LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

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-BF060416.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 | 1.724 | 8 | 12 | 14 | rVB | 4309062 | 7387774 | 100.00% | 12.120% |
| 2 | 1.770 | 14 | 16 | 25 | rVV | 171558 | 343741 | 4.65% | 0.564% |
| 3 | 1.896 | 25 | 27 | 44 | rVB | 1220445 | 1925376 | 26.06% | 3.159% |
| 4 | 2.124 | 44 | 47 | 56 | rVB | 103543 | 196415 | 2.66% | 0.322% |
| 5 | 5.039 | 300 | 302 | 310 | rVB | 390813 | 651745 | 8.82% | 1.069% |
| 6 | 5.462 | 335 | 339 | 341 | rVB | 2179787 | 3393630 | 45.94% | 5.567% |
| 7 | 6.490 | 425 | 429 | 431 | rBV | 2565230 | 3124257 | 42.29% | 5.126% |
| 8 | 6.616 | 437 | 440 | 443 | rBV | 2313903 | 3494736 | 47.30% | 5.733% |
| 9 | 6.845 | 458 | 460 | 463 | rBV | 549851 | 758116 | 10.26% | 1.244% |
| 10 | 7.005 | 472 | 474 | 477 | rVB | 2156093 | 2566048 | 34.73% | 4.210% |
| 11 | 7.416 | 507 | 510 | 512 | rBV | 1808484 | 1948751 | 26.38% | 3.197% |
| 12 | 8.136 | 570 | 573 | 575 | rBV | 1212057 | 1097888 | 14.86% | 1.801% |
| 13 | 9.211 | 664 | 667 | 670 | rVB | 2437418 | 3600257 | 48.73% | 5.906% |
| 14 | 9.611 | 700 | 702 | 704 | rBV | 441926 | 444614 | 6.02% | 0.729% |
| 15 | 9.748 | 712 | 714 | 716 | rBV | 381138 | 311345 | 4.21% | 0.511% |
| 16 | 9.885 | 724 | 726 | 728 | rBV2 | 964943 | 1010617 | 13.68% | 1.658% |
| 17 | 10.331 | 759 | 765 | 767 | rBV4 | 79917 | 149913 | 2.03% | 0.246% |
| 18 | 10.548 | 781 | 784 | 786 | rBV2 | 69971 | 96468 | 1.31% | 0.158% |
| 19 | 10.674 | 792 | 795 | 797 | rVB | 1704394 | 1831349 | 24.79% | 3.004% |
| 20 | 10.799 | 802 | 806 | 810 | rBV2 | 184433 | 295867 | 4.00% | 0.485% |
| 21 | 11.371 | 854 | 856 | 857 | rBV | 1064602 | 945733 | 12.80% | 1.552% |
| 22 | 11.439 | 860 | 862 | 864 | rVV | 259186 | 262660 | 3.56% | 0.431% |
| 23 | 11.599 | 873 | 876 | 877 | rBV | 131368 | 151317 | 2.05% | 0.248% |
| 24 | 11.874 | 897 | 900 | 901 | rBV | 77044 | 112758 | 1.53% | 0.185% |
| 25 | 11.897 | 901 | 902 | 904 | rVV2 | 183223 | 189018 | 2.56% | 0.310% |
| 26 | 11.942 | 904 | 906 | 907 | rVV | 113366 | 96739 | 1.31% | 0.159% |
| 27 | 11.977 | 907 | 909 | 914 | rVB | 224561 | 352267 | 4.77% | 0.578% |
| 28 | 12.079 | 914 | 918 | 921 | rBV4 | 74430 | 184583 | 2.50% | 0.303% |
| 29 | 12.182 | 921 | 927 | 931 | rBV5 | 127208 | 268013 | 3.63% | 0.440% |
| 30 | 12.319 | 935 | 939 | 940 | rBV2 | 49815 | 83405 | 1.13% | 0.137% |
| 31 | 12.422 | 945 | 948 | 949 | rBV | 184193 | 219517 | 2.97% | 0.360% |
| 32 | 12.457 | 949 | 951 | 954 | rVV2 | 97209 | 174865 | 2.37% | 0.287% |
| 33 | 12.502 | 954 | 955 | 959 | rVB | 284758 | 243263 | 3.29% | 0.399% |
| 34 | 12.582 | 959 | 962 | 964 | rBV | 2052288 | 1876836 | 25.40% | 3.079% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

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-BF060416.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 12.628 | 964 | 966 | 968 | rBV2 | 56326 | 100210 | 1.36% | 0.164% |
| 36 | 12.674 | 968 | 970 | 971 | rVB | 141491 | 117482 | 1.59% | 0.193% |
| 37 | 12.731 | 971 | 975 | 978 | rBV4 | 84840 | 189923 | 2.57% | 0.312% |
| 38 | 12.811 | 978 | 982 | 984 | rBV | 1976653 | 2365415 | 32.02% | 3.881% |
| 39 | 12.857 | 984 | 986 | 989 | rVB2 | 135554 | 193430 | 2.62% | 0.317% |
| 40 | 12.925 | 989 | 992 | 993 | rBV | 138034 | 176591 | 2.39% | 0.290% |
| 41 | 12.960 | 993 | 995 | 997 | rVB | 2515529 | 2492933 | 33.74% | 4.090% |
| 42 | 13.028 | 997 | 1001 | 1003 | rBV2 | 223876 | 297455 | 4.03% | 0.488% |
| 43 | 13.131 | 1007 | 1010 | 1012 | rVB | 244327 | 497148 | 6.73% | 0.816% |
| 44 | 13.200 | 1014 | 1016 | 1017 | rBV | 165442 | 137826 | 1.87% | 0.226% |
| 45 | 13.234 | 1017 | 1019 | 1023 | rVB2 | 293439 | 387263 | 5.24% | 0.635% |
| 46 | 13.291 | 1023 | 1024 | 1026 | rBV2 | 42080 | 75720 | 1.02% | 0.124% |
| 47 | 13.325 | 1026 | 1027 | 1029 | rVB | 131077 | 147320 | 1.99% | 0.242% |
| 48 | 13.360 | 1029 | 1030 | 1032 | rBV | 158395 | 152838 | 2.07% | 0.251% |
| 49 | 13.428 | 1035 | 1036 | 1040 | rVB3 | 42353 | 81312 | 1.10% | 0.133% |
| 50 | 13.485 | 1040 | 1041 | 1043 | rBV2 | 105501 | 161615 | 2.19% | 0.265% |
| 51 | 13.542 | 1043 | 1046 | 1049 | rVB4 | 79448 | 179444 | 2.43% | 0.294% |
| 52 | 13.634 | 1052 | 1054 | 1057 | rVB | 216240 | 309096 | 4.18% | 0.507% |
| 53 | 13.748 | 1061 | 1064 | 1066 | rBV | 258157 | 395681 | 5.36% | 0.649% |
| 54 | 13.782 | 1066 | 1067 | 1068 | rVV | 222278 | 204742 | 2.77% | 0.336% |
| 55 | 13.851 | 1071 | 1073 | 1076 | rVB2 | 204867 | 366974 | 4.97% | 0.602% |
| 56 | 14.000 | 1083 | 1086 | 1088 | rBV2 | 1370753 | 2372892 | 32.12% | 3.893% |
| 57 | 14.034 | 1088 | 1089 | 1093 | rVB | 940964 | 792080 | 10.72% | 1.299% |
| 58 | 14.217 | 1103 | 1105 | 1107 | rBV2 | 59468 | 76333 | 1.03% | 0.125% |
| 59 | 14.262 | 1107 | 1109 | 1112 | rVV2 | 48726 | 80221 | 1.09% | 0.132% |
| 60 | 14.388 | 1116 | 1120 | 1121 | rVV | 276137 | 374875 | 5.07% | 0.615% |
| 61 | 14.423 | 1121 | 1123 | 1125 | rVV | 224235 | 239484 | 3.24% | 0.393% |
| 62 | 14.480 | 1126 | 1128 | 1129 | rVV | 189612 | 231624 | 3.14% | 0.380% |
| 63 | 14.514 | 1129 | 1131 | 1135 | rVV2 | 174956 | 360463 | 4.88% | 0.591% |
| 64 | 14.583 | 1135 | 1137 | 1139 | rVB3 | 88686 | 124951 | 1.69% | 0.205% |
| 65 | 14.685 | 1144 | 1146 | 1147 | rBV | 85617 | 102648 | 1.39% | 0.168% |
| 66 | 14.777 | 1152 | 1154 | 1158 | rVB3 | 70545 | 180861 | 2.45% | 0.297% |
| 67 | 14.857 | 1158 | 1161 | 1166 | rVB4 | 91823 | 253824 | 3.44% | 0.416% |
| 68 | 14.937 | 1166 | 1168 | 1169 | rBV | 72762 | 89209 | 1.21% | 0.146% |
| 69 | 15.028 | 1173 | 1176 | 1180 | rBV | 1013322 | 2137590 | 28.93% | 3.507% |
| 70 | 15.120 | 1182 | 1184 | 1186 | rVV2 | 203430 | 317298 | 4.29% | 0.521% |
| 71 | 15.211 | 1190 | 1192 | 1195 | rBV3 | 58617 | 138050 | 1.87% | 0.226% |

LSC Area Percent Report

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Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

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-BF060416.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 15.314 | 1198 | 1201 | 1204 | rVB | 589154 | 768470 | 10.40% | 1.261% |
| 73 | 15.371 | 1204 | 1206 | 1209 | rBV | 711284 | 827262 | 11.20% | 1.357% |
| 74 | 15.428 | 1209 | 1211 | 1217 | rVB2 | 470734 | 953463 | 12.91% | 1.564% |
| 75 | 15.886 | 1249 | 1251 | 1254 | rBV | 53760 | 89027 | 1.21% | 0.146% |
| 76 | 16.663 | 1315 | 1319 | 1325 | rVB4 | 80020 | 255493 | 3.46% | 0.419% |
| 77 | 16.823 | 1329 | 1333 | 1336 | rBV2 | 305378 | 598977 | 8.11% | 0.983% |
| 78 | 16.983 | 1345 | 1347 | 1350 | rBV | 51811 | 94872 | 1.28% | 0.156% |
| 79 | 17.040 | 1350 | 1352 | 1354 | rBV2 | 59324 | 98954 | 1.34% | 0.162% |
| 80 | 17.234 | 1365 | 1369 | 1374 | rVB | 231475 | 464891 | 6.29% | 0.763% |
| 81 | 19.532 | 1565 | 1570 | 1571 | rBV | 42996 | 110449 | 1.50% | 0.181% |

Sum of corrected areas: 60954560

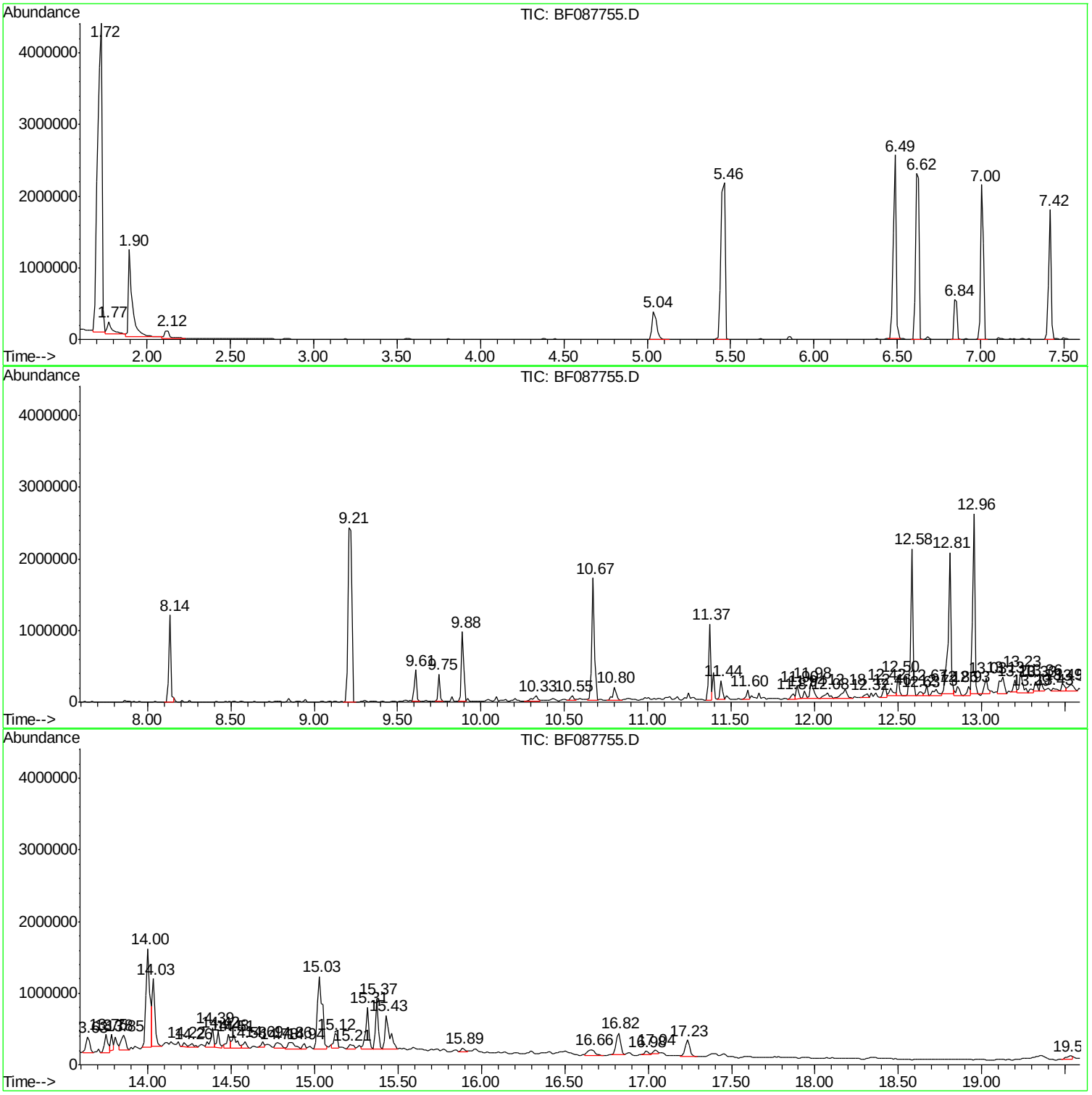
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.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\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

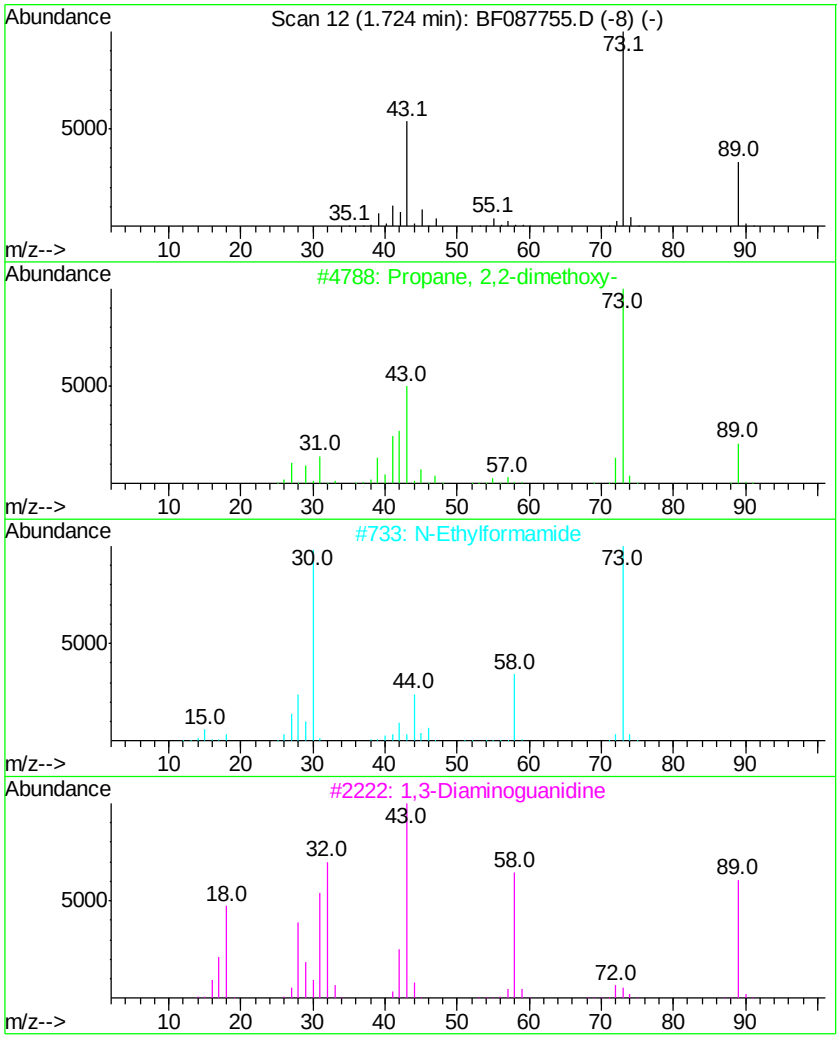
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

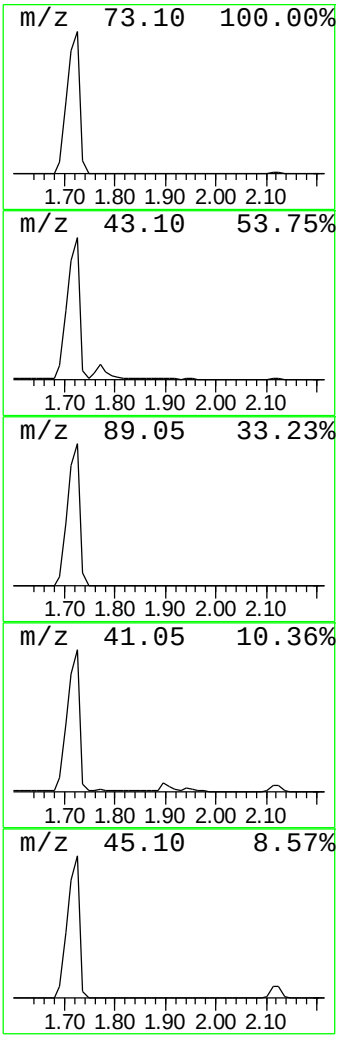
**********

Peak Number 1 Propane, 2,2-dimethoxy- Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 1.72 | 194.90 ng | 7387770 | 1,4-Dichlorobenzene-d4 | 6.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Propane, 2,2-dimethoxy- | 104 | C5H12O2 | 000077-76-9 | 56 |
| 2 | N-Ethylformamide | 73 | C3H7NO | 000627-45-2 | 9 |
| 3 | 1,3-Diaminoguanidine | 89 | CH7N5 | 004364-78-7 | 9 |
| 4 | 2-Hydroxy-2-methylbutyric acid | 118 | C5H10O3 | 003739-30-8 | 9 |
| 5 | 1-Hexen-4-ol, 1-chloro-3,5-dimet... | 162 | C8H15ClO | 100244-09-5 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

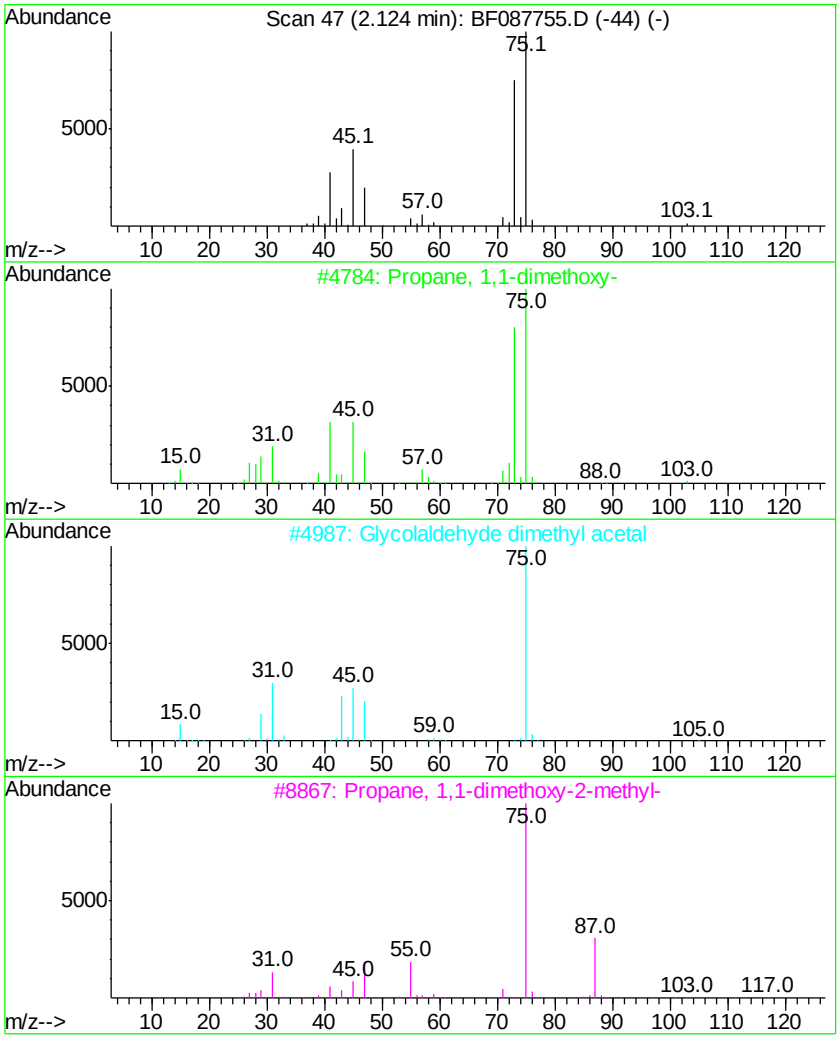
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

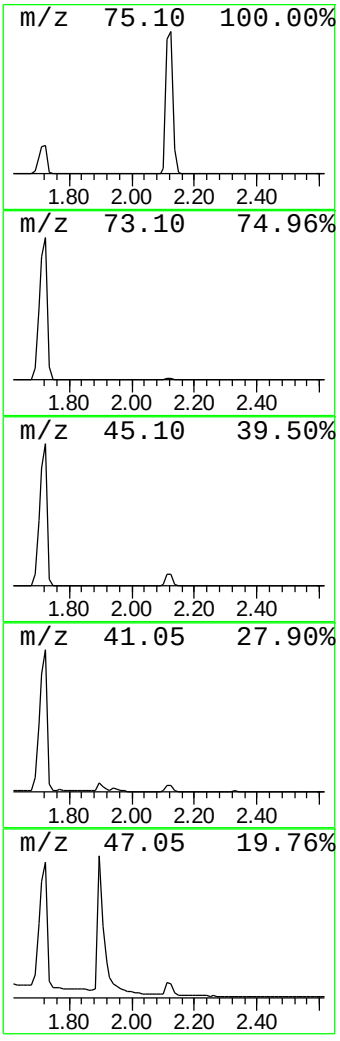
**********

Peak Number 4 Propane, 1,1-dimethoxy- Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 2.12 | 5.18 ng | 196415 | 1,4-Dichlorobenzene-d4 | 6.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Propane, 1,1-dimethoxy- | 104 | C5H12O2 | 004744-10-9 | 83 |
| 2 | Glycolaldehyde dimethyl acetal | 106 | C4H10O3 | 030934-97-5 | 39 |
| 3 | Propane, 1,1-dimethoxy-2-methyl- | 118 | C6H14O2 | 041632-89-7 | 33 |
| 4 | 2-Propanol, 1,1-dimethoxy- | 120 | C5H12O3 | 042919-42-6 | 33 |
| 5 | Pentane, 3-methoxy- | 102 | C6H14O | 036839-67-5 | 22 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

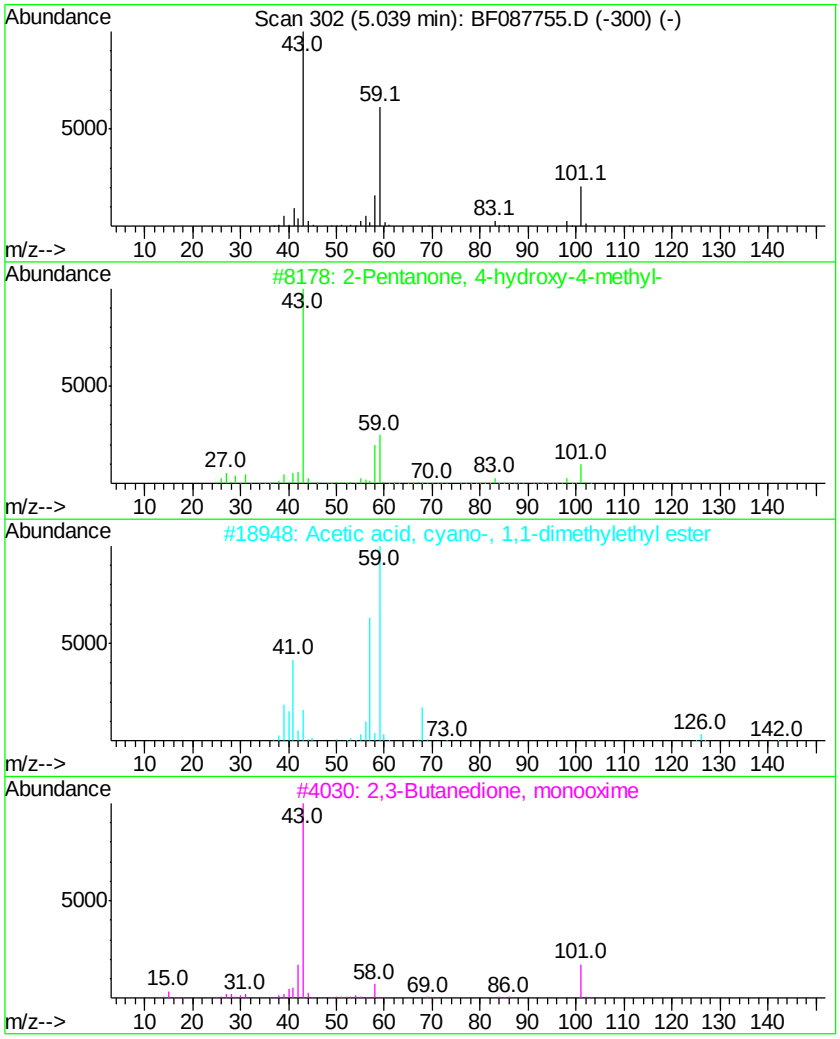
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

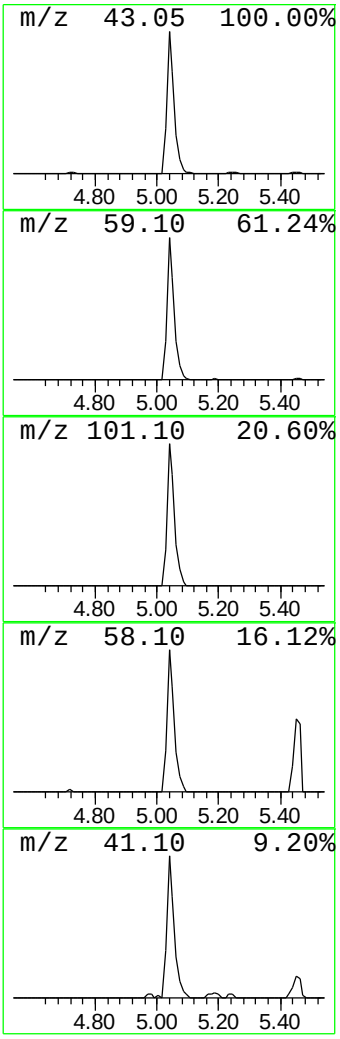
**********

Peak Number 5 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.04 | 17.19 ng | 651745 | 1,4-Dichlorobenzene-d4 | 6.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 64 |
| 2 | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 25 |
| 3 | 2,3-Butanedione, monooxime | 101 | C4H7NO2 | 000057-71-6 | 9 |
| 4 | Butane, 1-ethoxy- | 102 | C6H14O | 000628-81-9 | 9 |
| 5 | Morpholine, 4-methyl- | 101 | C5H11NO | 000109-02-4 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

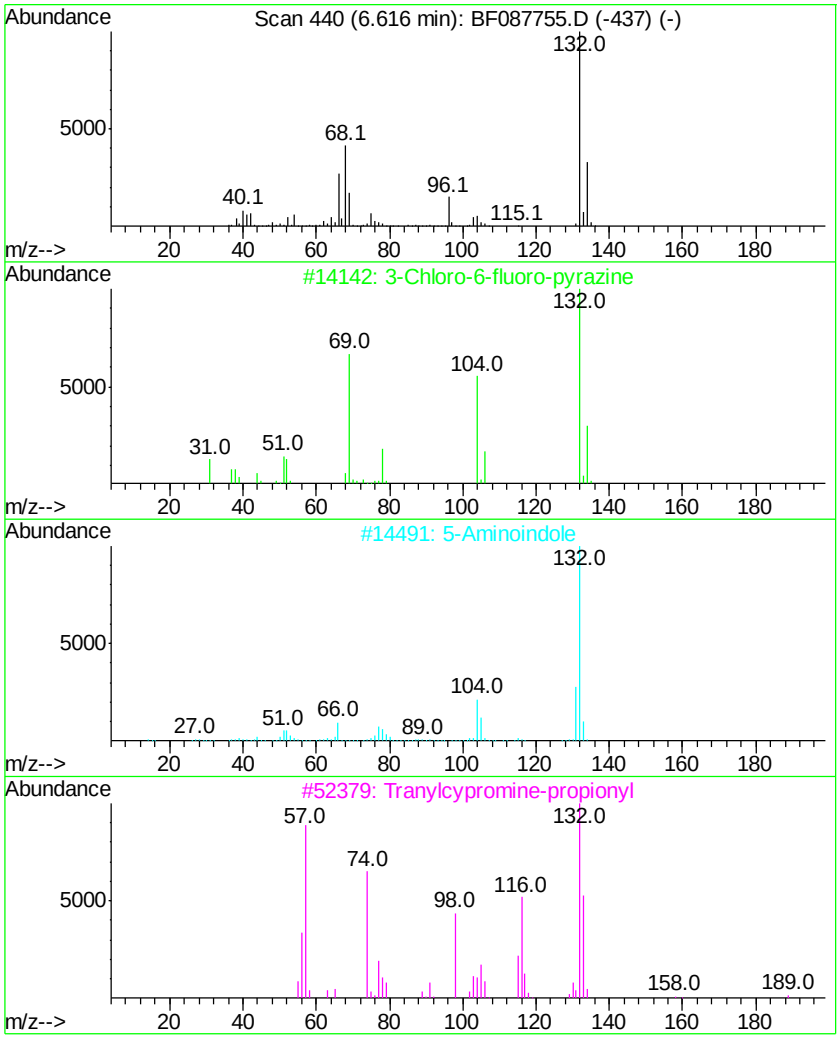
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

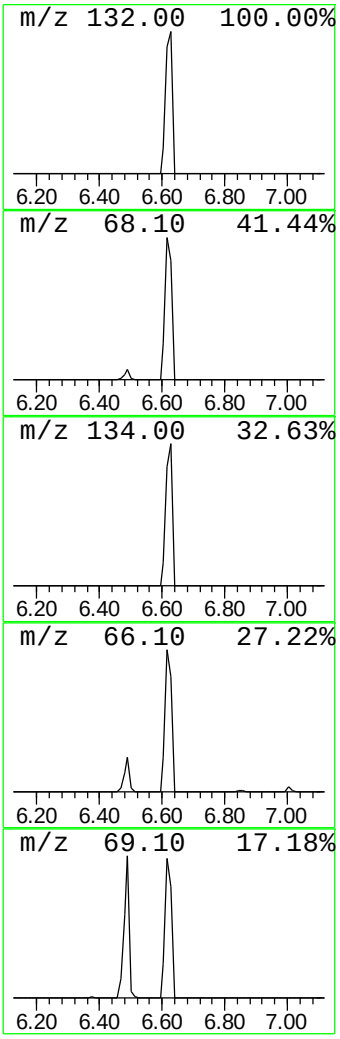
**********

Peak Number 6 unknown6.62 Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.62 | 92.20 ng | 3494740 | 1,4-Dichlorobenzene-d4 | 6.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 27 |
| 2 | 5-Aminoindole | 132 | C8H8N2 | 005192-03-0 | 12 |
| 3 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 10 |
| 4 | 1-Methylpyrrolo[1,2-a]pyrazine | 132 | C8H8N2 | 064608-59-9 | 9 |
| 5 | 4-Methylpyrrolo[1,2-a]pyrazine | 132 | C8H8N2 | 064608-60-2 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

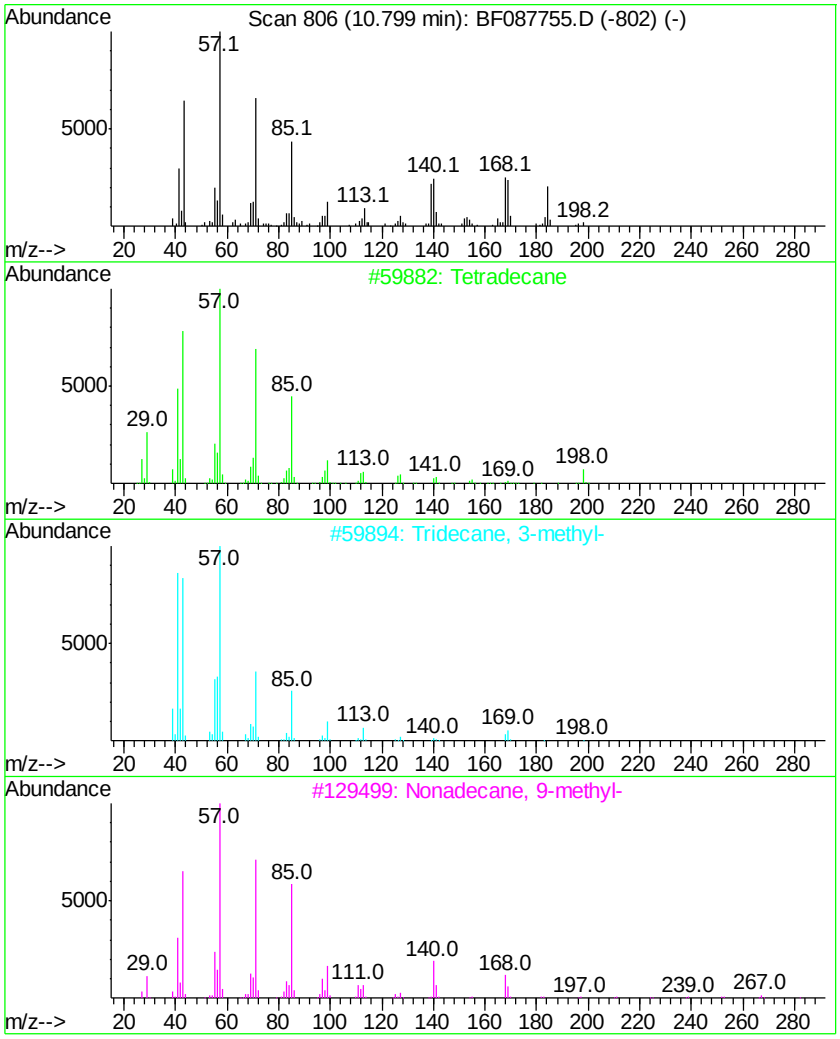
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

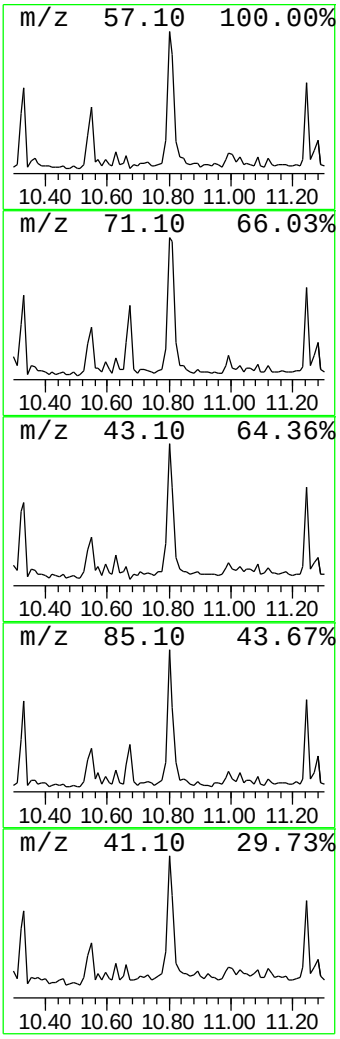
**********

Peak Number 8 Tetradecane Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.80 | 6.26 ng | 295867 | Phenanthrene-d10 | 11.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Tetradecane | 198 | C14H30 | 000629-59-4 | 86 |
| 2 | Tridecane, 3-methyl- | 198 | C14H30 | 006418-41-3 | 46 |
| 3 | Nonadecane, 9-methyl- | 282 | C20H42 | 013287-24-6 | 46 |
| 4 | Heneicosane | 296 | C21H44 | 000629-94-7 | 45 |
| 5 | Dodecane | 170 | C12H26 | 000112-40-3 | 45 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

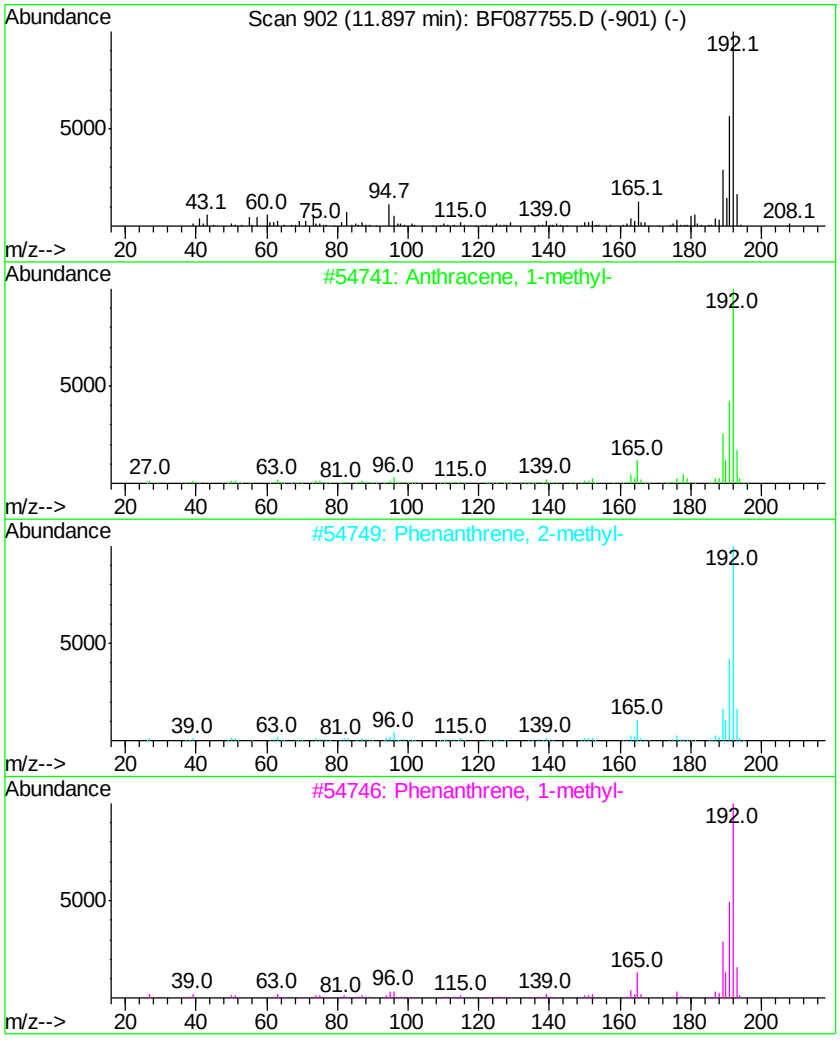
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

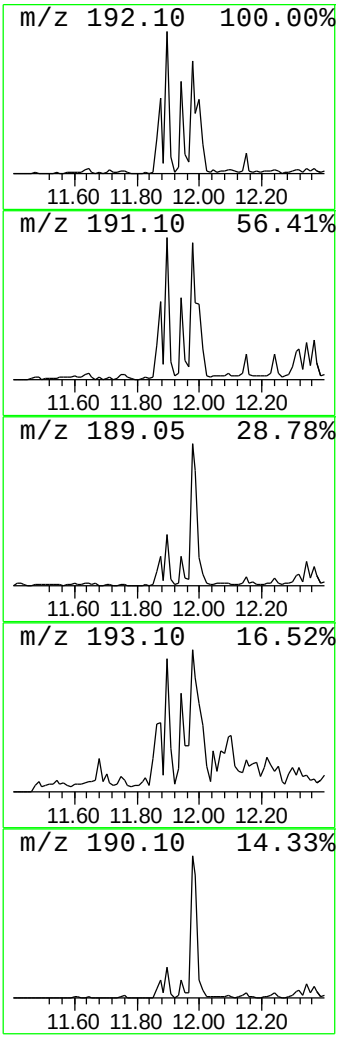
**********

Peak Number 9 Anthracene, 1-methyl- Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.90 | 4.00 ng | 189018 | Phenanthrene-d10 | 11.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 96 |
| 2 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 93 |
| 3 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 93 |
| 4 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 93 |
| 5 | Phenanthrene, 3-methyl- | 192 | C15H12 | 000832-71-3 | 91 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

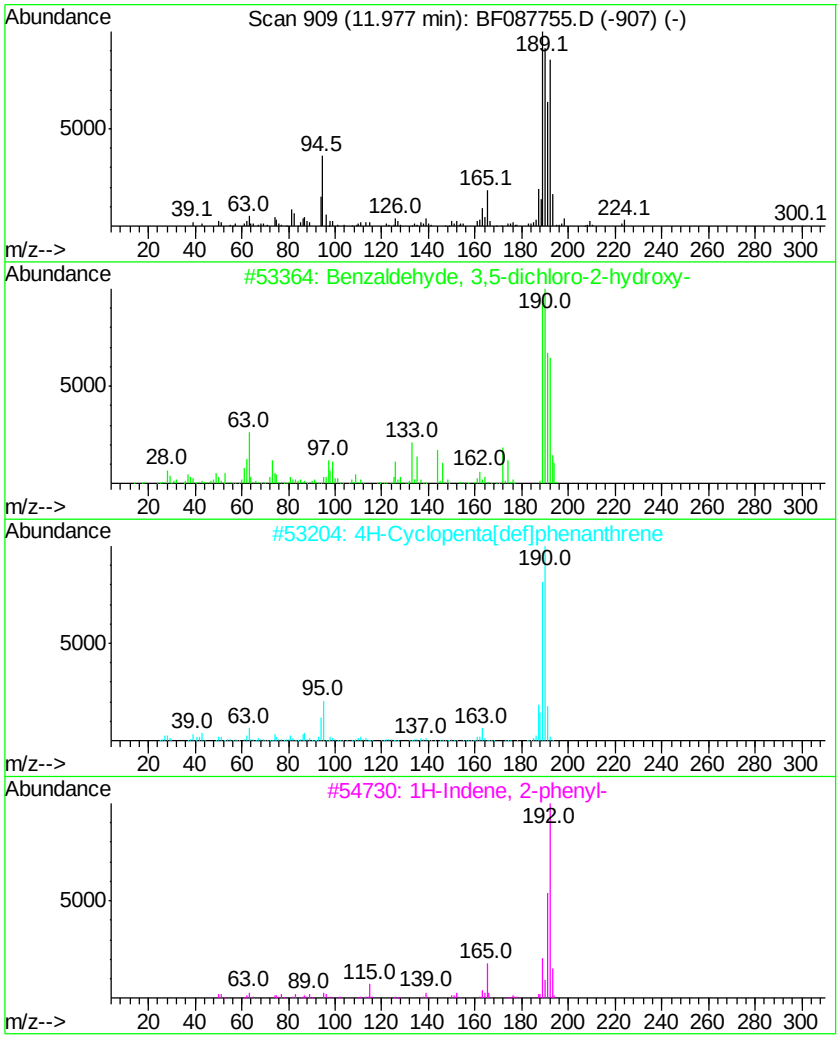
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

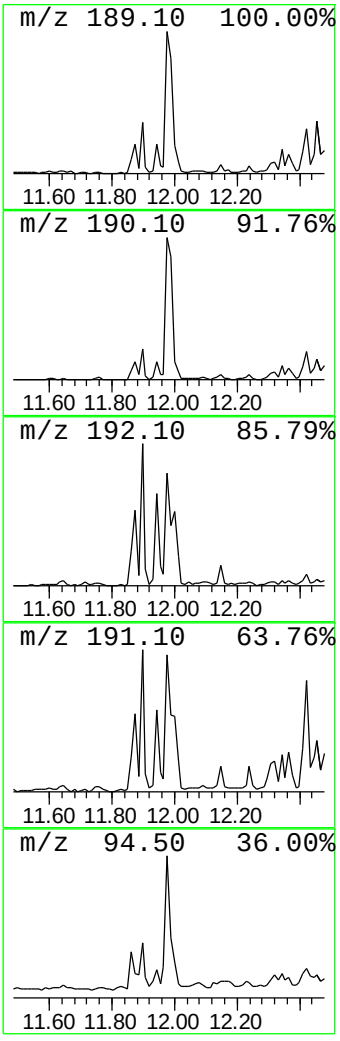
**********

Peak Number 10 Benzaldehyde, 3,5-dichloro-... Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.98 | 7.45 ng | 352267 | Phenanthrene-d10 | 11.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzaldehyde, 3,5-dichloro-2-hyd... | 190 | C7H4Cl2O2 | 000090-60-8 | 64 |
| 2 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 50 |
| 3 | 1H-Indene, 2-phenyl- | 192 | C15H12 | 004505-48-0 | 42 |
| 4 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 38 |
| 5 | Naphtho[2,3-b]norbornadiene | 192 | C15H12 | 107426-38-0 | 38 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

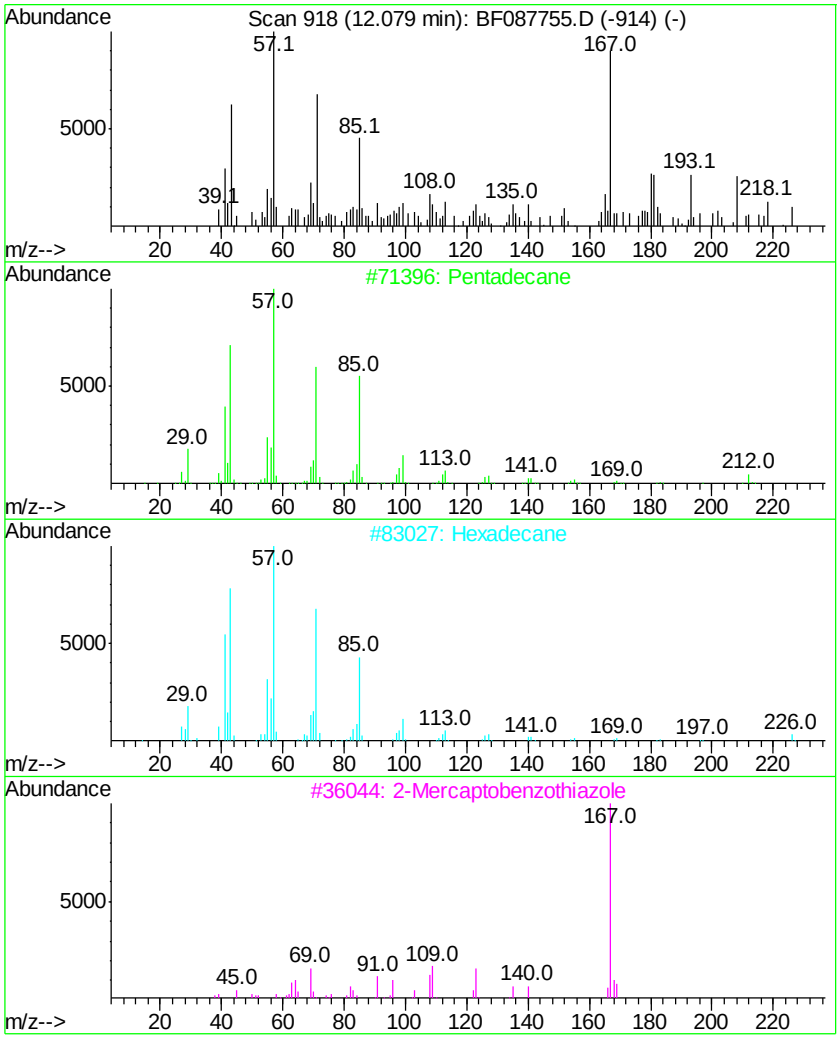
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

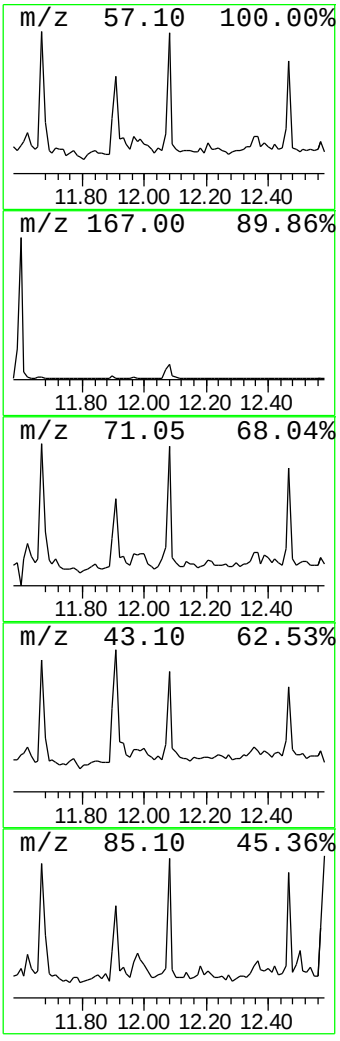
**********

Peak Number 11 Pentadecane Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.08 | 3.90 ng | 184583 | Phenanthrene-d10 | 11.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pentadecane | 212 | C15H32 | 000629-62-9 | 68 |
| 2 | Hexadecane | 226 | C16H34 | 000544-76-3 | 62 |
| 3 | 2-Mercaptobenzothiazole | 167 | C7H5NS2 | 000149-30-4 | 35 |
| 4 | Nonadecane | 268 | C19H40 | 000629-92-5 | 20 |
| 5 | 1,1'-Biphenyl, 4-(chloromethyl)- | 202 | C13H11Cl | 001667-11-4 | 20 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

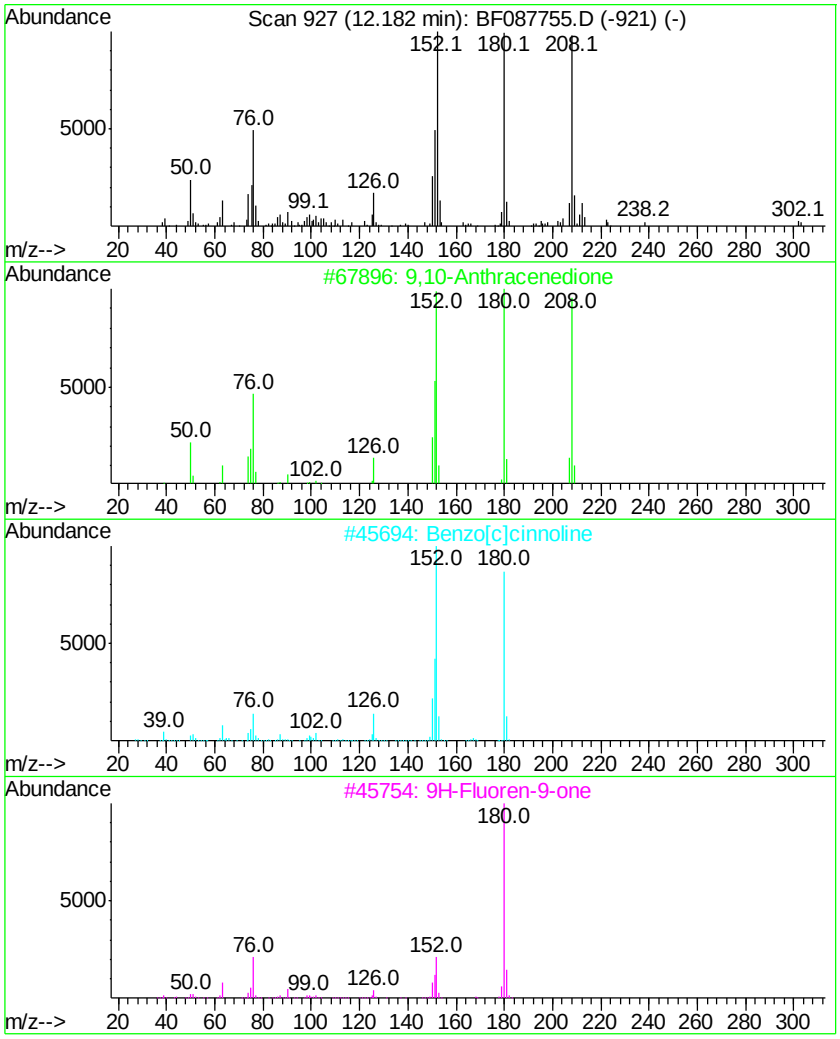
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

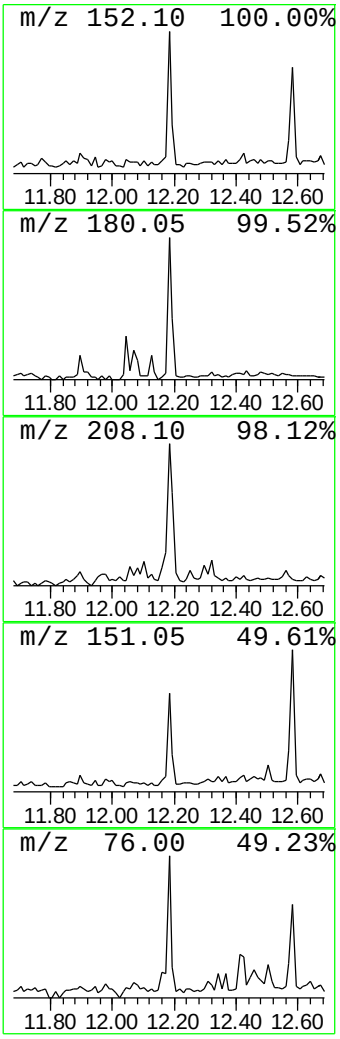
**********

Peak Number 12 9,10-Anthracenedione Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.18 | 5.67 ng | 268013 | Phenanthrene-d10 | 11.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 99 |
| 2 | Benzo[c]cinnoline | 180 | C12H8N2 | 000230-17-1 | 91 |
| 3 | 9H-Fluoren-9-one | 180 | C13H8O | 000486-25-9 | 78 |
| 4 | 1H-Phenalen-1-one | 180 | C13H8O | 000548-39-0 | 60 |
| 5 | 1,4-Anthracenedione | 208 | C14H8O2 | 000635-12-1 | 60 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

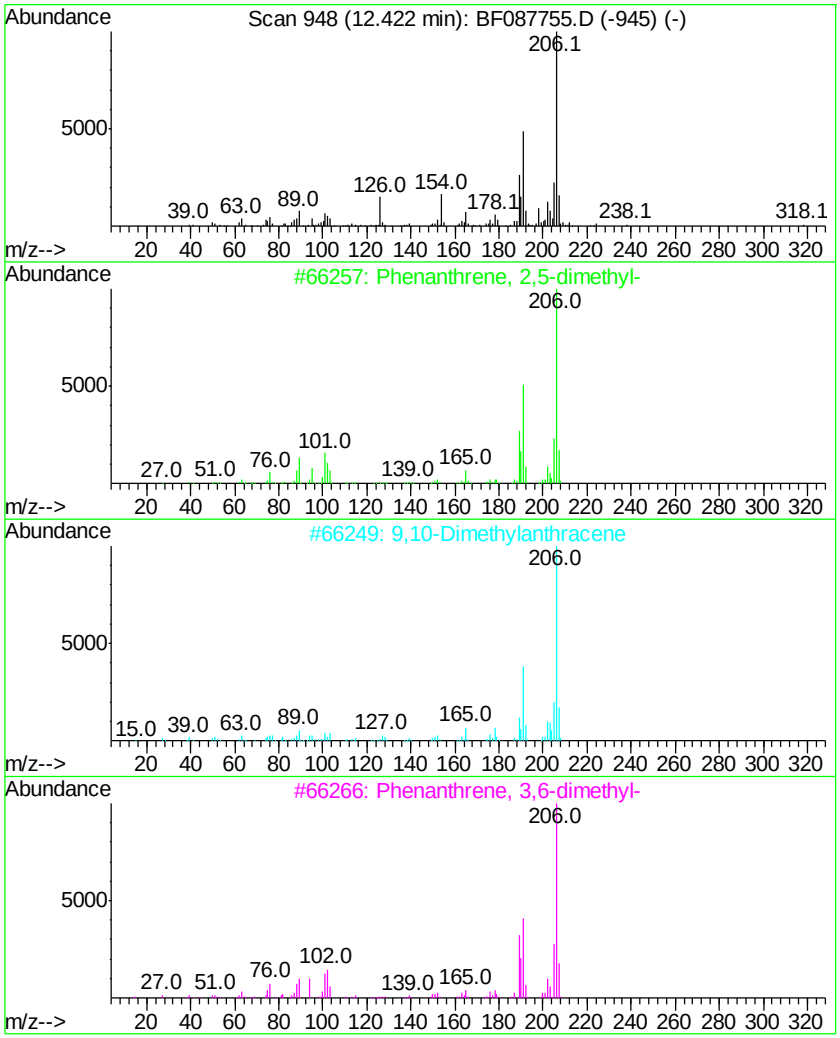
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

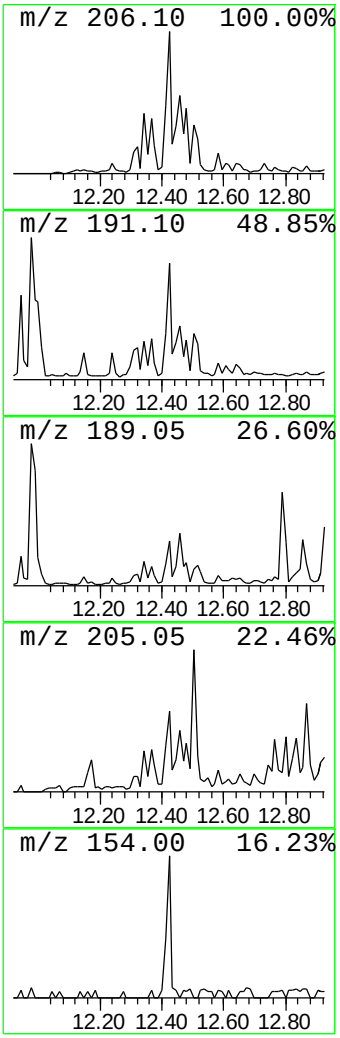
**********

Peak Number 13 Phenanthrene, 2,5-dimethyl- Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.42 | 4.64 ng | 219517 | Phenanthrene-d10 | 11.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 96 |
| 2 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 90 |
| 3 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 89 |
| 4 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 86 |
| 5 | Anthracene, 1,4-dimethyl- | 206 | C16H14 | 000781-92-0 | 83 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

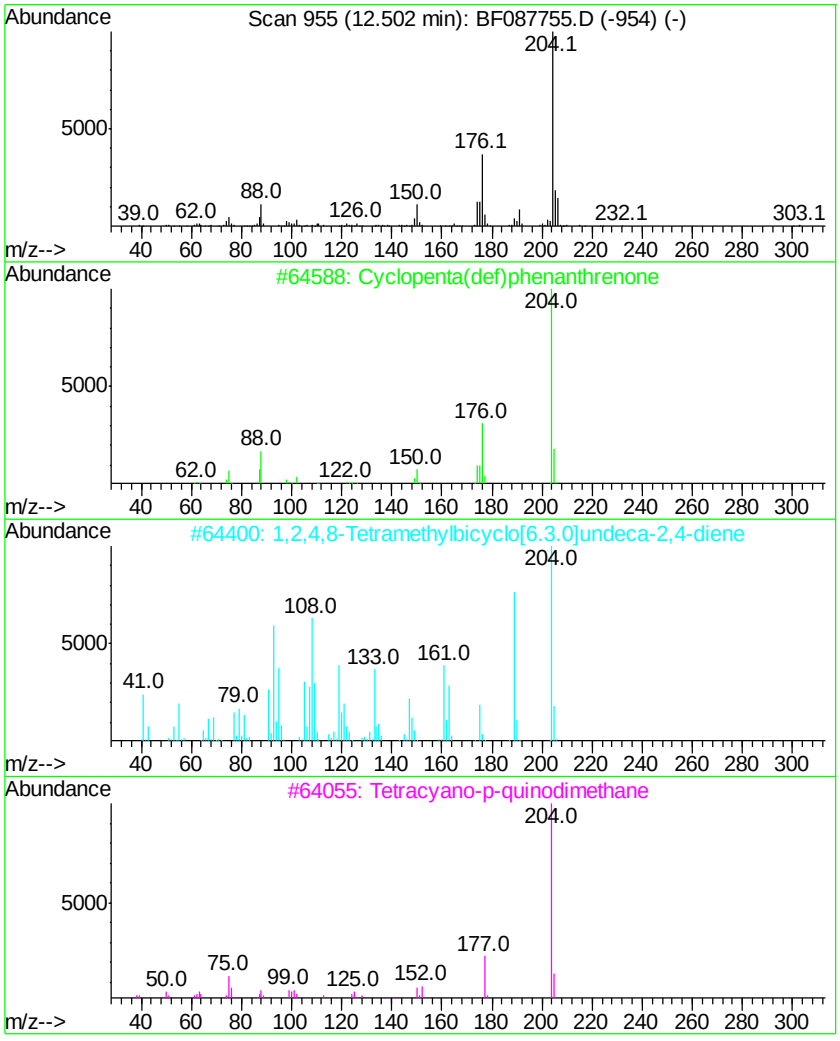
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

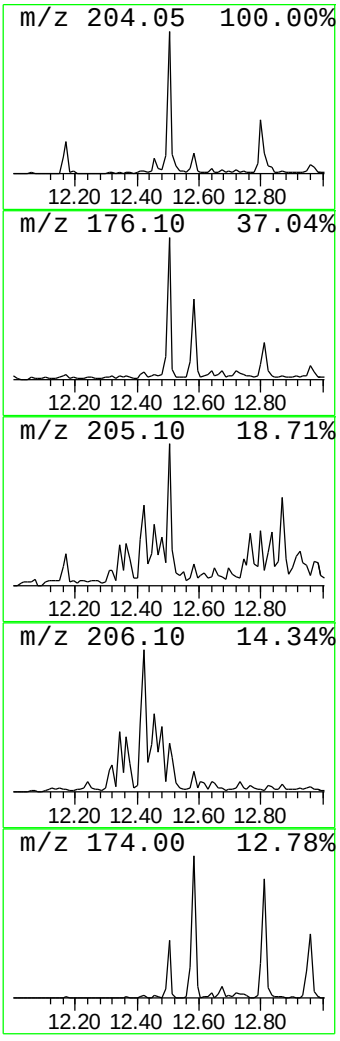
**********

Peak Number 14 Cyclopenta(def)phenanthrenone Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.50 | 5.14 ng | 243263 | Phenanthrene-d10 | 11.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 95 |
| 2 | 1,2,4,8-Tetramethylbicyclo[6.3.0... | 204 | C15H24 | 137235-51-9 | 53 |
| 3 | Tetracyano-p-quinodimethane | 204 | C12H4N4 | 001518-16-7 | 50 |
| 4 | [1,1'-Biphenyl]-2,2'-dicarbonitrile | 204 | C14H8N2 | 004341-02-0 | 49 |
| 5 | [1,1'-Biphenyl]-4,4'-dicarbonitrile | 204 | C14H8N2 | 001591-30-6 | 47 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

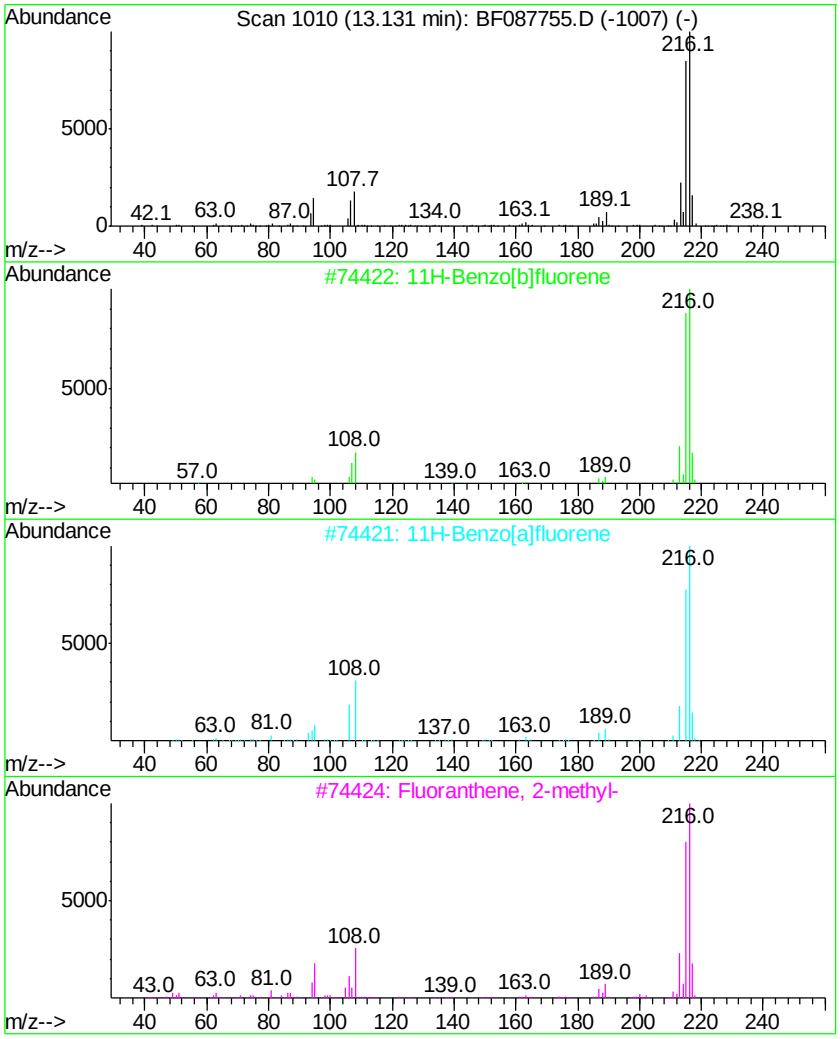
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

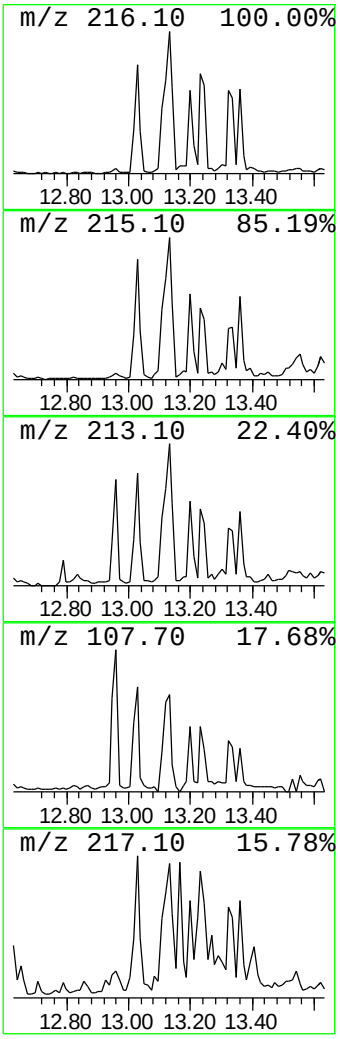
**********

Peak Number 15 11H-Benzo[b]fluorene Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.13 | 4.19 ng | 497148 | Chrysene-d12 | 14.01 |

| 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 | 93 |
| 3 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 91 |
| 4 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 87 |
| 5 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 86 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

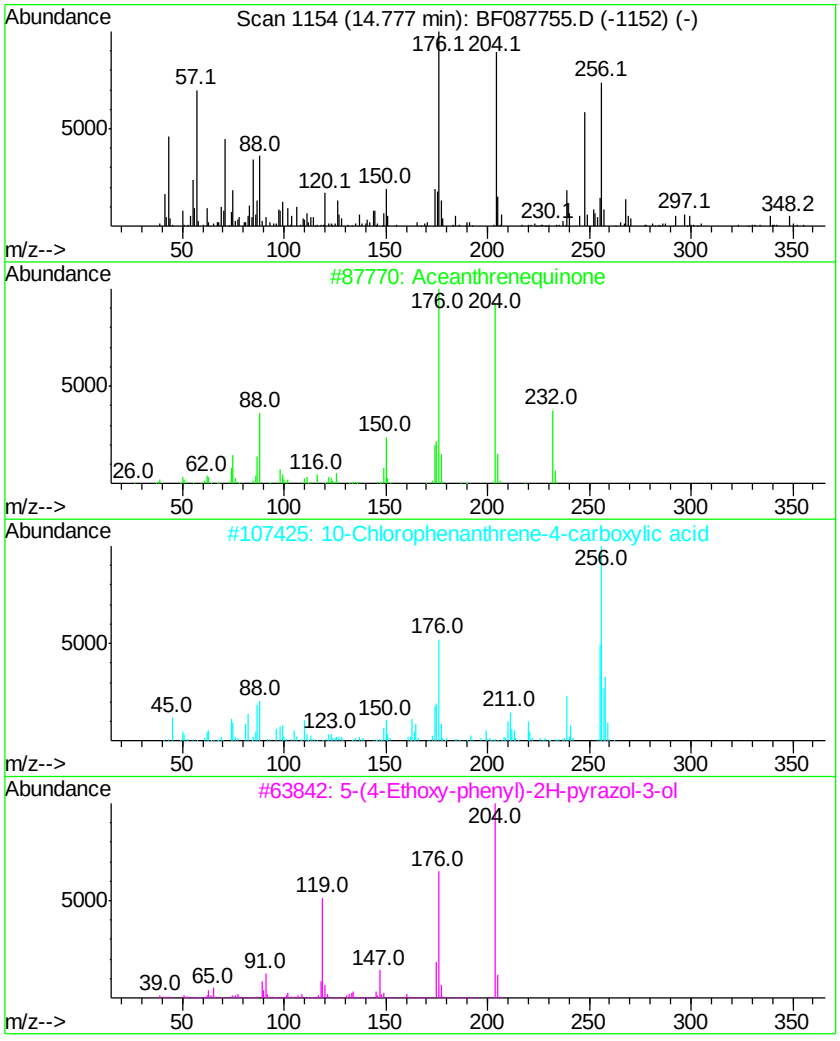
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

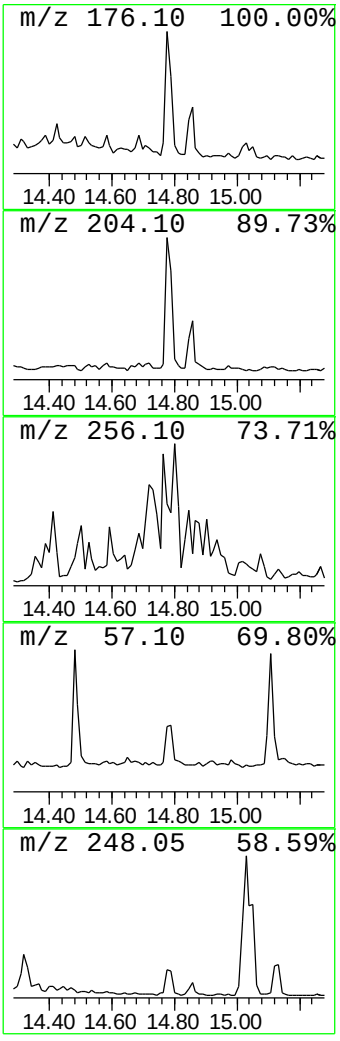
**********

Peak Number 16 unknown14.78 Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.78 | 3.79 ng | 180861 | Perylene-d12 | 15.43 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Aceanthrenequinone | 232 | C16H8O2 | 006373-11-1 | 43 |
| 2 | 10-Chlorophenanthrene-4-carboxyl... | 256 | C15H9ClO2 | 026698-22-6 | 35 |
| 3 | 5-(4-Ethoxy-phenyl)-2H-pyrazol-3-ol | 204 | C11H12N2O2 | 1000278-26-8 | 18 |
| 4 | Benz(a)anthracene, 4,7-dimethyl- | 256 | C20H16 | 035187-18-9 | 15 |
| 5 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 14 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

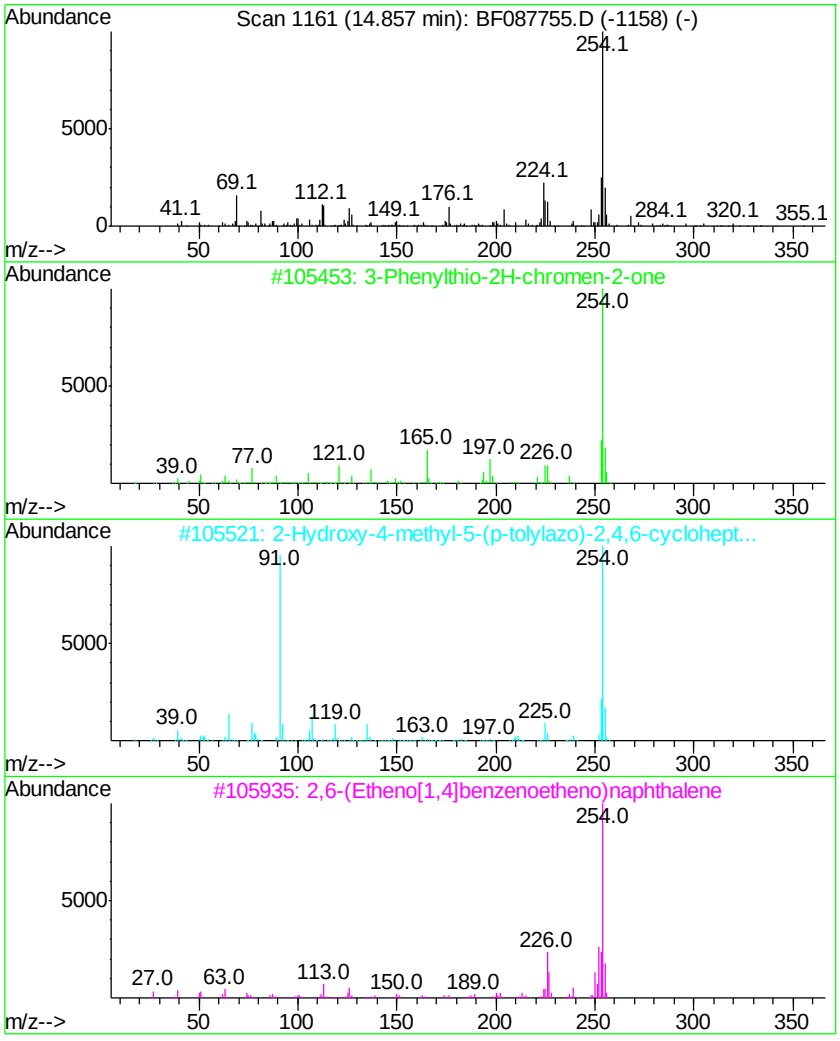
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

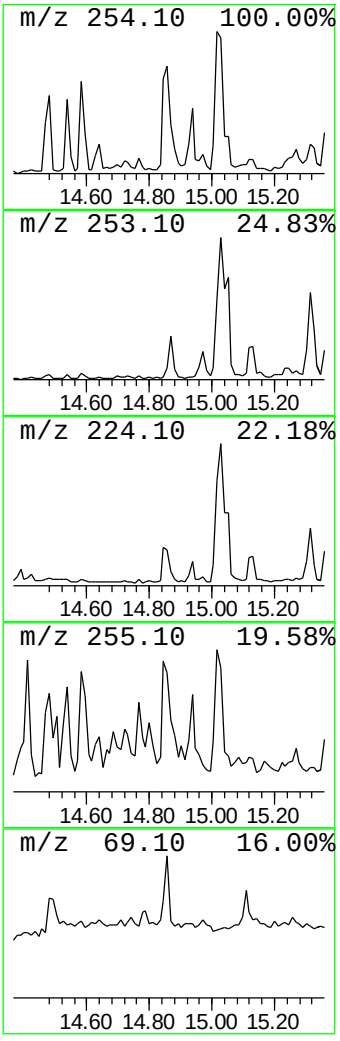
**********

Peak Number 17 3-Phenylthio-2H-chromen-2-one Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.86 | 5.32 ng | 253824 | Perylene-d12 | 15.43 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Phenylthio-2H-chromen-2-one | 254 | C15H10O2S | 072167-95-4 | 68 |
| 2 | 2-Hydroxy-4-methyl-5-(p-tolylazo... | 254 | C15H14N2O2 | 066777-90-0 | 64 |
| 3 | 2,6-(Etheno[1,4]benzenoetheno)na... | 254 | C20H14 | 117054-70-3 | 58 |
| 4 | 2,2'-Binaphthalene | 254 | C20H14 | 000612-78-2 | 58 |
| 5 | Estra-1,3,5(10),16-tetraen-3-ol | 254 | C18H22O | 001150-90-9 | 53 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

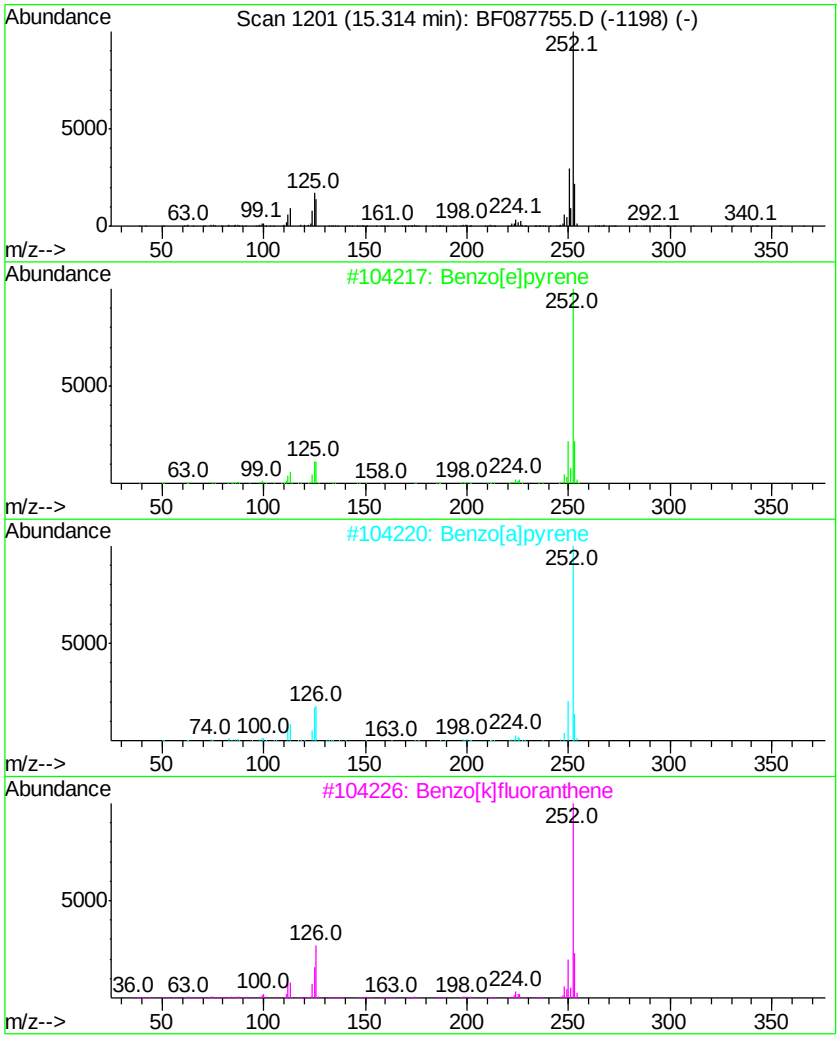
TIC Library : C:\Database\NIST11.L
TIC Integration Parameters: LSCINT.P

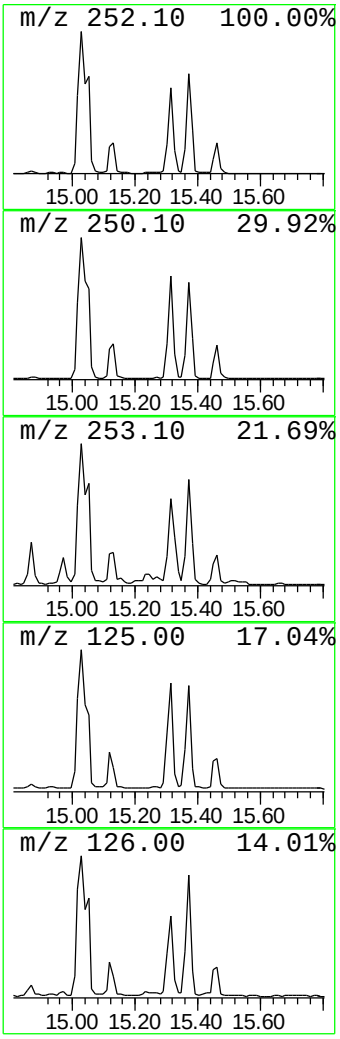
**********

Peak Number 19 Benzo[e]pyrene Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.31 | 16.12 ng | 768470 | Perylene-d12 | 15.43 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 96 |
| 2 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 95 |
| 3 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 93 |
| 4 | Perylene | 252 | C20H12 | 000198-55-0 | 91 |
| 5 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 90 |



# Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF060616\
Data File : BF087755.D
Acq On : 6 Jun 2016 16:44
Operator : UM/SJ
Sample : H3267-13
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** STA-TA-1261+50(0-4)

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF060416.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 |
| Propane, 2,2-dime... | 1.72 | 194.9 | ng | 7387770 | 1 | 6.86 | 758116 | 20.0 |
| Propane, 1,1-dime... | 2.12 | 5.2 | ng | 196415 | 1 | 6.86 | 758116 | 20.0 |
| 2-Pentanone, 4-hy... | 5.04 | 17.2 | ng | 651745 | 1 | 6.86 | 758116 | 20.0 |
| unknown6.62 | 6.62 | 92.2 | ng | 3494740 | 1 | 6.86 | 758116 | 20.0 |
| Tetradecane | 10.80 | 6.3 | ng | 295867 | 4 | 11.37 | 945733 | 20.0 |
| Anthracene, 1-met... | 11.90 | 4.0 | ng | 189018 | 4 | 11.37 | 945733 | 20.0 |
| Benzaldehyde, 3,5... | 11.98 | 7.5 | ng | 352267 | 4 | 11.37 | 945733 | 20.0 |
| Pentadecane | 12.08 | 3.9 | ng | 184583 | 4 | 11.37 | 945733 | 20.0 |
| 9,10-Anthracenedione | 12.18 | 5.7 | ng | 268013 | 4 | 11.37 | 945733 | 20.0 |
| Phenanthrene, 2,5... | 12.42 | 4.6 | ng | 219517 | 4 | 11.37 | 945733 | 20.0 |
| Cyclopenta(def)ph... | 12.50 | 5.1 | ng | 243263 | 4 | 11.37 | 945733 | 20.0 |
| 11H-Benzo[b]fluorene | 13.13 | 4.2 | ng | 497148 | 5 | 14.01 | 2372890 | 20.0 |
| unknown14.78 | 14.78 | 3.8 | ng | 180861 | 6 | 15.43 | 953463 | 20.0 |
| 3-Phenylthio-2H-c... | 14.86 | 5.3 | ng | 253824 | 6 | 15.43 | 953463 | 20.0 |
| Benzo[e]pyrene | 15.31 | 16.1 | ng | 768470 | 6 | 15.43 | 953463 | 20.0 |