

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
 Data File : BM005014.D  
 Acq On : 21 Apr 2016 05:57  
 Operator : UM/SJ  
 Sample : H2567-28  
 Misc :  
 ALS Vial : 29 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BC7J3

## Integration Parameters: LSCINT.P

Integrator: RTE  
 Smoothing : OFF  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 1 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

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

Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
 Title : SVOA CALIBRATION

Signal : TIC

| peak<br># | R.T.<br>min | first<br>scan | max<br>scan | last<br>scan | PK<br>TY | peak<br>height | corr.<br>area | corr.<br>% max. | % of<br>total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1         | 6.969       | 723           | 728         | 744          | rBB      | 174280         | 281423        | 18.32%          | 1.289%        |
| 2         | 7.140       | 751           | 757         | 768          | rBB      | 151306         | 231116        | 15.05%          | 1.059%        |
| 3         | 7.340       | 785           | 791         | 799          | rBV      | 185793         | 293582        | 19.11%          | 1.345%        |
| 4         | 7.804       | 865           | 870         | 880          | rBB      | 169685         | 276255        | 17.99%          | 1.265%        |
| 5         | 8.504       | 984           | 989         | 998          | rBV      | 226361         | 356973        | 23.24%          | 1.635%        |
| 6         | 8.963       | 1061          | 1067        | 1081         | rBB      | 166688         | 276327        | 17.99%          | 1.266%        |
| 7         | 9.681       | 1183          | 1189        | 1197         | rBV      | 139180         | 222857        | 14.51%          | 1.021%        |
| 8         | 10.216      | 1274          | 1280        | 1295         | rBB      | 214177         | 358258        | 23.32%          | 1.641%        |
| 9         | 10.598      | 1338          | 1345        | 1349         | rBV      | 246087         | 427954        | 27.86%          | 1.960%        |
| 10        | 10.645      | 1349          | 1353        | 1361         | rVV      | 248824         | 407685        | 26.54%          | 1.868%        |
| 11        | 10.734      | 1361          | 1368        | 1384         | rVB2     | 202419         | 390631        | 25.43%          | 1.789%        |
| 12        | 12.257      | 1621          | 1627        | 1638         | rBB      | 186456         | 289431        | 18.84%          | 1.326%        |
| 13        | 12.475      | 1655          | 1664        | 1673         | rBB      | 122243         | 200945        | 13.08%          | 0.920%        |
| 14        | 13.275      | 1795          | 1800        | 1808         | rBB      | 80996          | 117677        | 7.66%           | 0.539%        |
| 15        | 13.469      | 1828          | 1833        | 1841         | rBV      | 16981          | 27930         | 1.82%           | 0.128%        |
| 16        | 13.604      | 1851          | 1856        | 1857         | rBV      | 36249          | 51134         | 3.33%           | 0.234%        |
| 17        | 13.763      | 1876          | 1883        | 1888         | rBV      | 64599          | 108420        | 7.06%           | 0.497%        |
| 18        | 13.816      | 1888          | 1892        | 1893         | rVV      | 45221          | 53880         | 3.51%           | 0.247%        |
| 19        | 13.851      | 1893          | 1898        | 1902         | rVV      | 392785         | 551308        | 35.89%          | 2.525%        |
| 20        | 13.898      | 1902          | 1906        | 1914         | rVB      | 133465         | 180448        | 11.75%          | 0.827%        |
| 21        | 13.998      | 1919          | 1923        | 1927         | rBV2     | 25528          | 37789         | 2.46%           | 0.173%        |
| 22        | 14.133      | 1940          | 1946        | 1960         | rBV      | 446699         | 776684        | 50.57%          | 3.558%        |
| 23        | 14.445      | 1989          | 1999        | 2004         | rBV2     | 354685         | 580068        | 37.77%          | 2.657%        |
| 24        | 14.504      | 2004          | 2009        | 2017         | rVV      | 277756         | 423580        | 27.58%          | 1.940%        |
| 25        | 14.574      | 2017          | 2021        | 2027         | rVV      | 20310          | 28611         | 1.86%           | 0.131%        |
| 26        | 14.639      | 2027          | 2032        | 2045         | rVV2     | 118031         | 209443        | 13.64%          | 0.959%        |
| 27        | 14.751      | 2045          | 2051        | 2058         | rVV3     | 10971          | 21120         | 1.38%           | 0.097%        |
| 28        | 14.839      | 2061          | 2066        | 2074         | rVV      | 258963         | 394791        | 25.70%          | 1.808%        |
| 29        | 14.916      | 2074          | 2079        | 2083         | rVB      | 12938          | 18370         | 1.20%           | 0.084%        |
| 30        | 15.057      | 2098          | 2103        | 2108         | rVB3     | 9992           | 16799         | 1.09%           | 0.077%        |
| 31        | 15.233      | 2125          | 2133        | 2136         | rBV2     | 9644           | 17358         | 1.13%           | 0.080%        |
| 32        | 15.286      | 2136          | 2142        | 2150         | rVB3     | 24570          | 37588         | 2.45%           | 0.172%        |
| 33        | 15.439      | 2159          | 2168        | 2172         | rBV      | 569436         | 840144        | 54.70%          | 3.848%        |
| 34        | 15.492      | 2172          | 2177        | 2184         | rVV      | 350574         | 498190        | 32.43%          | 2.282%        |

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 Max Peaks: 100  
 Peak Location: TOP

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 Peak separation: 5

Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
 Title : SVOA CALIBRATION

|    |        |      |      |      |      |         |         |         |        |
|----|--------|------|------|------|------|---------|---------|---------|--------|
| 35 | 15.557 | 2184 | 2188 | 2195 | rVV  | 135065  | 198250  | 12.91%  | 0.908% |
| 36 | 15.616 | 2195 | 2198 | 2201 | rVV  | 16686   | 23199   | 1.51%   | 0.106% |
| 37 | 15.651 | 2201 | 2204 | 2209 | rVV2 | 31441   | 54995   | 3.58%   | 0.252% |
| 38 | 15.698 | 2209 | 2212 | 2216 | rVV3 | 14171   | 23128   | 1.51%   | 0.106% |
| 39 | 15.739 | 2216 | 2219 | 2223 | rVV2 | 15605   | 22154   | 1.44%   | 0.101% |
| 40 | 15.786 | 2223 | 2227 | 2233 | rVB  | 54184   | 72910   | 4.75%   | 0.334% |
| 41 | 15.933 | 2241 | 2252 | 2261 | rVV2 | 56889   | 121980  | 7.94%   | 0.559% |
| 42 | 16.151 | 2284 | 2289 | 2306 | rBV2 | 31895   | 60347   | 3.93%   | 0.276% |
| 43 | 16.492 | 2336 | 2347 | 2353 | rBV2 | 40107   | 76409   | 4.97%   | 0.350% |
| 44 | 16.545 | 2353 | 2356 | 2362 | rVB2 | 14027   | 19934   | 1.30%   | 0.091% |
| 45 | 16.645 | 2369 | 2373 | 2379 | rVB3 | 15424   | 23505   | 1.53%   | 0.108% |
| 46 | 16.921 | 2415 | 2420 | 2421 | rVV  | 16000   | 22350   | 1.46%   | 0.102% |
| 47 | 16.939 | 2421 | 2423 | 2427 | rVV  | 24042   | 28788   | 1.87%   | 0.132% |
| 48 | 17.010 | 2427 | 2435 | 2445 | rVB  | 70424   | 113343  | 7.38%   | 0.519% |
| 49 | 17.192 | 2459 | 2466 | 2469 | rBV  | 425849  | 666734  | 43.41%  | 3.054% |
| 50 | 17.233 | 2469 | 2473 | 2478 | rVV  | 1074589 | 1535975 | 100.00% | 7.036% |
| 51 | 17.286 | 2478 | 2482 | 2486 | rVV  | 607192  | 903778  | 58.84%  | 4.140% |
| 52 | 17.321 | 2486 | 2488 | 2493 | rVV  | 151384  | 179212  | 11.67%  | 0.821% |
| 53 | 17.380 | 2493 | 2498 | 2503 | rVB2 | 11029   | 20032   | 1.30%   | 0.092% |
| 54 | 17.592 | 2527 | 2534 | 2539 | rBV  | 48063   | 69776   | 4.54%   | 0.320% |
| 55 | 17.704 | 2551 | 2553 | 2560 | rVB2 | 11248   | 15638   | 1.02%   | 0.072% |
| 56 | 18.062 | 2604 | 2614 | 2618 | rBV  | 90734   | 145184  | 9.45%   | 0.665% |
| 57 | 18.110 | 2618 | 2622 | 2628 | rVV  | 115357  | 164162  | 10.69%  | 0.752% |
| 58 | 18.192 | 2631 | 2636 | 2641 | rVV  | 37272   | 54550   | 3.55%   | 0.250% |
| 59 | 18.262 | 2641 | 2648 | 2652 | rVV2 | 139632  | 249546  | 16.25%  | 1.143% |
| 60 | 18.292 | 2652 | 2653 | 2662 | rVB  | 42844   | 44437   | 2.89%   | 0.204% |
| 61 | 18.562 | 2694 | 2699 | 2704 | rVB  | 53054   | 67289   | 4.38%   | 0.308% |
| 62 | 18.980 | 2765 | 2770 | 2777 | rBV4 | 24009   | 49799   | 3.24%   | 0.228% |
| 63 | 19.045 | 2777 | 2781 | 2785 | rBV2 | 13936   | 21664   | 1.41%   | 0.099% |
| 64 | 19.121 | 2790 | 2794 | 2803 | rVB4 | 9382    | 22169   | 1.44%   | 0.102% |
| 65 | 19.251 | 2804 | 2816 | 2823 | rBV  | 684582  | 968947  | 63.08%  | 4.439% |
| 66 | 19.492 | 2850 | 2857 | 2866 | rVB2 | 18555   | 39126   | 2.55%   | 0.179% |
| 67 | 19.586 | 2866 | 2873 | 2876 | rBV  | 861439  | 1366445 | 88.96%  | 6.259% |
| 68 | 19.615 | 2876 | 2878 | 2886 | rVV  | 477518  | 542678  | 35.33%  | 2.486% |
| 69 | 19.686 | 2886 | 2890 | 2898 | rVB3 | 26816   | 41592   | 2.71%   | 0.191% |
| 70 | 19.792 | 2904 | 2908 | 2915 | rVB  | 30813   | 41751   | 2.72%   | 0.191% |
| 71 | 19.933 | 2926 | 2932 | 2939 | rBV3 | 26764   | 67618   | 4.40%   | 0.310% |

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Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
 Title : SVOA CALIBRATION

|     |        |      |      |      |      |        |         |        |        |
|-----|--------|------|------|------|------|--------|---------|--------|--------|
| 72  | 19.992 | 2939 | 2942 | 2950 | rVV  | 13982  | 19544   | 1.27%  | 0.090% |
| 73  | 20.074 | 2950 | 2956 | 2957 | rVV3 | 17926  | 26979   | 1.76%  | 0.124% |
| 74  | 20.109 | 2957 | 2962 | 2968 | rVB2 | 108340 | 172304  | 11.22% | 0.789% |
| 75  | 20.209 | 2974 | 2979 | 2983 | rBV  | 115343 | 147176  | 9.58%  | 0.674% |
| 76  | 20.262 | 2983 | 2988 | 2993 | rVV2 | 35583  | 64525   | 4.20%  | 0.296% |
| 77  | 20.409 | 3007 | 3013 | 3016 | rBV  | 12795  | 18637   | 1.21%  | 0.085% |
| 78  | 20.451 | 3016 | 3020 | 3025 | rBV3 | 16916  | 25107   | 1.63%  | 0.115% |
| 79  | 20.615 | 3044 | 3048 | 3058 | rBV3 | 35288  | 60691   | 3.95%  | 0.278% |
| 80  | 20.727 | 3065 | 3067 | 3072 | rVB2 | 12544  | 15419   | 1.00%  | 0.071% |
| 81  | 20.815 | 3078 | 3082 | 3087 | rBV3 | 13777  | 24054   | 1.57%  | 0.110% |
| 82  | 21.027 | 3114 | 3118 | 3121 | rBV  | 22551  | 29244   | 1.90%  | 0.134% |
| 83  | 21.080 | 3121 | 3127 | 3136 | rVV4 | 102209 | 209858  | 13.66% | 0.961% |
| 84  | 21.374 | 3170 | 3177 | 3181 | rBV2 | 676917 | 1141057 | 74.29% | 5.227% |
| 85  | 21.415 | 3181 | 3184 | 3193 | rVB  | 180978 | 230000  | 14.97% | 1.054% |
| 86  | 21.533 | 3198 | 3204 | 3211 | rVB2 | 39352  | 67715   | 4.41%  | 0.310% |
| 87  | 21.698 | 3227 | 3232 | 3237 | rVB3 | 21572  | 32142   | 2.09%  | 0.147% |
| 88  | 21.933 | 3267 | 3272 | 3275 | rBV  | 22803  | 38897   | 2.53%  | 0.178% |
| 89  | 22.092 | 3296 | 3299 | 3303 | rVB4 | 14025  | 19574   | 1.27%  | 0.090% |
| 90  | 22.139 | 3303 | 3307 | 3309 | rVV2 | 11071  | 15832   | 1.03%  | 0.073% |
| 91  | 22.174 | 3311 | 3313 | 3320 | rVB2 | 17561  | 19673   | 1.28%  | 0.090% |
| 92  | 22.433 | 3353 | 3357 | 3361 | rBV4 | 15677  | 21778   | 1.42%  | 0.100% |
| 93  | 22.974 | 3440 | 3449 | 3464 | rBV  | 69649  | 253625  | 16.51% | 1.162% |
| 94  | 23.150 | 3475 | 3479 | 3484 | rVB  | 17158  | 27498   | 1.79%  | 0.126% |
| 95  | 23.468 | 3528 | 3533 | 3535 | rBV  | 29983  | 51966   | 3.38%  | 0.238% |
| 96  | 23.515 | 3535 | 3541 | 3548 | rVV2 | 524735 | 1006979 | 65.56% | 4.613% |
| 97  | 23.662 | 3558 | 3566 | 3582 | rVB  | 410982 | 815664  | 53.10% | 3.736% |
| 98  | 24.186 | 3650 | 3655 | 3662 | rVB  | 22334  | 43521   | 2.83%  | 0.199% |
| 99  | 24.938 | 3779 | 3783 | 3792 | rVB2 | 18530  | 39997   | 2.60%  | 0.183% |
| 100 | 25.974 | 3955 | 3959 | 3971 | rVB4 | 17648  | 46813   | 3.05%  | 0.214% |

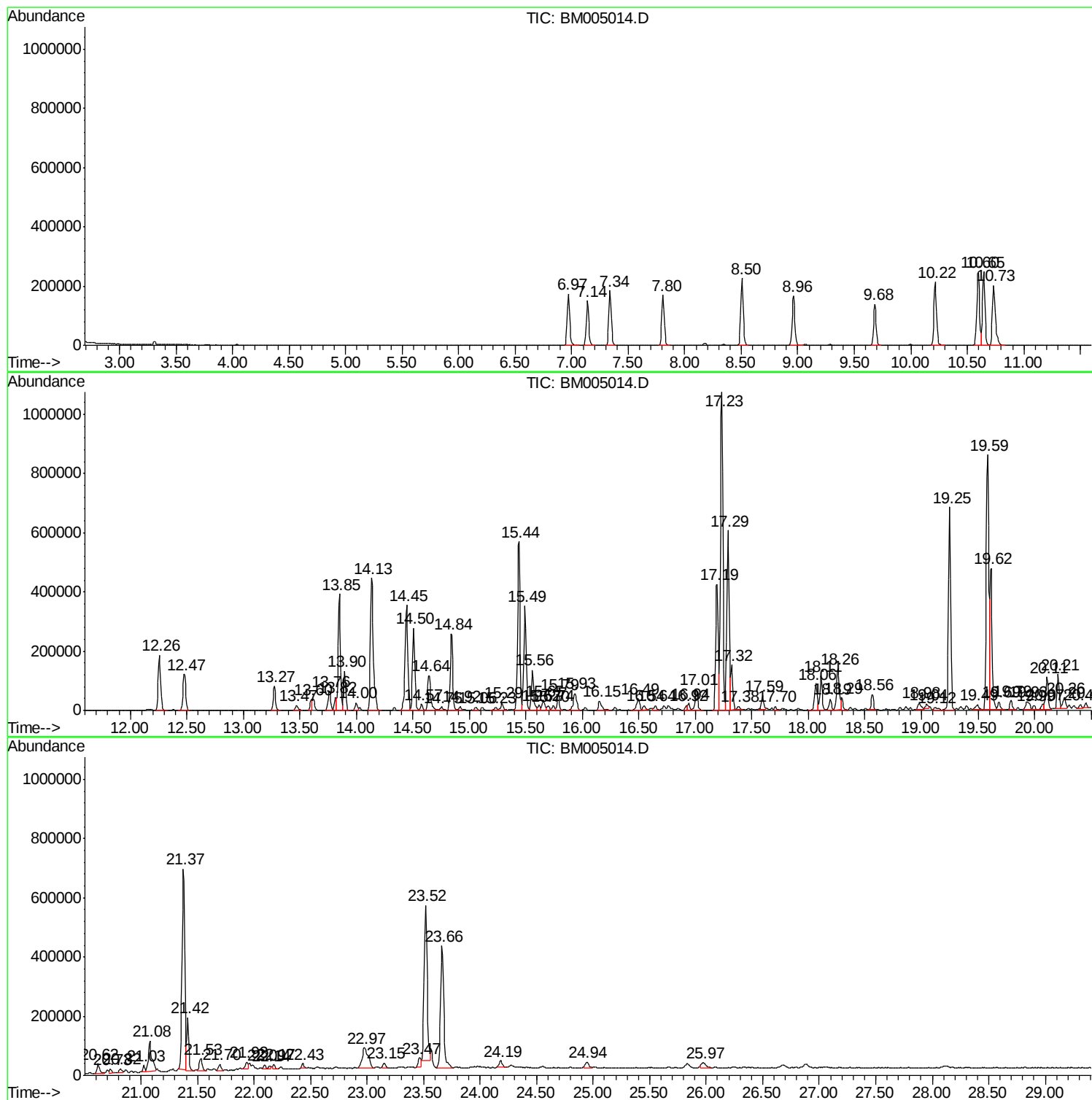
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Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

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



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Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

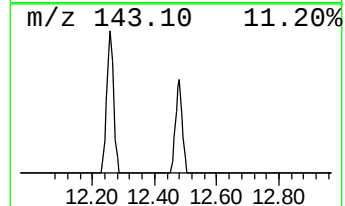
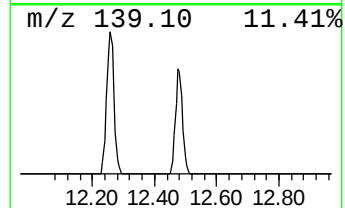
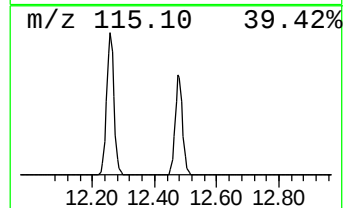
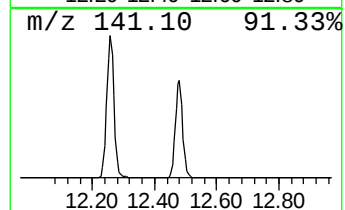
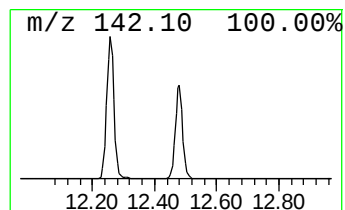
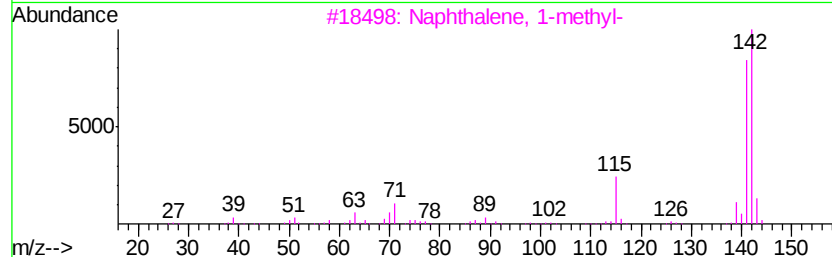
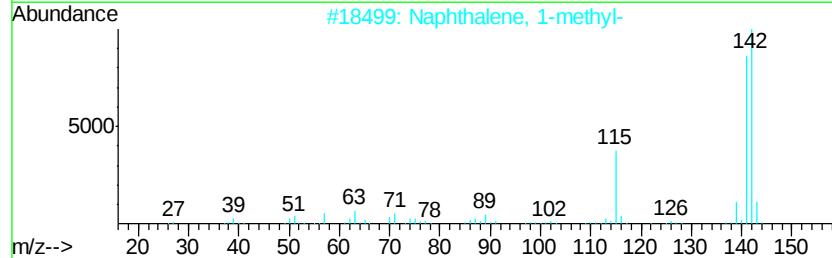
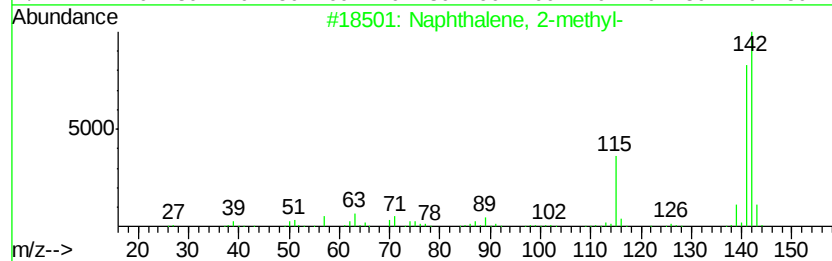
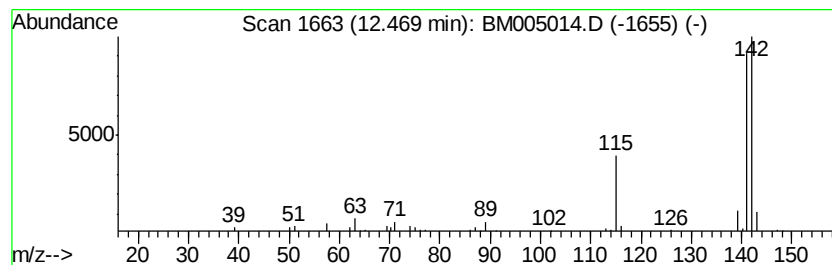
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 1 Naphthalene, 1-methyl- Concentration Rank 1

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 12.47 | 9.39 ng/ul | 200945 | Naphthalene-d8   | 10.60 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Naphthalene, 2-methyl-              | 142 | C11H10  | 000091-57-6 | 96   |
| 2    |    | Naphthalene, 1-methyl-              | 142 | C11H10  | 000090-12-0 | 96   |
| 3    |    | Naphthalene, 1-methyl-              | 142 | C11H10  | 000090-12-0 | 94   |
| 4    |    | 1,4-Methanonaphthalene, 1,4-dihy... | 142 | C11H10  | 004453-90-1 | 94   |
| 5    |    | Bicyclo[4.4.1]undeca-1,3,5,7,9-p... | 142 | C11H10  | 002443-46-1 | 91   |



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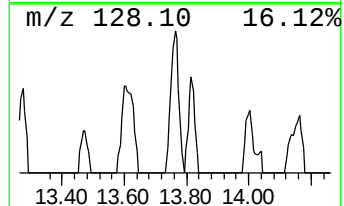
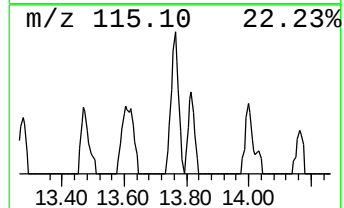
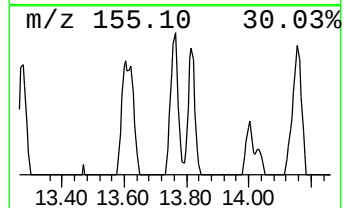
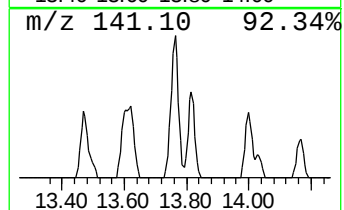
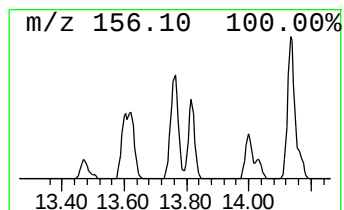
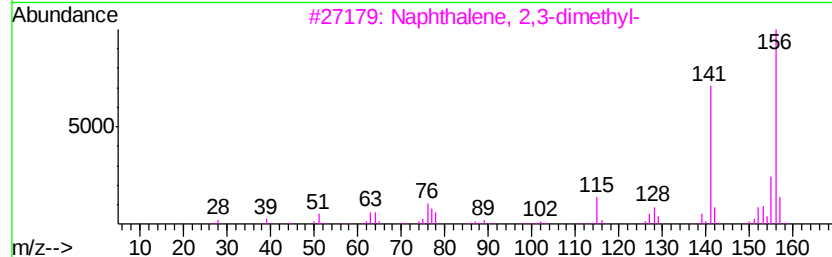
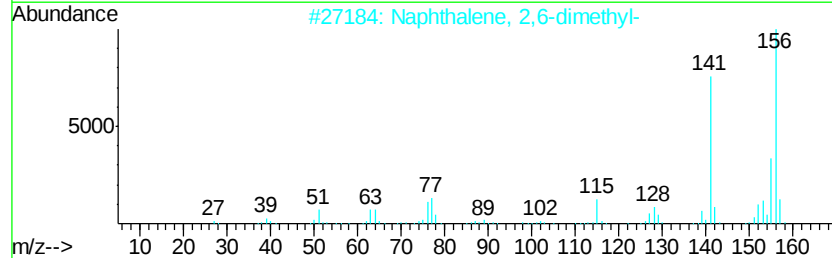
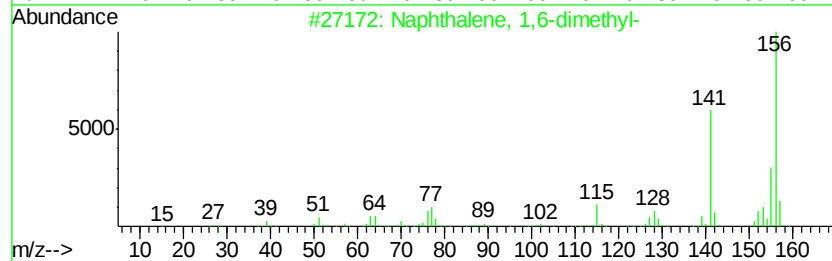
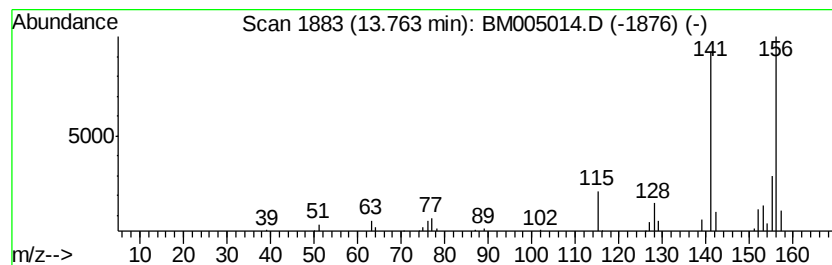
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 Naphthalene, 1,6-dimethyl- Concentration Rank 5

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 13.76 | 3.74 ng/ul | 108420 | Acenaphthene-d10 | 14.45 |

| Hit# | of | Tentative ID               | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------|-----|---------|-------------|------|
| 1    | 5  | Naphthalene, 1,6-dimethyl- | 156 | C12H12  | 000575-43-9 | 97   |
| 2    |    | Naphthalene, 2,6-dimethyl- | 156 | C12H12  | 000581-42-0 | 97   |
| 3    |    | Naphthalene, 2,3-dimethyl- | 156 | C12H12  | 000581-40-8 | 97   |
| 4    |    | Naphthalene, 1,4-dimethyl- | 156 | C12H12  | 000571-58-4 | 97   |
| 5    |    | Naphthalene, 2,3-dimethyl- | 156 | C12H12  | 000581-40-8 | 97   |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
Data File : BM005014.D  
Acq On : 21 Apr 2016 05:57  
Operator : UM/SJ  
Sample : H2567-28  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

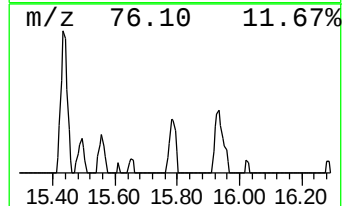
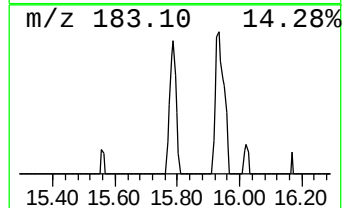
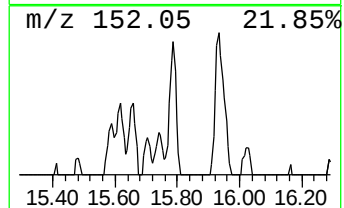
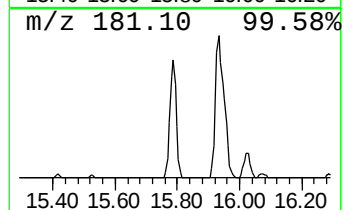
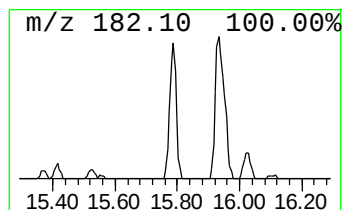
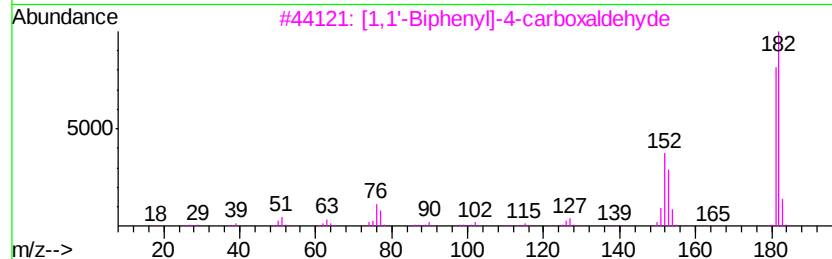
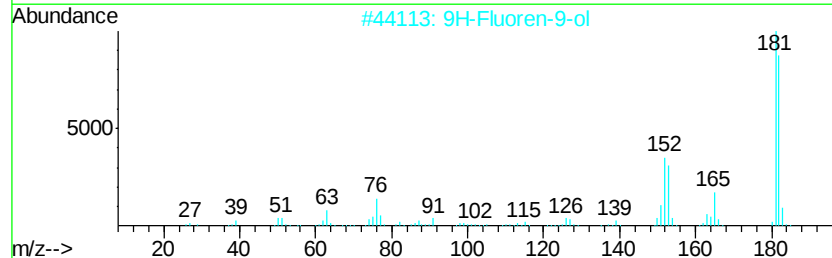
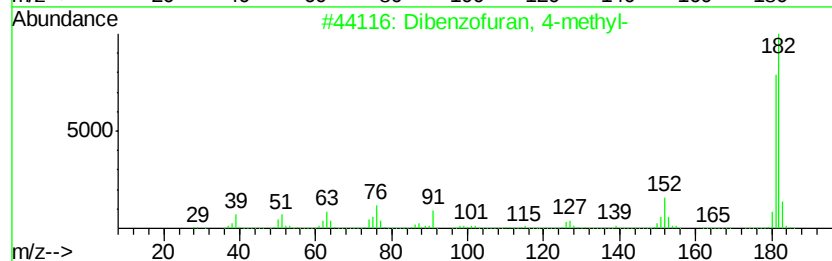
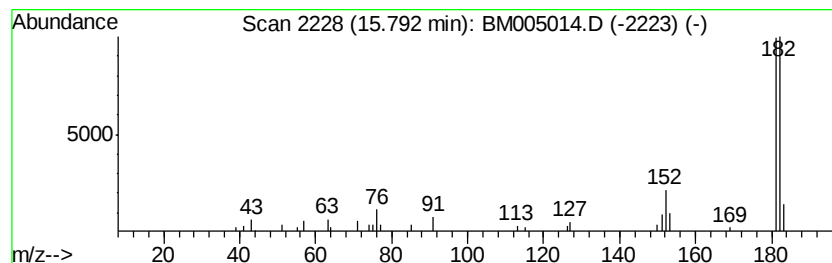
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 3 Dibenzofuran, 4-methyl- Concentration Rank 11

| R.T.  | EstConc    | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 15.79 | 2.51 ng/ul | 72910 | Acenaphthene-d10 | 14.45 |

| Hit# | of | 5 | Tentative ID                     | MW  | MolForm | CAS#        | Qual |
|------|----|---|----------------------------------|-----|---------|-------------|------|
| 1    |    |   | Dibenzofuran, 4-methyl-          | 182 | C13H10O | 007320-53-8 | 90   |
| 2    |    |   | 9H-Fluoren-9-ol                  | 182 | C13H10O | 001689-64-1 | 90   |
| 3    |    |   | [1,1'-Biphenyl]-4-carboxaldehyde | 182 | C13H10O | 003218-36-8 | 90   |
| 4    |    |   | 9H-Fluoren-9-ol                  | 182 | C13H10O | 001689-64-1 | 83   |
| 5    |    |   | [1,1'-Biphenyl]-4-carboxaldehyde | 182 | C13H10O | 003218-36-8 | 78   |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
Data File : BM005014.D  
Acq On : 21 Apr 2016 05:57  
Operator : UM/SJ  
Sample : H2567-28  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

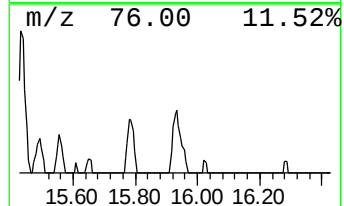
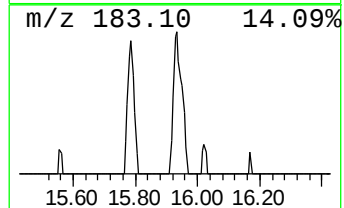
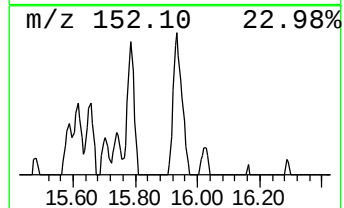
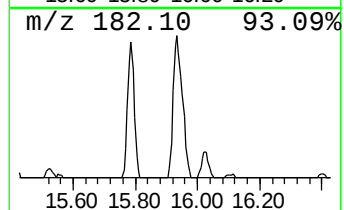
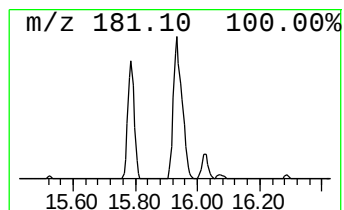
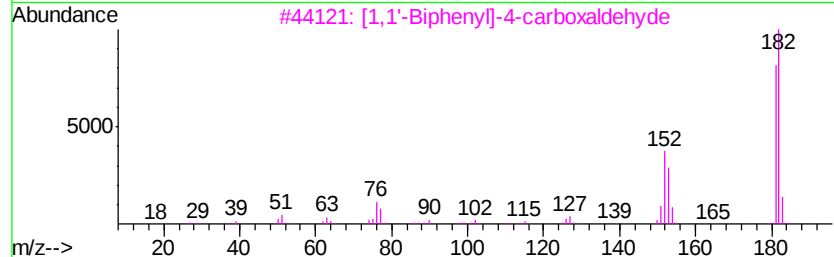
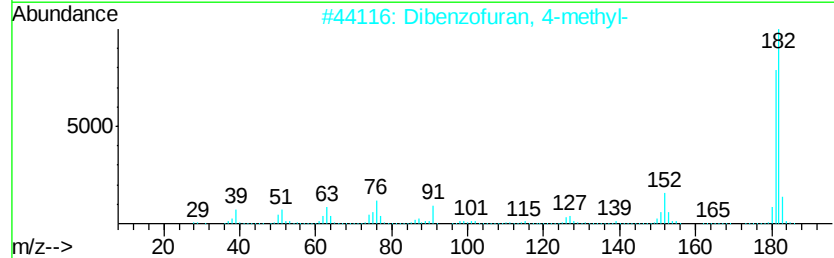
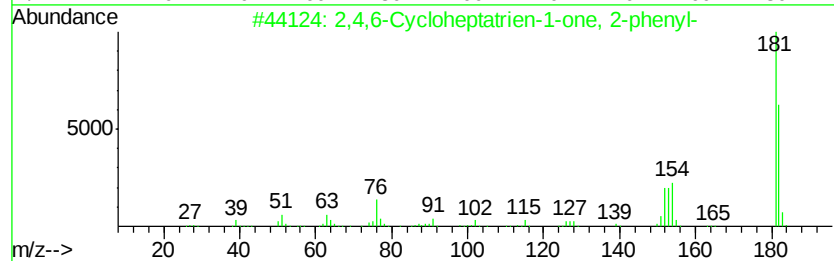
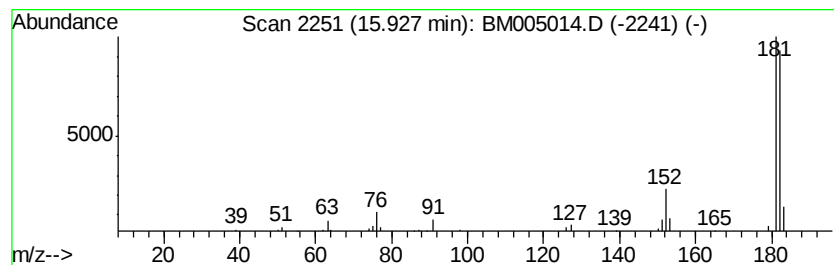
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 4 2,4,6-Cycloheptatrien-1-one... Concentration Rank 7

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 15.93 | 3.66 ng/ul | 121980 | Phenanthrene-d10 | 17.19 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | 2,4,6-Cycloheptatrien-1-one, 2-p... | 182 | C13H10O | 014562-09-5 | 90   |
| 2    |    | Dibenzofuran, 4-methyl-             | 182 | C13H10O | 007320-53-8 | 87   |
| 3    |    | [1,1'-Biphenyl]-4-carboxaldehyde    | 182 | C13H10O | 003218-36-8 | 87   |
| 4    |    | 9H-Fluoren-9-ol                     | 182 | C13H10O | 001689-64-1 | 78   |
| 5    |    | 9H-Fluoren-9-ol                     | 182 | C13H10O | 001689-64-1 | 78   |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
Data File : BM005014.D  
Acq On : 21 Apr 2016 05:57  
Operator : UM/SJ  
Sample : H2567-28  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

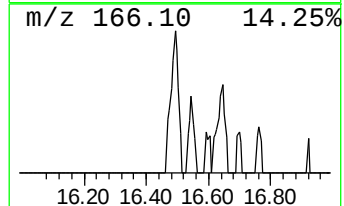
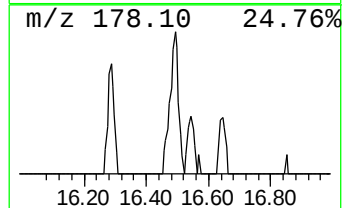
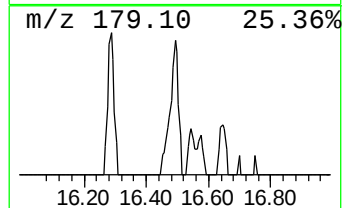
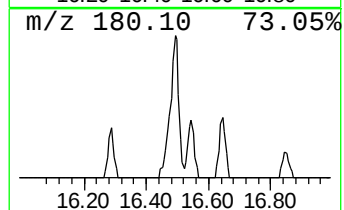
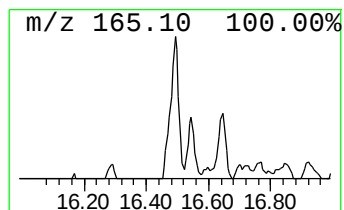
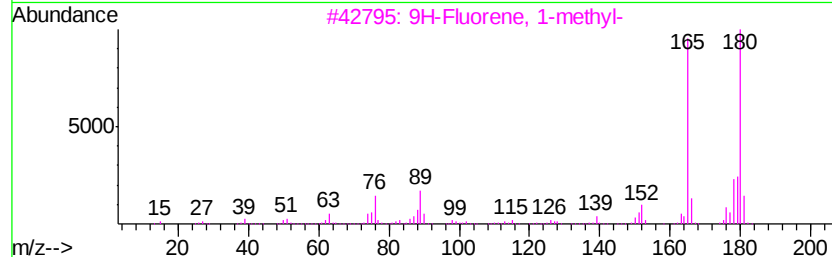
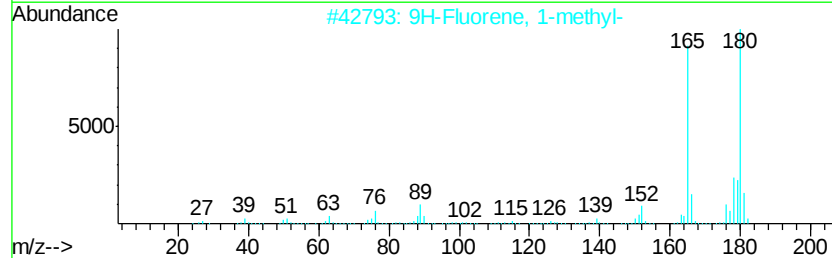
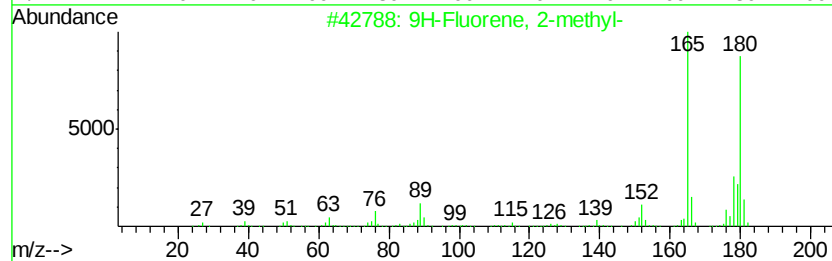
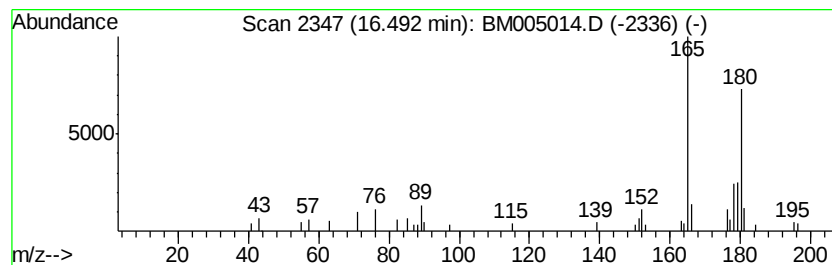
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 5 9H-Fluorene, 2-methyl- Concentration Rank 12

| R.T.  | EstConc    | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 16.49 | 2.29 ng/ul | 76409 | Phenanthrene-d10 | 17.19 |

| Hit# of | 5                      | Tentative ID | MW  | MolForm | CAS#        | Qual |
|---------|------------------------|--------------|-----|---------|-------------|------|
| 1       | 9H-Fluorene, 2-methyl- |              | 180 | C14H12  | 001430-97-3 | 96   |
| 2       | 9H-Fluorene, 1-methyl- |              | 180 | C14H12  | 001730-37-6 | 94   |
| 3       | 9H-Fluorene, 1-methyl- |              | 180 | C14H12  | 001730-37-6 | 94   |
| 4       | 9H-Fluorene, 1-methyl- |              | 180 | C14H12  | 001730-37-6 | 93   |
| 5       | 9H-Fluorene, 1-methyl- |              | 180 | C14H12  | 001730-37-6 | 93   |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
Data File : BM005014.D  
Acq On : 21 Apr 2016 05:57  
Operator : UM/SJ  
Sample : H2567-28  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

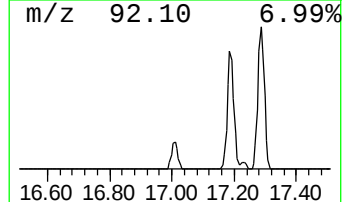
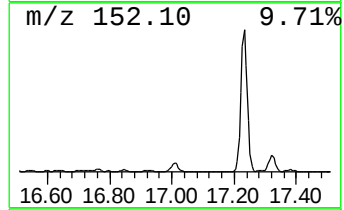
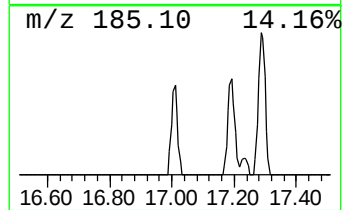
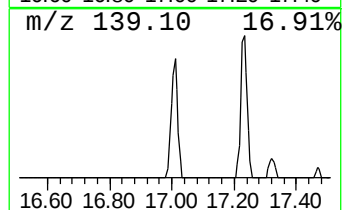
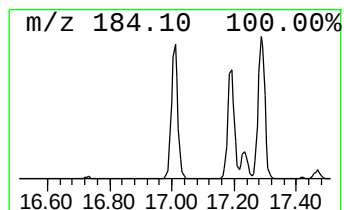
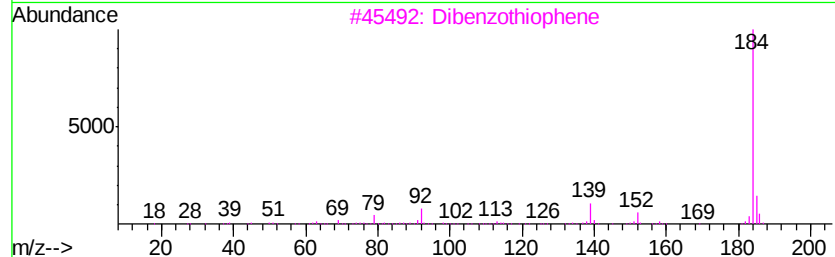
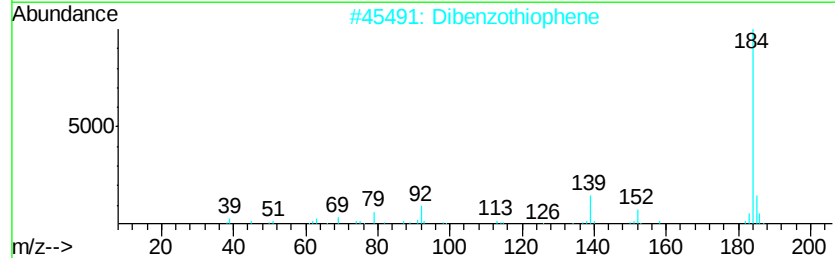
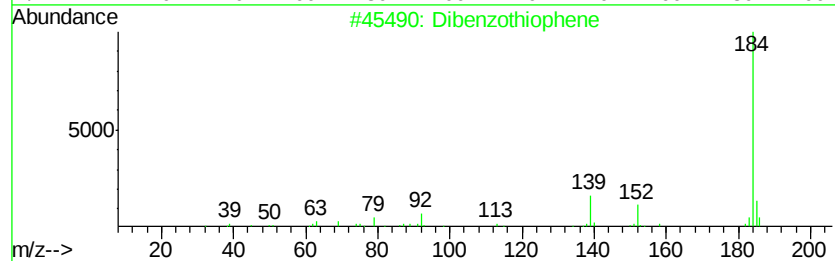
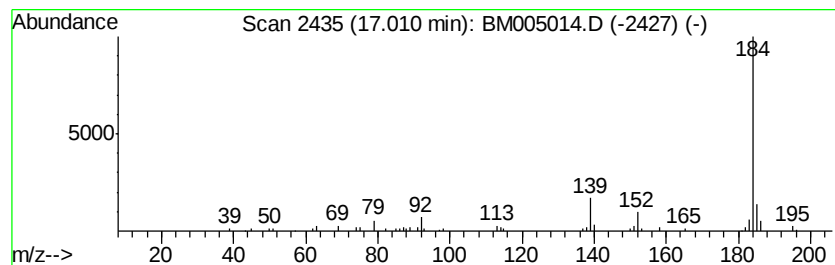
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 6 Dibenzothiophene Concentration Rank 8

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 17.01 | 3.40 ng/ul | 113343 | Phenanthrene-d10 | 17.19 |

| Hit# of | 5                       | Tentative ID | MW  | MolForm | CAS#        | Qual |
|---------|-------------------------|--------------|-----|---------|-------------|------|
| 1       | Dibenzothiophene        |              | 184 | C12H8S  | 000132-65-0 | 97   |
| 2       | Dibenzothiophene        |              | 184 | C12H8S  | 000132-65-0 | 96   |
| 3       | Dibenzothiophene        |              | 184 | C12H8S  | 000132-65-0 | 95   |
| 4       | Naphtho[2,3-b]thiophene |              | 184 | C12H8S  | 000268-77-9 | 95   |
| 5       | Dibenzothiophene        |              | 184 | C12H8S  | 000132-65-0 | 94   |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
Data File : BM005014.D  
Acq On : 21 Apr 2016 05:57  
Operator : UM/SJ  
Sample : H2567-28  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

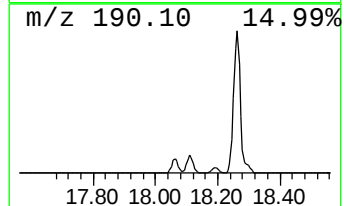
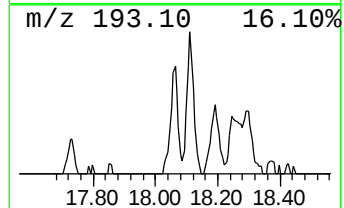
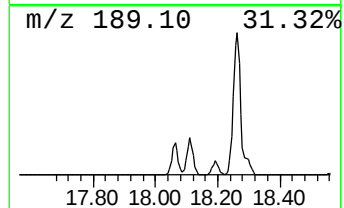
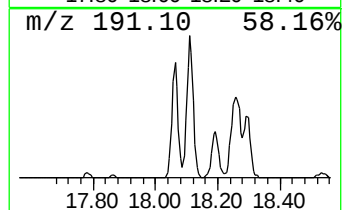
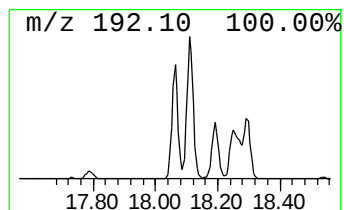
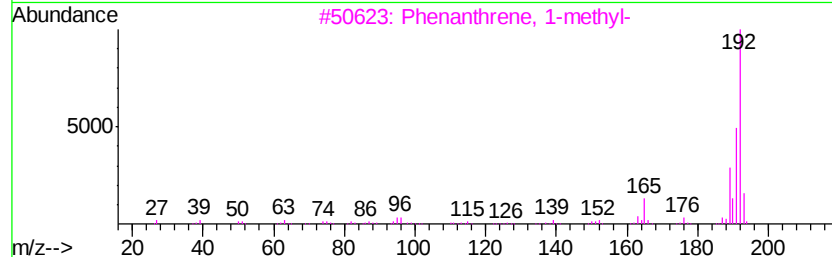
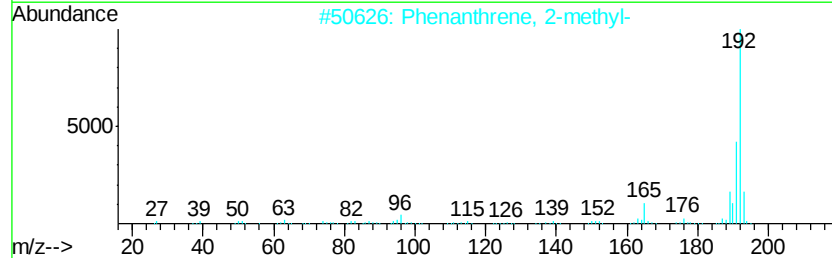
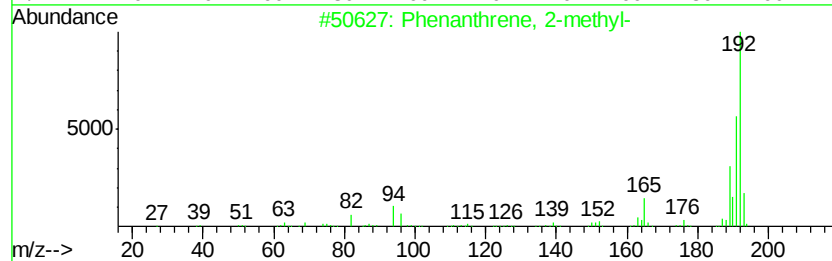
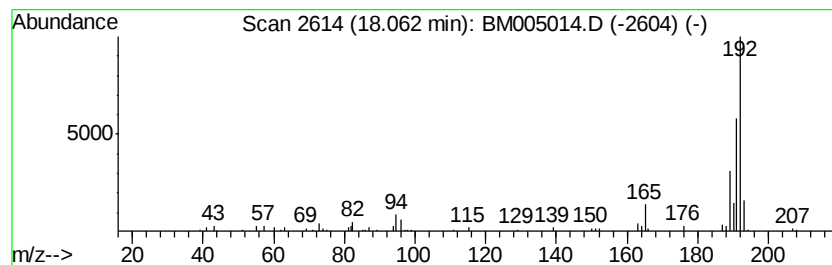
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 7 Phenanthrene, 2-methyl- Concentration Rank 4

| R.T.  | EstConc    | Area   | Relative to ISTD |  | R.T.  |
|-------|------------|--------|------------------|--|-------|
| 18.06 | 4.36 ng/ul | 145184 | Phenanthrene-d10 |  | 17.19 |

| Hit# | of | 5 | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------|-----|---------|-------------|------|
| 1    |    |   | Phenanthrene, 2-methyl- | 192 | C15H12  | 002531-84-2 | 97   |
| 2    |    |   | Phenanthrene, 2-methyl- | 192 | C15H12  | 002531-84-2 | 97   |
| 3    |    |   | Phenanthrene, 1-methyl- | 192 | C15H12  | 000832-69-9 | 97   |
| 4    |    |   | Anthracene, 2-methyl-   | 192 | C15H12  | 000613-12-7 | 96   |
| 5    |    |   | Phenanthrene, 1-methyl- | 192 | C15H12  | 000832-69-9 | 96   |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
Data File : BM005014.D  
Acq On : 21 Apr 2016 05:57  
Operator : UM/SJ  
Sample : H2567-28  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

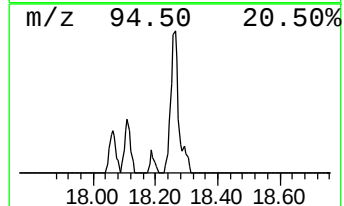
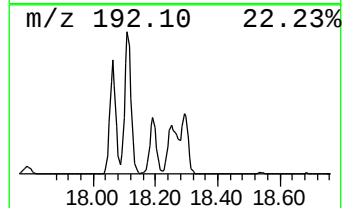
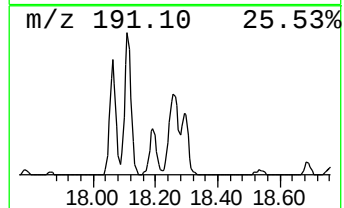
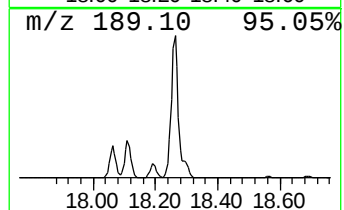
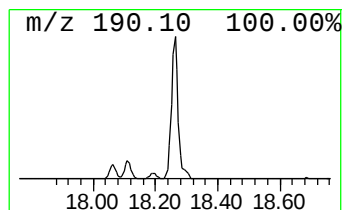
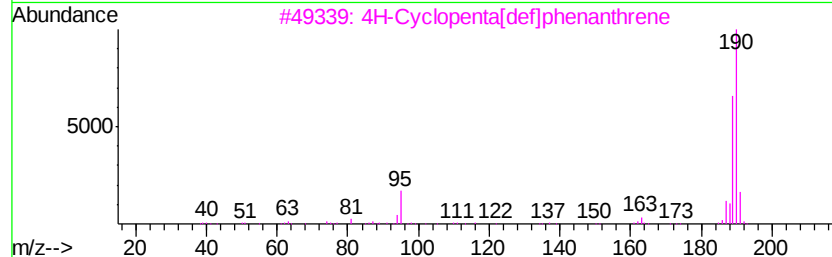
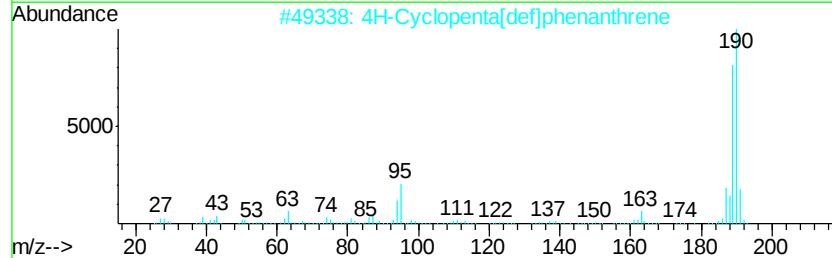
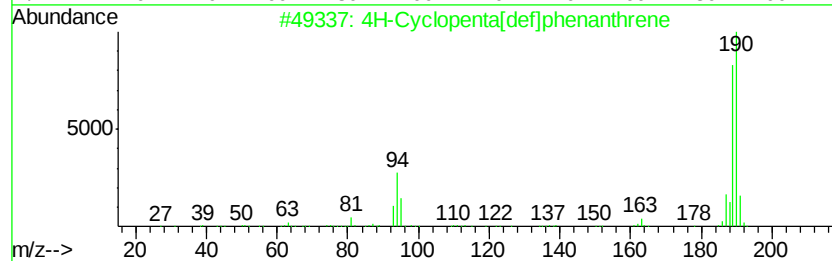
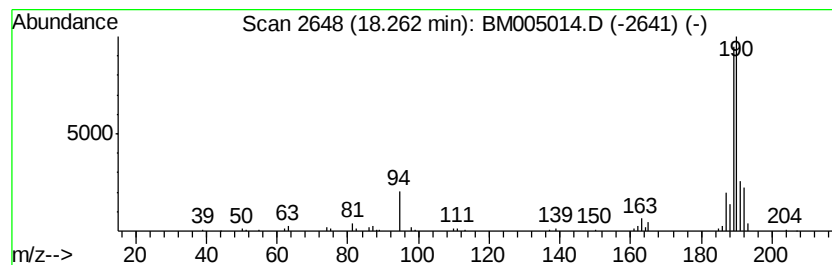
Instrument :  
BNA\_M  
ClientSampleId :  
BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

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

\*\*\*\*\*  
Peak Number 9 4H-Cyclopenta[def]phenanthrene Concentration Rank 2

| R.T.      | EstConc                         | Area   | Relative to ISTD | R.T.        |      |
|-----------|---------------------------------|--------|------------------|-------------|------|
| 18.26     | 7.49 ng/ul                      | 249546 | Phenanthrene-d10 | 17.19       |      |
| Hit# of 5 | Tentative ID                    | MW     | MolForm          | CAS#        | Qual |
| 1         | 4H-Cyclopenta[def]phenanthrene  | 190    | C15H10           | 000203-64-5 | 76   |
| 2         | 4H-Cyclopenta[def]phenanthrene  | 190    | C15H10           | 000203-64-5 | 68   |
| 3         | 4H-Cyclopenta[def]phenanthrene  | 190    | C15H10           | 000203-64-5 | 68   |
| 4         | Methyl diselenide               | 190    | C2H6Se2          | 007101-31-7 | 55   |
| 5         | 2,2'-Bis(4,5-dimethylimidazole) | 190    | C10H14N4         | 069286-06-2 | 45   |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
Data File : BM005014.D  
Acq On : 21 Apr 2016 05:57  
Operator : UM/SJ  
Sample : H2567-28  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

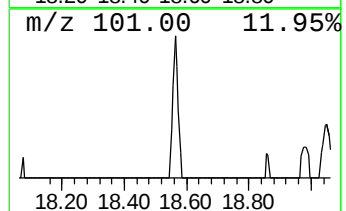
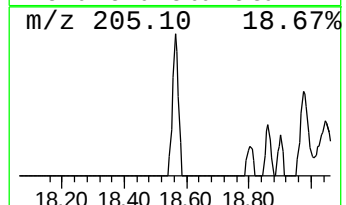
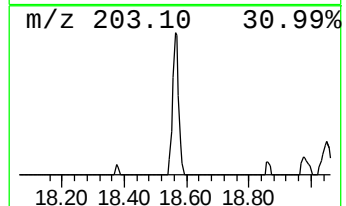
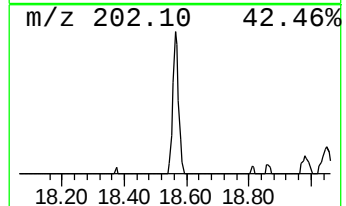
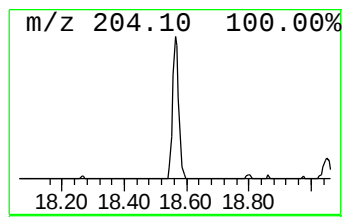
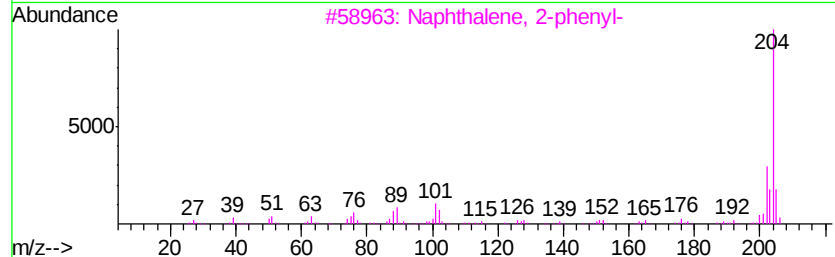
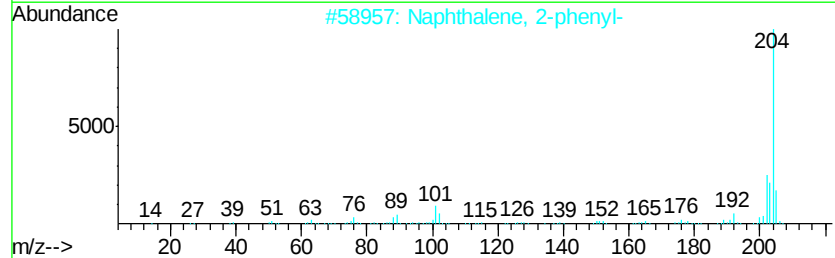
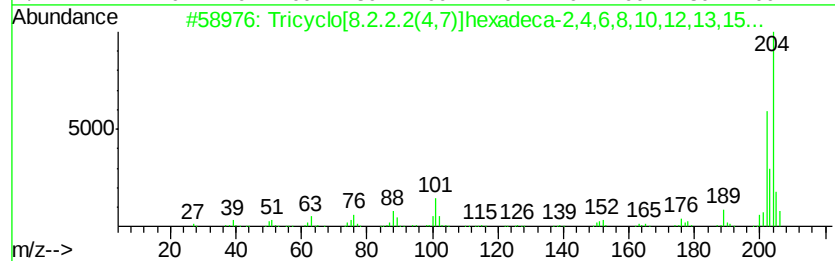
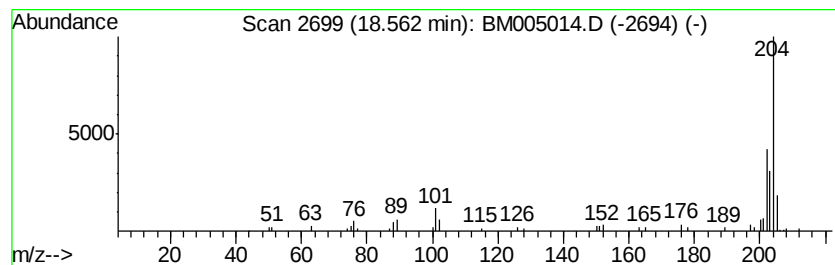
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 10 Tricyclo[8.2.2.2(4,7)]hexad... Concentration Rank 13

| R.T.  | EstConc    | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 18.56 | 2.02 ng/ul | 67289 | Phenanthrene-d10 | 17.19 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12  | 006572-60-7 | 86   |
| 2    |    | Naphthalene, 2-phenyl-              | 204 | C16H12  | 000612-94-2 | 86   |
| 3    |    | Naphthalene, 2-phenyl-              | 204 | C16H12  | 000612-94-2 | 83   |
| 4    |    | Naphthalene, 2-phenyl-              | 204 | C16H12  | 000612-94-2 | 70   |
| 5    |    | 2-Phenylnaphthalene                 | 204 | C16H12  | 035465-71-5 | 70   |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
Data File : BM005014.D  
Acq On : 21 Apr 2016 05:57  
Operator : UM/SJ  
Sample : H2567-28  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

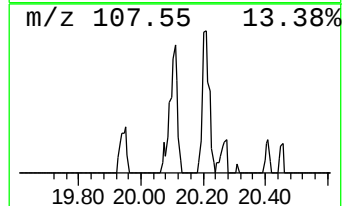
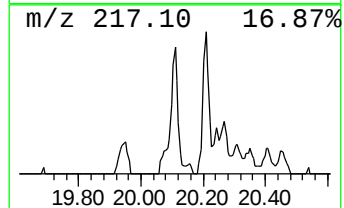
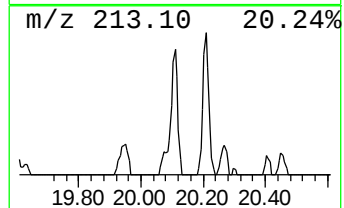
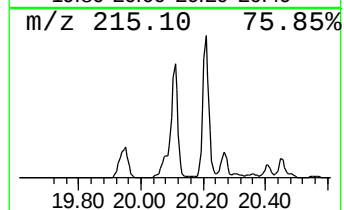
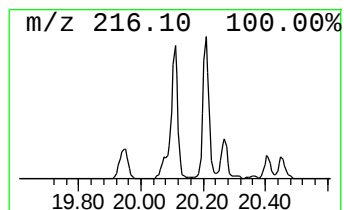
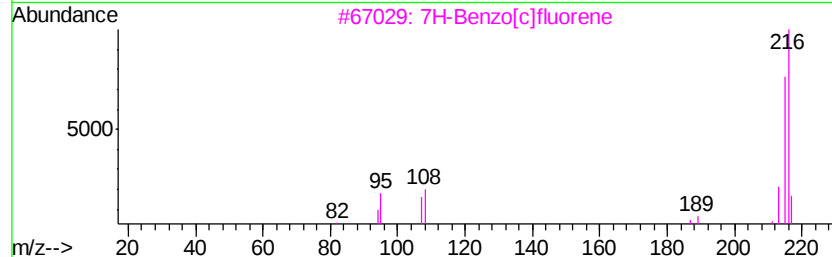
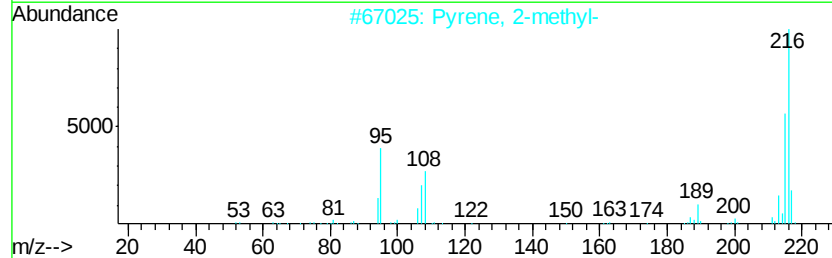
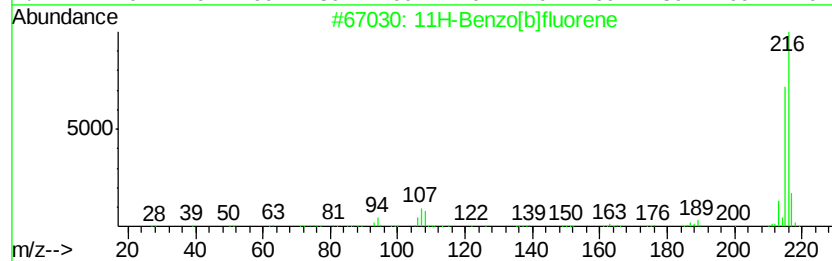
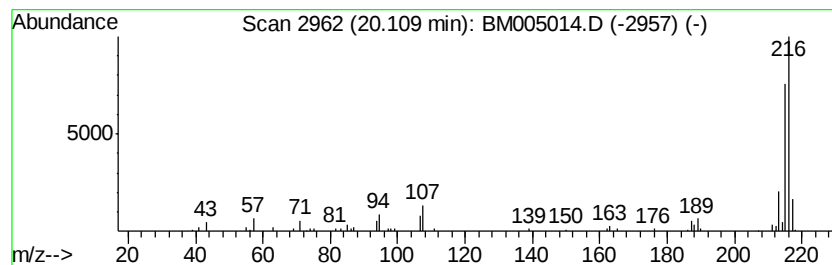
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 11 11H-Benzo[b]fluorene Concentration Rank 9

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 20.11 | 3.02 ng/ul | 172304 | Chrysene-d12     | 21.38 |

| Hit# | of | 5 | Tentative ID         | MW  | MolForm | CAS#        | Qual |
|------|----|---|----------------------|-----|---------|-------------|------|
| 1    |    |   | 11H-Benzo[b]fluorene | 216 | C17H12  | 000243-17-4 | 94   |
| 2    |    |   | Pyrene, 2-methyl-    | 216 | C17H12  | 003442-78-2 | 90   |
| 3    |    |   | 7H-Benzo[c]fluorene  | 216 | C17H12  | 000205-12-9 | 87   |
| 4    |    |   | 11H-Benzo[a]fluorene | 216 | C17H12  | 000238-84-6 | 87   |
| 5    |    |   | 11H-Benzo[a]fluorene | 216 | C17H12  | 000238-84-6 | 86   |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
Data File : BM005014.D  
Acq On : 21 Apr 2016 05:57  
Operator : UM/SJ  
Sample : H2567-28  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

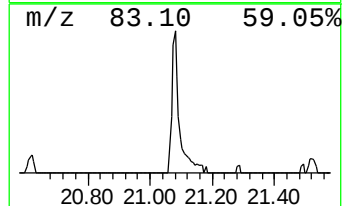
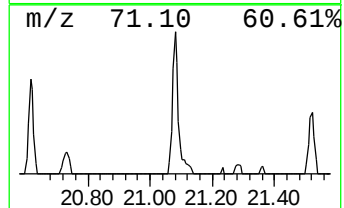
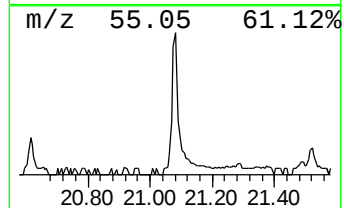
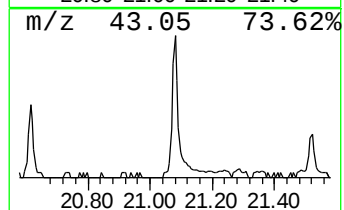
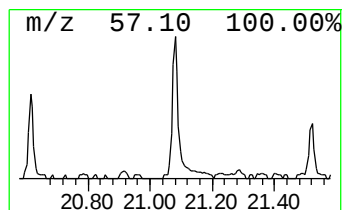
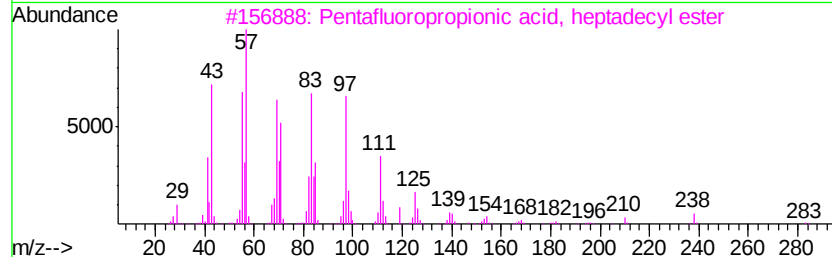
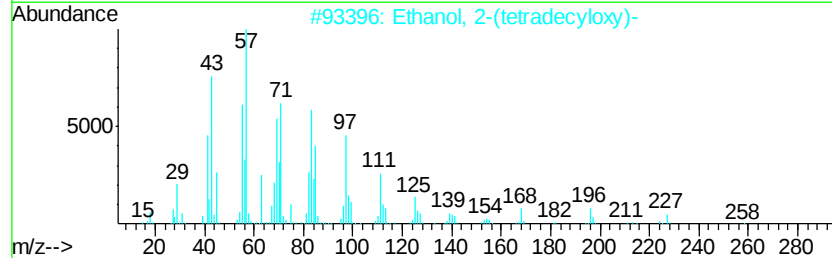
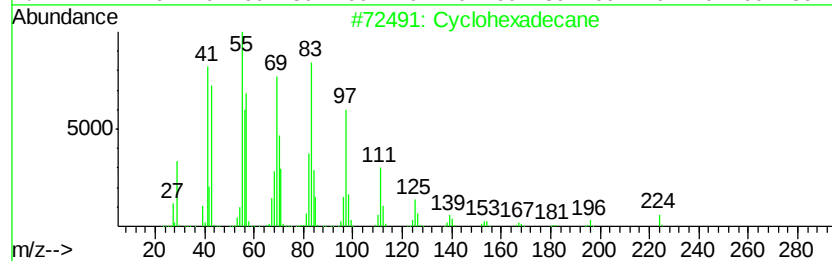
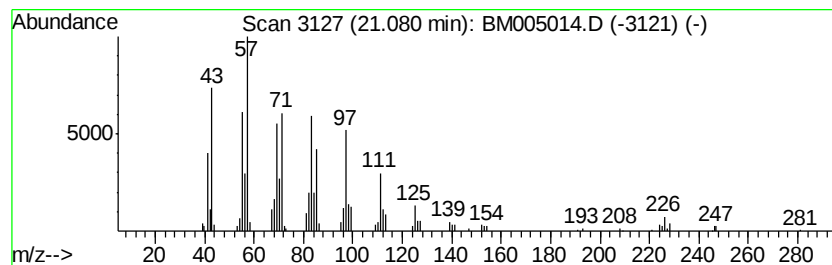
Instrument :  
BNA\_M  
ClientSampleId :  
BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
Quant Title : SVOA CALIBRATION

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

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Peak Number 13 (DEL) Alkane: Cyclic21.08 Concentration Rank 6

| R.T.    | EstConc    | Area                                | Relative to ISTD | R.T.            |
|---------|------------|-------------------------------------|------------------|-----------------|
| 21.08   | 3.68 ng/ul | 209858                              | Chrysene-d12     | 21.38           |
| Hit# of | 5          | Tentative ID                        | MW MolForm       | CAS# Qual       |
| 1       |            | Cyclohexadecane                     | 224 C16H32       | 000295-65-8 95  |
| 2       |            | Ethanol, 2-(tetradecyloxy)-         | 258 C16H34O2     | 002136-70-1 91  |
| 3       |            | Pentafluoropropionic acid, hepta... | 402 C20H35F5O2   | 1000283-04-2 87 |
| 4       |            | Heptafluorobutanoic acid, heptad... | 452 C21H35F7O2   | 1000282-97-3 87 |
| 5       |            | 1-Hexadecanesulfonyl chloride       | 324 C16H33ClO2S  | 038775-38-1 87  |



Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM042016\  
 Data File : BM005014.D  
 Acq On : 21 Apr 2016 05:57  
 Operator : UM/SJ  
 Sample : H2567-28  
 Misc :  
 ALS Vial : 29 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BC7J3

Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM041416.M  
 Quant Title : SVOA CALIBRATION

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

| TIC Top Hit name     | RT    | EstConc | Units | Response | --Internal Standard-- |       |         |      |
|----------------------|-------|---------|-------|----------|-----------------------|-------|---------|------|
|                      |       |         |       |          | #                     | RT    | Resp    | Conc |
| Naphthalene, 1-me... | 12.47 | 9.4     | ng/ul | 200945   | 2                     | 10.60 | 427954  | 20.0 |
| Naphthalene, 1,6-... | 13.76 | 3.7     | ng/ul | 108420   | 3                     | 14.45 | 580068  | 20.0 |
| Dibenzofuran, 4-m... | 15.79 | 2.5     | ng/ul | 72910    | 3                     | 14.45 | 580068  | 20.0 |
| 2,4,6-Cycloheptat... | 15.93 | 3.7     | ng/ul | 121980   | 4                     | 17.19 | 666734  | 20.0 |
| 9H-Fluorene, 2-me... | 16.49 | 2.3     | ng/ul | 76409    | 4                     | 17.19 | 666734  | 20.0 |
| Dibenzothiophene     | 17.01 | 3.4     | ng/ul | 113343   | 4                     | 17.19 | 666734  | 20.0 |
| Phenanthrene, 2-m... | 18.06 | 4.4     | ng/ul | 145184   | 4                     | 17.19 | 666734  | 20.0 |
| 4H-Cyclopenta[def... | 18.26 | 7.5     | ng/ul | 249546   | 4                     | 17.19 | 666734  | 20.0 |
| Tricyclo[8.2.2.2(... | 18.56 | 2.0     | ng/ul | 67289    | 4                     | 17.19 | 666734  | 20.0 |
| 11H-Benzo[b]fluorene | 20.11 | 3.0     | ng/ul | 172304   | 5                     | 21.38 | 1141060 | 20.0 |
| (DEL) Alkane: Cyc... | 21.08 | 3.7     | ng/ul | 209858   | 5                     | 21.38 | 1141060 | 20.0 |