

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
 Data File : BF090152.D  
 Acq On : 20 Sep 2016 23:49  
 Operator : UM/SJ  
 Sample : H4850-05  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 FHSW-04-SOUTHSIDE

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-BF092016.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         | 1.678       | 6             | 8           | 55           | rVB      | 3535822        | 11786514      | 100.00%         | 13.283%       |
| 2         | 4.616       | 262           | 265         | 274          | rBV      | 454034         | 736197        | 6.25%           | 0.830%        |
| 3         | 5.084       | 303           | 306         | 309          | rBV      | 2550465        | 3168670       | 26.88%          | 3.571%        |
| 4         | 6.170       | 398           | 401         | 404          | rBV      | 2293249        | 3436102       | 29.15%          | 3.872%        |
| 5         | 6.284       | 408           | 411         | 414          | rVV      | 3084597        | 3079386       | 26.13%          | 3.470%        |
| 6         | 6.513       | 429           | 431         | 434          | rBV      | 714920         | 908143        | 7.70%           | 1.023%        |
| 7         | 6.673       | 442           | 445         | 448          | rBV      | 2693974        | 2598352       | 22.05%          | 2.928%        |
| 8         | 7.096       | 479           | 482         | 484          | rBV      | 1554247        | 2167620       | 18.39%          | 2.443%        |
| 9         | 7.804       | 542           | 544         | 548          | rBV      | 1405718        | 1330522       | 11.29%          | 1.499%        |
| 10        | 8.890       | 636           | 639         | 641          | rBV      | 3822576        | 3596473       | 30.51%          | 4.053%        |
| 11        | 9.210       | 665           | 667         | 671          | rBV2     | 78216          | 148341        | 1.26%           | 0.167%        |
| 12        | 9.290       | 671           | 674         | 676          | rVV      | 1297129        | 1129092       | 9.58%           | 1.272%        |
| 13        | 9.405       | 682           | 684         | 687          | rVB      | 327770         | 394199        | 3.34%           | 0.444%        |
| 14        | 9.553       | 694           | 697         | 698          | rBV      | 1378604        | 1317503       | 11.18%          | 1.485%        |
| 15        | 9.576       | 698           | 699         | 702          | rVB      | 204772         | 224137        | 1.90%           | 0.253%        |
| 16        | 9.748       | 712           | 714         | 717          | rBV2     | 156586         | 222596        | 1.89%           | 0.251%        |
| 17        | 10.090      | 742           | 744         | 746          | rBV      | 401723         | 320282        | 2.72%           | 0.361%        |
| 18        | 10.250      | 757           | 758         | 762          | rVB2     | 156087         | 154427        | 1.31%           | 0.174%        |
| 19        | 10.330      | 762           | 765         | 768          | rVV      | 1509389        | 1619844       | 13.74%          | 1.826%        |
| 20        | 10.479      | 774           | 778         | 781          | rVB2     | 62543          | 124784        | 1.06%           | 0.141%        |
| 21        | 10.639      | 789           | 792         | 796          | rBV2     | 84073          | 179507        | 1.52%           | 0.202%        |
| 22        | 10.788      | 801           | 805         | 807          | rBV2     | 86322          | 184821        | 1.57%           | 0.208%        |
| 23        | 10.822      | 807           | 808         | 811          | rVB      | 109782         | 153396        | 1.30%           | 0.173%        |
| 24        | 10.913      | 814           | 816         | 818          | rVB2     | 195091         | 216131        | 1.83%           | 0.244%        |
| 25        | 11.051      | 823           | 828         | 829          | rBV2     | 2512224        | 3837836       | 32.56%          | 4.325%        |
| 26        | 11.096      | 829           | 832         | 834          | rVV      | 858625         | 920503        | 7.81%           | 1.037%        |
| 27        | 11.256      | 842           | 846         | 847          | rBV2     | 249406         | 330605        | 2.80%           | 0.373%        |
| 28        | 11.348      | 853           | 854         | 857          | rVB2     | 145651         | 135893        | 1.15%           | 0.153%        |
| 29        | 11.519      | 866           | 869         | 870          | rBV      | 457242         | 436648        | 3.70%           | 0.492%        |
| 30        | 11.542      | 870           | 871         | 873          | rVV      | 469839         | 473428        | 4.02%           | 0.534%        |
| 31        | 11.588      | 873           | 875         | 877          | rVV      | 214525         | 270804        | 2.30%           | 0.305%        |
| 32        | 11.622      | 877           | 878         | 883          | rVB      | 657901         | 996006        | 8.45%           | 1.122%        |
| 33        | 11.725      | 883           | 887         | 888          | rBV3     | 53469          | 122696        | 1.04%           | 0.138%        |
| 34        | 11.816      | 892           | 895         | 899          | rVB2     | 320461         | 513170        | 4.35%           | 0.578%        |

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 ALS Vial : 16 Sample Multiplier: 1

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 FHSW-04-SOUTHSIDE

Integration Parameters: rteint.p  
 Integrator: RTE  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.2  
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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-BF092016.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |        |        |
|----|--------|------|------|------|------|---------|---------|--------|--------|
| 35 | 11.965 | 905  | 908  | 909  | rBV2 | 83212   | 120631  | 1.02%  | 0.136% |
| 36 | 12.068 | 914  | 917  | 918  | rBV  | 249510  | 325532  | 2.76%  | 0.367% |
| 37 | 12.102 | 918  | 920  | 921  | rVV  | 162807  | 224729  | 1.91%  | 0.253% |
| 38 | 12.148 | 921  | 924  | 928  | rVB3 | 268213  | 409138  | 3.47%  | 0.461% |
| 39 | 12.228 | 928  | 931  | 933  | rBV  | 3421335 | 3859489 | 32.74% | 4.350% |
| 40 | 12.285 | 933  | 936  | 937  | rVV  | 107834  | 168066  | 1.43%  | 0.189% |
| 41 | 12.308 | 937  | 938  | 940  | rVB  | 161172  | 174328  | 1.48%  | 0.196% |
| 42 | 12.365 | 940  | 943  | 947  | rBV2 | 289777  | 431396  | 3.66%  | 0.486% |
| 43 | 12.445 | 947  | 950  | 953  | rVV2 | 2576367 | 4166794 | 35.35% | 4.696% |
| 44 | 12.491 | 953  | 954  | 959  | rVB2 | 178940  | 290846  | 2.47%  | 0.328% |
| 45 | 12.571 | 959  | 961  | 962  | rBV  | 218699  | 299579  | 2.54%  | 0.338% |
| 46 | 12.605 | 962  | 964  | 966  | rVV  | 2309438 | 2336391 | 19.82% | 2.633% |
| 47 | 12.674 | 966  | 970  | 971  | rVV2 | 268035  | 465234  | 3.95%  | 0.524% |
| 48 | 12.776 | 973  | 979  | 980  | rBV2 | 609784  | 999329  | 8.48%  | 1.126% |
| 49 | 12.845 | 983  | 985  | 986  | rBV  | 269471  | 389652  | 3.31%  | 0.439% |
| 50 | 12.868 | 986  | 987  | 991  | rVV  | 369284  | 588554  | 4.99%  | 0.663% |
| 51 | 12.959 | 994  | 995  | 997  | rVV  | 222324  | 222227  | 1.89%  | 0.250% |
| 52 | 12.994 | 997  | 998  | 1000 | rVV  | 238543  | 224726  | 1.91%  | 0.253% |
| 53 | 13.074 | 1003 | 1005 | 1010 | rVB5 | 84531   | 188117  | 1.60%  | 0.212% |
| 54 | 13.188 | 1010 | 1015 | 1019 | rBV4 | 152308  | 549969  | 4.67%  | 0.620% |
| 55 | 13.268 | 1019 | 1022 | 1025 | rBV2 | 269534  | 507677  | 4.31%  | 0.572% |
| 56 | 13.382 | 1030 | 1032 | 1033 | rBV  | 476006  | 520326  | 4.41%  | 0.586% |
| 57 | 13.428 | 1033 | 1036 | 1039 | rVV3 | 261100  | 655522  | 5.56%  | 0.739% |
| 58 | 13.485 | 1039 | 1041 | 1042 | rVB  | 347233  | 305363  | 2.59%  | 0.344% |
| 59 | 13.519 | 1042 | 1044 | 1049 | rVB3 | 187132  | 347087  | 2.94%  | 0.391% |
| 60 | 13.634 | 1050 | 1054 | 1055 | rBV  | 2078161 | 3479597 | 29.52% | 3.921% |
| 61 | 13.668 | 1055 | 1057 | 1060 | rVB  | 1840256 | 2251859 | 19.11% | 2.538% |
| 62 | 13.736 | 1060 | 1063 | 1064 | rBV2 | 302654  | 294598  | 2.50%  | 0.332% |
| 63 | 13.771 | 1064 | 1066 | 1069 | rBV2 | 109692  | 202222  | 1.72%  | 0.228% |
| 64 | 13.839 | 1069 | 1072 | 1073 | rBV3 | 148625  | 220292  | 1.87%  | 0.248% |
| 65 | 13.977 | 1080 | 1084 | 1086 | rBV3 | 122672  | 365398  | 3.10%  | 0.412% |
| 66 | 14.022 | 1086 | 1088 | 1089 | rVV  | 436739  | 553245  | 4.69%  | 0.623% |
| 67 | 14.057 | 1089 | 1091 | 1093 | rVV2 | 208788  | 342934  | 2.91%  | 0.386% |
| 68 | 14.114 | 1093 | 1096 | 1097 | rVV3 | 207369  | 373874  | 3.17%  | 0.421% |
| 69 | 14.148 | 1097 | 1099 | 1104 | rVV3 | 289825  | 743901  | 6.31%  | 0.838% |
| 70 | 14.217 | 1104 | 1105 | 1108 | rVB2 | 151663  | 133468  | 1.13%  | 0.150% |
| 71 | 14.319 | 1112 | 1114 | 1115 | rBV  | 150089  | 210183  | 1.78%  | 0.237% |

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Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |        |        |
|----|--------|------|------|------|------|---------|---------|--------|--------|
| 72 | 14.479 | 1126 | 1128 | 1132 | rVB4 | 119264  | 270891  | 2.30%  | 0.305% |
| 73 | 14.628 | 1138 | 1141 | 1145 | rBV  | 1688513 | 3501563 | 29.71% | 3.946% |
| 74 | 14.708 | 1145 | 1148 | 1149 | rVV2 | 435582  | 575487  | 4.88%  | 0.649% |
| 75 | 14.742 | 1149 | 1151 | 1153 | rVB  | 144136  | 209863  | 1.78%  | 0.237% |
| 76 | 14.868 | 1159 | 1162 | 1164 | rVB  | 899775  | 1163102 | 9.87%  | 1.311% |
| 77 | 14.914 | 1164 | 1166 | 1169 | rVB  | 1218972 | 1530546 | 12.99% | 1.725% |
| 78 | 14.959 | 1169 | 1170 | 1172 | rBV  | 407186  | 748558  | 6.35%  | 0.844% |
| 79 | 15.188 | 1189 | 1190 | 1194 | rBV3 | 96646   | 162228  | 1.38%  | 0.183% |
| 80 | 15.382 | 1205 | 1207 | 1208 | rBV2 | 107615  | 136932  | 1.16%  | 0.154% |
| 81 | 15.417 | 1208 | 1210 | 1213 | rVB  | 145370  | 219341  | 1.86%  | 0.247% |
| 82 | 15.782 | 1240 | 1242 | 1245 | rBV4 | 68950   | 132200  | 1.12%  | 0.149% |
| 83 | 15.874 | 1248 | 1250 | 1256 | rVB4 | 124652  | 315298  | 2.68%  | 0.355% |
| 84 | 16.000 | 1257 | 1261 | 1268 | rBV3 | 169247  | 514962  | 4.37%  | 0.580% |
| 85 | 16.137 | 1269 | 1273 | 1276 | rBV2 | 607712  | 1115371 | 9.46%  | 1.257% |
| 86 | 16.274 | 1282 | 1285 | 1287 | rBV  | 127565  | 213202  | 1.81%  | 0.240% |
| 87 | 16.320 | 1287 | 1289 | 1291 | rVV  | 113882  | 181050  | 1.54%  | 0.204% |
| 88 | 16.480 | 1299 | 1303 | 1310 | rVB  | 545046  | 1093610 | 9.28%  | 1.232% |
| 89 | 16.663 | 1316 | 1319 | 1326 | rVB2 | 163801  | 349385  | 2.96%  | 0.394% |
| 90 | 18.240 | 1452 | 1457 | 1463 | rVB  | 149979  | 516577  | 4.38%  | 0.582% |
| 91 | 18.377 | 1465 | 1469 | 1472 | rBV  | 89420   | 282168  | 2.39%  | 0.318% |
| 92 | 19.166 | 1536 | 1538 | 1547 | rVB2 | 100947  | 323652  | 2.75%  | 0.365% |

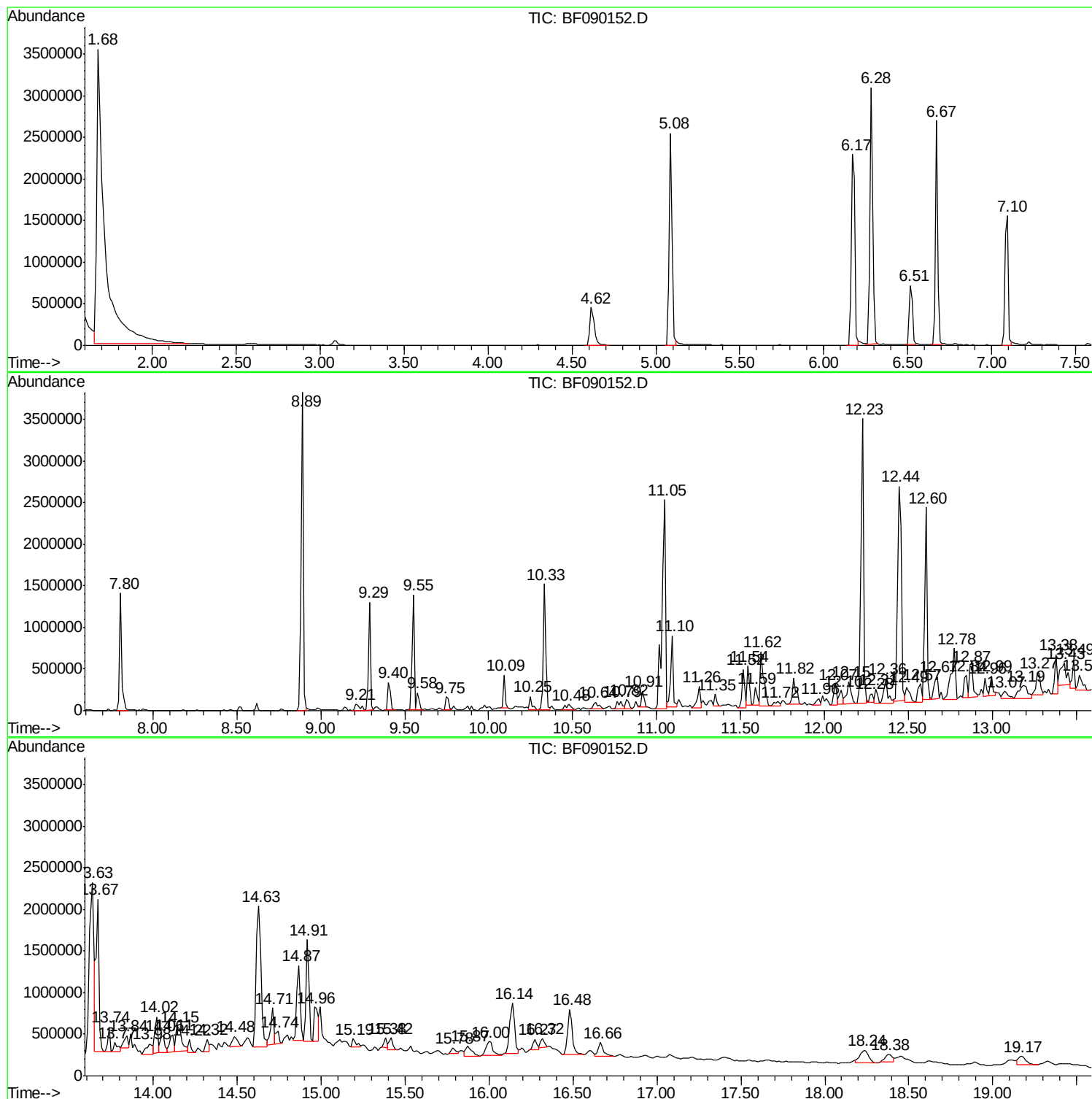
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Instrument :  
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ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



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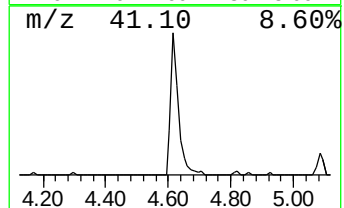
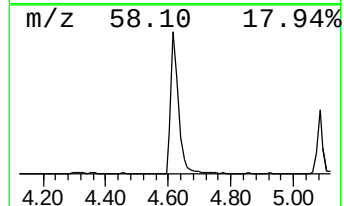
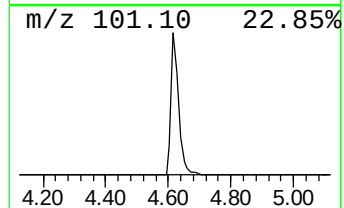
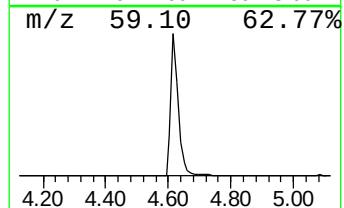
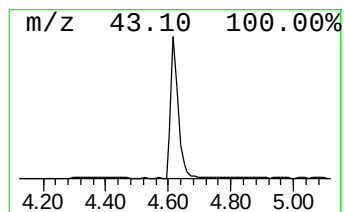
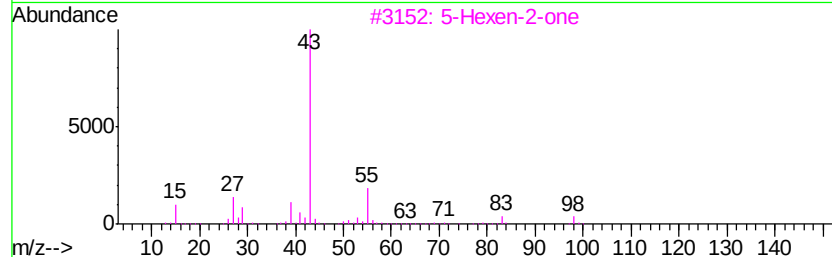
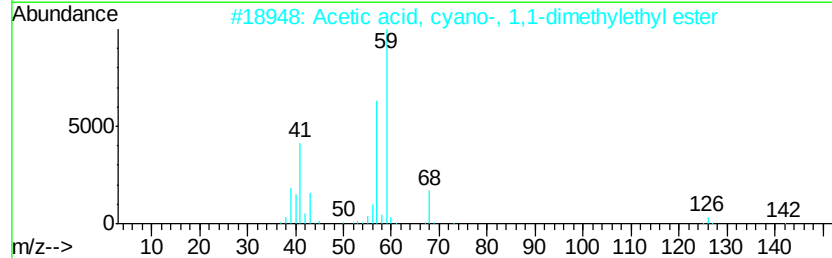
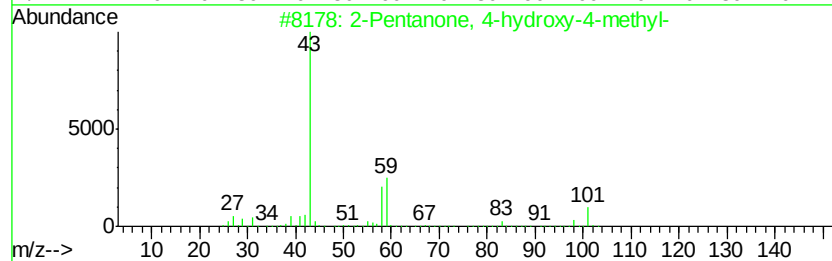
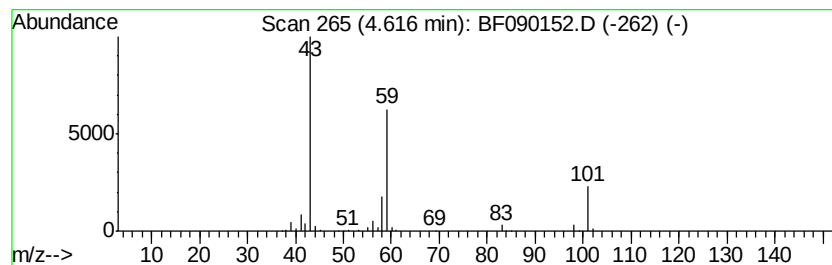
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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

| R.T. | EstConc  | Area   | Relative to ISTD       | R.T. |
|------|----------|--------|------------------------|------|
| 4.62 | 16.21 ng | 736197 | 1,4-Dichlorobenzene-d4 | 6.51 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 2-Pentanone, 4-hydroxy-4-methyl-    | 116 | C6H12O2  | 000123-42-2 | 64   |
| 2    |    | Acetic acid, cyano-, 1,1-dimethy... | 141 | C7H11NO2 | 001116-98-9 | 17   |
| 3    |    | 5-Hexen-2-one                       | 98  | C6H10O   | 000109-49-9 | 9    |
| 4    |    | Acetone                             | 58  | C3H6O    | 000067-64-1 | 9    |
| 5    |    | Guanidine                           | 59  | CH5N3    | 000113-00-8 | 9    |



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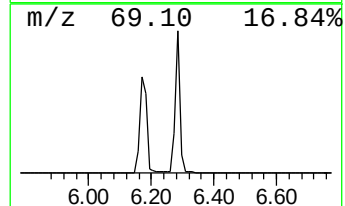
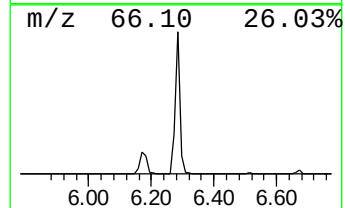
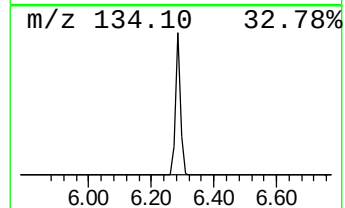
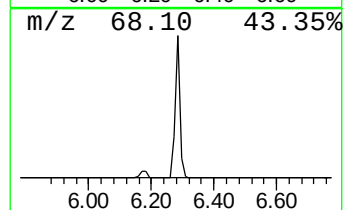
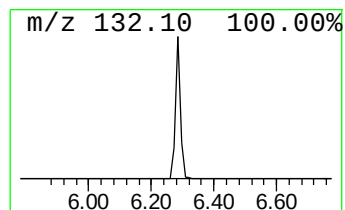
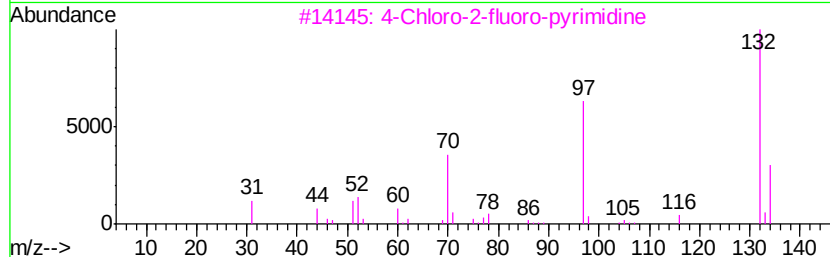
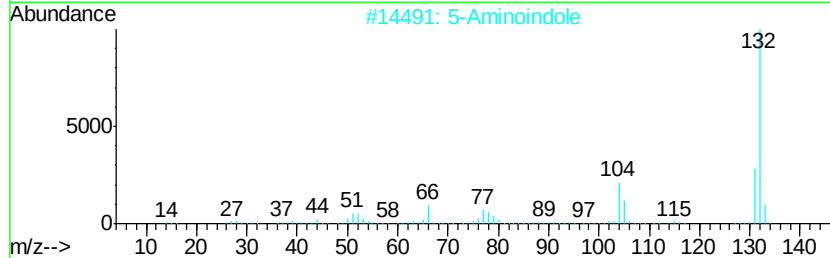
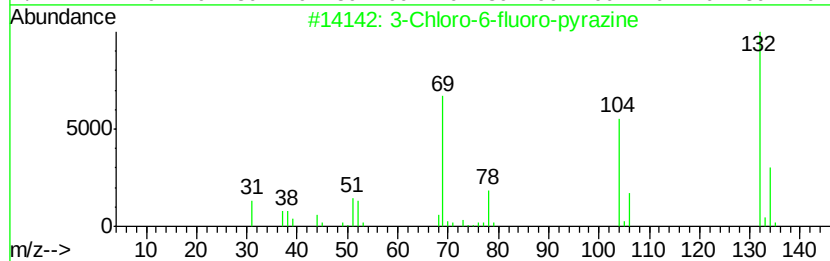
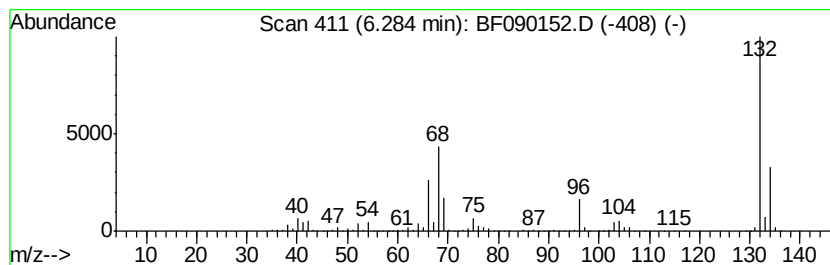
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 3 unknown6.28 Concentration Rank 2

| R.T. | EstConc  | Area    | Relative to ISTD       | R.T. |
|------|----------|---------|------------------------|------|
| 6.28 | 67.82 ng | 3079390 | 1,4-Dichlorobenzene-d4 | 6.51 |

| Hit# | of | Tentative ID                     | MW  | MolForm   | CAS#         | Qual |
|------|----|----------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 3-Chloro-6-fluoro-pyrazine       | 132 | C4H2ClFN2 | 1000146-10-7 | 27   |
| 2    |    | 5-Aminoindole                    | 132 | C8H8N2    | 005192-03-0  | 12   |
| 3    |    | 4-Chloro-2-fluoro-pyrimidine     | 132 | C4H2ClFN2 | 051422-00-5  | 9    |
| 4    |    | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO   | 031357-76-3  | 9    |
| 5    |    | 1-Methylpyrrolo[1,2-a]pyrazine   | 132 | C8H8N2    | 064608-59-9  | 9    |



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ALS Vial : 16 Sample Multiplier: 1

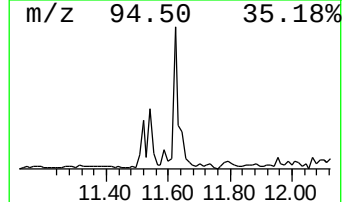
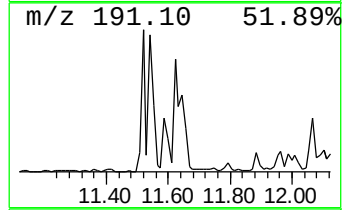
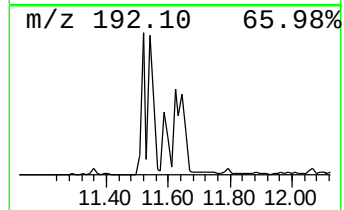
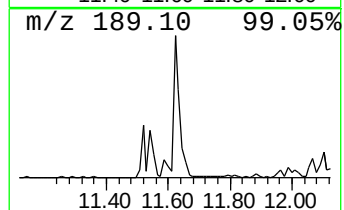
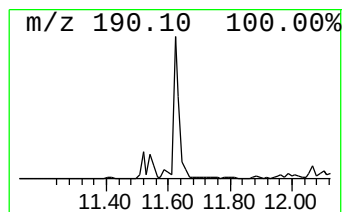
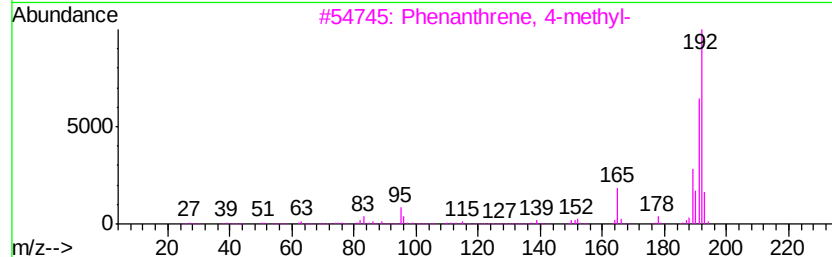
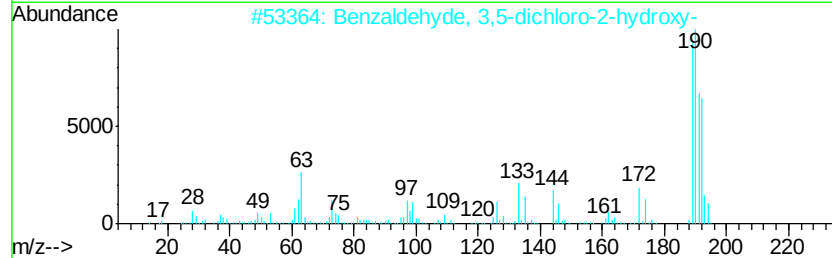
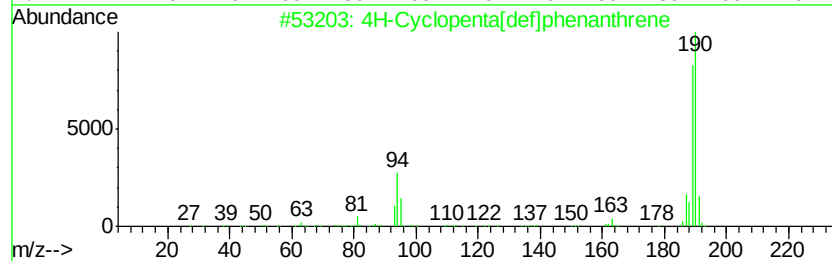
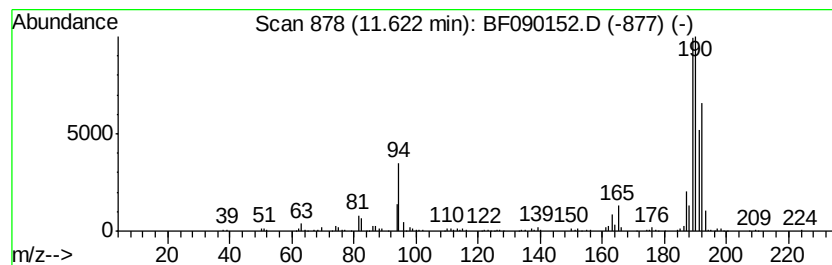
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ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 5 4H-Cyclopenta[def]phenanthrene Concentration Rank 18

| R.T.    | EstConc | Area                                | Relative to ISTD | R.T.      |             |      |
|---------|---------|-------------------------------------|------------------|-----------|-------------|------|
| 11.62   | 5.19 ng | 996006                              | Phenanthrene-d10 | 11.02     |             |      |
| Hit# of | 5       | Tentative ID                        | MW               | MolForm   | CAS#        | Qual |
| 1       |         | 4H-Cyclopenta[def]phenanthrene      | 190              | C15H10    | 000203-64-5 | 64   |
| 2       |         | Benzaldehyde, 3,5-dichloro-2-hyd... | 190              | C7H4Cl2O2 | 000090-60-8 | 64   |
| 3       |         | Phenanthrene, 4-methyl-             | 192              | C15H12    | 000832-64-4 | 35   |
| 4       |         | Anthracene, 2-methyl-               | 192              | C15H12    | 000613-12-7 | 25   |
| 5       |         | Phenanthrene, 2-methyl-             | 192              | C15H12    | 002531-84-2 | 25   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

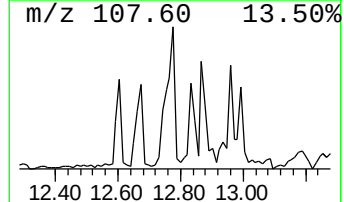
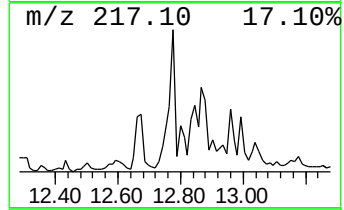
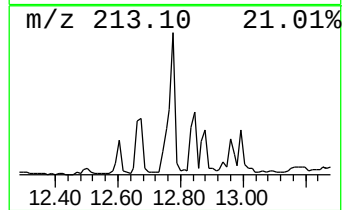
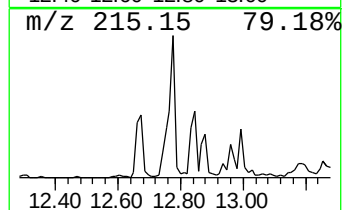
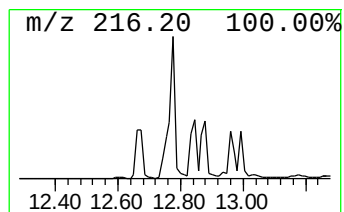
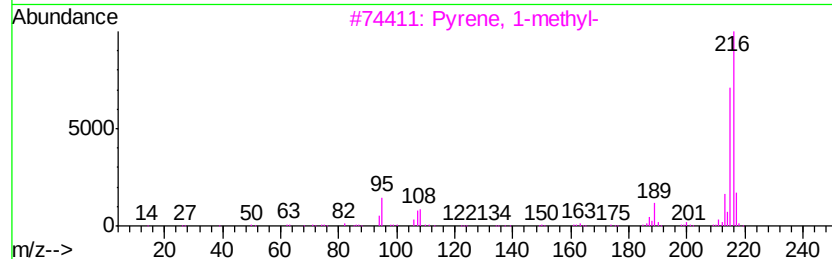
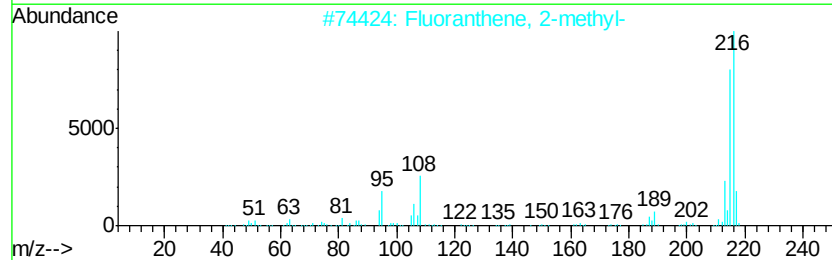
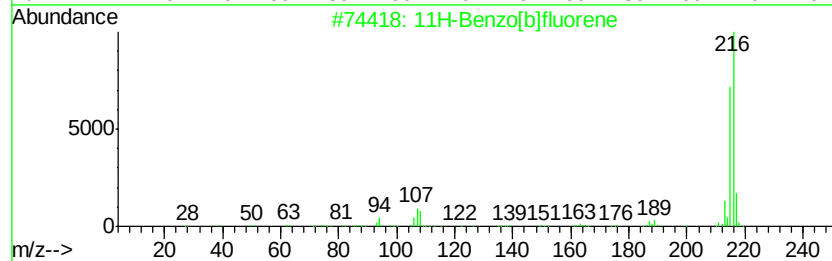
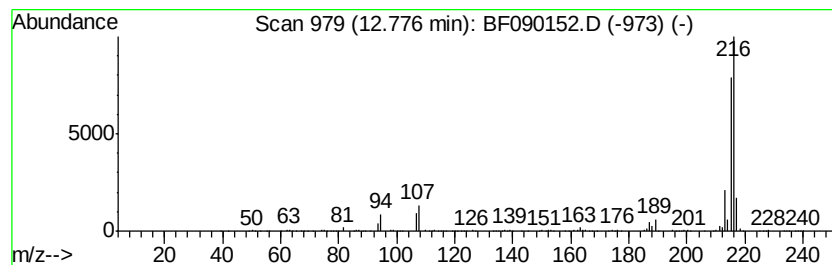
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TIC Integration Parameters: LSCINT.P

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Peak Number 6 11H-Benzo[b]fluorene Concentration Rank 14

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.78 | 5.74 ng | 999329 | Chrysene-d12     | 13.65 |

| Hit# | of | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------|-----|---------|-------------|------|
| 1    | 5  | 11H-Benzo[b]fluorene    | 216 | C17H12  | 000243-17-4 | 96   |
| 2    |    | Fluoranthene, 2-methyl- | 216 | C17H12  | 033543-31-6 | 95   |
| 3    |    | Pyrene, 1-methyl-       | 216 | C17H12  | 002381-21-7 | 93   |
| 4    |    | 11H-Benzo[a]fluorene    | 216 | C17H12  | 000238-84-6 | 91   |
| 5    |    | 7H-Benzo[c]fluorene     | 216 | C17H12  | 000205-12-9 | 81   |





Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

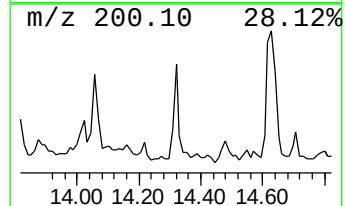
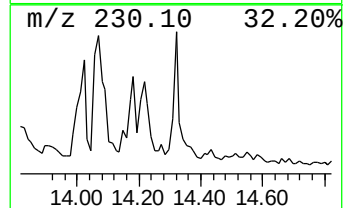
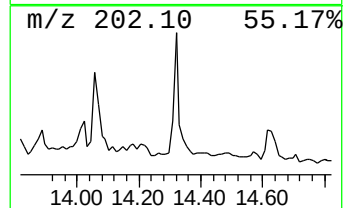
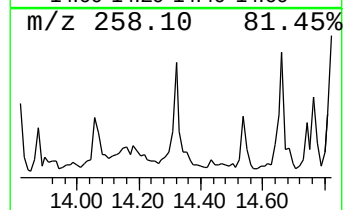
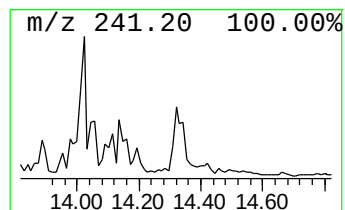
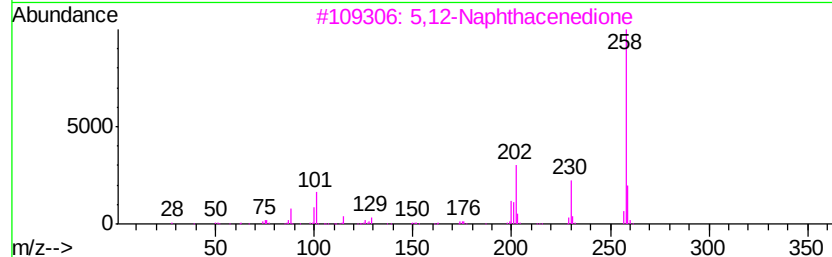
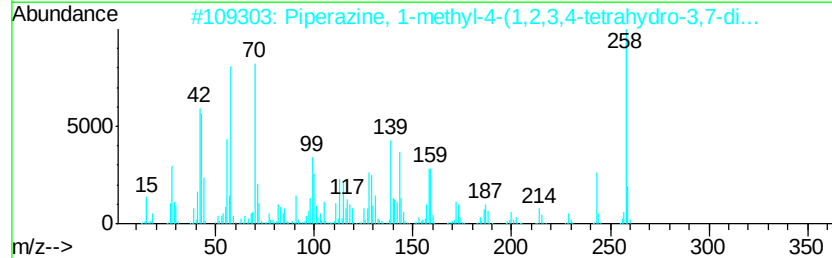
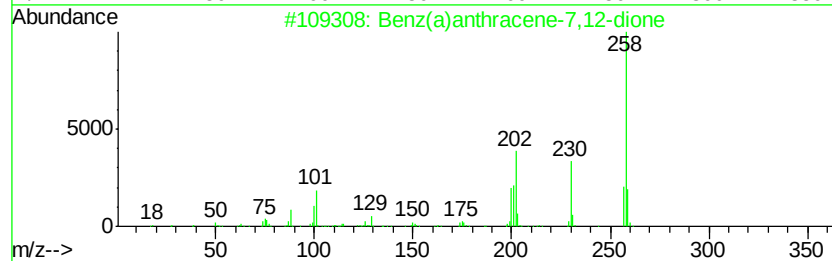
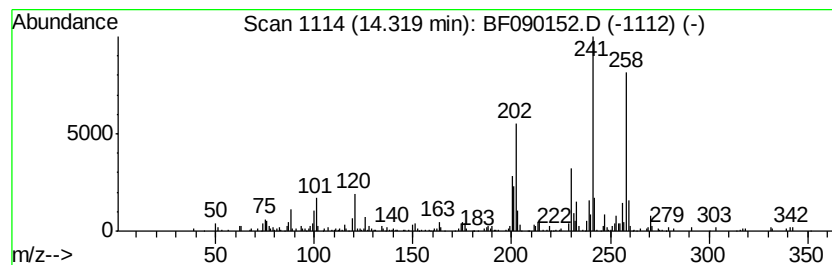
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 7 Benz(a)anthracene-7,12-dione Concentration Rank 16

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 14.32 | 5.62 ng | 210183 | Perylene-d12     | 14.97 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#        | Qual |
|------|----|-------------------------------------|-----|-----------|-------------|------|
| 1    | 5  | Benz(a)anthracene-7,12-dione        | 258 | C18H10O2  | 002498-66-0 | 91   |
| 2    |    | Piperazine, 1-methyl-4-(1,2,3,4-... | 258 | C17H26N2  | 055591-14-5 | 91   |
| 3    |    | 5,12-Naphthacenedione               | 258 | C18H10O2  | 001090-13-7 | 87   |
| 4    |    | 2,4-di(Trifluoromethyl)benzoic acid | 258 | C9H4F6O2  | 032890-87-2 | 43   |
| 5    |    | 1,8-Anthracenedinitrile, 9,10-di... | 258 | C16H6N2O2 | 090866-50-5 | 30   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

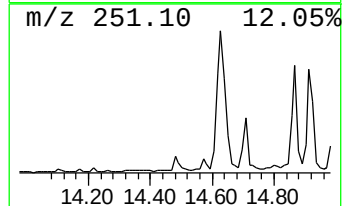
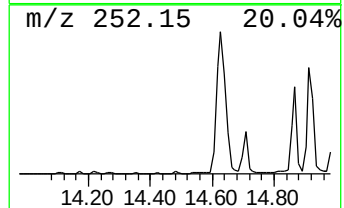
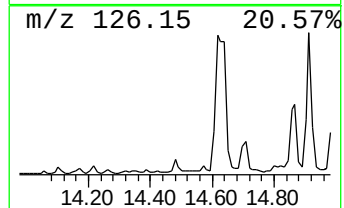
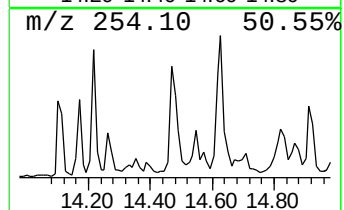
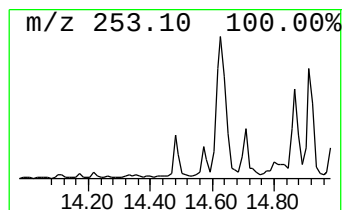
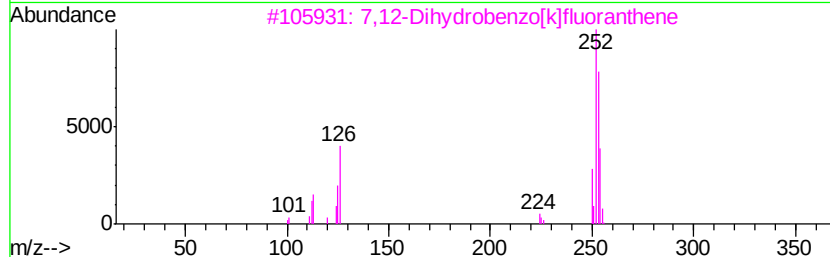
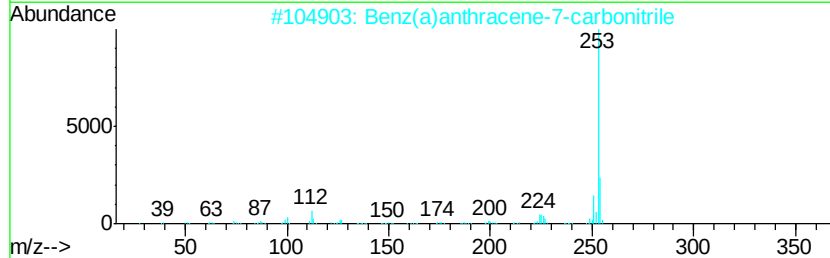
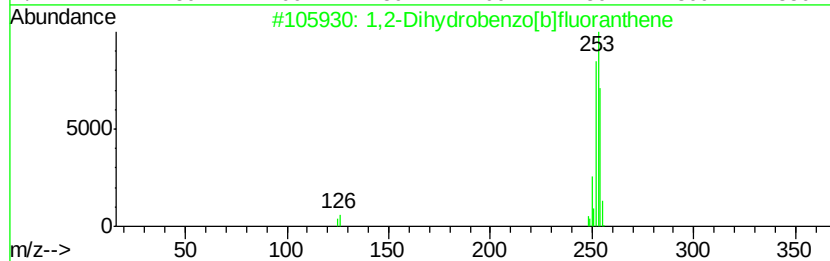
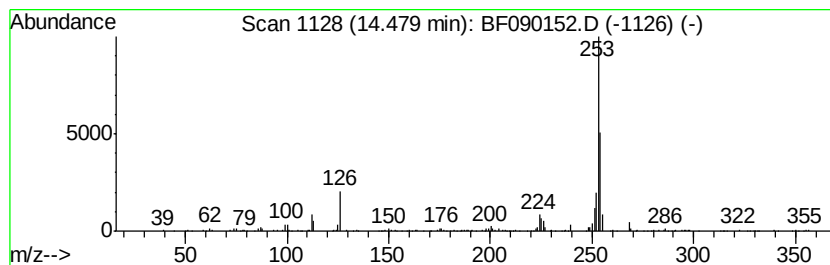
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 8 1,2-Dihydrobenzo[b]fluorant... Concentration Rank 12

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 14.48 | 7.24 ng | 270891 | Perylene-d12     | 14.97 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm     | CAS#         | Qual |
|------|----|---|-------------------------------------|-----|-------------|--------------|------|
| 1    |    |   | 1,2-Dihydrobenzo[b]fluoranthene     | 254 | C20H14      | 100516-13-0  | 64   |
| 2    |    |   | Benz(a)anthracene-7-carbonitrile    | 253 | C19H11N     | 007476-08-6  | 60   |
| 3    |    |   | 7,12-Dihydrobenzo[k]fluoranthene    | 254 | C20H14      | 1000080-17-7 | 53   |
| 4    |    |   | 1H-Pyrrolo[2,3-f]quinolin-9-ol, ... | 254 | C16H18N2O   | 1000303-71-9 | 50   |
| 5    |    |   | Propanephosphonic acid, bis(trim... | 268 | C9H25O3PSi2 | 1000193-07-4 | 47   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

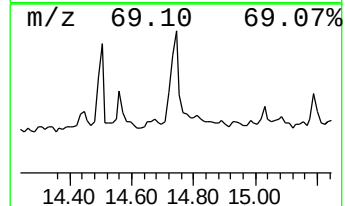
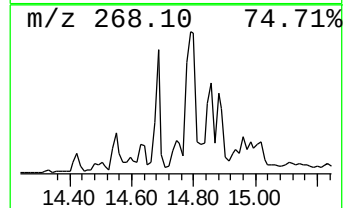
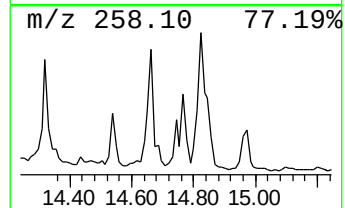
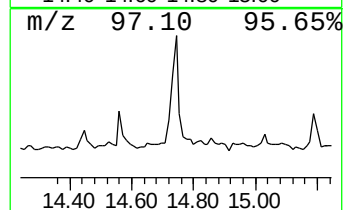
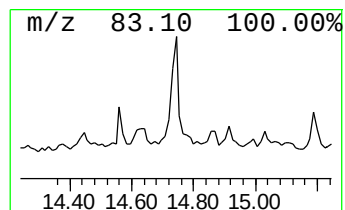
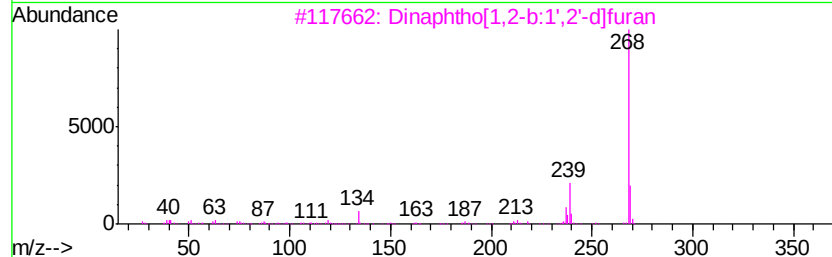
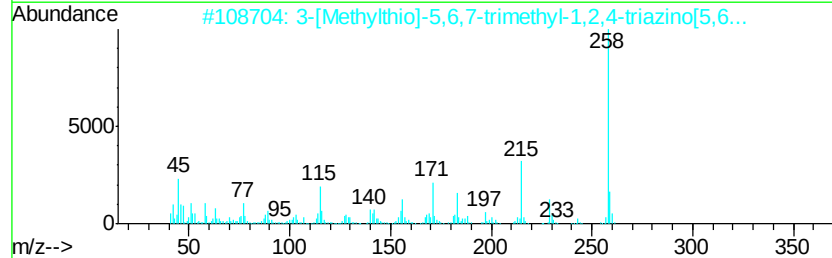
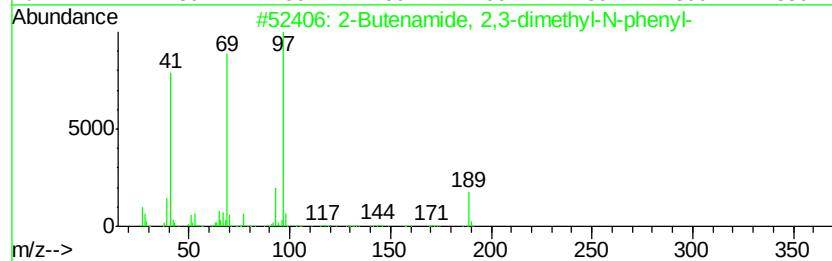
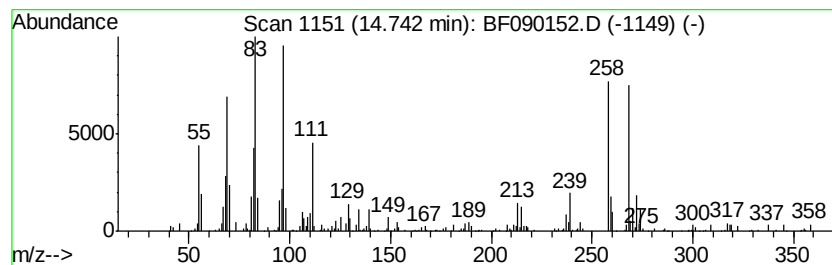
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TIC Integration Parameters: LSCINT.P

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Peak Number 10 unknown14.74 Concentration Rank 17

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 14.74 | 5.61 ng | 209863 | Perylene-d12     | 14.97 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|---|-------------------------------------|-----|-----------|--------------|------|
| 1    |    |   | 2-Butenamide, 2,3-dimethyl-N-phe... | 189 | C12H15NO  | 024735-54-4  | 11   |
| 2    |    |   | 3-[Methylthio]-5,6,7-trimethyl-1... | 258 | C13H14N4S | 076273-38-6  | 11   |
| 3    |    |   | Dinaphtho[1,2-b:1',2'-d]furan       | 268 | C20H12O   | 000207-93-2  | 11   |
| 4    |    |   | 9H-Xanthen-9-one, 1,3,6-trihydro... | 258 | C14H10O5  | 020716-98-7  | 11   |
| 5    |    |   | 2-(1-Methyl-1H-indol-3-yl)quinoline | 258 | C18H14N2  | 1000326-83-7 | 10   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

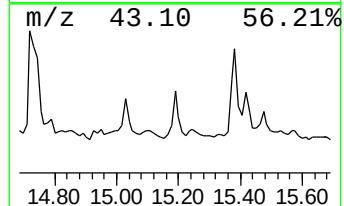
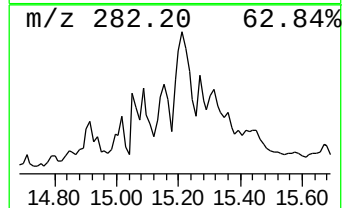
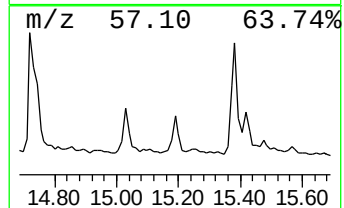
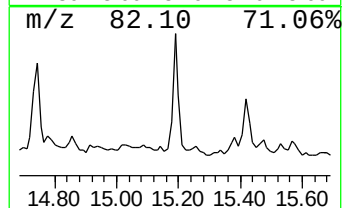
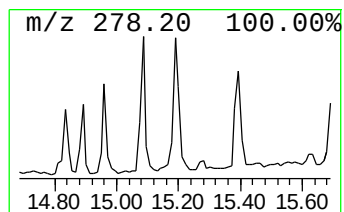
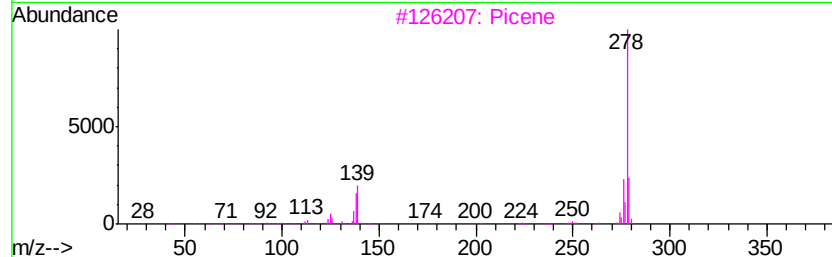
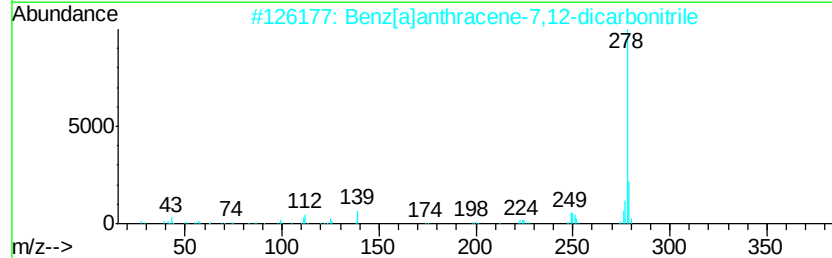
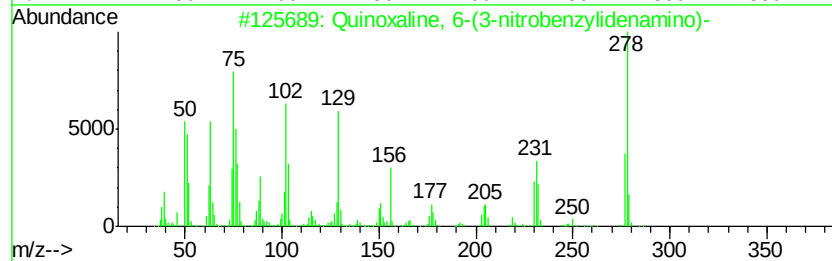
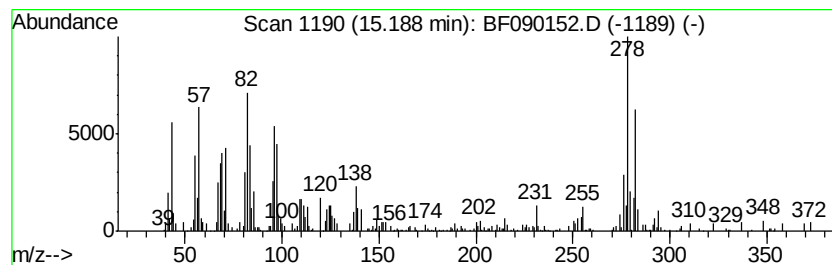
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BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 11 Quinoxaline, 6-(3-nitrobenz... Concentration Rank 20

| R.T.    | EstConc                               | Area         | Relative to ISTD | R.T.        |      |      |
|---------|---------------------------------------|--------------|------------------|-------------|------|------|
| 15.19   | 4.33 ng                               | 162228       | Perylene-d12     | 14.97       |      |      |
| Hit# of | 5                                     | Tentative ID | MW               | MolForm     | CAS# | Qual |
| 1       | Quinoxaline, 6-(3-nitrobenzylidene... | 278          | C15H10N4O2       | 302800-55-1 | 60   |      |
| 2       | Benz[a]anthracene-7,12-dicarboni...   | 278          | C20H10N2         | 035215-32-8 | 42   |      |
| 3       | Picene                                | 278          | C22H14           | 000213-46-7 | 38   |      |
| 4       | Pentacene                             | 278          | C22H14           | 000135-48-8 | 30   |      |
| 5       | Benzo[b]triphenylene                  | 278          | C22H14           | 000215-58-7 | 27   |      |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

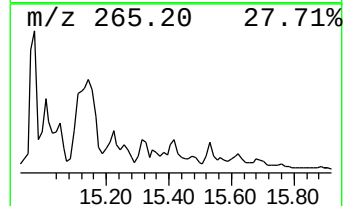
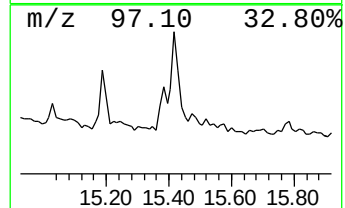
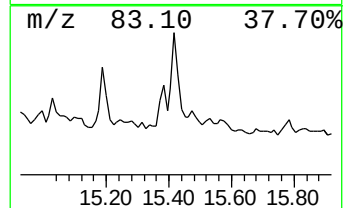
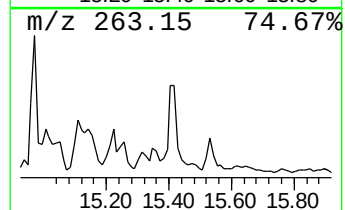
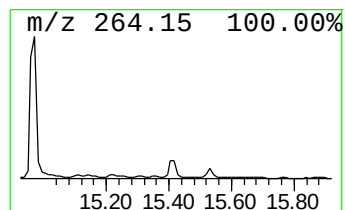
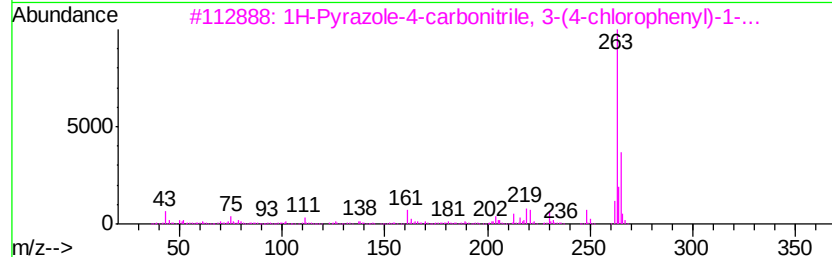
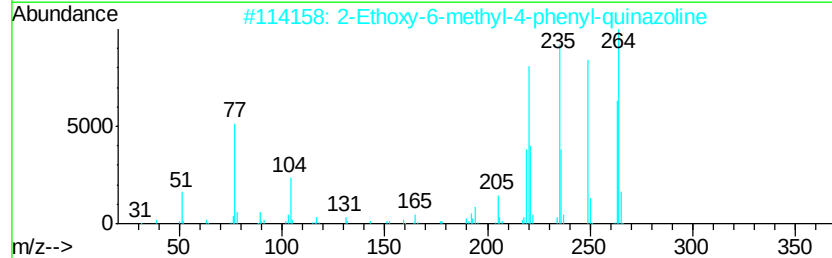
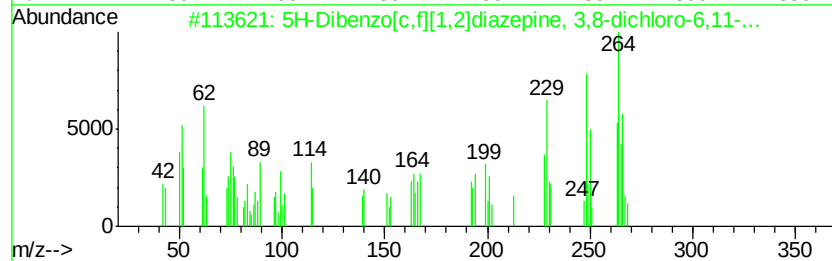
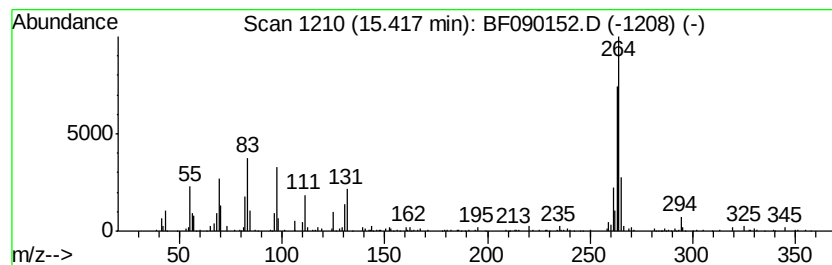
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 12 unknown15.42 Concentration Rank 13

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 15.42 | 5.86 ng | 219341 | Perylene-d12     | 14.97 |

| Hit# | of | Tentative ID                        | MW  | MolForm     | CAS#         | Qual |
|------|----|-------------------------------------|-----|-------------|--------------|------|
| 1    | 5  | 5H-Dibenzo[c,f][1,2]diazepine, 3... | 264 | C13H10Cl2N2 | 000955-66-8  | 47   |
| 2    |    | 2-Ethoxy-6-methyl-4-phenyl-quina... | 264 | C17H16N2O   | 1000318-42-5 | 35   |
| 3    |    | 1H-Pyrazole-4-carbonitrile, 3-(4... | 263 | C12H10ClN3S | 068364-67-0  | 25   |
| 4    |    | 2,5-Bis(4-hydroxyphenyl)pyrimidine  | 264 | C16H12N2O2  | 159488-83-2  | 25   |
| 5    |    | 2-[2-Quinoliny]lmethylenequinucl... | 264 | C17H16N2O   | 1000257-08-0 | 25   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

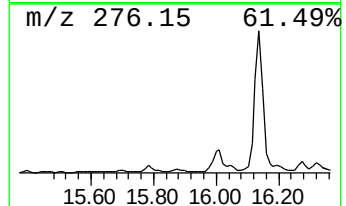
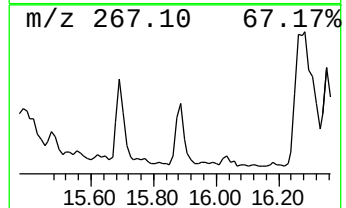
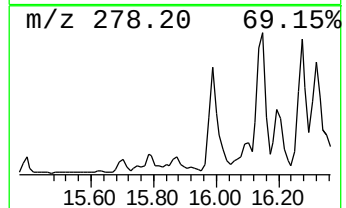
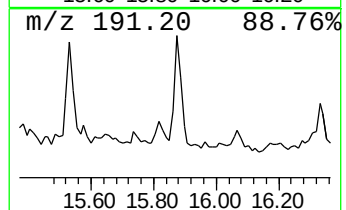
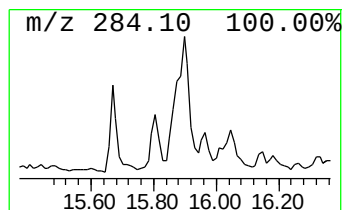
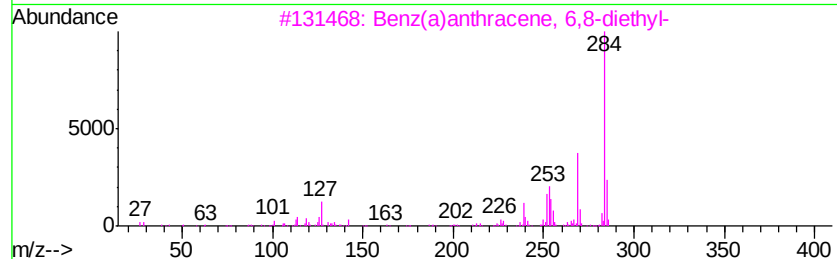
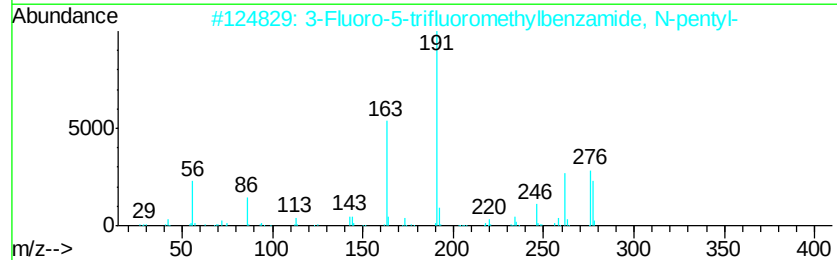
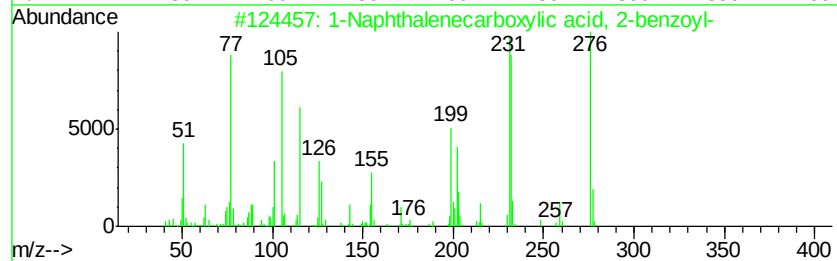
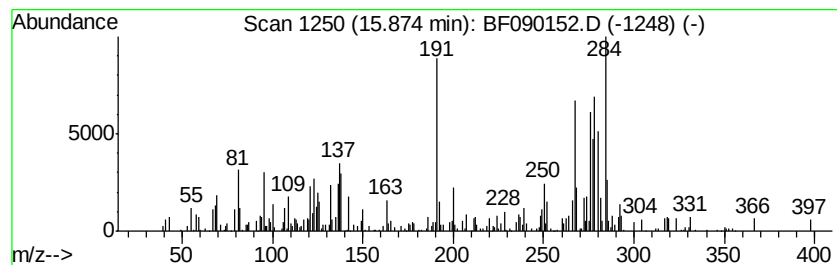
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 13 1-Naphthalenecarboxylic aci... Concentration Rank 10

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 15.87 | 8.42 ng | 315298 | Perylene-d12     | 14.97 |

| Hit# | of | Tentative ID                        | MW  | MolForm    | CAS#         | Qual |
|------|----|-------------------------------------|-----|------------|--------------|------|
| 1    | 5  | 1-Naphthalenecarboxylic acid, 2-... | 276 | C18H12O3   | 038119-11-8  | 59   |
| 2    |    | 3-Fluoro-5-trifluoromethylbenzam... | 277 | C13H15F4NO | 1000358-14-1 | 30   |
| 3    |    | Benz(a)anthracene, 6,8-diethyl-     | 284 | C22H20     | 036911-94-1  | 25   |
| 4    |    | (1,1'-Binaphthalene)-2,2'-diamine   | 284 | C20H16N2   | 004488-22-6  | 25   |
| 5    |    | Dinaphtho[1,2-b:1',2'-d]thiophene   | 284 | C20H12S    | 000207-94-3  | 25   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

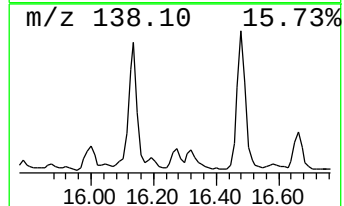
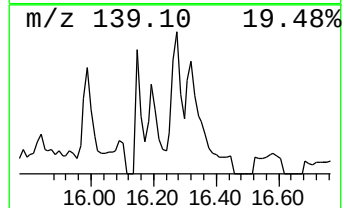
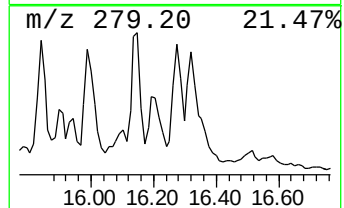
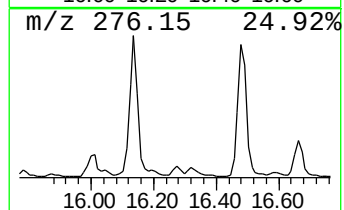
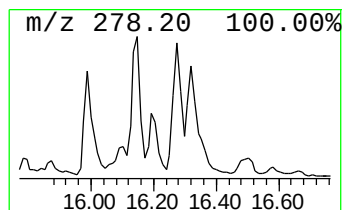
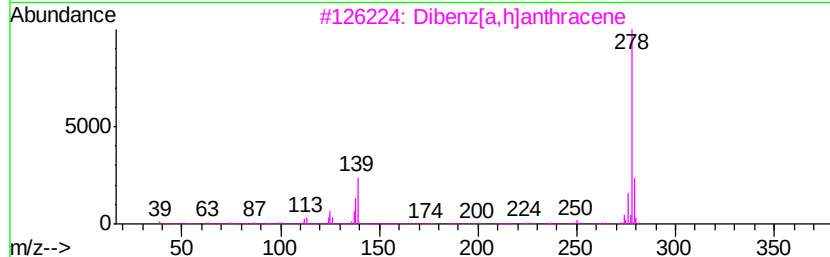
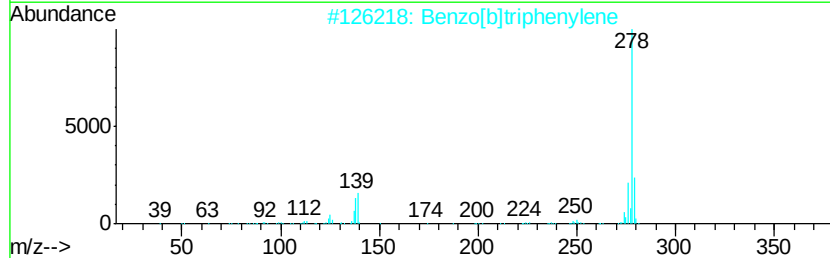
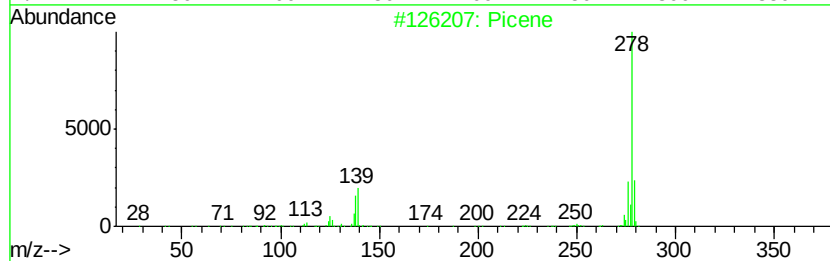
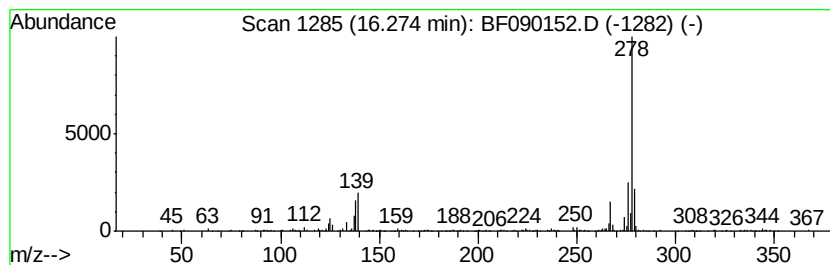
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 15 Picene Concentration Rank 15

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 16.27 | 5.70 ng | 213202 | Perylene-d12     | 14.97 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Picene                      | 278 | C22H14  | 000213-46-7 | 98   |
| 2    |    | Benzo[b]triphenylene        | 278 | C22H14  | 000215-58-7 | 97   |
| 3    |    | Dibenz[a,h]anthracene       | 278 | C22H14  | 000053-70-3 | 96   |
| 4    |    | Pentacene                   | 278 | C22H14  | 000135-48-8 | 93   |
| 5    |    | p-Bis(phenylethynyl)benzene | 278 | C22H14  | 001849-27-0 | 93   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

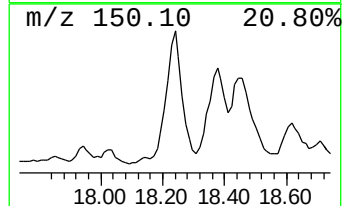
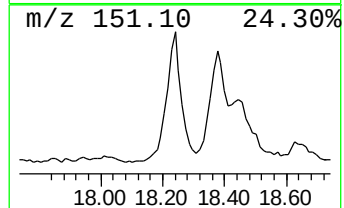
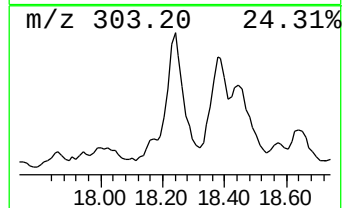
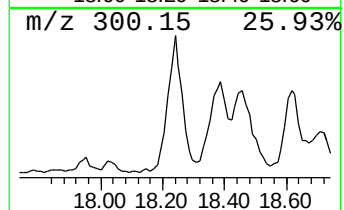
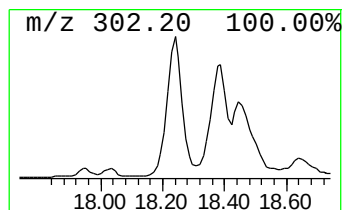
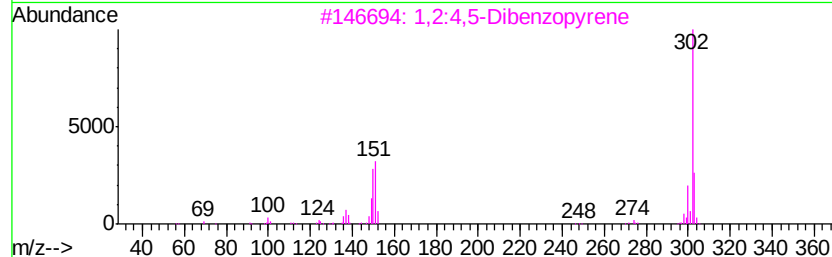
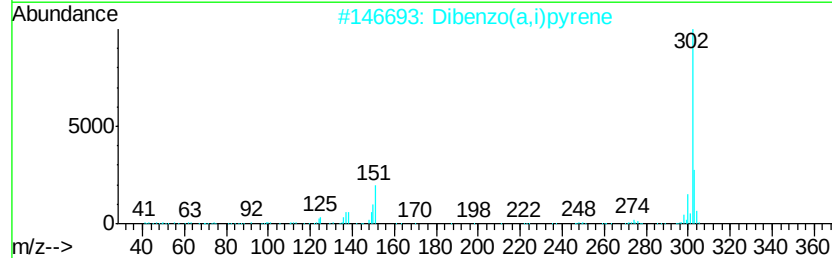
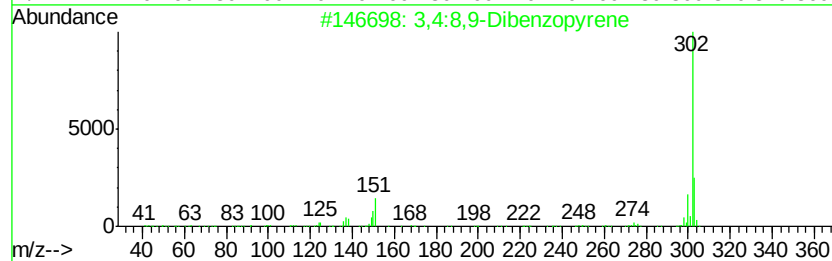
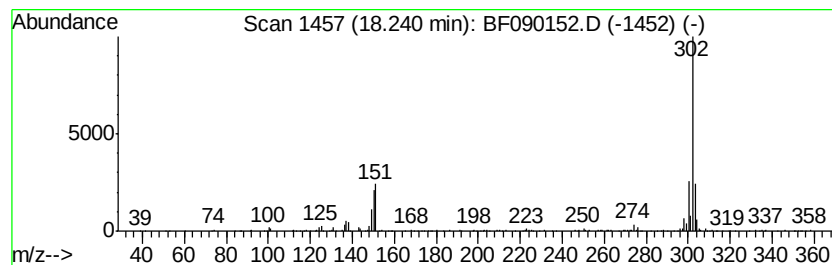
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 18 3,4:8,9-Dibenzopyrene Concentration Rank 6

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 18.24 | 13.80 ng | 516577 | Perylene-d12     | 14.97 |

| Hit# | of | Tentative ID             | MW  | MolForm | CAS#        | Qual |
|------|----|--------------------------|-----|---------|-------------|------|
| 1    | 5  | 3,4:8,9-Dibenzopyrene    | 302 | C24H14  | 000189-64-0 | 98   |
| 2    |    | Dibenzo(a,i)pyrene       | 302 | C24H14  | 000189-55-9 | 96   |
| 3    |    | 1,2:4,5-Dibenzopyrene    | 302 | C24H14  | 000192-65-4 | 95   |
| 4    |    | Dibenz(a,e)aceanthrylene | 302 | C24H14  | 005385-75-1 | 91   |
| 5    |    | 1,2,9,10-Dibenzopyrene   | 302 | C24H14  | 000191-30-0 | 86   |





Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
Data File : BF090152.D  
Acq On : 20 Sep 2016 23:49  
Operator : UM/SJ  
Sample : H4850-05  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

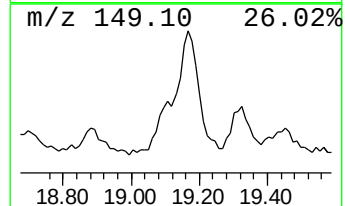
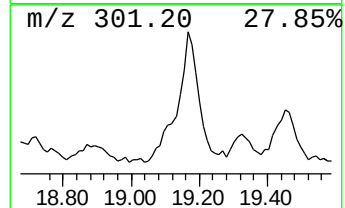
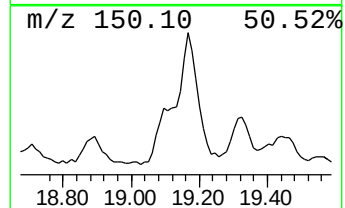
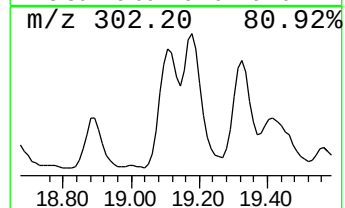
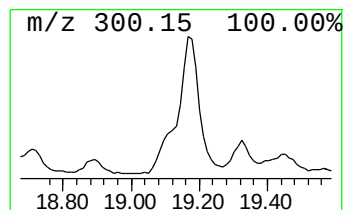
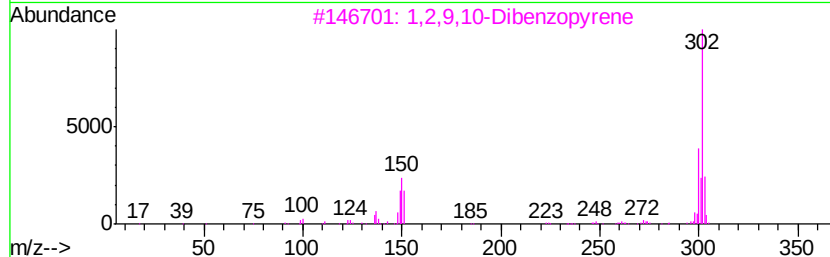
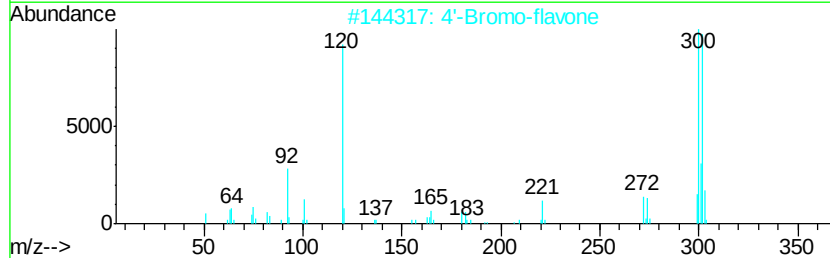
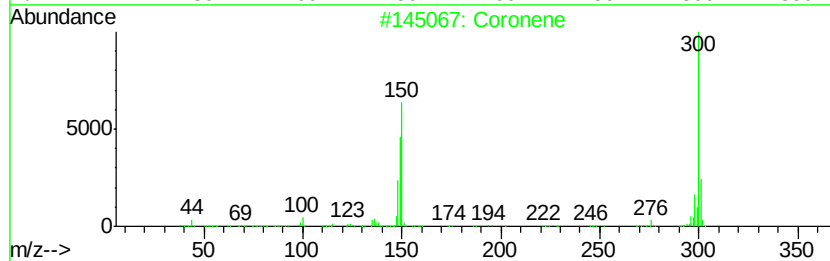
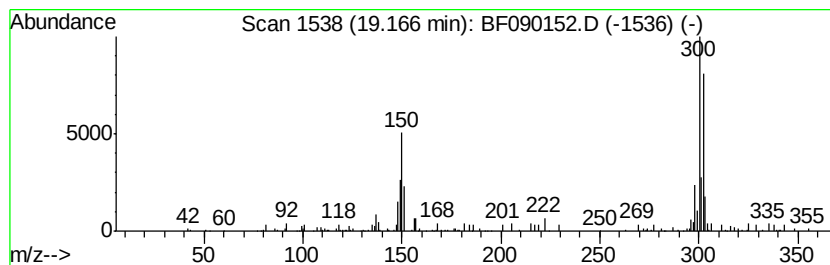
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 20 Coronene Concentration Rank 9

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 19.17 | 8.65 ng | 323652 | Perylene-d12     | 14.97 |

| Hit# | of | Tentative ID           | MW  | MolForm   | CAS#        | Qual |
|------|----|------------------------|-----|-----------|-------------|------|
| 1    | 5  | Coronene               | 300 | C24H12    | 000191-07-1 | 70   |
| 2    |    | 4'-Bromo-flavone       | 300 | C15H9BrO2 | 020525-20-6 | 47   |
| 3    |    | 1,2,9,10-Dibenzopyrene | 302 | C24H14    | 000191-30-0 | 43   |
| 4    |    | Coronene, 1,2-dihydro- | 302 | C24H14    | 107716-56-3 | 43   |
| 5    |    | 3,4:8,9-Dibenzopyrene  | 302 | C24H14    | 000189-64-0 | 41   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF092016\  
 Data File : BF090152.D  
 Acq On : 20 Sep 2016 23:49  
 Operator : UM/SJ  
 Sample : H4850-05  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 FHSW-04-SOUTHSIDE

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092016.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

| TIC Top Hit name     | RT    | EstConc | Units | Response | --Internal Standard-- |       |         |      |
|----------------------|-------|---------|-------|----------|-----------------------|-------|---------|------|
|                      |       |         |       |          | #                     | RT    | Resp    | Conc |
| 2-Pentanone, 4-hy... | 4.62  | 16.2    | ng    | 736197   | 1                     | 6.51  | 908143  | 20.0 |
| unknown6.28          | 6.28  | 67.8    | ng    | 3079390  | 1                     | 6.51  | 908143  | 20.0 |
| 4H-Cyclopenta[def... | 11.62 | 5.2     | ng    | 996006   | 4                     | 11.02 | 3837840 | 20.0 |
| 11H-Benzo[b]fluorene | 12.78 | 5.7     | ng    | 999329   | 5                     | 13.65 | 3479600 | 20.0 |
| Benz(a)anthracene... | 14.32 | 5.6     | ng    | 210183   | 6                     | 14.97 | 748558  | 20.0 |
| 1,2-Dihydrobenzo[... | 14.48 | 7.2     | ng    | 270891   | 6                     | 14.97 | 748558  | 20.0 |
| unknown14.74         | 14.74 | 5.6     | ng    | 209863   | 6                     | 14.97 | 748558  | 20.0 |
| Quinoxaline, 6-(3... | 15.19 | 4.3     | ng    | 162228   | 6                     | 14.97 | 748558  | 20.0 |
| unknown15.42         | 15.42 | 5.9     | ng    | 219341   | 6                     | 14.97 | 748558  | 20.0 |
| 1-Naphthalenecarb... | 15.87 | 8.4     | ng    | 315298   | 6                     | 14.97 | 748558  | 20.0 |
| Picene               | 16.27 | 5.7     | ng    | 213202   | 6                     | 14.97 | 748558  | 20.0 |
| 3,4:8,9-Dibenzopy... | 18.24 | 13.8    | ng    | 516577   | 6                     | 14.97 | 748558  | 20.0 |
| Coronene             | 19.17 | 8.7     | ng    | 323652   | 6                     | 14.97 | 748558  | 20.0 |