LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

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:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.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 | 2.152 | 4 | 11 | 19 | rVB | 604719 | 767597 | 24.42% | 1.512% |
| 2 | 2.522 | 68 | 74 | 79 | rVB | 25486 | 37571 | 1.20% | 0.074% |
| 3 | 5.087 | 505 | 510 | 518 | rVB | 426221 | 515995 | 16.41% | 1.017% |
| 4 | 5.493 | 575 | 579 | 582 | rBV | 2843770 | 2643041 | 84.08% | 5.207% |
| 5 | 6.504 | 746 | 751 | 754 | rBV | 2864249 | 2806131 | 89.27% | 5.528% |
| 6 | 6.645 | 771 | 775 | 778 | rBV | 3515800 | 3018558 | 96.03% | 5.947% |
| 7 | 6.875 | 811 | 814 | 818 | rBV | 1054199 | 803707 | 25.57% | 1.583% |
| 8 | 7.034 | 837 | 841 | 844 | rBV | 2824664 | 2256227 | 71.77% | 4.445% |
| 9 | 7.440 | 905 | 910 | 913 | rBV | 1981138 | 1783612 | 56.74% | 3.514% |
| 10 | 8.163 | 1029 | 1033 | 1036 | rBV | 1253863 | 1046342 | 33.29% | 2.061% |
| 11 | 9.239 | 1212 | 1216 | 1219 | rBV | 3504753 | 3143493 | 100.00% | 6.193% |
| 12 | 9.633 | 1280 | 1283 | 1291 | rVB | 591637 | 462288 | 14.71% | 0.911% |
| 13 | 9.786 | 1305 | 1309 | 1312 | rBV | 41165 | 41099 | 1.31% | 0.081% |
| 14 | 9.922 | 1328 | 1332 | 1336 | rBV | 1366039 | 1257630 | 40.01% | 2.478% |
| 15 | 10.122 | 1362 | 1366 | 1372 | rBV2 | 57841 | 62935 | 2.00% | 0.124% |
| 16 | 10.716 | 1463 | 1467 | 1478 | rBV | 2698034 | 2437894 | 77.55% | 4.803% |
| 17 | 11.222 | 1550 | 1553 | 1557 | rBV | 46247 | 40723 | 1.30% | 0.080% |
| 18 | 11.275 | 1557 | 1562 | 1564 | rBV3 | 28675 | 41276 | 1.31% | 0.081% |
| 19 | 11.416 | 1582 | 1586 | 1588 | rBV | 1530347 | 1318973 | 41.96% | 2.598% |
| 20 | 11.439 | 1588 | 1590 | 1594 | rVV | 729180 | 603261 | 19.19% | 1.188% |
| 21 | 11.492 | 1594 | 1599 | 1602 | rVV | 143336 | 153901 | 4.90% | 0.303% |
| 22 | 11.645 | 1621 | 1625 | 1628 | rBV2 | 62232 | 73356 | 2.33% | 0.145% |
| 23 | 11.922 | 1668 | 1672 | 1673 | rBV | 173323 | 149269 | 4.75% | 0.294% |
| 24 | 11.945 | 1673 | 1676 | 1683 | rVV3 | 1329893 | 1349231 | 42.92% | 2.658% |
| 25 | 11.998 | 1683 | 1685 | 1688 | rVV | 85345 | 92252 | 2.93% | 0.182% |
| 26 | 12.033 | 1688 | 1691 | 1693 | rVV2 | 224298 | 246568 | 7.84% | 0.486% |
| 27 | 12.057 | 1693 | 1695 | 1699 | rVB | 123326 | 108374 | 3.45% | 0.214% |
| 28 | 12.216 | 1719 | 1722 | 1724 | rBV | 110245 | 87427 | 2.78% | 0.172% |
| 29 | 12.239 | 1724 | 1726 | 1730 | rVB2 | 94395 | 92189 | 2.93% | 0.182% |
| 30 | 12.474 | 1762 | 1766 | 1769 | rBV | 108748 | 138518 | 4.41% | 0.273% |
| 31 | 12.510 | 1769 | 1772 | 1774 | rVV2 | 71037 | 88168 | 2.80% | 0.174% |
| 32 | 12.557 | 1777 | 1780 | 1785 | rVB | 122735 | 139099 | 4.42% | 0.274% |
| 33 | 12.639 | 1790 | 1794 | 1798 | rBV | 1623725 | 1448575 | 46.08% | 2.854% |
| 34 | 12.733 | 1806 | 1810 | 1814 | rBV | 844971 | 800004 | 25.45% | 1.576% |

LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

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:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 12.869 | 1827 | 1833 | 1838 | rBV | 1426456 | 1450569 | 46.15% | 2.858% |
| 36 | 12.916 | 1838 | 1841 | 1845 | rVB2 | 69796 | 88868 | 2.83% | 0.175% |
| 37 | 13.010 | 1853 | 1857 | 1860 | rBV | 3584183 | 2977196 | 94.71% | 5.865% |
| 38 | 13.086 | 1866 | 1870 | 1873 | rBV2 | 90740 | 137834 | 4.38% | 0.272% |
| 39 | 13.169 | 1881 | 1884 | 1886 | rBV2 | 80836 | 97186 | 3.09% | 0.191% |
| 40 | 13.192 | 1886 | 1888 | 1891 | rVB2 | 126196 | 123232 | 3.92% | 0.243% |
| 41 | 13.298 | 1903 | 1906 | 1909 | rBV2 | 138711 | 135591 | 4.31% | 0.267% |
| 42 | 13.392 | 1920 | 1922 | 1924 | rVB | 82103 | 60243 | 1.92% | 0.119% |
| 43 | 13.421 | 1924 | 1927 | 1931 | rBV2 | 86255 | 88625 | 2.82% | 0.175% |
| 44 | 13.580 | 1952 | 1954 | 1956 | rVB | 62944 | 44763 | 1.42% | 0.088% |
| 45 | 13.704 | 1972 | 1975 | 1981 | rVB | 148971 | 128959 | 4.10% | 0.254% |
| 46 | 13.816 | 1990 | 1994 | 1997 | rBV2 | 158505 | 237977 | 7.57% | 0.469% |
| 47 | 13.845 | 1997 | 1999 | 2001 | rVV | 171501 | 191947 | 6.11% | 0.378% |
| 48 | 13.869 | 2001 | 2003 | 2006 | rVV2 | 202831 | 315205 | 10.03% | 0.621% |
| 49 | 13.910 | 2006 | 2010 | 2021 | rVB3 | 631103 | 937104 | 29.81% | 1.846% |
| 50 | 14.069 | 2032 | 2037 | 2040 | rBV2 | 1435529 | 1809425 | 57.56% | 3.565% |
| 51 | 14.092 | 2040 | 2041 | 2047 | rVB | 589341 | 500643 | 15.93% | 0.986% |
| 52 | 14.174 | 2053 | 2055 | 2060 | rVB2 | 115175 | 122683 | 3.90% | 0.242% |
| 53 | 14.227 | 2060 | 2064 | 2067 | rBV | 568979 | 504342 | 16.04% | 0.994% |
| 54 | 14.257 | 2067 | 2069 | 2071 | rVB2 | 61235 | 54848 | 1.74% | 0.108% |
| 55 | 14.457 | 2100 | 2103 | 2105 | rVB | 127829 | 97559 | 3.10% | 0.192% |
| 56 | 14.533 | 2112 | 2116 | 2122 | rVB | 992679 | 924970 | 29.42% | 1.822% |
| 57 | 14.845 | 2165 | 2169 | 2173 | rBV | 1184371 | 1168165 | 37.16% | 2.301% |
| 58 | 14.921 | 2180 | 2182 | 2185 | rBV2 | 58273 | 65155 | 2.07% | 0.128% |
| 59 | 15.121 | 2212 | 2216 | 2220 | rBV | 541393 | 882303 | 28.07% | 1.738% |
| 60 | 15.192 | 2224 | 2228 | 2232 | rBV | 1111135 | 1347831 | 42.88% | 2.655% |
| 61 | 15.233 | 2233 | 2235 | 2239 | rVB | 135834 | 135857 | 4.32% | 0.268% |
| 62 | 15.433 | 2266 | 2269 | 2275 | rVB | 352324 | 458524 | 14.59% | 0.903% |
| 63 | 15.498 | 2276 | 2280 | 2286 | rVV | 503386 | 701762 | 22.32% | 1.383% |
| 64 | 15.568 | 2287 | 2292 | 2293 | rVV | 941902 | 1211812 | 38.55% | 2.387% |
| 65 | 15.586 | 2293 | 2295 | 2303 | rVB2 | 1010507 | 1225976 | 39.00% | 2.415% |
| 66 | 16.033 | 2366 | 2371 | 2377 | rBV | 571945 | 864796 | 27.51% | 1.704% |
| 67 | 16.557 | 2455 | 2460 | 2466 | rVB | 288580 | 484453 | 15.41% | 0.954% |
| 68 | 17.068 | 2542 | 2547 | 2557 | rVB2 | 224898 | 460841 | 14.66% | 0.908% |
| 69 | 17.162 | 2558 | 2563 | 2571 | rVB3 | 99299 | 221202 | 7.04% | 0.436% |
| 70 | 17.257 | 2575 | 2579 | 2583 | rBV | 43944 | 73734 | 2.35% | 0.145% |
| 71 | 17.527 | 2619 | 2625 | 2636 | rVB | 182283 | 372158 | 11.84% | 0.733% |

LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :**
BNA_F
**ClientSampleId :**
B-4-(0.5-1.0)

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:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Sum of corrected areas: 50759622

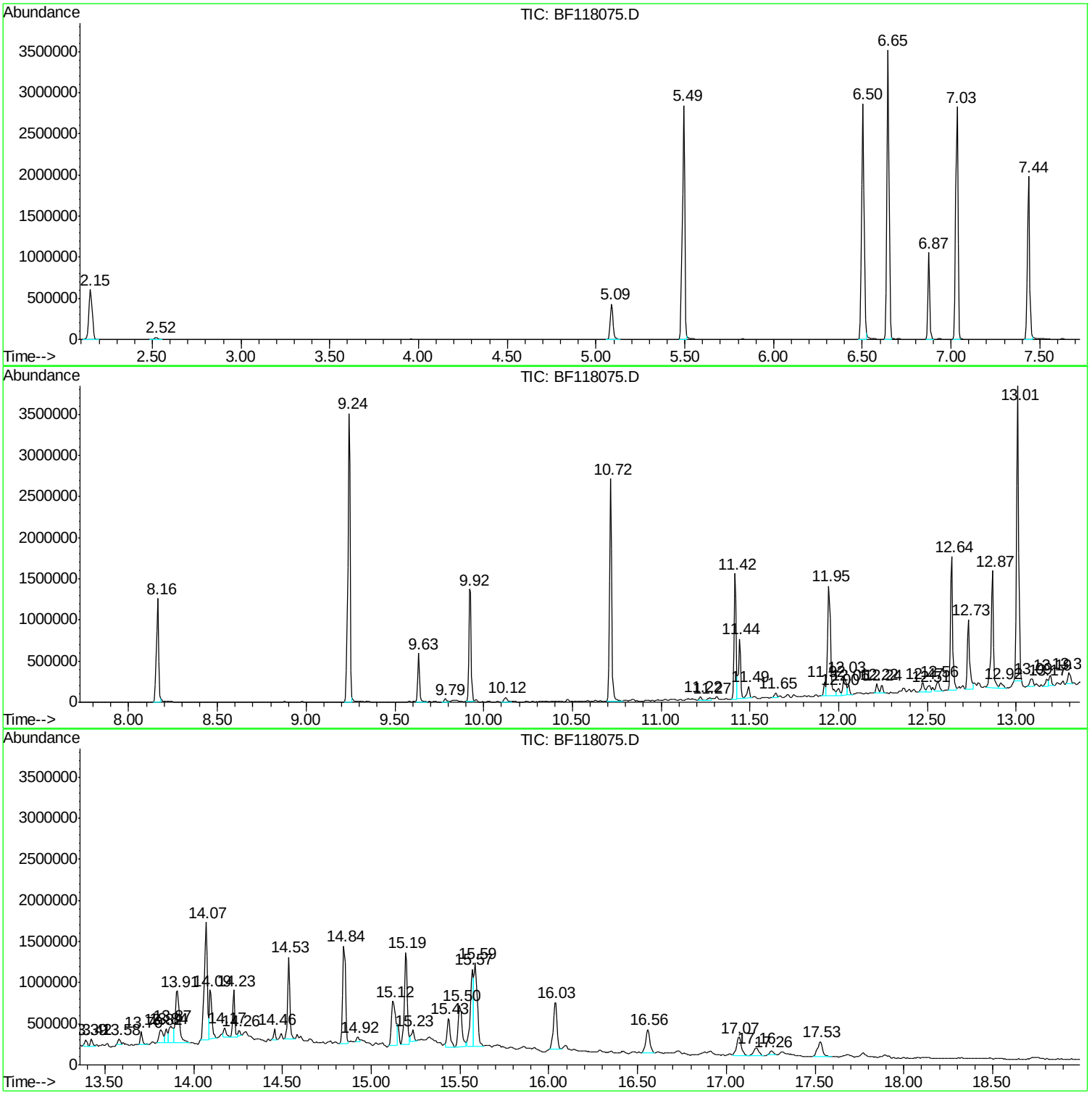
LSC Report - Integrated Chromatogram

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.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:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

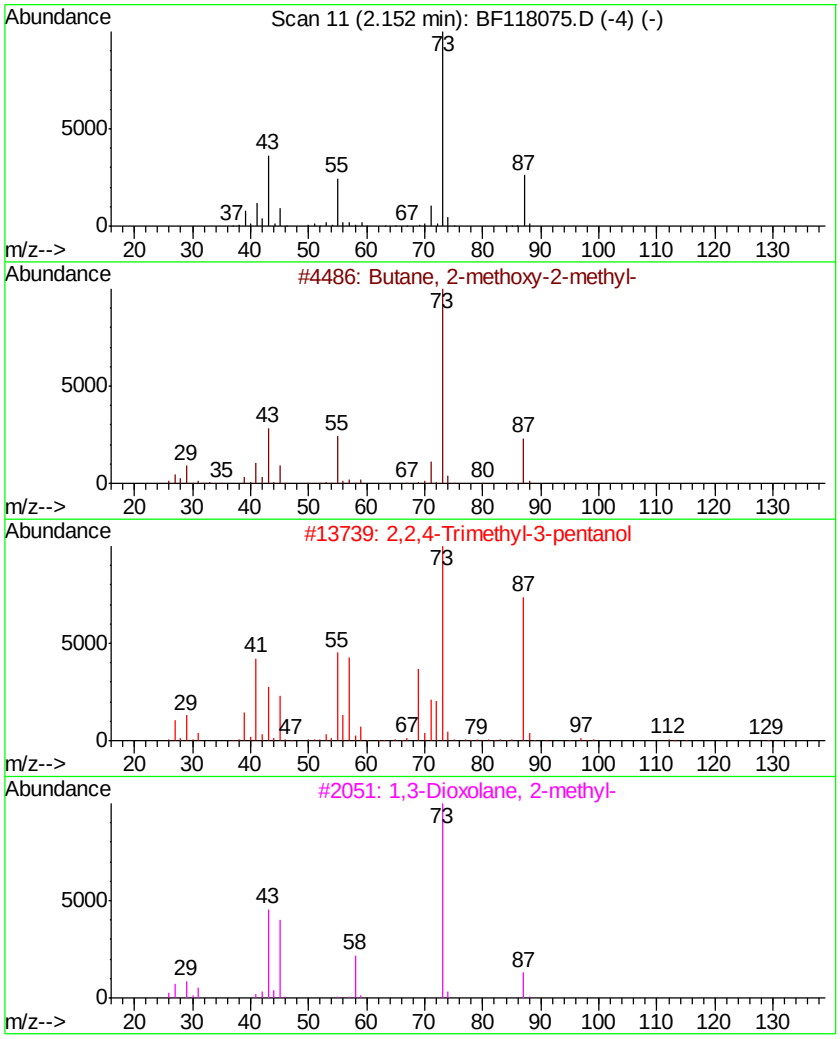
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

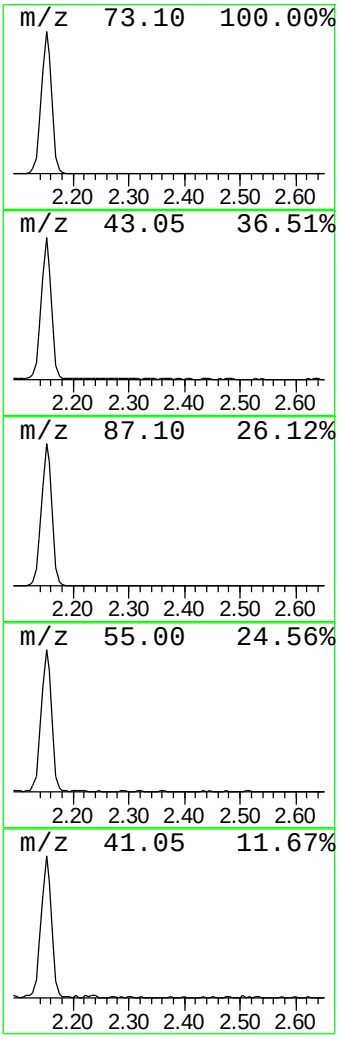
**********

Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 2.15 | 19.10 ng | 767597 | 1,4-Dichlorobenzene-d4 | 6.87 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Butane, 2-methoxy-2-methyl- | 102 | C6H14O | 000994-05-8 | 78 |
| 2 | 2,2,4-Trimethyl-3-pentanol | 130 | C8H18O | 005162-48-1 | 40 |
| 3 | 1,3-Dioxolane, 2-methyl- | 88 | C4H8O2 | 000497-26-7 | 25 |
| 4 | Pentane, 3-methoxy- | 102 | C6H14O | 036839-67-5 | 17 |
| 5 | Silane, tetramethyl- | 88 | C4H12Si | 000075-76-3 | 12 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

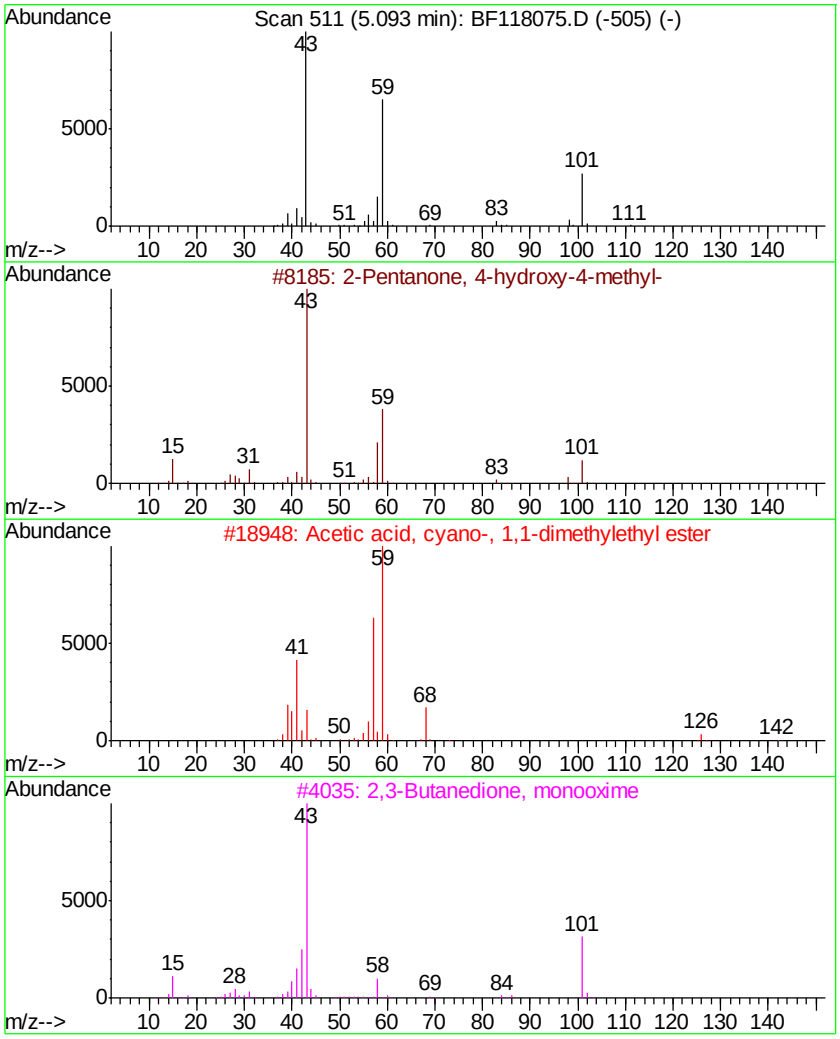
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

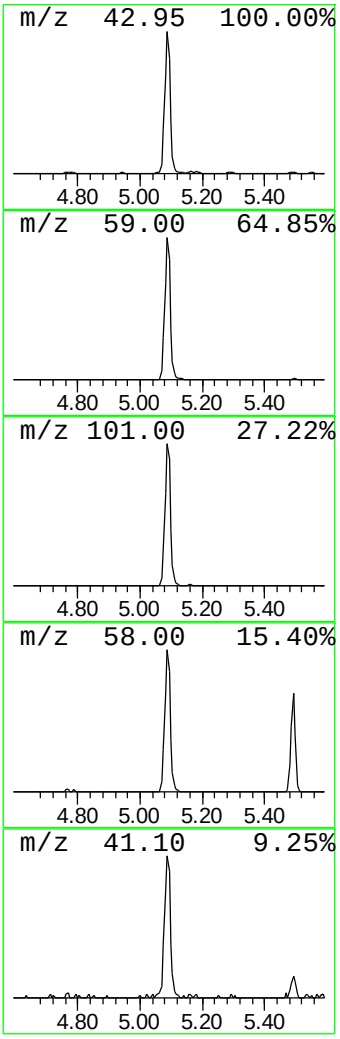
**********

Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.09 | 12.84 ng | 515995 | 1,4-Dichlorobenzene-d4 | 6.87 |

| 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 | 32 |
| 3 | 2,3-Butanedione, monooxime | 101 | C4H7NO2 | 000057-71-6 | 25 |
| 4 | (+-)-4-Amino-4,5-dihydro-2(3H)-f... | 101 | C4H7NO2 | 016504-58-8 | 9 |
| 5 | Butane, 1-ethoxy- | 102 | C6H14O | 000628-81-9 | 9 |



Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

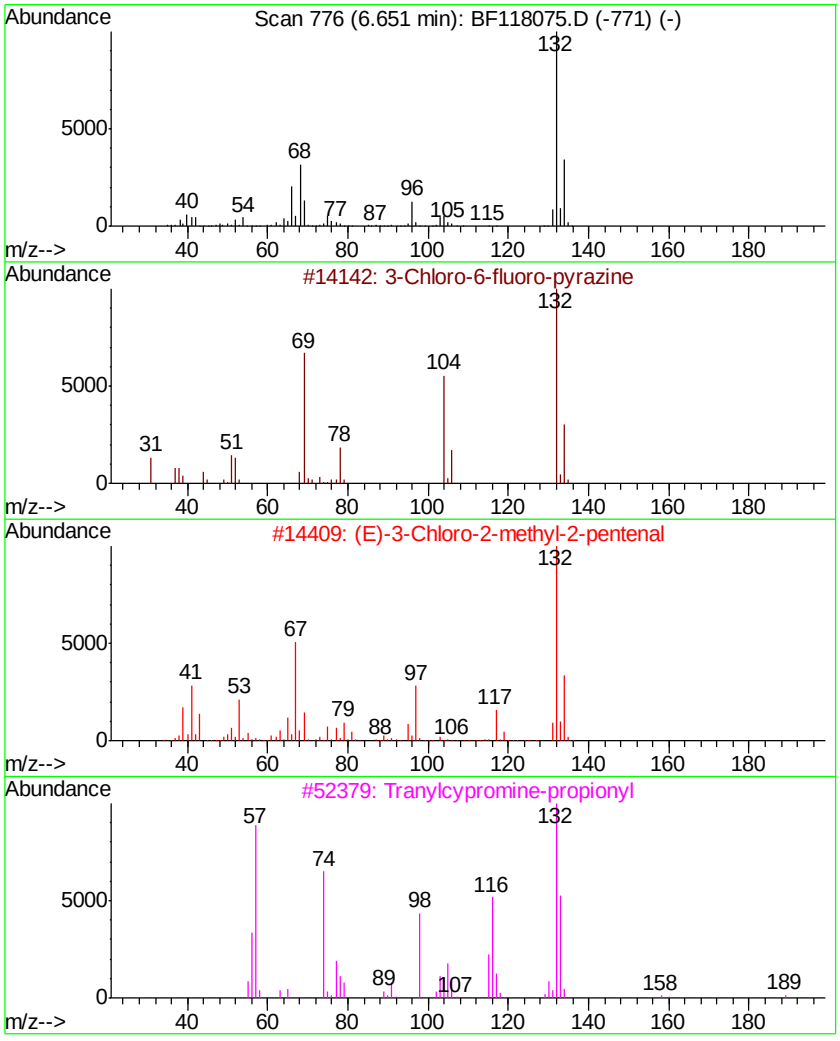
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

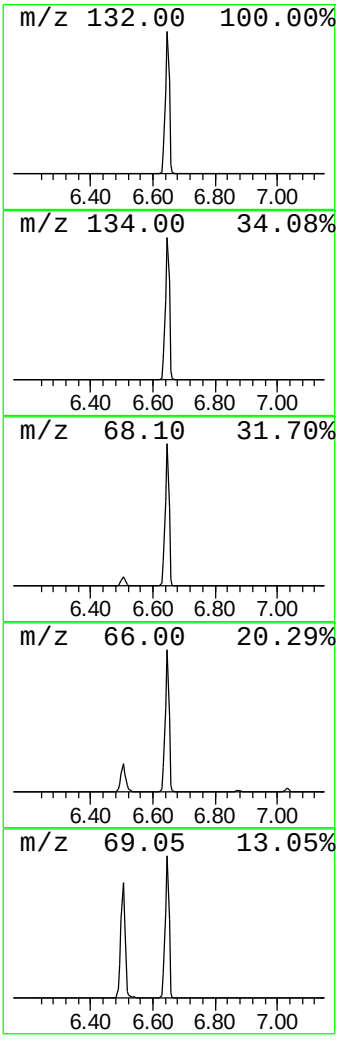
**********

Peak Number 3 unknown6.65 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.65 | 75.12 ng | 3018560 | 1,4-Dichlorobenzene-d4 | 6.87 |

| 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 | 25 |
| 3 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 16 |
| 4 | Benzene, 1-ethenyl-3,5-dimethyl- | 132 | C10H12 | 005379-20-4 | 9 |
| 5 | 4-Chloro-2-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-00-5 | 9 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

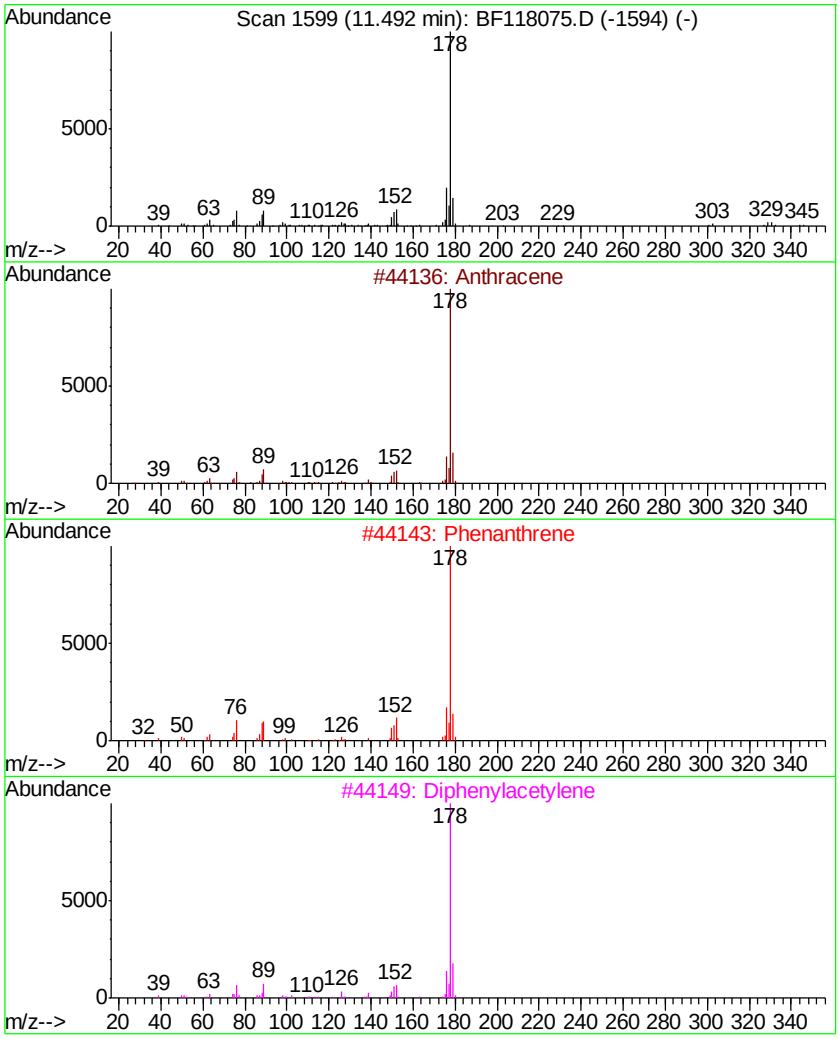
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

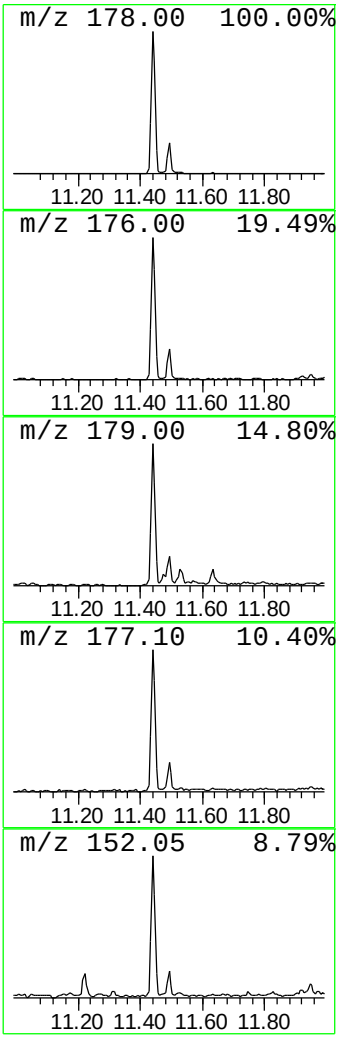
**********

Peak Number 5 Diphenylacetylene Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.49 | 2.33 ng | 153901 | Phenanthrene-d10 | 11.42 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene | 178 | C14H10 | 000120-12-7 | 95 |
| 2 | Phenanthrene | 178 | C14H10 | 000085-01-8 | 90 |
| 3 | Diphenylacetylene | 178 | C14H10 | 000501-65-5 | 81 |
| 4 | 9H-Fluorene, 9-methylene- | 178 | C14H10 | 004425-82-5 | 81 |
| 5 | Titanium, bis(.eta.-5-cyclopenta... | 352 | C21H24SiTi | 1000162-91-8 | 78 |



Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

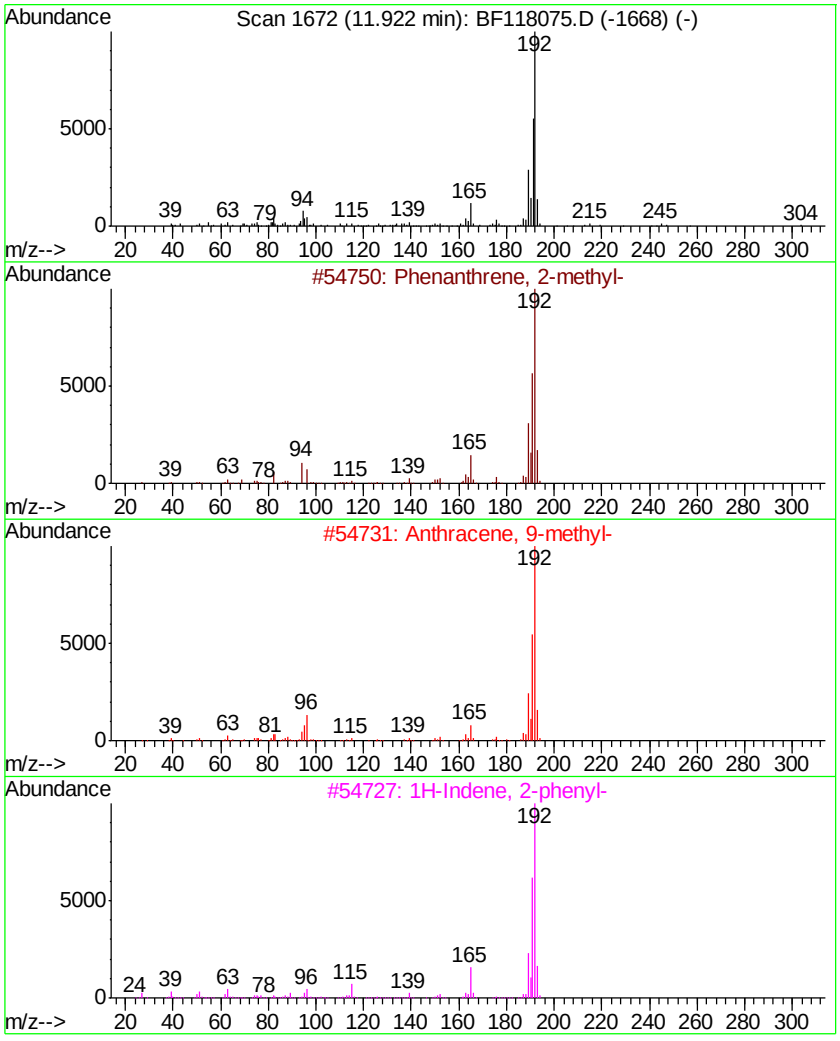
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

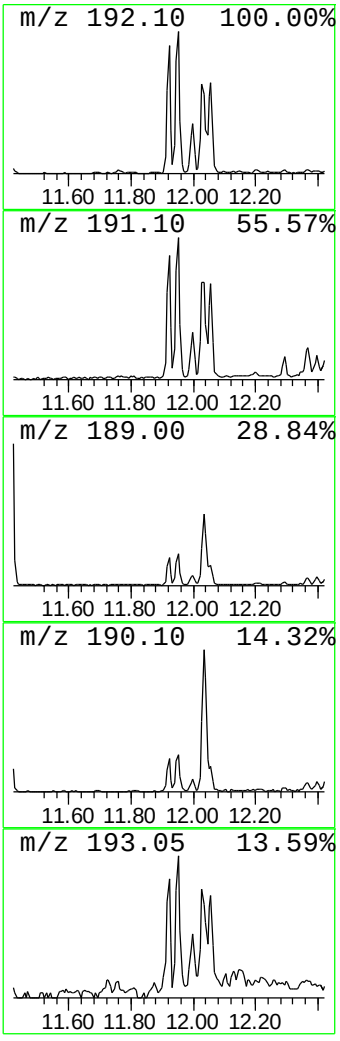
**********

Peak Number 6 Phenanthrene, 2-methyl- Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.92 | 2.26 ng | 149269 | Phenanthrene-d10 | 11.42 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 95 |
| 2 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 95 |
| 3 | 1H-Indene, 2-phenyl- | 192 | C15H12 | 004505-48-0 | 94 |
| 4 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 93 |
| 5 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 90 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

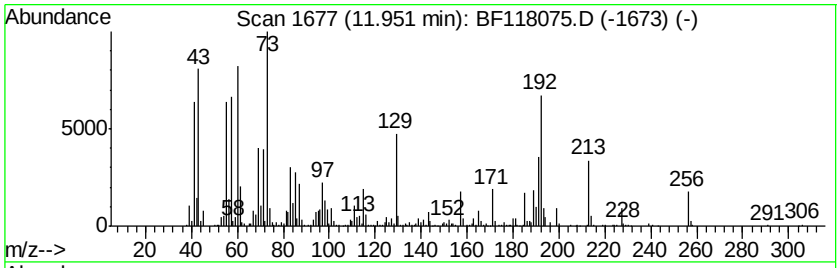
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

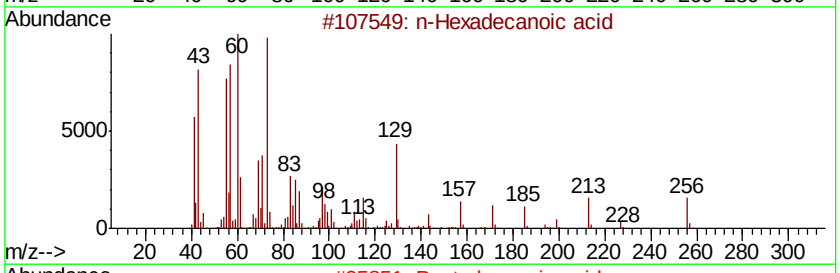
**********

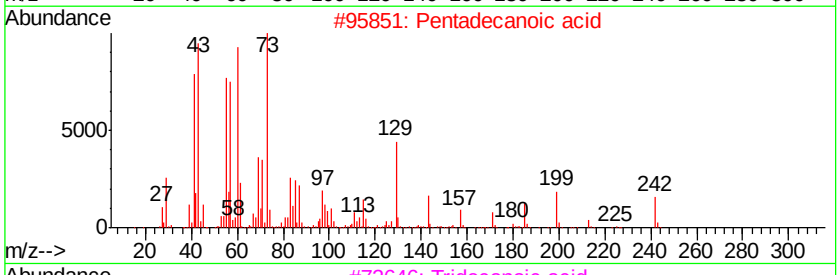
Peak Number 7 n-Hexadecanoic acid Concentration Rank 3

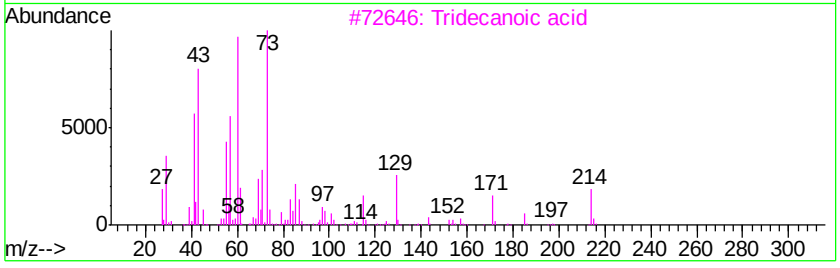
| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.95 | 20.46 ng | 1349230 | Phenanthrene-d10 | 11.42 |

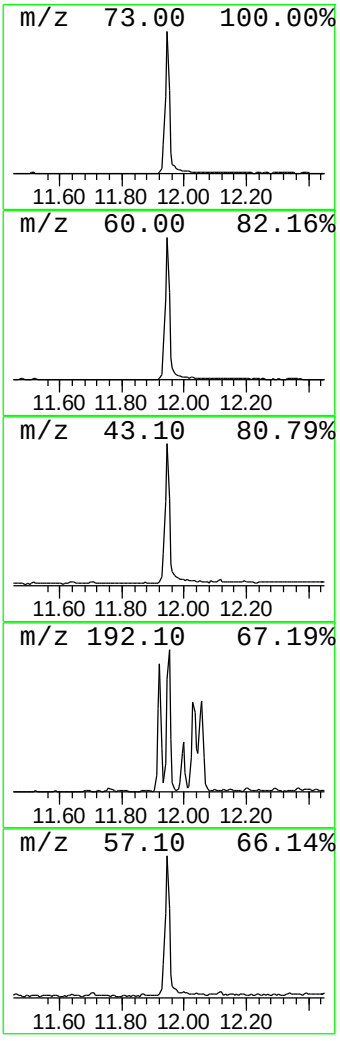
| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | n-Hexadecanoic acid | 256 | C16H32O2 | 000057-10-3 | 99 |
| 2 | Pentadecanoic acid | 242 | C15H30O2 | 001002-84-2 | 90 |
| 3 | Tridecanoic acid | 214 | C13H26O2 | 000638-53-9 | 89 |
| 4 | Tetradecanoic acid | 228 | C14H28O2 | 000544-63-8 | 64 |
| 5 | n-Decanoic acid | 172 | C10H20O2 | 000334-48-5 | 58 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

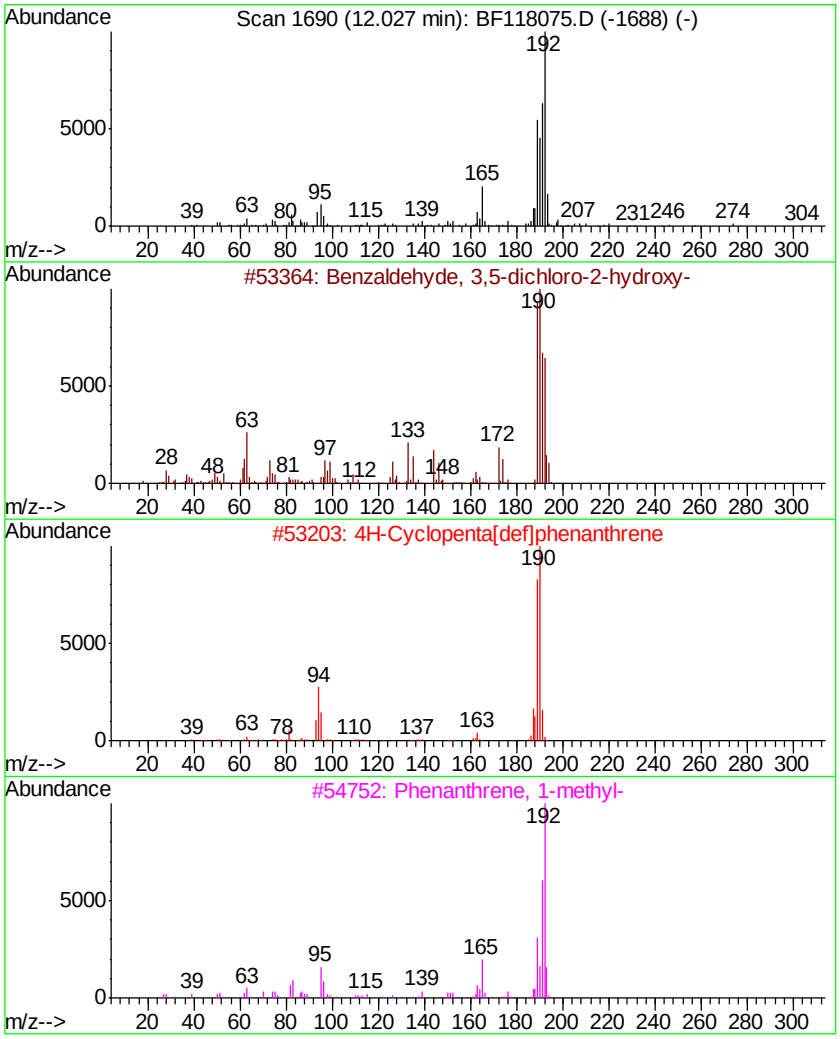
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

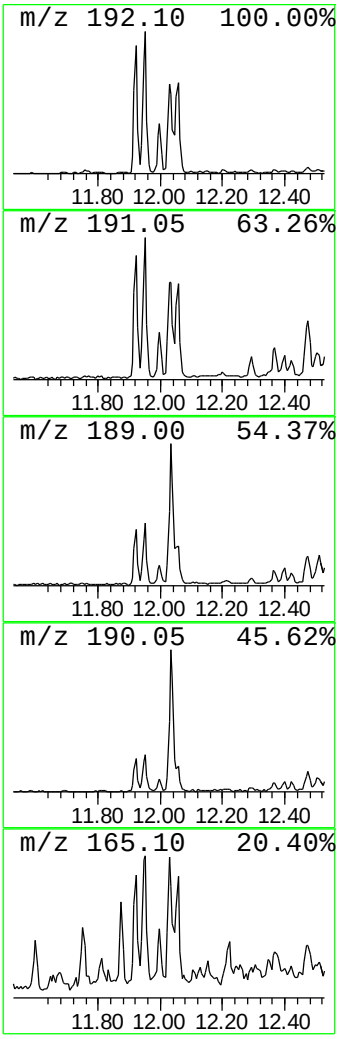
**********

Peak Number 8 Benzaldehyde, 3,5-dichloro-... Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.03 | 3.74 ng | 246568 | Phenanthrene-d10 | 11.42 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzaldehyde, 3,5-dichloro-2-hyd... | 190 | C7H4Cl2O2 | 000090-60-8 | 80 |
| 2 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 60 |
| 3 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 55 |
| 4 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 46 |
| 5 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 42 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

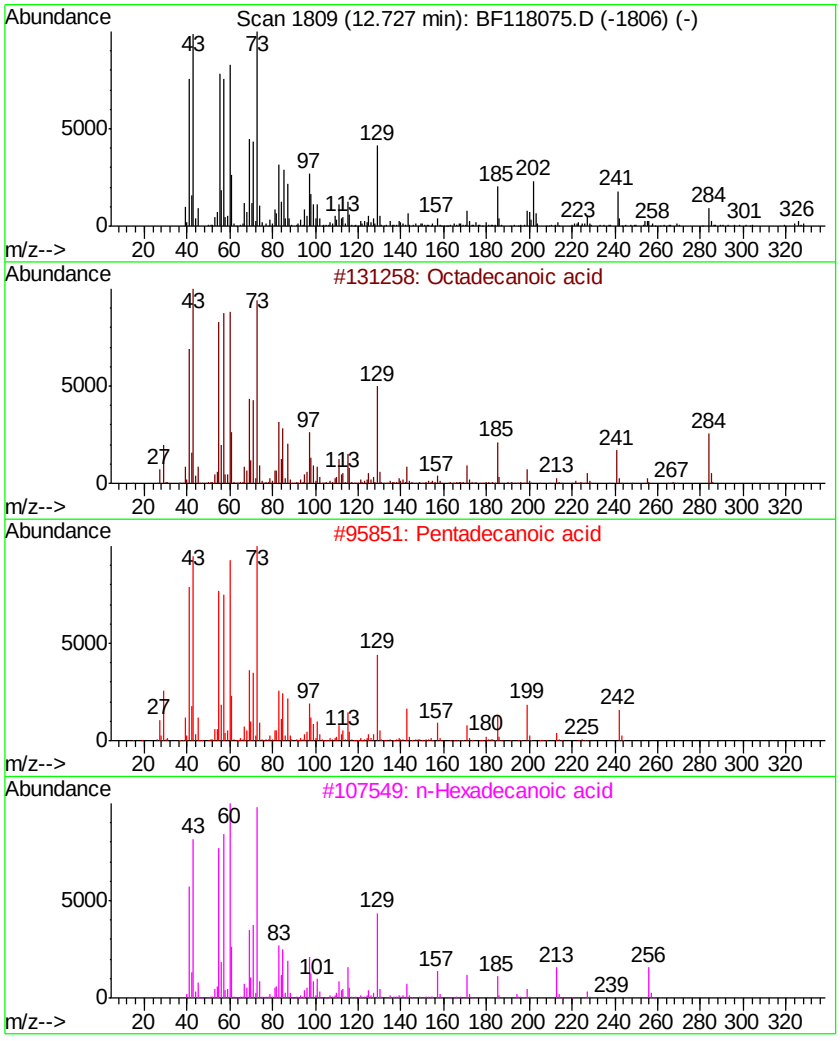
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

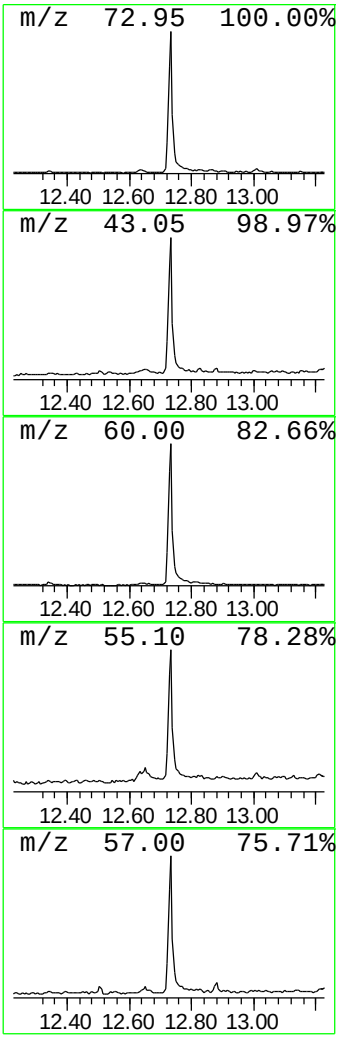
**********

Peak Number 9 Octadecanoic acid Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.73 | 12.13 ng | 800004 | Phenanthrene-d10 | 11.42 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Octadecanoic acid | 284 | C18H36O2 | 000057-11-4 | 99 |
| 2 | Pentadecanoic acid | 242 | C15H30O2 | 001002-84-2 | 93 |
| 3 | n-Hexadecanoic acid | 256 | C16H32O2 | 000057-10-3 | 83 |
| 4 | Octadecanoic acid, 2-(2-hydroxye... | 372 | C22H44O4 | 000106-11-6 | 72 |
| 5 | Tetradecanoic acid | 228 | C14H28O2 | 000544-63-8 | 72 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

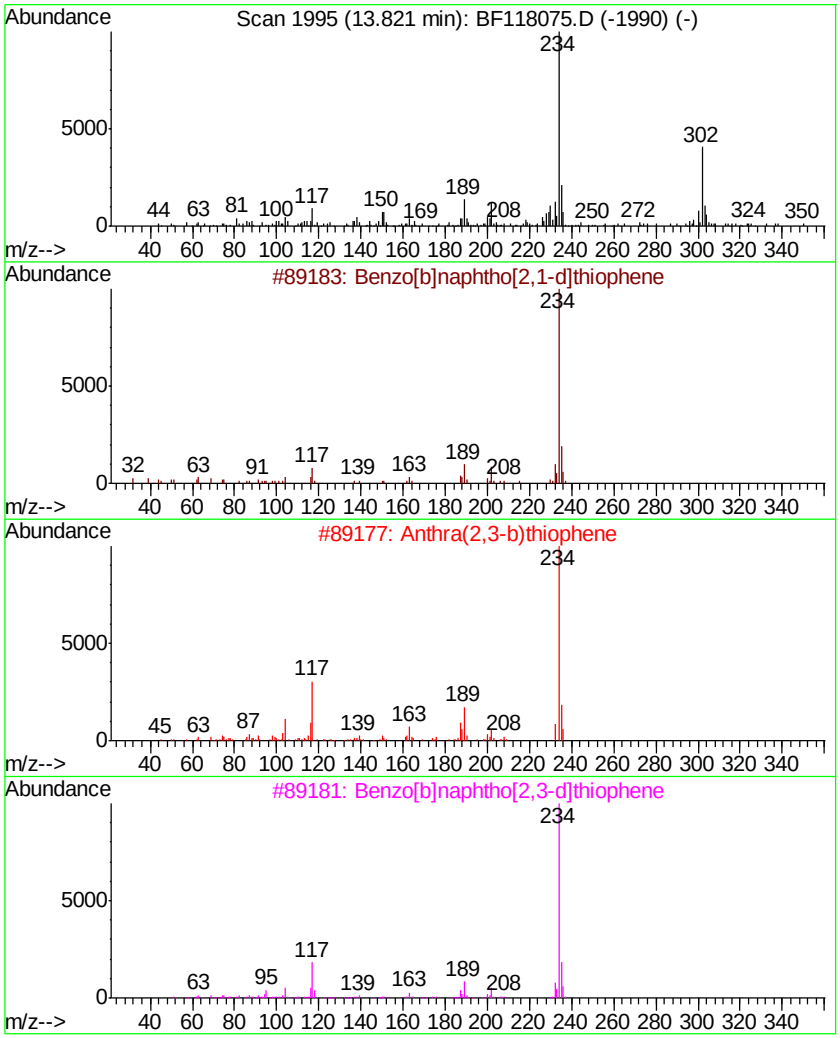
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

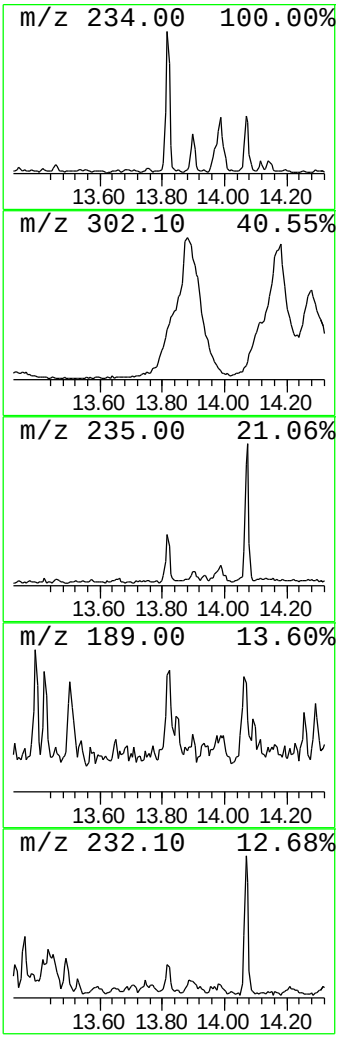
**********

Peak Number 10 Benzo[b]naphtho[2,1-d]thiop... Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.82 | 2.63 ng | 237977 | Chrysene-d12 | 14.07 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]naphtho[2,1-d]thiophene | 234 | C16H10S | 000239-35-0 | 92 |
| 2 | Anthra(2,3-b)thiophene | 234 | C16H10S | 022108-55-0 | 64 |
| 3 | Benzo[b]naphtho[2,3-d]thiophene | 234 | C16H10S | 000243-46-9 | 64 |
| 4 | Anthra(1,2-b)thiophene | 234 | C16H10S | 000227-86-1 | 58 |
| 5 | Benzo[b]naphtho[1,2-d]thiophene | 234 | C16H10S | 000205-43-6 | 55 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

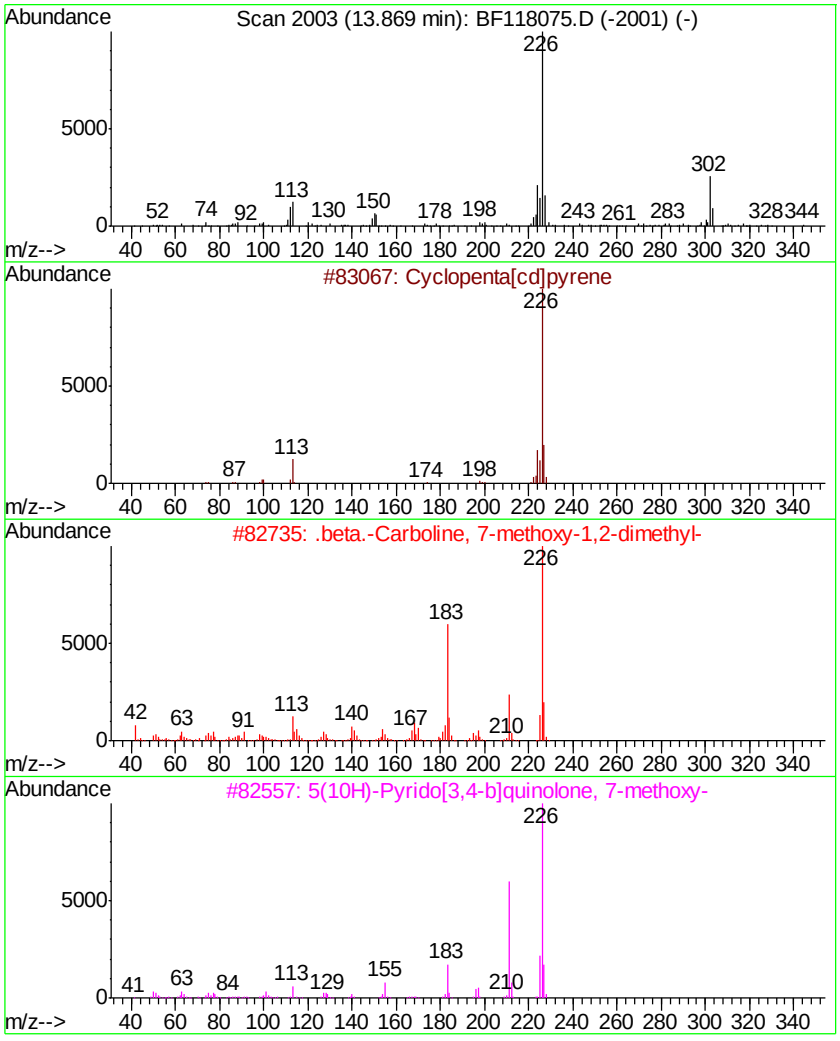
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

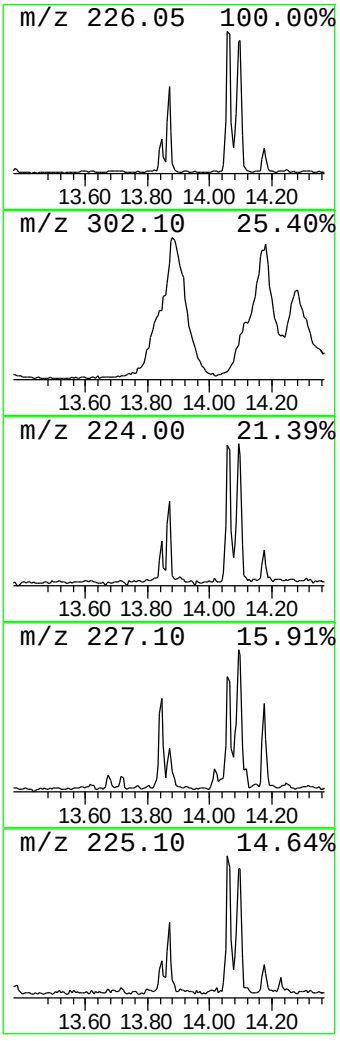
**********

Peak Number 11 Cyclopenta[cd]pyrene Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.87 | 3.48 ng | 315205 | Chrysene-d12 | 14.07 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta[cd]pyrene | 226 | C18H10 | 027208-37-3 | 60 |
| 2 | .beta.-Carboline, 7-methoxy-1,2-... | 226 | C14H14N2O | 006519-18-2 | 49 |
| 3 | 5(10H)-Pyrido[3,4-b]quinolone, 7... | 226 | C13H10N2O2 | 1000256-99-5 | 49 |
| 4 | p-Anisaldehyde phenylhydrazone | 226 | C14H14N2O | 000622-73-1 | 46 |
| 5 | 2-Furfurylidene-7-hydroxy-1-inda... | 226 | C14H10O3 | 1000244-80-4 | 38 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

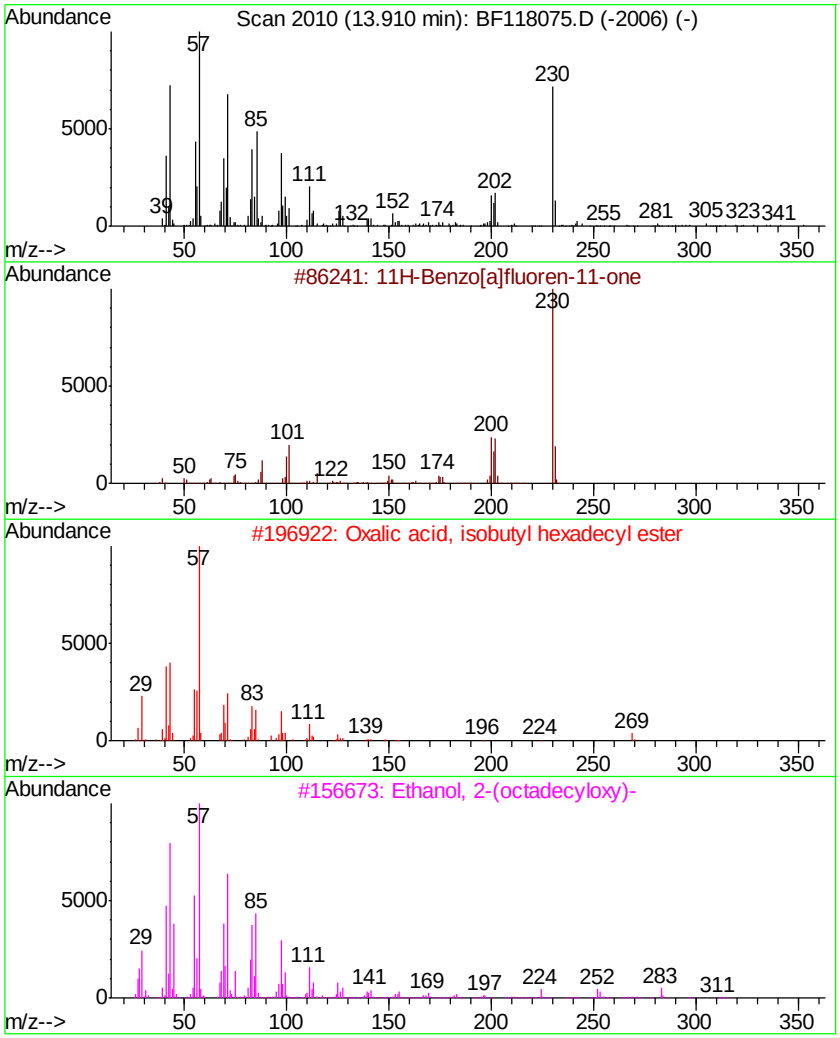
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

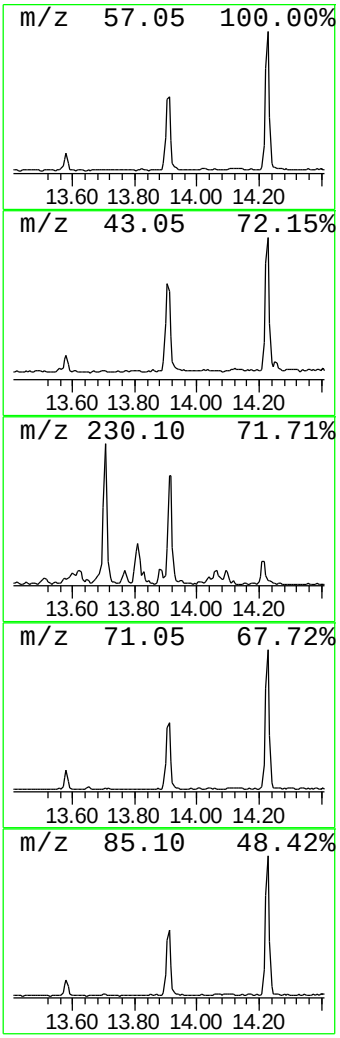
**********

Peak Number 12 11H-Benzo[a]fluoren-11-one Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.91 | 10.36 ng | 937104 | Chrysene-d12 | 14.07 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[a]fluoren-11-one | 230 | C17H10O | 000479-79-8 | 66 |
| 2 | Oxalic acid, isobutyl hexadecyl ... | 370 | C22H42O4 | 1000309-38-1 | 58 |
| 3 | Ethanol, 2-(octadecyloxy)- | 314 | C20H42O2 | 002136-72-3 | 58 |
| 4 | Oxalic acid, isobutyl heptadecyl... | 384 | C23H44O4 | 1000309-38-2 | 58 |
| 5 | Oxalic acid, isobutyl tetradecyl... | 342 | C20H38O4 | 1000309-37-9 | 58 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

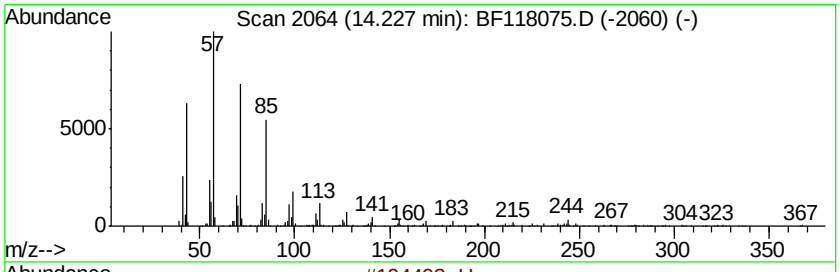
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

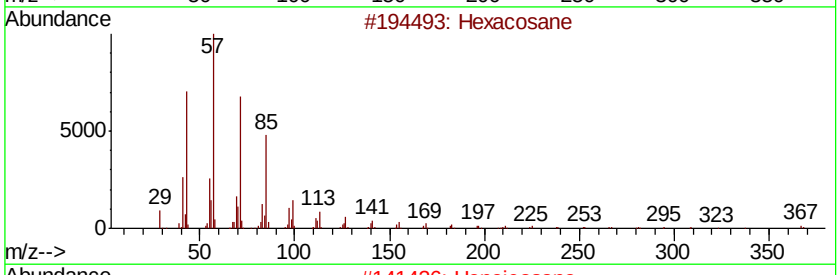
**********

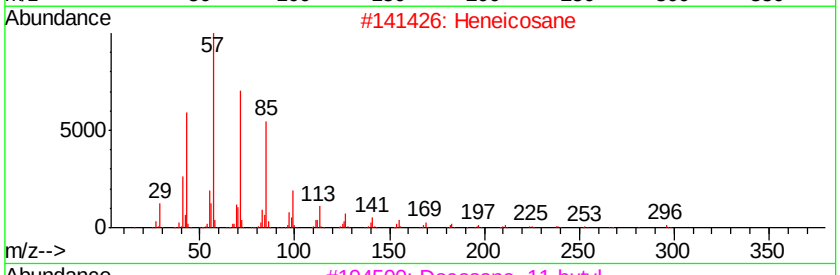
Peak Number 13 Hexacosane Concentration Rank 13

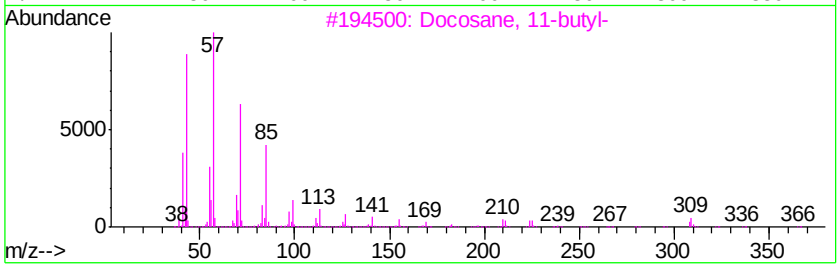
| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.23 | 5.57 ng | 504342 | Chrysene-d12 | 14.07 |

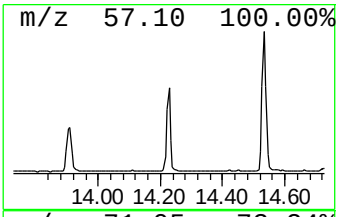
| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexacosane | 366 | C26H54 | 000630-01-3 | 94 |
| 2 | Heneicosane | 296 | C21H44 | 000629-94-7 | 91 |
| 3 | Docosane, 11-butyl- | 366 | C26H54 | 013475-76-8 | 91 |
| 4 | Heptadecane, 9-octyl- | 352 | C25H52 | 007225-64-1 | 91 |
| 5 | Hexadecane, 2-methyl- | 240 | C17H36 | 001560-92-5 | 90 |

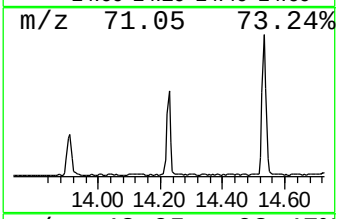


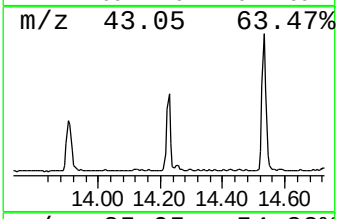



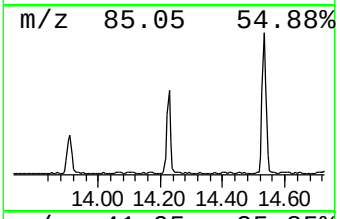



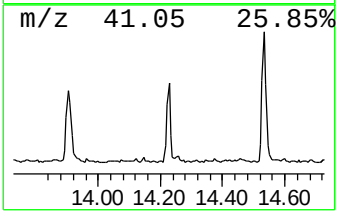



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

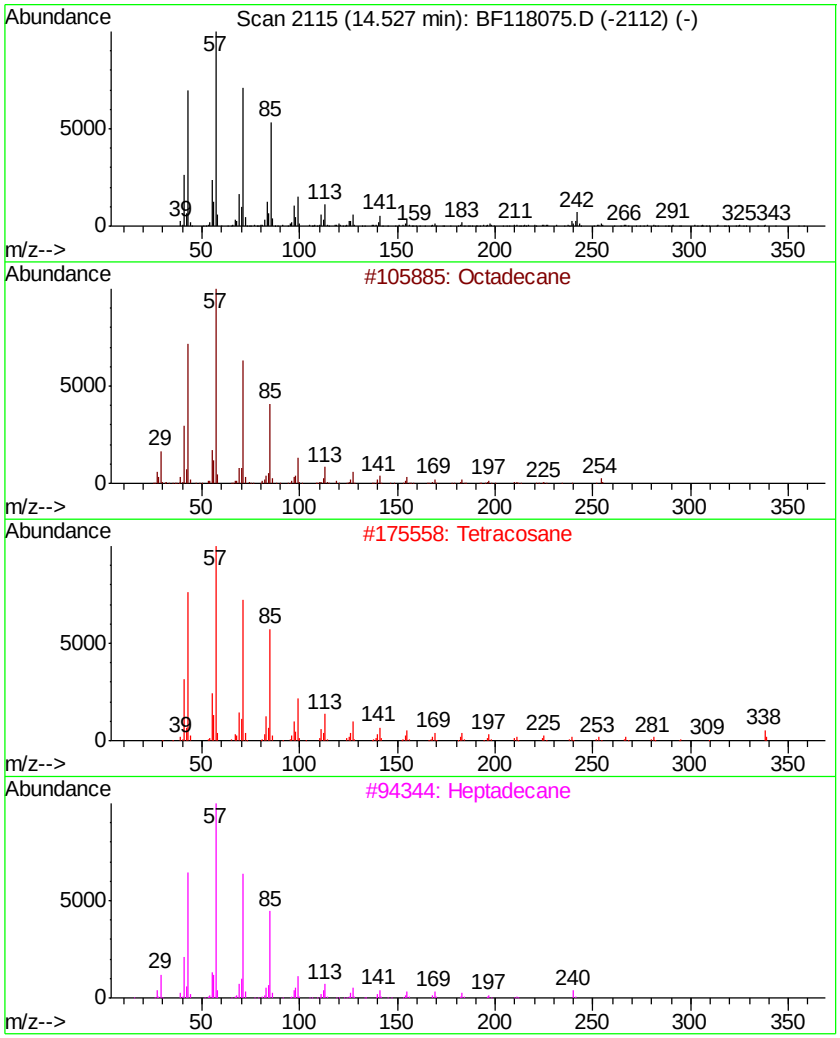
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

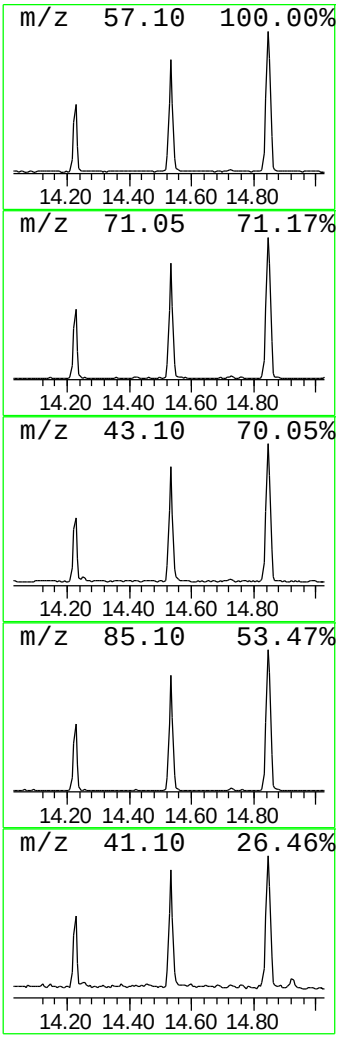
**********

Peak Number 14 Octadecane Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.53 | 10.22 ng | 924970 | Chrysene-d12 | 14.07 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Octadecane | 254 | C18H38 | 000593-45-3 | 98 |
| 2 | Tetracosane | 338 | C24H50 | 000646-31-1 | 97 |
| 3 | Heptadecane | 240 | C17H36 | 000629-78-7 | 95 |
| 4 | Heptadecane, 9-hexyl- | 324 | C23H48 | 055124-79-3 | 93 |
| 5 | Heptadecane, 9-octyl- | 352 | C25H52 | 007225-64-1 | 90 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

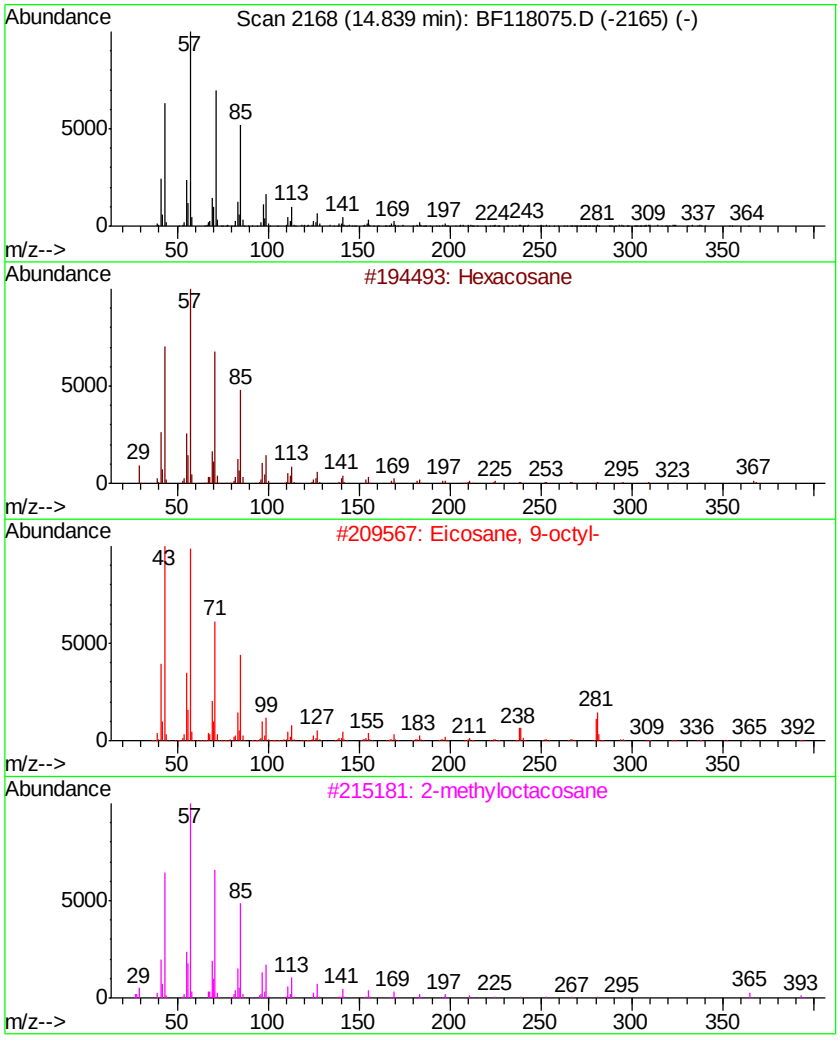
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

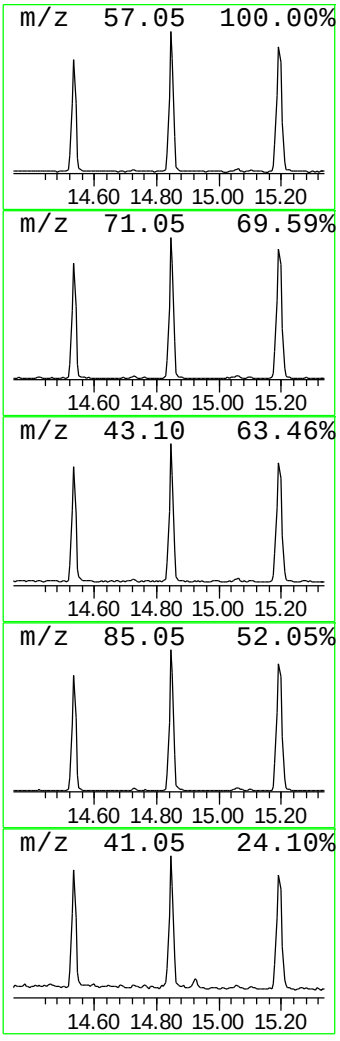
**********

Peak Number 15 Eicosane, 9-octyl- Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.84 | 19.28 ng | 1168170 | Perylene-d12 | 15.57 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexacosane | 366 | C26H54 | 000630-01-3 | 94 |
| 2 | Eicosane, 9-octyl- | 394 | C28H58 | 013475-77-9 | 94 |
| 3 | 2-methyloctacosane | 408 | C29H60 | 1000376-72-8 | 91 |
| 4 | Heptadecane, 9-octyl- | 352 | C25H52 | 007225-64-1 | 91 |
| 5 | Octacosane | 394 | C28H58 | 000630-02-4 | 91 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

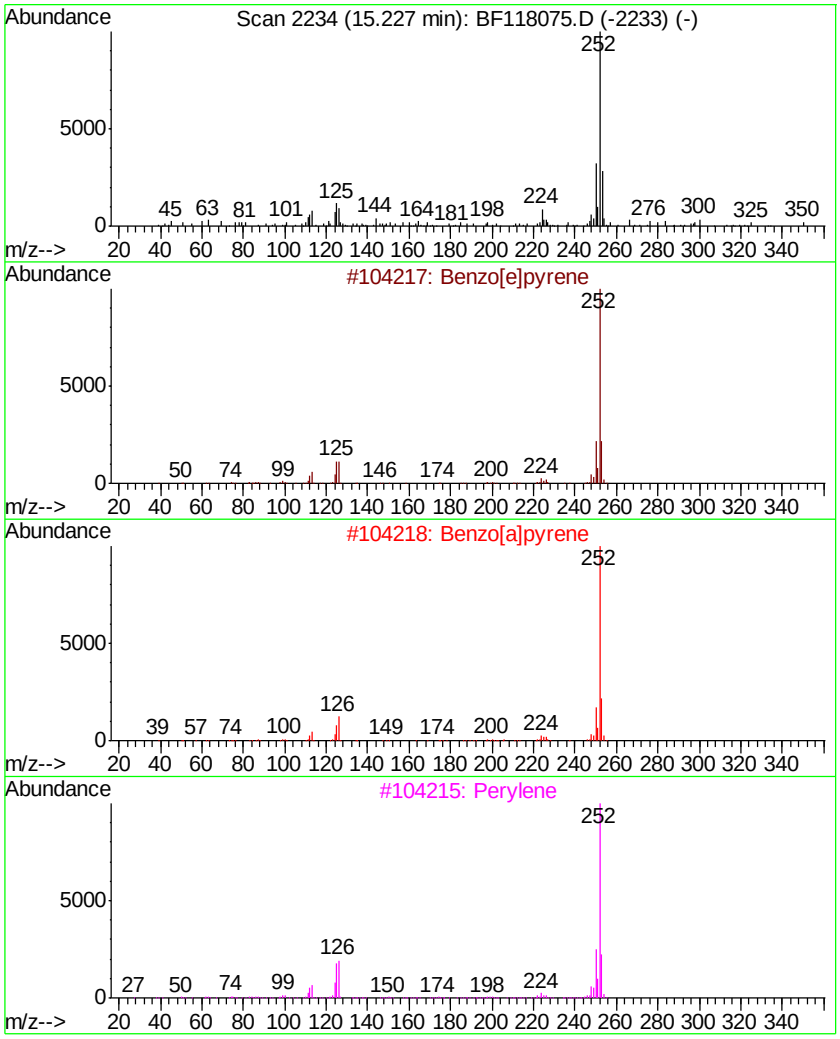
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

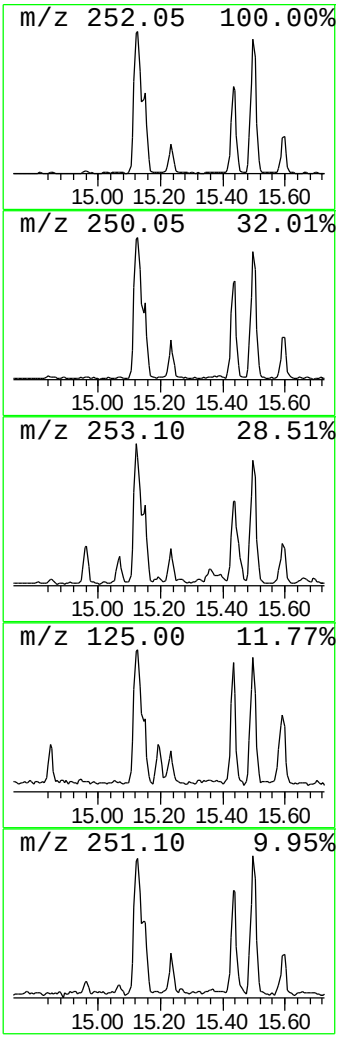
**********

Peak Number 16 Benzo[e]pyrene Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.23 | 2.24 ng | 135857 | Perylene-d12 | 15.57 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 97 |
| 2 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 96 |
| 3 | Perylene | 252 | C20H12 | 000198-55-0 | 94 |
| 4 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 93 |
| 5 | Benzo[j]fluoranthene | 252 | C20H12 | 000205-82-3 | 93 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.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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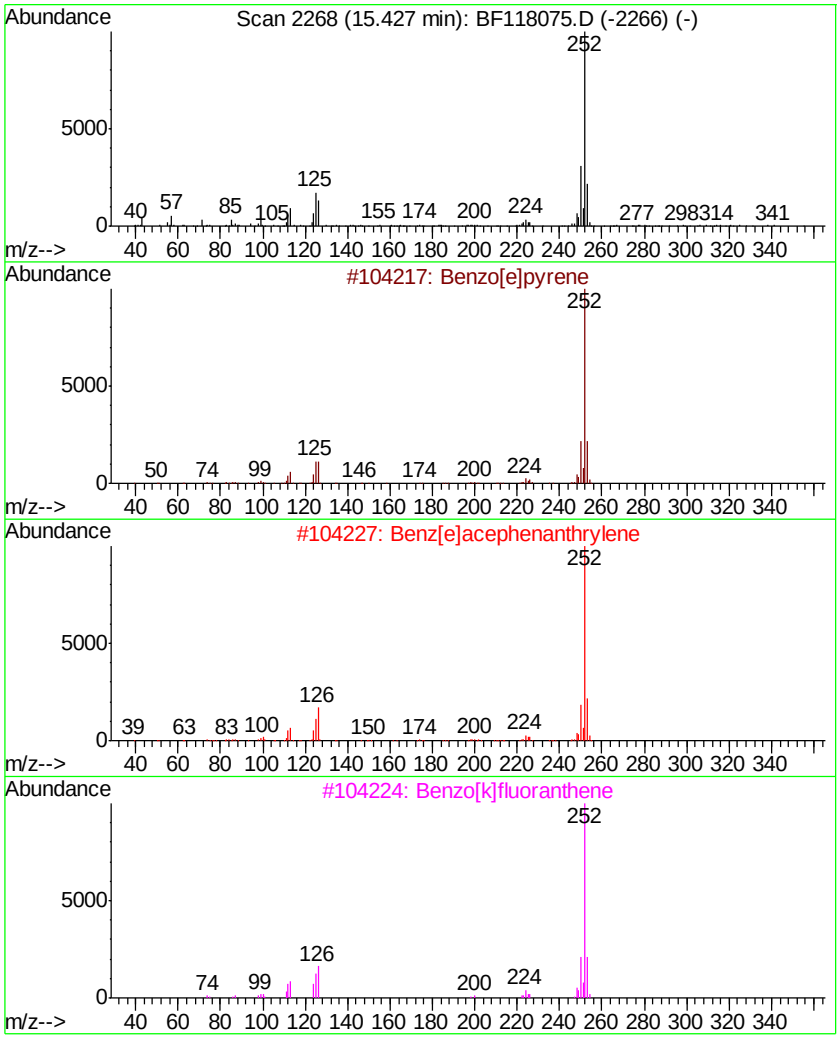
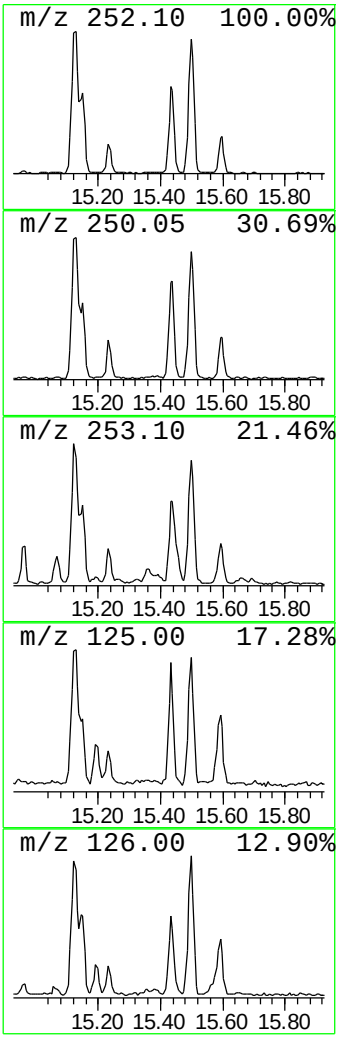
Peak Number 17 Perylene Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.43 | 7.57 ng | 458524 | Perylene-d12 | 15.57 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 98 |
| 2 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 96 |
| 3 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 96 |
| 4 | Perylene | 252 | C20H12 | 000198-55-0 | 95 |
| 5 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 91 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.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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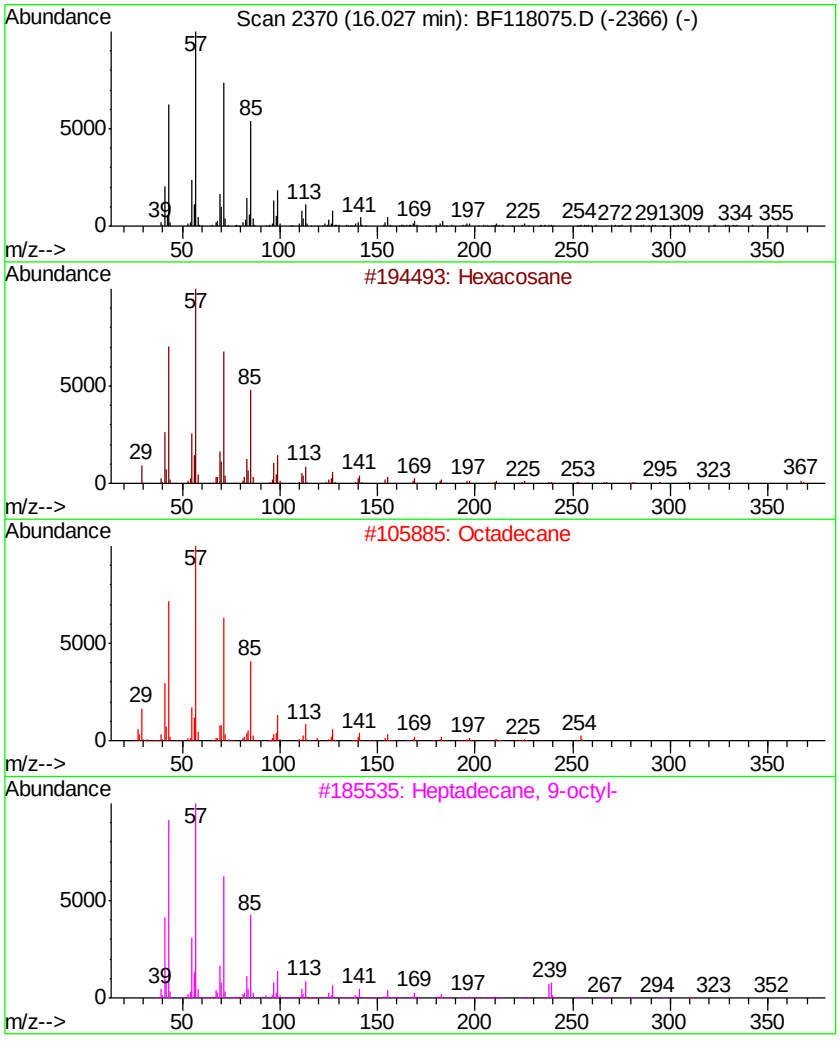
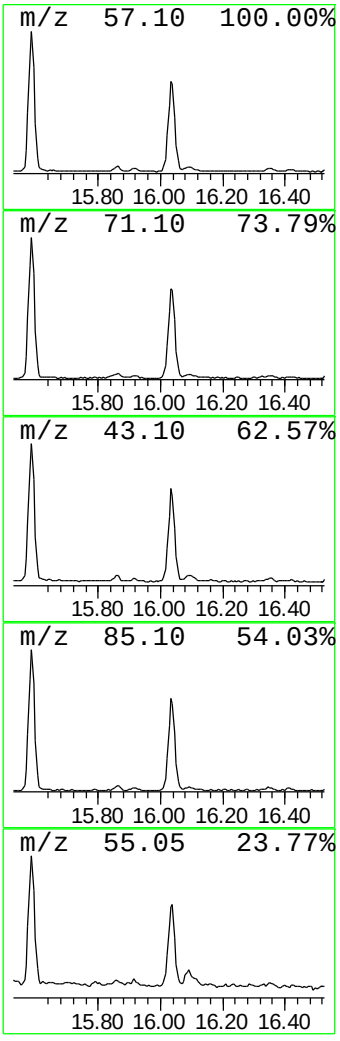
Peak Number 18 Heptadecane, 9-octyl- Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.03 | 14.27 ng | 864796 | Perylene-d12 | 15.57 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexacosane | 366 | C26H54 | 000630-01-3 | 94 |
| 2 | Octadecane | 254 | C18H38 | 000593-45-3 | 91 |
| 3 | Heptadecane, 9-octyl- | 352 | C25H52 | 007225-64-1 | 91 |
| 4 | 2-methyloctacosane | 408 | C29H60 | 1000376-72-8 | 91 |
| 5 | Heneicosane | 296 | C21H44 | 000629-94-7 | 91 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.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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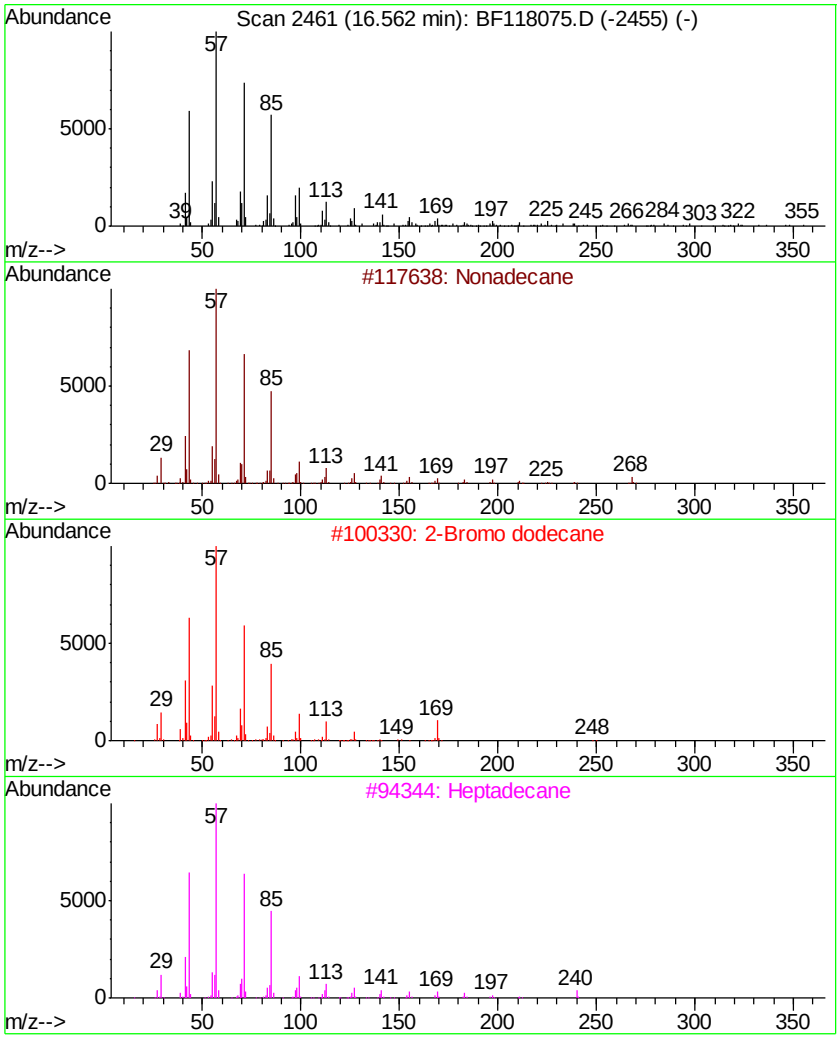
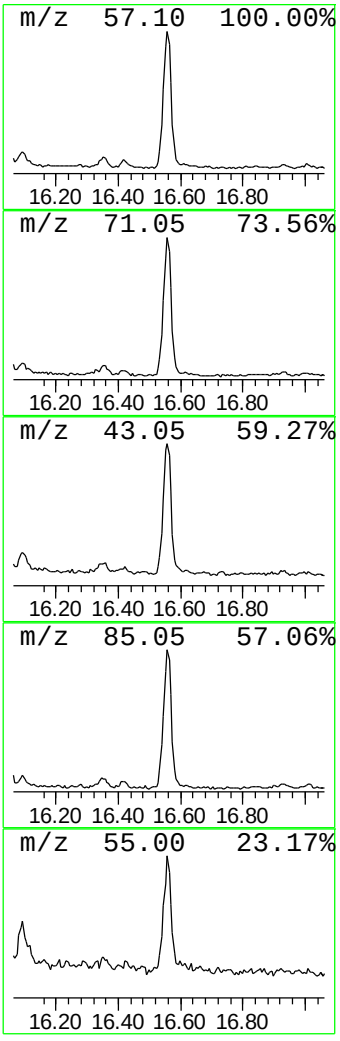
Peak Number 19 Nonadecane Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.56 | 8.00 ng | 484453 | Perylene-d12 | 15.57 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Nonadecane | 268 | C19H40 | 000629-92-5 | 94 |
| 2 | 2-Bromo dodecane | 248 | C12H25Br | 013187-99-0 | 94 |
| 3 | Heptadecane | 240 | C17H36 | 000629-78-7 | 93 |
| 4 | 2-methyloctacosane | 408 | C29H60 | 1000376-72-8 | 91 |
| 5 | Heneicosane | 296 | C21H44 | 000629-94-7 | 91 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

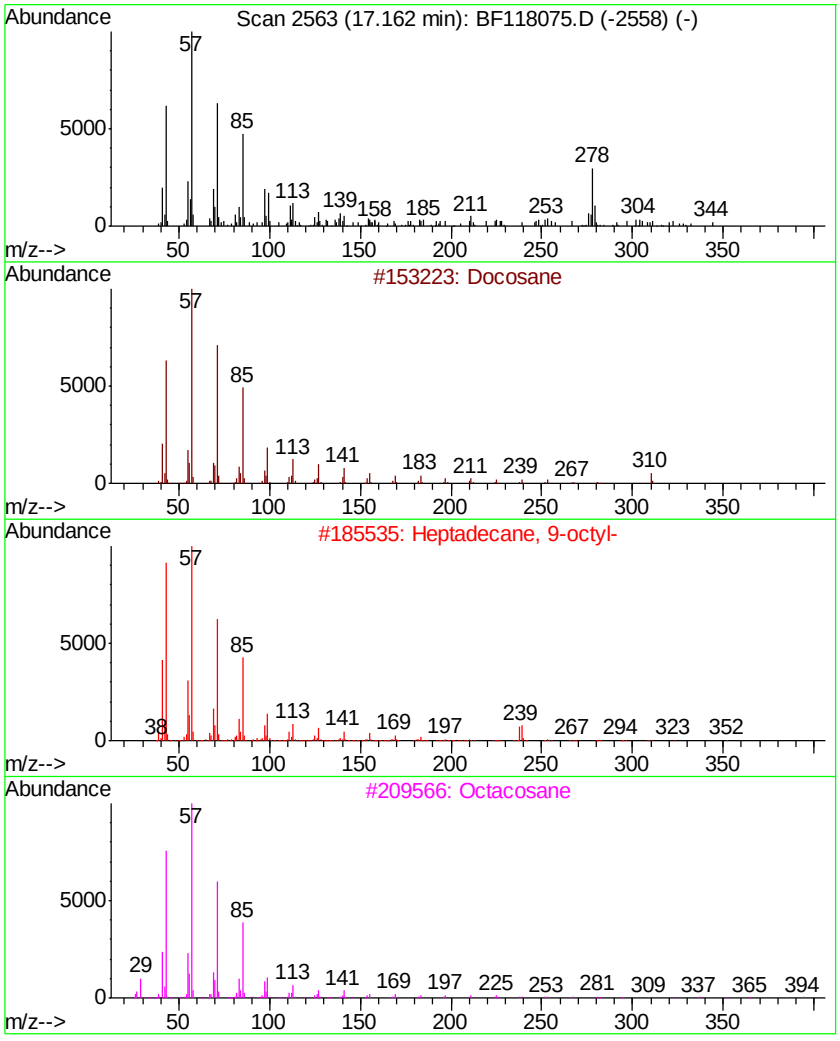
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

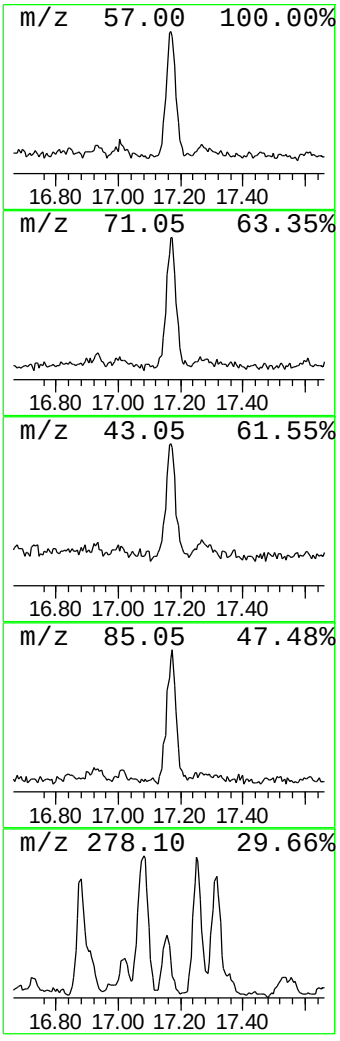
**********

Peak Number 20 Docosane Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.16 | 3.65 ng | 221202 | Perylene-d12 | 15.57 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Docosane | 310 | C22H46 | 000629-97-0 | 92 |
| 2 | Heptadecane, 9-octyl- | 352 | C25H52 | 007225-64-1 | 53 |
| 3 | Octacosane | 394 | C28H58 | 000630-02-4 | 53 |
| 4 | Hexacosane | 366 | C26H54 | 000630-01-3 | 49 |
| 5 | Tetracosane | 338 | C24H50 | 000646-31-1 | 49 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF120319\
Data File : BF118075.D
Acq On : 3 Dec 2019 21:16
Operator : JU
Sample : K6024-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** B-4-(0.5-1.0)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF111319.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 |
| Butane, 2-methoxy... | 2.15 | 19.1 | ng | 767597 | 1 | 6.87 | 803707 | 20.0 |
| 2-Pentanone, 4-hy... | 5.09 | 12.8 | ng | 515995 | 1 | 6.87 | 803707 | 20.0 |
| unknown6.65 | 6.65 | 75.1 | ng | 3018560 | 1 | 6.87 | 803707 | 20.0 |
| Diphenylacetylene | 11.49 | 2.3 | ng | 153901 | 4 | 11.42 | 1318970 | 20.0 |
| Phenanthrene, 2-m... | 11.92 | 2.3 | ng | 149269 | 4 | 11.42 | 1318970 | 20.0 |
| n-Hexadecanoic acid | 11.95 | 20.5 | ng | 1349230 | 4 | 11.42 | 1318970 | 20.0 |
| Benzaldehyde, 3,5... | 12.03 | 3.7 | ng | 246568 | 4 | 11.42 | 1318970 | 20.0 |
| Octadecanoic acid | 12.73 | 12.1 | ng | 800004 | 4 | 11.42 | 1318970 | 20.0 |
| Benzo[b]naphtho[2... | 13.82 | 2.6 | ng | 237977 | 5 | 14.07 | 1809430 | 20.0 |
| Cyclopenta[cd]pyrene | 13.87 | 3.5 | ng | 315205 | 5 | 14.07 | 1809430 | 20.0 |
| 11H-Benzo[a]fluor... | 13.91 | 10.4 | ng | 937104 | 5 | 14.07 | 1809430 | 20.0 |
| Hexacosane | 14.23 | 5.6 | ng | 504342 | 5 | 14.07 | 1809430 | 20.0 |
| Octadecane | 14.53 | 10.2 | ng | 924970 | 5 | 14.07 | 1809430 | 20.0 |
| Eicosane, 9-octyl- | 14.84 | 19.3 | ng | 1168170 | 6 | 15.57 | 1211810 | 20.0 |
| Benzo[e]pyrene | 15.23 | 2.2 | ng | 135857 | 6 | 15.57 | 1211810 | 20.0 |
| Perylene | 15.43 | 7.6 | ng | 458524 | 6 | 15.57 | 1211810 | 20.0 |
| Heptadecane, 9-oc... | 16.03 | 14.3 | ng | 864796 | 6 | 15.57 | 1211810 | 20.0 |
| Nonadecane | 16.56 | 8.0 | ng | 484453 | 6 | 15.57 | 1211810 | 20.0 |
| Docosane | 17.16 | 3.6 | ng | 221202 | 6 | 15.57 | 1211810 | 20.0 |