LSC Area Percent Report

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.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 | 4.810 | 460 | 463 | 472 | rBV | 55682 | 68225 | 2.01% | 0.250% |
| 2 | 5.251 | 534 | 538 | 553 | rBV | 495226 | 592252 | 17.43% | 2.172% |
| 3 | 6.298 | 712 | 716 | 730 | rBV | 488475 | 584225 | 17.19% | 2.142% |
| 4 | 6.416 | 733 | 736 | 743 | rVB | 619297 | 598648 | 17.61% | 2.195% |
| 5 | 6.645 | 772 | 775 | 784 | rBV | 913870 | 770486 | 22.67% | 2.825% |
| 6 | 6.804 | 798 | 802 | 810 | rVB | 457787 | 445383 | 13.10% | 1.633% |
| 7 | 7.216 | 868 | 872 | 876 | rBV | 335834 | 319381 | 9.40% | 1.171% |
| 8 | 7.934 | 988 | 994 | 1000 | rBV | 995469 | 973669 | 28.65% | 3.570% |
| 9 | 8.528 | 1091 | 1095 | 1098 | rBV | 78468 | 72450 | 2.13% | 0.266% |
| 10 | 8.751 | 1126 | 1133 | 1140 | rBV6 | 29438 | 47623 | 1.40% | 0.175% |
| 11 | 9.004 | 1173 | 1176 | 1181 | rBV | 670516 | 520864 | 15.33% | 1.910% |
| 12 | 9.092 | 1186 | 1191 | 1196 | rBV | 99589 | 104668 | 3.08% | 0.384% |
| 13 | 9.281 | 1215 | 1223 | 1225 | rBV7 | 22159 | 35032 | 1.03% | 0.128% |
| 14 | 9.404 | 1240 | 1244 | 1247 | rBV2 | 98505 | 90024 | 2.65% | 0.330% |
| 15 | 9.545 | 1265 | 1268 | 1272 | rVB | 49883 | 46192 | 1.36% | 0.169% |
| 16 | 9.616 | 1278 | 1280 | 1284 | rVB | 116706 | 92909 | 2.73% | 0.341% |
| 17 | 9.680 | 1284 | 1291 | 1294 | rBV | 1014563 | 864934 | 25.45% | 3.172% |
| 18 | 9.710 | 1294 | 1296 | 1300 | rVB | 95542 | 83961 | 2.47% | 0.308% |
| 19 | 9.845 | 1315 | 1319 | 1323 | rBV6 | 18127 | 38596 | 1.14% | 0.142% |
| 20 | 9.886 | 1323 | 1326 | 1331 | rVB | 91924 | 87590 | 2.58% | 0.321% |
| 21 | 10.116 | 1362 | 1365 | 1368 | rBV | 132146 | 101455 | 2.99% | 0.372% |
| 22 | 10.227 | 1380 | 1384 | 1390 | rBV | 119641 | 117505 | 3.46% | 0.431% |
| 23 | 10.333 | 1397 | 1402 | 1405 | rBV2 | 48366 | 64142 | 1.89% | 0.235% |
| 24 | 10.386 | 1408 | 1411 | 1414 | rVB | 48272 | 46155 | 1.36% | 0.169% |
| 25 | 10.469 | 1419 | 1425 | 1430 | rBV | 318162 | 307812 | 9.06% | 1.129% |
| 26 | 10.586 | 1442 | 1445 | 1453 | rBV | 140188 | 156185 | 4.60% | 0.573% |
| 27 | 10.975 | 1508 | 1511 | 1514 | rVV | 90224 | 80528 | 2.37% | 0.295% |
| 28 | 11.033 | 1518 | 1521 | 1523 | rVV | 116321 | 98541 | 2.90% | 0.361% |
| 29 | 11.057 | 1523 | 1525 | 1531 | rVB2 | 105125 | 110469 | 3.25% | 0.405% |
| 30 | 11.163 | 1539 | 1543 | 1545 | rBV | 919453 | 823937 | 24.24% | 3.021% |
| 31 | 11.186 | 1545 | 1547 | 1550 | rVV | 1322133 | 1009468 | 29.70% | 3.702% |
| 32 | 11.239 | 1550 | 1556 | 1559 | rVB | 247480 | 248360 | 7.31% | 0.911% |
| 33 | 11.380 | 1576 | 1580 | 1581 | rBV | 79025 | 68693 | 2.02% | 0.252% |
| 34 | 11.398 | 1581 | 1583 | 1590 | rVV | 116330 | 116195 | 3.42% | 0.426% |

LSC Area Percent Report

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 11.457 | 1590 | 1593 | 1596 | rVV | 118675 | 99141 | 2.92% | 0.364% |
| 36 | 11.504 | 1596 | 1601 | 1604 | rVB4 | 33233 | 52773 | 1.55% | 0.194% |
| 37 | 11.563 | 1607 | 1611 | 1614 | rBV | 1202705 | 1009827 | 29.71% | 3.703% |
| 38 | 11.663 | 1625 | 1628 | 1630 | rBV | 134949 | 114822 | 3.38% | 0.421% |
| 39 | 11.692 | 1630 | 1633 | 1636 | rVB | 168968 | 145076 | 4.27% | 0.532% |
| 40 | 11.739 | 1636 | 1641 | 1644 | rBV | 48242 | 55124 | 1.62% | 0.202% |
| 41 | 11.774 | 1644 | 1647 | 1649 | rVV | 186070 | 186433 | 5.49% | 0.684% |
| 42 | 11.798 | 1649 | 1651 | 1655 | rVB | 85645 | 73856 | 2.17% | 0.271% |
| 43 | 11.863 | 1656 | 1662 | 1666 | rBV2 | 80767 | 107835 | 3.17% | 0.395% |
| 44 | 11.957 | 1675 | 1678 | 1681 | rBV | 125154 | 109730 | 3.23% | 0.402% |
| 45 | 11.992 | 1681 | 1684 | 1687 | rVB | 98569 | 84883 | 2.50% | 0.311% |
| 46 | 12.104 | 1698 | 1703 | 1706 | rBV4 | 28388 | 48314 | 1.42% | 0.177% |
| 47 | 12.210 | 1718 | 1721 | 1723 | rBV | 72060 | 64016 | 1.88% | 0.235% |
| 48 | 12.245 | 1723 | 1727 | 1729 | rBV | 3535085 | 3398730 | 100.00% | 12.463% |
| 49 | 12.269 | 1729 | 1731 | 1734 | rVB | 2810364 | 2123437 | 62.48% | 7.787% |
| 50 | 12.351 | 1742 | 1745 | 1746 | rBV | 548846 | 419522 | 12.34% | 1.538% |
| 51 | 12.374 | 1746 | 1749 | 1752 | rVV | 1351478 | 1199852 | 35.30% | 4.400% |
| 52 | 12.439 | 1754 | 1760 | 1762 | rBV2 | 55737 | 78464 | 2.31% | 0.288% |
| 53 | 12.521 | 1771 | 1774 | 1777 | rBV2 | 47919 | 49998 | 1.47% | 0.183% |
| 54 | 12.598 | 1781 | 1787 | 1790 | rBV | 1171545 | 1254351 | 36.91% | 4.600% |
| 55 | 12.651 | 1794 | 1796 | 1800 | rVB2 | 57285 | 63503 | 1.87% | 0.233% |
| 56 | 12.739 | 1805 | 1811 | 1818 | rBV2 | 543460 | 618538 | 18.20% | 2.268% |
| 57 | 12.821 | 1820 | 1825 | 1828 | rBV3 | 71517 | 115637 | 3.40% | 0.424% |
| 58 | 12.857 | 1828 | 1831 | 1833 | rVB | 43070 | 36239 | 1.07% | 0.133% |
| 59 | 12.904 | 1836 | 1839 | 1841 | rBV3 | 106865 | 125991 | 3.71% | 0.462% |
| 60 | 12.927 | 1841 | 1843 | 1849 | rVV | 120808 | 129762 | 3.82% | 0.476% |
| 61 | 12.980 | 1849 | 1852 | 1853 | rVV | 65923 | 64710 | 1.90% | 0.237% |
| 62 | 13.033 | 1857 | 1861 | 1865 | rVB2 | 89042 | 103105 | 3.03% | 0.378% |
| 63 | 13.074 | 1865 | 1868 | 1872 | rBV2 | 51187 | 62324 | 1.83% | 0.229% |
| 64 | 13.121 | 1874 | 1876 | 1879 | rVB | 48710 | 43121 | 1.27% | 0.158% |
| 65 | 13.151 | 1879 | 1881 | 1884 | rBV2 | 64870 | 68434 | 2.01% | 0.251% |
| 66 | 13.321 | 1907 | 1910 | 1913 | rVB2 | 58946 | 53457 | 1.57% | 0.196% |
| 67 | 13.439 | 1927 | 1930 | 1933 | rBV | 153247 | 141808 | 4.17% | 0.520% |
| 68 | 13.545 | 1945 | 1948 | 1950 | rBV | 111231 | 88458 | 2.60% | 0.324% |
| 69 | 13.568 | 1950 | 1952 | 1955 | rVB | 69828 | 53949 | 1.59% | 0.198% |
| 70 | 13.598 | 1955 | 1957 | 1958 | rBV | 59418 | 44645 | 1.31% | 0.164% |
| 71 | 13.645 | 1963 | 1965 | 1968 | rVB | 176200 | 164080 | 4.83% | 0.602% |

LSC Area Percent Report

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 13.739 | 1979 | 1981 | 1984 | rBV2 | 47600 | 36237 | 1.07% | 0.133% |
| 73 | 13.798 | 1986 | 1991 | 1993 | rVV2 | 1162714 | 1474541 | 43.39% | 5.407% |
| 74 | 13.821 | 1993 | 1995 | 2003 | rVB | 539933 | 467122 | 13.74% | 1.713% |
| 75 | 13.898 | 2006 | 2008 | 2011 | rVB | 67759 | 59117 | 1.74% | 0.217% |
| 76 | 13.963 | 2014 | 2019 | 2022 | rBV6 | 93002 | 152882 | 4.50% | 0.561% |
| 77 | 14.180 | 2054 | 2056 | 2059 | rVB | 87776 | 79092 | 2.33% | 0.290% |
| 78 | 14.563 | 2118 | 2121 | 2124 | rBV | 87138 | 113739 | 3.35% | 0.417% |
| 79 | 14.804 | 2158 | 2162 | 2170 | rVB | 434139 | 728729 | 21.44% | 2.672% |
| 80 | 15.080 | 2206 | 2209 | 2214 | rVB | 250940 | 259299 | 7.63% | 0.951% |
| 81 | 15.139 | 2215 | 2219 | 2224 | rVV | 322169 | 399673 | 11.76% | 1.466% |
| 82 | 15.198 | 2225 | 2229 | 2243 | rVB2 | 703721 | 1059324 | 31.17% | 3.885% |

Sum of corrected areas: 27270257

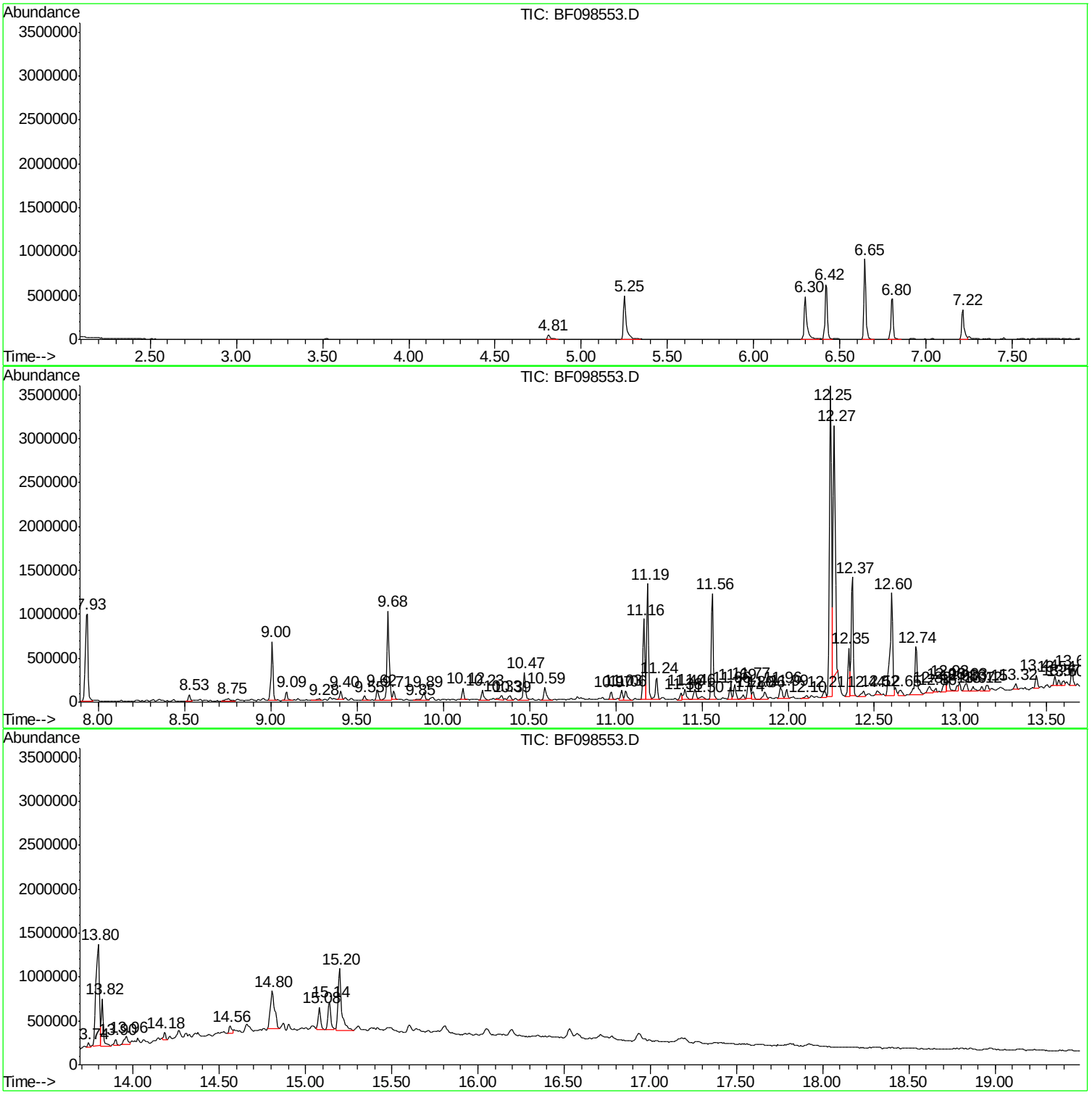
LSC Report - Integrated Chromatogram

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.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 : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

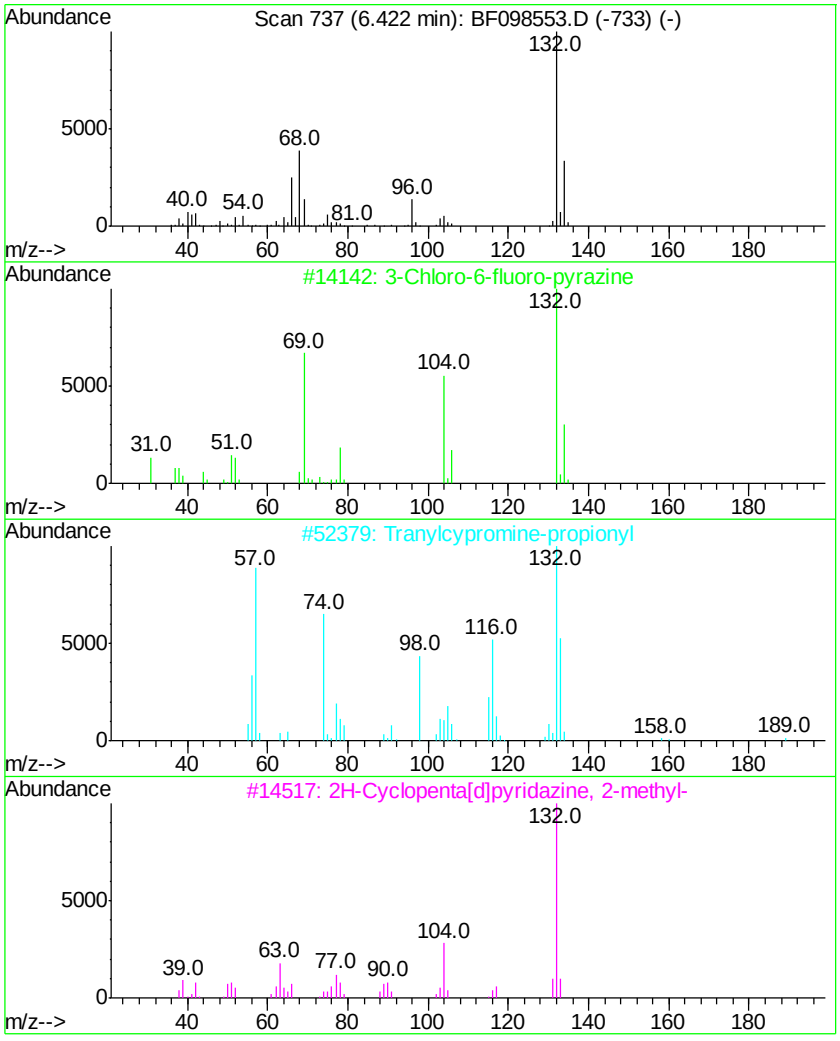
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

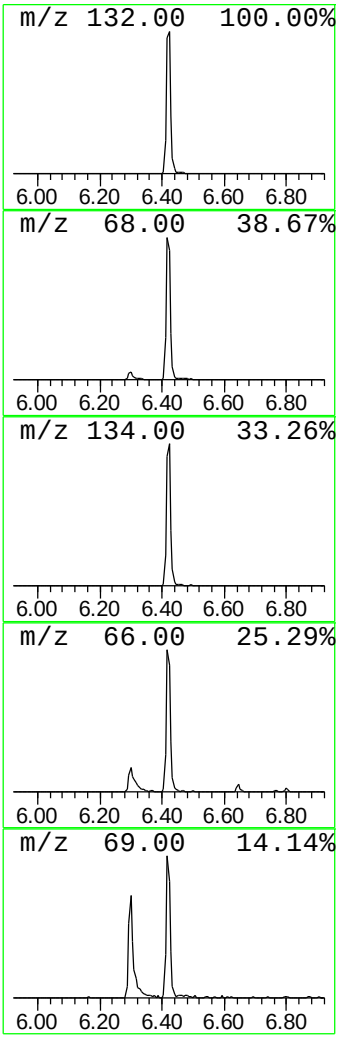
**********

Peak Number 1 unknown6.42 Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.42 | 15.54 ng | 598648 | 1,4-Dichlorobenzene-d4 | 6.65 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 27 |
| 2 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 10 |
| 3 | 2H-Cyclopenta[d]pyridazine, 2-me... | 132 | C8H8N2 | 022291-85-6 | 9 |
| 4 | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO | 031357-76-3 | 9 |
| 5 | 5-Fluoro-2-chloropyrimidine | 132 | C4H2ClFN2 | 062802-42-0 | 9 |



# Library Search Compound Report

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

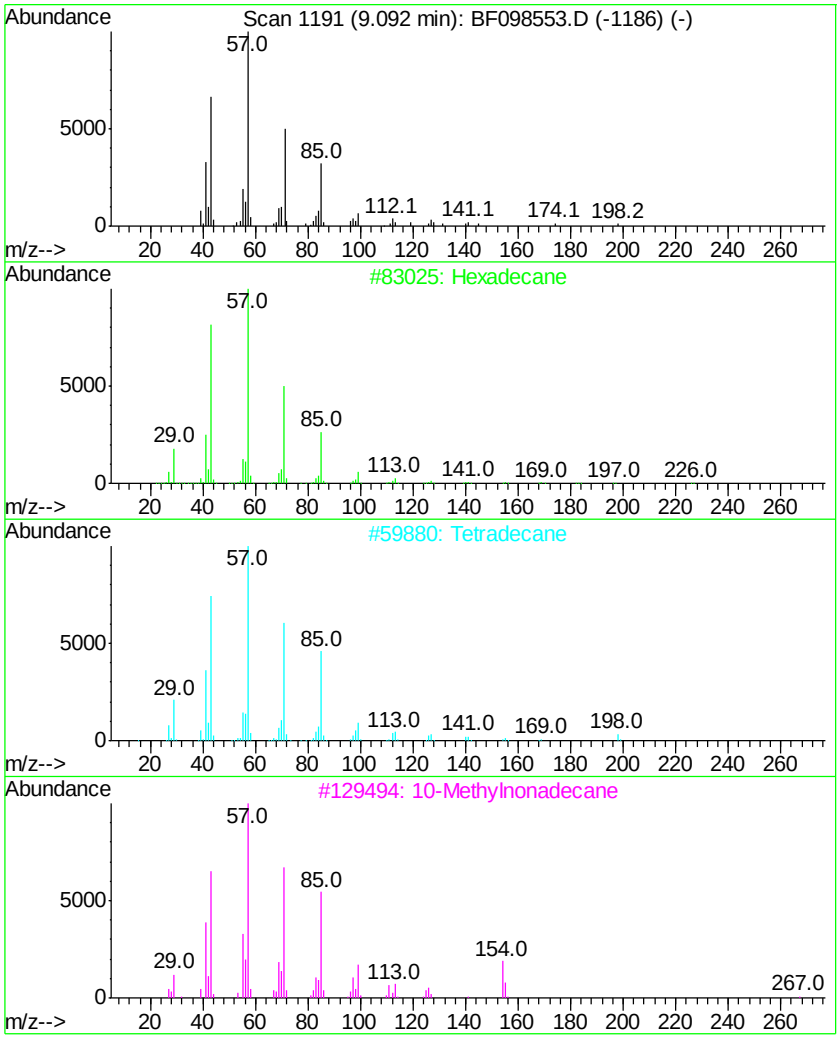
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

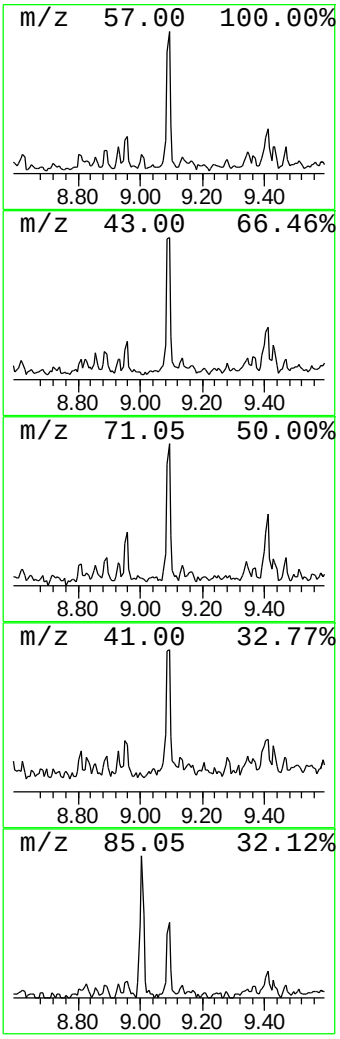
**********

Peak Number 3 Hexadecane Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.09 | 2.42 ng | 104668 | Acenaphthene-d10 | 9.68 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexadecane | 226 | C16H34 | 000544-76-3 | 86 |
| 2 | Tetradecane | 198 | C14H30 | 000629-59-4 | 80 |
| 3 | 10-Methylnonadecane | 282 | C20H42 | 056862-62-5 | 80 |
| 4 | Nonadecane | 268 | C19H40 | 000629-92-5 | 80 |
| 5 | Heptacosane | 380 | C27H56 | 000593-49-7 | 78 |



# Library Search Compound Report

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

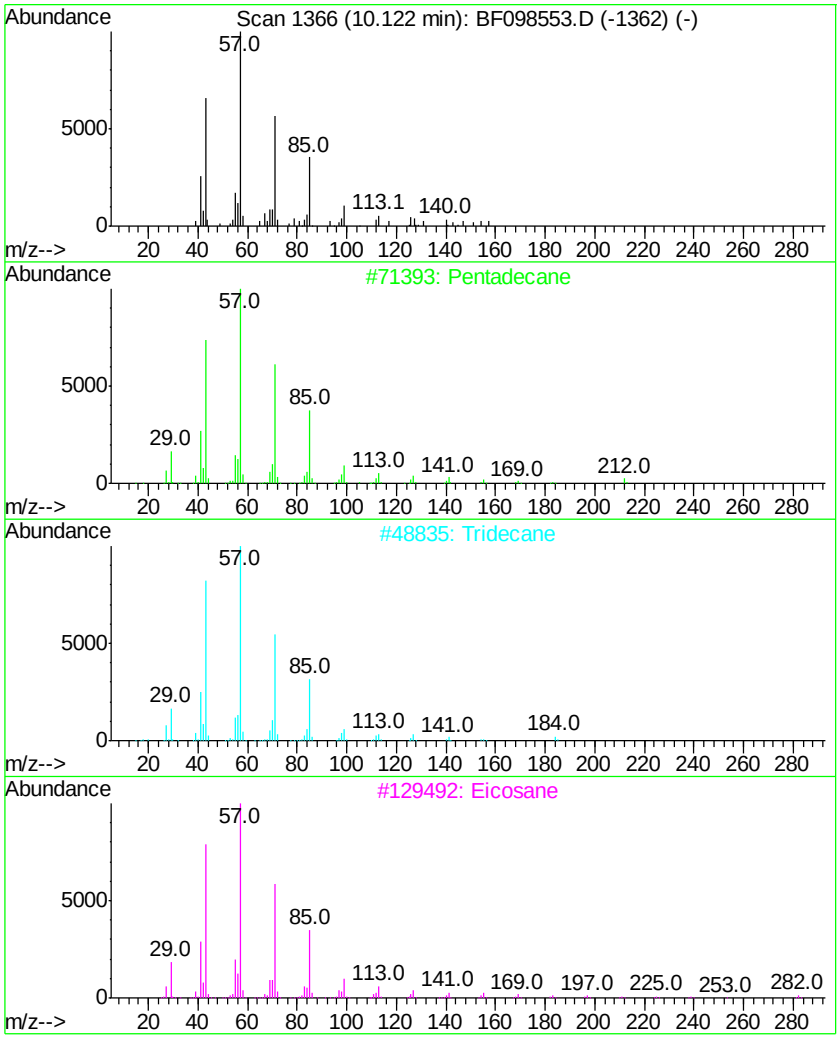
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

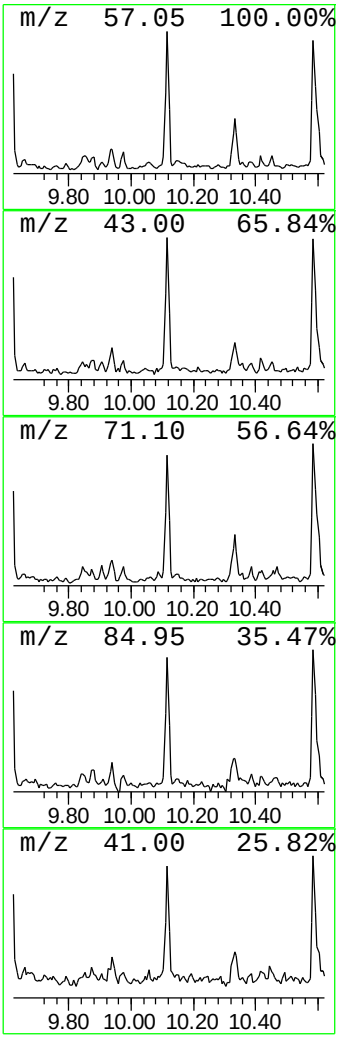
**********

Peak Number 5 Pentadecane Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.12 | 2.35 ng | 101455 | Acenaphthene-d10 | 9.68 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pentadecane | 212 | C15H32 | 000629-62-9 | 90 |
| 2 | Tridecane | 184 | C13H28 | 000629-50-5 | 90 |
| 3 | Eicosane | 282 | C20H42 | 000112-95-8 | 86 |
| 4 | Hexadecane | 226 | C16H34 | 000544-76-3 | 86 |
| 5 | Tridecane, 2-methyl- | 198 | C14H30 | 001560-96-9 | 72 |



Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

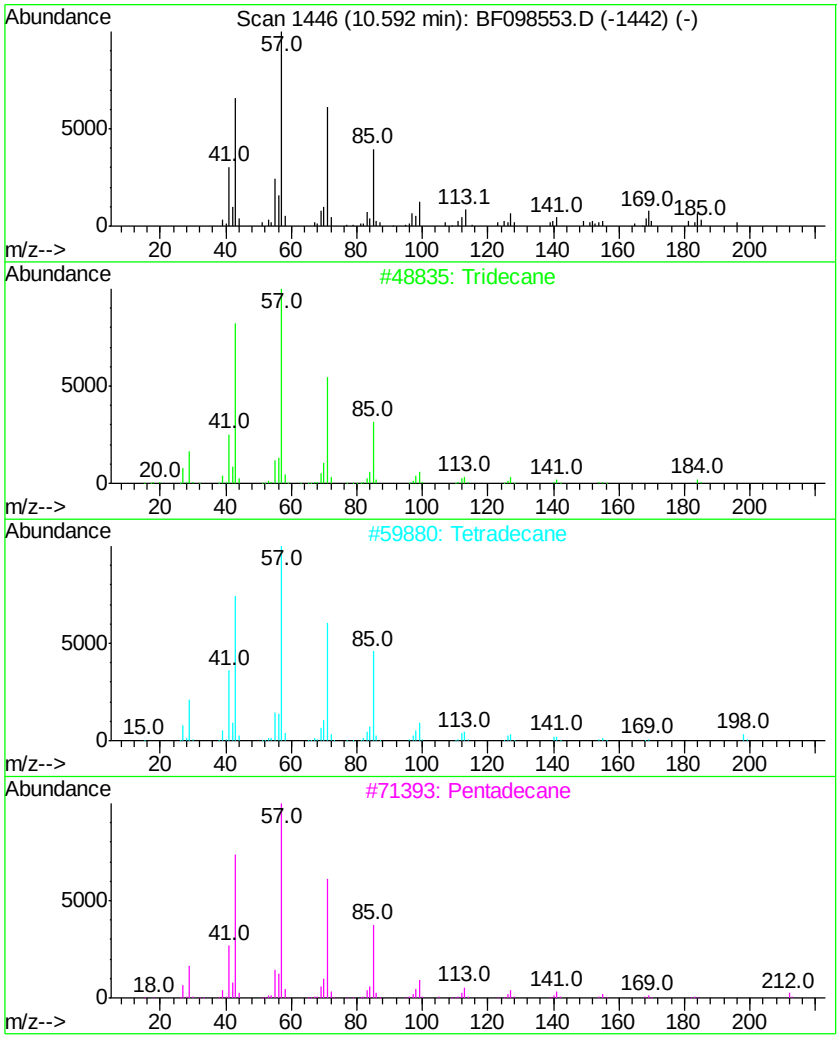
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

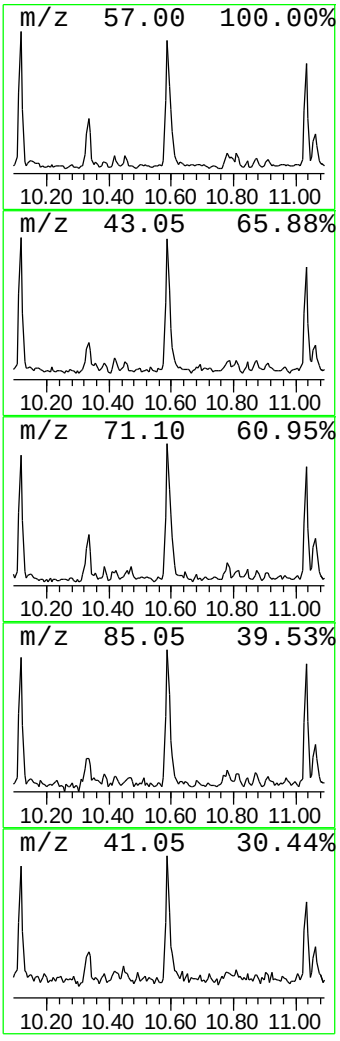
**********

Peak Number 6 Tridecane Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.59 | 3.79 ng | 156185 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Tridecane | 184 | C13H28 | 000629-50-5 | 94 |
| 2 | Tetradecane | 198 | C14H30 | 000629-59-4 | 87 |
| 3 | Pentadecane | 212 | C15H32 | 000629-62-9 | 87 |
| 4 | Heptacosane | 380 | C27H56 | 000593-49-7 | 87 |
| 5 | Hexadecane | 226 | C16H34 | 000544-76-3 | 86 |



# Library Search Compound Report

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

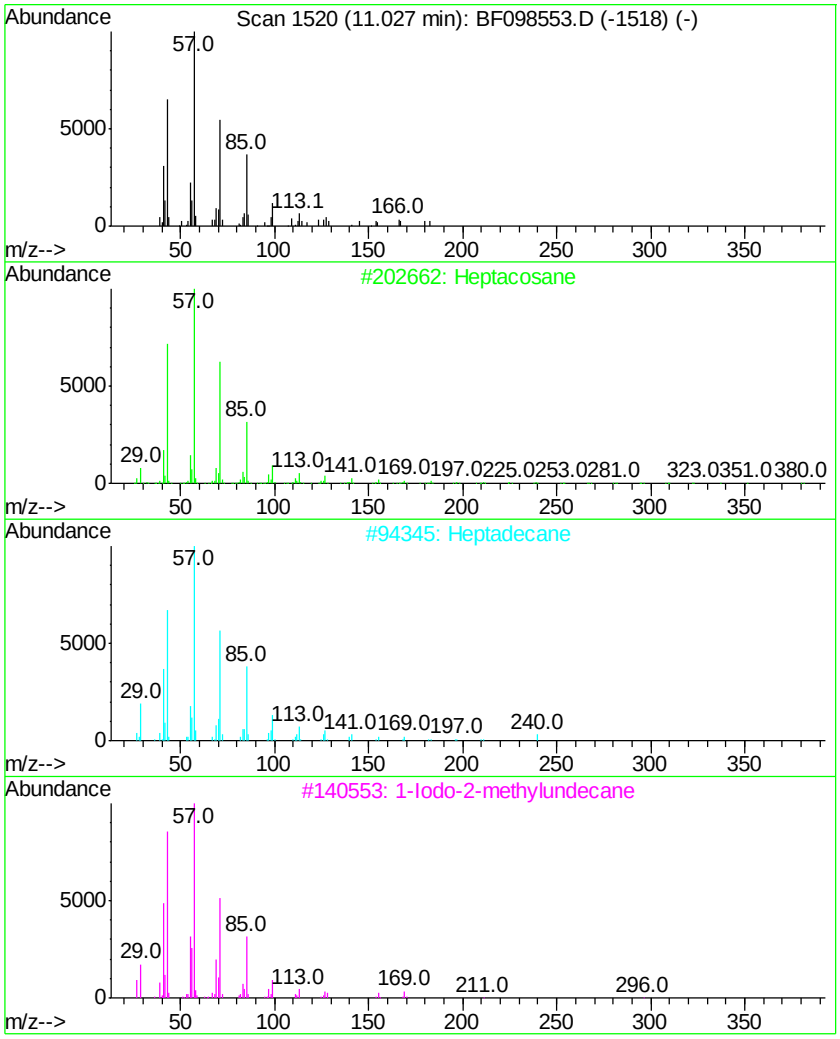
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

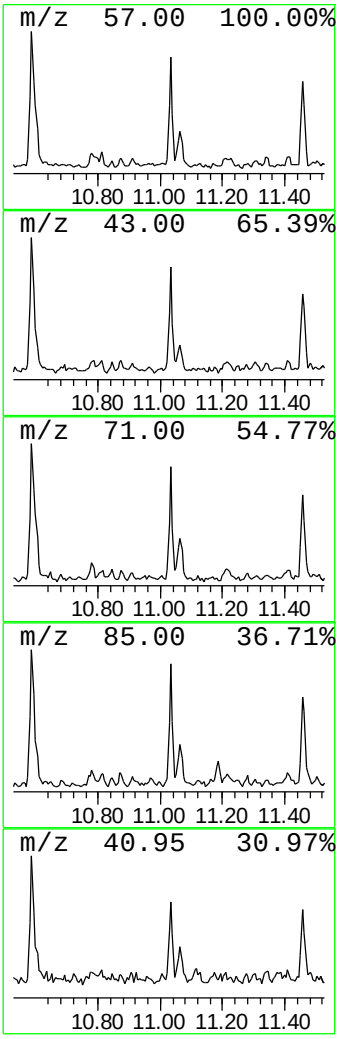
**********

Peak Number 7 Heptacosane Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.03 | 2.39 ng | 98541 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Heptacosane | 380 | C27H56 | 000593-49-7 | 91 |
| 2 | Heptadecane | 240 | C17H36 | 000629-78-7 | 90 |
| 3 | 1-Iodo-2-methylundecane | 296 | C12H25I | 073105-67-6 | 90 |
| 4 | Tetracosane | 338 | C24H50 | 000646-31-1 | 90 |
| 5 | Hexadecane | 226 | C16H34 | 000544-76-3 | 86 |



Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

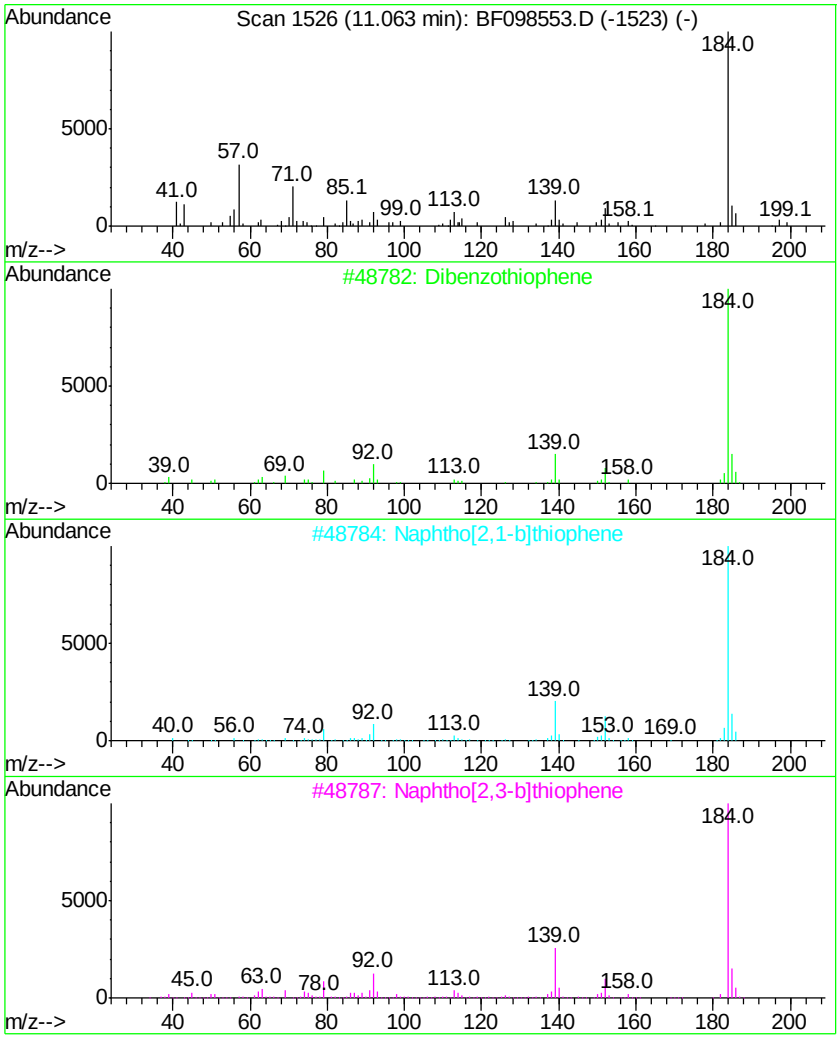
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

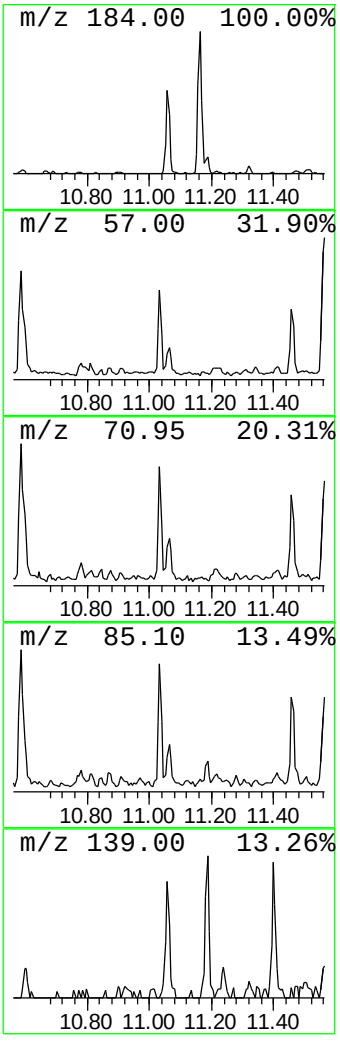
**********

Peak Number 8 Dibenzothiophene Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.06 | 2.68 ng | 110469 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 95 |
| 2 | Naphtho[2,1-b]thiophene | 184 | C12H8S | 000233-02-3 | 94 |
| 3 | Naphtho[2,3-b]thiophene | 184 | C12H8S | 000268-77-9 | 94 |
| 4 | Azuleno(2,1-b)thiophene | 184 | C12H8S | 000248-13-5 | 91 |
| 5 | Naphtho[1,2-b]thiophene | 184 | C12H8S | 000234-41-3 | 91 |



# Library Search Compound Report

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

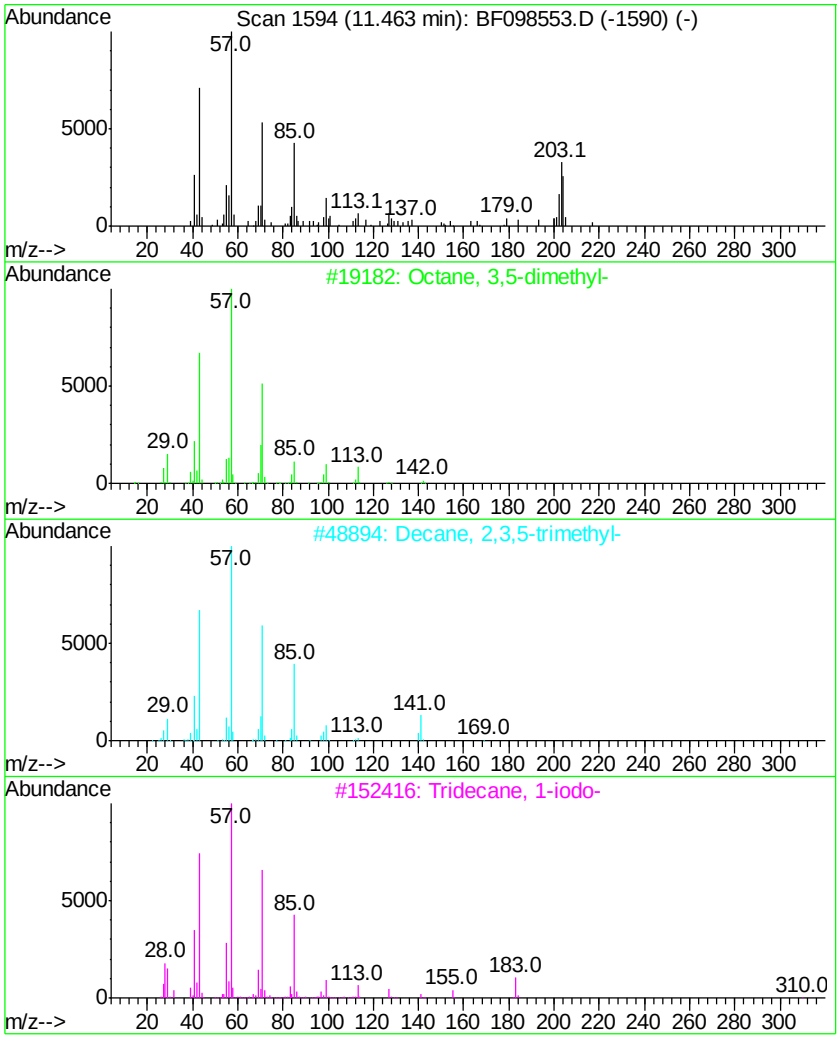
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

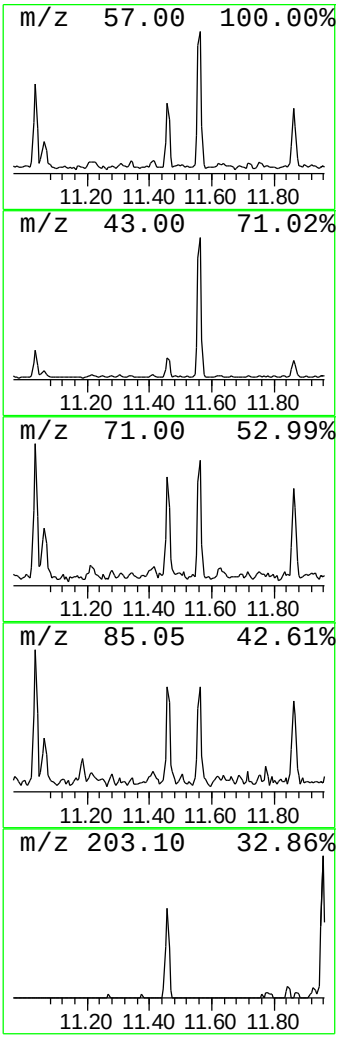
**********

Peak Number 9 Octane, 3,5-dimethyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.46 | 2.41 ng | 99141 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Octane, 3,5-dimethyl- | 142 | C10H22 | 015869-93-9 | 30 |
| 2 | Decane, 2,3,5-trimethyl- | 184 | C13H28 | 062238-11-3 | 30 |
| 3 | Tridecane, 1-iodo- | 310 | C13H27I | 035599-77-0 | 30 |
| 4 | Dodecane, 2-methyl-6-propyl- | 226 | C16H34 | 055045-08-4 | 30 |
| 5 | Tetradecane | 198 | C14H30 | 000629-59-4 | 30 |



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Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

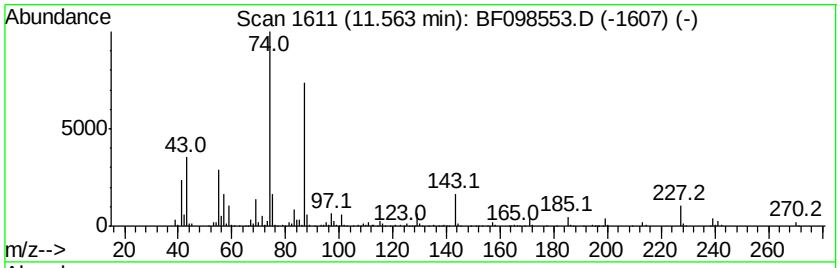
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

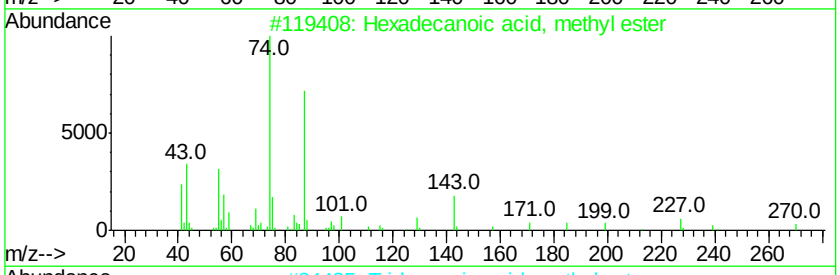
**********

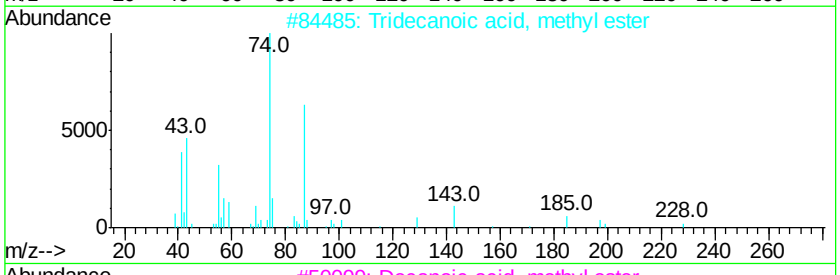
Peak Number 10 Hexadecanoic acid, methyl e... Concentration Rank 3

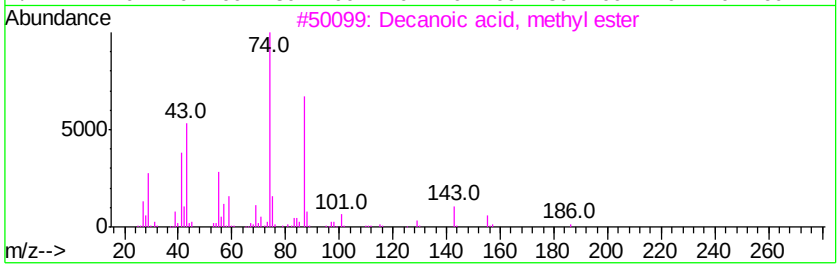
| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.56 | 24.51 ng | 1009830 | Phenanthrene-d10 | 11.16 |

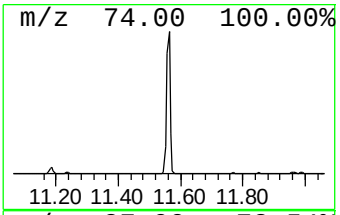
| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexadecanoic acid, methyl ester | 270 | C17H34O2 | 000112-39-0 | 98 |
| 2 | Tridecanoic acid, methyl ester | 228 | C14H28O2 | 001731-88-0 | 92 |
| 3 | Decanoic acid, methyl ester | 186 | C11H22O2 | 000110-42-9 | 87 |
| 4 | Pentadecanoic acid, methyl ester | 256 | C16H32O2 | 007132-64-1 | 86 |
| 5 | Methyl tetradecanoate | 242 | C15H30O2 | 000124-10-7 | 83 |

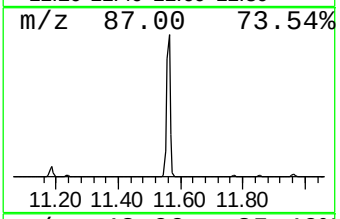


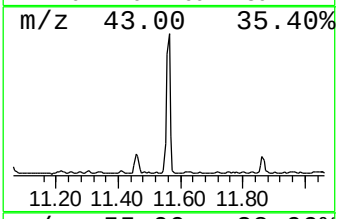



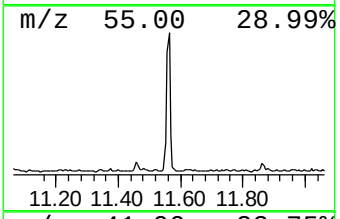



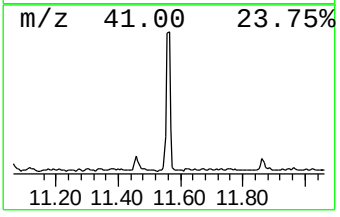



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Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

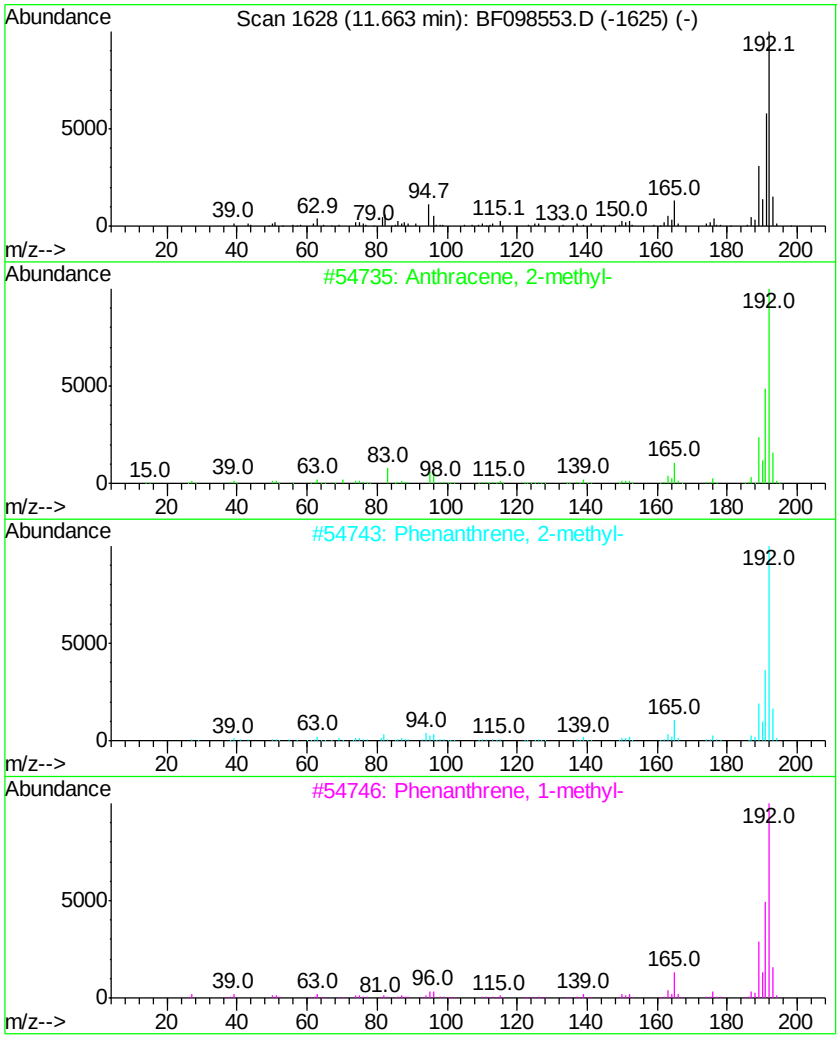
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

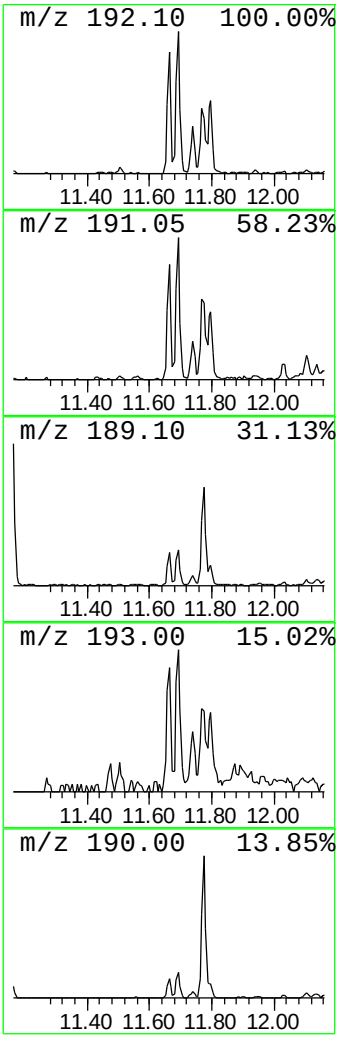
**********

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

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.66 | 2.79 ng | 114822 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 96 |
| 2 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 95 |
| 3 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 94 |
| 4 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 93 |
| 5 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 93 |



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Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

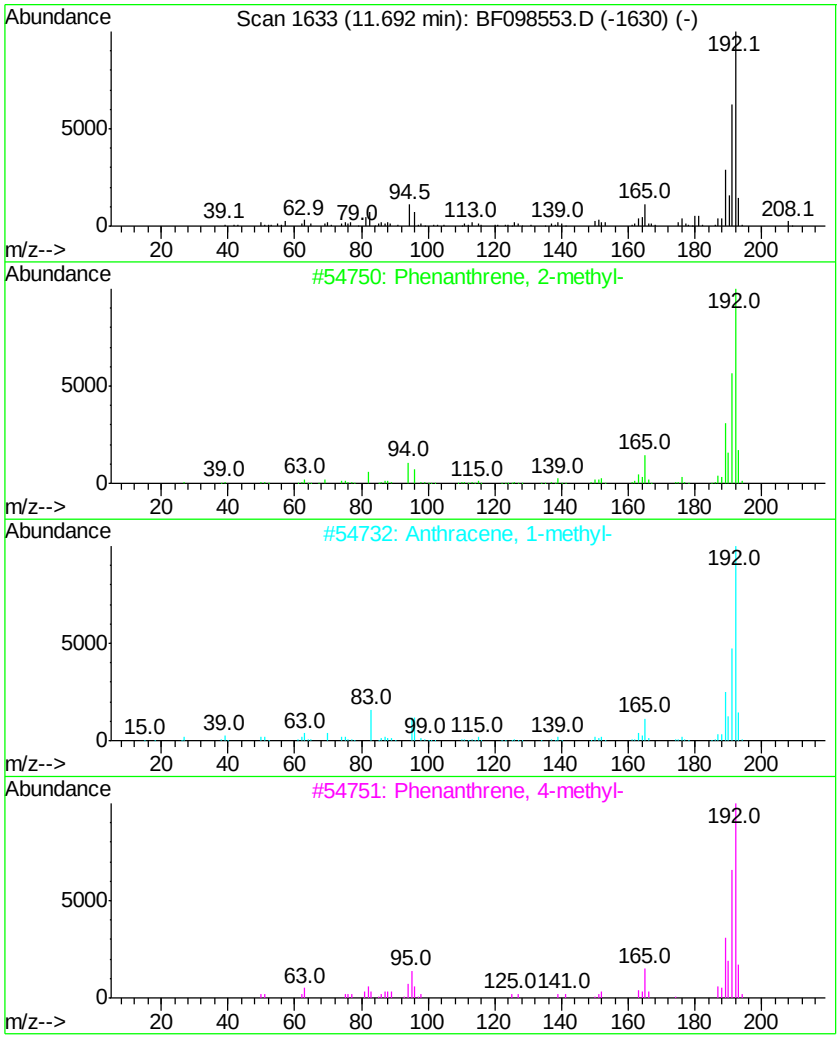
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

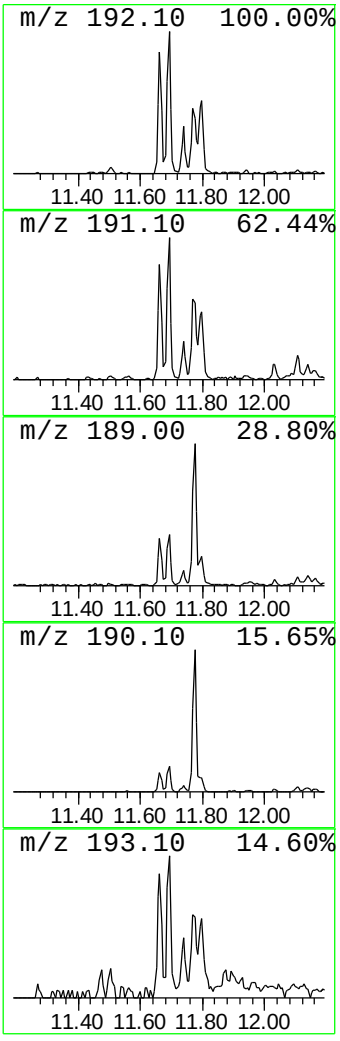
**********

Peak Number 12 Phenanthrene, 2-methyl- Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.69 | 3.52 ng | 145076 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 90 |
| 2 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 90 |
| 3 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 90 |
| 4 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 87 |
| 5 | 5H-Dibenzo[a,d]cycloheptene | 192 | C15H12 | 000256-81-5 | 81 |



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Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

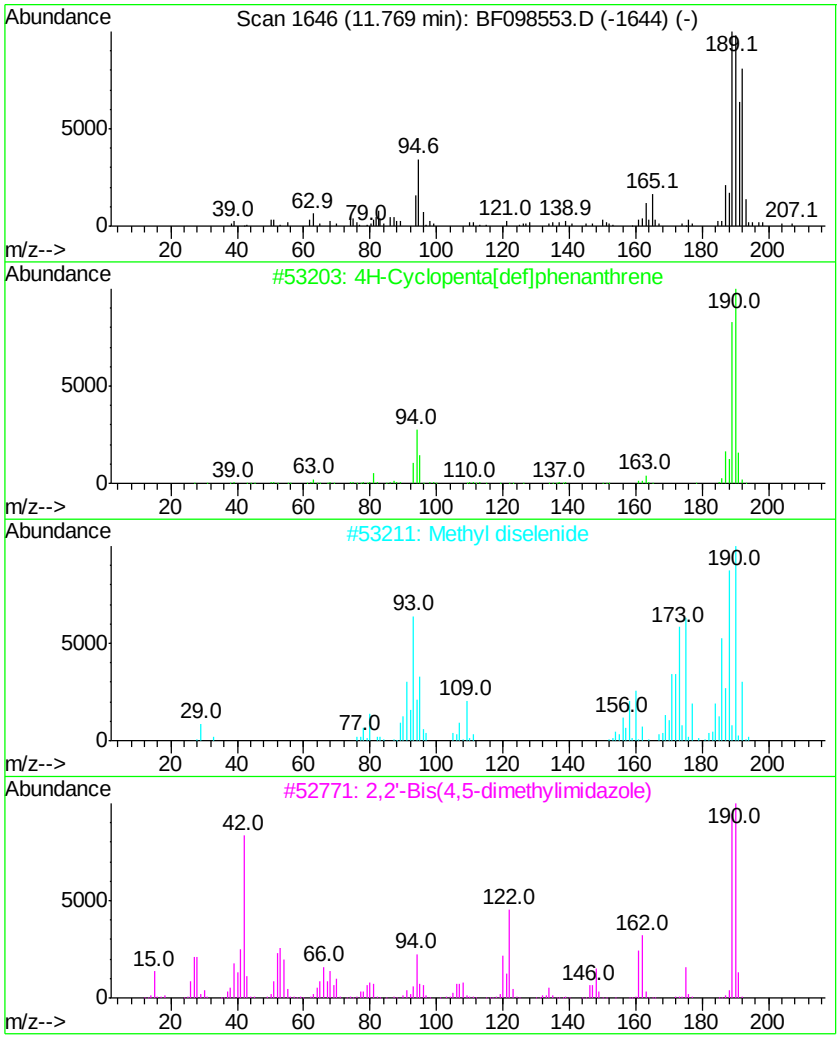
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

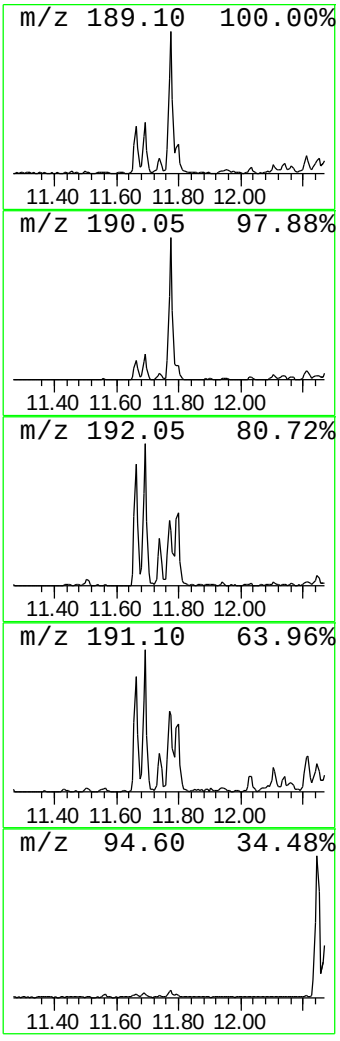
**********

Peak Number 13 4H-Cyclopenta[def]phenanthrene Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.77 | 4.53 ng | 186433 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 93 |
| 2 | Methyl diselenide | 190 | C2H6Se2 | 007101-31-7 | 46 |
| 3 | 2,2'-Bis(4,5-dimethylimidazole) | 190 | C10H14N4 | 069286-06-2 | 42 |
| 4 | Megastigmatrienone | 190 | C13H18O | 038818-55-2 | 18 |
| 5 | 4-Isothiazolecarbonitrile, 5-chl... | 190 | C5H3ClN2S2 | 054798-93-5 | 17 |



Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

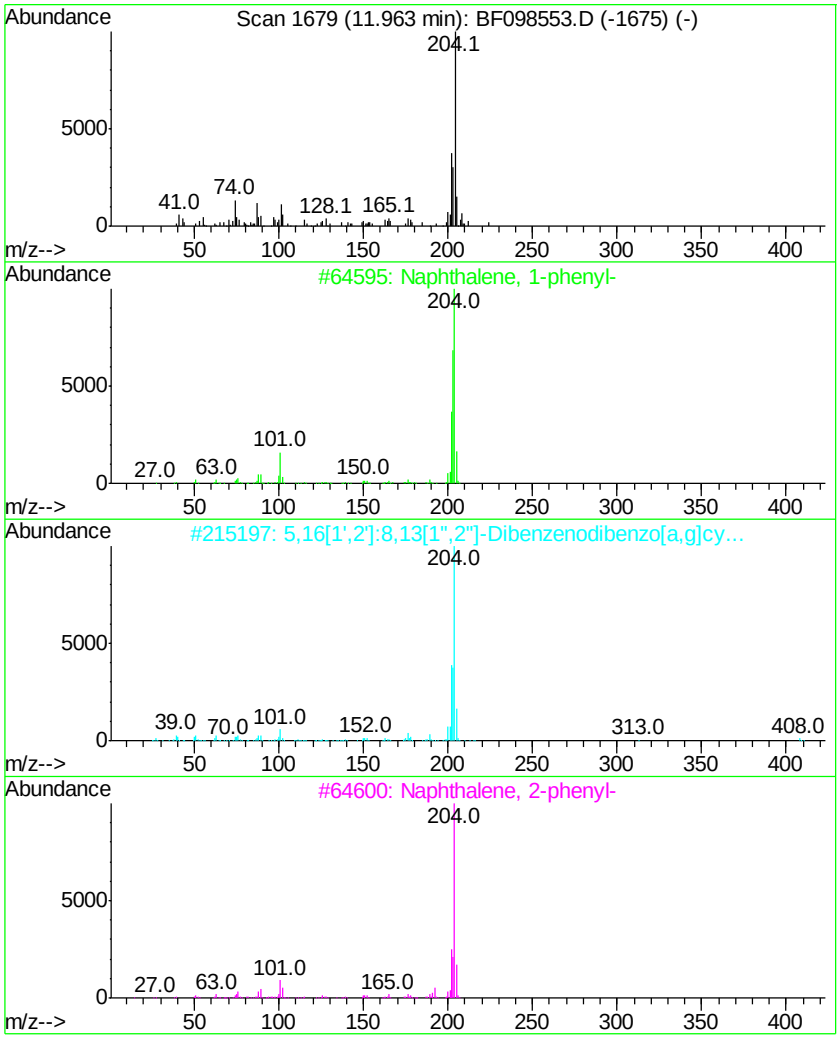
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

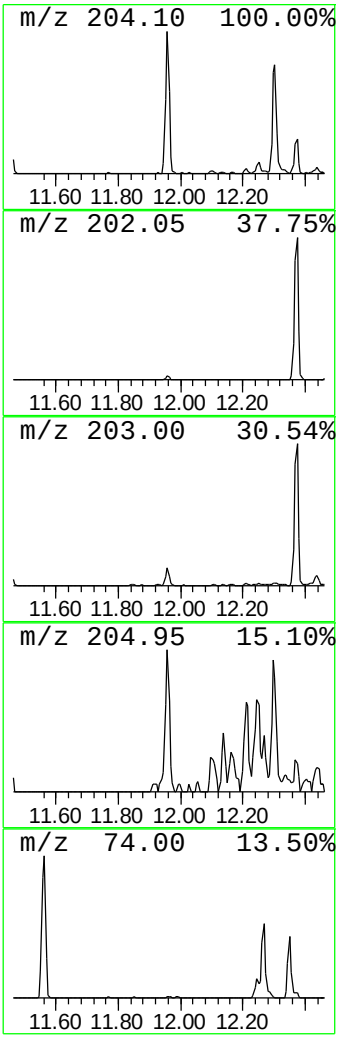
**********

Peak Number 15 Naphthalene, 1-phenyl- Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.96 | 2.66 ng | 109730 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1-phenyl- | 204 | C16H12 | 000605-02-7 | 86 |
| 2 | 5,16[1',2']:8,13[1'',2'']-Dibenz... | 408 | C32H24 | 005672-97-9 | 86 |
| 3 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 81 |
| 4 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 81 |
| 5 | 3,4-Biphenyldicarbonitrile | 204 | C14H8N2 | 004128-63-6 | 58 |



# Library Search Compound Report

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Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

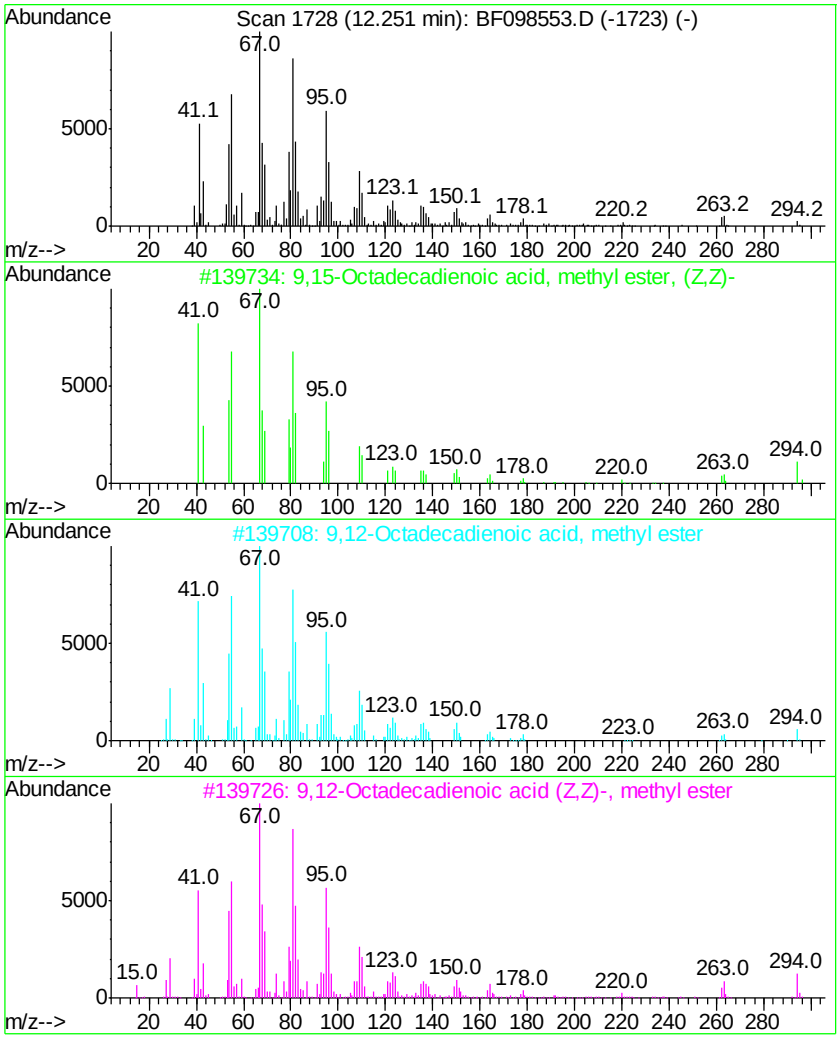
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

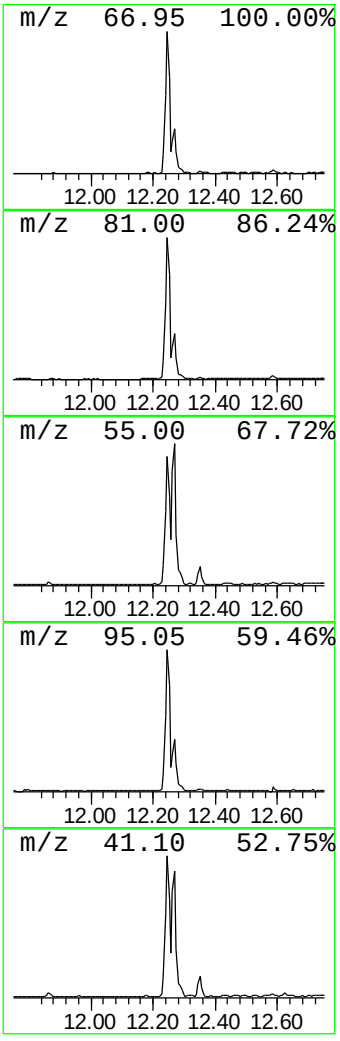
**********

Peak Number 16 9,15-Octadecadienoic acid, ... Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.25 | 82.50 ng | 3398730 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,15-Octadecadienoic acid, methy... | 294 | C19H34O2 | 017309-05-6 | 99 |
| 2 | 9,12-Octadecadienoic acid, methy... | 294 | C19H34O2 | 002462-85-3 | 99 |
| 3 | 9,12-Octadecadienoic acid (Z,Z)-... | 294 | C19H34O2 | 000112-63-0 | 99 |
| 4 | 9,12-Octadecadienoic acid, methy... | 294 | C19H34O2 | 002566-97-4 | 98 |
| 5 | 10,13-Octadecadienoic acid, meth... | 294 | C19H34O2 | 056554-62-2 | 98 |



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Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

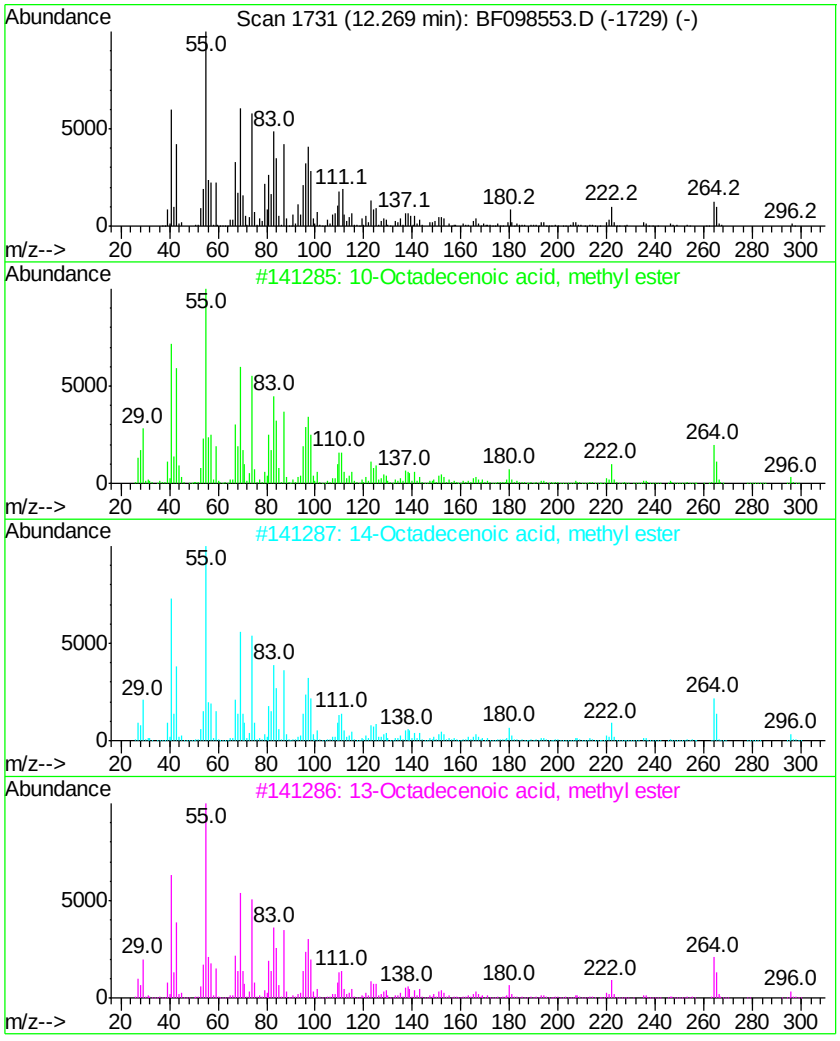
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

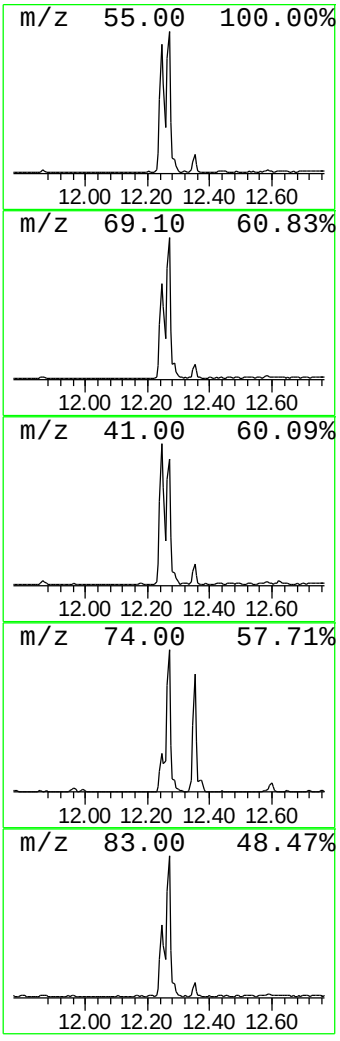
**********

Peak Number 17 10-Octadecenoic acid, methy... Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.27 | 51.54 ng | 2123440 | Phenanthrene-d10 | 11.16 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 10-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 013481-95-3 | 99 |
| 2 | 14-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 056554-48-4 | 99 |
| 3 | 13-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 056554-47-3 | 99 |
| 4 | 11-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 052380-33-3 | 99 |
| 5 | 6-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 052355-31-4 | 99 |



Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

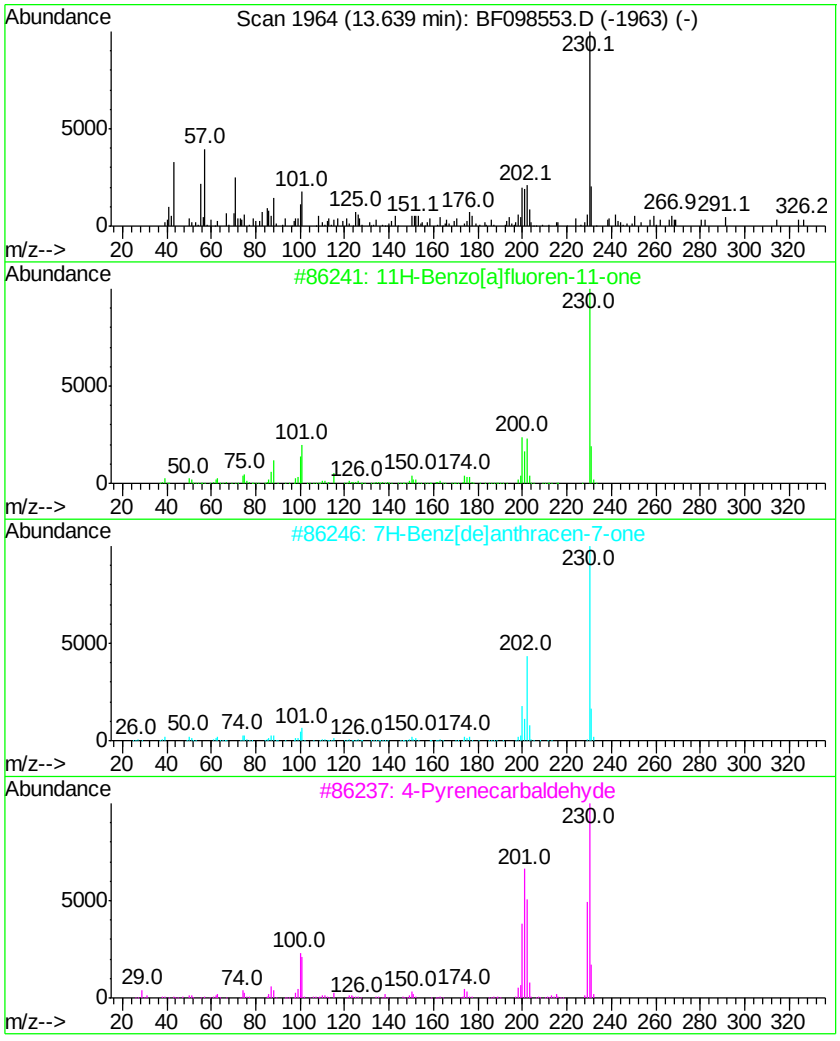
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

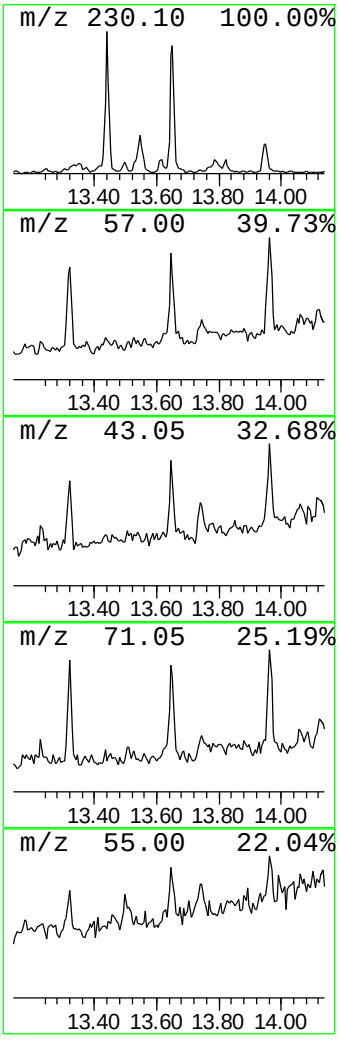
**********

Peak Number 18 11H-Benzo[a]fluoren-11-one Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.64 | 2.23 ng | 164080 | Chrysene-d12 | 13.80 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[a]fluoren-11-one | 230 | C17H10O | 000479-79-8 | 93 |
| 2 | 7H-Benz[de]anthracen-7-one | 230 | C17H10O | 000082-05-3 | 72 |
| 3 | 4-Pyrenecarbaldehyde | 230 | C17H10O | 022245-51-8 | 64 |
| 4 | 6H-Benz[de]anthracen-6-one | 230 | C17H10O | 080252-14-8 | 62 |
| 5 | o-Terphenyl | 230 | C18H14 | 000084-15-1 | 53 |



Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

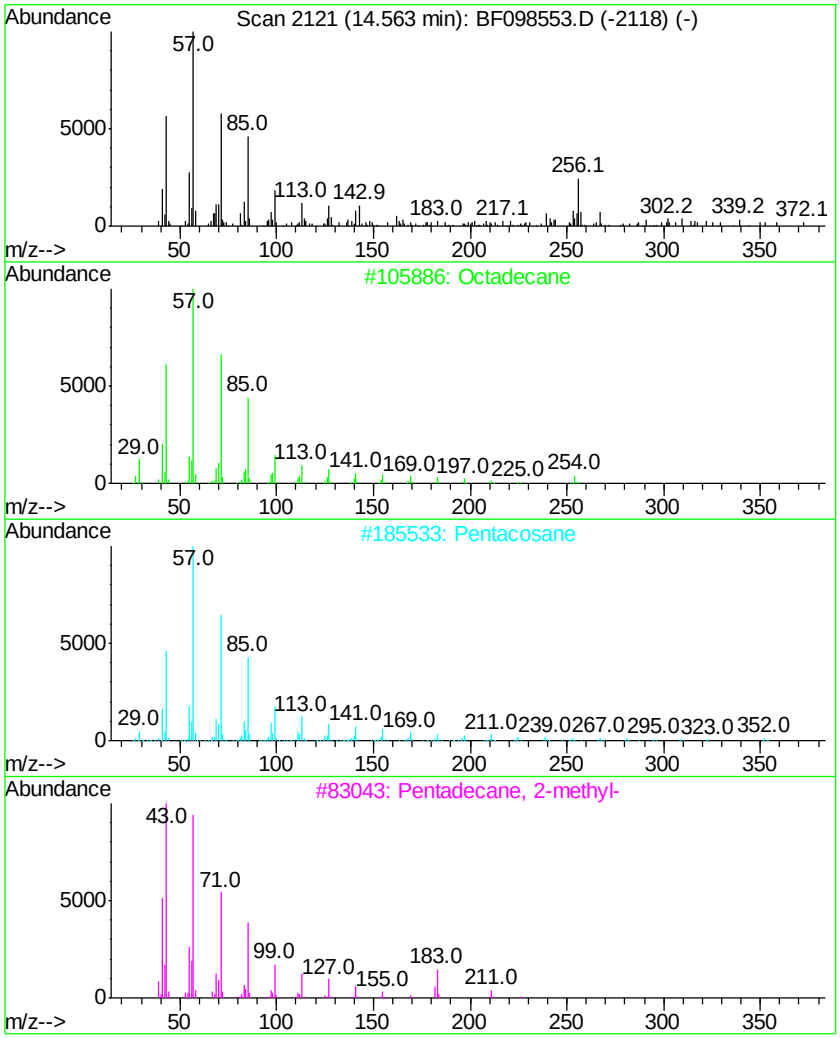
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

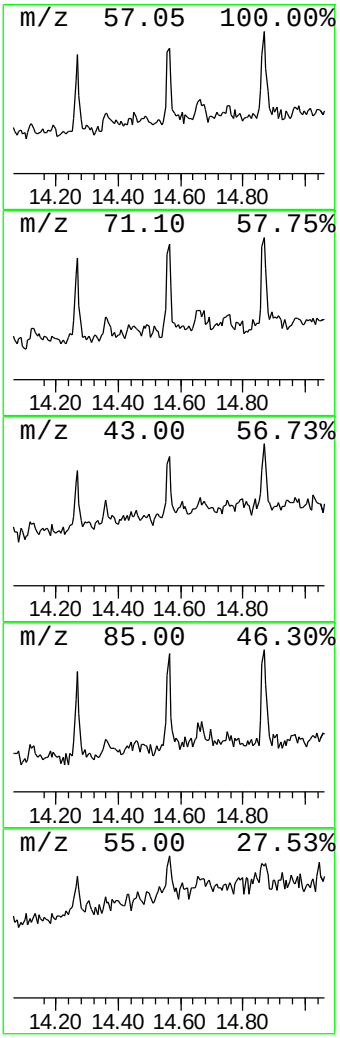
**********

Peak Number 19 Octadecane Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.56 | 2.15 ng | 113739 | Perylene-d12 | 15.20 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Octadecane | 254 | C18H38 | 000593-45-3 | 78 |
| 2 | Pentacosane | 352 | C25H52 | 000629-99-2 | 59 |
| 3 | Pentadecane, 2-methyl- | 226 | C16H34 | 001560-93-6 | 55 |
| 4 | Decane, 3,8-dimethyl- | 170 | C12H26 | 017312-55-9 | 49 |
| 5 | Heptadecane, 2,6,10,15-tetramethyl- | 296 | C21H44 | 054833-48-6 | 49 |



Library Search Compound Report

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

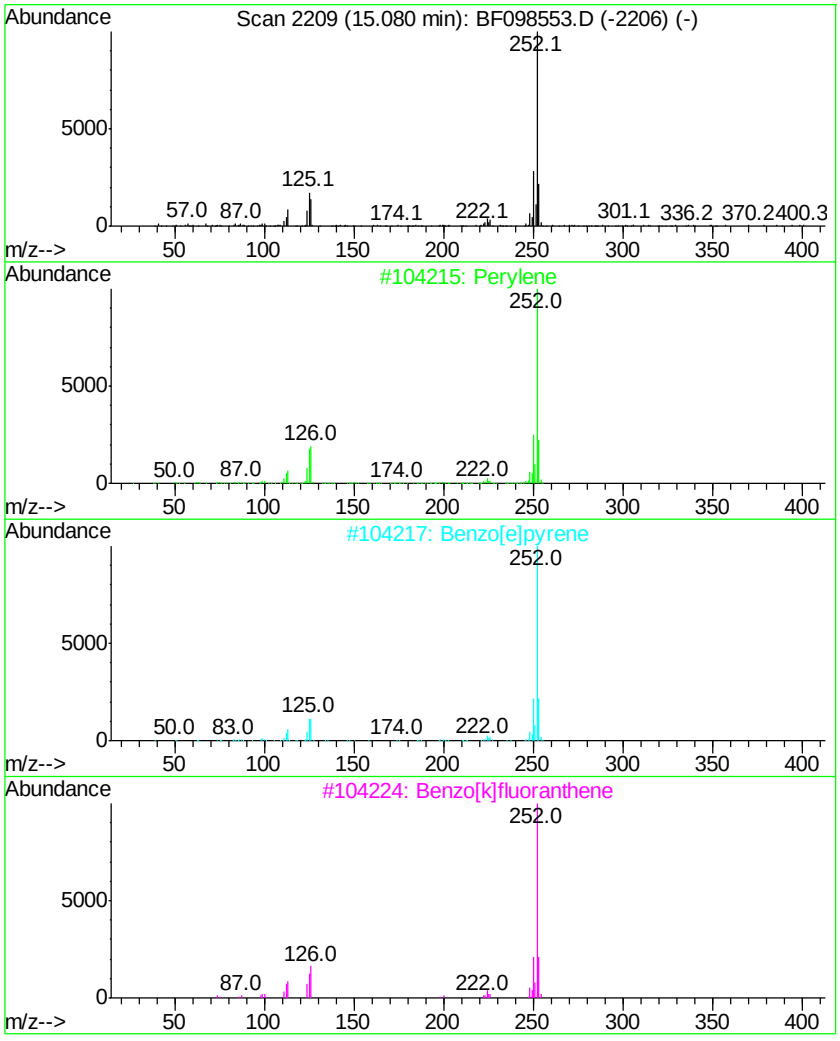
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

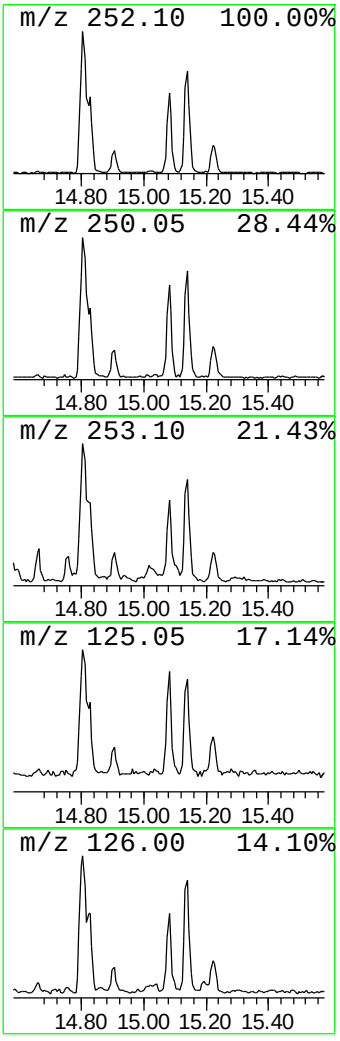
**********

Peak Number 20 Perylene Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.08 | 4.90 ng | 259299 | Perylene-d12 | 15.20 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Perylene | 252 | C20H12 | 000198-55-0 | 98 |
| 2 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 98 |
| 3 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 95 |
| 4 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 94 |
| 5 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 90 |



Tentatively Identified Compound (LSC) summary

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA_F\DATA\BF091417\
Data File : BF098553.D
Acq On : 15 Sep 2017 3:04
Operator : SJ/JU
Sample : I5218-01 5X
Misc :
ALS Vial : 23 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SU-02-091217

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF091117.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 |
| unknown6.42 | 6.42 | 15.5 | ng | 598648 | 1 | 6.65 | 770486 | 20.0 |
| Hexadecane | 9.09 | 2.4 | ng | 104668 | 3 | 9.68 | 864934 | 20.0 |
| Pentadecane | 10.12 | 2.4 | ng | 101455 | 3 | 9.68 | 864934 | 20.0 |
| Tridecane | 10.59 | 3.8 | ng | 156185 | 4 | 11.16 | 823937 | 20.0 |
| Heptacosane | 11.03 | 2.4 | ng | 98541 | 4 | 11.16 | 823937 | 20.0 |
| Dibenzothiophene | 11.06 | 2.7 | ng | 110469 | 4 | 11.16 | 823937 | 20.0 |
| Octane, 3,5-dimet... | 11.46 | 2.4 | ng | 99141 | 4 | 11.16 | 823937 | 20.0 |
| Hexadecanoic acid... | 11.56 | 24.5 | ng | 1009830 | 4 | 11.16 | 823937 | 20.0 |
| Anthracene, 2-met... | 11.66 | 2.8 | ng | 114822 | 4 | 11.16 | 823937 | 20.0 |
| Phenanthrene, 2-m... | 11.69 | 3.5 | ng | 145076 | 4 | 11.16 | 823937 | 20.0 |
| 4H-Cyclopenta[def... | 11.77 | 4.5 | ng | 186433 | 4 | 11.16 | 823937 | 20.0 |
| Naphthalene, 1-ph... | 11.96 | 2.7 | ng | 109730 | 4 | 11.16 | 823937 | 20.0 |
| 9,15-Octadecadien... | 12.25 | 82.5 | ng | 3398730 | 4 | 11.16 | 823937 | 20.0 |
| 10-Octadecenoic a... | 12.27 | 51.5 | ng | 2123440 | 4 | 11.16 | 823937 | 20.0 |
| 11H-Benzo[a]fluor... | 13.64 | 2.2 | ng | 164080 | 5 | 13.80 | 1474540 | 20.0 |
| Octadecane | 14.56 | 2.1 | ng | 113739 | 6 | 15.20 | 1059320 | 20.0 |
| Perylene | 15.08 | 4.9 | ng | 259299 | 6 | 15.20 | 1059320 | 20.0 |