

Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
 Data File : BP001139.D  
 Acq On : 02 Dec 2019 21:42  
 Operator : JU  
 Sample : K5676-35 2X  
 Misc :  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 BNA\_P  
 ClientSampleId :  
 SU-01-112719

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:\SVOASRV\HPCHEM1\BNA\_P\METHODS\8270-BP112719.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         | 5.628       | 595           | 602         | 617          | rBV      | 211632         | 321008        | 4.59%           | 0.273%        |
| 2         | 6.228       | 698           | 704         | 715          | rVB      | 1232976        | 1528613       | 21.84%          | 1.302%        |
| 3         | 7.763       | 960           | 965         | 975          | rBV      | 1374643        | 1637082       | 23.39%          | 1.395%        |
| 4         | 7.958       | 993           | 998         | 1010         | rVB      | 1292550        | 1583495       | 22.62%          | 1.349%        |
| 5         | 8.328       | 1056          | 1061        | 1068         | rVB      | 845164         | 965523        | 13.79%          | 0.823%        |
| 6         | 8.569       | 1096          | 1102        | 1107         | rVB      | 1030986        | 1229546       | 17.56%          | 1.047%        |
| 7         | 9.205       | 1204          | 1210        | 1218         | rBV      | 854901         | 993601        | 14.19%          | 0.846%        |
| 8         | 10.363      | 1396          | 1407        | 1410         | rBV      | 1070524        | 1278096       | 18.26%          | 1.089%        |
| 9         | 11.687      | 1628          | 1632        | 1636         | rVB      | 215513         | 243551        | 3.48%           | 0.207%        |
| 10        | 12.140      | 1702          | 1709        | 1714         | rBV      | 1484289        | 1773707       | 25.34%          | 1.511%        |
| 11        | 12.681      | 1794          | 1801        | 1805         | rBV      | 273004         | 399083        | 5.70%           | 0.340%        |
| 12        | 12.781      | 1813          | 1818        | 1821         | rVV      | 182577         | 272547        | 3.89%           | 0.232%        |
| 13        | 12.869      | 1827          | 1833        | 1846         | rVB2     | 201638         | 488535        | 6.98%           | 0.416%        |
| 14        | 12.993      | 1848          | 1854        | 1859         | rBV      | 931248         | 1171318       | 16.73%          | 0.998%        |
| 15        | 13.228      | 1889          | 1894        | 1898         | rBV2     | 1298420        | 1596547       | 22.81%          | 1.360%        |
| 16        | 13.281      | 1898          | 1903        | 1907         | rVB      | 314702         | 379213        | 5.42%           | 0.323%        |
| 17        | 13.404      | 1919          | 1924        | 1935         | rBV      | 948343         | 1173284       | 16.76%          | 1.000%        |
| 18        | 13.563      | 1947          | 1951        | 1953         | rBV      | 194256         | 257389        | 3.68%           | 0.219%        |
| 19        | 13.645      | 1962          | 1965        | 1970         | rVB2     | 183227         | 227649        | 3.25%           | 0.194%        |
| 20        | 13.757      | 1978          | 1984        | 1989         | rBV4     | 167498         | 367683        | 5.25%           | 0.313%        |
| 21        | 14.051      | 2029          | 2034        | 2037         | rBV2     | 301902         | 411037        | 5.87%           | 0.350%        |
| 22        | 14.128      | 2043          | 2047        | 2054         | rVB      | 581217         | 797436        | 11.39%          | 0.679%        |
| 23        | 14.404      | 2089          | 2094        | 2095         | rBV      | 188024         | 256075        | 3.66%           | 0.218%        |
| 24        | 14.516      | 2105          | 2113        | 2125         | rBV3     | 855574         | 1399235       | 19.99%          | 1.192%        |
| 25        | 14.834      | 2162          | 2167        | 2169         | rBV      | 294607         | 373503        | 5.34%           | 0.318%        |
| 26        | 14.857      | 2169          | 2171        | 2178         | rVB4     | 164677         | 287808        | 4.11%           | 0.245%        |
| 27        | 14.998      | 2191          | 2195        | 2198         | rBV      | 850933         | 980374        | 14.01%          | 0.835%        |
| 28        | 15.075      | 2204          | 2208        | 2214         | rVB3     | 185093         | 299428        | 4.28%           | 0.255%        |
| 29        | 15.163      | 2214          | 2223        | 2227         | rBV4     | 175174         | 370503        | 5.29%           | 0.316%        |
| 30        | 15.251      | 2234          | 2238        | 2242         | rBV4     | 159298         | 289591        | 4.14%           | 0.247%        |
| 31        | 15.463      | 2270          | 2274        | 2278         | rVB      | 339693         | 377826        | 5.40%           | 0.322%        |
| 32        | 15.545      | 2284          | 2288        | 2292         | rVB      | 274610         | 291441        | 4.16%           | 0.248%        |
| 33        | 15.628      | 2298          | 2302        | 2305         | rVV      | 1087102        | 1344181       | 19.20%          | 1.145%        |
| 34        | 15.669      | 2305          | 2309        | 2313         | rVV      | 3274956        | 3817197       | 54.53%          | 3.252%        |

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Instrument :  
 BNA\_P  
 ClientSampleId :  
 SU-01-112719

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:\SVOASRV\HPCHEM1\BNA\_P\METHODS\8270-BP112719.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |         |        |
|----|--------|------|------|------|------|---------|---------|---------|--------|
| 35 | 15.739 | 2317 | 2321 | 2326 | rVB  | 1501437 | 1645483 | 23.51%  | 1.402% |
| 36 | 15.822 | 2331 | 2335 | 2338 | rBV  | 183725  | 228443  | 3.26%   | 0.195% |
| 37 | 16.128 | 2384 | 2387 | 2392 | rVB2 | 377391  | 433939  | 6.20%   | 0.370% |
| 38 | 16.187 | 2393 | 2397 | 2399 | rBV  | 295618  | 307724  | 4.40%   | 0.262% |
| 39 | 16.251 | 2404 | 2408 | 2413 | rVB  | 252065  | 343030  | 4.90%   | 0.292% |
| 40 | 16.328 | 2415 | 2421 | 2425 | rBV  | 1615191 | 1830726 | 26.15%  | 1.560% |
| 41 | 16.387 | 2426 | 2431 | 2434 | rVV  | 966797  | 1170747 | 16.72%  | 0.997% |
| 42 | 16.422 | 2434 | 2437 | 2444 | rVB  | 1303342 | 1476971 | 21.10%  | 1.258% |
| 43 | 16.486 | 2444 | 2448 | 2451 | rBV  | 537147  | 661283  | 9.45%   | 0.563% |
| 44 | 16.534 | 2451 | 2456 | 2460 | rVV  | 1633622 | 2478174 | 35.40%  | 2.111% |
| 45 | 16.575 | 2460 | 2463 | 2467 | rVB  | 833124  | 932336  | 13.32%  | 0.794% |
| 46 | 16.769 | 2493 | 2496 | 2499 | rVV2 | 298784  | 345880  | 4.94%   | 0.295% |
| 47 | 16.816 | 2499 | 2504 | 2514 | rVB3 | 632963  | 1334615 | 19.07%  | 1.137% |
| 48 | 17.022 | 2536 | 2539 | 2543 | rVV  | 259118  | 304432  | 4.35%   | 0.259% |
| 49 | 17.069 | 2543 | 2547 | 2549 | rVV  | 381833  | 434329  | 6.20%   | 0.370% |
| 50 | 17.098 | 2549 | 2552 | 2556 | rVB  | 308947  | 350613  | 5.01%   | 0.299% |
| 51 | 17.169 | 2559 | 2564 | 2568 | rBV  | 954388  | 1383613 | 19.77%  | 1.179% |
| 52 | 17.216 | 2568 | 2572 | 2575 | rVV  | 651483  | 960307  | 13.72%  | 0.818% |
| 53 | 17.245 | 2575 | 2577 | 2579 | rVV  | 315318  | 322194  | 4.60%   | 0.274% |
| 54 | 17.286 | 2579 | 2584 | 2586 | rVV2 | 4481874 | 5447332 | 77.82%  | 4.641% |
| 55 | 17.322 | 2586 | 2590 | 2593 | rVV  | 5487520 | 6641085 | 94.87%  | 5.657% |
| 56 | 17.345 | 2593 | 2594 | 2596 | rVV  | 543431  | 403194  | 5.76%   | 0.343% |
| 57 | 17.386 | 2596 | 2601 | 2604 | rVV  | 4652391 | 5636555 | 80.52%  | 4.802% |
| 58 | 17.433 | 2607 | 2609 | 2612 | rVV  | 560667  | 602807  | 8.61%   | 0.514% |
| 59 | 17.469 | 2612 | 2615 | 2618 | rVV3 | 367497  | 476587  | 6.81%   | 0.406% |
| 60 | 17.504 | 2618 | 2621 | 2625 | rVV2 | 653681  | 816510  | 11.66%  | 0.696% |
| 61 | 17.575 | 2629 | 2633 | 2636 | rBV2 | 413624  | 484711  | 6.92%   | 0.413% |
| 62 | 17.604 | 2636 | 2638 | 2643 | rVB3 | 223696  | 278321  | 3.98%   | 0.237% |
| 63 | 17.692 | 2647 | 2653 | 2656 | rBV  | 5053257 | 7000139 | 100.00% | 5.963% |
| 64 | 17.751 | 2656 | 2663 | 2667 | rVB5 | 373205  | 723361  | 10.33%  | 0.616% |
| 65 | 17.792 | 2667 | 2670 | 2675 | rBV2 | 295957  | 474525  | 6.78%   | 0.404% |
| 66 | 17.857 | 2678 | 2681 | 2684 | rBV2 | 352764  | 385792  | 5.51%   | 0.329% |
| 67 | 17.910 | 2684 | 2690 | 2697 | rVB  | 1701813 | 2152124 | 30.74%  | 1.833% |
| 68 | 17.998 | 2697 | 2705 | 2708 | rBV2 | 683538  | 1288131 | 18.40%  | 1.097% |
| 69 | 18.110 | 2719 | 2724 | 2726 | rBV4 | 517734  | 908848  | 12.98%  | 0.774% |
| 70 | 18.139 | 2726 | 2729 | 2733 | rVB  | 1145579 | 1306364 | 18.66%  | 1.113% |
| 71 | 18.192 | 2733 | 2738 | 2739 | rBV2 | 166029  | 287153  | 4.10%   | 0.245% |

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 ClientSampleId :  
 SU-01-112719

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:\SVOASRV\HPCHEM1\BNA\_P\METHODS\8270-BP112719.M

Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|     |        |      |      |      |      |         |         |        |        |
|-----|--------|------|------|------|------|---------|---------|--------|--------|
| 72  | 18.228 | 2740 | 2744 | 2748 | rVB  | 766447  | 874171  | 12.49% | 0.745% |
| 73  | 18.275 | 2748 | 2752 | 2758 | rBV  | 1333119 | 1728720 | 24.70% | 1.473% |
| 74  | 18.357 | 2762 | 2766 | 2768 | rBV3 | 223680  | 263896  | 3.77%  | 0.225% |
| 75  | 18.392 | 2768 | 2772 | 2776 | rVV  | 918453  | 1007895 | 14.40% | 0.859% |
| 76  | 18.433 | 2776 | 2779 | 2784 | rVB  | 867390  | 901832  | 12.88% | 0.768% |
| 77  | 18.645 | 2811 | 2815 | 2818 | rBV5 | 144849  | 295708  | 4.22%  | 0.252% |
| 78  | 18.798 | 2835 | 2841 | 2849 | rVB3 | 566974  | 1104676 | 15.78% | 0.941% |
| 79  | 18.945 | 2862 | 2866 | 2871 | rBV2 | 725437  | 1137196 | 16.25% | 0.969% |
| 80  | 18.986 | 2871 | 2873 | 2875 | rVV  | 472808  | 421435  | 6.02%  | 0.359% |
| 81  | 19.010 | 2875 | 2877 | 2879 | rVB  | 331799  | 262778  | 3.75%  | 0.224% |
| 82  | 19.075 | 2885 | 2888 | 2893 | rVB  | 400458  | 557653  | 7.97%  | 0.475% |
| 83  | 19.157 | 2899 | 2902 | 2906 | rBV3 | 219874  | 307799  | 4.40%  | 0.262% |
| 84  | 19.269 | 2915 | 2921 | 2925 | rBV2 | 3213523 | 5438406 | 77.69% | 4.633% |
| 85  | 19.316 | 2925 | 2929 | 2932 | rVV  | 2878829 | 3300720 | 47.15% | 2.812% |
| 86  | 19.339 | 2932 | 2933 | 2938 | rVB2 | 342486  | 255236  | 3.65%  | 0.217% |
| 87  | 19.410 | 2939 | 2945 | 2947 | rBV3 | 389735  | 642619  | 9.18%  | 0.547% |
| 88  | 19.457 | 2950 | 2953 | 2955 | rBV  | 317924  | 314629  | 4.49%  | 0.268% |
| 89  | 19.733 | 2997 | 3000 | 3003 | rBV  | 345399  | 407757  | 5.82%  | 0.347% |
| 90  | 19.780 | 3003 | 3008 | 3012 | rVV  | 1098895 | 1519068 | 21.70% | 1.294% |
| 91  | 19.822 | 3012 | 3015 | 3020 | rVB  | 585780  | 677524  | 9.68%  | 0.577% |
| 92  | 19.898 | 3025 | 3028 | 3031 | rVB  | 474101  | 444210  | 6.35%  | 0.378% |
| 93  | 19.939 | 3031 | 3035 | 3037 | rBV2 | 488670  | 681227  | 9.73%  | 0.580% |
| 94  | 20.580 | 3138 | 3144 | 3147 | rBV  | 2190428 | 4221445 | 60.31% | 3.596% |
| 95  | 20.698 | 3161 | 3164 | 3167 | rVB  | 580541  | 653685  | 9.34%  | 0.557% |
| 96  | 20.927 | 3198 | 3203 | 3209 | rVB  | 1293407 | 2090637 | 29.87% | 1.781% |
| 97  | 20.998 | 3209 | 3215 | 3219 | rBV  | 2140283 | 3111645 | 44.45% | 2.651% |
| 98  | 21.069 | 3223 | 3227 | 3230 | rVV2 | 723115  | 967500  | 13.82% | 0.824% |
| 99  | 21.098 | 3230 | 3232 | 3235 | rVB  | 419644  | 425885  | 6.08%  | 0.363% |
| 100 | 22.733 | 3505 | 3510 | 3518 | rVB2 | 829998  | 1928589 | 27.55% | 1.643% |

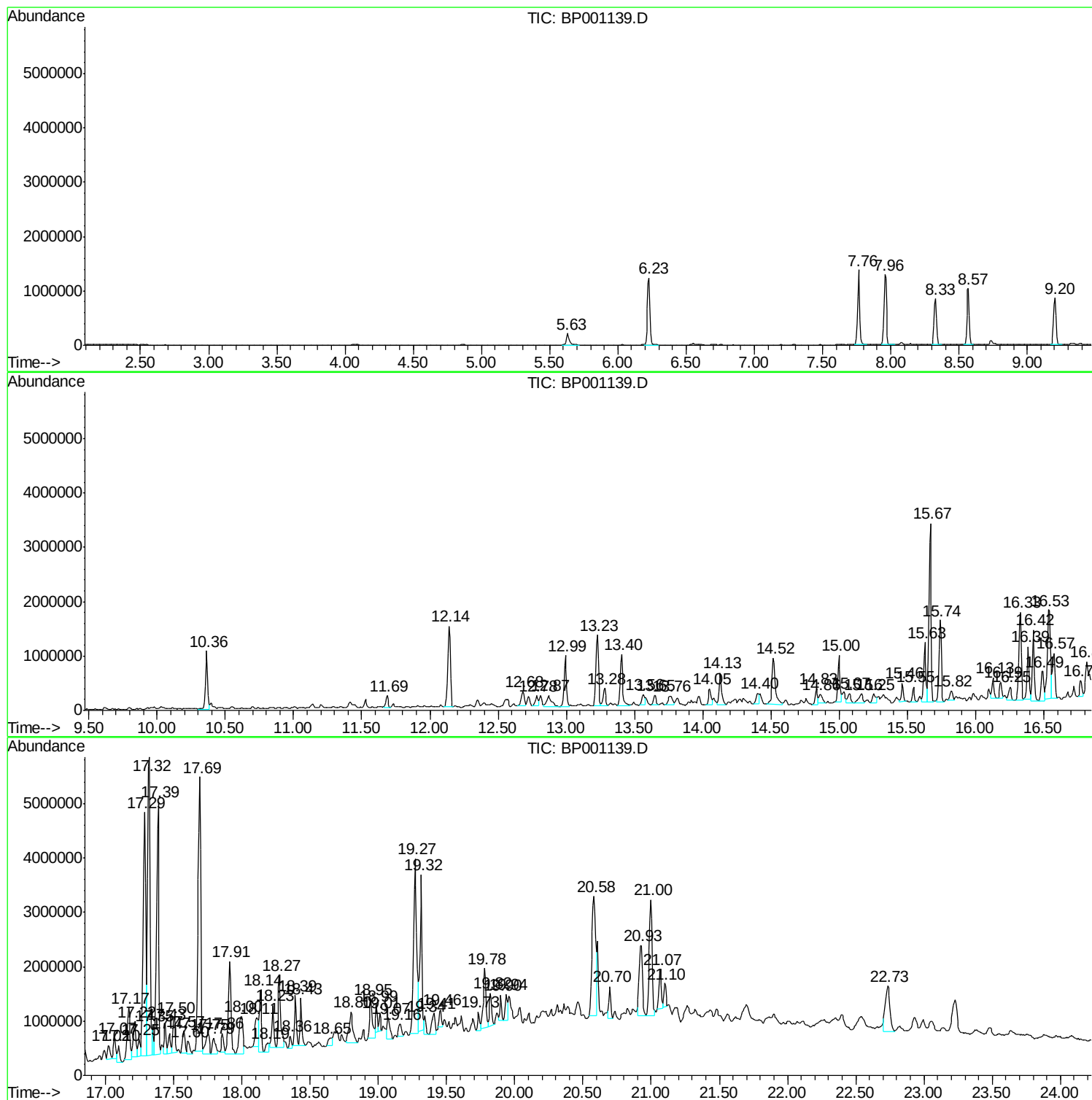
Sum of corrected areas: 117386024

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ClientSampleId :  
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Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
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Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

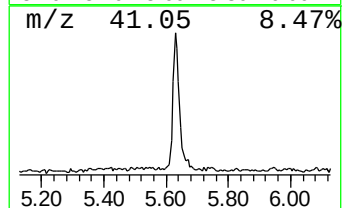
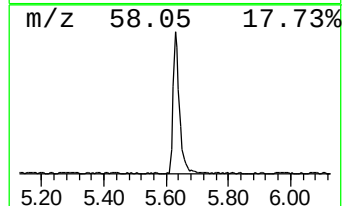
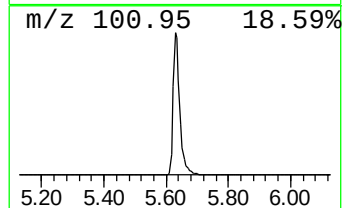
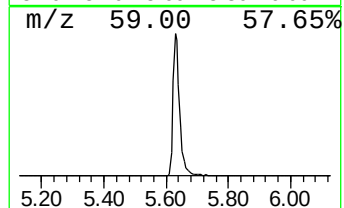
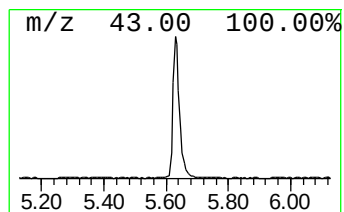
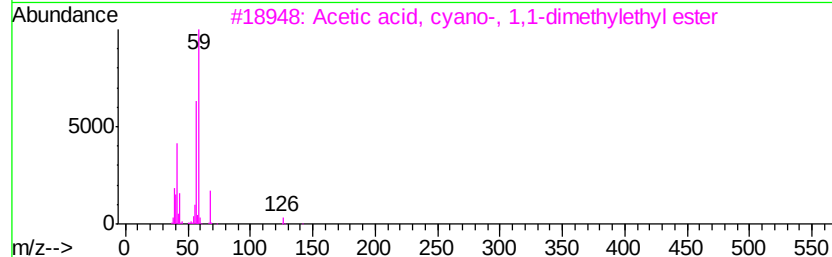
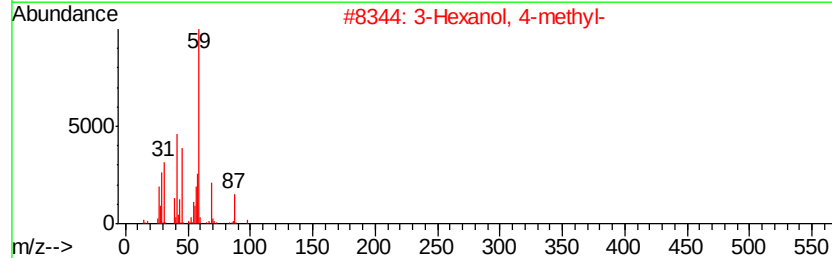
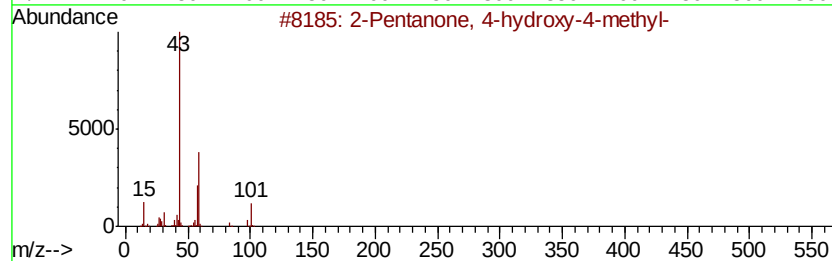
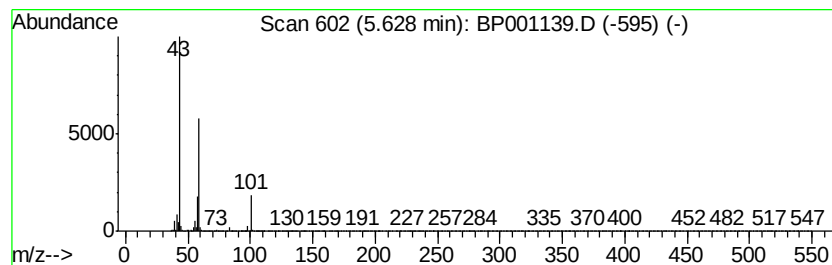
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 18

| R.T. | EstConc | Area   | Relative to ISTD       | R.T. |
|------|---------|--------|------------------------|------|
| 5.63 | 6.65 ng | 321008 | 1,4-Dichlorobenzene-d4 | 8.33 |

| Hit# | of | 5 | Tentative ID                         | MW  | MolForm  | CAS#        | Qual |
|------|----|---|--------------------------------------|-----|----------|-------------|------|
| 1    |    |   | 2-Pentanone, 4-hydroxy-4-methyl-     | 116 | C6H12O2  | 000123-42-2 | 59   |
| 2    |    |   | 3-Hexanol, 4-methyl-                 | 116 | C7H16O   | 000615-29-2 | 33   |
| 3    |    |   | Acetic acid, cyano-, 1,1-dimethyl... | 141 | C7H11NO2 | 001116-98-9 | 25   |
| 4    |    |   | 1-Propen-2-ol, acetate               | 100 | C5H8O2   | 000108-22-5 | 10   |
| 5    |    |   | 2,3-Butanedione, monooxime           | 101 | C4H7NO2  | 000057-71-6 | 9    |



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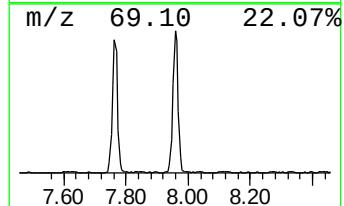
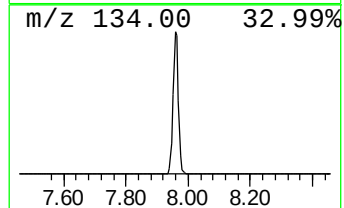
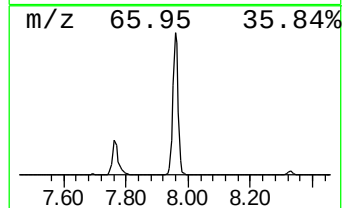
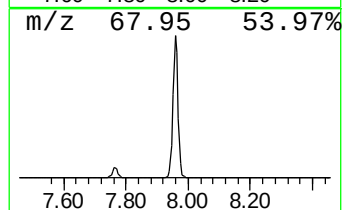
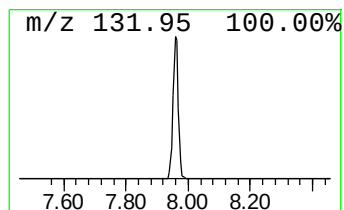
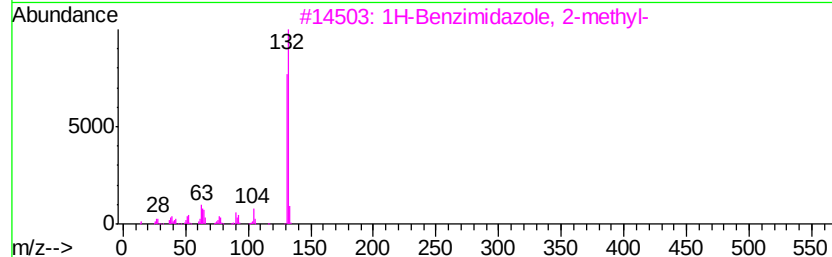
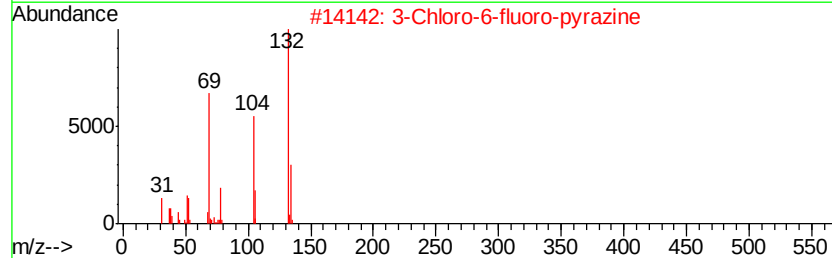
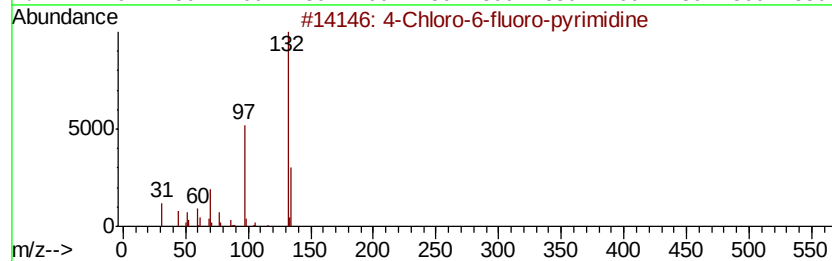
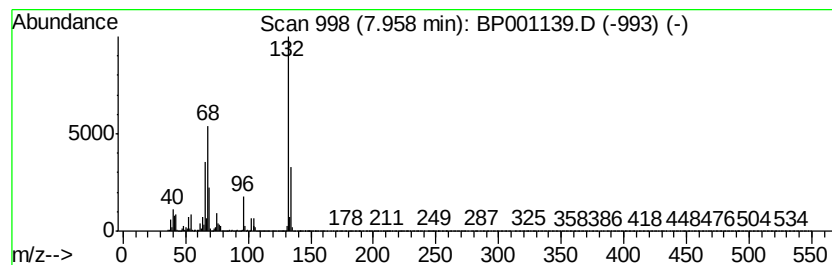
Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 2 unknown7.96 Concentration Rank 5

| R.T. | EstConc  | Area    | Relative to ISTD       | R.T. |
|------|----------|---------|------------------------|------|
| 7.96 | 32.80 ng | 1583500 | 1,4-Dichlorobenzene-d4 | 8.33 |

| Hit# | of | Tentative ID                       | MW  | MolForm   | CAS#         | Qual |
|------|----|------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 4-Chloro-6-fluoro-pyrimidine       | 132 | C4H2ClFN2 | 051422-01-6  | 27   |
| 2    |    | 3-Chloro-6-fluoro-pyrazine         | 132 | C4H2ClFN2 | 1000146-10-7 | 27   |
| 3    |    | 1H-Benzimidazole, 2-methyl-        | 132 | C8H8N2    | 000615-15-6  | 22   |
| 4    |    | 5-Fluoro-2-chloropyrimidine        | 132 | C4H2ClFN2 | 062802-42-0  | 12   |
| 5    |    | Pyrazolo(2,3-a)pyridine, 7-methyl- | 132 | C8H8N2    | 034760-58-2  | 12   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

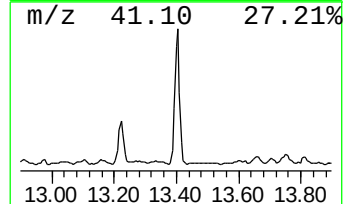
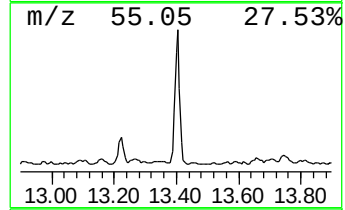
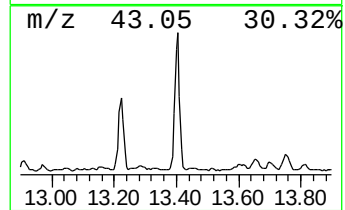
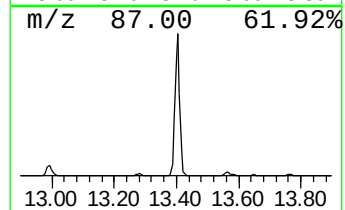
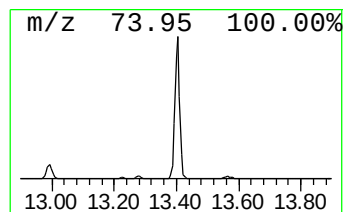
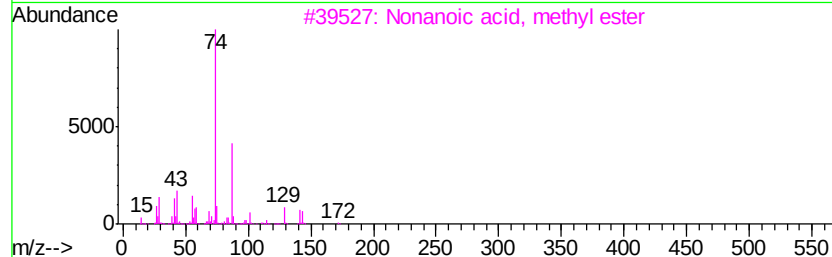
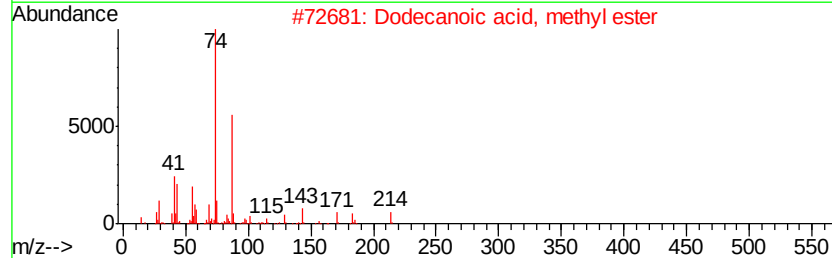
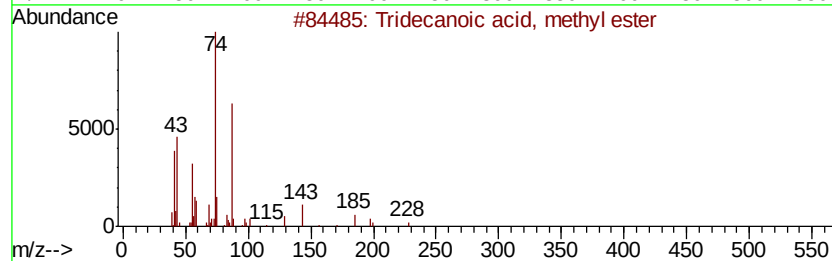
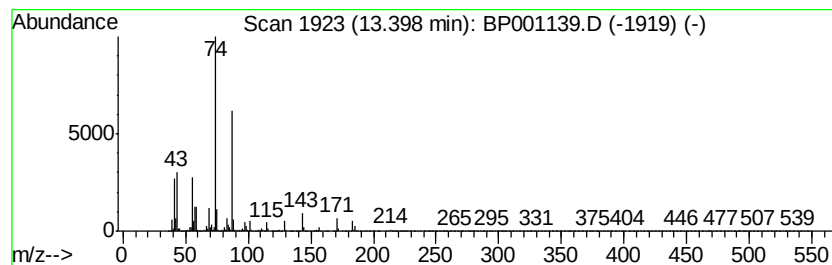
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SU-01-112719

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 4 Tridecanoic acid, methyl ester Concentration Rank 12

| R.T.    | EstConc  | Area                                | Relative to ISTD | R.T.     |              |      |
|---------|----------|-------------------------------------|------------------|----------|--------------|------|
| 13.40   | 14.70 ng | 1173280                             | Acenaphthene-d10 | 13.23    |              |      |
| Hit# of | 5        | Tentative ID                        | MW               | MolForm  | CAS#         | Qual |
| 1       |          | Tridecanoic acid, methyl ester      | 228              | C14H28O2 | 001731-88-0  | 91   |
| 2       |          | Dodecanoic acid, methyl ester       | 214              | C13H26O2 | 000111-82-0  | 91   |
| 3       |          | Nonanoic acid, methyl ester         | 172              | C10H20O2 | 001731-84-6  | 87   |
| 4       |          | Methyl 8-methyl-nonanoate           | 186              | C11H22O2 | 1000336-43-6 | 78   |
| 5       |          | Hexadecanoic acid, 15-methyl-, m... | 284              | C18H36O2 | 006929-04-0  | 78   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

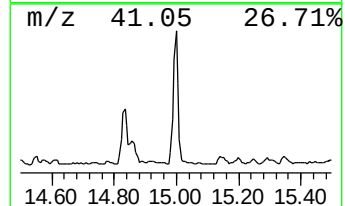
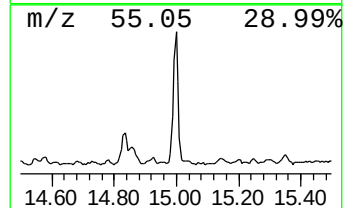
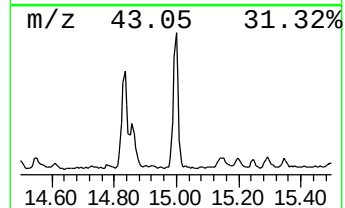
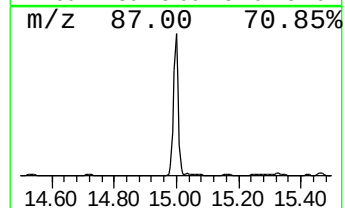
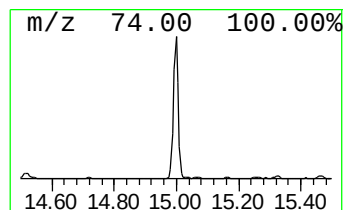
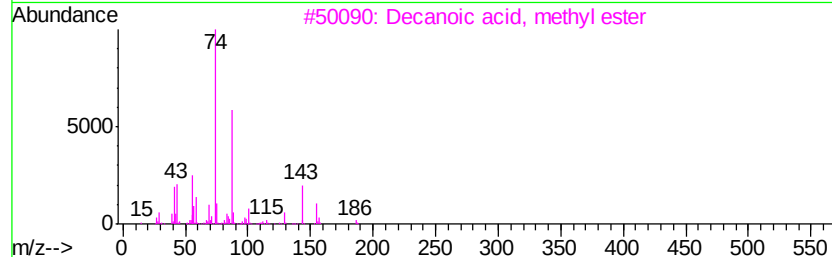
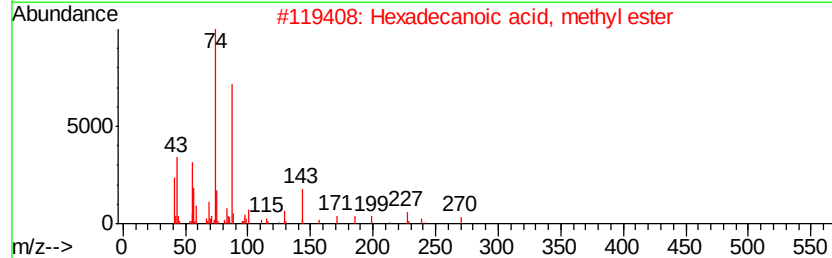
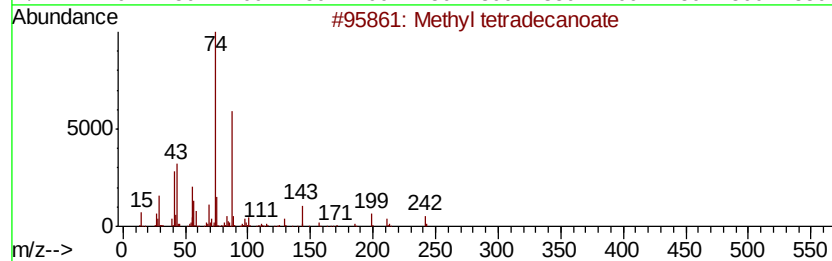
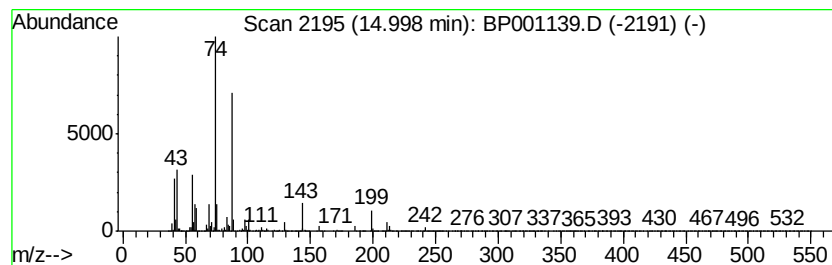
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TIC Integration Parameters: LSCINT.P

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Peak Number 5 Methyl tetradecanoate Concentration Rank 13

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.00 | 14.59 ng | 980374 | Phenanthrene-d10 | 15.63 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | Methyl tetradecanoate               | 242 | C15H30O2 | 000124-10-7 | 91   |
| 2    |    | Hexadecanoic acid, methyl ester     | 270 | C17H34O2 | 000112-39-0 | 87   |
| 3    |    | Decanoic acid, methyl ester         | 186 | C11H22O2 | 000110-42-9 | 86   |
| 4    |    | Tridecanoic acid, methyl ester      | 228 | C14H28O2 | 001731-88-0 | 86   |
| 5    |    | Pentadecanoic acid, 14-methyl-, ... | 270 | C17H34O2 | 005129-60-2 | 86   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

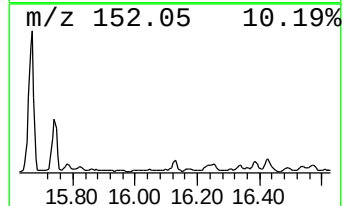
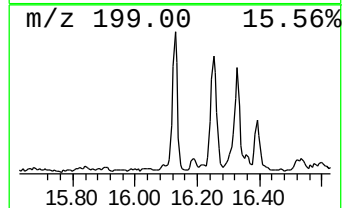
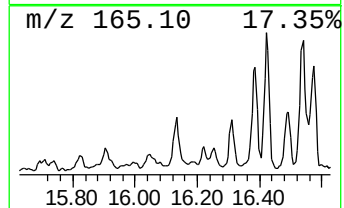
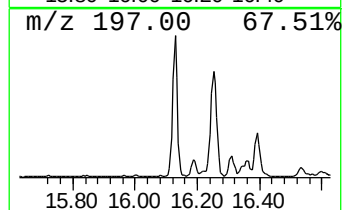
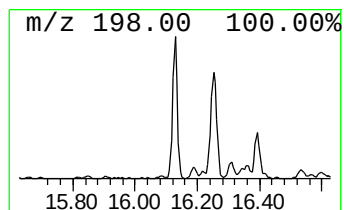
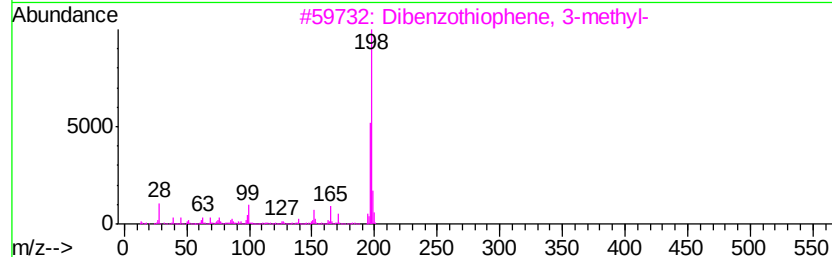
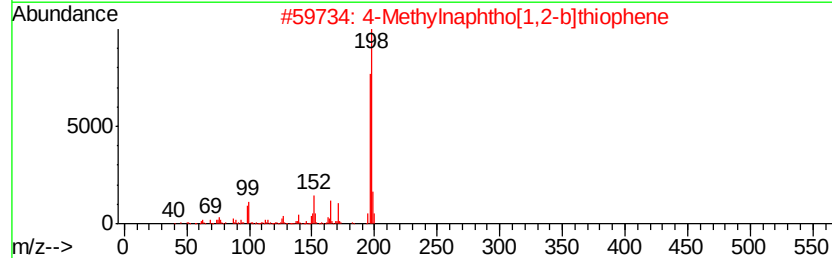
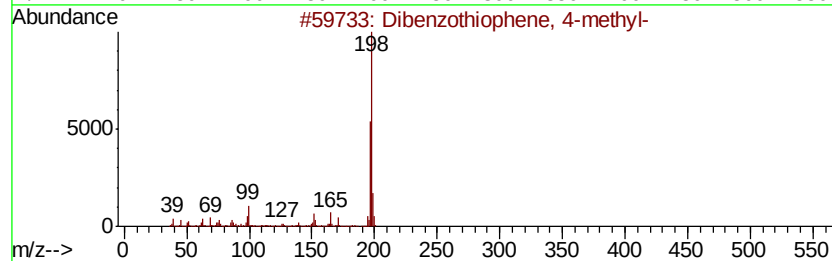
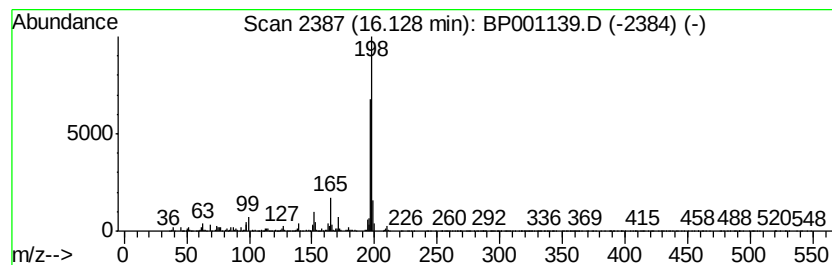
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ClientSampleId :  
SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 6 Dibenzothiophene, 4-methyl- Concentration Rank 20

| R.T.      | EstConc                            | Area   | Relative to ISTD | R.T.        |      |
|-----------|------------------------------------|--------|------------------|-------------|------|
| 16.13     | 6.46 ng                            | 433939 | Phenanthrene-d10 | 15.63       |      |
| Hit# of 5 | Tentative ID                       | MW     | MolForm          | CAS#        | Qual |
| 1         | Dibenzothiophene, 4-methyl-        | 198    | C13H10S          | 007372-88-5 | 96   |
| 2         | 4-Methylnaphtho[1,2-b]thiophene    | 198    | C13H10S          | 067388-11-8 | 95   |
| 3         | Dibenzothiophene, 3-methyl-        | 198    | C13H10S          | 016587-52-3 | 94   |
| 4         | Benzenamine, 4,4'-methylenebis-    | 198    | C13H14N2         | 000101-77-9 | 87   |
| 5         | 4,6,8-Trimethyl-1-azulenecarbal... | 198    | C14H14O          | 000832-62-2 | 80   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

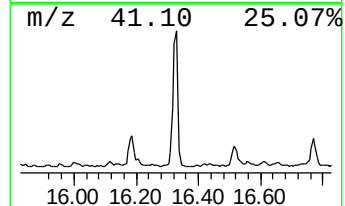
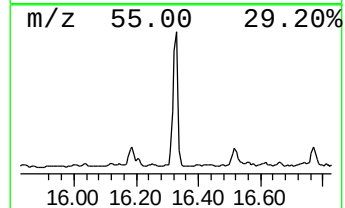
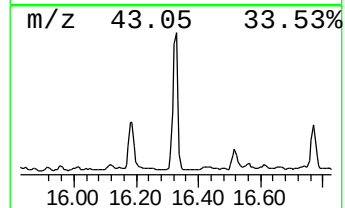
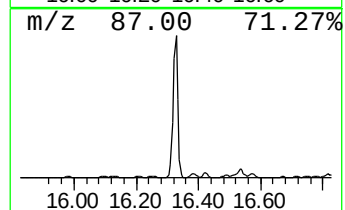
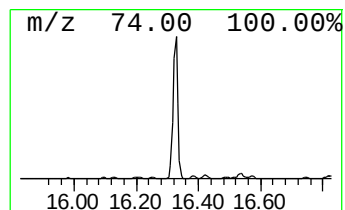
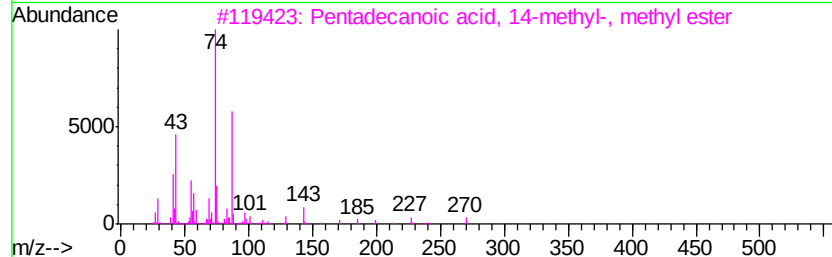
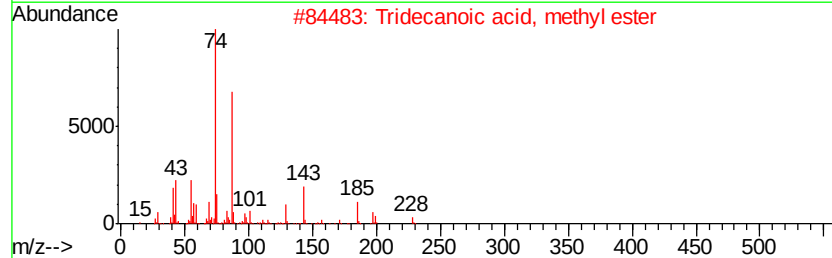
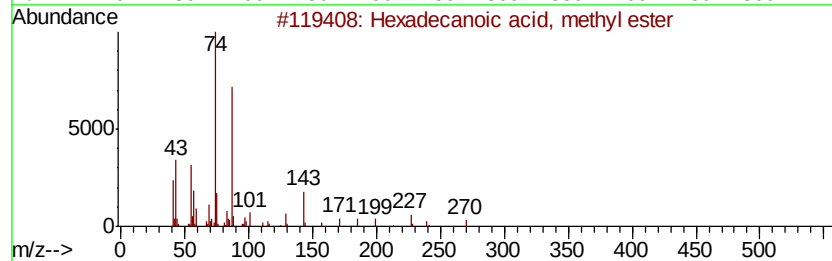
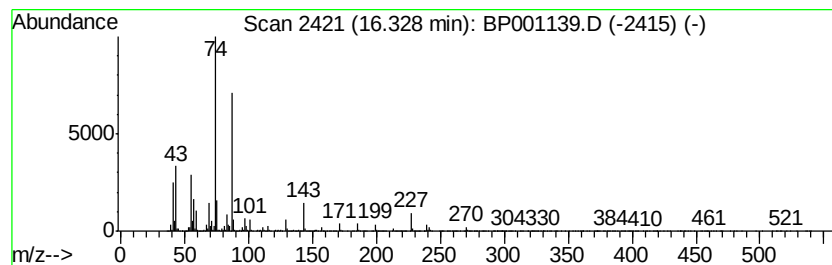
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 7 Hexadecanoic acid, methyl e... Concentration Rank 6

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 16.33 | 27.24 ng | 1830730 | Phenanthrene-d10 | 15.63 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | Hexadecanoic acid, methyl ester     | 270 | C17H34O2 | 000112-39-0 | 96   |
| 2    |    | Tridecanoic acid, methyl ester      | 228 | C14H28O2 | 001731-88-0 | 87   |
| 3    |    | Pentadecanoic acid, 14-methyl-, ... | 270 | C17H34O2 | 005129-60-2 | 87   |
| 4    |    | Pentadecanoic acid, methyl ester    | 256 | C16H32O2 | 007132-64-1 | 86   |
| 5    |    | Methyl tetradecanoate               | 242 | C15H30O2 | 000124-10-7 | 80   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

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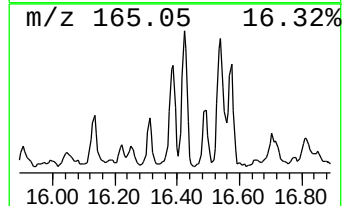
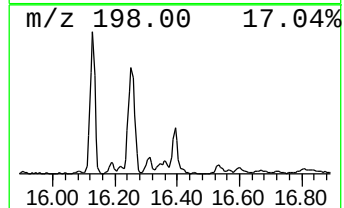
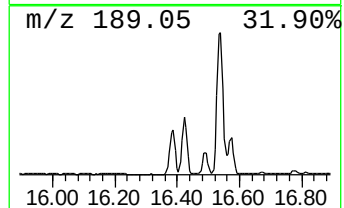
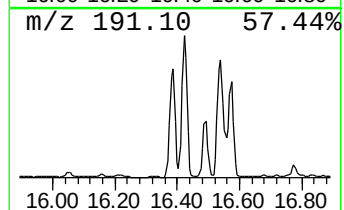
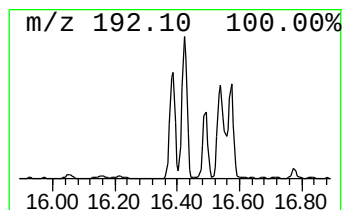
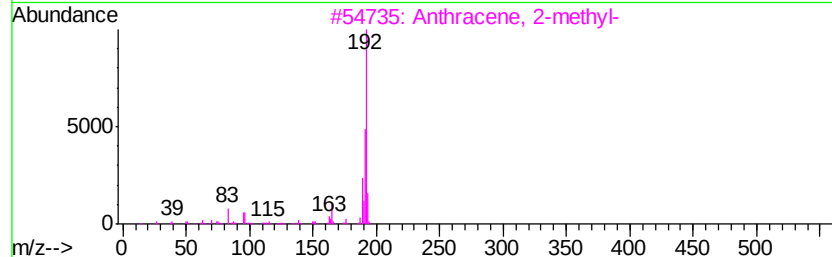
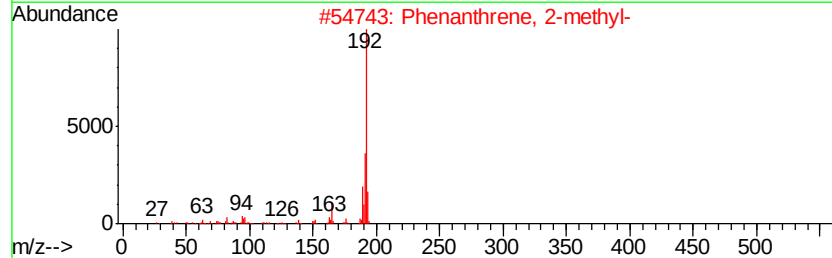
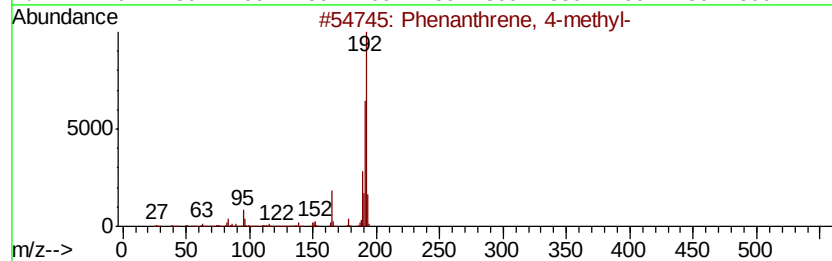
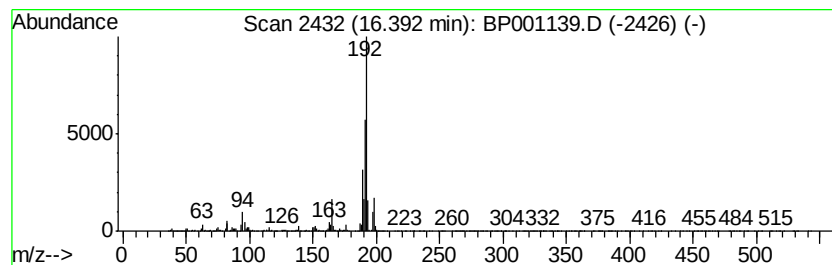
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TIC Integration Parameters: LSCINT.P

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Peak Number 8 Phenanthrene, 4-methyl- Concentration Rank 11

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 16.39 | 17.42 ng | 1170750 | Phenanthrene-d10 | 15.63 |

| Hit# of | 5 | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|---------|---|-------------------------|-----|---------|-------------|------|
| 1       |   | Phenanthrene, 4-methyl- | 192 | C15H12  | 000832-64-4 | 95   |
| 2       |   | Phenanthrene, 2-methyl- | 192 | C15H12  | 002531-84-2 | 94   |
| 3       |   | Anthracene, 2-methyl-   | 192 | C15H12  | 000613-12-7 | 93   |
| 4       |   | Anthracene, 1-methyl-   | 192 | C15H12  | 000610-48-0 | 93   |
| 5       |   | Phenanthrene, 1-methyl- | 192 | C15H12  | 000832-69-9 | 93   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
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Sample : K5676-35 2X  
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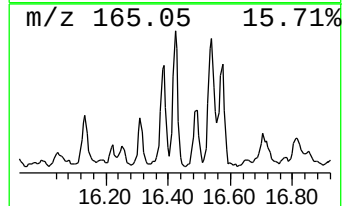
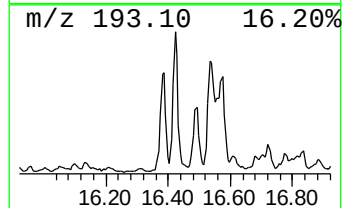
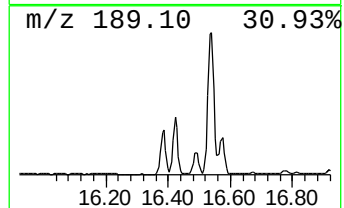
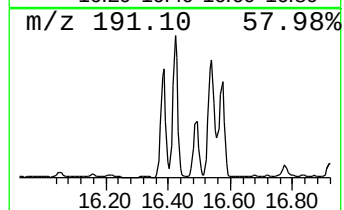
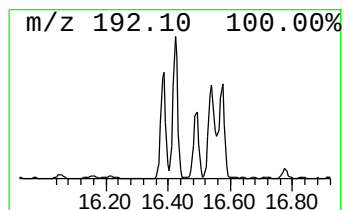
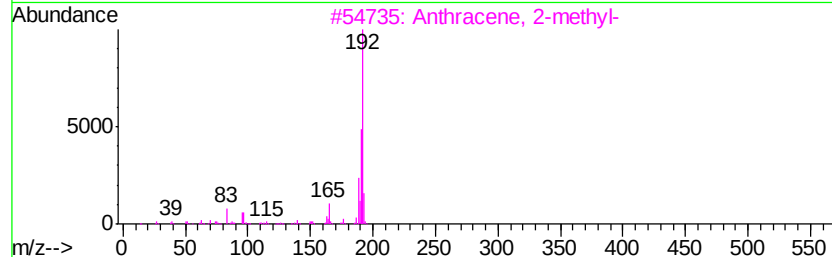
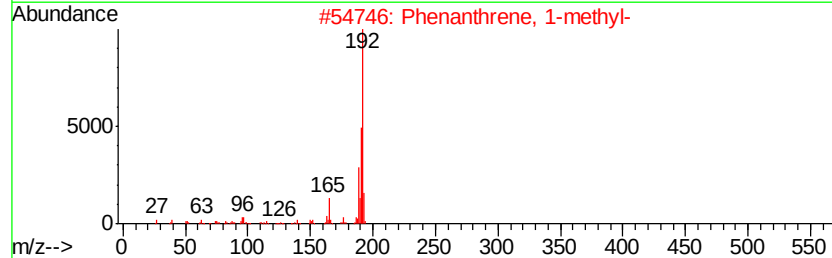
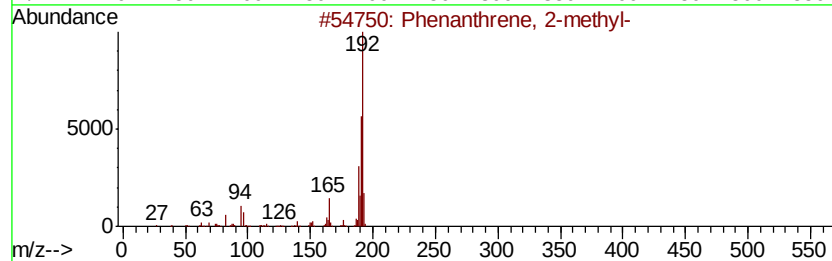
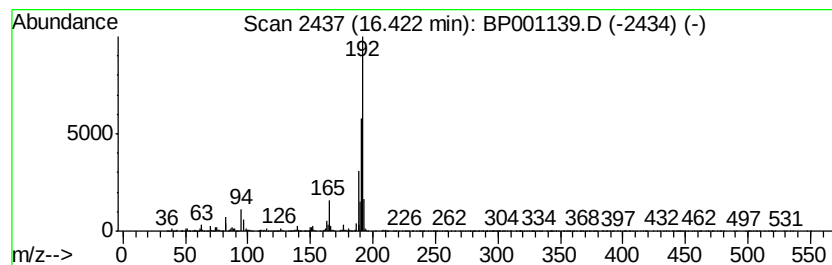
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ClientSampleId :  
SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 9 Phenanthrene, 2-methyl- Concentration Rank 8

| R.T.      | EstConc                               | Area    | Relative to ISTD | R.T.        |      |
|-----------|---------------------------------------|---------|------------------|-------------|------|
| 16.42     | 21.98 ng                              | 1476970 | Phenanthrene-d10 | 15.63       |      |
| 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 | 97   |
| 3         | Anthracene, 2-methyl-                 | 192     | C15H12           | 000613-12-7 | 96   |
| 4         | 1H-Cyclopropa[1,1]phenanthrene,1a,... | 192     | C15H12           | 000949-41-7 | 96   |
| 5         | Anthracene, 9-methyl-                 | 192     | C15H12           | 000779-02-2 | 94   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
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Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

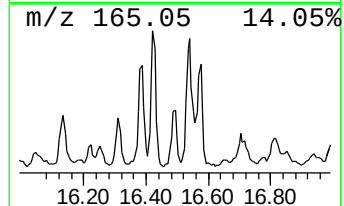
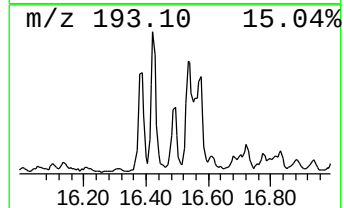
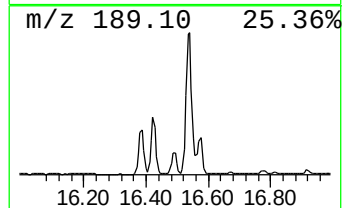
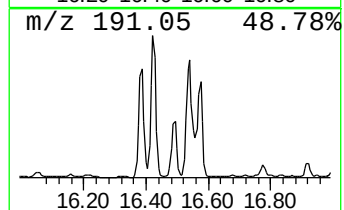
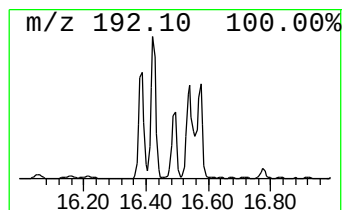
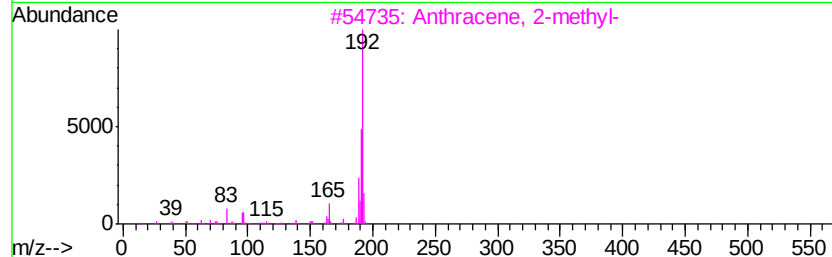
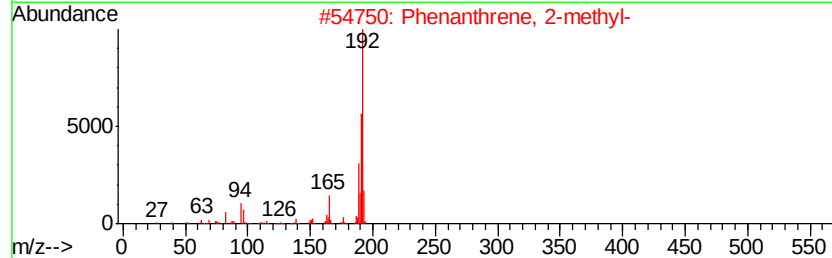
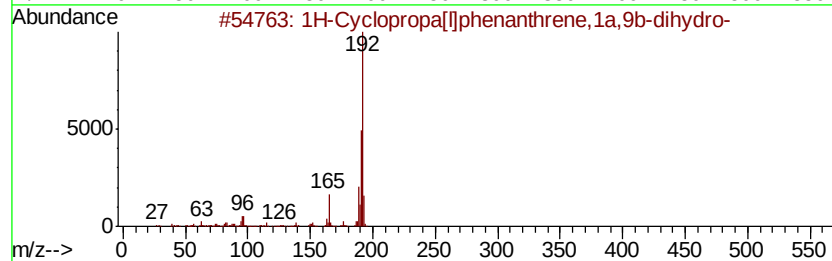
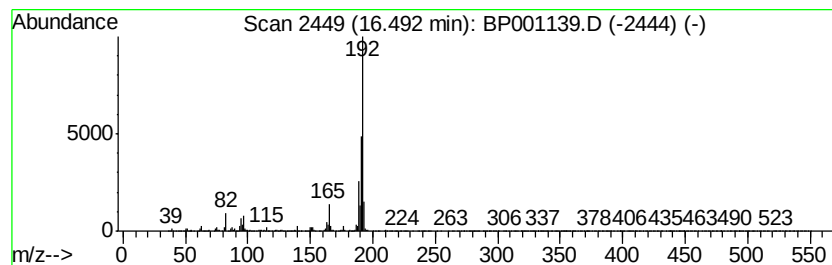
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ClientSampleId :  
SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 10 1H-Cyclopropa[l]phenanthren... Concentration Rank 17

| R.T.      | EstConc                              | Area   | Relative to ISTD |             | R.T.  |
|-----------|--------------------------------------|--------|------------------|-------------|-------|
| 16.49     | 9.84 ng                              | 661283 | Phenanthrene-d10 |             | 15.63 |
| Hit# of 5 | Tentative ID                         | MW     | MolForm          | CAS#        | Qual  |
| 1         | 1H-Cyclopropa[ll]phenanthrene,1a,... | 192    | C15H12           | 000949-41-7 | 98    |
| 2         | Phenanthrene, 2-methyl-              | 192    | C15H12           | 002531-84-2 | 98    |
| 3         | Anthracene, 2-methyl-                | 192    | C15H12           | 000613-12-7 | 96    |
| 4         | Phenanthrene, 1-methyl-              | 192    | C15H12           | 000832-69-9 | 96    |
| 5         | 1H-Indene, 2-phenyl-                 | 192    | C15H12           | 004505-48-0 | 95    |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

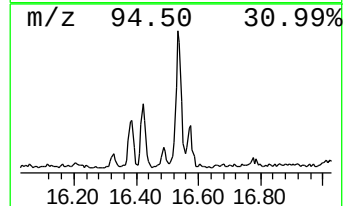
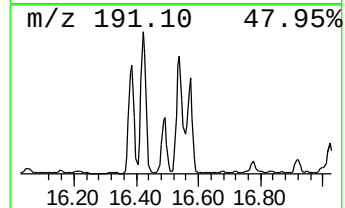
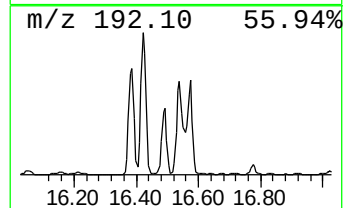
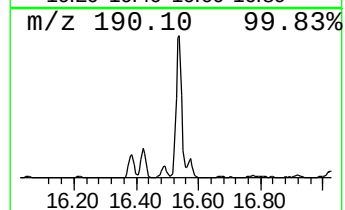
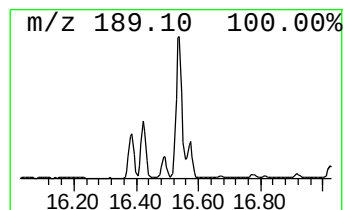
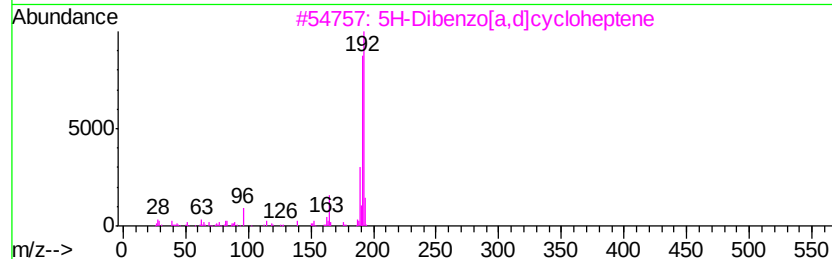
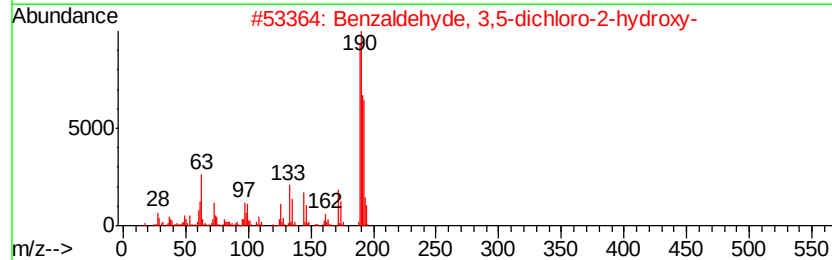
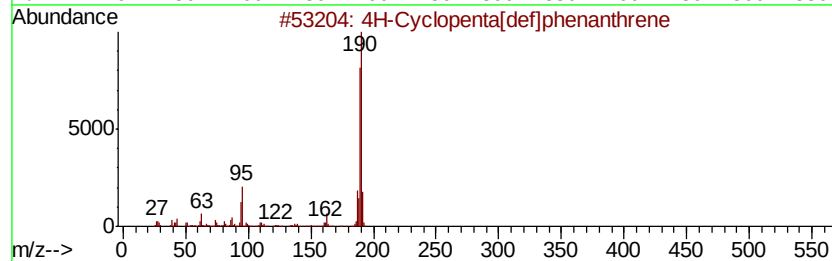
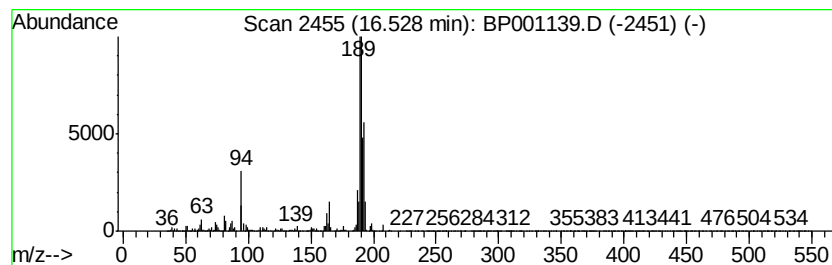
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SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 11 4H-Cyclopenta[def]phenanthrene Concentration Rank 4

| R.T.      | EstConc                             | Area    | Relative to ISTD | R.T.        |      |
|-----------|-------------------------------------|---------|------------------|-------------|------|
| 16.53     | 36.87 ng                            | 2478170 | Phenanthrene-d10 | 15.63       |      |
| Hit# of 5 | Tentative ID                        | MW      | MolForm          | CAS#        | Qual |
| 1         | 4H-Cyclopenta[def]phenanthrene      | 190     | C15H10           | 000203-64-5 | 60   |
| 2         | Benzaldehyde, 3,5-dichloro-2-hyd... | 190     | C7H4Cl2O2        | 000090-60-8 | 58   |
| 3         | 5H-Dibenzo[a,d]cycloheptene         | 192     | C15H12           | 000256-81-5 | 38   |
| 4         | Phenanthrene, 1-methyl-             | 192     | C15H12           | 000832-69-9 | 35   |
| 5         | 3-Bromo-2-furoic acid               | 190     | C5H3BrO3         | 014903-90-3 | 22   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

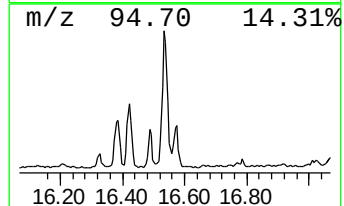
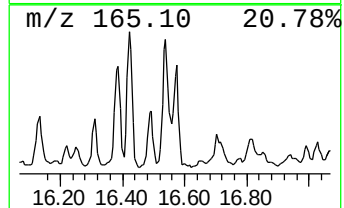
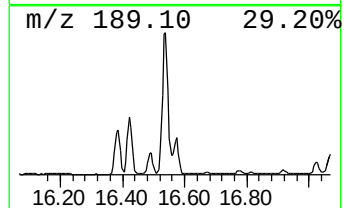
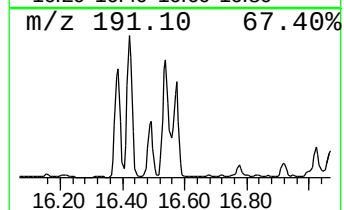
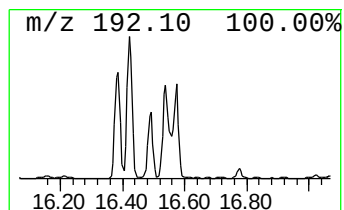
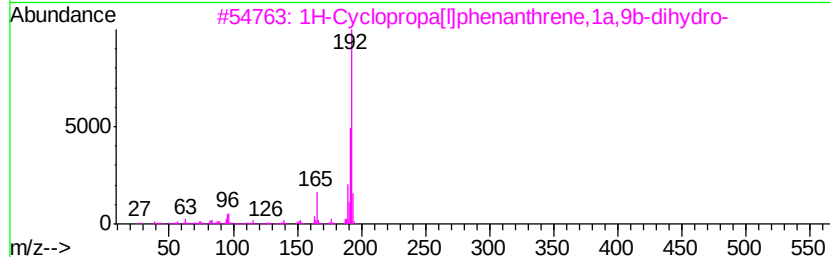
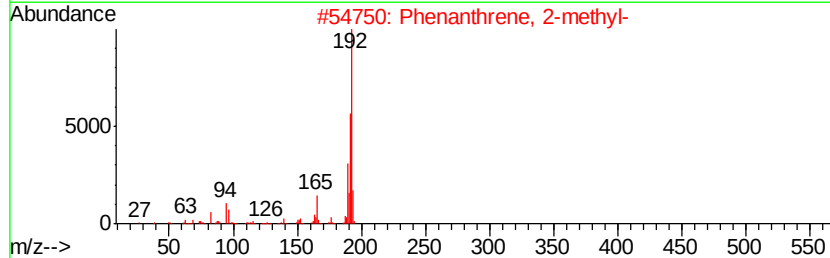
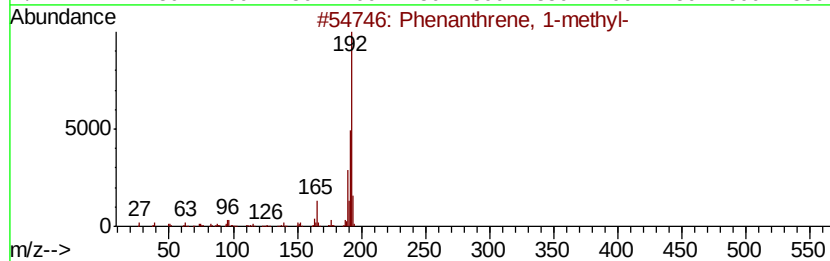
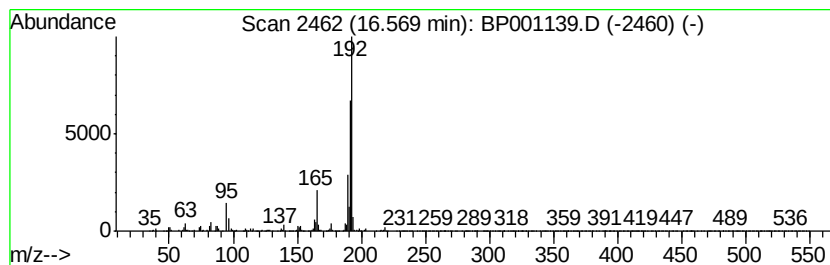
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ClientSampleId :  
SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 12 Anthracene, 1-methyl- Concentration Rank 15

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.        |      |
|-----------|-------------------------------------|--------|------------------|-------------|------|
| 16.57     | 13.87 ng                            | 932336 | Phenanthrene-d10 | 15.63       |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#        | Qual |
| 1         | Phenanthrene, 1-methyl-             | 192    | C15H12           | 000832-69-9 | 93   |
| 2         | Phenanthrene, 2-methyl-             | 192    | C15H12           | 002531-84-2 | 91   |
| 3         | 1H-Cyclopropa[1]phenanthrene,1a,... | 192    | C15H12           | 000949-41-7 | 90   |
| 4         | Anthracene, 1-methyl-               | 192    | C15H12           | 000610-48-0 | 90   |
| 5         | 1H-Indene, 2-phenyl-                | 192    | C15H12           | 004505-48-0 | 89   |







Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

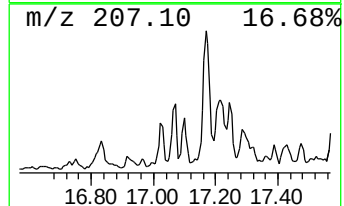
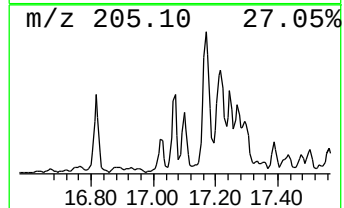
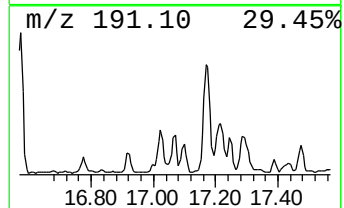
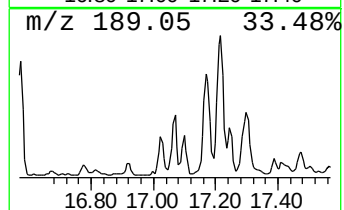
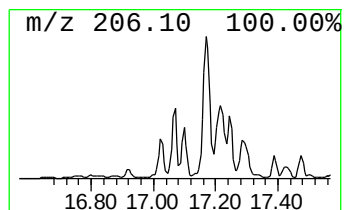
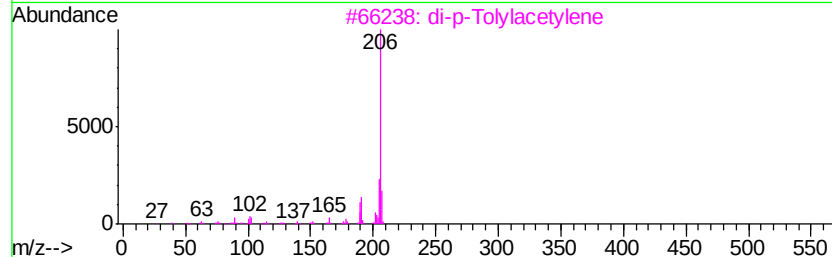
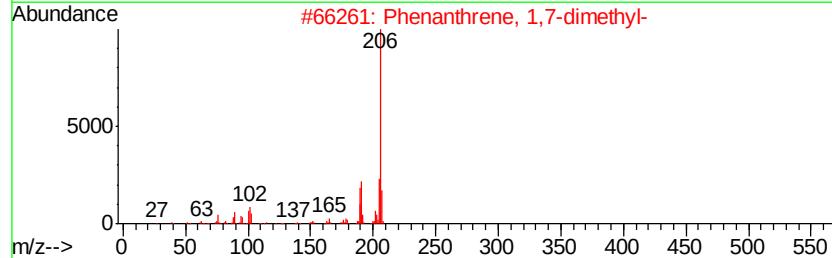
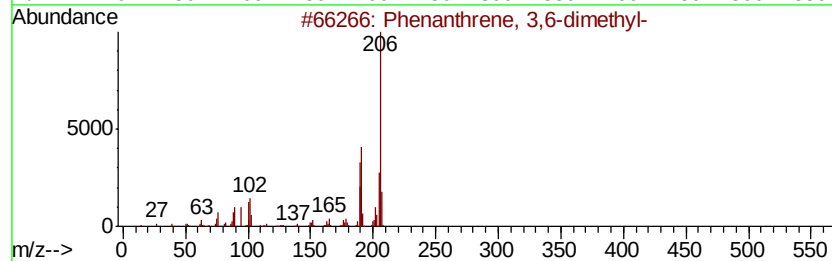
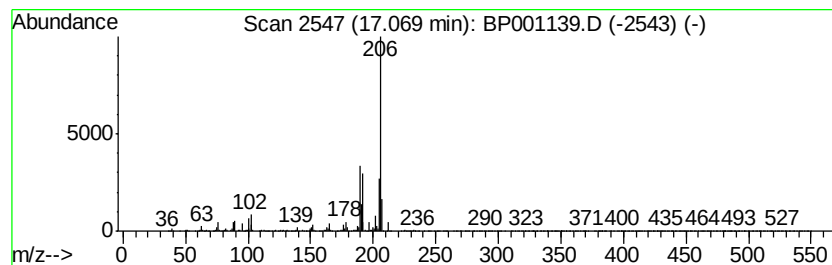
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TIC Integration Parameters: LSCINT.P

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Peak Number 14 Phenanthrene, 3,6-dimethyl- Concentration Rank 19

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 17.07 | 6.46 ng | 434329 | Phenanthrene-d10 | 15.63 |

| Hit# | of | Tentative ID                       | MW  | MolForm | CAS#        | Qual |
|------|----|------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Phenanthrene, 3,6-dimethyl-        | 206 | C16H14  | 001576-67-6 | 93   |
| 2    |    | Phenanthrene, 1,7-dimethyl-        | 206 | C16H14  | 000483-87-4 | 91   |
| 3    |    | di-p-Tolylacetylene                | 206 | C16H14  | 002789-88-0 | 87   |
| 4    |    | Phenanthrene, 2,7-dimethyl-        | 206 | C16H14  | 001576-69-8 | 83   |
| 5    |    | Naphthalene, 1,2-dihydro-4-phenyl- | 206 | C16H14  | 007469-40-1 | 74   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

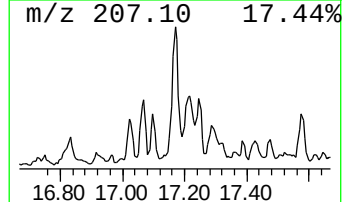
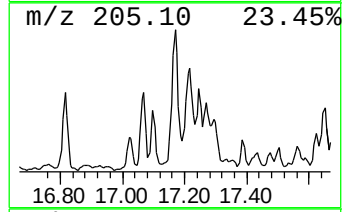
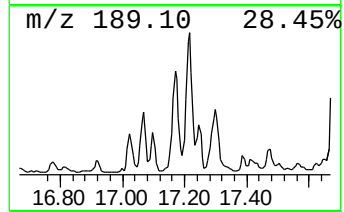
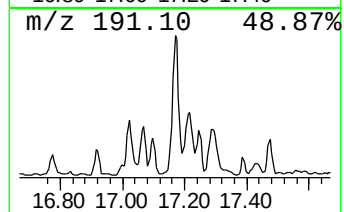
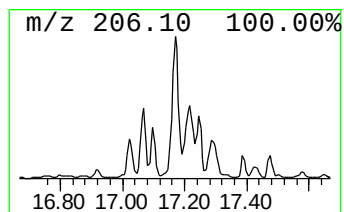
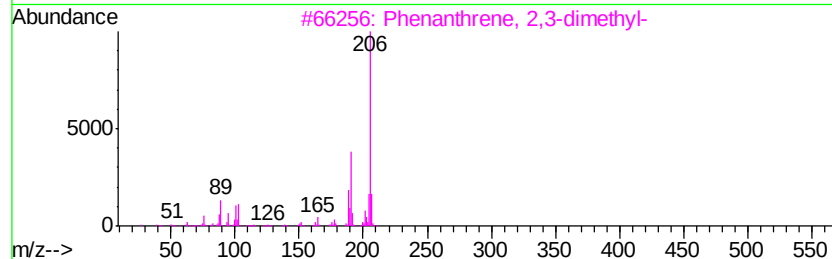
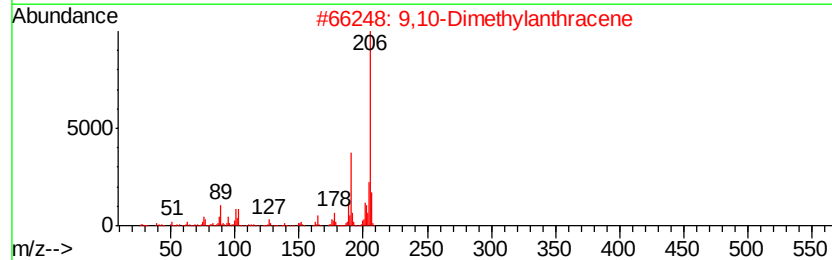
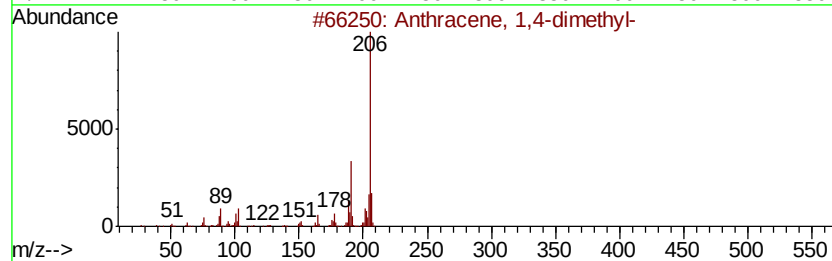
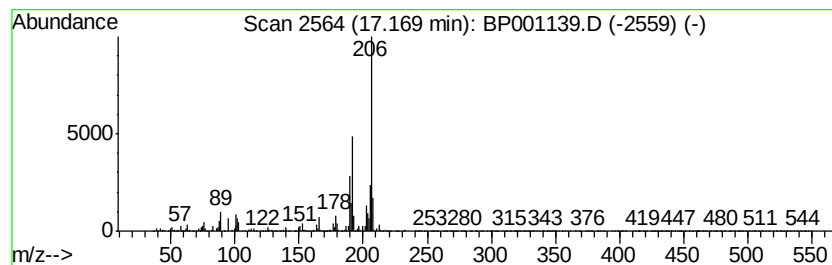
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 15 Anthracene, 1,4-dimethyl- Concentration Rank 9

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 17.17 | 20.59 ng | 1383610 | Phenanthrene-d10 | 15.63 |

| Hit# of | 5 | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|---------|---|-----------------------------|-----|---------|-------------|------|
| 1       |   | Anthracene, 1,4-dimethyl-   | 206 | C16H14  | 000781-92-0 | 93   |
| 2       |   | 9,10-Dimethylantracene      | 206 | C16H14  | 000781-43-1 | 93   |
| 3       |   | Phenanthrene, 2,3-dimethyl- | 206 | C16H14  | 003674-65-5 | 93   |
| 4       |   | di-p-Tolylacetylene         | 206 | C16H14  | 002789-88-0 | 91   |
| 5       |   | Phenanthrene, 3,6-dimethyl- | 206 | C16H14  | 001576-67-6 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

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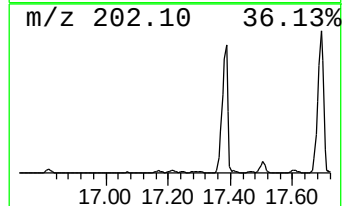
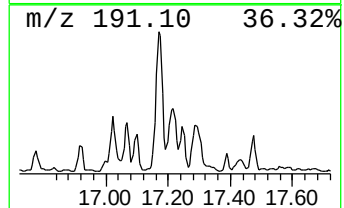
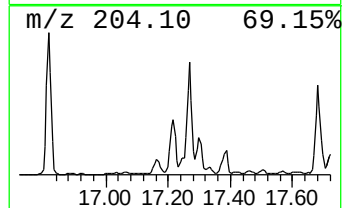
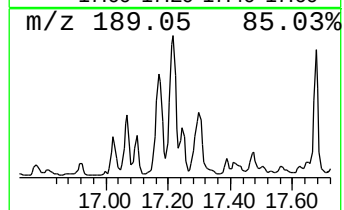
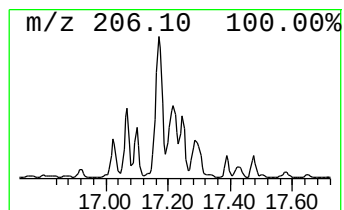
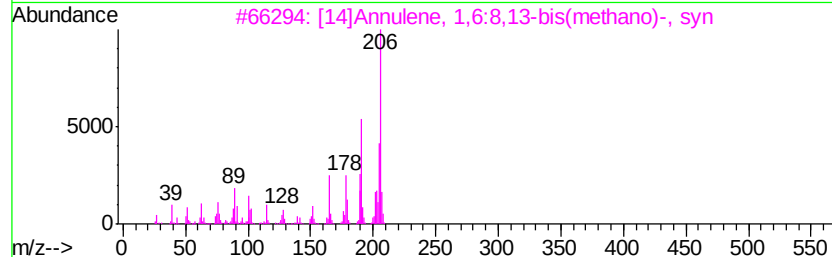
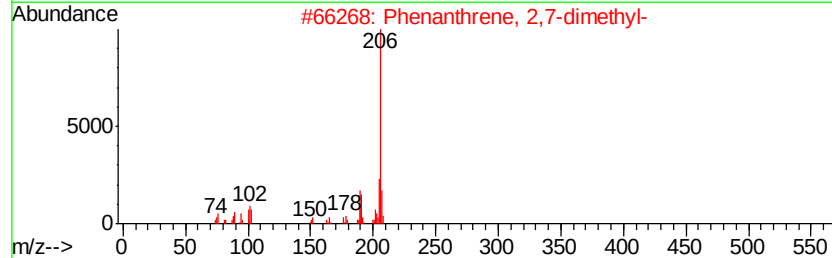
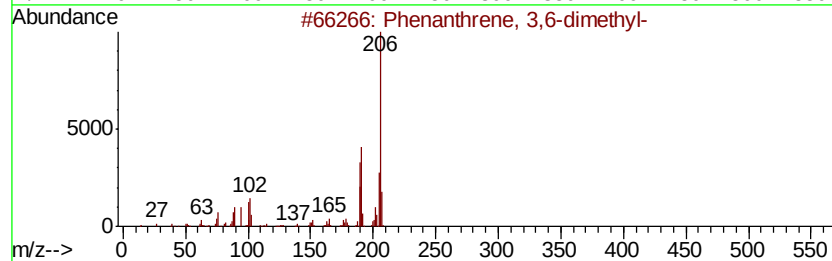
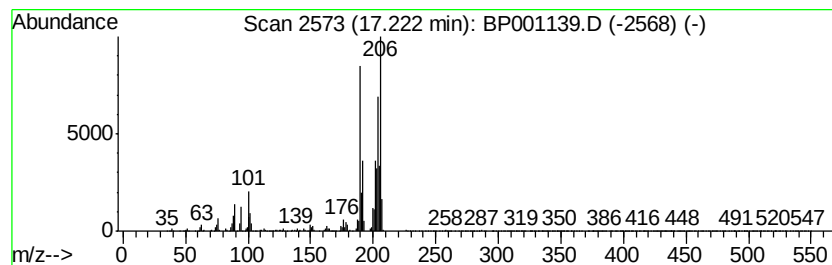
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TIC Integration Parameters: LSCINT.P

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Peak Number 16 unknown17.22 Concentration Rank 14

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 17.22 | 14.29 ng | 960307 | Phenanthrene-d10 | 15.63 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Phenanthrene, 3,6-dimethyl-         | 206 | C16H14  | 001576-67-6 | 83   |
| 2    |    | Phenanthrene, 2,7-dimethyl-         | 206 | C16H14  | 001576-69-8 | 45   |
| 3    |    | [14]Annulene, 1,6:8,13-bis(metha... | 206 | C16H14  | 085385-68-8 | 38   |
| 4    |    | 5,16[1',2'1:8,13[1'',2'']-Dibenz... | 408 | C32H24  | 005672-97-9 | 35   |
| 5    |    | Pyrene, 4,5,9,10-tetrahydro-        | 206 | C16H14  | 000781-17-9 | 35   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

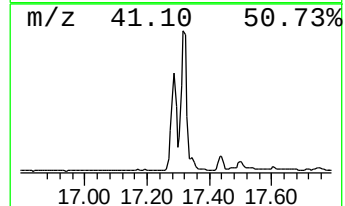
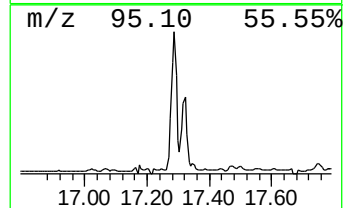
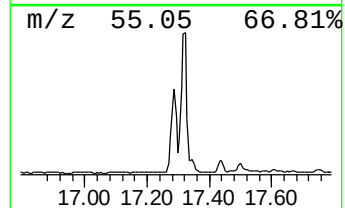
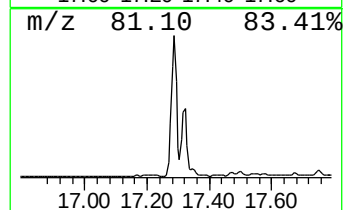
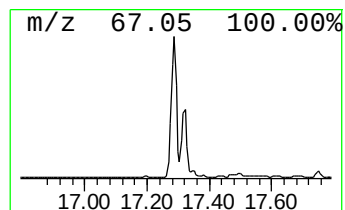
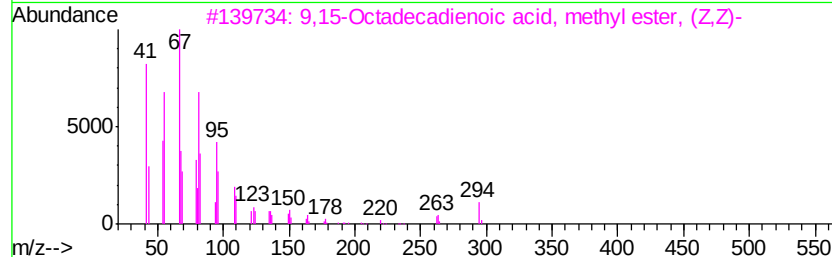
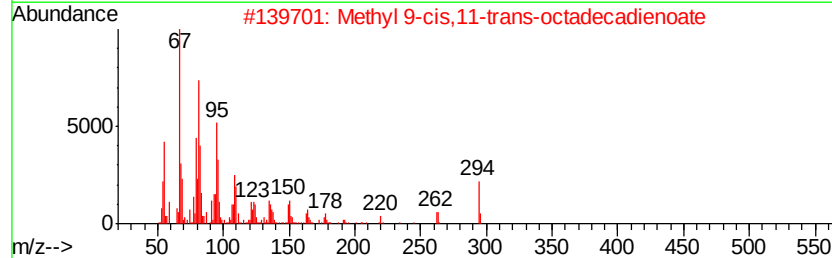
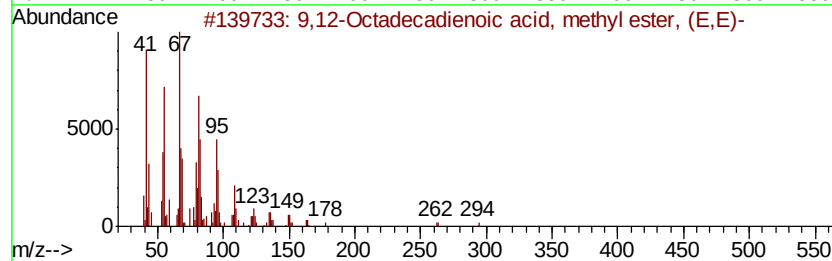
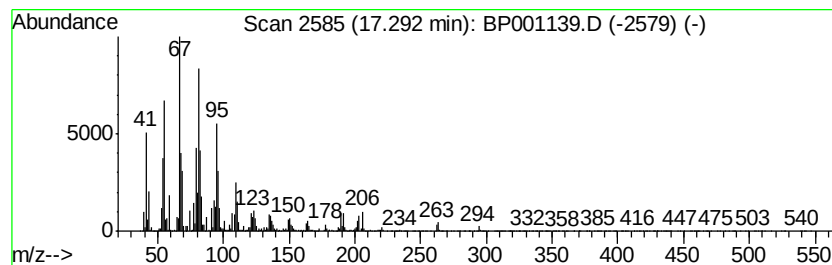
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 17 9,12-Octadecadienoic acid, ... Concentration Rank 2

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 17.29 | 81.05 ng | 5447330 | Phenanthrene-d10 | 15.63 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#         | Qual |
|------|----|-------------------------------------|-----|----------|--------------|------|
| 1    | 5  | 9,12-Octadecadienoic acid, methy... | 294 | C19H34O2 | 002566-97-4  | 99   |
| 2    |    | Methyl 9-cis,11-trans-octadecadi... | 294 | C19H34O2 | 1000336-44-0 | 98   |
| 3    |    | 9,15-Octadecadienoic acid, methv... | 294 | C19H34O2 | 017309-05-6  | 98   |
| 4    |    | 9,12-Octadecadienoic acid (Z,Z)-... | 294 | C19H34O2 | 000112-63-0  | 97   |
| 5    |    | 11,14-Octadecadienoic acid, meth... | 294 | C19H34O2 | 056554-61-1  | 97   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

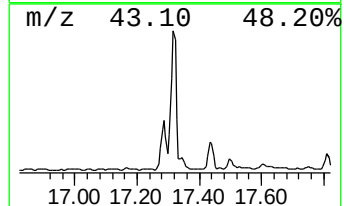
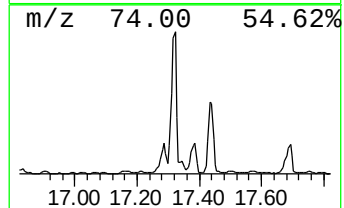
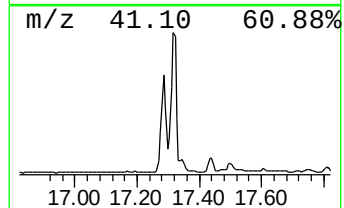
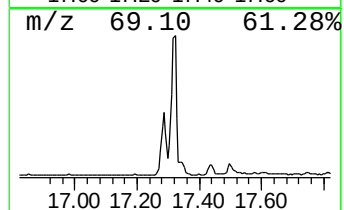
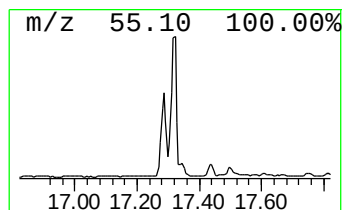
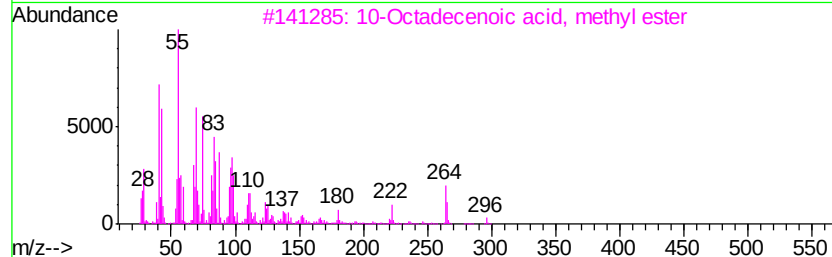
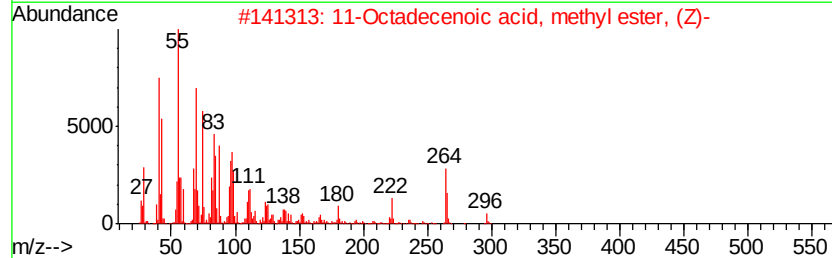
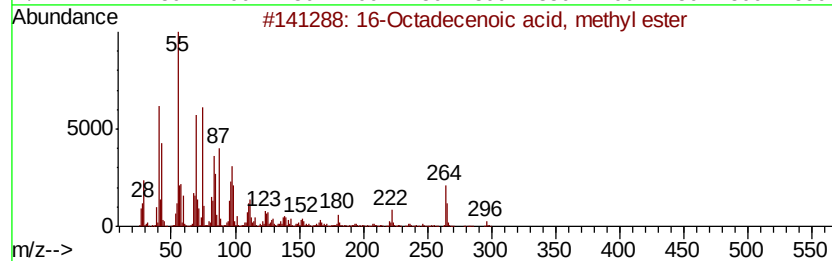
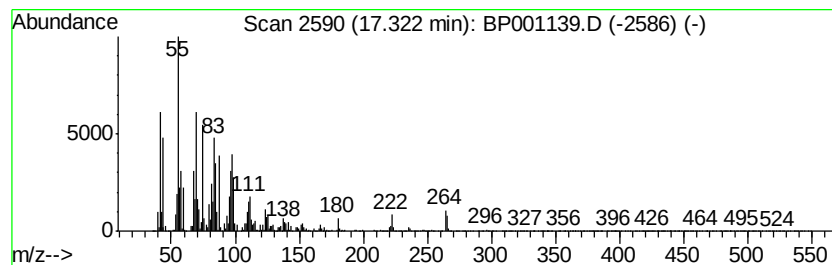
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 18 16-Octadecenoic acid, methyl ester Concentration Rank 1

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 17.32 | 98.81 ng | 6641090 | Phenanthrene-d10 | 15.63 |

| Hit# | of | Tentative ID                       | MW  | MolForm  | CAS#        | Qual |
|------|----|------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 16-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 056554-49-5 | 99   |
| 2    |    | 11-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 001937-63-9 | 99   |
| 3    |    | 10-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 013481-95-3 | 99   |
| 4    |    | 9-Octadecenoic acid, methyl ester  | 296 | C19H36O2 | 001937-62-8 | 99   |
| 5    |    | 15-Octadecenoic acid, methyl ester | 296 | C19H36O2 | 004764-72-1 | 98   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

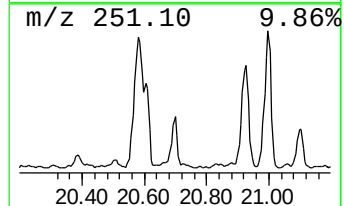
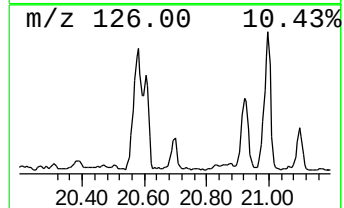
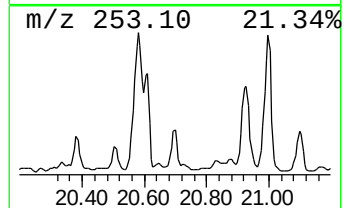
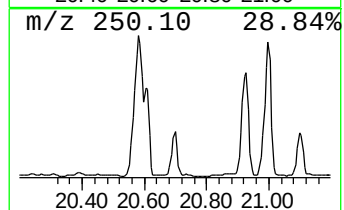
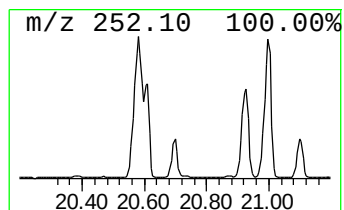
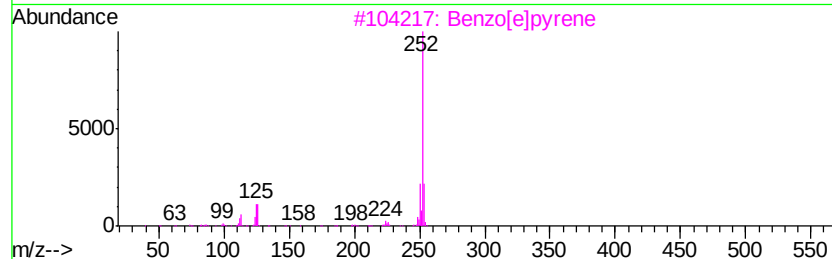
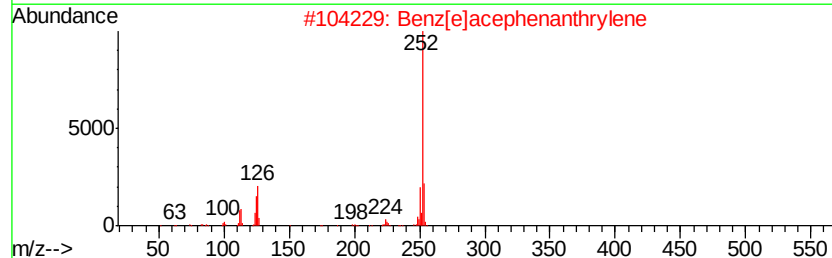
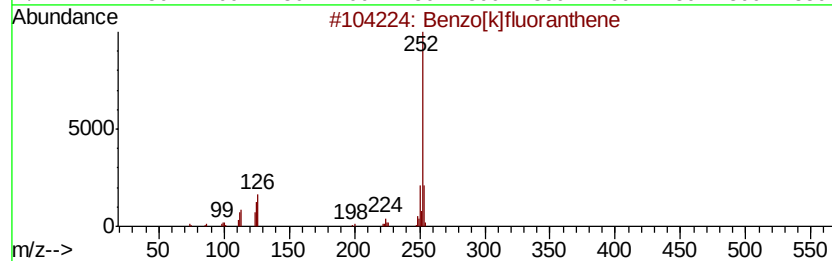
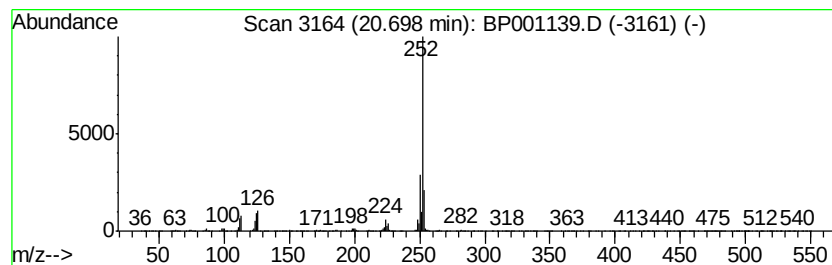
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 19 Perylene Concentration Rank 16

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 20.70 | 13.51 ng | 653685 | Perylene-d12     | 21.07 |

| Hit# | of | 5 | Tentative ID             | MW  | MolForm | CAS#        | Qual |
|------|----|---|--------------------------|-----|---------|-------------|------|
| 1    |    |   | Benzo[k]fluoranthene     | 252 | C20H12  | 000207-08-9 | 95   |
| 2    |    |   | Benz[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 93   |
| 3    |    |   | Benzo[e]pyrene           | 252 | C20H12  | 000192-97-2 | 93   |
| 4    |    |   | Perylene                 | 252 | C20H12  | 000198-55-0 | 90   |
| 5    |    |   | Benzo[a]pyrene           | 252 | C20H12  | 000050-32-8 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA P\DATA\BP120219\  
Data File : BP001139.D  
Acq On : 02 Dec 2019 21:42  
Operator : JU  
Sample : K5676-35 2X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_P  
ClientSampleId :  
SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA P\METHODS\8270-BP112719.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

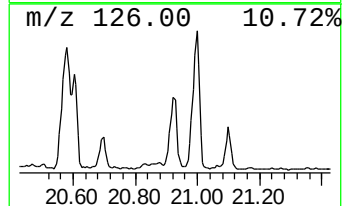
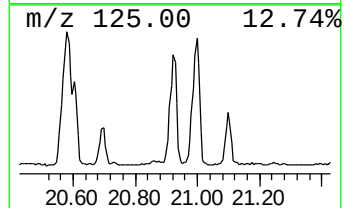
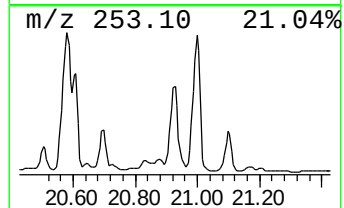
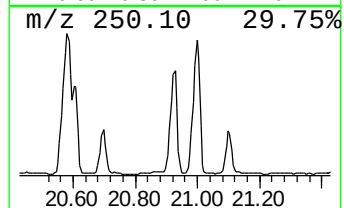
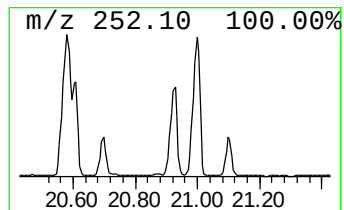
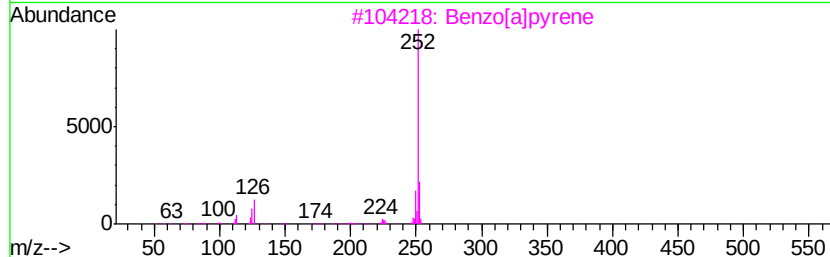
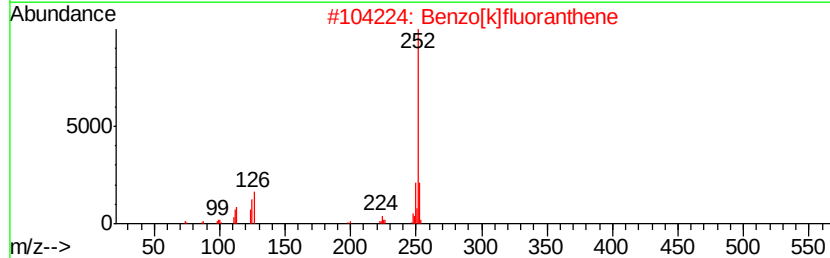
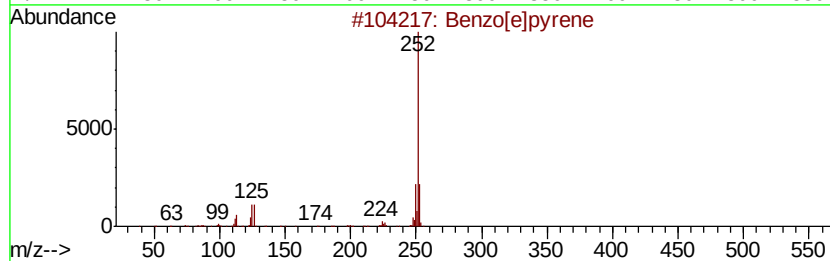
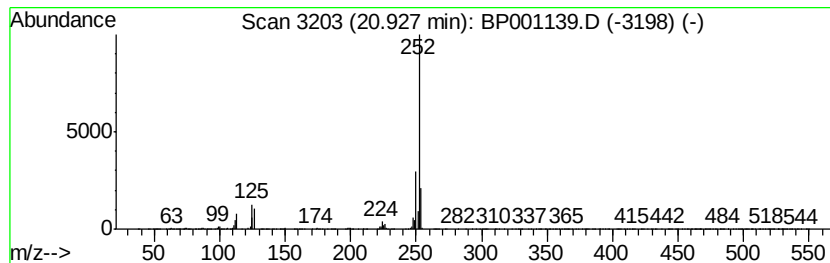
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 20 Benzo[e]pyrene Concentration Rank 3

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 20.93 | 43.22 ng | 2090640 | Perylene-d12     | 21.07 |

| Hit# | of | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[e]pyrene            | 252 | C20H12  | 000192-97-2 | 94   |
| 2    |    | Benzo[k]fluoranthene      | 252 | C20H12  | 000207-08-9 | 93   |
| 3    |    | Benzo[a]pyrene            | 252 | C20H12  | 000050-32-8 | 93   |
| 4    |    | Benzo[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 90   |
| 5    |    | Benzo[j]fluoranthene      | 252 | C20H12  | 000205-82-3 | 90   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA\_P\DATA\BP120219\  
 Data File : BP001139.D  
 Acq On : 02 Dec 2019 21:42  
 Operator : JU  
 Sample : K5676-35 2X  
 Misc :  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 BNA\_P  
 ClientSampleId :  
 SU-01-112719

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_P\METHODS\8270-BP112719.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

| TIC Top Hit name     | RT    | EstConc | Units | Response | --Internal Standard-- |       |         |      |
|----------------------|-------|---------|-------|----------|-----------------------|-------|---------|------|
|                      |       |         |       |          | #                     | RT    | Resp    | Conc |
| 2-Pentanone, 4-hy... | 5.63  | 6.7 ng  |       | 321008   | 1                     | 8.33  | 965523  | 20.0 |
| unknown7.96          | 7.96  | 32.8 ng |       | 1583500  | 1                     | 8.33  | 965523  | 20.0 |
| Tridecanoic acid,... | 13.40 | 14.7 ng |       | 1173280  | 3                     | 13.23 | 1596550 | 20.0 |
| Methyl tetradecan... | 15.00 | 14.6 ng |       | 980374   | 4                     | 15.63 | 1344180 | 20.0 |
| Dibenzothiophene,... | 16.13 | 6.5 ng  |       | 433939   | 4                     | 15.63 | 1344180 | 20.0 |
| Hexadecanoic acid... | 16.33 | 27.2 ng |       | 1830730  | 4                     | 15.63 | 1344180 | 20.0 |
| Phenanthrene, 4-m... | 16.39 | 17.4 ng |       | 1170750  | 4                     | 15.63 | 1344180 | 20.0 |
| Phenanthrene, 2-m... | 16.42 | 22.0 ng |       | 1476970  | 4                     | 15.63 | 1344180 | 20.0 |
| 1H-Cyclopropa[l]p... | 16.49 | 9.8 ng  |       | 661283   | 4                     | 15.63 | 1344180 | 20.0 |
| 4H-Cyclopenta[def... | 16.53 | 36.9 ng |       | 2478170  | 4                     | 15.63 | 1344180 | 20.0 |
| Anthracene, 1-met... | 16.57 | 13.9 ng |       | 932336   | 4                     | 15.63 | 1344180 | 20.0 |
| 1,2,4,8-Tetrameth... | 16.82 | 19.9 ng |       | 1334620  | 4                     | 15.63 | 1344180 | 20.0 |
| Phenanthrene, 3,6... | 17.07 | 6.5 ng  |       | 434329   | 4                     | 15.63 | 1344180 | 20.0 |
| Anthracene, 1,4-d... | 17.17 | 20.6 ng |       | 1383610  | 4                     | 15.63 | 1344180 | 20.0 |
| unknown17.22         | 17.22 | 14.3 ng |       | 960307   | 4                     | 15.63 | 1344180 | 20.0 |
| 9,12-Octadecadien... | 17.29 | 81.0 ng |       | 5447330  | 4                     | 15.63 | 1344180 | 20.0 |
| 16-Octadecenoic a... | 17.32 | 98.8 ng |       | 6641090  | 4                     | 15.63 | 1344180 | 20.0 |
| Perylene             | 20.70 | 13.5 ng |       | 653685   | 6                     | 21.07 | 967500  | 20.0 |
| Benzo[e]pyrene       | 20.93 | 43.2 ng |       | 2090640  | 6                     | 21.07 | 967500  | 20.0 |