LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

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-BF060716.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 | 1.736 | 10 | 13 | 20 | rVB | 119474 | 232910 | 5.20% | 0.320% |
| 2 | 1.861 | 21 | 24 | 35 | rVV | 829169 | 1458510 | 32.57% | 2.006% |
| 3 | 1.998 | 35 | 36 | 52 | rVB4 | 38057 | 117116 | 2.62% | 0.161% |
| 4 | 4.970 | 293 | 296 | 304 | rVB | 120273 | 200265 | 4.47% | 0.275% |
| 5 | 5.393 | 330 | 333 | 335 | rVB | 2321785 | 2537972 | 56.68% | 3.491% |
| 6 | 5.793 | 365 | 368 | 370 | rBV2 | 57534 | 92644 | 2.07% | 0.127% |
| 7 | 5.930 | 378 | 380 | 383 | rVB | 79919 | 107559 | 2.40% | 0.148% |
| 8 | 5.987 | 383 | 385 | 388 | rBV2 | 37874 | 85069 | 1.90% | 0.117% |
| 9 | 6.033 | 388 | 389 | 392 | rVB3 | 78779 | 121520 | 2.71% | 0.167% |
| 10 | 6.227 | 403 | 406 | 408 | rBV | 79690 | 121990 | 2.72% | 0.168% |
| 11 | 6.319 | 412 | 414 | 419 | rVB3 | 108962 | 223570 | 4.99% | 0.308% |
| 12 | 6.433 | 421 | 424 | 427 | rVV | 1751540 | 2830140 | 63.21% | 3.893% |
| 13 | 6.559 | 431 | 435 | 437 | rBV | 1898396 | 2772910 | 61.93% | 3.814% |
| 14 | 6.799 | 454 | 456 | 458 | rVV | 507987 | 690951 | 15.43% | 0.950% |
| 15 | 6.947 | 467 | 469 | 471 | rVB | 1726100 | 1925871 | 43.01% | 2.649% |
| 16 | 7.187 | 489 | 490 | 491 | rBV | 78496 | 73764 | 1.65% | 0.101% |
| 17 | 7.359 | 500 | 505 | 507 | rBV | 1367524 | 1649652 | 36.84% | 2.269% |
| 18 | 7.439 | 510 | 512 | 515 | rBV4 | 47885 | 80594 | 1.80% | 0.111% |
| 19 | 7.828 | 543 | 546 | 548 | rBV2 | 56199 | 79257 | 1.77% | 0.109% |
| 20 | 8.079 | 566 | 568 | 572 | rBV | 954683 | 967248 | 21.60% | 1.330% |
| 21 | 9.165 | 660 | 663 | 665 | rVB | 2866089 | 2614176 | 58.38% | 3.596% |
| 22 | 9.245 | 665 | 670 | 673 | rBV2 | 74531 | 118741 | 2.65% | 0.163% |
| 23 | 9.302 | 673 | 675 | 678 | rVB2 | 63574 | 73651 | 1.64% | 0.101% |
| 24 | 9.428 | 683 | 686 | 688 | rBV2 | 59337 | 114046 | 2.55% | 0.157% |
| 25 | 9.496 | 691 | 692 | 693 | rBV | 105693 | 74402 | 1.66% | 0.102% |
| 26 | 9.553 | 695 | 697 | 700 | rVB | 278309 | 302648 | 6.76% | 0.416% |
| 27 | 9.611 | 701 | 702 | 707 | rVB2 | 55579 | 87765 | 1.96% | 0.121% |
| 28 | 9.702 | 707 | 710 | 712 | rVB | 204306 | 221465 | 4.95% | 0.305% |
| 29 | 9.839 | 719 | 722 | 723 | rBV | 1083527 | 1084154 | 24.21% | 1.491% |
| 30 | 9.873 | 723 | 725 | 726 | rVB | 129943 | 173865 | 3.88% | 0.239% |
| 31 | 9.942 | 729 | 731 | 734 | rBV | 52520 | 101101 | 2.26% | 0.139% |
| 32 | 10.033 | 738 | 739 | 741 | rVB | 149105 | 186110 | 4.16% | 0.256% |
| 33 | 10.079 | 741 | 743 | 744 | rBV | 101879 | 85836 | 1.92% | 0.118% |
| 34 | 10.148 | 747 | 749 | 751 | rBV2 | 60851 | 112377 | 2.51% | 0.155% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

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-BF060716.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 10.239 | 755 | 757 | 759 | rBV2 | 66574 | 133620 | 2.98% | 0.184% |
| 36 | 10.274 | 759 | 760 | 762 | rVB | 85453 | 71262 | 1.59% | 0.098% |
| 37 | 10.331 | 762 | 765 | 768 | rBV4 | 39964 | 78421 | 1.75% | 0.108% |
| 38 | 10.376 | 768 | 769 | 773 | rVB | 357027 | 438089 | 9.78% | 0.603% |
| 39 | 10.445 | 773 | 775 | 776 | rBV | 67198 | 83933 | 1.87% | 0.115% |
| 40 | 10.491 | 778 | 779 | 782 | rVB2 | 64097 | 107314 | 2.40% | 0.148% |
| 41 | 10.536 | 782 | 783 | 786 | rVB | 196374 | 203609 | 4.55% | 0.280% |
| 42 | 10.628 | 788 | 791 | 793 | rVB | 1555350 | 1581355 | 35.32% | 2.175% |
| 43 | 10.674 | 793 | 795 | 797 | rVB2 | 51258 | 72433 | 1.62% | 0.100% |
| 44 | 10.754 | 800 | 802 | 805 | rVB | 183892 | 300264 | 6.71% | 0.413% |
| 45 | 10.925 | 814 | 817 | 819 | rBV3 | 174156 | 328270 | 7.33% | 0.452% |
| 46 | 11.005 | 821 | 824 | 826 | rVB3 | 134335 | 246340 | 5.50% | 0.339% |
| 47 | 11.085 | 826 | 831 | 834 | rBV3 | 143057 | 437597 | 9.77% | 0.602% |
| 48 | 11.176 | 837 | 839 | 840 | rBV | 155340 | 239667 | 5.35% | 0.330% |
| 49 | 11.211 | 840 | 842 | 846 | rVB2 | 260268 | 531811 | 11.88% | 0.732% |
| 50 | 11.348 | 849 | 854 | 856 | rBV2 | 2663366 | 4477520 | 100.00% | 6.159% |
| 51 | 11.394 | 856 | 858 | 860 | rVB | 991440 | 988400 | 22.07% | 1.360% |
| 52 | 11.428 | 860 | 861 | 863 | rBV | 140098 | 155677 | 3.48% | 0.214% |
| 53 | 11.474 | 863 | 865 | 866 | rBV2 | 61443 | 74180 | 1.66% | 0.102% |
| 54 | 11.576 | 870 | 874 | 876 | rBV4 | 153292 | 284100 | 6.35% | 0.391% |
| 55 | 11.622 | 876 | 878 | 879 | rBV | 235090 | 209377 | 4.68% | 0.288% |
| 56 | 11.828 | 893 | 896 | 897 | rBV | 410120 | 651979 | 14.56% | 0.897% |
| 57 | 11.874 | 897 | 900 | 903 | rVV2 | 1025081 | 2590222 | 57.85% | 3.563% |
| 58 | 11.931 | 903 | 905 | 910 | rVB2 | 898750 | 1523794 | 34.03% | 2.096% |
| 59 | 12.034 | 913 | 914 | 915 | rVV | 116247 | 99075 | 2.21% | 0.136% |
| 60 | 12.114 | 918 | 921 | 925 | rVV | 382856 | 670348 | 14.97% | 0.922% |
| 61 | 12.274 | 932 | 935 | 936 | rBV2 | 270968 | 344116 | 7.69% | 0.473% |
| 62 | 12.377 | 942 | 944 | 946 | rBV | 245203 | 279584 | 6.24% | 0.385% |
| 63 | 12.422 | 946 | 948 | 951 | rVB2 | 261590 | 426992 | 9.54% | 0.587% |
| 64 | 12.559 | 956 | 960 | 961 | rBV | 2632314 | 4322933 | 96.55% | 5.946% |
| 65 | 12.582 | 961 | 962 | 967 | rVB2 | 1468394 | 1970086 | 44.00% | 2.710% |
| 66 | 12.662 | 967 | 969 | 970 | rBV | 478293 | 501818 | 11.21% | 0.690% |
| 67 | 12.777 | 975 | 979 | 981 | rBV2 | 2586175 | 3880730 | 86.67% | 5.338% |
| 68 | 12.811 | 981 | 982 | 985 | rVB2 | 202139 | 282150 | 6.30% | 0.388% |
| 69 | 12.879 | 986 | 988 | 989 | rBV | 390177 | 367518 | 8.21% | 0.506% |
| 70 | 12.914 | 989 | 991 | 993 | rVB | 1624403 | 1806471 | 40.35% | 2.485% |
| 71 | 12.982 | 994 | 997 | 1001 | rBV3 | 318923 | 630936 | 14.09% | 0.868% |

LSC Area Percent Report

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Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

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-BF060716.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 13.051 | 1001 | 1003 | 1004 | rBV | 505532 | 652252 | 14.57% | 0.897% |
| 73 | 13.097 | 1004 | 1007 | 1008 | rVB | 647085 | 907942 | 20.28% | 1.249% |
| 74 | 13.154 | 1008 | 1012 | 1014 | rBV2 | 641944 | 883571 | 19.73% | 1.215% |
| 75 | 13.188 | 1014 | 1015 | 1019 | rVB3 | 371300 | 543988 | 12.15% | 0.748% |
| 76 | 13.291 | 1022 | 1024 | 1025 | rBV | 114926 | 152867 | 3.41% | 0.210% |
| 77 | 13.314 | 1025 | 1026 | 1028 | rVB2 | 215584 | 199245 | 4.45% | 0.274% |
| 78 | 13.497 | 1039 | 1042 | 1047 | rVB4 | 161691 | 389252 | 8.69% | 0.535% |
| 79 | 13.702 | 1058 | 1060 | 1062 | rBV | 227693 | 409226 | 9.14% | 0.563% |
| 80 | 13.737 | 1062 | 1063 | 1064 | rVV | 297611 | 224678 | 5.02% | 0.309% |
| 81 | 13.954 | 1079 | 1082 | 1084 | rBV2 | 1720543 | 3024470 | 67.55% | 4.160% |
| 82 | 13.988 | 1084 | 1085 | 1088 | rVB | 1540621 | 1480930 | 33.07% | 2.037% |
| 83 | 14.068 | 1090 | 1092 | 1093 | rVB | 186458 | 186778 | 4.17% | 0.257% |
| 84 | 14.137 | 1096 | 1098 | 1100 | rVV2 | 180083 | 277138 | 6.19% | 0.381% |
| 85 | 14.182 | 1100 | 1102 | 1104 | rVB2 | 154031 | 226795 | 5.07% | 0.312% |
| 86 | 14.342 | 1114 | 1116 | 1118 | rBV | 323584 | 345441 | 7.72% | 0.475% |
| 87 | 14.377 | 1118 | 1119 | 1121 | rVB | 229397 | 173491 | 3.87% | 0.239% |
| 88 | 14.434 | 1122 | 1124 | 1126 | rBV | 203887 | 204947 | 4.58% | 0.282% |
| 89 | 14.983 | 1169 | 1172 | 1176 | rBV | 1177214 | 2560029 | 57.18% | 3.521% |
| 90 | 15.074 | 1179 | 1180 | 1182 | rVB | 251638 | 191374 | 4.27% | 0.263% |
| 91 | 15.257 | 1194 | 1196 | 1199 | rVB | 643309 | 930063 | 20.77% | 1.279% |
| 92 | 15.325 | 1199 | 1202 | 1204 | rVB | 924820 | 1290368 | 28.82% | 1.775% |
| 93 | 15.371 | 1204 | 1206 | 1208 | rBV | 310283 | 554008 | 12.37% | 0.762% |
| 94 | 16.023 | 1261 | 1263 | 1272 | rVB2 | 169905 | 467954 | 10.45% | 0.644% |
| 95 | 16.434 | 1296 | 1299 | 1306 | rVB4 | 177130 | 463194 | 10.34% | 0.637% |
| 96 | 16.743 | 1322 | 1326 | 1330 | rVB | 445419 | 833753 | 18.62% | 1.147% |
| 97 | 16.903 | 1337 | 1340 | 1342 | rBV | 103181 | 190005 | 4.24% | 0.261% |
| 98 | 16.960 | 1342 | 1345 | 1350 | rVB4 | 93294 | 235700 | 5.26% | 0.324% |
| 99 | 17.154 | 1358 | 1362 | 1366 | rBV | 320569 | 637220 | 14.23% | 0.876% |
| 100 | 19.200 | 1536 | 1541 | 1552 | rVB3 | 234506 | 952472 | 21.27% | 1.310% |

Sum of corrected areas: 72700991

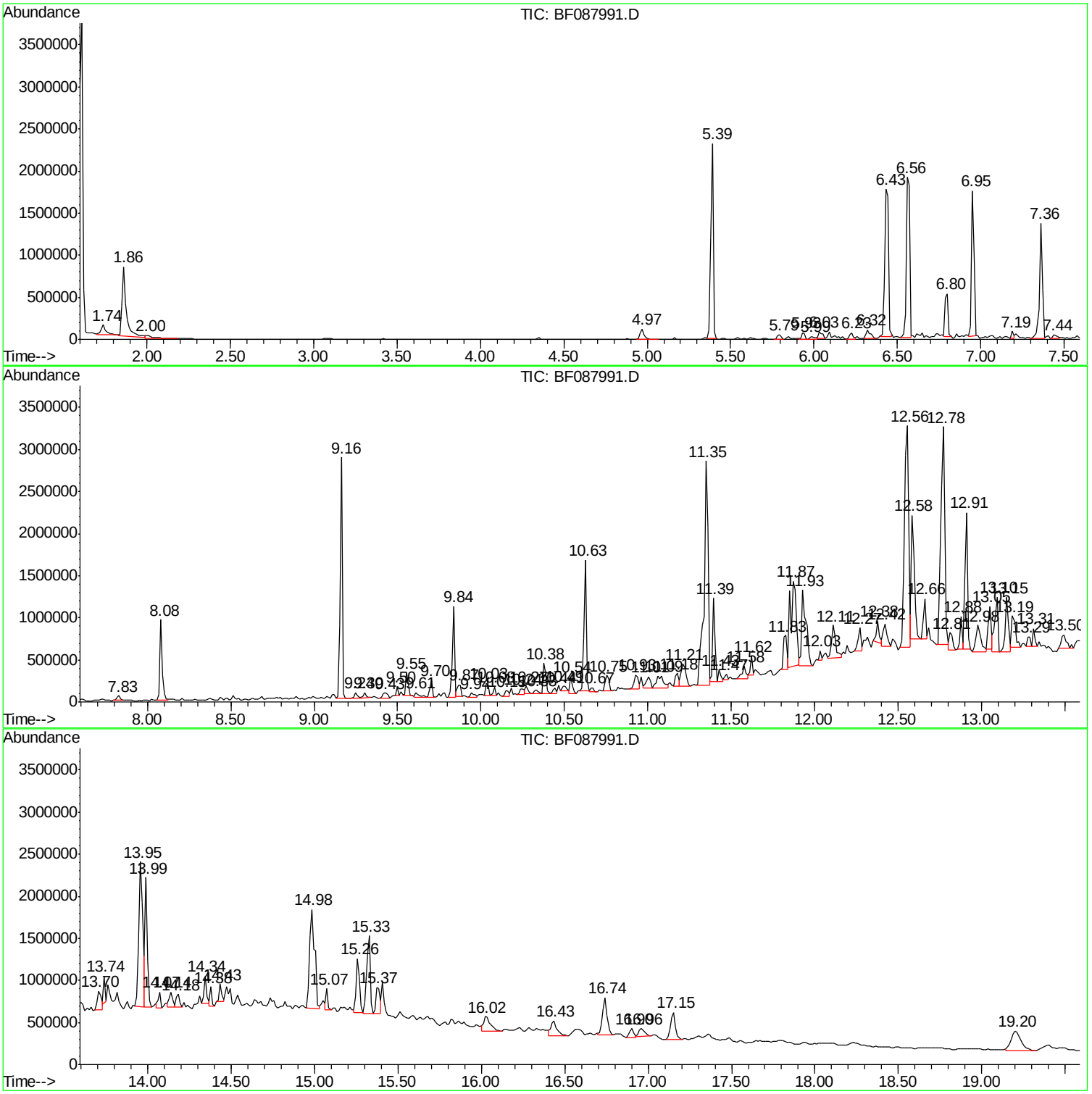
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

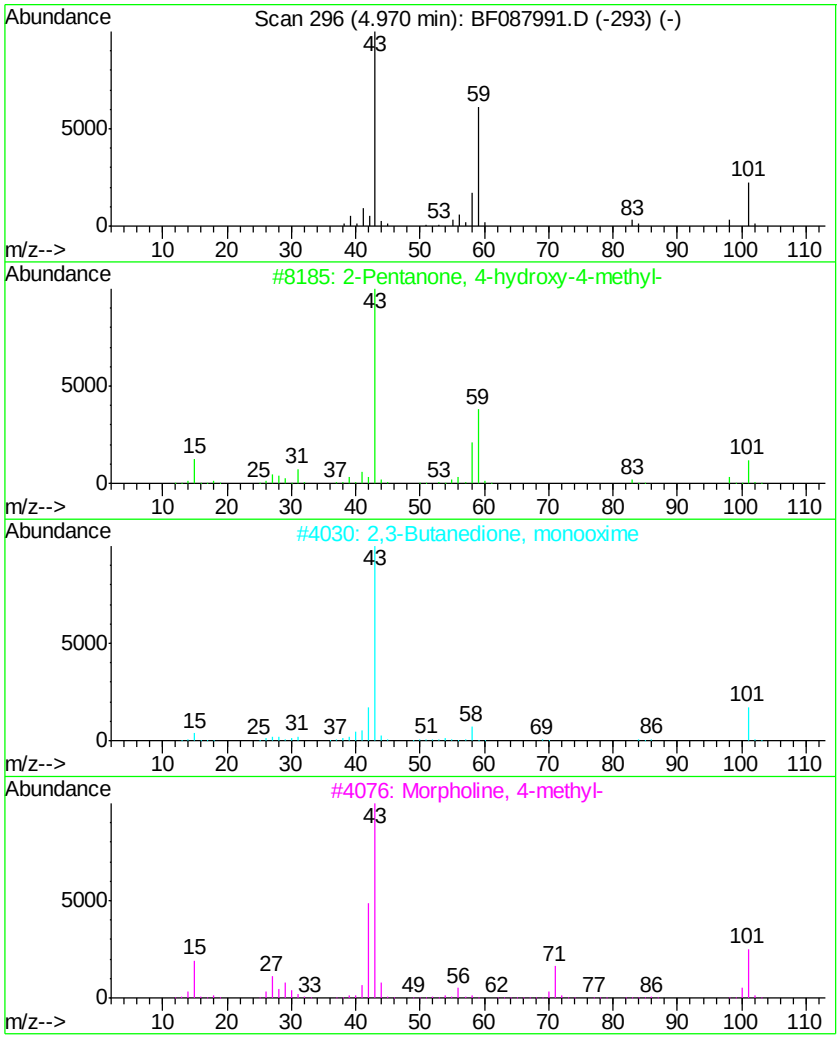
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

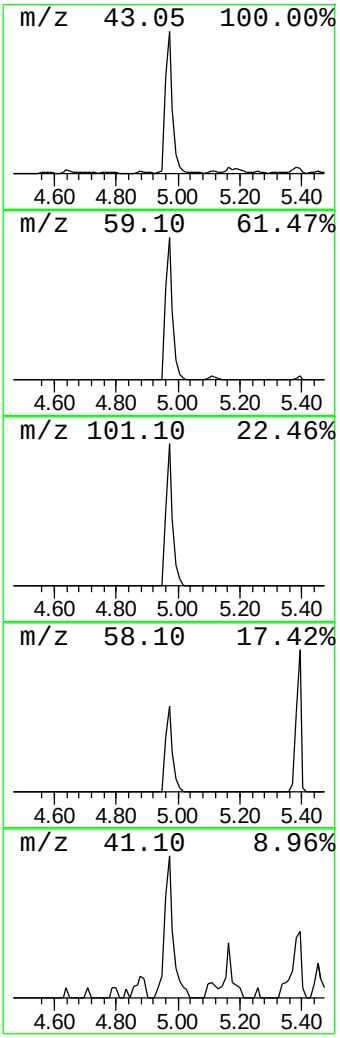
**********

Peak Number 3 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.97 | 5.80 ng | 200265 | 1,4-Dichlorobenzene-d4 | 6.80 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 56 |
| 2 | 2,3-Butanedione, monooxime | 101 | C4H7NO2 | 000057-71-6 | 25 |
| 3 | Morpholine, 4-methyl- | 101 | C5H11NO | 000109-02-4 | 9 |
| 4 | Acetic acid, 1,1-dimethylethyl e... | 116 | C6H12O2 | 000540-88-5 | 9 |
| 5 | 2-Nonanone | 142 | C9H18O | 000821-55-6 | 9 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

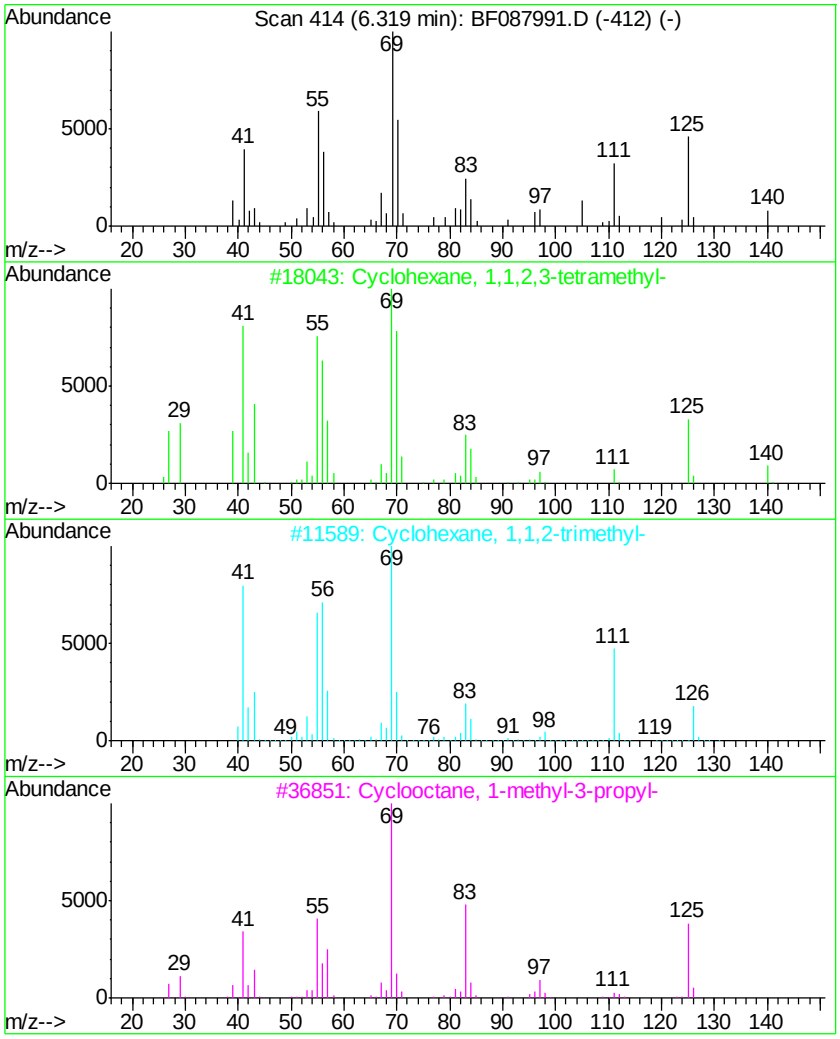
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

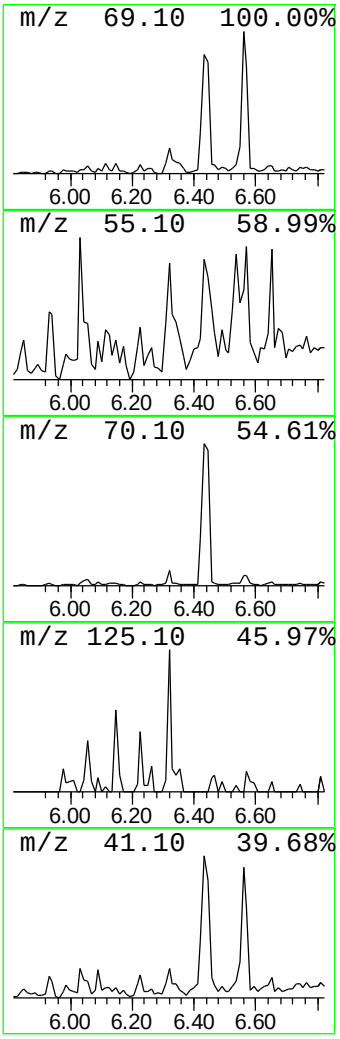
**********

Peak Number 4 Cyclohexane, 1,1,2,3-tetram... Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.32 | 6.47 ng | 223570 | 1,4-Dichlorobenzene-d4 | 6.80 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclohexane, 1,1,2,3-tetramethyl- | 140 | C10H20 | 006783-92-2 | 62 |
| 2 | Cyclohexane, 1,1,2-trimethyl- | 126 | C9H18 | 007094-26-0 | 55 |
| 3 | Cyclooctane, 1-methyl-3-propyl- | 168 | C12H24 | 255885-37-1 | 50 |
| 4 | 1-Hexene, 3,3-dimethyl- | 112 | C8H16 | 003404-77-1 | 43 |
| 5 | Cyclohexane, 1,2,3-trimethyl- | 126 | C9H18 | 001678-97-3 | 43 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

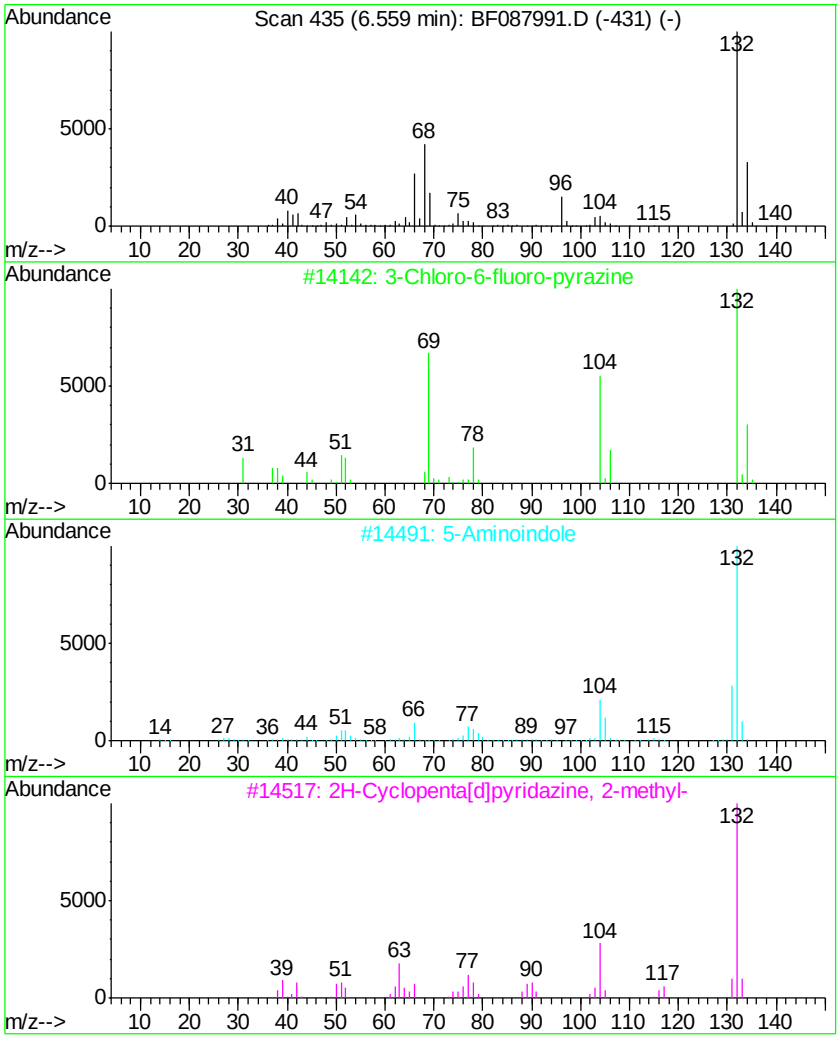
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

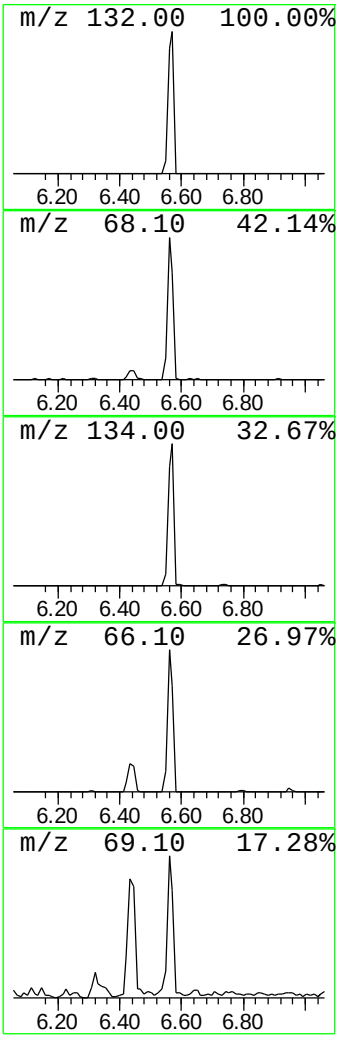
**********

Peak Number 5 unknown6.56 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.56 | 80.26 ng | 2772910 | 1,4-Dichlorobenzene-d4 | 6.80 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 27 |
| 2 | 5-Aminoindole | 132 | C8H8N2 | 005192-03-0 | 12 |
| 3 | 2H-Cyclopenta[d]pyridazine, 2-me... | 132 | C8H8N2 | 022291-85-6 | 9 |
| 4 | 4-Chloro-2-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-00-5 | 9 |
| 5 | 5-Fluoro-2-chloropyrimidine | 132 | C4H2ClFN2 | 062802-42-0 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
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Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

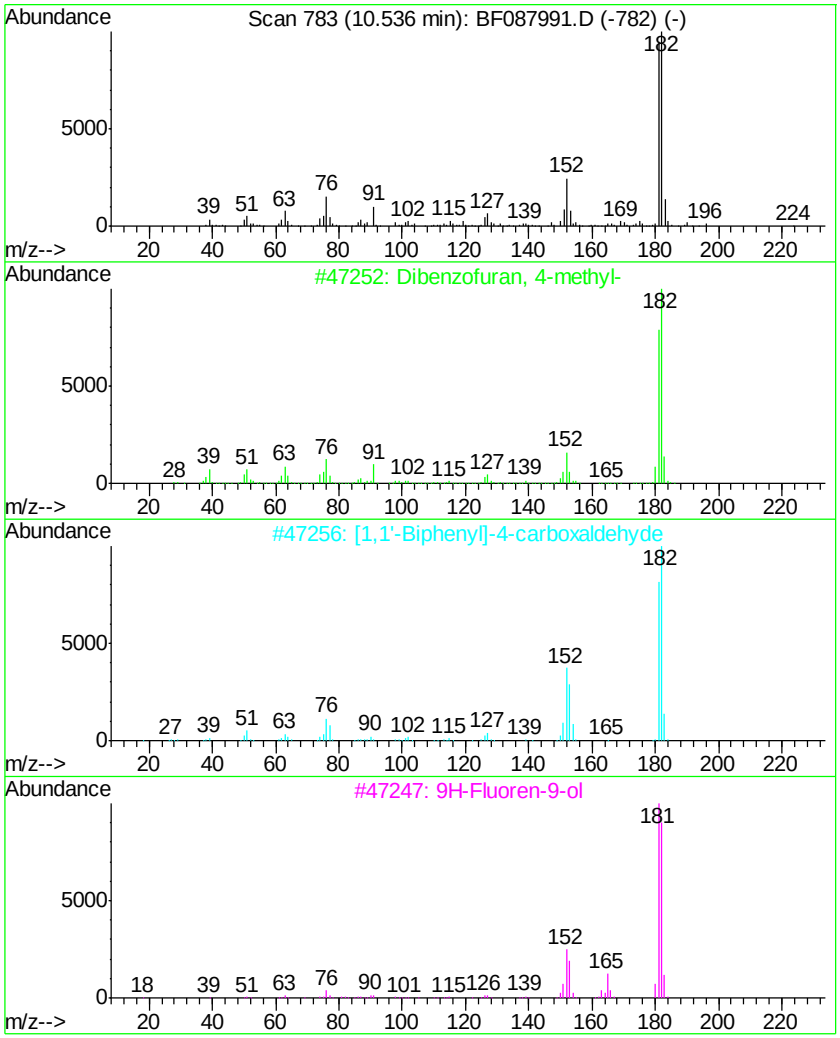
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

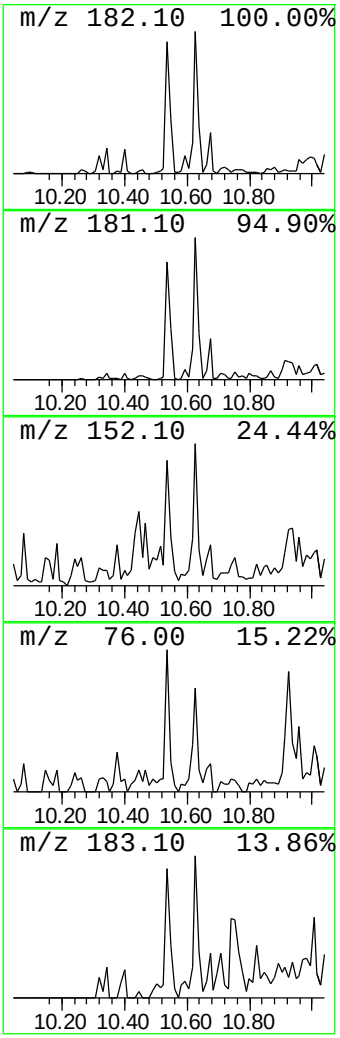
**********

Peak Number 7 Dibenzofuran, 4-methyl- Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.54 | 3.76 ng | 203609 | Acenaphthene-d10 | 9.84 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzofuran, 4-methyl- | 182 | C13H10O | 007320-53-8 | 93 |
| 2 | [1,1'-Biphenyl]-4-carboxaldehyde | 182 | C13H10O | 003218-36-8 | 87 |
| 3 | 9H-Fluoren-9-ol | 182 | C13H10O | 001689-64-1 | 78 |
| 4 | 9H-Xanthene | 182 | C13H10O | 000092-83-1 | 64 |
| 5 | Benzaldehyde, 4-hydroxy-3,5-dime... | 182 | C9H10O4 | 000134-96-3 | 64 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

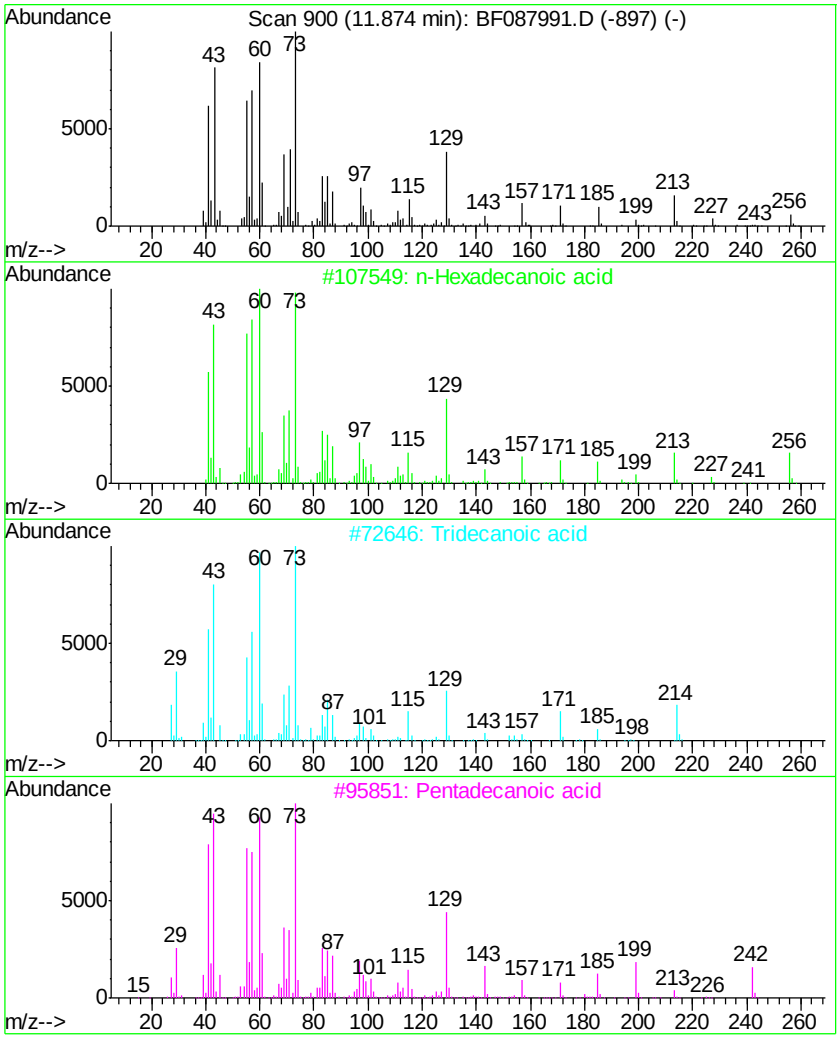
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

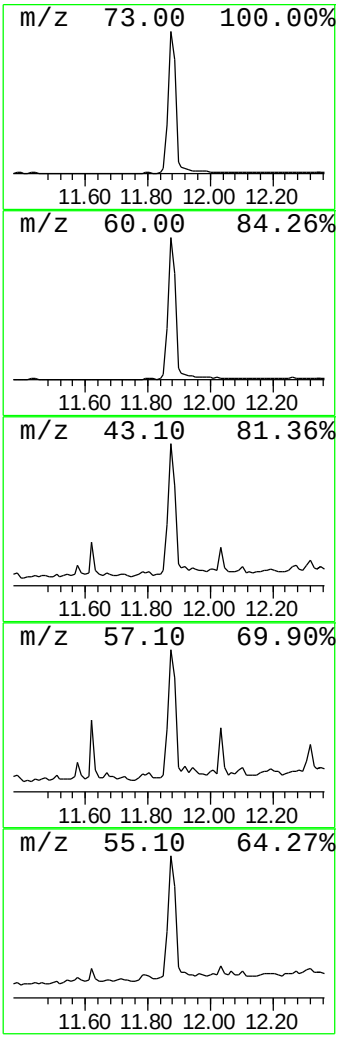
**********

Peak Number 8 n-Hexadecanoic acid Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.87 | 11.57 ng | 2590220 | Phenanthrene-d10 | 11.32 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | n-Hexadecanoic acid | 256 | C16H32O2 | 000057-10-3 | 99 |
| 2 | Tridecanoic acid | 214 | C13H26O2 | 000638-53-9 | 87 |
| 3 | Pentadecanoic acid | 242 | C15H30O2 | 001002-84-2 | 81 |
| 4 | Tetradecanoic acid | 228 | C14H28O2 | 000544-63-8 | 80 |
| 5 | Dodecanoic acid | 200 | C12H24O2 | 000143-07-7 | 80 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

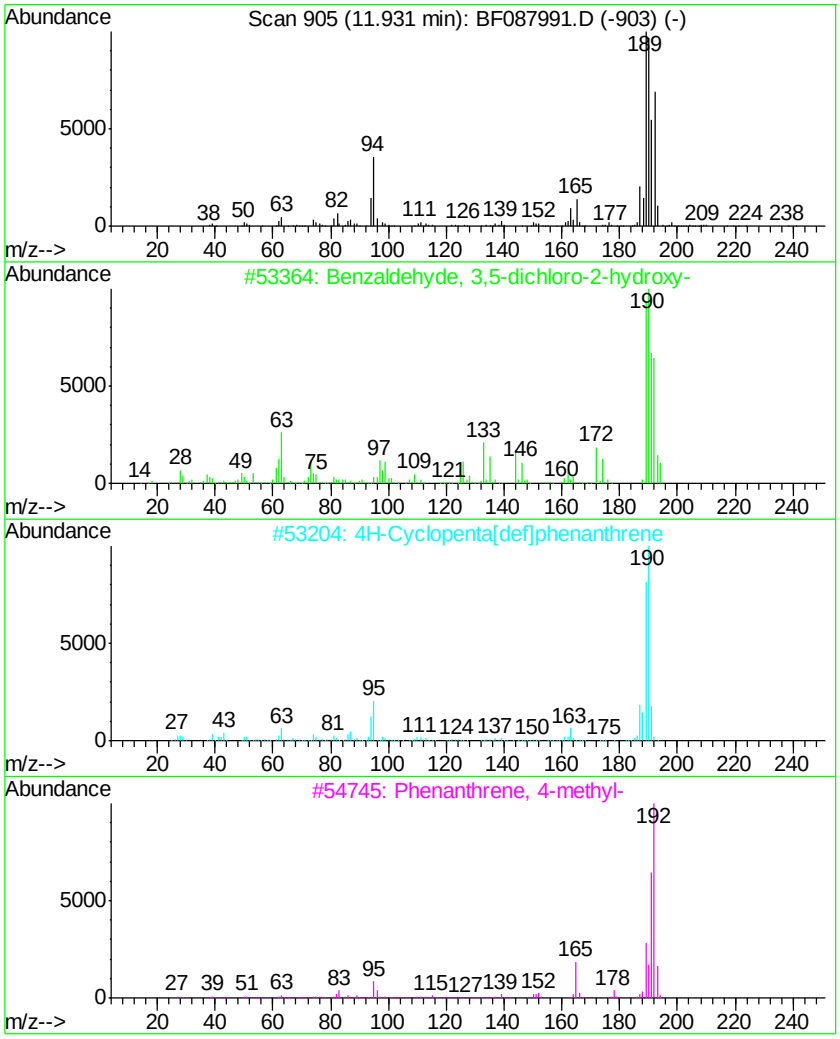
Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

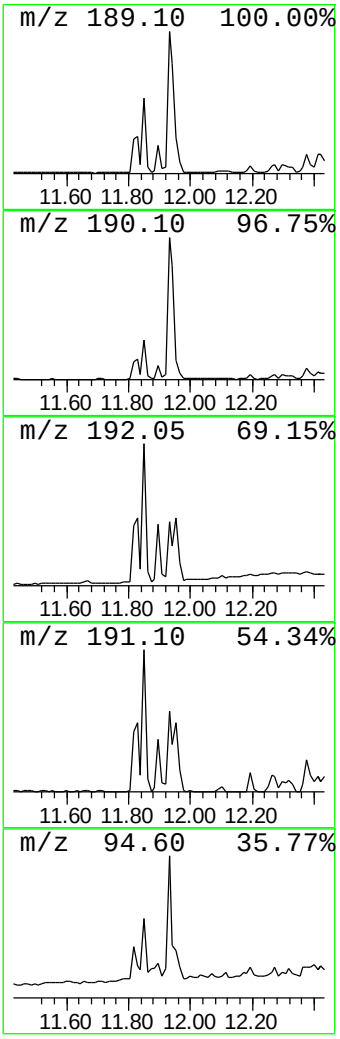
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

**********
Peak Number 9 Benzaldehyde, 3,5-dichloro-... Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.93 | 6.81 ng | 1523790 | Phenanthrene-d10 | 11.32 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzaldehyde, 3,5-dichloro-2-hyd... | 190 | C7H4Cl2O2 | 000090-60-8 | 64 |
| 2 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 41 |
| 3 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 35 |
| 4 | 8,9-Dihydrocyclopenta[def]phenan... | 192 | C15H12 | 027410-55-5 | 35 |
| 5 | 5H-Dibenzo[a,d]cycloheptene | 192 | C15H12 | 000256-81-5 | 35 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

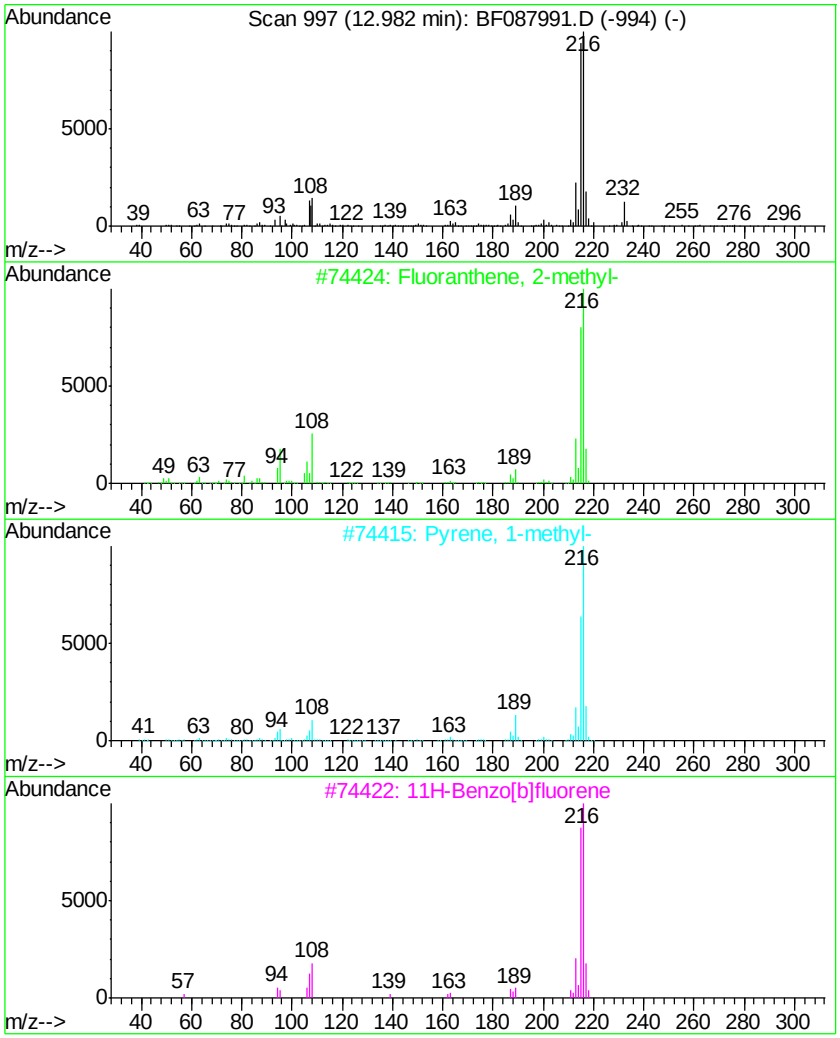
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

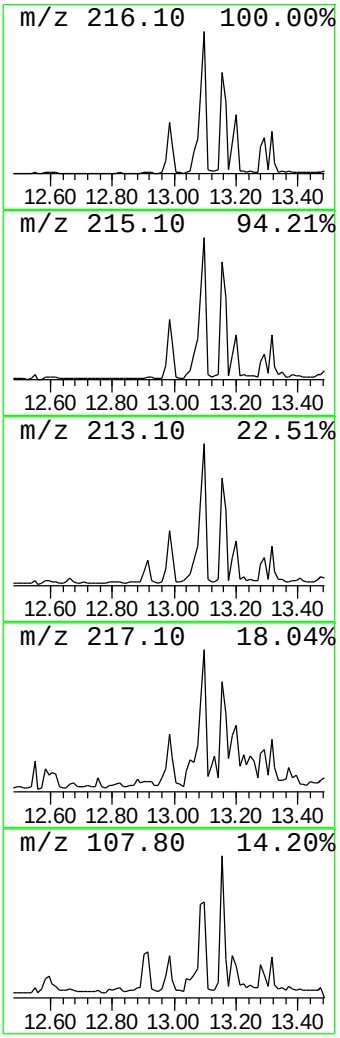
**********

Peak Number 10 Fluoranthene, 2-methyl- Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.98 | 4.17 ng | 630936 | Chrysene-d12 | 13.97 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 93 |
| 2 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 93 |
| 3 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 90 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 76 |
| 5 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 72 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

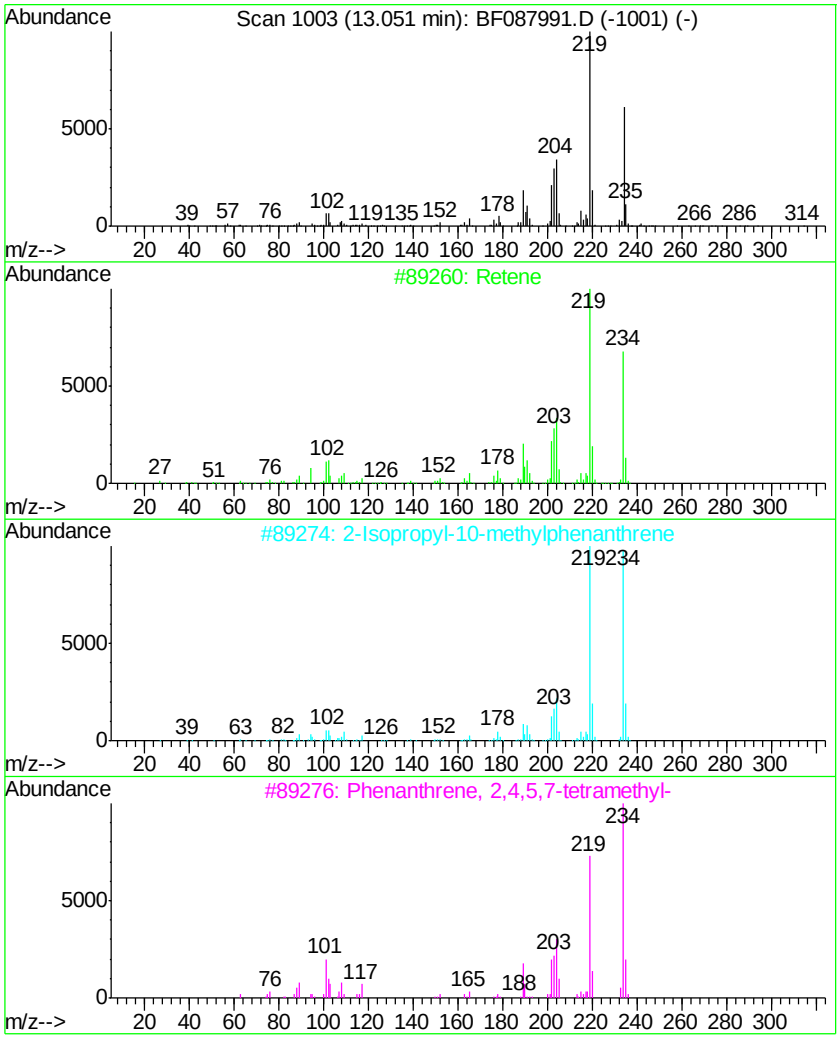
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

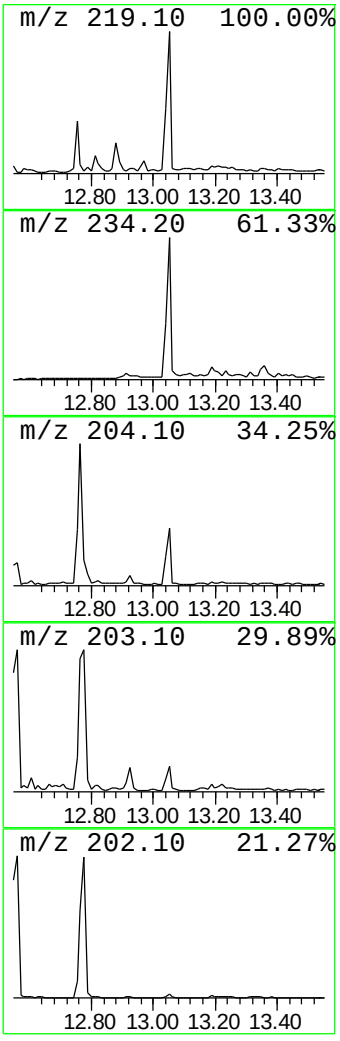
**********

Peak Number 11 Retene Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.05 | 4.31 ng | 652252 | Chrysene-d12 | 13.97 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Retene | 234 | C18H18 | 000483-65-8 | 95 |
| 2 | 2-Isopropyl-10-methylphenanthrene | 234 | C18H18 | 066552-97-4 | 94 |
| 3 | Phenanthrene, 2,4,5,7-tetramethyl- | 234 | C18H18 | 007396-38-5 | 53 |
| 4 | 1-(10-Methylanthracen-9-yl)ethanone | 234 | C17H14O | 036778-18-4 | 52 |
| 5 | Ethanone, 1-(4,6-dihydroxy-2,3,5... | 234 | C13H14O4 | 021987-07-5 | 52 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

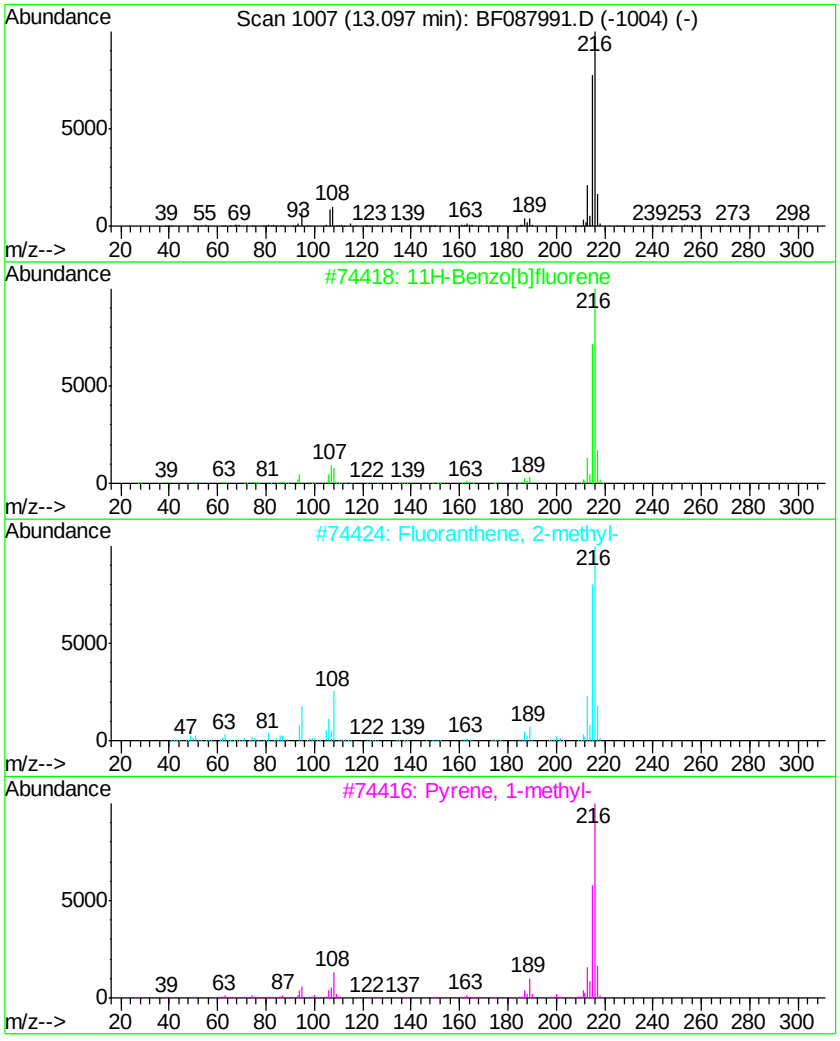
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

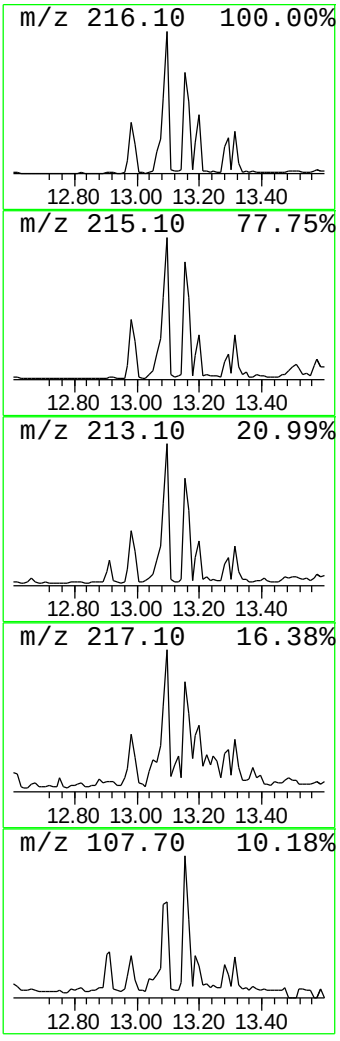
**********

Peak Number 12 11H-Benzo[b]fluorene Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.10 | 6.00 ng | 907942 | Chrysene-d12 | 13.97 |

| 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 | 91 |
| 3 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 91 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 90 |
| 5 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 72 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

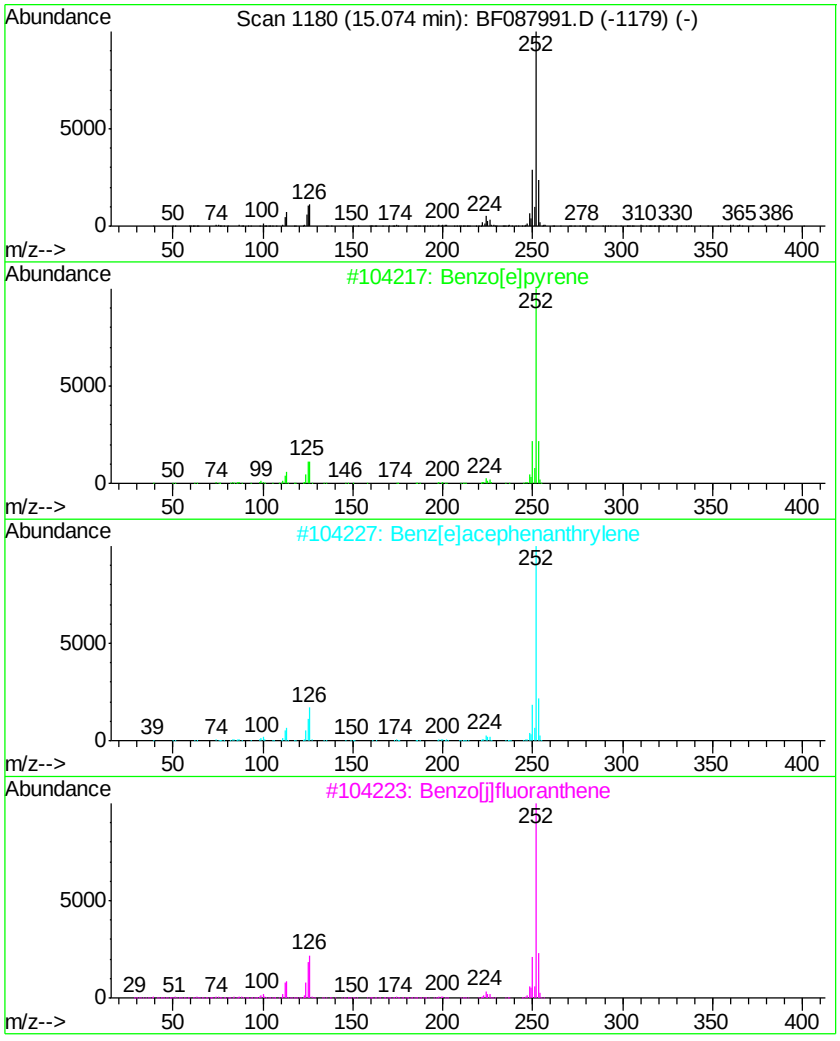
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

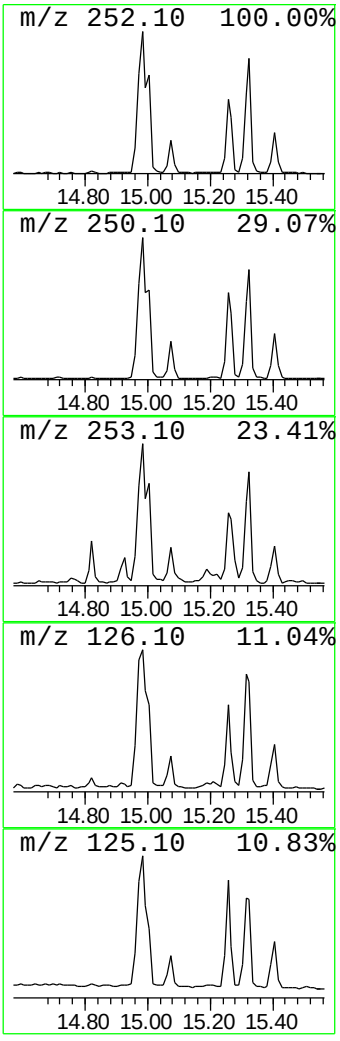
**********

Peak Number 14 Benzo[e]pyrene Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.07 | 6.91 ng | 191374 | Perylene-d12 | 15.38 |

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



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

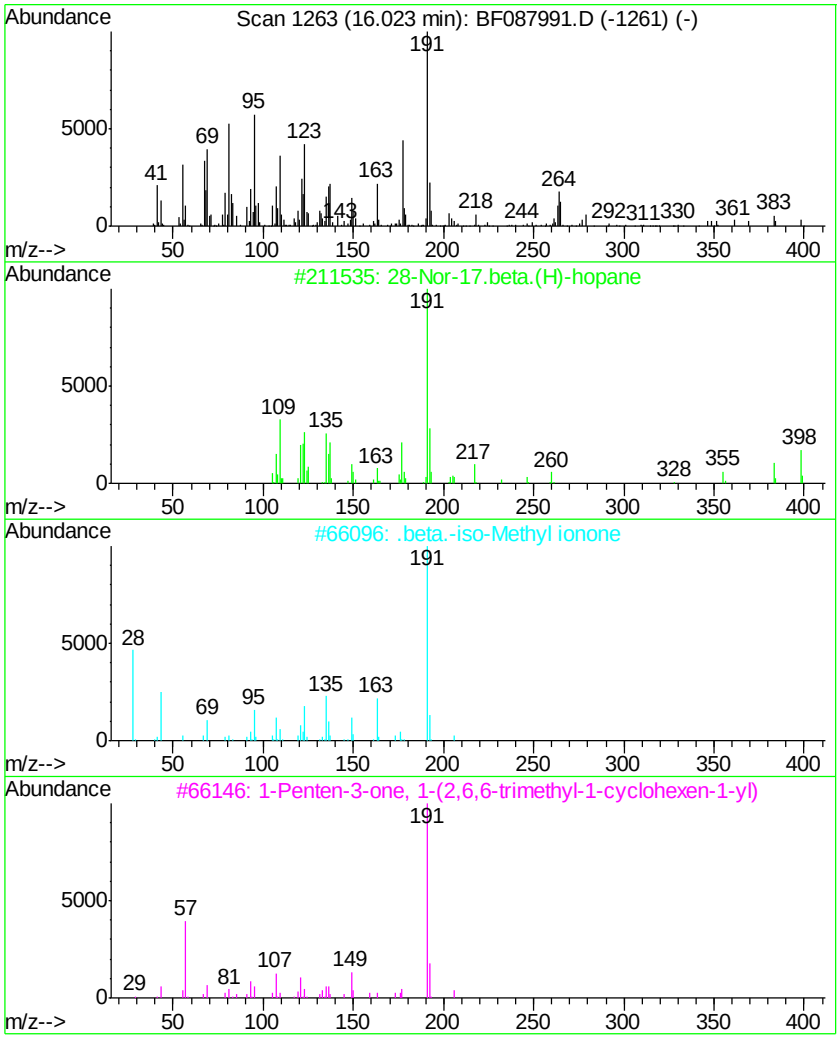
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

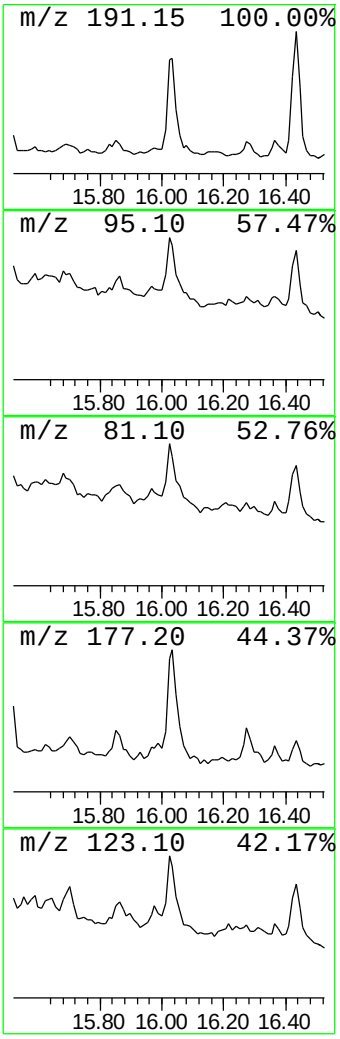
**********

Peak Number 16 unknown16.02 Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.02 | 16.89 ng | 467954 | Perylene-d12 | 15.38 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 28-Nor-17.beta.(H)-hopane | 398 | C29H50 | 036728-72-0 | 47 |
| 2 | .beta.-iso-Methyl ionone | 206 | C14H22O | 1000285-40-2 | 35 |
| 3 | 1-Penten-3-one, 1-(2,6,6-trimeth... | 206 | C14H22O | 000127-43-5 | 27 |
| 4 | (3-Cyano-6-ethyl-5-methyl-pyridi... | 264 | C13H16N2O2S | 1000300-45-4 | 27 |
| 5 | Anthracene, 9-dodecyl- | 346 | C26H34 | 002883-70-7 | 22 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

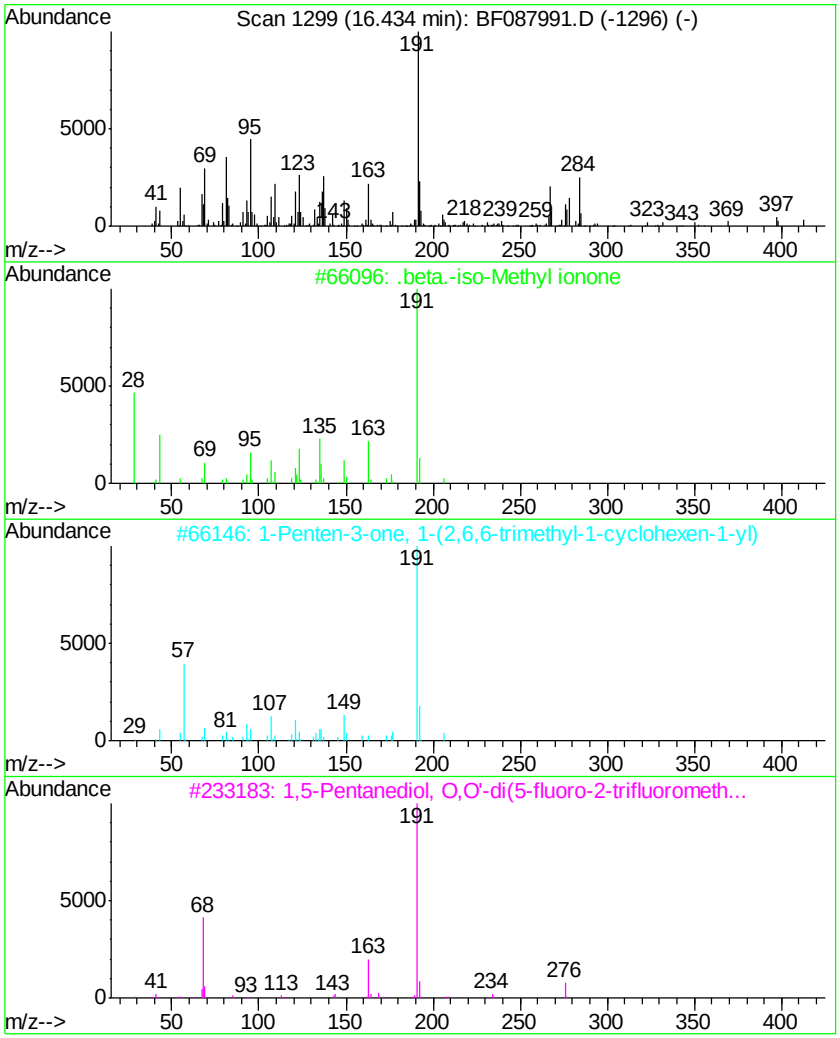
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

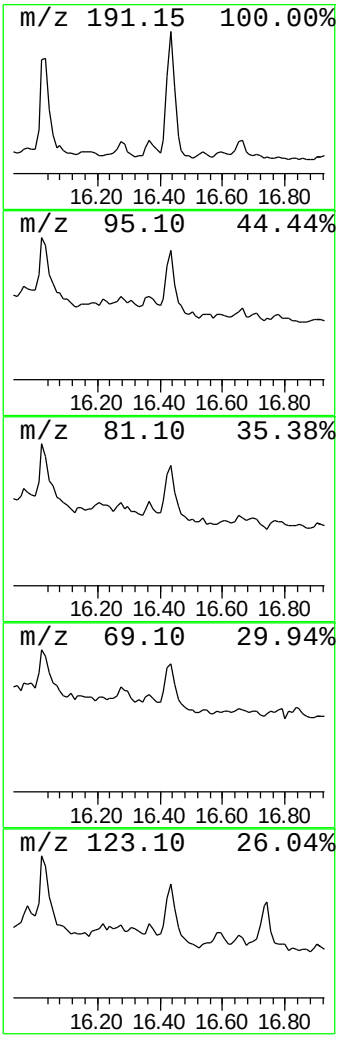
**********

Peak Number 17 unknown16.43 Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.43 | 16.72 ng | 463194 | Perylene-d12 | 15.38 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | .beta.-iso-Methyl ionone | 206 | C14H22O | 1000285-40-2 | 45 |
| 2 | 1-Penten-3-one, 1-(2,6,6-trimeth... | 206 | C14H22O | 000127-43-5 | 38 |
| 3 | 1,5-Pentanediol, O,O'-di(5-fluor... | 484 | C21H16F8O4 | 1000331-61-2 | 35 |
| 4 | Propenamide, 3-(3,4-dimethoxyphe... | 313 | C18H19NO4 | 339165-72-9 | 35 |
| 5 | 4,5-Dihydrothiazol-4-one, 2-(2-m... | 222 | C10H10N2O2S | 022476-61-5 | 27 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

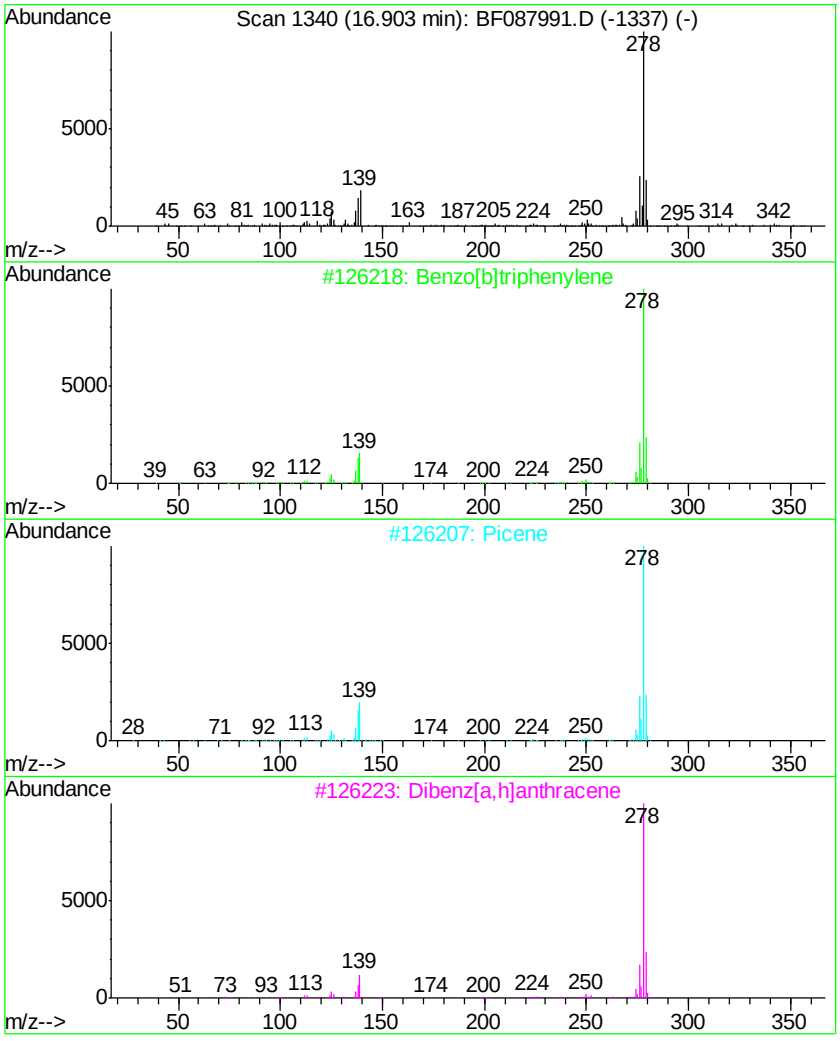
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

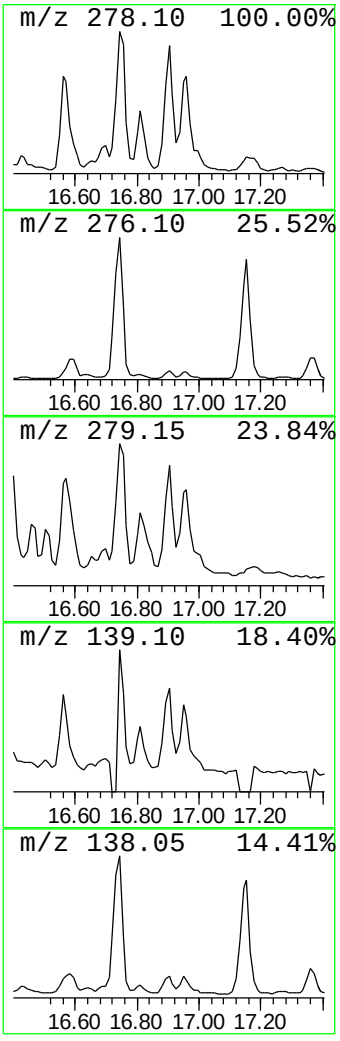
**********

Peak Number 18 Benzo[b]triphenylene Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.90 | 6.86 ng | 190005 | Perylene-d12 | 15.38 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]triphenylene | 278 | C22H14 | 000215-58-7 | 99 |
| 2 | Picene | 278 | C22H14 | 000213-46-7 | 98 |
| 3 | Dibenz[a,h]anthracene | 278 | C22H14 | 000053-70-3 | 98 |
| 4 | Benzo[b]chrysene | 278 | C22H14 | 000214-17-5 | 97 |
| 5 | Pentaphene | 278 | C22H14 | 000222-93-5 | 96 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

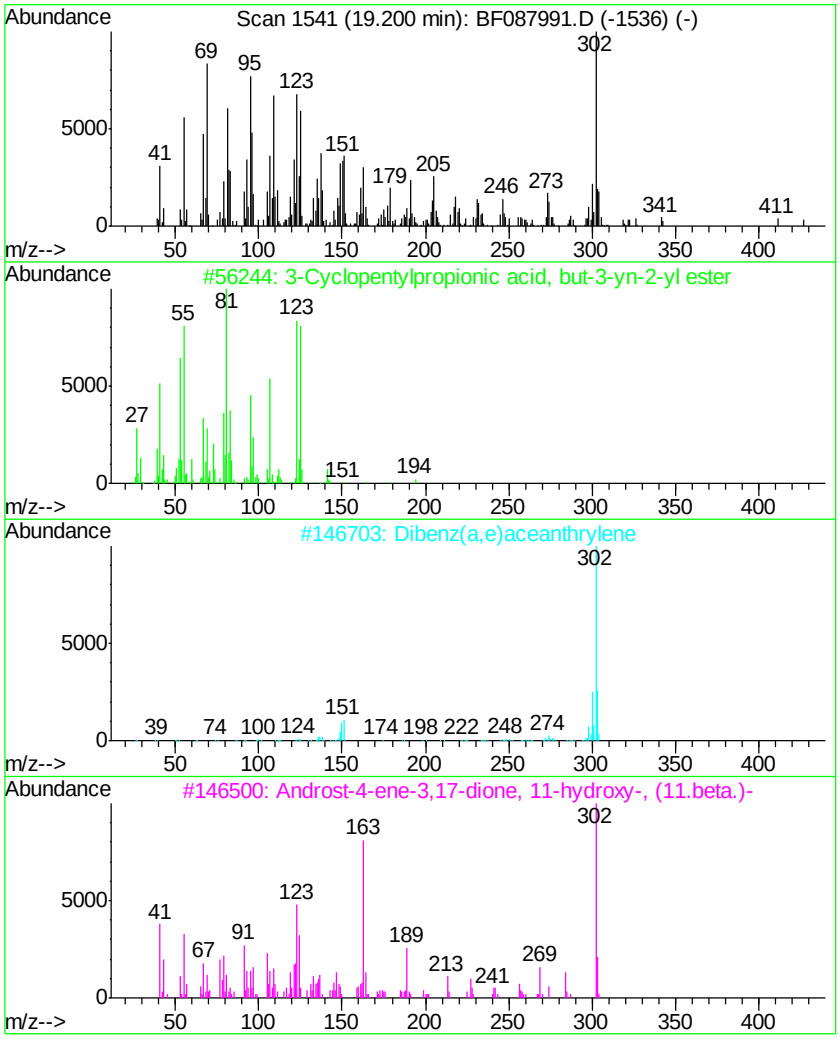
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

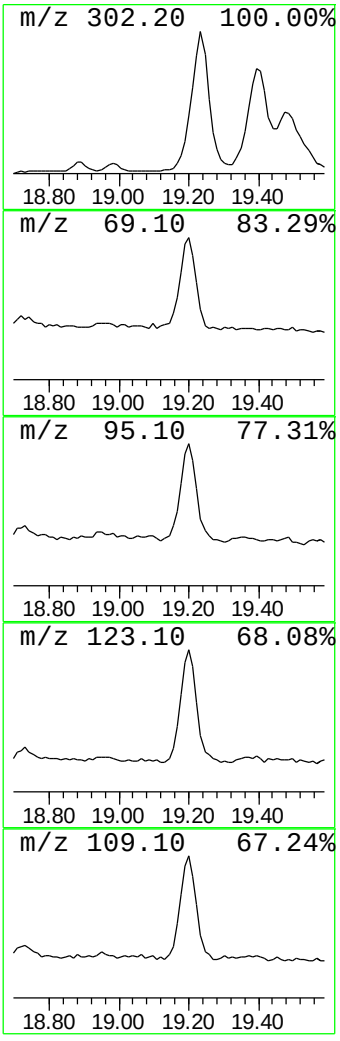
**********

Peak Number 20 unknown19.20 Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.20 | 34.38 ng | 952472 | Perylene-d12 | 15.38 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Cyclopentylpropionic acid, but... | 194 | C12H18O2 | 1000292-46-4 | 44 |
| 2 | Dibenz(a,e)aceanthrylene | 302 | C24H14 | 005385-75-1 | 38 |
| 3 | Androst-4-ene-3,17-dione, 11-hyd... | 302 | C19H26O3 | 000382-44-5 | 30 |
| 4 | Indeno[1,2,3-fg]naphthacene | 302 | C24H14 | 000203-11-2 | 25 |
| 5 | 3-Cyclopentylpropionic acid, 3-c... | 216 | C11H17ClO2 | 1000292-47-2 | 25 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF061316\
Data File : BF087991.D
Acq On : 13 Jun 2016 19:07
Operator : UM/SJ
Sample : H3419-05
Misc :
ALS Vial : 17 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** T6-B2(6-12)C

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060716.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 |
| 2-Pentanone, 4-hy... | 4.97 | 5.8 | ng | 200265 | 1 | 6.80 | 690951 | 20.0 |
| Cyclohexane, 1,1,... | 6.32 | 6.5 | ng | 223570 | 1 | 6.80 | 690951 | 20.0 |
| unknown6.56 | 6.56 | 80.3 | ng | 2772910 | 1 | 6.80 | 690951 | 20.0 |
| Dibenzofuran, 4-m... | 10.54 | 3.8 | ng | 203609 | 3 | 9.84 | 1084150 | 20.0 |
| n-Hexadecanoic acid | 11.87 | 11.6 | ng | 2590220 | 4 | 11.32 | 4477520 | 20.0 |
| Benzaldehyde, 3,5... | 11.93 | 6.8 | ng | 1523790 | 4 | 11.32 | 4477520 | 20.0 |
| Fluoranthene, 2-m... | 12.98 | 4.2 | ng | 630936 | 5 | 13.97 | 3024470 | 20.0 |
| Retene | 13.05 | 4.3 | ng | 652252 | 5 | 13.97 | 3024470 | 20.0 |
| 11H-Benzo[b]fluorene | 13.10 | 6.0 | ng | 907942 | 5 | 13.97 | 3024470 | 20.0 |
| Benzo[e]pyrene | 15.07 | 6.9 | ng | 191374 | 6 | 15.38 | 554008 | 20.0 |
| unknown16.02 | 16.02 | 16.9 | ng | 467954 | 6 | 15.38 | 554008 | 20.0 |
| unknown16.43 | 16.43 | 16.7 | ng | 463194 | 6 | 15.38 | 554008 | 20.0 |
| Benzo[b]triphenylene | 16.90 | 6.9 | ng | 190005 | 6 | 15.38 | 554008 | 20.0 |
| unknown19.20 | 19.20 | 34.4 | ng | 952472 | 6 | 15.38 | 554008 | 20.0 |