LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(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 | 1.655 | 5 | 6 | 14 | rVV | 165781 | 267962 | 11.78% | 0.707% |
| 2 | 1.770 | 14 | 16 | 37 | rVB | 1222591 | 2274877 | 100.00% | 6.000% |
| 3 | 4.821 | 281 | 283 | 290 | rBV | 120809 | 212779 | 9.35% | 0.561% |
| 4 | 5.267 | 319 | 322 | 324 | rBV | 1656845 | 2110556 | 92.78% | 5.567% |
| 5 | 5.896 | 376 | 377 | 381 | rVB2 | 71102 | 110969 | 4.88% | 0.293% |
| 6 | 6.102 | 391 | 395 | 396 | rBV | 38245 | 59462 | 2.61% | 0.157% |
| 7 | 6.182 | 398 | 402 | 407 | rVB3 | 64784 | 150444 | 6.61% | 0.397% |
| 8 | 6.330 | 411 | 415 | 417 | rBV | 1581803 | 2195721 | 96.52% | 5.792% |
| 9 | 6.445 | 422 | 425 | 427 | rVV | 1586182 | 2200979 | 96.75% | 5.805% |
| 10 | 6.513 | 427 | 431 | 433 | rVB2 | 85479 | 129819 | 5.71% | 0.342% |
| 11 | 6.605 | 437 | 439 | 443 | rBV4 | 18482 | 57594 | 2.53% | 0.152% |
| 12 | 6.662 | 443 | 444 | 448 | rVB3 | 532591 | 695822 | 30.59% | 1.835% |
| 13 | 6.822 | 456 | 458 | 462 | rVB | 1826483 | 1699051 | 74.69% | 4.482% |
| 14 | 6.947 | 462 | 469 | 471 | rBV5 | 38440 | 133856 | 5.88% | 0.353% |
| 15 | 7.062 | 477 | 479 | 480 | rBV | 78703 | 84446 | 3.71% | 0.223% |
| 16 | 7.233 | 492 | 494 | 497 | rVB | 980396 | 1255699 | 55.20% | 3.312% |
| 17 | 7.279 | 497 | 498 | 499 | rVB | 160736 | 110185 | 4.84% | 0.291% |
| 18 | 7.325 | 499 | 502 | 504 | rVB2 | 41057 | 75301 | 3.31% | 0.199% |
| 19 | 7.393 | 504 | 508 | 510 | rBV | 35604 | 68698 | 3.02% | 0.181% |
| 20 | 7.473 | 510 | 515 | 517 | rVB3 | 69671 | 140884 | 6.19% | 0.372% |
| 21 | 7.587 | 521 | 525 | 526 | rBV2 | 71888 | 115458 | 5.08% | 0.305% |
| 22 | 7.690 | 532 | 534 | 535 | rBV2 | 39254 | 68936 | 3.03% | 0.182% |
| 23 | 7.713 | 535 | 536 | 539 | rVB2 | 58907 | 59849 | 2.63% | 0.158% |
| 24 | 7.759 | 539 | 540 | 544 | rVB2 | 37154 | 57059 | 2.51% | 0.151% |
| 25 | 7.908 | 550 | 553 | 554 | rBV2 | 29211 | 56293 | 2.47% | 0.148% |
| 26 | 7.953 | 554 | 557 | 558 | rVV | 947406 | 888487 | 39.06% | 2.344% |
| 27 | 7.976 | 558 | 559 | 562 | rVV2 | 61935 | 78784 | 3.46% | 0.208% |
| 28 | 8.022 | 562 | 563 | 567 | rVB | 70521 | 79176 | 3.48% | 0.209% |
| 29 | 8.250 | 579 | 583 | 587 | rBV5 | 40764 | 95489 | 4.20% | 0.252% |
| 30 | 8.388 | 592 | 595 | 599 | rVB | 110544 | 145155 | 6.38% | 0.383% |
| 31 | 8.548 | 608 | 609 | 612 | rBV | 71613 | 111458 | 4.90% | 0.294% |
| 32 | 8.662 | 616 | 619 | 623 | rVB2 | 45238 | 80956 | 3.56% | 0.214% |
| 33 | 8.765 | 623 | 628 | 630 | rBV2 | 50582 | 57828 | 2.54% | 0.153% |
| 34 | 8.982 | 644 | 647 | 649 | rBV | 121952 | 125113 | 5.50% | 0.330% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(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 | 9.028 | 649 | 651 | 654 | rVB | 2055696 | 1997460 | 87.81% | 5.269% |
| 36 | 9.119 | 654 | 659 | 661 | rBV2 | 113631 | 158908 | 6.99% | 0.419% |
| 37 | 9.290 | 670 | 674 | 676 | rBV2 | 33918 | 70233 | 3.09% | 0.185% |
| 38 | 9.359 | 679 | 680 | 682 | rBV2 | 62733 | 88862 | 3.91% | 0.234% |
| 39 | 9.428 | 684 | 686 | 690 | rVB | 505449 | 479642 | 21.08% | 1.265% |
| 40 | 9.565 | 695 | 698 | 700 | rBV | 68317 | 77384 | 3.40% | 0.204% |
| 41 | 9.645 | 703 | 705 | 706 | rBV | 147126 | 126870 | 5.58% | 0.335% |
| 42 | 9.702 | 706 | 710 | 712 | rBV | 773708 | 850874 | 37.40% | 2.244% |
| 43 | 10.136 | 746 | 748 | 750 | rVB2 | 100571 | 104976 | 4.61% | 0.277% |
| 44 | 10.239 | 756 | 757 | 761 | rVB2 | 44296 | 63648 | 2.80% | 0.168% |
| 45 | 10.353 | 764 | 767 | 770 | rBV | 79568 | 127884 | 5.62% | 0.337% |
| 46 | 10.491 | 776 | 779 | 781 | rBV | 912481 | 1168118 | 51.35% | 3.081% |
| 47 | 10.616 | 788 | 790 | 793 | rBV | 114040 | 205319 | 9.03% | 0.542% |
| 48 | 10.799 | 803 | 806 | 811 | rBV6 | 19023 | 63391 | 2.79% | 0.167% |
| 49 | 11.051 | 824 | 828 | 830 | rBV2 | 51168 | 119638 | 5.26% | 0.316% |
| 50 | 11.176 | 837 | 839 | 840 | rBV | 772896 | 676303 | 29.73% | 1.784% |
| 51 | 11.256 | 843 | 846 | 847 | rBV | 100891 | 147646 | 6.49% | 0.389% |
| 52 | 11.439 | 858 | 862 | 863 | rBV2 | 36754 | 87723 | 3.86% | 0.231% |
| 53 | 11.474 | 863 | 865 | 869 | rBV3 | 40304 | 121237 | 5.33% | 0.320% |
| 54 | 11.679 | 881 | 883 | 884 | rBV | 65525 | 71517 | 3.14% | 0.189% |
| 55 | 11.782 | 891 | 892 | 897 | rVB2 | 128674 | 219620 | 9.65% | 0.579% |
| 56 | 11.862 | 897 | 899 | 902 | rBV2 | 82238 | 184632 | 8.12% | 0.487% |
| 57 | 11.919 | 902 | 904 | 906 | rVV | 117105 | 155714 | 6.84% | 0.411% |
| 58 | 11.954 | 906 | 907 | 910 | rVB2 | 82326 | 142105 | 6.25% | 0.375% |
| 59 | 12.114 | 920 | 921 | 923 | rVB2 | 123705 | 154520 | 6.79% | 0.408% |
| 60 | 12.205 | 927 | 929 | 930 | rVV | 93781 | 107771 | 4.74% | 0.284% |
| 61 | 12.274 | 933 | 935 | 938 | rVB4 | 75254 | 132652 | 5.83% | 0.350% |
| 62 | 12.388 | 943 | 945 | 947 | rBV | 1175353 | 1003699 | 44.12% | 2.647% |
| 63 | 12.422 | 947 | 948 | 950 | rVB | 370171 | 366354 | 16.10% | 0.966% |
| 64 | 12.617 | 961 | 965 | 966 | rBV2 | 618152 | 1229491 | 54.05% | 3.243% |
| 65 | 12.639 | 966 | 967 | 968 | rVV | 118165 | 95583 | 4.20% | 0.252% |
| 66 | 12.662 | 968 | 969 | 973 | rVB2 | 92207 | 122103 | 5.37% | 0.322% |
| 67 | 12.754 | 975 | 977 | 980 | rVB | 1264939 | 1405086 | 61.77% | 3.706% |
| 68 | 12.834 | 980 | 984 | 987 | rBV2 | 69402 | 115249 | 5.07% | 0.304% |
| 69 | 12.891 | 987 | 989 | 991 | rBV | 571493 | 519157 | 22.82% | 1.369% |
| 70 | 12.937 | 991 | 993 | 995 | rVB | 193191 | 282004 | 12.40% | 0.744% |
| 71 | 13.005 | 996 | 999 | 1001 | rBV2 | 296570 | 350233 | 15.40% | 0.924% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(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 | 13.039 | 1001 | 1002 | 1006 | rVB | 128434 | 163120 | 7.17% | 0.430% |
| 73 | 13.165 | 1012 | 1013 | 1014 | rBV | 79584 | 65796 | 2.89% | 0.174% |
| 74 | 13.291 | 1022 | 1024 | 1026 | rBV | 219389 | 214002 | 9.41% | 0.564% |
| 75 | 13.337 | 1026 | 1028 | 1034 | rVB2 | 155606 | 259520 | 11.41% | 0.685% |
| 76 | 13.554 | 1045 | 1047 | 1048 | rBV | 82959 | 94367 | 4.15% | 0.249% |
| 77 | 13.668 | 1055 | 1057 | 1058 | rBV | 98573 | 117335 | 5.16% | 0.309% |
| 78 | 13.805 | 1066 | 1069 | 1070 | rBV2 | 847505 | 1317206 | 57.90% | 3.474% |
| 79 | 13.908 | 1076 | 1078 | 1080 | rVB2 | 79302 | 81891 | 3.60% | 0.216% |
| 80 | 13.977 | 1080 | 1084 | 1087 | rBV2 | 161969 | 290133 | 12.75% | 0.765% |
| 81 | 14.194 | 1101 | 1103 | 1104 | rBV | 108577 | 100735 | 4.43% | 0.266% |
| 82 | 14.285 | 1109 | 1111 | 1112 | rBV2 | 164760 | 174238 | 7.66% | 0.460% |
| 83 | 14.571 | 1134 | 1136 | 1140 | rBV2 | 103213 | 164544 | 7.23% | 0.434% |
| 84 | 14.674 | 1143 | 1145 | 1147 | rBV | 61194 | 90282 | 3.97% | 0.238% |
| 85 | 14.811 | 1154 | 1157 | 1161 | rBV | 556420 | 1156110 | 50.82% | 3.049% |
| 86 | 14.868 | 1161 | 1162 | 1164 | rVV | 97767 | 120647 | 5.30% | 0.318% |
| 87 | 14.902 | 1164 | 1165 | 1170 | rVB | 144523 | 163958 | 7.21% | 0.432% |
| 88 | 15.074 | 1178 | 1180 | 1183 | rVB | 326812 | 392745 | 17.26% | 1.036% |
| 89 | 15.131 | 1183 | 1185 | 1187 | rVV | 510277 | 649103 | 28.53% | 1.712% |
| 90 | 15.188 | 1187 | 1190 | 1196 | rVV2 | 458705 | 918819 | 40.39% | 2.424% |
| 91 | 15.280 | 1196 | 1198 | 1201 | rVB3 | 74064 | 107176 | 4.71% | 0.283% |
| 92 | 15.577 | 1222 | 1224 | 1226 | rBV | 85001 | 153606 | 6.75% | 0.405% |
| 93 | 15.760 | 1238 | 1240 | 1244 | rVB2 | 72475 | 131982 | 5.80% | 0.348% |
| 94 | 16.137 | 1271 | 1273 | 1279 | rVB3 | 79662 | 159792 | 7.02% | 0.421% |
| 95 | 16.468 | 1300 | 1302 | 1308 | rBV | 202965 | 445100 | 19.57% | 1.174% |
| 96 | 16.628 | 1313 | 1316 | 1319 | rBV2 | 93712 | 188982 | 8.31% | 0.498% |
| 97 | 16.686 | 1319 | 1321 | 1324 | rVB2 | 59300 | 111992 | 4.92% | 0.295% |
| 98 | 16.857 | 1334 | 1336 | 1343 | rBV | 153474 | 379221 | 16.67% | 1.000% |
| 99 | 18.846 | 1506 | 1510 | 1522 | rVB | 40132 | 178463 | 7.84% | 0.471% |
| 100 | 19.017 | 1522 | 1525 | 1529 | rBV | 22752 | 72876 | 3.20% | 0.192% |

Sum of corrected areas: 37912492

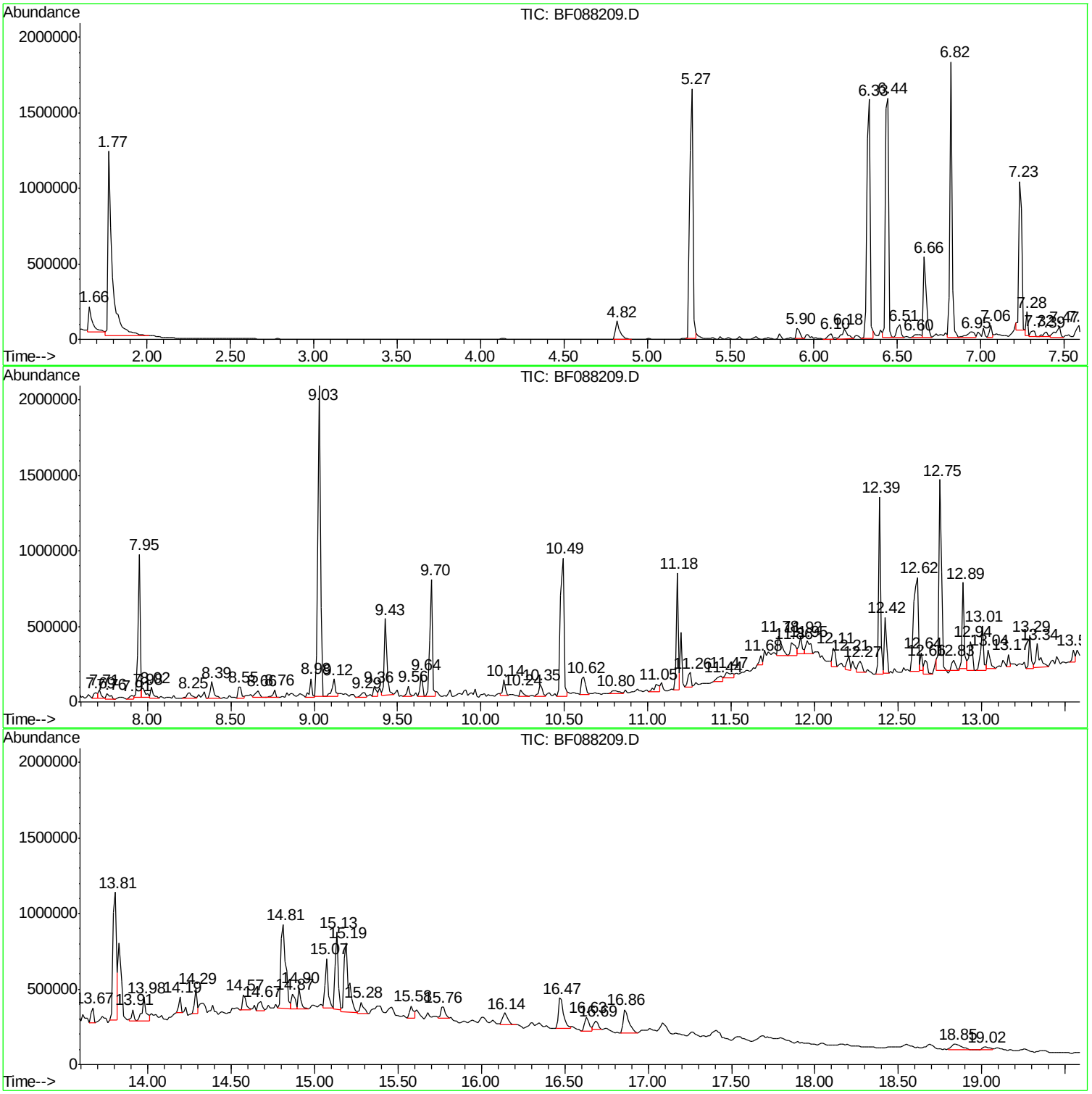
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(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\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

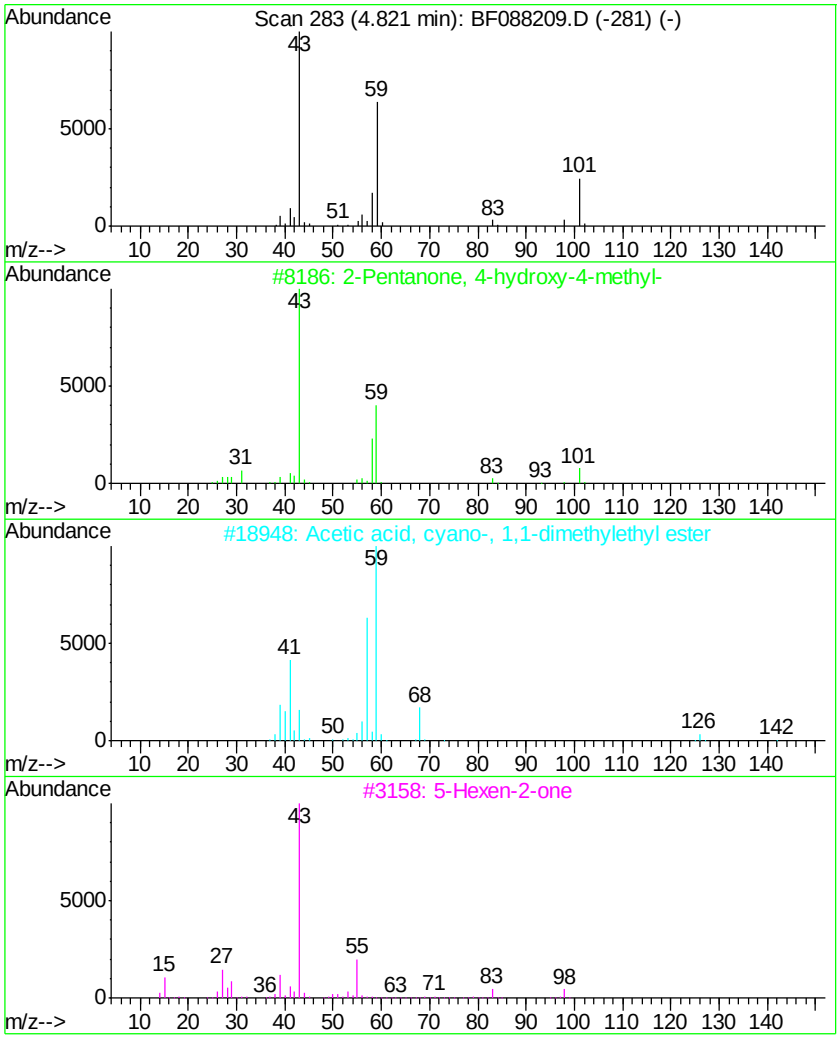
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

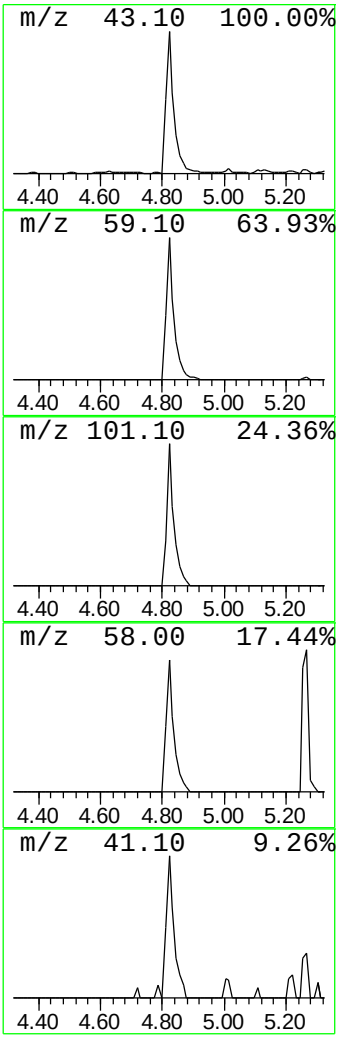
**********

Peak Number 3 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.82 | 6.12 ng | 212779 | 1,4-Dichlorobenzene-d4 | 6.66 |

| 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 | 17 |
| 3 | 5-Hexen-2-one | 98 | C6H10O | 000109-49-9 | 9 |
| 4 | Morpholine, 4-methyl- | 101 | C5H11NO | 000109-02-4 | 9 |
| 5 | Butane, 1-ethoxy- | 102 | C6H14O | 000628-81-9 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

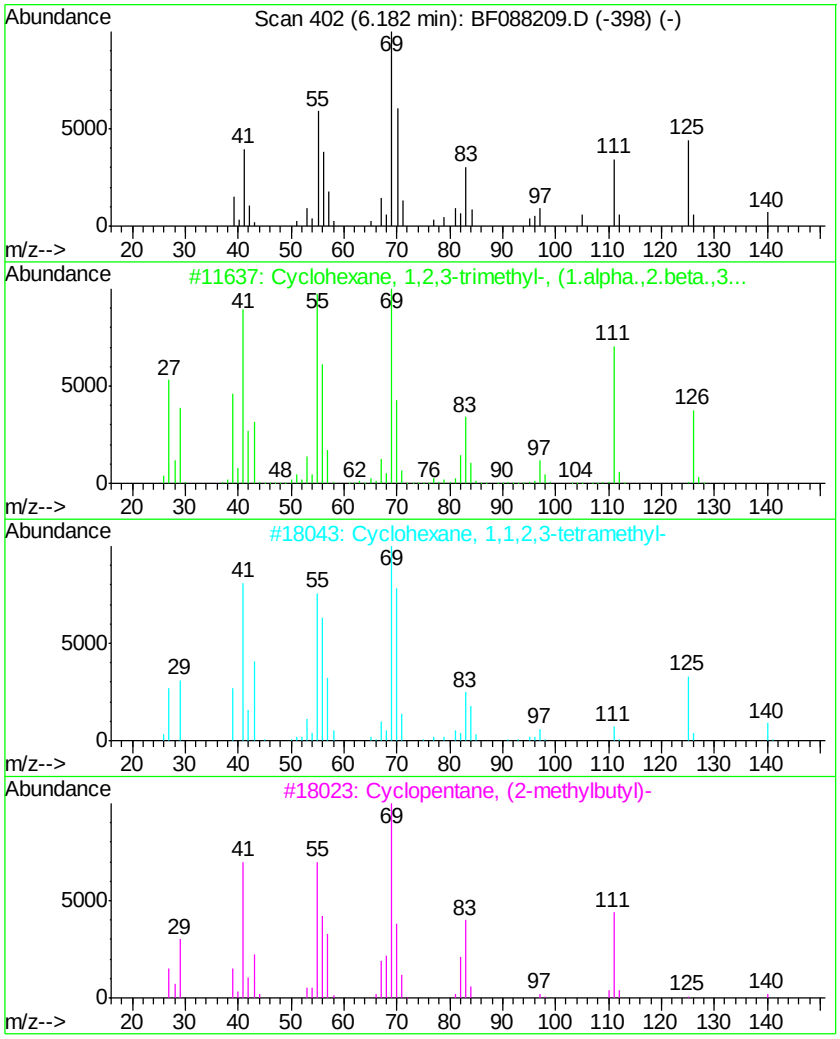
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

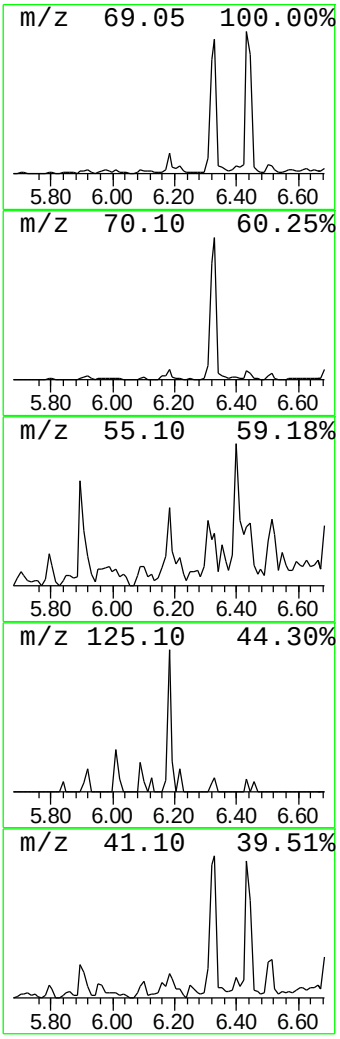
**********

Peak Number 4 Cyclohexane, 1,2,3-trimethy... Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.18 | 4.32 ng | 150444 | 1,4-Dichlorobenzene-d4 | 6.66 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclohexane, 1,2,3-trimethyl-, (... | 126 | C9H18 | 001678-81-5 | 76 |
| 2 | Cyclohexane, 1,1,2,3-tetramethyl- | 140 | C10H20 | 006783-92-2 | 58 |
| 3 | Cyclopentane, (2-methylbutyl)- | 140 | C10H20 | 053366-38-4 | 53 |
| 4 | 4-Nonene, 3-methyl-, (Z)- | 140 | C10H20 | 063830-69-3 | 52 |
| 5 | Cyclohexane, 1,1,3,5-tetramethyl... | 140 | C10H20 | 050876-32-9 | 47 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

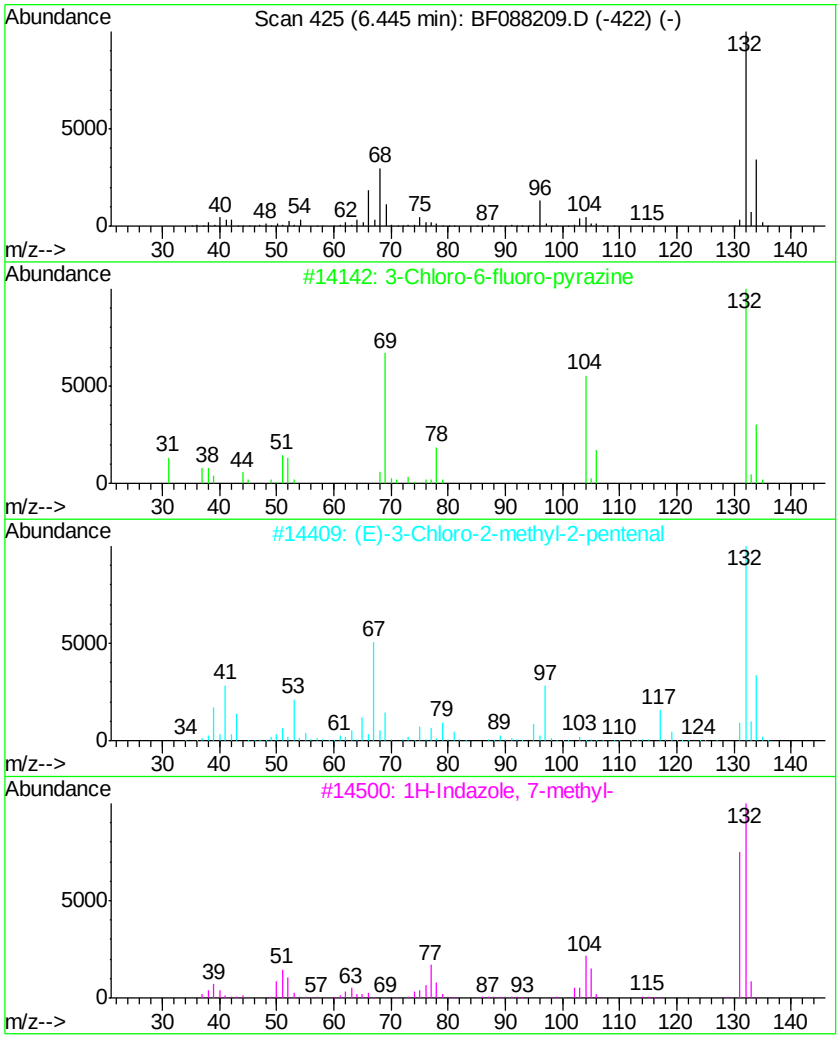
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

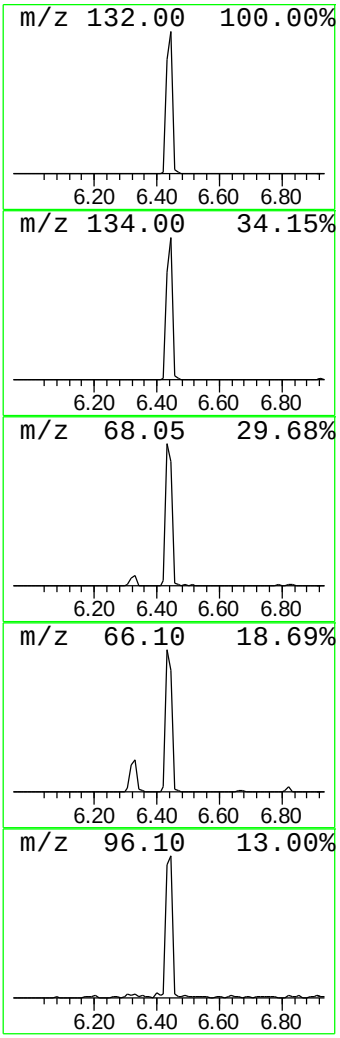
**********

Peak Number 5 3-Chloro-6-fluoro-pyrazine Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.44 | 63.26 ng | 2200980 | 1,4-Dichlorobenzene-d4 | 6.66 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 50 |
| 2 | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO | 031357-76-3 | 33 |
| 3 | 1H-Indazole, 7-methyl- | 132 | C8H8N2 | 1000316-00-7 | 25 |
| 4 | 4-Chloro-6-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-01-6 | 9 |
| 5 | 4-Chloro-2-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-00-5 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

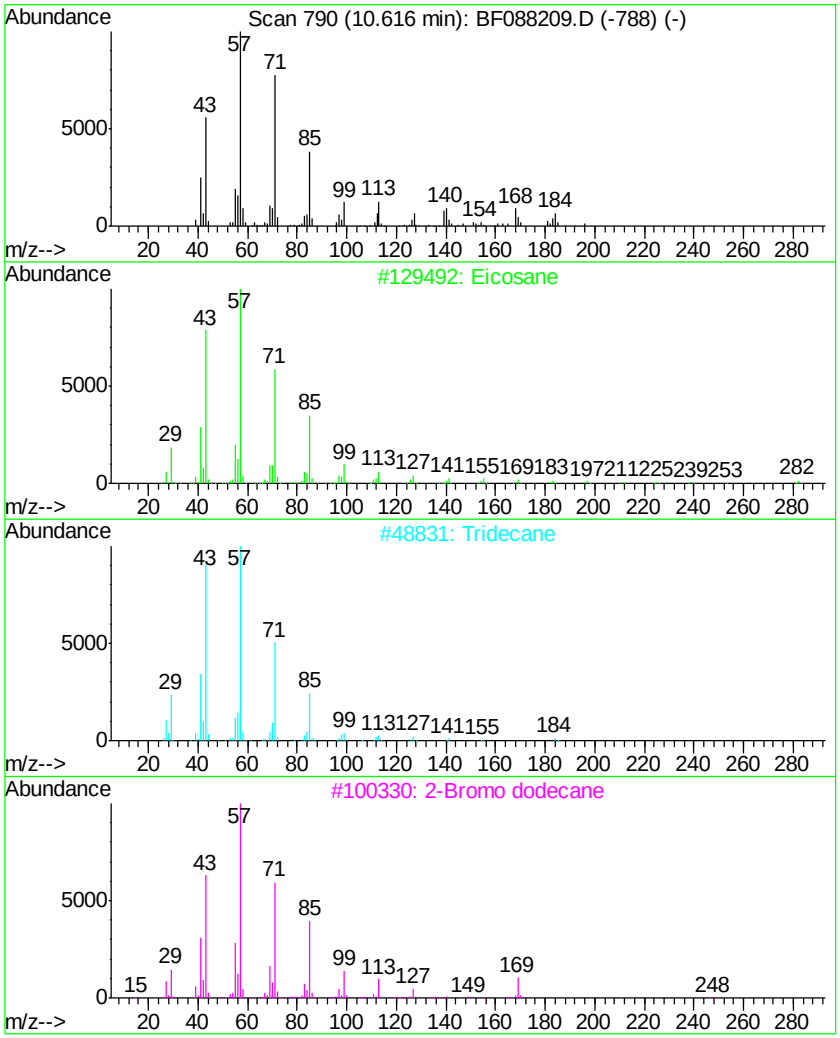
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

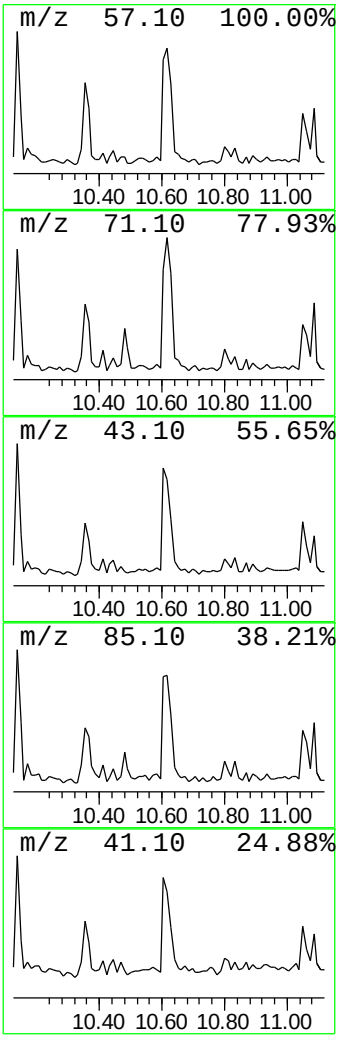
**********

Peak Number 7 Eicosane Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.62 | 6.07 ng | 205319 | Phenanthrene-d10 | 11.18 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Eicosane | 282 | C20H42 | 000112-95-8 | 86 |
| 2 | Tridecane | 184 | C13H28 | 000629-50-5 | 83 |
| 3 | 2-Bromo dodecane | 248 | C12H25Br | 013187-99-0 | 80 |
| 4 | Decane, 3,6-dimethyl- | 170 | C12H26 | 017312-53-7 | 80 |
| 5 | Tridecane, 5-propyl- | 226 | C16H34 | 055045-11-9 | 64 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

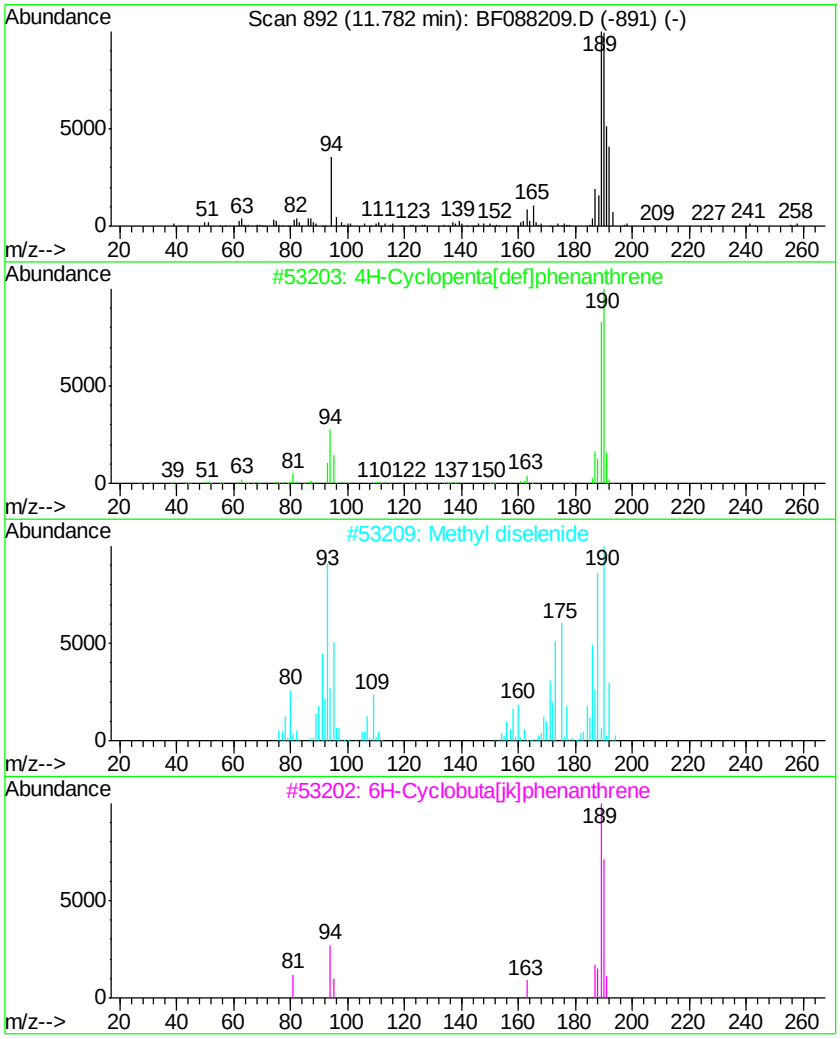
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

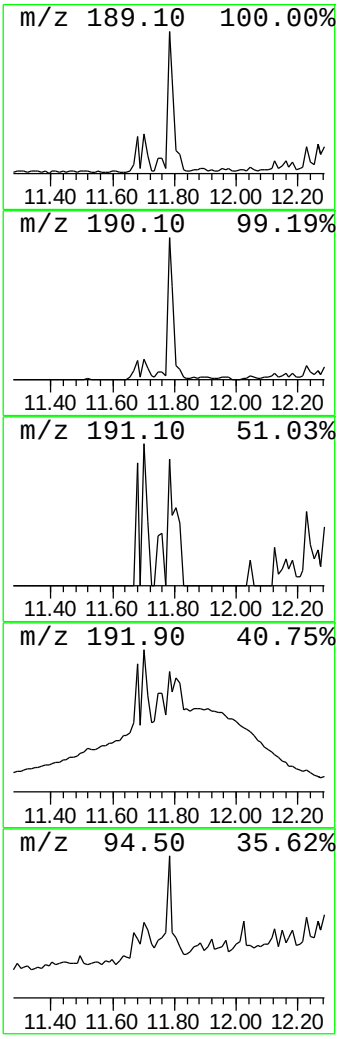
**********

Peak Number 8 4H-Cyclopenta[def]phenanthrene Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.78 | 6.49 ng | 219620 | Phenanthrene-d10 | 11.18 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 70 |
| 2 | Methyl diselenide | 190 | C2H6Se2 | 007101-31-7 | 55 |
| 3 | 6H-Cyclobuta[jk]phenanthrene | 190 | C15H10 | 083469-43-6 | 42 |
| 4 | Thiophene-3-carboxaldehyde, 5-ch... | 190 | C5H4BClO3S | 036155-87-0 | 38 |
| 5 | 2,2'-Bis(4,5-dimethylimidazole) | 190 | C10H14N4 | 069286-06-2 | 37 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

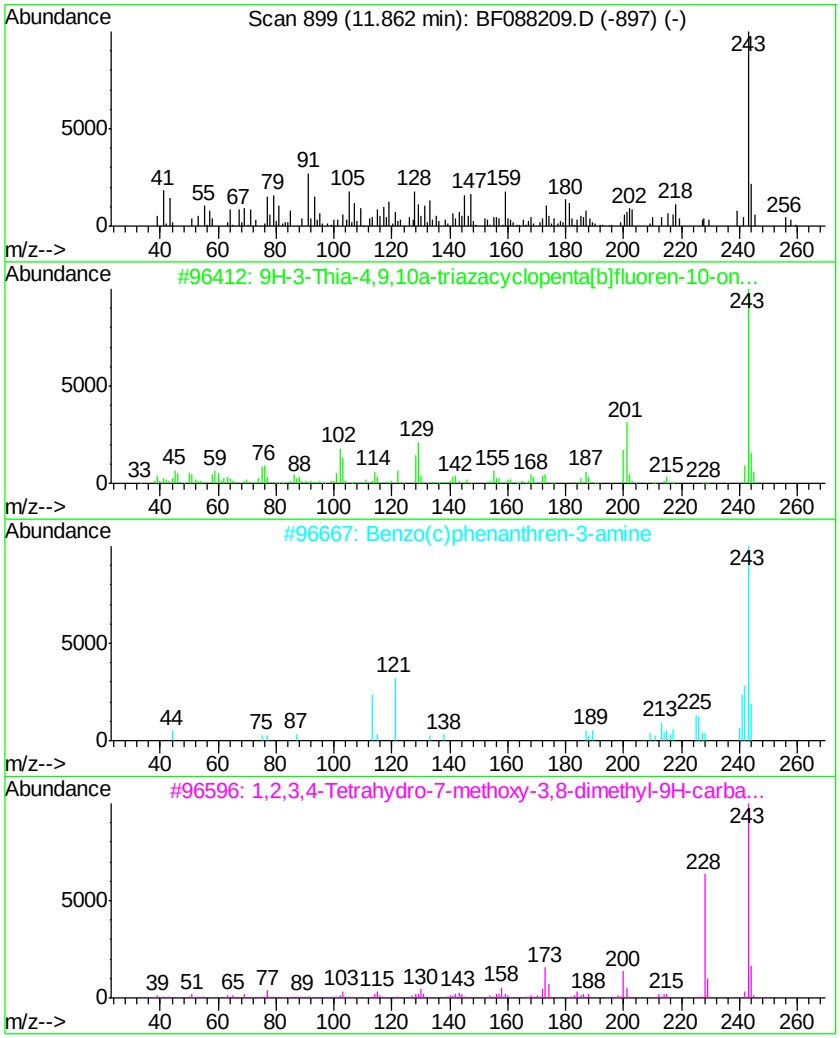
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

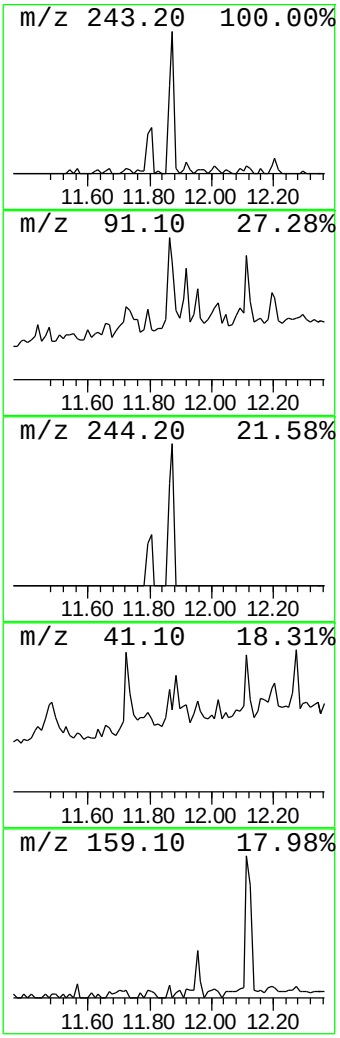
**********

Peak Number 9 9H-3-Thia-4,9,10a-triazacyc... Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.86 | 5.46 ng | 184632 | Phenanthrene-d10 | 11.18 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9H-3-Thia-4,9,10a-triazacyclopen... | 243 | C12H9N3OS | 1000316-46-7 | 70 |
| 2 | Benzo(c)phenanthren-3-amine | 243 | C18H13N | 004176-46-9 | 52 |
| 3 | 1,2,3,4-Tetrahydro-7-methoxy-3,8... | 243 | C15H17NO2 | 1000281-20-4 | 50 |
| 4 | 3a-(3,4-Methylenedioxy)-hexahydr... | 243 | C15H17NO2 | 109535-43-5 | 50 |
| 5 | 8-Methoxy-1,3,4,4a,5,6-hexahydro... | 243 | C15H17NO2 | 1000332-52-2 | 50 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

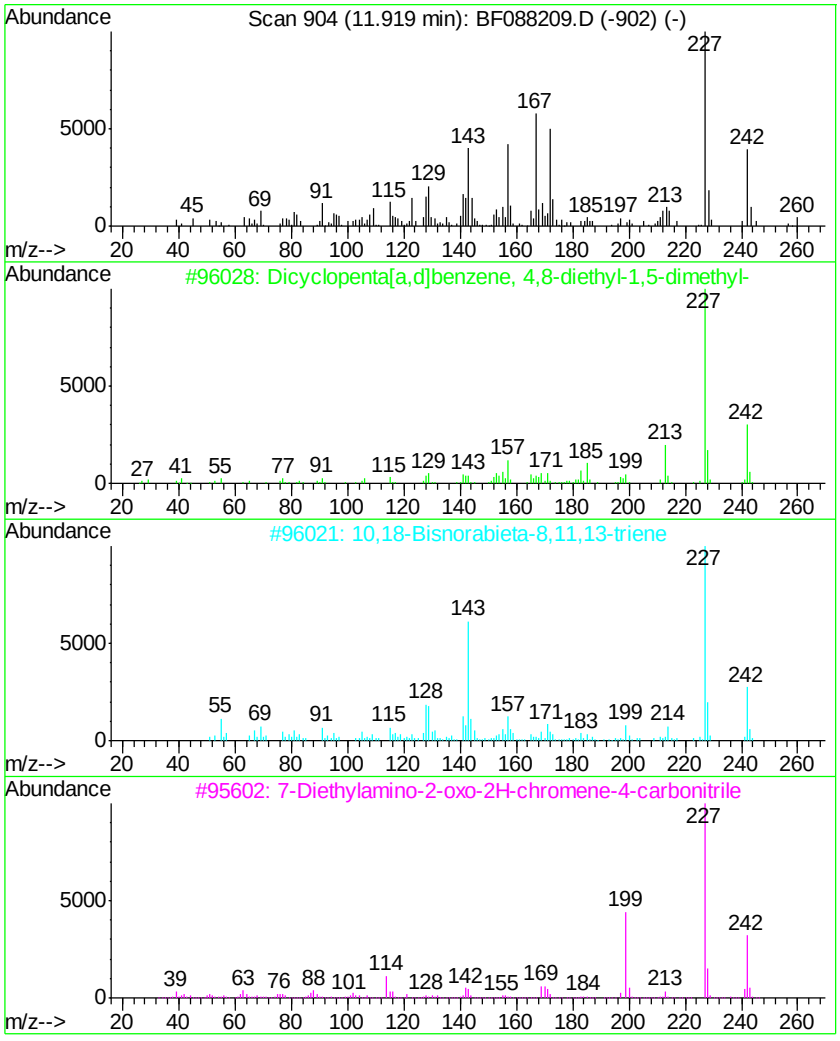
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

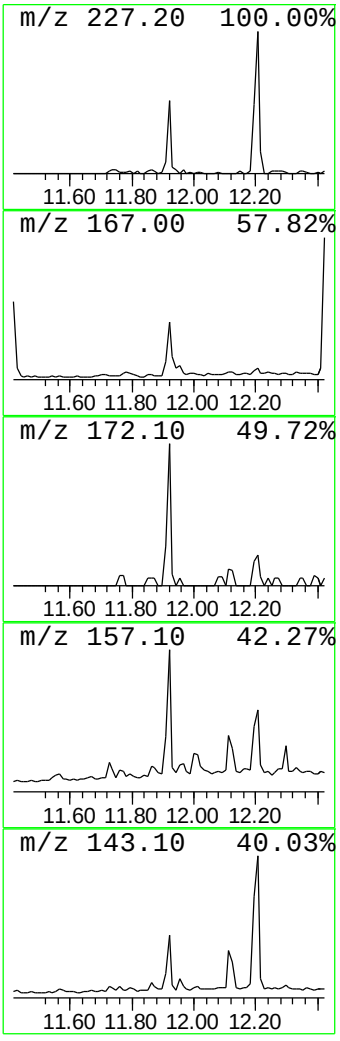
**********

Peak Number 10 unknown11.92 Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.92 | 4.60 ng | 155714 | Phenanthrene-d10 | 11.18 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dicyclopenta[a,d]benzene, 4,8-di... | 242 | C18H26 | 1000156-41-6 | 49 |
| 2 | 10,18-Bisnorabieta-8,11,13-triene | 242 | C18H26 | 032624-67-2 | 38 |
| 3 | 7-Diethylamino-2-oxo-2H-chromene... | 242 | C14H14N2O2 | 332411-59-3 | 38 |
| 4 | 1-Dimethylphenylsilyloxy-3-methy... | 242 | C15H18OSi | 1000307-90-4 | 38 |
| 5 | 2-(4-((Trimethylsilyl)oxy)benzyl... | 242 | C13H14N2OSi | 1000297-99-1 | 30 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

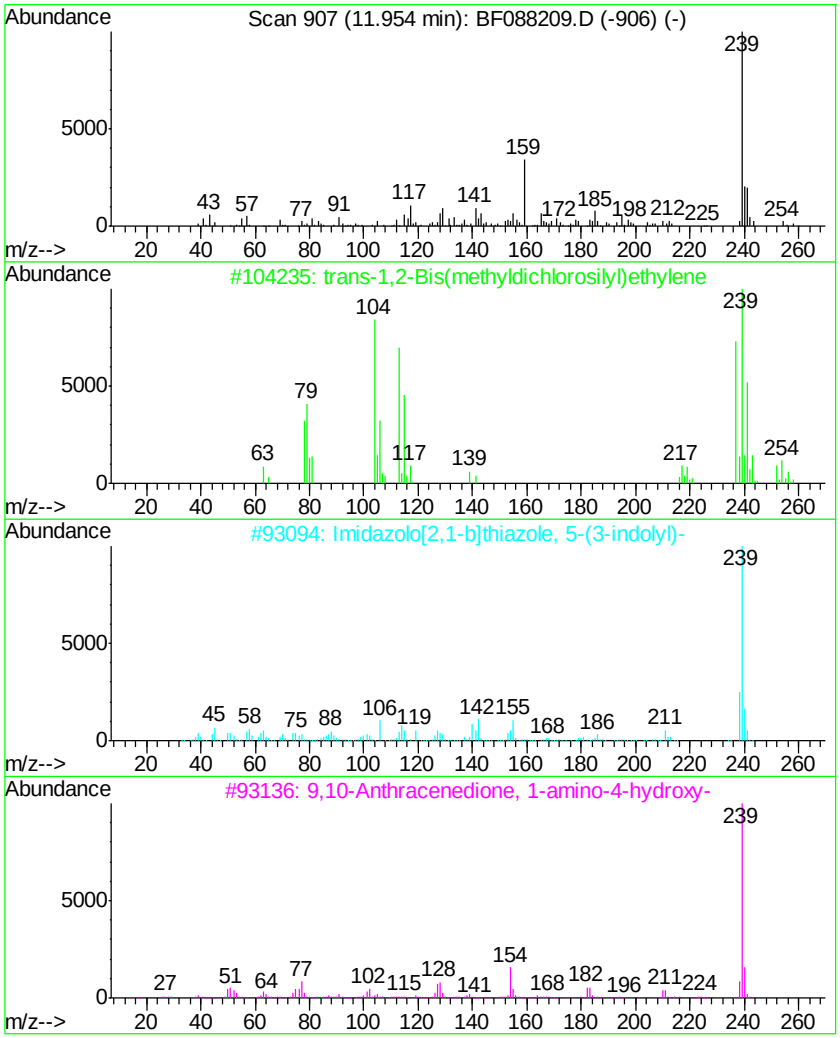
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

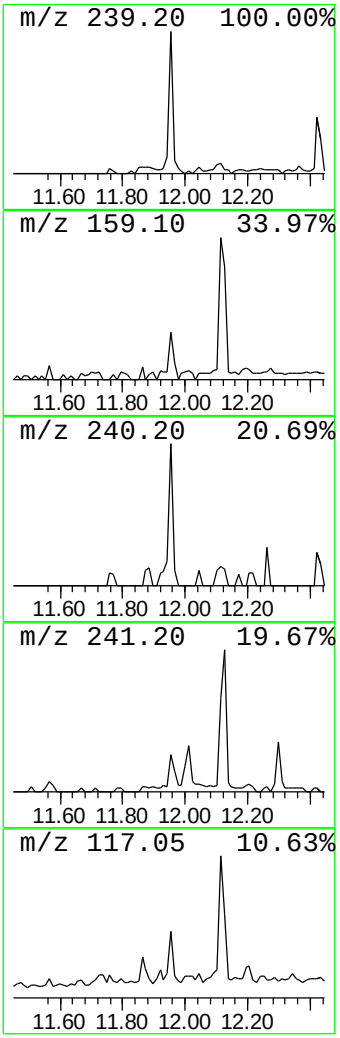
**********

Peak Number 11 trans-1,2-Bis(methyldichlor... Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.95 | 4.20 ng | 142105 | Phenanthrene-d10 | 11.18 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | trans-1,2-Bis(methyldichlorosilv... | 252 | C4H8Cl4Si2 | 065899-10-7 | 60 |
| 2 | Imidazolo[2,1-b]thiazole, 5-(3-i... | 239 | C13H9N3S | 327097-37-0 | 50 |
| 3 | 9,10-Anthracenedione, 1-amino-4-... | 239 | C14H9NO3 | 000116-85-8 | 49 |
| 4 | 2-(p-Acetylanilino)tropone | 239 | C15H13NO2 | 1000241-52-9 | 47 |
| 5 | ((3-Indolyl)(methylthio)methylen... | 239 | C13H9N3S | 018374-66-8 | 47 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

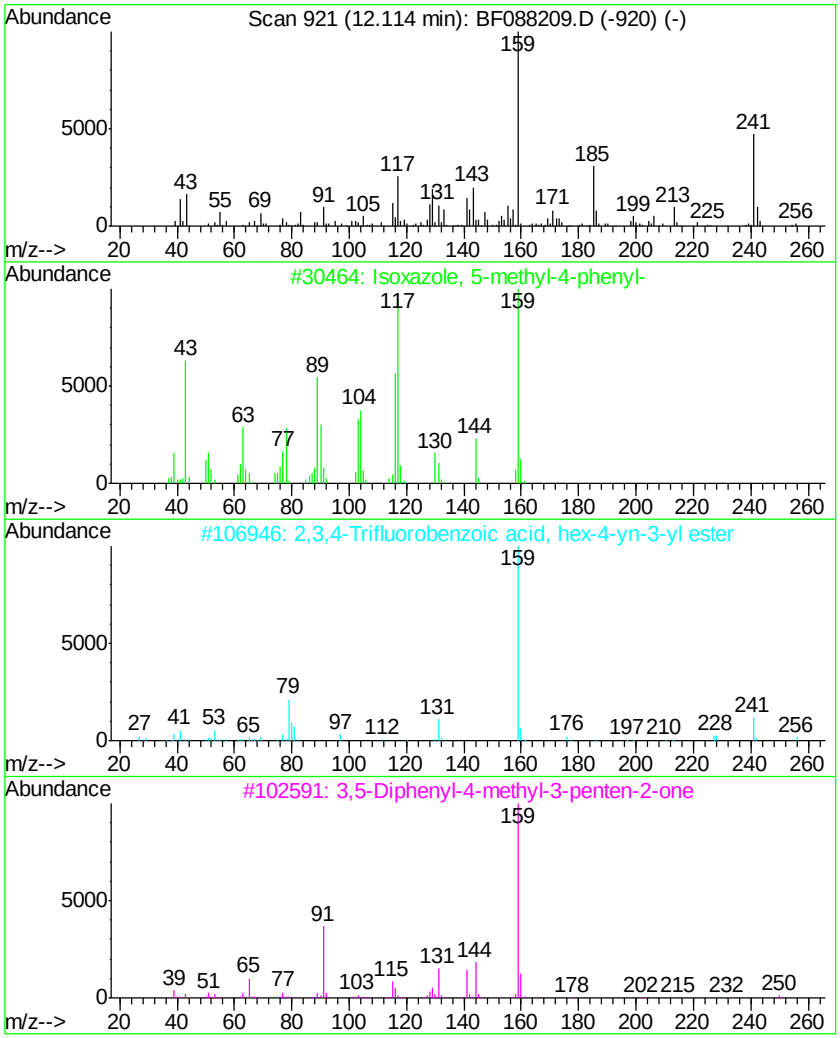
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

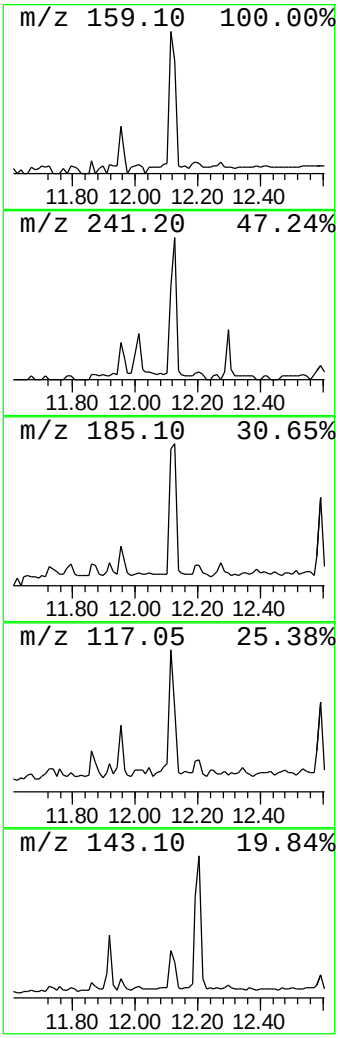
**********

Peak Number 12 unknown12.11 Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.11 | 4.57 ng | 154520 | Phenanthrene-d10 | 11.18 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Isoxazole, 5-methyl-4-phenyl- | 159 | C10H9NO | 023253-49-8 | 30 |
| 2 | 2,3,4-Trifluorobenzoic acid, hex... | 256 | C13H11F3O2 | 1000292-55-4 | 22 |
| 3 | 3,5-Diphenyl-4-methyl-3-penten-2... | 250 | C18H18O | 081826-04-2 | 22 |
| 4 | 1H-Indene, 2,3-dihydro-1,1,5,6-t... | 174 | C13H18 | 000942-43-8 | 17 |
| 5 | 2,5-Dimethoxybenzenesulfonyl chl... | 236 | C8H9ClO4S | 001483-28-9 | 17 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

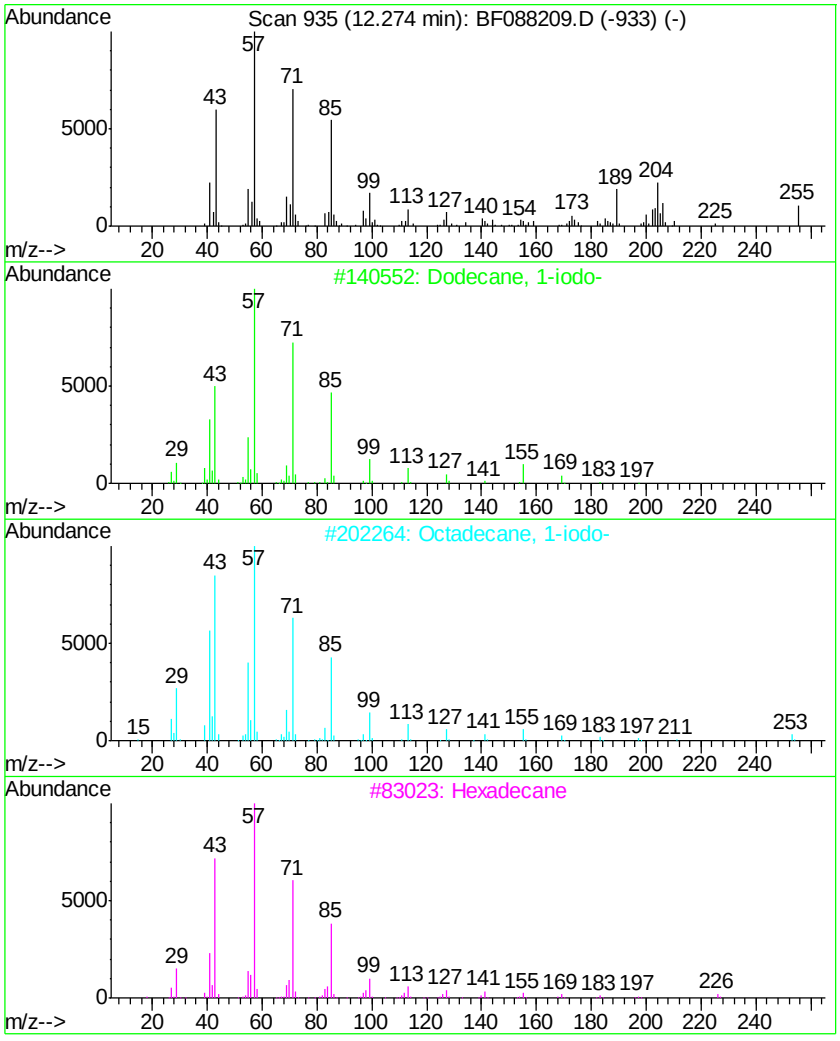
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

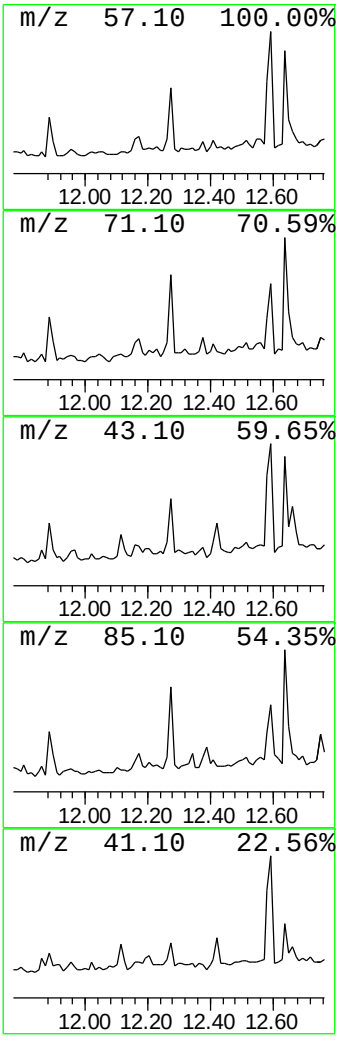
**********

Peak Number 13 unknown12.27 Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.27 | 3.92 ng | 132652 | Phenanthrene-d10 | 11.18 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dodecane, 1-iodo- | 296 | C12H25I | 004292-19-7 | 49 |
| 2 | Octadecane, 1-iodo- | 380 | C18H37I | 000629-93-6 | 49 |
| 3 | Hexadecane | 226 | C16H34 | 000544-76-3 | 49 |
| 4 | Heptadecane | 240 | C17H36 | 000629-78-7 | 49 |
| 5 | Tetracosane | 338 | C24H50 | 000646-31-1 | 49 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

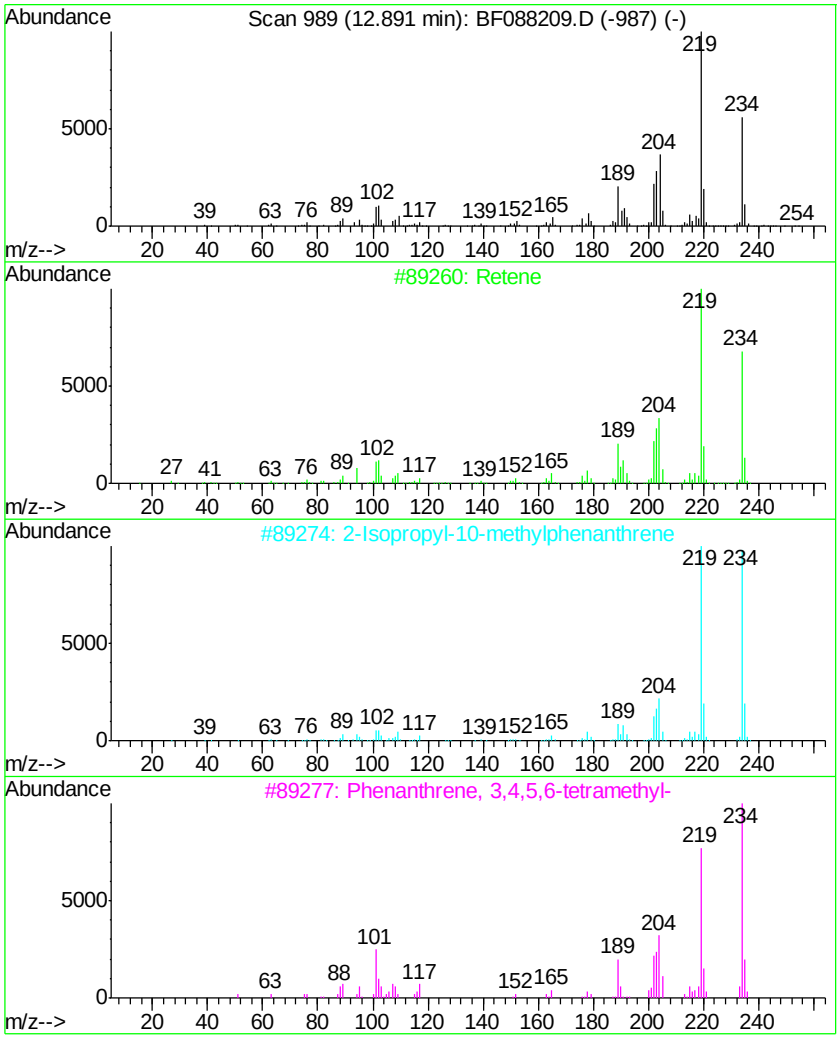
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

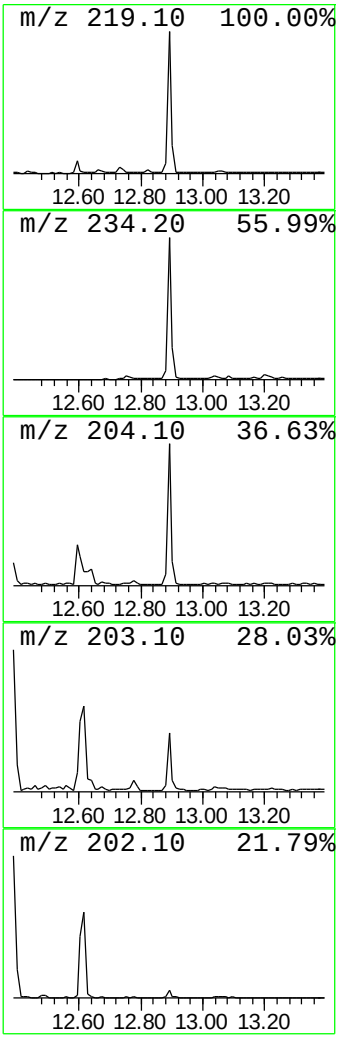
**********

Peak Number 14 Retene Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.89 | 7.88 ng | 519157 | Chrysene-d12 | 13.81 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Retene | 234 | C18H18 | 000483-65-8 | 99 |
| 2 | 2-Isopropyl-10-methylphenanthrene | 234 | C18H18 | 066552-97-4 | 95 |
| 3 | Phenanthrene, 3,4,5,6-tetramethyl- | 234 | C18H18 | 007343-06-8 | 53 |
| 4 | Ethanone, 1-(4,6-dihydroxy-2,3,5... | 234 | C13H14O4 | 021987-07-5 | 53 |
| 5 | 3,5-di-tert-Butyl-4-hydroxybenza... | 234 | C15H22O2 | 001620-98-0 | 50 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

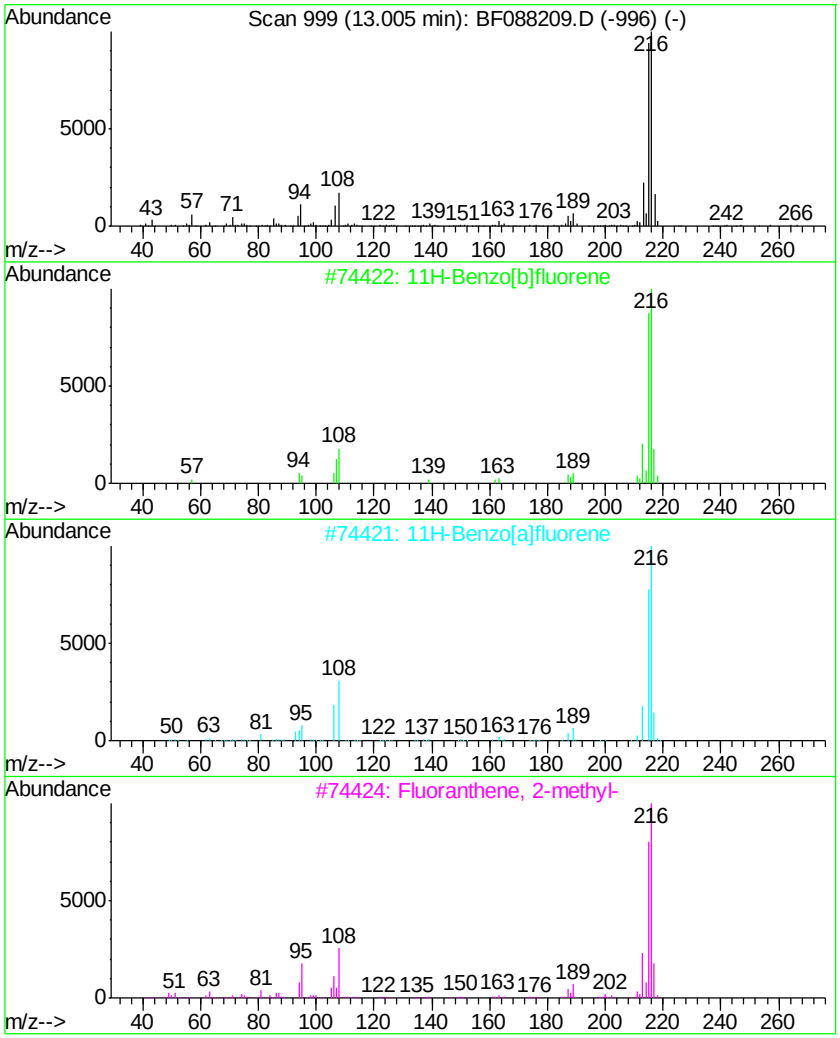
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

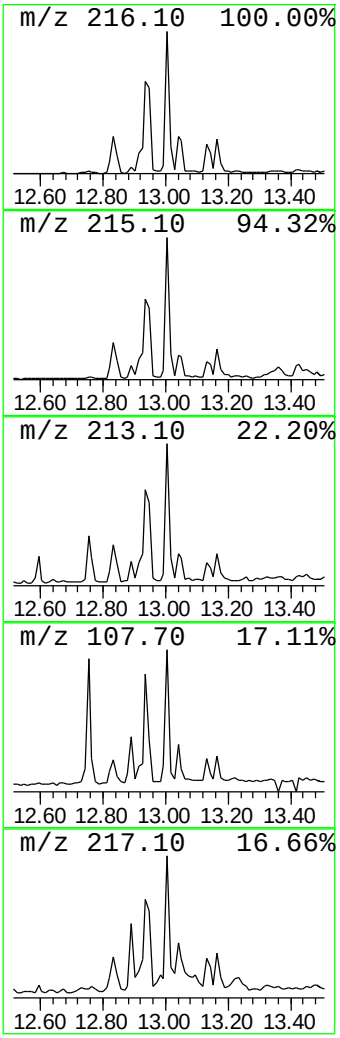
**********

Peak Number 16 11H-Benzo[b]fluorene Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.01 | 5.32 ng | 350233 | Chrysene-d12 | 13.81 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 93 |
| 2 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 91 |
| 3 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 87 |
| 4 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 81 |
| 5 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 64 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

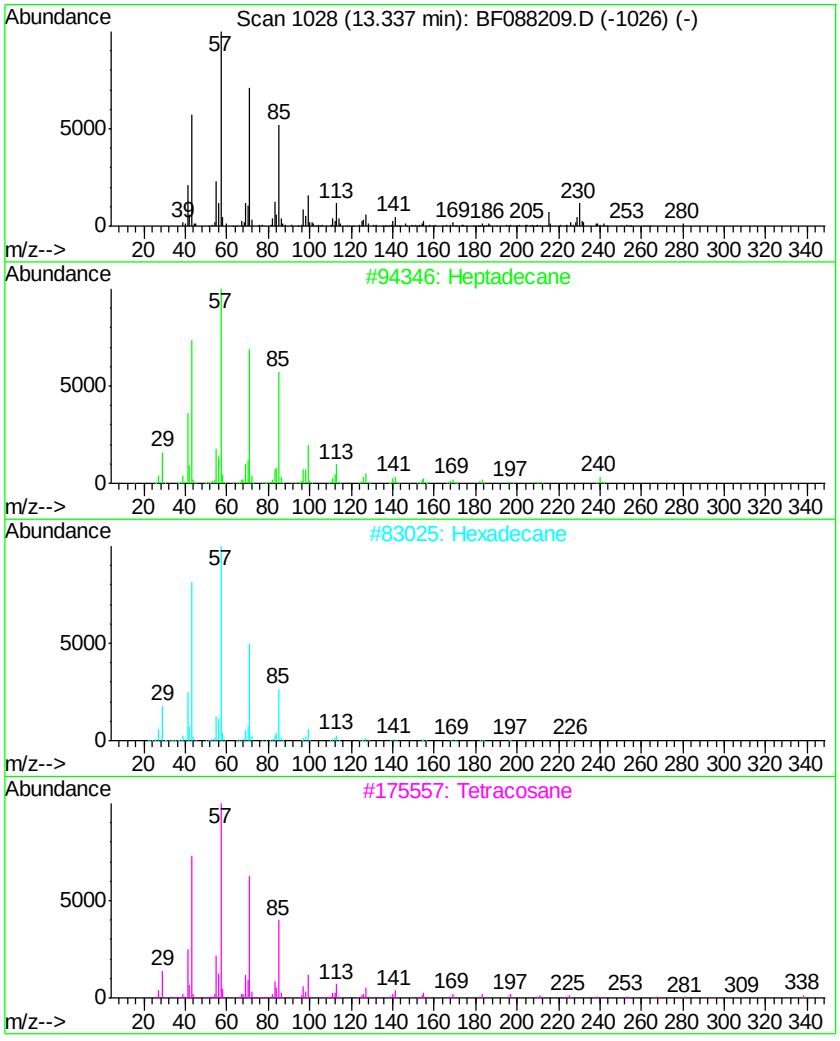
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

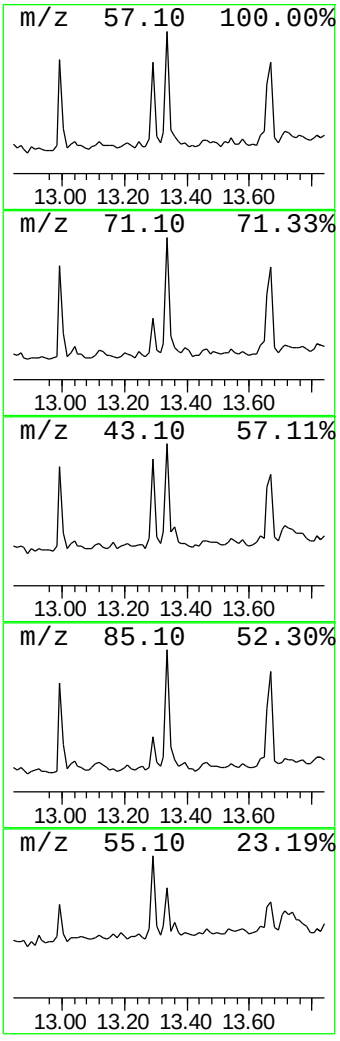
**********

Peak Number 17 Heptadecane Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.34 | 3.94 ng | 259520 | Chrysene-d12 | 13.81 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Heptadecane | 240 | C17H36 | 000629-78-7 | 96 |
| 2 | Hexadecane | 226 | C16H34 | 000544-76-3 | 94 |
| 3 | Tetracosane | 338 | C24H50 | 000646-31-1 | 83 |
| 4 | Heneicosane | 296 | C21H44 | 000629-94-7 | 83 |
| 5 | Octadecane | 254 | C18H38 | 000593-45-3 | 80 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

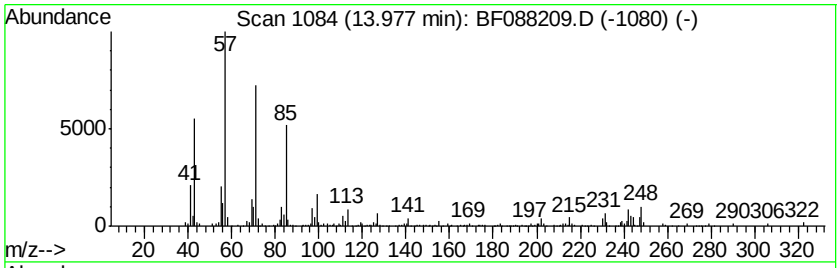
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

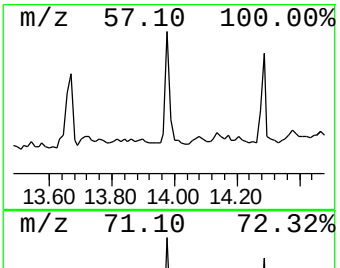
**********

Peak Number 18 Pentadecane Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.98 | 4.41 ng | 290133 | Chrysene-d12 | 13.81 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pentadecane | 212 | C15H32 | 000629-62-9 | 93 |
| 2 | Tridecane, 6-propyl- | 226 | C16H34 | 055045-10-8 | 81 |
| 3 | Tridecane, 7-propyl- | 226 | C16H34 | 055045-09-5 | 81 |
| 4 | Heneicosane | 296 | C21H44 | 000629-94-7 | 81 |
| 5 | Tetradecane, 2,6,10-trimethyl- | 240 | C17H36 | 014905-56-7 | 81 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

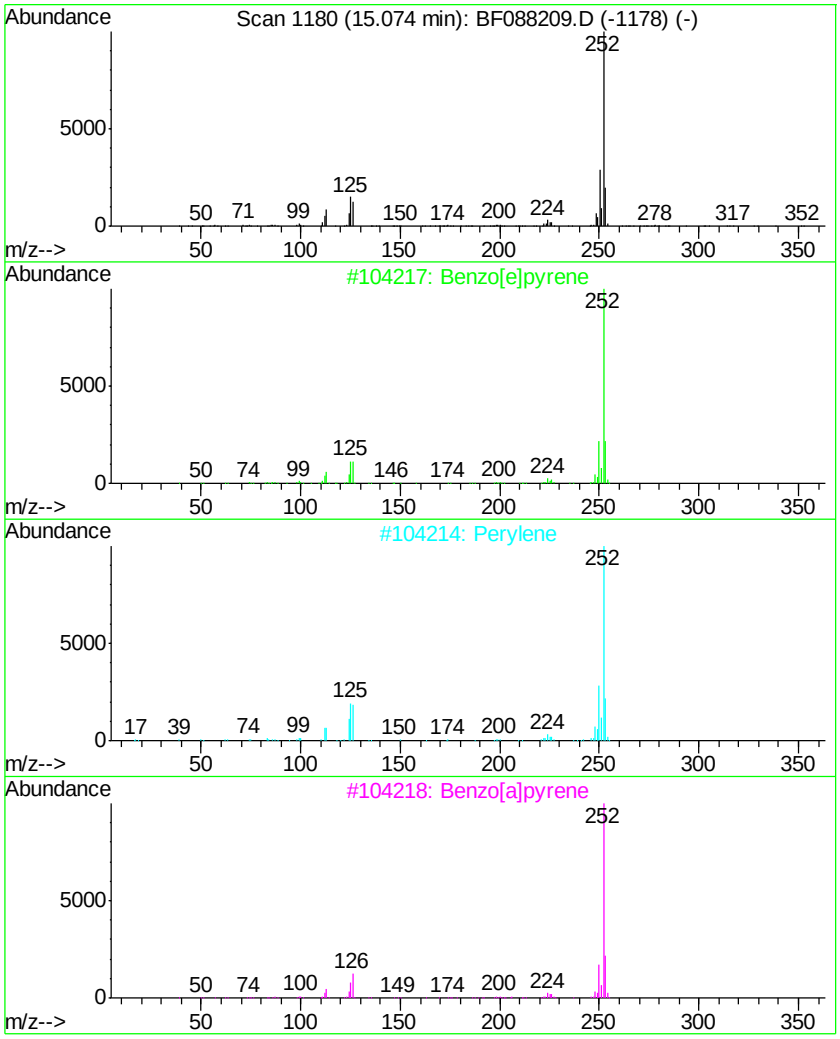
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

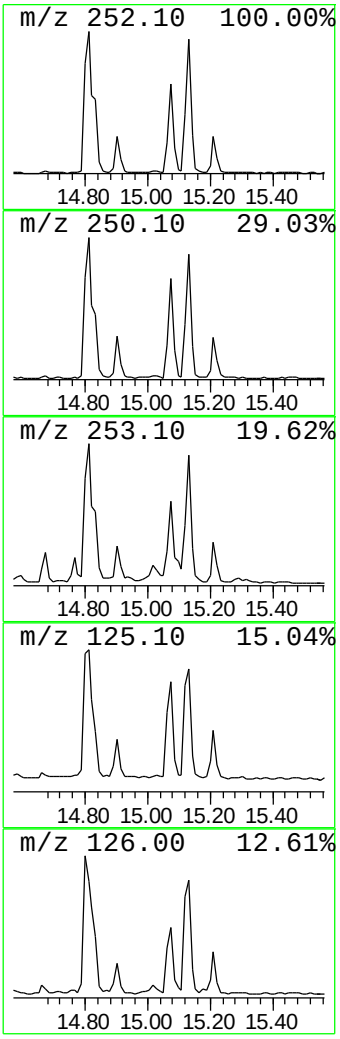
**********

Peak Number 19 Benzo[e]pyrene Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.07 | 8.55 ng | 392745 | Perylene-d12 | 15.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 98 |
| 2 | Perylene | 252 | C20H12 | 000198-55-0 | 96 |
| 3 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 93 |
| 4 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 91 |
| 5 | Benzo[j]fluoranthene | 252 | C20H12 | 000205-82-3 | 90 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(6-12)C

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

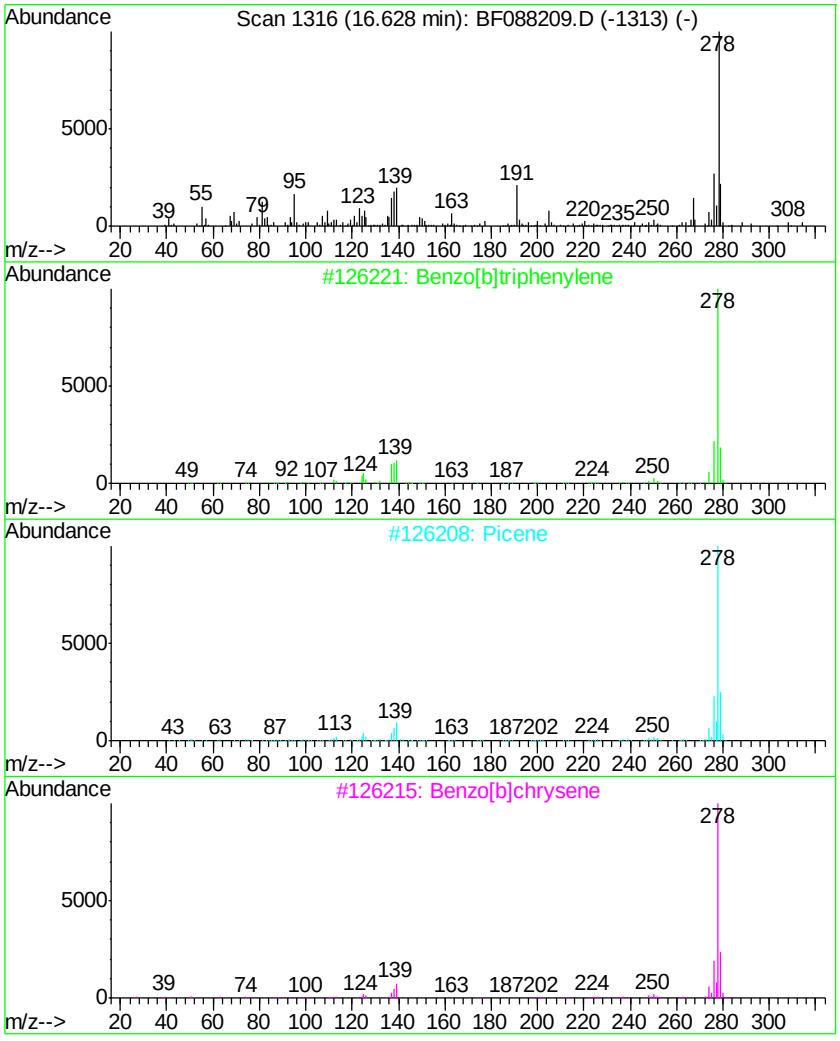
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

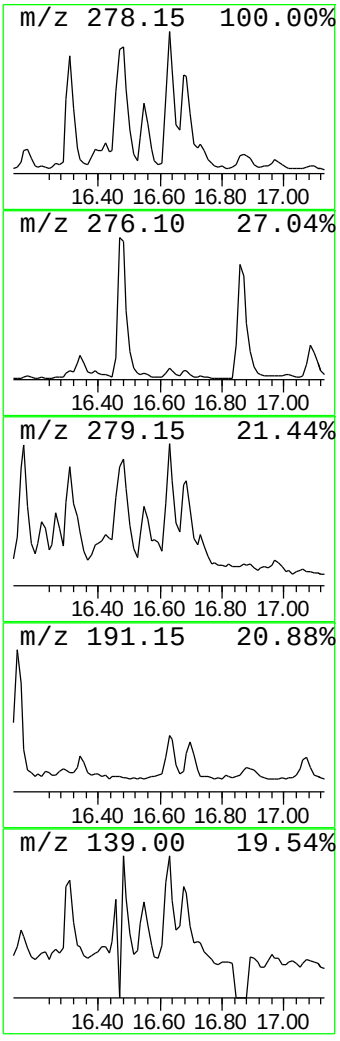
**********

Peak Number 20 Benzo[b]triphenylene Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.63 | 4.11 ng | 188982 | Perylene-d12 | 15.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]triphenylene | 278 | C22H14 | 000215-58-7 | 97 |
| 2 | Picene | 278 | C22H14 | 000213-46-7 | 96 |
| 3 | Benzo[b]chrysene | 278 | C22H14 | 000214-17-5 | 96 |
| 4 | Dibenz[a,h]anthracene | 278 | C22H14 | 000053-70-3 | 95 |
| 5 | Naphtho[1,2-a]anthracene | 278 | C22H14 | 000195-06-2 | 83 |



# Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF062016\
Data File : BF088209.D
Acq On : 21 Jun 2016 9:57
Operator : UM/SJ
Sample : H3474-03
Misc :
ALS Vial : 39 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** S7-B4(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... | 4.82 | 6.1 | ng | 212779 | 1 | 6.66 | 695822 | 20.0 |
| Cyclohexane, 1,2,... | 6.18 | 4.3 | ng | 150444 | 1 | 6.66 | 695822 | 20.0 |
| 3-Chloro-6-fluoro... | 6.44 | 63.3 | ng | 2200980 | 1 | 6.66 | 695822 | 20.0 |
| Eicosane | 10.62 | 6.1 | ng | 205319 | 4 | 11.18 | 676303 | 20.0 |
| 4H-Cyclopenta[def... | 11.78 | 6.5 | ng | 219620 | 4 | 11.18 | 676303 | 20.0 |
| 9H-3-Thia-4,9,10a... | 11.86 | 5.5 | ng | 184632 | 4 | 11.18 | 676303 | 20.0 |
| unknown11.92 | 11.92 | 4.6 | ng | 155714 | 4 | 11.18 | 676303 | 20.0 |
| trans-1,2-Bis(met... | 11.95 | 4.2 | ng | 142105 | 4 | 11.18 | 676303 | 20.0 |
| unknown12.11 | 12.11 | 4.6 | ng | 154520 | 4 | 11.18 | 676303 | 20.0 |
| unknown12.27 | 12.27 | 3.9 | ng | 132652 | 4 | 11.18 | 676303 | 20.0 |
| Retene | 12.89 | 7.9 | ng | 519157 | 5 | 13.81 | 1317210 | 20.0 |
| 11H-Benzo[b]fluorene | 13.01 | 5.3 | ng | 350233 | 5 | 13.81 | 1317210 | 20.0 |
| Heptadecane | 13.34 | 3.9 | ng | 259520 | 5 | 13.81 | 1317210 | 20.0 |
| Pentadecane | 13.98 | 4.4 | ng | 290133 | 5 | 13.81 | 1317210 | 20.0 |
| Benzo[e]pyrene | 15.07 | 8.6 | ng | 392745 | 6 | 15.19 | 918819 | 20.0 |
| Benzo[b]triphenylene | 16.63 | 4.1 | ng | 188982 | 6 | 15.19 | 918819 | 20.0 |