

Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
 Method File : 8270-BF071525.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Tue Jul 15 17:53:25 2025  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BF143093.D 5 =BF143094.D 10 =BF143095.D 20 =BF143096.D 40 =BF143097.D 50 =BF143098.D 60 =BF143099.D 80 =BF143100.D

|       | Compound              | 2.5            | 5     | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |      |
| 2)    | 1,4-Dioxane           | 0.637          | 0.635 | 0.640 | 0.627 | 0.661 | 0.626 | 0.586 | 0.630 | 3.58  |      |
| 3)    | Pyridine              | 1.606          | 1.541 | 1.616 | 1.594 | 1.681 | 1.612 | 1.519 | 1.596 | 3.33  |      |
| 4)    | n-Nitrosodimet...     |                | 0.788 | 0.825 | 0.816 | 0.879 | 0.840 | 0.812 | 0.827 | 3.70  |      |
| 5) S  | 2-Fluorophenol        | 1.334          | 1.272 | 1.315 | 1.255 | 1.305 | 1.232 | 1.148 | 1.266 | 4.98  |      |
| 6)    | Aniline               | 2.330          | 2.254 | 2.280 | 2.205 | 2.351 | 2.196 | 2.069 | 2.241 | 4.26  |      |
| 7) S  | Phenol-d6             | 1.685          | 1.616 | 1.640 | 1.565 | 1.643 | 1.547 | 1.441 | 1.591 | 5.11  |      |
| 8)    | 2-Chlorophenol        | 1.239          | 1.208 | 1.321 | 1.273 | 1.363 | 1.286 | 1.212 | 1.272 | 4.51  |      |
| 9)    | Benzaldehyde          |                | 1.196 | 1.149 | 1.451 | 1.452 | 1.163 | 0.864 | 1.212 | 18.15 |      |
| 10) C | Phenol                | 1.766          | 1.742 | 1.782 | 1.709 | 1.780 | 1.694 | 1.584 | 1.723 | 4.07  |      |
| 11)   | bis(2-Chloroet...     | 1.425          | 1.363 | 1.366 | 1.309 | 1.371 | 1.291 | 1.209 | 1.334 | 5.26  |      |
| 12)   | 1,3-Dichlorobe...     | 1.547          | 1.482 | 1.470 | 1.414 | 1.471 | 1.388 | 1.286 | 1.437 | 5.83  |      |
| 13) C | 1,4-Dichlorobe...     | 1.570          | 1.473 | 1.504 | 1.412 | 1.482 | 1.386 | 1.292 | 1.446 | 6.27  |      |
| 14)   | 1,2-Dichlorobe...     | 1.468          | 1.409 | 1.430 | 1.364 | 1.417 | 1.321 | 1.241 | 1.379 | 5.57  |      |
| 15)   | Benzyl Alcohol        |                | 1.126 | 1.204 | 1.167 | 1.255 | 1.189 | 1.132 | 1.179 | 4.09  |      |
| 16)   | 2,2'-oxybis(1-...     | 2.713          | 2.532 | 2.528 | 2.405 | 2.517 | 2.342 | 2.171 | 2.458 | 6.99  |      |
| 17)   | 2-Methylphenol        | 1.132          | 1.081 | 1.124 | 1.083 | 1.150 | 1.077 | 1.035 | 1.098 | 3.63  |      |
| 18)   | Hexachloroethane      | 0.465          | 0.440 | 0.486 | 0.472 | 0.500 | 0.476 | 0.455 | 0.471 | 4.22  |      |
| 19) P | n-Nitroso-di-n...     | 0.956          | 1.029 | 0.988 | 1.002 | 0.964 | 1.017 | 0.945 | 0.897 | 0.975 | 4.44 |
| 20)   | 3+4-Methylphenols     |                | 1.399 | 1.419 | 1.356 | 1.421 | 1.293 | 1.189 | 1.346 | 6.74  |      |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |      |
| 22)   | Acetophenone          | 0.538          | 0.516 | 0.500 | 0.469 | 0.482 | 0.451 | 0.419 | 0.482 | 8.33  |      |
| 23) S | Nitrobenzene-d5       | 0.283          | 0.319 | 0.363 | 0.372 | 0.399 | 0.390 | 0.370 | 0.357 | 11.59 |      |
| 24)   | Nitrobenzene          | 0.282          | 0.317 | 0.357 | 0.356 | 0.385 | 0.366 | 0.347 | 0.344 | 9.94  |      |
| 25)   | Isophorone            | 0.705          | 0.688 | 0.697 | 0.678 | 0.718 | 0.687 | 0.651 | 0.689 | 3.11  |      |
| 26) C | 2-Nitrophenol         | 0.063          | 0.075 | 0.106 | 0.120 | 0.141 | 0.146 | 0.147 | 0.114 | 29.95 |      |
| 27)   | 2,4-Dimethylph...     | 0.325          | 0.322 | 0.326 | 0.320 | 0.332 | 0.315 | 0.299 | 0.320 | 3.38  |      |
| 28)   | bis(2-Chloroet...     | 0.444          | 0.434 | 0.435 | 0.409 | 0.424 | 0.404 | 0.375 | 0.418 | 5.63  |      |
| 29) C | 2,4-Dichloroph...     | 0.237          | 0.254 | 0.267 | 0.267 | 0.280 | 0.271 | 0.254 | 0.262 | 5.43  |      |
| 30)   | 1,2,4-Trichlor...     | 0.316          | 0.305 | 0.307 | 0.295 | 0.303 | 0.287 | 0.267 | 0.297 | 5.40  |      |
| 31)   | Naphthalene           | 1.099          | 1.048 | 1.037 | 0.966 | 0.987 | 0.937 | 0.878 | 0.993 | 7.52  |      |
| 32)   | Benzoic acid          |                | 0.080 | 0.111 | 0.144 | 0.159 | 0.171 | 0.172 | 0.139 | 26.27 |      |
| 33)   | 4-Chloroaniline       | 0.420          | 0.420 | 0.414 | 0.398 | 0.409 | 0.381 | 0.353 | 0.399 | 6.12  |      |
| 34) C | Hexachlorobuta...     | 0.185          | 0.176 | 0.183 | 0.177 | 0.182 | 0.176 | 0.163 | 0.178 | 4.10  |      |
| 35)   | Caprolactam           |                | 0.073 | 0.078 | 0.083 | 0.087 | 0.086 | 0.083 | 0.082 | 6.36  |      |
| 36) C | 4-Chloro-3-met...     | 0.285          | 0.290 | 0.296 | 0.293 | 0.307 | 0.293 | 0.277 | 0.291 | 3.26  |      |
| 37)   | 2-Methylnaphth...     | 0.644          | 0.626 | 0.615 | 0.580 | 0.597 | 0.562 | 0.524 | 0.592 | 6.91  |      |
| 38)   | 1-Methylnaphth...     | 0.678          | 0.660 | 0.631 | 0.603 | 0.615 | 0.578 | 0.537 | 0.615 | 7.81  |      |

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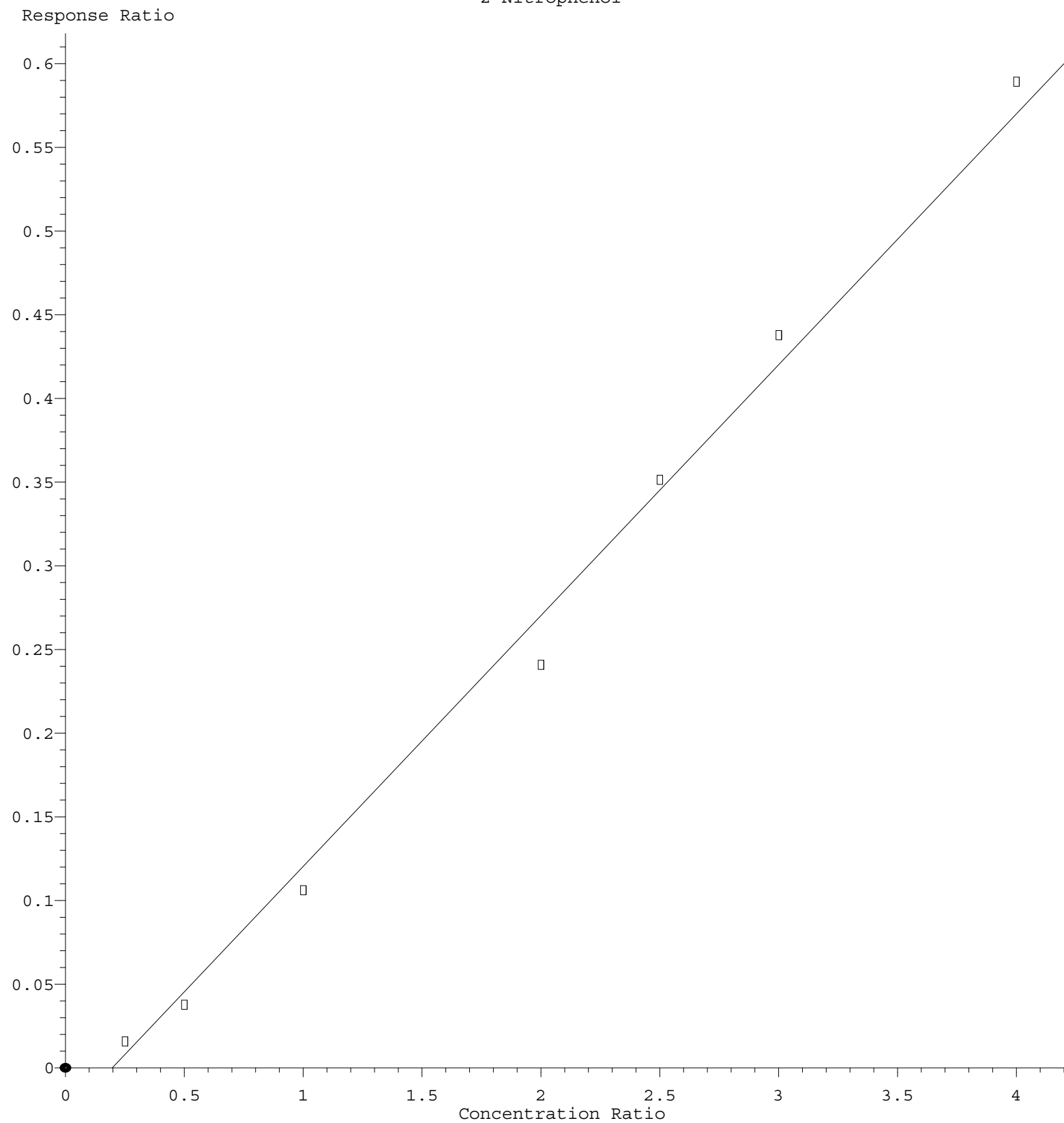
|       |                    |                |       |       |       |       |       |       |       |       |  |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 39) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 40)   | 1,2,4,5-Tetrac...  | 0.616          | 0.600 | 0.602 | 0.578 | 0.601 | 0.561 | 0.522 | 0.583 | 5.56  |  |
| 41) P | Hexachlorocycl...  | 0.254          | 0.306 | 0.323 | 0.356 | 0.356 | 0.344 | 0.323 | 12.16 |       |  |
| 42) S | 2,4,6-Tribromo...  | 0.136          | 0.157 | 0.181 | 0.188 | 0.204 | 0.194 | 0.188 | 0.178 | 13.23 |  |
| 43) C | 2,4,6-Trichlor...  | 0.300          | 0.312 | 0.377 | 0.376 | 0.400 | 0.393 | 0.377 | 0.362 | 10.94 |  |
| 44)   | 2,4,5-Trichlor...  | 0.336          | 0.367 | 0.390 | 0.393 | 0.418 | 0.377 | 0.378 | 0.380 | 6.62  |  |
| 45) S | 2-Fluorobiphenyl   | 1.777          | 1.645 | 1.602 | 1.456 | 1.460 | 1.355 | 1.238 | 1.505 | 12.18 |  |
| 46)   | 1,1'-Biphenyl      | 1.750          | 1.687 | 1.671 | 1.567 | 1.610 | 1.496 | 1.384 | 1.595 | 7.84  |  |
| 47)   | 2-Chloronaphth...  | 1.271          | 1.203 | 1.206 | 1.159 | 1.195 | 1.120 | 1.048 | 1.172 | 6.10  |  |
| 48)   | 2-Nitroaniline     | 0.180          | 0.224 | 0.296 | 0.328 | 0.372 | 0.363 | 0.355 | 0.303 | 24.51 |  |
| 49)   | Acenaphthylene     | 2.060          | 2.011 | 2.034 | 1.959 | 1.989 | 1.867 | 1.746 | 1.952 | 5.65  |  |
| 50)   | Dimethylphthalate  | 1.310          | 1.259 | 1.292 | 1.257 | 1.302 | 1.219 | 1.169 | 1.258 | 4.01  |  |
| 51)   | 2,6-Dinitrotol...  | 0.133          | 0.176 | 0.222 | 0.234 | 0.262 | 0.262 | 0.247 | 0.219 | 22.07 |  |
| 52) C | Acenaphthene       | 1.273          | 1.204 | 1.173 | 1.127 | 1.168 | 1.088 | 1.032 | 1.152 | 6.85  |  |
| 53)   | 3-Nitroaniline     | 0.180          | 0.227 | 0.283 | 0.288 | 0.318 | 0.313 | 0.295 | 0.272 | 18.56 |  |
| 54) P | 2,4-Dinitrophenol  | 0.038          | 0.056 | 0.069 | 0.086 | 0.090 | 0.097 | 0.073 | 31.18 |       |  |
| 55)   | Dibenzofuran       | 1.895          | 1.795 | 1.785 | 1.697 | 1.729 | 1.604 | 1.516 | 1.717 | 7.37  |  |
| 56) P | 4-Nitrophenol      | 0.164          | 0.201 | 0.224 | 0.239 | 0.237 | 0.232 | 0.216 | 13.37 |       |  |
| 57)   | 2,4-Dinitrotol...  | 0.147          | 0.197 | 0.253 | 0.295 | 0.326 | 0.319 | 0.320 | 0.265 | 26.25 |  |
| 58)   | Fluorene           | 1.478          | 1.387 | 1.328 | 1.246 | 1.284 | 1.186 | 1.105 | 1.288 | 9.67  |  |
| 59)   | 2,3,4,6-Tetrac...  | 0.253          | 0.274 | 0.302 | 0.312 | 0.339 | 0.323 | 0.309 | 0.302 | 9.71  |  |
| 60)   | Diethylphthalate   | 1.221          | 1.217 | 1.257 | 1.225 | 1.260 | 1.187 | 1.130 | 1.214 | 3.68  |  |
| 61)   | 4-Chlorophenyl...  | 0.666          | 0.642 | 0.631 | 0.614 | 0.625 | 0.586 | 0.555 | 0.617 | 5.92  |  |
| 62)   | 4-Nitroaniline     | 0.169          | 0.208 | 0.237 | 0.249 | 0.270 | 0.263 | 0.259 | 0.236 | 15.25 |  |
| 63)   | Azobenzene         | 1.425          | 1.399 | 1.375 | 1.328 | 1.381 | 1.282 | 1.208 | 1.343 | 5.65  |  |
| 64) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 65)   | 4,6-Dinitro-2-...  | 0.035          | 0.053 | 0.064 | 0.079 | 0.084 | 0.086 | 0.067 | 30.46 |       |  |
| 66) c | n-Nitrosodiphe...  | 0.735          | 0.709 | 0.736 | 0.682 | 0.717 | 0.685 | 0.654 | 0.703 | 4.30  |  |
| 67)   | 4-Bromophenyl-...  | 0.231          | 0.219 | 0.234 | 0.222 | 0.239 | 0.228 | 0.219 | 0.227 | 3.38  |  |
| 68)   | Hexachlorobenzene  | 0.249          | 0.237 | 0.247 | 0.235 | 0.250 | 0.239 | 0.231 | 0.241 | 3.12  |  |
| 69)   | Atrazine           | 0.158          | 0.171 | 0.184 | 0.181 | 0.195 | 0.185 | 0.184 | 0.180 | 6.72  |  |
| 70) C | Pentachlorophenol  | 0.098          | 0.125 | 0.132 | 0.149 | 0.145 | 0.145 | 0.132 | 14.47 |       |  |
| 71)   | Phenanthrene       | 1.190          | 1.136 | 1.111 | 1.042 | 1.089 | 1.021 | 0.968 | 1.079 | 6.95  |  |
| 72)   | Anthracene         | 1.158          | 1.126 | 1.126 | 1.057 | 1.106 | 1.042 | 0.983 | 1.085 | 5.62  |  |
| 73)   | Carbazole          | 1.038          | 1.026 | 1.008 | 0.938 | 0.998 | 0.927 | 0.873 | 0.972 | 6.27  |  |
| 74)   | Di-n-butylphth...  | 0.746          | 0.846 | 0.913 | 0.921 | 0.983 | 0.942 | 0.897 | 0.893 | 8.62  |  |
| 75) C | Fluoranthene       | 1.044          | 1.053 | 1.009 | 0.960 | 0.998 | 0.938 | 0.869 | 0.981 | 6.59  |  |
| 76) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 77)   | Benzidine          | 0.664          | 0.786 | 0.834 | 0.674 | 0.616 | 0.514 | 0.681 | 17.02 |       |  |
| 78)   | Pyrene             | 2.018          | 1.956 | 1.955 | 1.842 | 1.918 | 1.716 | 1.585 | 1.856 | 8.33  |  |
| 79) S | Terphenyl-d14      | 1.563          | 1.471 | 1.437 | 1.343 | 1.385 | 1.246 | 1.133 | 1.368 | 10.53 |  |
| 80)   | Butylbenzylphth... | 0.179          | 0.233 | 0.310 | 0.343 | 0.385 | 0.395 | 0.384 | 0.318 | 26.22 |  |
| 81)   | Benzo(a)anthra...  | 1.296          | 1.304 | 1.406 | 1.347 | 1.403 | 1.326 | 1.247 | 1.333 | 4.34  |  |
| 82)   | 3,3'-Dichlorob...  | 0.314          | 0.406 | 0.385 | 0.428 | 0.411 | 0.377 | 0.387 | 10.35 |       |  |
| 83)   | Chrysene           | 1.286          | 1.234 | 1.211 | 1.201 | 1.270 | 1.228 | 1.162 | 1.227 | 3.41  |  |
| 84)   | Bis(2-ethylhex...  | 0.273          | 0.343 | 0.479 | 0.515 | 0.578 | 0.591 | 0.583 | 0.480 | 26.25 |  |
| 85) c | Di-n-octyl pht...  | 0.474          | 0.811 | 0.922 | 1.073 | 1.115 | 1.167 | 0.927 | 27.83 |       |  |

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|       |                   |                |       |       |       |       |       |       |       |      |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |      |
| 87)   | Indeno(1,2,3-c... | 1.345          | 1.411 | 1.526 | 1.521 | 1.620 | 1.519 | 1.470 | 1.488 | 5.98 |
| 88)   | Benzo(b)fluora... | 1.063          | 1.191 | 1.171 | 1.082 | 1.297 | 1.185 | 1.087 | 1.154 | 7.17 |
| 89)   | Benzo(k)fluora... | 1.175          | 1.066 | 1.111 | 1.148 | 1.088 | 1.060 | 1.056 | 1.101 | 4.23 |
| 90) C | Benzo(a)pyrene    | 0.989          | 1.019 | 1.108 | 1.124 | 1.196 | 1.124 | 1.078 | 1.091 | 6.41 |
| 91)   | Dibenzo(a,h)an... | 1.114          | 1.162 | 1.266 | 1.240 | 1.330 | 1.222 | 1.178 | 1.216 | 5.90 |
| 92)   | Benzo(g,h,i)pe... | 1.148          | 1.187 | 1.263 | 1.258 | 1.349 | 1.260 | 1.214 | 1.240 | 5.20 |

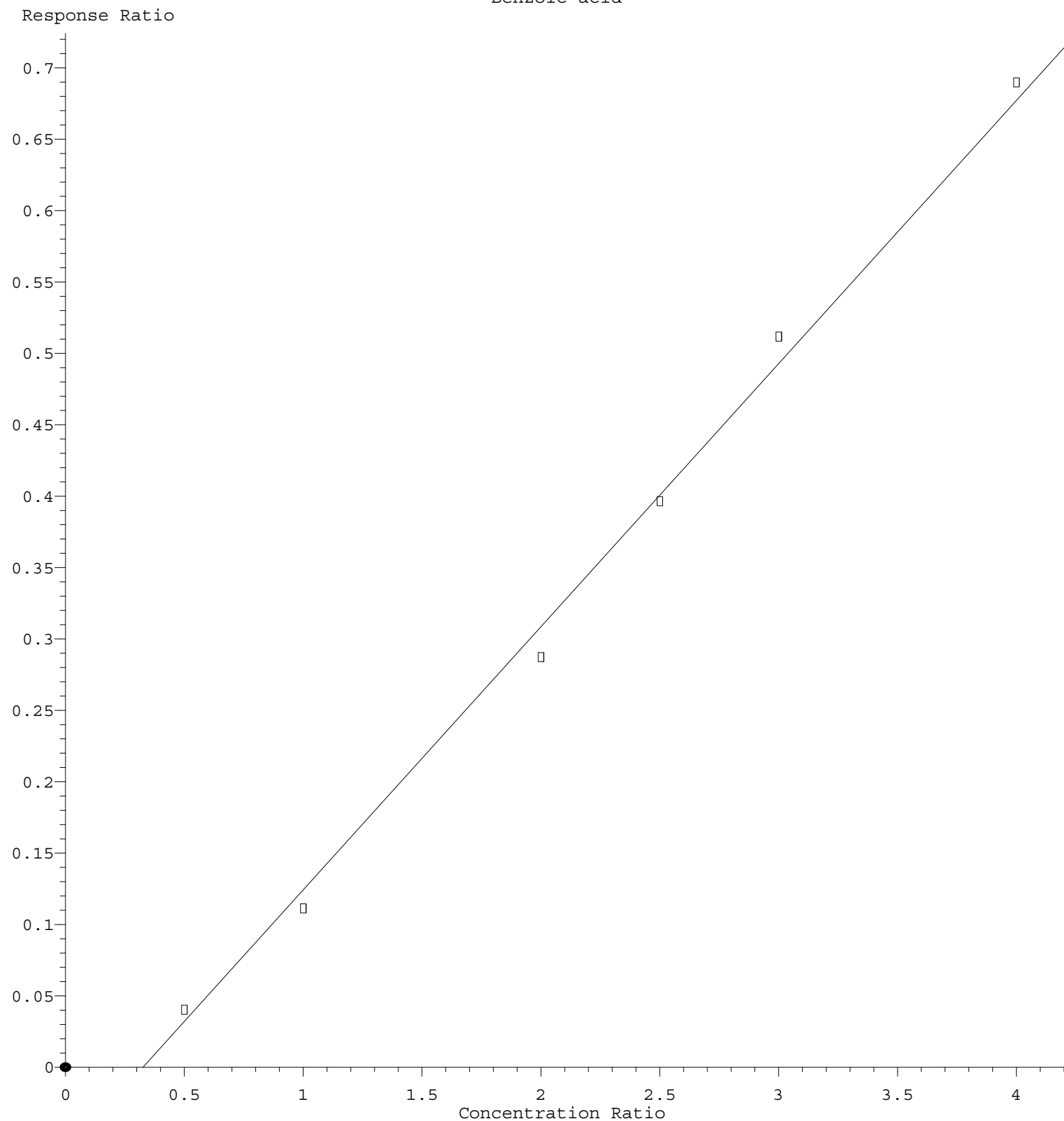
-----  
(#) = Out of Range

# 2-Nitrophenol



Response = 1.498e-001 \* Amt - 2.944e-002  
 Coef of Det (r^2) = 0.992826    Curve Fit: wlr(1/a)  
 Method Name:    Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF071525.M  
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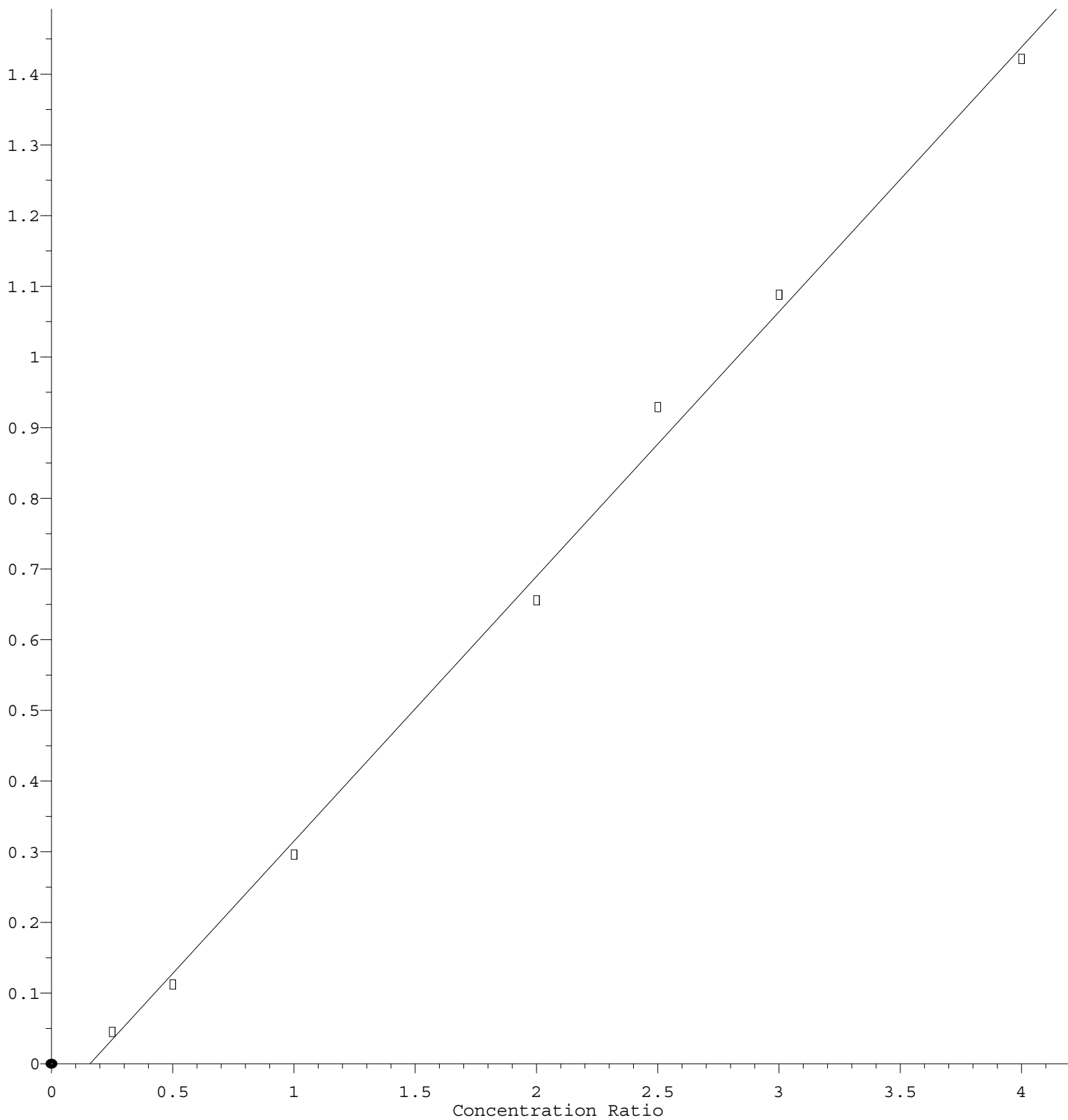
# Benzoic acid



Response = 1.844e-001 \* Amt - 6.013e-002  
 Coef of Det (r^2) = 0.995906 Curve Fit: wlr(1/a)  
 Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF071525.M  
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## 2-Nitroaniline

Response Ratio



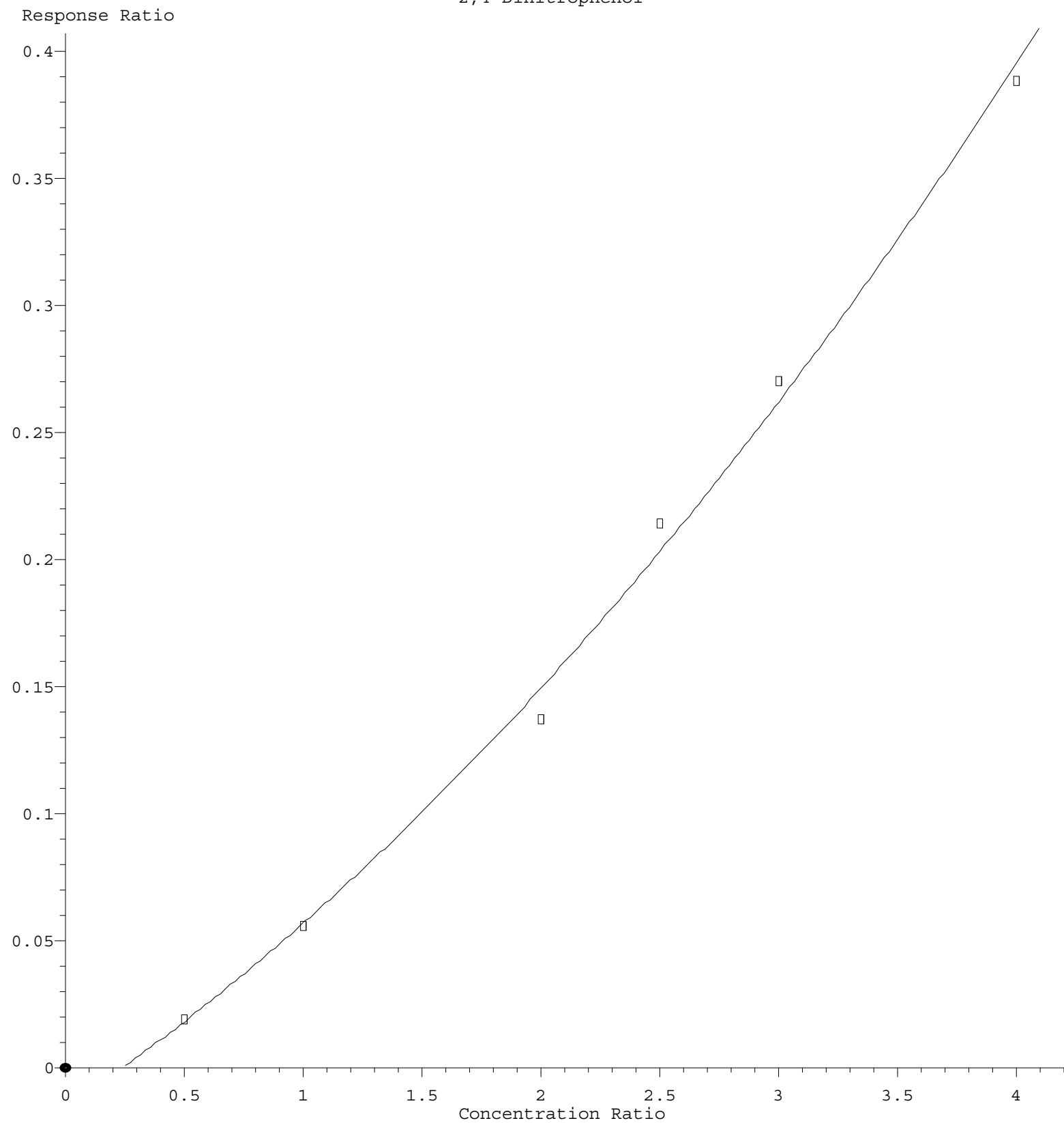
$$\text{Response} = 3.746\text{e-}001 * \text{Amt} - 5.948\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.996906 Curve Fit: wlr(1/a)

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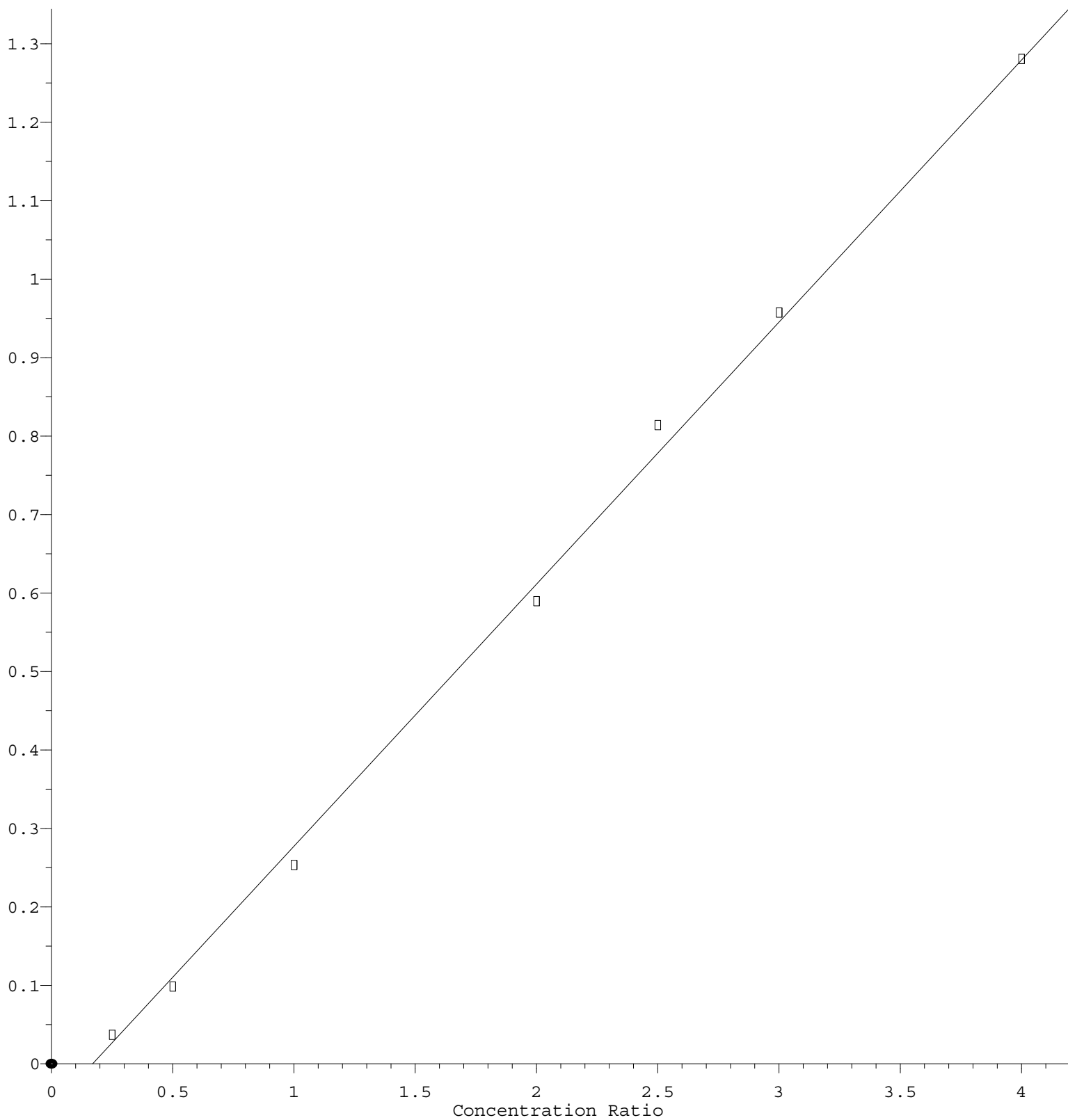
# 2,4-Dinitrophenol



$R = 1.009e-002 A^2 + 6.225e-002 A - 1.545e-002$   
 Coef of Det ( $r^2$ ) = 0.996906    Curve Fit: Quadratic w(1/a)  
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## 2,4-Dinitrotoluene

Response Ratio



$$\text{Response} = 3.341\text{e-}001 * \text{Amt} - 5.679\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.997543 Curve Fit: wlr(1/a)

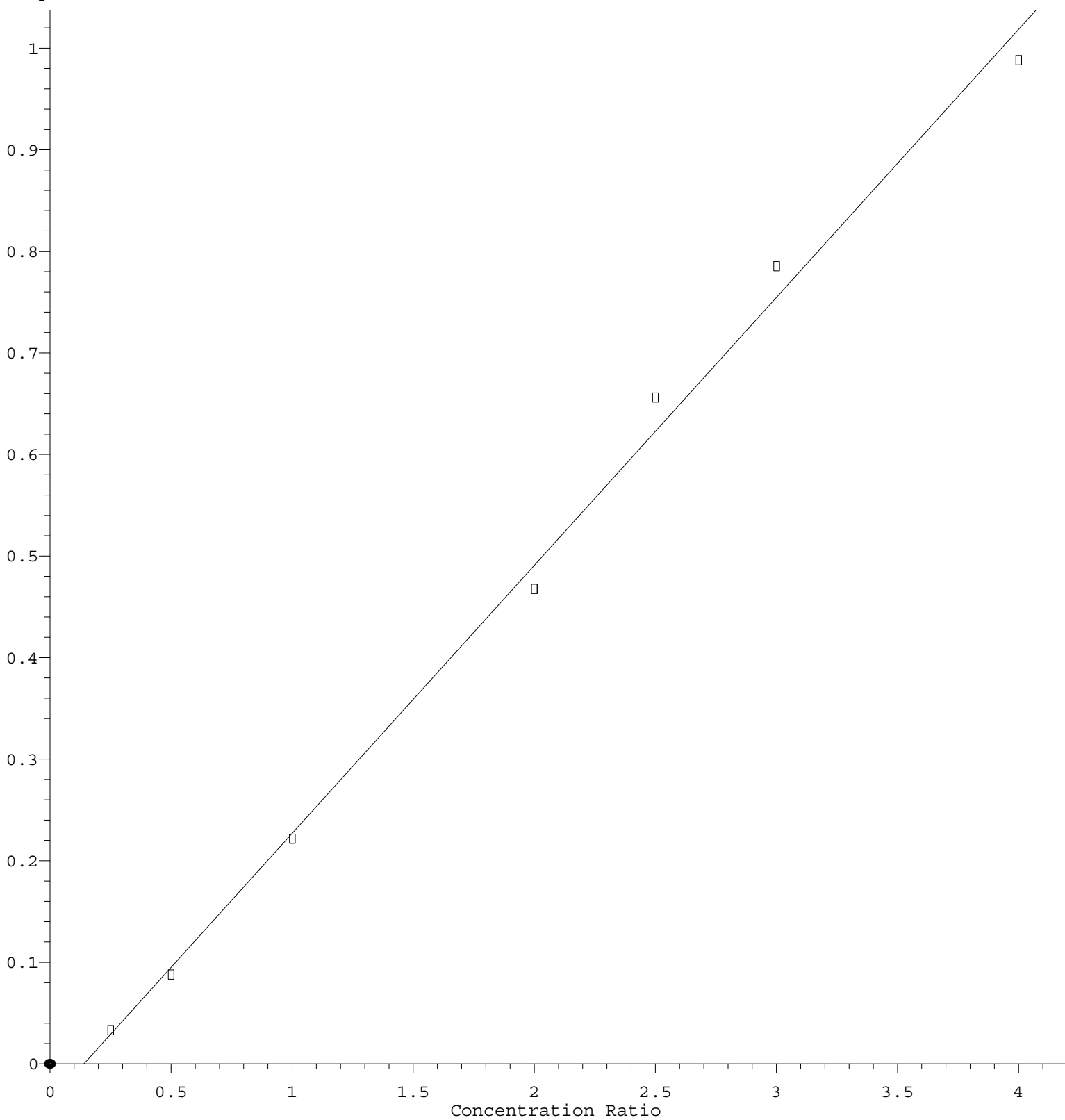
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF071525.M

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# 2,6-Dinitrotoluene

Response Ratio



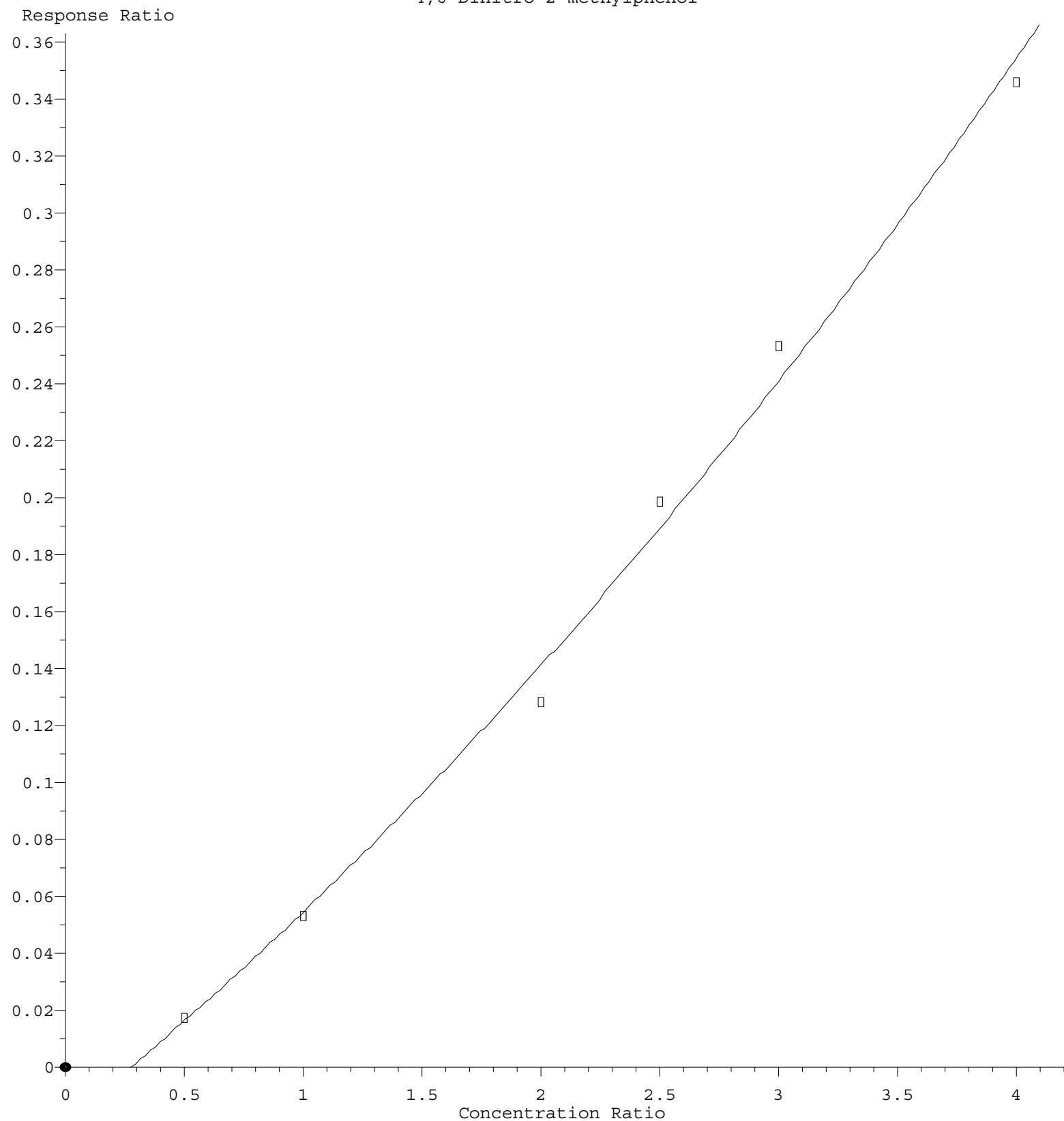
$$\text{Response} = 2.640\text{e-}001 * \text{Amt} - 3.691\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.997212 Curve Fit: wlr(1/a)

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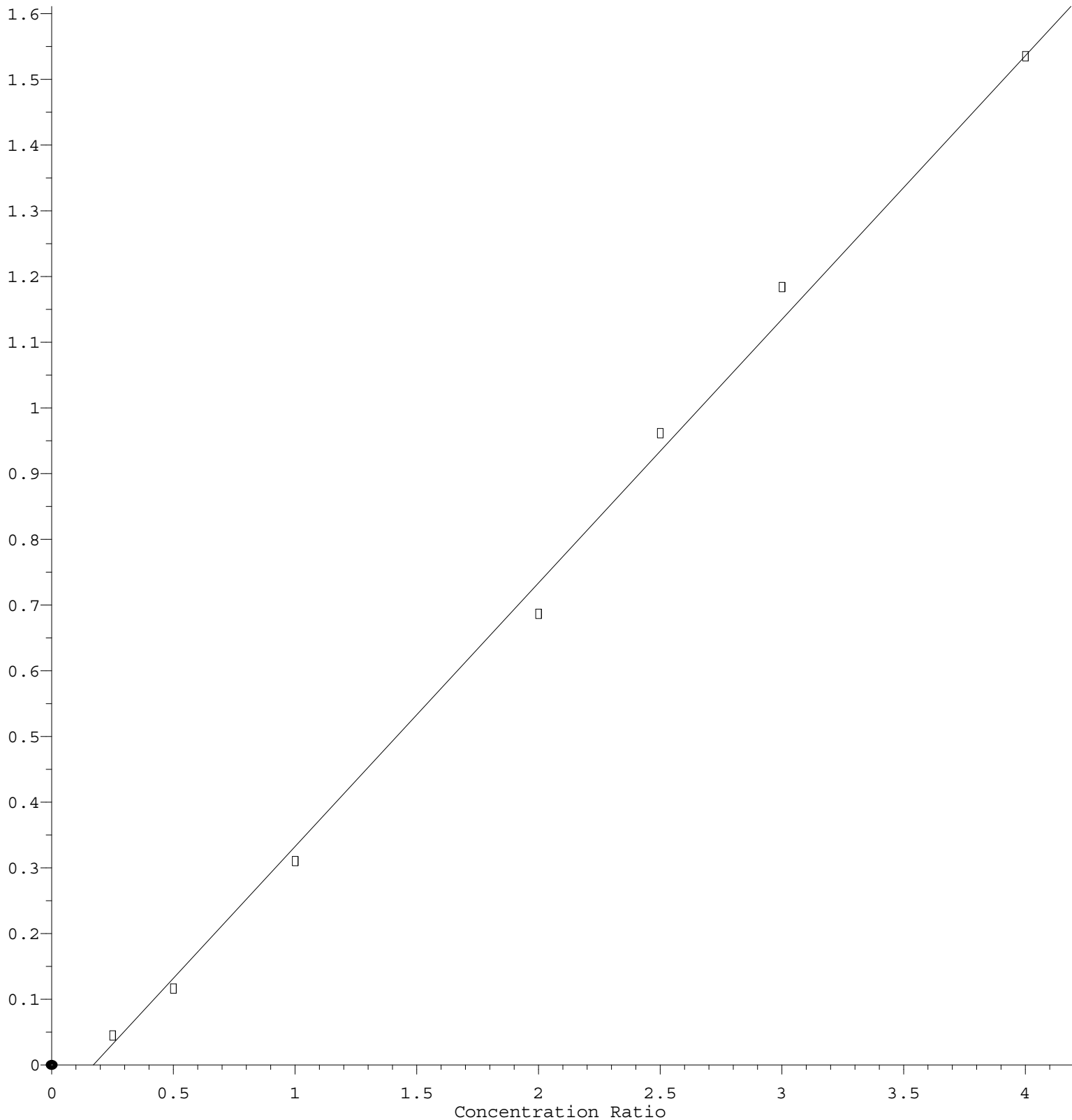
# 4,6-Dinitro-2-methylphenol



$R = 6.691e-003 A^2 + 6.646e-002 A - 1.863e-002$   
 Coef of Det ( $r^2$ ) = 0.995577    Curve Fit: Quadratic w(1/a)  
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# Butylbenzylphthalate

Response Ratio



$$\text{Response} = 4.013\text{e-}001 * \text{Amt} - 6.845\text{e-}002$$

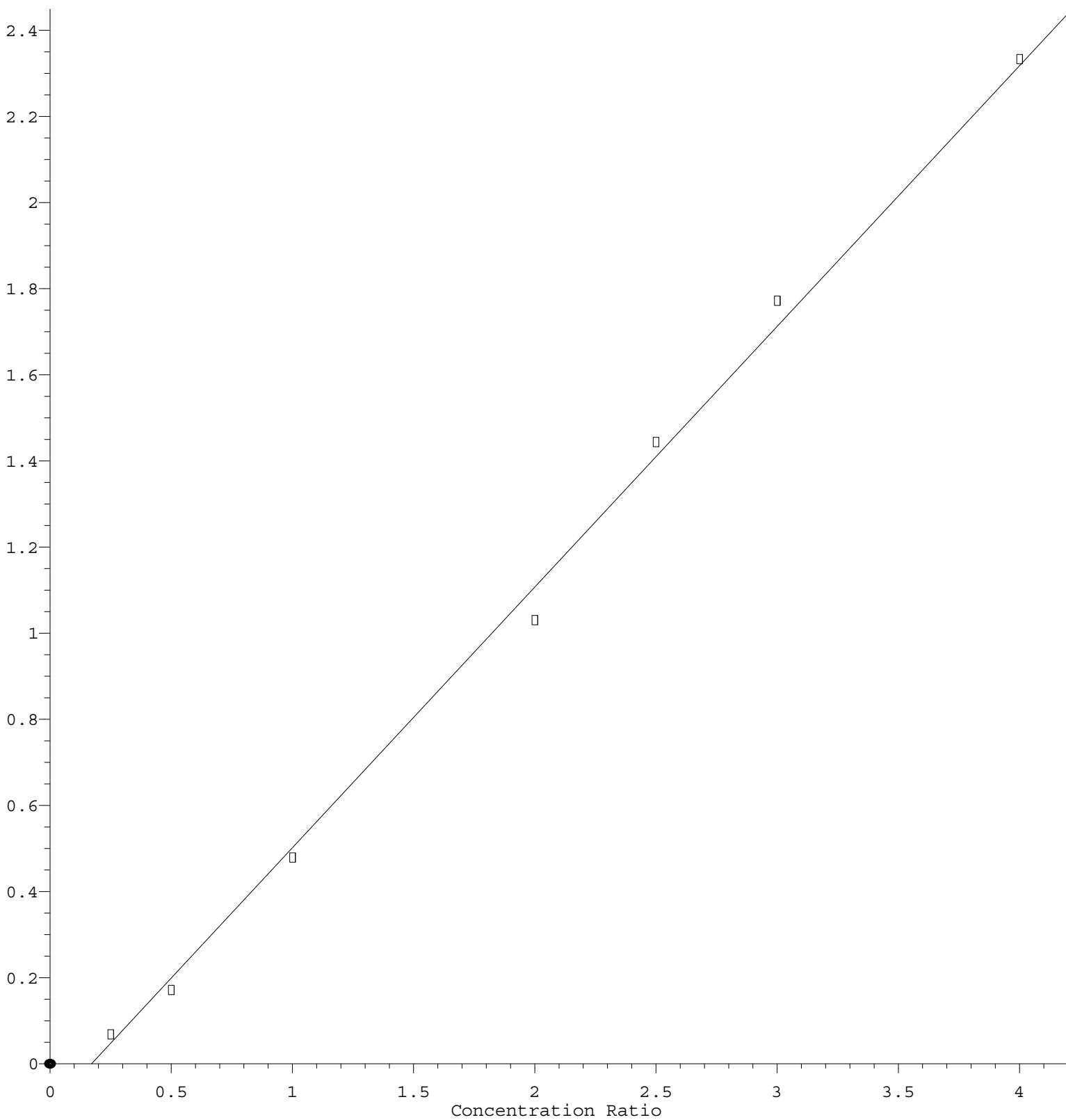
Coef of Det ( $r^2$ ) = 0.996788 Curve Fit: wlr(1/a)

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# Bis(2-ethylhexyl)phthalate

Response Ratio



$$\text{Response} = 6.053\text{e-}001 * \text{Amt} - 1.032\text{e-}001$$

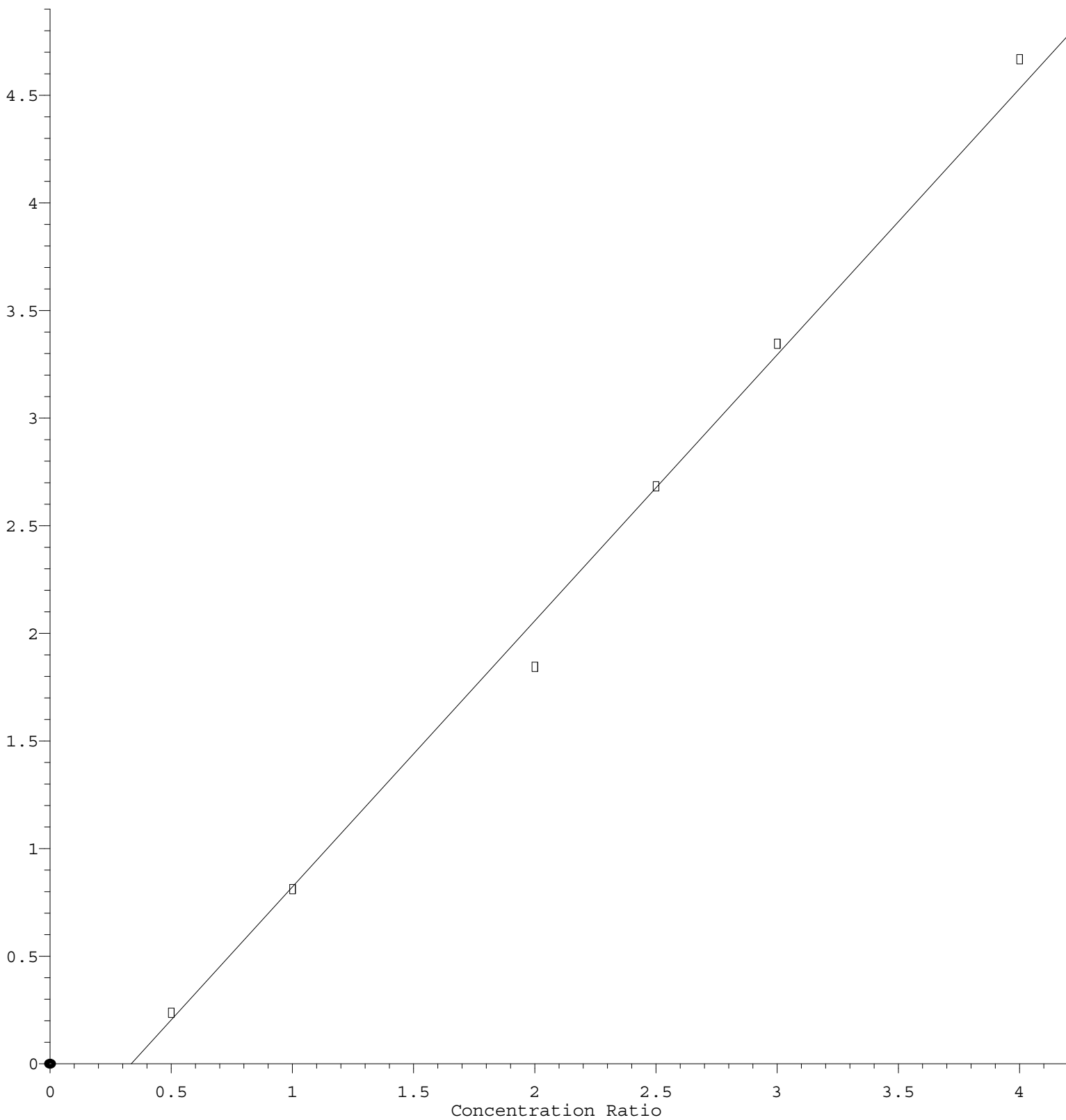
Coef of Det ( $r^2$ ) = 0.996945 Curve Fit: wlr(1/a)

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# Di-n-octyl phthalate

Response Ratio



$$\text{Response} = 1.236\text{e}+000 * \text{Amt} - 4.136\text{e}-001$$

Coef of Det ( $r^2$ ) = 0.995967 Curve Fit: wlr(1/a)

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