LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

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-BF113017.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 | 5.051 | 501 | 504 | 516 | rBB | 59132 | 78923 | 1.91% | 0.317% |
| 2 | 5.445 | 567 | 571 | 587 | rBV | 1077363 | 1030064 | 24.99% | 4.137% |
| 3 | 6.463 | 739 | 744 | 762 | rVB | 1052808 | 1080047 | 26.21% | 4.338% |
| 4 | 6.598 | 762 | 767 | 770 | rBV | 1267050 | 1100679 | 26.71% | 4.421% |
| 5 | 6.822 | 802 | 805 | 812 | rBB | 322392 | 275310 | 6.68% | 1.106% |
| 6 | 6.981 | 828 | 832 | 835 | rBV | 976600 | 796659 | 19.33% | 3.200% |
| 7 | 7.392 | 897 | 902 | 905 | rBV | 730654 | 640302 | 15.54% | 2.572% |
| 8 | 8.104 | 1020 | 1023 | 1026 | rBV | 398655 | 356429 | 8.65% | 1.432% |
| 9 | 9.181 | 1202 | 1206 | 1209 | rBV | 1248801 | 1052181 | 25.53% | 4.226% |
| 10 | 9.251 | 1215 | 1218 | 1221 | rBV | 45793 | 41805 | 1.01% | 0.168% |
| 11 | 9.575 | 1270 | 1273 | 1276 | rBV | 141435 | 110796 | 2.69% | 0.445% |
| 12 | 9.786 | 1304 | 1309 | 1313 | rVB | 85496 | 73287 | 1.78% | 0.294% |
| 13 | 9.863 | 1317 | 1322 | 1325 | rBV2 | 462590 | 381747 | 9.26% | 1.533% |
| 14 | 10.286 | 1387 | 1394 | 1396 | rBV | 104294 | 100038 | 2.43% | 0.402% |
| 15 | 10.657 | 1453 | 1457 | 1460 | rBV | 758752 | 629886 | 15.28% | 2.530% |
| 16 | 10.757 | 1471 | 1474 | 1483 | rBV | 100126 | 111848 | 2.71% | 0.449% |
| 17 | 11.204 | 1546 | 1550 | 1553 | rBV2 | 78080 | 62611 | 1.52% | 0.251% |
| 18 | 11.351 | 1572 | 1575 | 1578 | rBV | 368282 | 374283 | 9.08% | 1.503% |
| 19 | 11.380 | 1578 | 1580 | 1583 | rVV | 299533 | 237330 | 5.76% | 0.953% |
| 20 | 11.427 | 1585 | 1588 | 1591 | rVV | 85083 | 66621 | 1.62% | 0.268% |
| 21 | 11.739 | 1637 | 1641 | 1644 | rBV | 1992074 | 1775522 | 43.08% | 7.131% |
| 22 | 11.857 | 1657 | 1661 | 1662 | rBV | 54419 | 50935 | 1.24% | 0.205% |
| 23 | 11.880 | 1662 | 1665 | 1669 | rVB | 86031 | 99150 | 2.41% | 0.398% |
| 24 | 11.969 | 1677 | 1680 | 1682 | rBV2 | 86518 | 90278 | 2.19% | 0.363% |
| 25 | 12.151 | 1707 | 1711 | 1714 | rVB2 | 53063 | 57033 | 1.38% | 0.229% |
| 26 | 12.433 | 1750 | 1759 | 1761 | rBV | 3097105 | 4121332 | 100.00% | 16.553% |
| 27 | 12.457 | 1761 | 1763 | 1768 | rVV2 | 3246377 | 3034410 | 73.63% | 12.188% |
| 28 | 12.498 | 1768 | 1770 | 1772 | rVV2 | 57591 | 52207 | 1.27% | 0.210% |
| 29 | 12.533 | 1772 | 1776 | 1779 | rVB | 881118 | 716598 | 17.39% | 2.878% |
| 30 | 12.574 | 1779 | 1783 | 1786 | rBV | 742858 | 623044 | 15.12% | 2.502% |
| 31 | 12.763 | 1811 | 1815 | 1816 | rBV3 | 32595 | 44087 | 1.07% | 0.177% |
| 32 | 12.804 | 1816 | 1822 | 1828 | rVB | 624934 | 661818 | 16.06% | 2.658% |
| 33 | 12.939 | 1838 | 1845 | 1848 | rBV | 843444 | 807447 | 19.59% | 3.243% |
| 34 | 13.027 | 1853 | 1860 | 1863 | rBV2 | 65217 | 122565 | 2.97% | 0.492% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

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-BF113017.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 13.127 | 1869 | 1877 | 1880 | rBV3 | 126156 | 228926 | 5.55% | 0.919% |
| 36 | 13.192 | 1887 | 1888 | 1891 | rVB | 56165 | 45136 | 1.10% | 0.181% |
| 37 | 13.233 | 1891 | 1895 | 1897 | rBV2 | 72351 | 92713 | 2.25% | 0.372% |
| 38 | 13.251 | 1897 | 1898 | 1901 | rVB3 | 69252 | 52908 | 1.28% | 0.213% |
| 39 | 13.327 | 1907 | 1911 | 1913 | rBV | 40939 | 42015 | 1.02% | 0.169% |
| 40 | 13.357 | 1913 | 1916 | 1924 | rBV3 | 43520 | 63897 | 1.55% | 0.257% |
| 41 | 13.639 | 1962 | 1964 | 1967 | rBV | 70203 | 59307 | 1.44% | 0.238% |
| 42 | 13.686 | 1967 | 1972 | 1978 | rVB3 | 124209 | 190342 | 4.62% | 0.764% |
| 43 | 13.751 | 1979 | 1983 | 1985 | rBV | 82043 | 80336 | 1.95% | 0.323% |
| 44 | 13.774 | 1985 | 1987 | 1989 | rVV | 64395 | 47588 | 1.15% | 0.191% |
| 45 | 13.821 | 1993 | 1995 | 1998 | rVV3 | 99207 | 107582 | 2.61% | 0.432% |
| 46 | 13.851 | 1998 | 2000 | 2004 | rVB | 78399 | 68865 | 1.67% | 0.277% |
| 47 | 13.921 | 2008 | 2012 | 2017 | rBV | 79601 | 79257 | 1.92% | 0.318% |
| 48 | 13.998 | 2018 | 2025 | 2028 | rBV2 | 477030 | 712377 | 17.29% | 2.861% |
| 49 | 14.027 | 2028 | 2030 | 2037 | rVB | 314710 | 283480 | 6.88% | 1.139% |
| 50 | 14.151 | 2048 | 2051 | 2056 | rBV4 | 29346 | 42225 | 1.02% | 0.170% |
| 51 | 14.386 | 2087 | 2091 | 2094 | rVV | 84792 | 87528 | 2.12% | 0.352% |
| 52 | 15.045 | 2198 | 2203 | 2213 | rBV | 263808 | 530112 | 12.86% | 2.129% |
| 53 | 15.151 | 2218 | 2221 | 2225 | rVB | 67430 | 75032 | 1.82% | 0.301% |
| 54 | 15.239 | 2233 | 2236 | 2242 | rBV3 | 20155 | 41362 | 1.00% | 0.166% |
| 55 | 15.345 | 2250 | 2254 | 2259 | rVB | 135301 | 178695 | 4.34% | 0.718% |
| 56 | 15.410 | 2261 | 2265 | 2269 | rVB | 202404 | 243047 | 5.90% | 0.976% |
| 57 | 15.474 | 2271 | 2276 | 2279 | rVV | 229013 | 300464 | 7.29% | 1.207% |
| 58 | 15.504 | 2279 | 2281 | 2287 | rVB2 | 62275 | 78425 | 1.90% | 0.315% |
| 59 | 16.945 | 2520 | 2526 | 2534 | rVB2 | 91903 | 184388 | 4.47% | 0.741% |
| 60 | 17.392 | 2597 | 2602 | 2611 | rVB | 58749 | 124440 | 3.02% | 0.500% |

Sum of corrected areas: 24897719

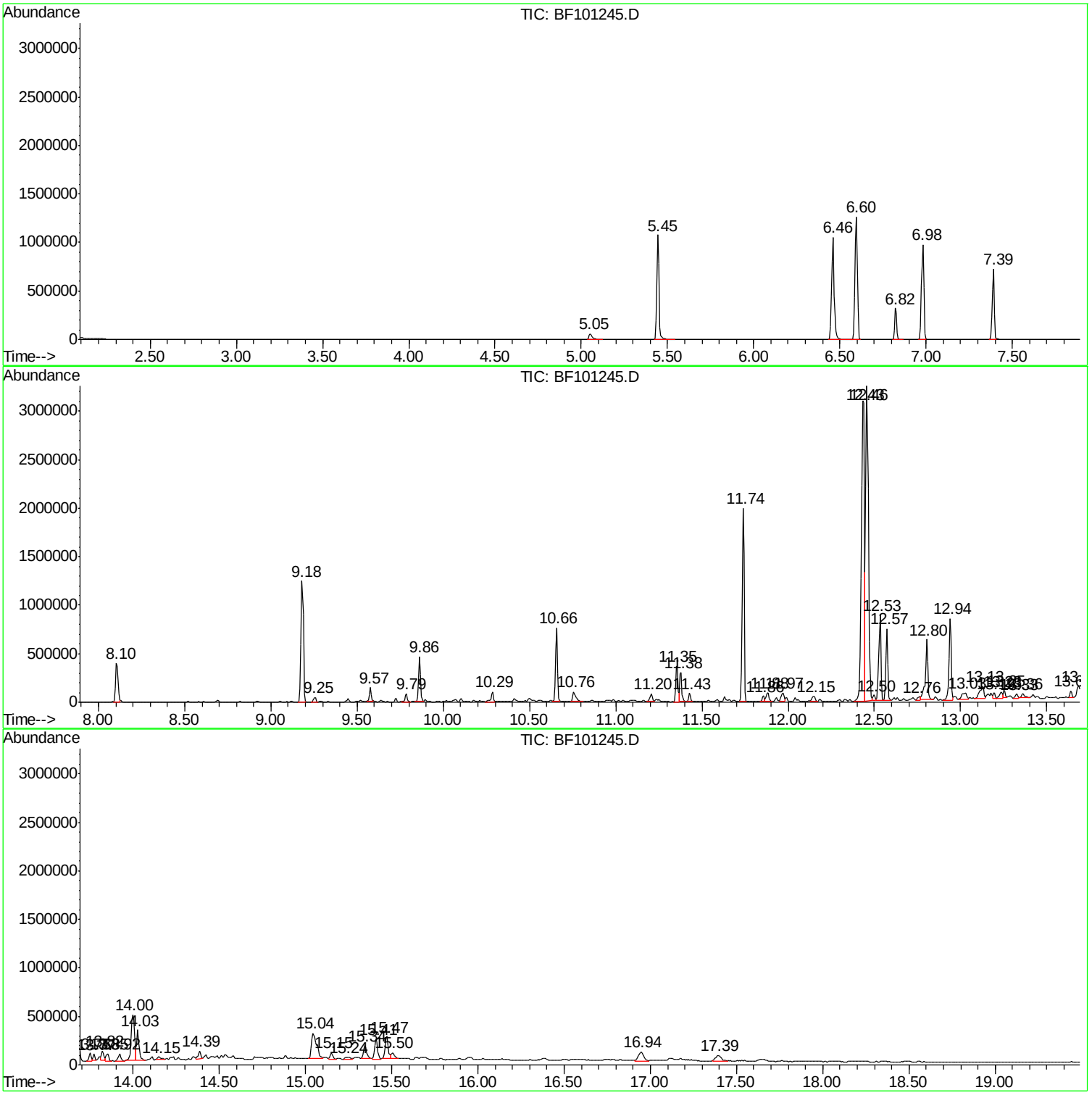
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

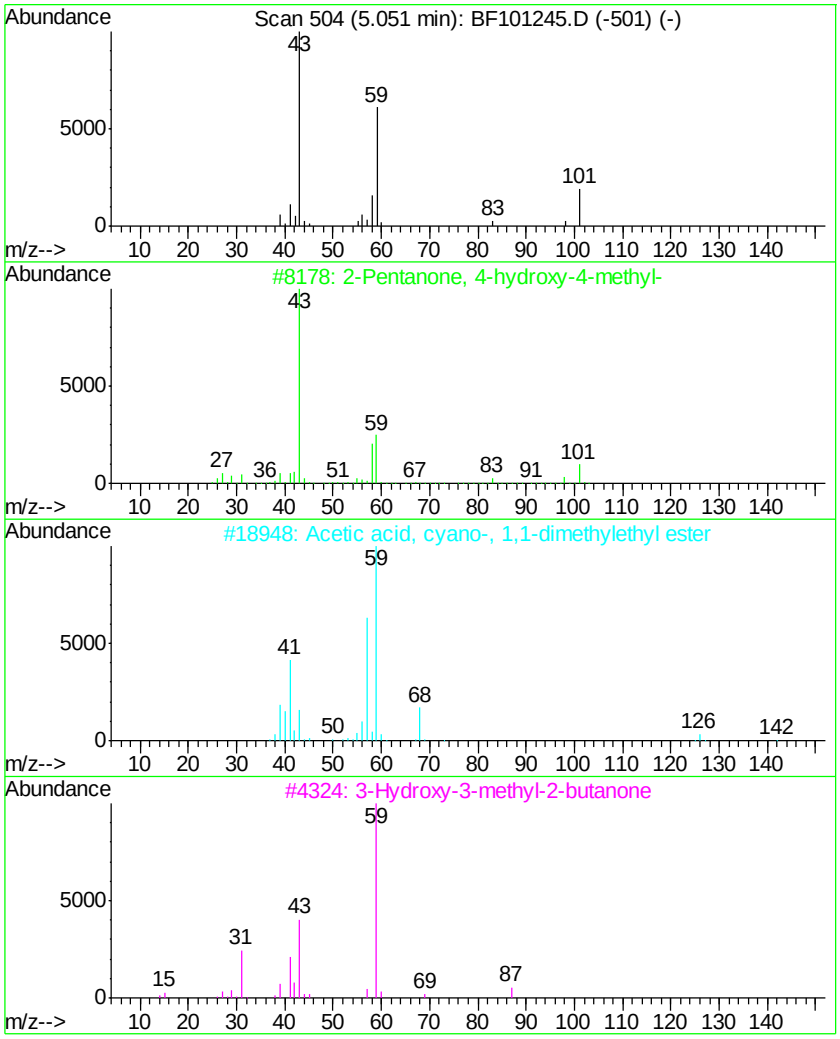
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

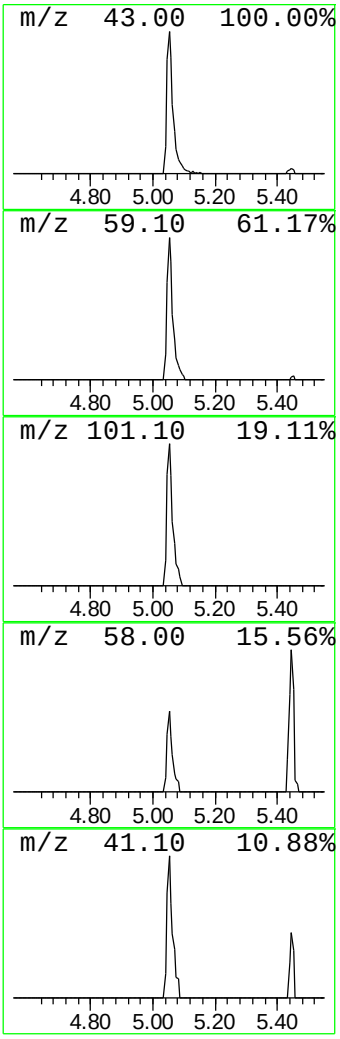
**********

Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.05 | 5.73 ng | 78923 | 1,4-Dichlorobenzene-d4 | 6.82 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 56 |
| 2 | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 23 |
| 3 | 3-Hydroxy-3-methyl-2-butanone | 102 | C5H10O2 | 000115-22-0 | 23 |
| 4 | 2,3-Butanedione, monooxime | 101 | C4H7NO2 | 000057-71-6 | 9 |
| 5 | 5-Hexen-2-one | 98 | C6H10O | 000109-49-9 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

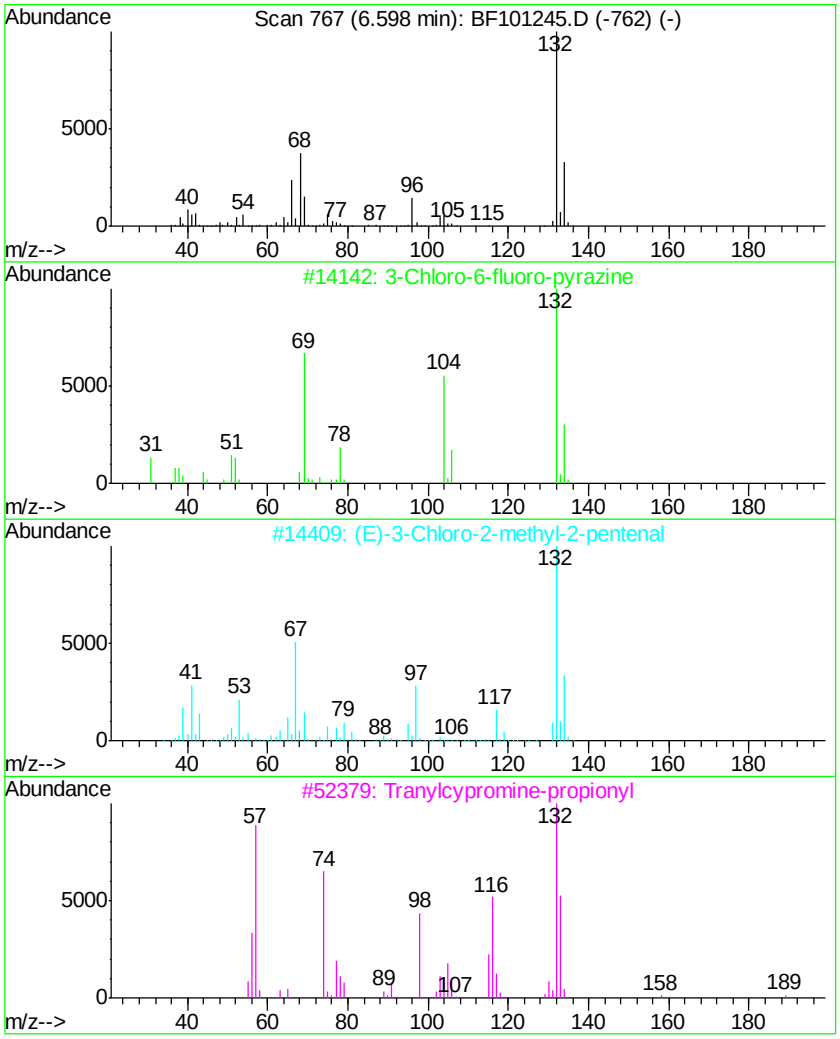
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

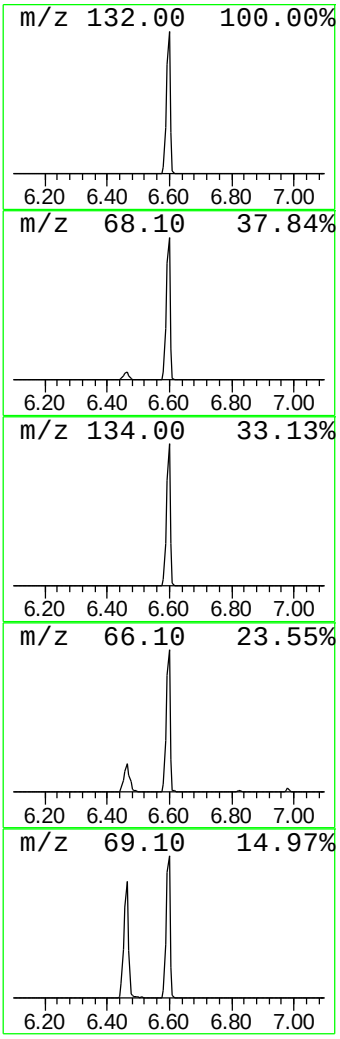
**********

Peak Number 2 unknown6.60 Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.60 | 79.96 ng | 1100680 | 1,4-Dichlorobenzene-d4 | 6.82 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 35 |
| 2 | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO | 031357-76-3 | 17 |
| 3 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 12 |
| 4 | Bicyclo[4.2.0]octa-1,3,5-triene,... | 132 | C10H12 | 028749-81-7 | 9 |
| 5 | 4-Methylpyrrolo[1,2-a]pyrazine | 132 | C8H8N2 | 064608-60-2 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

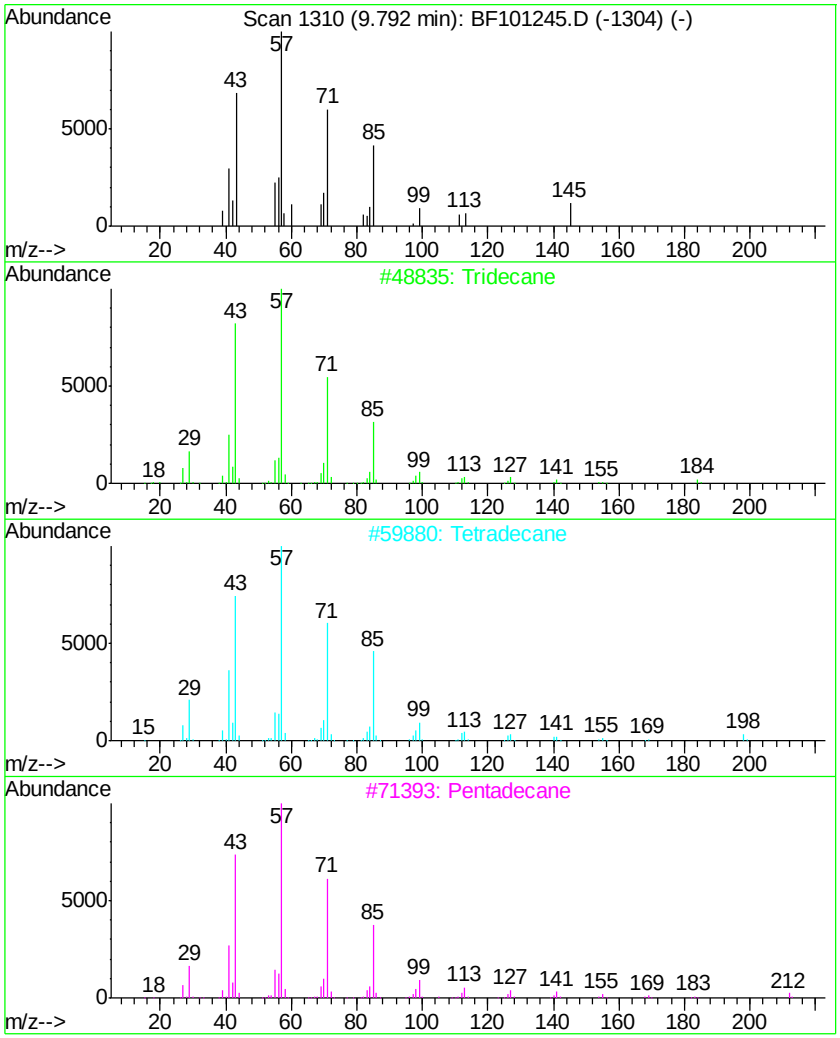
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

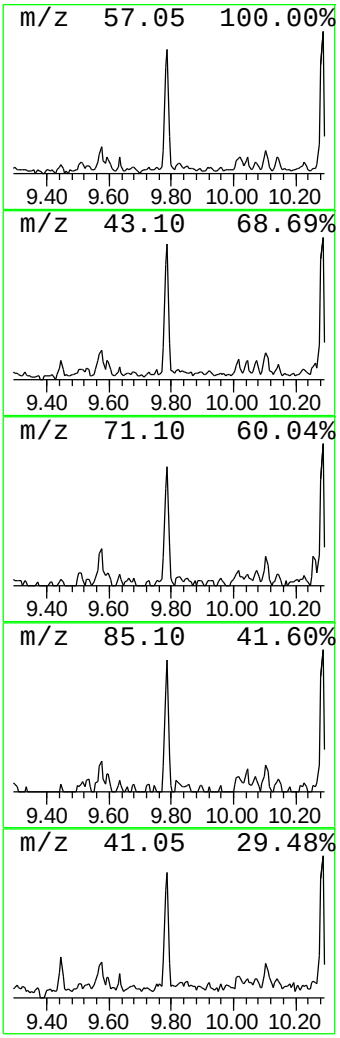
**********

Peak Number 4 Tridecane Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.79 | 3.84 ng | 73287 | Acenaphthene-d10 | 9.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Tridecane | 184 | C13H28 | 000629-50-5 | 90 |
| 2 | Tetradecane | 198 | C14H30 | 000629-59-4 | 86 |
| 3 | Pentadecane | 212 | C15H32 | 000629-62-9 | 83 |
| 4 | Hexadecane | 226 | C16H34 | 000544-76-3 | 80 |
| 5 | 1-Iodo-2-methylundecane | 296 | C12H25I | 073105-67-6 | 59 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

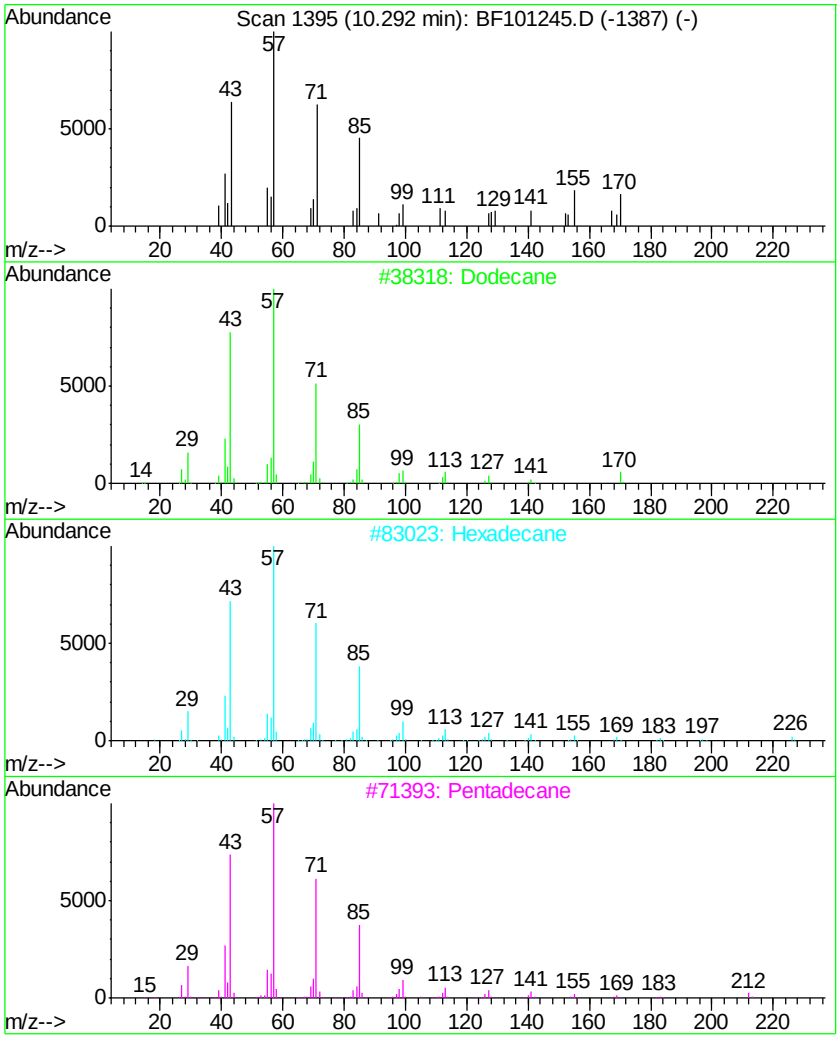
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

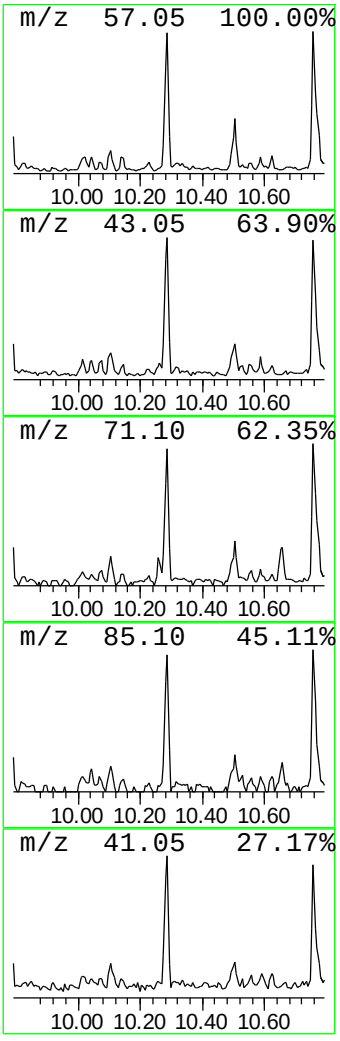
**********

Peak Number 5 Dodecane Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.29 | 5.24 ng | 100038 | Acenaphthene-d10 | 9.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dodecane | 170 | C12H26 | 000112-40-3 | 94 |
| 2 | Hexadecane | 226 | C16H34 | 000544-76-3 | 86 |
| 3 | Pentadecane | 212 | C15H32 | 000629-62-9 | 86 |
| 4 | Octacosane | 394 | C28H58 | 000630-02-4 | 80 |
| 5 | Tridecane | 184 | C13H28 | 000629-50-5 | 80 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

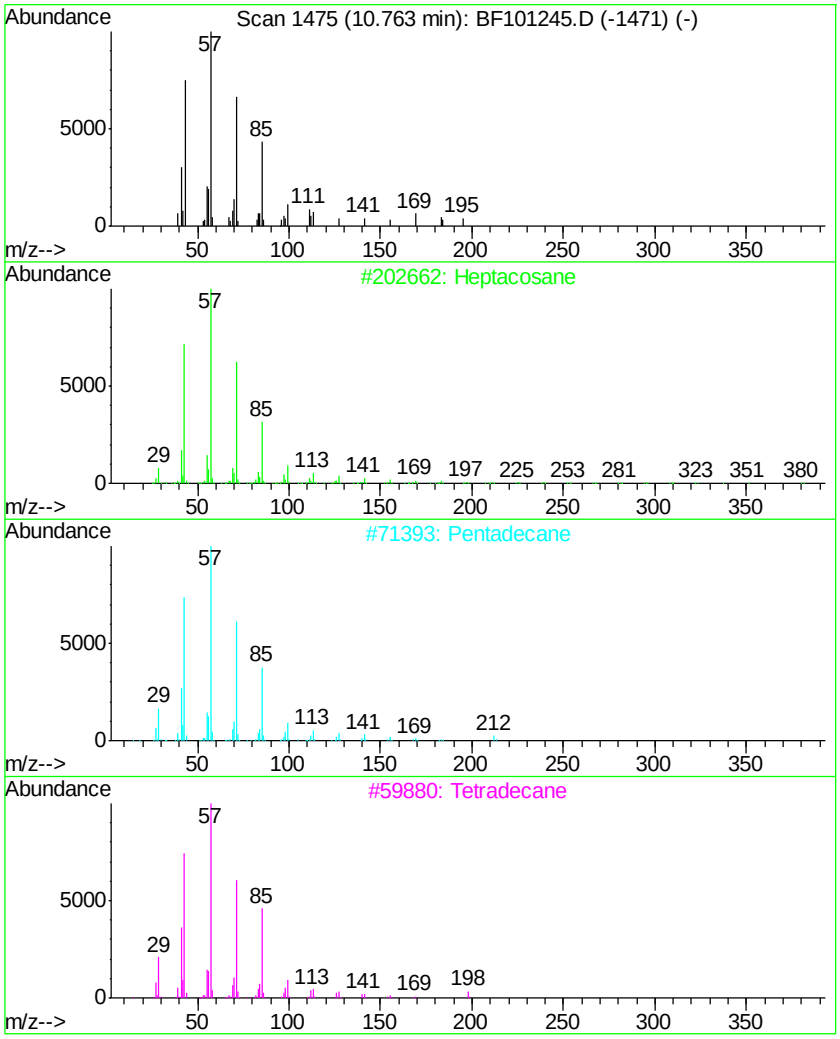
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

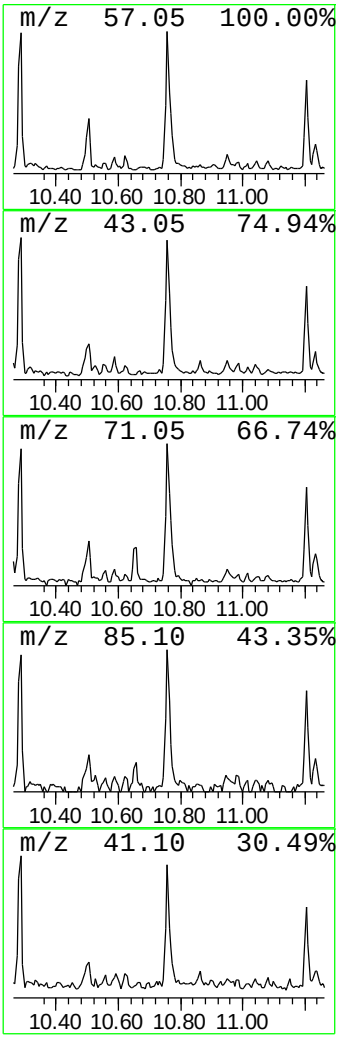
**********

Peak Number 6 Heptacosane Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.76 | 5.98 ng | 111848 | Phenanthrene-d10 | 11.35 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Heptacosane | 380 | C27H56 | 000593-49-7 | 91 |
| 2 | Pentadecane | 212 | C15H32 | 000629-62-9 | 87 |
| 3 | Tetradecane | 198 | C14H30 | 000629-59-4 | 86 |
| 4 | Octadecane | 254 | C18H38 | 000593-45-3 | 86 |
| 5 | Dodecane, 2-methyl-6-propyl- | 226 | C16H34 | 055045-08-4 | 86 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

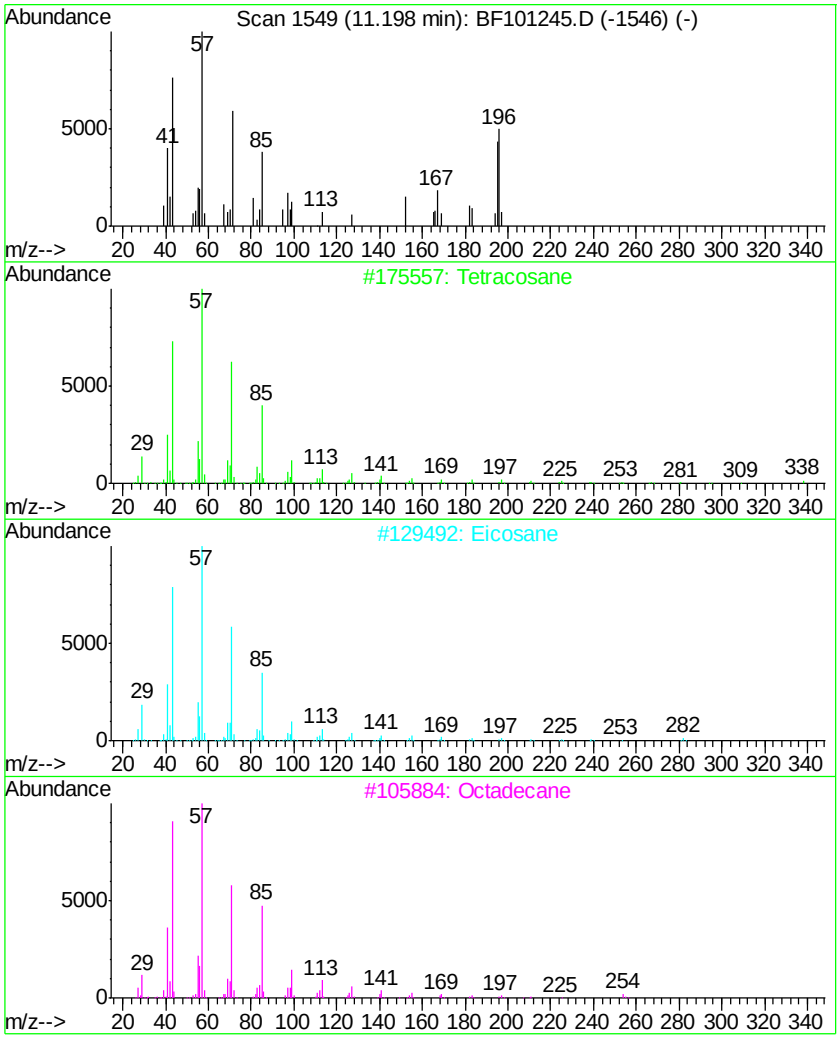
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

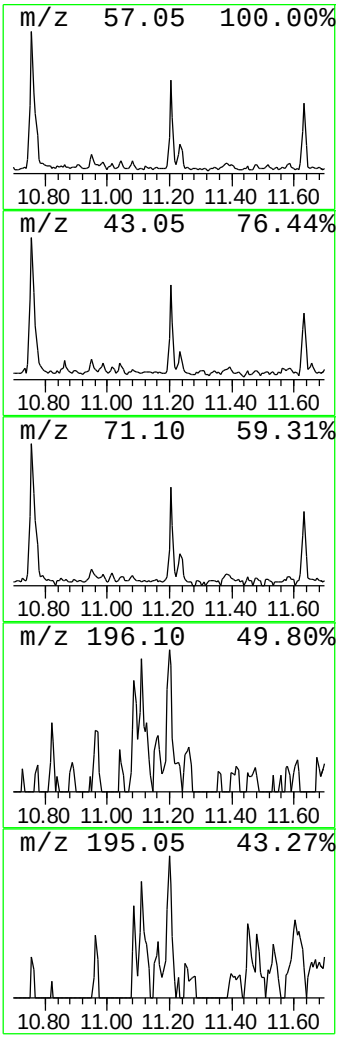
**********

Peak Number 7 Tetracosane Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.20 | 3.35 ng | 62611 | Phenanthrene-d10 | 11.35 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Tetracosane | 338 | C24H50 | 000646-31-1 | 76 |
| 2 | Eicosane | 282 | C20H42 | 000112-95-8 | 68 |
| 3 | Octadecane | 254 | C18H38 | 000593-45-3 | 68 |
| 4 | Pentadecane | 212 | C15H32 | 000629-62-9 | 68 |
| 5 | Octacosane | 394 | C28H58 | 000630-02-4 | 68 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

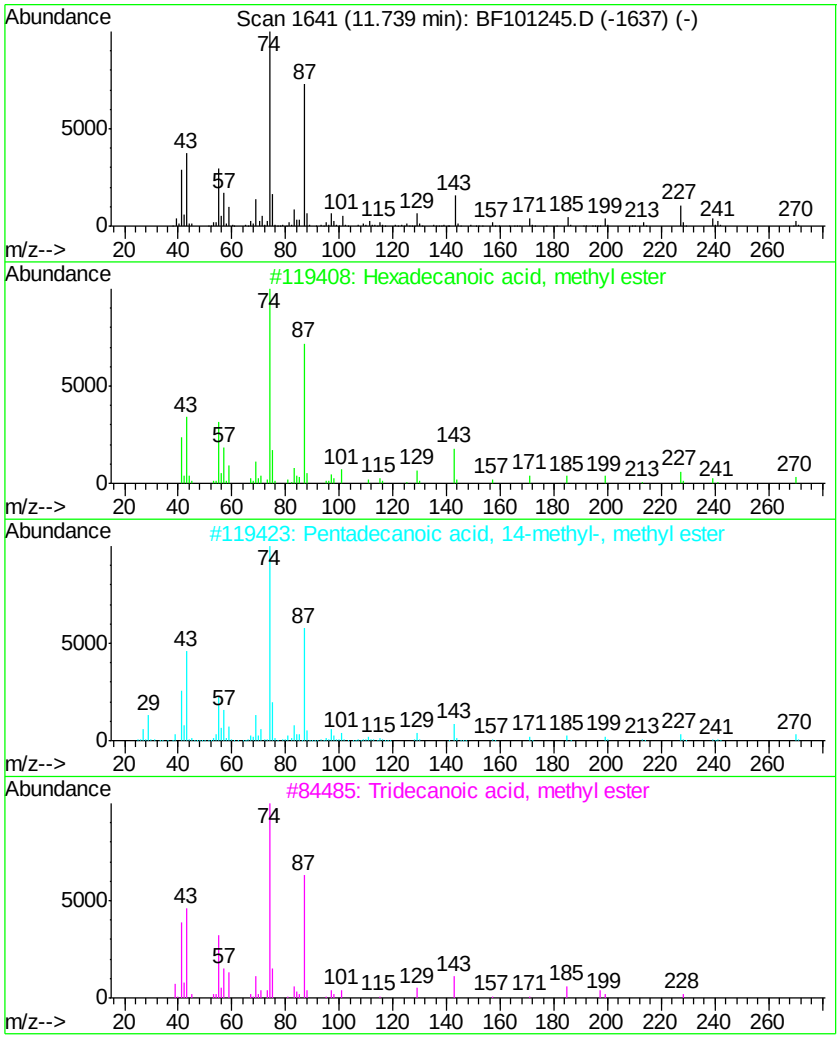
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

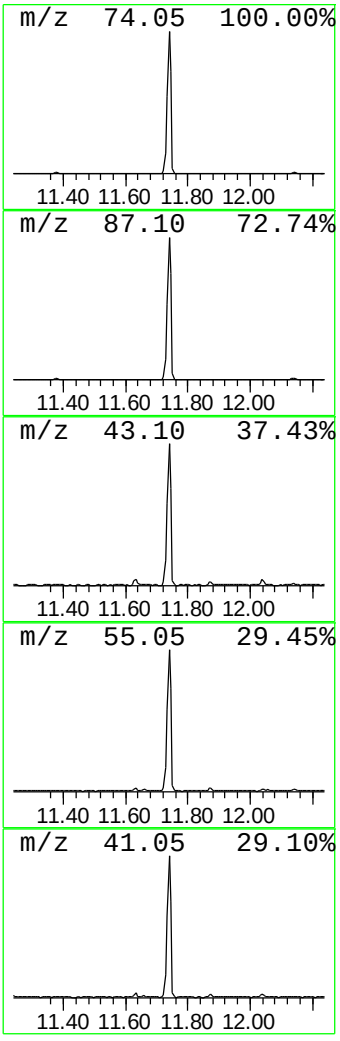
**********

Peak Number 8 Hexadecanoic acid, methyl e... Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.74 | 94.88 ng | 1775520 | Phenanthrene-d10 | 11.35 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexadecanoic acid, methyl ester | 270 | C17H34O2 | 000112-39-0 | 98 |
| 2 | Pentadecanoic acid, 14-methyl-, ... | 270 | C17H34O2 | 005129-60-2 | 93 |
| 3 | Tridecanoic acid, methyl ester | 228 | C14H28O2 | 001731-88-0 | 90 |
| 4 | Pentadecanoic acid, methyl ester | 256 | C16H32O2 | 007132-64-1 | 86 |
| 5 | Hexadecanoic acid, 2-methyl- | 270 | C17H34O2 | 027147-71-3 | 83 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

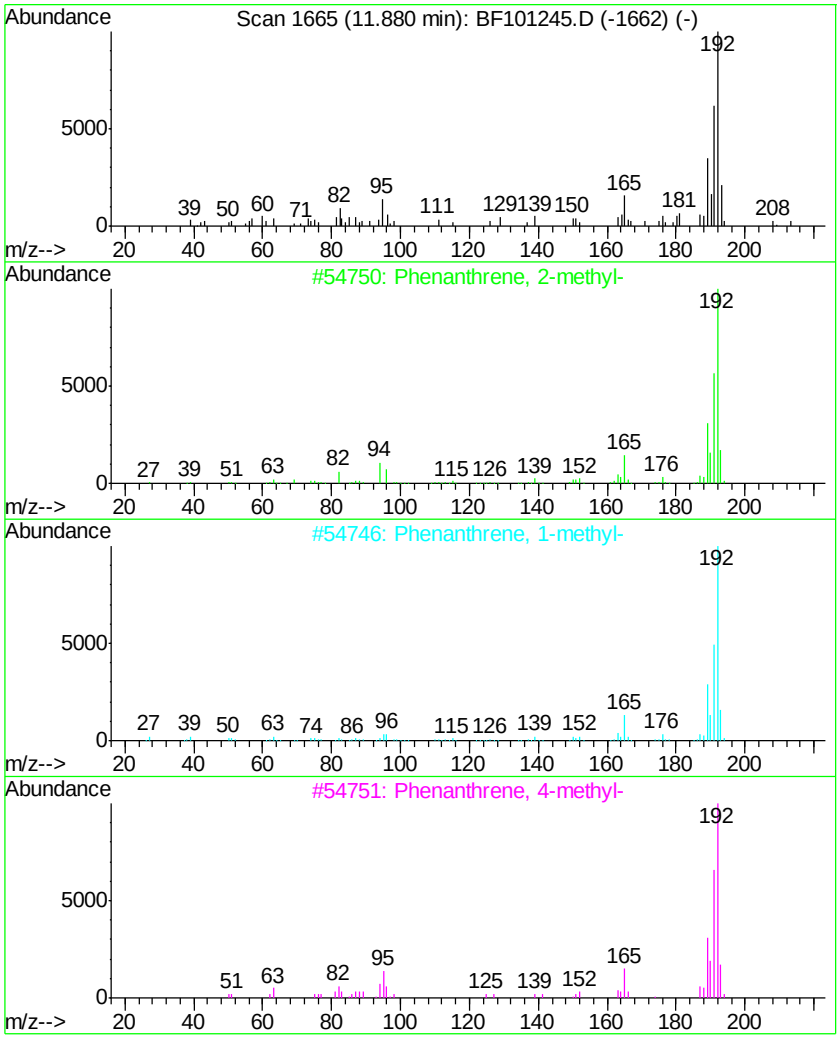
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

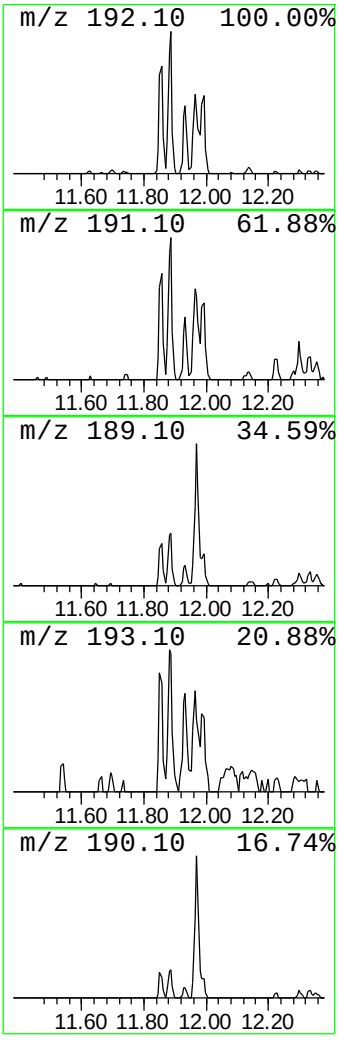
**********

Peak Number 9 Phenanthrene, 2-methyl- Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.88 | 5.30 ng | 99150 | Phenanthrene-d10 | 11.35 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 95 |
| 2 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 94 |
| 3 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 93 |
| 4 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 93 |
| 5 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 91 |



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Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

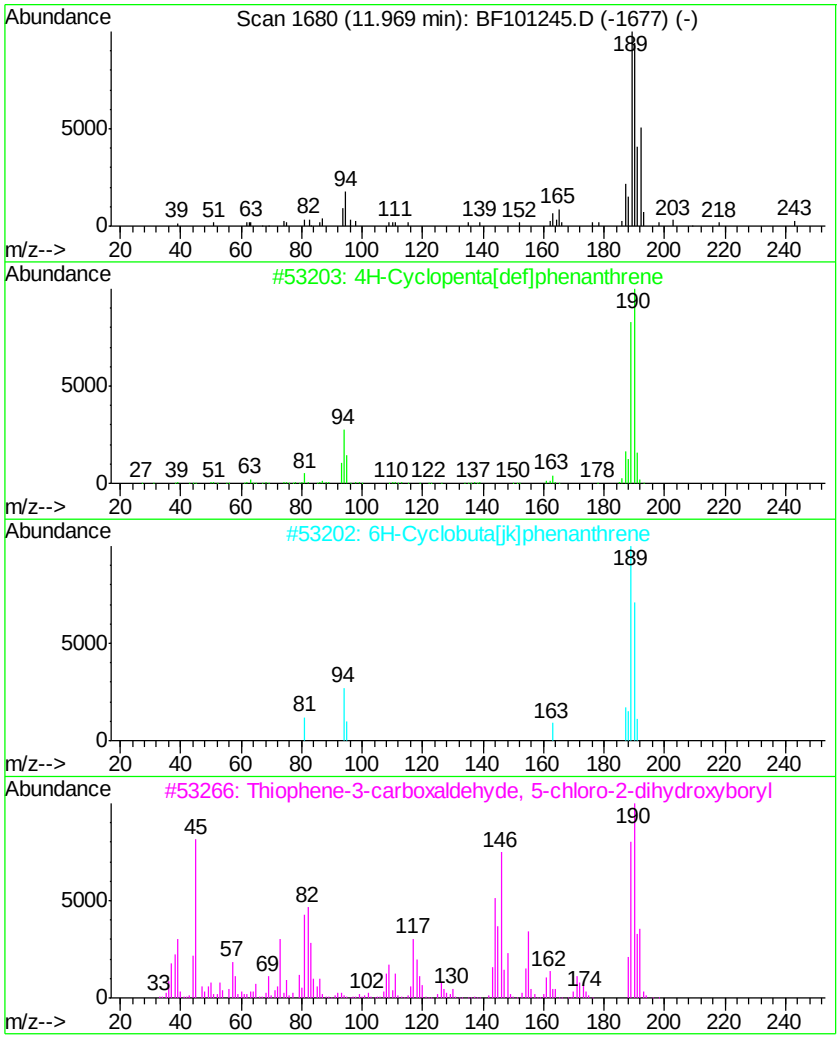
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

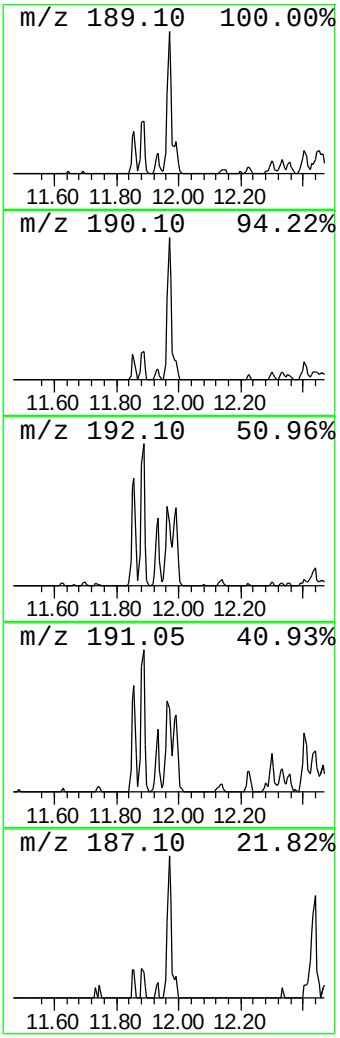
**********

Peak Number 10 4H-Cyclopenta[def]phenanthrene Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.97 | 4.82 ng | 90278 | Phenanthrene-d10 | 11.35 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 68 |
| 2 | 6H-Cyclobuta[jk]phenanthrene | 190 | C15H10 | 083469-43-6 | 53 |
| 3 | Thiophene-3-carboxaldehyde, 5-ch... | 190 | C5H4BClO3S | 036155-87-0 | 53 |
| 4 | Carbonic acid, ethyl 2-formyl-4,... | 262 | C10H8Cl2O4 | 1000331-34-4 | 50 |
| 5 | Methyl diselenide | 190 | C2H6Se2 | 007101-31-7 | 45 |



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Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

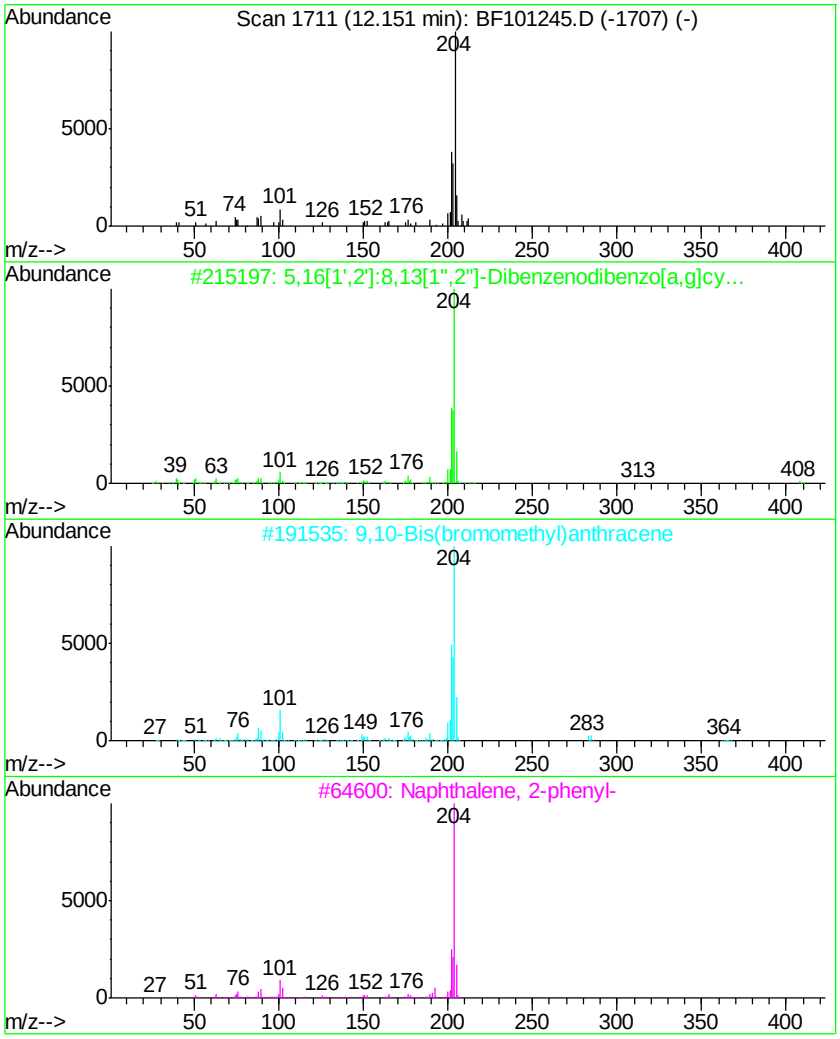
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

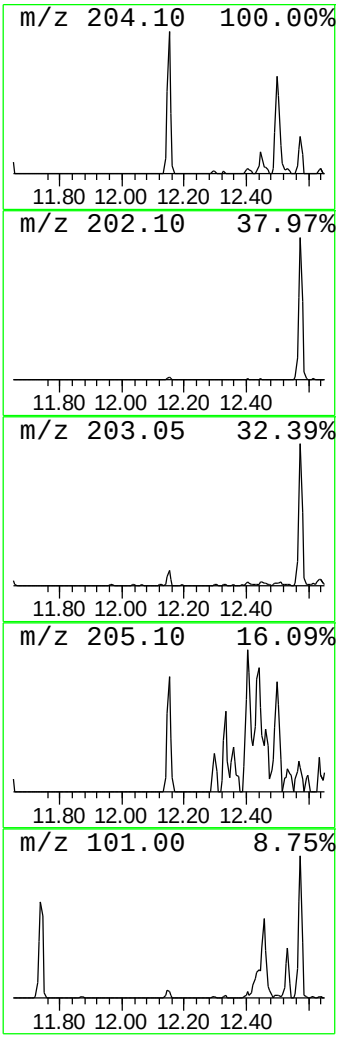
**********

Peak Number 11 5,16[1',2']:8,13[1'',2'']-D... Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.15 | 3.05 ng | 57033 | Phenanthrene-d10 | 11.35 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 5,16[1',2']:8,13[1'',2'']-Dibenz... | 408 | C32H24 | 005672-97-9 | 86 |
| 2 | 9,10-Bis(bromomethyl)anthracene | 362 | C16H12Br2 | 034373-96-1 | 78 |
| 3 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 76 |
| 4 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 64 |
| 5 | [1,1'-Biphenyl]-4,4'-dicarbonitrile | 204 | C14H8N2 | 001591-30-6 | 52 |



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Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

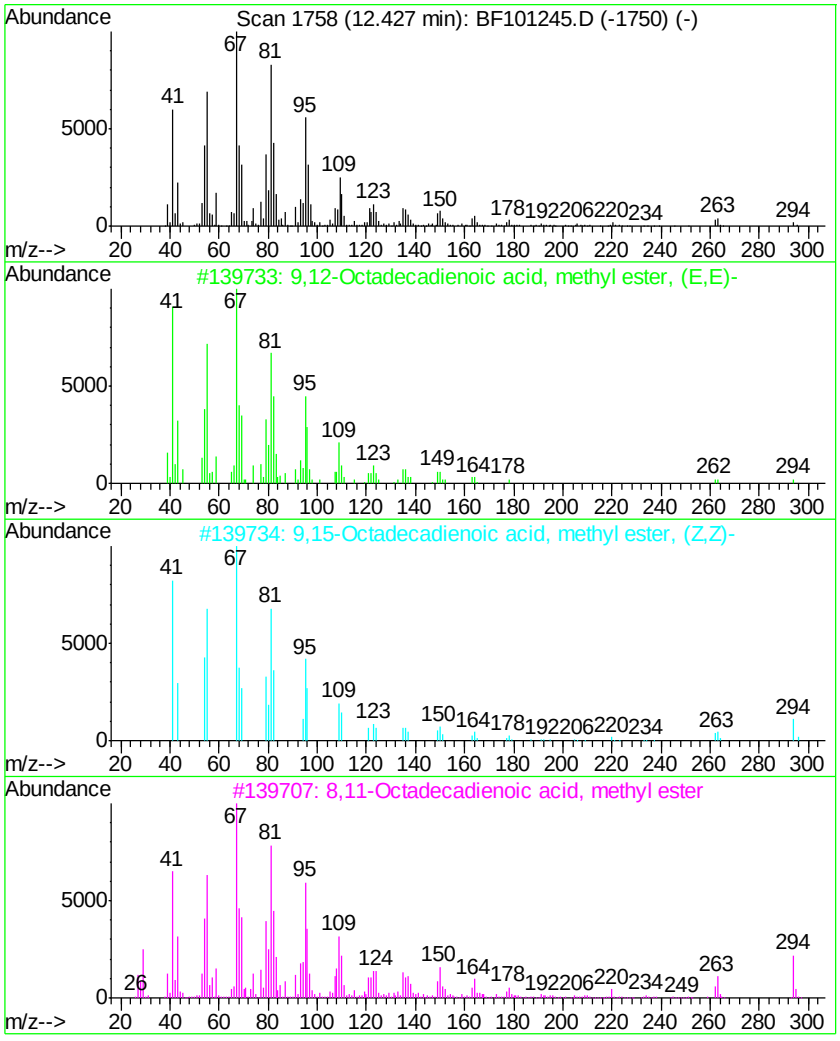
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

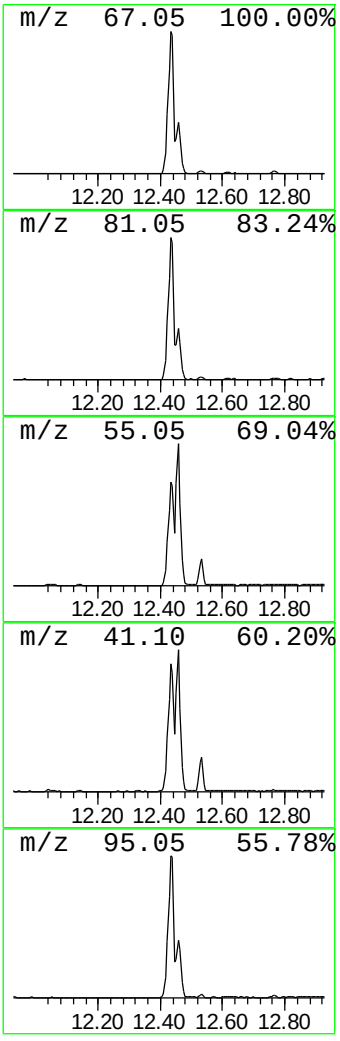
**********

Peak Number 12 9,12-Octadecadienoic acid, ... Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.43 | 220.23 ng | 4121330 | Phenanthrene-d10 | 11.35 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,12-Octadecadienoic acid, methy... | 294 | C19H34O2 | 002566-97-4 | 99 |
| 2 | 9,15-Octadecadienoic acid, methy... | 294 | C19H34O2 | 017309-05-6 | 99 |
| 3 | 8,11-Octadecadienoic acid, methy... | 294 | C19H34O2 | 056599-58-7 | 99 |
| 4 | 10,13-Octadecadienoic acid, meth... | 294 | C19H34O2 | 056554-62-2 | 99 |
| 5 | 9,12-Octadecadienoic acid (Z,Z)-... | 294 | C19H34O2 | 000112-63-0 | 99 |



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Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

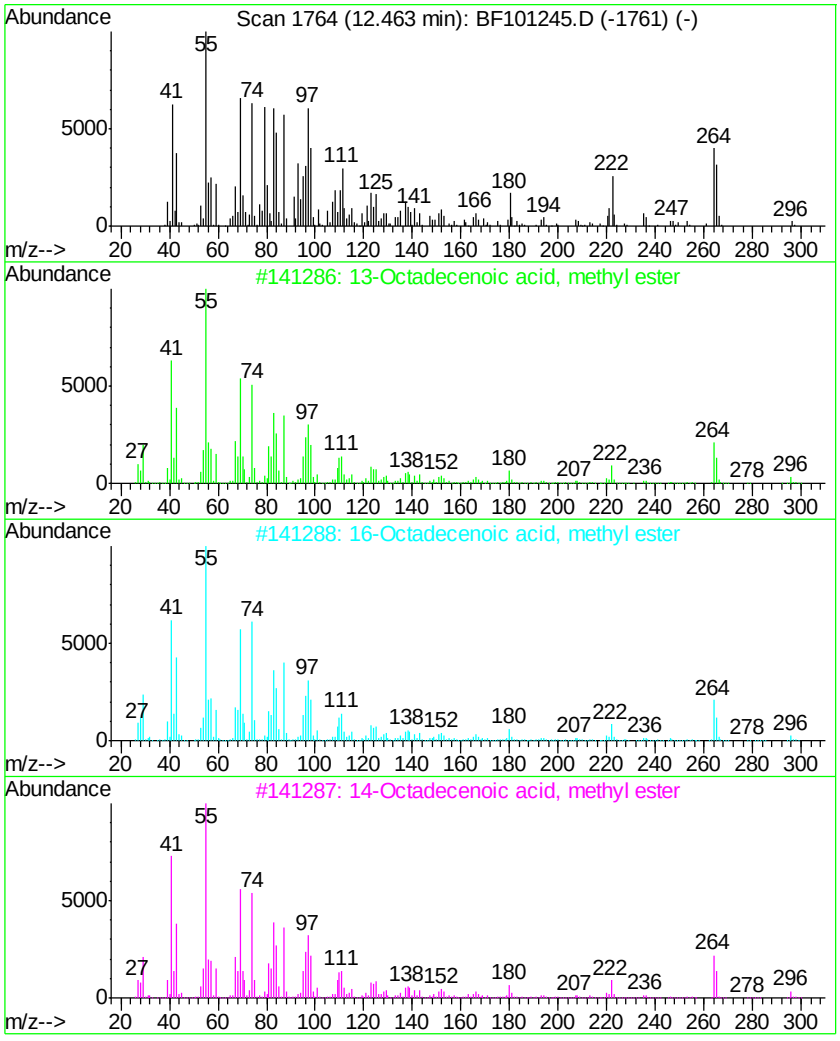
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

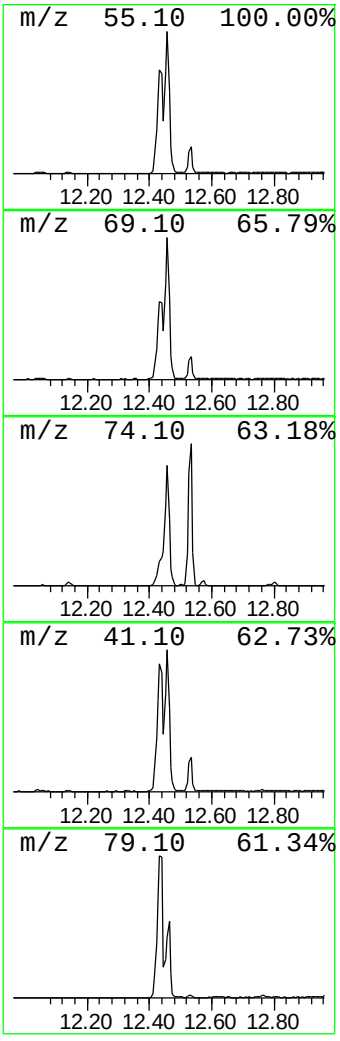
**********

Peak Number 13 13-Octadecenoic acid, methy... Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.46 | 162.15 ng | 3034410 | Phenanthrene-d10 | 11.35 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 13-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 056554-47-3 | 99 |
| 2 | 16-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 056554-49-5 | 99 |
| 3 | 14-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 056554-48-4 | 99 |
| 4 | trans-13-Octadecenoic acid, meth... | 296 | C19H36O2 | 1000333-61-3 | 91 |
| 5 | 11-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 052380-33-3 | 91 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

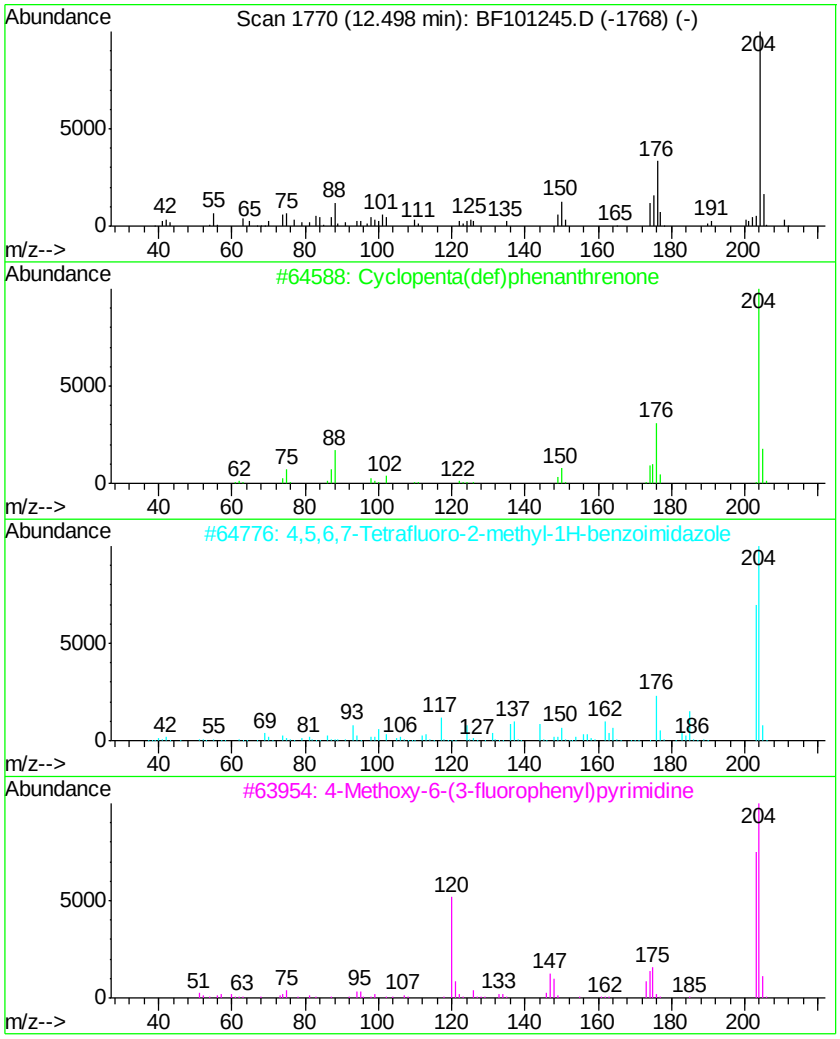
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

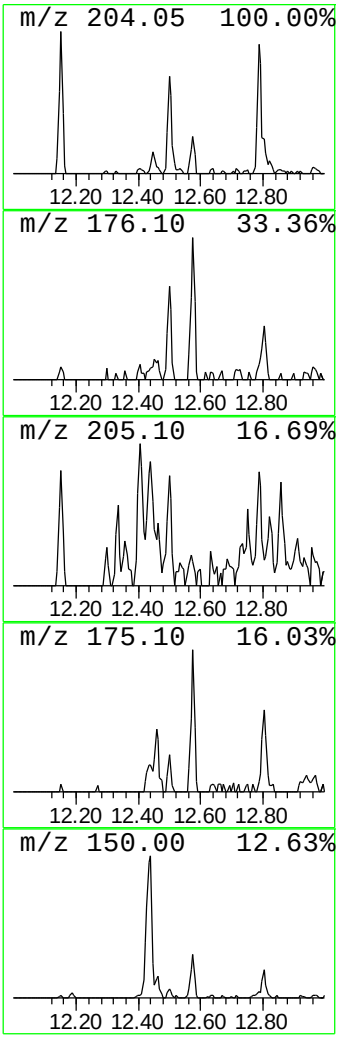
**********

Peak Number 14 Cyclopenta(def)phenanthrenone Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.50 | 2.79 ng | 52207 | Phenanthrene-d10 | 11.35 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 87 |
| 2 | 4,5,6,7-Tetrafluoro-2-methyl-1H-... | 204 | C8H4F4N2 | 081430-75-3 | 53 |
| 3 | 4-Methoxy-6-(3-fluorophenyl)pyri... | 204 | C11H9FN2O | 076128-74-0 | 52 |
| 4 | 3,4-Biphenyldicarbonitrile | 204 | C14H8N2 | 004128-63-6 | 50 |
| 5 | Naphthalene, 1-phenyl- | 204 | C16H12 | 000605-02-7 | 50 |



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Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

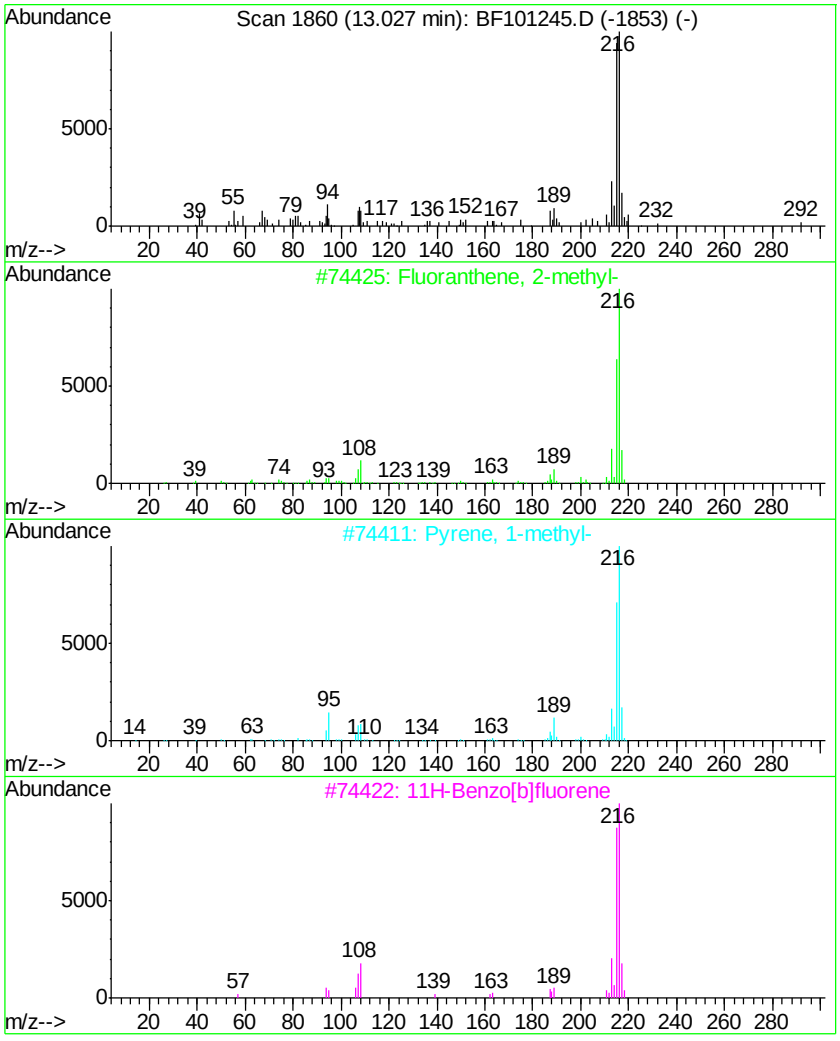
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

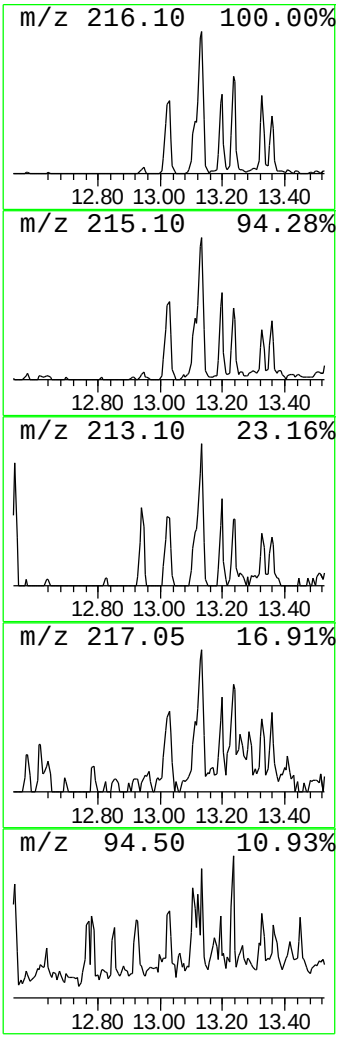
**********

Peak Number 15 Fluoranthene, 2-methyl- Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.03 | 3.44 ng | 122565 | Chrysene-d12 | 14.00 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 93 |
| 2 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 93 |
| 3 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 91 |
| 4 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 87 |
| 5 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 83 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

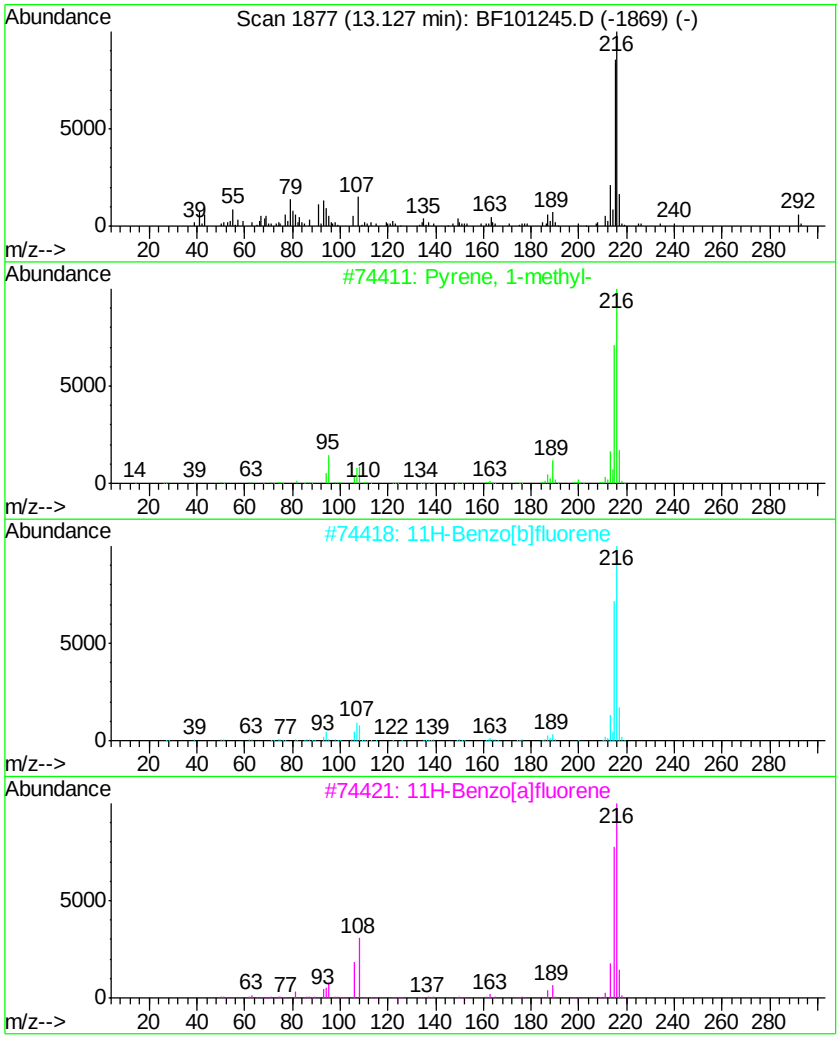
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

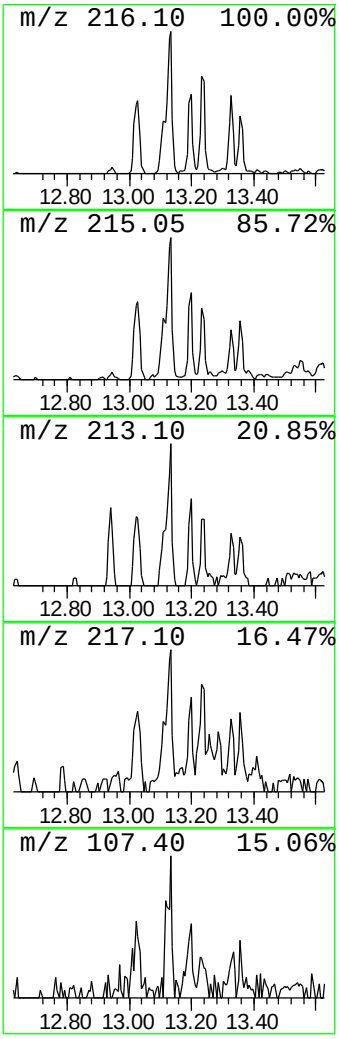
**********

Peak Number 16 Pyrene, 1-methyl- Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.13 | 6.43 ng | 228926 | Chrysene-d12 | 14.00 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 94 |
| 2 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 93 |
| 3 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 87 |
| 4 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 87 |
| 5 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 76 |



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Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

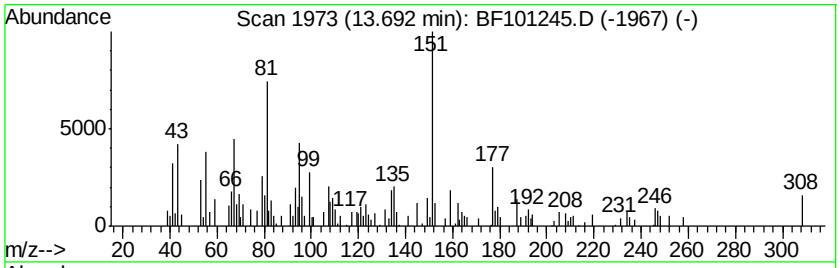
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

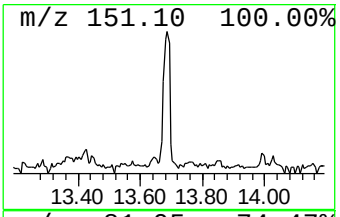
**********

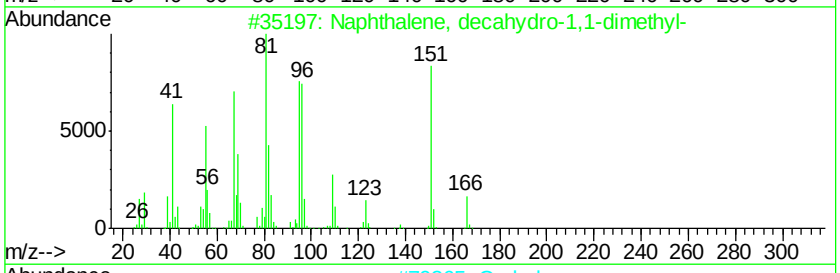
Peak Number 17 unknown13.69 Concentration Rank 10

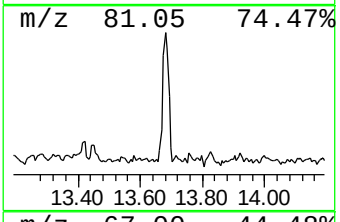
| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.69 | 5.34 ng | 190342 | Chrysene-d12 | 14.00 |

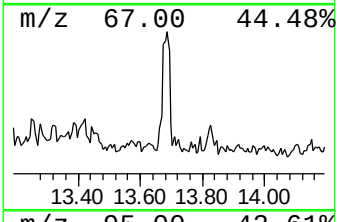
| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, decahydro-1,1-dimet... | 166 | C12H22 | 035431-04-0 | 46 |
| 2 | Cedrol | 222 | C15H26O | 000077-53-2 | 25 |
| 3 | Phenol, 2,6-dimethyl-4-nitroso- | 151 | C8H9NO2 | 013331-93-6 | 20 |
| 4 | 5-Isopropyl-2,8-dimethyl-9-oxatr... | 222 | C14H22O2 | 1000185-23-8 | 15 |
| 5 | 6,10,14,18,22-Tetracosapentaen-2... | 506 | C30H51BrO | 065746-05-6 | 14 |

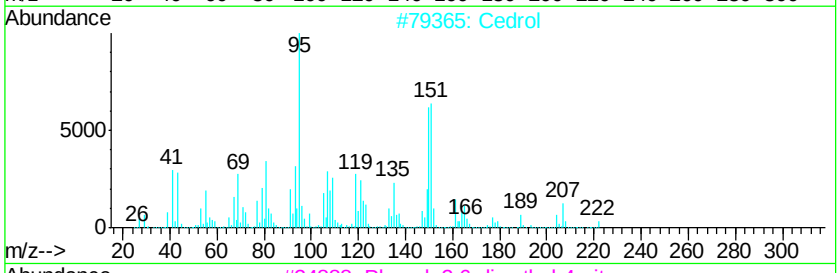


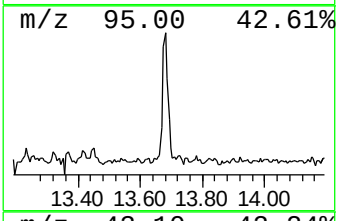



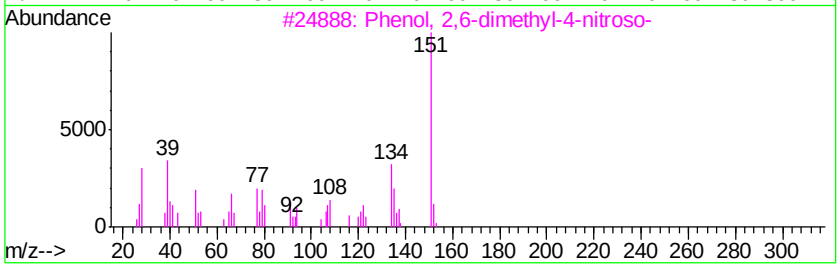



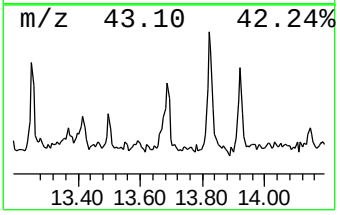



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.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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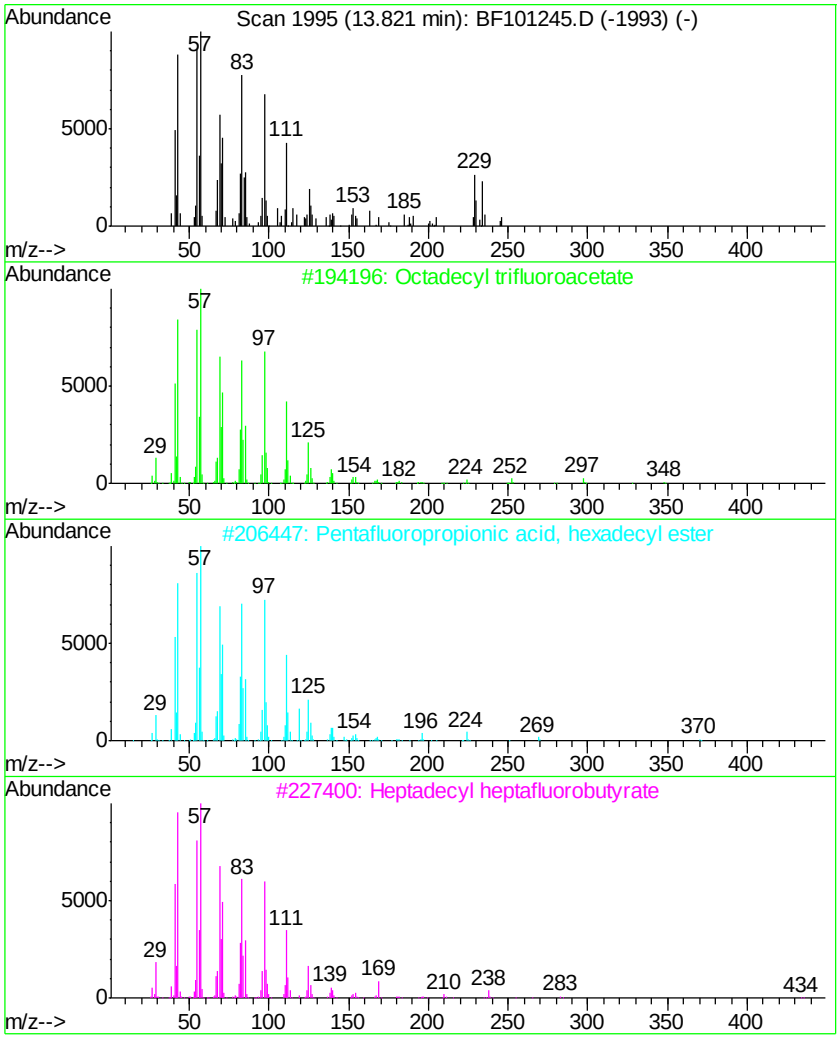
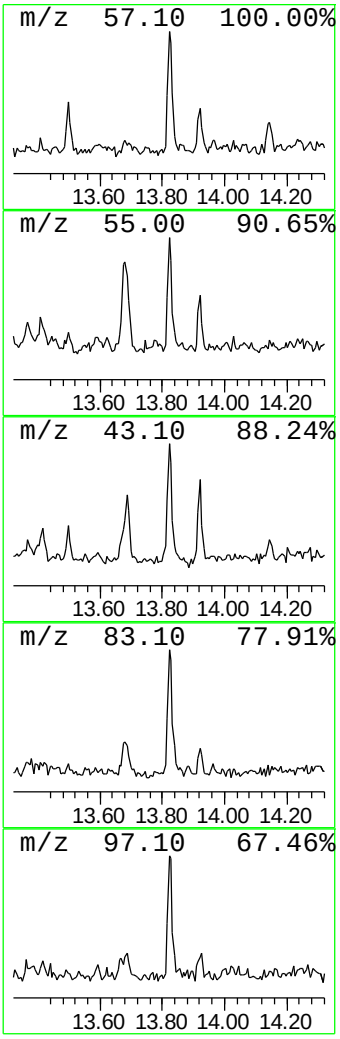
Peak Number 18 Octadecyl trifluoroacetate Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.82 | 3.02 ng | 107582 | Chrysene-d12 | 14.00 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Octadecyl trifluoroacetate | 366 | C20H37F3O2 | 079392-43-1 | 81 |
| 2 | Pentafluoropropionic acid, hexad... | 388 | C19H33F5O2 | 006222-07-7 | 81 |
| 3 | Heptadecyl heptafluorobutyrate | 452 | C21H35F7O2 | 959085-66-6 | 81 |
| 4 | Heptacosyl acetate | 438 | C29H58O2 | 1000351-78-2 | 74 |
| 5 | 1-Docosene | 308 | C22H44 | 001599-67-3 | 70 |



# Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF120817\
Data File : BF101245.D
Acq On : 8 Dec 2017 19:31
Operator : SJ/JU
Sample : I6684-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** BU-01-120617

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF113017.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 |
| 2-Pentanone, 4-hy... | 5.05 | 5.7 | ng | 78923 | 1 | 6.82 | 275310 | 20.0 |
| unknown6.60 | 6.60 | 80.0 | ng | 1100680 | 1 | 6.82 | 275310 | 20.0 |
| Tridecane | 9.79 | 3.8 | ng | 73287 | 3 | 9.86 | 381747 | 20.0 |
| Dodecane | 10.29 | 5.2 | ng | 100038 | 3 | 9.86 | 381747 | 20.0 |
| Heptacosane | 10.76 | 6.0 | ng | 111848 | 4 | 11.35 | 374283 | 20.0 |
| Tetracosane | 11.20 | 3.4 | ng | 62611 | 4 | 11.35 | 374283 | 20.0 |
| Hexadecanoic acid... | 11.74 | 94.9 | ng | 1775520 | 4 | 11.35 | 374283 | 20.0 |
| Phenanthrene, 2-m... | 11.88 | 5.3 | ng | 99150 | 4 | 11.35 | 374283 | 20.0 |
| 4H-Cyclopenta[def... | 11.97 | 4.8 | ng | 90278 | 4 | 11.35 | 374283 | 20.0 |
| 5,16[1',2']:8,13[... | 12.15 | 3.0 | ng | 57033 | 4 | 11.35 | 374283 | 20.0 |
| 9,12-Octadecadien... | 12.43 | 220.2 | ng | 4121330 | 4 | 11.35 | 374283 | 20.0 |
| 13-Octadecenoic a... | 12.46 | 162.2 | ng | 3034410 | 4 | 11.35 | 374283 | 20.0 |
| Cyclopenta(def)ph... | 12.50 | 2.8 | ng | 52207 | 4 | 11.35 | 374283 | 20.0 |
| Fluoranthene, 2-m... | 13.03 | 3.4 | ng | 122565 | 5 | 14.00 | 712377 | 20.0 |
| Pyrene, 1-methyl- | 13.13 | 6.4 | ng | 228926 | 5 | 14.00 | 712377 | 20.0 |
| unknown13.69 | 13.69 | 5.3 | ng | 190342 | 5 | 14.00 | 712377 | 20.0 |
| Octadecyl trifluo... | 13.82 | 3.0 | ng | 107582 | 5 | 14.00 | 712377 | 20.0 |