

Method Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\  
 Method File : 82Y100523S.M  
 Title : SW846 8260  
 Last Update : Fri Oct 06 05:54:04 2023  
 Response Via : Initial Calibration

## Calibration Files

5 =VY015843.D 10 =VY015844.D 20 =VY015845.D 50 =VY015850.D 100 =VY015847.D 150 =VY015848.D

|        | Compound            | 5              | 10    | 20    | 50    | 100   | 150   | Avg   | %RSD  |
|--------|---------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1) I   | Pentafluorobenzene  | -----ISTD----- |       |       |       |       |       |       |       |
| 2) T   | Dichlorodifluo...   | 0.233          | 0.213 | 0.215 | 0.249 | 0.228 | 0.242 | 0.230 | 6.20  |
| 3) P   | Chloromethane       | 0.236          | 0.228 | 0.227 | 0.289 | 0.273 | 0.281 | 0.256 | 11.20 |
| 4) C   | Vinyl Chloride      | 0.316          | 0.299 | 0.287 | 0.352 | 0.333 | 0.343 | 0.322 | 7.88# |
| 5) T   | Bromomethane        | 0.295          | 0.236 | 0.182 | 0.247 | 0.196 | 0.174 | 0.222 | 20.90 |
| 6) T   | Chloroethane        | 0.231          | 0.226 | 0.216 | 0.258 | 0.222 | 0.226 | 0.230 | 6.44  |
| 7) T   | Trichlorofluor...   | 0.617          | 0.588 | 0.613 | 0.651 | 0.618 | 0.660 | 0.624 | 4.24  |
| 8) T   | Diethyl Ether       | 0.255          | 0.257 | 0.265 | 0.274 | 0.282 | 0.300 | 0.272 | 6.25  |
| 9) T   | 1,1,2-Trichlor...   | 0.399          | 0.385 | 0.406 | 0.422 | 0.394 | 0.436 | 0.407 | 4.65  |
| 10) T  | Methyl Iodide       | 0.271          | 0.263 | 0.293 | 0.392 | 0.423 | 0.450 | 0.349 | 23.74 |
| 11) T  | Tert butyl alc...   | 0.068          | 0.136 | 0.167 | 0.102 | 0.106 | 0.118 | 0.116 | 28.87 |
| 12) CM | 1,1-Dichloroet...   | 0.310          | 0.294 | 0.305 | 0.345 | 0.335 | 0.364 | 0.325 | 8.18# |
| 13) T  | Acrolein            | 0.033          | 0.036 | 0.039 | 0.037 | 0.041 | 0.042 | 0.038 | 9.08  |
| 14) T  | Allyl chloride      | 0.591          | 0.551 | 0.591 | 0.632 | 0.634 | 0.682 | 0.614 | 7.43  |
| 15) T  | Acrylonitrile       | 0.213          | 0.203 | 0.224 | 0.205 | 0.209 | 0.220 | 0.212 | 4.01  |
| 16) T  | Acetone             | 0.287          | 0.259 | 0.282 | 0.230 | 0.232 | 0.239 | 0.255 | 10.02 |
| 17) T  | Carbon Disulfide    | 0.373          | 0.353 | 0.365 | 0.572 | 0.556 | 0.611 | 0.472 | 25.35 |
| 18) T  | Methyl Acetate      | 0.794          | 0.731 | 0.823 | 0.830 | 0.867 | 0.931 | 0.829 | 8.12  |
| 19) T  | Methyl tert-bu...   | 1.497          | 1.437 | 1.539 | 1.531 | 1.564 | 1.664 | 1.539 | 4.91  |
| 20) T  | Methylene Chlo...   | 1.392          | 0.842 | 0.678 | 0.526 | 0.485 | 0.505 | 0.738 | 47.12 |
| 21) T  | trans-1,2-Dich...   | 0.349          | 0.340 | 0.348 | 0.397 | 0.394 | 0.422 | 0.375 | 8.99  |
| 22) T  | Diisopropyl ether   | 1.559          | 1.511 | 1.595 | 1.603 | 1.606 | 1.687 | 1.593 | 3.66  |
| 23) T  | Vinyl Acetate       | 0.925          | 0.905 | 0.993 | 0.957 | 0.979 | 1.027 | 0.964 | 4.67  |
| 24) P  | 1,1-Dichloroet...   | 0.837          | 0.800 | 0.840 | 0.849 | 0.844 | 0.907 | 0.846 | 4.11  |
| 25) T  | 2-Butanone          | 0.376          | 0.348 | 0.381 | 0.322 | 0.332 | 0.345 | 0.351 | 6.71  |
| 26) T  | 2,2-Dichloropr...   | 0.847          | 0.773 | 0.755 | 0.773 | 0.758 | 0.812 | 0.786 | 4.56  |
| 27) T  | cis-1,2-Dichlo...   | 0.534          | 0.508 | 0.528 | 0.545 | 0.552 | 0.585 | 0.542 | 4.76  |
| 28) T  | Bromochloromet...   | 0.488          | 0.492 | 0.500 | 0.514 | 0.475 | 0.500 | 0.495 | 2.71  |
| 29) T  | Tetrahydrofuran     | 0.188          | 0.184 | 0.208 | 0.189 | 0.199 | 0.206 | 0.196 | 5.27  |
| 30) C  | Chloroform          | 0.955          | 0.920 | 0.961 | 0.923 | 0.934 | 0.987 | 0.947 | 2.71# |
| 31) T  | Cyclohexane         | 0.626          | 0.525 | 0.503 | 0.566 | 0.535 | 0.572 | 0.554 | 7.86  |
| 32) T  | 1,1,1-Trichlor...   | 0.771          | 0.741 | 0.763 | 0.774 | 0.770 | 0.824 | 0.774 | 3.51  |
| 33) S  | 1,2-Dichloroet...   | 0.487          | 0.486 | 0.485 | 0.493 | 0.495 | 0.505 | 0.492 | 1.58  |
| 34) I  | 1,4-Difluorobenzene | -----ISTD----- |       |       |       |       |       |       |       |
| 35) S  | Dibromofluorom...   | 0.277          | 0.287 | 0.280 | 0.291 | 0.283 | 0.292 | 0.285 | 2.07  |
| 36) T  | 1,1-Dichloropr...   | 0.323          | 0.320 | 0.327 | 0.359 | 0.346 | 0.366 | 0.340 | 5.74  |
| 37) T  | Ethyl Acetate       | 0.377          | 0.366 | 0.416 | 0.360 | 0.377 | 0.388 | 0.380 | 5.24  |
| 38) T  | Carbon Tetrach...   | 0.392          | 0.382 | 0.398 | 0.410 | 0.395 | 0.421 | 0.400 | 3.45  |
| 39) T  | Methylcyclohexane   | 0.327          | 0.332 | 0.336 | 0.398 | 0.377 | 0.411 | 0.364 | 10.09 |
| 40) TM | Benzene             | 1.029          | 1.007 | 1.036 | 1.101 | 1.083 | 1.146 | 1.067 | 4.90  |
| 41) T  | Methacrylonitrile   | 0.163          | 0.164 | 0.195 | 0.185 | 0.190 | 0.196 | 0.182 | 8.25  |
| 42) TM | 1,2-Dichloroet...   | 0.371          | 0.378 | 0.390 | 0.384 | 0.382 | 0.400 | 0.384 | 2.59  |
| 43) T  | Isopropyl Acetate   | 0.638          | 0.632 | 0.681 | 0.637 | 0.656 | 0.686 | 0.655 | 3.61  |
| 44) TM | Trichloroethene     | 0.315          | 0.297 | 0.309 | 0.316 | 0.310 | 0.326 | 0.312 | 3.03  |
| 45) C  | 1,2-Dichloropr...   | 0.310          | 0.306 | 0.323 | 0.313 | 0.308 | 0.334 | 0.316 | 3.39# |
| 46) T  | Dibromomethane      | 0.199          | 0.192 | 0.201 | 0.201 | 0.204 | 0.213 | 0.202 | 3.37  |
| 47) T  | Bromodichlorom...   | 0.467          | 0.456 | 0.470 | 0.465 | 0.464 | 0.488 | 0.468 | 2.28  |
| 48) T  | Methyl methacr...   | 0.276          | 0.273 | 0.294 | 0.282 | 0.289 | 0.302 | 0.286 | 3.96  |
| 49) T  | 1,4-Dioxane         | 0.004          | 0.004 | 0.005 | 0.004 | 0.005 | 0.005 | 0.005 | 9.12  |
| 50) S  | Toluene-d8          | 0.892          | 0.899 | 0.878 | 0.966 | 0.952 | 0.965 | 0.925 | 4.30  |
| 51) T  | 4-Methyl-2-Pen...   | 0.402          | 0.397 | 0.444 | 0.395 | 0.407 | 0.414 | 0.410 | 4.38  |
| 52) CM | Toluene             | 0.676          | 0.656 | 0.690 | 0.716 | 0.709 | 0.742 | 0.698 | 4.38# |
| 53) T  | t-1,3-Dichloro...   | 0.465          | 0.457 | 0.482 | 0.501 | 0.509 | 0.534 | 0.491 | 5.92  |
| 54) T  | cis-1,3-Dichlo...   | 0.501          | 0.491 | 0.516 | 0.530 | 0.532 | 0.561 | 0.522 | 4.83  |
| 55) T  | 1,1,2-Trichlor...   | 0.325          | 0.308 | 0.323 | 0.312 | 0.309 | 0.324 | 0.317 | 2.48  |
| 56) T  | Ethyl methacry...   | 0.425          | 0.413 | 0.470 | 0.469 | 0.479 | 0.501 | 0.460 | 7.36  |

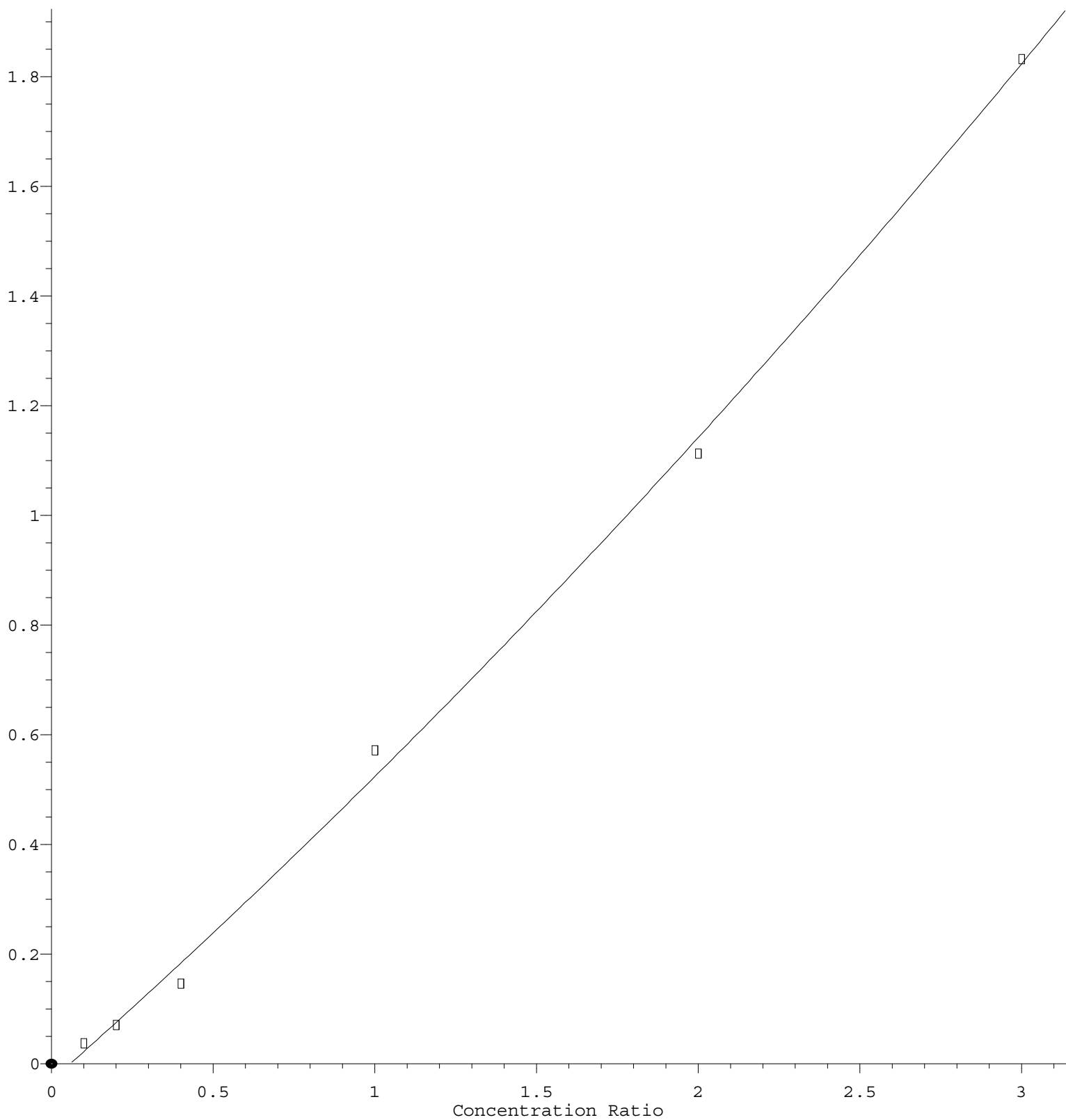
Method Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\  
 Method File : 82Y100523S.M

|     |    |                       |                |       |       |       |       |       |       |       |
|-----|----|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 57) | T  | 1,3-Dichloropr...     | 0.496          | 0.488 | 0.512 | 0.507 | 0.509 | 0.528 | 0.507 | 2.74  |
| 58) | T  | 2-Chloroethyl ...     | 0.246          | 0.243 | 0.270 | 0.273 | 0.277 | 0.298 | 0.268 | 7.68  |
| 59) | T  | 2-Hexanone            | 0.310          | 0.311 | 0.349 | 0.306 | 0.314 | 0.317 | 0.318 | 4.95  |
| 60) | T  | Dibromochlorom...     | 0.354          | 0.354 | 0.366 | 0.368 | 0.369 | 0.386 | 0.366 | 3.22  |
| 61) | T  | 1,2-Dibromoethane     | 0.289          | 0.287 | 0.298 | 0.295 | 0.298 | 0.311 | 0.296 | 2.93  |
| 62) | S  | 4-Bromofluorob...     | 0.372          | 0.386 | 0.372 | 0.388 | 0.375 | 0.377 | 0.378 | 1.86  |
| 63) | I  | Chlorobenzene-d5      | -----ISTD----- |       |       |       |       |       |       |       |
| 64) | T  | Tetrachloroethene     | 0.338          | 0.347 | 0.367 | 0.348 | 0.351 | 0.358 | 0.351 | 2.90  |
| 65) | PM | Chlorobenzene         | 0.948          | 0.888 | 0.939 | 0.921 | 0.904 | 0.948 | 0.925 | 2.68  |
| 66) | T  | 1,1,1,2-Tetrac...     | 0.377          | 0.380 | 0.388 | 0.372 | 0.372 | 0.393 | 0.380 | 2.25  |
| 67) | C  | Ethyl Benzene         | 1.541          | 1.517 | 1.595 | 1.602 | 1.585 | 1.655 | 1.583 | 3.07# |
| 68) | T  | m/p-Xylenes           | 0.570          | 0.578 | 0.610 | 0.616 | 0.603 | 0.633 | 0.602 | 3.93  |
| 69) | T  | o-Xylene              | 0.563          | 0.573 | 0.607 | 0.615 | 0.603 | 0.630 | 0.598 | 4.22  |
| 70) | T  | Styrene               | 0.971          | 0.990 | 1.067 | 1.085 | 1.059 | 1.096 | 1.045 | 4.95  |
| 71) | P  | Bromoform             | 0.268          | 0.271 | 0.291 | 0.285 | 0.287 | 0.299 | 0.283 | 4.20  |
| 72) | I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |
| 73) | T  | Isopropylbenzene      | 3.219          | 3.147 | 3.253 | 3.229 | 3.168 | 3.417 | 3.239 | 2.96  |
| 74) | T  | N-amyl acetate        | 1.179          | 1.193 | 1.317 | 1.229 | 1.268 | 1.324 | 1.252 | 4.93  |
| 75) | P  | 1,1,2,2-Tetrac...     | 0.988          | 0.914 | 0.977 | 0.920 | 0.940 | 1.002 | 0.957 | 3.90  |
| 76) | T  | 1,2,3-Trichlor...     | 0.739          | 0.716 | 0.747 | 0.795 | 0.704 | 0.740 | 0.740 | 4.25  |
| 77) | T  | Bromobenzene          | 0.806          | 0.767 | 0.804 | 0.790 | 0.787 | 0.854 | 0.801 | 3.69  |
| 78) | T  | n-propylbenzene       | 3.815          | 3.722 | 3.927 | 3.929 | 3.807 | 4.078 | 3.880 | 3.23  |
| 79) | T  | 2-Chlorotoluene       | 2.229          | 2.160 | 2.245 | 2.224 | 2.193 | 2.354 | 2.234 | 2.95  |
| 80) | T  | 1,3,5-Trimethy...     | 2.648          | 2.608 | 2.721 | 2.727 | 2.650 | 2.841 | 2.699 | 3.09  |
| 81) | T  | trans-1,4-Dich...     | 0.301          | 0.296 | 0.324 | 0.309 | 0.332 | 0.358 | 0.320 | 7.19  |
| 82) | T  | 4-Chlorotoluene       | 2.361          | 2.256 | 2.355 | 2.313 | 2.292 | 2.453 | 2.338 | 2.93  |
| 83) | T  | tert-Butylbenzene     | 2.481          | 2.400 | 2.512 | 2.470 | 2.368 | 2.572 | 2.467 | 3.00  |
| 84) | T  | 1,2,4-Trimethy...     | 2.661          | 2.610 | 2.756 | 2.719 | 2.674 | 2.850 | 2.712 | 3.11  |
| 85) | T  | sec-Butylbenzene      | 3.532          | 3.569 | 3.695 | 3.666 | 3.501 | 3.757 | 3.620 | 2.80  |
| 86) | T  | p-Isopropyltol...     | 2.947          | 2.932 | 3.074 | 3.055 | 2.941 | 3.138 | 3.015 | 2.86  |
| 87) | T  | 1,3-Dichlorobe...     | 1.656          | 1.558 | 1.625 | 1.581 | 1.552 | 1.654 | 1.604 | 2.91  |
| 88) | T  | 1,4-Dichlorobe...     | 1.689          | 1.597 | 1.657 | 1.586 | 1.553 | 1.651 | 1.622 | 3.18  |
| 89) | T  | n-Butylbenzene        | 2.827          | 2.811 | 2.922 | 2.923 | 2.792 | 2.936 | 2.868 | 2.27  |
| 90) | T  | Hexachloroethane      | 0.574          | 0.573 | 0.595 | 0.580 | 0.581 | 0.626 | 0.588 | 3.38  |
| 91) | T  | 1,2-Dichlorobe...     | 1.542          | 1.480 | 1.543 | 1.494 | 1.461 | 1.545 | 1.511 | 2.45  |
| 92) | T  | 1,2-Dibromo-3-...     | 0.190          | 0.192 | 0.198 | 0.184 | 0.190 | 0.197 | 0.192 | 2.77  |
| 93) | T  | 1,2,4-Trichlor...     | 0.967          | 0.971 | 0.988 | 0.982 | 0.976 | 1.017 | 0.983 | 1.86  |
| 94) | T  | Hexachlorobuta...     | 0.521          | 0.526 | 0.528 | 0.509 | 0.484 | 0.507 | 0.512 | 3.19  |
| 95) | T  | Naphthalene           | 2.535          | 2.446 | 2.689 | 2.604 | 2.664 | 2.795 | 2.622 | 4.67  |
| 96) | T  | 1,2,3-Trichlor...     | 0.956          | 0.903 | 0.917 | 0.907 | 0.904 | 0.943 | 0.921 | 2.42  |

(#) = Out of Range

## Carbon Disulfide

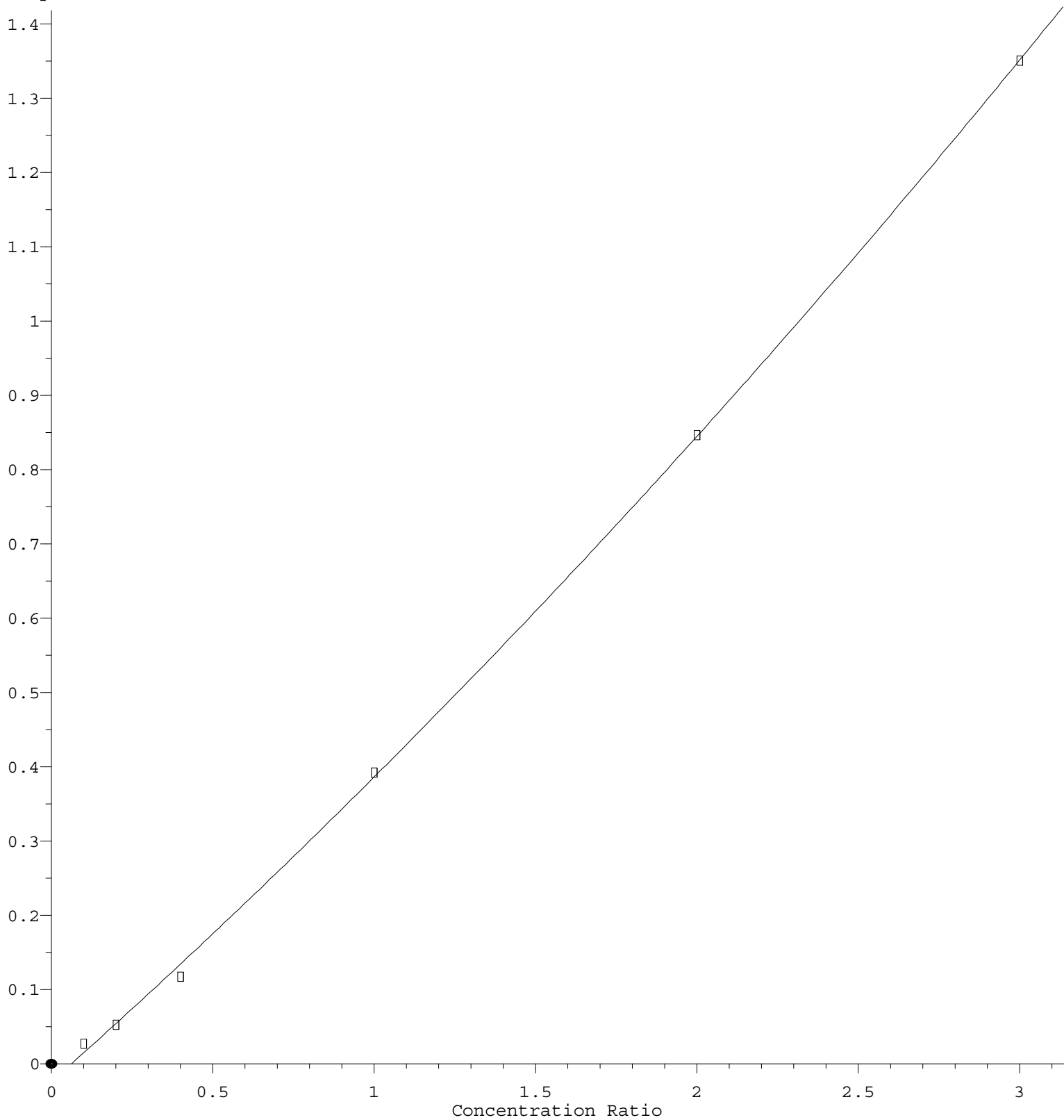
Response Ratio



$R = 3.187e-002 A^2 + 5.224e-001 A - 3.046e-002$   
Coef of Det ( $r^2$ ) = 0.998121    Curve Fit: Quadratic  
Method Name:    Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y100523S.M  
Calibration Table Last Updated: Fri Oct 06 05:54:04 2023

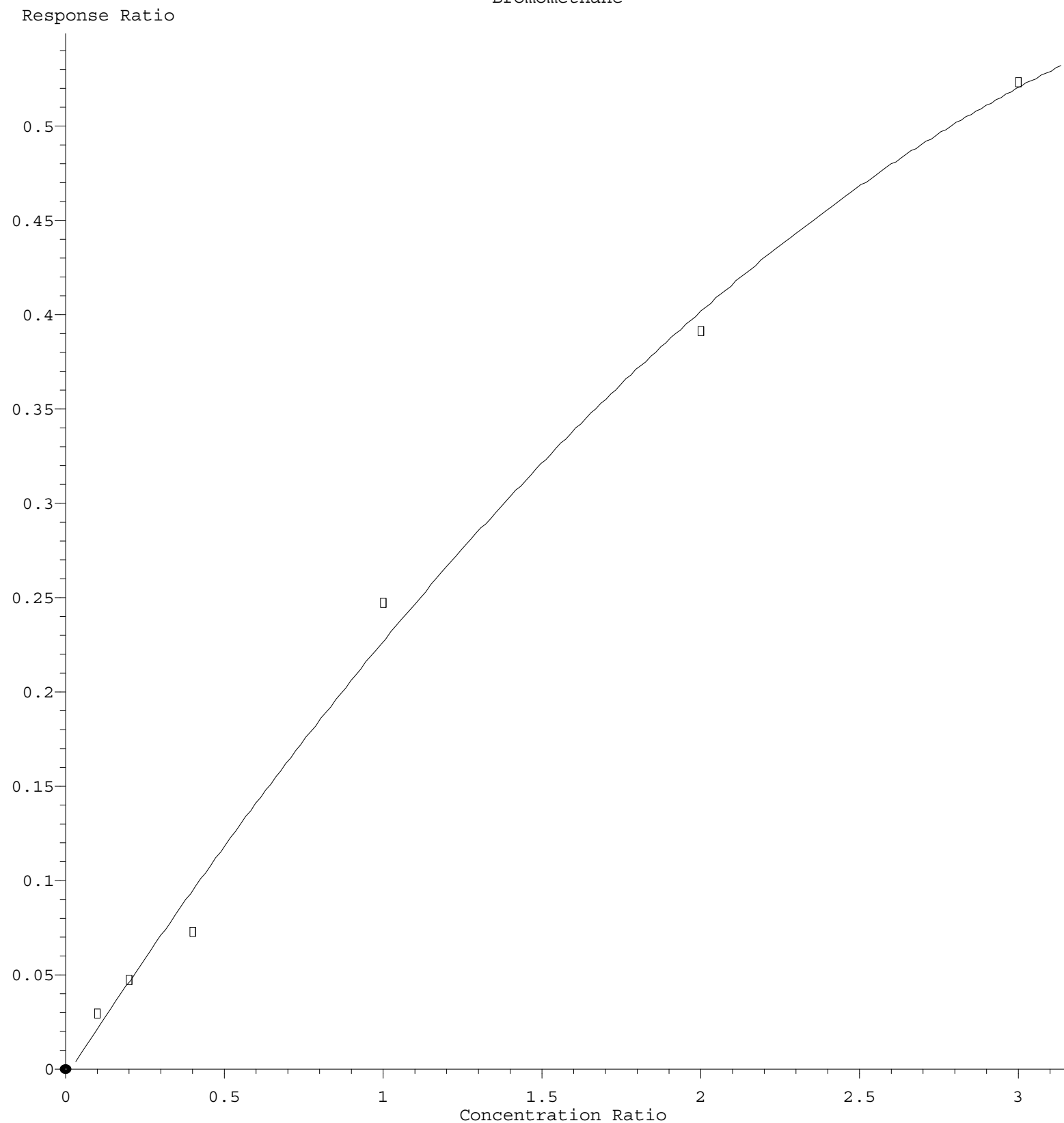
## Methyl Iodide

Response Ratio



$R = 2.418e-002 A^2 + 3.860e-001 A - 2.400e-002$   
Coef of Det ( $r^2$ ) = 0.999657    Curve Fit: Quadratic  
Method Name:    Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y100523S.M  
Calibration Table Last Updated: Fri Oct 06 05:54:04 2023

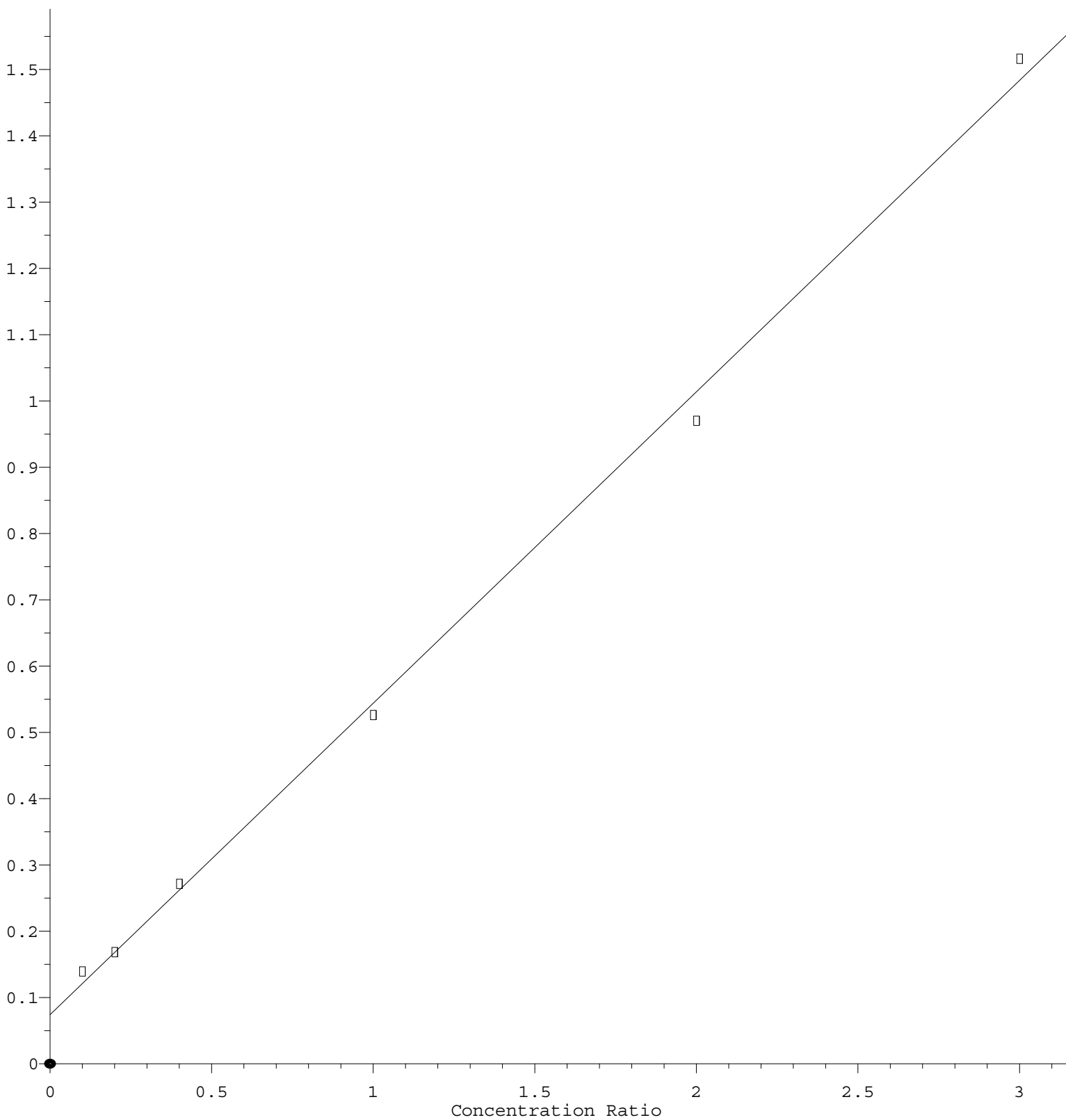
# Bromomethane



$R = -2.813e-002 A^2 + 2.594e-001 A - 4.459e-003$   
 Coef of Det ( $r^2$ ) = 0.994817    Curve Fit: Quadratic  
 Method Name:    Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y100523S.M  
 Calibration Table Last Updated: Fri Oct 06 05:54:04 2023

# Methylene Chloride

Response Ratio



$$\text{Response} = 4.697\text{e-}001 * \text{Amt} + 7.400\text{e-}002$$

Coef of Det (r^2) = 0.997513 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y100523S.M

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