LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % 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_G\METHODS\SOM02.2-EPA-BG073115.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 | 3.451 | 124 | 130 | 139 | rVV | 168801 | 233568 | 2.27% | 0.263% |
| 2 | 6.665 | 672 | 677 | 686 | rVB | 122606 | 191873 | 1.87% | 0.216% |
| 3 | 6.800 | 693 | 700 | 708 | rBV | 83096 | 126942 | 1.23% | 0.143% |
| 4 | 6.994 | 727 | 733 | 741 | rBV | 128948 | 203845 | 1.98% | 0.230% |
| 5 | 7.458 | 804 | 812 | 818 | rVB | 177558 | 278178 | 2.70% | 0.313% |
| 6 | 8.192 | 931 | 937 | 943 | rBV2 | 74458 | 124182 | 1.21% | 0.140% |
| 7 | 8.615 | 1003 | 1009 | 1016 | rBV | 125748 | 199664 | 1.94% | 0.225% |
| 8 | 9.332 | 1123 | 1131 | 1139 | rBV2 | 122378 | 204846 | 1.99% | 0.231% |
| 9 | 9.884 | 1218 | 1225 | 1232 | rBV | 179361 | 286959 | 2.79% | 0.323% |
| 10 | 10.237 | 1279 | 1285 | 1290 | rBV | 248390 | 427587 | 4.16% | 0.482% |
| 11 | 10.290 | 1290 | 1294 | 1300 | rVB2 | 79422 | 126952 | 1.23% | 0.143% |
| 12 | 13.457 | 1826 | 1833 | 1837 | rBV | 99997 | 170130 | 1.65% | 0.192% |
| 13 | 13.557 | 1845 | 1850 | 1854 | rVV | 289336 | 420817 | 4.09% | 0.474% |
| 14 | 13.598 | 1854 | 1857 | 1864 | rVV | 125191 | 177039 | 1.72% | 0.199% |
| 15 | 13.692 | 1867 | 1873 | 1877 | rVV2 | 54160 | 92510 | 0.90% | 0.104% |
| 16 | 13.827 | 1889 | 1896 | 1899 | rBV | 319041 | 474010 | 4.61% | 0.534% |
| 17 | 13.862 | 1899 | 1902 | 1914 | rVB | 125049 | 232552 | 2.26% | 0.262% |
| 18 | 14.138 | 1939 | 1949 | 1955 | rBV3 | 359566 | 616368 | 5.99% | 0.694% |
| 19 | 14.203 | 1955 | 1960 | 1968 | rVV | 317526 | 465021 | 4.52% | 0.524% |
| 20 | 14.403 | 1990 | 1994 | 1998 | rVV | 91789 | 153217 | 1.49% | 0.173% |
| 21 | 14.544 | 2006 | 2018 | 2025 | rBV | 434227 | 673019 | 6.54% | 0.758% |
| 22 | 14.620 | 2027 | 2031 | 2037 | rVB2 | 72921 | 100205 | 0.97% | 0.113% |
| 23 | 14.767 | 2049 | 2056 | 2060 | rBV3 | 62118 | 116423 | 1.13% | 0.131% |
| 24 | 14.820 | 2060 | 2065 | 2074 | rVB | 68228 | 112274 | 1.09% | 0.126% |
| 25 | 14.943 | 2078 | 2086 | 2088 | rBV4 | 55221 | 108424 | 1.05% | 0.122% |
| 26 | 15.143 | 2114 | 2120 | 2124 | rVB | 359241 | 509746 | 4.96% | 0.574% |
| 27 | 15.196 | 2124 | 2129 | 2134 | rBV | 700051 | 949349 | 9.23% | 1.070% |
| 28 | 15.296 | 2141 | 2146 | 2148 | rBV3 | 86119 | 128239 | 1.25% | 0.144% |
| 29 | 15.354 | 2153 | 2156 | 2161 | rVV2 | 68527 | 117981 | 1.15% | 0.133% |
| 30 | 15.407 | 2161 | 2165 | 2169 | rVV3 | 52723 | 99442 | 0.97% | 0.112% |
| 31 | 15.496 | 2175 | 2180 | 2189 | rVV | 242925 | 378338 | 3.68% | 0.426% |
| 32 | 15.642 | 2199 | 2205 | 2213 | rVV | 253566 | 507536 | 4.93% | 0.572% |
| 33 | 15.731 | 2213 | 2220 | 2227 | rVB2 | 57742 | 111463 | 1.08% | 0.126% |
| 34 | 15.877 | 2239 | 2245 | 2252 | rVB3 | 97176 | 159648 | 1.55% | 0.180% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % 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_G\METHODS\SOM02.2-EPA-BG073115.M
Title : SVOA CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 16.206 | 2292 | 2301 | 2306 | rBV3 | 158221 | 321481 | 3.13% | 0.362% |
| 36 | 16.253 | 2306 | 2309 | 2315 | rVB2 | 71970 | 95246 | 0.93% | 0.107% |
| 37 | 16.436 | 2336 | 2340 | 2344 | rVV2 | 111386 | 161447 | 1.57% | 0.182% |
| 38 | 16.477 | 2344 | 2347 | 2350 | rVV2 | 102585 | 128255 | 1.25% | 0.144% |
| 39 | 16.559 | 2356 | 2361 | 2368 | rVB | 270042 | 397612 | 3.87% | 0.448% |
| 40 | 16.635 | 2368 | 2374 | 2379 | rBV3 | 136839 | 285974 | 2.78% | 0.322% |
| 41 | 16.718 | 2383 | 2388 | 2393 | rVB | 377290 | 491707 | 4.78% | 0.554% |
| 42 | 16.906 | 2413 | 2420 | 2422 | rBV | 289241 | 472648 | 4.59% | 0.533% |
| 43 | 16.958 | 2422 | 2429 | 2433 | rVV | 5623886 | 9124739 | 88.70% | 10.280% |
| 44 | 17.006 | 2433 | 2437 | 2439 | rVV2 | 392024 | 532128 | 5.17% | 0.600% |
| 45 | 17.041 | 2439 | 2443 | 2447 | rVV | 1140687 | 1456871 | 14.16% | 1.641% |
| 46 | 17.088 | 2447 | 2451 | 2458 | rVV3 | 102575 | 173670 | 1.69% | 0.196% |
| 47 | 17.311 | 2485 | 2489 | 2494 | rBV | 314937 | 415534 | 4.04% | 0.468% |
| 48 | 17.423 | 2504 | 2508 | 2514 | rBV2 | 101120 | 132154 | 1.28% | 0.149% |
| 49 | 17.481 | 2514 | 2518 | 2528 | rVB3 | 148398 | 270862 | 2.63% | 0.305% |
| 50 | 17.622 | 2538 | 2542 | 2548 | rVB | 72537 | 124763 | 1.21% | 0.141% |
| 51 | 17.781 | 2563 | 2569 | 2573 | rVV | 633954 | 883593 | 8.59% | 0.996% |
| 52 | 17.828 | 2573 | 2577 | 2583 | rVB | 1236769 | 1584687 | 15.40% | 1.785% |
| 53 | 17.910 | 2584 | 2591 | 2596 | rVB | 242466 | 341286 | 3.32% | 0.385% |
| 54 | 17.975 | 2596 | 2602 | 2606 | rBV2 | 927721 | 1529793 | 14.87% | 1.724% |
| 55 | 18.010 | 2606 | 2608 | 2615 | rVB | 433713 | 515087 | 5.01% | 0.580% |
| 56 | 18.092 | 2618 | 2622 | 2625 | rBV4 | 71320 | 108919 | 1.06% | 0.123% |
| 57 | 18.181 | 2633 | 2637 | 2642 | rBV6 | 79888 | 120645 | 1.17% | 0.136% |
| 58 | 18.286 | 2651 | 2655 | 2659 | rBV | 435827 | 574125 | 5.58% | 0.647% |
| 59 | 18.339 | 2659 | 2664 | 2668 | rVV | 403242 | 540059 | 5.25% | 0.608% |
| 60 | 18.533 | 2693 | 2697 | 2703 | rVB3 | 162107 | 241427 | 2.35% | 0.272% |
| 61 | 18.586 | 2703 | 2706 | 2710 | rVV | 123388 | 159839 | 1.55% | 0.180% |
| 62 | 18.627 | 2710 | 2713 | 2717 | rVB2 | 103080 | 131657 | 1.28% | 0.148% |
| 63 | 18.709 | 2722 | 2727 | 2731 | rBV | 243793 | 404798 | 3.93% | 0.456% |
| 64 | 18.862 | 2747 | 2753 | 2760 | rVB2 | 296720 | 542037 | 5.27% | 0.611% |
| 65 | 19.003 | 2767 | 2777 | 2780 | rBV | 6490752 | 10287390 | 100.00% | 11.590% |
| 66 | 19.038 | 2780 | 2783 | 2787 | rVV3 | 143315 | 231096 | 2.25% | 0.260% |
| 67 | 19.085 | 2787 | 2791 | 2794 | rVV2 | 122019 | 162078 | 1.58% | 0.183% |
| 68 | 19.132 | 2795 | 2799 | 2803 | rVB | 128012 | 172340 | 1.68% | 0.194% |
| 69 | 19.221 | 2807 | 2814 | 2820 | rVB2 | 199746 | 409241 | 3.98% | 0.461% |
| 70 | 19.367 | 2826 | 2839 | 2844 | rBV2 | 4850693 | 9248746 | 89.90% | 10.420% |
| 71 | 19.420 | 2844 | 2848 | 2854 | rVB2 | 234052 | 371081 | 3.61% | 0.418% |

LSC Area Percent Report

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Acq On : 4 Aug 2015 21:50
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Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % 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_G\METHODS\SOM02.2-EPA-BG073115.M
Title : SVOA CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 19.526 | 2862 | 2866 | 2871 | rVB | 285609 | 356016 | 3.46% | 0.401% |
| 73 | 19.585 | 2872 | 2876 | 2882 | rVB | 219818 | 366932 | 3.57% | 0.413% |
| 74 | 19.685 | 2885 | 2893 | 2897 | rBV2 | 274731 | 703947 | 6.84% | 0.793% |
| 75 | 19.732 | 2898 | 2901 | 2904 | rVV | 83834 | 101810 | 0.99% | 0.115% |
| 76 | 19.808 | 2910 | 2914 | 2916 | rVV3 | 242493 | 356568 | 3.47% | 0.402% |
| 77 | 19.849 | 2917 | 2921 | 2925 | rVB | 534248 | 727898 | 7.08% | 0.820% |
| 78 | 19.949 | 2934 | 2938 | 2941 | rBV | 385015 | 469961 | 4.57% | 0.529% |
| 79 | 20.002 | 2941 | 2947 | 2951 | rBV2 | 393202 | 671001 | 6.52% | 0.756% |
| 80 | 20.143 | 2968 | 2971 | 2975 | rVV | 190159 | 233466 | 2.27% | 0.263% |
| 81 | 20.190 | 2975 | 2979 | 2983 | rVB2 | 229207 | 331763 | 3.22% | 0.374% |
| 82 | 20.601 | 3044 | 3049 | 3054 | rVB | 611564 | 753702 | 7.33% | 0.849% |
| 83 | 20.760 | 3071 | 3076 | 3080 | rBV2 | 625561 | 901732 | 8.77% | 1.016% |
| 84 | 20.801 | 3080 | 3083 | 3086 | rVV | 459941 | 542079 | 5.27% | 0.611% |
| 85 | 20.842 | 3086 | 3090 | 3094 | rVV2 | 476365 | 808291 | 7.86% | 0.911% |
| 86 | 20.901 | 3097 | 3100 | 3105 | rVB | 556619 | 685968 | 6.67% | 0.773% |
| 87 | 21.112 | 3127 | 3136 | 3141 | rBV2 | 3809836 | 6437772 | 62.58% | 7.253% |
| 88 | 21.165 | 3141 | 3145 | 3153 | rVB | 3189459 | 4512457 | 43.86% | 5.084% |
| 89 | 21.271 | 3160 | 3163 | 3168 | rBV | 348412 | 437766 | 4.26% | 0.493% |
| 90 | 21.324 | 3169 | 3172 | 3176 | rBV3 | 208739 | 332156 | 3.23% | 0.374% |
| 91 | 21.430 | 3186 | 3190 | 3194 | rBV2 | 316542 | 524782 | 5.10% | 0.591% |
| 92 | 21.477 | 3195 | 3198 | 3201 | rVV3 | 145350 | 163480 | 1.59% | 0.184% |
| 93 | 21.600 | 3217 | 3219 | 3222 | rBV2 | 139689 | 151431 | 1.47% | 0.171% |
| 94 | 21.659 | 3225 | 3229 | 3233 | rVB | 536864 | 712739 | 6.93% | 0.803% |
| 95 | 21.847 | 3258 | 3261 | 3264 | rBV | 256330 | 347505 | 3.38% | 0.392% |
| 96 | 22.675 | 3393 | 3402 | 3406 | rBV | 2590897 | 6437365 | 62.58% | 7.253% |
| 97 | 22.822 | 3423 | 3427 | 3432 | rVB | 436624 | 599027 | 5.82% | 0.675% |
| 98 | 23.134 | 3473 | 3480 | 3489 | rBV | 1126411 | 2511410 | 24.41% | 2.829% |
| 99 | 23.233 | 3490 | 3497 | 3505 | rVB | 2130929 | 4009371 | 38.97% | 4.517% |
| 100 | 23.363 | 3515 | 3519 | 3527 | rVB2 | 674491 | 1146344 | 11.14% | 1.292% |

Sum of corrected areas: 88758101

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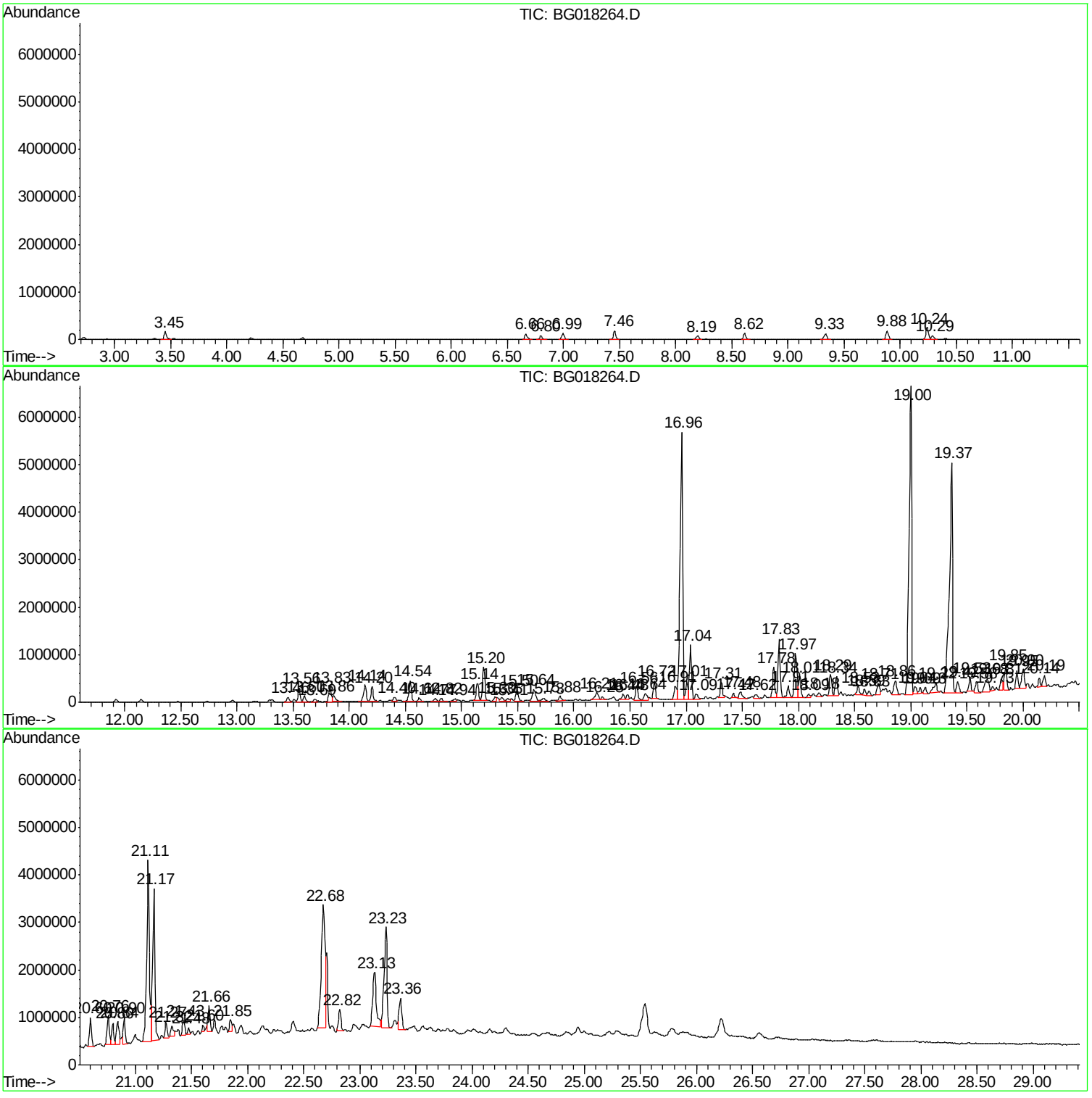
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

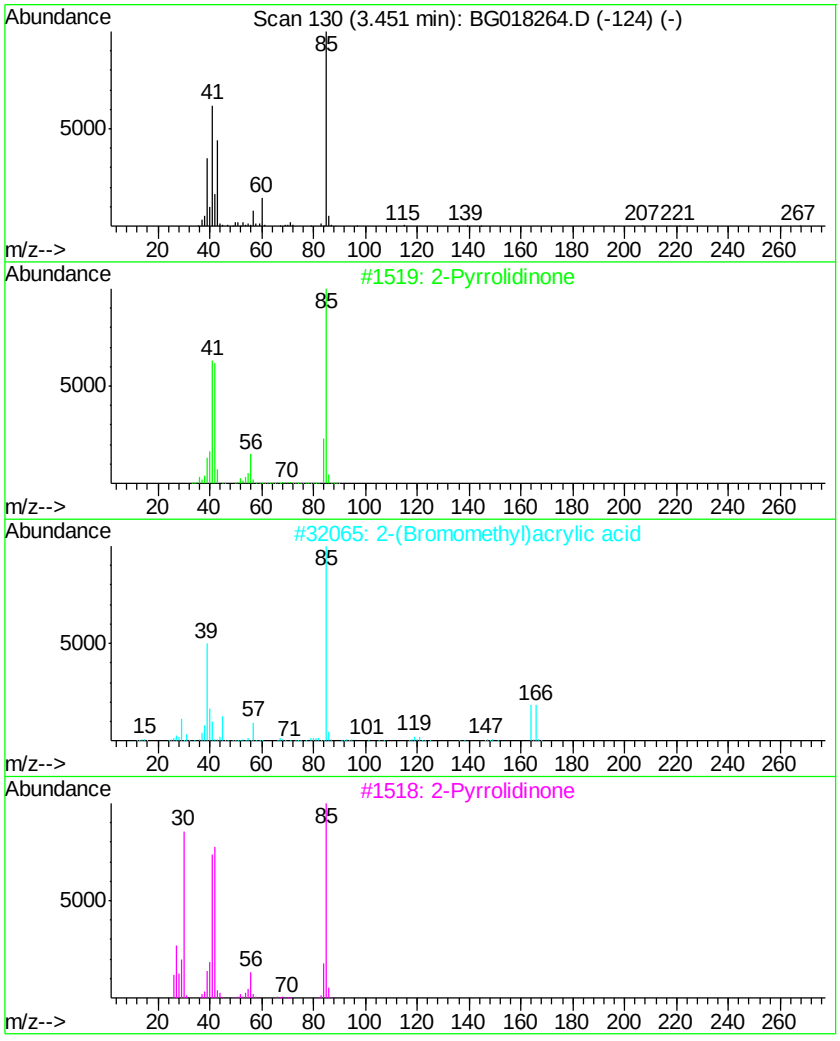
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

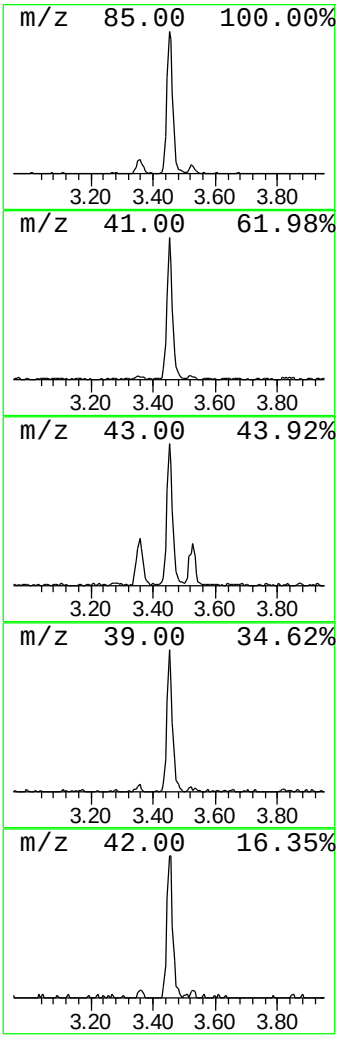
**********

Peak Number 1 unknown-01 Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 3.45 | 16.79 ng/ul | 233568 | 1,4-Dichlorobenzene-d4 | 7.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pyrrolidinone | 85 | C4H7NO | 000616-45-5 | 45 |
| 2 | 2-(Bromomethyl)acrylic acid | 164 | C4H5BrO2 | 072707-66-5 | 40 |
| 3 | 2-Pyrrolidinone | 85 | C4H7NO | 000616-45-5 | 36 |
| 4 | Methacrylamide | 85 | C4H7NO | 000079-39-0 | 32 |
| 5 | 2-Pyrrolidinone | 85 | C4H7NO | 000616-45-5 | 9 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

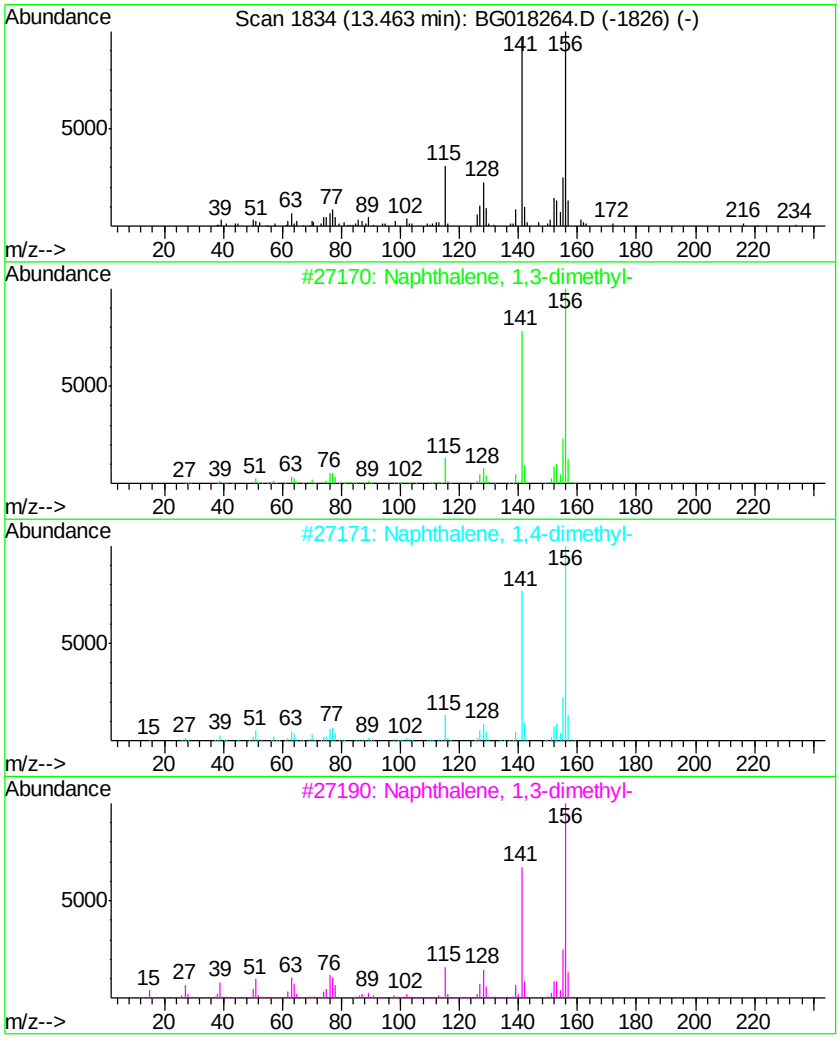
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

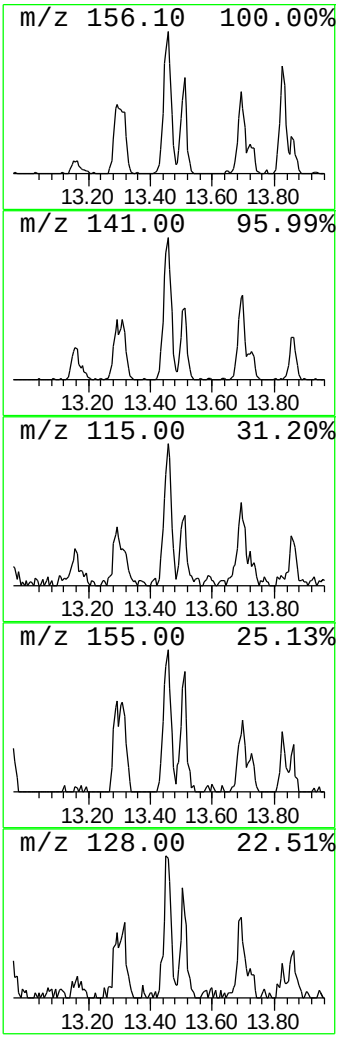
**********

Peak Number 2 Naphthalene, 1,3-dimethyl- Concentration Rank 26

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.46 | 5.52 ng/ul | 170130 | Acenaphthene-d10 | 14.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,3-dimethyl- | 156 | C12H12 | 000575-41-7 | 96 |
| 2 | Naphthalene, 1,4-dimethyl- | 156 | C12H12 | 000571-58-4 | 94 |
| 3 | Naphthalene, 1,3-dimethyl- | 156 | C12H12 | 000575-41-7 | 94 |
| 4 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 94 |
| 5 | Naphthalene, 1,5-dimethyl- | 156 | C12H12 | 000571-61-9 | 93 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

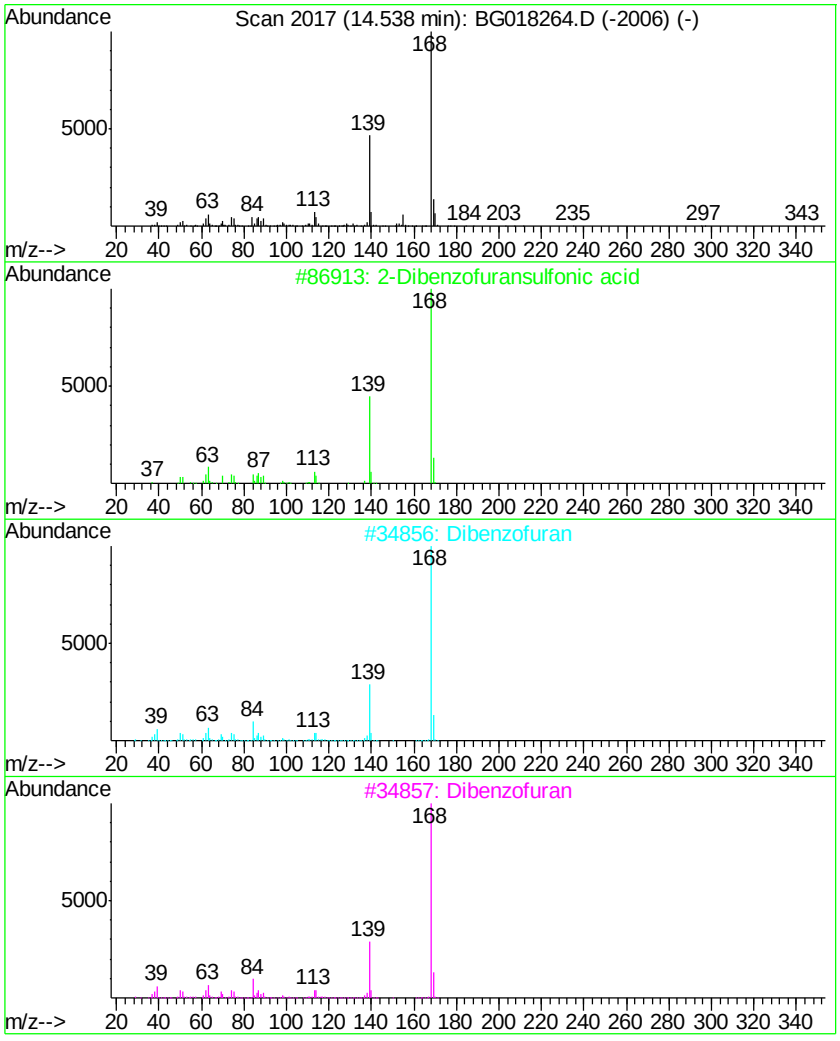
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

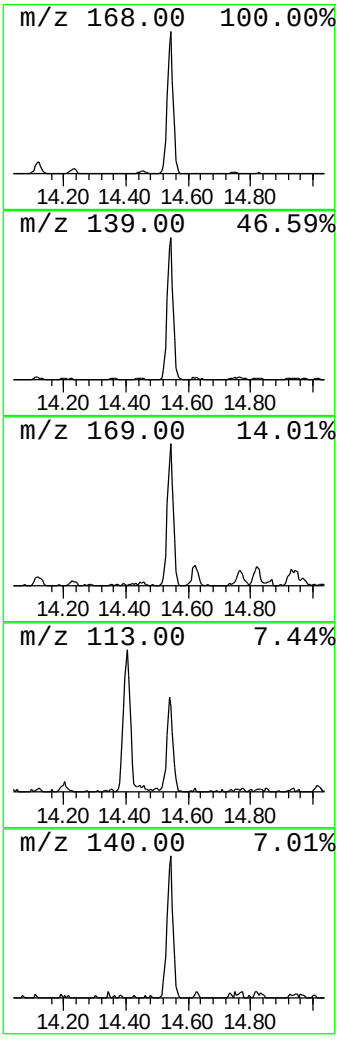
**********

Peak Number 4 2-Dibenzofuransulfonic acid Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.54 | 21.84 ng/ul | 673019 | Acenaphthene-d10 | 14.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Dibenzofuransulfonic acid | 248 | C12H8O4S | 083863-63-2 | 87 |
| 2 | Dibenzofuran | 168 | C12H8O | 000132-64-9 | 81 |
| 3 | Dibenzofuran | 168 | C12H8O | 000132-64-9 | 81 |
| 4 | Dibenzofuran | 168 | C12H8O | 000132-64-9 | 78 |
| 5 | 1(2H)-Acenaphthylenone | 168 | C12H8O | 002235-15-6 | 50 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

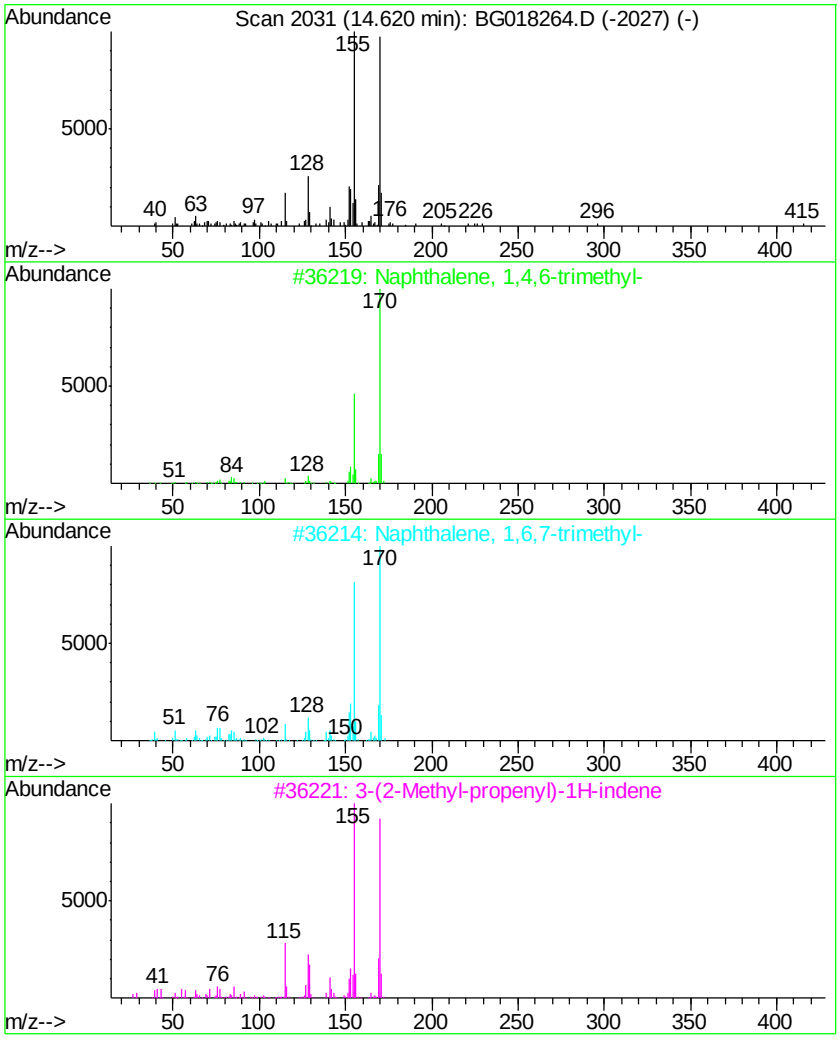
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

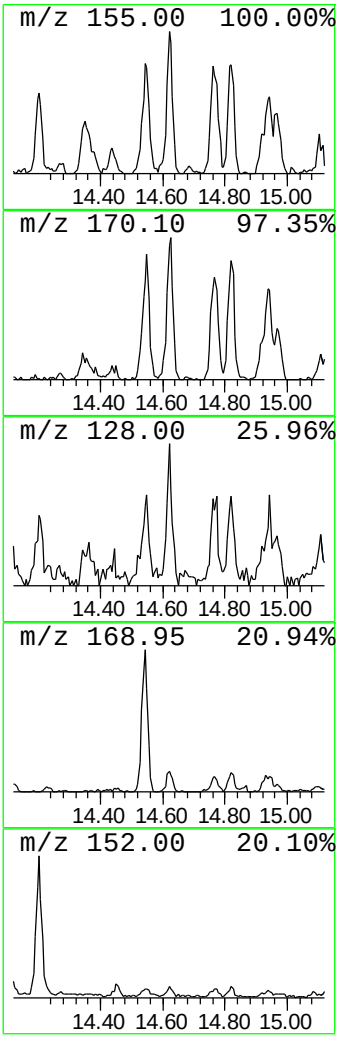
**********

Peak Number 5 Naphthalene, 1,4,6-trimethyl- Concentration Rank 37

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.62 | 3.25 ng/ul | 100205 | Acenaphthene-d10 | 14.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14 | 002131-42-2 | 94 |
| 2 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 94 |
| 3 | 3-(2-Methyl-propenyl)-1H-indene | 170 | C13H14 | 1000187-78-5 | 94 |
| 4 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 93 |
| 5 | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14 | 002131-42-2 | 93 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

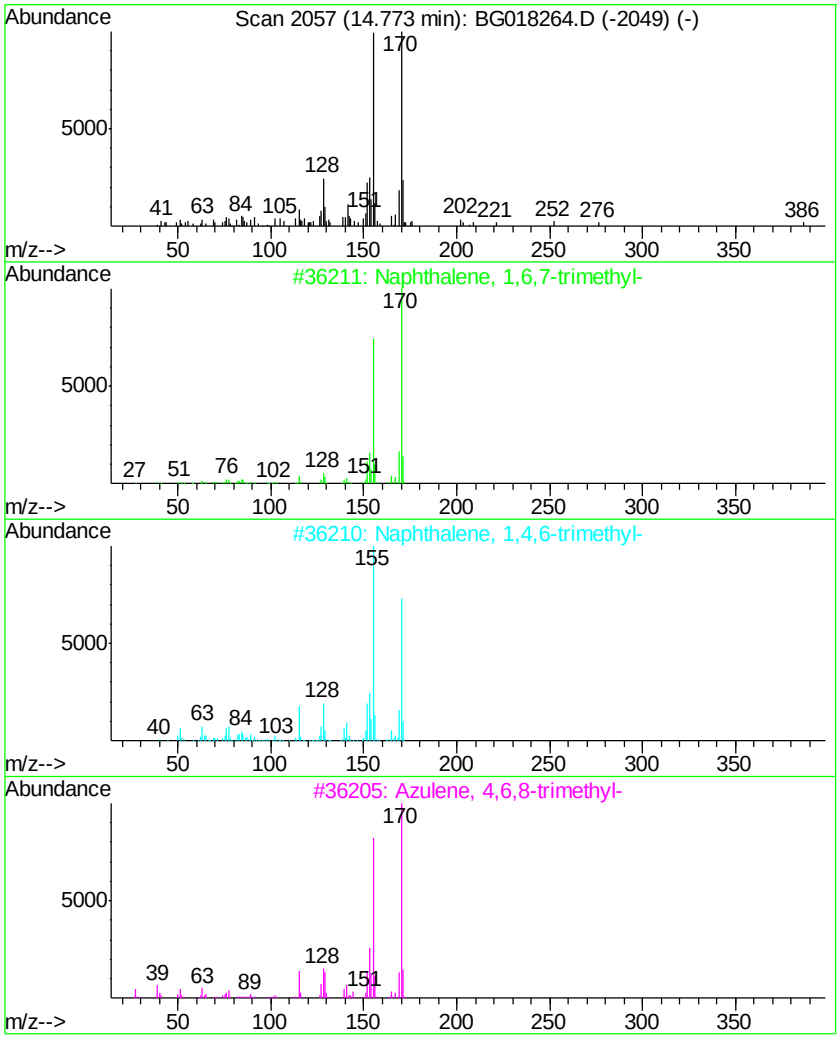
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

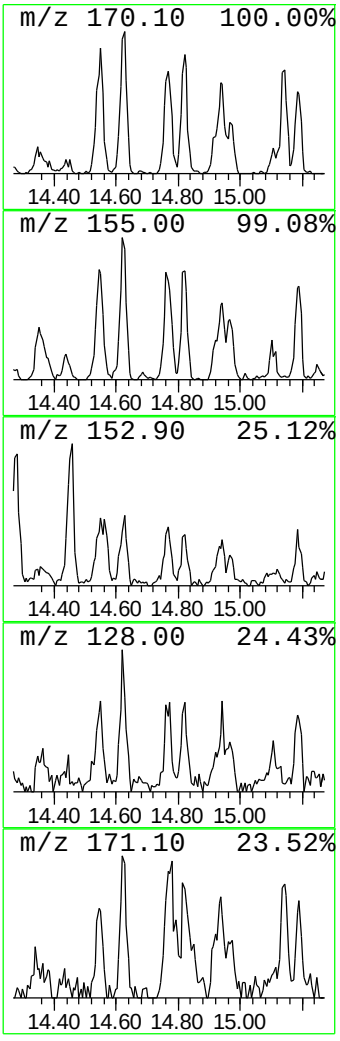
**********

Peak Number 6 Naphthalene, 1,6,7-trimethyl- Concentration Rank 34

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.77 | 3.78 ng/ul | 116423 | Acenaphthene-d10 | 14.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 95 |
| 2 | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14 | 002131-42-2 | 95 |
| 3 | Azulene, 4,6,8-trimethyl- | 170 | C13H14 | 000941-81-1 | 95 |
| 4 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 94 |
| 5 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 94 |



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Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

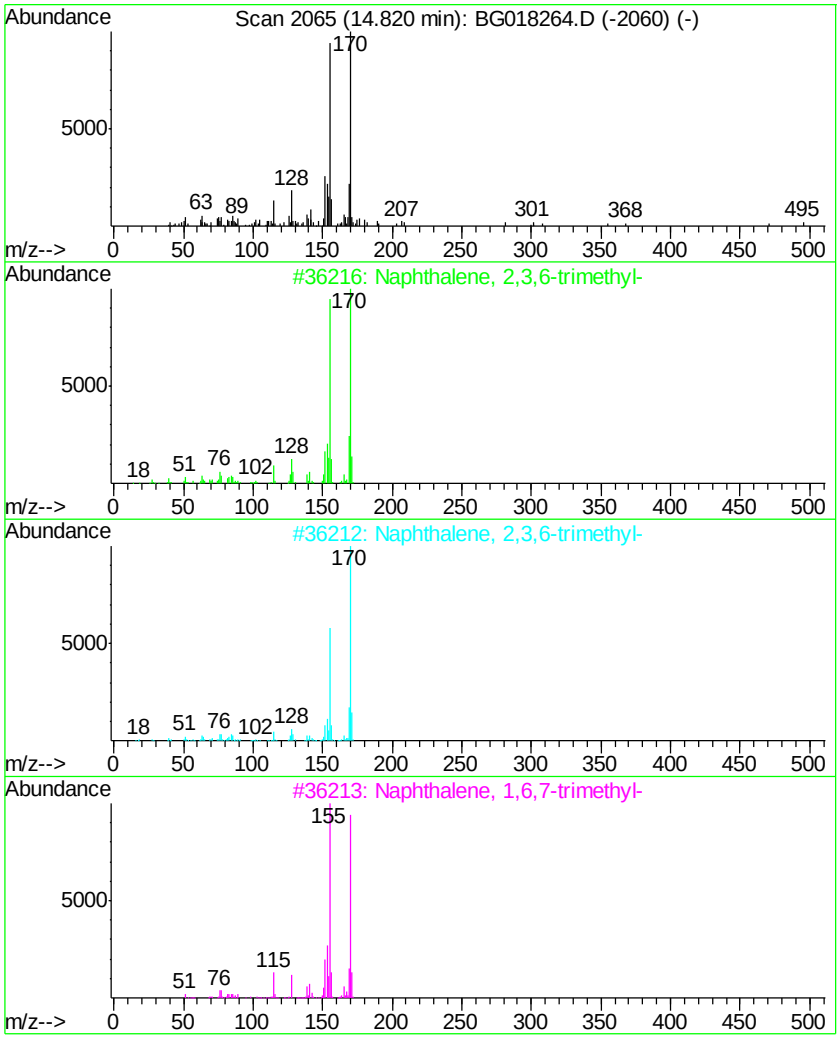
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

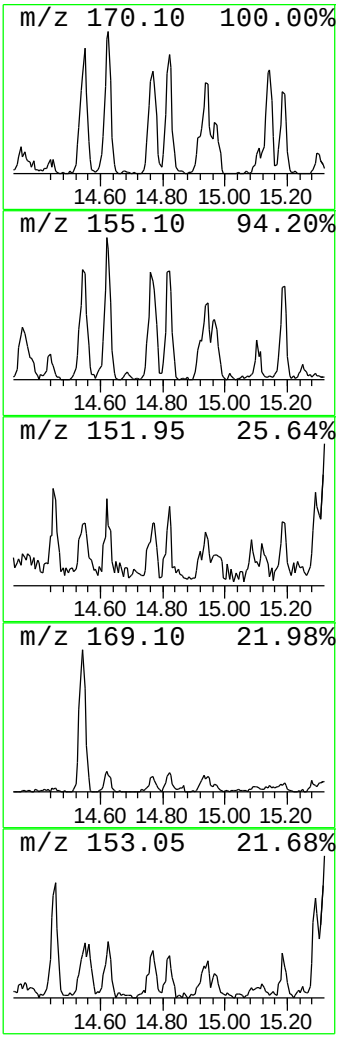
**********

Peak Number 7 Naphthalene, 2,3,6-trimethyl- Concentration Rank 35

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.82 | 3.64 ng/ul | 112274 | Acenaphthene-d10 | 14.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 94 |
| 2 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 91 |
| 3 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 90 |
| 4 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 90 |
| 5 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 90 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

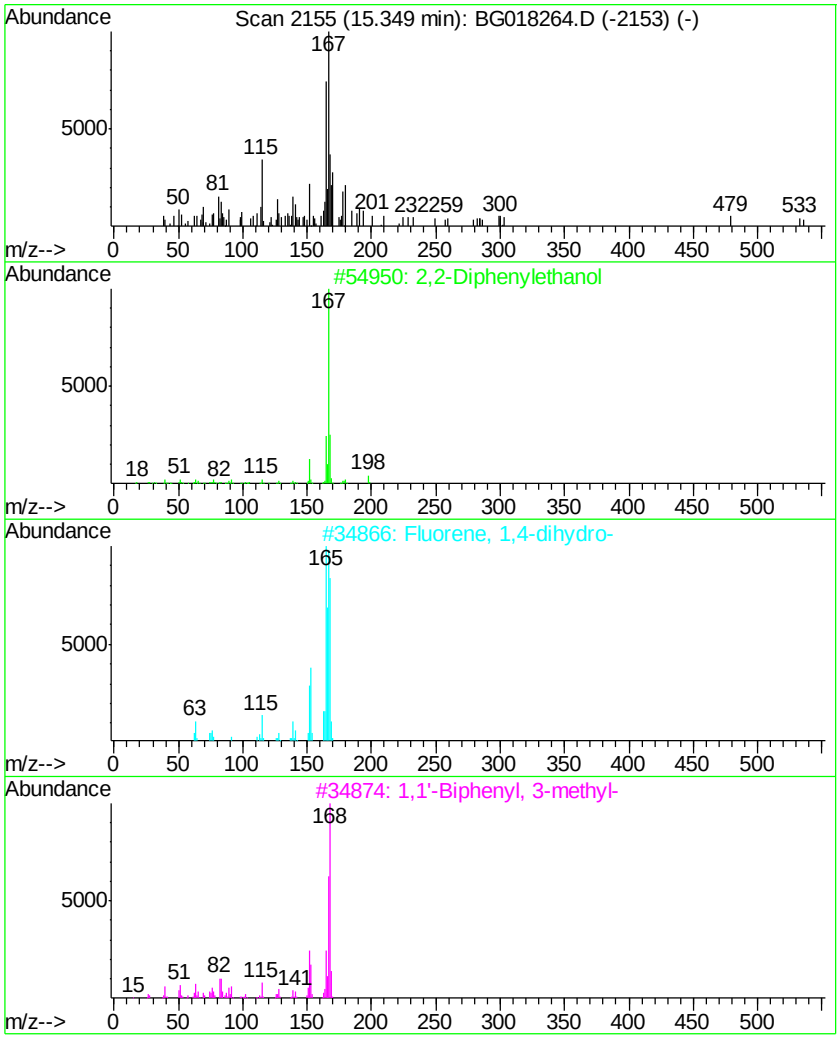
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

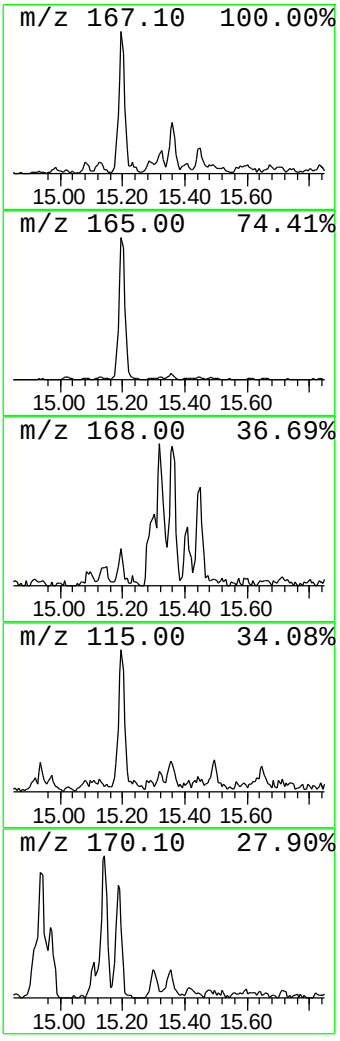
**********

Peak Number 9 unknown-02 Concentration Rank 33

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.35 | 3.83 ng/ul | 117981 | Acenaphthene-d10 | 14.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2,2-Diphenylethanol | 198 | C14H14O | 001883-32-5 | 43 |
| 2 | Fluorene, 1,4-dihydro- | 168 | C13H12 | 041593-21-9 | 43 |
| 3 | 1,1'-Biphenyl, 3-methyl- | 168 | C13H12 | 000643-93-6 | 38 |
| 4 | 1,1'-Biphenyl, 2-methyl- | 168 | C13H12 | 000643-58-3 | 38 |
| 5 | Naphthalene, 1-(2-propenyl)- | 168 | C13H12 | 002489-86-3 | 38 |



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Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

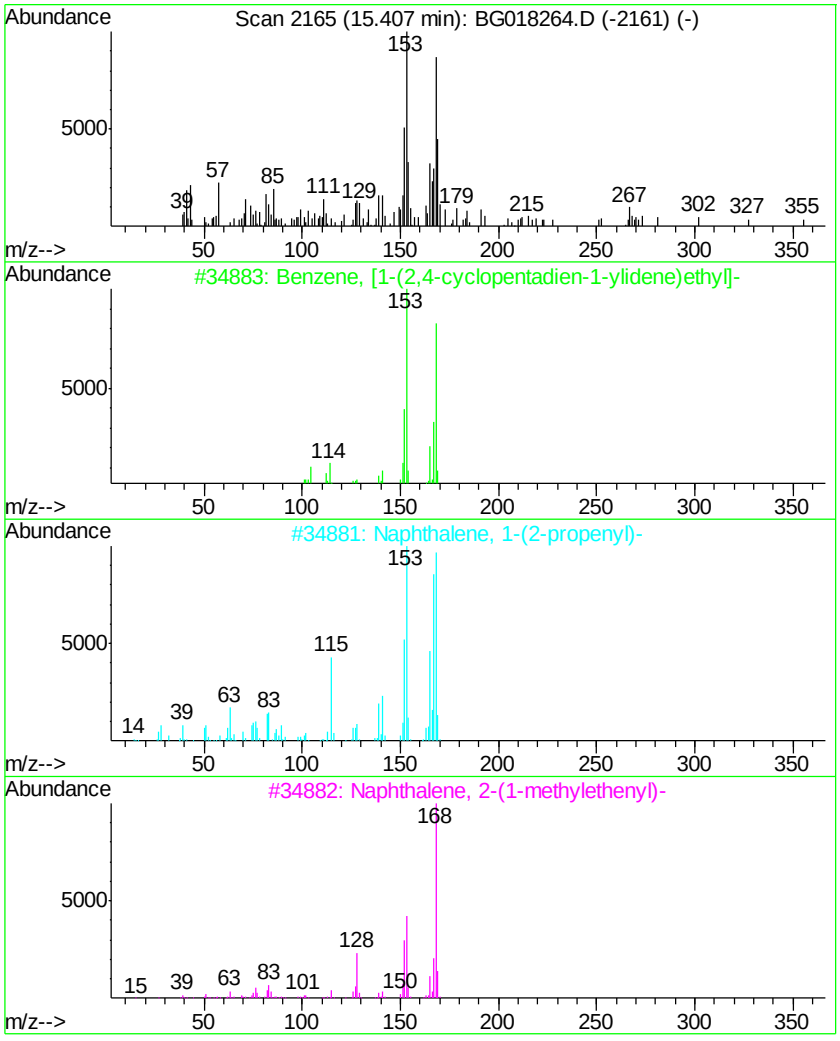
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

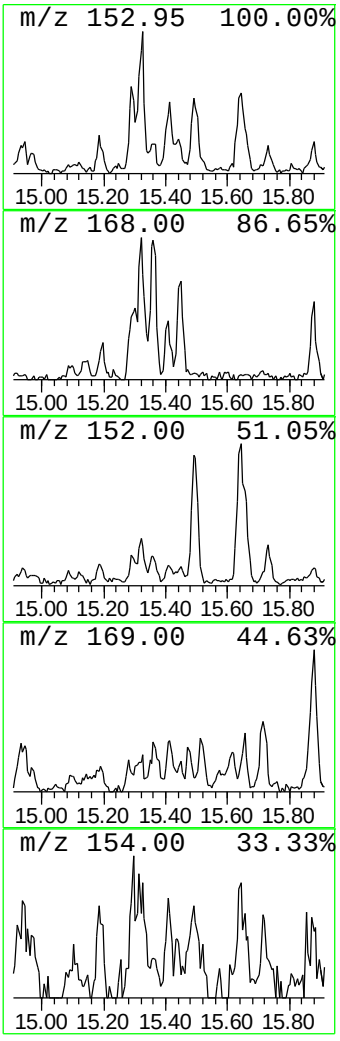
**********

Peak Number 10 Benzene, [1-(2,4-cyclopenta... Concentration Rank 38

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.41 | 3.23 ng/ul | 99442 | Acenaphthene-d10 | 14.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, [1-(2,4-cyclopentadien-... | 168 | C13H12 | 002320-32-3 | 62 |
| 2 | Naphthalene, 1-(2-propenyl)- | 168 | C13H12 | 002489-86-3 | 58 |
| 3 | Naphthalene, 2-(1-methylethenyl)- | 168 | C13H12 | 003710-23-4 | 43 |
| 4 | 1,1,4,4-Tetramethyl-1,4-disilacy... | 168 | C8H16Si2 | 020627-53-6 | 43 |
| 5 | 1,1'-Biphenyl, 2-methyl- | 168 | C13H12 | 000643-58-3 | 43 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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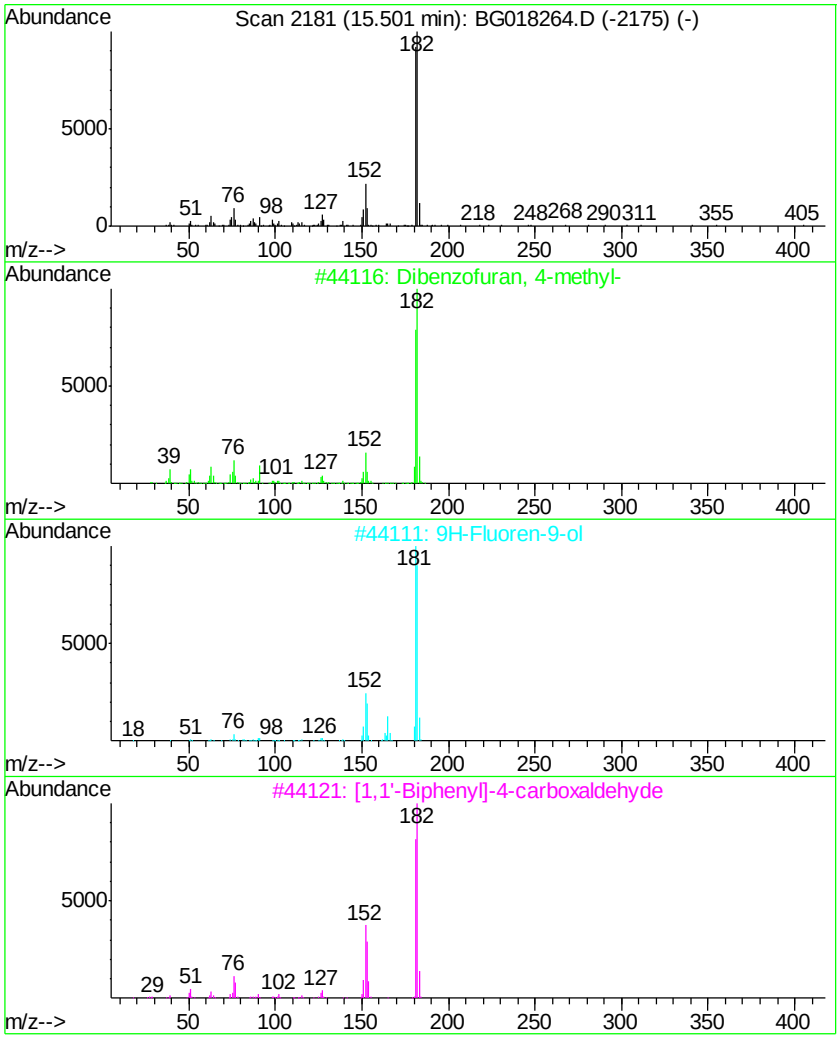
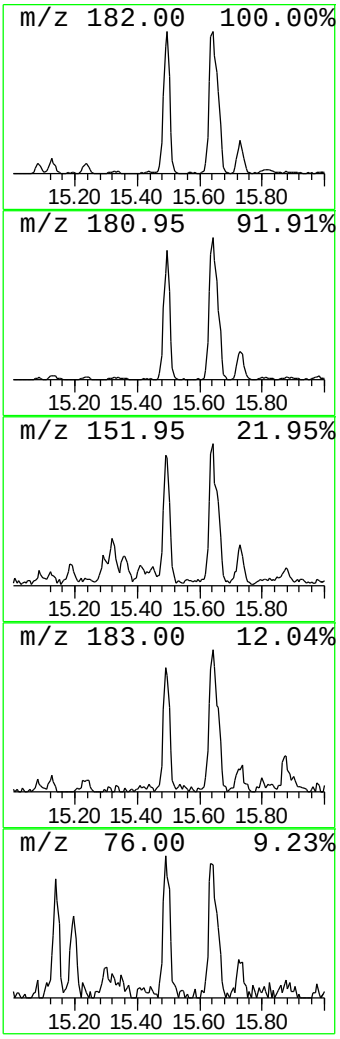
Peak Number 11 Dibenzofuran, 4-methyl- Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.50 | 12.28 ng/ul | 378338 | Acenaphthene-d10 | 14.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzofuran, 4-methyl- | 182 | C13H10O | 007320-53-8 | 91 |
| 2 | 9H-Fluoren-9-ol | 182 | C13H10O | 001689-64-1 | 86 |
| 3 | [1,1'-Biphenyl]-4-carboxaldehyde | 182 | C13H10O | 003218-36-8 | 64 |
| 4 | 9H-Fluoren-9-ol | 182 | C13H10O | 001689-64-1 | 64 |
| 5 | 9H-Xanthene | 182 | C13H10O | 000092-83-1 | 60 |



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Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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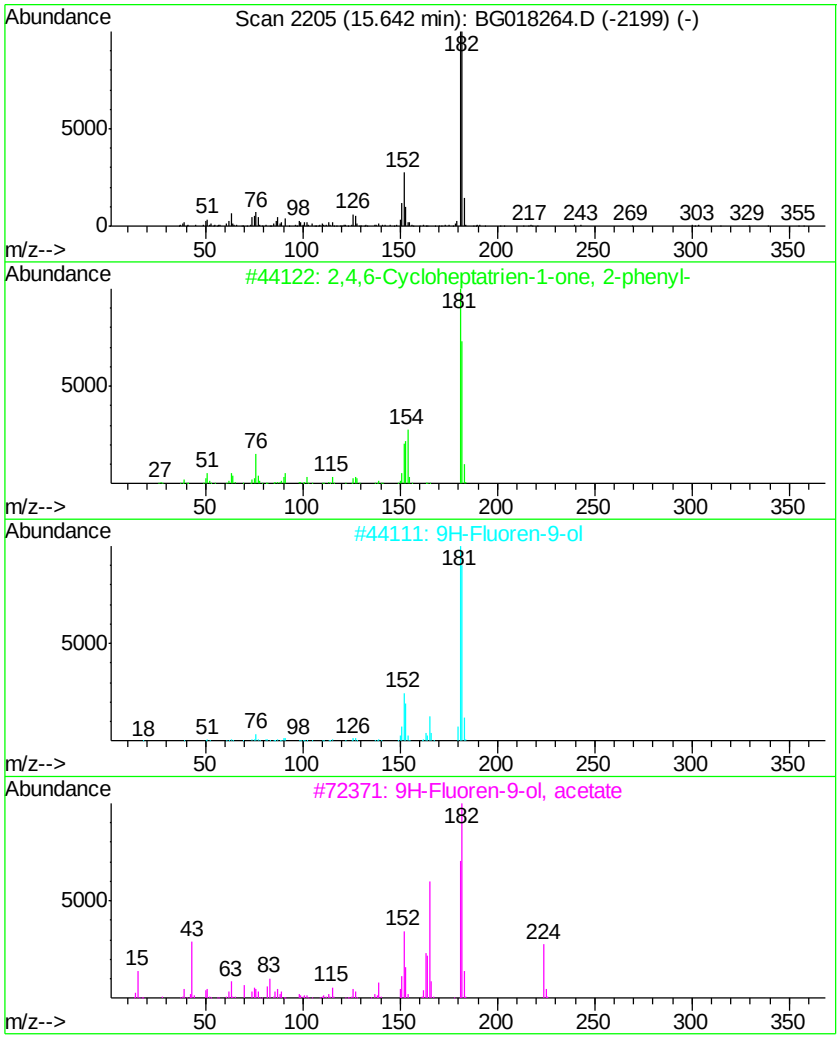
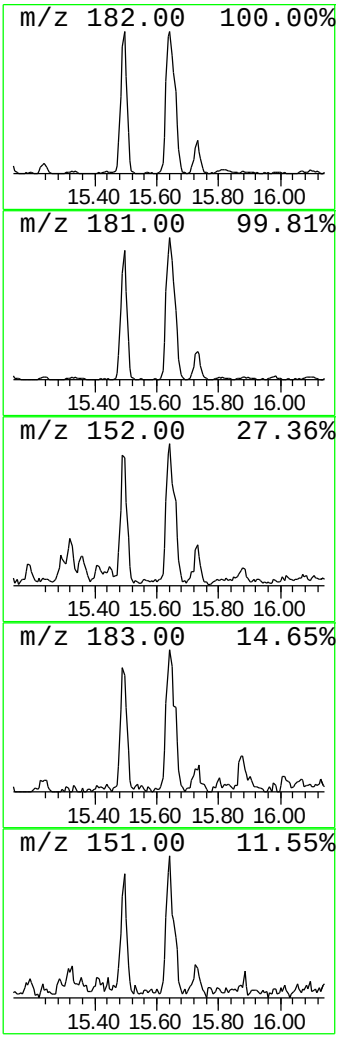
Peak Number 12 2,4,6-Cycloheptatrien-1-one... Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.64 | 21.48 ng/ul | 507536 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2,4,6-Cycloheptatrien-1-one, 2-p... | 182 | C13H10O | 014562-09-5 | 86 |
| 2 | 9H-Fluoren-9-ol | 182 | C13H10O | 001689-64-1 | 86 |
| 3 | 9H-Fluoren-9-ol, acetate | 224 | C15H12O2 | 025017-68-9 | 78 |
| 4 | 9H-Fluoren-9-ol | 182 | C13H10O | 001689-64-1 | 78 |
| 5 | Dibenzofuran, 4-methyl- | 182 | C13H10O | 007320-53-8 | 68 |



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Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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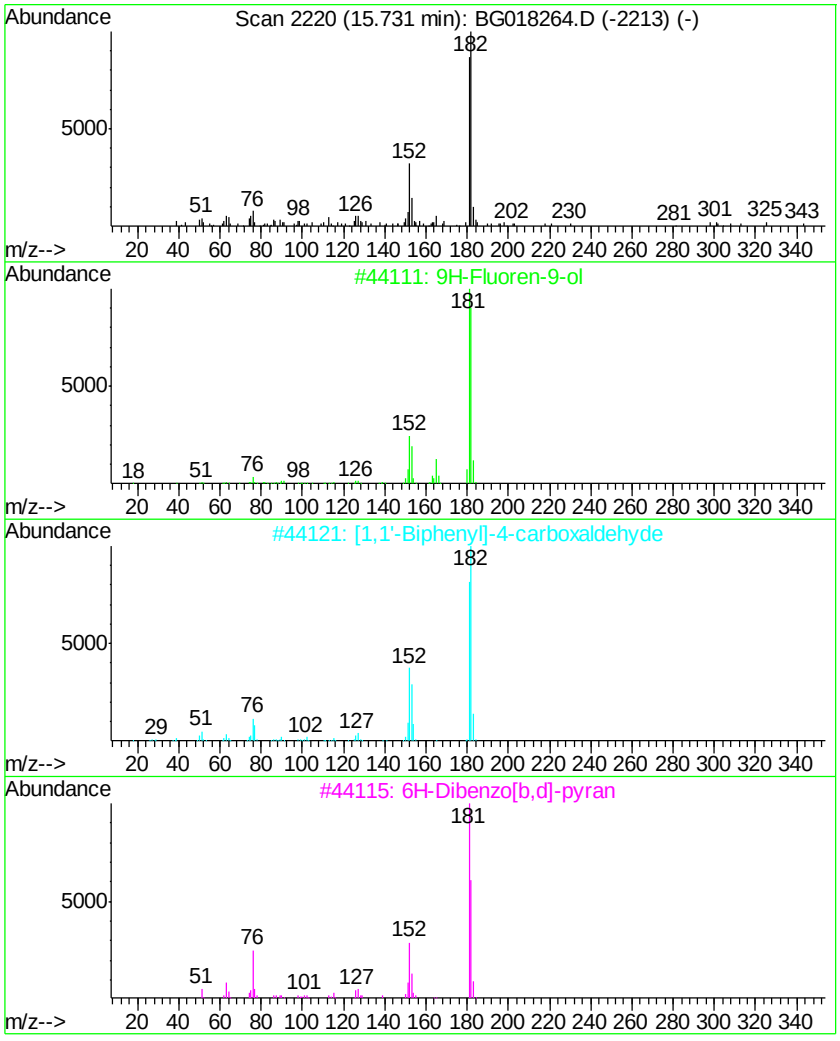
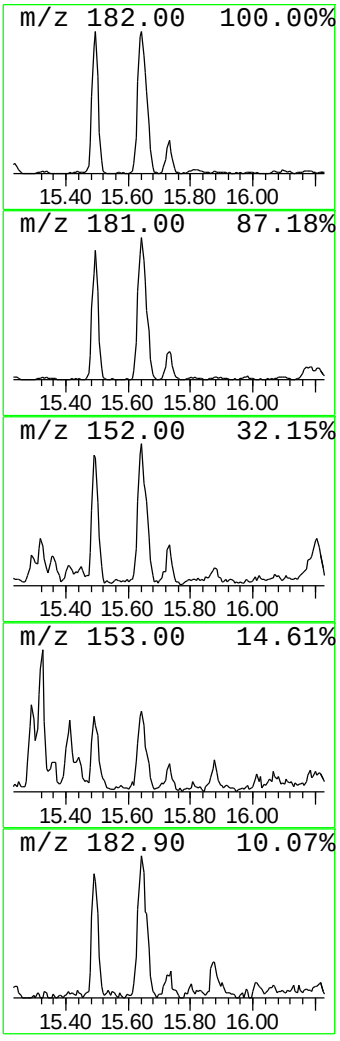
Peak Number 13 9H-Fluoren-9-ol Concentration Rank 30

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.73 | 4.72 ng/ul | 111463 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9H-Fluoren-9-ol | 182 | C13H10O | 001689-64-1 | 80 |
| 2 | [1,1'-Biphenyl]-4-carboxaldehyde | 182 | C13H10O | 003218-36-8 | 72 |
| 3 | 6H-Dibenzo[b,d]-pyran | 182 | C13H10O | 000229-95-8 | 64 |
| 4 | 2,4,6-Trimethoxytoluene | 182 | C10H14O3 | 014107-97-2 | 43 |
| 5 | Acetic acid, 2-oxo-2-(1,1'-biphe... | 254 | C16H14O3 | 004376-27-6 | 43 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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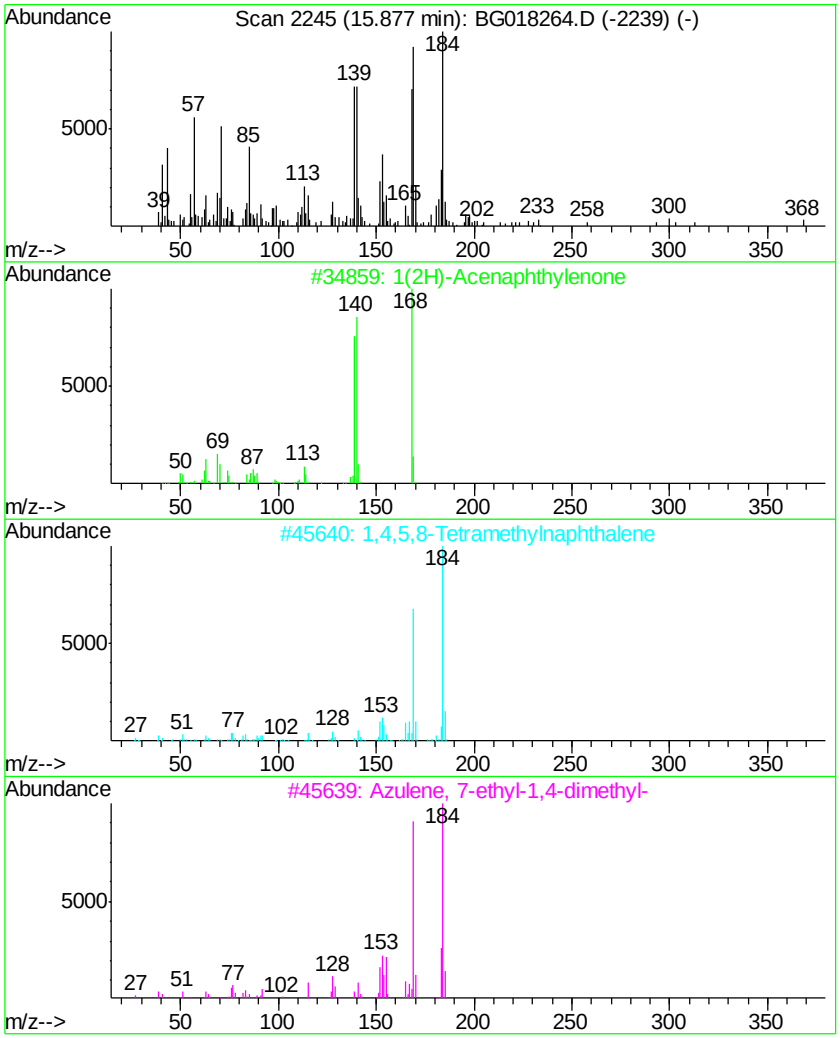
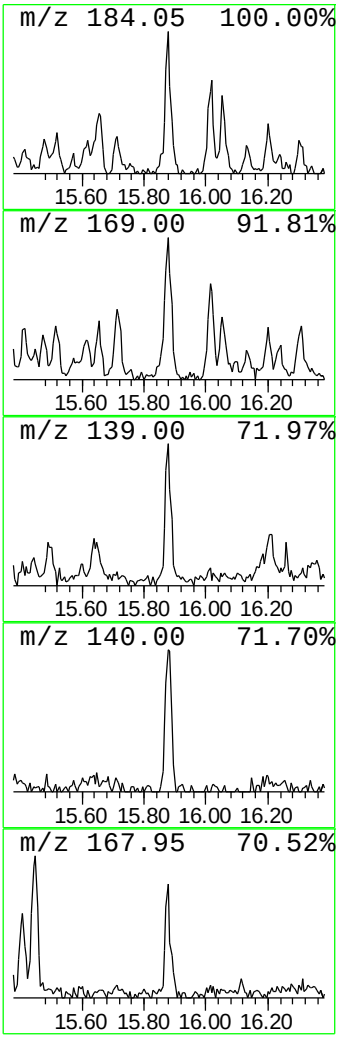
Peak Number 14 1(2H)-Acenaphthylenone Concentration Rank 23

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.88 | 6.76 ng/ul | 159648 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1(2H)-Acenaphthylenone | 168 | C12H8O | 002235-15-6 | 60 |
| 2 | 1,4,5,8-Tetramethylnaphthalene | 184 | C14H16 | 002717-39-7 | 50 |
| 3 | Azulene, 7-ethyl-1,4-dimethyl- | 184 | C14H16 | 000529-05-5 | 50 |
| 4 | Naphthalene, 1,2,3,4-tetramethyl- | 184 | C14H16 | 003031-15-0 | 38 |
| 5 | Naphthalene, 1-methyl-7-(1-methy... | 184 | C14H16 | 000490-65-3 | 30 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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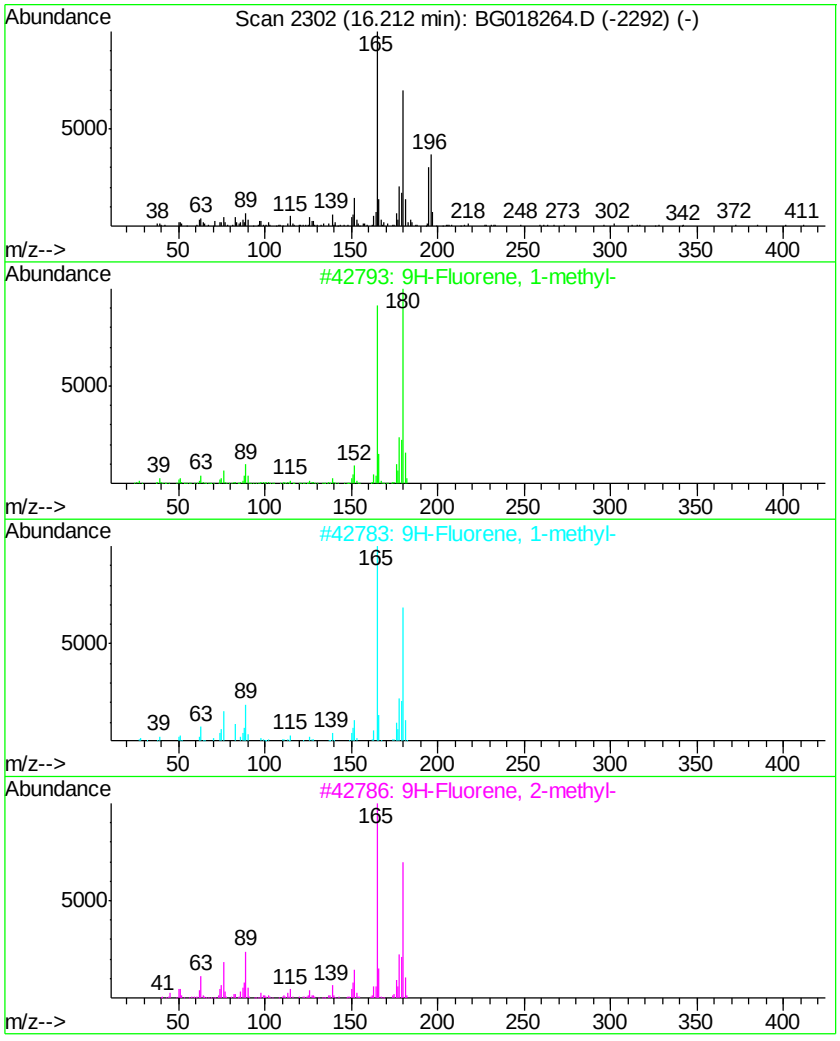
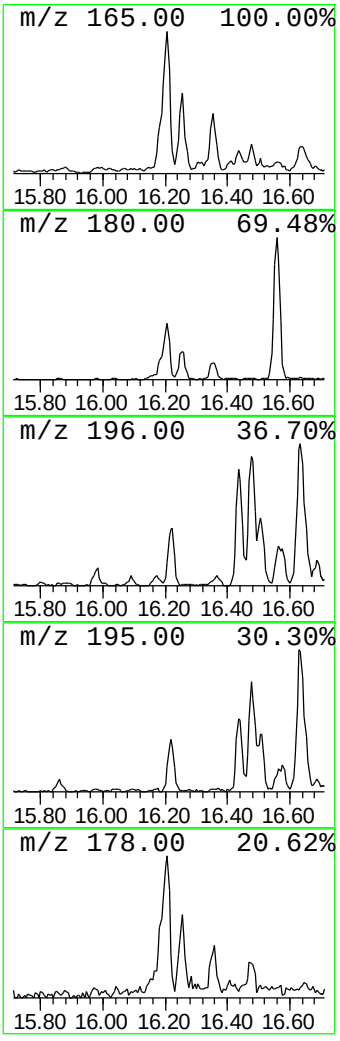
Peak Number 15 9H-Fluorene, 1-methyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.21 | 13.60 ng/ul | 321481 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9H-Fluorene, 1-methyl- | 180 | C14H12 | 001730-37-6 | 89 |
| 2 | 9H-Fluorene, 1-methyl- | 180 | C14H12 | 001730-37-6 | 89 |
| 3 | 9H-Fluorene, 2-methyl- | 180 | C14H12 | 001430-97-3 | 89 |
| 4 | 9H-Fluorene, 1-methyl- | 180 | C14H12 | 001730-37-6 | 76 |
| 5 | 9H-Fluorene, 9-methyl- | 180 | C14H12 | 002523-37-7 | 76 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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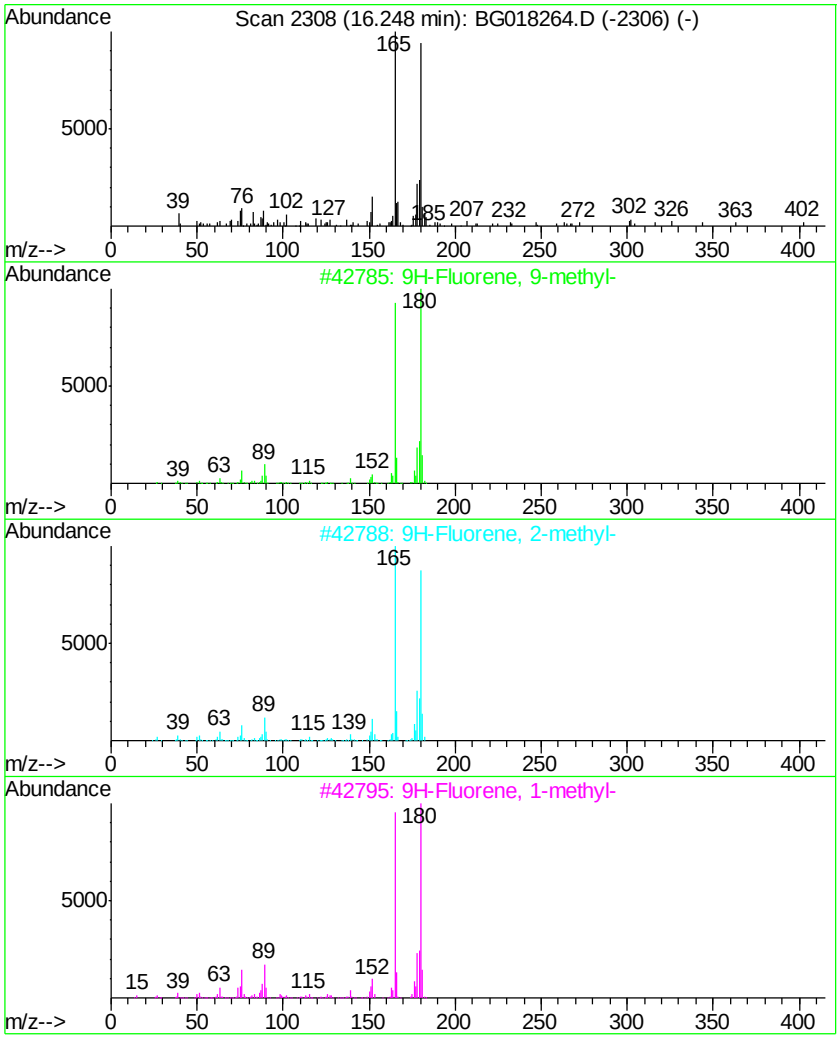
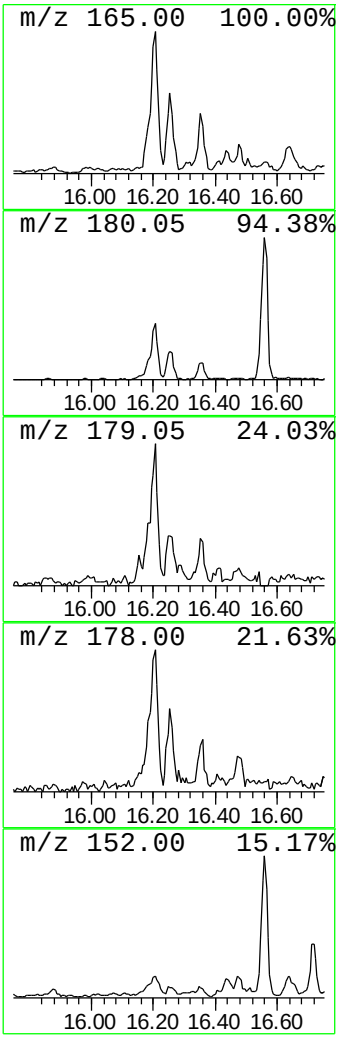
Peak Number 16 9H-Fluorene, 9-methyl- Concentration Rank 32

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.25 | 4.03 ng/ul | 95246 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9H-Fluorene, 9-methyl- | 180 | C14H12 | 002523-37-7 | 93 |
| 2 | 9H-Fluorene, 2-methyl- | 180 | C14H12 | 001430-97-3 | 91 |
| 3 | 9H-Fluorene, 1-methyl- | 180 | C14H12 | 001730-37-6 | 87 |
| 4 | 9H-Fluorene, 1-methyl- | 180 | C14H12 | 001730-37-6 | 83 |
| 5 | 9H-Fluorene, 9-methyl- | 180 | C14H12 | 002523-37-7 | 81 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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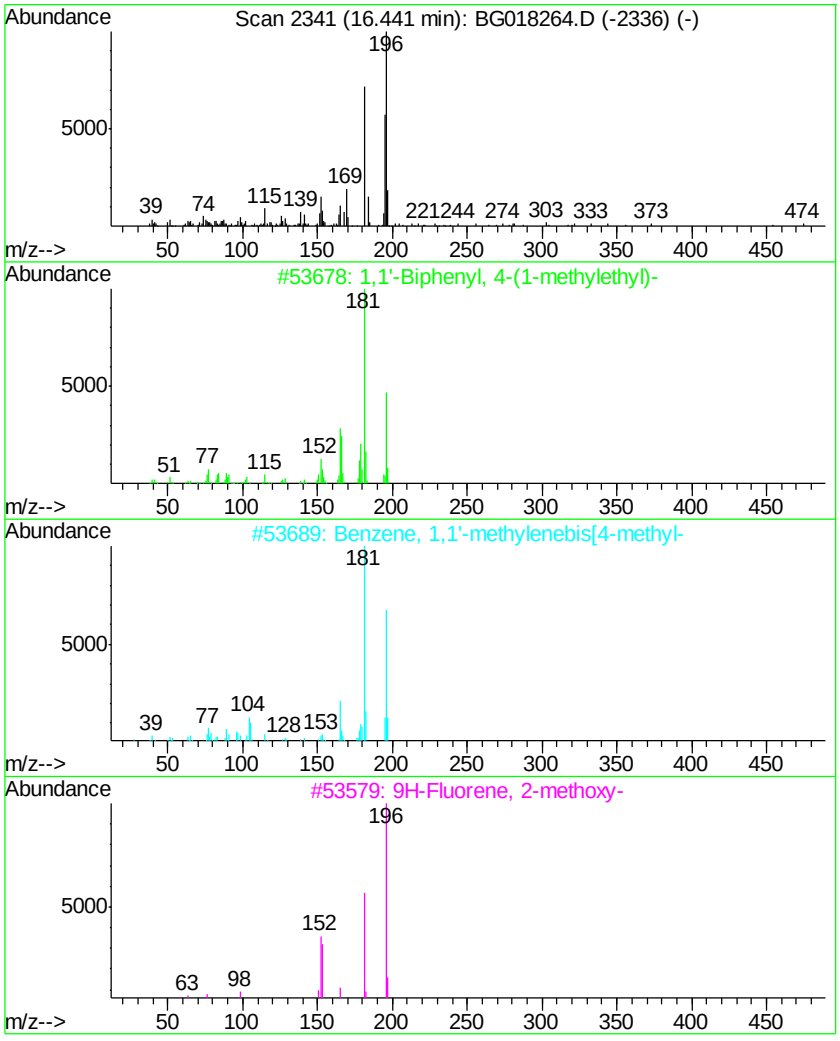
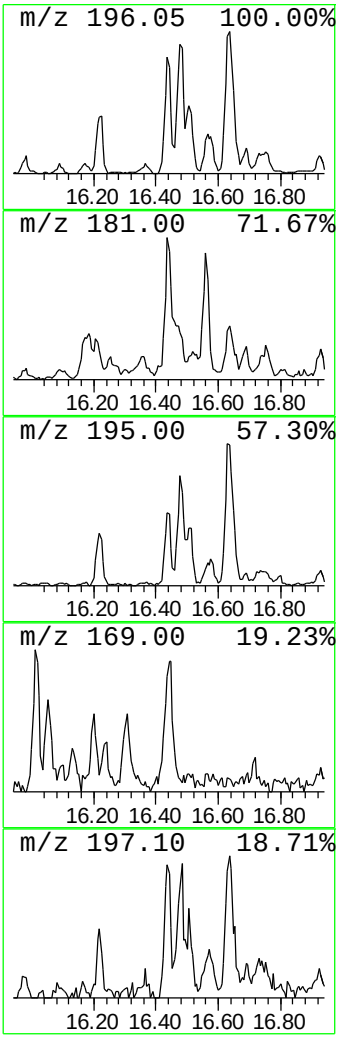
Peak Number 17 1,1'-Biphenyl, 4-(1-methyle... Concentration Rank 21

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.44 | 6.83 ng/ul | 161447 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 4-(1-methylethyl)- | 196 | C15H16 | 007116-95-2 | 58 |
| 2 | Benzene, 1,1'-methylenebis[4-met... | 196 | C15H16 | 004957-14-6 | 58 |
| 3 | 9H-Fluorene, 2-methoxy- | 196 | C14H12O | 002523-46-8 | 53 |
| 4 | Benzene, 1-methyl-2-[(4-methylph... | 196 | C15H16 | 021895-17-0 | 50 |
| 5 | Phenol, 4-(2-phenylethenyl)- | 196 | C14H12O | 003839-46-1 | 43 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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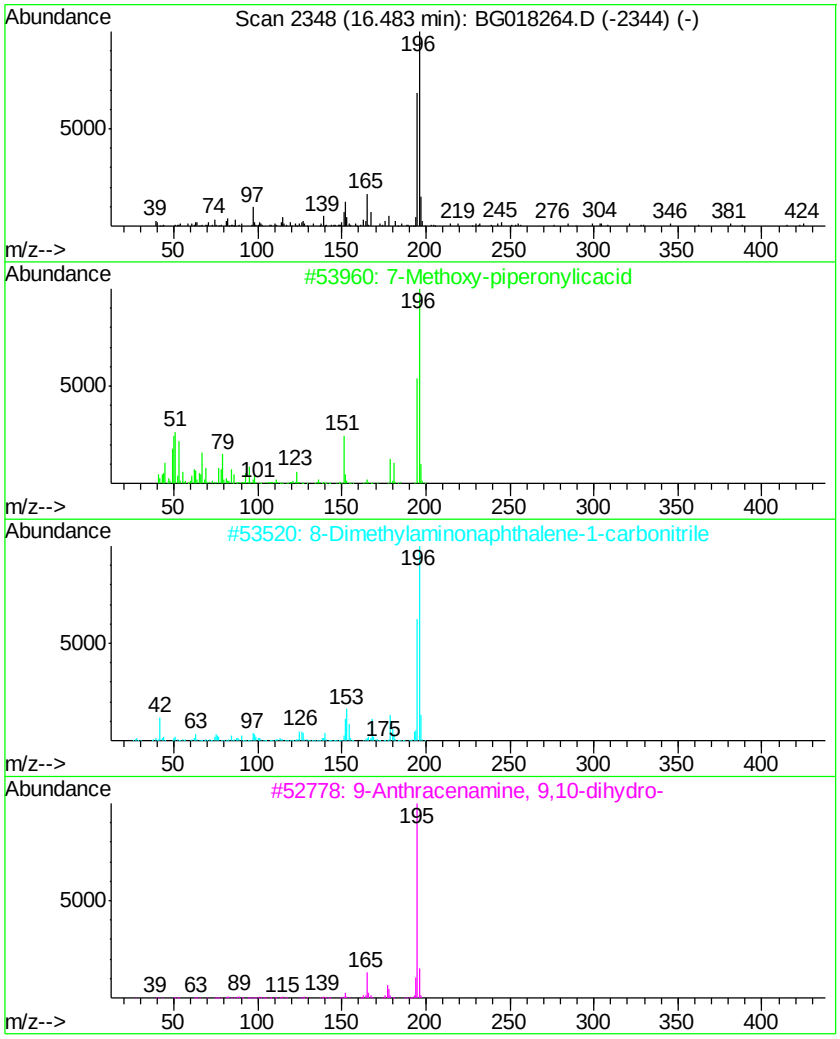
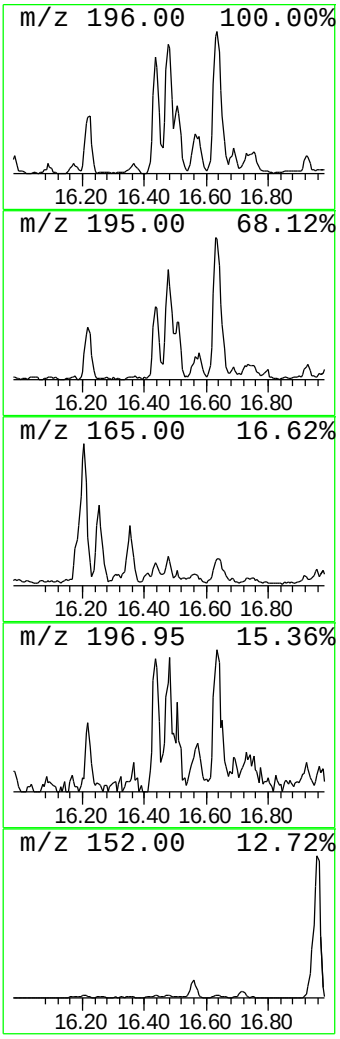
Peak Number 18 7-Methoxy-piperonylicacid Concentration Rank 27

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.48 | 5.43 ng/ul | 128255 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 7-Methoxy-piperonylicacid | 196 | C9H8O5 | 000526-34-1 | 59 |
| 2 | 8-Dimethylaminonaphthalene-1-car... | 196 | C13H12N2 | 128644-69-9 | 50 |
| 3 | 9-Anthracenamine, 9,10-dihydro- | 195 | C14H13N | 097825-91-7 | 49 |
| 4 | Phenol, 3-(2-phenylethenyl)-, (E)- | 196 | C14H12O | 017861-18-6 | 49 |
| 5 | Phenol, 4-(2-phenylethenyl)-, (E)- | 196 | C14H12O | 006554-98-9 | 47 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

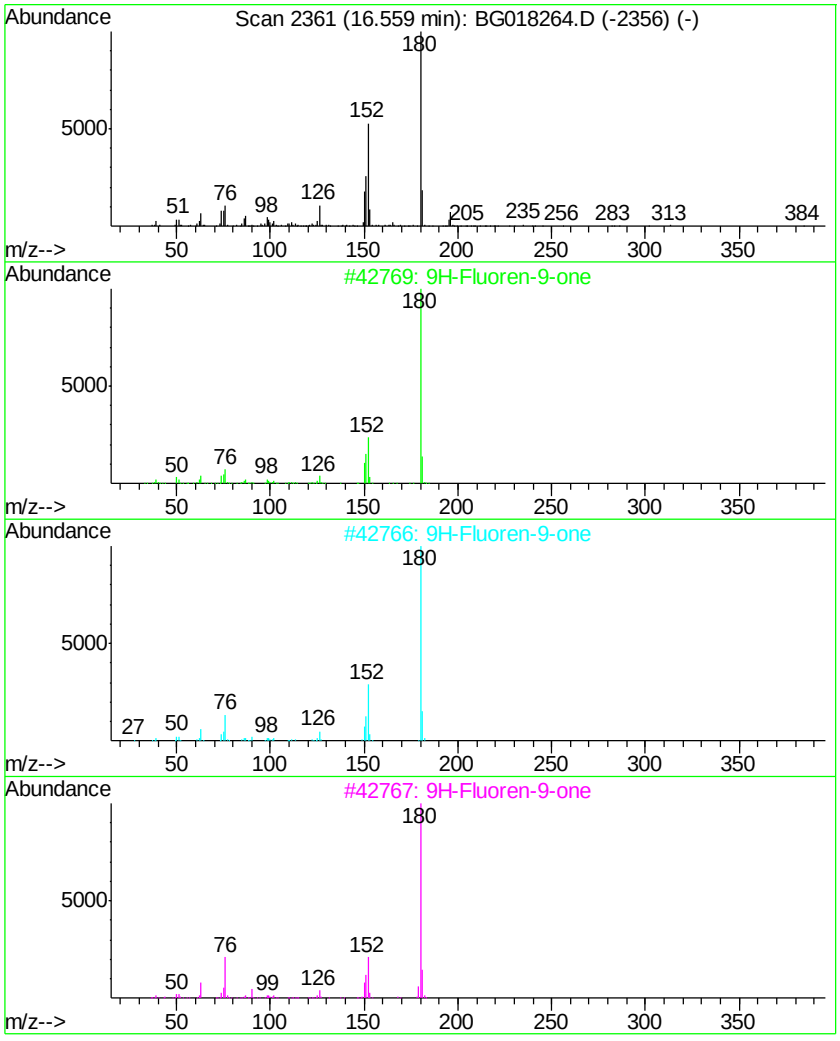
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

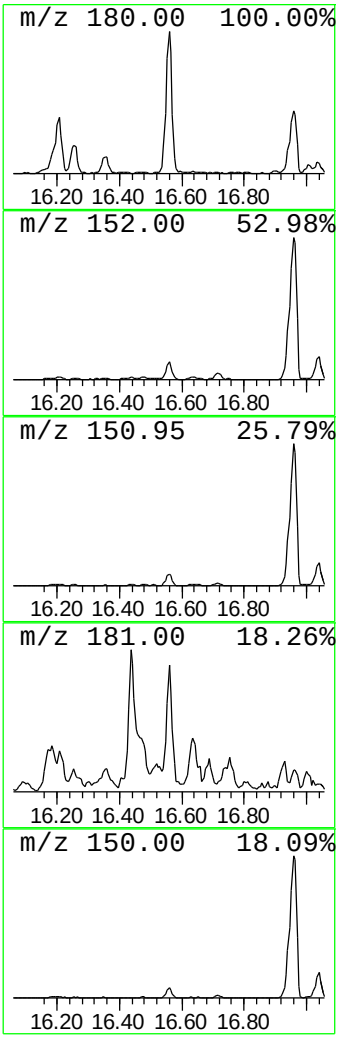
**********

Peak Number 19 9H-Fluoren-9-one Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.56 | 16.82 ng/ul | 397612 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9H-Fluoren-9-one | 180 | C13H8O | 000486-25-9 | 97 |
| 2 | 9H-Fluoren-9-one | 180 | C13H8O | 000486-25-9 | 94 |
| 3 | 9H-Fluoren-9-one | 180 | C13H8O | 000486-25-9 | 91 |
| 4 | 9H-Fluoren-9-one | 180 | C13H8O | 000486-25-9 | 91 |
| 5 | Benzo[h]cinnoline | 180 | C12H8N2 | 000230-31-9 | 91 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

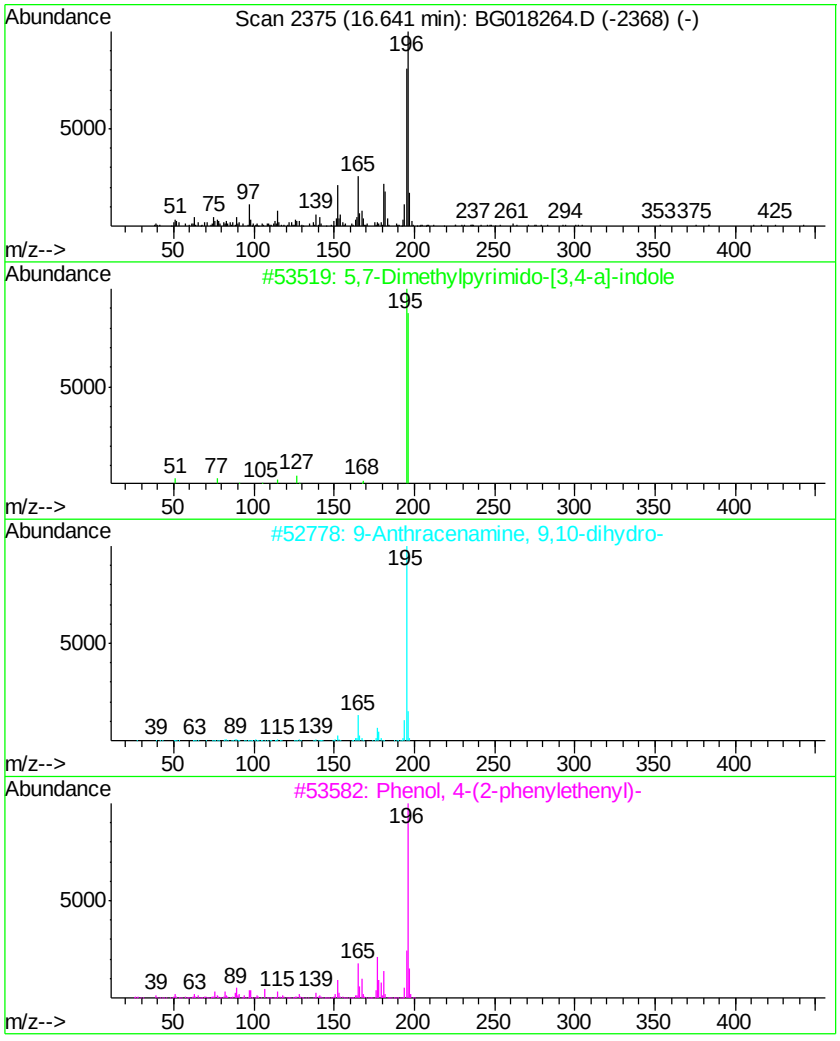
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

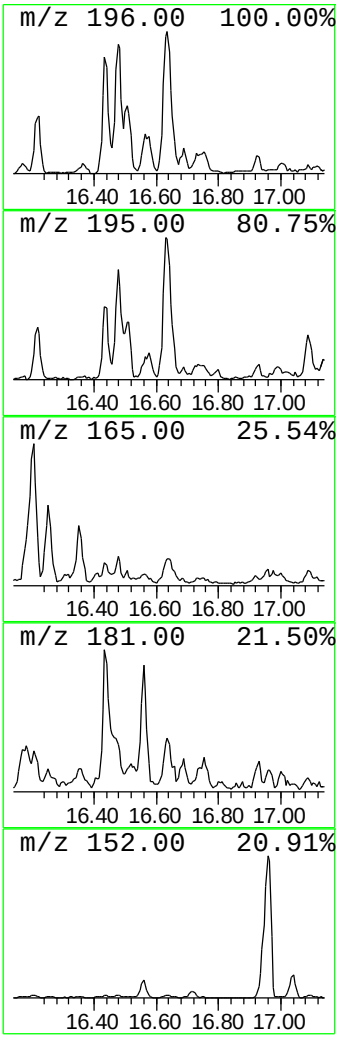
**********

Peak Number 20 unknown-03 Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.64 | 12.10 ng/ul | 285974 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 5,7-Dimethylpyrimido-[3,4-a]-indole | 196 | C13H12N2 | 038349-21-2 | 47 |
| 2 | 9-Anthracenamine, 9,10-dihydro- | 195 | C14H13N | 097825-91-7 | 46 |
| 3 | Phenol, 4-(2-phenylethenyl)- | 196 | C14H12O | 003839-46-1 | 43 |
| 4 | Phenol, 3-(2-phenylethenyl)-, (E)- | 196 | C14H12O | 017861-18-6 | 43 |
| 5 | Naphtho[2,1-b]furan, 1,2-dimethyl- | 196 | C14H12O | 129812-23-3 | 43 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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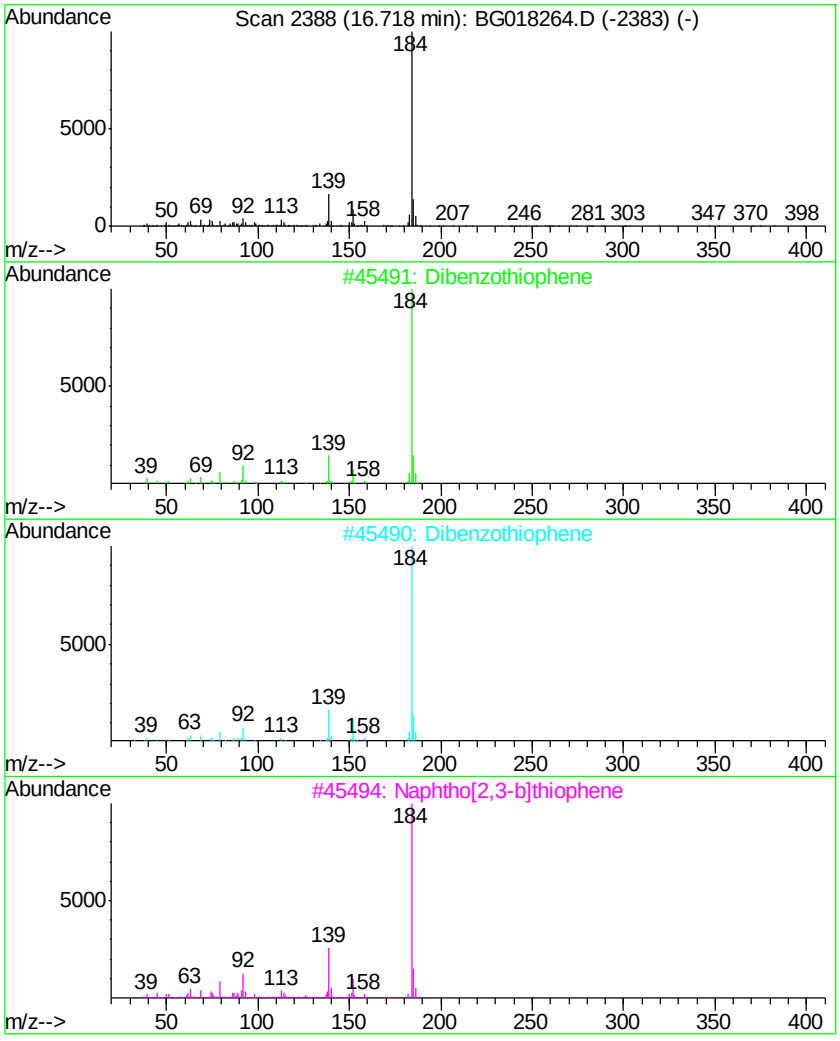
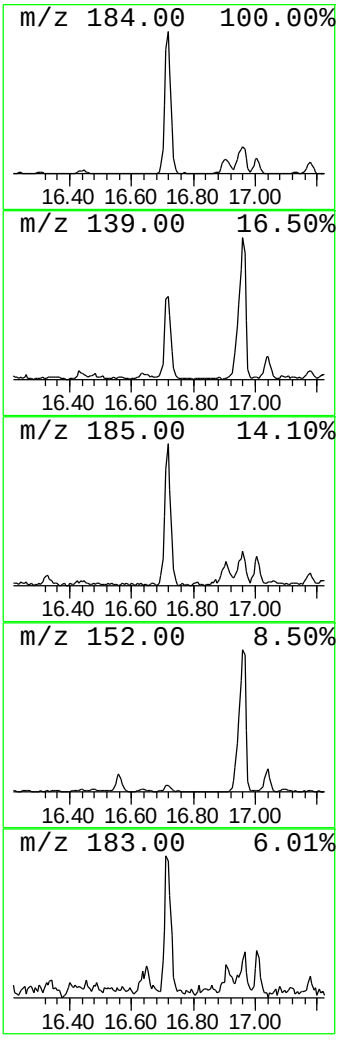
Peak Number 21 Dibenzothiophene Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.72 | 20.81 ng/ul | 491707 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 95 |
| 2 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 95 |
| 3 | Naphtho[2,3-b]thiophene | 184 | C12H8S | 000268-77-9 | 93 |
| 4 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 91 |
| 5 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 91 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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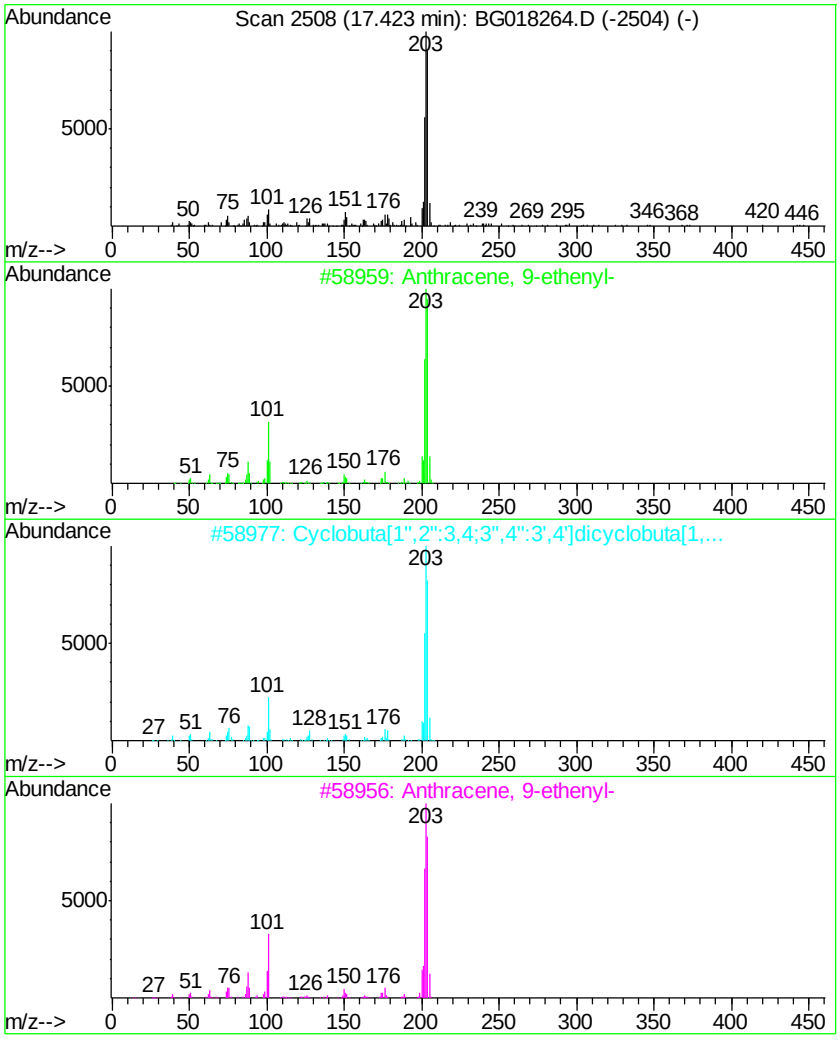
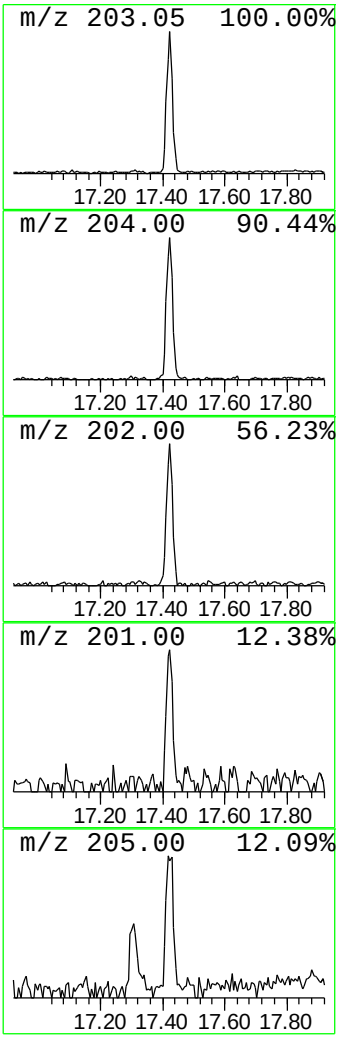
Peak Number 22 Anthracene, 9-ethenyl- Concentration Rank 24

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.42 | 5.59 ng/ul | 132154 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene, 9-ethenyl- | 204 | C16H12 | 002444-68-0 | 89 |
| 2 | Cyclobuta[1'',2'':3,4;3'',4'':3'... | 204 | C16H12 | 006574-36-3 | 76 |
| 3 | Anthracene, 9-ethenyl- | 204 | C16H12 | 002444-68-0 | 70 |
| 4 | Indeno[2,1-a]indene, 5,10-dihydro- | 204 | C16H12 | 006543-29-9 | 64 |
| 5 | Pyrene, 4,5-dihydro- | 204 | C16H12 | 006628-98-4 | 58 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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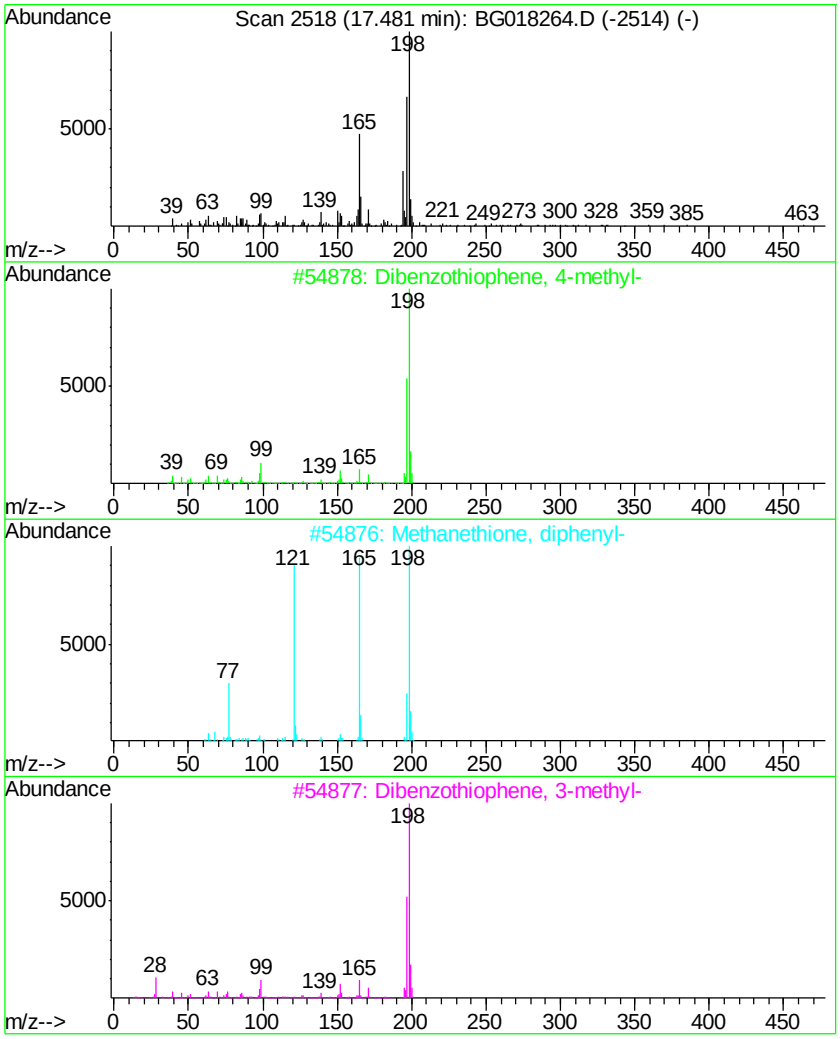
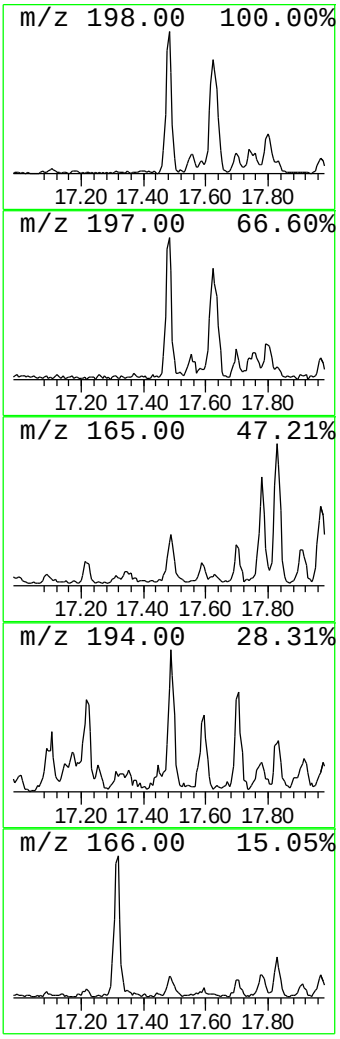
Peak Number 23 Dibenzothiophene, 4-methyl- Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.48 | 11.46 ng/ul | 270862 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzothiophene, 4-methyl- | 198 | C13H10S | 007372-88-5 | 68 |
| 2 | Methanethione, diphenyl- | 198 | C13H10S | 001450-31-3 | 64 |
| 3 | Dibenzothiophene, 3-methyl- | 198 | C13H10S | 016587-52-3 | 64 |
| 4 | Thiazolo[5,4-d]pyrimidine, 5-ami... | 198 | C6H6N4S2 | 019835-31-5 | 52 |
| 5 | 9-Acridinamine, 1,2,3,4-tetrahydro- | 198 | C13H14N2 | 000321-64-2 | 49 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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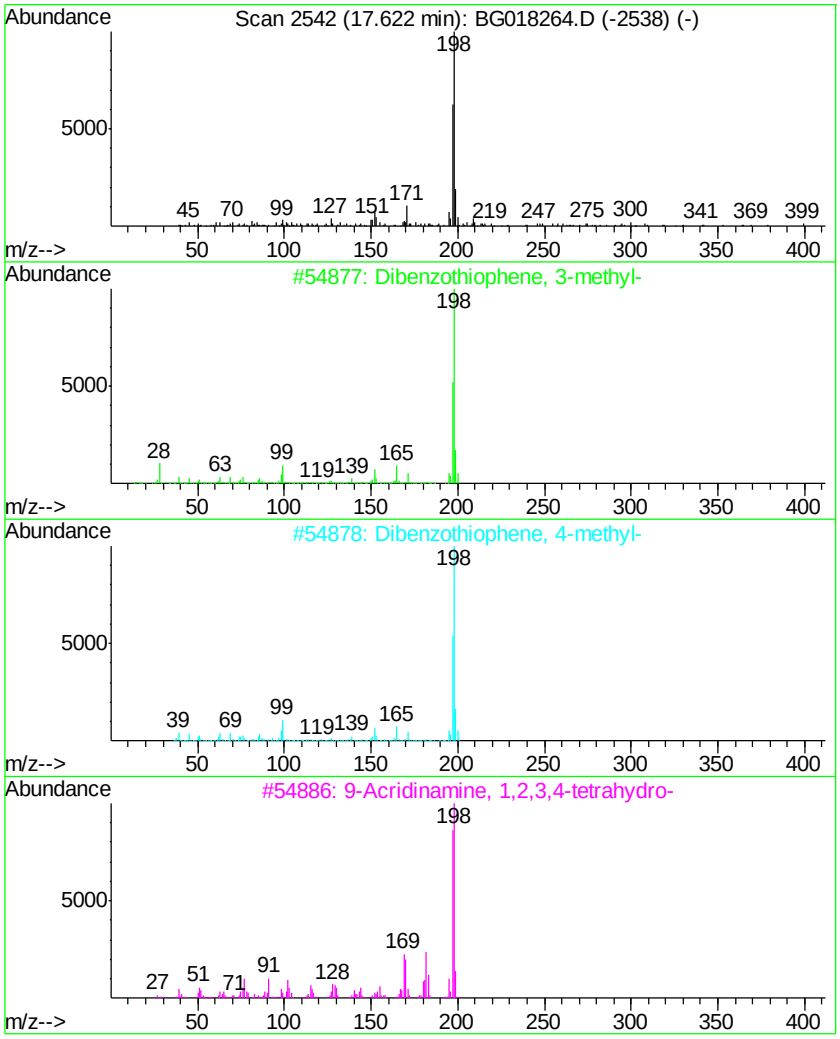
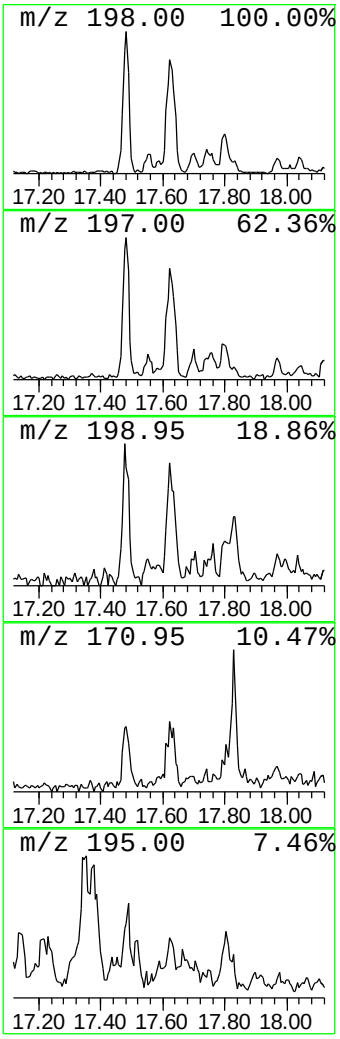
Peak Number 24 Dibenzothiophene, 3-methyl- Concentration Rank 28

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.62 | 5.28 ng/ul | 124763 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzothiophene, 3-methyl- | 198 | C13H10S | 016587-52-3 | 87 |
| 2 | Dibenzothiophene, 4-methyl- | 198 | C13H10S | 007372-88-5 | 83 |
| 3 | 9-Acridinamine, 1,2,3,4-tetrahydro- | 198 | C13H14N2 | 000321-64-2 | 72 |
| 4 | Benzenamine, 4,4'-methylenebis- | 198 | C13H14N2 | 000101-77-9 | 72 |
| 5 | 9-Acridinamine, 1,2,3,4-tetrahydro- | 198 | C13H14N2 | 000321-64-2 | 72 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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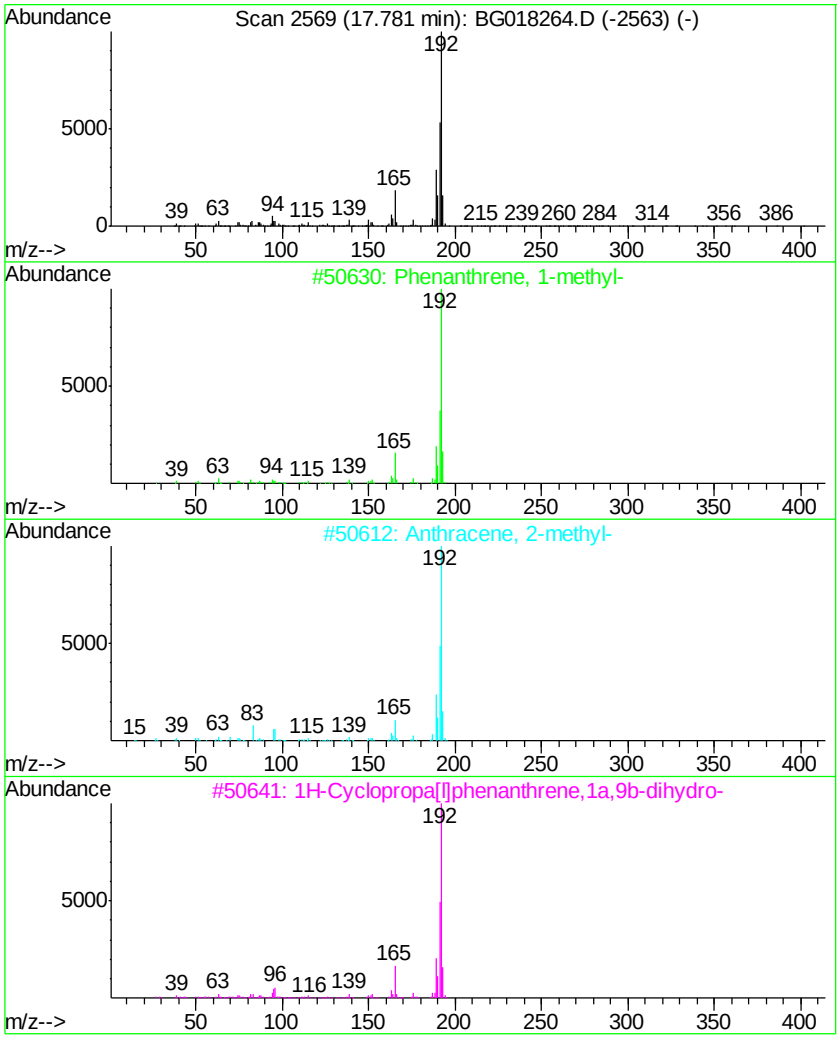
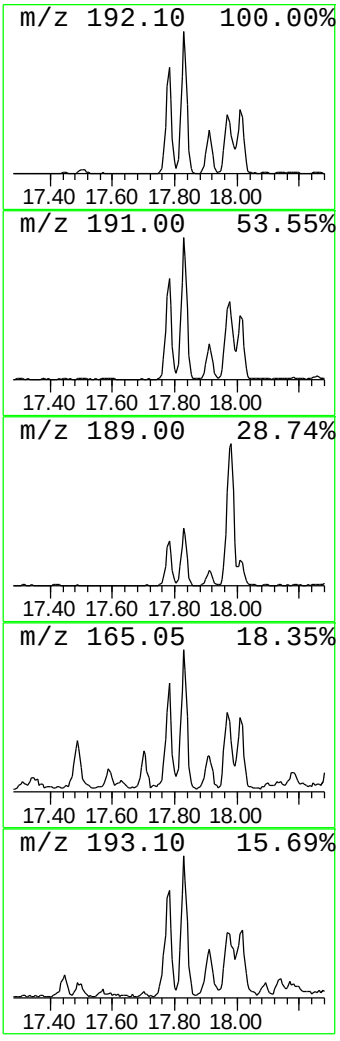
Peak Number 25 Phenanthrene, 1-methyl- Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.78 | 37.39 ng/ul | 883593 | Phenanthrene-d10 | 16.90 |

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



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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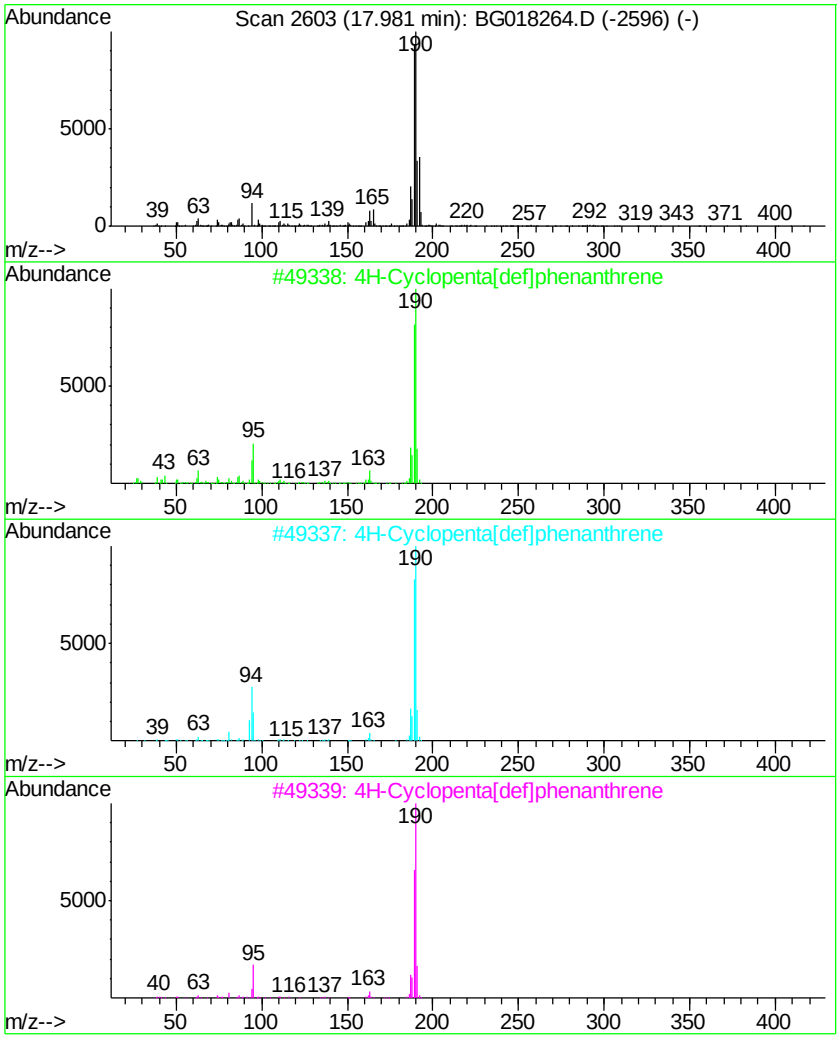
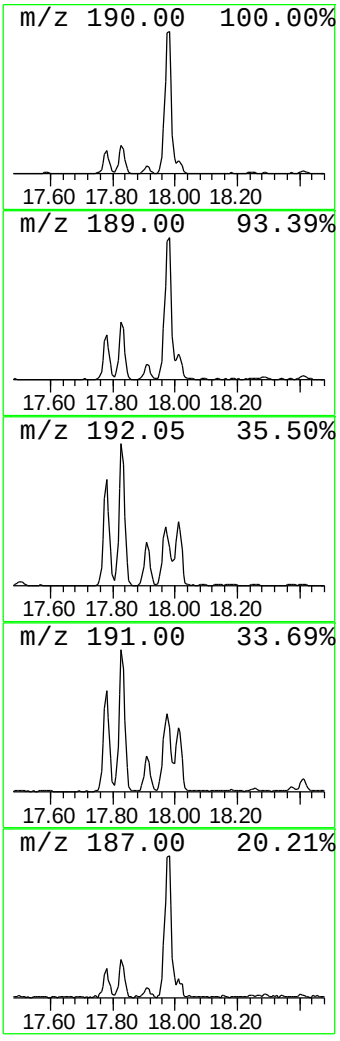
Peak Number 27 4H-Cyclopenta[def]phenanthrene Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.98 | 64.73 ng/ul | 1529790 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 91 |
| 2 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 58 |
| 3 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 50 |
| 4 | Thiophene-3-carboxaldehyde, 5-ch... | 190 | C5H4BClO3S | 036155-87-0 | 42 |
| 5 | Benzaldehyde, 3,5-dichloro-2-hyd... | 190 | C7H4Cl2O2 | 000090-60-8 | 40 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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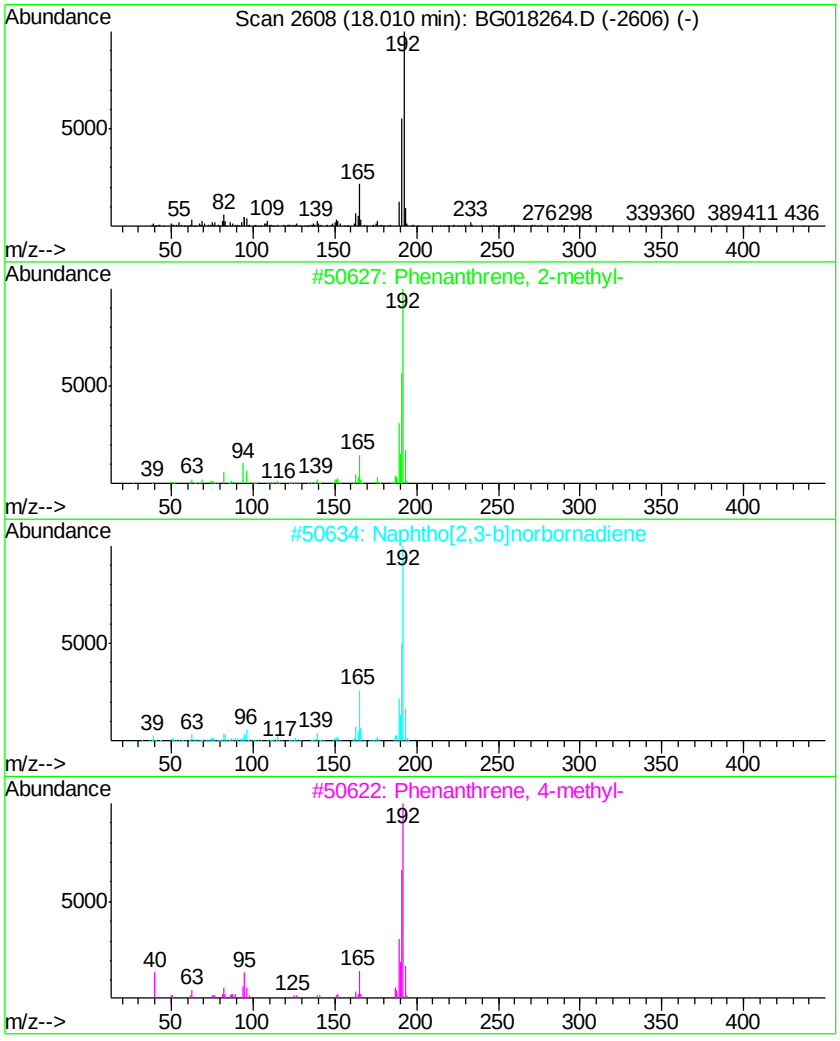
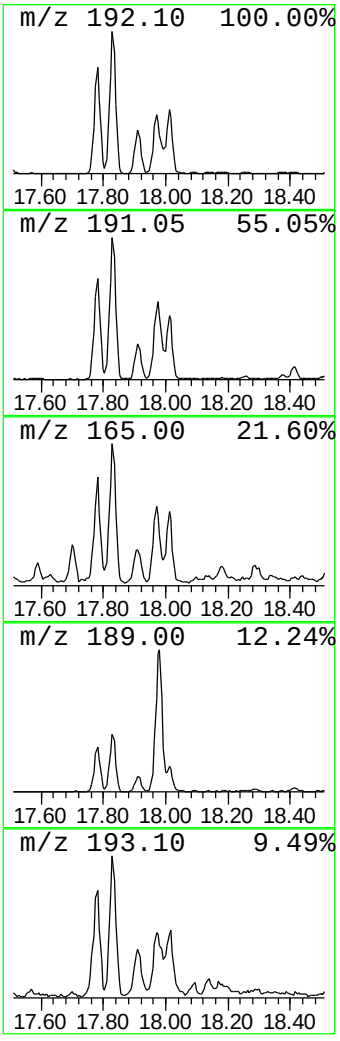
Peak Number 28 Phenanthrene, 2-methyl- Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.01 | 21.80 ng/ul | 515087 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 87 |
| 2 | Naphtho[2,3-b]norbornadiene | 192 | C15H12 | 107426-38-0 | 83 |
| 3 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 83 |
| 4 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 81 |
| 5 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 81 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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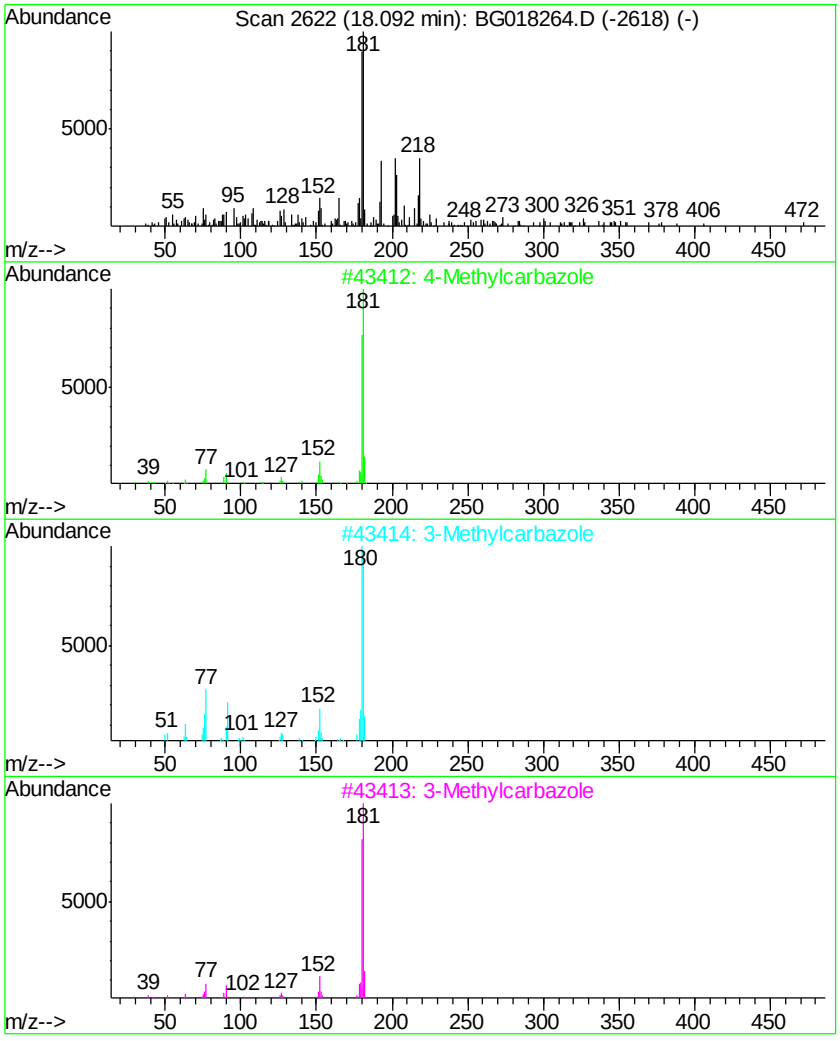
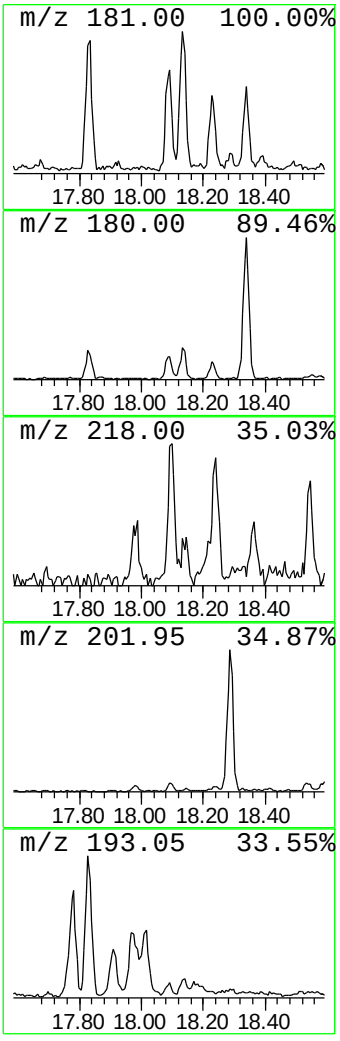
Peak Number 29 4-Methylcarbazole Concentration Rank 31

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.09 | 4.61 ng/ul | 108919 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4-Methylcarbazole | 181 | C13H11N | 003770-48-7 | 78 |
| 2 | 3-Methylcarbazole | 181 | C13H11N | 004630-20-0 | 60 |
| 3 | 3-Methylcarbazole | 181 | C13H11N | 004630-20-0 | 60 |
| 4 | 3-Methylcarbazole | 181 | C13H11N | 004630-20-0 | 53 |
| 5 | 1-Methylcarbazole | 181 | C13H11N | 006510-65-2 | 49 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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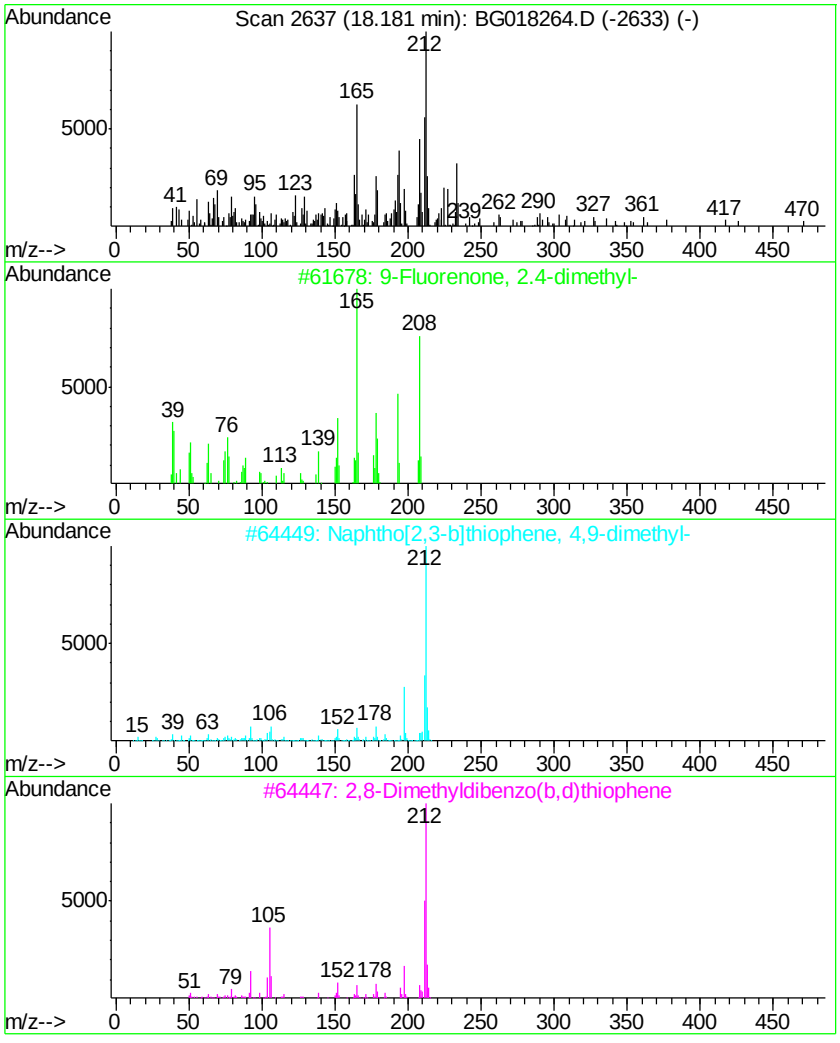
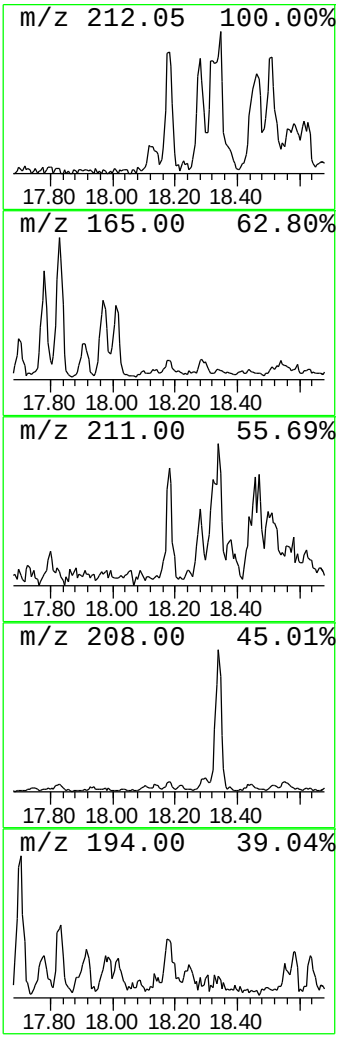
Peak Number 30 unknown-04 Concentration Rank 29

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.18 | 5.11 ng/ul | 120645 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9-Fluorenone, 2.4-dimethyl- | 208 | C15H12O | 002928-39-4 | 45 |
| 2 | Naphtho[2,3-b]thiophene, 4,9-dim... | 212 | C14H12S | 016587-34-1 | 30 |
| 3 | 2,8-Dimethyldibenzo(b,d)thiophene | 212 | C14H12S | 001207-15-4 | 30 |
| 4 | 9H-Fluoren-9-one, hydrazone | 194 | C13H10N2 | 013629-22-6 | 25 |
| 5 | 9H-Fluoren-9-one, hydrazone | 194 | C13H10N2 | 013629-22-6 | 25 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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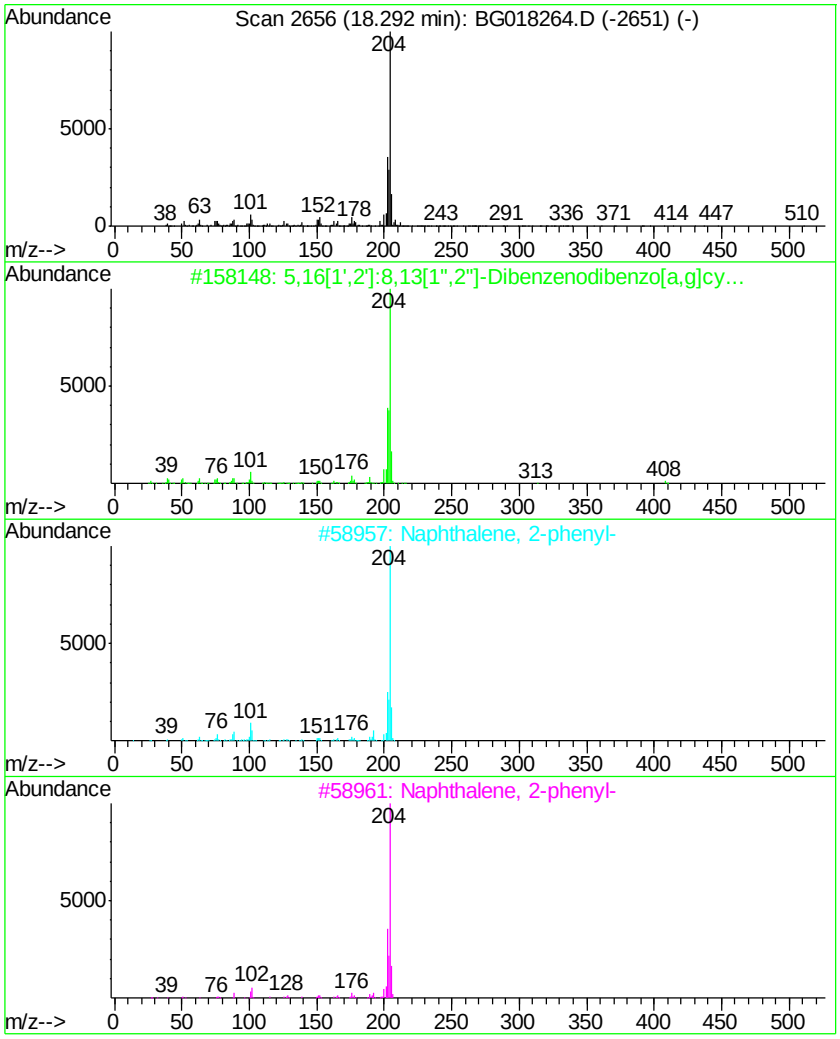
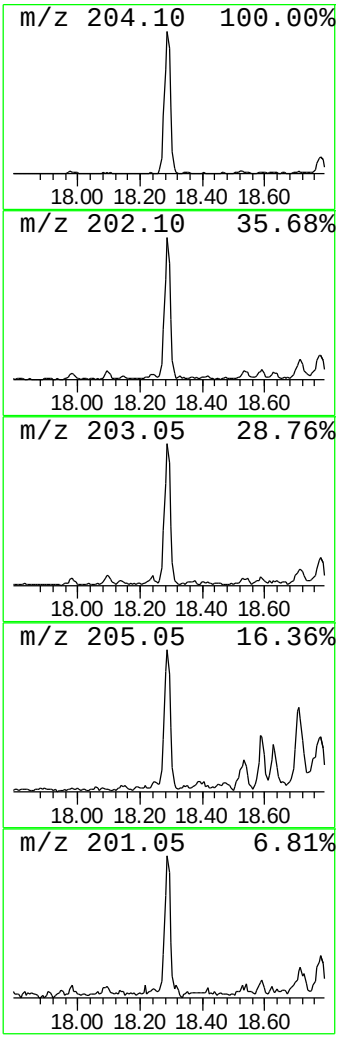
Peak Number 31 5,16[1',2']:8,13[1'',2'']-D... Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.29 | 24.29 ng/ul | 574125 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 5,16[1',2']:8,13[1'',2'']-Dibenz... | 408 | C32H24 | 005672-97-9 | 90 |
| 2 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 76 |
| 3 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 68 |
| 4 | 2-Phenylnaphthalene | 204 | C16H12 | 035465-71-5 | 64 |
| 5 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 64 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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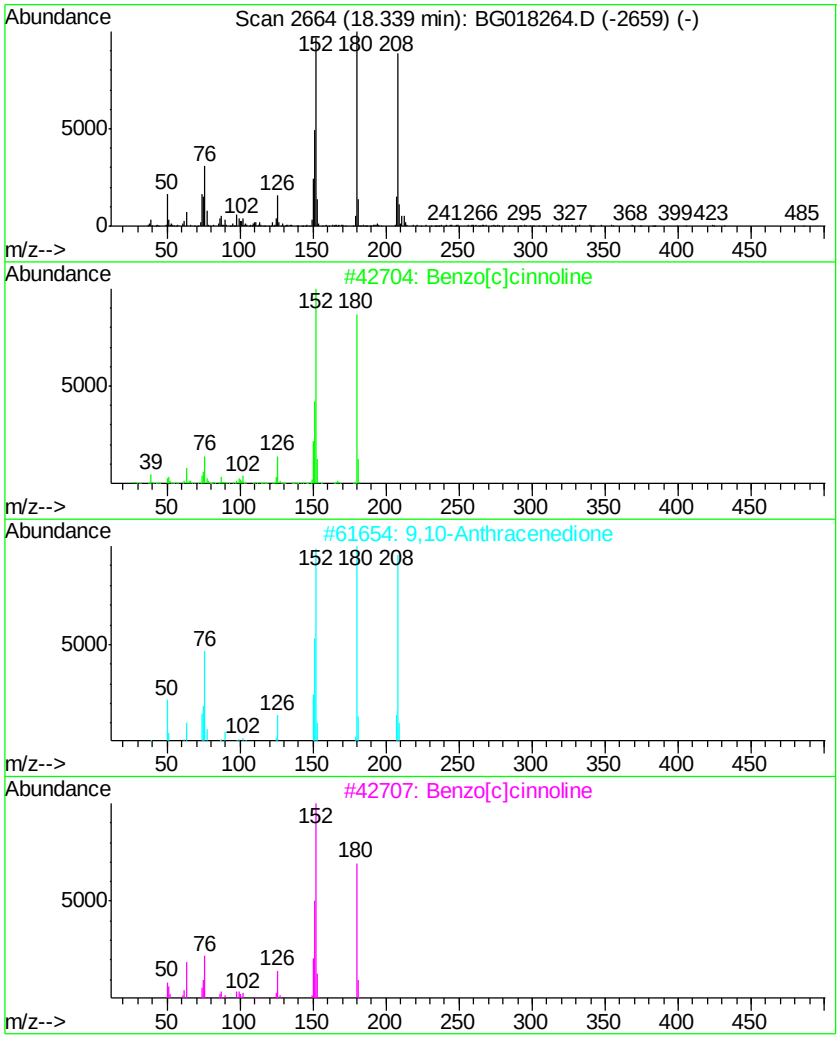
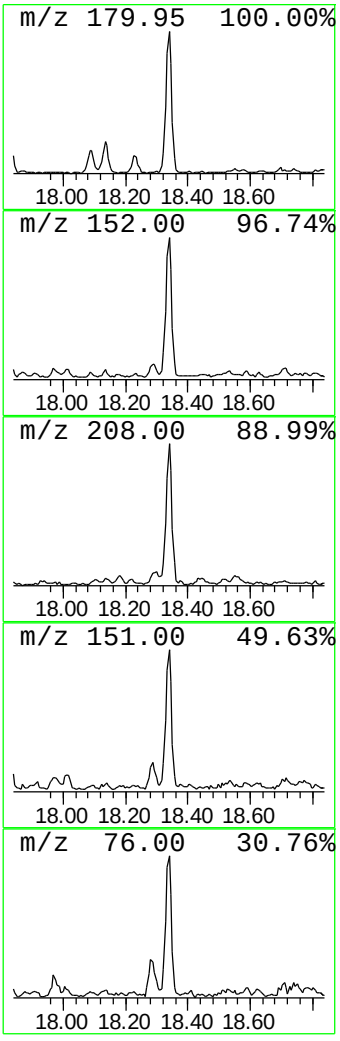
Peak Number 32 Benzo[c]cinnoline Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.34 | 22.85 ng/ul | 540059 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[c]cinnoline | 180 | C12H8N2 | 000230-17-1 | 96 |
| 2 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 95 |
| 3 | Benzo[c]cinnoline | 180 | C12H8N2 | 000230-17-1 | 93 |
| 4 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 93 |
| 5 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 93 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

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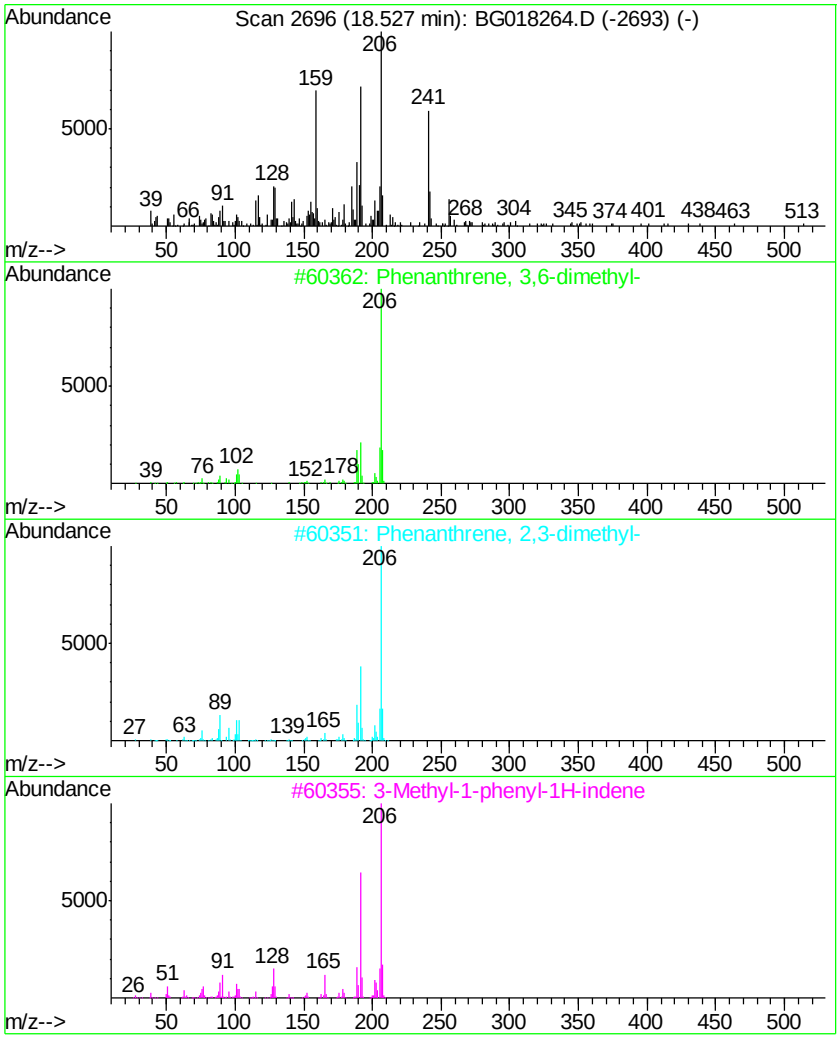
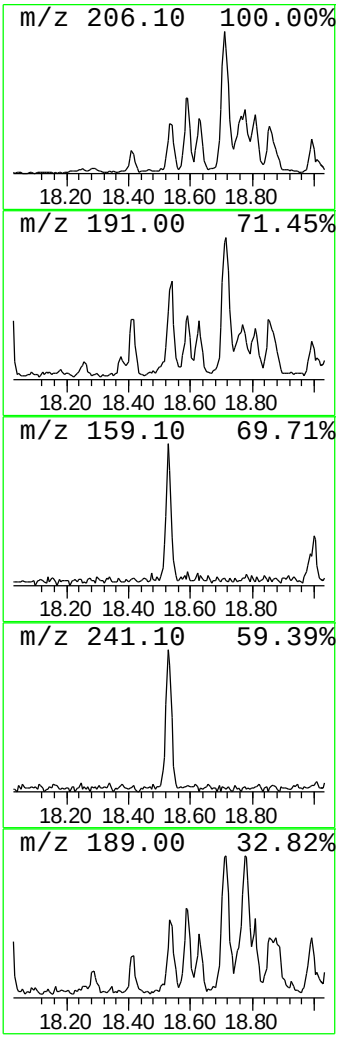
Peak Number 33 Phenanthrene, 3,6-dimethyl- Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.53 | 10.22 ng/ul | 241427 | Phenanthrene-d10 | 16.90 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 90 |
| 2 | Phenanthrene, 2,3-dimethyl- | 206 | C16H14 | 003674-65-5 | 76 |
| 3 | 3-Methyl-1-phenyl-1H-indene | 206 | C16H14 | 022360-63-0 | 64 |
| 4 | 1-Methyl-3-phenyl-1H-indene | 206 | C16H14 | 022360-62-9 | 64 |
| 5 | Phenanthrene, 4,5-dimethyl- | 206 | C16H14 | 003674-69-9 | 62 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG080415\
Data File : BG018264.D
Acq On : 4 Aug 2015 21:50
Operator : UM/TP
Sample : G3109-08
Misc :
ALS Vial : 22 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** C01J2

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\SOM02.2-EPA-BG073115.M
Quant Title : SVOA CALIBRATION

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

| | | | | | Internal Standard | | | |
|---|---|---|---|---|---|---|---|---|
| TIC Top Hit name | RT | EstConc | Units | Response | # | RT | Resp | Conc |
| unknown-01 | 3.45 | 16.8 | ng/ul | 233568 | 1 | 7.46 | 278178 | 20.0 |
| Naphthalene, 1,3-... | 13.46 | 5.5 | ng/ul | 170130 | 3 | 14.14 | 616368 | 20.0 |
| 2-Dibenzofuransul... | 14.54 | 21.8 | ng/ul | 673019 | 3 | 14.14 | 616368 | 20.0 |
| Naphthalene, 1,4,... | 14.62 | 3.3 | ng/ul | 100205 | 3 | 14.14 | 616368 | 20.0 |
| Naphthalene, 1,6,... | 14.77 | 3.8 | ng/ul | 116423 | 3 | 14.14 | 616368 | 20.0 |
| Naphthalene, 2,3,... | 14.82 | 3.6 | ng/ul | 112274 | 3 | 14.14 | 616368 | 20.0 |
| unknown-02 | 15.35 | 3.8 | ng/ul | 117981 | 3 | 14.14 | 616368 | 20.0 |
| Benzene, [1-(2,4-... | 15.41 | 3.2 | ng/ul | 99442 | 3 | 14.14 | 616368 | 20.0 |
| Dibenzofuran, 4-m... | 15.50 | 12.3 | ng/ul | 378338 | 3 | 14.14 | 616368 | 20.0 |
| 2,4,6-Cycloheptat... | 15.64 | 21.5 | ng/ul | 507536 | 4 | 16.90 | 472648 | 20.0 |
| 9H-Fluoren-9-ol | 15.73 | 4.7 | ng/ul | 111463 | 4 | 16.90 | 472648 | 20.0 |
| 1(2H)-Acenaphthyl... | 15.88 | 6.8 | ng/ul | 159648 | 4 | 16.90 | 472648 | 20.0 |
| 9H-Fluorene, 1-me... | 16.21 | 13.6 | ng/ul | 321481 | 4 | 16.90 | 472648 | 20.0 |
| 9H-Fluorene, 9-me... | 16.25 | 4.0 | ng/ul | 95246 | 4 | 16.90 | 472648 | 20.0 |
| 1,1'-Biphenyl, 4-... | 16.44 | 6.8 | ng/ul | 161447 | 4 | 16.90 | 472648 | 20.0 |
| 7-Methoxy-piperon... | 16.48 | 5.4 | ng/ul | 128255 | 4 | 16.90 | 472648 | 20.0 |
| 9H-Fluoren-9-one | 16.56 | 16.8 | ng/ul | 397612 | 4 | 16.90 | 472648 | 20.0 |
| unknown-03 | 16.64 | 12.1 | ng/ul | 285974 | 4 | 16.90 | 472648 | 20.0 |
| Dibenzothiophene | 16.72 | 20.8 | ng/ul | 491707 | 4 | 16.90 | 472648 | 20.0 |
| Anthracene, 9-eth... | 17.42 | 5.6 | ng/ul | 132154 | 4 | 16.90 | 472648 | 20.0 |
| Dibenzothiophene,... | 17.48 | 11.5 | ng/ul | 270862 | 4 | 16.90 | 472648 | 20.0 |
| Dibenzothiophene,... | 17.62 | 5.3 | ng/ul | 124763 | 4 | 16.90 | 472648 | 20.0 |
| Phenanthrene, 1-m... | 17.78 | 37.4 | ng/ul | 883593 | 4 | 16.90 | 472648 | 20.0 |
| 4H-Cyclopenta[def... | 17.98 | 64.7 | ng/ul | 1529790 | 4 | 16.90 | 472648 | 20.0 |
| Phenanthrene, 2-m... | 18.01 | 21.8 | ng/ul | 515087 | 4 | 16.90 | 472648 | 20.0 |
| 4-Methylcarbazole | 18.09 | 4.6 | ng/ul | 108919 | 4 | 16.90 | 472648 | 20.0 |
| unknown-04 | 18.18 | 5.1 | ng/ul | 120645 | 4 | 16.90 | 472648 | 20.0 |
| 5,16[1',2']:8,13[... | 18.29 | 24.3 | ng/ul | 574125 | 4 | 16.90 | 472648 | 20.0 |
| Benzo[c]cinnoline | 18.34 | 22.9 | ng/ul | 540059 | 4 | 16.90 | 472648 | 20.0 |
| Phenanthrene, 3,6... | 18.53 | 10.2 | ng/ul | 241427 | 4 | 16.90 | 472648 | 20.0 |