

Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
 Method File : 8270-BF111522.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Wed Nov 16 06:35:36 2022  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BF131233.D 5 =BF131234.D 10 =BF131235.D 20 =BF131236.D 40 =BF131237.D 50 =BF131238.D 60 =BF131239.D 80 =BF131240.D

|       | Compound              | 2.5            | 5     | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |      |
| 2)    | 1,4-Dioxane           | 0.560          | 0.548 | 0.529 | 0.524 | 0.488 | 0.492 | 0.482 | 0.517 | 5.96  |      |
| 3)    | Pyridine              | 1.550          | 1.546 | 1.546 | 1.473 | 1.392 | 1.387 | 1.344 | 1.463 | 6.01  |      |
| 4)    | n-Nitrosodimet...     | 0.852          | 0.859 | 0.880 | 0.871 | 0.835 | 0.844 | 0.827 | 0.853 | 2.24  |      |
| 5) S  | 2-Fluorophenol        | 1.226          | 1.209 | 1.214 | 1.127 | 1.058 | 1.055 | 1.018 | 1.129 | 7.74  |      |
| 6)    | Aniline               | 1.845          | 1.893 | 1.883 | 1.813 | 1.699 | 1.722 | 1.706 | 1.794 | 4.70  |      |
| 7) S  | Phenol-d6             | 1.556          | 1.534 | 1.524 | 1.425 | 1.346 | 1.339 | 1.290 | 1.431 | 7.58  |      |
| 8)    | 2-Chlorophenol        | 1.371          | 1.366 | 1.366 | 1.259 | 1.189 | 1.197 | 1.138 | 1.270 | 7.75  |      |
| 9)    | Benzaldehyde          | 1.190          | 1.153 | 1.081 | 0.919 | 0.845 |       |       | 1.038 | 14.43 |      |
| 10) C | Phenol                | 1.745          | 1.736 | 1.707 | 1.589 | 1.491 | 1.489 | 1.446 | 1.600 | 8.02  |      |
| 11)   | bis(2-Chloroet...     | 1.359          | 1.371 | 1.315 | 1.240 | 1.179 | 1.172 | 1.136 | 1.253 | 7.63  |      |
| 12)   | 1,3-Dichlorobe...     | 1.578          | 1.531 | 1.559 | 1.428 | 1.340 | 1.339 | 1.279 | 1.436 | 8.41  |      |
| 13) C | 1,4-Dichlorobe...     | 1.584          | 1.570 | 1.559 | 1.443 | 1.366 | 1.351 | 1.296 | 1.453 | 8.18  |      |
| 14)   | 1,2-Dichlorobe...     | 1.492          | 1.479 | 1.466 | 1.327 | 1.233 | 1.232 | 1.170 | 1.343 | 10.11 |      |
| 15)   | Benzyl Alcohol        | 1.289          | 1.303 | 1.308 | 1.270 | 1.183 | 1.198 | 1.147 | 1.243 | 5.25  |      |
| 16)   | 2,2'-oxybis(1-...     | 2.543          | 2.555 | 2.524 | 2.382 | 2.214 | 2.192 | 2.112 | 2.360 | 7.93  |      |
| 17)   | 2-Methylphenol        | 1.175          | 1.135 | 1.161 | 1.090 | 1.030 | 1.022 | 0.974 | 1.084 | 7.11  |      |
| 18)   | Hexachloroethane      | 0.539          | 0.554 | 0.560 | 0.529 | 0.508 | 0.510 | 0.495 | 0.528 | 4.66  |      |
| 19) P | n-Nitroso-di-n...     | 1.072          | 1.090 | 1.047 | 1.052 | 0.983 | 0.915 | 0.929 | 0.887 | 0.997 | 7.89 |
| 20)   | 3+4-Methylphenols     | 1.520          | 1.546 | 1.501 | 1.416 | 1.298 | 1.302 | 1.231 | 1.402 | 8.96  |      |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |      |
| 22)   | Acetophenone          | 0.563          | 0.556 | 0.537 | 0.502 | 0.496 | 0.502 | 0.494 | 0.521 | 5.71  |      |
| 23) S | Nitrobenzene-d5       | 0.277          | 0.324 | 0.359 | 0.371 | 0.378 | 0.393 | 0.392 | 0.356 | 11.92 |      |
| 24)   | Nitrobenzene          | 0.323          | 0.360 | 0.387 | 0.397 | 0.400 | 0.413 | 0.413 | 0.385 | 8.45  |      |
| 25)   | Isophorone            | 0.727          | 0.727 | 0.726 | 0.696 | 0.689 | 0.711 | 0.707 | 0.712 | 2.19  |      |
| 26) C | 2-Nitrophenol         | 0.080          | 0.101 | 0.122 | 0.143 | 0.150 | 0.161 | 0.163 | 0.131 | 24.01 |      |
| 27)   | 2,4-Dimethylph...     | 0.291          | 0.312 | 0.296 | 0.289 | 0.282 | 0.287 | 0.282 | 0.291 | 3.64  |      |
| 28)   | bis(2-Chloroet...     | 0.422          | 0.423 | 0.417 | 0.390 | 0.383 | 0.390 | 0.385 | 0.401 | 4.51  |      |
| 29) C | 2,4-Dichloroph...     | 0.310          | 0.319 | 0.328 | 0.314 | 0.308 | 0.317 | 0.310 | 0.315 | 2.23  |      |
| 30)   | 1,2,4-Trichlor...     | 0.388          | 0.391 | 0.386 | 0.361 | 0.351 | 0.358 | 0.350 | 0.369 | 4.98  |      |
| 31)   | Naphthalene           | 1.162          | 1.140 | 1.135 | 1.056 | 1.033 | 1.036 | 1.024 | 1.084 | 5.49  |      |
| 32)   | Benzoic acid          |                | 0.131 | 0.159 | 0.192 | 0.205 | 0.227 |       | 0.183 | 20.64 |      |
| 33)   | 4-Chloroaniline       | 0.433          | 0.451 | 0.444 | 0.413 | 0.415 | 0.418 | 0.412 | 0.427 | 3.70  |      |
| 34) C | Hexachlorobuta...     | 0.240          | 0.241 | 0.243 | 0.233 | 0.225 | 0.231 | 0.224 | 0.234 | 3.24  |      |
| 35)   | Caprolactam           | 0.094          | 0.092 | 0.094 | 0.092 | 0.092 | 0.094 | 0.094 | 0.093 | 1.23  |      |
| 36) C | 4-Chloro-3-met...     | 0.328          | 0.336 | 0.344 | 0.325 | 0.328 | 0.331 | 0.329 | 0.332 | 1.98  |      |
| 37)   | 2-Methylnaphth...     | 0.773          | 0.779 | 0.755 | 0.695 | 0.681 | 0.695 | 0.673 | 0.722 | 6.33  |      |
| 38)   | 1-Methylnaphth...     | 0.770          | 0.745 | 0.728 | 0.680 | 0.657 | 0.663 | 0.655 | 0.700 | 6.74  |      |

Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
 Method File : 8270-BF111522.M

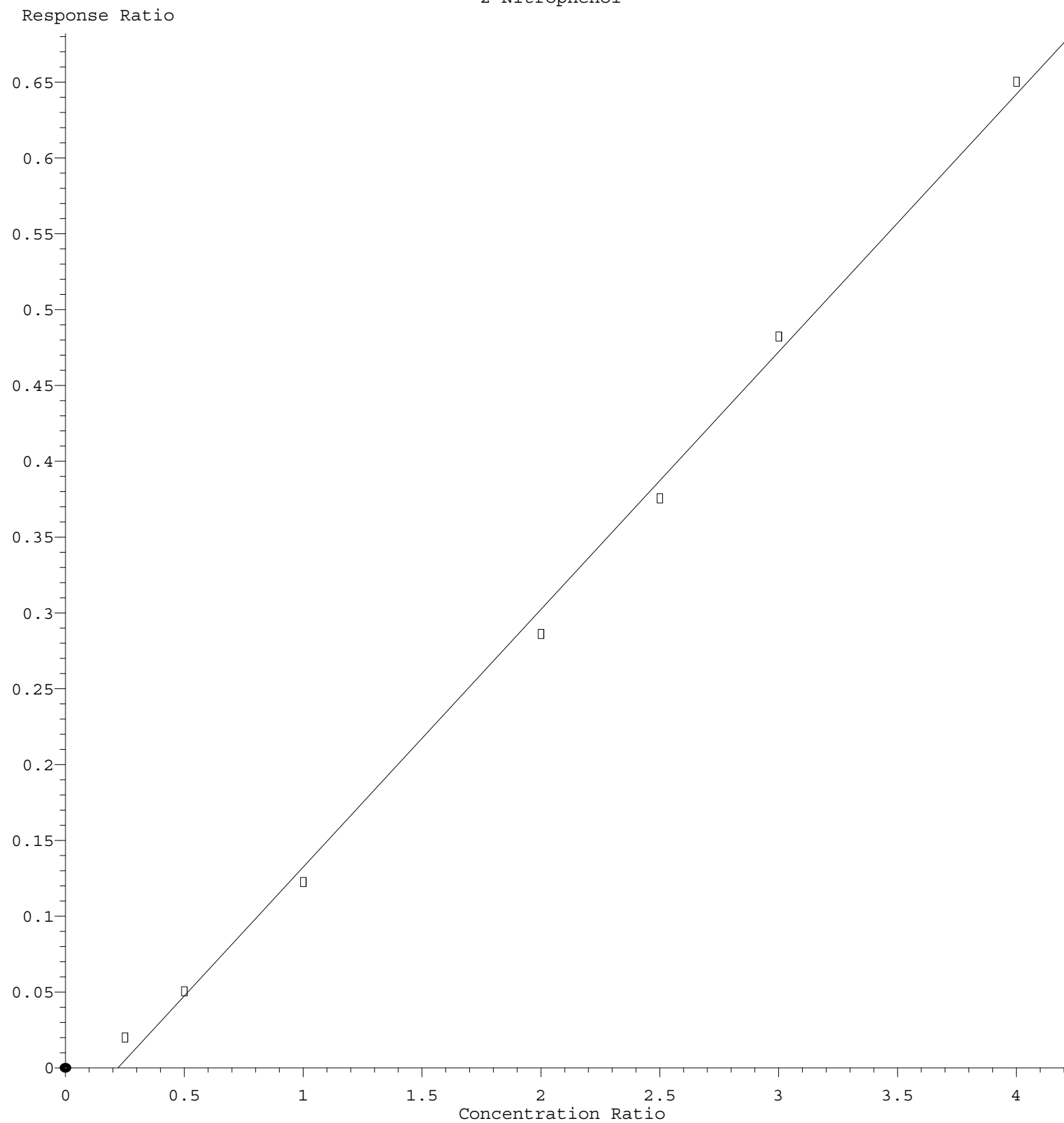
|       |                   |                |       |       |       |       |       |       |       |       |  |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 39) I | Acenaphthene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 40)   | 1,2,4,5-Tetrac... | 0.679          | 0.684 | 0.676 | 0.634 | 0.606 | 0.625 | 0.604 | 0.644 | 5.46  |  |
| 41) P | Hexachlorocycl... | 0.280          | 0.308 | 0.335 | 0.349 | 0.336 | 0.354 | 0.348 | 0.330 | 8.14  |  |
| 42) S | 2,4,6-Tribromo... | 0.174          | 0.190 | 0.203 | 0.196 | 0.182 | 0.198 | 0.194 | 0.191 | 5.14  |  |
| 43) C | 2,4,6-Trichlor... | 0.404          | 0.416 | 0.434 | 0.435 | 0.416 | 0.426 | 0.415 | 0.421 | 2.71  |  |
| 44)   | 2,4,5-Trichlor... | 0.440          | 0.444 | 0.473 | 0.452 | 0.440 | 0.460 | 0.455 | 0.452 | 2.65  |  |
| 45) S | 2-Fluorobiphenyl  | 1.538          | 1.501 | 1.454 | 1.311 | 1.256 | 1.285 | 1.221 | 1.367 | 9.37  |  |
| 46)   | 1,1'-Biphenyl     | 1.687          | 1.638 | 1.624 | 1.506 | 1.429 | 1.471 | 1.408 | 1.537 | 7.21  |  |
| 47)   | 2-Chloronaphth... | 1.336          | 1.316 | 1.325 | 1.212 | 1.168 | 1.195 | 1.166 | 1.245 | 6.17  |  |
| 48)   | 2-Nitroaniline    | 0.212          | 0.260 | 0.336 | 0.378 | 0.390 | 0.413 | 0.420 | 0.344 | 23.25 |  |
| 49)   | Acenaphthylene    | 2.023          | 1.989 | 2.002 | 1.885 | 1.801 | 1.842 | 1.771 | 1.902 | 5.40  |  |
| 50)   | Dimethylphthalate | 1.520          | 1.491 | 1.501 | 1.414 | 1.359 | 1.387 | 1.354 | 1.432 | 4.91  |  |
| 51)   | 2,6-Dinitrotol... | 0.166          | 0.200 | 0.252 | 0.277 | 0.272 | 0.293 | 0.288 | 0.250 | 19.41 |  |
| 52) C | Acenaphthene      | 1.267          | 1.230 | 1.240 | 1.169 | 1.124 | 1.162 | 1.118 | 1.187 | 4.96  |  |
| 53)   | 3-Nitroaniline    | 0.183          | 0.227 | 0.277 | 0.292 | 0.292 | 0.310 | 0.308 | 0.270 | 17.60 |  |
| 54) P | 2,4-Dinitrophenol | 0.051          | 0.073 | 0.094 | 0.105 | 0.120 | 0.126 | 0.095 |       | 30.18 |  |
| 55)   | Dibenzofuran      | 1.842          | 1.792 | 1.798 | 1.661 | 1.596 | 1.636 | 1.582 | 1.701 | 6.28  |  |
| 56) P | 4-Nitrophenol     | 0.177          | 0.222 | 0.229 | 0.237 | 0.245 | 0.242 | 0.225 |       | 11.13 |  |
| 57)   | 2,4-Dinitrotol... | 0.166          | 0.220 | 0.289 | 0.333 | 0.340 | 0.360 | 0.367 | 0.296 | 25.84 |  |
| 58)   | Fluorene          | 1.488          | 1.431 | 1.413 | 1.304 | 1.241 | 1.267 | 1.224 | 1.338 | 7.79  |  |
| 59)   | 2,3,4,6-Tetrac... | 0.360          | 0.379 | 0.399 | 0.396 | 0.380 | 0.386 | 0.381 | 0.383 | 3.40  |  |
| 60)   | Diethylphthalate  | 1.408          | 1.390 | 1.416 | 1.342 | 1.288 | 1.332 | 1.300 | 1.354 | 3.82  |  |
| 61)   | 4-Chlorophenyl... | 0.719          | 0.698 | 0.707 | 0.656 | 0.621 | 0.626 | 0.606 | 0.662 | 6.96  |  |
| 62)   | 4-Nitroaniline    | 0.180          | 0.229 | 0.267 | 0.289 | 0.288 | 0.303 | 0.307 | 0.266 | 17.30 |  |
| 63)   | Azobenzene        | 1.477          | 1.452 | 1.497 | 1.403 | 1.353 | 1.384 | 1.355 | 1.417 | 4.13  |  |
| 64) I | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 65)   | 4,6-Dinitro-2-... | 0.044          | 0.062 | 0.082 | 0.086 | 0.096 | 0.099 | 0.078 |       | 27.39 |  |
| 66) c | n-Nitrosodiphe... | 0.686          | 0.670 | 0.660 | 0.623 | 0.603 | 0.612 | 0.594 | 0.635 | 5.70  |  |
| 67)   | 4-Bromophenyl-... | 0.249          | 0.249 | 0.245 | 0.236 | 0.218 | 0.227 | 0.221 | 0.235 | 5.56  |  |
| 68)   | Hexachlorobenzene | 0.271          | 0.264 | 0.262 | 0.253 | 0.239 | 0.247 | 0.245 | 0.254 | 4.61  |  |
| 69)   | Atrazine          | 0.216          | 0.219 | 0.218 | 0.208 | 0.200 | 0.201 | 0.197 | 0.208 | 4.41  |  |
| 70) C | Pentachlorophenol | 0.123          | 0.137 | 0.153 | 0.156 | 0.154 | 0.160 | 0.158 | 0.149 | 9.28  |  |
| 71)   | Phenanthrene      | 1.201          | 1.194 | 1.153 | 1.078 | 1.038 | 1.044 | 1.018 | 1.104 | 7.03  |  |
| 72)   | Anthracene        | 1.154          | 1.163 | 1.118 | 1.066 | 1.017 | 1.023 | 1.006 | 1.078 | 6.17  |  |
| 73)   | Carbazole         | 1.028          | 1.021 | 1.008 | 0.956 | 0.912 | 0.930 | 0.901 | 0.965 | 5.54  |  |
| 74)   | Di-n-butylphth... | 1.150          | 1.181 | 1.174 | 1.135 | 1.063 | 1.089 | 1.071 | 1.123 | 4.34  |  |
| 75) C | Fluoranthene      | 1.309          | 1.308 | 1.286 | 1.201 | 1.141 | 1.163 | 1.113 | 1.217 | 6.83  |  |
| 76) I | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 77)   | Benzydine         | 0.469          | 0.398 | 0.460 | 0.408 | 0.416 | 0.421 | 0.429 |       | 6.72  |  |
| 78)   | Pyrene            | 1.639          | 1.648 | 1.695 | 1.738 | 1.736 | 1.795 | 1.817 | 1.724 | 3.95  |  |
| 79) S | Terphenyl-d14     | 1.144          | 1.152 | 1.157 | 1.168 | 1.152 | 1.200 | 1.180 | 1.165 | 1.68  |  |
| 80)   | Butylbenzylpht... | 0.466          | 0.530 | 0.586 | 0.621 | 0.607 | 0.635 | 0.644 | 0.584 | 11.01 |  |
| 81)   | Benzo(a)anthra... | 1.456          | 1.432 | 1.419 | 1.379 | 1.308 | 1.376 | 1.361 | 1.390 | 3.57  |  |
| 82)   | 3,3'-Dichlorob... | 0.406          | 0.437 | 0.428 | 0.414 | 0.383 | 0.397 | 0.382 | 0.407 | 5.21  |  |
| 83)   | Chrysene          | 1.402          | 1.406 | 1.395 | 1.355 | 1.270 | 1.328 | 1.322 | 1.354 | 3.74  |  |
| 84)   | Bis(2-ethylhex... | 0.680          | 0.733 | 0.734 | 0.759 | 0.724 | 0.753 | 0.761 | 0.735 | 3.83  |  |
| 85) c | Di-n-octyl pht... | 0.955          | 1.047 | 1.052 | 1.051 | 1.009 | 1.073 | 1.082 | 1.038 | 4.18  |  |

Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
Method File : 8270-BF111522.M

|     |   |                   |                |       |       |       |       |       |       |       |       |
|-----|---|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 86) | I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 87) |   | Indeno(1,2,3-c... | 1.039          | 1.093 | 1.260 | 1.401 | 1.426 | 1.497 | 1.533 | 1.321 | 14.77 |
| 88) |   | Benzo(b)fluora... | 1.351          | 1.485 | 1.450 | 1.408 | 1.325 | 1.372 | 1.384 | 1.396 | 4.00  |
| 89) |   | Benzo(k)fluora... | 1.411          | 1.423 | 1.502 | 1.352 | 1.342 | 1.377 | 1.284 | 1.384 | 5.02  |
| 90) | C | Benzo(a)pyrene    | 1.087          | 1.107 | 1.134 | 1.129 | 1.102 | 1.137 | 1.119 | 1.116 | 1.67  |
| 91) |   | Dibenzo(a,h)an... | 0.851          | 0.900 | 1.046 | 1.150 | 1.179 | 1.219 | 1.243 | 1.084 | 14.44 |
| 92) |   | Benzo(g,h,i)pe... | 0.837          | 0.859 | 1.032 | 1.160 | 1.172 | 1.240 | 1.272 | 1.082 | 16.33 |

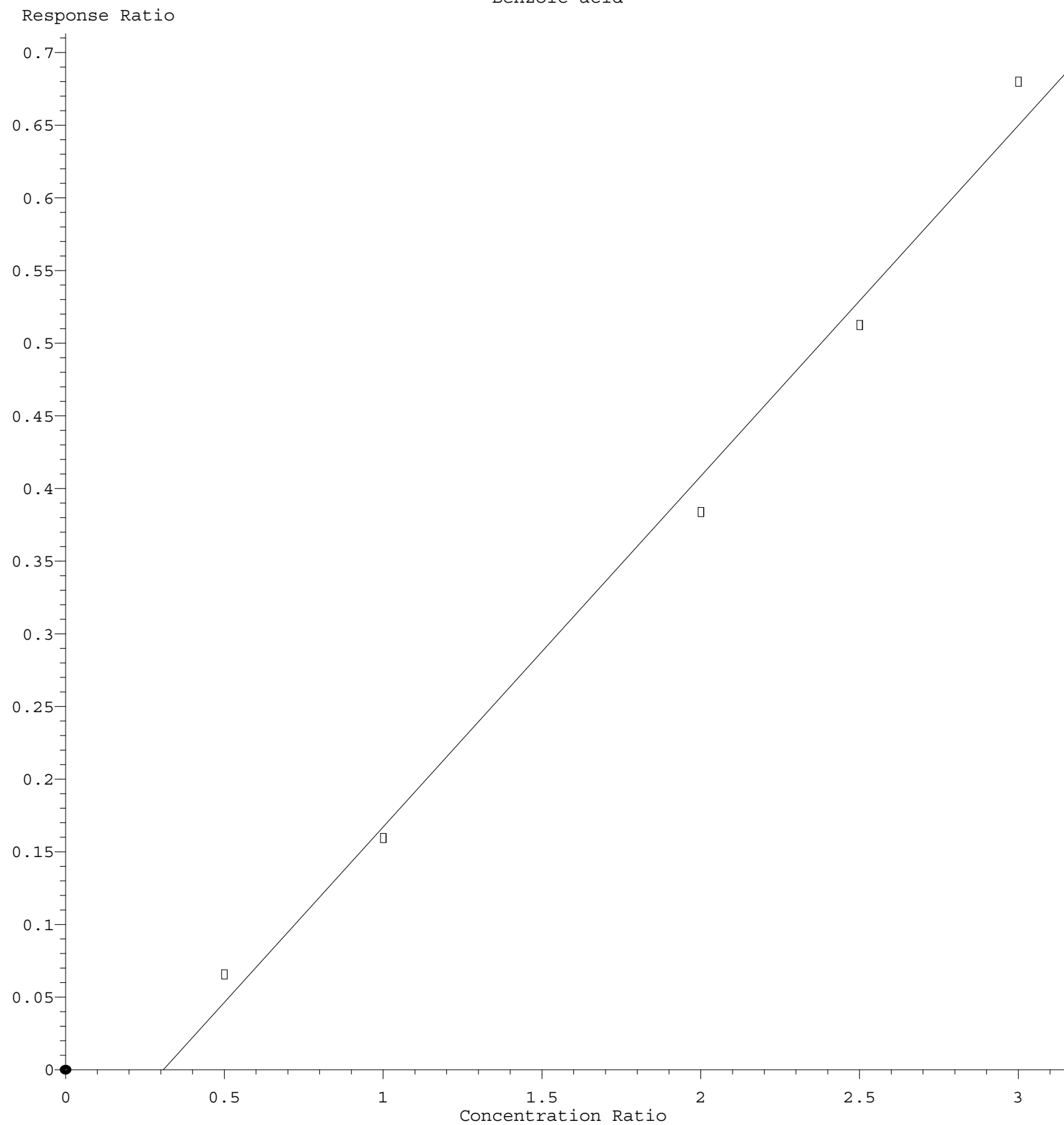
(#) = Out of Range

# 2-Nitrophenol



Response =  $1.698 \times 10^{-1} \times \text{Amt} - 3.762 \times 10^{-2}$   
 Coef of Det ( $r^2$ ) = 0.997295    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M  
 Calibration Table Last Updated: Wed Nov 16 06:35:36 2022

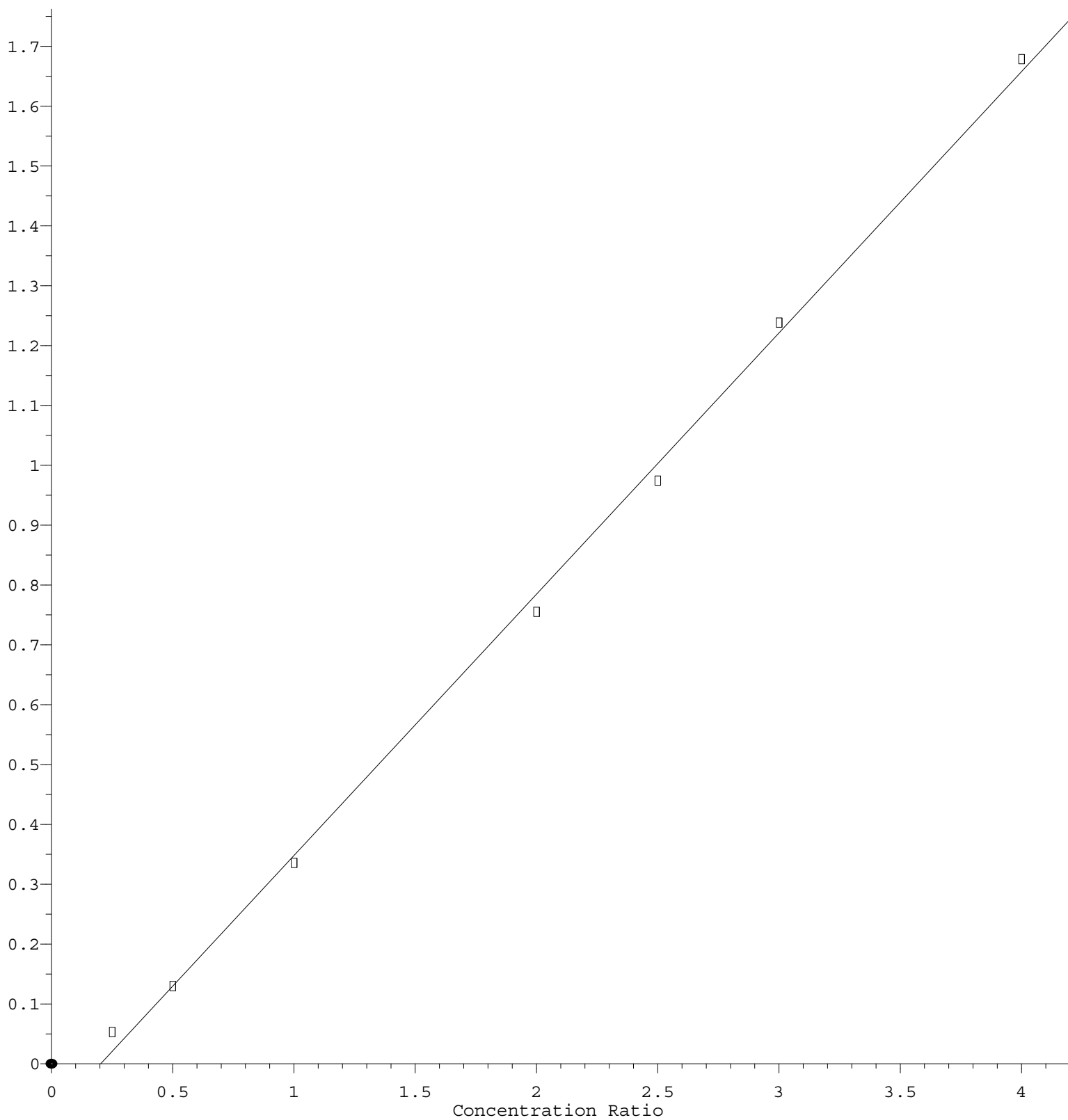
## Benzoic acid



Response =  $2.415 \times 10^{-1} \times \text{Amt} - 7.445 \times 10^{-2}$   
Coef of Det ( $r^2$ ) = 0.991222 Curve Fit: Linear  
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M  
Calibration Table Last Updated: Wed Nov 16 06:35:36 2022

## 2-Nitroaniline

Response Ratio



$$\text{Response} = 4.366\text{e-}001 * \text{Amt} - 8.857\text{e-}002$$

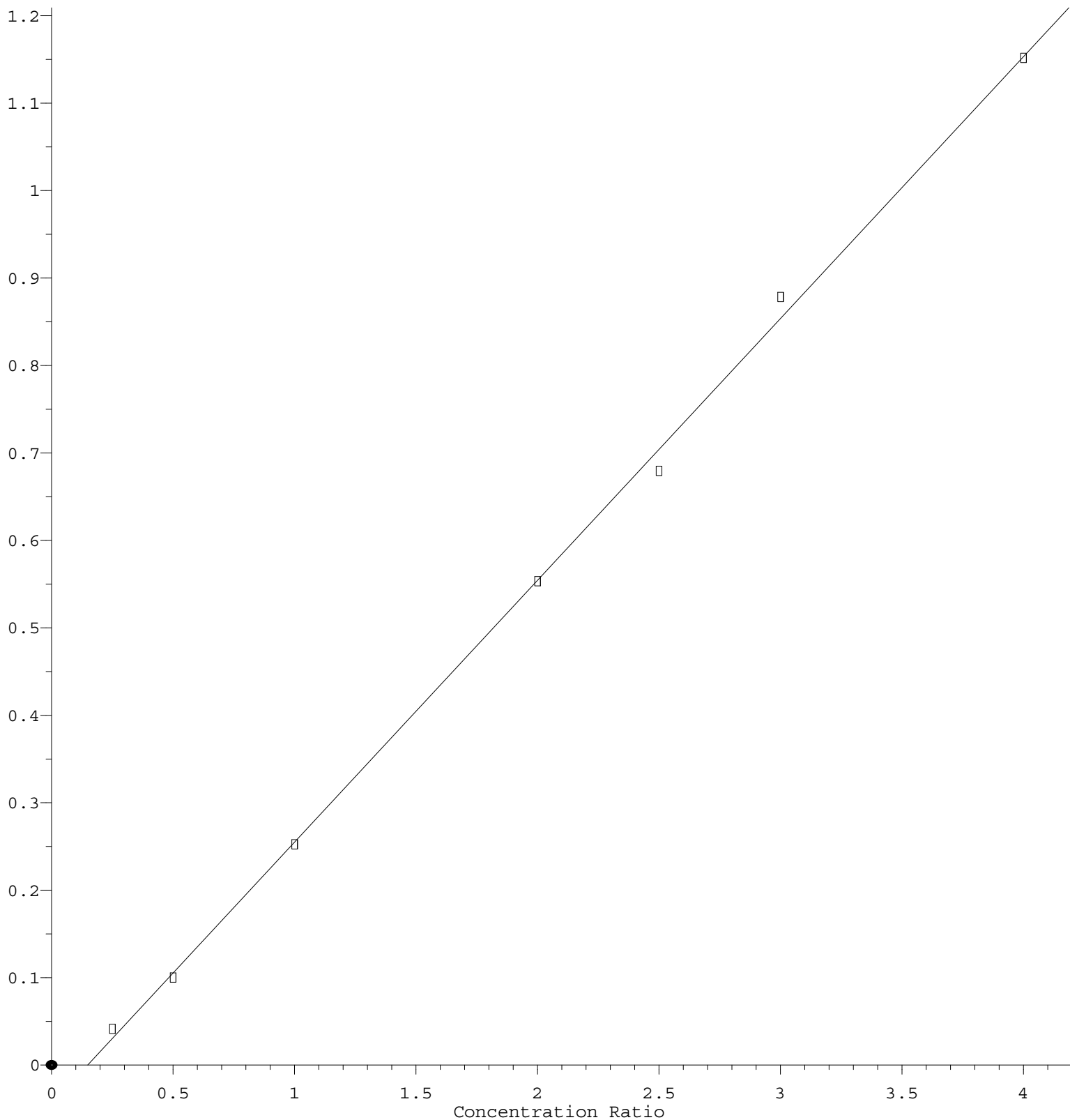
Coef of Det ( $r^2$ ) = 0.998351 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M

Calibration Table Last Updated: Wed Nov 16 06:35:36 2022

# 2,6-Dinitrotoluene

Response Ratio



$$\text{Response} = 2.995\text{e-}001 * \text{Amt} - 4.447\text{e-}002$$

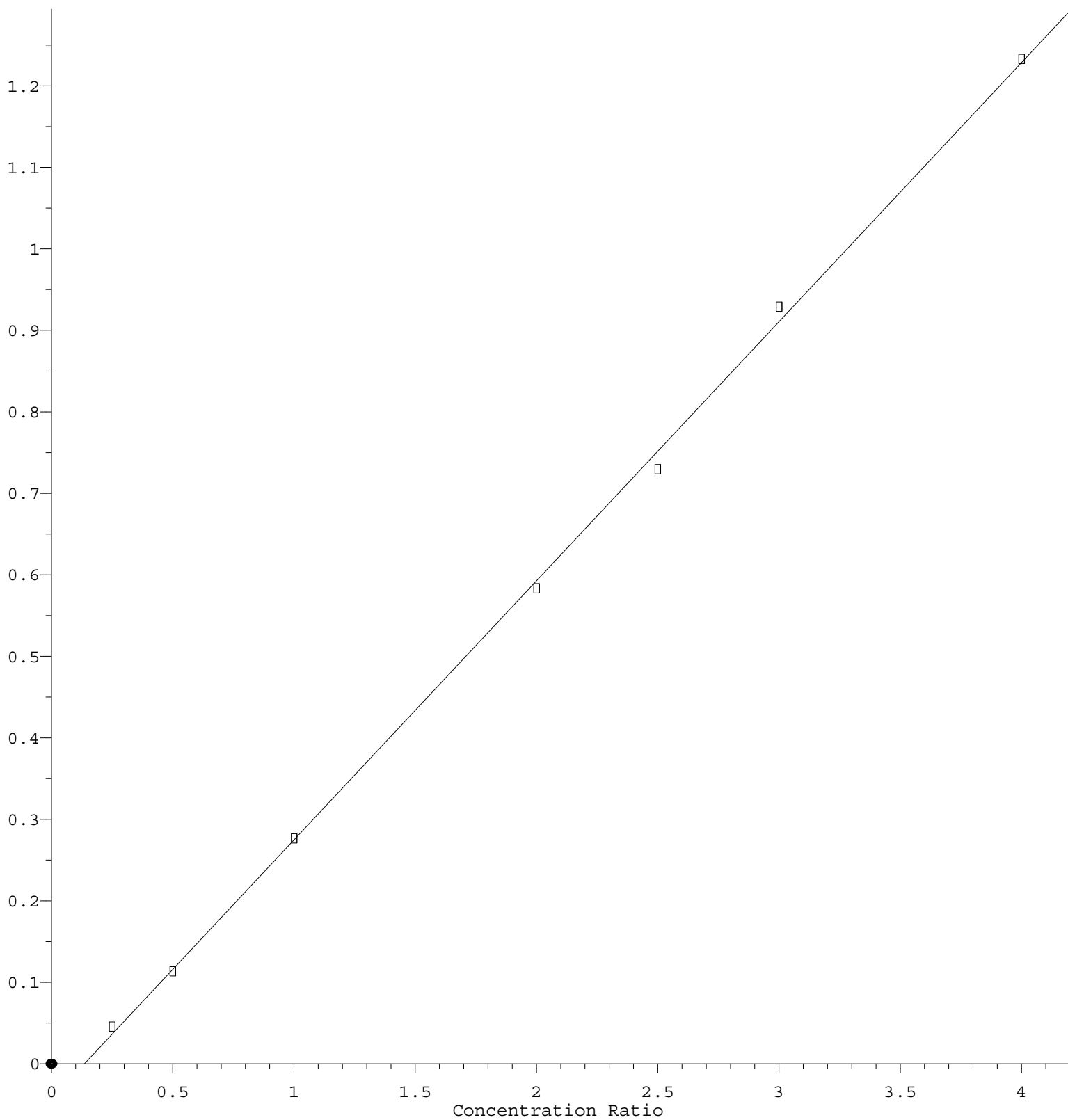
Coef of Det ( $r^2$ ) = 0.998679 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M

Calibration Table Last Updated: Wed Nov 16 06:35:36 2022

## 3-Nitroaniline

Response Ratio



$$\text{Response} = 3.180\text{e-}001 * \text{Amt} - 4.336\text{e-}002$$

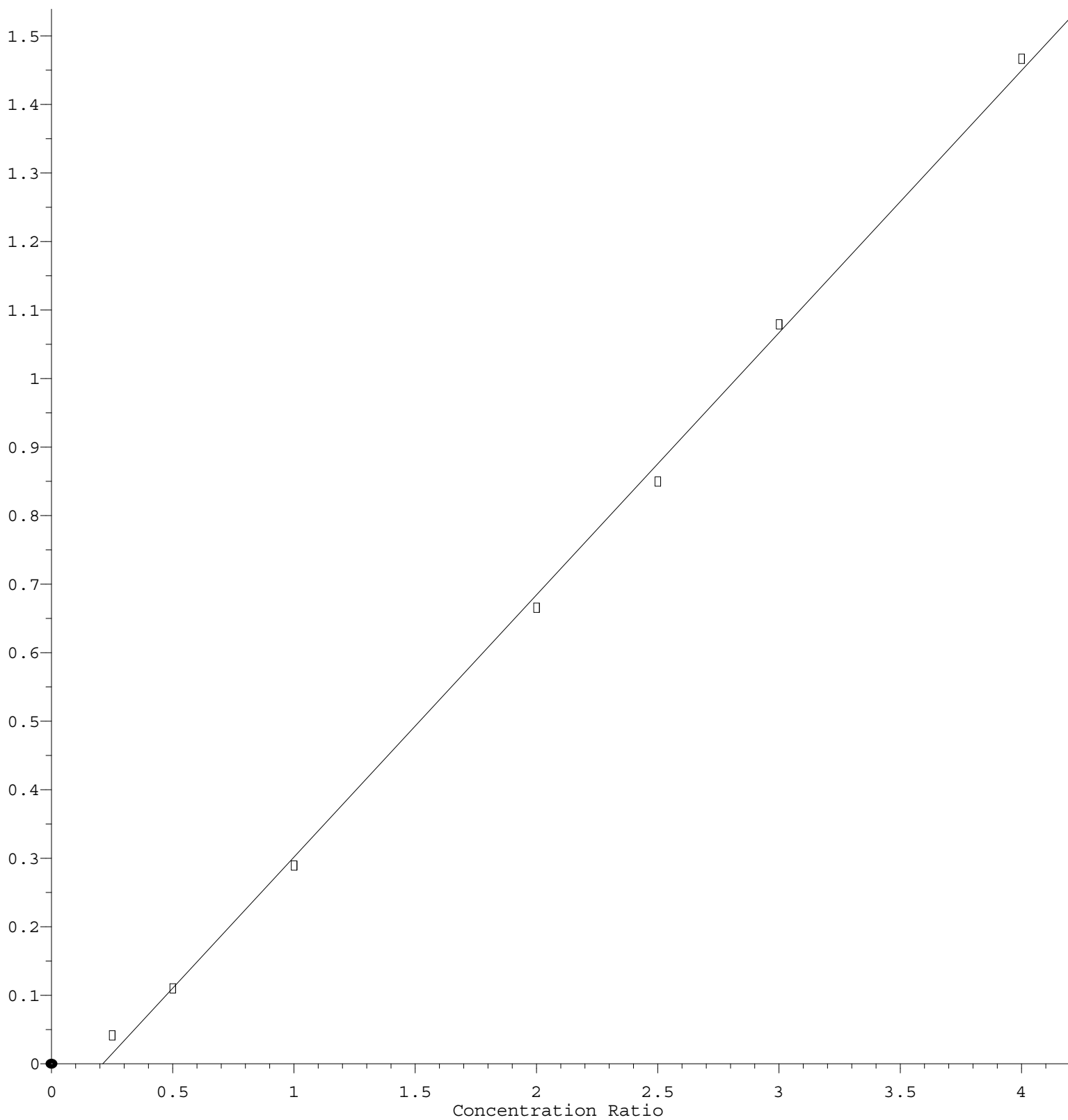
Coef of Det ( $r^2$ ) = 0.999121 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M

Calibration Table Last Updated: Wed Nov 16 06:35:36 2022

## 2,4-Dinitrotoluene

Response Ratio



$$\text{Response} = 3.825\text{e-}001 * \text{Amt} - 8.106\text{e-}002$$

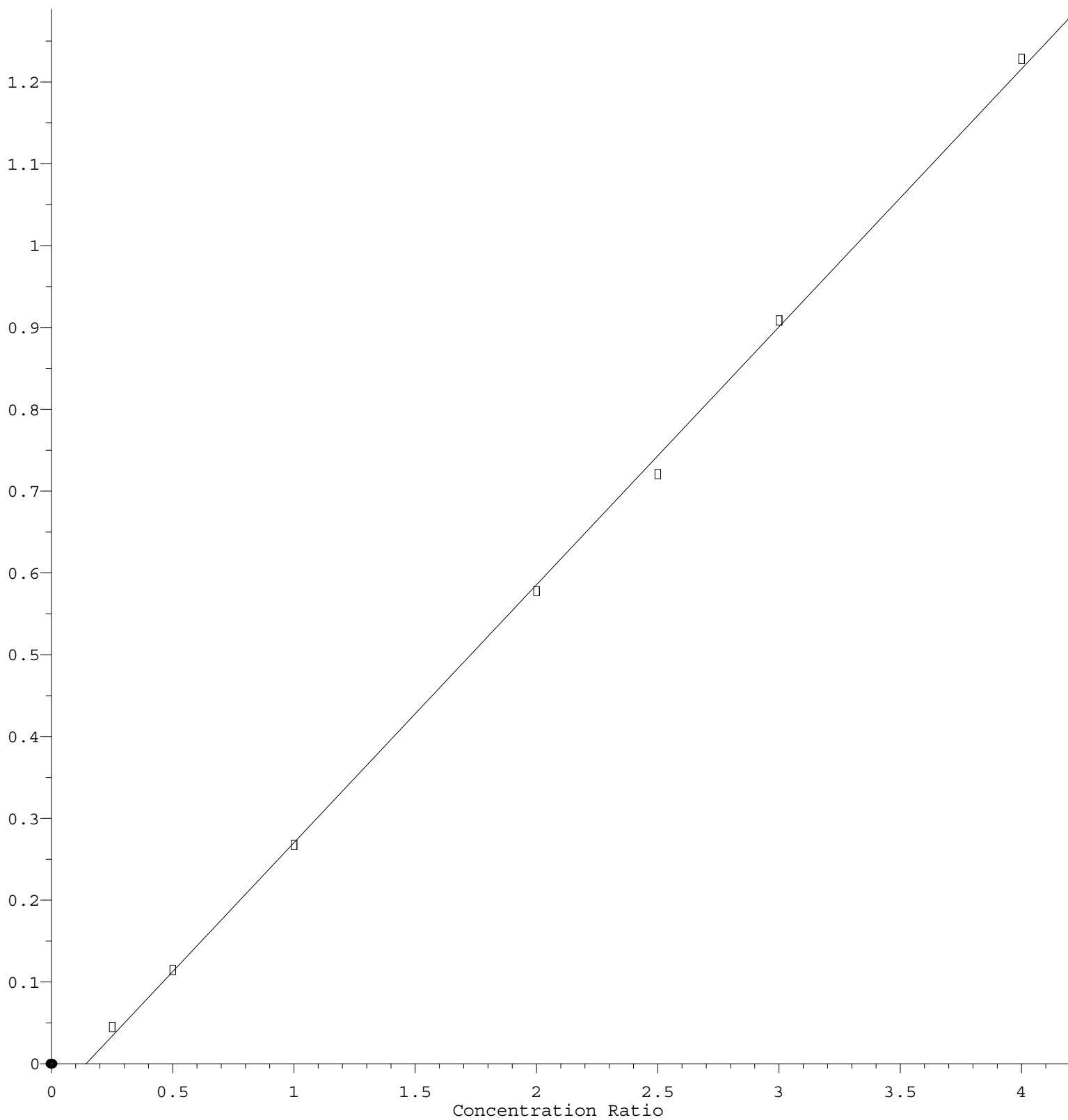
Coef of Det ( $r^2$ ) = 0.998620 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M

Calibration Table Last Updated: Wed Nov 16 06:35:36 2022

## 4-Nitroaniline

Response Ratio



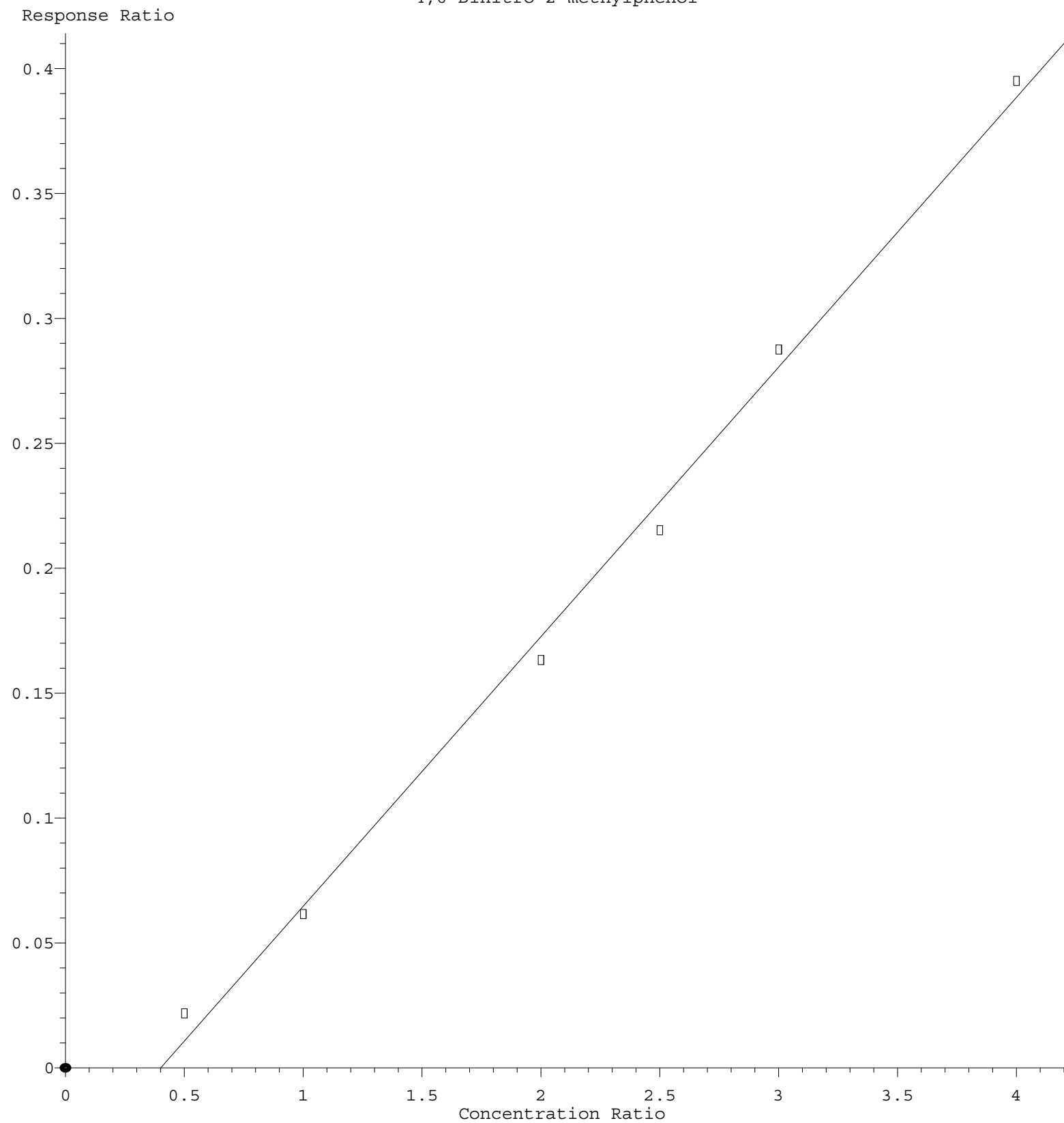
$$\text{Response} = 3.153\text{e-}001 * \text{Amt} - 4.512\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.999201 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M

Calibration Table Last Updated: Wed Nov 16 06:35:36 2022

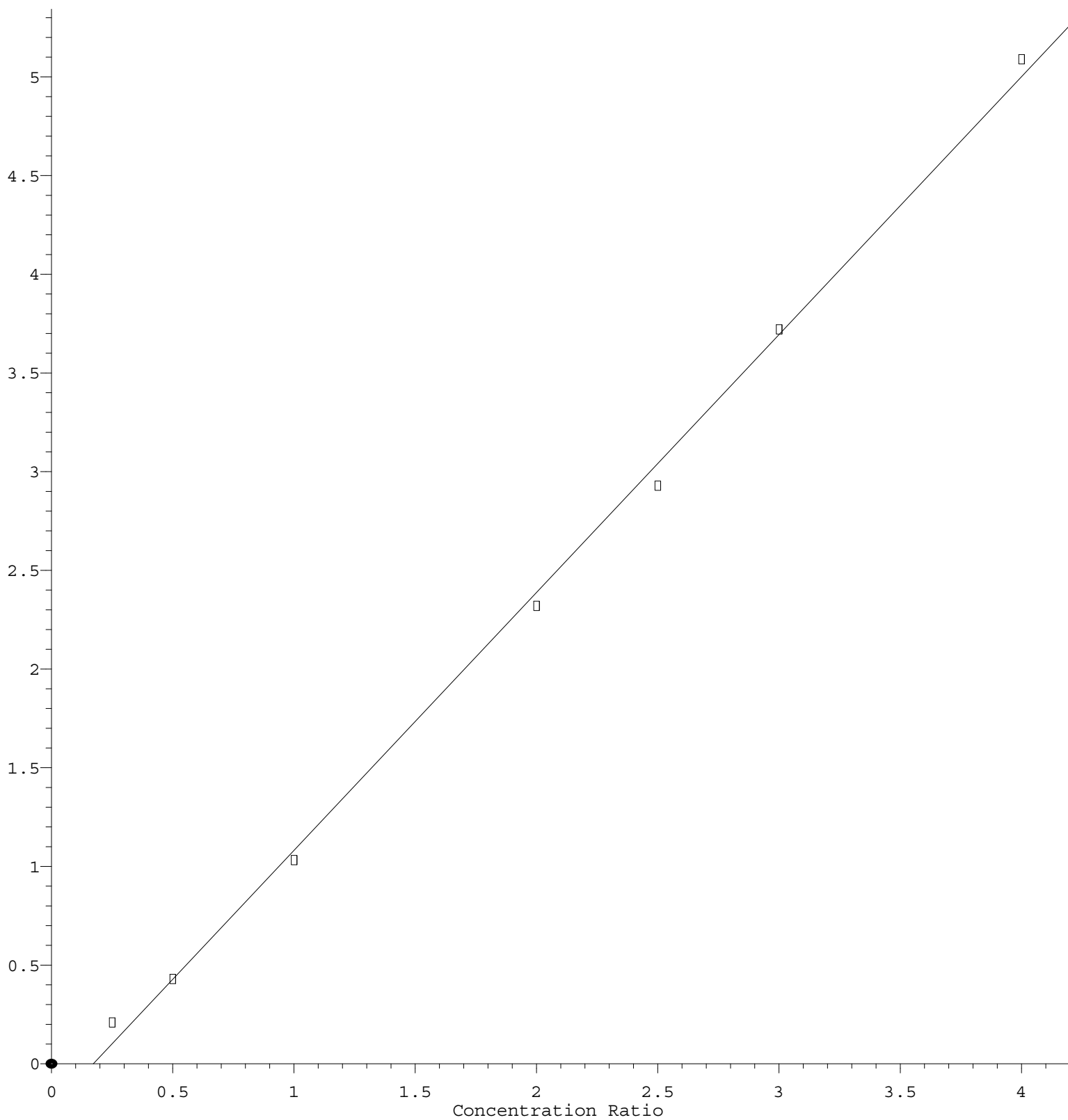
# 4,6-Dinitro-2-methylphenol



$\text{Response} = 1.080\text{e-}001 * \text{Amt} - 4.330\text{e-}002$   
 Coef of Det ( $r^2$ ) = 0.995484    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M  
 Calibration Table Last Updated: Wed Nov 16 06:35:36 2022

## Benzo(g,h,i)perylene

Response Ratio



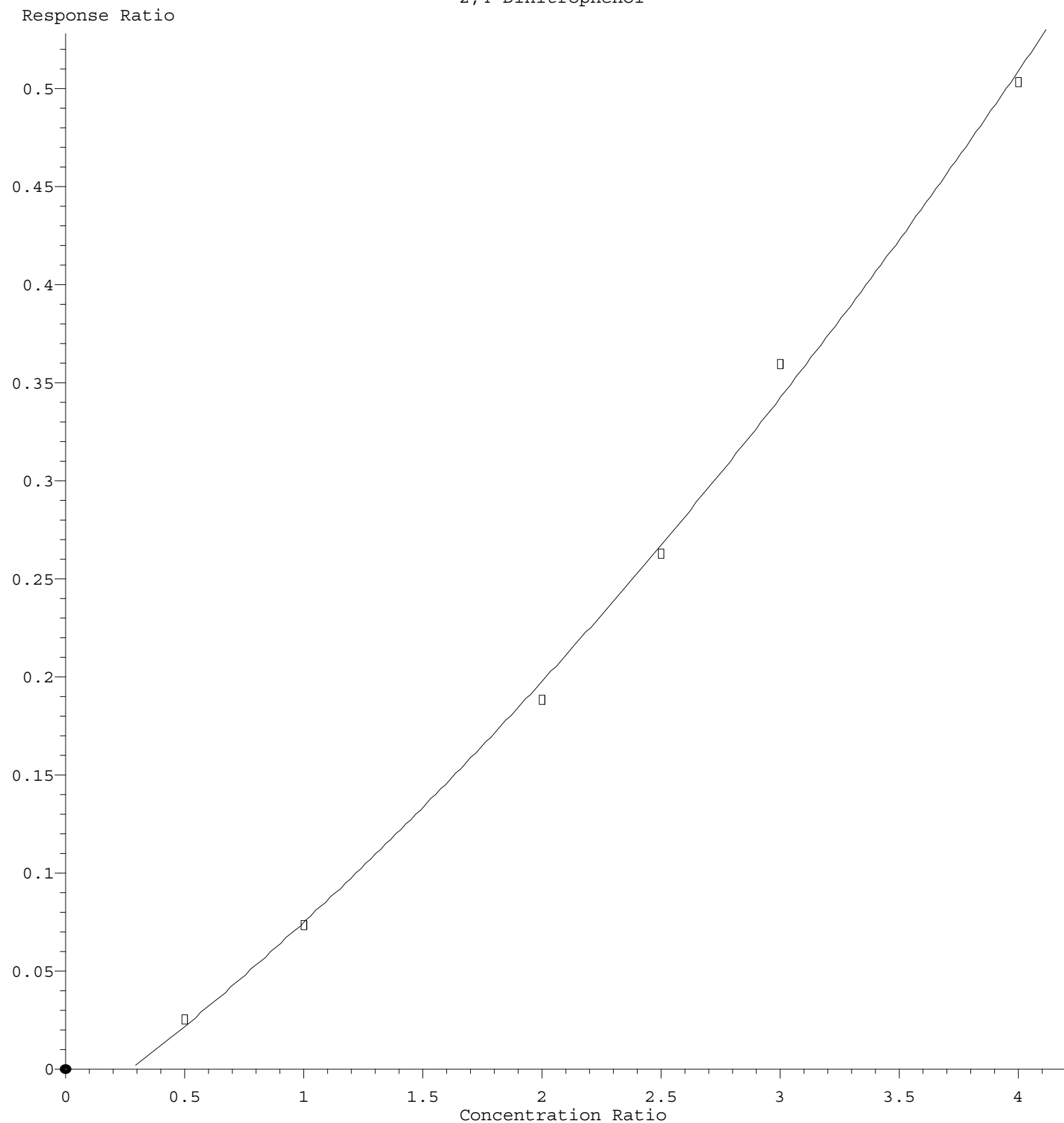
$$\text{Response} = 1.307\text{e}+000 * \text{Amt} - 2.267\text{e}-001$$

Coef of Det ( $r^2$ ) = 0.997975 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M

Calibration Table Last Updated: Wed Nov 16 06:35:36 2022

# 2,4-Dinitrophenol



$R = 1.100e-002 A^2 + 8.966e-002 A - 2.574e-002$   
 Coef of Det ( $r^2$ ) = 0.997201    Curve Fit: Quadratic  
 Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF111522.M  
 Calibration Table Last Updated: Wed Nov 16 06:35:36 2022