LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083018.D
Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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 | 4.190 | 181 | 184 | 189 | rBV2 | 27819 | 56254 | 1.16% | 0.113% |
| 2 | 4.887 | 241 | 245 | 248 | rBV | 1367169 | 2574651 | 52.89% | 5.193% |
| 3 | 5.333 | 281 | 284 | 287 | rBV | 3540955 | 4135697 | 84.96% | 8.341% |
| 4 | 6.384 | 373 | 376 | 378 | rBV | 4265963 | 4716229 | 96.88% | 9.512% |
| 5 | 6.499 | 383 | 386 | 389 | rBV | 4115028 | 4131118 | 84.86% | 8.332% |
| 6 | 6.727 | 404 | 406 | 408 | rBV | 1062171 | 861676 | 17.70% | 1.738% |
| 7 | 6.887 | 417 | 420 | 422 | rBV | 3665423 | 3312442 | 68.04% | 6.681% |
| 8 | 7.299 | 452 | 456 | 458 | rBV | 2873453 | 3343619 | 68.69% | 6.744% |
| 9 | 8.019 | 516 | 519 | 521 | rBV | 1000859 | 1094273 | 22.48% | 2.207% |
| 10 | 9.093 | 610 | 613 | 616 | rVB | 4110532 | 4020460 | 82.59% | 8.109% |
| 11 | 9.493 | 645 | 648 | 650 | rBV | 951946 | 890391 | 18.29% | 1.796% |
| 12 | 9.722 | 666 | 668 | 669 | rBV | 65150 | 78019 | 1.60% | 0.157% |
| 13 | 9.768 | 669 | 672 | 674 | rBV | 1380518 | 1276495 | 26.22% | 2.574% |
| 14 | 9.962 | 686 | 689 | 694 | rVB4 | 35553 | 62237 | 1.28% | 0.126% |
| 15 | 10.213 | 710 | 711 | 713 | rVB | 95953 | 78426 | 1.61% | 0.158% |
| 16 | 10.430 | 726 | 730 | 732 | rBV | 31188 | 59918 | 1.23% | 0.121% |
| 17 | 10.556 | 738 | 741 | 743 | rBV | 3184054 | 3356488 | 68.95% | 6.769% |
| 18 | 10.682 | 750 | 752 | 756 | rBV2 | 80953 | 145380 | 2.99% | 0.293% |
| 19 | 10.888 | 764 | 770 | 771 | rBV3 | 38757 | 82691 | 1.70% | 0.167% |
| 20 | 11.139 | 789 | 792 | 793 | rVB2 | 106365 | 147259 | 3.03% | 0.297% |
| 21 | 11.162 | 793 | 794 | 796 | rVB | 68007 | 69690 | 1.43% | 0.141% |
| 22 | 11.242 | 799 | 801 | 802 | rVV | 2071690 | 1779494 | 36.55% | 3.589% |
| 23 | 11.311 | 805 | 807 | 809 | rVB2 | 67074 | 107991 | 2.22% | 0.218% |
| 24 | 11.493 | 820 | 823 | 827 | rBV3 | 187090 | 358543 | 7.37% | 0.723% |
| 25 | 11.562 | 827 | 829 | 832 | rVB2 | 100060 | 111003 | 2.28% | 0.224% |
| 26 | 11.745 | 841 | 845 | 846 | rBV | 82555 | 93996 | 1.93% | 0.190% |
| 27 | 11.768 | 846 | 847 | 850 | rVV2 | 80618 | 140982 | 2.90% | 0.284% |
| 28 | 11.848 | 853 | 854 | 860 | rVB2 | 86913 | 178886 | 3.67% | 0.361% |
| 29 | 11.962 | 860 | 864 | 869 | rBV3 | 46788 | 106300 | 2.18% | 0.214% |
| 30 | 12.042 | 869 | 871 | 874 | rVB | 547331 | 550820 | 11.32% | 1.111% |
| 31 | 12.454 | 905 | 907 | 909 | rVB | 420426 | 487162 | 10.01% | 0.983% |
| 32 | 12.499 | 909 | 911 | 914 | rBV3 | 33148 | 63002 | 1.29% | 0.127% |
| 33 | 12.602 | 916 | 920 | 922 | rBV5 | 30283 | 94576 | 1.94% | 0.191% |
| 34 | 12.671 | 924 | 926 | 929 | rVV | 413256 | 488560 | 10.04% | 0.985% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083018.D
Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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 | 12.831 | 938 | 940 | 943 | rBV | 4727901 | 4868031 | 100.00% | 9.818% |
| 36 | 13.071 | 960 | 961 | 963 | rBV2 | 54480 | 76819 | 1.58% | 0.155% |
| 37 | 13.105 | 963 | 964 | 970 | rVV4 | 63041 | 173901 | 3.57% | 0.351% |
| 38 | 13.208 | 970 | 973 | 974 | rBV2 | 70256 | 112336 | 2.31% | 0.227% |
| 39 | 13.276 | 978 | 979 | 981 | rBV2 | 45716 | 73793 | 1.52% | 0.149% |
| 40 | 13.391 | 986 | 989 | 990 | rBV | 105756 | 147731 | 3.03% | 0.298% |
| 41 | 13.619 | 1007 | 1009 | 1011 | rBV2 | 63112 | 106981 | 2.20% | 0.216% |
| 42 | 13.757 | 1016 | 1021 | 1028 | rBV5 | 131746 | 555517 | 11.41% | 1.120% |
| 43 | 13.871 | 1028 | 1031 | 1036 | rBV2 | 1638993 | 1989295 | 40.86% | 4.012% |
| 44 | 14.168 | 1055 | 1057 | 1060 | rBV | 88568 | 130615 | 2.68% | 0.263% |
| 45 | 14.225 | 1060 | 1062 | 1064 | rBV2 | 69642 | 117365 | 2.41% | 0.237% |
| 46 | 14.465 | 1081 | 1083 | 1086 | rBV | 81065 | 162216 | 3.33% | 0.327% |
| 47 | 14.877 | 1117 | 1119 | 1124 | rVB | 137392 | 311955 | 6.41% | 0.629% |
| 48 | 15.151 | 1141 | 1143 | 1145 | rBV | 81507 | 93442 | 1.92% | 0.188% |
| 49 | 15.208 | 1145 | 1148 | 1150 | rVV | 126788 | 204249 | 4.20% | 0.412% |
| 50 | 15.265 | 1150 | 1153 | 1157 | rVB | 853020 | 1019058 | 20.93% | 2.055% |
| 51 | 16.294 | 1241 | 1243 | 1251 | rVB2 | 88285 | 234027 | 4.81% | 0.472% |
| 52 | 16.568 | 1265 | 1267 | 1272 | rVB2 | 71432 | 150550 | 3.09% | 0.304% |

Sum of corrected areas: 49582609

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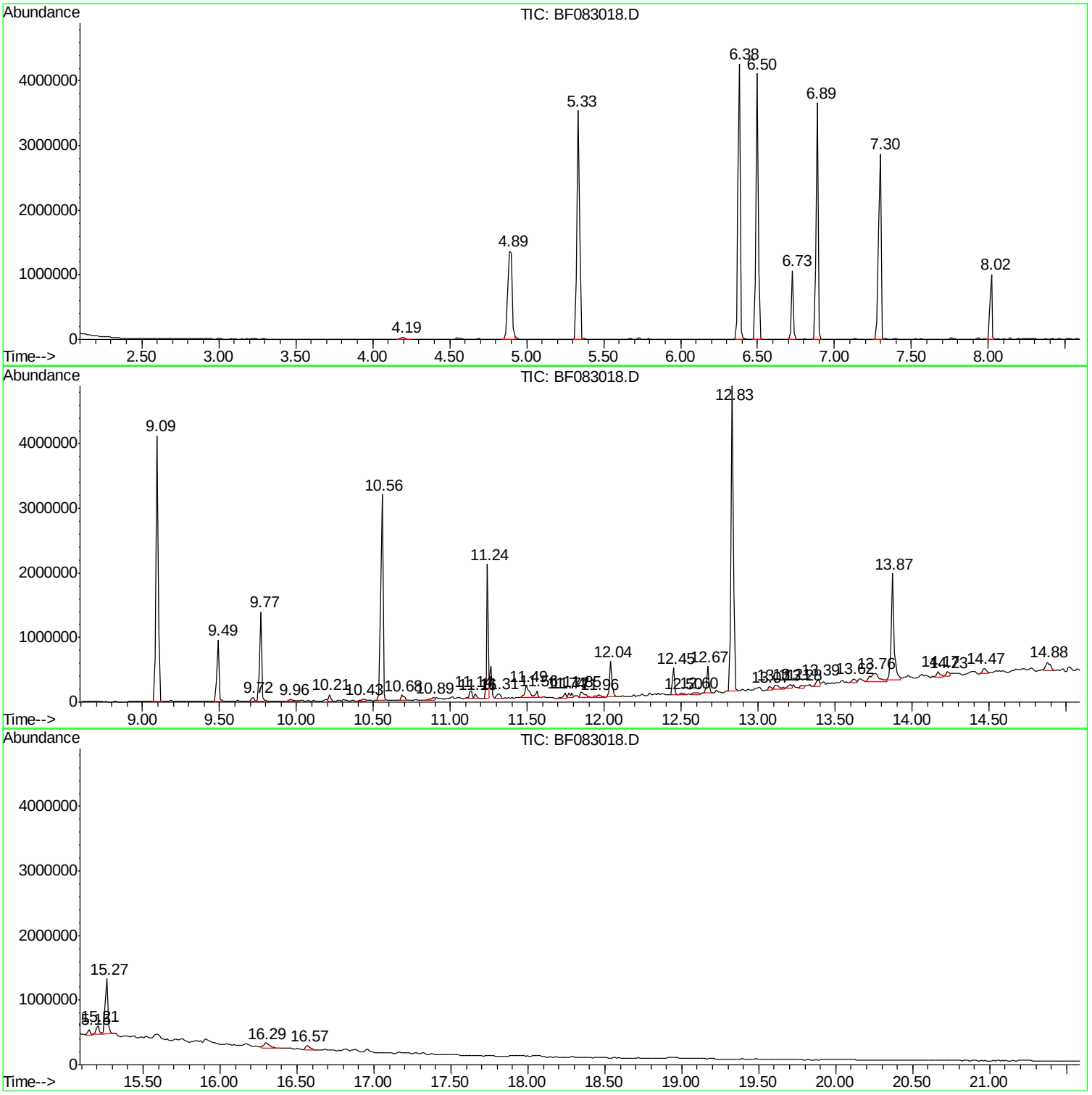
Data File : BF083018.D
Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
CWC-8-20151116

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 : BF083018.D
Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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

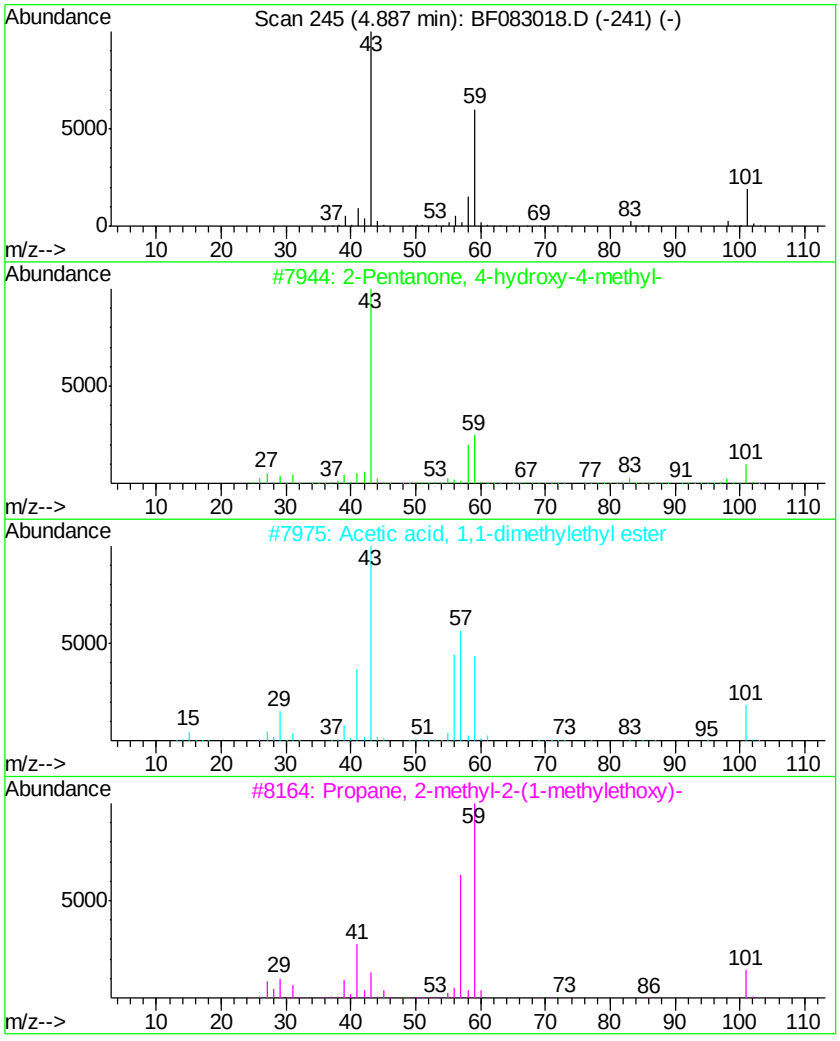
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

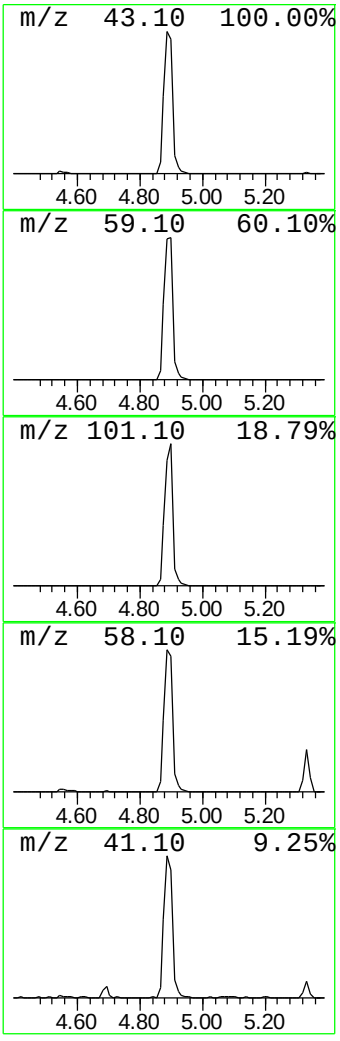
**********

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

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.89 | 59.76 ng | 2574650 | 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 | 59 |
| 2 | Acetic acid, 1,1-dimethylethyl e... | 116 | C6H12O2 | 000540-88-5 | 39 |
| 3 | Propane, 2-methyl-2-(1-methyleth... | 116 | C7H16O | 017348-59-3 | 33 |
| 4 | 3-Hexanol, 4-methyl- | 116 | C7H16O | 000615-29-2 | 33 |
| 5 | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 32 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083018.D
Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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

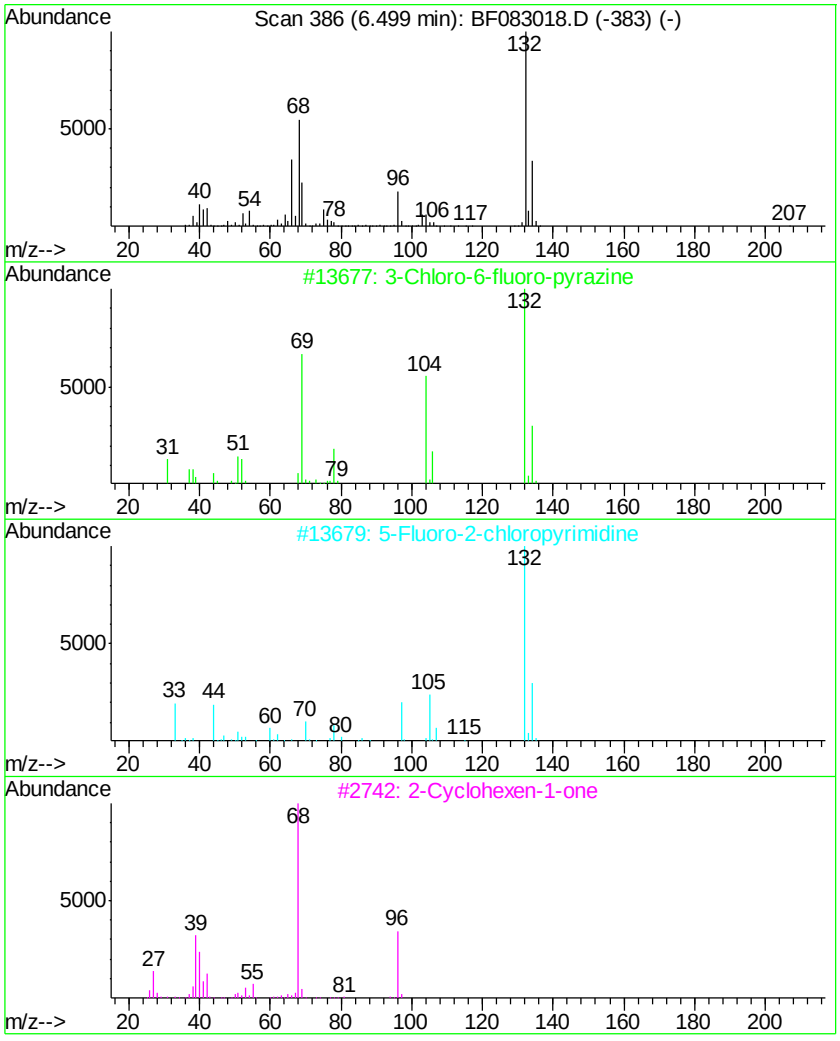
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

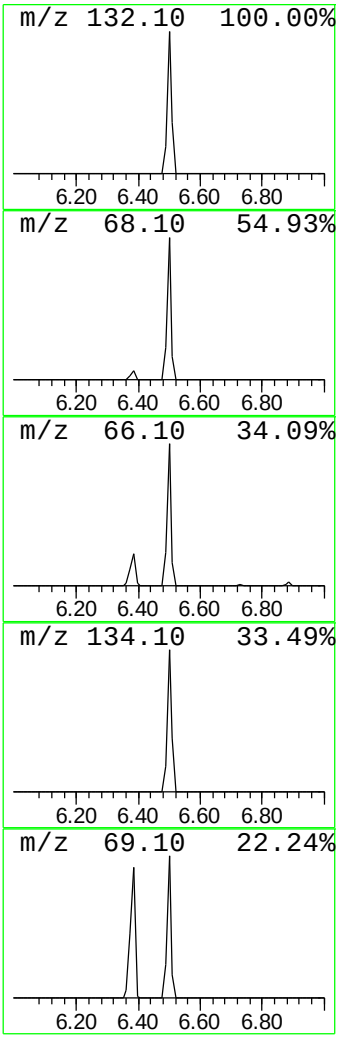
**********

Peak Number 2 unknown6.50 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.50 | 95.89 ng | 4131120 | 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 | 1,2,3-Trifluorobenzene | 132 | C6H3F3 | 001489-53-8 | 9 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083018.D
Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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

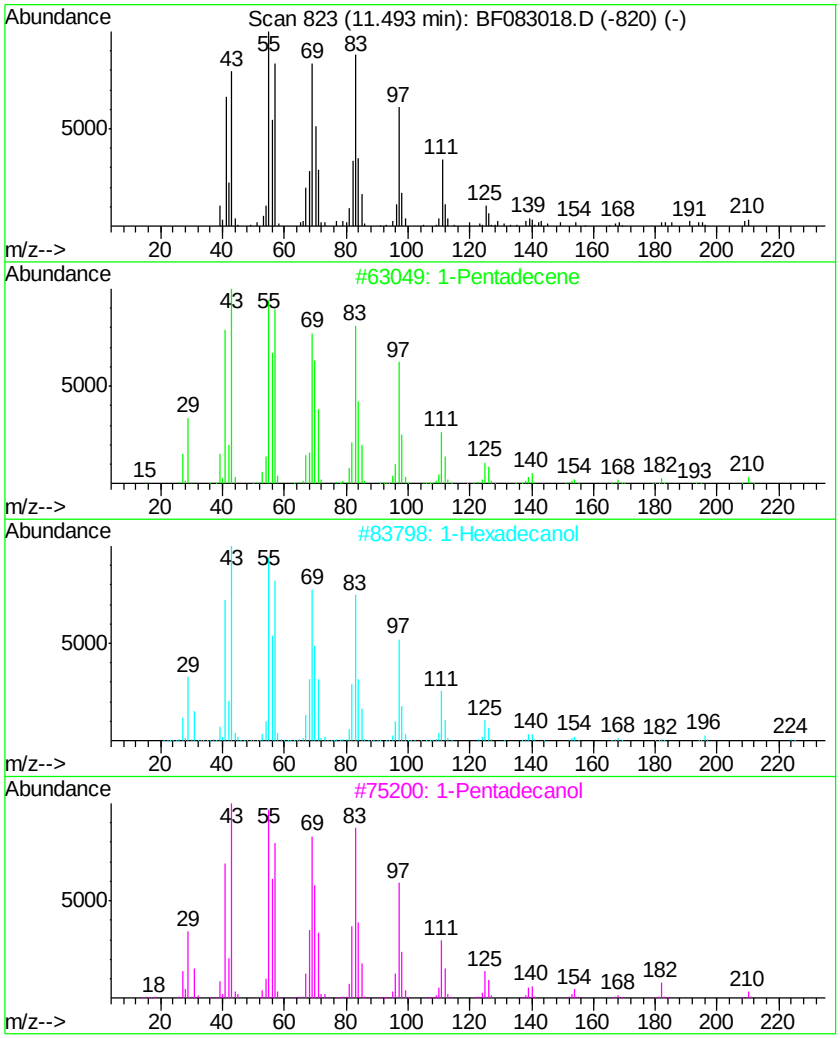
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

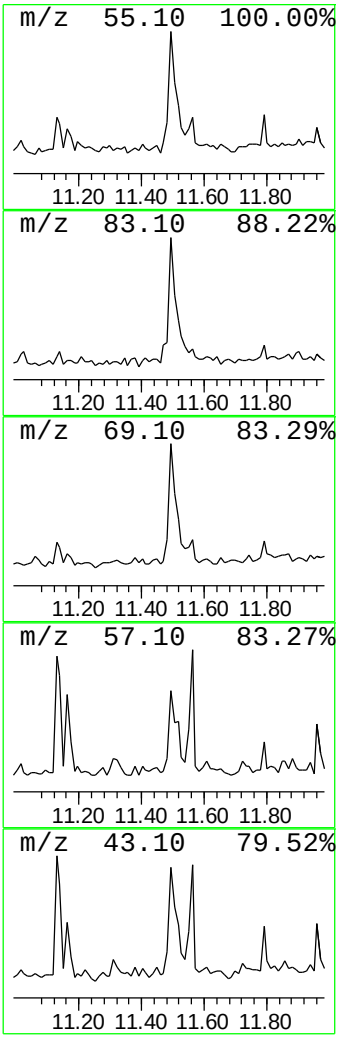
**********

Peak Number 4 1-Pentadecene Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.49 | 4.03 ng | 358543 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1-Pentadecene | 210 | C15H30 | 013360-61-7 | 96 |
| 2 | 1-Hexadecanol | 242 | C16H34O | 036653-82-4 | 94 |
| 3 | 1-Pentadecanol | 228 | C15H32O | 000629-76-5 | 94 |
| 4 | 9-Octadecene, (E)- | 252 | C18H36 | 007206-25-9 | 91 |
| 5 | Cyclotetradecane | 196 | C14H28 | 000295-17-0 | 91 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083018.D
Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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

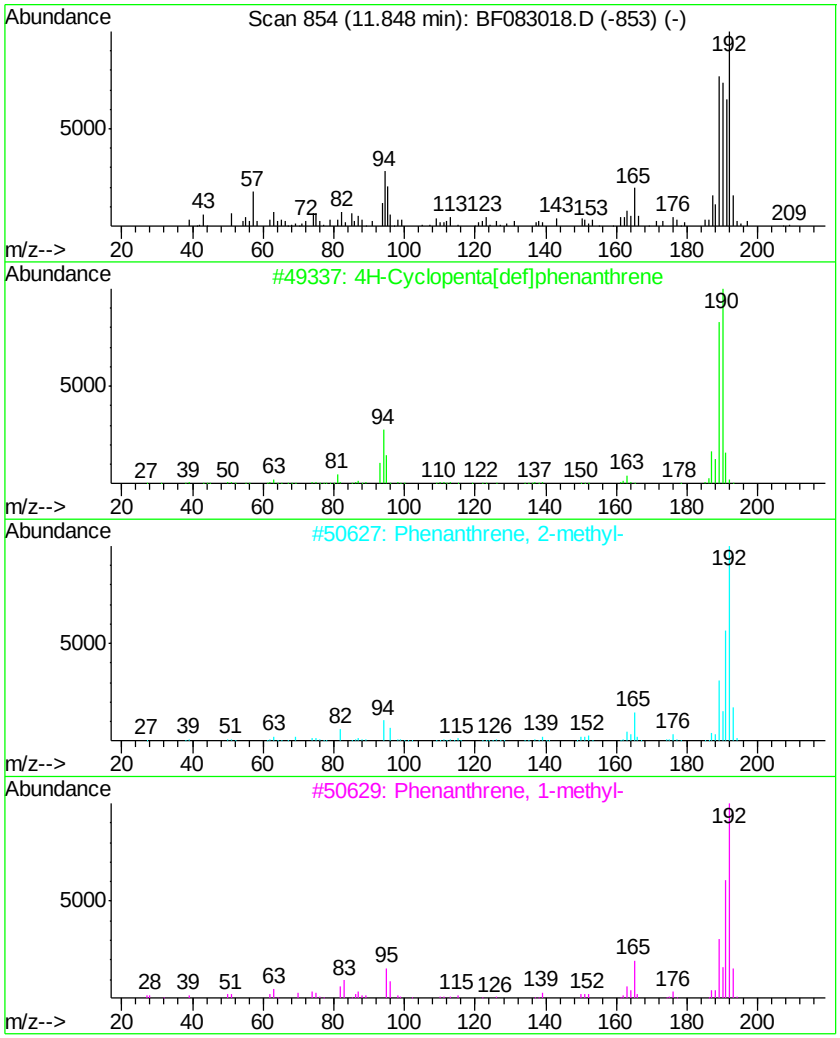
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

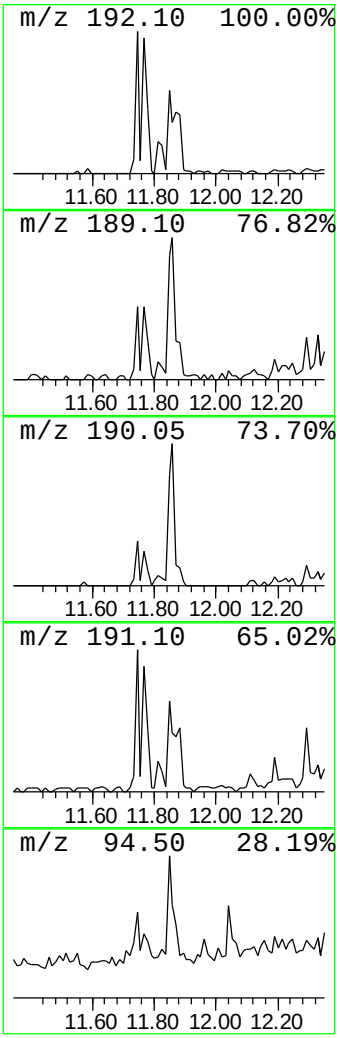
**********

Peak Number 5 4H-Cyclopenta[def]phenanthrene Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.85 | 2.01 ng | 178886 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 64 |
| 2 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 46 |
| 3 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 46 |
| 4 | 8,9-Dihydrocyclopenta[def]phenan... | 192 | C15H12 | 027410-55-5 | 45 |
| 5 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 42 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
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Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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

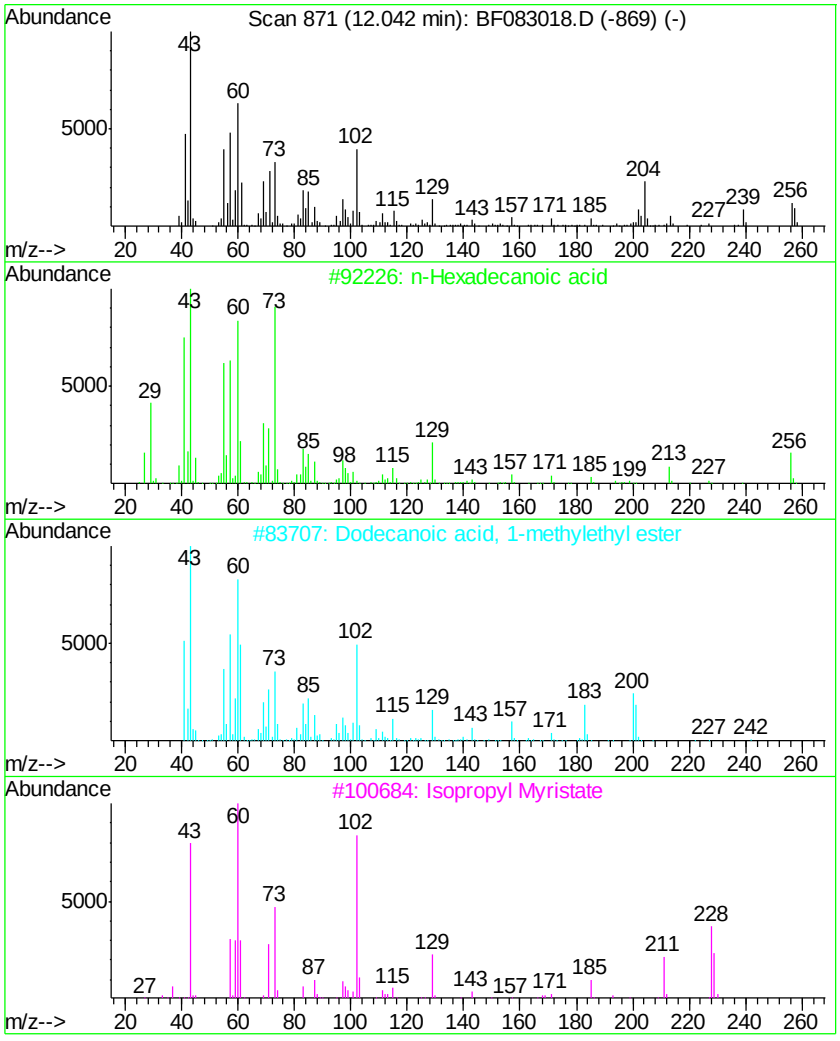
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

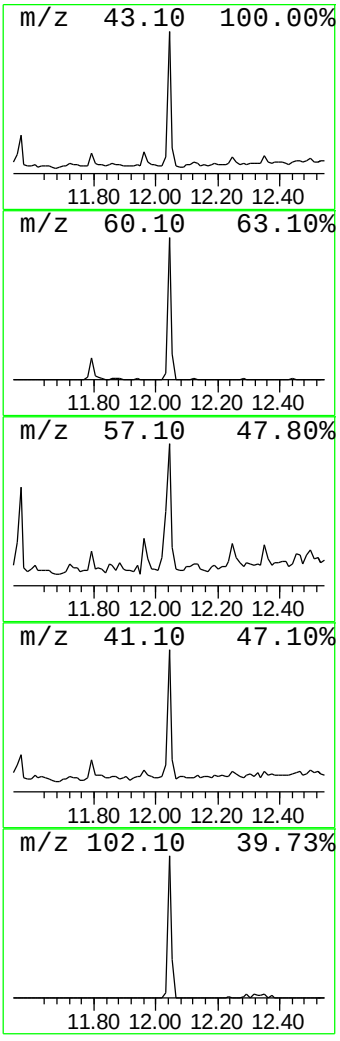
**********

Peak Number 6 n-Hexadecanoic acid Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.04 | 6.19 ng | 550820 | Phenanthrene-d10 | 11.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | n-Hexadecanoic acid | 256 | C16H32O2 | 000057-10-3 | 83 |
| 2 | Dodecanoic acid, 1-methylethyl e... | 242 | C15H30O2 | 010233-13-3 | 52 |
| 3 | Isopropyl Myristate | 270 | C17H34O2 | 000110-27-0 | 50 |
| 4 | Nonanoic acid, 1-methylethyl ester | 200 | C12H24O2 | 028267-32-5 | 42 |
| 5 | Methyl isopropylidene-.beta.-d-a... | 204 | C9H16O5 | 1000129-88-1 | 32 |



Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083018.D
Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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

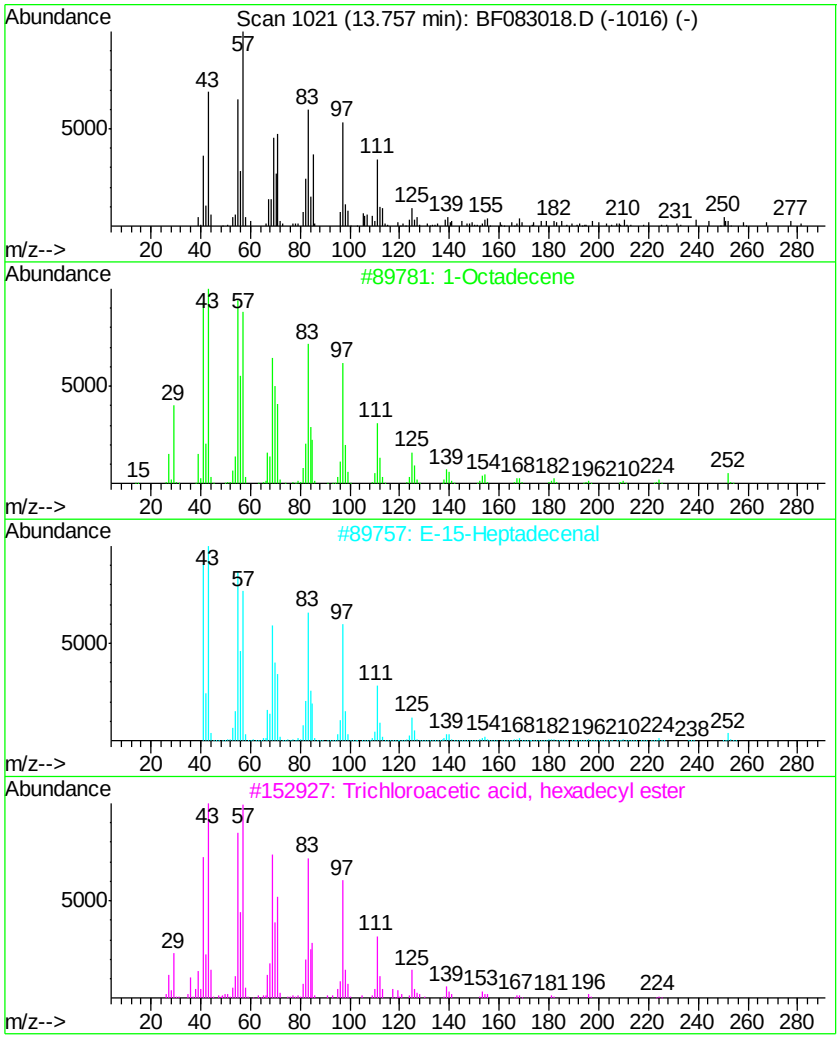
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

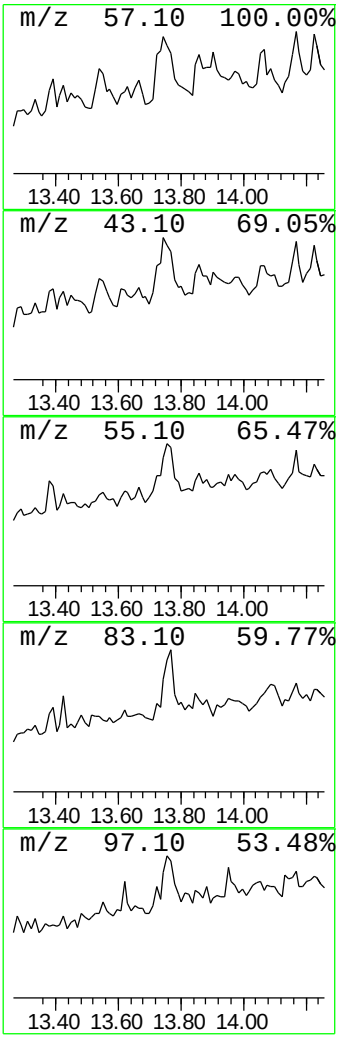
**********

Peak Number 7 1-Octadecene Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.76 | 5.59 ng | 555517 | Chrysene-d12 | 13.87 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1-Octadecene | 252 | C18H36 | 000112-88-9 | 89 |
| 2 | E-15-Heptadecenal | 252 | C17H32O | 1000130-97-9 | 70 |
| 3 | Trichloroacetic acid, hexadecyl ... | 386 | C18H33Cl3O2 | 074339-54-1 | 68 |
| 4 | Ethanol, 2-(tetradecyloxy)- | 258 | C16H34O2 | 002136-70-1 | 58 |
| 5 | Pentafluoropropionic acid, octad... | 416 | C21H37F5O2 | 1000280-07-7 | 49 |



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Data File : BF083018.D
Acq On : 18 Nov 2015 20:00
Operator : UM/IZ
Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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

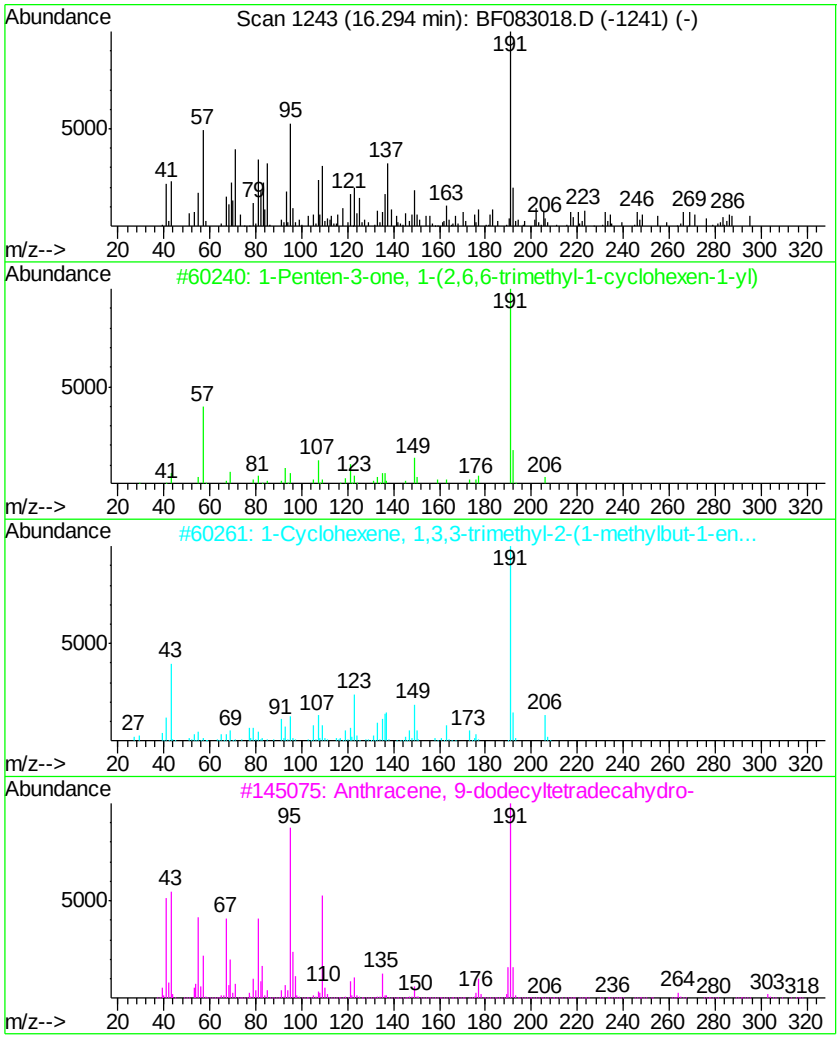
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

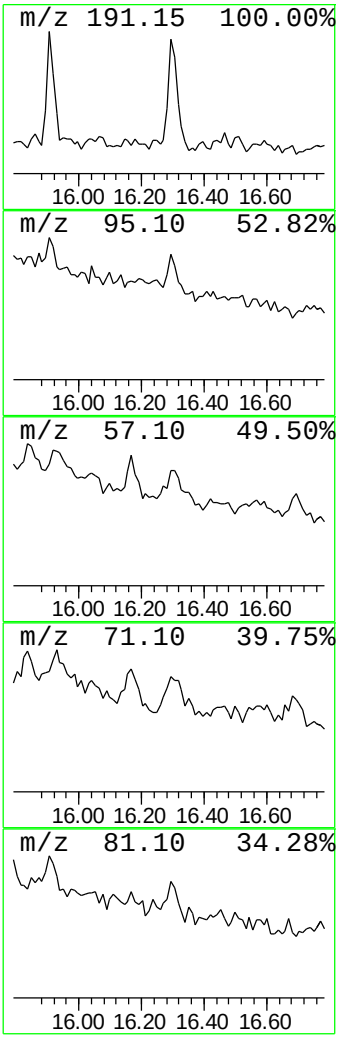
**********

Peak Number 8 unknown16.29 Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.29 | 4.59 ng | 234027 | Perylene-d12 | 15.27 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1-Penten-3-one, 1-(2,6,6-trimeth... | 206 | C14H22O | 000127-43-5 | 42 |
| 2 | 1-Cyclohexene, 1,3,3-trimethyl-2... | 206 | C14H22O | 1000197-08-4 | 38 |
| 3 | Anthracene, 9-dodecyltetradecahy... | 360 | C26H48 | 055401-75-7 | 37 |
| 4 | 3-Buten-2-one, 4-(2,5,6,6-tetram... | 206 | C14H22O | 000079-70-9 | 22 |
| 5 | 9,10-Anthracenedimethanol, 9,10-... | 548 | C30H28O6S2 | 1000195-17-4 | 22 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF111815\
Data File : BF083018.D
Acq On : 18 Nov 2015 20:00
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Sample : G4453-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** CWC-8-20151116

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... | 4.89 | 59.8 | ng | 2574650 | 1 | 6.73 | 861676 | 20.0 |
| unknown6.50 | 6.50 | 95.9 | ng | 4131120 | 1 | 6.73 | 861676 | 20.0 |
| 1-Pentadecene | 11.49 | 4.0 | ng | 358543 | 4 | 11.24 | 1779490 | 20.0 |
| 4H-Cyclopenta[def... | 11.85 | 2.0 | ng | 178886 | 4 | 11.24 | 1779490 | 20.0 |
| n-Hexadecanoic acid | 12.04 | 6.2 | ng | 550820 | 4 | 11.24 | 1779490 | 20.0 |
| 1-Octadecene | 13.76 | 5.6 | ng | 555517 | 5 | 13.87 | 1989300 | 20.0 |
| unknown16.29 | 16.29 | 4.6 | ng | 234027 | 6 | 15.27 | 1019060 | 20.0 |