

Quantachrome Porometer 3G Summary Report

Maximum Pore Size: 0.0570 μm
Mean Pore Size (MFP): 0.0000 μm
Minimum Pore Size: 0.0455 μm
Bubble Point Pressure: 11.2329 bar
Bubble Point Flow Rate: 139.4366 l/m
Bubble Point Auto Mode: Auto Tolerance: 1.000
Pore Density: $2.886\text{E}+13$ / cm^2
Porosity (Open Area Data): 49218.588 %

Quantachrome Porometer 3G Data Report

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Pore Density: 2.886E+13 /cm²
Porosity (Open Area Data): 49218.588 %

| Point # | Wet.Targ.Pr. bar | Wet Flow l/m | Dry Flow l/m | Pore Flow Cum % | Pore Flow Diff % | Pore Num Cum (/cm ²) | Pore Num Diff (/cm ²) | Pore Open Area Cum (/cm ²) | Pore Open Area Diff (/cm ²) |
|---------|------------------|--------------|--------------|-----------------|------------------|----------------------------------|-----------------------------------|--|---|
| 0 | 9.14286 | 126.8421 | 143.6080 | 88.2839 | 0.0000 | 0 | 0 | 0 | 0 |
| 1 | 9.16965 | 126.7146 | 143.5942 | 88.2839 | 0.0000 | 0 | 0 | 0 | 0 |
| 2 | 9.19644 | 126.5971 | 143.5864 | 88.2839 | 0.0000 | 0 | 0 | 0 | 0 |
| 3 | 9.22323 | 126.4853 | 143.5814 | 88.2839 | 0.0000 | 6.151E+07 | 6.151E+07 | 0.002326 | 0.002326 |
| 4 | 9.25002 | 126.3810 | 143.5798 | 88.2839 | 0.0000 | 1.963E+08 | 1.348E+08 | 0.007393 | 0.005067 |
| 5 | 9.27681 | 126.3704 | 143.6272 | 88.2839 | 0.0000 | 4.014E+08 | 2.051E+08 | 0.01506 | 0.007668 |
| 6 | 9.30360 | 126.4082 | 143.7049 | 88.2839 | 0.0000 | 6.731E+08 | 2.718E+08 | 0.02516 | 0.0101 |
| 7 | 9.33039 | 126.4766 | 143.8120 | 88.2839 | 0.0000 | 1.007E+09 | 3.339E+08 | 0.0375 | 0.01234 |
| 8 | 9.35718 | 126.5685 | 143.9423 | 88.2839 | 0.0000 | 1.398E+09 | 3.909E+08 | 0.05186 | 0.01436 |
| 9 | 9.38397 | 126.6870 | 144.0878 | 88.2839 | 0.0000 | 1.841E+09 | 4.426E+08 | 0.06803 | 0.01617 |
| 10 | 9.41076 | 126.8220 | 144.2478 | 88.2839 | 0.0000 | 2.33E+09 | 4.897E+08 | 0.08582 | 0.01779 |
| 11 | 9.43755 | 126.9682 | 144.4252 | 88.2839 | 0.0000 | 2.865E+09 | 5.351E+08 | 0.1051 | 0.01933 |
| 12 | 9.46434 | 127.1266 | 144.6114 | 88.2839 | 0.0000 | 3.448E+09 | 5.83E+08 | 0.1261 | 0.02094 |
| 13 | 9.49113 | 127.2959 | 144.7944 | 88.2839 | 0.0000 | 4.032E+09 | 5.831E+08 | 0.1469 | 0.02083 |
| 14 | 9.51792 | 127.4667 | 144.9758 | 88.2839 | 0.0000 | 4.611E+09 | 5.796E+08 | 0.1675 | 0.02058 |
| 15 | 9.54471 | 127.6358 | 145.1709 | 88.2839 | 0.0000 | 5.179E+09 | 5.675E+08 | 0.1875 | 0.02004 |
| 16 | 9.57150 | 127.8031 | 145.3800 | 88.2839 | 0.0000 | 5.72E+09 | 5.415E+08 | 0.2065 | 0.01902 |
| 17 | 9.59829 | 127.9760 | 145.5958 | 88.2839 | 0.0000 | 6.218E+09 | 4.976E+08 | 0.2239 | 0.01738 |
| 18 | 9.62508 | 128.1523 | 145.8180 | 88.2839 | 0.0000 | 6.652E+09 | 4.34E+08 | 0.239 | 0.01507 |
| 19 | 9.65187 | 128.3312 | 146.0507 | 88.2839 | 0.0000 | 7.004E+09 | 3.525E+08 | 0.2512 | 0.01217 |
| 20 | 9.67866 | 128.5194 | 146.2948 | 88.2839 | 0.0000 | 7.263E+09 | 2.592E+08 | 0.2601 | 0.008901 |
| 21 | 9.70545 | 128.7196 | 146.5445 | 88.2839 | 0.0000 | 7.428E+09 | 1.648E+08 | 0.2657 | 0.00563 |
| 22 | 9.73224 | 128.9240 | 146.7967 | 88.2839 | 0.0000 | 7.512E+09 | 8.337E+07 | 0.2685 | 0.002832 |
| 23 | 9.75903 | 129.1272 | 147.0542 | 88.2839 | 0.0000 | 7.54E+09 | 2.809E+07 | 0.2695 | 0.000949 |
| 24 | 9.78582 | 129.3284 | 147.3145 | 88.2839 | 0.0000 | 7.544E+09 | 4.068E+06 | 0.2696 | 0.0001367 |
| 25 | 9.81261 | 129.5288 | 147.5757 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 26 | 9.83940 | 129.7304 | 147.8367 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 27 | 9.86619 | 129.9338 | 148.0985 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 28 | 9.89298 | 130.1405 | 148.3649 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 29 | 9.91977 | 130.3537 | 148.6363 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 30 | 9.94656 | 130.5732 | 148.9111 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 31 | 9.97335 | 130.7955 | 149.1875 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 32 | 10.00010 | 131.0184 | 149.4668 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 33 | 10.02690 | 131.2436 | 149.7499 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 34 | 10.05370 | 131.4720 | 150.0377 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 35 | 10.08050 | 131.7028 | 150.3327 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 36 | 10.10730 | 131.9354 | 150.6322 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 37 | 10.13410 | 132.1697 | 150.9273 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 38 | 10.16090 | 132.4042 | 151.2154 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 39 | 10.18770 | 132.6330 | 151.4981 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 40 | 10.21450 | 132.8528 | 151.7758 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 41 | 10.24130 | 133.0641 | 152.0478 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 42 | 10.26810 | 133.2699 | 152.3176 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 43 | 10.29490 | 133.4722 | 152.5914 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 44 | 10.32170 | 133.6724 | 152.8713 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 45 | 10.34850 | 133.8728 | 153.1510 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 46 | 10.37530 | 134.0737 | 153.4249 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |

| | | | | | | | | | |
|-----|----------|----------|----------|---------|--------|-----------|-----------|--------|-----------|
| 47 | 10.40210 | 134.2722 | 153.6916 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 48 | 10.42890 | 134.4672 | 153.9474 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 49 | 10.45570 | 134.6592 | 154.1918 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 50 | 10.48250 | 134.8489 | 154.4300 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 51 | 10.50930 | 135.0353 | 154.6657 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 52 | 10.53610 | 135.2152 | 154.8987 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 53 | 10.56290 | 135.3893 | 155.1299 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 54 | 10.58970 | 135.5581 | 155.3620 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 55 | 10.61650 | 135.7228 | 155.5984 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 56 | 10.64330 | 135.8855 | 155.8360 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 57 | 10.67010 | 136.0501 | 156.0689 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 58 | 10.69690 | 136.2204 | 156.2943 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 59 | 10.72370 | 136.3959 | 156.5128 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 60 | 10.75050 | 136.5743 | 156.7262 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 61 | 10.77730 | 136.7537 | 156.9351 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 62 | 10.80410 | 136.9279 | 157.1395 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 63 | 10.83090 | 137.0954 | 157.3404 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 64 | 10.85770 | 137.2581 | 157.5424 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 65 | 10.88450 | 137.4187 | 157.7483 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 66 | 10.91130 | 137.5776 | 157.9555 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 67 | 10.93810 | 137.7373 | 158.1576 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 68 | 10.96490 | 137.8991 | 158.3522 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 69 | 10.99170 | 138.0593 | 158.5417 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 70 | 11.01850 | 138.2138 | 158.7300 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 71 | 11.04530 | 138.3650 | 158.9190 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 72 | 11.07210 | 138.5151 | 159.1100 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 73 | 11.09890 | 138.6632 | 159.3057 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 74 | 11.12570 | 138.8108 | 159.5069 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 75 | 11.15250 | 138.9630 | 159.7078 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 76 | 11.17930 | 139.1216 | 159.9007 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 77 | 11.20610 | 139.2803 | 160.0869 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 78 | 11.23290 | 139.4366 | 160.2707 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 79 | 11.25970 | 139.5898 | 160.4541 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 80 | 11.28650 | 139.7385 | 160.6363 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 81 | 11.31330 | 139.8817 | 160.8189 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 82 | 11.34010 | 140.0204 | 161.0059 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 83 | 11.36690 | 140.1572 | 161.1985 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 84 | 11.39370 | 140.2935 | 161.3910 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 85 | 11.42050 | 140.4305 | 161.5809 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 86 | 11.44730 | 140.5717 | 161.7714 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 87 | 11.47410 | 140.7159 | 161.9643 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 88 | 11.50090 | 140.8573 | 162.1580 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 89 | 11.52770 | 140.9942 | 162.3499 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 90 | 11.55450 | 141.1288 | 162.5384 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 91 | 11.58130 | 141.2638 | 162.7257 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 92 | 11.60810 | 141.3992 | 162.9130 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 93 | 11.63490 | 141.5358 | 163.1054 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 94 | 11.66170 | 141.6777 | 163.3060 | 88.2839 | 0.0000 | 7.544E+09 | 0 | 0.2696 | 0 |
| 95 | 11.68850 | 141.8272 | 163.5119 | 88.2839 | 0.0000 | 7.564E+09 | 2.056E+07 | 0.2701 | 0.0004841 |
| 96 | 11.71530 | 141.9813 | 163.7164 | 88.2839 | 0.0000 | 7.731E+09 | 1.665E+08 | 0.274 | 0.003902 |
| 97 | 11.74210 | 142.1373 | 163.9198 | 88.2839 | 0.0000 | 8.349E+09 | 6.184E+08 | 0.2884 | 0.01443 |
| 98 | 11.76890 | 142.2910 | 164.1221 | 88.2839 | 0.0000 | 9.891E+09 | 1.542E+09 | 0.3242 | 0.03581 |
| 99 | 11.79570 | 142.4384 | 164.3276 | 88.2839 | 0.0000 | 1.287E+10 | 2.982E+09 | 0.3932 | 0.06895 |
| 100 | 11.82250 | 142.5799 | 164.5384 | 88.2839 | 0.0000 | 1.773E+10 | 4.853E+09 | 0.5049 | 0.1117 |
| 101 | 11.84930 | 142.7164 | 164.7627 | 88.2839 | 0.0000 | 2.473E+10 | 7.003E+09 | 0.6653 | 0.1605 |
| 102 | 11.87610 | 142.8486 | 165.0080 | 88.2839 | 0.0000 | 3.399E+10 | 9.264E+09 | 0.8767 | 0.2113 |
| 103 | 11.90290 | 142.9795 | 165.2620 | 88.2839 | 0.0000 | 4.548E+10 | 1.148E+10 | 1.137 | 0.2607 |
| 104 | 11.92970 | 143.1140 | 165.4969 | 88.2839 | 0.0000 | 5.903E+10 | 1.355E+10 | 1.444 | 0.3063 |
| 105 | 11.95650 | 143.2547 | 165.6990 | 88.2839 | 0.0000 | 7.447E+10 | 1.544E+10 | 1.791 | 0.3474 |
| 106 | 11.98330 | 143.3999 | 165.8680 | 88.2839 | 0.0000 | 9.162E+10 | 1.715E+10 | 2.175 | 0.3842 |
| 107 | 12.01010 | 143.5467 | 166.0048 | 88.2839 | 0.0000 | 1.103E+11 | 1.871E+10 | 2.593 | 0.4173 |
| 108 | 12.03690 | 143.6965 | 166.1146 | 88.2839 | 0.0000 | 1.305E+11 | 2.013E+10 | 3.039 | 0.4469 |
| 109 | 12.06370 | 143.8467 | 166.2152 | 88.2839 | 0.0000 | 1.519E+11 | 2.14E+10 | 3.513 | 0.4731 |

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|-----|----------|----------|----------|---------|--------|-----------|-----------|-------|-----------|
| 110 | 12.09050 | 143.9944 | 166.3316 | 88.2839 | 0.0000 | 1.744E+11 | 2.253E+10 | 4.008 | 0.4958 |
| 111 | 12.11730 | 144.1445 | 166.4700 | 88.2839 | 0.0000 | 1.978E+11 | 2.343E+10 | 4.522 | 0.5135 |
| 112 | 12.14410 | 144.3038 | 166.6201 | 88.2839 | 0.0000 | 2.218E+11 | 2.399E+10 | 5.045 | 0.5232 |
| 113 | 12.17090 | 144.4670 | 166.7776 | 88.2839 | 0.0000 | 2.458E+11 | 2.402E+10 | 5.567 | 0.5217 |
| 114 | 12.19770 | 144.6279 | 166.9401 | 88.2839 | 0.0000 | 2.693E+11 | 2.344E+10 | 6.074 | 0.5068 |
| 115 | 12.22450 | 144.7887 | 167.1019 | 88.2839 | 0.0000 | 2.915E+11 | 2.224E+10 | 6.552 | 0.4788 |
| 116 | 12.25130 | 144.9534 | 167.2619 | 88.2839 | 0.0000 | 3.121E+11 | 2.057E+10 | 6.993 | 0.4408 |
| 117 | 12.27810 | 145.1178 | 167.4238 | 88.2839 | 0.0000 | 3.307E+11 | 1.864E+10 | 7.391 | 0.3978 |
| 118 | 12.30490 | 145.2787 | 167.5900 | 88.2839 | 0.0000 | 3.474E+11 | 1.672E+10 | 7.746 | 0.3552 |
| 119 | 12.33170 | 145.4420 | 167.7616 | 88.2839 | 0.0000 | 3.624E+11 | 1.494E+10 | 8.062 | 0.3161 |
| 120 | 12.35850 | 145.6183 | 167.9376 | 88.2839 | 0.0000 | 3.757E+11 | 1.333E+10 | 8.343 | 0.2808 |
| 121 | 12.38530 | 145.8073 | 168.1183 | 88.2839 | 0.0000 | 3.876E+11 | 1.184E+10 | 8.591 | 0.2483 |
| 122 | 12.41210 | 145.9897 | 168.2959 | 88.2839 | 0.0000 | 3.98E+11 | 1.042E+10 | 8.809 | 0.2175 |
| 123 | 12.43890 | 146.1483 | 168.4678 | 88.2839 | 0.0000 | 4.07E+11 | 9.02E+09 | 8.996 | 0.1875 |
| 124 | 12.46570 | 146.2830 | 168.6360 | 88.2839 | 0.0000 | 4.146E+11 | 7.631E+09 | 9.154 | 0.158 |
| 125 | 12.49250 | 146.3963 | 168.8017 | 88.2839 | 0.0000 | 4.209E+11 | 6.251E+09 | 9.283 | 0.1288 |
| 126 | 12.51930 | 146.4891 | 168.9652 | 88.2839 | 0.0000 | 4.258E+11 | 4.907E+09 | 9.384 | 0.1007 |
| 127 | 12.54610 | 146.5639 | 169.1289 | 88.2839 | 0.0000 | 4.294E+11 | 3.641E+09 | 9.458 | 0.07441 |
| 128 | 12.57290 | 146.6343 | 169.2945 | 88.2839 | 0.0000 | 4.319E+11 | 2.488E+09 | 9.509 | 0.05064 |
| 129 | 12.59970 | 146.7219 | 169.4643 | 88.2839 | 0.0000 | 4.334E+11 | 1.503E+09 | 9.54 | 0.03046 |
| 130 | 12.62650 | 146.8277 | 169.6362 | 88.2839 | 0.0000 | 4.342E+11 | 7.547E+08 | 9.555 | 0.01523 |
| 131 | 12.65330 | 146.9415 | 169.8072 | 88.2839 | 0.0000 | 4.345E+11 | 2.877E+08 | 9.561 | 0.005782 |
| 132 | 12.68010 | 147.0601 | 169.9706 | 88.2839 | 0.0000 | 4.345E+11 | 7.228E+07 | 9.562 | 0.001446 |
| 133 | 12.70690 | 147.1820 | 170.1284 | 88.2839 | 0.0000 | 4.345E+11 | 1.086E+07 | 9.562 | 0.0002163 |
| 134 | 12.73370 | 147.3086 | 170.2890 | 88.2839 | 0.0000 | 4.345E+11 | 3.398E+06 | 9.562 | 6.742E-05 |
| 135 | 12.76050 | 147.4406 | 170.4495 | 88.2839 | 0.0000 | 4.345E+11 | 3.44E+06 | 9.562 | 6.796E-05 |
| 136 | 12.78730 | 147.5750 | 170.6063 | 88.2839 | 0.0000 | 4.345E+11 | 3.446E+06 | 9.562 | 6.78E-05 |
| 137 | 12.81410 | 147.7120 | 170.7647 | 88.2839 | 0.0000 | 4.346E+11 | 9.966E+06 | 9.563 | 0.0001952 |
| 138 | 12.84090 | 147.8478 | 170.9326 | 88.2839 | 0.0000 | 4.346E+11 | 6.215E+07 | 9.564 | 0.001213 |
| 139 | 12.86770 | 147.9808 | 171.1066 | 88.2839 | 0.0000 | 4.349E+11 | 2.503E+08 | 9.569 | 0.004864 |
| 140 | 12.89450 | 148.1098 | 171.2744 | 88.2839 | 0.0000 | 4.356E+11 | 7.147E+08 | 9.582 | 0.01383 |
| 141 | 12.92130 | 148.2346 | 171.4348 | 88.2839 | 0.0000 | 4.373E+11 | 1.679E+09 | 9.615 | 0.03235 |
| 142 | 12.94810 | 148.3563 | 171.5965 | 88.2839 | 0.0000 | 4.408E+11 | 3.502E+09 | 9.682 | 0.0672 |
| 143 | 12.97490 | 148.4747 | 171.7577 | 88.2839 | 0.0000 | 4.474E+11 | 6.67E+09 | 9.809 | 0.1274 |
| 144 | 13.00170 | 148.5933 | 171.9154 | 88.2839 | 0.0000 | 4.591E+11 | 1.171E+10 | 10.03 | 0.2229 |
| 145 | 13.02850 | 148.7156 | 172.0709 | 88.2839 | 0.0000 | 4.783E+11 | 1.916E+10 | 10.4 | 0.3631 |
| 146 | 13.05530 | 148.8418 | 172.2272 | 88.2839 | 0.0000 | 5.079E+11 | 2.958E+10 | 10.95 | 0.5583 |
| 147 | 13.08210 | 148.9710 | 172.3842 | 88.2839 | 0.0000 | 5.515E+11 | 4.365E+10 | 11.77 | 0.8205 |
| 148 | 13.10890 | 149.1017 | 172.5378 | 88.2839 | 0.0000 | 6.136E+11 | 6.207E+10 | 12.94 | 1.162 |
| 149 | 13.13570 | 149.2348 | 172.6838 | 88.2839 | 0.0000 | 6.991E+11 | 8.552E+10 | 14.53 | 1.594 |
| 150 | 13.16250 | 149.3696 | 172.8172 | 88.2839 | 0.0000 | 8.137E+11 | 1.146E+11 | 16.66 | 2.128 |
| 151 | 13.18930 | 149.4984 | 172.9312 | 88.2839 | 0.0000 | 9.635E+11 | 1.498E+11 | 19.43 | 2.769 |
| 152 | 13.21610 | 149.6202 | 173.0107 | 88.2839 | 0.0000 | 1.155E+12 | 1.911E+11 | 22.95 | 3.52 |
| 153 | 13.24290 | 149.7380 | 173.0358 | 88.2839 | 0.0000 | 1.393E+12 | 2.384E+11 | 27.32 | 4.372 |
| 154 | 13.26970 | 149.8544 | 173.0030 | 88.2839 | 0.0000 | 1.684E+12 | 2.906E+11 | 32.63 | 5.31 |
| 155 | 13.29650 | 149.9709 | 172.9219 | 88.2839 | 0.0003 | 2.03E+12 | 3.466E+11 | 38.94 | 6.307 |
| 156 | 13.32330 | 150.0881 | 172.7924 | 88.2839 | 0.0056 | 2.435E+12 | 4.049E+11 | 46.28 | 7.338 |
| 157 | 13.35010 | 150.2082 | 172.5889 | 88.2839 | 0.0265 | 2.899E+12 | 4.638E+11 | 54.65 | 8.372 |
| 158 | 13.37690 | 150.3314 | 172.2898 | 88.2839 | 0.0660 | 3.421E+12 | 5.219E+11 | 64.03 | 9.383 |
| 159 | 13.40370 | 150.4507 | 171.8938 | 88.2839 | 0.1194 | 3.999E+12 | 5.777E+11 | 74.37 | 10.34 |
| 160 | 13.43050 | 150.5633 | 171.4037 | 88.2839 | 0.1797 | 4.628E+12 | 6.297E+11 | 85.6 | 11.23 |
| 161 | 13.45730 | 150.6723 | 170.8135 | 88.3125 | 0.2421 | 5.305E+12 | 6.767E+11 | 97.63 | 12.02 |
| 162 | 13.48410 | 150.7820 | 170.1367 | 88.6972 | 0.3040 | 6.023E+12 | 7.177E+11 | 110.3 | 12.7 |
| 163 | 13.51090 | 150.8949 | 169.4122 | 89.1076 | 0.3598 | 6.775E+12 | 7.519E+11 | 123.6 | 13.25 |
| 164 | 13.53770 | 151.0129 | 168.6830 | 89.5361 | 0.4015 | 7.554E+12 | 7.79E+11 | 137.2 | 13.67 |
| 165 | 13.56450 | 151.1353 | 167.9677 | 89.9752 | 0.4231 | 8.353E+12 | 7.99E+11 | 151.2 | 13.97 |
| 166 | 13.59130 | 151.2594 | 167.2680 | 90.4173 | 0.4269 | 9.165E+12 | 8.125E+11 | 165.4 | 14.15 |
| 167 | 13.61810 | 151.3772 | 166.5782 | 90.8558 | 0.4230 | 9.986E+12 | 8.205E+11 | 179.6 | 14.23 |
| 168 | 13.64490 | 151.4870 | 165.8938 | 91.2861 | 0.4164 | 1.081E+13 | 8.244E+11 | 193.8 | 14.25 |
| 169 | 13.67170 | 151.5910 | 165.2269 | 91.7056 | 0.4085 | 1.164E+13 | 8.258E+11 | 208.1 | 14.21 |
| 170 | 13.69850 | 151.6935 | 164.6005 | 92.1133 | 0.4009 | 1.246E+13 | 8.261E+11 | 222.2 | 14.16 |
| 171 | 13.72530 | 151.7968 | 164.0215 | 92.5092 | 0.3949 | 1.329E+13 | 8.266E+11 | 236.3 | 14.12 |
| 172 | 13.75210 | 151.9043 | 163.4802 | 92.8954 | 0.3915 | 1.412E+13 | 8.284E+11 | 250.4 | 14.09 |

| | | | | | | | | | |
|-----|----------|----------|----------|----------|--------|-----------|-----------|-------|---------|
| 173 | 13.77890 | 152.0184 | 162.9657 | 93.2754 | 0.3913 | 1.495E+13 | 8.321E+11 | 264.5 | 14.1 |
| 174 | 13.80570 | 152.1372 | 162.4682 | 93.6546 | 0.3946 | 1.579E+13 | 8.381E+11 | 278.7 | 14.15 |
| 175 | 13.83250 | 152.2527 | 161.9667 | 94.0384 | 0.4011 | 1.663E+13 | 8.463E+11 | 292.9 | 14.23 |
| 176 | 13.85930 | 152.3625 | 161.4333 | 94.4316 | 0.4102 | 1.749E+13 | 8.569E+11 | 307.3 | 14.35 |
| 177 | 13.88610 | 152.4690 | 160.8556 | 94.8373 | 0.4208 | 1.836E+13 | 8.697E+11 | 321.8 | 14.51 |
| 178 | 13.91290 | 152.5745 | 160.2433 | 95.2574 | 0.4319 | 1.924E+13 | 8.836E+11 | 336.5 | 14.69 |
| 179 | 13.93970 | 152.6795 | 159.6099 | 95.6921 | 0.4427 | 2.014E+13 | 8.945E+11 | 351.3 | 14.81 |
| 180 | 13.96650 | 152.7856 | 158.9636 | 96.1398 | 0.4524 | 2.104E+13 | 8.975E+11 | 366.1 | 14.8 |
| 181 | 13.99330 | 152.8965 | 158.3103 | 96.5979 | 0.4606 | 2.192E+13 | 8.89E+11 | 380.7 | 14.61 |
| 182 | 14.02010 | 153.0095 | 157.6537 | 97.0638 | 0.4673 | 2.279E+13 | 8.674E+11 | 394.9 | 14.2 |
| 183 | 14.04690 | 153.1178 | 156.9967 | 97.5352 | 0.4679 | 2.362E+13 | 8.327E+11 | 408.4 | 13.58 |
| 184 | 14.07370 | 153.2228 | 156.3410 | 98.0105 | 0.4500 | 2.441E+13 | 7.864E+11 | 421.2 | 12.77 |
| 185 | 14.10050 | 153.3268 | 155.6871 | 98.4887 | 0.4090 | 2.514E+13 | 7.308E+11 | 433 | 11.82 |
| 186 | 14.12730 | 153.4293 | 155.0347 | 98.9691 | 0.3507 | 2.581E+13 | 6.685E+11 | 443.8 | 10.78 |
| 187 | 14.15410 | 153.5291 | 154.3846 | 99.4520 | 0.2842 | 2.641E+13 | 6.02E+11 | 453.5 | 9.667 |
| 188 | 14.18090 | 153.6278 | 153.7371 | 99.9375 | 0.2155 | 2.695E+13 | 5.331E+11 | 462 | 8.529 |
| 189 | 14.20770 | 153.7290 | 153.0921 | 100.0000 | 0.1471 | 2.741E+13 | 4.631E+11 | 469.4 | 7.38 |
| 190 | 14.23450 | 153.8328 | 152.4487 | 100.0000 | 0.0843 | 2.78E+13 | 3.924E+11 | 475.6 | 6.231 |
| 191 | 14.26130 | 153.9383 | 151.8085 | 100.0000 | 0.0356 | 2.812E+13 | 3.221E+11 | 480.7 | 5.095 |
| 192 | 14.28810 | 154.0469 | 151.1718 | 100.0000 | 0.0084 | 2.838E+13 | 2.537E+11 | 484.7 | 3.998 |
| 193 | 14.31490 | 154.1566 | 150.5376 | 100.0000 | 0.0007 | 2.857E+13 | 1.894E+11 | 487.7 | 2.974 |
| 194 | 14.34170 | 154.2657 | 149.9053 | 100.0000 | 0.0000 | 2.87E+13 | 1.318E+11 | 489.7 | 2.061 |
| 195 | 14.36850 | 154.3735 | 149.2752 | 100.0000 | 0.0000 | 2.878E+13 | 8.325E+10 | 491 | 1.297 |
| 196 | 14.39530 | 154.4777 | 148.6482 | 100.0000 | 0.0000 | 2.883E+13 | 4.585E+10 | 491.8 | 0.7118 |
| 197 | 14.42210 | 154.5764 | 148.0254 | 100.0000 | 0.0000 | 2.885E+13 | 2.047E+10 | 492.1 | 0.3166 |
| 198 | 14.44890 | 154.6709 | 147.4073 | 100.0000 | 0.0000 | 2.885E+13 | 6.362E+09 | 492.2 | 0.09804 |
| 199 | 14.47570 | 154.7653 | 146.7951 | 100.0000 | 0.0000 | 2.886E+13 | 8.89E+08 | 492.2 | 0.01365 |
| 200 | 14.50250 | 154.8612 | 146.1886 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 201 | 14.52930 | 154.9578 | 145.5857 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 202 | 14.55610 | 155.0570 | 144.9860 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 203 | 14.58290 | 155.1614 | 144.3887 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 204 | 14.60970 | 155.2675 | 143.7929 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 205 | 14.63650 | 155.3719 | 143.1978 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 206 | 14.66330 | 155.4746 | 142.6038 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 207 | 14.69010 | 155.5775 | 142.0129 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 208 | 14.71690 | 155.6809 | 141.4259 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 209 | 14.74370 | 155.7835 | 140.8418 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 210 | 14.77050 | 155.8835 | 140.2612 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 211 | 14.79730 | 155.9801 | 139.6852 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 212 | 14.82410 | 156.0721 | 139.1149 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 213 | 14.85090 | 156.1607 | 138.5503 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 214 | 14.87770 | 156.2464 | 137.9922 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 215 | 14.90450 | 156.3300 | 137.4420 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 216 | 14.93130 | 156.4142 | 136.8990 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 217 | 14.95810 | 156.5017 | 136.3621 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 218 | 14.98490 | 156.5908 | 135.8323 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 219 | 15.01170 | 156.6782 | 135.3111 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 220 | 15.03850 | 156.7606 | 134.8007 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 221 | 15.06530 | 156.8372 | 134.2996 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 222 | 15.09210 | 156.9093 | 133.8022 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 223 | 15.11890 | 156.9790 | 133.3057 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 224 | 15.14570 | 157.0477 | 132.8073 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 225 | 15.17250 | 157.1136 | 132.3039 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 226 | 15.19930 | 157.1732 | 131.7917 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 227 | 15.22610 | 157.2276 | 131.2698 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 228 | 15.25290 | 157.2843 | 130.7435 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 229 | 15.27970 | 157.3480 | 130.2161 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 230 | 15.30650 | 157.4205 | 129.6870 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 231 | 15.33330 | 157.5016 | 129.1575 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 232 | 15.36010 | 157.5917 | 128.6306 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 233 | 15.38690 | 157.6875 | 128.1068 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 234 | 15.41370 | 157.7878 | 127.5861 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 235 | 15.44050 | 157.9001 | 127.0683 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |

| | | | | | | | | | |
|-----|----------|----------|----------|----------|--------|-----------|---|-------|---|
| 236 | 15.46730 | 158.0227 | 126.5527 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 237 | 15.49410 | 158.1356 | 126.0380 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 238 | 15.52090 | 158.2232 | 125.5255 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 239 | 15.54770 | 158.2828 | 125.0164 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 240 | 15.57450 | 158.3163 | 124.5133 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 241 | 15.60130 | 158.3237 | 124.0167 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 242 | 15.62810 | 158.3057 | 123.5238 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 243 | 15.65490 | 158.2820 | 123.0252 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 244 | 15.68170 | 158.2697 | 122.5085 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 245 | 15.70850 | 158.2689 | 121.9708 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 246 | 15.73530 | 158.2706 | 121.4198 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 247 | 15.76210 | 158.2689 | 120.8643 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 248 | 15.78890 | 158.2661 | 120.3124 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 249 | 15.81570 | 158.2705 | 119.7743 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 250 | 15.84250 | 158.2809 | 119.2611 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 251 | 15.86930 | 158.2949 | 118.7728 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 252 | 15.89610 | 158.3115 | 118.3005 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 253 | 15.92290 | 158.3284 | 117.8286 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 254 | 15.94970 | 158.3454 | 117.3576 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |
| 255 | 15.97650 | 158.3622 | 116.8873 | 100.0000 | 0.0000 | 2.886E+13 | 0 | 492.2 | 0 |







