LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.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 | 3.267 | 69 | 73 | 81 | rVB4 | 15741 | 23444 | 0.54% | 0.053% |
| 2 | 3.355 | 85 | 88 | 94 | rVB7 | 13597 | 24437 | 0.57% | 0.055% |
| 3 | 3.584 | 124 | 127 | 133 | rVB8 | 7322 | 12843 | 0.30% | 0.029% |
| 4 | 4.031 | 199 | 203 | 206 | rBV6 | 5947 | 11117 | 0.26% | 0.025% |
| 5 | 4.119 | 211 | 218 | 225 | rBV6 | 15612 | 35527 | 0.83% | 0.080% |
| 6 | 4.354 | 255 | 258 | 264 | rVB6 | 6962 | 10259 | 0.24% | 0.023% |
| 7 | 4.912 | 348 | 353 | 358 | rBV7 | 5702 | 14779 | 0.34% | 0.033% |
| 8 | 5.306 | 415 | 420 | 424 | rBV6 | 6882 | 14007 | 0.33% | 0.032% |
| 9 | 7.250 | 746 | 751 | 759 | rBV7 | 4399 | 9179 | 0.21% | 0.021% |
| 10 | 7.397 | 766 | 776 | 787 | rBV3 | 113405 | 263981 | 6.14% | 0.596% |
| 11 | 7.544 | 795 | 801 | 813 | rVB | 83005 | 155411 | 3.61% | 0.351% |
| 12 | 7.768 | 830 | 839 | 847 | rBV2 | 116158 | 232938 | 5.41% | 0.526% |
| 13 | 8.232 | 908 | 918 | 930 | rVV | 344294 | 643246 | 14.95% | 1.453% |
| 14 | 8.948 | 1032 | 1040 | 1055 | rBV2 | 127463 | 279711 | 6.50% | 0.632% |
| 15 | 9.419 | 1110 | 1120 | 1133 | rVV3 | 120596 | 249572 | 5.80% | 0.564% |
| 16 | 10.141 | 1236 | 1243 | 1252 | rBV3 | 117526 | 226784 | 5.27% | 0.512% |
| 17 | 10.694 | 1329 | 1337 | 1350 | rBV | 139014 | 298274 | 6.93% | 0.674% |
| 18 | 11.058 | 1391 | 1399 | 1409 | rBV | 473668 | 876854 | 20.38% | 1.981% |
| 19 | 11.216 | 1417 | 1426 | 1436 | rBV4 | 32953 | 87636 | 2.04% | 0.198% |
| 20 | 12.221 | 1592 | 1597 | 1601 | rBV4 | 5308 | 9217 | 0.21% | 0.021% |
| 21 | 12.509 | 1642 | 1646 | 1650 | rBV5 | 5963 | 11290 | 0.26% | 0.026% |
| 22 | 13.708 | 1843 | 1850 | 1854 | rBV7 | 7428 | 12108 | 0.28% | 0.027% |
| 23 | 14.248 | 1936 | 1942 | 1946 | rBV | 308117 | 472386 | 10.98% | 1.067% |
| 24 | 14.295 | 1947 | 1950 | 1959 | rVB | 72275 | 108655 | 2.53% | 0.245% |
| 25 | 14.495 | 1978 | 1984 | 1987 | rVB6 | 6469 | 10715 | 0.25% | 0.024% |
| 26 | 14.554 | 1987 | 1994 | 2003 | rBV | 306971 | 517593 | 12.03% | 1.169% |
| 27 | 14.689 | 2014 | 2017 | 2022 | rVB6 | 7826 | 10687 | 0.25% | 0.024% |
| 28 | 14.853 | 2037 | 2045 | 2052 | rBV | 800170 | 1267585 | 29.46% | 2.863% |
| 29 | 14.918 | 2052 | 2056 | 2061 | rVB5 | 17674 | 27929 | 0.65% | 0.063% |
| 30 | 15.094 | 2080 | 2086 | 2100 | rBV3 | 89363 | 226451 | 5.26% | 0.512% |
| 31 | 15.253 | 2105 | 2113 | 2120 | rVV7 | 15304 | 37191 | 0.86% | 0.084% |
| 32 | 15.312 | 2120 | 2123 | 2127 | rVB4 | 7841 | 9608 | 0.22% | 0.022% |
| 33 | 15.600 | 2167 | 2172 | 2175 | rBV4 | 7057 | 14569 | 0.34% | 0.033% |
| 34 | 15.635 | 2175 | 2178 | 2187 | rVB5 | 22857 | 39974 | 0.93% | 0.090% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA G\DATA\BG121716\
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Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Title : SVOA CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 15.746 | 2194 | 2197 | 2200 | rBV5 | 5500 | 9798 | 0.23% | 0.022% |
| 36 | 15.840 | 2207 | 2213 | 2219 | rBV | 447527 | 702986 | 16.34% | 1.588% |
| 37 | 15.899 | 2220 | 2223 | 2232 | rVB3 | 28953 | 48477 | 1.13% | 0.110% |
| 38 | 15.987 | 2232 | 2238 | 2250 | rBV4 | 96922 | 229343 | 5.33% | 0.518% |
| 39 | 16.193 | 2268 | 2273 | 2278 | rVB9 | 12736 | 20235 | 0.47% | 0.046% |
| 40 | 16.328 | 2293 | 2296 | 2305 | rBV10 | 12193 | 25164 | 0.58% | 0.057% |
| 41 | 16.498 | 2320 | 2325 | 2333 | rVB4 | 23921 | 45176 | 1.05% | 0.102% |
| 42 | 16.581 | 2335 | 2339 | 2345 | rBV9 | 8263 | 16054 | 0.37% | 0.036% |
| 43 | 16.686 | 2351 | 2357 | 2360 | rBV8 | 7384 | 12137 | 0.28% | 0.027% |
| 44 | 16.857 | 2383 | 2386 | 2389 | rBV5 | 8762 | 13823 | 0.32% | 0.031% |
| 45 | 16.892 | 2391 | 2392 | 2398 | rVB5 | 13331 | 12872 | 0.30% | 0.029% |
| 46 | 16.945 | 2398 | 2401 | 2405 | rBV6 | 7446 | 12431 | 0.29% | 0.028% |
| 47 | 17.115 | 2427 | 2430 | 2435 | rBV7 | 8922 | 12786 | 0.30% | 0.029% |
| 48 | 17.262 | 2446 | 2455 | 2459 | rBV2 | 49225 | 108635 | 2.52% | 0.245% |
| 49 | 17.421 | 2477 | 2482 | 2488 | rVB | 36724 | 62099 | 1.44% | 0.140% |
| 50 | 17.521 | 2493 | 2499 | 2501 | rBV7 | 9549 | 14725 | 0.34% | 0.033% |
| 51 | 17.597 | 2504 | 2512 | 2516 | rBV2 | 1026842 | 1657393 | 38.52% | 3.744% |
| 52 | 17.644 | 2516 | 2520 | 2524 | rVV | 839229 | 1264397 | 29.39% | 2.856% |
| 53 | 17.697 | 2524 | 2529 | 2542 | rVB | 483041 | 884013 | 20.55% | 1.997% |
| 54 | 17.797 | 2542 | 2546 | 2551 | rBV2 | 27337 | 48790 | 1.13% | 0.110% |
| 55 | 18.008 | 2574 | 2582 | 2591 | rBV2 | 163329 | 318291 | 7.40% | 0.719% |
| 56 | 18.102 | 2595 | 2598 | 2607 | rBV9 | 26904 | 45349 | 1.05% | 0.102% |
| 57 | 18.185 | 2607 | 2612 | 2617 | rBV7 | 21553 | 41416 | 0.96% | 0.094% |
| 58 | 18.285 | 2626 | 2629 | 2631 | rBV4 | 9244 | 11718 | 0.27% | 0.026% |
| 59 | 18.432 | 2645 | 2654 | 2656 | rBV8 | 73263 | 119460 | 2.78% | 0.270% |
| 60 | 18.467 | 2657 | 2660 | 2665 | rVV2 | 91062 | 156345 | 3.63% | 0.353% |
| 61 | 18.520 | 2665 | 2669 | 2676 | rVB | 135497 | 213793 | 4.97% | 0.483% |
| 62 | 18.602 | 2678 | 2683 | 2687 | rBV7 | 18306 | 23151 | 0.54% | 0.052% |
| 63 | 18.667 | 2687 | 2694 | 2698 | rBV2 | 140657 | 282547 | 6.57% | 0.638% |
| 64 | 18.813 | 2715 | 2719 | 2723 | rBV7 | 23400 | 39505 | 0.92% | 0.089% |
| 65 | 18.954 | 2738 | 2743 | 2748 | rBV | 108262 | 153456 | 3.57% | 0.347% |
| 66 | 19.013 | 2748 | 2753 | 2760 | rVB | 400405 | 579946 | 13.48% | 1.310% |
| 67 | 19.195 | 2781 | 2784 | 2789 | rVB6 | 31054 | 45948 | 1.07% | 0.104% |
| 68 | 19.248 | 2790 | 2793 | 2797 | rVV4 | 26852 | 34974 | 0.81% | 0.079% |
| 69 | 19.295 | 2797 | 2801 | 2806 | rVB7 | 31056 | 42933 | 1.00% | 0.097% |
| 70 | 19.366 | 2809 | 2813 | 2817 | rBV3 | 46839 | 70160 | 1.63% | 0.158% |
| 71 | 19.419 | 2817 | 2822 | 2828 | rBV3 | 67478 | 127302 | 2.96% | 0.288% |

LSC Area Percent Report

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Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Title : SVOA CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 19.524 | 2835 | 2840 | 2848 | rBV | 146012 | 223022 | 5.18% | 0.504% |
| 73 | 19.642 | 2852 | 2860 | 2866 | rBV | 2921479 | 4302809 | 100.00% | 9.720% |
| 74 | 19.836 | 2889 | 2893 | 2895 | rBV4 | 75825 | 96040 | 2.23% | 0.217% |
| 75 | 19.889 | 2899 | 2902 | 2908 | rVB | 87816 | 139463 | 3.24% | 0.315% |
| 76 | 19.971 | 2908 | 2916 | 2918 | rBV3 | 924719 | 1539838 | 35.79% | 3.479% |
| 77 | 20.000 | 2918 | 2921 | 2927 | rVB | 2267811 | 3246419 | 75.45% | 7.334% |
| 78 | 20.059 | 2928 | 2931 | 2936 | rVB | 105356 | 146429 | 3.40% | 0.331% |
| 79 | 20.171 | 2946 | 2950 | 2955 | rBV | 140027 | 173137 | 4.02% | 0.391% |
| 80 | 20.312 | 2968 | 2974 | 2981 | rBV4 | 142311 | 318202 | 7.40% | 0.719% |
| 81 | 20.376 | 2982 | 2985 | 2990 | rVB2 | 55881 | 84463 | 1.96% | 0.191% |
| 82 | 20.482 | 2991 | 3003 | 3009 | rVV3 | 199416 | 541454 | 12.58% | 1.223% |
| 83 | 20.582 | 3015 | 3020 | 3023 | rBV | 97409 | 154660 | 3.59% | 0.349% |
| 84 | 20.641 | 3024 | 3030 | 3033 | rVV3 | 119112 | 215474 | 5.01% | 0.487% |
| 85 | 20.782 | 3051 | 3054 | 3058 | rBV | 66483 | 96985 | 2.25% | 0.219% |
| 86 | 21.269 | 3132 | 3137 | 3148 | rVB | 343067 | 559591 | 13.01% | 1.264% |
| 87 | 21.457 | 3162 | 3169 | 3173 | rBV3 | 334099 | 708733 | 16.47% | 1.601% |
| 88 | 21.557 | 3181 | 3186 | 3190 | rBV3 | 221705 | 388615 | 9.03% | 0.878% |
| 89 | 21.616 | 3191 | 3196 | 3206 | rVB2 | 357102 | 649681 | 15.10% | 1.468% |
| 90 | 21.892 | 3234 | 3243 | 3248 | rBV3 | 1504197 | 4040735 | 93.91% | 9.128% |
| 91 | 21.945 | 3248 | 3252 | 3266 | rVB | 1191190 | 2152796 | 50.03% | 4.863% |
| 92 | 22.104 | 3276 | 3279 | 3284 | rVB2 | 111900 | 160710 | 3.74% | 0.363% |
| 93 | 22.186 | 3289 | 3293 | 3302 | rVB5 | 94861 | 211009 | 4.90% | 0.477% |
| 94 | 22.327 | 3313 | 3317 | 3324 | rVB3 | 151488 | 308437 | 7.17% | 0.697% |
| 95 | 24.231 | 3631 | 3641 | 3649 | rBV2 | 945912 | 3378621 | 78.52% | 7.632% |
| 96 | 24.994 | 3764 | 3771 | 3779 | rBV2 | 421020 | 1167037 | 27.12% | 2.636% |
| 97 | 25.083 | 3781 | 3786 | 3792 | rBV3 | 167761 | 374150 | 8.70% | 0.845% |
| 98 | 25.165 | 3793 | 3800 | 3812 | rVB2 | 548908 | 1734653 | 40.31% | 3.919% |
| 99 | 25.323 | 3818 | 3827 | 3835 | rBV2 | 643234 | 1791990 | 41.65% | 4.048% |
| 100 | 29.266 | 4491 | 4498 | 4519 | rVB2 | 360863 | 1608366 | 37.38% | 3.633% |

Sum of corrected areas: 44267104

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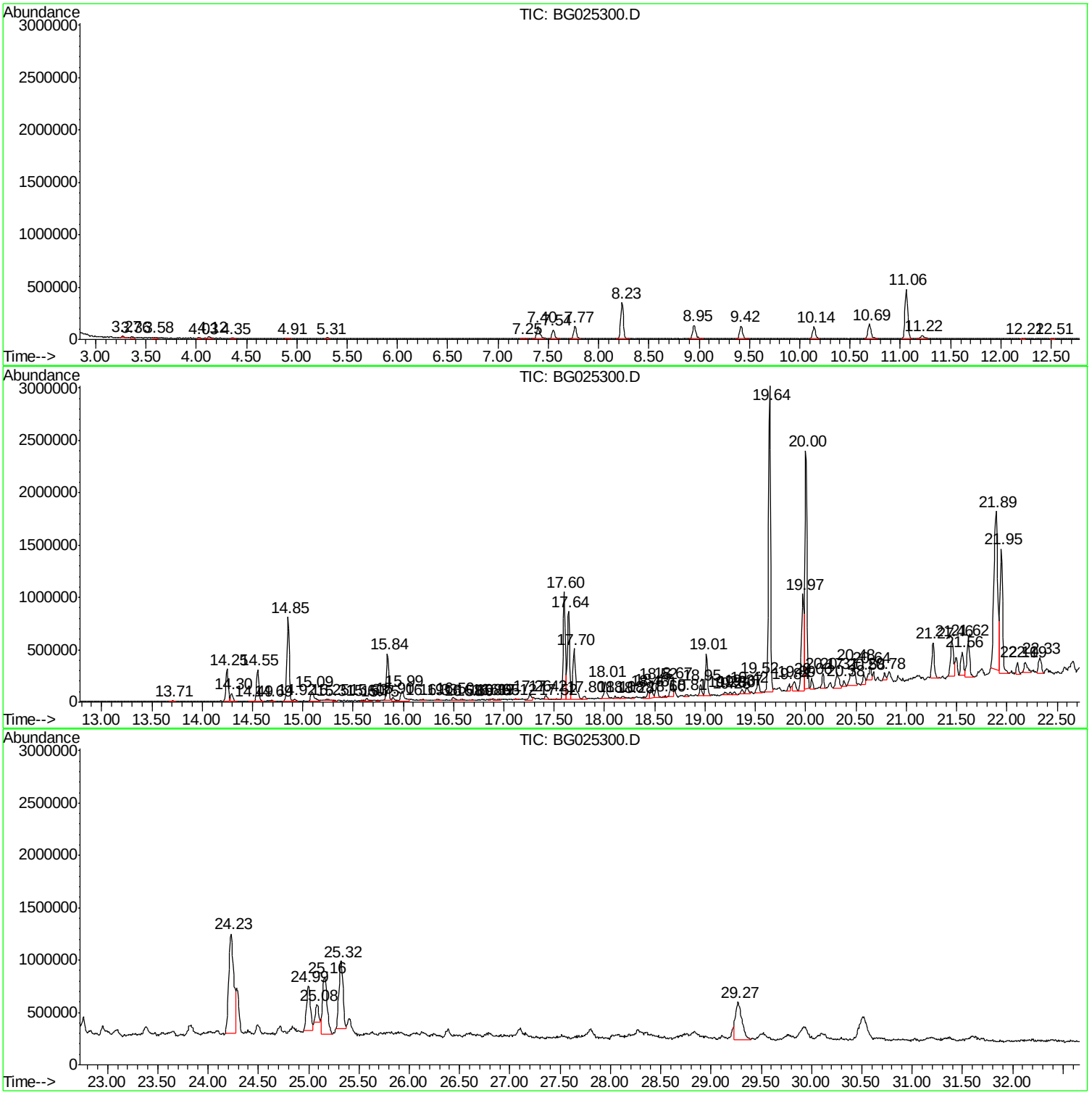
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :**
BNA_G
**ClientSampleId :**
DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.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 G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Quant Title : SVOA CALIBRATION

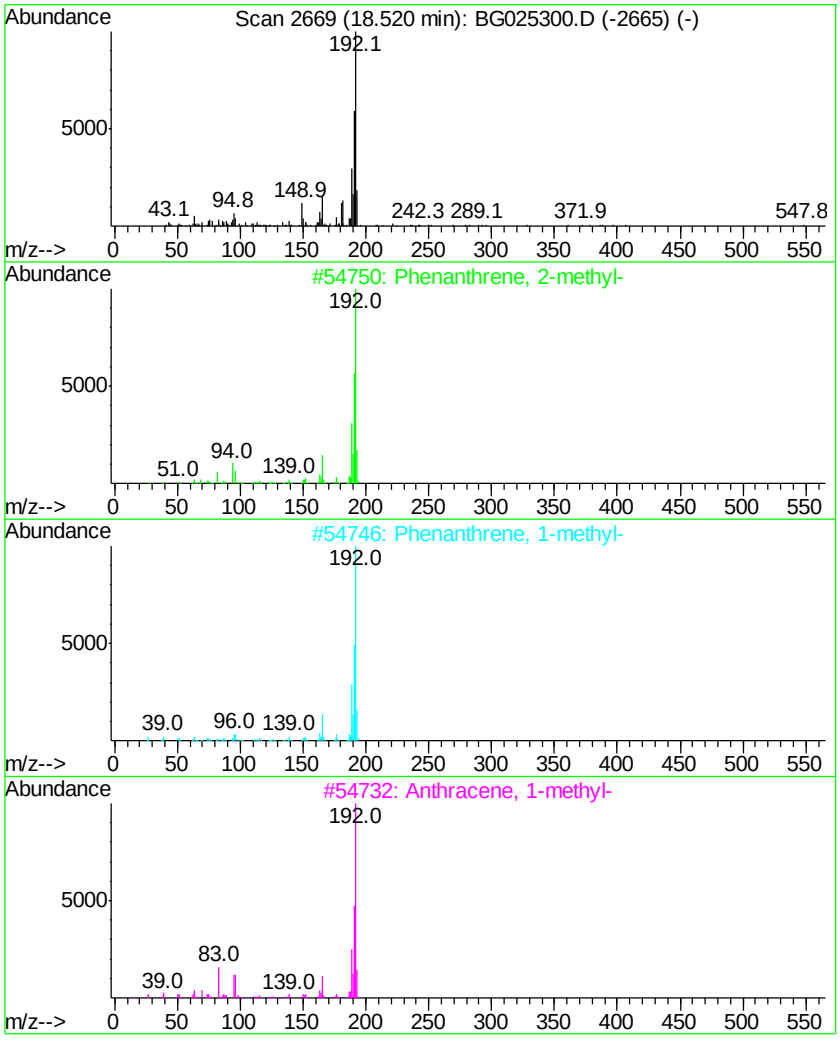
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

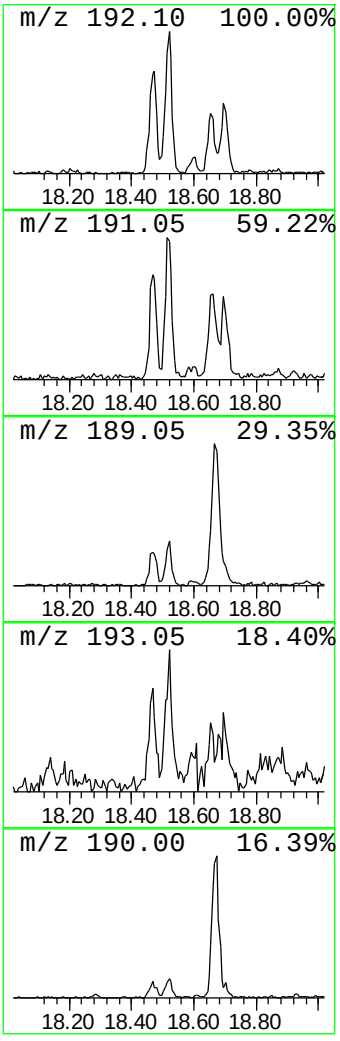
**********

Peak Number 1 Phenanthrene, 2-methyl- Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.52 | 2.58 ng/ul | 213793 | Phenanthrene-d10 | 17.60 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 93 |
| 2 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 93 |
| 3 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 89 |
| 4 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 89 |
| 5 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 89 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Quant Title : SVOA CALIBRATION

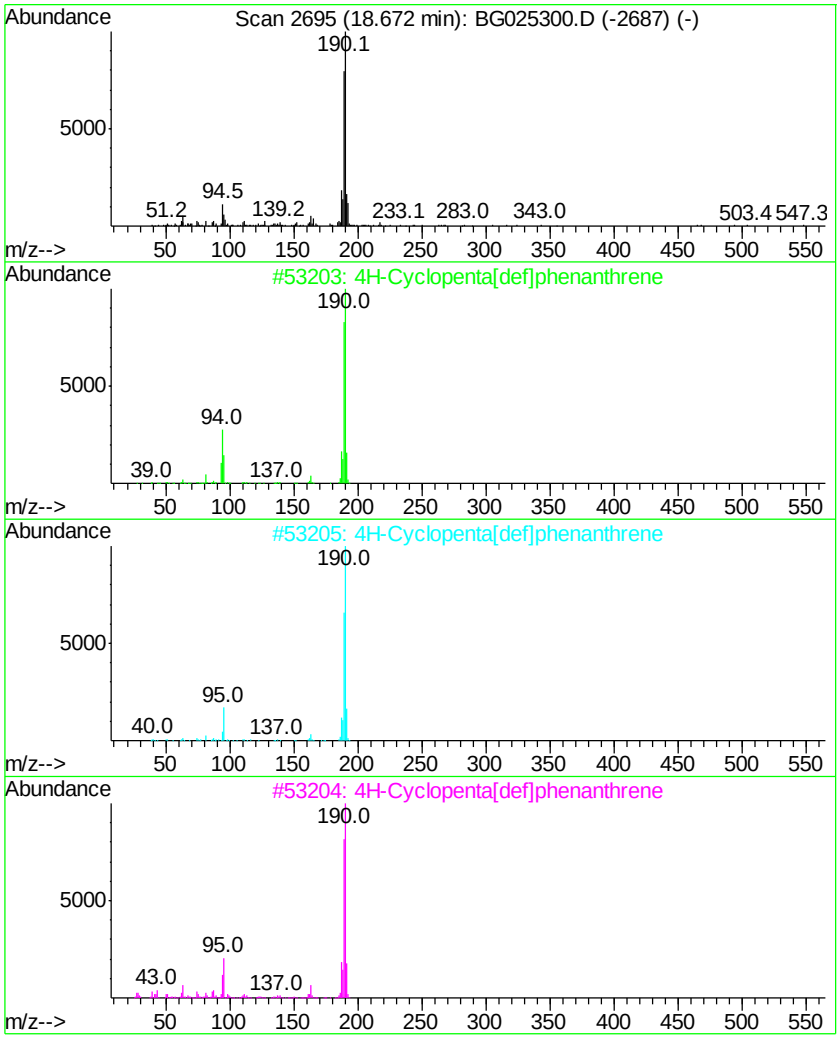
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

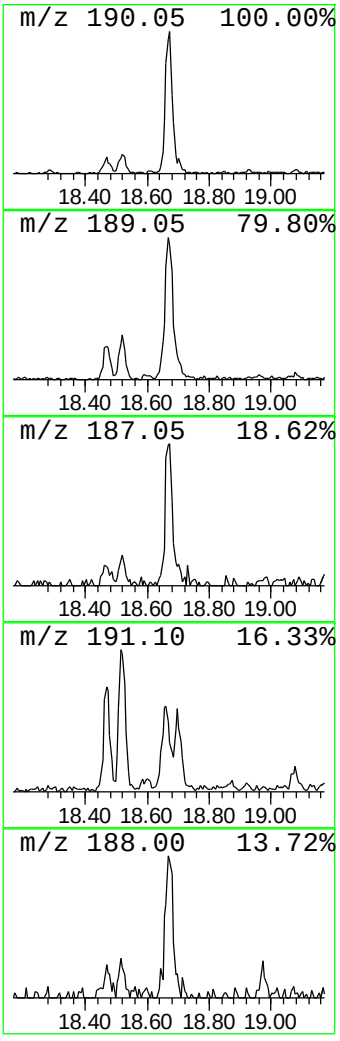
**********

Peak Number 2 4H-Cyclopenta[def]phenanthrene Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.67 | 3.41 ng/ul | 282547 | Phenanthrene-d10 | 17.60 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 74 |
| 2 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 72 |
| 3 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 68 |
| 4 | 2,2'-Bis(4,5-dimethylimidazole) | 190 | C10H14N4 | 069286-06-2 | 36 |
| 5 | 1,4-Naphthalenedione, 2,5-dihydr... | 190 | C10H6O4 | 004923-55-1 | 25 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Quant Title : SVOA CALIBRATION

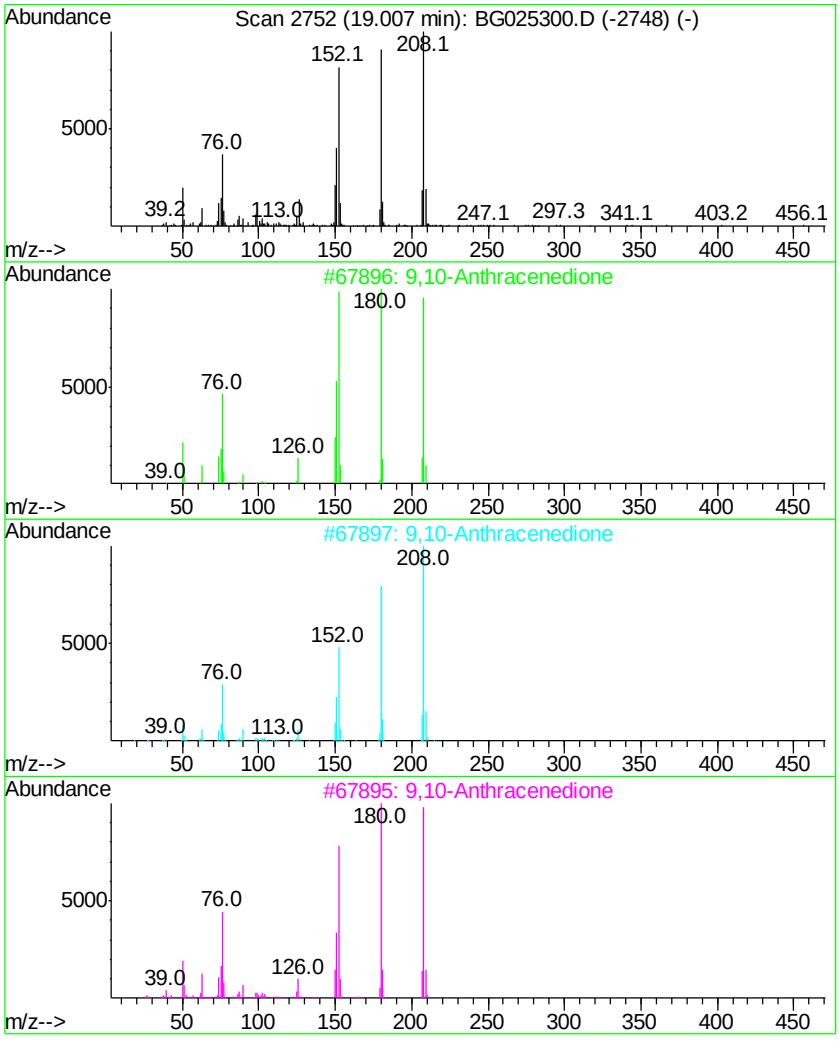
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

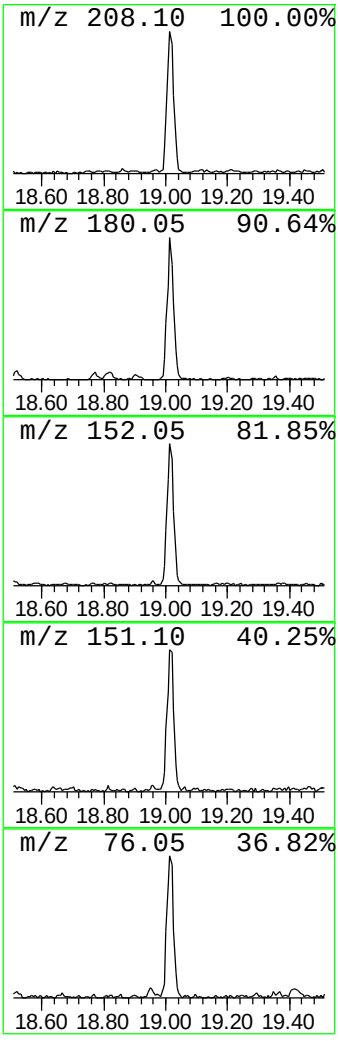
**********

Peak Number 3 9,10-Anthracenedione Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.01 | 7.00 ng/ul | 579946 | Phenanthrene-d10 | 17.60 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 96 |
| 2 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 94 |
| 3 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 93 |
| 4 | Benzo[c]cinnoline | 180 | C12H8N2 | 000230-17-1 | 86 |
| 5 | 5,6-Dimethyl-1,10-phenanthroline | 208 | C14H12N2 | 003002-81-1 | 64 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Quant Title : SVOA CALIBRATION

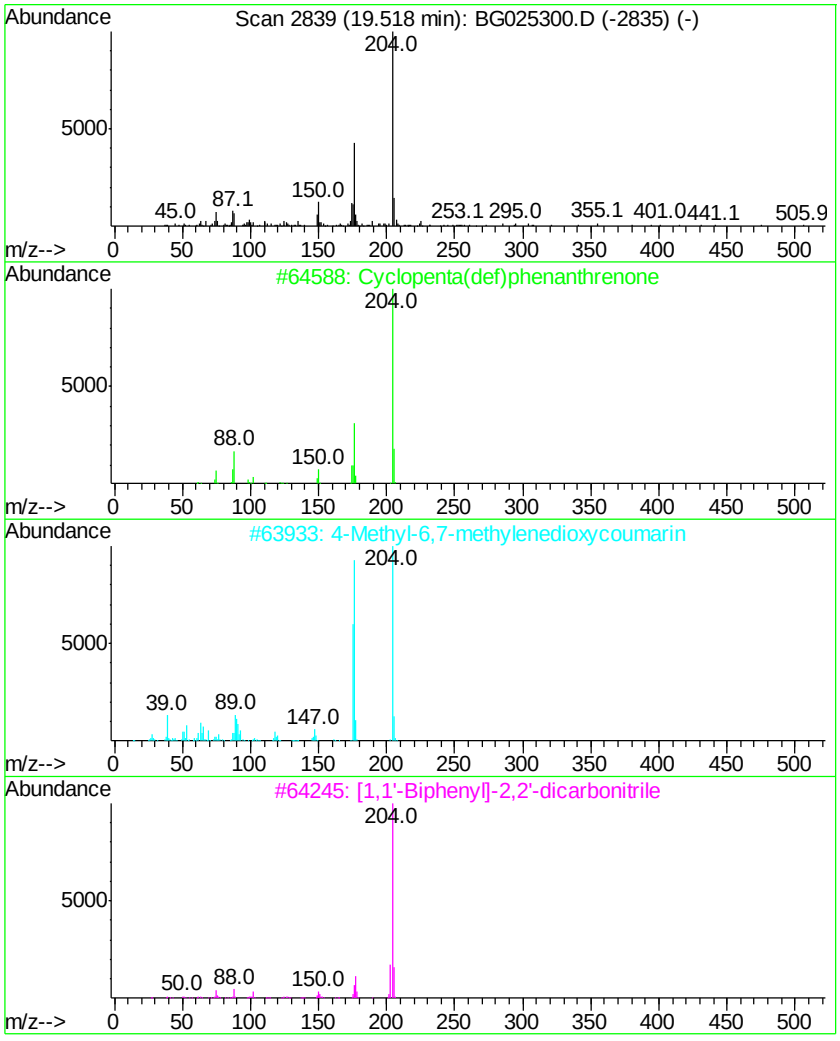
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

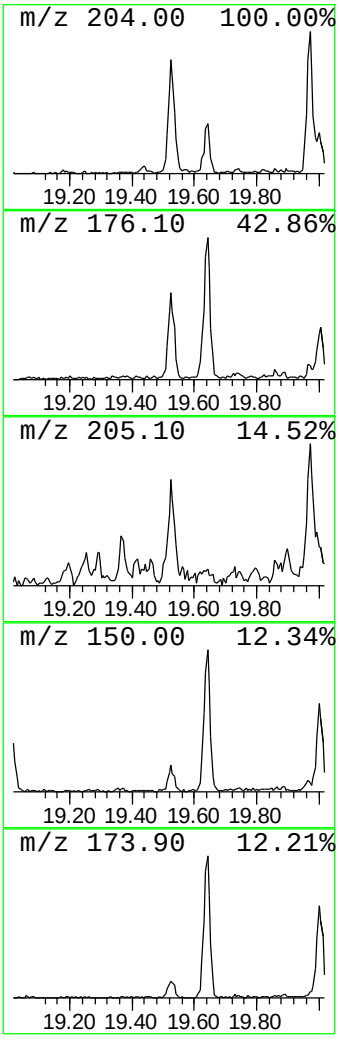
**********

Peak Number 4 Cyclopenta(def)phenanthrenone Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.52 | 2.69 ng/ul | 223022 | Phenanthrene-d10 | 17.60 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 91 |
| 2 | 4-Methyl-6,7-methylenedioxycoumarin | 204 | C11H8O4 | 015071-04-2 | 59 |
| 3 | [1,1'-Biphenyl]-2,2'-dicarbonitrile | 204 | C14H8N2 | 004341-02-0 | 49 |
| 4 | 6-Cyanophenanthridine | 204 | C14H8N2 | 002176-28-5 | 47 |
| 5 | 9-Acridinecarbonitrile | 204 | C14H8N2 | 005326-19-2 | 47 |



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Data Path : Z:\HPCHEM1\BNA G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Quant Title : SVOA CALIBRATION

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

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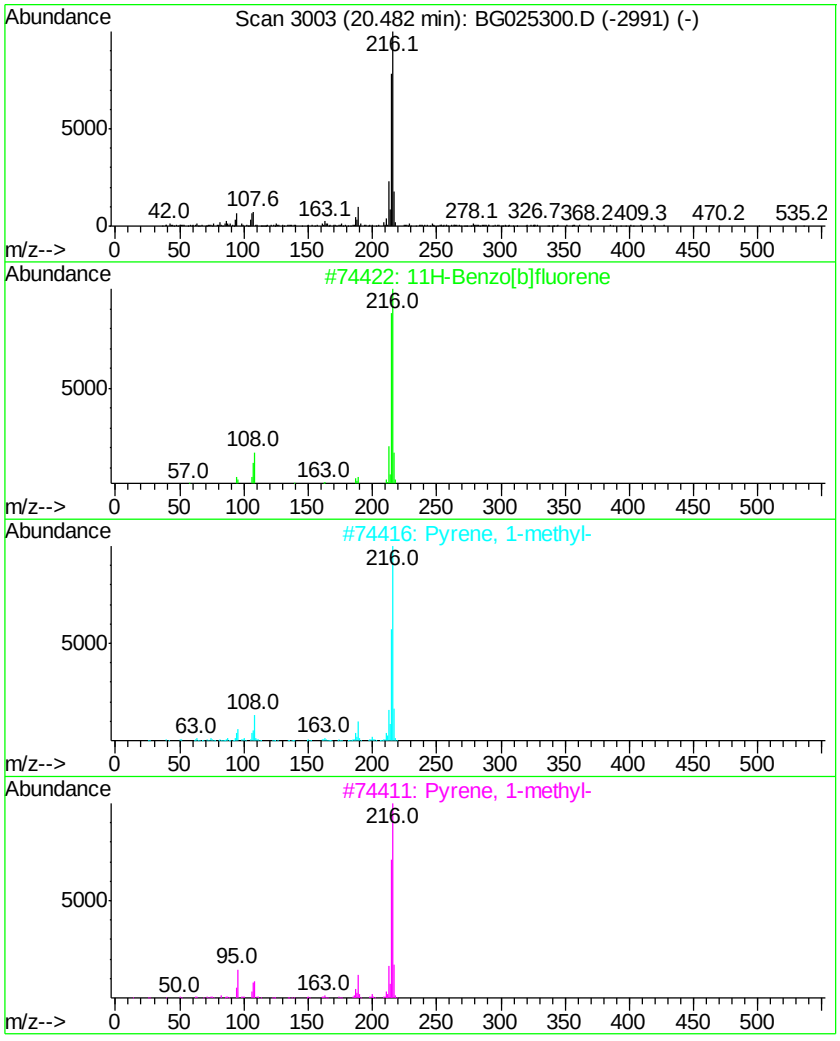
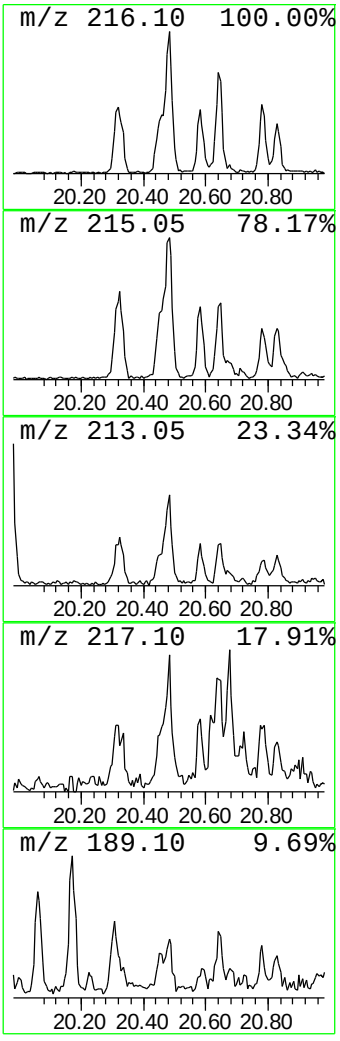
Peak Number 5 11H-Benzo[b]fluorene Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 20.48 | 2.68 ng/ul | 541454 | Chrysene-d12 | 21.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 91 |
| 2 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 90 |
| 3 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 90 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 90 |
| 5 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 87 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Quant Title : SVOA CALIBRATION

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

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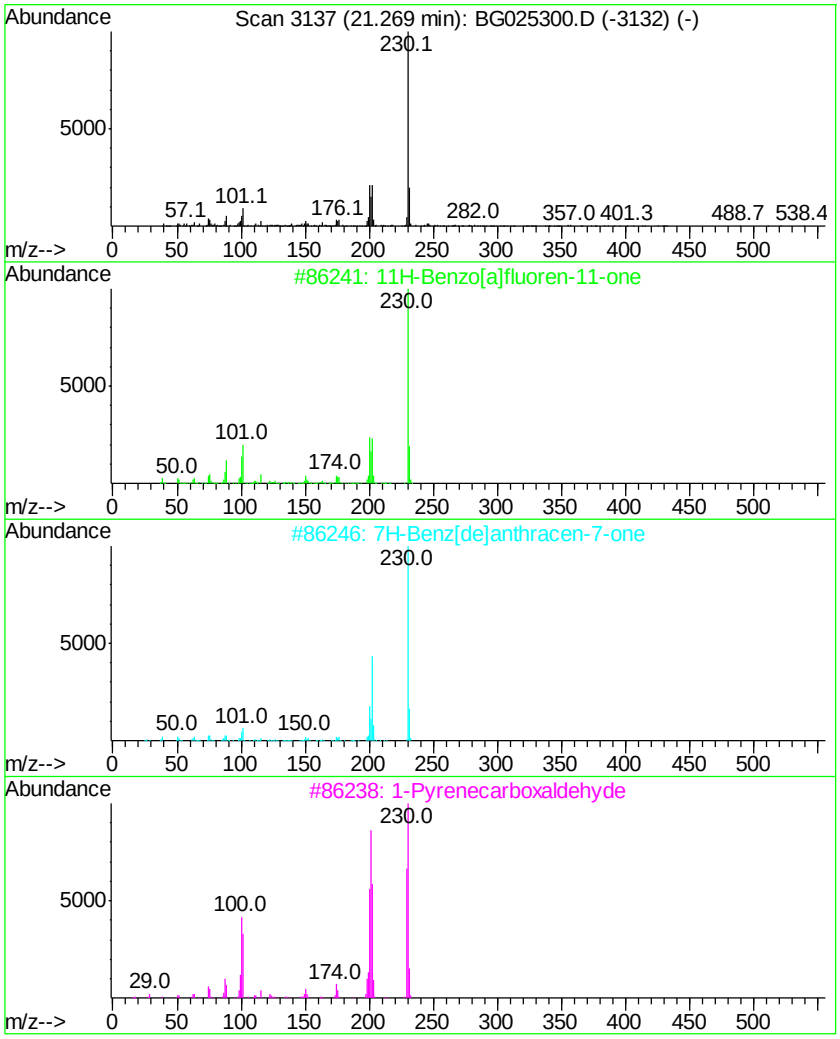
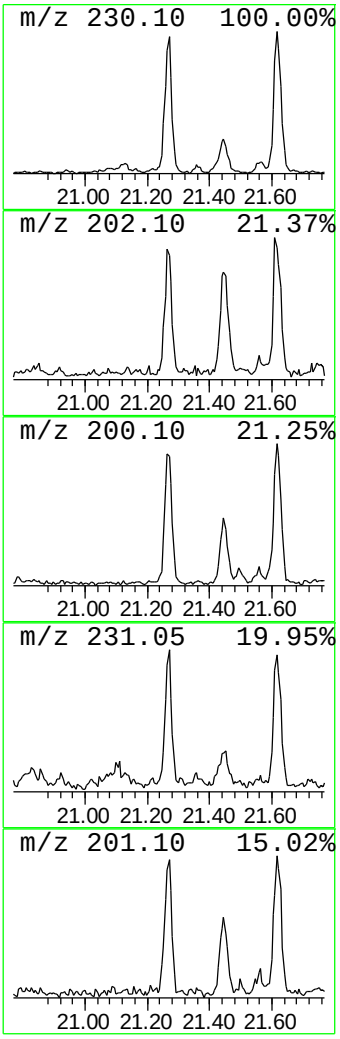
Peak Number 6 11H-Benzo[a]fluoren-11-one Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 21.27 | 2.77 ng/ul | 559591 | Chrysene-d12 | 21.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[a]fluoren-11-one | 230 | C17H10O | 000479-79-8 | 94 |
| 2 | 7H-Benz[de]anthracen-7-one | 230 | C17H10O | 000082-05-3 | 90 |
| 3 | 1-Pyrenecarboxaldehyde | 230 | C17H10O | 003029-19-4 | 80 |
| 4 | 7H-Benz[de]anthracen-7-one | 230 | C17H10O | 000082-05-3 | 74 |
| 5 | 7H-Benz[de]anthracen-7-one | 230 | C17H10O | 000082-05-3 | 72 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Quant Title : SVOA CALIBRATION

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

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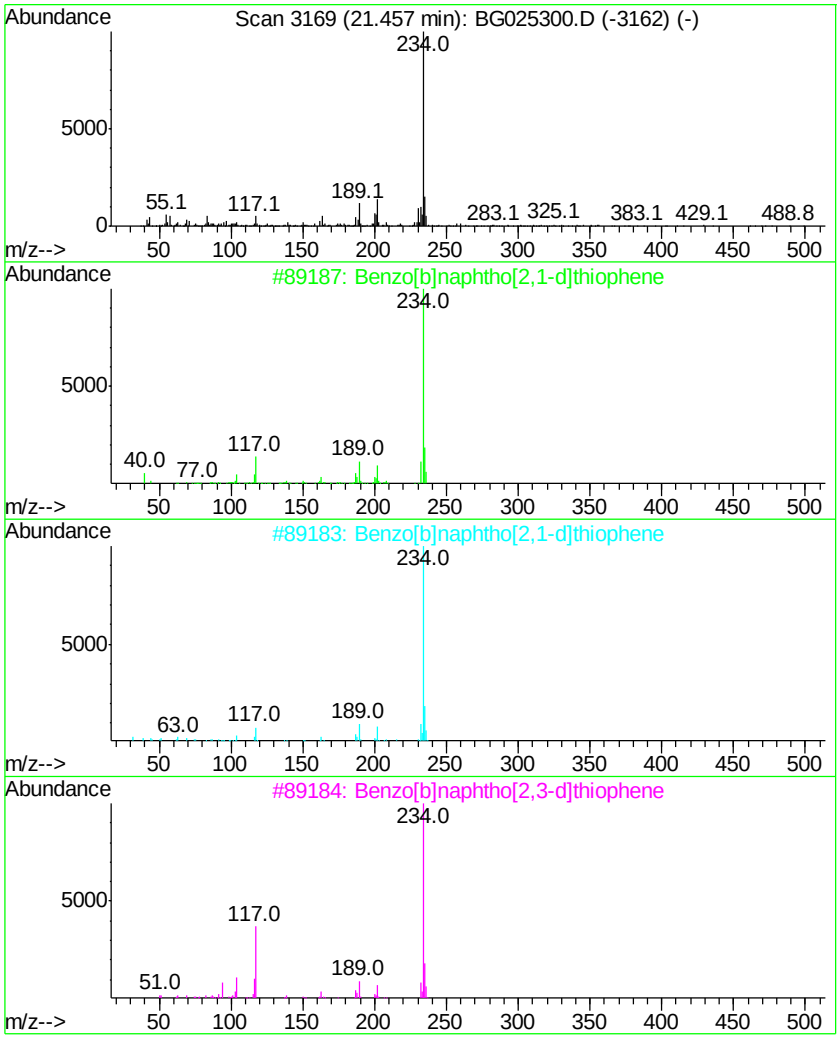
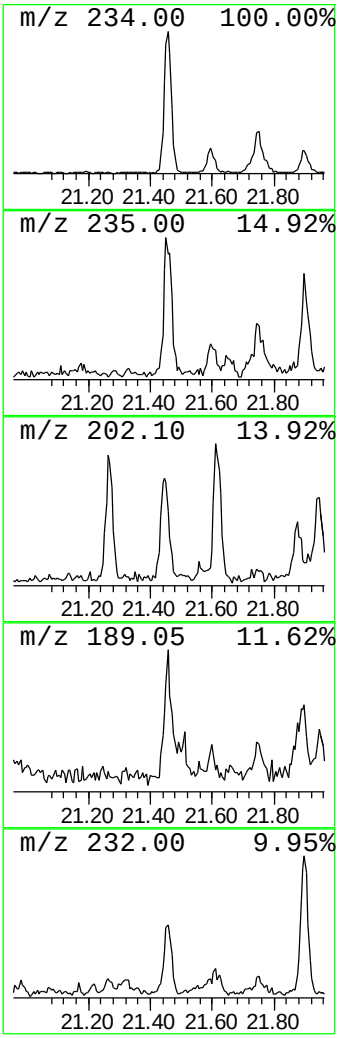
Peak Number 7 Benzo[b]naphtho[2,1-d]thiop... Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 21.46 | 3.51 ng/ul | 708733 | Chrysene-d12 | 21.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]naphtho[2,1-d]thiophene | 234 | C16H10S | 000239-35-0 | 93 |
| 2 | Benzo[b]naphtho[2,1-d]thiophene | 234 | C16H10S | 000239-35-0 | 93 |
| 3 | Benzo[b]naphtho[2,3-d]thiophene | 234 | C16H10S | 000243-46-9 | 87 |
| 4 | Benzo[b]naphtho[2,1-d]thiophene | 234 | C16H10S | 000239-35-0 | 87 |
| 5 | Benzo[b]naphtho[2,3-d]thiophene | 234 | C16H10S | 000243-46-9 | 87 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.M
Quant Title : SVOA CALIBRATION

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

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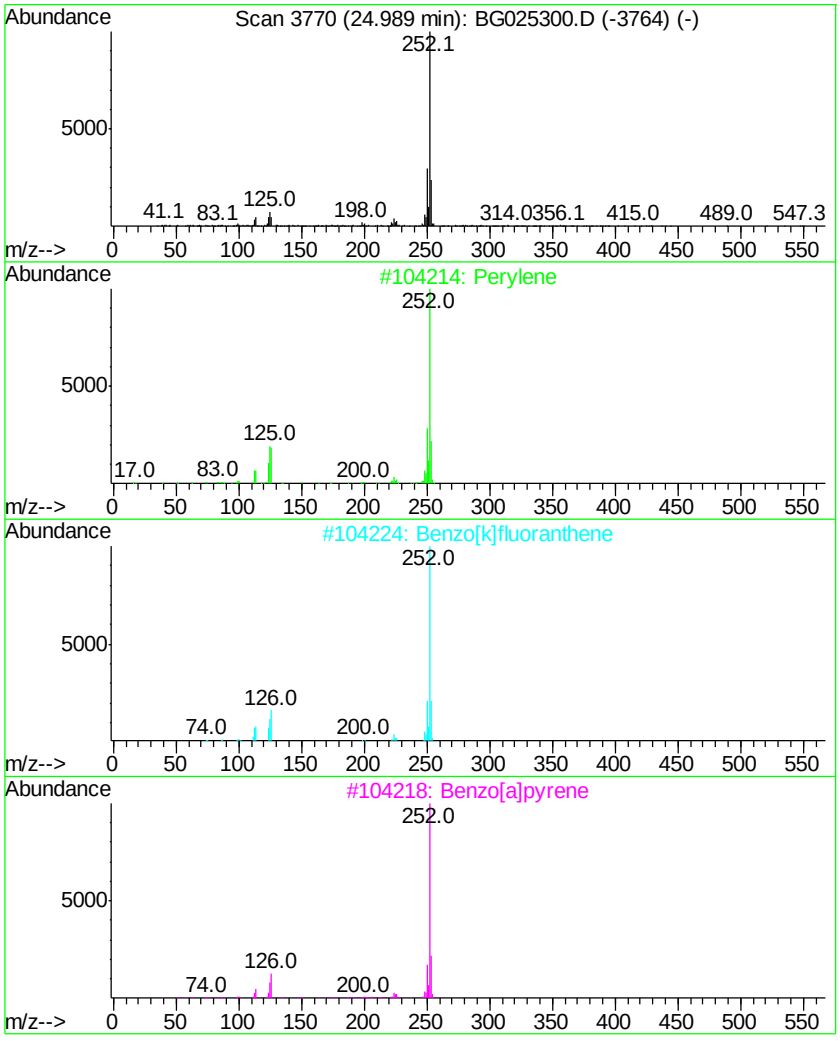
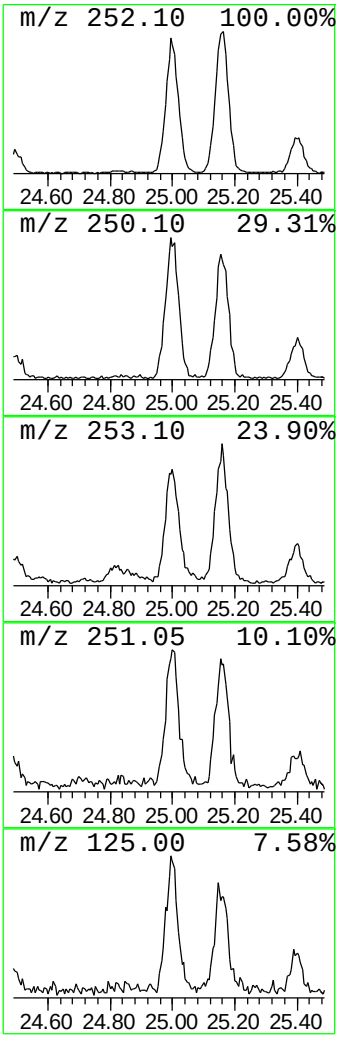
Peak Number 9 Perylene Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 24.99 | 13.03 ng/ul | 1167040 | Perylene-d12 | 25.32 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Perylene | 252 | C20H12 | 000198-55-0 | 94 |
| 2 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 94 |
| 3 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 81 |
| 4 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 81 |
| 5 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 81 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG121716\
Data File : BG025300.D
Acq On : 18 Dec 2016 7:58
Operator : UM/SJ
Sample : H5860-13DL 2X
Misc :
ALS Vial : 31 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** DA8E0DL

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG113016.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 |
| Phenanthrene, 2-m... | 18.52 | 2.6 | ng/ul | 213793 | 4 | 17.60 | 1657390 | 20.0 |
| 4H-Cyclopenta[def... | 18.67 | 3.4 | ng/ul | 282547 | 4 | 17.60 | 1657390 | 20.0 |
| 9,10-Anthracenedione | 19.01 | 7.0 | ng/ul | 579946 | 4 | 17.60 | 1657390 | 20.0 |
| Cyclopenta(def)ph... | 19.52 | 2.7 | ng/ul | 223022 | 4 | 17.60 | 1657390 | 20.0 |
| 11H-Benzo[b]fluorene | 20.48 | 2.7 | ng/ul | 541454 | 5 | 21.90 | 4040740 | 20.0 |
| 11H-Benzo[a]fluor... | 21.27 | 2.8 | ng/ul | 559591 | 5 | 21.90 | 4040740 | 20.0 |
| Benzo[b]naphtho[2... | 21.46 | 3.5 | ng/ul | 708733 | 5 | 21.90 | 4040740 | 20.0 |
| Perylene | 24.99 | 13.0 | ng/ul | 1167040 | 6 | 25.32 | 1791990 | 20.0 |