Response Factor Report GC/MS Ins

Method Path : Z:\svoasrv\HPCHEM1\BNA_G\Methods\
Method File : 8270-BG020624.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Feb 07 01:26:35 2024
Response Via : Initial Calibration

Calibration Files
2.5 =BG060553.D 5 =BG060554.D 10 =BG060555.D 20 =BG060556.D 40 =BG060557.D 50 =BG060558.D 60 =BG060559.D 80 =BG0605
60.D

| | | Compound | 2.5 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | 1,4-Dichlorobenzen... | ---------- | ISTD | ---------- | | | | | | | |
| 2) | | 1,4-Dioxane | | 0.622 | 0.561 | 0.427 | 0.481 | 0.546 | 0.431 | 0.486 | 0.508 | 14.12 |
| 3) | | Pyridine | | 1.384 | 1.434 | 1.170 | 1.344 | 1.504 | 1.256 | 1.352 | 1.349 | 8.18 |
| 4) | | n-Nitrosodimet... | | 0.919 | 0.922 | 0.709 | 0.807 | 0.904 | 0.743 | 0.815 | 0.831 | 10.40 |
| 5) | S | 2-Fluorophenol | | 1.389 | 1.420 | 1.283 | 1.369 | 1.249 | 1.303 | 1.259 | 1.324 | 5.11 |
| 6) | | Aniline | | 1.638 | 1.673 | 1.662 | 1.593 | 1.635 | 1.760 | 1.737 | 1.671 | 3.53 |
| 7) | S | Phenol-d6 | | 1.853 | 1.859 | 1.830 | 1.696 | 1.684 | 1.805 | 1.739 | 1.781 | 4.14 |
| 8) | | 2-Chlorophenol | | 1.401 | 1.418 | 1.397 | 1.357 | 1.321 | 1.391 | 1.393 | 1.383 | 2.36 |
| 9) | | Benzaldehyde | | 1.321 | 1.281 | 1.151 | 1.012 | 0.972 | 0.989 | 0.927 | 1.093 | 14.47 |
| 10) | C | Phenol | | 1.918 | 1.933 | 1.809 | 1.709 | 1.706 | 1.812 | 1.747 | 1.805 | 5.14 |
| 11) | | bis(2-Chloroet... | | 1.508 | 1.552 | 1.464 | 1.342 | 1.364 | 1.439 | 1.419 | 1.441 | 5.19 |
| 12) | | 1,3-Dichlorobe... | | 1.731 | 1.703 | 1.611 | 1.584 | 1.617 | 1.628 | 1.643 | 1.645 | 3.21 |
| 13) | C | 1,4-Dichlorobe... | | 1.736 | 1.739 | 1.669 | 1.641 | 1.660 | 1.671 | 1.631 | 1.678 | 2.56 |
| 14) | | 1,2-Dichlorobe... | | 1.714 | 1.619 | 1.607 | 1.618 | 1.605 | 1.603 | 1.579 | 1.621 | 2.66 |
| 15) | | Benzyl Alcohol | | 1.257 | 1.298 | 1.260 | 1.296 | 1.270 | 1.290 | 1.312 | 1.283 | 1.63 |
| 16) | | 2,2'-oxybis(1-... | | 3.414 | 3.370 | 3.282 | 3.343 | 3.346 | 3.353 | 3.326 | 3.348 | 1.21 |
| 17) | | 2-Methylphenol | | 1.302 | 1.205 | 1.232 | 1.240 | 1.201 | 1.239 | 1.213 | 1.233 | 2.78 |
| 18) | | Hexachloroethane | | 0.570 | 0.585 | 0.549 | 0.608 | 0.576 | 0.626 | 0.598 | 0.587 | 4.33 |
| 19) | P | n-Nitroso-di-n... | 1.216 | 1.193 | 1.214 | 1.145 | 1.207 | 1.180 | 1.252 | 1.199 | 1.201 | 2.57 |
| 20) | | 3+4-Methylphenols | | 1.647 | 1.606 | 1.580 | 1.679 | 1.651 | 1.747 | 1.684 | 1.656 | 3.32 |
| 21) | I | Naphthalene-d8 | ---------- | ISTD | ---------- | | | | | | | |
| 22) | | Acetophenone | | 0.580 | 0.558 | 0.559 | 0.534 | 0.538 | 0.550 | 0.533 | 0.550 | 3.11 |
| 23) | S | Nitrobenzene-d5 | | | 0.288 | 0.325 | 0.353 | 0.375 | 0.393 | 0.398 | 0.356 | 11.99 |
| 24) | | Nitrobenzene | | 0.283 | 0.325 | 0.357 | 0.377 | 0.400 | 0.413 | 0.415 | 0.367 | 13.36 |
| 25) | | Isophorone | | 0.771 | 0.761 | 0.769 | 0.757 | 0.774 | 0.791 | 0.784 | 0.772 | 1.53 |
| 26) | C | 2-Nitrophenol | | 0.083 | 0.083 | 0.098 | 0.115 | 0.133 | 0.144 | | 0.109 | 23.52 |
| 27) | | 2,4-Dimethylph... | | 0.281 | 0.251 | 0.252 | 0.244 | 0.254 | 0.259 | 0.251 | 0.256 | 4.73 |
| 28) | | bis(2-Chloroet... | | 0.465 | 0.460 | 0.464 | 0.453 | 0.453 | 0.469 | 0.460 | 0.461 | 1.29 |
| 29) | C | 2,4-Dichloroph... | | 0.275 | 0.298 | 0.314 | 0.310 | 0.310 | 0.323 | 0.323 | 0.308 | 5.42 |
| 30) | | 1,2,4-Trichlor... | | 0.384 | 0.381 | 0.371 | 0.359 | 0.375 | 0.380 | 0.375 | 0.375 | 2.24 |
| 31) | | Naphthalene | | 1.169 | 1.156 | 1.136 | 1.106 | 1.133 | 1.151 | 1.115 | 1.138 | 1.97 |
| 32) | | Benzoic acid | | | 0.075 | 0.115 | 0.156 | 0.174 | 0.193 | 0.206 | 0.153 | 32.59 |
| 33) | | 4-Chloroaniline | | 0.369 | 0.393 | 0.414 | 0.407 | 0.416 | 0.428 | 0.422 | 0.407 | 4.92 |
| 34) | C | Hexachlorobuta... | | 0.259 | 0.248 | 0.259 | 0.250 | 0.254 | 0.265 | 0.259 | 0.256 | 2.28 |
| 35) | | Caprolactam | | 0.102 | 0.098 | 0.104 | 0.103 | 0.104 | 0.112 | 0.109 | 0.105 | 4.37 |
| 36) | C | 4-Chloro-3-met... | | 0.341 | 0.345 | 0.354 | 0.354 | 0.356 | 0.375 | 0.363 | 0.356 | 3.15 |
| 37) | | 2-Methylnaphth... | | 0.788 | 0.738 | 0.754 | 0.751 | 0.749 | 0.787 | 0.751 | 0.760 | 2.59 |
| 38) | | 1-Methylnaphth... | | 0.764 | 0.741 | 0.743 | 0.731 | 0.745 | 0.774 | 0.745 | 0.749 | 1.98 |

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| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 39) | I | Acenaphthene-d10 | ----------ISTD---------- | | | | | | | | |
| 40) | | 1,2,4,5-Tetrac... | 0.672 | 0.614 | 0.660 | 0.664 | 0.636 | 0.664 | 0.645 | 0.651 | 3.12 |
| 41) | P | Hexachlorocycl... | 0.191 | 0.178 | 0.224 | 0.239 | 0.241 | 0.252 | 0.248 | 0.225 | 13.01 |
| 42) | S | 2,4,6-Tribromo... | 0.208 | 0.202 | 0.238 | 0.245 | 0.240 | 0.251 | 0.256 | 0.234 | 8.91 |
| 43) | C | 2,4,6-Trichlor... | 0.360 | 0.357 | 0.385 | 0.401 | 0.394 | 0.413 | 0.403 | 0.388 | 5.58 |
| 44) | | 2,4,5-Trichlor... | 0.420 | 0.403 | 0.437 | 0.462 | 0.431 | 0.458 | 0.444 | 0.436 | 4.78 |
| 45) | S | 2-Fluorobiphenyl | 1.541 | 1.467 | 1.554 | 1.502 | 1.448 | 1.477 | 1.435 | 1.489 | 3.04 |
| 46) | | 1,1'-Biphenyl | 1.670 | 1.574 | 1.647 | 1.624 | 1.566 | 1.611 | 1.578 | 1.610 | 2.47 |
| 47) | | 2-Chloronaphth... | 1.347 | 1.303 | 1.331 | 1.308 | 1.263 | 1.302 | 1.284 | 1.305 | 2.15 |
| 48) | | 2-Nitroaniline | 0.194 | 0.236 | 0.275 | 0.331 | 0.340 | 0.384 | 0.395 | 0.308 | 24.52 |
| 49) | | Acenaphthylene | 1.853 | 1.908 | 1.876 | 1.867 | 1.810 | 1.874 | 1.845 | 1.862 | 1.64 |
| 50) | | Dimethylphthalate | 1.571 | 1.545 | 1.579 | 1.547 | 1.494 | 1.543 | 1.529 | 1.544 | 1.81 |
| 51) | | 2,6-Dinitrotol... | 0.134 | 0.174 | 0.222 | 0.267 | 0.282 | 0.304 | 0.317 | 0.243 | 28.26 |
| 52) | C | Acenaphthene | 1.215 | 1.258 | 1.241 | 1.181 | 1.143 | 1.197 | 1.186 | 1.203 | 3.22 |
| 53) | | 3-Nitroaniline | 0.164 | 0.192 | 0.240 | 0.270 | 0.276 | 0.302 | 0.309 | 0.250 | 21.88 |
| 54) | P | 2,4-Dinitrophenol | | 0.054 | 0.065 | 0.086 | 0.093 | 0.106 | 0.118 | 0.087 | 28.11 |
| 55) | | Dibenzofuran | 1.943 | 1.811 | 1.921 | 1.890 | 1.833 | 1.909 | 1.882 | 1.884 | 2.51 |
| 56) | P | 4-Nitrophenol | | 0.156 | 0.200 | 0.233 | 0.251 | 0.266 | 0.279 | 0.231 | 19.85 |
| 57) | | 2,4-Dinitrotol... | 0.177 | 0.198 | 0.268 | 0.336 | 0.353 | 0.386 | 0.410 | 0.304 | 30.06 |
| 58) | | Fluorene | 1.575 | 1.454 | 1.523 | 1.514 | 1.458 | 1.508 | 1.504 | 1.505 | 2.72 |
| 59) | | 2,3,4,6-Tetrac... | 0.346 | 0.350 | 0.370 | 0.388 | 0.380 | 0.394 | 0.402 | 0.376 | 5.71 |
| 60) | | Diethylphthalate | 1.617 | 1.497 | 1.593 | 1.596 | 1.554 | 1.602 | 1.596 | 1.580 | 2.60 |
| 61) | | 4-Chlorophenyl... | 0.796 | 0.728 | 0.777 | 0.778 | 0.743 | 0.767 | 0.765 | 0.765 | 2.99 |
| 62) | | 4-Nitroaniline | 0.202 | 0.190 | 0.262 | 0.304 | 0.304 | 0.328 | 0.331 | 0.274 | 21.28 |
| 63) | | Azobenzene | 1.559 | 1.482 | 1.585 | 1.548 | 1.504 | 1.543 | 1.550 | 1.539 | 2.25 |
| 64) | I | Phenanthrene-d10 | ----------ISTD---------- | | | | | | | | |
| 65) | | 4,6-Dinitro-2-... | | 0.042 | 0.050 | 0.062 | 0.067 | 0.077 | 0.084 | 0.063 | 25.21 |
| 66) | c | n-Nitrosodiphe... | 0.592 | 0.604 | 0.600 | 0.588 | 0.583 | 0.614 | 0.598 | 0.597 | 1.70 |
| 67) | | 4-Bromophenyl-... | 0.225 | 0.221 | 0.226 | 0.221 | 0.220 | 0.229 | 0.226 | 0.224 | 1.48 |
| 68) | | Hexachlorobenzene | 0.251 | 0.248 | 0.260 | 0.248 | 0.251 | 0.262 | 0.257 | 0.254 | 2.24 |
| 69) | | Atrazine | 0.203 | 0.208 | 0.203 | 0.190 | 0.173 | 0.172 | 0.152 | 0.186 | 11.28 |
| 70) | C | Pentachlorophenol | 0.118 | 0.134 | 0.147 | 0.152 | 0.154 | 0.163 | 0.165 | 0.147 | 11.20 |
| 71) | | Phenanthrene | 1.116 | 1.095 | 1.091 | 1.057 | 1.059 | 1.093 | 1.063 | 1.082 | 2.06 |
| 72) | | Anthracene | 1.080 | 1.110 | 1.086 | 1.048 | 1.062 | 1.093 | 1.064 | 1.078 | 1.93 |
| 73) | | Carbazole | 1.036 | 1.008 | 1.027 | 0.968 | 0.970 | 0.996 | 0.968 | 0.996 | 2.87 |
| 74) | | Di-n-butylphth... | 1.221 | 1.245 | 1.255 | 1.202 | 1.223 | 1.238 | 1.204 | 1.227 | 1.62 |
| 75) | C | Fluoranthene | 1.371 | 1.327 | 1.349 | 1.280 | 1.273 | 1.295 | 1.275 | 1.310 | 2.99 |
| 76) | I | Chrysene-d12 | ----------ISTD---------- | | | | | | | | |
| 77) | | Benzidine | 0.111 | 0.097 | 0.148 | 0.589 | 0.383 | 0.371 | 0.356 | 0.294 | 61.91 |
| 78) | | Pyrene | 1.413 | 1.438 | 1.440 | 1.422 | 1.401 | 1.447 | 1.397 | 1.423 | 1.40 |
| 79) | S | Terphenyl-d14 | 1.226 | 1.221 | 1.224 | 1.164 | 1.116 | 1.153 | 1.086 | 1.170 | 4.81 |
| 80) | | Butylbenzylpht... | 0.440 | 0.491 | 0.525 | 0.543 | 0.540 | 0.564 | 0.555 | 0.523 | 8.27 |
| 81) | | Benzo(a)anthra... | 1.436 | 1.418 | 1.438 | 1.414 | 1.390 | 1.437 | 1.414 | 1.421 | 1.24 |
| 82) | | 3,3'-Dichlorob... | 0.465 | 0.443 | 0.448 | 0.487 | 0.475 | 0.488 | 0.480 | 0.469 | 3.82 |
| 83) | | Chrysene | 1.366 | 1.367 | 1.387 | 1.348 | 1.330 | 1.381 | 1.355 | 1.362 | 1.43 |
| 84) | | Bis(2-ethylhex... | 0.768 | 0.785 | 0.810 | 0.811 | 0.808 | 0.844 | 0.818 | 0.806 | 3.00 |
| 85) | c | Di-n-octyl pht... | 1.229 | 1.256 | 1.354 | 1.377 | 1.377 | 1.447 | 1.415 | 1.351 | 5.93 |

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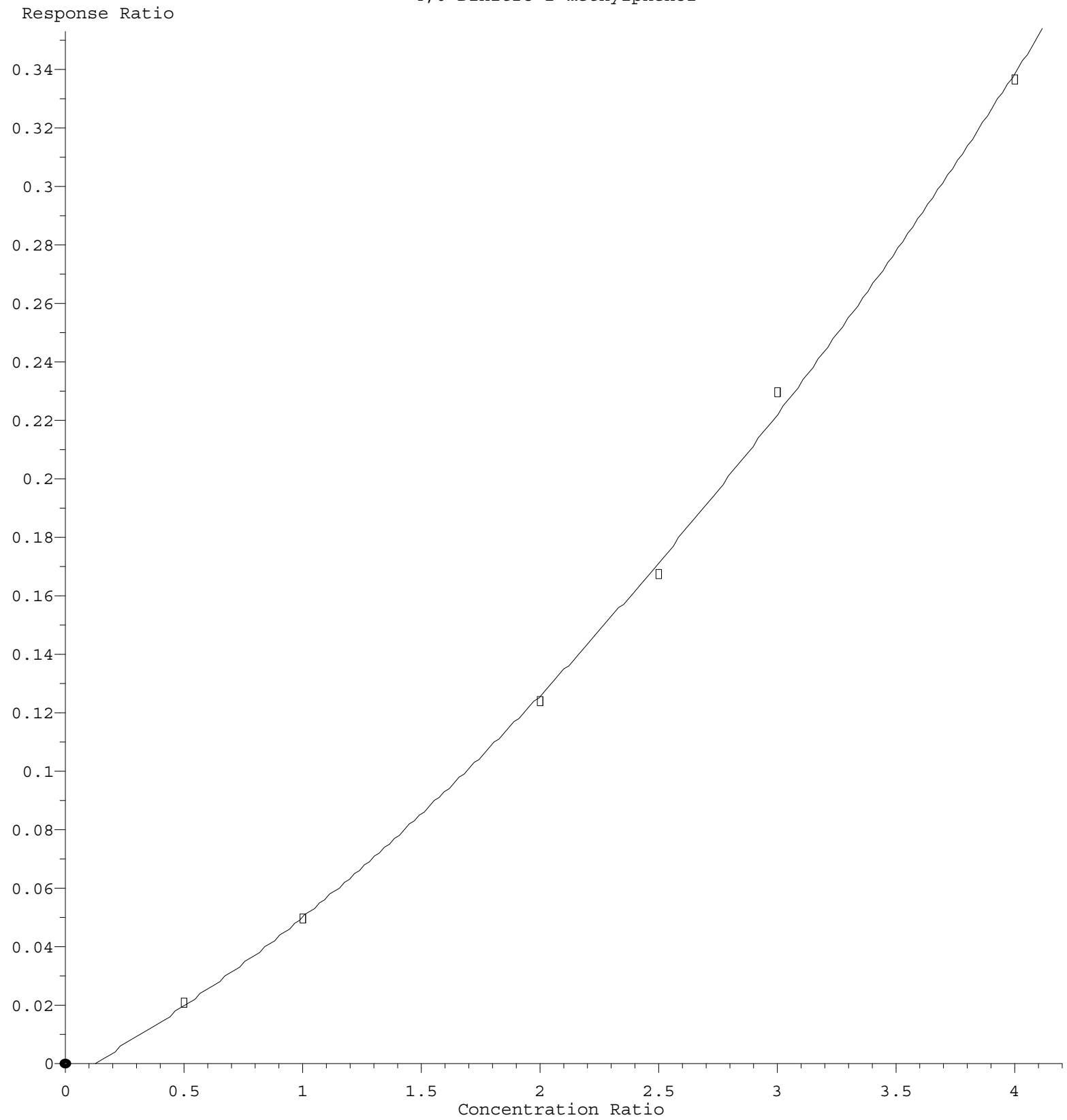
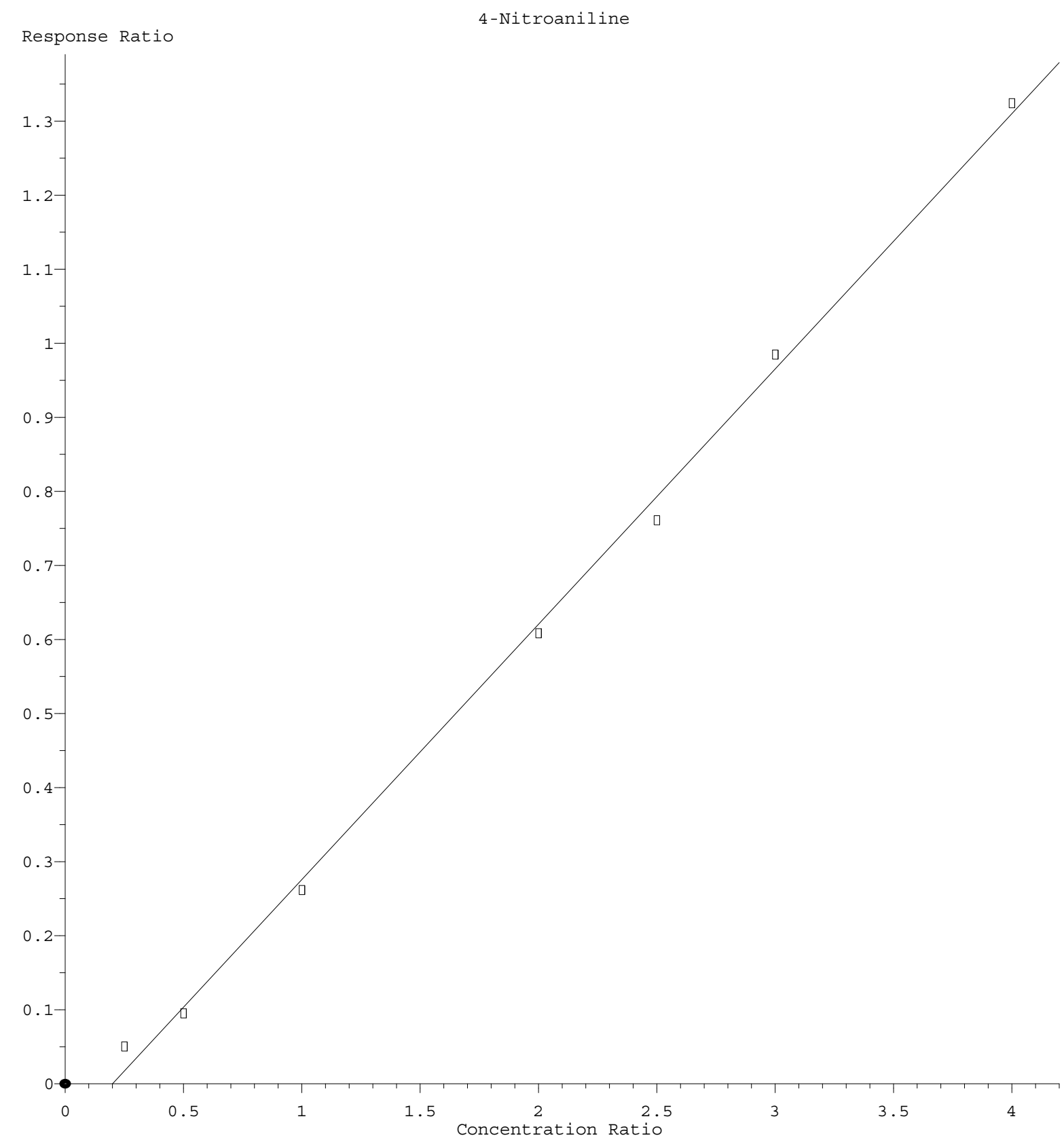
| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 86) | I | Perylene-d12 | ----------ISTD---------- | | | | | | | |
| 87) | | Indeno(1,2,3-c... | 1.384 | 1.395 | 1.468 | 1.458 | 1.462 | 1.526 | 1.513 | 1.458 | 3.66 |
| 88) | | Benzo(b)fluora... | 1.268 | 1.266 | 1.323 | 1.286 | 1.273 | 1.335 | 1.307 | 1.294 | 2.15 |
| 89) | | Benzo(k)fluora... | 1.214 | 1.208 | 1.267 | 1.250 | 1.246 | 1.278 | 1.253 | 1.245 | 2.06 |
| 90) | C | Benzo(a)pyrene | 1.095 | 1.100 | 1.150 | 1.126 | 1.126 | 1.178 | 1.159 | 1.134 | 2.69 |
| 91) | | Dibenzo(a,h)an... | 1.135 | 1.115 | 1.222 | 1.208 | 1.220 | 1.268 | 1.255 | 1.203 | 4.79 |
| 92) | | Benzo(g,h,i)pe... | 1.150 | 1.163 | 1.209 | 1.192 | 1.199 | 1.264 | 1.249 | 1.204 | 3.47 |

(#) = Out of Range

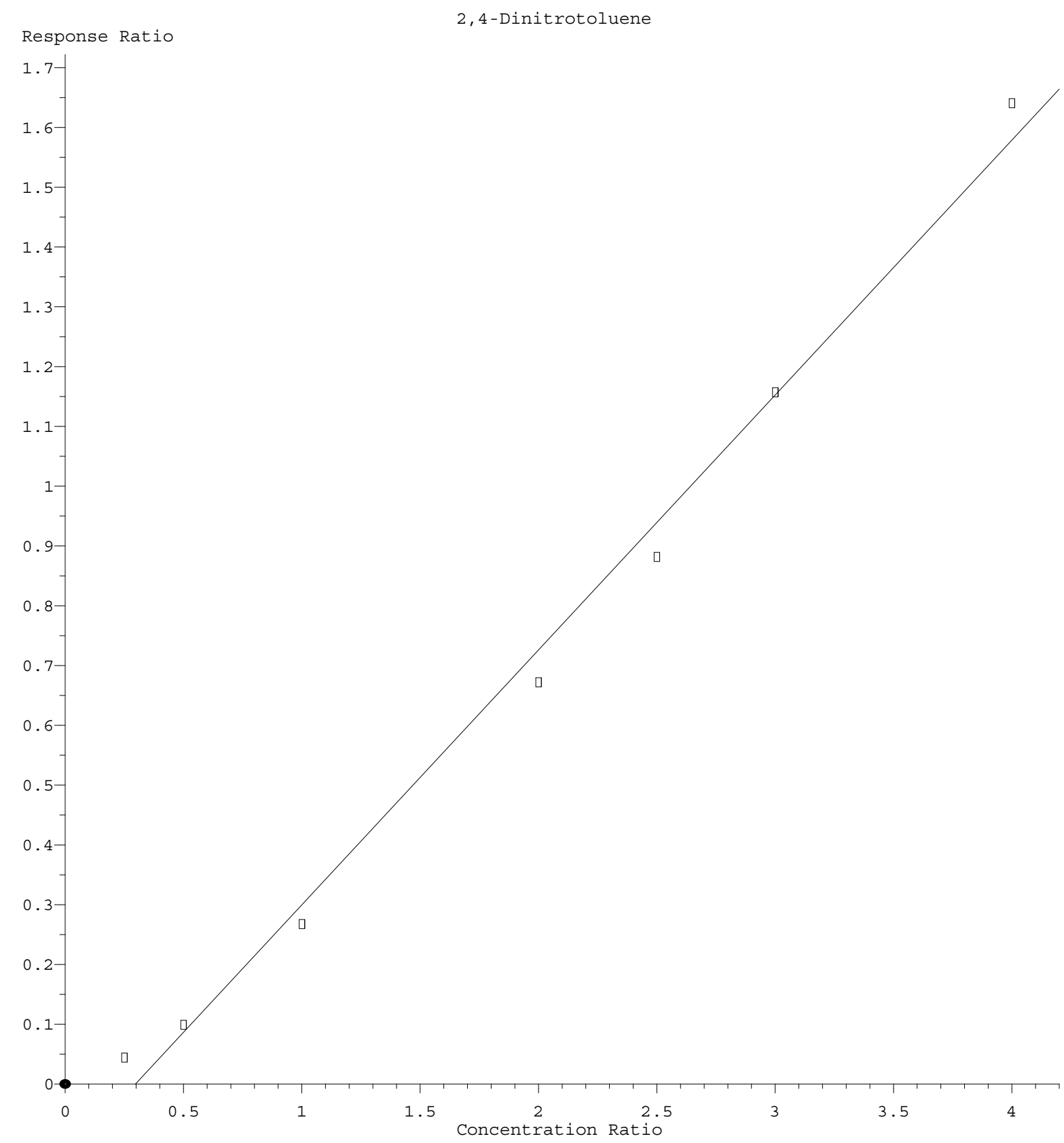
4,6-Dinitro-2-methylphenol



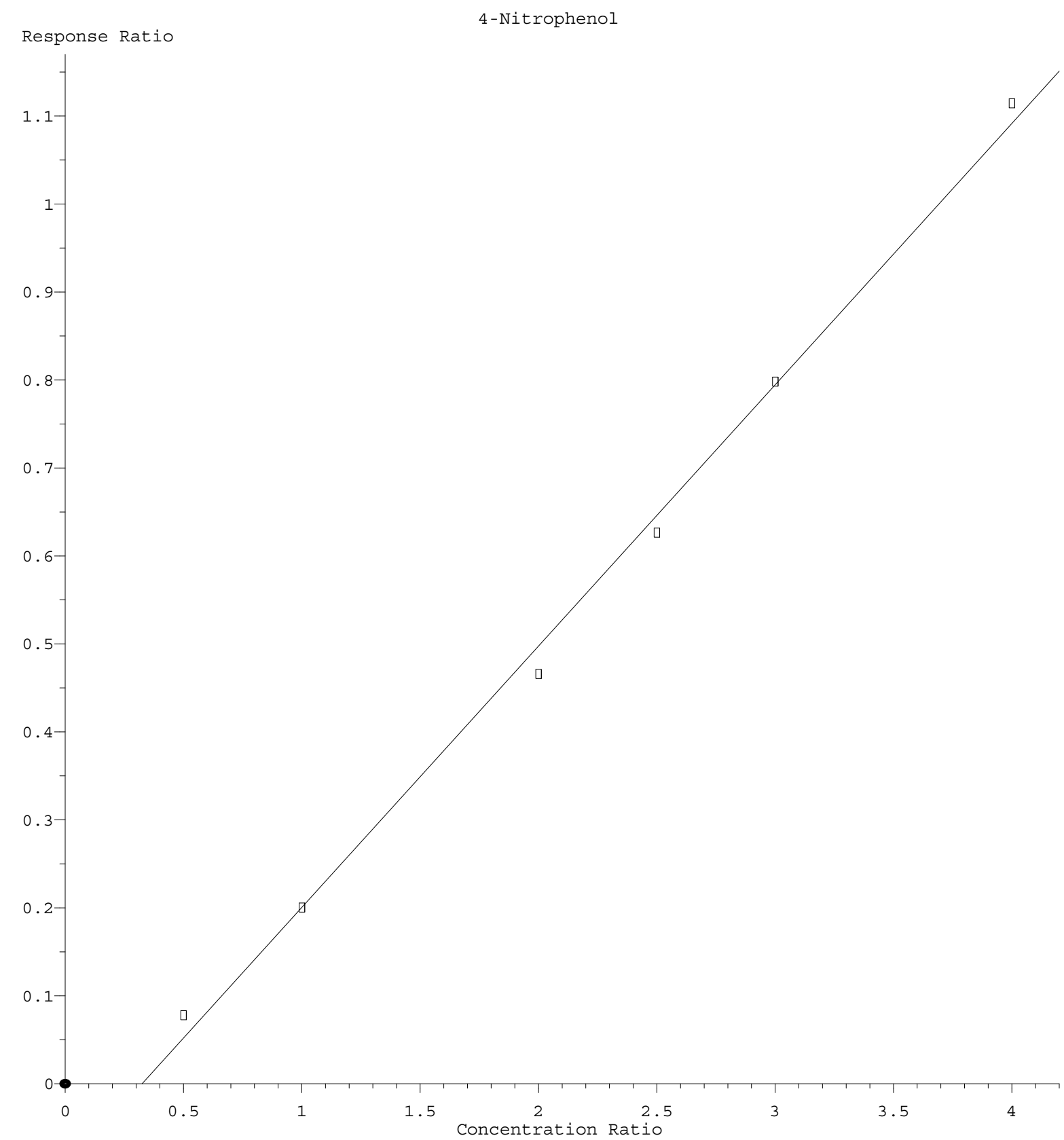

R = 1.017e-002 A*A + 4.536e-002 A - 5.490e-003
Coef of Det (r^2) = 0.998813  Curve Fit: Quadratic
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
Calibration Table Last Updated: Wed Feb 07 01:26:35 2024



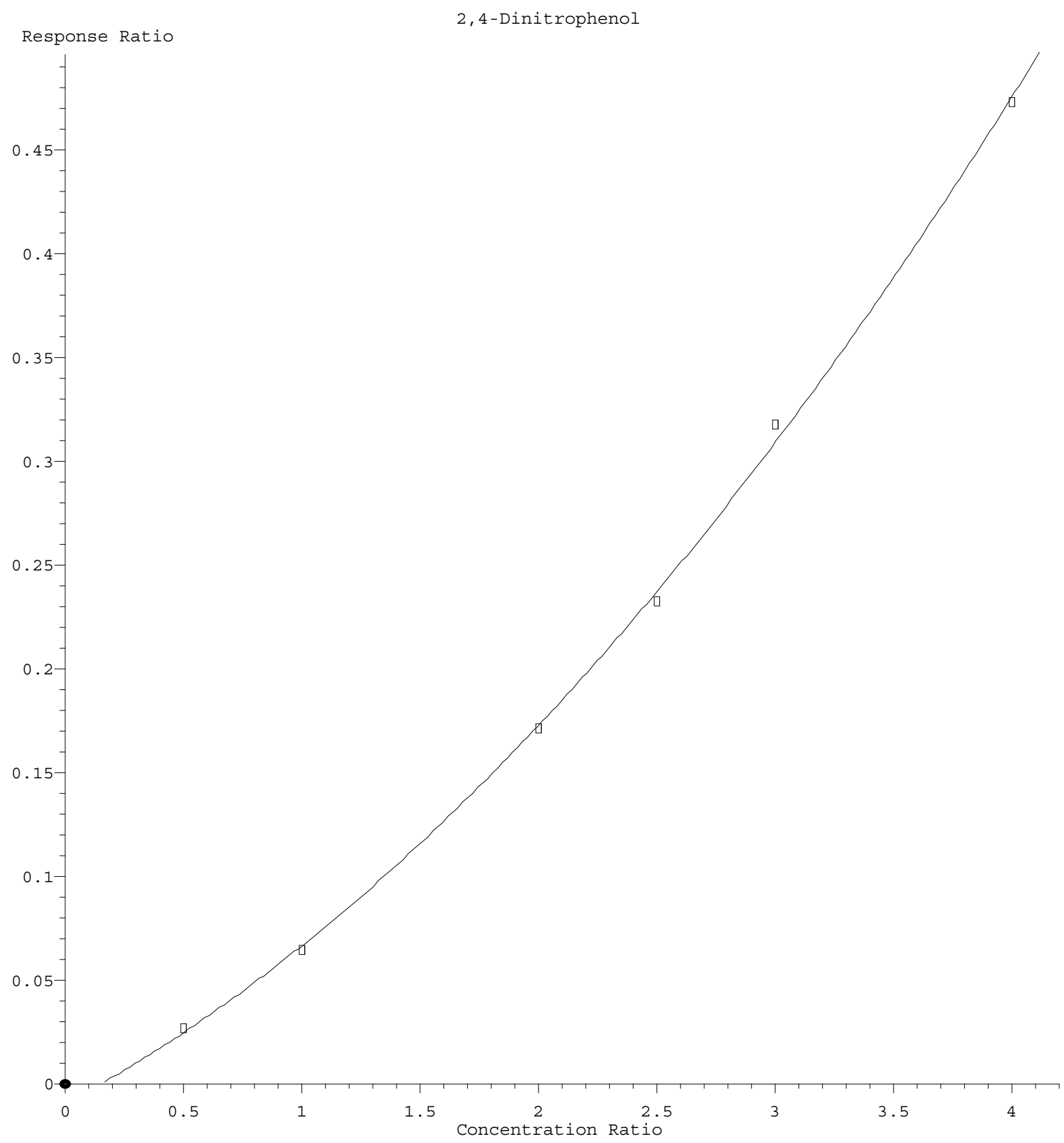

Response = 3.448e-001 * Amt - 6.902e-002
Coef of Det (r^2) = 0.997722  Curve Fit: Linear
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
Calibration Table Last Updated: Wed Feb 07 01:26:35 2024



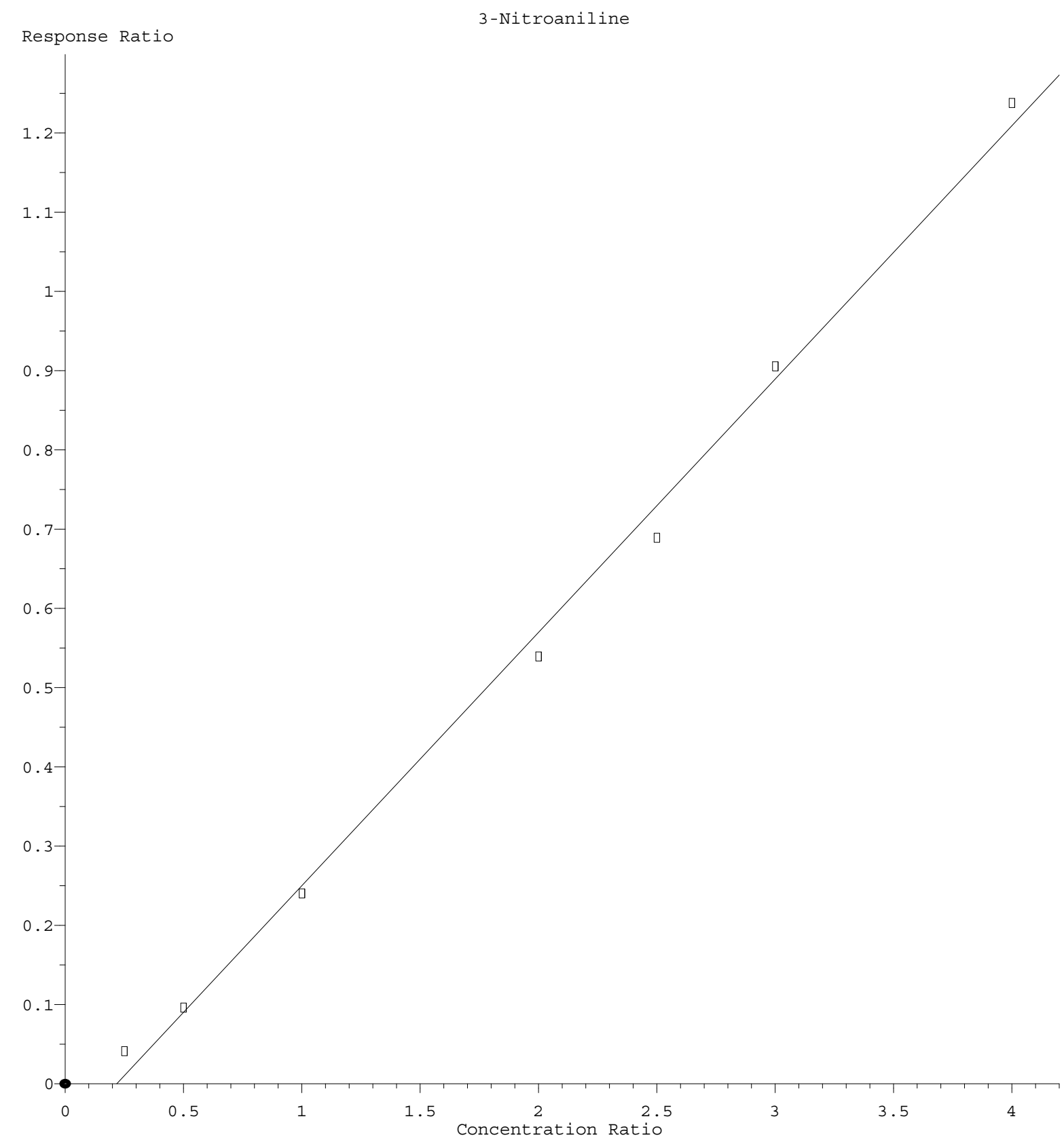

Response = 4.263e-001 * Amt - 1.268e-001
Coef of Det (r^2) = 0.992673  Curve Fit: Linear
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
Calibration Table Last Updated: Wed Feb 07 01:26:35 2024



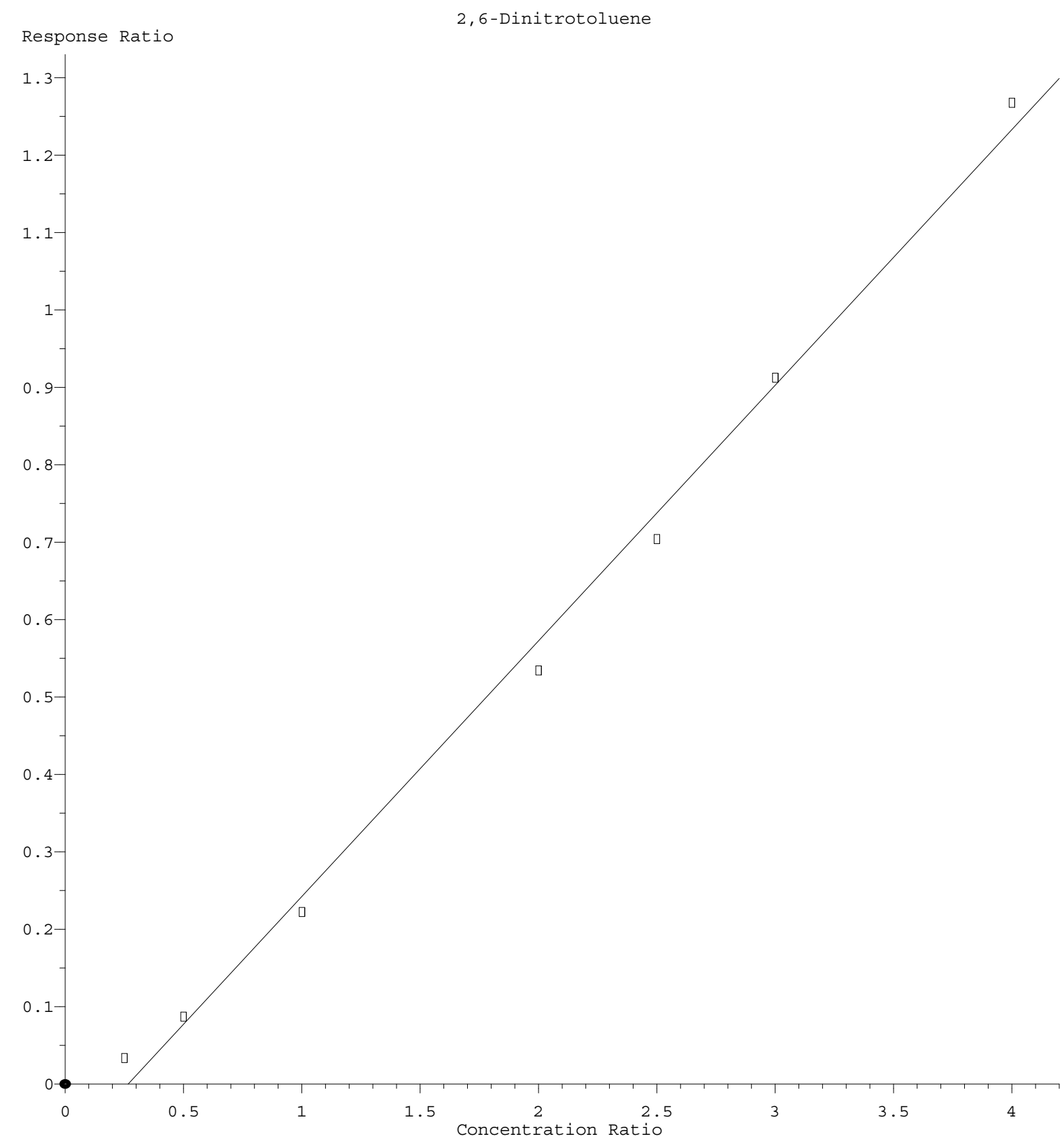

Response = 2.971e-001 * Amt - 9.657e-002
Coef of Det (r^2) = 0.996483  Curve Fit: Linear
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
Calibration Table Last Updated: Wed Feb 07 01:26:35 2024



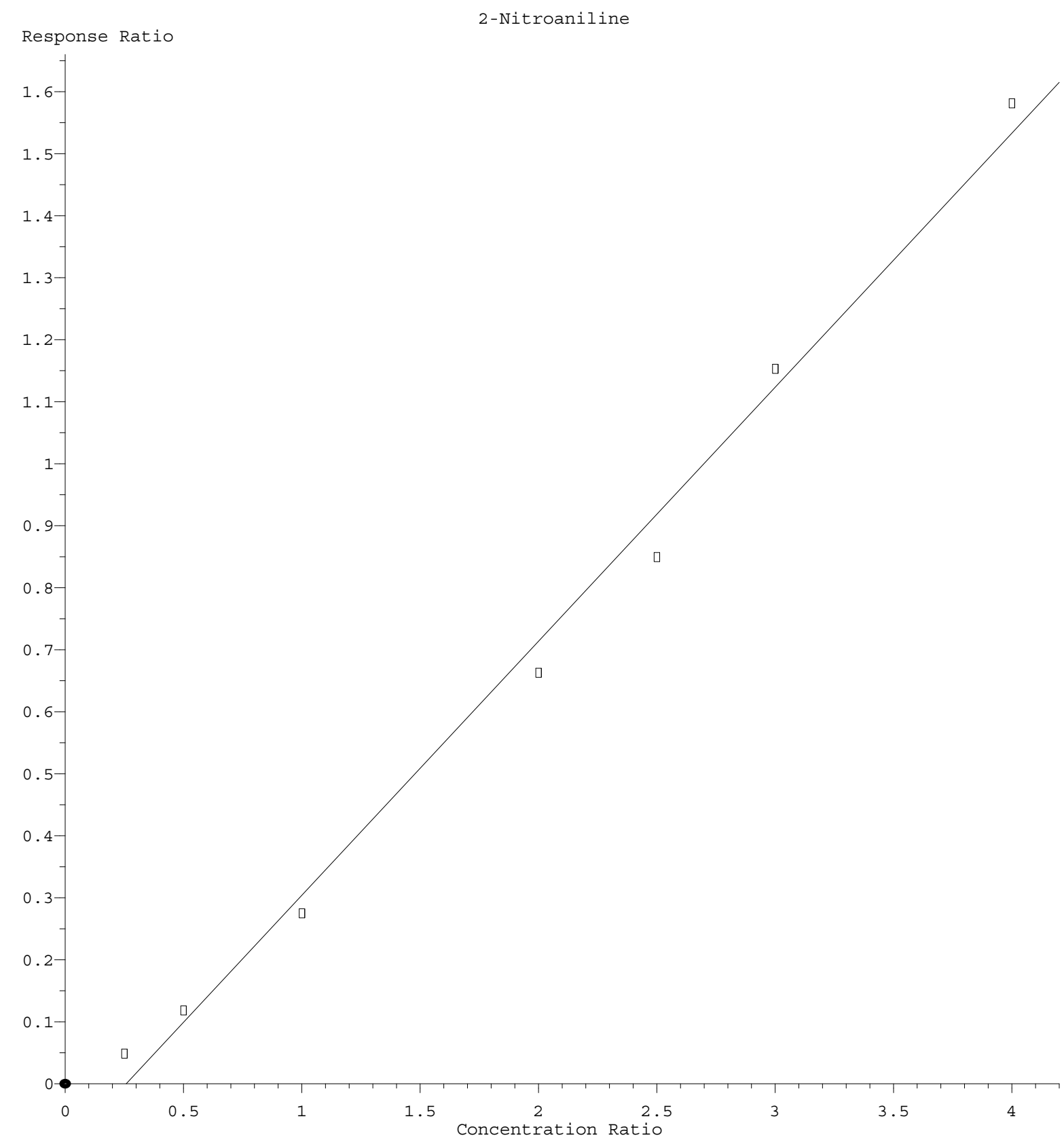

R = 1.506e-002 A*A + 6.103e-002 A - 9.506e-003
Coef of Det (r^2) = 0.999188  Curve Fit: Quadratic
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
Calibration Table Last Updated: Wed Feb 07 01:26:35 2024



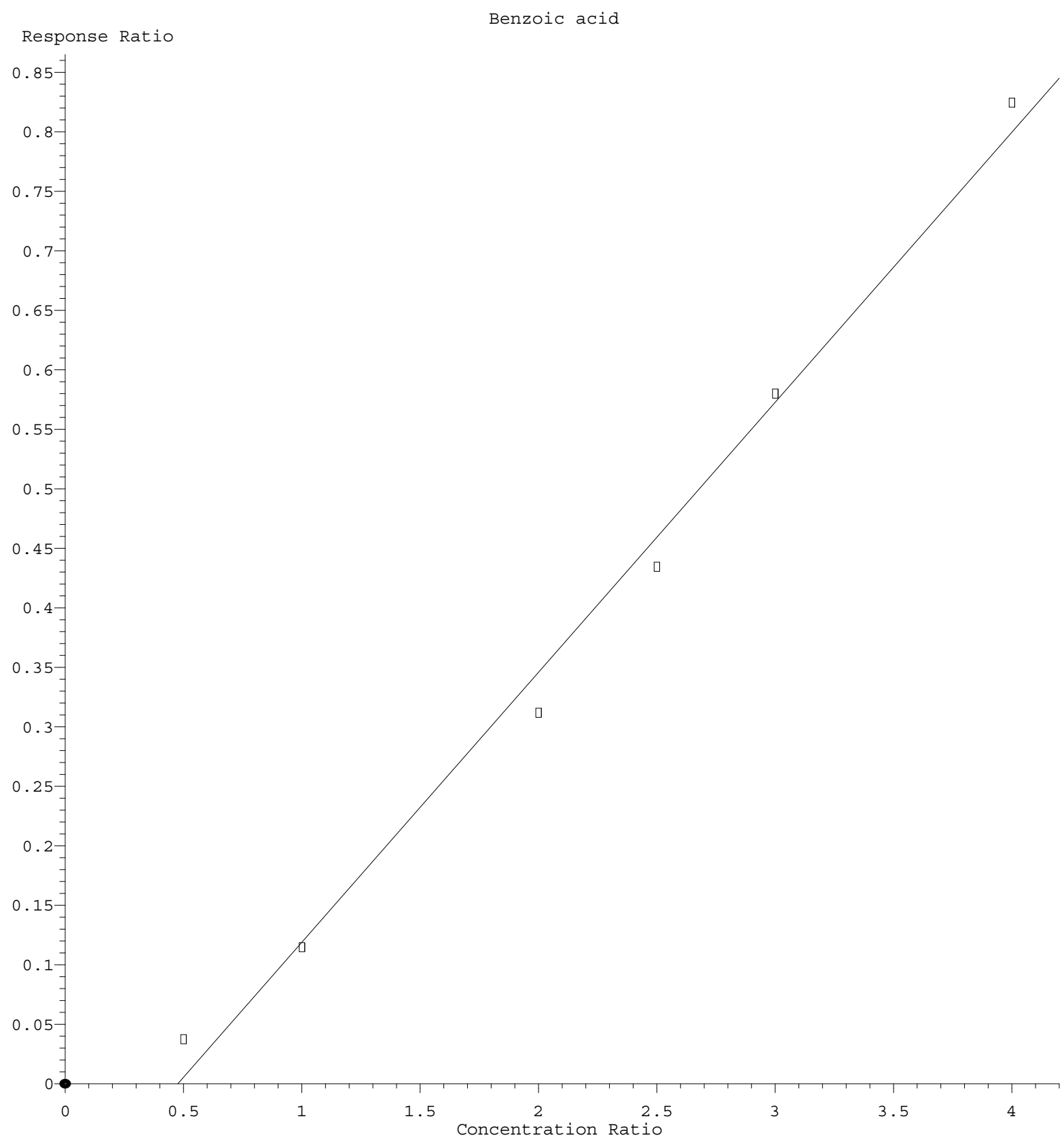

Response = 3.197e-001 * Amt - 6.961e-002
Coef of Det (r^2) = 0.995978  Curve Fit: Linear
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
Calibration Table Last Updated: Wed Feb 07 01:26:35 2024



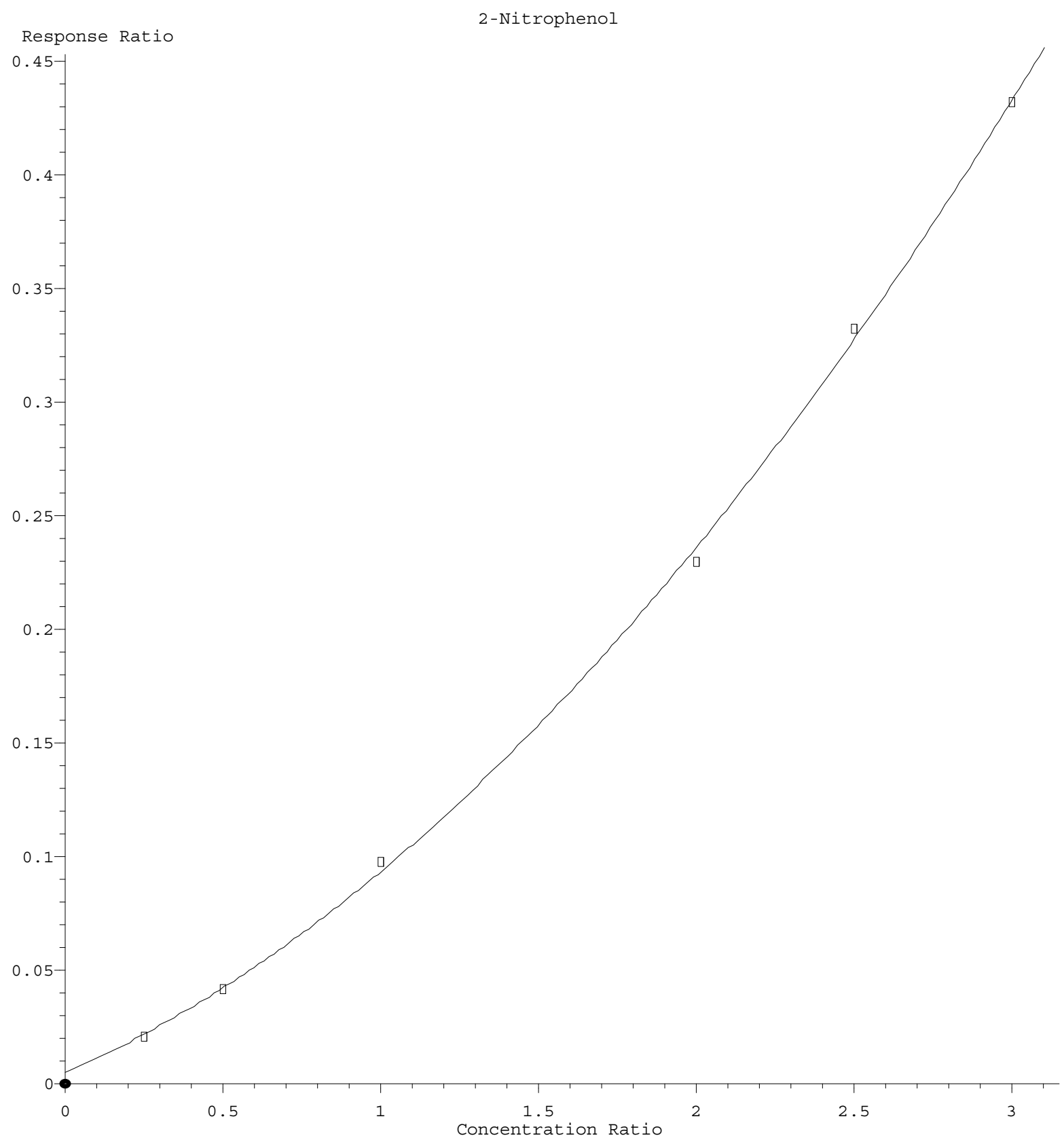

Response = 3.302e-001 * Amt - 8.768e-002
Coef of Det (r^2) = 0.995302  Curve Fit: Linear
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
Calibration Table Last Updated: Wed Feb 07 01:26:35 2024




Response = 4.098e-001 * Amt - 1.059e-001
Coef of Det (r^2) = 0.992567  Curve Fit: Linear
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
Calibration Table Last Updated: Wed Feb 07 01:26:35 2024




Response = 2.270e-001 * Amt - 1.080e-001
Coef of Det (r^2) = 0.991945  Curve Fit: Linear
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
Calibration Table Last Updated: Wed Feb 07 01:26:35 2024




R = 2.701e-002 A*A + 6.167e-002 A + 4.673e-003
Coef of Det (r^2) = 0.999413  Curve Fit: Quadratic
Method Name:  Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG020624.M
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