LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.760 | 8 | 12 | 18 | rVB | 54170 | 67990 | 5.38% | 0.351% |
| 2 | 4.723 | 341 | 346 | 352 | rVB2 | 26590 | 37947 | 3.00% | 0.196% |
| 3 | 5.216 | 424 | 430 | 441 | rBV | 457968 | 666372 | 52.71% | 3.444% |
| 4 | 6.291 | 608 | 613 | 617 | rVB2 | 12540 | 17529 | 1.39% | 0.091% |
| 5 | 6.832 | 699 | 705 | 717 | rBV | 483800 | 753807 | 59.63% | 3.896% |
| 6 | 7.167 | 755 | 762 | 772 | rBV | 502382 | 776558 | 61.43% | 4.013% |
| 7 | 7.619 | 832 | 839 | 846 | rVB | 93752 | 144614 | 11.44% | 0.747% |
| 8 | 7.937 | 886 | 893 | 900 | rBV | 341581 | 539467 | 42.67% | 2.788% |
| 9 | 8.788 | 1030 | 1038 | 1045 | rBV | 282193 | 483444 | 38.24% | 2.499% |
| 10 | 10.416 | 1306 | 1315 | 1320 | rBV | 123606 | 207212 | 16.39% | 1.071% |
| 11 | 10.463 | 1320 | 1323 | 1333 | rVB | 33499 | 53462 | 4.23% | 0.276% |
| 12 | 12.090 | 1592 | 1600 | 1605 | rBV2 | 16961 | 26572 | 2.10% | 0.137% |
| 13 | 12.314 | 1633 | 1638 | 1644 | rVB3 | 14724 | 22377 | 1.77% | 0.116% |
| 14 | 12.907 | 1732 | 1739 | 1746 | rBV | 645292 | 948831 | 75.06% | 4.904% |
| 15 | 13.606 | 1852 | 1858 | 1863 | rBV3 | 15024 | 26520 | 2.10% | 0.137% |
| 16 | 13.747 | 1877 | 1882 | 1891 | rVB | 80011 | 120597 | 9.54% | 0.623% |
| 17 | 13.847 | 1891 | 1899 | 1902 | rBV8 | 8849 | 14280 | 1.13% | 0.074% |
| 18 | 14.012 | 1918 | 1927 | 1934 | rBV2 | 15959 | 30364 | 2.40% | 0.157% |
| 19 | 14.288 | 1965 | 1974 | 1980 | rBV2 | 181494 | 282187 | 22.32% | 1.458% |
| 20 | 14.353 | 1980 | 1985 | 1993 | rVB | 60989 | 86037 | 6.81% | 0.445% |
| 21 | 14.693 | 2037 | 2043 | 2048 | rBV2 | 39213 | 59102 | 4.68% | 0.305% |
| 22 | 15.146 | 2116 | 2120 | 2128 | rVB5 | 11958 | 23587 | 1.87% | 0.122% |
| 23 | 15.340 | 2148 | 2153 | 2164 | rVB | 64770 | 96019 | 7.60% | 0.496% |
| 24 | 15.639 | 2200 | 2204 | 2207 | rBV2 | 16274 | 20436 | 1.62% | 0.106% |
| 25 | 15.792 | 2224 | 2230 | 2239 | rVB | 630354 | 876705 | 69.35% | 4.531% |
| 26 | 16.015 | 2263 | 2268 | 2269 | rBV2 | 23084 | 25255 | 2.00% | 0.131% |
| 27 | 16.133 | 2284 | 2288 | 2294 | rBV | 25945 | 39684 | 3.14% | 0.205% |
| 28 | 16.197 | 2294 | 2299 | 2304 | rVB4 | 20503 | 38714 | 3.06% | 0.200% |
| 29 | 16.256 | 2304 | 2309 | 2313 | rBV3 | 22778 | 35394 | 2.80% | 0.183% |
| 30 | 16.297 | 2313 | 2316 | 2319 | rBV4 | 15320 | 17580 | 1.39% | 0.091% |
| 31 | 16.350 | 2319 | 2325 | 2327 | rVV6 | 15768 | 21844 | 1.73% | 0.113% |
| 32 | 16.403 | 2331 | 2334 | 2338 | rVB5 | 19990 | 25301 | 2.00% | 0.131% |
| 33 | 16.456 | 2338 | 2343 | 2348 | rBV6 | 26935 | 51007 | 4.03% | 0.264% |
| 34 | 16.521 | 2348 | 2354 | 2358 | rBV2 | 20333 | 29040 | 2.30% | 0.150% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 16.597 | 2358 | 2367 | 2368 | rBV6 | 18951 | 33192 | 2.63% | 0.172% |
| 36 | 16.697 | 2379 | 2384 | 2391 | rVB | 28240 | 45107 | 3.57% | 0.233% |
| 37 | 16.785 | 2393 | 2399 | 2400 | rVV4 | 11578 | 20725 | 1.64% | 0.107% |
| 38 | 16.803 | 2400 | 2402 | 2406 | rVB3 | 17750 | 21584 | 1.71% | 0.112% |
| 39 | 16.861 | 2406 | 2412 | 2415 | rBV | 38594 | 53534 | 4.23% | 0.277% |
| 40 | 17.044 | 2437 | 2443 | 2446 | rBV | 212485 | 319530 | 25.28% | 1.651% |
| 41 | 17.085 | 2446 | 2450 | 2456 | rVV | 607097 | 813283 | 64.34% | 4.203% |
| 42 | 17.143 | 2456 | 2460 | 2461 | rVV4 | 13942 | 20832 | 1.65% | 0.108% |
| 43 | 17.173 | 2461 | 2465 | 2471 | rVV | 132139 | 178380 | 14.11% | 0.922% |
| 44 | 17.232 | 2471 | 2475 | 2481 | rVV6 | 19129 | 33320 | 2.64% | 0.172% |
| 45 | 17.425 | 2501 | 2508 | 2509 | rBV4 | 16241 | 24151 | 1.91% | 0.125% |
| 46 | 17.455 | 2509 | 2513 | 2521 | rVV2 | 54714 | 91025 | 7.20% | 0.470% |
| 47 | 17.561 | 2525 | 2531 | 2537 | rVB7 | 15250 | 34410 | 2.72% | 0.178% |
| 48 | 17.625 | 2537 | 2542 | 2545 | rBV7 | 19482 | 24629 | 1.95% | 0.127% |
| 49 | 17.719 | 2552 | 2558 | 2563 | rBV10 | 6943 | 13370 | 1.06% | 0.069% |
| 50 | 17.919 | 2585 | 2592 | 2595 | rBV2 | 77653 | 125437 | 9.92% | 0.648% |
| 51 | 17.966 | 2595 | 2600 | 2609 | rVV2 | 126119 | 241414 | 19.10% | 1.248% |
| 52 | 18.048 | 2609 | 2614 | 2619 | rVV | 44267 | 62659 | 4.96% | 0.324% |
| 53 | 18.113 | 2619 | 2625 | 2629 | rVV2 | 111366 | 203261 | 16.08% | 1.050% |
| 54 | 18.148 | 2629 | 2631 | 2639 | rVB | 57004 | 75287 | 5.96% | 0.389% |
| 55 | 18.236 | 2639 | 2646 | 2649 | rBV7 | 19202 | 28211 | 2.23% | 0.146% |
| 56 | 18.424 | 2674 | 2678 | 2682 | rBV | 57999 | 80777 | 6.39% | 0.417% |
| 57 | 18.471 | 2682 | 2686 | 2690 | rVB | 57194 | 75384 | 5.96% | 0.390% |
| 58 | 18.554 | 2697 | 2700 | 2705 | rVB7 | 11369 | 14888 | 1.18% | 0.077% |
| 59 | 18.671 | 2716 | 2720 | 2724 | rVB5 | 25684 | 36450 | 2.88% | 0.188% |
| 60 | 18.724 | 2726 | 2729 | 2732 | rVV2 | 21879 | 24067 | 1.90% | 0.124% |
| 61 | 18.765 | 2732 | 2736 | 2740 | rVB3 | 20571 | 26555 | 2.10% | 0.137% |
| 62 | 18.841 | 2745 | 2749 | 2755 | rBV3 | 48669 | 100801 | 7.97% | 0.521% |
| 63 | 18.941 | 2764 | 2766 | 2769 | rVB3 | 20228 | 17061 | 1.35% | 0.088% |
| 64 | 18.988 | 2769 | 2774 | 2779 | rBV2 | 49661 | 82801 | 6.55% | 0.428% |
| 65 | 19.112 | 2787 | 2795 | 2801 | rBV | 922481 | 1196093 | 94.62% | 6.182% |
| 66 | 19.212 | 2809 | 2812 | 2814 | rBV4 | 18237 | 21855 | 1.73% | 0.113% |
| 67 | 19.353 | 2834 | 2836 | 2839 | rVB | 25093 | 24680 | 1.95% | 0.128% |
| 68 | 19.447 | 2847 | 2852 | 2853 | rBV | 146665 | 188767 | 14.93% | 0.976% |
| 69 | 19.476 | 2853 | 2857 | 2865 | rVV | 771854 | 1101601 | 87.14% | 5.693% |
| 70 | 19.546 | 2865 | 2869 | 2875 | rVB4 | 48533 | 79816 | 6.31% | 0.413% |
| 71 | 19.682 | 2883 | 2892 | 2896 | rBV | 1018739 | 1264131 | 100.00% | 6.533% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 19.717 | 2896 | 2898 | 2903 | rVB | 52134 | 61914 | 4.90% | 0.320% |
| 73 | 19.805 | 2907 | 2913 | 2919 | rBV3 | 50688 | 132016 | 10.44% | 0.682% |
| 74 | 19.934 | 2931 | 2935 | 2937 | rBV5 | 43272 | 66716 | 5.28% | 0.345% |
| 75 | 19.969 | 2938 | 2941 | 2946 | rVB2 | 103204 | 148606 | 11.76% | 0.768% |
| 76 | 20.075 | 2955 | 2959 | 2962 | rVB | 61478 | 72780 | 5.76% | 0.376% |
| 77 | 20.128 | 2963 | 2968 | 2972 | rVB4 | 79325 | 119655 | 9.47% | 0.618% |
| 78 | 20.169 | 2972 | 2975 | 2979 | rVB3 | 26825 | 36953 | 2.92% | 0.191% |
| 79 | 20.210 | 2979 | 2982 | 2986 | rBV6 | 21645 | 35359 | 2.80% | 0.183% |
| 80 | 20.269 | 2988 | 2992 | 2996 | rBV2 | 55204 | 74644 | 5.90% | 0.386% |
| 81 | 20.316 | 2997 | 3000 | 3004 | rVB | 45348 | 56316 | 4.45% | 0.291% |
| 82 | 20.422 | 3016 | 3018 | 3025 | rVB6 | 32300 | 51364 | 4.06% | 0.265% |
| 83 | 20.716 | 3065 | 3068 | 3076 | rVB | 74856 | 106877 | 8.45% | 0.552% |
| 84 | 20.921 | 3100 | 3103 | 3105 | rBV | 53092 | 56197 | 4.45% | 0.290% |
| 85 | 20.951 | 3105 | 3108 | 3115 | rVV4 | 106413 | 200855 | 15.89% | 1.038% |
| 86 | 21.015 | 3116 | 3119 | 3126 | rVB2 | 81737 | 118152 | 9.35% | 0.611% |
| 87 | 21.227 | 3150 | 3155 | 3160 | rBV2 | 542034 | 1042120 | 82.44% | 5.386% |
| 88 | 21.274 | 3160 | 3163 | 3172 | rVB | 415455 | 520362 | 41.16% | 2.689% |
| 89 | 21.391 | 3179 | 3183 | 3187 | rBV | 69626 | 93687 | 7.41% | 0.484% |
| 90 | 21.720 | 3237 | 3239 | 3244 | rBV2 | 28208 | 41587 | 3.29% | 0.215% |
| 91 | 21.785 | 3247 | 3250 | 3253 | rVB | 87684 | 100282 | 7.93% | 0.518% |
| 92 | 21.973 | 3280 | 3282 | 3286 | rBV2 | 34176 | 50186 | 3.97% | 0.259% |
| 93 | 22.807 | 3418 | 3424 | 3429 | rBV | 319276 | 742881 | 58.77% | 3.839% |
| 94 | 22.972 | 3449 | 3452 | 3458 | rVB | 72837 | 115143 | 9.11% | 0.595% |
| 95 | 23.283 | 3500 | 3505 | 3512 | rVB | 184346 | 360743 | 28.54% | 1.864% |
| 96 | 23.383 | 3516 | 3522 | 3528 | rVB | 305297 | 550141 | 43.52% | 2.843% |
| 97 | 23.477 | 3533 | 3538 | 3543 | rBV | 176810 | 306816 | 24.27% | 1.586% |
| 98 | 25.757 | 3919 | 3926 | 3937 | rVB2 | 126467 | 386860 | 30.60% | 1.999% |
| 99 | 26.456 | 4041 | 4045 | 4057 | rVB2 | 90891 | 234892 | 18.58% | 1.214% |

Sum of corrected areas: 19349007

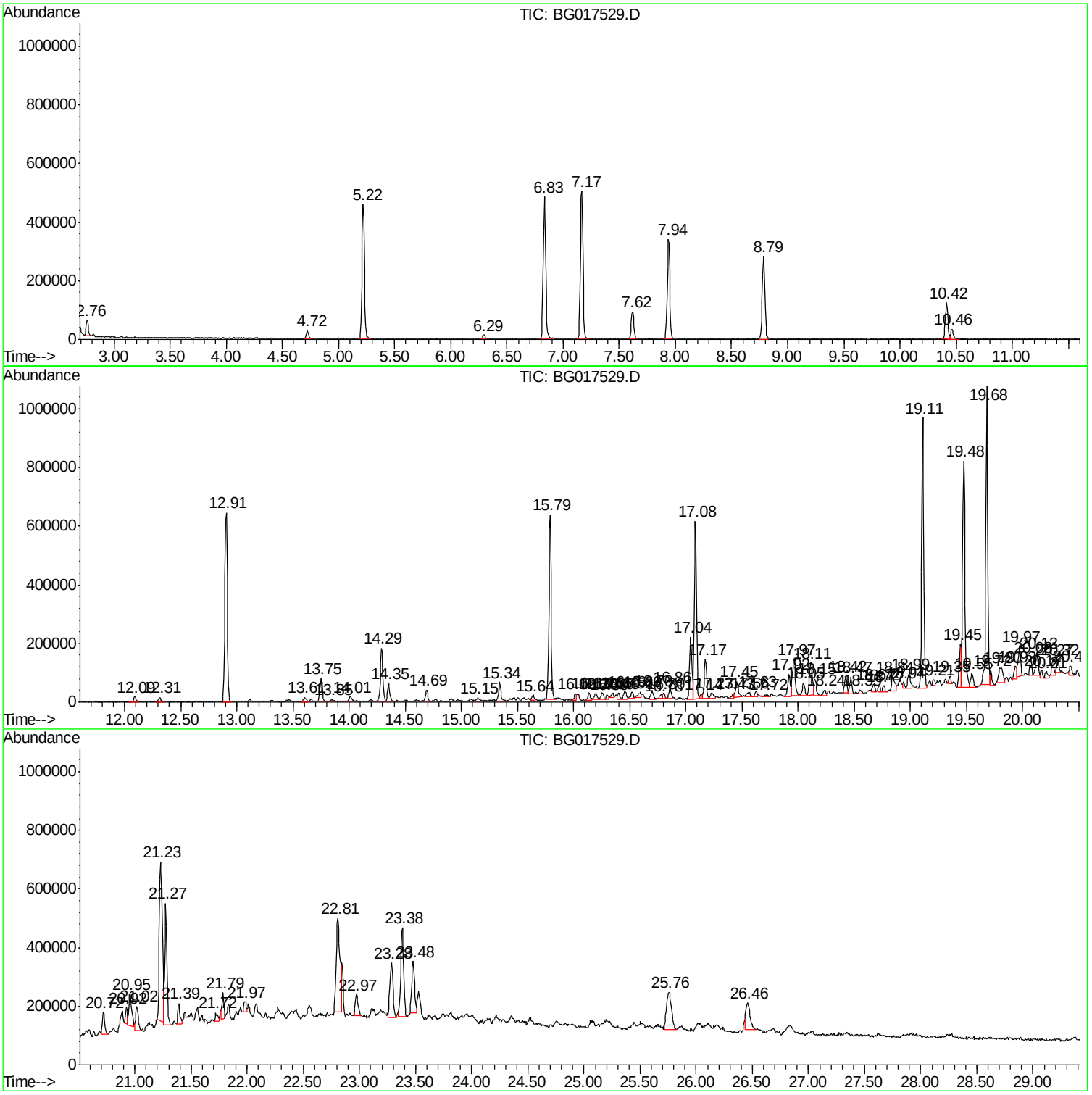
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

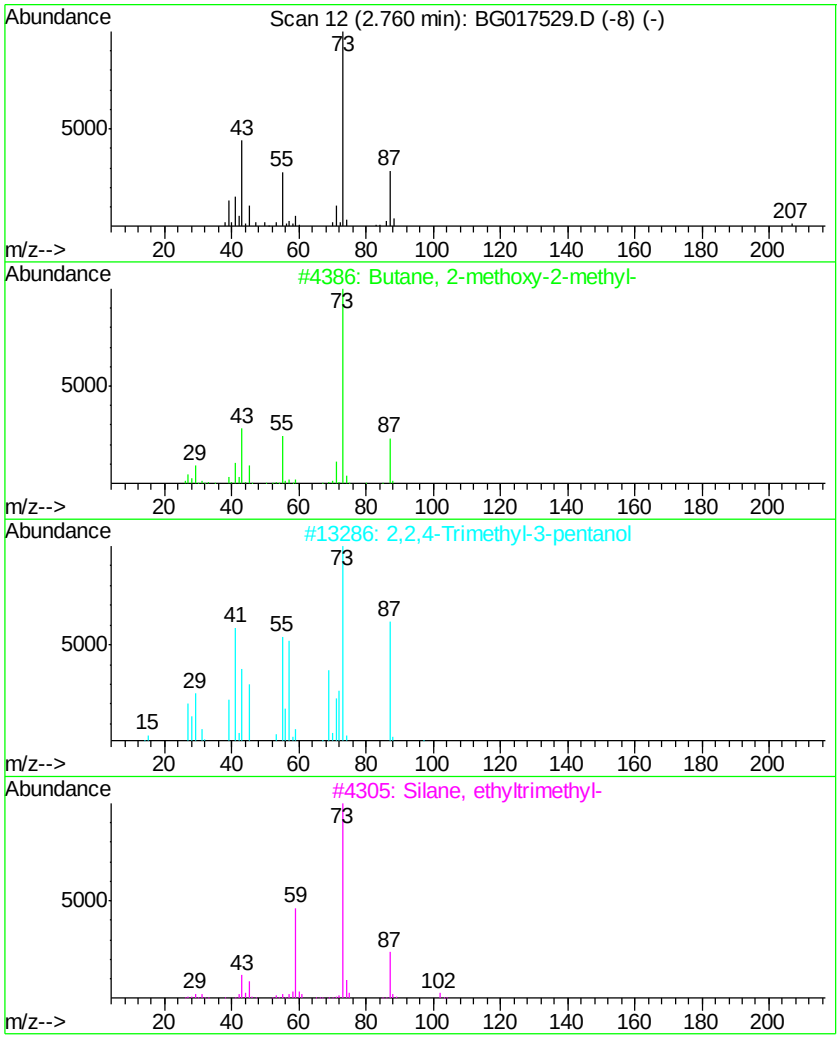
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

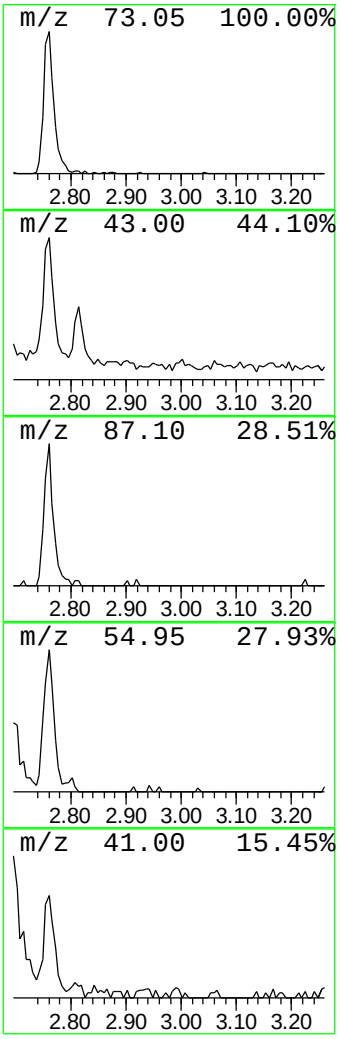
**********

Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 2.76 | 9.40 ng | 67990 | 1,4-Dichlorobenzene-d4 | 7.62 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Butane, 2-methoxy-2-methyl- | 102 | C6H14O | 000994-05-8 | 56 |
| 2 | 2,2,4-Trimethyl-3-pentanol | 130 | C8H18O | 005162-48-1 | 40 |
| 3 | Silane, ethyltrimethyl- | 102 | C5H14Si | 003439-38-1 | 33 |
| 4 | Disilane, ethylpentamethyl- | 160 | C7H20Si2 | 015063-64-6 | 28 |
| 5 | Boronic acid, ethyl-, dimethyl e... | 102 | C4H11BO2 | 007318-82-3 | 12 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

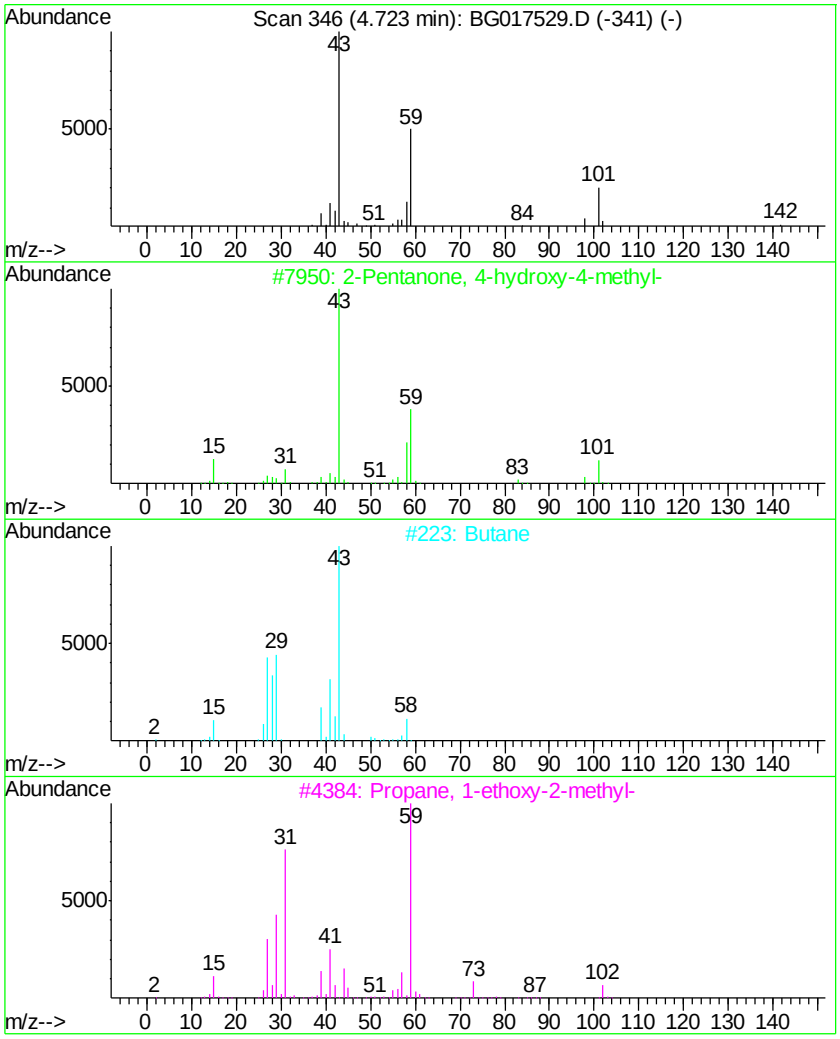
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

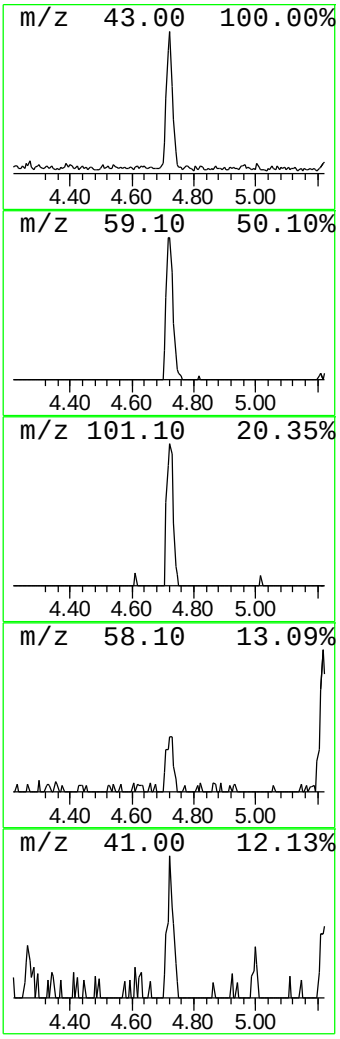
**********

Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.72 | 5.25 ng | 37947 | 1,4-Dichlorobenzene-d4 | 7.62 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 50 |
| 2 | Butane | 58 | C4H10 | 000106-97-8 | 9 |
| 3 | Propane, 1-ethoxy-2-methyl- | 102 | C6H14O | 000627-02-1 | 9 |
| 4 | 5-Hexen-2-one | 98 | C6H10O | 000109-49-9 | 9 |
| 5 | Acetic acid, 1,1-dimethylethyl e... | 116 | C6H12O2 | 000540-88-5 | 9 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

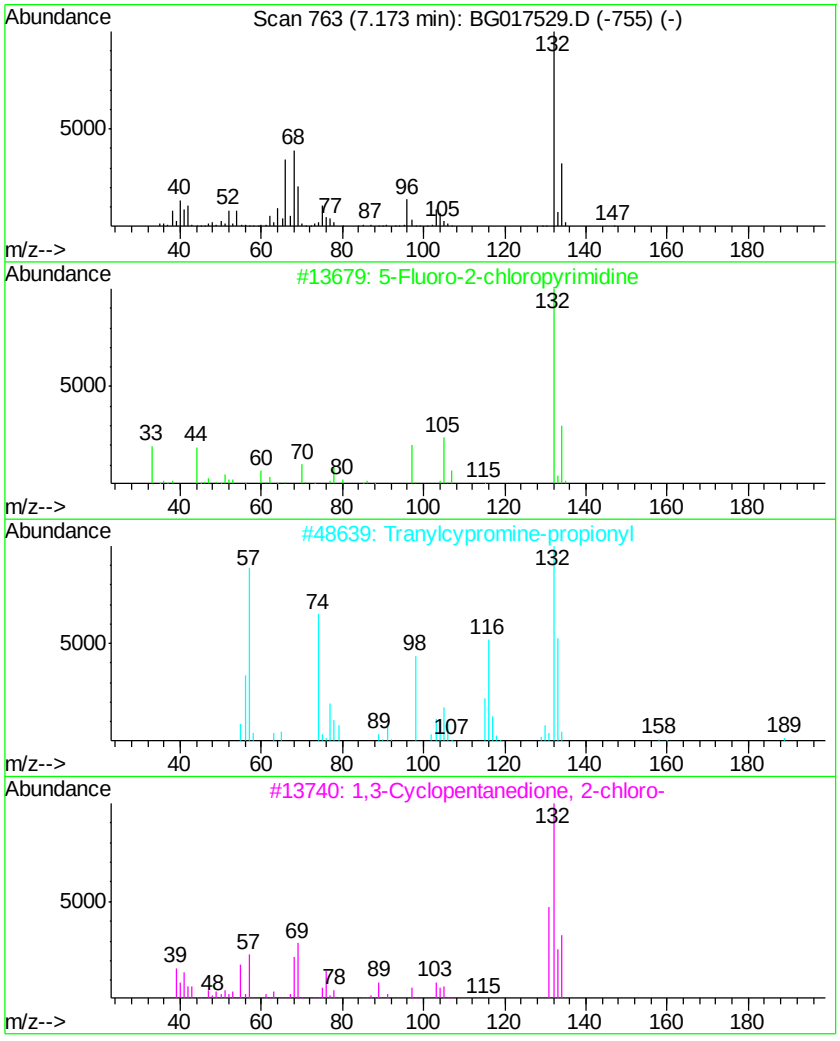
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

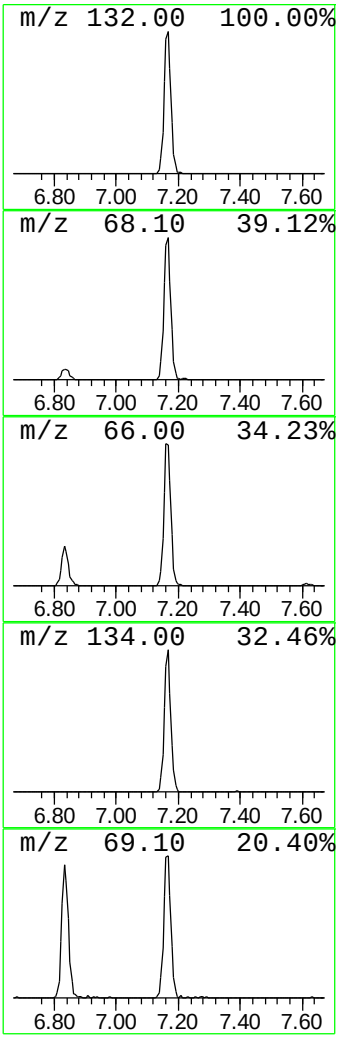
**********

Peak Number 3 unknown7.17 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 7.17 | 107.40 ng | 776558 | 1,4-Dichlorobenzene-d4 | 7.62 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 5-Fluoro-2-chloropyrimidine | 132 | C4H2ClFN2 | 062802-42-0 | 27 |
| 2 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 22 |
| 3 | 1,3-Cyclopentanedione, 2-chloro- | 132 | C5H5ClO2 | 014203-19-1 | 20 |
| 4 | 3H-1,2-Dithiol-3-one, 5-methyl- | 132 | C4H4OS2 | 003620-08-4 | 16 |
| 5 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 12 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

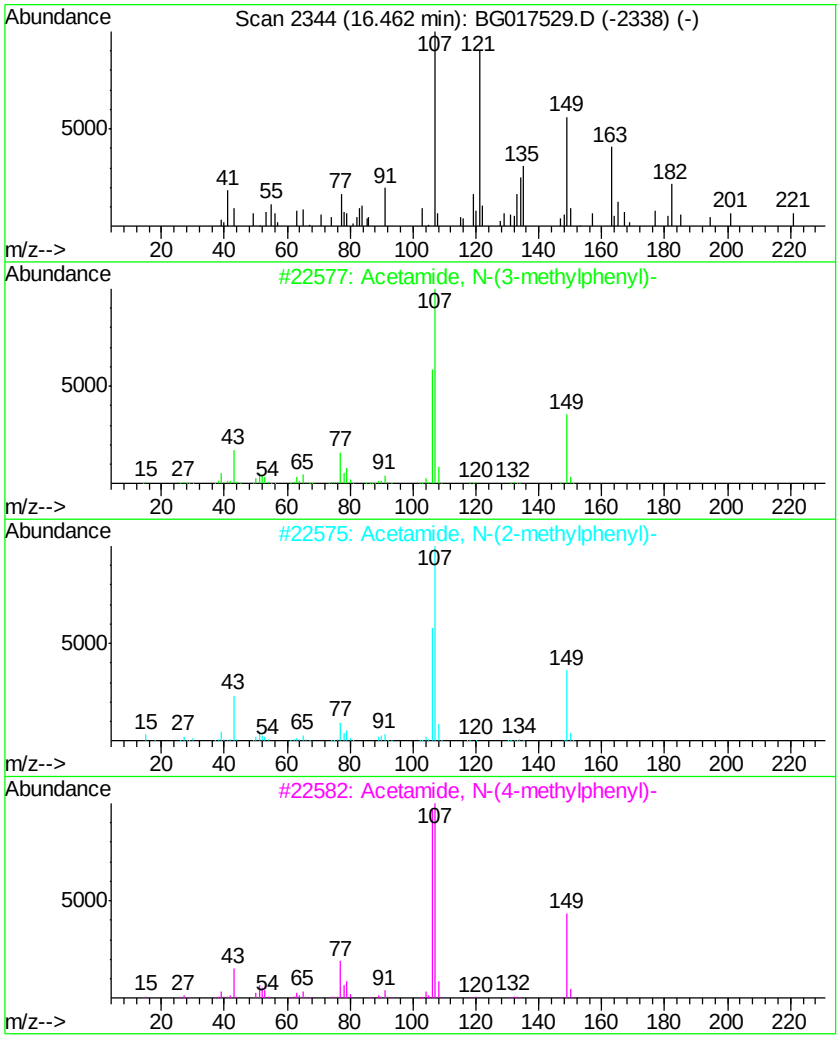
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

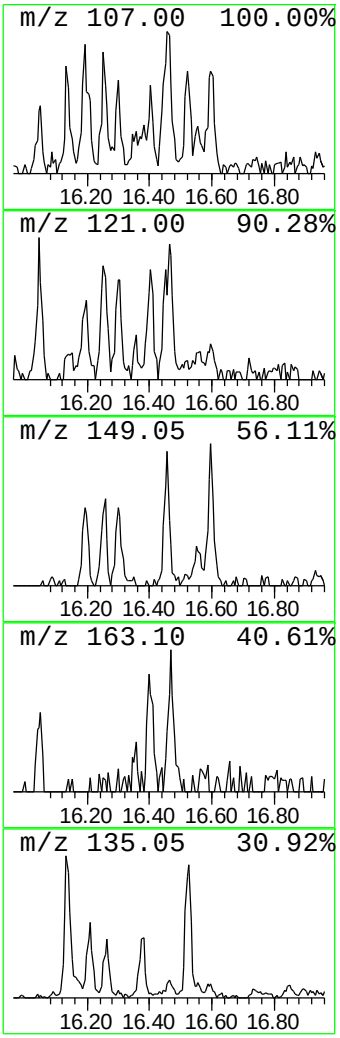
**********

Peak Number 5 unknown16.46 Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.46 | 3.19 ng | 51007 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Acetamide, N-(3-methylphenyl)- | 149 | C9H11NO | 000537-92-8 | 49 |
| 2 | Acetamide, N-(2-methylphenyl)- | 149 | C9H11NO | 000120-66-1 | 47 |
| 3 | Acetamide, N-(4-methylphenyl)- | 149 | C9H11NO | 000103-89-9 | 35 |
| 4 | 3-Hydroxy-4-methyl-1,3-dihydro-i... | 163 | C9H9NO2 | 1000274-99-7 | 35 |
| 5 | Benzeneacetic acid, 4-ethoxy- | 180 | C10H12O3 | 004919-33-9 | 27 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

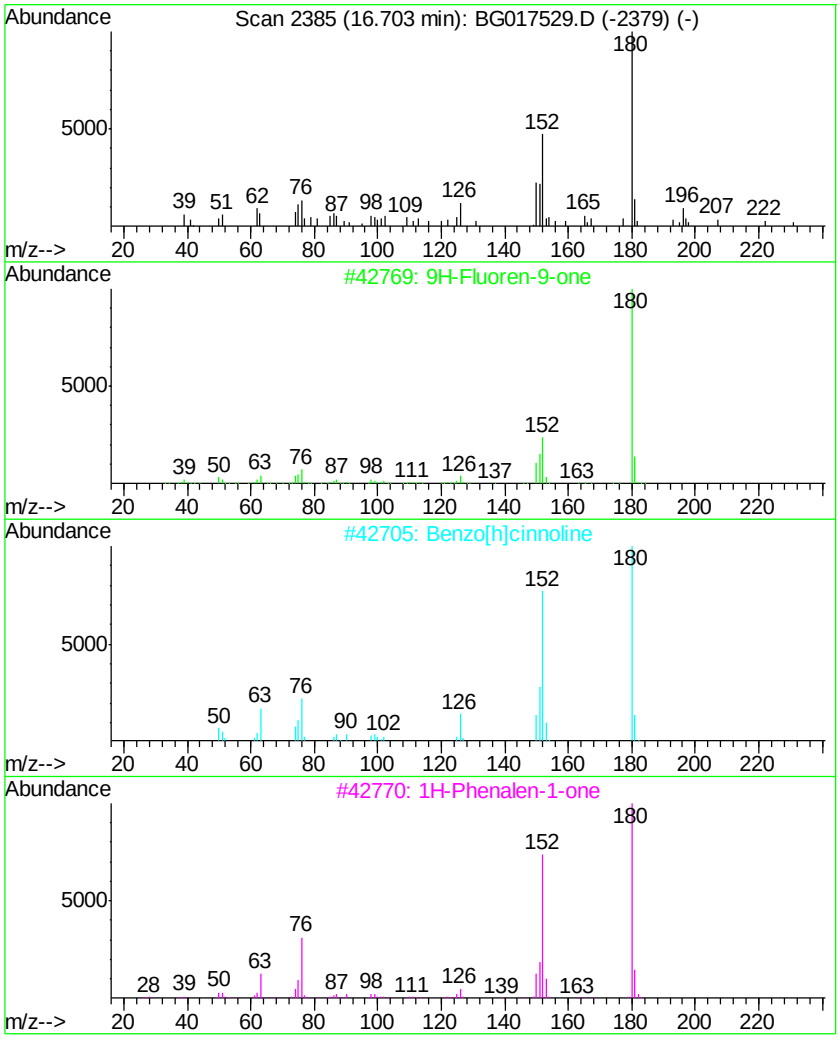
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

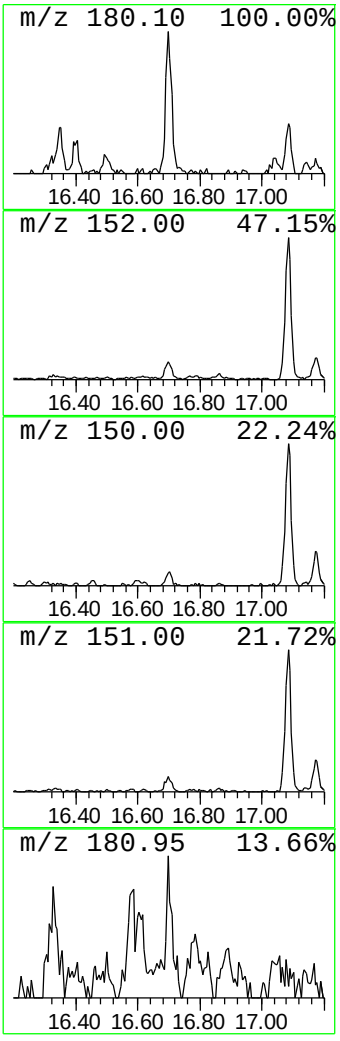
**********

Peak Number 6 9H-Fluoren-9-one Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.70 | 2.82 ng | 45107 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9H-Fluoren-9-one | 180 | C13H8O | 000486-25-9 | 90 |
| 2 | Benzo[h]cinnoline | 180 | C12H8N2 | 000230-31-9 | 72 |
| 3 | 1H-Phenalen-1-one | 180 | C13H8O | 000548-39-0 | 72 |
| 4 | 9,10-Phenanthrenedione | 208 | C14H8O2 | 000084-11-7 | 64 |
| 5 | 9-Aminofluorene | 181 | C13H11N | 005978-75-6 | 64 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

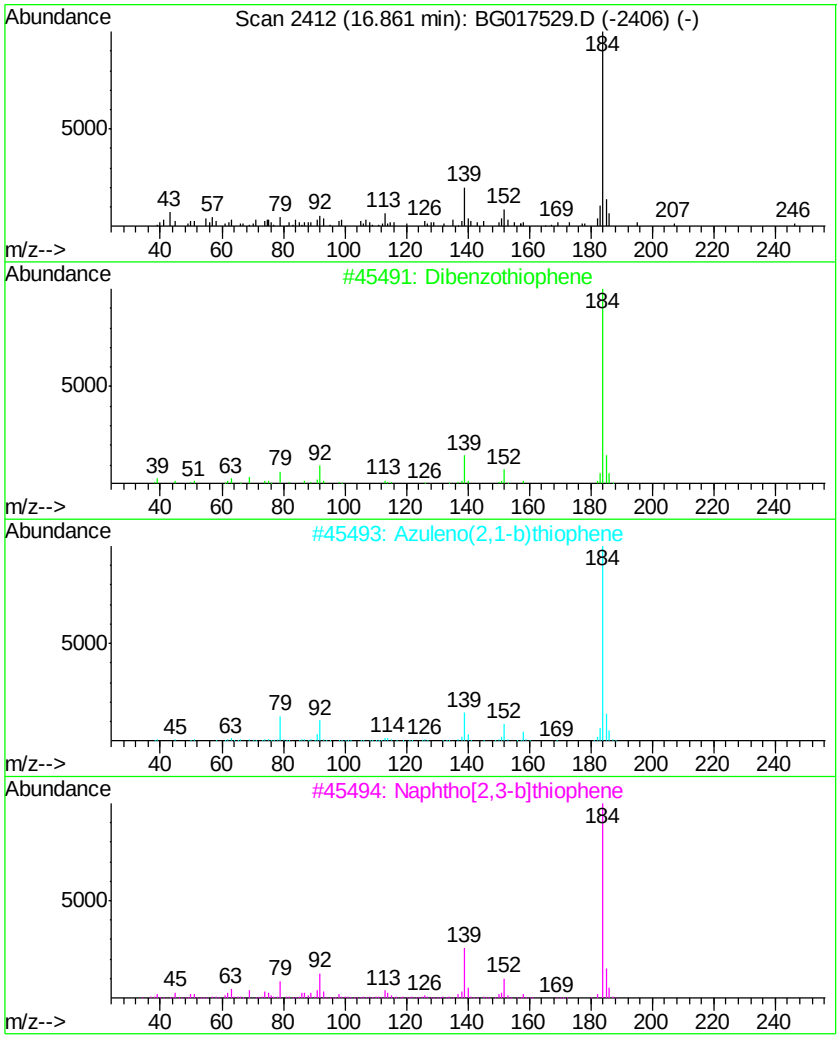
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

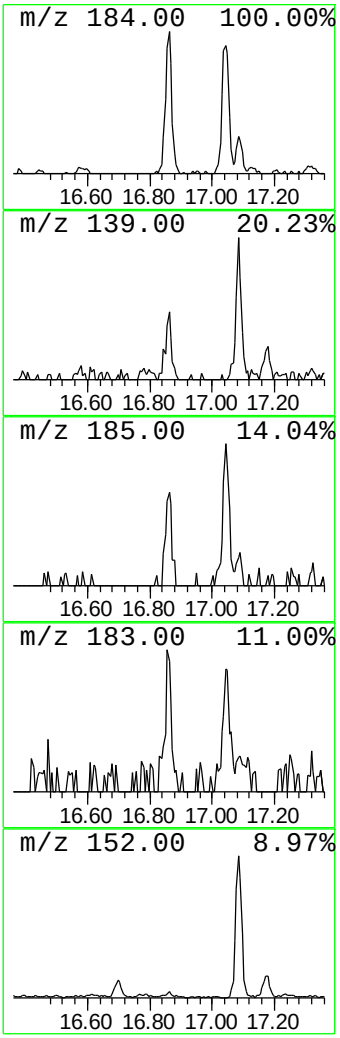
**********

Peak Number 7 Dibenzothiophene Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.86 | 3.35 ng | 53534 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 94 |
| 2 | Azuleno(2,1-b)thiophene | 184 | C12H8S | 000248-13-5 | 91 |
| 3 | Naphtho[2,3-b]thiophene | 184 | C12H8S | 000268-77-9 | 87 |
| 4 | 1,1'-Biphenyl, 2-methoxy- | 184 | C13H12O | 000086-26-0 | 59 |
| 5 | Naphthalene, 2-ethenyl-6-methoxy- | 184 | C13H12O | 063444-51-9 | 59 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

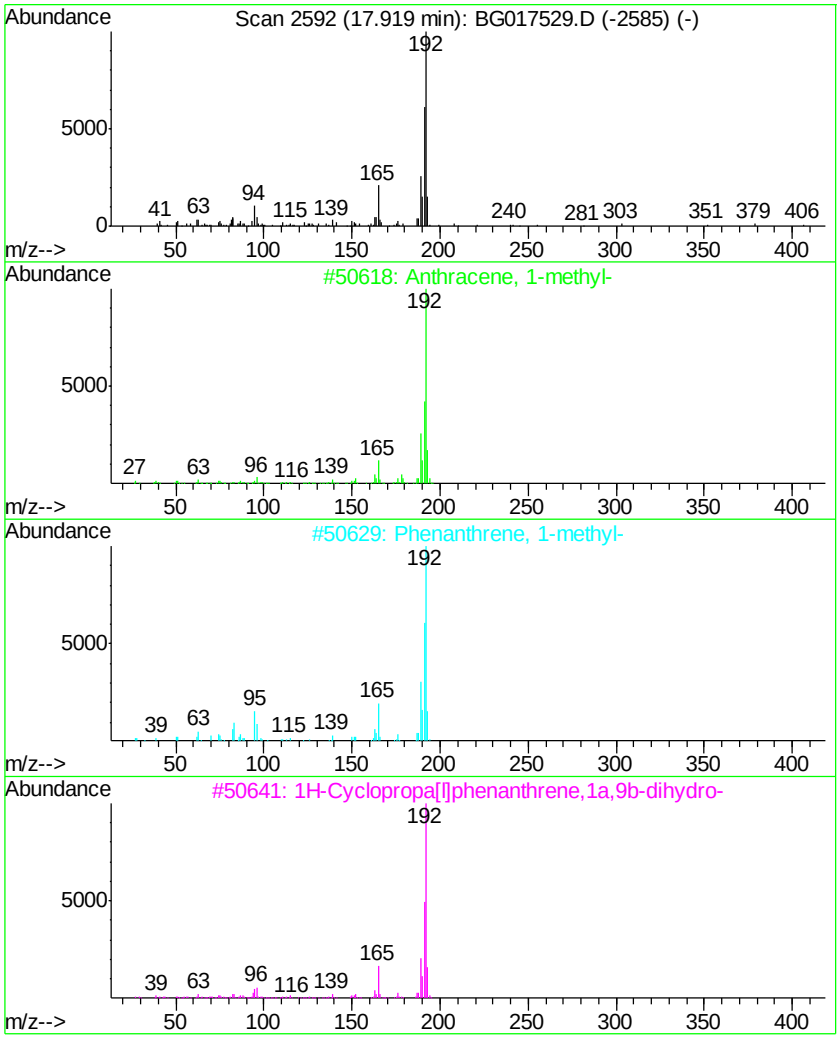
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

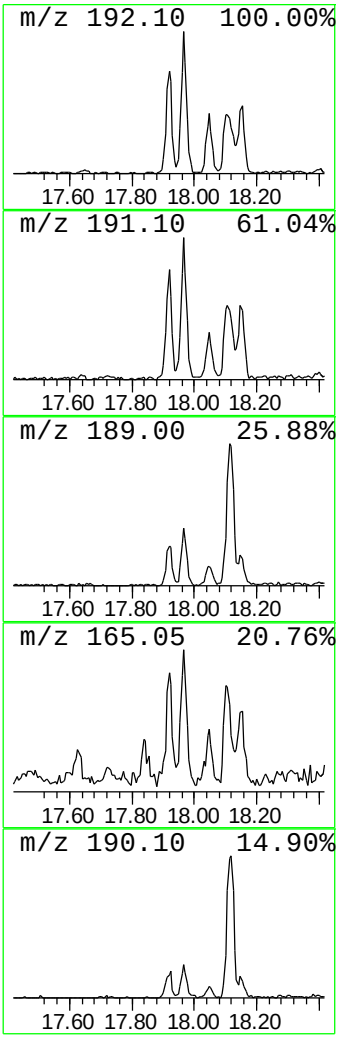
**********

Peak Number 8 Anthracene, 1-methyl- Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.92 | 7.85 ng | 125437 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 90 |
| 2 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 89 |
| 3 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 81 |
| 4 | 1H-Indene, 2-phenyl- | 192 | C15H12 | 004505-48-0 | 81 |
| 5 | 1H-Indene, 3-phenyl- | 192 | C15H12 | 001961-97-3 | 81 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

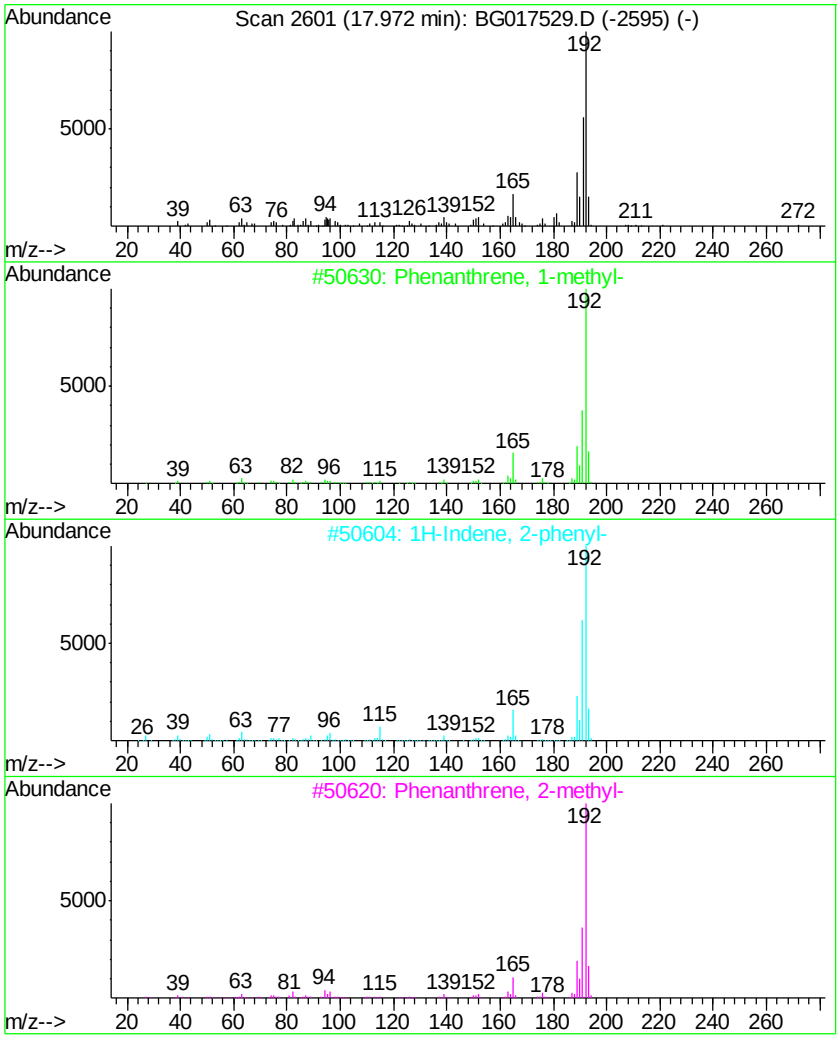
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

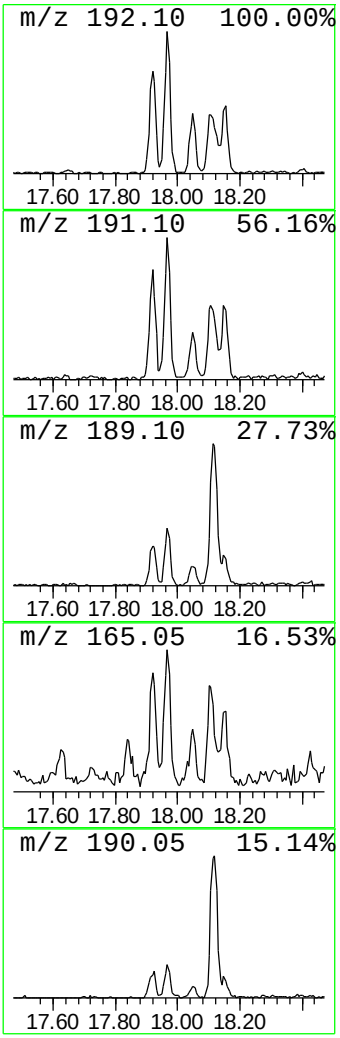
**********

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

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.97 | 15.11 ng | 241414 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 95 |
| 2 | 1H-Indene, 2-phenyl- | 192 | C15H12 | 004505-48-0 | 94 |
| 3 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 93 |
| 4 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 91 |
| 5 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 91 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

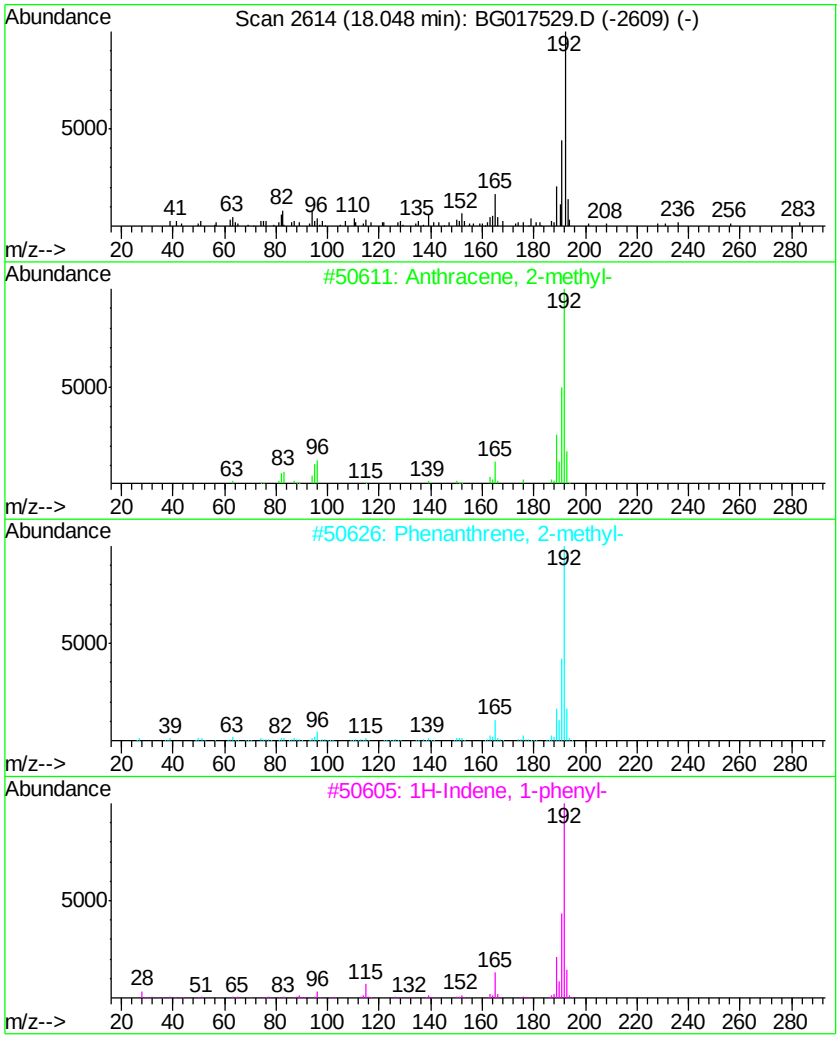
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

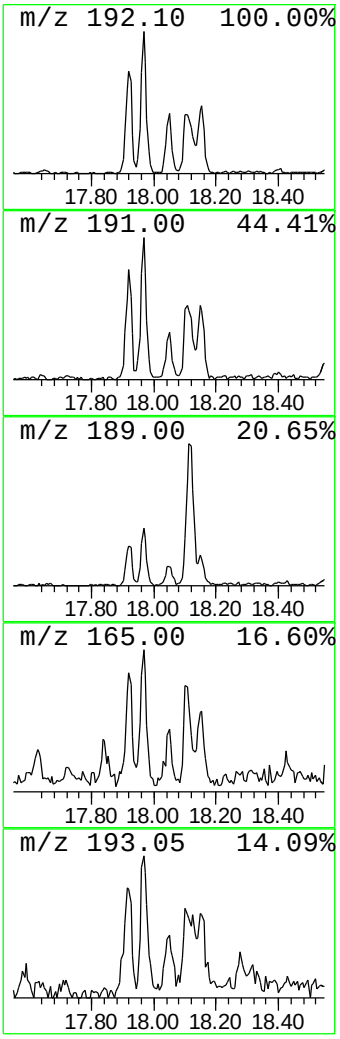
**********

Peak Number 10 Anthracene, 2-methyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.05 | 3.92 ng | 62659 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 87 |
| 2 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 87 |
| 3 | 1H-Indene, 1-phenyl- | 192 | C15H12 | 001961-96-2 | 87 |
| 4 | 1H-Indene, 2-phenyl- | 192 | C15H12 | 004505-48-0 | 87 |
| 5 | 1H-Indene, 3-phenyl- | 192 | C15H12 | 001961-97-3 | 87 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

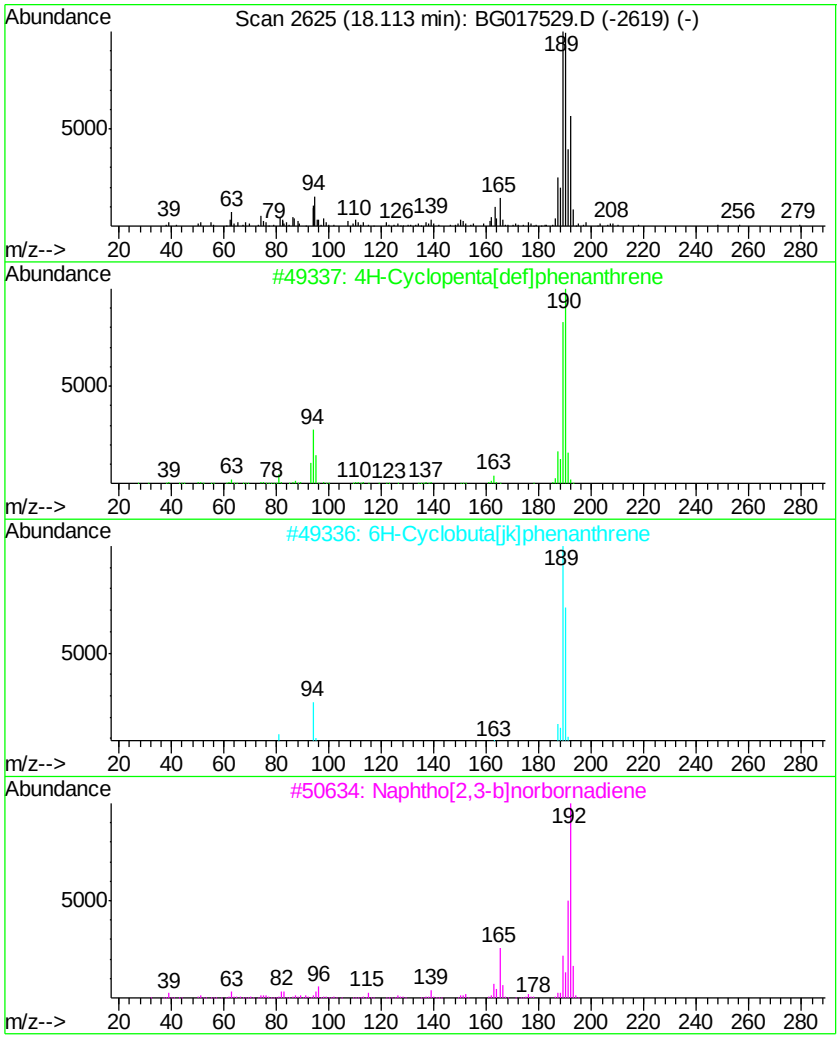
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

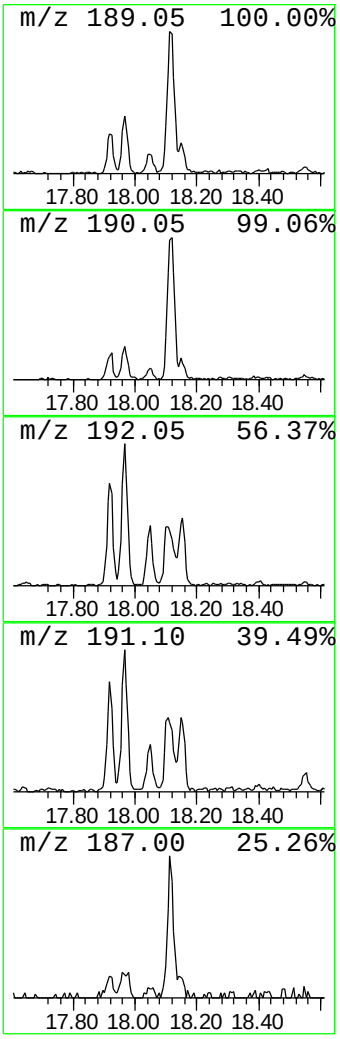
**********

Peak Number 11 4H-Cyclopenta[def]phenanthrene Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.11 | 12.72 ng | 203261 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 68 |
| 2 | 6H-Cyclobuta[jk]phenanthrene | 190 | C15H10 | 083469-43-6 | 58 |
| 3 | Naphtho[2,3-b]norbornadiene | 192 | C15H12 | 107426-38-0 | 35 |
| 4 | Benzene, 1,1'-(2-cyclopropen-1-y... | 192 | C15H12 | 022825-21-4 | 20 |
| 5 | 1a,9b-Dihydro-1H-cyclopropa[a]an... | 192 | C15H12 | 006109-24-6 | 20 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

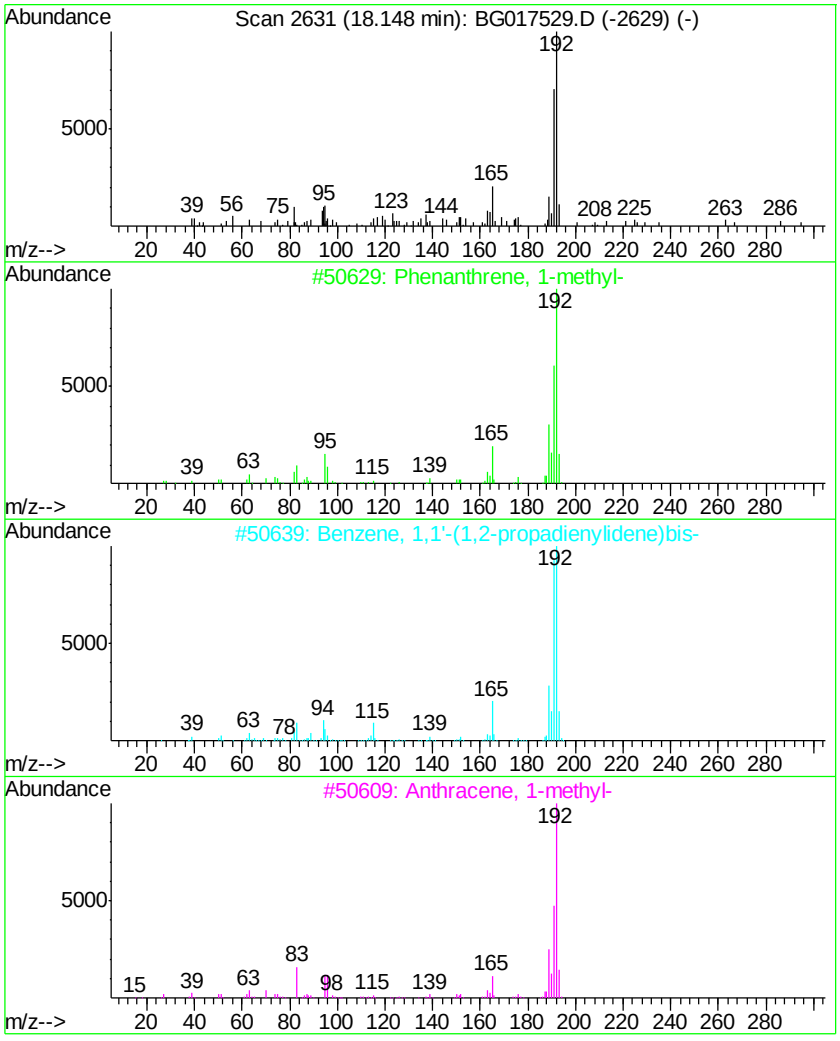
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

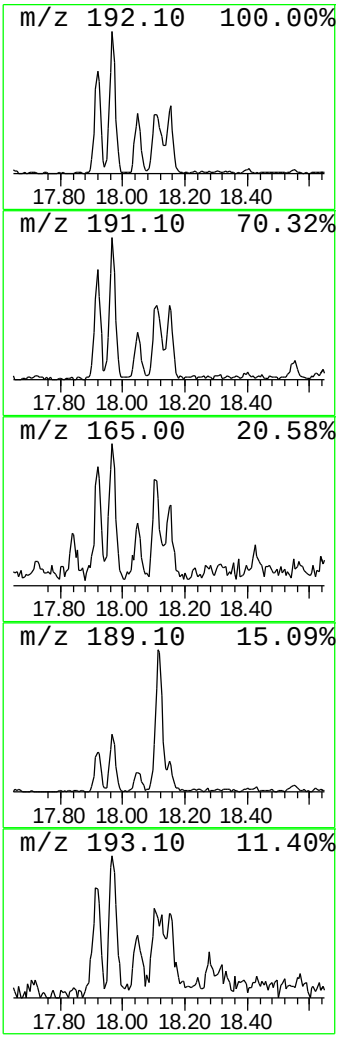
**********

Peak Number 12 Benzene, 1,1'-(1,2-propadie... Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.15 | 4.71 ng | 75287 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 87 |
| 2 | Benzene, 1,1'-(1,2-propadienylid... | 192 | C15H12 | 014251-57-1 | 86 |
| 3 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 83 |
| 4 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 81 |
| 5 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 74 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

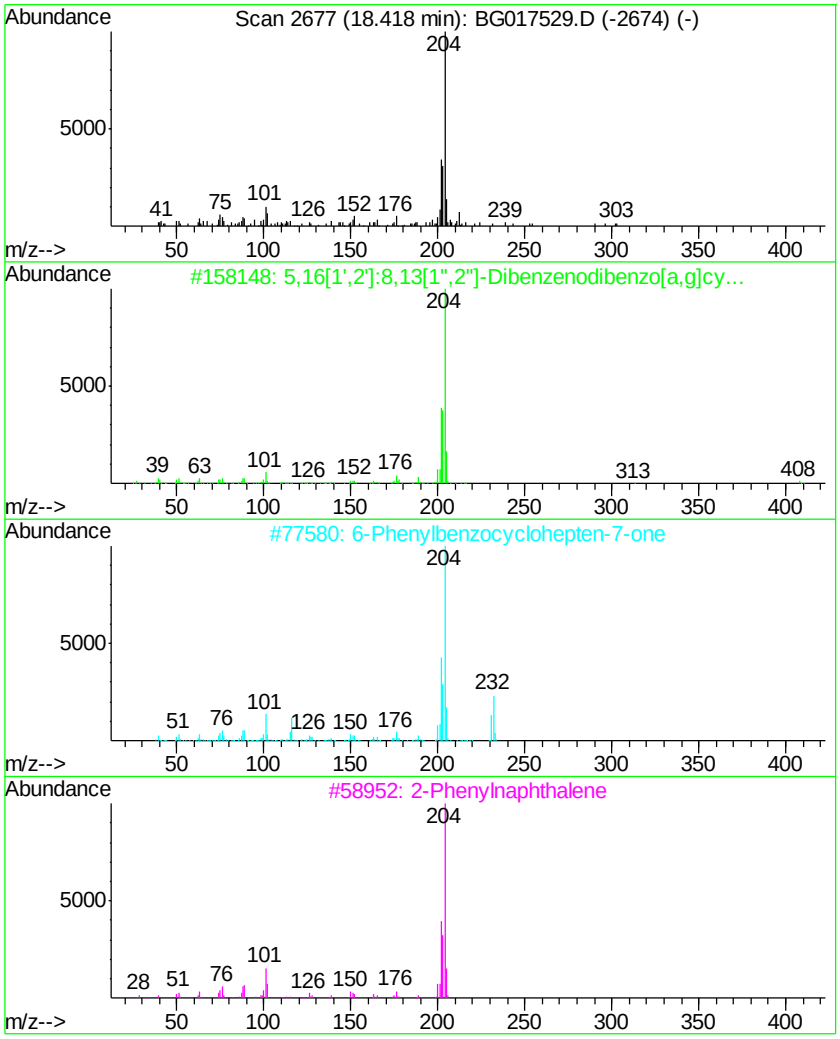
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

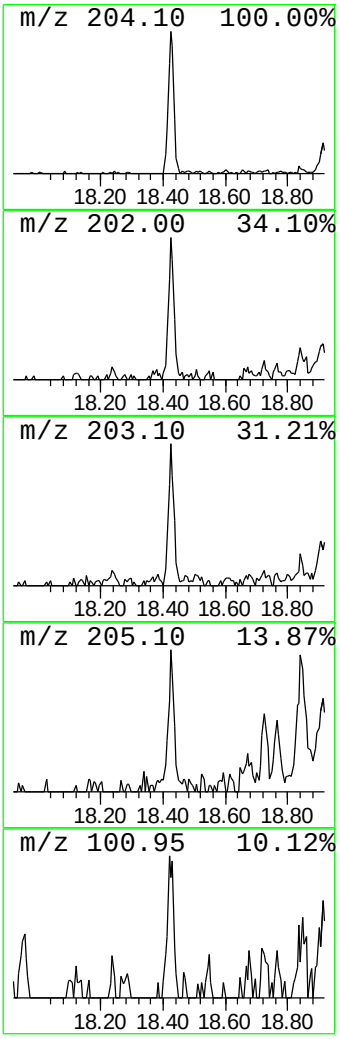
**********

Peak Number 13 5,16[1',2']:8,13[1'',2'']-D... Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.42 | 5.06 ng | 80777 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 5,16[1',2']:8,13[1'',2'']-Dibenz... | 408 | C32H24 | 005672-97-9 | 80 |
| 2 | 6-Phenylbenzocyclohepten-7-one | 232 | C17H12O | 093327-56-1 | 72 |
| 3 | 2-Phenylnaphthalene | 204 | C16H12 | 035465-71-5 | 64 |
| 4 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 64 |
| 5 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 52 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

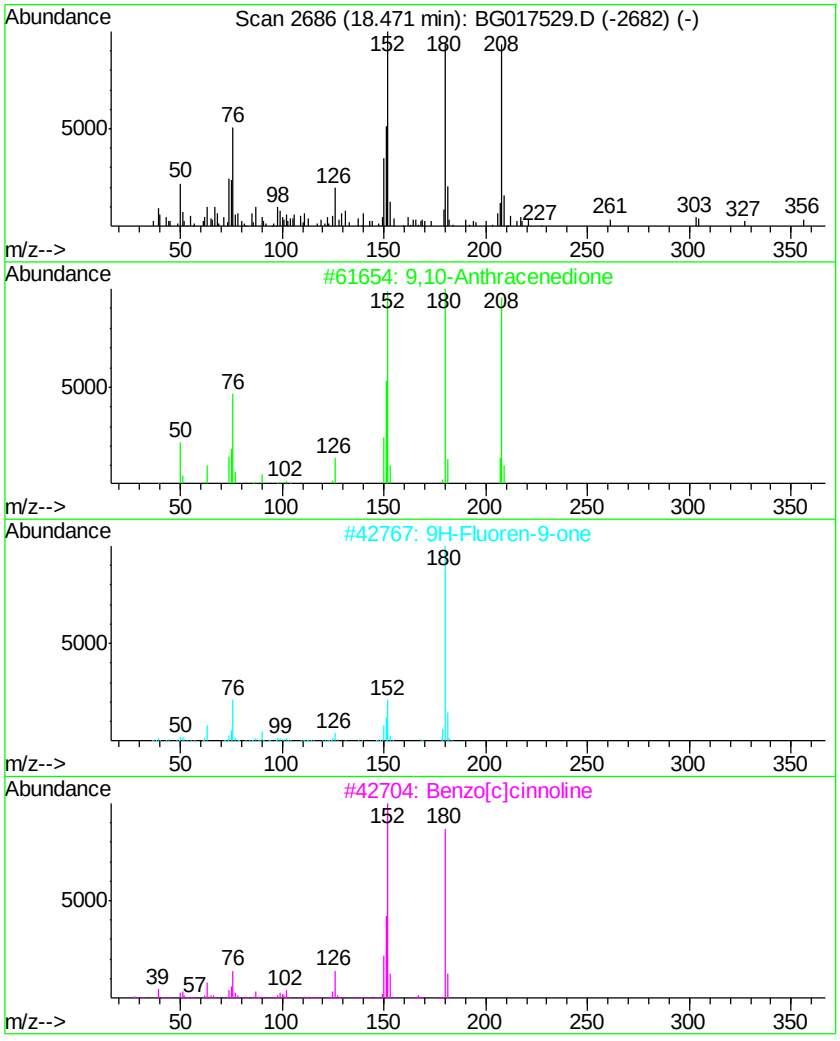
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

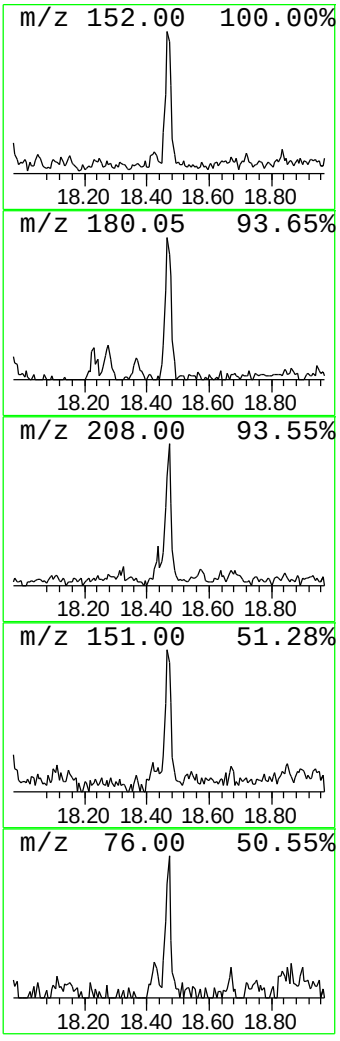
**********

Peak Number 14 9,10-Anthracenedione Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.47 | 4.72 ng | 75384 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 96 |
| 2 | 9H-Fluoren-9-one | 180 | C13H8O | 000486-25-9 | 93 |
| 3 | Benzo[c]cinnoline | 180 | C12H8N2 | 000230-17-1 | 76 |
| 4 | Benzo[h]cinnoline | 180 | C12H8N2 | 000230-31-9 | 58 |
| 5 | 9,10-Phenanthrenedione | 208 | C14H8O2 | 000084-11-7 | 47 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

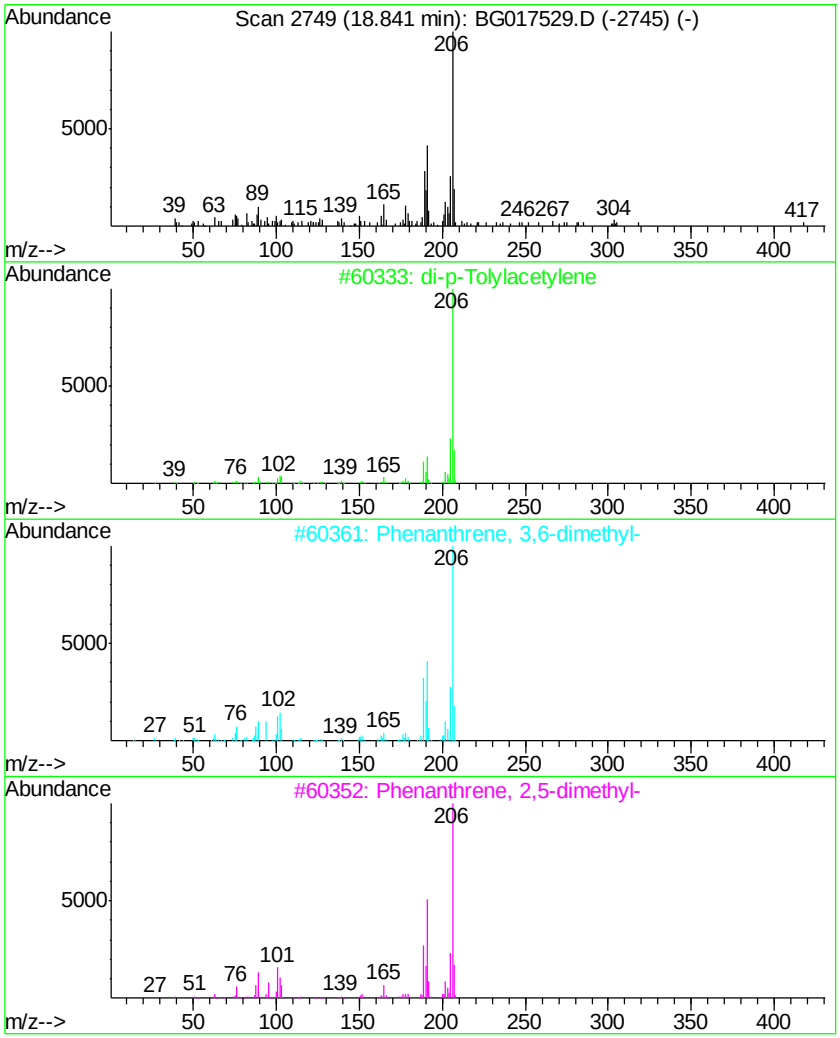
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

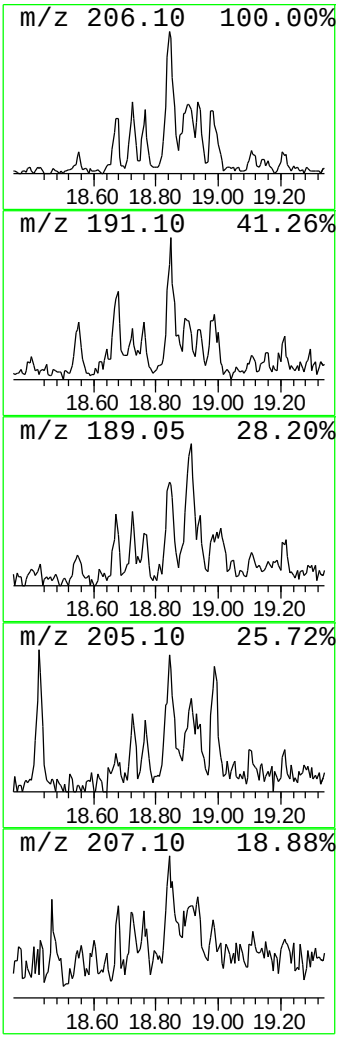
**********

Peak Number 15 di-p-Tolylacetylene Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.84 | 6.31 ng | 100801 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | di-p-Tolylacetylene | 206 | C16H14 | 002789-88-0 | 94 |
| 2 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 93 |
| 3 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 91 |
| 4 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 91 |
| 5 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 90 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

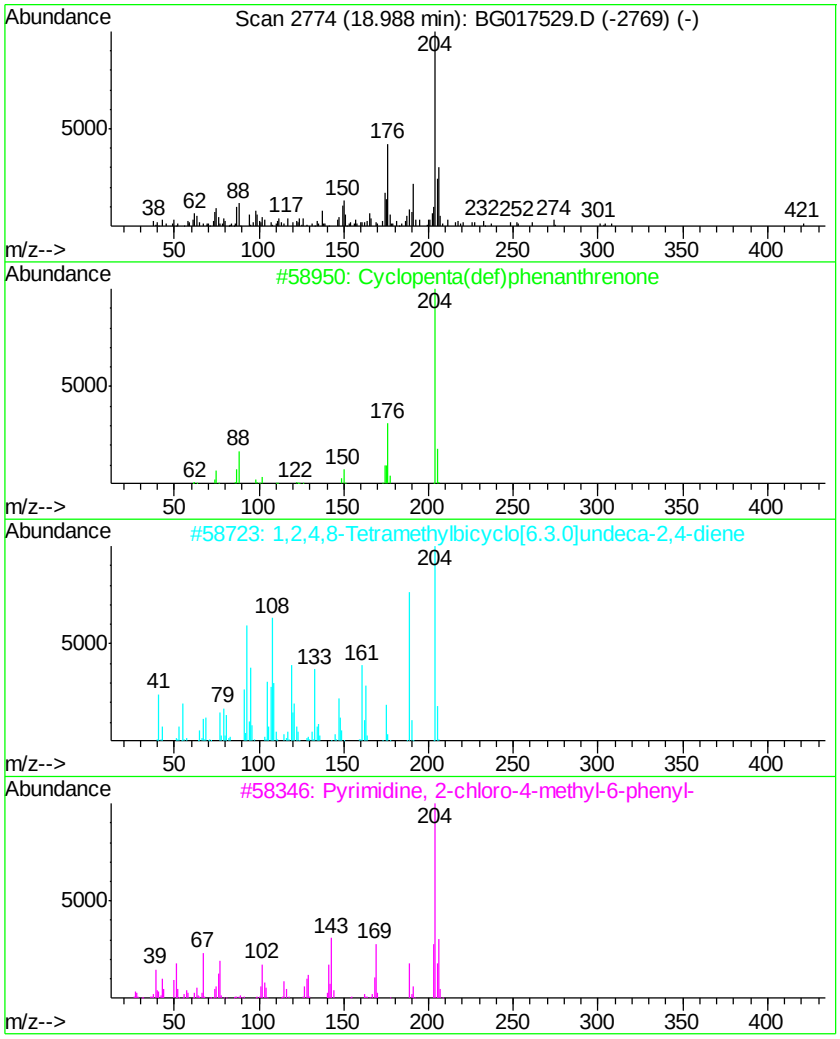
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

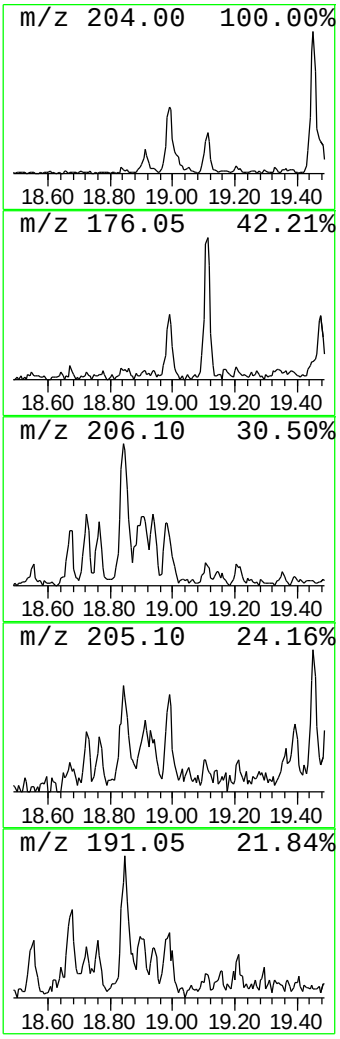
**********

Peak Number 16 Cyclopenta(def)phenanthrenone Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.99 | 5.18 ng | 82801 | Phenanthrene-d10 | 17.04 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 89 |
| 2 | 1,2,4,8-Tetramethylbicyclo[6.3.0... | 204 | C15H24 | 137235-51-9 | 46 |
| 3 | Pyrimidine, 2-chloro-4-methyl-6-... | 204 | C11H9ClN2 | 032785-40-3 | 43 |
| 4 | [1,1'-Biphenyl]-4-ol, 3-chloro- | 204 | C12H9ClO | 000092-04-6 | 43 |
| 5 | Tricyclo[5.1.0.0(2,4)]octane, 5-... | 247 | C17H29N | 1000063-59-3 | 38 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

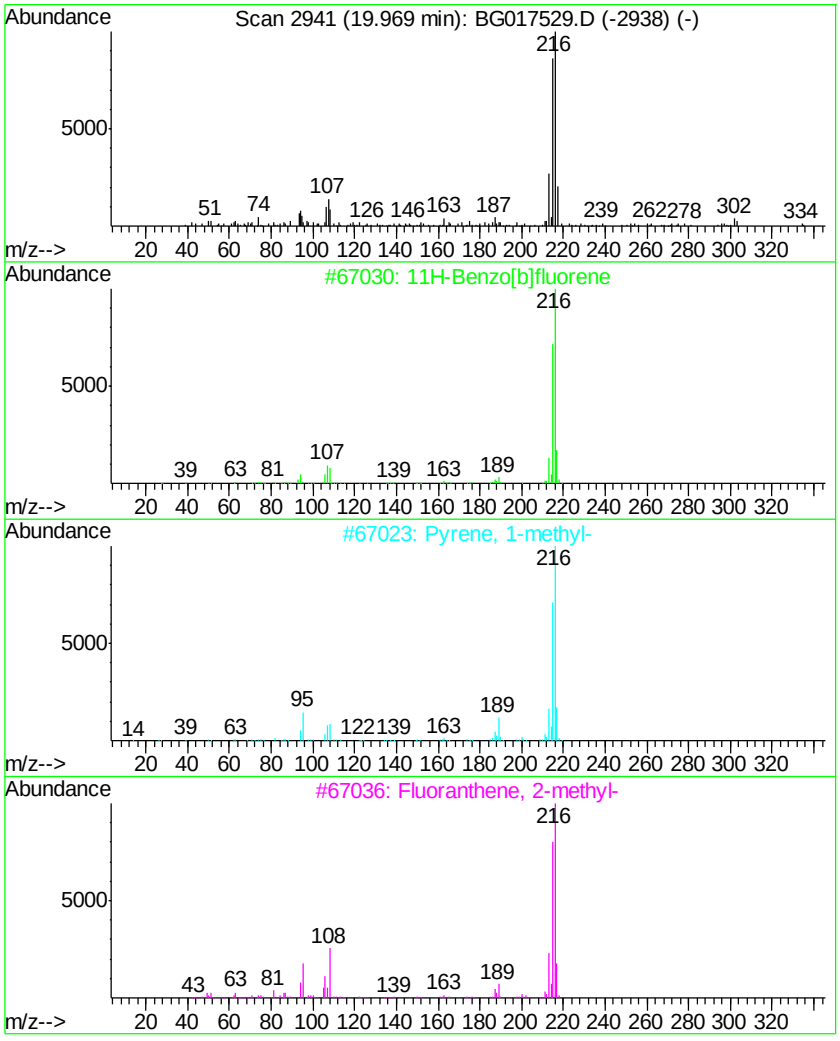
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

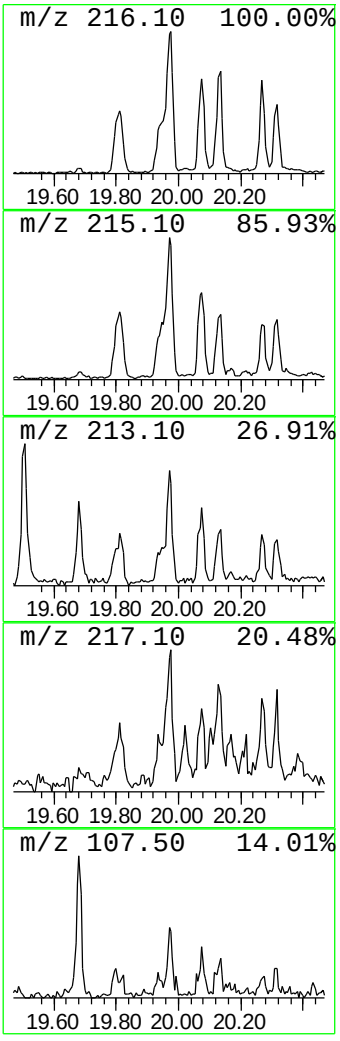
**********

Peak Number 17 11H-Benzo[b]fluorene Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.97 | 2.85 ng | 148606 | Chrysene-d12 | 21.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 90 |
| 2 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 83 |
| 3 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 83 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 72 |
| 5 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 62 |



Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

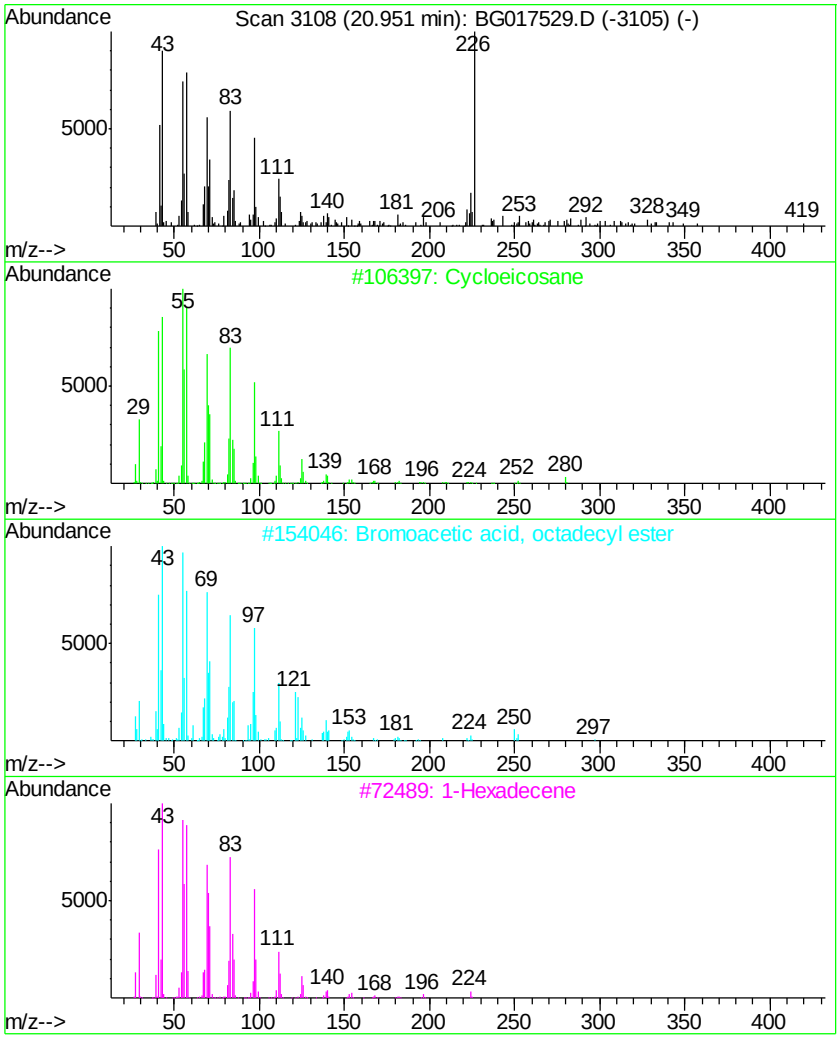
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

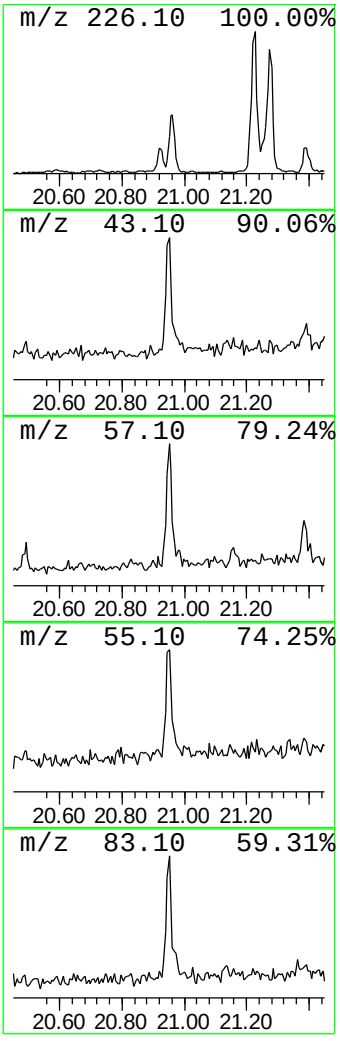
**********

Peak Number 18 unknown20.95 Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 20.95 | 3.85 ng | 200855 | Chrysene-d12 | 21.24 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cycloeicosane | 280 | C20H40 | 000296-56-0 | 46 |
| 2 | Bromoacetic acid, octadecyl ester | 390 | C20H39BrO2 | 018992-03-5 | 46 |
| 3 | 1-Hexadecene | 224 | C16H32 | 000629-73-2 | 43 |
| 4 | 1-Heptadecene | 238 | C17H34 | 006765-39-5 | 41 |
| 5 | 9-Eicosene, (E)- | 280 | C20H40 | 074685-29-3 | 41 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG060615\
Data File : BG017529.D
Acq On : 7 Jun 2015 11:40
Operator : TP/IZ
Sample : G2457-11
Misc :
ALS Vial : 24 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** SP-6

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG060315.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT 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 |
| Butane, 2-methoxy... | 2.76 | 9.4 | ng | 67990 | 1 | 7.62 | 144614 | 20.0 |
| 2-Pentanone, 4-hy... | 4.72 | 5.3 | ng | 37947 | 1 | 7.62 | 144614 | 20.0 |
| unknown7.17 | 7.17 | 107.4 | ng | 776558 | 1 | 7.62 | 144614 | 20.0 |
| unknown16.46 | 16.46 | 3.2 | ng | 51007 | 4 | 17.04 | 319530 | 20.0 |
| 9H-Fluoren-9-one | 16.70 | 2.8 | ng | 45107 | 4 | 17.04 | 319530 | 20.0 |
| Dibenzothiophene | 16.86 | 3.4 | ng | 53534 | 4 | 17.04 | 319530 | 20.0 |
| Anthracene, 1-met... | 17.92 | 7.8 | ng | 125437 | 4 | 17.04 | 319530 | 20.0 |
| Phenanthrene, 1-m... | 17.97 | 15.1 | ng | 241414 | 4 | 17.04 | 319530 | 20.0 |
| Anthracene, 2-met... | 18.05 | 3.9 | ng | 62659 | 4 | 17.04 | 319530 | 20.0 |
| 4H-Cyclopenta[def... | 18.11 | 12.7 | ng | 203261 | 4 | 17.04 | 319530 | 20.0 |
| Benzene, 1,1'-(1,... | 18.15 | 4.7 | ng | 75287 | 4 | 17.04 | 319530 | 20.0 |
| 5,16[1',2']:8,13[... | 18.42 | 5.1 | ng | 80777 | 4 | 17.04 | 319530 | 20.0 |
| 9,10-Anthracenedione | 18.47 | 4.7 | ng | 75384 | 4 | 17.04 | 319530 | 20.0 |
| di-p-Tolylacetylene | 18.84 | 6.3 | ng | 100801 | 4 | 17.04 | 319530 | 20.0 |
| Cyclopenta(def)ph... | 18.99 | 5.2 | ng | 82801 | 4 | 17.04 | 319530 | 20.0 |
| 11H-Benzo[b]fluorene | 19.97 | 2.9 | ng | 148606 | 5 | 21.24 | 1042120 | 20.0 |
| unknown20.95 | 20.95 | 3.9 | ng | 200855 | 5 | 21.24 | 1042120 | 20.0 |