LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

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-BF081715.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 | 3.910 | 174 | 177 | 181 | rBV | 62712 | 99420 | 2.16% | 0.160% |
| 2 | 4.676 | 240 | 244 | 255 | rVB | 1103707 | 2218260 | 48.20% | 3.568% |
| 3 | 5.133 | 281 | 284 | 286 | rBV | 2021116 | 2236564 | 48.60% | 3.597% |
| 4 | 5.544 | 318 | 320 | 323 | rBV | 84419 | 80268 | 1.74% | 0.129% |
| 5 | 6.207 | 375 | 378 | 381 | rBV | 1862223 | 2121572 | 46.10% | 3.412% |
| 6 | 6.322 | 385 | 388 | 391 | rVB | 2021170 | 2048801 | 44.52% | 3.295% |
| 7 | 6.550 | 406 | 408 | 410 | rBV | 395413 | 439900 | 9.56% | 0.708% |
| 8 | 6.710 | 420 | 422 | 425 | rBV | 1690735 | 1539742 | 33.46% | 2.477% |
| 9 | 7.133 | 455 | 459 | 461 | rBV | 1298012 | 1682255 | 36.55% | 2.706% |
| 10 | 7.842 | 519 | 521 | 525 | rVB2 | 788461 | 1063302 | 23.10% | 1.710% |
| 11 | 8.550 | 581 | 583 | 585 | rBV | 283931 | 230319 | 5.00% | 0.370% |
| 12 | 8.653 | 589 | 592 | 594 | rVV | 144280 | 174310 | 3.79% | 0.280% |
| 13 | 8.916 | 613 | 615 | 618 | rVB | 1684781 | 2400300 | 52.16% | 3.861% |
| 14 | 9.019 | 622 | 624 | 625 | rVV | 89017 | 91621 | 1.99% | 0.147% |
| 15 | 9.110 | 629 | 632 | 635 | rVB | 46128 | 53091 | 1.15% | 0.085% |
| 16 | 9.179 | 635 | 638 | 640 | rBV | 91114 | 128006 | 2.78% | 0.206% |
| 17 | 9.248 | 641 | 644 | 645 | rBV | 191163 | 178156 | 3.87% | 0.287% |
| 18 | 9.270 | 645 | 646 | 648 | rVV | 115525 | 99245 | 2.16% | 0.160% |
| 19 | 9.316 | 648 | 650 | 652 | rVV | 465254 | 395862 | 8.60% | 0.637% |
| 20 | 9.362 | 652 | 654 | 657 | rVV | 109853 | 130502 | 2.84% | 0.210% |
| 21 | 9.442 | 659 | 661 | 663 | rVB | 108186 | 91785 | 1.99% | 0.148% |
| 22 | 9.579 | 671 | 673 | 675 | rBV2 | 612623 | 734624 | 15.96% | 1.182% |
| 23 | 9.613 | 675 | 676 | 678 | rVB | 771894 | 612637 | 13.31% | 0.985% |
| 24 | 9.693 | 681 | 683 | 685 | rBV | 40882 | 64725 | 1.41% | 0.104% |
| 25 | 9.739 | 685 | 687 | 688 | rVB | 69819 | 59556 | 1.29% | 0.096% |
| 26 | 9.785 | 689 | 691 | 693 | rBV | 544637 | 478134 | 10.39% | 0.769% |
| 27 | 9.830 | 693 | 695 | 696 | rVB | 53727 | 59366 | 1.29% | 0.095% |
| 28 | 9.899 | 699 | 701 | 702 | rBV | 77968 | 79236 | 1.72% | 0.127% |
| 29 | 9.933 | 702 | 704 | 707 | rVB2 | 38316 | 60027 | 1.30% | 0.097% |
| 30 | 9.990 | 707 | 709 | 712 | rBV3 | 66008 | 111453 | 2.42% | 0.179% |
| 31 | 10.128 | 719 | 721 | 722 | rBV | 634610 | 621860 | 13.51% | 1.000% |
| 32 | 10.185 | 722 | 726 | 727 | rVV2 | 58424 | 109004 | 2.37% | 0.175% |
| 33 | 10.208 | 727 | 728 | 729 | rVV | 110292 | 87254 | 1.90% | 0.140% |
| 34 | 10.253 | 729 | 732 | 733 | rVV2 | 89919 | 141157 | 3.07% | 0.227% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

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-BF081715.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 10.288 | 733 | 735 | 738 | rVB | 135489 | 184128 | 4.00% | 0.296% |
| 36 | 10.368 | 739 | 742 | 744 | rVV | 1578077 | 1647790 | 35.80% | 2.650% |
| 37 | 10.425 | 744 | 747 | 749 | rVB3 | 98684 | 139486 | 3.03% | 0.224% |
| 38 | 10.505 | 751 | 754 | 757 | rVB2 | 115196 | 199839 | 4.34% | 0.321% |
| 39 | 10.665 | 765 | 768 | 770 | rBV2 | 124149 | 216951 | 4.71% | 0.349% |
| 40 | 10.745 | 772 | 775 | 777 | rBV3 | 29621 | 51776 | 1.13% | 0.083% |
| 41 | 10.802 | 777 | 780 | 784 | rBV4 | 88741 | 225713 | 4.90% | 0.363% |
| 42 | 10.859 | 784 | 785 | 788 | rVB | 255332 | 247598 | 5.38% | 0.398% |
| 43 | 10.916 | 788 | 790 | 791 | rBV | 159471 | 189598 | 4.12% | 0.305% |
| 44 | 10.951 | 791 | 793 | 795 | rBV | 444572 | 412235 | 8.96% | 0.663% |
| 45 | 11.088 | 800 | 805 | 807 | rBV2 | 3120093 | 4602134 | 100.00% | 7.402% |
| 46 | 11.133 | 807 | 809 | 810 | rVV | 1324090 | 1110955 | 24.14% | 1.787% |
| 47 | 11.168 | 810 | 812 | 813 | rVB | 88768 | 93579 | 2.03% | 0.151% |
| 48 | 11.282 | 819 | 822 | 824 | rBV2 | 401727 | 640218 | 13.91% | 1.030% |
| 49 | 11.316 | 824 | 825 | 827 | rVV2 | 58832 | 91846 | 2.00% | 0.148% |
| 50 | 11.385 | 827 | 831 | 833 | rVV4 | 138125 | 324079 | 7.04% | 0.521% |
| 51 | 11.556 | 843 | 846 | 847 | rBV | 429867 | 523881 | 11.38% | 0.843% |
| 52 | 11.579 | 847 | 848 | 850 | rVB | 704825 | 569795 | 12.38% | 0.916% |
| 53 | 11.625 | 850 | 852 | 854 | rBV2 | 323235 | 430887 | 9.36% | 0.693% |
| 54 | 11.659 | 854 | 855 | 860 | rVB2 | 742186 | 1072924 | 23.31% | 1.726% |
| 55 | 11.728 | 860 | 861 | 862 | rBV | 59404 | 79968 | 1.74% | 0.129% |
| 56 | 11.785 | 865 | 866 | 867 | rVV | 82547 | 59126 | 1.28% | 0.095% |
| 57 | 11.854 | 869 | 872 | 875 | rVB2 | 278078 | 648934 | 14.10% | 1.044% |
| 58 | 11.922 | 875 | 878 | 882 | rBV3 | 38701 | 54757 | 1.19% | 0.088% |
| 59 | 11.991 | 882 | 884 | 886 | rBV2 | 111478 | 168134 | 3.65% | 0.270% |
| 60 | 12.025 | 886 | 887 | 888 | rBV | 118672 | 87440 | 1.90% | 0.141% |
| 61 | 12.094 | 891 | 893 | 895 | rBV | 198407 | 340966 | 7.41% | 0.548% |
| 62 | 12.139 | 895 | 897 | 900 | rVV3 | 123200 | 296189 | 6.44% | 0.476% |
| 63 | 12.185 | 900 | 901 | 905 | rVB2 | 250275 | 255640 | 5.55% | 0.411% |
| 64 | 12.265 | 905 | 908 | 910 | rBV | 2552737 | 4164042 | 90.48% | 6.698% |
| 65 | 12.322 | 910 | 913 | 917 | rVB3 | 103716 | 213983 | 4.65% | 0.344% |
| 66 | 12.402 | 917 | 920 | 921 | rBV | 292066 | 320595 | 6.97% | 0.516% |
| 67 | 12.494 | 925 | 928 | 930 | rVV | 2476830 | 3729267 | 81.03% | 5.998% |
| 68 | 12.528 | 930 | 931 | 935 | rVB3 | 175524 | 243205 | 5.28% | 0.391% |
| 69 | 12.596 | 935 | 937 | 939 | rBV | 173140 | 297219 | 6.46% | 0.478% |
| 70 | 12.642 | 939 | 941 | 943 | rVV | 2158974 | 2186334 | 47.51% | 3.517% |
| 71 | 12.711 | 943 | 947 | 950 | rVV3 | 212700 | 480436 | 10.44% | 0.773% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

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-BF081715.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 12.814 | 951 | 956 | 957 | rVV2 | 450093 | 745596 | 16.20% | 1.199% |
| 73 | 12.882 | 960 | 962 | 963 | rVV | 222326 | 337144 | 7.33% | 0.542% |
| 74 | 12.916 | 963 | 965 | 968 | rVV2 | 323865 | 575640 | 12.51% | 0.926% |
| 75 | 12.996 | 971 | 972 | 974 | rVV | 165693 | 218489 | 4.75% | 0.351% |
| 76 | 13.031 | 974 | 975 | 977 | rVV | 216899 | 240513 | 5.23% | 0.387% |
| 77 | 13.111 | 980 | 982 | 987 | rVB4 | 104778 | 210606 | 4.58% | 0.339% |
| 78 | 13.317 | 997 | 1000 | 1002 | rBV | 180196 | 268342 | 5.83% | 0.432% |
| 79 | 13.419 | 1007 | 1009 | 1010 | rBV | 361150 | 382582 | 8.31% | 0.615% |
| 80 | 13.454 | 1010 | 1012 | 1014 | rVV2 | 186656 | 385125 | 8.37% | 0.619% |
| 81 | 13.522 | 1016 | 1018 | 1020 | rVB | 259036 | 223724 | 4.86% | 0.360% |
| 82 | 13.557 | 1020 | 1021 | 1023 | rBV2 | 97711 | 134507 | 2.92% | 0.216% |
| 83 | 13.671 | 1027 | 1031 | 1033 | rBV2 | 1505133 | 2825293 | 61.39% | 4.544% |
| 84 | 13.705 | 1033 | 1034 | 1037 | rVB | 1307668 | 1031644 | 22.42% | 1.659% |
| 85 | 13.774 | 1038 | 1040 | 1042 | rBV2 | 231740 | 216017 | 4.69% | 0.347% |
| 86 | 13.865 | 1046 | 1048 | 1050 | rBV3 | 97460 | 158344 | 3.44% | 0.255% |
| 87 | 14.059 | 1063 | 1065 | 1066 | rVB | 218575 | 218907 | 4.76% | 0.352% |
| 88 | 14.094 | 1066 | 1068 | 1070 | rVB2 | 90973 | 101312 | 2.20% | 0.163% |
| 89 | 14.357 | 1089 | 1091 | 1092 | rBV | 136478 | 158210 | 3.44% | 0.254% |
| 90 | 14.665 | 1115 | 1118 | 1122 | rBV | 1046744 | 2123888 | 46.15% | 3.416% |
| 91 | 14.745 | 1124 | 1125 | 1127 | rVB | 253207 | 210239 | 4.57% | 0.338% |
| 92 | 14.905 | 1137 | 1139 | 1142 | rVB | 487955 | 759408 | 16.50% | 1.221% |
| 93 | 14.962 | 1142 | 1144 | 1146 | rVB | 782311 | 961253 | 20.89% | 1.546% |
| 94 | 15.008 | 1146 | 1148 | 1149 | rBV | 292859 | 339908 | 7.39% | 0.547% |
| 95 | 15.922 | 1226 | 1228 | 1235 | rVB4 | 117175 | 305692 | 6.64% | 0.492% |
| 96 | 16.208 | 1249 | 1253 | 1256 | rVB | 385978 | 713995 | 15.51% | 1.148% |
| 97 | 16.334 | 1262 | 1264 | 1266 | rBV | 85843 | 151322 | 3.29% | 0.243% |
| 98 | 16.380 | 1266 | 1268 | 1271 | rVV2 | 66253 | 125021 | 2.72% | 0.201% |
| 99 | 16.563 | 1280 | 1284 | 1287 | rVB | 261929 | 545975 | 11.86% | 0.878% |
| 100 | 16.734 | 1297 | 1299 | 1306 | rVB2 | 82034 | 178863 | 3.89% | 0.288% |

Sum of corrected areas: 62171520

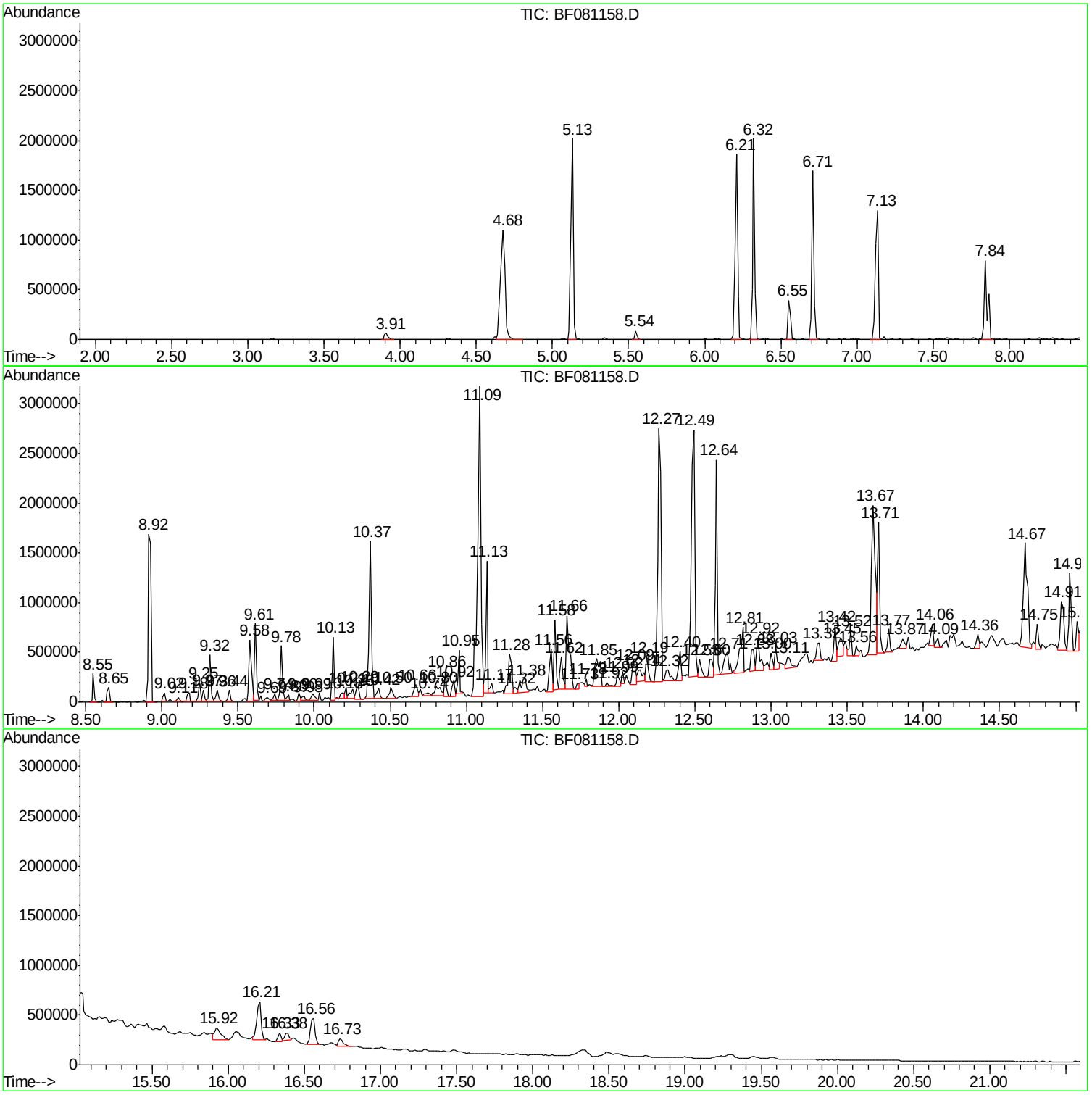
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

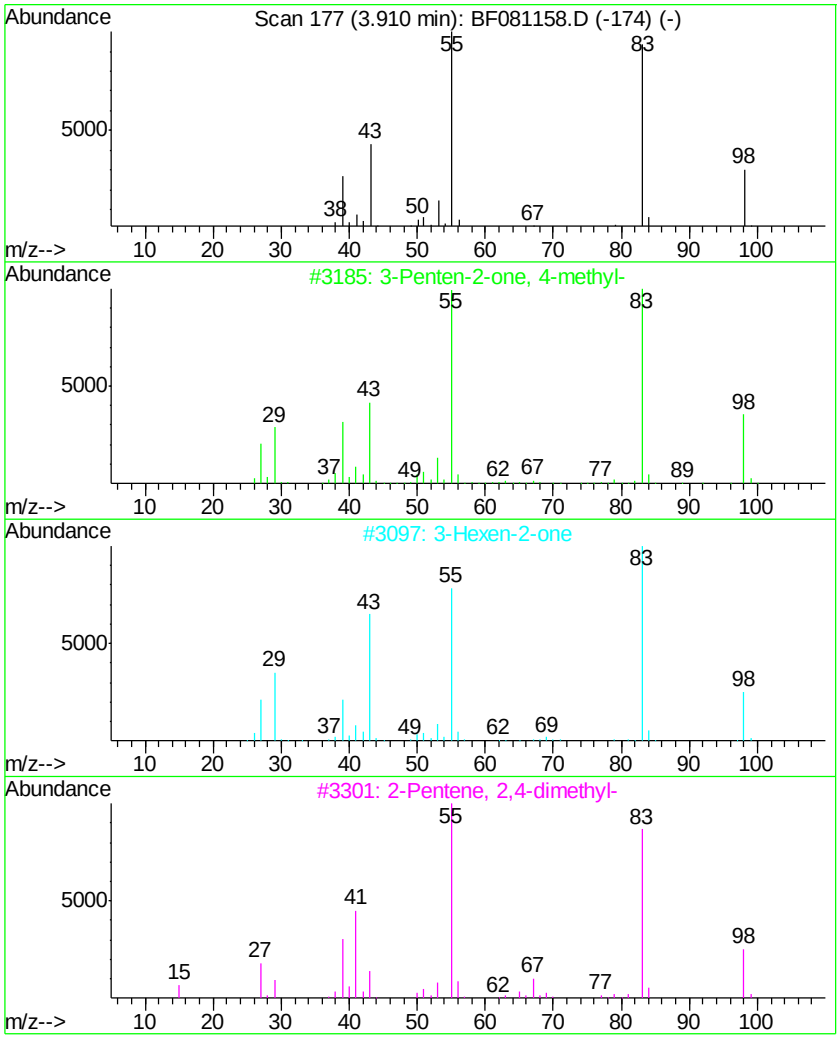
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

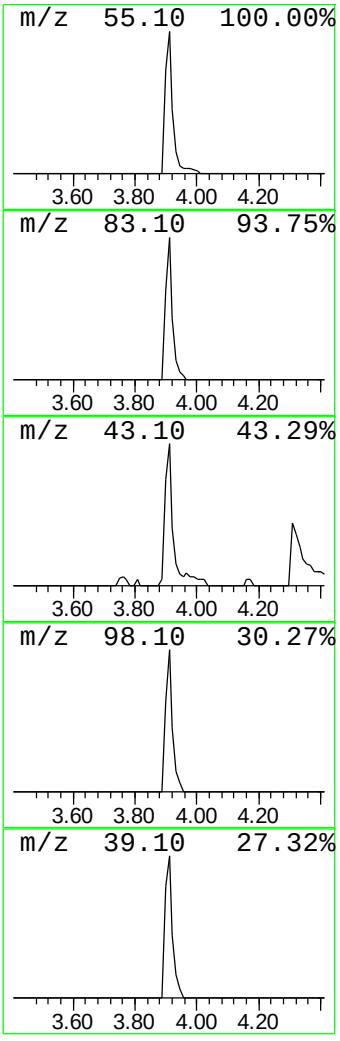
**********

Peak Number 1 3-Penten-2-one, 4-methyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 3.91 | 4.52 ng | 99420 | 1,4-Dichlorobenzene-d4 | 6.55 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Penten-2-one, 4-methyl- | 98 | C6H10O | 000141-79-7 | 91 |
| 2 | 3-Hexen-2-one | 98 | C6H10O | 000763-93-9 | 91 |
| 3 | 2-Pentene, 2,4-dimethyl- | 98 | C7H14 | 000625-65-0 | 86 |
| 4 | 2-Pentene, 4,4-dimethyl-, (Z)- | 98 | C7H14 | 000762-63-0 | 86 |
| 5 | 2-Pentene, 4,4-dimethyl-, (E)- | 98 | C7H14 | 000690-08-4 | 86 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

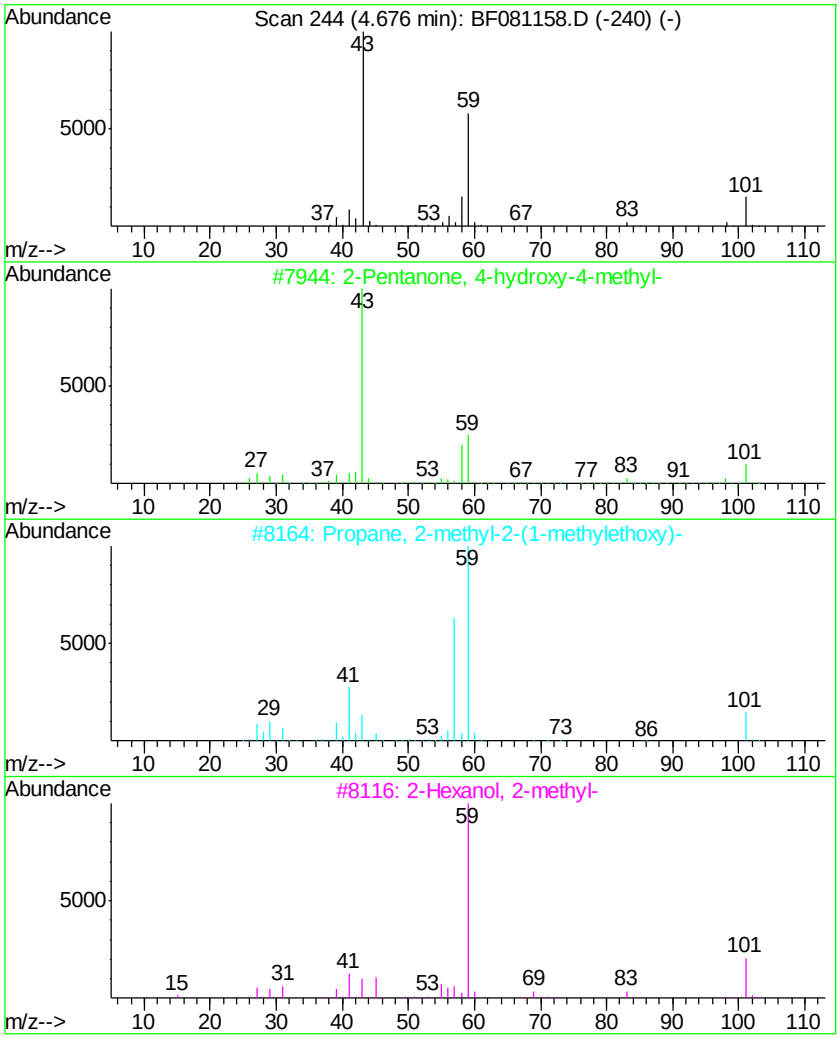
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

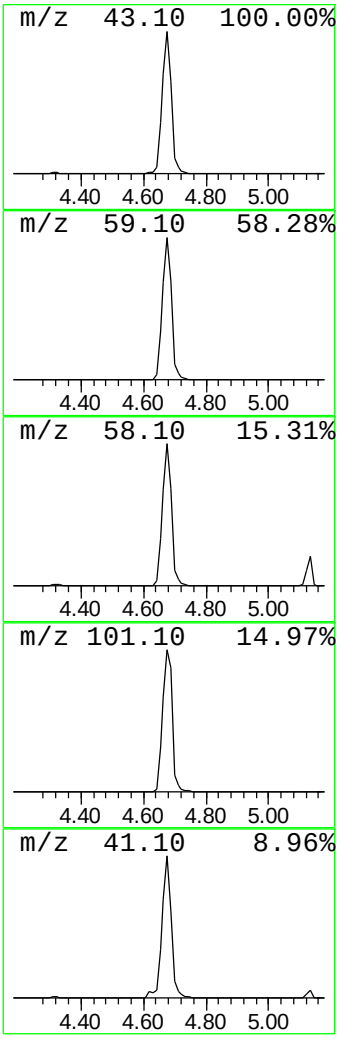
**********

Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.68 | 100.85 ng | 2218260 | 1,4-Dichlorobenzene-d4 | 6.55 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 59 |
| 2 | Propane, 2-methyl-2-(1-methyleth... | 116 | C7H16O | 017348-59-3 | 53 |
| 3 | 2-Hexanol, 2-methyl- | 116 | C7H16O | 000625-23-0 | 33 |
| 4 | 3-Hexanol, 4-methyl- | 116 | C7H16O | 000615-29-2 | 33 |
| 5 | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 23 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

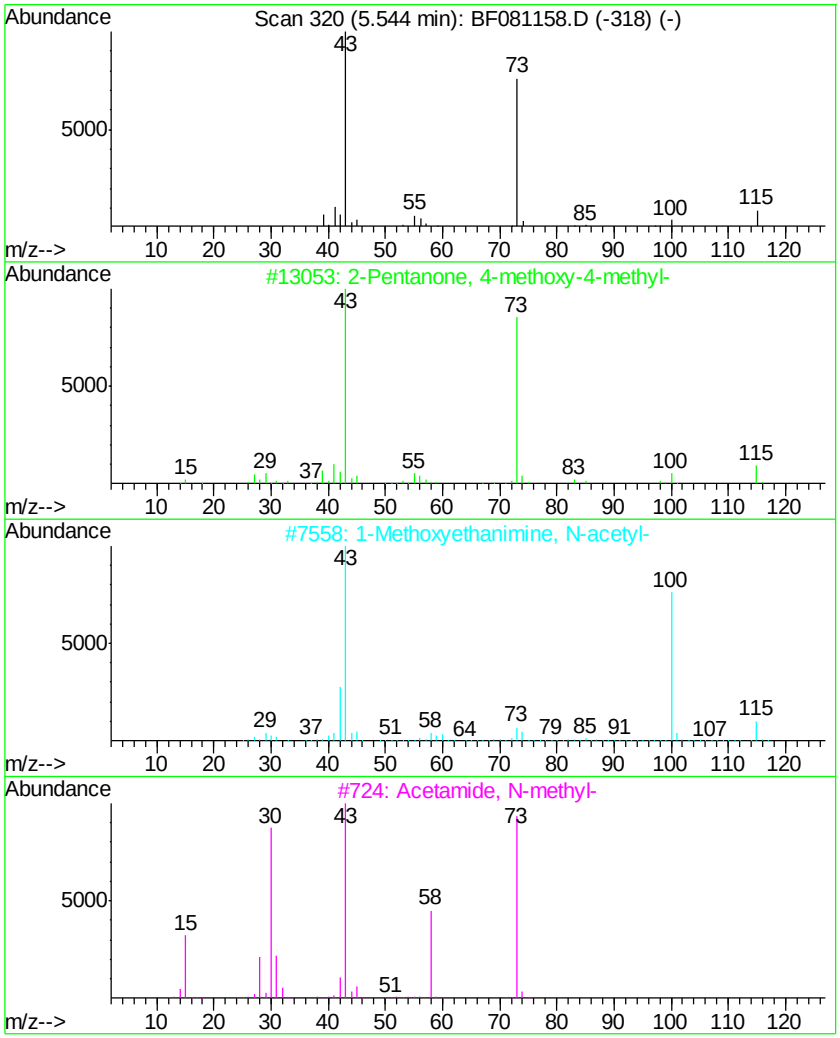
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

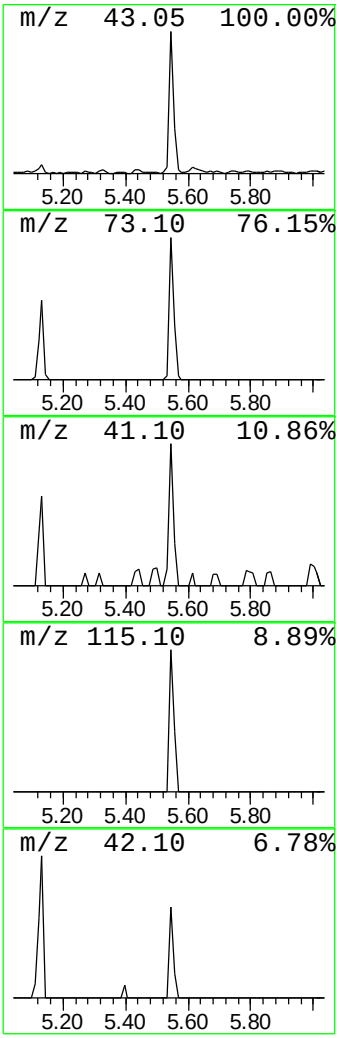
**********

Peak Number 3 2-Pentanone, 4-methoxy-4-me... Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.54 | 3.65 ng | 80268 | 1,4-Dichlorobenzene-d4 | 6.55 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-methoxy-4-methyl- | 130 | C7H14O2 | 000107-70-0 | 83 |
| 2 | 1-Methoxyethanimine, N-acetyl- | 115 | C5H9NO2 | 099028-43-0 | 37 |
| 3 | Acetamide, N-methyl- | 73 | C3H7NO | 000079-16-3 | 32 |
| 4 | 3-Hexanol, 2-methyl- | 116 | C7H16O | 000617-29-8 | 23 |
| 5 | Hexane, 2-methyl- | 100 | C7H16 | 000591-76-4 | 9 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

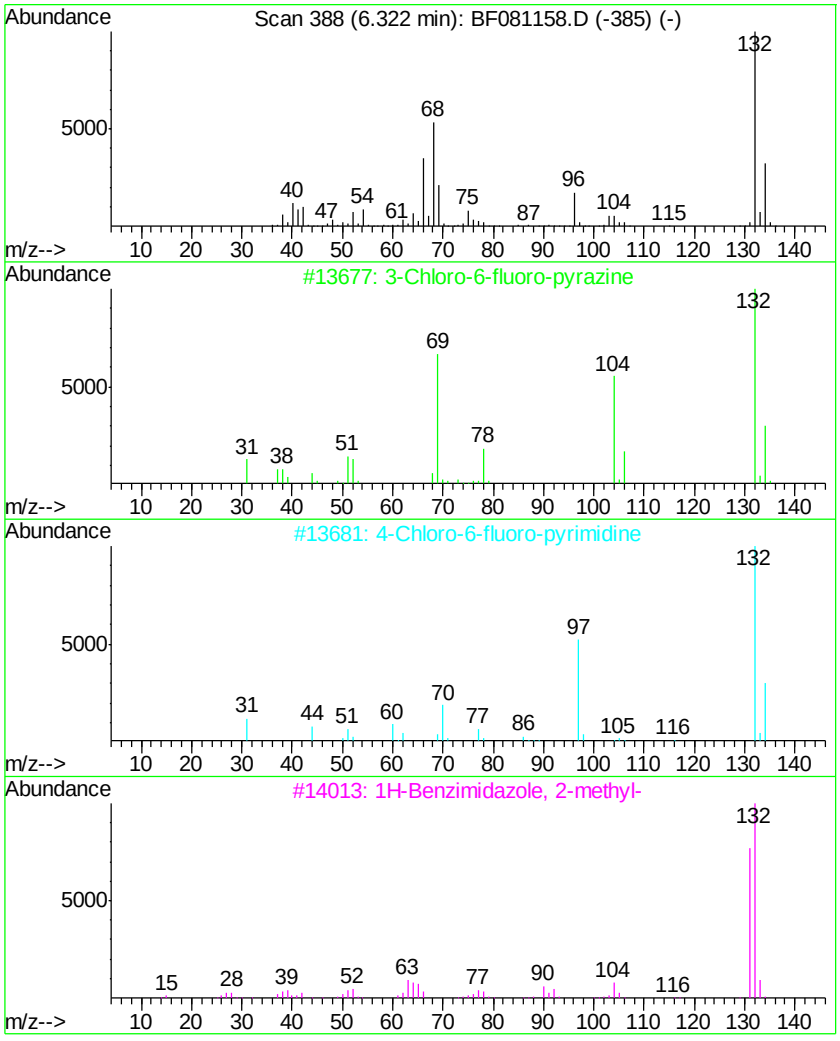
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

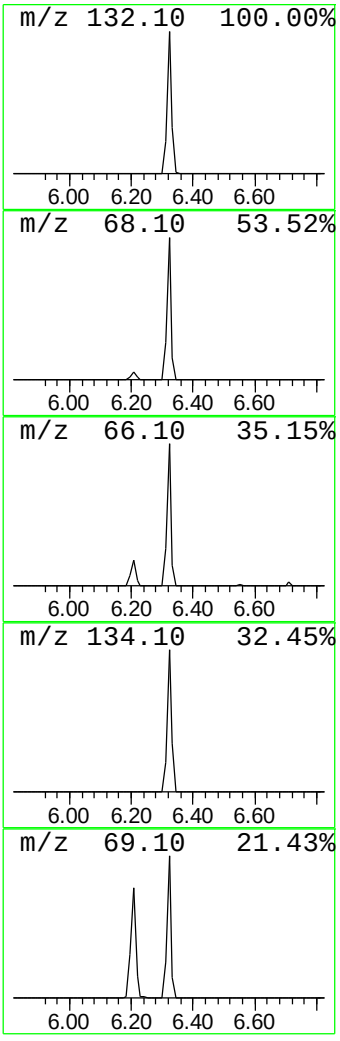
**********

Peak Number 4 unknown6.32 Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.32 | 93.15 ng | 2048800 | 1,4-Dichlorobenzene-d4 | 6.55 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 27 |
| 2 | 4-Chloro-6-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-01-6 | 27 |
| 3 | 1H-Benzimidazole, 2-methyl- | 132 | C8H8N2 | 000615-15-6 | 22 |
| 4 | 5-Fluoro-2-chloropyrimidine | 132 | C4H2ClFN2 | 062802-42-0 | 12 |
| 5 | (5-METHYL-2-PYRIDYL)ACETONITRILE | 132 | C8H8N2 | 1000241-93-9 | 10 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

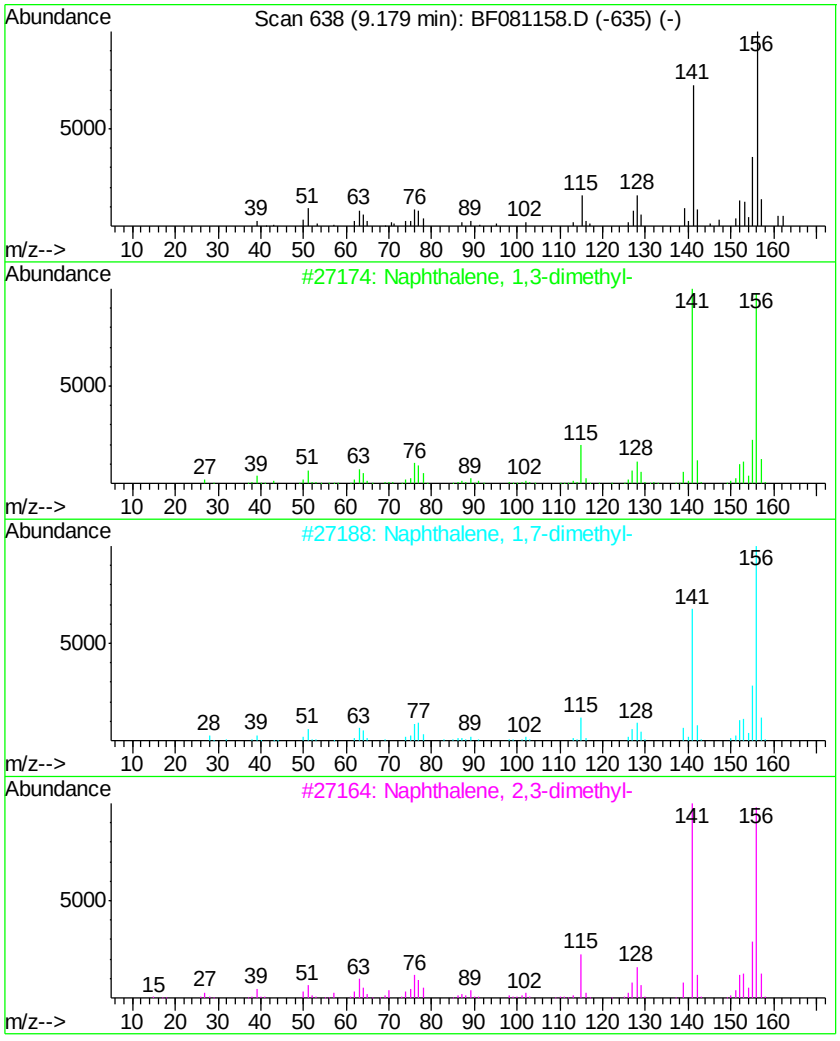
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

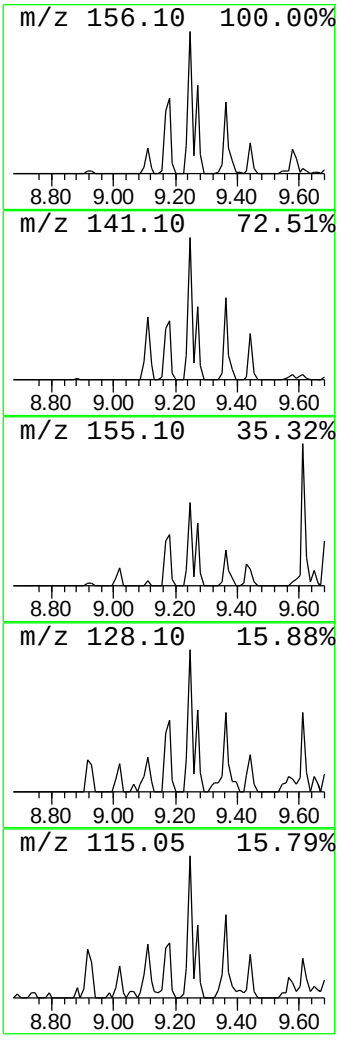
**********

Peak Number 6 Naphthalene, 1,3-dimethyl- Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.18 | 3.48 ng | 128006 | Acenaphthene-d10 | 9.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,3-dimethyl- | 156 | C12H12 | 000575-41-7 | 96 |
| 2 | Naphthalene, 1,7-dimethyl- | 156 | C12H12 | 000575-37-1 | 96 |
| 3 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 96 |
| 4 | Naphthalene, 1,6-dimethyl- | 156 | C12H12 | 000575-43-9 | 96 |
| 5 | Naphthalene, 2,7-dimethyl- | 156 | C12H12 | 000582-16-1 | 96 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

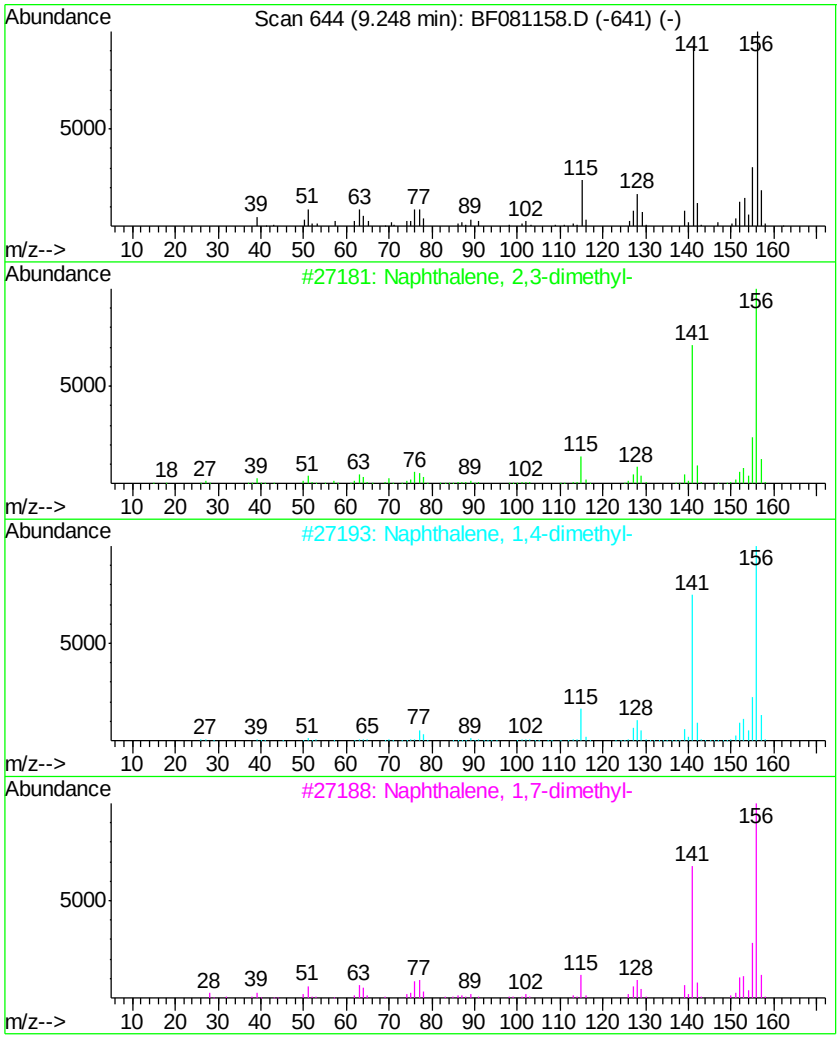
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

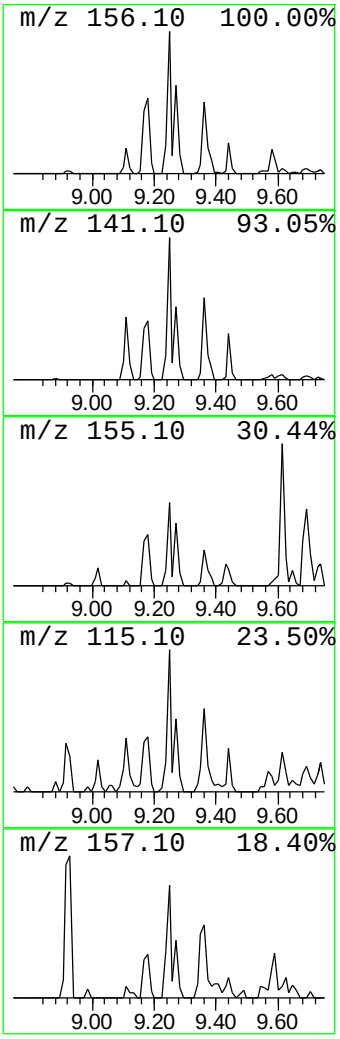
**********

Peak Number 7 Naphthalene, 2,3-dimethyl- Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.25 | 4.85 ng | 178156 | Acenaphthene-d10 | 9.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 96 |
| 2 | Naphthalene, 1,4-dimethyl- | 156 | C12H12 | 000571-58-4 | 96 |
| 3 | Naphthalene, 1,7-dimethyl- | 156 | C12H12 | 000575-37-1 | 96 |
| 4 | Naphthalene, 1,5-dimethyl- | 156 | C12H12 | 000571-61-9 | 96 |
| 5 | Naphthalene, 1,6-dimethyl- | 156 | C12H12 | 000575-43-9 | 96 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

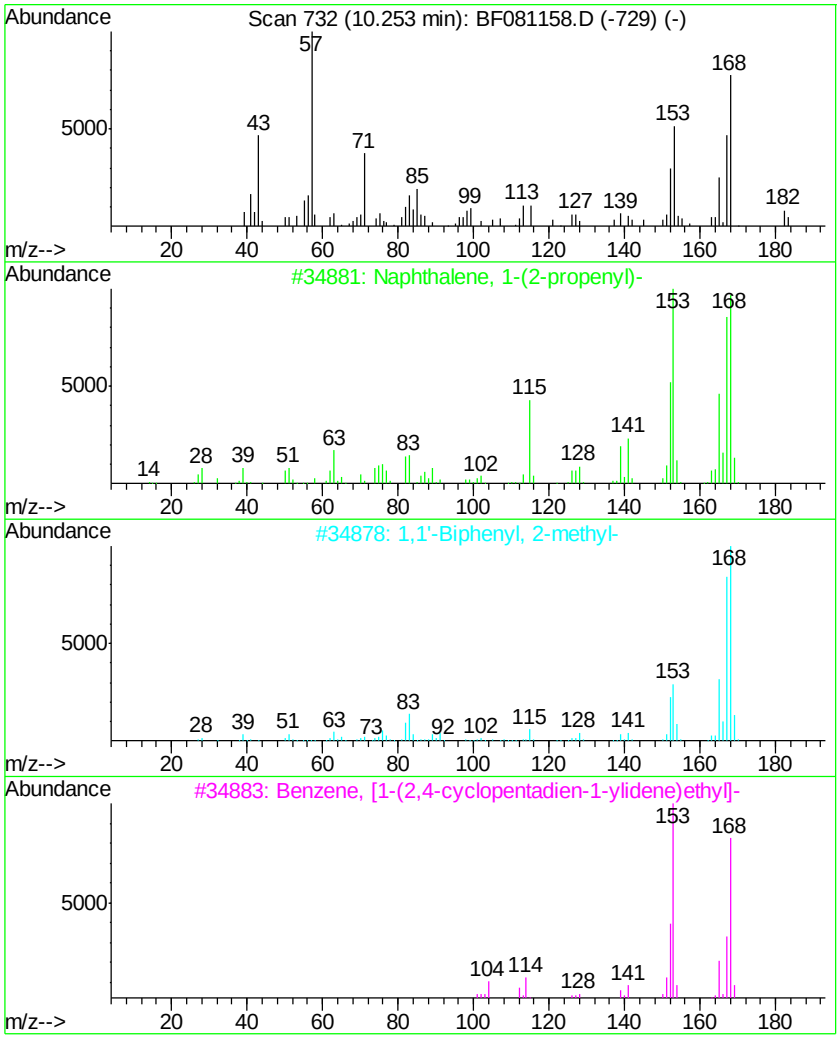
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

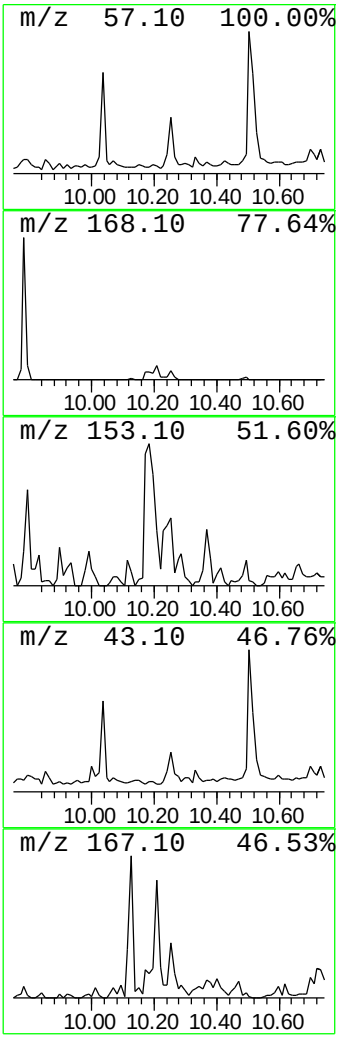
**********

Peak Number 8 unknown10.25 Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.25 | 3.84 ng | 141157 | Acenaphthene-d10 | 9.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1-(2-propenyl)- | 168 | C13H12 | 002489-86-3 | 43 |
| 2 | 1,1'-Biphenyl, 2-methyl- | 168 | C13H12 | 000643-58-3 | 43 |
| 3 | Benzene, [1-(2,4-cyclopentadien-... | 168 | C13H12 | 002320-32-3 | 35 |
| 4 | 1,1'-Biphenyl, 4-methyl- | 168 | C13H12 | 000644-08-6 | 30 |
| 5 | 9H-Pyrido[3,4-b]indole | 168 | C11H8N2 | 000244-63-3 | 18 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

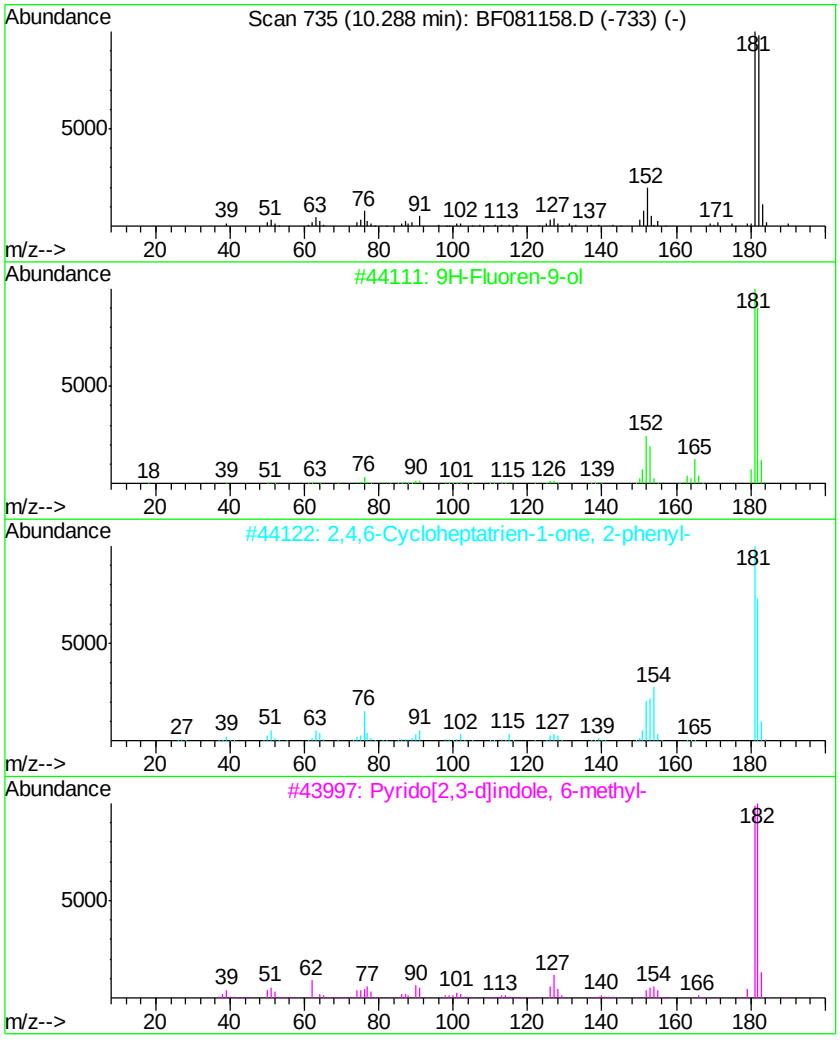
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

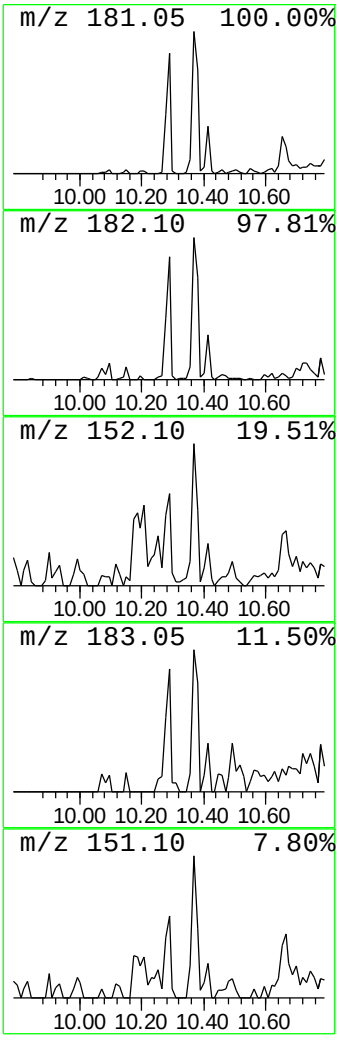
**********

Peak Number 9 9H-Fluoren-9-ol Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.29 | 5.01 ng | 184128 | Acenaphthene-d10 | 9.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9H-Fluoren-9-ol | 182 | C13H10O | 001689-64-1 | 86 |
| 2 | 2,4,6-Cycloheptatrien-1-one, 2-p... | 182 | C13H10O | 014562-09-5 | 72 |
| 3 | Pyrido[2,3-d]indole, 6-methyl- | 182 | C12H10N2 | 108349-67-3 | 64 |
| 4 | 9H-Xanthene | 182 | C13H10O | 000092-83-1 | 60 |
| 5 | 2-Hydroxyfluorene | 182 | C13H10O | 002443-58-5 | 59 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

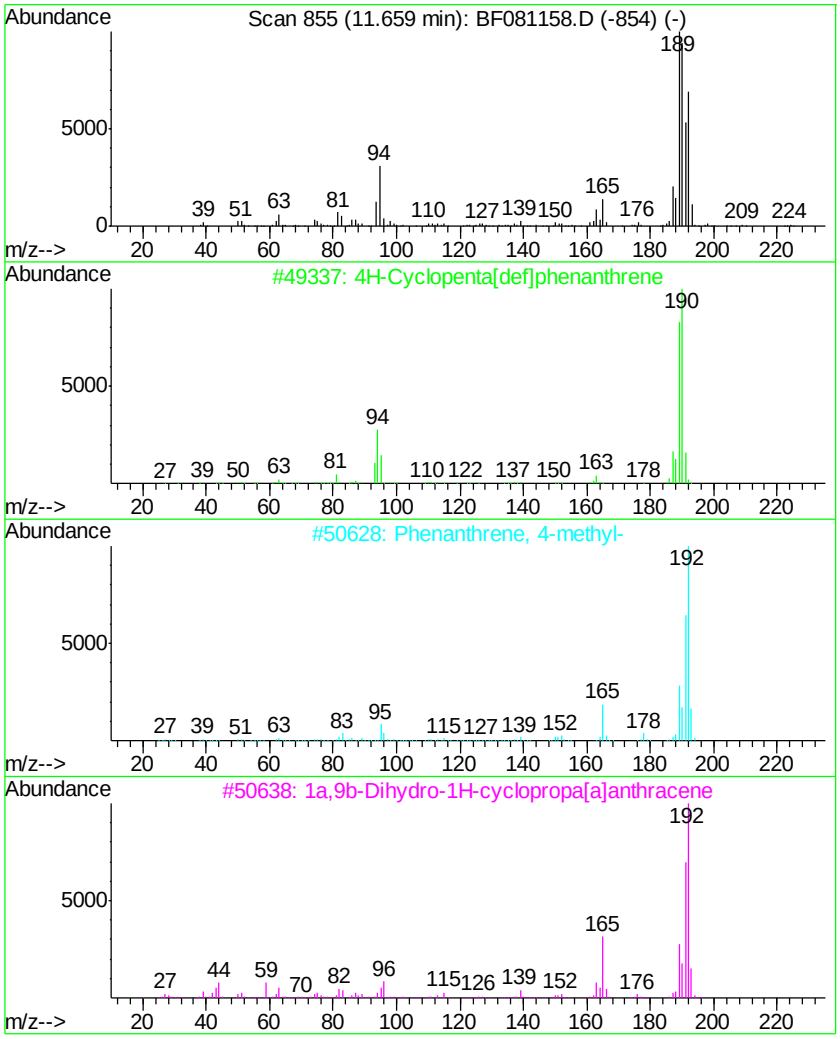
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

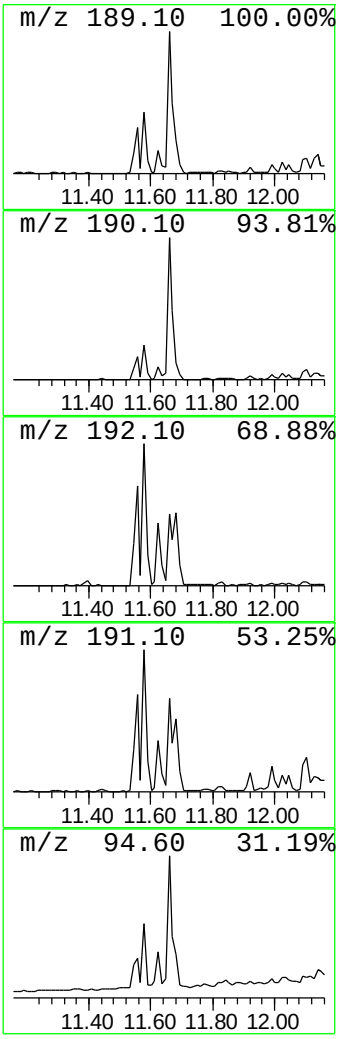
**********

Peak Number 10 4H-Cyclopenta[def]phenanthrene Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.66 | 4.66 ng | 1072920 | Phenanthrene-d10 | 11.05 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 52 |
| 2 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 35 |
| 3 | 1a,9b-Dihydro-1H-cyclopropa[a]an... | 192 | C15H12 | 006109-24-6 | 35 |
| 4 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 25 |
| 5 | Naphtho[2,3-b]norbornadiene | 192 | C15H12 | 107426-38-0 | 25 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

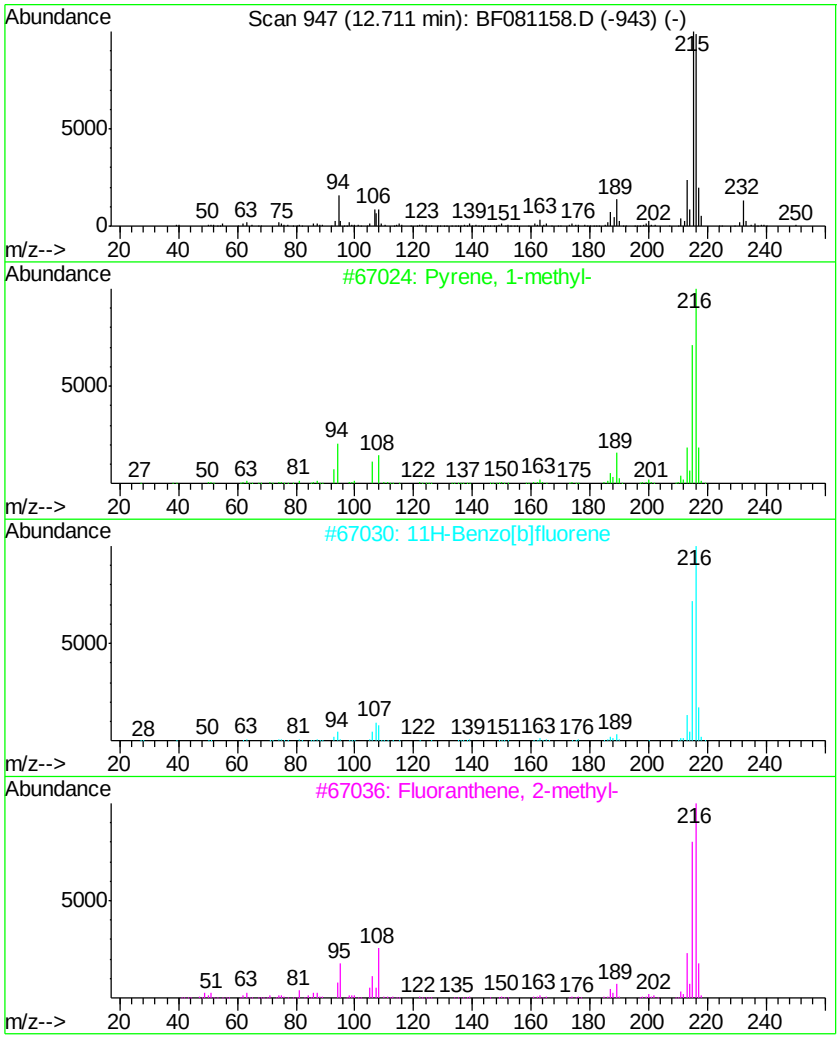
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

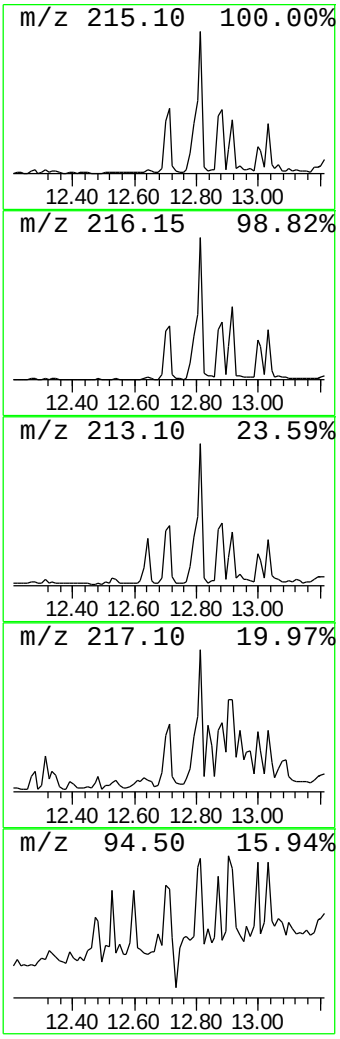
**********

Peak Number 11 Pyrene, 1-methyl- Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.71 | 3.40 ng | 480436 | Chrysene-d12 | 13.68 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 93 |
| 2 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 93 |
| 3 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 91 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 83 |
| 5 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 64 |



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

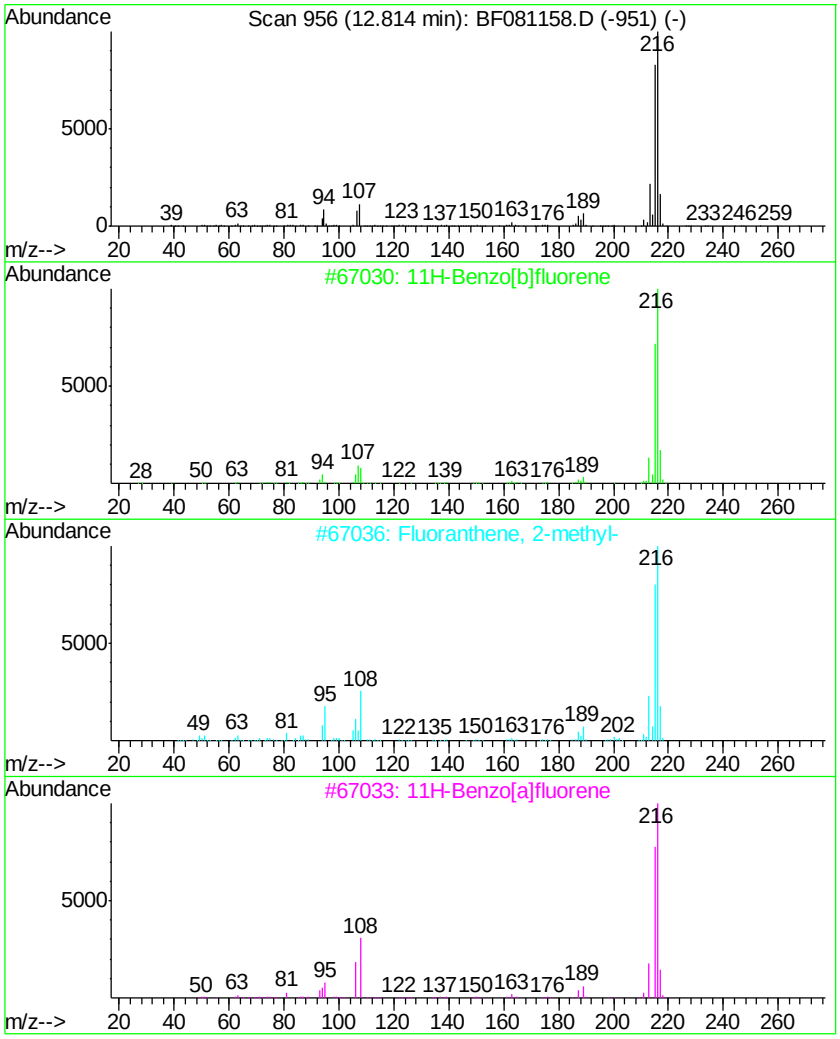
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

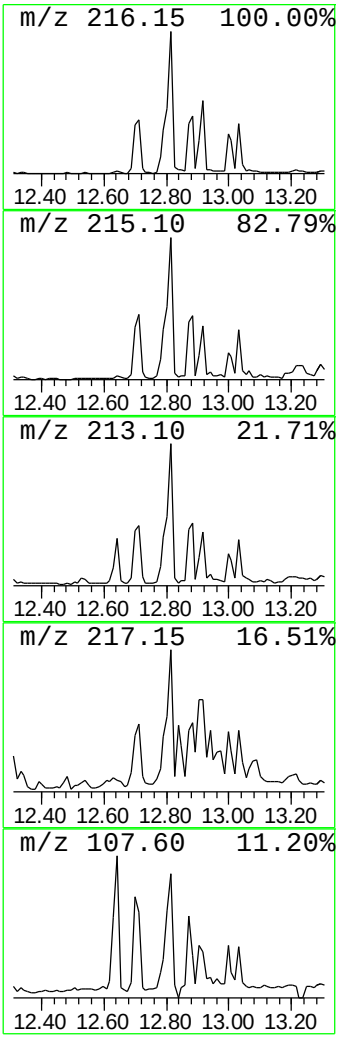
**********

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

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.81 | 5.28 ng | 745596 | Chrysene-d12 | 13.68 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 94 |
| 2 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 93 |
| 3 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 91 |
| 4 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 90 |
| 5 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 74 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

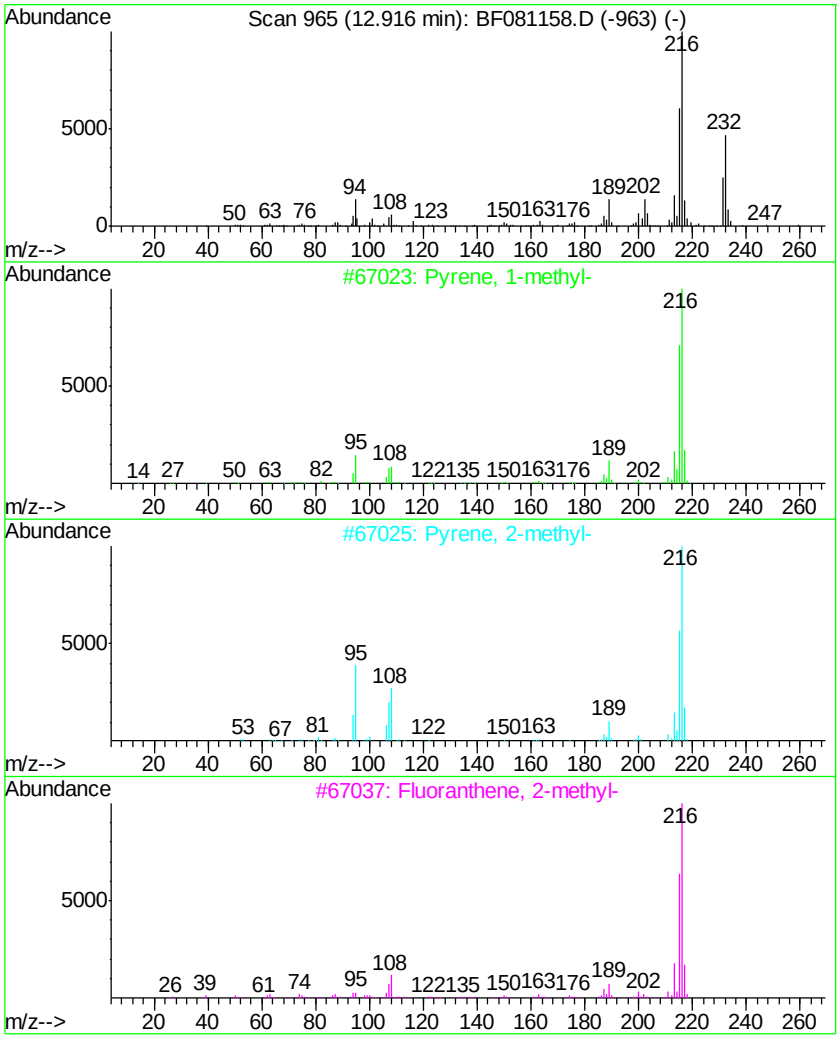
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

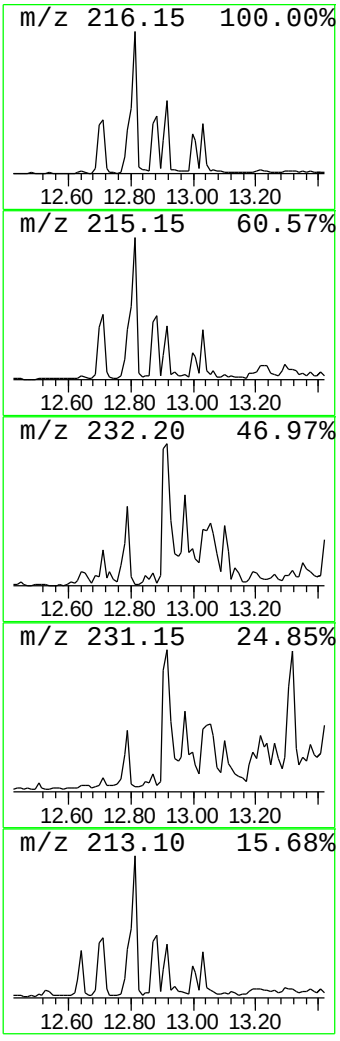
**********

Peak Number 13 Pyrene, 2-methyl- Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.92 | 4.07 ng | 575640 | Chrysene-d12 | 13.68 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 93 |
| 2 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 83 |
| 3 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 78 |
| 4 | Pyrene, 4-methyl- | 216 | C17H12 | 003353-12-6 | 55 |
| 5 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 50 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

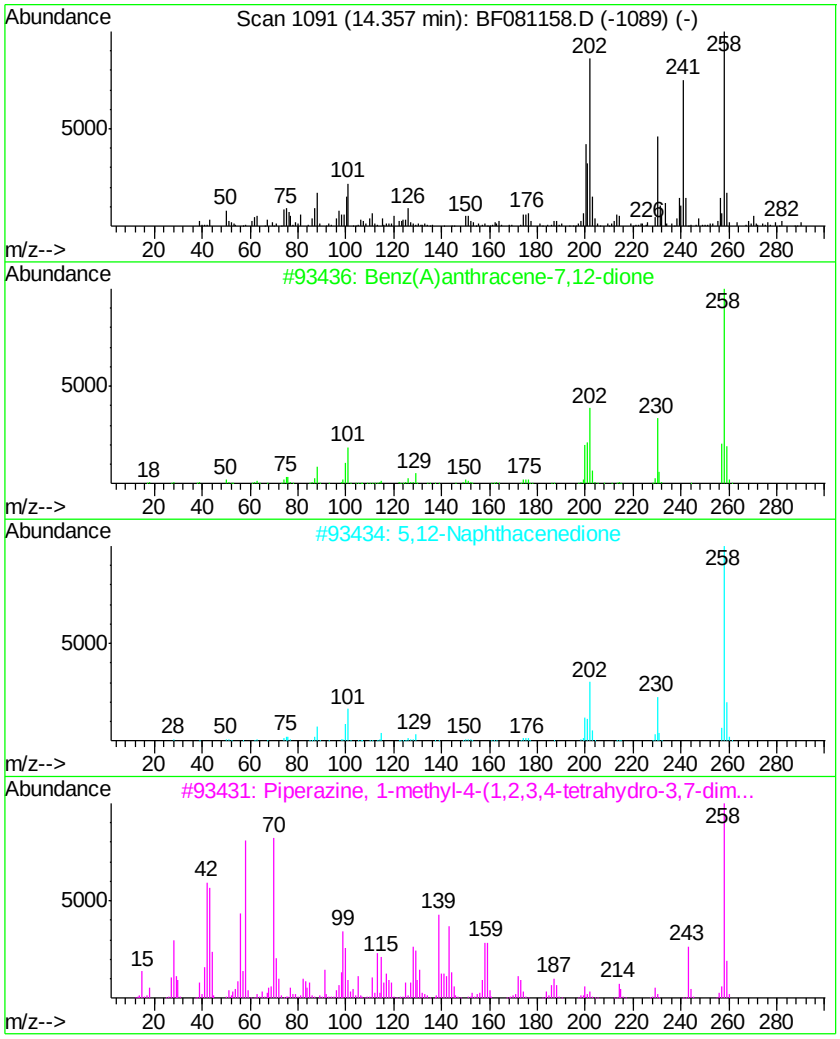
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

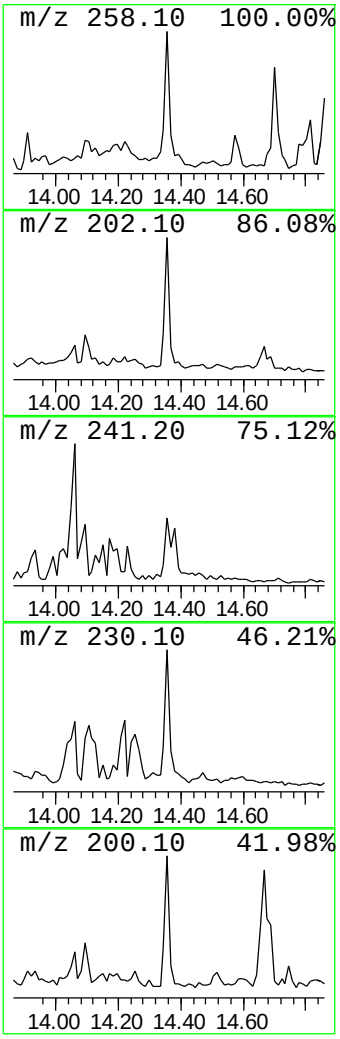
**********

Peak Number 14 Benz(A)anthracene-7,12-dione Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.36 | 9.31 ng | 158210 | Perylene-d12 | 15.01 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benz(A)anthracene-7,12-dione | 258 | C18H10O2 | 002498-66-0 | 93 |
| 2 | 5,12-Naphthacenedione | 258 | C18H10O2 | 001090-13-7 | 92 |
| 3 | Piperazine, 1-methyl-4-(1,2,3,4-... | 258 | C17H26N2 | 055591-14-5 | 53 |
| 4 | 1,8-Anthracenedinitrile, 9,10-di... | 258 | C16H6N2O2 | 090866-50-5 | 43 |
| 5 | 5,7-Dimethyl-6-phenyl-1,3-diazaa... | 258 | C16H22N2O | 1000216-37-9 | 35 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

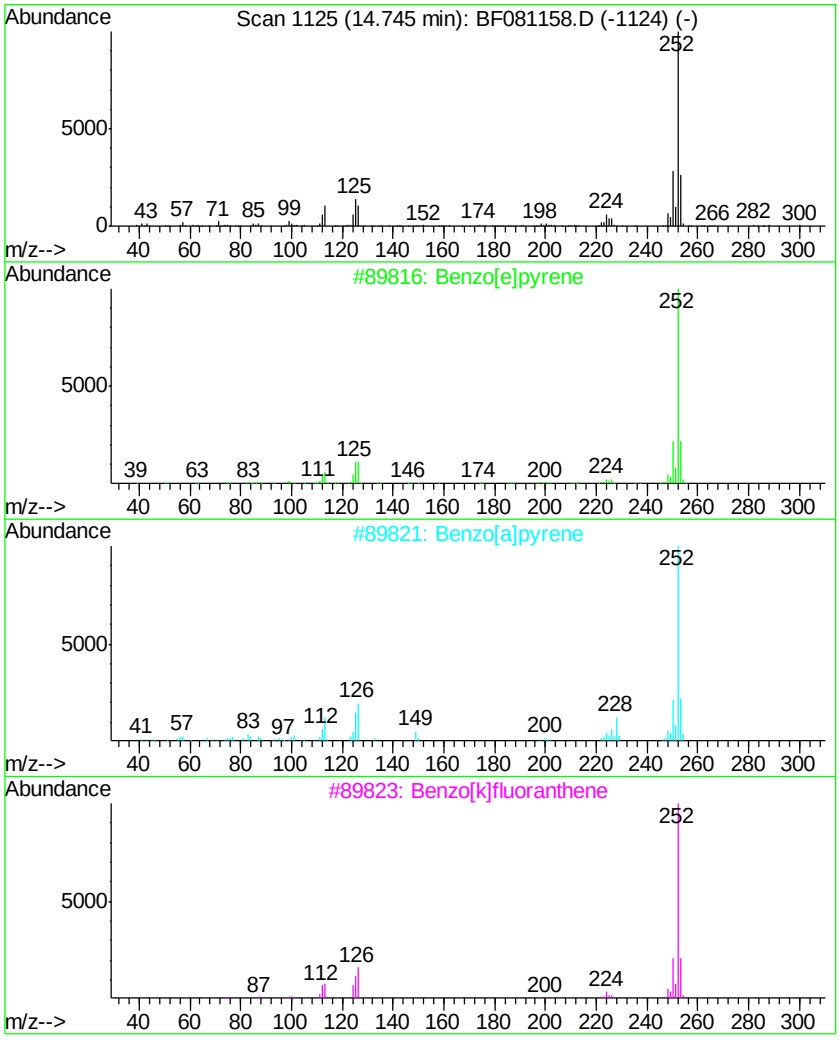
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

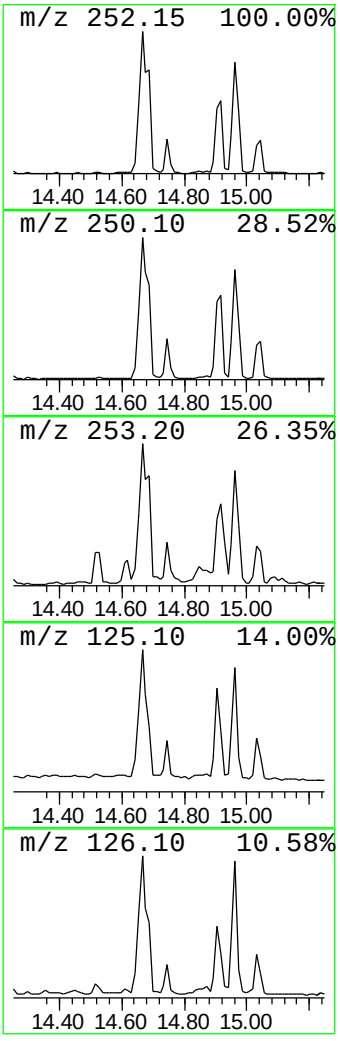
**********

Peak Number 15 Benzo[e]pyrene Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.75 | 12.37 ng | 210239 | Perylene-d12 | 15.01 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 91 |
| 2 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 91 |
| 3 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 89 |
| 4 | Perylene | 252 | C20H12 | 000198-55-0 | 74 |
| 5 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 74 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

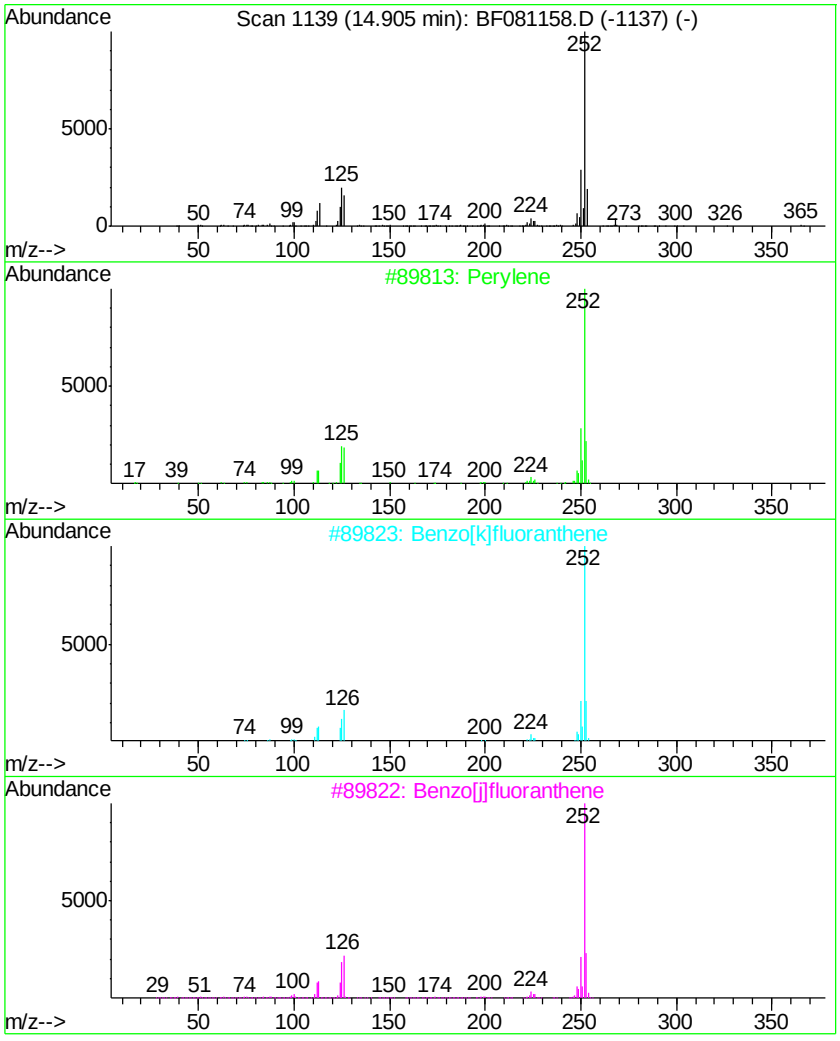
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

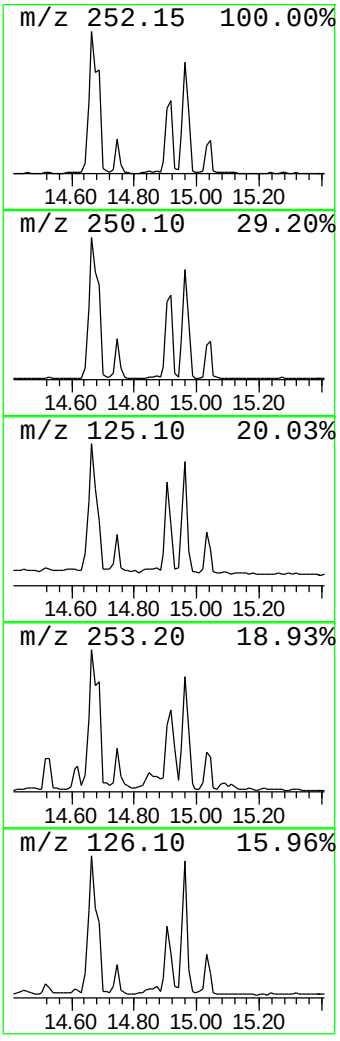
**********

Peak Number 16 Perylene Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.91 | 44.68 ng | 759408 | Perylene-d12 | 15.01 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Perylene | 252 | C20H12 | 000198-55-0 | 98 |
| 2 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 98 |
| 3 | Benzo[j]fluoranthene | 252 | C20H12 | 000205-82-3 | 97 |
| 4 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 97 |
| 5 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 96 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

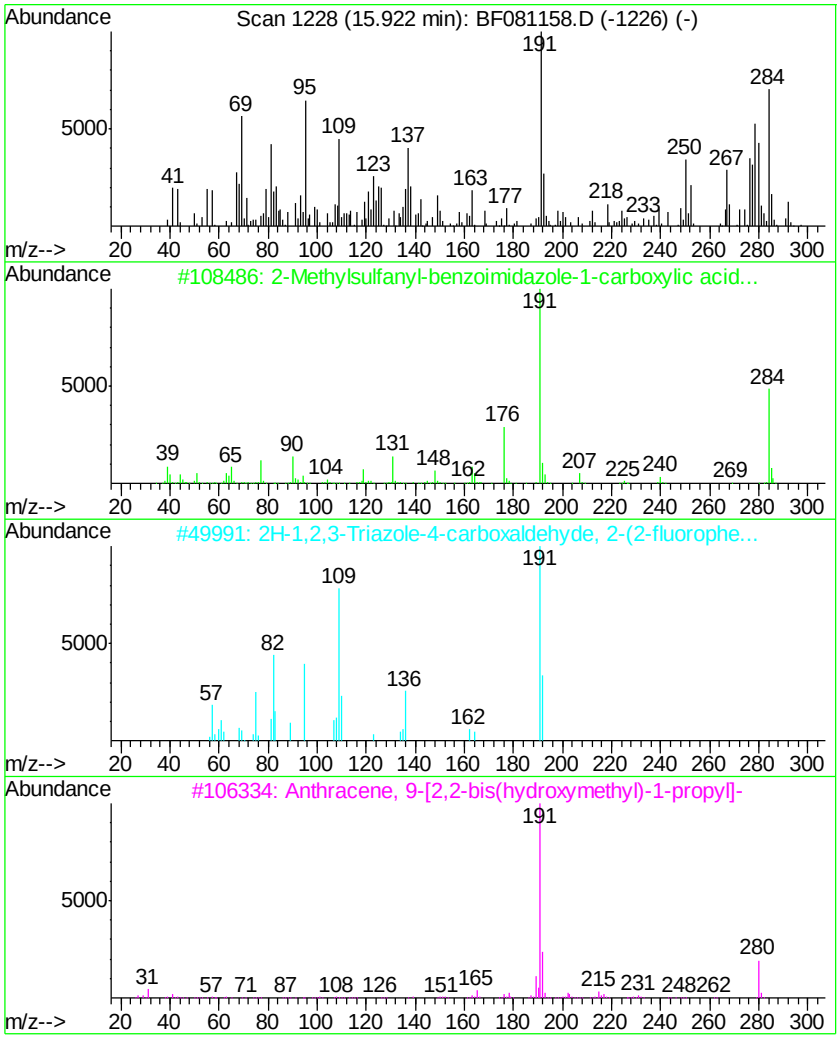
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

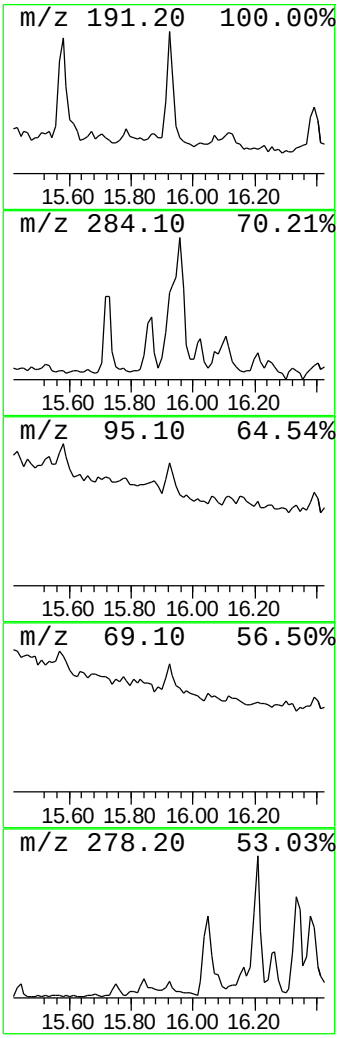
**********

Peak Number 17 unknown15.92 Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.92 | 17.99 ng | 305692 | Perylene-d12 | 15.01 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Methylsulfanyl-benzoimidazole-... | 284 | C15H12N2O2S | 1000294-32-8 | 25 |
| 2 | 2H-1,2,3-Triazole-4-carboxaldehy... | 191 | C9H6FN3O | 051306-43-5 | 18 |
| 3 | Anthracene, 9-[2,2-bis(hydroxyme... | 280 | C19H20O2 | 144000-85-1 | 16 |
| 4 | 1-Penten-3-one, 1-(2,6,6-trimeth... | 206 | C14H22O | 000127-43-5 | 15 |
| 5 | 2-(7-Methoxymethylphenanthren-3-... | 280 | C19H20O2 | 1000201-97-9 | 12 |



Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

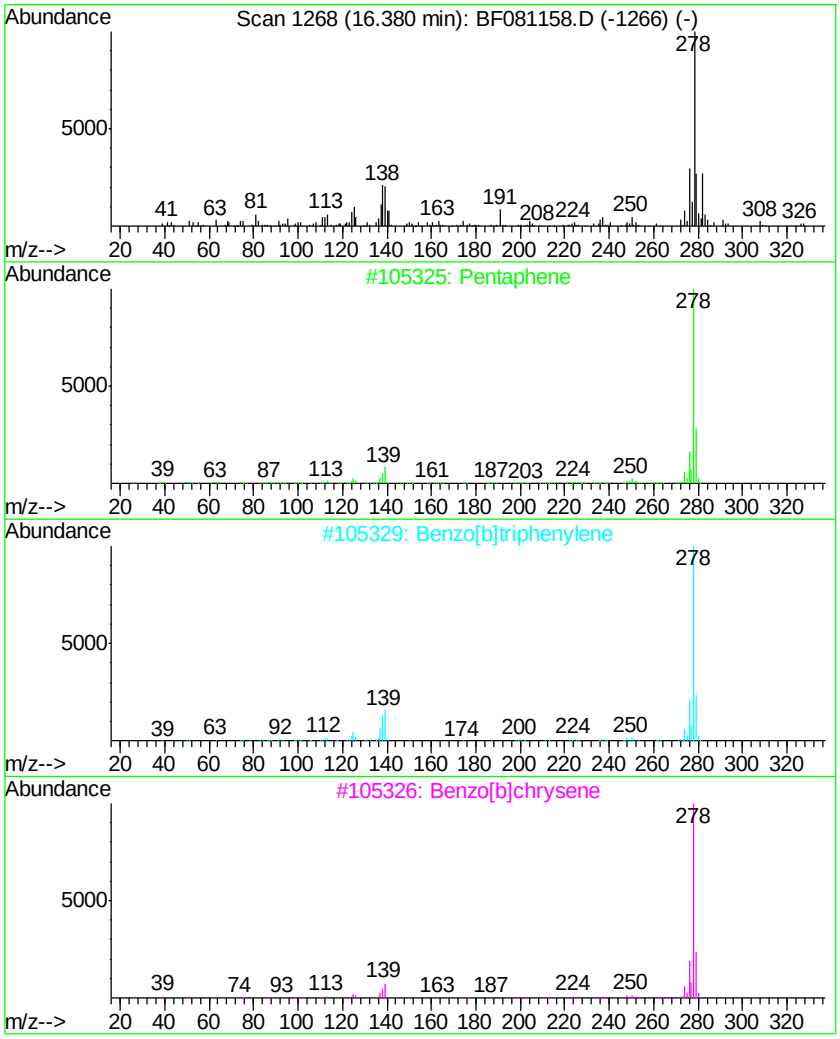
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

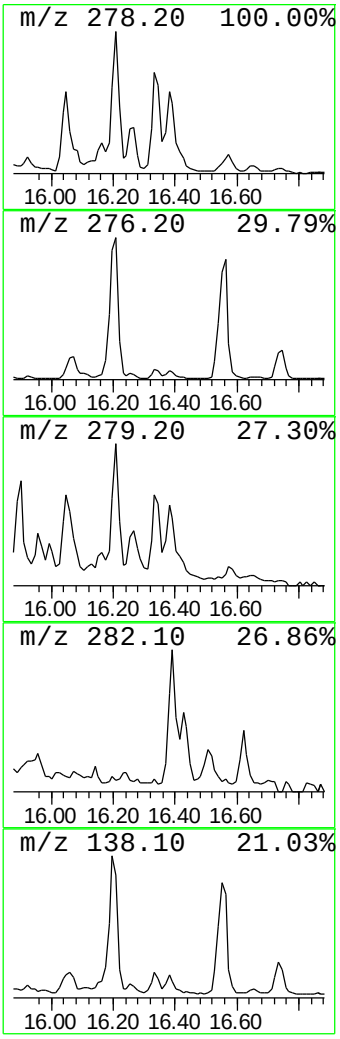
**********

Peak Number 19 Pentaphene Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.38 | 7.36 ng | 125021 | Perylene-d12 | 15.01 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pentaphene | 278 | C22H14 | 000222-93-5 | 96 |
| 2 | Benzo[b]triphenylene | 278 | C22H14 | 000215-58-7 | 94 |
| 3 | Benzo[b]chrysene | 278 | C22H14 | 000214-17-5 | 94 |
| 4 | 1,2:7,8-Dibenzophenanthrene | 278 | C22H14 | 000213-46-7 | 91 |
| 5 | Pentacene | 278 | C22H14 | 000135-48-8 | 91 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\Data\BF082115\
Data File : BF081158.D
Acq On : 21 Aug 2015 21:50
Operator : UM/IZ
Sample : G3363-09
Misc :
ALS Vial : 15 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-C2

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF081715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| | | | | | Internal Standard | | | |
|---|---|---|---|---|---|---|---|---|
| TIC Top Hit name | RT | EstConc | Units | Response | # | RT | Resp | Conc |
| 3-Penten-2-one, 4... | 3.91 | 4.5 | ng | 99420 | 1 | 6.55 | 439900 | 20.0 |
| 2-Pentanone, 4-hy... | 4.68 | 100.8 | ng | 2218260 | 1 | 6.55 | 439900 | 20.0 |
| 2-Pentanone, 4-me... | 5.54 | 3.6 | ng | 80268 | 1 | 6.55 | 439900 | 20.0 |
| unknown6.32 | 6.32 | 93.2 | ng | 2048800 | 1 | 6.55 | 439900 | 20.0 |
| Naphthalene, 1,3-... | 9.18 | 3.5 | ng | 128006 | 3 | 9.58 | 734624 | 20.0 |
| Naphthalene, 2,3-... | 9.25 | 4.8 | ng | 178156 | 3 | 9.58 | 734624 | 20.0 |
| unknown10.25 | 10.25 | 3.8 | ng | 141157 | 3 | 9.58 | 734624 | 20.0 |
| 9H-Fluoren-9-ol | 10.29 | 5.0 | ng | 184128 | 3 | 9.58 | 734624 | 20.0 |
| 4H-Cyclopenta[def... | 11.66 | 4.7 | ng | 1072920 | 4 | 11.05 | 4602130 | 20.0 |
| Pyrene, 1-methyl- | 12.71 | 3.4 | ng | 480436 | 5 | 13.68 | 2825290 | 20.0 |
| 11H-Benzo[b]fluorene | 12.81 | 5.3 | ng | 745596 | 5 | 13.68 | 2825290 | 20.0 |
| Pyrene, 2-methyl- | 12.92 | 4.1 | ng | 575640 | 5 | 13.68 | 2825290 | 20.0 |
| Benz(A)anthracene... | 14.36 | 9.3 | ng | 158210 | 6 | 15.01 | 339908 | 20.0 |
| Benzo[e]pyrene | 14.75 | 12.4 | ng | 210239 | 6 | 15.01 | 339908 | 20.0 |
| Perylene | 14.91 | 44.7 | ng | 759408 | 6 | 15.01 | 339908 | 20.0 |
| unknown15.92 | 15.92 | 18.0 | ng | 305692 | 6 | 15.01 | 339908 | 20.0 |
| Pentaphene | 16.38 | 7.4 | ng | 125021 | 6 | 15.01 | 339908 | 20.0 |