



| t90/°C | E/μV | | | | | | | | | t90/°C | |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-----|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 9 |
| 0 | 0 | 26 | 52 | 78 | 104 | 130 | 156 | 182 | 208 | 235 | 0 |
| 10 | 261 | 287 | 313 | 340 | 366 | 393 | 419 | 446 | 472 | 499 | 10 |
| 20 | 525 | 552 | 578 | 605 | 632 | 659 | 685 | 712 | 739 | 766 | 20 |
| 30 | 793 | 820 | 847 | 874 | 901 | 928 | 955 | 983 | 1010 | 1037 | 30 |
| 40 | 1065 | 1092 | 1119 | 1147 | 1174 | 1202 | 1229 | 1257 | 1284 | 1312 | 40 |
| 50 | 1340 | 1368 | 1395 | 1423 | 1451 | 1479 | 1507 | 1535 | 1563 | 1591 | 50 |
| 60 | 1619 | 1647 | 1675 | 1703 | 1732 | 1760 | 1788 | 1817 | 1845 | 1873 | 60 |
| 70 | 1902 | 1930 | 1959 | 1988 | 2016 | 2045 | 2074 | 2102 | 2131 | 2160 | 70 |
| 80 | 2189 | 2218 | 2247 | 2276 | 2305 | 2334 | 2363 | 2392 | 2421 | 2450 | 80 |
| 90 | 2480 | 2509 | 2538 | 2568 | 2597 | 2626 | 2656 | 2685 | 2715 | 2744 | 90 |
| 100 | 2774 | 2804 | 2833 | 2863 | 2893 | 2923 | 2953 | 2983 | 3012 | 3042 | 100 |
| 110 | 3072 | 3102 | 3133 | 3163 | 3193 | 3223 | 3253 | 3283 | 3314 | 3344 | 110 |
| 120 | 3374 | 3405 | 3435 | 3466 | 3496 | 3527 | 3557 | 3588 | 3619 | 3649 | 120 |
| 130 | 3680 | 3711 | 3742 | 3772 | 3803 | 3834 | 3865 | 3896 | 3927 | 3958 | 130 |
| 140 | 3989 | 4020 | 4051 | 4083 | 4114 | 4145 | 4176 | 4208 | 4239 | 4270 | 140 |
| 150 | 4302 | 4333 | 4365 | 4396 | 4428 | 4459 | 4491 | 4523 | 4554 | 4586 | 150 |
| 160 | 4618 | 4650 | 4681 | 4713 | 4745 | 4777 | 4809 | 4841 | 4873 | 4905 | 160 |
| 170 | 4937 | 4969 | 5001 | 5033 | 5066 | 5098 | 5130 | 5162 | 5195 | 5227 | 170 |
| 180 | 5259 | 5292 | 5324 | 5357 | 5389 | 5422 | 5454 | 5487 | 5520 | 5552 | 180 |
| 190 | 5585 | 5618 | 5650 | 5683 | 5716 | 5749 | 5782 | 5815 | 5847 | 5880 | 190 |
| 200 | 5913 | 5946 | 5979 | 6013 | 6046 | 6079 | 6112 | 6145 | 6178 | 6211 | 200 |
| 210 | 6245 | 6278 | 6311 | 6345 | 6378 | 6411 | 6445 | 6478 | 6512 | 6545 | 210 |
| 220 | 6579 | 6612 | 6646 | 6680 | 6713 | 6747 | 6781 | 6814 | 6848 | 6882 | 220 |
| 230 | 6916 | 6949 | 6983 | 7017 | 7051 | 7085 | 7119 | 7153 | 7187 | 7221 | 230 |
| 240 | 7255 | 7289 | 7323 | 7357 | 7392 | 7426 | 7460 | 7494 | 7528 | 7563 | 240 |
| 250 | 7597 | 7631 | 7666 | 7700 | 7734 | 7769 | 7803 | 7838 | 7872 | 7907 | 250 |
| 260 | 7941 | 7976 | 8010 | 8045 | 8080 | 8114 | 8149 | 8184 | 8218 | 8253 | 260 |
| 270 | 8288 | 8323 | 8358 | 8392 | 8427 | 8462 | 8497 | 8532 | 8567 | 8602 | 270 |
| 280 | 8637 | 8672 | 8707 | 8742 | 8777 | 8812 | 8847 | 8882 | 8918 | 8953 | 280 |
| 290 | 8988 | 9023 | 9058 | 9094 | 9129 | 9164 | 9200 | 9235 | 9270 | 9306 | 290 |
| 300 | 9341 | 9377 | 9412 | 9448 | 9483 | 9519 | 9554 | 9590 | 9625 | 9661 | 300 |
| 310 | 9696 | 9732 | 9768 | 9803 | 9839 | 9875 | 9910 | 9946 | 9982 | 10018 | 310 |
| 320 | 10054 | 10089 | 10125 | 10161 | 10197 | 10233 | 10269 | 10305 | 10341 | 10377 | 320 |
| 330 | 10413 | 10449 | 10485 | 10521 | 10557 | 10593 | 10629 | 10665 | 10701 | 10737 | 330 |
| 340 | 10774 | 10810 | 10846 | 10882 | 10918 | 10955 | 10991 | 11027 | 11064 | 11100 | 340 |
| 350 | 11136 | 11173 | 11209 | 11245 | 11282 | 11318 | 11355 | 11391 | 11428 | 11464 | 350 |
| 360 | 11501 | 11537 | 11574 | 11610 | 11647 | 11683 | 11720 | 11757 | 11793 | 11830 | 360 |
| 370 | 11867 | 11903 | 11940 | 11977 | 12013 | 12050 | 12087 | 12124 | 12160 | 12197 | 370 |
| 380 | 12234 | 12271 | 12308 | 12345 | 12382 | 12418 | 12455 | 12492 | 12529 | 12566 | 380 |
| 390 | 12603 | 12640 | 12677 | 12714 | 12751 | 12788 | 12825 | 12862 | 12899 | 12937 | 390 |
| 400 | 12974 | 13011 | 13048 | 13085 | 13122 | 13159 | 13197 | 13234 | 13271 | 13308 | 400 |
| 410 | 13346 | 13383 | 13420 | 13457 | 13495 | 13532 | 13569 | 13607 | 13644 | 13682 | 410 |
| 420 | 13719 | 13756 | 13794 | 13831 | 13869 | 13906 | 13944 | 13981 | 14019 | 14056 | 420 |
| 430 | 14094 | 14131 | 14169 | 14206 | 14244 | 14281 | 14319 | 14356 | 14394 | 14432 | 430 |
| 440 | 14469 | 14507 | 14545 | 14582 | 14620 | 14658 | 14695 | 14733 | 14771 | 14809 | 440 |
| 450 | 14846 | 14884 | 14922 | 14960 | 14998 | 15035 | 15073 | 15111 | 15149 | 15187 | 450 |
| 460 | 15225 | 15262 | 15300 | 15338 | 15376 | 15414 | 15452 | 15490 | 15528 | 15566 | 460 |
| 470 | 15604 | 15642 | 15680 | 15718 | 15756 | 15794 | 15832 | 15870 | 15908 | 15946 | 470 |
| 480 | 15984 | 16022 | 16060 | 16099 | 16137 | 16175 | 16213 | 16251 | 16289 | 16327 | 480 |
| 490 | 16366 | 16404 | 16442 | 16480 | 16518 | 16557 | 16595 | 16633 | 16671 | 16710 | 490 |
| 500 | 16748 | 16786 | 16824 | 16863 | 16901 | 16939 | 16978 | 17016 | 17054 | 17093 | 500 |
| 510 | 17131 | 17169 | 17208 | 17246 | 17285 | 17323 | 17361 | 17400 | 17438 | 17477 | 510 |
| 520 | 17515 | 17554 | 17592 | 17630 | 17669 | 17707 | 17746 | 17784 | 17823 | 17861 | 520 |
| 530 | 17900 | 17938 | 17977 | 18016 | 18054 | 18093 | 18131 | 18170 | 18208 | 18247 | 530 |
| 540 | 18286 | 18324 | 18363 | 18401 | 18440 | 18479 | 18517 | 18556 | 18595 | 18633 | 540 |
| 550 | 18672 | 18711 | 18749 | 18788 | 18827 | 18865 | 18904 | 18943 | 18982 | 19020 | 550 |
| 560 | 19059 | 19098 | 19136 | 19175 | 19214 | 19253 | 19292 | 19330 | 19369 | 19408 | 560 |
| 570 | 19447 | 19485 | 19524 | 19563 | 19602 | 19641 | 19680 | 19718 | 19757 | 19796 | 570 |
| 580 | 19835 | 19874 | 19913 | 19952 | 19990 | 20029 | 20068 | 20107 | 20146 | 20185 | 580 |
| 590 | 20224 | 20263 | 20302 | 20341 | 20379 | 20418 | 20457 | 20496 | 20535 | 20574 | 590 |



| t90/°C | E/μV | | | | | | | | | t90/°C | |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 9 |
| 600 | 20613 | 20652 | 20691 | 20730 | 20769 | 20808 | 20847 | 20886 | 20925 | 20964 | 600 |
| 610 | 21003 | 21042 | 21081 | 21120 | 21159 | 21198 | 21237 | 21276 | 21315 | 21354 | 610 |
| 620 | 21393 | 21432 | 21471 | 21510 | 21549 | 21588 | 21628 | 21667 | 21706 | 21745 | 620 |
| 630 | 21784 | 21823 | 21862 | 21901 | 21940 | 21979 | 22018 | 22058 | 22097 | 22136 | 630 |
| 640 | 22175 | 22214 | 22253 | 22292 | 22331 | 22370 | 22410 | 22449 | 22488 | 22527 | 640 |
| 650 | 22566 | 22605 | 22644 | 22683 | 22722 | 22762 | 22801 | 22840 | 22879 | 22919 | 650 |
| 660 | 22958 | 22997 | 23036 | 23075 | 23115 | 23154 | 23193 | 23232 | 23271 | 23311 | 660 |
| 670 | 23350 | 23389 | 23428 | 23467 | 23507 | 23546 | 23585 | 23624 | 23663 | 23703 | 670 |
| 680 | 23742 | 23781 | 23820 | 23860 | 23899 | 23938 | 23977 | 24016 | 24056 | 24095 | 680 |
| 690 | 24134 | 24173 | 24213 | 24252 | 24291 | 24330 | 24370 | 24409 | 24448 | 24487 | 690 |
| 700 | 24527 | 24566 | 24605 | 24644 | 24684 | 24723 | 24762 | 24801 | 24841 | 24880 | 700 |
| 710 | 24919 | 24959 | 24998 | 25037 | 25076 | 25116 | 25155 | 25194 | 25233 | 25273 | 710 |
| 720 | 25312 | 25351 | 25391 | 25430 | 25469 | 25508 | 25548 | 25587 | 25626 | 25666 | 720 |
| 730 | 25705 | 25744 | 25783 | 25823 | 25862 | 25901 | 25941 | 25980 | 26019 | 26058 | 730 |
| 740 | 26098 | 26137 | 26176 | 26216 | 26255 | 26294 | 26333 | 26373 | 26412 | 26451 | 740 |
| 750 | 26491 | 26530 | 26569 | 26608 | 26648 | 26687 | 26726 | 26766 | 26805 | 26844 | 750 |
| 760 | 26883 | 26923 | 26962 | 27001 | 27041 | 27080 | 27119 | 27158 | 27198 | 27237 | 760 |
| 770 | 27276 | 27316 | 27355 | 27394 | 27433 | 27473 | 27512 | 27551 | 27591 | 27630 | 770 |
| 780 | 27669 | 27708 | 27748 | 27787 | 27826 | 27866 | 27905 | 27944 | 27983 | 28023 | 780 |
| 790 | 28062 | 28101 | 28140 | 28180 | 28219 | 28258 | 28298 | 28337 | 28376 | 28415 | 790 |
| 800 | 28455 | 28494 | 28533 | 28572 | 28612 | 28651 | 28690 | 28729 | 28769 | 28808 | 800 |
| 810 | 28847 | 28886 | 28926 | 28965 | 29004 | 29043 | 29083 | 29122 | 29161 | 29200 | 810 |
| 820 | 29240 | 29279 | 29318 | 29357 | 29396 | 29436 | 29475 | 29514 | 29553 | 29593 | 820 |
| 830 | 29632 | 29671 | 29710 | 29749 | 29789 | 29828 | 29867 | 29906 | 29945 | 29985 | 830 |
| 840 | 30024 | 30063 | 30102 | 30141 | 30181 | 30220 | 30259 | 30298 | 30337 | 30377 | 840 |
| 850 | 30416 | 30455 | 30494 | 30533 | 30572 | 30612 | 30651 | 30690 | 30729 | 30768 | 850 |
| 860 | 30807 | 30846 | 30886 | 30925 | 30964 | 31003 | 31042 | 31081 | 31120 | 31160 | 860 |
| 870 | 31199 | 31238 | 31277 | 31316 | 31355 | 31394 | 31433 | 31473 | 31512 | 31551 | 870 |
| 880 | 31590 | 31629 | 31668 | 31707 | 31746 | 31785 | 31824 | 31864 | 31903 | 31942 | 880 |
| 890 | 31981 | 32020 | 32059 | 32098 | 32137 | 32176 | 32215 | 32254 | 32293 | 32332 | 890 |
| 900 | 32371 | 32410 | 32449 | 32488 | 32527 | 32566 | 32606 | 32645 | 32684 | 32723 | 900 |
| 910 | 32762 | 32801 | 32840 | 32879 | 32918 | 32957 | 32996 | 33035 | 33074 | 33113 | 910 |
| 920 | 33151 | 33190 | 33229 | 33268 | 33307 | 33346 | 33385 | 33424 | 33463 | 33502 | 920 |
| 930 | 33541 | 33580 | 33619 | 33658 | 33697 | 33736 | 33775 | 33814 | 33853 | 33892 | 930 |
| 940 | 33930 | 33969 | 34008 | 34047 | 34086 | 34125 | 34164 | 34203 | 34242 | 34281 | 940 |
| 950 | 34319 | 34358 | 34397 | 34436 | 34474 | 34513 | 34552 | 34591 | 34630 | 34669 | 950 |
| 960 | 34707 | 34746 | 34785 | 34824 | 34862 | 34901 | 34940 | 34979 | 35017 | 35056 | 960 |
| 970 | 35095 | 35134 | 35173 | 35211 | 35250 | 35289 | 35327 | 35366 | 35405 | 35444 | 970 |
| 980 | 35482 | 35521 | 35560 | 35599 | 35637 | 35676 | 35715 | 35753 | 35792 | 35831 | 980 |
| 990 | 35869 | 35908 | 35947 | 35985 | 36024 | 36063 | 36101 | 36140 | 36178 | 36217 | 990 |
| 1000 | 36256 | 36294 | 36333 | 36371 | 36410 | 36449 | 36487 | 36526 | 36564 | 36603 | 1000 |
| 1010 | 36641 | 36680 | 36719 | 36757 | 36796 | 36834 | 36873 | 36911 | 36950 | 36988 | 1010 |
| 1020 | 37027 | 37065 | 37104 | 37142 | 37181 | 37219 | 37258 | 37296 | 37335 | 37373 | 1020 |
| 1030 | 37411 | 37450 | 37488 | 37527 | 37565 | 37604 | 37642 | 37680 | 37719 | 37757 | 1030 |
| 1040 | 37796 | 37834 | 37872 | 37911 | 37949 | 37987 | 38026 | 38064 | 38102 | 38141 | 1040 |
| 1050 | 38179 | 38217 | 38256 | 38294 | 38332 | 38371 | 38409 | 38447 | 38485 | 38524 | 1050 |
| 1060 | 38562 | 38600 | 38638 | 38677 | 38715 | 38753 | 38791 | 38830 | 38868 | 38906 | 1060 |
| 1070 | 38944 | 38982 | 39021 | 39059 | 39097 | 39135 | 39173 | 39211 | 39249 | 39288 | 1070 |
| 1080 | 39326 | 39364 | 39402 | 39440 | 39478 | 39516 | 39554 | 39592 | 39631 | 39669 | 1080 |
| 1090 | 39707 | 39745 | 39783 | 39821 | 39859 | 39897 | 39935 | 39973 | 40011 | 40049 | 1090 |
| 1100 | 40087 | 40125 | 40163 | 40201 | 40239 | 40277 | 40315 | 40352 | 40390 | 40428 | 1100 |
| 1110 | 40466 | 40504 | 40542 | 40580 | 40618 | 40656 | 40694 | 40731 | 40769 | 40807 | 1110 |
| 1120 | 40845 | 40883 | 40921 | 40958 | 40996 | 41034 | 41072 | 41110 | 41147 | 41185 | 1120 |
| 1130 | 41223 | 41261 | 41299 | 41336 | 41374 | 41412 | 41449 | 41487 | 41525 | 41562 | 1130 |
| 1140 | 41600 | 41638 | 41675 | 41713 | 41751 | 41788 | 41826 | 41864 | 41901 | 41939 | 1140 |
| 1150 | 41977 | 42014 | 42052 | 42089 | 42127 | 42165 | 42202 | 42240 | 42277 | 42315 | 1150 |
| 1160 | 42352 | 42390 | 42427 | 42465 | 42502 | 42540 | 42577 | 42615 | 42652 | 42690 | 1160 |
| 1170 | 42727 | 42765 | 42802 | 42839 | 42877 | 42914 | 42952 | 42989 | 43026 | 43064 | 1170 |
| 1180 | 43101 | 43138 | 43176 | 43213 | 43250 | 43288 | 43325 | 43362 | 43400 | 43437 | 1180 |
| 1190 | 43474 | 43511 | 43549 | 43586 | 43623 | 43660 | 43698 | 43735 | 43772 | 43809 | 1190 |



| | | E/ μ V | | | | | | | | | | |
|---------------------|-------|------------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|--|
| t ₉₀ /°C | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | t ₉₀ /°C | |
| 1200 | 43846 | 43884 | 43921 | 43958 | 43995 | 44032 | 44069 | 44106 | 44144 | 44181 | 1200 | |
| 1210 | 44218 | 44255 | 44292 | 44329 | 44366 | 44403 | 44440 | 44477 | 44515 | 44551 | 1210 | |
| 1220 | 44588 | 44625 | 44662 | 44699 | 44736 | 44773 | 44810 | 44847 | 44884 | 44921 | 1220 | |
| 1230 | 44958 | 44995 | 45032 | 45069 | 45105 | 45142 | 45179 | 45216 | 45253 | 45290 | 1230 | |
| 1240 | 45326 | 45363 | 45400 | 45437 | 45474 | 45510 | 45547 | 45584 | 45621 | 45657 | 1240 | |
| 1250 | 45694 | 45731 | 45767 | 45804 | 45841 | 45877 | 45914 | 45951 | 45987 | 46024 | 1250 | |
| 1260 | 46060 | 46097 | 46133 | 46170 | 46207 | 46243 | 46280 | 46316 | 46353 | 46389 | 1260 | |
| 1270 | 46425 | 46462 | 46498 | 46535 | 46571 | 46608 | 46644 | 46680 | 46717 | 46753 | 1270 | |
| 1280 | 46789 | 46826 | 46862 | 46898 | 46935 | 46971 | 47007 | 47043 | 47079 | 47116 | 1280 | |
| 1290 | 47152 | 47188 | 47224 | 47260 | 47296 | 47333 | 47369 | 47405 | 47441 | 47477 | 1290 | |
| 1300 | 47513 | | | | | | | | | | 1300 | |
| | | | | | | | | | | | | |
| t ₉₀ /°C | 0 | -1 | -2 | -3 | -4 | -5 | -6 | -7 | -8 | -9 | t ₉₀ /°C | |
| -270 | -4345 | | | | | | | | | | -270 | |
| -260 | -4336 | -4337 | -4339 | -4340 | -4341 | -4342 | -4343 | -4344 | -4344 | -4345 | -260 | |
| -250 | -4313 | -4316 | -4319 | -4321 | -4324 | -4326 | -4328 | -4330 | -4332 | -4334 | -250 | |
| -240 | -4277 | -4281 | -4285 | -4289 | -4293 | -4297 | -4300 | -4304 | -4307 | -4310 | -240 | |
| -230 | -4226 | -4232 | -4238 | -4243 | -4248 | -4254 | -4258 | -4263 | -4268 | -4273 | -230 | |
| -220 | -4162 | -4169 | -4176 | -4183 | -4189 | -4196 | -4202 | -4209 | -4215 | -4221 | -220 | |
| -210 | -4083 | -4091 | -4100 | -4108 | -4116 | -4124 | -4132 | -4140 | -4147 | -4154 | -210 | |
| -200 | -3990 | -4000 | -4010 | -4020 | -4029 | -4038 | -4048 | -4057 | -4066 | -4074 | -200 | |
| -190 | -3884 | -3896 | -3907 | -3918 | -3928 | -3939 | -3950 | -3960 | -3970 | -3980 | -190 | |
| -180 | -3766 | -3778 | -3790 | -3803 | -3815 | -3827 | -3838 | -3850 | -3862 | -3873 | -180 | |
| -170 | -3634 | -3648 | -3662 | -3675 | -3688 | -3702 | -3715 | -3728 | -3740 | -3753 | -170 | |
| -160 | -3491 | -3506 | -3521 | -3535 | -3550 | -3564 | -3578 | -3593 | -3607 | -3621 | -160 | |
| -150 | -3336 | -3352 | -3368 | -3384 | -3400 | -3415 | -3431 | -3446 | -3461 | -3476 | -150 | |
| -140 | -3171 | -3188 | -3205 | -3221 | -3238 | -3255 | -3271 | -3288 | -3304 | -3320 | -140 | |
| -130 | -2994 | -3012 | -3030 | -3048 | -3066 | -3084 | -3101 | -3119 | -3136 | -3153 | -130 | |
| -120 | -2808 | -2827 | -2846 | -2865 | -2883 | -2902 | -2921 | -2939 | -2958 | -2976 | -120 | |
| -110 | -2612 | -2632 | -2652 | -2672 | -2691 | -2711 | -2730 | -2750 | -2769 | -2789 | -110 | |
| -100 | -2407 | -2428 | -2448 | -2469 | -2490 | -2510 | -2531 | -2551 | -2571 | -2592 | -100 | |
| -90 | -2193 | -2215 | -2237 | -2258 | -2280 | -2301 | -2322 | -2344 | -2365 | -2386 | -90 | |
| -80 | -1972 | -1995 | -2017 | -2039 | -2062 | -2084 | -2106 | -2128 | -2150 | -2172 | -80 | |
| -70 | -1744 | -1767 | -1790 | -1813 | -1836 | -1859 | -1882 | -1905 | -1927 | -1950 | -70 | |
| -60 | -1509 | -1533 | -1557 | -1580 | -1604 | -1627 | -1651 | -1674 | -1698 | -1721 | -60 | |
| -50 | -1269 | -1293 | -1317 | -1341 | -1366 | -1390 | -1414 | -1438 | -1462 | -1485 | -50 | |
| -40 | -1023 | -1048 | -1072 | -1097 | -1122 | -1146 | -1171 | -1195 | -1220 | -1244 | -40 | |
| -30 | -772 | -798 | -823 | -848 | -873 | -898 | -923 | -948 | -973 | -998 | -30 | |
| -20 | -518 | -544 | -569 | -595 | -620 | -646 | -671 | -696 | -722 | -747 | -20 | |
| -10 | -260 | -286 | -312 | -338 | -364 | -390 | -415 | -441 | -467 | -492 | -10 | |
| 0 | 0 | -26 | -52 | -78 | -104 | -131 | -157 | -183 | -209 | -234 | 0 | |