

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
 Data File : BF121804.D  
 Acq On : 2 Oct 2020 20:20  
 Operator : JU/CG  
 Sample : L4213-05  
 Misc :  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 B-15(13-14)

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\_F\METHODS\8270-BF091020.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         | 4.334       | 377           | 382         | 389          | rBV      | 364207         | 445793        | 7.23%           | 0.510%        |
| 2         | 4.969       | 485           | 490         | 505          | rVB      | 605350         | 719106        | 11.66%          | 0.823%        |
| 3         | 5.387       | 557           | 561         | 577          | rVB      | 2015758        | 1851885       | 30.02%          | 2.120%        |
| 4         | 6.404       | 729           | 734         | 751          | rBV      | 2385665        | 2283565       | 37.02%          | 2.615%        |
| 5         | 6.763       | 791           | 795         | 798          | rBV      | 957538         | 771893        | 12.51%          | 0.884%        |
| 6         | 7.328       | 886           | 891         | 894          | rBV      | 1842434        | 1631915       | 26.45%          | 1.869%        |
| 7         | 8.045       | 1008          | 1013        | 1015         | rBV      | 1154222        | 1024485       | 16.61%          | 1.173%        |
| 8         | 8.069       | 1015          | 1017        | 1020         | rVB      | 964702         | 721588        | 11.70%          | 0.826%        |
| 9         | 8.757       | 1130          | 1134        | 1141         | rBV      | 482677         | 381066        | 6.18%           | 0.436%        |
| 10        | 8.857       | 1146          | 1151        | 1159         | rVB      | 324536         | 270794        | 4.39%           | 0.310%        |
| 11        | 9.122       | 1189          | 1196        | 1199         | rBV      | 3219082        | 2705601       | 43.86%          | 3.098%        |
| 12        | 9.222       | 1210          | 1213        | 1219         | rVB      | 157326         | 139166        | 2.26%           | 0.159%        |
| 13        | 9.386       | 1234          | 1241        | 1245         | rBV      | 147152         | 203580        | 3.30%           | 0.233%        |
| 14        | 9.457       | 1249          | 1253        | 1255         | rBV      | 254024         | 244757        | 3.97%           | 0.280%        |
| 15        | 9.516       | 1260          | 1263        | 1267         | rVV      | 385674         | 315521        | 5.11%           | 0.361%        |
| 16        | 9.657       | 1284          | 1287        | 1292         | rVB      | 320147         | 265679        | 4.31%           | 0.304%        |
| 17        | 9.798       | 1302          | 1311        | 1314         | rBV      | 1166792        | 1069574       | 17.34%          | 1.225%        |
| 18        | 9.833       | 1314          | 1317        | 1320         | rVB      | 1032154        | 882831        | 14.31%          | 1.011%        |
| 19        | 10.004      | 1342          | 1346        | 1350         | rBV      | 795721         | 678785        | 11.00%          | 0.777%        |
| 20        | 10.345      | 1400          | 1404        | 1409         | rVB      | 1342283        | 1175421       | 19.05%          | 1.346%        |
| 21        | 10.504      | 1428          | 1431        | 1434         | rVB      | 258116         | 226810        | 3.68%           | 0.260%        |
| 22        | 10.586      | 1439          | 1445        | 1449         | rVV      | 674928         | 700930        | 11.36%          | 0.803%        |
| 23        | 10.892      | 1490          | 1497        | 1500         | rBV3     | 249566         | 322907        | 5.23%           | 0.370%        |
| 24        | 11.022      | 1514          | 1519        | 1521         | rVV2     | 116253         | 152303        | 2.47%           | 0.174%        |
| 25        | 11.092      | 1528          | 1531        | 1534         | rVV      | 241762         | 219312        | 3.56%           | 0.251%        |
| 26        | 11.133      | 1534          | 1538        | 1542         | rVV4     | 132861         | 203136        | 3.29%           | 0.233%        |
| 27        | 11.180      | 1542          | 1546        | 1552         | rVB      | 530761         | 474629        | 7.69%           | 0.543%        |
| 28        | 11.286      | 1558          | 1564        | 1565         | rBV      | 869908         | 867152        | 14.06%          | 0.993%        |
| 29        | 11.316      | 1565          | 1569        | 1572         | rVV      | 4637960        | 5468539       | 88.65%          | 6.262%        |
| 30        | 11.363      | 1572          | 1577        | 1580         | rVV      | 2209303        | 1976280       | 32.04%          | 2.263%        |
| 31        | 11.392      | 1580          | 1582        | 1585         | rVB      | 192325         | 168097        | 2.72%           | 0.192%        |
| 32        | 11.516      | 1597          | 1603        | 1606         | rBV2     | 828191         | 805800        | 13.06%          | 0.923%        |
| 33        | 11.580      | 1611          | 1614        | 1617         | rVV2     | 197276         | 178367        | 2.89%           | 0.204%        |
| 34        | 11.616      | 1617          | 1620        | 1624         | rVB3     | 162481         | 168023        | 2.72%           | 0.192%        |

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 Sample : L4213-05  
 Misc :  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 B-15(13-14)

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\_F\METHODS\8270-BF091020.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |         |        |
|----|--------|------|------|------|------|---------|---------|---------|--------|
| 35 | 11.786 | 1643 | 1649 | 1651 | rBV  | 787421  | 711051  | 11.53%  | 0.814% |
| 36 | 11.816 | 1651 | 1654 | 1657 | rVB  | 1078768 | 895503  | 14.52%  | 1.025% |
| 37 | 11.863 | 1657 | 1662 | 1664 | rBV  | 445312  | 401322  | 6.51%   | 0.460% |
| 38 | 11.898 | 1664 | 1668 | 1670 | rVV  | 1370645 | 1360462 | 22.05%  | 1.558% |
| 39 | 11.922 | 1670 | 1672 | 1676 | rVB  | 504832  | 407126  | 6.60%   | 0.466% |
| 40 | 12.080 | 1696 | 1699 | 1701 | rVV  | 592632  | 478738  | 7.76%   | 0.548% |
| 41 | 12.110 | 1701 | 1704 | 1707 | rVB  | 311215  | 255859  | 4.15%   | 0.293% |
| 42 | 12.227 | 1719 | 1724 | 1727 | rBV2 | 146449  | 162915  | 2.64%   | 0.187% |
| 43 | 12.333 | 1738 | 1742 | 1745 | rBV  | 314239  | 364114  | 5.90%   | 0.417% |
| 44 | 12.374 | 1745 | 1749 | 1751 | rVV2 | 241293  | 277291  | 4.50%   | 0.318% |
| 45 | 12.427 | 1754 | 1758 | 1762 | rVB3 | 271313  | 310035  | 5.03%   | 0.355% |
| 46 | 12.510 | 1766 | 1772 | 1775 | rVB  | 4865193 | 5870067 | 95.16%  | 6.721% |
| 47 | 12.645 | 1789 | 1795 | 1798 | rBV2 | 315348  | 408622  | 6.62%   | 0.468% |
| 48 | 12.739 | 1804 | 1811 | 1815 | rBV2 | 4363545 | 6168796 | 100.00% | 7.063% |
| 49 | 12.774 | 1815 | 1817 | 1821 | rVB2 | 318387  | 296570  | 4.81%   | 0.340% |
| 50 | 12.845 | 1825 | 1829 | 1830 | rBV  | 463112  | 402281  | 6.52%   | 0.461% |
| 51 | 12.868 | 1830 | 1833 | 1840 | rVB2 | 2454030 | 2542133 | 41.21%  | 2.911% |
| 52 | 12.945 | 1840 | 1846 | 1849 | rBV2 | 410727  | 714724  | 11.59%  | 0.818% |
| 53 | 12.974 | 1849 | 1851 | 1854 | rVB  | 185802  | 137873  | 2.24%   | 0.158% |
| 54 | 13.027 | 1857 | 1860 | 1862 | rBV3 | 316559  | 374614  | 6.07%   | 0.429% |
| 55 | 13.057 | 1862 | 1865 | 1868 | rVB  | 1184996 | 1056673 | 17.13%  | 1.210% |
| 56 | 13.086 | 1868 | 1870 | 1873 | rBV2 | 102160  | 152517  | 2.47%   | 0.175% |
| 57 | 13.121 | 1873 | 1876 | 1878 | rVV  | 1035697 | 851850  | 13.81%  | 0.975% |
| 58 | 13.157 | 1878 | 1882 | 1885 | rVV2 | 609352  | 713870  | 11.57%  | 0.817% |
| 59 | 13.180 | 1885 | 1886 | 1889 | rVB2 | 200292  | 159346  | 2.58%   | 0.182% |
| 60 | 13.251 | 1895 | 1898 | 1900 | rBV  | 304138  | 240480  | 3.90%   | 0.275% |
| 61 | 13.280 | 1900 | 1903 | 1906 | rBV2 | 327273  | 302210  | 4.90%   | 0.346% |
| 62 | 13.439 | 1926 | 1930 | 1931 | rBV3 | 122069  | 147558  | 2.39%   | 0.169% |
| 63 | 13.474 | 1934 | 1936 | 1939 | rVV2 | 180820  | 185279  | 3.00%   | 0.212% |
| 64 | 13.539 | 1943 | 1947 | 1949 | rBV  | 150310  | 195819  | 3.17%   | 0.224% |
| 65 | 13.563 | 1949 | 1951 | 1955 | rVB  | 378030  | 366354  | 5.94%   | 0.419% |
| 66 | 13.674 | 1966 | 1970 | 1972 | rBV  | 553211  | 575096  | 9.32%   | 0.659% |
| 67 | 13.698 | 1972 | 1974 | 1976 | rVV  | 569315  | 508637  | 8.25%   | 0.582% |
| 68 | 13.727 | 1976 | 1979 | 1984 | rVV3 | 438956  | 725686  | 11.76%  | 0.831% |
| 69 | 13.774 | 1984 | 1987 | 1994 | rVB  | 671017  | 778114  | 12.61%  | 0.891% |
| 70 | 13.921 | 2005 | 2012 | 2016 | rBV2 | 3223105 | 5137209 | 83.28%  | 5.882% |
| 71 | 13.957 | 2016 | 2018 | 2025 | rVB  | 2718491 | 2619659 | 42.47%  | 3.000% |

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 Misc :  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 B-15(13-14)

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\_F\METHODS\8270-BF091020.M

Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|     |        |      |      |      |      |         |         |        |        |
|-----|--------|------|------|------|------|---------|---------|--------|--------|
| 72  | 14.033 | 2028 | 2031 | 2033 | rVV  | 639998  | 509914  | 8.27%  | 0.584% |
| 73  | 14.074 | 2035 | 2038 | 2042 | rVV3 | 190458  | 321417  | 5.21%  | 0.368% |
| 74  | 14.115 | 2042 | 2045 | 2047 | rVV  | 346963  | 336519  | 5.46%  | 0.385% |
| 75  | 14.151 | 2047 | 2051 | 2054 | rVV2 | 430647  | 511762  | 8.30%  | 0.586% |
| 76  | 14.245 | 2064 | 2067 | 2069 | rVV3 | 140041  | 190281  | 3.08%  | 0.218% |
| 77  | 14.274 | 2069 | 2072 | 2074 | rVV2 | 238307  | 279698  | 4.53%  | 0.320% |
| 78  | 14.310 | 2074 | 2078 | 2081 | rVV  | 635797  | 762942  | 12.37% | 0.874% |
| 79  | 14.345 | 2081 | 2084 | 2088 | rVV  | 344547  | 357256  | 5.79%  | 0.409% |
| 80  | 14.410 | 2088 | 2095 | 2097 | rVV2 | 360678  | 626977  | 10.16% | 0.718% |
| 81  | 14.433 | 2097 | 2099 | 2101 | rVV  | 387084  | 398232  | 6.46%  | 0.456% |
| 82  | 14.457 | 2101 | 2103 | 2106 | rVV2 | 494547  | 424274  | 6.88%  | 0.486% |
| 83  | 14.504 | 2106 | 2111 | 2117 | rVB3 | 223396  | 333439  | 5.41%  | 0.382% |
| 84  | 14.621 | 2128 | 2131 | 2133 | rBV2 | 214610  | 195252  | 3.17%  | 0.224% |
| 85  | 14.692 | 2140 | 2143 | 2146 | rBV3 | 134467  | 157818  | 2.56%  | 0.181% |
| 86  | 14.798 | 2157 | 2161 | 2164 | rBV2 | 223471  | 268765  | 4.36%  | 0.308% |
| 87  | 14.962 | 2182 | 2189 | 2191 | rBV  | 2105598 | 3382931 | 54.84% | 3.874% |
| 88  | 14.986 | 2191 | 2193 | 2196 | rVB  | 1268793 | 1094182 | 17.74% | 1.253% |
| 89  | 15.057 | 2202 | 2205 | 2209 | rBV  | 549588  | 553181  | 8.97%  | 0.633% |
| 90  | 15.145 | 2216 | 2220 | 2221 | rBV2 | 163134  | 202955  | 3.29%  | 0.232% |
| 91  | 15.251 | 2233 | 2238 | 2243 | rVB  | 1271856 | 1697730 | 27.52% | 1.944% |
| 92  | 15.315 | 2243 | 2249 | 2253 | rBV  | 1921045 | 2405162 | 38.99% | 2.754% |
| 93  | 15.368 | 2254 | 2258 | 2260 | rVV2 | 555031  | 682254  | 11.06% | 0.781% |
| 94  | 15.398 | 2260 | 2263 | 2269 | rVB2 | 645502  | 848102  | 13.75% | 0.971% |
| 95  | 15.904 | 2347 | 2349 | 2354 | rVB2 | 155738  | 188326  | 3.05%  | 0.216% |
| 96  | 16.786 | 2493 | 2499 | 2506 | rVB2 | 766568  | 1556251 | 25.23% | 1.782% |
| 97  | 16.945 | 2521 | 2526 | 2531 | rBV  | 185103  | 336112  | 5.45%  | 0.385% |
| 98  | 17.004 | 2532 | 2536 | 2540 | rVV2 | 132846  | 216040  | 3.50%  | 0.247% |
| 99  | 17.215 | 2565 | 2572 | 2580 | rVB  | 551070  | 1153060 | 18.69% | 1.320% |
| 100 | 17.439 | 2604 | 2610 | 2616 | rBV  | 171894  | 370919  | 6.01%  | 0.425% |

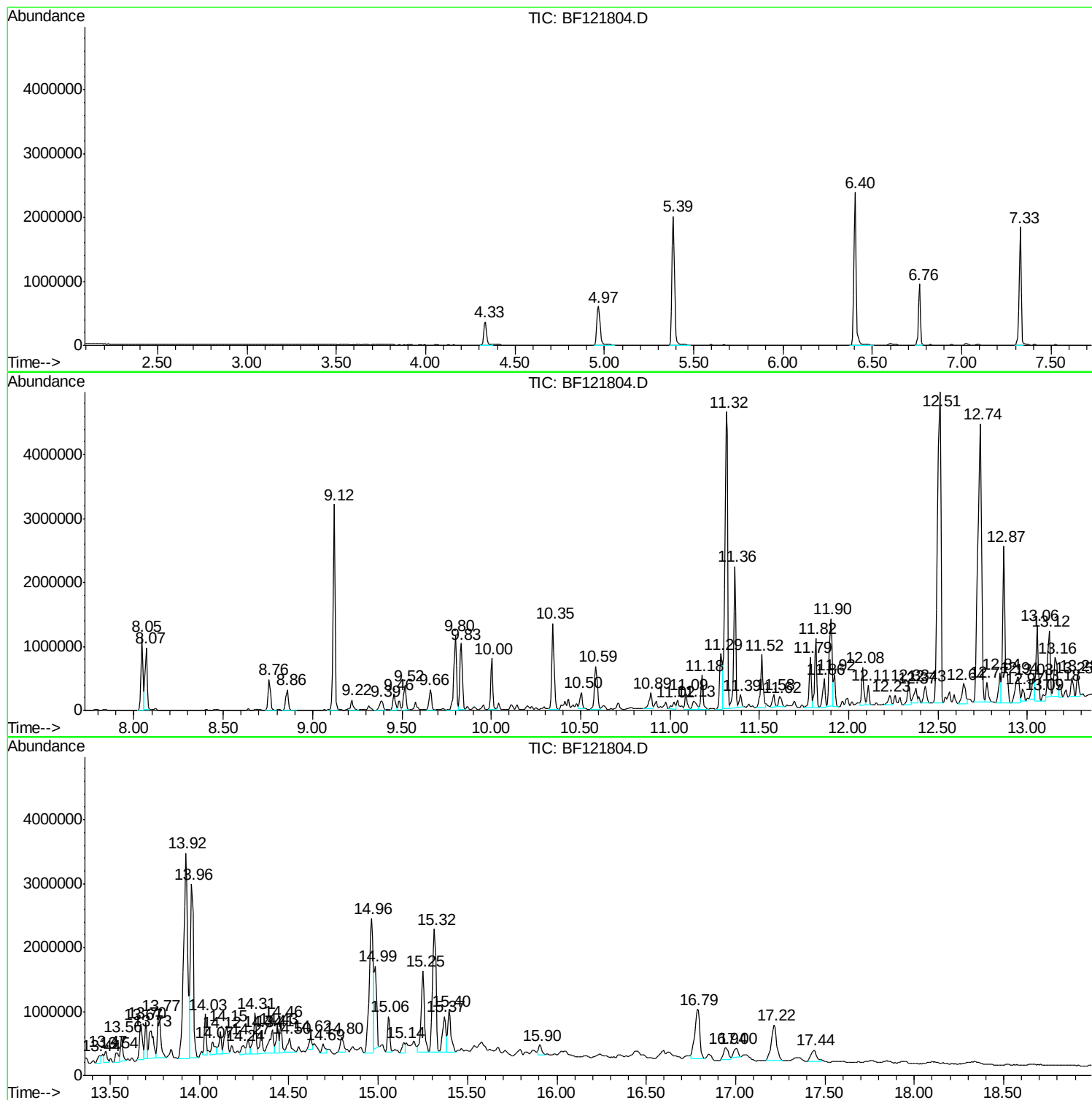
Sum of corrected areas: 87333494

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ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.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 F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
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Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

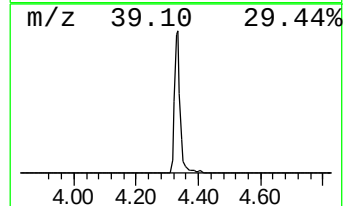
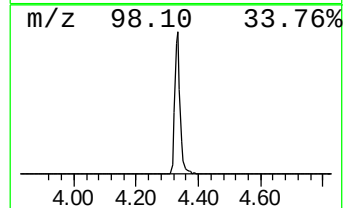
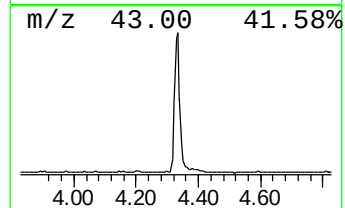
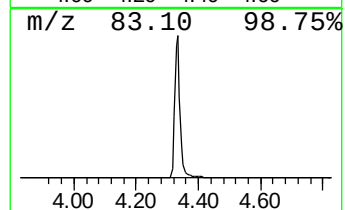
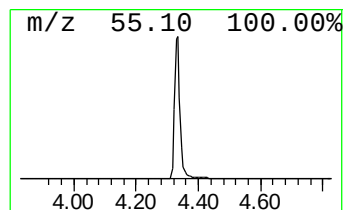
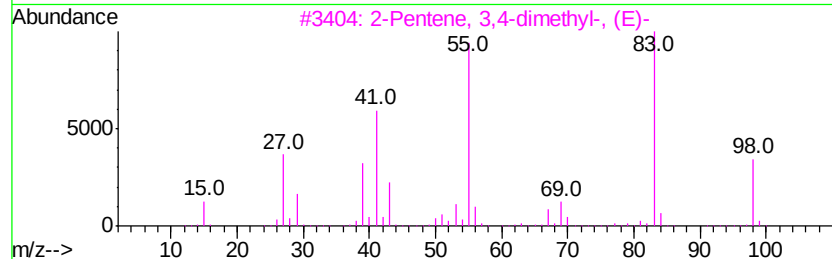
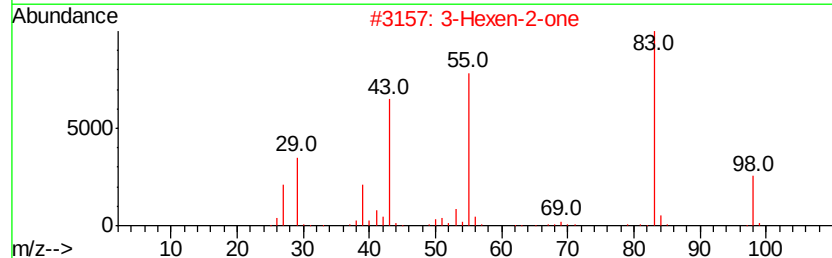
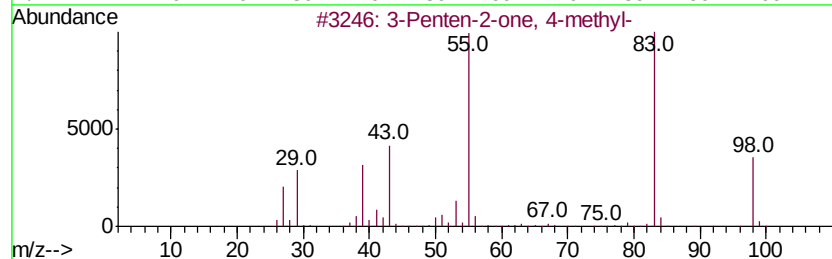
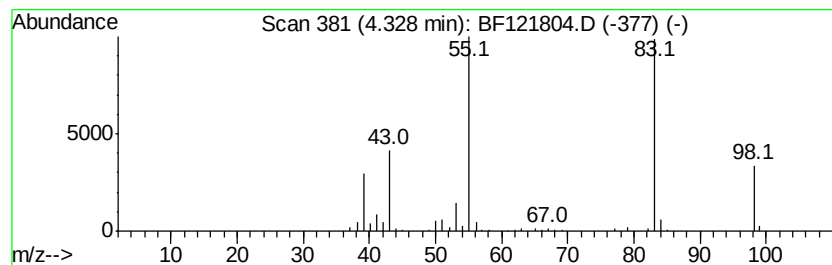
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 1 3-Penten-2-one, 4-methyl- Concentration Rank 7

| R.T. | EstConc  | Area   | Relative to ISTD       | R.T. |
|------|----------|--------|------------------------|------|
| 4.33 | 11.55 ng | 445793 | 1,4-Dichlorobenzene-d4 | 6.76 |

| Hit# | of | Tentative ID                   | MW | MolForm | CAS#        | Qual |
|------|----|--------------------------------|----|---------|-------------|------|
| 1    | 5  | 3-Penten-2-one, 4-methyl-      | 98 | C6H10O  | 000141-79-7 | 94   |
| 2    |    | 3-Hexen-2-one                  | 98 | C6H10O  | 000763-93-9 | 91   |
| 3    |    | 2-Pentene, 3,4-dimethyl-, (E)- | 98 | C7H14   | 004914-92-5 | 90   |
| 4    |    | 2-Pentene, 2,4-dimethyl-       | 98 | C7H14   | 000625-65-0 | 86   |
| 5    |    | 2-Pentene, 4,4-dimethyl-, (E)- | 98 | C7H14   | 000690-08-4 | 86   |



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Instrument :  
BNA\_F  
ClientSampled :  
B-15(13-14)

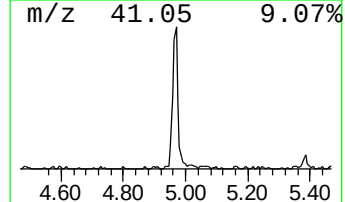
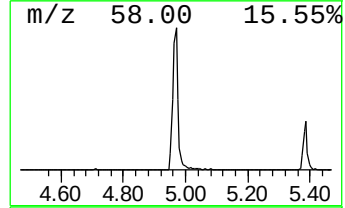
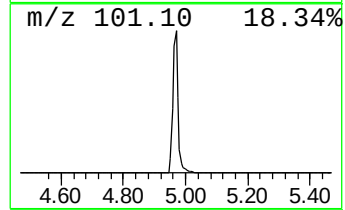
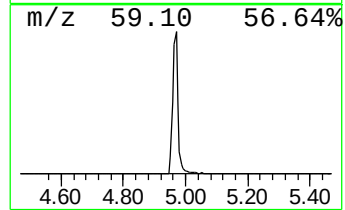
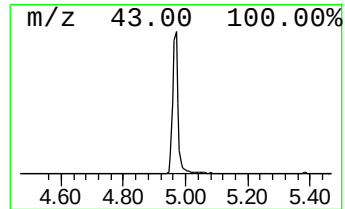
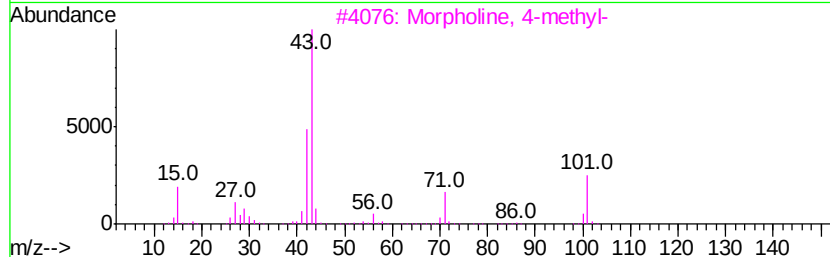
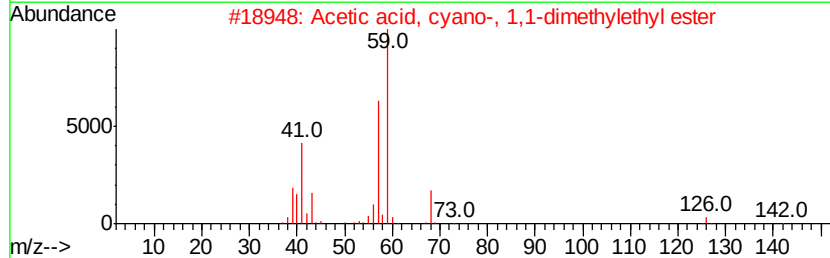
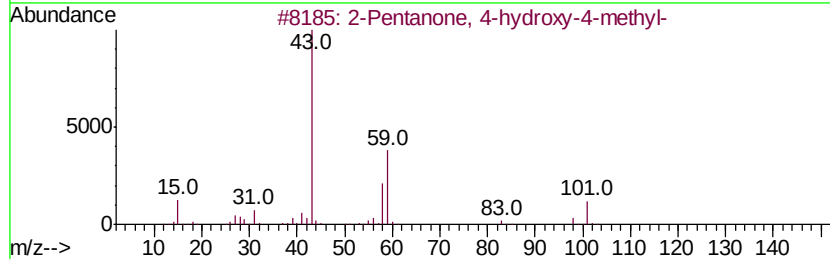
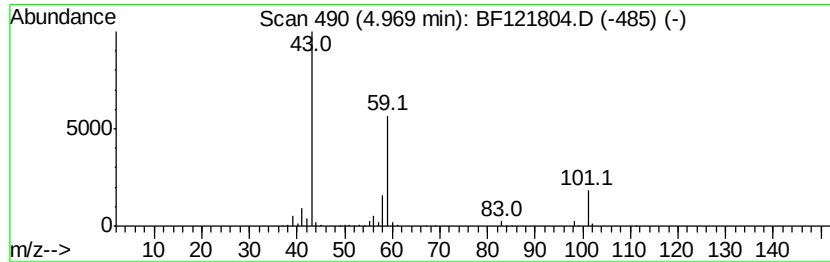
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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

| R.T. | EstConc  | Area   | Relative to ISTD       | R.T. |
|------|----------|--------|------------------------|------|
| 4.97 | 18.63 ng | 719106 | 1,4-Dichlorobenzene-d4 | 6.76 |

| Hit# | of | Tentative ID                         | MW  | MolForm  | CAS#        | Qual |
|------|----|--------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 2-Pentanone, 4-hydroxy-4-methyl-     | 116 | C6H12O2  | 000123-42-2 | 53   |
| 2    |    | Acetic acid, cyano-, 1,1-dimethyl... | 141 | C7H11NO2 | 001116-98-9 | 32   |
| 3    |    | Morpholine, 4-methyl-                | 101 | C5H11NO  | 000109-02-4 | 9    |
| 4    |    | 2,3-Butanedione, monooxime           | 101 | C4H7NO2  | 000057-71-6 | 9    |
| 5    |    | 1-Propen-2-ol, acetate               | 100 | C5H8O2   | 000108-22-5 | 9    |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

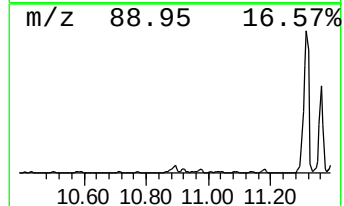
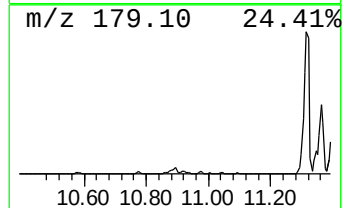
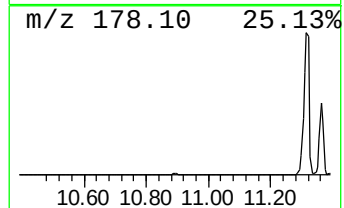
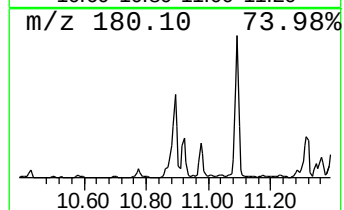
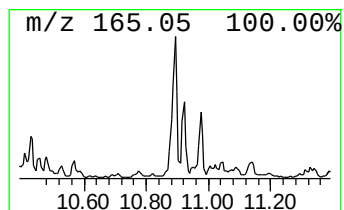
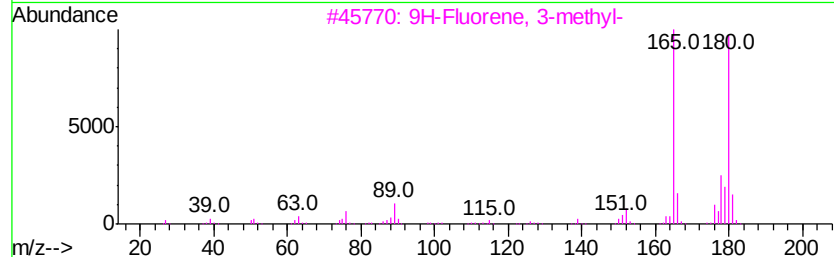
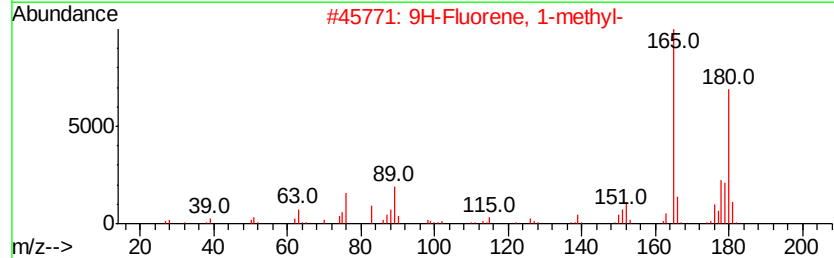
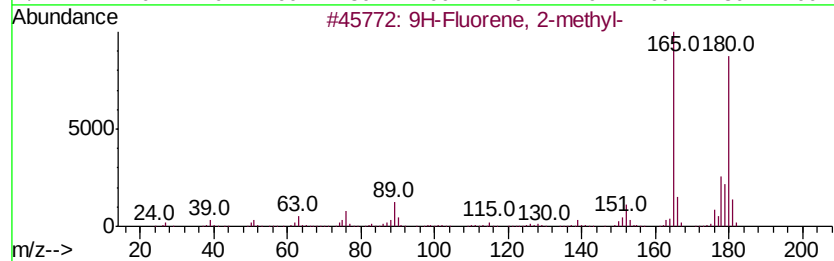
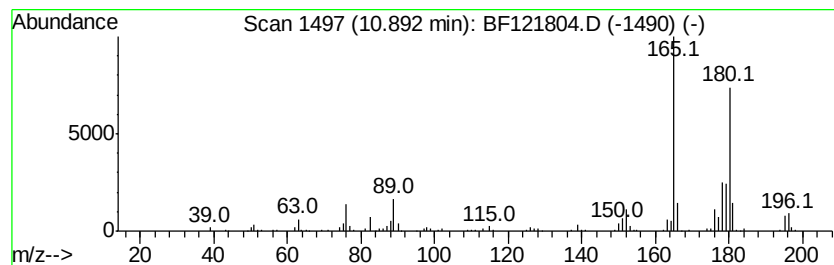
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TIC Integration Parameters: LSCINT.P

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Peak Number 3 9H-Fluorene, 2-methyl- Concentration Rank 16

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 10.89 | 7.45 ng | 322907 | Phenanthrene-d10 | 11.29 |

| Hit# | of | Tentative ID           | MW  | MolForm | CAS#        | Qual |
|------|----|------------------------|-----|---------|-------------|------|
| 1    | 5  | 9H-Fluorene, 2-methyl- | 180 | C14H12  | 001430-97-3 | 96   |
| 2    |    | 9H-Fluorene, 1-methyl- | 180 | C14H12  | 001730-37-6 | 96   |
| 3    |    | 9H-Fluorene, 3-methyl- | 180 | C14H12  | 002523-39-9 | 93   |
| 4    |    | 9H-Fluorene, 9-methyl- | 180 | C14H12  | 002523-37-7 | 91   |
| 5    |    | 9H-Fluorene, 4-methyl- | 180 | C14H12  | 001556-99-6 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

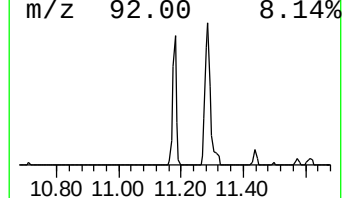
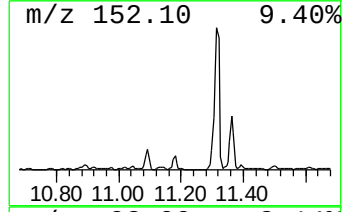
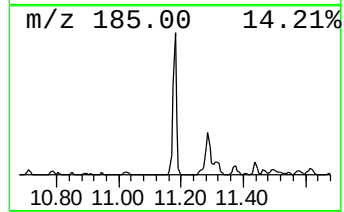
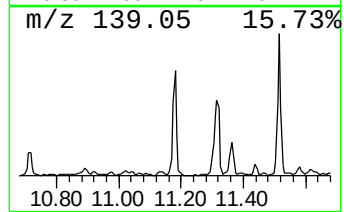
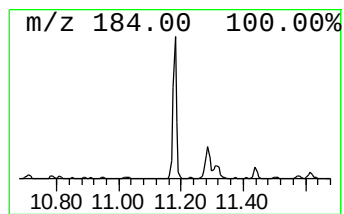
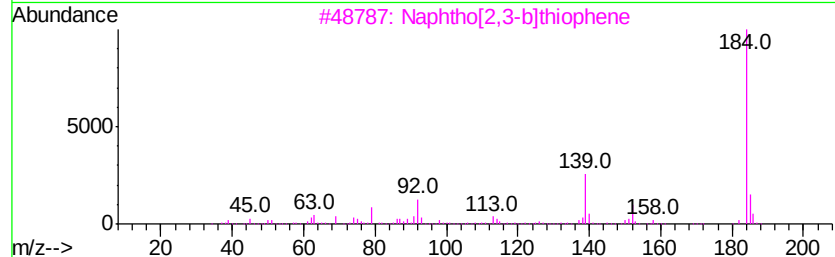
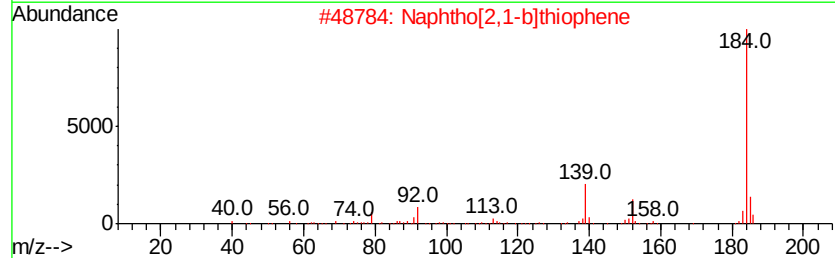
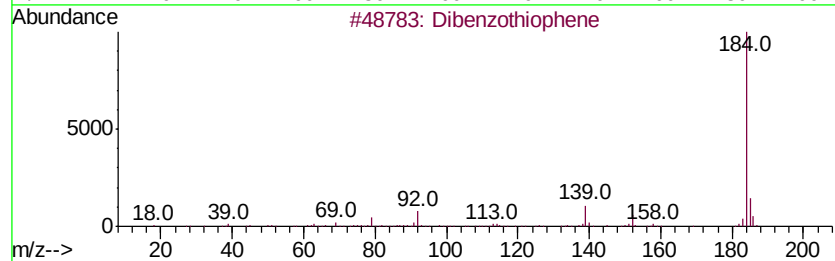
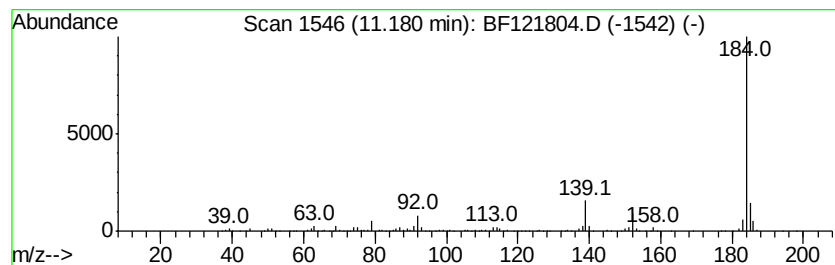
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 4 Dibenzothiophene Concentration Rank 9

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 11.18 | 10.95 ng | 474629 | Phenanthrene-d10 | 11.29 |

| Hit# of | 5 | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|---------|---|-------------------------|-----|---------|-------------|------|
| 1       |   | Dibenzothiophene        | 184 | C12H8S  | 000132-65-0 | 97   |
| 2       |   | Naphtho[2,1-b]thiophene | 184 | C12H8S  | 000233-02-3 | 96   |
| 3       |   | Naphtho[2,3-b]thiophene | 184 | C12H8S  | 000268-77-9 | 95   |
| 4       |   | Naphtho[1,2-b]thiophene | 184 | C12H8S  | 000234-41-3 | 94   |
| 5       |   | Azuleno(2,1-b)thiophene | 184 | C12H8S  | 000248-13-5 | 80   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

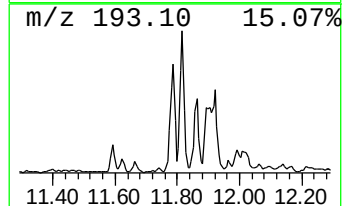
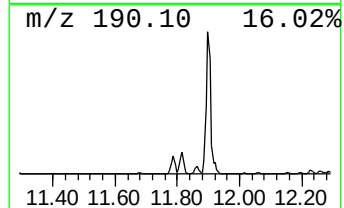
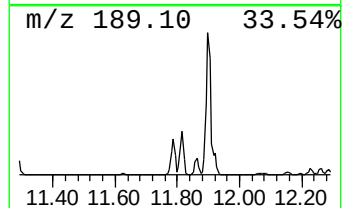
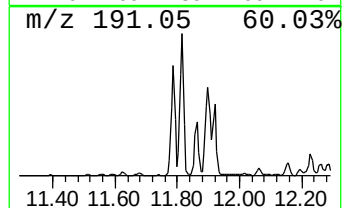
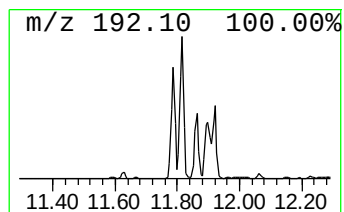
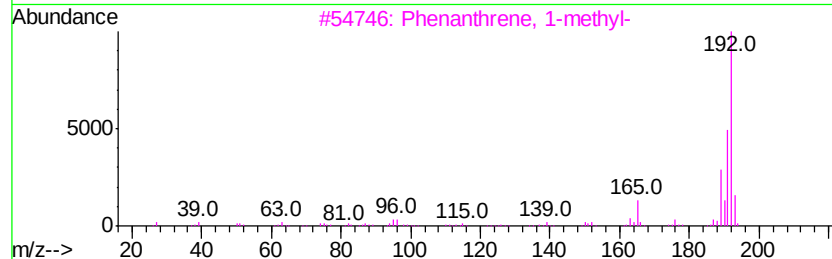
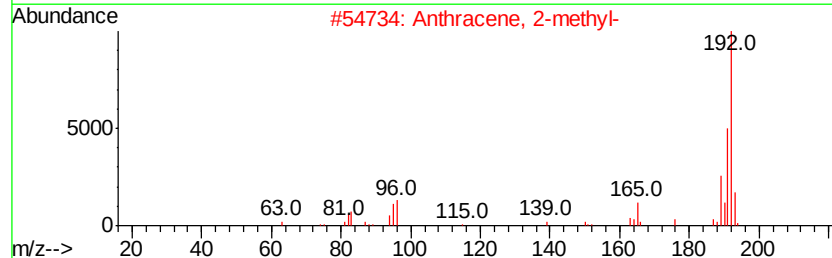
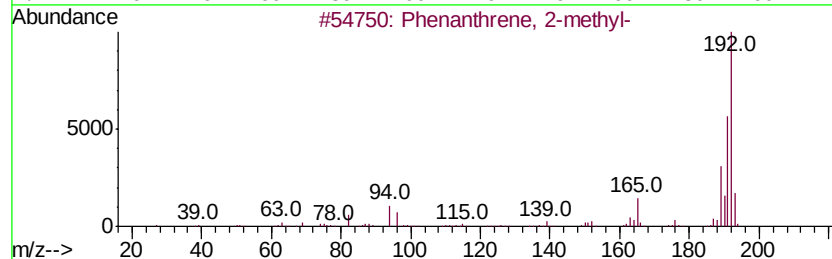
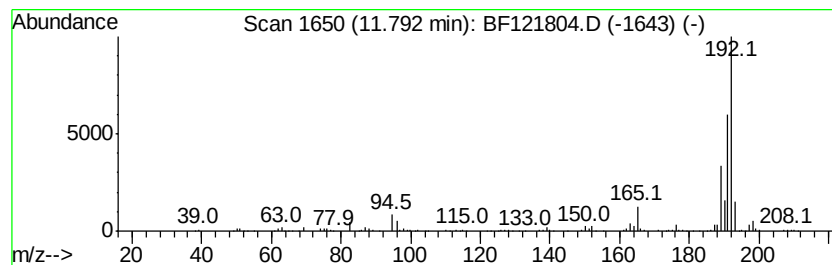
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ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.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 5 Phenanthrene, 2-methyl- Concentration Rank 5

| R.T.      | EstConc                 | Area   | Relative to ISTD | R.T.        |      |
|-----------|-------------------------|--------|------------------|-------------|------|
| 11.79     | 16.40 ng                | 711051 | Phenanthrene-d10 | 11.29       |      |
| Hit# of 5 | Tentative ID            | MW     | MolForm          | CAS#        | Qual |
| 1         | Phenanthrene, 2-methyl- | 192    | C15H12           | 002531-84-2 | 93   |
| 2         | Anthracene, 2-methyl-   | 192    | C15H12           | 000613-12-7 | 93   |
| 3         | Phenanthrene, 1-methyl- | 192    | C15H12           | 000832-69-9 | 93   |
| 4         | Anthracene, 9-methyl-   | 192    | C15H12           | 000779-02-2 | 91   |
| 5         | Anthracene, 1-methyl-   | 192    | C15H12           | 000610-48-0 | 91   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

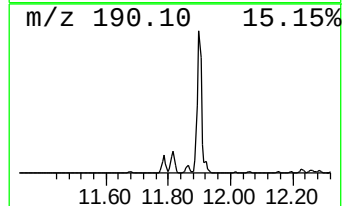
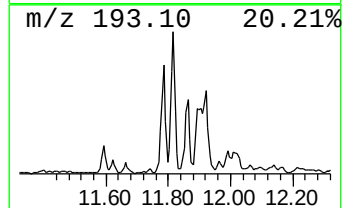
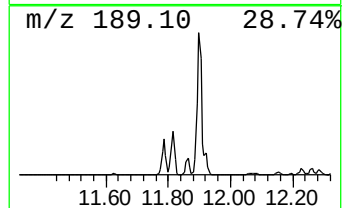
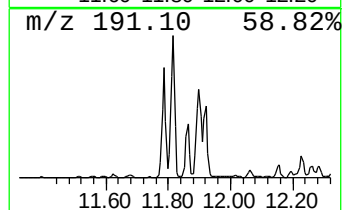
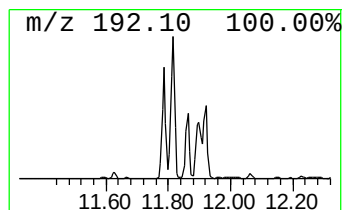
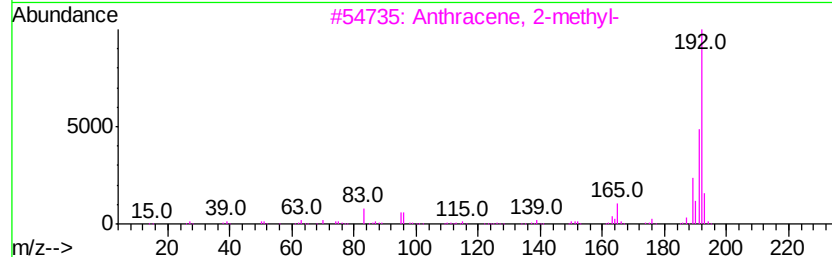
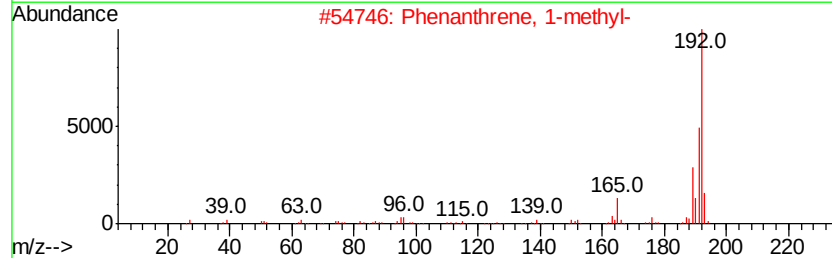
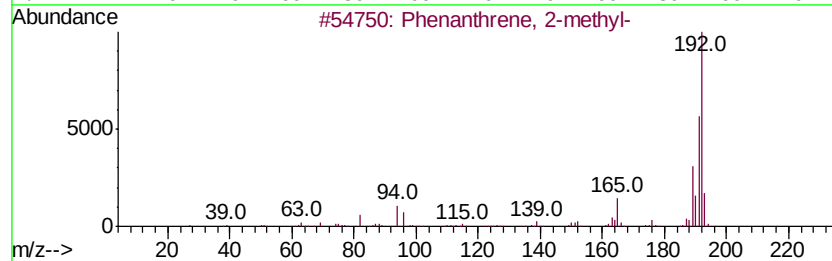
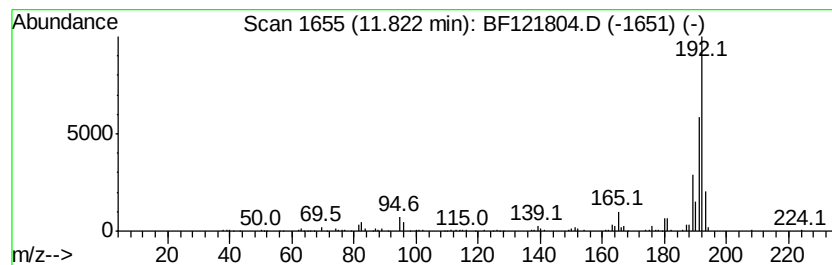
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 6 Phenanthrene, 1-methyl- Concentration Rank 3

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 11.82 | 20.65 ng | 895503 | Phenanthrene-d10 | 11.29 |

| 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       |   | Anthracene, 1-methyl-                 | 192 | C15H12  | 000610-48-0 | 95   |
| 5       |   | 1H-Cyclopropa[l]phenanthrene, 1a, ... | 192 | C15H12  | 000949-41-7 | 95   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

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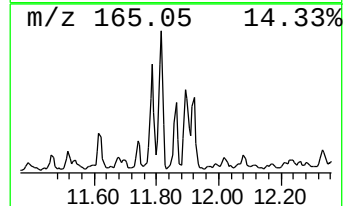
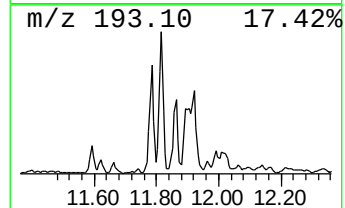
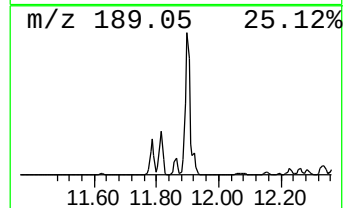
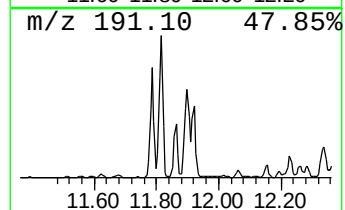
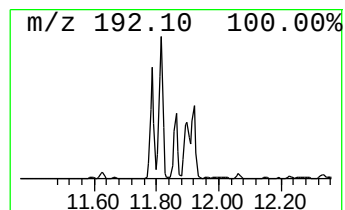
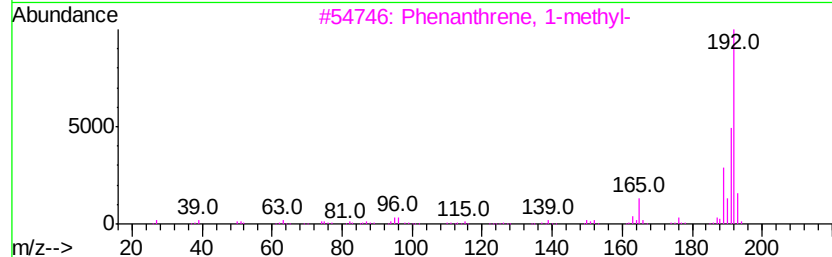
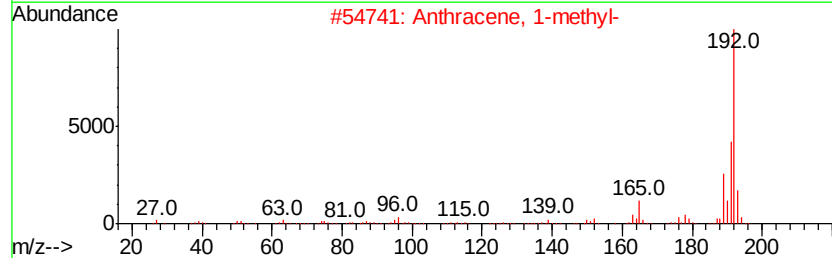
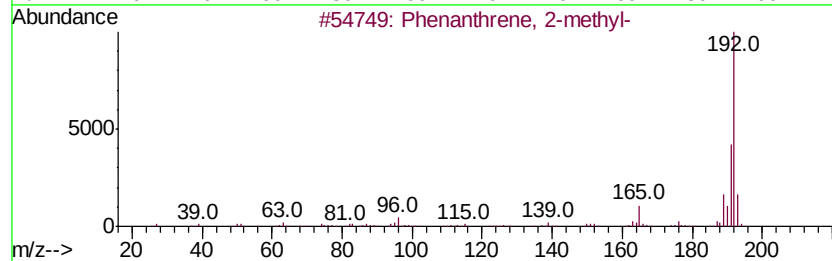
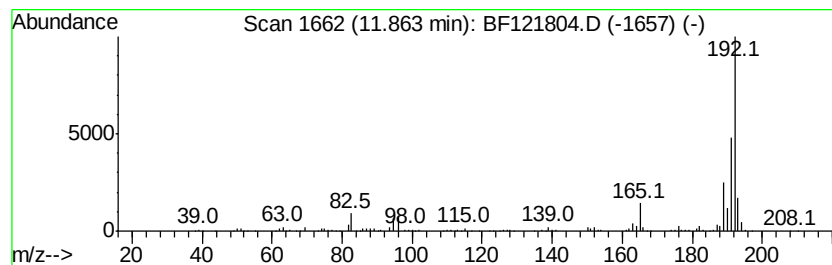
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 7 Anthracene, 1-methyl- Concentration Rank 13

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.86 | 9.26 ng | 401322 | Phenanthrene-d10 | 11.29 |

| Hit# | of | Tentative ID                          | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Phenanthrene, 2-methyl-               | 192 | C15H12  | 002531-84-2 | 96   |
| 2    |    | Anthracene, 1-methyl-                 | 192 | C15H12  | 000610-48-0 | 96   |
| 3    |    | Phenanthrene, 1-methyl-               | 192 | C15H12  | 000832-69-9 | 96   |
| 4    |    | Anthracene, 2-methyl-                 | 192 | C15H12  | 000613-12-7 | 96   |
| 5    |    | 1H-Cyclopropa[l]phenanthrene, 1a, ... | 192 | C15H12  | 000949-41-7 | 95   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
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Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

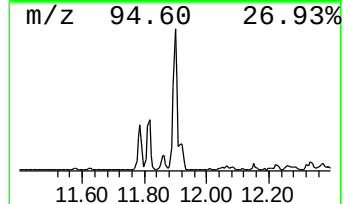
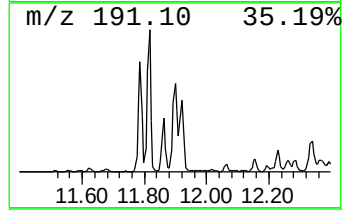
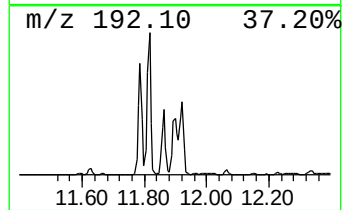
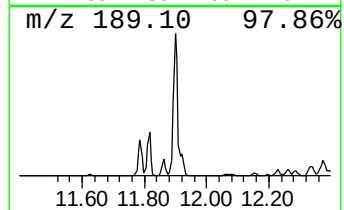
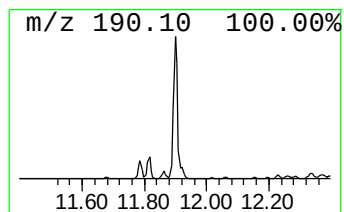
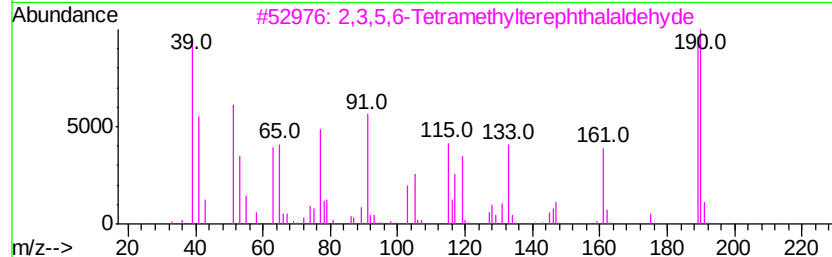
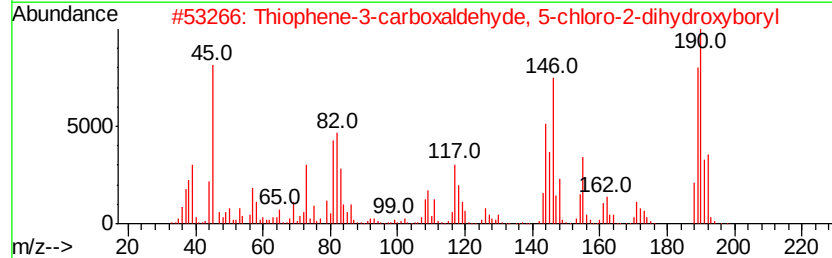
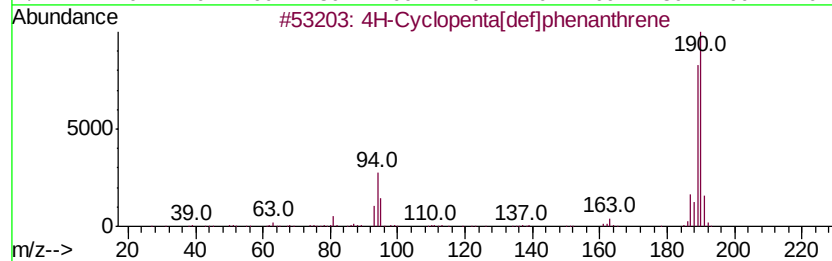
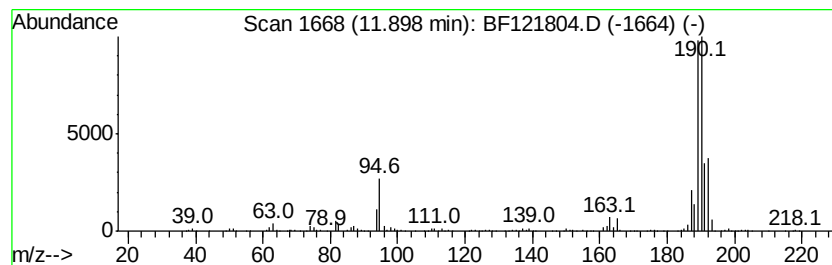
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ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 8 4H-Cyclopenta[def]phenanthrene Concentration Rank 2

| R.T.      | EstConc                             | Area    | Relative to ISTD | R.T.        |      |
|-----------|-------------------------------------|---------|------------------|-------------|------|
| 11.90     | 31.38 ng                            | 1360460 | Phenanthrene-d10 | 11.29       |      |
| Hit# of 5 | Tentative ID                        | MW      | MolForm          | CAS#        | Qual |
| 1         | 4H-Cyclopenta[def]phenanthrene      | 190     | C15H10           | 000203-64-5 | 94   |
| 2         | Thiophene-3-carboxaldehyde, 5-ch... | 190     | C5H4BClO3S       | 036155-87-0 | 50   |
| 3         | 2,3,5,6-Tetramethylterephthalald... | 190     | C12H14O2         | 007072-01-7 | 47   |
| 4         | 6H-Cyclobuta[flk]phenanthrene       | 190     | C15H10           | 083469-43-6 | 45   |
| 5         | 2,2'-Bis(4,5-dimethylimidazole)     | 190     | C10H14N4         | 069286-06-2 | 28   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

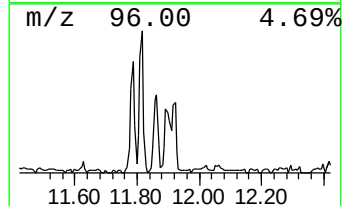
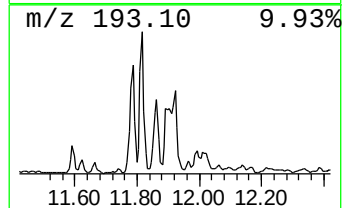
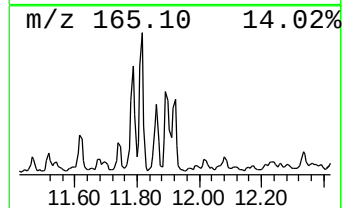
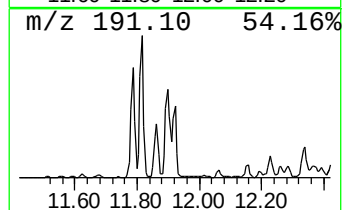
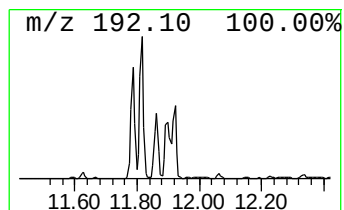
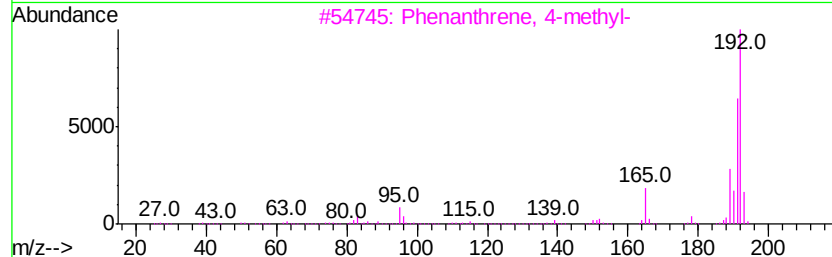
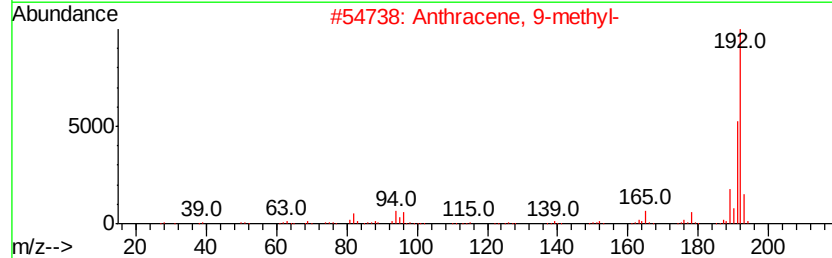
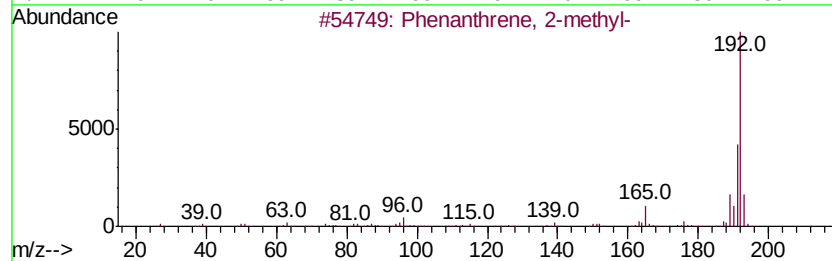
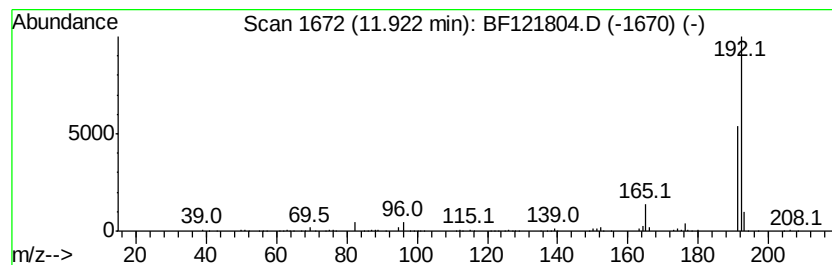
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 9 Anthracene, 9-methyl- Concentration Rank 12

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.92 | 9.39 ng | 407126 | Phenanthrene-d10 | 11.29 |

| Hit# | of | 5 | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------|-----|---------|-------------|------|
| 1    |    |   | Phenanthrene, 2-methyl- | 192 | C15H12  | 002531-84-2 | 90   |
| 2    |    |   | Anthracene, 9-methyl-   | 192 | C15H12  | 000779-02-2 | 90   |
| 3    |    |   | Phenanthrene, 4-methyl- | 192 | C15H12  | 000832-64-4 | 83   |
| 4    |    |   | 1H-Indene, 2-phenyl-    | 192 | C15H12  | 004505-48-0 | 80   |
| 5    |    |   | Anthracene, 1-methyl-   | 192 | C15H12  | 000610-48-0 | 80   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

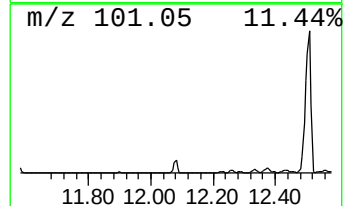
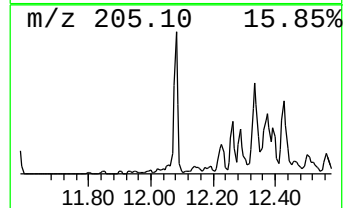
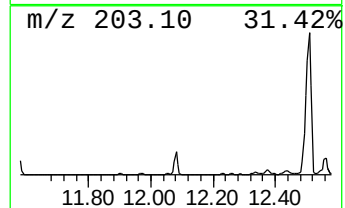
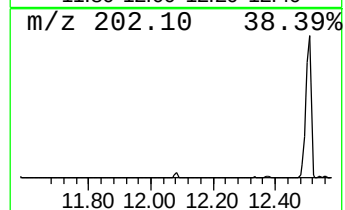
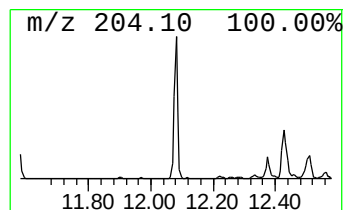
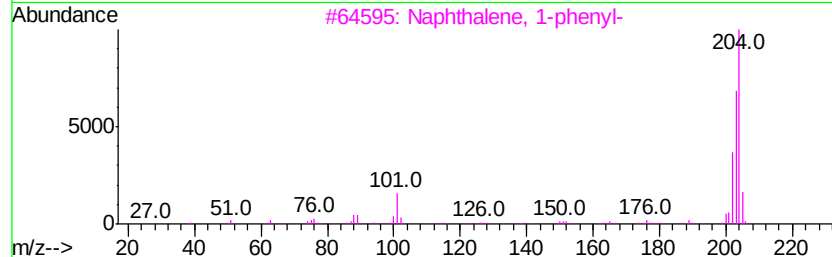
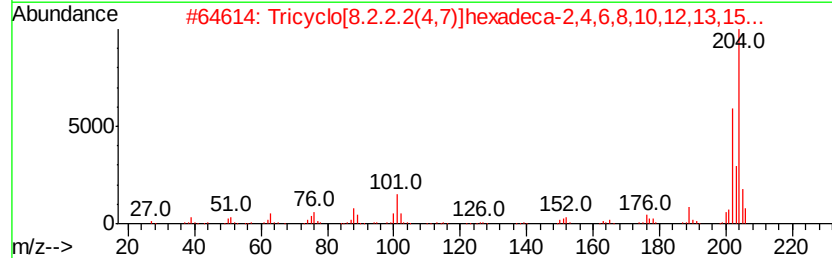
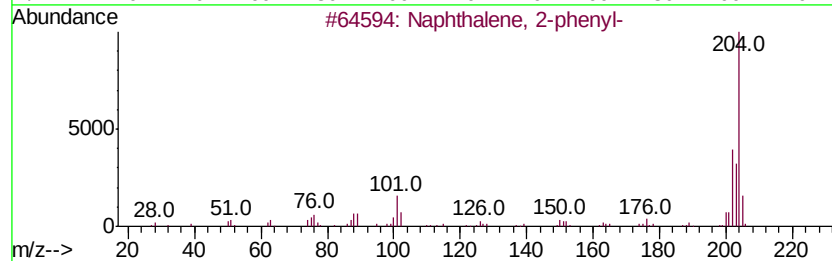
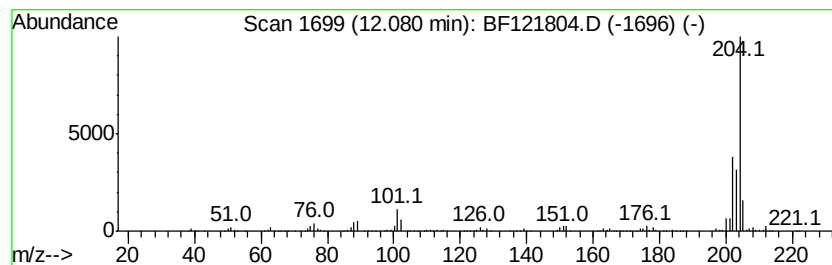
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TIC Integration Parameters: LSCINT.P

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Peak Number 10 Naphthalene, 2-phenyl- Concentration Rank 8

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 12.08 | 11.04 ng | 478738 | Phenanthrene-d10 | 11.29 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | Naphthalene, 2-phenyl-              | 204 | C16H12   | 000612-94-2 | 86   |
| 2    |    | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12   | 006572-60-7 | 70   |
| 3    |    | Naphthalene, 1-phenyl-              | 204 | C16H12   | 000605-02-7 | 55   |
| 4    |    | [1,1'-Biphenyl]-2-ol, 5-chloro-     | 204 | C12H9ClO | 000607-12-5 | 47   |
| 5    |    | [1,1'-Biphenyl]-4,4'-dicarbonitrile | 204 | C14H8N2  | 001591-30-6 | 47   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

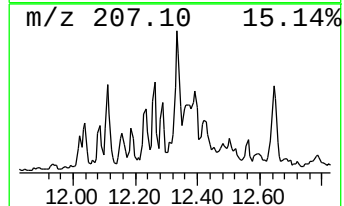
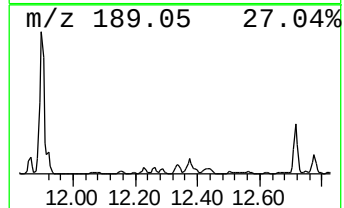
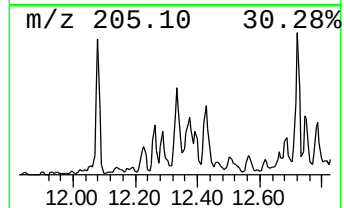
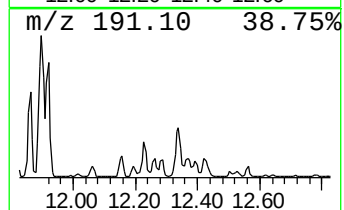
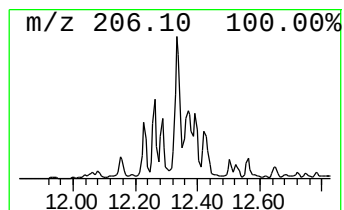
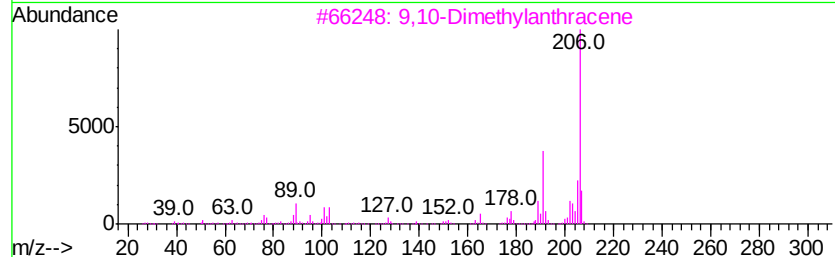
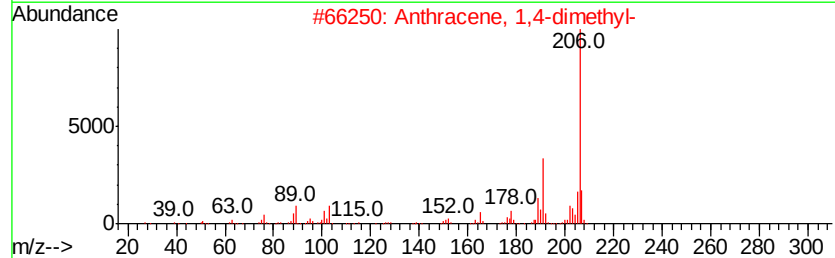
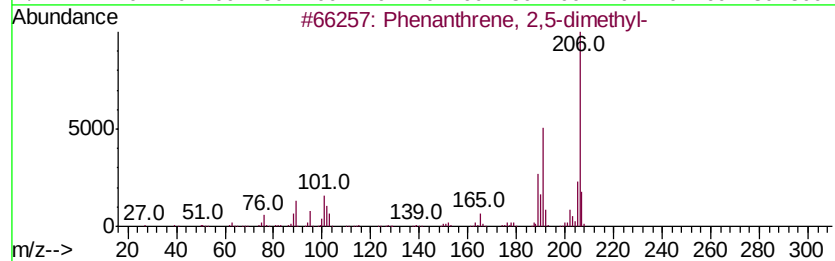
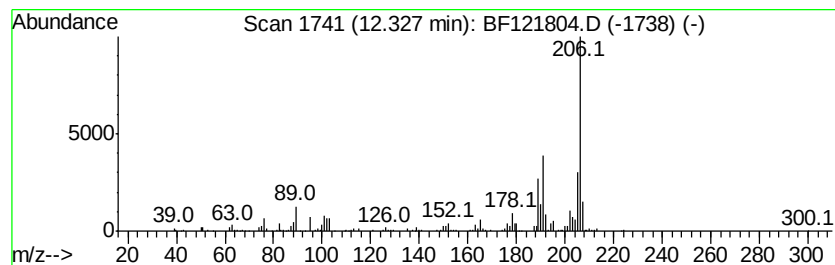
Instrument :  
BNA\_F  
ClientSampled :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.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 Phenanthrene, 2,5-dimethyl- Concentration Rank 14

| R.T.      | EstConc                     | Area   | Relative to ISTD |             | R.T.  |
|-----------|-----------------------------|--------|------------------|-------------|-------|
| 12.33     | 8.40 ng                     | 364114 | Phenanthrene-d10 |             | 11.29 |
| Hit# of 5 | Tentative ID                | MW     | MolForm          | CAS#        | Qual  |
| 1         | Phenanthrene, 2,5-dimethyl- | 206    | C16H14           | 003674-66-6 | 95    |
| 2         | Anthracene, 1,4-dimethyl-   | 206    | C16H14           | 000781-92-0 | 93    |
| 3         | 9,10-Dimethylanthracene     | 206    | C16H14           | 000781-43-1 | 93    |
| 4         | Phenanthrene, 1,7-dimethyl- | 206    | C16H14           | 000483-87-4 | 91    |
| 5         | Phenanthrene, 2,3-dimethyl- | 206    | C16H14           | 003674-65-5 | 87    |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

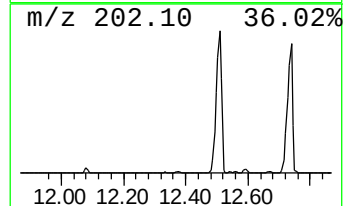
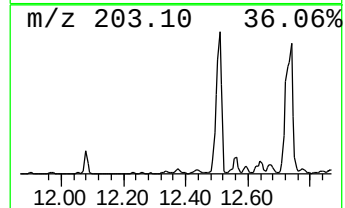
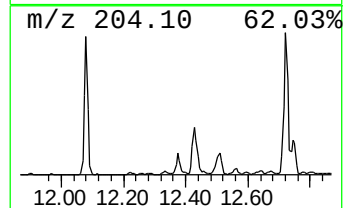
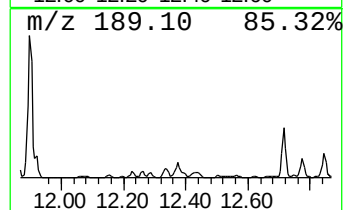
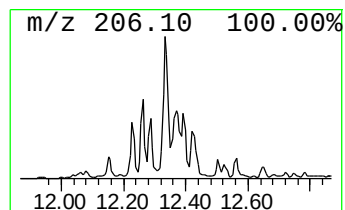
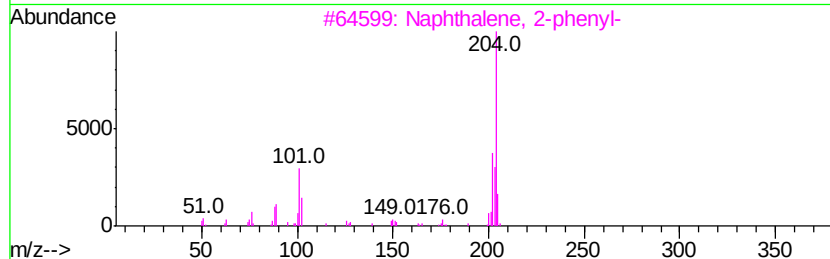
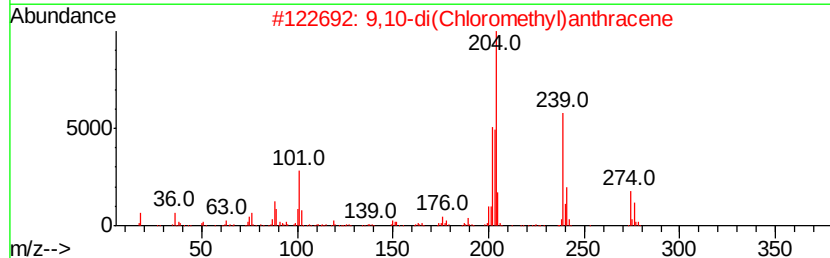
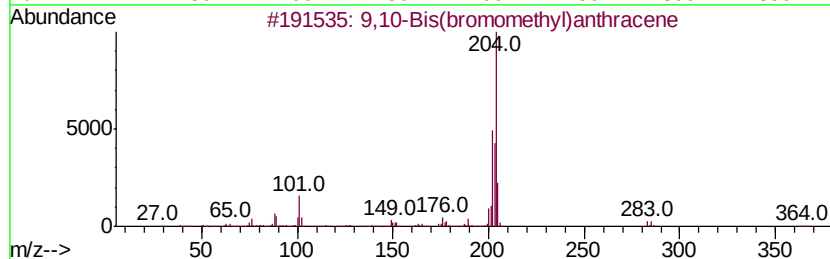
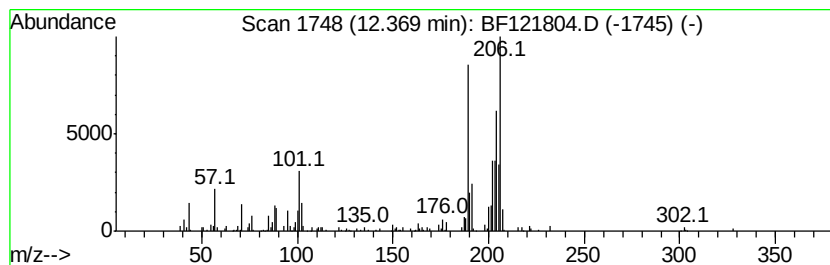
Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 12 unknown12.37 Concentration Rank 18

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.        |      |
|-----------|-------------------------------------|--------|------------------|-------------|------|
| 12.37     | 6.40 ng                             | 277291 | Phenanthrene-d10 | 11.29       |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#        | Qual |
| 1         | 9,10-Bis(bromomethyl)anthracene     | 362    | C16H12Br2        | 034373-96-1 | 49   |
| 2         | 9,10-di(Chloromethyl)anthracene     | 274    | C16H12Cl2        | 010387-13-0 | 47   |
| 3         | Naphthalene, 2-phenyl-              | 204    | C16H12           | 000612-94-2 | 42   |
| 4         | Naphthalene, 1-phenyl-              | 204    | C16H12           | 000605-02-7 | 38   |
| 5         | 5H-Dibenzo[a,d]cycloheptene, 5-m... | 204    | C16H12           | 002975-79-3 | 30   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

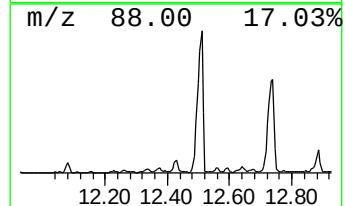
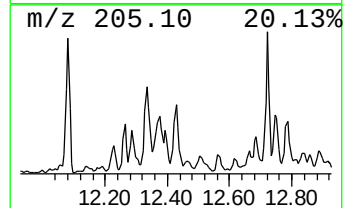
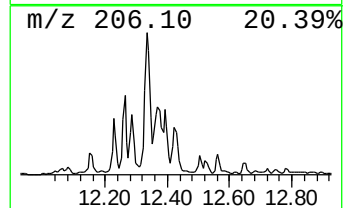
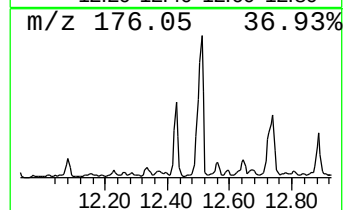
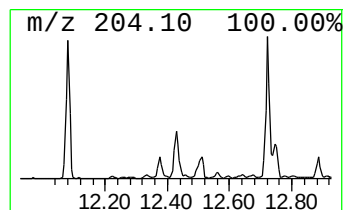
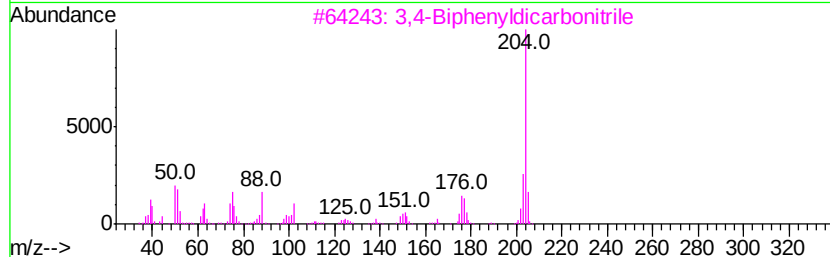
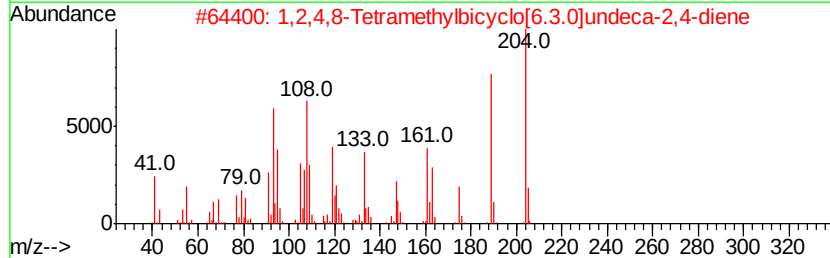
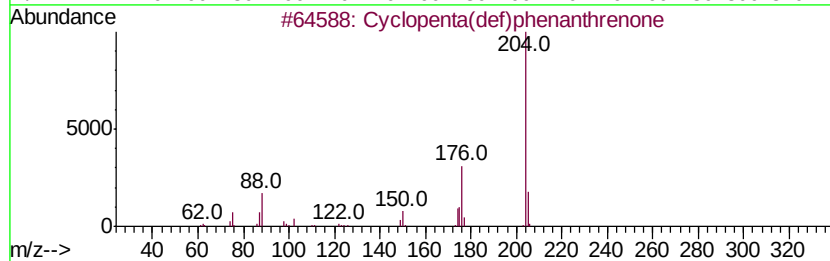
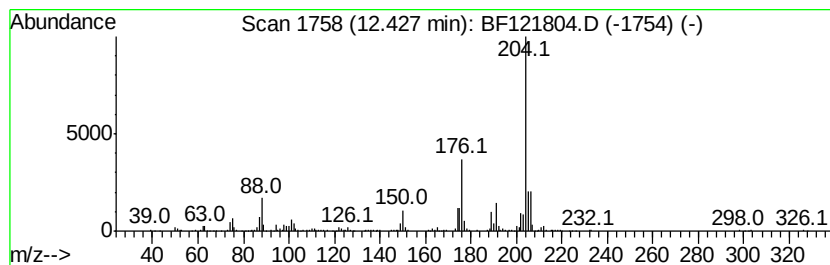
Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 13 Cyclopenta(def)phenanthrenone Concentration Rank 17

| R.T.  | EstConc | Area   | Relative to ISTD                                  |     | R.T.    |             |      |
|-------|---------|--------|---------------------------------------------------|-----|---------|-------------|------|
| 12.43 | 7.15 ng | 310035 | Phenanthrene-d10                                  |     | 11.29   |             |      |
| Hit#  | of      | 5      | Tentative ID                                      | MW  | MolForm | CAS#        | Qual |
| 1     |         |        | Cyclopenta(def)phenanthrenone                     | 204 | C15H8O  | 005737-13-3 | 97   |
| 2     |         |        | 1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-2,4-diene | 204 | C15H24  | 137235-51-9 | 60   |
| 3     |         |        | 3,4-Biphenyldicarbonitrile                        | 204 | C14H8N2 | 004128-63-6 | 58   |
| 4     |         |        | [1,1'-Biphenyl]-4,4'-dicarbonitrile               | 204 | C14H8N2 | 001591-30-6 | 50   |
| 5     |         |        | Tricyclo[8.2.2.2(4,7)]hexadeca-2,4,6,8-tetraene   | 204 | C16H12  | 006572-60-7 | 47   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

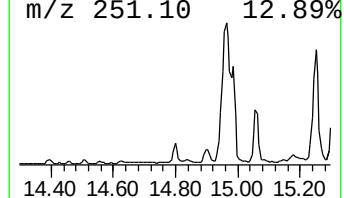
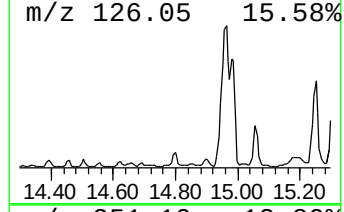
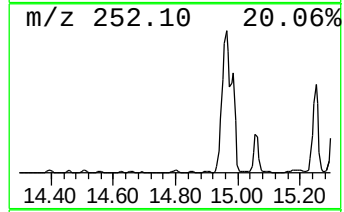
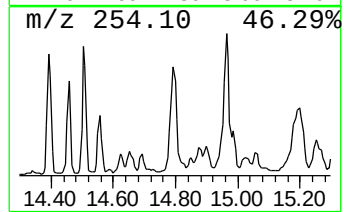
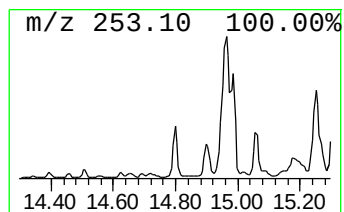
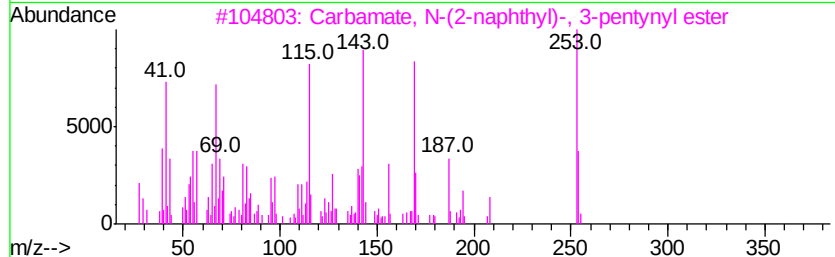
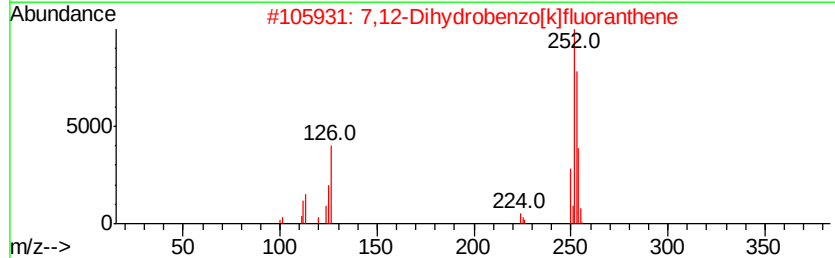
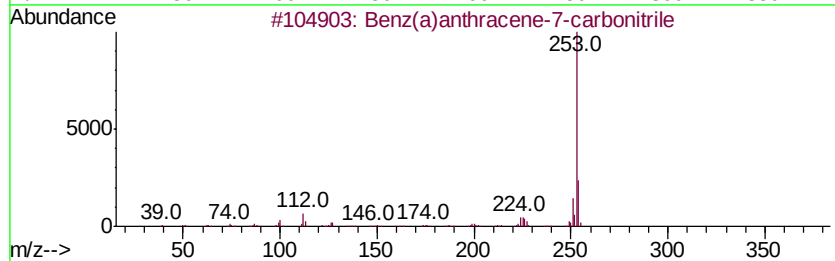
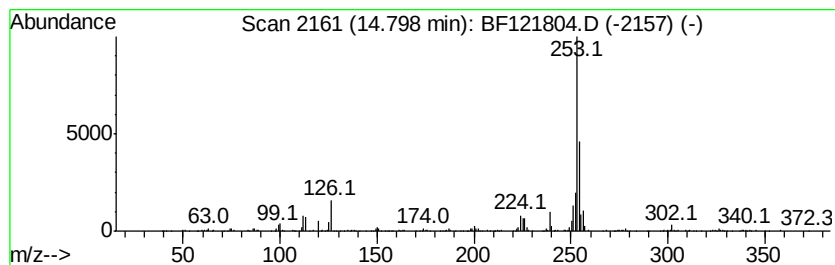
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 14 Benz(a)anthracene-7-carboni... Concentration Rank 15

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 14.80 | 7.88 ng | 268765 | Perylene-d12     | 15.37 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | Benz(a)anthracene-7-carbonitrile    | 253 | C19H11N   | 007476-08-6  | 60   |
| 2    |    | 7,12-Dihydrobenzo[k]fluoranthene    | 254 | C20H14    | 1000080-17-7 | 58   |
| 3    |    | Carbamate, N-(2-naphthyl)-, 3-pe... | 253 | C16H15NO2 | 1000197-96-0 | 49   |
| 4    |    | 4,6'-BiazulenyI                     | 254 | C20H14    | 094154-49-1  | 43   |
| 5    |    | 4,5-Dihydrobenzo[e]pyrene           | 254 | C20H14    | 095676-42-9  | 43   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

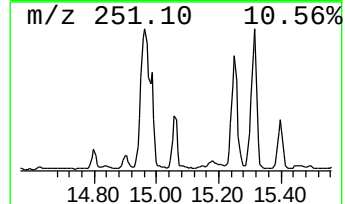
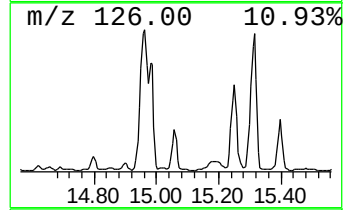
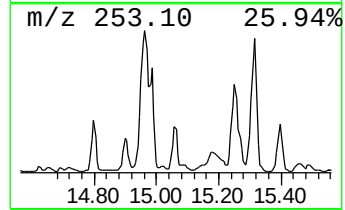
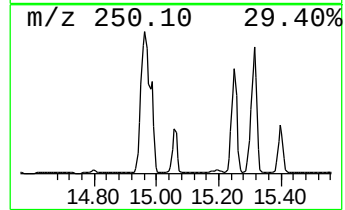
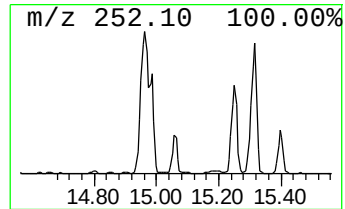
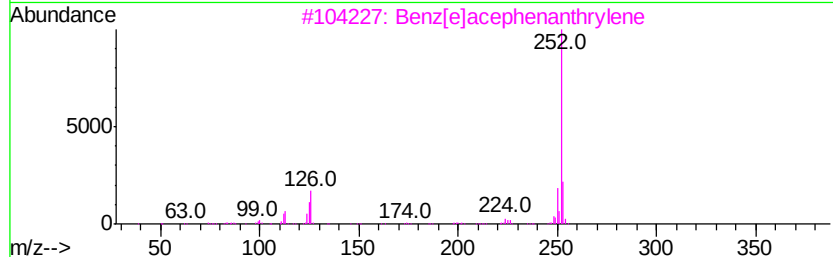
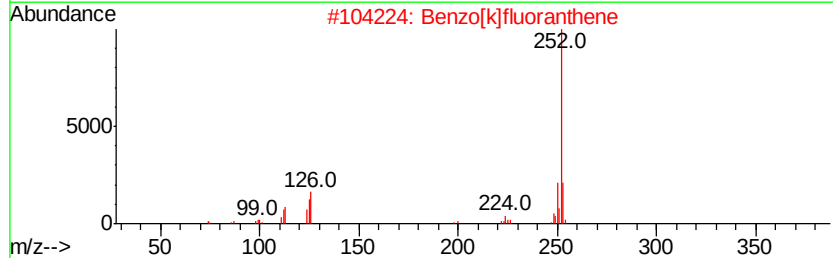
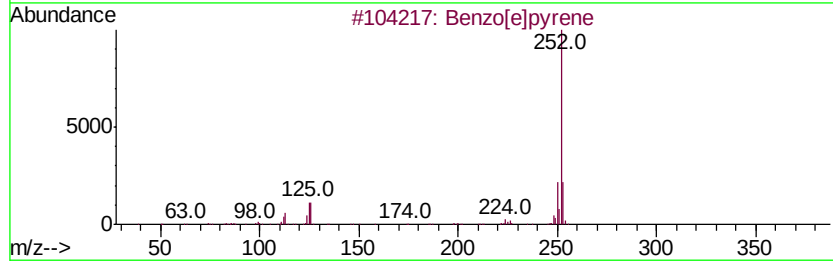
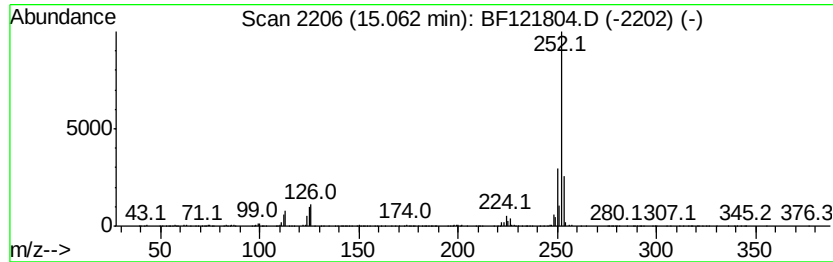
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 15 Benzo[e]pyrene Concentration Rank 6

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.06 | 16.22 ng | 553181 | Perylene-d12     | 15.37 |

| Hit# | of | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[e]pyrene            | 252 | C20H12  | 000192-97-2 | 98   |
| 2    |    | Benzo[k]fluoranthene      | 252 | C20H12  | 000207-08-9 | 98   |
| 3    |    | Benzo[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 96   |
| 4    |    | Benzo[a]pyrene            | 252 | C20H12  | 000050-32-8 | 93   |
| 5    |    | Perylene                  | 252 | C20H12  | 000198-55-0 | 86   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

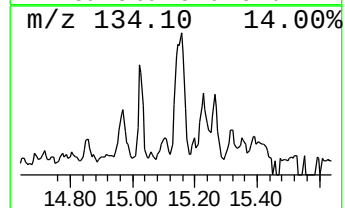
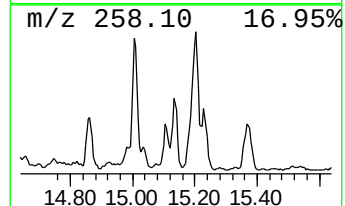
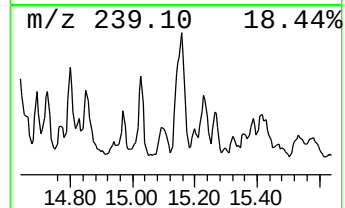
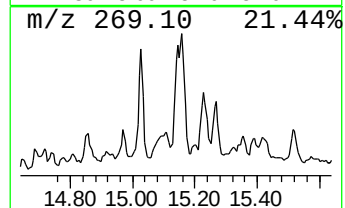
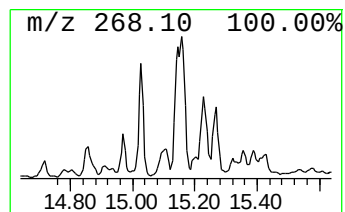
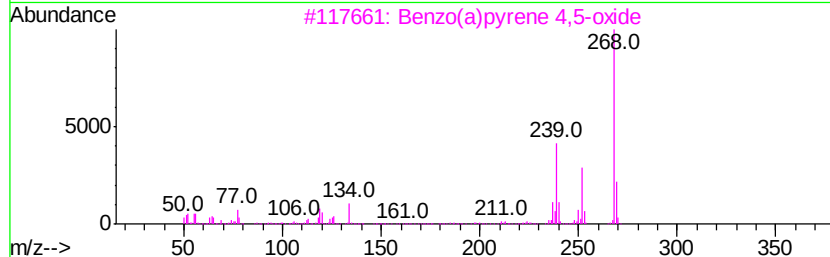
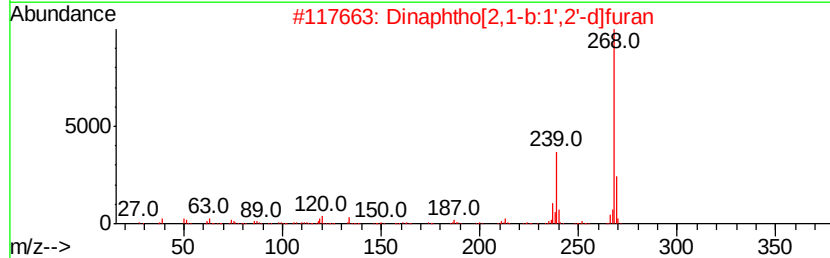
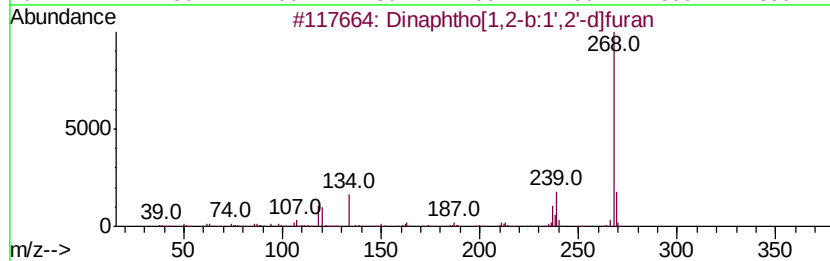
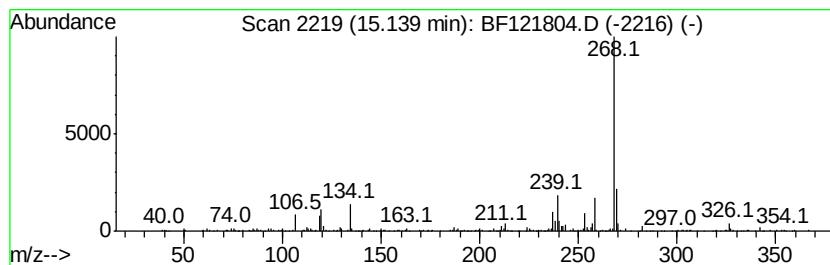
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 16 Dinaphtho[1,2-b:1',2'-d]furan Concentration Rank 20

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 15.14 | 5.95 ng | 202955 | Perylene-d12     | 15.37 |

| Hit# | of | Tentative ID                         | MW  | MolForm    | CAS#        | Qual |
|------|----|--------------------------------------|-----|------------|-------------|------|
| 1    | 5  | Dinaphtho[1,2-b:1',2'-d]furan        | 268 | C20H12O    | 000207-93-2 | 89   |
| 2    |    | Dinaphtho[2,1-b:1',2'-d]furan        | 268 | C20H12O    | 000194-63-8 | 87   |
| 3    |    | Benzo(a)pyrene 4,5-oxide             | 268 | C20H12O    | 037574-47-3 | 72   |
| 4    |    | Naphthalene, 1-(2-naphthalenyl)me... | 268 | C21H16     | 000611-48-3 | 72   |
| 5    |    | 9,10-Anthracenedione, 1,4,5,8-te...  | 268 | C14H12N4O2 | 002475-45-8 | 64   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampled :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

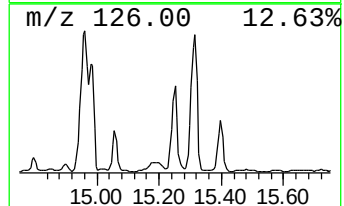
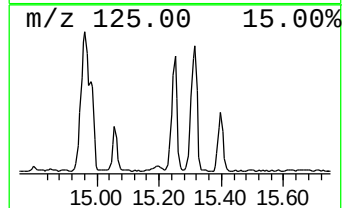
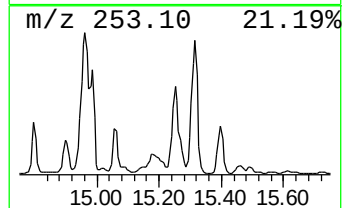
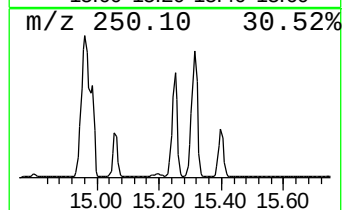
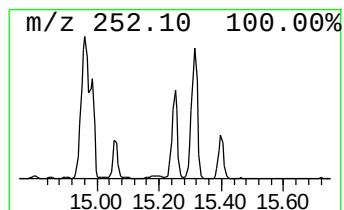
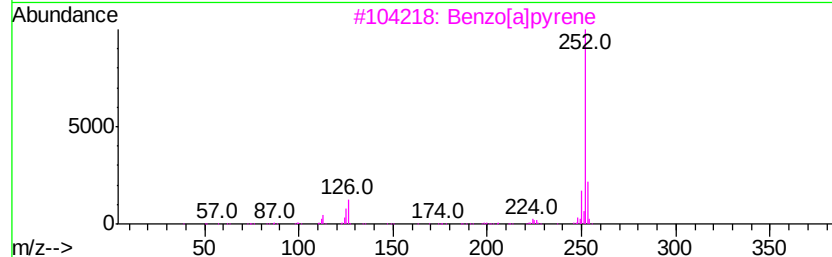
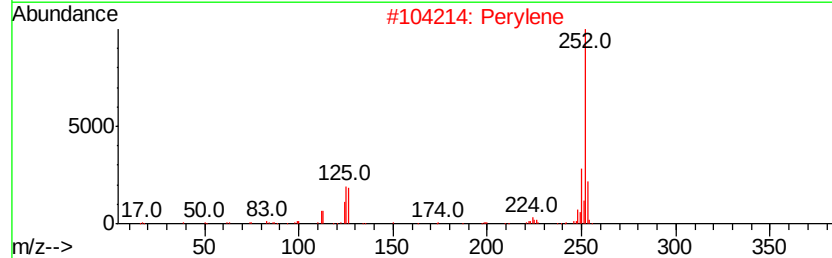
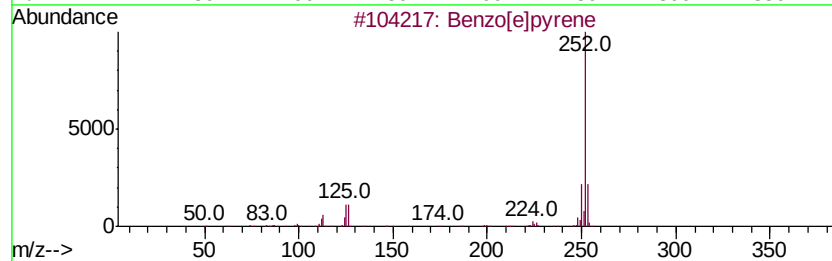
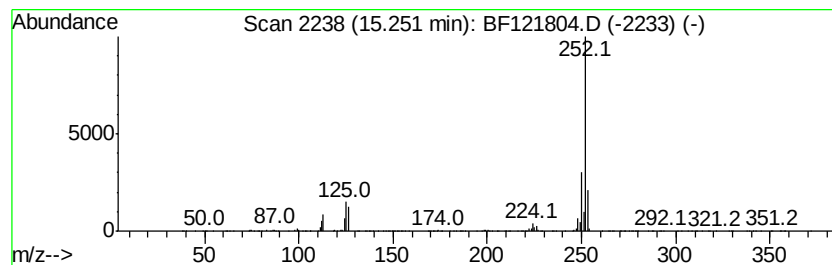
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 17 Perylene Concentration Rank 1

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 15.25 | 49.77 ng | 1697730 | Perylene-d12     | 15.37 |

| Hit# | of | Tentative ID             | MW  | MolForm | CAS#        | Qual |
|------|----|--------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[el]pyrene          | 252 | C20H12  | 000192-97-2 | 98   |
| 2    |    | Perylene                 | 252 | C20H12  | 000198-55-0 | 97   |
| 3    |    | Benzo[al]pyrene          | 252 | C20H12  | 000050-32-8 | 93   |
| 4    |    | Benzo[k]fluoranthene     | 252 | C20H12  | 000207-08-9 | 93   |
| 5    |    | Benz[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

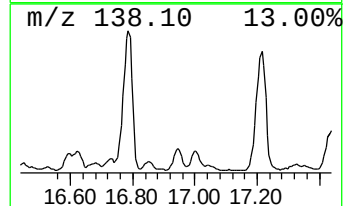
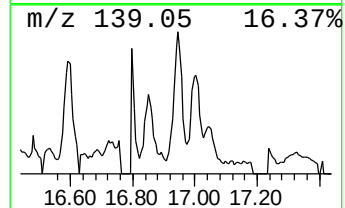
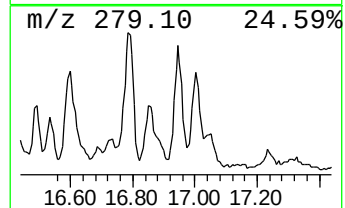
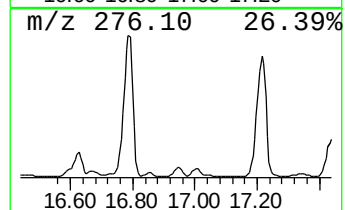
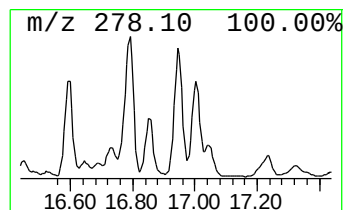
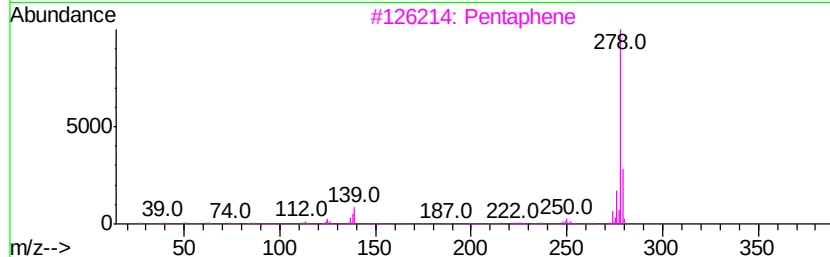
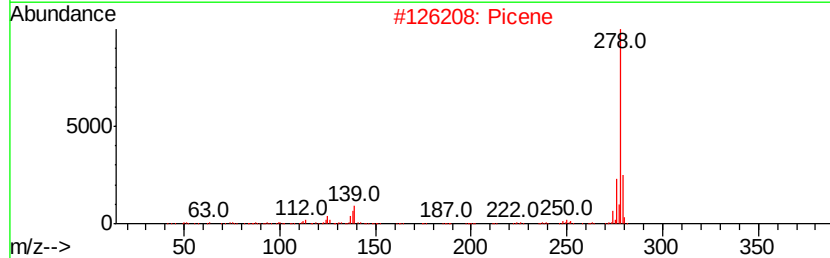
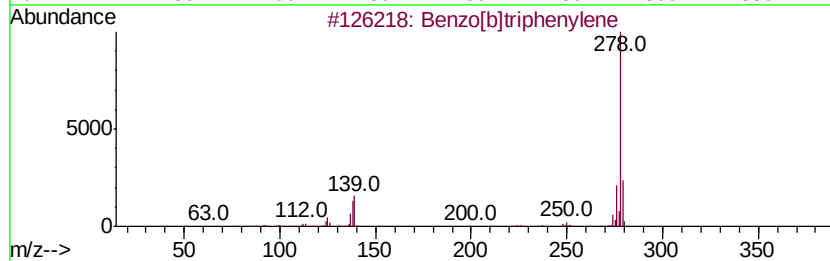
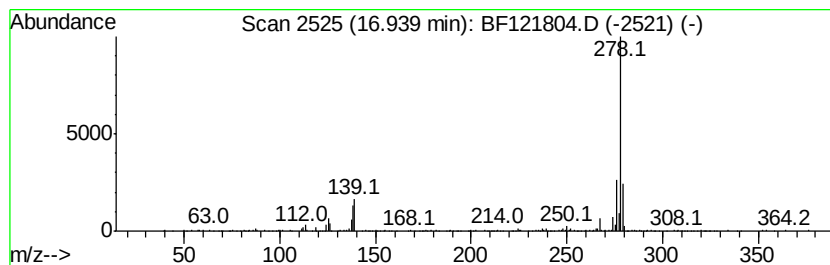
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 18 Benzo[b]triphenylene Concentration Rank 11

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 16.94 | 9.85 ng | 336112 | Perylene-d12     | 15.37 |

| Hit# | of | 5 | Tentative ID          | MW  | MolForm | CAS#        | Qual |
|------|----|---|-----------------------|-----|---------|-------------|------|
| 1    |    |   | Benzo[b]triphenylene  | 278 | C22H14  | 000215-58-7 | 99   |
| 2    |    |   | Picene                | 278 | C22H14  | 000213-46-7 | 98   |
| 3    |    |   | Pentaphene            | 278 | C22H14  | 000222-93-5 | 98   |
| 4    |    |   | Dibenz[a,h]anthracene | 278 | C22H14  | 000053-70-3 | 97   |
| 5    |    |   | Benzo[b]chrysene      | 278 | C22H14  | 000214-17-5 | 93   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

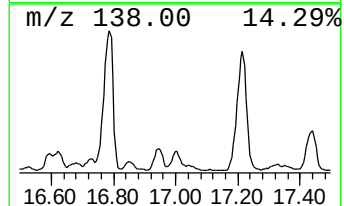
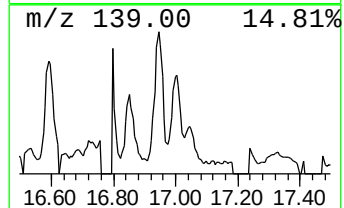
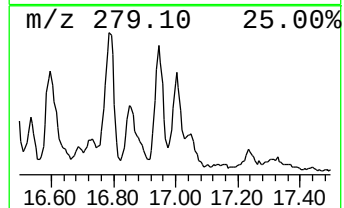
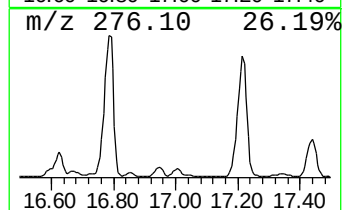
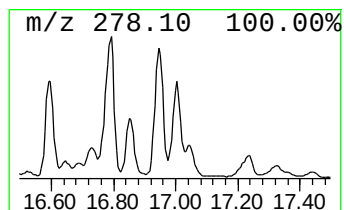
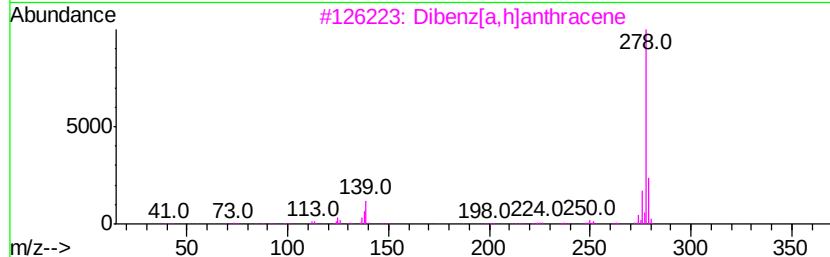
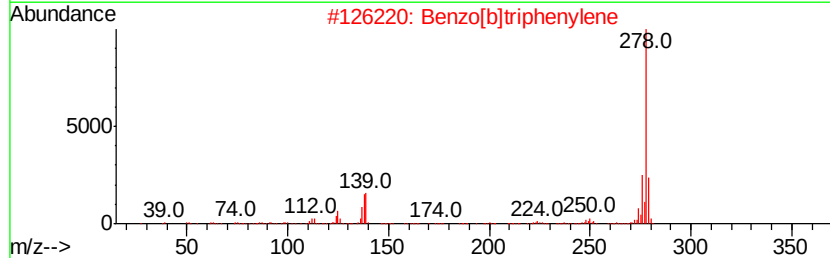
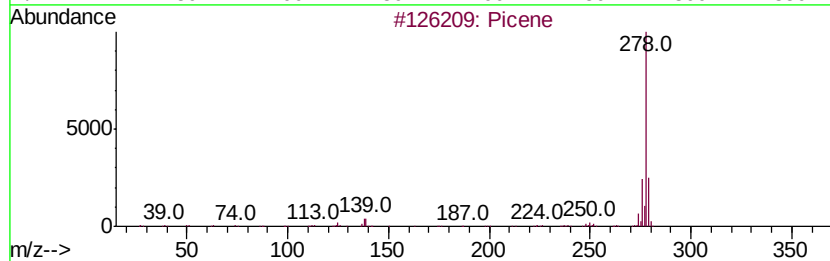
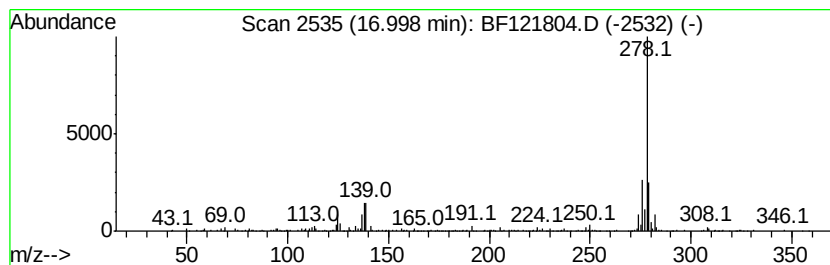
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 19 Picene Concentration Rank 19

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 17.00 | 6.33 ng | 216040 | Perylene-d12     | 15.37 |

| Hit# | of | 5 | Tentative ID          | MW  | MolForm | CAS#        | Qual |
|------|----|---|-----------------------|-----|---------|-------------|------|
| 1    |    |   | Picene                | 278 | C22H14  | 000213-46-7 | 94   |
| 2    |    |   | Benzo[b]triphenylene  | 278 | C22H14  | 000215-58-7 | 93   |
| 3    |    |   | Dibenz[a,h]anthracene | 278 | C22H14  | 000053-70-3 | 90   |
| 4    |    |   | Benzo[b]chrysene      | 278 | C22H14  | 000214-17-5 | 89   |
| 5    |    |   | Pentacene             | 278 | C22H14  | 000135-48-8 | 86   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF100220\  
Data File : BF121804.D  
Acq On : 2 Oct 2020 20:20  
Operator : JU/CG  
Sample : L4213-05  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampled :  
B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091020.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

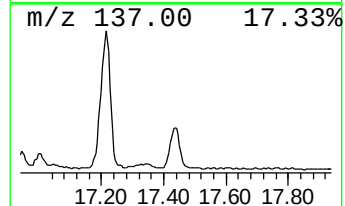
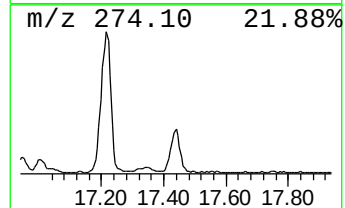
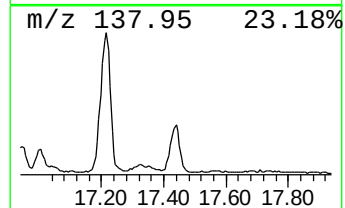
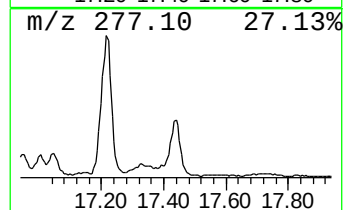
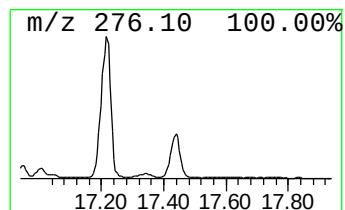
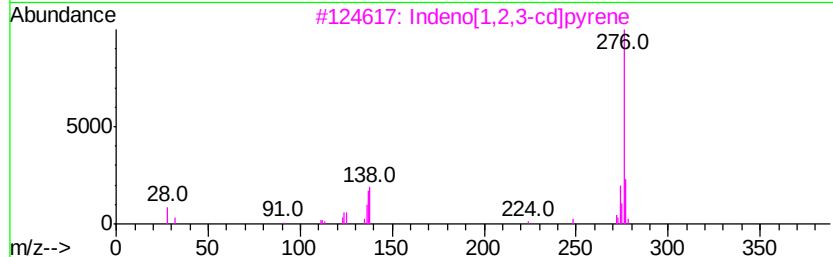
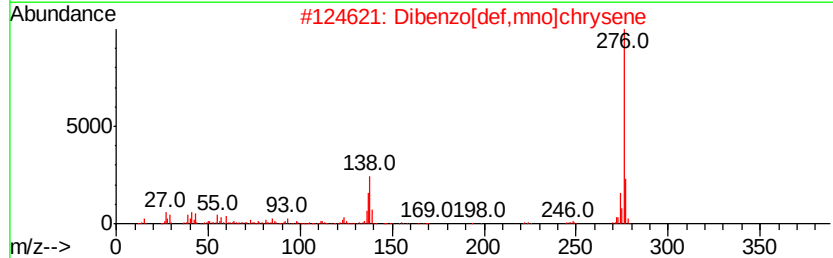
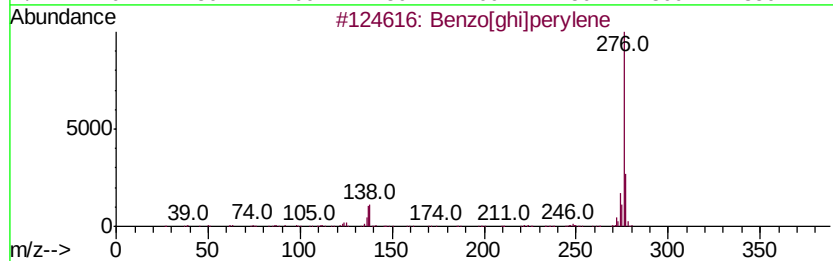
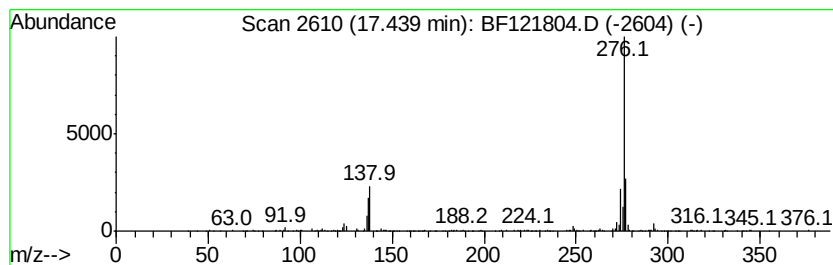
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 20 Dibenzo[def,mno]chrysene Concentration Rank 10

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 17.44 | 10.87 ng | 370919 | Perylene-d12     | 15.37 |

| Hit# | of | Tentative ID                         | MW  | MolForm     | CAS#         | Qual |
|------|----|--------------------------------------|-----|-------------|--------------|------|
| 1    | 5  | Benzo[ghi]perylene                   | 276 | C22H12      | 000191-24-2  | 96   |
| 2    |    | Dibenzo[def,mno]chrysene             | 276 | C22H12      | 000191-26-4  | 93   |
| 3    |    | Indeno[1,2,3-cd]pyrene               | 276 | C22H12      | 000193-39-5  | 83   |
| 4    |    | Phenol, 2-(4-chlorophenyl)iminome... | 276 | C13H9ClN2O3 | 1000262-90-3 | 53   |
| 5    |    | Phosphoric acid, 4-methoxy-2-(me...  | 276 | C11H17O6P   | 094420-71-0  | 47   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF100220\  
 Data File : BF121804.D  
 Acq On : 2 Oct 2020 20:20  
 Operator : JU/CG  
 Sample : L4213-05  
 Misc :  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 B-15(13-14)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF091020.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 |
| 3-Penten-2-one, 4... | 4.33  | 11.6    | ng    | 445793   | 1                     | 6.76  | 771893 | 20.0 |
| 2-Pentanone, 4-hy... | 4.97  | 18.6    | ng    | 719106   | 1                     | 6.76  | 771893 | 20.0 |
| 9H-Fluorene, 2-me... | 10.89 | 7.5     | ng    | 322907   | 4                     | 11.29 | 867152 | 20.0 |
| Dibenzothiophene     | 11.18 | 10.9    | ng    | 474629   | 4                     | 11.29 | 867152 | 20.0 |
| Phenanthrene, 2-m... | 11.79 | 16.4    | ng    | 711051   | 4                     | 11.29 | 867152 | 20.0 |
| Phenanthrene, 1-m... | 11.82 | 20.6    | ng    | 895503   | 4                     | 11.29 | 867152 | 20.0 |
| Anthracene, 1-met... | 11.86 | 9.3     | ng    | 401322   | 4                     | 11.29 | 867152 | 20.0 |
| 4H-Cyclopenta[def... | 11.90 | 31.4    | ng    | 1360460  | 4                     | 11.29 | 867152 | 20.0 |
| Anthracene, 9-met... | 11.92 | 9.4     | ng    | 407126   | 4                     | 11.29 | 867152 | 20.0 |
| Naphthalene, 2-ph... | 12.08 | 11.0    | ng    | 478738   | 4                     | 11.29 | 867152 | 20.0 |
| Phenanthrene, 2,5... | 12.33 | 8.4     | ng    | 364114   | 4                     | 11.29 | 867152 | 20.0 |
| unknown12.37         | 12.37 | 6.4     | ng    | 277291   | 4                     | 11.29 | 867152 | 20.0 |
| Cyclopenta(def)ph... | 12.43 | 7.2     | ng    | 310035   | 4                     | 11.29 | 867152 | 20.0 |
| Benz(a)anthracene... | 14.80 | 7.9     | ng    | 268765   | 6                     | 15.37 | 682254 | 20.0 |
| Benzo[e]pyrene       | 15.06 | 16.2    | ng    | 553181   | 6                     | 15.37 | 682254 | 20.0 |
| Dinaphtho[1,2-b:1... | 15.14 | 6.0     | ng    | 202955   | 6                     | 15.37 | 682254 | 20.0 |
| Perylene             | 15.25 | 49.8    | ng    | 1697730  | 6                     | 15.37 | 682254 | 20.0 |
| Benzo[b]triphenylene | 16.94 | 9.8     | ng    | 336112   | 6                     | 15.37 | 682254 | 20.0 |
| Picene               | 17.00 | 6.3     | ng    | 216040   | 6                     | 15.37 | 682254 | 20.0 |
| Dibenzo[def,mno]c... | 17.44 | 10.9    | ng    | 370919   | 6                     | 15.37 | 682254 | 20.0 |