

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF050916\  
 Data File : BF086842.D  
 Acq On : 10 May 2016 1:25  
 Operator : UM/SJ  
 Sample : H2895-08  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DUPA-050316

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-BF050916.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC

| peak<br># | R.T.<br>min | first<br>scan | max<br>scan | last<br>scan | PK<br>TY | peak<br>height | corr.<br>area | corr.<br>% max. | % of<br>total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1         | 4.864       | 240           | 243         | 257          | rBV      | 294416         | 557438        | 8.96%           | 0.451%        |
| 2         | 5.299       | 278           | 281         | 283          | rBV      | 4170176        | 5590242       | 89.86%          | 4.522%        |
| 3         | 6.350       | 370           | 373         | 376          | rBV      | 4421489        | 5465619       | 87.86%          | 4.421%        |
| 4         | 6.464       | 381           | 383         | 385          | rBV      | 5474418        | 5425688       | 87.22%          | 4.389%        |
| 5         | 6.693       | 400           | 403         | 405          | rBV      | 860365         | 1083351       | 17.42%          | 0.876%        |
| 6         | 6.842       | 414           | 416         | 419          | rBV      | 3497739        | 3942595       | 63.38%          | 3.189%        |
| 7         | 7.265       | 450           | 453         | 455          | rBV      | 3727325        | 4045164       | 65.03%          | 3.272%        |
| 8         | 7.973       | 513           | 515         | 520          | rBV      | 1640431        | 1653759       | 26.58%          | 1.338%        |
| 9         | 9.059       | 607           | 610         | 612          | rBV      | 5077957        | 5611225       | 90.20%          | 4.539%        |
| 10        | 9.139       | 614           | 617         | 619          | rBV      | 297388         | 291726        | 4.69%           | 0.236%        |
| 11        | 9.459       | 643           | 645         | 646          | rVV      | 886754         | 1041557       | 16.74%          | 0.842%        |
| 12        | 9.585       | 654           | 656         | 659          | rBV      | 899255         | 759542        | 12.21%          | 0.614%        |
| 13        | 9.665       | 661           | 663         | 665          | rVB      | 470382         | 377780        | 6.07%           | 0.306%        |
| 14        | 9.722       | 665           | 668         | 670          | rBV      | 1629277        | 1682609       | 27.05%          | 1.361%        |
| 15        | 9.928       | 684           | 686         | 688          | rVV      | 290284         | 294342        | 4.73%           | 0.238%        |
| 16        | 9.985       | 688           | 691         | 693          | rVB2     | 102482         | 210982        | 3.39%           | 0.171%        |
| 17        | 10.168      | 705           | 707         | 709          | rVV2     | 444597         | 507668        | 8.16%           | 0.411%        |
| 18        | 10.271      | 714           | 716         | 719          | rVB      | 342005         | 413212        | 6.64%           | 0.334%        |
| 19        | 10.385      | 723           | 726         | 728          | rVV      | 208935         | 270389        | 4.35%           | 0.219%        |
| 20        | 10.431      | 728           | 730         | 732          | rVV      | 206425         | 205612        | 3.31%           | 0.166%        |
| 21        | 10.511      | 734           | 737         | 740          | rBV2     | 2695279        | 3981384       | 64.00%          | 3.220%        |
| 22        | 10.636      | 746           | 748         | 752          | rVV      | 717846         | 845563        | 13.59%          | 0.684%        |
| 23        | 10.819      | 762           | 764         | 769          | rBV3     | 217799         | 451000        | 7.25%           | 0.365%        |
| 24        | 10.968      | 774           | 777         | 780          | rVV3     | 215387         | 405085        | 6.51%           | 0.328%        |
| 25        | 11.013      | 780           | 781         | 783          | rVB      | 355140         | 309350        | 4.97%           | 0.250%        |
| 26        | 11.059      | 783           | 785         | 786          | rBV      | 150712         | 223237        | 3.59%           | 0.181%        |
| 27        | 11.082      | 786           | 787         | 792          | rVB2     | 557839         | 885054        | 14.23%          | 0.716%        |
| 28        | 11.208      | 795           | 798         | 799          | rBV      | 1471752        | 2161052       | 34.74%          | 1.748%        |
| 29        | 11.231      | 799           | 800         | 802          | rVV      | 4144532        | 3504856       | 56.34%          | 2.835%        |
| 30        | 11.276      | 802           | 804         | 806          | rVV      | 1045256        | 1094522       | 17.59%          | 0.885%        |
| 31        | 11.311      | 806           | 807         | 809          | rVV      | 177053         | 246292        | 3.96%           | 0.199%        |
| 32        | 11.448      | 816           | 819         | 822          | rBV3     | 269386         | 560923        | 9.02%           | 0.454%        |
| 33        | 11.505      | 822           | 824         | 825          | rVV      | 474411         | 462550        | 7.44%           | 0.374%        |
| 34        | 11.539      | 825           | 827         | 831          | rVB3     | 177478         | 312000        | 5.02%           | 0.252%        |

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 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
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 ClientSampleId :  
 DUPA-050316

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-BF050916.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |         |        |
|----|--------|------|------|------|------|---------|---------|---------|--------|
| 35 | 11.619 | 831  | 834  | 836  | rVB2 | 119413  | 203919  | 3.28%   | 0.165% |
| 36 | 11.699 | 839  | 841  | 843  | rVV  | 783308  | 1157643 | 18.61%  | 0.936% |
| 37 | 11.733 | 843  | 844  | 847  | rVV  | 1435061 | 1417363 | 22.78%  | 1.146% |
| 38 | 11.779 | 847  | 848  | 849  | rVV  | 491875  | 387386  | 6.23%   | 0.313% |
| 39 | 11.814 | 849  | 851  | 856  | rVB2 | 1614687 | 2383039 | 38.31%  | 1.928% |
| 40 | 11.916 | 856  | 860  | 863  | rBV3 | 315051  | 621765  | 9.99%   | 0.503% |
| 41 | 11.996 | 866  | 867  | 869  | rVV  | 736939  | 746470  | 12.00%  | 0.604% |
| 42 | 12.031 | 869  | 870  | 872  | rVB  | 395329  | 304278  | 4.89%   | 0.246% |
| 43 | 12.145 | 877  | 880  | 882  | rBV3 | 189705  | 296340  | 4.76%   | 0.240% |
| 44 | 12.179 | 882  | 883  | 884  | rVV  | 327142  | 256013  | 4.12%   | 0.207% |
| 45 | 12.248 | 887  | 889  | 891  | rBV  | 624117  | 829747  | 13.34%  | 0.671% |
| 46 | 12.282 | 891  | 892  | 896  | rVV2 | 398080  | 873447  | 14.04%  | 0.707% |
| 47 | 12.339 | 896  | 897  | 901  | rVB2 | 609176  | 694019  | 11.16%  | 0.561% |
| 48 | 12.419 | 901  | 904  | 906  | rBV  | 5237422 | 6119423 | 98.37%  | 4.950% |
| 49 | 12.476 | 906  | 909  | 910  | rVV2 | 202820  | 381505  | 6.13%   | 0.309% |
| 50 | 12.511 | 910  | 912  | 914  | rVV  | 935926  | 1095073 | 17.60%  | 0.886% |
| 51 | 12.556 | 914  | 916  | 920  | rVV3 | 352095  | 574574  | 9.24%   | 0.465% |
| 52 | 12.648 | 920  | 924  | 926  | rVV2 | 4745547 | 6220764 | 100.00% | 5.032% |
| 53 | 12.694 | 926  | 928  | 932  | rVB2 | 311711  | 428389  | 6.89%   | 0.347% |
| 54 | 12.785 | 934  | 936  | 939  | rVV  | 3268647 | 4064938 | 65.34%  | 3.288% |
| 55 | 12.865 | 939  | 943  | 945  | rVV2 | 526758  | 935578  | 15.04%  | 0.757% |
| 56 | 12.968 | 948  | 952  | 954  | rVB  | 1057028 | 1661788 | 26.71%  | 1.344% |
| 57 | 13.037 | 954  | 958  | 959  | rBV3 | 406989  | 693314  | 11.15%  | 0.561% |
| 58 | 13.071 | 959  | 961  | 963  | rVV  | 813361  | 926818  | 14.90%  | 0.750% |
| 59 | 13.162 | 967  | 969  | 970  | rVV  | 344267  | 345629  | 5.56%   | 0.280% |
| 60 | 13.185 | 970  | 971  | 976  | rVB2 | 302582  | 471703  | 7.58%   | 0.382% |
| 61 | 13.368 | 982  | 987  | 990  | rBV6 | 212045  | 514146  | 8.26%   | 0.416% |
| 62 | 13.471 | 995  | 996  | 1000 | rVB  | 766848  | 758239  | 12.19%  | 0.613% |
| 63 | 13.585 | 1003 | 1006 | 1007 | rBV  | 576078  | 907964  | 14.60%  | 0.734% |
| 64 | 13.608 | 1007 | 1008 | 1009 | rVV  | 593834  | 488957  | 7.86%   | 0.396% |
| 65 | 13.631 | 1009 | 1010 | 1013 | rVV2 | 450033  | 621342  | 9.99%   | 0.503% |
| 66 | 13.688 | 1013 | 1015 | 1017 | rVV  | 598608  | 879452  | 14.14%  | 0.711% |
| 67 | 13.825 | 1024 | 1027 | 1029 | rBV2 | 3045172 | 5104826 | 82.06%  | 4.129% |
| 68 | 13.859 | 1029 | 1030 | 1034 | rVB  | 2295934 | 2369441 | 38.09%  | 1.917% |
| 69 | 13.974 | 1038 | 1040 | 1044 | rBV3 | 449205  | 854605  | 13.74%  | 0.691% |
| 70 | 14.031 | 1044 | 1045 | 1047 | rVB2 | 152417  | 202069  | 3.25%   | 0.163% |
| 71 | 14.179 | 1057 | 1058 | 1059 | rVV  | 228891  | 238105  | 3.83%   | 0.193% |

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Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

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

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

Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF050916.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|     |        |      |      |      |      |         |         |        |        |
|-----|--------|------|------|------|------|---------|---------|--------|--------|
| 72  | 14.214 | 1059 | 1061 | 1063 | rVV  | 609308  | 830679  | 13.35% | 0.672% |
| 73  | 14.248 | 1063 | 1064 | 1066 | rVV  | 358736  | 341950  | 5.50%  | 0.277% |
| 74  | 14.305 | 1066 | 1069 | 1071 | rVV3 | 256141  | 497549  | 8.00%  | 0.402% |
| 75  | 14.339 | 1071 | 1072 | 1077 | rVV3 | 345840  | 563476  | 9.06%  | 0.456% |
| 76  | 14.408 | 1077 | 1078 | 1081 | rVB3 | 144408  | 204589  | 3.29%  | 0.165% |
| 77  | 14.545 | 1085 | 1090 | 1092 | rBV3 | 145952  | 414417  | 6.66%  | 0.335% |
| 78  | 14.591 | 1092 | 1094 | 1096 | rBV2 | 171736  | 218466  | 3.51%  | 0.177% |
| 79  | 14.682 | 1100 | 1102 | 1105 | rBV2 | 253496  | 336067  | 5.40%  | 0.272% |
| 80  | 14.842 | 1113 | 1116 | 1120 | rBV  | 1932069 | 4368450 | 70.22% | 3.534% |
| 81  | 14.922 | 1122 | 1123 | 1125 | rVV  | 490503  | 601545  | 9.67%  | 0.487% |
| 82  | 15.025 | 1129 | 1132 | 1134 | rBV2 | 96894   | 237392  | 3.82%  | 0.192% |
| 83  | 15.105 | 1136 | 1139 | 1141 | rVV  | 1009732 | 1576492 | 25.34% | 1.275% |
| 84  | 15.162 | 1141 | 1144 | 1146 | rVV  | 1785795 | 2214131 | 35.59% | 1.791% |
| 85  | 15.208 | 1146 | 1148 | 1149 | rVV  | 722489  | 872635  | 14.03% | 0.706% |
| 86  | 15.242 | 1149 | 1151 | 1155 | rVB2 | 500810  | 832392  | 13.38% | 0.673% |
| 87  | 15.402 | 1163 | 1165 | 1168 | rVV2 | 123590  | 218479  | 3.51%  | 0.177% |
| 88  | 15.597 | 1179 | 1182 | 1184 | rBV3 | 95170   | 212743  | 3.42%  | 0.172% |
| 89  | 16.328 | 1243 | 1246 | 1248 | rBV2 | 140195  | 321032  | 5.16%  | 0.260% |
| 90  | 16.500 | 1257 | 1261 | 1265 | rBV  | 874593  | 1760112 | 28.29% | 1.424% |
| 91  | 16.648 | 1271 | 1274 | 1277 | rVV  | 208907  | 448697  | 7.21%  | 0.363% |
| 92  | 16.705 | 1277 | 1279 | 1281 | rVV2 | 198709  | 387310  | 6.23%  | 0.313% |
| 93  | 16.763 | 1281 | 1284 | 1289 | rVV5 | 119780  | 378223  | 6.08%  | 0.306% |
| 94  | 16.888 | 1291 | 1295 | 1302 | rVV  | 643142  | 1364949 | 21.94% | 1.104% |
| 95  | 17.025 | 1304 | 1307 | 1310 | rVV3 | 76270   | 207694  | 3.34%  | 0.168% |
| 96  | 17.094 | 1310 | 1313 | 1321 | rVB2 | 175070  | 453203  | 7.29%  | 0.367% |
| 97  | 17.906 | 1377 | 1384 | 1396 | rVB6 | 54573   | 364144  | 5.85%  | 0.295% |
| 98  | 18.854 | 1460 | 1467 | 1474 | rVB  | 192490  | 670123  | 10.77% | 0.542% |
| 99  | 19.014 | 1474 | 1481 | 1484 | rVV  | 136225  | 464156  | 7.46%  | 0.375% |
| 100 | 19.083 | 1485 | 1487 | 1497 | rVB2 | 94628   | 362783  | 5.83%  | 0.293% |

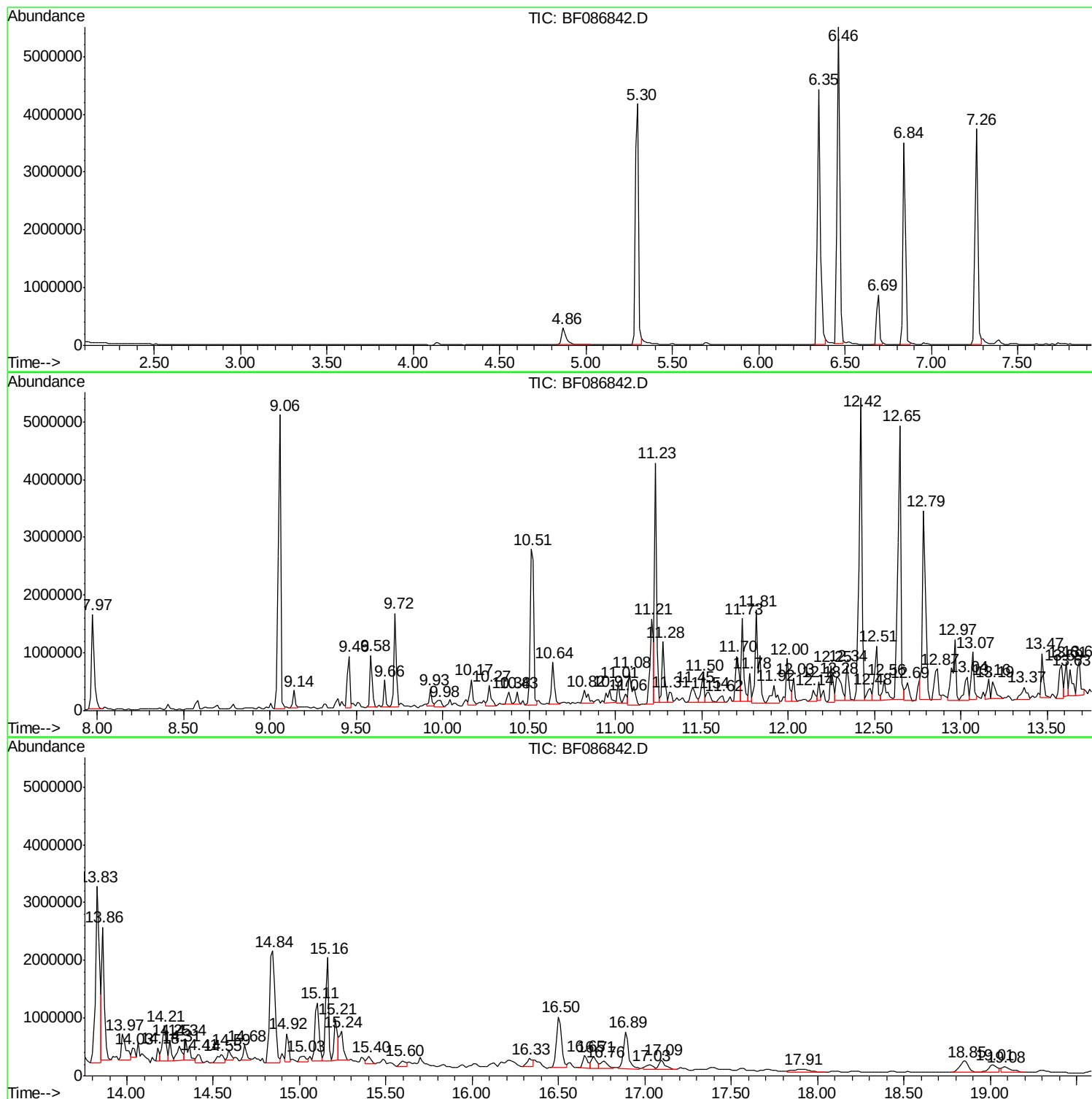
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Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050916.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\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
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Sample : H2895-08  
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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

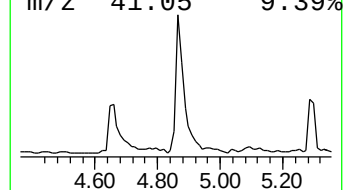
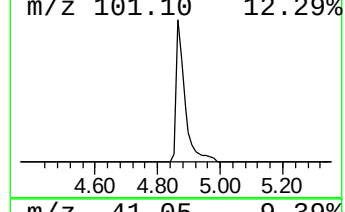
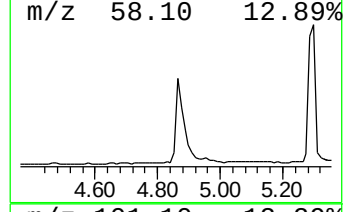
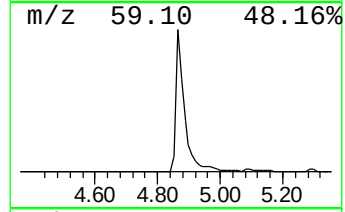
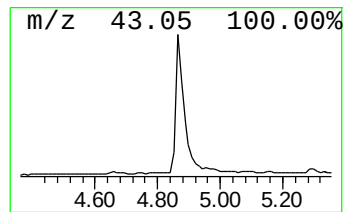
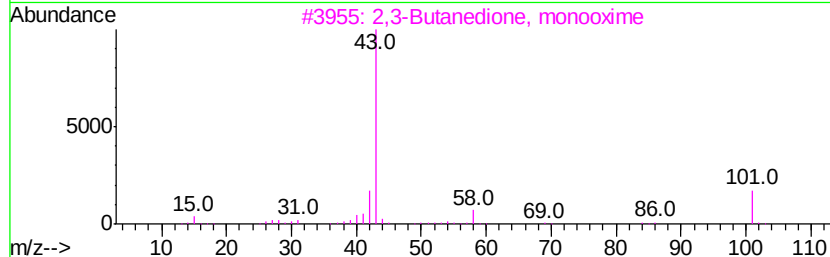
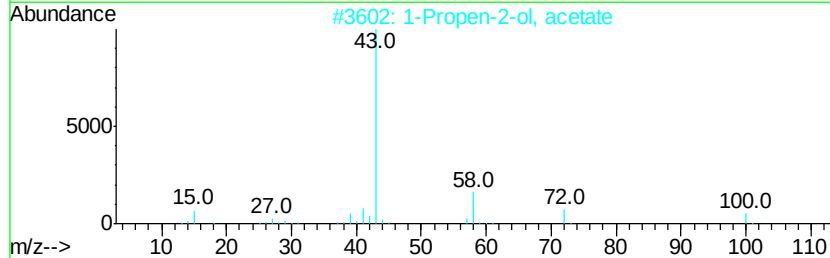
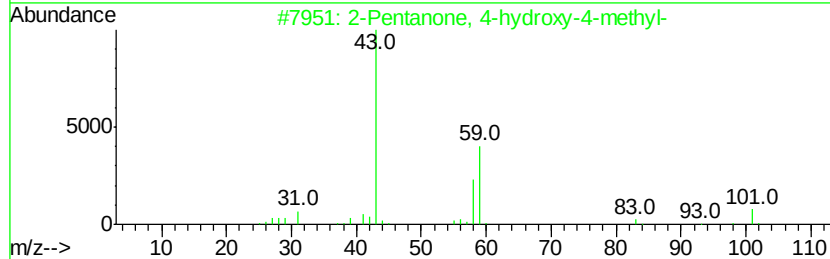
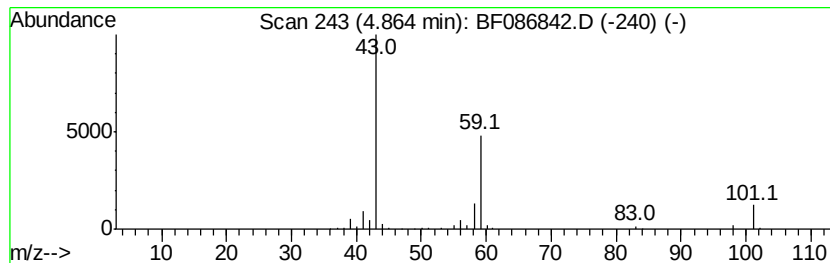
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 11

| R.T. | EstConc  | Area   | Relative to ISTD       | R.T. |
|------|----------|--------|------------------------|------|
| 4.86 | 10.29 ng | 557438 | 1,4-Dichlorobenzene-d4 | 6.69 |

| Hit# | of | Tentative ID                     | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------------|-----|---------|-------------|------|
| 1    | 5  | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 50   |
| 2    |    | 1-Propen-2-ol, acetate           | 100 | C5H8O2  | 000108-22-5 | 10   |
| 3    |    | 2,3-Butanedione, monooxime       | 101 | C4H7NO2 | 000057-71-6 | 9    |
| 4    |    | Diacetamide                      | 101 | C4H7NO2 | 000625-77-4 | 9    |
| 5    |    | Butane                           | 58  | C4H10   | 000106-97-8 | 9    |



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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

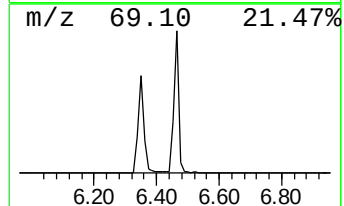
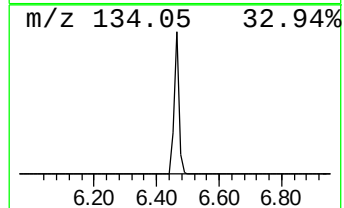
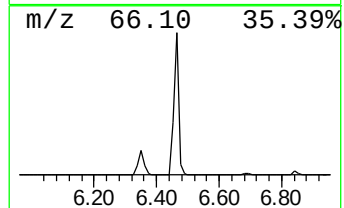
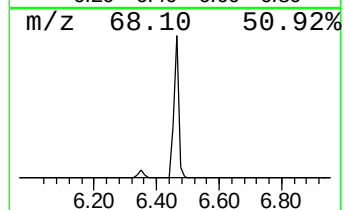
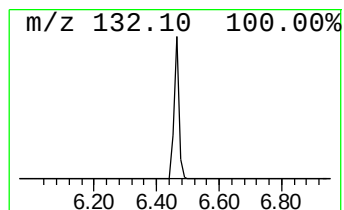
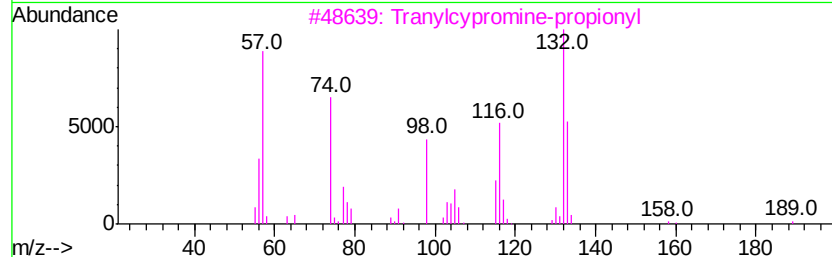
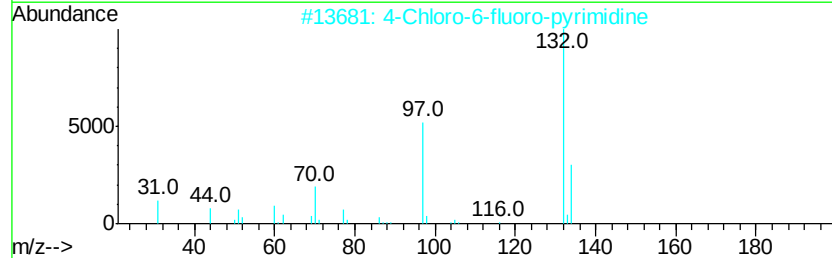
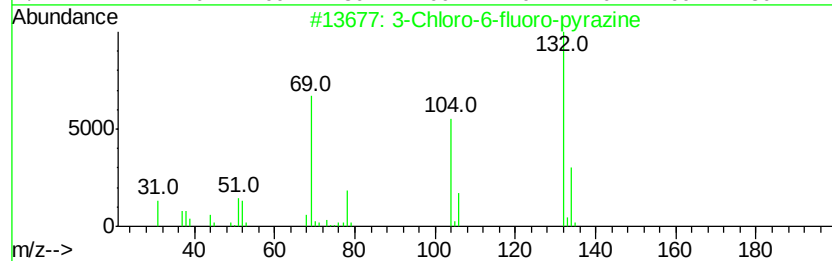
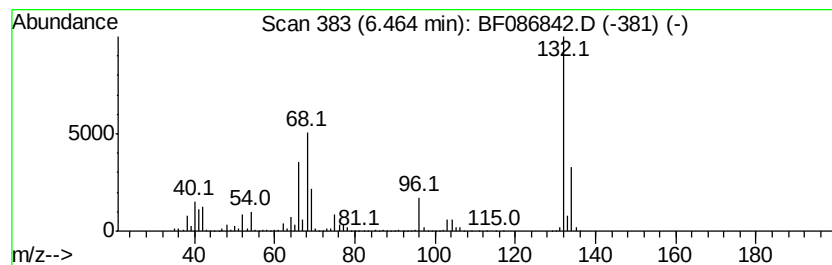
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 unknown6.46 Concentration Rank 1

| R.T. | EstConc   | Area    | Relative to ISTD       | R.T. |
|------|-----------|---------|------------------------|------|
| 6.46 | 100.17 ng | 5425690 | 1,4-Dichlorobenzene-d4 | 6.69 |

| Hit# | of | Tentative ID                 | MW  | MolForm   | CAS#         | Qual |
|------|----|------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 3-Chloro-6-fluoro-pyrazine   | 132 | C4H2ClFN2 | 1000146-10-7 | 27   |
| 2    |    | 4-Chloro-6-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-01-6  | 27   |
| 3    |    | Tranvlcyproline-propionyl    | 189 | C12H15NO  | 1000123-86-3 | 22   |
| 4    |    | 1H-Benzimidazole, 2-methyl-  | 132 | C8H8N2    | 000615-15-6  | 22   |
| 5    |    | 5-Fluoro-2-chloropyrimidine  | 132 | C4H2ClFN2 | 062802-42-0  | 16   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

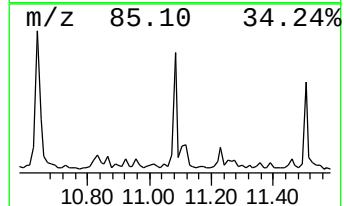
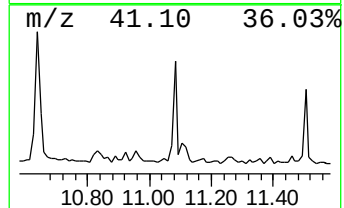
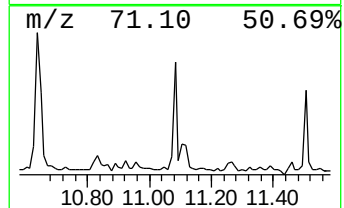
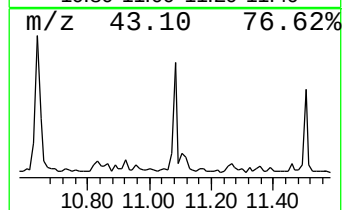
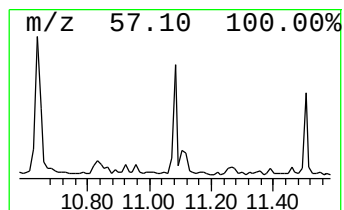
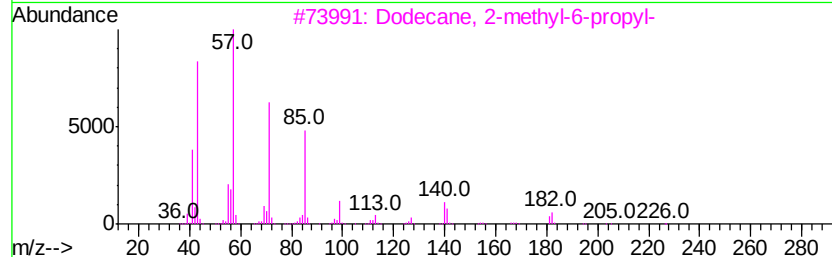
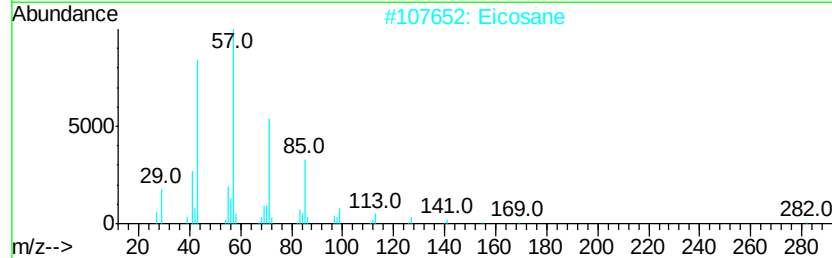
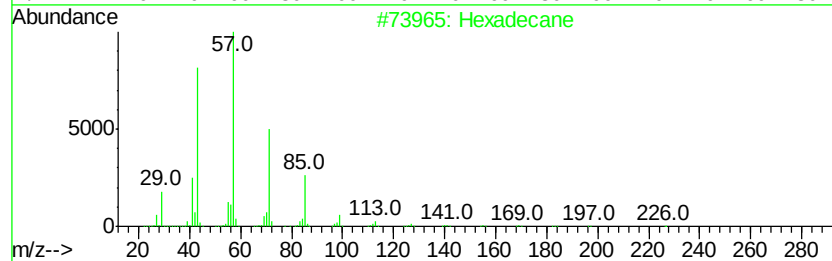
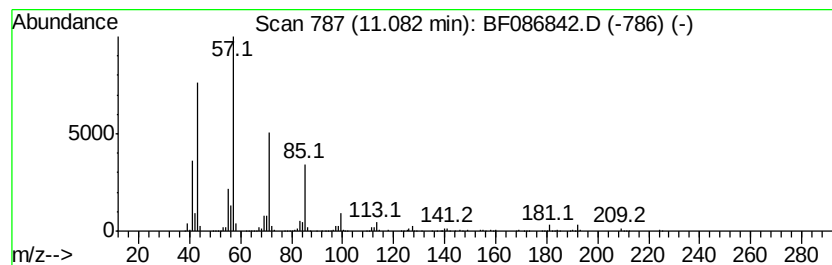
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 4 Hexadecane Concentration Rank 19

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.08 | 8.19 ng | 885054 | Phenanthrene-d10 | 11.21 |

| Hit# | of | Tentative ID                 | MW  | MolForm | CAS#        | Qual |
|------|----|------------------------------|-----|---------|-------------|------|
| 1    | 5  | Hexadecane                   | 226 | C16H34  | 000544-76-3 | 91   |
| 2    |    | Eicosane                     | 282 | C20H42  | 000112-95-8 | 87   |
| 3    |    | Dodecane, 2-methyl-6-propyl- | 226 | C16H34  | 055045-08-4 | 87   |
| 4    |    | Tetradecane                  | 198 | C14H30  | 000629-59-4 | 86   |
| 5    |    | Tetradecane, 1-iodo-         | 324 | C14H29I | 019218-94-1 | 86   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
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Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

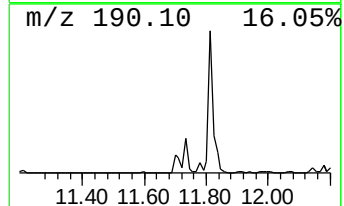
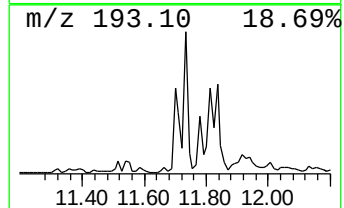
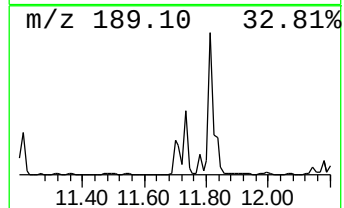
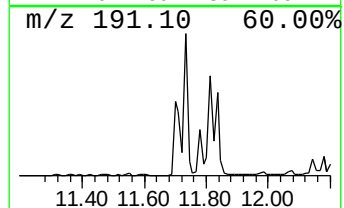
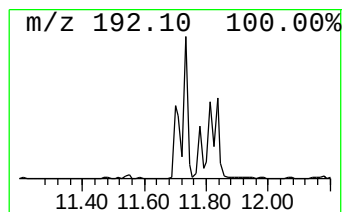
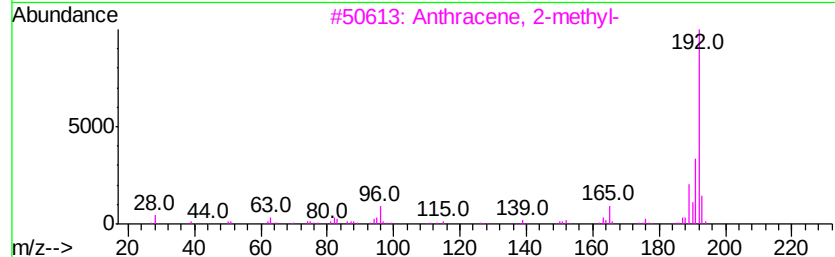
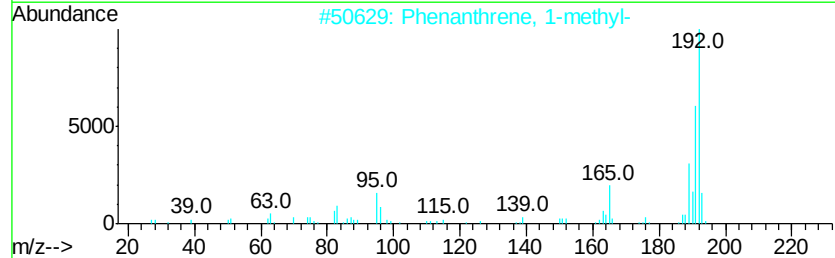
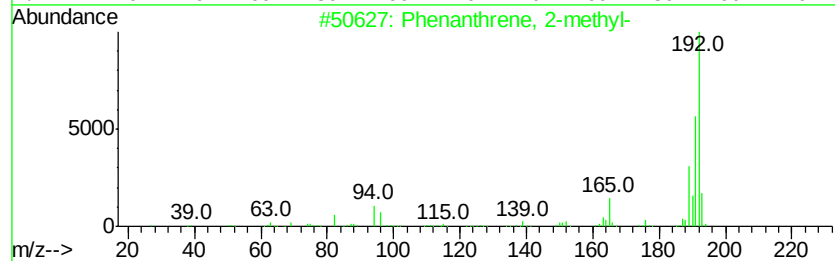
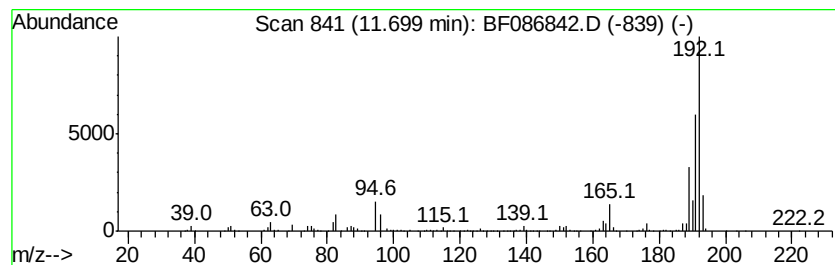
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 5 Phenanthrene, 2-methyl- Concentration Rank 8

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 11.70 | 10.71 ng | 1157640 | Phenanthrene-d10 | 11.21 |

| Hit# of | 5 | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|---------|---|-------------------------|-----|---------|-------------|------|
| 1       |   | Phenanthrene, 2-methyl- | 192 | C15H12  | 002531-84-2 | 98   |
| 2       |   | Phenanthrene, 1-methyl- | 192 | C15H12  | 000832-69-9 | 95   |
| 3       |   | Anthracene, 2-methyl-   | 192 | C15H12  | 000613-12-7 | 94   |
| 4       |   | Anthracene, 1-methyl-   | 192 | C15H12  | 000610-48-0 | 93   |
| 5       |   | Anthracene, 9-methyl-   | 192 | C15H12  | 000779-02-2 | 91   |





Data Path : Z:\HPCHEM1\BNA F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

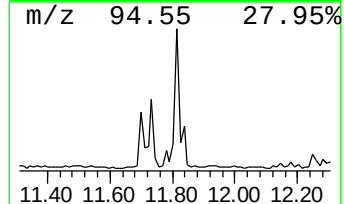
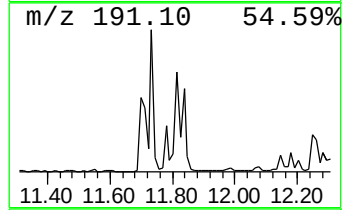
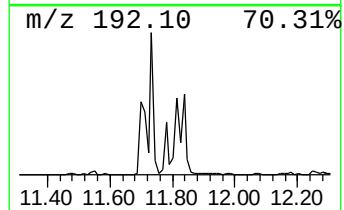
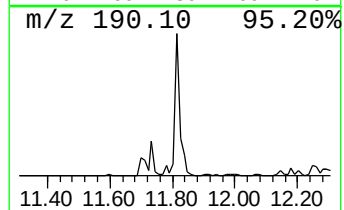
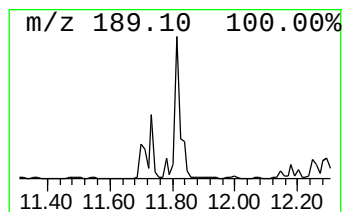
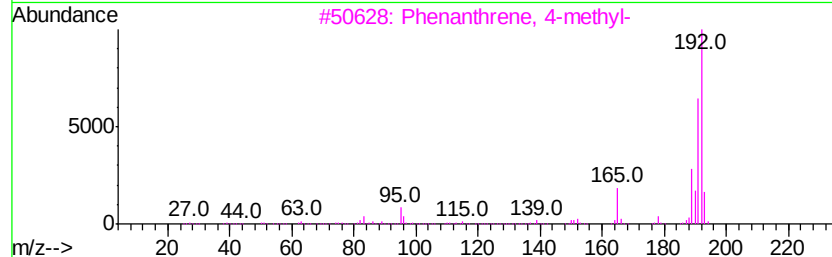
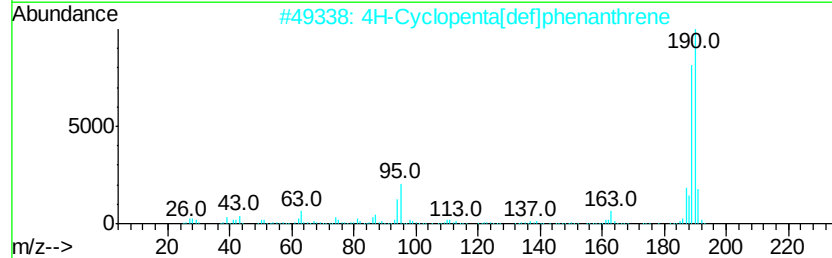
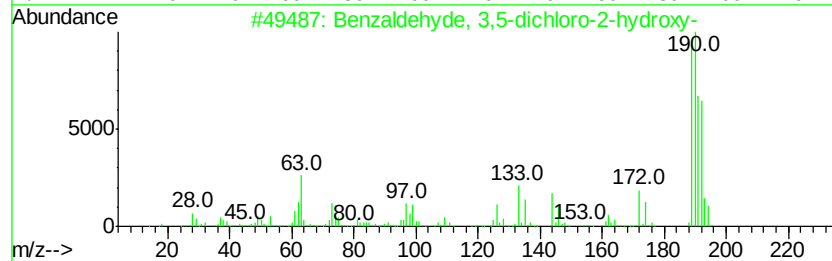
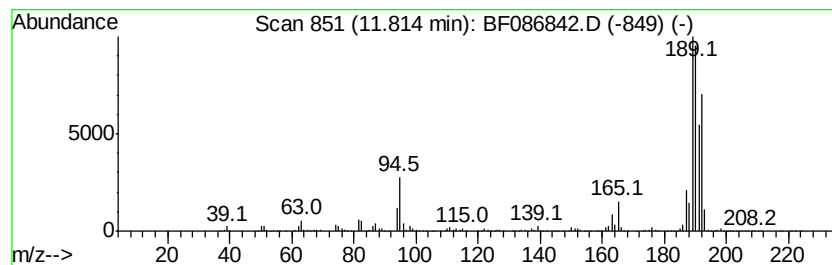
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 7 Benzaldehyde, 3,5-dichloro-... Concentration Rank 4

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 11.81 | 22.05 ng | 2383040 | Phenanthrene-d10 | 11.21 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#        | Qual |
|------|----|-------------------------------------|-----|-----------|-------------|------|
| 1    | 5  | Benzaldehyde, 3,5-dichloro-2-hyd... | 190 | C7H4Cl2O2 | 000090-60-8 | 64   |
| 2    |    | 4H-Cyclopenta[def]phenanthrene      | 190 | C15H10    | 000203-64-5 | 55   |
| 3    |    | Phenanthrene, 4-methyl-             | 192 | C15H12    | 000832-64-4 | 35   |
| 4    |    | 5H-Dibenzo[a,d]cycloheptene         | 192 | C15H12    | 000256-81-5 | 35   |
| 5    |    | Naphtho[2,3-b]norbornadiene         | 192 | C15H12    | 107426-38-0 | 25   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

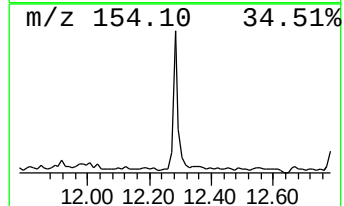
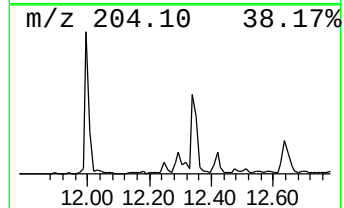
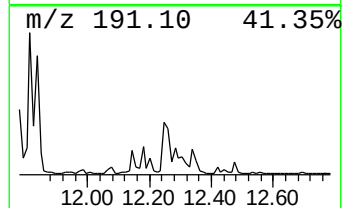
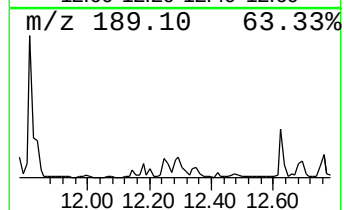
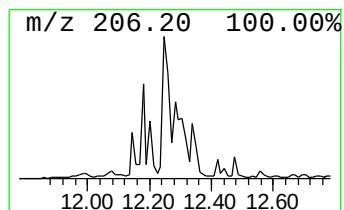
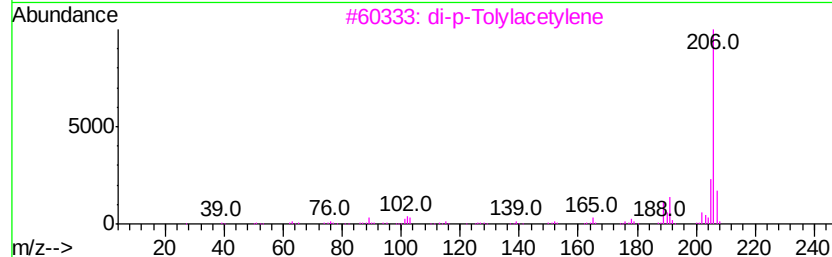
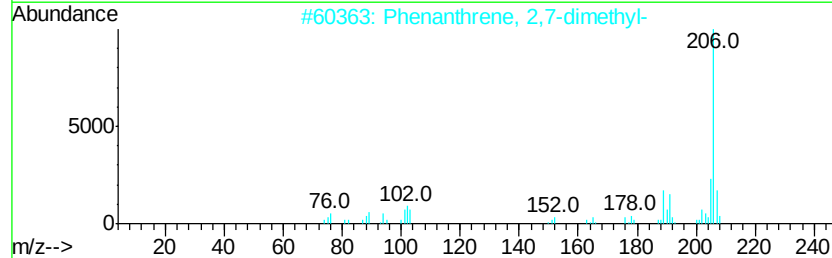
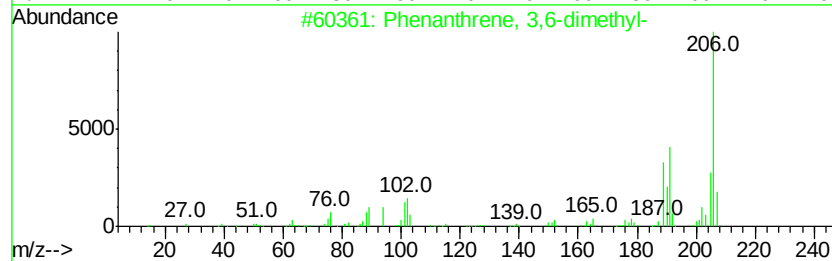
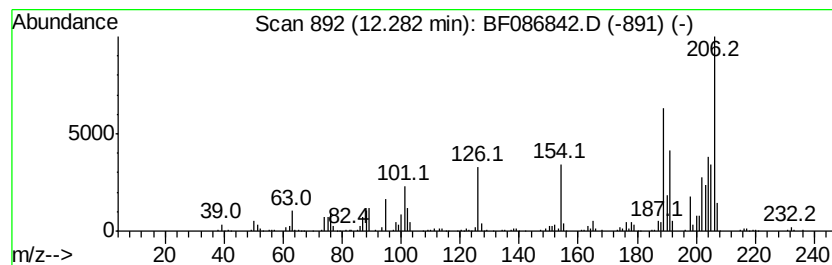
Instrument :  
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ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050916.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 8 Phenanthrene, 3,6-dimethyl- Concentration Rank 20

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.        |      |
|-----------|-------------------------------------|--------|------------------|-------------|------|
| 12.28     | 8.08 ng                             | 873447 | Phenanthrene-d10 | 11.21       |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#        | Qual |
| 1         | Phenanthrene, 3,6-dimethyl-         | 206    | C16H14           | 001576-67-6 | 90   |
| 2         | Phenanthrene, 2,7-dimethyl-         | 206    | C16H14           | 001576-69-8 | 60   |
| 3         | di-p-Tolylacetylene                 | 206    | C16H14           | 002789-88-0 | 49   |
| 4         | Benzene, (2-methylene-1-phenylcy... | 206    | C16H14           | 025152-47-0 | 46   |
| 5         | Naphthalene, 1,2-dihydro-1-phenyl-  | 206    | C16H14           | 016606-46-5 | 45   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

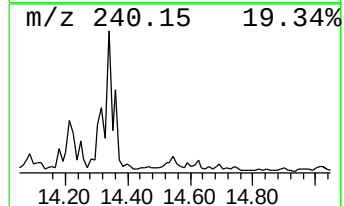
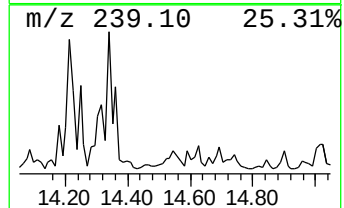
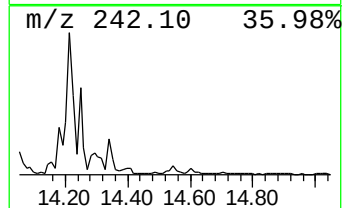
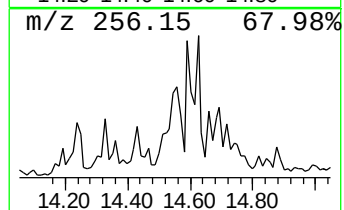
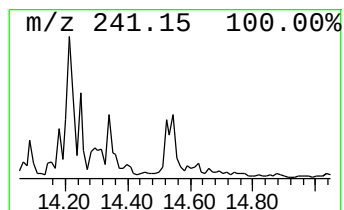
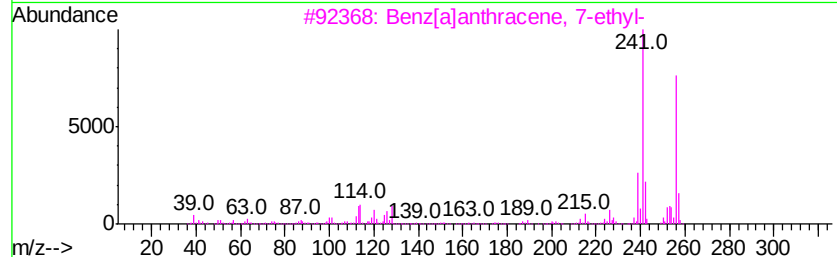
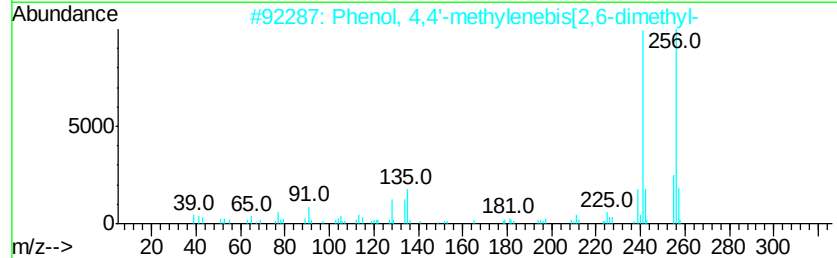
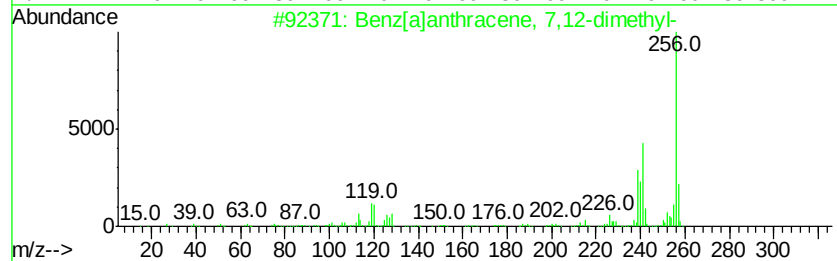
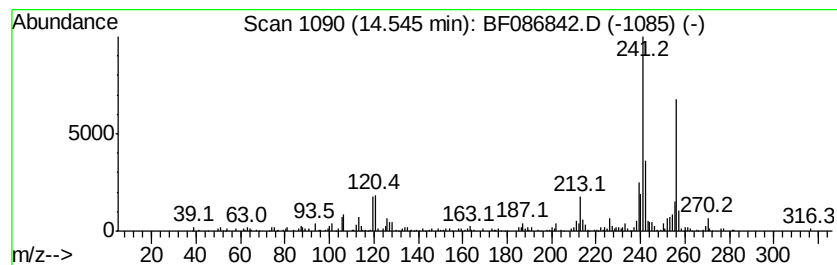
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 10 Benz[a]anthracene, 7,12-dim... Concentration Rank 14

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 14.55 | 9.50 ng | 414417 | Perylene-d12     | 15.21 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|----------|-------------|------|
| 1    |    |   | Benz[a]anthracene, 7,12-dimethyl-   | 256 | C20H16   | 000057-97-6 | 70   |
| 2    |    |   | Phenol, 4,4'-methylenebis[2,6-di... | 256 | C17H20O2 | 005384-21-4 | 68   |
| 3    |    |   | Benz[a]anthracene, 7-ethyl-         | 256 | C20H16   | 003697-30-1 | 53   |
| 4    |    |   | Dibenzo(b,def)carbazole             | 241 | C18H11N  | 104313-09-9 | 50   |
| 5    |    |   | Benzene, 1,1',1''-(1-ethenyl-2-y... | 256 | C20H16   | 000058-72-0 | 46   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

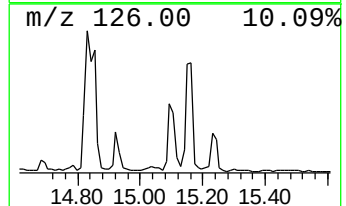
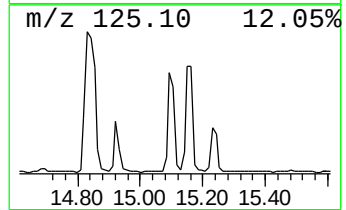
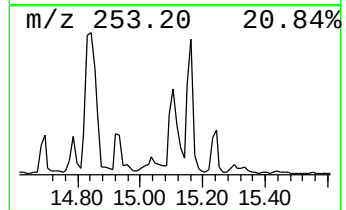
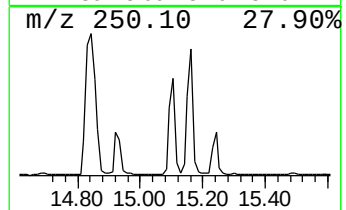
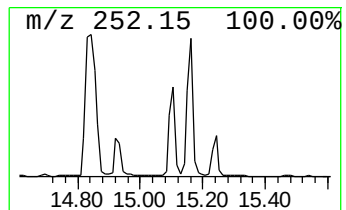
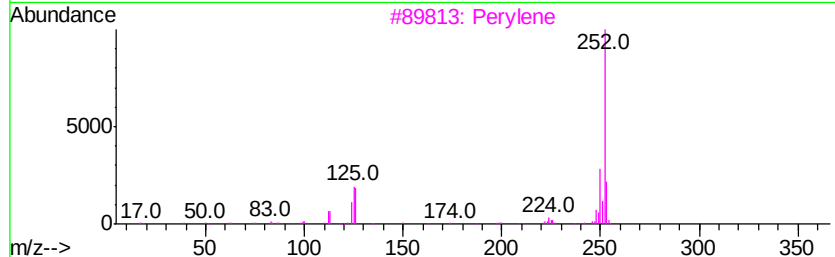
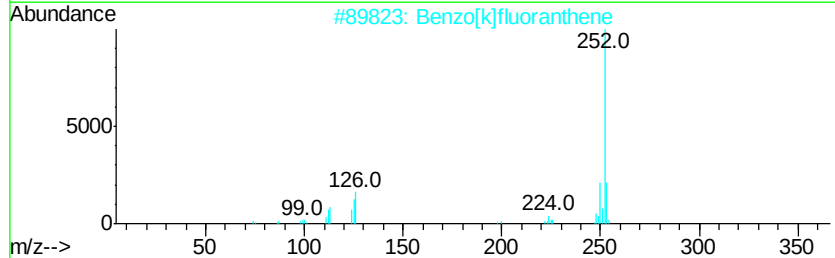
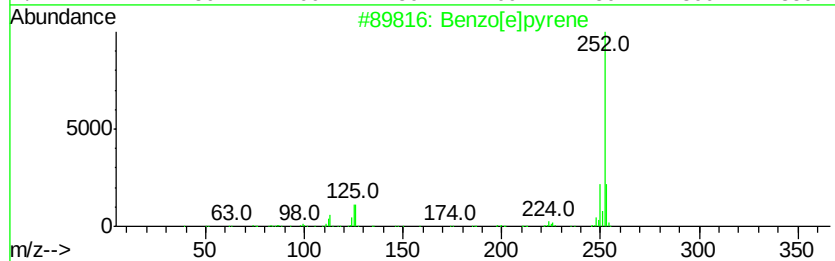
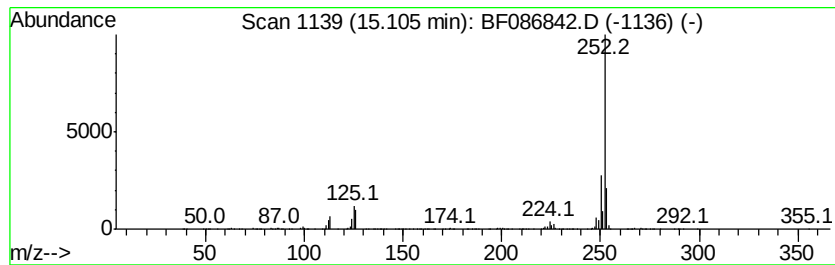
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 12 Benzo[e]pyrene Concentration Rank 3

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 15.11 | 36.13 ng | 1576490 | Perylene-d12     | 15.21 |

| Hit# | of | Tentative ID             | MW  | MolForm | CAS#        | Qual |
|------|----|--------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[e]pyrene           | 252 | C20H12  | 000192-97-2 | 99   |
| 2    |    | Benzo[k]fluoranthene     | 252 | C20H12  | 000207-08-9 | 97   |
| 3    |    | Perylene                 | 252 | C20H12  | 000198-55-0 | 97   |
| 4    |    | Benzo[a]pyrene           | 252 | C20H12  | 000050-32-8 | 96   |
| 5    |    | Benz[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 95   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050916\  
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Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

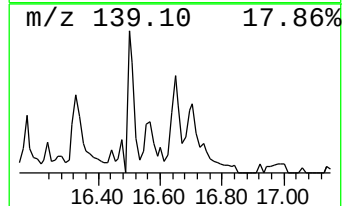
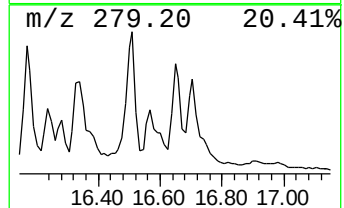
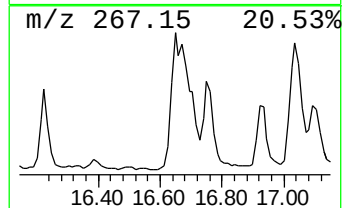
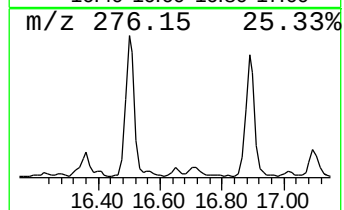
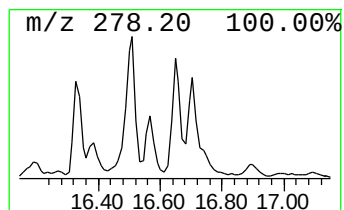
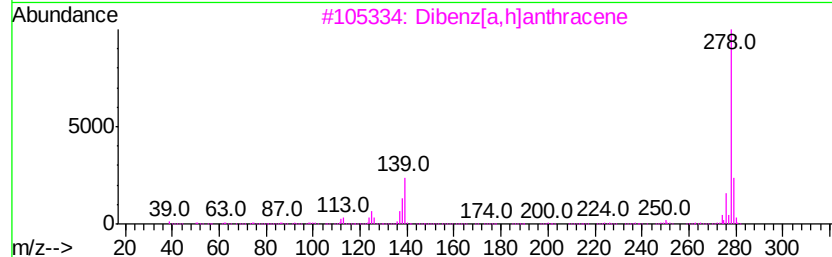
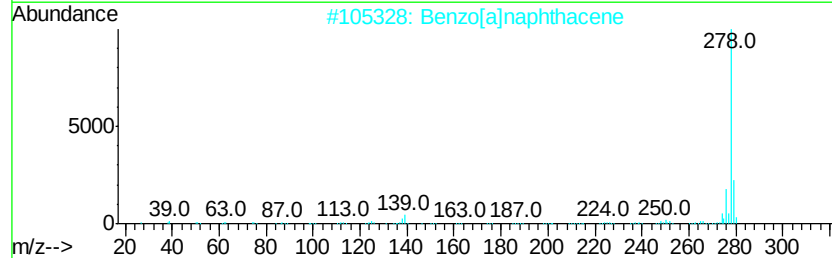
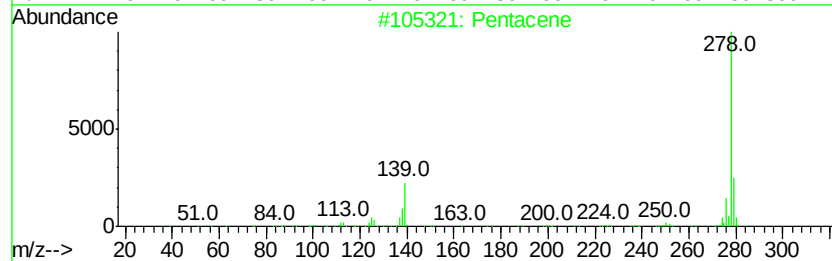
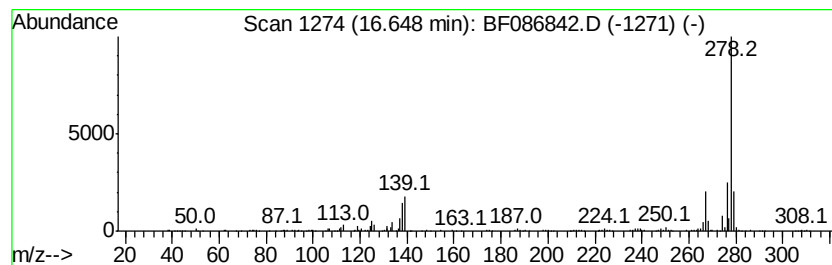
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 13 Pentacene Concentration Rank 12

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 16.65 | 10.28 ng | 448697 | Perylene-d12     | 15.21 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Pentacene                   | 278 | C22H14  | 000135-48-8 | 93   |
| 2    |    | Benzo[a]naphthacene         | 278 | C22H14  | 000226-88-0 | 86   |
| 3    |    | Dibenz[a,h]anthracene       | 278 | C22H14  | 000053-70-3 | 86   |
| 4    |    | Benzo[b]triphenylene        | 278 | C22H14  | 000215-58-7 | 70   |
| 5    |    | 1,2:7,8-Dibenzophenanthrene | 278 | C22H14  | 000213-46-7 | 64   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

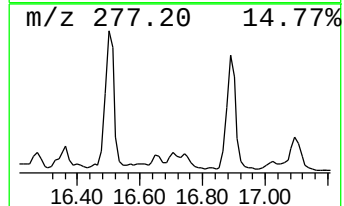
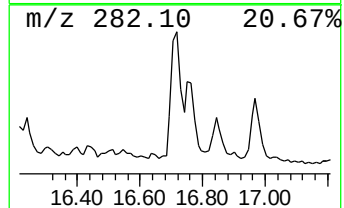
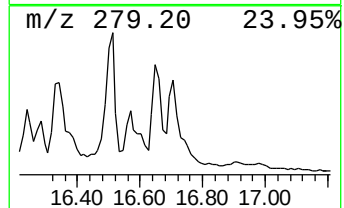
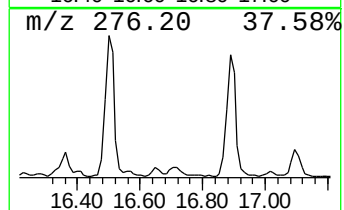
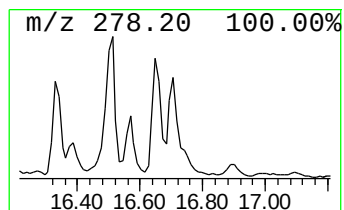
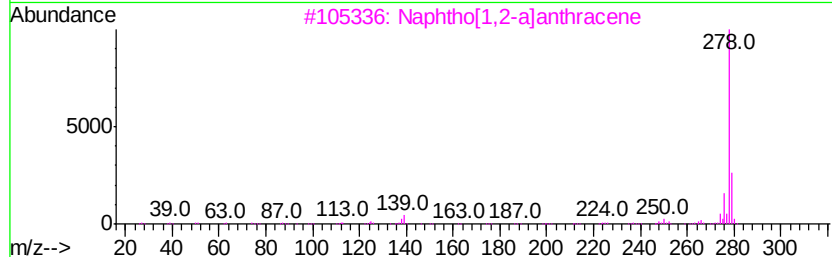
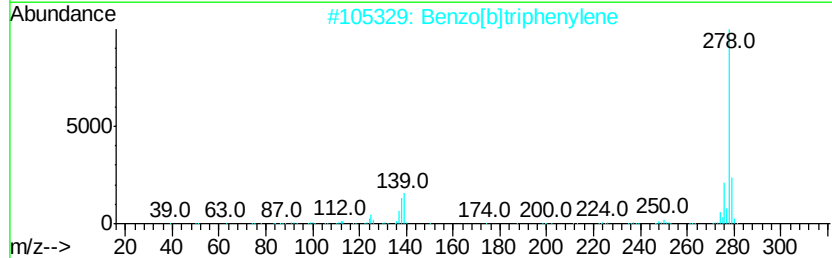
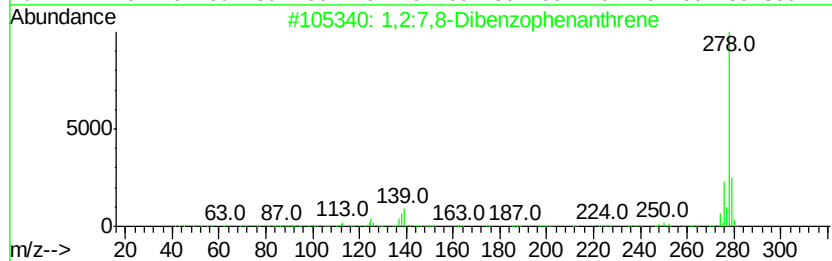
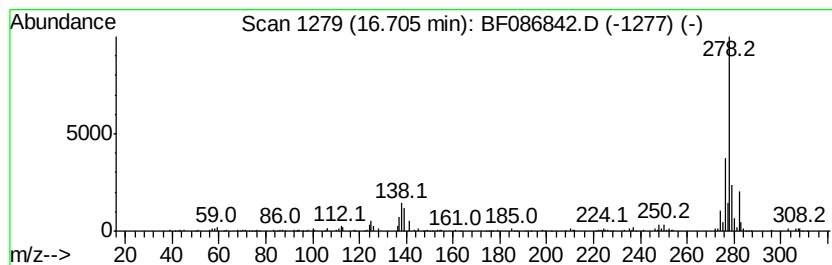
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 14 1,2:7,8-Dibenzophenanthrene Concentration Rank 15

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 16.71 | 8.88 ng | 387310 | Perylene-d12     | 15.21 |

| Hit# | of | 5 | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|---|-----------------------------|-----|---------|-------------|------|
| 1    |    |   | 1,2:7,8-Dibenzophenanthrene | 278 | C22H14  | 000213-46-7 | 95   |
| 2    |    |   | Benzo[b]triphenylene        | 278 | C22H14  | 000215-58-7 | 95   |
| 3    |    |   | Naphtho[1,2-a]anthracene    | 278 | C22H14  | 000195-06-2 | 86   |
| 4    |    |   | Dibenz[a,h]anthracene       | 278 | C22H14  | 000053-70-3 | 86   |
| 5    |    |   | Benzo[b]chrysene            | 278 | C22H14  | 000214-17-5 | 83   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

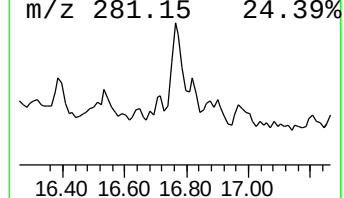
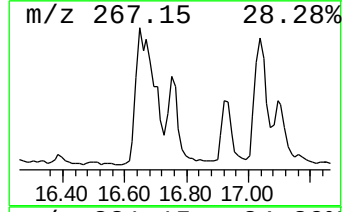
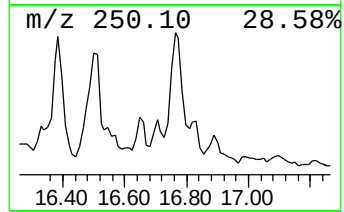
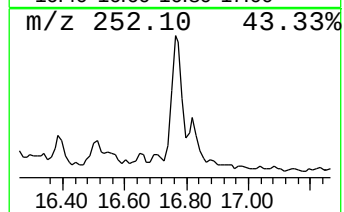
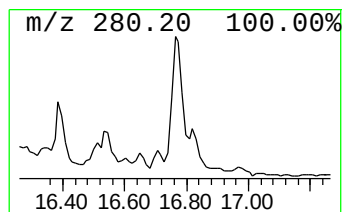
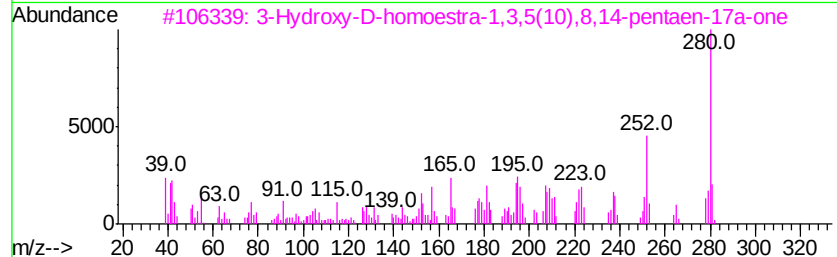
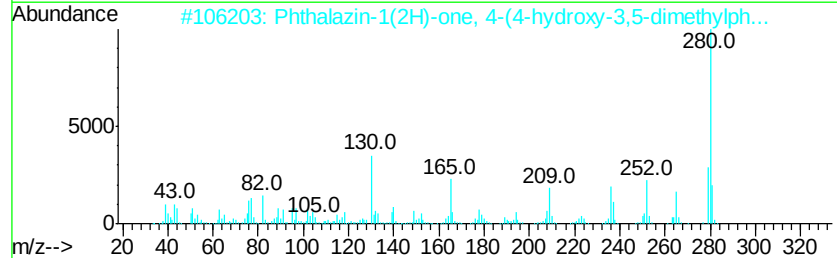
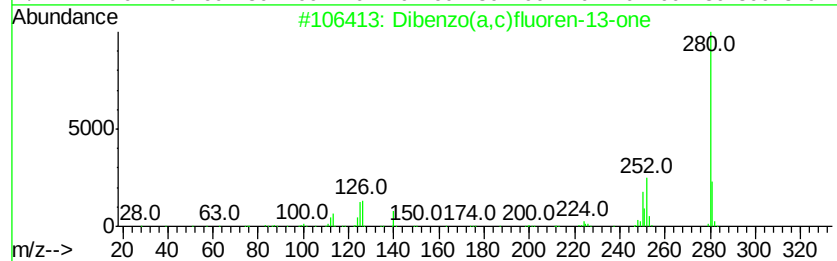
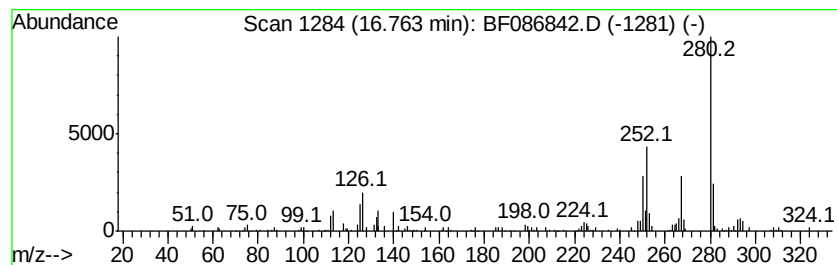
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 15 Dibenzo(a,c)fluoren-13-one Concentration Rank 16

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 16.76 | 8.67 ng | 378223 | Perylene-d12     | 15.21 |

| Hit# | of | Tentative ID                        | MW  | MolForm    | CAS#         | Qual |
|------|----|-------------------------------------|-----|------------|--------------|------|
| 1    | 5  | Dibenzo(a,c)fluoren-13-one          | 280 | C21H12O    | 063041-47-4  | 90   |
| 2    |    | Phthalazin-1(2H)-one, 4-(4-hydro... | 280 | C17H16N2O2 | 203246-97-3  | 49   |
| 3    |    | 3-Hydroxy-D-homoestra-1,3,5(10),... | 280 | C19H20O2   | 1000215-90-6 | 47   |
| 4    |    | Dibenz[a,h]anthracene, 5,6-dihydro- | 280 | C22H16     | 000153-34-4  | 38   |
| 5    |    | Ibogamine, (2.alpha.,5.beta.,6.a... | 280 | C19H24N2   | 001673-99-0  | 38   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

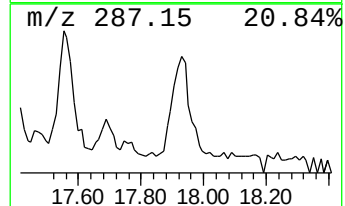
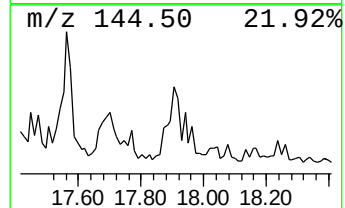
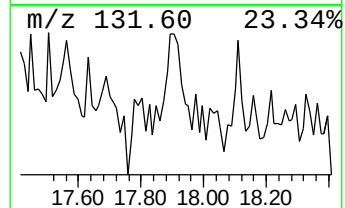
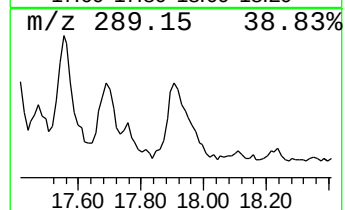
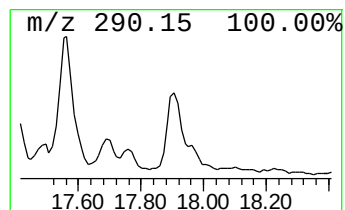
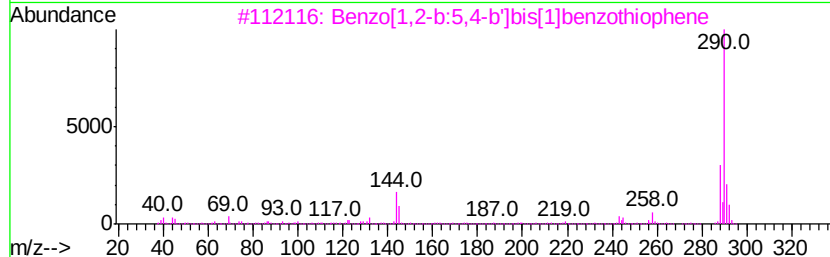
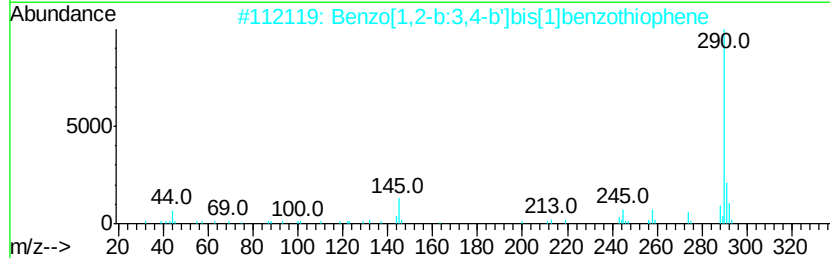
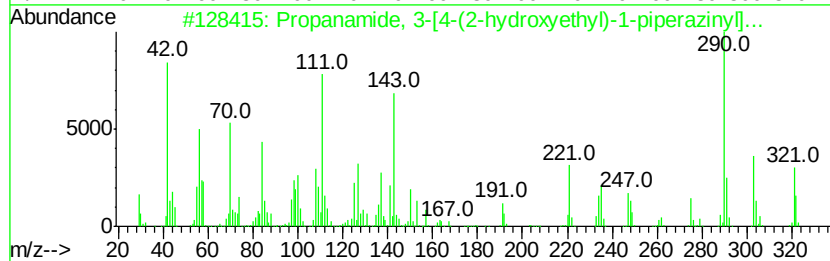
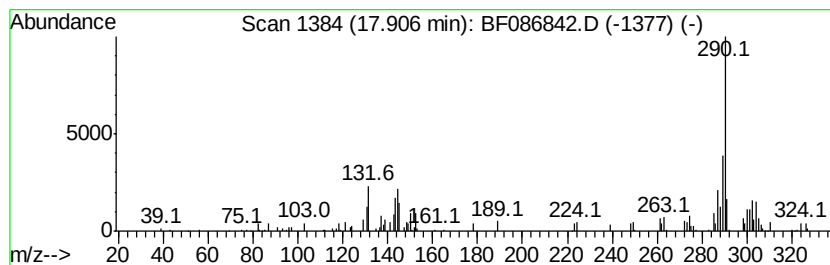
Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 17 unknown17.91 Concentration Rank 17

| R.T.    | EstConc | Area                                                                                   | Relative to ISTD | R.T.        |              |      |
|---------|---------|----------------------------------------------------------------------------------------|------------------|-------------|--------------|------|
| 17.91   | 8.35 ng | 364144                                                                                 | Perylene-d12     | 15.21       |              |      |
| Hit# of | 5       | Tentative ID                                                                           | MW               | MolForm     | CAS#         | Qual |
| 1       |         | Propanamide, 3-[4-(2-hydroxyethyl)-1-piperazinyl]benzothio-                            | 321              | C17H27N3O3  | 329212-52-4  | 38   |
| 2       |         | Benzo[1,2-b:3,4-b']bis[1]benzothio-                                                    | 290              | C18H10S2    | 000198-89-0  | 38   |
| 3       |         | Benzo[1,2-b:5,4-b']bis[1]benzothio-                                                    | 290              | C18H10S2    | 000241-37-2  | 32   |
| 4       |         | 1,3-Isoindolinedione, 2-{5-[(1,1-dimethyl-4-piperidinyl)methyl]-1H-1,2,4-triazol-4-yl} | 305              | C16H23N03Si | 1000197-59-8 | 30   |
| 5       |         | Benzo[ghi]perylene, 4-methyl-                                                          | 290              | C23H14      | 019224-38-5  | 28   |





Data Path : Z:\HPCHEM1\BNA F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

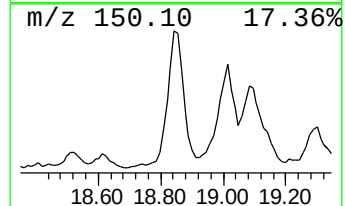
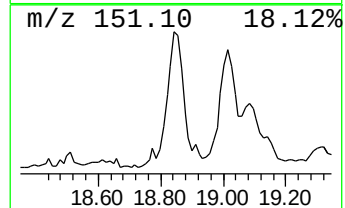
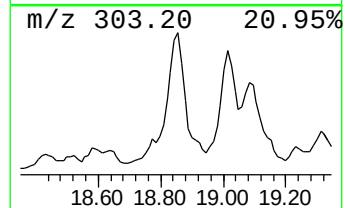
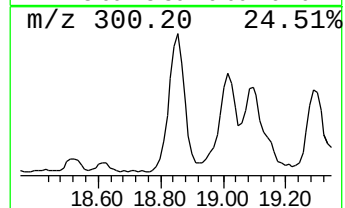
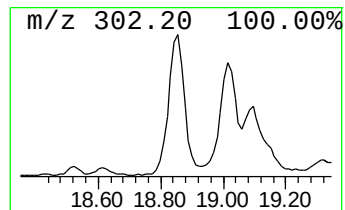
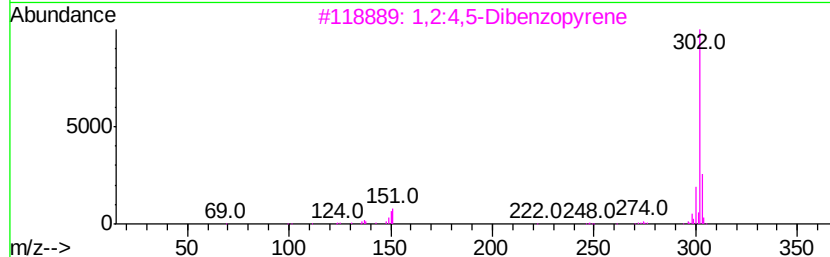
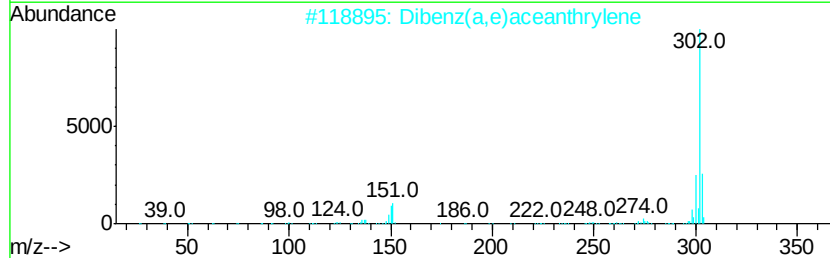
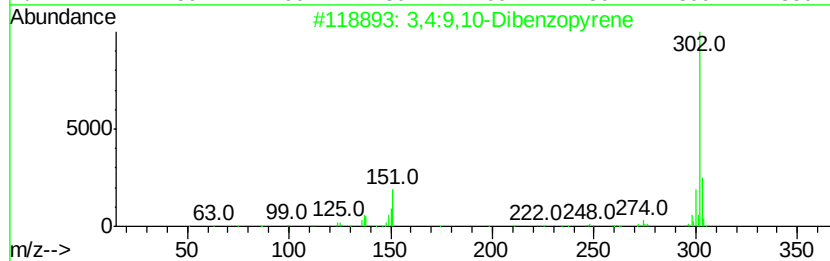
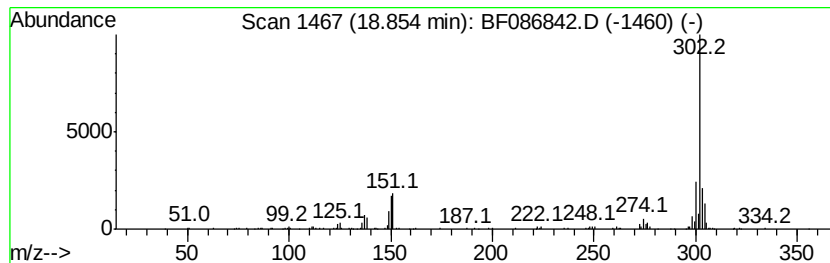
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 18 3,4:9,10-Dibenzopyrene Concentration Rank 5

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 18.85 | 15.36 ng | 670123 | Perylene-d12     | 15.21 |

| Hit# | of | Tentative ID               | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------|-----|---------|-------------|------|
| 1    | 5  | 3,4:9,10-Dibenzopyrene     | 302 | C24H14  | 000189-55-9 | 97   |
| 2    |    | Dibenz(a,e)aceanthrylene   | 302 | C24H14  | 005385-75-1 | 97   |
| 3    |    | 1,2:4,5-Dibenzopyrene      | 302 | C24H14  | 000192-65-4 | 95   |
| 4    |    | Indeno[1,2,3-f]naphthacene | 302 | C24H14  | 000203-11-2 | 94   |
| 5    |    | 3,4:8,9-Dibenzopyrene      | 302 | C24H14  | 000189-64-0 | 94   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF050916\  
Data File : BF086842.D  
Acq On : 10 May 2016 1:25  
Operator : UM/SJ  
Sample : H2895-08  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUPA-050316

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF050916.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

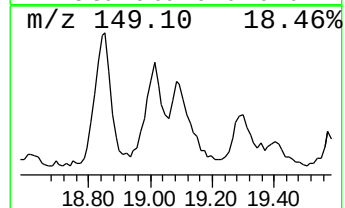
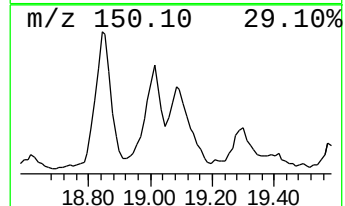
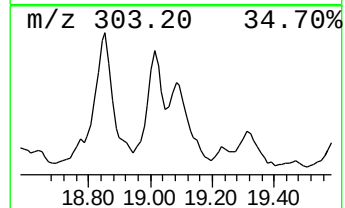
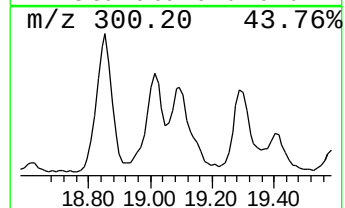
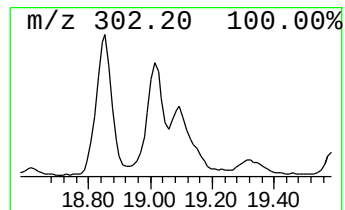
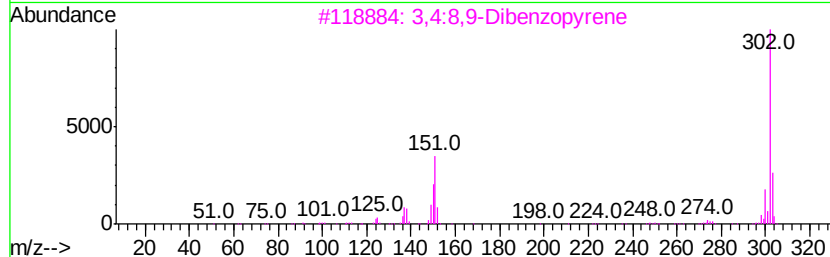
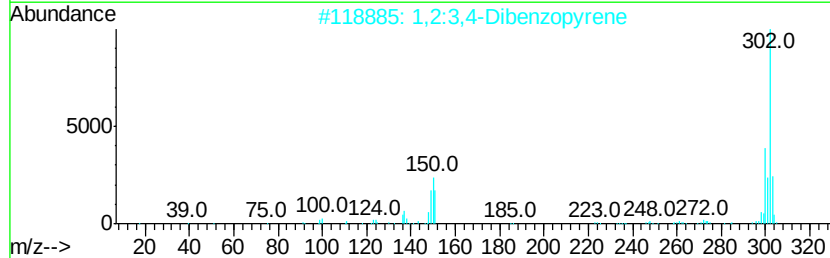
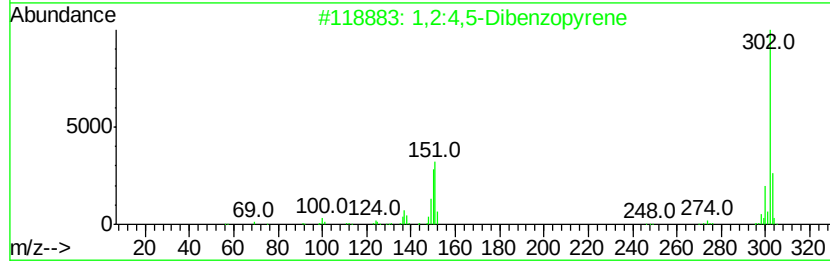
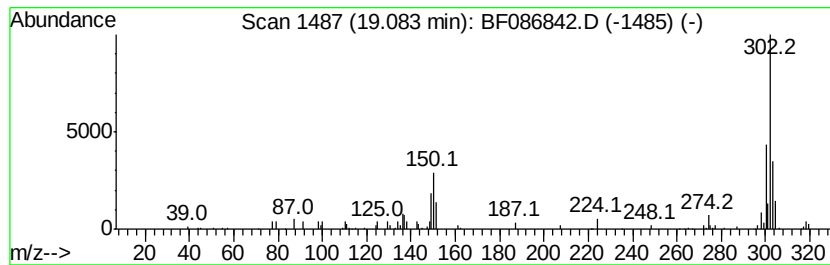
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 20 1,2:4,5-Dibenzopyrene Concentration Rank 18

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 19.08 | 8.31 ng | 362783 | Perylene-d12     | 15.21 |

| Hit# | of | Tentative ID             | MW  | MolForm | CAS#        | Qual |
|------|----|--------------------------|-----|---------|-------------|------|
| 1    | 5  | 1,2:4,5-Dibenzopyrene    | 302 | C24H14  | 000192-65-4 | 92   |
| 2    |    | 1,2:3,4-Dibenzopyrene    | 302 | C24H14  | 000191-30-0 | 78   |
| 3    |    | 3,4:8,9-Dibenzopyrene    | 302 | C24H14  | 000189-64-0 | 70   |
| 4    |    | Dibenz(a,e)aceanthrylene | 302 | C24H14  | 005385-75-1 | 60   |
| 5    |    | 3,4:9,10-Dibenzopyrene   | 302 | C24H14  | 000189-55-9 | 60   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF050916\  
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 Acq On : 10 May 2016 1:25  
 Operator : UM/SJ  
 Sample : H2895-08  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DUPA-050316

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF050916.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

| TIC Top Hit name     | RT    | EstConc | Units | Response | --Internal Standard-- |       |         |      |
|----------------------|-------|---------|-------|----------|-----------------------|-------|---------|------|
|                      |       |         |       |          | #                     | RT    | Resp    | Conc |
| 2-Pentanone, 4-hy... | 4.86  | 10.3    | ng    | 557438   | 1                     | 6.69  | 1083350 | 20.0 |
| unknown6.46          | 6.46  | 100.2   | ng    | 5425690  | 1                     | 6.69  | 1083350 | 20.0 |
| Hexadecane           | 11.08 | 8.2     | ng    | 885054   | 4                     | 11.21 | 2161050 | 20.0 |
| Phenanthrene, 2-m... | 11.70 | 10.7    | ng    | 1157640  | 4                     | 11.21 | 2161050 | 20.0 |
| Benzaldehyde, 3,5... | 11.81 | 22.1    | ng    | 2383040  | 4                     | 11.21 | 2161050 | 20.0 |
| Phenanthrene, 3,6... | 12.28 | 8.1     | ng    | 873447   | 4                     | 11.21 | 2161050 | 20.0 |
| Benz[a]anthracene... | 14.55 | 9.5     | ng    | 414417   | 6                     | 15.21 | 872635  | 20.0 |
| Benzo[e]pyrene       | 15.11 | 36.1    | ng    | 1576490  | 6                     | 15.21 | 872635  | 20.0 |
| Pentacene            | 16.65 | 10.3    | ng    | 448697   | 6                     | 15.21 | 872635  | 20.0 |
| 1,2:7,8-Dibenzoph... | 16.71 | 8.9     | ng    | 387310   | 6                     | 15.21 | 872635  | 20.0 |
| Dibenzo(a,c)fluor... | 16.76 | 8.7     | ng    | 378223   | 6                     | 15.21 | 872635  | 20.0 |
| unknown17.91         | 17.91 | 8.3     | ng    | 364144   | 6                     | 15.21 | 872635  | 20.0 |
| 3,4:9,10-Dibenzop... | 18.85 | 15.4    | ng    | 670123   | 6                     | 15.21 | 872635  | 20.0 |
| 1,2:4,5-Dibenzopy... | 19.08 | 8.3     | ng    | 362783   | 6                     | 15.21 | 872635  | 20.0 |