

Method Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\  
 Method File : 82Y101823S.M  
 Title : SW846 8260  
 Last Update : Thu Oct 19 03:15:44 2023  
 Response Via : Initial Calibration

## Calibration Files

5 =VY016014.D 10 =VY016015.D 20 =VY016016.D 50 =VY016017.D 100 =VY016018.D 150 =VY016019.D

|        | Compound            | 5              | 10    | 20    | 50    | 100   | 150   | Avg   | %RSD  |
|--------|---------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1) I   | Pentafluorobenzene  | -----ISTD----- |       |       |       |       |       |       |       |
| 2) T   | Dichlorodifluo...   | 0.435          | 0.397 | 0.404 | 0.420 | 0.409 | 0.414 | 0.413 | 3.21  |
| 3) P   | Chloromethane       | 0.537          | 0.534 | 0.535 | 0.531 | 0.491 | 0.503 | 0.522 | 3.75  |
| 4) C   | Vinyl Chloride      | 0.610          | 0.588 | 0.601 | 0.587 | 0.558 | 0.569 | 0.586 | 3.33# |
| 5) T   | Bromomethane        | 0.461          | 0.439 | 0.438 | 0.430 | 0.368 |       | 0.427 | 8.24  |
| 6) T   | Chloroethane        | 0.399          | 0.398 | 0.401 | 0.390 | 0.373 | 0.299 | 0.377 | 10.45 |
| 7) T   | Trichlorofluor...   | 0.935          | 0.903 | 0.901 | 0.867 | 0.863 | 0.878 | 0.891 | 3.05  |
| 8) T   | Diethyl Ether       | 0.310          | 0.312 | 0.318 | 0.309 | 0.311 | 0.329 | 0.315 | 2.39  |
| 9) T   | 1,1,2-Trichlor...   | 0.534          | 0.514 | 0.512 | 0.498 | 0.500 | 0.518 | 0.513 | 2.57  |
| 10) T  | Methyl Iodide       | 0.651          | 0.661 | 0.682 | 0.682 | 0.672 | 0.668 | 0.669 | 1.85  |
| 11) T  | Tert butyl alc...   | 0.087          | 0.094 | 0.085 | 0.081 | 0.079 | 0.100 | 0.088 | 8.89  |
| 12) CM | 1,1-Dichloroet...   | 0.495          | 0.468 | 0.482 | 0.472 | 0.474 | 0.487 | 0.480 | 2.16# |
| 13) T  | Acrolein            | 0.108          | 0.071 | 0.068 | 0.064 | 0.066 | 0.075 | 0.076 | 21.59 |
| 14) T  | Allyl chloride      | 0.732          | 0.741 | 0.756 | 0.741 | 0.750 | 0.781 | 0.750 | 2.29  |
| 15) T  | Acrylonitrile       | 0.166          | 0.190 | 0.170 | 0.190 | 0.191 | 0.221 | 0.188 | 10.48 |
| 16) T  | Acetone             | 0.189          | 0.209 | 0.184 | 0.216 | 0.219 | 0.247 | 0.211 | 10.84 |
| 17) T  | Carbon Disulfide    | 1.431          | 1.395 | 1.410 | 1.384 | 1.392 | 1.419 | 1.405 | 1.27  |
| 18) T  | Methyl Acetate      | 0.635          | 0.722 | 0.641 | 0.752 | 0.735 | 0.866 | 0.725 | 11.69 |
| 19) T  | Methyl tert-bu...   | 1.421          | 1.530 | 1.521 | 1.569 | 1.571 | 1.671 | 1.547 | 5.26  |
| 20) T  | Methylene Chlo...   | 0.768          | 0.669 | 0.631 | 0.560 | 0.566 | 0.560 | 0.626 | 13.26 |
| 21) T  | trans-1,2-Dich...   | 0.566          | 0.556 | 0.560 | 0.554 | 0.552 | 0.563 | 0.559 | 0.97  |
| 22) T  | Diisopropyl ether   | 1.532          | 1.613 | 1.657 | 1.671 | 1.641 | 1.685 | 1.633 | 3.40  |
| 23) T  | Vinyl Acetate       | 0.901          | 0.979 | 0.982 | 1.042 | 1.047 | 1.126 | 1.013 | 7.58  |
| 24) P  | 1,1-Dichloroet...   | 0.996          | 0.955 | 0.993 | 0.957 | 0.945 | 0.968 | 0.969 | 2.17  |
| 25) T  | 2-Butanone          | 0.254          | 0.291 | 0.255 | 0.292 | 0.296 | 0.344 | 0.289 | 11.49 |
| 26) T  | 2,2-Dichloropr...   | 0.887          | 0.881 | 0.878 | 0.839 | 0.868 | 0.877 | 0.872 | 1.96  |
| 27) T  | cis-1,2-Dichlo...   | 0.653          | 0.633 | 0.657 | 0.639 | 0.632 | 0.646 | 0.643 | 1.63  |
| 28) T  | Bromochloromet...   | 0.363          | 0.423 | 0.422 | 0.438 | 0.418 | 0.422 | 0.414 | 6.25  |
| 29) T  | Tetrahydrofuran     | 0.144          | 0.174 | 0.153 | 0.182 | 0.180 | 0.215 | 0.175 | 14.20 |
| 30) C  | Chloroform          | 1.053          | 1.054 | 1.062 | 1.032 | 1.002 | 1.031 | 1.039 | 2.11# |
| 31) T  | Cyclohexane         | 1.012          | 0.892 | 0.884 | 0.845 | 0.849 | 0.855 | 0.889 | 7.09  |
| 32) T  | 1,1,1-Trichlor...   | 0.945          | 0.917 | 0.943 | 0.927 | 0.913 | 0.933 | 0.930 | 1.42  |
| 33) S  | 1,2-Dichloroet...   | 0.606          | 0.633 | 0.575 | 0.522 | 0.529 | 0.545 | 0.568 | 7.82  |
| 34) I  | 1,4-Difluorobenzene | -----ISTD----- |       |       |       |       |       |       |       |
| 35) S  | Dibromofluorom...   | 0.362          | 0.348 | 0.333 | 0.302 | 0.316 | 0.313 | 0.329 | 6.96  |
| 36) T  | 1,1-Dichloropr...   | 0.520          | 0.486 | 0.491 | 0.486 | 0.496 | 0.492 | 0.495 | 2.60  |
| 37) T  | Ethyl Acetate       | 0.304          | 0.357 | 0.316 | 0.355 | 0.372 | 0.437 | 0.357 | 13.25 |
| 38) T  | Carbon Tetrach...   | 0.543          | 0.524 | 0.522 | 0.513 | 0.527 | 0.528 | 0.526 | 1.88  |
| 39) T  | Methylcyclohexane   | 0.619          | 0.592 | 0.620 | 0.607 | 0.635 | 0.640 | 0.619 | 2.84  |
| 40) TM | Benzene             | 1.433          | 1.373 | 1.415 | 1.374 | 1.388 | 1.389 | 1.396 | 1.72  |
| 41) T  | Methacrylonitrile   | 0.159          | 0.207 | 0.171 | 0.195 | 0.184 | 0.194 | 0.185 | 9.50  |
| 42) TM | 1,2-Dichloroet...   | 0.452          | 0.457 | 0.447 | 0.444 | 0.445 | 0.453 | 0.450 | 1.17  |
| 43) T  | Isopropyl Acetate   | 0.557          | 0.594 | 0.566 | 0.638 | 0.657 | 0.732 | 0.624 | 10.57 |
| 44) TM | Trichloroethene     | 0.406          | 0.384 | 0.393 | 0.379 | 0.389 | 0.396 | 0.391 | 2.42  |
| 45) C  | 1,2-Dichloropr...   | 0.346          | 0.348 | 0.355 | 0.342 | 0.352 | 0.353 | 0.349 | 1.38# |
| 46) T  | Dibromomethane      | 0.223          | 0.235 | 0.224 | 0.232 | 0.233 | 0.243 | 0.232 | 3.19  |
| 47) T  | Bromodichlorom...   | 0.499          | 0.507 | 0.512 | 0.505 | 0.508 | 0.518 | 0.508 | 1.25  |
| 48) T  | Methyl methacr...   | 0.252          | 0.268 | 0.252 | 0.293 | 0.302 | 0.336 | 0.284 | 11.50 |
| 49) T  | 1,4-Dioxane         | 0.003          | 0.004 | 0.003 | 0.004 | 0.004 |       | 0.004 | 12.67 |
| 50) S  | Toluene-d8          | 1.294          | 1.275 | 1.213 | 1.097 | 1.156 | 1.136 | 1.195 | 6.60  |
| 51) T  | 4-Methyl-2-Pen...   | 0.312          | 0.353 | 0.322 | 0.369 | 0.371 | 0.427 | 0.359 | 11.48 |
| 52) CM | Toluene             | 0.897          | 0.893 | 0.919 | 0.910 | 0.908 | 0.904 | 0.905 | 1.02# |
| 53) T  | t-1,3-Dichloro...   | 0.514          | 0.535 | 0.538 | 0.558 | 0.574 | 0.585 | 0.550 | 4.81  |
| 54) T  | cis-1,3-Dichlo...   | 0.590          | 0.582 | 0.595 | 0.601 | 0.613 | 0.620 | 0.600 | 2.36  |
| 55) T  | 1,1,2-Trichlor...   | 0.307          | 0.316 | 0.316 | 0.319 | 0.323 | 0.331 | 0.319 | 2.51  |
| 56) T  | Ethyl methacry...   | 0.399          | 0.435 | 0.438 | 0.486 | 0.500 | 0.536 | 0.466 | 10.83 |

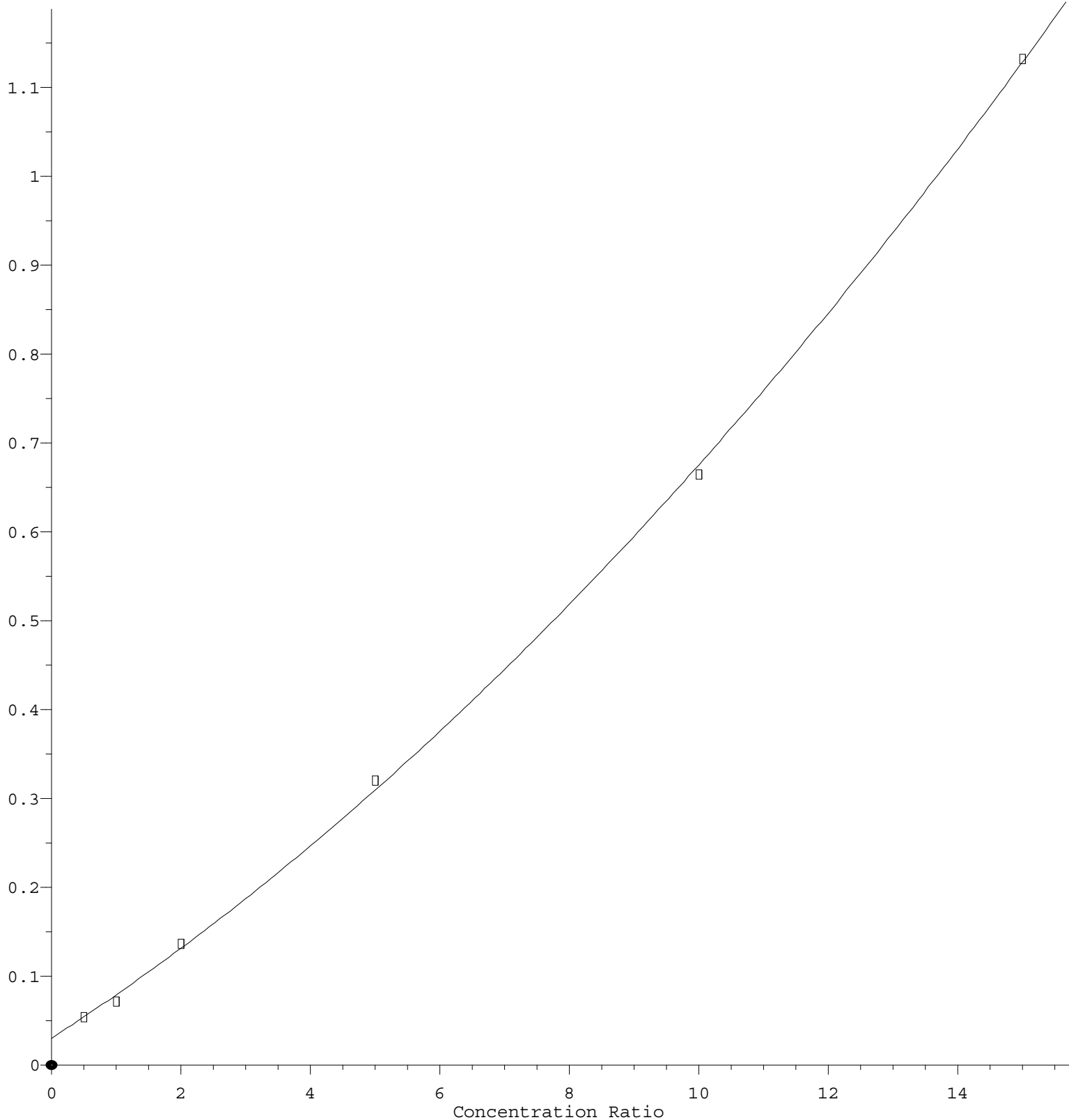
Method Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\  
 Method File : 82Y101823S.M

|     |    |                       |                |       |       |       |       |       |       |       |
|-----|----|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 57) | T  | 1,3-Dichloropr...     | 0.518          | 0.543 | 0.529 | 0.543 | 0.545 | 0.564 | 0.540 | 2.93  |
| 58) | T  | 2-Chloroethyl ...     | 0.185          | 0.230 | 0.215 | 0.229 | 0.234 | 0.248 | 0.224 | 9.76  |
| 59) | T  | 2-Hexanone            | 0.229          | 0.268 | 0.240 | 0.283 | 0.287 | 0.331 | 0.273 | 13.43 |
| 60) | T  | Dibromochlorom...     | 0.369          | 0.380 | 0.382 | 0.385 | 0.391 | 0.404 | 0.385 | 3.08  |
| 61) | T  | 1,2-Dibromoethane     | 0.309          | 0.323 | 0.312 | 0.326 | 0.328 | 0.348 | 0.324 | 4.27  |
| 62) | S  | 4-Bromofluorob...     | 0.462          | 0.452 | 0.435 | 0.396 | 0.412 | 0.402 | 0.426 | 6.39  |
| 63) | I  | Chlorobenzene-d5      | -----ISTD----- |       |       |       |       |       |       |       |
| 64) | T  | Tetrachloroethene     | 0.399          | 0.390 | 0.383 | 0.375 | 0.380 | 0.399 | 0.388 | 2.54  |
| 65) | PM | Chlorobenzene         | 1.110          | 1.084 | 1.086 | 1.070 | 1.070 | 1.077 | 1.083 | 1.36  |
| 66) | T  | 1,1,1,2-Tetrac...     | 0.420          | 0.406 | 0.408 | 0.400 | 0.404 | 0.411 | 0.408 | 1.70  |
| 67) | C  | Ethyl Benzene         | 1.926          | 1.863 | 1.934 | 1.908 | 1.927 | 1.940 | 1.916 | 1.46# |
| 68) | T  | m/p-Xylenes           | 0.743          | 0.735 | 0.762 | 0.746 | 0.748 | 0.750 | 0.747 | 1.18  |
| 69) | T  | o-Xylene              | 0.700          | 0.695 | 0.720 | 0.710 | 0.718 | 0.722 | 0.711 | 1.58  |
| 70) | T  | Styrene               | 1.170          | 1.175 | 1.233 | 1.212 | 1.235 | 1.245 | 1.211 | 2.65  |
| 71) | P  | Bromoform             | 0.266          | 0.276 | 0.274 | 0.293 | 0.296 | 0.318 | 0.287 | 6.54  |
| 72) | I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |
| 73) | T  | Isopropylbenzene      | 3.815          | 3.585 | 3.725 | 3.682 | 3.795 | 3.839 | 3.740 | 2.57  |
| 74) | T  | N-amyl acetate        | 1.001          | 1.088 | 1.090 | 1.208 | 1.284 | 1.419 | 1.181 | 12.97 |
| 75) | P  | 1,1,2,2-Tetrac...     | 0.906          | 0.912 | 0.877 | 0.923 | 0.957 | 1.045 | 0.937 | 6.29  |
| 76) | T  | 1,2,3-Trichlor...     | 0.682          | 0.692 | 0.644 | 0.710 | 0.731 | 0.788 | 0.708 | 6.92  |
| 77) | T  | Bromobenzene          | 0.933          | 0.895 | 0.895 | 0.891 | 0.905 | 0.927 | 0.908 | 1.97  |
| 78) | T  | n-propylbenzene       | 4.584          | 4.288 | 4.592 | 4.449 | 4.567 | 4.549 | 4.505 | 2.63  |
| 79) | T  | 2-Chlorotoluene       | 2.587          | 2.422 | 2.559 | 2.493 | 2.546 | 2.564 | 2.529 | 2.41  |
| 80) | T  | 1,3,5-Trimethy...     | 3.106          | 3.000 | 3.157 | 3.074 | 3.129 | 3.122 | 3.098 | 1.78  |
| 81) | T  | trans-1,4-Dich...     | 0.283          | 0.299 | 0.287 | 0.327 | 0.353 | 0.396 | 0.324 | 13.59 |
| 82) | T  | 4-Chlorotoluene       | 2.628          | 2.571 | 2.691 | 2.628 | 2.658 | 2.658 | 2.639 | 1.55  |
| 83) | T  | tert-Butylbenzene     | 2.760          | 2.577 | 2.757 | 2.706 | 2.767 | 2.732 | 2.717 | 2.65  |
| 84) | T  | 1,2,4-Trimethy...     | 3.066          | 2.972 | 3.135 | 3.086 | 3.104 | 3.096 | 3.076 | 1.82  |
| 85) | T  | sec-Butylbenzene      | 4.119          | 3.885 | 4.163 | 4.049 | 4.096 | 4.030 | 4.057 | 2.39  |
| 86) | T  | p-Isopropyltol...     | 3.402          | 3.245 | 3.468 | 3.409 | 3.450 | 3.368 | 3.390 | 2.35  |
| 87) | T  | 1,3-Dichlorobe...     | 1.806          | 1.710 | 1.789 | 1.747 | 1.772 | 1.774 | 1.766 | 1.91  |
| 88) | T  | 1,4-Dichlorobe...     | 1.831          | 1.767 | 1.813 | 1.747 | 1.758 | 1.754 | 1.778 | 1.97  |
| 89) | T  | n-Butylbenzene        | 3.181          | 3.036 | 3.237 | 3.162 | 3.206 | 3.117 | 3.156 | 2.27  |
| 90) | T  | Hexachloroethane      | 0.655          | 0.624 | 0.654 | 0.639 | 0.657 | 0.649 | 0.646 | 1.97  |
| 91) | T  | 1,2-Dichlorobe...     | 1.669          | 1.595 | 1.635 | 1.604 | 1.611 | 1.617 | 1.622 | 1.66  |
| 92) | T  | 1,2-Dibromo-3-...     | 0.175          | 0.175 | 0.163 | 0.172 | 0.178 | 0.206 | 0.178 | 8.19  |
| 93) | T  | 1,2,4-Trichlor...     | 1.037          | 1.023 | 1.015 | 1.030 | 1.052 | 1.042 | 1.033 | 1.29  |
| 94) | T  | Hexachlorobuta...     | 0.598          | 0.578 | 0.579 | 0.546 | 0.545 | 0.521 | 0.561 | 5.10  |
| 95) | T  | Naphthalene           | 2.406          | 2.418 | 2.279 | 2.572 | 2.666 | 2.874 | 2.536 | 8.45  |
| 96) | T  | 1,2,3-Trichlor...     | 0.935          | 0.944 | 0.912 | 0.947 | 0.966 | 0.957 | 0.944 | 2.00  |

(#) = Out of Range

# Acrolein

Response Ratio



$R = 1.739e-003 A^2 + 4.711e-002 A + 3.035e-002$   
 Coef of Det ( $r^2$ ) = 0.999634    Curve Fit: Quadratic  
 Method Name: Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y101823S.M  
 Calibration Table Last Updated: Thu Oct 19 03:15:44 2023