**Supplementary Table B: Boundary chemical widths and 95% confidence intervals as determined by the linear-regression/line-intersection approachǂ.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Atomic # | 11 | 12 | 13 | 14 | 15 | 17 | 19 | 20 | 26 | 28 |
|  | Segregant | Na | Mg | Al | Si | P | **Cl** | K | Ca | Fe | Ni |
| Ol-Cpx Deformed Proxigram | Width (nm) | 6.619 | 3.858 | 4.872 | 3.144 | **3.799** | **4.288** | \*\* | 4.753 |  | 5.091 |
| +95% CI | 0.265 | 0.024 | 0.171 | 0.046 | **0.086** | **0.004** |  | 0.097 |  | 0.036 |
| -95% CI | 0.277 | 0.024 | 0.185 | 0.048 | **0.087** | **0.003** |  | 0.099 |  | 0.040 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Ol-Cpx Deformed 1-D | Width (nm) | 5.984 | 4.037 | 4.934 | 3.055 | **3.776** | **4.524** |  | 5.688 | 4.639 |  |
| +95% CI | 0.301 | 0.058 | 0.232 | 0.193 | **0.110** | **0.058** |  | 0.142 | 0.722 |  |
| -95% CI | 0.338 | 0.060 | 0.273 | 0.223 | **0.120** | **0.059** |  | 0.149 | 0.636 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Ol-Ol Deformed Proxigram | Width (nm) | **3.300** | *\*\** | **3.605** |  | **2.562** | **3.061** | **3.675** | **3.339** |  | **3.769** |
| +95% CI | **0.018** |  | **0.033** |  | **0.009** | **0.004** | **0.065** | **0.004** |  | **0.154** |
| -95% CI | **0.018** |  | **0.033** |  | **0.032** | **0.004** | **0.065** | **0.004** |  | **0.155** |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Ol-Ol Deformed 1-D | Width (nm) | **3.962** | *5.703* | **4.729** |  | **2.597** | **3.567** | **4.397** | **3.554** |  | **4.204** |
| +95% CI | **0.017** | *0.354* | **0.076** |  | **0.099** | **0.064** | **0.036** | **0.031** |  | **0.018** |
| -95% CI | **0.017** | *0.463* | **0.078** |  | **0.116** | **0.064** | **0.038** | **0.032** |  | **0.018** |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Cpx-Cpx Deformed 1-D | Width (nm) |  | *\*\** | **3.857** |  |  |  |  | **\*\*** |  |  |
| +95% CI |  |  | **0.029** |  |  |  |  |  |  |  |
| -95% CI |  |  | **0.028** |  |  |  |  |  |  |  |

ǂValues in bold are from incompatible elements and determined from the cumulative fraction regressions (e.g. Fig 4(a)). Values not in bold are determined from compatible element data regressions (e.g. Fig 4(b)). Cells that show \*\* are cases where enrichment is observed but the chemical width via the linear-regression approach cannot be determined at a 95% confidence level. The values in italics (Mg for Ol-Ol and Mg for Cpx-Cpx) are the widths of segregation away from the grain boundary (i.e., a deficiency at/near the boundary compared to the bulk).