

Data Path : Z:\HPCHEM1\BNA F\DATA\BF120215\  
 Data File : BF083440.D  
 Acq On : 3 Dec 2015 3:20  
 Operator : UM/IZ  
 Sample : G4583-01  
 Misc :  
 ALS Vial : 27 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-P3WC-01(0-4)

Integration Parameters: rteint.p  
 Integrator: RTE  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % 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\_F\METHODS\8270-BF113015.M  
 Title : ASP BNA STANDARDS FOR 5 POINT 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         | 4.647       | 256           | 259         | 275          | rVB      | 812947         | 1618553       | 26.72%          | 1.428%        |
| 2         | 5.127       | 299           | 301         | 316          | rBV      | 4565844        | 5288560       | 87.29%          | 4.665%        |
| 3         | 6.213       | 393           | 396         | 402          | rBV      | 5131530        | 5710570       | 94.26%          | 5.038%        |
| 4         | 6.316       | 402           | 405         | 407          | rVV      | 5520571        | 5694249       | 93.99%          | 5.023%        |
| 5         | 6.533       | 422           | 424         | 427          | rBV      | 746428         | 888802        | 14.67%          | 0.784%        |
| 6         | 6.693       | 436           | 438         | 441          | rBV      | 3957776        | 3922162       | 64.74%          | 3.460%        |
| 7         | 7.116       | 472           | 475         | 477          | rBV      | 3469092        | 3911930       | 64.57%          | 3.451%        |
| 8         | 7.824       | 535           | 537         | 543          | rVB2     | 1323952        | 1596241       | 26.35%          | 1.408%        |
| 9         | 8.910       | 629           | 632         | 634          | rVB      | 5815295        | 5821590       | 96.09%          | 5.135%        |
| 10        | 9.002       | 637           | 640         | 642          | rBV      | 147019         | 186277        | 3.07%           | 0.164%        |
| 11        | 9.310       | 665           | 667         | 669          | rBV2     | 594522         | 711218        | 11.74%          | 0.627%        |
| 12        | 9.436       | 676           | 678         | 680          | rBV      | 933689         | 971395        | 16.03%          | 0.857%        |
| 13        | 9.527       | 684           | 686         | 688          | rBV      | 169219         | 191070        | 3.15%           | 0.169%        |
| 14        | 9.573       | 688           | 690         | 691          | rBV      | 1413315        | 1294484       | 21.37%          | 1.142%        |
| 15        | 9.607       | 691           | 693         | 695          | rVB      | 261025         | 338362        | 5.58%           | 0.298%        |
| 16        | 9.779       | 702           | 708         | 710          | rBV2     | 119000         | 295017        | 4.87%           | 0.260%        |
| 17        | 9.893       | 716           | 718         | 723          | rBV3     | 98444          | 245325        | 4.05%           | 0.216%        |
| 18        | 10.030      | 728           | 730         | 731          | rBV2     | 224605         | 251765        | 4.16%           | 0.222%        |
| 19        | 10.110      | 736           | 737         | 741          | rBV      | 202416         | 309059        | 5.10%           | 0.273%        |
| 20        | 10.248      | 746           | 749         | 750          | rBV2     | 196851         | 247101        | 4.08%           | 0.218%        |
| 21        | 10.362      | 756           | 759         | 762          | rBV      | 3214120        | 3255474       | 53.73%          | 2.872%        |
| 22        | 10.488      | 768           | 770         | 771          | rBV      | 208461         | 286227        | 4.72%           | 0.252%        |
| 23        | 10.522      | 771           | 773         | 775          | rVB      | 237239         | 348183        | 5.75%           | 0.307%        |
| 24        | 10.991      | 812           | 814         | 816          | rVV2     | 214816         | 261800        | 4.32%           | 0.231%        |
| 25        | 11.116      | 822           | 825         | 826          | rBV      | 854082         | 1667082       | 27.52%          | 1.471%        |
| 26        | 11.139      | 826           | 827         | 830          | rVV      | 3013856        | 2562343       | 42.29%          | 2.260%        |
| 27        | 11.196      | 830           | 832         | 835          | rVV      | 745999         | 706555        | 11.66%          | 0.623%        |
| 28        | 11.505      | 857           | 859         | 863          | rVB3     | 157779         | 204072        | 3.37%           | 0.180%        |
| 29        | 11.711      | 875           | 877         | 879          | rBV      | 306063         | 436265        | 7.20%           | 0.385%        |
| 30        | 11.745      | 879           | 880         | 884          | rVV      | 369746         | 525638        | 8.68%           | 0.464%        |
| 31        | 11.813      | 884           | 886         | 887          | rVV      | 557708         | 622931        | 10.28%          | 0.550%        |
| 32        | 11.848      | 887           | 889         | 897          | rVB      | 898477         | 1504369       | 24.83%          | 1.327%        |
| 33        | 12.031      | 901           | 905         | 907          | rVV2     | 83622          | 209405        | 3.46%           | 0.185%        |
| 34        | 12.099      | 909           | 911         | 912          | rVV      | 431270         | 483226        | 7.98%           | 0.426%        |

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 SB-P3WC-01(0-4)

Integration Parameters: rteint.p  
 Integrator: RTE  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % 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\_F\METHODS\8270-BF113015.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |         |        |
|----|--------|------|------|------|------|---------|---------|---------|--------|
| 35 | 12.133 | 912  | 914  | 918  | rVB  | 273265  | 435274  | 7.18%   | 0.384% |
| 36 | 12.431 | 938  | 940  | 942  | rBV  | 262527  | 431861  | 7.13%   | 0.381% |
| 37 | 12.476 | 942  | 944  | 946  | rVV2 | 185866  | 338569  | 5.59%   | 0.299% |
| 38 | 12.545 | 948  | 950  | 954  | rVB2 | 330077  | 554338  | 9.15%   | 0.489% |
| 39 | 12.648 | 956  | 959  | 962  | rVV  | 3082538 | 3990416 | 65.86%  | 3.520% |
| 40 | 12.774 | 968  | 970  | 974  | rVB  | 727762  | 881882  | 14.56%  | 0.778% |
| 41 | 12.842 | 974  | 976  | 978  | rBV2 | 161168  | 260124  | 4.29%   | 0.229% |
| 42 | 12.888 | 978  | 980  | 982  | rVV2 | 372709  | 583272  | 9.63%   | 0.515% |
| 43 | 12.968 | 983  | 987  | 989  | rVV  | 3819285 | 6058561 | 100.00% | 5.345% |
| 44 | 13.014 | 989  | 991  | 994  | rVB3 | 86410   | 171270  | 2.83%   | 0.151% |
| 45 | 13.208 | 1004 | 1008 | 1011 | rVB  | 3420928 | 4930142 | 81.37%  | 4.349% |
| 46 | 13.288 | 1011 | 1015 | 1018 | rBV  | 219216  | 408472  | 6.74%   | 0.360% |
| 47 | 13.436 | 1026 | 1028 | 1031 | rVB2 | 436237  | 620904  | 10.25%  | 0.548% |
| 48 | 13.528 | 1034 | 1036 | 1038 | rVV  | 223891  | 355345  | 5.87%   | 0.313% |
| 49 | 13.585 | 1038 | 1041 | 1043 | rVV  | 441821  | 596542  | 9.85%   | 0.526% |
| 50 | 13.711 | 1047 | 1052 | 1054 | rVV  | 412364  | 731944  | 12.08%  | 0.646% |
| 51 | 13.756 | 1054 | 1056 | 1060 | rVB  | 352774  | 450841  | 7.44%   | 0.398% |
| 52 | 14.008 | 1074 | 1078 | 1082 | rBV4 | 75195   | 238513  | 3.94%   | 0.210% |
| 53 | 14.191 | 1092 | 1094 | 1099 | rVB2 | 166285  | 363846  | 6.01%   | 0.321% |
| 54 | 14.339 | 1104 | 1107 | 1109 | rBV2 | 222178  | 443778  | 7.32%   | 0.391% |
| 55 | 14.419 | 1109 | 1114 | 1116 | rVV2 | 522167  | 1161731 | 19.18%  | 1.025% |
| 56 | 14.511 | 1120 | 1122 | 1125 | rVB  | 150476  | 239052  | 3.95%   | 0.211% |
| 57 | 14.648 | 1132 | 1134 | 1136 | rBV2 | 156475  | 298528  | 4.93%   | 0.263% |
| 58 | 14.717 | 1137 | 1140 | 1143 | rVV2 | 1714249 | 4169973 | 68.83%  | 3.679% |
| 59 | 14.774 | 1143 | 1145 | 1147 | rVV  | 1510789 | 1968530 | 32.49%  | 1.737% |
| 60 | 14.877 | 1152 | 1154 | 1157 | rVB3 | 106618  | 199518  | 3.29%   | 0.176% |
| 61 | 14.957 | 1158 | 1161 | 1164 | rVB  | 398100  | 542058  | 8.95%   | 0.478% |
| 62 | 15.162 | 1177 | 1179 | 1183 | rVB3 | 90015   | 178570  | 2.95%   | 0.158% |
| 63 | 15.345 | 1191 | 1195 | 1197 | rVV  | 268657  | 525829  | 8.68%   | 0.464% |
| 64 | 15.391 | 1197 | 1199 | 1202 | rVV2 | 118376  | 172302  | 2.84%   | 0.152% |
| 65 | 15.482 | 1202 | 1207 | 1209 | rVV4 | 165610  | 373815  | 6.17%   | 0.330% |
| 66 | 15.517 | 1209 | 1210 | 1212 | rVV2 | 159336  | 301123  | 4.97%   | 0.266% |
| 67 | 15.665 | 1221 | 1223 | 1225 | rVB  | 131683  | 186519  | 3.08%   | 0.165% |
| 68 | 15.871 | 1239 | 1241 | 1245 | rVB3 | 107268  | 201790  | 3.33%   | 0.178% |
| 69 | 16.065 | 1255 | 1258 | 1261 | rBV3 | 73354   | 170195  | 2.81%   | 0.150% |
| 70 | 16.180 | 1266 | 1268 | 1274 | rVB5 | 151296  | 327808  | 5.41%   | 0.289% |
| 71 | 16.294 | 1274 | 1278 | 1284 | rBV  | 1611479 | 4627762 | 76.38%  | 4.082% |

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Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-P3WC-01(0-4)

Integration Parameters: rteint.p

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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\_F\METHODS\8270-BF113015.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|     |        |      |      |      |      |         |         |        |        |
|-----|--------|------|------|------|------|---------|---------|--------|--------|
| 72  | 16.431 | 1285 | 1290 | 1292 | rBV  | 468181  | 817156  | 13.49% | 0.721% |
| 73  | 16.660 | 1306 | 1310 | 1313 | rVB  | 1471136 | 2261593 | 37.33% | 1.995% |
| 74  | 16.740 | 1313 | 1317 | 1320 | rBV  | 2335523 | 3785897 | 62.49% | 3.340% |
| 75  | 16.808 | 1320 | 1323 | 1324 | rVV  | 573376  | 857665  | 14.16% | 0.757% |
| 76  | 16.843 | 1324 | 1326 | 1328 | rVB  | 372174  | 529307  | 8.74%  | 0.467% |
| 77  | 17.014 | 1337 | 1341 | 1342 | rBV3 | 95911   | 256408  | 4.23%  | 0.226% |
| 78  | 17.151 | 1349 | 1353 | 1355 | rBV3 | 99330   | 244270  | 4.03%  | 0.215% |
| 79  | 17.368 | 1369 | 1372 | 1378 | rVV3 | 330654  | 799042  | 13.19% | 0.705% |
| 80  | 17.460 | 1378 | 1380 | 1383 | rVV3 | 87226   | 208280  | 3.44%  | 0.184% |
| 81  | 17.505 | 1383 | 1384 | 1388 | rVB  | 116117  | 173519  | 2.86%  | 0.153% |
| 82  | 17.711 | 1400 | 1402 | 1407 | rVB4 | 85358   | 198396  | 3.27%  | 0.175% |
| 83  | 17.803 | 1407 | 1410 | 1413 | rBV2 | 108117  | 222432  | 3.67%  | 0.196% |
| 84  | 18.043 | 1427 | 1431 | 1439 | rVV2 | 316571  | 1078498 | 17.80% | 0.951% |
| 85  | 18.191 | 1439 | 1444 | 1448 | rVV2 | 1220664 | 2527996 | 41.73% | 2.230% |
| 86  | 18.340 | 1454 | 1457 | 1459 | rVV  | 206931  | 402281  | 6.64%  | 0.355% |
| 87  | 18.386 | 1459 | 1461 | 1465 | rVV2 | 258518  | 583624  | 9.63%  | 0.515% |
| 88  | 18.454 | 1465 | 1467 | 1470 | rVV  | 90107   | 229879  | 3.79%  | 0.203% |
| 89  | 18.568 | 1472 | 1477 | 1481 | rVV  | 1192026 | 2623087 | 43.30% | 2.314% |
| 90  | 18.751 | 1491 | 1493 | 1499 | rVV  | 272616  | 668830  | 11.04% | 0.590% |
| 91  | 18.877 | 1502 | 1504 | 1511 | rVB3 | 72011   | 200600  | 3.31%  | 0.177% |
| 92  | 19.551 | 1558 | 1563 | 1570 | rBV5 | 97126   | 350894  | 5.79%  | 0.310% |
| 93  | 20.443 | 1636 | 1641 | 1647 | rBV  | 240182  | 723784  | 11.95% | 0.638% |
| 94  | 20.603 | 1649 | 1655 | 1658 | rVV  | 119956  | 423505  | 6.99%  | 0.374% |
| 95  | 20.660 | 1658 | 1660 | 1669 | rVB  | 101454  | 358864  | 5.92%  | 0.317% |
| 96  | 20.854 | 1672 | 1677 | 1684 | rVB3 | 78783   | 281868  | 4.65%  | 0.249% |
| 97  | 21.129 | 1697 | 1701 | 1710 | rVB3 | 51967   | 206829  | 3.41%  | 0.182% |
| 98  | 21.357 | 1716 | 1721 | 1724 | rBV  | 105794  | 360382  | 5.95%  | 0.318% |
| 99  | 21.437 | 1724 | 1728 | 1734 | rVB  | 215428  | 725846  | 11.98% | 0.640% |
| 100 | 21.700 | 1747 | 1751 | 1762 | rVB5 | 41932   | 201345  | 3.32%  | 0.178% |

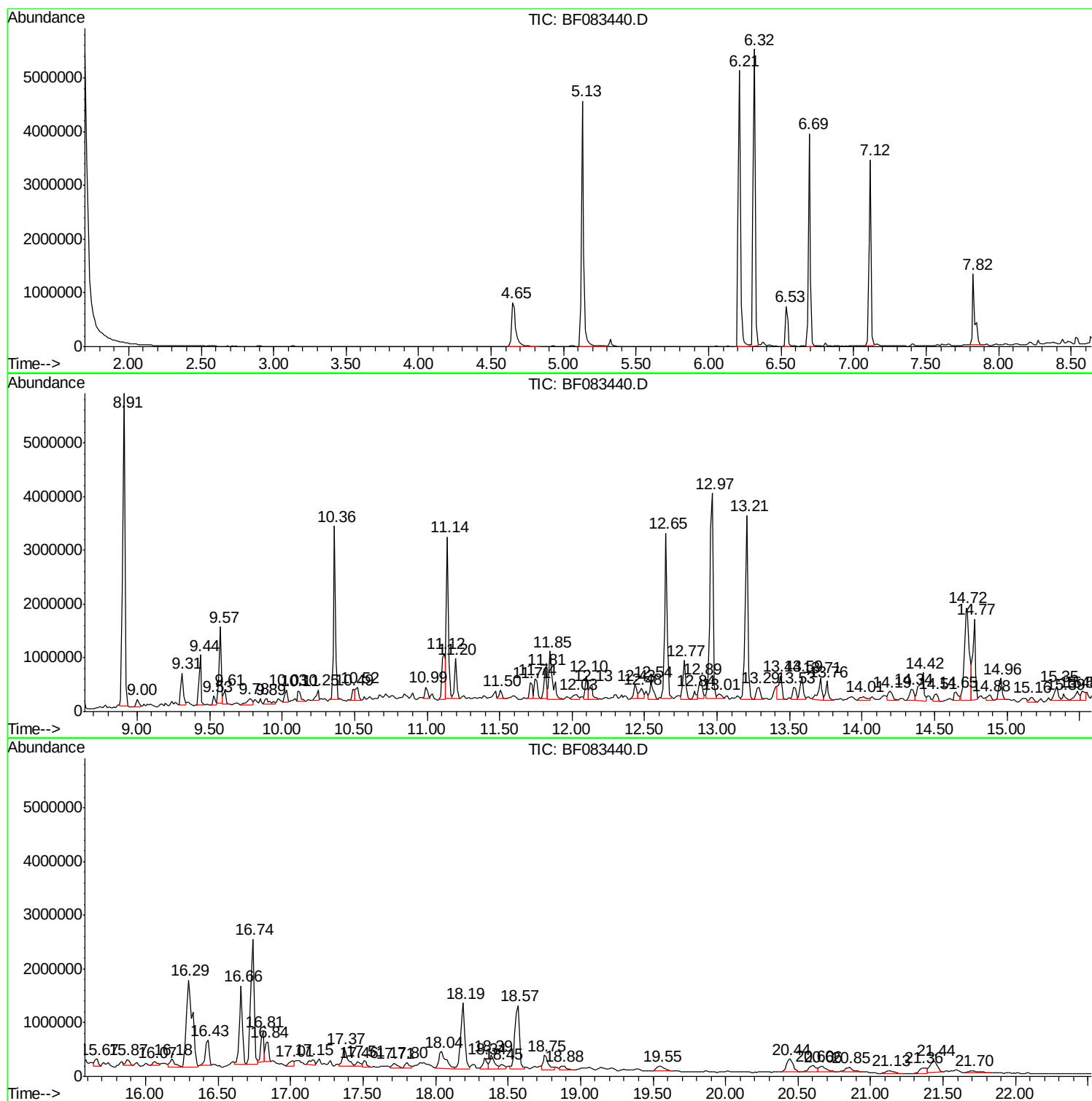
Sum of corrected areas: 113360374

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Instrument :  
BNA\_F  
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SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF113015.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\_F\DATA\BF120215\  
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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

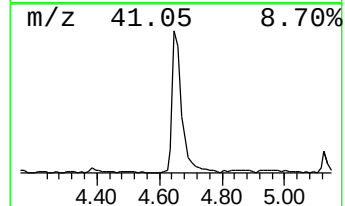
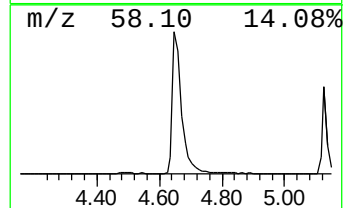
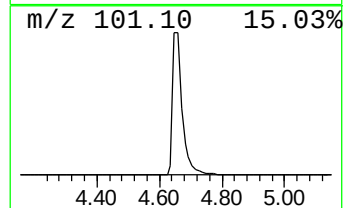
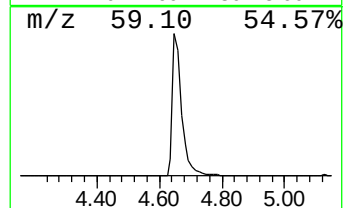
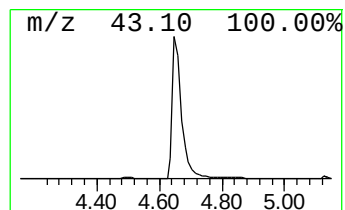
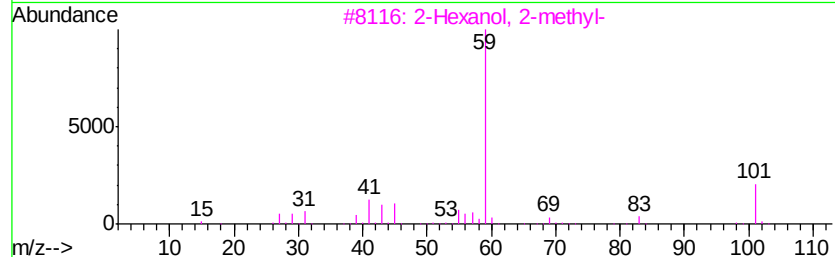
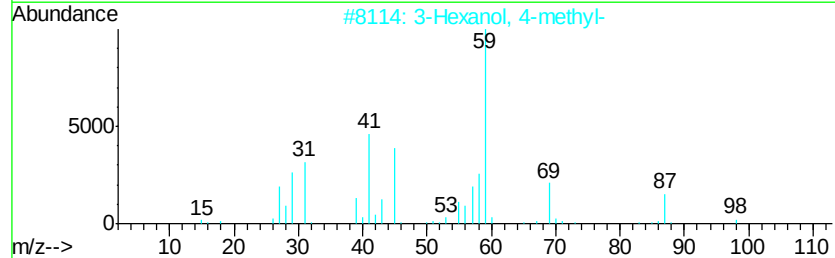
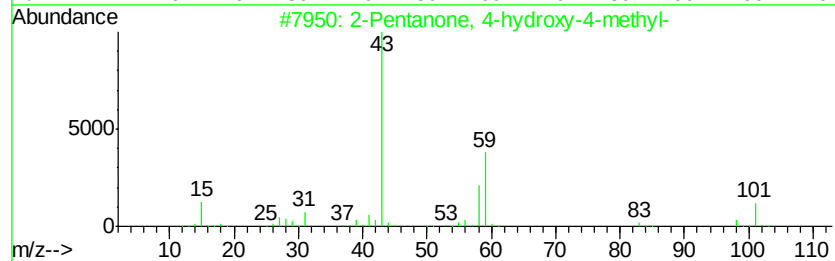
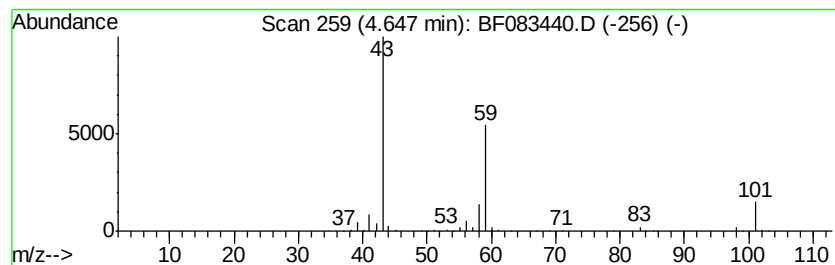
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 4

| R.T. | EstConc  | Area    | Relative to ISTD       | R.T. |
|------|----------|---------|------------------------|------|
| 4.65 | 36.42 ng | 1618550 | 1,4-Dichlorobenzene-d4 | 6.53 |

| Hit# of | 5                                    | Tentative ID | MW       | MolForm     | CAS# | Qual |
|---------|--------------------------------------|--------------|----------|-------------|------|------|
| 1       | 2-Pentanone, 4-hydroxy-4-methyl-     | 116          | C6H12O2  | 000123-42-2 | 64   |      |
| 2       | 3-Hexanol, 4-methyl-                 | 116          | C7H16O   | 000615-29-2 | 33   |      |
| 3       | 2-Hexanol, 2-methyl-                 | 116          | C7H16O   | 000625-23-0 | 33   |      |
| 4       | Acetic acid, cyano-, 1,1-dimethyl... | 141          | C7H11NO2 | 001116-98-9 | 23   |      |
| 5       | 2,3-Butanedione, monooxime           | 101          | C4H7NO2  | 000057-71-6 | 9    |      |



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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

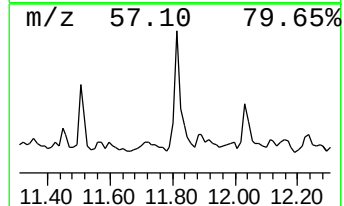
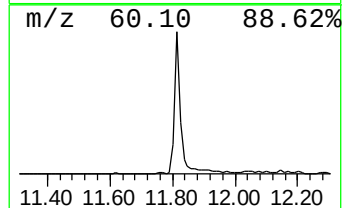
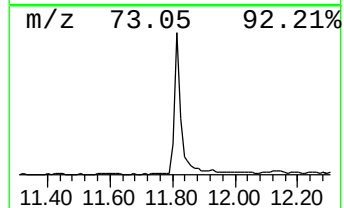
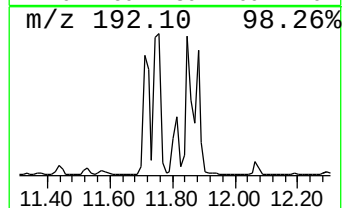
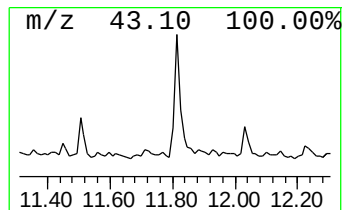
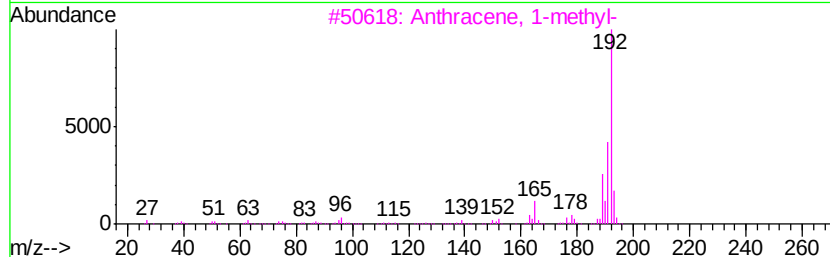
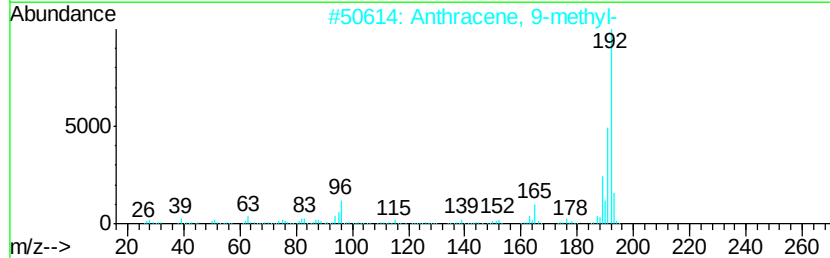
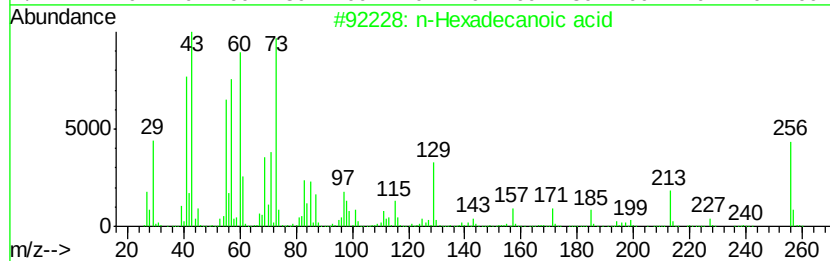
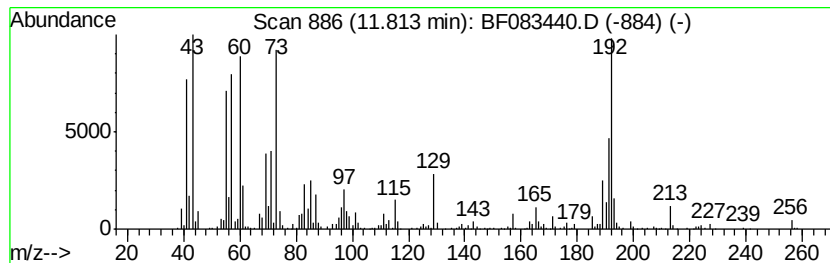
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 4 n-Hexadecanoic acid Concentration Rank 20

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.81 | 7.47 ng | 622931 | Phenanthrene-d10 | 11.12 |

| Hit# | of | Tentative ID            | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------|-----|----------|-------------|------|
| 1    | 5  | n-Hexadecanoic acid     | 256 | C16H32O2 | 000057-10-3 | 95   |
| 2    |    | Anthracene, 9-methyl-   | 192 | C15H12   | 000779-02-2 | 68   |
| 3    |    | Anthracene, 1-methyl-   | 192 | C15H12   | 000610-48-0 | 64   |
| 4    |    | Anthracene, 2-methyl-   | 192 | C15H12   | 000613-12-7 | 62   |
| 5    |    | Phenanthrene, 3-methyl- | 192 | C15H12   | 000832-71-3 | 62   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

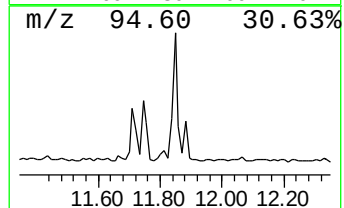
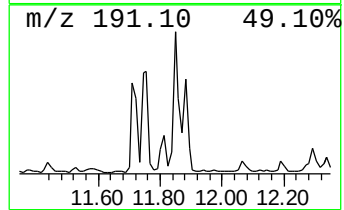
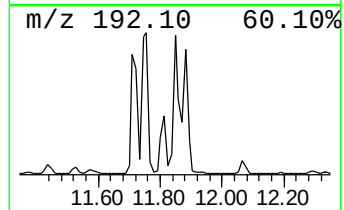
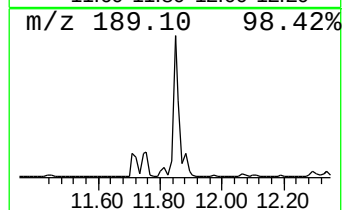
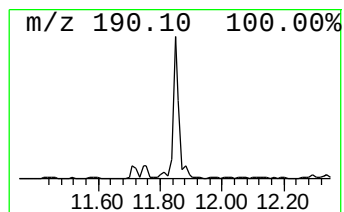
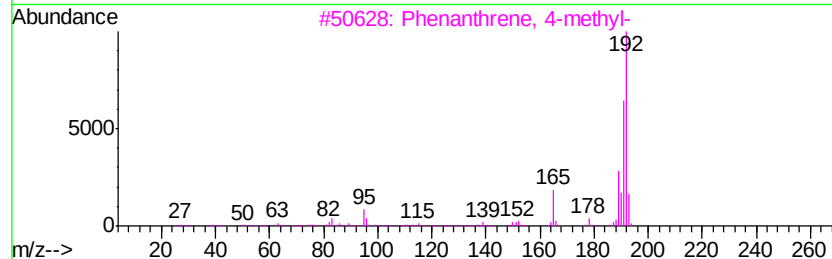
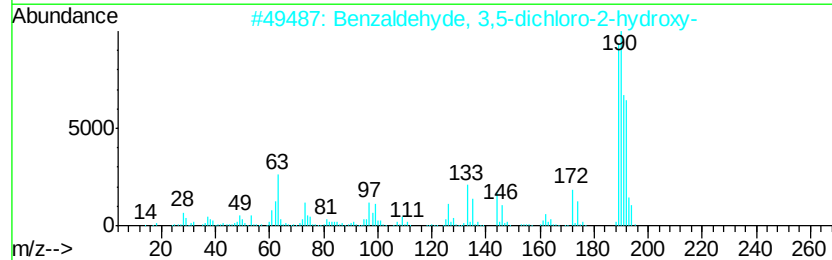
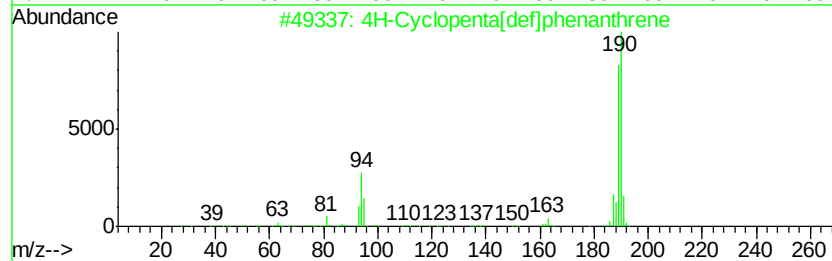
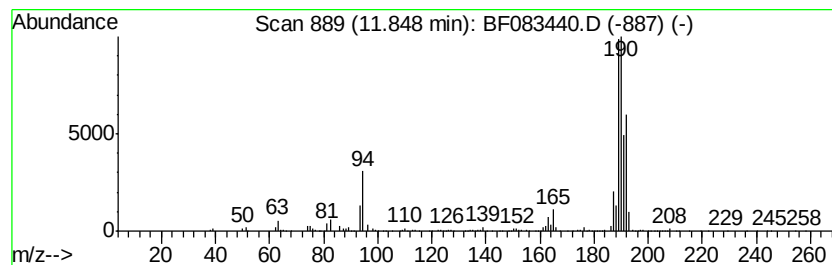
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 5 4H-Cyclopenta[def]phenanthrene Concentration Rank 8

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 11.85 | 18.05 ng | 1504370 | Phenanthrene-d10 | 11.12 |

| Hit# of | 5 | Tentative ID                        | MW  | MolForm   | CAS#        | Qual |
|---------|---|-------------------------------------|-----|-----------|-------------|------|
| 1       |   | 4H-Cyclopenta[def]phenanthrene      | 190 | C15H10    | 000203-64-5 | 92   |
| 2       |   | Benzaldehyde, 3,5-dichloro-2-hyd... | 190 | C7H4Cl2O2 | 000090-60-8 | 72   |
| 3       |   | Phenanthrene, 4-methyl-             | 192 | C15H12    | 000832-64-4 | 35   |
| 4       |   | 1H-Indene, 2-phenyl-                | 192 | C15H12    | 004505-48-0 | 30   |
| 5       |   | 5H-Dibenzo[a,d]cycloheptene         | 192 | C15H12    | 000256-81-5 | 30   |





Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

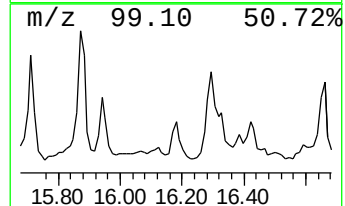
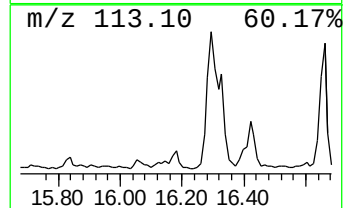
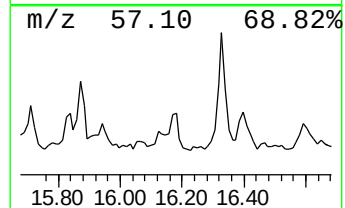
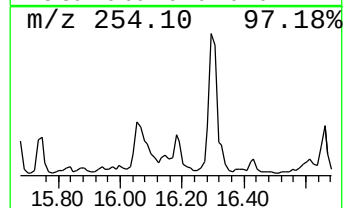
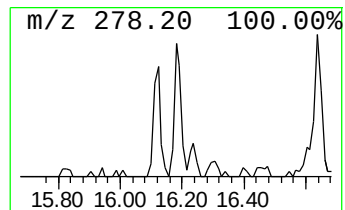
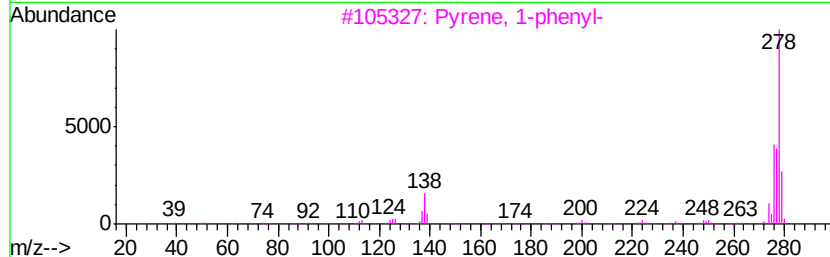
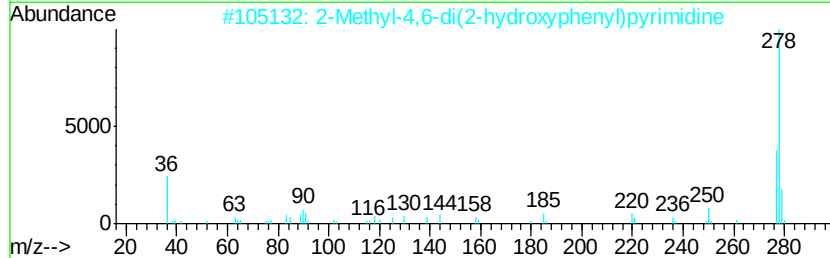
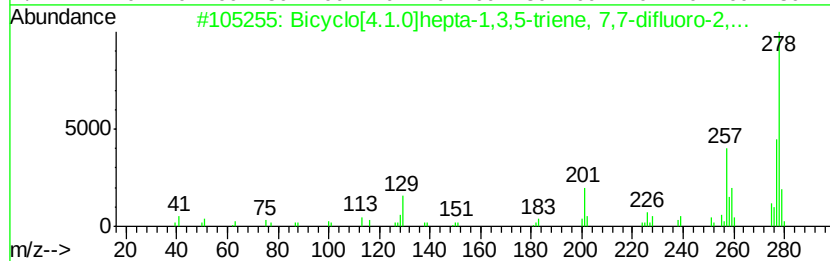
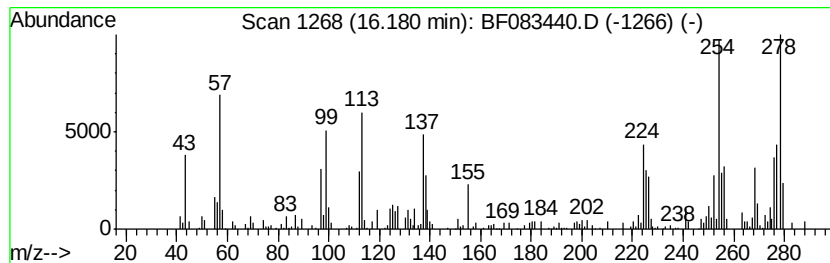
Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 7 unknown16.18 Concentration Rank 19

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.         |      |
|-----------|-------------------------------------|--------|------------------|--------------|------|
| 16.18     | 7.64 ng                             | 327808 | Perylene-d12     | 16.81        |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#         | Qual |
| 1         | Bicvclo[4.1.0]hepta-1,3,5-triene... | 278    | C19H12F2         | 052326-84-8  | 25   |
| 2         | 2-Methyl-4,6-di(2-hydroxyphenyl)... | 278    | C17H14N2O2       | 1000070-55-8 | 25   |
| 3         | Pvrene, 1-phenyl-                   | 278    | C22H14           | 005101-27-9  | 25   |
| 4         | Benzo[bltriphenylene                | 278    | C22H14           | 000215-58-7  | 18   |
| 5         | 1(3H)-Isobenzofuranone, 5-hydrox... | 254    | C15H10O4         | 056783-95-0  | 11   |





Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

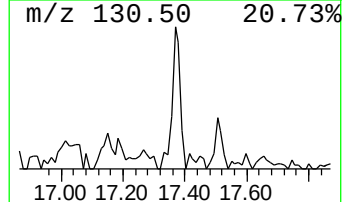
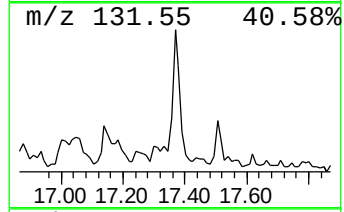
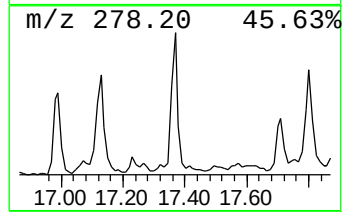
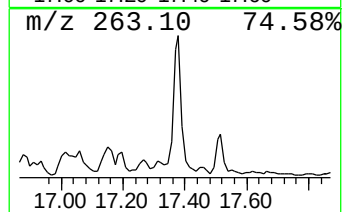
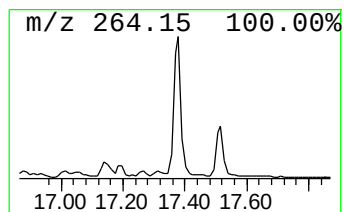
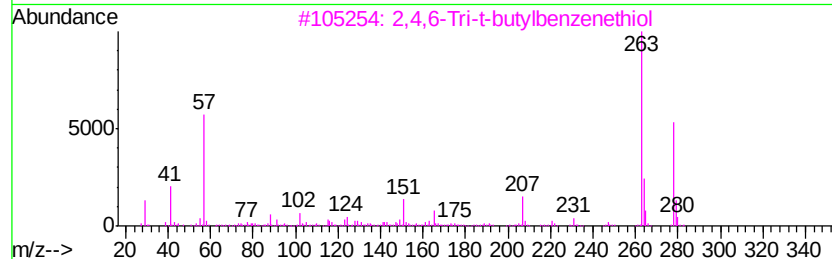
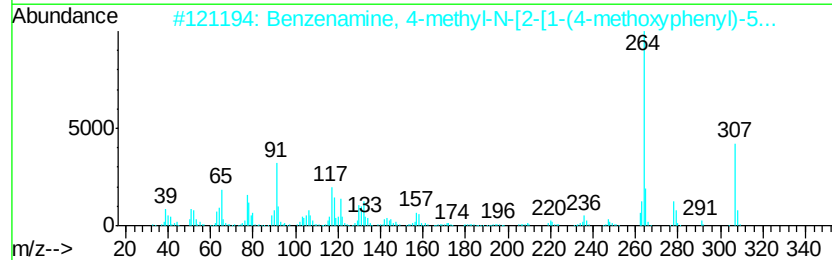
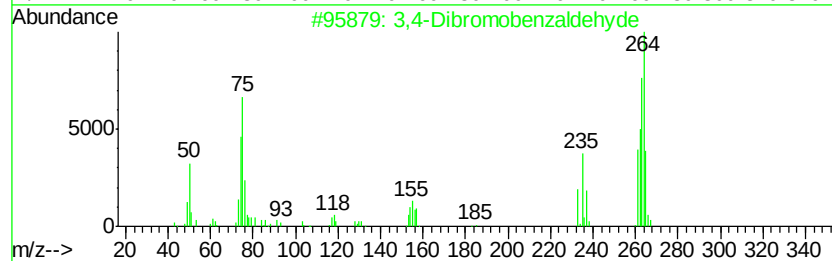
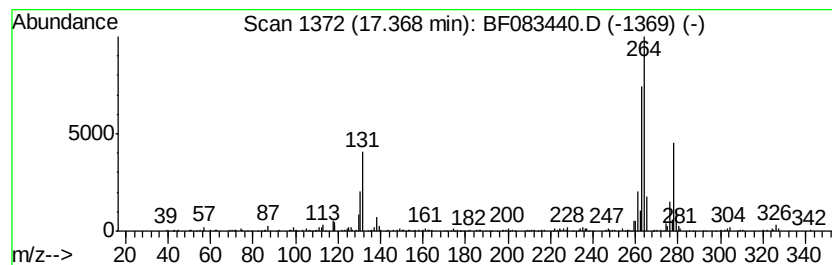
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 10 unknown17.37 Concentration Rank 7

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 17.37 | 18.63 ng | 799042 | Perylene-d12     | 16.81 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#        | Qual |
|------|----|-------------------------------------|-----|-----------|-------------|------|
| 1    | 5  | 3,4-Dibromobenzaldehyde             | 262 | C7H4Br2O  | 074003-55-7 | 49   |
| 2    |    | Benzenamine, 4-methyl-N-[2-[1-(4... | 307 | C17H17N5O | 274690-74-3 | 17   |
| 3    |    | 2,4,6-Tri-t-butylbenzenethiol       | 278 | C18H30S   | 000961-39-7 | 16   |
| 4    |    | 2,3,5,6-Tetrachlorophenylmethyln... | 276 | C7H4Cl4OS | 107409-52-9 | 16   |
| 5    |    | Benzenemethanol, 3,5-bis(1,1-dim... | 278 | C17H26O3  | 014387-17-8 | 16   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

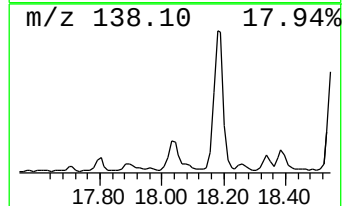
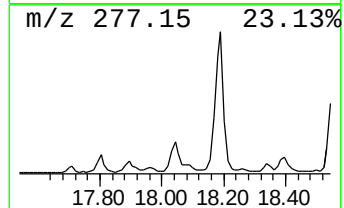
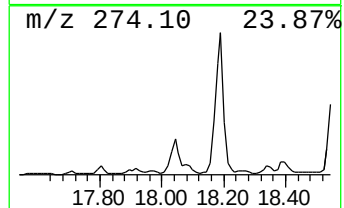
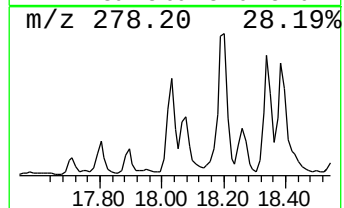
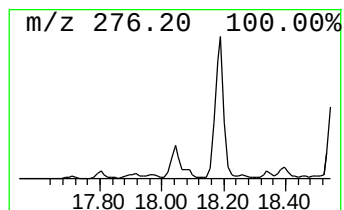
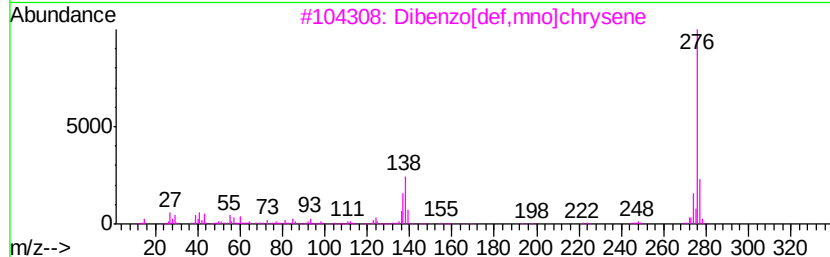
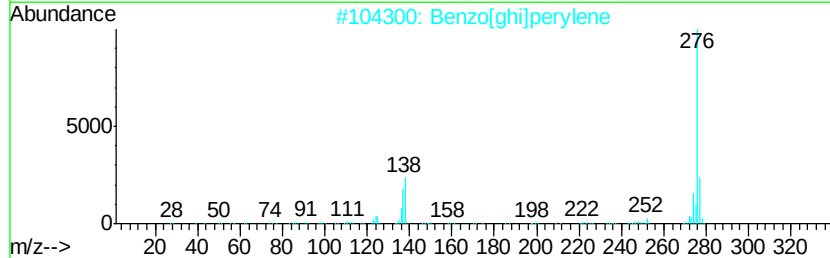
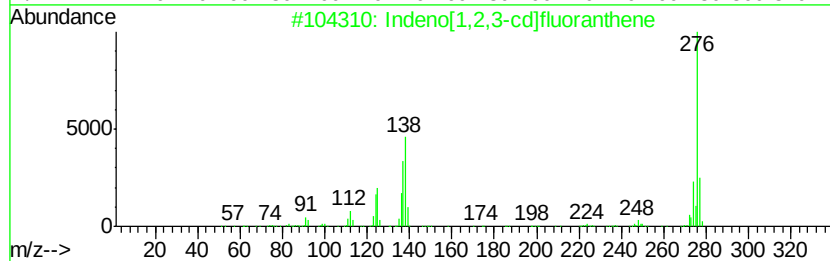
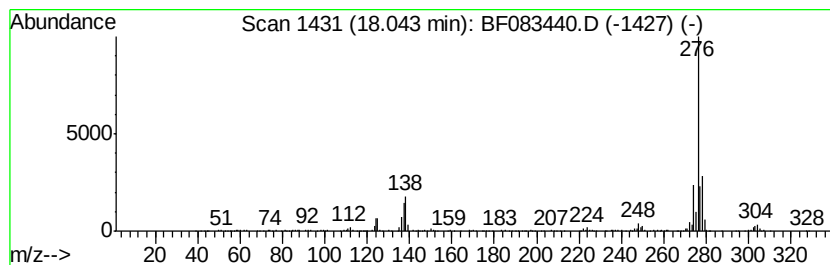
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 11 Indeno[1,2,3-cd]fluoranthene Concentration Rank 5

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 18.04 | 25.15 ng | 1078500 | Perylene-d12     | 16.81 |

| Hit# | of | Tentative ID                         | MW  | MolForm     | CAS#         | Qual |
|------|----|--------------------------------------|-----|-------------|--------------|------|
| 1    | 5  | Indeno[1,2,3-cd]fluoranthene         | 276 | C22H12      | 000193-43-1  | 95   |
| 2    |    | Benzo[ghi]perylene                   | 276 | C22H12      | 000191-24-2  | 93   |
| 3    |    | Dibenzo[def,mno]chrysene             | 276 | C22H12      | 000191-26-4  | 86   |
| 4    |    | Indeno[1,2,3-cd]pyrene               | 276 | C22H12      | 000193-39-5  | 70   |
| 5    |    | Phenol, 2-(4-chlorophenyl)iminome... | 276 | C13H9ClN2O3 | 1000262-90-3 | 64   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

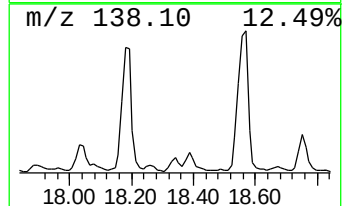
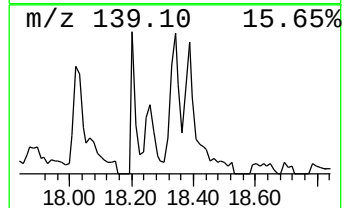
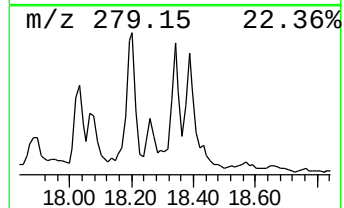
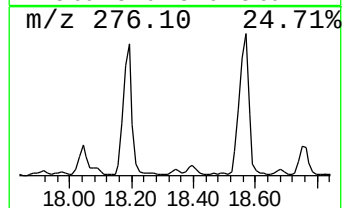
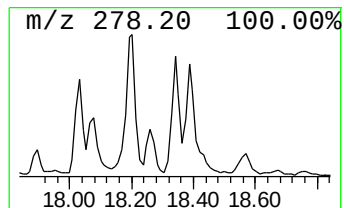
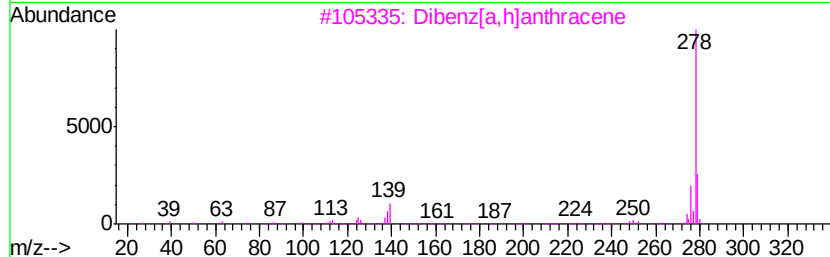
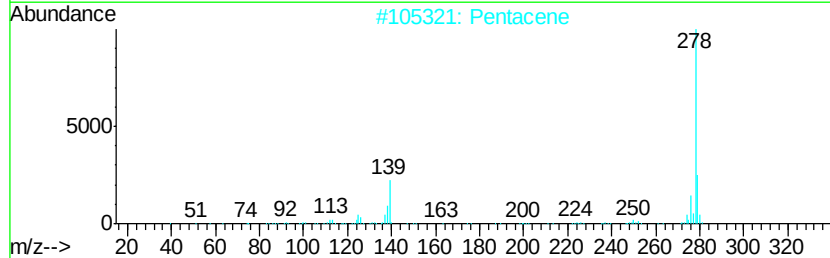
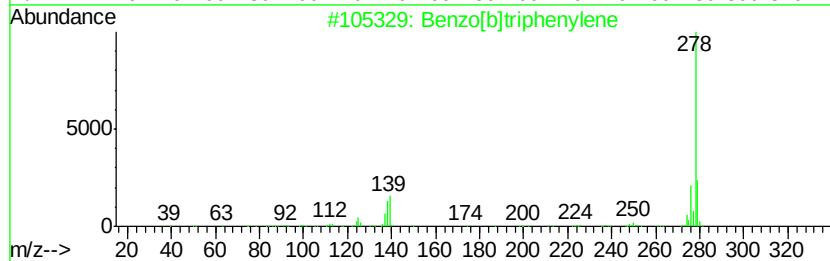
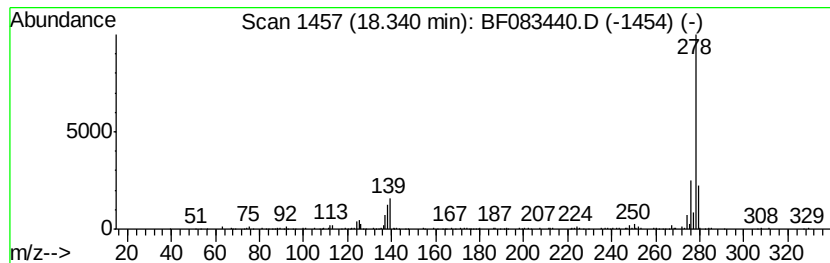
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 12 Benzo[b]triphenylene Concentration Rank 15

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 18.34 | 9.38 ng | 402281 | Perylene-d12     | 16.81 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[b]triphenylene        | 278 | C22H14  | 000215-58-7 | 96   |
| 2    |    | Pentacene                   | 278 | C22H14  | 000135-48-8 | 96   |
| 3    |    | Dibenz[a,h]anthracene       | 278 | C22H14  | 000053-70-3 | 95   |
| 4    |    | 1,2:7,8-Dibenzophenanthrene | 278 | C22H14  | 000213-46-7 | 93   |
| 5    |    | Benzo[b]chrysene            | 278 | C22H14  | 000214-17-5 | 91   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

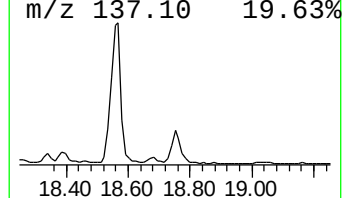
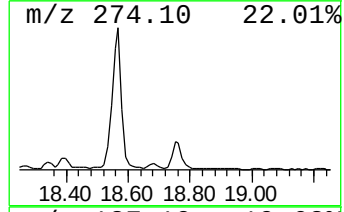
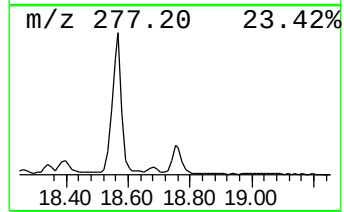
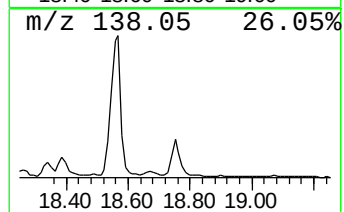
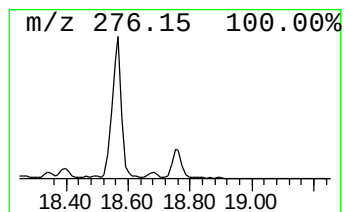
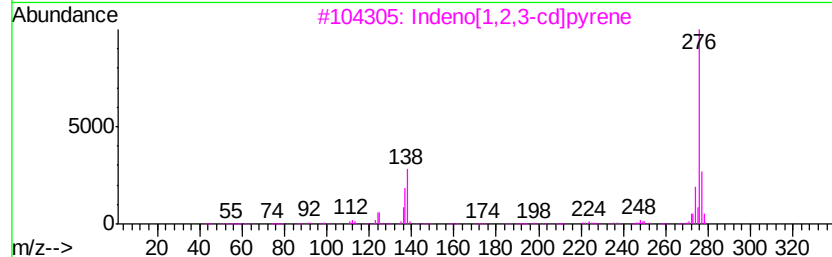
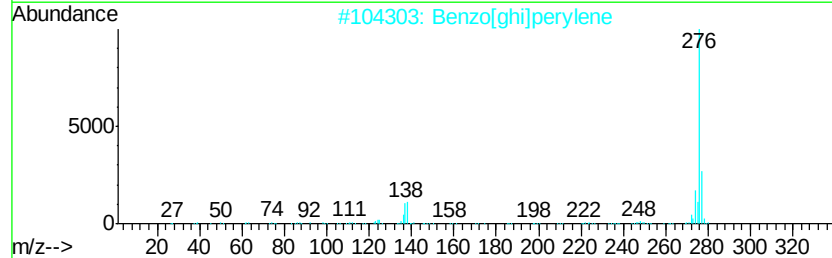
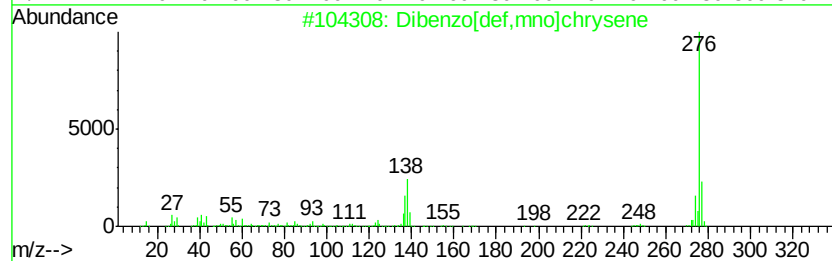
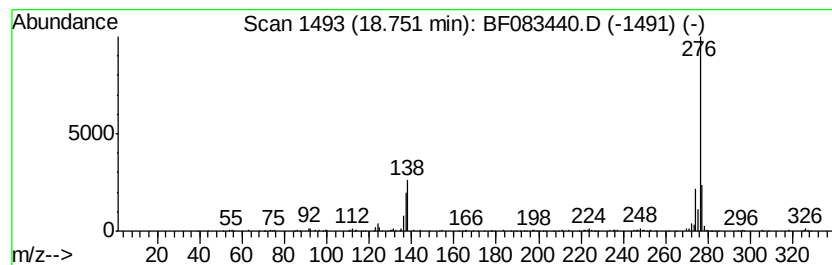
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 14 Dibenzo[def,mno]chrysene Concentration Rank 11

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 18.75 | 15.60 ng | 668830 | Perylene-d12     | 16.81 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | Dibenzo[def,mno]chrysene            | 276 | C22H12   | 000191-26-4 | 97   |
| 2    |    | Benzo[ghi]perylene                  | 276 | C22H12   | 000191-24-2 | 95   |
| 3    |    | Indeno[1,2,3-cd]pyrene              | 276 | C22H12   | 000193-39-5 | 81   |
| 4    |    | 2-Dodecyl-p-cresol                  | 276 | C19H32O  | 025912-91-8 | 43   |
| 5    |    | 1H-Cyclopenta[4,5]pyrido[1,2-a]b... | 276 | C17H16N4 | 329707-31-5 | 40   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

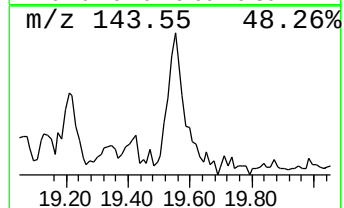
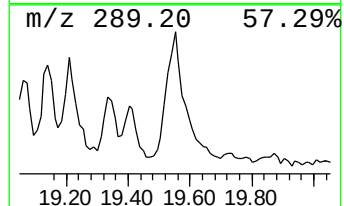
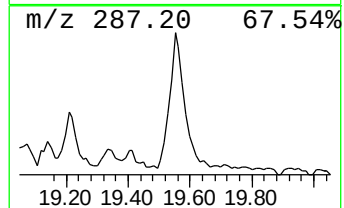
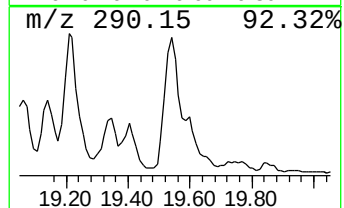
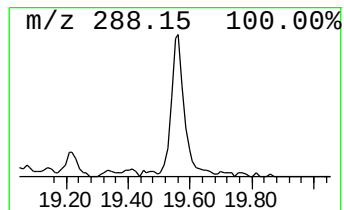
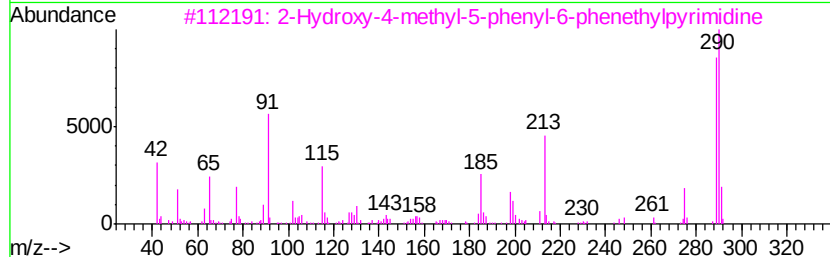
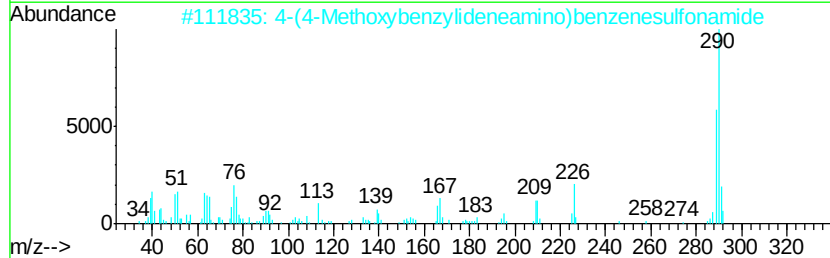
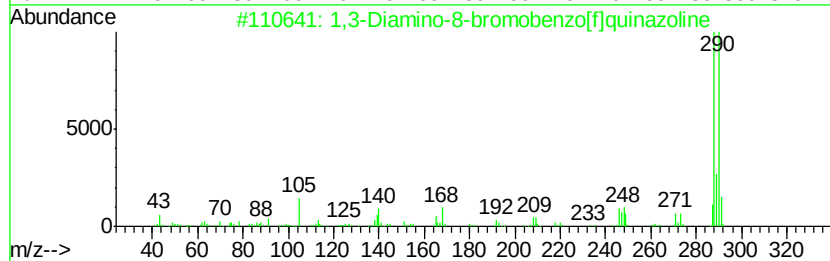
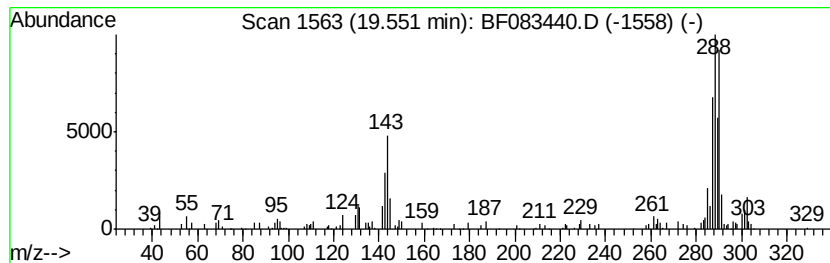
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 15 unknown19.55 Concentration Rank 18

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 19.55 | 8.18 ng | 350894 | Perylene-d12     | 16.81 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm     | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|-------------|-------------|------|
| 1    |    |   | 1,3-Diamino-8-bromobenzo[f]quina... | 288 | C12H9BrN4   | 013119-52-3 | 43   |
| 2    |    |   | 4-(4-Methoxybenzylideneamino)ben... | 290 | C14H14N2O3S | 066667-56-9 | 27   |
| 3    |    |   | 2-Hydroxy-4-methyl-5-phenyl-6-ph... | 290 | C19H18N2O   | 027433-90-5 | 25   |
| 4    |    |   | 10-Cyclohexyl-2,3-dihydro-1H-pyr... | 290 | C20H22N2    | 157056-89-8 | 22   |
| 5    |    |   | 4(1H)-Pyridinone, 1,2,6-trimethy... | 289 | C20H19NO    | 042215-29-2 | 22   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

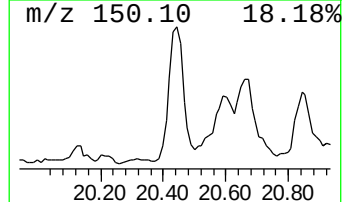
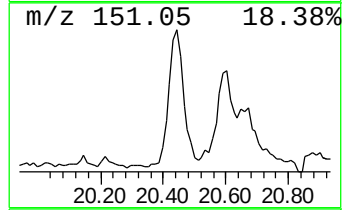
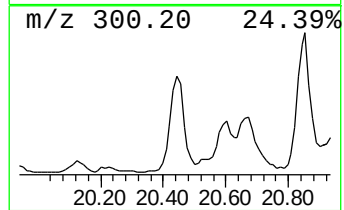
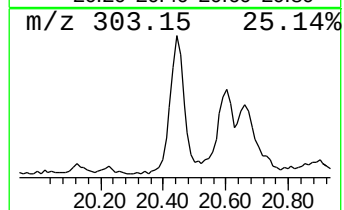
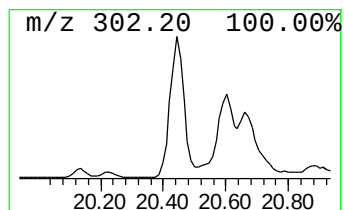
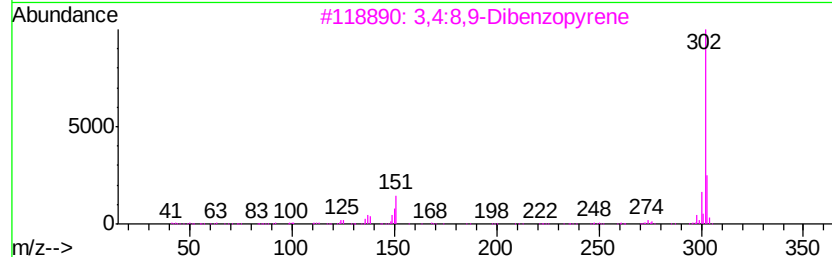
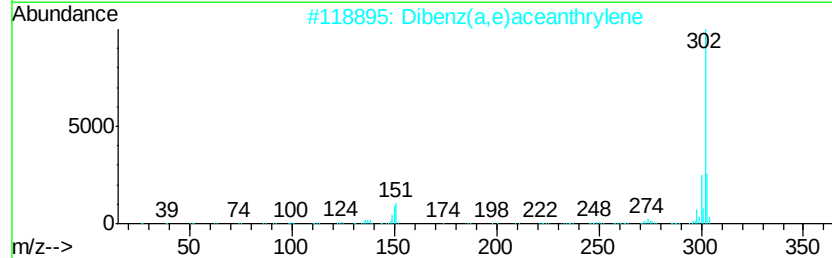
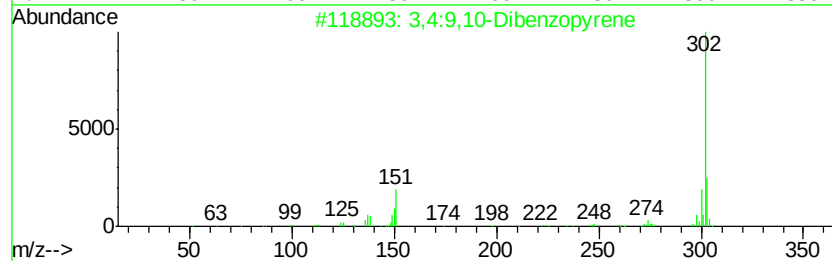
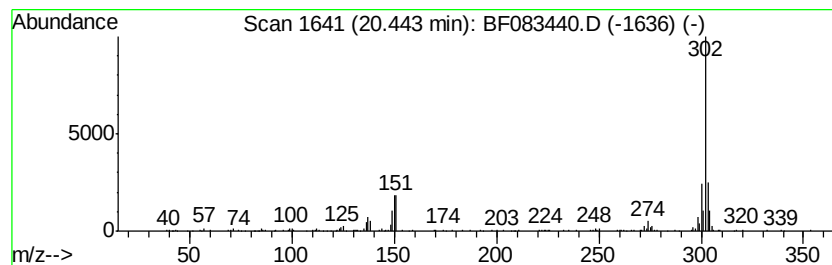
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 16 3,4:9,10-Dibenzopyrene Concentration Rank 10

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 20.44 | 16.88 ng | 723784 | Perylene-d12     | 16.81 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | 3,4:9,10-Dibenzopyrene      | 302 | C24H14  | 000189-55-9 | 98   |
| 2    |    | Dibenz(a,e)aceanthrylene    | 302 | C24H14  | 005385-75-1 | 98   |
| 3    |    | 3,4:8,9-Dibenzopyrene       | 302 | C24H14  | 000189-64-0 | 96   |
| 4    |    | 1,2:4,5-Dibenzopyrene       | 302 | C24H14  | 000192-65-4 | 95   |
| 5    |    | Indeno[1,2,3-fg]naphthacene | 302 | C24H14  | 000203-11-2 | 95   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

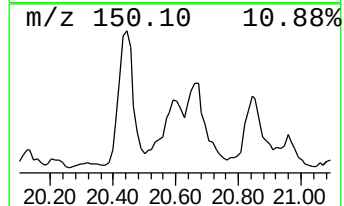
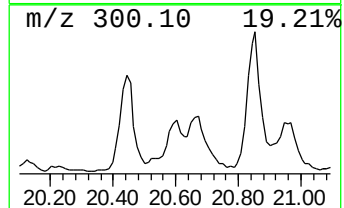
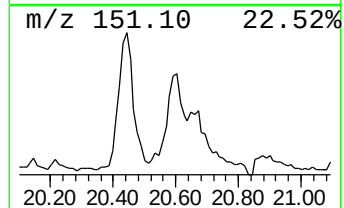
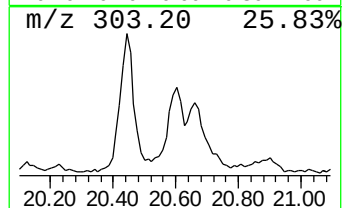
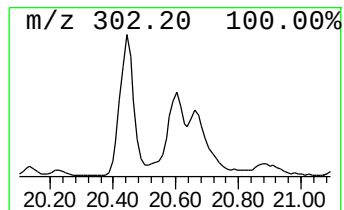
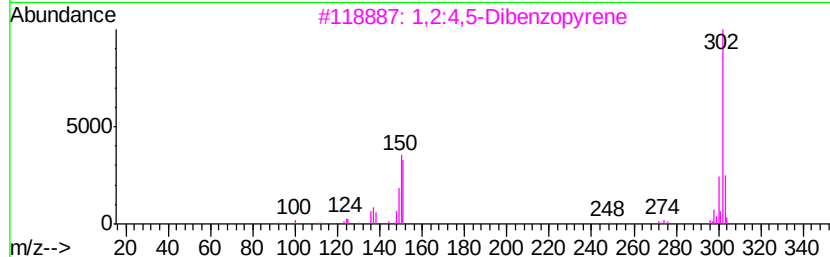
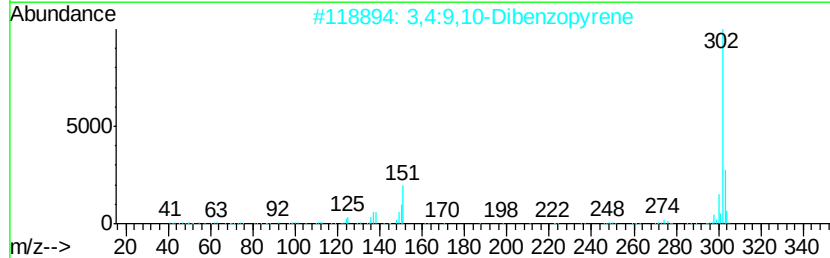
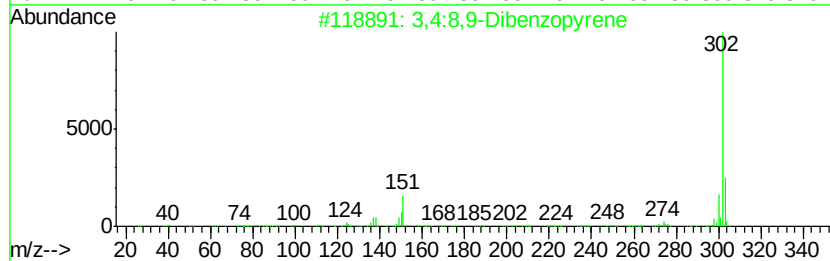
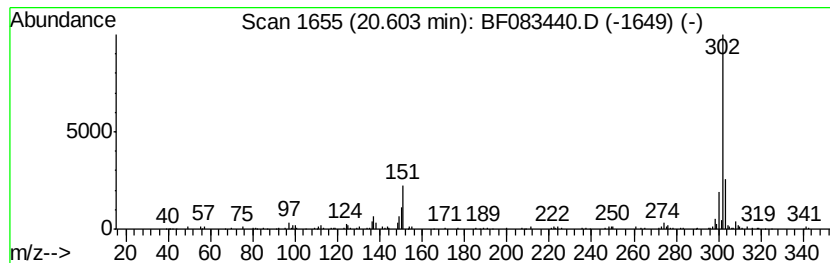
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 17 3,4:8,9-Dibenzopyrene Concentration Rank 14

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 20.60 | 9.88 ng | 423505 | Perylene-d12     | 16.81 |

| Hit# | of | 5 | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|------|----|---|---------------------------|-----|---------|-------------|------|
| 1    |    |   | 3,4:8,9-Dibenzopyrene     | 302 | C24H14  | 000189-64-0 | 95   |
| 2    |    |   | 3,4:9,10-Dibenzopyrene    | 302 | C24H14  | 000189-55-9 | 93   |
| 3    |    |   | 1,2:4,5-Dibenzopyrene     | 302 | C24H14  | 000192-65-4 | 70   |
| 4    |    |   | 1,2:3,4-Dibenzopyrene     | 302 | C24H14  | 000191-30-0 | 70   |
| 5    |    |   | Dibenzo[fg,op]naphthacene | 302 | C24H14  | 000192-51-8 | 58   |





Data Path : Z:\HPCHEM1\BNA F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

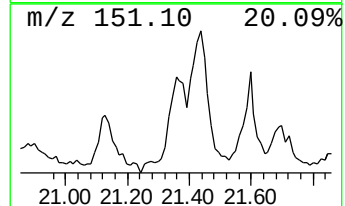
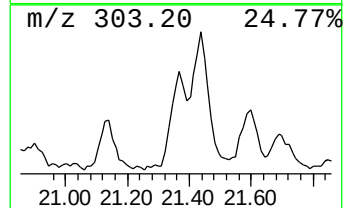
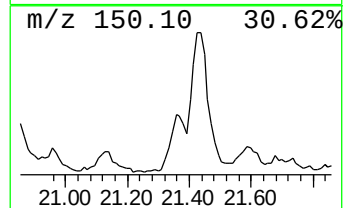
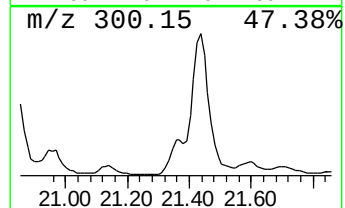
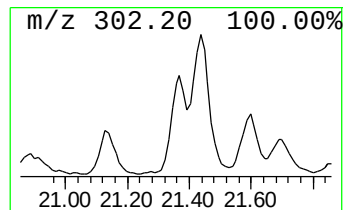
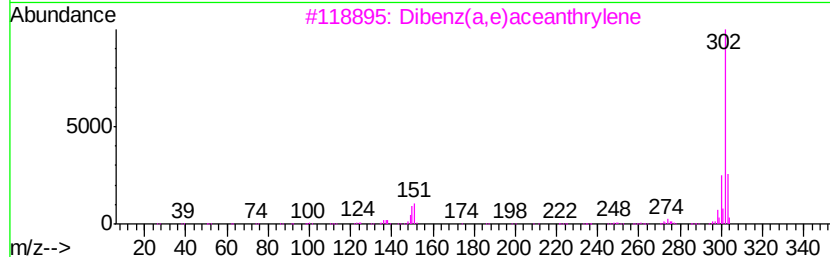
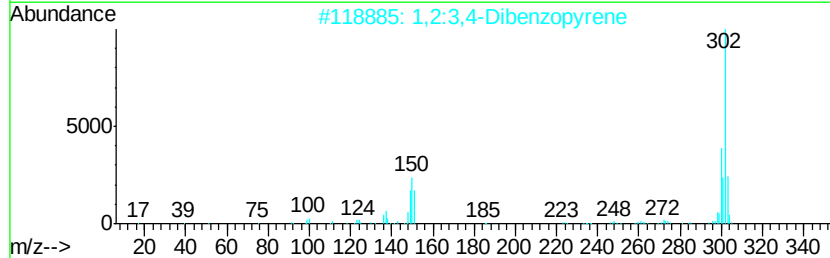
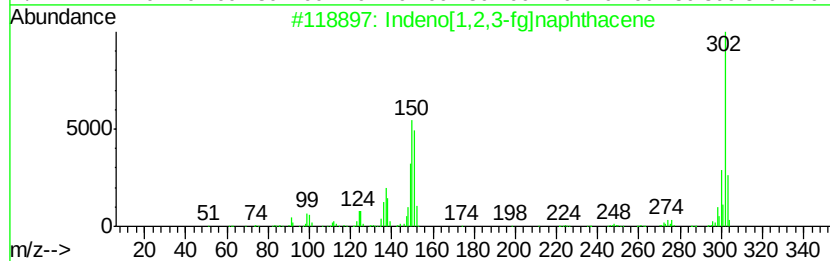
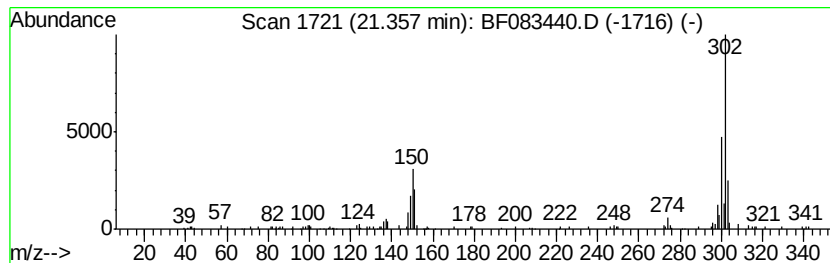
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 19 Indeno[1,2,3-fg]naphthacene Concentration Rank 16

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 21.36 | 8.40 ng | 360382 | Perylene-d12     | 16.81 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Indeno[1,2,3-fg]naphthacene | 302 | C24H14  | 000203-11-2 | 93   |
| 2    |    | 1,2:3,4-Dibenzopyrene       | 302 | C24H14  | 000191-30-0 | 86   |
| 3    |    | Dibenz(a,e)aceanthrylene    | 302 | C24H14  | 005385-75-1 | 86   |
| 4    |    | 1,2:4,5-Dibenzopyrene       | 302 | C24H14  | 000192-65-4 | 83   |
| 5    |    | 3,4:9,10-Dibenzopyrene      | 302 | C24H14  | 000189-55-9 | 60   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
Data File : BF083440.D  
Acq On : 3 Dec 2015 3:20  
Operator : UM/IZ  
Sample : G4583-01  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

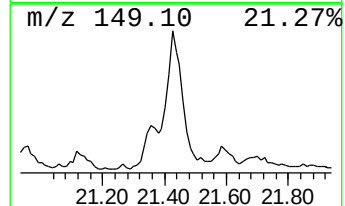
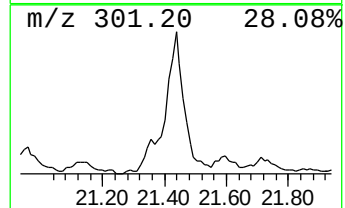
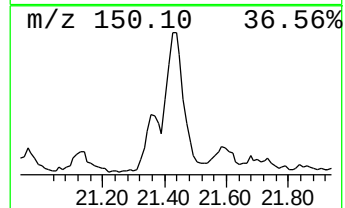
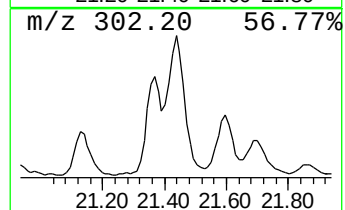
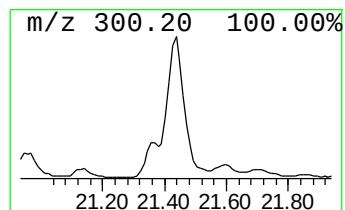
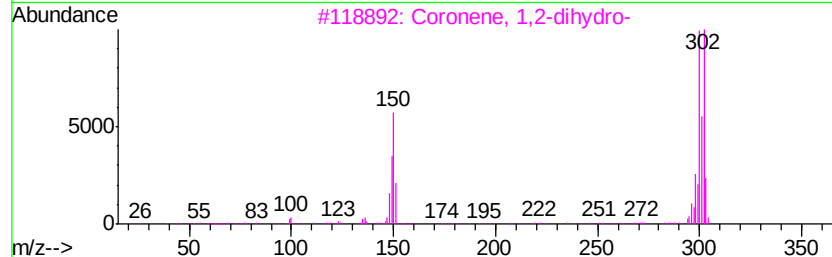
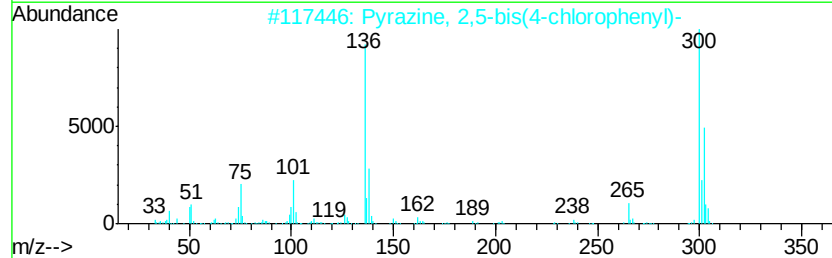
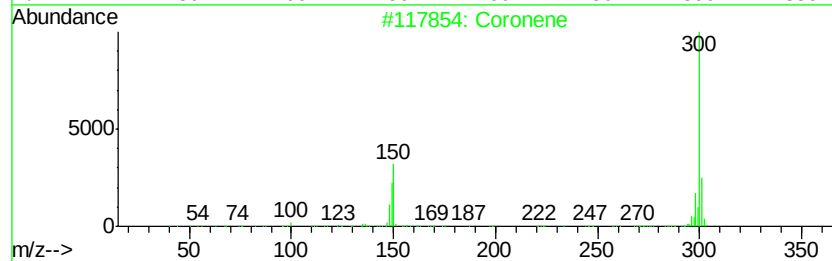
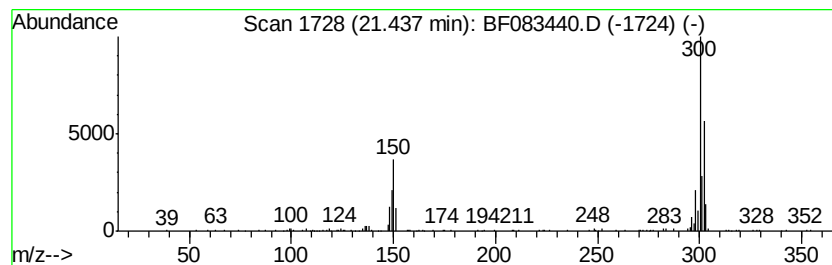
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 20 Coronene Concentration Rank 9

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 21.44 | 16.93 ng | 725846 | Perylene-d12     | 16.81 |

| Hit# | of | Tentative ID                        | MW  | MolForm     | CAS#        | Qual |
|------|----|-------------------------------------|-----|-------------|-------------|------|
| 1    | 5  | Coronene                            | 300 | C24H12      | 000191-07-1 | 96   |
| 2    |    | Pyrazine, 2,5-bis(4-chlorophenyl)-  | 300 | C16H10Cl2N2 | 074376-33-3 | 50   |
| 3    |    | Coronene, 1,2-dihydro-              | 302 | C24H14      | 107716-56-3 | 42   |
| 4    |    | Androst-4-ene-3,6,17-trione         | 300 | C19H24O3    | 002243-06-3 | 38   |
| 5    |    | 5-(p-(Dimethylamino)benzylidene)... | 300 | C21H20N2    | 006256-22-0 | 38   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF120215\  
 Data File : BF083440.D  
 Acq On : 3 Dec 2015 3:20  
 Operator : UM/IZ  
 Sample : G4583-01  
 Misc :  
 ALS Vial : 27 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-P3WC-01(0-4)

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF113015.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT 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 |
| 2-Pentanone, 4-hy... | 4.65  | 36.4    | ng    | 1618550  | 1                     | 6.53  | 888802  | 20.0 |
| n-Hexadecanoic acid  | 11.81 | 7.5     | ng    | 622931   | 4                     | 11.12 | 1667080 | 20.0 |
| 4H-Cyclopenta[def... | 11.85 | 18.1    | ng    | 1504370  | 4                     | 11.12 | 1667080 | 20.0 |
| unknown16.18         | 16.18 | 7.6     | ng    | 327808   | 6                     | 16.81 | 857665  | 20.0 |
| unknown17.37         | 17.37 | 18.6    | ng    | 799042   | 6                     | 16.81 | 857665  | 20.0 |
| Indeno[1,2,3-cd]f... | 18.04 | 25.1    | ng    | 1078500  | 6                     | 16.81 | 857665  | 20.0 |
| Benzo[b]triphenylene | 18.34 | 9.4     | ng    | 402281   | 6                     | 16.81 | 857665  | 20.0 |
| Dibenzo[def,mno]c... | 18.75 | 15.6    | ng    | 668830   | 6                     | 16.81 | 857665  | 20.0 |
| unknown19.55         | 19.55 | 8.2     | ng    | 350894   | 6                     | 16.81 | 857665  | 20.0 |
| 3,4:9,10-Dibenzop... | 20.44 | 16.9    | ng    | 723784   | 6                     | 16.81 | 857665  | 20.0 |
| 3,4:8,9-Dibenzopy... | 20.60 | 9.9     | ng    | 423505   | 6                     | 16.81 | 857665  | 20.0 |
| Indeno[1,2,3-fg]n... | 21.36 | 8.4     | ng    | 360382   | 6                     | 16.81 | 857665  | 20.0 |
| Coronene             | 21.44 | 16.9    | ng    | 725846   | 6                     | 16.81 | 857665  | 20.0 |