

Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
 Method File : 8270-BF102722.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Fri Oct 28 04:00:21 2022  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BF130799.D 5 =BF130800.D 10 =BF130801.D 20 =BF130802.D 40 =BF130803.D 50 =BF130804.D 60 =BF130805.D 80 =BF130806.D

|       | Compound              | 2.5            | 5     | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           |                | 0.551 | 0.540 | 0.539 | 0.540 | 0.486 | 0.495 | 0.471 | 0.517 | 6.25  |
| 3)    | Pyridine              |                | 1.581 | 1.442 | 1.506 | 1.510 | 1.365 | 1.404 | 1.333 | 1.449 | 6.11  |
| 4)    | n-Nitrosodimet...     |                | 0.841 | 0.789 | 0.822 | 0.842 | 0.789 | 0.815 | 0.796 | 0.813 | 2.81  |
| 5) S  | 2-Fluorophenol        | 1.338          | 1.271 | 1.200 | 1.190 | 1.149 | 1.038 | 1.061 | 0.982 | 1.154 | 10.50 |
| 6)    | Aniline               |                | 1.993 | 1.893 | 1.895 | 1.900 | 1.752 | 1.777 | 1.767 | 1.854 | 4.85  |
| 7) S  | Phenol-d6             | 1.740          | 1.640 | 1.553 | 1.523 | 1.486 | 1.362 | 1.385 | 1.305 | 1.499 | 9.79  |
| 8)    | 2-Chlorophenol        |                | 1.438 | 1.356 | 1.349 | 1.315 | 1.198 | 1.216 | 1.124 | 1.285 | 8.49  |
| 9)    | Benzaldehyde          |                | 1.236 | 1.097 | 1.028 | 0.874 | 0.849 | 0.849 | 0.784 | 0.960 | 17.15 |
| 10) C | Phenol                |                | 1.798 | 1.680 | 1.699 | 1.638 | 1.480 | 1.559 | 1.439 | 1.613 | 7.91  |
| 11)   | bis(2-Chloroet...     |                | 1.396 | 1.317 | 1.326 | 1.279 | 1.165 | 1.193 | 1.126 | 1.258 | 7.82  |
| 12)   | 1,3-Dichlorobe...     |                | 1.640 | 1.571 | 1.544 | 1.482 | 1.346 | 1.360 | 1.251 | 1.456 | 9.67  |
| 13) C | 1,4-Dichlorobe...     |                | 1.681 | 1.584 | 1.564 | 1.503 | 1.363 | 1.383 | 1.269 | 1.478 | 9.83  |
| 14)   | 1,2-Dichlorobe...     |                | 1.574 | 1.489 | 1.451 | 1.391 | 1.257 | 1.269 | 1.152 | 1.369 | 10.88 |
| 15)   | Benzyl Alcohol        |                | 1.374 | 1.324 | 1.298 | 1.306 | 1.233 | 1.221 | 1.168 | 1.275 | 5.52  |
| 16)   | 2,2'-oxybis(1-...     |                | 2.461 | 2.319 | 2.321 | 2.291 | 2.118 | 2.164 | 2.018 | 2.242 | 6.67  |
| 17)   | 2-Methylphenol        |                | 1.177 | 1.133 | 1.158 | 1.127 | 1.042 | 1.054 | 0.999 | 1.098 | 6.10  |
| 18)   | Hexachloroethane      |                | 0.569 | 0.551 | 0.555 | 0.546 | 0.513 | 0.513 | 0.492 | 0.534 | 5.27  |
| 19) P | n-Nitroso-di-n...     | 1.173          | 1.101 | 1.032 | 1.008 | 1.012 | 0.943 | 0.969 | 0.923 | 1.020 | 8.13  |
| 20)   | 3+4-Methylphenols     |                | 1.622 | 1.515 | 1.509 | 1.470 | 1.325 | 1.340 | 1.216 | 1.428 | 9.75  |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          |                | 0.527 | 0.497 | 0.512 | 0.495 | 0.459 | 0.466 | 0.439 | 0.485 | 6.49  |
| 23) S | Nitrobenzene-d5       | 0.283          | 0.277 | 0.294 | 0.345 | 0.366 | 0.354 | 0.372 | 0.362 | 0.332 | 12.02 |
| 24)   | Nitrobenzene          |                | 0.313 | 0.322 | 0.375 | 0.392 | 0.375 | 0.388 | 0.374 | 0.363 | 8.72  |
| 25)   | Isophorone            |                | 0.710 | 0.666 | 0.690 | 0.707 | 0.660 | 0.689 | 0.665 | 0.684 | 3.00  |
| 26) C | 2-Nitrophenol         |                | 0.078 | 0.089 | 0.117 | 0.138 | 0.139 | 0.149 | 0.149 | 0.123 | 23.57 |
| 27)   | 2,4-Dimethylph...     |                | 0.298 | 0.287 | 0.303 | 0.298 | 0.270 | 0.278 | 0.259 | 0.285 | 5.75  |
| 28)   | bis(2-Chloroet...     |                | 0.418 | 0.375 | 0.394 | 0.393 | 0.365 | 0.374 | 0.354 | 0.382 | 5.57  |
| 29) C | 2,4-Dichloroph...     |                | 0.291 | 0.287 | 0.307 | 0.308 | 0.284 | 0.295 | 0.278 | 0.293 | 3.93  |
| 30)   | 1,2,4-Trichlor...     |                | 0.327 | 0.324 | 0.337 | 0.324 | 0.301 | 0.306 | 0.285 | 0.315 | 5.73  |
| 31)   | Naphthalene           |                | 1.138 | 1.071 | 1.110 | 1.074 | 0.987 | 0.997 | 0.928 | 1.043 | 7.19  |
| 32)   | Benzoic acid          |                |       | 0.104 | 0.142 | 0.187 | 0.193 | 0.213 | 0.222 | 0.177 | 25.57 |
| 33)   | 4-Chloroaniline       |                | 0.442 | 0.420 | 0.425 | 0.428 | 0.391 | 0.401 | 0.379 | 0.412 | 5.45  |
| 34) C | Hexachlorobuta...     |                | 0.220 | 0.210 | 0.217 | 0.215 | 0.201 | 0.206 | 0.195 | 0.209 | 4.33  |
| 35)   | Caprolactam           |                | 0.094 | 0.090 | 0.093 | 0.099 | 0.092 | 0.097 | 0.092 | 0.094 | 3.29  |
| 36) C | 4-Chloro-3-met...     |                | 0.321 | 0.311 | 0.320 | 0.336 | 0.309 | 0.319 | 0.306 | 0.318 | 3.13  |
| 37)   | 2-Methylnaphth...     |                | 0.726 | 0.674 | 0.689 | 0.671 | 0.620 | 0.631 | 0.583 | 0.656 | 7.32  |
| 38)   | 1-Methylnaphth...     |                | 0.721 | 0.654 | 0.670 | 0.651 | 0.606 | 0.605 | 0.564 | 0.639 | 8.06  |

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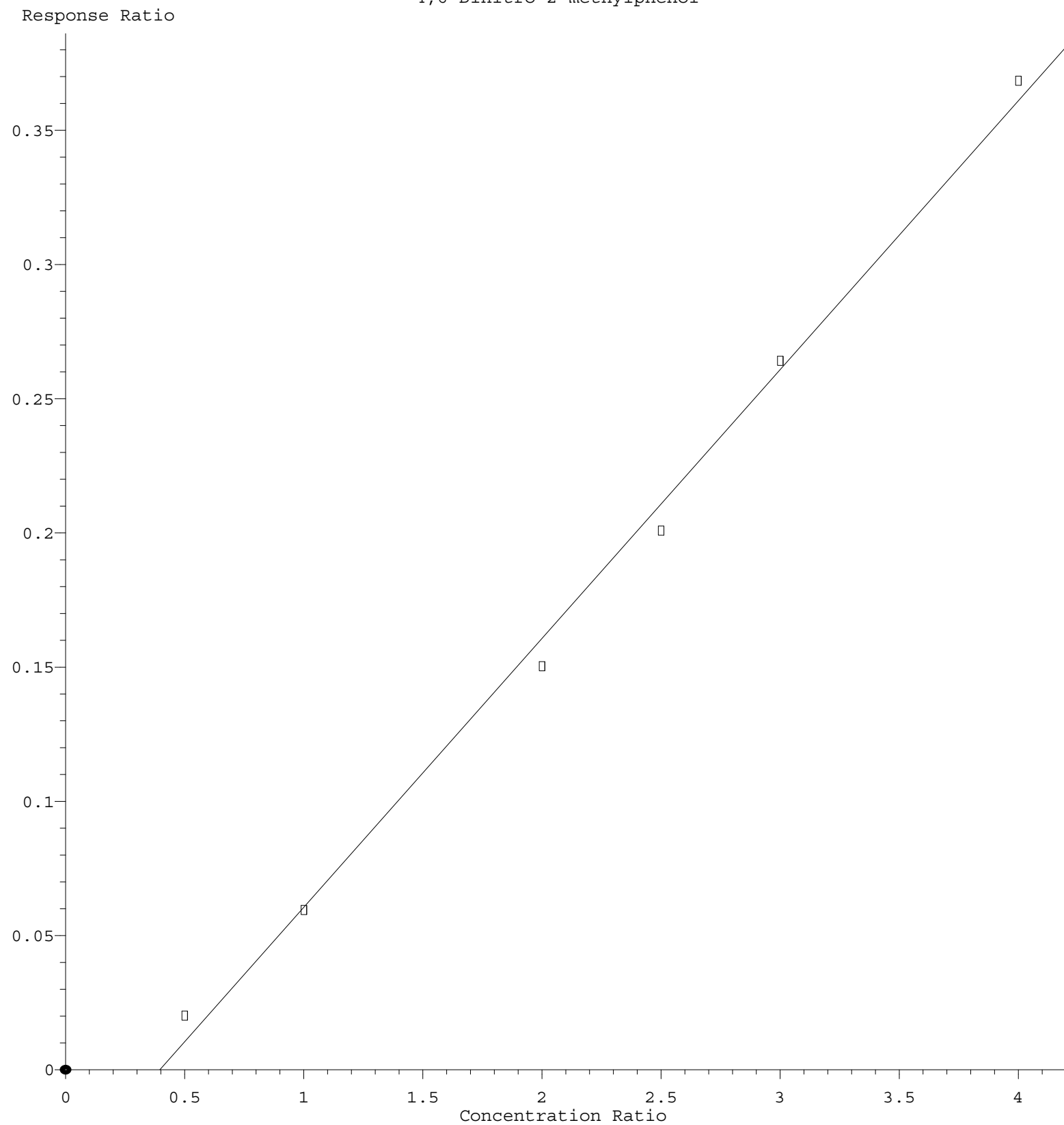
|       |                    |                |       |       |       |       |       |       |       |       |       |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 39) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 40)   | 1,2,4,5-Tetrac...  |                | 0.611 | 0.585 | 0.602 | 0.576 | 0.531 | 0.546 | 0.520 | 0.567 | 6.24  |
| 41) P | Hexachlorocycl...  |                | 0.262 | 0.268 | 0.300 | 0.322 | 0.302 | 0.319 | 0.313 | 0.298 | 7.97  |
| 42) S | 2,4,6-Tribromo...  | 0.161          | 0.156 | 0.160 | 0.174 | 0.185 | 0.164 | 0.174 | 0.174 | 0.168 | 5.86  |
| 43) C | 2,4,6-Trichlor...  |                | 0.383 | 0.389 | 0.410 | 0.419 | 0.385 | 0.388 | 0.385 | 0.394 | 3.64  |
| 44)   | 2,4,5-Trichlor...  |                | 0.408 | 0.412 | 0.446 | 0.446 | 0.411 | 0.418 | 0.406 | 0.421 | 4.11  |
| 45) S | 2-Fluorobiphenyl   | 1.612          | 1.460 | 1.387 | 1.351 | 1.279 | 1.182 | 1.187 | 1.124 | 1.323 | 12.37 |
| 46)   | 1,1'-Biphenyl      |                | 1.553 | 1.512 | 1.498 | 1.457 | 1.331 | 1.349 | 1.275 | 1.425 | 7.45  |
| 47)   | 2-Chloronaphth...  |                | 1.241 | 1.194 | 1.210 | 1.171 | 1.071 | 1.087 | 1.024 | 1.143 | 7.14  |
| 48)   | 2-Nitroaniline     |                | 0.198 | 0.227 | 0.299 | 0.360 | 0.355 | 0.377 | 0.387 | 0.315 | 23.98 |
| 49)   | Acenaphthylene     |                | 1.948 | 1.881 | 1.894 | 1.873 | 1.720 | 1.717 | 1.606 | 1.806 | 6.92  |
| 50)   | Dimethylphthalate  |                | 1.459 | 1.401 | 1.433 | 1.410 | 1.306 | 1.320 | 1.288 | 1.374 | 4.94  |
| 51)   | 2,6-Dinitrotol...  |                | 0.149 | 0.185 | 0.232 | 0.265 | 0.257 | 0.268 | 0.266 | 0.232 | 20.33 |
| 52) C | Acenaphthene       |                | 1.157 | 1.149 | 1.158 | 1.151 | 1.071 | 1.086 | 1.043 | 1.116 | 4.31  |
| 53)   | 3-Nitroaniline     |                | 0.183 | 0.224 | 0.275 | 0.300 | 0.285 | 0.305 | 0.301 | 0.268 | 17.41 |
| 54) P | 2,4-Dinitrophenol  |                |       | 0.052 | 0.070 | 0.093 | 0.100 | 0.112 | 0.125 | 0.092 | 29.46 |
| 55)   | Dibenzofuran       |                | 1.761 | 1.703 | 1.705 | 1.654 | 1.523 | 1.534 | 1.448 | 1.618 | 7.19  |
| 56) P | 4-Nitrophenol      |                | 0.147 | 0.173 | 0.213 | 0.243 | 0.228 | 0.239 | 0.239 | 0.212 | 17.71 |
| 57)   | 2,4-Dinitrotol...  |                | 0.166 | 0.207 | 0.272 | 0.330 | 0.323 | 0.335 | 0.340 | 0.282 | 24.82 |
| 58)   | Fluorene           |                | 1.433 | 1.342 | 1.335 | 1.296 | 1.190 | 1.195 | 1.130 | 1.274 | 8.36  |
| 59)   | 2,3,4,6-Tetrac...  |                | 0.344 | 0.341 | 0.360 | 0.368 | 0.343 | 0.346 | 0.329 | 0.347 | 3.66  |
| 60)   | Diethylphthalate   |                | 1.425 | 1.367 | 1.399 | 1.398 | 1.304 | 1.323 | 1.241 | 1.351 | 4.81  |
| 61)   | 4-Chlorophenyl...  |                | 0.682 | 0.639 | 0.651 | 0.613 | 0.570 | 0.576 | 0.536 | 0.610 | 8.44  |
| 62)   | 4-Nitroaniline     |                | 0.198 | 0.222 | 0.272 | 0.309 | 0.291 | 0.301 | 0.303 | 0.271 | 16.10 |
| 63)   | Azobenzene         |                | 1.462 | 1.428 | 1.460 | 1.472 | 1.361 | 1.377 | 1.313 | 1.410 | 4.32  |
| 64) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 65)   | 4,6-Dinitro-2-...  |                |       | 0.040 | 0.060 | 0.075 | 0.080 | 0.088 | 0.092 | 0.073 | 26.82 |
| 66) c | n-Nitrosodiphe...  |                | 0.661 | 0.645 | 0.652 | 0.637 | 0.595 | 0.607 | 0.570 | 0.624 | 5.41  |
| 67)   | 4-Bromophenyl-...  |                | 0.215 | 0.198 | 0.212 | 0.208 | 0.189 | 0.197 | 0.189 | 0.201 | 5.25  |
| 68)   | Hexachlorobenzene  |                | 0.233 | 0.226 | 0.227 | 0.225 | 0.214 | 0.218 | 0.208 | 0.222 | 3.88  |
| 69)   | Atrazine           |                | 0.203 | 0.194 | 0.193 | 0.190 | 0.170 | 0.166 | 0.146 | 0.180 | 11.22 |
| 70) C | Pentachlorophenol  |                | 0.108 | 0.116 | 0.132 | 0.137 | 0.129 | 0.135 | 0.128 | 0.126 | 8.28  |
| 71)   | Phenanthrene       |                | 1.151 | 1.094 | 1.077 | 1.048 | 0.963 | 0.984 | 0.909 | 1.032 | 8.15  |
| 72)   | Anthracene         |                | 1.142 | 1.061 | 1.069 | 1.036 | 0.961 | 0.966 | 0.892 | 1.018 | 8.24  |
| 73)   | Carbazole          |                | 1.002 | 0.967 | 0.973 | 0.926 | 0.861 | 0.865 | 0.788 | 0.912 | 8.38  |
| 74)   | Di-n-butylphth...  |                | 1.198 | 1.137 | 1.167 | 1.128 | 1.062 | 1.072 | 0.986 | 1.107 | 6.51  |
| 75) C | Fluoranthene       |                | 1.226 | 1.201 | 1.182 | 1.107 | 1.033 | 1.013 | 0.915 | 1.097 | 10.48 |
| 76) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 77)   | Benzidine          |                | 0.724 | 0.682 | 0.468 | 0.503 | 0.399 | 0.346 | 0.277 | 0.485 | 34.32 |
| 78)   | Pyrene             |                | 1.621 | 1.554 | 1.658 | 1.782 | 1.701 | 1.799 | 1.697 | 1.687 | 5.12  |
| 79) S | Terphenyl-d14      | 1.154          | 1.081 | 1.023 | 1.057 | 1.122 | 1.083 | 1.137 | 1.074 | 1.091 | 3.98  |
| 80)   | Butylbenzylphth... |                | 0.525 | 0.548 | 0.608 | 0.660 | 0.635 | 0.653 | 0.619 | 0.607 | 8.50  |
| 81)   | Benzo(a)anthra...  |                | 1.393 | 1.347 | 1.356 | 1.363 | 1.277 | 1.306 | 1.241 | 1.326 | 4.04  |
| 82)   | 3,3'-Dichlorob...  |                | 0.371 | 0.390 | 0.374 | 0.368 | 0.340 | 0.344 | 0.318 | 0.358 | 6.87  |
| 83)   | Chrysene           |                | 1.383 | 1.301 | 1.325 | 1.292 | 1.215 | 1.238 | 1.199 | 1.279 | 5.14  |
| 84)   | Bis(2-ethylhex...  |                | 0.663 | 0.716 | 0.743 | 0.771 | 0.738 | 0.756 | 0.723 | 0.730 | 4.78  |
| 85) c | Di-n-octyl pht...  |                | 0.863 | 0.955 | 1.016 | 1.062 | 0.997 | 1.060 | 1.099 | 1.007 | 7.89  |

Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
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|       |                   |                |       |       |       |       |       |       |       |       |  |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 87)   | Indeno(1,2,3-c... | 1.039          | 1.055 | 1.248 | 1.461 | 1.456 | 1.561 | 1.477 | 1.328 | 16.14 |  |
| 88)   | Benzo(b)fluora... | 1.387          | 1.371 | 1.410 | 1.287 | 1.201 | 1.261 | 1.134 | 1.293 | 7.94  |  |
| 89)   | Benzo(k)fluora... | 1.412          | 1.219 | 1.361 | 1.297 | 1.236 | 1.150 | 1.143 | 1.260 | 8.11  |  |
| 90) C | Benzo(a)pyrene    | 1.057          | 1.008 | 1.083 | 1.084 | 1.016 | 1.040 | 0.986 | 1.039 | 3.63  |  |
| 91)   | Dibenzo(a,h)an... | 0.848          | 0.862 | 1.024 | 1.207 | 1.187 | 1.272 | 1.178 | 1.083 | 15.93 |  |
| 92)   | Benzo(g,h,i)pe... | 0.816          | 0.845 | 1.038 | 1.246 | 1.229 | 1.317 | 1.241 | 1.105 | 18.63 |  |

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(#) = Out of Range

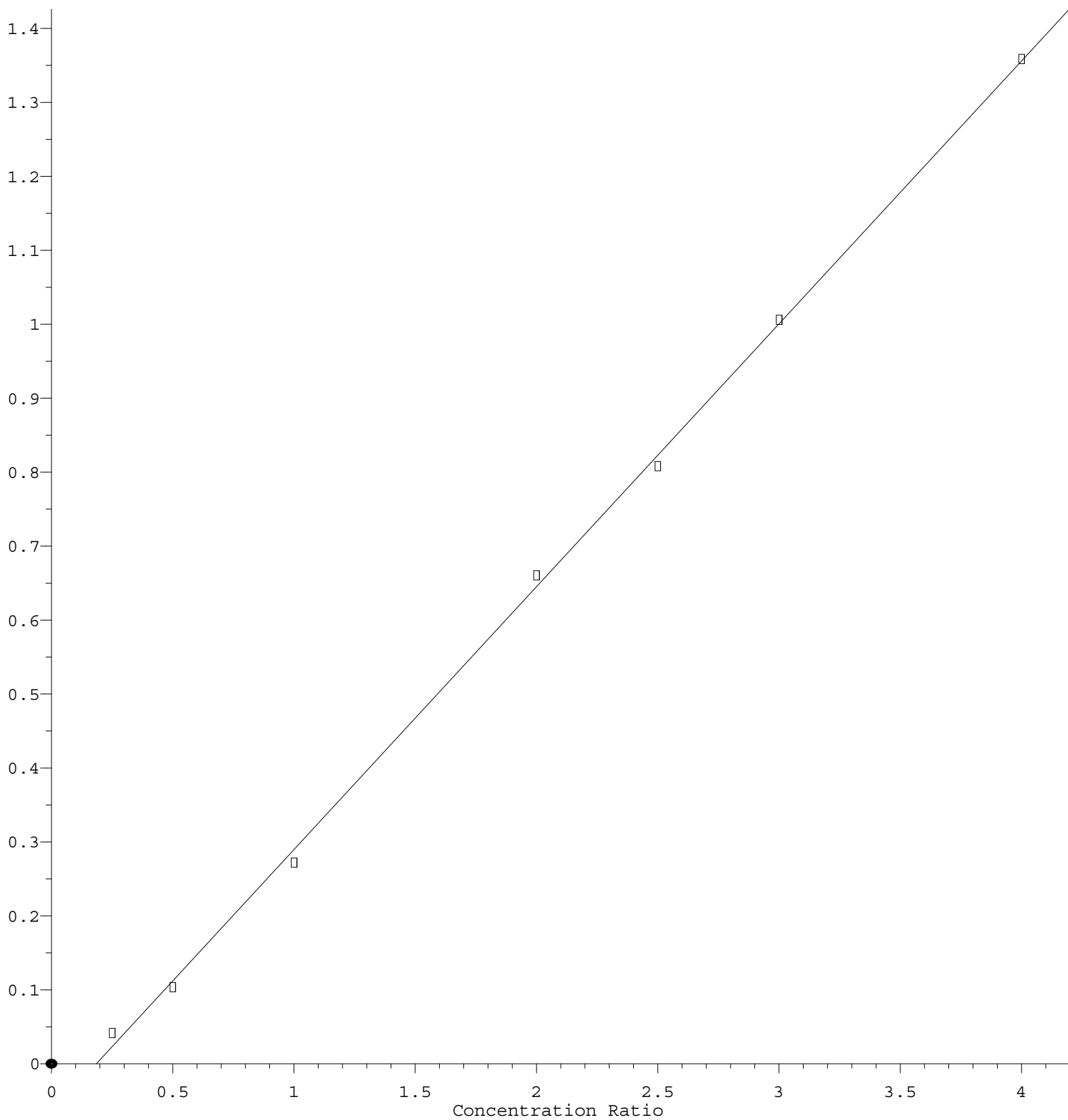
## 4,6-Dinitro-2-methylphenol



Response =  $1.001\text{e-}001 \times \text{Amt} - 3.969\text{e-}002$   
Coef of Det ( $r^2$ ) = 0.995628    Curve Fit: Linear  
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF102722.M  
Calibration Table Last Updated: Fri Oct 28 04:00:21 2022

## 2,4-Dinitrotoluene

Response Ratio



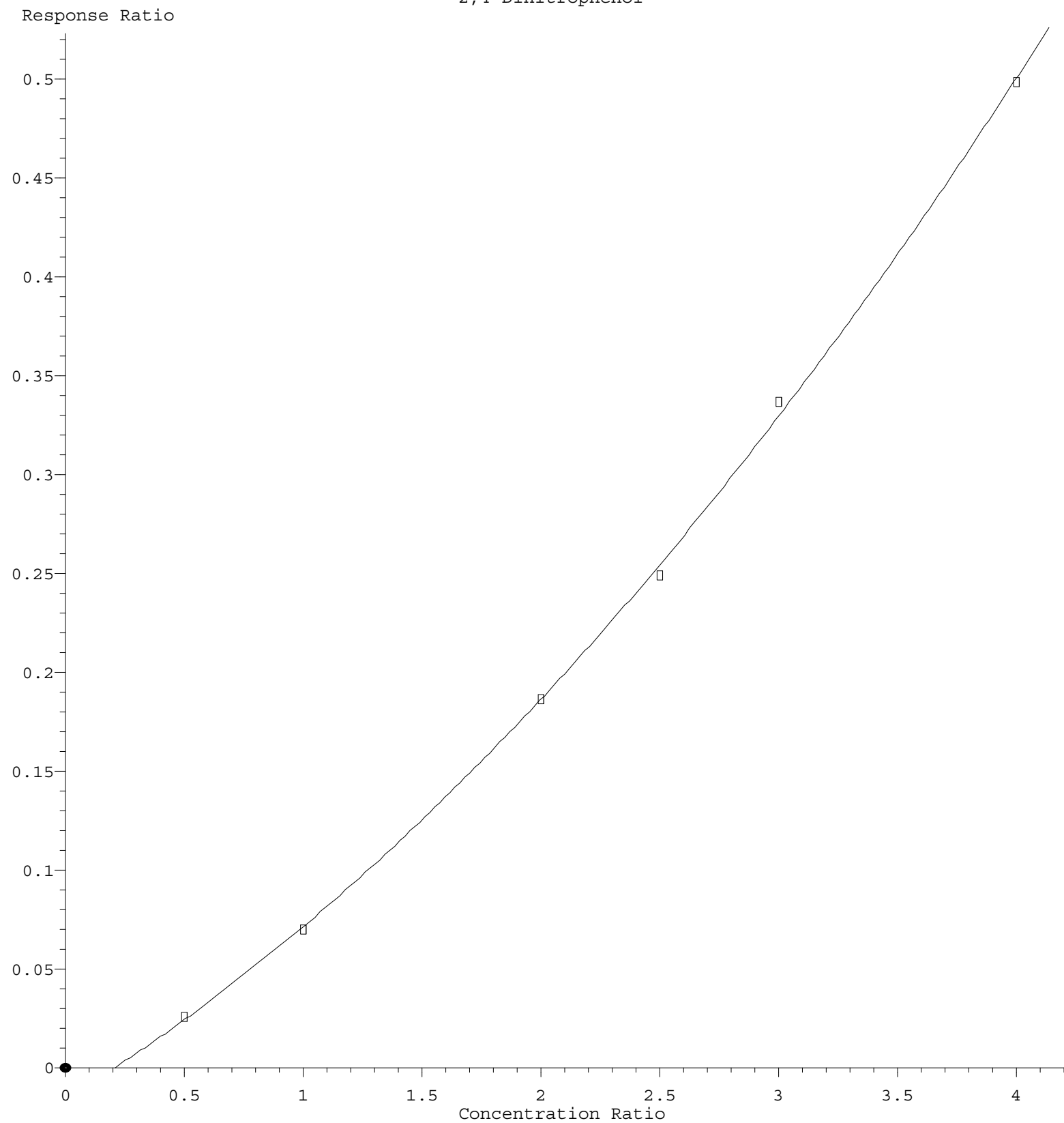
$$\text{Response} = 3.556\text{e-}001 * \text{Amt} - 6.589\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.999166 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF102722.M

Calibration Table Last Updated: Fri Oct 28 04:00:21 2022

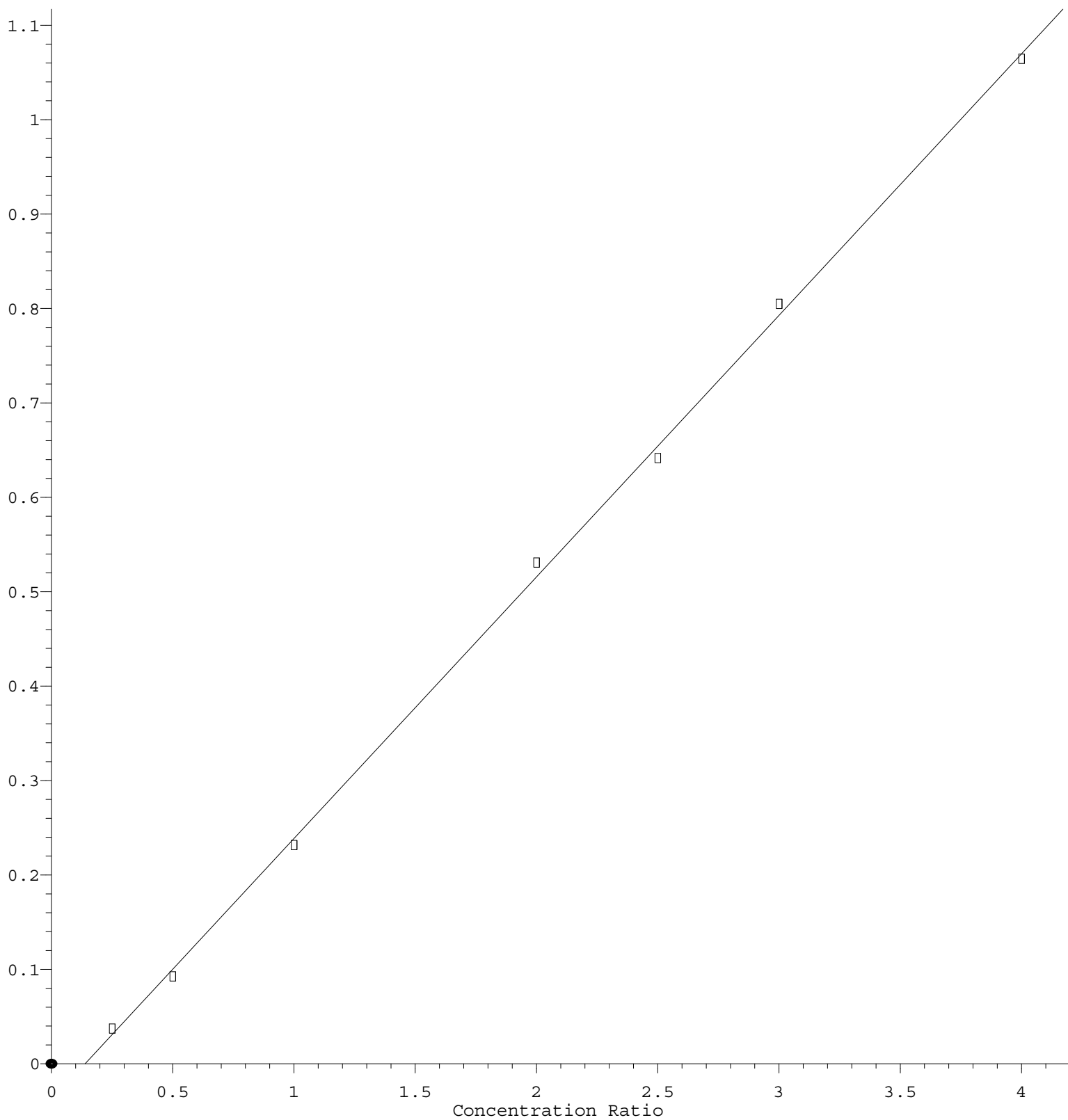
# 2,4-Dinitrophenol



$R = 1.398e-002 A^2 + 7.312e-002 A - 1.575e-002$   
 Coef of Det ( $r^2$ ) = 0.999403    Curve Fit: Quadratic  
 Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF102722.M  
 Calibration Table Last Updated: Fri Oct 28 04:00:21 2022

## 2,6-Dinitrotoluene

Response Ratio



$$\text{Response} = 2.772\text{e-}001 * \text{Amt} - 3.866\text{e-}002$$

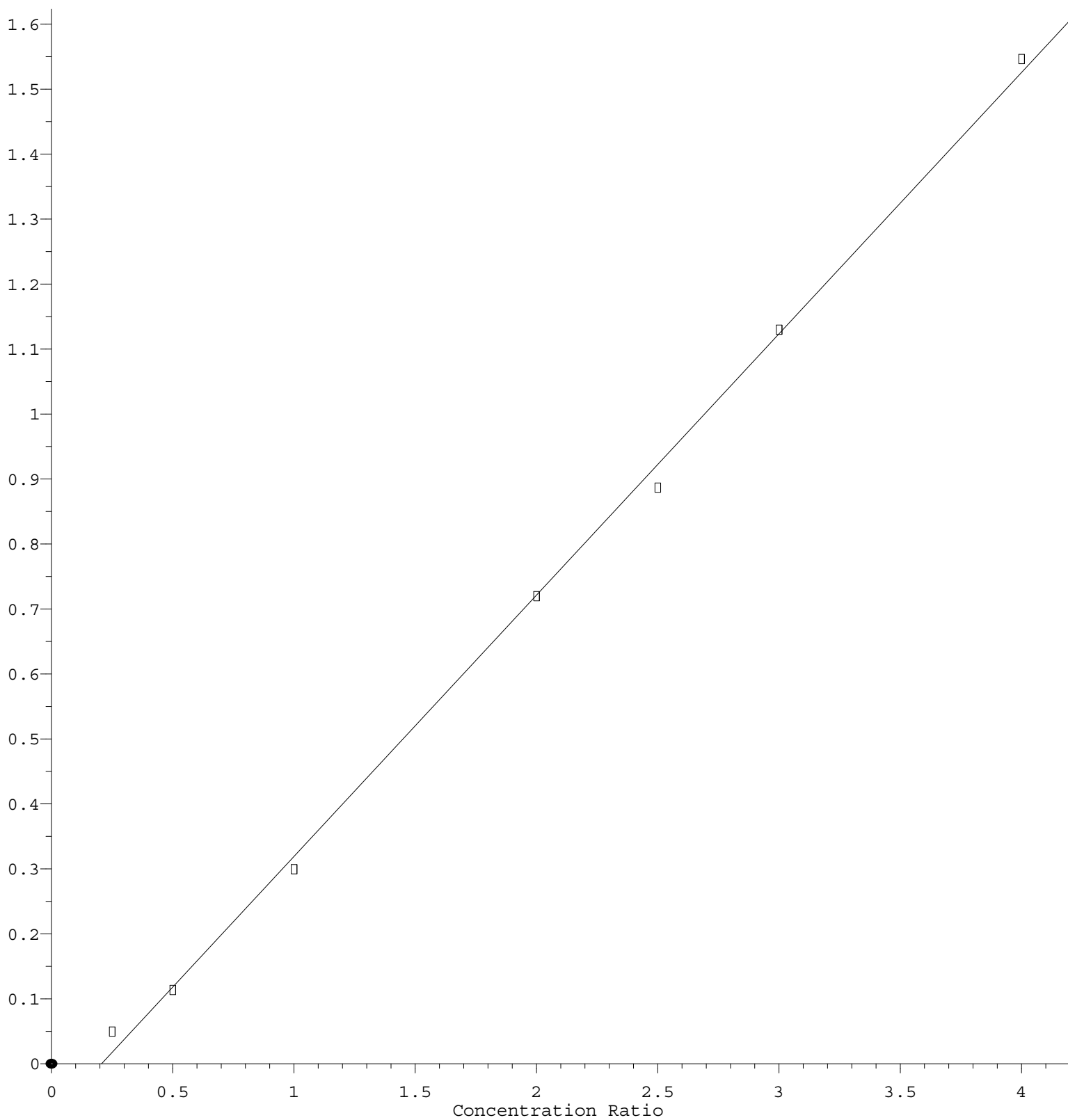
Coef of Det ( $r^2$ ) = 0.999192 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF102722.M

Calibration Table Last Updated: Fri Oct 28 04:00:21 2022

## 2-Nitroaniline

Response Ratio



$$\text{Response} = 4.021\text{e-}001 * \text{Amt} - 8.338\text{e-}002$$

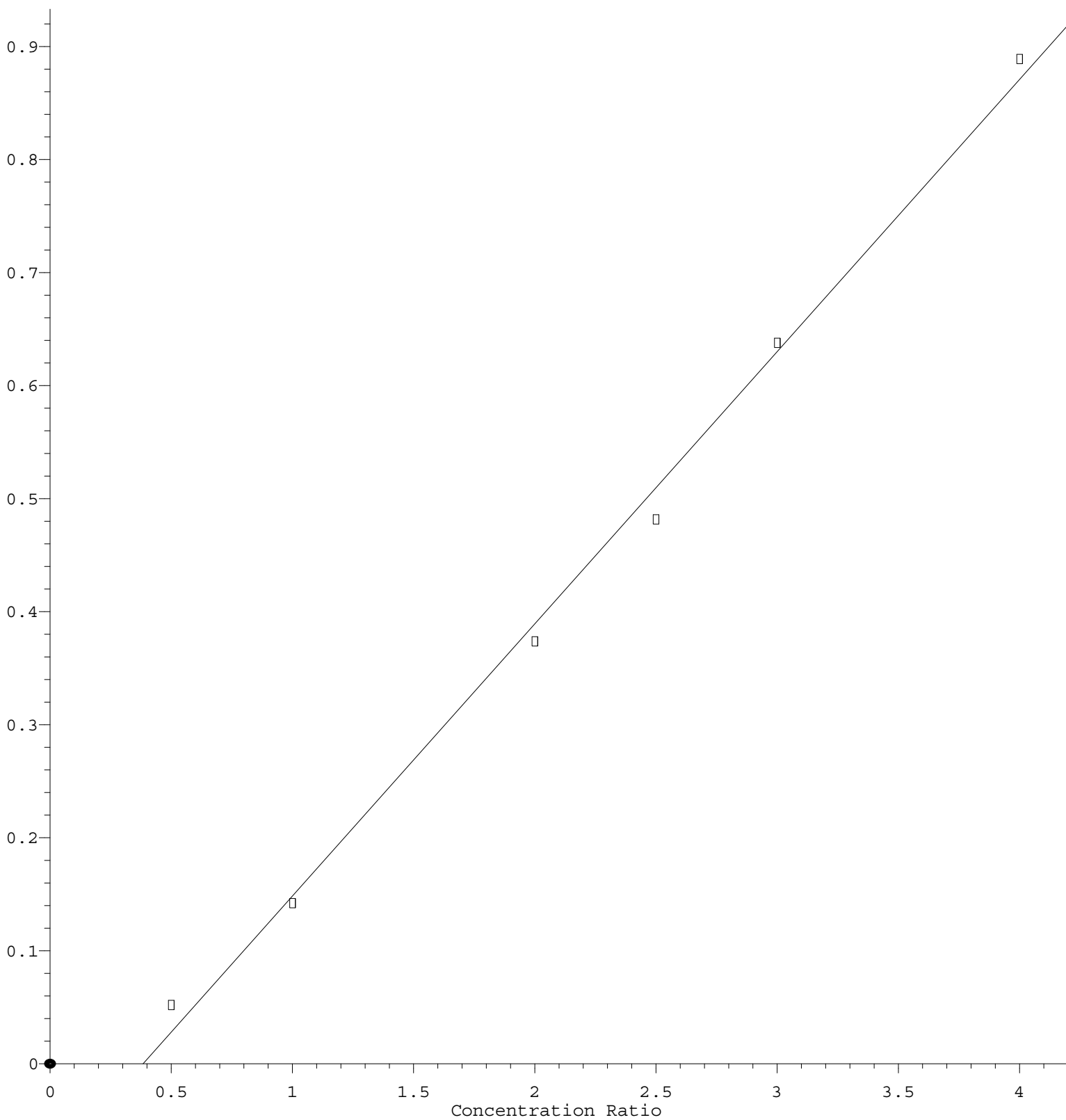
Coef of Det ( $r^2$ ) = 0.998291 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF102722.M

Calibration Table Last Updated: Fri Oct 28 04:00:21 2022

# Benzoic acid

Response Ratio



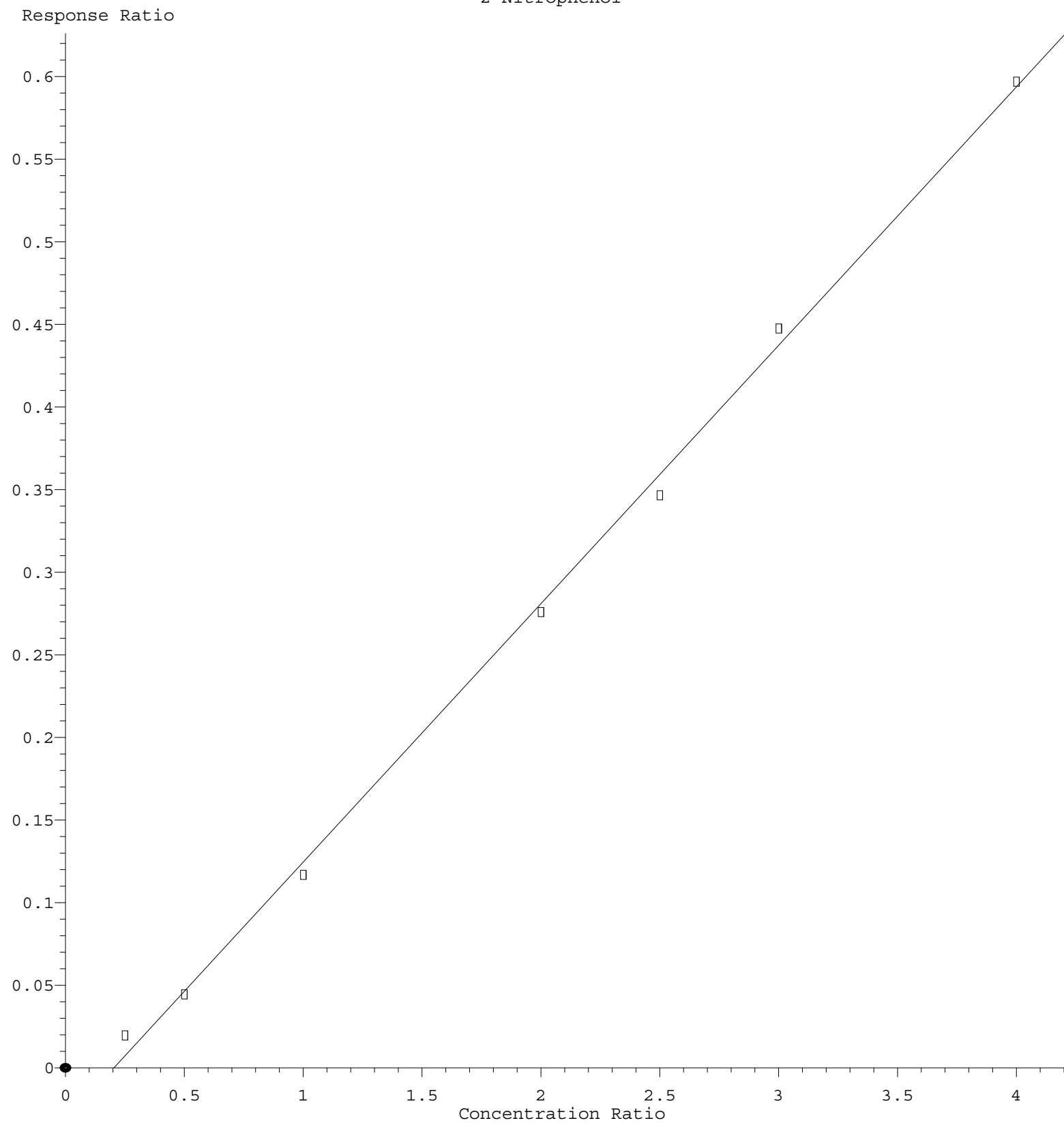
$$\text{Response} = 2.408\text{e-}001 * \text{Amt} - 9.248\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.995827 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF102722.M

Calibration Table Last Updated: Fri Oct 28 04:00:21 2022

# 2-Nitrophenol



Response = 1.563e-001 \* Amt - 3.189e-002  
 Coef of Det (r^2) = 0.998175    Curve Fit: Linear  
 Method Name:    Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF102722.M  
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