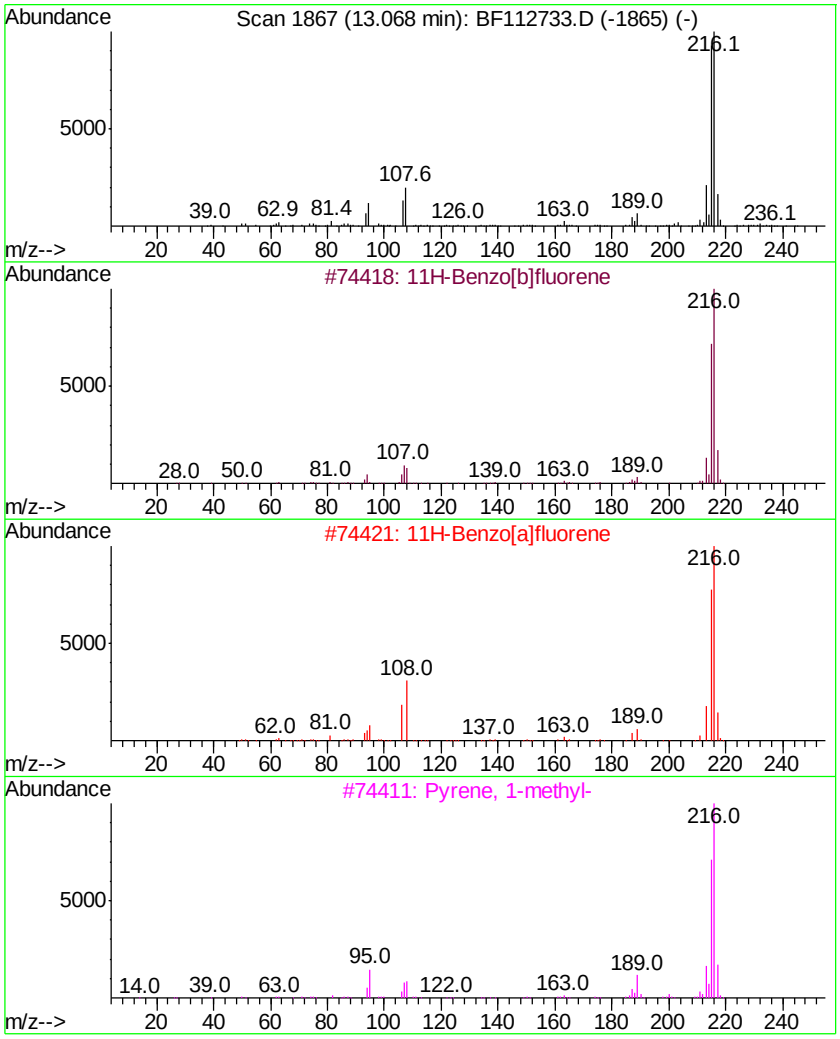
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

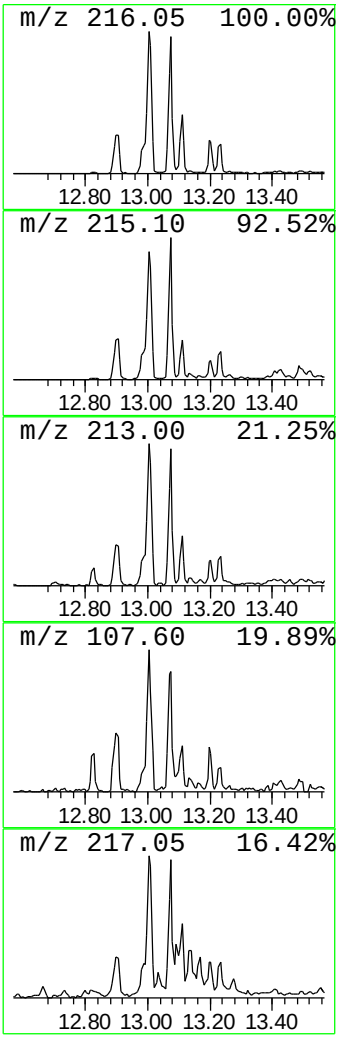
**********

Peak Number 12 11H-Benzo[b]fluorene Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.07 | 2.67 ng | 481358 | Chrysene-d12 | 13.87 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 93 |
| 2 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 91 |
| 3 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 62 |
| 4 | 6H-Thiazolo[5,4-e]indole, 2,7,8-... | 216 | C12H12N2S | 1000338-32-0 | 59 |
| 5 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 58 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

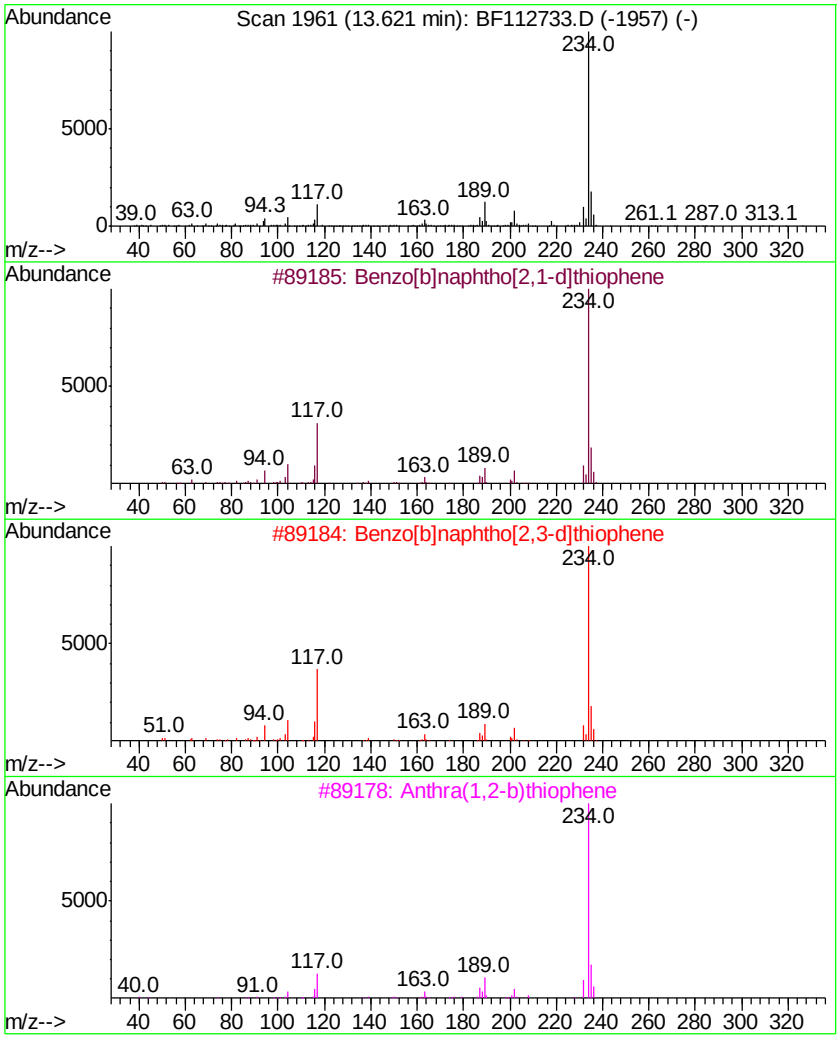
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

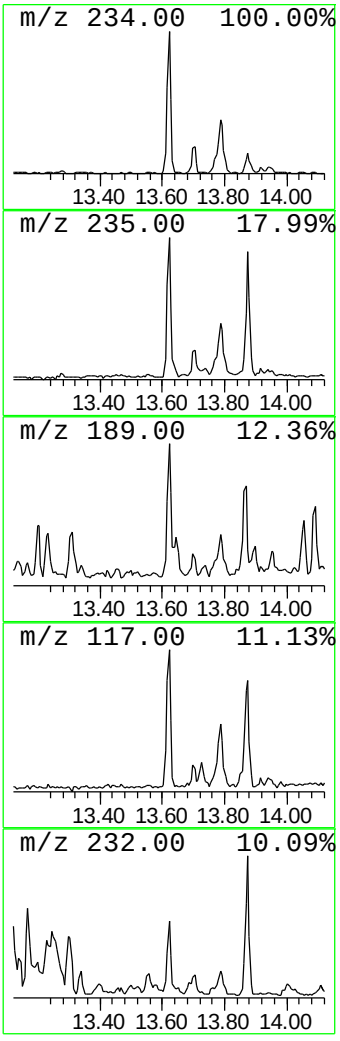
**********

Peak Number 13 Benzo[b]naphtho[2,1-d]thiop... Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.62 | 2.06 ng | 372662 | Chrysene-d12 | 13.87 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]naphtho[2,1-d]thiophene | 234 | C16H10S | 000239-35-0 | 96 |
| 2 | Benzo[b]naphtho[2,3-d]thiophene | 234 | C16H10S | 000243-46-9 | 95 |
| 3 | Anthra(1,2-b)thiophene | 234 | C16H10S | 000227-86-1 | 93 |
| 4 | Benzo[b]naphtho[1,2-d]thiophene | 234 | C16H10S | 000205-43-6 | 91 |
| 5 | Phenanthro(2,1-b)thiophene | 234 | C16H10S | 000219-25-0 | 91 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

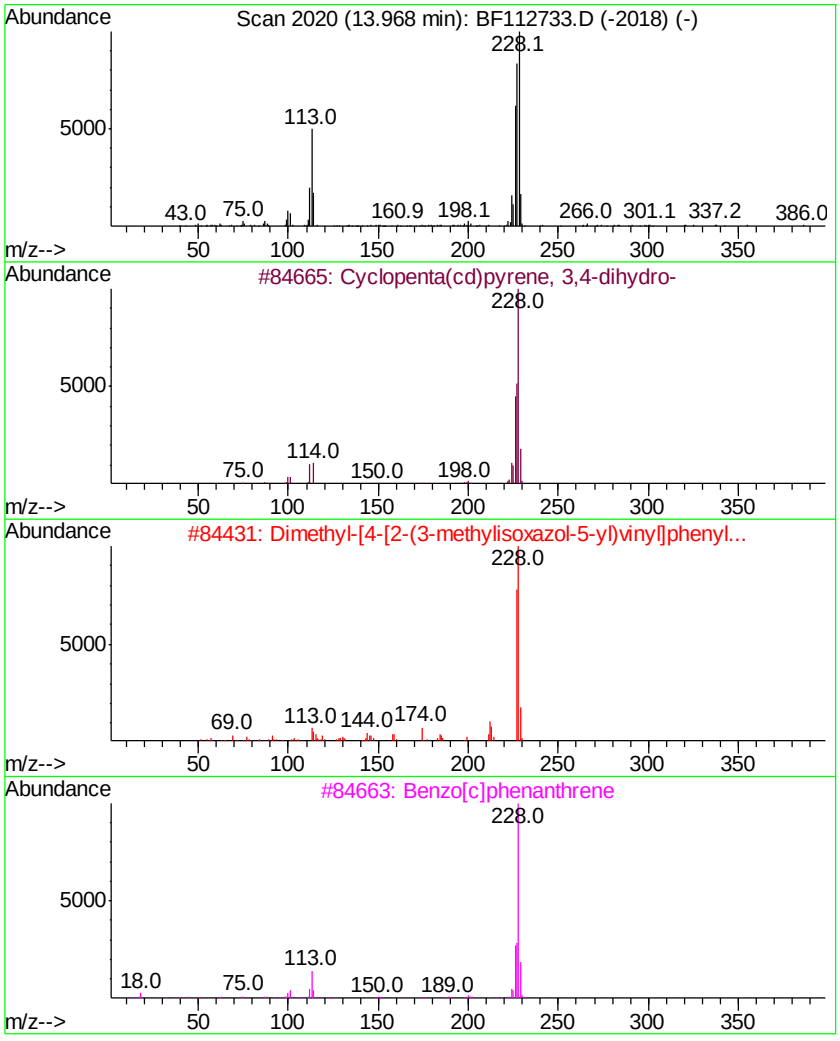
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

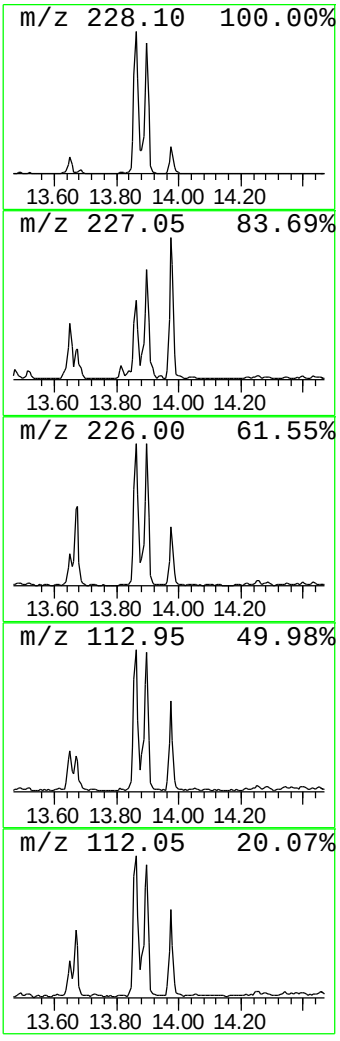
**********

Peak Number 14 Cyclopenta(cd)pyrene, 3,4-d... Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.97 | 2.13 ng | 384435 | Chrysene-d12 | 13.87 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(cd)pyrene, 3,4-dihydro- | 228 | C18H12 | 025732-74-5 | 50 |
| 2 | Dimethyl-[4-[2-(3-methylisoxazol... | 228 | C14H16N2O | 1000306-39-6 | 47 |
| 3 | Benzo[c]phenanthrene | 228 | C18H12 | 000195-19-7 | 47 |
| 4 | Isothiazol-5-amine, 4-bromo-3-ch... | 226 | C4H4BrClN2S | 1000272-59-9 | 47 |
| 5 | Pyrazole-4-carboxaldehyde-, 3,5-... | 228 | C14H16N2O | 1000272-54-8 | 38 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

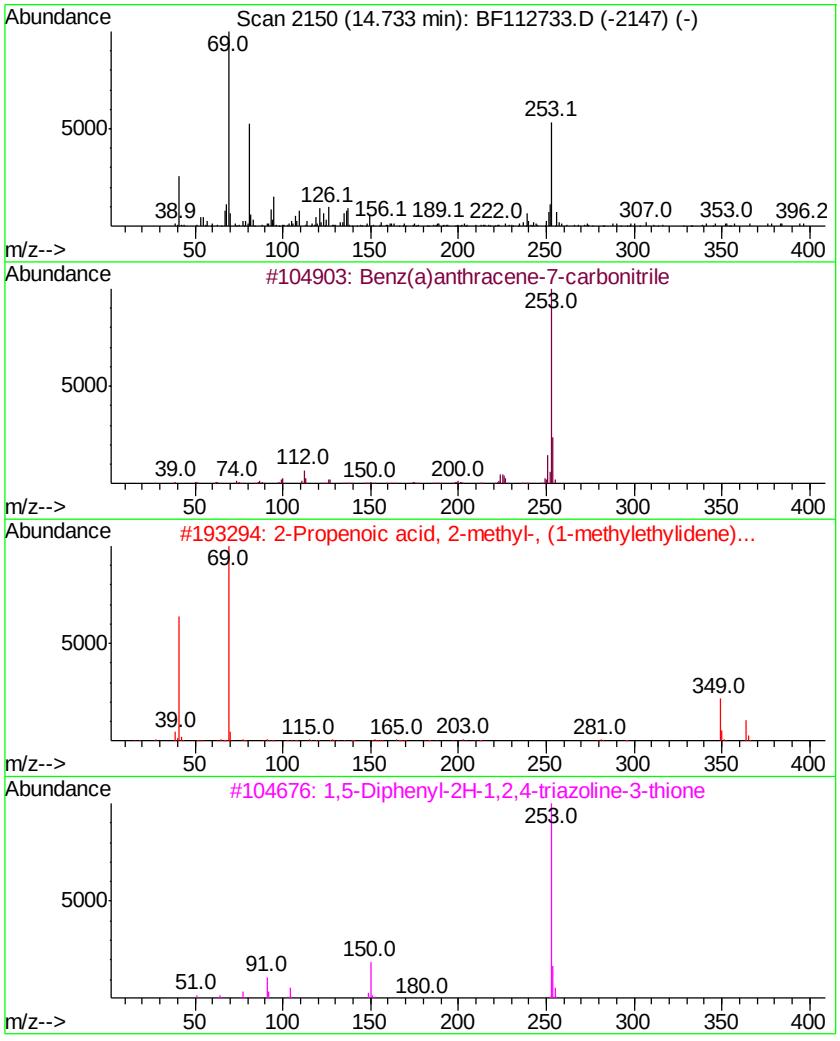
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

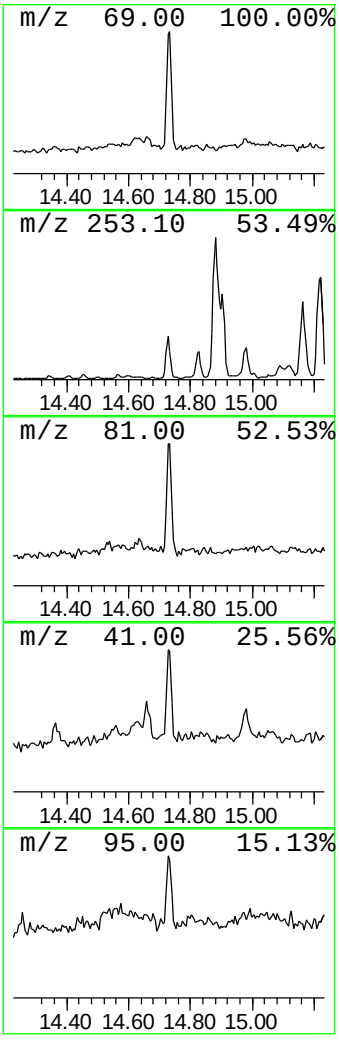
**********

Peak Number 15 unknown14.73 Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.73 | 3.41 ng | 165019 | Perylene-d12 | 15.28 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benz(a)anthracene-7-carbonitrile | 253 | C19H11N | 007476-08-6 | 27 |
| 2 | 2-Propenoic acid, 2-methyl-, (1-... | 364 | C23H24O4 | 003253-39-2 | 10 |
| 3 | 1,5-Diphenyl-2H-1,2,4-triazoline... | 253 | C14H11N3S | 005055-74-3 | 9 |
| 4 | Triamterene | 253 | C12H11N7 | 000396-01-0 | 9 |
| 5 | 1H-Imidazole, 5-iodo-2-methyl-4-... | 253 | C4H4IN3O2 | 1000362-18-4 | 9 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

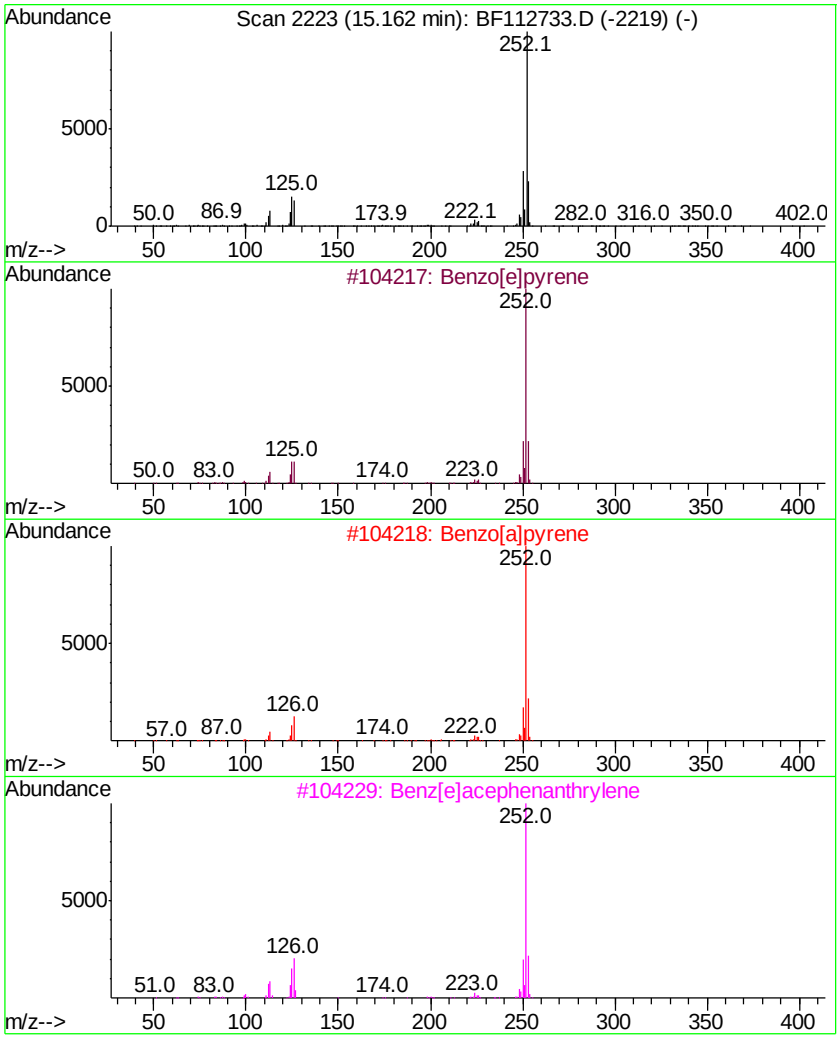
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

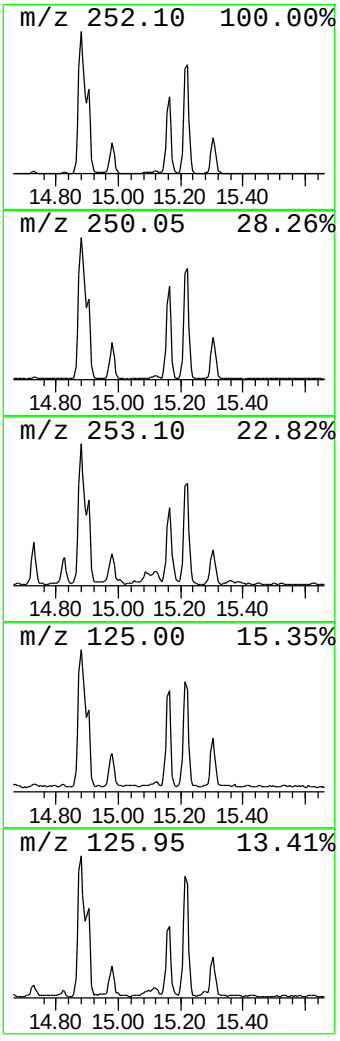
**********

Peak Number 17 Benzo[e]pyrene Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.16 | 14.48 ng | 700293 | Perylene-d12 | 15.28 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 98 |
| 2 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 96 |
| 3 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 93 |
| 4 | Perylene | 252 | C20H12 | 000198-55-0 | 93 |
| 5 | Benzo[j]fluoranthene | 252 | C20H12 | 000205-82-3 | 89 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF022719\
Data File : BF112733.D
Acq On : 27 Feb 2019 21:52
Operator : JU/SJ
Sample : K1633-07 5X
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SR-11-D

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF022719.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 | 16.4 | ng | 876449 | 1 | 6.74 | 1068560 | 20.0 |
| Naphtho[2,1-b]thi... | 11.14 | 2.8 | ng | 185792 | 4 | 11.24 | 1312040 | 20.0 |
| Phenanthrene, 2-m... | 11.74 | 3.5 | ng | 232926 | 4 | 11.24 | 1312040 | 20.0 |
| 4H-Cyclopenta[def... | 11.86 | 9.0 | ng | 593131 | 4 | 11.24 | 1312040 | 20.0 |
| Naphthalene, 2-ph... | 12.04 | 4.3 | ng | 285276 | 4 | 11.24 | 1312040 | 20.0 |
| Phenanthrene, 1,7... | 12.29 | 2.0 | ng | 131911 | 4 | 11.24 | 1312040 | 20.0 |
| Cyclopenta(def)ph... | 12.37 | 2.1 | ng | 138802 | 4 | 11.24 | 1312040 | 20.0 |
| Fluoranthene, 2-m... | 13.00 | 2.9 | ng | 517599 | 5 | 13.87 | 3610770 | 20.0 |
| 11H-Benzo[b]fluorene | 13.07 | 2.7 | ng | 481358 | 5 | 13.87 | 3610770 | 20.0 |
| Benzo[b]naphtho[2... | 13.62 | 2.1 | ng | 372662 | 5 | 13.87 | 3610770 | 20.0 |
| Cyclopenta(cd)pyr... | 13.97 | 2.1 | ng | 384435 | 5 | 13.87 | 3610770 | 20.0 |
| unknown14.73 | 14.73 | 3.4 | ng | 165019 | 6 | 15.28 | 967128 | 20.0 |
| Benzo[e]pyrene | 15.16 | 14.5 | ng | 700293 | 6 | 15.28 | 967128 | 20.0 |