

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
 Data File : BF079638.D  
 Acq On : 31 May 2015 17:41  
 Operator : TP/IZ  
 Sample : G2408-18 2X  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-18S

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-BF052615.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         | 1.541       | 29            | 31          | 38           | rVV      | 164464         | 358549        | 3.52%           | 0.241%        |
| 2         | 1.633       | 38            | 39          | 66           | rVB      | 3129180        | 6770954       | 66.54%          | 4.548%        |
| 3         | 5.164       | 346           | 348         | 359          | rBV      | 383047         | 677530        | 6.66%           | 0.455%        |
| 4         | 6.502       | 463           | 465         | 473          | rBV      | 673687         | 707136        | 6.95%           | 0.475%        |
| 5         | 6.616       | 473           | 475         | 478          | rBV      | 739358         | 769052        | 7.56%           | 0.517%        |
| 6         | 6.902       | 498           | 500         | 503          | rBV      | 320480         | 337043        | 3.31%           | 0.226%        |
| 7         | 7.084       | 514           | 516         | 519          | rBV      | 489682         | 592458        | 5.82%           | 0.398%        |
| 8         | 7.610       | 560           | 562         | 564          | rBV      | 367561         | 438047        | 4.30%           | 0.294%        |
| 9         | 8.479       | 636           | 638         | 640          | rBV      | 457827         | 593412        | 5.83%           | 0.399%        |
| 10        | 9.828       | 754           | 756         | 759          | rVB      | 966299         | 955749        | 9.39%           | 0.642%        |
| 11        | 10.468      | 810           | 812         | 815          | rBV      | 322913         | 466706        | 4.59%           | 0.314%        |
| 12        | 10.651      | 825           | 828         | 829          | rBV      | 565074         | 634185        | 6.23%           | 0.426%        |
| 13        | 10.685      | 829           | 831         | 833          | rVB      | 745765         | 669900        | 6.58%           | 0.450%        |
| 14        | 10.902      | 848           | 850         | 853          | rVB2     | 465299         | 507537        | 4.99%           | 0.341%        |
| 15        | 11.325      | 885           | 887         | 890          | rVB      | 797911         | 731242        | 7.19%           | 0.491%        |
| 16        | 11.405      | 890           | 894         | 895          | rBV      | 182582         | 329876        | 3.24%           | 0.222%        |
| 17        | 11.531      | 903           | 905         | 908          | rVB2     | 295160         | 370544        | 3.64%           | 0.249%        |
| 18        | 11.622      | 911           | 913         | 916          | rVV      | 665833         | 1026948       | 10.09%          | 0.690%        |
| 19        | 12.011      | 944           | 947         | 948          | rBV2     | 245522         | 376934        | 3.70%           | 0.253%        |
| 20        | 12.182      | 960           | 962         | 967          | rBV4     | 214365         | 608382        | 5.98%           | 0.409%        |
| 21        | 12.308      | 971           | 973         | 975          | rBV      | 281276         | 400835        | 3.94%           | 0.269%        |
| 22        | 12.354      | 975           | 977         | 979          | rVB      | 361681         | 370451        | 3.64%           | 0.249%        |
| 23        | 12.525      | 986           | 992         | 994          | rBV      | 4229091        | 7128181       | 70.05%          | 4.788%        |
| 24        | 12.582      | 994           | 997         | 999          | rVB      | 1780424        | 2279313       | 22.40%          | 1.531%        |
| 25        | 12.639      | 999           | 1002        | 1004         | rBV2     | 196277         | 338290        | 3.32%           | 0.227%        |
| 26        | 12.788      | 1013          | 1015        | 1017         | rBV      | 472211         | 536012        | 5.27%           | 0.360%        |
| 27        | 13.108      | 1041          | 1043        | 1045         | rBV      | 1131053        | 1304332       | 12.82%          | 0.876%        |
| 28        | 13.142      | 1045          | 1046        | 1049         | rVB      | 1397649        | 1543354       | 15.17%          | 1.037%        |
| 29        | 13.199      | 1049          | 1051        | 1053         | rBV      | 671732         | 867880        | 8.53%           | 0.583%        |
| 30        | 13.245      | 1053          | 1055        | 1056         | rBV      | 1685390        | 2233423       | 21.95%          | 1.500%        |
| 31        | 13.268      | 1056          | 1057        | 1060         | rVB      | 748267         | 1021874       | 10.04%          | 0.686%        |
| 32        | 13.485      | 1074          | 1076        | 1078         | rBV      | 880345         | 943787        | 9.27%           | 0.634%        |
| 33        | 13.519      | 1078          | 1079        | 1081         | rVB      | 539580         | 414451        | 4.07%           | 0.278%        |
| 34        | 13.668      | 1088          | 1092        | 1094         | rBV      | 345679         | 615747        | 6.05%           | 0.414%        |

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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-BF052615.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |          |         |        |
|----|--------|------|------|------|------|---------|----------|---------|--------|
| 35 | 13.794 | 1100 | 1103 | 1105 | rBV  | 824613  | 1193160  | 11.73%  | 0.801% |
| 36 | 13.839 | 1105 | 1107 | 1108 | rBV  | 412876  | 531507   | 5.22%   | 0.357% |
| 37 | 13.908 | 1111 | 1113 | 1117 | rVB3 | 656525  | 1154485  | 11.35%  | 0.776% |
| 38 | 13.999 | 1117 | 1121 | 1125 | rBV  | 5397077 | 8684241  | 85.34%  | 5.833% |
| 39 | 14.068 | 1125 | 1127 | 1129 | rBV  | 414363  | 525156   | 5.16%   | 0.353% |
| 40 | 14.102 | 1129 | 1130 | 1133 | rVB  | 335194  | 359760   | 3.54%   | 0.242% |
| 41 | 14.171 | 1133 | 1136 | 1138 | rBV3 | 475302  | 858203   | 8.43%   | 0.576% |
| 42 | 14.274 | 1141 | 1145 | 1147 | rBV2 | 5219866 | 10176050 | 100.00% | 6.836% |
| 43 | 14.331 | 1147 | 1150 | 1152 | rVV  | 372983  | 403897   | 3.97%   | 0.271% |
| 44 | 14.422 | 1156 | 1158 | 1160 | rBV  | 668132  | 740986   | 7.28%   | 0.498% |
| 45 | 14.480 | 1160 | 1163 | 1165 | rVB2 | 1053530 | 1574404  | 15.47%  | 1.058% |
| 46 | 14.548 | 1165 | 1169 | 1171 | rBV2 | 671102  | 1263007  | 12.41%  | 0.848% |
| 47 | 14.651 | 1175 | 1178 | 1179 | rBV2 | 656981  | 1105299  | 10.86%  | 0.742% |
| 48 | 14.685 | 1179 | 1181 | 1183 | rVB  | 1135125 | 1431947  | 14.07%  | 0.962% |
| 49 | 14.765 | 1183 | 1188 | 1190 | rBV  | 755279  | 1254130  | 12.32%  | 0.842% |
| 50 | 14.811 | 1190 | 1192 | 1193 | rBV  | 1194897 | 1512407  | 14.86%  | 1.016% |
| 51 | 14.914 | 1200 | 1201 | 1203 | rVB  | 677339  | 780959   | 7.67%   | 0.525% |
| 52 | 14.960 | 1203 | 1205 | 1207 | rBV  | 656414  | 802072   | 7.88%   | 0.539% |
| 53 | 15.188 | 1220 | 1225 | 1226 | rBV4 | 175369  | 483682   | 4.75%   | 0.325% |
| 54 | 15.314 | 1232 | 1236 | 1239 | rVB2 | 819487  | 1181757  | 11.61%  | 0.794% |
| 55 | 15.451 | 1245 | 1248 | 1249 | rBV  | 779354  | 1141547  | 11.22%  | 0.767% |
| 56 | 15.485 | 1249 | 1251 | 1254 | rVV2 | 1020297 | 2086614  | 20.51%  | 1.402% |
| 57 | 15.531 | 1254 | 1255 | 1258 | rVV2 | 500199  | 702122   | 6.90%   | 0.472% |
| 58 | 15.588 | 1258 | 1260 | 1262 | rVB  | 787674  | 1013902  | 9.96%   | 0.681% |
| 59 | 15.657 | 1262 | 1266 | 1270 | rVB3 | 313014  | 683442   | 6.72%   | 0.459% |
| 60 | 15.760 | 1270 | 1275 | 1277 | rBV  | 3642383 | 7531223  | 74.01%  | 5.059% |
| 61 | 15.805 | 1277 | 1279 | 1283 | rVV  | 3467805 | 5942813  | 58.40%  | 3.992% |
| 62 | 15.897 | 1283 | 1287 | 1289 | rVV  | 867981  | 1060745  | 10.42%  | 0.713% |
| 63 | 15.954 | 1289 | 1292 | 1293 | rVV2 | 214202  | 363713   | 3.57%   | 0.244% |
| 64 | 15.988 | 1293 | 1295 | 1297 | rVV3 | 232526  | 526302   | 5.17%   | 0.354% |
| 65 | 16.023 | 1297 | 1298 | 1300 | rVB  | 557162  | 594891   | 5.85%   | 0.400% |
| 66 | 16.068 | 1300 | 1302 | 1309 | rVB3 | 558378  | 993126   | 9.76%   | 0.667% |
| 67 | 16.217 | 1313 | 1315 | 1316 | rBV  | 426984  | 488428   | 4.80%   | 0.328% |
| 68 | 16.263 | 1316 | 1319 | 1321 | rVV  | 1059941 | 1606342  | 15.79%  | 1.079% |
| 69 | 16.308 | 1321 | 1323 | 1325 | rVV  | 591726  | 705323   | 6.93%   | 0.474% |
| 70 | 16.388 | 1327 | 1330 | 1331 | rVV  | 470854  | 744280   | 7.31%   | 0.500% |
| 71 | 16.423 | 1331 | 1333 | 1336 | rVV2 | 409627  | 917246   | 9.01%   | 0.616% |

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Integration Parameters: rteint.p  
 Integrator: RTE  
 Smoothing : ON  
 Sampling : 1  
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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 >  
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Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|     |        |      |      |      |      |         |         |        |        |
|-----|--------|------|------|------|------|---------|---------|--------|--------|
| 72  | 16.480 | 1336 | 1338 | 1340 | rVV2 | 274782  | 402879  | 3.96%  | 0.271% |
| 73  | 16.525 | 1340 | 1342 | 1346 | rVB  | 381964  | 522517  | 5.13%  | 0.351% |
| 74  | 16.674 | 1351 | 1355 | 1358 | rBV3 | 366895  | 943219  | 9.27%  | 0.634% |
| 75  | 16.880 | 1370 | 1373 | 1375 | rBV3 | 412444  | 647501  | 6.36%  | 0.435% |
| 76  | 17.074 | 1386 | 1390 | 1395 | rBV  | 3423033 | 9753774 | 95.85% | 6.552% |
| 77  | 17.188 | 1398 | 1400 | 1402 | rVB  | 845110  | 1168292 | 11.48% | 0.785% |
| 78  | 17.314 | 1406 | 1411 | 1414 | rBV3 | 267570  | 955388  | 9.39%  | 0.642% |
| 79  | 17.394 | 1414 | 1418 | 1420 | rVV  | 2481647 | 4193843 | 41.21% | 2.817% |
| 80  | 17.463 | 1421 | 1424 | 1426 | rVB  | 3592662 | 5308959 | 52.17% | 3.566% |
| 81  | 17.508 | 1426 | 1428 | 1429 | rBV  | 501056  | 590617  | 5.80%  | 0.397% |
| 82  | 17.543 | 1429 | 1431 | 1435 | rVB2 | 1406531 | 1905074 | 18.72% | 1.280% |
| 83  | 17.691 | 1440 | 1444 | 1445 | rBV3 | 249960  | 571978  | 5.62%  | 0.384% |
| 84  | 17.817 | 1451 | 1455 | 1457 | rBV2 | 297204  | 735317  | 7.23%  | 0.494% |
| 85  | 17.920 | 1462 | 1464 | 1466 | rVV  | 232986  | 400561  | 3.94%  | 0.269% |
| 86  | 17.966 | 1466 | 1468 | 1470 | rVV  | 201174  | 458368  | 4.50%  | 0.308% |
| 87  | 18.023 | 1470 | 1473 | 1477 | rVV2 | 312908  | 911332  | 8.96%  | 0.612% |
| 88  | 18.331 | 1498 | 1500 | 1504 | rVB2 | 168966  | 341933  | 3.36%  | 0.230% |
| 89  | 18.503 | 1512 | 1515 | 1517 | rBV2 | 209431  | 546380  | 5.37%  | 0.367% |
| 90  | 18.651 | 1525 | 1528 | 1531 | rBV3 | 473114  | 1078472 | 10.60% | 0.724% |
| 91  | 18.823 | 1538 | 1543 | 1546 | rVB2 | 2043919 | 4487141 | 44.10% | 3.014% |
| 92  | 18.880 | 1546 | 1548 | 1552 | rVB  | 240670  | 385488  | 3.79%  | 0.259% |
| 93  | 18.960 | 1552 | 1555 | 1557 | rBV  | 572719  | 1116740 | 10.97% | 0.750% |
| 94  | 19.006 | 1557 | 1559 | 1562 | rVB  | 402516  | 648023  | 6.37%  | 0.435% |
| 95  | 19.189 | 1570 | 1575 | 1582 | rVB  | 1762143 | 4074495 | 40.04% | 2.737% |
| 96  | 19.383 | 1589 | 1592 | 1599 | rVB  | 630007  | 1498426 | 14.73% | 1.007% |
| 97  | 20.149 | 1656 | 1659 | 1671 | rVB4 | 186102  | 825775  | 8.11%  | 0.555% |
| 98  | 21.074 | 1734 | 1740 | 1746 | rBV2 | 540959  | 1882162 | 18.50% | 1.264% |
| 99  | 21.234 | 1749 | 1754 | 1757 | rBV  | 337537  | 1071755 | 10.53% | 0.720% |
| 100 | 21.303 | 1757 | 1760 | 1763 | rVB2 | 150081  | 403814  | 3.97%  | 0.271% |

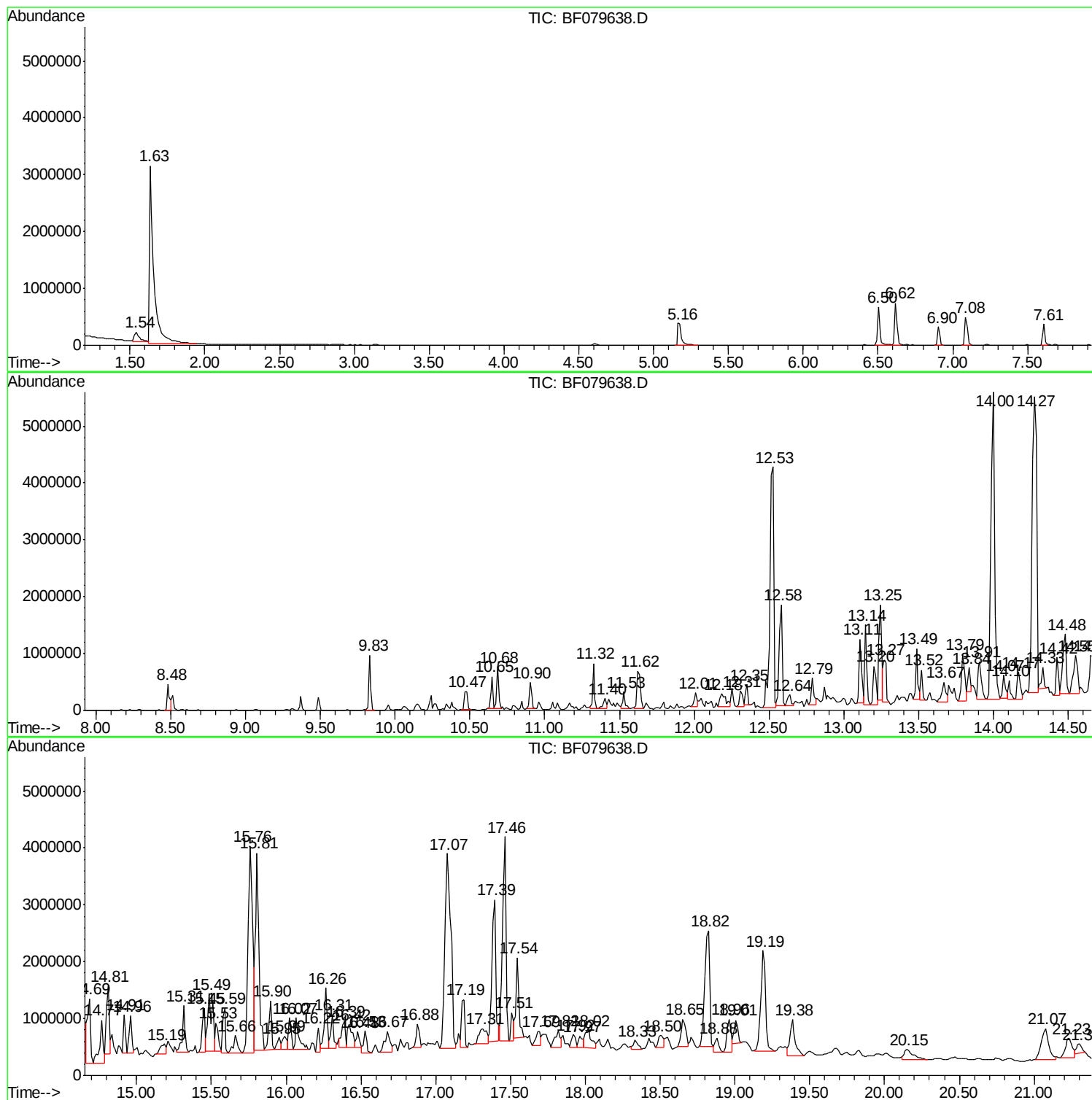
Sum of corrected areas: 148869505

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SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.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\BF053115\  
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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

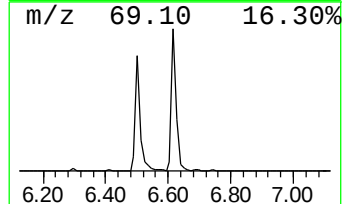
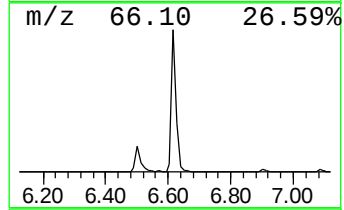
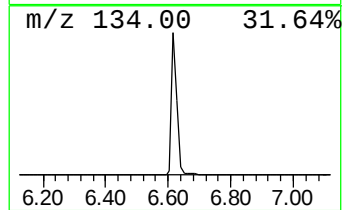
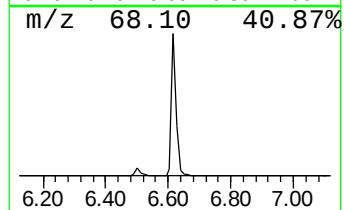
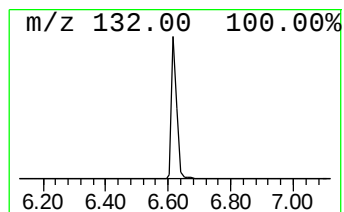
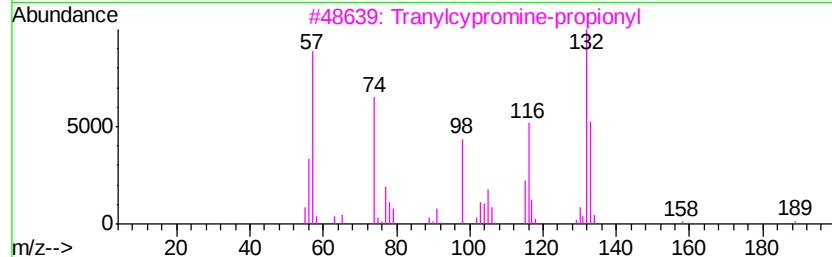
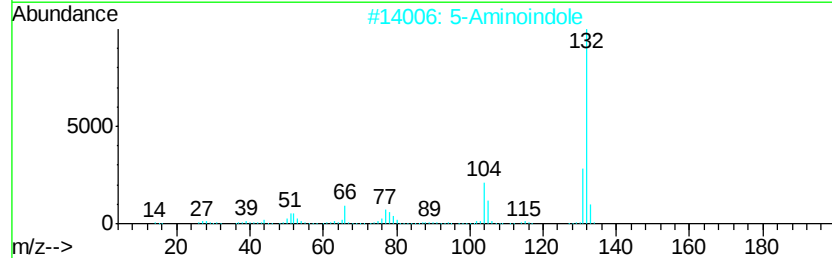
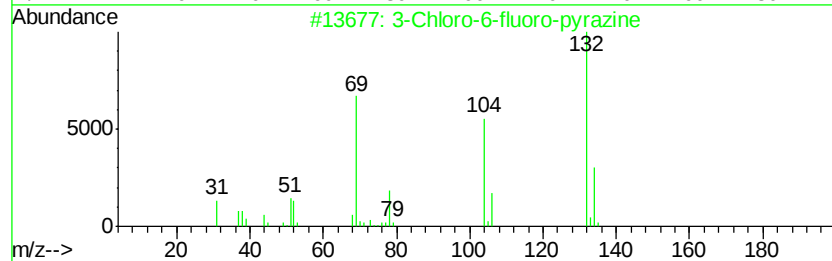
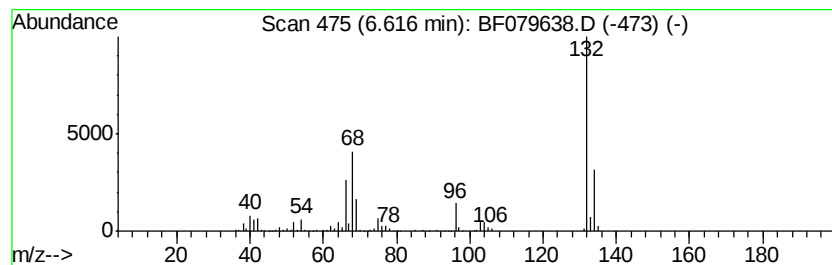
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 3 unknown6.62 Concentration Rank 5

| R.T. | EstConc  | Area   | Relative to ISTD       | R.T. |
|------|----------|--------|------------------------|------|
| 6.62 | 45.64 ng | 769052 | 1,4-Dichlorobenzene-d4 | 6.90 |

| Hit# of 5 | Tentative ID                 | MW  | MolForm   | CAS#         | Qual |
|-----------|------------------------------|-----|-----------|--------------|------|
| 1         | 3-Chloro-6-fluoro-pyrazine   | 132 | C4H2ClFN2 | 1000146-10-7 | 27   |
| 2         | 5-Aminoindole                | 132 | C8H8N2    | 005192-03-0  | 12   |
| 3         | Tranylcypromine-propionyl    | 189 | C12H15NO  | 1000123-86-3 | 10   |
| 4         | 4-Chloro-6-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-01-6  | 9    |
| 5         | 5-Fluoro-2-chloropyrimidine  | 132 | C4H2ClFN2 | 062802-42-0  | 9    |



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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

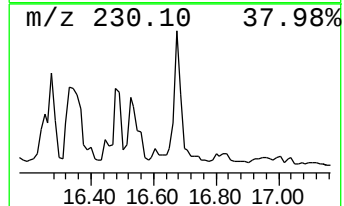
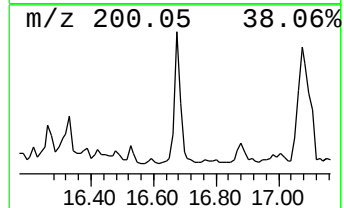
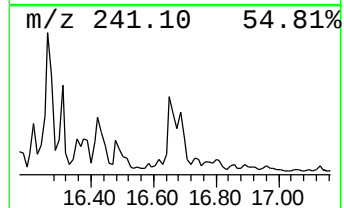
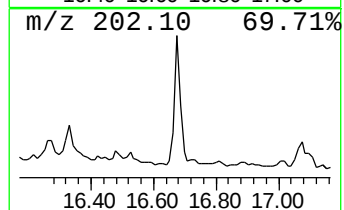
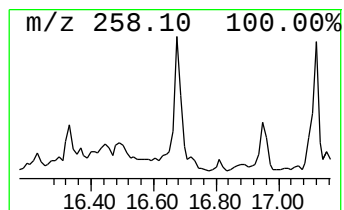
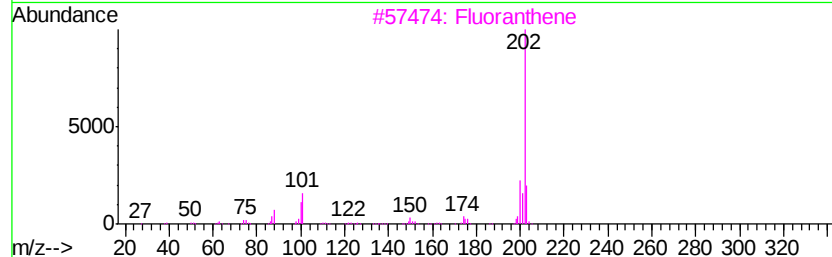
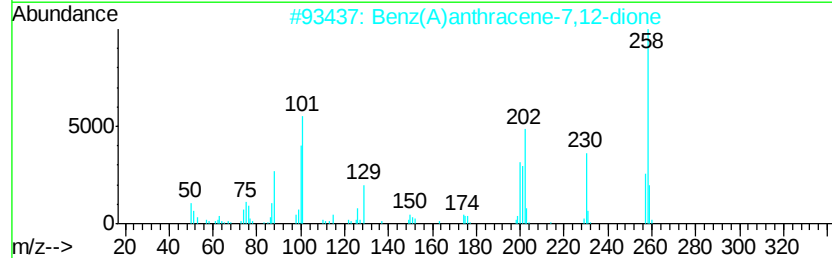
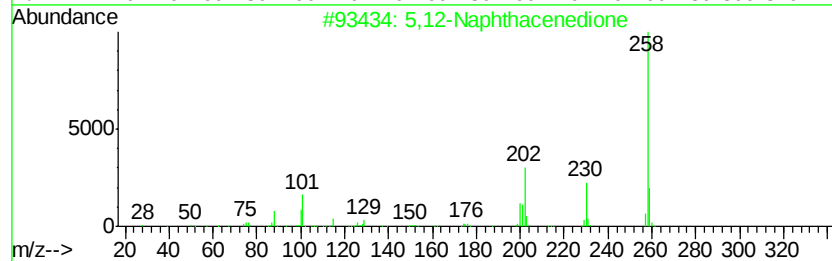
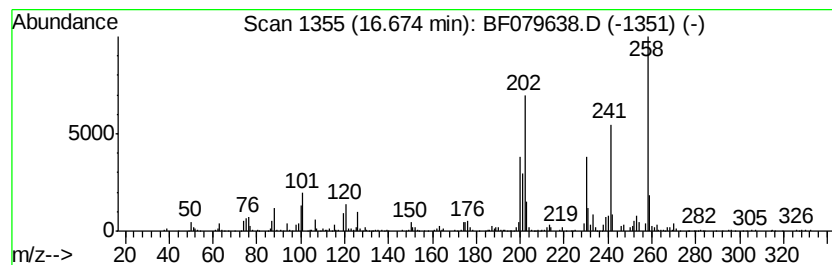
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 5 5,12-Naphthacenedione Concentration Rank 12

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 16.67 | 31.94 ng | 943219 | Perylene-d12     | 17.51 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 5,12-Naphthacenedione               | 258 | C18H10O2 | 001090-13-7 | 93   |
| 2    |    | Benz(A)anthracene-7,12-dione        | 258 | C18H10O2 | 002498-66-0 | 89   |
| 3    |    | Fluoranthene                        | 202 | C16H10   | 000206-44-0 | 56   |
| 4    |    | Rhodium, dicarbonyl(2,4-pentaned... | 258 | C7H7O4Rh | 014874-82-9 | 43   |
| 5    |    | Pyrene                              | 202 | C16H10   | 000129-00-0 | 40   |



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Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

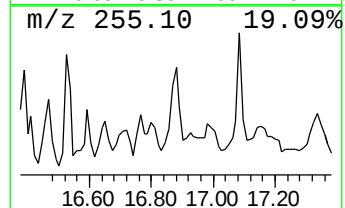
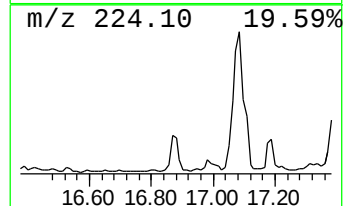
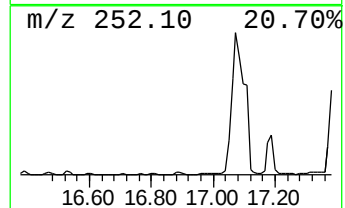
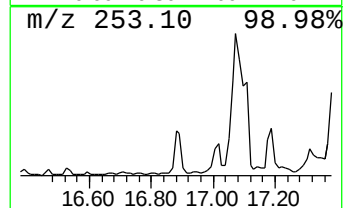
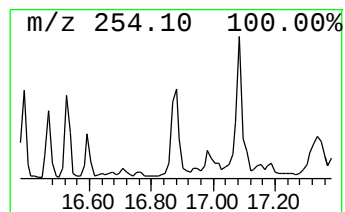
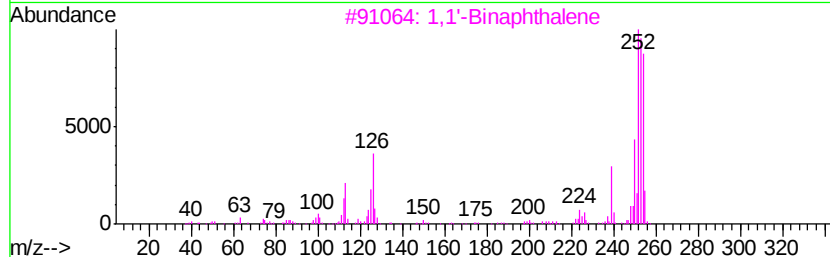
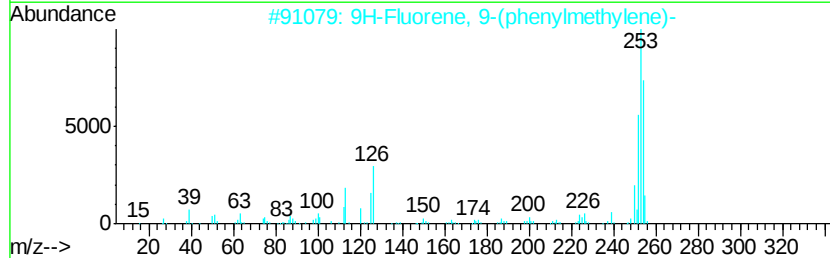
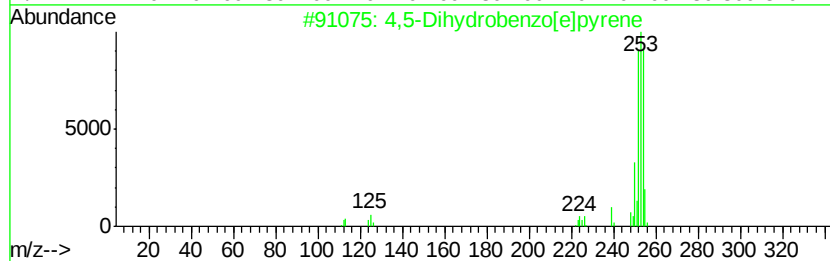
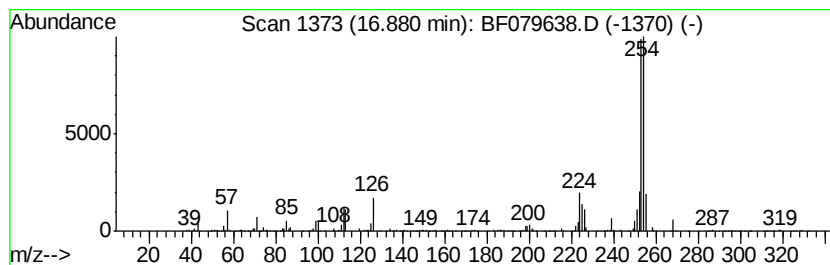
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ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 6 4,5-Dihydrobenzo[e]pyrene Concentration Rank 17

| R.T.    | EstConc                             | Area         | Relative to ISTD | R.T.           |
|---------|-------------------------------------|--------------|------------------|----------------|
| 16.88   | 21.93 ng                            | 647501       | Perylene-d12     | 17.51          |
| Hit# of | 5                                   | Tentative ID | MW MolForm       | CAS# Qual      |
| 1       | 4,5-Dihydrobenzo[e]pyrene           | 254          | C20H14           | 095676-42-9 72 |
| 2       | 9H-Fluorene, 9-(phenylmethylene)-   | 254          | C20H14           | 001836-87-9 68 |
| 3       | 1,1'-Binaphthalene                  | 254          | C20H14           | 000604-53-5 64 |
| 4       | 9,10[1',2']-Benzenoanthracene, 9... | 254          | C20H14           | 000477-75-8 64 |
| 5       | 1,2'-Binaphthalene                  | 254          | C20H14           | 004325-74-0 64 |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

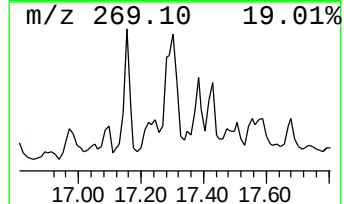
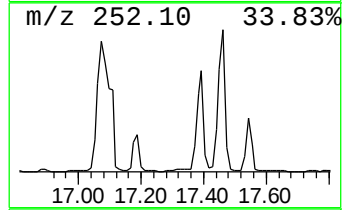
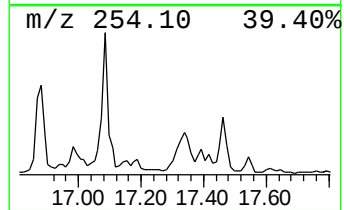
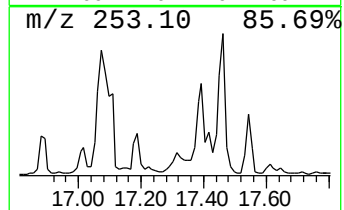
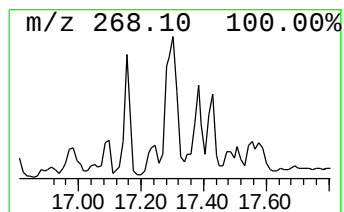
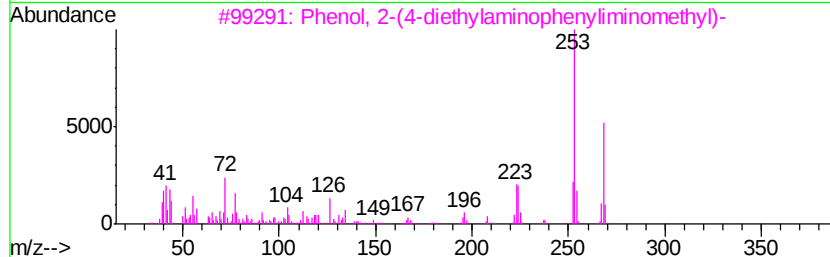
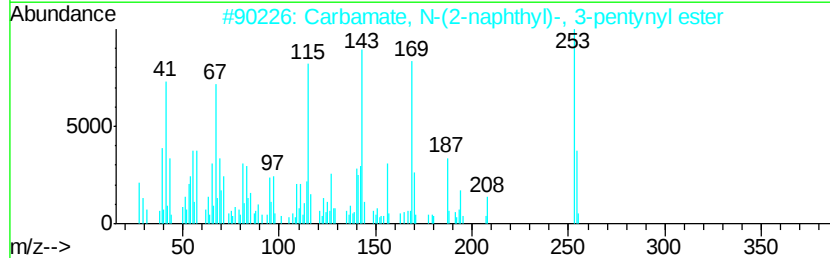
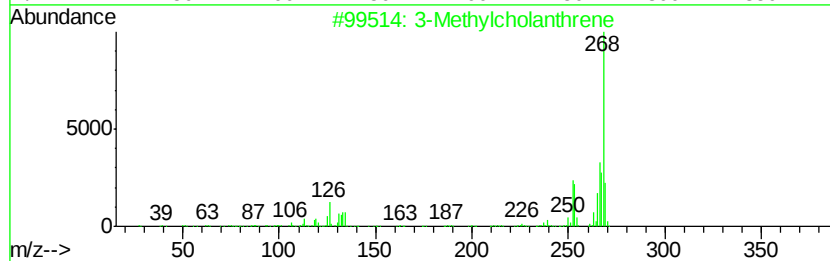
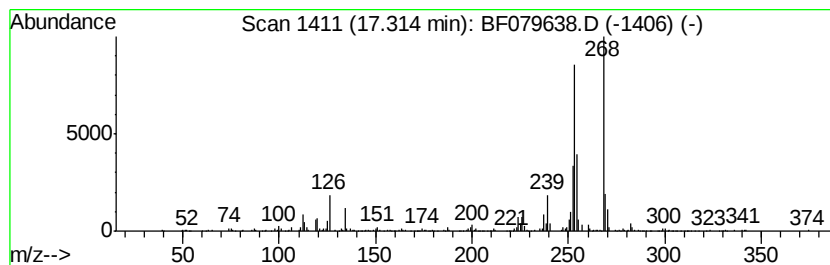
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TIC Integration Parameters: LSCINT.P

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Peak Number 8 unknown17.31 Concentration Rank 11

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 17.31 | 32.35 ng | 955388 | Perylene-d12     | 17.51 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 3-Methylcholanthrene                | 268 | C21H16    | 000056-49-5  | 43   |
| 2    |    | Carbamate, N-(2-naphthyl)-, 3-pe... | 253 | C16H15NO2 | 1000197-96-0 | 41   |
| 3    |    | Phenol, 2-(4-diethylaminophenyl)... | 268 | C17H20N2O | 004938-45-8  | 38   |
| 4    |    | trans-4'-Methyl-4-(methylthio)ch... | 268 | C17H16OS  | 126443-27-4  | 38   |
| 5    |    | Benzo(a)pyrene 4,5-oxide            | 268 | C20H12O   | 037574-47-3  | 38   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

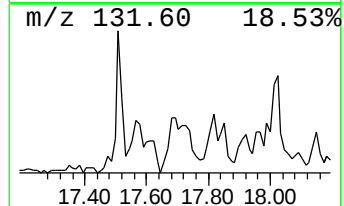
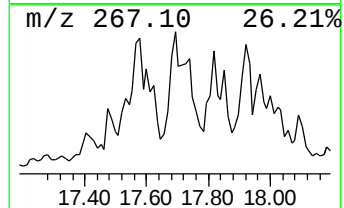
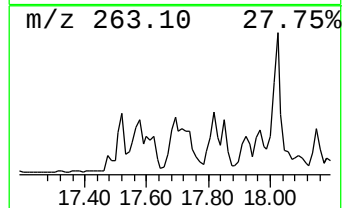
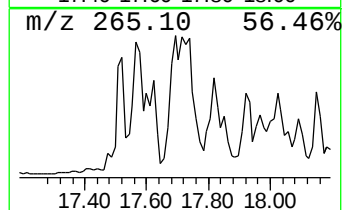
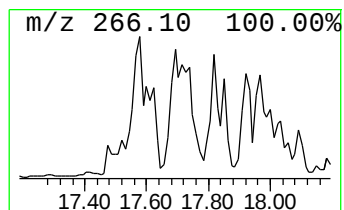
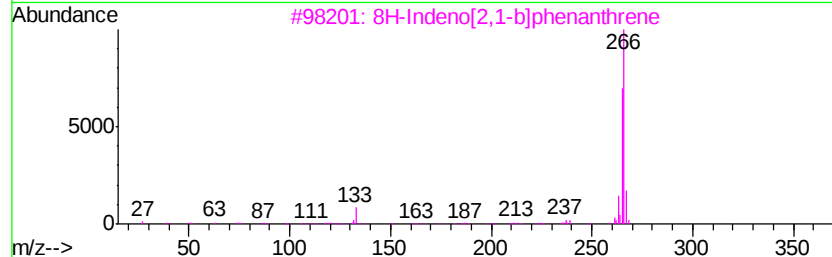
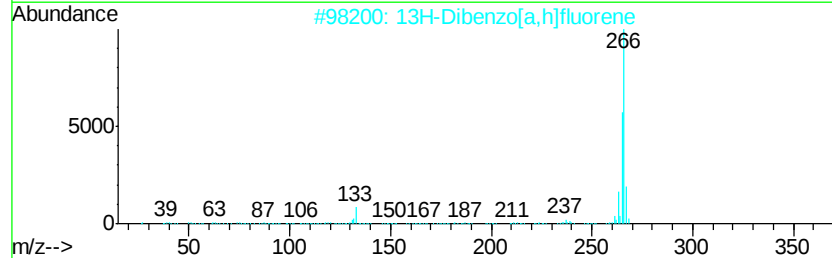
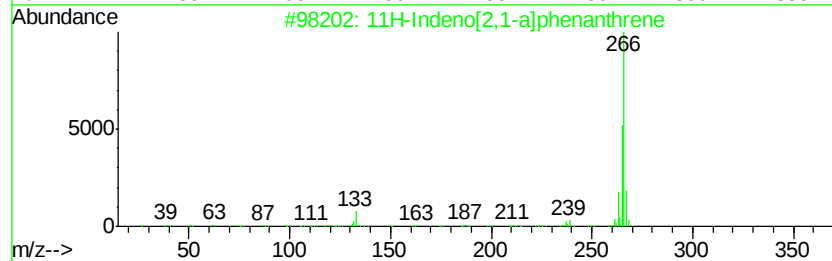
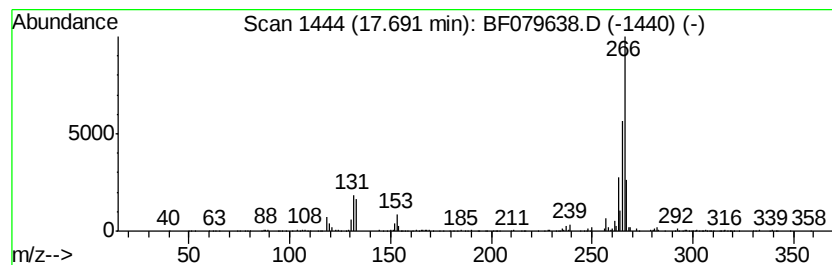
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 10 11H-Indeno[2,1-a]phenanthrene Concentration Rank 19

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 17.69 | 19.37 ng | 571978 | Perylene-d12     | 17.51 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#        | Qual |
|------|----|-------------------------------------|-----|-----------|-------------|------|
| 1    | 5  | 11H-Indeno[2,1-a]phenanthrene       | 266 | C21H14    | 000220-97-3 | 76   |
| 2    |    | 13H-Dibenzo[a,h]fluorene            | 266 | C21H14    | 000239-85-0 | 76   |
| 3    |    | 8H-Indeno[2,1-b]phenanthrene        | 266 | C21H14    | 000241-28-1 | 68   |
| 4    |    | Thiazole, 4-phenyl-2-(4-tolylami... | 266 | C16H14N2S | 016098-04-7 | 59   |
| 5    |    | Benz[j]aceanthrylene, 3-methyl-     | 266 | C21H14    | 003343-10-0 | 58   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

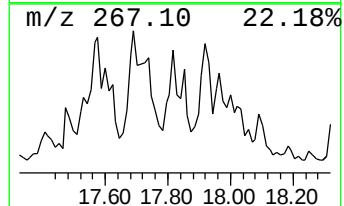
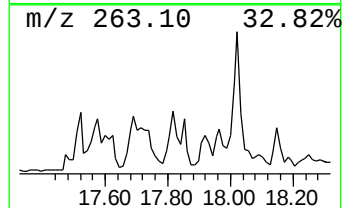
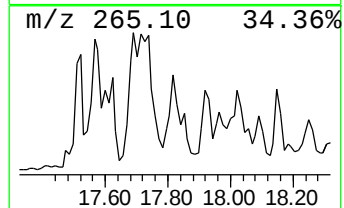
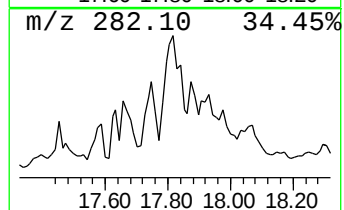
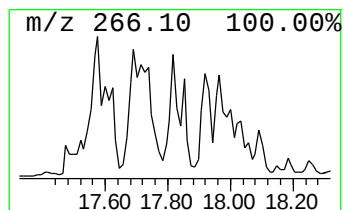
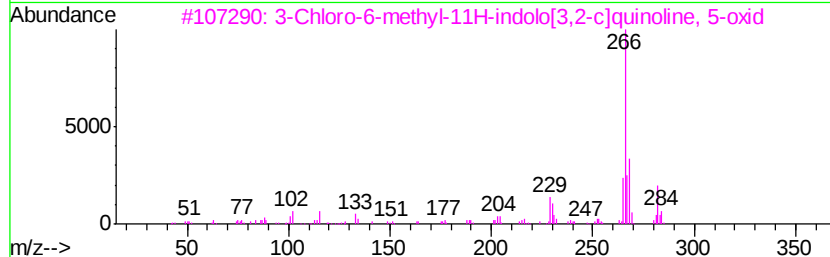
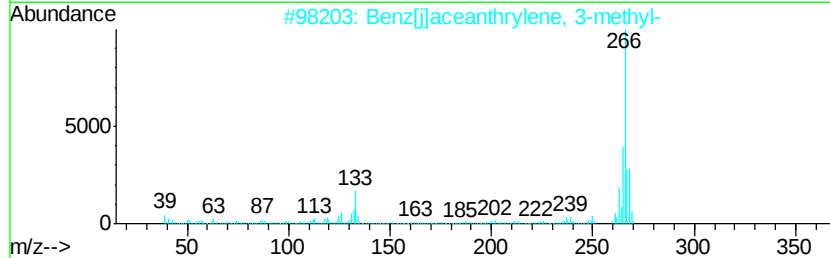
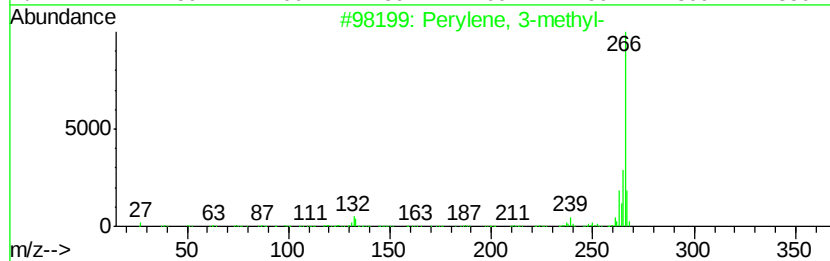
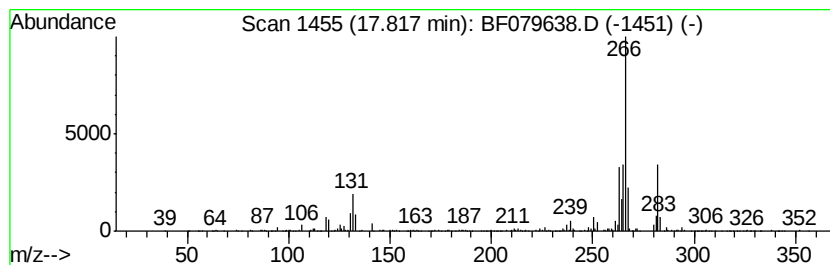
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 11 Perylene, 3-methyl- Concentration Rank 15

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 17.82 | 24.90 ng | 735317 | Perylene-d12     | 17.51 |

| Hit# | of | Tentative ID                        | MW  | MolForm     | CAS#         | Qual |
|------|----|-------------------------------------|-----|-------------|--------------|------|
| 1    | 5  | Perylene, 3-methyl-                 | 266 | C21H14      | 024471-47-4  | 64   |
| 2    |    | Benz[j]aceanthrylene, 3-methyl-     | 266 | C21H14      | 003343-10-0  | 60   |
| 3    |    | 3-Chloro-6-methyl-11H-indolo[3,2... | 282 | C16H11ClN2O | 1000212-76-7 | 59   |
| 4    |    | Benzo[1,2-b:4,3-b']dithiophene, ... | 266 | C16H10S2    | 016587-58-9  | 53   |
| 5    |    | 11H-Indeno[2,1-a]phenanthrene       | 266 | C21H14      | 000220-97-3  | 49   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

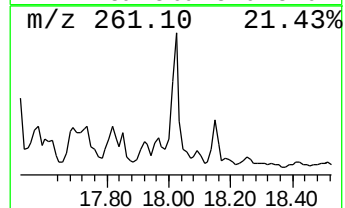
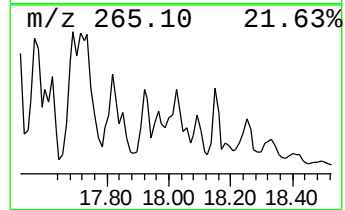
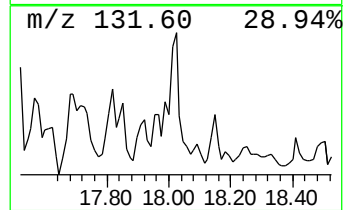
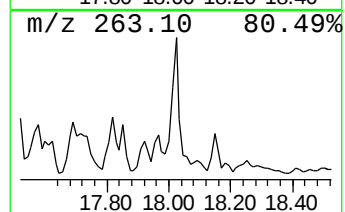
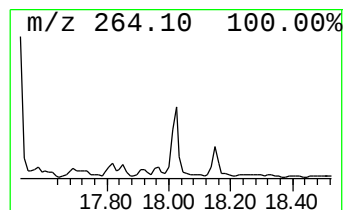
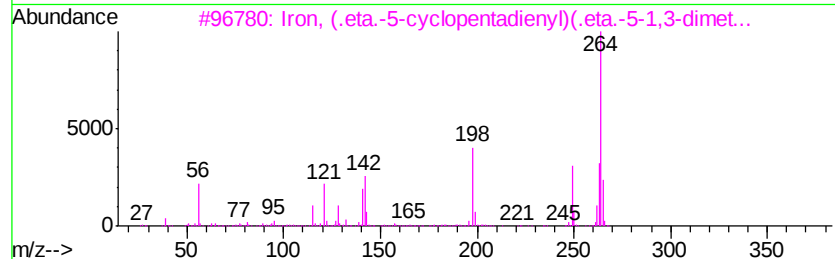
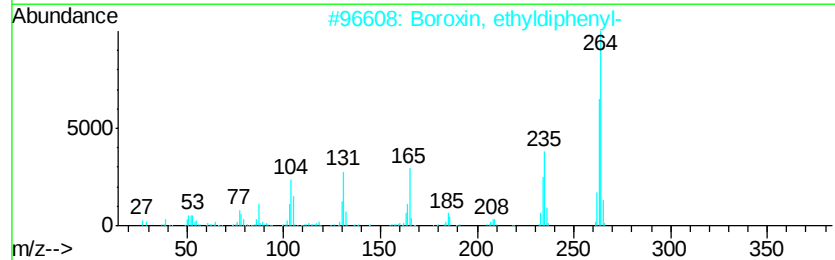
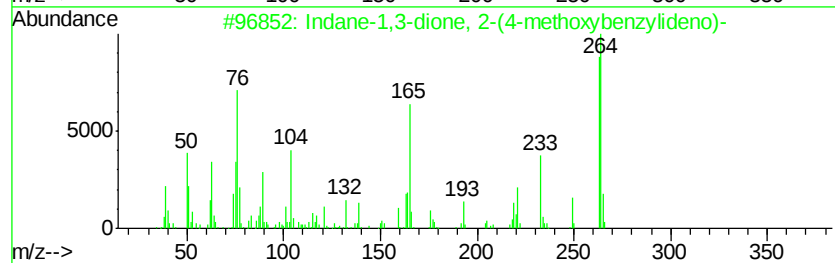
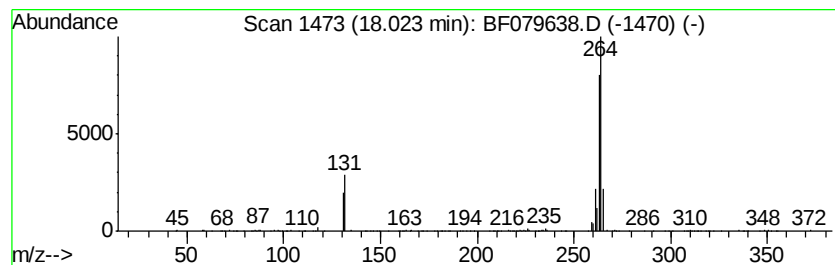
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 12 Indane-1,3-dione, 2-(4-meth... Concentration Rank 13

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 18.02 | 30.86 ng | 911332 | Perylene-d12     | 17.51 |

| Hit# | of | Tentative ID                        | MW  | MolForm    | CAS#         | Qual |
|------|----|-------------------------------------|-----|------------|--------------|------|
| 1    | 5  | Indane-1,3-dione, 2-(4-methoxybe... | 264 | C17H12O3   | 007421-76-3  | 50   |
| 2    |    | Boroxin, ethyldiphenyl-             | 264 | C14H15B3O3 | 1000151-82-0 | 38   |
| 3    |    | Iron, (.eta.-5-cyclopentadienyl)... | 264 | C16H16Fe   | 1000155-06-6 | 32   |
| 4    |    | Lycopodan-5-one, 12-hydroxy-15-m... | 263 | C16H25NO2  | 006900-92-1  | 22   |
| 5    |    | 7-Carbomethoxy-5,8-dimethoxy-1-t... | 264 | C14H16O5   | 122136-07-6  | 14   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

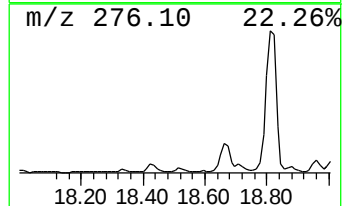
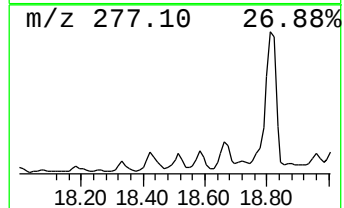
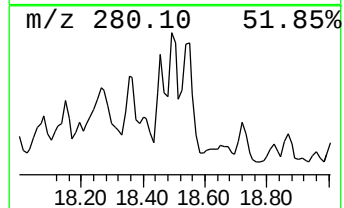
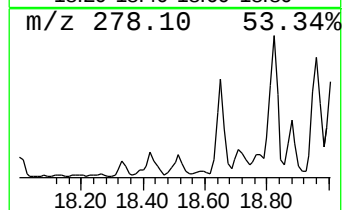
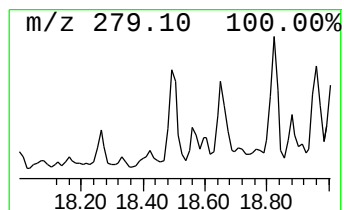
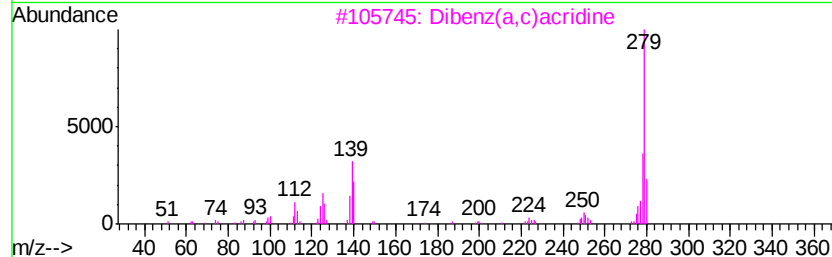
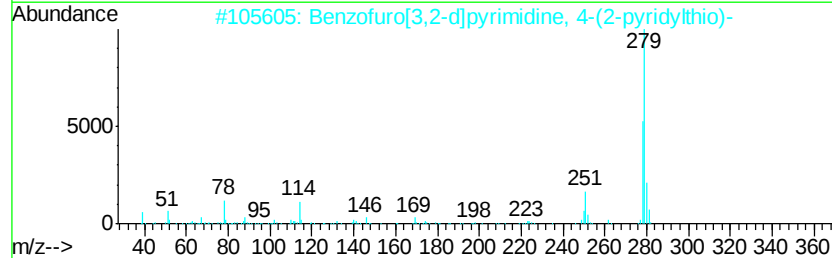
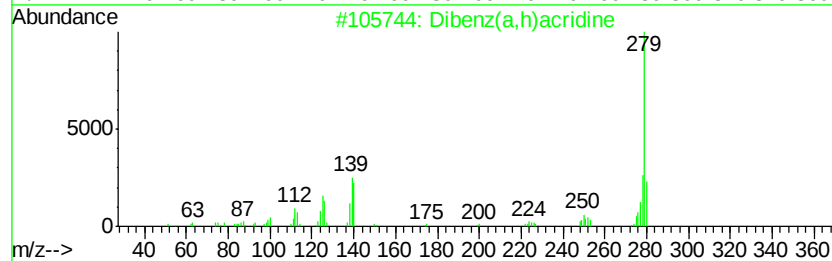
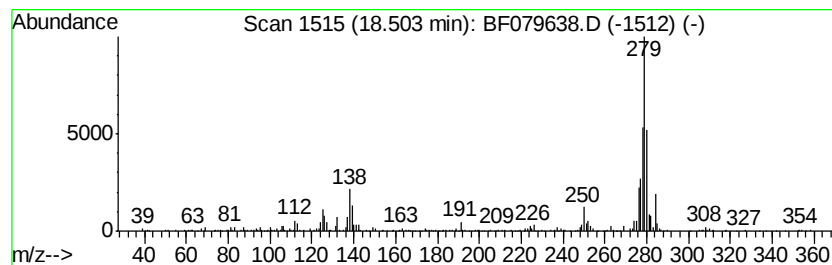
Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 13 Dibenz(a,h)acridine Concentration Rank 20

| R.T.    | EstConc  | Area                                | Relative to ISTD | R.T.      |             |      |
|---------|----------|-------------------------------------|------------------|-----------|-------------|------|
| 18.50   | 18.50 ng | 546380                              | Perylene-d12     | 17.51     |             |      |
| Hit# of | 5        | Tentative ID                        | MW               | MolForm   | CAS#        | Qual |
| 1       |          | Dibenz(a,h)acridine                 | 279              | C21H13N   | 000226-36-8 | 64   |
| 2       |          | Benzofuro[3,2-d]pyrimidine, 4-(2... | 279              | C15H9N3OS | 329210-29-9 | 60   |
| 3       |          | Dibenz(a,c)acridine                 | 279              | C21H13N   | 000215-62-3 | 55   |
| 4       |          | Dibenz(c,h)acridine                 | 279              | C21H13N   | 000224-53-3 | 49   |
| 5       |          | Dibenz[a,j]acridine                 | 279              | C21H13N   | 000224-42-0 | 46   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

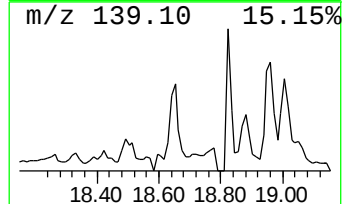
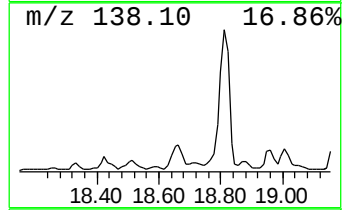
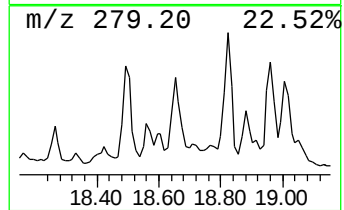
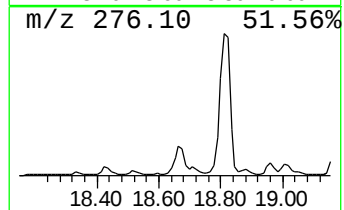
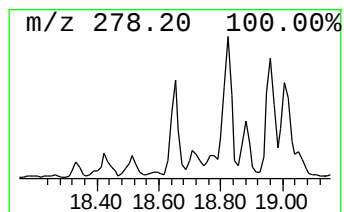
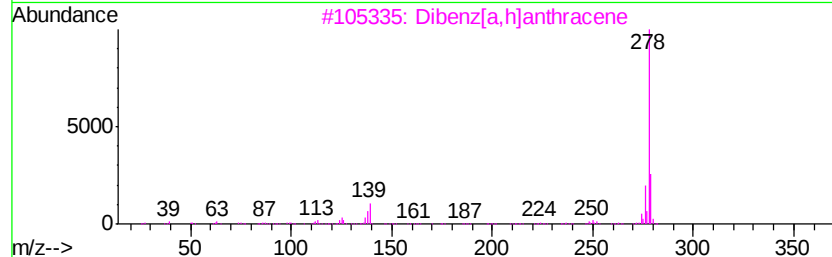
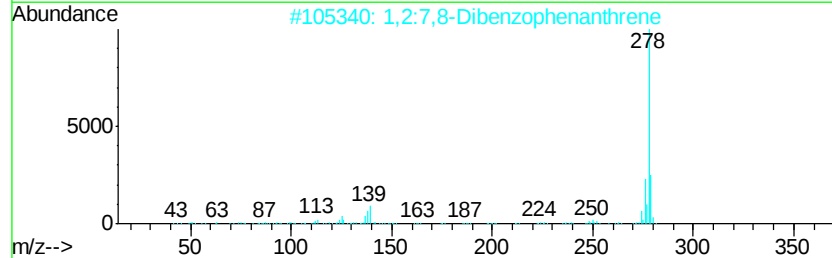
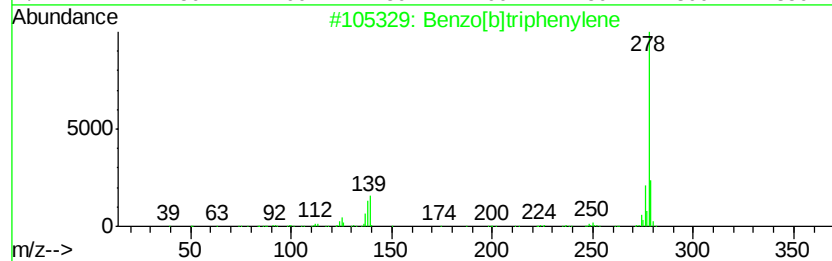
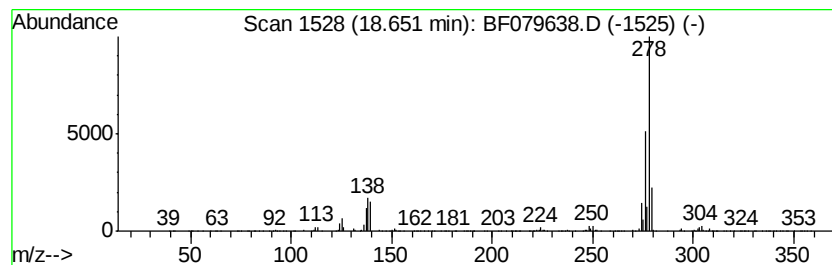
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 14 Benzo[b]triphenylene Concentration Rank 8

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 18.65 | 36.52 ng | 1078470 | Perylene-d12     | 17.51 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[b]triphenylene        | 278 | C22H14  | 000215-58-7 | 96   |
| 2    |    | 1,2:7,8-Dibenzophenanthrene | 278 | C22H14  | 000213-46-7 | 93   |
| 3    |    | Dibenz[a,h]anthracene       | 278 | C22H14  | 000053-70-3 | 70   |
| 4    |    | Naphtho[1,2-a]anthracene    | 278 | C22H14  | 000195-06-2 | 58   |
| 5    |    | Pentaphene                  | 278 | C22H14  | 000222-93-5 | 55   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

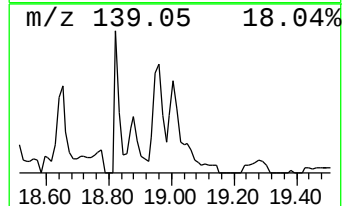
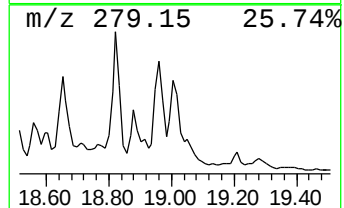
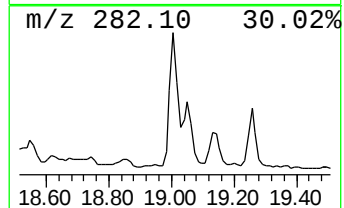
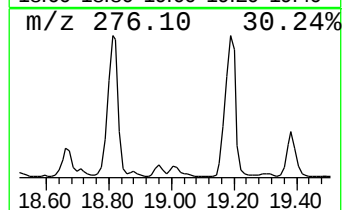
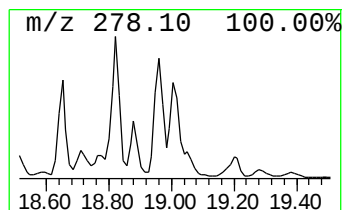
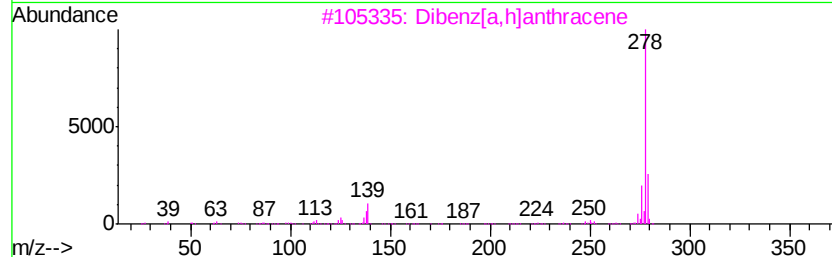
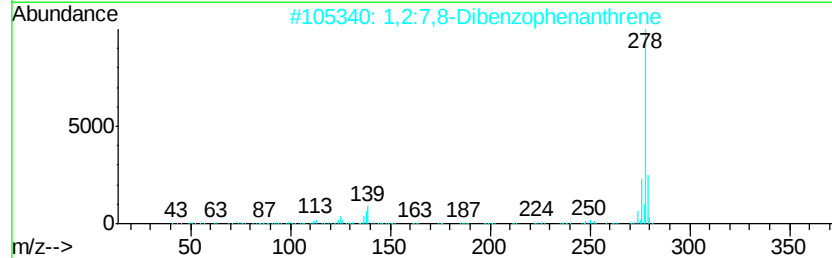
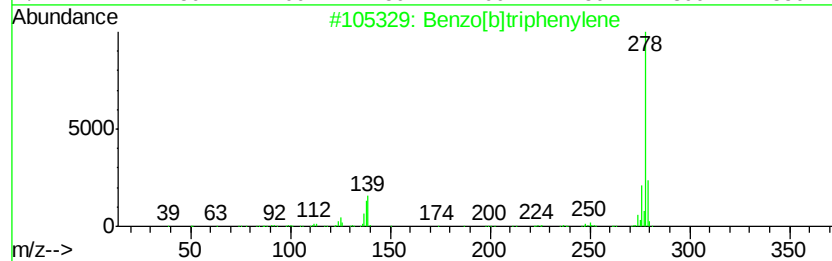
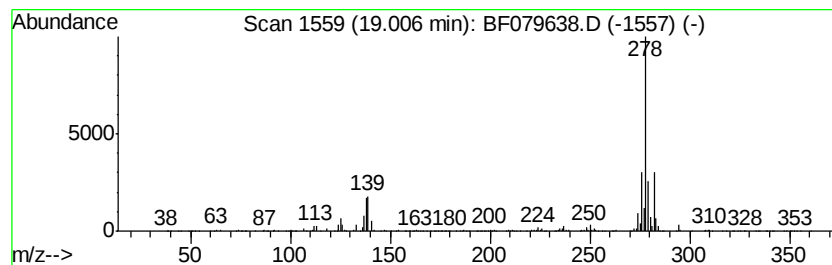
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 16 1,2:7,8-Dibenzophenanthrene Concentration Rank 16

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 19.01 | 21.94 ng | 648023 | Perylene-d12     | 17.51 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[b]triphenylene        | 278 | C22H14  | 000215-58-7 | 98   |
| 2    |    | 1,2:7,8-Dibenzophenanthrene | 278 | C22H14  | 000213-46-7 | 98   |
| 3    |    | Dibenz[a,h]anthracene       | 278 | C22H14  | 000053-70-3 | 95   |
| 4    |    | Pentacene                   | 278 | C22H14  | 000135-48-8 | 92   |
| 5    |    | Pentaphene                  | 278 | C22H14  | 000222-93-5 | 91   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

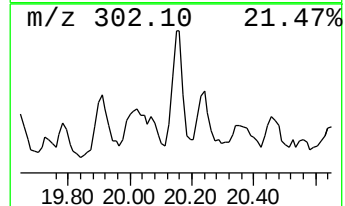
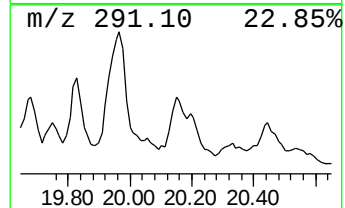
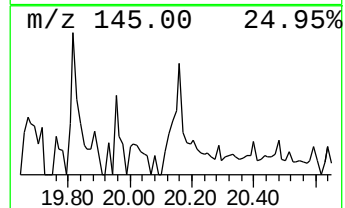
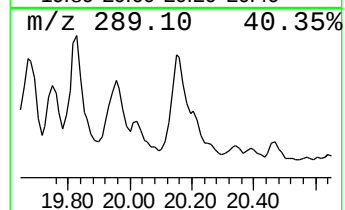
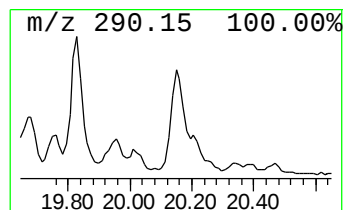
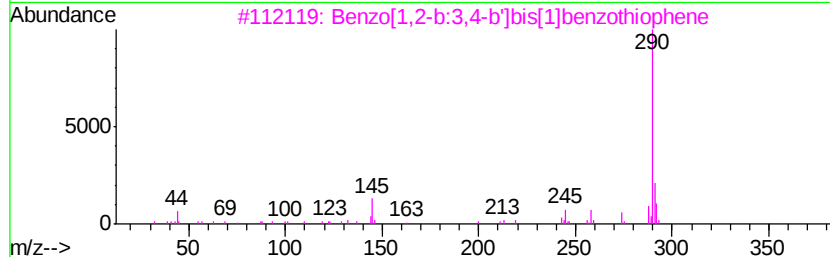
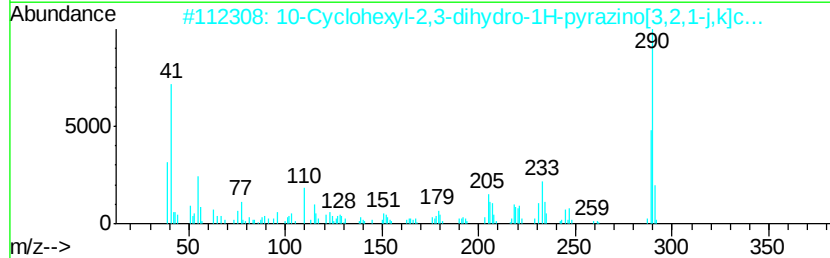
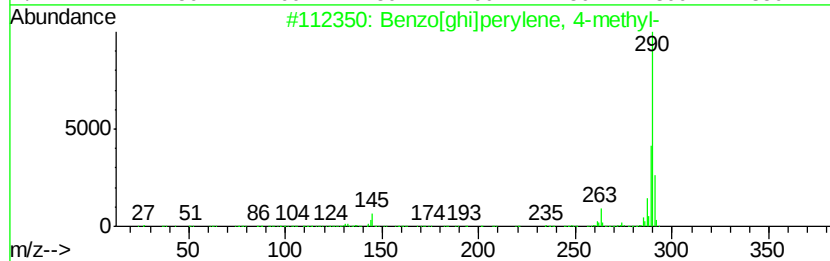
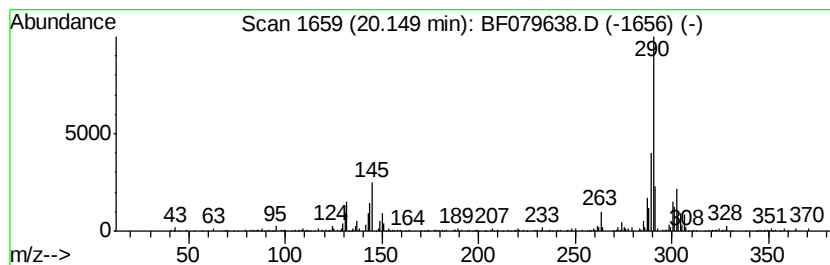
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 18 Benzo[ghi]perylene, 4-methyl- Concentration Rank 14

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 20.15 | 27.96 ng | 825775 | Perylene-d12     | 17.51 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | Benzo[ghi]perylene, 4-methyl-       | 290 | C23H14   | 019224-38-5 | 70   |
| 2    |    | 10-Cyclohexyl-2,3-dihydro-1H-pyr... | 290 | C20H22N2 | 157056-89-8 | 40   |
| 3    |    | Benzo[1,2-b:3,4-b']bis[1]benzoth... | 290 | C18H10S2 | 000198-89-0 | 38   |
| 4    |    | Benzo[1,2-b:4,5-b']bis[1]benzoth... | 290 | C18H10S2 | 000241-34-9 | 35   |
| 5    |    | Benzo[2,1-b:3,4-b']bis[1]benzoth... | 290 | C18H10S2 | 000222-24-2 | 35   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

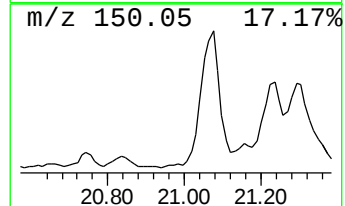
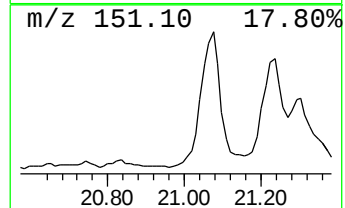
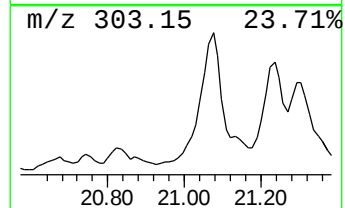
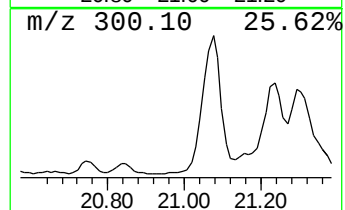
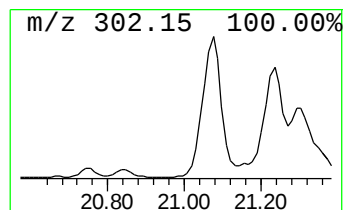
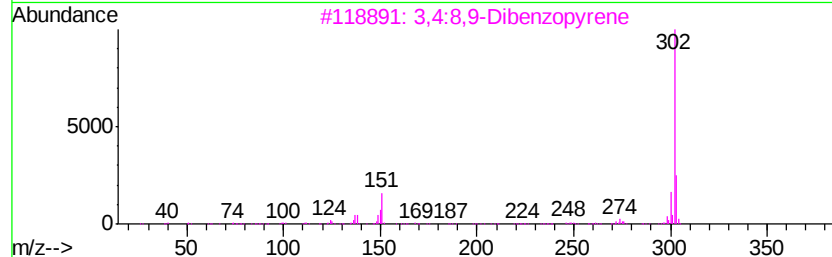
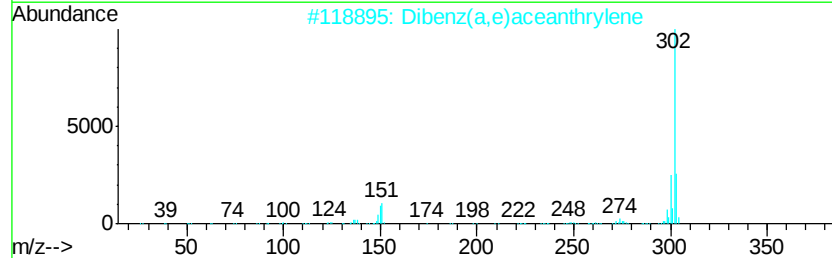
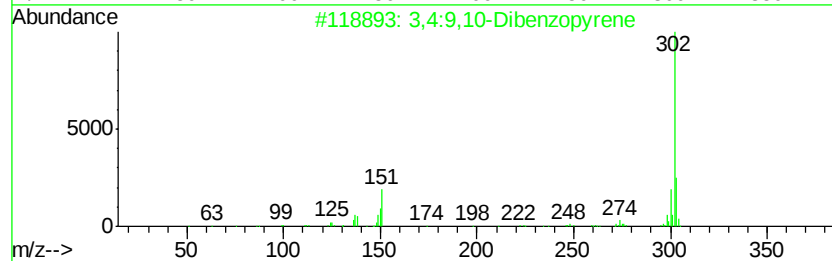
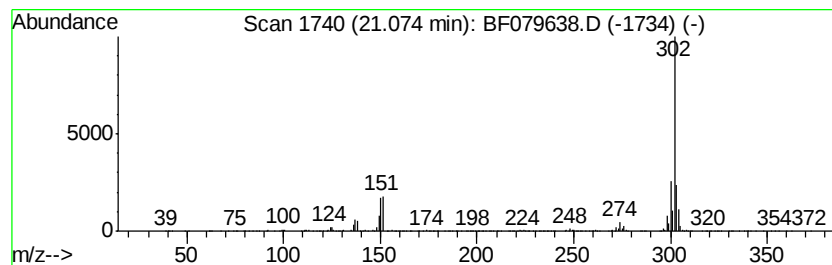
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 19 3,4:9,10-Dibenzopyrene Concentration Rank 3

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 21.07 | 63.74 ng | 1882160 | Perylene-d12     | 17.51 |

| 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 | 97   |
| 3    |    | 3,4:8,9-Dibenzopyrene       | 302 | C24H14  | 000189-64-0 | 97   |
| 4    |    | 1,2:4,5-Dibenzopyrene       | 302 | C24H14  | 000192-65-4 | 96   |
| 5    |    | Indeno[1,2,3-fg]naphthacene | 302 | C24H14  | 000203-11-2 | 81   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
Data File : BF079638.D  
Acq On : 31 May 2015 17:41  
Operator : TP/IZ  
Sample : G2408-18 2X  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

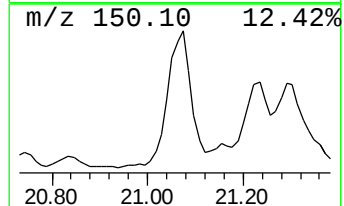
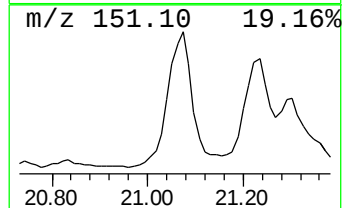
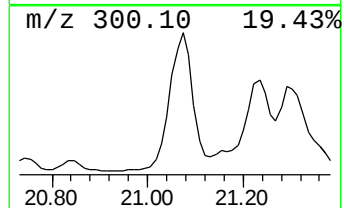
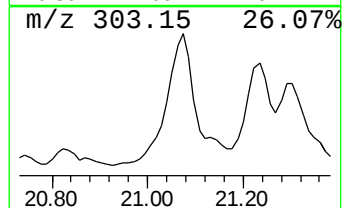
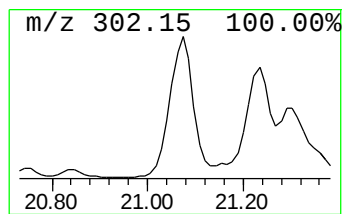
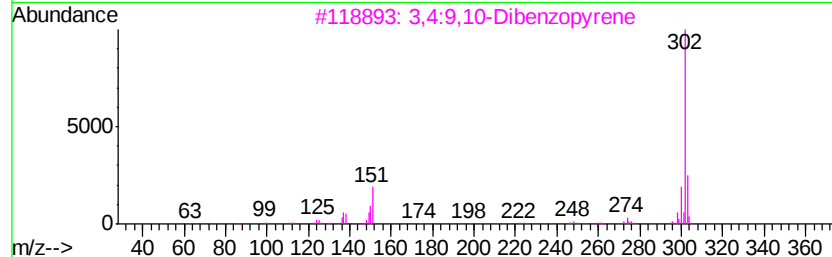
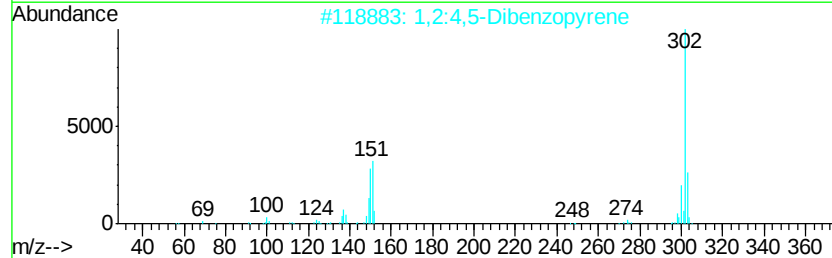
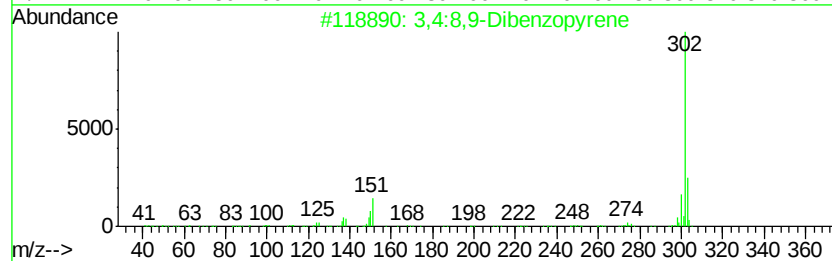
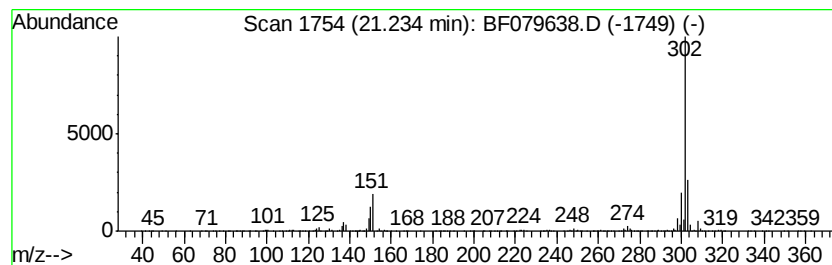
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 20 3,4:8,9-Dibenzopyrene Concentration Rank 9

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 21.23 | 36.29 ng | 1071760 | Perylene-d12     | 17.51 |

| Hit# | of | Tentative ID             | MW  | MolForm | CAS#        | Qual |
|------|----|--------------------------|-----|---------|-------------|------|
| 1    | 5  | 3,4:8,9-Dibenzopyrene    | 302 | C24H14  | 000189-64-0 | 98   |
| 2    |    | 1,2:4,5-Dibenzopyrene    | 302 | C24H14  | 000192-65-4 | 95   |
| 3    |    | 3,4:9,10-Dibenzopyrene   | 302 | C24H14  | 000189-55-9 | 90   |
| 4    |    | Dibenz(a,e)aceanthrylene | 302 | C24H14  | 005385-75-1 | 86   |
| 5    |    | 1,2:3,4-Dibenzopyrene    | 302 | C24H14  | 000191-30-0 | 70   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF053115\  
 Data File : BF079638.D  
 Acq On : 31 May 2015 17:41  
 Operator : TP/IZ  
 Sample : G2408-18 2X  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SB-18S

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF052615.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 |
| unknown6.62           | 6.62  | 45.6    | ng    | 769052   | 1                     | 6.90  | 337043 | 20.0 |
| 5,12-Naphthacened...  | 16.67 | 31.9    | ng    | 943219   | 6                     | 17.51 | 590617 | 20.0 |
| 4,5-Dihydrobenzo[...  | 16.88 | 21.9    | ng    | 647501   | 6                     | 17.51 | 590617 | 20.0 |
| unknown17.31          | 17.31 | 32.4    | ng    | 955388   | 6                     | 17.51 | 590617 | 20.0 |
| 11H-Indeno[2,1-a]...  | 17.69 | 19.4    | ng    | 571978   | 6                     | 17.51 | 590617 | 20.0 |
| Perylene, 3-methyl-   | 17.82 | 24.9    | ng    | 735317   | 6                     | 17.51 | 590617 | 20.0 |
| Indane-1,3-dione,...  | 18.02 | 30.9    | ng    | 911332   | 6                     | 17.51 | 590617 | 20.0 |
| Dibenz(a,h)acridine   | 18.50 | 18.5    | ng    | 546380   | 6                     | 17.51 | 590617 | 20.0 |
| Benzo[b]triphenylene  | 18.65 | 36.5    | ng    | 1078470  | 6                     | 17.51 | 590617 | 20.0 |
| 1,2:7,8-Dibenzoph...  | 19.01 | 21.9    | ng    | 648023   | 6                     | 17.51 | 590617 | 20.0 |
| Benzo[ghi]perylene... | 20.15 | 28.0    | ng    | 825775   | 6                     | 17.51 | 590617 | 20.0 |
| 3,4:9,10-Dibenzop...  | 21.07 | 63.7    | ng    | 1882160  | 6                     | 17.51 | 590617 | 20.0 |
| 3,4:8,9-Dibenzopy...  | 21.23 | 36.3    | ng    | 1071760  | 6                     | 17.51 | 590617 | 20.0 |