## Fig.2d
| Fig. 2d. In-plane distance map of a vertical domain wall (VDW) in ScGaN | Unnamed: 1 | Unnamed: 2 |
| --- | --- | --- |
| atom\_x (Å) | atom\_y (Å) | in-plane distance (Å) |
| 0.94962 | 6.48009 | 2.9023 |
| 0.98966 | 1.36242 | 2.85861 |
| 1.1329 | 11.76312 | 2.89551 |
| 1.21095 | 16.95159 | 2.93172 |
| 1.29427 | 27.3564 | 2.90164 |
| 1.32009 | 22.16614 | 2.8832 |
| 2.07498 | 3.96903 | 2.90646 |
| 2.08764 | 9.02355 | 2.89341 |
| 2.19814 | 14.22846 | 2.89925 |
| 2.35001 | 19.46631 | 2.85534 |
| 2.37156 | 24.77665 | 2.87724 |
| 3.84827 | 1.34896 | 2.88367 |
| 3.85191 | 6.476 | 2.99067 |
| 4.02841 | 11.72617 | 2.88099 |
| 4.14268 | 16.94899 | 2.87161 |
| 4.19591 | 27.43051 | 2.90867 |
| 4.20329 | 22.19568 | 2.89211 |
| 4.98106 | 9.07245 | 2.89451 |
| 4.98144 | 4.0174 | 2.88543 |
| 5.0974 | 14.27371 | 2.8204 |
| 5.20535 | 19.54211 | 2.86234 |
| 5.2488 | 24.79537 | 2.89782 |
| 6.73194 | 1.34824 | 2.87138 |
| 6.84258 | 6.50729 | 2.85187 |
| 6.9094 | 11.72369 | 2.96147 |
| 7.01429 | 16.97534 | 2.9134 |
| 7.0954 | 22.26147 | 2.85306 |
| 7.10458 | 27.40878 | 2.86041 |
| 7.86687 | 4.01203 | 2.91702 |
| 7.87557 | 9.08992 | 2.84929 |
| 7.91779 | 14.3129 | 2.88926 |
| 8.06768 | 19.54886 | 2.91212 |
| 8.14661 | 24.76766 | 2.87111 |
| 9.60333 | 1.32504 | 2.91472 |
| 9.69445 | 6.44595 | 2.88061 |
| 9.87087 | 11.71743 | 2.83382 |
| 9.92768 | 16.93581 | 2.91161 |
| 9.94846 | 22.19863 | 2.88725 |
| 9.96498 | 27.50223 | 2.981 |
| 10.72486 | 9.09384 | 2.98324 |
| 10.78389 | 3.96387 | 2.87438 |
| 10.80706 | 14.31032 | 2.90607 |
| 10.9798 | 19.54012 | 2.89122 |
| 11.01773 | 24.7832 | 2.89909 |
| 12.51804 | 1.36074 | 2.91801 |
| 12.57506 | 6.47035 | 2.96052 |
| 12.70469 | 11.71231 | 2.85627 |
| 12.83571 | 22.27087 | 2.90795 |
| 12.8393 | 16.95408 | 2.85827 |
| 12.94598 | 27.51932 | 2.9304 |
| 13.65827 | 3.98465 | 2.92262 |
| 13.7081 | 9.0528 | 2.82669 |
| 13.71313 | 14.32234 | 2.91869 |
| 13.87101 | 19.60804 | 2.91298 |
| 13.91681 | 24.70095 | 2.89265 |
| 15.43606 | 1.38841 | 2.88498 |
| 15.53558 | 6.46112 | 2.86374 |
| 15.56096 | 11.75992 | 2.85588 |
| 15.69757 | 17.00113 | 2.87365 |
| 15.74365 | 22.21885 | 2.9054 |
| 15.87638 | 27.50478 | 2.90243 |
| 16.53479 | 9.06803 | 2.932 |
| 16.58089 | 3.99559 | 2.89183 |
| 16.63182 | 14.3087 | 2.91455 |
| 16.78399 | 19.55144 | 2.89492 |
| 16.80947 | 24.71436 | 2.99206 |
| 18.32103 | 1.35011 | 2.92523 |
| 18.39932 | 6.36326 | 2.90473 |
| 18.41684 | 11.66103 | 2.84928 |
| 18.57123 | 16.93261 | 2.92163 |
| 18.64905 | 22.17941 | 2.87266 |
| 18.77881 | 27.42265 | 2.81568 |
| 19.46679 | 9.06342 | 2.92029 |
| 19.47272 | 4.01501 | 2.84316 |
| 19.54637 | 14.33633 | 2.89745 |
| 19.67891 | 19.5371 | 2.82588 |
| 19.80153 | 24.70087 | 2.89317 |
| 21.24626 | 1.29776 | 2.88164 |
| 21.26612 | 11.65042 | 2.89067 |
| 21.30405 | 6.40635 | 2.79244 |
| 21.49285 | 16.91133 | 2.87154 |
| 21.52171 | 22.23574 | 2.93357 |
| 21.59449 | 27.40367 | 2.88908 |
| 22.31588 | 3.9466 | 2.95064 |
| 22.38707 | 9.05963 | 2.8441 |
| 22.44382 | 14.33918 | 2.87152 |
| 22.50479 | 19.55527 | 2.84537 |
| 22.69469 | 24.7668 | 2.75316 |
| 24.09648 | 6.45607 | 2.93847 |
| 24.12791 | 1.33357 | 2.93005 |
| 24.15679 | 11.68714 | 2.94596 |
| 24.36439 | 16.94242 | 2.85427 |
| 24.45528 | 22.16973 | 2.82022 |
| 24.48357 | 27.40495 | 2.84989 |
| 25.23117 | 9.10778 | 2.93195 |
| 25.26652 | 3.99372 | 2.8624 |
| 25.31534 | 14.33657 | 2.86086 |
| 25.35016 | 19.46935 | 2.91774 |
| 25.44786 | 24.71822 | 2.87964 |
| 27.03495 | 6.50659 | 3.09141 |
| 27.05796 | 1.39683 | 3.05057 |
| 27.10275 | 11.79471 | 3.17794 |
| 27.21866 | 17.07128 | 3.05884 |
| 27.2755 | 22.26003 | 3.0772 |
| 27.33346 | 27.45414 | 3.00523 |
| 28.12892 | 4.11351 | 3.08928 |
| 28.16312 | 9.04084 | 3.04346 |
| 28.1762 | 14.38164 | 3.15949 |
| 28.2679 | 19.48568 | 3.18639 |
| 28.3275 | 24.88928 | 3.08216 |
| 30.10853 | 2.1205 | 2.90934 |
| 30.12636 | 7.27552 | 2.91325 |
| 30.2775 | 17.6558 | 2.95855 |
| 30.28069 | 12.4654 | 2.88284 |
| 30.33869 | 28.08701 | 2.83999 |
| 30.3527 | 22.73395 | 2.86147 |
| 31.20659 | 9.90027 | 2.87651 |
| 31.21821 | 4.69279 | 2.83681 |
| 31.33569 | 15.01519 | 2.87606 |
| 31.40966 | 25.45933 | 2.90295 |
| 31.45429 | 20.17765 | 2.92352 |
| 33.01787 | 2.08944 | 2.82157 |
| 33.03962 | 7.34552 | 2.94142 |
| 33.16353 | 12.41565 | 2.862 |
| 33.17868 | 28.11494 | 2.95457 |
| 33.21417 | 22.78481 | 2.92586 |
| 33.23605 | 17.67376 | 2.92881 |
| 34.05501 | 4.73723 | 2.94971 |
| 34.0831 | 9.86346 | 2.93431 |
| 34.21174 | 15.05665 | 2.92368 |
| 34.31261 | 25.43078 | 2.90329 |
| 34.3778 | 20.25093 | 2.88876 |
| 35.83944 | 2.09021 | 2.9349 |
| 35.98103 | 7.24881 | 2.87351 |
| 36.02553 | 12.47738 | 2.9051 |
| 36.13324 | 28.159 | 2.91289 |
| 36.14003 | 22.86695 | 2.92921 |
| 36.16486 | 17.71692 | 2.86011 |
| 37.00473 | 4.70142 | 2.87349 |
| 37.01741 | 9.76866 | 2.87293 |
| 37.13542 | 15.01298 | 2.88737 |
| 37.2159 | 25.44651 | 2.90225 |
| 37.26656 | 20.24986 | 2.88743 |
| 38.77434 | 2.03826 | 2.87097 |
| 38.85455 | 7.31502 | 2.84552 |
| 38.93063 | 12.48079 | 2.887 |
| 39.02497 | 17.69705 | 2.93623 |
| 39.04613 | 28.11151 | 2.90684 |
| 39.06924 | 22.87747 | 2.94634 |
| 39.87822 | 4.7136 | 2.95271 |
| 39.89033 | 9.8345 | 2.9365 |
| 40.0228 | 15.06426 | 2.92923 |
| 40.11815 | 25.47731 | 2.97029 |
| 40.15399 | 20.25773 | 2.90924 |
| 41.64531 | 2.06415 | 2.94055 |
| 41.70006 | 7.24176 | 2.91524 |
| 41.81763 | 12.42424 | 2.8481 |
| 41.95298 | 28.13329 | 2.92231 |
| 41.9612 | 17.73624 | 2.85431 |
| 42.01558 | 22.88509 | 2.96475 |
| 42.82683 | 9.81315 | 2.91554 |
| 42.83093 | 4.74376 | 2.85944 |
| 42.95202 | 15.09352 | 2.90345 |
| 43.06323 | 20.28651 | 2.93852 |
| 43.08844 | 25.45779 | 2.91965 |
| 44.58586 | 2.07881 | 2.9036 |
| 44.6153 | 7.24817 | 2.91831 |
| 44.66573 | 12.41852 | 2.94616 |
| 44.81551 | 17.72035 | 2.98543 |
| 44.87529 | 28.14293 | 2.92561 |
| 44.98034 | 22.87428 | 2.94361 |
| 45.69037 | 4.76944 | 2.94074 |
| 45.74237 | 9.85301 | 2.85359 |
| 45.85547 | 15.05805 | 2.89514 |
| 46.00175 | 20.25466 | 2.88139 |
| 46.0081 | 25.41152 | 2.90031 |
| 47.48945 | 2.03391 | 2.88117 |
| 47.53361 | 7.26191 | 2.93563 |
| 47.6119 | 12.47689 | 2.98108 |
| 47.80089 | 28.22337 | 2.93345 |
| 47.80094 | 17.7111 | 2.83518 |
| 47.92394 | 22.90324 | 2.86482 |
| 48.59596 | 9.77881 | 2.92747 |
| 48.63111 | 4.71229 | 2.91018 |
| 48.75062 | 15.0602 | 2.87759 |
| 48.88313 | 20.28816 | 2.8518 |
| 48.90841 | 25.48129 | 2.85595 |
| 50.37063 | 2.00035 | 2.94137 |
| 50.46924 | 7.28037 | 2.90969 |
| 50.59297 | 12.48018 | 2.81051 |
| 50.63612 | 17.79535 | 2.8967 |
| 50.73435 | 28.20114 | 2.87546 |
| 50.78877 | 22.8785 | 2.87268 |
| 51.52343 | 9.8516 | 2.91741 |
| 51.5413 | 4.71715 | 2.84022 |
| 51.62821 | 15.06376 | 2.87548 |
| 51.73493 | 20.2561 | 2.88131 |
| 51.76436 | 25.47581 | 2.86861 |
| 53.312 | 2.04122 | 2.83631 |
| 53.37892 | 7.25056 | 2.81744 |
| 53.40349 | 12.45406 | 2.87337 |
| 53.53282 | 17.79558 | 2.85609 |
| 53.60981 | 28.20625 | 2.79817 |
| 53.66145 | 22.85531 | 2.8361 |
| 54.38152 | 4.71418 | 2.8573 |
| 54.44084 | 9.85007 | 2.90707 |
| 54.50369 | 15.06189 | 2.85668 |
| 54.61624 | 20.30874 | 2.84433 |
| 54.63297 | 25.42152 | 2.86574 |
| 56.14831 | 2.05074 | 2.83631 |
| 56.19637 | 7.23478 | 2.81744 |
| 56.27686 | 12.48575 | 2.87337 |
| 56.38892 | 17.7373 | 2.85609 |
| 56.40798 | 28.21261 | 2.79817 |
| 56.49755 | 22.88252 | 2.8361 |
| 57.23882 | 4.65078 | 2.8573 |
| 57.34791 | 9.84979 | 2.90707 |
| 57.36037 | 15.0616 | 2.85668 |
| 57.46057 | 20.27617 | 2.84433 |
| 57.49871 | 25.44277 | 2.86574 |

## Fig.2f
| Fig. 2f. Dumbbell angle map for VDW in ScGaN | Unnamed: 1 | Unnamed: 2 |
| --- | --- | --- |
| atom\_x (Å) | atom\_y (Å) | Dumbbell angle (º) |
| 0.94962 | 6.48009 | -39.03551 |
| 0.98966 | 1.36242 | -36.8699 |
| 1.1329 | 11.76312 | -36.32683 |
| 1.21095 | 16.95159 | -31.86598 |
| 1.29427 | 27.3564 | -37.11686 |
| 1.32009 | 22.16614 | -36.8699 |
| 2.07498 | 3.96903 | -40.156 |
| 2.08764 | 9.02355 | -37.40536 |
| 2.19814 | 14.22846 | -40.46223 |
| 2.35001 | 19.46631 | -35.83765 |
| 2.37156 | 24.77665 | -31.70143 |
| 3.84827 | 1.34896 | -38.08877 |
| 3.85191 | 6.476 | -38.08877 |
| 4.02841 | 11.72617 | -37.11686 |
| 4.14268 | 16.94899 | -34.77783 |
| 4.19591 | 27.43051 | -37.87498 |
| 4.20329 | 22.19568 | -34.43899 |
| 4.98106 | 9.07245 | -38.23383 |
| 4.98144 | 4.0174 | -38.23383 |
| 5.0974 | 14.27371 | -40.156 |
| 5.20535 | 19.54211 | -35.21759 |
| 5.2488 | 24.79537 | -33.27489 |
| 6.73194 | 1.34824 | -37.34935 |
| 6.84258 | 6.50729 | -39.80557 |
| 6.9094 | 11.72369 | -38.65981 |
| 7.01429 | 16.97534 | -33.69007 |
| 7.0954 | 22.26147 | -28.92643 |
| 7.10458 | 27.40878 | -38.08877 |
| 7.86687 | 4.01203 | -40.156 |
| 7.87557 | 9.08992 | -40.3141 |
| 7.91779 | 14.3129 | -43.02507 |
| 8.06768 | 19.54886 | -34.87533 |
| 8.14661 | 24.76766 | -33.69007 |
| 9.60333 | 1.32504 | -36.63411 |
| 9.69445 | 6.44595 | -39.03551 |
| 9.87087 | 11.71743 | -38.23383 |
| 9.92768 | 16.93581 | -37.64762 |
| 9.94846 | 22.19863 | -35.09582 |
| 9.96498 | 27.50223 | -31.6075 |
| 10.72486 | 9.09384 | -41.05481 |
| 10.78389 | 3.96387 | -41.18593 |
| 10.80706 | 14.31032 | -41.98721 |
| 10.9798 | 19.54012 | -36.8699 |
| 11.01773 | 24.7832 | -34.0772 |
| 12.51804 | 1.36074 | -34.69515 |
| 12.57506 | 6.47035 | -36.38435 |
| 12.70469 | 11.71231 | -36.8699 |
| 12.83571 | 22.27087 | -31.6075 |
| 12.8393 | 16.95408 | -34.43899 |
| 12.94598 | 27.51932 | -30.73549 |
| 13.65827 | 3.98465 | -34.0772 |
| 13.7081 | 9.0528 | -39.47246 |
| 13.71313 | 14.32234 | -40.76361 |
| 13.87101 | 19.60804 | -29.93151 |
| 13.91681 | 24.70095 | -37.40536 |
| 15.43606 | 1.38841 | -35.09582 |
| 15.53558 | 6.46112 | -39.64417 |
| 15.56096 | 11.75992 | -30.73549 |
| 15.69757 | 17.00113 | -31.42957 |
| 15.74365 | 22.21885 | -31.18497 |
| 15.87638 | 27.50478 | -31.18497 |
| 16.53479 | 9.06803 | -39.98689 |
| 16.58089 | 3.99559 | -37.14669 |
| 16.63182 | 14.3087 | -37.99873 |
| 16.78399 | 19.55144 | -35.70669 |
| 16.80947 | 24.71436 | -39.09386 |
| 18.32103 | 1.35011 | -35.3948 |
| 18.39932 | 6.36326 | -39.03551 |
| 18.41684 | 11.66103 | -32.66091 |
| 18.57123 | 16.93261 | -32.9694 |
| 18.64905 | 22.17941 | -32.27564 |
| 18.77881 | 27.42265 | -31.42957 |
| 19.46679 | 9.06342 | -36.02737 |
| 19.47272 | 4.01501 | -37.40536 |
| 19.54637 | 14.33633 | -36.02737 |
| 19.67891 | 19.5371 | -31.70143 |
| 19.80153 | 24.70087 | -35.53768 |
| 21.24626 | 1.29776 | -37.11686 |
| 21.26612 | 11.65042 | -33.02387 |
| 21.30405 | 6.40635 | -40.85538 |
| 21.49285 | 16.91133 | -33.69007 |
| 21.52171 | 22.23574 | -27.14968 |
| 21.59449 | 27.40367 | -29.29136 |
| 22.31588 | 3.9466 | -36.02737 |
| 22.38707 | 9.05963 | -36.32683 |
| 22.44382 | 14.33918 | -32.47119 |
| 22.50479 | 19.55527 | -30.69972 |
| 22.69469 | 24.7668 | -30.46554 |
| 24.09648 | 6.45607 | -34.99202 |
| 24.12791 | 1.33357 | -33.34071 |
| 24.15679 | 11.68714 | -28.21736 |
| 24.36439 | 16.94242 | -31.86598 |
| 24.45528 | 22.16973 | -32.57406 |
| 24.48357 | 27.40495 | -30.73549 |
| 25.23117 | 9.10778 | -33.69007 |
| 25.26652 | 3.99372 | -31.42957 |
| 25.31534 | 14.33657 | -37.14669 |
| 25.35016 | 19.46935 | -36.25384 |
| 25.44786 | 24.71822 | -34.11447 |
| 27.03495 | 6.50659 | -35.3948 |
| 27.05796 | 1.39683 | -35.70669 |
| 27.10275 | 11.79471 | -27.14968 |
| 27.21866 | 17.07128 | -26.56505 |
| 27.2755 | 22.26003 | -20.55605 |
| 27.33346 | 27.45414 | -25.34618 |
| 28.12892 | 4.11351 | -32.00538 |
| 28.16312 | 9.04084 | -39.28941 |
| 28.1762 | 14.38164 | -30.69972 |
| 28.2679 | 19.48568 | -32.82854 |
| 28.3275 | 24.88928 | -22.98872 |
| 30.10853 | 2.1205 | 36.11934 |
| 30.12636 | 7.27552 | 31.86598 |
| 30.2775 | 17.6558 | 23.38522 |
| 30.28069 | 12.4654 | 31.70143 |
| 30.33869 | 28.08701 | 25.9423 |
| 30.3527 | 22.73395 | 19.35899 |
| 31.20659 | 9.90027 | 34.87533 |
| 31.21821 | 4.69279 | 32.1523 |
| 31.33569 | 15.01519 | 25.90651 |
| 31.40966 | 25.45933 | 30.96376 |
| 31.45429 | 20.17765 | 23.80594 |
| 33.01787 | 2.08944 | 35.53768 |
| 33.03962 | 7.34552 | 40.46223 |
| 33.16353 | 12.41565 | 33.27489 |
| 33.17868 | 28.11494 | 28.39302 |
| 33.21417 | 22.78481 | 24.10223 |
| 33.23605 | 17.67376 | 26.56505 |
| 34.05501 | 4.73723 | 32.47119 |
| 34.0831 | 9.86346 | 34.0772 |
| 34.21174 | 15.05665 | 27.89727 |
| 34.31261 | 25.43078 | 22.61986 |
| 34.3778 | 20.25093 | 25.27772 |
| 35.83944 | 2.09021 | 33.34071 |
| 35.98103 | 7.24881 | 37.40536 |
| 36.02553 | 12.47738 | 33.31063 |
| 36.13324 | 28.159 | 30.73549 |
| 36.14003 | 22.86695 | 29.0546 |
| 36.16486 | 17.71692 | 29.19749 |
| 37.00473 | 4.70142 | 30.73549 |
| 37.01741 | 9.76866 | 30.46554 |
| 37.13542 | 15.01298 | 25.27772 |
| 37.2159 | 25.44651 | 24.56717 |
| 37.26656 | 20.24986 | 27.8241 |
| 38.77434 | 2.03826 | 32.1523 |
| 38.85455 | 7.31502 | 41.18593 |
| 38.93063 | 12.48079 | 38.23383 |
| 39.02497 | 17.69705 | 29.74488 |
| 39.04613 | 28.11151 | 32.1523 |
| 39.06924 | 22.87747 | 30.73549 |
| 39.87822 | 4.7136 | 34.0772 |
| 39.89033 | 9.8345 | 30.25644 |
| 40.0228 | 15.06426 | 29.0546 |
| 40.11815 | 25.47731 | 27.21611 |
| 40.15399 | 20.25773 | 27.8241 |
| 41.64531 | 2.06415 | 30.73549 |
| 41.70006 | 7.24176 | 33.69007 |
| 41.81763 | 12.42424 | 35.21759 |
| 41.95298 | 28.13329 | 31.86598 |
| 41.9612 | 17.73624 | 34.0772 |
| 42.01558 | 22.88509 | 29.74488 |
| 42.82683 | 9.81315 | 27.25533 |
| 42.83093 | 4.74376 | 30.06858 |
| 42.95202 | 15.09352 | 26.56505 |
| 43.06323 | 20.28651 | 27.8241 |
| 43.08844 | 25.45779 | 25.9423 |
| 44.58586 | 2.07881 | 34.43899 |
| 44.6153 | 7.24817 | 33.31063 |
| 44.66573 | 12.41852 | 30.96376 |
| 44.81551 | 17.72035 | 30.25644 |
| 44.87529 | 28.14293 | 33.31063 |
| 44.98034 | 22.87428 | 32.00538 |
| 45.69037 | 4.76944 | 31.86598 |
| 45.74237 | 9.85301 | 30.73549 |
| 45.85547 | 15.05805 | 25.97439 |
| 46.00175 | 20.25466 | 25.27772 |
| 46.0081 | 25.41152 | 24.10223 |
| 47.48945 | 2.03391 | 32.1523 |
| 47.53361 | 7.26191 | 34.43899 |
| 47.6119 | 12.47689 | 34.0772 |
| 47.80089 | 28.22337 | 34.77783 |
| 47.80094 | 17.7111 | 34.87533 |
| 47.92394 | 22.90324 | 35.36246 |
| 48.59596 | 9.77881 | 27.25533 |
| 48.63111 | 4.71229 | 30.52971 |
| 48.75062 | 15.0602 | 23.96249 |
| 48.88313 | 20.28816 | 25.90651 |
| 48.90841 | 25.48129 | 25.90651 |
| 50.37063 | 2.00035 | 30.25644 |
| 50.46924 | 7.28037 | 37.40536 |
| 50.59297 | 12.48018 | 38.8845 |
| 50.63612 | 17.79535 | 35.53768 |
| 50.73435 | 28.20114 | 36.02737 |
| 50.78877 | 22.8785 | 35.36246 |
| 51.52343 | 9.8516 | 30.46554 |
| 51.5413 | 4.71715 | 33.31063 |
| 51.62821 | 15.06376 | 23.96249 |
| 51.73493 | 20.2561 | 27.21611 |
| 51.76436 | 25.47581 | 29.19749 |
| 53.312 | 2.04122 | 34.50852 |
| 53.37892 | 7.25056 | 39.28941 |
| 53.40349 | 12.45406 | 38.8845 |
| 53.53282 | 17.79558 | 36.32683 |
| 53.60981 | 28.20625 | 36.02737 |
| 53.66145 | 22.85531 | 32.82854 |
| 54.38152 | 4.71418 | 30.96376 |
| 54.44084 | 9.85007 | 27.14968 |
| 54.50369 | 15.06189 | 26.56505 |
| 54.61624 | 20.30874 | 33.31063 |
| 54.63297 | 25.42152 | 24.67686 |
| 56.14831 | 2.05074 | 36.32683 |
| 56.19637 | 7.23478 | 32.57406 |
| 56.27686 | 12.48575 | 34.43899 |
| 56.38892 | 17.7373 | 37.14669 |
| 56.40798 | 28.21261 | 32.27564 |
| 56.49755 | 22.88252 | 32.47119 |
| 57.23882 | 4.65078 | 33.31063 |
| 57.34791 | 9.84979 | 31.86598 |
| 57.36037 | 15.0616 | 33.69007 |
| 57.46057 | 20.27617 | 27.97947 |
| 57.49871 | 25.44277 | 31.42957 |

## Fig.2h
| Fig. 2h. Intensity profile of the selected region in Fig.2g | Unnamed: 1 |
| --- | --- |
| Distance (Å) | Normalized Intensity (a.u.) |
| 0 | 0.04552 |
| 0.0766 | 0.04973 |
| 0.1532 | 0.0806 |
| 0.2298 | 0.13573 |
| 0.3063 | 0.21512 |
| 0.3829 | 0.30945 |
| 0.4595 | 0.41875 |
| 0.5361 | 0.52934 |
| 0.6127 | 0.64124 |
| 0.6893 | 0.74034 |
| 0.7659 | 0.82666 |
| 0.8425 | 0.89037 |
| 0.919 | 0.93148 |
| 0.9956 | 0.94823 |
| 1.0722 | 0.94062 |
| 1.1488 | 0.91569 |
| 1.2254 | 0.87344 |
| 1.302 | 0.82639 |
| 1.3786 | 0.77455 |
| 1.4552 | 0.72977 |
| 1.5317 | 0.69206 |
| 1.6083 | 0.66667 |
| 1.6849 | 0.65361 |
| 1.7615 | 0.64894 |
| 1.8381 | 0.65265 |
| 1.9147 | 0.65418 |
| 1.9913 | 0.65353 |
| 2.0679 | 0.63993 |
| 2.1444 | 0.61338 |
| 2.221 | 0.56956 |
| 2.2976 | 0.50848 |
| 2.3742 | 0.43518 |
| 2.4508 | 0.34965 |
| 2.5274 | 0.26407 |
| 2.604 | 0.17843 |
| 2.6806 | 0.10648 |
| 2.7571 | 0.04823 |
| 2.8337 | 0.01371 |
| 2.9103 | 0.00291 |
| 2.9869 | 0.01929 |
| 3.0635 | 0.06283 |
| 3.1401 | 0.12997 |
| 3.2167 | 0.22071 |
| 3.2933 | 0.32536 |
| 3.3698 | 0.44392 |
| 3.4464 | 0.56254 |
| 3.523 | 0.68122 |
| 3.5996 | 0.78553 |
| 3.6762 | 0.87548 |
| 3.7528 | 0.94106 |
| 3.8294 | 0.98228 |
| 3.906 | 0.99778 |
| 3.9825 | 0.98756 |
| 4.0591 | 0.95959 |
| 4.1357 | 0.91386 |
| 4.2123 | 0.86364 |
| 4.2889 | 0.80895 |
| 4.3655 | 0.76165 |
| 4.4421 | 0.72175 |
| 4.5187 | 0.6939 |
| 4.5952 | 0.67811 |
| 4.6718 | 0.66995 |
| 4.7484 | 0.66943 |
| 4.825 | 0.66608 |
| 4.9016 | 0.6599 |
| 4.9782 | 0.64074 |
| 5.0548 | 0.60862 |
| 5.1314 | 0.56 |
| 5.2079 | 0.49488 |
| 5.2845 | 0.41897 |
| 5.3611 | 0.33228 |
| 5.4377 | 0.24721 |
| 5.5143 | 0.16377 |
| 5.5909 | 0.09512 |
| 5.6675 | 0.04125 |
| 5.744 | 0.01057 |
| 5.8206 | 0.00307 |
| 5.8972 | 0.02017 |
| 5.9738 | 0.06186 |
| 6.0504 | 0.12369 |
| 6.127 | 0.20565 |
| 6.2036 | 0.2997 |
| 6.2802 | 0.40586 |
| 6.3568 | 0.5142 |
| 6.4333 | 0.62474 |
| 6.5099 | 0.72683 |
| 6.5865 | 0.82048 |
| 6.6631 | 0.89618 |
| 6.7397 | 0.95391 |
| 6.8163 | 0.98852 |
| 6.8929 | 1 |
| 6.9694 | 0.99057 |
| 7.046 | 0.96024 |
| 7.1226 | 0.91867 |
| 7.1992 | 0.86587 |
| 7.2758 | 0.81452 |
| 7.3524 | 0.76463 |
| 7.429 | 0.72483 |
| 7.5056 | 0.69513 |
| 7.5821 | 0.67489 |
| 7.6587 | 0.66411 |
| 7.7353 | 0.65358 |
| 7.8119 | 0.64328 |
| 7.8885 | 0.62203 |
| 7.9651 | 0.58984 |
| 8.0417 | 0.54183 |
| 8.1183 | 0.47798 |
| 8.1949 | 0.40366 |
| 8.2714 | 0.31887 |
| 8.348 | 0.23619 |
| 8.4246 | 0.15561 |
| 8.5012 | 0.08968 |
| 8.5778 | 0.03839 |
| 8.6544 | 0.0085 |
| 8.731 | 0 |
| 8.8075 | 0.013 |
| 8.8841 | 0.04751 |
| 8.9607 | 0.09971 |
| 9.0373 | 0.1696 |
| 9.1139 | 0.25161 |
| 9.1905 | 0.34573 |
| 9.2671 | 0.44439 |
| 9.3437 | 0.54759 |
| 9.4202 | 0.64508 |
| 9.4968 | 0.73685 |
| 9.5734 | 0.81219 |
| 9.65 | 0.87109 |
| 9.7266 | 0.90741 |
| 9.8032 | 0.92115 |
| 9.8798 | 0.91499 |
| 9.9563 | 0.88894 |
| 10.0329 | 0.85381 |
| 10.1096 | 0.8096 |
| 10.1861 | 0.76917 |
| 10.2627 | 0.73252 |
| 10.3393 | 0.70688 |
| 10.4158 | 0.69226 |
| 10.4925 | 0.68611 |
| 10.5691 | 0.68843 |
| 10.6456 | 0.68886 |
| 10.7222 | 0.6874 |
| 10.7988 | 0.67262 |
| 10.8754 | 0.64451 |
| 10.952 | 0.59805 |
| 11.0286 | 0.53325 |
| 11.1051 | 0.45538 |
| 11.1817 | 0.36443 |
| 11.2584 | 0.27385 |
| 11.335 | 0.18365 |
| 11.4115 | 0.10866 |
| 11.4881 | 0.04889 |
| 11.5647 | 0.01346 |
| 11.6413 | 0.00237 |

## Fig.2j
| Fig. 2j. Projected polarization vector distribution across the VDW. Scale bar: 1C/m2 = 1.5 Å | Unnamed: 1 | Unnamed: 2 | Unnamed: 3 |
| --- | --- | --- | --- |
| Xstart (Å) | Ystart (Å) | Xend (Å) | Yend (Å) |
| 22.31588 | 3.9466 | 22.30539 | 1.72536 |
| 10.78389 | 3.96387 | 10.82328 | 1.48214 |
| 2.07498 | 3.96903 | 2.09455 | 1.58641 |
| 13.65827 | 3.98465 | 13.67518 | 1.92488 |
| 25.26652 | 3.99372 | 25.3936 | 2.12547 |
| 16.58089 | 3.99559 | 16.66905 | 1.71938 |
| 7.86687 | 4.01203 | 7.81661 | 1.71423 |
| 19.47272 | 4.01501 | 19.57464 | 1.85115 |
| 4.98144 | 4.0174 | 5.04256 | 1.75844 |
| 28.12892 | 4.11351 | 28.10625 | 2.88191 |
| 31.21821 | 4.69279 | 31.35681 | 6.62926 |
| 37.00473 | 4.70142 | 37.23144 | 6.71416 |
| 48.63111 | 4.71229 | 48.96506 | 6.61245 |
| 39.87822 | 4.7136 | 40.0983 | 6.9306 |
| 54.38152 | 4.71418 | 54.64165 | 6.92756 |
| 51.5413 | 4.71715 | 51.82246 | 6.90017 |
| 34.05501 | 4.73723 | 34.13784 | 6.96073 |
| 42.83093 | 4.74376 | 43.22363 | 6.83899 |
| 45.69037 | 4.76944 | 46.00603 | 6.96356 |
| 18.39932 | 6.36326 | 18.02184 | 3.7332 |
| 21.30405 | 6.40635 | 21.00087 | 3.8225 |
| 9.69445 | 6.44595 | 9.2844 | 3.71815 |
| 24.09648 | 6.45607 | 23.58646 | 4.01497 |
| 15.53558 | 6.46112 | 15.2854 | 3.9002 |
| 12.57506 | 6.47035 | 12.17848 | 4.08224 |
| 3.85191 | 6.476 | 3.42778 | 3.90095 |
| 27.03495 | 6.50659 | 26.54642 | 4.15652 |
| 6.84258 | 6.50729 | 6.61747 | 4.038 |
| 56.19637 | 7.23478 | 55.98112 | 9.2588 |
| 41.70006 | 7.24176 | 41.4748 | 9.05835 |
| 44.6153 | 7.24817 | 44.46316 | 9.226 |
| 35.98103 | 7.24881 | 35.94673 | 9.31112 |
| 53.37892 | 7.25056 | 53.41081 | 9.33765 |
| 47.53361 | 7.26191 | 47.3971 | 9.1698 |
| 30.12636 | 7.27552 | 29.91139 | 8.64911 |
| 50.46924 | 7.28037 | 50.34249 | 9.33116 |
| 38.85455 | 7.31502 | 38.83195 | 9.73466 |
| 33.03962 | 7.34552 | 32.8537 | 9.79309 |
| 2.08764 | 9.02355 | 2.15094 | 6.5862 |
| 28.16312 | 9.04084 | 28.06442 | 7.21106 |
| 13.7081 | 9.0528 | 13.74731 | 6.66082 |
| 22.38707 | 9.05963 | 22.50195 | 6.5173 |
| 19.46679 | 9.06342 | 19.42428 | 6.86766 |
| 16.53479 | 9.06803 | 16.38033 | 6.72449 |
| 4.98106 | 9.07245 | 4.951 | 6.65551 |
| 7.87557 | 9.08992 | 7.84145 | 6.61084 |
| 10.72486 | 9.09384 | 10.54632 | 6.70341 |
| 25.23117 | 9.10778 | 25.23479 | 7.12983 |
| 37.01741 | 9.76866 | 37.14739 | 11.59948 |
| 48.59596 | 9.77881 | 48.6307 | 11.37378 |
| 42.82683 | 9.81315 | 42.96466 | 11.71255 |
| 39.89033 | 9.8345 | 40.03343 | 11.56716 |
| 54.44084 | 9.85007 | 54.84012 | 11.72751 |
| 51.52343 | 9.8516 | 51.73787 | 11.92013 |
| 45.74237 | 9.85301 | 45.99808 | 11.63277 |
| 34.0831 | 9.86346 | 34.1502 | 11.81823 |
| 31.20659 | 9.90027 | 31.21316 | 11.97042 |
| 21.26612 | 11.65042 | 20.66566 | 9.40762 |
| 18.41684 | 11.66103 | 17.96486 | 9.53531 |
| 24.15679 | 11.68714 | 23.62707 | 9.65874 |
| 12.70469 | 11.71231 | 12.44873 | 9.46204 |
| 9.87087 | 11.71743 | 9.84548 | 9.41737 |
| 6.9094 | 11.72369 | 6.65062 | 9.19463 |
| 4.02841 | 11.72617 | 3.79693 | 9.58696 |
| 15.56096 | 11.75992 | 15.20652 | 9.73971 |
| 27.10275 | 11.79471 | 26.6154 | 10.02696 |
| 33.16353 | 12.41565 | 33.16532 | 14.18617 |
| 44.66573 | 12.41852 | 44.51263 | 14.22122 |
| 41.81763 | 12.42424 | 41.72301 | 14.23651 |
| 53.40349 | 12.45406 | 53.51581 | 14.52263 |
| 30.28069 | 12.4654 | 30.28656 | 13.78684 |
| 47.6119 | 12.47689 | 47.49584 | 14.25081 |
| 36.02553 | 12.47738 | 35.91163 | 14.29712 |
| 50.59297 | 12.48018 | 50.7189 | 14.36183 |
| 38.93063 | 12.48079 | 38.91401 | 14.5856 |
| 56.27686 | 12.48575 | 56.15831 | 14.43637 |
| 2.19814 | 14.22846 | 2.21744 | 11.81666 |
| 5.0974 | 14.27371 | 5.00476 | 11.77409 |
| 16.63182 | 14.3087 | 16.52899 | 12.15941 |
| 10.80706 | 14.31032 | 10.55801 | 12.07526 |
| 7.91779 | 14.3129 | 7.68506 | 11.88254 |
| 13.71313 | 14.32234 | 13.43533 | 11.99827 |
| 19.54637 | 14.33633 | 19.49335 | 12.34694 |
| 25.31534 | 14.33657 | 25.23445 | 12.38027 |
| 22.44382 | 14.33918 | 22.41843 | 12.3404 |
| 28.1762 | 14.38164 | 27.94414 | 13.08924 |
| 37.13542 | 15.01298 | 37.34666 | 16.51837 |
| 31.33569 | 15.01519 | 31.46845 | 16.4368 |
| 34.21174 | 15.05665 | 34.32241 | 16.68547 |
| 45.85547 | 15.05805 | 46.19386 | 16.58374 |
| 48.75062 | 15.0602 | 49.01361 | 16.66304 |
| 54.50369 | 15.06189 | 54.78831 | 16.72139 |
| 51.62821 | 15.06376 | 51.91799 | 16.79513 |
| 40.0228 | 15.06426 | 40.26839 | 16.81175 |
| 42.95202 | 15.09352 | 43.31983 | 16.91602 |
| 21.49285 | 16.91133 | 21.27366 | 14.88768 |
| 18.57123 | 16.93261 | 18.27247 | 14.86555 |
| 9.92768 | 16.93581 | 9.72005 | 14.63593 |
| 24.36439 | 16.94242 | 24.07432 | 14.91838 |
| 4.14268 | 16.94899 | 3.91792 | 14.83799 |
| 12.8393 | 16.95408 | 12.66576 | 14.86708 |
| 7.01429 | 16.97534 | 6.74472 | 14.80212 |
| 15.69757 | 17.00113 | 15.42681 | 15.07696 |
| 27.21866 | 17.07128 | 26.82624 | 15.53316 |
| 30.2775 | 17.6558 | 30.02596 | 18.73377 |
| 33.23605 | 17.67376 | 33.04433 | 19.17793 |
| 39.02497 | 17.69705 | 38.88815 | 19.42868 |
| 47.80094 | 17.7111 | 47.80733 | 19.48892 |
| 36.16486 | 17.71692 | 36.09678 | 19.48009 |
| 44.81551 | 17.72035 | 44.64012 | 19.49632 |
| 41.9612 | 17.73624 | 41.93947 | 19.60871 |
| 56.38892 | 17.7373 | 56.24286 | 19.79943 |
| 50.63612 | 17.79535 | 50.50374 | 19.88541 |
| 53.53282 | 17.79558 | 53.49162 | 20.03225 |
| 2.35001 | 19.46631 | 2.52408 | 17.21848 |
| 25.35016 | 19.46935 | 25.06989 | 17.44766 |
| 28.2679 | 19.48568 | 27.96101 | 18.02428 |
| 19.67891 | 19.5371 | 19.71977 | 17.61563 |
| 10.9798 | 19.54012 | 10.95199 | 17.34519 |
| 5.20535 | 19.54211 | 5.27068 | 17.42008 |
| 8.06768 | 19.54886 | 7.98074 | 17.53885 |
| 16.78399 | 19.55144 | 16.76118 | 17.47694 |
| 22.50479 | 19.55527 | 22.35003 | 17.78948 |
| 13.87101 | 19.60804 | 13.80804 | 17.84036 |
| 31.45429 | 20.17765 | 31.61134 | 21.47396 |
| 37.26656 | 20.24986 | 37.55628 | 21.90076 |
| 34.3778 | 20.25093 | 34.63943 | 21.83122 |
| 46.00175 | 20.25466 | 46.29208 | 21.77362 |
| 51.73493 | 20.2561 | 51.93764 | 22.00194 |
| 40.15399 | 20.25773 | 40.38352 | 21.93883 |
| 43.06323 | 20.28651 | 43.28183 | 21.919 |
| 48.88313 | 20.28816 | 49.13906 | 22.01558 |
| 54.61624 | 20.30874 | 54.79315 | 22.13088 |
| 24.45528 | 22.16973 | 24.17504 | 20.26102 |
| 18.64905 | 22.17941 | 18.28866 | 20.23735 |
| 4.20329 | 22.19568 | 3.97756 | 20.08027 |
| 9.94846 | 22.19863 | 9.5607 | 20.01541 |
| 15.74365 | 22.21885 | 15.31466 | 20.21443 |
| 21.52171 | 22.23574 | 21.06832 | 20.58478 |
| 27.2755 | 22.26003 | 26.83134 | 20.93063 |
| 7.0954 | 22.26147 | 6.82578 | 20.58658 |
| 12.83571 | 22.27087 | 12.46352 | 20.47982 |
| 30.3527 | 22.73395 | 30.02874 | 23.61876 |
| 33.21417 | 22.78481 | 32.84611 | 24.11616 |
| 53.66145 | 22.85531 | 53.83715 | 24.60003 |
| 36.14003 | 22.86695 | 35.87459 | 24.54211 |
| 44.98034 | 22.87428 | 45.07143 | 24.58931 |
| 39.06924 | 22.87747 | 38.85778 | 24.55859 |
| 50.78877 | 22.8785 | 50.91373 | 24.71167 |
| 56.49755 | 22.88252 | 56.49181 | 24.74498 |
| 42.01558 | 22.88509 | 41.89599 | 24.63681 |
| 47.92394 | 22.90324 | 48.07688 | 24.62586 |
| 19.80153 | 24.70087 | 19.91074 | 22.56619 |
| 13.91681 | 24.70095 | 13.85559 | 22.40275 |
| 16.80947 | 24.71436 | 16.6447 | 22.46082 |
| 25.44786 | 24.71822 | 25.29475 | 22.6808 |
| 22.69469 | 24.7668 | 22.7519 | 22.88072 |
| 8.14661 | 24.76766 | 8.13638 | 22.64286 |
| 2.37156 | 24.77665 | 2.41156 | 22.79877 |
| 11.01773 | 24.7832 | 11.02526 | 22.65522 |
| 5.2488 | 24.79537 | 5.24369 | 22.7947 |
| 28.3275 | 24.88928 | 28.09848 | 24.0401 |
| 46.0081 | 25.41152 | 46.32979 | 26.80713 |
| 54.63297 | 25.42152 | 54.93272 | 27.0132 |
| 34.31261 | 25.43078 | 34.47954 | 26.79615 |
| 37.2159 | 25.44651 | 37.34552 | 26.93634 |
| 43.08844 | 25.45779 | 43.38071 | 27.11519 |
| 31.40966 | 25.45933 | 31.34088 | 27.15557 |
| 51.76436 | 25.47581 | 51.99985 | 27.31644 |
| 40.11815 | 25.47731 | 40.23892 | 27.14536 |
| 48.90841 | 25.48129 | 49.11492 | 27.1304 |

## Fig.2l
| Fig. 2l. Electronic density of states of the VDW structure and bulk ScGaN | Unnamed: 1 | Unnamed: 2 | Unnamed: 3 |
| --- | --- | --- | --- |
| E-E\_VBM (eV) | DOS\_bulk\_ScGaN (a.u.) | E-E\_VBM (eV) | DOS\_VDW (a.u.) |
| -3.9745 | 0.66398 | -3.98656 | 0.63047 |
| -3.9449 | 0.67358 | -3.95686 | 0.65495 |
| -3.9152 | 0.68207 | -3.92716 | 0.67937 |
| -3.8855 | 0.6895 | -3.89746 | 0.70278 |
| -3.8558 | 0.69596 | -3.86776 | 0.72431 |
| -3.8262 | 0.7013 | -3.83806 | 0.74319 |
| -3.7965 | 0.70536 | -3.80836 | 0.75872 |
| -3.7668 | 0.70823 | -3.77866 | 0.77035 |
| -3.7372 | 0.71034 | -3.74896 | 0.77775 |
| -3.7075 | 0.7122 | -3.71926 | 0.78089 |
| -3.6778 | 0.71444 | -3.68956 | 0.78017 |
| -3.6481 | 0.71817 | -3.65986 | 0.77644 |
| -3.6185 | 0.72499 | -3.63016 | 0.77091 |
| -3.5888 | 0.73613 | -3.60046 | 0.76511 |
| -3.5591 | 0.75141 | -3.57076 | 0.76057 |
| -3.5294 | 0.76909 | -3.54106 | 0.75869 |
| -3.4998 | 0.78683 | -3.51136 | 0.76046 |
| -3.4701 | 0.80285 | -3.48166 | 0.76634 |
| -3.4404 | 0.81634 | -3.45196 | 0.77631 |
| -3.4108 | 0.82717 | -3.42226 | 0.7898 |
| -3.3811 | 0.83572 | -3.39256 | 0.80596 |
| -3.3514 | 0.8427 | -3.36286 | 0.82376 |
| -3.3217 | 0.8491 | -3.33316 | 0.84217 |
| -3.2921 | 0.85594 | -3.30346 | 0.86032 |
| -3.2624 | 0.86407 | -3.27366 | 0.87759 |
| -3.2327 | 0.87405 | -3.24396 | 0.89365 |
| -3.203 | 0.88577 | -3.21426 | 0.90841 |
| -3.1734 | 0.8981 | -3.18456 | 0.922 |
| -3.1437 | 0.90914 | -3.15486 | 0.93466 |
| -3.114 | 0.91735 | -3.12516 | 0.94663 |
| -3.0843 | 0.92266 | -3.09546 | 0.95812 |
| -3.0547 | 0.92654 | -3.06576 | 0.96919 |
| -3.025 | 0.93119 | -3.03606 | 0.97982 |
| -2.9953 | 0.93834 | -3.00636 | 0.98989 |
| -2.9657 | 0.94838 | -2.97666 | 0.99924 |
| -2.936 | 0.96038 | -2.94696 | 1.00783 |
| -2.9063 | 0.97295 | -2.91726 | 1.01568 |
| -2.8766 | 0.98545 | -2.88756 | 1.02301 |
| -2.847 | 0.99876 | -2.85786 | 1.03016 |
| -2.8173 | 1.01484 | -2.82816 | 1.03761 |
| -2.7876 | 1.03528 | -2.79846 | 1.04586 |
| -2.7579 | 1.05967 | -2.76876 | 1.05541 |
| -2.7283 | 1.08543 | -2.73906 | 1.0667 |
| -2.6986 | 1.10929 | -2.70936 | 1.08007 |
| -2.6689 | 1.12929 | -2.67966 | 1.09579 |
| -2.6393 | 1.14562 | -2.64996 | 1.11398 |
| -2.6096 | 1.16004 | -2.62026 | 1.13468 |
| -2.5799 | 1.17457 | -2.59056 | 1.15774 |
| -2.5502 | 1.19046 | -2.56086 | 1.18281 |
| -2.5206 | 1.20764 | -2.53116 | 1.20929 |
| -2.4909 | 1.22485 | -2.50146 | 1.23634 |
| -2.4612 | 1.24058 | -2.47176 | 1.26291 |
| -2.4315 | 1.25434 | -2.44206 | 1.28786 |
| -2.4019 | 1.2671 | -2.41236 | 1.31016 |
| -2.3722 | 1.28048 | -2.38266 | 1.32901 |
| -2.3425 | 1.29552 | -2.35296 | 1.34397 |
| -2.3129 | 1.31217 | -2.32326 | 1.35502 |
| -2.2832 | 1.32951 | -2.29356 | 1.36251 |
| -2.2535 | 1.34627 | -2.26386 | 1.36704 |
| -2.2238 | 1.36142 | -2.23416 | 1.36936 |
| -2.1942 | 1.37472 | -2.20446 | 1.37016 |
| -2.1645 | 1.38726 | -2.17476 | 1.37007 |
| -2.1348 | 1.40113 | -2.14506 | 1.36948 |
| -2.1051 | 1.41831 | -2.11526 | 1.36864 |
| -2.0755 | 1.43955 | -2.08556 | 1.36773 |
| -2.0458 | 1.46392 | -2.05586 | 1.36688 |
| -2.0161 | 1.48949 | -2.02616 | 1.36633 |
| -1.9865 | 1.51424 | -1.99646 | 1.36641 |
| -1.9568 | 1.53666 | -1.96676 | 1.36763 |
| -1.9271 | 1.55608 | -1.93706 | 1.37063 |
| -1.8974 | 1.57272 | -1.90736 | 1.37609 |
| -1.8678 | 1.58756 | -1.87766 | 1.38477 |
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| -1.0369 | 2.00858 | -1.04606 | 2.1606 |
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| -0.9479 | 2.00037 | -0.95686 | 1.98512 |
| -0.9182 | 1.97978 | -0.92716 | 1.91384 |
| -0.8886 | 1.94403 | -0.89746 | 1.84146 |
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| -0.7699 | 1.68643 | -0.77866 | 1.56465 |
| -0.7402 | 1.59311 | -0.74896 | 1.49372 |
| -0.7105 | 1.47834 | -0.71926 | 1.41686 |
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| -0.6215 | 1.00251 | -0.63016 | 1.12591 |
| -0.5918 | 0.82634 | -0.60046 | 1.00673 |
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| -0.5028 | 0.39082 | -0.51136 | 0.61982 |
| -0.4731 | 0.28956 | -0.48166 | 0.49751 |
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| -0.3544 | 0.06001 | -0.36286 | 0.14719 |
| -0.3248 | 0.03694 | -0.33316 | 0.09914 |
| -0.2951 | 0.02238 | -0.30346 | 0.06429 |
| -0.2654 | 0.0133 | -0.27376 | 0.04011 |
| -0.2357 | 0.00757 | -0.24406 | 0.02406 |
| -0.2061 | 0.00398 | -0.21436 | 0.01387 |
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| 0.0016 | 0.000001 | -0.00646 | 0.000094 |
| 0.0313 | 0 | 0.02324 | 0.000037 |
| 0.061 | 0 | 0.05294 | 0.000019 |
| 0.0907 | 0 | 0.08264 | 0.000006 |
| 0.1203 | 0 | 0.11234 | 0 |
| 0.15 | 0 | 0.14204 | 0 |
| 0.1797 | 0 | 0.17174 | 0 |
| 0.2093 | 0 | 0.20144 | 0 |
| 0.239 | 0 | 0.23124 | 0 |
| 0.2687 | 0 | 0.26094 | 0 |
| 0.2984 | 0 | 0.29064 | 0 |
| 0.328 | 0 | 0.32034 | 0 |
| 0.3577 | 0 | 0.35004 | 0 |
| 0.3874 | 0 | 0.37974 | 0 |
| 0.4171 | 0 | 0.40944 | 0 |
| 0.4467 | 0 | 0.43914 | 0 |
| 0.4764 | 0 | 0.46884 | 0 |
| 0.5061 | 0 | 0.49854 | 0 |
| 0.5357 | 0 | 0.52824 | 0 |
| 0.5654 | 0 | 0.55794 | 0 |
| 0.5951 | 0 | 0.58764 | 0 |
| 0.6248 | 0 | 0.61734 | 0 |
| 0.6544 | 0 | 0.64704 | 0 |
| 0.6841 | 0 | 0.67674 | 0 |
| 0.7138 | 0 | 0.70644 | 0 |
| 0.7435 | 0 | 0.73614 | 0 |
| 0.7731 | 0 | 0.76584 | 0 |
| 0.8028 | 0 | 0.79554 | 0 |
| 0.8325 | 0 | 0.82524 | 0 |
| 0.8622 | 0 | 0.85494 | 0 |
| 0.8918 | 0 | 0.88464 | 0 |
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| 0.9512 | 0 | 0.94404 | 0 |
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| 1.0105 | 0 | 1.00344 | 0 |
| 1.0402 | 0 | 1.03314 | 0 |
| 1.0699 | 0 | 1.06284 | 0 |
| 1.0995 | 0 | 1.09254 | 0 |
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| 1.1589 | 0 | 1.15194 | 0 |
| 1.1886 | 0 | 1.18164 | 0 |
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| 1.3072 | 0 | 1.30044 | 0.000037 |
| 1.3369 | 0 | 1.33014 | 0.000069 |
| 1.3666 | 0 | 1.35984 | 0.000112 |
| 1.3963 | 0 | 1.38964 | 0.000175 |
| 1.4259 | 0 | 1.41934 | 0.000269 |
| 1.4556 | 0 | 1.44904 | 0.000387 |
| 1.4853 | 0 | 1.47874 | 0.000544 |
| 1.515 | 0 | 1.50844 | 0.000744 |
| 1.5446 | 0.0 | 1.53814 | 0.000981 |
| 1.5743 | 0.000002 | 1.56784 | 0.00127 |
| 1.604 | 0.000009 | 1.59754 | 0.00161 |
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| 1.6633 | 0.000107 | 1.65694 | 0.00254 |
| 1.693 | 0.000282 | 1.68664 | 0.00317 |
| 1.7227 | 0.000625 | 1.71634 | 0.00398 |
| 1.7523 | 0.00117 | 1.74604 | 0.00497 |
| 1.782 | 0.00185 | 1.77574 | 0.00617 |
| 1.8117 | 0.00249 | 1.80544 | 0.00756 |
| 1.8414 | 0.0029 | 1.83514 | 0.00912 |
| 1.871 | 0.00306 | 1.86484 | 0.01078 |
| 1.9007 | 0.00322 | 1.89454 | 0.01249 |
| 1.9304 | 0.00379 | 1.92424 | 0.01417 |
| 1.9601 | 0.00505 | 1.95394 | 0.01578 |
| 1.9897 | 0.00695 | 1.98364 | 0.01727 |
| 2.0194 | 0.00916 | 2.01334 | 0.01866 |
| 2.0491 | 0.0113 | 2.04304 | 0.0199 |
| 2.0787 | 0.0131 | 2.07274 | 0.02102 |
| 2.1084 | 0.01447 | 2.10244 | 0.022 |
| 2.1381 | 0.01546 | 2.13214 | 0.02284 |
| 2.1678 | 0.01644 | 2.16184 | 0.02354 |
| 2.1974 | 0.01801 | 2.19154 | 0.02413 |
| 2.2271 | 0.02061 | 2.22124 | 0.02469 |
| 2.2568 | 0.02396 | 2.25094 | 0.02534 |
| 2.2865 | 0.02718 | 2.28064 | 0.02622 |
| 2.3161 | 0.02941 | 2.31034 | 0.0275 |
| 2.3458 | 0.03056 | 2.34004 | 0.02929 |
| 2.3755 | 0.0312 | 2.36974 | 0.03165 |
| 2.4051 | 0.03204 | 2.39944 | 0.03456 |
| 2.4348 | 0.03334 | 2.42914 | 0.03791 |
| 2.4645 | 0.03505 | 2.45884 | 0.04148 |
| 2.4942 | 0.03735 | 2.48854 | 0.04506 |
| 2.5238 | 0.04115 | 2.51824 | 0.04841 |
| 2.5535 | 0.04782 | 2.54804 | 0.05135 |
| 2.5832 | 0.05812 | 2.57774 | 0.05386 |
| 2.6129 | 0.07126 | 2.60744 | 0.05606 |
| 2.6425 | 0.08505 | 2.63714 | 0.05825 |
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| 2.7315 | 0.11948 | 2.72624 | 0.07097 |
| 2.7612 | 0.13452 | 2.75594 | 0.08012 |
| 2.7909 | 0.15594 | 2.78564 | 0.09343 |
| 2.8206 | 0.18481 | 2.81534 | 0.11198 |
| 2.8502 | 0.22133 | 2.84504 | 0.13672 |
| 2.8799 | 0.26607 | 2.87474 | 0.16845 |
| 2.9096 | 0.32007 | 2.90444 | 0.20765 |
| 2.9393 | 0.38331 | 2.93414 | 0.25446 |
| 2.9689 | 0.45317 | 2.96384 | 0.30859 |
| 2.9986 | 0.52426 | 2.99354 | 0.3693 |
| 3.0283 | 0.59049 | 3.02324 | 0.43546 |
| 3.0579 | 0.6478 | 3.05294 | 0.50558 |
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| 3.1173 | 0.73664 | 3.11234 | 0.65054 |
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| 3.1766 | 0.8053 | 3.17174 | 0.78911 |
| 3.2063 | 0.83192 | 3.20144 | 0.85158 |
| 3.236 | 0.85177 | 3.23114 | 0.90764 |
| 3.2657 | 0.86643 | 3.26084 | 0.95637 |
| 3.2953 | 0.87998 | 3.29054 | 0.99727 |
| 3.325 | 0.89634 | 3.32024 | 1.03029 |
| 3.3547 | 0.91666 | 3.34994 | 1.05574 |
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| 3.414 | 0.9605 | 3.40934 | 1.08691 |
| 3.4437 | 0.9792 | 3.43904 | 1.09456 |
| 3.4734 | 0.9953 | 3.46874 | 1.09832 |
| 3.503 | 1.01039 | 3.49844 | 1.09922 |
| 3.5327 | 1.02638 | 3.52814 | 1.09826 |
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| 3.6514 | 1.10047 | 3.64694 | 1.09186 |
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| 3.8294 | 1.22545 | 3.82524 | 1.12153 |
| 3.8591 | 1.2507 | 3.85494 | 1.13101 |
| 3.8888 | 1.27361 | 3.88464 | 1.14148 |
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| 4.9273 | 1.15157 | 4.92424 | 1.24336 |
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| 5.7582 | 1.00934 | 5.75584 | 1.01507 |
| 5.7879 | 1.00977 | 5.78554 | 1.02332 |
| 5.8175 | 1.00695 | 5.81524 | 1.02379 |
| 5.8472 | 0.99389 | 5.84494 | 1.01506 |
| 5.8769 | 0.96341 | 5.87464 | 0.99628 |
| 5.9066 | 0.91015 | 5.90434 | 0.96729 |
| 5.9362 | 0.83171 | 5.93404 | 0.92865 |
| 5.9659 | 0.72892 | 5.96374 | 0.88148 |
| 5.9956 | 0.60616 | 5.99344 | 0.82733 |
| 6.0252 | 0.472 | 6.02314 | 0.76796 |
| 6.0549 | 0.33907 | 6.05294 | 0.70513 |