

Method Path : Z:\HPCHEM1\BNA\_F\METHODS\  
 Method File : 8270-BF042716.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Wed Apr 27 14:20:52 2016  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BF086414.D 10 =BF086415.D 25 =BF086416.D 40 =BF086417.D 50 =BF086418.D 60 =BF086419.D 80 =BF086420.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.675          | 0.622 | 0.607 | 0.578 | 0.596 | 0.596 | 0.591 | 0.609 | 5.28  |
| 3)    | Pyridine              | 1.166          | 1.362 | 1.574 | 1.369 | 1.480 | 1.594 | 1.545 | 1.442 | 10.61 |
| 4)    | n-Nitrosodimet...     | 0.657          | 0.700 | 0.842 | 0.883 | 0.891 | 0.886 | 0.894 | 0.822 | 12.21 |
| 5) S  | 2-Fluorophenol        | 0.978          | 1.221 | 1.276 | 1.123 | 1.177 | 1.109 | 1.232 | 1.160 | 8.61  |
| 6)    | Aniline               | 1.514          | 1.983 | 2.102 | 2.071 | 2.060 | 2.028 | 1.950 | 1.958 | 10.35 |
| 7) S  | Phenol-d6             | 1.611          | 1.813 | 1.665 | 1.549 | 1.579 | 1.627 | 1.484 | 1.618 | 6.41  |
| 8)    | 2-Chlorophenol        | 1.613          | 1.578 | 1.461 | 1.419 | 1.426 | 1.325 | 1.288 | 1.444 | 8.30  |
| 9)    | Benzaldehyde          | 1.107          | 1.061 | 0.884 | 0.881 | 0.774 |       | 0.941 |       | 14.70 |
| 10) C | Phenol                | 2.088          | 2.014 | 1.800 | 1.622 | 1.656 | 1.892 | 1.566 | 1.805 | 11.16 |
| 11)   | bis(2-Chloroet...     | 1.757          | 1.724 | 1.583 | 1.476 | 1.452 | 1.416 | 1.518 | 1.561 | 8.56  |
| 12)   | 1,3-Dichlorobe...     | 1.704          | 1.680 | 1.585 | 1.464 | 1.483 | 1.500 | 1.458 | 1.553 | 6.68  |
| 13) C | 1,4-Dichlorobe...     | 1.822          | 1.774 | 1.665 | 1.471 | 1.539 | 1.480 | 1.468 | 1.603 | 9.39  |
| 14)   | 1,2-Dichlorobe...     | 1.746          | 1.552 | 1.481 | 1.491 | 1.403 | 1.148 | 1.470 |       | 13.31 |
| 15)   | Benzyl Alcohol        | 0.814          | 1.058 | 1.092 | 1.101 | 1.109 | 1.039 | 0.953 | 1.024 | 10.44 |
| 16)   | 2,2'-oxybis(1-...     | 3.532          | 3.317 | 3.349 | 3.055 | 3.020 | 2.925 | 2.671 | 3.124 | 9.37  |
| 17)   | 2-Methylphenol        | 1.129          | 1.268 | 1.172 | 1.173 | 1.191 | 1.127 | 1.111 | 1.167 | 4.54  |
| 18)   | Hexachloroethane      | 0.675          | 0.608 | 0.607 | 0.571 | 0.588 | 0.594 | 0.550 | 0.599 | 6.56  |
| 19) P | n-Nitroso-di-n...     | 1.225          | 1.165 | 1.076 | 0.981 | 0.988 | 1.078 | 0.976 | 1.070 | 9.07  |
| 20)   | 3+4-Methylphenols     | 1.310          | 1.441 | 1.439 | 1.337 | 1.360 | 1.323 | 1.119 | 1.333 | 8.12  |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.412          | 0.465 | 0.475 | 0.435 | 0.443 | 0.437 | 0.403 | 0.439 | 5.93  |
| 23) S | Nitrobenzene-d5       | 0.341          | 0.395 | 0.382 | 0.374 | 0.380 | 0.355 | 0.371 | 0.371 | 4.89  |
| 24)   | Nitrobenzene          | 0.344          | 0.399 | 0.429 | 0.368 | 0.366 | 0.411 | 0.355 | 0.382 | 8.27  |
| 25)   | Isophorone            | 0.740          | 0.693 | 0.750 | 0.705 | 0.708 | 0.711 | 0.690 | 0.714 | 3.20  |
| 26) C | 2-Nitrophenol         | 0.155          | 0.182 | 0.186 | 0.187 | 0.179 | 0.164 | 0.176 |       | 7.48  |
| 27)   | 2,4-Dimethylph...     | 0.294          | 0.316 | 0.307 | 0.320 | 0.323 | 0.315 | 0.282 | 0.308 | 4.90  |
| 28)   | bis(2-Chloroet...     | 0.377          | 0.394 | 0.433 | 0.381 | 0.381 | 0.369 | 0.389 | 0.389 | 5.45  |
| 29) C | 2,4-Dichloroph...     | 0.215          | 0.266 | 0.286 | 0.262 | 0.267 | 0.262 | 0.263 | 0.260 | 8.39  |
| 30)   | 1,2,4-Trichlor...     | 0.321          | 0.322 | 0.309 | 0.295 | 0.290 | 0.292 | 0.283 | 0.302 | 5.18  |
| 31)   | Naphthalene           | 1.156          | 1.177 | 1.089 | 0.919 | 0.917 | 0.951 | 0.915 | 1.018 | 11.64 |
| 32)   | Benzoic acid          | 0.061          | 0.131 | 0.183 | 0.186 | 0.192 | 0.206 | 0.160 |       | 34.20 |
| 33)   | 4-Chloroaniline       | 0.329          | 0.386 | 0.417 | 0.396 | 0.404 | 0.380 | 0.356 | 0.381 | 7.86  |
| 34) C | Hexachlorobuta...     | 0.178          | 0.172 | 0.181 | 0.168 | 0.171 | 0.165 | 0.149 | 0.169 | 6.37  |
| 35)   | Caprolactam           | 0.061          | 0.082 | 0.089 | 0.091 | 0.092 | 0.095 | 0.096 | 0.087 | 13.98 |
| 36) C | 4-Chloro-3-met...     | 0.284          | 0.289 | 0.333 | 0.295 | 0.292 | 0.322 | 0.270 | 0.298 | 7.45  |
| 37)   | 2-Methylnaphth...     | 0.606          | 0.632 | 0.650 | 0.619 | 0.613 | 0.580 | 0.504 | 0.601 | 7.97  |

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|       |                    |                |       |       |       |       |       |       |       |       |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 39)   | 1,2,4,5-Tetrac...  | 0.628          | 0.668 | 0.573 | 0.522 | 0.515 | 0.555 | 0.546 | 0.572 | 9.81  |
| 40) P | Hexachlorocycl...  |                | 0.269 | 0.278 | 0.274 | 0.287 | 0.294 | 0.305 | 0.284 | 4.75  |
| 41) S | 2,4,6-Tribromo...  | 0.189          | 0.236 | 0.219 | 0.217 | 0.221 | 0.203 | 0.192 | 0.211 | 8.00  |
| 42) C | 2,4,6-Trichlor...  | 0.307          | 0.395 | 0.392 | 0.355 | 0.365 | 0.361 | 0.358 | 0.362 | 8.07  |
| 43)   | 2,4,5-Trichlor...  | 0.399          | 0.408 | 0.388 | 0.394 | 0.405 | 0.396 | 0.371 | 0.394 | 3.15  |
| 44) S | 2-Fluorobiphenyl   |                | 1.495 | 1.349 | 1.112 | 1.137 | 1.027 | 0.970 | 1.182 | 16.98 |
| 45)   | 1,1'-Biphenyl      | 1.930          | 1.954 | 1.682 | 1.583 | 1.640 | 1.571 | 1.343 | 1.672 | 12.77 |
| 46)   | 2-Chloronaphth...  | 1.417          | 1.440 | 1.268 | 1.217 | 1.265 | 1.217 | 1.073 | 1.271 | 9.91  |
| 47)   | 2-Nitroaniline     | 0.328          | 0.414 | 0.431 | 0.420 | 0.424 | 0.405 | 0.431 | 0.408 | 8.92  |
| 48)   | Acenaphthylene     | 2.429          | 2.285 | 2.002 | 1.900 | 1.957 | 1.779 | 1.556 | 1.987 | 14.84 |
| 49)   | Dimethylphthalate  | 1.727          | 1.662 | 1.607 | 1.356 | 1.384 | 1.517 | 1.287 | 1.506 | 11.14 |
| 50)   | 2,6-Dinitrotol...  | 0.256          | 0.325 | 0.345 | 0.325 | 0.322 | 0.337 | 0.267 | 0.311 | 11.17 |
| 51) C | Acenaphthene       | 1.494          | 1.462 | 1.293 | 1.228 | 1.261 | 1.131 | 1.064 | 1.276 | 12.43 |
| 52)   | 3-Nitroaniline     | 0.297          | 0.379 | 0.377 | 0.343 | 0.349 | 0.378 | 0.353 | 0.354 | 8.25  |
| 53) P | 2,4-Dinitrophenol  |                | 0.071 | 0.128 | 0.146 | 0.150 | 0.167 | 0.173 | 0.139 | 26.66 |
| 54)   | Dibenzofuran       | 1.910          | 1.773 | 1.635 | 1.551 | 1.570 | 1.460 | 1.265 | 1.595 | 13.11 |
| 55) P | 4-Nitrophenol      |                | 0.191 | 0.227 | 0.233 | 0.236 | 0.261 | 0.241 | 0.232 | 9.99  |
| 56)   | 2,4-Dinitrotol...  | 0.330          | 0.426 | 0.423 | 0.426 | 0.427 | 0.388 | 0.355 | 0.397 | 10.13 |
| 57)   | Fluorene           | 1.618          | 1.583 | 1.334 | 1.274 | 1.295 | 1.206 |       | 1.385 | 12.46 |
| 58)   | 2,3,4,6-Tetrac...  | 0.284          | 0.339 | 0.334 | 0.307 | 0.314 | 0.293 | 0.287 | 0.308 | 7.12  |
| 59)   | Diethylphthalate   | 1.698          | 1.513 | 1.531 | 1.251 | 1.293 | 1.362 | 1.329 | 1.425 | 11.24 |
| 60)   | 4-Chlorophenyl...  | 0.720          | 0.731 | 0.688 | 0.539 | 0.560 | 0.535 |       | 0.629 | 14.92 |
| 61)   | 4-Nitroaniline     | 0.254          | 0.370 | 0.376 | 0.351 | 0.358 | 0.369 | 0.342 | 0.346 | 12.21 |
| 62)   | Azobenzene         | 1.760          | 1.694 | 1.669 | 1.469 | 1.493 | 1.435 | 1.409 | 1.561 | 9.09  |
| 63) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 64)   | 4,6-Dinitro-2-...  |                | 0.091 | 0.110 | 0.122 | 0.118 | 0.145 | 0.118 | 0.117 | 14.89 |
| 65) c | n-Nitrosodiphe...  | 0.674          | 0.668 | 0.604 | 0.651 | 0.642 | 0.587 | 0.549 | 0.625 | 7.43  |
| 66)   | 4-Bromophenyl-...  | 0.197          | 0.207 | 0.210 | 0.221 | 0.217 | 0.204 | 0.188 | 0.206 | 5.54  |
| 67)   | Hexachlorobenzene  | 0.249          | 0.246 | 0.232 | 0.236 | 0.230 | 0.248 | 0.230 | 0.239 | 3.60  |
| 68)   | Atrazine           | 0.191          | 0.212 | 0.190 | 0.190 | 0.190 | 0.168 | 0.174 | 0.188 | 7.60  |
| 69) C | Pentachlorophenol  |                | 0.097 | 0.123 | 0.135 | 0.131 | 0.135 | 0.133 | 0.126 | 11.88 |
| 70)   | Phenanthrene       | 1.128          | 1.132 | 1.017 | 1.060 | 1.039 | 1.055 | 0.917 | 1.050 | 6.96  |
| 71)   | Anthracene         | 1.242          | 1.188 | 1.180 | 1.087 | 1.082 | 1.016 | 1.046 | 1.120 | 7.46  |
| 72)   | Carbazole          | 1.015          | 1.028 | 0.980 | 1.021 | 1.023 | 0.997 | 0.886 | 0.993 | 5.05  |
| 73)   | Di-n-butylphth...  | 1.072          | 1.188 | 1.242 | 1.194 | 1.162 | 1.060 | 0.955 | 1.125 | 8.87  |
| 74) C | Fluoranthene       | 1.122          | 1.122 | 1.146 | 1.051 | 1.059 | 0.962 | 0.954 | 1.059 | 7.30  |
| 75) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 76)   | Benzidine          | 0.613          | 0.787 | 0.787 | 0.714 | 0.720 | 0.616 | 0.572 | 0.687 | 12.68 |
| 77)   | Pyrene             | 1.573          | 1.481 | 1.541 | 1.461 | 1.504 | 1.241 | 1.287 | 1.441 | 8.85  |
| 78) S | Terphenyl-d14      | 1.018          | 0.993 | 0.985 | 0.858 | 0.901 | 0.763 | 0.837 | 0.908 | 10.44 |
| 79)   | Butylbenzylphth... | 0.522          | 0.625 | 0.639 | 0.622 | 0.658 | 0.652 | 0.651 | 0.624 | 7.55  |
| 80)   | Benzo(a)anthra...  | 1.175          | 1.145 | 1.099 | 0.999 | 1.057 | 1.038 | 0.951 | 1.066 | 7.44  |
| 81)   | 3,3'-Dichlorob...  | 0.677          | 0.796 | 0.828 | 0.701 | 0.737 | 0.636 | 0.614 | 0.713 | 11.16 |
| 82)   | Chrysene           | 1.302          | 1.291 | 1.287 | 1.115 | 1.203 | 0.930 | 0.985 | 1.159 | 13.22 |

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|       |                   |                |       |       |       |       |       |       |       |       |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)   | Bis(2-ethylhex... | 0.761          | 0.819 | 0.816 | 0.776 | 0.815 | 0.736 | 0.701 | 0.775 | 5.89  |
| 84) c | Di-n-octyl pht... | 1.002          | 1.196 | 1.365 | 1.240 | 1.356 | 1.215 | 1.119 | 1.213 | 10.54 |
| 85)   | Indeno(1,2,3-c... | 0.732          | 0.826 | 0.855 | 0.884 | 0.918 | 0.863 | 0.933 | 0.859 | 7.78  |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 87)   | Benzo(b)fluora... | 1.013          | 1.069 | 1.419 | 1.197 | 1.283 | 1.191 | 1.065 | 1.177 | 12.09 |
| 88)   | Benzo(k)fluora... | 1.478          | 1.453 | 1.072 | 1.125 | 1.115 | 1.167 | 1.181 | 1.227 | 13.59 |
| 89) C | Benzo(a)pyrene    | 1.181          | 1.132 | 1.124 | 1.076 | 1.101 | 1.101 | 1.061 | 1.111 | 3.57  |
| 90)   | Dibenzo(a,h)an... | 0.759          | 0.845 | 0.854 | 0.964 | 0.969 | 0.949 | 1.023 | 0.909 | 10.13 |
| 91)   | Benzo(g,h,i)pe... | 0.803          | 0.816 | 0.819 | 0.965 | 0.961 | 0.956 | 1.057 | 0.911 | 10.80 |

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(#) = Out of Range