LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

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-BF040319.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 | 5.298 | 543 | 546 | 589 | rBV | 539119 | 1105801 | 87.52% | 5.451% |
| 2 | 6.334 | 719 | 722 | 739 | rBV | 542213 | 1110182 | 87.87% | 5.473% |
| 3 | 6.451 | 739 | 742 | 766 | rVB | 1030795 | 1263495 | 100.00% | 6.229% |
| 4 | 6.675 | 776 | 780 | 790 | rVB | 318320 | 331005 | 26.20% | 1.632% |
| 5 | 6.828 | 802 | 806 | 823 | rBV | 935465 | 933607 | 73.89% | 4.602% |
| 6 | 7.239 | 873 | 876 | 908 | rBV | 409593 | 705959 | 55.87% | 3.480% |
| 7 | 7.957 | 994 | 998 | 1021 | rVB | 291454 | 409749 | 32.43% | 2.020% |
| 8 | 8.775 | 1135 | 1137 | 1144 | rVB2 | 15205 | 19978 | 1.58% | 0.098% |
| 9 | 9.028 | 1176 | 1180 | 1190 | rBV | 1314074 | 1227874 | 97.18% | 6.053% |
| 10 | 9.375 | 1235 | 1239 | 1242 | rBV2 | 15750 | 20790 | 1.65% | 0.102% |
| 11 | 9.433 | 1246 | 1249 | 1256 | rVV | 94801 | 114076 | 9.03% | 0.562% |
| 12 | 9.486 | 1256 | 1258 | 1267 | rVB2 | 12406 | 20167 | 1.60% | 0.099% |
| 13 | 9.575 | 1269 | 1273 | 1276 | rBV | 22356 | 23019 | 1.82% | 0.113% |
| 14 | 9.639 | 1282 | 1284 | 1288 | rVB | 20524 | 18012 | 1.43% | 0.089% |
| 15 | 9.704 | 1292 | 1295 | 1299 | rVV | 406295 | 389693 | 30.84% | 1.921% |
| 16 | 9.739 | 1299 | 1301 | 1311 | rVB2 | 52095 | 64802 | 5.13% | 0.319% |
| 17 | 9.922 | 1326 | 1332 | 1335 | rBV2 | 20202 | 29908 | 2.37% | 0.147% |
| 18 | 9.957 | 1335 | 1338 | 1342 | rVB3 | 15356 | 17415 | 1.38% | 0.086% |
| 19 | 10.028 | 1347 | 1350 | 1352 | rBV3 | 13564 | 13991 | 1.11% | 0.069% |
| 20 | 10.139 | 1366 | 1369 | 1372 | rVB | 30012 | 24516 | 1.94% | 0.121% |
| 21 | 10.257 | 1383 | 1389 | 1394 | rBV2 | 55656 | 67814 | 5.37% | 0.334% |
| 22 | 10.498 | 1427 | 1430 | 1443 | rBV | 457300 | 619882 | 49.06% | 3.056% |
| 23 | 10.610 | 1446 | 1449 | 1454 | rVB2 | 29158 | 41491 | 3.28% | 0.205% |
| 24 | 10.804 | 1477 | 1482 | 1485 | rBV3 | 21262 | 29885 | 2.37% | 0.147% |
| 25 | 10.833 | 1485 | 1487 | 1490 | rVB | 16329 | 14893 | 1.18% | 0.073% |
| 26 | 11.057 | 1519 | 1525 | 1527 | rBV3 | 24003 | 27122 | 2.15% | 0.134% |
| 27 | 11.086 | 1527 | 1530 | 1535 | rVB2 | 37608 | 41901 | 3.32% | 0.207% |
| 28 | 11.133 | 1535 | 1538 | 1544 | rVB4 | 7740 | 12836 | 1.02% | 0.063% |
| 29 | 11.186 | 1544 | 1547 | 1549 | rBV | 402180 | 360514 | 28.53% | 1.777% |
| 30 | 11.210 | 1549 | 1551 | 1558 | rVV | 388797 | 432699 | 34.25% | 2.133% |
| 31 | 11.269 | 1558 | 1561 | 1569 | rVV | 125390 | 155611 | 12.32% | 0.767% |
| 32 | 11.363 | 1573 | 1577 | 1580 | rVB5 | 10687 | 12836 | 1.02% | 0.063% |
| 33 | 11.445 | 1586 | 1591 | 1594 | rBV3 | 20487 | 32969 | 2.61% | 0.163% |
| 34 | 11.480 | 1594 | 1597 | 1599 | rVV | 34554 | 26086 | 2.06% | 0.129% |

LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

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-BF040319.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 11.527 | 1603 | 1605 | 1610 | rVB2 | 17101 | 18519 | 1.47% | 0.091% |
| 36 | 11.580 | 1610 | 1614 | 1617 | rBV | 322096 | 254383 | 20.13% | 1.254% |
| 37 | 11.692 | 1629 | 1633 | 1636 | rBV | 86662 | 83425 | 6.60% | 0.411% |
| 38 | 11.722 | 1636 | 1638 | 1644 | rVV2 | 135267 | 162144 | 12.83% | 0.799% |
| 39 | 11.769 | 1644 | 1646 | 1649 | rVV | 45916 | 53353 | 4.22% | 0.263% |
| 40 | 11.804 | 1649 | 1652 | 1654 | rVV | 169086 | 178923 | 14.16% | 0.882% |
| 41 | 11.827 | 1654 | 1656 | 1662 | rVV | 63864 | 64814 | 5.13% | 0.320% |
| 42 | 11.886 | 1663 | 1666 | 1669 | rVB2 | 19740 | 17184 | 1.36% | 0.085% |
| 43 | 11.986 | 1679 | 1683 | 1688 | rBV | 61610 | 61966 | 4.90% | 0.305% |
| 44 | 12.133 | 1705 | 1708 | 1711 | rVB | 21398 | 18625 | 1.47% | 0.092% |
| 45 | 12.169 | 1711 | 1714 | 1716 | rBV | 34547 | 30569 | 2.42% | 0.151% |
| 46 | 12.192 | 1716 | 1718 | 1721 | rVB2 | 25103 | 22273 | 1.76% | 0.110% |
| 47 | 12.239 | 1723 | 1726 | 1727 | rBV | 81625 | 70625 | 5.59% | 0.348% |
| 48 | 12.263 | 1727 | 1730 | 1732 | rVV | 932720 | 921202 | 72.91% | 4.541% |
| 49 | 12.280 | 1732 | 1733 | 1740 | rVV | 1000687 | 888412 | 70.31% | 4.380% |
| 50 | 12.333 | 1740 | 1742 | 1745 | rVB2 | 28392 | 30568 | 2.42% | 0.151% |
| 51 | 12.369 | 1745 | 1748 | 1750 | rVB | 121755 | 86287 | 6.83% | 0.425% |
| 52 | 12.398 | 1750 | 1753 | 1758 | rBV | 853289 | 835180 | 66.10% | 4.117% |
| 53 | 12.516 | 1768 | 1773 | 1777 | rVB5 | 11811 | 22741 | 1.80% | 0.112% |
| 54 | 12.557 | 1777 | 1780 | 1782 | rVV | 48875 | 50674 | 4.01% | 0.250% |
| 55 | 12.627 | 1786 | 1792 | 1799 | rVV | 833511 | 966193 | 76.47% | 4.763% |
| 56 | 12.686 | 1799 | 1802 | 1806 | rVB2 | 45376 | 52237 | 4.13% | 0.258% |
| 57 | 12.763 | 1811 | 1815 | 1822 | rVV | 1225580 | 1197966 | 94.81% | 5.906% |
| 58 | 12.845 | 1826 | 1829 | 1834 | rBV2 | 60353 | 101779 | 8.06% | 0.502% |
| 59 | 12.939 | 1841 | 1845 | 1846 | rBV4 | 58971 | 84902 | 6.72% | 0.419% |
| 60 | 12.957 | 1846 | 1848 | 1853 | rVB | 143331 | 143001 | 11.32% | 0.705% |
| 61 | 13.027 | 1853 | 1860 | 1863 | rBV | 127148 | 167776 | 13.28% | 0.827% |
| 62 | 13.063 | 1863 | 1866 | 1870 | rBV2 | 96945 | 109675 | 8.68% | 0.541% |
| 63 | 13.157 | 1879 | 1882 | 1885 | rBV2 | 53417 | 52266 | 4.14% | 0.258% |
| 64 | 13.186 | 1885 | 1887 | 1896 | rVB2 | 65091 | 89865 | 7.11% | 0.443% |
| 65 | 13.339 | 1910 | 1913 | 1915 | rBV | 27528 | 27282 | 2.16% | 0.134% |
| 66 | 13.363 | 1915 | 1917 | 1919 | rBV3 | 15308 | 15189 | 1.20% | 0.075% |
| 67 | 13.445 | 1928 | 1931 | 1934 | rBV3 | 25537 | 39727 | 3.14% | 0.196% |
| 68 | 13.580 | 1949 | 1954 | 1955 | rBV | 81519 | 93912 | 7.43% | 0.463% |
| 69 | 13.598 | 1955 | 1957 | 1960 | rVB | 72674 | 65212 | 5.16% | 0.321% |
| 70 | 13.633 | 1960 | 1963 | 1964 | rBV | 52194 | 49280 | 3.90% | 0.243% |
| 71 | 13.751 | 1980 | 1983 | 1987 | rBV2 | 29519 | 40513 | 3.21% | 0.200% |

LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

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-BF040319.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 13.821 | 1989 | 1995 | 1998 | rBV2 | 686175 | 1031533 | 81.64% | 5.085% |
| 73 | 13.851 | 1998 | 2000 | 2008 | rVV | 428816 | 460227 | 36.42% | 2.269% |
| 74 | 13.933 | 2012 | 2014 | 2019 | rVB | 79527 | 82770 | 6.55% | 0.408% |
| 75 | 14.216 | 2057 | 2062 | 2066 | rBV | 101671 | 134698 | 10.66% | 0.664% |
| 76 | 14.251 | 2066 | 2068 | 2071 | rVB | 42578 | 30024 | 2.38% | 0.148% |
| 77 | 14.286 | 2071 | 2074 | 2077 | rBV2 | 67645 | 79295 | 6.28% | 0.391% |
| 78 | 14.316 | 2077 | 2079 | 2081 | rBV2 | 37009 | 29138 | 2.31% | 0.144% |
| 79 | 14.339 | 2081 | 2083 | 2085 | rBV | 39640 | 34039 | 2.69% | 0.168% |
| 80 | 14.845 | 2165 | 2169 | 2172 | rBV | 321341 | 460635 | 36.46% | 2.271% |
| 81 | 14.945 | 2184 | 2186 | 2191 | rBV | 64312 | 69818 | 5.53% | 0.344% |
| 82 | 15.121 | 2213 | 2216 | 2221 | rBV | 155383 | 181864 | 14.39% | 0.897% |
| 83 | 15.186 | 2223 | 2227 | 2231 | rBV | 238931 | 278585 | 22.05% | 1.373% |
| 84 | 15.239 | 2232 | 2236 | 2240 | rBV | 303256 | 403384 | 31.93% | 1.989% |
| 85 | 17.027 | 2537 | 2540 | 2549 | rVB | 60585 | 120332 | 9.52% | 0.593% |

Sum of corrected areas: 20285562

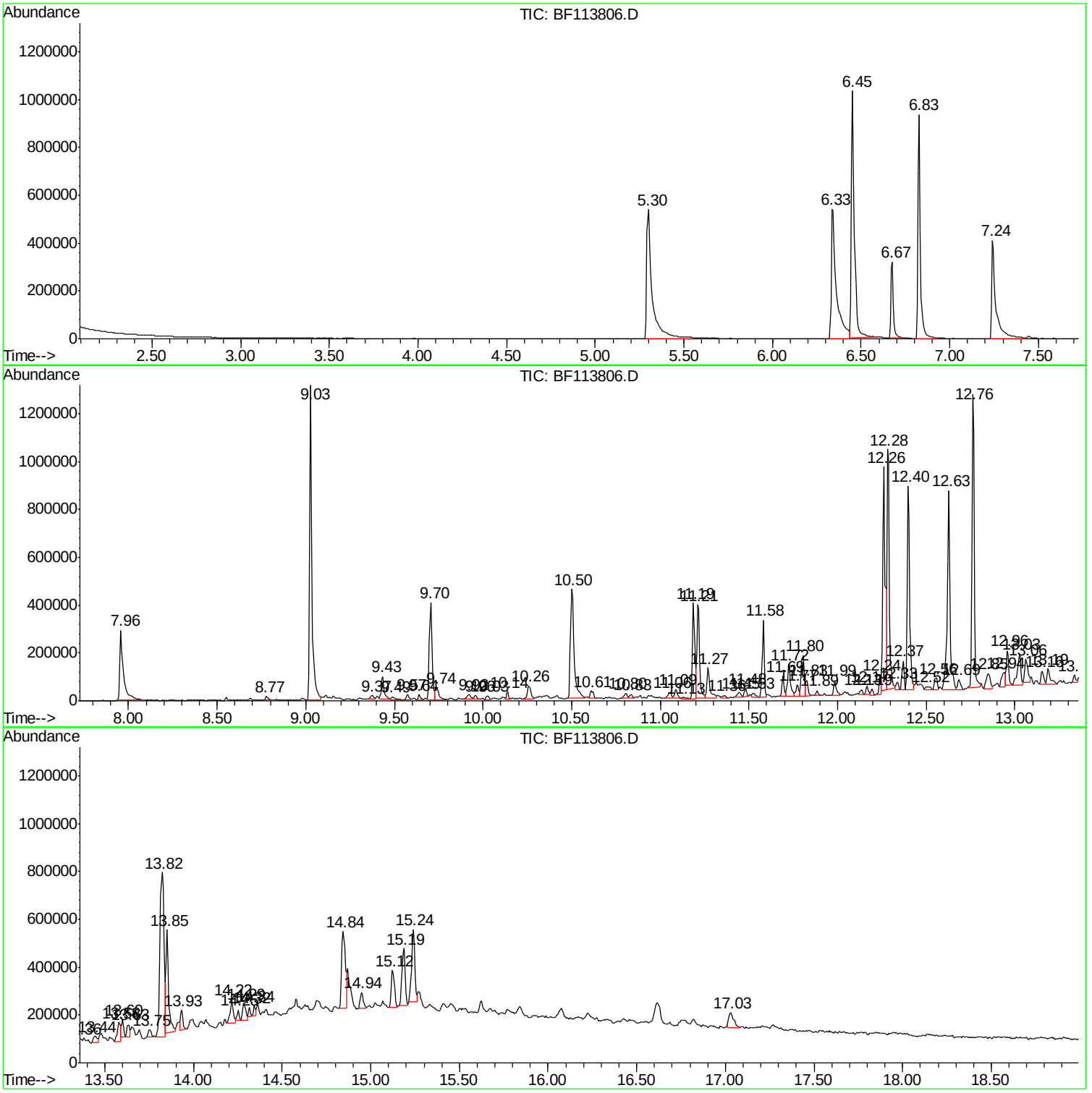
LSC Report - Integrated Chromatogram

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

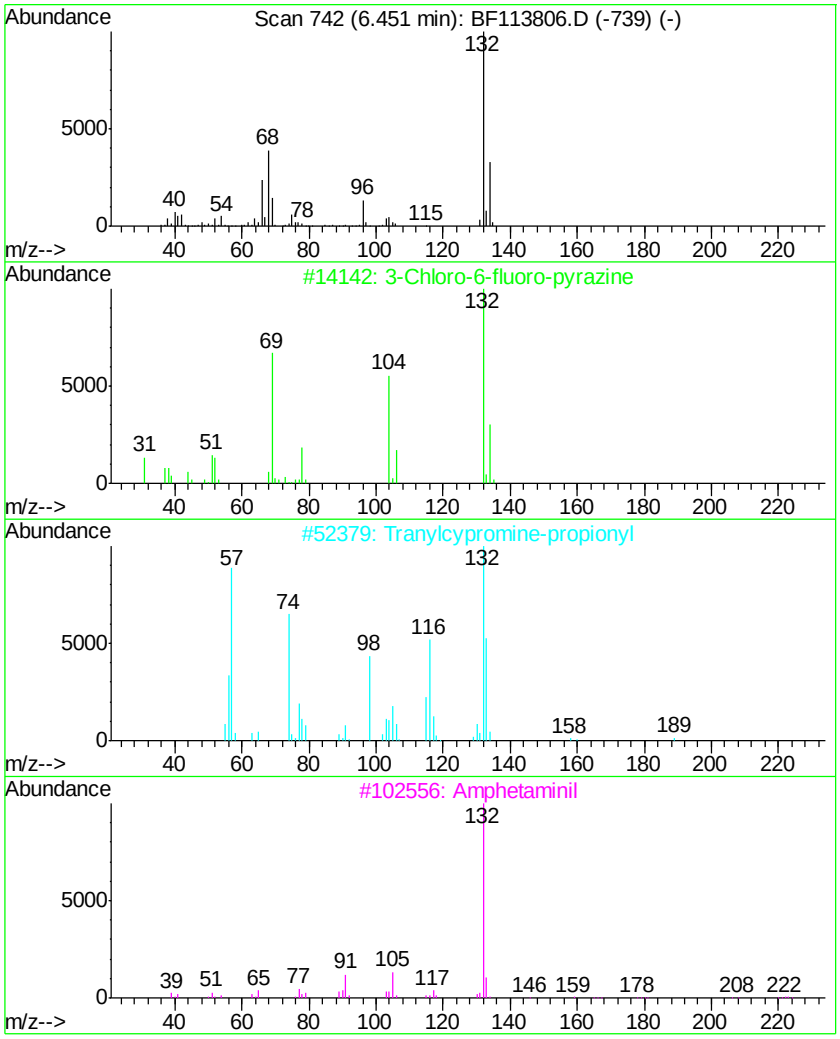
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

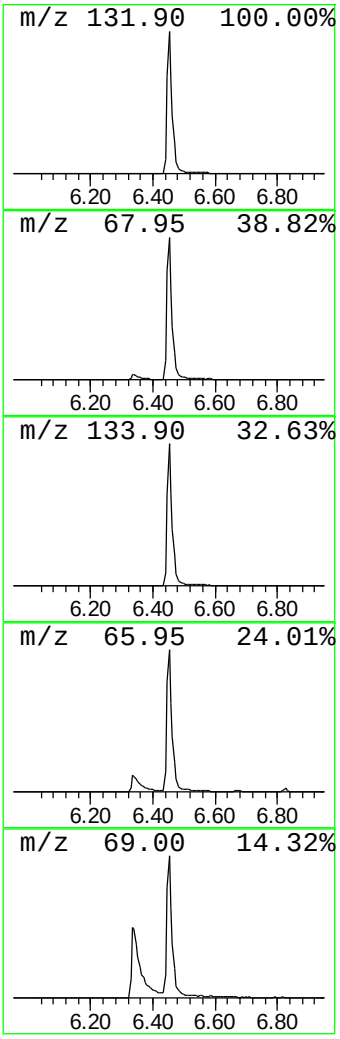
**********

Peak Number 1 unknown6.45 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.45 | 76.34 ng | 1263500 | 1,4-Dichlorobenzene-d4 | 6.67 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 16 |
| 2 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 12 |
| 3 | Amphetaminil | 250 | C17H18N2 | 017590-01-1 | 12 |
| 4 | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO | 031357-76-3 | 12 |
| 5 | 5-Aminoindole | 132 | C8H8N2 | 005192-03-0 | 12 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

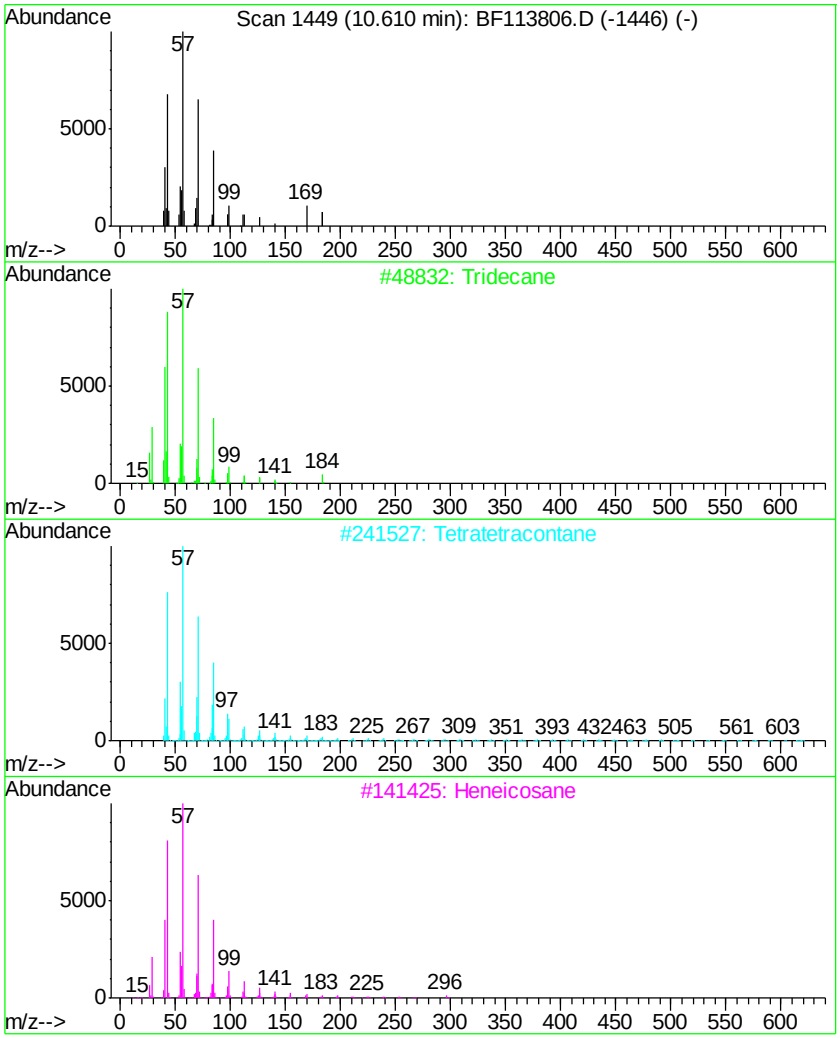
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

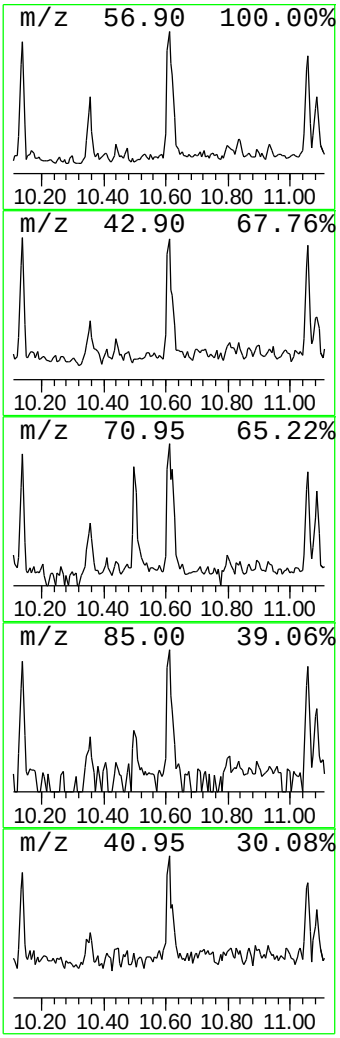
**********

Peak Number 3 Tridecane Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.61 | 2.30 ng | 41491 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Tridecane | 184 | C13H28 | 000629-50-5 | 87 |
| 2 | Tetratetracontane | 619 | C44H90 | 007098-22-8 | 72 |
| 3 | Heneicosane | 296 | C21H44 | 000629-94-7 | 72 |
| 4 | Dodecane, 1-iodo- | 296 | C12H25I | 004292-19-7 | 72 |
| 5 | Tridecane, 2-methyl- | 198 | C14H30 | 001560-96-9 | 64 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

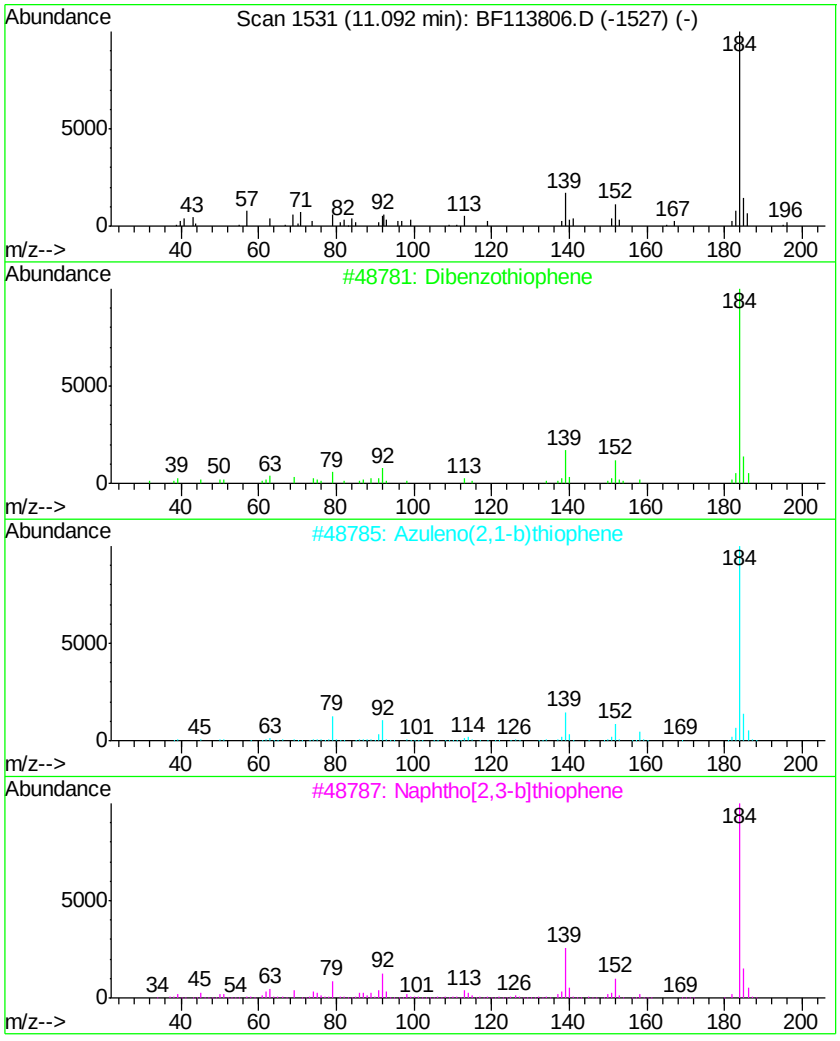
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

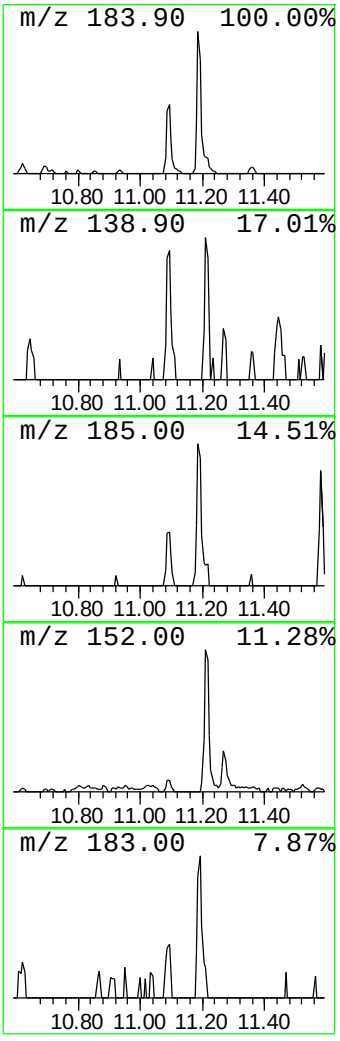
**********

Peak Number 4 Dibenzothiophene Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.09 | 2.32 ng | 41901 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 76 |
| 2 | Azuleno(2,1-b)thiophene | 184 | C12H8S | 000248-13-5 | 76 |
| 3 | Naphtho[2,3-b]thiophene | 184 | C12H8S | 000268-77-9 | 76 |
| 4 | Naphtho[1,2-b]thiophene | 184 | C12H8S | 000234-41-3 | 76 |
| 5 | Naphtho[2,1-b]thiophene | 184 | C12H8S | 000233-02-3 | 76 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

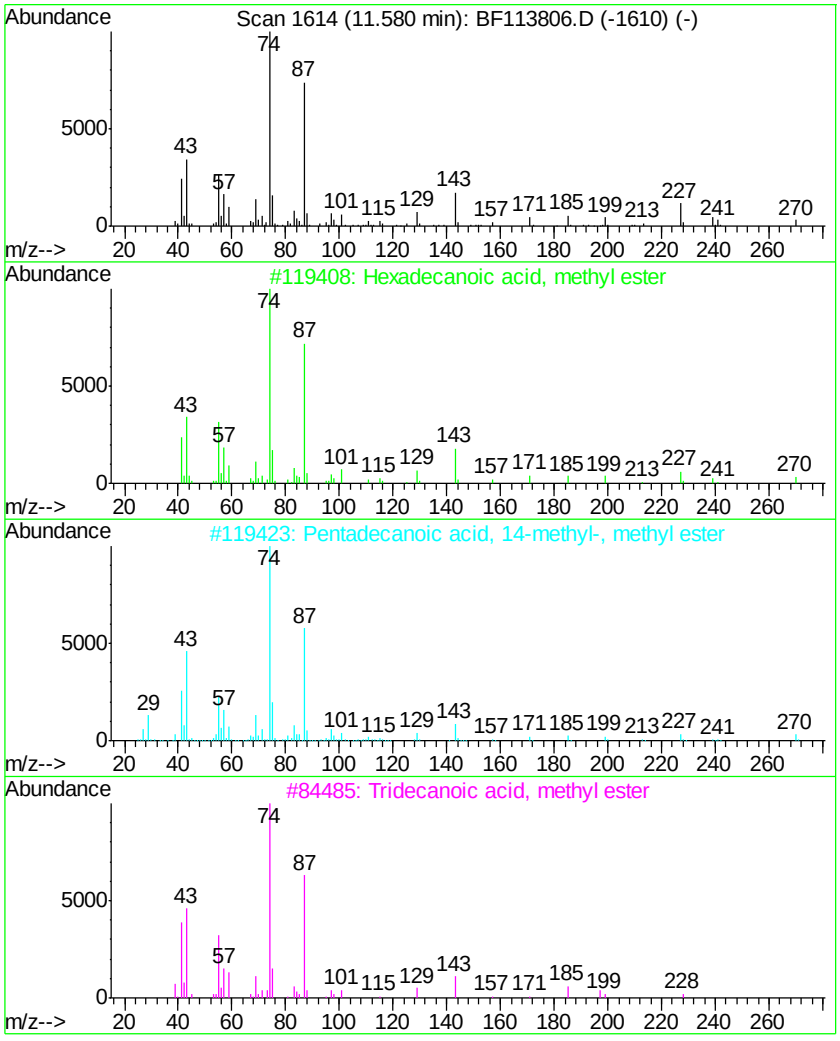
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

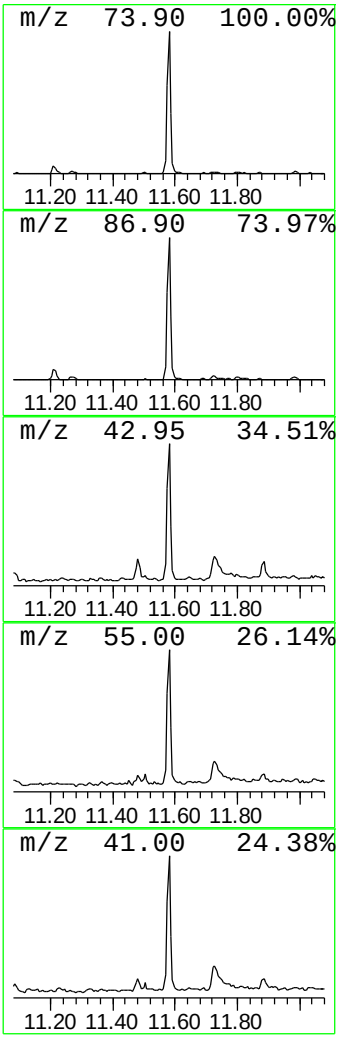
**********

Peak Number 5 Hexadecanoic acid, methyl e... Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.58 | 14.11 ng | 254383 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexadecanoic acid, methyl ester | 270 | C17H34O2 | 000112-39-0 | 98 |
| 2 | Pentadecanoic acid, 14-methyl-, ... | 270 | C17H34O2 | 005129-60-2 | 93 |
| 3 | Tridecanoic acid, methyl ester | 228 | C14H28O2 | 001731-88-0 | 91 |
| 4 | Methyl tetradecanoate | 242 | C15H30O2 | 000124-10-7 | 91 |
| 5 | Decanoic acid, methyl ester | 186 | C11H22O2 | 000110-42-9 | 87 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

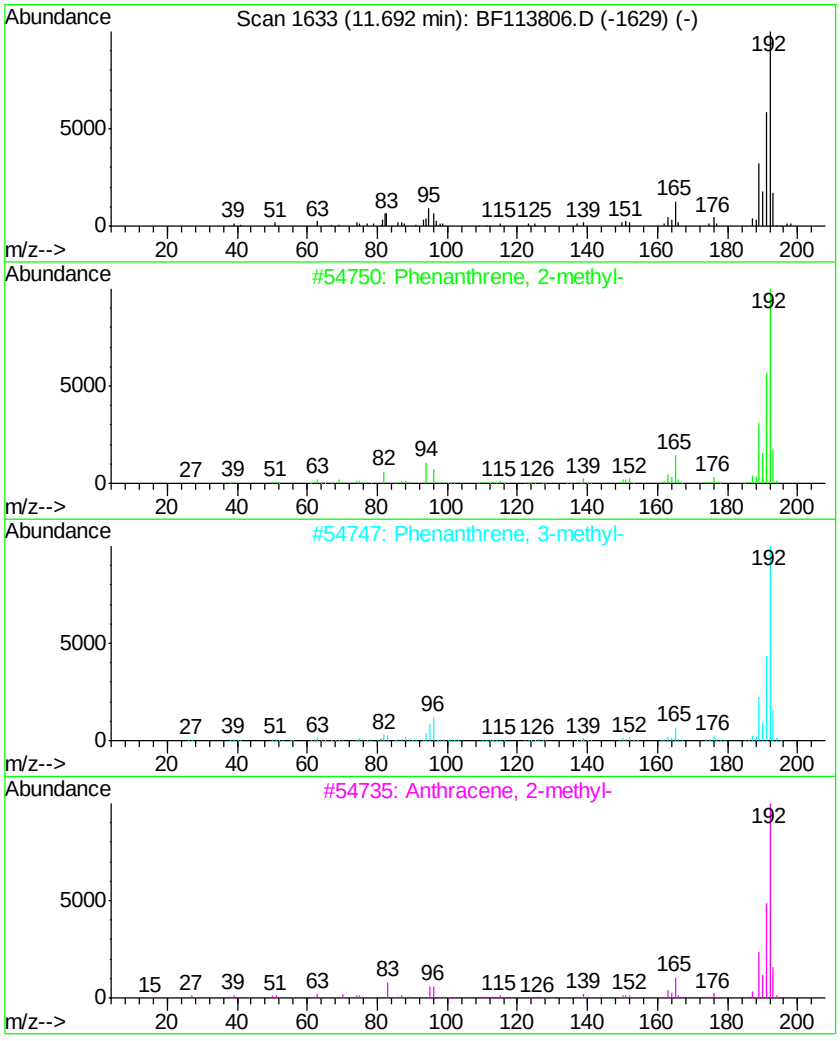
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

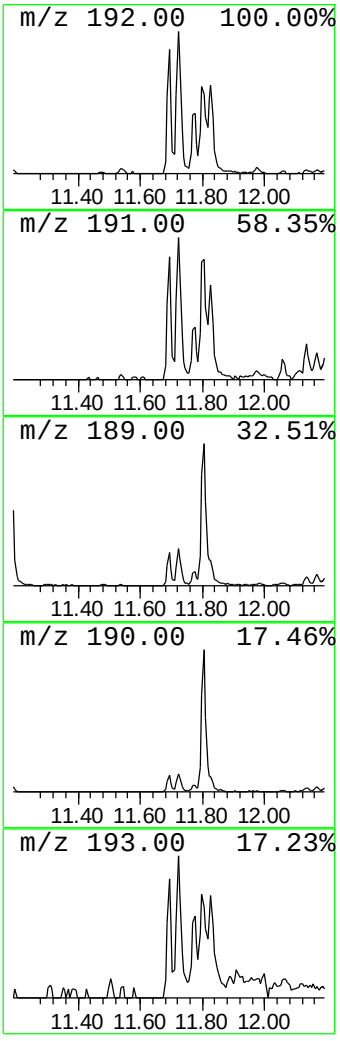
**********

Peak Number 6 Phenanthrene, 2-methyl- Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.69 | 4.63 ng | 83425 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 93 |
| 2 | Phenanthrene, 3-methyl- | 192 | C15H12 | 000832-71-3 | 91 |
| 3 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 91 |
| 4 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 91 |
| 5 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 90 |



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Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

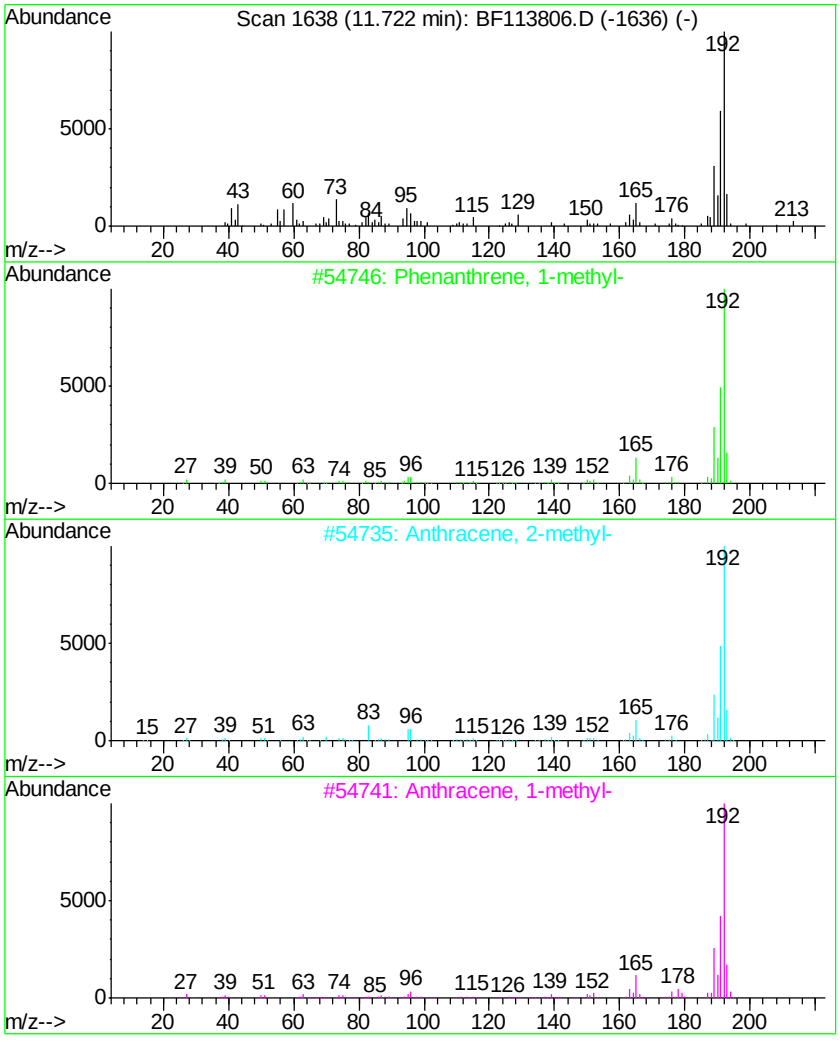
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

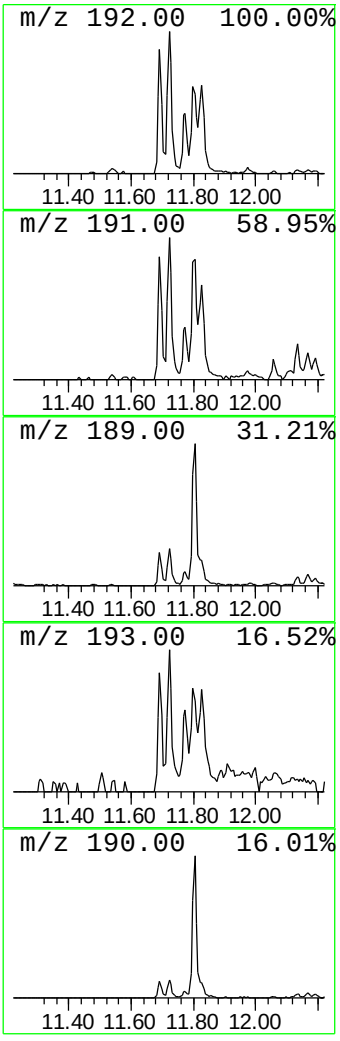
**********

Peak Number 7 Phenanthrene, 1-methyl- Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.72 | 9.00 ng | 162144 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 96 |
| 2 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 96 |
| 3 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 94 |
| 4 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 94 |
| 5 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 90 |



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Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

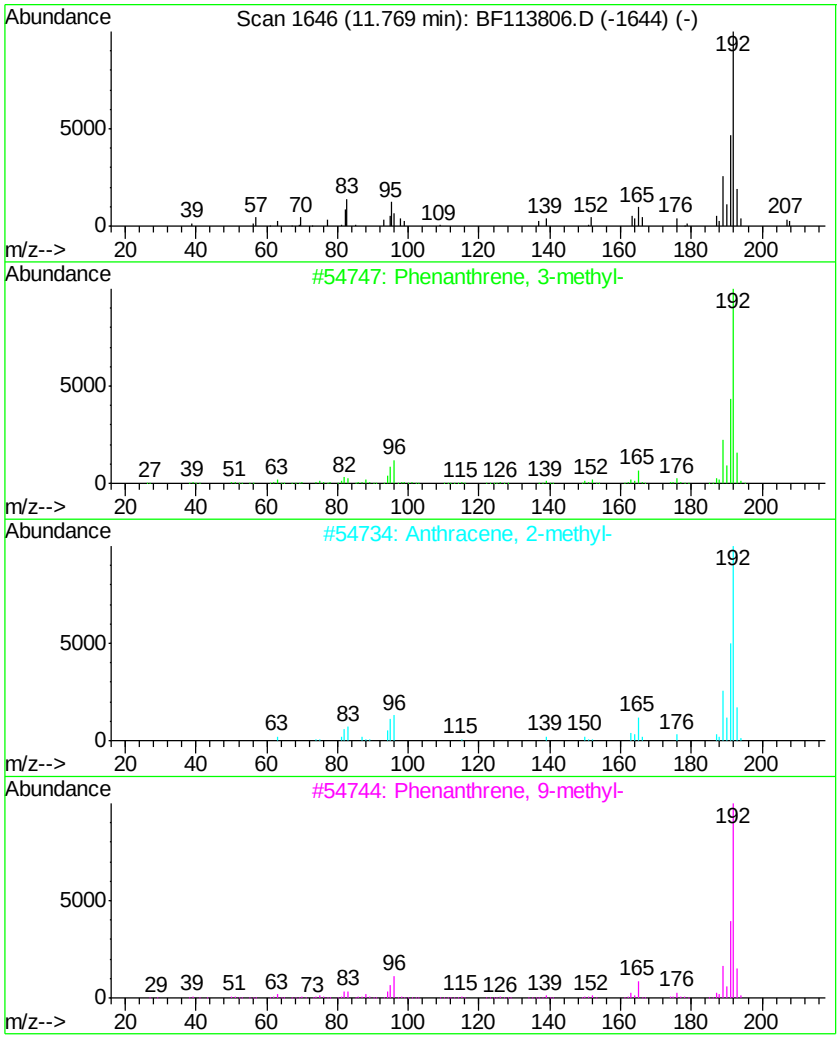
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

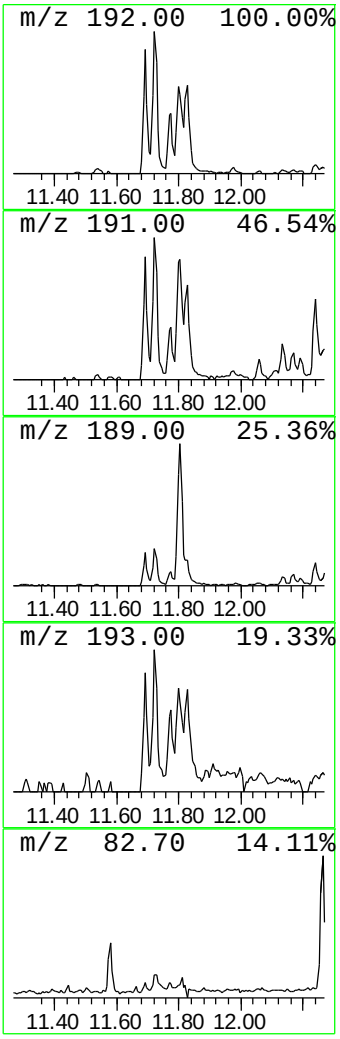
**********

Peak Number 8 Phenanthrene, 3-methyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.77 | 2.96 ng | 53353 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 3-methyl- | 192 | C15H12 | 000832-71-3 | 87 |
| 2 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 87 |
| 3 | Phenanthrene, 9-methyl- | 192 | C15H12 | 000883-20-5 | 83 |
| 4 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 81 |
| 5 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 81 |



Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

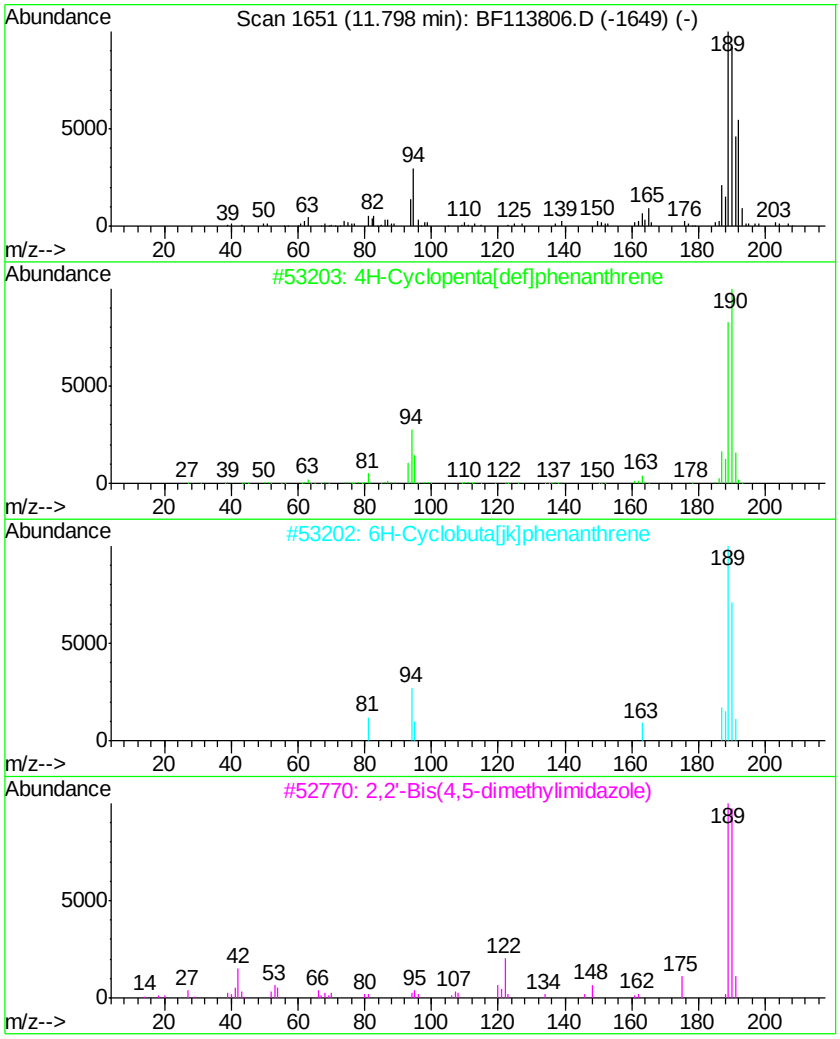
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

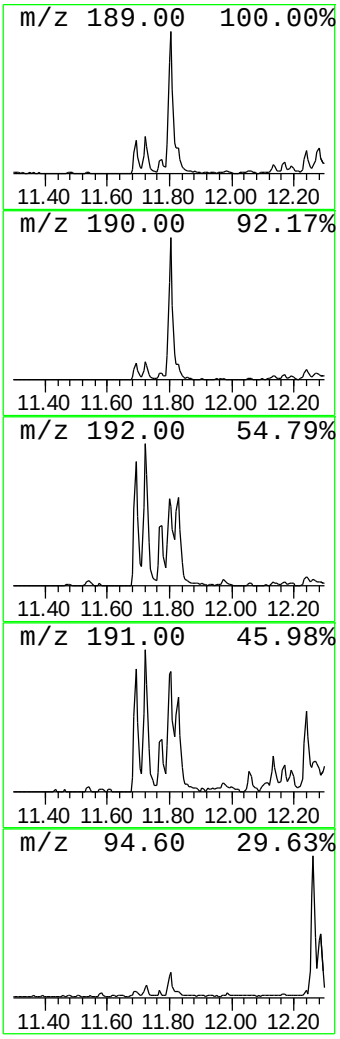
**********

Peak Number 9 4H-Cyclopenta[def]phenanthrene Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.80 | 9.93 ng | 178923 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 93 |
| 2 | 6H-Cyclobuta[jk]phenanthrene | 190 | C15H10 | 083469-43-6 | 64 |
| 3 | 2,2'-Bis(4,5-dimethylimidazole) | 190 | C10H14N4 | 069286-06-2 | 40 |
| 4 | 2,6-Dichlorobenzaldoxime | 189 | C7H5Cl2NO | 025185-95-9 | 30 |
| 5 | Methyl diselenide | 190 | C2H6Se2 | 007101-31-7 | 16 |



# Library Search Compound Report

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Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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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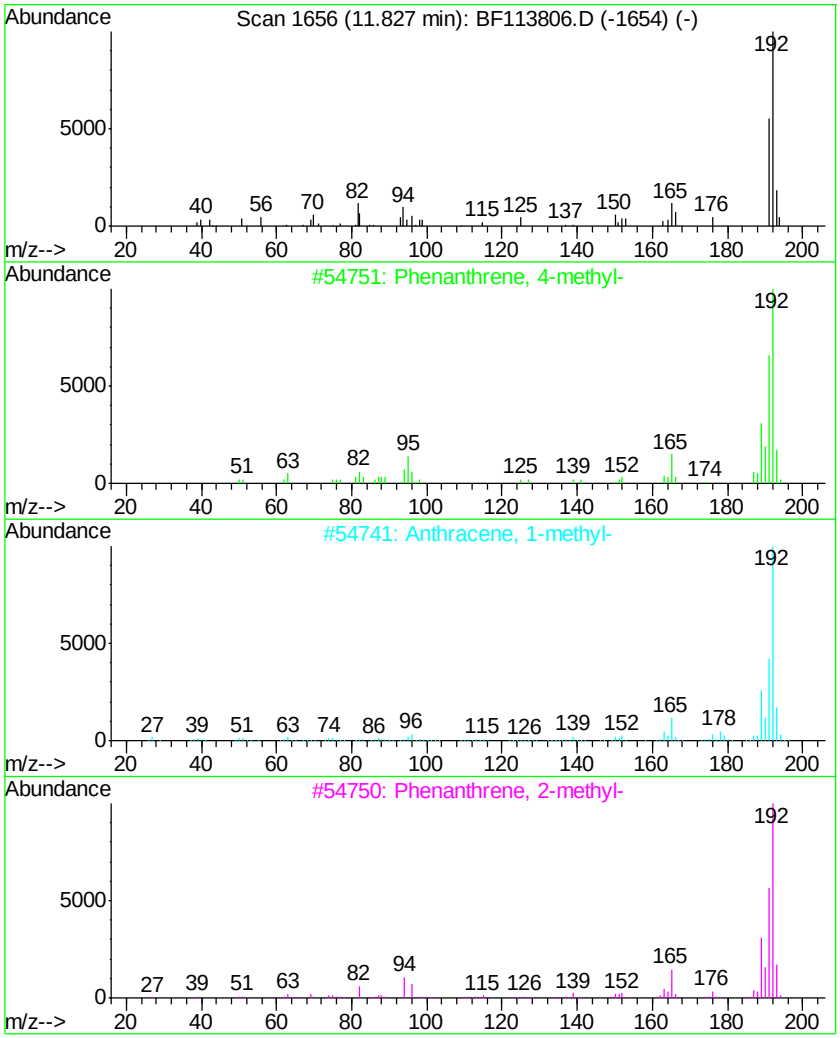
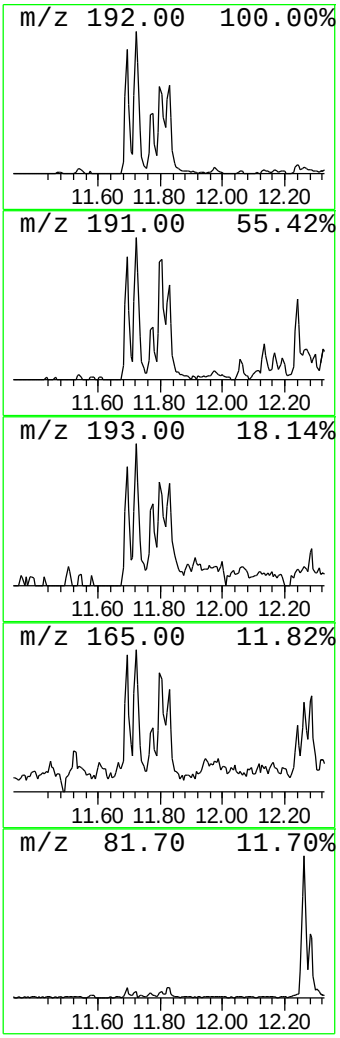
Peak Number 10 Phenanthrene, 4-methyl- Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.83 | 3.60 ng | 64814 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 90 |
| 2 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 87 |
| 3 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 87 |
| 4 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 86 |
| 5 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 86 |



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Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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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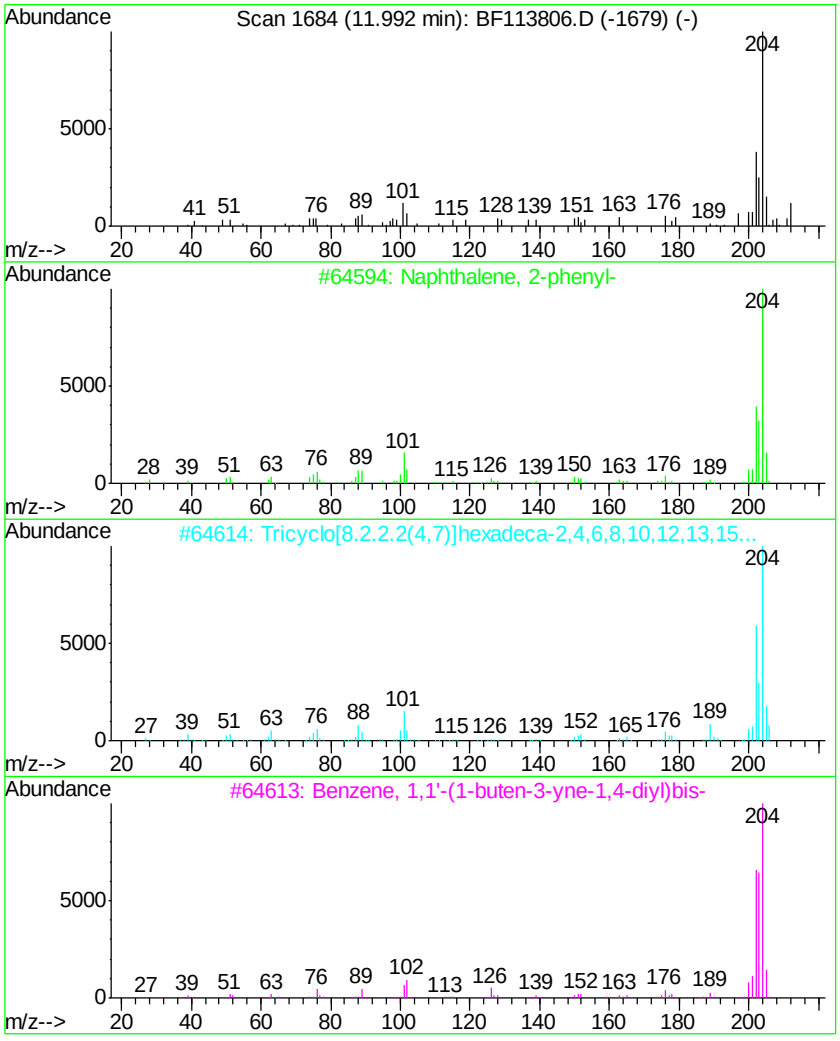
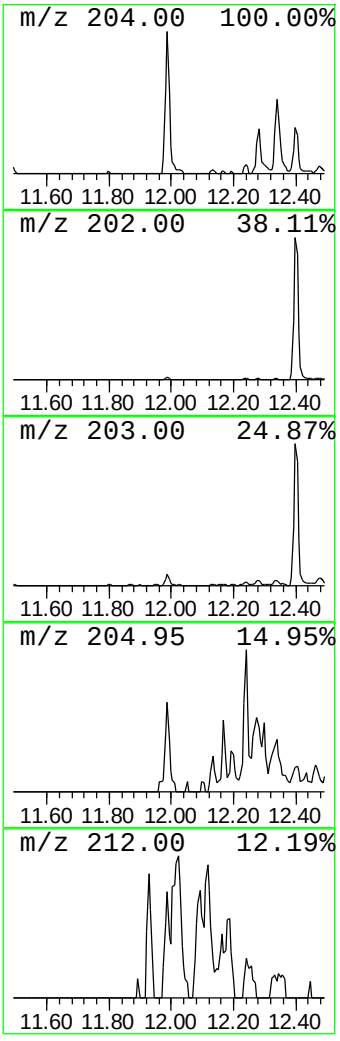
Peak Number 11 Naphthalene, 2-phenyl- Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.99 | 3.44 ng | 61966 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 93 |
| 2 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 68 |
| 3 | Benzene, 1,1'-(1-buten-3-yne-1,4... | 204 | C16H12 | 013141-45-2 | 53 |
| 4 | Naphthalene, 1-phenyl- | 204 | C16H12 | 000605-02-7 | 52 |
| 5 | 9,10-Bis(bromomethyl)anthracene | 362 | C16H12Br2 | 034373-96-1 | 52 |



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Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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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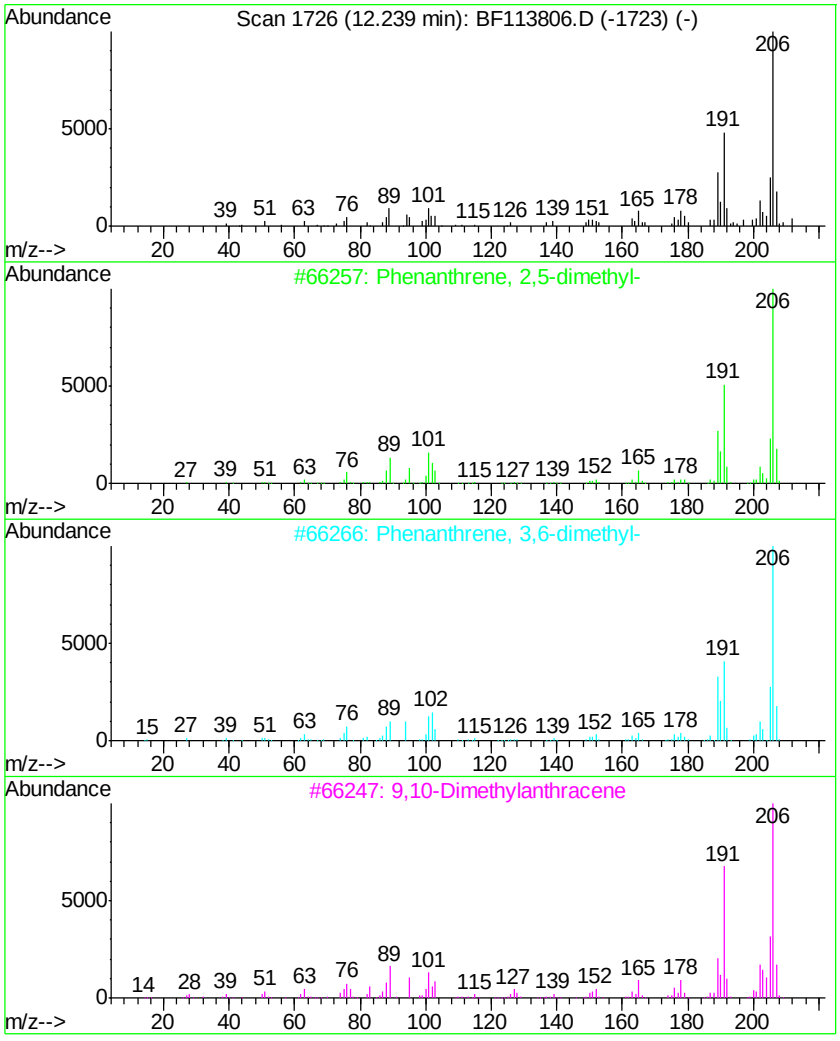
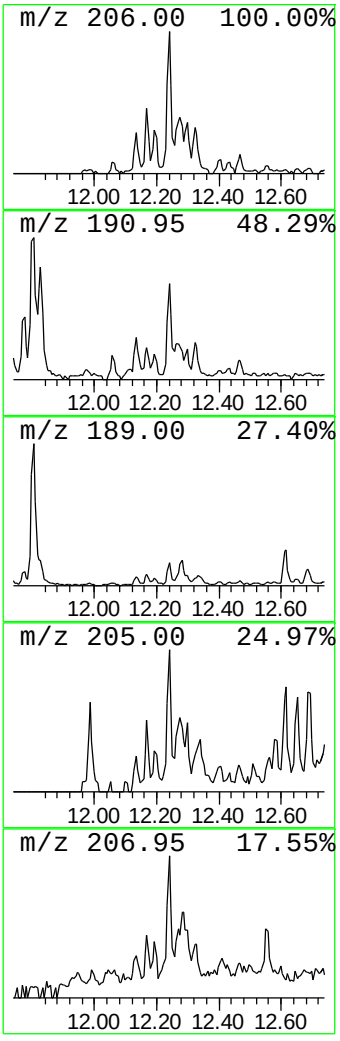
Peak Number 12 Phenanthrene, 2,5-dimethyl- Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.24 | 3.92 ng | 70625 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 94 |
| 2 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 91 |
| 3 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 91 |
| 4 | Phenanthrene, 2,3-dimethyl- | 206 | C16H14 | 003674-65-5 | 91 |
| 5 | Anthracene, 1,4-dimethyl- | 206 | C16H14 | 000781-92-0 | 89 |



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Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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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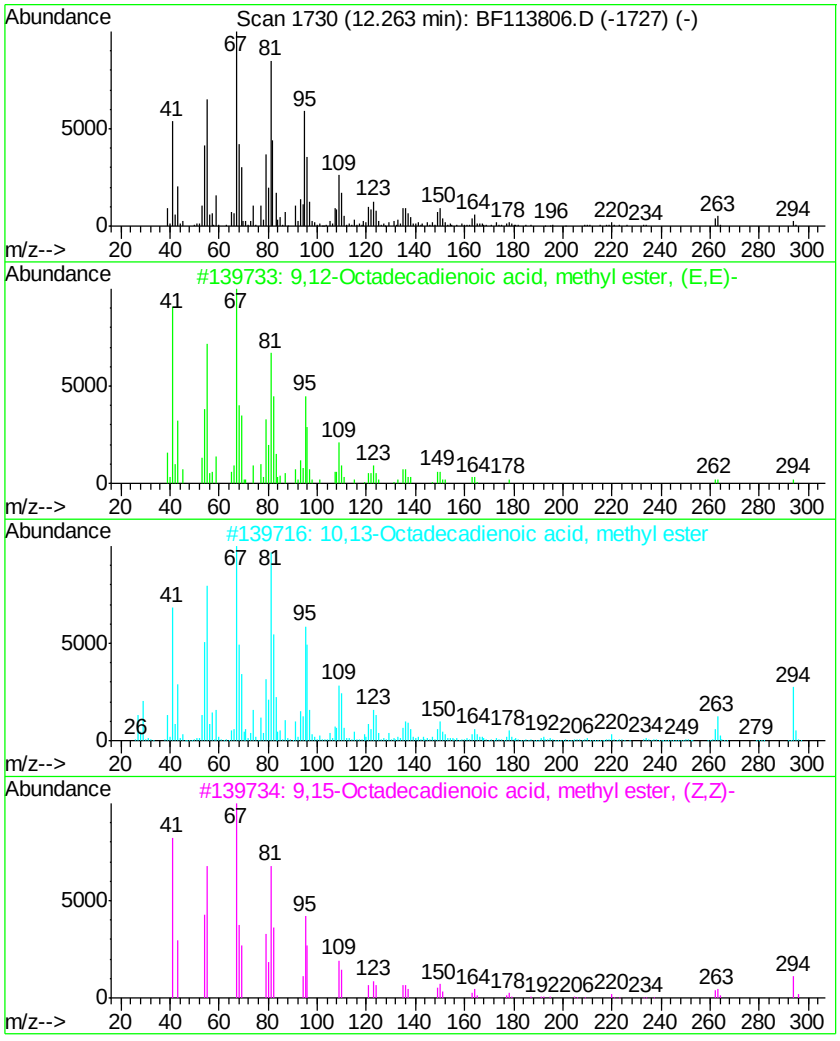
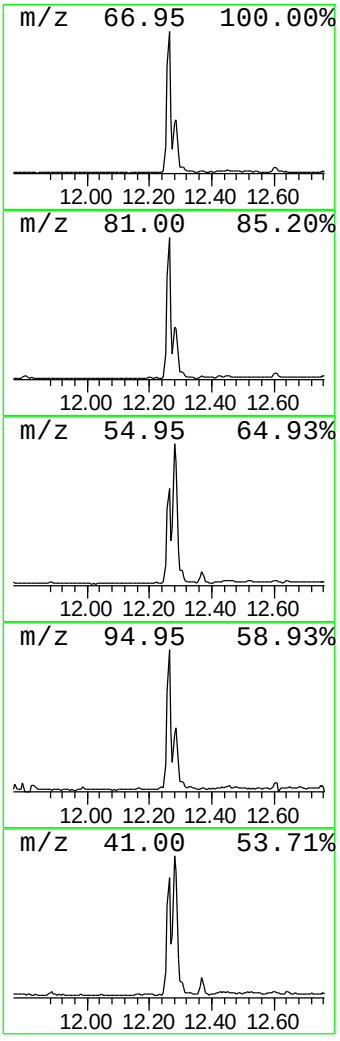
Peak Number 13 9,12-Octadecadienoic acid, ... Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.26 | 51.10 ng | 921202 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,12-Octadecadienoic acid, methy... | 294 | C19H34O2 | 002566-97-4 | 99 |
| 2 | 10,13-Octadecadienoic acid, meth... | 294 | C19H34O2 | 056554-62-2 | 99 |
| 3 | 9,15-Octadecadienoic acid, methy... | 294 | C19H34O2 | 017309-05-6 | 99 |
| 4 | 9,12-Octadecadienoic acid, methy... | 294 | C19H34O2 | 002462-85-3 | 99 |
| 5 | 9,12-Octadecadienoic acid (Z,Z)-... | 294 | C19H34O2 | 000112-63-0 | 99 |



# Library Search Compound Report

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Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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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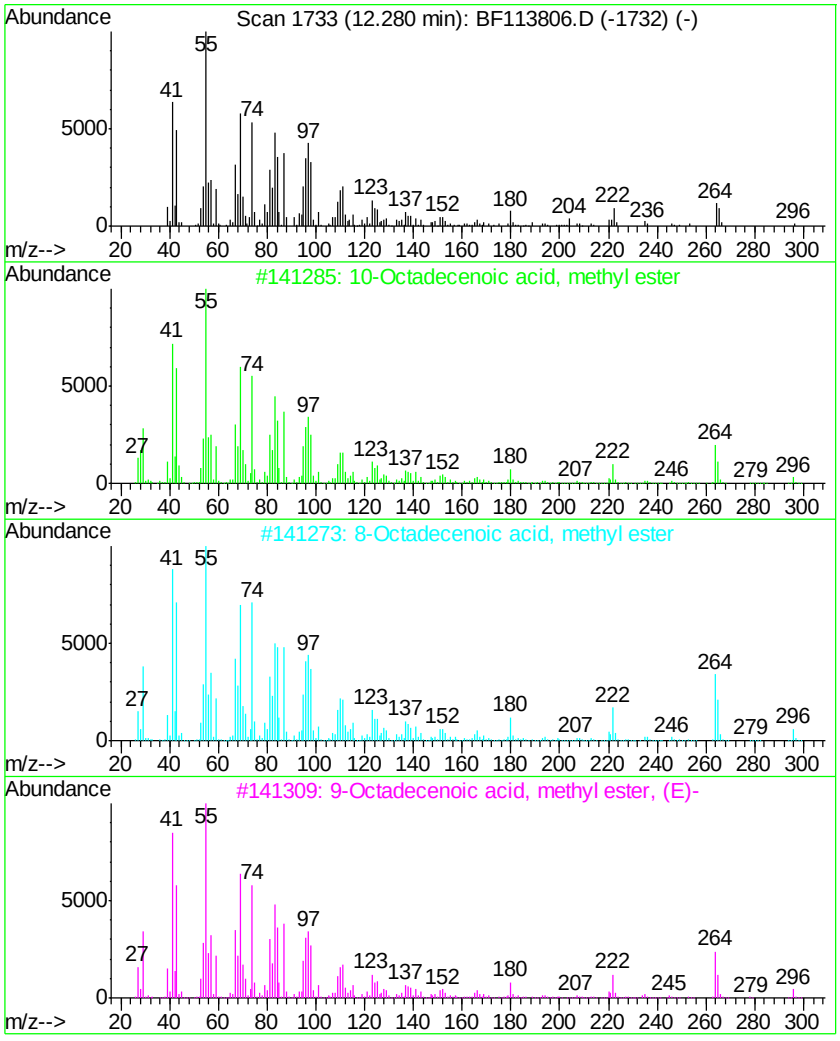
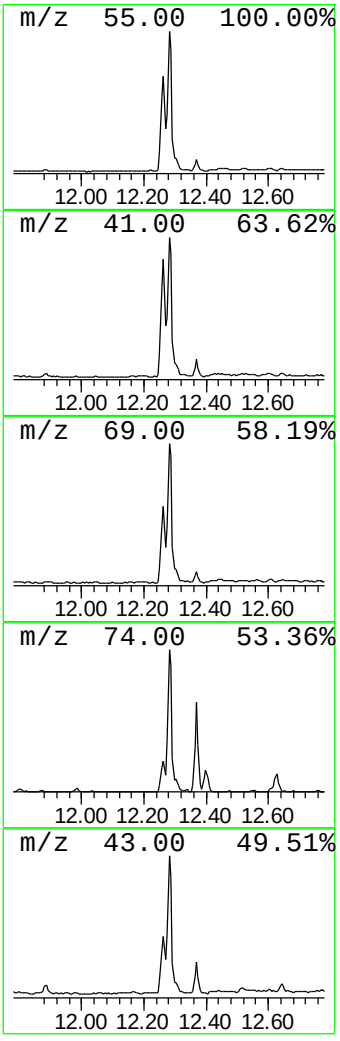
Peak Number 14 10-Octadecenoic acid, methy... Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.28 | 49.29 ng | 888412 | Phenanthrene-d10 | 11.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 10-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 013481-95-3 | 99 |
| 2 | 8-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 002345-29-1 | 99 |
| 3 | 9-Octadecenoic acid, methyl este... | 296 | C19H36O2 | 001937-62-8 | 99 |
| 4 | 11-Octadecenoic acid, methyl est... | 296 | C19H36O2 | 001937-63-9 | 99 |
| 5 | 7-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 057396-98-2 | 98 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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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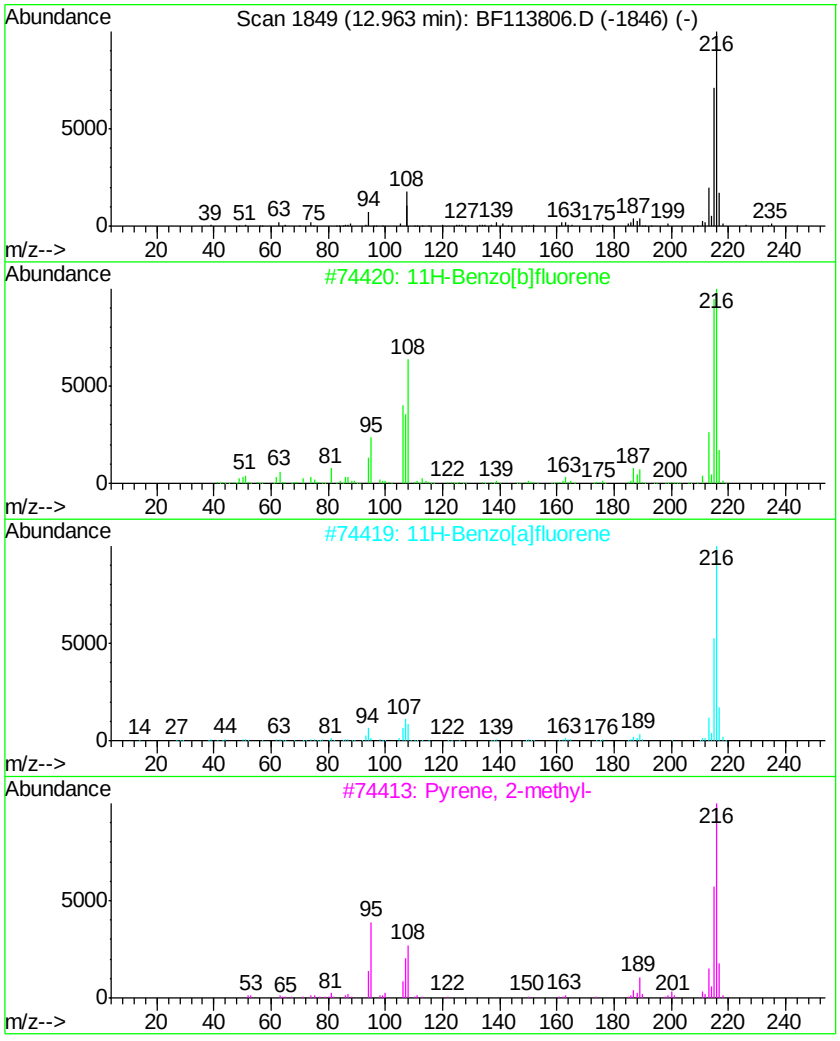
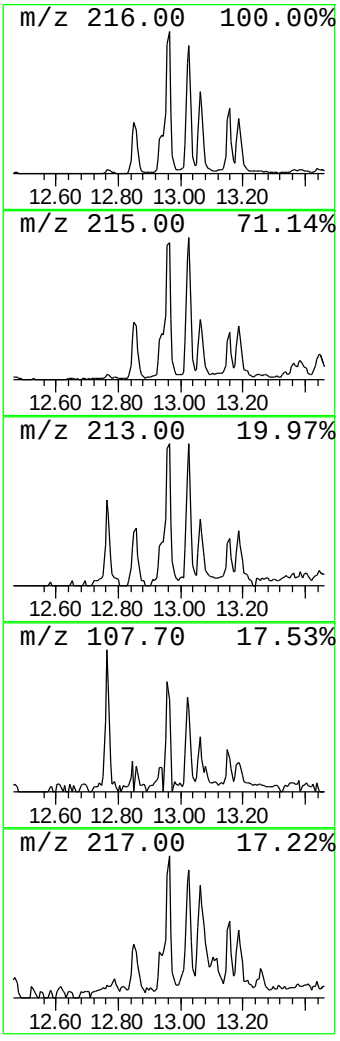
Peak Number 15 11H-Benzo[b]fluorene Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.96 | 2.77 ng | 143001 | Chrysene-d12 | 13.83 |

| 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 | 93 |
| 3 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 86 |
| 4 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 86 |
| 5 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 81 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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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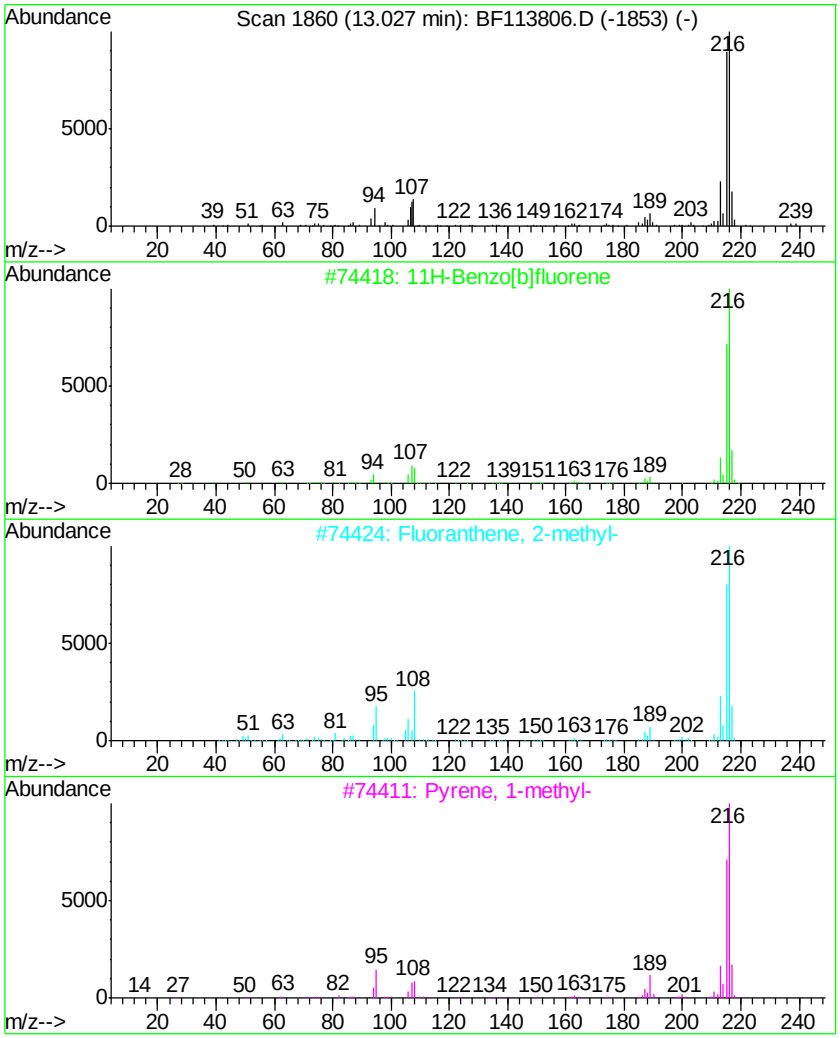
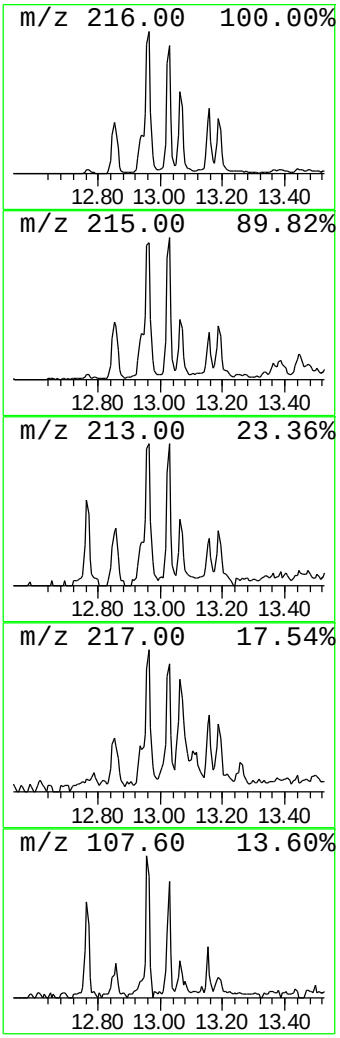
Peak Number 16 7H-Benzo[c]fluorene Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.03 | 3.25 ng | 167776 | Chrysene-d12 | 13.83 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 91 |
| 2 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 91 |
| 3 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 83 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 81 |
| 5 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 72 |



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Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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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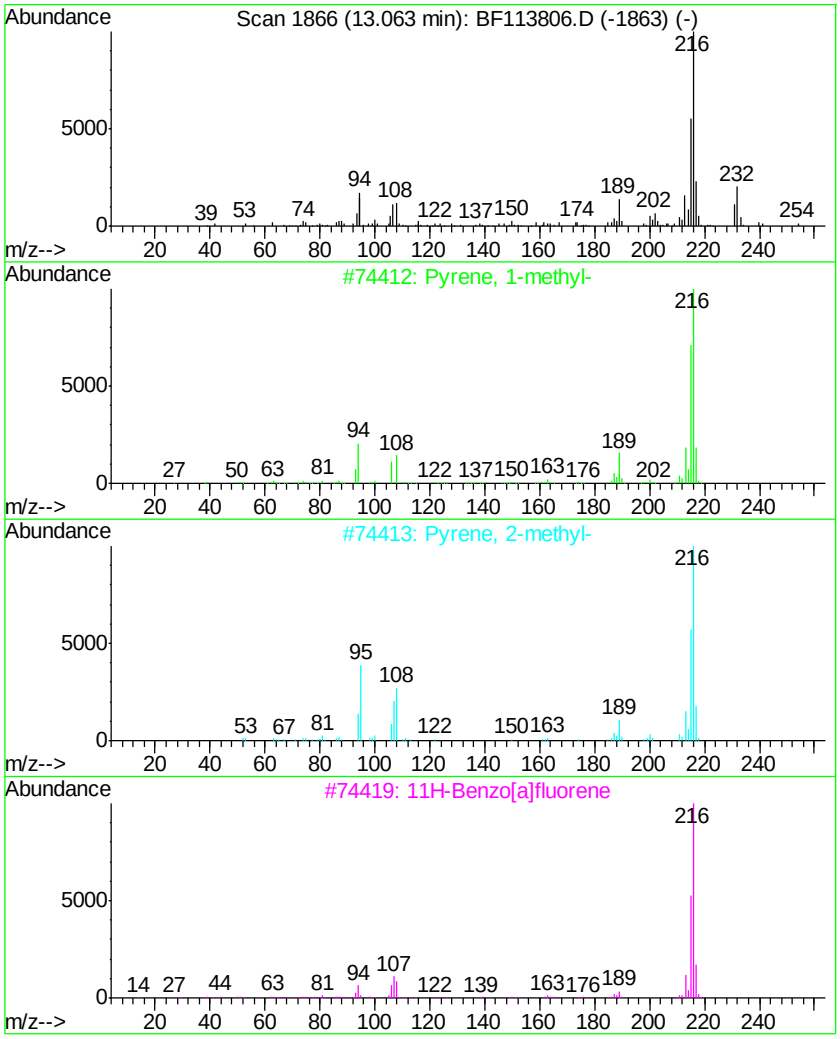
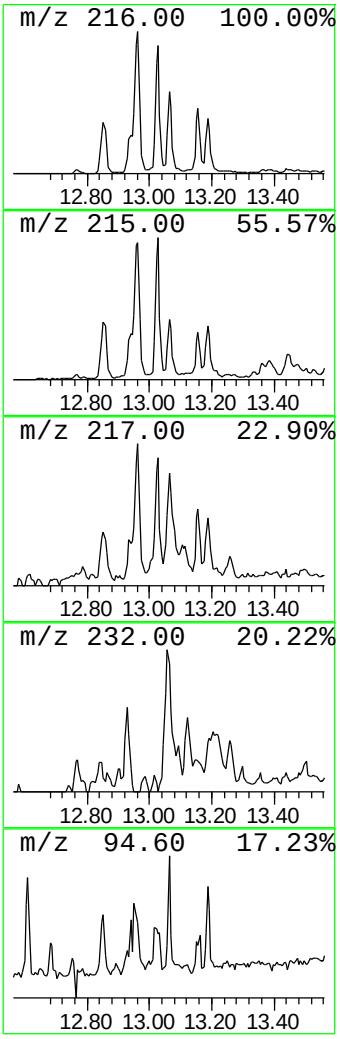
Peak Number 17 11H-Benzo[a]fluorene Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.06 | 2.13 ng | 109675 | Chrysene-d12 | 13.83 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 96 |
| 2 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 90 |
| 3 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 68 |
| 4 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 64 |
| 5 | 1,3-Dihydro-5,6-dimethyl-1-(2-pr... | 216 | C12H12N2S | 080276-22-8 | 50 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

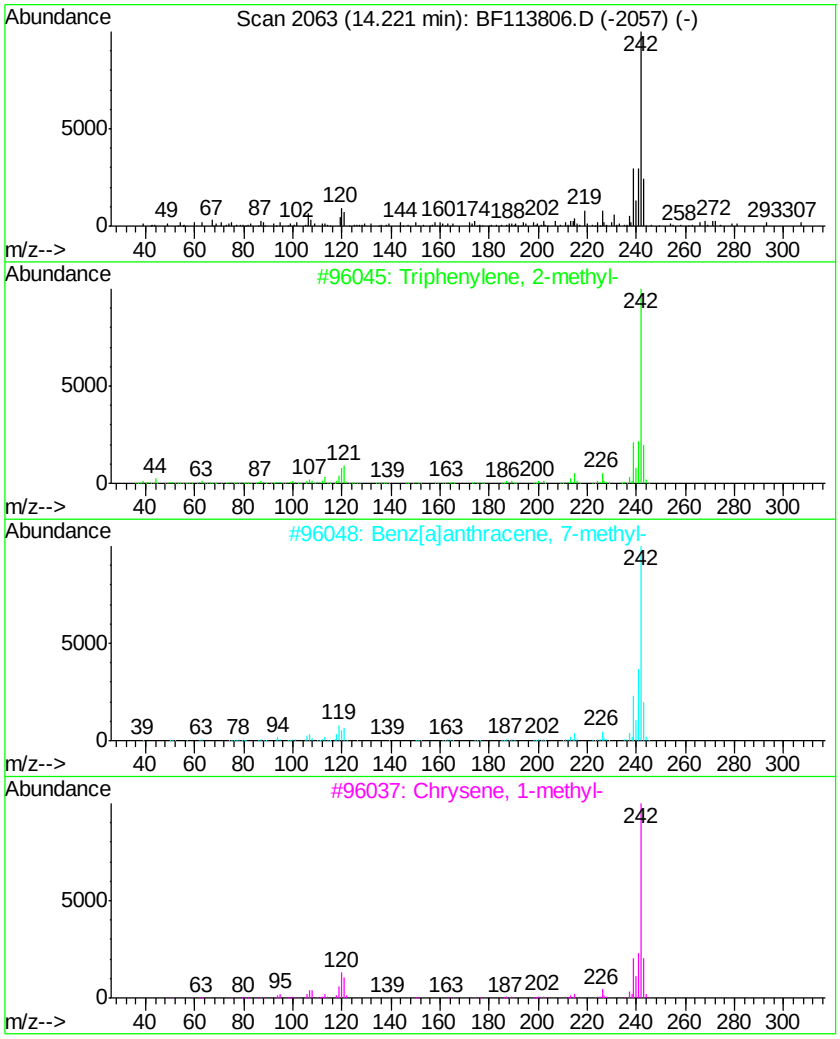
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

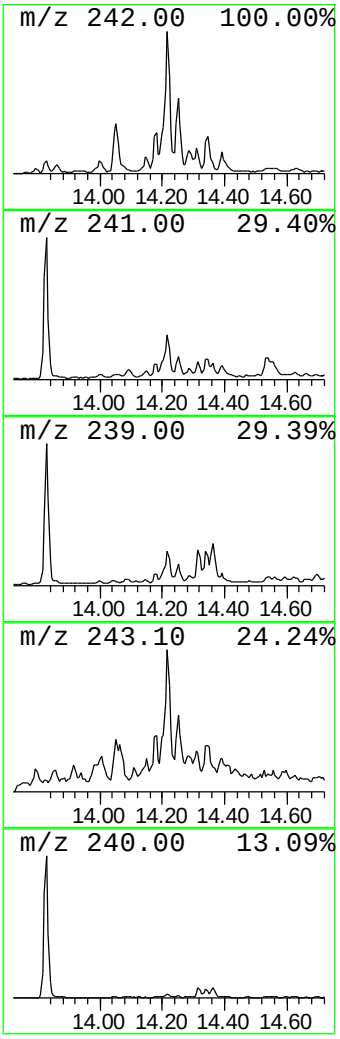
**********

Peak Number 18 Benz[a]anthracene, 7-methyl- Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.22 | 2.61 ng | 134698 | Chrysene-d12 | 13.83 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Triphenylene, 2-methyl- | 242 | C19H14 | 001705-84-6 | 93 |
| 2 | Benz[a]anthracene, 7-methyl- | 242 | C19H14 | 002541-69-7 | 91 |
| 3 | Chrysene, 1-methyl- | 242 | C19H14 | 003351-28-8 | 90 |
| 4 | Benz[a]anthracene, 8-methyl- | 242 | C19H14 | 002381-31-9 | 89 |
| 5 | Benz[a]anthracene, 2-methyl- | 242 | C19H14 | 002498-76-2 | 86 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

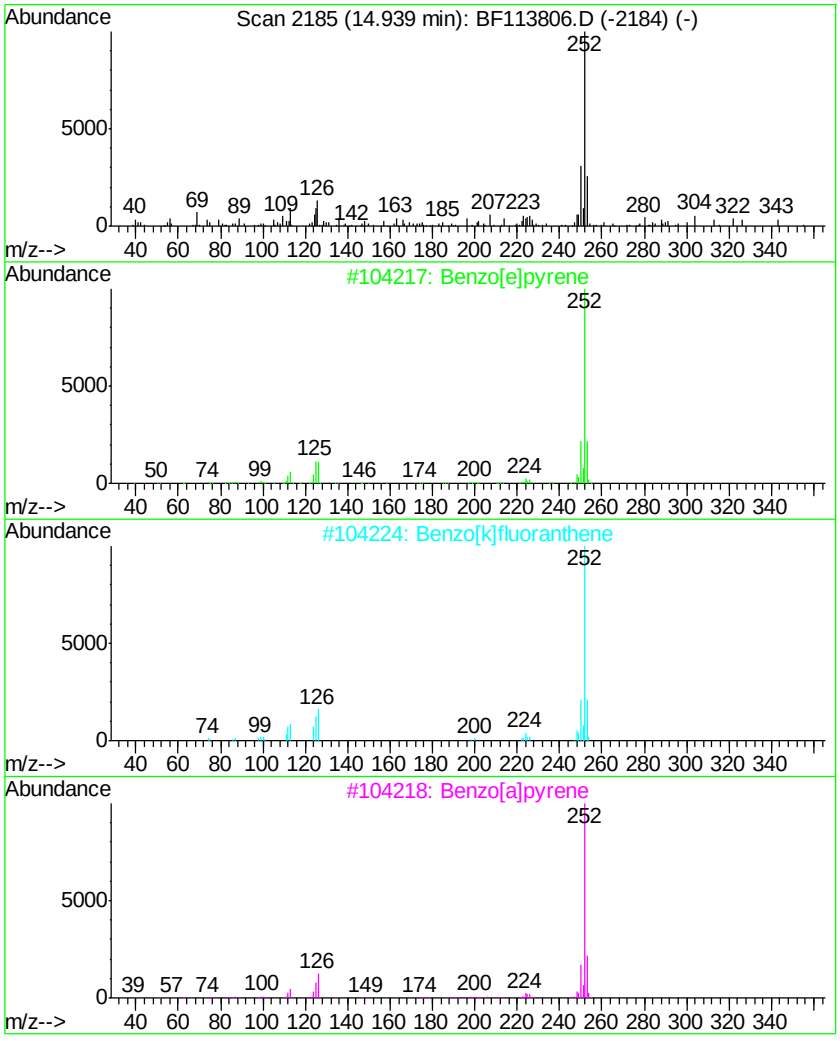
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

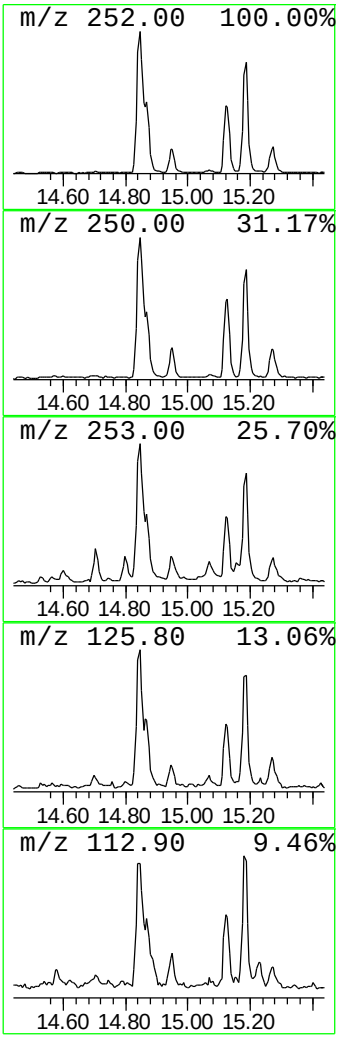
**********

Peak Number 19 Benzo[e]pyrene Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.94 | 3.46 ng | 69818 | Perylene-d12 | 15.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 98 |
| 2 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 95 |
| 3 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 94 |
| 4 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 93 |
| 5 | Benzo[j]fluoranthene | 252 | C20H12 | 000205-82-3 | 90 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF041619\
Data File : BF113806.D
Acq On : 16 Apr 2019 21:18
Operator : JU/SJ
Sample : K2203-09 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-01-041519-A

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF040319.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 |
| unknown6.45 | 6.45 | 76.3 | ng | 1263500 | 1 | 6.67 | 331005 | 20.0 |
| Tridecane | 10.61 | 2.3 | ng | 41491 | 4 | 11.19 | 360514 | 20.0 |
| Dibenzothiophene | 11.09 | 2.3 | ng | 41901 | 4 | 11.19 | 360514 | 20.0 |
| Hexadecanoic acid... | 11.58 | 14.1 | ng | 254383 | 4 | 11.19 | 360514 | 20.0 |
| Phenanthrene, 2-m... | 11.69 | 4.6 | ng | 83425 | 4 | 11.19 | 360514 | 20.0 |
| Phenanthrene, 1-m... | 11.72 | 9.0 | ng | 162144 | 4 | 11.19 | 360514 | 20.0 |
| Phenanthrene, 3-m... | 11.77 | 3.0 | ng | 53353 | 4 | 11.19 | 360514 | 20.0 |
| 4H-Cyclopenta[def... | 11.80 | 9.9 | ng | 178923 | 4 | 11.19 | 360514 | 20.0 |
| Phenanthrene, 4-m... | 11.83 | 3.6 | ng | 64814 | 4 | 11.19 | 360514 | 20.0 |
| Naphthalene, 2-ph... | 11.99 | 3.4 | ng | 61966 | 4 | 11.19 | 360514 | 20.0 |
| Phenanthrene, 2,5... | 12.24 | 3.9 | ng | 70625 | 4 | 11.19 | 360514 | 20.0 |
| 9,12-Octadecadien... | 12.26 | 51.1 | ng | 921202 | 4 | 11.19 | 360514 | 20.0 |
| 10-Octadecenoic a... | 12.28 | 49.3 | ng | 888412 | 4 | 11.19 | 360514 | 20.0 |
| 11H-Benzo[b]fluorene | 12.96 | 2.8 | ng | 143001 | 5 | 13.83 | 1031530 | 20.0 |
| 7H-Benzo[c]fluorene | 13.03 | 3.3 | ng | 167776 | 5 | 13.83 | 1031530 | 20.0 |
| 11H-Benzo[a]fluorene | 13.06 | 2.1 | ng | 109675 | 5 | 13.83 | 1031530 | 20.0 |
| Benz[a]anthracene... | 14.22 | 2.6 | ng | 134698 | 5 | 13.83 | 1031530 | 20.0 |
| Benzo[e]pyrene | 14.94 | 3.5 | ng | 69818 | 6 | 15.24 | 403384 | 20.0 |