## Intro
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| --- |
| Cooling history and Evolution Dynamics of Green Glass Beads during Lunar Fire-Fountain Eruptions: |
| Insights from Na, K and Cu Distributions |
| NaN |
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| NaN |
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## Table S1
| Table S1. Optimized procedure for measuring major and minor element concentrations in lunar glass beads with | Unnamed: 1 | Unnamed: 2 | Unnamed: 3 | Unnamed: 4 | Unnamed: 5 | Unnamed: 6 |
| --- | --- | --- | --- | --- | --- | --- |
| improved precision especially for Na, from Su et al. (2023). Beam condition: 10 nA, 15 kV, size=0. | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| Element | Standard name | Spectrometer | Crystal | Background1 | Background2 | Counting time |
| Na | ALBA | Sp1 | LTAP | -1400 | 820 | 360 s |
| Si | FOBO | Sp2 | TAP | -760 | 800 | 40 s |
| Mg | FOBO | Sp2 | TAP | -1600 | 1000 | 280 s |
| Al | SILL | Sp2 | TAP | -850 | 850 | 40 s |
| Fe | FESI | Sp3 | LLIF | -1200 | 1250 | 100 s |
| Mn | BHRH | Sp3 | LLIF | -1200 | 1600 | 260 s |
| K | GKFS | Sp4 | LPET | -530 | 1100 | 200 s |
| Ca | WOLL | Sp4 | LPET | -700 | 1300 | 160 s |
| Ti | GEIK | Sp5 | LIF | -600 | 1150 | 150 s |
| Cr | Cr2O3 | Sp5 | LIF | -600 | 600 | 210 s |

## Table S2
| Table S2. Electron microprobe analysis results of six 15421 volcanic green glass beads for major and minor oxide profiles with 1 sigma uncertainty. Distance and diameter are in µm, and oxides are in wt%. | Unnamed: 1 | Unnamed: 2 | Unnamed: 3 | Unnamed: 4 | Unnamed: 5 | Unnamed: 6 | Unnamed: 7 | Unnamed: 8 | Unnamed: 9 | Unnamed: 10 | Unnamed: 11 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1-sigma standard deviation is 0.2 wt% for SiO2, 0.03 wt% for TiO2, 0.05 wt% for Al2O3 and MgO, 0.03 wt% for Cr2O3, 0.15 wt% for FeO, 0.007 wt% for MnO, 0.02 wt% for CaO, 0.004 wt% for Na2O, and 0.002 wt% for K2O. | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-G2 | diameter: | 212 µm | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | Oxide wt% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| distance | SiO2 | TiO2 | Al2O3 | Cr2O3 | FeO | MnO | MgO | CaO | Na2O | K2O | Total |
| -101 | 44.9784 | 0.4352 | 7.1416 | 0.5013 | 20.4721 | 0.2693 | 17.1669 | 8.3252 | 0.158 | 0.0152 | 99.4632 |
| -94.9 | 45.0551 | 0.5007 | 7.1413 | 0.5444 | 20.5052 | 0.2546 | 17.2561 | 8.3405 | 0.1457 | 0.0121 | 99.7558 |
| -88.8 | 45.2603 | 0.4575 | 7.0341 | 0.5496 | 20.5798 | 0.2616 | 17.3243 | 8.3349 | 0.1432 | 0.0122 | 99.9575 |
| -82.6 | 45.0544 | 0.3682 | 7.1269 | 0.5601 | 20.5222 | 0.2748 | 17.251 | 8.3495 | 0.1348 | 0.0122 | 99.6541 |
| -76.5 | 45.2363 | 0.467 | 7.0539 | 0.528 | 20.4679 | 0.2748 | 17.3124 | 8.3366 | 0.1338 | 0.0106 | 99.8213 |
| -70.4 | 45.1699 | 0.4275 | 7.0495 | 0.5349 | 20.6233 | 0.2787 | 17.426 | 8.3346 | 0.1259 | 0.0103 | 99.9806 |
| -64.3 | 45.1252 | 0.4563 | 7.0909 | 0.517 | 20.6084 | 0.2631 | 17.3684 | 8.3086 | 0.132 | 0.0061 | 99.8761 |
| -58.2 | 45.1878 | 0.4571 | 7.1393 | 0.5795 | 20.5004 | 0.2532 | 17.3076 | 8.3445 | 0.1268 | 0.0094 | 99.9056 |
| -52 | 45.0747 | 0.4418 | 6.9751 | 0.5698 | 20.4279 | 0.2542 | 17.2485 | 8.3053 | 0.1235 | 0.0081 | 99.429 |
| -45.9 | 44.8421 | 0.3874 | 7.0918 | 0.5874 | 20.603 | 0.2654 | 17.3252 | 8.3374 | 0.1223 | 0.0113 | 99.5734 |
| -39.8 | 44.9835 | 0.3742 | 7.0935 | 0.5546 | 20.6537 | 0.2698 | 17.379 | 8.3456 | 0.1217 | 0.0036 | 99.7791 |
| -33.7 | 44.9781 | 0.4312 | 7.0483 | 0.5707 | 20.654 | 0.2685 | 17.3723 | 8.3216 | 0.1269 | 0.0085 | 99.7802 |
| -27.6 | 45.0721 | 0.4239 | 7.2113 | 0.5465 | 20.689 | 0.2514 | 17.3376 | 8.3069 | 0.1211 | 0.0062 | 99.9659 |
| -21.4 | 45.277 | 0.4127 | 7.1257 | 0.5114 | 20.7927 | 0.2571 | 17.3759 | 8.3576 | 0.1184 | 0.0085 | 100.2371 |
| -15.3 | 45.0089 | 0.4223 | 7.0271 | 0.601 | 20.5508 | 0.2646 | 17.3964 | 8.3366 | 0.1202 | 0.0071 | 99.7351 |
| -9.2 | 45.2219 | 0.3863 | 7.2371 | 0.535 | 20.5534 | 0.2663 | 17.2967 | 8.3612 | 0.1133 | 0.0059 | 99.977 |
| -3.1 | 44.6493 | 0.4142 | 7.0387 | 0.5549 | 20.5561 | 0.2666 | 17.3579 | 8.3526 | 0.122 | 0.0014 | 99.3138 |
| 3 | 45.4384 | 0.399 | 7.1913 | 0.5142 | 20.7012 | 0.2715 | 17.4221 | 8.3403 | 0.1108 | 0.0082 | 100.3969 |
| 9.2 | 45.2494 | 0.3666 | 7.1455 | 0.5755 | 20.5785 | 0.2761 | 17.338 | 8.3459 | 0.1126 | 0.0097 | 99.9979 |
| 15.3 | 45.0882 | 0.4845 | 7.1345 | 0.5498 | 20.6401 | 0.2606 | 17.3179 | 8.3364 | 0.1121 | 0.0082 | 99.9323 |
| 21.4 | 44.9227 | 0.425 | 7.0413 | 0.5901 | 20.567 | 0.2717 | 17.3948 | 8.3303 | 0.1221 | 0.0064 | 99.6714 |
| 27.5 | 45.2211 | 0.4024 | 7.1598 | 0.5256 | 20.6236 | 0.2715 | 17.3371 | 8.3062 | 0.1196 | 0.0084 | 99.9752 |
| 33.6 | 45.0294 | 0.3947 | 7.1242 | 0.5707 | 20.6711 | 0.2477 | 17.2832 | 8.3195 | 0.1187 | 0.0092 | 99.7683 |
| 39.8 | 45.0729 | 0.3771 | 7.0811 | 0.5761 | 20.6657 | 0.2637 | 17.501 | 8.3312 | 0.1266 | 0.0098 | 100.0052 |
| 45.9 | 45.0494 | 0.4521 | 7.0735 | 0.5602 | 20.6063 | 0.2555 | 17.35 | 8.3201 | 0.1242 | 0.0096 | 99.801 |
| 52 | 45.1301 | 0.3954 | 7.2 | 0.5335 | 20.5677 | 0.26 | 17.3907 | 8.316 | 0.1276 | 0.0097 | 99.9307 |
| 58.1 | 45.1698 | 0.3879 | 7.1095 | 0.542 | 20.4901 | 0.2661 | 17.3796 | 8.324 | 0.1285 | 0.0024 | 99.7998 |
| 64.2 | 45.3577 | 0.4702 | 7.1102 | 0.5699 | 20.524 | 0.2601 | 17.3472 | 8.2793 | 0.1359 | 0.0058 | 100.0603 |
| 70.4 | 45.3488 | 0.4082 | 7.0341 | 0.538 | 20.4771 | 0.2727 | 17.3203 | 8.3041 | 0.1247 | 0.0089 | 99.8368 |
| 76.5 | 45.1665 | 0.4418 | 7.0901 | 0.6046 | 20.4465 | 0.2659 | 17.255 | 8.3026 | 0.133 | 0.0064 | 99.7123 |
| 82.6 | 45.3254 | 0.421 | 7.0234 | 0.5681 | 20.4639 | 0.259 | 17.3242 | 8.3149 | 0.1377 | 0.0115 | 99.8493 |
| 88.7 | 45.5974 | 0.4256 | 7.2194 | 0.5417 | 20.5244 | 0.2587 | 17.582 | 8.2773 | 0.1489 | 0.009 | 100.5845 |
| 94.8 | 45.3026 | 0.4219 | 7.186 | 0.5201 | 20.3818 | 0.2696 | 17.3709 | 8.2776 | 0.1468 | 0.006 | 99.8833 |
| 101 | 45.6946 | 0.409 | 7.1744 | 0.5492 | 20.3089 | 0.2509 | 17.5325 | 8.2749 | 0.1494 | 0.0154 | 100.3593 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-G3 | diameter: | 234 µm | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | Oxide wt% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| distance | SiO2 | TiO2 | Al2O3 | Cr2O3 | FeO | MnO | MgO | CaO | Na2O | K2O | Total |
| -112 | 45.5915 | 0.4393 | 7.4899 | 0.603 | 19.8019 | 0.2591 | 16.6115 | 8.5822 | 0.1361 | 0.0099 | 99.5246 |
| -105.9 | 45.8494 | 0.3489 | 7.5195 | 0.5323 | 19.88 | 0.2493 | 16.6518 | 8.6018 | 0.1351 | 0.0093 | 99.7773 |
| -99.8 | 45.6972 | 0.3008 | 7.5329 | 0.5781 | 19.9697 | 0.2608 | 16.7262 | 8.647 | 0.1346 | 0.0069 | 99.8544 |
| -93.7 | 45.8434 | 0.3733 | 7.5832 | 0.5687 | 20.0069 | 0.2664 | 16.6844 | 8.6276 | 0.1303 | 0.0055 | 100.0897 |
| -87.6 | 45.3604 | 0.4421 | 7.5356 | 0.5914 | 20.0036 | 0.2527 | 16.7722 | 8.6074 | 0.1229 | 0.0073 | 99.6955 |
| -81.5 | 45.5148 | 0.3384 | 7.5745 | 0.5967 | 19.9602 | 0.2508 | 16.7829 | 8.5601 | 0.1221 | 0.01 | 99.7103 |
| -75.4 | 45.4689 | 0.3908 | 7.5175 | 0.5625 | 20.0781 | 0.267 | 16.7944 | 8.6374 | 0.121 | 0.0069 | 99.8444 |
| -69.3 | 45.6394 | 0.3647 | 7.6314 | 0.5418 | 20.0723 | 0.2648 | 16.7258 | 8.6493 | 0.1227 | 0.0108 | 100.0229 |
| -63.2 | 45.6884 | 0.3582 | 7.4516 | 0.5554 | 20.1484 | 0.2737 | 16.7456 | 8.5874 | 0.1083 | 0.011 | 99.9281 |
| -57.1 | 45.5125 | 0.3969 | 7.6517 | 0.6038 | 20.0938 | 0.2662 | 16.7742 | 8.6185 | 0.1177 | 0.0059 | 100.0413 |
| -51 | 45.7819 | 0.3955 | 7.5028 | 0.608 | 20.0986 | 0.2651 | 16.8145 | 8.5953 | 0.1226 | 0.0071 | 100.1913 |
| -44.9 | 45.7169 | 0.4007 | 7.5719 | 0.6105 | 20.0743 | 0.2634 | 16.7293 | 8.6268 | 0.1146 | 0.0066 | 100.1148 |
| -38.8 | 45.6313 | 0.3451 | 7.5613 | 0.5463 | 20.0179 | 0.2701 | 16.6741 | 8.5916 | 0.1205 | 0.0093 | 99.7675 |
| -32.7 | 45.6061 | 0.3966 | 7.5391 | 0.5918 | 19.9828 | 0.2581 | 16.7173 | 8.588 | 0.1058 | 0.0074 | 99.793 |
| -26.6 | 45.6821 | 0.3708 | 7.5039 | 0.5815 | 20.2163 | 0.2519 | 16.87 | 8.6062 | 0.118 | 0.0083 | 100.209 |
| -20.5 | 45.7369 | 0.3586 | 7.6134 | 0.5627 | 20.2364 | 0.2633 | 16.7998 | 8.6682 | 0.1109 | 0.0077 | 100.3581 |
| -14.4 | 45.5246 | 0.405 | 7.5801 | 0.5239 | 20.0716 | 0.2772 | 16.7897 | 8.6125 | 0.1217 | 0.0084 | 99.9147 |
| -8.3 | 45.7041 | 0.3564 | 7.4848 | 0.5886 | 20.1743 | 0.2635 | 16.7806 | 8.6088 | 0.1139 | 0.0031 | 100.0781 |
| -2.2 | 45.7202 | 0.3358 | 7.6759 | 0.5383 | 20.207 | 0.2749 | 16.8616 | 8.5821 | 0.1161 | 0.0083 | 100.3202 |
| 3.9 | 45.7897 | 0.4496 | 7.6135 | 0.5741 | 20.1028 | 0.2714 | 16.8601 | 8.6034 | 0.1189 | 0.011 | 100.3945 |
| 10.0 | 45.6787 | 0.4063 | 7.5512 | 0.5325 | 20.179 | 0.2714 | 16.7644 | 8.6247 | 0.1145 | 0.0053 | 100.1279 |
| 16.1 | 45.6773 | 0.3924 | 7.6717 | 0.5432 | 20.2317 | 0.2606 | 16.8337 | 8.5894 | 0.12 | 0.0089 | 100.3289 |
| 22.2 | 45.7056 | 0.3854 | 7.5533 | 0.5447 | 19.8838 | 0.2646 | 16.7626 | 8.6126 | 0.1171 | 0.0056 | 99.8353 |
| 28.3 | 45.8186 | 0.3553 | 7.5727 | 0.6254 | 19.9991 | 0.2739 | 16.8631 | 8.6199 | 0.1177 | 0.0106 | 100.2565 |
| 34.4 | 45.6609 | 0.3593 | 7.6677 | 0.5757 | 20.0393 | 0.2658 | 16.8536 | 8.6065 | 0.1192 | 0.0071 | 100.155 |
| 40.5 | 45.5957 | 0.4298 | 7.5029 | 0.5515 | 19.942 | 0.2673 | 16.7506 | 8.5987 | 0.1114 | 0.0028 | 99.7526 |
| 46.6 | 45.5753 | 0.4268 | 7.6385 | 0.552 | 20.0429 | 0.2722 | 16.8159 | 8.5726 | 0.1193 | 0.0073 | 100.0227 |
| 52.7 | 45.7669 | 0.3749 | 7.4429 | 0.5872 | 19.9291 | 0.2576 | 16.8607 | 8.5892 | 0.1136 | 0.0052 | 99.9273 |
| 58.8 | 45.8026 | 0.3949 | 7.5775 | 0.5779 | 20.038 | 0.267 | 16.8077 | 8.6337 | 0.1192 | 0.0043 | 100.2226 |
| 64.9 | 45.4276 | 0.4437 | 7.6054 | 0.603 | 19.9927 | 0.2747 | 16.7932 | 8.6269 | 0.1238 | 0.0052 | 99.8962 |
| 71.0 | 45.65 | 0.3363 | 7.6412 | 0.5844 | 19.9328 | 0.2579 | 16.8008 | 8.6067 | 0.1148 | 0.007 | 99.932 |
| 77.1 | 45.3752 | 0.3496 | 7.6336 | 0.5382 | 20.0638 | 0.2619 | 16.7913 | 8.6063 | 0.1196 | 0.0095 | 99.7491 |
| 83.2 | 45.5227 | 0.3851 | 7.6999 | 0.5381 | 19.9818 | 0.2625 | 16.8271 | 8.595 | 0.1198 | 0.0103 | 99.9422 |
| 89.3 | 45.6026 | 0.4024 | 7.5488 | 0.59 | 19.6813 | 0.2664 | 16.7773 | 8.623 | 0.1245 | 0.0083 | 99.6247 |
| 95.4 | 45.4876 | 0.4081 | 7.5667 | 0.6183 | 19.9663 | 0.2543 | 16.7216 | 8.6023 | 0.1245 | 0.0051 | 99.755 |
| 101.5 | 45.6813 | 0.4049 | 7.5104 | 0.6053 | 19.9636 | 0.2498 | 16.8124 | 8.6175 | 0.1372 | 0.0062 | 99.9887 |
| 107.6 | 46.0937 | 0.3903 | 7.6735 | 0.5494 | 19.8819 | 0.2568 | 16.8109 | 8.6251 | 0.1303 | 0.0078 | 100.4197 |
| 113.7 | 46.4057 | 0.387 | 7.7738 | 0.5681 | 19.6394 | 0.2474 | 16.9711 | 8.54 | 0.1453 | 0.0074 | 100.6851 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-H1 | diameter: | 257 µm | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | Oxide wt% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| distance | SiO2 | TiO2 | Al2O3 | Cr2O3 | FeO | MnO | MgO | CaO | Na2O | K2O | Total |
| -124.5 | 46.9547 | 0.3827 | 7.2778 | 0.5148 | 20.0886 | 0.2611 | 17.1865 | 8.0933 | 0.1678 | 0.0163 | 100.9434 |
| -116.5 | 46.6714 | 0.4613 | 7.2912 | 0.5657 | 20.2526 | 0.2664 | 17.2525 | 8.0895 | 0.1548 | 0.0117 | 101.0171 |
| -108.5 | 46.783 | 0.4114 | 7.2959 | 0.5475 | 20.1752 | 0.2658 | 17.1323 | 8.1373 | 0.1411 | 0.0133 | 100.9028 |
| -100.5 | 46.9211 | 0.3954 | 7.2985 | 0.5903 | 20.2276 | 0.2665 | 17.1926 | 8.0969 | 0.1344 | 0.0084 | 101.1316 |
| -92.5 | 46.7881 | 0.4063 | 7.2137 | 0.577 | 20.3365 | 0.2652 | 17.2171 | 8.0944 | 0.1296 | 0.0092 | 101.037 |
| -84.5 | 46.8757 | 0.4074 | 7.2669 | 0.5807 | 20.1322 | 0.2649 | 17.1481 | 8.0936 | 0.1297 | 0.0078 | 100.9069 |
| -76.5 | 46.6316 | 0.4328 | 7.2415 | 0.6311 | 20.198 | 0.257 | 17.164 | 8.0976 | 0.1239 | 0.0068 | 100.7843 |
| -68.5 | 46.7843 | 0.4249 | 7.2757 | 0.6065 | 20.3954 | 0.2543 | 17.1978 | 8.0903 | 0.1206 | 0.0113 | 101.1612 |
| -60.5 | 46.7687 | 0.3484 | 7.2251 | 0.5633 | 20.2878 | 0.2624 | 17.1458 | 8.1038 | 0.1196 | 0.0089 | 100.8338 |
| -52.5 | 46.79 | 0.3551 | 7.3132 | 0.574 | 20.3754 | 0.2605 | 17.1631 | 8.0961 | 0.1194 | 0.0067 | 101.0535 |
| -44.5 | 46.7591 | 0.4121 | 7.2394 | 0.561 | 20.3706 | 0.2553 | 17.1871 | 8.0936 | 0.1184 | 0.0017 | 100.9984 |
| -36.5 | 46.7817 | 0.3715 | 7.2207 | 0.5949 | 20.3688 | 0.2637 | 17.1877 | 8.112 | 0.1158 | 0.0124 | 101.0293 |
| -28.5 | 46.9299 | 0.3847 | 7.2505 | 0.562 | 20.2011 | 0.2661 | 17.1735 | 8.1156 | 0.1141 | 0.0129 | 101.0103 |
| -20.5 | 46.8166 | 0.4148 | 7.3362 | 0.533 | 20.306 | 0.2483 | 17.1499 | 8.0851 | 0.1115 | 0.0047 | 101.006 |
| -12.5 | 46.7717 | 0.4021 | 7.2929 | 0.5607 | 20.313 | 0.2636 | 17.1449 | 8.1224 | 0.1183 | 0.0087 | 100.9983 |
| -4.5 | 46.8169 | 0.383 | 7.1949 | 0.5748 | 20.3545 | 0.2623 | 17.1849 | 8.0852 | 0.1171 | 0.0057 | 100.9795 |
| 3.5 | 46.8725 | 0.3758 | 7.3049 | 0.5782 | 20.3512 | 0.2725 | 17.1861 | 8.0909 | 0.119 | 0.0084 | 101.1595 |
| 11.5 | 46.835 | 0.3747 | 7.2362 | 0.5613 | 20.3512 | 0.2596 | 17.1718 | 8.0807 | 0.1129 | 0.0129 | 100.9962 |
| 19.5 | 46.4965 | 0.4258 | 7.3314 | 0.581 | 20.3536 | 0.2668 | 17.1225 | 8.081 | 0.1141 | 0.0073 | 100.78 |
| 27.5 | 46.8091 | 0.3845 | 7.2848 | 0.5989 | 20.3125 | 0.2664 | 17.1141 | 8.0705 | 0.1171 | 0.0082 | 100.966 |
| 35.5 | 46.5112 | 0.3735 | 7.2792 | 0.5714 | 20.3428 | 0.2613 | 17.2227 | 8.1047 | 0.114 | 0.0082 | 100.789 |
| 43.5 | 46.6818 | 0.4689 | 7.3 | 0.5757 | 20.3366 | 0.2635 | 17.1622 | 8.0986 | 0.1193 | 0.0079 | 101.0145 |
| 51.5 | 46.8902 | 0.4021 | 7.2319 | 0.5516 | 20.2145 | 0.2672 | 17.17 | 8.115 | 0.1169 | 0.008 | 100.9673 |
| 59.5 | 46.8118 | 0.4549 | 7.2536 | 0.5685 | 20.448 | 0.2557 | 17.1634 | 8.0995 | 0.1226 | 0.0104 | 101.1884 |
| 67.5 | 46.6334 | 0.331 | 7.2919 | 0.57 | 20.3822 | 0.2621 | 17.0476 | 8.1049 | 0.1183 | 0.0097 | 100.7511 |
| 75.5 | 46.9998 | 0.3351 | 7.2894 | 0.5405 | 20.2524 | 0.266 | 17.1498 | 8.093 | 0.1222 | 0.0096 | 101.0578 |
| 83.5 | 46.8062 | 0.3894 | 7.2694 | 0.5564 | 20.2412 | 0.2669 | 17.1256 | 8.0764 | 0.1217 | 0.0122 | 100.8653 |
| 91.5 | 46.8532 | 0.4488 | 7.3216 | 0.5472 | 20.221 | 0.2674 | 17.1697 | 8.0817 | 0.1301 | 0.01 | 101.0507 |
| 99.5 | 46.584 | 0.3989 | 7.2034 | 0.5721 | 20.2243 | 0.2551 | 17.1602 | 8.075 | 0.1393 | 0.0078 | 100.62 |
| 107.5 | 46.7192 | 0.3725 | 7.2416 | 0.5737 | 20.1223 | 0.2565 | 17.1515 | 8.0904 | 0.1448 | 0.011 | 100.6836 |
| 115.5 | 46.7939 | 0.3615 | 7.3763 | 0.5592 | 20.297 | 0.2668 | 17.1582 | 8.0558 | 0.1503 | 0.012 | 101.0312 |
| 123.5 | 46.7549 | 0.3926 | 7.1167 | 0.5178 | 20.0211 | 0.2626 | 17.0986 | 8.0973 | 0.1629 | 0.0195 | 100.444 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-H4 | diameter: | 262 µm | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | Oxide wt% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| distance | SiO2 | TiO2 | Al2O3 | Cr2O3 | FeO | MnO | MgO | CaO | Na2O | K2O | Total |
| -126 | 47.0281 | 0.4093 | 7.6286 | 0.596 | 19.6486 | 0.2523 | 16.4299 | 8.4369 | 0.1438 | 0.0097 | 100.5832 |
| -117.8 | 46.9202 | 0.3966 | 7.5917 | 0.5589 | 19.7964 | 0.2692 | 16.4053 | 8.414 | 0.137 | 0.0181 | 100.5073 |
| -109.6 | 46.9645 | 0.4599 | 7.4864 | 0.5896 | 19.8406 | 0.2644 | 16.3981 | 8.4321 | 0.136 | 0.0061 | 100.5775 |
| -101.4 | 47.2837 | 0.3732 | 7.6106 | 0.5582 | 19.8828 | 0.2511 | 16.4526 | 8.4756 | 0.1318 | 0.0038 | 101.0235 |
| -93.2 | 46.9553 | 0.3175 | 7.6459 | 0.619 | 19.9393 | 0.2636 | 16.3621 | 8.4574 | 0.1322 | 0.0043 | 100.6967 |
| -85 | 46.8802 | 0.3723 | 7.535 | 0.5547 | 19.8259 | 0.267 | 16.3346 | 8.4656 | 0.1253 | 0.0095 | 100.37 |
| -76.8 | 46.9118 | 0.3866 | 7.6256 | 0.5474 | 19.8906 | 0.2625 | 16.385 | 8.518 | 0.1242 | 0.0077 | 100.6593 |
| -68.6 | 46.8765 | 0.3772 | 7.6021 | 0.5751 | 19.8878 | 0.2645 | 16.4031 | 8.4901 | 0.1266 | 0.0109 | 100.6139 |
| -60.4 | 46.835 | 0.3965 | 7.6297 | 0.5441 | 19.8172 | 0.2603 | 16.4065 | 8.514 | 0.126 | 0.007 | 100.5362 |
| -52.2 | 46.6699 | 0.3966 | 7.6238 | 0.5715 | 19.8477 | 0.2652 | 16.3775 | 8.4767 | 0.1241 | 0.0098 | 100.3628 |
| -44 | 47.0004 | 0.3453 | 7.6484 | 0.5799 | 19.9669 | 0.2675 | 16.4215 | 8.4591 | 0.1262 | 0.0086 | 100.8238 |
| -35.8 | 46.9636 | 0.3361 | 7.5994 | 0.5906 | 19.991 | 0.2633 | 16.4414 | 8.4926 | 0.1249 | 0.0075 | 100.8105 |
| -27.6 | 47.0448 | 0.3842 | 7.6128 | 0.5654 | 19.8799 | 0.278 | 16.3801 | 8.4653 | 0.1266 | 0.0088 | 100.7459 |
| -19.4 | 46.8248 | 0.3575 | 7.7261 | 0.5575 | 19.8327 | 0.2831 | 16.4008 | 8.4954 | 0.1227 | 0.0097 | 100.6103 |
| -11.2 | 46.8536 | 0.3989 | 7.6597 | 0.5066 | 19.833 | 0.2654 | 16.3748 | 8.4772 | 0.124 | 0.0111 | 100.5044 |
| -3 | 46.9815 | 0.3962 | 7.6064 | 0.574 | 19.7825 | 0.2632 | 16.3794 | 8.4956 | 0.1254 | 0.0128 | 100.6169 |
| 5.2 | 47.1424 | 0.3674 | 7.5969 | 0.5427 | 19.8663 | 0.2689 | 16.3845 | 8.4966 | 0.1204 | 0.0115 | 100.7975 |
| 13.4 | 46.8884 | 0.4029 | 7.6845 | 0.5542 | 19.7974 | 0.2634 | 16.3842 | 8.4875 | 0.1238 | 0.007 | 100.5933 |
| 21.6 | 46.6934 | 0.3631 | 7.409 | 0.5669 | 19.8709 | 0.2603 | 16.379 | 8.4769 | 0.1261 | 0.0118 | 100.1574 |
| 29.8 | 46.8274 | 0.388 | 7.6482 | 0.5268 | 19.8896 | 0.2626 | 16.3237 | 8.4903 | 0.1195 | 0.011 | 100.487 |
| 38 | 46.844 | 0.3516 | 7.6043 | 0.5529 | 19.9044 | 0.2531 | 16.379 | 8.4971 | 0.1212 | 0.0073 | 100.515 |
| 46.2 | 47.0945 | 0.4131 | 7.5775 | 0.5802 | 19.8155 | 0.264 | 16.3467 | 8.5062 | 0.1262 | 0.0077 | 100.7317 |
| 54.4 | 47.0017 | 0.3331 | 7.6625 | 0.5667 | 19.9729 | 0.2533 | 16.3347 | 8.4758 | 0.1289 | 0.0092 | 100.7387 |
| 62.6 | 46.8829 | 0.303 | 7.5375 | 0.5977 | 19.8475 | 0.2718 | 16.3071 | 8.5073 | 0.126 | 0.0055 | 100.3862 |
| 70.8 | 46.9862 | 0.3901 | 7.5984 | 0.5954 | 19.8401 | 0.2627 | 16.3359 | 8.4607 | 0.1223 | 0.0044 | 100.5962 |
| 79 | 46.8341 | 0.3589 | 7.582 | 0.584 | 19.8125 | 0.2658 | 16.3442 | 8.5048 | 0.1248 | 0.011 | 100.422 |
| 87.2 | 46.8696 | 0.3996 | 7.6338 | 0.532 | 19.8104 | 0.2619 | 16.3577 | 8.4542 | 0.1276 | 0.0052 | 100.4521 |
| 95.4 | 46.9679 | 0.3922 | 7.6089 | 0.5641 | 19.777 | 0.2526 | 16.2814 | 8.4553 | 0.1231 | 0.009 | 100.4316 |
| 103.6 | 47.005 | 0.3691 | 7.6596 | 0.5568 | 19.7563 | 0.2615 | 16.3464 | 8.4834 | 0.1289 | 0.0086 | 100.5756 |
| 111.8 | 46.9009 | 0.3642 | 7.6027 | 0.6131 | 19.8269 | 0.2695 | 16.3081 | 8.4838 | 0.1298 | 0.0102 | 100.5091 |
| 120 | 46.537 | 0.3893 | 7.5413 | 0.5684 | 19.6532 | 0.2652 | 16.2874 | 8.5183 | 0.138 | 0.0123 | 99.9104 |
| 128.2 | 47.0797 | 0.3934 | 7.569 | 0.6064 | 19.6404 | 0.2747 | 16.3434 | 8.4666 | 0.1496 | 0.0087 | 100.5319 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-H5 | diameter: | 210 µm | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | Oxide wt% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| distance | SiO2 | TiO2 | Al2O3 | Cr2O3 | FeO | MnO | MgO | CaO | Na2O | K2O | Total |
| -100 | 46.8579 | 0.4218 | 7.2268 | 0.5342 | 20.4474 | 0.2617 | 16.9158 | 8.1284 | 0.1593 | 0.0211 | 100.9744 |
| -92 | 46.6066 | 0.4344 | 7.1749 | 0.5427 | 20.5265 | 0.2569 | 17.011 | 8.1051 | 0.1678 | 0.0123 | 100.8381 |
| -83.9 | 47.0098 | 0.4096 | 7.1927 | 0.5697 | 20.4971 | 0.2637 | 17.05 | 8.0863 | 0.1568 | 0.0128 | 101.2484 |
| -75.9 | 46.984 | 0.4068 | 7.2976 | 0.5745 | 20.5711 | 0.2573 | 17.0584 | 8.0988 | 0.1478 | 0.0105 | 101.4068 |
| -67.8 | 46.5626 | 0.4254 | 7.2541 | 0.5904 | 20.5013 | 0.2679 | 17.0445 | 8.1013 | 0.1444 | 0.0074 | 100.8993 |
| -59.8 | 46.5263 | 0.3484 | 7.2698 | 0.5568 | 20.5894 | 0.2757 | 17.0371 | 8.1288 | 0.144 | 0.0144 | 100.8907 |
| -51.8 | 46.6923 | 0.3525 | 7.2144 | 0.5627 | 20.5483 | 0.2689 | 16.9909 | 8.0917 | 0.1372 | 0.0103 | 100.8693 |
| -43.7 | 46.8252 | 0.4449 | 7.1154 | 0.5957 | 20.6972 | 0.2591 | 17.0841 | 8.1166 | 0.1386 | 0.0107 | 101.2874 |
| -35.7 | 46.7476 | 0.4388 | 7.2328 | 0.5871 | 20.6503 | 0.2638 | 17.0335 | 8.0874 | 0.1314 | 0.0088 | 101.1815 |
| -27.6 | 46.5736 | 0.3983 | 7.283 | 0.5703 | 20.5721 | 0.2565 | 17.0587 | 8.0957 | 0.1328 | 0.0129 | 100.9537 |
| -19.6 | 46.585 | 0.4259 | 7.3273 | 0.5874 | 20.6118 | 0.2808 | 16.9454 | 8.0865 | 0.1326 | 0.0089 | 100.9915 |
| -11.6 | 46.6473 | 0.4133 | 7.2298 | 0.5713 | 20.678 | 0.2667 | 17.0427 | 8.114 | 0.1299 | 0.0098 | 101.1028 |
| -3.5 | 46.5646 | 0.3393 | 7.2602 | 0.579 | 20.5351 | 0.2649 | 16.9839 | 8.1287 | 0.1343 | 0.0087 | 100.7986 |
| 4.5 | 46.5463 | 0.3967 | 7.2695 | 0.5515 | 20.6639 | 0.2619 | 17.0104 | 8.1363 | 0.138 | 0.0086 | 100.9831 |
| 12.6 | 46.8153 | 0.3999 | 7.2295 | 0.5529 | 20.6309 | 0.265 | 17.0205 | 8.1015 | 0.1315 | 0.013 | 101.1599 |
| 20.6 | 46.6511 | 0.3382 | 7.2975 | 0.5418 | 20.6532 | 0.2662 | 16.9705 | 8.0958 | 0.137 | 0.0152 | 100.9666 |
| 28.6 | 46.7836 | 0.399 | 7.2936 | 0.53 | 20.5874 | 0.2745 | 16.999 | 8.1149 | 0.135 | 0.0135 | 101.1303 |
| 36.7 | 46.6315 | 0.3867 | 7.2732 | 0.5178 | 20.5441 | 0.2801 | 16.9759 | 8.1237 | 0.1418 | 0.0136 | 100.8884 |
| 44.7 | 46.6307 | 0.3717 | 7.248 | 0.5345 | 20.5574 | 0.2508 | 16.9861 | 8.1377 | 0.1435 | 0.0131 | 100.8735 |
| 52.8 | 46.5225 | 0.3896 | 7.2901 | 0.5293 | 20.5336 | 0.2622 | 16.9535 | 8.1003 | 0.1379 | 0.0139 | 100.7327 |
| 60.8 | 46.62 | 0.4142 | 7.3098 | 0.5478 | 20.5188 | 0.2679 | 16.9619 | 8.0888 | 0.1428 | 0.0138 | 100.8858 |
| 68.8 | 46.7809 | 0.4316 | 7.3186 | 0.5633 | 20.5301 | 0.2648 | 16.9941 | 8.104 | 0.1502 | 0.0127 | 101.1504 |
| 76.9 | 46.8148 | 0.3566 | 7.1685 | 0.5603 | 20.4086 | 0.2752 | 17.045 | 8.103 | 0.1542 | 0.0115 | 100.8976 |
| 84.9 | 46.6046 | 0.4932 | 7.2759 | 0.557 | 20.4196 | 0.259 | 17.0751 | 8.1126 | 0.1552 | 0.0152 | 100.9673 |
| 93 | 46.7691 | 0.4123 | 7.2194 | 0.5581 | 20.4133 | 0.2578 | 16.996 | 8.074 | 0.1687 | 0.0192 | 100.8878 |
| 101 | 46.7708 | 0.3725 | 7.3642 | 0.5104 | 20.2369 | 0.2459 | 17.0301 | 8.0521 | 0.1688 | 0.0185 | 100.7701 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-H8 | diameter: | 118 µm | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | Oxide wt% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| distance | SiO2 | TiO2 | Al2O3 | Cr2O3 | FeO | MnO | MgO | CaO | Na2O | K2O | Total |
| -55 | 46.9961 | 0.3718 | 7.1862 | 0.5815 | 20.049 | 0.253 | 17.1863 | 8.0351 | 0.1624 | 0.0132 | 100.8346 |
| -50.1 | 46.697 | 0.4141 | 7.2986 | 0.5385 | 20.1406 | 0.2579 | 17.1742 | 8.0479 | 0.1454 | 0.0112 | 100.7254 |
| -45.3 | 47.1015 | 0.3851 | 7.3129 | 0.5291 | 20.238 | 0.2626 | 17.1831 | 8.0912 | 0.1362 | 0.0104 | 101.2501 |
| -40.4 | 46.9888 | 0.3972 | 7.291 | 0.5525 | 20.3349 | 0.2623 | 17.3397 | 8.0914 | 0.1365 | 0.011 | 101.4052 |
| -35.5 | 46.833 | 0.4069 | 7.2666 | 0.5626 | 20.3567 | 0.2509 | 17.3194 | 8.0687 | 0.1371 | 0.0146 | 101.2164 |
| -30.7 | 46.736 | 0.43 | 7.195 | 0.5288 | 20.2118 | 0.2633 | 17.2242 | 8.1085 | 0.1263 | 0.0133 | 100.8372 |
| -25.8 | 46.8122 | 0.454 | 7.2603 | 0.5571 | 20.2981 | 0.2605 | 17.2222 | 8.0765 | 0.1225 | 0.0076 | 101.0707 |
| -20.9 | 46.5899 | 0.3732 | 7.2371 | 0.5728 | 20.306 | 0.271 | 17.2316 | 8.0853 | 0.1267 | 0.0114 | 100.8049 |
| -16 | 46.8504 | 0.41 | 7.256 | 0.5325 | 20.3407 | 0.2543 | 17.2616 | 8.0958 | 0.1249 | 0.0084 | 101.1346 |
| -11.2 | 46.7514 | 0.4011 | 7.3317 | 0.5241 | 20.3325 | 0.253 | 17.2654 | 8.1122 | 0.126 | 0.0053 | 101.1027 |
| -6.3 | 46.7449 | 0.4216 | 7.2942 | 0.5796 | 20.3507 | 0.2505 | 17.2997 | 8.085 | 0.1256 | 0.0091 | 101.1609 |
| -1.4 | 47.0424 | 0.405 | 7.3208 | 0.5817 | 20.4174 | 0.2591 | 17.3081 | 8.093 | 0.1269 | 0.0079 | 101.5623 |
| 3.4 | 47.0457 | 0.4335 | 7.1952 | 0.5406 | 20.3422 | 0.2649 | 17.3034 | 8.0688 | 0.1255 | 0.0111 | 101.3309 |
| 8.3 | 47.1816 | 0.3826 | 7.2183 | 0.5905 | 20.2381 | 0.2612 | 17.3393 | 8.0868 | 0.1276 | 0.0118 | 101.4377 |
| 13.2 | 46.6303 | 0.3932 | 7.2465 | 0.5578 | 20.3404 | 0.2562 | 17.2462 | 8.0692 | 0.1267 | 0.0064 | 100.8729 |
| 18.1 | 46.8067 | 0.3965 | 7.3247 | 0.5852 | 20.3151 | 0.26 | 17.2679 | 8.1051 | 0.1259 | 0.0097 | 101.1968 |
| 22.9 | 46.7255 | 0.3546 | 7.2304 | 0.5674 | 20.2351 | 0.2611 | 17.2635 | 8.1085 | 0.1279 | 0.0104 | 100.8842 |
| 27.8 | 46.8889 | 0.3928 | 7.2071 | 0.5446 | 20.331 | 0.2615 | 17.2741 | 8.0789 | 0.1327 | 0.0115 | 101.1231 |
| 32.7 | 46.9406 | 0.4185 | 7.2791 | 0.5772 | 20.3734 | 0.2638 | 17.2393 | 8.1102 | 0.1318 | 0.0075 | 101.3414 |
| 37.5 | 47.0556 | 0.3976 | 7.2267 | 0.576 | 20.1803 | 0.2696 | 17.2501 | 8.0997 | 0.1306 | 0.0106 | 101.1968 |
| 42.4 | 46.8153 | 0.4657 | 7.2554 | 0.5317 | 20.2381 | 0.2552 | 17.1853 | 8.056 | 0.1453 | 0.0135 | 100.9615 |
| 47.3 | 46.7132 | 0.3783 | 7.1858 | 0.532 | 20.1368 | 0.2611 | 17.243 | 8.0419 | 0.1472 | 0.0119 | 100.6512 |
| 52.1 | 46.9184 | 0.4033 | 7.2364 | 0.5015 | 20.2177 | 0.2536 | 17.193 | 8.0576 | 0.1618 | 0.0188 | 100.9619 |
| 57 | 46.8266 | 0.4661 | 7.2632 | 0.5246 | 20.0493 | 0.2587 | 17.2047 | 8.0847 | 0.19 | 0.0155 | 100.8834 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GNGB3 | diameter: | 289 µm | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | Oxide wt% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| distance | SiO2 | TiO2 | Al2O3 | Cr2O3 | FeO | MnO | MgO | CaO | Na2O | K2O | Total |
| -134.5 | 45.6595 | 0.378 | 7.0379 | 0.5561 | 19.7523 | 0.2629 | 17.1763 | 8.07 | 0.1901 | 0.0157 | 99.0988 |
| -129.5 | 46.862 | 0.4411 | 7.1366 | 0.5633 | 20.1876 | 0.2677 | 16.9326 | 8.1733 | 0.1866 | 0.021 | 100.7718 |
| -124.5 | 45.4062 | 0.3601 | 7.111 | 0.5203 | 19.7824 | 0.2649 | 17.0541 | 8.0335 | 0.1738 | 0.0142 | 98.7204 |
| -119.5 | 46.616 | 0.3698 | 7.1596 | 0.5554 | 20.0966 | 0.2727 | 16.903 | 8.1411 | 0.1742 | 0.0134 | 100.3018 |
| -114.5 | 45.4862 | 0.4205 | 6.9553 | 0.5579 | 19.9732 | 0.2617 | 17.0757 | 8.0486 | 0.1682 | 0.0161 | 98.9632 |
| -109.5 | 46.8534 | 0.3926 | 7.1677 | 0.5733 | 20.0975 | 0.2542 | 16.8975 | 8.1731 | 0.1598 | 0.013 | 100.5821 |
| -104.5 | 45.4791 | 0.4266 | 6.9892 | 0.5651 | 19.908 | 0.2651 | 17.0866 | 8.0595 | 0.1573 | 0.0135 | 98.95 |
| -99.5 | 47.0598 | 0.4084 | 7.1996 | 0.5644 | 20.287 | 0.2757 | 16.9591 | 8.1967 | 0.1536 | 0.009 | 101.1133 |
| -94.5 | 45.537 | 0.4157 | 6.9341 | 0.5157 | 19.9185 | 0.2706 | 17.0341 | 8.0563 | 0.1533 | 0.0076 | 98.8429 |
| -89.5 | 46.8194 | 0.4109 | 7.1503 | 0.5819 | 20.1317 | 0.257 | 16.9138 | 8.1422 | 0.1403 | 0.0111 | 100.5588 |
| -84.5 | 45.3654 | 0.4029 | 6.9167 | 0.5638 | 19.8078 | 0.2584 | 17.0116 | 8.0665 | 0.142 | 0.0111 | 98.5462 |
| -79.5 | 46.9251 | 0.4401 | 7.2068 | 0.5277 | 20.3401 | 0.2622 | 17.0068 | 8.2613 | 0.1409 | 0.0103 | 101.1213 |
| -74.5 | 45.4197 | 0.4214 | 6.9988 | 0.5615 | 20.1299 | 0.2772 | 17.1372 | 8.0465 | 0.1427 | 0.0105 | 99.1454 |
| -69.5 | 46.9861 | 0.4015 | 7.1384 | 0.5834 | 20.1933 | 0.2683 | 17.0087 | 8.1641 | 0.1393 | 0.0114 | 100.8945 |
| -64.5 | 45.3052 | 0.4152 | 7.0229 | 0.5444 | 19.8032 | 0.2668 | 17.0212 | 8.0514 | 0.1317 | 0.015 | 98.5769 |
| -59.5 | 46.7493 | 0.3625 | 7.1399 | 0.5693 | 20.1928 | 0.255 | 16.9762 | 8.2238 | 0.1302 | 0.0072 | 100.6063 |
| -54.5 | 45.5584 | 0.3923 | 6.9959 | 0.5615 | 19.8512 | 0.2674 | 17.0948 | 8.0616 | 0.1354 | 0.0122 | 98.9306 |
| -48.5 | 46.7464 | 0.4545 | 7.0619 | 0.6133 | 20.1342 | 0.2657 | 16.9485 | 8.1887 | 0.1331 | 0.0046 | 100.5509 |
| -43.5 | 45.438 | 0.4295 | 7.0927 | 0.5673 | 19.9222 | 0.2722 | 17.1414 | 8.0568 | 0.1284 | 0.0103 | 99.0588 |
| -37.5 | 46.7244 | 0.416 | 7.1196 | 0.5885 | 20.1208 | 0.2586 | 16.8579 | 8.1727 | 0.1274 | 0.0122 | 100.3981 |
| -31.5 | 45.1924 | 0.4058 | 6.9926 | 0.5452 | 19.7747 | 0.2667 | 17.1145 | 8.0765 | 0.1314 | 0.011 | 98.5108 |
| -25.5 | 46.7346 | 0.3893 | 7.1998 | 0.5378 | 20.0747 | 0.262 | 16.9362 | 8.1611 | 0.1225 | 0.0114 | 100.4293 |
| -19.5 | 45.4783 | 0.3845 | 7.0018 | 0.5238 | 20.1699 | 0.2681 | 17.0544 | 8.0751 | 0.1324 | 0.0096 | 99.098 |
| -13.5 | 46.8622 | 0.3623 | 7.2264 | 0.5685 | 20.1914 | 0.253 | 16.8949 | 8.1728 | 0.1234 | 0.0122 | 100.6671 |
| -7.5 | 45.3354 | 0.4407 | 6.9638 | 0.5926 | 19.9058 | 0.2671 | 17.0717 | 8.0386 | 0.1209 | 0.0128 | 98.7493 |
| -1.5 | 47.0495 | 0.4131 | 7.1725 | 0.5155 | 20.0799 | 0.2607 | 16.9729 | 8.2047 | 0.1221 | 0.0084 | 100.7992 |
| 4.5 | 45.3061 | 0.3973 | 7.038 | 0.5405 | 19.9233 | 0.2576 | 17.0661 | 8.0291 | 0.1257 | 0.0114 | 98.695 |
| 10.5 | 47.0772 | 0.3904 | 7.1627 | 0.6029 | 20.1673 | 0.2624 | 17.0146 | 8.1948 | 0.1254 | 0.009 | 101.0066 |
| 16.5 | 45.5076 | 0.4136 | 6.9405 | 0.563 | 20.0688 | 0.2606 | 17.1329 | 8.079 | 0.1209 | 0.008 | 99.0949 |
| 22.5 | 46.1087 | 0.381 | 7.214 | 0.5274 | 20.2479 | 0.253 | 16.9688 | 8.1576 | 0.1294 | 0.0137 | 100.0014 |
| 28.5 | 44.8414 | 0.4047 | 6.8807 | 0.5185 | 19.9041 | 0.2623 | 17.1032 | 8.004 | 0.1281 | 0.0118 | 98.0589 |
| 33.5 | 46.834 | 0.4021 | 7.1035 | 0.5164 | 20.188 | 0.2688 | 16.9458 | 8.1794 | 0.1298 | 0.0109 | 100.5788 |
| 38.5 | 45.1231 | 0.4306 | 6.9184 | 0.6107 | 19.9069 | 0.27 | 17.0554 | 8.0368 | 0.1268 | 0.0128 | 98.4917 |
| 43.5 | 46.6574 | 0.3967 | 7.0199 | 0.5706 | 20.0052 | 0.2749 | 16.8285 | 8.1703 | 0.1257 | 0.0139 | 100.0631 |
| 48.5 | 44.8709 | 0.4087 | 6.9704 | 0.5902 | 19.7537 | 0.2711 | 16.9506 | 8.0035 | 0.1278 | 0.013 | 97.9601 |
| 53.5 | 46.7178 | 0.4272 | 7.185 | 0.5326 | 20.1052 | 0.256 | 16.8334 | 8.1263 | 0.1317 | 0.0111 | 100.3263 |
| 58.5 | 45.5959 | 0.4029 | 7.0606 | 0.5581 | 19.7175 | 0.272 | 17.0507 | 8.0876 | 0.1322 | 0.0124 | 98.8897 |
| 63.5 | 46.6239 | 0.3665 | 7.1762 | 0.5544 | 20.1113 | 0.2631 | 16.9343 | 8.142 | 0.1331 | 0.0119 | 100.3167 |
| 68.5 | 45.1614 | 0.4313 | 7.0334 | 0.5786 | 20.0998 | 0.2582 | 17.0722 | 8.0708 | 0.1419 | 0.0094 | 98.8571 |
| 73.5 | 46.9158 | 0.4287 | 7.2245 | 0.5552 | 20.1478 | 0.2586 | 16.9231 | 8.143 | 0.1335 | 0.0118 | 100.742 |
| 78.5 | 45.263 | 0.4309 | 6.9931 | 0.5639 | 19.7542 | 0.2668 | 16.9645 | 8.0785 | 0.1358 | 0.0129 | 98.4636 |
| 83.5 | 46.984 | 0.4355 | 7.263 | 0.5686 | 20.2564 | 0.2711 | 17.0014 | 8.2176 | 0.1447 | 0.0083 | 101.1506 |
| 88.5 | 45.4991 | 0.4515 | 7.009 | 0.5645 | 20.1359 | 0.2618 | 17.1503 | 8.0839 | 0.1461 | 0.0151 | 99.3172 |
| 93.5 | 46.856 | 0.3791 | 7.084 | 0.5634 | 20.1026 | 0.262 | 16.9683 | 8.1901 | 0.1467 | 0.0065 | 100.5586 |
| 98.5 | 45.3982 | 0.4277 | 7.0514 | 0.5064 | 19.9348 | 0.2634 | 17.1174 | 8.0888 | 0.1483 | 0.0133 | 98.9496 |
| 103.5 | 46.787 | 0.4352 | 7.1374 | 0.5384 | 20.1618 | 0.2739 | 16.9485 | 8.1276 | 0.1576 | 0.0113 | 100.5787 |
| 108.5 | 45.1606 | 0.3615 | 7.0249 | 0.5143 | 19.8356 | 0.2692 | 17.0386 | 8.0553 | 0.1623 | 0.0124 | 98.4348 |
| 113.5 | 46.9273 | 0.3493 | 7.0417 | 0.5527 | 20.1944 | 0.2522 | 16.9597 | 8.1896 | 0.1665 | 0.0138 | 100.6472 |
| 118.5 | 45.4005 | 0.4311 | 7.0224 | 0.5395 | 19.8755 | 0.2763 | 16.9968 | 8.0787 | 0.1689 | 0.0115 | 98.8011 |
| 123.5 | 46.6934 | 0.3683 | 7.1762 | 0.5241 | 20.0861 | 0.261 | 16.9008 | 8.1839 | 0.1787 | 0.0164 | 100.3888 |
| 126.5 | 45.2595 | 0.3995 | 6.9914 | 0.5213 | 19.833 | 0.2633 | 17.1366 | 8.0859 | 0.1836 | 0.0151 | 98.6891 |
| 131.5 | 46.7999 | 0.4196 | 7.0247 | 0.5085 | 19.9785 | 0.2612 | 16.8639 | 8.1691 | 0.1862 | 0.0126 | 100.2241 |
| 136.5 | 45.5181 | 0.3994 | 6.9977 | 0.5045 | 19.7668 | 0.2528 | 16.9905 | 8.0463 | 0.2003 | 0.0233 | 98.6997 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GNGB7 | diameter: | 305 µm | (Note: profile was measured from lower left to upper right of the bead) | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | Oxide wt% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| distance | SiO2 | TiO2 | Al2O3 | Cr2O3 | FeO | MnO | MgO | CaO | Na2O | K2O | Total |
| -145.5 | 45.0359 | 0.3894 | 7.0066 | 0.5318 | 19.8025 | 0.264 | 16.9954 | 7.9944 | 0.1697 | 0.0138 | 98.2035 |
| -140.5 | 46.7112 | 0.335 | 7.0976 | 0.5469 | 20.3725 | 0.2525 | 16.9094 | 8.0615 | 0.1511 | 0.0143 | 100.4521 |
| -135.5 | 45.071 | 0.3435 | 7.0826 | 0.5255 | 19.8787 | 0.2661 | 16.9803 | 8.006 | 0.1421 | 0.0115 | 98.3072 |
| -130.5 | 47.0298 | 0.4409 | 7.214 | 0.578 | 20.3578 | 0.2598 | 16.8448 | 8.0759 | 0.1381 | 0.0123 | 100.9515 |
| -125.5 | 45.022 | 0.4107 | 7.098 | 0.513 | 19.9821 | 0.2582 | 17.0647 | 7.9781 | 0.1382 | 0.0129 | 98.4779 |
| -120.5 | 46.6057 | 0.3827 | 7.0987 | 0.5279 | 20.3276 | 0.2486 | 16.8779 | 8.0624 | 0.1307 | 0.0073 | 100.2694 |
| -115.5 | 45.0168 | 0.3696 | 7.0074 | 0.5443 | 19.9103 | 0.2582 | 17.058 | 8.0074 | 0.134 | 0.0153 | 98.3213 |
| -110.5 | 46.8812 | 0.4005 | 7.2426 | 0.5343 | 20.4687 | 0.2635 | 16.9011 | 8.0619 | 0.1264 | 0.0083 | 100.8885 |
| -105.5 | 45.172 | 0.4106 | 6.9471 | 0.5309 | 19.9814 | 0.2646 | 16.9874 | 7.9979 | 0.1234 | 0.0088 | 98.424 |
| -100.5 | 46.1651 | 0.4291 | 7.047 | 0.5486 | 20.4175 | 0.2621 | 16.9553 | 7.9996 | 0.1214 | 0.0116 | 99.9573 |
| -95.5 | 45.1057 | 0.4457 | 6.9666 | 0.6027 | 19.987 | 0.2552 | 17.0264 | 8.0605 | 0.1218 | 0.0107 | 98.5823 |
| -90.5 | 46.8106 | 0.4563 | 7.2052 | 0.5683 | 20.4211 | 0.2537 | 16.8994 | 8.0814 | 0.1125 | 0.0097 | 100.8182 |
| -85.5 | 44.9787 | 0.4371 | 7.0428 | 0.5663 | 20.0709 | 0.2629 | 16.9588 | 7.9789 | 0.1194 | 0.0139 | 98.4298 |
| -80.5 | 47.0414 | 0.4204 | 7.2257 | 0.6244 | 20.4615 | 0.2603 | 16.9148 | 8.0851 | 0.1149 | 0.0128 | 101.1614 |
| -75.5 | 45.1784 | 0.4181 | 6.9732 | 0.5799 | 19.942 | 0.2518 | 17.0071 | 7.9929 | 0.1187 | 0.0136 | 98.4758 |
| -70.5 | 47.1402 | 0.3684 | 7.1915 | 0.5437 | 20.4594 | 0.2527 | 16.9244 | 8.0644 | 0.115 | 0.0117 | 101.0713 |
| -65.5 | 45 | 0.4527 | 7.0955 | 0.5877 | 19.8185 | 0.2698 | 17.0628 | 8.0204 | 0.1159 | 0.0154 | 98.4387 |
| -60.5 | 46.9547 | 0.3795 | 7.2654 | 0.5563 | 20.5972 | 0.2591 | 16.9531 | 8.0999 | 0.1097 | 0.0111 | 101.1859 |
| -55.5 | 45.0171 | 0.4104 | 7.0721 | 0.5547 | 19.9241 | 0.2622 | 16.9551 | 7.9853 | 0.1135 | 0.0129 | 98.3075 |
| -50.5 | 47.0114 | 0.4348 | 7.1187 | 0.5516 | 20.441 | 0.2531 | 16.9094 | 8.0959 | 0.1099 | 0.0108 | 100.9366 |
| -45.5 | 44.8006 | 0.444 | 6.9477 | 0.5565 | 19.8505 | 0.269 | 16.9342 | 7.981 | 0.1154 | 0.0115 | 97.9105 |
| -40.5 | 47.071 | 0.4196 | 7.1639 | 0.5628 | 20.4649 | 0.2546 | 16.9073 | 8.0924 | 0.108 | 0.0118 | 101.0562 |
| -35.5 | 44.6994 | 0.4518 | 6.999 | 0.4925 | 19.8479 | 0.2727 | 16.8409 | 7.9748 | 0.1094 | 0.0039 | 97.6923 |
| -30.5 | 46.6051 | 0.3322 | 7.2707 | 0.5427 | 20.3602 | 0.2539 | 16.8852 | 8.0894 | 0.1121 | 0.0099 | 100.4615 |
| -25.5 | 45.2548 | 0.4307 | 7.04 | 0.5296 | 19.9701 | 0.2629 | 16.9876 | 8.0226 | 0.1041 | 0.0123 | 98.6145 |
| -20.5 | 46.9856 | 0.4171 | 7.2391 | 0.5501 | 20.4804 | 0.2576 | 16.8669 | 8.1273 | 0.1159 | 0.0111 | 101.0511 |
| -15.5 | 45.0958 | 0.4331 | 6.9326 | 0.5395 | 20.0536 | 0.2629 | 17.0164 | 7.9986 | 0.1178 | 0.009 | 98.4592 |
| -10.5 | 46.552 | 0.3645 | 7.1635 | 0.5294 | 20.5625 | 0.2609 | 16.8184 | 8.0185 | 0.1109 | 0.0149 | 100.3955 |
| -5.5 | 45.009 | 0.395 | 6.9731 | 0.571 | 20.0253 | 0.2645 | 16.997 | 7.9533 | 0.1159 | 0.0094 | 98.3135 |
| -0.5 | 46.7295 | 0.3245 | 7.1267 | 0.5597 | 20.4436 | 0.2555 | 16.8415 | 8.0731 | 0.1124 | 0.0127 | 100.4793 |
| 4.5 | 45.0626 | 0.3768 | 7.0751 | 0.5994 | 20.1839 | 0.2576 | 17.0753 | 8.0304 | 0.1176 | 0.0093 | 98.788 |
| 9.5 | 46.7951 | 0.4103 | 7.2469 | 0.5265 | 20.5409 | 0.2664 | 16.8953 | 8.1239 | 0.1133 | 0.0109 | 100.9295 |
| 14.5 | 44.9769 | 0.4615 | 7.0211 | 0.5448 | 19.9838 | 0.2645 | 16.9809 | 8.0176 | 0.1244 | 0.0119 | 98.3873 |
| 19.5 | 46.3108 | 0.4241 | 7.0838 | 0.5362 | 20.418 | 0.2579 | 16.8229 | 8.0903 | 0.1213 | 0.009 | 100.0743 |
| 24.5 | 44.9146 | 0.3929 | 6.9855 | 0.5368 | 19.9786 | 0.2672 | 16.8905 | 7.9876 | 0.123 | 0.0113 | 98.088 |
| 29.5 | 46.7329 | 0.4323 | 7.1712 | 0.5437 | 20.6038 | 0.2601 | 16.9011 | 8.1237 | 0.1257 | 0.0097 | 100.9042 |
| 34.5 | 45.1507 | 0.4124 | 6.9883 | 0.5468 | 19.8273 | 0.2664 | 16.9094 | 8.0048 | 0.1248 | 0.012 | 98.2428 |
| 39.5 | 46.4761 | 0.3857 | 7.1968 | 0.5466 | 20.4787 | 0.2624 | 16.779 | 8.0039 | 0.1256 | 0.0142 | 100.2691 |
| 44.5 | 45.0299 | 0.4029 | 7.006 | 0.5895 | 19.9874 | 0.2594 | 16.9101 | 8.0287 | 0.1255 | 0.0129 | 98.3525 |
| 49.5 | 46.6724 | 0.4954 | 7.1908 | 0.5496 | 20.4006 | 0.2621 | 16.853 | 8.1292 | 0.132 | 0.013 | 100.6981 |
| 54.5 | 44.9484 | 0.4016 | 6.9563 | 0.5375 | 20.1761 | 0.2625 | 16.8689 | 8.0312 | 0.1341 | 0.0157 | 98.3324 |
| 59.5 | 46.7615 | 0.4292 | 7.1739 | 0.5317 | 20.478 | 0.2558 | 16.8917 | 8.1435 | 0.1327 | 0.0124 | 100.8103 |
| 64.5 | 45.1309 | 0.3701 | 7.0025 | 0.5786 | 19.9816 | 0.2647 | 16.9263 | 8.0647 | 0.1358 | 0.011 | 98.4662 |
| 69.5 | 46.8802 | 0.3806 | 7.1966 | 0.5819 | 20.4375 | 0.2631 | 16.8195 | 8.1237 | 0.1357 | 0.0126 | 100.8312 |
| 74.5 | 44.9756 | 0.4219 | 7.0296 | 0.5433 | 19.7637 | 0.2645 | 16.9368 | 8.077 | 0.1404 | 0.0118 | 98.1645 |
| 79.5 | 46.3351 | 0.4104 | 7.1216 | 0.5236 | 20.4262 | 0.2558 | 16.8374 | 8.1476 | 0.1405 | 0.0077 | 100.2058 |
| 84.5 | 45.0161 | 0.4224 | 7.0596 | 0.5478 | 19.8694 | 0.2708 | 16.9209 | 8.0444 | 0.1362 | 0.0133 | 98.301 |
| 89.5 | 46.766 | 0.4191 | 7.1538 | 0.5722 | 20.5288 | 0.2423 | 16.8749 | 8.1078 | 0.1344 | 0.0112 | 100.8106 |
| 94.5 | 44.9479 | 0.4195 | 6.9962 | 0.5453 | 19.8888 | 0.274 | 16.8918 | 8.0712 | 0.1412 | 0.013 | 98.189 |
| 99.5 | 46.6484 | 0.4599 | 7.1731 | 0.5638 | 20.5708 | 0.2545 | 16.9196 | 8.1549 | 0.14 | 0.0136 | 100.8986 |
| 104.5 | 44.8897 | 0.3771 | 7.0753 | 0.5084 | 19.8932 | 0.2569 | 16.8846 | 8.0253 | 0.1411 | 0.0143 | 98.066 |
| 109.5 | 46.9064 | 0.4252 | 7.2528 | 0.5602 | 20.4179 | 0.2573 | 16.8338 | 8.0966 | 0.1346 | 0.0129 | 100.8976 |
| 114.5 | 45.164 | 0.4644 | 7.0699 | 0.5461 | 19.8622 | 0.2652 | 16.9923 | 8.0444 | 0.1379 | 0.0136 | 98.5599 |
| 119.5 | 46.636 | 0.4198 | 7.1249 | 0.5127 | 20.333 | 0.2713 | 16.8128 | 8.0836 | 0.1351 | 0.0141 | 100.3433 |
| 124.5 | 45.1239 | 0.3843 | 7.0187 | 0.5642 | 19.9388 | 0.2582 | 16.9198 | 8.0351 | 0.1384 | 0.016 | 98.3974 |
| 129.5 | 46.772 | 0.4146 | 7.1809 | 0.5394 | 20.3857 | 0.2659 | 16.9142 | 8.123 | 0.1481 | 0.0145 | 100.7582 |
| 134.5 | 45.1972 | 0.4204 | 6.9957 | 0.5536 | 20.4608 | 0.2664 | 16.995 | 8.0643 | 0.1528 | 0.0128 | 99.1189 |
| 139.5 | 46.9849 | 0.404 | 7.2192 | 0.5074 | 20.3427 | 0.2618 | 16.9142 | 8.0802 | 0.1558 | 0.02 | 100.8904 |
| 144.5 | 45.0466 | 0.4623 | 6.9493 | 0.5353 | 19.8014 | 0.2508 | 16.8823 | 8.0255 | 0.1623 | 0.0161 | 98.132 |
| 149.5 | 46.9019 | 0.4202 | 7.1336 | 0.5854 | 20.0601 | 0.2497 | 16.7333 | 8.0546 | 0.174 | 0.0206 | 100.3333 |

## Table S3
| Table S3. Na2O, K2O and Cu concentration profile data of six 15421 green glass beads and one 15366 green glass bead converted from Na, K and Cu maps using Laser-Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICP-MS) analysis with 1 sigma uncertainty from signals. | Unnamed: 1 | Unnamed: 2 | Unnamed: 3 | Unnamed: 4 | Unnamed: 5 | Unnamed: 6 | Unnamed: 7 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Distance and diameter are in um; Na2O and K2O concentrations and standard deviations are in wt%; Cu concentrations and standard deviations are in ppm. | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-G2 | diameter: | 212 µm | NaN | NaN | NaN | NaN | NaN |
| NaN | Concentration | NaN | NaN | NaN | StdDev | NaN | NaN |
| distance | Na2O | K2O | Cu | NaN | Na2O | K2O | Cu |
| µm | wt% | wt% | ppm | NaN | wt% | wt% | ppm |
| -94 | 0.15216 | 0.01051 | 3.718371 | NaN | 0.000841 | 0.000114 | 0.019031 |
| -86 | 0.143451 | 0.00929 | 2.313062 | NaN | 0.000867 | 0.000087 | 0.019617 |
| -78 | 0.138774 | 0.008623 | 1.790685 | NaN | 0.000903 | 0.000073 | 0.020431 |
| -70 | 0.132638 | 0.008062 | 1.555671 | NaN | 0.000935 | 0.000085 | 0.021161 |
| -62 | 0.12871 | 0.007743 | 1.311797 | NaN | 0.000971 | 0.000049 | 0.021975 |
| -54 | 0.127601 | 0.007715 | 1.208743 | NaN | 0.001058 | 0.000063 | 0.023932 |
| -46 | 0.123927 | 0.007566 | 1.081966 | NaN | 0.001125 | 0.000056 | 0.025458 |
| -38 | 0.12272 | 0.0075 | 1.00746 | NaN | 0.001207 | 0.000071 | 0.027319 |
| -30 | 0.119996 | 0.007324 | 1.016459 | NaN | 0.00136 | 0.000082 | 0.030777 |
| -22 | 0.118961 | 0.007304 | 0.902326 | NaN | 0.001591 | 0.000089 | 0.036003 |
| -14 | 0.117457 | 0.007305 | 0.90468 | NaN | 0.001854 | 0.000105 | 0.041943 |
| -6 | 0.115893 | 0.007259 | 0.761946 | NaN | 0.002831 | 0.000144 | 0.064068 |
| 6 | 0.115893 | 0.007259 | 0.761946 | NaN | 0.002831 | 0.000144 | 0.064068 |
| 14 | 0.117457 | 0.007305 | 0.90468 | NaN | 0.001854 | 0.000105 | 0.041943 |
| 22 | 0.118961 | 0.007304 | 0.902326 | NaN | 0.001591 | 0.000089 | 0.036003 |
| 30 | 0.119996 | 0.007324 | 1.016459 | NaN | 0.00136 | 0.000082 | 0.030777 |
| 38 | 0.12272 | 0.0075 | 1.00746 | NaN | 0.001207 | 0.000071 | 0.027319 |
| 46 | 0.123927 | 0.007566 | 1.081966 | NaN | 0.001125 | 0.000056 | 0.025458 |
| 54 | 0.127601 | 0.007715 | 1.208743 | NaN | 0.001058 | 0.000063 | 0.023932 |
| 62 | 0.12871 | 0.007743 | 1.311797 | NaN | 0.000971 | 0.000049 | 0.021975 |
| 70 | 0.132638 | 0.008062 | 1.555671 | NaN | 0.000935 | 0.000085 | 0.021161 |
| 78 | 0.138774 | 0.008623 | 1.790685 | NaN | 0.000903 | 0.000073 | 0.020431 |
| 86 | 0.143451 | 0.00929 | 2.313062 | NaN | 0.000867 | 0.000087 | 0.019617 |
| 94 | 0.15216 | 0.01051 | 3.718371 | NaN | 0.000841 | 0.000114 | 0.019031 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-G3 | diameter: | 234 µm | NaN | NaN | NaN | NaN | NaN |
| NaN | Concentration | NaN | NaN | NaN | StdDev | NaN | NaN |
| distance | Na2O | K2O | Cu | NaN | Na2O | K2O | Cu |
| µm | wt% | wt% | ppm | NaN | wt% | wt% | ppm |
| -105 | 0.134099 | 0.009319 | 3.318784 | NaN | 0.000896 | 0.000082 | 0.015014 |
| -97 | 0.129015 | 0.008638 | 2.329291 | NaN | 0.000934 | 0.000069 | 0.015644 |
| -89 | 0.125413 | 0.008051 | 1.675883 | NaN | 0.000962 | 0.000078 | 0.016111 |
| -81 | 0.122479 | 0.008091 | 1.429539 | NaN | 0.000992 | 0.000073 | 0.016623 |
| -73 | 0.119923 | 0.007918 | 1.257752 | NaN | 0.001026 | 0.000069 | 0.017186 |
| -65 | 0.119467 | 0.007701 | 1.130931 | NaN | 0.001083 | 0.000065 | 0.018151 |
| -57 | 0.1203 | 0.007864 | 1.081688 | NaN | 0.00114 | 0.00008 | 0.019092 |
| -49 | 0.117487 | 0.007632 | 0.987979 | NaN | 0.001235 | 0.000105 | 0.020695 |
| -41 | 0.115038 | 0.007791 | 0.940667 | NaN | 0.00134 | 0.000122 | 0.022447 |
| -33 | 0.117371 | 0.007538 | 0.980515 | NaN | 0.001477 | 0.000098 | 0.024735 |
| -25 | 0.113699 | 0.007651 | 0.897157 | NaN | 0.001666 | 0.000093 | 0.027905 |
| -17 | 0.118565 | 0.007845 | 0.918581 | NaN | 0.002088 | 0.000148 | 0.034981 |
| -9 | 0.115897 | 0.007999 | 0.916146 | NaN | 0.002953 | 0.000255 | 0.04947 |
| 9 | 0.115897 | 0.007999 | 0.916146 | NaN | 0.002953 | 0.000255 | 0.04947 |
| 17 | 0.118565 | 0.007845 | 0.918581 | NaN | 0.002088 | 0.000148 | 0.034981 |
| 25 | 0.113699 | 0.007651 | 0.897157 | NaN | 0.001666 | 0.000093 | 0.027905 |
| 33 | 0.117371 | 0.007538 | 0.980515 | NaN | 0.001477 | 0.000098 | 0.024735 |
| 41 | 0.115038 | 0.007791 | 0.940667 | NaN | 0.00134 | 0.000122 | 0.022447 |
| 49 | 0.117487 | 0.007632 | 0.987979 | NaN | 0.001235 | 0.000105 | 0.020695 |
| 57 | 0.1203 | 0.007864 | 1.081688 | NaN | 0.00114 | 0.00008 | 0.019092 |
| 65 | 0.119467 | 0.007701 | 1.130931 | NaN | 0.001083 | 0.000065 | 0.018151 |
| 73 | 0.119923 | 0.007918 | 1.257752 | NaN | 0.001026 | 0.000069 | 0.017186 |
| 81 | 0.122479 | 0.008091 | 1.429539 | NaN | 0.000992 | 0.000073 | 0.016623 |
| 89 | 0.125413 | 0.008051 | 1.675883 | NaN | 0.000962 | 0.000078 | 0.016111 |
| 97 | 0.129015 | 0.008638 | 2.329291 | NaN | 0.000934 | 0.000069 | 0.015644 |
| 105 | 0.134099 | 0.009319 | 3.318784 | NaN | 0.000896 | 0.000082 | 0.015014 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-H1 | diameter: | 257 µm | NaN | NaN | NaN | NaN | NaN |
| NaN | Concentration | NaN | NaN | NaN | StdDev | NaN | NaN |
| distance | Na2O | K2O | Cu | NaN | Na2O | K2O | Cu |
| µm | wt% | wt% | ppm | NaN | wt% | wt% | ppm |
| -116.5 | 0.160237 | 0.012911 | 5.507804 | NaN | 0.000892 | 0.000264 | 0.017922 |
| -108.5 | 0.148318 | 0.011371 | 4.149136 | NaN | 0.000903 | 0.000254 | 0.018144 |
| -100.5 | 0.14251 | 0.01022 | 3.155567 | NaN | 0.000921 | 0.000179 | 0.018494 |
| -92.5 | 0.13459 | 0.009673 | 2.456092 | NaN | 0.000945 | 0.000105 | 0.018994 |
| -84.5 | 0.130141 | 0.009223 | 2.046979 | NaN | 0.000987 | 0.0001 | 0.019826 |
| -76.5 | 0.126027 | 0.00915 | 1.747136 | NaN | 0.001018 | 0.000095 | 0.020446 |
| -68.5 | 0.125037 | 0.009105 | 1.521804 | NaN | 0.001079 | 0.000089 | 0.021686 |
| -60.5 | 0.122216 | 0.00895 | 1.324633 | NaN | 0.001131 | 0.000103 | 0.022725 |
| -52.5 | 0.118123 | 0.008939 | 1.153299 | NaN | 0.001204 | 0.000109 | 0.024192 |
| -44.5 | 0.119366 | 0.008845 | 1.115791 | NaN | 0.00131 | 0.000128 | 0.026326 |
| -36.5 | 0.117097 | 0.008892 | 1.035291 | NaN | 0.001385 | 0.000114 | 0.027832 |
| -28.5 | 0.115679 | 0.008882 | 0.965945 | NaN | 0.001527 | 0.000141 | 0.030669 |
| -20.5 | 0.11423 | 0.009013 | 0.942527 | NaN | 0.001763 | 0.000165 | 0.035414 |
| -12.5 | 0.116743 | 0.008978 | 0.926695 | NaN | 0.001959 | 0.000179 | 0.03936 |
| -4.5 | 0.113539 | 0.009193 | 0.858145 | NaN | 0.002332 | 0.000209 | 0.046848 |
| 4.5 | 0.113539 | 0.009193 | 0.858145 | NaN | 0.002332 | 0.000209 | 0.046848 |
| 12.5 | 0.116743 | 0.008978 | 0.926695 | NaN | 0.001959 | 0.000179 | 0.03936 |
| 20.5 | 0.11423 | 0.009013 | 0.942527 | NaN | 0.001763 | 0.000165 | 0.035414 |
| 28.5 | 0.115679 | 0.008882 | 0.965945 | NaN | 0.001527 | 0.000141 | 0.030669 |
| 36.5 | 0.117097 | 0.008892 | 1.035291 | NaN | 0.001385 | 0.000114 | 0.027832 |
| 44.5 | 0.119366 | 0.008845 | 1.115791 | NaN | 0.00131 | 0.000128 | 0.026326 |
| 52.5 | 0.118123 | 0.008939 | 1.153299 | NaN | 0.001204 | 0.000109 | 0.024192 |
| 60.5 | 0.122216 | 0.00895 | 1.324633 | NaN | 0.001131 | 0.000103 | 0.022725 |
| 68.5 | 0.125037 | 0.009105 | 1.521804 | NaN | 0.001079 | 0.000089 | 0.021686 |
| 76.5 | 0.126027 | 0.00915 | 1.747136 | NaN | 0.001018 | 0.000095 | 0.020446 |
| 84.5 | 0.130141 | 0.009223 | 2.046979 | NaN | 0.000987 | 0.0001 | 0.019826 |
| 92.5 | 0.13459 | 0.009673 | 2.456092 | NaN | 0.000945 | 0.000105 | 0.018994 |
| 100.5 | 0.14251 | 0.01022 | 3.155567 | NaN | 0.000921 | 0.000179 | 0.018494 |
| 108.5 | 0.148318 | 0.011371 | 4.149136 | NaN | 0.000903 | 0.000254 | 0.018144 |
| 116.5 | 0.160237 | 0.012911 | 5.507804 | NaN | 0.000892 | 0.000264 | 0.017922 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-H4 | diameter: | 262 µm | NaN | NaN | NaN | NaN | NaN |
| NaN | Concentration | NaN | NaN | NaN | StdDev | NaN | NaN |
| distance | Na2O | K2O | Cu | NaN | Na2O | K2O | Cu |
| µm | wt% | wt% | ppm | NaN | wt% | wt% | ppm |
| -119 | 0.14044 | 0.011574 | 6.803872 | NaN | 0.001096 | 0.0002 | 0.01884 |
| -111 | 0.134968 | 0.010281 | 3.532895 | NaN | 0.001122 | 0.000132 | 0.019288 |
| -103 | 0.129026 | 0.00973 | 2.509322 | NaN | 0.00115 | 0.000115 | 0.019771 |
| -95 | 0.12872 | 0.009867 | 2.086237 | NaN | 0.001181 | 0.000127 | 0.020291 |
| -87 | 0.124747 | 0.009728 | 1.684457 | NaN | 0.001231 | 0.000149 | 0.021155 |
| -79 | 0.12639 | 0.009811 | 1.447762 | NaN | 0.001278 | 0.000171 | 0.021966 |
| -71 | 0.123064 | 0.009754 | 1.306779 | NaN | 0.001331 | 0.000133 | 0.022878 |
| -63 | 0.124209 | 0.009484 | 1.172302 | NaN | 0.001405 | 0.000113 | 0.024138 |
| -55 | 0.12346 | 0.009935 | 1.054413 | NaN | 0.001492 | 0.000135 | 0.025632 |
| -47 | 0.123248 | 0.009819 | 1.052751 | NaN | 0.001617 | 0.000145 | 0.027785 |
| -39 | 0.123383 | 0.009785 | 0.975618 | NaN | 0.001728 | 0.000139 | 0.029703 |
| -31 | 0.124954 | 0.009879 | 0.998266 | NaN | 0.001932 | 0.000191 | 0.033209 |
| -23 | 0.123194 | 0.009924 | 0.821029 | NaN | 0.002132 | 0.00018 | 0.036641 |
| -15 | 0.123408 | 0.009941 | 0.932786 | NaN | 0.00248 | 0.00025 | 0.04262 |
| -7 | 0.122801 | 0.009924 | 0.942809 | NaN | 0.003615 | 0.000124 | 0.062128 |
| 7 | 0.122801 | 0.009924 | 0.942809 | NaN | 0.003615 | 0.000124 | 0.062128 |
| 15 | 0.123408 | 0.009941 | 0.932786 | NaN | 0.00248 | 0.00025 | 0.04262 |
| 23 | 0.123194 | 0.009924 | 0.821029 | NaN | 0.002132 | 0.00018 | 0.036641 |
| 31 | 0.124954 | 0.009879 | 0.998266 | NaN | 0.001932 | 0.000191 | 0.033209 |
| 39 | 0.123383 | 0.009785 | 0.975618 | NaN | 0.001728 | 0.000139 | 0.029703 |
| 47 | 0.123248 | 0.009819 | 1.052751 | NaN | 0.001617 | 0.000145 | 0.027785 |
| 55 | 0.12346 | 0.009935 | 1.054413 | NaN | 0.001492 | 0.000135 | 0.025632 |
| 63 | 0.124209 | 0.009484 | 1.172302 | NaN | 0.001405 | 0.000113 | 0.024138 |
| 71 | 0.123064 | 0.009754 | 1.306779 | NaN | 0.001331 | 0.000133 | 0.022878 |
| 79 | 0.12639 | 0.009811 | 1.447762 | NaN | 0.001278 | 0.000171 | 0.021966 |
| 87 | 0.124747 | 0.009728 | 1.684457 | NaN | 0.001231 | 0.000149 | 0.021155 |
| 95 | 0.12872 | 0.009867 | 2.086237 | NaN | 0.001181 | 0.000127 | 0.020291 |
| 103 | 0.129026 | 0.00973 | 2.509322 | NaN | 0.00115 | 0.000115 | 0.019771 |
| 111 | 0.134968 | 0.010281 | 3.532895 | NaN | 0.001122 | 0.000132 | 0.019288 |
| 119 | 0.14044 | 0.011574 | 6.803872 | NaN | 0.001096 | 0.0002 | 0.01884 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-H5 | diameter: | 210 µm | NaN | (Note: There are systematic shifts of Cu from the bead's top to its bottom. Hence, the Cu data are not reported.) | NaN | NaN | NaN |
| NaN | Concentration | NaN | NaN | NaN | StdDev | NaN | NaN |
| distance | Na2O | K2O | NaN | NaN | Na2O | K2O | NaN |
| µm | wt% | wt% | NaN | NaN | wt% | wt% | NaN |
| -93 | 0.160482 | 0.01617 | NaN | NaN | 0.00101 | 0.000226 | NaN |
| -85 | 0.158207 | 0.014139 | NaN | NaN | 0.001112 | 0.000212 | NaN |
| -77 | 0.149194 | 0.012974 | NaN | NaN | 0.001186 | 0.000233 | NaN |
| -69 | 0.146658 | 0.012312 | NaN | NaN | 0.001265 | 0.00017 | NaN |
| -61 | 0.143025 | 0.011847 | NaN | NaN | 0.001346 | 0.000159 | NaN |
| -53 | 0.137301 | 0.011427 | NaN | NaN | 0.00141 | 0.000179 | NaN |
| -45 | 0.136225 | 0.011322 | NaN | NaN | 0.001572 | 0.000148 | NaN |
| -37 | 0.135041 | 0.011126 | NaN | NaN | 0.001677 | 0.000175 | NaN |
| -29 | 0.130476 | 0.011266 | NaN | NaN | 0.001883 | 0.000178 | NaN |
| -21 | 0.133215 | 0.011446 | NaN | NaN | 0.002414 | 0.000156 | NaN |
| -13 | 0.130033 | 0.011029 | NaN | NaN | 0.003687 | 0.000098 | NaN |
| 13 | 0.130033 | 0.011029 | NaN | NaN | 0.003687 | 0.000098 | NaN |
| 21 | 0.133215 | 0.011446 | NaN | NaN | 0.002414 | 0.000156 | NaN |
| 29 | 0.130476 | 0.011266 | NaN | NaN | 0.001883 | 0.000178 | NaN |
| 37 | 0.135041 | 0.011126 | NaN | NaN | 0.001677 | 0.000175 | NaN |
| 45 | 0.136225 | 0.011322 | NaN | NaN | 0.001572 | 0.000148 | NaN |
| 53 | 0.137301 | 0.011427 | NaN | NaN | 0.00141 | 0.000179 | NaN |
| 61 | 0.143025 | 0.011847 | NaN | NaN | 0.001346 | 0.000159 | NaN |
| 69 | 0.146658 | 0.012312 | NaN | NaN | 0.001265 | 0.00017 | NaN |
| 77 | 0.149194 | 0.012974 | NaN | NaN | 0.001186 | 0.000233 | NaN |
| 85 | 0.158207 | 0.014139 | NaN | NaN | 0.001112 | 0.000212 | NaN |
| 93 | 0.160482 | 0.01617 | NaN | NaN | 0.00101 | 0.000226 | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GN-H8 | diameter: | 118 µm | NaN | NaN | NaN | NaN | NaN |
| NaN | Concentration | NaN | NaN | NaN | StdDev | NaN | NaN |
| distance | Na2O | K2O | Cu | NaN | Na2O | K2O | Cu |
| µm | wt% | wt% | ppm | NaN | wt% | wt% | ppm |
| -47 | 0.147853 | 0.010482 | 2.83113 | NaN | 0.001188 | 0.000172 | 0.022537 |
| -39 | 0.136602 | 0.009307 | 1.721351 | NaN | 0.001295 | 0.000108 | 0.024559 |
| -31 | 0.131251 | 0.008922 | 1.443748 | NaN | 0.001436 | 0.000142 | 0.027246 |
| -23 | 0.127995 | 0.008879 | 1.137389 | NaN | 0.001598 | 0.000129 | 0.030317 |
| -15 | 0.128043 | 0.008654 | 0.967326 | NaN | 0.001957 | 0.000107 | 0.03713 |
| -7 | 0.124278 | 0.008771 | 0.887457 | NaN | 0.002589 | 0.000148 | 0.049119 |
| 7 | 0.124278 | 0.008771 | 0.887457 | NaN | 0.002589 | 0.000148 | 0.049119 |
| 15 | 0.128043 | 0.008654 | 0.967326 | NaN | 0.001957 | 0.000107 | 0.03713 |
| 23 | 0.127995 | 0.008879 | 1.137389 | NaN | 0.001598 | 0.000129 | 0.030317 |
| 31 | 0.131251 | 0.008922 | 1.443748 | NaN | 0.001436 | 0.000142 | 0.027246 |
| 39 | 0.136602 | 0.009307 | 1.721351 | NaN | 0.001295 | 0.000108 | 0.024559 |
| 47 | 0.147853 | 0.010482 | 2.83113 | NaN | 0.001188 | 0.000172 | 0.022537 |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |
| GNGB3 | diameter: | 289 µm | NaN | NaN | NaN | NaN | NaN |
| NaN | Concentration | NaN | NaN | NaN | StdDev | NaN | NaN |
| distance | Na2O | K2O | Cu | NaN | Na2O | K2O | Cu |
| µm | wt% | wt% | ppm | NaN | wt% | wt% | ppm |
| -136.5 | 0.191985 | 0.018108 | 4.196293 | NaN | 0.002194 | 0.000319 | 0.137665 |
| -128.5 | 0.178353 | 0.015718 | 2.712789 | NaN | 0.001671 | 0.000226 | 0.076733 |
| -120.5 | 0.170226 | 0.013826 | 2.010228 | NaN | 0.001732 | 0.000228 | 0.056543 |
| -112.5 | 0.160942 | 0.013142 | 1.5869 | NaN | 0.001624 | 0.000189 | 0.032615 |
| -104.5 | 0.152877 | 0.012224 | 1.296595 | NaN | 0.001607 | 0.000184 | 0.031166 |
| -96.5 | 0.148954 | 0.011982 | 1.162981 | NaN | 0.001623 | 0.00016 | 0.033048 |
| -88.5 | 0.144558 | 0.012094 | 1.059228 | NaN | 0.001514 | 0.000188 | 0.024662 |
| -80.5 | 0.138814 | 0.011304 | 1.006647 | NaN | 0.001552 | 0.000185 | 0.027074 |
| -72.5 | 0.136021 | 0.011891 | 0.973392 | NaN | 0.001805 | 0.000205 | 0.028036 |
| -64.5 | 0.132408 | 0.011217 | 0.953197 | NaN | 0.001581 | 0.000179 | 0.028611 |
| -56.5 | 0.130443 | 0.011415 | 0.894909 | NaN | 0.001662 | 0.00021 | 0.031072 |
| -48.5 | 0.128699 | 0.011663 | 0.963151 | NaN | 0.001807 | 0.000259 | 0.033779 |
| -40.5 | 0.126677 | 0.011032 | 0.916852 | NaN | 0.001997 | 0.000233 | 0.038132 |
| -32.5 | 0.128178 | 0.011606 | 0.984174 | NaN | 0.003048 | 0.000289 | 0.05582 |
| -24.5 | 0.123704 | 0.010924 | 0.901564 | NaN | 0.002774 | 0.000324 | 0.051861 |
| -16.5 | 0.125217 | 0.011041 | 0.93035 | NaN | 0.00367 | 0.000429 | 0.068606 |
| -8.5 | 0.119053 | 0.010569 | 0.861826 | NaN | 0.010379 | 0.001213 | 0.194046 |
| 8.5 | 0.119053 | 0.010569 | 0.861826 | NaN | 0.010379 | 0.001213 | 0.194046 |
| 16.5 | 0.125217 | 0.011041 | 0.93035 | NaN | 0.00367 | 0.000429 | 0.068606 |
| 24.5 | 0.123704 | 0.010924 | 0.901564 | NaN | 0.002774 | 0.000324 | 0.051861 |
| 32.5 | 0.128178 | 0.011606 | 0.984174 | NaN | 0.003048 | 0.000289 | 0.05582 |
| 40.5 | 0.126677 | 0.011032 | 0.916852 | NaN | 0.001997 | 0.000233 | 0.038132 |
| 48.5 | 0.128699 | 0.011663 | 0.963151 | NaN | 0.001807 | 0.000259 | 0.033779 |
| 56.5 | 0.130443 | 0.011415 | 0.894909 | NaN | 0.001662 | 0.00021 | 0.031072 |
| 64.5 | 0.132408 | 0.011217 | 0.953197 | NaN | 0.001581 | 0.000179 | 0.028611 |
| 72.5 | 0.136021 | 0.011891 | 0.973392 | NaN | 0.001805 | 0.000205 | 0.028036 |
| 80.5 | 0.138814 | 0.011304 | 1.006647 | NaN | 0.001552 | 0.000185 | 0.027074 |
| 88.5 | 0.144558 | 0.012094 | 1.059228 | NaN | 0.001514 | 0.000188 | 0.024662 |
| 96.5 | 0.148954 | 0.011982 | 1.162981 | NaN | 0.001623 | 0.00016 | 0.033048 |
| 104.5 | 0.152877 | 0.012224 | 1.296595 | NaN | 0.001607 | 0.000184 | 0.031166 |
| 112.5 | 0.160942 | 0.013142 | 1.5869 | NaN | 0.001624 | 0.000189 | 0.032615 |
| 120.5 | 0.170226 | 0.013826 | 2.010228 | NaN | 0.001732 | 0.000228 | 0.056543 |
| 128.5 | 0.178353 | 0.015718 | 2.712789 | NaN | 0.001671 | 0.000226 | 0.076733 |
| 136.5 | 0.191985 | 0.018108 | 4.196293 | NaN | 0.002194 | 0.000319 | 0.137665 |