

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF101219\  
 Data File : BF117387.D  
 Acq On : 12 Oct 2019 23:43  
 Operator : JU  
 Sample : K5316-05  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 TP-10

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-BF091319.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         | 2.146       | 5             | 10          | 15           | rVB      | 14315          | 25359         | 2.41%           | 0.231%        |
| 2         | 5.416       | 562           | 566         | 582          | rBV      | 679710         | 791897        | 75.27%          | 7.222%        |
| 3         | 6.439       | 736           | 740         | 758          | rBV      | 805679         | 921406        | 87.58%          | 8.403%        |
| 4         | 6.569       | 758           | 762         | 770          | rVV      | 1015258        | 922947        | 87.72%          | 8.417%        |
| 5         | 6.792       | 797           | 800         | 816          | rVB      | 241595         | 228003        | 21.67%          | 2.079%        |
| 6         | 6.951       | 823           | 827         | 843          | rBV      | 727599         | 689289        | 65.51%          | 6.286%        |
| 7         | 7.357       | 892           | 896         | 923          | rBV      | 429016         | 558651        | 53.10%          | 5.095%        |
| 8         | 8.075       | 1015          | 1018        | 1041         | rBV      | 199047         | 302740        | 28.77%          | 2.761%        |
| 9         | 9.151       | 1197          | 1201        | 1220         | rBV      | 1079787        | 1052127       | 100.00%         | 9.595%        |
| 10        | 9.545       | 1265          | 1268        | 1282         | rBV      | 106603         | 112428        | 10.69%          | 1.025%        |
| 11        | 9.827       | 1313          | 1316        | 1325         | rBV      | 343145         | 375385        | 35.68%          | 3.423%        |
| 12        | 10.622      | 1447          | 1451        | 1467         | rBV      | 591164         | 635882        | 60.44%          | 5.799%        |
| 13        | 11.316      | 1566          | 1569        | 1578         | rBV      | 363063         | 413767        | 39.33%          | 3.773%        |
| 14        | 11.839      | 1652          | 1658        | 1666         | rBV2     | 56146          | 88418         | 8.40%           | 0.806%        |
| 15        | 11.933      | 1671          | 1674        | 1676         | rBV      | 22694          | 24231         | 2.30%           | 0.221%        |
| 16        | 12.368      | 1744          | 1748        | 1751         | rBV      | 18210          | 19069         | 1.81%           | 0.174%        |
| 17        | 12.533      | 1773          | 1776        | 1781         | rBV      | 200303         | 183578        | 17.45%          | 1.674%        |
| 18        | 12.633      | 1790          | 1793        | 1798         | rVB4     | 8964           | 11885         | 1.13%           | 0.108%        |
| 19        | 12.763      | 1809          | 1815        | 1821         | rBV      | 192382         | 217800        | 20.70%          | 1.986%        |
| 20        | 12.816      | 1821          | 1824        | 1829         | rVB4     | 12463          | 15293         | 1.45%           | 0.139%        |
| 21        | 12.898      | 1834          | 1838        | 1842         | rBV      | 1071028        | 1013119       | 96.29%          | 9.239%        |
| 22        | 12.986      | 1848          | 1853        | 1857         | rBV3     | 14234          | 25096         | 2.39%           | 0.229%        |
| 23        | 13.092      | 1864          | 1871        | 1874         | rBV3     | 37724          | 57119         | 5.43%           | 0.521%        |
| 24        | 13.127      | 1874          | 1877        | 1879         | rVV4     | 11648          | 12985         | 1.23%           | 0.118%        |
| 25        | 13.157      | 1879          | 1882        | 1885         | rVV      | 25460          | 24017         | 2.28%           | 0.219%        |
| 26        | 13.198      | 1885          | 1889        | 1893         | rBV2     | 26076          | 28204         | 2.68%           | 0.257%        |
| 27        | 13.286      | 1902          | 1904        | 1907         | rBV      | 17641          | 16543         | 1.57%           | 0.151%        |
| 28        | 13.321      | 1907          | 1910        | 1915         | rBV2     | 18951          | 21769         | 2.07%           | 0.199%        |
| 29        | 13.574      | 1950          | 1953        | 1956         | rBV5     | 11683          | 18129         | 1.72%           | 0.165%        |
| 30        | 13.610      | 1956          | 1959        | 1961         | rVV3     | 18516          | 21746         | 2.07%           | 0.198%        |
| 31        | 13.657      | 1965          | 1967        | 1971         | rBV      | 17244          | 19460         | 1.85%           | 0.177%        |
| 32        | 13.715      | 1971          | 1977        | 1984         | rBV4     | 29767          | 65274         | 6.20%           | 0.595%        |
| 33        | 13.792      | 1984          | 1990        | 2002         | rBV5     | 128271         | 277996        | 26.42%          | 2.535%        |
| 34        | 13.963      | 2014          | 2019        | 2022         | rBV2     | 310440         | 406721        | 38.66%          | 3.709%        |

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TP-10

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

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

Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF091319.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |        |        |        |        |
|----|--------|------|------|------|------|--------|--------|--------|--------|
| 35 | 13.986 | 2022 | 2023 | 2030 | rVB  | 115629 | 103455 | 9.83%  | 0.943% |
| 36 | 14.045 | 2030 | 2033 | 2036 | rBV2 | 26282  | 27344  | 2.60%  | 0.249% |
| 37 | 14.110 | 2040 | 2044 | 2046 | rBV4 | 24019  | 31940  | 3.04%  | 0.291% |
| 38 | 14.310 | 2076 | 2078 | 2080 | rBV2 | 17728  | 18932  | 1.80%  | 0.173% |
| 39 | 14.351 | 2080 | 2085 | 2088 | rVV  | 43337  | 55299  | 5.26%  | 0.504% |
| 40 | 14.386 | 2088 | 2091 | 2093 | rBV  | 18145  | 19387  | 1.84%  | 0.177% |
| 41 | 14.415 | 2093 | 2096 | 2099 | rVV2 | 31421  | 36665  | 3.48%  | 0.334% |
| 42 | 14.539 | 2115 | 2117 | 2121 | rVB5 | 16449  | 17019  | 1.62%  | 0.155% |
| 43 | 14.680 | 2137 | 2141 | 2142 | rBV3 | 24591  | 27849  | 2.65%  | 0.254% |
| 44 | 14.710 | 2143 | 2146 | 2148 | rVV2 | 39964  | 46938  | 4.46%  | 0.428% |
| 45 | 14.733 | 2148 | 2150 | 2153 | rVV3 | 21146  | 26604  | 2.53%  | 0.243% |
| 46 | 14.768 | 2153 | 2156 | 2160 | rVB4 | 23572  | 31309  | 2.98%  | 0.286% |
| 47 | 14.851 | 2166 | 2170 | 2173 | rBV6 | 22689  | 33611  | 3.19%  | 0.307% |
| 48 | 14.898 | 2176 | 2178 | 2181 | rVB3 | 13394  | 11796  | 1.12%  | 0.108% |
| 49 | 14.998 | 2192 | 2195 | 2198 | rBV  | 54472  | 77725  | 7.39%  | 0.709% |
| 50 | 15.039 | 2199 | 2202 | 2207 | rVB2 | 62697  | 77973  | 7.41%  | 0.711% |
| 51 | 15.292 | 2242 | 2245 | 2250 | rBV  | 48138  | 62764  | 5.97%  | 0.572% |
| 52 | 15.357 | 2252 | 2256 | 2261 | rBV  | 52438  | 62817  | 5.97%  | 0.573% |
| 53 | 15.415 | 2261 | 2266 | 2271 | rBV  | 221843 | 303954 | 28.89% | 2.772% |
| 54 | 15.827 | 2331 | 2336 | 2341 | rVB  | 35077  | 47737  | 4.54%  | 0.435% |
| 55 | 15.904 | 2344 | 2349 | 2352 | rBV6 | 22414  | 46045  | 4.38%  | 0.420% |
| 56 | 16.309 | 2414 | 2418 | 2422 | rBV5 | 15345  | 23507  | 2.23%  | 0.214% |
| 57 | 16.486 | 2445 | 2448 | 2452 | rVB7 | 13867  | 20633  | 1.96%  | 0.188% |
| 58 | 16.868 | 2509 | 2513 | 2522 | rVB4 | 31515  | 65326  | 6.21%  | 0.596% |
| 59 | 17.045 | 2536 | 2543 | 2546 | rBV6 | 19086  | 38836  | 3.69%  | 0.354% |
| 60 | 17.321 | 2583 | 2590 | 2595 | rBV4 | 15546  | 37431  | 3.56%  | 0.341% |
| 61 | 17.533 | 2623 | 2626 | 2628 | rBV4 | 10684  | 14365  | 1.37%  | 0.131% |

Sum of corrected areas: 10965594



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ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

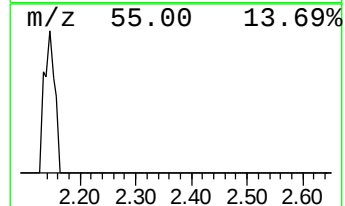
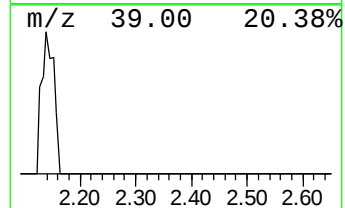
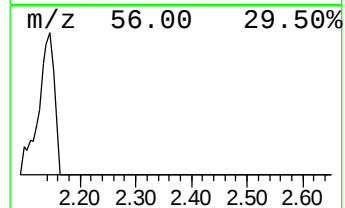
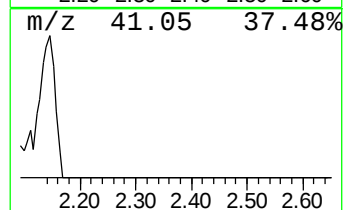
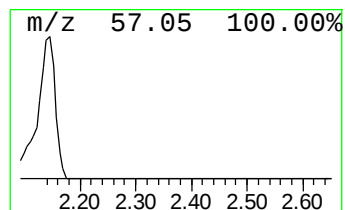
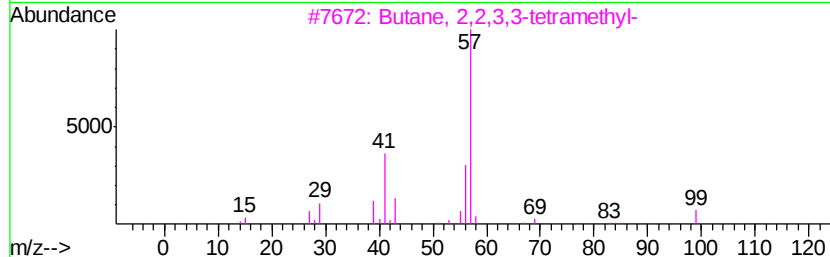
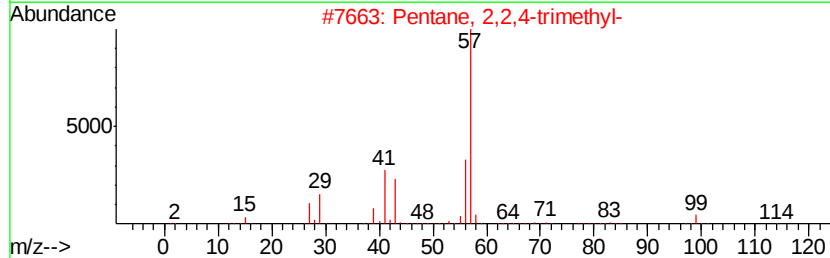
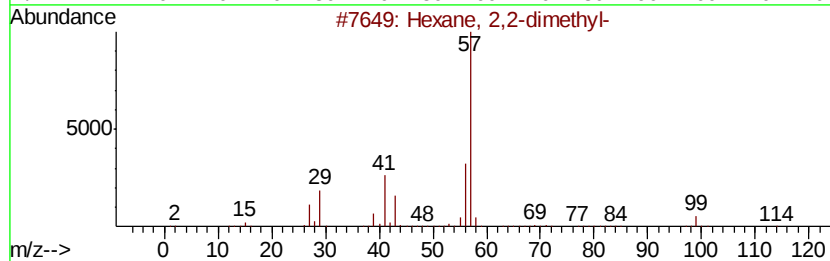
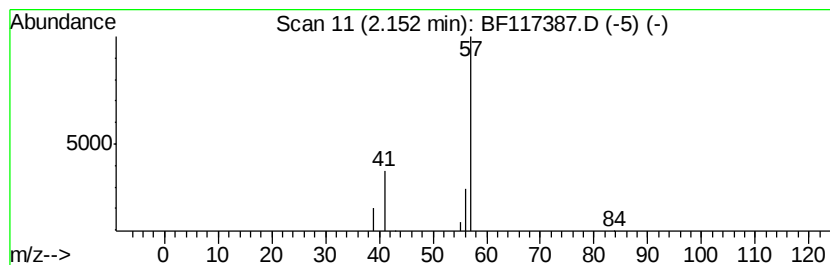
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 1 unknown2.15 Concentration Rank 13

| R.T. | EstConc | Area  | Relative to ISTD       | R.T. |
|------|---------|-------|------------------------|------|
| 2.15 | 2.22 ng | 25359 | 1,4-Dichlorobenzene-d4 | 6.79 |

| Hit# | of | 5 | Tentative ID                     | MW  | MolForm | CAS#        | Qual |
|------|----|---|----------------------------------|-----|---------|-------------|------|
| 1    |    |   | Hexane, 2,2-dimethyl-            | 114 | C8H18   | 000590-73-8 | 40   |
| 2    |    |   | Pentane, 2,2,4-trimethyl-        | 114 | C8H18   | 000540-84-1 | 40   |
| 3    |    |   | Butane, 2,2,3,3-tetramethyl-     | 114 | C8H18   | 000594-82-1 | 39   |
| 4    |    |   | Acetamide, N-2-propenyl-         | 99  | C5H9NO  | 000692-33-1 | 9    |
| 5    |    |   | Butane, 1-chloro-2-methyl-, (S)- | 106 | C5H11Cl | 040560-29-0 | 9    |



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TP-10

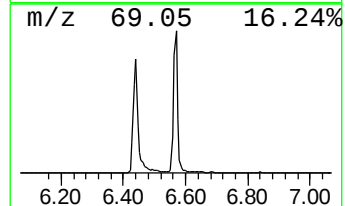
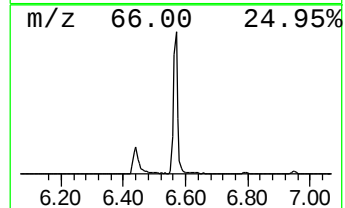
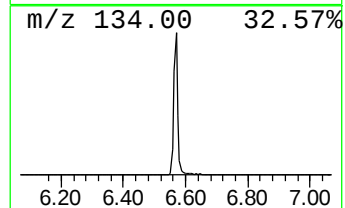
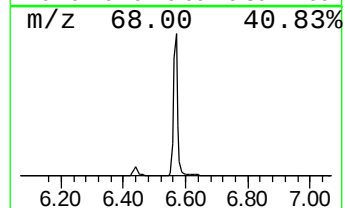
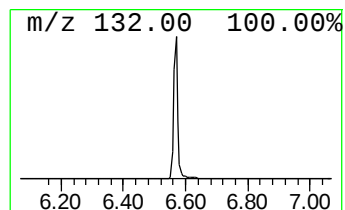
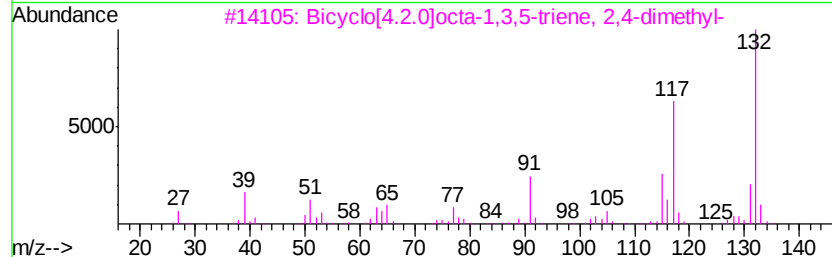
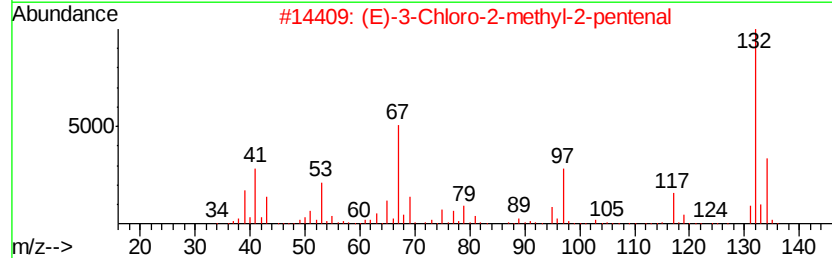
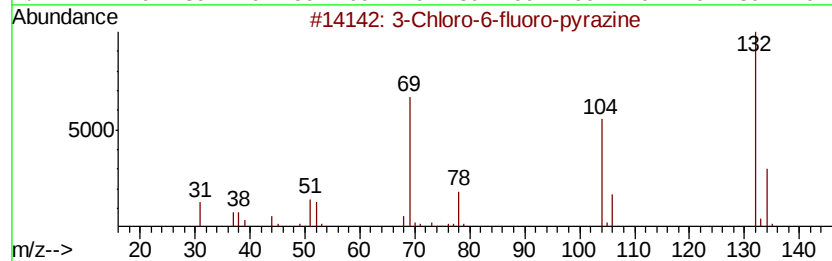
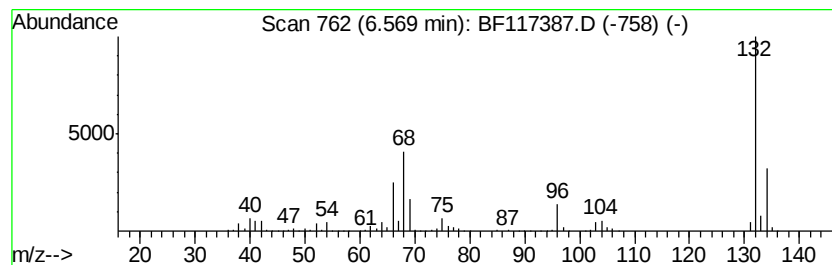
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 2 unknown6.57 Concentration Rank 1

| R.T. | EstConc  | Area   | Relative to ISTD       | R.T. |
|------|----------|--------|------------------------|------|
| 6.57 | 80.96 ng | 922947 | 1,4-Dichlorobenzene-d4 | 6.79 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 3-Chloro-6-fluoro-pyrazine          | 132 | C4H2ClFN2 | 1000146-10-7 | 27   |
| 2    |    | (E)-3-Chloro-2-methyl-2-pentenal    | 132 | C6H9ClO   | 031357-76-3  | 16   |
| 3    |    | Bicyclo[4.2.0]octa-1,3,5-triene,... | 132 | C10H12    | 028749-81-7  | 9    |
| 4    |    | 4-Methylpyrrolo[1,2-a]pyrazine      | 132 | C8H8N2    | 064608-60-2  | 9    |
| 5    |    | 2H-Cyclopenta[d]pyridazine, 2-me... | 132 | C8H8N2    | 022291-85-6  | 9    |



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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

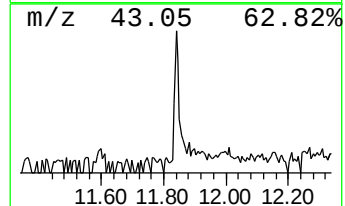
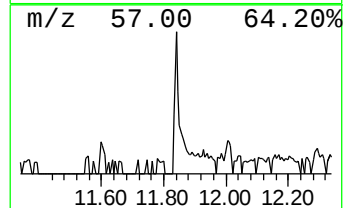
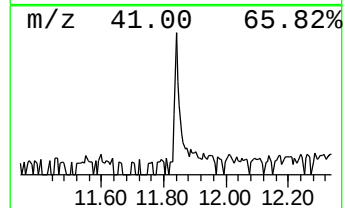
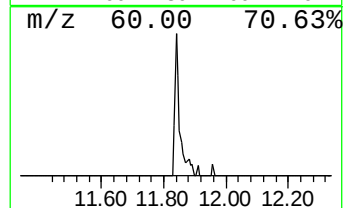
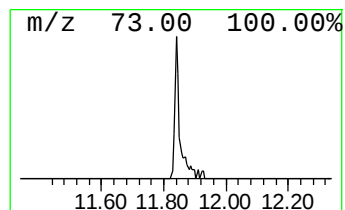
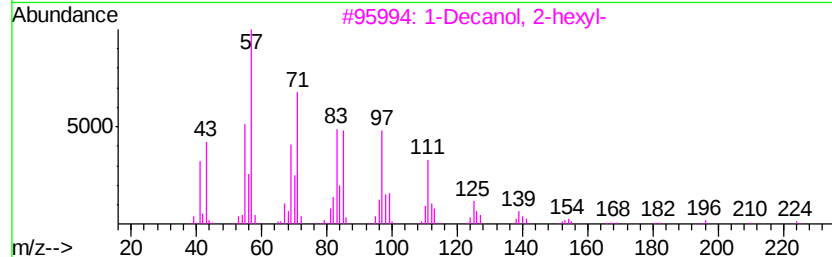
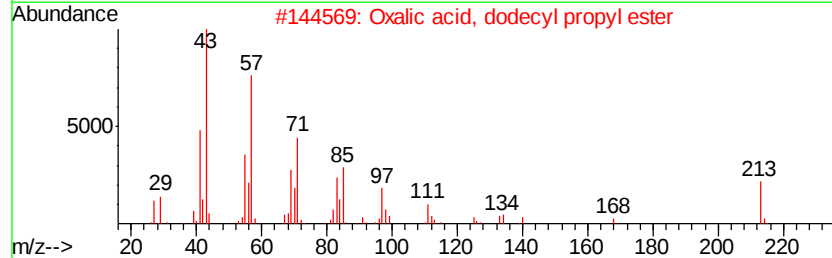
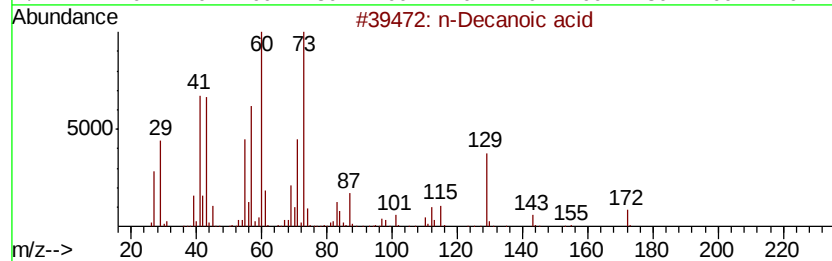
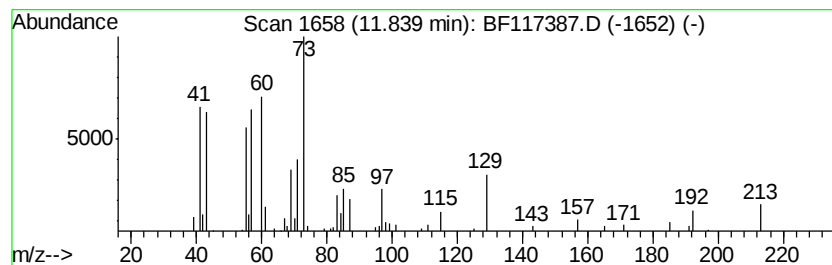
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 4 unknown11.84 Concentration Rank 4

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 11.84 | 4.27 ng | 88418 | Phenanthrene-d10 | 11.32 |

| Hit# | of | Tentative ID                         | MW  | MolForm   | CAS#         | Qual |
|------|----|--------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | n-Decanoic acid                      | 172 | C10H20O2  | 000334-48-5  | 47   |
| 2    |    | Oxalic acid, dodecyl propyl ester    | 300 | C17H32O4  | 1000309-26-5 | 25   |
| 3    |    | 1-Decanol, 2-hexyl-                  | 242 | C16H34O   | 002425-77-6  | 25   |
| 4    |    | .beta.-D-Mannofuranoside, 1-O-(1...  | 332 | C17H32O6  | 1000155-29-9 | 22   |
| 5    |    | Sulfurous acid, 2-propyl tetradec... | 320 | C17H36O3S | 1000309-12-5 | 22   |



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Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

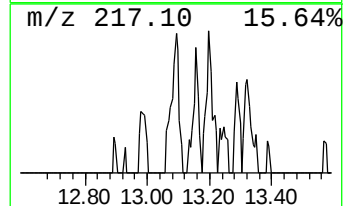
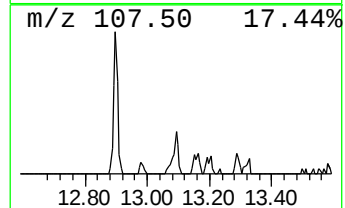
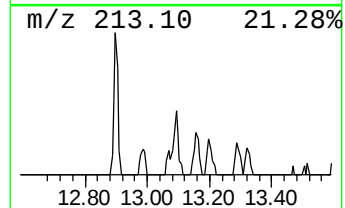
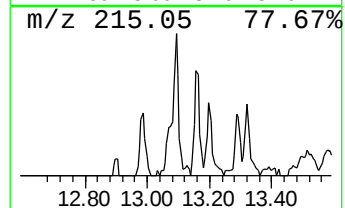
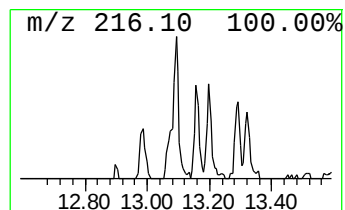
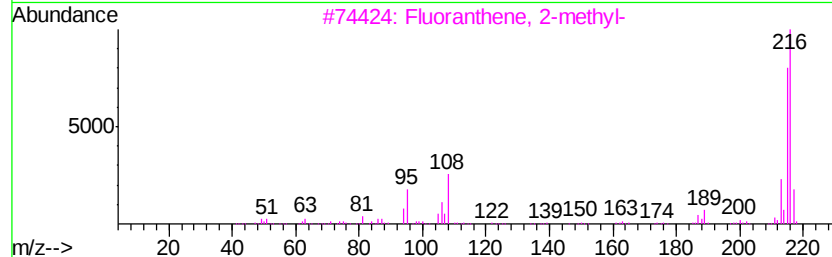
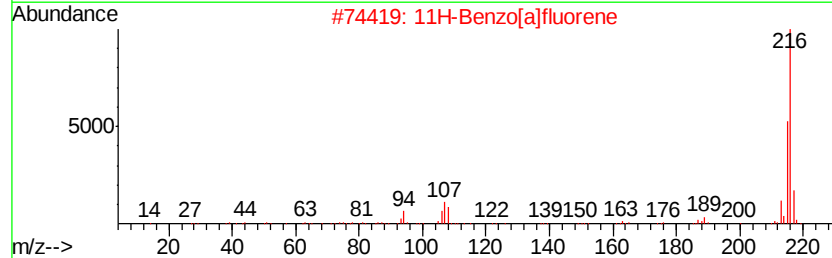
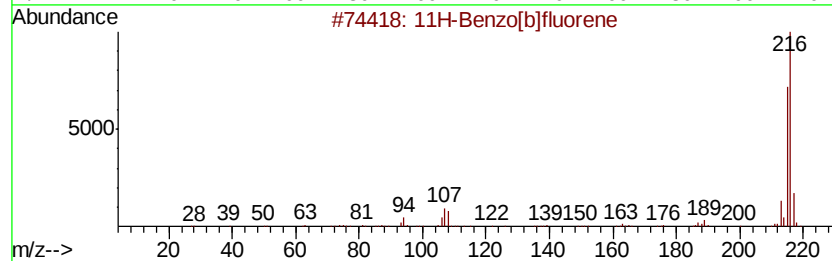
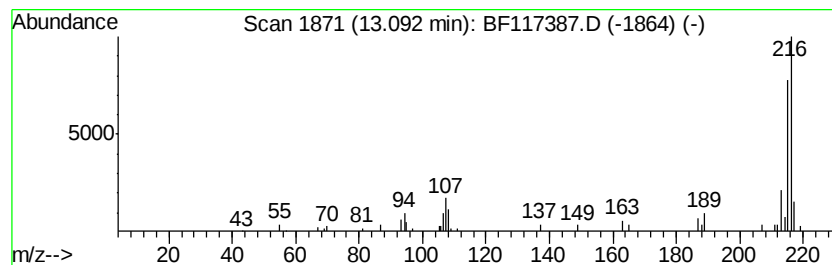
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TIC Integration Parameters: LSCINT.P

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Peak Number 5 11H-Benzo[b]fluorene Concentration Rank 10

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 13.09 | 2.81 ng | 57119 | Chrysene-d12     | 13.96 |

| Hit# of | 5 | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|---------|---|-------------------------|-----|---------|-------------|------|
| 1       |   | 11H-Benzo[b]fluorene    | 216 | C17H12  | 000243-17-4 | 94   |
| 2       |   | 11H-Benzo[a]fluorene    | 216 | C17H12  | 000238-84-6 | 93   |
| 3       |   | Fluoranthene, 2-methyl- | 216 | C17H12  | 033543-31-6 | 91   |
| 4       |   | Pvrene, 1-methyl-       | 216 | C17H12  | 002381-21-7 | 90   |
| 5       |   | 7H-Benzo[c]fluorene     | 216 | C17H12  | 000205-12-9 | 81   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF101219\  
Data File : BF117387.D  
Acq On : 12 Oct 2019 23:43  
Operator : JU  
Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

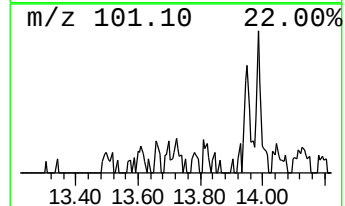
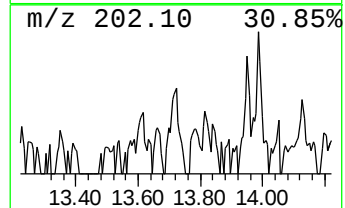
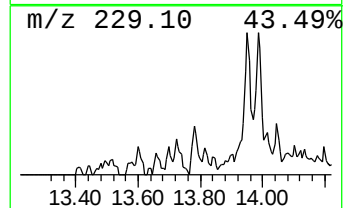
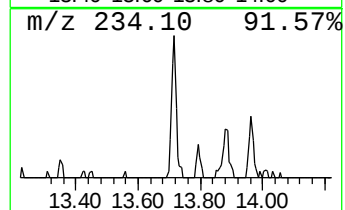
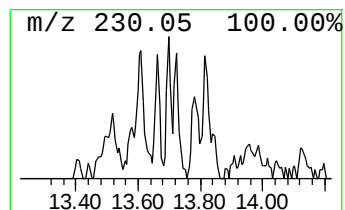
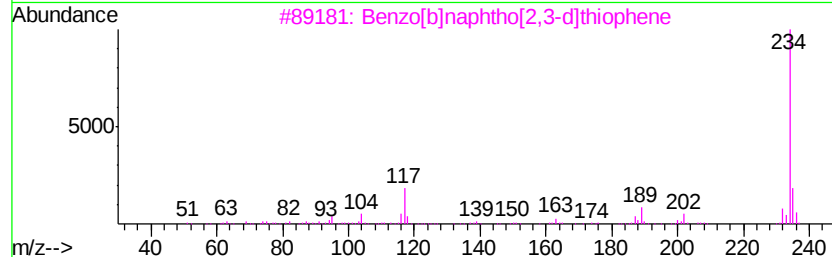
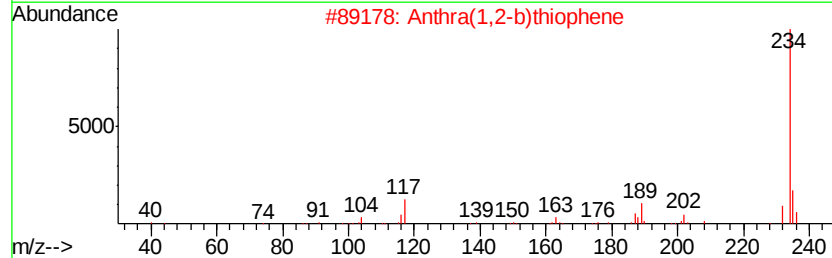
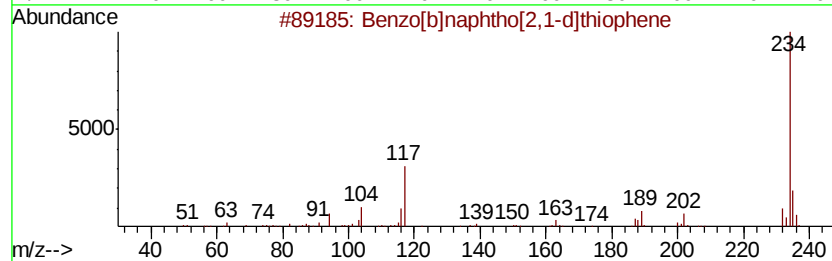
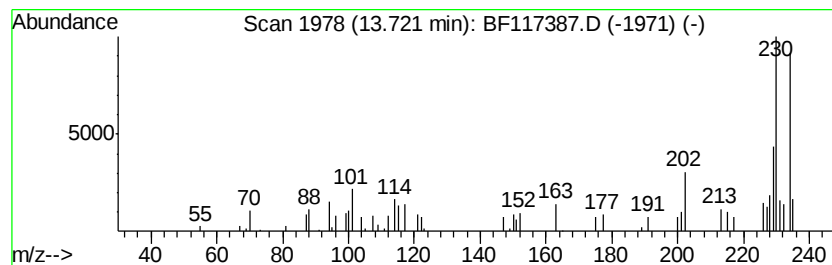
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TIC Integration Parameters: LSCINT.P

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Peak Number 6 Benzo[b]naphtho[2,1-d]thiop... Concentration Rank 6

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 13.72 | 3.21 ng | 65274 | Chrysene-d12     | 13.96 |

| Hit# | of | 5 | Tentative ID                    | MW  | MolForm | CAS#        | Qual |
|------|----|---|---------------------------------|-----|---------|-------------|------|
| 1    |    |   | Benzo[b]naphtho[2,1-d]thiophene | 234 | C16H10S | 000239-35-0 | 81   |
| 2    |    |   | Anthra(1,2-b)thiophene          | 234 | C16H10S | 000227-86-1 | 76   |
| 3    |    |   | Benzo[b]naphtho[2,3-d]thiophene | 234 | C16H10S | 000243-46-9 | 70   |
| 4    |    |   | Anthra(2,3-b)thiophene          | 234 | C16H10S | 022108-55-0 | 64   |
| 5    |    |   | 1,3,6,8-Tetramethylantracene    | 234 | C18H18  | 017526-53-3 | 50   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF101219\  
Data File : BF117387.D  
Acq On : 12 Oct 2019 23:43  
Operator : JU  
Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

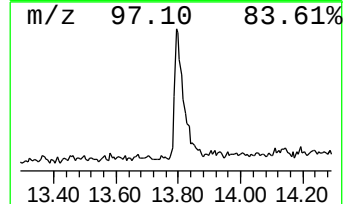
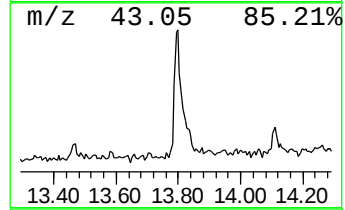
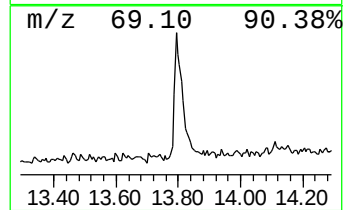
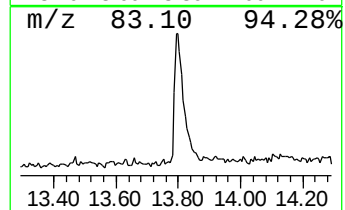
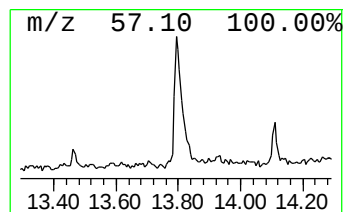
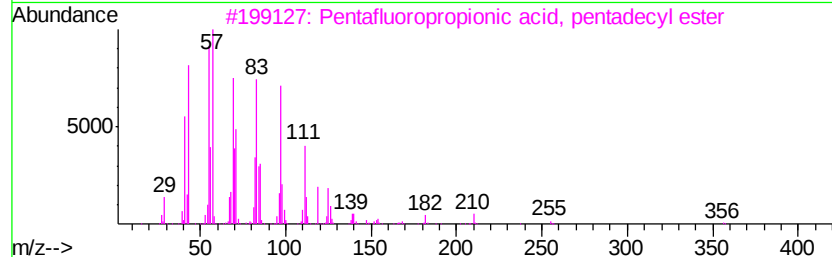
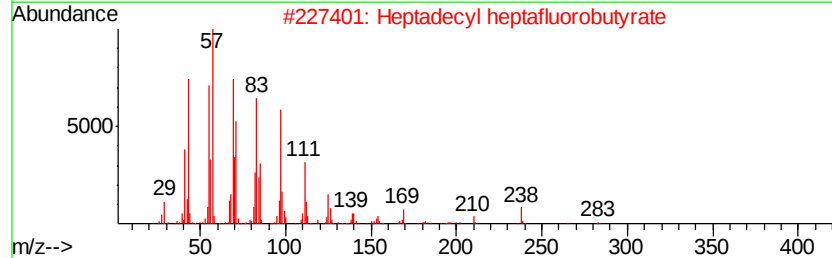
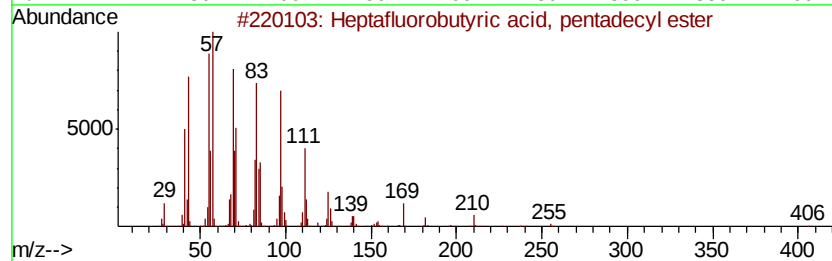
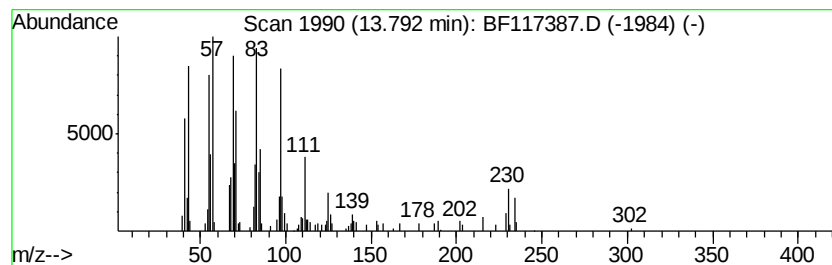
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 7 Heptafluorobutyric acid, pe... Concentration Rank 3

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 13.79 | 13.67 ng | 277996 | Chrysene-d12     | 13.96 |

| Hit# | of | Tentative ID                        | MW  | MolForm     | CAS#        | Qual |
|------|----|-------------------------------------|-----|-------------|-------------|------|
| 1    | 5  | Heptafluorobutyric acid, pentade... | 424 | C19H31F7O2  | 959261-23-5 | 93   |
| 2    |    | Heptadecyl heptafluorobutyrate      | 452 | C21H35F7O2  | 959085-66-6 | 93   |
| 3    |    | Pentafluoropropionic acid, penta... | 374 | C18H31F5O2  | 959092-08-1 | 91   |
| 4    |    | Trichloroacetic acid, hexadecyl ... | 386 | C18H33Cl3O2 | 074339-54-1 | 90   |
| 5    |    | 1-Heneicosyl formate                | 340 | C22H44O2    | 077899-03-7 | 87   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF101219\  
Data File : BF117387.D  
Acq On : 12 Oct 2019 23:43  
Operator : JU  
Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

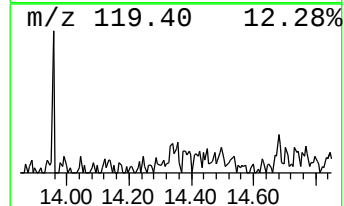
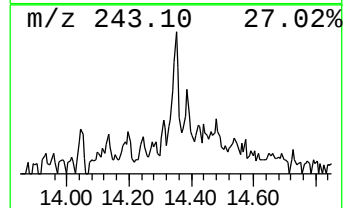
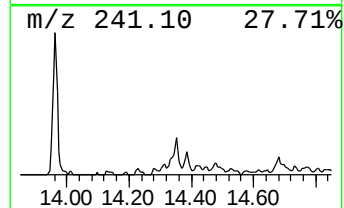
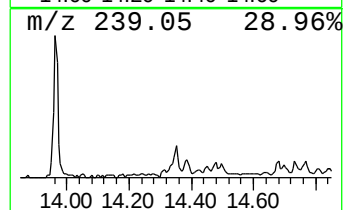
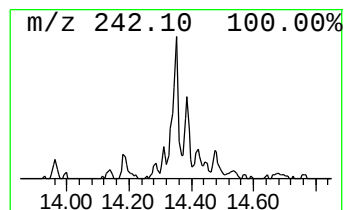
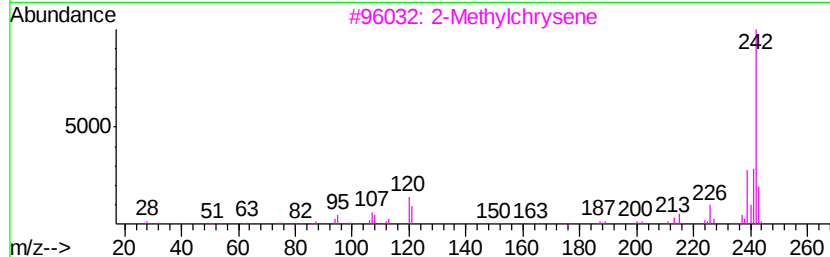
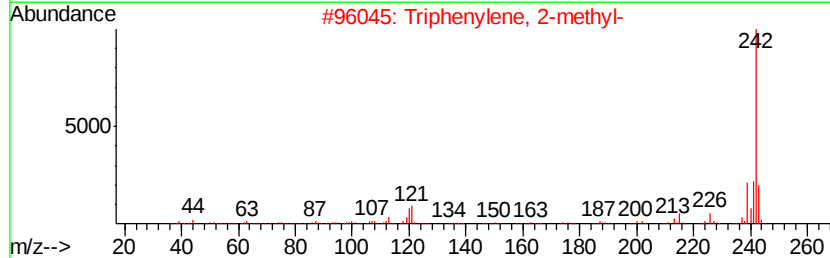
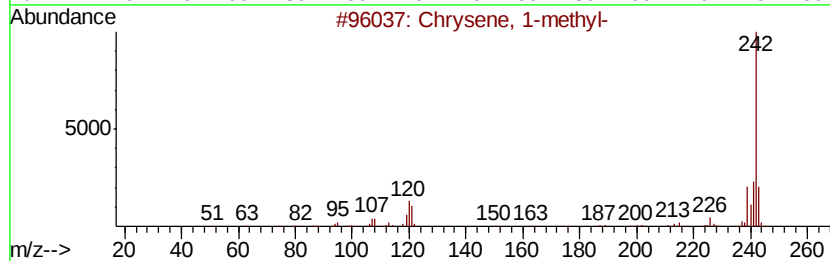
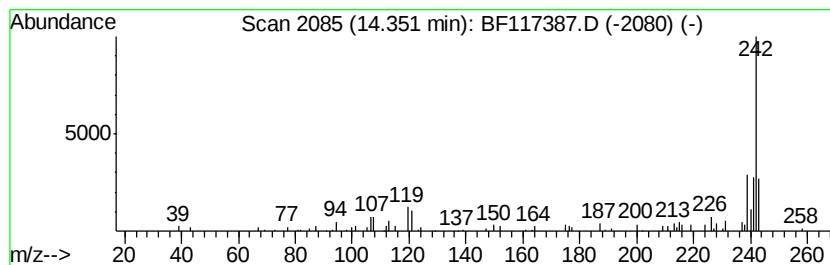
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 8 Chrysene, 1-methyl- Concentration Rank 11

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 14.35 | 2.72 ng | 55299 | Chrysene-d12     | 13.96 |

| Hit# | of | Tentative ID                 | MW  | MolForm | CAS#        | Qual |
|------|----|------------------------------|-----|---------|-------------|------|
| 1    | 5  | Chrysene, 1-methyl-          | 242 | C19H14  | 003351-28-8 | 93   |
| 2    |    | Triphenylene, 2-methyl-      | 242 | C19H14  | 001705-84-6 | 81   |
| 3    |    | 2-Methylchrysene             | 242 | C19H14  | 003351-32-4 | 76   |
| 4    |    | Chrysene, 3-methyl-          | 242 | C19H14  | 003351-31-3 | 76   |
| 5    |    | Benz[a]anthracene, 7-methyl- | 242 | C19H14  | 002541-69-7 | 76   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF101219\  
Data File : BF117387.D  
Acq On : 12 Oct 2019 23:43  
Operator : JU  
Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

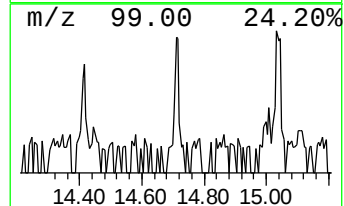
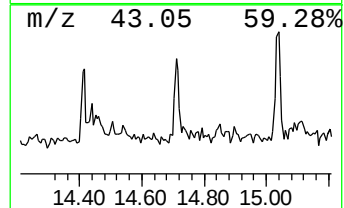
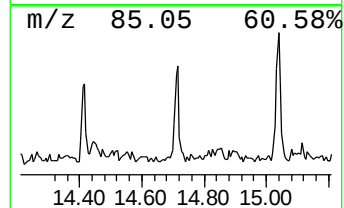
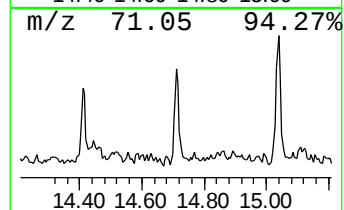
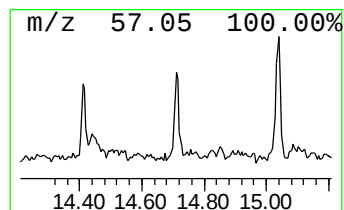
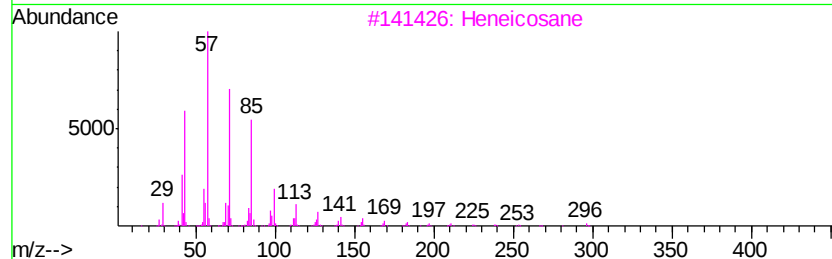
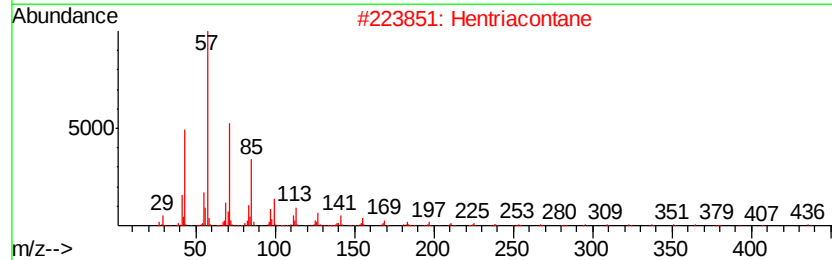
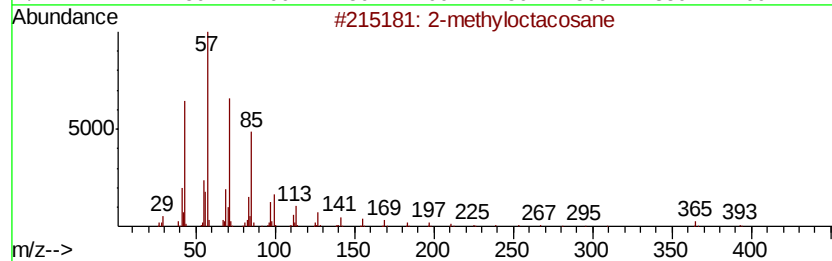
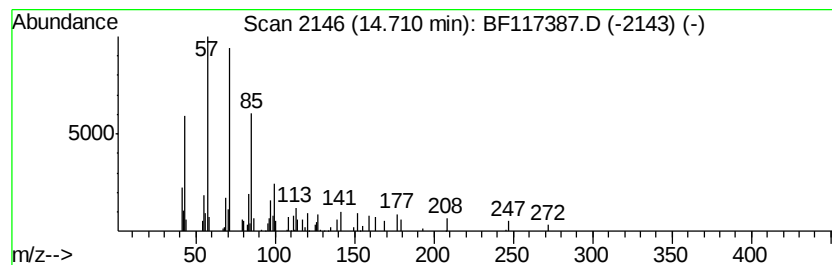
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 9 2-methyloctacosane Concentration Rank 8

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 14.71 | 3.09 ng | 46938 | Perylene-d12     | 15.42 |

| Hit# of | 5                  | Tentative ID | MW  | MolForm | CAS#         | Qual |
|---------|--------------------|--------------|-----|---------|--------------|------|
| 1       | 2-methyloctacosane |              | 408 | C29H60  | 1000376-72-8 | 72   |
| 2       | Hentriacontane     |              | 437 | C31H64  | 000630-04-6  | 64   |
| 3       | Heneicosane        |              | 296 | C21H44  | 000629-94-7  | 64   |
| 4       | triacontane        |              | 422 | C30H62  | 000638-68-6  | 64   |
| 5       | Tetratetracontane  |              | 619 | C44H90  | 007098-22-8  | 59   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF101219\  
Data File : BF117387.D  
Acq On : 12 Oct 2019 23:43  
Operator : JU  
Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

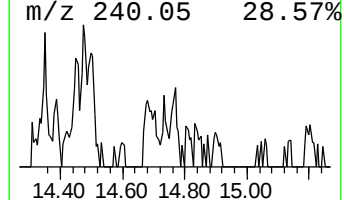
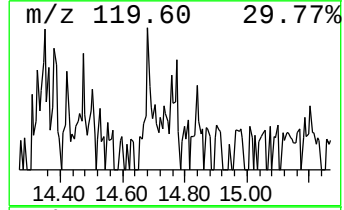
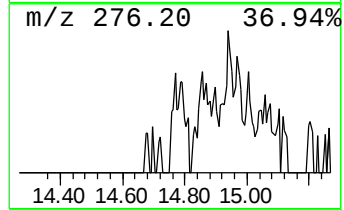
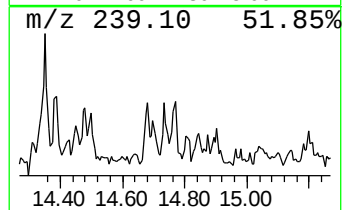
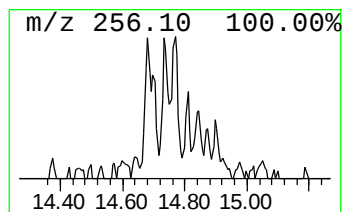
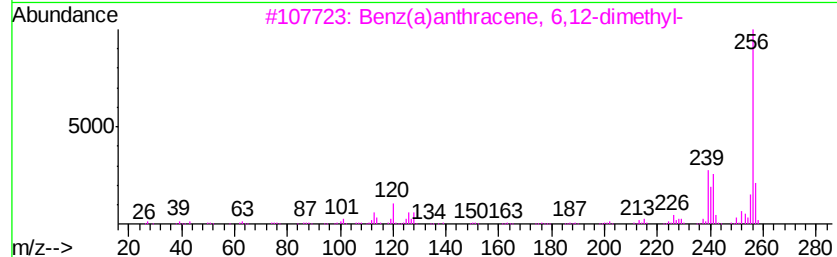
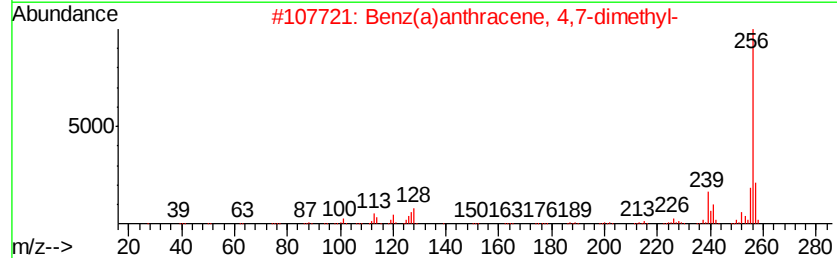
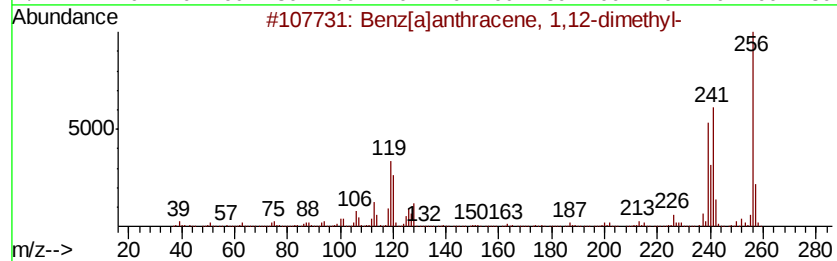
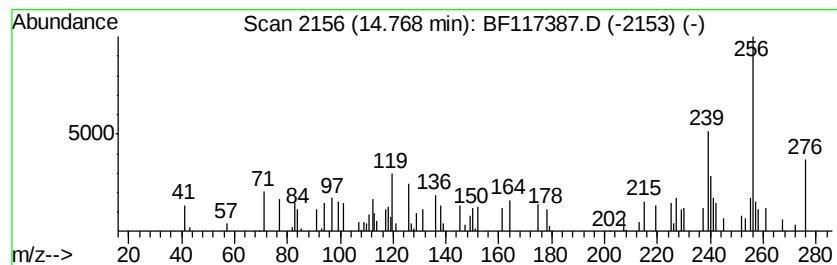
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TIC Integration Parameters: LSCINT.P

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Peak Number 10 Benz[a]anthracene, 1,12-dim... Concentration Rank 15

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 14.77 | 2.06 ng | 31309 | Perylene-d12     | 15.42 |

| Hit# | of | Tentative ID                      | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------------|-----|---------|-------------|------|
| 1    | 5  | Benz[a]anthracene, 1,12-dimethyl- | 256 | C20H16  | 000313-74-6 | 53   |
| 2    |    | Benz(a)anthracene, 4,7-dimethyl-  | 256 | C20H16  | 035187-18-9 | 49   |
| 3    |    | Benz(a)anthracene, 6,12-dimethyl- | 256 | C20H16  | 000568-81-0 | 47   |
| 4    |    | Chrysene, 5-ethyl-                | 256 | C20H16  | 054986-62-8 | 47   |
| 5    |    | 3,9-Dimethylbenz[a]anthracene     | 256 | C20H16  | 000316-51-8 | 43   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF101219\  
Data File : BF117387.D  
Acq On : 12 Oct 2019 23:43  
Operator : JU  
Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

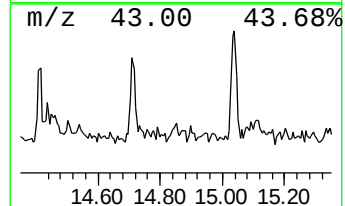
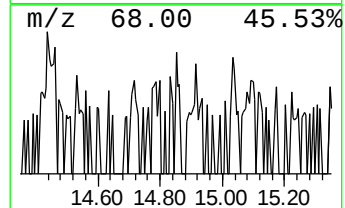
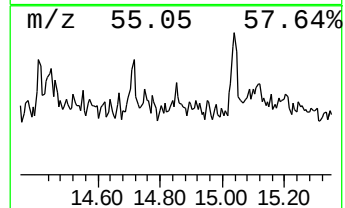
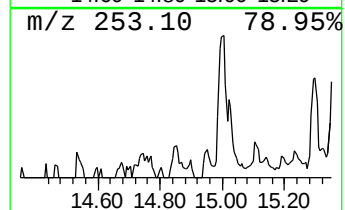
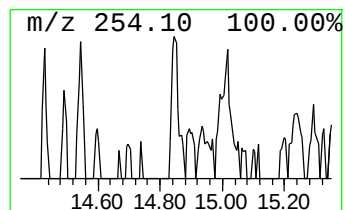
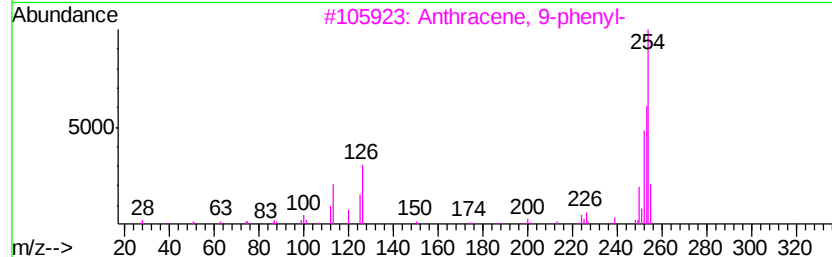
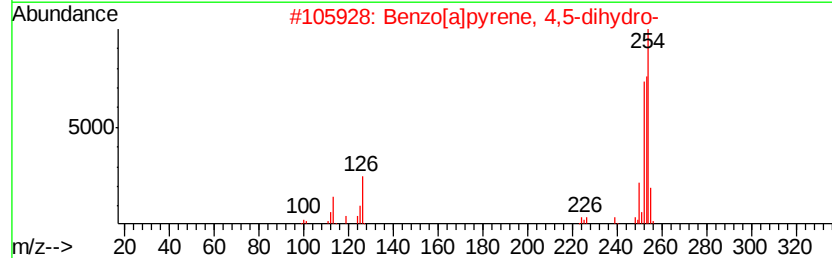
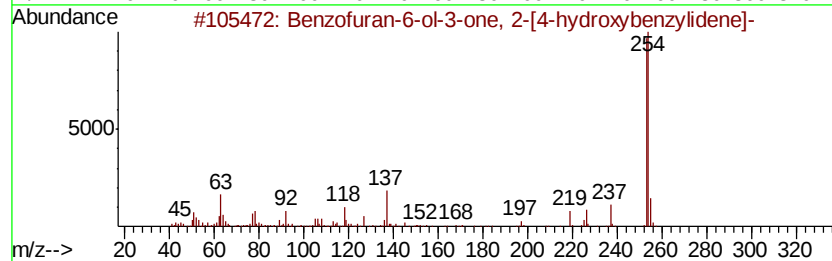
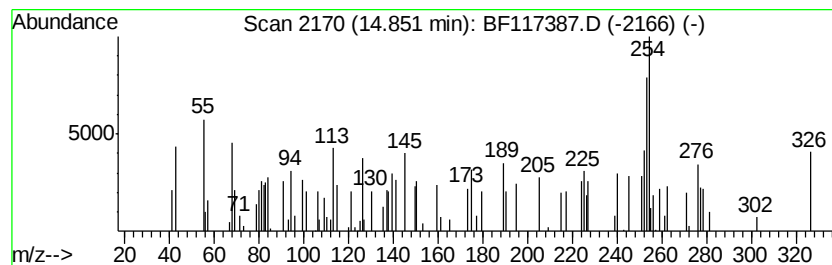
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 11 unknown14.85 Concentration Rank 14

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 14.85 | 2.21 ng | 33611 | Perylene-d12     | 15.42 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | Benzofuran-6-ol-3-one, 2-[4-hydr... | 254 | C15H10O4  | 1000128-64-9 | 35   |
| 2    |    | Benzo[a]pyrene, 4,5-dihydro-        | 254 | C20H14    | 057652-66-1  | 25   |
| 3    |    | Anthracene, 9-phenyl-               | 254 | C20H14    | 000602-55-1  | 25   |
| 4    |    | Benzenamine, 4-(2-benzothiazolyl... | 254 | C15H14N2S | 010205-56-8  | 25   |
| 5    |    | 1,1'-Binaphthalene                  | 254 | C20H14    | 000604-53-5  | 25   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF101219\  
Data File : BF117387.D  
Acq On : 12 Oct 2019 23:43  
Operator : JU  
Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

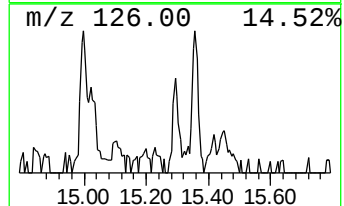
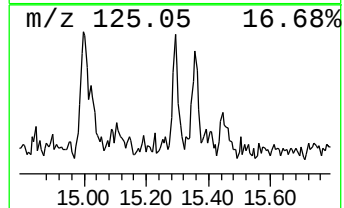
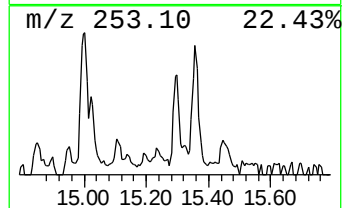
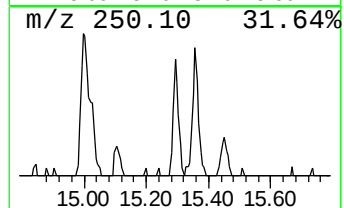
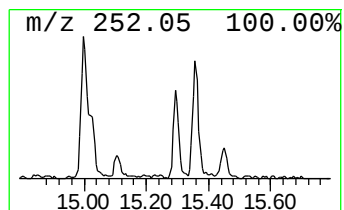
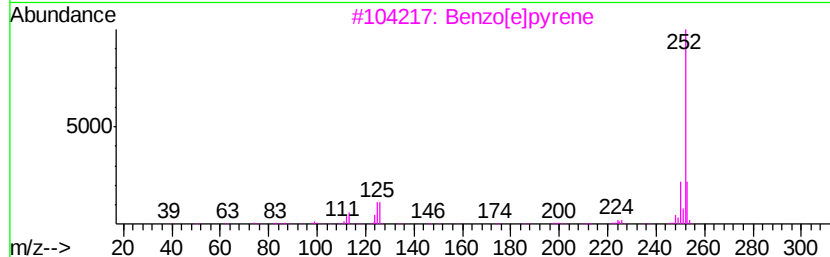
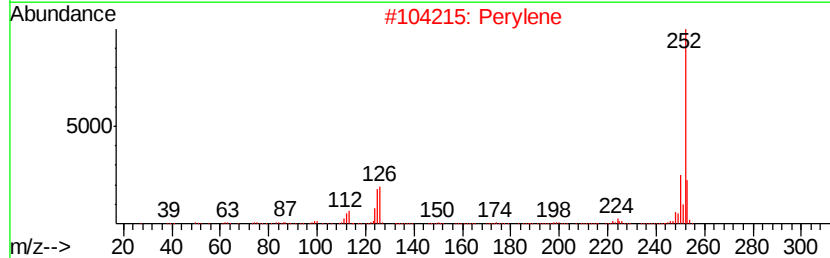
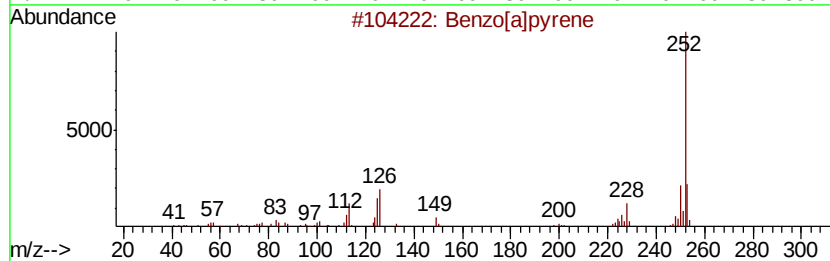
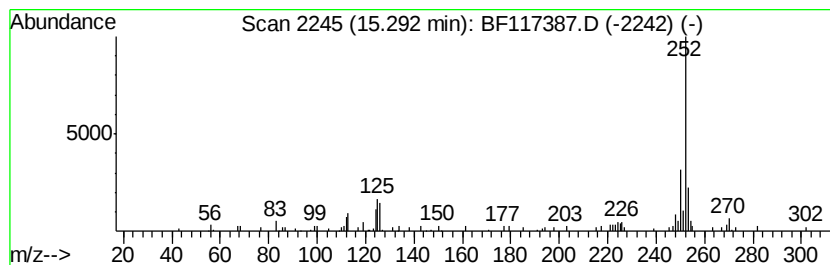
Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 12 Benzo[e]pyrene Concentration Rank 5

| R.T.      | EstConc                  | Area  | Relative to ISTD | R.T.        |      |
|-----------|--------------------------|-------|------------------|-------------|------|
| 15.29     | 4.13 ng                  | 62764 | Perylene-d12     | 15.42       |      |
| Hit# of 5 | Tentative ID             | MW    | MolForm          | CAS#        | Qual |
| 1         | Benzo[a]pyrene           | 252   | C20H12           | 000050-32-8 | 96   |
| 2         | Perylene                 | 252   | C20H12           | 000198-55-0 | 94   |
| 3         | Benzo[e]pyrene           | 252   | C20H12           | 000192-97-2 | 93   |
| 4         | Benzo[k]fluoranthene     | 252   | C20H12           | 000207-08-9 | 93   |
| 5         | Benz[e]acephenanthrylene | 252   | C20H12           | 000205-99-2 | 93   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF101219\  
Data File : BF117387.D  
Acq On : 12 Oct 2019 23:43  
Operator : JU  
Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

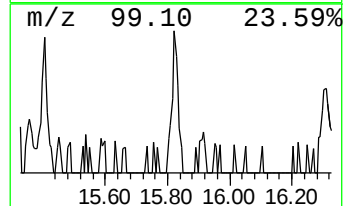
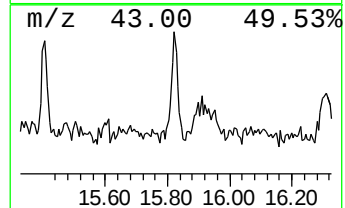
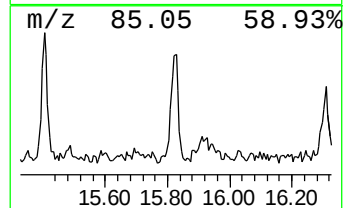
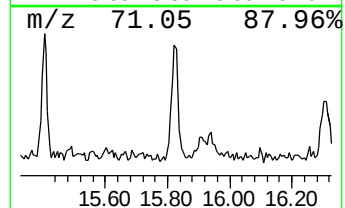
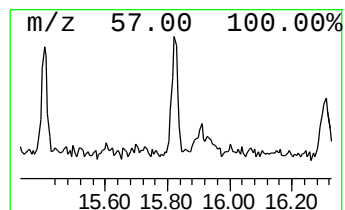
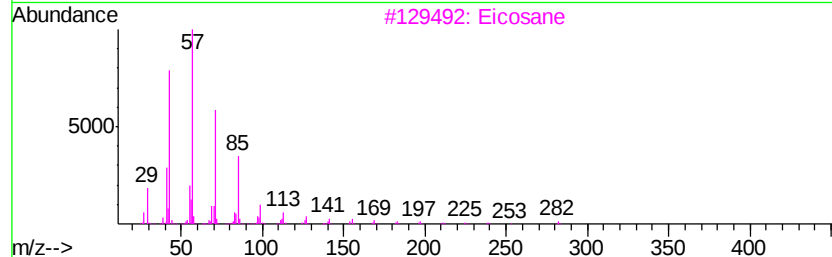
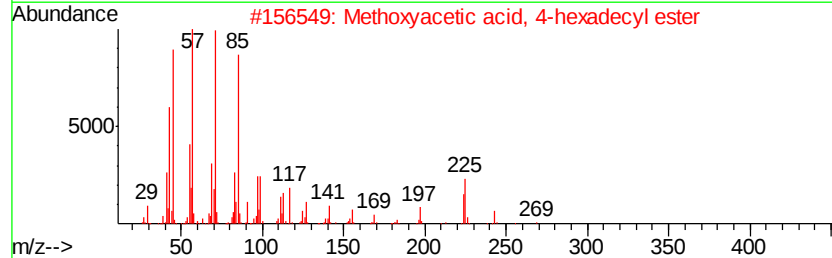
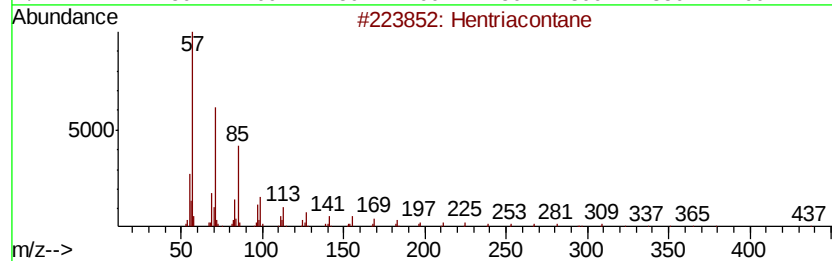
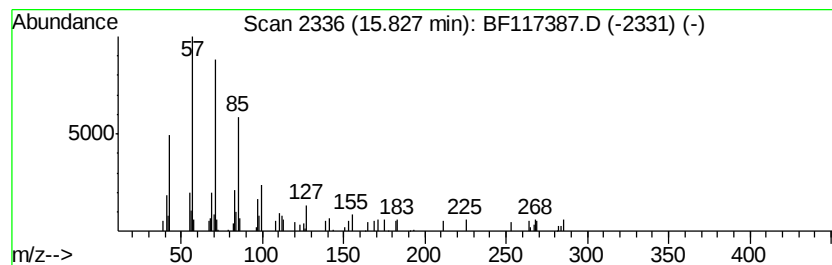
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 13 Hentriacontane Concentration Rank 7

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 15.83 | 3.14 ng | 47737 | Perylene-d12     | 15.42 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#         | Qual |
|------|----|-------------------------------------|-----|----------|--------------|------|
| 1    | 5  | Hentriacontane                      | 437 | C31H64   | 000630-04-6  | 91   |
| 2    |    | Methoxyacetic acid, 4-hexadecyl ... | 314 | C19H38O3 | 1000282-99-0 | 90   |
| 3    |    | Eicosane                            | 282 | C20H42   | 000112-95-8  | 87   |
| 4    |    | Nonadecane                          | 268 | C19H40   | 000629-92-5  | 83   |
| 5    |    | Octacosane                          | 394 | C28H58   | 000630-02-4  | 80   |



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Data File : BF117387.D  
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Operator : JU  
Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

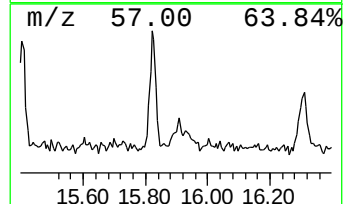
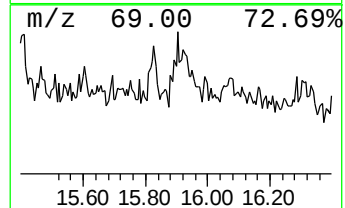
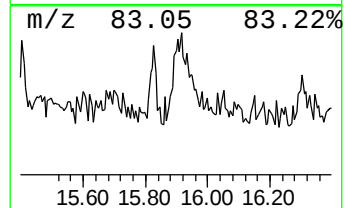
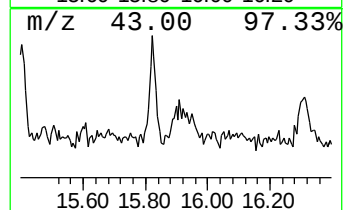
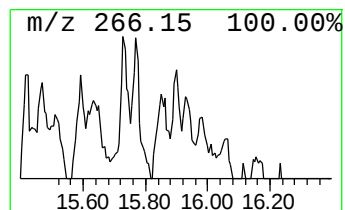
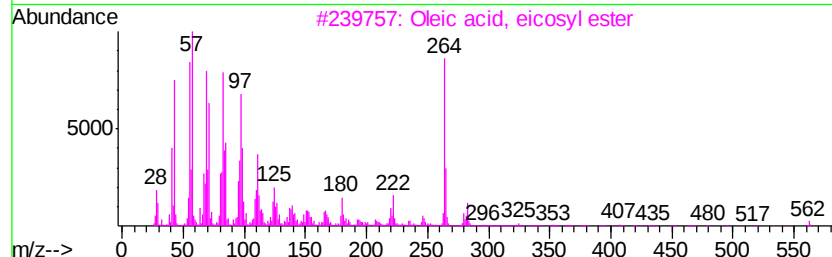
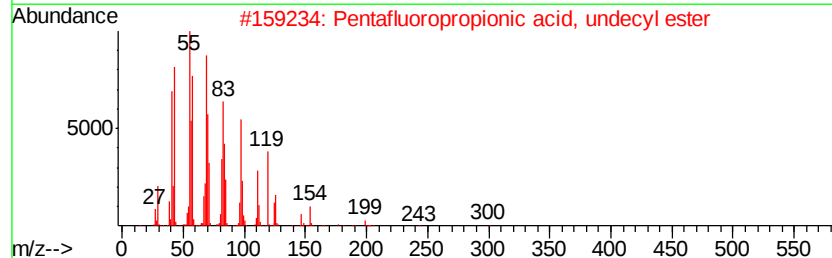
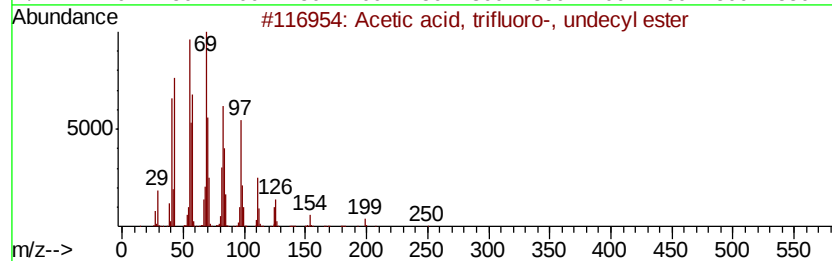
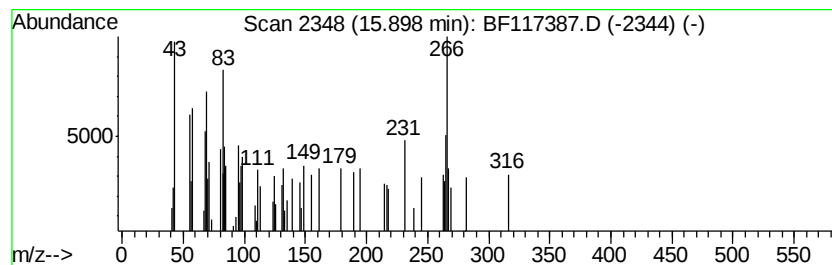
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 14 unknown15.90 Concentration Rank 9

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 15.90 | 3.03 ng | 46045 | Perylene-d12     | 15.42 |

| Hit# | of | Tentative ID                        | MW  | MolForm    | CAS#         | Qual |
|------|----|-------------------------------------|-----|------------|--------------|------|
| 1    | 5  | Acetic acid, trifluoro-, undecyl... | 268 | C13H23F3O2 | 053800-01-4  | 49   |
| 2    |    | Pentafluoropropionic acid, undec... | 318 | C14H23F5O2 | 959014-11-0  | 49   |
| 3    |    | Oleic acid, eicosyl ester           | 563 | C38H74O2   | 022393-88-0  | 35   |
| 4    |    | 9-Octadecenoic acid (Z)-, octade... | 535 | C36H70O2   | 017673-49-3  | 35   |
| 5    |    | Fumaric acid, pentafluorophenyl ... | 464 | C23H29F5O4 | 1000348-10-5 | 30   |



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Sample : K5316-05  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

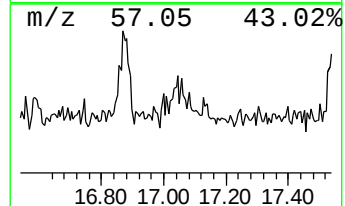
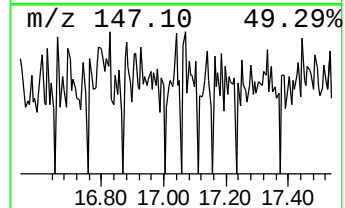
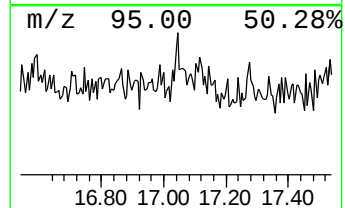
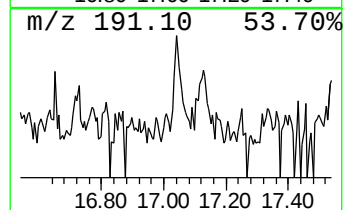
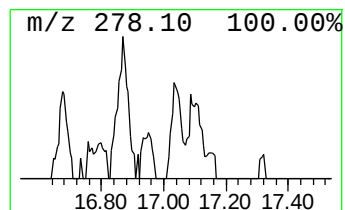
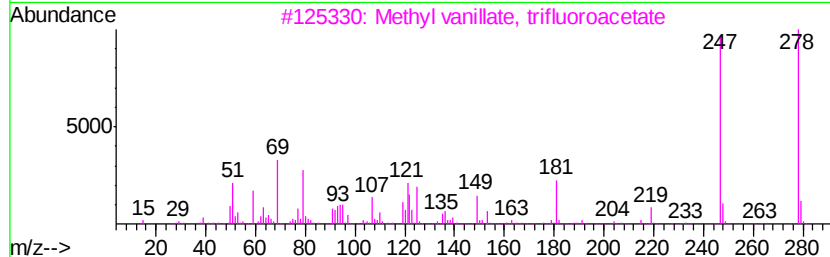
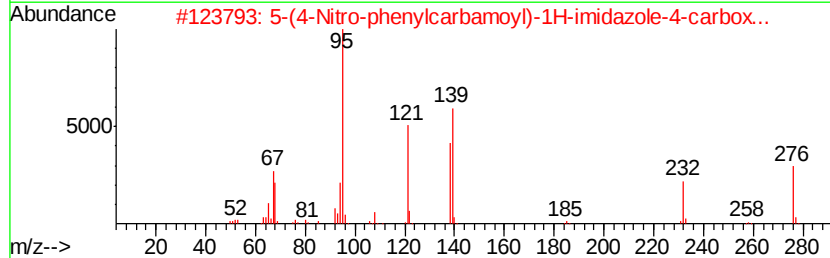
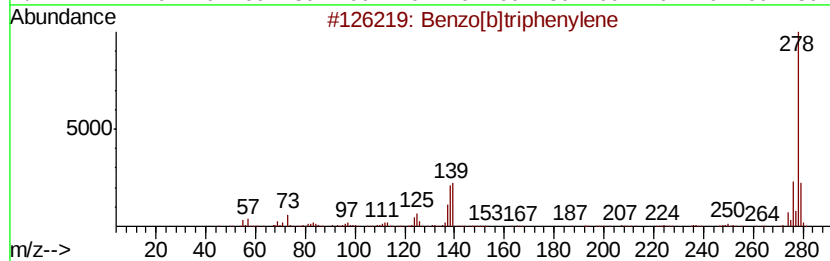
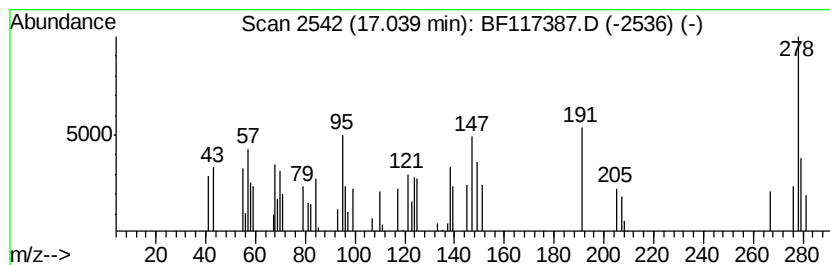
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 15 unknown17.04 Concentration Rank 12

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 17.04 | 2.56 ng | 38836 | Perylene-d12     | 15.42 |

| Hit# | of | 5 | Tentative ID                                                          | MW  | MolForm      | CAS#         | Qual |
|------|----|---|-----------------------------------------------------------------------|-----|--------------|--------------|------|
| 1    |    |   | Benzo[b]triphenylene                                                  | 278 | C22H14       | 000215-58-7  | 27   |
| 2    |    |   | 5-(4-Nitro-phenylcarbamoyl)-1H-imidazole-4-carboxylic acid            | 276 | C11H8N4O5    | 1000286-29-9 | 10   |
| 3    |    |   | Methyl vanillate, trifluoroacetate                                    | 278 | C11H9F3O5    | 1000365-24-7 | 9    |
| 4    |    |   | 2-hydroxyfluorene, trifluoroacetate                                   | 278 | C15H9F3O2    | 1000376-46-3 | 9    |
| 5    |    |   | Benzenamine, 2-fluoro-5-nitro-N-methyl-2,5-dinitro-1,4-benzenediamine | 278 | C13H8ClFN2O2 | 304478-89-5  | 9    |



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 Operator : JU  
 Sample : K5316-05  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 TP-10

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF091319.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 |
| unknown2.15          | 2.15  | 2.2     | ng    | 25359    | 1                     | 6.79  | 228003 | 20.0 |
| unknown6.57          | 6.57  | 81.0    | ng    | 922947   | 1                     | 6.79  | 228003 | 20.0 |
| unknown11.84         | 11.84 | 4.3     | ng    | 88418    | 4                     | 11.32 | 413767 | 20.0 |
| 11H-Benzo[b]fluorene | 13.09 | 2.8     | ng    | 57119    | 5                     | 13.96 | 406721 | 20.0 |
| Benzo[b]naphtho[2... | 13.72 | 3.2     | ng    | 65274    | 5                     | 13.96 | 406721 | 20.0 |
| Heptafluorobutyri... | 13.79 | 13.7    | ng    | 277996   | 5                     | 13.96 | 406721 | 20.0 |
| Chrysene, 1-methyl-  | 14.35 | 2.7     | ng    | 55299    | 5                     | 13.96 | 406721 | 20.0 |
| 2-methyloctacosane   | 14.71 | 3.1     | ng    | 46938    | 6                     | 15.42 | 303954 | 20.0 |
| Benz[a]anthracene... | 14.77 | 2.1     | ng    | 31309    | 6                     | 15.42 | 303954 | 20.0 |
| unknown14.85         | 14.85 | 2.2     | ng    | 33611    | 6                     | 15.42 | 303954 | 20.0 |
| Benzo[e]pyrene       | 15.29 | 4.1     | ng    | 62764    | 6                     | 15.42 | 303954 | 20.0 |
| Hentriacontane       | 15.83 | 3.1     | ng    | 47737    | 6                     | 15.42 | 303954 | 20.0 |
| unknown15.90         | 15.90 | 3.0     | ng    | 46045    | 6                     | 15.42 | 303954 | 20.0 |
| unknown17.04         | 17.04 | 2.6     | ng    | 38836    | 6                     | 15.42 | 303954 | 20.0 |