LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

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_G\METHODS\8270-BG080116.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 | 5.159 | 389 | 395 | 406 | rVB | 193309 | 310749 | 4.84% | 0.661% |
| 2 | 5.641 | 468 | 477 | 489 | rBV | 921768 | 1607793 | 25.02% | 3.421% |
| 3 | 7.256 | 745 | 752 | 766 | rBV | 610713 | 1153953 | 17.96% | 2.455% |
| 4 | 7.620 | 806 | 814 | 829 | rVB | 1744714 | 3085817 | 48.02% | 6.566% |
| 5 | 8.090 | 887 | 894 | 901 | rBV | 489049 | 825353 | 12.84% | 1.756% |
| 6 | 8.419 | 942 | 950 | 956 | rBV | 1528591 | 2709418 | 42.17% | 5.765% |
| 7 | 9.271 | 1088 | 1095 | 1104 | rBV | 1362060 | 2467396 | 38.40% | 5.250% |
| 8 | 9.729 | 1168 | 1173 | 1179 | rVB | 73946 | 137135 | 2.13% | 0.292% |
| 9 | 10.646 | 1318 | 1329 | 1333 | rBV | 21855 | 70789 | 1.10% | 0.151% |
| 10 | 10.928 | 1369 | 1377 | 1390 | rBV | 709055 | 1366488 | 21.27% | 2.907% |
| 11 | 12.044 | 1561 | 1567 | 1575 | rVB | 413484 | 746339 | 11.61% | 1.588% |
| 12 | 12.238 | 1595 | 1600 | 1609 | rVB3 | 47042 | 92349 | 1.44% | 0.196% |
| 13 | 12.373 | 1619 | 1623 | 1631 | rBV9 | 27940 | 65219 | 1.01% | 0.139% |
| 14 | 12.484 | 1636 | 1642 | 1648 | rBV | 172434 | 304212 | 4.73% | 0.647% |
| 15 | 12.802 | 1688 | 1696 | 1703 | rBV2 | 248172 | 592670 | 9.22% | 1.261% |
| 16 | 13.207 | 1760 | 1765 | 1769 | rBV5 | 70450 | 143678 | 2.24% | 0.306% |
| 17 | 13.377 | 1784 | 1794 | 1801 | rBV | 3309509 | 5306976 | 82.59% | 11.292% |
| 18 | 13.683 | 1842 | 1846 | 1849 | rBV5 | 53647 | 77496 | 1.21% | 0.165% |
| 19 | 13.730 | 1851 | 1854 | 1857 | rBV5 | 54718 | 72029 | 1.12% | 0.153% |
| 20 | 13.929 | 1885 | 1888 | 1895 | rVB5 | 99068 | 190691 | 2.97% | 0.406% |
| 21 | 14.000 | 1895 | 1900 | 1905 | rBV9 | 57424 | 116751 | 1.82% | 0.248% |
| 22 | 14.094 | 1908 | 1916 | 1920 | rBV7 | 125500 | 299373 | 4.66% | 0.637% |
| 23 | 14.206 | 1930 | 1935 | 1941 | rBV | 625201 | 917406 | 14.28% | 1.952% |
| 24 | 14.317 | 1950 | 1954 | 1957 | rBV | 119640 | 173439 | 2.70% | 0.369% |
| 25 | 14.347 | 1957 | 1959 | 1965 | rVB3 | 94392 | 140023 | 2.18% | 0.298% |
| 26 | 14.482 | 1976 | 1982 | 1989 | rVB | 285889 | 526523 | 8.19% | 1.120% |
| 27 | 14.764 | 2024 | 2030 | 2037 | rBV2 | 1076355 | 1863875 | 29.01% | 3.966% |
| 28 | 14.822 | 2038 | 2040 | 2045 | rVB2 | 98976 | 140542 | 2.19% | 0.299% |
| 29 | 15.163 | 2094 | 2098 | 2104 | rVB4 | 153722 | 268730 | 4.18% | 0.572% |
| 30 | 15.234 | 2106 | 2110 | 2114 | rBV3 | 164898 | 252671 | 3.93% | 0.538% |
| 31 | 15.380 | 2130 | 2135 | 2140 | rBV6 | 142497 | 282622 | 4.40% | 0.601% |
| 32 | 15.469 | 2146 | 2150 | 2154 | rVB5 | 144505 | 200558 | 3.12% | 0.427% |
| 33 | 15.586 | 2166 | 2170 | 2175 | rVB5 | 145364 | 211079 | 3.28% | 0.449% |
| 34 | 15.944 | 2227 | 2231 | 2236 | rVB | 228459 | 316262 | 4.92% | 0.673% |

LSC Area Percent Report

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Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

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_G\METHODS\8270-BG080116.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 16.156 | 2262 | 2267 | 2275 | rVB3 | 705906 | 1415143 | 22.02% | 3.011% |
| 36 | 16.267 | 2280 | 2286 | 2299 | rVB | 2759983 | 4517011 | 70.30% | 9.611% |
| 37 | 16.450 | 2314 | 2317 | 2322 | rBV6 | 114808 | 179250 | 2.79% | 0.381% |
| 38 | 17.530 | 2496 | 2501 | 2506 | rVB2 | 1320563 | 1987370 | 30.93% | 4.229% |
| 39 | 18.412 | 2647 | 2651 | 2657 | rBV2 | 423211 | 613108 | 9.54% | 1.305% |
| 40 | 19.675 | 2863 | 2866 | 2870 | rBV2 | 312187 | 376886 | 5.87% | 0.802% |
| 41 | 20.139 | 2940 | 2945 | 2952 | rVB | 4884759 | 6425657 | 100.00% | 13.672% |
| 42 | 21.848 | 3230 | 3236 | 3244 | rVB2 | 1412062 | 2316263 | 36.05% | 4.928% |
| 43 | 25.232 | 3803 | 3812 | 3821 | rVB3 | 736886 | 2131814 | 33.18% | 4.536% |

Sum of corrected areas: 46998906

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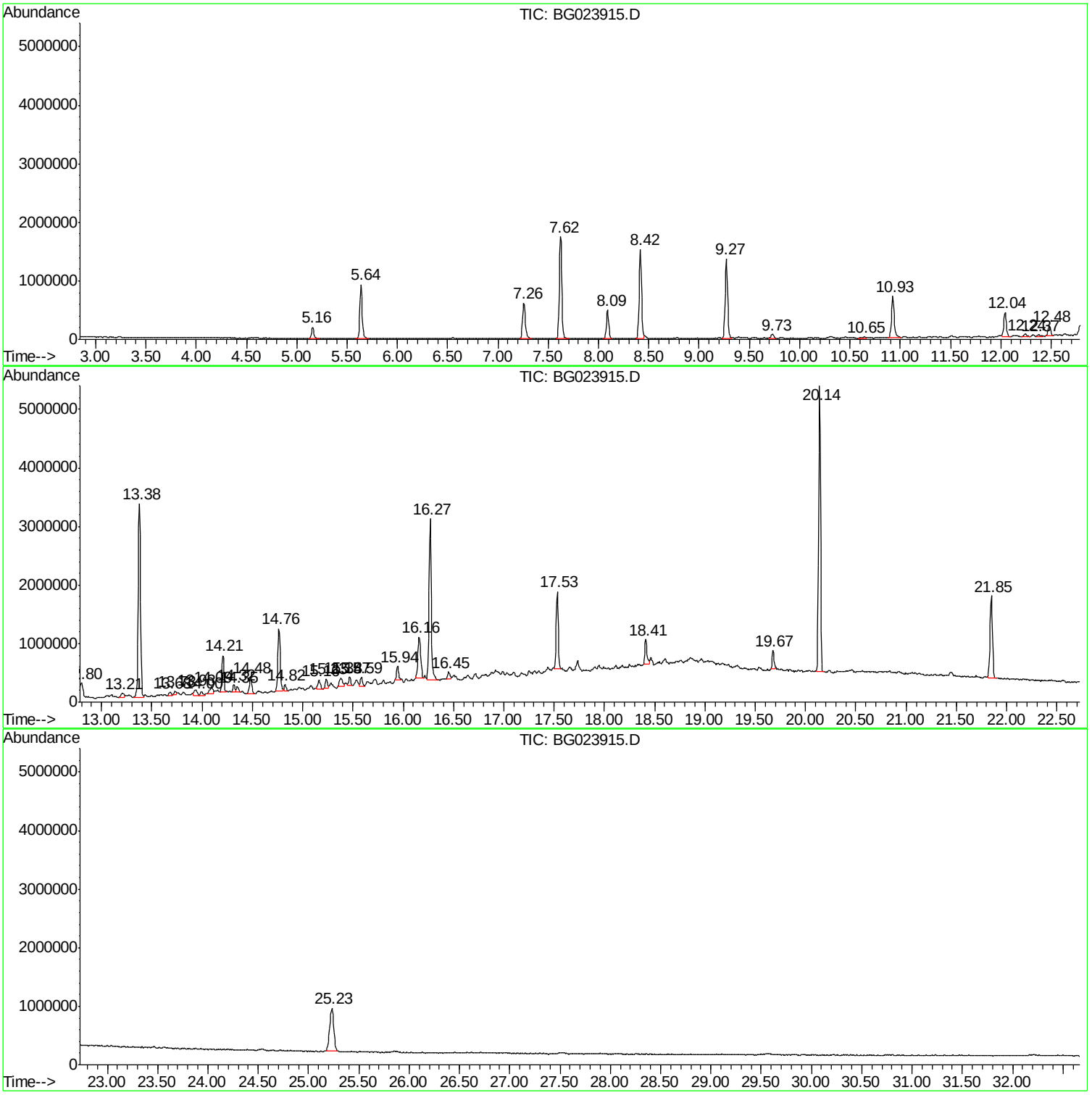
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :**
BNA_G
**ClientSampleId :**
MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.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_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

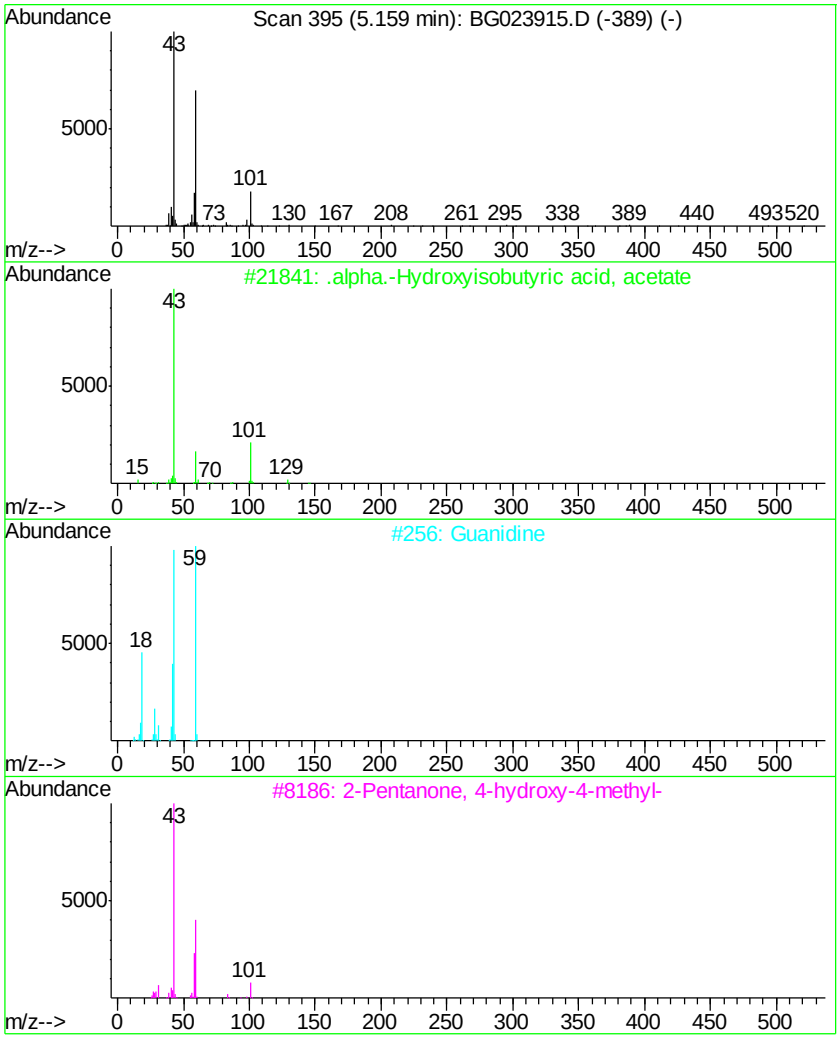
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

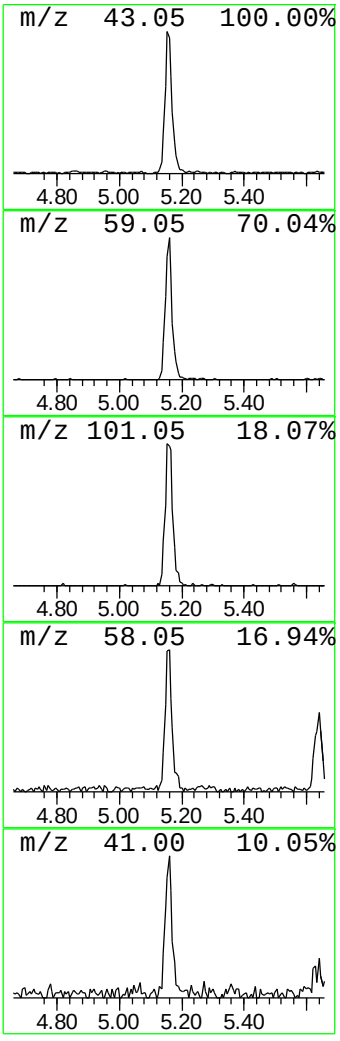
**********

Peak Number 1 .alpha.-Hydroxyisobutyric a... Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.16 | 7.53 ng | 310749 | 1,4-Dichlorobenzene-d4 | 8.09 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | .alpha.-Hydroxyisobutyric acid, ... | 146 | C6H10O4 | 1000374-31-3 | 53 |
| 2 | Guanidine | 59 | CH5N3 | 000113-00-8 | 47 |
| 3 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 42 |
| 4 | Hydrazine, 1,1-bis(1-methylethyl)- | 116 | C6H16N2 | 000921-14-2 | 25 |
| 5 | Propanoic acid, 3-nitro-, methyl... | 133 | C4H7NO4 | 020497-95-4 | 25 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

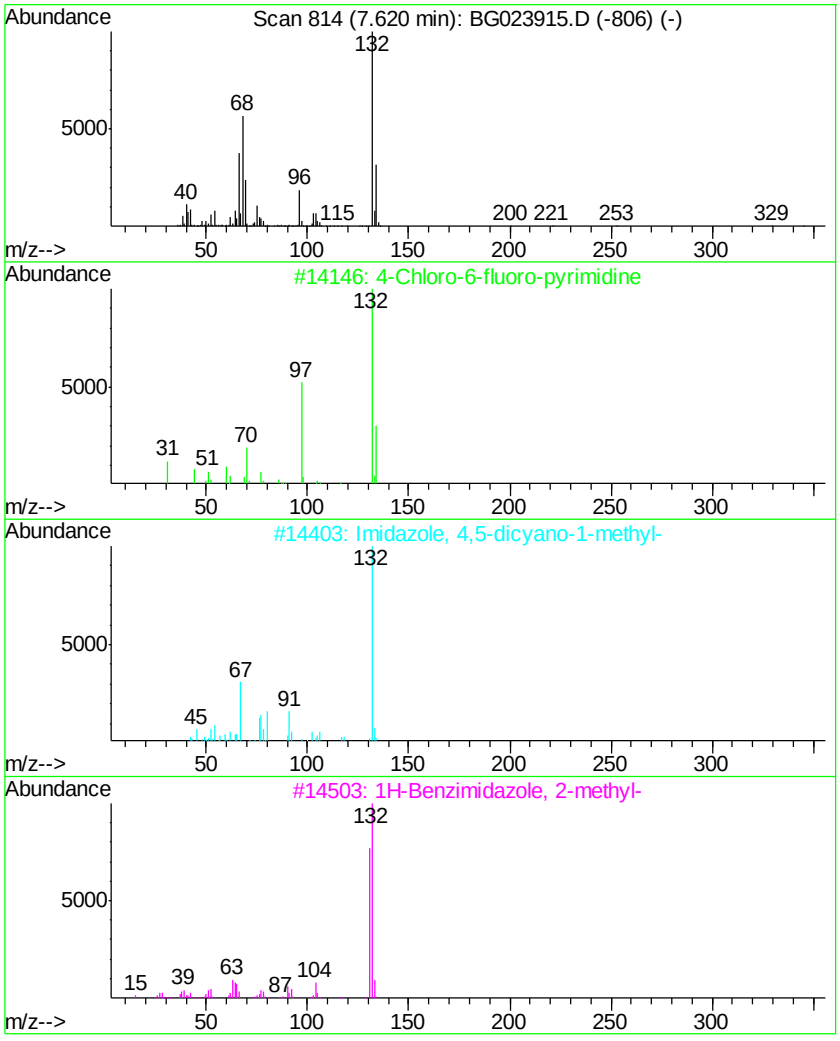
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

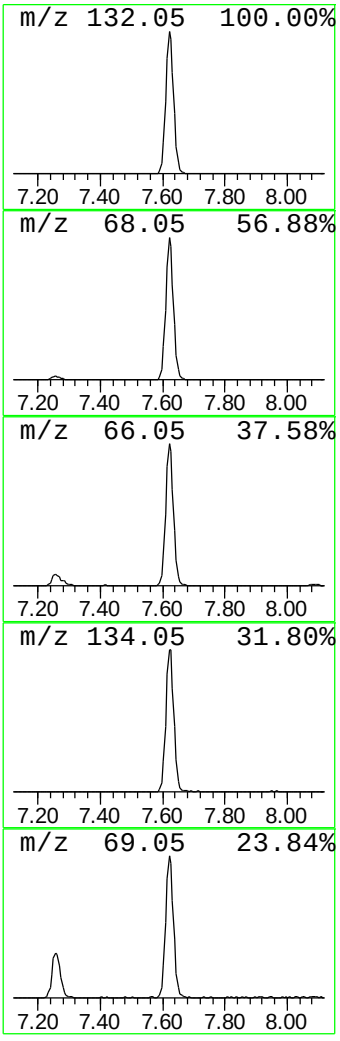
**********

Peak Number 2 unknown7.62 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 7.62 | 74.78 ng | 3085820 | 1,4-Dichlorobenzene-d4 | 8.09 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4-Chloro-6-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-01-6 | 27 |
| 2 | Imidazole, 4,5-dicyano-1-methyl- | 132 | C6H4N4 | 019485-35-9 | 25 |
| 3 | 1H-Benzimidazole, 2-methyl- | 132 | C8H8N2 | 000615-15-6 | 22 |
| 4 | 2H-Cyclopenta[d]pyridazine, 2-me... | 132 | C8H8N2 | 022291-85-6 | 16 |
| 5 | 1,3-Cyclopentanedione, 2-chloro- | 132 | C5H5ClO2 | 014203-19-1 | 13 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

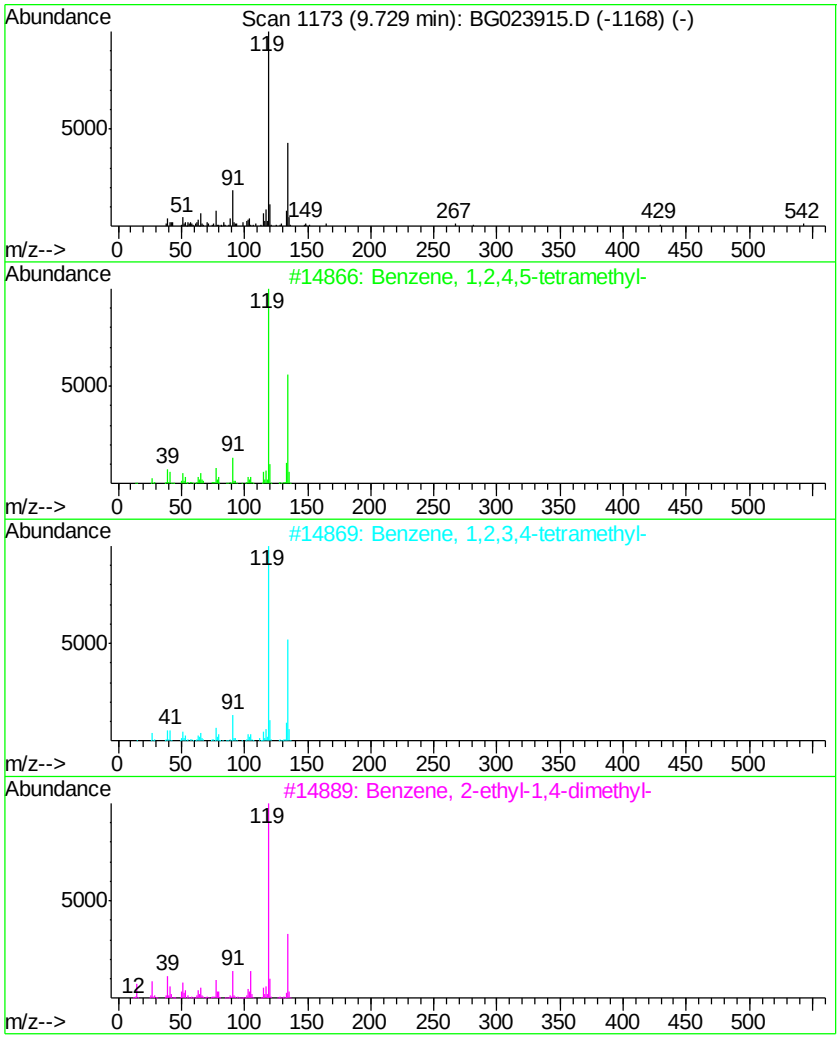
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

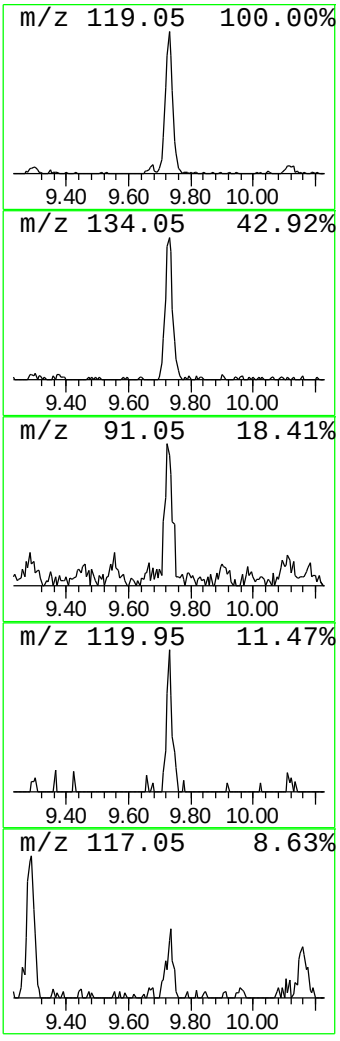
**********

Peak Number 4 Benzene, 1,2,4,5-tetramethyl- Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.73 | 2.01 ng | 137135 | Naphthalene-d8 | 10.93 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1,2,4,5-tetramethyl- | 134 | C10H14 | 000095-93-2 | 94 |
| 2 | Benzene, 1,2,3,4-tetramethyl- | 134 | C10H14 | 000488-23-3 | 94 |
| 3 | Benzene, 2-ethyl-1,4-dimethyl- | 134 | C10H14 | 001758-88-9 | 91 |
| 4 | Benzene, 1-ethyl-3,5-dimethyl- | 134 | C10H14 | 000934-74-7 | 91 |
| 5 | Benzene, 1,2,3,5-tetramethyl- | 134 | C10H14 | 000527-53-7 | 91 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
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Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

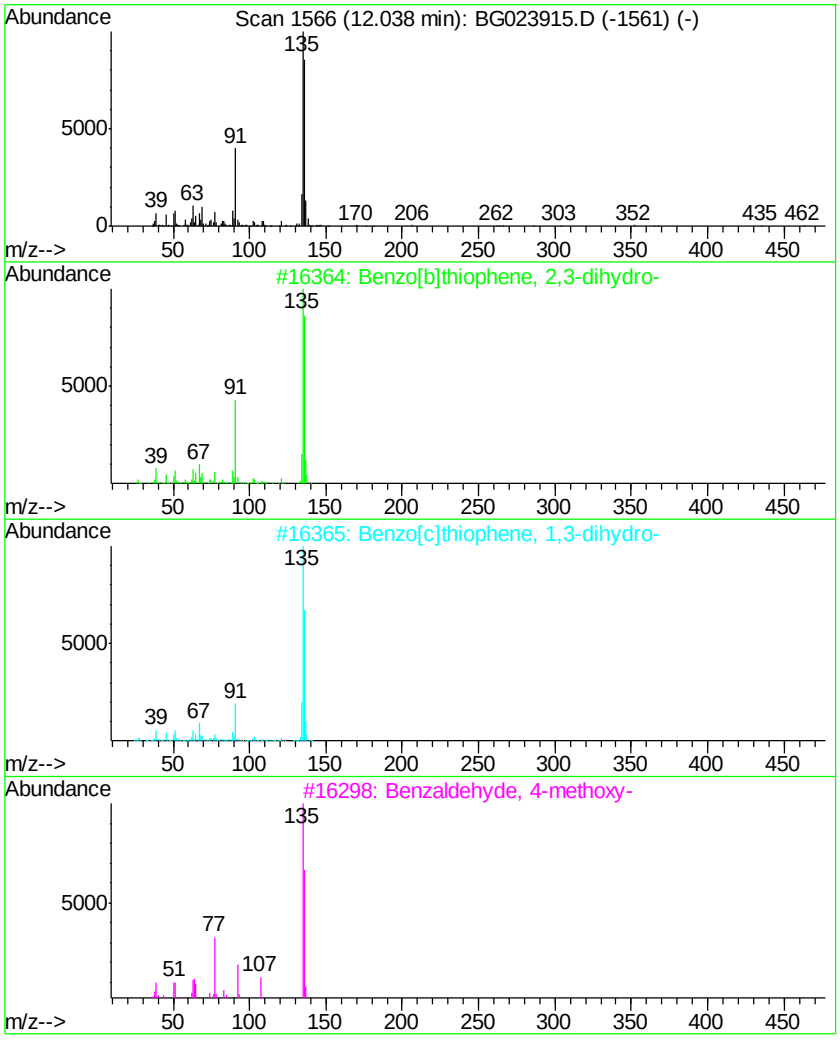
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

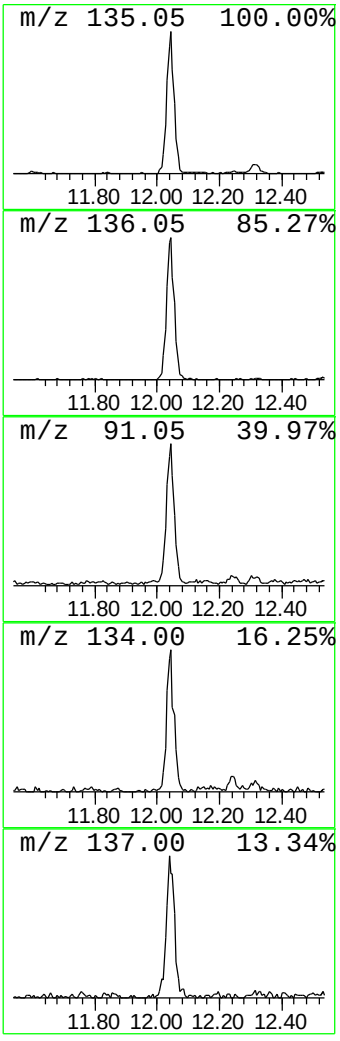
**********

Peak Number 5 Benzo[b]thiophene, 2,3-dihy... Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.04 | 10.92 ng | 746339 | Naphthalene-d8 | 10.93 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]thiophene, 2,3-dihydro- | 136 | C8H8S | 004565-32-6 | 94 |
| 2 | Benzo[c]thiophene, 1,3-dihydro- | 136 | C8H8S | 002471-92-3 | 90 |
| 3 | Benzaldehyde, 4-methoxy- | 136 | C8H8O2 | 000123-11-5 | 72 |
| 4 | Benzene, (ethenylthio)- | 136 | C8H8S | 001822-73-7 | 72 |
| 5 | 2-Hydroxy-5-methylbenzaldehyde | 136 | C8H8O2 | 000613-84-3 | 72 |



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Data File : BG023915.D
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Operator : UM/SJ
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Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

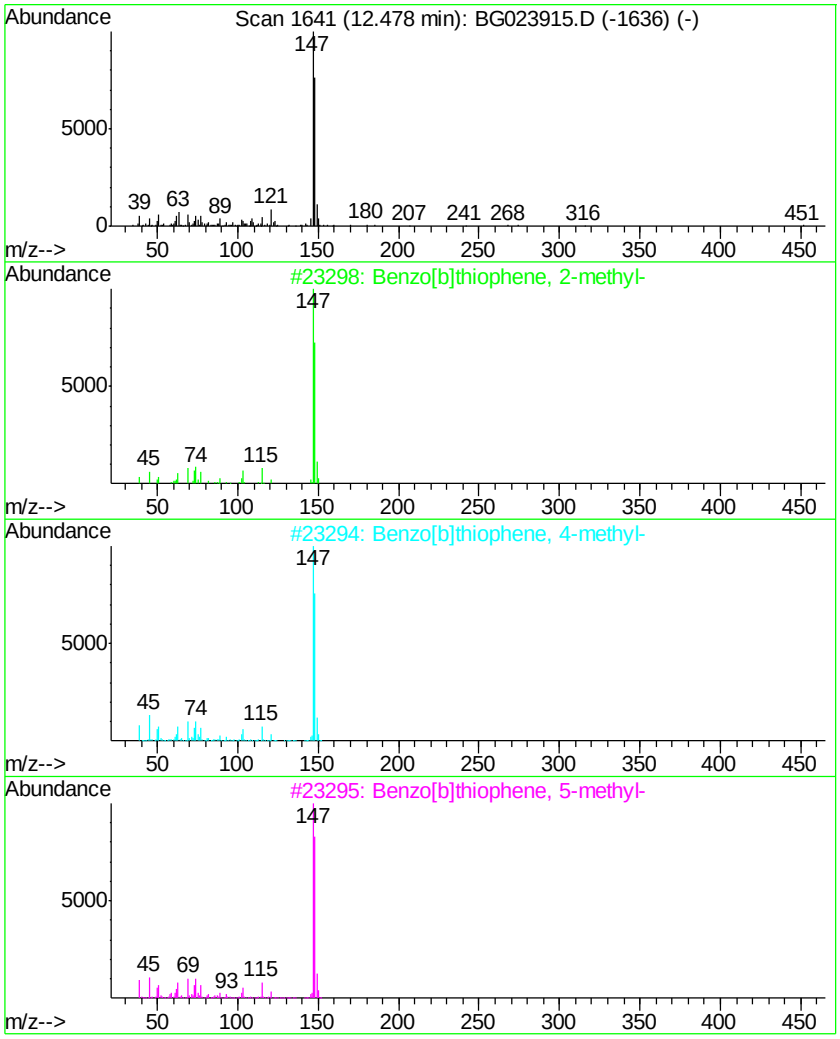
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

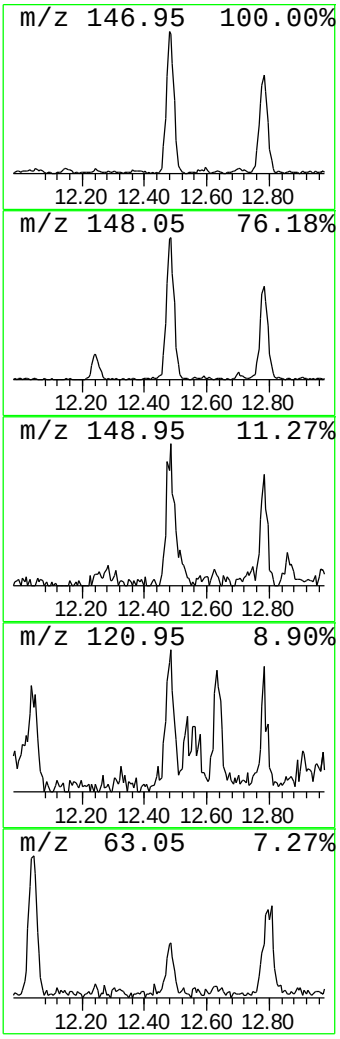
**********

Peak Number 6 Benzo[b]thiophene, 2-methyl- Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.48 | 4.45 ng | 304212 | Naphthalene-d8 | 10.93 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]thiophene, 2-methyl- | 148 | C9H8S | 001195-14-8 | 87 |
| 2 | Benzo[b]thiophene, 4-methyl- | 148 | C9H8S | 014315-11-8 | 87 |
| 3 | Benzo[b]thiophene, 5-methyl- | 148 | C9H8S | 014315-14-1 | 87 |
| 4 | 3-Methylbenzothiophene | 148 | C9H8S | 001455-18-1 | 80 |
| 5 | Pyridine, 4-(1-pyrrolidinyl)- | 148 | C9H12N2 | 002456-81-7 | 80 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
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Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

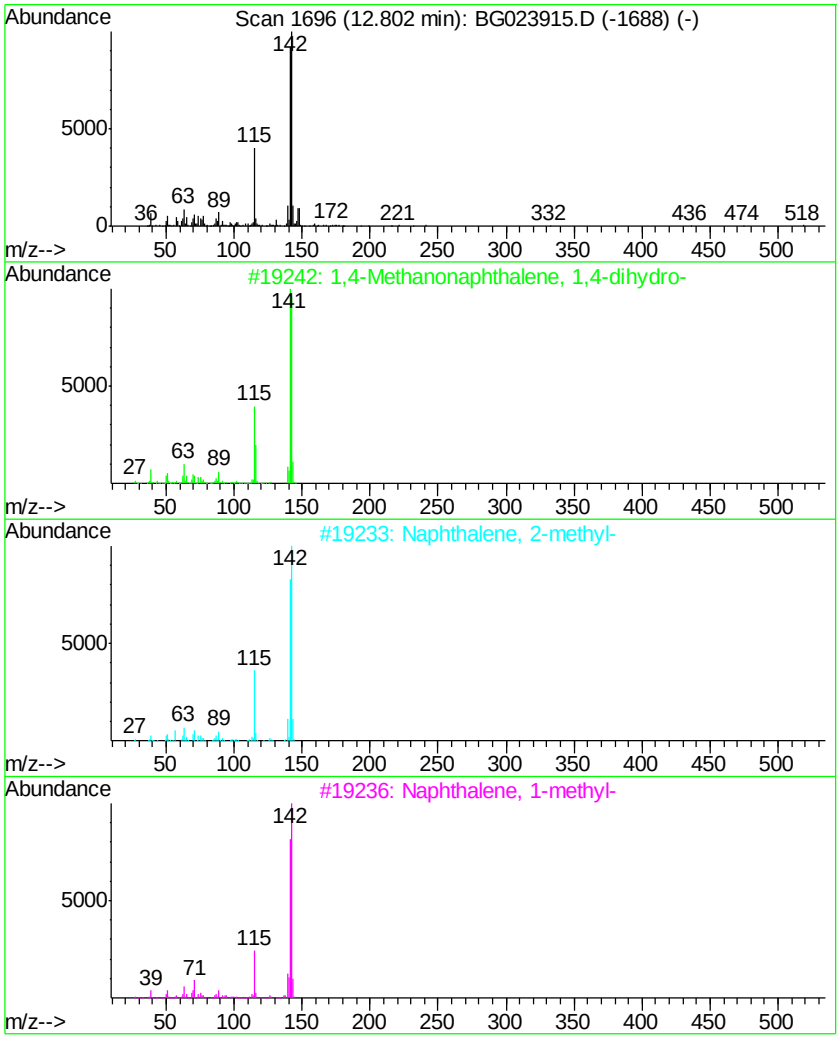
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

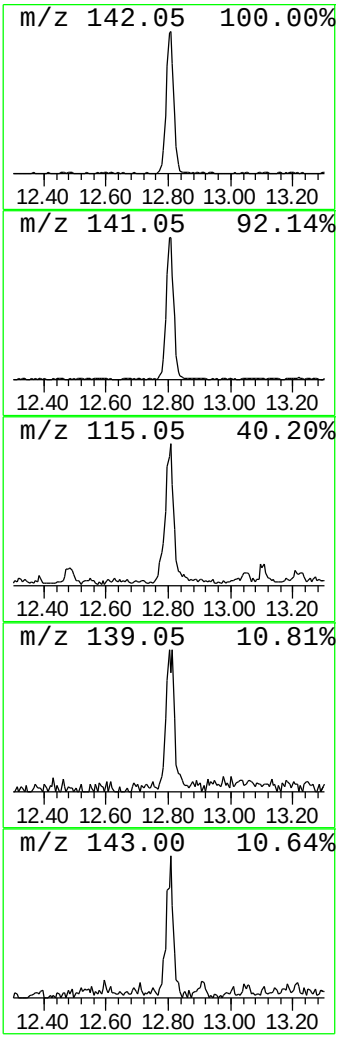
**********

Peak Number 7 1,4-Methanonaphthalene, 1,4... Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.80 | 8.67 ng | 592670 | Naphthalene-d8 | 10.93 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,4-Methanonaphthalene, 1,4-dihy... | 142 | C11H10 | 004453-90-1 | 91 |
| 2 | Naphthalene, 2-methyl- | 142 | C11H10 | 000091-57-6 | 87 |
| 3 | Naphthalene, 1-methyl- | 142 | C11H10 | 000090-12-0 | 87 |
| 4 | Benzocycloheptatriene | 142 | C11H10 | 000264-09-5 | 83 |
| 5 | Cobalt, [1,3-bis(diisopropylphos... | 478 | C26H45CoP2 | 1000160-15-3 | 72 |



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Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
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Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

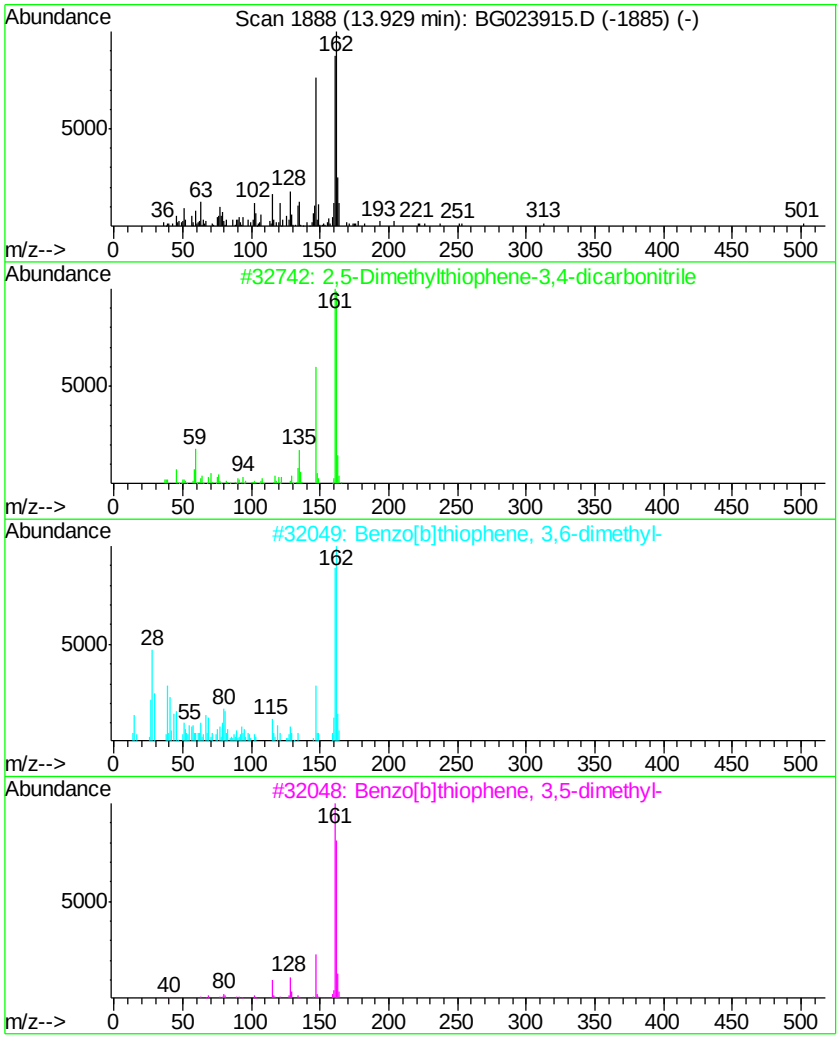
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

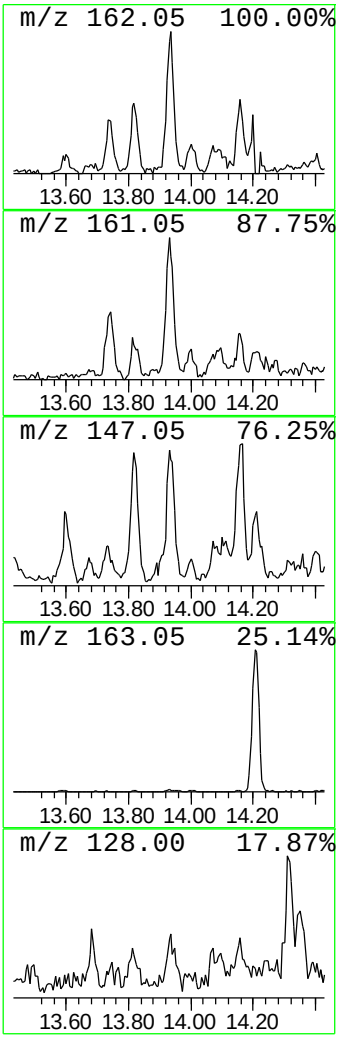
**********

Peak Number 8 2,5-Dimethylthiophene-3,4-d... Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.93 | 2.05 ng | 190691 | Acenaphthene-d10 | 14.76 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2,5-Dimethylthiophene-3,4-dicarb... | 162 | C8H6N2S | 1000305-40-9 | 72 |
| 2 | Benzo[b]thiophene, 3,6-dimethyl- | 162 | C10H10S | 016587-50-1 | 53 |
| 3 | Benzo[b]thiophene, 3,5-dimethyl- | 162 | C10H10S | 001964-45-0 | 49 |
| 4 | Benzene, 1-methoxy-4-(1-methyl-2... | 162 | C11H14O | 018272-83-8 | 47 |
| 5 | 5,8-Dimethyl-1,2,3,4-tetrahydroq... | 162 | C10H14N2 | 066102-39-4 | 43 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

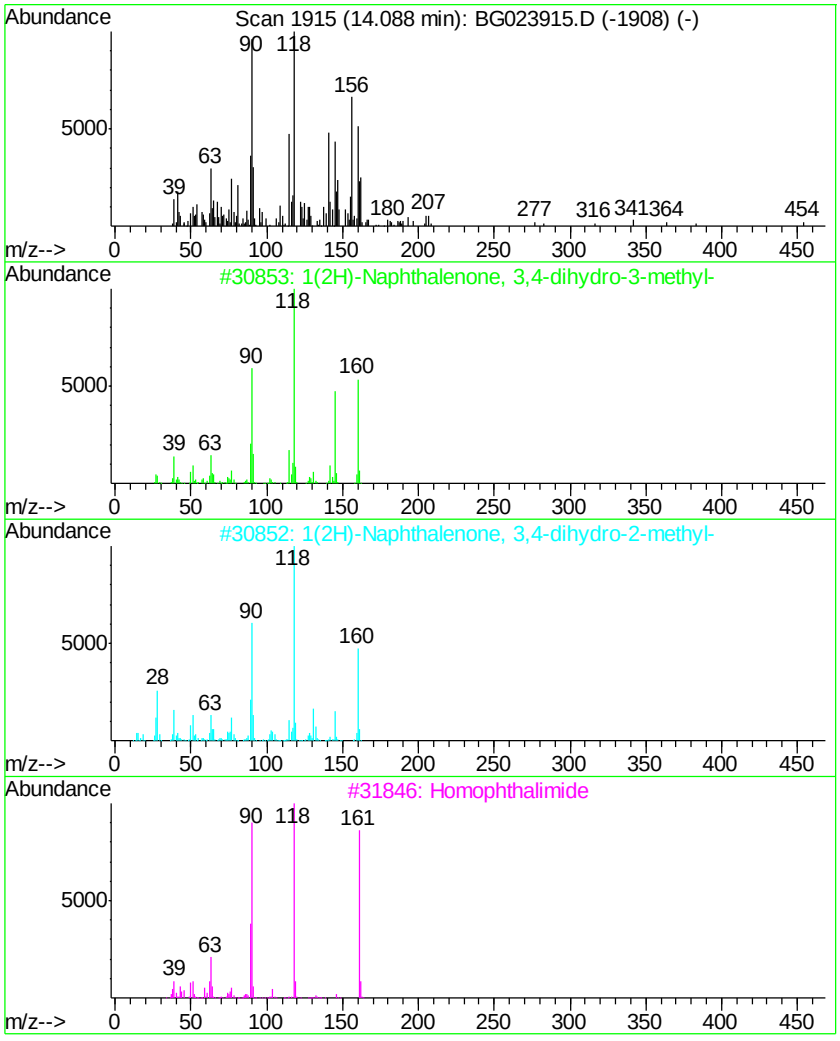
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

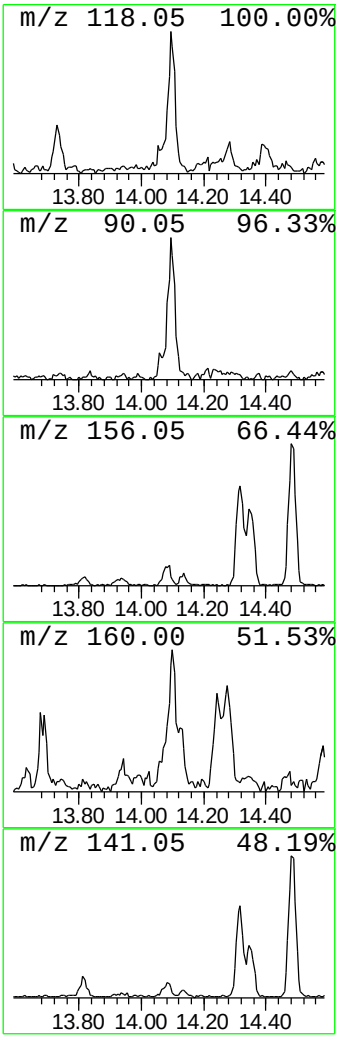
**********

Peak Number 9 1(2H)-Naphthalenone, 3,4-di... Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.09 | 3.21 ng | 299373 | Acenaphthene-d10 | 14.76 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1(2H)-Naphthalenone, 3,4-dihydro... | 160 | C11H12O | 014944-23-1 | 87 |
| 2 | 1(2H)-Naphthalenone, 3,4-dihydro... | 160 | C11H12O | 001590-08-5 | 80 |
| 3 | Homophthalimide | 161 | C9H7NO2 | 004456-77-3 | 64 |
| 4 | 2,4,6(1H,3H,5H)-Pyrimidinetrione... | 204 | C10H8N2O3 | 022275-34-9 | 59 |
| 5 | 1H-2-Benzothiopyran-4(3H)-one | 164 | C9H8OS | 004426-76-0 | 58 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

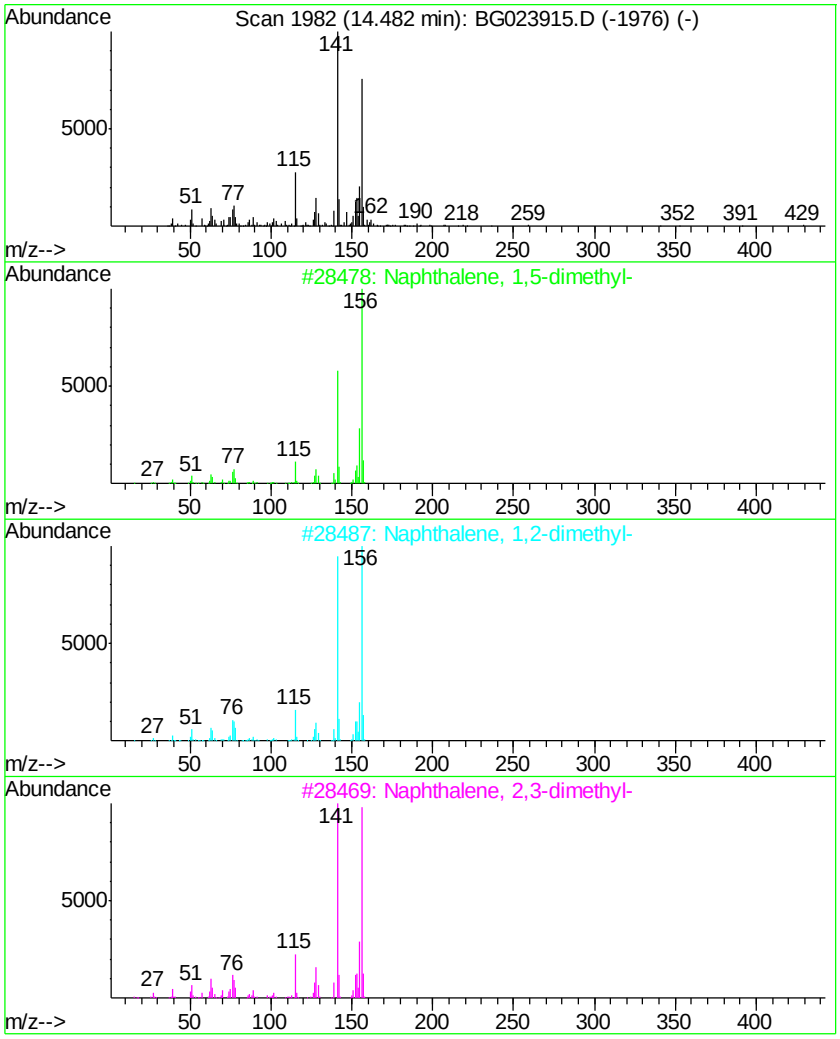
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

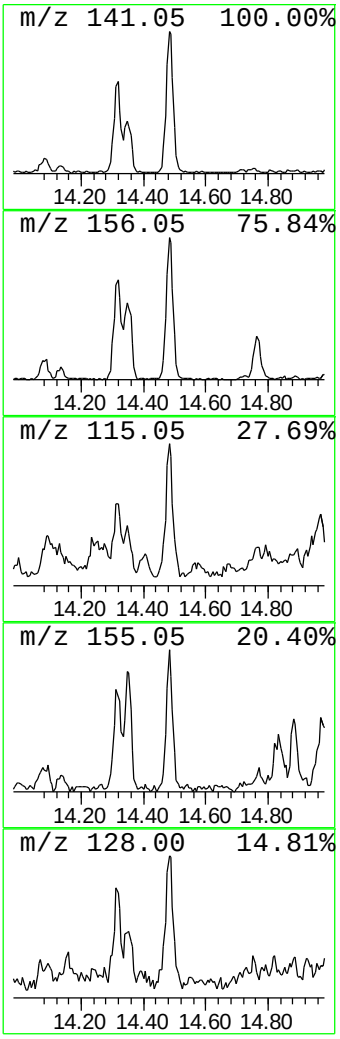
**********

Peak Number 10 Naphthalene, 1,5-dimethyl- Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.48 | 5.65 ng | 526523 | Acenaphthene-d10 | 14.76 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,5-dimethyl- | 156 | C12H12 | 000571-61-9 | 97 |
| 2 | Naphthalene, 1,2-dimethyl- | 156 | C12H12 | 000573-98-8 | 96 |
| 3 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 96 |
| 4 | Naphthalene, 1,8-dimethyl- | 156 | C12H12 | 000569-41-5 | 96 |
| 5 | Naphthalene, 1,3-dimethyl- | 156 | C12H12 | 000575-41-7 | 96 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

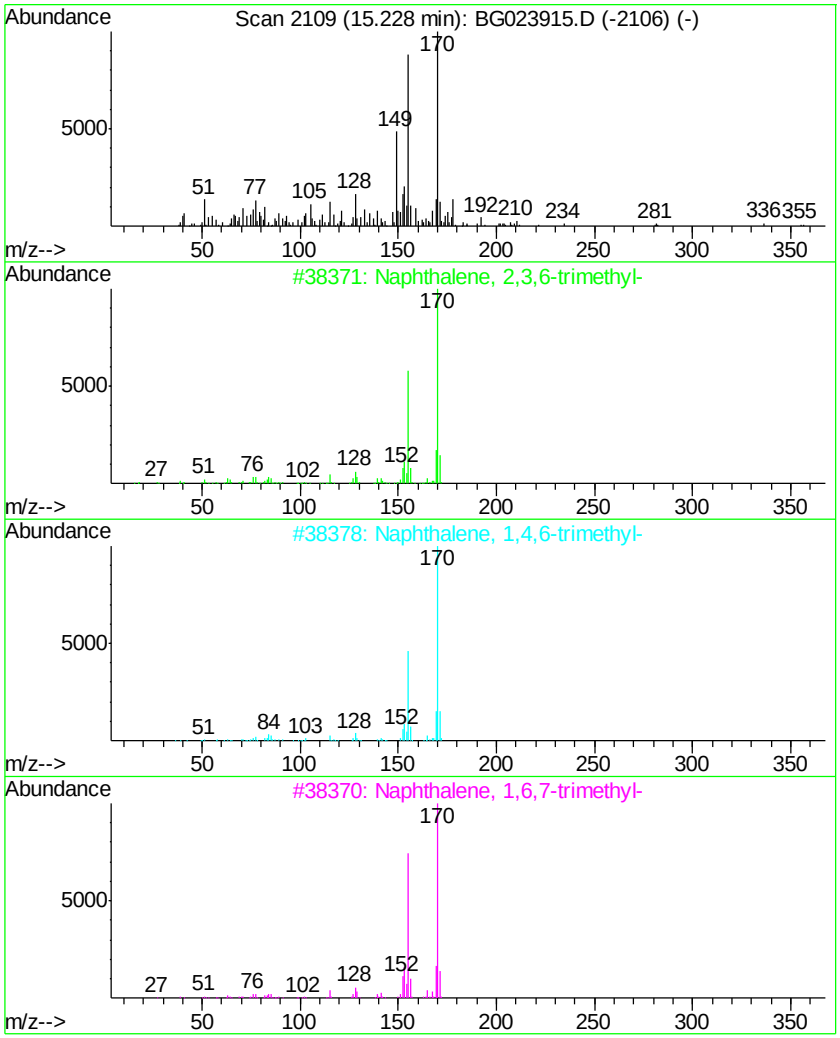
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

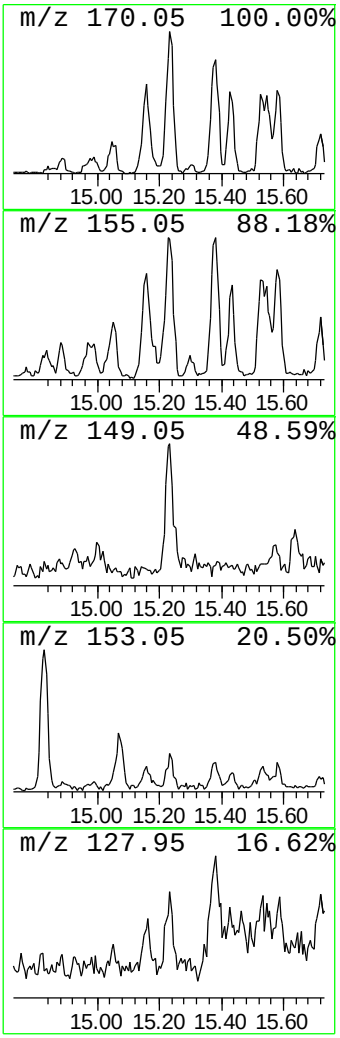
**********

Peak Number 12 Naphthalene, 2,3,6-trimethyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.23 | 2.71 ng | 252671 | Acenaphthene-d10 | 14.76 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 76 |
| 2 | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14 | 002131-42-2 | 76 |
| 3 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 70 |
| 4 | Naphthalene, 1,4,5-trimethyl- | 170 | C13H14 | 002131-41-1 | 70 |
| 5 | 4,6,8-Trimethylazulene | 170 | C13H14 | 000941-81-1 | 64 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

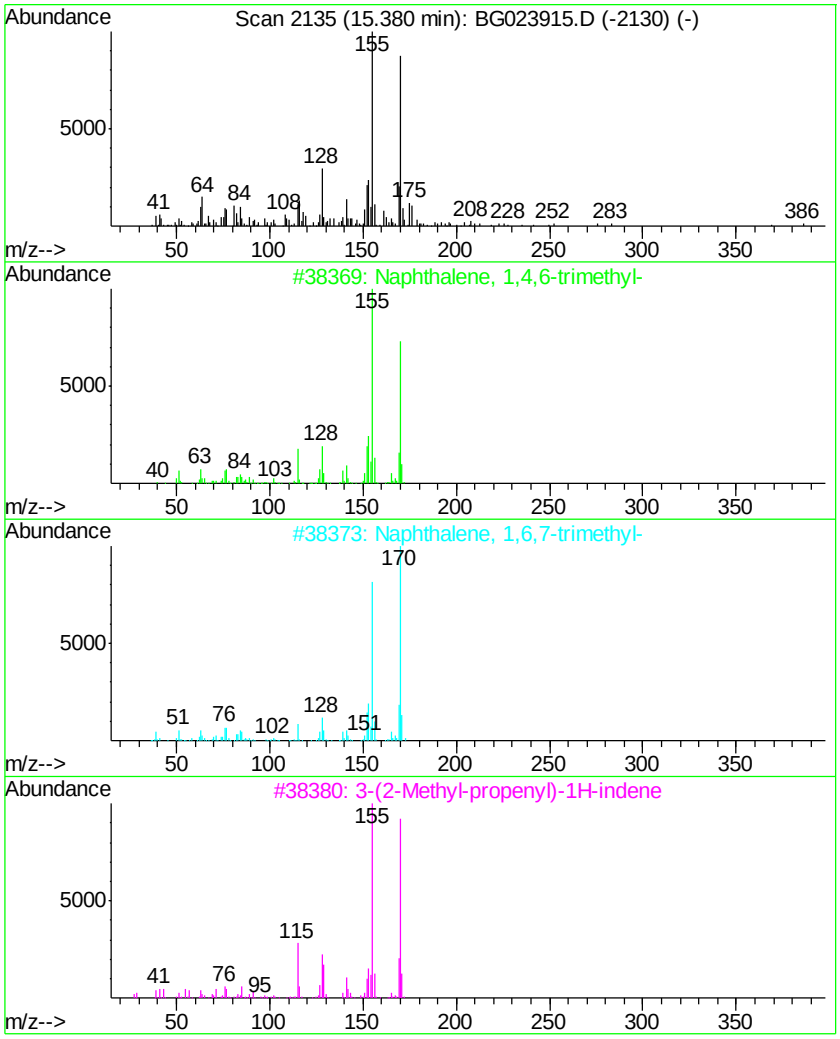
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

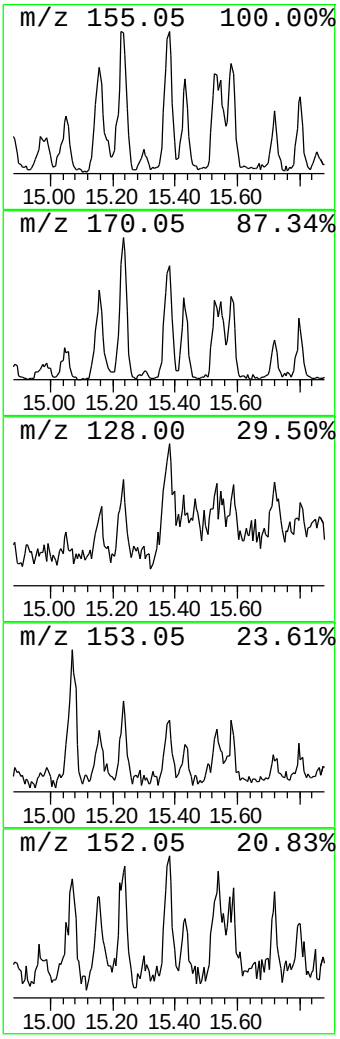
**********

Peak Number 13 Naphthalene, 1,4,6-trimethyl- Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.38 | 3.03 ng | 282622 | Acenaphthene-d10 | 14.76 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14 | 002131-42-2 | 93 |
| 2 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 91 |
| 3 | 3-(2-Methyl-propenyl)-1H-indene | 170 | C13H14 | 1000187-78-5 | 81 |
| 4 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 81 |
| 5 | 1-(2,2-Dimethylcyclopropyl)-2-ph... | 170 | C13H14 | 1000294-91-1 | 74 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

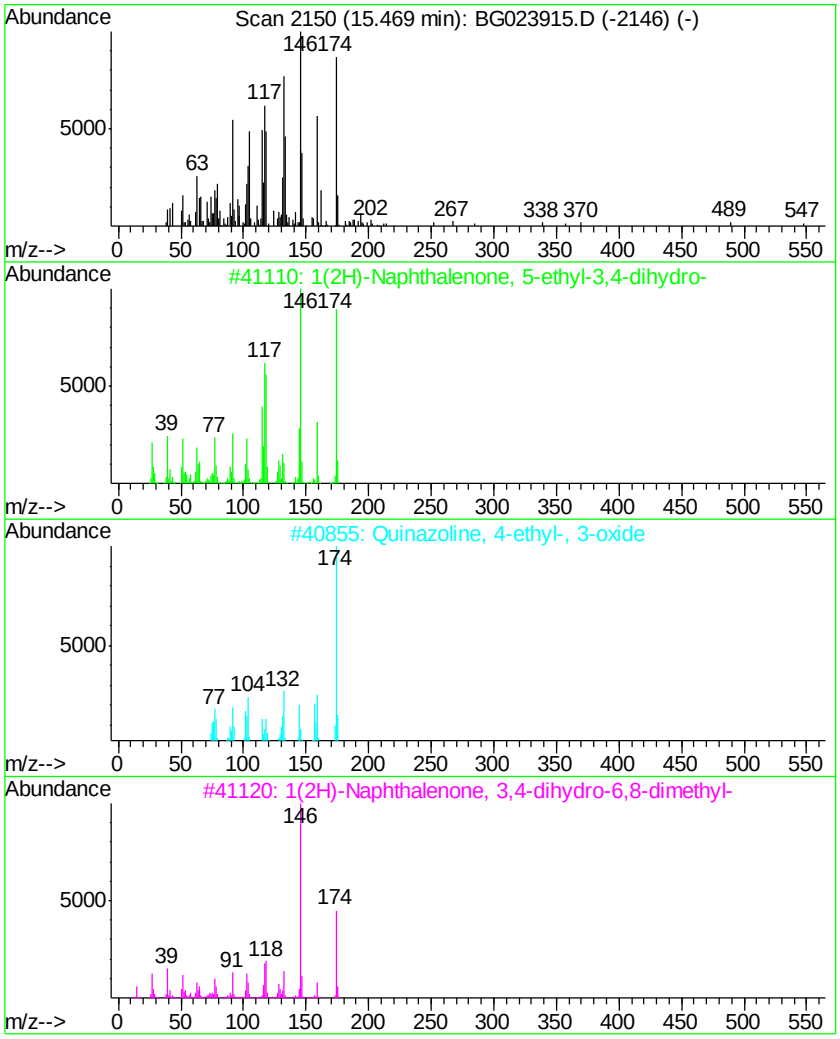
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

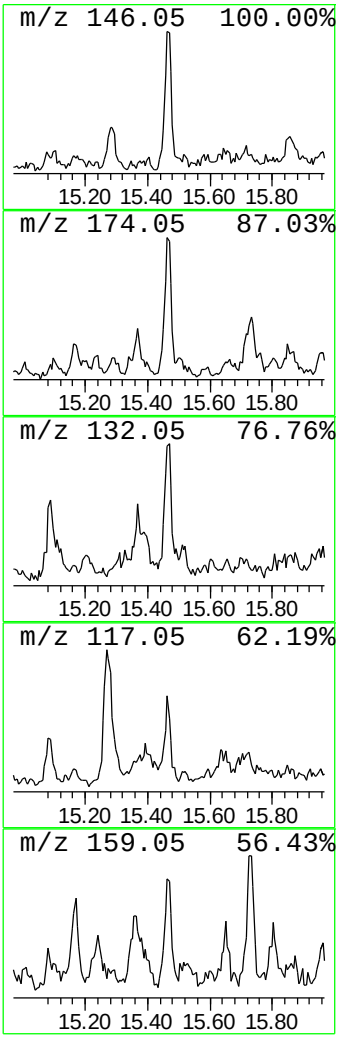
**********

Peak Number 14 1(2H)-Naphthalenone, 5-ethy... Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.47 | 2.15 ng | 200558 | Acenaphthene-d10 | 14.76 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1(2H)-Naphthalenone, 5-ethyl-3,4... | 174 | C12H14O | 051015-31-7 | 64 |
| 2 | Quinazoline, 4-ethyl-, 3-oxide | 174 | C10H10N2O | 037920-74-4 | 41 |
| 3 | 1(2H)-Naphthalenone, 3,4-dihydro... | 174 | C12H14O | 030316-30-4 | 38 |
| 4 | Cyclohexane, 1-ethynyl-1-isocyano- | 133 | C9H11N | 138313-44-7 | 30 |
| 5 | Bicyclo[4.2.1]nona-2,4,7-triene,... | 174 | C13H18 | 1000164-34-7 | 30 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

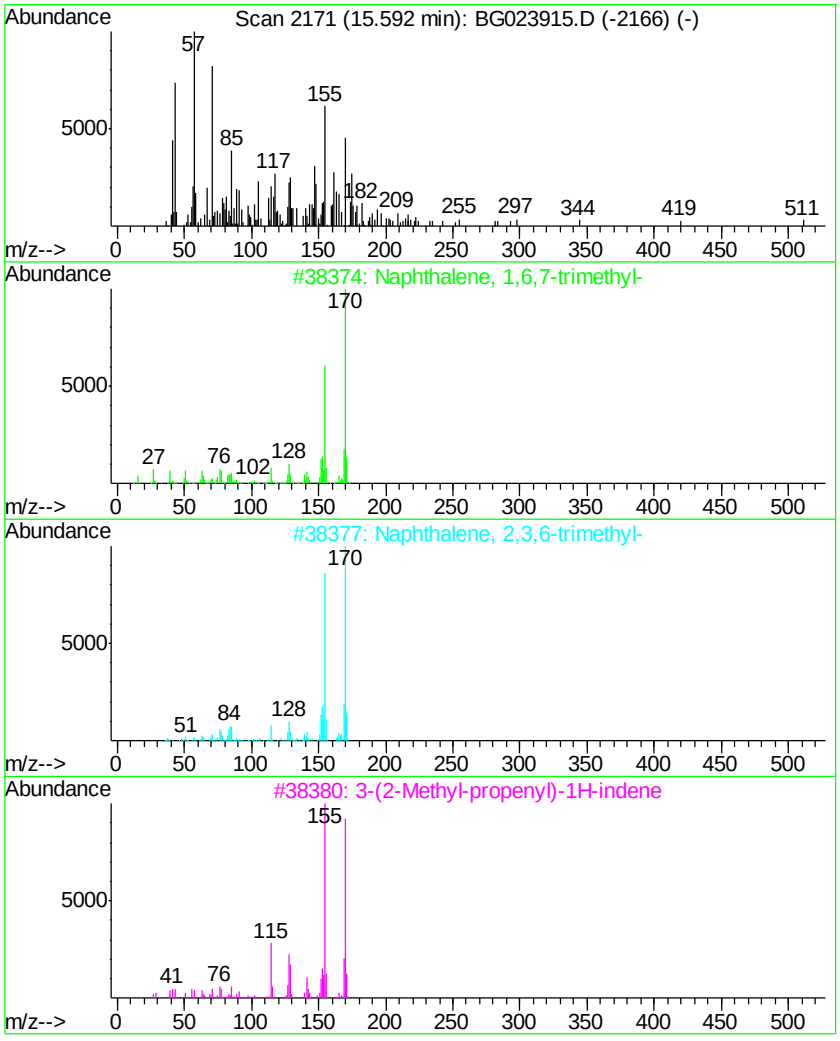
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

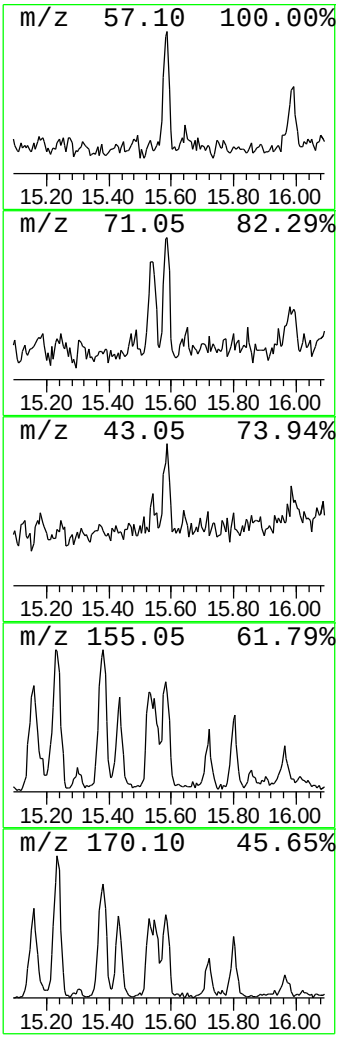
**********

Peak Number 15 Naphthalene, 1,6,7-trimethyl- Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.59 | 2.26 ng | 211079 | Acenaphthene-d10 | 14.76 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 60 |
| 2 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 60 |
| 3 | 3-(2-Methyl-propenyl)-1H-indene | 170 | C13H14 | 1000187-78-5 | 43 |
| 4 | 1-(2,2-Dimethylcyclopropyl)-2-ph... | 170 | C13H14 | 1000294-91-1 | 35 |
| 5 | 2,5-Dimethoxythiophenol | 170 | C8H10O2S | 001483-27-8 | 25 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

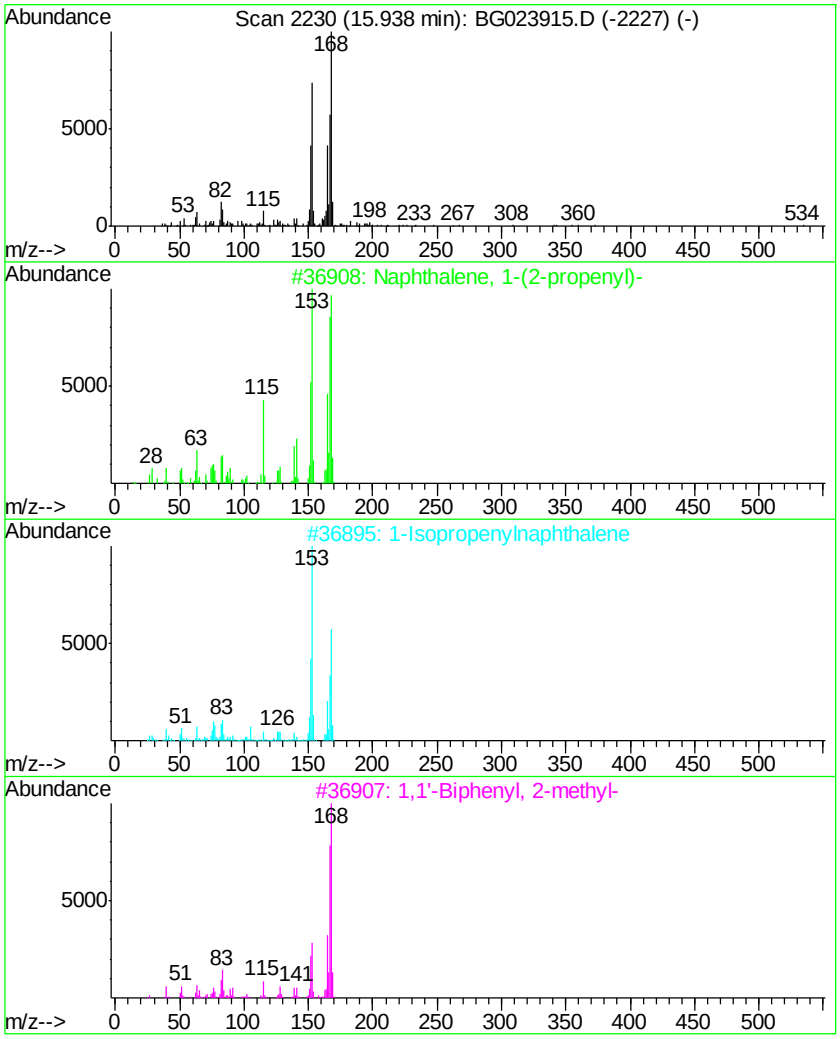
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

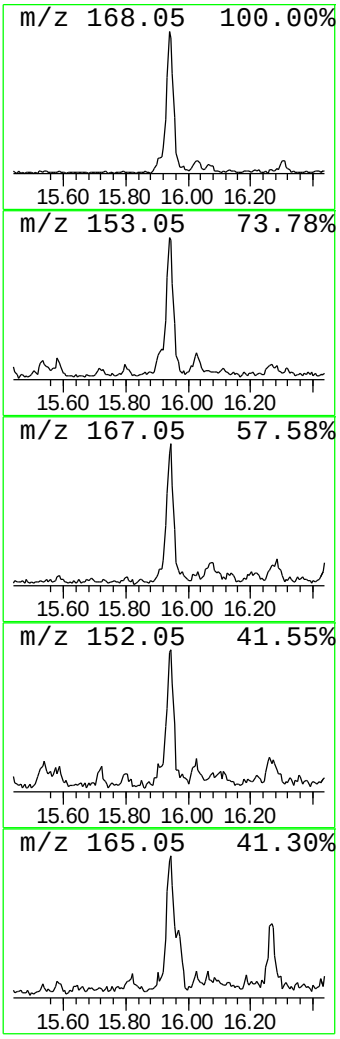
**********

Peak Number 16 Naphthalene, 1-(2-propenyl)- Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.94 | 3.39 ng | 316262 | Acenaphthene-d10 | 14.76 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1-(2-propenyl)- | 168 | C13H12 | 002489-86-3 | 91 |
| 2 | 1-Isopropenylnaphthalene | 168 | C13H12 | 001855-47-6 | 72 |
| 3 | 1,1'-Biphenyl, 2-methyl- | 168 | C13H12 | 000643-58-3 | 70 |
| 4 | 1,1'-Biphenyl, 3-methyl- | 168 | C13H12 | 000643-93-6 | 64 |
| 5 | Benzene, [1-(2,4-cyclopentadien-... | 168 | C13H12 | 002320-32-3 | 58 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

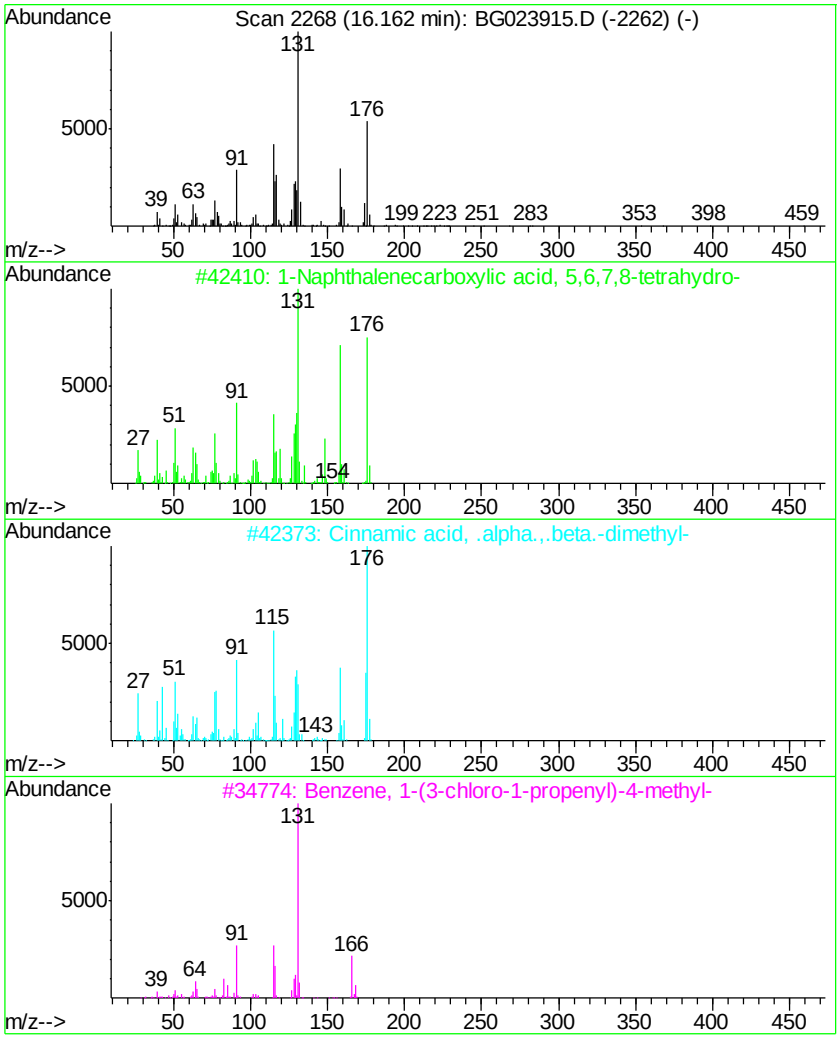
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

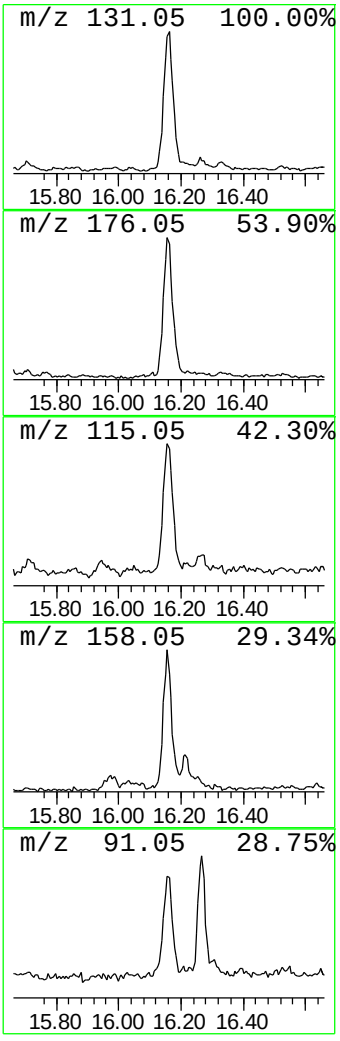
**********

Peak Number 17 1-Naphthalenecarboxylic aci... Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.16 | 14.24 ng | 1415140 | Phenanthrene-d10 | 17.53 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1-Naphthalenecarboxylic acid, 5,... | 176 | C11H12O2 | 004242-18-6 | 60 |
| 2 | Cinnamic acid, .alpha.,.beta.-di... | 176 | C11H12O2 | 1000151-56-4 | 46 |
| 3 | Benzene, 1-(3-chloro-1-propenyl)... | 166 | C10H11Cl | 1000327-36-5 | 43 |
| 4 | Benzene, (3-chloro-1-methyl-1-pr... | 166 | C10H11Cl | 1000327-43-7 | 32 |
| 5 | Benzoimidazol-1-yl-acetic acid | 176 | C9H8N2O2 | 1000317-79-2 | 30 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.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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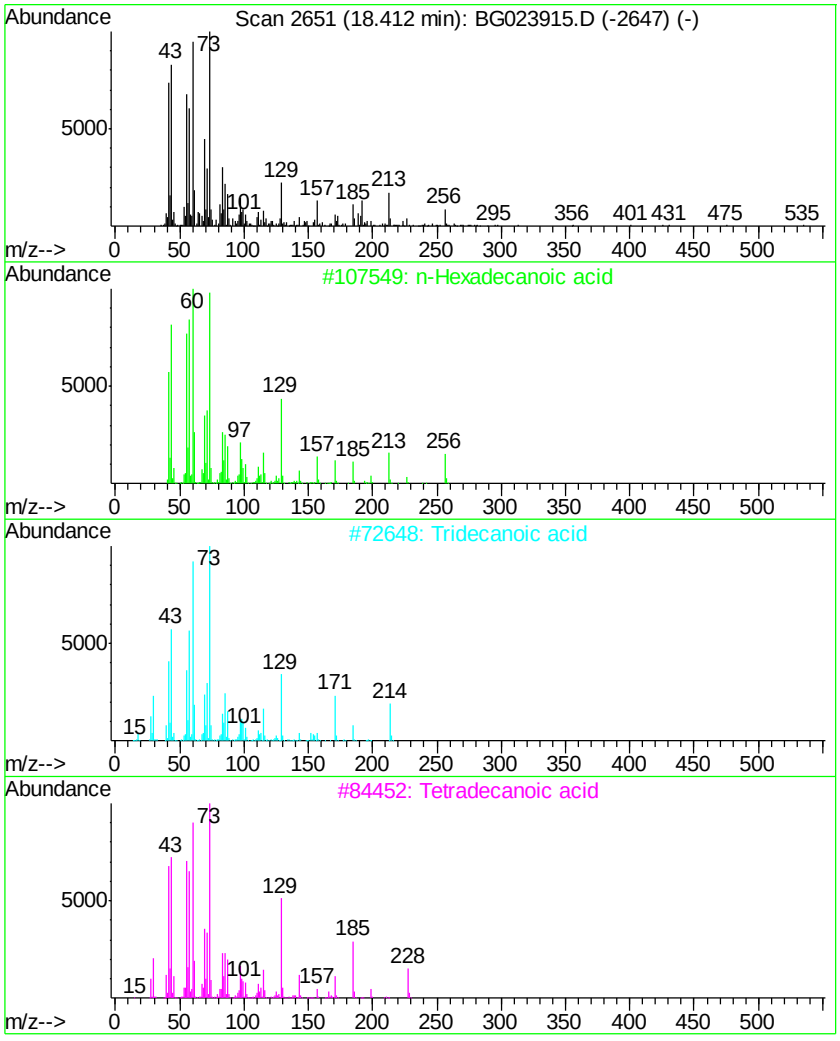
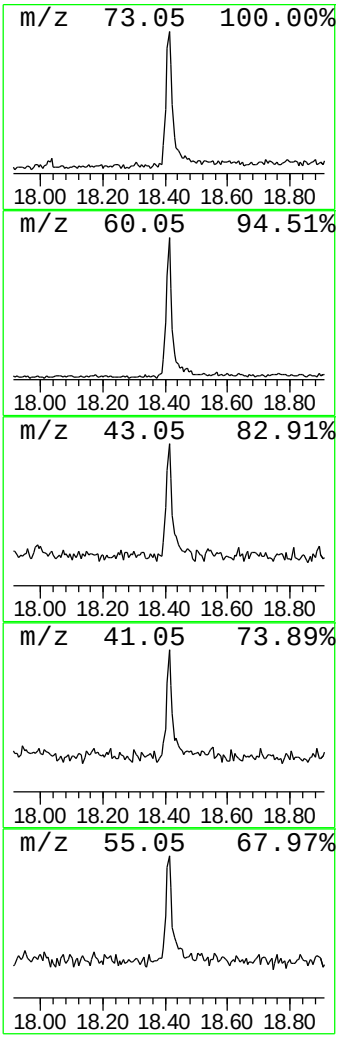
Peak Number 18 n-Hexadecanoic acid Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.41 | 6.17 ng | 613108 | Phenanthrene-d10 | 17.53 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | n-Hexadecanoic acid | 256 | C16H32O2 | 000057-10-3 | 91 |
| 2 | Tridecanoic acid | 214 | C13H26O2 | 000638-53-9 | 90 |
| 3 | Tetradecanoic acid | 228 | C14H28O2 | 000544-63-8 | 64 |
| 4 | Dodecanoic acid | 200 | C12H24O2 | 000143-07-7 | 59 |
| 5 | Undecanoic acid | 186 | C11H22O2 | 000112-37-8 | 59 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

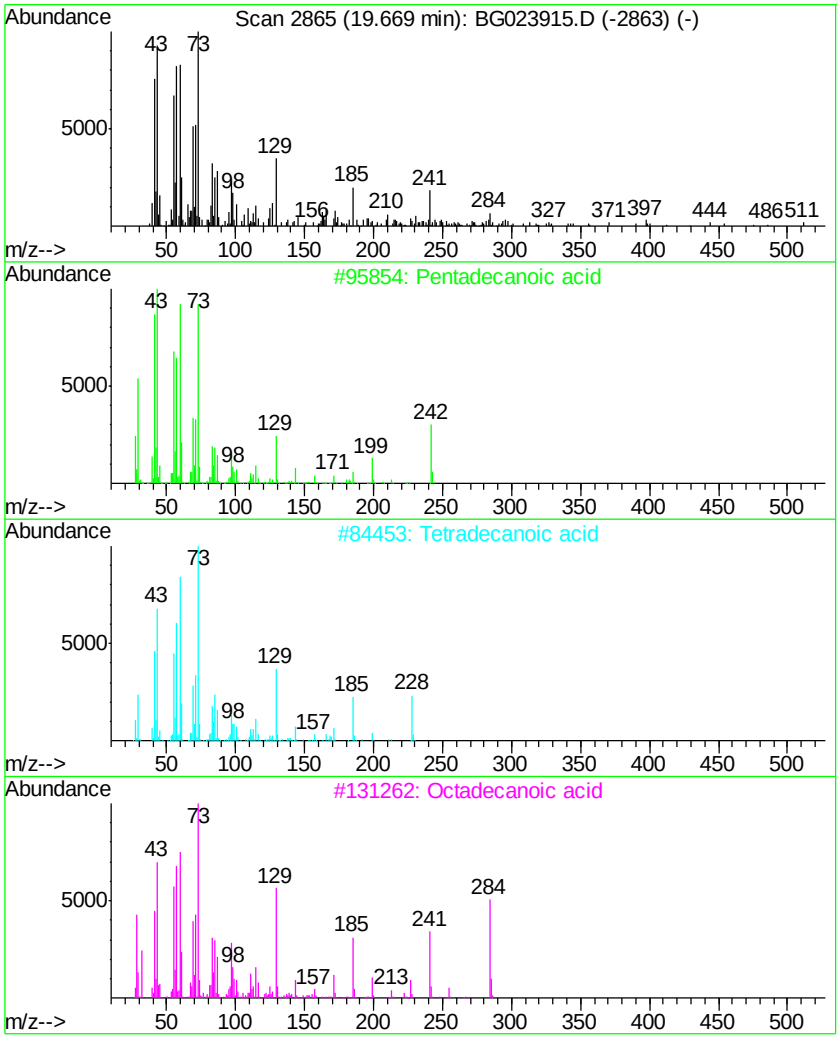
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

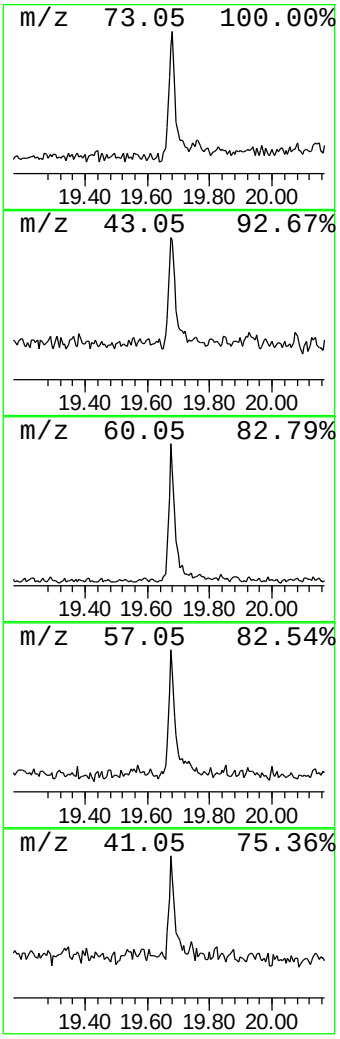
**********

Peak Number 19 Pentadecanoic acid Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.67 | 3.79 ng | 376886 | Phenanthrene-d10 | 17.53 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pentadecanoic acid | 242 | C15H30O2 | 001002-84-2 | 91 |
| 2 | Tetradecanoic acid | 228 | C14H28O2 | 000544-63-8 | 87 |
| 3 | Octadecanoic acid | 284 | C18H36O2 | 000057-11-4 | 83 |
| 4 | n-Decanoic acid | 172 | C10H20O2 | 000334-48-5 | 76 |
| 5 | Tridecanoic acid | 214 | C13H26O2 | 000638-53-9 | 64 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG082516\
Data File : BG023915.D
Acq On : 26 Aug 2016 6:22
Operator : UM/SJ
Sample : H4588-07
Misc :
ALS Vial : 21 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** MW-06

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG080116.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 |
| .alpha.-Hydroxyis... | 5.16 | 7.5 | ng | 310749 | 1 | 8.09 | 825353 | 20.0 |
| unknown7.62 | 7.62 | 74.8 | ng | 3085820 | 1 | 8.09 | 825353 | 20.0 |
| Benzene, 1,2,4,5-... | 9.73 | 2.0 | ng | 137135 | 2 | 10.93 | 1366490 | 20.0 |
| Benzo[b]thiophene... | 12.04 | 10.9 | ng | 746339 | 2 | 10.93 | 1366490 | 20.0 |
| Benzo[b]thiophene... | 12.48 | 4.5 | ng | 304212 | 2 | 10.93 | 1366490 | 20.0 |
| 1,4-Methanonaphth... | 12.80 | 8.7 | ng | 592670 | 2 | 10.93 | 1366490 | 20.0 |
| 2,5-Dimethylthiop... | 13.93 | 2.0 | ng | 190691 | 3 | 14.76 | 1863880 | 20.0 |
| 1(2H)-Naphthaleno... | 14.09 | 3.2 | ng | 299373 | 3 | 14.76 | 1863880 | 20.0 |
| Naphthalene, 1,5-... | 14.48 | 5.7 | ng | 526523 | 3 | 14.76 | 1863880 | 20.0 |
| Naphthalene, 2,3,... | 15.23 | 2.7 | ng | 252671 | 3 | 14.76 | 1863880 | 20.0 |
| Naphthalene, 1,4,... | 15.38 | 3.0 | ng | 282622 | 3 | 14.76 | 1863880 | 20.0 |
| 1(2H)-Naphthaleno... | 15.47 | 2.1 | ng | 200558 | 3 | 14.76 | 1863880 | 20.0 |
| Naphthalene, 1,6,... | 15.59 | 2.3 | ng | 211079 | 3 | 14.76 | 1863880 | 20.0 |
| Naphthalene, 1-(2... | 15.94 | 3.4 | ng | 316262 | 3 | 14.76 | 1863880 | 20.0 |
| 1-Naphthalenecarb... | 16.16 | 14.2 | ng | 1415140 | 4 | 17.53 | 1987370 | 20.0 |
| n-Hexadecanoic acid | 18.41 | 6.2 | ng | 613108 | 4 | 17.53 | 1987370 | 20.0 |
| Pentadecanoic acid | 19.67 | 3.8 | ng | 376886 | 4 | 17.53 | 1987370 | 20.0 |