LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

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-BF072016.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 | 1.713 | 9 | 11 | 49 | rVB | 740239 | 1521470 | 100.00% | 8.293% |
| 2 | 4.010 | 207 | 212 | 221 | rBV4 | 11494 | 25422 | 1.67% | 0.139% |
| 3 | 4.616 | 263 | 265 | 268 | rVB | 20284 | 29974 | 1.97% | 0.163% |
| 4 | 4.673 | 268 | 270 | 271 | rBV | 21533 | 23309 | 1.53% | 0.127% |
| 5 | 4.707 | 271 | 273 | 282 | rVB | 56516 | 112170 | 7.37% | 0.611% |
| 6 | 4.901 | 287 | 290 | 293 | rBV2 | 17794 | 30616 | 2.01% | 0.167% |
| 7 | 5.096 | 305 | 307 | 311 | rBV2 | 45438 | 100178 | 6.58% | 0.546% |
| 8 | 5.164 | 311 | 313 | 323 | rVV | 735784 | 1140681 | 74.97% | 6.217% |
| 9 | 5.290 | 323 | 324 | 327 | rVV | 25277 | 44058 | 2.90% | 0.240% |
| 10 | 5.336 | 327 | 328 | 330 | rVB | 21435 | 28473 | 1.87% | 0.155% |
| 11 | 5.381 | 330 | 332 | 337 | rVB2 | 26519 | 49999 | 3.29% | 0.273% |
| 12 | 5.564 | 343 | 348 | 350 | rVB3 | 32296 | 55076 | 3.62% | 0.300% |
| 13 | 5.701 | 358 | 360 | 363 | rBV3 | 46478 | 97565 | 6.41% | 0.532% |
| 14 | 5.770 | 363 | 366 | 368 | rBV2 | 18675 | 26280 | 1.73% | 0.143% |
| 15 | 5.816 | 368 | 370 | 373 | rVB3 | 83675 | 136999 | 9.00% | 0.747% |
| 16 | 5.873 | 373 | 375 | 376 | rBV | 43742 | 50455 | 3.32% | 0.275% |
| 17 | 6.022 | 383 | 388 | 392 | rBV3 | 61417 | 150790 | 9.91% | 0.822% |
| 18 | 6.090 | 392 | 394 | 396 | rBV2 | 71967 | 104804 | 6.89% | 0.571% |
| 19 | 6.124 | 396 | 397 | 399 | rVB | 34326 | 36989 | 2.43% | 0.202% |
| 20 | 6.170 | 399 | 401 | 404 | rBV2 | 44027 | 51440 | 3.38% | 0.280% |
| 21 | 6.239 | 404 | 407 | 412 | rBV | 892700 | 1303934 | 85.70% | 7.107% |
| 22 | 6.307 | 412 | 413 | 415 | rVV2 | 41480 | 78558 | 5.16% | 0.428% |
| 23 | 6.342 | 415 | 416 | 420 | rVV | 911415 | 1187615 | 78.06% | 6.473% |
| 24 | 6.399 | 420 | 421 | 425 | rVB | 114985 | 157159 | 10.33% | 0.857% |
| 25 | 6.536 | 430 | 433 | 435 | rBV2 | 46798 | 89084 | 5.86% | 0.486% |
| 26 | 6.582 | 435 | 437 | 440 | rBV2 | 180862 | 295297 | 19.41% | 1.610% |
| 27 | 6.639 | 440 | 442 | 443 | rVB | 33932 | 29344 | 1.93% | 0.160% |
| 28 | 6.730 | 448 | 450 | 455 | rVV | 960377 | 1119430 | 73.58% | 6.102% |
| 29 | 6.833 | 457 | 459 | 464 | rVV3 | 71383 | 151167 | 9.94% | 0.824% |
| 30 | 6.902 | 464 | 465 | 469 | rVV3 | 52126 | 110517 | 7.26% | 0.602% |
| 31 | 6.970 | 469 | 471 | 473 | rVV2 | 60425 | 67471 | 4.43% | 0.368% |
| 32 | 7.073 | 477 | 480 | 481 | rVV3 | 13123 | 26814 | 1.76% | 0.146% |
| 33 | 7.153 | 481 | 487 | 491 | rVV2 | 673629 | 1145874 | 75.31% | 6.246% |
| 34 | 7.233 | 492 | 494 | 496 | rVV | 71138 | 96725 | 6.36% | 0.527% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

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-BF072016.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 7.279 | 496 | 498 | 499 | rVV2 | 34575 | 51671 | 3.40% | 0.282% |
| 36 | 7.302 | 499 | 500 | 502 | rVV2 | 35718 | 44014 | 2.89% | 0.240% |
| 37 | 7.359 | 502 | 505 | 506 | rVV | 88824 | 115565 | 7.60% | 0.630% |
| 38 | 7.382 | 506 | 507 | 510 | rVV2 | 81485 | 83117 | 5.46% | 0.453% |
| 39 | 7.439 | 510 | 512 | 514 | rVB2 | 16798 | 29920 | 1.97% | 0.163% |
| 40 | 7.496 | 514 | 517 | 518 | rBV2 | 65504 | 101601 | 6.68% | 0.554% |
| 41 | 7.542 | 519 | 521 | 525 | rVV4 | 42347 | 85592 | 5.63% | 0.467% |
| 42 | 7.599 | 525 | 526 | 528 | rVV2 | 103265 | 136958 | 9.00% | 0.747% |
| 43 | 7.645 | 528 | 530 | 532 | rVB3 | 25986 | 37800 | 2.48% | 0.206% |
| 44 | 7.702 | 532 | 535 | 537 | rBV2 | 22195 | 39109 | 2.57% | 0.213% |
| 45 | 7.747 | 537 | 539 | 543 | rBV3 | 15875 | 34158 | 2.25% | 0.186% |
| 46 | 7.862 | 546 | 549 | 553 | rVV | 416266 | 534174 | 35.11% | 2.912% |
| 47 | 7.942 | 555 | 556 | 560 | rVB2 | 69324 | 85988 | 5.65% | 0.469% |
| 48 | 8.159 | 572 | 575 | 580 | rBV5 | 21146 | 57926 | 3.81% | 0.316% |
| 49 | 8.250 | 582 | 583 | 585 | rVB | 17164 | 22211 | 1.46% | 0.121% |
| 50 | 8.307 | 585 | 588 | 590 | rBV | 122593 | 140134 | 9.21% | 0.764% |
| 51 | 8.479 | 600 | 603 | 604 | rVV3 | 19595 | 35551 | 2.34% | 0.194% |
| 52 | 8.525 | 605 | 607 | 609 | rVV2 | 18207 | 38633 | 2.54% | 0.211% |
| 53 | 8.570 | 609 | 611 | 613 | rVB2 | 31655 | 40112 | 2.64% | 0.219% |
| 54 | 8.673 | 618 | 620 | 624 | rVB2 | 32981 | 45248 | 2.97% | 0.247% |
| 55 | 8.776 | 625 | 629 | 631 | rBV4 | 24399 | 48308 | 3.18% | 0.263% |
| 56 | 8.902 | 636 | 640 | 641 | rBV | 108243 | 105523 | 6.94% | 0.575% |
| 57 | 8.948 | 641 | 644 | 646 | rVV | 999644 | 1353667 | 88.97% | 7.378% |
| 58 | 9.039 | 649 | 652 | 657 | rVB3 | 30993 | 68402 | 4.50% | 0.373% |
| 59 | 9.210 | 664 | 667 | 669 | rBV2 | 12640 | 30330 | 1.99% | 0.165% |
| 60 | 9.279 | 671 | 673 | 674 | rVV | 12303 | 22322 | 1.47% | 0.122% |
| 61 | 9.313 | 674 | 676 | 677 | rVV2 | 33879 | 41425 | 2.72% | 0.226% |
| 62 | 9.348 | 677 | 679 | 683 | rVB | 269718 | 418358 | 27.50% | 2.280% |
| 63 | 9.473 | 688 | 690 | 692 | rBV3 | 11590 | 20016 | 1.32% | 0.109% |
| 64 | 9.519 | 692 | 694 | 696 | rVB2 | 16733 | 21570 | 1.42% | 0.118% |
| 65 | 9.565 | 696 | 698 | 699 | rBV | 30018 | 32058 | 2.11% | 0.175% |
| 66 | 9.610 | 699 | 702 | 704 | rBV | 424342 | 449384 | 29.54% | 2.449% |
| 67 | 9.782 | 714 | 717 | 719 | rBV4 | 8559 | 19805 | 1.30% | 0.108% |
| 68 | 9.816 | 719 | 720 | 724 | rVB3 | 16893 | 23210 | 1.53% | 0.127% |
| 69 | 9.885 | 724 | 726 | 728 | rBV | 31002 | 32321 | 2.12% | 0.176% |
| 70 | 10.056 | 739 | 741 | 743 | rVB2 | 24659 | 26763 | 1.76% | 0.146% |
| 71 | 10.273 | 758 | 760 | 763 | rBV | 36152 | 43680 | 2.87% | 0.238% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

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-BF072016.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 10.399 | 768 | 771 | 777 | rBV | 646382 | 871564 | 57.28% | 4.751% |
| 73 | 10.536 | 781 | 783 | 786 | rVB | 50282 | 83168 | 5.47% | 0.453% |
| 74 | 10.971 | 820 | 821 | 823 | rBV | 23221 | 23682 | 1.56% | 0.129% |
| 75 | 11.085 | 828 | 831 | 835 | rBV | 354762 | 438581 | 28.83% | 2.391% |
| 76 | 11.393 | 856 | 858 | 861 | rBV | 15589 | 25232 | 1.66% | 0.138% |
| 77 | 11.634 | 878 | 879 | 882 | rBV2 | 23414 | 38787 | 2.55% | 0.211% |
| 78 | 11.805 | 892 | 894 | 897 | rBV3 | 12607 | 23750 | 1.56% | 0.129% |
| 79 | 11.931 | 903 | 905 | 911 | rVV2 | 37445 | 58174 | 3.82% | 0.317% |
| 80 | 12.022 | 911 | 913 | 920 | rVB3 | 28397 | 63391 | 4.17% | 0.346% |
| 81 | 12.331 | 938 | 940 | 946 | rVB | 70443 | 69268 | 4.55% | 0.378% |
| 82 | 12.502 | 953 | 955 | 958 | rVB2 | 59115 | 68154 | 4.48% | 0.371% |
| 83 | 12.582 | 958 | 962 | 964 | rVB2 | 17148 | 23046 | 1.51% | 0.126% |
| 84 | 12.662 | 967 | 969 | 972 | rBV | 1086644 | 1157471 | 76.08% | 6.309% |
| 85 | 12.799 | 979 | 981 | 983 | rVB | 35813 | 39829 | 2.62% | 0.217% |
| 86 | 12.914 | 988 | 991 | 993 | rBV2 | 17729 | 19717 | 1.30% | 0.107% |
| 87 | 13.211 | 1014 | 1017 | 1019 | rVV | 38536 | 41977 | 2.76% | 0.229% |
| 88 | 13.257 | 1019 | 1021 | 1025 | rVB2 | 12373 | 21822 | 1.43% | 0.119% |
| 89 | 13.577 | 1047 | 1049 | 1057 | rBV | 76316 | 144335 | 9.49% | 0.787% |
| 90 | 13.702 | 1057 | 1060 | 1066 | rVB | 297398 | 326891 | 21.49% | 1.782% |
| 91 | 14.217 | 1101 | 1105 | 1113 | rBV2 | 36586 | 110471 | 7.26% | 0.602% |
| 92 | 14.491 | 1125 | 1129 | 1131 | rBV2 | 15056 | 23059 | 1.52% | 0.126% |
| 93 | 14.617 | 1137 | 1140 | 1142 | rBV | 22217 | 22579 | 1.48% | 0.123% |
| 94 | 14.777 | 1151 | 1154 | 1155 | rBV | 31651 | 30808 | 2.02% | 0.168% |
| 95 | 14.811 | 1155 | 1157 | 1164 | rVB | 25665 | 68868 | 4.53% | 0.375% |
| 96 | 15.040 | 1175 | 1177 | 1180 | rBV | 166006 | 218031 | 14.33% | 1.188% |
| 97 | 15.451 | 1211 | 1213 | 1216 | rBV | 20825 | 25652 | 1.69% | 0.140% |
| 98 | 16.743 | 1321 | 1326 | 1332 | rBV4 | 15307 | 52811 | 3.47% | 0.288% |
| 99 | 17.154 | 1360 | 1362 | 1369 | rVB2 | 8928 | 19633 | 1.29% | 0.107% |
| 100 | 18.377 | 1463 | 1469 | 1474 | rVB | 15075 | 43476 | 2.86% | 0.237% |

Sum of corrected areas: 18346588

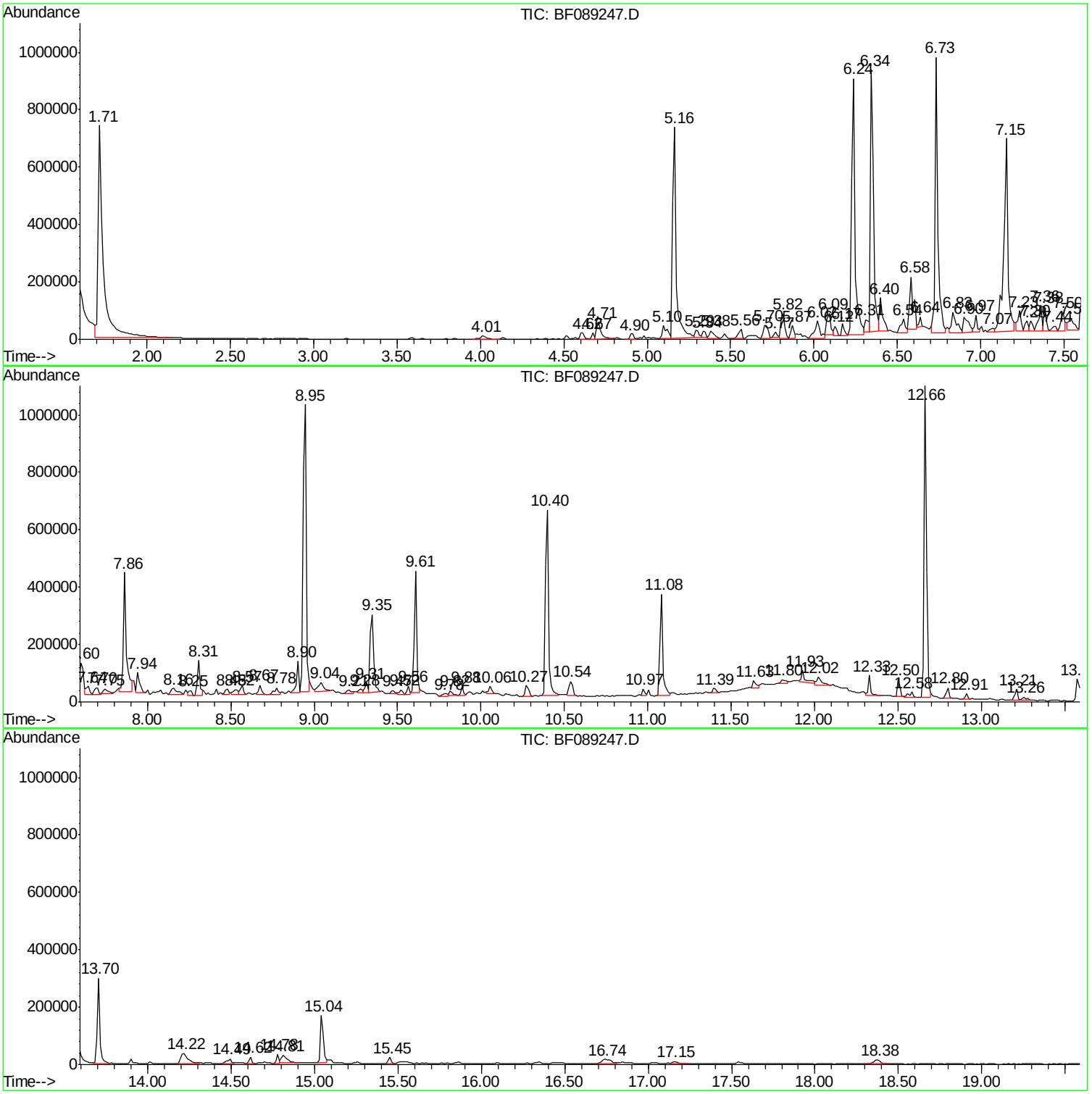
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.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\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

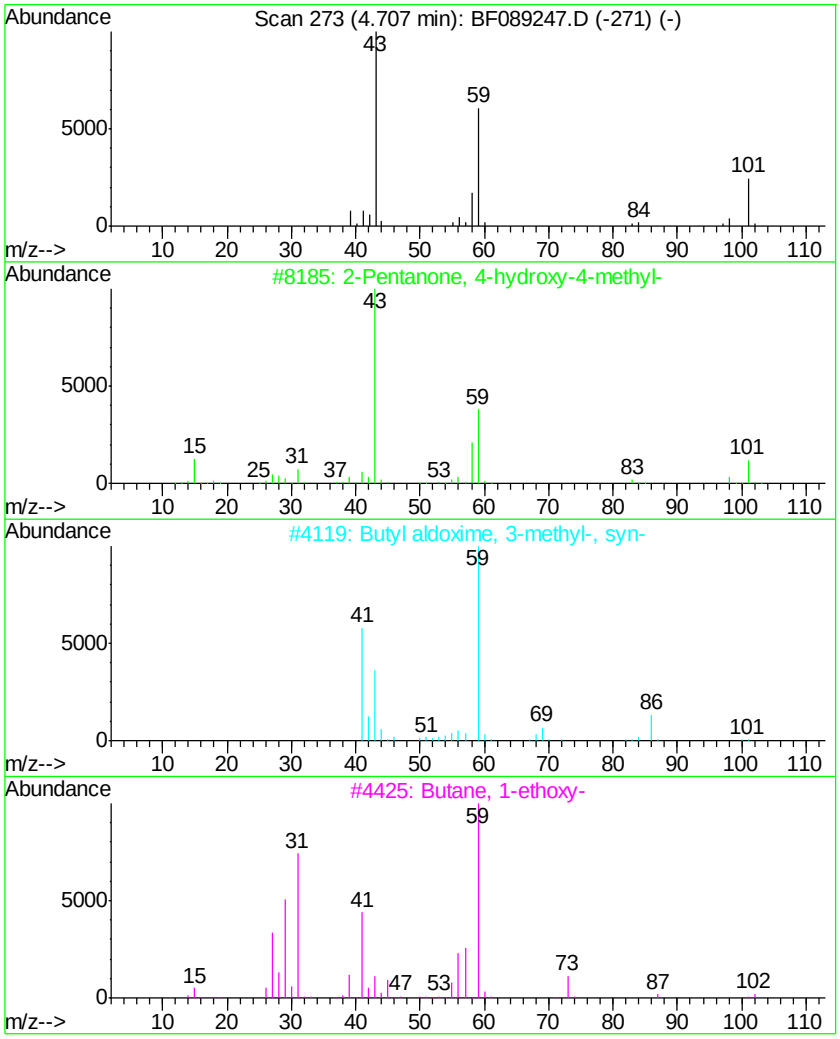
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

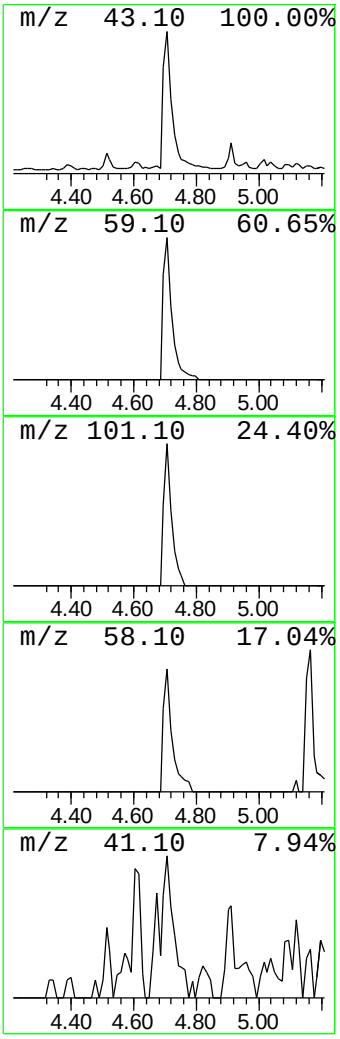
**********

Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.71 | 7.60 ng | 112170 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 50 |
| 2 | Butyl aldoxime, 3-methyl-, syn- | 101 | C5H11NO | 005780-40-5 | 12 |
| 3 | Butane, 1-ethoxy- | 102 | C6H14O | 000628-81-9 | 9 |
| 4 | 2,3-Butanedione, monooxime | 101 | C4H7NO2 | 000057-71-6 | 9 |
| 5 | Morpholine, 4-methyl- | 101 | C5H11NO | 000109-02-4 | 9 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

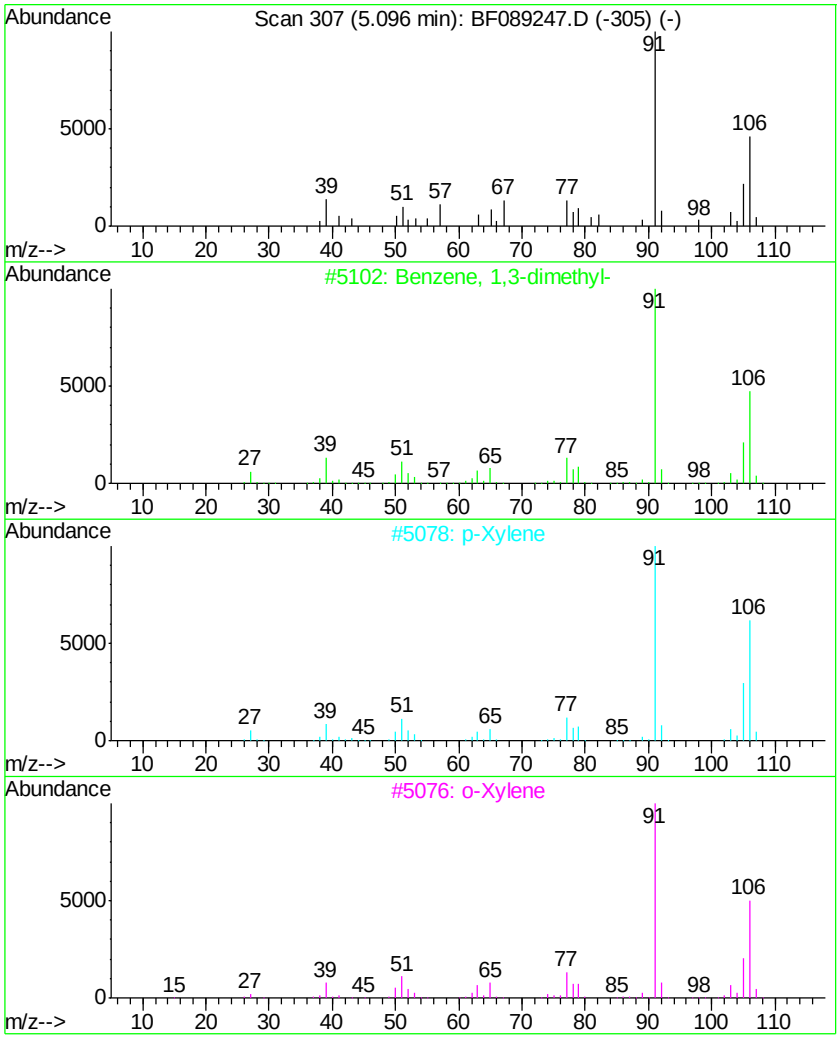
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

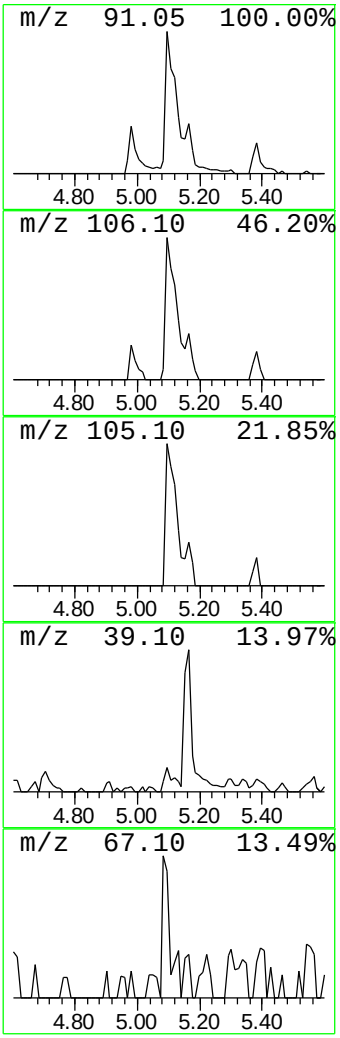
**********

Peak Number 3 Benzene, 1,3-dimethyl- Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.10 | 6.78 ng | 100178 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1,3-dimethyl- | 106 | C8H10 | 000108-38-3 | 94 |
| 2 | p-Xylene | 106 | C8H10 | 000106-42-3 | 93 |
| 3 | o-Xylene | 106 | C8H10 | 000095-47-6 | 93 |
| 4 | 1,3-Cyclopentadiene, 5-(1-methyl... | 106 | C8H10 | 002175-91-9 | 68 |
| 5 | Cyclopentene, 1-ethenyl-3-methyl... | 106 | C8H10 | 061142-07-2 | 62 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

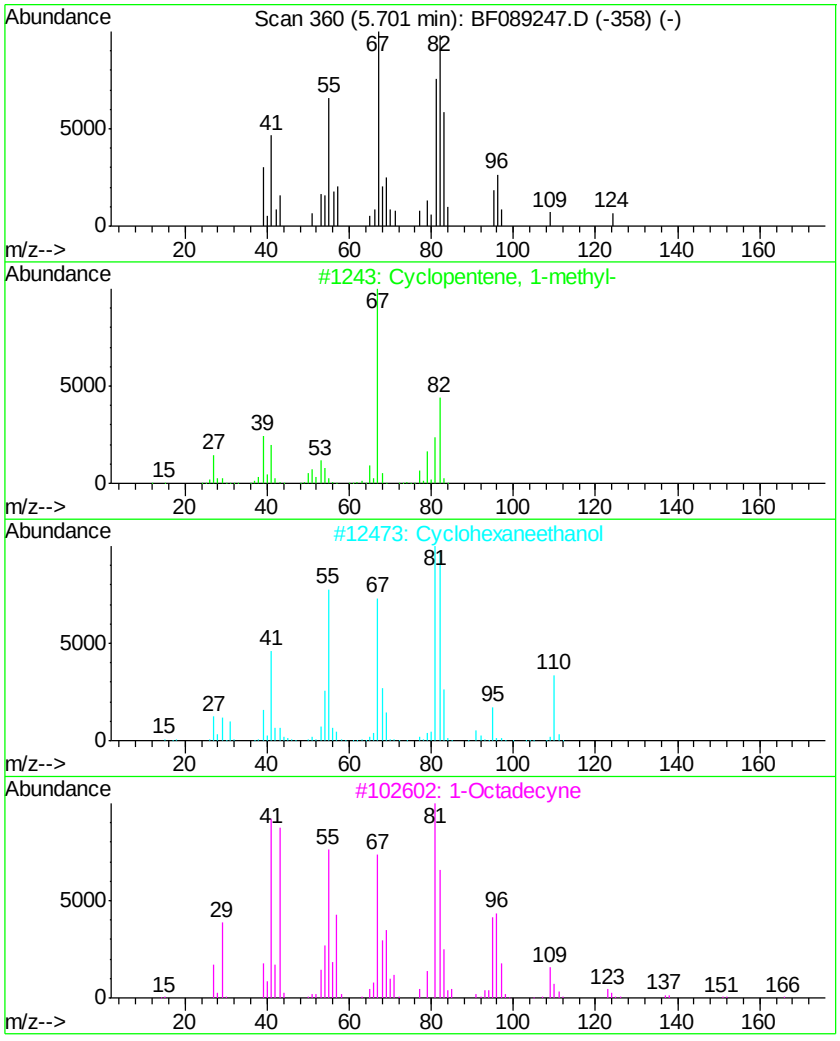
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

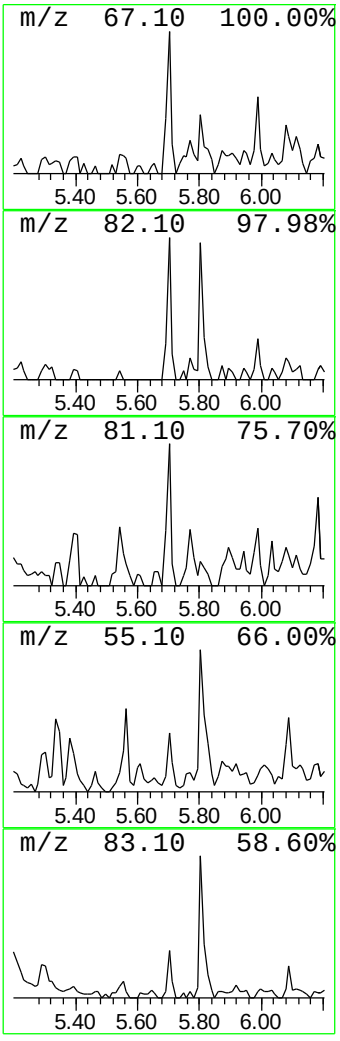
**********

Peak Number 4 Cyclopentene, 1-methyl- Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.70 | 6.61 ng | 97565 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopentene, 1-methyl- | 82 | C6H10 | 000693-89-0 | 53 |
| 2 | Cyclohexaneethanol | 128 | C8H16O | 004442-79-9 | 50 |
| 3 | 1-Octadecyne | 250 | C18H34 | 000629-89-0 | 49 |
| 4 | Pentalene, octahydro-2-methyl- | 124 | C9H16 | 003868-64-2 | 46 |
| 5 | 1-Tetradecyne | 194 | C14H26 | 000765-10-6 | 43 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

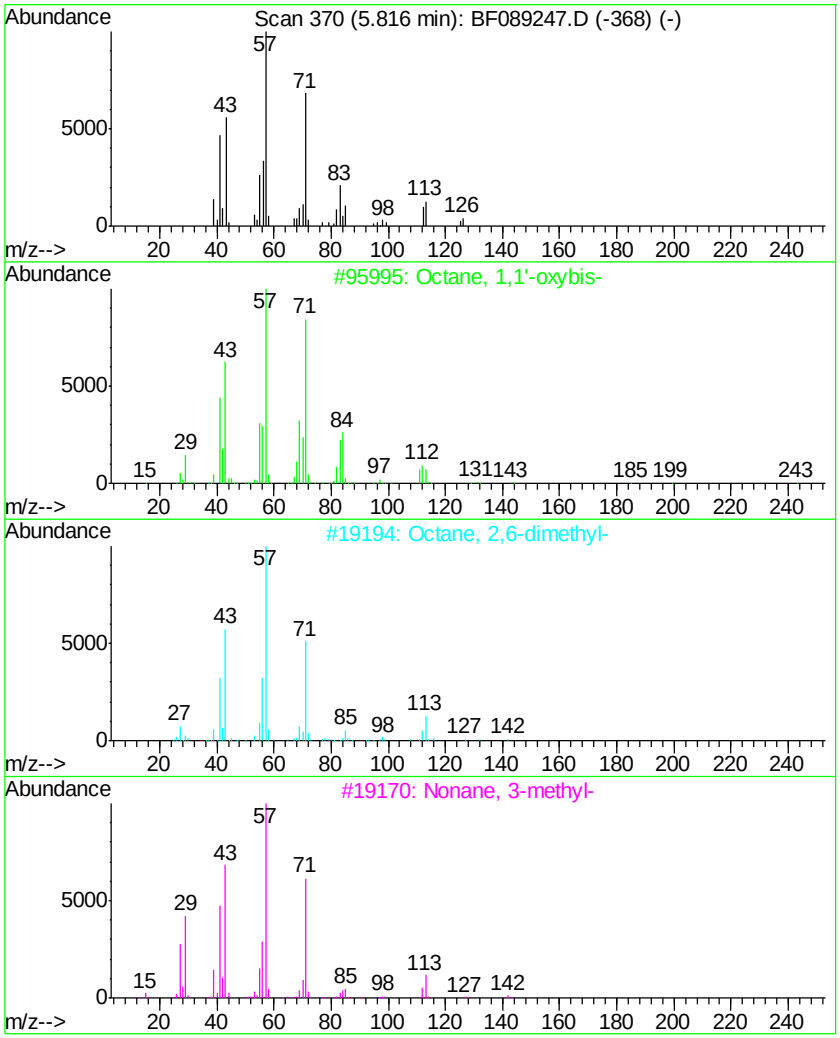
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

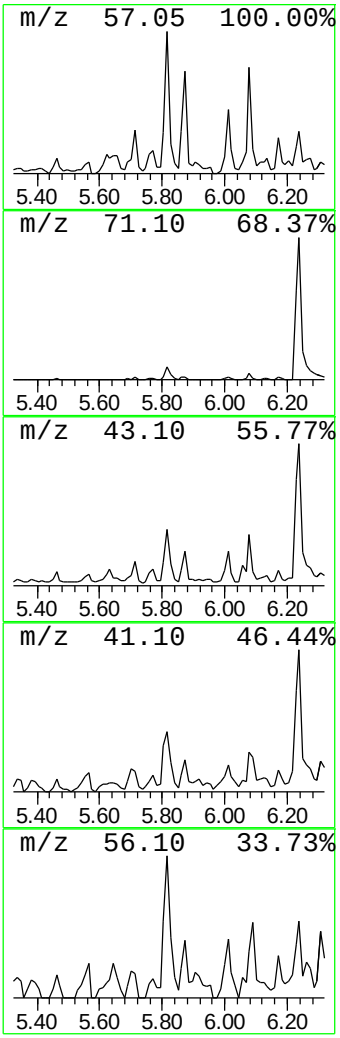
**********

Peak Number 5 Octane, 1,1'-oxybis- Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.82 | 9.28 ng | 136999 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Octane, 1,1'-oxybis- | 242 | C16H34O | 000629-82-3 | 72 |
| 2 | Octane, 2,6-dimethyl- | 142 | C10H22 | 002051-30-1 | 64 |
| 3 | Nonane, 3-methyl- | 142 | C10H22 | 005911-04-6 | 64 |
| 4 | Sulfurous acid, butyl 2-ethylhex... | 250 | C12H26O3S | 1000309-18-8 | 59 |
| 5 | Undecane, 4,5-dimethyl- | 184 | C13H28 | 017312-79-7 | 53 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

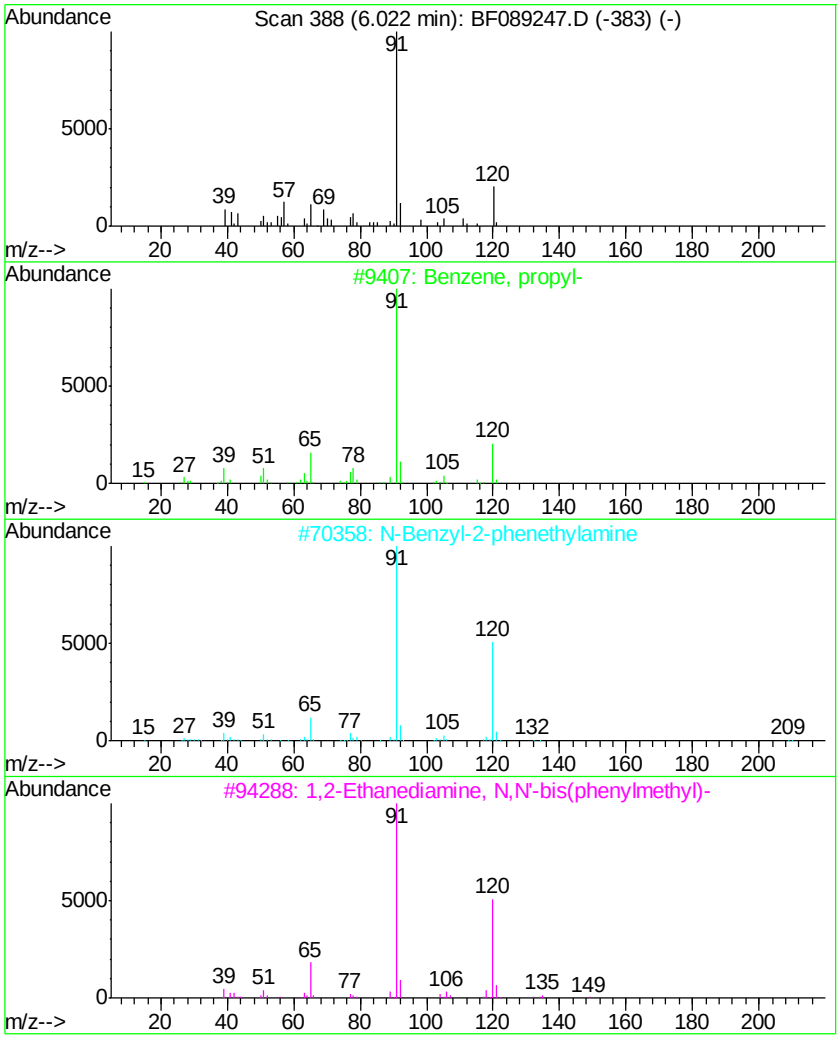
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

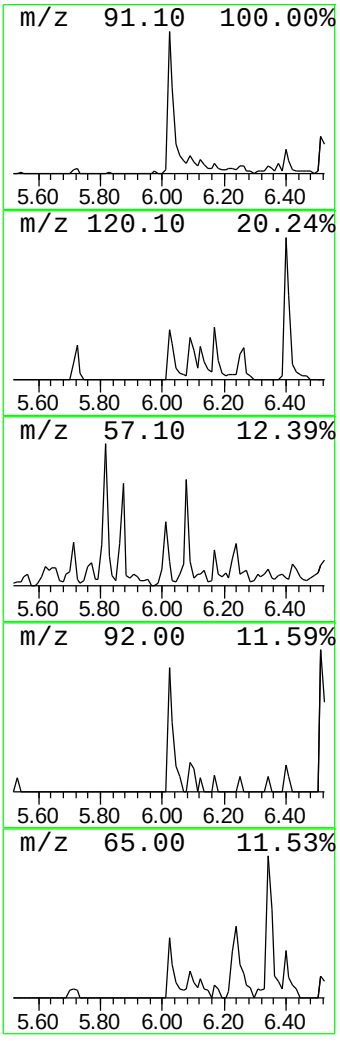
**********

Peak Number 6 Benzene, propyl- Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.02 | 10.21 ng | 150790 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, propyl- | 120 | C9H12 | 000103-65-1 | 81 |
| 2 | N-Benzyl-2-phenethylamine | 211 | C15H17N | 003647-71-0 | 59 |
| 3 | 1,2-Ethanediamine, N,N'-bis(phen... | 240 | C16H20N2 | 000140-28-3 | 53 |
| 4 | 2,4,6-Cycloheptatrien-1-one, 4-m... | 120 | C8H8O | 1000327-34-9 | 47 |
| 5 | Benzeneacetaldehyde | 120 | C8H8O | 000122-78-1 | 43 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

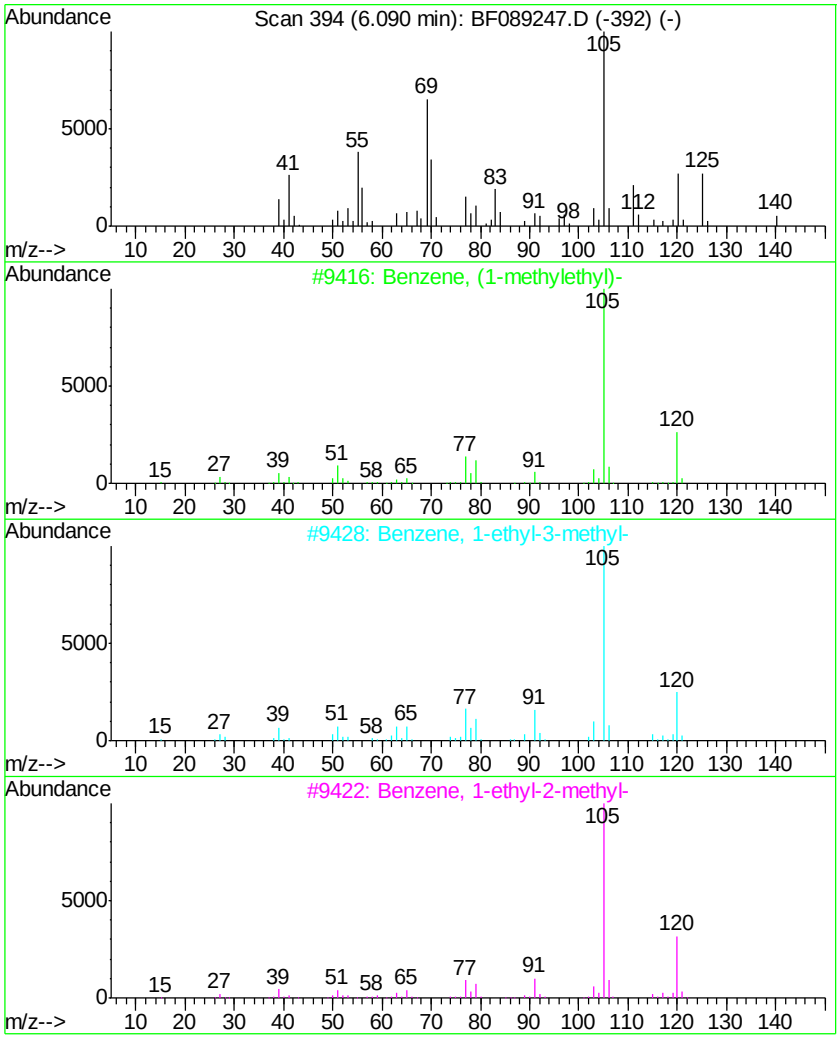
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

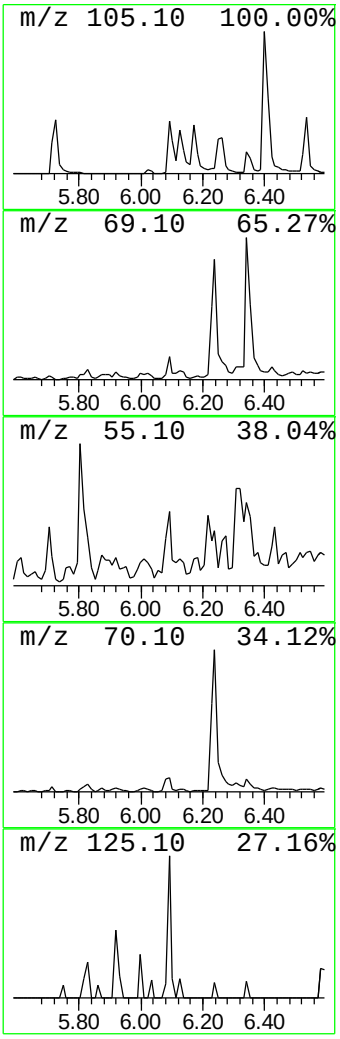
**********

Peak Number 7 unknown6.09 Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.09 | 7.10 ng | 104804 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, (1-methylethyl)- | 120 | C9H12 | 000098-82-8 | 38 |
| 2 | Benzene, 1-ethyl-3-methyl- | 120 | C9H12 | 000620-14-4 | 38 |
| 3 | Benzene, 1-ethyl-2-methyl- | 120 | C9H12 | 000611-14-3 | 38 |
| 4 | Benzene, 1-ethyl-4-methyl- | 120 | C9H12 | 000622-96-8 | 30 |
| 5 | Mesitylene | 120 | C9H12 | 000108-67-8 | 30 |



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Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

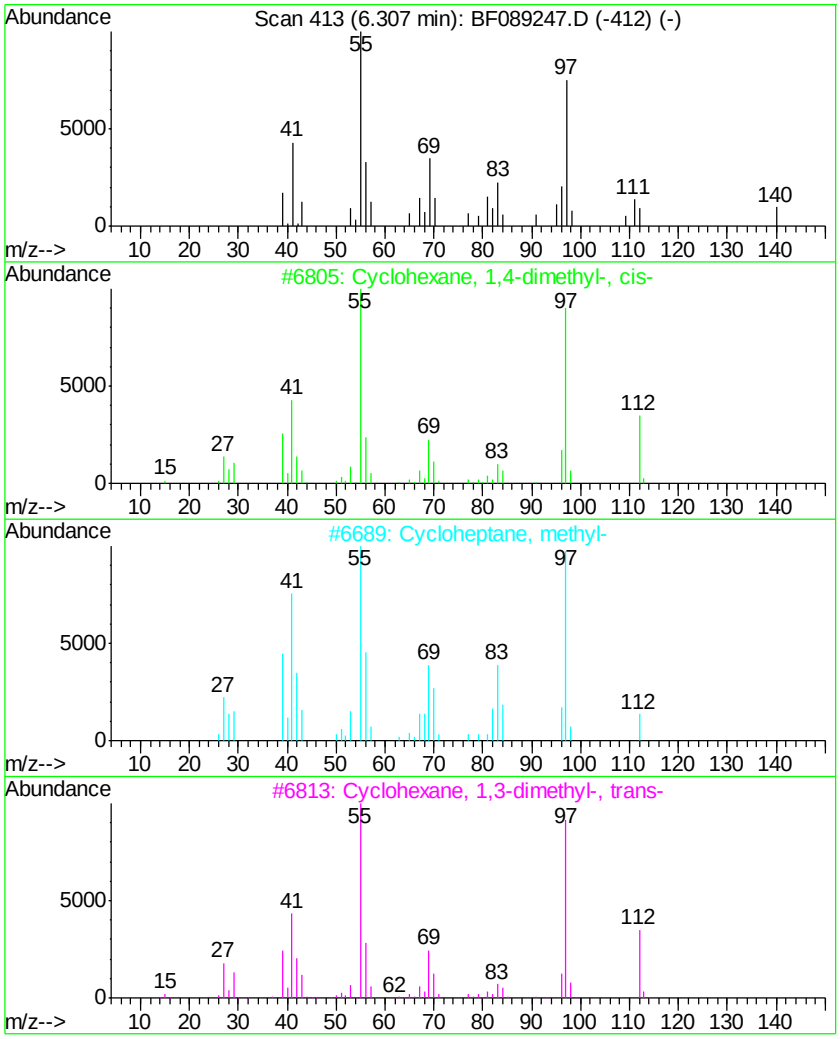
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

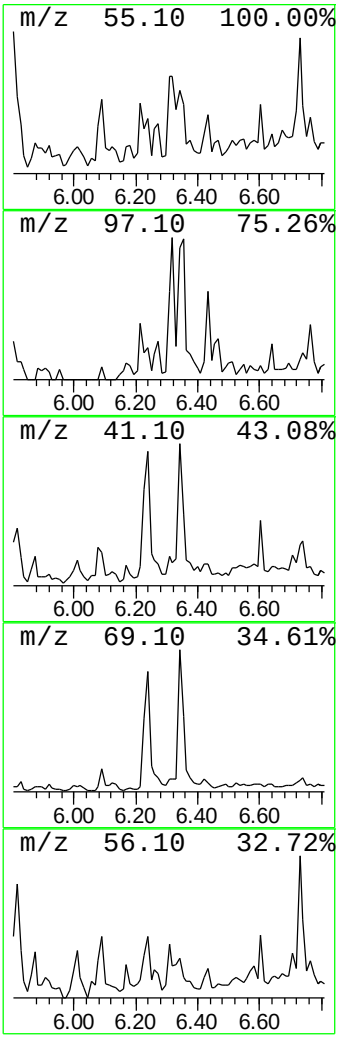
**********

Peak Number 8 Cyclohexane, 1,4-dimethyl-,... Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.31 | 5.32 ng | 78558 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclohexane, 1,4-dimethyl-, cis- | 112 | C8H16 | 000624-29-3 | 64 |
| 2 | Cycloheptane, methyl- | 112 | C8H16 | 004126-78-7 | 62 |
| 3 | Cyclohexane, 1,3-dimethyl-, trans- | 112 | C8H16 | 002207-03-6 | 58 |
| 4 | Cyclohexane, 1,4-dimethyl-, trans- | 112 | C8H16 | 002207-04-7 | 53 |
| 5 | Cyclohexane, 1-methyl-3-propyl- | 140 | C10H20 | 004291-80-9 | 53 |



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Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

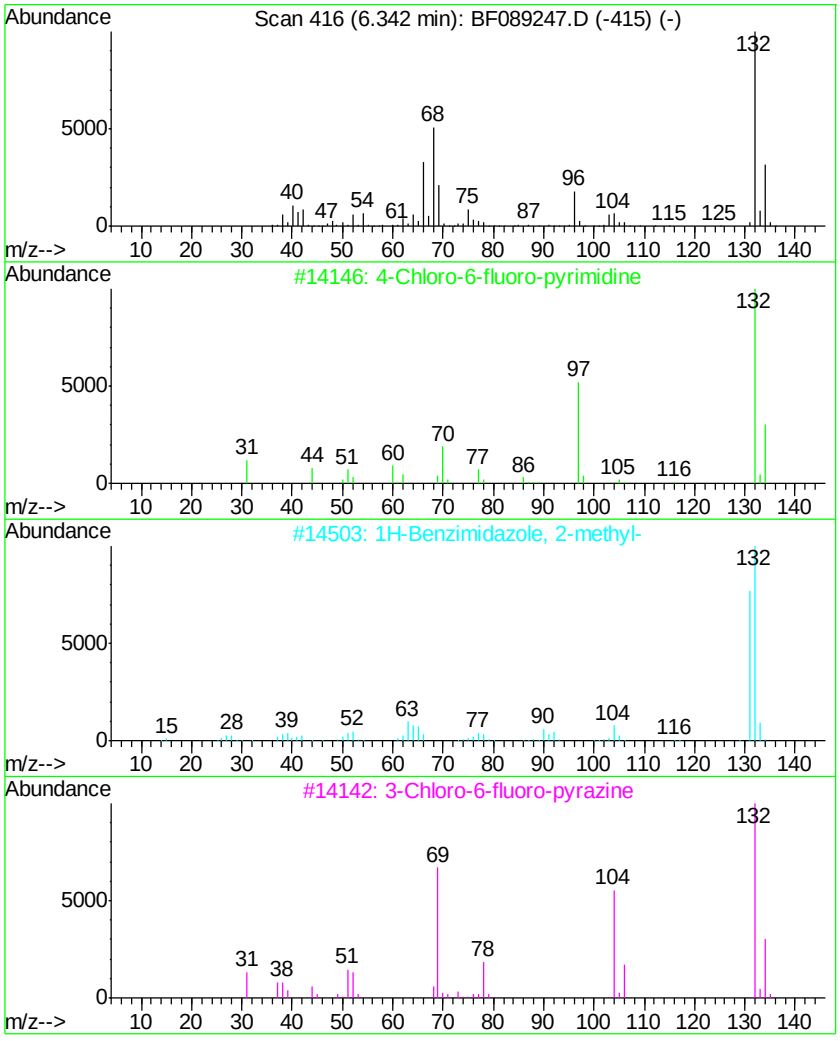
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

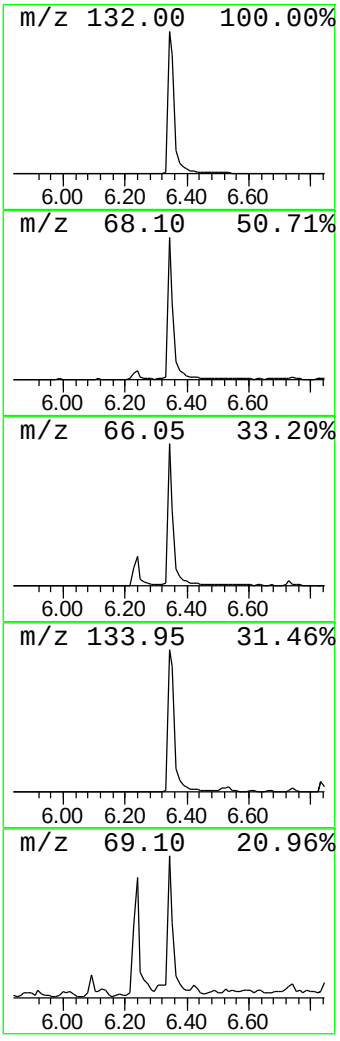
**********

Peak Number 9 unknown6.34 Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.34 | 80.44 ng | 1187620 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4-Chloro-6-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-01-6 | 27 |
| 2 | 1H-Benzimidazole, 2-methyl- | 132 | C8H8N2 | 000615-15-6 | 22 |
| 3 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 16 |
| 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\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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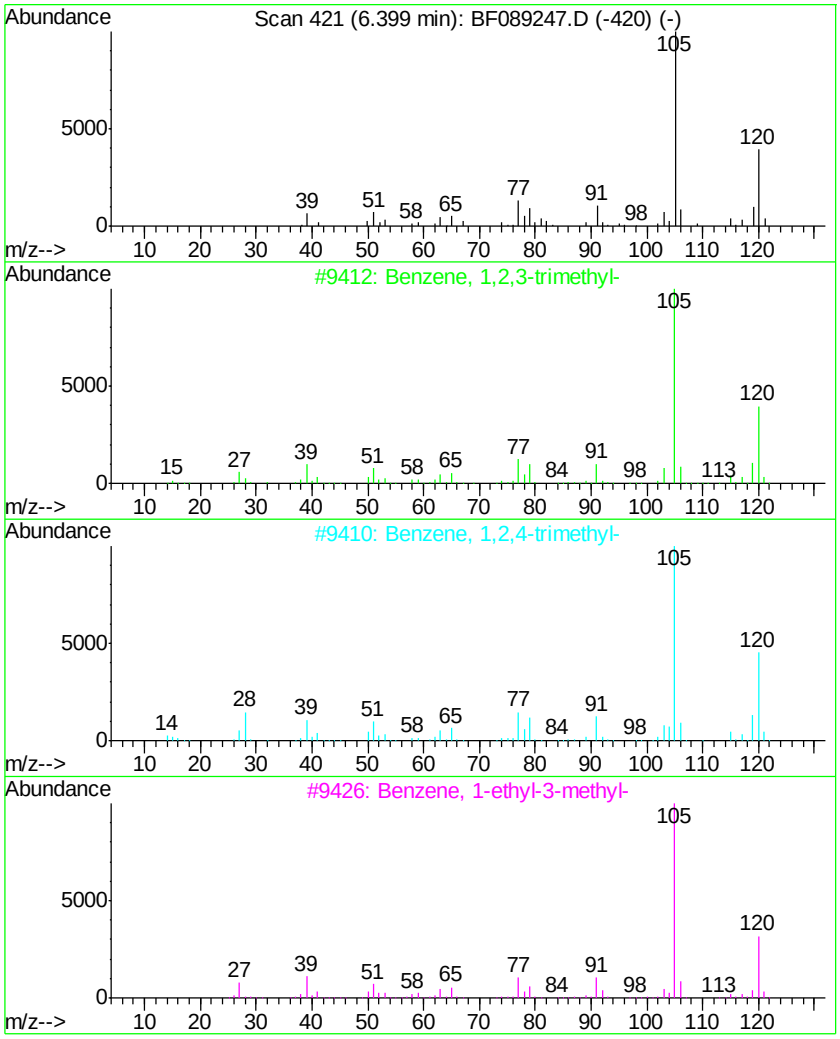
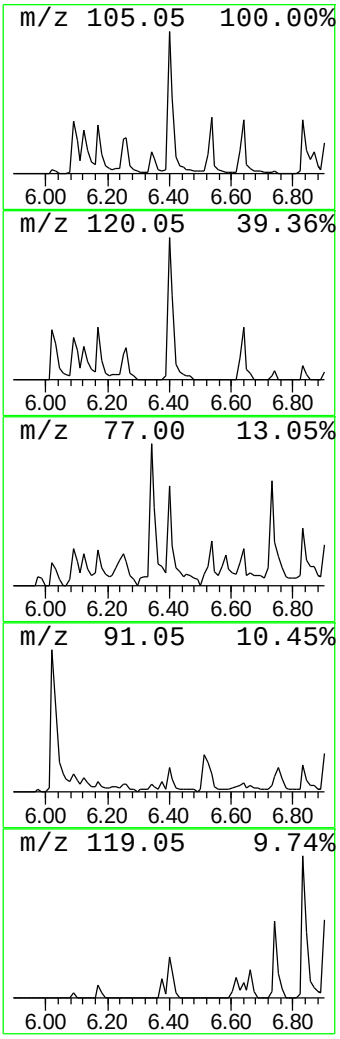
Peak Number 10 Benzene, 1,2,3-trimethyl- Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.40 | 10.64 ng | 157159 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1,2,3-trimethyl- | 120 | C9H12 | 000526-73-8 | 95 |
| 2 | Benzene, 1,2,4-trimethyl- | 120 | C9H12 | 000095-63-6 | 94 |
| 3 | Benzene, 1-ethyl-3-methyl- | 120 | C9H12 | 000620-14-4 | 91 |
| 4 | Mesitylene | 120 | C9H12 | 000108-67-8 | 91 |
| 5 | Benzene, 1-ethyl-2-methyl- | 120 | C9H12 | 000611-14-3 | 90 |



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Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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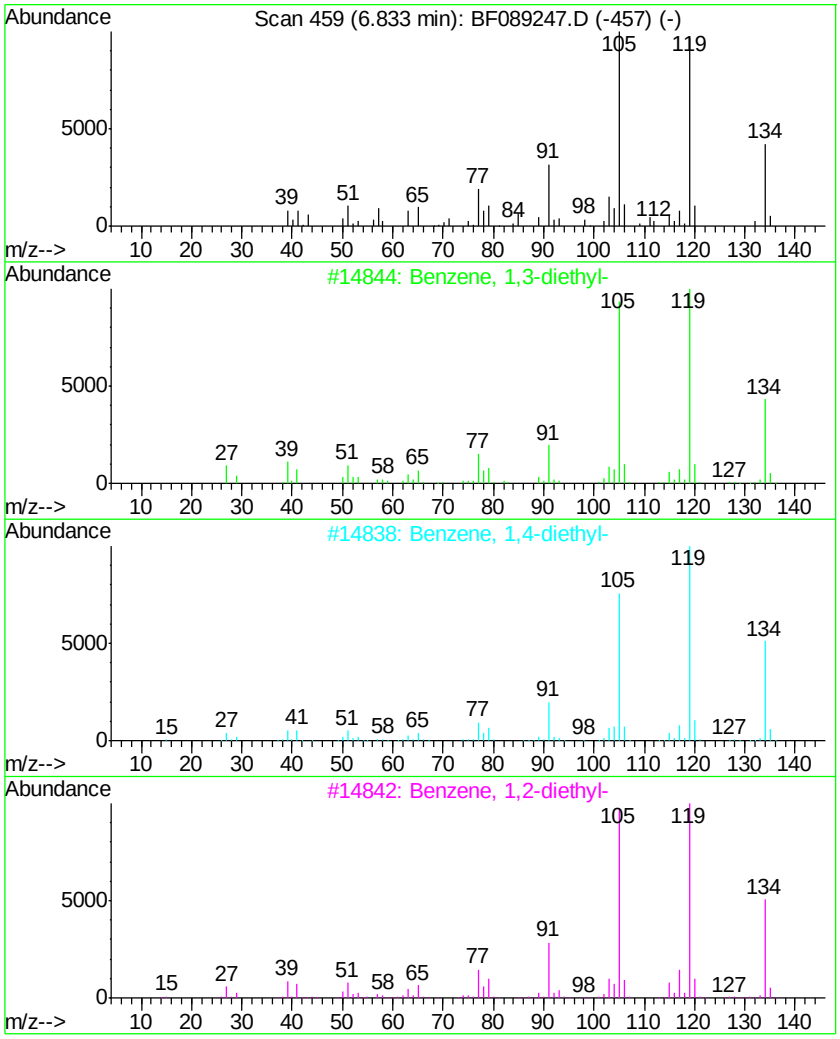
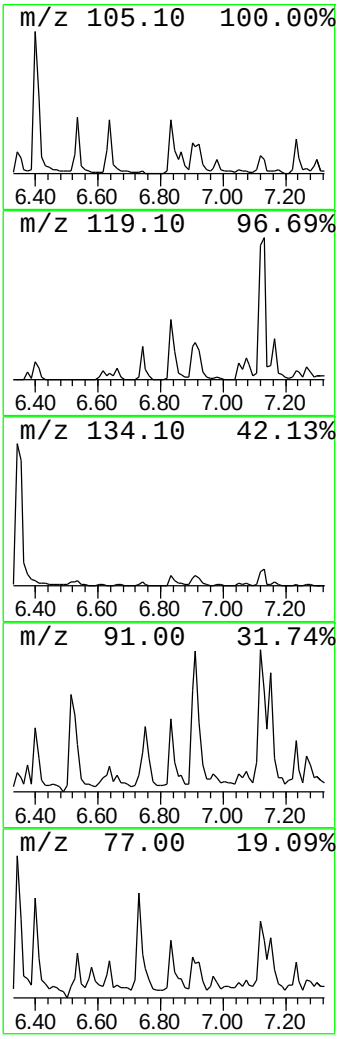
Peak Number 12 Benzene, 1,3-diethyl- Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.83 | 10.24 ng | 151167 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1,3-diethyl- | 134 | C10H14 | 000141-93-5 | 97 |
| 2 | Benzene, 1,4-diethyl- | 134 | C10H14 | 000105-05-5 | 94 |
| 3 | Benzene, 1,2-diethyl- | 134 | C10H14 | 000135-01-3 | 91 |
| 4 | Benzene, 4-ethyl-1,2-dimethyl- | 134 | C10H14 | 000934-80-5 | 83 |
| 5 | Benzene, 1-methyl-3-(1-methyleth... | 134 | C10H14 | 000535-77-3 | 81 |



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Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

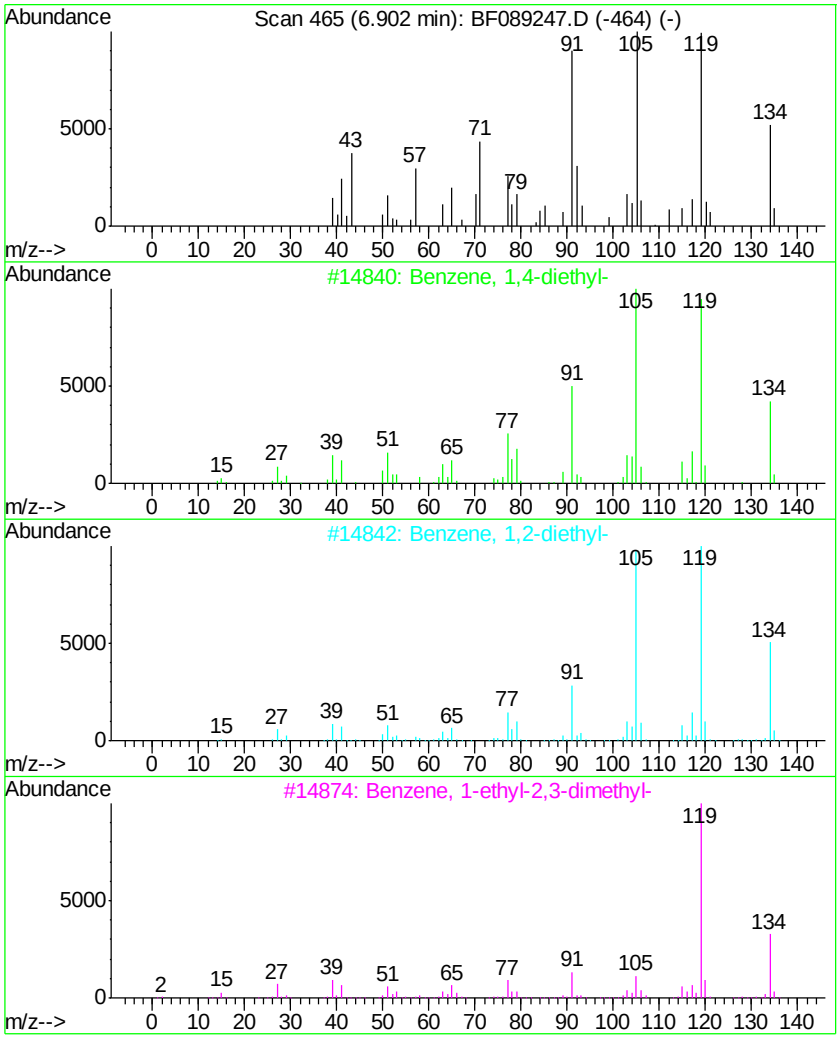
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

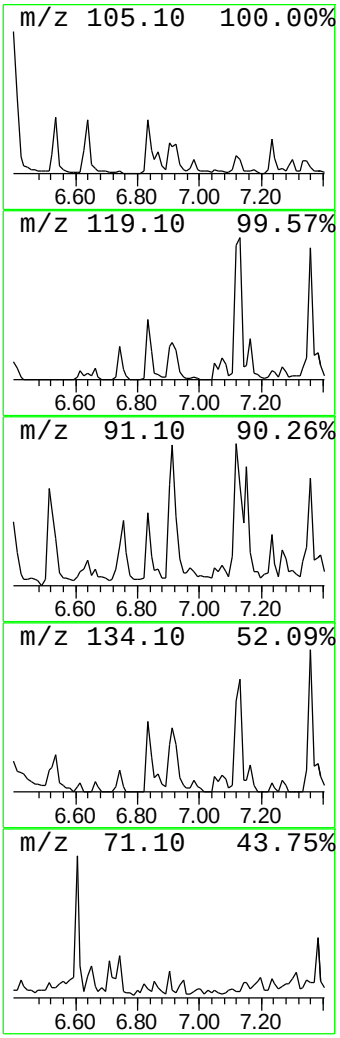
**********

Peak Number 13 Benzene, 1,4-diethyl- Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.90 | 7.49 ng | 110517 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1,4-diethyl- | 134 | C10H14 | 000105-05-5 | 94 |
| 2 | Benzene, 1,2-diethyl- | 134 | C10H14 | 000135-01-3 | 76 |
| 3 | Benzene, 1-ethyl-2,3-dimethyl- | 134 | C10H14 | 000933-98-2 | 76 |
| 4 | Benzene, 1-ethyl-3,5-dimethyl- | 134 | C10H14 | 000934-74-7 | 76 |
| 5 | Benzene, 1,3-diethyl- | 134 | C10H14 | 000141-93-5 | 76 |



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Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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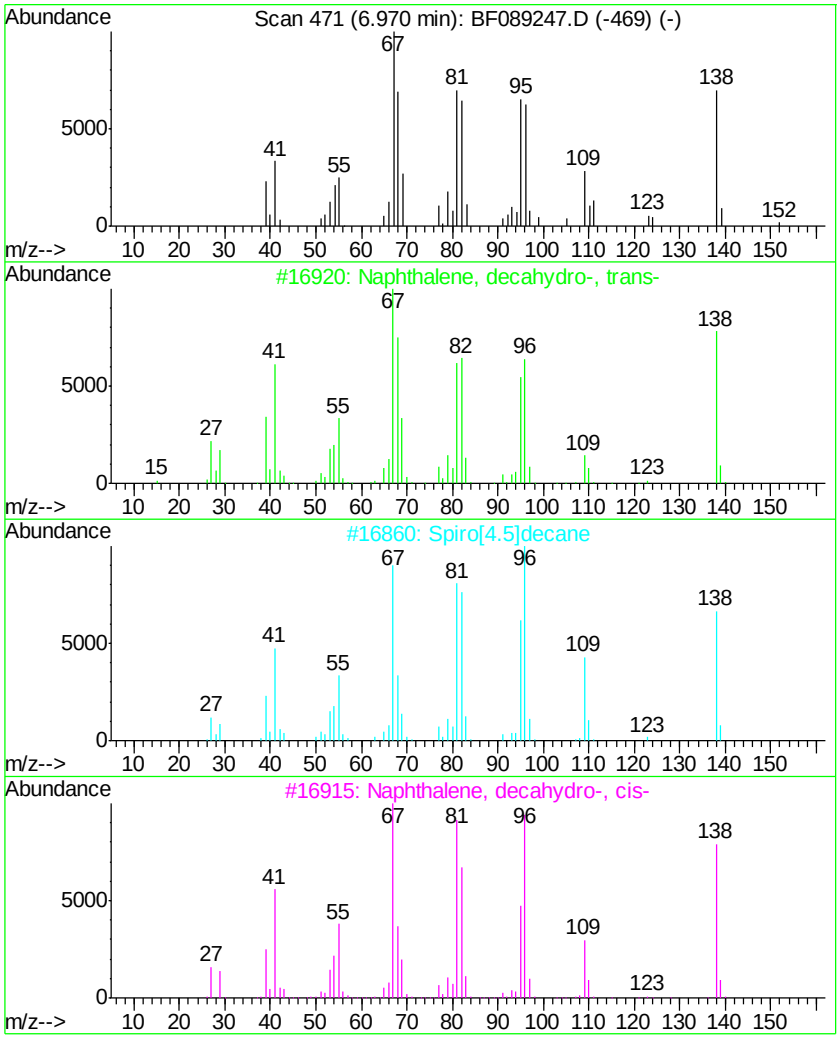
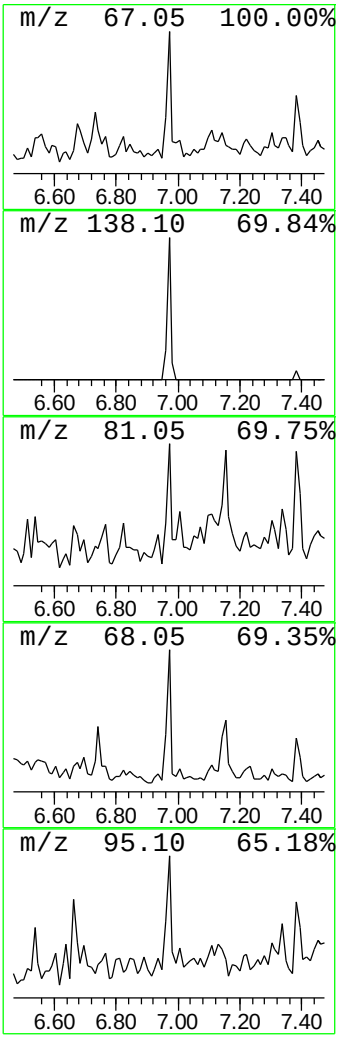
Peak Number 14 Naphthalene, decahydro-, tr... Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.97 | 4.57 ng | 67471 | 1,4-Dichlorobenzene-d4 | 6.58 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, decahydro-, trans- | 138 | C10H18 | 000493-02-7 | 97 |
| 2 | Spiro[4.5]decane | 138 | C10H18 | 000176-63-6 | 94 |
| 3 | Naphthalene, decahydro-, cis- | 138 | C10H18 | 000493-01-6 | 93 |
| 4 | Naphthalene, decahydro- | 138 | C10H18 | 000091-17-8 | 93 |
| 5 | Cyclodecene | 138 | C10H18 | 003618-12-0 | 83 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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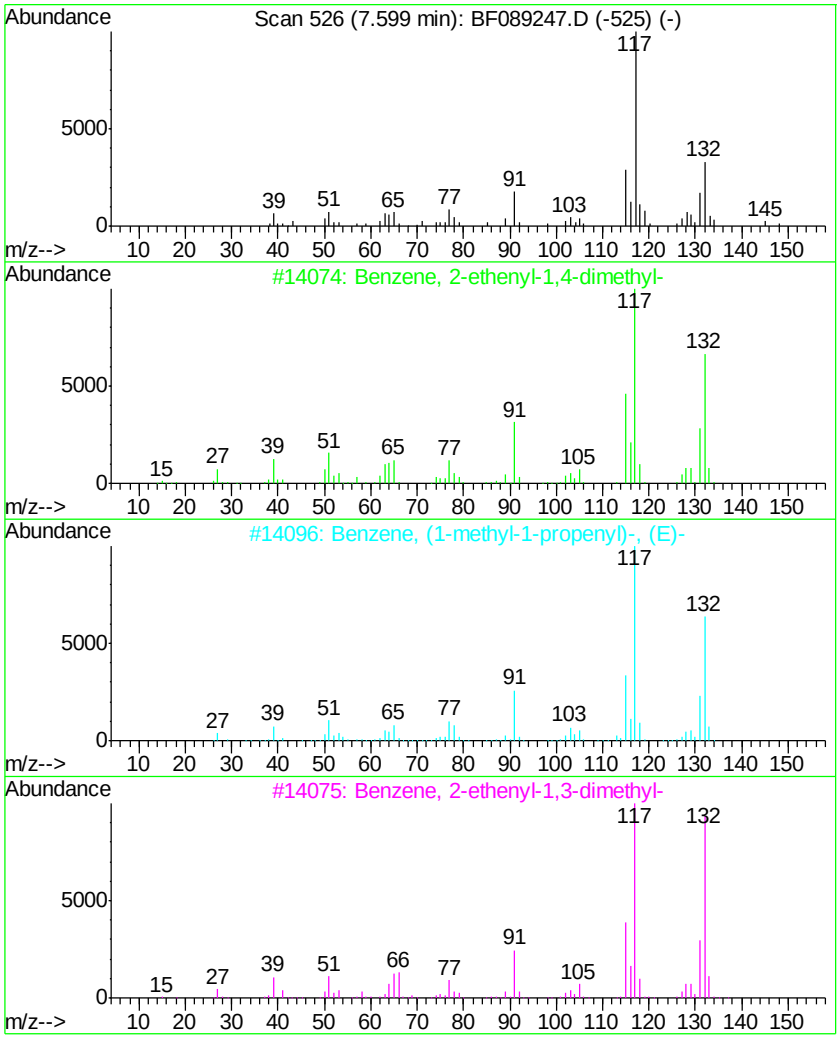
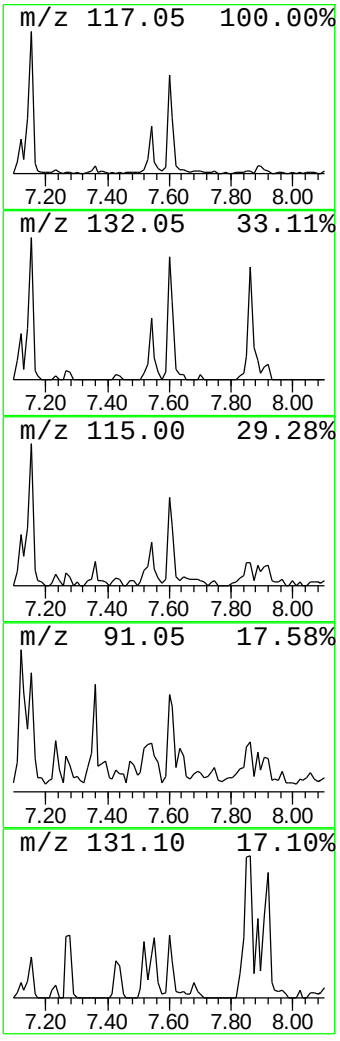
Peak Number 15 Benzene, 2-ethenyl-1,4-dime... Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 7.60 | 5.13 ng | 136958 | Naphthalene-d8 | 7.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 2-ethenyl-1,4-dimethyl- | 132 | C10H12 | 002039-89-6 | 93 |
| 2 | Benzene, (1-methyl-1-propenyl)-,... | 132 | C10H12 | 000768-00-3 | 91 |
| 3 | Benzene, 2-ethenyl-1,3-dimethyl- | 132 | C10H12 | 002039-90-9 | 91 |
| 4 | Benzene, 1-methyl-2-(2-propenyl)- | 132 | C10H12 | 001587-04-8 | 91 |
| 5 | 1-Phenyl-1-butene | 132 | C10H12 | 000824-90-8 | 90 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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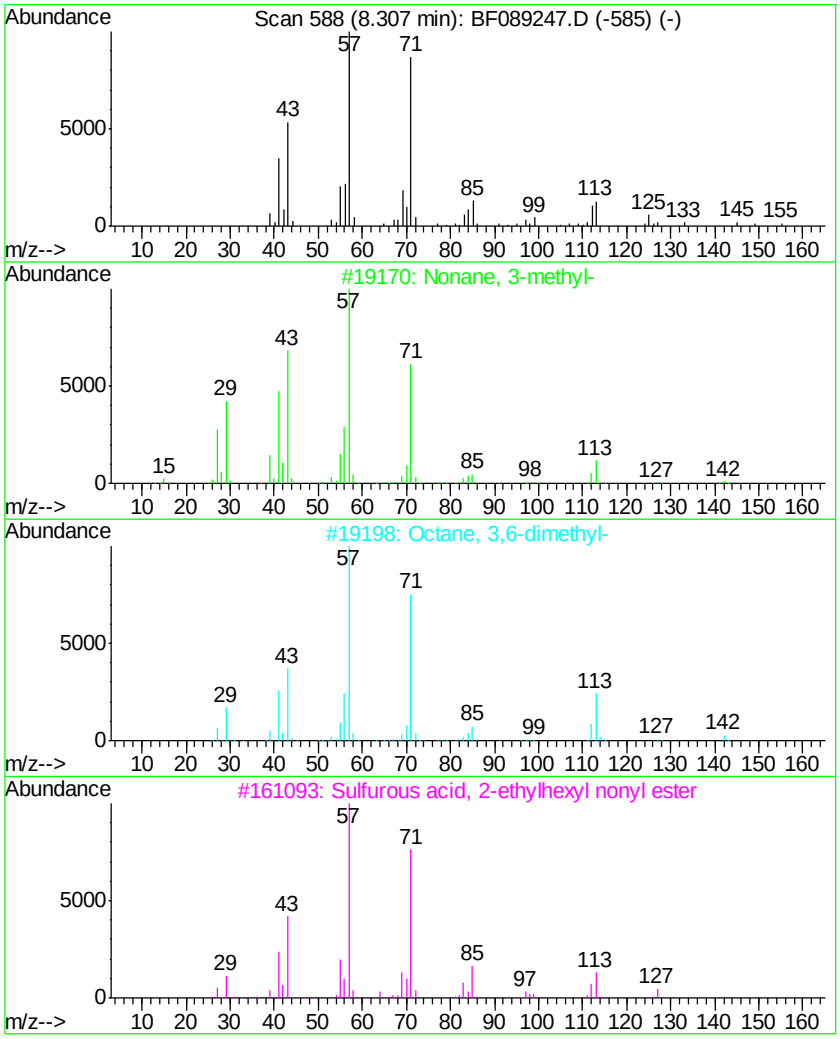
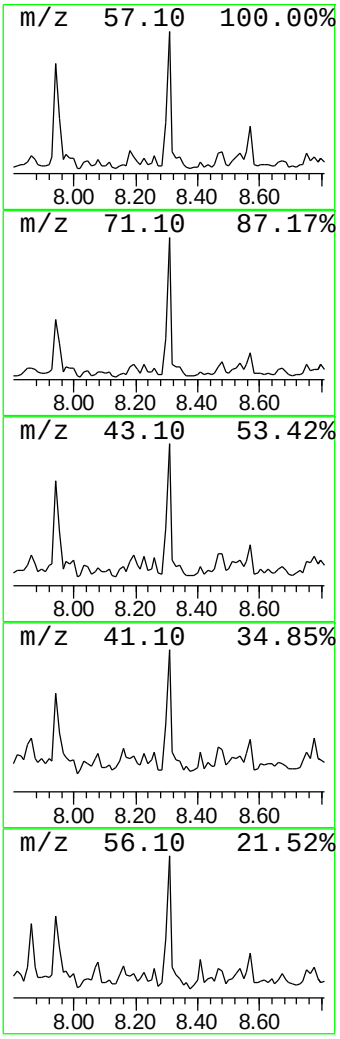
Peak Number 16 Nonane, 3-methyl- Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 8.31 | 5.25 ng | 140134 | Naphthalene-d8 | 7.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Nonane, 3-methyl- | 142 | C10H22 | 005911-04-6 | 78 |
| 2 | Octane, 3,6-dimethyl- | 142 | C10H22 | 015869-94-0 | 78 |
| 3 | Sulfurous acid, 2-ethylhexyl non... | 320 | C17H36O3S | 1000309-19-2 | 72 |
| 4 | Sulfurous acid, 2-ethylhexyl hep... | 432 | C25H52O3S | 1000309-20-0 | 72 |
| 5 | Decane, 3,6-dimethyl- | 170 | C12H26 | 017312-53-7 | 64 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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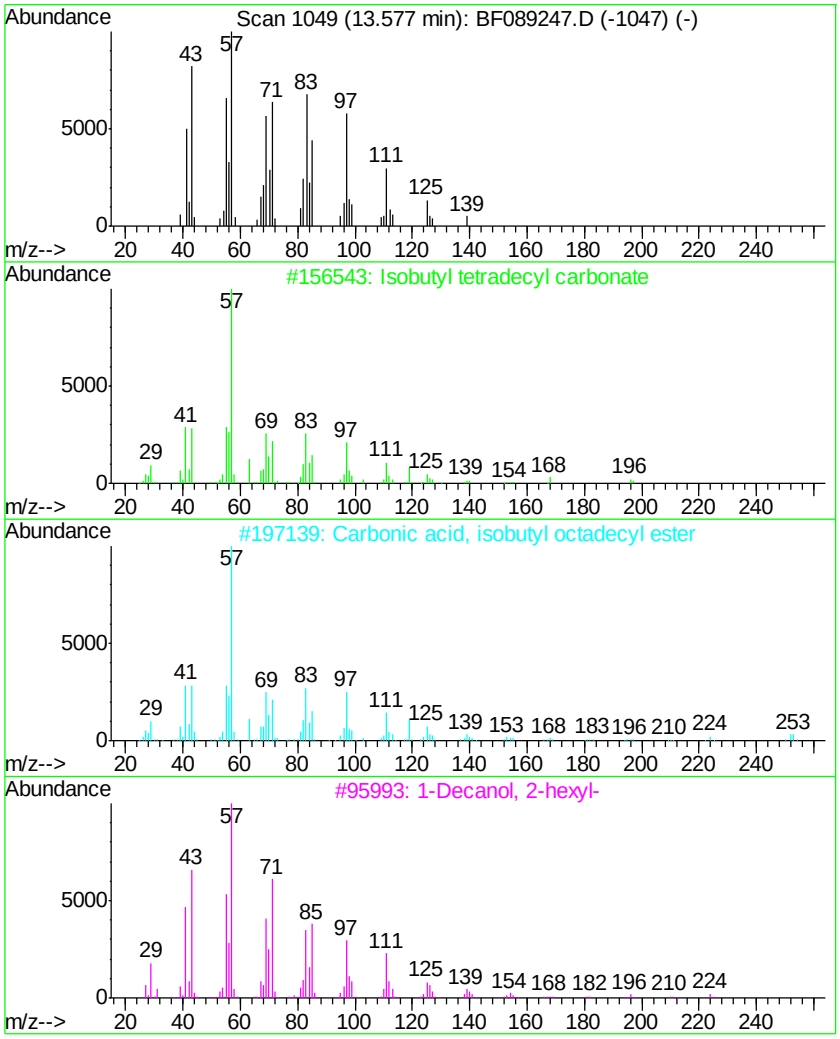
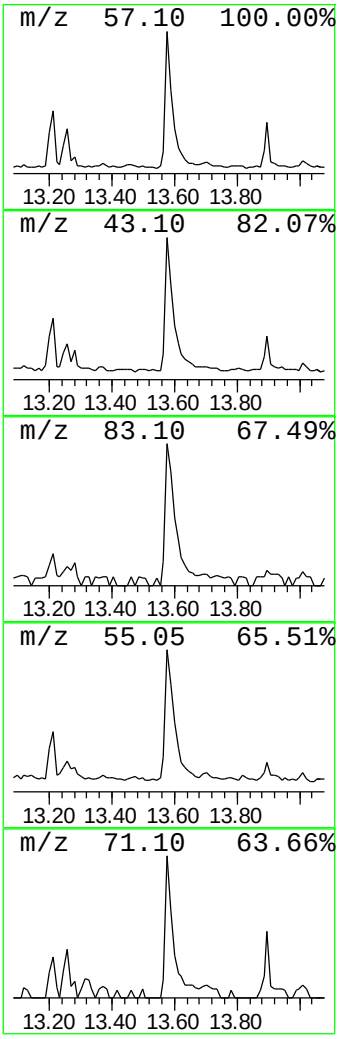
Peak Number 17 Isobutyl tetradecyl carbonate Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.58 | 8.83 ng | 144335 | Chrysene-d12 | 13.70 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Isobutyl tetradecyl carbonate | 314 | C19H38O3 | 959275-58-2 | 86 |
| 2 | Carbonic acid, isobutyl octadecy... | 370 | C23H46O3 | 1000314-61-5 | 86 |
| 3 | 1-Decanol, 2-hexyl- | 242 | C16H34O | 002425-77-6 | 74 |
| 4 | 17-Pentatriacontene | 491 | C35H70 | 006971-40-0 | 74 |
| 5 | 2-Hexyl-1-octanol | 214 | C14H30O | 019780-79-1 | 74 |



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Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

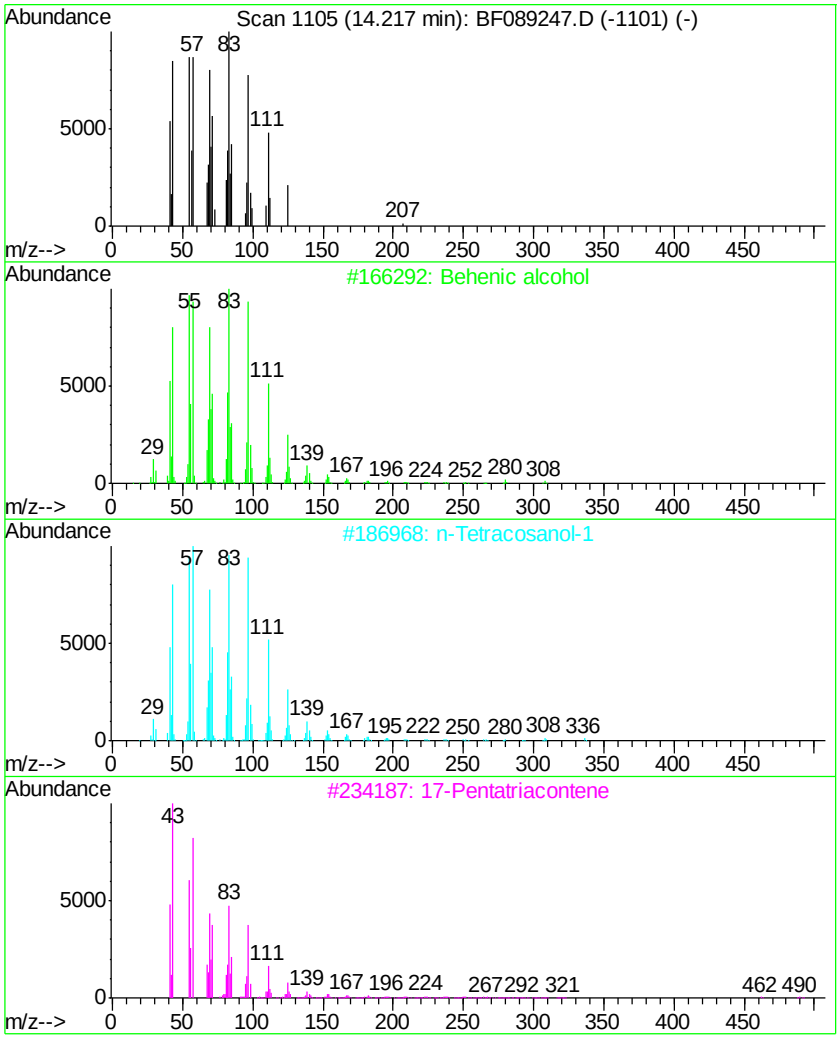
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

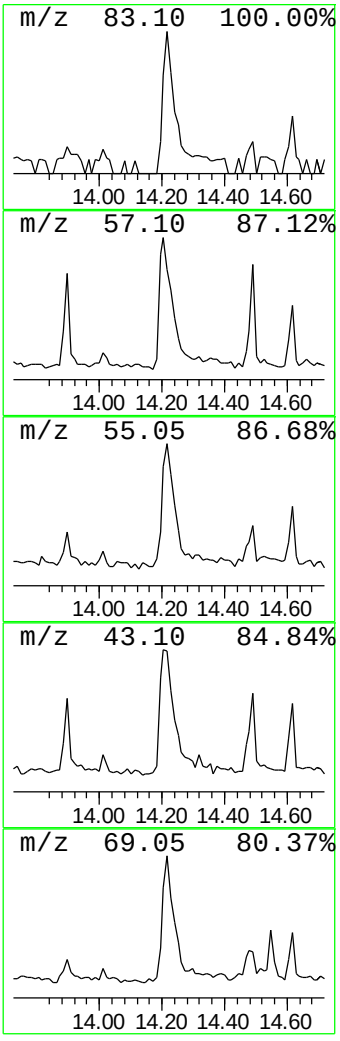
**********

Peak Number 18 Behenic alcohol Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.22 | 6.76 ng | 110471 | Chrysene-d12 | 13.70 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Behenic alcohol | 326 | C22H46O | 000661-19-8 | 94 |
| 2 | n-Tetracosanol-1 | 354 | C24H50O | 000506-51-4 | 94 |
| 3 | 17-Pentatriacontene | 491 | C35H70 | 006971-40-0 | 91 |
| 4 | n-Nonadecanol-1 | 284 | C19H40O | 001454-84-8 | 90 |
| 5 | 1-Hexacosanol | 382 | C26H54O | 000506-52-5 | 90 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

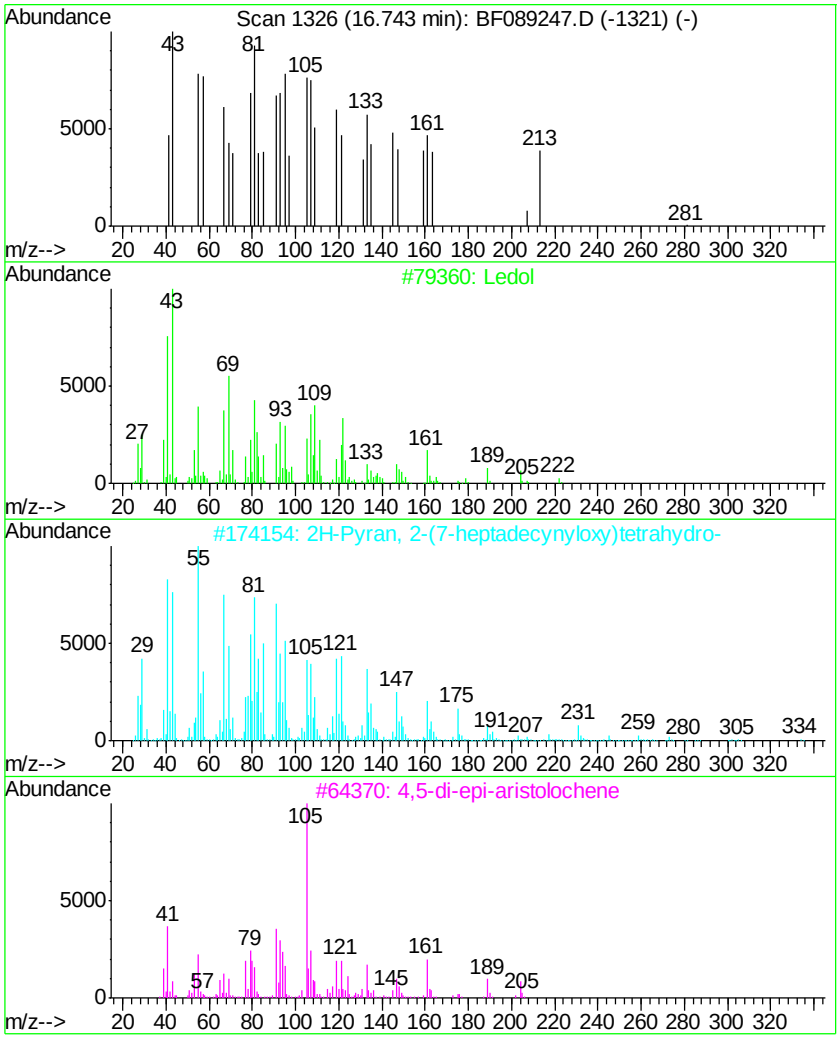
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

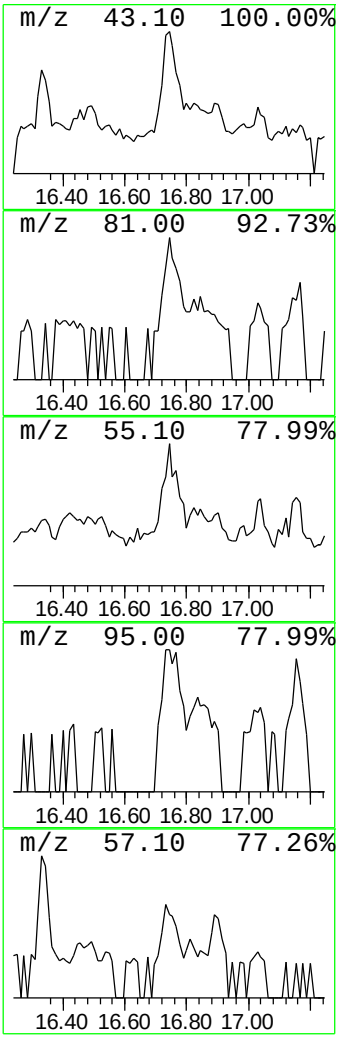
**********

Peak Number 20 unknown16.74 Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.74 | 4.84 ng | 52811 | Perylene-d12 | 15.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Ledol | 222 | C15H26O | 000577-27-5 | 32 |
| 2 | 2H-Pyran, 2-(7-heptadecynyloxy)t... | 336 | C22H40O2 | 056599-50-9 | 28 |
| 3 | 4,5-di-epi-aristolochene | 204 | C15H24 | 1000374-17-1 | 27 |
| 4 | Bicyclo[4.3.0]nonane, 7-methylen... | 204 | C15H24 | 1000156-11-9 | 27 |
| 5 | 1,4-Methanocycloocta[d]pyridazin... | 204 | C13H20N2 | 1000221-85-9 | 27 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF072316\
Data File : BF089247.D
Acq On : 23 Jul 2016 22:26
Operator : UM/SJ
Sample : H4129-17
Misc :
ALS Vial : 45 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** KMW-04-5.0-7.0

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF072016.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... | 4.71 | 7.6 | ng | 112170 | 1 | 6.58 | 295297 | 20.0 |
| Benzene, 1,3-dime... | 5.10 | 6.8 | ng | 100178 | 1 | 6.58 | 295297 | 20.0 |
| Cyclopentene, 1-m... | 5.70 | 6.6 | ng | 97565 | 1 | 6.58 | 295297 | 20.0 |
| Octane, 1,1'-oxybis- | 5.82 | 9.3 | ng | 136999 | 1 | 6.58 | 295297 | 20.0 |
| Benzene, propyl- | 6.02 | 10.2 | ng | 150790 | 1 | 6.58 | 295297 | 20.0 |
| unknown6.09 | 6.09 | 7.1 | ng | 104804 | 1 | 6.58 | 295297 | 20.0 |
| Cyclohexane, 1,4-... | 6.31 | 5.3 | ng | 78558 | 1 | 6.58 | 295297 | 20.0 |
| unknown6.34 | 6.34 | 80.4 | ng | 1187620 | 1 | 6.58 | 295297 | 20.0 |
| Benzene, 1,2,3-tr... | 6.40 | 10.6 | ng | 157159 | 1 | 6.58 | 295297 | 20.0 |
| Benzene, 1,3-diet... | 6.83 | 10.2 | ng | 151167 | 1 | 6.58 | 295297 | 20.0 |
| Benzene, 1,4-diet... | 6.90 | 7.5 | ng | 110517 | 1 | 6.58 | 295297 | 20.0 |
| Naphthalene, deca... | 6.97 | 4.6 | ng | 67471 | 1 | 6.58 | 295297 | 20.0 |
| Benzene, 2-etheny... | 7.60 | 5.1 | ng | 136958 | 2 | 7.86 | 534174 | 20.0 |
| Nonane, 3-methyl- | 8.31 | 5.3 | ng | 140134 | 2 | 7.86 | 534174 | 20.0 |
| Isobutyl tetradec... | 13.58 | 8.8 | ng | 144335 | 5 | 13.70 | 326891 | 20.0 |
| Behenic alcohol | 14.22 | 6.8 | ng | 110471 | 5 | 13.70 | 326891 | 20.0 |
| unknown16.74 | 16.74 | 4.8 | ng | 52811 | 6 | 15.04 | 218031 | 20.0 |