

Method Path : Z:\svoasrv\HPCHEM1\BNA\_M\Methods\  
 Method File : 8270-BM102123.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Sat Oct 21 02:32:53 2023  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BM042383.D 5 =BM042384.D 10 =BM042385.D 20 =BM042386.D 40 =BM042387.D 50 =BM042388.D 60 =BM042389.D 80 =BM042390.D

|       | Compound              | 2.5            | 5     | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.705          | 0.643 | 0.702 | 0.655 | 0.645 | 0.658 | 0.658 | 0.666 |       | 3.91  |
| 3)    | Pyridine              | 1.911          | 1.831 | 2.047 | 1.951 | 1.926 | 1.989 | 2.030 | 1.955 |       | 3.82  |
| 4)    | n-Nitrosodimet...     | 0.948          | 0.946 | 1.038 | 1.005 | 0.966 | 0.996 | 1.012 | 0.987 |       | 3.52  |
| 5) S  | 2-Fluorophenol        | 1.356          | 1.334 | 1.490 | 1.432 | 1.394 | 1.440 | 1.460 | 1.415 |       | 3.97  |
| 6)    | Aniline               | 2.218          | 2.179 | 2.473 | 2.460 | 2.430 | 2.524 | 2.618 | 2.415 |       | 6.62  |
| 7) S  | Phenol-d6             | 1.754          | 1.735 | 1.982 | 1.927 | 1.900 | 1.956 | 2.021 | 1.896 |       | 5.83  |
| 8)    | 2-Chlorophenol        | 1.312          | 1.302 | 1.446 | 1.430 | 1.395 | 1.454 | 1.490 | 1.404 |       | 5.15  |
| 9)    | Benzaldehyde          | 1.300          | 1.202 | 1.263 | 1.077 | 1.002 | 0.968 | 0.920 | 1.105 |       | 13.65 |
| 10) C | Phenol                | 1.828          | 1.804 | 2.042 | 1.998 | 1.950 | 2.014 | 2.081 | 1.960 |       | 5.42  |
| 11)   | bis(2-Chloroet...     | 1.567          | 1.537 | 1.668 | 1.603 | 1.578 | 1.629 | 1.679 | 1.609 |       | 3.29  |
| 12)   | 1,3-Dichlorobe...     | 1.428          | 1.387 | 1.513 | 1.446 | 1.423 | 1.472 | 1.497 | 1.452 |       | 3.06  |
| 13) C | 1,4-Dichlorobe...     | 1.426          | 1.375 | 1.517 | 1.467 | 1.434 | 1.492 | 1.523 | 1.462 |       | 3.68  |
| 14)   | 1,2-Dichlorobe...     | 1.388          | 1.322 | 1.458 | 1.408 | 1.379 | 1.419 | 1.453 | 1.404 |       | 3.32  |
| 15)   | Benzyl Alcohol        | 1.221          | 1.215 | 1.439 | 1.453 | 1.444 | 1.491 | 1.578 | 1.406 |       | 9.73  |
| 16)   | 2,2'-oxybis(1-...     | 2.471          | 2.419 | 2.656 | 2.559 | 2.500 | 2.569 | 2.645 | 2.546 |       | 3.46  |
| 17)   | 2-Methylphenol        | 1.148          | 1.142 | 1.345 | 1.333 | 1.321 | 1.358 | 1.403 | 1.293 |       | 8.07  |
| 18)   | Hexachloroethane      | 0.529          | 0.519 | 0.577 | 0.573 | 0.563 | 0.585 | 0.593 | 0.563 |       | 5.00  |
| 19) P | n-Nitroso-di-n...     | 1.075          | 1.164 | 1.154 | 1.358 | 1.355 | 1.344 | 1.377 | 1.456 | 1.285 | 10.48 |
| 20)   | 3+4-Methylphenols     | 1.503          | 1.520 | 1.787 | 1.780 | 1.772 | 1.837 | 1.941 | 1.734 |       | 9.38  |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.505          | 0.500 | 0.564 | 0.572 | 0.541 | 0.561 | 0.577 | 0.546 |       | 5.78  |
| 23) S | Nitrobenzene-d5       | 0.395          | 0.403 | 0.470 | 0.481 | 0.456 | 0.475 | 0.486 | 0.452 |       | 8.37  |
| 24)   | Nitrobenzene          | 0.403          | 0.406 | 0.469 | 0.477 | 0.454 | 0.473 | 0.486 | 0.452 |       | 7.58  |
| 25)   | Isophorone            | 0.639          | 0.647 | 0.777 | 0.821 | 0.789 | 0.829 | 0.877 | 0.769 |       | 11.89 |
| 26) C | 2-Nitrophenol         | 0.118          | 0.126 | 0.157 | 0.173 | 0.168 | 0.181 |       | 0.154 |       | 16.95 |
| 27)   | 2,4-Dimethylph...     | 0.266          | 0.276 | 0.319 | 0.332 | 0.315 | 0.328 | 0.347 | 0.312 |       | 9.56  |
| 28)   | bis(2-Chloroet...     | 0.445          | 0.446 | 0.502 | 0.512 | 0.482 | 0.501 | 0.520 | 0.487 |       | 6.29  |
| 29) C | 2,4-Dichloroph...     | 0.224          | 0.233 | 0.276 | 0.287 | 0.277 | 0.292 | 0.309 | 0.271 |       | 11.57 |
| 30)   | 1,2,4-Trichlor...     | 0.272          | 0.265 | 0.294 | 0.301 | 0.285 | 0.301 | 0.316 | 0.291 |       | 6.10  |
| 31)   | Naphthalene           | 0.962          | 0.949 | 1.056 | 1.074 | 1.008 | 1.049 | 1.092 | 1.027 |       | 5.39  |
| 32)   | Benzoic acid          |                | 0.139 | 0.181 | 0.222 | 0.222 | 0.239 |       | 0.201 |       | 20.22 |
| 33)   | 4-Chloroaniline       | 0.386          | 0.395 | 0.455 | 0.473 | 0.452 | 0.468 | 0.493 | 0.446 |       | 9.01  |
| 34) C | Hexachlorobuta...     | 0.143          | 0.141 | 0.157 | 0.164 | 0.156 | 0.166 | 0.175 | 0.157 |       | 7.92  |
| 35)   | Caprolactam           |                | 0.068 | 0.090 | 0.103 | 0.101 | 0.107 | 0.118 | 0.098 |       | 17.73 |
| 36) C | 4-Chloro-3-met...     | 0.267          | 0.281 | 0.332 | 0.350 | 0.337 | 0.351 | 0.374 | 0.327 |       | 11.97 |
| 37)   | 2-Methylnaphth...     | 0.632          | 0.618 | 0.706 | 0.723 | 0.689 | 0.717 | 0.756 | 0.692 |       | 7.20  |
| 38)   | 1-Methylnaphth...     | 0.596          | 0.578 | 0.657 | 0.680 | 0.644 | 0.673 | 0.708 | 0.648 |       | 7.17  |

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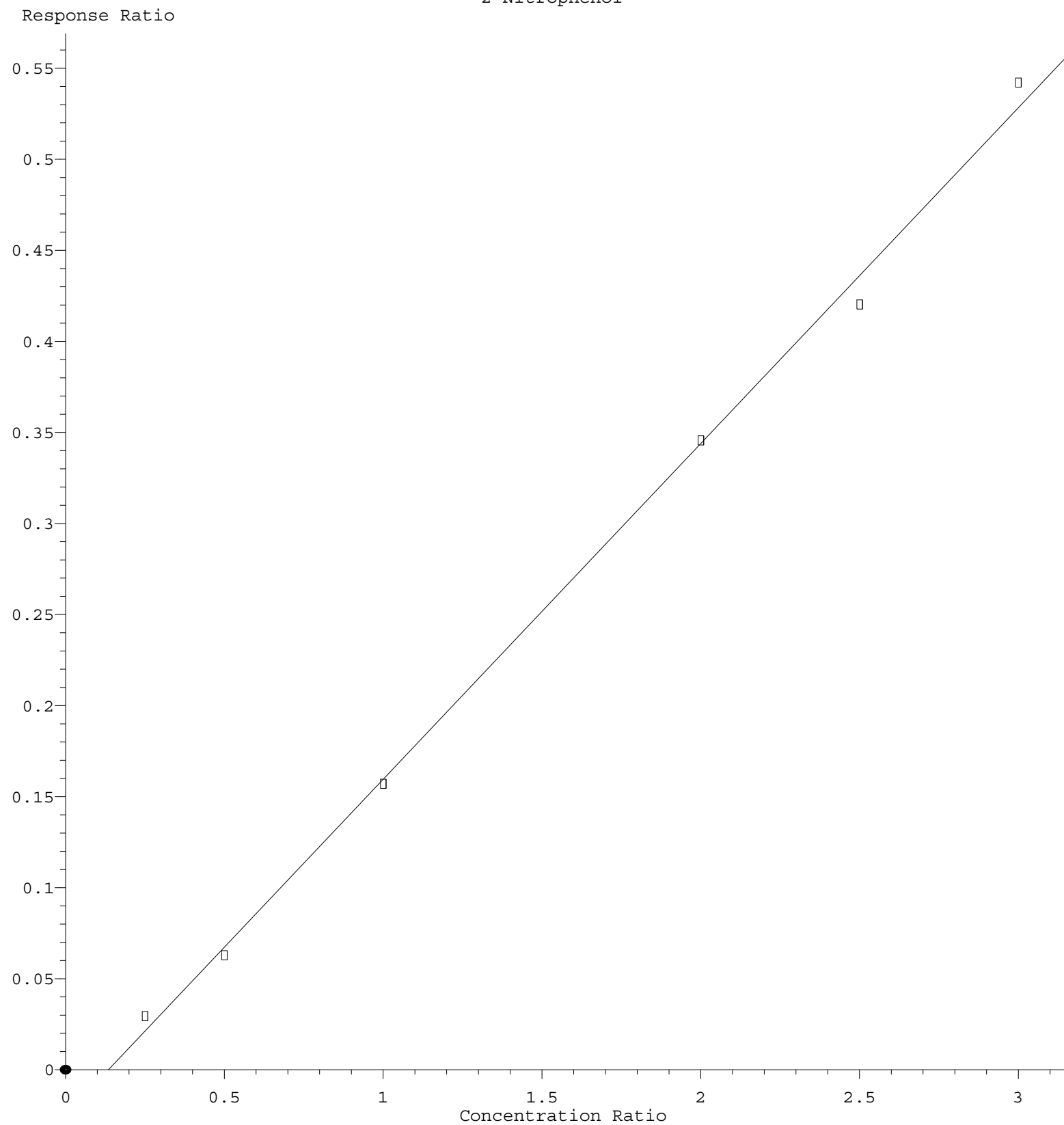
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|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 39) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 40)   | 1,2,4,5-Tetrac...  | 0.503          | 0.510 | 0.575 | 0.605 | 0.576 | 0.626 | 0.653 | 0.578 | 9.74  |
| 41) P | Hexachlorocycl...  |                | 0.201 | 0.254 | 0.294 | 0.285 | 0.319 |       | 0.271 | 16.66 |
| 42) S | 2,4,6-Tribromo...  |                | 0.144 | 0.182 | 0.207 | 0.206 | 0.227 |       | 0.193 | 16.45 |
| 43) C | 2,4,6-Trichlor...  | 0.285          | 0.316 | 0.370 | 0.404 | 0.386 | 0.417 | 0.442 | 0.374 | 14.95 |
| 44)   | 2,4,5-Trichlor...  | 0.349          | 0.376 | 0.442 | 0.471 | 0.453 | 0.490 | 0.518 | 0.442 | 13.72 |
| 45) S | 2-Fluorobiphenyl   | 1.353          | 1.346 | 1.499 | 1.562 | 1.472 | 1.560 | 1.605 | 1.485 | 6.90  |
| 46)   | 1,1'-Biphenyl      | 1.459          | 1.450 | 1.626 | 1.669 | 1.557 | 1.647 | 1.699 | 1.587 | 6.33  |
| 47)   | 2-Chloronaphth...  | 1.064          | 1.078 | 1.197 | 1.222 | 1.140 | 1.208 | 1.240 | 1.164 | 6.08  |
| 48)   | 2-Nitroaniline     | 0.309          | 0.345 | 0.449 | 0.508 | 0.485 | 0.520 | 0.544 | 0.452 | 20.06 |
| 49)   | Acenaphthylene     | 1.585          | 1.677 | 1.932 | 2.028 | 1.889 | 1.997 | 2.048 | 1.879 | 9.59  |
| 50)   | Dimethylphthalate  | 1.329          | 1.331 | 1.490 | 1.539 | 1.455 | 1.534 | 1.591 | 1.467 | 6.99  |
| 51)   | 2,6-Dinitrotol...  | 0.218          | 0.251 | 0.304 | 0.331 | 0.310 | 0.334 | 0.348 | 0.299 | 15.90 |
| 52) C | Acenaphthene       | 1.033          | 1.021 | 1.153 | 1.199 | 1.125 | 1.192 | 1.229 | 1.136 | 7.18  |
| 53)   | 3-Nitroaniline     | 0.232          | 0.273 | 0.356 | 0.392 | 0.371 | 0.396 | 0.413 | 0.348 | 19.67 |
| 54) P | 2,4-Dinitrophenol  |                | 0.091 | 0.138 | 0.176 | 0.176 | 0.192 | 0.214 | 0.165 | 26.70 |
| 55)   | Dibenzofuran       | 1.634          | 1.642 | 1.820 | 1.879 | 1.774 | 1.880 | 1.951 | 1.797 | 6.78  |
| 56) P | 4-Nitrophenol      |                | 0.216 | 0.290 | 0.318 | 0.304 | 0.326 | 0.338 | 0.299 | 14.76 |
| 57)   | 2,4-Dinitrotol...  | 0.244          | 0.286 | 0.383 | 0.428 | 0.415 | 0.451 | 0.472 | 0.383 | 22.41 |
| 58)   | Fluorene           | 1.246          | 1.249 | 1.433 | 1.499 | 1.425 | 1.508 | 1.566 | 1.418 | 8.86  |
| 59)   | 2,3,4,6-Tetrac...  | 0.255          | 0.281 | 0.324 | 0.357 | 0.343 | 0.373 | 0.393 | 0.332 | 14.91 |
| 60)   | Diethylphthalate   | 1.240          | 1.299 | 1.466 | 1.551 | 1.456 | 1.540 | 1.583 | 1.448 | 9.06  |
| 61)   | 4-Chlorophenyl...  | 0.566          | 0.568 | 0.654 | 0.707 | 0.681 | 0.731 | 0.769 | 0.668 | 11.67 |
| 62)   | 4-Nitroaniline     | 0.198          | 0.240 | 0.328 | 0.374 | 0.360 | 0.382 | 0.397 | 0.326 | 23.60 |
| 63)   | Azobenzene         | 1.330          | 1.498 | 1.800 | 1.929 | 1.808 | 1.889 | 1.905 | 1.737 | 13.29 |
| 64) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 65)   | 4,6-Dinitro-2-...  |                | 0.075 | 0.104 | 0.126 | 0.118 | 0.129 | 0.139 | 0.115 | 20.10 |
| 66) c | n-Nitrosodiphe...  | 0.510          | 0.538 | 0.617 | 0.654 | 0.601 | 0.636 | 0.661 | 0.602 | 9.60  |
| 67)   | 4-Bromophenyl-...  | 0.148          | 0.154 | 0.179 | 0.201 | 0.191 | 0.204 | 0.221 | 0.185 | 14.45 |
| 68)   | Hexachlorobenzene  | 0.172          | 0.173 | 0.193 | 0.212 | 0.198 | 0.210 | 0.229 | 0.198 | 10.59 |
| 69)   | Atrazine           | 0.125          | 0.134 | 0.155 | 0.168 | 0.156 | 0.166 | 0.166 | 0.153 | 11.12 |
| 70) C | Pentachlorophenol  |                | 0.098 | 0.129 | 0.153 | 0.143 | 0.158 | 0.172 | 0.142 | 18.36 |
| 71)   | Phenanthrene       | 0.985          | 0.972 | 1.100 | 1.167 | 1.074 | 1.132 | 1.186 | 1.088 | 7.71  |
| 72)   | Anthracene         | 0.894          | 0.938 | 1.072 | 1.185 | 1.086 | 1.155 | 1.213 | 1.078 | 11.32 |
| 73)   | Carbazole          | 0.840          | 0.880 | 1.028 | 1.110 | 1.024 | 1.074 | 1.121 | 1.011 | 10.89 |
| 74)   | Di-n-butylphth...  | 0.871          | 0.943 | 1.145 | 1.312 | 1.200 | 1.293 | 1.335 | 1.157 | 15.93 |
| 75) C | Fluoranthene       | 0.959          | 0.996 | 1.175 | 1.308 | 1.226 | 1.319 | 1.405 | 1.198 | 14.00 |
| 76) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 77)   | Benzidine          | 0.338          | 0.331 | 0.288 | 0.253 | 0.245 | 0.277 | 0.295 | 0.289 | 12.27 |
| 78)   | Pyrene             | 1.213          | 1.236 | 1.397 | 1.475 | 1.391 | 1.489 | 1.582 | 1.398 | 9.63  |
| 79) S | Terphenyl-d14      | 0.940          | 0.955 | 1.120 | 1.227 | 1.161 | 1.226 | 1.264 | 1.128 | 11.69 |
| 80)   | Butylbenzylphth... | 0.404          | 0.441 | 0.566 | 0.627 | 0.601 | 0.643 | 0.664 | 0.564 | 18.06 |
| 81)   | Benzo(a)anthra...  | 1.156          | 1.171 | 1.337 | 1.424 | 1.354 | 1.442 | 1.500 | 1.341 | 9.91  |
| 82)   | 3,3'-Dichlorob...  | 0.314          | 0.337 | 0.401 | 0.431 | 0.408 | 0.444 | 0.467 | 0.400 | 14.02 |
| 83)   | Chrysene           | 1.162          | 1.138 | 1.304 | 1.352 | 1.279 | 1.364 | 1.414 | 1.288 | 8.04  |
| 84)   | Bis(2-ethylhex...  | 0.549          | 0.611 | 0.790 | 0.904 | 0.854 | 0.914 | 0.944 | 0.795 | 19.61 |
| 85) c | Di-n-octyl pht...  |                | 1.045 | 1.341 | 1.571 | 1.479 | 1.582 | 1.630 | 1.441 | 15.21 |

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|       |                   |                |       |       |       |       |       |       |       |       |  |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 87)   | Indeno(1,2,3-c... | 1.214          | 1.241 | 1.471 | 1.544 | 1.498 | 1.581 | 1.682 | 1.462 | 11.89 |  |
| 88)   | Benzo(b)fluora... | 0.970          | 1.010 | 1.205 | 1.294 | 1.246 | 1.315 | 1.387 | 1.204 | 13.04 |  |
| 89)   | Benzo(k)fluora... | 1.050          | 1.071 | 1.242 | 1.319 | 1.283 | 1.352 | 1.432 | 1.250 | 11.39 |  |
| 90) C | Benzo(a)pyrene    | 0.915          | 0.950 | 1.161 | 1.248 | 1.199 | 1.281 | 1.358 | 1.159 | 14.40 |  |
| 91)   | Dibenzo(a,h)an... | 1.003          | 1.032 | 1.215 | 1.286 | 1.245 | 1.328 | 1.397 | 1.215 | 12.13 |  |
| 92)   | Benzo(g,h,i)pe... | 1.005          | 1.018 | 1.192 | 1.234 | 1.192 | 1.270 | 1.351 | 1.180 | 10.79 |  |

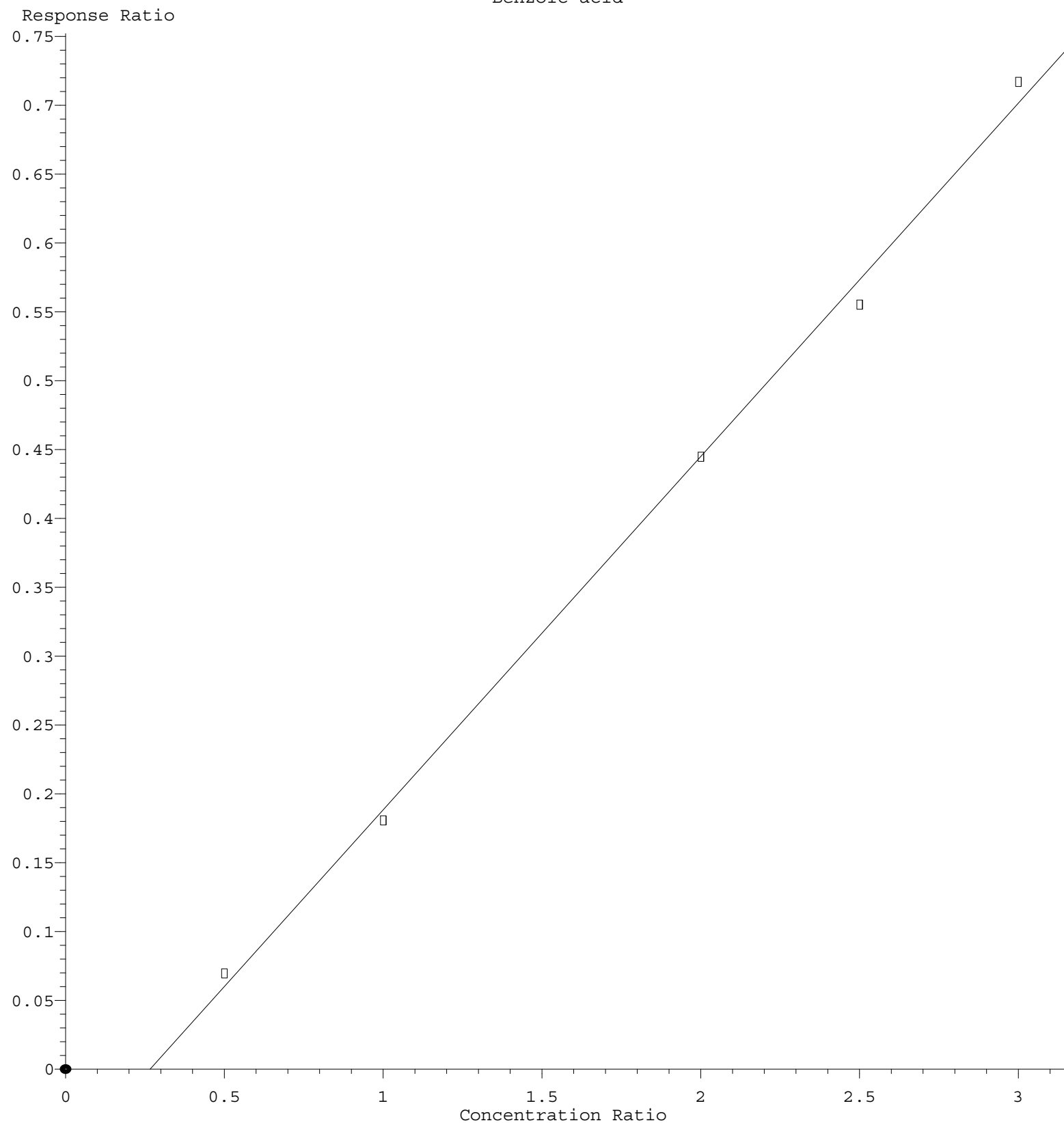
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(#) = Out of Range

# 2-Nitrophenol



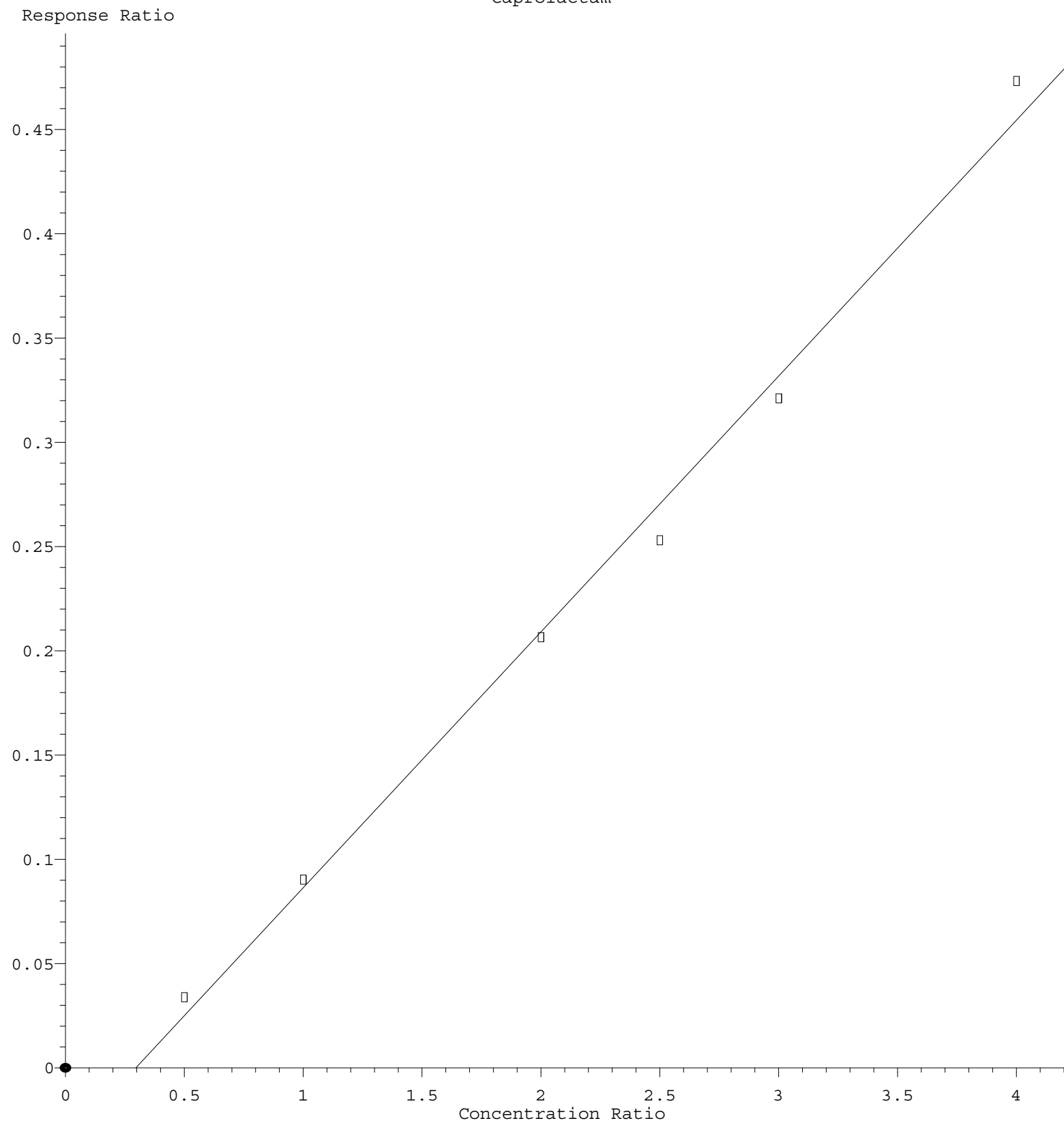
Response = 1.846e-001 \* Amt - 2.498e-002  
 Coef of Det (r^2) = 0.997501    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M  
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# Benzoic acid



$\text{Response} = 2.565\text{e-}001 * \text{Amt} - 6.827\text{e-}002$   
 Coef of Det ( $r^2$ ) = 0.997491    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M  
 Calibration Table Last Updated: Sat Oct 21 02:32:53 2023

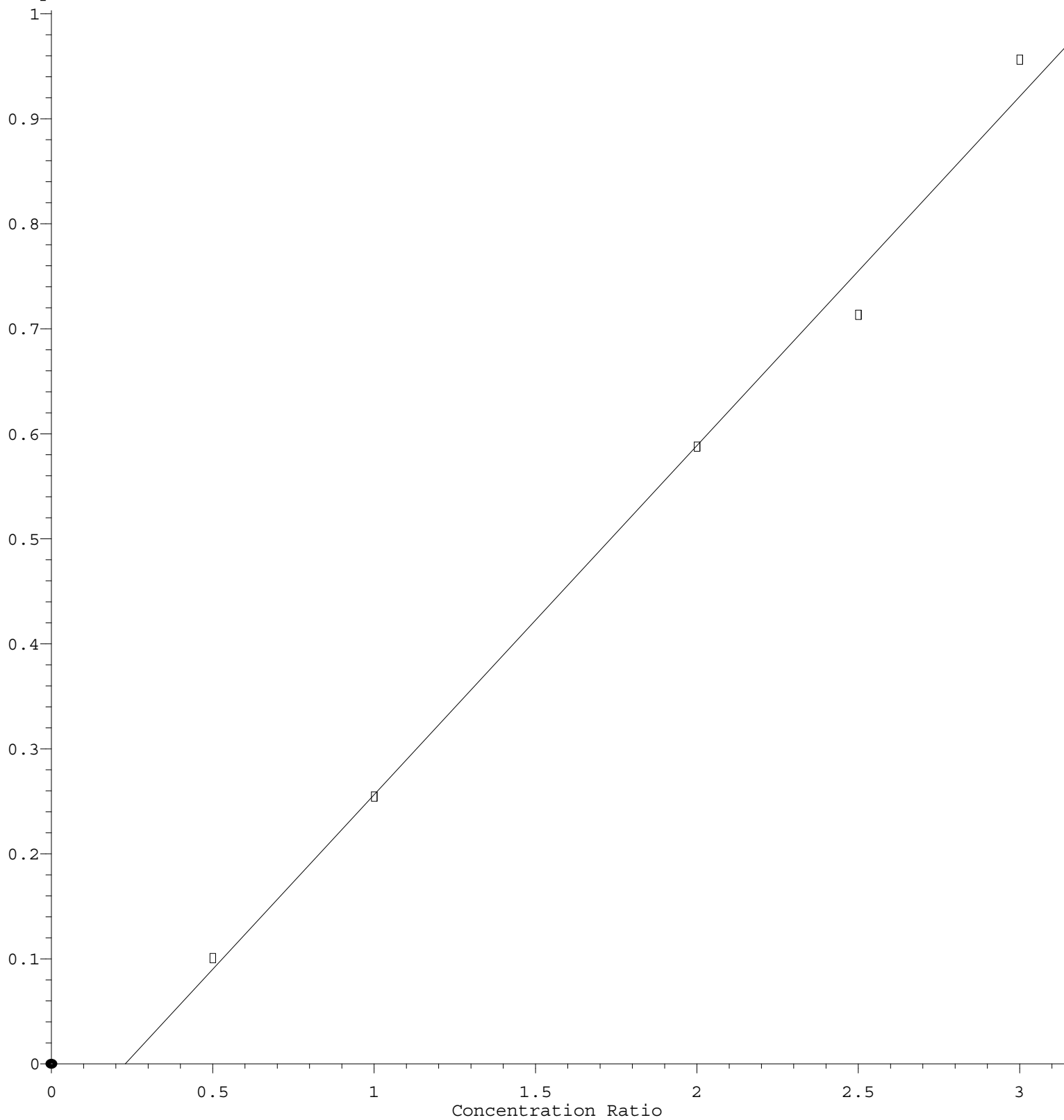
# Caprolactam



Response =  $1.228 \times 10^{-1} \times \text{Amt} - 3.640 \times 10^{-2}$   
 Coef of Det ( $r^2$ ) = 0.993119    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M  
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## Hexachlorocyclopentadiene

Response Ratio



$$\text{Response} = 3.325\text{e-}001 * \text{Amt} - 7.608\text{e-}002$$

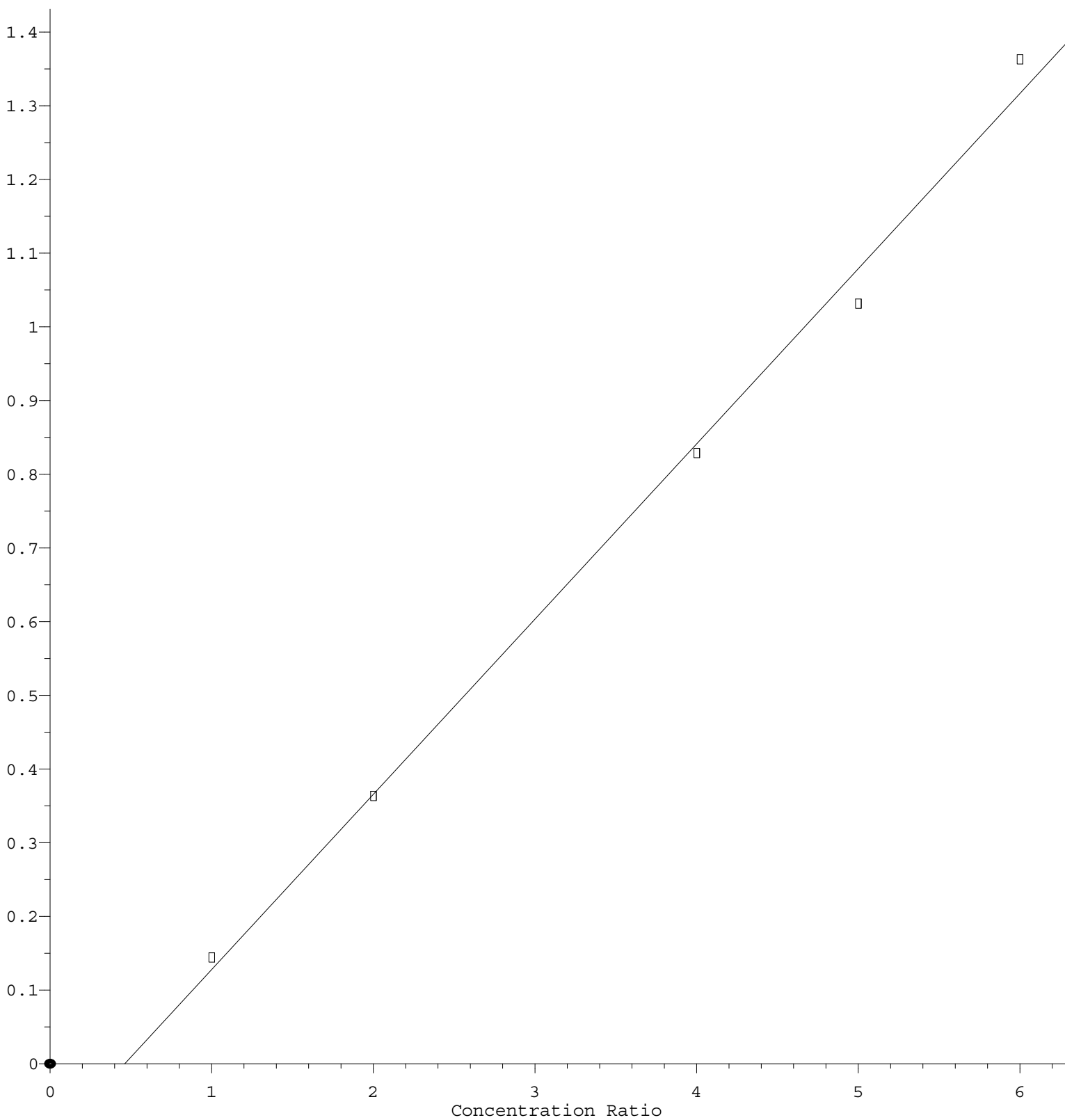
Coef of Det ( $r^2$ ) = 0.993556 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M

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# 2,4,6-Tribromophenol

Response Ratio



$$\text{Response} = 2.378\text{e-}001 * \text{Amt} - 1.099\text{e-}001$$

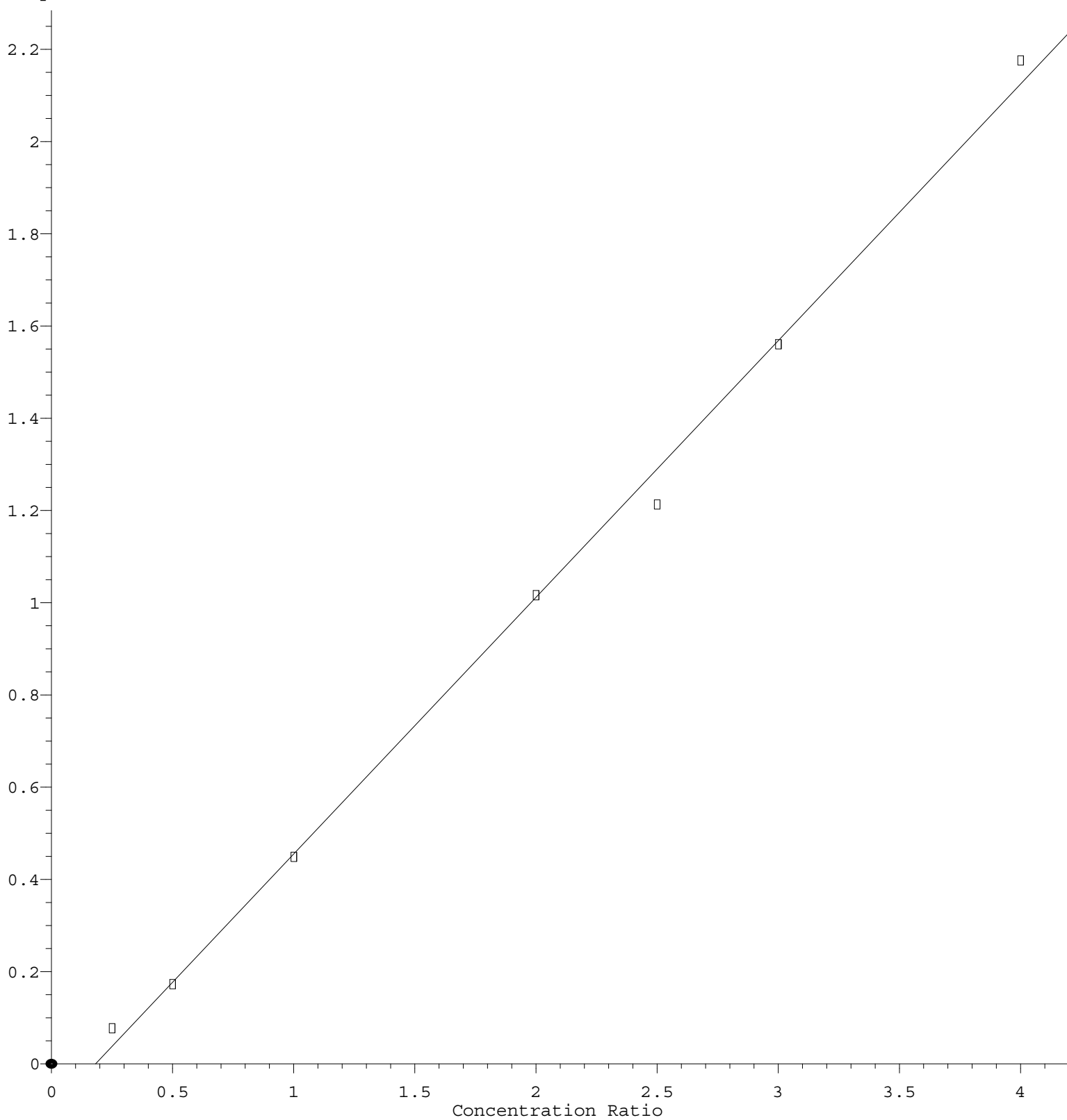
Coef of Det ( $r^2$ ) = 0.995067 Curve Fit: Linear

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## 2-Nitroaniline

Response Ratio



$$\text{Response} = 5.565\text{e-}001 * \text{Amt} - 1.013\text{e-}001$$

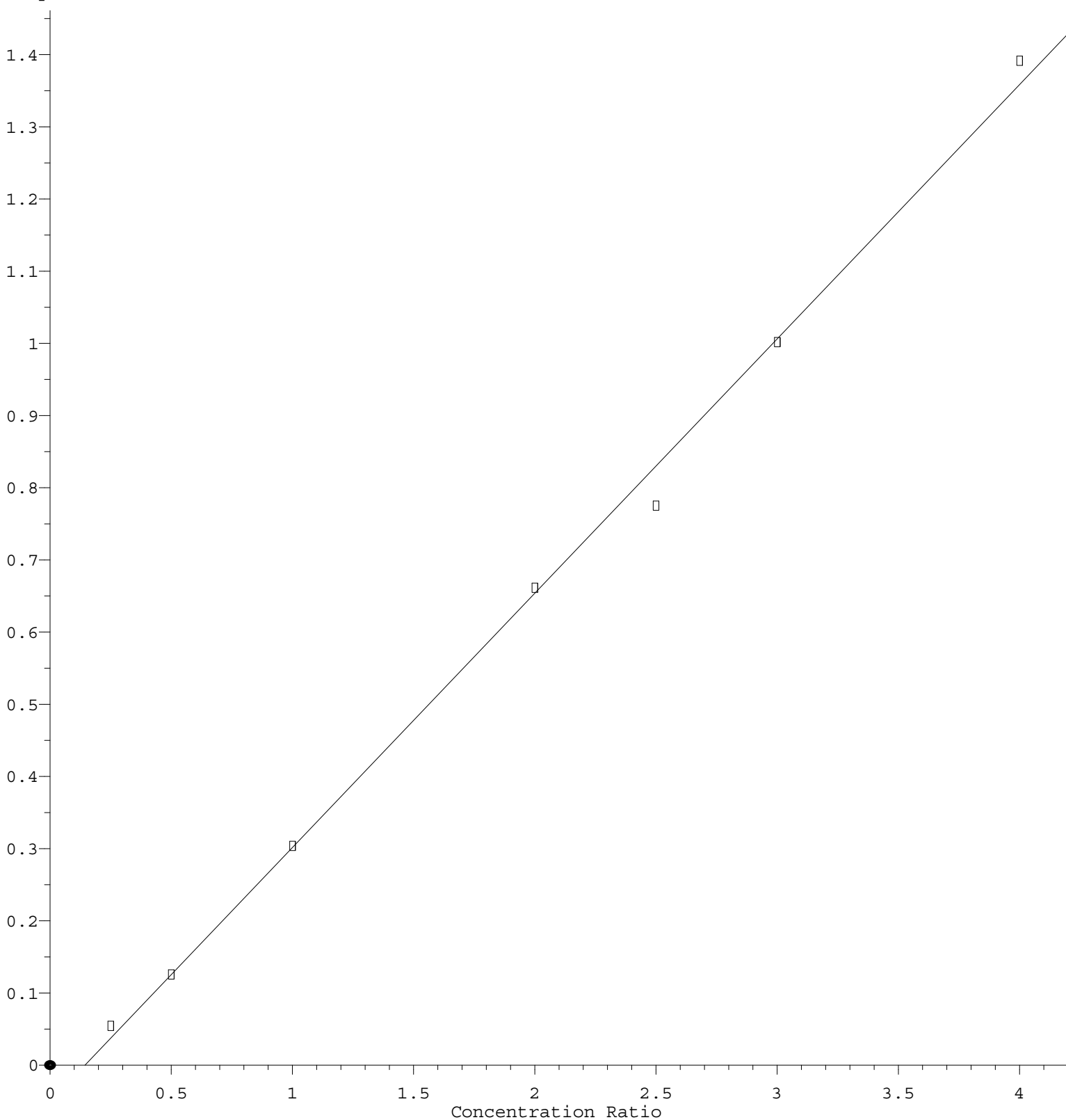
Coef of Det ( $r^2$ ) = 0.997137 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M

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# 2,6-Dinitrotoluene

Response Ratio



$$\text{Response} = 3.524\text{e-}001 * \text{Amt} - 5.088\text{e-}002$$

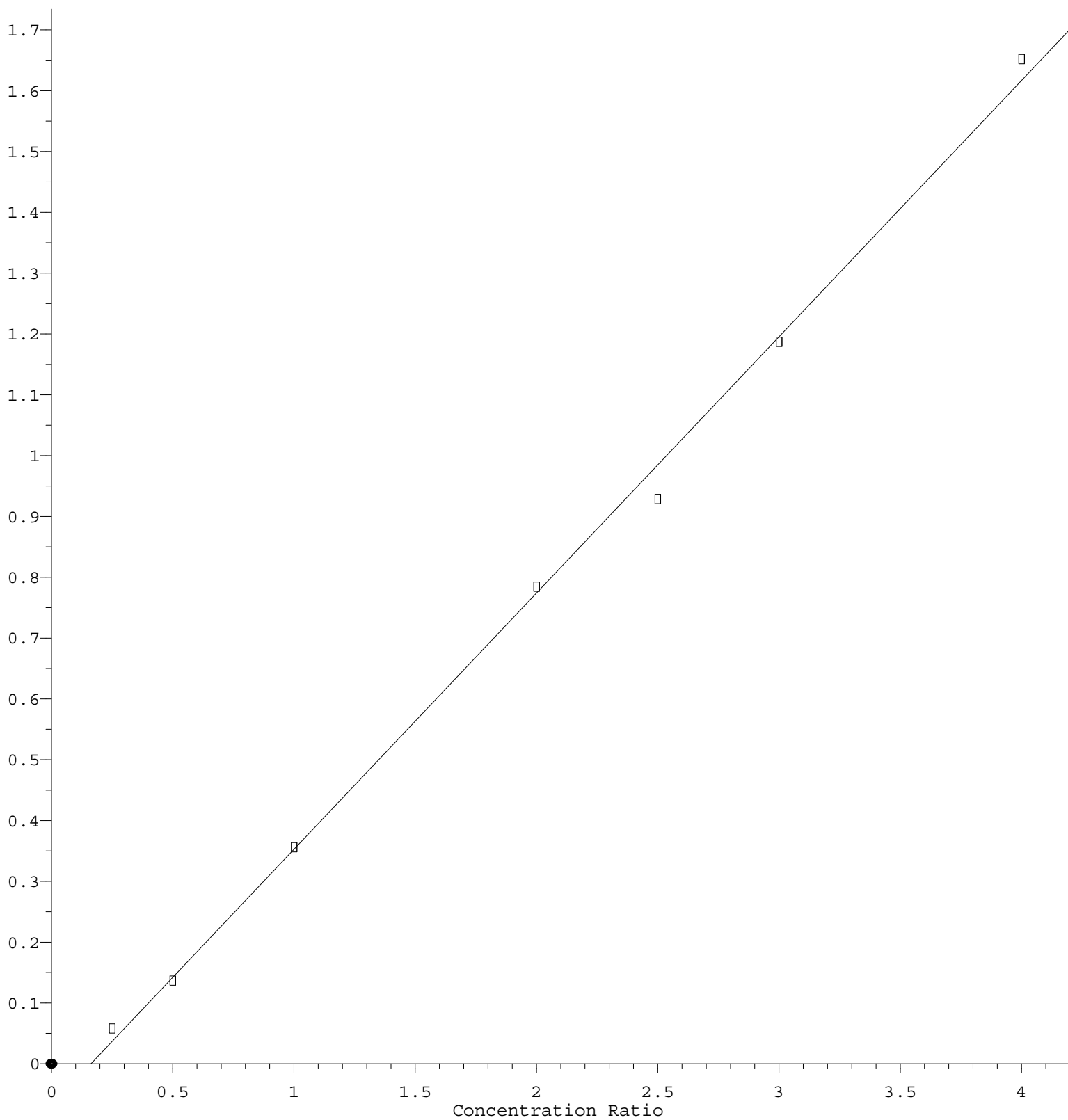
Coef of Det ( $r^2$ ) = 0.996868 Curve Fit: Linear

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## 3-Nitroaniline

Response Ratio



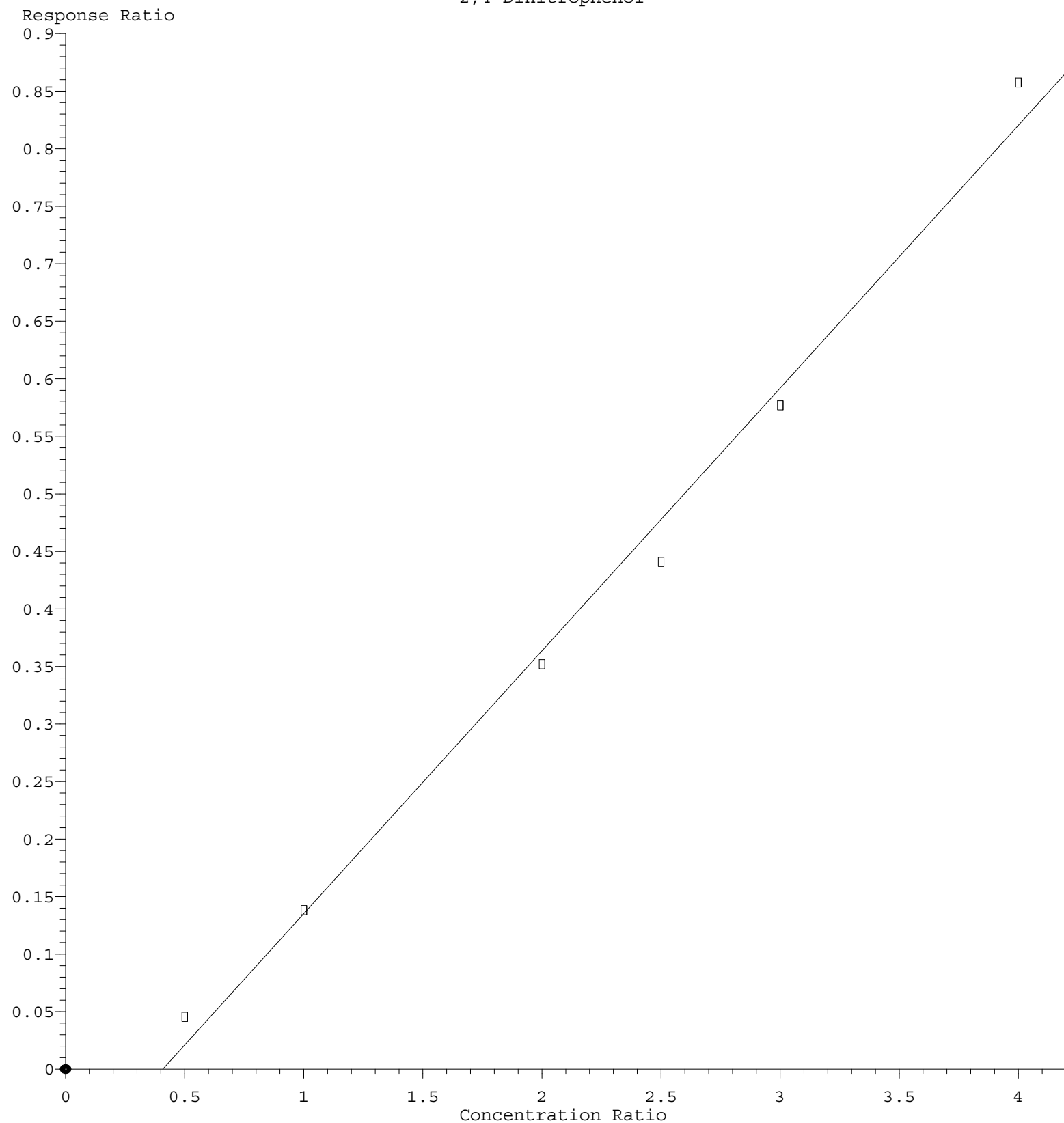
$$\text{Response} = 4.214\text{e-}001 * \text{Amt} - 6.881\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.997530 Curve Fit: Linear

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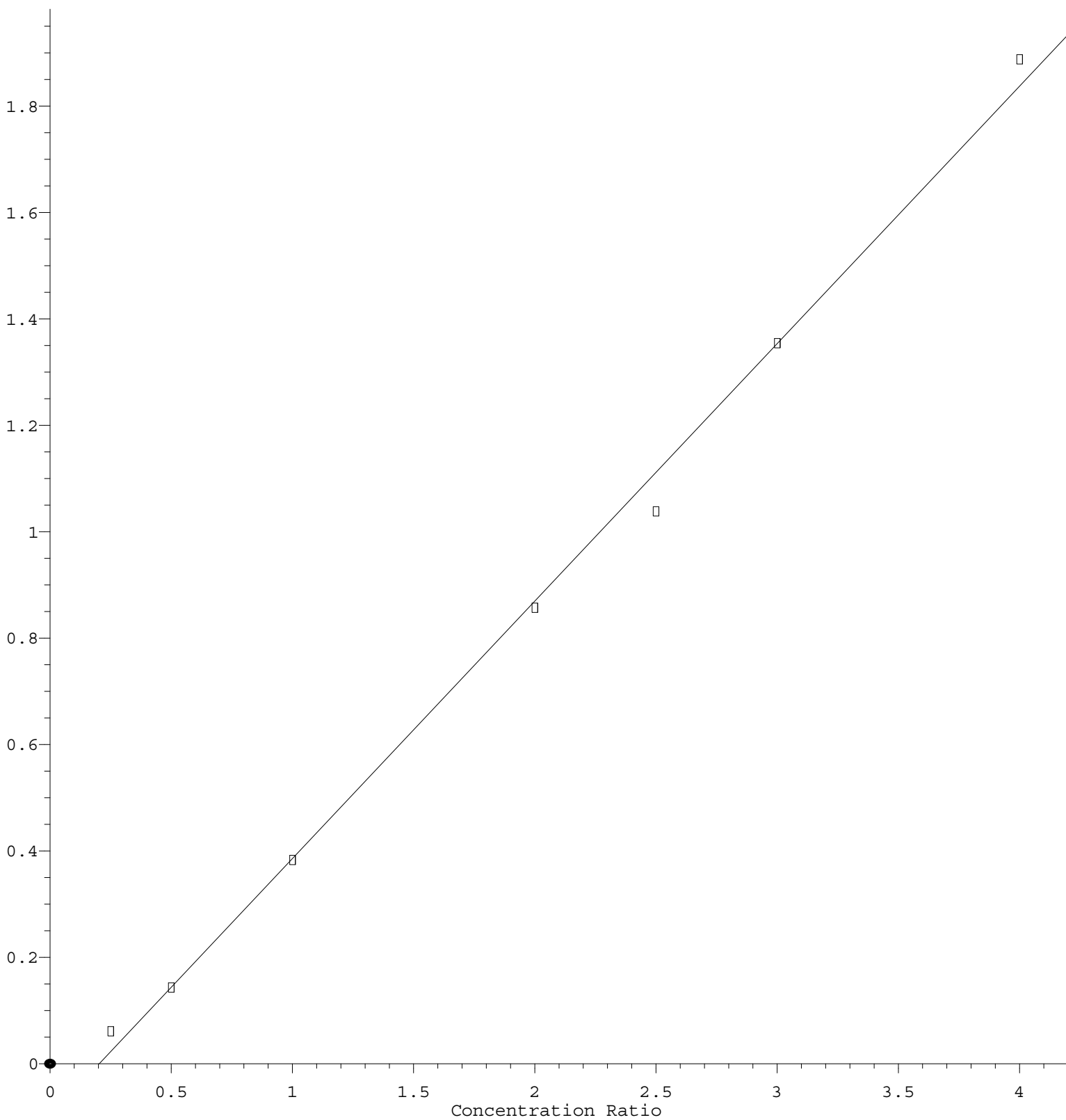
# 2,4-Dinitrophenol



Response = 2.285e-001 \* Amt - 9.333e-002  
 Coef of Det (r^2) = 0.991555    Curve Fit: Linear  
 Method Name:    Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M  
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# 2,4-Dinitrotoluene

Response Ratio



$$\text{Response} = 4.840\text{e-}001 * \text{Amt} - 9.833\text{e-}002$$

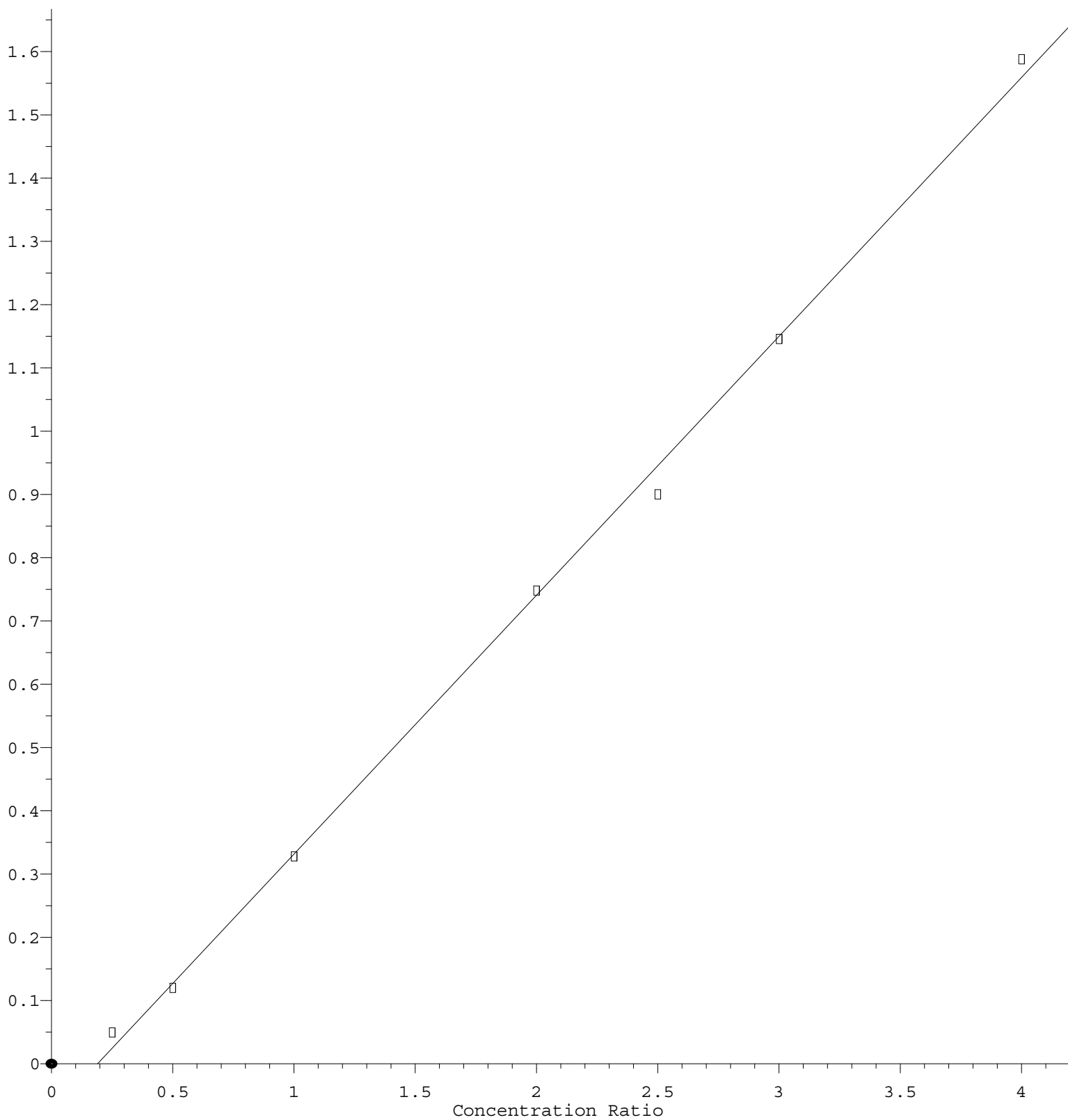
Coef of Det (r^2) = 0.996461 Curve Fit: Linear

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## 4-Nitroaniline

Response Ratio



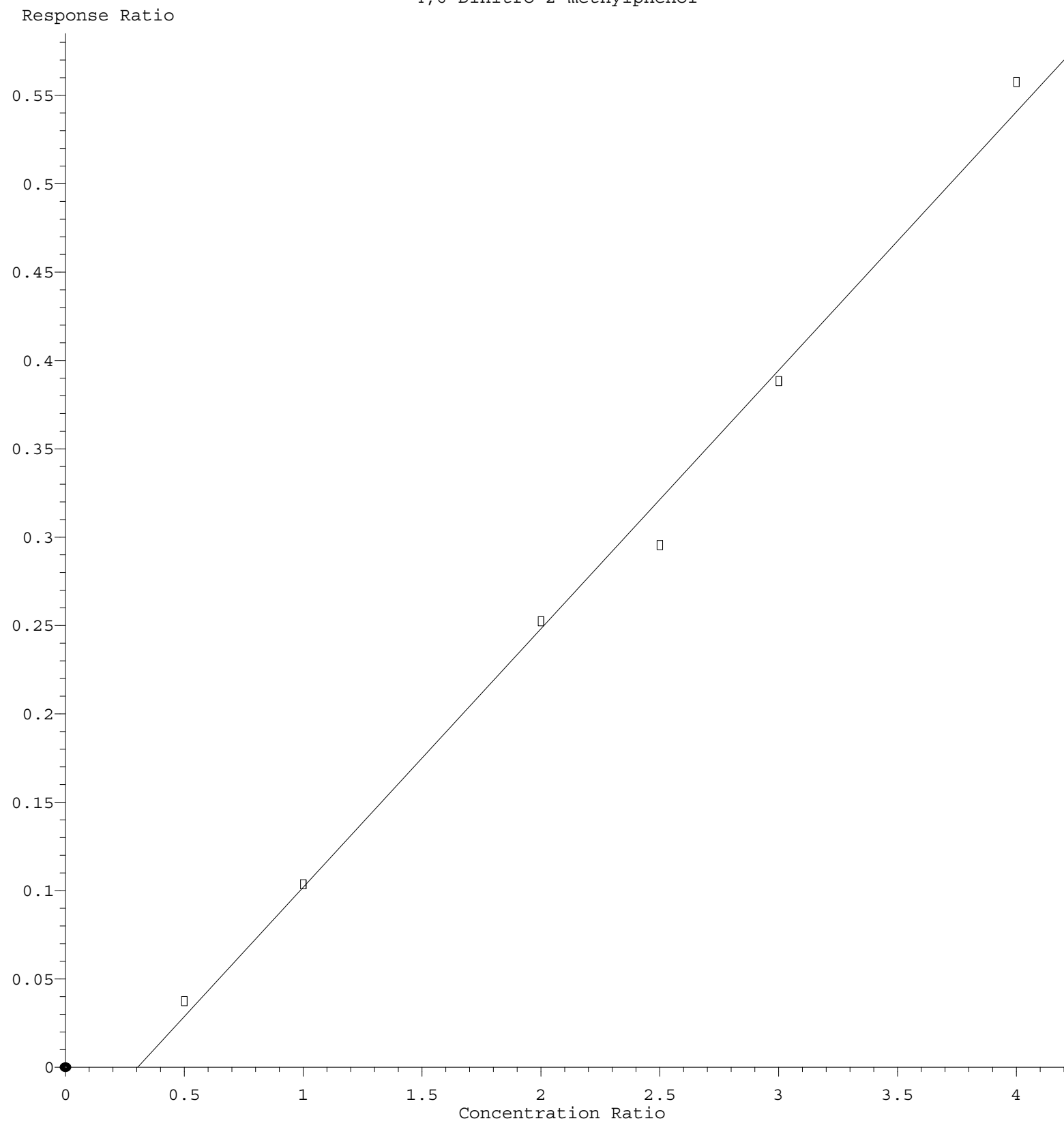
$$\text{Response} = 4.093\text{e-}001 * \text{Amt} - 7.779\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.998120 Curve Fit: Linear

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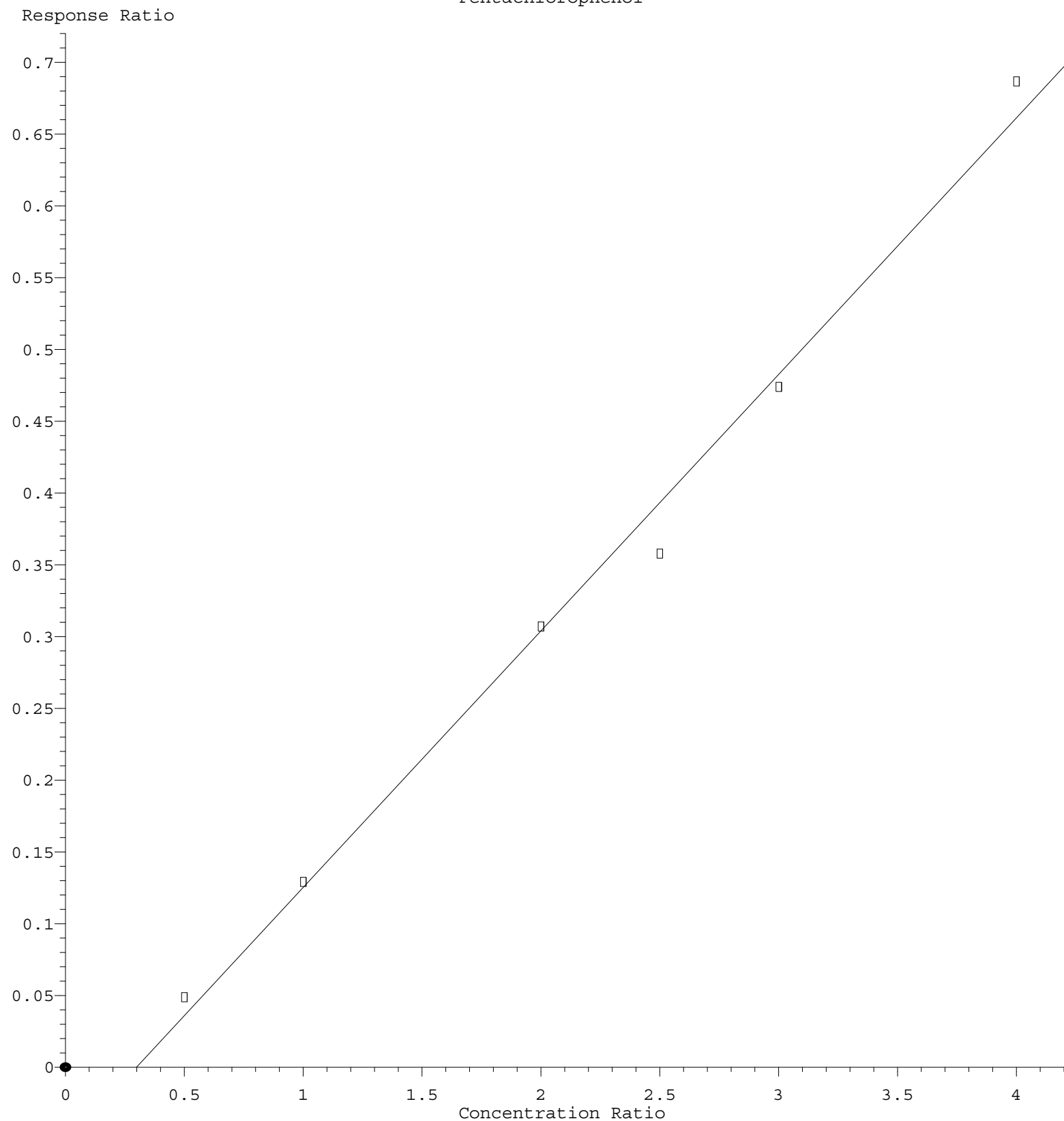
Calibration Table Last Updated: Sat Oct 21 02:32:53 2023

# 4,6-Dinitro-2-methylphenol



Response = 1.463e-001 \* Amt - 4.451e-002  
 Coef of Det (r^2) = 0.993957 Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M  
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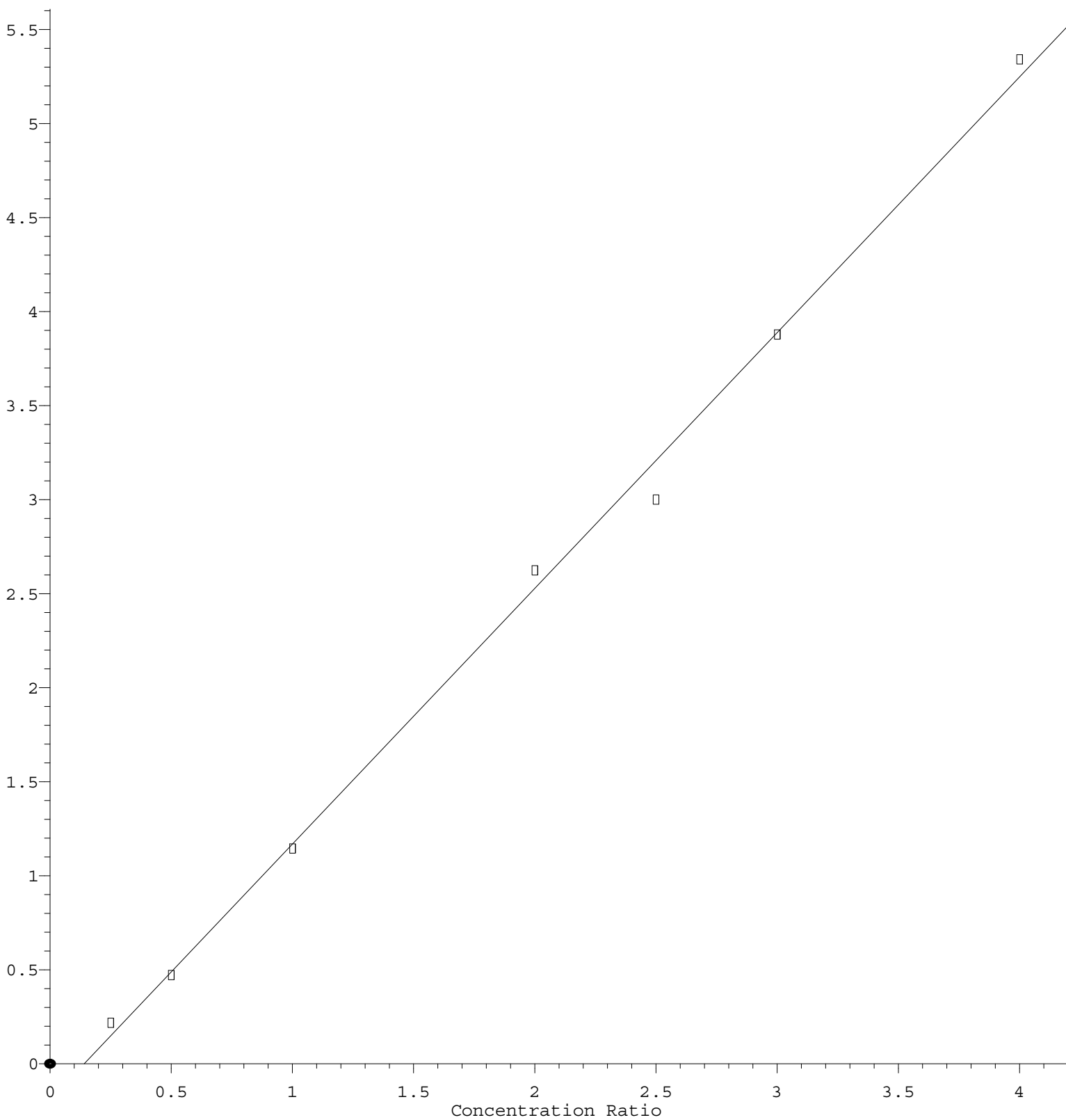
# Pentachlorophenol



Response = 1.788e-001 \* Amt - 5.351e-002  
 Coef of Det (r^2) = 0.991933    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M  
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# Di-n-butylphthalate

Response Ratio



$$\text{Response} = 1.360\text{e}+000 * \text{Amt} - 1.916\text{e}-001$$

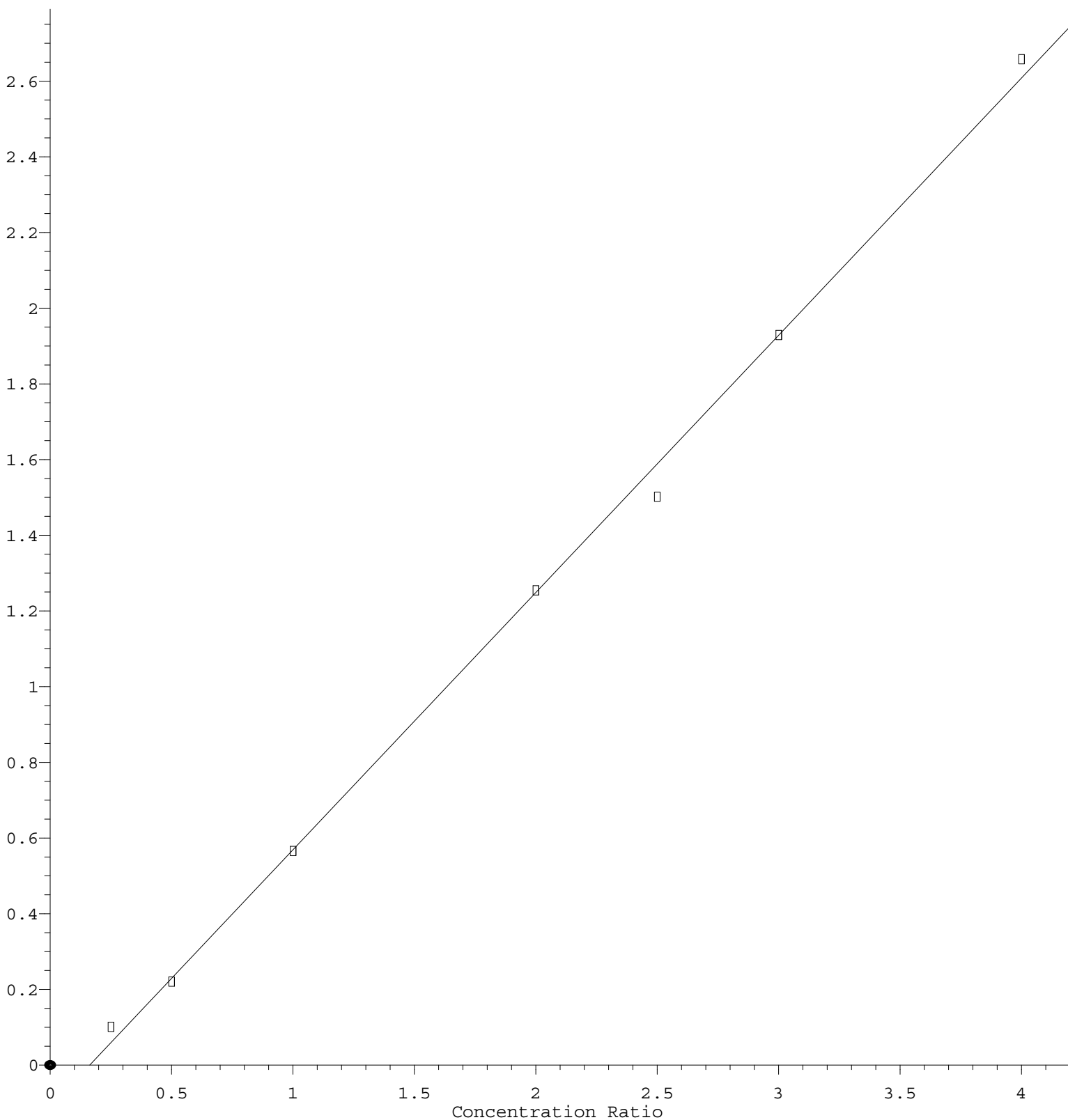
Coef of Det ( $r^2$ ) = 0.996867 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M

Calibration Table Last Updated: Sat Oct 21 02:32:53 2023

# Butylbenzylphthalate

Response Ratio



$$\text{Response} = 6.797\text{e-}001 * \text{Amt} - 1.107\text{e-}001$$

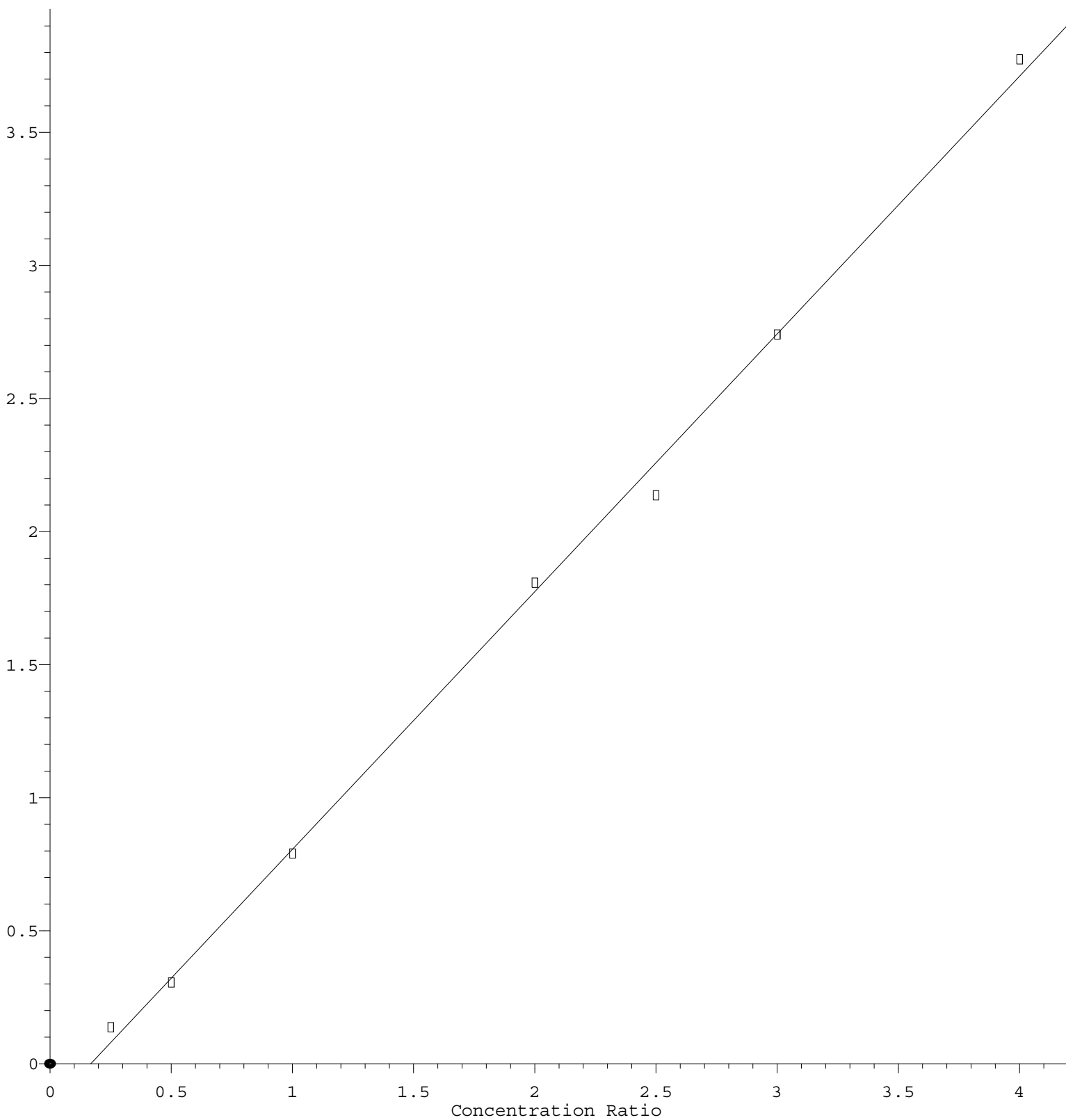
Coef of Det ( $r^2$ ) = 0.997760 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M

Calibration Table Last Updated: Sat Oct 21 02:32:53 2023

# Bis(2-ethylhexyl)phthalate

Response Ratio



$$\text{Response} = 9.686\text{e-}001 * \text{Amt} - 1.631\text{e-}001$$

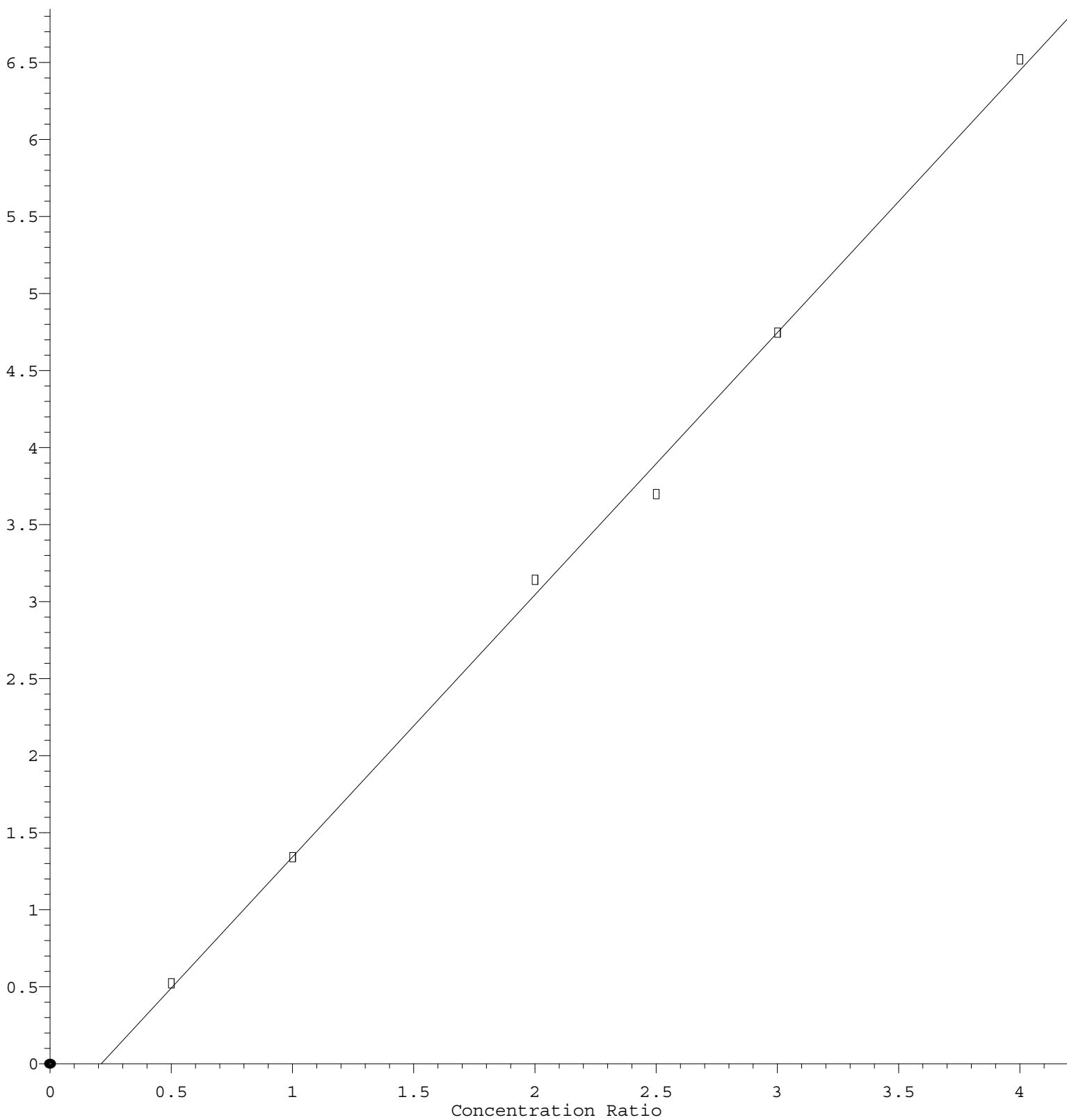
Coef of Det ( $r^2$ ) = 0.997783 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M

Calibration Table Last Updated: Sat Oct 21 02:32:53 2023

# Di-n-octyl phthalate

Response Ratio



$$\text{Response} = 1.702\text{e}+000 * \text{Amt} - 3.590\text{e}-001$$

Coef of Det ( $r^2$ ) = 0.997752 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM102123.M

Calibration Table Last Updated: Sat Oct 21 02:32:53 2023