

Method Path : Z:\HPCHEM1\BNA\_G\METHODS\  
 Method File : 8270-BG122117.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Fri Dec 22 11:08:55 2017  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BG031664.D 10 =BG031665.D 25 =BG031666.D 40 =BG031667.D 50 =BG031668.D 60 =BG031669.D 80 =BG031670.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.472          | 0.424 | 0.412 | 0.390 | 0.386 | 0.381 | 0.383 | 0.407 | 8.11  |
| 3)    | Pyridine              | 0.910          | 1.050 | 1.112 | 1.144 | 1.134 | 1.133 | 1.134 | 1.088 | 7.77  |
| 4)    | n-Nitrosodimet...     | 0.406          | 0.438 | 0.446 | 0.447 | 0.446 | 0.452 | 0.439 |       | 3.85  |
| 5) S  | 2-Fluorophenol        | 1.147          | 1.096 | 1.096 | 1.096 | 1.081 | 1.087 | 1.084 | 1.098 | 2.03  |
| 6)    | Aniline               | 1.836          | 1.846 | 1.841 | 1.880 | 1.798 | 1.807 | 1.830 | 1.834 | 1.47  |
| 7) S  | Phenol-d6             | 1.402          | 1.433 | 1.444 | 1.466 | 1.402 | 1.407 | 1.425 | 1.426 | 1.70  |
| 8)    | 2-Chlorophenol        | 1.361          | 1.252 | 1.267 | 1.280 | 1.241 | 1.256 | 1.259 | 1.274 | 3.16  |
| 9)    | Benzaldehyde          | 1.011          | 0.931 | 0.894 | 0.872 | 0.813 | 0.766 | 0.723 | 0.858 | 11.57 |
| 10) C | Phenol                | 1.531          | 1.426 | 1.449 | 1.453 | 1.390 | 1.413 | 1.413 | 1.439 | 3.19  |
| 11)   | bis(2-Chloroet...     | 1.295          | 1.207 | 1.211 | 1.198 | 1.145 | 1.149 | 1.162 | 1.195 | 4.34  |
| 12)   | 1,3-Dichlorobe...     | 1.680          | 1.612 | 1.567 | 1.576 | 1.533 | 1.556 | 1.549 | 1.582 | 3.16  |
| 13) C | 1,4-Dichlorobe...     | 1.800          | 1.617 | 1.604 | 1.588 | 1.552 | 1.578 | 1.571 | 1.616 | 5.19  |
| 14)   | 1,2-Dichlorobe...     | 1.621          | 1.569 | 1.528 | 1.523 | 1.479 | 1.489 | 1.509 | 1.531 | 3.21  |
| 15)   | Benzyl Alcohol        | 1.006          | 1.028 | 1.092 | 1.112 | 1.061 | 1.099 | 1.094 | 1.070 | 3.71  |
| 16)   | 2,2'-oxybis(1-...     | 1.030          | 0.962 | 0.969 | 0.938 | 0.970 | 0.972 | 0.973 |       | 3.10  |
| 17)   | 2-Methylphenol        | 1.010          | 1.045 | 1.042 | 1.052 | 1.011 | 1.013 | 1.035 | 1.030 | 1.74  |
| 18)   | Hexachloroethane      | 0.542          | 0.493 | 0.479 | 0.474 | 0.478 | 0.477 | 0.483 | 0.489 | 4.87  |
| 19) P | n-Nitroso-di-n...     | 1.012          | 0.999 | 0.978 | 0.976 | 0.944 | 0.951 | 0.955 | 0.974 | 2.61  |
| 20)   | 3+4-Methylphenols     | 1.488          | 1.435 | 1.463 | 1.506 | 1.439 | 1.446 | 1.468 | 1.464 | 1.78  |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.500          | 0.463 | 0.472 | 0.462 | 0.457 | 0.450 | 0.449 | 0.465 | 3.75  |
| 23) S | Nitrobenzene-d5       | 0.235          | 0.245 | 0.262 | 0.273 | 0.276 | 0.280 | 0.283 | 0.265 | 6.96  |
| 24)   | Nitrobenzene          | 0.233          | 0.260 | 0.270 | 0.284 | 0.287 | 0.289 | 0.288 | 0.273 | 7.56  |
| 25)   | Isophorone            | 0.592          | 0.573 | 0.572 | 0.576 | 0.559 | 0.560 | 0.559 | 0.570 | 2.13  |
| 26) C | 2-Nitrophenol         | 0.107          | 0.133 | 0.145 | 0.150 | 0.160 | 0.160 | 0.163 | 0.143 | 14.31 |
| 27)   | 2,4-Dimethylph...     | 0.367          | 0.283 | 0.287 | 0.294 | 0.294 | 0.293 | 0.290 | 0.301 | 9.76  |
| 28)   | bis(2-Chloroet...     | 0.408          | 0.393 | 0.382 | 0.380 | 0.371 | 0.374 | 0.369 | 0.383 | 3.60  |
| 29) C | 2,4-Dichloroph...     | 0.365          | 0.347 | 0.348 | 0.359 | 0.353 | 0.352 | 0.350 | 0.354 | 1.83  |
| 30)   | 1,2,4-Trichlor...     | 0.463          | 0.435 | 0.429 | 0.429 | 0.422 | 0.419 | 0.424 | 0.432 | 3.45  |
| 31)   | Naphthalene           | 1.071          | 1.045 | 1.009 | 1.006 | 0.976 | 0.984 | 0.975 | 1.009 | 3.62  |
| 32)   | Benzoic acid          | 0.120          | 0.169 | 0.197 | 0.197 | 0.209 | 0.224 | 0.186 |       | 19.99 |
| 33)   | 4-Chloroaniline       | 0.497          | 0.454 | 0.447 | 0.450 | 0.437 | 0.434 | 0.427 | 0.449 | 5.13  |
| 34) C | Hexachlorobuta...     | 0.333          | 0.298 | 0.289 | 0.293 | 0.288 | 0.285 | 0.288 | 0.296 | 5.62  |
| 35)   | Caprolactam           | 0.109          | 0.108 | 0.110 | 0.106 | 0.105 | 0.104 | 0.107 |       | 2.10  |
| 36) C | 4-Chloro-3-met...     | 0.344          | 0.326 | 0.330 | 0.328 | 0.317 | 0.322 | 0.319 | 0.327 | 2.78  |
| 37)   | 2-Methylnaphth...     | 0.912          | 0.828 | 0.812 | 0.809 | 0.797 | 0.789 | 0.780 | 0.818 | 5.43  |

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|       |                    |                |       |       |       |       |       |       |       |       |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 39)   | 1,2,4,5-Tetrac...  | 0.911          | 0.841 | 0.853 | 0.830 | 0.842 | 0.819 | 0.802 | 0.842 | 4.09  |
| 40) P | Hexachlorocycl...  | 0.418          | 0.404 | 0.447 | 0.453 | 0.465 | 0.456 | 0.469 | 0.444 | 5.51  |
| 41) S | 2,4,6-Tribromo...  | 0.299          | 0.303 | 0.302 | 0.308 | 0.308 | 0.309 | 0.307 | 0.305 | 1.19  |
| 42) C | 2,4,6-Trichlor...  | 0.451          | 0.483 | 0.503 | 0.489 | 0.492 | 0.493 | 0.490 | 0.486 | 3.40  |
| 43)   | 2,4,5-Trichlor...  | 0.539          | 0.530 | 0.537 | 0.540 | 0.550 | 0.537 | 0.535 | 0.538 | 1.17  |
| 44) S | 2-Fluorobiphenyl   | 1.848          | 1.693 | 1.625 | 1.550 | 1.537 | 1.480 | 1.422 | 1.593 | 8.98  |
| 45)   | 1,1'-Biphenyl      | 1.855          | 1.725 | 1.739 | 1.691 | 1.683 | 1.645 | 1.617 | 1.708 | 4.53  |
| 46)   | 2-Chloronaphth...  | 1.387          | 1.333 | 1.314 | 1.284 | 1.295 | 1.261 | 1.246 | 1.303 | 3.63  |
| 47)   | 2-Nitroaniline     |                | 0.176 | 0.213 | 0.228 | 0.239 | 0.248 | 0.246 | 0.225 | 12.04 |
| 48)   | Acenaphthylene     | 2.285          | 2.169 | 2.116 | 2.046 | 2.042 | 1.991 | 1.943 | 2.084 | 5.56  |
| 49)   | Dimethylphthalate  | 1.950          | 1.842 | 1.770 | 1.730 | 1.716 | 1.689 | 1.638 | 1.762 | 5.94  |
| 50)   | 2,6-Dinitrotol...  |                | 0.253 | 0.316 | 0.330 | 0.341 | 0.349 | 0.356 | 0.324 | 11.58 |
| 51) C | Acenaphthene       | 1.459          | 1.394 | 1.380 | 1.346 | 1.343 | 1.321 | 1.314 | 1.365 | 3.69  |
| 52)   | 3-Nitroaniline     |                | 0.272 | 0.314 | 0.323 | 0.333 | 0.327 | 0.329 | 0.316 | 7.21  |
| 53) P | 2,4-Dinitrophenol  |                | 0.080 | 0.096 | 0.112 | 0.125 | 0.138 | 0.140 | 0.115 | 20.64 |
| 54)   | Dibenzofuran       | 2.359          | 2.186 | 2.114 | 2.049 | 2.022 | 1.989 | 1.930 | 2.093 | 6.87  |
| 55) P | 4-Nitrophenol      |                | 0.218 | 0.250 | 0.266 | 0.271 | 0.271 | 0.268 | 0.257 | 8.06  |
| 56)   | 2,4-Dinitrotol...  |                | 0.317 | 0.382 | 0.432 | 0.448 | 0.457 | 0.465 | 0.417 | 13.72 |
| 57)   | Fluorene           | 2.014          | 1.794 | 1.691 | 1.653 | 1.619 | 1.589 | 1.539 | 1.700 | 9.44  |
| 58)   | 2,3,4,6-Tetrac...  |                | 0.533 | 0.527 | 0.521 | 0.530 | 0.522 | 0.518 | 0.525 | 1.10  |
| 59)   | Diethylphthalate   | 1.946          | 1.816 | 1.725 | 1.692 | 1.645 | 1.622 | 1.575 | 1.717 | 7.41  |
| 60)   | 4-Chlorophenyl...  | 1.154          | 1.094 | 1.044 | 1.019 | 1.006 | 0.994 | 0.969 | 1.040 | 6.16  |
| 61)   | 4-Nitroaniline     | 0.238          | 0.294 | 0.318 | 0.329 | 0.328 | 0.331 | 0.322 | 0.309 | 10.88 |
| 62)   | Azobenzene         | 1.206          | 1.139 | 1.095 | 1.087 | 1.076 | 1.065 | 1.041 | 1.101 | 5.01  |
| 63) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 64)   | 4,6-Dinitro-2-...  |                | 0.055 | 0.072 | 0.087 | 0.094 | 0.102 | 0.108 | 0.086 | 23.08 |
| 65) c | n-Nitrosodiphe...  | 0.708          | 0.682 | 0.668 | 0.660 | 0.649 | 0.646 | 0.637 | 0.664 | 3.70  |
| 66)   | 4-Bromophenyl-...  | 0.300          | 0.291 | 0.287 | 0.287 | 0.284 | 0.290 | 0.285 | 0.289 | 1.83  |
| 67)   | Hexachlorobenzene  | 0.307          | 0.296 | 0.295 | 0.294 | 0.291 | 0.297 | 0.290 | 0.296 | 1.93  |
| 68)   | Atrazine           | 0.279          | 0.266 | 0.262 | 0.258 | 0.250 | 0.251 | 0.241 | 0.258 | 4.81  |
| 69) C | Pentachlorophenol  | 0.163          | 0.191 | 0.207 | 0.212 | 0.211 | 0.219 | 0.220 | 0.203 | 10.00 |
| 70)   | Phenanthrene       | 1.272          | 1.195 | 1.137 | 1.119 | 1.084 | 1.079 | 1.038 | 1.132 | 7.00  |
| 71)   | Anthracene         | 1.290          | 1.190 | 1.158 | 1.126 | 1.093 | 1.090 | 1.044 | 1.142 | 7.10  |
| 72)   | Carbazole          | 1.121          | 1.079 | 1.020 | 1.004 | 0.964 | 0.967 | 0.918 | 1.011 | 6.97  |
| 73)   | Di-n-butylphth...  | 1.248          | 1.200 | 1.141 | 1.116 | 1.072 | 1.064 | 1.020 | 1.123 | 7.12  |
| 74) C | Fluoranthene       | 1.648          | 1.513 | 1.411 | 1.358 | 1.298 | 1.281 | 1.211 | 1.389 | 10.82 |
| 75) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 76)   | Benzidine          | 0.706          | 0.689 | 0.666 | 0.633 | 0.573 | 0.563 | 0.491 | 0.617 | 12.63 |
| 77)   | Pyrene             | 1.416          | 1.366 | 1.325 | 1.263 | 1.220 | 1.205 | 1.147 | 1.278 | 7.50  |
| 78) S | Terphenyl-d14      | 1.029          | 0.980 | 0.903 | 0.859 | 0.813 | 0.799 | 0.744 | 0.875 | 11.63 |
| 79)   | Butylbenzylphth... |                | 0.415 | 0.428 | 0.431 | 0.429 | 0.436 | 0.434 | 0.429 | 1.80  |
| 80)   | Benzo(a)anthra...  | 1.384          | 1.329 | 1.284 | 1.254 | 1.228 | 1.235 | 1.191 | 1.272 | 5.19  |
| 81)   | 3,3'-Dichlorob...  | 0.517          | 0.516 | 0.504 | 0.495 | 0.484 | 0.480 | 0.458 | 0.493 | 4.31  |
| 82)   | Chrysene           | 1.312          | 1.246 | 1.220 | 1.191 | 1.167 | 1.161 | 1.129 | 1.204 | 5.11  |

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|       |                   |                |       |       |       |       |       |       |       |      |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|
| 83)   | Bis(2-ethylhex... | 0.640          | 0.619 | 0.620 | 0.624 | 0.617 | 0.620 | 0.609 | 0.621 | 1.53 |
| 84) c | Di-n-octyl pht... | 1.027          | 1.042 | 1.045 | 1.061 | 1.047 | 1.058 | 1.046 | 1.046 | 1.07 |
| 85)   | Indeno(1,2,3-c... | 1.488          | 1.521 | 1.536 | 1.558 | 1.546 | 1.578 | 1.583 | 1.544 | 2.14 |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |      |
| 87)   | Benzo(b)fluora... | 1.322          | 1.275 | 1.250 | 1.209 | 1.225 | 1.223 | 1.186 | 1.241 | 3.67 |
| 88)   | Benzo(k)fluora... | 1.346          | 1.279 | 1.241 | 1.234 | 1.221 | 1.194 | 1.182 | 1.242 | 4.50 |
| 89) C | Benzo(a)pyrene    | 1.262          | 1.217 | 1.184 | 1.175 | 1.174 | 1.167 | 1.143 | 1.189 | 3.29 |
| 90)   | Dibenzo(a,h)an... | 1.254          | 1.254 | 1.224 | 1.214 | 1.226 | 1.217 | 1.207 | 1.228 | 1.53 |
| 91)   | Benzo(g,h,i)pe... | 1.448          | 1.460 | 1.442 | 1.440 | 1.456 | 1.452 | 1.450 | 1.450 | 0.49 |

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(#) = Out of Range