LSC Area Percent Report

Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

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-BF081517.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 | 3.128 | 175 | 177 | 198 | rBV | 48360 | 122676 | 3.45% | 0.338% |
| 2 | 4.951 | 483 | 487 | 500 | rVB | 305520 | 435719 | 12.27% | 1.200% |
| 3 | 5.363 | 551 | 557 | 560 | rBV | 3138221 | 3310618 | 93.22% | 9.118% |
| 4 | 6.392 | 726 | 732 | 736 | rBV | 3127234 | 3551465 | 100.00% | 9.782% |
| 5 | 6.522 | 749 | 754 | 757 | rBV | 3280882 | 3303846 | 93.03% | 9.100% |
| 6 | 6.751 | 789 | 793 | 796 | rBV | 968039 | 833862 | 23.48% | 2.297% |
| 7 | 6.904 | 815 | 819 | 822 | rBV | 2674576 | 2579977 | 72.65% | 7.106% |
| 8 | 6.928 | 822 | 823 | 827 | rVB | 112504 | 68817 | 1.94% | 0.190% |
| 9 | 7.316 | 881 | 889 | 892 | rBV | 2252089 | 2211512 | 62.27% | 6.091% |
| 10 | 7.410 | 900 | 905 | 908 | rBV2 | 55395 | 69442 | 1.96% | 0.191% |
| 11 | 8.033 | 1006 | 1011 | 1013 | rBV | 1234290 | 1142882 | 32.18% | 3.148% |
| 12 | 8.051 | 1013 | 1014 | 1018 | rVV | 568722 | 363625 | 10.24% | 1.002% |
| 13 | 8.104 | 1020 | 1023 | 1025 | rVB | 65352 | 54624 | 1.54% | 0.150% |
| 14 | 8.745 | 1128 | 1132 | 1135 | rVB | 253090 | 221024 | 6.22% | 0.609% |
| 15 | 8.839 | 1144 | 1148 | 1152 | rVB | 217765 | 194366 | 5.47% | 0.535% |
| 16 | 9.110 | 1189 | 1194 | 1197 | rBV | 3615246 | 3298711 | 92.88% | 9.086% |
| 17 | 9.204 | 1203 | 1210 | 1213 | rBV2 | 72469 | 91635 | 2.58% | 0.252% |
| 18 | 9.304 | 1224 | 1227 | 1231 | rVB | 33316 | 39762 | 1.12% | 0.110% |
| 19 | 9.374 | 1233 | 1239 | 1242 | rBV | 75576 | 101409 | 2.86% | 0.279% |
| 20 | 9.445 | 1247 | 1251 | 1253 | rVV | 110646 | 115002 | 3.24% | 0.317% |
| 21 | 9.469 | 1253 | 1255 | 1257 | rVV | 78051 | 61122 | 1.72% | 0.168% |
| 22 | 9.504 | 1257 | 1261 | 1265 | rVV | 623760 | 545475 | 15.36% | 1.502% |
| 23 | 9.557 | 1267 | 1270 | 1275 | rVB | 52919 | 61157 | 1.72% | 0.168% |
| 24 | 9.645 | 1281 | 1285 | 1290 | rVB | 87350 | 78853 | 2.22% | 0.217% |
| 25 | 9.722 | 1296 | 1298 | 1302 | rVB | 50815 | 37264 | 1.05% | 0.103% |
| 26 | 9.786 | 1302 | 1309 | 1312 | rBV | 1131816 | 1074185 | 30.25% | 2.959% |
| 27 | 9.816 | 1312 | 1314 | 1318 | rVV | 228275 | 174418 | 4.91% | 0.480% |
| 28 | 9.939 | 1330 | 1335 | 1338 | rBV4 | 23345 | 36842 | 1.04% | 0.101% |
| 29 | 9.986 | 1340 | 1343 | 1346 | rVB | 201619 | 160409 | 4.52% | 0.442% |
| 30 | 10.192 | 1373 | 1378 | 1379 | rBV2 | 39949 | 41304 | 1.16% | 0.114% |
| 31 | 10.221 | 1380 | 1383 | 1389 | rVB2 | 68117 | 66247 | 1.87% | 0.182% |
| 32 | 10.327 | 1398 | 1401 | 1407 | rVB | 261668 | 224454 | 6.32% | 0.618% |
| 33 | 10.486 | 1425 | 1428 | 1432 | rVB | 44448 | 41510 | 1.17% | 0.114% |
| 34 | 10.569 | 1437 | 1442 | 1446 | rBV | 1631205 | 1609367 | 45.32% | 4.433% |

LSC Area Percent Report

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Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

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-BF081517.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 10.692 | 1460 | 1463 | 1471 | rVB | 135171 | 156330 | 4.40% | 0.431% |
| 36 | 10.874 | 1490 | 1494 | 1497 | rBV3 | 39336 | 53463 | 1.51% | 0.147% |
| 37 | 10.904 | 1497 | 1499 | 1505 | rVB3 | 35188 | 41741 | 1.18% | 0.115% |
| 38 | 11.139 | 1537 | 1539 | 1541 | rBV | 71156 | 58084 | 1.64% | 0.160% |
| 39 | 11.163 | 1541 | 1543 | 1549 | rVB2 | 86339 | 97356 | 2.74% | 0.268% |
| 40 | 11.263 | 1557 | 1560 | 1563 | rBV | 917975 | 942014 | 26.52% | 2.595% |
| 41 | 11.286 | 1563 | 1564 | 1568 | rVV | 653435 | 472444 | 13.30% | 1.301% |
| 42 | 11.339 | 1568 | 1573 | 1576 | rVB | 191554 | 172797 | 4.87% | 0.476% |
| 43 | 11.492 | 1596 | 1599 | 1602 | rBV | 76061 | 69308 | 1.95% | 0.191% |
| 44 | 11.563 | 1609 | 1611 | 1614 | rBV | 49709 | 39632 | 1.12% | 0.109% |
| 45 | 11.763 | 1642 | 1645 | 1648 | rBV | 97006 | 98417 | 2.77% | 0.271% |
| 46 | 11.792 | 1648 | 1650 | 1655 | rVB | 144332 | 116424 | 3.28% | 0.321% |
| 47 | 11.839 | 1655 | 1658 | 1660 | rBV2 | 56254 | 48487 | 1.37% | 0.134% |
| 48 | 11.874 | 1661 | 1664 | 1667 | rVV | 198703 | 218106 | 6.14% | 0.601% |
| 49 | 11.898 | 1667 | 1668 | 1673 | rVB | 82434 | 53356 | 1.50% | 0.147% |
| 50 | 12.063 | 1693 | 1696 | 1698 | rBV | 59706 | 55867 | 1.57% | 0.154% |
| 51 | 12.315 | 1735 | 1739 | 1742 | rBV | 92081 | 98298 | 2.77% | 0.271% |
| 52 | 12.351 | 1742 | 1745 | 1750 | rVB3 | 65710 | 106227 | 2.99% | 0.293% |
| 53 | 12.398 | 1750 | 1753 | 1757 | rBV2 | 49667 | 64853 | 1.83% | 0.179% |
| 54 | 12.474 | 1762 | 1766 | 1769 | rBV | 659032 | 553659 | 15.59% | 1.525% |
| 55 | 12.704 | 1799 | 1805 | 1807 | rBV | 609273 | 607707 | 17.11% | 1.674% |
| 56 | 12.762 | 1812 | 1815 | 1819 | rVB2 | 43453 | 56941 | 1.60% | 0.157% |
| 57 | 12.851 | 1826 | 1830 | 1834 | rBV | 2217770 | 2195681 | 61.82% | 6.047% |
| 58 | 12.921 | 1839 | 1842 | 1845 | rVV2 | 55614 | 67614 | 1.90% | 0.186% |
| 59 | 13.027 | 1858 | 1860 | 1863 | rVB | 126004 | 128619 | 3.62% | 0.354% |
| 60 | 13.098 | 1869 | 1872 | 1875 | rVB | 111515 | 98602 | 2.78% | 0.272% |
| 61 | 13.133 | 1875 | 1878 | 1881 | rBV2 | 116114 | 113785 | 3.20% | 0.313% |
| 62 | 13.227 | 1891 | 1894 | 1896 | rVB | 83577 | 71621 | 2.02% | 0.197% |
| 63 | 13.257 | 1896 | 1899 | 1903 | rBV | 86940 | 69718 | 1.96% | 0.192% |
| 64 | 13.651 | 1961 | 1966 | 1968 | rBV3 | 58125 | 94676 | 2.67% | 0.261% |
| 65 | 13.751 | 1980 | 1983 | 1986 | rVB3 | 120389 | 113932 | 3.21% | 0.314% |
| 66 | 13.898 | 2003 | 2008 | 2011 | rBV2 | 905100 | 1082351 | 30.48% | 2.981% |
| 67 | 13.921 | 2011 | 2012 | 2019 | rVB | 291347 | 225990 | 6.36% | 0.622% |
| 68 | 14.004 | 2024 | 2026 | 2029 | rVB2 | 64041 | 50938 | 1.43% | 0.140% |
| 69 | 14.315 | 2077 | 2079 | 2083 | rBV | 47442 | 42251 | 1.19% | 0.116% |
| 70 | 14.409 | 2092 | 2095 | 2097 | rBV | 52070 | 57863 | 1.63% | 0.159% |
| 71 | 14.915 | 2177 | 2181 | 2184 | rBV | 253091 | 368686 | 10.38% | 1.015% |

LSC Area Percent Report

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Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

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-BF081517.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 15.204 | 2227 | 2230 | 2235 | rVB | 160113 | 179655 | 5.06% | 0.495% |
| 73 | 15.262 | 2236 | 2240 | 2246 | rBV | 211868 | 250147 | 7.04% | 0.689% |
| 74 | 15.321 | 2246 | 2250 | 2254 | rBV | 498424 | 590121 | 16.62% | 1.625% |

Sum of corrected areas: 36307342

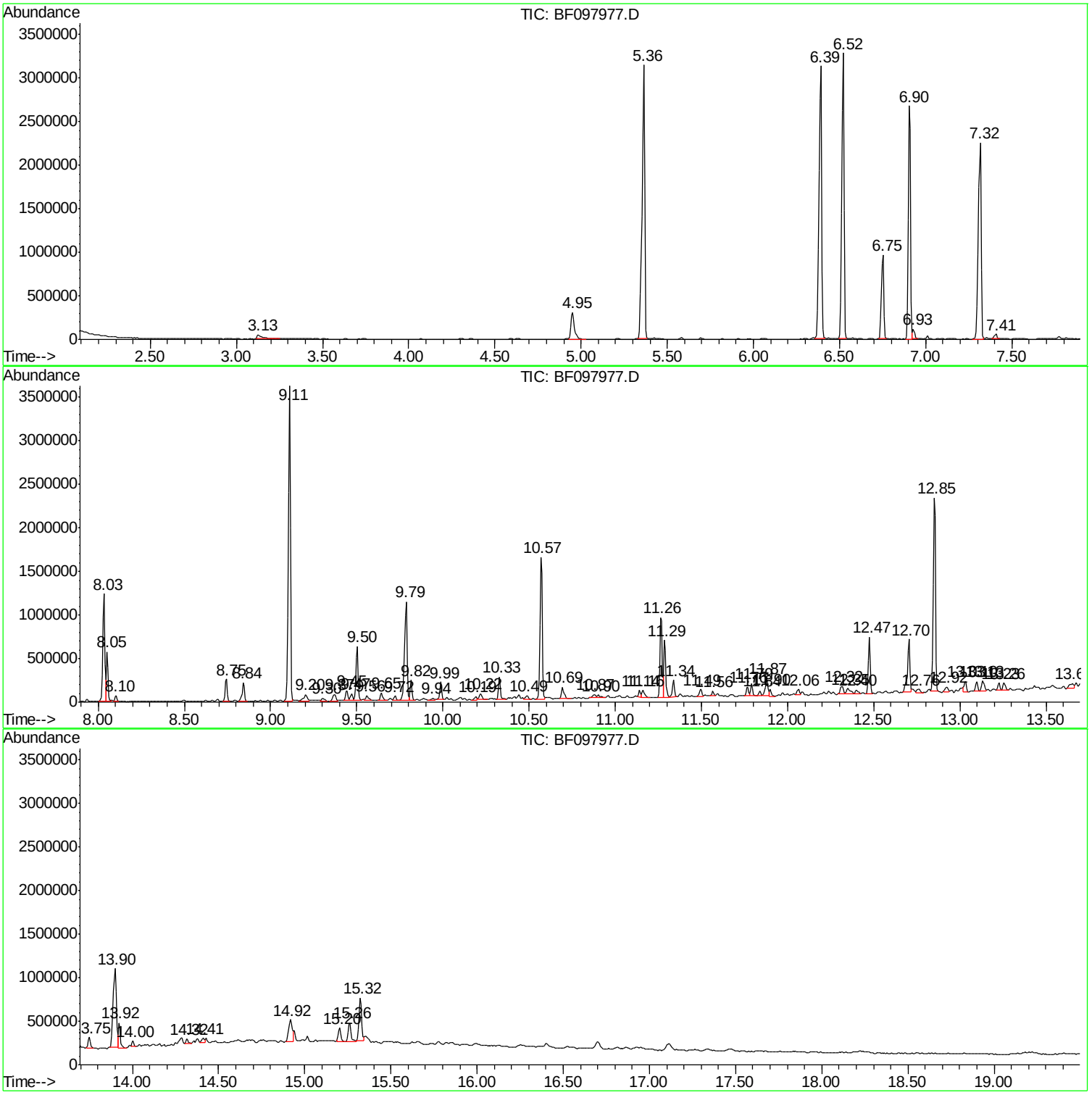
LSC Report - Integrated Chromatogram

Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

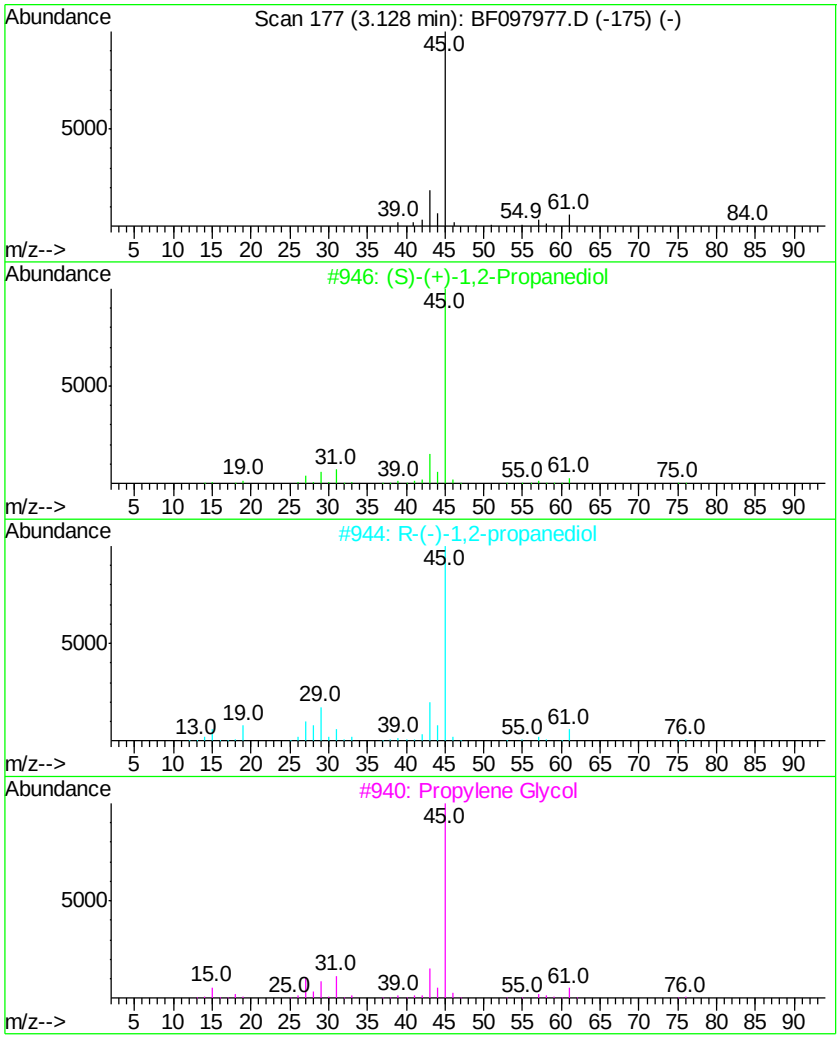
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

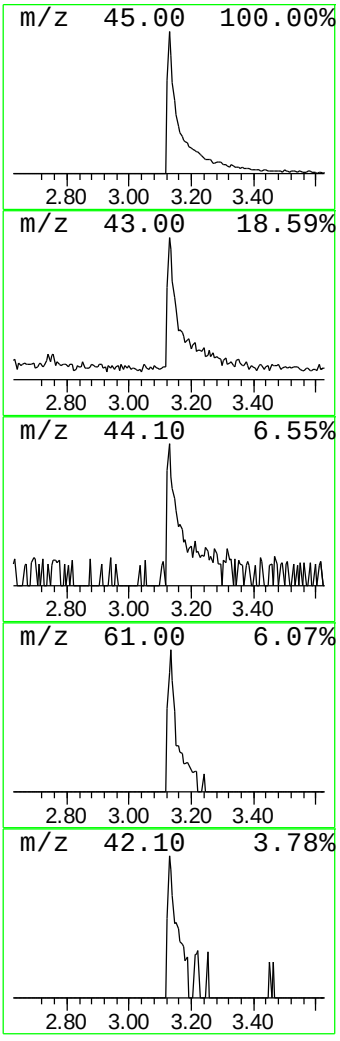
**********

Peak Number 1 unknown3.13 Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 3.13 | 2.94 ng | 122676 | 1,4-Dichlorobenzene-d4 | 6.75 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | (S)-(+)-1,2-Propanediol | 76 | C3H8O2 | 004254-15-3 | 43 |
| 2 | R-(-)-1,2-propanediol | 76 | C3H8O2 | 004254-14-2 | 43 |
| 3 | Propylene Glycol | 76 | C3H8O2 | 000057-55-6 | 9 |
| 4 | Isopropyl Alcohol | 60 | C3H8O | 000067-63-0 | 9 |
| 5 | Formamide | 45 | CH3NO | 000075-12-7 | 7 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

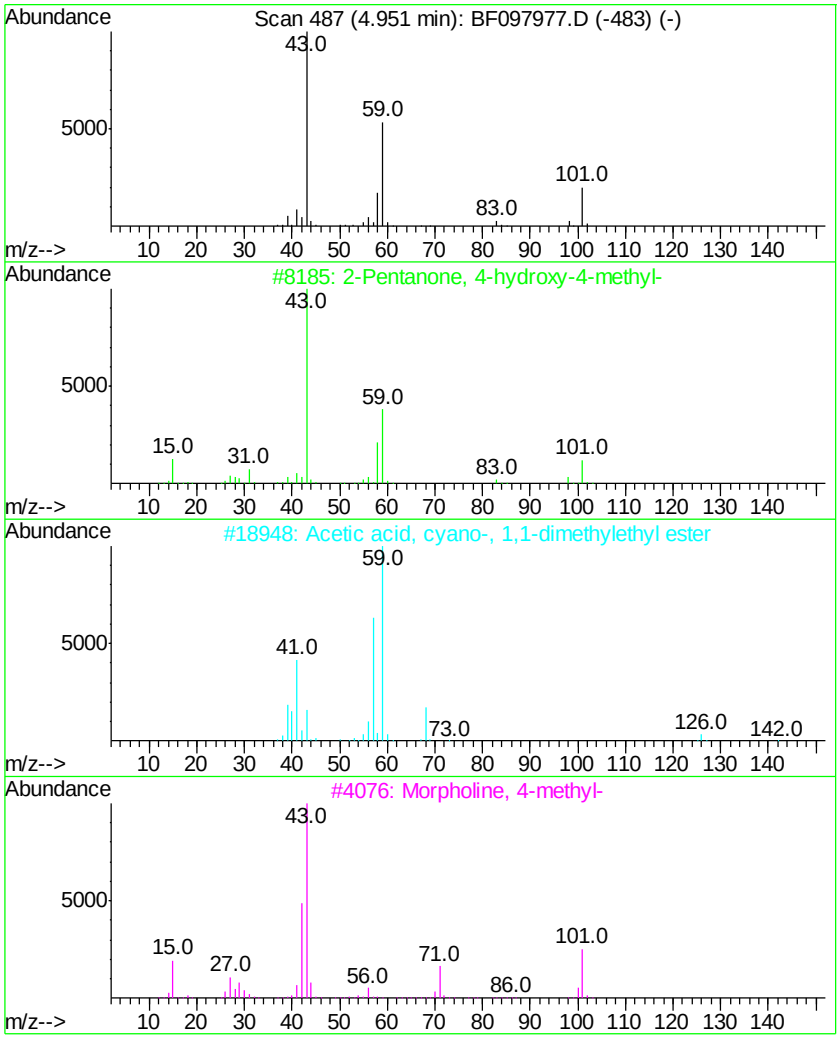
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

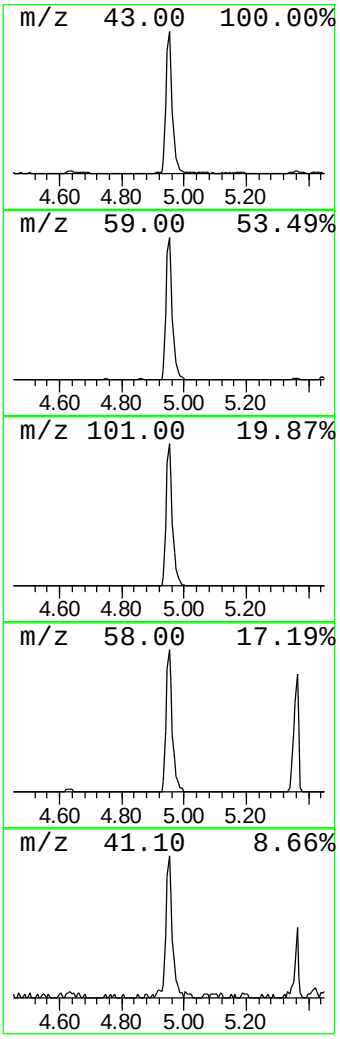
**********

Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.95 | 10.45 ng | 435719 | 1,4-Dichlorobenzene-d4 | 6.75 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 50 |
| 2 | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 25 |
| 3 | Morpholine, 4-methyl- | 101 | C5H11NO | 000109-02-4 | 9 |
| 4 | Butanamide, 2-hydroxy-2,N-dimethyl- | 117 | C5H11NO2 | 039961-72-3 | 9 |
| 5 | N,N'-Bis(2-methyl-2-nitrosopenta... | 258 | C12H22N2O4 | 094514-30-4 | 9 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

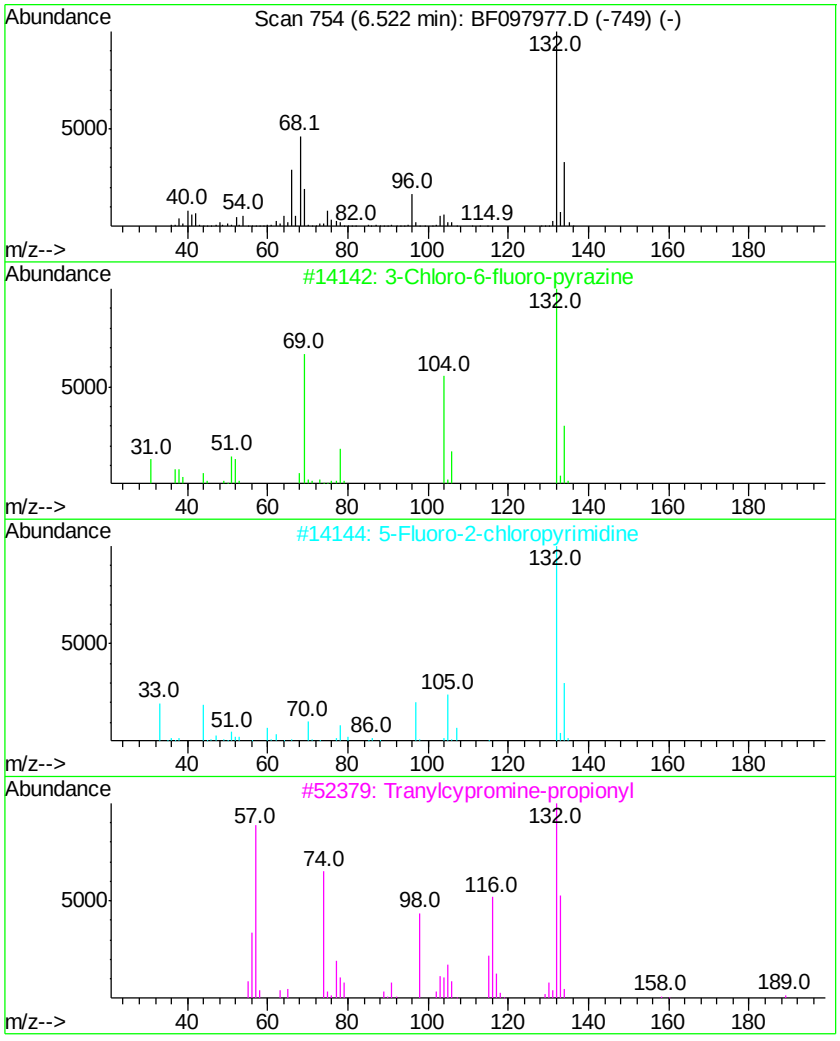
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

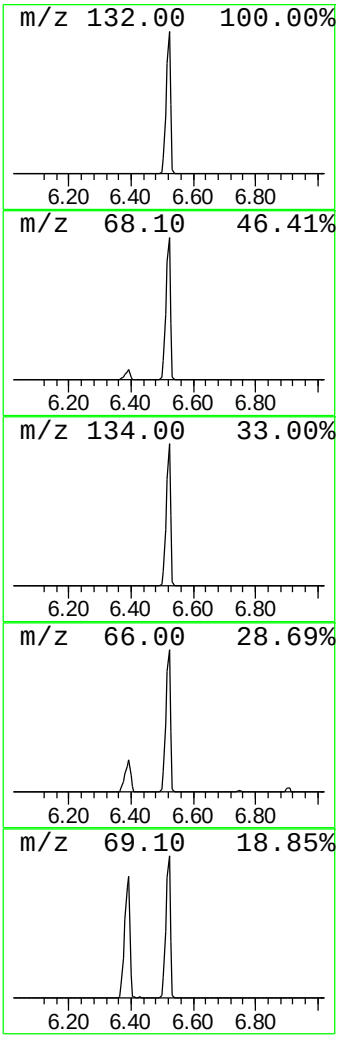
**********

Peak Number 3 unknown6.52 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.52 | 79.24 ng | 3303850 | 1,4-Dichlorobenzene-d4 | 6.75 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 16 |
| 2 | 5-Fluoro-2-chloropyrimidine | 132 | C4H2ClFN2 | 062802-42-0 | 12 |
| 3 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 10 |
| 4 | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO | 031357-76-3 | 9 |
| 5 | Bicyclo[4.2.0]octa-1,3,5-triene,... | 132 | C10H12 | 028749-81-7 | 9 |



Library Search Compound Report

Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

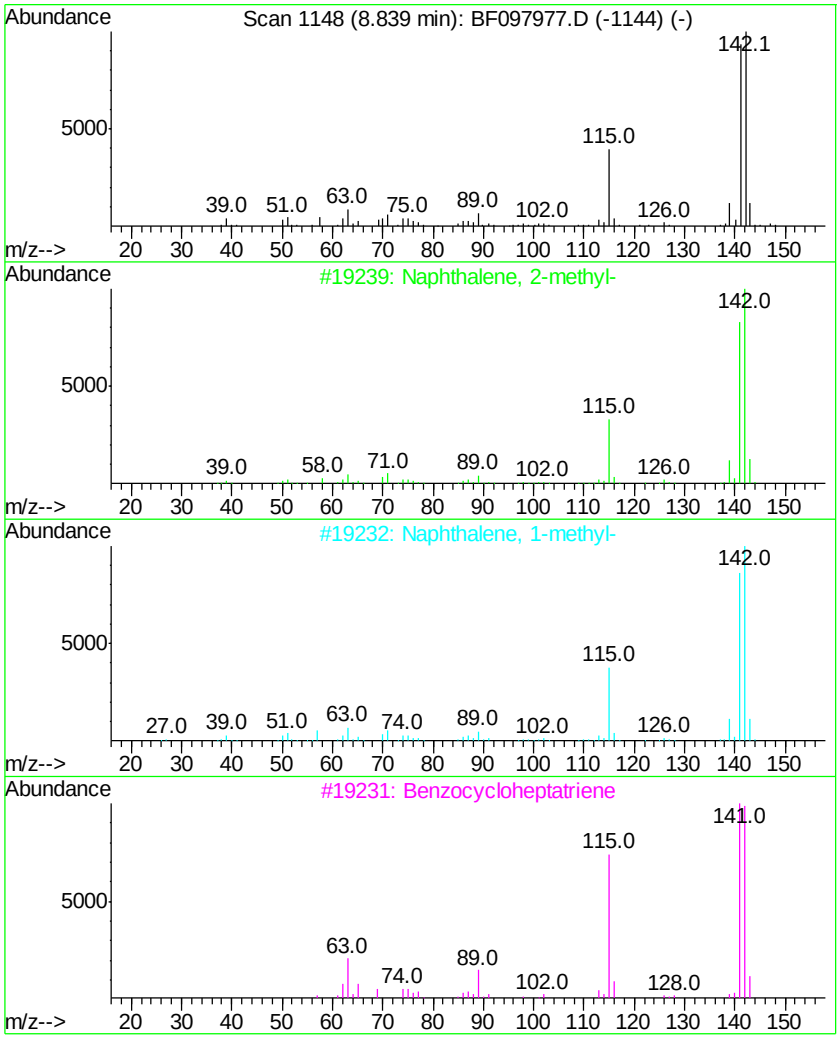
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

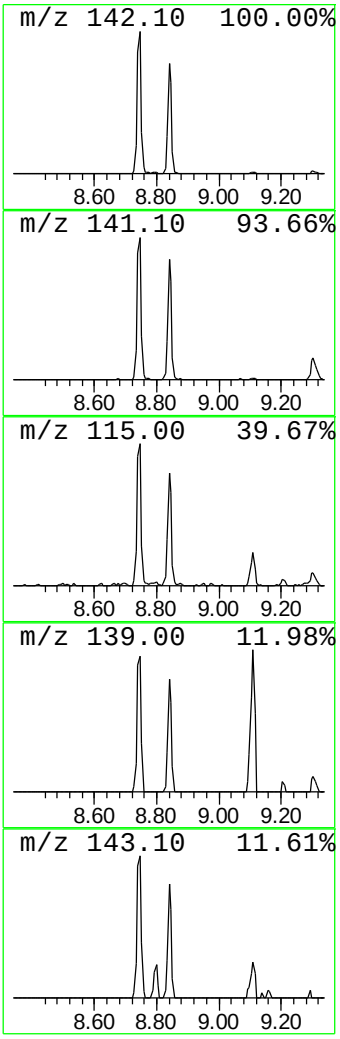
**********

Peak Number 5 Naphthalene, 1-methyl- Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 8.84 | 3.40 ng | 194366 | Naphthalene-d8 | 8.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-methyl- | 142 | C11H10 | 000091-57-6 | 97 |
| 2 | Naphthalene, 1-methyl- | 142 | C11H10 | 000090-12-0 | 96 |
| 3 | Benzocycloheptatriene | 142 | C11H10 | 000264-09-5 | 94 |
| 4 | 1,4-Methanonaphthalene, 1,4-dihy... | 142 | C11H10 | 004453-90-1 | 94 |
| 5 | Bicyclo[4.4.1]undeca-1,3,5,7,9-p... | 142 | C11H10 | 002443-46-1 | 91 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

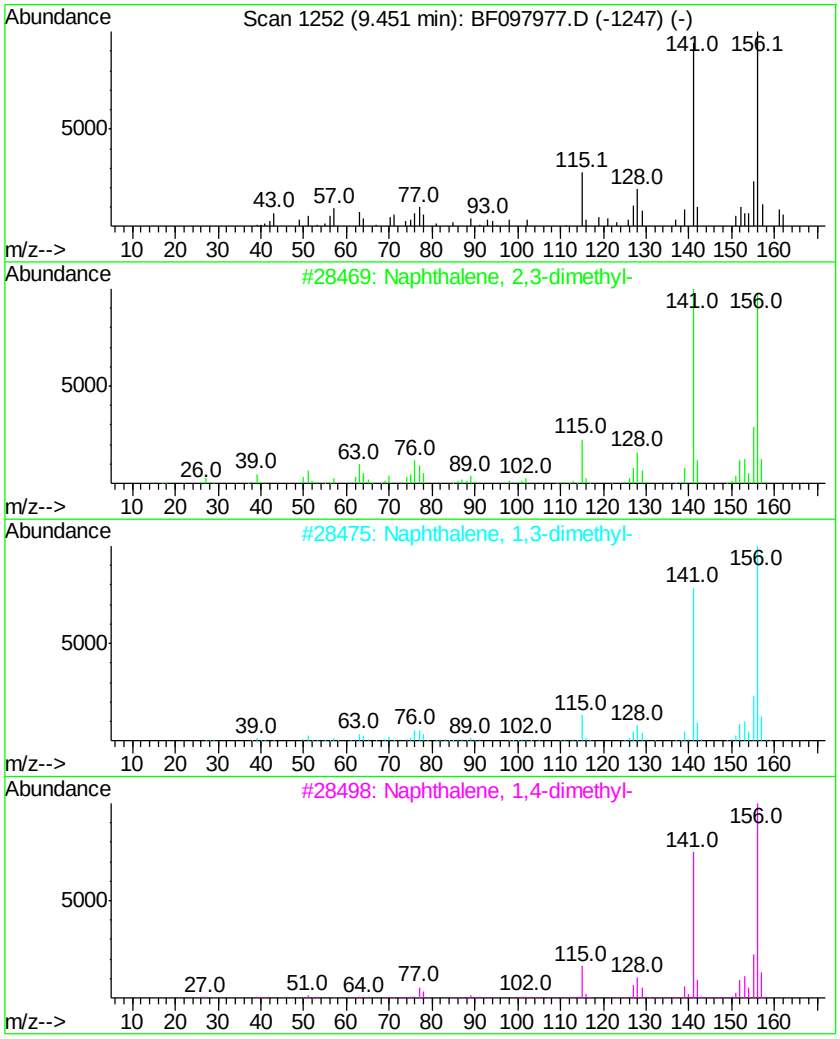
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

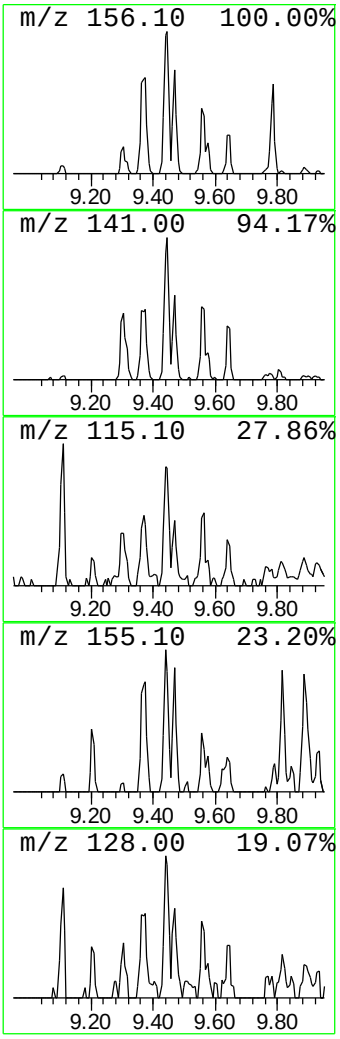
**********

Peak Number 6 Naphthalene, 2,3-dimethyl- Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.45 | 2.14 ng | 115002 | Acenaphthene-d10 | 9.79 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 98 |
| 2 | Naphthalene, 1,3-dimethyl- | 156 | C12H12 | 000575-41-7 | 96 |
| 3 | Naphthalene, 1,4-dimethyl- | 156 | C12H12 | 000571-58-4 | 96 |
| 4 | Naphthalene, 1,2-dimethyl- | 156 | C12H12 | 000573-98-8 | 96 |
| 5 | Naphthalene, 2,7-dimethyl- | 156 | C12H12 | 000582-16-1 | 95 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

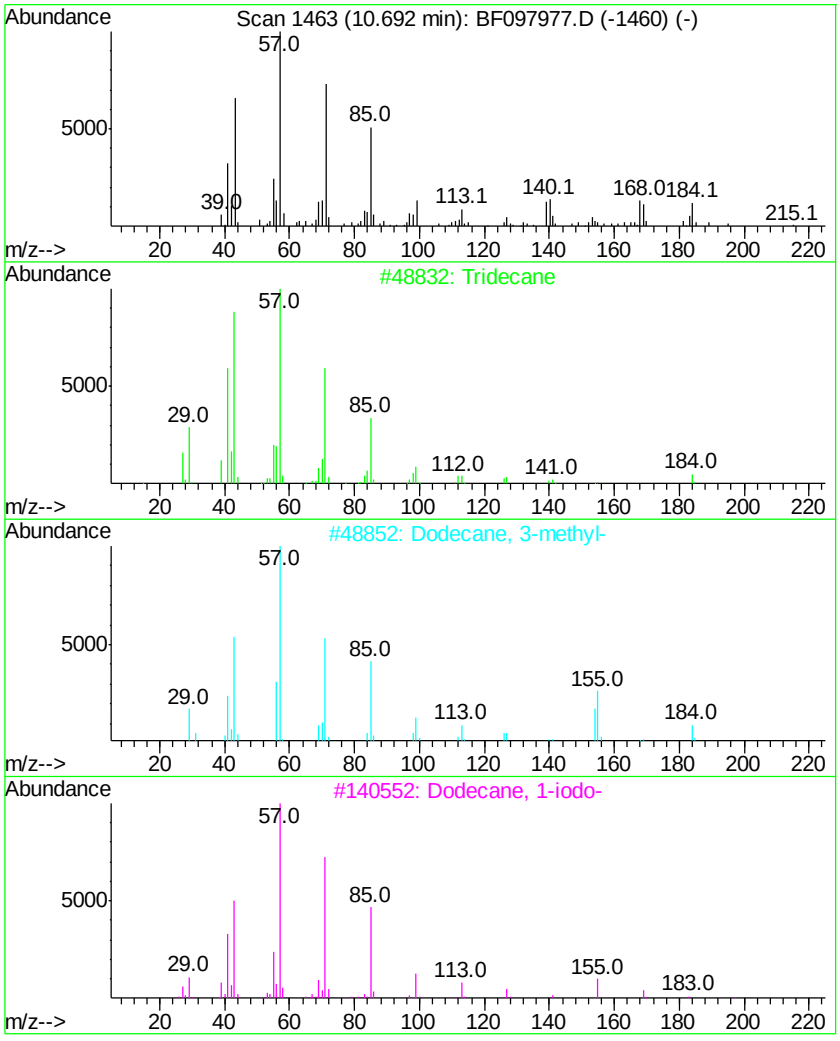
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

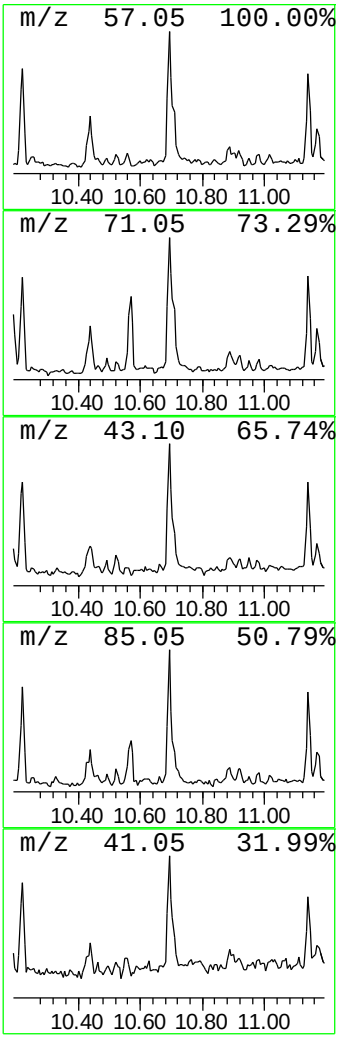
**********

Peak Number 7 Tridecane Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.69 | 3.32 ng | 156330 | Phenanthrene-d10 | 11.26 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Tridecane | 184 | C13H28 | 000629-50-5 | 90 |
| 2 | Dodecane, 3-methyl- | 184 | C13H28 | 017312-57-1 | 89 |
| 3 | Dodecane, 1-iodo- | 296 | C12H25I | 004292-19-7 | 68 |
| 4 | Tetracosane | 338 | C24H50 | 000646-31-1 | 68 |
| 5 | Hexadecane | 226 | C16H34 | 000544-76-3 | 64 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

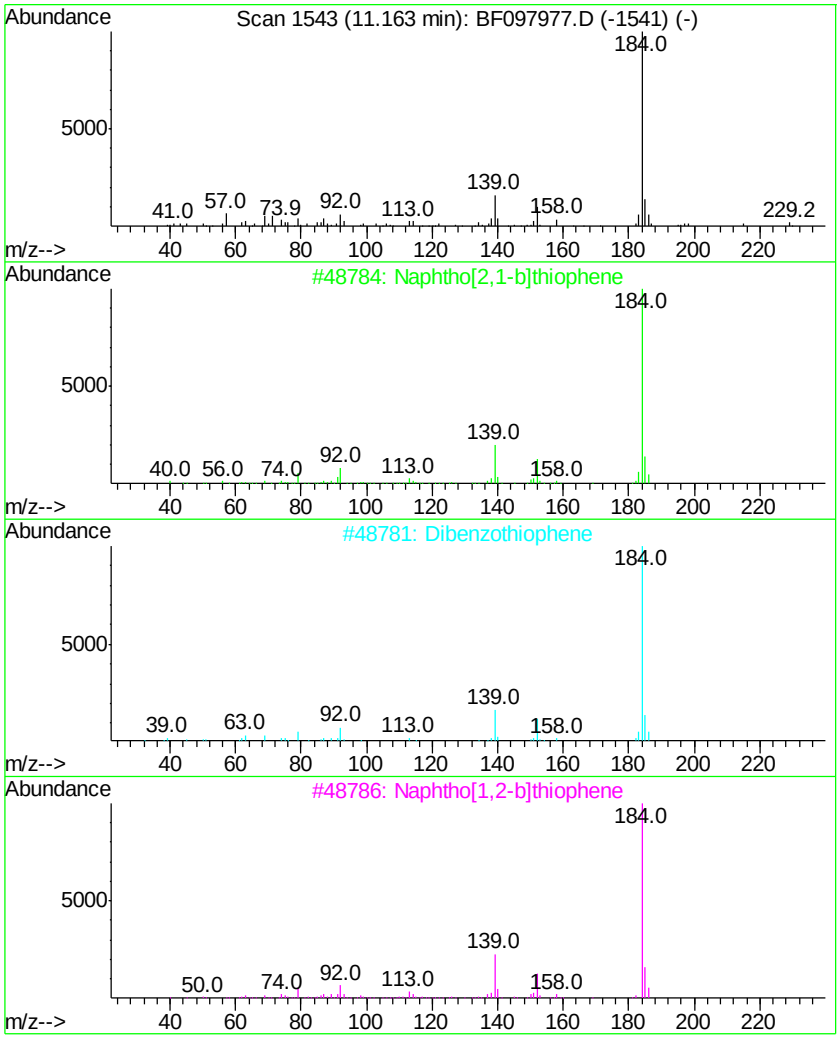
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

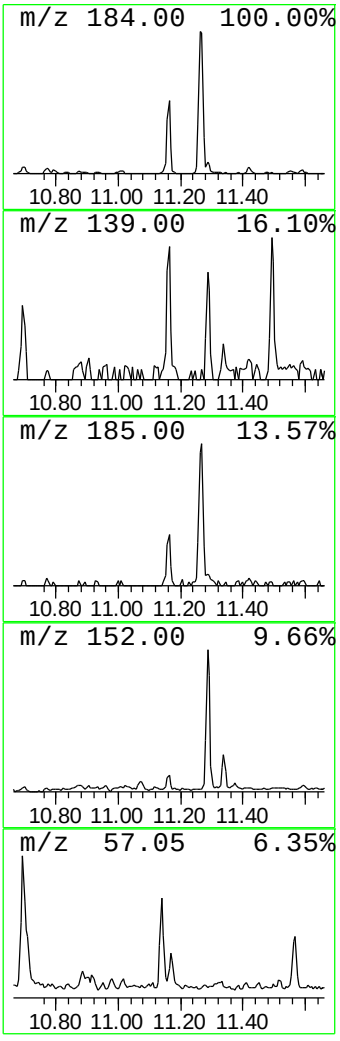
**********

Peak Number 8 Naphtho[2,1-b]thiophene Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.16 | 2.07 ng | 97356 | Phenanthrene-d10 | 11.26 |

| 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 | 94 |
| 3 | Naphtho[1,2-b]thiophene | 184 | C12H8S | 000234-41-3 | 91 |
| 4 | Naphtho[2,3-b]thiophene | 184 | C12H8S | 000268-77-9 | 91 |
| 5 | Azuleno(2,1-b)thiophene | 184 | C12H8S | 000248-13-5 | 90 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

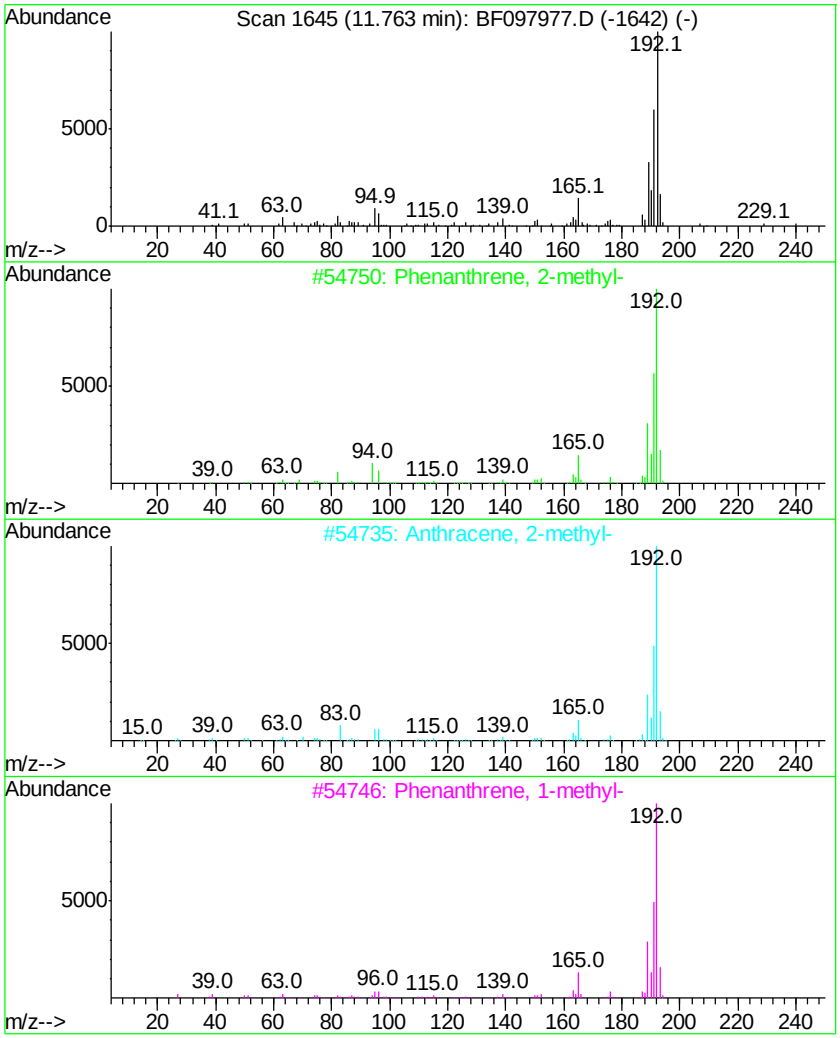
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

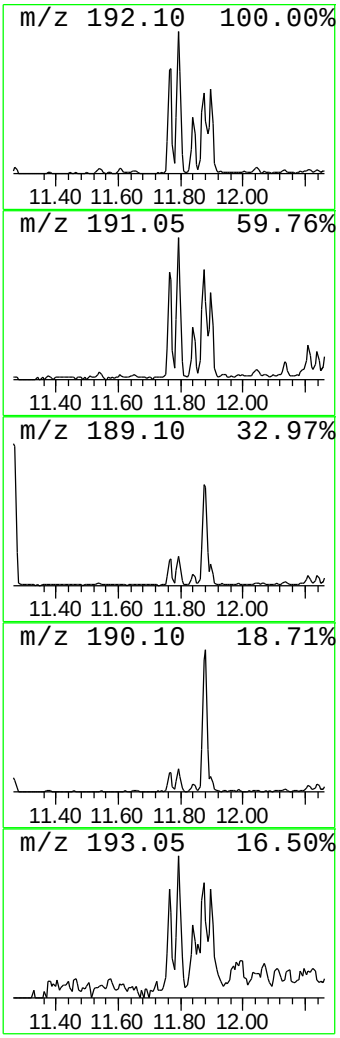
**********

Peak Number 9 Phenanthrene, 2-methyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.76 | 2.09 ng | 98417 | Phenanthrene-d10 | 11.26 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 96 |
| 2 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 95 |
| 3 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 95 |
| 4 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 91 |
| 5 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 90 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

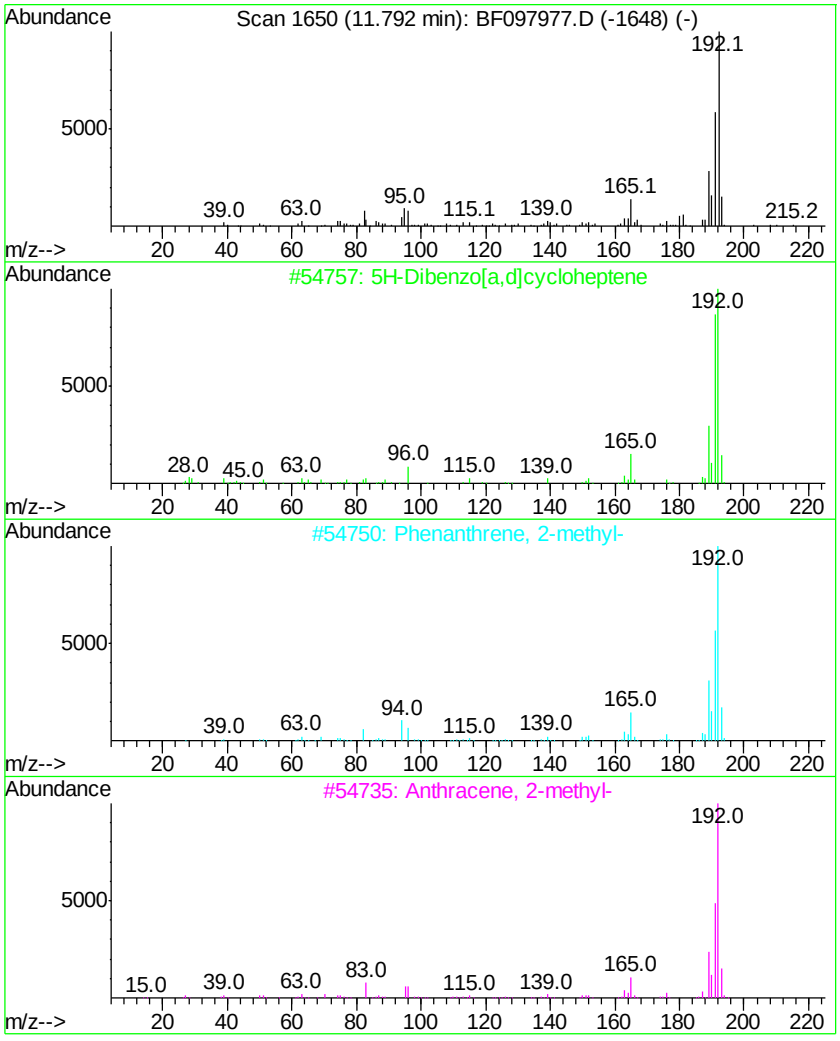
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

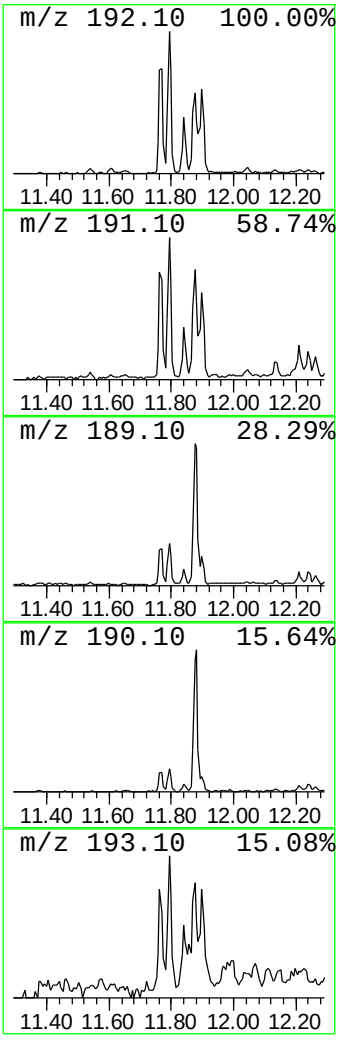
**********

Peak Number 10 5H-Dibenzo[a,d]cycloheptene Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.79 | 2.47 ng | 116424 | Phenanthrene-d10 | 11.26 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 5H-Dibenzo[a,d]cycloheptene | 192 | C15H12 | 000256-81-5 | 94 |
| 2 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 93 |
| 3 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 93 |
| 4 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 90 |
| 5 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 90 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

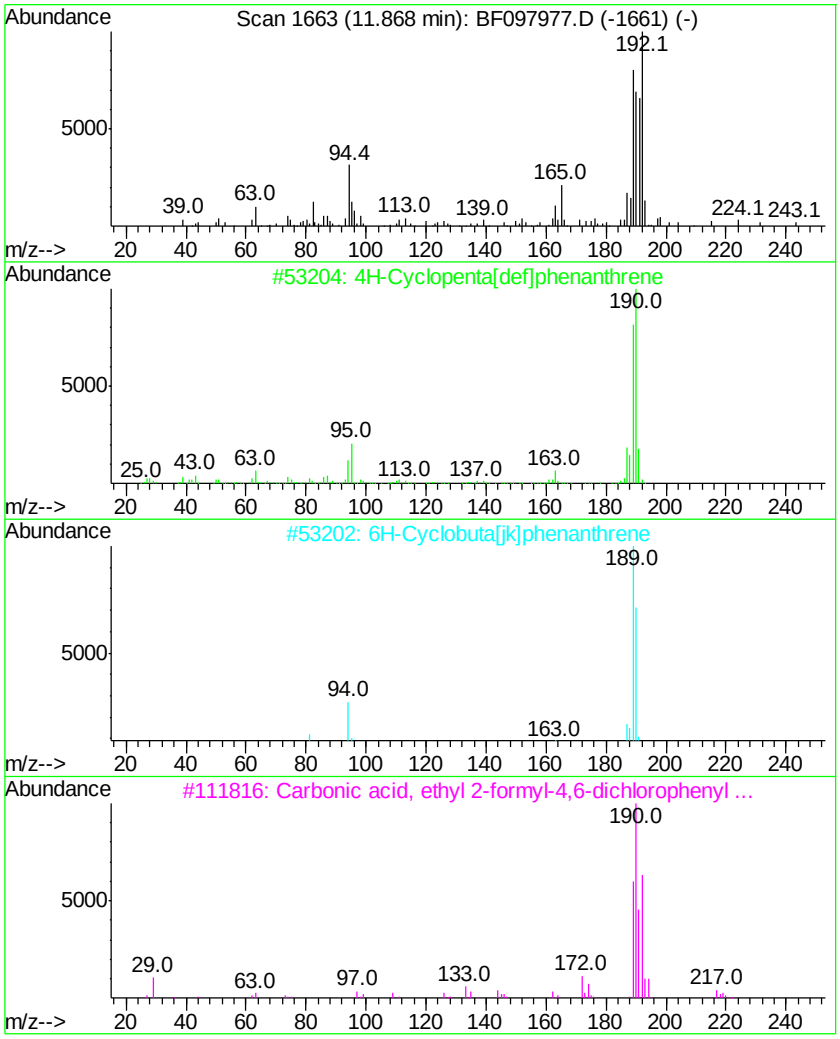
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

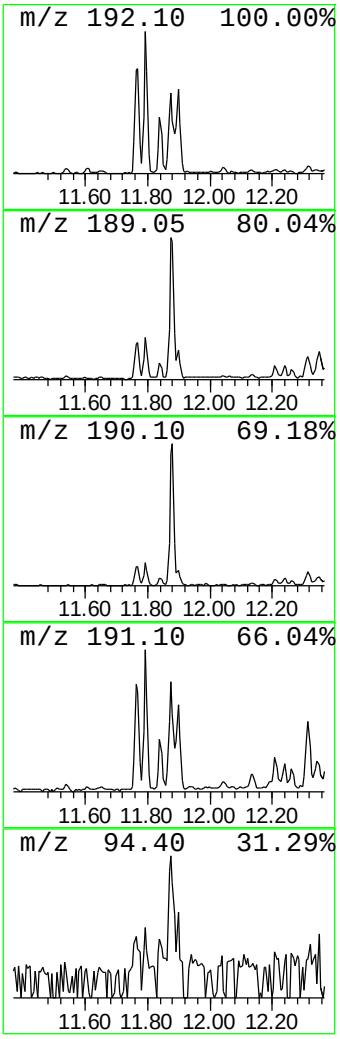
**********

Peak Number 11 4H-Cyclopenta[def]phenanthrene Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.87 | 4.63 ng | 218106 | Phenanthrene-d10 | 11.26 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 60 |
| 2 | 6H-Cyclobuta[jk]phenanthrene | 190 | C15H10 | 083469-43-6 | 50 |
| 3 | Carbonic acid, ethyl 2-formyl-4,... | 262 | C10H8Cl2O4 | 1000331-34-4 | 47 |
| 4 | 3,5-Dichlorobenzoic acid | 190 | C7H4Cl2O2 | 000051-36-5 | 25 |
| 5 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 20 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

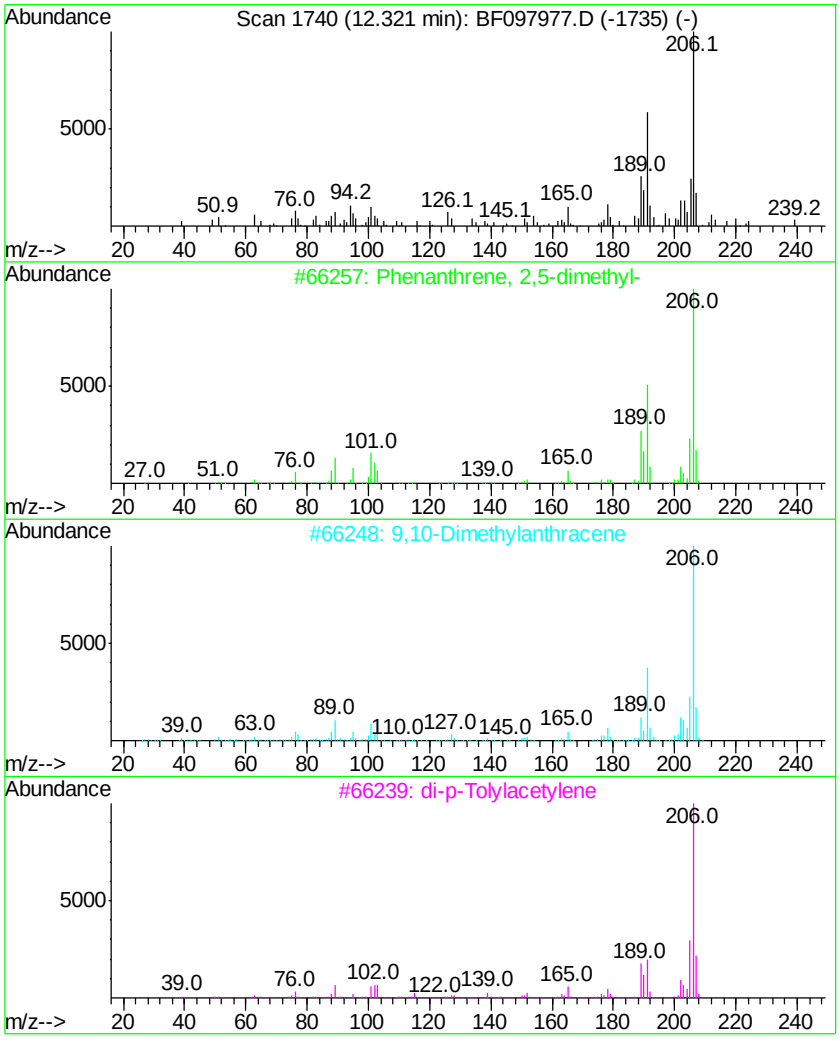
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

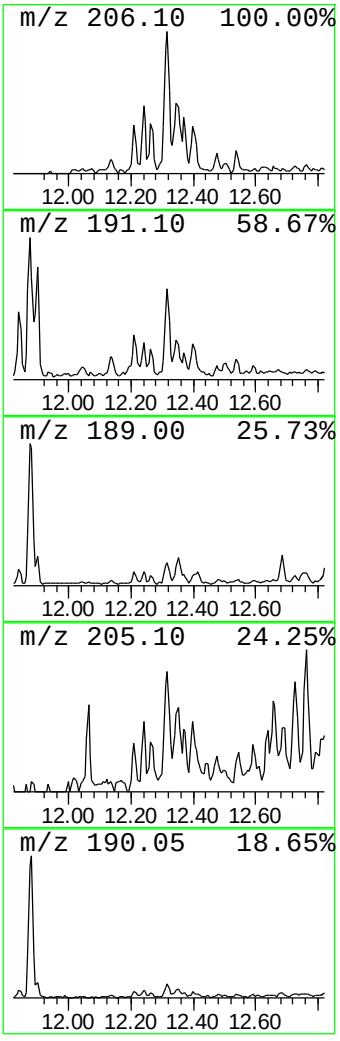
**********

Peak Number 12 Phenanthrene, 2,5-dimethyl- Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.32 | 2.09 ng | 98298 | Phenanthrene-d10 | 11.26 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 96 |
| 2 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 96 |
| 3 | di-p-Tolylacetylene | 206 | C16H14 | 002789-88-0 | 93 |
| 4 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 93 |
| 5 | Phenanthrene, 2,3-dimethyl- | 206 | C16H14 | 003674-65-5 | 93 |



# Library Search Compound Report

Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

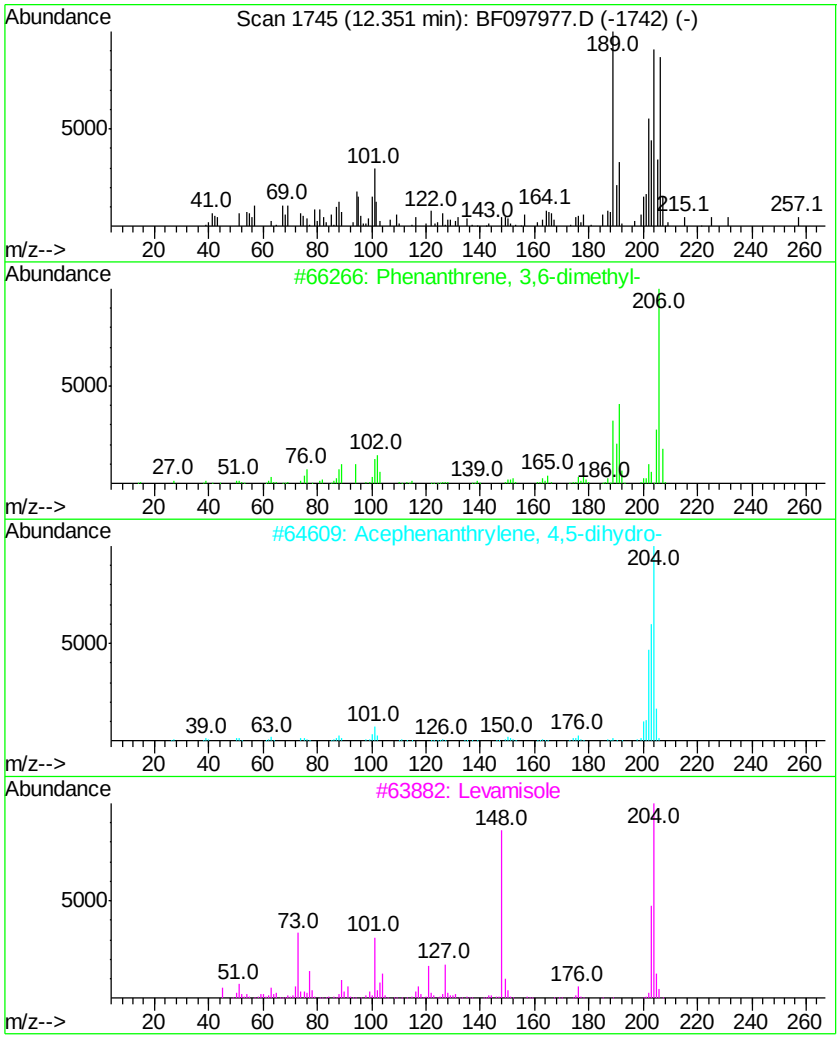
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

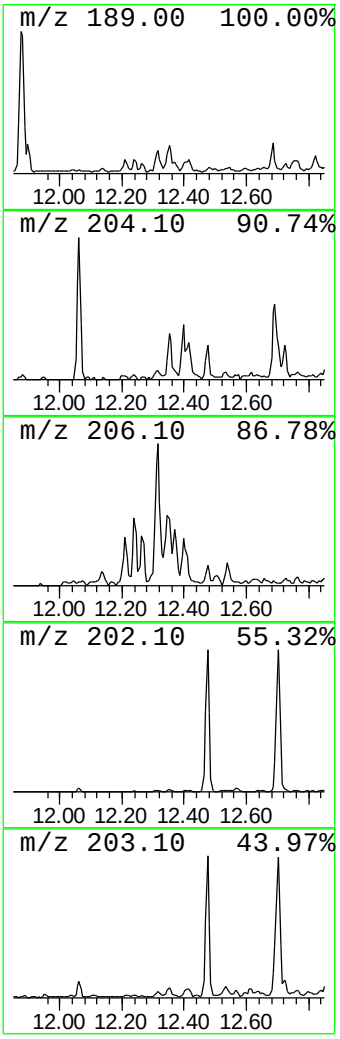
**********

Peak Number 13 unknown12.35 Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.35 | 2.26 ng | 106227 | Phenanthrene-d10 | 11.26 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 42 |
| 2 | Acephenanthrylene, 4,5-dihydro- | 204 | C16H12 | 006232-48-0 | 30 |
| 3 | Levamisole | 204 | C11H12N2S | 014769-73-4 | 25 |
| 4 | Anthracene, 1,4-dimethyl- | 206 | C16H14 | 000781-92-0 | 25 |
| 5 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 25 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

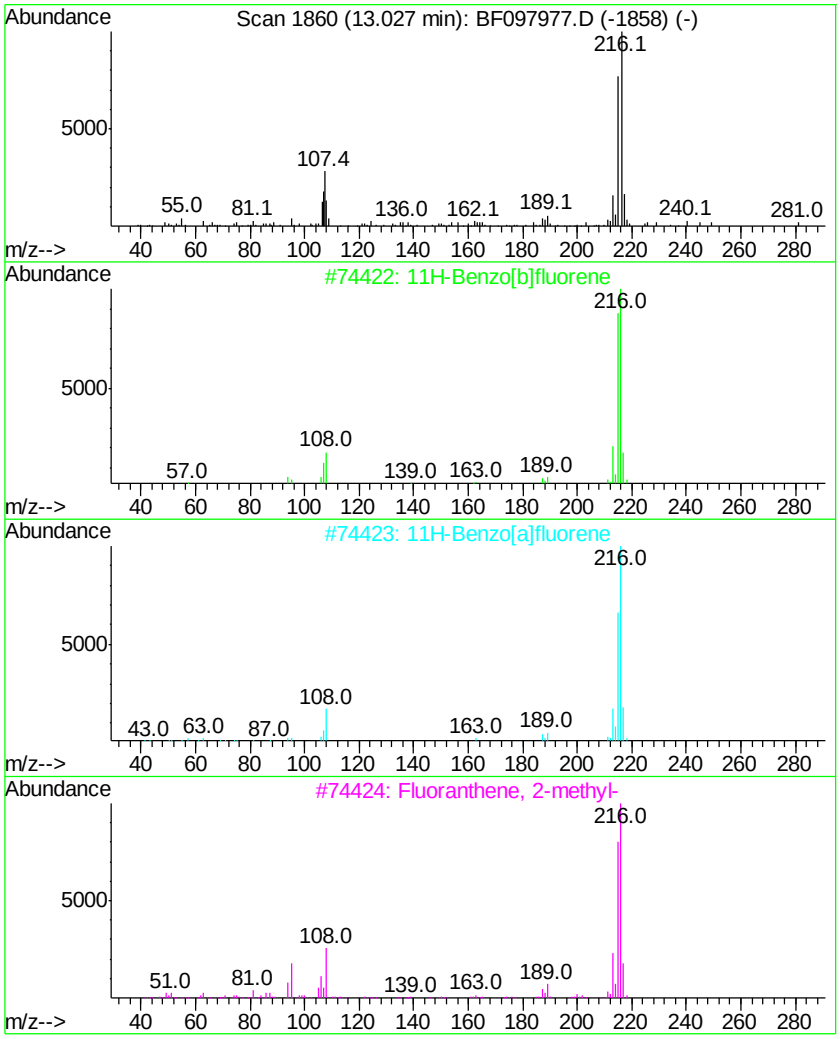
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

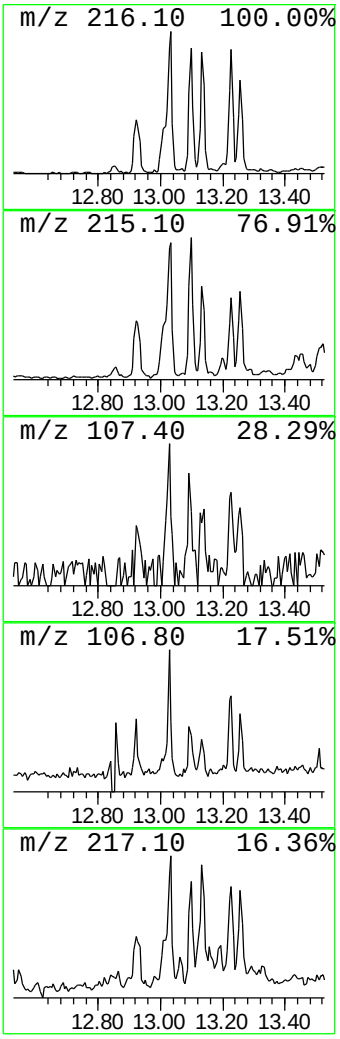
**********

Peak Number 14 11H-Benzo[b]fluorene Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.03 | 2.38 ng | 128619 | Chrysene-d12 | 13.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 96 |
| 2 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 90 |
| 3 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 89 |
| 4 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 74 |
| 5 | Pyrene, 4-methyl- | 216 | C17H12 | 003353-12-6 | 55 |



# Library Search Compound Report

Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

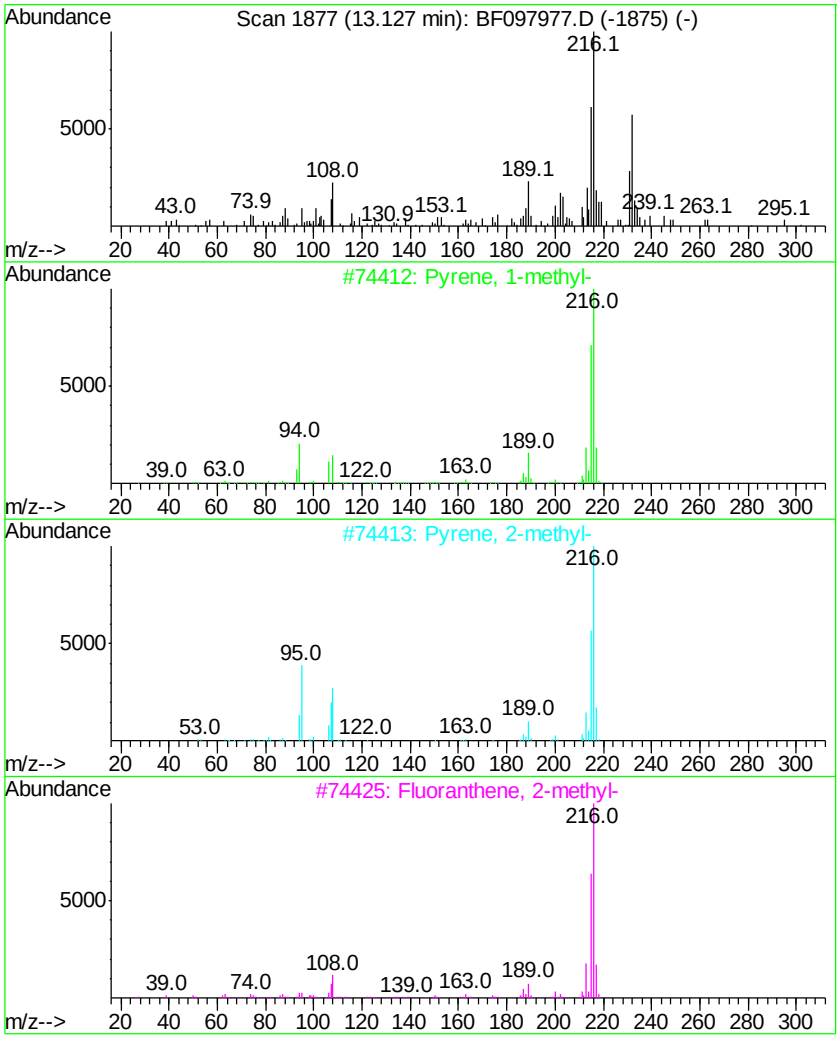
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

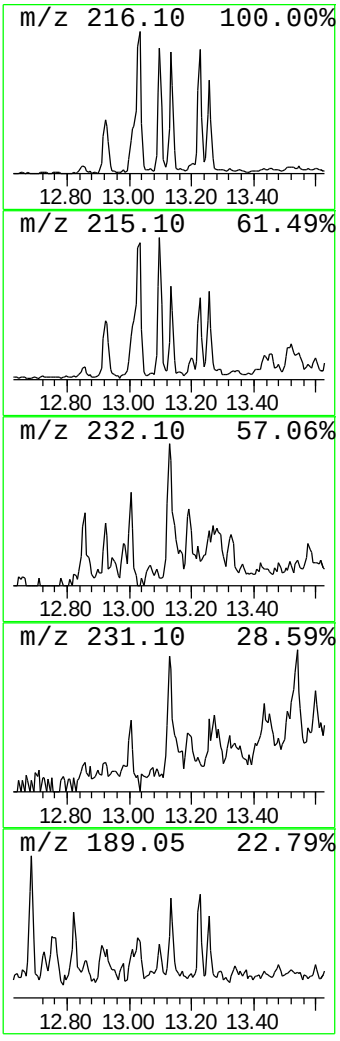
**********

Peak Number 15 Pyrene, 1-methyl- Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.13 | 2.10 ng | 113785 | Chrysene-d12 | 13.90 |

| 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 | 93 |
| 3 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 92 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 81 |
| 5 | Pyrene, 4-methyl- | 216 | C17H12 | 003353-12-6 | 64 |



# Library Search Compound Report

Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

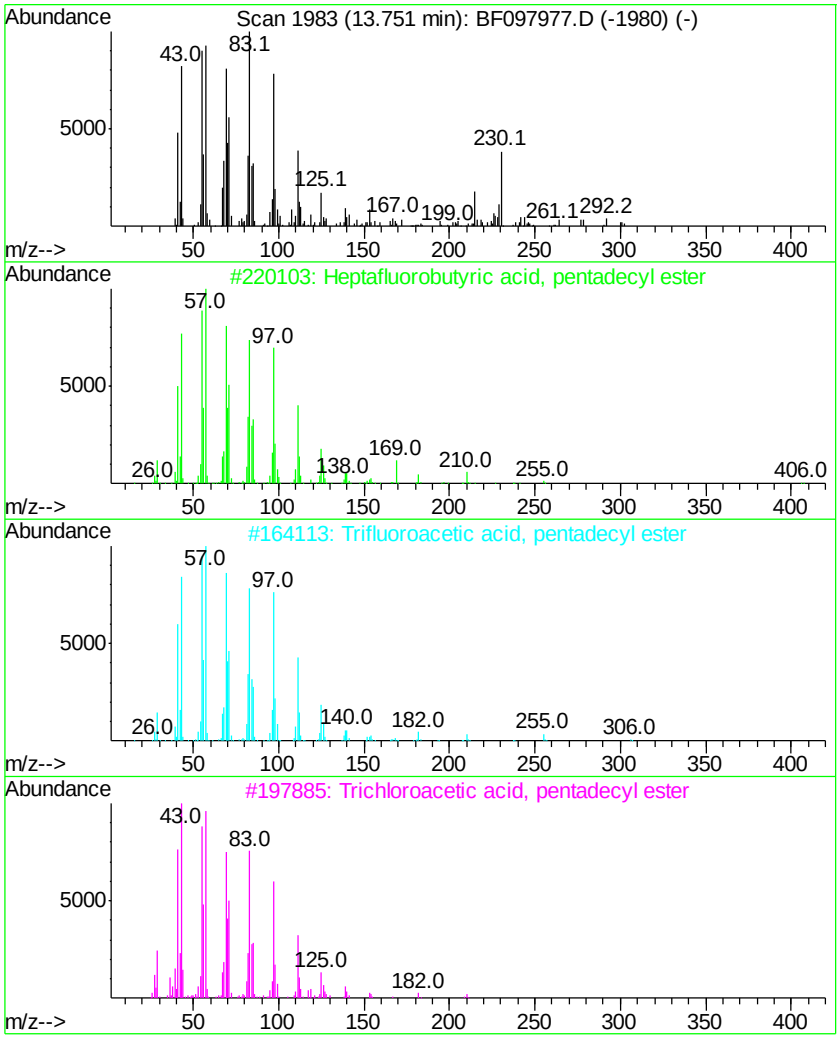
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

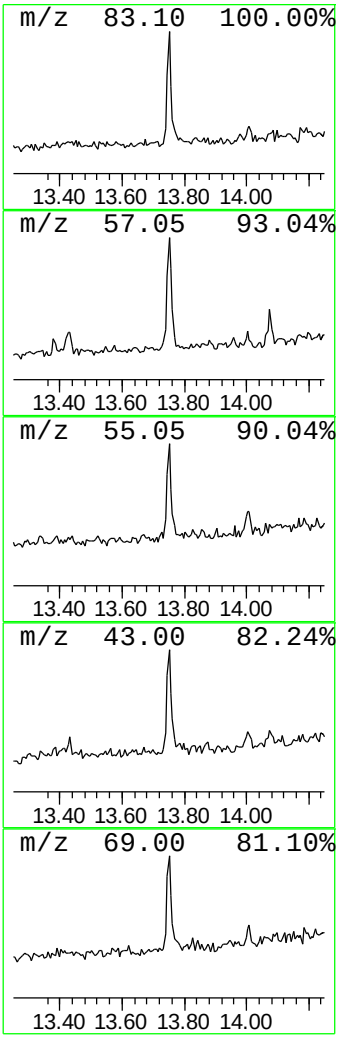
**********

Peak Number 16 Heptafluorobutyric acid, pe... Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.75 | 2.11 ng | 113932 | Chrysene-d12 | 13.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Heptafluorobutyric acid, pentade... | 424 | C19H31F7O2 | 959261-23-5 | 90 |
| 2 | Trifluoroacetic acid, pentadecyl... | 324 | C17H31F3O2 | 959010-23-2 | 90 |
| 3 | Trichloroacetic acid, pentadecyl... | 372 | C17H31Cl3O2 | 074339-53-0 | 90 |
| 4 | n-Tetracosanol-1 | 354 | C24H50O | 000506-51-4 | 90 |
| 5 | Pentafluoropropionic acid, penta... | 374 | C18H31F5O2 | 959092-08-1 | 90 |



Data Path : U:\HPCHEM1\BNA F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

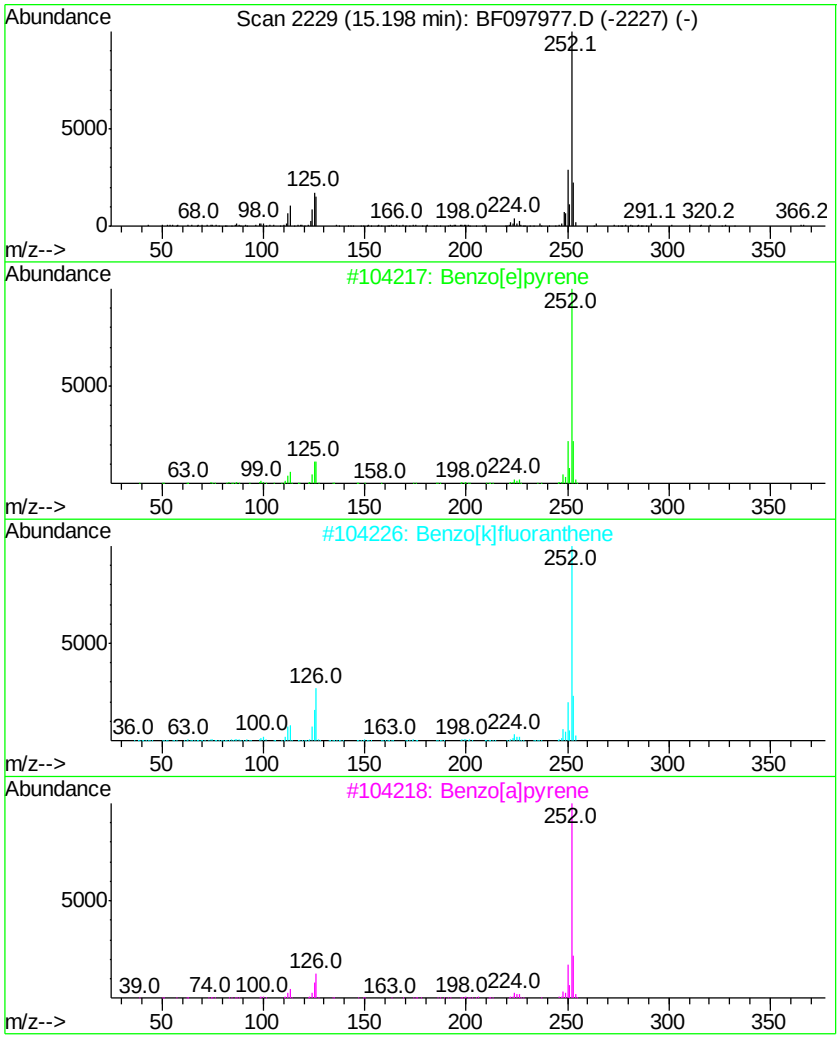
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

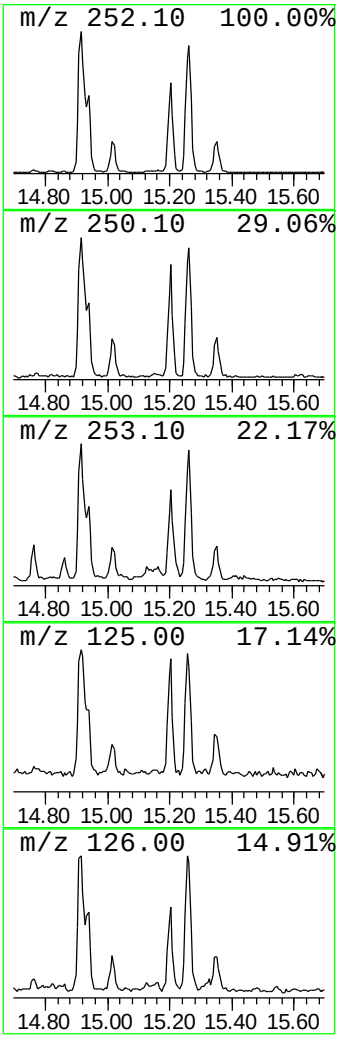
**********

Peak Number 17 Benzo[e]pyrene Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.20 | 6.09 ng | 179655 | Perylene-d12 | 15.32 |

| 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 | 93 |
| 3 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 93 |
| 4 | Benzo[j]fluoranthene | 252 | C20H12 | 000205-82-3 | 90 |
| 5 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 90 |



Tentatively Identified Compound (LSC) summary

Data Path : U:\HPCHEM1\BNA_F\DATA\BF082217\
Data File : BF097977.D
Acq On : 23 Aug 2017 2:17
Operator : SJ/JU
Sample : I4910-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SP-6-7

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081517.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 |
| unknown3.13 | 3.13 | 2.9 | ng | 122676 | 1 | 6.75 | 833862 | 20.0 |
| 2-Pentanone, 4-hy... | 4.95 | 10.4 | ng | 435719 | 1 | 6.75 | 833862 | 20.0 |
| unknown6.52 | 6.52 | 79.2 | ng | 3303850 | 1 | 6.75 | 833862 | 20.0 |
| Naphthalene, 1-me... | 8.84 | 3.4 | ng | 194366 | 2 | 8.03 | 1142880 | 20.0 |
| Naphthalene, 2,3-... | 9.45 | 2.1 | ng | 115002 | 3 | 9.79 | 1074190 | 20.0 |
| Tridecane | 10.69 | 3.3 | ng | 156330 | 4 | 11.26 | 942014 | 20.0 |
| Naphtho[2,1-b]thi... | 11.16 | 2.1 | ng | 97356 | 4 | 11.26 | 942014 | 20.0 |
| Phenanthrene, 2-m... | 11.76 | 2.1 | ng | 98417 | 4 | 11.26 | 942014 | 20.0 |
| 5H-Dibenzo[a,d]cy... | 11.79 | 2.5 | ng | 116424 | 4 | 11.26 | 942014 | 20.0 |
| 4H-Cyclopenta[def... | 11.87 | 4.6 | ng | 218106 | 4 | 11.26 | 942014 | 20.0 |
| Phenanthrene, 2,5... | 12.32 | 2.1 | ng | 98298 | 4 | 11.26 | 942014 | 20.0 |
| unknown12.35 | 12.35 | 2.3 | ng | 106227 | 4 | 11.26 | 942014 | 20.0 |
| 11H-Benzo[b]fluorene | 13.03 | 2.4 | ng | 128619 | 5 | 13.90 | 1082350 | 20.0 |
| Pyrene, 1-methyl- | 13.13 | 2.1 | ng | 113785 | 5 | 13.90 | 1082350 | 20.0 |
| Heptafluorobutyri... | 13.75 | 2.1 | ng | 113932 | 5 | 13.90 | 1082350 | 20.0 |
| Benzo[e]pyrene | 15.20 | 6.1 | ng | 179655 | 6 | 15.32 | 590121 | 20.0 |