

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU080218\  
 Data File : VU025809.D  
 Acq On : 02 Aug 2018 21:59  
 Operator : MD/SY  
 Sample : J4265-13  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 C0AB5

## Integration Parameters: LSCINT.P

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

Filtering: 5  
 Min Area: 0 % 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:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM072018WMA.M  
 Title : VOC Analysis

Signal : TIC

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|--------|----------|------------|----------|-----------|-------|-------------|------------|--------------|------------|
| 1      | 0.622    | 7          | 10       | 13        | rBV2  | 357         | 276        | 0.00%        | 0.000%     |
| 2      | 0.892    | 92         | 94       | 100       | rBV2  | 331         | 297        | 0.00%        | 0.000%     |
| 3      | 0.986    | 119        | 123      | 125       | rBV   | 413         | 392        | 0.00%        | 0.000%     |
| 4      | 1.088    | 136        | 155      | 173       | rBV   | 255416      | 285326     | 0.09%        | 0.092%     |
| 5      | 1.182    | 181        | 184      | 189       | rBV   | 2237        | 1921       | 0.00%        | 0.001%     |
| 6      | 1.400    | 245        | 252      | 264       | rBV   | 127567      | 132957     | 0.04%        | 0.043%     |
| 7      | 1.680    | 331        | 339      | 357       | rBV   | 94474       | 120054     | 0.04%        | 0.039%     |
| 8      | 2.272    | 512        | 523      | 534       | rBV   | 227716      | 342409     | 0.11%        | 0.110%     |
| 9      | 2.445    | 568        | 577      | 582       | rVV5  | 2097        | 3274       | 0.00%        | 0.001%     |
| 10     | 2.674    | 644        | 648      | 649       | rBV   | 1330        | 818        | 0.00%        | 0.000%     |
| 11     | 2.793    | 672        | 685      | 694       | rBV2  | 12591       | 25468      | 0.01%        | 0.008%     |
| 12     | 2.924    | 722        | 726      | 730       | rBV3  | 394         | 396        | 0.00%        | 0.000%     |
| 13     | 2.947    | 730        | 733      | 737       | rVB3  | 493         | 424        | 0.00%        | 0.000%     |
| 14     | 3.005    | 749        | 751      | 755       | rVB2  | 444         | 356        | 0.00%        | 0.000%     |
| 15     | 3.037    | 755        | 761      | 763       | rBV3  | 334         | 345        | 0.00%        | 0.000%     |
| 16     | 3.262    | 828        | 831      | 834       | rVB2  | 442         | 310        | 0.00%        | 0.000%     |
| 17     | 3.281    | 834        | 837      | 842       | rBV3  | 318         | 292        | 0.00%        | 0.000%     |
| 18     | 3.651    | 949        | 952      | 957       | rBV3  | 349         | 341        | 0.00%        | 0.000%     |
| 19     | 3.677    | 957        | 960      | 967       | rVB2  | 343         | 335        | 0.00%        | 0.000%     |
| 20     | 3.709    | 967        | 970      | 974       | rVB2  | 345         | 297        | 0.00%        | 0.000%     |
| 21     | 3.825    | 1004       | 1006     | 1010      | rVB   | 355         | 261        | 0.00%        | 0.000%     |
| 22     | 3.947    | 1041       | 1044     | 1048      | rVB2  | 448         | 289        | 0.00%        | 0.000%     |
| 23     | 4.027    | 1064       | 1069     | 1075      | rVB2  | 445         | 450        | 0.00%        | 0.000%     |
| 24     | 4.182    | 1101       | 1117     | 1145      | rBV   | 90566       | 242131     | 0.08%        | 0.078%     |
| 25     | 4.294    | 1150       | 1152     | 1160      | rVB3  | 920         | 880        | 0.00%        | 0.000%     |
| 26     | 4.329    | 1160       | 1163     | 1165      | rBV2  | 558         | 409        | 0.00%        | 0.000%     |
| 27     | 4.387    | 1178       | 1181     | 1185      | rBV2  | 368         | 321        | 0.00%        | 0.000%     |
| 28     | 4.567    | 1232       | 1237     | 1240      | rBV2  | 504         | 570        | 0.00%        | 0.000%     |
| 29     | 4.651    | 1246       | 1263     | 1286      | rBV   | 168818      | 401704     | 0.13%        | 0.129%     |
| 30     | 4.786    | 1303       | 1305     | 1310      | rVV2  | 365         | 290        | 0.00%        | 0.000%     |
| 31     | 4.809    | 1310       | 1312     | 1317      | rVB3  | 394         | 388        | 0.00%        | 0.000%     |
| 32     | 4.847    | 1321       | 1324     | 1328      | rBV2  | 321         | 309        | 0.00%        | 0.000%     |
| 33     | 4.902    | 1329       | 1341     | 1343      | rBV3  | 822         | 1451       | 0.00%        | 0.000%     |
| 34     | 4.989    | 1361       | 1368     | 1369      | rBV2  | 929         | 816        | 0.00%        | 0.000%     |

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Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM072018WMA.M  
 Title : VOC Analysis

|    |        |      |      |      |      |          |           |         |         |
|----|--------|------|------|------|------|----------|-----------|---------|---------|
| 35 | 5.001  | 1369 | 1372 | 1380 | rVB5 | 1651     | 2133      | 0.00%   | 0.001%  |
| 36 | 5.095  | 1396 | 1401 | 1403 | rBV  | 356      | 287       | 0.00%   | 0.000%  |
| 37 | 5.455  | 1453 | 1513 | 1560 | rBV3 | 74149170 | 301614118 | 100.00% | 96.947% |
| 38 | 5.651  | 1563 | 1574 | 1593 | rVB  | 547438   | 1091859   | 0.36%   | 0.351%  |
| 39 | 5.892  | 1637 | 1649 | 1675 | rVB  | 414519   | 810842    | 0.27%   | 0.261%  |
| 40 | 6.079  | 1705 | 1707 | 1711 | rBV3 | 601      | 516       | 0.00%   | 0.000%  |
| 41 | 6.172  | 1724 | 1736 | 1738 | rBV5 | 2975     | 4208      | 0.00%   | 0.001%  |
| 42 | 6.336  | 1771 | 1787 | 1809 | rBV  | 244905   | 479279    | 0.16%   | 0.154%  |
| 43 | 6.439  | 1809 | 1819 | 1820 | rBV5 | 3084     | 4135      | 0.00%   | 0.001%  |
| 44 | 6.490  | 1831 | 1835 | 1836 | rBV3 | 502      | 354       | 0.00%   | 0.000%  |
| 45 | 6.542  | 1848 | 1851 | 1859 | rVB3 | 699      | 599       | 0.00%   | 0.000%  |
| 46 | 6.622  | 1873 | 1876 | 1882 | rVV3 | 307      | 367       | 0.00%   | 0.000%  |
| 47 | 6.789  | 1926 | 1928 | 1931 | rBV2 | 490      | 288       | 0.00%   | 0.000%  |
| 48 | 6.808  | 1931 | 1934 | 1935 | rBV2 | 568      | 293       | 0.00%   | 0.000%  |
| 49 | 6.844  | 1943 | 1945 | 1952 | rVB5 | 1123     | 835       | 0.00%   | 0.000%  |
| 50 | 6.911  | 1964 | 1966 | 1971 | rVB2 | 420      | 328       | 0.00%   | 0.000%  |
| 51 | 7.095  | 2020 | 2023 | 2027 | rVB  | 442      | 348       | 0.00%   | 0.000%  |
| 52 | 7.178  | 2044 | 2049 | 2053 | rVB3 | 378      | 313       | 0.00%   | 0.000%  |
| 53 | 7.230  | 2053 | 2065 | 2082 | rBV  | 142819   | 249548    | 0.08%   | 0.080%  |
| 54 | 7.371  | 2100 | 2109 | 2120 | rVB6 | 2173     | 3630      | 0.00%   | 0.001%  |
| 55 | 7.461  | 2135 | 2137 | 2141 | rVB3 | 367      | 269       | 0.00%   | 0.000%  |
| 56 | 7.567  | 2156 | 2170 | 2182 | rBV  | 508897   | 872615    | 0.29%   | 0.280%  |
| 57 | 7.641  | 2183 | 2193 | 2208 | rVB  | 183292   | 317892    | 0.11%   | 0.102%  |
| 58 | 7.853  | 2247 | 2259 | 2276 | rBV  | 103992   | 171723    | 0.06%   | 0.055%  |
| 59 | 8.030  | 2307 | 2314 | 2315 | rBV4 | 1744     | 1665      | 0.00%   | 0.001%  |
| 60 | 8.188  | 2354 | 2363 | 2368 | rBV7 | 1735     | 2527      | 0.00%   | 0.001%  |
| 61 | 8.226  | 2369 | 2375 | 2386 | rVB6 | 2441     | 3452      | 0.00%   | 0.001%  |
| 62 | 8.313  | 2390 | 2402 | 2425 | rBV  | 333643   | 568743    | 0.19%   | 0.183%  |
| 63 | 8.503  | 2457 | 2461 | 2468 | rVB5 | 792      | 994       | 0.00%   | 0.000%  |
| 64 | 8.577  | 2480 | 2484 | 2490 | rVB5 | 1260     | 1487      | 0.00%   | 0.000%  |
| 65 | 8.850  | 2567 | 2569 | 2572 | rBV  | 409      | 283       | 0.00%   | 0.000%  |
| 66 | 9.091  | 2631 | 2644 | 2680 | rVB  | 555410   | 927691    | 0.31%   | 0.298%  |
| 67 | 9.252  | 2686 | 2694 | 2705 | rVB2 | 8006     | 11695     | 0.00%   | 0.004%  |
| 68 | 9.381  | 2723 | 2734 | 2746 | rBV  | 22919    | 37839     | 0.01%   | 0.012%  |
| 69 | 9.783  | 2850 | 2859 | 2873 | rVB2 | 18302    | 31278     | 0.01%   | 0.010%  |
| 70 | 9.953  | 2908 | 2912 | 2915 | rBV2 | 412      | 321       | 0.00%   | 0.000%  |
| 71 | 10.223 | 2993 | 2996 | 3000 | rBV2 | 322      | 298       | 0.00%   | 0.000%  |

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Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM072018WMA.M  
 Title : VOC Analysis

|     |        |      |      |      |      |        |        |       |        |
|-----|--------|------|------|------|------|--------|--------|-------|--------|
| 72  | 10.271 | 3006 | 3011 | 3014 | rBV2 | 283    | 318    | 0.00% | 0.000% |
| 73  | 10.310 | 3017 | 3023 | 3035 | rVB3 | 1720   | 2914   | 0.00% | 0.001% |
| 74  | 10.381 | 3039 | 3045 | 3049 | rBV3 | 404    | 514    | 0.00% | 0.000% |
| 75  | 10.435 | 3049 | 3062 | 3078 | rBV  | 333879 | 524997 | 0.17% | 0.169% |
| 76  | 10.615 | 3112 | 3118 | 3127 | rVB3 | 1747   | 2887   | 0.00% | 0.001% |
| 77  | 10.776 | 3163 | 3168 | 3173 | rBV4 | 869    | 928    | 0.00% | 0.000% |
| 78  | 10.818 | 3179 | 3181 | 3190 | rVB3 | 407    | 489    | 0.00% | 0.000% |
| 79  | 10.873 | 3190 | 3198 | 3202 | rBV3 | 405    | 563    | 0.00% | 0.000% |
| 80  | 10.902 | 3202 | 3207 | 3212 | rBV3 | 627    | 814    | 0.00% | 0.000% |
| 81  | 10.998 | 3234 | 3237 | 3242 | rVB4 | 720    | 734    | 0.00% | 0.000% |
| 82  | 11.043 | 3249 | 3251 | 3255 | rBV2 | 343    | 280    | 0.00% | 0.000% |
| 83  | 11.094 | 3263 | 3267 | 3268 | rBV  | 428    | 304    | 0.00% | 0.000% |
| 84  | 11.149 | 3275 | 3284 | 3295 | rBV5 | 2414   | 4488   | 0.00% | 0.001% |
| 85  | 11.400 | 3354 | 3362 | 3374 | rBV2 | 4843   | 7925   | 0.00% | 0.003% |
| 86  | 11.487 | 3376 | 3389 | 3406 | rBV  | 579879 | 904180 | 0.30% | 0.291% |
| 87  | 11.631 | 3428 | 3434 | 3438 | rBV2 | 626    | 783    | 0.00% | 0.000% |
| 88  | 11.763 | 3465 | 3475 | 3491 | rBV8 | 3614   | 7886   | 0.00% | 0.003% |
| 89  | 11.863 | 3491 | 3506 | 3529 | rBV  | 505088 | 811412 | 0.27% | 0.261% |
| 90  | 11.959 | 3533 | 3536 | 3540 | rBV4 | 669    | 558    | 0.00% | 0.000% |
| 91  | 12.059 | 3565 | 3567 | 3571 | rVB2 | 879    | 470    | 0.00% | 0.000% |
| 92  | 12.085 | 3572 | 3575 | 3577 | rBV2 | 430    | 274    | 0.00% | 0.000% |
| 93  | 12.493 | 3694 | 3702 | 3712 | rBV7 | 2773   | 5461   | 0.00% | 0.002% |
| 94  | 12.583 | 3727 | 3730 | 3739 | rVB4 | 1189   | 1483   | 0.00% | 0.000% |
| 95  | 13.747 | 4082 | 4092 | 4107 | rBV  | 27406  | 46716  | 0.02% | 0.015% |
| 96  | 13.927 | 4145 | 4148 | 4152 | rBV3 | 629    | 436    | 0.00% | 0.000% |
| 97  | 13.963 | 4156 | 4159 | 4162 | rBV2 | 475    | 313    | 0.00% | 0.000% |
| 98  | 14.059 | 4187 | 4189 | 4193 | rBV2 | 426    | 320    | 0.00% | 0.000% |
| 99  | 14.239 | 4242 | 4245 | 4247 | rVB3 | 655    | 390    | 0.00% | 0.000% |
| 100 | 15.332 | 4582 | 4585 | 4586 | rBV2 | 877    | 391    | 0.00% | 0.000% |

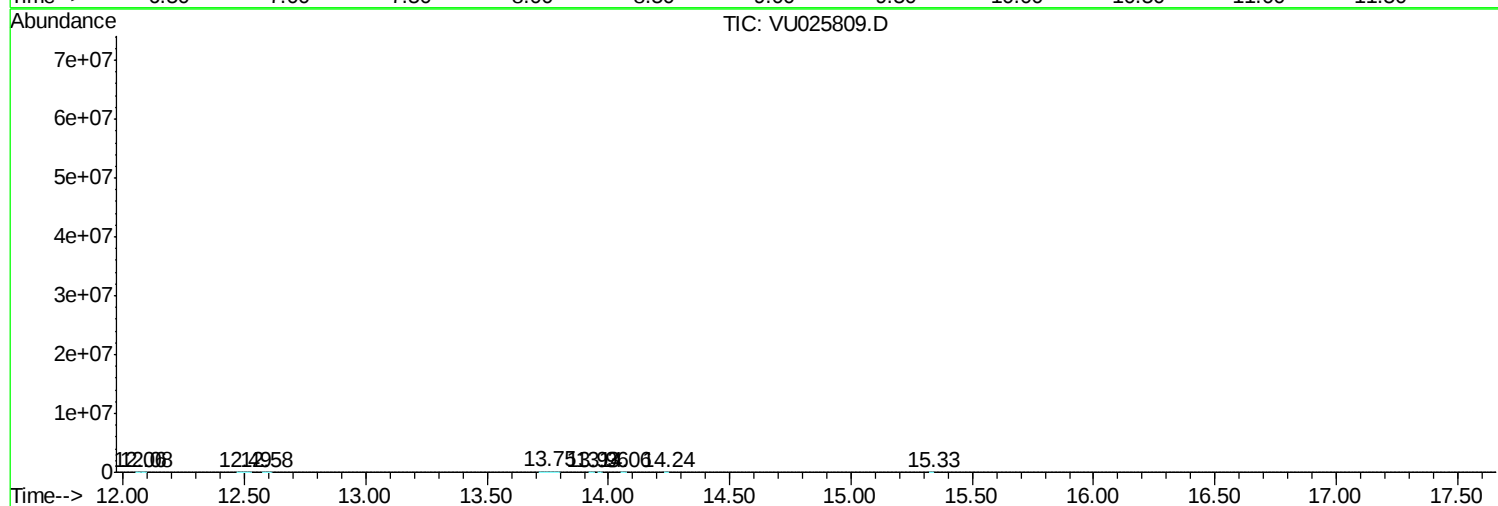
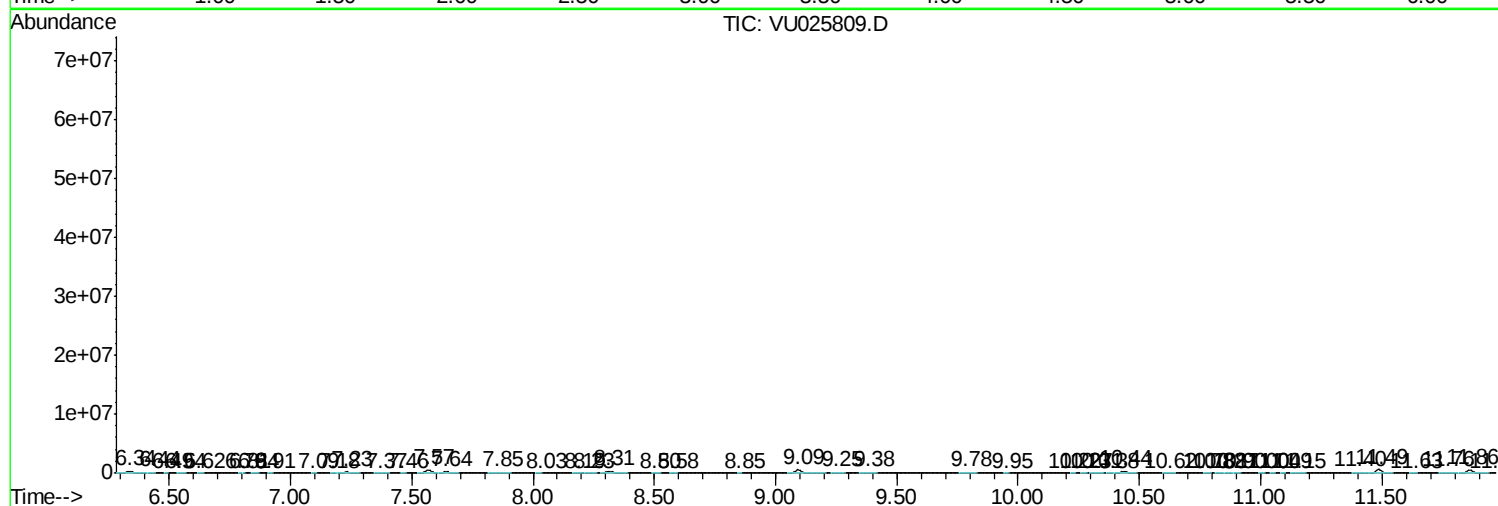
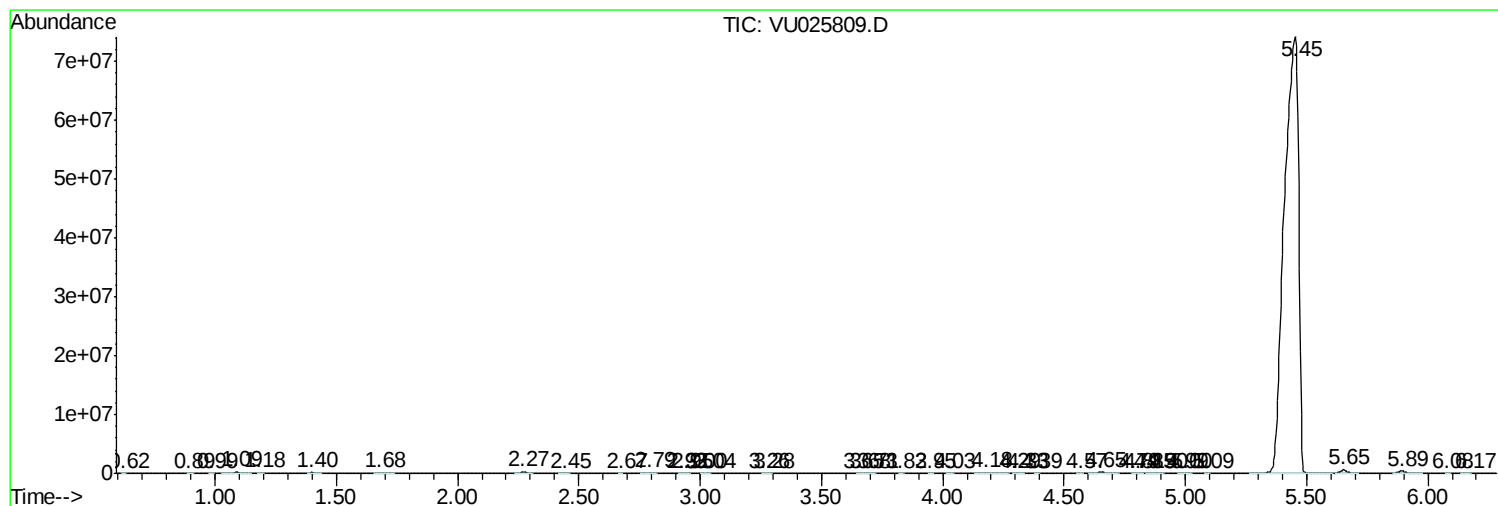
Sum of corrected areas: 311110837

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Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM072018WMA.M  
Quant Title : VOC Analysis

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



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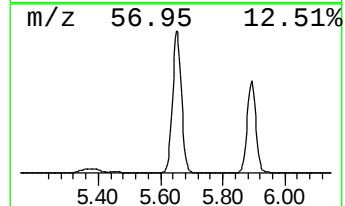
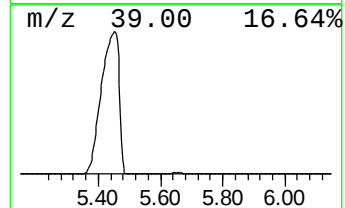
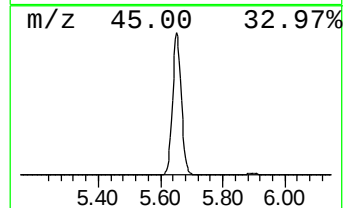
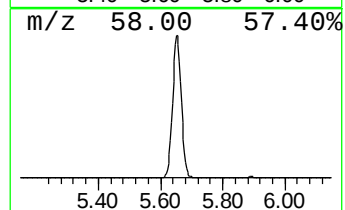
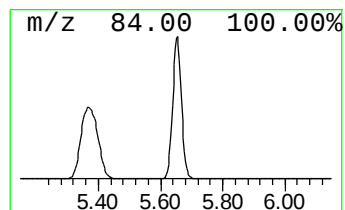
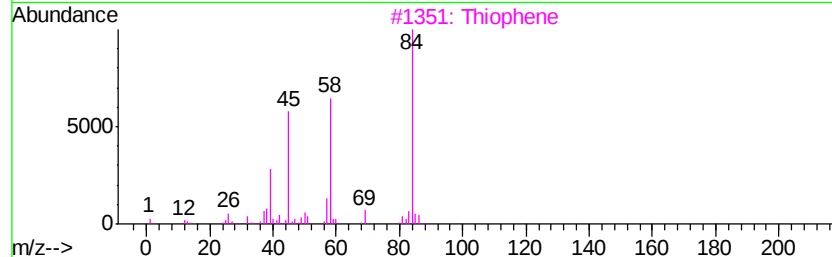
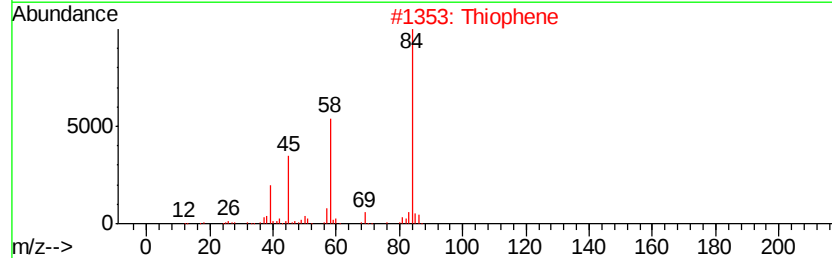
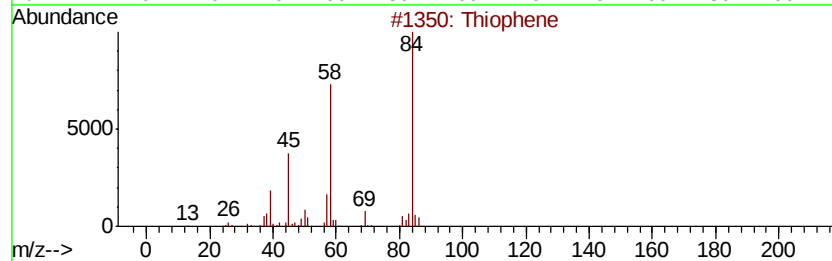
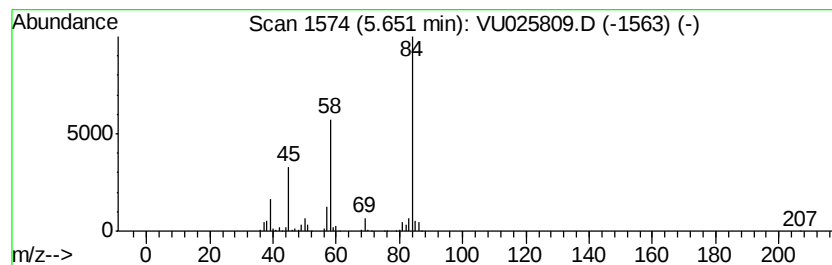
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 3 Thiophene Concentration Rank 2

| R.T. | EstConc    | Area    | Relative to ISTD    | R.T. |
|------|------------|---------|---------------------|------|
| 5.65 | 67.33 ug/L | 1091860 | 1,4-Difluorobenzene | 5.89 |

| Hit# of | 5            | Tentative ID | MW | MolForm | CAS#        | Qual |
|---------|--------------|--------------|----|---------|-------------|------|
| 1       | Thiophene    |              | 84 | C4H4S   | 000110-02-1 | 97   |
| 2       | Thiophene    |              | 84 | C4H4S   | 000110-02-1 | 97   |
| 3       | Thiophene    |              | 84 | C4H4S   | 000110-02-1 | 91   |
| 4       | Thiophene    |              | 84 | C4H4S   | 000110-02-1 | 91   |
| 5       | Pyridine-D5- |              | 84 | C5D5N   | 007291-22-7 | 38   |



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TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT   | EstConc | Units | Response | --Internal Standard-- |      |        |      |
|------------------|------|---------|-------|----------|-----------------------|------|--------|------|
|                  |      |         |       |          | #                     | RT   | Resp   | Conc |
| Thiophene        | 5.65 | 67.3    | ug/L  | 1091860  | 1                     | 5.89 | 810842 | 50.0 |