LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % 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_M\METHODS\SOM02.2-EPA-BM081116.M
Title : SVOA CALIBRATION

Signal : TIC

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.975 | 739 | 746 | 765 | rVB | 1337528 | 2317274 | 26.87% | 1.189% |
| 2 | 7.151 | 769 | 776 | 786 | rVB | 974543 | 1528943 | 17.73% | 0.785% |
| 3 | 7.345 | 801 | 809 | 819 | rBV | 1381230 | 2187477 | 25.37% | 1.123% |
| 4 | 7.816 | 882 | 889 | 896 | rVV | 1223435 | 2001823 | 23.21% | 1.028% |
| 5 | 8.510 | 998 | 1007 | 1016 | rBV | 1612896 | 2640586 | 30.62% | 1.355% |
| 6 | 8.969 | 1077 | 1085 | 1095 | rBV | 1294748 | 2185889 | 25.35% | 1.122% |
| 7 | 9.081 | 1095 | 1104 | 1109 | rBV2 | 121648 | 211624 | 2.45% | 0.109% |
| 8 | 9.686 | 1199 | 1207 | 1215 | rBV | 1105823 | 1857811 | 21.54% | 0.954% |
| 9 | 10.216 | 1288 | 1297 | 1304 | rBV | 1805272 | 3059678 | 35.48% | 1.571% |
| 10 | 10.604 | 1354 | 1363 | 1368 | rBV | 1859639 | 3199355 | 37.10% | 1.642% |
| 11 | 10.733 | 1376 | 1385 | 1393 | rBV | 1186930 | 2073917 | 24.05% | 1.065% |
| 12 | 12.480 | 1672 | 1682 | 1689 | rVB | 126034 | 210615 | 2.44% | 0.108% |
| 13 | 13.769 | 1893 | 1901 | 1905 | rVV | 250453 | 450491 | 5.22% | 0.231% |
| 14 | 13.857 | 1911 | 1916 | 1920 | rVV | 3273353 | 4791240 | 55.56% | 2.459% |
| 15 | 13.904 | 1920 | 1924 | 1933 | rVB | 4553577 | 6326769 | 73.37% | 3.248% |
| 16 | 14.004 | 1933 | 1941 | 1944 | rBV | 134094 | 243151 | 2.82% | 0.125% |
| 17 | 14.139 | 1953 | 1964 | 1977 | rBV2 | 3687687 | 6501782 | 75.40% | 3.337% |
| 18 | 14.445 | 2005 | 2016 | 2023 | rBV2 | 2988510 | 4773360 | 55.35% | 2.450% |
| 19 | 14.633 | 2042 | 2048 | 2060 | rBV | 1480084 | 2384316 | 27.65% | 1.224% |
| 20 | 14.845 | 2079 | 2084 | 2091 | rVV2 | 226721 | 417783 | 4.84% | 0.214% |
| 21 | 14.921 | 2091 | 2097 | 2102 | rVB | 245856 | 370944 | 4.30% | 0.190% |
| 22 | 15.063 | 2113 | 2121 | 2126 | rBV2 | 219471 | 510658 | 5.92% | 0.262% |
| 23 | 15.115 | 2126 | 2130 | 2134 | rVB | 153573 | 216220 | 2.51% | 0.111% |
| 24 | 15.304 | 2159 | 2162 | 2169 | rVB2 | 270114 | 426475 | 4.95% | 0.219% |
| 25 | 15.439 | 2176 | 2185 | 2190 | rBV | 4909047 | 7174838 | 83.20% | 3.683% |
| 26 | 15.492 | 2190 | 2194 | 2198 | rVV3 | 184022 | 282213 | 3.27% | 0.145% |
| 27 | 15.551 | 2200 | 2204 | 2211 | rVB | 864805 | 1278255 | 14.82% | 0.656% |
| 28 | 15.710 | 2222 | 2231 | 2237 | rVB5 | 135247 | 343251 | 3.98% | 0.176% |
| 29 | 15.939 | 2261 | 2270 | 2277 | rBV7 | 131370 | 326556 | 3.79% | 0.168% |
| 30 | 16.168 | 2304 | 2309 | 2321 | rVV | 487494 | 867642 | 10.06% | 0.445% |
| 31 | 16.498 | 2357 | 2365 | 2369 | rVV4 | 230764 | 554271 | 6.43% | 0.285% |
| 32 | 16.545 | 2369 | 2373 | 2378 | rVV2 | 222705 | 358431 | 4.16% | 0.184% |
| 33 | 16.845 | 2420 | 2424 | 2431 | rVB4 | 199815 | 337885 | 3.92% | 0.173% |
| 34 | 16.957 | 2440 | 2443 | 2447 | rVV2 | 224421 | 317618 | 3.68% | 0.163% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % 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_M\METHODS\SOM02.2-EPA-BM081116.M
Title : SVOA CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 17.009 | 2447 | 2452 | 2460 | rVB | 403959 | 656656 | 7.61% | 0.337% |
| 36 | 17.186 | 2477 | 2482 | 2486 | rBV | 3649523 | 5526014 | 64.08% | 2.837% |
| 37 | 17.227 | 2486 | 2489 | 2494 | rVB | 2719047 | 3785679 | 43.90% | 1.943% |
| 38 | 17.286 | 2494 | 2499 | 2504 | rBV2 | 5119218 | 7358163 | 85.33% | 3.777% |
| 39 | 17.380 | 2509 | 2515 | 2520 | rBV3 | 256446 | 541644 | 6.28% | 0.278% |
| 40 | 17.498 | 2532 | 2535 | 2540 | rVB2 | 210021 | 279884 | 3.25% | 0.144% |
| 41 | 17.574 | 2543 | 2548 | 2556 | rBV2 | 1487467 | 1985831 | 23.03% | 1.019% |
| 42 | 17.698 | 2566 | 2569 | 2574 | rVB2 | 165377 | 303739 | 3.52% | 0.156% |
| 43 | 17.768 | 2576 | 2581 | 2588 | rVB | 668696 | 1007512 | 11.68% | 0.517% |
| 44 | 17.915 | 2601 | 2606 | 2611 | rVB | 364120 | 656594 | 7.61% | 0.337% |
| 45 | 17.980 | 2613 | 2617 | 2621 | rBV2 | 186538 | 283871 | 3.29% | 0.146% |
| 46 | 18.062 | 2626 | 2631 | 2633 | rBV | 1722862 | 2379524 | 27.59% | 1.221% |
| 47 | 18.092 | 2633 | 2636 | 2637 | rBV2 | 933500 | 907671 | 10.53% | 0.466% |
| 48 | 18.192 | 2649 | 2653 | 2658 | rBV2 | 298287 | 480665 | 5.57% | 0.247% |
| 49 | 18.251 | 2658 | 2663 | 2667 | rVV2 | 1849350 | 3051773 | 35.39% | 1.567% |
| 50 | 18.292 | 2667 | 2670 | 2678 | rVB | 1358557 | 1984161 | 23.01% | 1.019% |
| 51 | 18.386 | 2682 | 2686 | 2689 | rBV2 | 297199 | 472426 | 5.48% | 0.243% |
| 52 | 18.462 | 2694 | 2699 | 2703 | rVB3 | 399172 | 609312 | 7.07% | 0.313% |
| 53 | 18.562 | 2712 | 2716 | 2719 | rBV2 | 747406 | 1008382 | 11.69% | 0.518% |
| 54 | 18.603 | 2719 | 2723 | 2734 | rVB2 | 682321 | 1632391 | 18.93% | 0.838% |
| 55 | 18.780 | 2749 | 2753 | 2755 | rBV2 | 361919 | 492926 | 5.72% | 0.253% |
| 56 | 18.809 | 2755 | 2758 | 2763 | rVV | 684428 | 980555 | 11.37% | 0.503% |
| 57 | 18.862 | 2763 | 2767 | 2770 | rVV | 1111034 | 1422743 | 16.50% | 0.730% |
| 58 | 18.903 | 2770 | 2774 | 2777 | rVB2 | 817400 | 1089056 | 12.63% | 0.559% |
| 59 | 18.951 | 2777 | 2782 | 2784 | rBV | 3267525 | 4054103 | 47.01% | 2.081% |
| 60 | 18.986 | 2784 | 2788 | 2792 | rVV | 2290573 | 3421837 | 39.68% | 1.756% |
| 61 | 19.039 | 2792 | 2797 | 2801 | rVV3 | 997384 | 1948744 | 22.60% | 1.000% |
| 62 | 19.074 | 2801 | 2803 | 2807 | rVB | 793565 | 867897 | 10.06% | 0.446% |
| 63 | 19.121 | 2807 | 2811 | 2817 | rBV2 | 971327 | 1941507 | 22.51% | 0.997% |
| 64 | 19.245 | 2827 | 2832 | 2839 | rVB | 4059518 | 5472357 | 63.46% | 2.809% |
| 65 | 19.309 | 2839 | 2843 | 2846 | rBV | 531466 | 752355 | 8.72% | 0.386% |
| 66 | 19.368 | 2846 | 2853 | 2857 | rBV2 | 1600924 | 2571263 | 29.82% | 1.320% |
| 67 | 19.445 | 2863 | 2866 | 2869 | rVB | 320351 | 376089 | 4.36% | 0.193% |
| 68 | 19.492 | 2870 | 2874 | 2877 | rVV2 | 471167 | 643047 | 7.46% | 0.330% |
| 69 | 19.521 | 2877 | 2879 | 2884 | rVB3 | 376316 | 480084 | 5.57% | 0.246% |
| 70 | 19.580 | 2884 | 2889 | 2892 | rBV | 5552594 | 8623229 | 100.00% | 4.426% |
| 71 | 19.609 | 2892 | 2894 | 2902 | rVV | 5434089 | 7659896 | 88.83% | 3.932% |

LSC Area Percent Report

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Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % 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_M\METHODS\SOM02.2-EPA-BM081116.M
Title : SVOA CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 19.692 | 2903 | 2908 | 2912 | rVB2 | 1141614 | 1796473 | 20.83% | 0.922% |
| 73 | 19.845 | 2931 | 2934 | 2940 | rVB3 | 563095 | 965493 | 11.20% | 0.496% |
| 74 | 19.933 | 2944 | 2949 | 2960 | rBV6 | 960551 | 2584624 | 29.97% | 1.327% |
| 75 | 20.021 | 2960 | 2964 | 2967 | rBV3 | 373451 | 510448 | 5.92% | 0.262% |
| 76 | 20.068 | 2968 | 2972 | 2974 | rVV4 | 746584 | 1168722 | 13.55% | 0.600% |
| 77 | 20.103 | 2975 | 2978 | 2982 | rVB | 1200036 | 1611132 | 18.68% | 0.827% |
| 78 | 20.203 | 2992 | 2995 | 2999 | rVB2 | 514252 | 620559 | 7.20% | 0.319% |
| 79 | 20.262 | 3001 | 3005 | 3010 | rVB | 1377304 | 1845264 | 21.40% | 0.947% |
| 80 | 20.403 | 3025 | 3029 | 3033 | rBV | 1240693 | 1598446 | 18.54% | 0.821% |
| 81 | 20.450 | 3033 | 3037 | 3041 | rVV | 1059312 | 1486385 | 17.24% | 0.763% |
| 82 | 20.568 | 3054 | 3057 | 3062 | rVB3 | 330631 | 453440 | 5.26% | 0.233% |
| 83 | 20.850 | 3102 | 3105 | 3112 | rVB | 752735 | 1199181 | 13.91% | 0.616% |
| 84 | 20.939 | 3118 | 3120 | 3125 | rVB | 390298 | 499325 | 5.79% | 0.256% |
| 85 | 20.997 | 3126 | 3130 | 3131 | rBV | 536808 | 680950 | 7.90% | 0.350% |
| 86 | 21.021 | 3132 | 3134 | 3137 | rVV2 | 711860 | 775092 | 8.99% | 0.398% |
| 87 | 21.056 | 3138 | 3140 | 3142 | rVV | 341071 | 298337 | 3.46% | 0.153% |
| 88 | 21.092 | 3142 | 3146 | 3151 | rVV3 | 951238 | 1330662 | 15.43% | 0.683% |
| 89 | 21.368 | 3187 | 3193 | 3197 | rBV2 | 4278414 | 8223173 | 95.36% | 4.221% |
| 90 | 21.409 | 3197 | 3200 | 3209 | rVV | 2241194 | 3162084 | 36.67% | 1.623% |
| 91 | 21.492 | 3210 | 3214 | 3217 | rVB2 | 420800 | 558613 | 6.48% | 0.287% |
| 92 | 21.933 | 3282 | 3289 | 3293 | rBV | 951561 | 1651139 | 19.15% | 0.848% |
| 93 | 21.986 | 3294 | 3298 | 3302 | rVB | 855013 | 1214453 | 14.08% | 0.623% |
| 94 | 22.127 | 3319 | 3322 | 3326 | rBV | 638468 | 815862 | 9.46% | 0.419% |
| 95 | 22.968 | 3460 | 3465 | 3469 | rBV2 | 1397833 | 2874553 | 33.33% | 1.476% |
| 96 | 23.009 | 3469 | 3472 | 3478 | rVB2 | 2407033 | 3637715 | 42.19% | 1.867% |
| 97 | 23.456 | 3543 | 3548 | 3551 | rBV | 791345 | 1390648 | 16.13% | 0.714% |
| 98 | 23.509 | 3551 | 3557 | 3561 | rVV | 2585889 | 4969666 | 57.63% | 2.551% |
| 99 | 23.550 | 3561 | 3564 | 3573 | rVB | 1490281 | 2595733 | 30.10% | 1.332% |
| 100 | 23.650 | 3575 | 3581 | 3587 | rBV | 2060449 | 3854860 | 44.70% | 1.979% |

Sum of corrected areas: 194811753

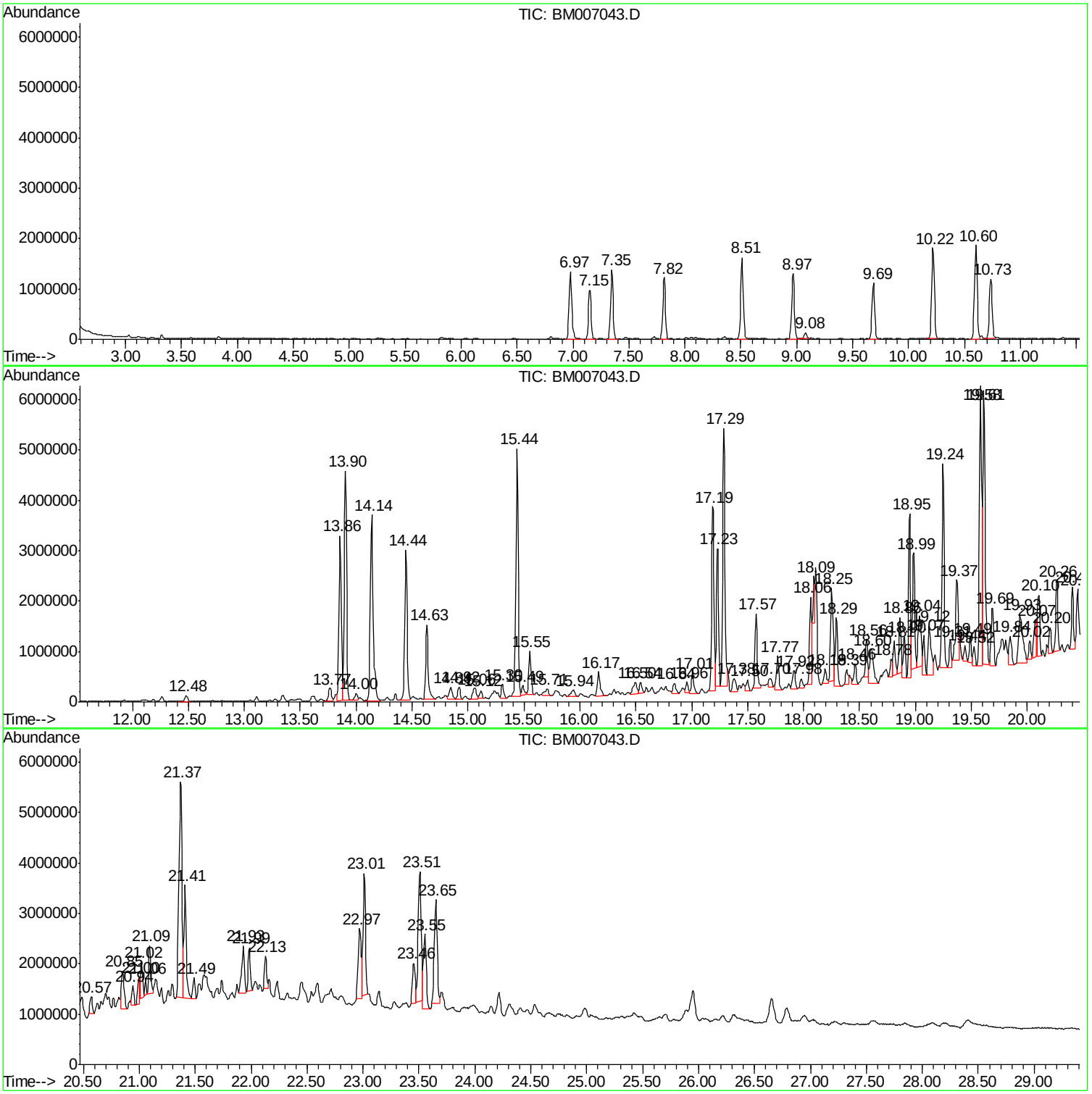
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

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



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

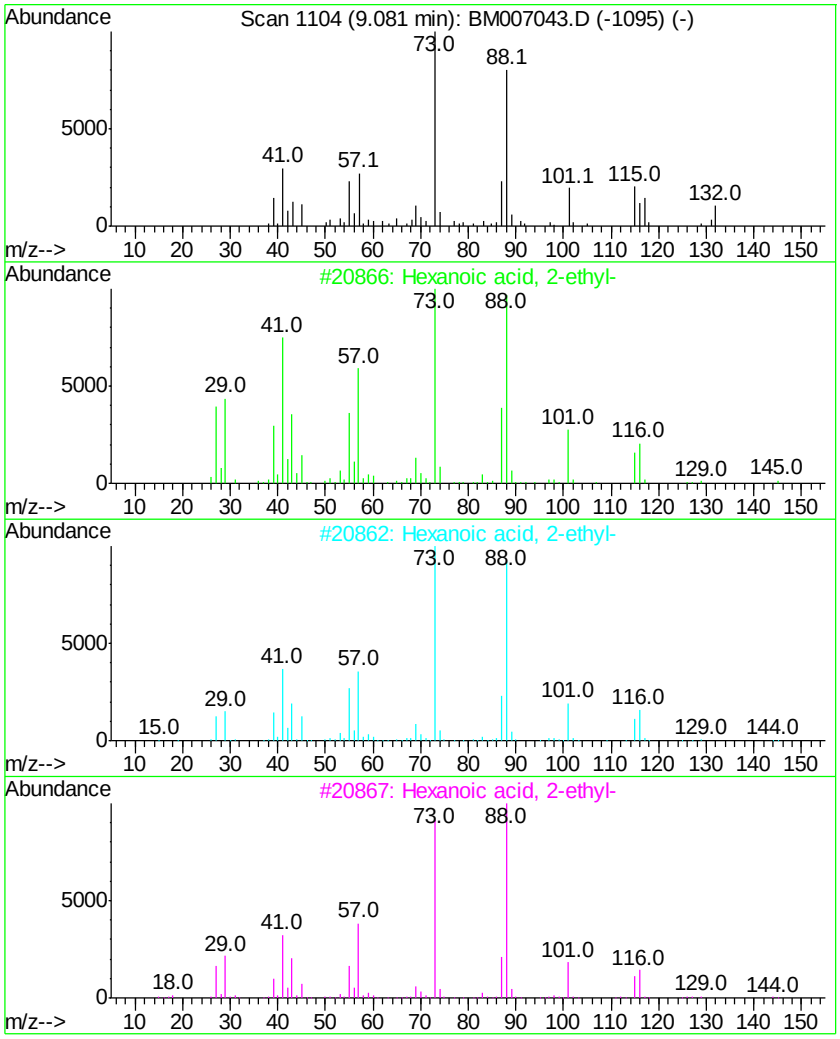
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

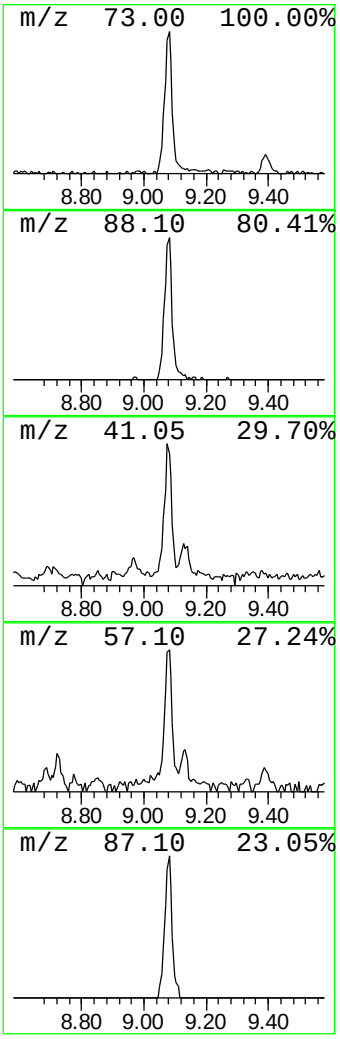
**********

Peak Number 1 Hexanoic acid, 2-ethyl- Concentration Rank 36

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.08 | 2.11 ng/ul | 211624 | 1,4-Dichlorobenzene-d4 | 7.82 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexanoic acid, 2-ethyl- | 144 | C8H16O2 | 000149-57-5 | 59 |
| 2 | Hexanoic acid, 2-ethyl- | 144 | C8H16O2 | 000149-57-5 | 59 |
| 3 | Hexanoic acid, 2-ethyl- | 144 | C8H16O2 | 000149-57-5 | 59 |
| 4 | Heptanoic acid, 2-ethyl- | 158 | C9H18O2 | 003274-29-1 | 50 |
| 5 | Pentanoic acid, 2-methyl-, methy... | 130 | C7H14O2 | 002177-77-7 | 40 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

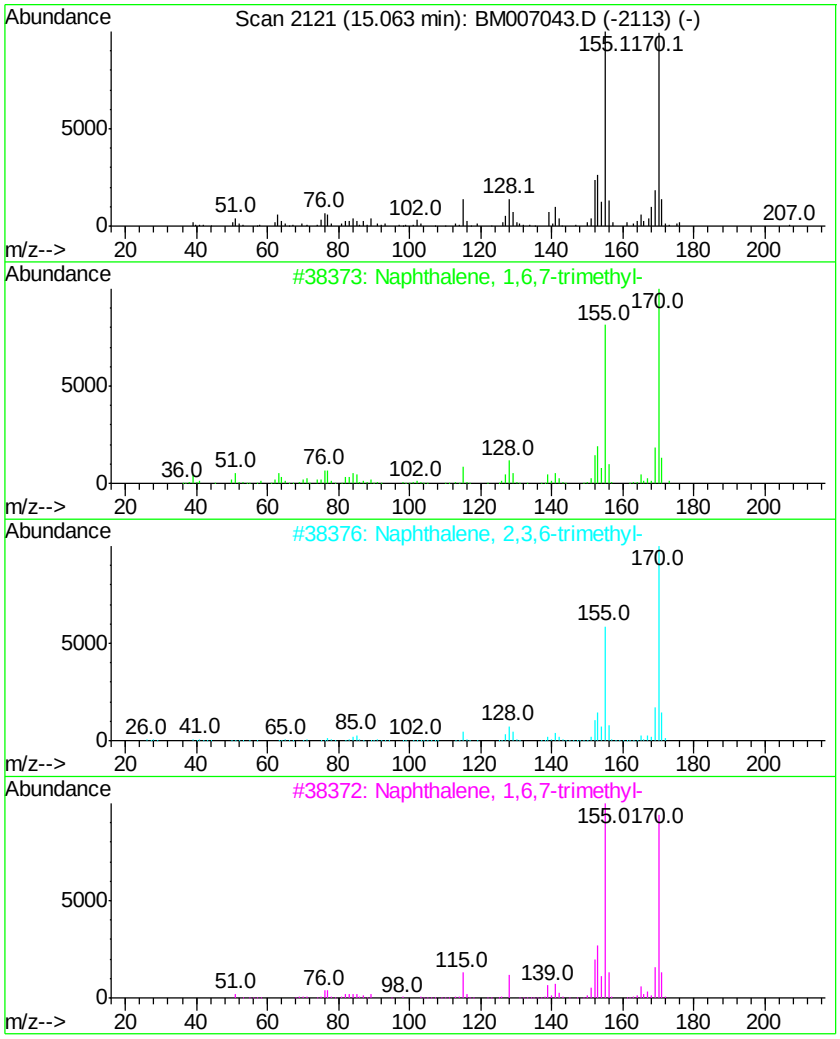
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

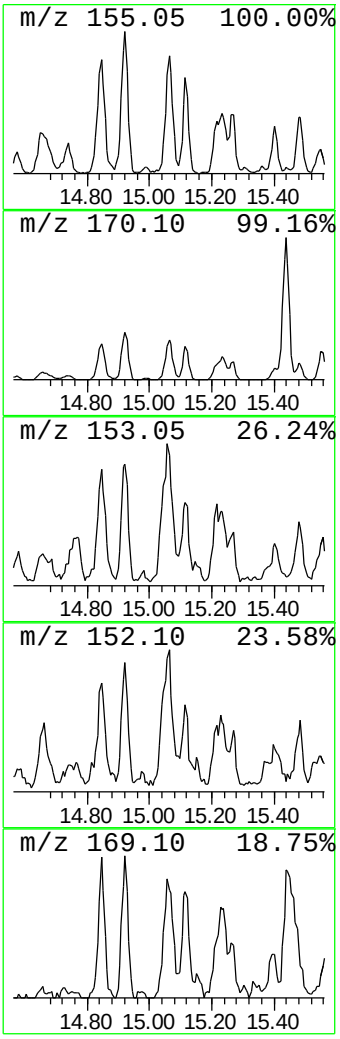
**********

Peak Number 2 Naphthalene, 1,6,7-trimethyl- Concentration Rank 35

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.06 | 2.14 ng/ul | 510658 | Acenaphthene-d10 | 14.44 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 97 |
| 2 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 96 |
| 3 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 95 |
| 4 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 95 |
| 5 | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14 | 002131-42-2 | 94 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

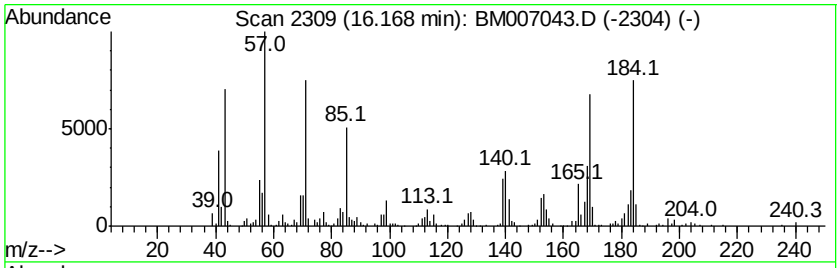
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

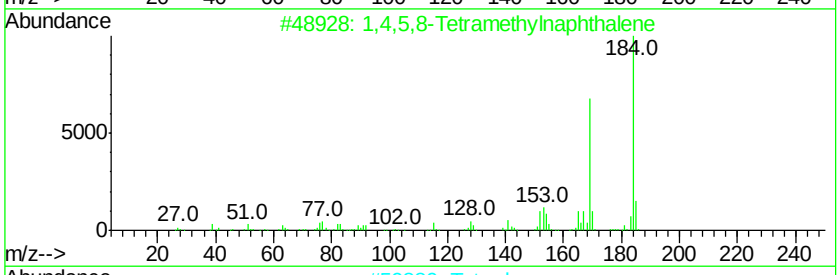
**********

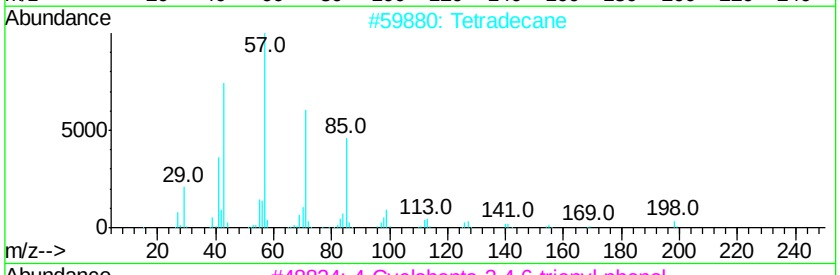
Peak Number 3 1,4,5,8-Tetramethylnaphthalene Concentration Rank 27

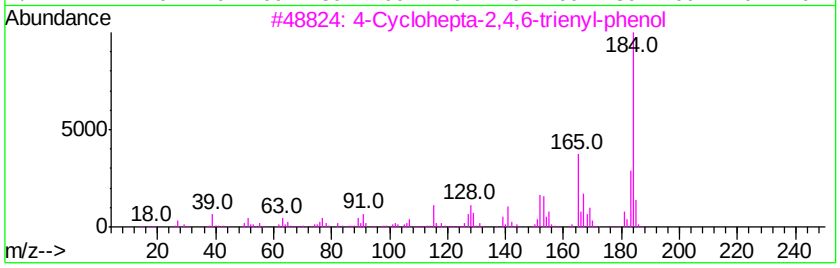
| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.17 | 3.14 ng/ul | 867642 | Phenanthrene-d10 | 17.19 |

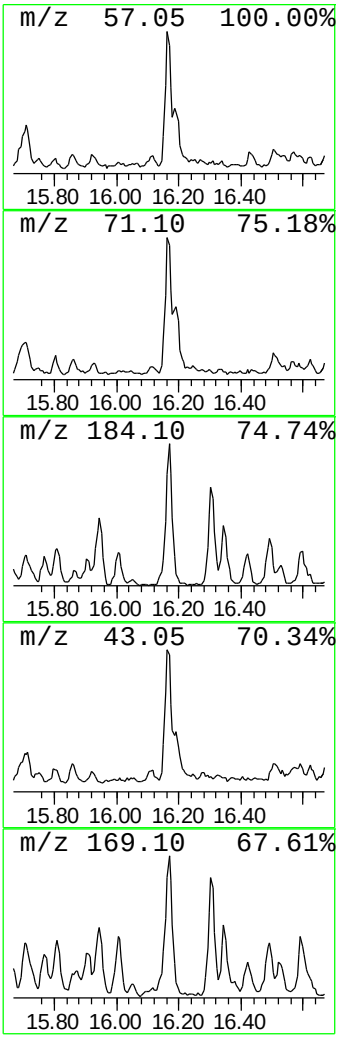
| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,4,5,8-Tetramethylnaphthalene | 184 | C14H16 | 002717-39-7 | 83 |
| 2 | Tetradecane | 198 | C14H30 | 000629-59-4 | 70 |
| 3 | 4-Cyclohepta-2,4,6-trienyl-phenol | 184 | C13H12O | 091902-42-0 | 68 |
| 4 | Chamazulene | 184 | C14H16 | 000529-05-5 | 59 |
| 5 | Tetradecane | 198 | C14H30 | 000629-59-4 | 47 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

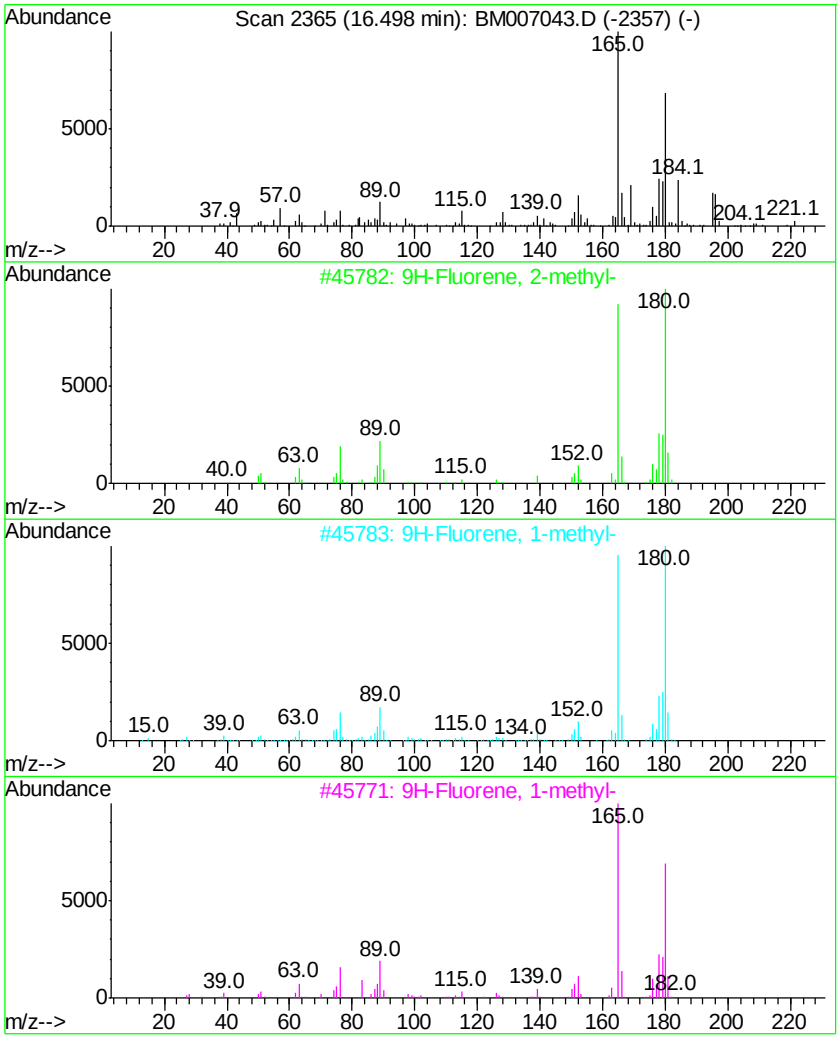
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

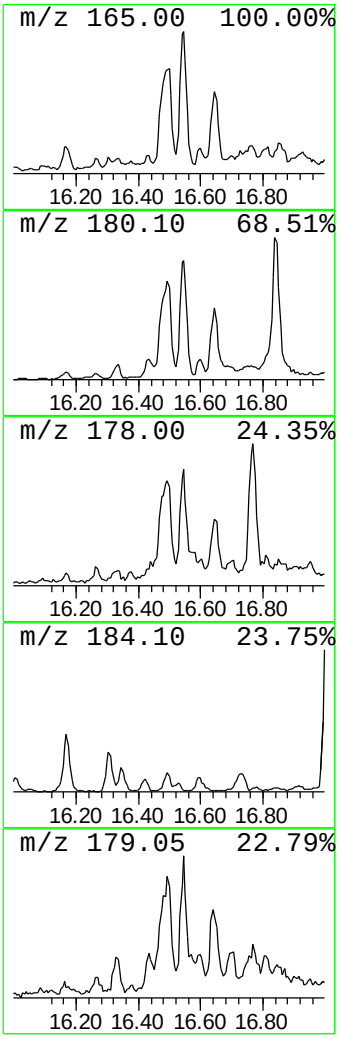
**********

Peak Number 4 9H-Fluorene, 2-methyl- Concentration Rank 37

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.50 | 2.01 ng/ul | 554271 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9H-Fluorene, 2-methyl- | 180 | C14H12 | 001430-97-3 | 78 |
| 2 | 9H-Fluorene, 1-methyl- | 180 | C14H12 | 001730-37-6 | 78 |
| 3 | 9H-Fluorene, 1-methyl- | 180 | C14H12 | 001730-37-6 | 78 |
| 4 | 9H-Fluorene, 1-methyl- | 180 | C14H12 | 001730-37-6 | 78 |
| 5 | 9H-Fluorene, 2-methyl- | 180 | C14H12 | 001430-97-3 | 78 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

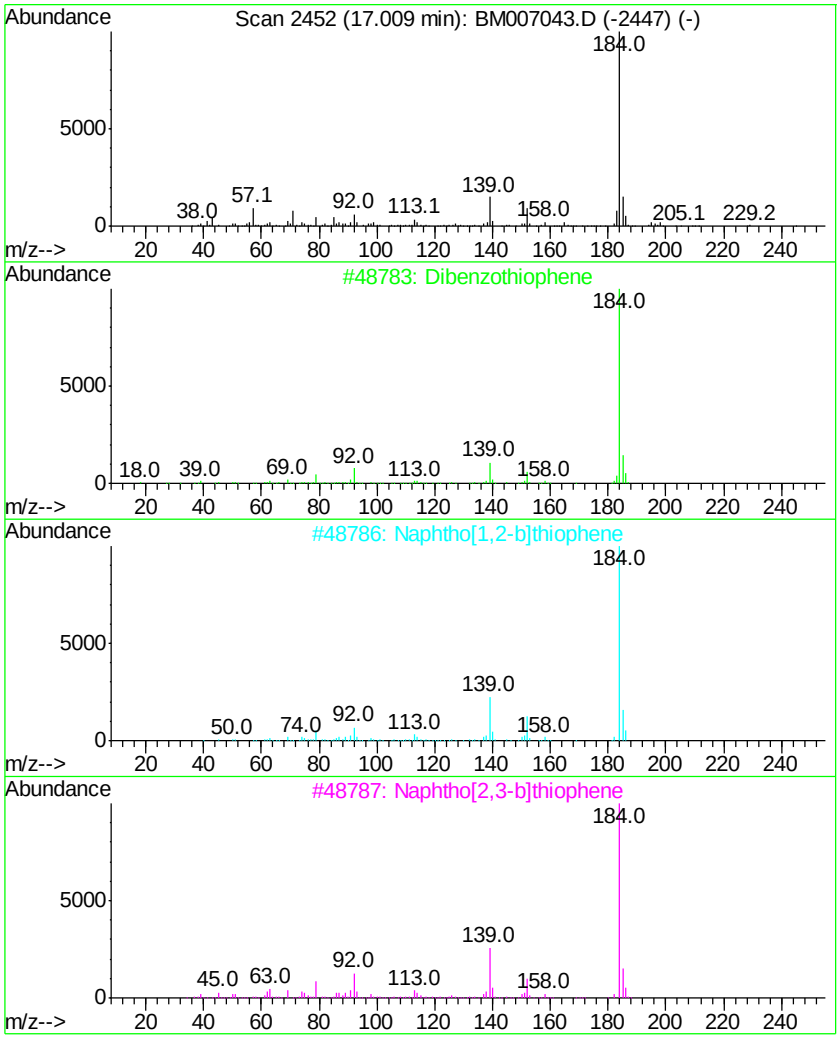
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

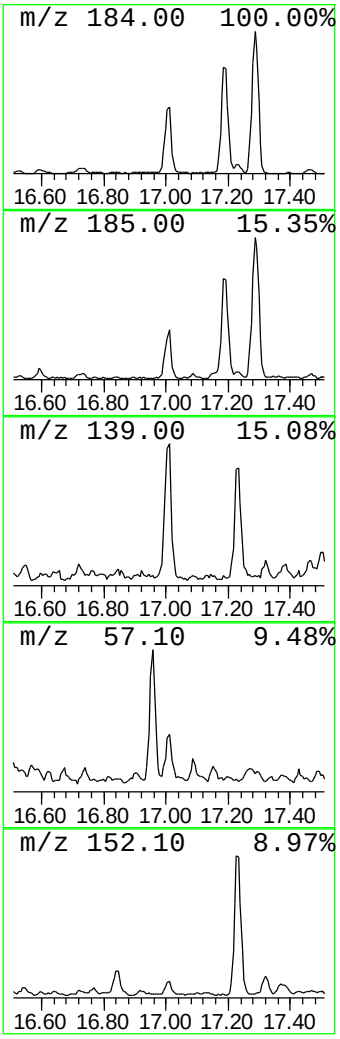
**********

Peak Number 5 Dibenzothiophene Concentration Rank 31

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.01 | 2.38 ng/ul | 656656 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 94 |
| 2 | Naphtho[1,2-b]thiophene | 184 | C12H8S | 000234-41-3 | 93 |
| 3 | Naphtho[2,3-b]thiophene | 184 | C12H8S | 000268-77-9 | 93 |
| 4 | Naphtho[2,1-b]thiophene | 184 | C12H8S | 000233-02-3 | 91 |
| 5 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 91 |



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

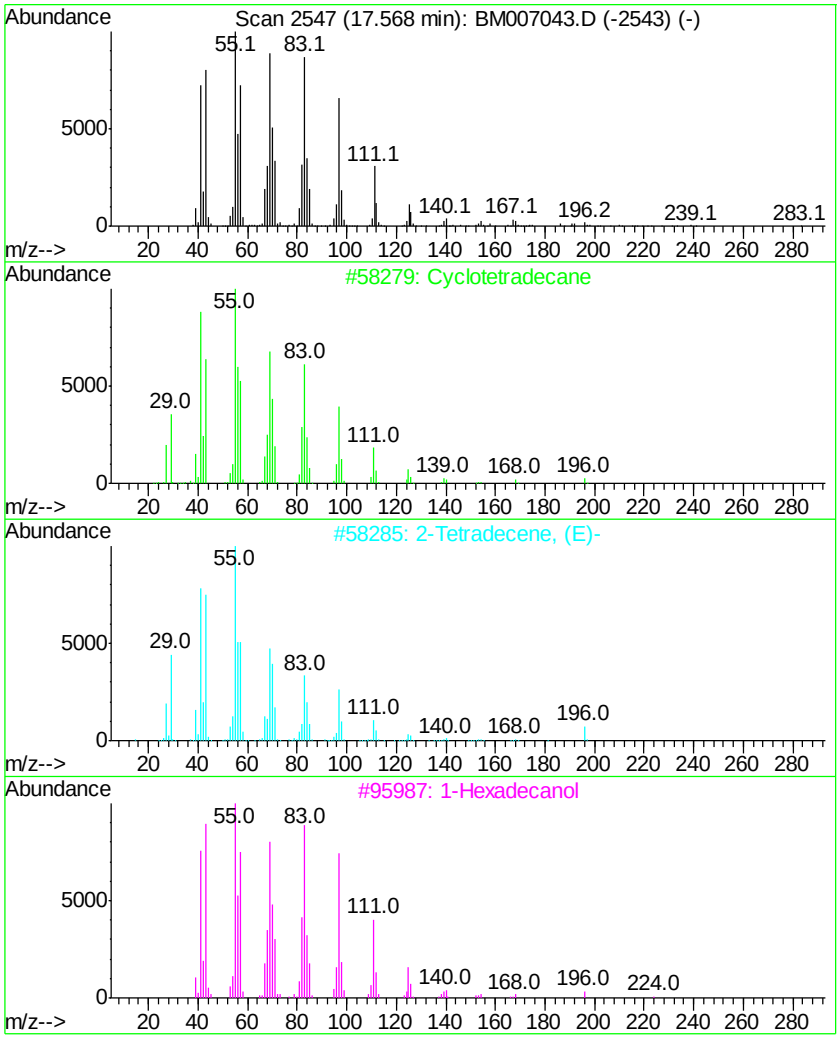
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

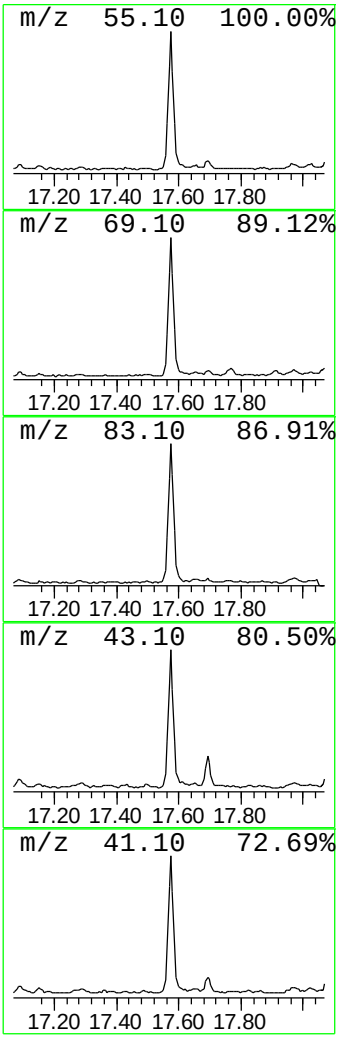
**********

Peak Number 6 (DEL) Alkane: Cyclic17.57 Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.57 | 7.19 ng/ul | 1985830 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclotetradecane | 196 | C14H28 | 000295-17-0 | 98 |
| 2 | 2-Tetradecene, (E)- | 196 | C14H28 | 035953-54-9 | 96 |
| 3 | 1-Hexadecanol | 242 | C16H34O | 036653-82-4 | 95 |
| 4 | Cyclododecane | 168 | C12H24 | 000294-62-2 | 94 |
| 5 | 1-Tetradecene | 196 | C14H28 | 001120-36-1 | 92 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

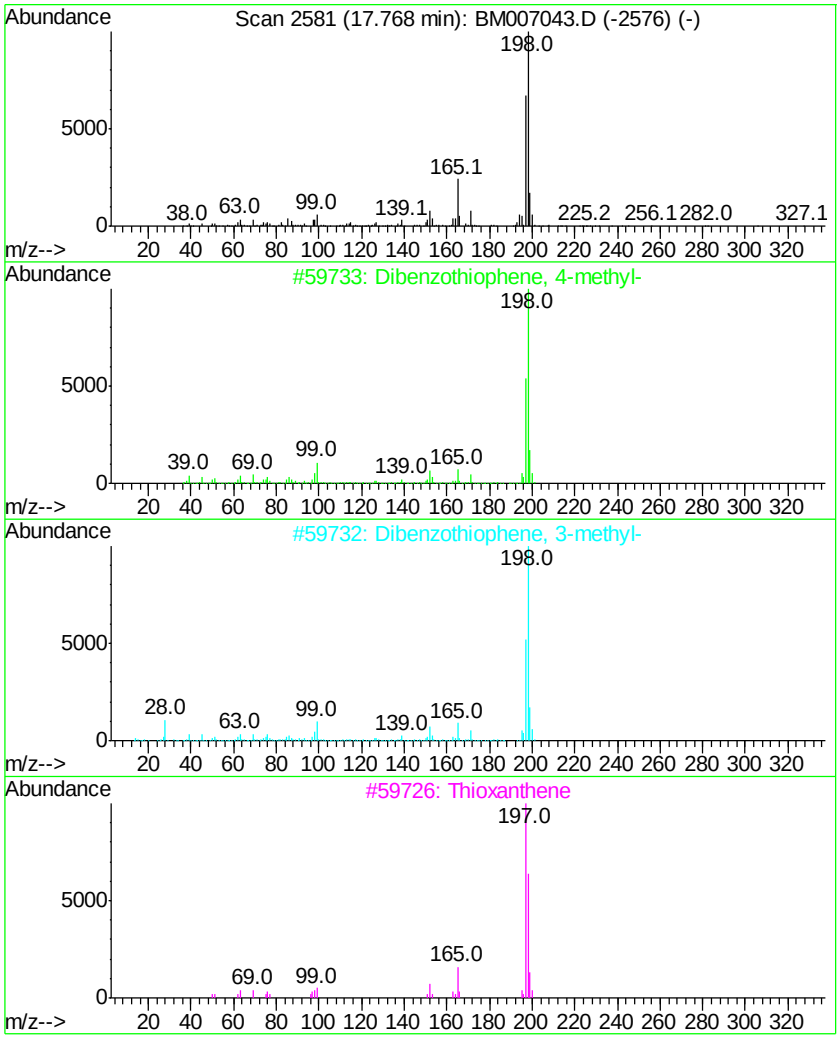
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

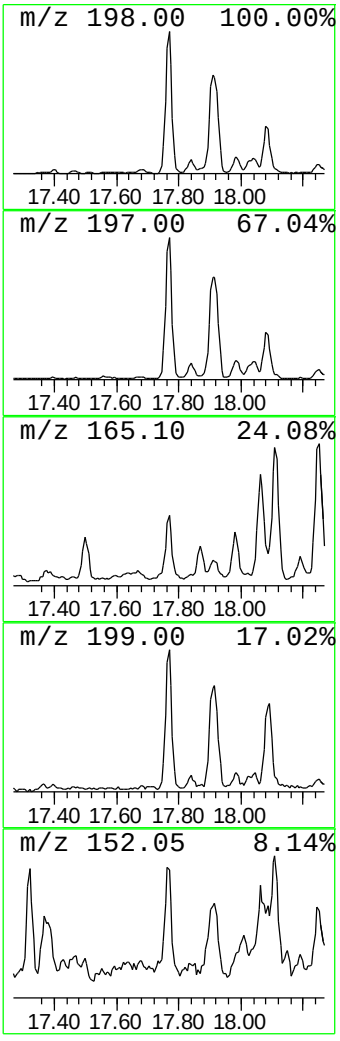
**********

Peak Number 7 Dibenzothiophene, 4-methyl- Concentration Rank 21

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.77 | 3.65 ng/ul | 1007510 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzothiophene, 4-methyl- | 198 | C13H10S | 007372-88-5 | 87 |
| 2 | Dibenzothiophene, 3-methyl- | 198 | C13H10S | 016587-52-3 | 87 |
| 3 | Thioxanthene | 198 | C13H10S | 000261-31-4 | 86 |
| 4 | 1-Methyldibenzothiophene | 198 | C13H10S | 031317-07-4 | 83 |
| 5 | Benzenamine, 4,4'-methylenebis- | 198 | C13H14N2 | 000101-77-9 | 64 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
BNA_M
**ClientSampleId :**
P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

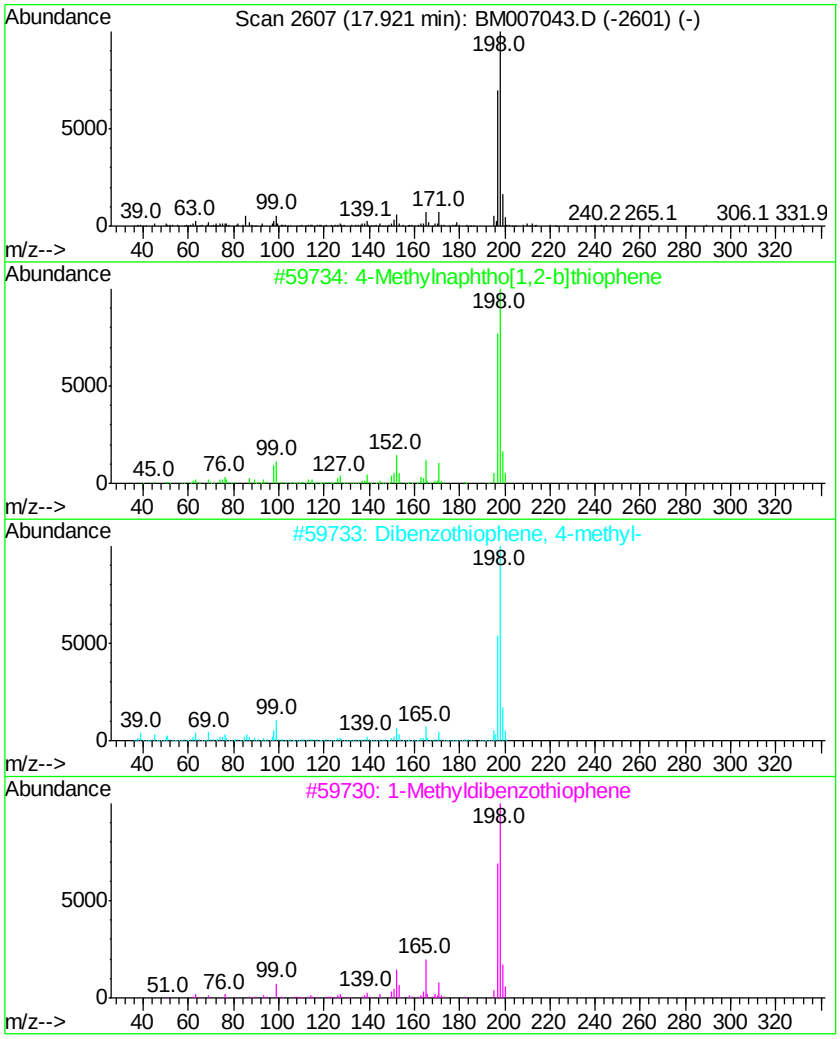
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

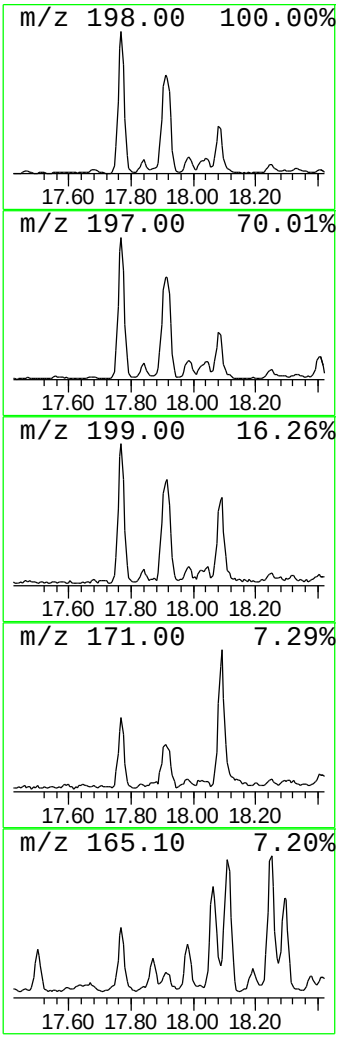
**********

Peak Number 8 4-Methylnaphtho[1,2-b]thiop... Concentration Rank 32

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.92 | 2.38 ng/ul | 656594 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4-Methylnaphtho[1,2-b]thiophene | 198 | C13H10S | 067388-11-8 | 94 |
| 2 | Dibenzothiophene, 4-methyl- | 198 | C13H10S | 007372-88-5 | 94 |
| 3 | 1-Methyldibenzothiophene | 198 | C13H10S | 031317-07-4 | 91 |
| 4 | Dibenzothiophene, 3-methyl- | 198 | C13H10S | 016587-52-3 | 87 |
| 5 | Tacrine | 198 | C13H14N2 | 000321-64-2 | 80 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

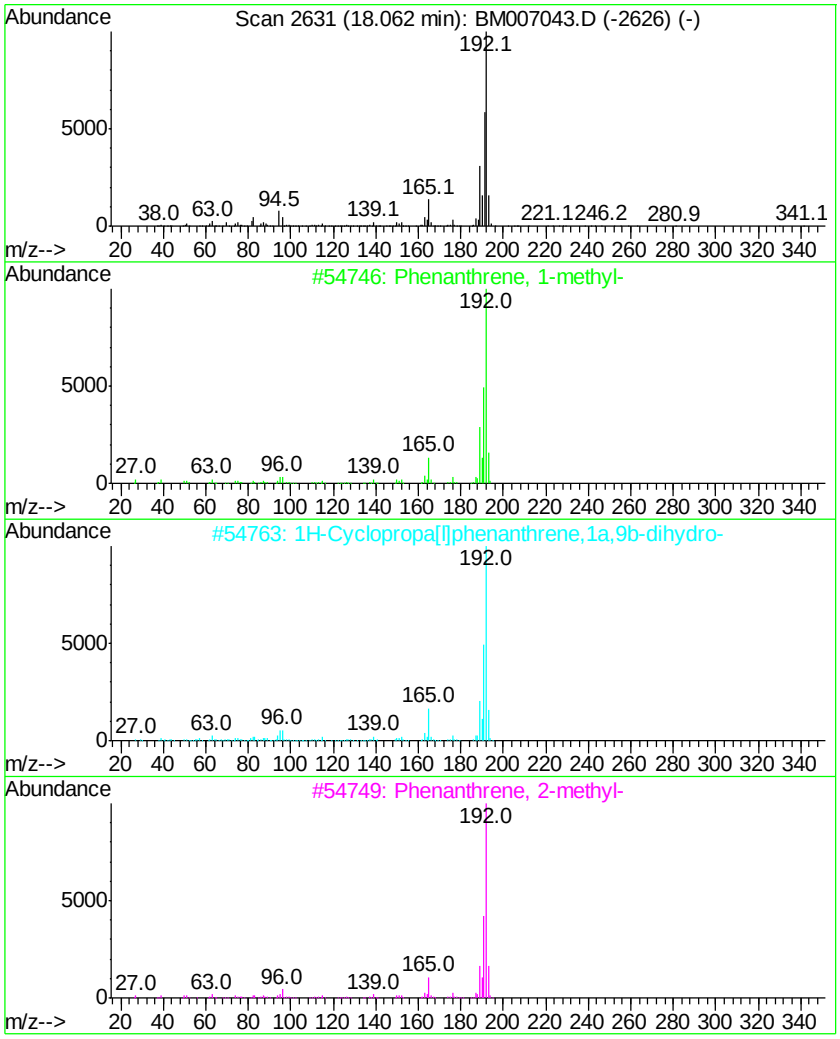
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

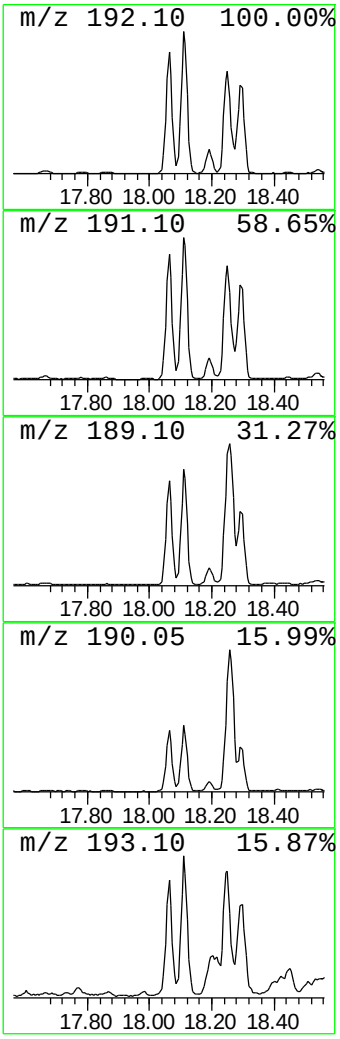
**********

Peak Number 9 Phenanthrene, 1-methyl- Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.06 | 8.61 ng/ul | 2379520 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 97 |
| 2 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 96 |
| 3 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 96 |
| 4 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 95 |
| 5 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 95 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

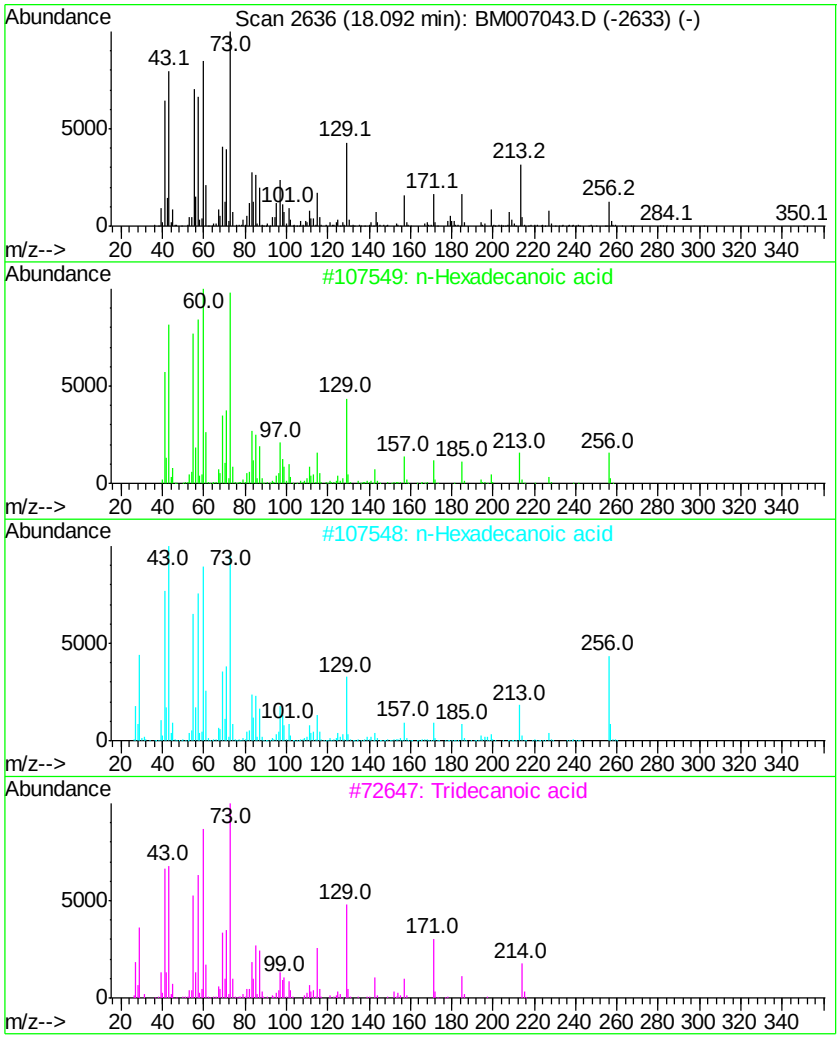
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

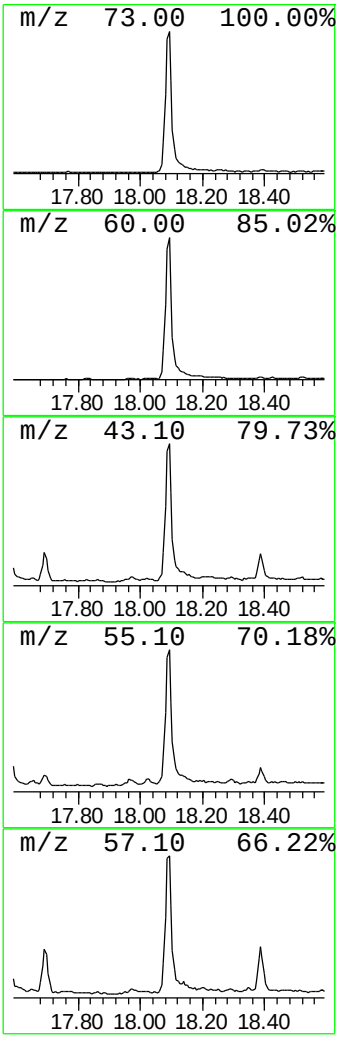
**********

Peak Number 10 n-Hexadecanoic acid Concentration Rank 24

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.09 | 3.29 ng/ul | 907671 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | n-Hexadecanoic acid | 256 | C16H32O2 | 000057-10-3 | 99 |
| 2 | n-Hexadecanoic acid | 256 | C16H32O2 | 000057-10-3 | 97 |
| 3 | Tridecanoic acid | 214 | C13H26O2 | 000638-53-9 | 94 |
| 4 | Pentadecanoic acid | 242 | C15H30O2 | 001002-84-2 | 94 |
| 5 | Tridecanoic acid | 214 | C13H26O2 | 000638-53-9 | 93 |



Library Search Compound Report

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Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

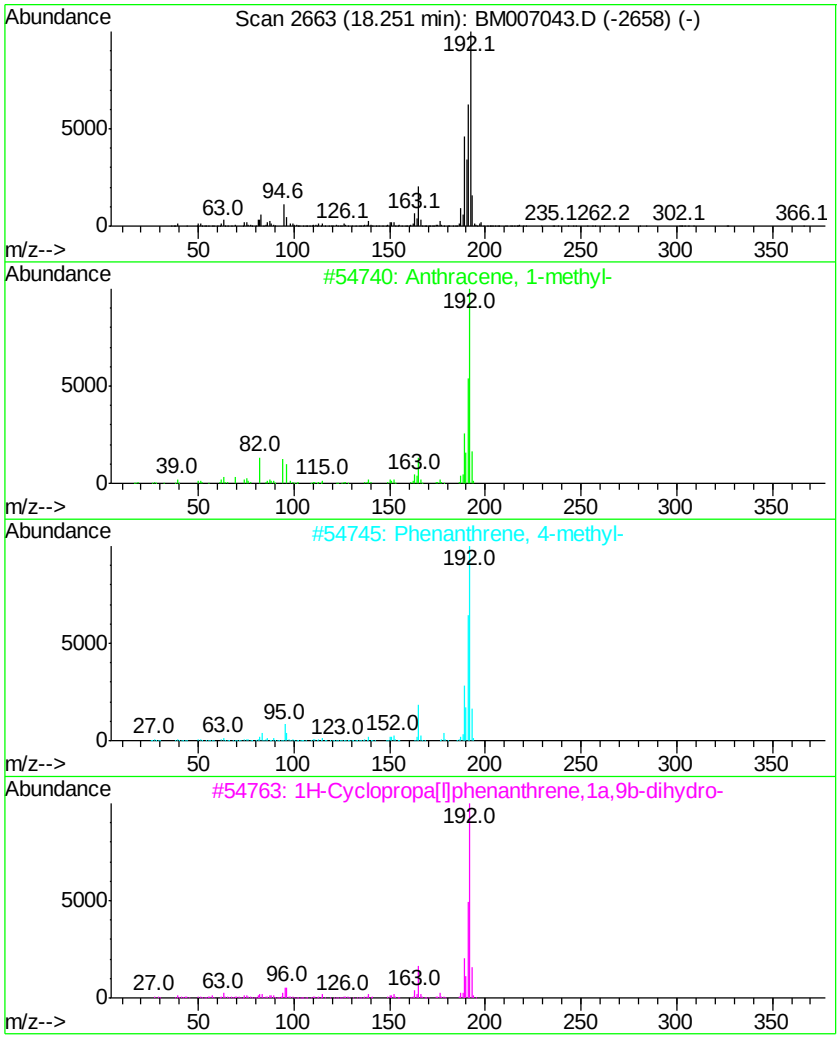
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

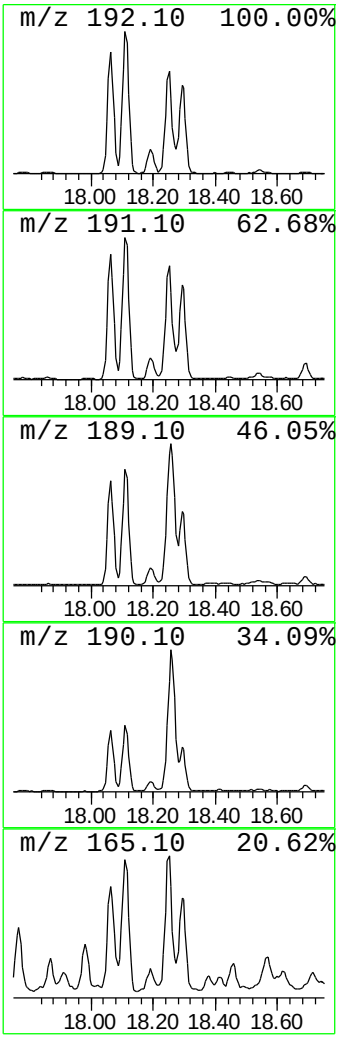
**********

Peak Number 11 Anthracene, 1-methyl- Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.25 | 11.05 ng/ul | 3051770 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 83 |
| 2 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 83 |
| 3 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 70 |
| 4 | Naphtho[2,3-b]norbornadiene | 192 | C15H12 | 107426-38-0 | 70 |
| 5 | 1H-Indene, 2-phenyl- | 192 | C15H12 | 004505-48-0 | 70 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

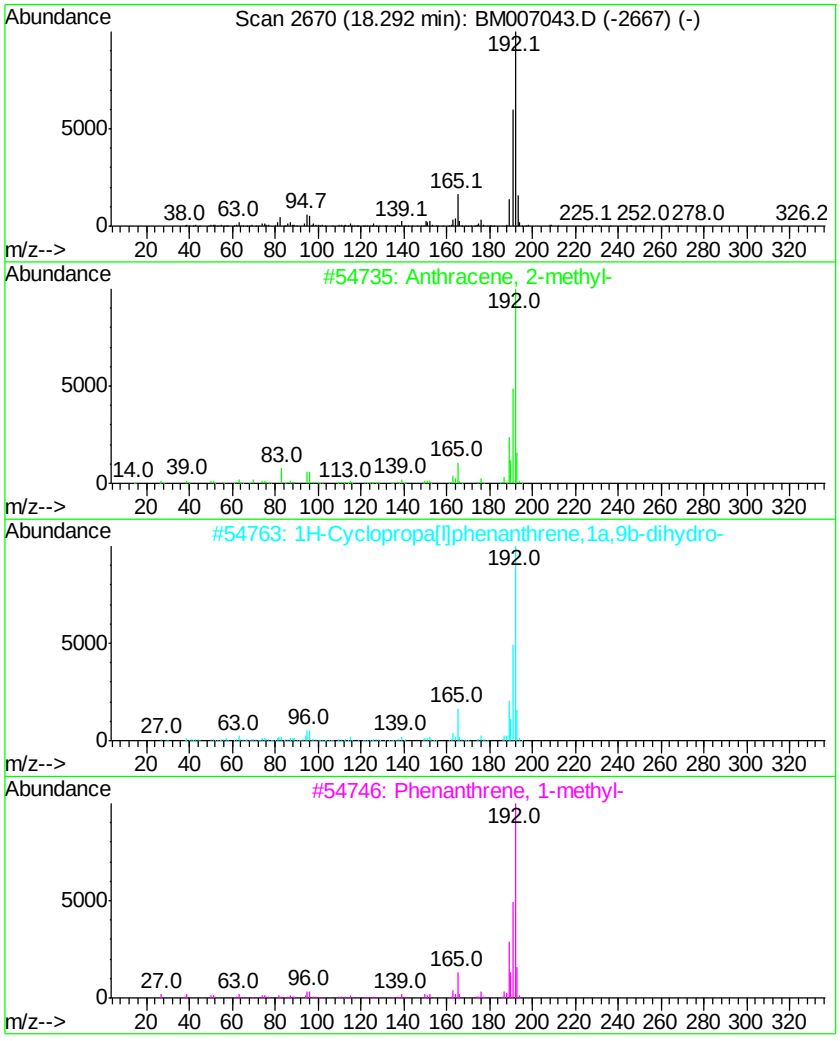
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

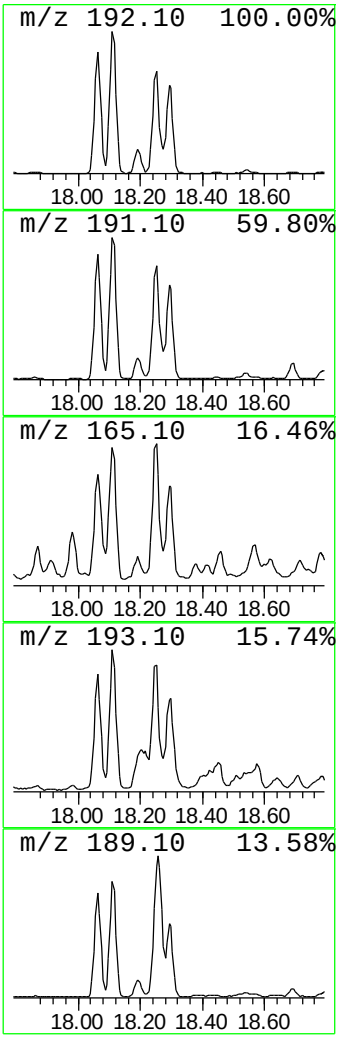
**********

Peak Number 12 Anthracene, 2-methyl- Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.29 | 7.18 ng/ul | 1984160 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 95 |
| 2 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 94 |
| 3 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 93 |
| 4 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 93 |
| 5 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 91 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

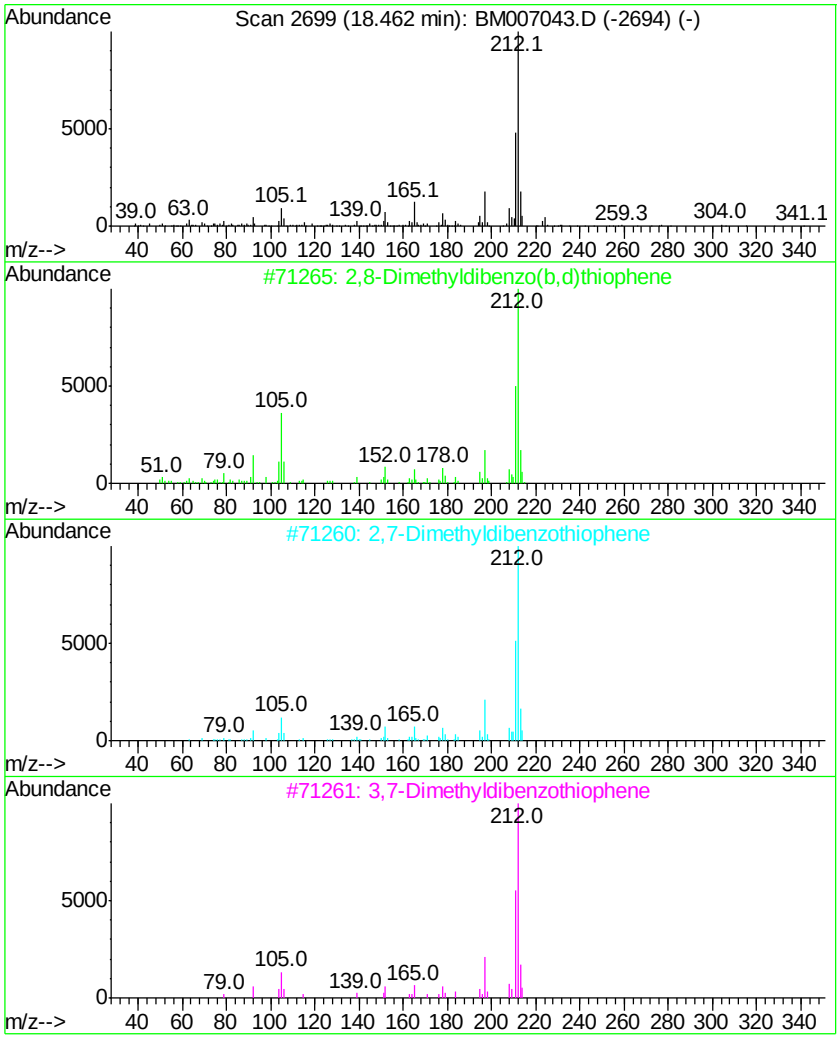
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

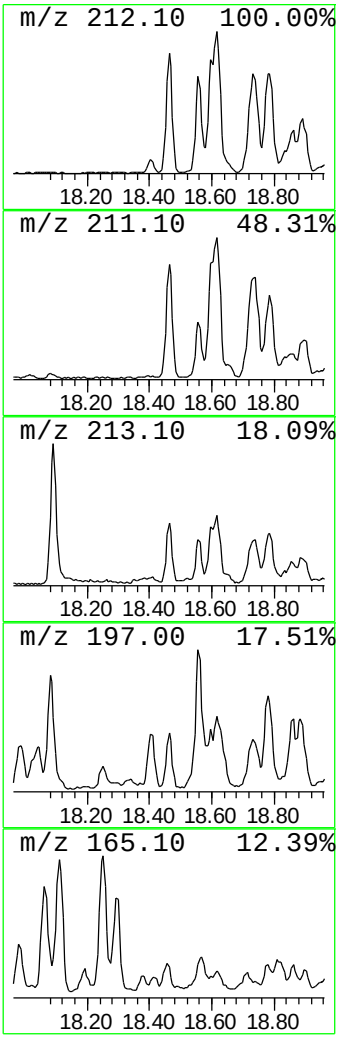
**********

Peak Number 13 2,8-Dimethyldibenzo(b,d)thi... Concentration Rank 34

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.46 | 2.21 ng/ul | 609312 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2,8-Dimethyldibenzo(b,d)thiophene | 212 | C14H12S | 001207-15-4 | 95 |
| 2 | 2,7-Dimethyldibenzothiophene | 212 | C14H12S | 031317-19-8 | 94 |
| 3 | 3,7-Dimethyldibenzothiophene | 212 | C14H12S | 001136-85-2 | 93 |
| 4 | Dibenzothiophene, 4,6-dimethyl- | 212 | C14H12S | 001207-12-1 | 93 |
| 5 | 2,6-Dimethyldibenzothiophene | 212 | C14H12S | 089816-75-1 | 91 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

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

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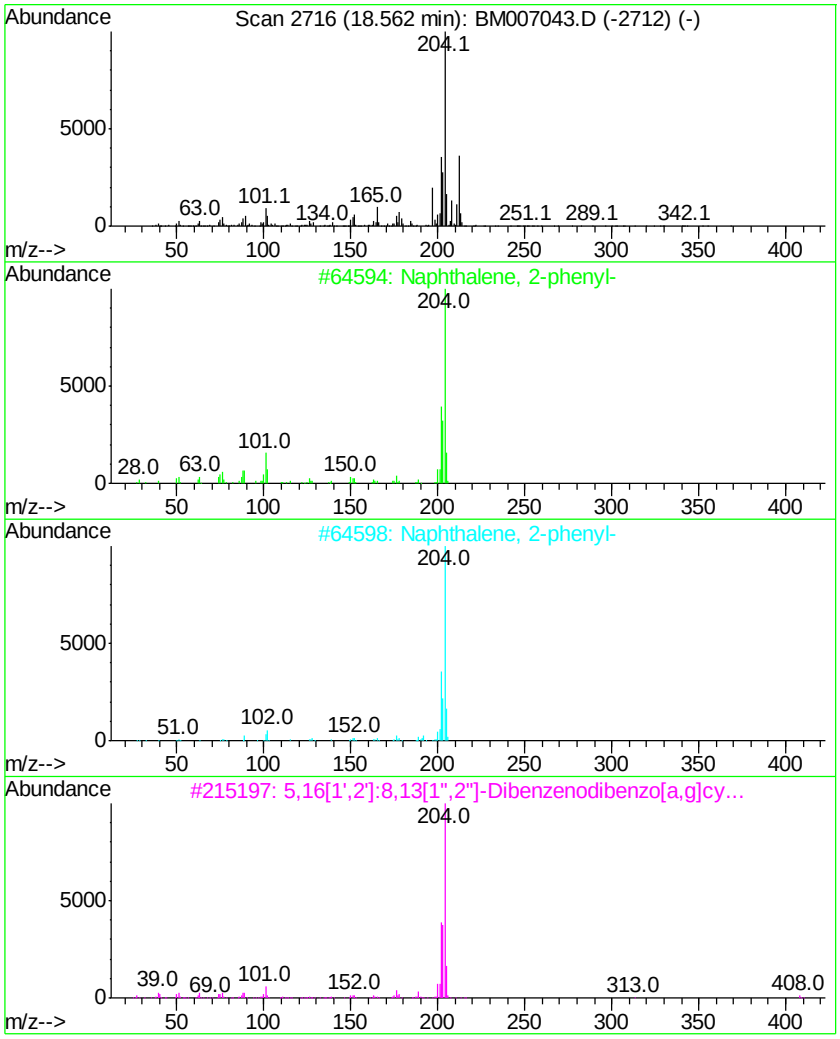
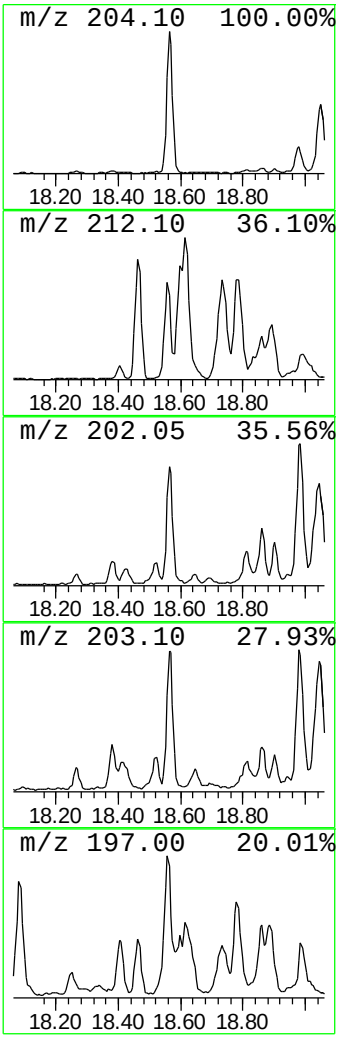
Peak Number 14 Naphthalene, 2-phenyl- Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.56 | 3.65 ng/ul | 1008380 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 55 |
| 2 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 49 |
| 3 | 5,16[1',2']:8,13[1'',2'']-Dibenz... | 408 | C32H24 | 005672-97-9 | 47 |
| 4 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 45 |
| 5 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 45 |



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

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

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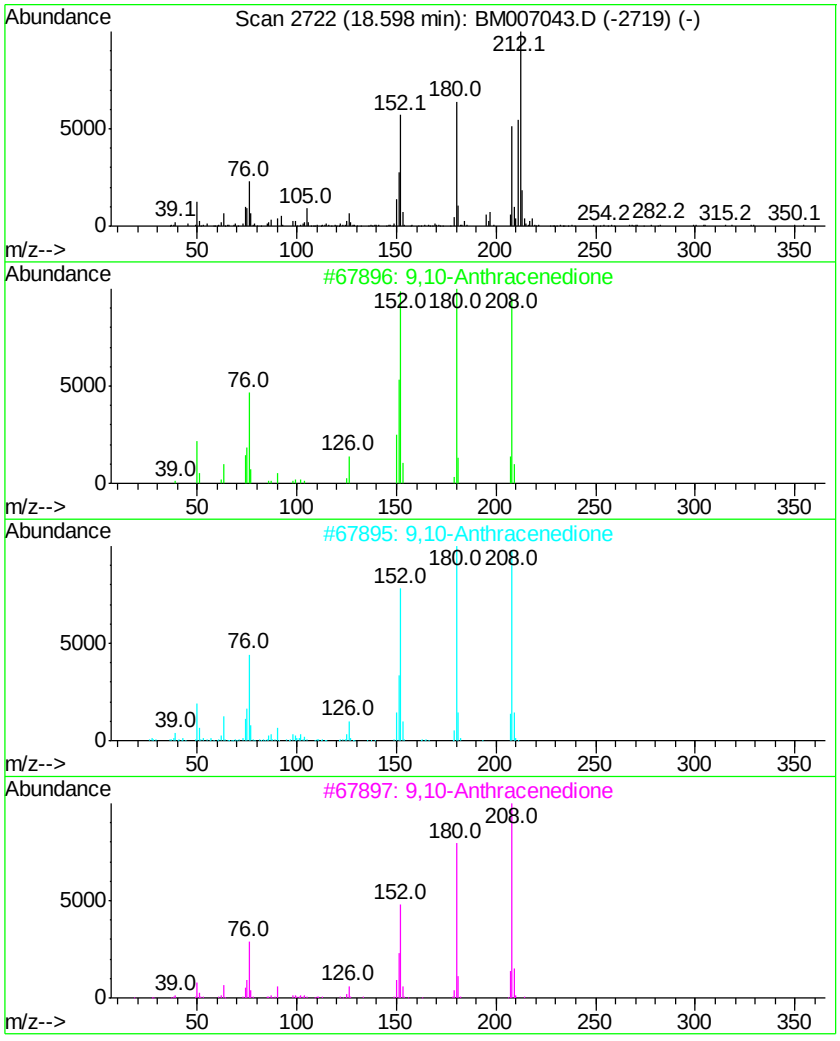
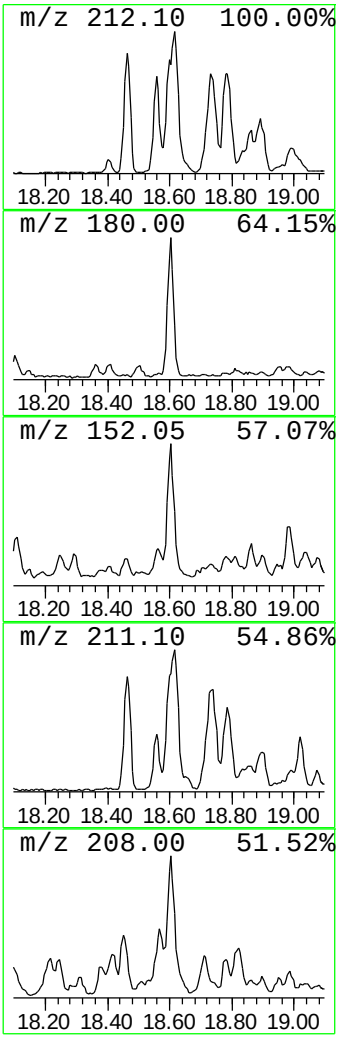
Peak Number 15 9,10-Anthracenedione Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.60 | 5.91 ng/ul | 1632390 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 97 |
| 2 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 96 |
| 3 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 87 |
| 4 | Benzo[h]cinnoline | 180 | C12H8N2 | 000230-31-9 | 59 |
| 5 | 1H-Phenalen-1-one | 180 | C13H8O | 000548-39-0 | 46 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

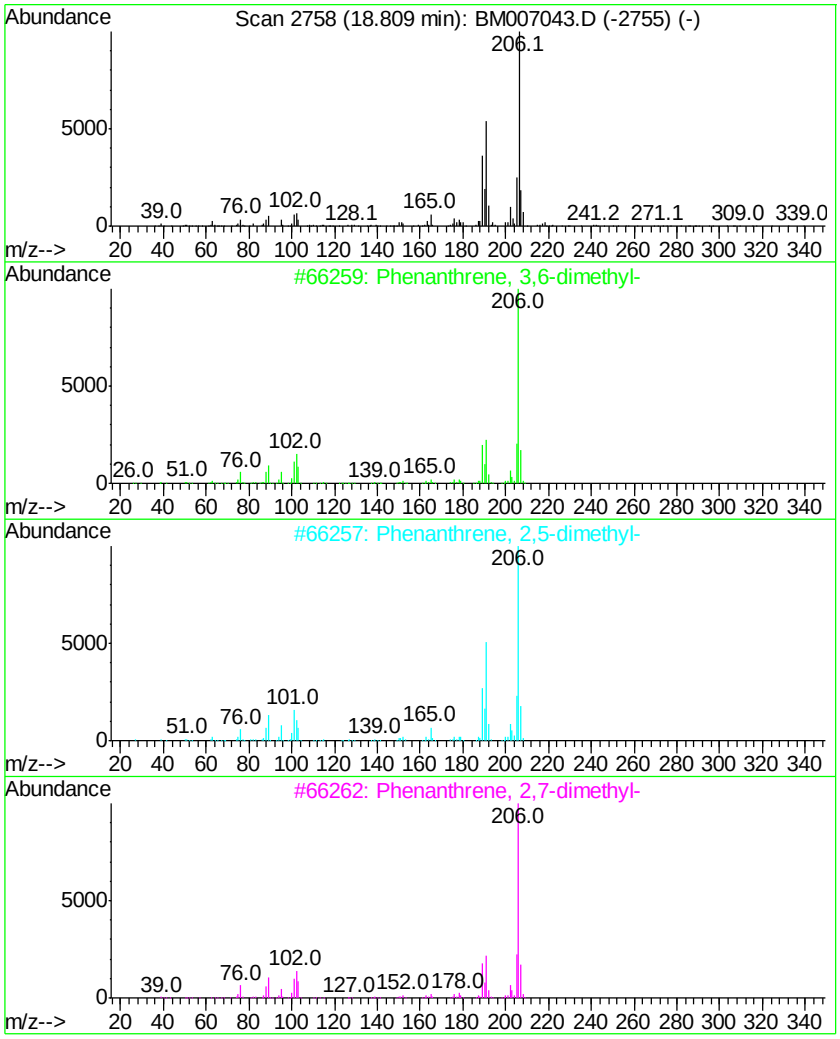
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

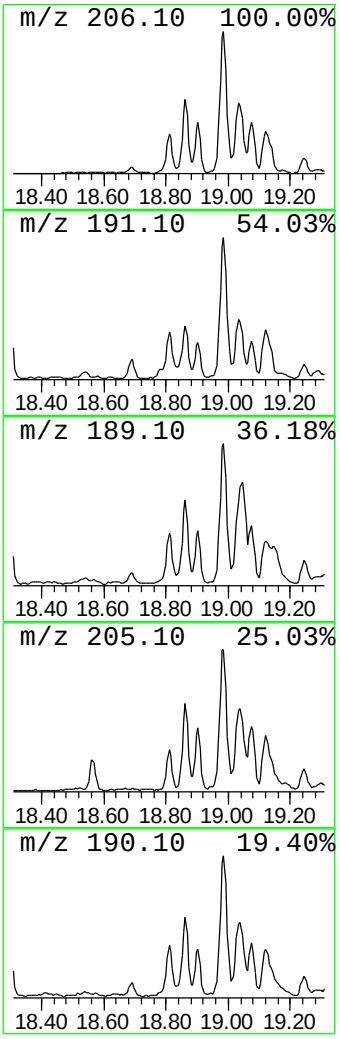
**********

Peak Number 16 Phenanthrene, 3,6-dimethyl- Concentration Rank 23

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.81 | 3.55 ng/ul | 980555 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 91 |
| 2 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 90 |
| 3 | Phenanthrene, 2,7-dimethyl- | 206 | C16H14 | 001576-69-8 | 87 |
| 4 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 87 |
| 5 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 81 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

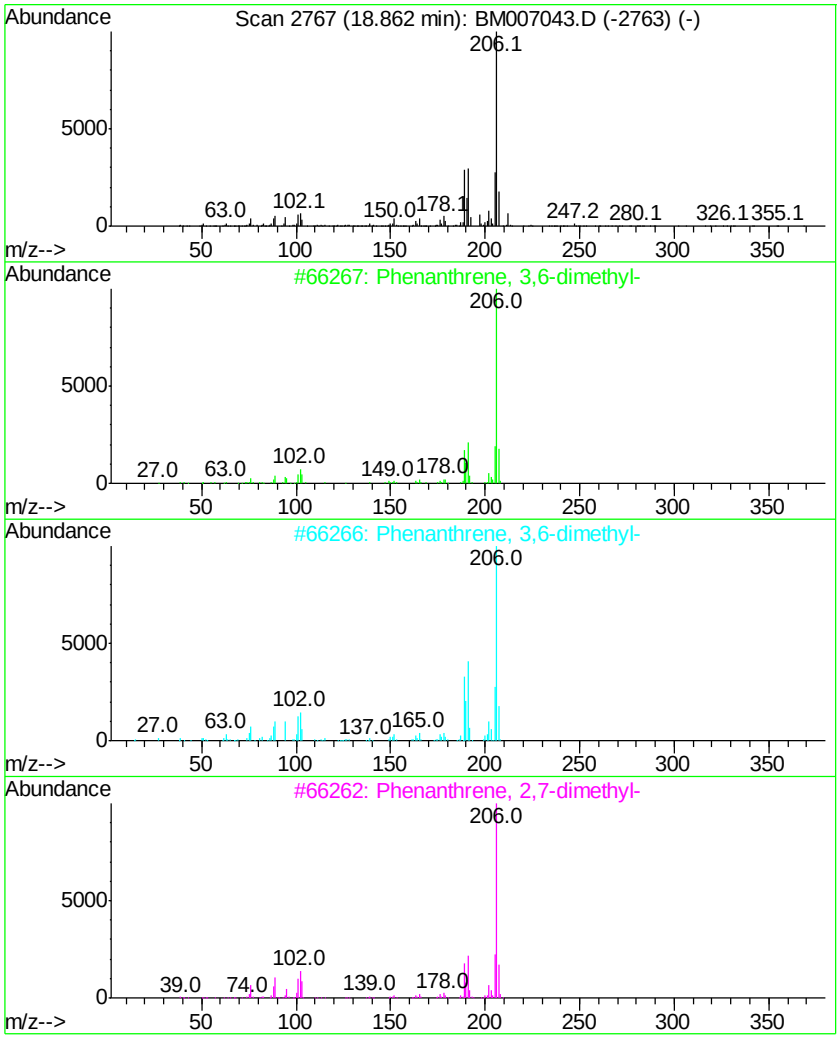
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

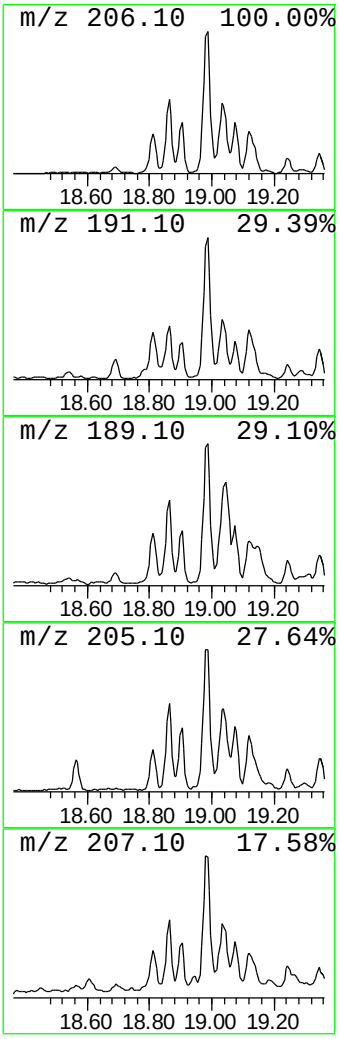
**********

Peak Number 17 Phenanthrene, 2,7-dimethyl- Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.86 | 5.15 ng/ul | 1422740 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 93 |
| 2 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 93 |
| 3 | Phenanthrene, 2,7-dimethyl- | 206 | C16H14 | 001576-69-8 | 91 |
| 4 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 90 |
| 5 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 87 |



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Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

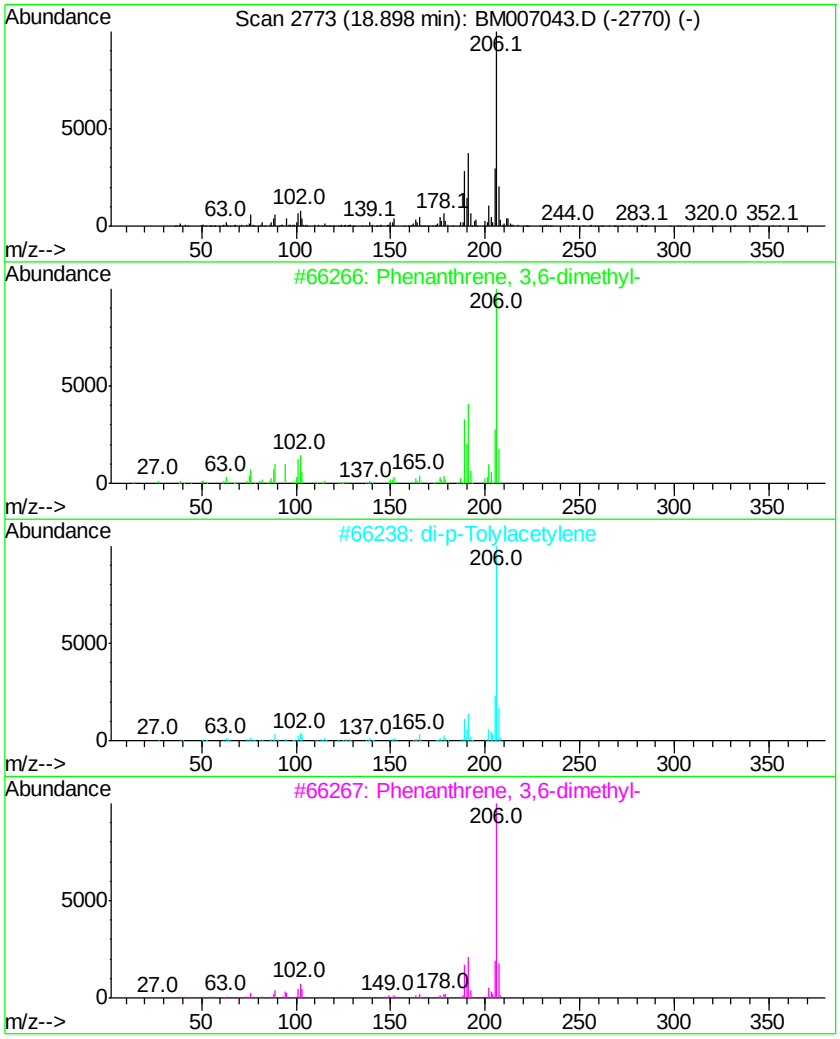
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

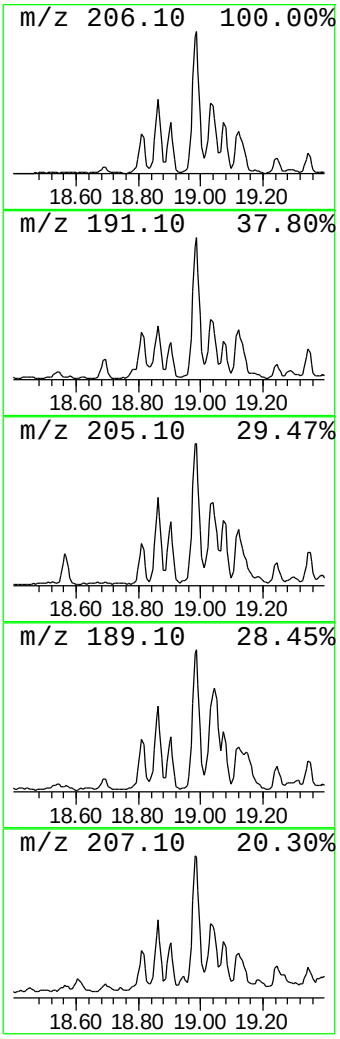
**********

Peak Number 18 Phenanthrene, 1,7-dimethyl- Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.90 | 3.94 ng/ul | 1089060 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 95 |
| 2 | di-p-Tolylacetylene | 206 | C16H14 | 002789-88-0 | 94 |
| 3 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 93 |
| 4 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 87 |
| 5 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 87 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

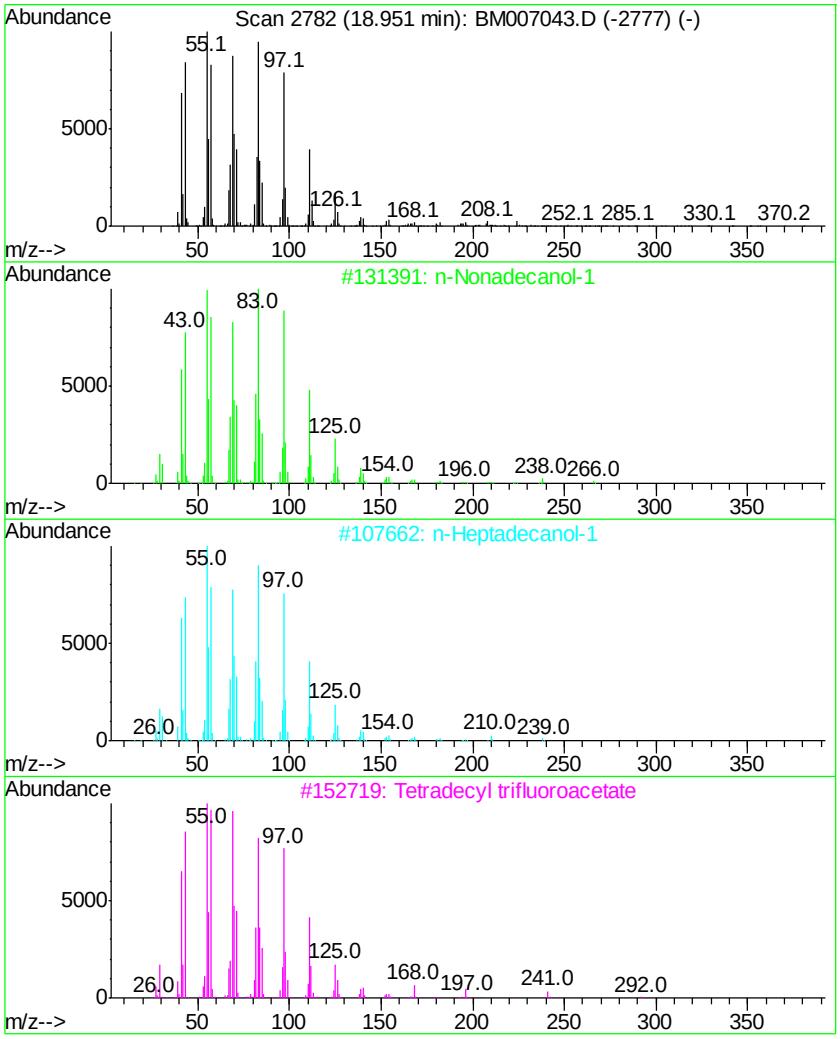
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

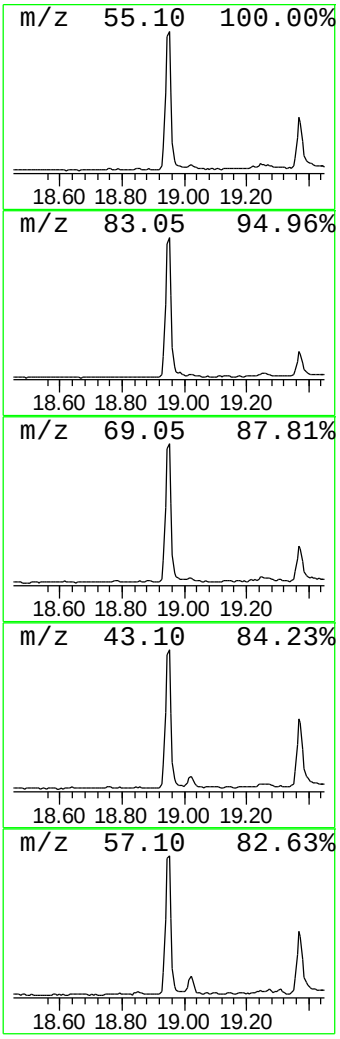
**********

Peak Number 19 n-Nonadecanol-1 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.95 | 14.67 ng/ul | 4054100 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | n-Nonadecanol-1 | 284 | C19H40O | 001454-84-8 | 95 |
| 2 | n-Heptadecanol-1 | 256 | C17H36O | 001454-85-9 | 94 |
| 3 | Tetradecyl trifluoroacetate | 310 | C16H29F3O2 | 006222-02-2 | 94 |
| 4 | Cyclohexadecane | 224 | C16H32 | 000295-65-8 | 93 |
| 5 | Pentafluoropropionic acid, tetra... | 360 | C17H29F5O2 | 006222-06-6 | 93 |



# Library Search Compound Report

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Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

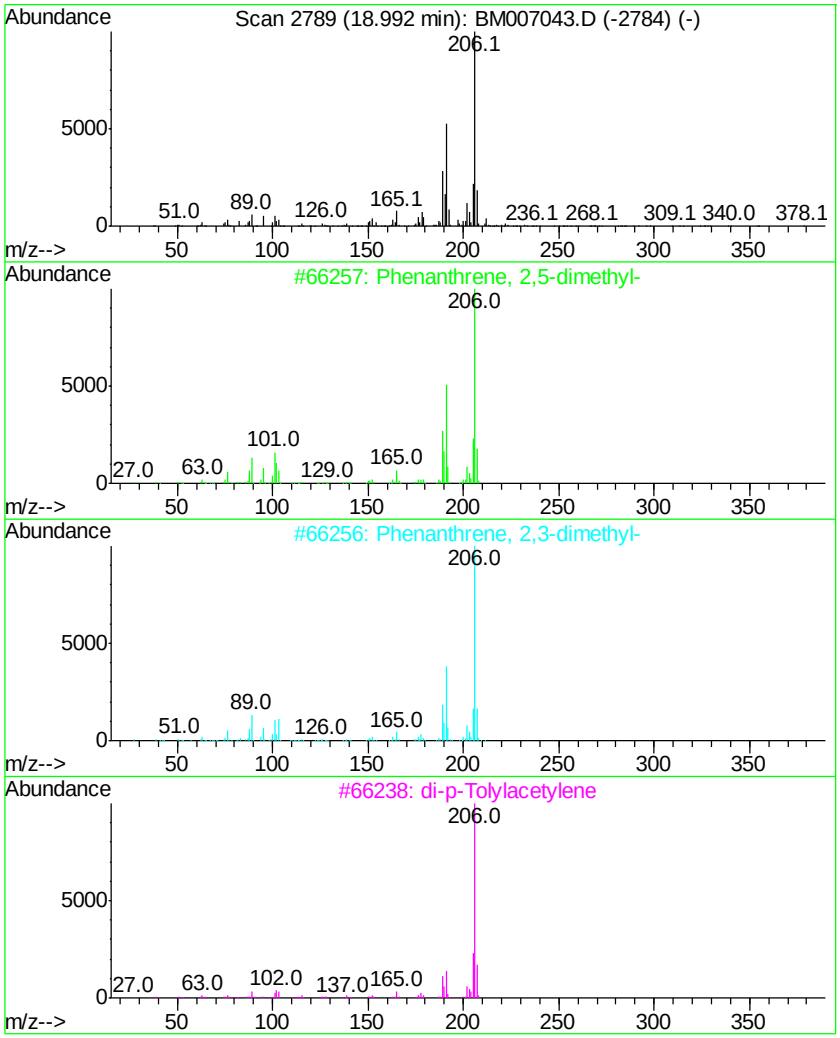
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

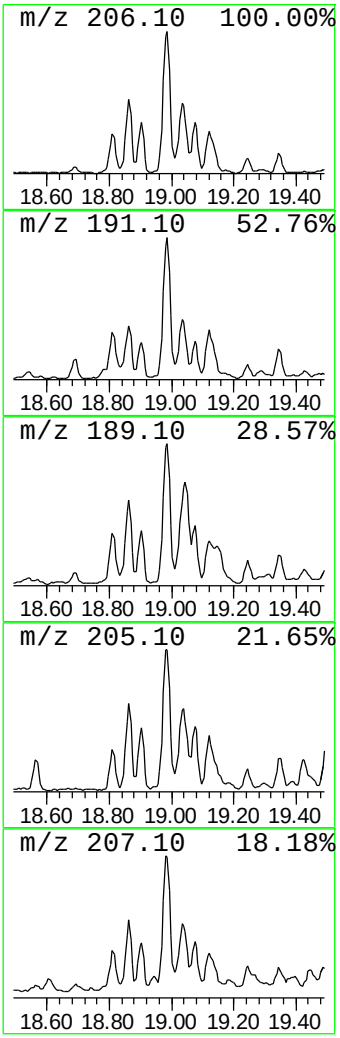
**********

Peak Number 20 Phenanthrene, 2,5-dimethyl- Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.99 | 12.38 ng/ul | 3421840 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 96 |
| 2 | Phenanthrene, 2,3-dimethyl- | 206 | C16H14 | 003674-65-5 | 93 |
| 3 | di-p-Tolylacetylene | 206 | C16H14 | 002789-88-0 | 91 |
| 4 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 91 |
| 5 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 91 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

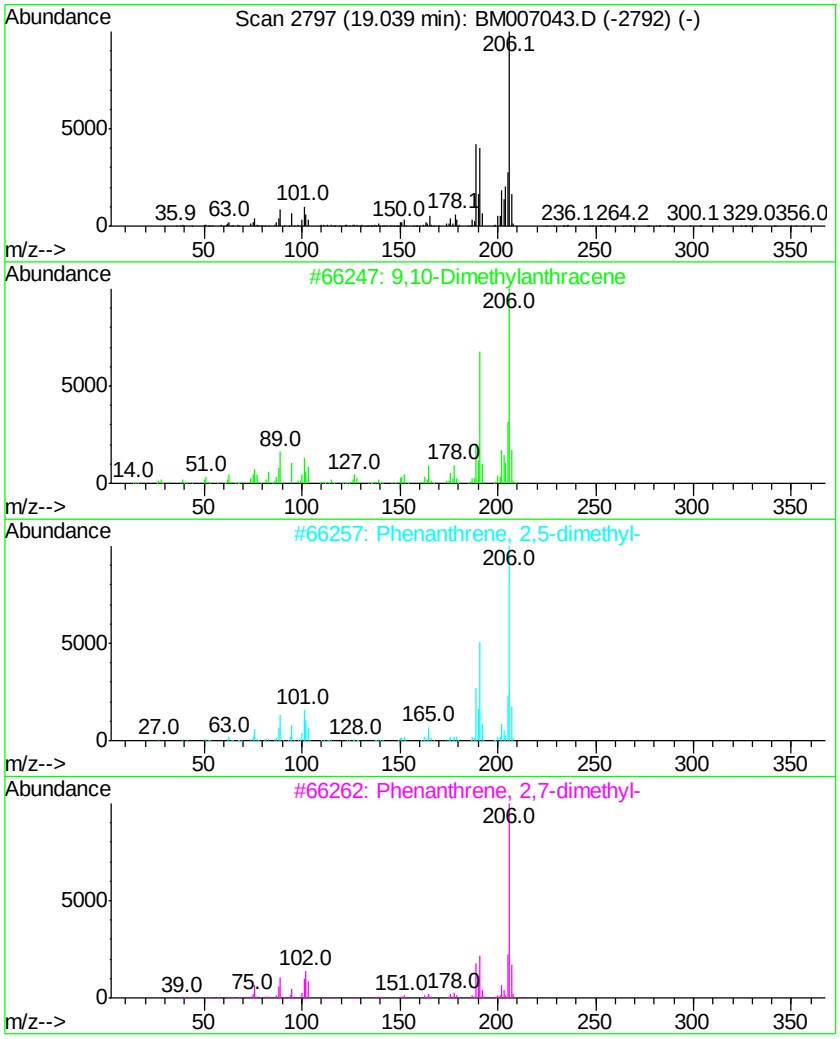
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

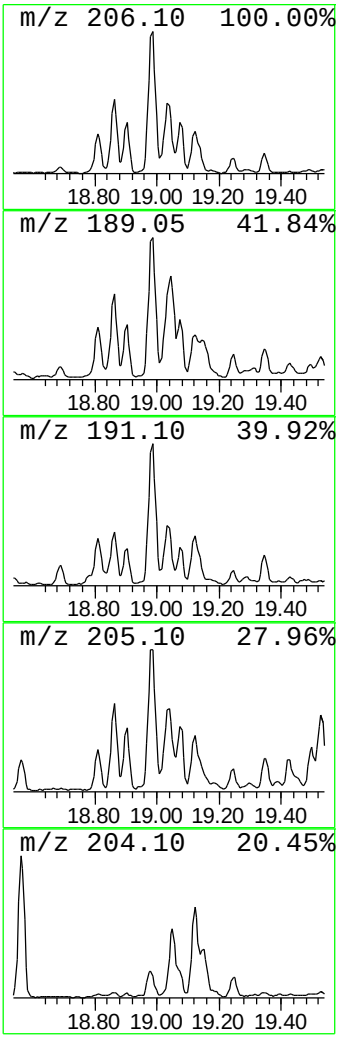
**********

Peak Number 21 unknown19.04 Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.04 | 7.05 ng/ul | 1948740 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 93 |
| 2 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 93 |
| 3 | Phenanthrene, 2,7-dimethyl- | 206 | C16H14 | 001576-69-8 | 91 |
| 4 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 89 |
| 5 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 87 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

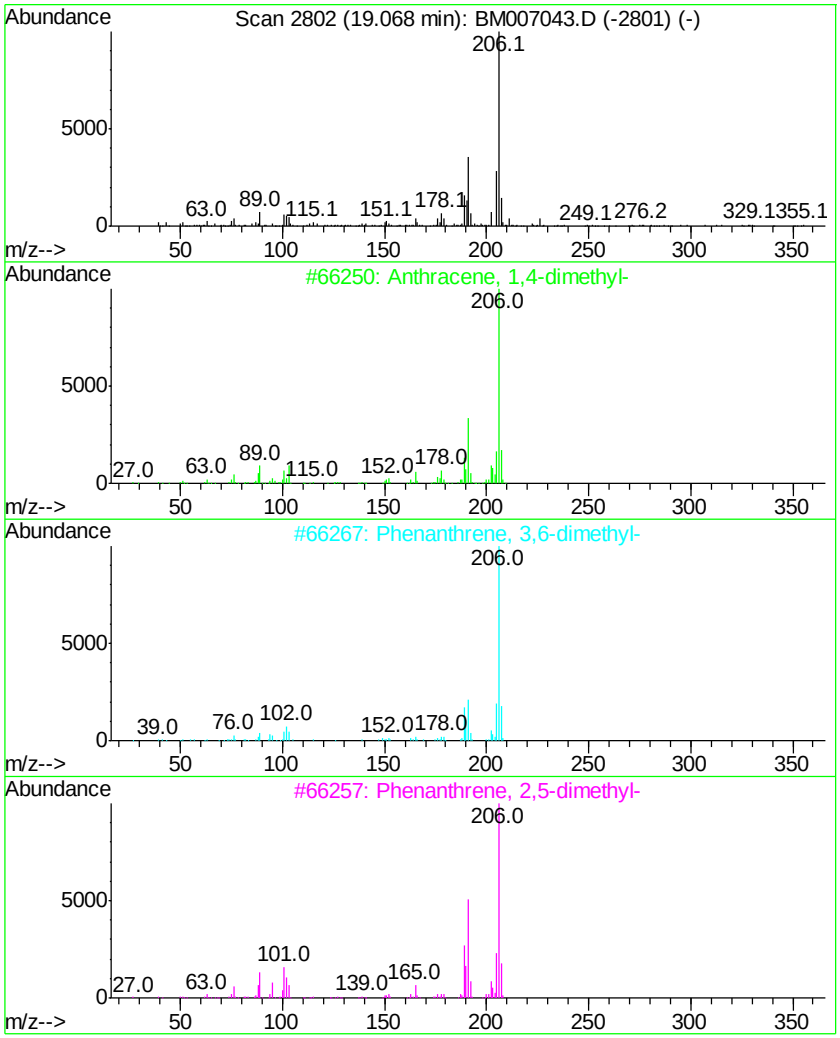
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

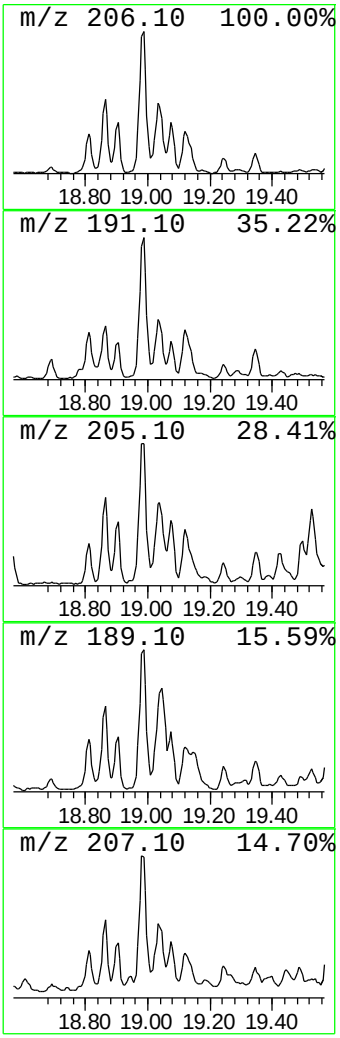
**********

Peak Number 22 Anthracene, 1,4-dimethyl- Concentration Rank 26

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.07 | 3.14 ng/ul | 867897 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene, 1,4-dimethyl- | 206 | C16H14 | 000781-92-0 | 87 |
| 2 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 87 |
| 3 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 87 |
| 4 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 87 |
| 5 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 80 |



# Library Search Compound Report

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Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

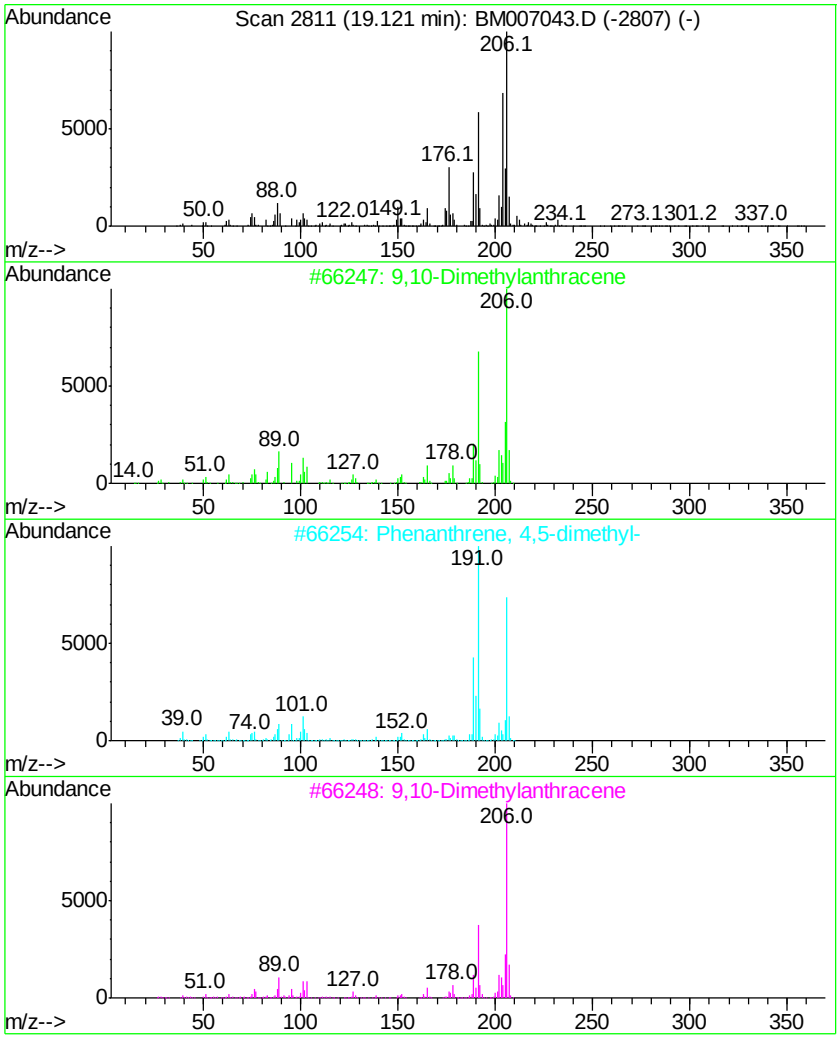
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

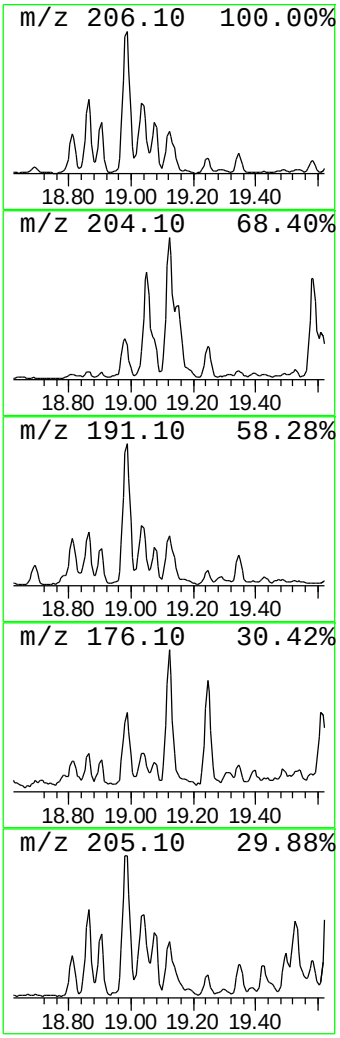
**********

Peak Number 23 9,10-Dimethylanthracene Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.12 | 7.03 ng/ul | 1941510 | Phenanthrene-d10 | 17.19 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 92 |
| 2 | Phenanthrene, 4,5-dimethyl- | 206 | C16H14 | 003674-69-9 | 86 |
| 3 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 83 |
| 4 | Phenanthrene, 2,3-dimethyl- | 206 | C16H14 | 003674-65-5 | 64 |
| 5 | 1,3-Diphenyl-3-methylcyclopropene | 206 | C16H14 | 086544-79-8 | 64 |



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

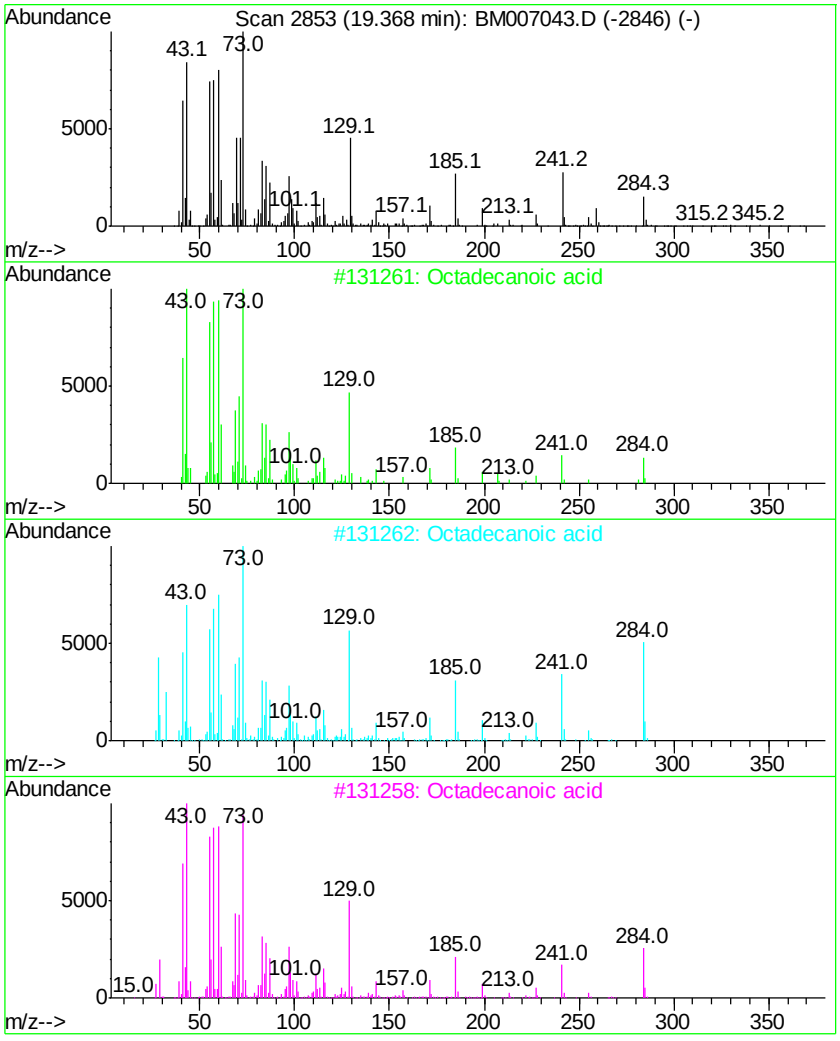
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

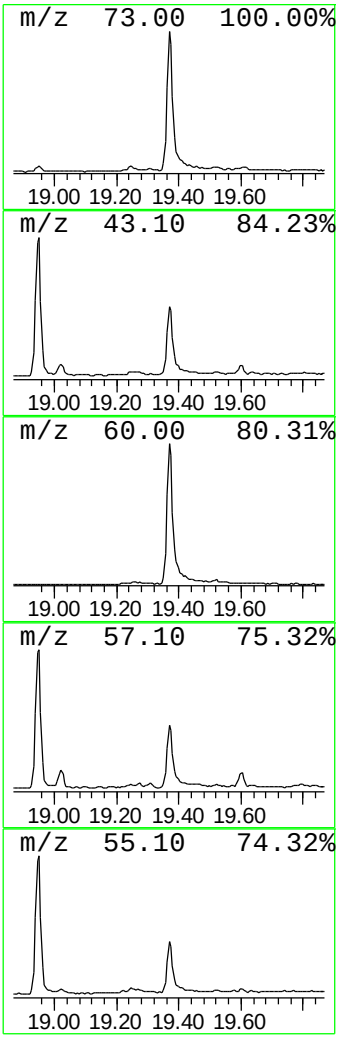
**********

Peak Number 24 Octadecanoic acid Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.37 | 6.25 ng/ul | 2571260 | Chrysene-d12 | 21.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Octadecanoic acid | 284 | C18H36O2 | 000057-11-4 | 99 |
| 2 | Octadecanoic acid | 284 | C18H36O2 | 000057-11-4 | 99 |
| 3 | Octadecanoic acid | 284 | C18H36O2 | 000057-11-4 | 99 |
| 4 | Octadecanoic acid | 284 | C18H36O2 | 000057-11-4 | 99 |
| 5 | Octadecanoic acid | 284 | C18H36O2 | 000057-11-4 | 93 |



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

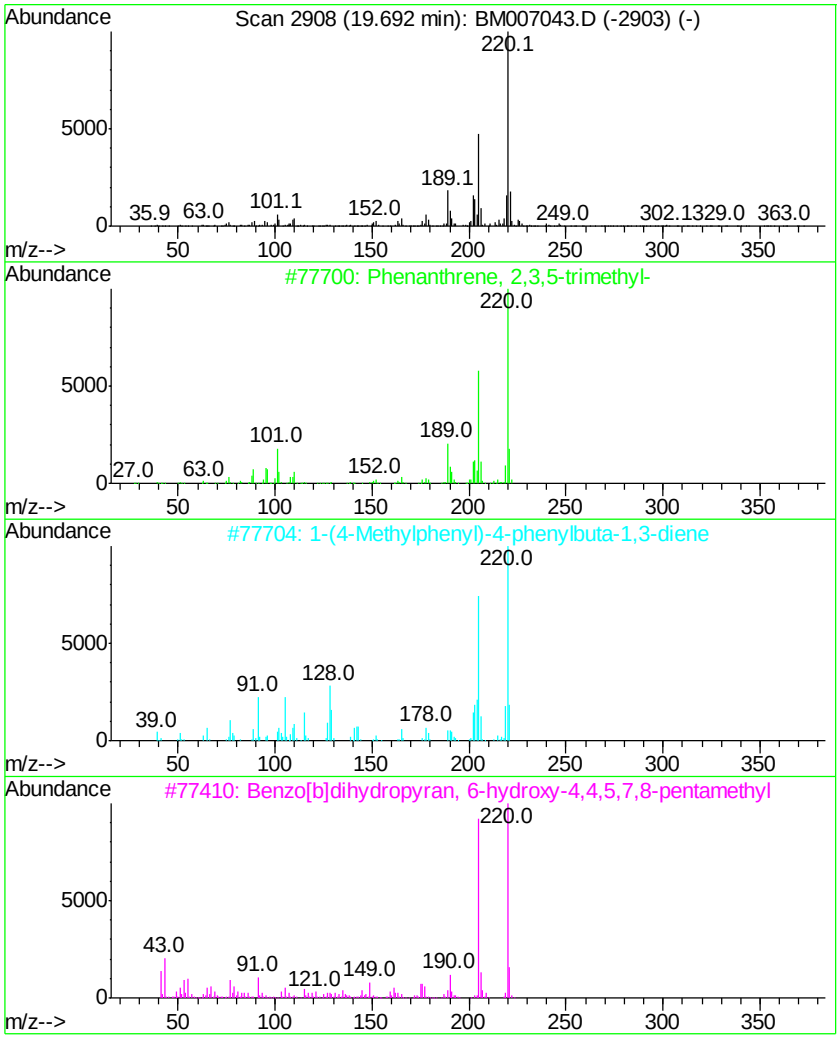
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

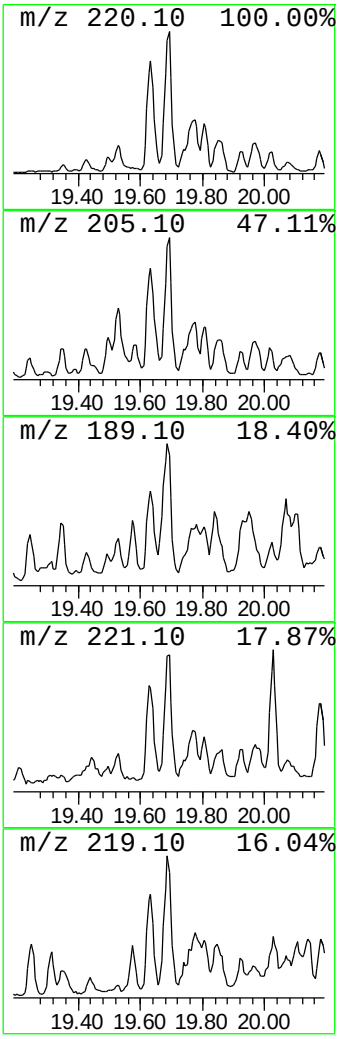
**********

Peak Number 25 Phenanthrene, 2,3,5-trimethyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.69 | 4.37 ng/ul | 1796470 | Chrysene-d12 | 21.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2,3,5-trimethyl- | 220 | C17H16 | 003674-73-5 | 97 |
| 2 | 1-(4-Methylphenyl)-4-phenylbuta-... | 220 | C17H16 | 037985-11-8 | 78 |
| 3 | Benzo[b]dihydropyran, 6-hydroxy-... | 220 | C14H20O2 | 050442-70-1 | 59 |
| 4 | Pyrrolo[1,2-a]thieno[2,3-d]pyrim... | 220 | C11H12N2OS | 056929-61-4 | 59 |
| 5 | Benzenamine, 4-[2-oxo-2-(1-pyrro... | 220 | C12H16N2O2 | 1000327-54-6 | 50 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

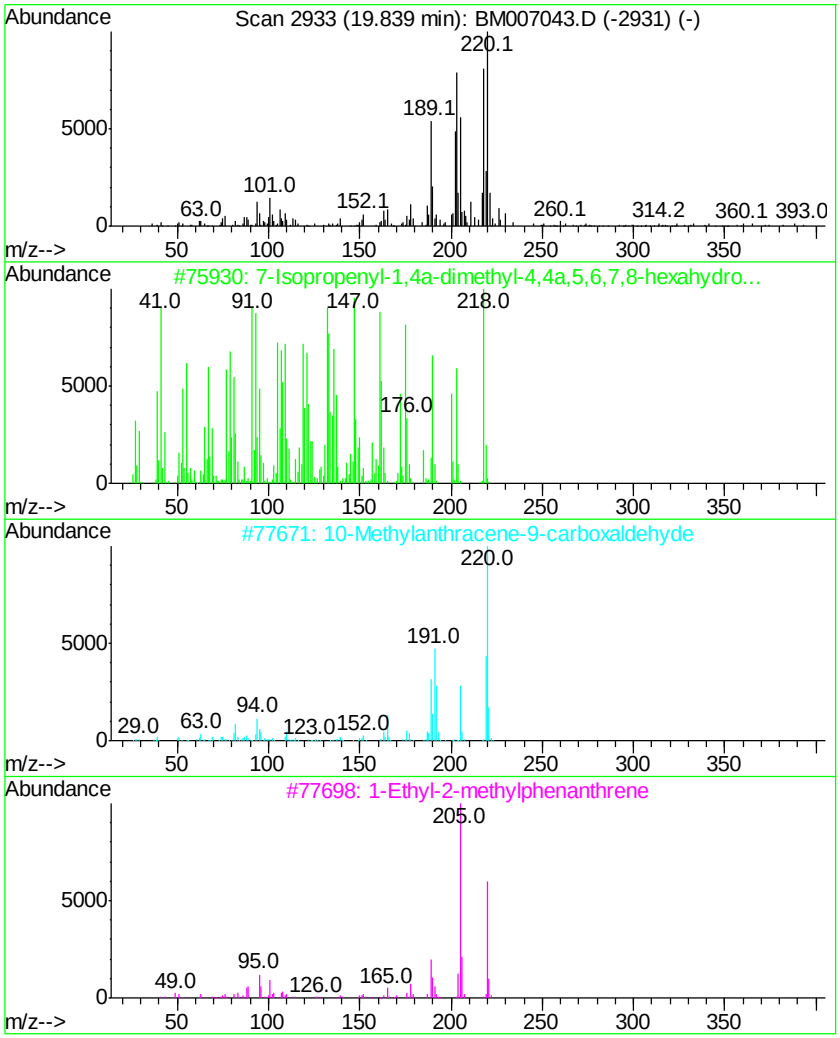
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

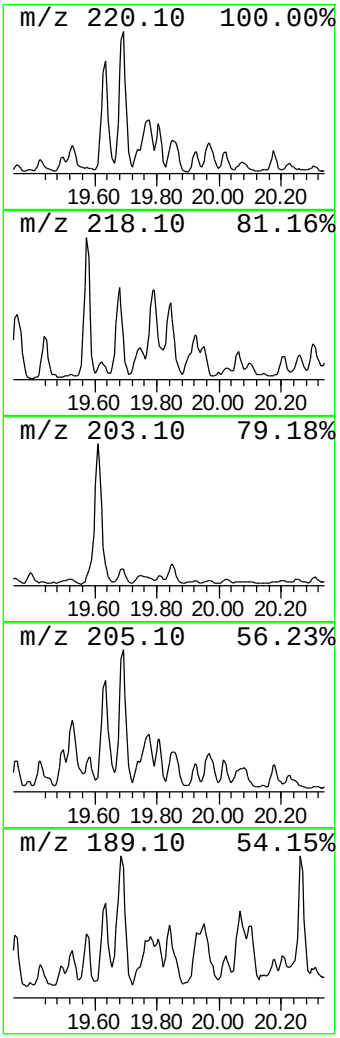
**********

Peak Number 26 7-Isopropenyl-1,4a-dimethyl... Concentration Rank 33

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.84 | 2.35 ng/ul | 965493 | Chrysene-d12 | 21.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 7-Isopropenyl-1,4a-dimethyl-4,4a... | 218 | C15H22O | 000473-08-5 | 70 |
| 2 | 10-Methylanthracene-9-carboxalde... | 220 | C16H12O | 007072-00-6 | 49 |
| 3 | 1-Ethyl-2-methylphenanthrene | 220 | C17H16 | 061983-53-7 | 47 |
| 4 | 1-(4-Methylphenyl)-4-phenylbuta-... | 220 | C17H16 | 037985-11-8 | 38 |
| 5 | Phenanthrene, 2,3,5-trimethyl- | 220 | C17H16 | 003674-73-5 | 38 |



Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

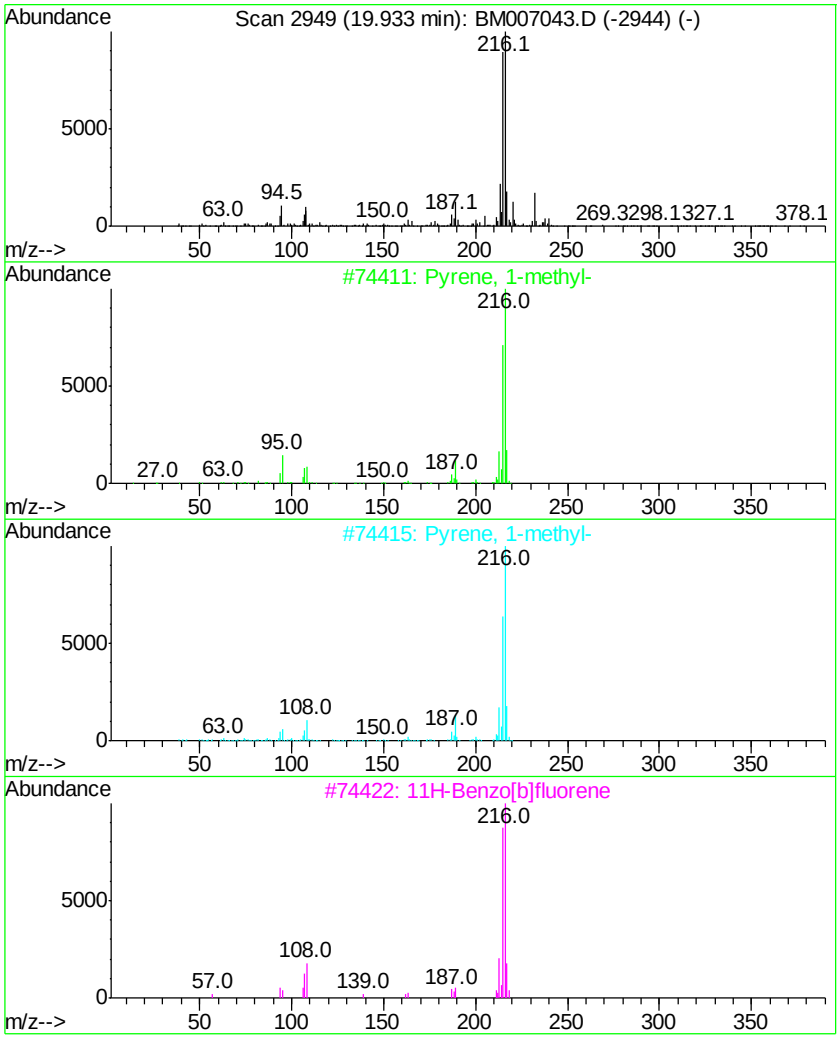
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

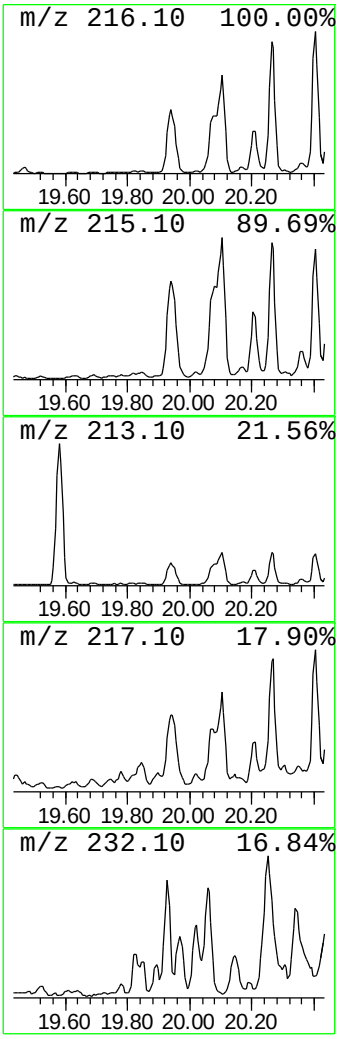
**********

Peak Number 27 Pyrene, 1-methyl- Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.93 | 6.29 ng/ul | 2584620 | Chrysene-d12 | 21.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 92 |
| 2 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 91 |
| 3 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 89 |
| 4 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 89 |
| 5 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 89 |



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

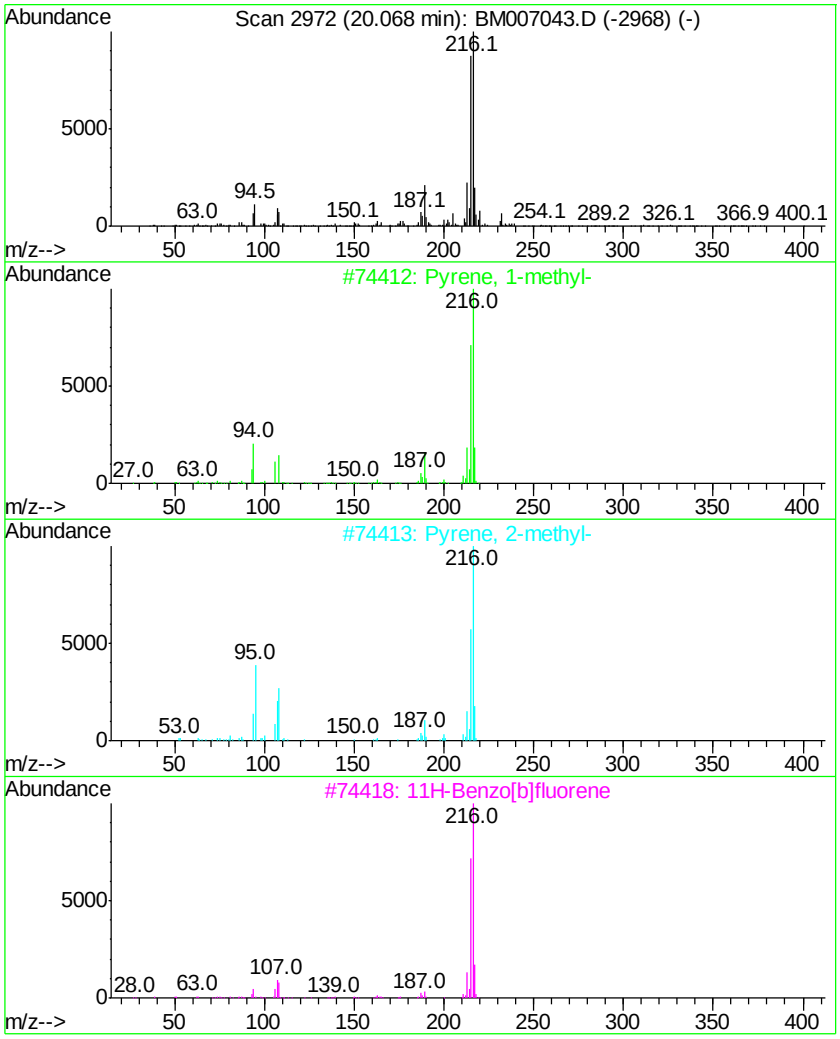
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

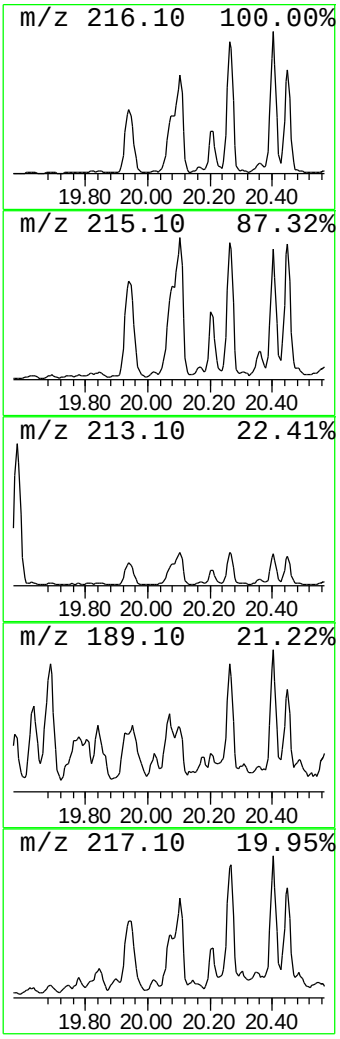
**********

Peak Number 28 Pyrene, 2-methyl- Concentration Rank 30

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 20.07 | 2.84 ng/ul | 1168720 | Chrysene-d12 | 21.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 91 |
| 2 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 91 |
| 3 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 90 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 90 |
| 5 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 90 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
BNA_M
**ClientSampleId :**
P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

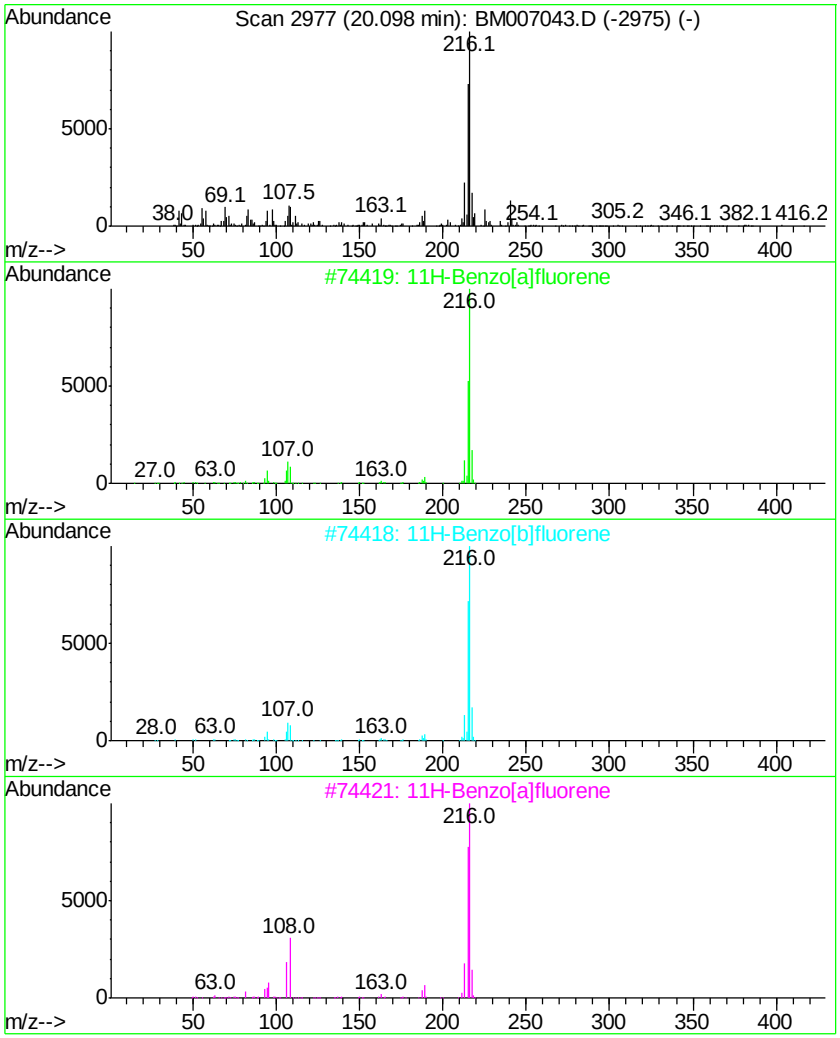
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

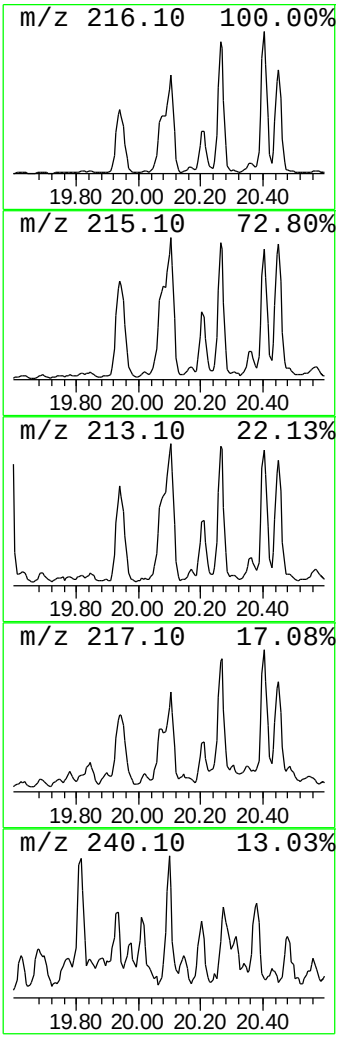
**********

Peak Number 29 11H-Benzo[a]fluorene Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 20.10 | 3.92 ng/ul | 1611130 | Chrysene-d12 | 21.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 91 |
| 2 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 90 |
| 3 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 81 |
| 4 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 80 |
| 5 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 80 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

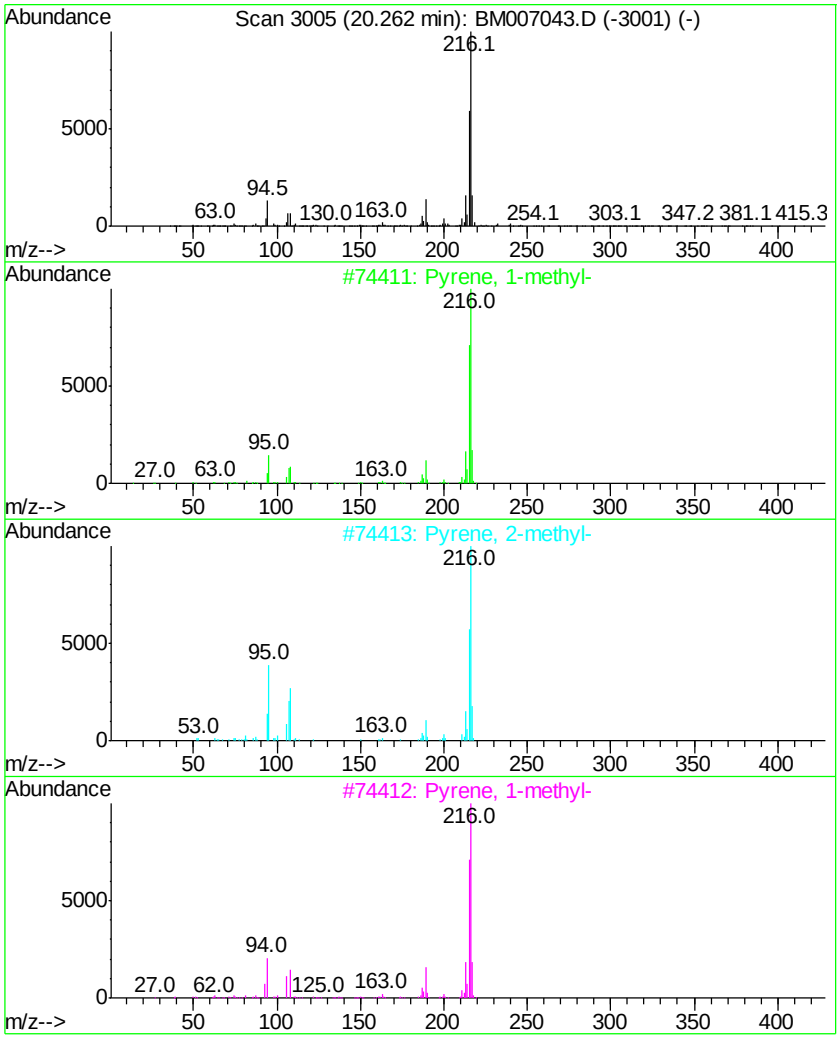
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

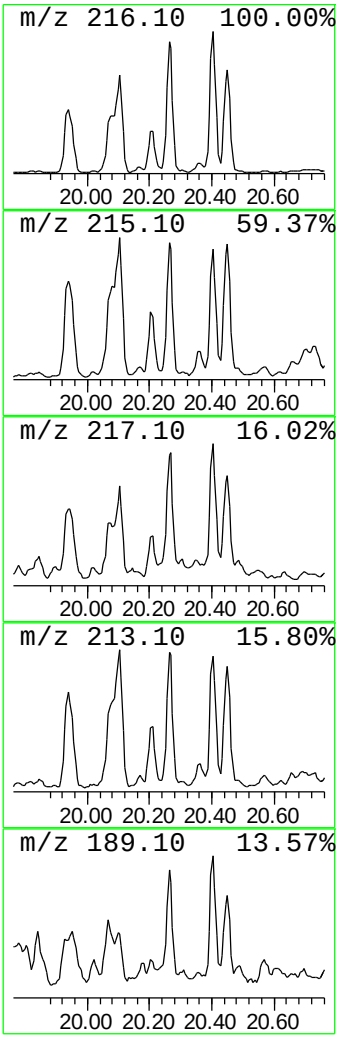
**********

Peak Number 30 Fluoranthene, 2-methyl- Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 20.26 | 4.49 ng/ul | 1845260 | Chrysene-d12 | 21.37 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 96 |
| 2 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 95 |
| 3 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 95 |
| 4 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 93 |
| 5 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 91 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA CALIBRATION

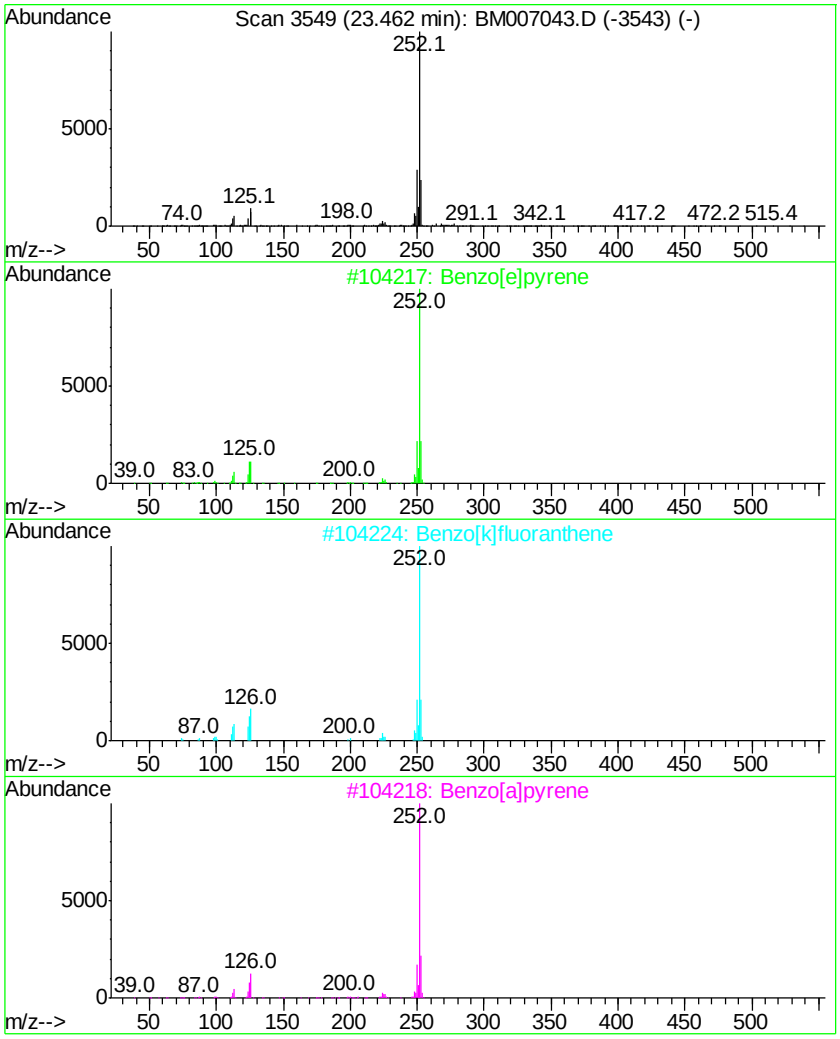
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

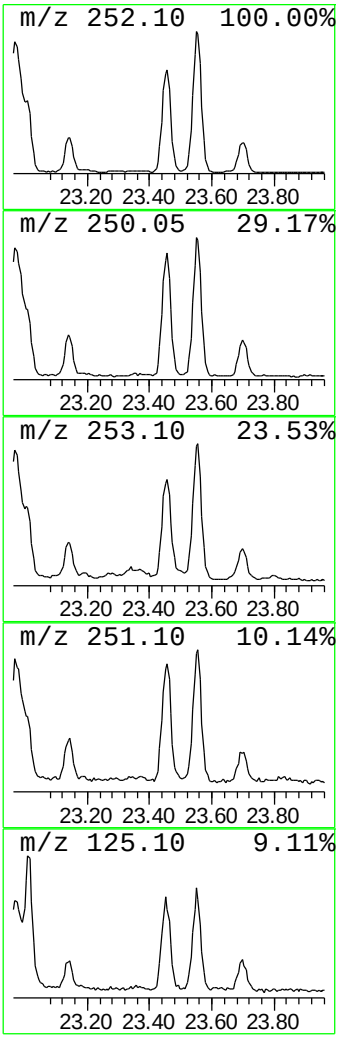
**********

Peak Number 37 Benzo[e]pyrene Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 23.46 | 7.22 ng/ul | 1390650 | Perylene-d12 | 23.65 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 94 |
| 2 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 93 |
| 3 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 93 |
| 4 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 91 |
| 5 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 91 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_M\DATA\BM081216\
Data File : BM007043.D
Acq On : 12 Aug 2016 14:48
Operator : UM/SJ
Sample : H4387-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** P003-SS002-0612-01

Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-BM081116.M
Quant Title : SVOA 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 |
| Hexanoic acid, 2-... | 9.08 | 2.1 | ng/ul | 211624 | 1 | 7.82 | 2001820 | 20.0 |
| Naphthalene, 1,6,... | 15.06 | 2.1 | ng/ul | 510658 | 3 | 14.44 | 4773360 | 20.0 |
| 1,4,5,8-Tetrameth... | 16.17 | 3.1 | ng/ul | 867642 | 4 | 17.19 | 5526010 | 20.0 |
| 9H-Fluorene, 2-me... | 16.50 | 2.0 | ng/ul | 554271 | 4 | 17.19 | 5526010 | 20.0 |
| Dibenzothiophene | 17.01 | 2.4 | ng/ul | 656656 | 4 | 17.19 | 5526010 | 20.0 |
| (DEL) Alkane: Cyc... | 17.57 | 7.2 | ng/ul | 1985830 | 4 | 17.19 | 5526010 | 20.0 |
| Dibenzothiophene,... | 17.77 | 3.6 | ng/ul | 1007510 | 4 | 17.19 | 5526010 | 20.0 |
| 4-Methylnaphtho[1... | 17.92 | 2.4 | ng/ul | 656594 | 4 | 17.19 | 5526010 | 20.0 |
| Phenanthrene, 1-m... | 18.06 | 8.6 | ng/ul | 2379520 | 4 | 17.19 | 5526010 | 20.0 |
| n-Hexadecanoic acid | 18.09 | 3.3 | ng/ul | 907671 | 4 | 17.19 | 5526010 | 20.0 |
| Anthracene, 1-met... | 18.25 | 11.1 | ng/ul | 3051770 | 4 | 17.19 | 5526010 | 20.0 |
| Anthracene, 2-met... | 18.29 | 7.2 | ng/ul | 1984160 | 4 | 17.19 | 5526010 | 20.0 |
| 2,8-Dimethyldiben... | 18.46 | 2.2 | ng/ul | 609312 | 4 | 17.19 | 5526010 | 20.0 |
| Naphthalene, 2-ph... | 18.56 | 3.6 | ng/ul | 1008380 | 4 | 17.19 | 5526010 | 20.0 |
| 9,10-Anthracenedione | 18.60 | 5.9 | ng/ul | 1632390 | 4 | 17.19 | 5526010 | 20.0 |
| Phenanthrene, 3,6... | 18.81 | 3.5 | ng/ul | 980555 | 4 | 17.19 | 5526010 | 20.0 |
| Phenanthrene, 2,7... | 18.86 | 5.2 | ng/ul | 1422740 | 4 | 17.19 | 5526010 | 20.0 |
| Phenanthrene, 1,7... | 18.90 | 3.9 | ng/ul | 1089060 | 4 | 17.19 | 5526010 | 20.0 |
| n-Nonadecanol-1 | 18.95 | 14.7 | ng/ul | 4054100 | 4 | 17.19 | 5526010 | 20.0 |
| Phenanthrene, 2,5... | 18.99 | 12.4 | ng/ul | 3421840 | 4 | 17.19 | 5526010 | 20.0 |
| unknown19.04 | 19.04 | 7.0 | ng/ul | 1948740 | 4 | 17.19 | 5526010 | 20.0 |
| Anthracene, 1,4-d... | 19.07 | 3.1 | ng/ul | 867897 | 4 | 17.19 | 5526010 | 20.0 |
| 9,10-Dimethylanth... | 19.12 | 7.0 | ng/ul | 1941510 | 4 | 17.19 | 5526010 | 20.0 |
| Octadecanoic acid | 19.37 | 6.3 | ng/ul | 2571260 | 5 | 21.37 | 8223170 | 20.0 |
| Phenanthrene, 2,3... | 19.69 | 4.4 | ng/ul | 1796470 | 5 | 21.37 | 8223170 | 20.0 |
| 7-Isopropenyl-1,4... | 19.84 | 2.4 | ng/ul | 965493 | 5 | 21.37 | 8223170 | 20.0 |
| Pyrene, 1-methyl- | 19.93 | 6.3 | ng/ul | 2584620 | 5 | 21.37 | 8223170 | 20.0 |
| Pyrene, 2-methyl- | 20.07 | 2.8 | ng/ul | 1168720 | 5 | 21.37 | 8223170 | 20.0 |
| 11H-Benzo[a]fluorene | 20.10 | 3.9 | ng/ul | 1611130 | 5 | 21.37 | 8223170 | 20.0 |
| Fluoranthene, 2-m... | 20.26 | 4.5 | ng/ul | 1845260 | 5 | 21.37 | 8223170 | 20.0 |
| Benzo[e]pyrene | 23.46 | 7.2 | ng/ul | 1390650 | 6 | 23.65 | 3854860 | 20.0 |