

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
 Data File : BM022824.D  
 Acq On : 30 Sep 2019 14:27  
 Operator : JU  
 Sample : K4958-09  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 ESNZ1

## Integration Parameters: LSCINT.P

Integrator: RTE  
 Smoothing : OFF  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 0.1 % 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\_M\METHODS\SOM-EPA-BM092719MA.M  
 Title : SVOA 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         | 3.275       | 45            | 49          | 60           | rVB      | 27157          | 44832         | 0.16%           | 0.020%        |
| 2         | 3.922       | 153           | 159         | 165          | rVB      | 55303          | 89816         | 0.32%           | 0.040%        |
| 3         | 4.104       | 185           | 190         | 195          | rBV      | 19458          | 29240         | 0.10%           | 0.013%        |
| 4         | 4.928       | 325           | 330         | 339          | rBV      | 47119          | 75444         | 0.27%           | 0.034%        |
| 5         | 6.969       | 671           | 677         | 692          | rBV2     | 543020         | 1042426       | 3.68%           | 0.467%        |
| 6         | 7.139       | 700           | 706         | 722          | rBV      | 442977         | 700745        | 2.48%           | 0.314%        |
| 7         | 7.339       | 733           | 740         | 751          | rBV      | 605824         | 952531        | 3.37%           | 0.427%        |
| 8         | 7.810       | 813           | 820         | 827          | rBV      | 1041803        | 1611973       | 5.69%           | 0.722%        |
| 9         | 8.510       | 932           | 939         | 951          | rBV      | 672247         | 1074024       | 3.79%           | 0.481%        |
| 10        | 8.633       | 951           | 960         | 969          | rVB      | 26185          | 50302         | 0.18%           | 0.023%        |
| 11        | 8.963       | 1009          | 1016        | 1024         | rBV      | 535911         | 892194        | 3.15%           | 0.400%        |
| 12        | 9.410       | 1087          | 1092        | 1100         | rVB      | 19566          | 29511         | 0.10%           | 0.013%        |
| 13        | 9.680       | 1131          | 1138        | 1145         | rBV      | 442035         | 712957        | 2.52%           | 0.319%        |
| 14        | 10.222      | 1220          | 1230        | 1243         | rBV      | 756829         | 1263703       | 4.46%           | 0.566%        |
| 15        | 10.598      | 1287          | 1294        | 1302         | rBV      | 1501655        | 2506370       | 8.85%           | 1.123%        |
| 16        | 10.733      | 1307          | 1317        | 1331         | rBV      | 646428         | 1119314       | 3.95%           | 0.501%        |
| 17        | 13.239      | 1739          | 1743        | 1746         | rBV3     | 21154          | 34122         | 0.12%           | 0.015%        |
| 18        | 13.851      | 1841          | 1847        | 1851         | rBV      | 1438713        | 1984146       | 7.01%           | 0.889%        |
| 19        | 13.898      | 1851          | 1855        | 1860         | rVB      | 505323         | 693819        | 2.45%           | 0.311%        |
| 20        | 13.992      | 1869          | 1871        | 1880         | rVB9     | 15432          | 29499         | 0.10%           | 0.013%        |
| 21        | 14.133      | 1887          | 1895        | 1902         | rBV      | 1713046        | 2549309       | 9.01%           | 1.142%        |
| 22        | 14.280      | 1916          | 1920        | 1927         | rVB3     | 48837          | 85267         | 0.30%           | 0.038%        |
| 23        | 14.357      | 1929          | 1933        | 1938         | rBV4     | 24088          | 36147         | 0.13%           | 0.016%        |
| 24        | 14.445      | 1939          | 1948        | 1958         | rVB      | 2481296        | 3702451       | 13.08%          | 1.658%        |
| 25        | 14.563      | 1960          | 1968        | 1973         | rBV2     | 80845          | 157523        | 0.56%           | 0.071%        |
| 26        | 14.627      | 1974          | 1979        | 1986         | rBV      | 480567         | 693596        | 2.45%           | 0.311%        |
| 27        | 14.857      | 2015          | 2018        | 2022         | rVB4     | 36602          | 46933         | 0.17%           | 0.021%        |
| 28        | 15.239      | 2080          | 2083        | 2088         | rBV4     | 47234          | 67481         | 0.24%           | 0.030%        |
| 29        | 15.433      | 2110          | 2116        | 2123         | rVB      | 2324759        | 3226869       | 11.40%          | 1.445%        |
| 30        | 15.545      | 2131          | 2135        | 2144         | rVB      | 315415         | 449804        | 1.59%           | 0.201%        |
| 31        | 15.698      | 2155          | 2161        | 2174         | rVB      | 3518673        | 4691374       | 16.57%          | 2.101%        |
| 32        | 16.133      | 2231          | 2235        | 2239         | rBV      | 103634         | 152977        | 0.54%           | 0.069%        |
| 33        | 16.186      | 2241          | 2244        | 2255         | rVB      | 112626         | 207527        | 0.73%           | 0.093%        |
| 34        | 16.304      | 2258          | 2264        | 2273         | rBV      | 2824242        | 3686625       | 13.02%          | 1.651%        |

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
 Data File : BM022824.D  
 Acq On : 30 Sep 2019 14:27  
 Operator : JU  
 Sample : K4958-09  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 ESNZ1

## Integration Parameters: LSCINT.P

Integrator: RTE  
 Smoothing : OFF  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 0.1 % 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\_M\METHODS\SOM-EPA-BM092719MA.M  
 Title : SVOA CALIBRATION

|    |        |      |      |      |      |          |          |         |         |
|----|--------|------|------|------|------|----------|----------|---------|---------|
| 35 | 16.415 | 2278 | 2283 | 2290 | rBV  | 1537362  | 2072385  | 7.32%   | 0.928%  |
| 36 | 16.715 | 2329 | 2334 | 2340 | rBV  | 2086029  | 2809991  | 9.93%   | 1.259%  |
| 37 | 16.962 | 2371 | 2376 | 2380 | rBV  | 633468   | 859505   | 3.04%   | 0.385%  |
| 38 | 17.009 | 2381 | 2384 | 2388 | rVV  | 156694   | 203090   | 0.72%   | 0.091%  |
| 39 | 17.068 | 2388 | 2394 | 2397 | rVV2 | 6933528  | 9759611  | 34.48%  | 4.372%  |
| 40 | 17.104 | 2397 | 2400 | 2406 | rVB  | 6117149  | 7490760  | 26.46%  | 3.355%  |
| 41 | 17.174 | 2406 | 2412 | 2416 | rBV3 | 3963278  | 7605272  | 26.87%  | 3.407%  |
| 42 | 17.215 | 2416 | 2419 | 2424 | rVB  | 2447262  | 3094819  | 10.93%  | 1.386%  |
| 43 | 17.280 | 2425 | 2430 | 2437 | rBV  | 2269535  | 3257420  | 11.51%  | 1.459%  |
| 44 | 17.362 | 2438 | 2444 | 2450 | rBV  | 6710116  | 9387990  | 33.17%  | 4.205%  |
| 45 | 17.474 | 2460 | 2463 | 2470 | rVB  | 215962   | 277910   | 0.98%   | 0.124%  |
| 46 | 17.639 | 2485 | 2491 | 2494 | rBV  | 8705469  | 13249910 | 46.81%  | 5.935%  |
| 47 | 17.674 | 2494 | 2497 | 2503 | rVB  | 9746837  | 11843645 | 41.84%  | 5.305%  |
| 48 | 17.792 | 2509 | 2517 | 2523 | rBV  | 13455297 | 28306790 | 100.00% | 12.680% |
| 49 | 17.903 | 2530 | 2536 | 2543 | rBV3 | 3918037  | 6341508  | 22.40%  | 2.841%  |
| 50 | 17.980 | 2544 | 2549 | 2553 | rBV  | 1819919  | 2334886  | 8.25%   | 1.046%  |
| 51 | 18.033 | 2553 | 2558 | 2563 | rVV  | 2688778  | 3562218  | 12.58%  | 1.596%  |
| 52 | 18.086 | 2563 | 2567 | 2573 | rVV3 | 389006   | 633529   | 2.24%   | 0.284%  |
| 53 | 18.198 | 2582 | 2586 | 2591 | rBV  | 1138262  | 1613759  | 5.70%   | 0.723%  |
| 54 | 18.256 | 2591 | 2596 | 2602 | rVV  | 8235515  | 11418067 | 40.34%  | 5.115%  |
| 55 | 18.321 | 2602 | 2607 | 2610 | rVV  | 9352154  | 12760414 | 45.08%  | 5.716%  |
| 56 | 18.362 | 2610 | 2614 | 2619 | rVB  | 6689821  | 8068342  | 28.50%  | 3.614%  |
| 57 | 18.539 | 2639 | 2644 | 2648 | rBV  | 3715877  | 4740294  | 16.75%  | 2.123%  |
| 58 | 18.592 | 2648 | 2653 | 2657 | rVV  | 3249692  | 4149135  | 14.66%  | 1.859%  |
| 59 | 18.639 | 2657 | 2661 | 2664 | rVV2 | 695289   | 996072   | 3.52%   | 0.446%  |
| 60 | 18.680 | 2664 | 2668 | 2671 | rVV  | 1653463  | 2268852  | 8.02%   | 1.016%  |
| 61 | 18.715 | 2671 | 2674 | 2679 | rVB  | 1349829  | 1710824  | 6.04%   | 0.766%  |
| 62 | 18.821 | 2688 | 2692 | 2696 | rVB  | 494977   | 684244   | 2.42%   | 0.306%  |
| 63 | 18.962 | 2713 | 2716 | 2722 | rVB  | 731438   | 977002   | 3.45%   | 0.438%  |
| 64 | 19.027 | 2723 | 2727 | 2730 | rBV  | 427299   | 573112   | 2.02%   | 0.257%  |
| 65 | 19.074 | 2732 | 2735 | 2738 | rVV  | 515068   | 777314   | 2.75%   | 0.348%  |
| 66 | 19.115 | 2738 | 2742 | 2748 | rVB2 | 1507516  | 2167888  | 7.66%   | 0.971%  |
| 67 | 19.186 | 2751 | 2754 | 2761 | rVB2 | 938488   | 1331822  | 4.70%   | 0.597%  |
| 68 | 19.309 | 2772 | 2775 | 2781 | rVB3 | 883735   | 1144483  | 4.04%   | 0.513%  |
| 69 | 19.380 | 2783 | 2787 | 2795 | rVB  | 1141755  | 1614985  | 5.71%   | 0.723%  |
| 70 | 19.450 | 2796 | 2799 | 2803 | rBV2 | 486008   | 543424   | 1.92%   | 0.243%  |
| 71 | 19.574 | 2816 | 2820 | 2828 | rVB  | 3177648  | 4248264  | 15.01%  | 1.903%  |

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

## Integration Parameters: LSCINT.P

Integrator: RTE  
Smoothing : OFF  
Sampling : 1  
Start Thrs: 0.2  
Stop Thrs : 0  
Filtering: 5  
Min Area: 0.1 % 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\_M\METHODS\SOM-EPA-BM092719MA.M  
Title : SVOA CALIBRATION

|    |        |      |      |      |      |         |         |        |        |
|----|--------|------|------|------|------|---------|---------|--------|--------|
| 72 | 19.833 | 2861 | 2864 | 2868 | rVB  | 1130044 | 1290043 | 4.56%  | 0.578% |
| 73 | 20.097 | 2906 | 2909 | 2913 | rVB3 | 638303  | 777053  | 2.75%  | 0.348% |
| 74 | 20.145 | 2915 | 2917 | 2921 | rVB  | 472383  | 490770  | 1.73%  | 0.220% |
| 75 | 21.080 | 3073 | 3076 | 3079 | rBV  | 812448  | 860006  | 3.04%  | 0.385% |
| 76 | 21.368 | 3120 | 3125 | 3128 | rBV  | 3180148 | 4119863 | 14.55% | 1.845% |
| 77 | 23.491 | 3481 | 3486 | 3491 | rBV  | 1348166 | 2390667 | 8.45%  | 1.071% |
| 78 | 23.633 | 3505 | 3510 | 3519 | rVB  | 1923376 | 3747300 | 13.24% | 1.679% |

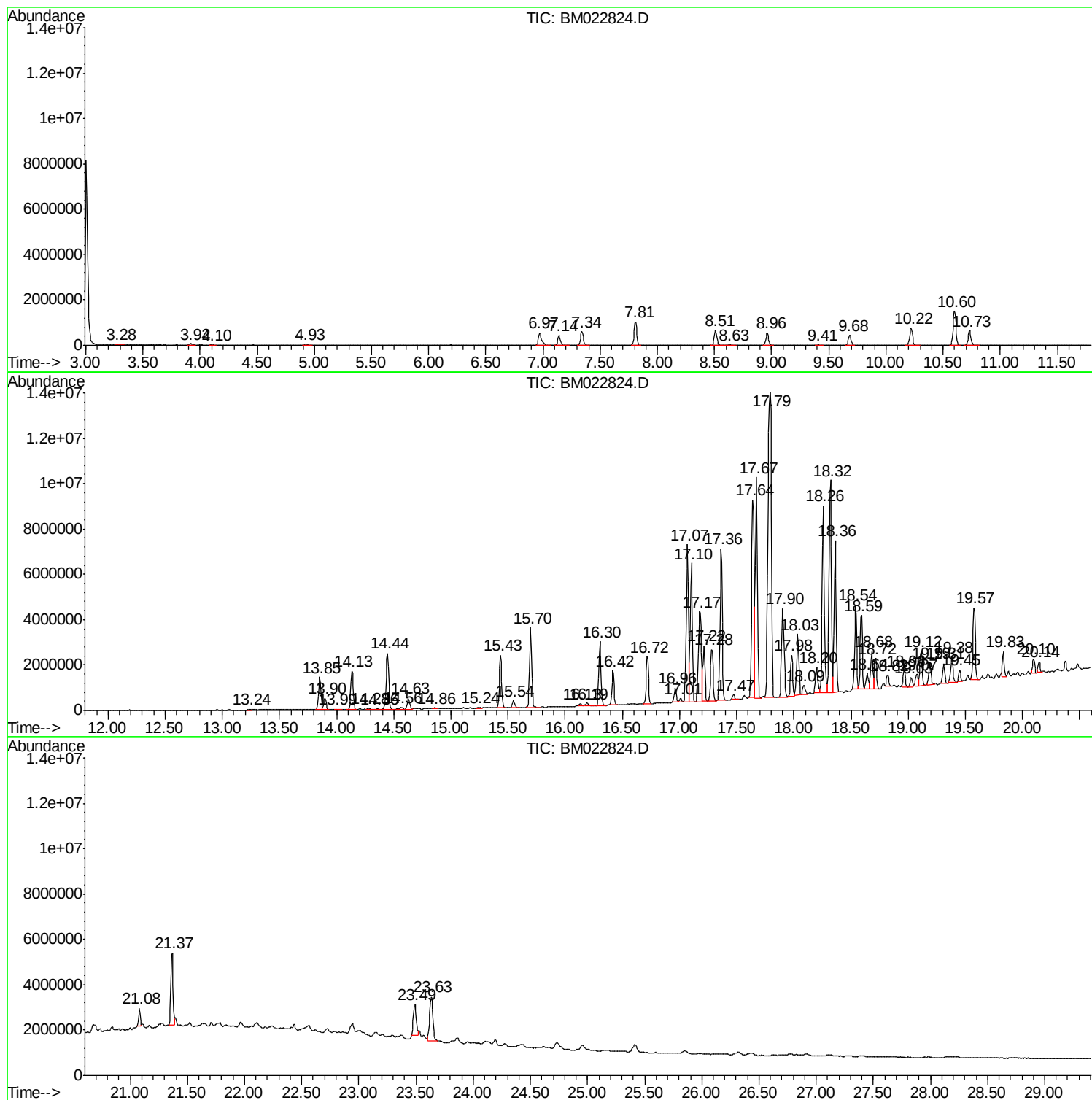
Sum of corrected areas: 223246089

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

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



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

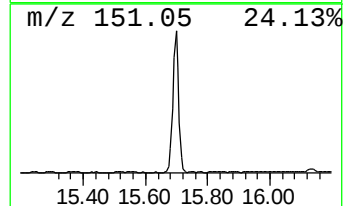
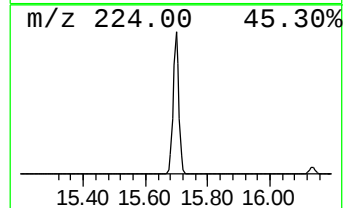
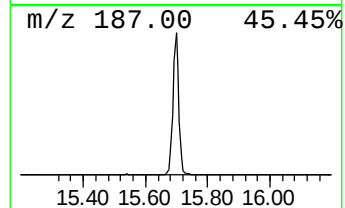
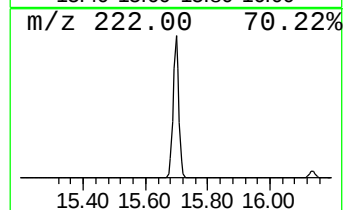
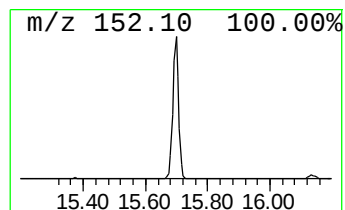
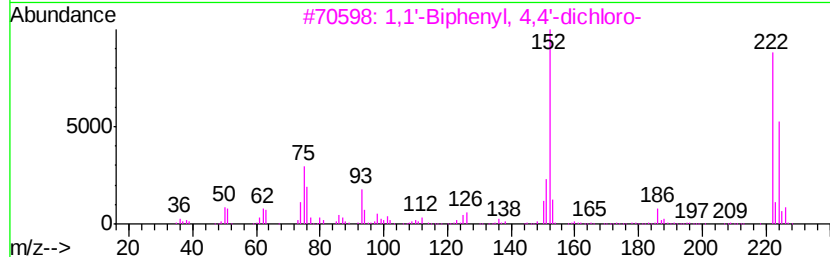
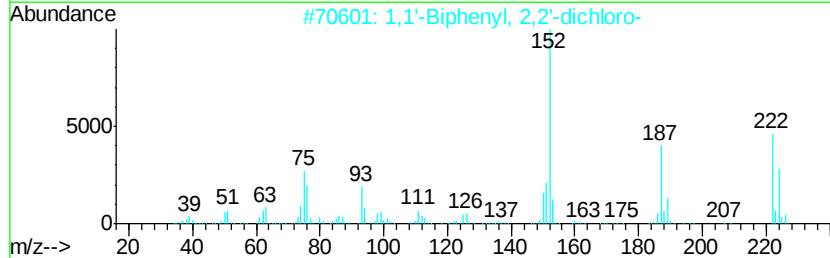
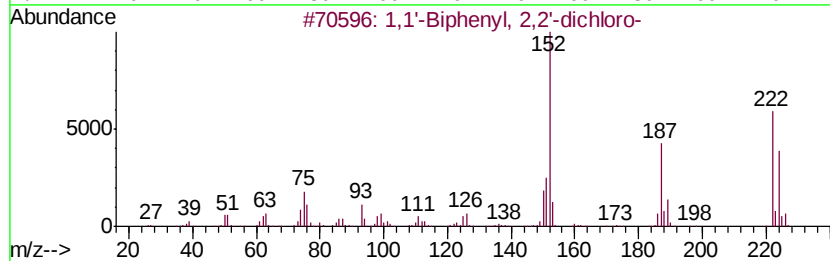
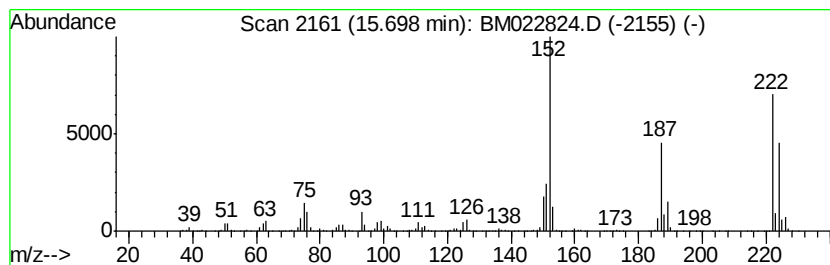
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 1 1,1'-Biphenyl, 2,2'-dichloro- Concentration Rank 7

| R.T.  | EstConc     | Area    | Relative to ISTD | R.T.  |
|-------|-------------|---------|------------------|-------|
| 15.70 | 25.34 ng/ul | 4691370 | Acenaphthene-d10 | 14.44 |

| Hit# | of | Tentative ID                  | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 2,2'-dichloro- | 222 | C12H8Cl2 | 013029-08-8 | 99   |
| 2    |    | 1,1'-Biphenyl, 2,2'-dichloro- | 222 | C12H8Cl2 | 013029-08-8 | 99   |
| 3    |    | 1,1'-Biphenyl, 4,4'-dichloro- | 222 | C12H8Cl2 | 002050-68-2 | 98   |
| 4    |    | 1,1'-Biphenyl, 4,4'-dichloro- | 222 | C12H8Cl2 | 002050-68-2 | 95   |
| 5    |    | 1,1'-Biphenyl, 2,3-dichloro-  | 222 | C12H8Cl2 | 016605-91-7 | 95   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

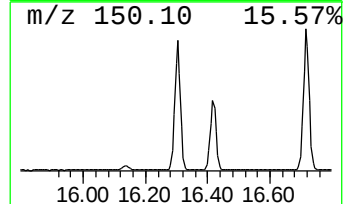
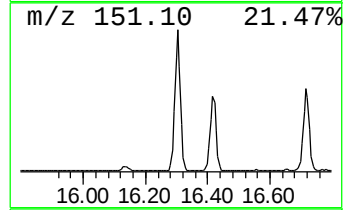
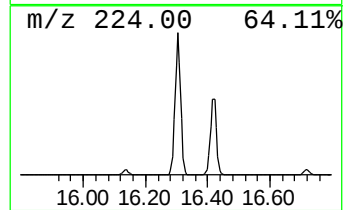
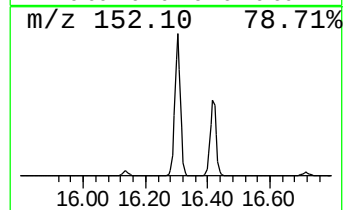
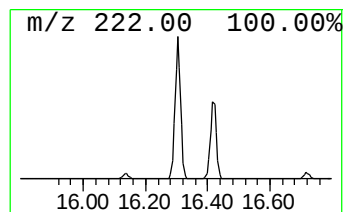
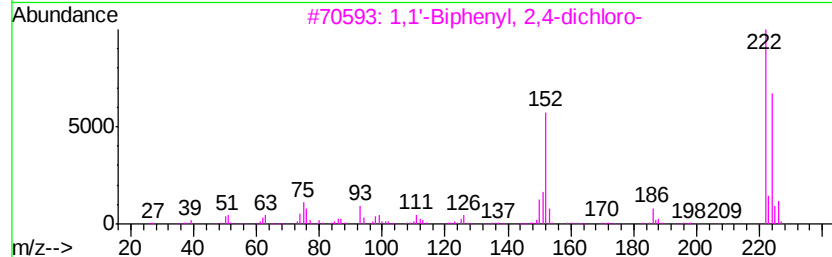
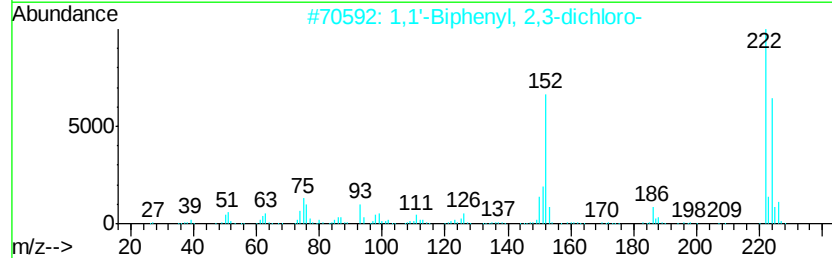
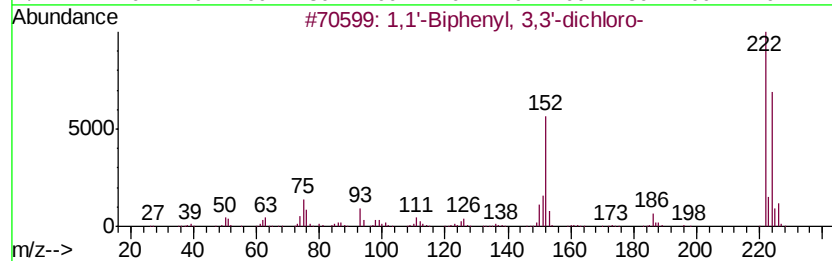
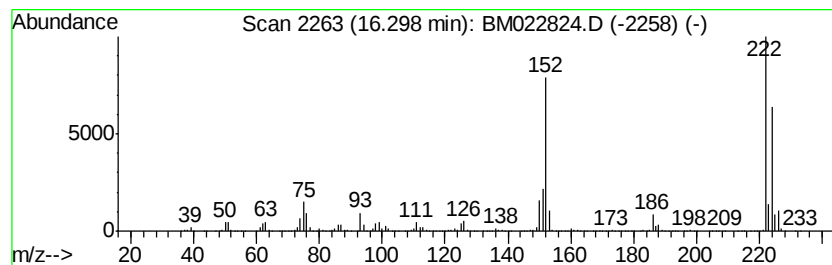
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 1,1'-Biphenyl, 3,3'-dichloro- Concentration Rank 14

| R.T.  | EstConc    | Area    | Relative to ISTD | R.T.  |
|-------|------------|---------|------------------|-------|
| 16.30 | 9.69 ng/ul | 3686630 | Phenanthrene-d10 | 17.19 |

| Hit# | of | 5 | Tentative ID                  | MW  | MolForm  | CAS#        | Qual |
|------|----|---|-------------------------------|-----|----------|-------------|------|
| 1    |    |   | 1,1'-Biphenyl, 3,3'-dichloro- | 222 | C12H8Cl2 | 002050-67-1 | 99   |
| 2    |    |   | 1,1'-Biphenyl, 2,3-dichloro-  | 222 | C12H8Cl2 | 016605-91-7 | 99   |
| 3    |    |   | 1,1'-Biphenyl, 2,4-dichloro-  | 222 | C12H8Cl2 | 033284-50-3 | 99   |
| 4    |    |   | 1,1'-Biphenyl, 2,4-dichloro-  | 222 | C12H8Cl2 | 033284-50-3 | 98   |
| 5    |    |   | 1,1'-Biphenyl, 4,4'-dichloro- | 222 | C12H8Cl2 | 002050-68-2 | 98   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

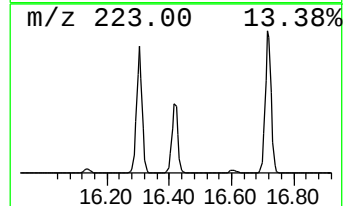
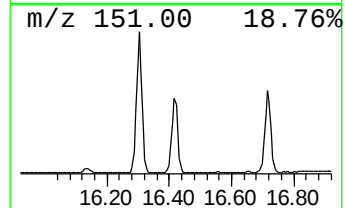
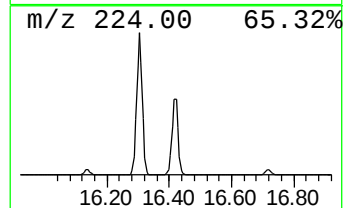
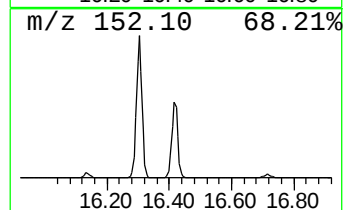
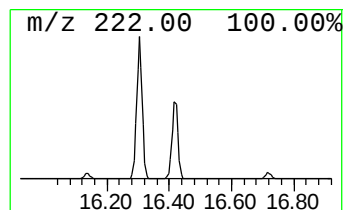
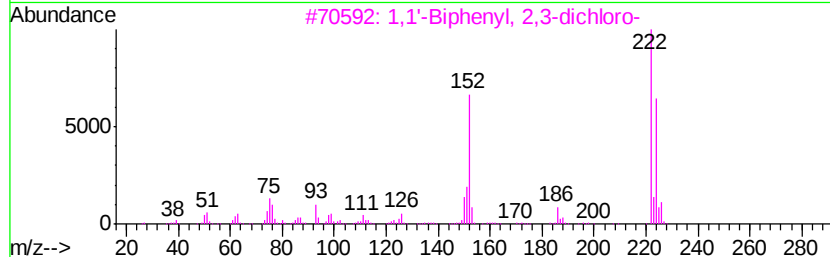
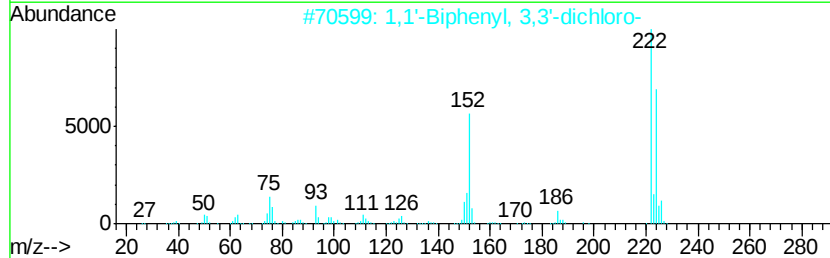
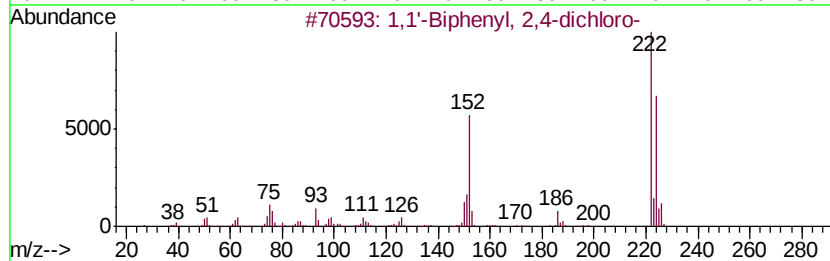
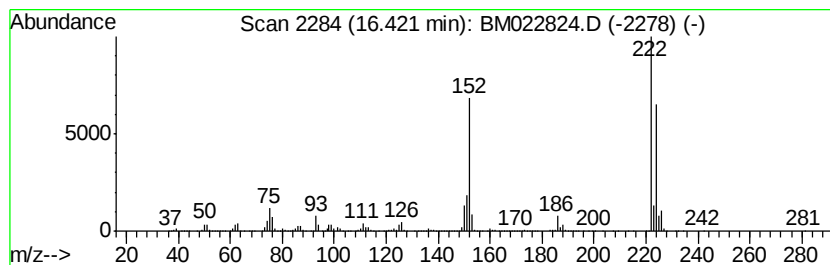
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 3 1,1'-Biphenyl, 2,4-dichloro- Concentration Rank 23

| R.T.  | EstConc    | Area    | Relative to ISTD | R.T.  |
|-------|------------|---------|------------------|-------|
| 16.42 | 5.45 ng/ul | 2072390 | Phenanthrene-d10 | 17.19 |

| Hit# | of | Tentative ID                  | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 2,4-dichloro-  | 222 | C12H8Cl2 | 033284-50-3 | 99   |
| 2    |    | 1,1'-Biphenyl, 3,3'-dichloro- | 222 | C12H8Cl2 | 002050-67-1 | 99   |
| 3    |    | 1,1'-Biphenyl, 2,3-dichloro-  | 222 | C12H8Cl2 | 016605-91-7 | 99   |
| 4    |    | 1,1'-Biphenyl, 4,4'-dichloro- | 222 | C12H8Cl2 | 002050-68-2 | 98   |
| 5    |    | 1,1'-Biphenyl, 2,4-dichloro-  | 222 | C12H8Cl2 | 033284-50-3 | 98   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

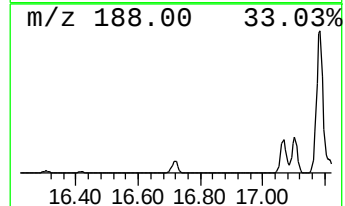
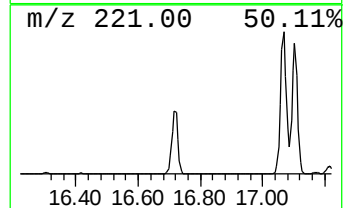
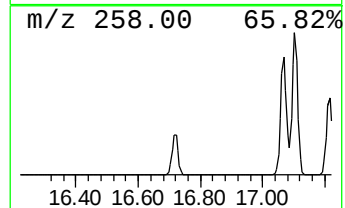
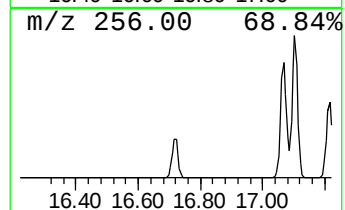
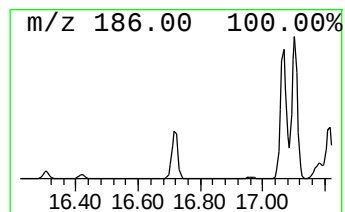
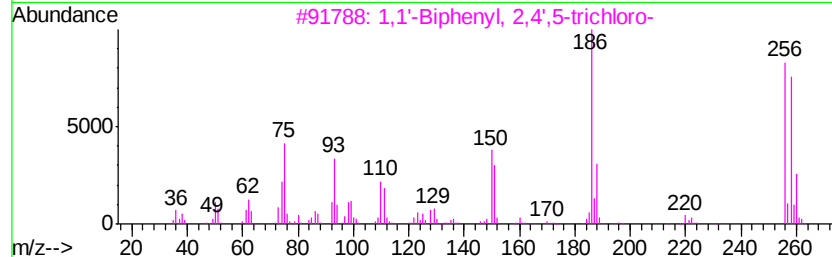
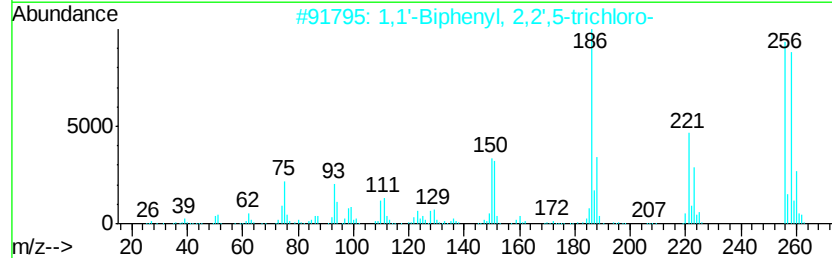
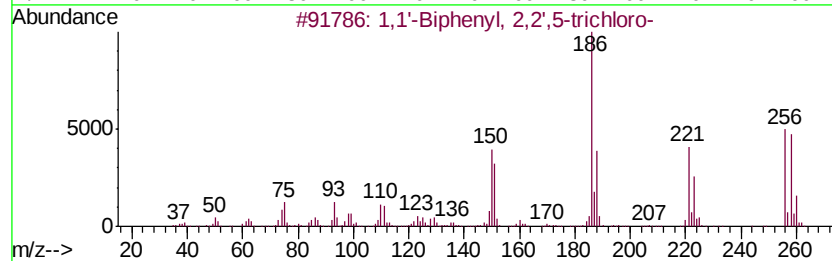
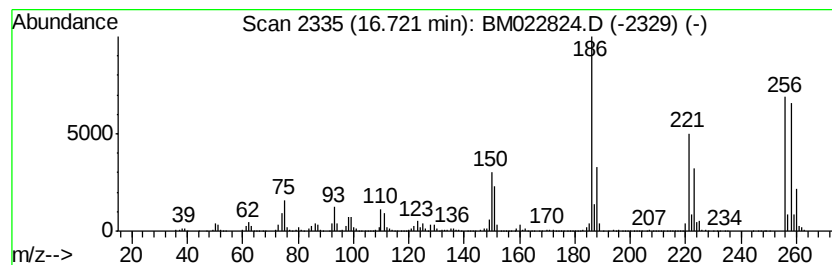
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 4 1,1'-Biphenyl, 2,2',5-trich... Concentration Rank 17

| R.T.  | EstConc    | Area    | Relative to ISTD | R.T.  |
|-------|------------|---------|------------------|-------|
| 16.72 | 7.39 ng/ul | 2809990 | Phenanthrene-d10 | 17.19 |

| Hit# | of | Tentative ID                     | MW  | MolForm  | CAS#        | Qual |
|------|----|----------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 2,2',5-trichloro- | 256 | C12H7Cl3 | 037680-65-2 | 99   |
| 2    |    | 1,1'-Biphenyl, 2,2',5-trichloro- | 256 | C12H7Cl3 | 037680-65-2 | 99   |
| 3    |    | 1,1'-Biphenyl, 2,4',5-trichloro- | 256 | C12H7Cl3 | 016606-02-3 | 98   |
| 4    |    | 1,1'-Biphenyl, 2,4',5-trichloro- | 256 | C12H7Cl3 | 016606-02-3 | 95   |
| 5    |    | 1,1'-Biphenyl, 2,4,4'-trichloro- | 256 | C12H7Cl3 | 007012-37-5 | 95   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

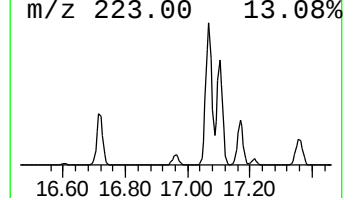
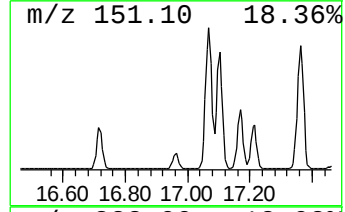
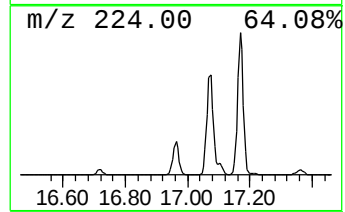
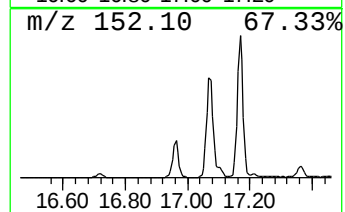
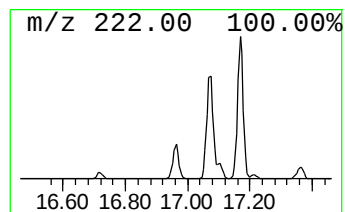
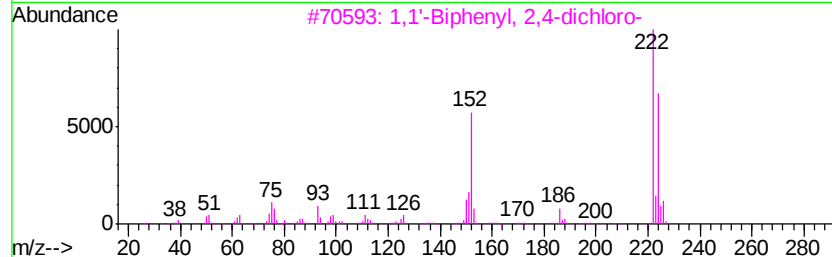
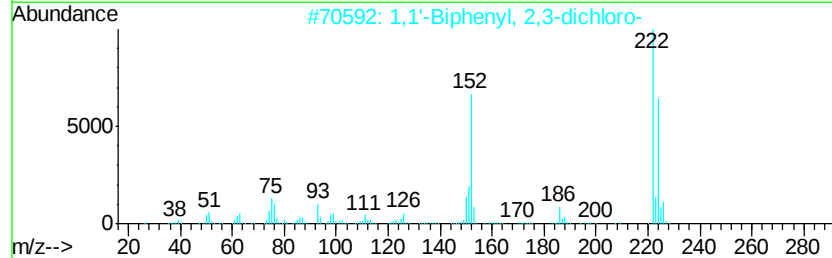
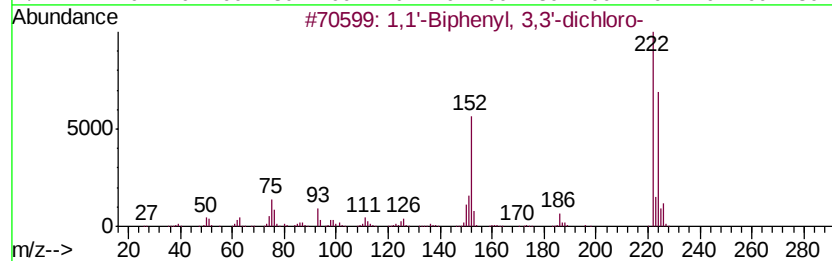
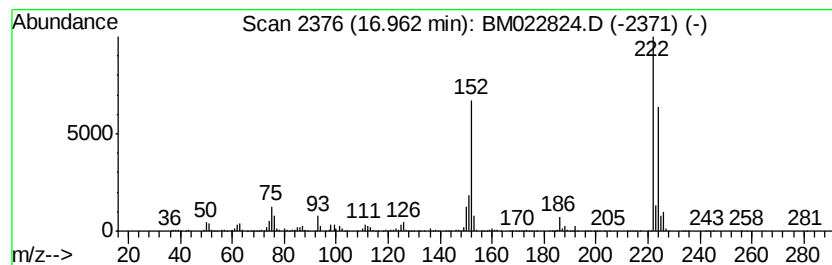
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 5 1,1'-Biphenyl, 4,4'-dichloro- Concentration Rank 33

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 16.96 | 2.26 ng/ul | 859505 | Phenanthrene-d10 | 17.19 |

| Hit# | of | Tentative ID                  | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 3,3'-dichloro- | 222 | C12H8Cl2 | 002050-67-1 | 99   |
| 2    |    | 1,1'-Biphenyl, 2,3-dichloro-  | 222 | C12H8Cl2 | 016605-91-7 | 99   |
| 3    |    | 1,1'-Biphenyl, 2,4-dichloro-  | 222 | C12H8Cl2 | 033284-50-3 | 98   |
| 4    |    | 1,1'-Biphenyl, 4,4'-dichloro- | 222 | C12H8Cl2 | 002050-68-2 | 97   |
| 5    |    | 1,1'-Biphenyl, 2,4'-dichloro- | 222 | C12H8Cl2 | 034883-43-7 | 95   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

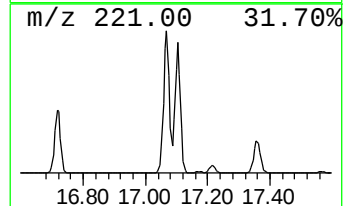
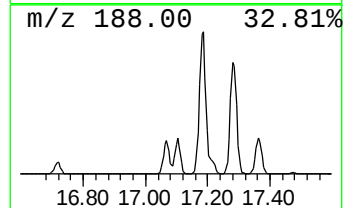
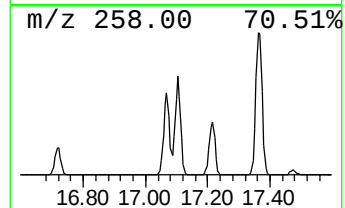
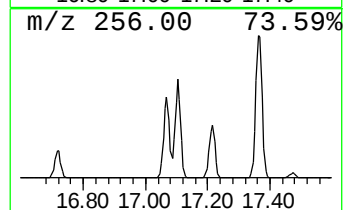
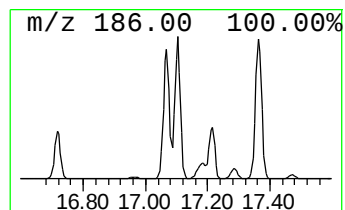
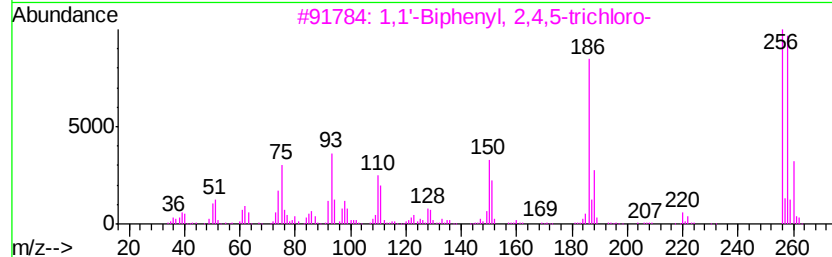
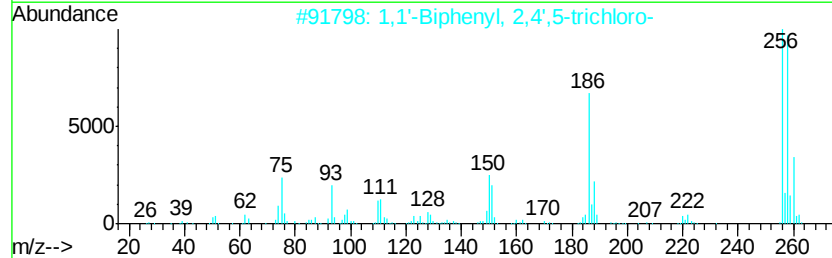
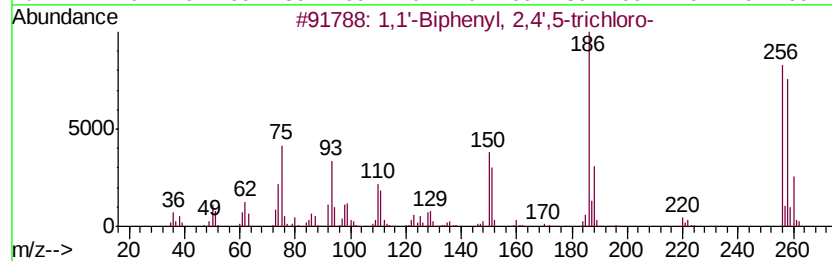
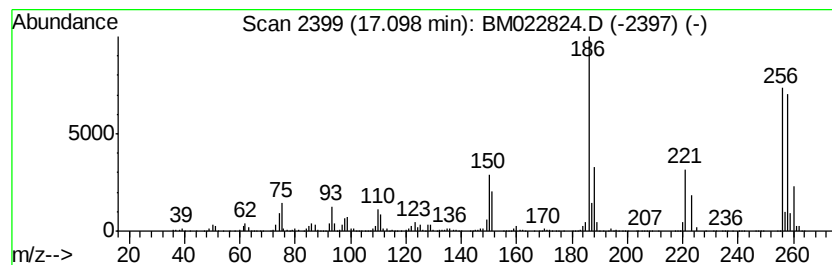
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 7 1,1'-Biphenyl, 2,4',5-trich... Concentration Rank 10

| R.T.  | EstConc     | Area    | Relative to ISTD | R.T.  |
|-------|-------------|---------|------------------|-------|
| 17.10 | 19.70 ng/ul | 7490760 | Phenanthrene-d10 | 17.19 |

| Hit# | of | Tentative ID                     | MW  | MolForm  | CAS#        | Qual |
|------|----|----------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 2,4',5-trichloro- | 256 | C12H7Cl3 | 016606-02-3 | 99   |
| 2    |    | 1,1'-Biphenyl, 2,4',5-trichloro- | 256 | C12H7Cl3 | 016606-02-3 | 97   |
| 3    |    | 1,1'-Biphenyl, 2,4,5-trichloro-  | 256 | C12H7Cl3 | 015862-07-4 | 96   |
| 4    |    | 1,1'-Biphenyl, 2,4,4'-trichloro- | 256 | C12H7Cl3 | 007012-37-5 | 96   |
| 5    |    | 1,1'-Biphenyl, 2',3,4-trichloro- | 256 | C12H7Cl3 | 038444-86-9 | 96   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

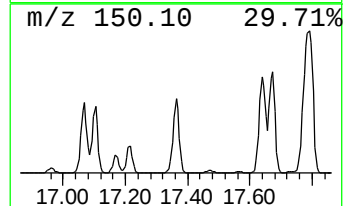
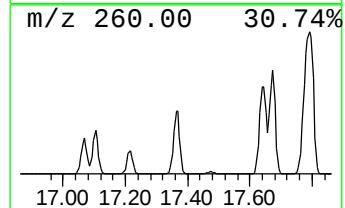
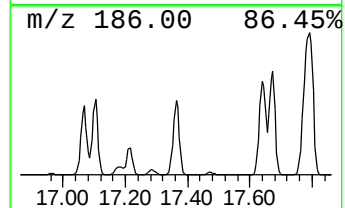
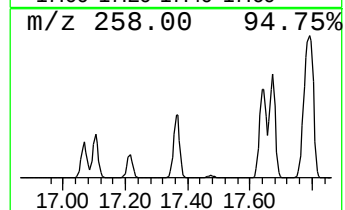
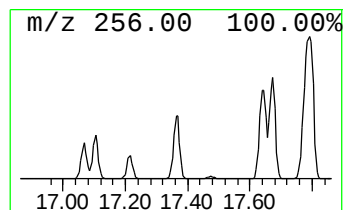
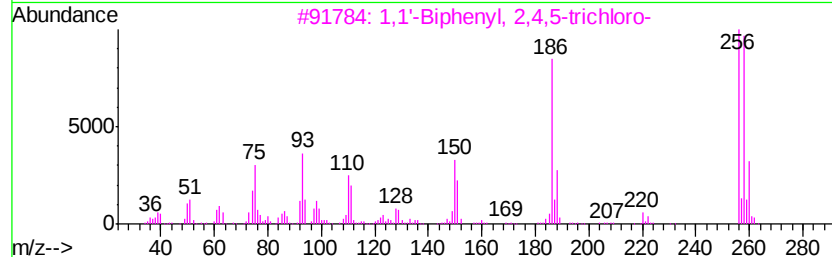
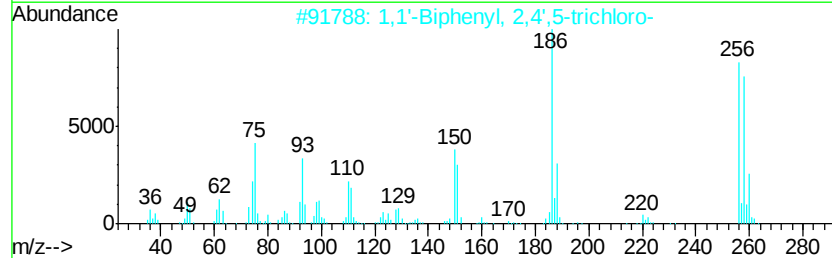
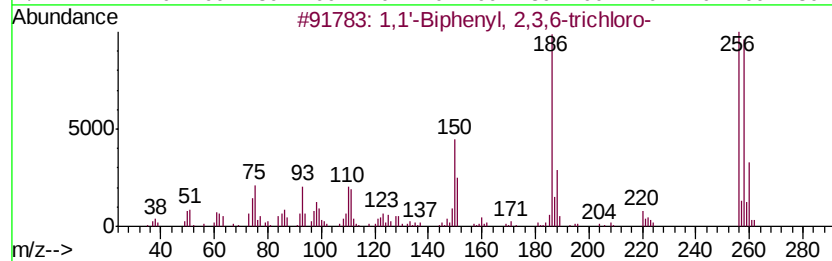
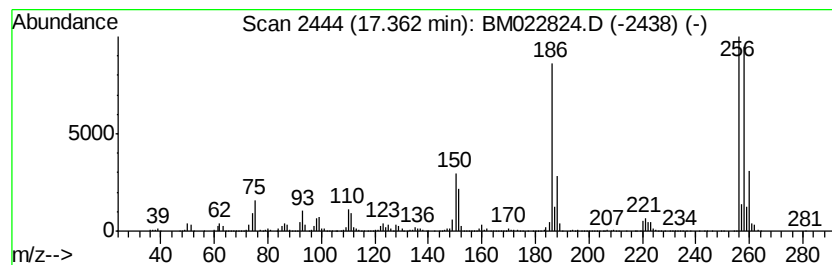
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 8 1,1'-Biphenyl, 2,3,6-trichl... Concentration Rank 8

| R.T.  | EstConc     | Area    | Relative to ISTD | R.T.  |
|-------|-------------|---------|------------------|-------|
| 17.36 | 24.69 ng/ul | 9387990 | Phenanthrene-d10 | 17.19 |

| Hit# | of | Tentative ID                     | MW  | MolForm  | CAS#        | Qual |
|------|----|----------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 2,3,6-trichloro-  | 256 | C12H7Cl3 | 055702-45-9 | 99   |
| 2    |    | 1,1'-Biphenyl, 2,4',5-trichloro- | 256 | C12H7Cl3 | 016606-02-3 | 99   |
| 3    |    | 1,1'-Biphenyl, 2,4,5-trichloro-  | 256 | C12H7Cl3 | 015862-07-4 | 98   |
| 4    |    | 1,1'-Biphenyl, 2,4,6-trichloro-  | 256 | C12H7Cl3 | 035693-92-6 | 98   |
| 5    |    | 1,1'-Biphenyl, 2,4,4'-trichloro- | 256 | C12H7Cl3 | 007012-37-5 | 98   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

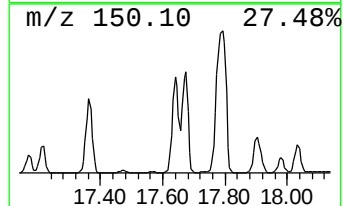
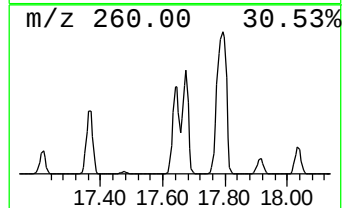
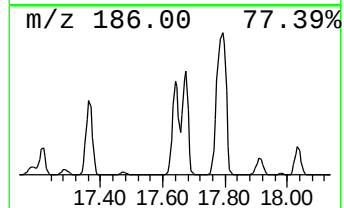
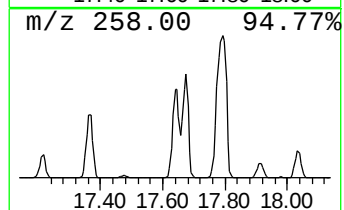
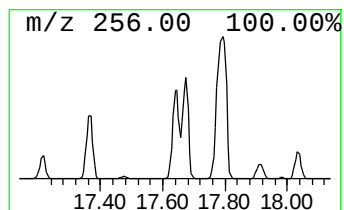
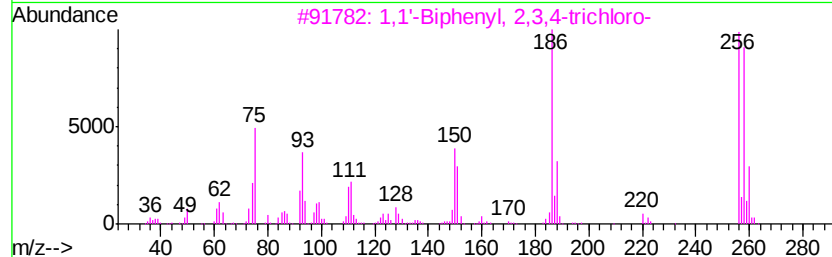
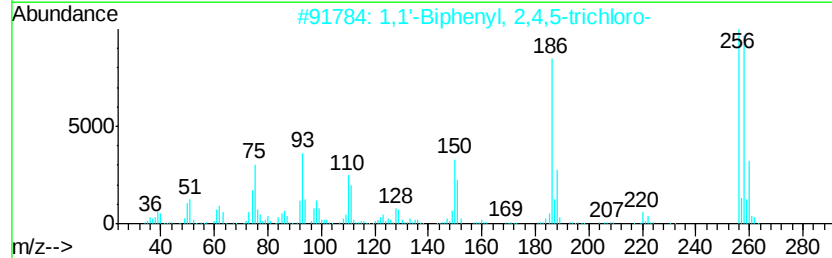
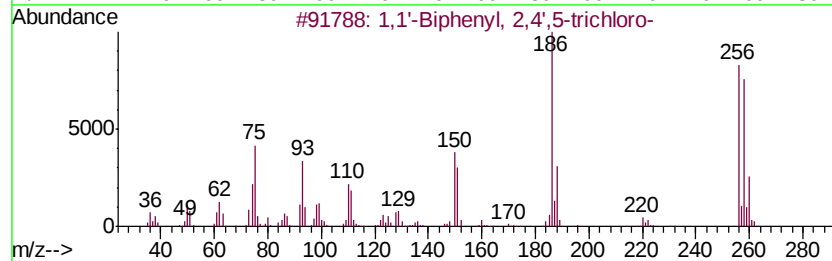
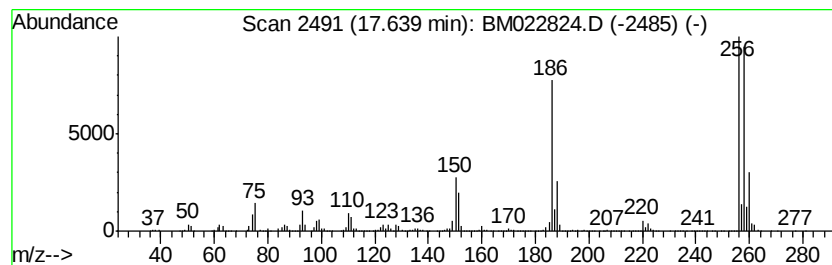
Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

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

\*\*\*\*\*  
Peak Number 9 1,1'-Biphenyl, 2,3,4-trichl... Concentration Rank 2

| R.T.    | EstConc        | Area              | Relative to ISTD | R.T.     |             |      |
|---------|----------------|-------------------|------------------|----------|-------------|------|
| 17.64   | 34.84 ng/ul    | 13249900          | Phenanthrene-d10 | 17.19    |             |      |
| Hit# of | 5              | Tentative ID      | MW               | MolForm  | CAS#        | Qual |
| 1       | 1,1'-Biphenyl, | 2,4',5-trichloro- | 256              | C12H7Cl3 | 016606-02-3 | 99   |
| 2       | 1,1'-Biphenyl, | 2,4,5-trichloro-  | 256              | C12H7Cl3 | 015862-07-4 | 99   |
| 3       | 1,1'-Biphenyl, | 2,3,4-trichloro-  | 256              | C12H7Cl3 | 055702-46-0 | 98   |
| 4       | 1,1'-Biphenyl, | 2,3,4'-Trichloro- | 256              | C12H7Cl3 | 038444-85-8 | 98   |
| 5       | 1,1'-Biphenyl, | 2,3,6-trichloro-  | 256              | C12H7Cl3 | 055702-45-9 | 98   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

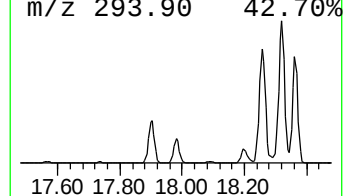
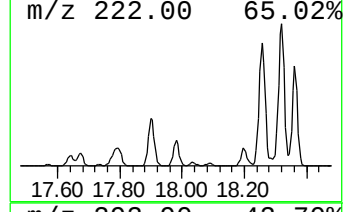
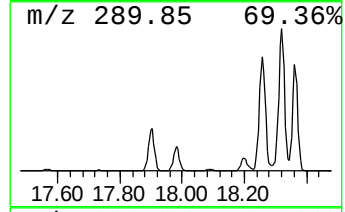
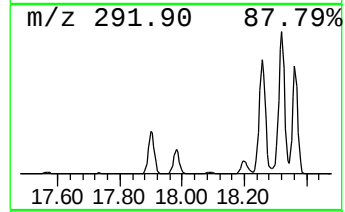
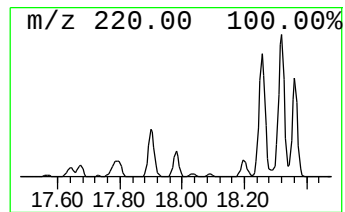
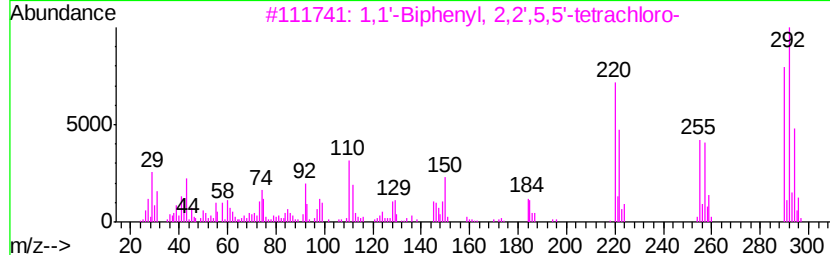
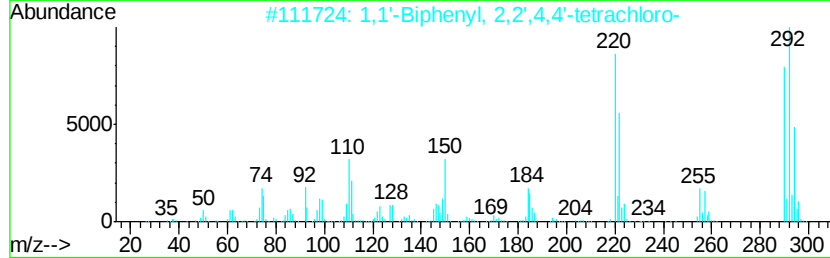
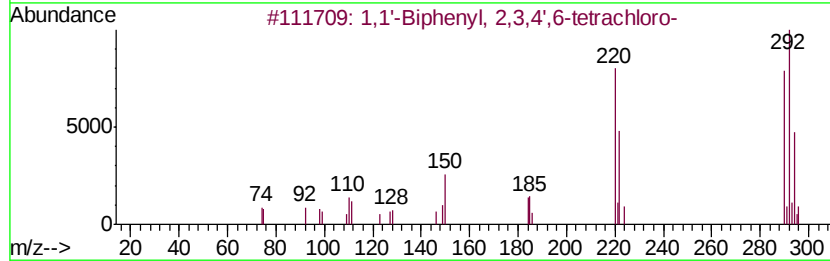
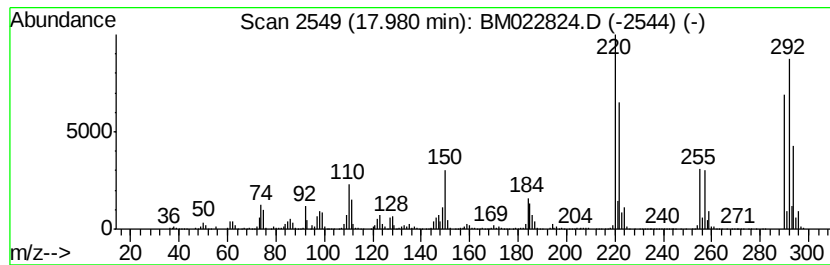
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 13 1,1'-Biphenyl, 2,3,4',6-tet... Concentration Rank 19

| R.T.  | EstConc    | Area    | Relative to ISTD | R.T.  |
|-------|------------|---------|------------------|-------|
| 17.98 | 6.14 ng/ul | 2334890 | Phenanthrene-d10 | 17.19 |

| Hit# | of                                  | 5   | Tentative ID | MW          | MolForm | CAS# | Qual |
|------|-------------------------------------|-----|--------------|-------------|---------|------|------|
| 1    | 1,1'-Biphenyl, 2,3,4',6-tetrachl... | 290 | C12H6Cl4     | 052663-58-8 | 99      |      |      |
| 2    | 1,1'-Biphenyl, 2,2',4,4'-tetrach... | 290 | C12H6Cl4     | 002437-79-8 | 99      |      |      |
| 3    | 1,1'-Biphenyl, 2,2',5,5'-tetrach... | 290 | C12H6Cl4     | 035693-99-3 | 99      |      |      |
| 4    | 1,1'-Biphenyl, 2,2',5,5'-tetrach... | 290 | C12H6Cl4     | 035693-99-3 | 99      |      |      |
| 5    | 1,1'-Biphenyl, 2,3,3',5'-tetrach... | 290 | C12H6Cl4     | 041464-49-7 | 99      |      |      |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

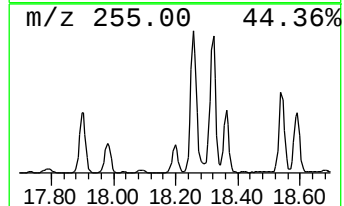
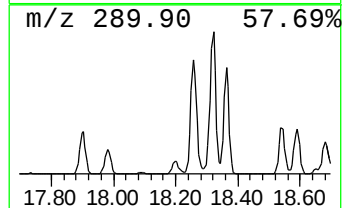
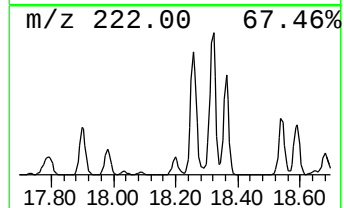
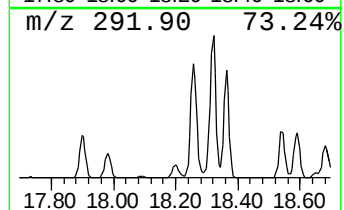
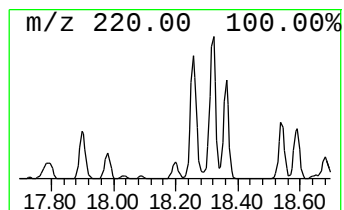
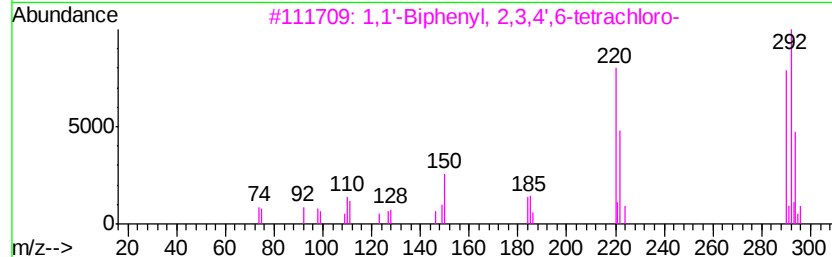
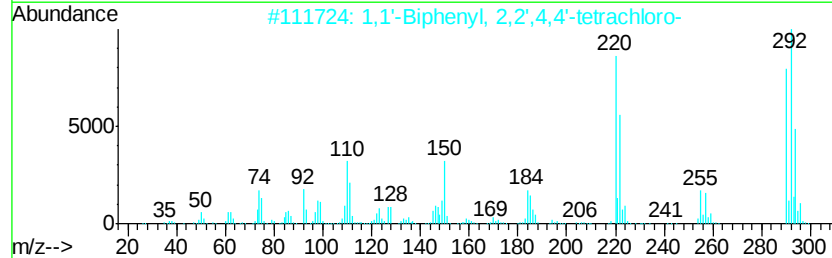
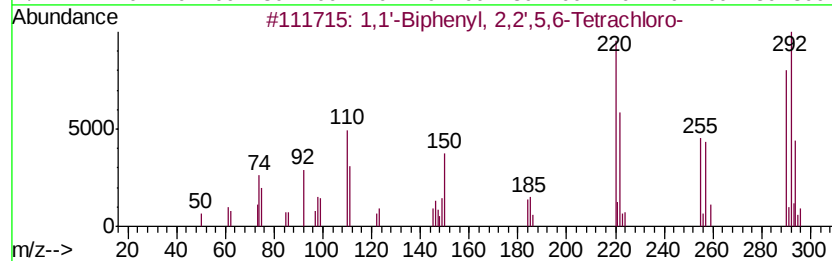
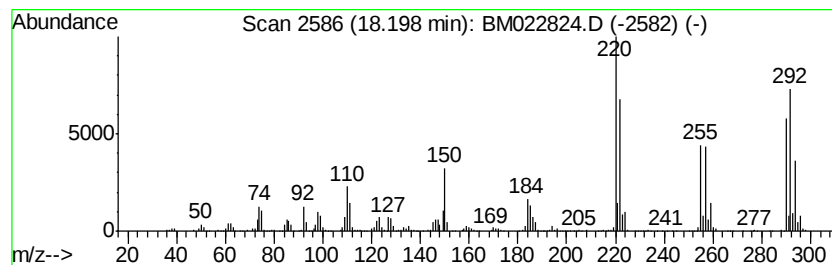
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 15 1,1'-Biphenyl, 2,2',5,6-Tet... Concentration Rank 25

| R.T.  | EstConc    | Area    | Relative to ISTD | R.T.  |
|-------|------------|---------|------------------|-------|
| 18.20 | 4.24 ng/ul | 1613760 | Phenanthrene-d10 | 17.19 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|----------|-------------|------|
| 1    |    |   | 1,1'-Biphenyl, 2,2',5,6-Tetrachl... | 290 | C12H6Cl4 | 041464-41-9 | 99   |
| 2    |    |   | 1,1'-Biphenyl, 2,2',4,4'-tetrach... | 290 | C12H6Cl4 | 002437-79-8 | 99   |
| 3    |    |   | 1,1'-Biphenyl, 2,3,4',6-tetrachl... | 290 | C12H6Cl4 | 052663-58-8 | 99   |
| 4    |    |   | 1,1'-Biphenyl, 2,2',5,5'-tetrach... | 290 | C12H6Cl4 | 035693-99-3 | 99   |
| 5    |    |   | 1,1'-Biphenyl, 2,3,3',5'-tetrach... | 290 | C12H6Cl4 | 041464-49-7 | 99   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

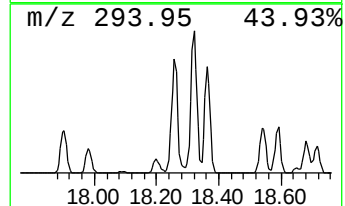
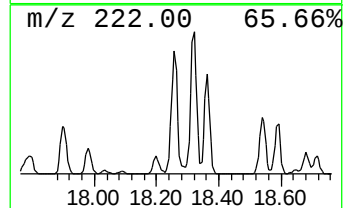
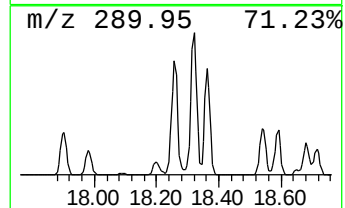
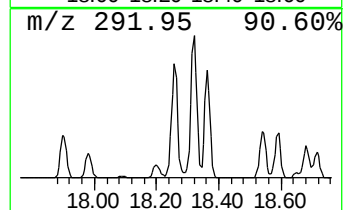
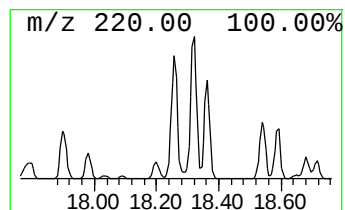
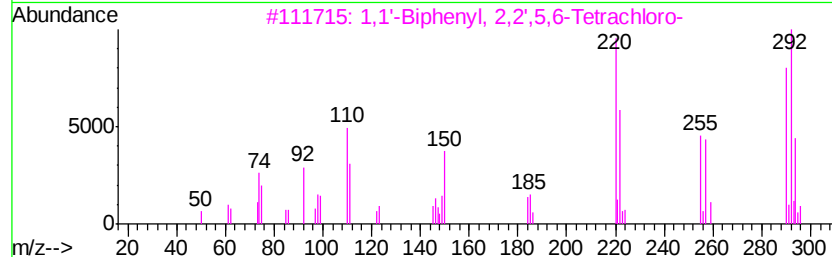
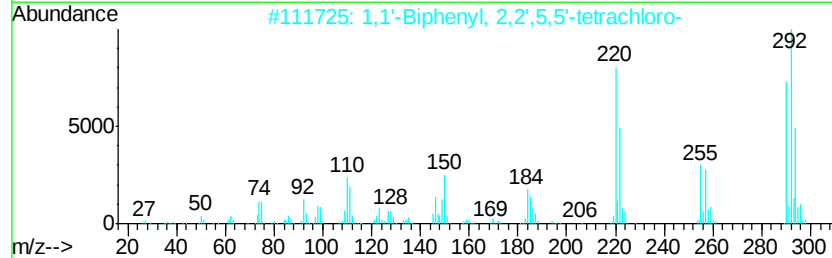
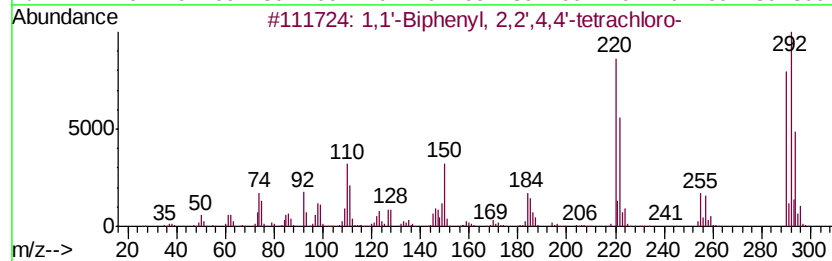
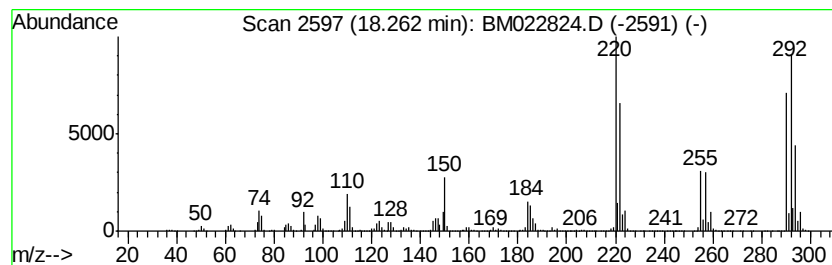
Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

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

\*\*\*\*\*  
Peak Number 16 1,1'-Biphenyl, 2,2',4,4'-te... Concentration Rank 5

| R.T.      | EstConc                             | Area     | Relative to ISTD | R.T.        |      |
|-----------|-------------------------------------|----------|------------------|-------------|------|
| 18.26     | 30.03 ng/ul                         | 11418100 | Phenanthrene-d10 | 17.19       |      |
| Hit# of 5 | Tentative ID                        | MW       | MolForm          | CAS#        | Qual |
| 1         | 1,1'-Biphenyl, 2,2',4,4'-tetrach... | 290      | C12H6Cl4         | 002437-79-8 | 99   |
| 2         | 1,1'-Biphenyl, 2,2',5,5'-tetrach... | 290      | C12H6Cl4         | 035693-99-3 | 99   |
| 3         | 1,1'-Biphenyl, 2,2',5,6-Tetrachl... | 290      | C12H6Cl4         | 041464-41-9 | 99   |
| 4         | 1,1'-Biphenyl, 2,3,4',6-tetrachl... | 290      | C12H6Cl4         | 052663-58-8 | 99   |
| 5         | 1,1'-Biphenyl, 2,2',4,5'-tetrach... | 290      | C12H6Cl4         | 041464-40-8 | 99   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

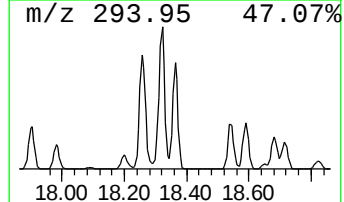
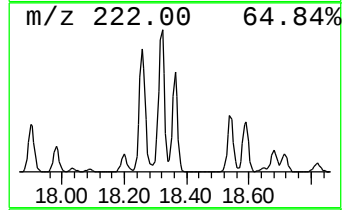
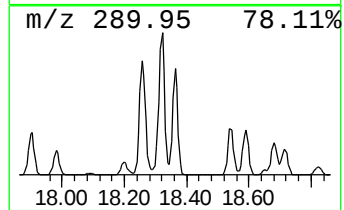
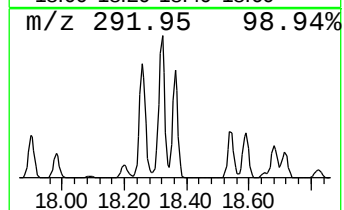
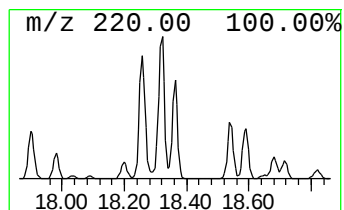
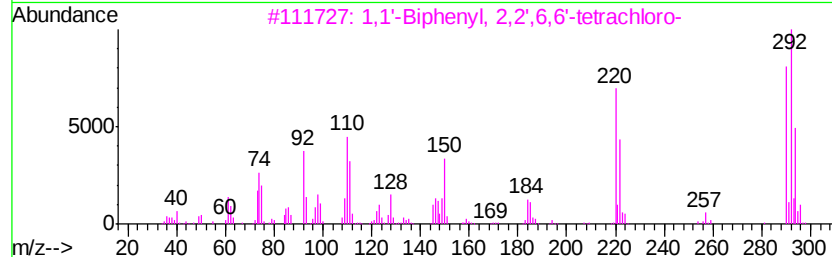
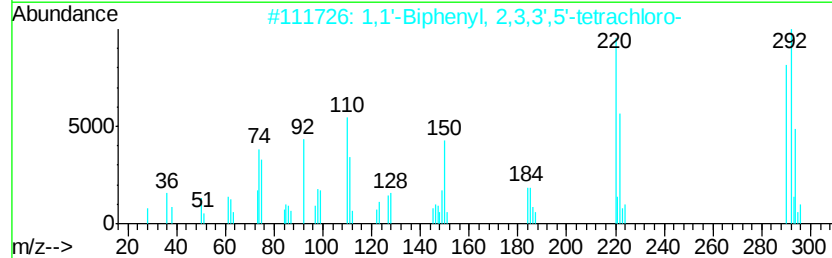
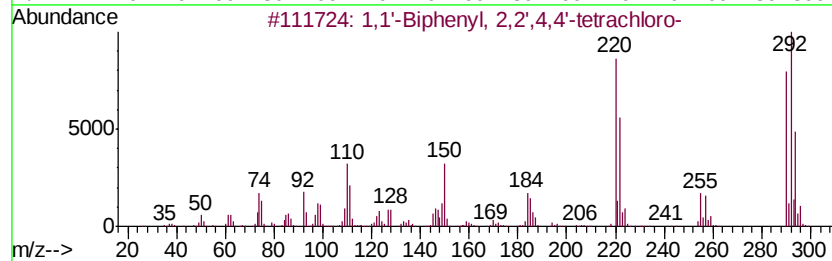
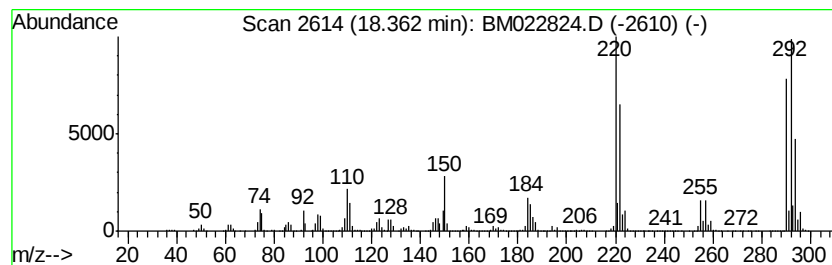
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 18 1,1'-Biphenyl, 2,2',6,6'-te... Concentration Rank 9

| R.T.  | EstConc     | Area    | Relative to ISTD | R.T.  |
|-------|-------------|---------|------------------|-------|
| 18.36 | 21.22 ng/ul | 8068340 | Phenanthrene-d10 | 17.19 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 2,2',4,4'-tetrach... | 290 | C12H6Cl4 | 002437-79-8 | 99   |
| 2    |    | 1,1'-Biphenyl, 2,3,3',5'-tetrach... | 290 | C12H6Cl4 | 041464-49-7 | 99   |
| 3    |    | 1,1'-Biphenyl, 2,2',6,6'-tetrach... | 290 | C12H6Cl4 | 015968-05-5 | 99   |
| 4    |    | 1,1'-Biphenyl, 2,3',5,5'-tetrach... | 290 | C12H6Cl4 | 041464-42-0 | 99   |
| 5    |    | 1,1'-Biphenyl, 2,3,4',6-tetrachl... | 290 | C12H6Cl4 | 052663-58-8 | 99   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

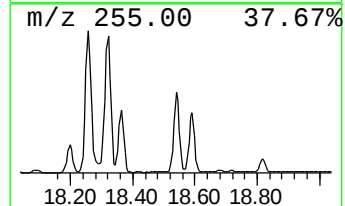
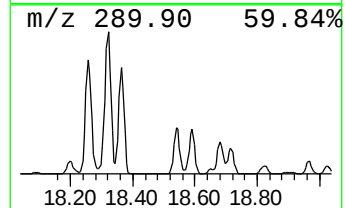
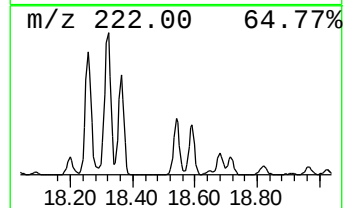
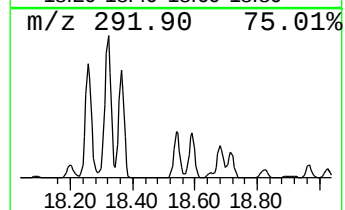
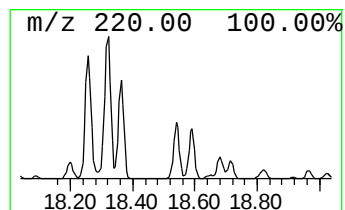
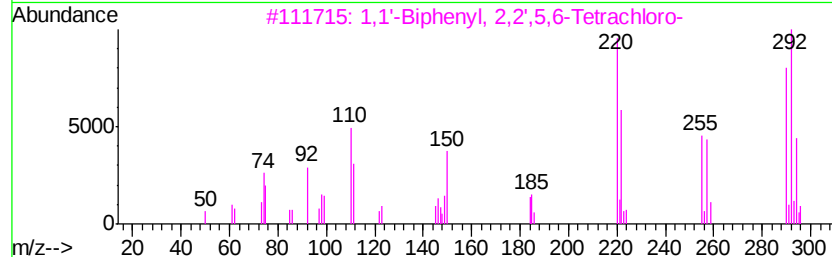
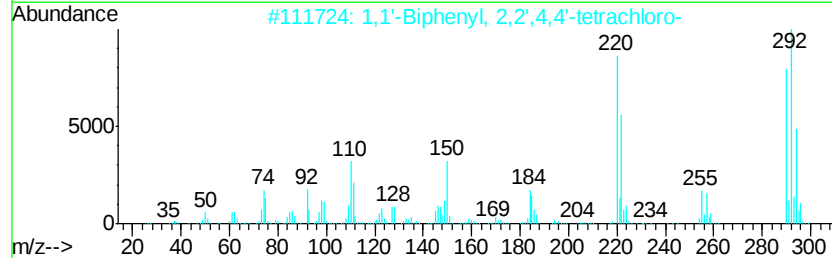
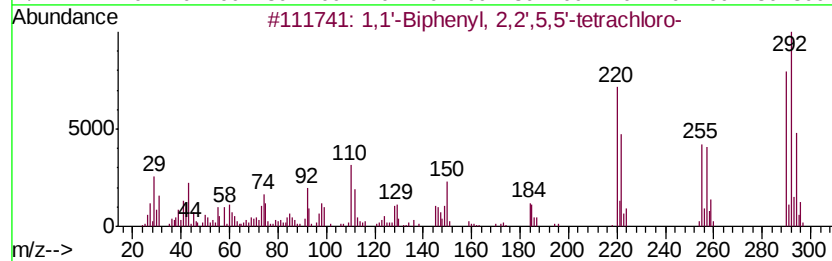
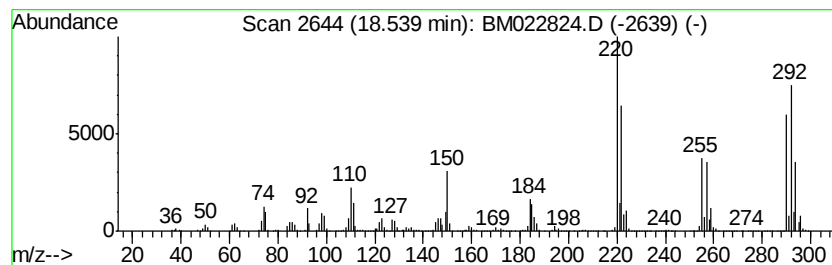
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 19 1,1'-Biphenyl, 2,2',5,5'-te... Concentration Rank 12

| R.T.  | EstConc     | Area    | Relative to ISTD | R.T.  |
|-------|-------------|---------|------------------|-------|
| 18.54 | 12.47 ng/ul | 4740290 | Phenanthrene-d10 | 17.19 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 2,2',5,5'-tetrach... | 290 | C12H6Cl4 | 035693-99-3 | 99   |
| 2    |    | 1,1'-Biphenyl, 2,2',4,4'-tetrach... | 290 | C12H6Cl4 | 002437-79-8 | 99   |
| 3    |    | 1,1'-Biphenyl, 2,2',5,6-Tetrachl... | 290 | C12H6Cl4 | 041464-41-9 | 99   |
| 4    |    | 1,1'-Biphenyl, 2,2',4,6-Tetrachl... | 290 | C12H6Cl4 | 062796-65-0 | 99   |
| 5    |    | 1,1'-Biphenyl, 2,2',3,4'-tetrach... | 290 | C12H6Cl4 | 036559-22-5 | 99   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

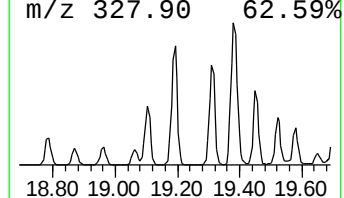
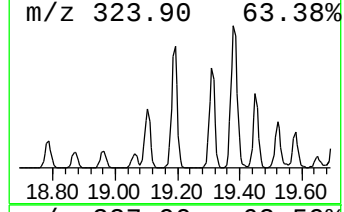
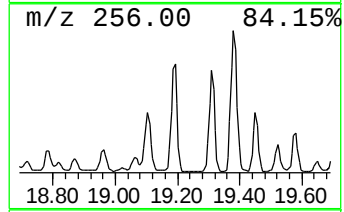
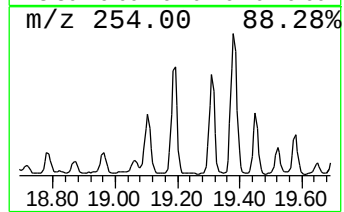
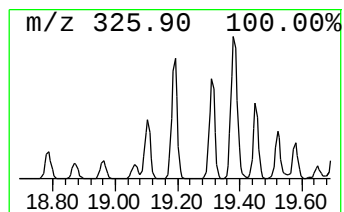
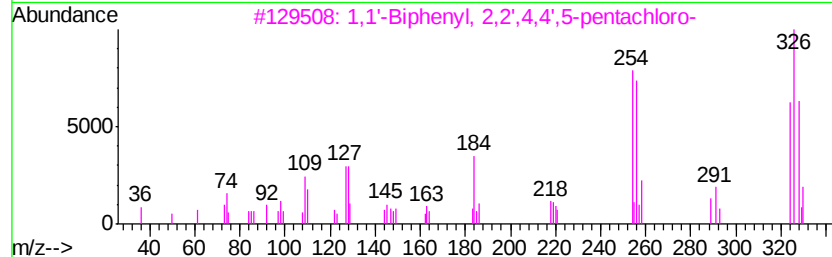
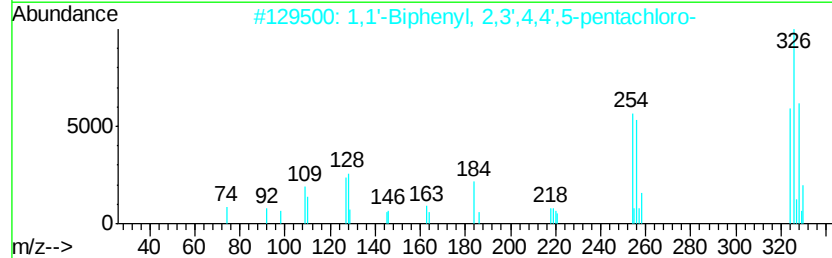
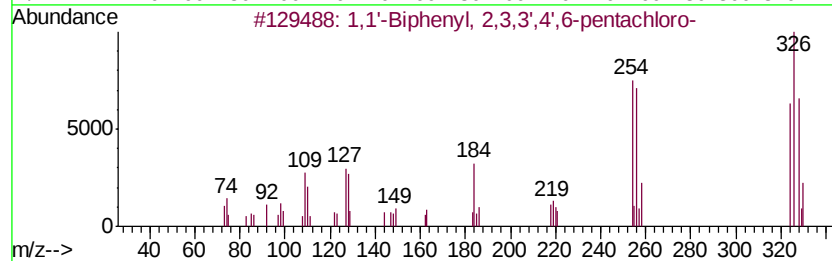
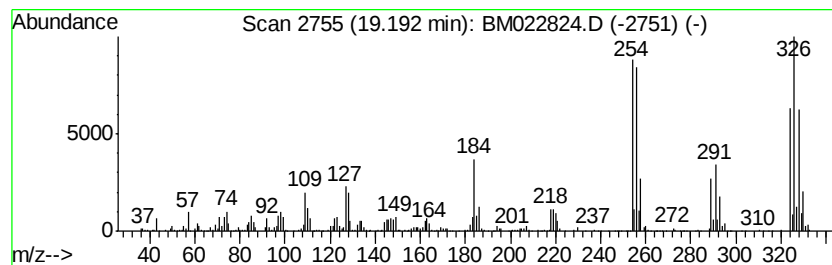
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 27 1,1'-Biphenyl, 2,3,3',4',6-... Concentration Rank 28

| R.T.  | EstConc    | Area    | Relative to ISTD | R.T.  |
|-------|------------|---------|------------------|-------|
| 19.19 | 3.50 ng/ul | 1331820 | Phenanthrene-d10 | 17.19 |

| Hit# | of                                  | 5   | Tentative ID | MW          | MolForm | CAS# | Qual |
|------|-------------------------------------|-----|--------------|-------------|---------|------|------|
| 1    | 1,1'-Biphenyl, 2,3,3',4',6-penta... | 324 | C12H5Cl5     | 038380-03-9 | 99      |      |      |
| 2    | 1,1'-Biphenyl, 2,3',4,4',5-penta... | 324 | C12H5Cl5     | 031508-00-6 | 99      |      |      |
| 3    | 1,1'-Biphenyl, 2,2',4,4',5-penta... | 324 | C12H5Cl5     | 038380-01-7 | 99      |      |      |
| 4    | 1,1'-Biphenyl, 2,3,3',4,4'-penta... | 324 | C12H5Cl5     | 032598-14-4 | 99      |      |      |
| 5    | 1,1'-Biphenyl, 2,2',3',4,5-Penta... | 324 | C12H5Cl5     | 041464-51-1 | 99      |      |      |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

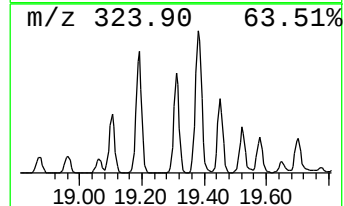
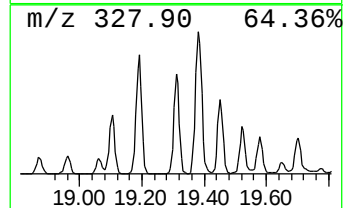
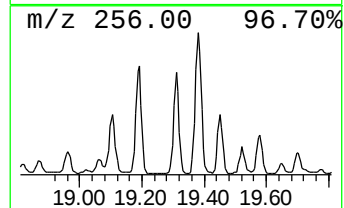
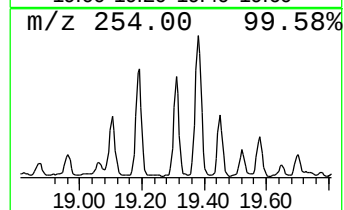
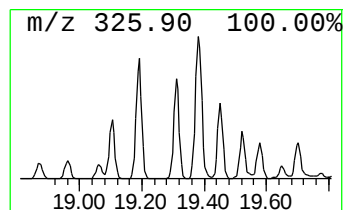
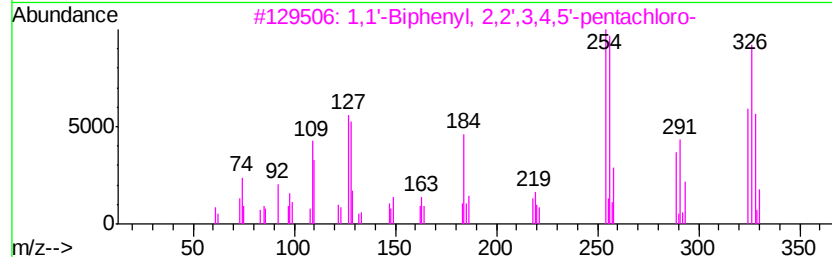
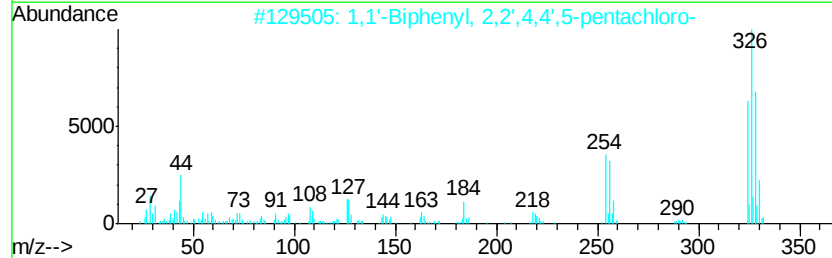
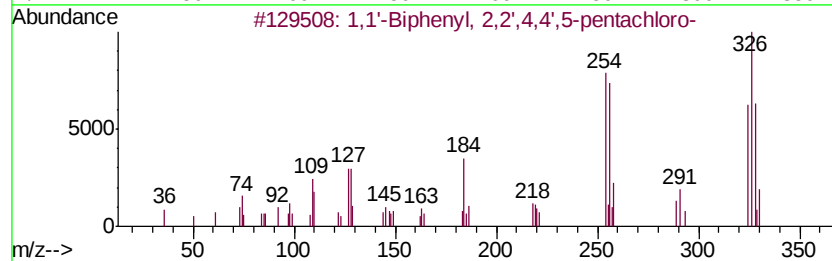
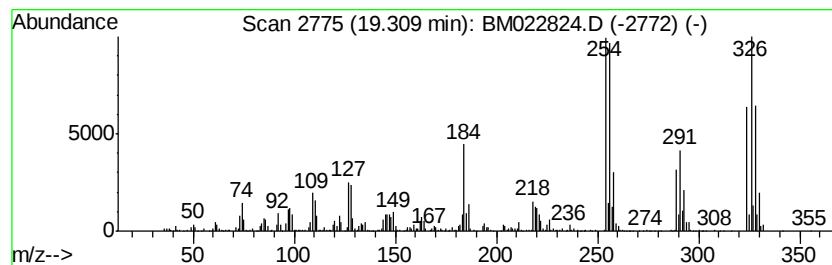
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 28 1,1'-Biphenyl, 2,2',4,4',5-... Concentration Rank 22

| R.T.  | EstConc    | Area    | Relative to ISTD | R.T.  |
|-------|------------|---------|------------------|-------|
| 19.31 | 5.56 ng/ul | 1144480 | Chrysene-d12     | 21.37 |

| Hit# | of                                  | 5   | Tentative ID | MW          | MolForm | CAS# | Qual |
|------|-------------------------------------|-----|--------------|-------------|---------|------|------|
| 1    | 1,1'-Biphenyl, 2,2',4,4',5-penta... | 324 | C12H5Cl5     | 038380-01-7 | 99      |      |      |
| 2    | 1,1'-Biphenyl, 2,2',4,4',5-penta... | 324 | C12H5Cl5     | 038380-01-7 | 99      |      |      |
| 3    | 1,1'-Biphenyl, 2,2',3,4,5'-penta... | 324 | C12H5Cl5     | 038380-02-8 | 99      |      |      |
| 4    | 1,1'-Biphenyl, 2,2',3,5,5'-penta... | 324 | C12H5Cl5     | 052663-61-3 | 99      |      |      |
| 5    | 1,1'-Biphenyl, 2,2',3,5',6-penta... | 324 | C12H5Cl5     | 038379-99-6 | 99      |      |      |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

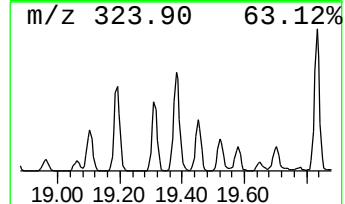
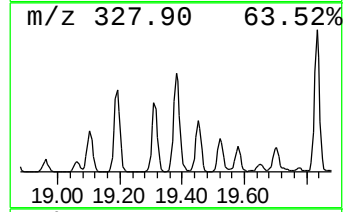
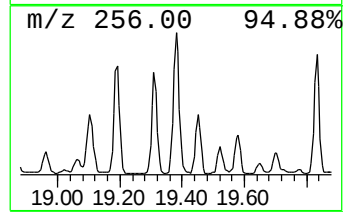
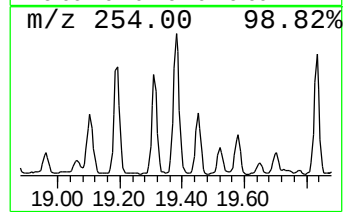
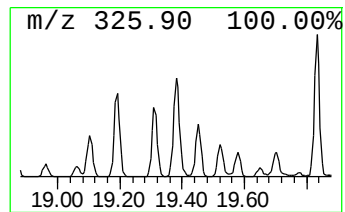
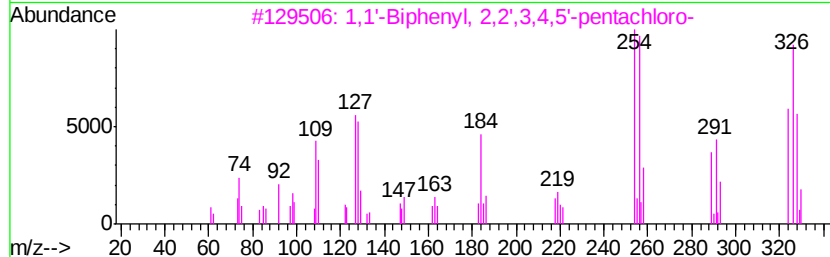
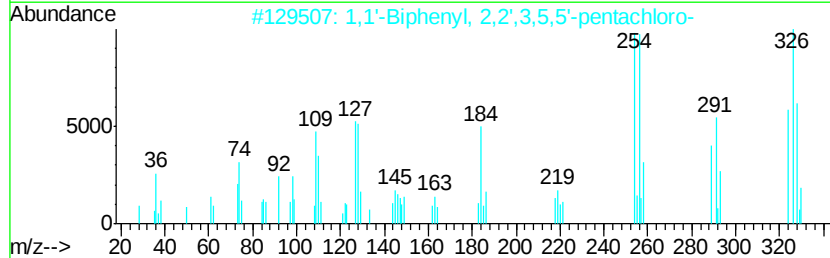
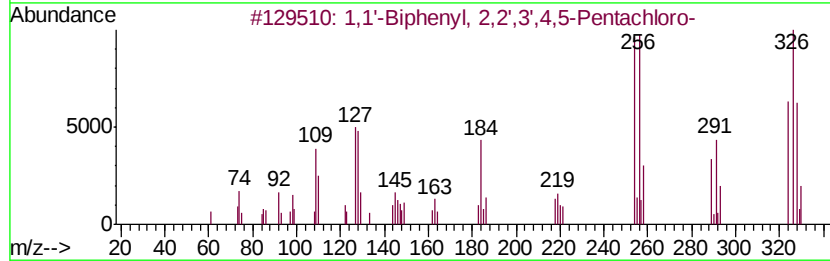
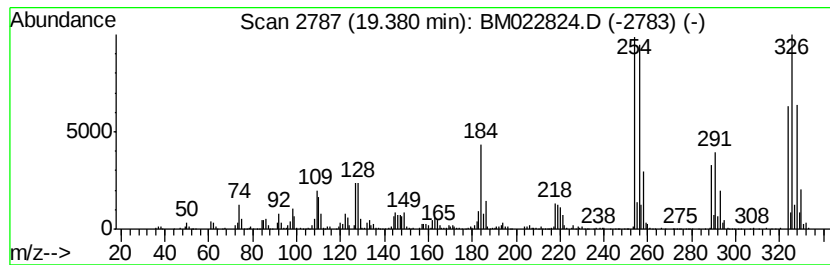
Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

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

\*\*\*\*\*  
Peak Number 29 1,1'-Biphenyl, 2,2',3',4,5-... Concentration Rank 16

| R.T.    | EstConc        | Area                 | Relative to ISTD | R.T.     |             |      |
|---------|----------------|----------------------|------------------|----------|-------------|------|
| 19.38   | 7.84 ng/ul     | 1614990              | Chrysene-d12     | 21.37    |             |      |
| Hit# of | 5              | Tentative ID         | MW               | MolForm  | CAS#        | Qual |
| 1       | 1,1'-Biphenyl, | 2,2',3',4,5-Penta... | 324              | C12H5Cl5 | 041464-51-1 | 99   |
| 2       | 1,1'-Biphenyl, | 2,2',3,5,5'-penta... | 324              | C12H5Cl5 | 052663-61-3 | 99   |
| 3       | 1,1'-Biphenyl, | 2,2',3,4,5'-penta... | 324              | C12H5Cl5 | 038380-02-8 | 99   |
| 4       | 1,1'-Biphenyl, | 2,2',3,5',6-penta... | 324              | C12H5Cl5 | 038379-99-6 | 99   |
| 5       | 1,1'-Biphenyl, | 2,2',3,5,5'-penta... | 324              | C12H5Cl5 | 052663-61-3 | 99   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

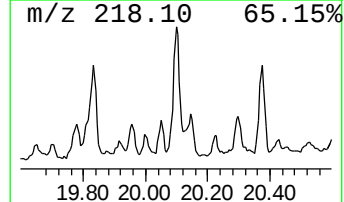
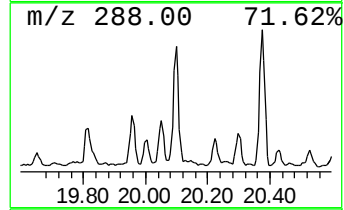
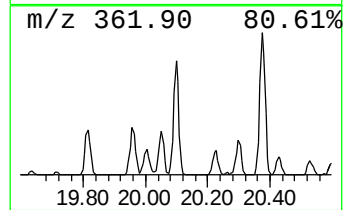
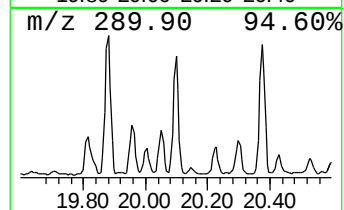
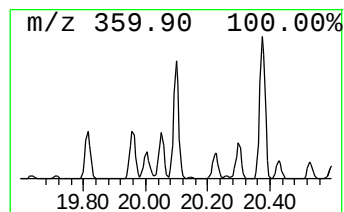
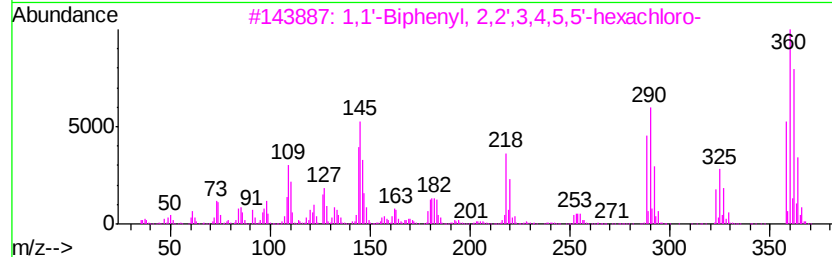
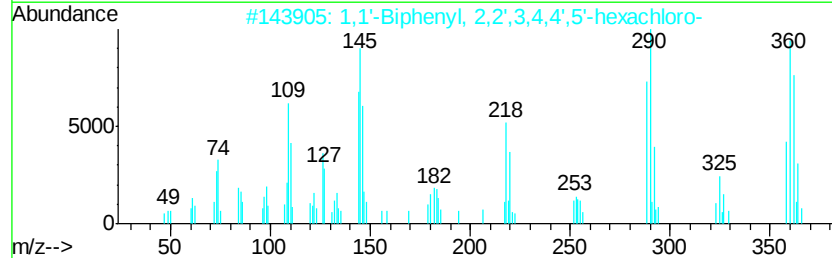
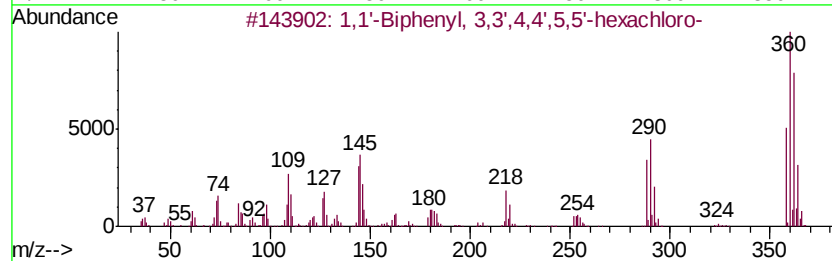
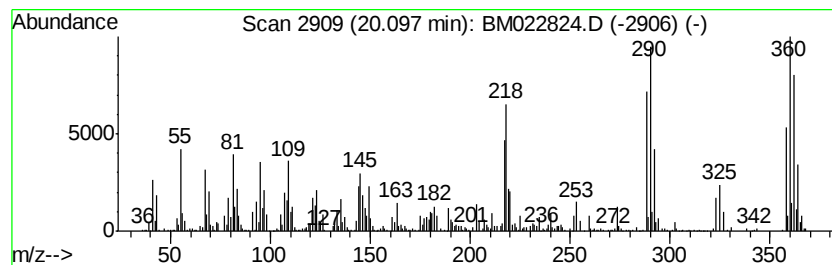
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 32 1,1'-Biphenyl, 3,3',4,4',5,... Concentration Rank 27

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 20.10 | 3.77 ng/ul | 777053 | Chrysene-d12     | 21.37 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 3,3',4,4',5,5'-he... | 358 | C12H4Cl6 | 032774-16-6 | 95   |
| 2    |    | 1,1'-Biphenyl, 2,2',3,4,4',5'-he... | 358 | C12H4Cl6 | 035065-28-2 | 95   |
| 3    |    | 1,1'-Biphenyl, 2,2',3,4,5,5'-hex... | 358 | C12H4Cl6 | 052712-04-6 | 94   |
| 4    |    | 1,1'-Biphenyl, 2,3,3',4,5,6-hexa... | 358 | C12H4Cl6 | 041411-62-5 | 94   |
| 5    |    | 1,1'-Biphenyl, 2,2',3,4,5,6'-Hex... | 358 | C12H4Cl6 | 068194-15-0 | 94   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

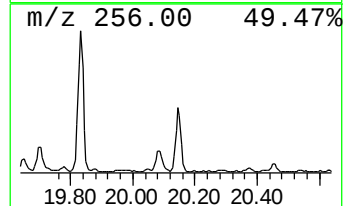
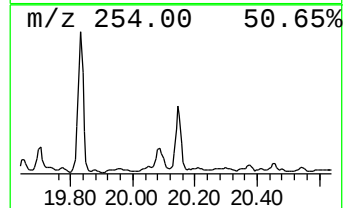
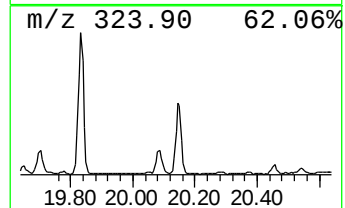
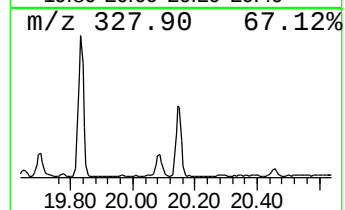
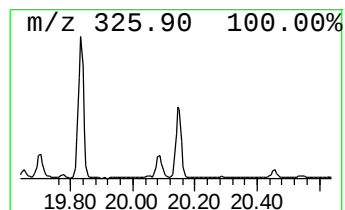
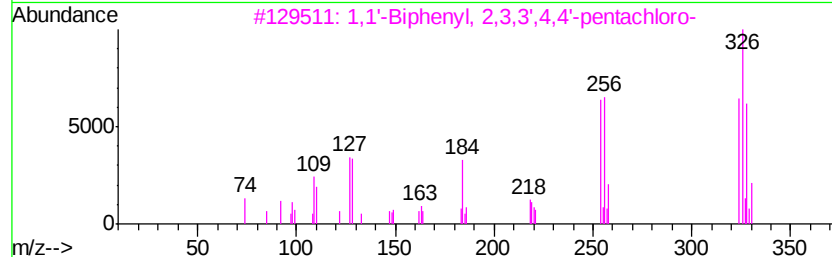
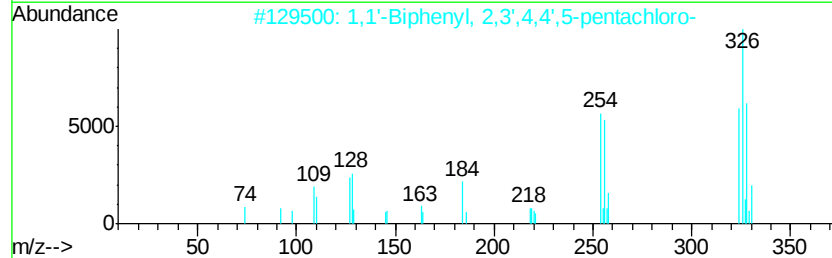
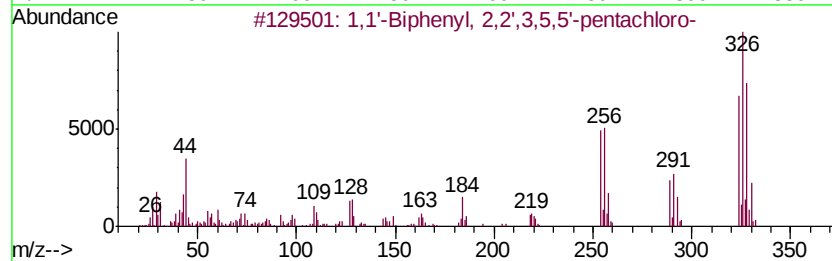
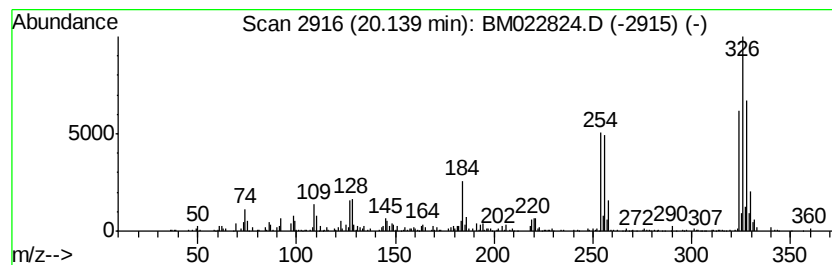
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 33 1,1'-Biphenyl, 2,2',3,5,5'-... Concentration Rank 32

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 20.14 | 2.38 ng/ul | 490770 | Chrysene-d12     | 21.37 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 2,2',3,5,5'-penta... | 324 | C12H5Cl5 | 052663-61-3 | 96   |
| 2    |    | 1,1'-Biphenyl, 2,3',4,4',5-penta... | 324 | C12H5Cl5 | 031508-00-6 | 96   |
| 3    |    | 1,1'-Biphenyl, 2,3,3',4,4'-penta... | 324 | C12H5Cl5 | 032598-14-4 | 96   |
| 4    |    | 1,1'-Biphenyl, 2,3',4,4',6-Penta... | 324 | C12H5Cl5 | 056558-17-9 | 96   |
| 5    |    | 1,1'-Biphenyl, 2,3,4,5,6-pentach... | 324 | C12H5Cl5 | 018259-05-7 | 96   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
Data File : BM022824.D  
Acq On : 30 Sep 2019 14:27  
Operator : JU  
Sample : K4958-09  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
Quant Title : SVOA CALIBRATION

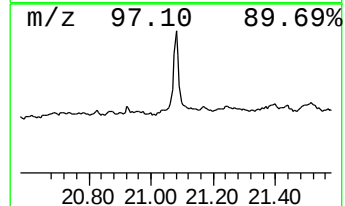
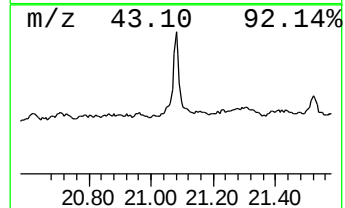
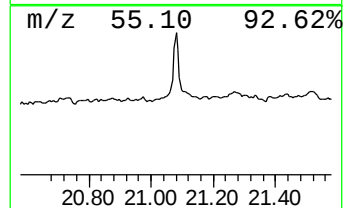
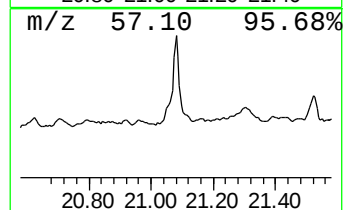
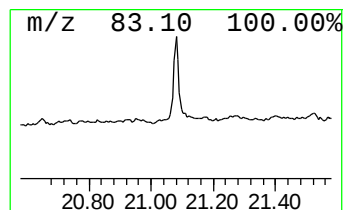
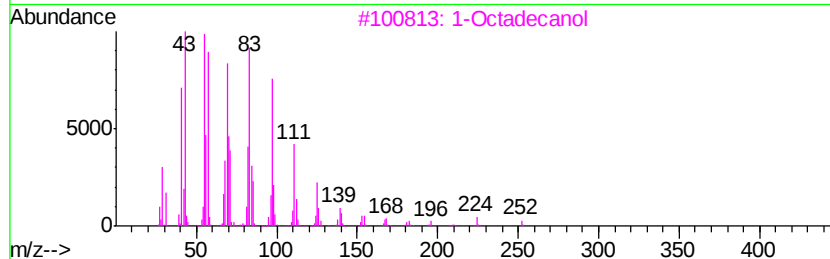
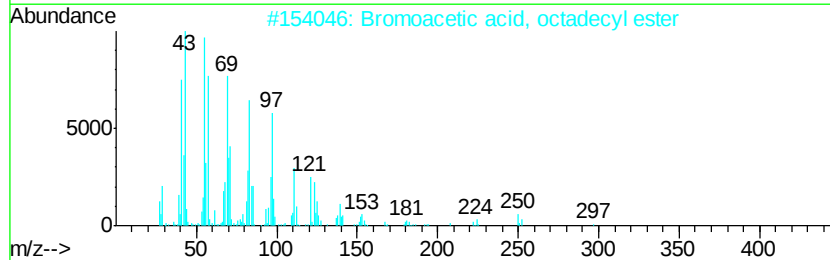
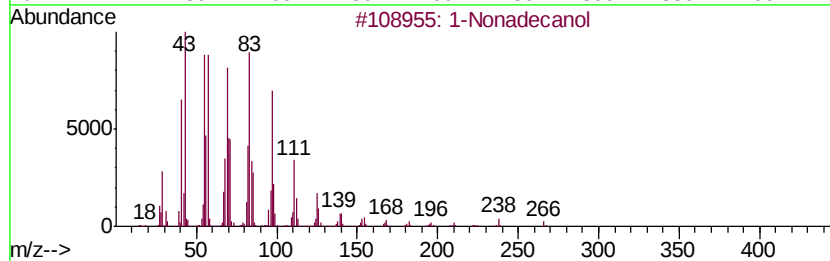
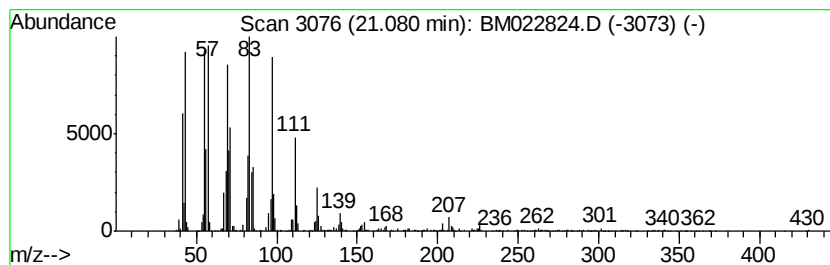
TIC Library : C:\DATABASE\NIST02.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 34 1-Nonadecanol Concentration Rank 26

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 21.08 | 4.17 ng/ul | 860006 | Chrysene-d12     | 21.37 |

| Hit# | of | 5 | Tentative ID                      | MW  | MolForm    | CAS#        | Qual |
|------|----|---|-----------------------------------|-----|------------|-------------|------|
| 1    |    |   | 1-Nonadecanol                     | 284 | C19H40O    | 001454-84-8 | 94   |
| 2    |    |   | Bromoacetic acid, octadecyl ester | 390 | C20H39BrO2 | 018992-03-5 | 91   |
| 3    |    |   | 1-Octadecanol                     | 270 | C18H38O    | 000112-92-5 | 91   |
| 4    |    |   | 9-Eicosene, (E)-                  | 280 | C20H40     | 074685-29-3 | 90   |
| 5    |    |   | 1-Heneicosyl formate              | 340 | C22H44O2   | 077899-03-7 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM093019\  
 Data File : BM022824.D  
 Acq On : 30 Sep 2019 14:27  
 Operator : JU  
 Sample : K4958-09  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 ESNZ1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM092719MA.M  
 Quant Title : SVOA CALIBRATION

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

| TIC Top Hit name          |       |      |       |          | --Internal Standard-- |       |         |      |  |
|---------------------------|-------|------|-------|----------|-----------------------|-------|---------|------|--|
| RT EstConc Units Response |       |      |       |          | #                     | RT    | Resp    | Conc |  |
| 1,1'-Biphenyl, 2,...      | 15.70 | 25.3 | ng/ul | 4691370  | 3                     | 14.44 | 3702450 | 20.0 |  |
| 1,1'-Biphenyl, 3,...      | 16.30 | 9.7  | ng/ul | 3686630  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 16.42 | 5.5  | ng/ul | 2072390  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 16.72 | 7.4  | ng/ul | 2809990  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 4,...      | 16.96 | 2.3  | ng/ul | 859505   | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 17.10 | 19.7 | ng/ul | 7490760  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 17.36 | 24.7 | ng/ul | 9387990  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 17.64 | 34.8 | ng/ul | 13249900 | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 17.98 | 6.1  | ng/ul | 2334890  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 18.20 | 4.2  | ng/ul | 1613760  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 18.26 | 30.0 | ng/ul | 11418100 | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 18.36 | 21.2 | ng/ul | 8068340  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 18.54 | 12.5 | ng/ul | 4740290  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 19.19 | 3.5  | ng/ul | 1331820  | 4                     | 17.19 | 7605270 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 19.31 | 5.6  | ng/ul | 1144480  | 5                     | 21.37 | 4119860 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 19.38 | 7.8  | ng/ul | 1614990  | 5                     | 21.37 | 4119860 | 20.0 |  |
| 1,1'-Biphenyl, 3,...      | 20.10 | 3.8  | ng/ul | 777053   | 5                     | 21.37 | 4119860 | 20.0 |  |
| 1,1'-Biphenyl, 2,...      | 20.14 | 2.4  | ng/ul | 490770   | 5                     | 21.37 | 4119860 | 20.0 |  |
| 1-Nonadecanol             | 21.08 | 4.2  | ng/ul | 860006   | 5                     | 21.37 | 4119860 | 20.0 |  |