

Method Path : Z:\svoasrv\HPCHEM1\BNA\_G\Methods\  
 Method File : 8270-BG042423.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Tue Apr 25 04:59:02 2023  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BG057152.D 5 =BG057153.D 10 =BG057154.D 20 =BG057155.D 40 =BG057156.D 50 =BG057157.D 60 =BG057158.D 80 =BG057159.D

|       | Compound              | 2.5            | 5     | 10    | 20    | 40    | 50    | 60    | 80    | Avg | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-----|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |     |       |
| 2)    | 1,4-Dioxane           | 0.484          | 0.433 | 0.462 | 0.503 | 0.524 | 0.535 | 0.520 | 0.495 |     | 7.49  |
| 3)    | Pyridine              | 1.212          | 1.234 | 1.382 | 1.619 | 1.652 | 1.748 | 1.656 | 1.501 |     | 14.67 |
| 4)    | n-Nitrosodimet...     | 0.517          | 0.460 | 0.489 | 0.597 | 0.643 |       |       | 0.541 |     | 14.18 |
| 5) S  | 2-Fluorophenol        | 1.029          | 1.024 | 1.082 | 1.149 | 1.120 | 1.178 | 1.142 | 1.104 |     | 5.44  |
| 6)    | Aniline               | 1.904          | 1.875 | 2.002 | 2.178 | 2.166 | 2.271 | 2.202 | 2.085 |     | 7.51  |
| 7) S  | Phenol-d6             | 1.364          | 1.442 | 1.560 | 1.679 | 1.679 | 1.744 | 1.709 | 1.597 |     | 9.11  |
| 8)    | 2-Chlorophenol        | 1.087          | 1.116 | 1.192 | 1.188 | 1.155 | 1.204 | 1.151 | 1.156 |     | 3.72  |
| 9)    | Benzaldehyde          | 1.082          | 0.978 | 0.996 | 0.948 | 0.941 | 0.931 | 0.819 | 0.956 |     | 8.28  |
| 10) C | Phenol                | 1.397          | 1.414 | 1.541 | 1.679 | 1.659 | 1.724 | 1.684 | 1.586 |     | 8.54  |
| 11)   | bis(2-Chloroet...     | 1.135          | 1.091 | 1.210 | 1.299 | 1.314 | 1.361 | 1.299 | 1.244 |     | 8.11  |
| 12)   | 1,3-Dichlorobe...     | 1.479          | 1.418 | 1.437 | 1.369 | 1.292 | 1.310 | 1.282 | 1.370 |     | 5.65  |
| 13) C | 1,4-Dichlorobe...     | 1.487          | 1.440 | 1.442 | 1.393 | 1.289 | 1.325 | 1.286 | 1.380 |     | 5.84  |
| 14)   | 1,2-Dichlorobe...     | 1.427          | 1.359 | 1.413 | 1.353 | 1.267 | 1.273 | 1.238 | 1.333 |     | 5.59  |
| 15)   | Benzyl Alcohol        | 0.934          | 1.013 | 1.122 | 1.231 | 1.255 | 1.355 | 1.326 | 1.177 |     | 13.51 |
| 16)   | 2,2'-oxybis(1-...     | 0.863          | 0.871 | 1.058 | 1.465 | 1.665 | 1.780 | 1.705 | 1.344 |     | 29.99 |
| 17)   | 2-Methylphenol        | 1.007          | 1.069 | 1.155 | 1.227 | 1.202 | 1.260 | 1.201 | 1.160 |     | 7.85  |
| 18)   | Hexachloroethane      | 0.457          | 0.449 | 0.467 | 0.483 | 0.466 | 0.485 | 0.472 | 0.468 |     | 2.79  |
| 19) P | n-Nitroso-di-n...     | 0.917          | 0.898 | 0.846 | 0.966 | 1.157 | 1.175 |       | 0.993 |     | 14.04 |
| 20)   | 3+4-Methylphenols     | 1.438          | 1.454 | 1.580 | 1.672 | 1.614 | 1.708 | 1.650 | 1.588 |     | 6.63  |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |     |       |
| 22)   | Acetophenone          | 0.525          | 0.523 | 0.546 | 0.575 | 0.530 | 0.564 | 0.536 | 0.543 |     | 3.67  |
| 23) S | Nitrobenzene-d5       |                | 0.311 | 0.369 | 0.431 | 0.419 | 0.453 | 0.444 | 0.405 |     | 13.43 |
| 24)   | Nitrobenzene          | 0.332          | 0.321 | 0.384 | 0.452 | 0.434 | 0.464 | 0.456 | 0.406 |     | 14.89 |
| 25)   | Isophorone            | 0.661          | 0.654 | 0.746 | 0.838 | 0.815 | 0.878 | 0.841 | 0.776 |     | 11.66 |
| 26) C | 2-Nitrophenol         | 0.137          | 0.137 | 0.153 | 0.160 | 0.150 | 0.161 | 0.164 | 0.152 |     | 7.32  |
| 27)   | 2,4-Dimethylph...     | 0.257          | 0.277 | 0.301 | 0.311 | 0.290 | 0.308 | 0.298 | 0.292 |     | 6.57  |
| 28)   | bis(2-Chloroet...     | 0.352          | 0.356 | 0.387 | 0.448 | 0.420 | 0.452 | 0.432 | 0.407 |     | 10.31 |
| 29) C | 2,4-Dichloroph...     | 0.321          | 0.309 | 0.344 | 0.348 | 0.305 | 0.328 | 0.320 | 0.325 |     | 5.03  |
| 30)   | 1,2,4-Trichlor...     | 0.462          | 0.411 | 0.432 | 0.408 | 0.349 | 0.364 | 0.355 | 0.397 |     | 10.71 |
| 31)   | Naphthalene           | 1.138          | 1.067 | 1.074 | 1.095 | 1.007 | 1.051 | 1.004 | 1.062 |     | 4.46  |
| 32)   | Benzoic acid          |                | 0.060 | 0.119 | 0.134 | 0.127 | 0.142 | 0.147 | 0.122 |     | 26.28 |
| 33)   | 4-Chloroaniline       | 0.480          | 0.447 | 0.480 | 0.489 | 0.449 | 0.471 | 0.454 | 0.467 |     | 3.64  |
| 34) C | Hexachlorobuta...     | 0.352          | 0.322 | 0.330 | 0.298 | 0.245 | 0.255 | 0.249 | 0.293 |     | 14.97 |
| 35)   | Caprolactam           | 0.076          | 0.078 | 0.090 | 0.099 | 0.090 | 0.101 | 0.095 | 0.090 |     | 10.58 |
| 36) C | 4-Chloro-3-met...     | 0.321          | 0.321 | 0.360 | 0.371 | 0.346 | 0.371 | 0.356 | 0.350 |     | 6.12  |
| 37)   | 2-Methylnaphth...     | 0.906          | 0.847 | 0.870 | 0.867 | 0.768 | 0.816 | 0.777 | 0.836 |     | 6.11  |
| 38)   | 1-Methylnaphth...     | 0.827          | 0.773 | 0.790 | 0.803 | 0.726 | 0.762 | 0.721 | 0.772 |     | 5.03  |

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|       |                    |                |       |       |       |       |       |       |       |       |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 39) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 40)   | 1,2,4,5-Tetrac...  | 0.825          | 0.767 | 0.783 | 0.735 | 0.656 | 0.681 | 0.675 | 0.732 | 8.68  |
| 41) P | Hexachlorocycl...  | 0.202          | 0.266 | 0.301 | 0.276 | 0.300 | 0.323 | 0.278 |       | 15.27 |
| 42) S | 2,4,6-Tribromo...  | 0.287          | 0.294 | 0.292 | 0.257 | 0.232 | 0.242 | 0.242 | 0.264 | 10.14 |
| 43) C | 2,4,6-Trichlor...  | 0.346          | 0.395 | 0.411 | 0.420 | 0.386 | 0.408 | 0.409 | 0.396 | 6.27  |
| 44)   | 2,4,5-Trichlor...  | 0.453          | 0.465 | 0.506 | 0.503 | 0.462 | 0.482 | 0.477 | 0.478 | 4.26  |
| 45) S | 2-Fluorobiphenyl   | 1.631          | 1.544 | 1.558 | 1.495 | 1.391 | 1.418 | 1.380 | 1.488 | 6.40  |
| 46)   | 1,1'-Biphenyl      | 1.547          | 1.481 | 1.524 | 1.524 | 1.438 | 1.475 | 1.448 | 1.491 | 2.79  |
| 47)   | 2-Chloronaphth...  | 1.202          | 1.118 | 1.151 | 1.143 | 1.072 | 1.112 | 1.079 | 1.125 | 3.98  |
| 48)   | 2-Nitroaniline     | 0.145          | 0.157 | 0.201 | 0.273 | 0.289 |       | 0.213 |       | 30.76 |
| 49)   | Acenaphthylene     | 1.777          | 1.734 | 1.834 | 1.830 | 1.774 | 1.801 | 1.753 | 1.786 | 2.12  |
| 50)   | Dimethylphthalate  | 1.338          | 1.348 | 1.432 | 1.458 | 1.387 | 1.435 | 1.428 | 1.404 | 3.32  |
| 51)   | 2,6-Dinitrotol...  | 0.207          | 0.266 | 0.307 | 0.322 | 0.312 | 0.322 | 0.315 | 0.293 | 14.55 |
| 52) C | Acenaphthene       | 1.118          | 1.141 | 1.190 | 1.214 | 1.138 | 1.187 | 1.179 | 1.167 | 2.97  |
| 53)   | 3-Nitroaniline     | 0.236          | 0.254 | 0.290 | 0.312 | 0.311 | 0.317 | 0.316 | 0.291 | 11.32 |
| 54) P | 2,4-Dinitrophenol  | 0.073          | 0.129 | 0.150 | 0.148 | 0.162 | 0.169 | 0.139 |       | 25.18 |
| 55)   | Dibenzofuran       | 2.043          | 1.946 | 1.966 | 1.912 | 1.789 | 1.819 | 1.761 | 1.891 | 5.48  |
| 56) P | 4-Nitrophenol      | 0.152          | 0.190 | 0.218 | 0.214 | 0.228 | 0.227 | 0.205 |       | 14.24 |
| 57)   | 2,4-Dinitrotol...  | 0.317          | 0.353 | 0.405 | 0.428 | 0.417 | 0.439 | 0.434 | 0.399 | 11.59 |
| 58)   | Fluorene           | 1.630          | 1.538 | 1.630 | 1.537 | 1.435 | 1.459 | 1.428 | 1.522 | 5.64  |
| 59)   | 2,3,4,6-Tetrac...  | 0.392          | 0.432 | 0.439 | 0.410 | 0.388 | 0.409 | 0.398 | 0.410 | 4.75  |
| 60)   | Diethylphthalate   | 1.291          | 1.273 | 1.372 | 1.391 | 1.344 | 1.405 | 1.396 | 1.353 | 3.90  |
| 61)   | 4-Chlorophenyl...  | 1.021          | 0.954 | 0.992 | 0.914 | 0.828 | 0.848 | 0.840 | 0.914 | 8.52  |
| 62)   | 4-Nitroaniline     | 0.226          | 0.267 | 0.305 | 0.310 | 0.309 | 0.318 | 0.316 | 0.293 | 11.75 |
| 63)   | Azobenzene         | 1.201          | 1.200 | 1.400 | 1.556 | 1.571 | 1.605 | 1.542 | 1.439 | 12.18 |
| 64) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 65)   | 4,6-Dinitro-2-...  | 0.066          | 0.088 | 0.102 | 0.098 | 0.108 | 0.109 | 0.095 |       | 17.00 |
| 66) c | n-Nitrosodiphe...  | 0.528          | 0.487 | 0.522 | 0.544 | 0.509 | 0.542 | 0.521 | 0.522 | 3.76  |
| 67)   | 4-Bromophenyl-...  | 0.262          | 0.249 | 0.252 | 0.246 | 0.220 | 0.231 | 0.223 | 0.241 | 6.61  |
| 68)   | Hexachlorobenzene  | 0.276          | 0.280 | 0.266 | 0.243 | 0.215 | 0.225 | 0.220 | 0.247 | 11.12 |
| 69)   | Atrazine           | 0.146          | 0.160 | 0.174 | 0.178 | 0.165 | 0.175 | 0.169 | 0.167 | 6.68  |
| 70) C | Pentachlorophenol  | 0.083          | 0.114 | 0.125 | 0.116 | 0.127 | 0.131 | 0.116 |       | 14.88 |
| 71)   | Phenanthrene       | 1.096          | 1.015 | 1.042 | 1.049 | 0.969 | 1.011 | 0.966 | 1.021 | 4.49  |
| 72)   | Anthracene         | 1.071          | 1.018 | 1.070 | 1.066 | 0.986 | 1.025 | 0.990 | 1.032 | 3.60  |
| 73)   | Carbazole          | 0.885          | 0.828 | 0.895 | 0.912 | 0.854 | 0.886 | 0.841 | 0.871 | 3.54  |
| 74)   | Di-n-butylphth...  | 0.715          | 0.713 | 0.801 | 0.867 | 0.835 | 0.884 | 0.858 | 0.811 | 8.75  |
| 75) C | Fluoranthene       | 1.368          | 1.287 | 1.333 | 1.289 | 1.196 | 1.229 | 1.177 | 1.268 | 5.58  |
| 76) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 77)   | Benzidine          | 0.297          | 0.283 | 0.322 | 0.328 | 0.291 | 0.299 | 0.290 | 0.301 | 5.65  |
| 78)   | Pyrene             | 1.289          | 1.268 | 1.391 | 1.429 | 1.343 | 1.415 | 1.371 | 1.358 | 4.54  |
| 79) S | Terphenyl-d14      | 1.182          | 1.154 | 1.202 | 1.171 | 1.068 | 1.127 | 1.099 | 1.143 | 4.19  |
| 80)   | Butylbenzylphth... | 0.232          | 0.234 | 0.295 | 0.352 | 0.356 |       | 0.294 |       | 20.56 |
| 81)   | Benzo(a)anthra...  | 1.388          | 1.314 | 1.420 | 1.435 | 1.318 | 1.384 | 1.366 | 1.375 | 3.37  |
| 82)   | 3,3'-Dichlorob...  | 0.312          | 0.311 | 0.371 | 0.383 | 0.368 | 0.385 | 0.388 | 0.360 | 9.36  |
| 83)   | Chrysene           | 1.383          | 1.272 | 1.385 | 1.367 | 1.268 | 1.311 | 1.298 | 1.326 | 3.87  |
| 84)   | Bis(2-ethylhex...  | 0.360          | 0.386 | 0.460 | 0.549 | 0.545 | 0.577 | 0.583 | 0.494 | 18.67 |
| 85) c | Di-n-octyl pht...  | 0.679          | 0.832 | 0.953 | 0.927 | 0.996 | 0.993 | 0.897 |       | 13.64 |

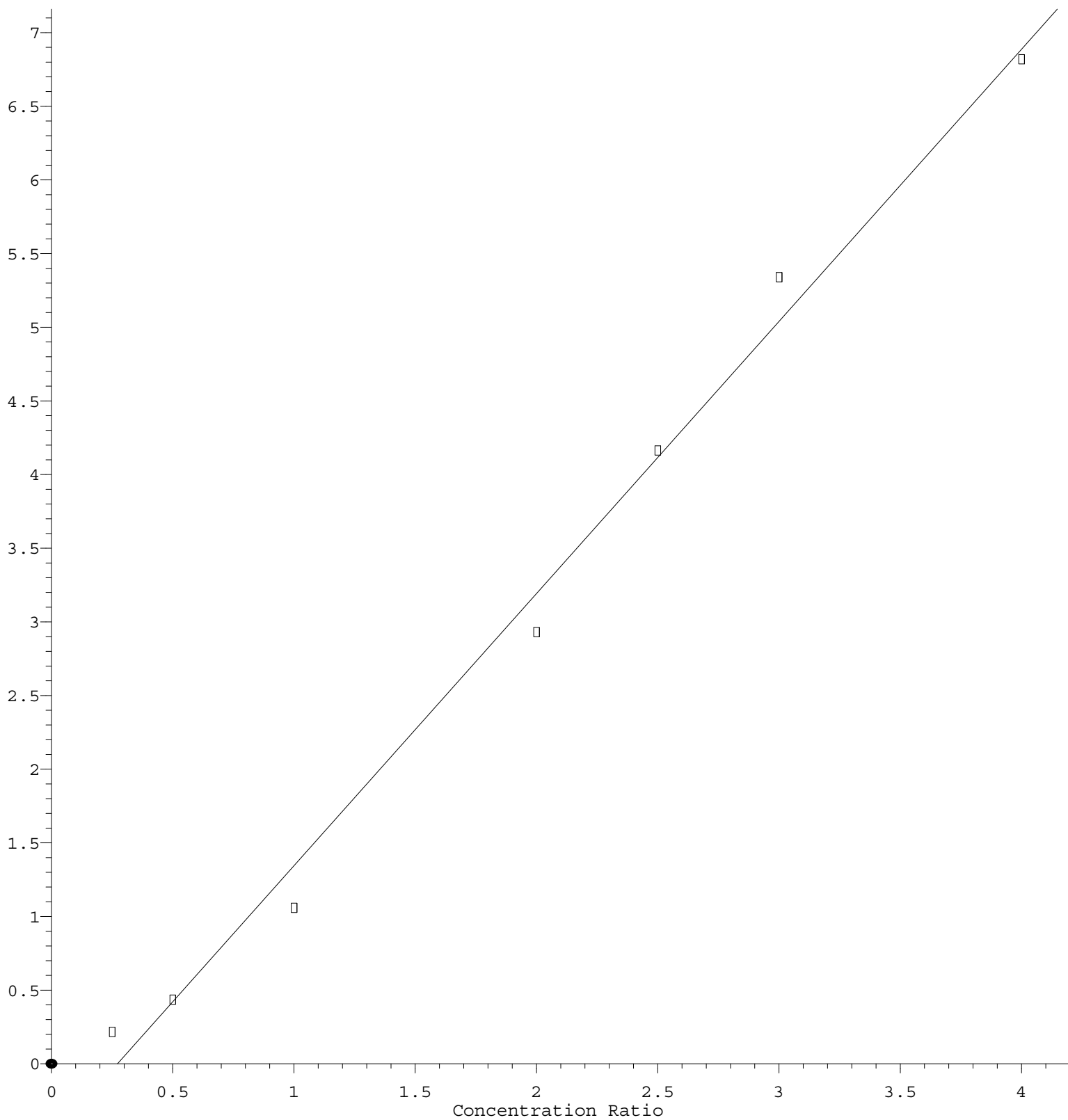
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|       |                   |                |       |       |       |       |       |       |       |      |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |      |
| 87)   | Indeno(1,2,3-c... | 1.458          | 1.389 | 1.479 | 1.464 | 1.373 | 1.461 | 1.404 | 1.433 | 2.98 |
| 88)   | Benzo(b)fluora... | 1.238          | 1.206 | 1.256 | 1.300 | 1.231 | 1.285 | 1.260 | 1.254 | 2.56 |
| 89)   | Benzo(k)fluora... | 1.260          | 1.286 | 1.327 | 1.333 | 1.265 | 1.345 | 1.262 | 1.297 | 2.85 |
| 90) C | Benzo(a)pyrene    | 1.219          | 1.196 | 1.265 | 1.277 | 1.207 | 1.273 | 1.206 | 1.235 | 2.85 |
| 91)   | Dibenzo(a,h)an... | 1.195          | 1.180 | 1.219 | 1.221 | 1.138 | 1.204 | 1.169 | 1.190 | 2.49 |
| 92)   | Benzo(g,h,i)pe... | 1.186          | 1.172 | 1.227 | 1.203 | 1.126 | 1.184 | 1.142 | 1.177 | 2.93 |

-----  
(#) = Out of Range

# 2,2'-oxybis(1-Chloropropane)

Response Ratio



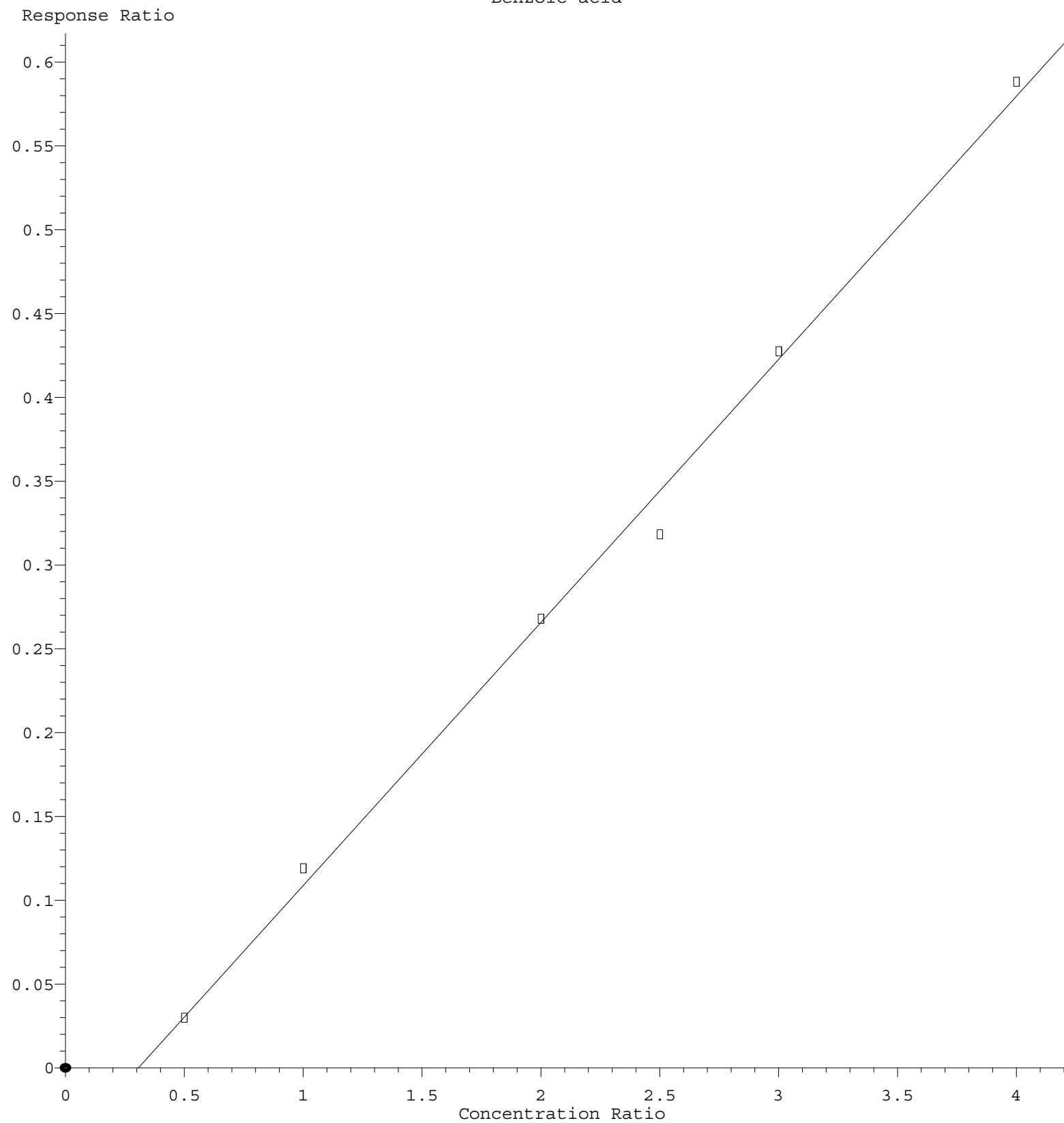
$$\text{Response} = 1.848\text{e}+000 * \text{Amt} - 5.030\text{e}-001$$

Coef of Det ( $r^2$ ) = 0.992056 Curve Fit: Linear

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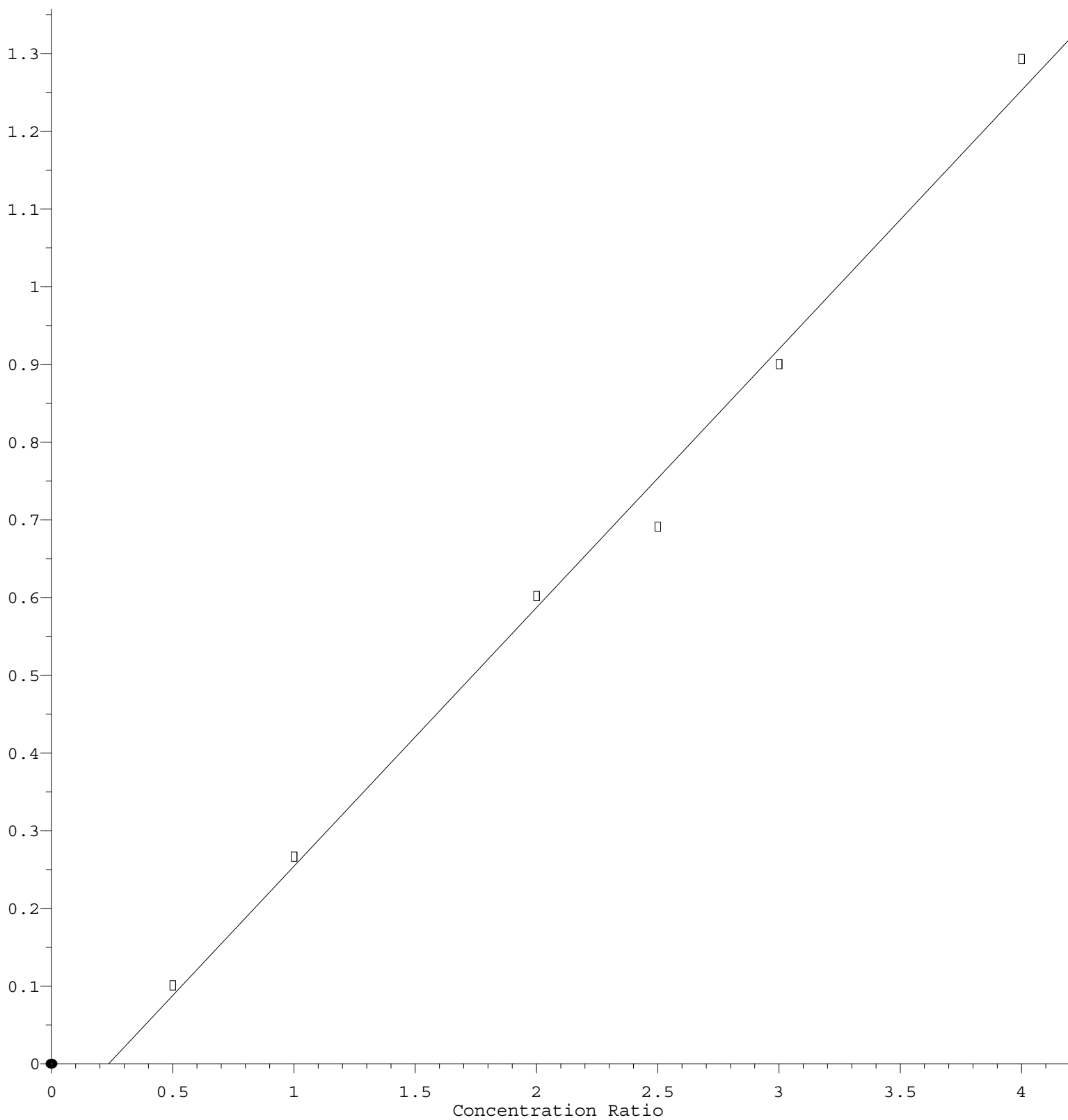
# Benzoic acid



$\text{Response} = 1.569\text{e-}001 * \text{Amt} - 4.813\text{e-}002$   
 Coef of Det ( $r^2$ ) = 0.995739    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG042423.M  
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## Hexachlorocyclopentadiene

Response Ratio



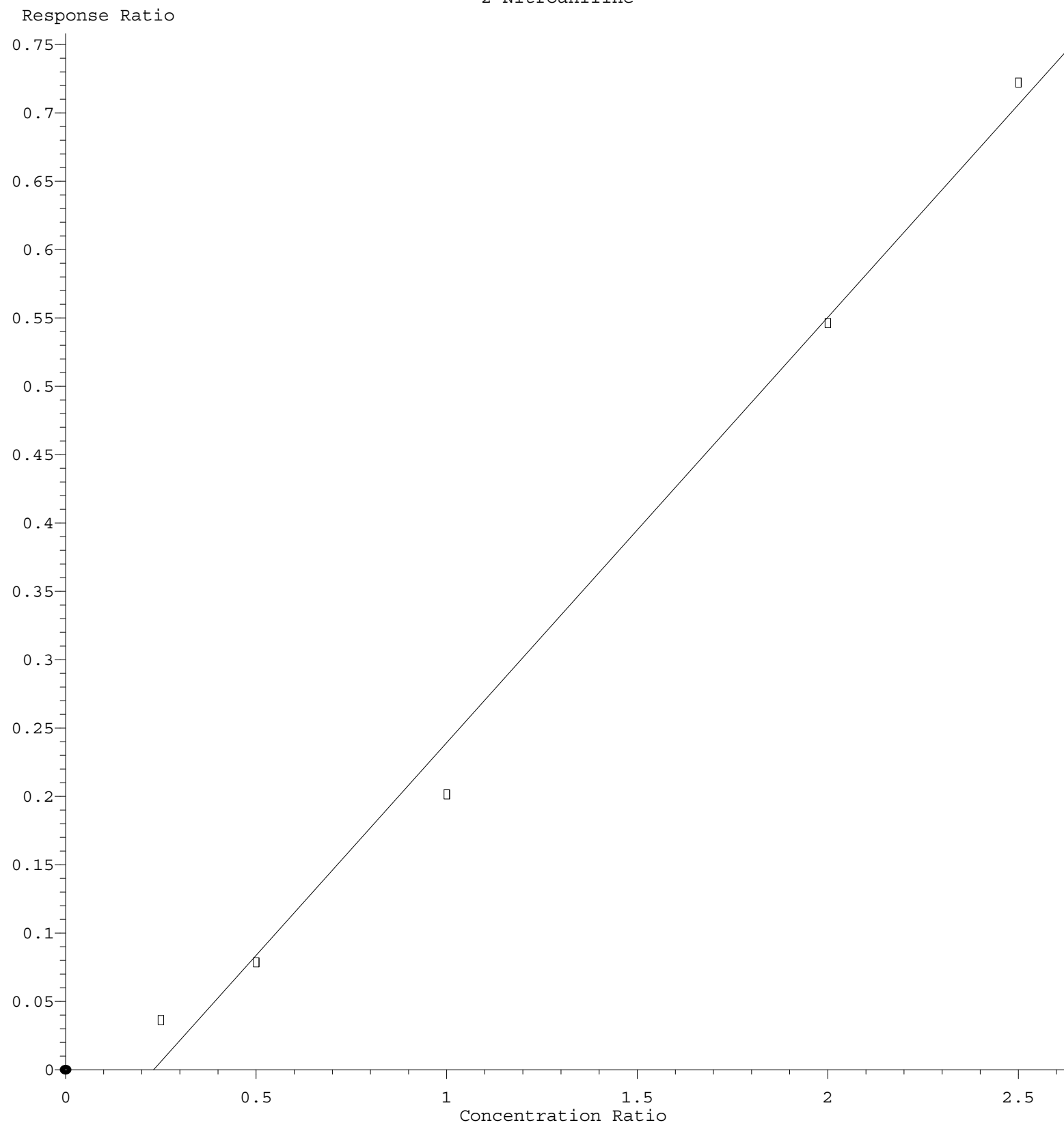
$$\text{Response} = 3.326\text{e-}001 * \text{Amt} - 7.845\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.993077 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG042423.M

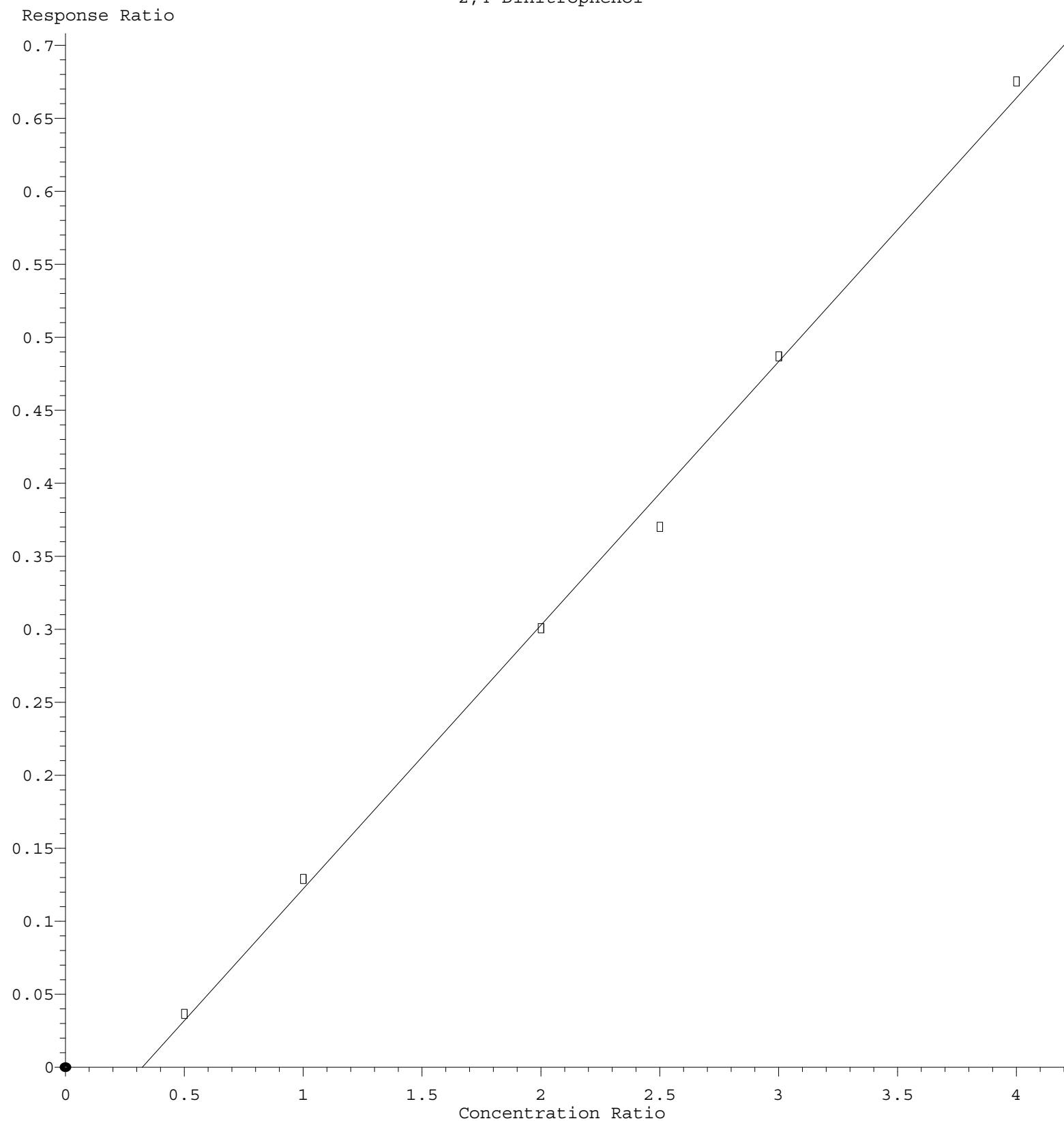
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## 2-Nitroaniline



Response =  $3.111\text{e-}001 * \text{Amt} - 7.198\text{e-}002$   
Coef of Det ( $r^2$ ) = 0.992715 Curve Fit: Linear  
Method Name: Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG042423.M  
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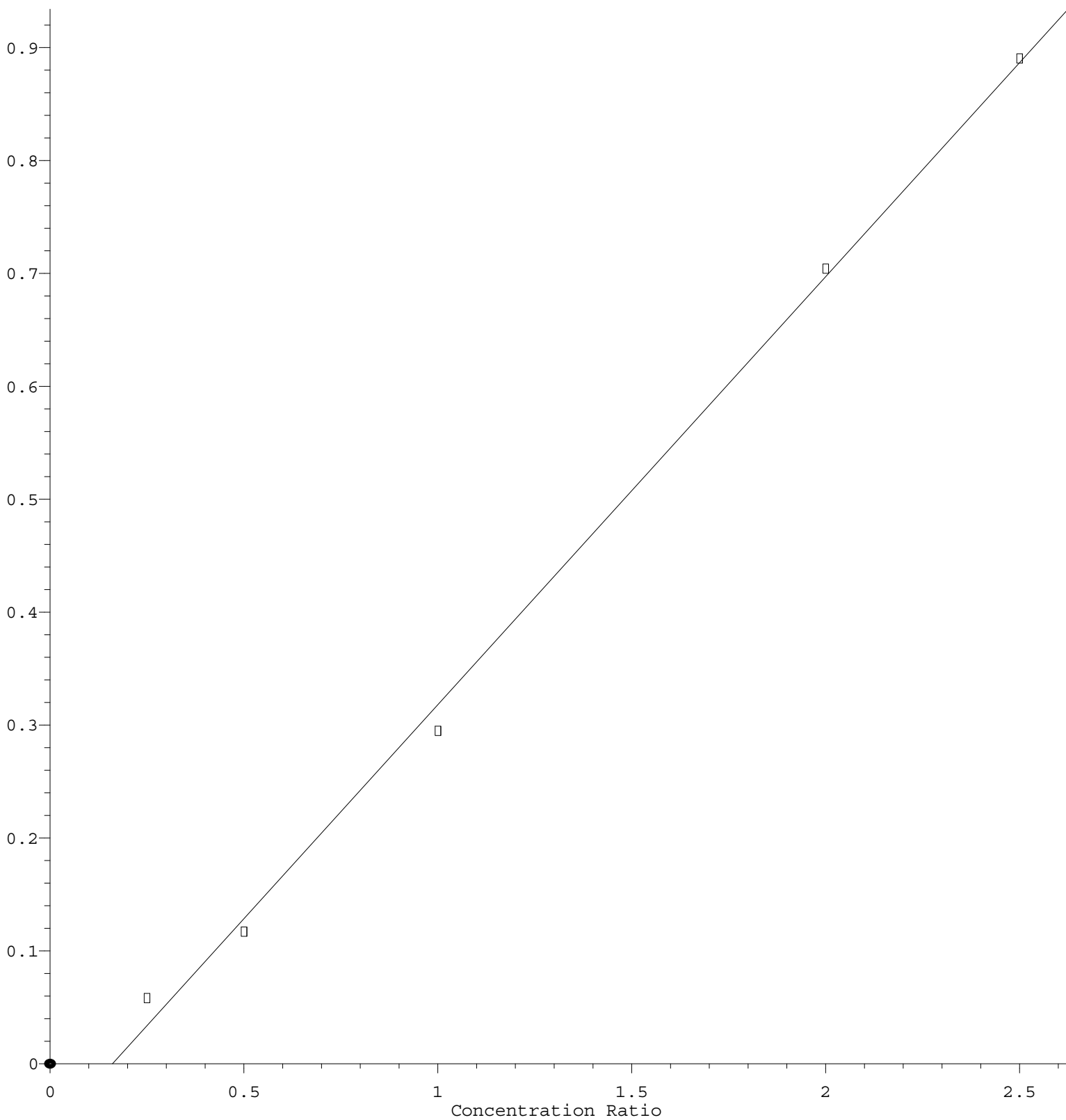
# 2,4-Dinitrophenol



Response =  $1.807e-001 * \text{Amt} - 5.837e-002$   
 Coef of Det ( $r^2$ ) = 0.997292    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG042423.M  
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# Butylbenzylphthalate

Response Ratio



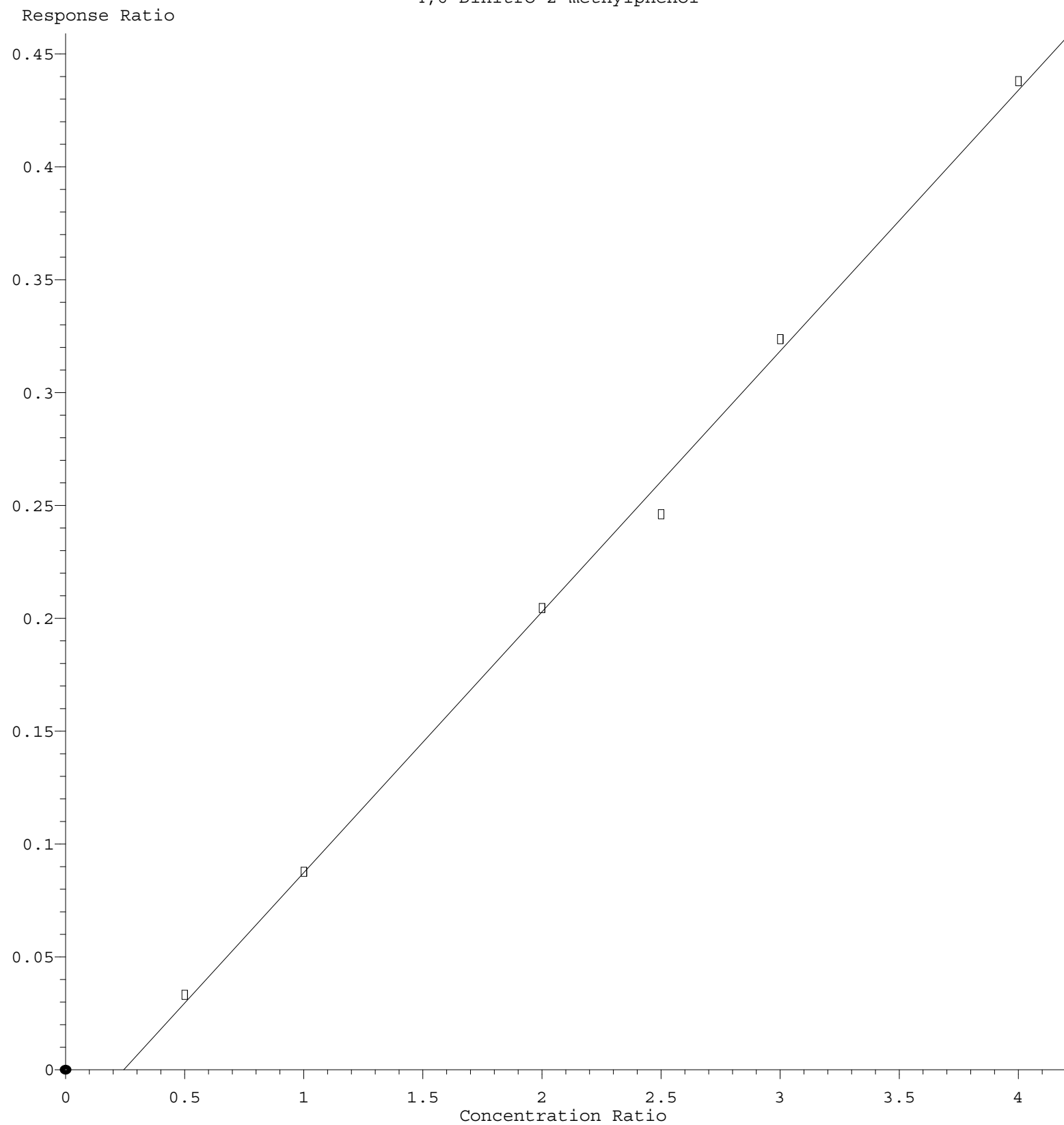
$$\text{Response} = 3.791\text{e-}001 * \text{Amt} - 6.091\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.997540 Curve Fit: Linear

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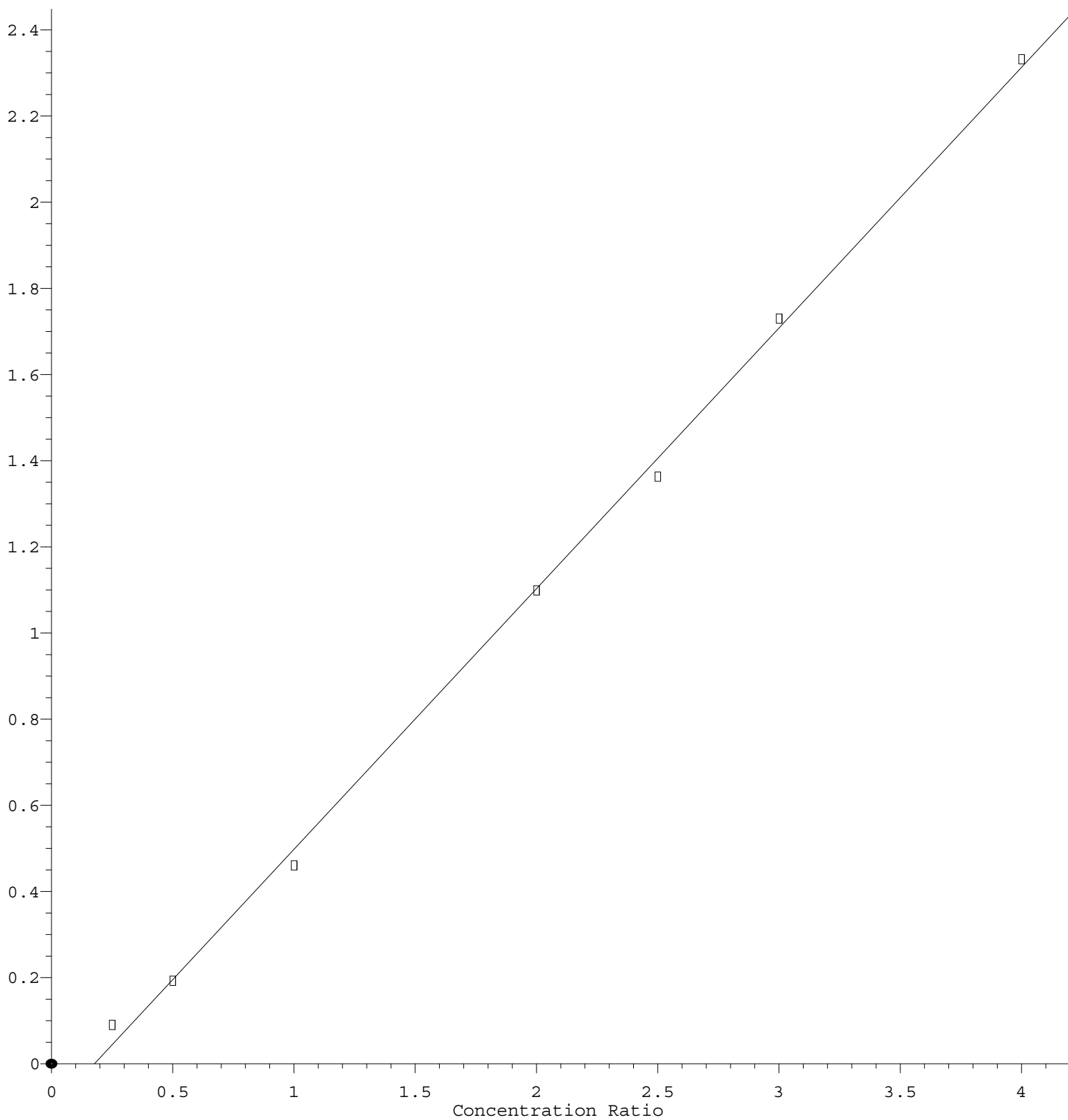
## 4,6-Dinitro-2-methylphenol



Response =  $1.155 \times 10^{-1} \times \text{Amt} - 2.818 \times 10^{-2}$   
Coef of Det ( $r^2$ ) = 0.997570 Curve Fit: Linear  
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## Bis(2-ethylhexyl)phthalate

Response Ratio



$$\text{Response} = 6.049\text{e-}001 * \text{Amt} - 1.069\text{e-}001$$

Coef of Det ( $r^2$ ) = 0.998533 Curve Fit: Linear

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