LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

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-BF110715.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 | 4.201 | 181 | 185 | 189 | rBV2 | 25930 | 49663 | 1.08% | 0.087% |
| 2 | 4.899 | 242 | 246 | 248 | rBV | 1546081 | 2617816 | 57.12% | 4.592% |
| 3 | 5.333 | 281 | 284 | 287 | rBV | 3444854 | 4233150 | 92.37% | 7.425% |
| 4 | 6.384 | 373 | 376 | 378 | rBV | 4086162 | 4582863 | 100.00% | 8.039% |
| 5 | 6.499 | 383 | 386 | 389 | rBV | 3966524 | 3904549 | 85.20% | 6.849% |
| 6 | 6.727 | 404 | 406 | 408 | rBV | 1169055 | 940145 | 20.51% | 1.649% |
| 7 | 6.887 | 417 | 420 | 422 | rBV | 3553347 | 3210860 | 70.06% | 5.632% |
| 8 | 7.299 | 452 | 456 | 458 | rBV | 2771599 | 3210380 | 70.05% | 5.631% |
| 9 | 8.019 | 516 | 519 | 521 | rBV | 1140888 | 1232431 | 26.89% | 2.162% |
| 10 | 9.093 | 610 | 613 | 616 | rBV | 4059776 | 4065621 | 88.71% | 7.132% |
| 11 | 9.493 | 645 | 648 | 650 | rBV | 972397 | 881812 | 19.24% | 1.547% |
| 12 | 9.768 | 669 | 672 | 674 | rBV | 1593192 | 1478548 | 32.26% | 2.594% |
| 13 | 10.213 | 710 | 711 | 713 | rVB | 73278 | 56721 | 1.24% | 0.099% |
| 14 | 10.419 | 727 | 729 | 732 | rBV | 250797 | 235660 | 5.14% | 0.413% |
| 15 | 10.556 | 738 | 741 | 743 | rBV | 2970387 | 3090525 | 67.44% | 5.421% |
| 16 | 10.682 | 751 | 752 | 756 | rVB | 67062 | 95560 | 2.09% | 0.168% |
| 17 | 10.751 | 756 | 758 | 762 | rBV2 | 109020 | 102060 | 2.23% | 0.179% |
| 18 | 10.819 | 762 | 764 | 766 | rVB | 117685 | 103687 | 2.26% | 0.182% |
| 19 | 10.979 | 776 | 778 | 780 | rBV | 142093 | 158347 | 3.46% | 0.278% |
| 20 | 11.139 | 790 | 792 | 793 | rVB | 65640 | 75639 | 1.65% | 0.133% |
| 21 | 11.185 | 793 | 796 | 799 | rVV | 1193938 | 1513290 | 33.02% | 2.654% |
| 22 | 11.242 | 799 | 801 | 805 | rVV2 | 1820798 | 2137594 | 46.64% | 3.750% |
| 23 | 11.345 | 808 | 810 | 812 | rVB | 646690 | 617939 | 13.48% | 1.084% |
| 24 | 11.505 | 818 | 824 | 827 | rBV3 | 282484 | 606088 | 13.23% | 1.063% |
| 25 | 11.596 | 829 | 832 | 834 | rVB | 1531922 | 1918373 | 41.86% | 3.365% |
| 26 | 11.665 | 835 | 838 | 840 | rVB | 405593 | 411493 | 8.98% | 0.722% |
| 27 | 11.733 | 842 | 844 | 846 | rBV2 | 552393 | 514548 | 11.23% | 0.903% |
| 28 | 11.768 | 846 | 847 | 850 | rVB | 230807 | 205154 | 4.48% | 0.360% |
| 29 | 11.825 | 850 | 852 | 853 | rBV | 80650 | 89292 | 1.95% | 0.157% |
| 30 | 11.871 | 853 | 856 | 857 | rBV | 508233 | 636449 | 13.89% | 1.116% |
| 31 | 11.905 | 857 | 859 | 860 | rBV | 284383 | 284938 | 6.22% | 0.500% |
| 32 | 12.031 | 868 | 870 | 874 | rBV2 | 665659 | 1147688 | 25.04% | 2.013% |
| 33 | 12.088 | 874 | 875 | 877 | rVV | 263772 | 371599 | 8.11% | 0.652% |
| 34 | 12.134 | 877 | 879 | 881 | rVB | 364591 | 453708 | 9.90% | 0.796% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

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-BF110715.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 12.191 | 881 | 884 | 886 | rBV2 | 115085 | 162971 | 3.56% | 0.286% |
| 36 | 12.294 | 890 | 893 | 894 | rBV | 74820 | 71025 | 1.55% | 0.125% |
| 37 | 12.328 | 894 | 896 | 897 | rVV | 385921 | 331625 | 7.24% | 0.582% |
| 38 | 12.385 | 897 | 901 | 903 | rVB2 | 788924 | 1320120 | 28.81% | 2.316% |
| 39 | 12.454 | 903 | 907 | 909 | rBV | 493356 | 528131 | 11.52% | 0.926% |
| 40 | 12.511 | 910 | 912 | 914 | rBV | 320171 | 484165 | 10.56% | 0.849% |
| 41 | 12.556 | 914 | 916 | 918 | rVV2 | 126912 | 161893 | 3.53% | 0.284% |
| 42 | 12.602 | 918 | 920 | 922 | rVB2 | 51122 | 69842 | 1.52% | 0.123% |
| 43 | 12.671 | 924 | 926 | 929 | rBV | 369988 | 478614 | 10.44% | 0.840% |
| 44 | 12.728 | 929 | 931 | 932 | rVB2 | 50669 | 62504 | 1.36% | 0.110% |
| 45 | 12.774 | 933 | 935 | 938 | rBV2 | 73649 | 106433 | 2.32% | 0.187% |
| 46 | 12.831 | 938 | 940 | 943 | rVV | 3500120 | 3650918 | 79.66% | 6.404% |
| 47 | 12.876 | 943 | 944 | 948 | rVV3 | 45859 | 73739 | 1.61% | 0.129% |
| 48 | 13.002 | 952 | 955 | 958 | rVB | 42829 | 92374 | 2.02% | 0.162% |
| 49 | 13.048 | 958 | 959 | 960 | rBV | 104347 | 88801 | 1.94% | 0.156% |
| 50 | 13.105 | 963 | 964 | 970 | rVB3 | 58724 | 87280 | 1.90% | 0.153% |
| 51 | 13.196 | 970 | 972 | 974 | rBV2 | 40254 | 55592 | 1.21% | 0.098% |
| 52 | 13.254 | 974 | 977 | 978 | rBV2 | 71834 | 80184 | 1.75% | 0.141% |
| 53 | 13.391 | 985 | 989 | 990 | rBV2 | 26104 | 64216 | 1.40% | 0.113% |
| 54 | 13.505 | 997 | 999 | 1002 | rBV | 38112 | 50002 | 1.09% | 0.088% |
| 55 | 13.619 | 1006 | 1009 | 1011 | rBV | 50127 | 83482 | 1.82% | 0.146% |
| 56 | 13.722 | 1016 | 1018 | 1019 | rBV | 29576 | 47167 | 1.03% | 0.083% |
| 57 | 13.745 | 1019 | 1020 | 1023 | rVB2 | 63976 | 95539 | 2.08% | 0.168% |
| 58 | 13.871 | 1028 | 1031 | 1037 | rVB2 | 1282120 | 1522366 | 33.22% | 2.670% |
| 59 | 14.877 | 1116 | 1119 | 1124 | rVB | 106019 | 224487 | 4.90% | 0.394% |
| 60 | 15.140 | 1140 | 1142 | 1145 | rBV | 53129 | 77956 | 1.70% | 0.137% |
| 61 | 15.197 | 1145 | 1147 | 1150 | rBV | 93595 | 120480 | 2.63% | 0.211% |
| 62 | 15.254 | 1150 | 1152 | 1155 | rBV | 535479 | 789346 | 17.22% | 1.385% |
| 63 | 16.557 | 1264 | 1266 | 1270 | rVB2 | 42135 | 90404 | 1.97% | 0.159% |
| 64 | 16.945 | 1297 | 1300 | 1304 | rBV | 27660 | 62746 | 1.37% | 0.110% |
| 65 | 18.146 | 1401 | 1405 | 1411 | rVB4 | 24185 | 77744 | 1.70% | 0.136% |
| 66 | 20.089 | 1567 | 1575 | 1586 | rVB2 | 110693 | 496634 | 10.84% | 0.871% |
| 67 | 21.174 | 1664 | 1670 | 1671 | rBV4 | 20577 | 65977 | 1.44% | 0.116% |

Sum of corrected areas: 57008947

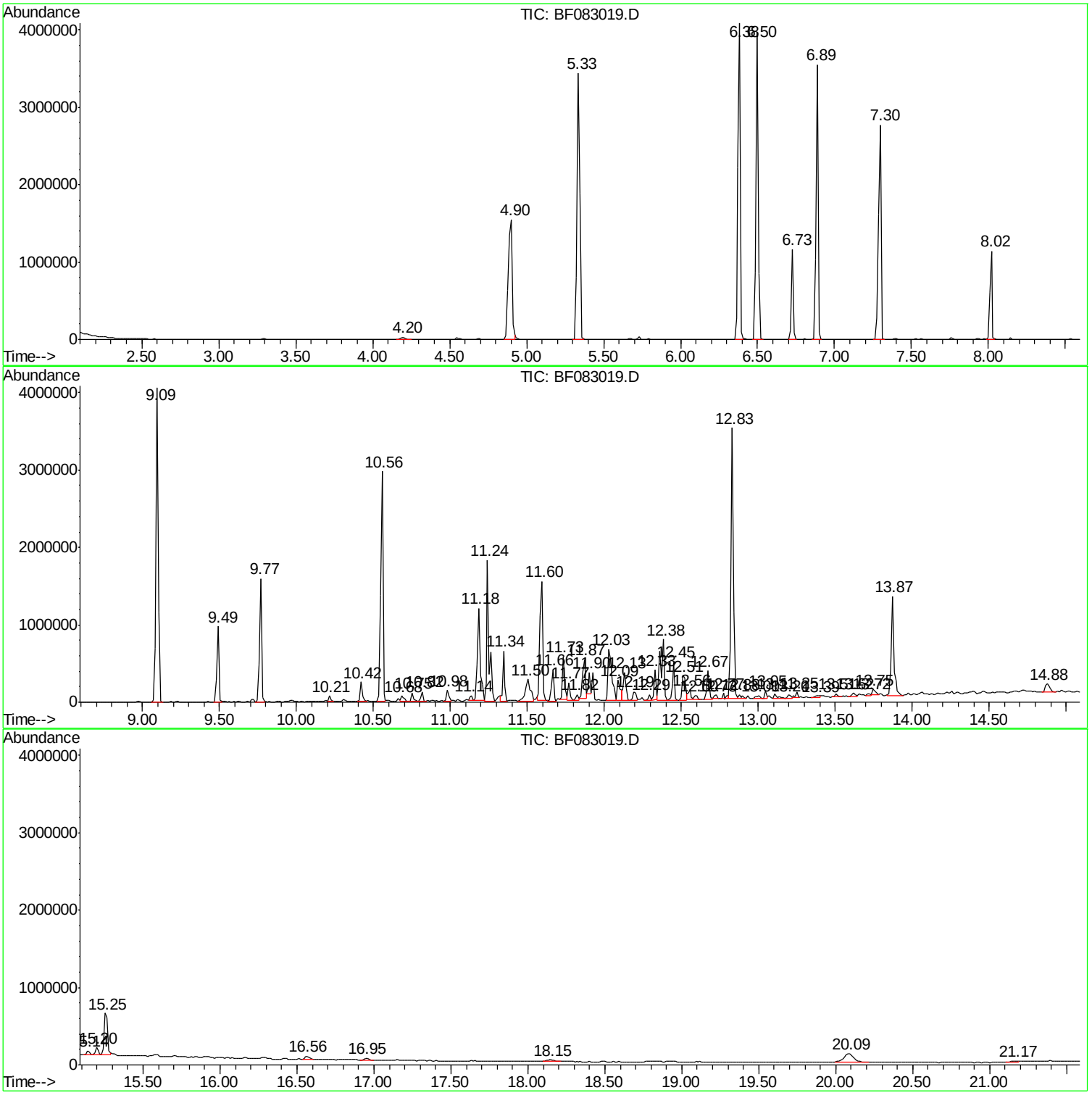
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.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\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
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ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

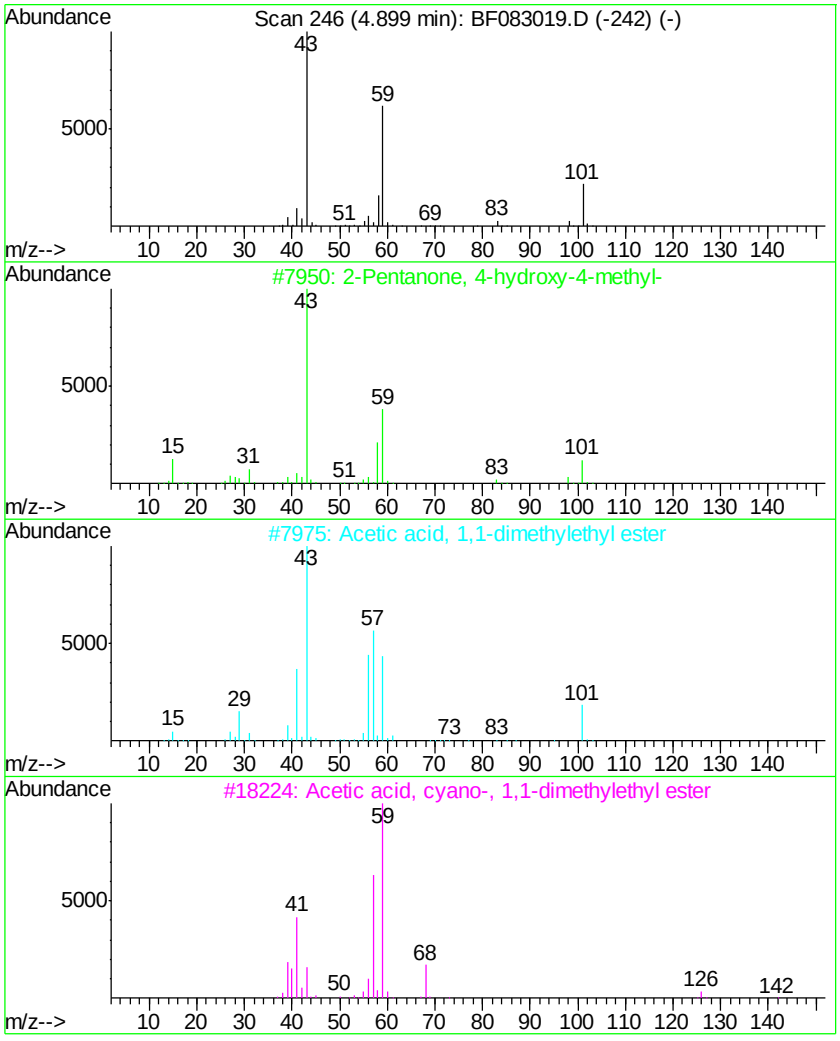
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

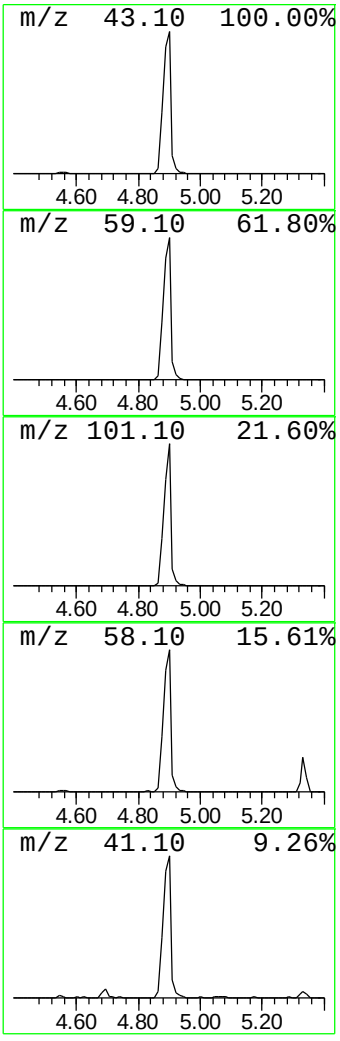
**********

Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.90 | 55.69 ng | 2617820 | 1,4-Dichlorobenzene-d4 | 6.73 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 72 |
| 2 | Acetic acid, 1,1-dimethylethyl e... | 116 | C6H12O2 | 000540-88-5 | 39 |
| 3 | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 25 |
| 4 | Morpholine, 4-methyl- | 101 | C5H11NO | 000109-02-4 | 9 |
| 5 | 5-Hexen-2-one | 98 | C6H10O | 000109-49-9 | 9 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

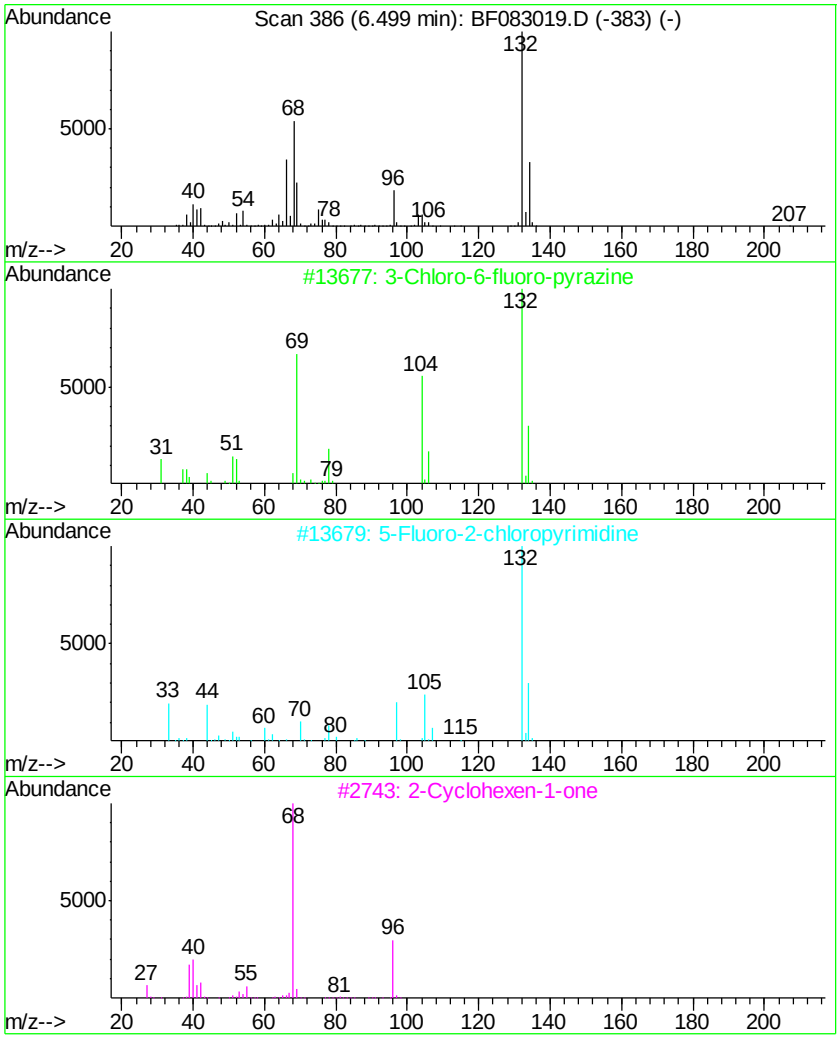
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

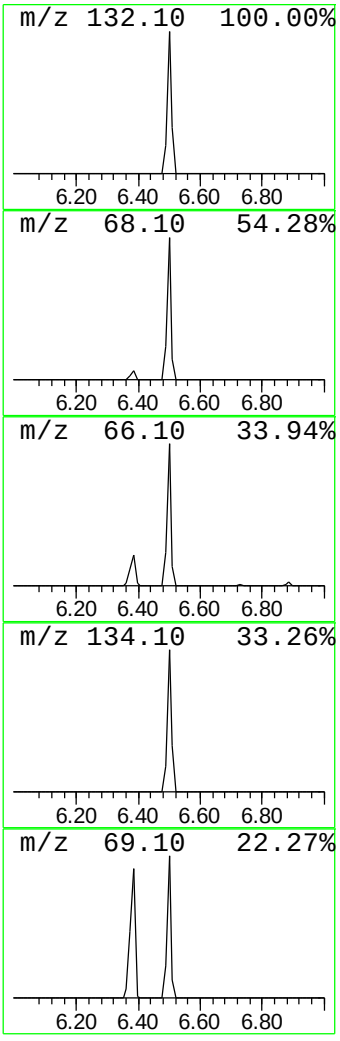
**********

Peak Number 2 unknown6.50 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.50 | 83.06 ng | 3904550 | 1,4-Dichlorobenzene-d4 | 6.73 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 27 |
| 2 | 5-Fluoro-2-chloropyrimidine | 132 | C4H2ClFN2 | 062802-42-0 | 12 |
| 3 | 2-Cyclohexen-1-one | 96 | C6H8O | 000930-68-7 | 10 |
| 4 | (5-METHYL-2-PYRIDYL)ACETONITRILE | 132 | C8H8N2 | 1000241-93-9 | 10 |
| 5 | Bicyclo[4.2.0]octa-1,3,5-triene,... | 132 | C10H12 | 028749-81-7 | 9 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

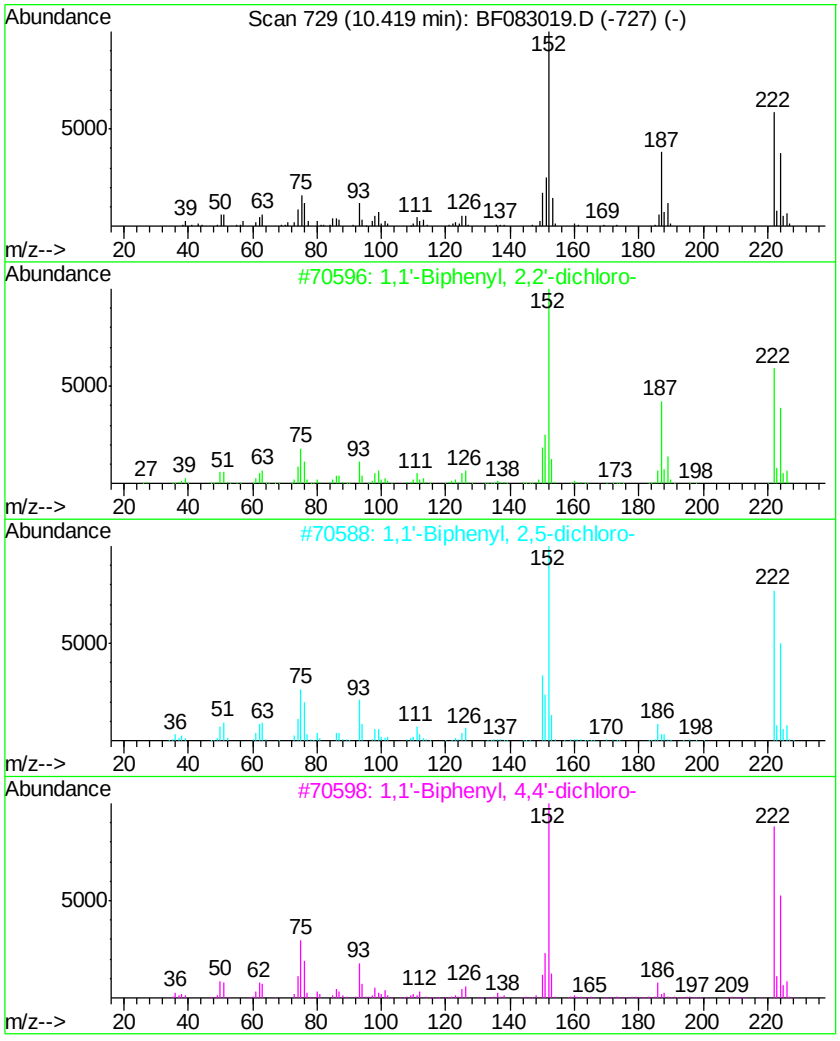
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

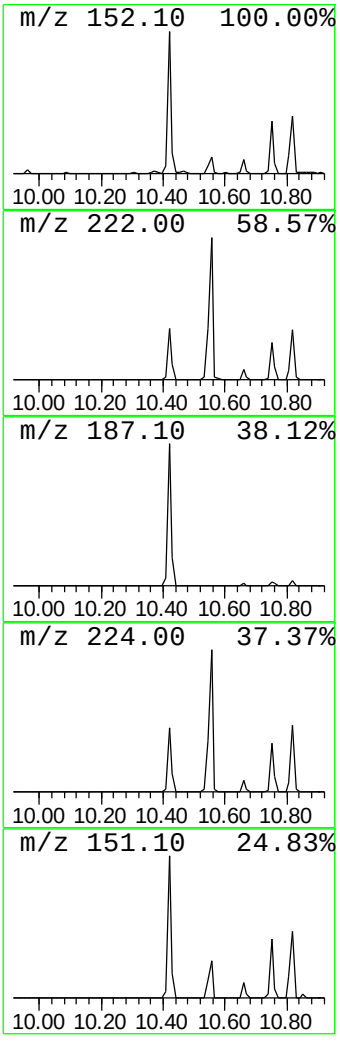
**********

Peak Number 4 1,1'-Biphenyl, 2,2'-dichloro- Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.42 | 3.19 ng | 235660 | Acenaphthene-d10 | 9.77 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 2,2'-dichloro- | 222 | C12H8Cl2 | 013029-08-8 | 99 |
| 2 | 1,1'-Biphenyl, 2,5-dichloro- | 222 | C12H8Cl2 | 034883-39-1 | 95 |
| 3 | 1,1'-Biphenyl, 4,4'-dichloro- | 222 | C12H8Cl2 | 002050-68-2 | 95 |
| 4 | 1,1'-Biphenyl, 2,3-dichloro- | 222 | C12H8Cl2 | 016605-91-7 | 95 |
| 5 | 1,1'-Biphenyl, 2,6-dichloro- | 222 | C12H8Cl2 | 033146-45-1 | 89 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

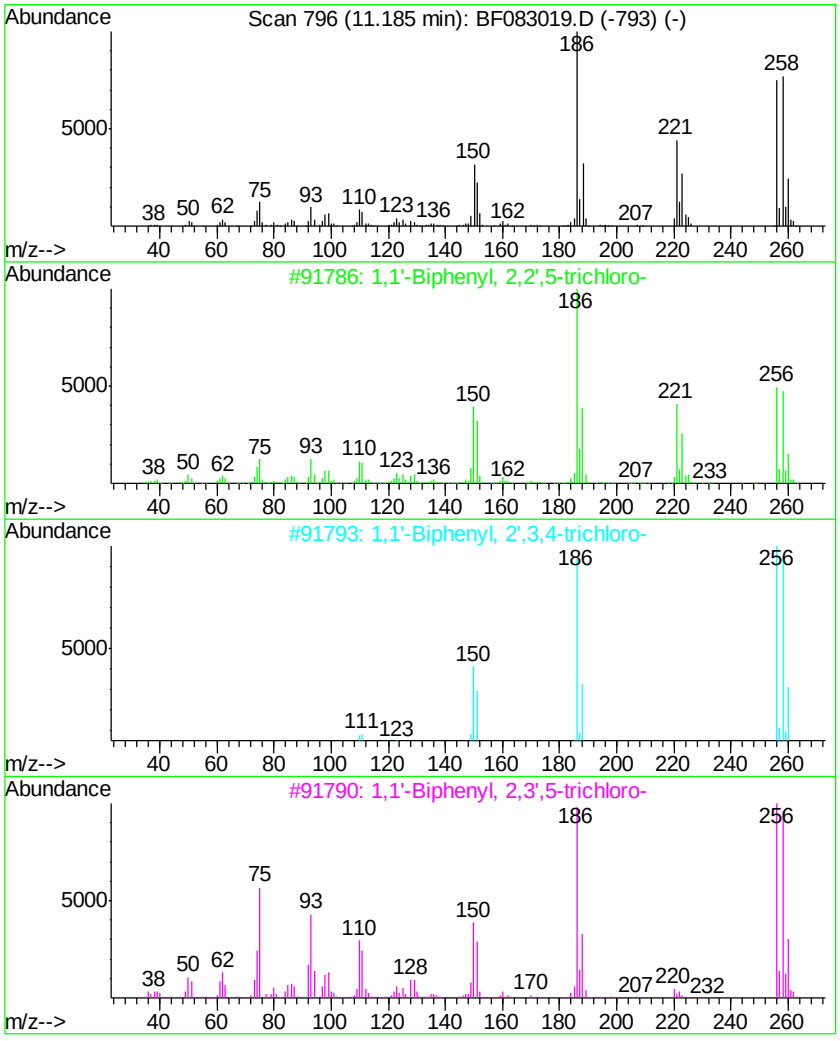
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

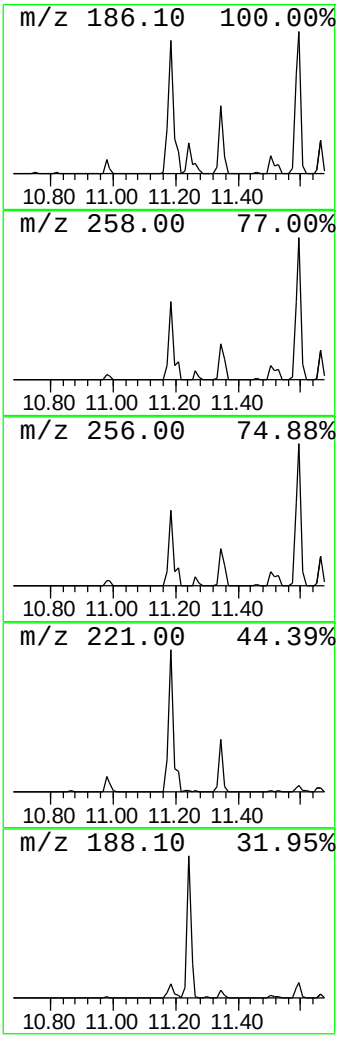
**********

Peak Number 5 1,1'-Biphenyl, 2,2',5-trich... Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.18 | 14.16 ng | 1513290 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 2,2',5-trichloro- | 256 | C12H7Cl3 | 037680-65-2 | 99 |
| 2 | 1,1'-Biphenyl, 2',3,4-trichloro- | 256 | C12H7Cl3 | 038444-86-9 | 96 |
| 3 | 1,1'-Biphenyl, 2,3',5-trichloro- | 256 | C12H7Cl3 | 038444-81-4 | 93 |
| 4 | 1,1'-Biphenyl, 3,4,4'-Trichloro- | 256 | C12H7Cl3 | 038444-90-5 | 92 |
| 5 | 1,1'-Biphenyl, 2,4',5-trichloro- | 256 | C12H7Cl3 | 016606-02-3 | 90 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

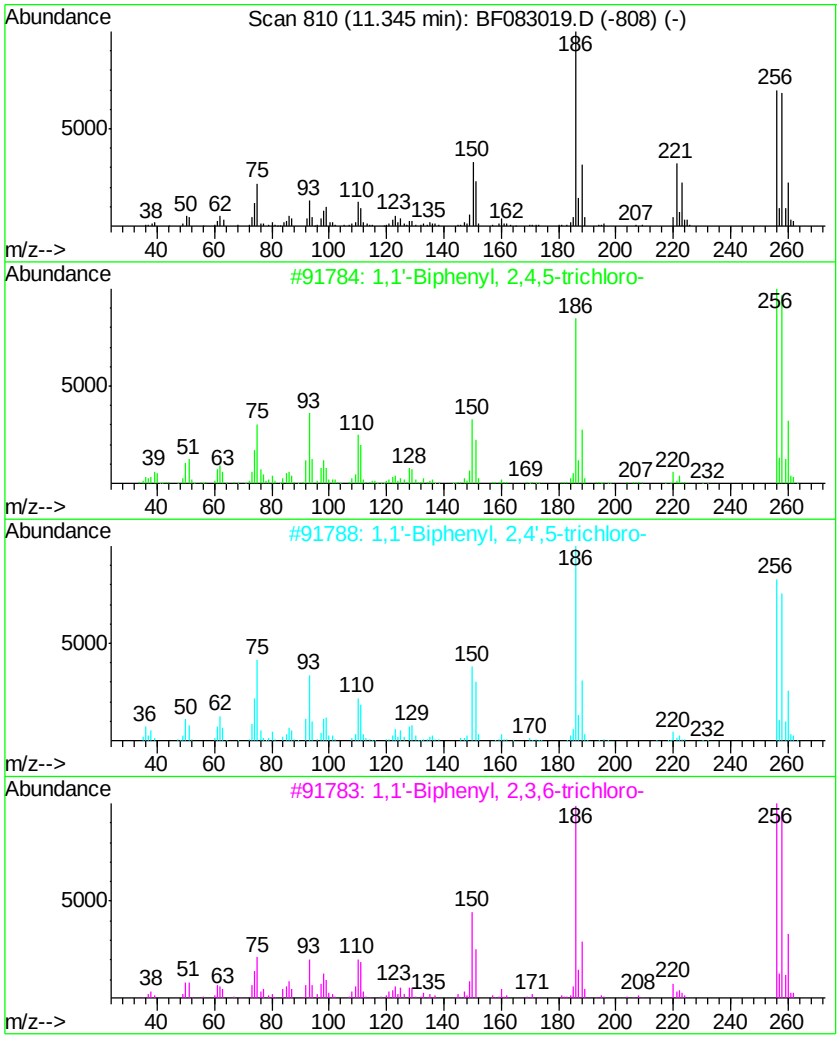
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

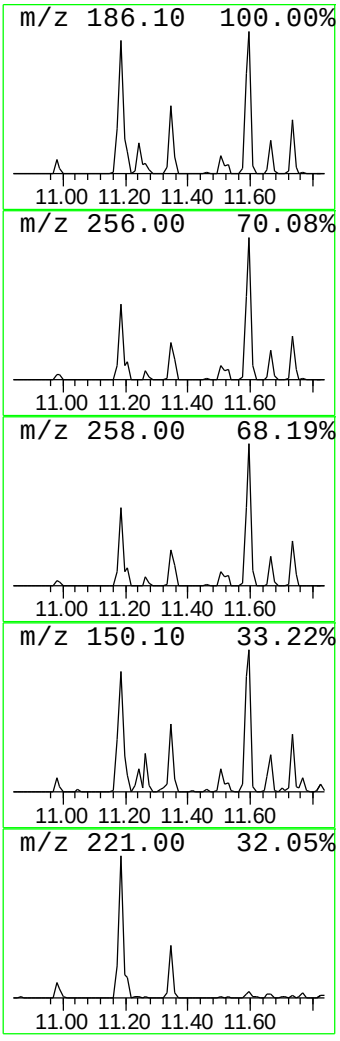
**********

Peak Number 6 1,1'-Biphenyl, 2,4,5-trichl... Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.34 | 5.78 ng | 617939 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 2,4,5-trichloro- | 256 | C12H7Cl3 | 015862-07-4 | 98 |
| 2 | 1,1'-Biphenyl, 2,4',5-trichloro- | 256 | C12H7Cl3 | 016606-02-3 | 98 |
| 3 | 1,1'-Biphenyl, 2,3,6-trichloro- | 256 | C12H7Cl3 | 055702-45-9 | 96 |
| 4 | 1,1'-Biphenyl, 2',3,4-trichloro- | 256 | C12H7Cl3 | 038444-86-9 | 96 |
| 5 | 1,1'-Biphenyl, 2,2',5-trichloro- | 256 | C12H7Cl3 | 037680-65-2 | 95 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

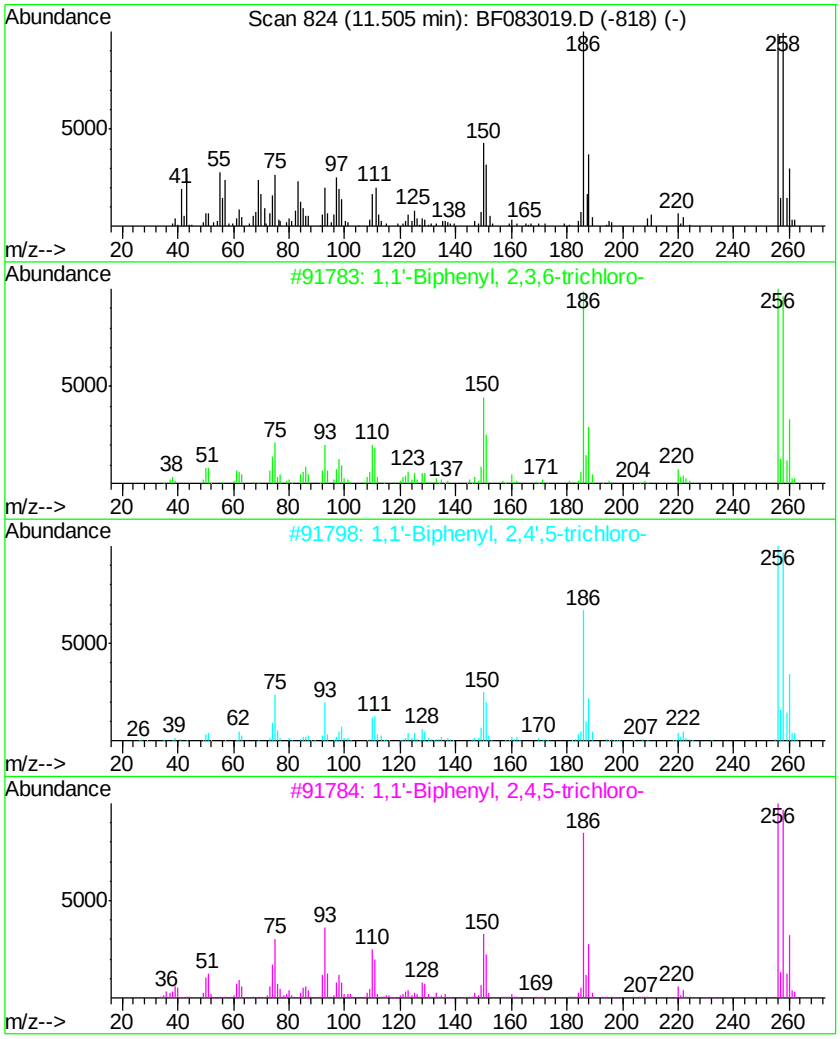
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

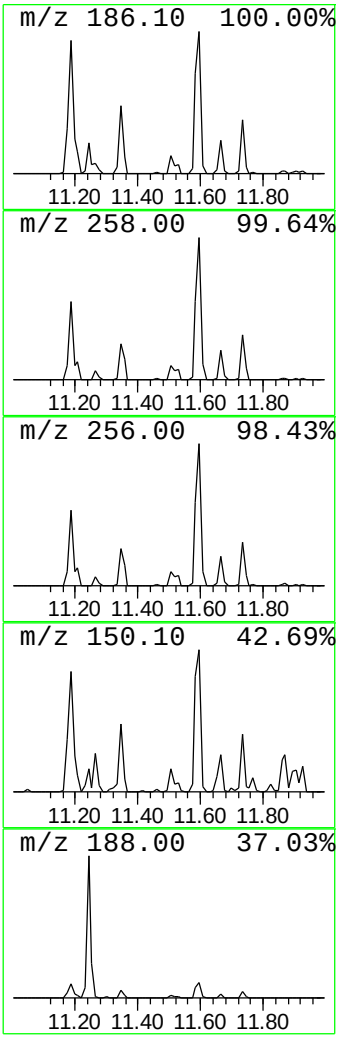
**********

Peak Number 7 1,1'-Biphenyl, 2,3,6-trichl... Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.50 | 5.67 ng | 606088 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 2,3,6-trichloro- | 256 | C12H7Cl3 | 055702-45-9 | 99 |
| 2 | 1,1'-Biphenyl, 2,4',5-trichloro- | 256 | C12H7Cl3 | 016606-02-3 | 98 |
| 3 | 1,1'-Biphenyl, 2,4,5-trichloro- | 256 | C12H7Cl3 | 015862-07-4 | 98 |
| 4 | 1,1'-Biphenyl, 2,3,4-trichloro- | 256 | C12H7Cl3 | 055702-46-0 | 98 |
| 5 | 1,1'-Biphenyl, 2,4,4'-trichloro- | 256 | C12H7Cl3 | 007012-37-5 | 97 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

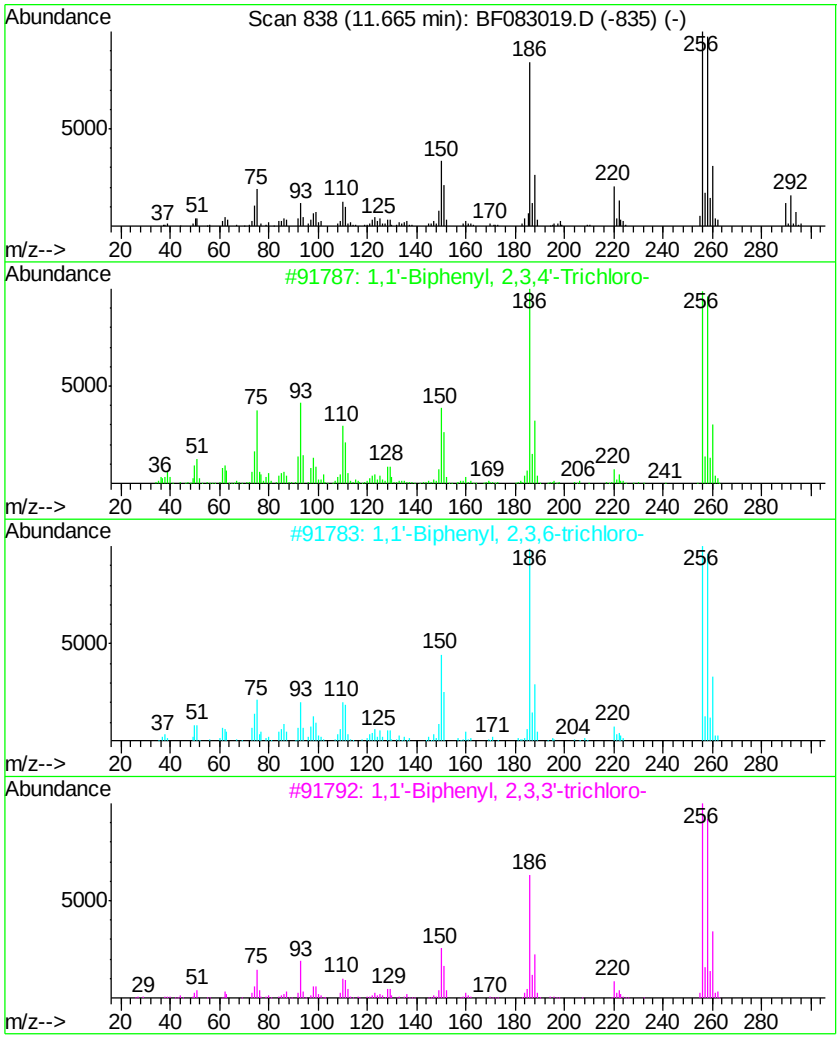
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

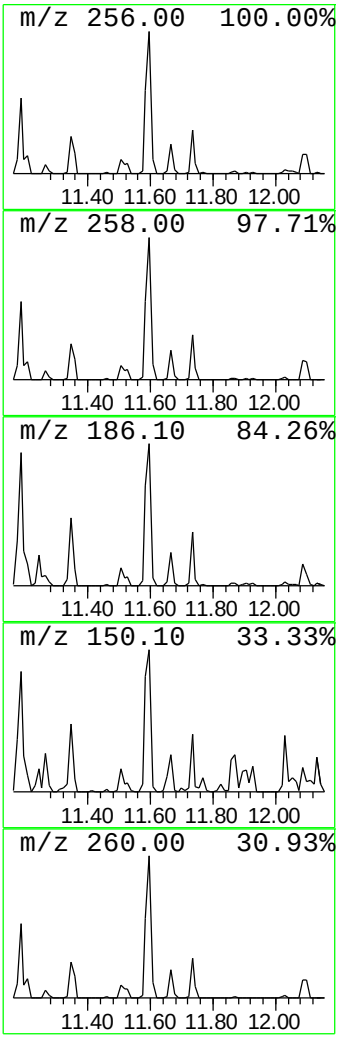
**********

Peak Number 9 1,1'-Biphenyl, 2,3,4'-Trich... Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.66 | 3.85 ng | 411493 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 2,3,4'-Trichloro- | 256 | C12H7Cl3 | 038444-85-8 | 98 |
| 2 | 1,1'-Biphenyl, 2,3,6-trichloro- | 256 | C12H7Cl3 | 055702-45-9 | 98 |
| 3 | 1,1'-Biphenyl, 2,3,3'-trichloro- | 256 | C12H7Cl3 | 038444-84-7 | 98 |
| 4 | 1,1'-Biphenyl, 2',3,4-trichloro- | 256 | C12H7Cl3 | 038444-86-9 | 98 |
| 5 | 1,1'-Biphenyl, 2,4,5-trichloro- | 256 | C12H7Cl3 | 015862-07-4 | 98 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

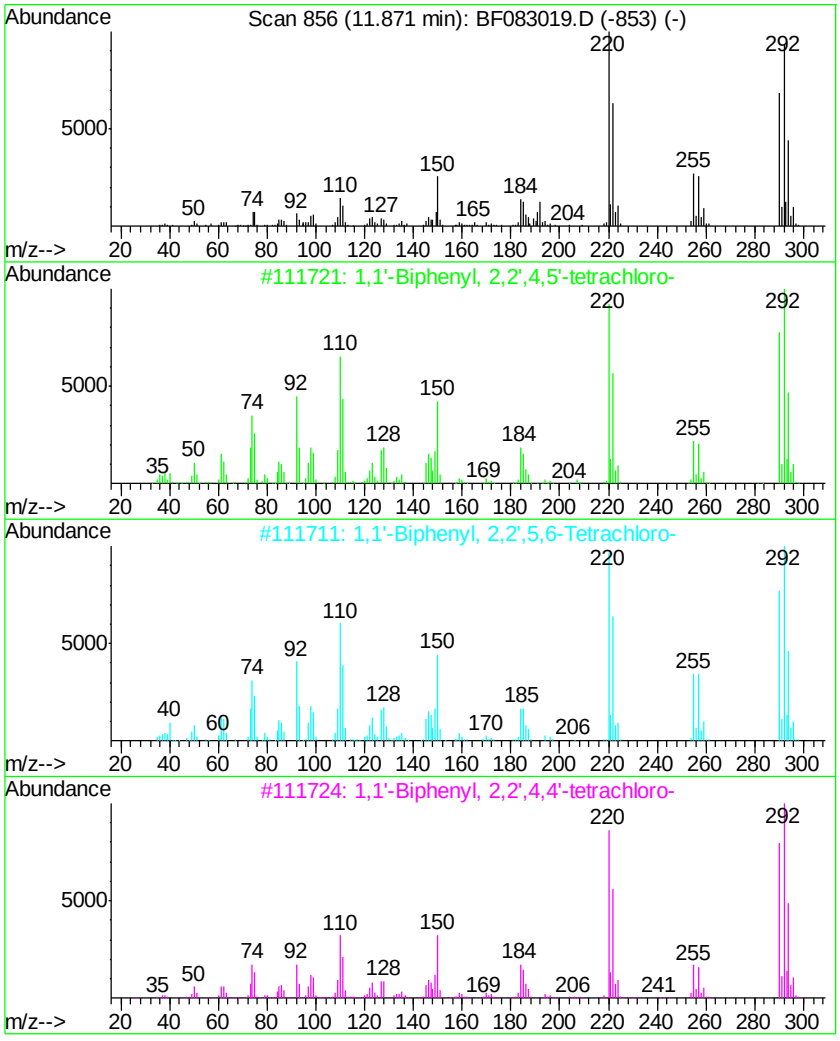
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

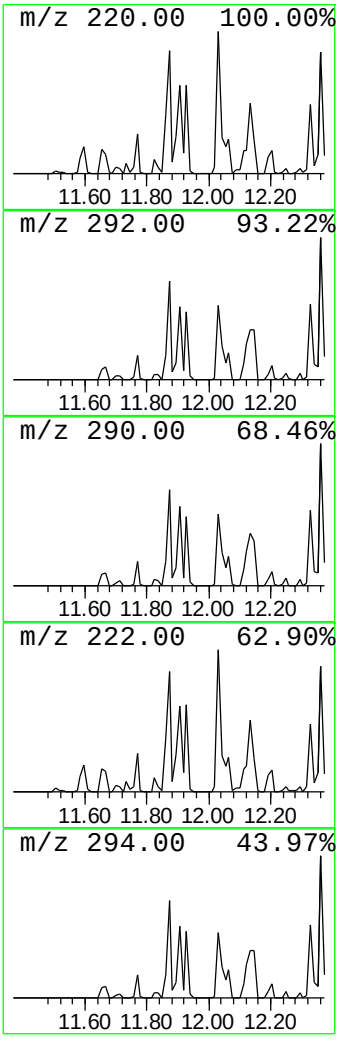
**********

Peak Number 11 1,1'-Biphenyl, 2,2',4,5'-te... Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.87 | 5.95 ng | 636449 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 2,2',4,5'-tetrach... | 290 | C12H6Cl4 | 041464-40-8 | 99 |
| 2 | 1,1'-Biphenyl, 2,2',5,6-Tetrachl... | 290 | C12H6Cl4 | 041464-41-9 | 99 |
| 3 | 1,1'-Biphenyl, 2,2',4,4'-tetrach... | 290 | C12H6Cl4 | 002437-79-8 | 99 |
| 4 | 1,1'-Biphenyl, 2,2',5,5'-tetrach... | 290 | C12H6Cl4 | 035693-99-3 | 96 |
| 5 | 1,1'-Biphenyl, 2,3',4',6-tetrach... | 290 | C12H6Cl4 | 041464-46-4 | 95 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

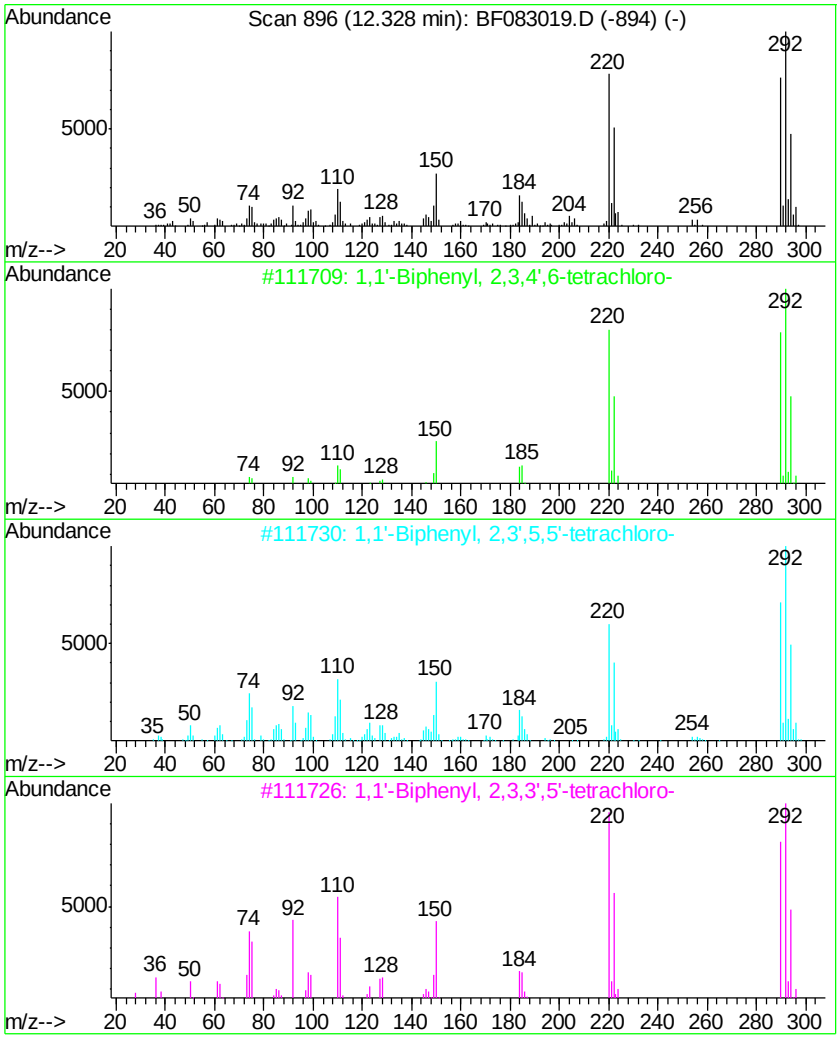
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

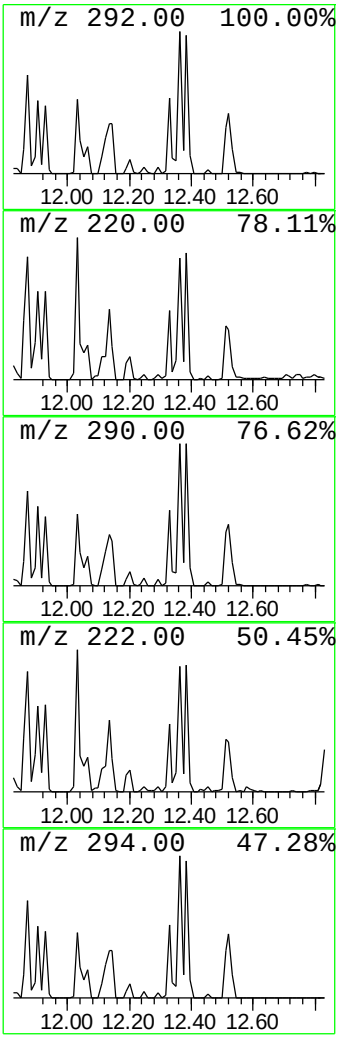
**********

Peak Number 16 1,1'-Biphenyl, 2,3,4',6-tet... Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.33 | 3.10 ng | 331625 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 2,3,4',6-tetrachl... | 290 | C12H6Cl4 | 052663-58-8 | 99 |
| 2 | 1,1'-Biphenyl, 2,3',5,5'-tetrach... | 290 | C12H6Cl4 | 041464-42-0 | 99 |
| 3 | 1,1'-Biphenyl, 2,3,3',5'-tetrach... | 290 | C12H6Cl4 | 041464-49-7 | 99 |
| 4 | 1,1'-Biphenyl, 2,2',6,6'-tetrach... | 290 | C12H6Cl4 | 015968-05-5 | 99 |
| 5 | 1,1'-Biphenyl, 2,2',3,4-tetrachl... | 290 | C12H6Cl4 | 052663-59-9 | 98 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

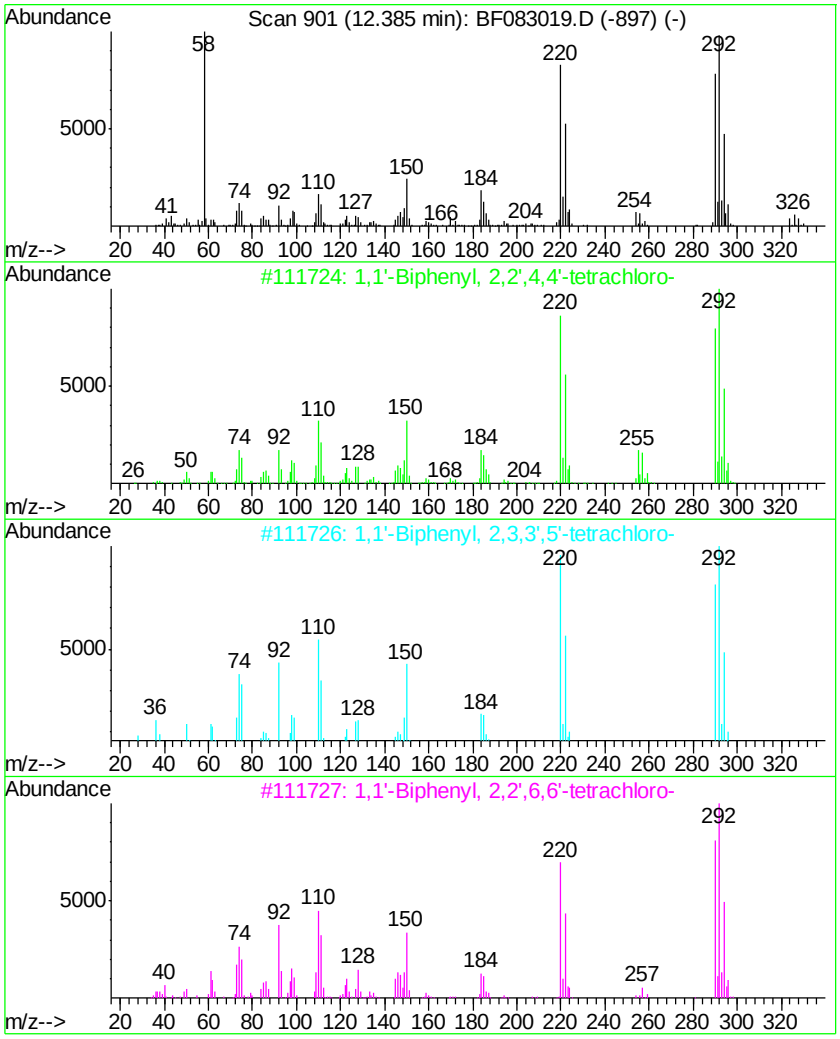
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

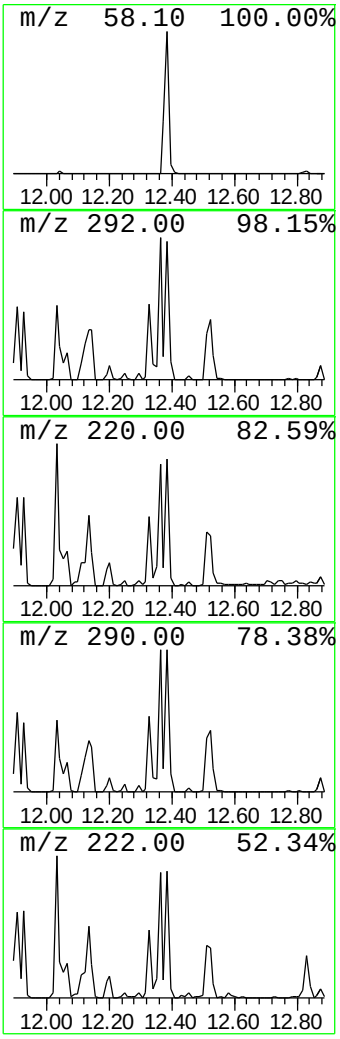
**********

Peak Number 17 1,1'-Biphenyl, 2,2',4,4'-te... Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.39 | 12.35 ng | 1320120 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 2,2',4,4'-tetrach... | 290 | C12H6Cl4 | 002437-79-8 | 99 |
| 2 | 1,1'-Biphenyl, 2,3,3',5'-tetrach... | 290 | C12H6Cl4 | 041464-49-7 | 99 |
| 3 | 1,1'-Biphenyl, 2,2',6,6'-tetrach... | 290 | C12H6Cl4 | 015968-05-5 | 99 |
| 4 | 1,1'-Biphenyl, 2,3',4',5-tetrach... | 290 | C12H6Cl4 | 032598-11-1 | 98 |
| 5 | 1,1'-Biphenyl, 2,2',4,5'-tetrach... | 290 | C12H6Cl4 | 041464-40-8 | 98 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

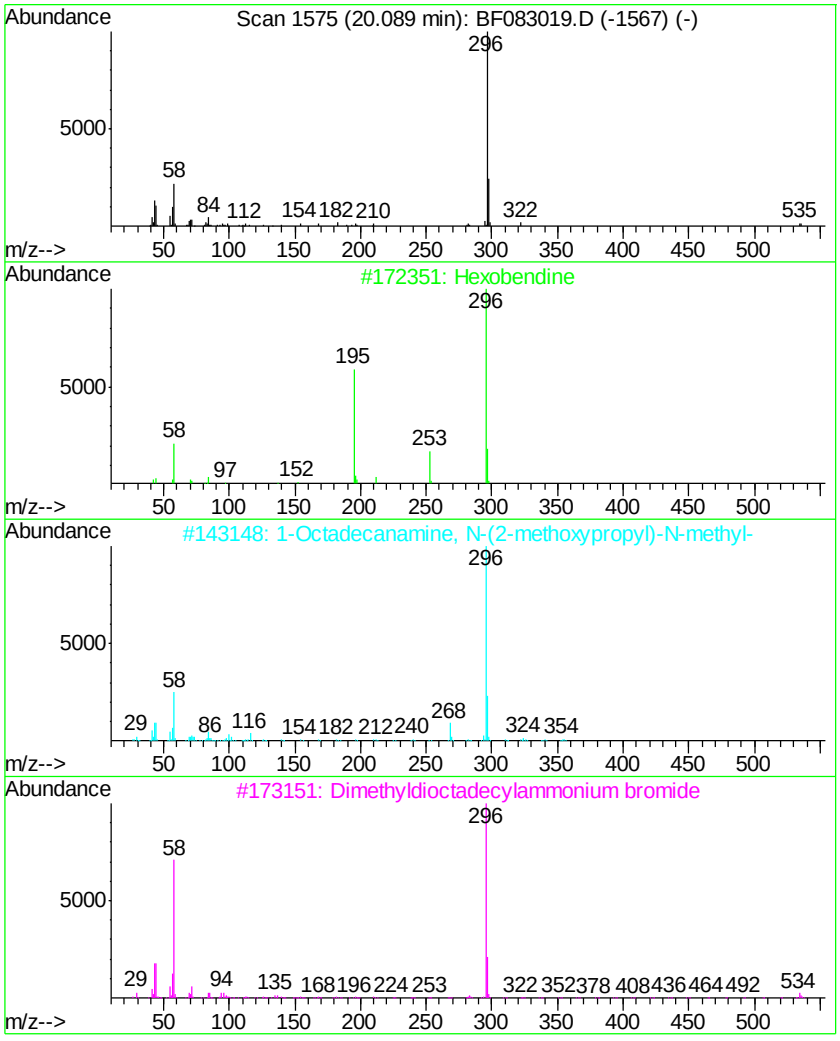
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

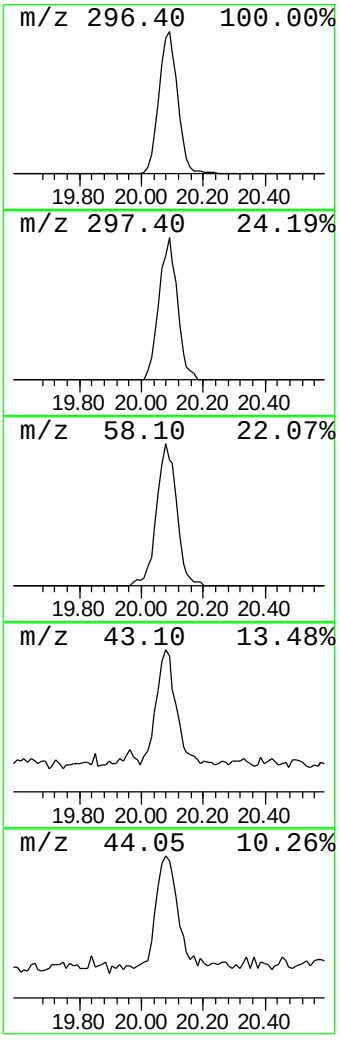
**********

Peak Number 20 Hexobendine Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 20.09 | 12.58 ng | 496634 | Perylene-d12 | 15.27 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexobendine | 592 | C30H44N2O10 | 000054-03-5 | 78 |
| 2 | 1-Octadecanamine, N-(2-methoxypr... | 355 | C23H49NO | 1000196-18-5 | 78 |
| 3 | Dimethyldioctadecylammonium bromide | 630 | C38H80BrN | 003700-67-2 | 64 |
| 4 | Benzeneethanamine, .beta.-hydrox... | 403 | C27H49NO | 1000197-20-9 | 59 |
| 5 | 2-(2-Quinolyl)(1,2,4)triazolo(1,... | 296 | C19H12N4 | 1000241-15-8 | 45 |



# Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083019.D
Acq On : 18 Nov 2015 20:29
Operator : UM/IZ
Sample : G4453-02
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-MISC-1-20151116

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF110715.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... | 4.90 | 55.7 | ng | 2617820 | 1 | 6.73 | 940145 | 20.0 |
| unknown6.50 | 6.50 | 83.1 | ng | 3904550 | 1 | 6.73 | 940145 | 20.0 |
| 1,1'-Biphenyl, 2,... | 10.42 | 3.2 | ng | 235660 | 3 | 9.77 | 1478550 | 20.0 |
| 1,1'-Biphenyl, 2,... | 11.18 | 14.2 | ng | 1513290 | 4 | 11.24 | 2137590 | 20.0 |
| 1,1'-Biphenyl, 2,... | 11.34 | 5.8 | ng | 617939 | 4 | 11.24 | 2137590 | 20.0 |
| 1,1'-Biphenyl, 2,... | 11.50 | 5.7 | ng | 606088 | 4 | 11.24 | 2137590 | 20.0 |
| 1,1'-Biphenyl, 2,... | 11.66 | 3.9 | ng | 411493 | 4 | 11.24 | 2137590 | 20.0 |
| 1,1'-Biphenyl, 2,... | 11.87 | 6.0 | ng | 636449 | 4 | 11.24 | 2137590 | 20.0 |
| 1,1'-Biphenyl, 2,... | 12.33 | 3.1 | ng | 331625 | 4 | 11.24 | 2137590 | 20.0 |
| 1,1'-Biphenyl, 2,... | 12.39 | 12.4 | ng | 1320120 | 4 | 11.24 | 2137590 | 20.0 |
| Hexobendine | 20.09 | 12.6 | ng | 496634 | 6 | 15.27 | 789346 | 20.0 |