LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

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

Signal : TIC

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.324 | 108 | 117 | 120 | rVB2 | 30934 | 97621 | 3.57% | 0.198% |
| 2 | 4.033 | 176 | 179 | 182 | rBV | 74907 | 112681 | 4.12% | 0.228% |
| 3 | 4.776 | 239 | 244 | 246 | rBV | 1034129 | 1941057 | 70.94% | 3.935% |
| 4 | 5.039 | 265 | 267 | 269 | rVV | 211660 | 216268 | 7.90% | 0.438% |
| 5 | 5.096 | 269 | 272 | 275 | rVV2 | 72651 | 129886 | 4.75% | 0.263% |
| 6 | 5.176 | 275 | 279 | 280 | rVV | 196884 | 302011 | 11.04% | 0.612% |
| 7 | 5.210 | 280 | 282 | 285 | rVV | 1444549 | 2275661 | 83.17% | 4.614% |
| 8 | 5.622 | 315 | 318 | 320 | rVB | 106279 | 107662 | 3.93% | 0.218% |
| 9 | 5.770 | 327 | 331 | 334 | rBV2 | 57760 | 97711 | 3.57% | 0.198% |
| 10 | 5.873 | 338 | 340 | 342 | rBV2 | 50792 | 108234 | 3.96% | 0.219% |
| 11 | 6.079 | 354 | 358 | 360 | rBV2 | 162833 | 210298 | 7.69% | 0.426% |
| 12 | 6.124 | 360 | 362 | 363 | rVV | 97027 | 159928 | 5.85% | 0.324% |
| 13 | 6.159 | 363 | 365 | 369 | rVB2 | 83117 | 212101 | 7.75% | 0.430% |
| 14 | 6.227 | 369 | 371 | 372 | rBV | 126045 | 137262 | 5.02% | 0.278% |
| 15 | 6.284 | 372 | 376 | 377 | rVV | 2002127 | 2475007 | 90.46% | 5.018% |
| 16 | 6.399 | 383 | 386 | 388 | rBV | 2176387 | 2144650 | 78.38% | 4.348% |
| 17 | 6.456 | 388 | 391 | 392 | rVB | 118244 | 83595 | 3.06% | 0.169% |
| 18 | 6.627 | 404 | 406 | 408 | rVV | 512596 | 439942 | 16.08% | 0.892% |
| 19 | 6.684 | 410 | 411 | 416 | rVV4 | 54379 | 100858 | 3.69% | 0.204% |
| 20 | 6.787 | 417 | 420 | 421 | rVV | 1809276 | 1751902 | 64.03% | 3.552% |
| 21 | 6.810 | 421 | 422 | 424 | rVB | 276368 | 202533 | 7.40% | 0.411% |
| 22 | 6.890 | 426 | 429 | 430 | rBV | 112637 | 128798 | 4.71% | 0.261% |
| 23 | 6.913 | 430 | 431 | 433 | rVV2 | 81369 | 103809 | 3.79% | 0.210% |
| 24 | 6.959 | 433 | 435 | 436 | rVV | 163747 | 150902 | 5.52% | 0.306% |
| 25 | 6.982 | 436 | 437 | 440 | rVB | 80306 | 89831 | 3.28% | 0.182% |
| 26 | 7.027 | 440 | 441 | 444 | rVB | 83600 | 103402 | 3.78% | 0.210% |
| 27 | 7.199 | 451 | 456 | 459 | rBV2 | 1398425 | 1833803 | 67.02% | 3.718% |
| 28 | 7.405 | 472 | 474 | 476 | rBV | 175605 | 231671 | 8.47% | 0.470% |
| 29 | 7.587 | 488 | 490 | 491 | rVV | 116958 | 135063 | 4.94% | 0.274% |
| 30 | 7.656 | 494 | 496 | 498 | rVV | 345892 | 385810 | 14.10% | 0.782% |
| 31 | 7.747 | 501 | 504 | 506 | rVB3 | 57158 | 103486 | 3.78% | 0.210% |
| 32 | 7.919 | 516 | 519 | 522 | rVB3 | 477617 | 1070548 | 39.13% | 2.171% |
| 33 | 8.193 | 541 | 543 | 547 | rBV4 | 52137 | 102876 | 3.76% | 0.209% |
| 34 | 8.628 | 578 | 581 | 583 | rBV | 270403 | 244319 | 8.93% | 0.495% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 8.719 | 587 | 589 | 592 | rBV | 146349 | 155380 | 5.68% | 0.315% |
| 36 | 8.993 | 610 | 613 | 616 | rVB | 2067043 | 1964967 | 71.82% | 3.984% |
| 37 | 9.245 | 633 | 635 | 640 | rBV2 | 55869 | 101138 | 3.70% | 0.205% |
| 38 | 9.393 | 646 | 648 | 650 | rVV | 502739 | 460712 | 16.84% | 0.934% |
| 39 | 9.656 | 669 | 671 | 673 | rBV2 | 454685 | 524848 | 19.18% | 1.064% |
| 40 | 9.690 | 673 | 674 | 676 | rVB | 574460 | 444657 | 16.25% | 0.902% |
| 41 | 9.862 | 687 | 689 | 691 | rVV | 351020 | 295753 | 10.81% | 0.600% |
| 42 | 10.205 | 717 | 719 | 721 | rVV | 554488 | 470667 | 17.20% | 0.954% |
| 43 | 10.445 | 737 | 740 | 742 | rBV | 1212821 | 1200895 | 43.89% | 2.435% |
| 44 | 10.582 | 750 | 752 | 755 | rVB | 65045 | 96969 | 3.54% | 0.197% |
| 45 | 10.902 | 775 | 780 | 782 | rBV4 | 36061 | 89293 | 3.26% | 0.181% |
| 46 | 11.028 | 789 | 791 | 793 | rBV | 236915 | 194145 | 7.10% | 0.394% |
| 47 | 11.165 | 798 | 803 | 805 | rBV2 | 2257944 | 2655384 | 97.05% | 5.384% |
| 48 | 11.211 | 805 | 807 | 809 | rVV | 828628 | 704353 | 25.74% | 1.428% |
| 49 | 11.371 | 817 | 821 | 822 | rBV | 312927 | 400301 | 14.63% | 0.812% |
| 50 | 11.451 | 825 | 828 | 831 | rVV4 | 62093 | 112881 | 4.13% | 0.229% |
| 51 | 11.634 | 839 | 844 | 845 | rBV3 | 199006 | 224759 | 8.21% | 0.456% |
| 52 | 11.656 | 845 | 846 | 848 | rVV | 157472 | 242558 | 8.87% | 0.492% |
| 53 | 11.691 | 848 | 849 | 852 | rVV2 | 141225 | 224802 | 8.22% | 0.456% |
| 54 | 11.748 | 852 | 854 | 858 | rVB2 | 393678 | 534559 | 19.54% | 1.084% |
| 55 | 11.862 | 861 | 864 | 866 | rVV3 | 61591 | 116525 | 4.26% | 0.236% |
| 56 | 11.931 | 868 | 870 | 874 | rVB2 | 159190 | 213368 | 7.80% | 0.433% |
| 57 | 12.182 | 889 | 892 | 893 | rBV | 88300 | 99954 | 3.65% | 0.203% |
| 58 | 12.354 | 903 | 907 | 909 | rBV | 2170056 | 2736088 | 100.00% | 5.547% |
| 59 | 12.399 | 909 | 911 | 913 | rVV2 | 86524 | 127162 | 4.65% | 0.258% |
| 60 | 12.491 | 916 | 919 | 920 | rVV2 | 84895 | 130360 | 4.76% | 0.264% |
| 61 | 12.571 | 923 | 926 | 929 | rBV | 1715082 | 2377938 | 86.91% | 4.821% |
| 62 | 12.616 | 929 | 930 | 933 | rVB2 | 134146 | 120979 | 4.42% | 0.245% |
| 63 | 12.685 | 934 | 936 | 937 | rBV | 120881 | 117268 | 4.29% | 0.238% |
| 64 | 12.719 | 937 | 939 | 942 | rVB | 1437329 | 1604651 | 58.65% | 3.253% |
| 65 | 12.788 | 942 | 945 | 946 | rBV2 | 110880 | 172279 | 6.30% | 0.349% |
| 66 | 12.891 | 950 | 954 | 956 | rVB | 258724 | 461082 | 16.85% | 0.935% |
| 67 | 12.959 | 958 | 960 | 962 | rBV | 332651 | 333387 | 12.18% | 0.676% |
| 68 | 12.994 | 962 | 963 | 965 | rVV | 174604 | 209869 | 7.67% | 0.426% |
| 69 | 13.314 | 989 | 991 | 995 | rVB2 | 91867 | 123840 | 4.53% | 0.251% |
| 70 | 13.394 | 996 | 998 | 1001 | rVB2 | 70908 | 102079 | 3.73% | 0.207% |
| 71 | 13.508 | 1006 | 1008 | 1009 | rBV | 193936 | 228820 | 8.36% | 0.464% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 13.554 | 1009 | 1012 | 1015 | rVV3 | 114520 | 297517 | 10.87% | 0.603% |
| 73 | 13.634 | 1018 | 1019 | 1021 | rBV | 186863 | 183207 | 6.70% | 0.371% |
| 74 | 13.759 | 1026 | 1030 | 1031 | rBV2 | 1160374 | 1899016 | 69.41% | 3.850% |
| 75 | 13.794 | 1031 | 1033 | 1035 | rVV | 932980 | 1082845 | 39.58% | 2.195% |
| 76 | 13.862 | 1037 | 1039 | 1041 | rVV | 304903 | 296961 | 10.85% | 0.602% |
| 77 | 13.954 | 1045 | 1047 | 1049 | rVV3 | 122675 | 236375 | 8.64% | 0.479% |
| 78 | 14.148 | 1061 | 1064 | 1065 | rVB | 105163 | 148049 | 5.41% | 0.300% |
| 79 | 14.240 | 1069 | 1072 | 1073 | rBV2 | 76422 | 134150 | 4.90% | 0.272% |
| 80 | 14.285 | 1073 | 1076 | 1078 | rVB4 | 133155 | 239619 | 8.76% | 0.486% |
| 81 | 14.445 | 1088 | 1090 | 1095 | rBV3 | 73776 | 150574 | 5.50% | 0.305% |
| 82 | 14.525 | 1095 | 1097 | 1101 | rBV | 315458 | 400654 | 14.64% | 0.812% |
| 83 | 14.605 | 1102 | 1104 | 1106 | rVV2 | 55777 | 89174 | 3.26% | 0.181% |
| 84 | 14.754 | 1114 | 1117 | 1121 | rBV | 787294 | 1560793 | 57.04% | 3.164% |
| 85 | 14.845 | 1123 | 1125 | 1126 | rVB | 147334 | 183347 | 6.70% | 0.372% |
| 86 | 15.005 | 1137 | 1139 | 1142 | rVB | 357922 | 538007 | 19.66% | 1.091% |
| 87 | 15.062 | 1142 | 1144 | 1147 | rVB | 599390 | 738922 | 27.01% | 1.498% |
| 88 | 15.120 | 1147 | 1149 | 1150 | rBV | 191282 | 309125 | 11.30% | 0.627% |
| 89 | 15.588 | 1188 | 1190 | 1194 | rVB | 69666 | 114249 | 4.18% | 0.232% |
| 90 | 15.714 | 1198 | 1201 | 1207 | rVB3 | 54503 | 145052 | 5.30% | 0.294% |
| 91 | 16.068 | 1230 | 1232 | 1239 | rVB5 | 60189 | 167259 | 6.11% | 0.339% |
| 92 | 16.194 | 1239 | 1243 | 1248 | rBV4 | 49626 | 159474 | 5.83% | 0.323% |
| 93 | 16.354 | 1254 | 1257 | 1260 | rVB | 279576 | 475869 | 17.39% | 0.965% |
| 94 | 16.491 | 1267 | 1269 | 1272 | rBV | 50656 | 115472 | 4.22% | 0.234% |
| 95 | 16.548 | 1272 | 1274 | 1285 | rVB4 | 72899 | 283009 | 10.34% | 0.574% |
| 96 | 16.720 | 1285 | 1289 | 1294 | rBV | 195305 | 412774 | 15.09% | 0.837% |
| 97 | 16.914 | 1303 | 1306 | 1310 | rVB | 61409 | 112234 | 4.10% | 0.228% |
| 98 | 18.594 | 1447 | 1453 | 1460 | rVB | 49776 | 200732 | 7.34% | 0.407% |
| 99 | 18.754 | 1460 | 1467 | 1470 | rBV | 39307 | 157329 | 5.75% | 0.319% |
| 100 | 19.600 | 1537 | 1541 | 1548 | rVB4 | 32391 | 124706 | 4.56% | 0.253% |

Sum of corrected areas: 49322350

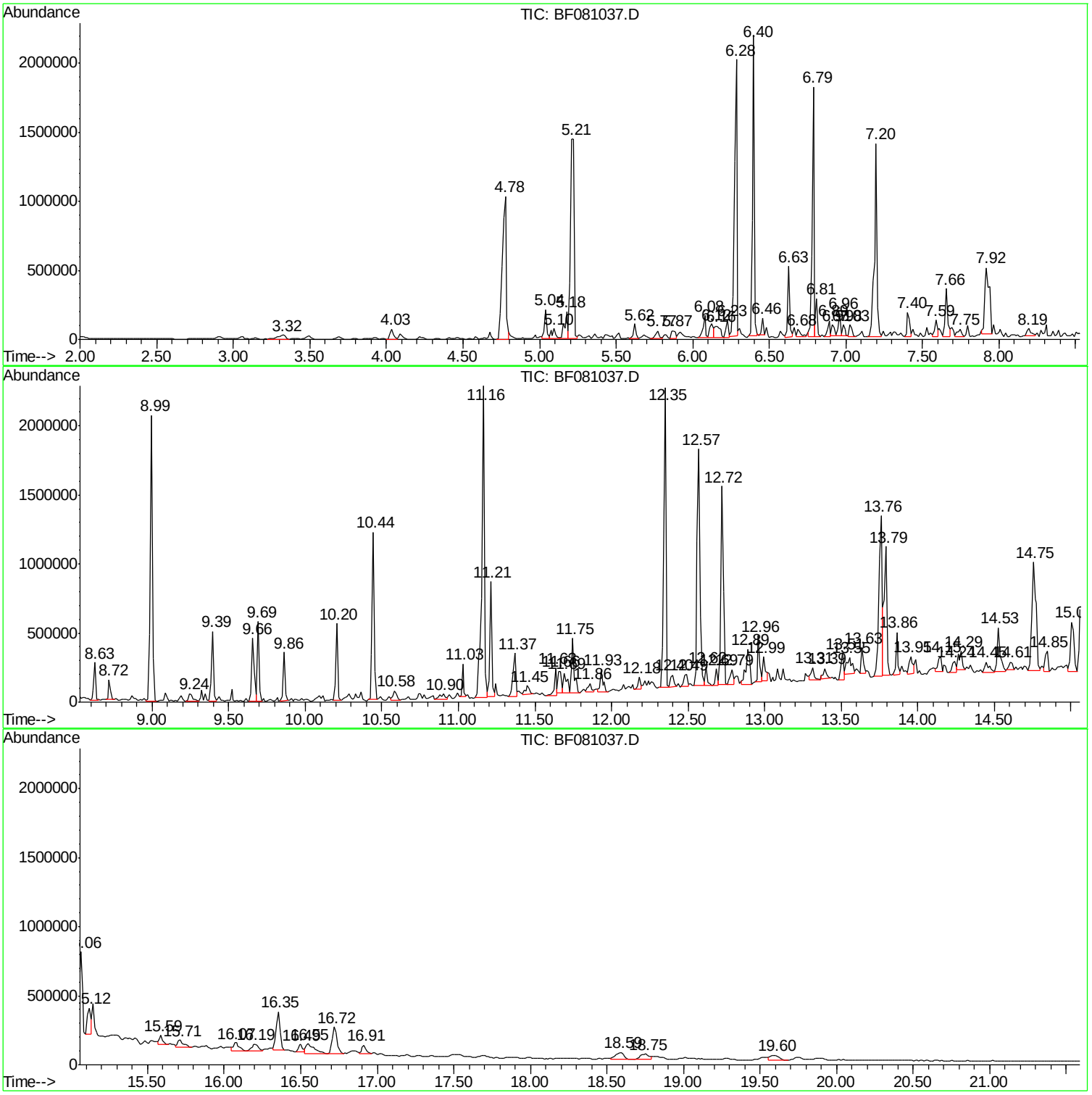
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
TEC-COMP16

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

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



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

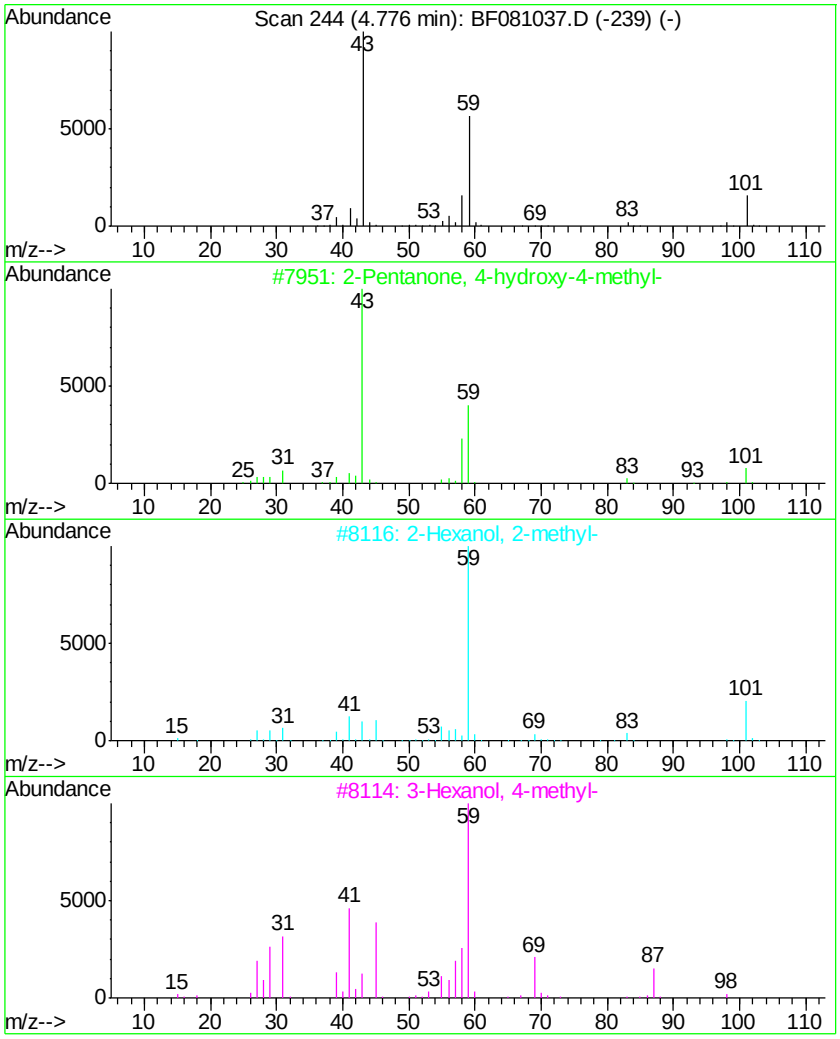
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

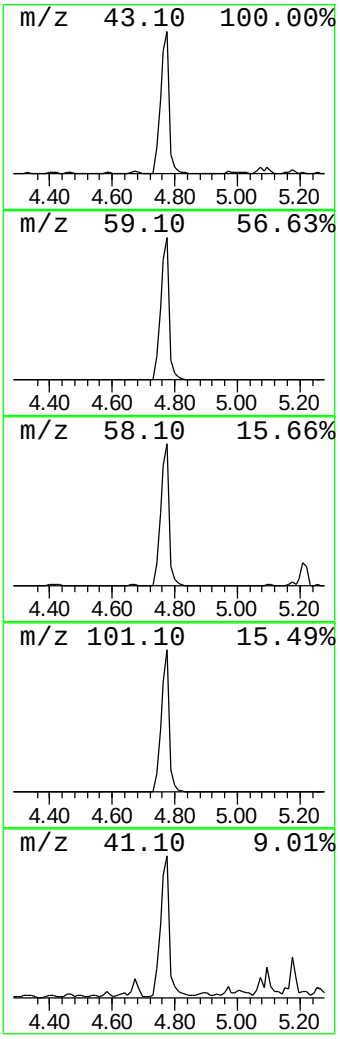
**********

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

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.78 | 88.24 ng | 1941060 | 1,4-Dichlorobenzene-d4 | 6.63 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 50 |
| 2 | 2-Hexanol, 2-methyl- | 116 | C7H16O | 000625-23-0 | 33 |
| 3 | 3-Hexanol, 4-methyl- | 116 | C7H16O | 000615-29-2 | 33 |
| 4 | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 32 |
| 5 | Acetic acid, 1,1-dimethylethyl e... | 116 | C6H12O2 | 000540-88-5 | 28 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

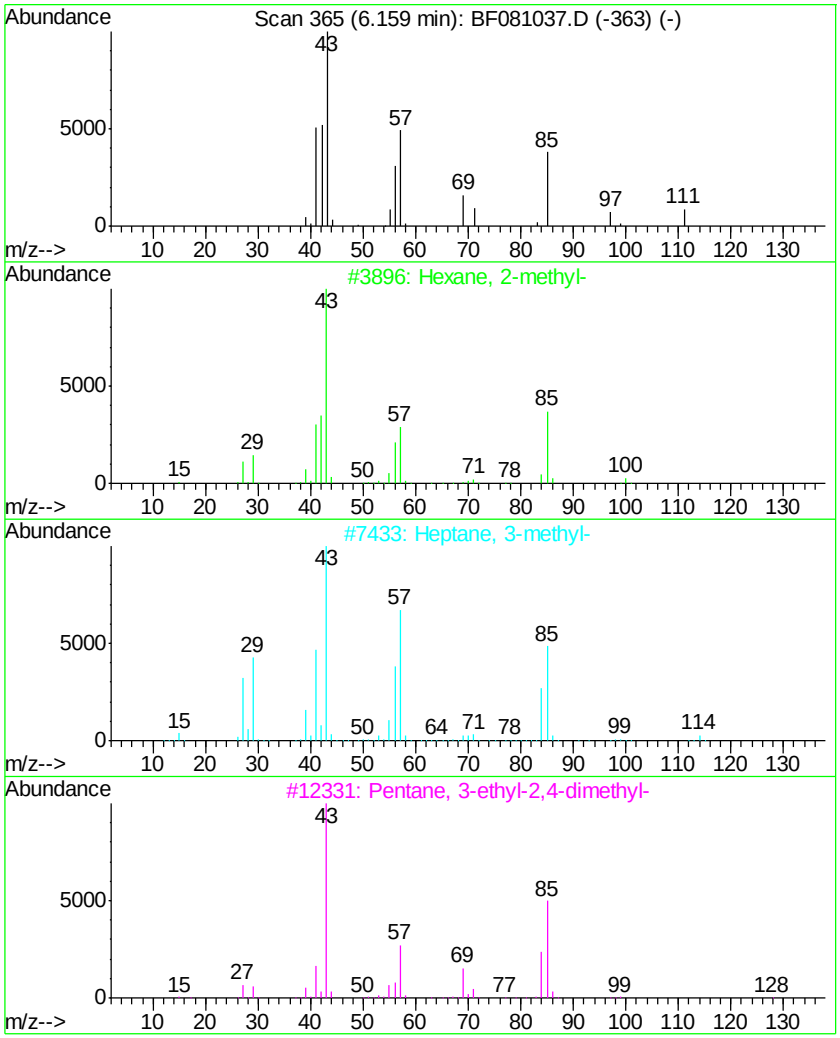
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

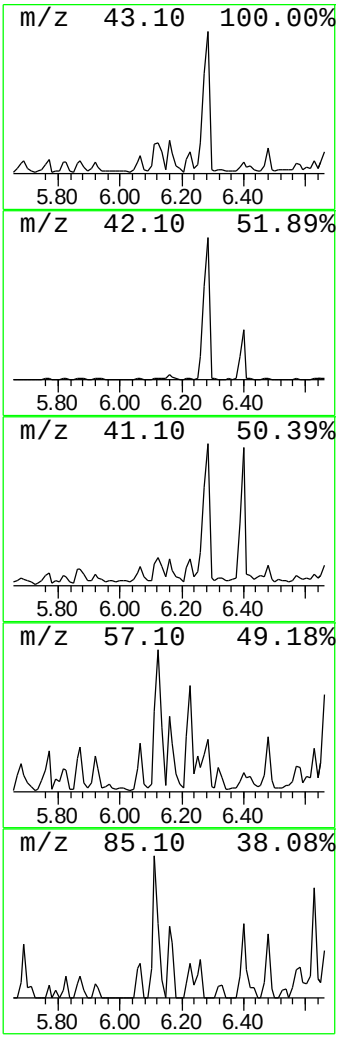
**********

Peak Number 4 unknown6.16 Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.16 | 9.64 ng | 212101 | 1,4-Dichlorobenzene-d4 | 6.63 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexane, 2-methyl- | 100 | C7H16 | 000591-76-4 | 45 |
| 2 | Heptane, 3-methyl- | 114 | C8H18 | 000589-81-1 | 28 |
| 3 | Pentane, 3-ethyl-2,4-dimethyl- | 128 | C9H20 | 001068-87-7 | 23 |
| 4 | Octane, 3,4-dimethyl- | 142 | C10H22 | 015869-92-8 | 23 |
| 5 | Propane, 1-isocyanato-2-methyl- | 99 | C5H9NO | 001873-29-6 | 9 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

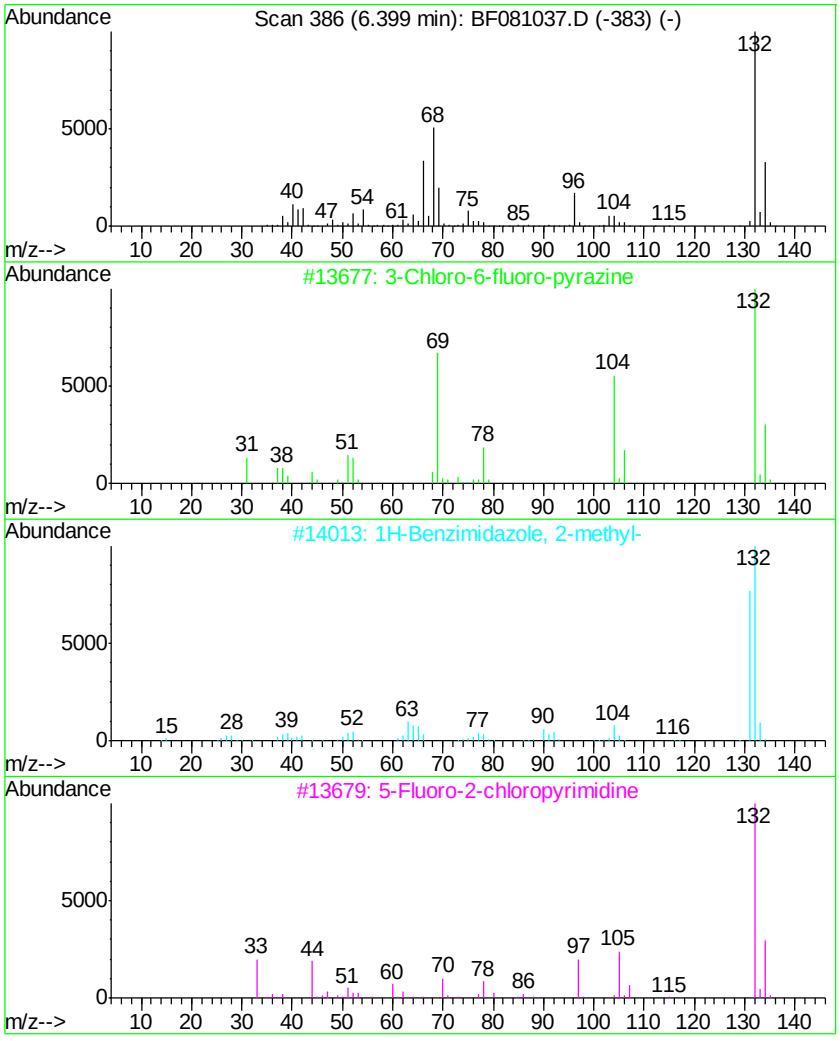
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

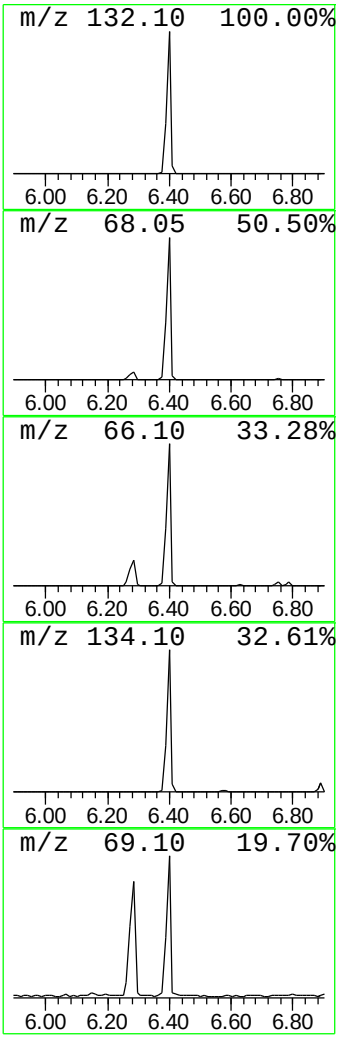
**********

Peak Number 5 unknown6.40 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.40 | 97.50 ng | 2144650 | 1,4-Dichlorobenzene-d4 | 6.63 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 27 |
| 2 | 1H-Benzimidazole, 2-methyl- | 132 | C8H8N2 | 000615-15-6 | 22 |
| 3 | 5-Fluoro-2-chloropyrimidine | 132 | C4H2ClFN2 | 062802-42-0 | 16 |
| 4 | 2-Cyclohexen-1-one | 96 | C6H8O | 000930-68-7 | 10 |
| 5 | (5-METHYL-2-PYRIDYL)ACETONITRILE | 132 | C8H8N2 | 1000241-93-9 | 10 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

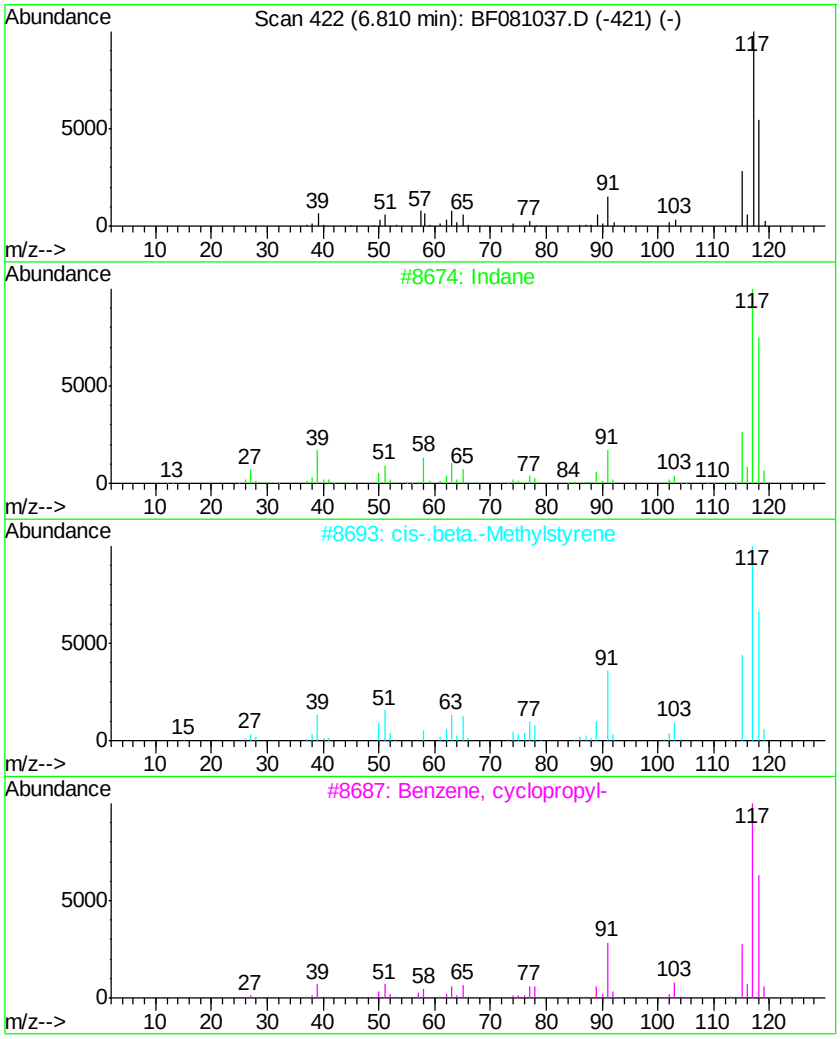
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

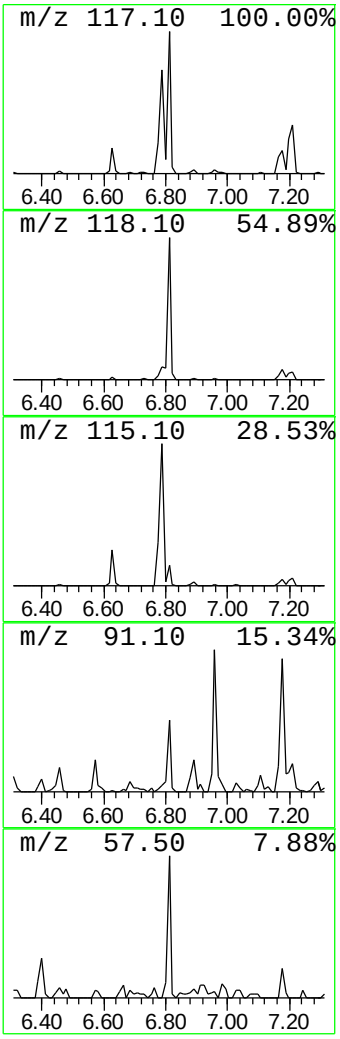
**********

Peak Number 7 Indane Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.81 | 9.21 ng | 202533 | 1,4-Dichlorobenzene-d4 | 6.63 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Indane | 118 | C9H10 | 000496-11-7 | 87 |
| 2 | cis-.beta.-Methylstyrene | 118 | C9H10 | 000766-90-5 | 74 |
| 3 | Benzene, cyclopropyl- | 118 | C9H10 | 000873-49-4 | 72 |
| 4 | Tetracyclo[3.3.1.0(2,8).0(4,6)]-... | 118 | C9H10 | 1000191-13-7 | 64 |
| 5 | Benzaldehyde, 4-(1-phenyl-2-prop... | 238 | C16H14O2 | 1000277-56-1 | 53 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

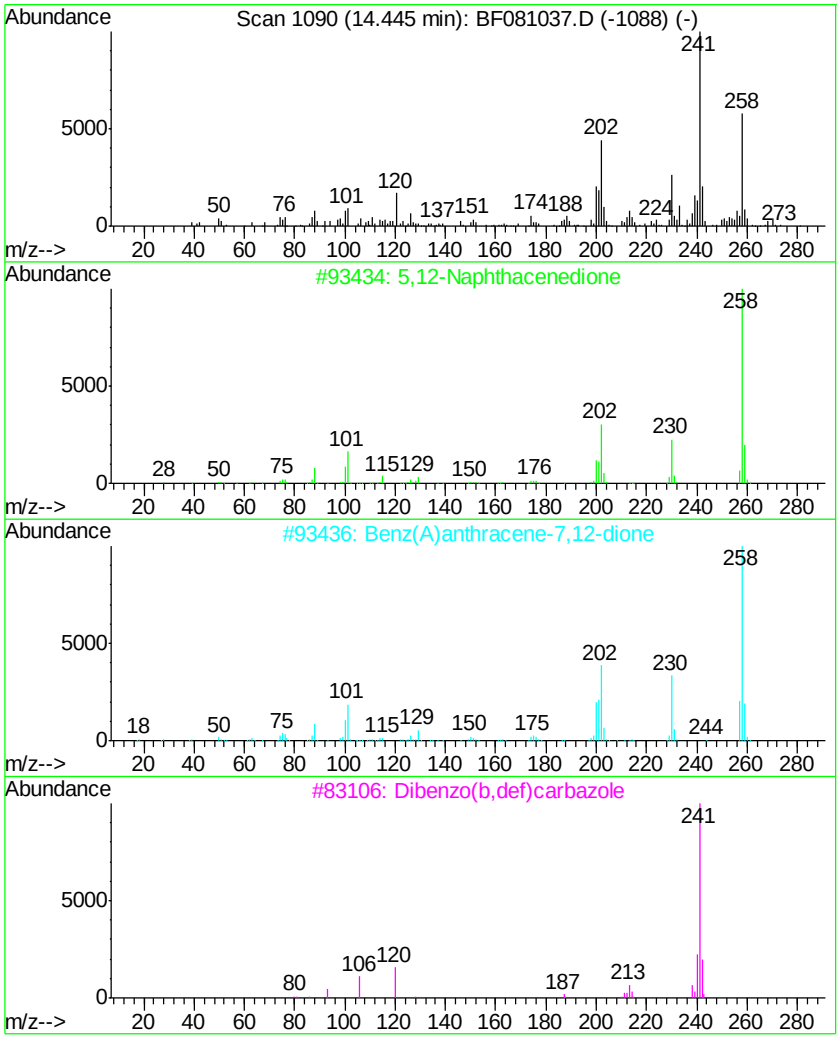
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

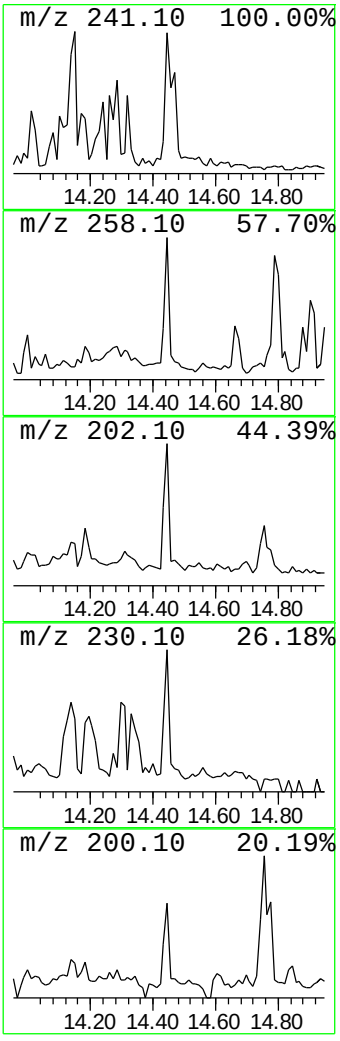
**********

Peak Number 8 5,12-Naphthacenedione Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.45 | 9.74 ng | 150574 | Perylene-d12 | 15.12 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 5,12-Naphthacenedione | 258 | C18H10O2 | 001090-13-7 | 55 |
| 2 | Benz(A)anthracene-7,12-dione | 258 | C18H10O2 | 002498-66-0 | 46 |
| 3 | Dibenzo(b,def)carbazole | 241 | C18H11N | 104313-09-9 | 38 |
| 4 | 2,6-Diethyl-4-(4-methoxyphenyl)p... | 241 | C16H19NO | 073669-46-2 | 38 |
| 5 | 3,5-Bis(trifluoromethyl)benzoic ... | 258 | C9H4F6O2 | 000725-89-3 | 32 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

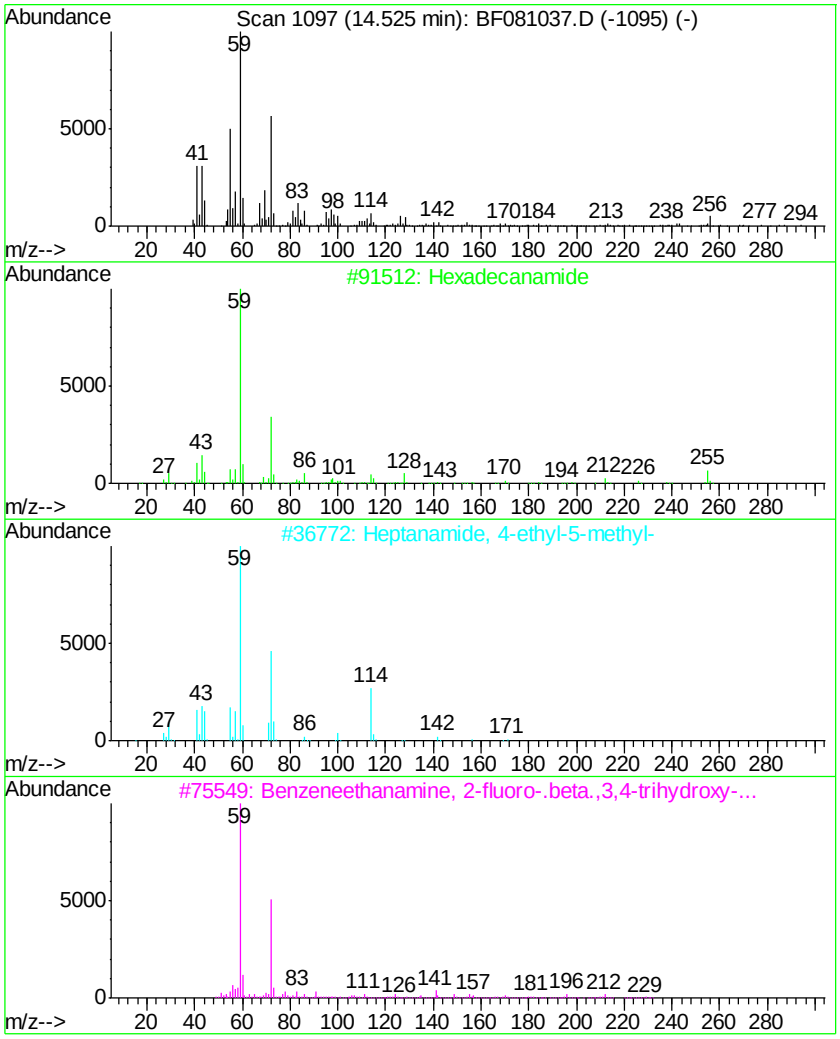
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

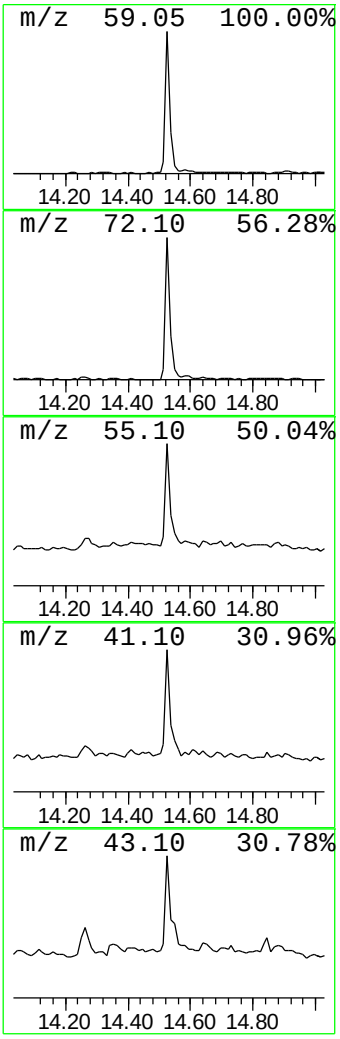
**********

Peak Number 9 Hexadecanamide Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.53 | 25.92 ng | 400654 | Perylene-d12 | 15.12 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexadecanamide | 255 | C16H33NO | 000629-54-9 | 64 |
| 2 | Heptanamide, 4-ethyl-5-methyl- | 171 | C10H21NO | 054789-40-1 | 64 |
| 3 | Benzeneethanamine, 2-fluoro-.bet... | 229 | C11H16FNO3 | 061338-98-5 | 64 |
| 4 | Tetradecanamide | 227 | C14H29NO | 000638-58-4 | 59 |
| 5 | Nonanamide | 157 | C9H19NO | 001120-07-6 | 53 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

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

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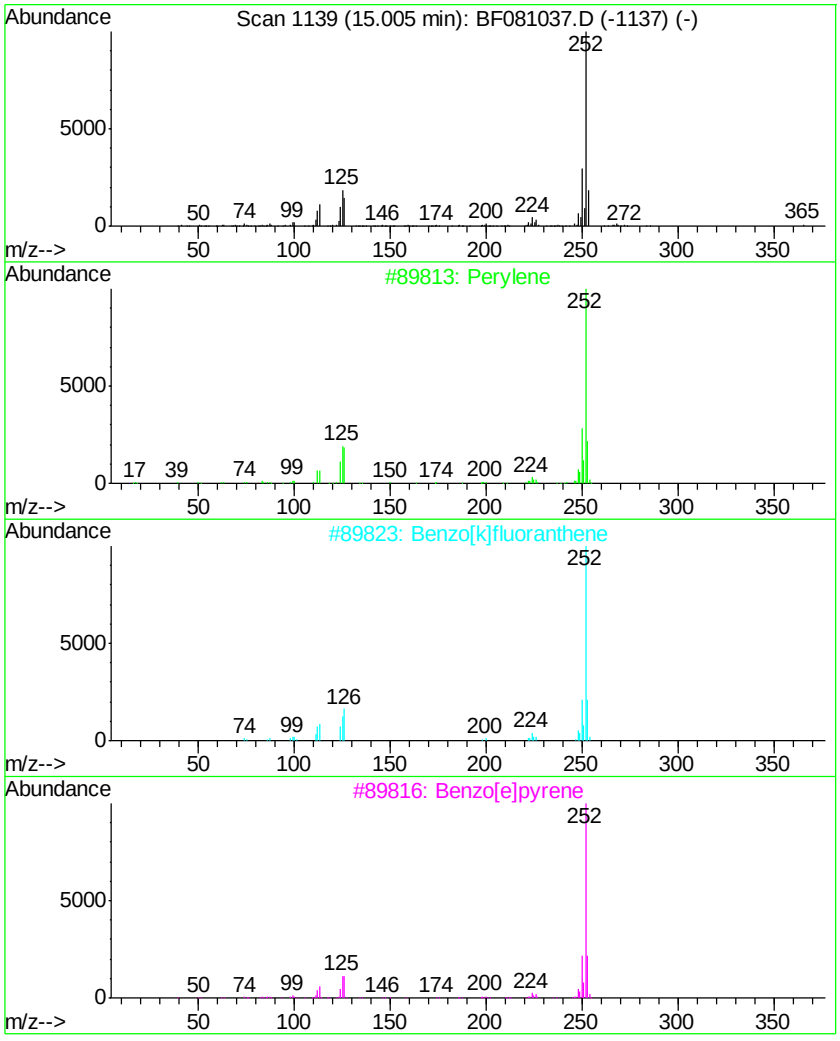
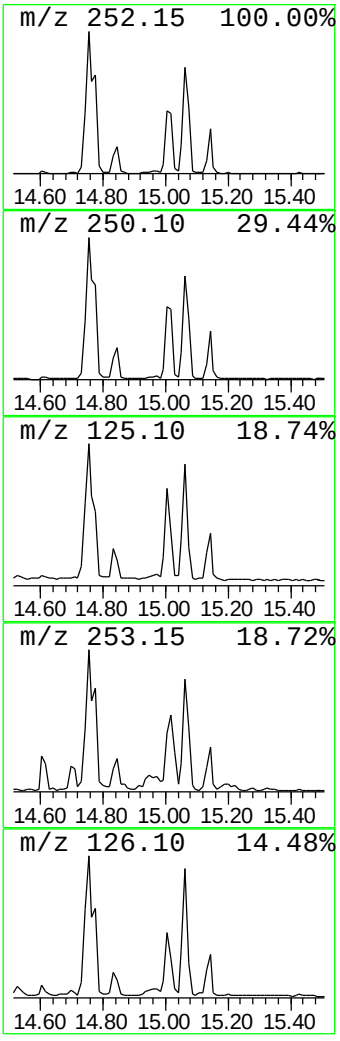
Peak Number 11 Perylene Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.01 | 34.81 ng | 538007 | Perylene-d12 | 15.12 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Perylene | 252 | C20H12 | 000198-55-0 | 98 |
| 2 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 98 |
| 3 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 96 |
| 4 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 95 |
| 5 | Benzo[j]fluoranthene | 252 | C20H12 | 000205-82-3 | 89 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

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

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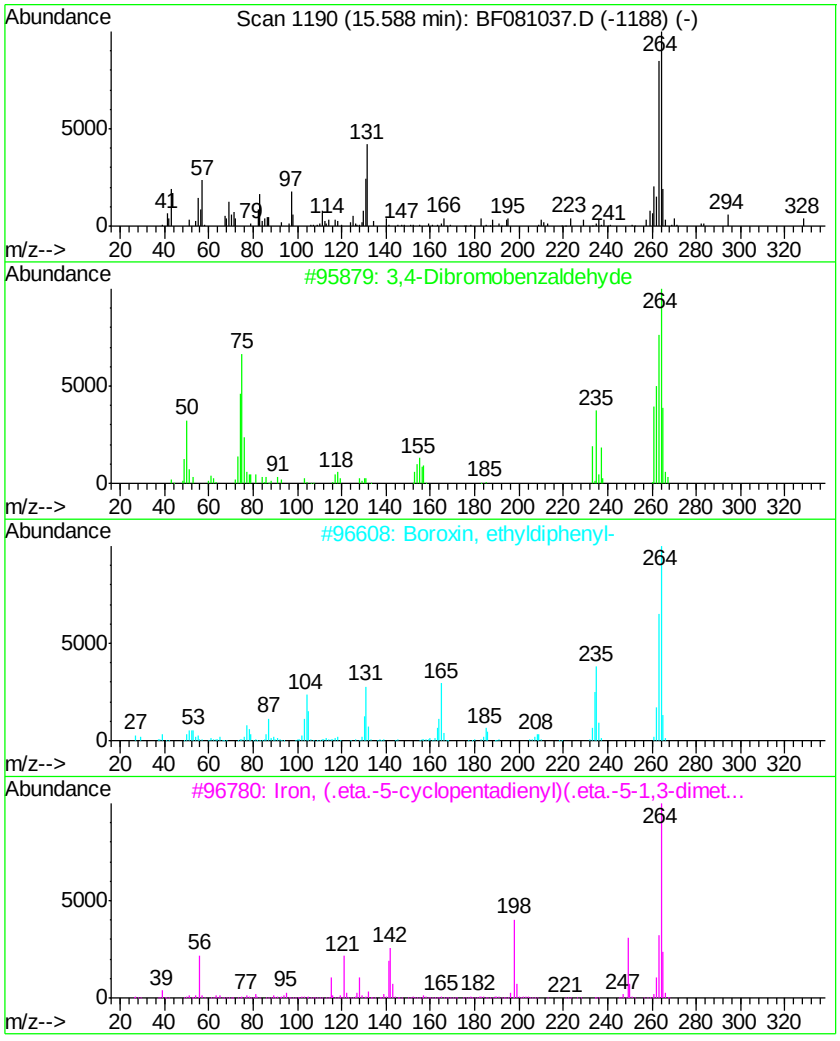
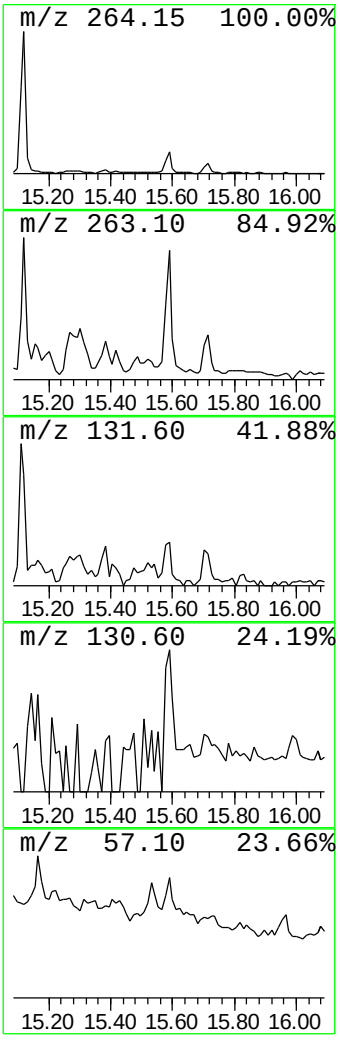
Peak Number 12 3,4-Dibromobenzaldehyde Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.59 | 7.39 ng | 114249 | Perylene-d12 | 15.12 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3,4-Dibromobenzaldehyde | 262 | C7H4Br2O | 074003-55-7 | 58 |
| 2 | Boroxin, ethyldiphenyl- | 264 | C14H15B3O3 | 1000151-82-0 | 42 |
| 3 | Iron, (.eta.-5-cyclopentadienyl)... | 264 | C16H16Fe | 1000155-06-6 | 35 |
| 4 | 2,5-Bis(4-hydroxyphenyl)pyrimidine | 264 | C16H12N2O2 | 159488-83-2 | 25 |
| 5 | Cyclopentanone 2,4-dinitrophenyl... | 264 | C11H12N4O4 | 002057-87-6 | 25 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

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

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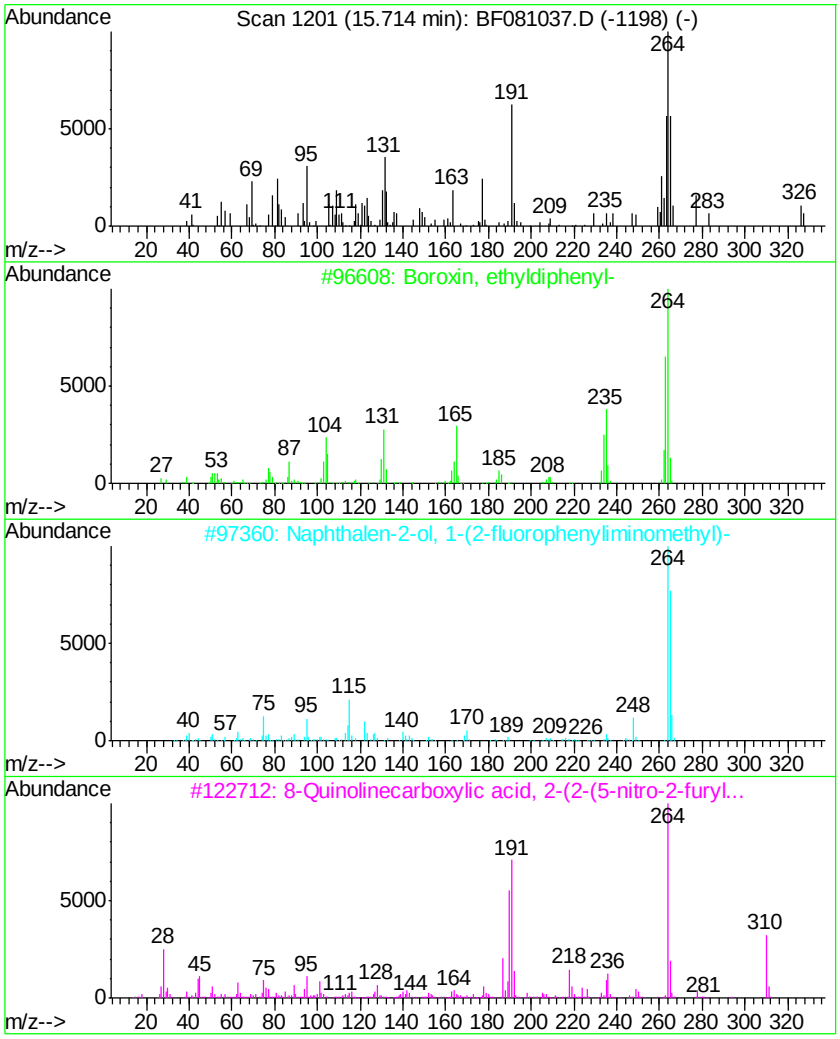
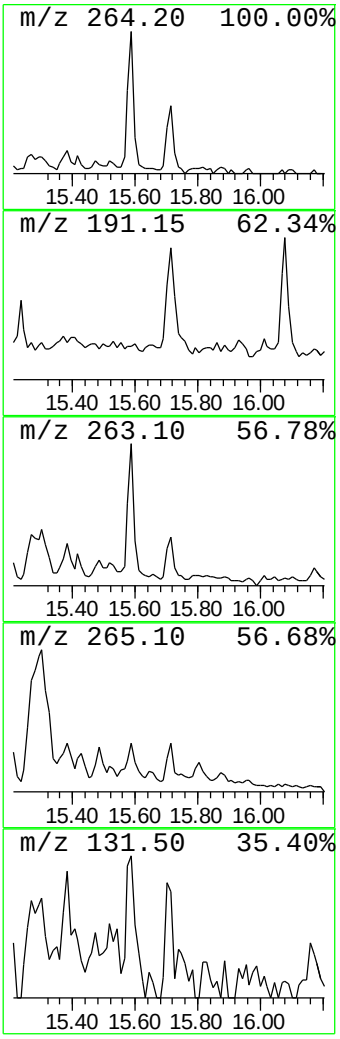
Peak Number 13 unknown15.71 Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.71 | 9.38 ng | 145052 | Perylene-d12 | 15.12 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Boroxin, ethyldiphenyl- | 264 | C14H15B3O3 | 1000151-82-0 | 38 |
| 2 | Naphthalen-2-ol, 1-(2-fluorophen... | 265 | C17H12FNO | 073621-66-6 | 35 |
| 3 | 8-Quinolinecarboxylic acid, 2-(2... | 310 | C16H10N2O5 | 013022-19-0 | 32 |
| 4 | Benzaldehyde, 4-(5-phenyl-2-oxaz... | 264 | C16H12N2O2 | 1000262-81-2 | 27 |
| 5 | 9H-Purin-6-amine, N,9-bis(trimet... | 279 | C11H21N5Si2 | 017995-04-9 | 25 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

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

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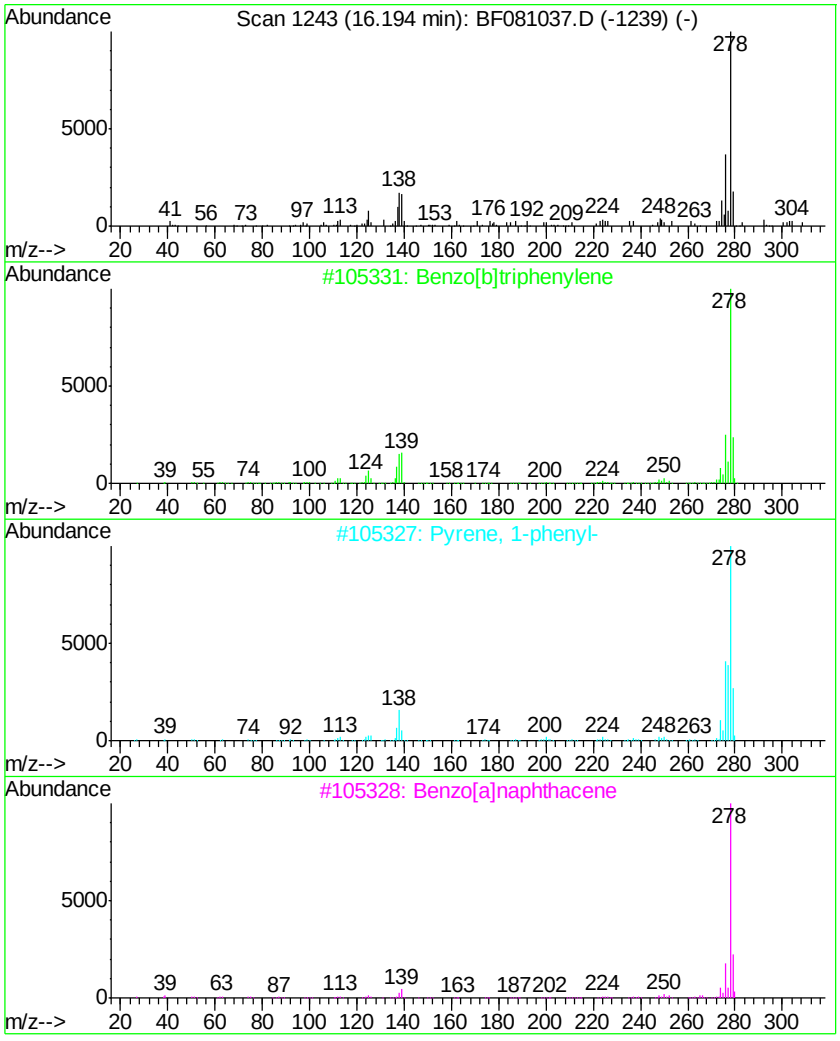
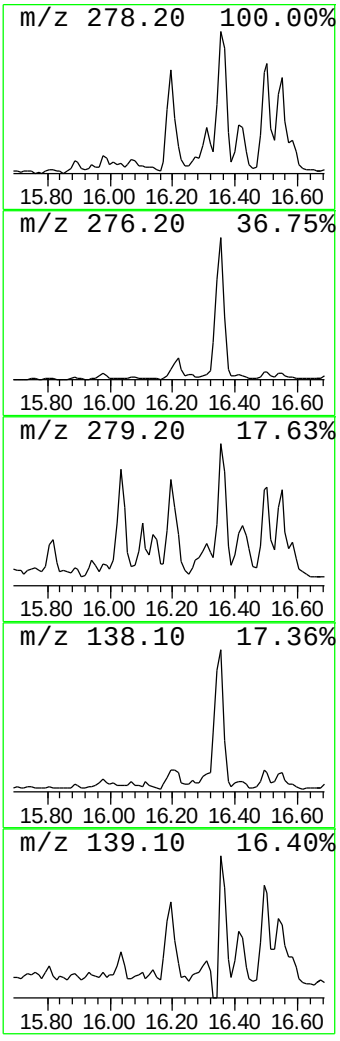
Peak Number 15 Benzo[b]triphenylene Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.19 | 10.32 ng | 159474 | Perylene-d12 | 15.12 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]triphenylene | 278 | C22H14 | 000215-58-7 | 96 |
| 2 | Pyrene, 1-phenyl- | 278 | C22H14 | 005101-27-9 | 64 |
| 3 | Benzo[a]naphthacene | 278 | C22H14 | 000226-88-0 | 62 |
| 4 | Pentacene | 278 | C22H14 | 000135-48-8 | 58 |
| 5 | 1,2:7,8-Dibenzophenanthrene | 278 | C22H14 | 000213-46-7 | 58 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

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

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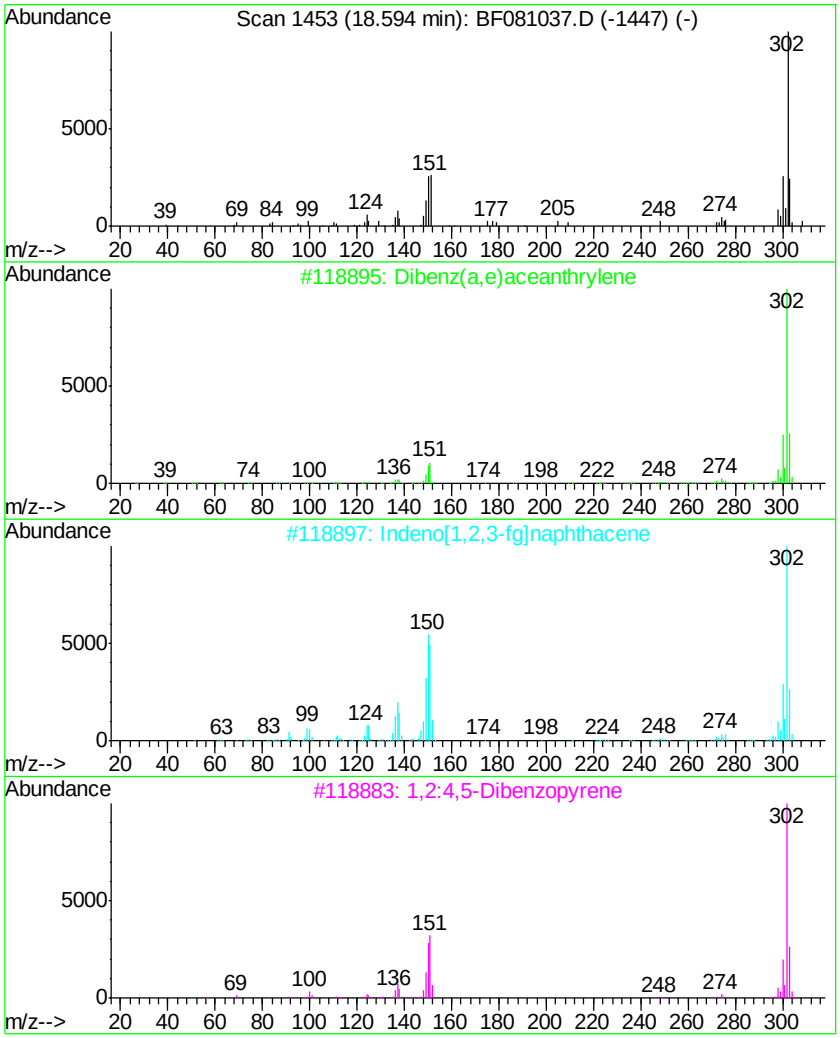
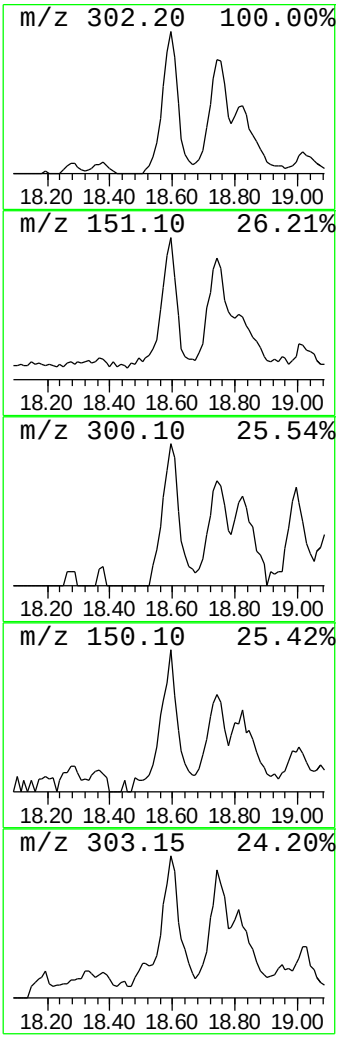
Peak Number 18 Dibenz(a,e)aceanthrylene Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.59 | 12.99 ng | 200732 | Perylene-d12 | 15.12 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenz(a,e)aceanthrylene | 302 | C24H14 | 005385-75-1 | 95 |
| 2 | Indeno[1,2,3-fg]naphthacene | 302 | C24H14 | 000203-11-2 | 93 |
| 3 | 1,2:4,5-Dibenzopyrene | 302 | C24H14 | 000192-65-4 | 91 |
| 4 | 3,4:9,10-Dibenzopyrene | 302 | C24H14 | 000189-55-9 | 89 |
| 5 | 1,2:3,4-Dibenzopyrene | 302 | C24H14 | 000191-30-0 | 70 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

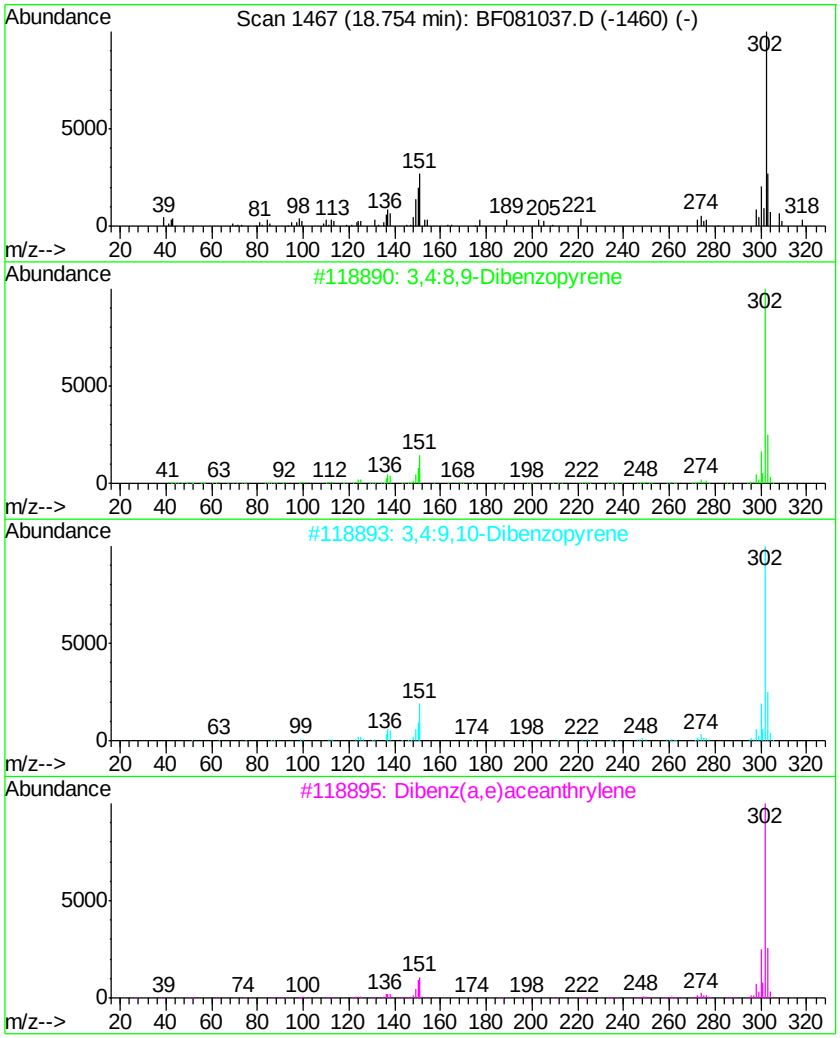
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

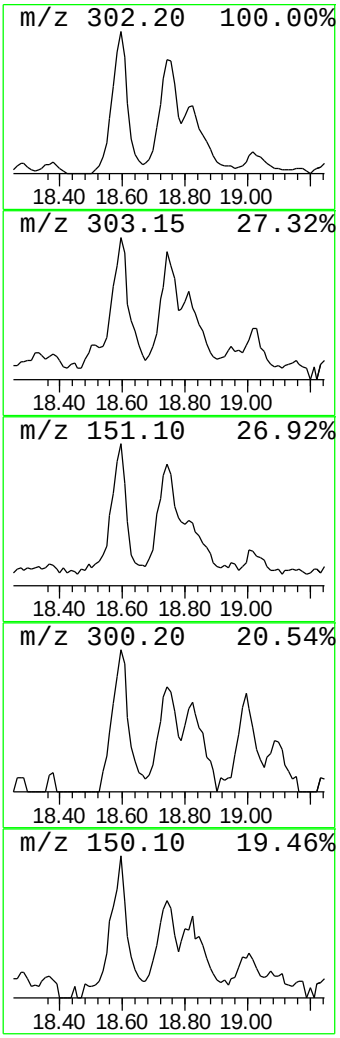
**********

Peak Number 19 3,4:8,9-Dibenzopyrene Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.75 | 10.18 ng | 157329 | Perylene-d12 | 15.12 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3,4:8,9-Dibenzopyrene | 302 | C24H14 | 000189-64-0 | 96 |
| 2 | 3,4:9,10-Dibenzopyrene | 302 | C24H14 | 000189-55-9 | 96 |
| 3 | Dibenz(a,e)aceanthrylene | 302 | C24H14 | 005385-75-1 | 95 |
| 4 | 1,2:4,5-Dibenzopyrene | 302 | C24H14 | 000192-65-4 | 89 |
| 5 | Indeno[1,2,3-fg]naphthacene | 302 | C24H14 | 000203-11-2 | 76 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

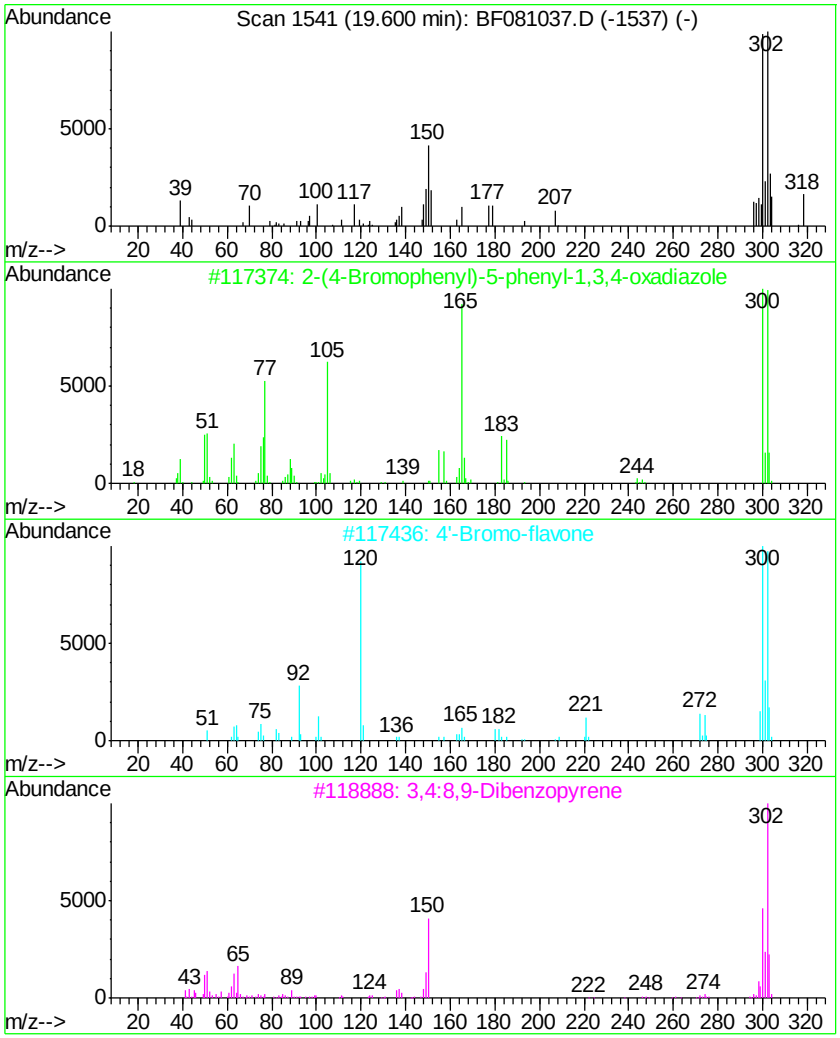
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

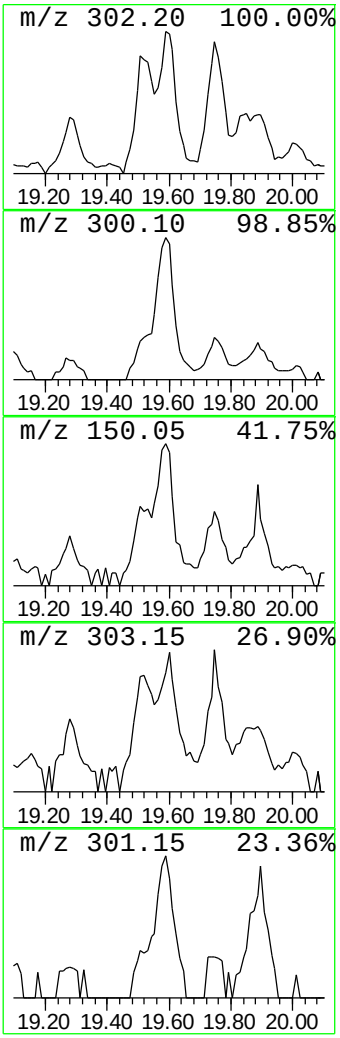
**********

Peak Number 20 4'-Bromo-flavone Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.60 | 8.07 ng | 124706 | Perylene-d12 | 15.12 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-(4-Bromophenyl)-5-phenyl-1,3,4... | 300 | C14H9BrN2O | 021510-43-0 | 52 |
| 2 | 4'-Bromo-flavone | 300 | C15H9BrO2 | 020525-20-6 | 50 |
| 3 | 3,4:8,9-Dibenzopyrene | 302 | C24H14 | 000189-64-0 | 49 |
| 4 | 1,2:3,4-Dibenzopyrene | 302 | C24H14 | 000191-30-0 | 43 |
| 5 | Coronene | 300 | C24H12 | 000191-07-1 | 38 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF081715\
Data File : BF081037.D
Acq On : 18 Aug 2015 8:59
Operator : UM/IZ
Sample : G3283-03
Misc :
ALS Vial : 35 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEC-COMP16

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

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

| | | | | | Internal Standard | | | |
|---|---|---|---|---|---|---|---|---|
| TIC Top Hit name | RT | EstConc | Units | Response | # | RT | Resp | Conc |
| 2-Pentanone, 4-hy... | 4.78 | 88.2 | ng | 1941060 | 1 | 6.63 | 439942 | 20.0 |
| unknown6.16 | 6.16 | 9.6 | ng | 212101 | 1 | 6.63 | 439942 | 20.0 |
| unknown6.40 | 6.40 | 97.5 | ng | 2144650 | 1 | 6.63 | 439942 | 20.0 |
| Indane | 6.81 | 9.2 | ng | 202533 | 1 | 6.63 | 439942 | 20.0 |
| 5,12-Naphthacened... | 14.45 | 9.7 | ng | 150574 | 6 | 15.12 | 309125 | 20.0 |
| Hexadecanamide | 14.53 | 25.9 | ng | 400654 | 6 | 15.12 | 309125 | 20.0 |
| Perylene | 15.01 | 34.8 | ng | 538007 | 6 | 15.12 | 309125 | 20.0 |
| 3,4-Dibromobenzal... | 15.59 | 7.4 | ng | 114249 | 6 | 15.12 | 309125 | 20.0 |
| unknown15.71 | 15.71 | 9.4 | ng | 145052 | 6 | 15.12 | 309125 | 20.0 |
| Benzo[b]triphenylene | 16.19 | 10.3 | ng | 159474 | 6 | 15.12 | 309125 | 20.0 |
| Dibenz(a,e)aceant... | 18.59 | 13.0 | ng | 200732 | 6 | 15.12 | 309125 | 20.0 |
| 3,4:8,9-Dibenzopy... | 18.75 | 10.2 | ng | 157329 | 6 | 15.12 | 309125 | 20.0 |
| 4'-Bromo-flavone | 19.60 | 8.1 | ng | 124706 | 6 | 15.12 | 309125 | 20.0 |