

Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
 Method File : 8270-BF083122.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Wed Aug 31 18:15:32 2022  
 Response Via : Initial Calibration

## Calibration Files

5 =BF130050.D 10 =BF130051.D 20 =BF130052.D 40 =BF130053.D 50 =BF130054.D 60 =BF130055.D 80 =BF130056.D

| Compound |                       | 5              | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|----------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----    |                       |                |       |       |       |       |       |       |       |       |
| 1) I     | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)       | 1,4-Dioxane           | 0.593          | 0.608 | 0.581 | 0.528 | 0.529 | 0.518 | 0.498 | 0.551 | 7.73  |
| 3)       | Pyridine              | 1.538          | 1.602 | 1.543 | 1.420 | 1.432 | 1.403 | 1.396 | 1.476 | 5.62  |
| 4)       | n-Nitrosodimet...     | 0.586          | 0.614 | 0.615 | 0.571 | 0.574 | 0.555 | 0.550 | 0.581 | 4.47  |
| 5) S     | 2-Fluorophenol        | 1.363          | 1.350 | 1.285 | 1.106 | 1.082 | 1.067 | 0.994 | 1.178 | 12.77 |
| 6)       | Aniline               | 2.007          | 2.024 | 1.989 | 1.797 | 1.750 | 1.713 | 1.609 | 1.841 | 8.96  |
| 7) S     | Phenol-d6             | 1.681          | 1.685 | 1.587 | 1.384 | 1.357 | 1.343 | 1.244 | 1.469 | 12.17 |
| 8)       | 2-Chlorophenol        | 1.435          | 1.486 | 1.425 | 1.248 | 1.200 | 1.185 | 1.073 | 1.293 | 12.05 |
| 9)       | Benzaldehyde          | 1.094          | 1.079 | 0.988 | 0.783 | 0.743 | 0.706 |       | 0.899 | 19.50 |
| 10) C    | Phenol                | 1.917          | 1.935 | 1.819 | 1.573 | 1.513 | 1.500 | 1.364 | 1.660 | 13.68 |
| 11)      | bis(2-Chloroet...     | 1.445          | 1.439 | 1.384 | 1.209 | 1.177 | 1.143 | 1.033 | 1.261 | 12.78 |
| 12)      | 1,3-Dichlorobe...     | 1.649          | 1.646 | 1.580 | 1.362 | 1.321 | 1.285 | 1.192 | 1.433 | 13.08 |
| 13) C    | 1,4-Dichlorobe...     | 1.686          | 1.665 | 1.584 | 1.372 | 1.305 | 1.298 | 1.197 | 1.444 | 13.67 |
| 14)      | 1,2-Dichlorobe...     | 1.606          | 1.554 | 1.473 | 1.225 | 1.174 | 1.154 | 1.003 | 1.313 | 17.53 |
| 15)      | Benzyl Alcohol        | 1.113          | 1.163 | 1.109 | 0.956 | 0.916 | 0.900 | 0.773 | 0.990 | 14.33 |
| 16)      | 2,2'-oxybis(1-...     | 1.935          | 1.959 | 1.879 | 1.657 | 1.594 | 1.557 | 1.419 | 1.714 | 12.27 |
| 17)      | 2-Methylphenol        | 1.192          | 1.219 | 1.171 | 1.047 | 1.028 | 1.004 | 0.954 | 1.088 | 9.57  |
| 18)      | Hexachloroethane      | 0.556          | 0.570 | 0.566 | 0.511 | 0.503 | 0.486 | 0.457 | 0.521 | 8.37  |
| 19) P    | n-Nitroso-di-n...     | 1.003          | 0.985 | 0.945 | 0.835 | 0.823 | 0.821 | 0.782 | 0.885 | 10.17 |
| 20)      | 3+4-Methylphenols     | 1.538          | 1.577 | 1.425 | 1.180 | 1.123 | 1.093 | 0.995 | 1.276 | 18.27 |
|          |                       |                |       |       |       |       |       |       |       |       |
| 21) I    | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)      | Acetophenone          | 0.525          | 0.530 | 0.480 | 0.412 | 0.401 | 0.397 | 0.382 | 0.447 | 14.18 |
| 23) S    | Nitrobenzene-d5       | 0.278          | 0.313 | 0.333 | 0.310 | 0.317 | 0.318 | 0.310 | 0.311 | 5.41  |
| 24)      | Nitrobenzene          | 0.312          | 0.347 | 0.356 | 0.325 | 0.329 | 0.332 | 0.316 | 0.331 | 4.72  |
| 25)      | Isophorone            | 0.650          | 0.669 | 0.648 | 0.604 | 0.606 | 0.617 | 0.615 | 0.630 | 4.03  |
| 26) C    | 2-Nitrophenol         | 0.081          | 0.106 | 0.138 | 0.146 | 0.155 | 0.161 | 0.161 | 0.135 | 22.65 |
| 27)      | 2,4-Dimethylph...     | 0.281          | 0.283 | 0.278 | 0.251 | 0.253 | 0.254 | 0.250 | 0.264 | 5.86  |
| 28)      | bis(2-Chloroet...     | 0.412          | 0.419 | 0.397 | 0.360 | 0.358 | 0.356 | 0.347 | 0.378 | 7.93  |
| 29) C    | 2,4-Dichloroph...     | 0.289          | 0.304 | 0.301 | 0.273 | 0.274 | 0.274 | 0.264 | 0.283 | 5.45  |
| 30)      | 1,2,4-Trichlor...     | 0.339          | 0.335 | 0.317 | 0.278 | 0.275 | 0.278 | 0.265 | 0.298 | 10.48 |
| 31)      | Naphthalene           | 1.184          | 1.181 | 1.097 | 0.943 | 0.918 | 0.905 | 0.833 | 1.009 | 14.16 |
| 32)      | Benzoic acid          |                | 0.122 | 0.161 | 0.200 | 0.216 | 0.222 | 0.233 | 0.192 | 21.97 |
| 33)      | 4-Chloroaniline       | 0.452          | 0.457 | 0.441 | 0.389 | 0.380 | 0.376 | 0.358 | 0.408 | 10.10 |
| 34) C    | Hexachlorobuta...     | 0.189          | 0.184 | 0.184 | 0.163 | 0.160 | 0.161 | 0.154 | 0.171 | 8.45  |
| 35)      | Caprolactam           | 0.078          | 0.087 | 0.090 | 0.085 | 0.086 | 0.090 | 0.096 | 0.088 | 6.44  |
| 36) C    | 4-Chloro-3-met...     | 0.296          | 0.307 | 0.301 | 0.275 | 0.277 | 0.277 | 0.270 | 0.286 | 5.24  |
| 37)      | 2-Methylnaphth...     | 0.767          | 0.756 | 0.706 | 0.599 | 0.592 | 0.589 | 0.540 | 0.650 | 14.04 |
| 38)      | 1-Methylnaphth...     | 0.744          | 0.735 | 0.690 | 0.585 | 0.571 | 0.569 | 0.527 | 0.632 | 14.08 |

|                                                                                  |                   |                |       |       |       |       |       |       |       |       |
|----------------------------------------------------------------------------------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\<br>Method File : 8270-BF083122.M |                   |                |       |       |       |       |       |       |       |       |
| 39) I                                                                            | Acenaphthene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 40)                                                                              | 1,2,4,5-Tetrac... | 0.590          | 0.588 | 0.562 | 0.487 | 0.489 | 0.481 | 0.453 | 0.522 | 10.86 |
| 41) P                                                                            | Hexachlorocycl... | 0.236          | 0.266 | 0.288 | 0.277 | 0.285 | 0.280 | 0.276 | 0.273 | 6.47  |
| 42) S                                                                            | 2,4,6-Tribromo... | 0.177          | 0.182 | 0.189 | 0.179 | 0.182 | 0.184 | 0.181 | 0.182 | 2.21  |
| 43) C                                                                            | 2,4,6-Trichlor... | 0.356          | 0.390 | 0.410 | 0.365 | 0.370 | 0.363 | 0.353 | 0.372 | 5.46  |
| 44)                                                                              | 2,4,5-Trichlor... | 0.393          | 0.431 | 0.435 | 0.393 | 0.396 | 0.401 | 0.377 | 0.403 | 5.29  |
| 45) S                                                                            | 2-Fluorobiphenyl  | 1.511          | 1.487 | 1.331 | 1.071 | 1.066 | 1.037 | 0.942 | 1.206 | 19.24 |
| 46)                                                                              | 1,1'-Biphenyl     | 1.705          | 1.714 | 1.607 | 1.339 | 1.333 | 1.300 | 1.173 | 1.453 | 14.98 |
| 47)                                                                              | 2-Chloronaphth... | 1.341          | 1.341 | 1.274 | 1.083 | 1.081 | 1.070 | 0.961 | 1.164 | 13.03 |
| 48)                                                                              | 2-Nitroaniline    | 0.188          | 0.259 | 0.307 | 0.305 | 0.316 | 0.320 | 0.313 | 0.287 | 16.82 |
| 49)                                                                              | Acenaphthylene    | 2.024          | 2.080 | 1.961 | 1.651 | 1.631 | 1.600 | 1.429 | 1.768 | 14.14 |
| 50)                                                                              | Dimethylphthalate | 1.512          | 1.494 | 1.453 | 1.271 | 1.278 | 1.298 | 1.230 | 1.362 | 8.74  |
| 51)                                                                              | 2,6-Dinitrotol... | 0.214          | 0.254 | 0.289 | 0.271 | 0.280 | 0.283 | 0.269 | 0.266 | 9.61  |
| 52) C                                                                            | Acenaphthene      | 1.264          | 1.273 | 1.199 | 1.043 | 1.037 | 1.032 | 0.951 | 1.114 | 11.52 |
| 53)                                                                              | 3-Nitroaniline    | 0.250          | 0.301 | 0.326 | 0.304 | 0.321 | 0.328 | 0.305 | 0.305 | 8.71  |
| 54) P                                                                            | 2,4-Dinitrophenol | 0.053          | 0.079 | 0.098 | 0.110 | 0.116 | 0.123 | 0.097 |       | 27.29 |
| 55)                                                                              | Dibenzofuran      | 1.886          | 1.881 | 1.756 | 1.485 | 1.452 | 1.445 | 1.262 | 1.595 | 15.32 |
| 56) P                                                                            | 4-Nitrophenol     | 0.180          | 0.222 | 0.251 | 0.239 | 0.250 | 0.260 | 0.243 | 0.235 | 11.50 |
| 57)                                                                              | 2,4-Dinitrotol... | 0.222          | 0.285 | 0.342 | 0.326 | 0.332 | 0.337 | 0.296 | 0.306 | 13.90 |
| 58)                                                                              | Fluorene          | 1.498          | 1.471 | 1.340 | 1.089 | 1.077 | 1.074 | 0.948 | 1.214 | 18.01 |
| 59)                                                                              | 2,3,4,6-Tetrac... | 0.315          | 0.341 | 0.334 | 0.305 | 0.302 | 0.311 | 0.287 | 0.313 | 5.95  |
| 60)                                                                              | Diethylphthalate  | 1.447          | 1.446 | 1.442 | 1.253 | 1.247 | 1.260 | 1.130 | 1.318 | 9.62  |
| 61)                                                                              | 4-Chlorophenyl... | 0.660          | 0.637 | 0.582 | 0.483 | 0.479 | 0.480 | 0.436 | 0.537 | 16.47 |
| 62)                                                                              | 4-Nitroaniline    | 0.245          | 0.288 | 0.313 | 0.303 | 0.310 | 0.319 | 0.298 | 0.296 | 8.42  |
| 63)                                                                              | Azobenzene        | 1.469          | 1.468 | 1.425 | 1.220 | 1.211 | 1.217 | 1.073 | 1.298 | 11.98 |
| 64) I                                                                            | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 65)                                                                              | 4,6-Dinitro-2-... | 0.052          | 0.074 | 0.087 | 0.094 | 0.098 | 0.100 | 0.084 |       | 21.57 |
| 66) c                                                                            | n-Nitrosodiphe... | 0.767          | 0.760 | 0.717 | 0.623 | 0.623 | 0.616 | 0.574 | 0.669 | 11.62 |
| 67)                                                                              | 4-Bromophenyl-... | 0.250          | 0.241 | 0.234 | 0.210 | 0.210 | 0.208 | 0.203 | 0.222 | 8.51  |
| 68)                                                                              | Hexachlorobenzene | 0.267          | 0.268 | 0.255 | 0.231 | 0.225 | 0.229 | 0.221 | 0.242 | 8.42  |
| 69)                                                                              | Atrazine          | 0.207          | 0.204 | 0.203 | 0.183 | 0.177 | 0.179 | 0.171 | 0.189 | 7.86  |
| 70) C                                                                            | Pentachlorophenol | 0.116          | 0.130 | 0.144 | 0.139 | 0.140 | 0.141 | 0.138 | 0.136 | 7.05  |
| 71)                                                                              | Phenanthrene      | 1.309          | 1.279 | 1.183 | 0.986 | 0.977 | 0.973 | 0.884 | 1.085 | 15.60 |
| 72)                                                                              | Anthracene        | 1.254          | 1.256 | 1.155 | 0.981 | 0.970 | 0.967 | 0.879 | 1.066 | 14.35 |
| 73)                                                                              | Carbazole         | 1.142          | 1.156 | 1.069 | 0.910 | 0.896 | 0.902 | 0.807 | 0.983 | 13.97 |
| 74)                                                                              | Di-n-butylphth... | 1.297          | 1.302 | 1.334 | 1.130 | 1.099 | 1.135 | 1.002 | 1.186 | 10.61 |
| 75) C                                                                            | Fluoranthene      | 1.286          | 1.272 | 1.177 | 0.979 | 0.966 | 0.971 | 0.878 | 1.076 | 15.39 |
| 76) I                                                                            | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 77)                                                                              | Benzidine         | 0.690          | 0.601 | 0.605 | 0.544 | 0.517 | 0.424 | 0.399 | 0.540 | 19.15 |
| 78)                                                                              | Pyrene            | 1.806          | 1.844 | 1.853 | 1.747 | 1.781 | 1.776 | 1.751 | 1.794 | 2.35  |
| 79) S                                                                            | Terphenyl-d14     | 1.217          | 1.199 | 1.190 | 1.112 | 1.138 | 1.135 | 1.081 | 1.153 | 4.32  |
| 80)                                                                              | Butylbenzylpht... | 0.518          | 0.616 | 0.752 | 0.755 | 0.776 | 0.800 | 0.778 | 0.714 | 14.78 |
| 81)                                                                              | Benzo(a)anthra... | 1.474          | 1.508 | 1.453 | 1.291 | 1.309 | 1.320 | 1.239 | 1.371 | 7.67  |
| 82)                                                                              | 3,3'-Dichlorob... | 0.409          | 0.452 | 0.475 | 0.423 | 0.416 | 0.418 | 0.398 | 0.427 | 6.27  |
| 83)                                                                              | Chrysene          | 1.449          | 1.462 | 1.440 | 1.271 | 1.297 | 1.300 | 1.240 | 1.351 | 7.03  |
| 84)                                                                              | Bis(2-ethylhex... | 0.792          | 0.855 | 0.981 | 0.906 | 0.894 | 0.927 | 0.854 | 0.887 | 6.82  |
| 85) c                                                                            | Di-n-octyl pht... | 1.108          | 1.218 | 1.537 | 1.457 | 1.458 | 1.548 | 1.481 | 1.401 | 12.10 |

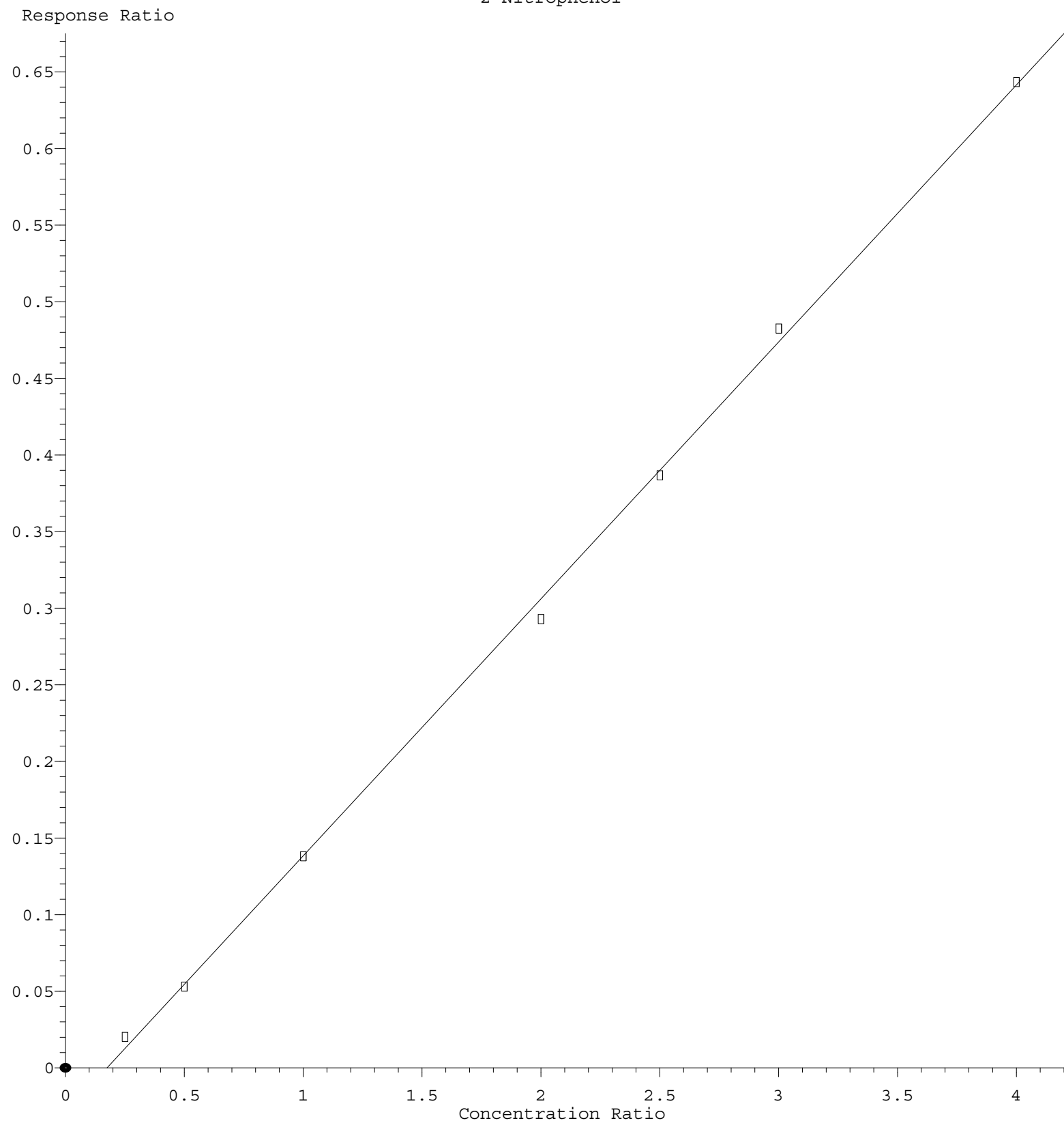
Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\

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| 86) I | Perylene-d12      |       |       |       |       |       |       |       |       |       |  |
|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 87)   | Indeno(1,2,3-c... | 1.155 | 1.189 | 1.335 | 1.354 | 1.376 | 1.389 | 1.438 | 1.319 | 8.02  |  |
| 88)   | Benzo(b)fluora... | 1.454 | 1.454 | 1.485 | 1.221 | 1.231 | 1.250 | 1.241 | 1.334 | 9.21  |  |
| 89)   | Benzo(k)fluora... | 1.342 | 1.427 | 1.328 | 1.269 | 1.283 | 1.258 | 1.122 | 1.290 | 7.28  |  |
| 90) C | Benzo(a)pyrene    | 1.061 | 1.109 | 1.115 | 1.029 | 1.050 | 1.047 | 1.008 | 1.060 | 3.74  |  |
| 91)   | Dibenzo(a,h)an... | 0.940 | 0.987 | 1.097 | 1.114 | 1.131 | 1.140 | 1.147 | 1.080 | 7.61  |  |
| 92)   | Benzo(g,h,i)pe... | 0.904 | 0.963 | 1.068 | 1.115 | 1.151 | 1.161 | 1.198 | 1.080 | 10.11 |  |

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

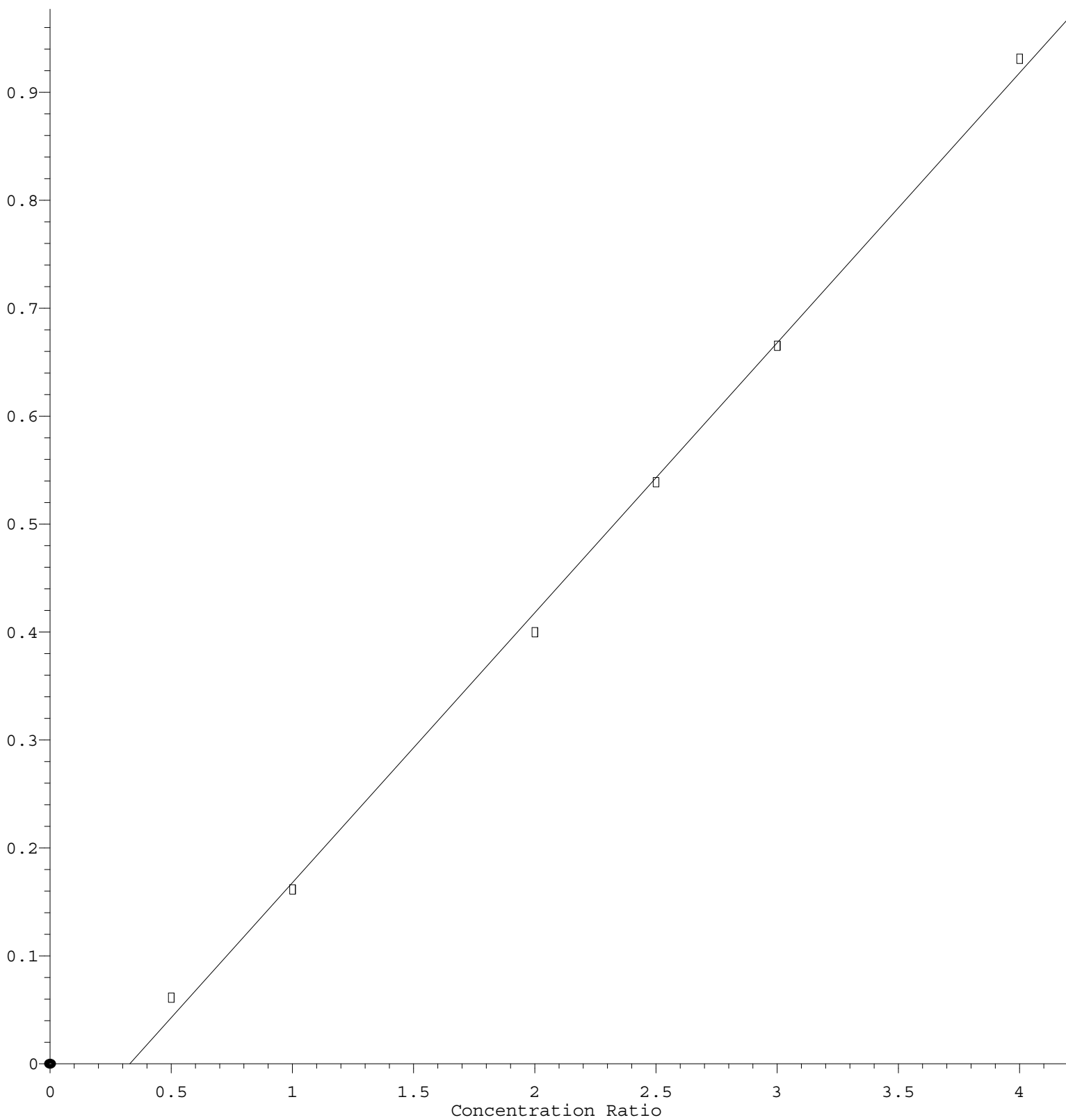
# 2-Nitrophenol



Response =  $1.677e-001 * Amt - 2.935e-002$   
 Coef of Det ( $r^2$ ) = 0.999000    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF083122.M  
 Calibration Table Last Updated: Wed Aug 31 18:15:32 2022

# Benzoic acid

Response Ratio



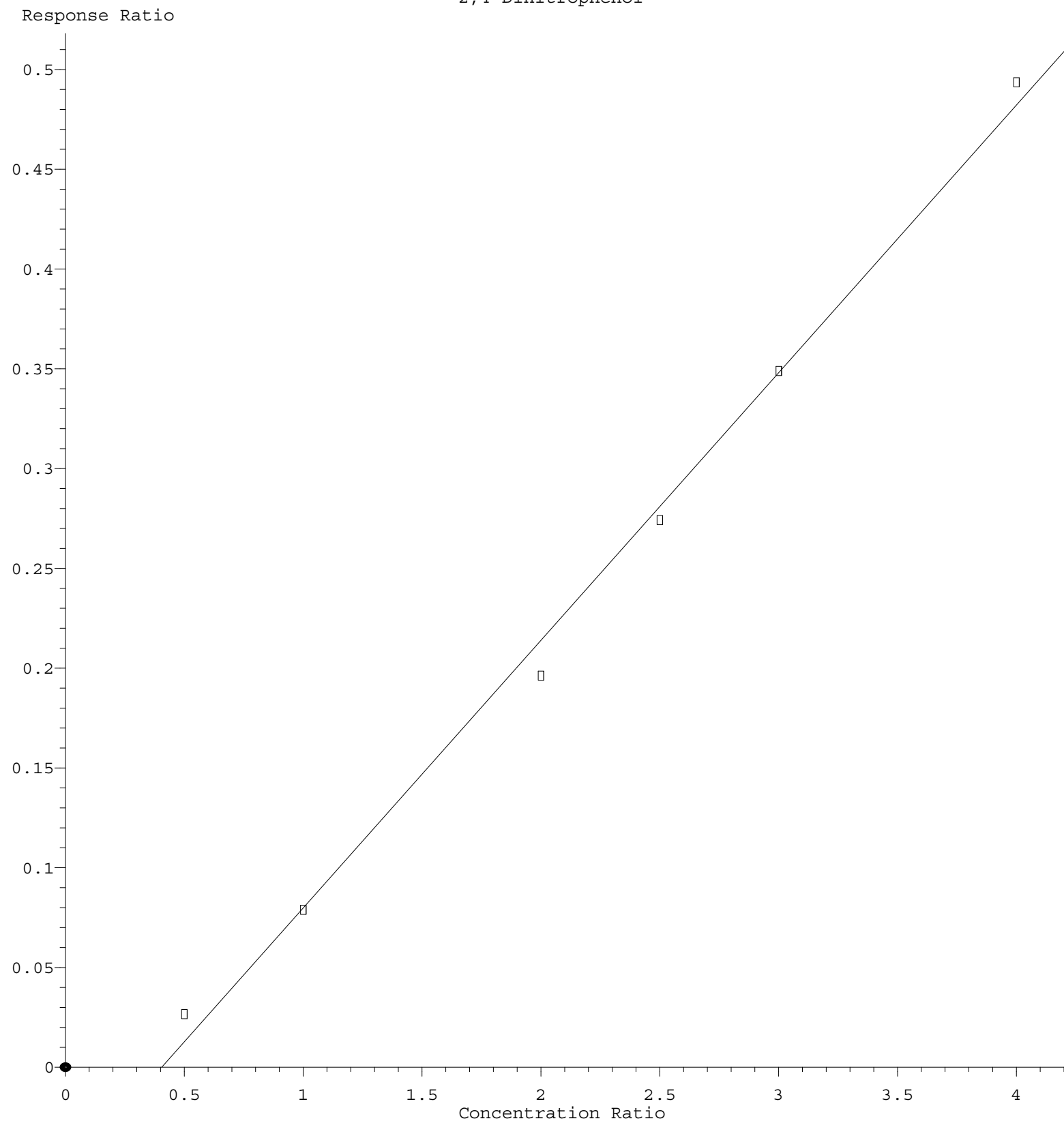
$$\text{Response} = 2.500\text{e-}001 * \text{Amt} - 8.216\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.998272 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF083122.M

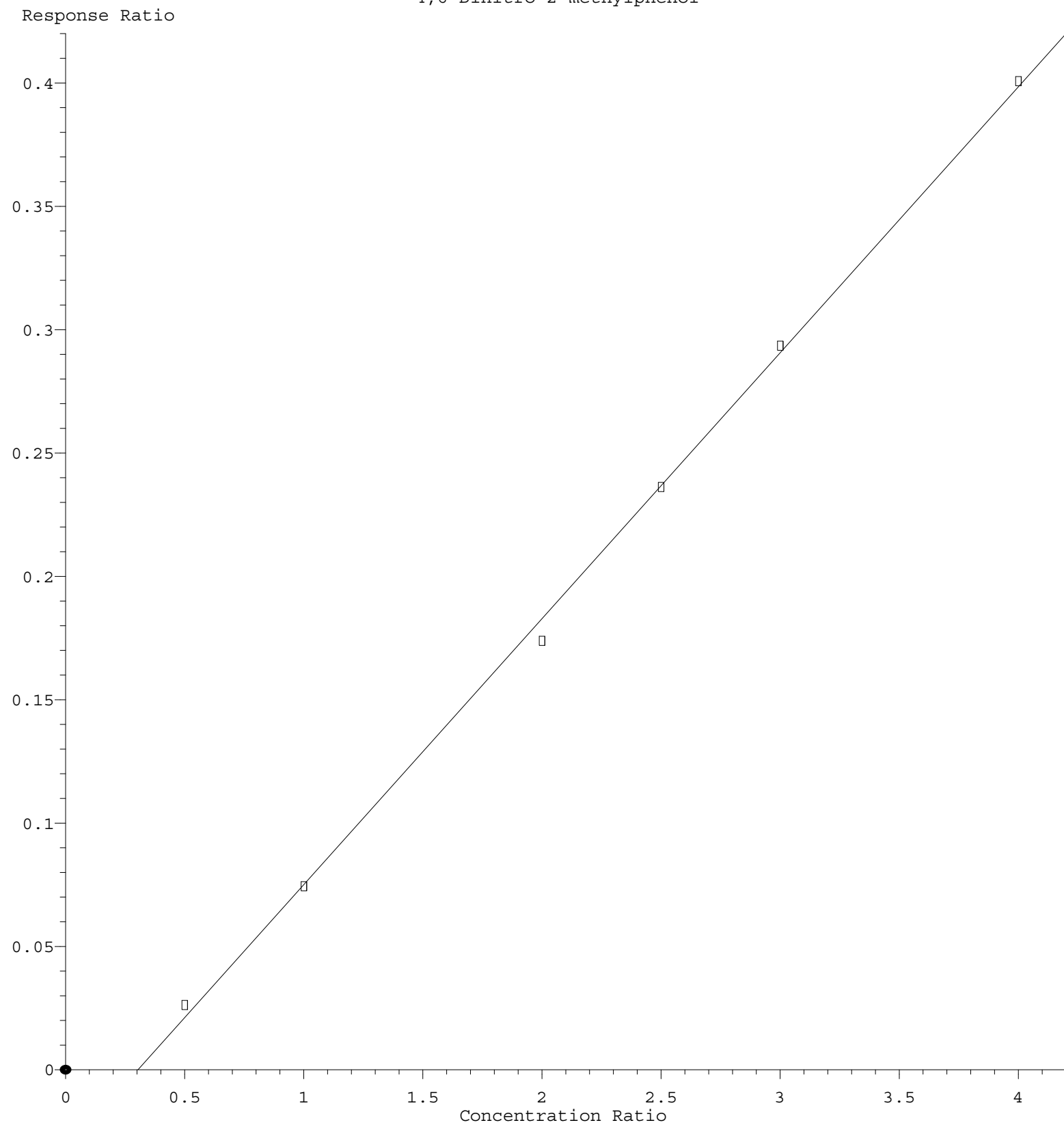
Calibration Table Last Updated: Wed Aug 31 18:15:32 2022

# 2,4-Dinitrophenol



Response =  $1.341e-001 * \text{Amt} - 5.428e-002$   
 Coef of Det ( $r^2$ ) = 0.995453    Curve Fit: Linear  
 Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF083122.M  
 Calibration Table Last Updated: Wed Aug 31 18:15:32 2022

## 4,6-Dinitro-2-methylphenol



Response =  $1.078 \times 10^{-1} \times \text{Amt} - 3.278 \times 10^{-2}$   
Coef of Det ( $r^2$ ) = 0.998759 Curve Fit: Linear  
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF083122.M  
Calibration Table Last Updated: Wed Aug 31 18:15:32 2022