A full suite of the raw data produced in this study can be found at <https://github.com/OmarElkhaligi/Olivine-Trace-Africa> alternatively you can contact the author at [Omar.Elkhaligi@HDR.mq.edu.au](mailto:Omar.Elkhaligi@HDR.mq.edu.au)   
EXlement concentrations (Not corrected) from glitter output presented below. EXlement concentrations are total concentrations with isotope used to calculate total eXlement concentration listed. These are NOT isotope weights. LA-ICP-MS data NIST612 GEOREM value used. This data is pre rejection

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | RVK1/RVK1 | | | | | | | | | |
| Grain # | 1 | 1 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 2.411 | 2.392 | 2.547 | 2.482 | 0.674 | 1.688 | 1.109 | 1.325 | 1.548 | 1.525 |
| B11 | 16.28 | 16.09 | 16.33 | 16.55 | 19.24 | 19.54 | 24.42 | 19.41 | 26.93 | 21.44 |
| Na23 | 65.79 | 64.74 | 65.06 | 68.58 | 64.79 | 20.05 | 59.2 | 91.12 | 74.04 | 50.06 |
| Mg24 | 337309.2 | 338641.3 | 338988.2 | 344745.6 | 356920.7 | 347866.6 | 351530.8 | 356568.8 | 336519.2 | 351351.8 |
| Mg25 | 358118.3 | 359434.3 | 359274.7 | 366725.4 | 381777.9 | 369822.6 | 377248.8 | 381364.9 | 364085.4 | 380458.9 |
| Mg26 | 354461.8 | 355565.6 | 355835.7 | 353165.5 | 371392.6 | 362105.3 | 366283.2 | 368944.4 | 353343.3 | 368322.7 |
| Al27 | 9.94 | 9.95 | 9.77 | 9.62 | 6.31 | 5.51 | 19.8 | 16.17 | 22.75 | 9.16 |
| Si29 | 192164.3 | 192070.8 | 192818.7 | 192164.3 | 194501.5 | 195015.7 | 193800.3 | 194314.5 | 191696.9 | 193987.3 |
| Si30 | 204681 | 212062.2 | 209434.4 | 207641.9 | 212263.7 | 211282.7 | 221461.7 | 195054.8 | 213944.2 | 190477.8 |
| P31 | 49.51 | 52.09 | 50.95 | 49.9 | 70.57 | 28.42 | 48.75 | 70.57 | 38.81 | 16.4 |
| Ca43 | 66.46 | 85.34 | 85.01 | 107.76 | 75.41 | 39.82 | 73.97 | 65.76 | 137.06 | 73.14 |
| Ca44 | 538.24 | 551.68 | 542.55 | 552.14 | 522.33 | 504.21 | 514.69 | 509.52 | 523 | 537.78 |
| Sc45 | 6.15 | 6.11 | 6.21 | 6.14 | 6.92 | 5.81 | 6 | 6.24 | 6.09 | 6.67 |
| Ti47 | 81.17 | 80.85 | 81.65 | 81.05 | 14.68 | 7.96 | 61.75 | 21.34 | 47.98 | 9.54 |
| Ti49 | 96.36 | 94.96 | 93.18 | 92.86 | 14.96 | 5.56 | 67.78 | 19.73 | 56.68 | 8.38 |
| V51 | 2.39 | 2.351 | 2.42 | 2.412 | 2.833 | 1.72 | 4.07 | 4.43 | 3.32 | 3.12 |
| Cr53 | 123.72 | 124.59 | 123.98 | 125.95 | 168.29 | 40.32 | 94.59 | 187.47 | 133.78 | 164.44 |
| Mn55 | 1183.36 | 1213.24 | 1216.07 | 1210.38 | 634.08 | 769.91 | 715.17 | 789.1 | 1068.57 | 909.57 |
| Co59 | 135.45 | 135.69 | 137.08 | 137.16 | 114.42 | 150.61 | 128.34 | 133.36 | 163.59 | 132.96 |
| Ni60 | 2635.4 | 2649 | 2704.08 | 2713.61 | 2699.39 | 3209.76 | 2676.62 | 2963.9 | 2996.58 | 2973.58 |
| Ni62 | 2681.75 | 2652.47 | 2675.82 | 2709.77 | 2722.13 | 3190.64 | 2616.12 | 2939.04 | 2910.41 | 2916.42 |
| Cu63 | 1.071 | 1.145 | 1.155 | 1.082 | 0.701 | 0.563 | 0.919 | 1.154 | 1.681 | 0.642 |
| Zn66 | 72.63 | 74.34 | 74.88 | 75.22 | 37.74 | 73.93 | 59.18 | 53.24 | 89.97 | 61.91 |
| Zn67 | 63.85 | 64.27 | 63.8 | 63.71 | 31.68 | 63.42 | 51.42 | 45.86 | 81.34 | 53.58 |
| Ga69 | 0.0279 | 0.026 | 0.028 | 0.0545 | <0.0080 | 0.0242 | 0.0698 | 0.0321 | 0.0839 | 0.0367 |
| Sr88 | <0.0030 | 0.00164 | <0.0032 | 0.0772 | <0.0043 | <0.0036 | 0.0081 | 0.0022 | 0.0173 | <0.0037 |
| Y89 | 0.004 | <0.0032 | 0.0021 | 0.00185 | 0.0042 | 0.00098 | <0.0064 | 0.00238 | <0.0065 | 0.0032 |
| Zr90 | 0.152 | 0.125 | 0.132 | 0.159 | 0.098 | <0.0162 | 0.0199 | 0.0966 | 0.0237 | 0.0986 |
| Nb93 | 0.312 | 0.306 | 0.297 | 0.333 | 0.443 | <0.0047 | <0.0082 | 0.313 | 0.127 | 0.1088 |
| Ba135 | <0.021 | <0.0192 | <0.027 | 0.328 | <0.058 | <0.043 | 0.031 | 0.0142 | <0.068 | <0.0309 |
| Ba137 | <0.0237 | 0.0161 | <0.0155 | 0.391 | <0.0168 | 0.03 | 0.0134 | 0.0081 | 0.032 | <0.0216 |
| La139 | <0.0044 | 0.00069 | <0.00253 | 0.0081 | <0.0047 | <0.0049 | <0.0061 | <0.00194 | 0.0037 | <0.00198 |
| Ce140 | <0.00154 | <0.00249 | <0.00141 | 0.0315 | <0.0030 | <0.00221 | 0.00113 | <0.0031 | 0.0046 | 0.00052 |
| Gd157 | <0.0113 | <0.0075 | 0.0079 | <0.0129 | <0.0115 | <0.0119 | 0.025 | 0.0101 | <0.0191 | <0.0123 |
| Yb172 | <0.0090 | <0.0069 | <0.0097 | <0.0049 | <0.0106 | <0.0190 | 0.01 | <0.0077 | <0.0123 | <0.0097 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | RVK1/RVK1 | | | | | | | | | |
| Grain # | 1 | 1 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.081 | 0.08 | 0.085 | 0.083 | 0.04 | 0.066 | 0.064 | 0.05 | 0.076 | 0.057 |
| B11 | 0.73 | 0.74 | 0.78 | 0.83 | 1.01 | 1.09 | 1.44 | 1.22 | 1.81 | 1.55 |
| Na23 | 2.02 | 1.99 | 2 | 2.11 | 2 | 0.63 | 1.84 | 2.83 | 2.31 | 1.56 |
| Mg24 | 11103.94 | 11211.93 | 11298.42 | 11577.75 | 12089.21 | 11893.38 | 12142.73 | 12452.47 | 11893.13 | 12573.59 |
| Mg25 | 11980.91 | 12108.06 | 12199.71 | 12566.14 | 13215.51 | 12945.09 | 13366.77 | 13689.1 | 13253.46 | 14054.66 |
| Mg26 | 12680.87 | 12847.86 | 13006.15 | 13076.65 | 13950.23 | 13815.22 | 14211.94 | 14572.72 | 14223.72 | 15122.32 |
| Al27 | 0.35 | 0.35 | 0.34 | 0.34 | 0.23 | 0.21 | 0.73 | 0.59 | 0.85 | 0.35 |
| Si29 | 6077.68 | 6074.76 | 6098.35 | 6077.6 | 6152.02 | 6168.27 | 6130.61 | 6145.68 | 6064.14 | 6135.36 |
| Si30 | 6745.2 | 6982.68 | 6893.06 | 6833.26 | 6987.82 | 6958.79 | 7301.23 | 6433.98 | 7068.03 | 6298.39 |
| P31 | 5.9 | 6.29 | 6.26 | 6.25 | 9.04 | 3.82 | 6.67 | 9.7 | 5.63 | 2.45 |
| Ca43 | 9.44 | 8.8 | 8.66 | 8.88 | 9.95 | 10.64 | 15.92 | 8.06 | 16.95 | 8.61 |
| Ca44 | 17.82 | 18.25 | 17.98 | 18.33 | 18.1 | 17.66 | 19.39 | 17.46 | 19.92 | 18.64 |
| Sc45 | 0.19 | 0.19 | 0.2 | 0.19 | 0.22 | 0.19 | 0.2 | 0.2 | 0.2 | 0.21 |
| Ti47 | 3.17 | 3.21 | 3.29 | 3.32 | 0.68 | 0.41 | 2.77 | 0.99 | 2.29 | 0.49 |
| Ti49 | 3.22 | 3.19 | 3.14 | 3.14 | 0.66 | 0.37 | 2.5 | 0.77 | 2.16 | 0.4 |
| V51 | 0.078 | 0.077 | 0.079 | 0.079 | 0.095 | 0.061 | 0.14 | 0.14 | 0.11 | 0.1 |
| Cr53 | 4.57 | 4.65 | 4.69 | 4.83 | 6.56 | 1.64 | 3.88 | 7.71 | 5.68 | 7.07 |
| Mn55 | 37.01 | 38.04 | 38.25 | 38.21 | 20.11 | 24.52 | 22.9 | 25.4 | 34.61 | 29.64 |
| Co59 | 4.19 | 4.2 | 4.26 | 4.27 | 3.57 | 4.72 | 4.04 | 4.21 | 5.19 | 4.23 |
| Ni60 | 88.44 | 89.55 | 92.19 | 93.4 | 93.93 | 113.02 | 95.5 | 107.2 | 110.05 | 110.93 |
| Ni62 | 156.8 | 159.17 | 165.29 | 172.73 | 179.49 | 217.92 | 185.41 | 216.16 | 222.48 | 231.64 |
| Cu63 | 0.041 | 0.044 | 0.044 | 0.041 | 0.032 | 0.028 | 0.045 | 0.045 | 0.072 | 0.029 |
| Zn66 | 2.87 | 2.98 | 3.04 | 3.1 | 1.6 | 3.17 | 2.61 | 2.38 | 4.12 | 2.89 |
| Zn67 | 2.21 | 2.24 | 2.23 | 2.24 | 1.23 | 2.32 | 2.01 | 1.7 | 3.1 | 2.01 |
| Ga69 | 0.0033 | 0.0036 | 0.0034 | 0.0044 | 0.0035 | 0.0043 | 0.0083 | 0.004 | 0.0084 | 0.0039 |
| Sr88 | 0.0015 | 0.00095 | 0.0011 | 0.0053 | 0.0021 | 0.0018 | 0.0028 | 0.0011 | 0.0041 | 0.0014 |
| Y89 | 0.0012 | 0.0016 | 0.0011 | 0.00076 | 0.0021 | 0.00069 | 0.0027 | 0.00091 | 0.0026 | 0.0013 |
| Zr90 | 0.012 | 0.011 | 0.011 | 0.012 | 0.011 | 0.0058 | 0.0092 | 0.0095 | 0.0097 | 0.0098 |
| Nb93 | 0.014 | 0.014 | 0.014 | 0.015 | 0.021 | 0.0016 | 0.0032 | 0.015 | 0.01 | 0.0071 |
| Ba135 | 0.011 | 0.0086 | 0.011 | 0.034 | 0.023 | 0.017 | 0.016 | 0.0071 | 0.021 | 0.0095 |
| Ba137 | 0.0081 | 0.0084 | 0.007 | 0.03 | 0.0072 | 0.011 | 0.0078 | 0.0041 | 0.012 | 0.0073 |
| La139 | 0.0014 | 0.00049 | 0.0009 | 0.0017 | 0.0016 | 0.0016 | 0.003 | 0.00088 | 0.0016 | 0.00083 |
| Ce140 | 0.0006 | 0.00086 | 0.00066 | 0.0029 | 0.0011 | 0.00093 | 0.0008 | 0.001 | 0.0016 | 0.00037 |
| Gd157 | 0.0035 | 0.0034 | 0.0033 | 0.0053 | 0.0064 | 0.0042 | 0.011 | 0.005 | 0.0074 | 0.0043 |
| Yb172 | 0.0036 | 0.0031 | 0.0036 | 0.0019 | 0.0042 | 0.006 | 0.0045 | 0.0027 | 0.0052 | 0.0037 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/  slide | LK1/LK1 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 5 | 6 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 2.9 | 2.88 | 2.801 | 2.89 | 2.85 | 2.741 | 1.918 | 2.558 | 1.806 | 2.67 |
| B11 | 16.47 | 15.37 | 15.24 | 14.18 | 14.03 | 14.74 | 14.73 | 13.99 | 15 | 15.03 |
| Na23 | 300.5 | 239.71 | 230.99 | 237.68 | 237.79 | 231.3 | 130.38 | 80.23 | 109.94 | 84.8 |
| Mg24 | 349868.2 | 337365 | 340655.7 | 335660.9 | 342043.8 | 334199.3 | 363948.4 | 310363.7 | 372289.1 | 367688.8 |
| Mg25 | 378804.1 | 364753.3 | 366223.6 | 360975.7 | 361298.3 | 367022.9 | 401073 | 339430.1 | 392494.8 | 391969.9 |
| Mg26 | 365872.1 | 354697.8 | 359162.9 | 354800.4 | 363212 | 357916.7 | 387194.6 | 337392 | 394872.2 | 390067.4 |
| Al27 | 157.4 | 109.73 | 112.5 | 105.47 | 103.77 | 110.3 | 37.66 | 6.9 | 21.93 | 18.57 |
| Si29 | 192912.3 | 190341.3 | 191136 | 191229.5 | 190902.2 | 190575 | 194034.1 | 187396.4 | 193940.6 | 195109.2 |
| Si30 | 182995.9 | 184495.4 | 182024.7 | 180710.7 | 181034.8 | 182090.6 | 188284.1 | 175297.9 | 185717.9 | 187484.2 |
| P31 | 32.78 | 41.22 | 40.57 | 44.78 | 46.44 | 43.49 | 17.5 | 47.15 | 65.68 | 83.29 |
| Ca43 | 362.92 | 299.13 | 281.89 | 295.69 | 283.07 | 308.79 | 146.93 | 82.36 | 74.77 | 61.68 |
| Ca44 | 706.75 | 640.79 | 645.75 | 645.58 | 633.46 | 634.94 | 512.63 | 439.06 | 448.17 | 430.32 |
| Sc45 | 5.07 | 5 | 4.98 | 4.72 | 4.82 | 4.83 | 4.54 | 4.65 | 4.49 | 4.53 |
| Ti47 | 104.61 | 133.37 | 135.79 | 128.73 | 128.72 | 134.91 | 58.79 | 101.94 | 74.63 | 83.44 |
| Ti49 | 109.58 | 143.09 | 145.42 | 137.68 | 139.07 | 146.06 | 60.65 | 107.48 | 79.41 | 91.06 |
| V51 | 14.02 | 13.62 | 13.58 | 13.62 | 13.71 | 13.47 | 6.94 | 3.95 | 5.86 | 3.65 |
| Cr53 | 243.07 | 165.36 | 159.17 | 160.46 | 165.03 | 168.34 | 328.54 | 59.51 | 269.91 | 177.81 |
| Mn55 | 1163.18 | 1269.29 | 1234.57 | 1271.11 | 1311.06 | 1230.53 | 1078.45 | 1831.47 | 925.43 | 995.83 |
| Co59 | 183.68 | 195.31 | 190.4 | 194.29 | 196.92 | 193.9 | 164.16 | 178.46 | 148.4 | 160.63 |
| Ni60 | 3234.79 | 2965.09 | 2894.11 | 2944.81 | 2998.08 | 2900.71 | 3602.15 | 1308.65 | 3266.26 | 3483.47 |
| Ni62 | 3312.36 | 2976.35 | 2946.01 | 2964.42 | 3024.41 | 2874.68 | 3571.31 | 1282.63 | 3259.62 | 3479.02 |
| Cu63 | 7.67 | 6.28 | 6.13 | 6.27 | 6.52 | 6.06 | 4.76 | 0.893 | 1.782 | 1.042 |
| Zn66 | 119.76 | 131.59 | 126.82 | 132.22 | 135.76 | 127.09 | 70.59 | 160.76 | 64.12 | 71.5 |
| Zn67 | 107.21 | 118.14 | 119.13 | 123.22 | 123.96 | 116.07 | 63.48 | 151.4 | 58.93 | 62.87 |
| Ga69 | 0.36 | 0.316 | 0.305 | 0.345 | 0.356 | 0.346 | 0.0952 | 0.0925 | 0.0755 | 0.039 |
| Sr88 | <0.0043 | 0.0323 | 0.0292 | 0.0115 | 0.0072 | 0.0062 | 0.0044 | 0.0271 | 0.0046 | <0.0039 |
| Y89 | 0.0131 | 0.0128 | 0.0108 | 0.013 | 0.0112 | 0.0139 | 0.0034 | <0.0029 | 0.00219 | 0.0038 |
| Zr90 | 0.078 | 0.0907 | 0.0946 | 0.095 | 0.0951 | 0.1102 | 0.114 | 0.272 | 0.199 | 0.663 |
| Nb93 | 0.0106 | 0.0161 | 0.0203 | 0.0173 | 0.0141 | 0.0112 | 0.0619 | 0.296 | 0.352 | 0.578 |
| Ba135 | 0.0088 | <0.063 | 0.0262 | <0.040 | <0.040 | <0.044 | <0.048 | 0.0075 | <0.035 | <0.033 |
| Ba137 | <0.0148 | <0.0231 | 0.0105 | <0.0183 | 0.0322 | <0.0124 | <0.0237 | <0.0127 | <0.0195 | <0.0186 |
| La139 | <0.0022 | <0.0028 | 0.00125 | <0.0027 | 0.00095 | 0.00185 | <0.0035 | <0.0042 | <0.0036 | <0.0028 |
| Ce140 | <0.0034 | 0.00129 | <0.00205 | 0.0015 | <0.0021 | <0.0029 | 0.00078 | 0.005 | <0.00160 | <0.00152 |
| Gd157 | <0.0108 | 0.0016 | <0.0158 | <0.0133 | 0.0046 | <0.0127 | <0.0140 | <0.0224 | <0.0223 | 0.0081 |
| Yb172 | <0.0152 | <0.0106 | 0.0106 | <0.0133 | <0.0060 | <0.0099 | 0.0073 | <0.0058 | <0.0064 | 0.0042 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/  slide | LK1/LK1 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 5 | 6 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.1 | 0.1 | 0.098 | 0.1 | 0.1 | 0.098 | 0.072 | 0.094 | 0.07 | 0.099 |
| B11 | 0.55 | 0.52 | 0.51 | 0.48 | 0.48 | 0.51 | 0.52 | 0.5 | 0.54 | 0.55 |
| Na23 | 9.66 | 7.74 | 7.49 | 7.75 | 7.8 | 7.63 | 4.34 | 2.69 | 3.71 | 2.89 |
| Mg24 | 10827.19 | 10455.34 | 10575.36 | 10440.85 | 10663.04 | 10444.23 | 11404.93 | 9754.55 | 11738.27 | 11633.01 |
| Mg25 | 15652.19 | 15290.58 | 15608.06 | 15670.41 | 16002.64 | 16610.05 | 18569.15 | 16093.78 | 19074.33 | 19537.53 |
| Mg26 | 15328.66 | 15095.5 | 15561.52 | 15681.27 | 16404.35 | 16544.41 | 18341.89 | 16397.47 | 19707.18 | 20005.7 |
| Al27 | 5 | 3.5 | 3.59 | 3.38 | 3.34 | 3.56 | 1.23 | 0.24 | 0.73 | 0.62 |
| Si29 | 6101.51 | 6020.1 | 6045.17 | 6048.16 | 6037.79 | 6027.42 | 6136.88 | 5926.93 | 6133.92 | 6170.89 |
| Si30 | 6882.67 | 7004.66 | 6986.77 | 7022.42 | 7131.43 | 7279.82 | 7647.76 | 7240.89 | 7807.76 | 8028.11 |
| P31 | 2.65 | 3.38 | 3.42 | 3.91 | 4.2 | 4.09 | 1.8 | 4.8 | 6.95 | 9.18 |
| Ca43 | 18.77 | 15.72 | 15.14 | 15.51 | 15.22 | 15.89 | 11.07 | 8.97 | 9.11 | 8.23 |
| Ca44 | 23.59 | 21.45 | 21.66 | 21.78 | 21.52 | 21.69 | 17.86 | 15.49 | 15.96 | 15.51 |
| Sc45 | 0.17 | 0.17 | 0.17 | 0.16 | 0.17 | 0.17 | 0.16 | 0.16 | 0.16 | 0.16 |
| Ti47 | 3.55 | 4.51 | 4.62 | 4.42 | 4.45 | 4.7 | 2.11 | 3.64 | 2.71 | 3.06 |
| Ti49 | 3.59 | 4.64 | 4.72 | 4.5 | 4.56 | 4.8 | 2.08 | 3.6 | 2.71 | 3.11 |
| V51 | 0.43 | 0.42 | 0.42 | 0.42 | 0.42 | 0.41 | 0.22 | 0.13 | 0.18 | 0.12 |
| Cr53 | 12.44 | 8.65 | 8.53 | 8.82 | 9.33 | 9.81 | 19.72 | 3.71 | 17.3 | 11.79 |
| Mn55 | 39.93 | 43.88 | 43.04 | 44.73 | 46.62 | 44.26 | 39.27 | 67.57 | 34.63 | 37.81 |
| Co59 | 5.69 | 6.06 | 5.92 | 6.05 | 6.15 | 6.07 | 5.16 | 5.62 | 4.69 | 5.1 |
| Ni60 | 112.29 | 103.74 | 102.17 | 105.03 | 108.16 | 105.95 | 133.35 | 49.16 | 124.53 | 134.94 |
| Ni62 | 206 | 189.39 | 192.35 | 199.09 | 209.32 | 205.36 | 263.61 | 97.95 | 257.43 | 284.33 |
| Cu63 | 0.26 | 0.21 | 0.21 | 0.22 | 0.22 | 0.21 | 0.17 | 0.039 | 0.07 | 0.045 |
| Zn66 | 4.36 | 4.83 | 4.7 | 4.97 | 5.17 | 4.91 | 2.78 | 6.41 | 2.62 | 2.97 |
| Zn67 | 3.75 | 4.12 | 4.18 | 4.36 | 4.42 | 4.18 | 2.37 | 5.54 | 2.25 | 2.43 |
| Ga69 | 0.017 | 0.014 | 0.014 | 0.016 | 0.016 | 0.016 | 0.0071 | 0.0065 | 0.006 | 0.0045 |
| Sr88 | 0.002 | 0.0037 | 0.0033 | 0.002 | 0.0015 | 0.0016 | 0.0018 | 0.0032 | 0.0015 | 0.0016 |
| Y89 | 0.0027 | 0.0022 | 0.0023 | 0.0026 | 0.0022 | 0.0022 | 0.0014 | 0.0013 | 0.0009 | 0.0017 |
| Zr90 | 0.0099 | 0.0093 | 0.0089 | 0.0095 | 0.009 | 0.0098 | 0.01 | 0.018 | 0.015 | 0.034 |
| Nb93 | 0.0019 | 0.0023 | 0.0025 | 0.0026 | 0.0024 | 0.0021 | 0.0048 | 0.014 | 0.016 | 0.025 |
| Ba135 | 0.0063 | 0.022 | 0.0099 | 0.013 | 0.013 | 0.017 | 0.017 | 0.0053 | 0.013 | 0.013 |
| Ba137 | 0.0067 | 0.0092 | 0.0047 | 0.0081 | 0.0098 | 0.0048 | 0.0083 | 0.0054 | 0.0078 | 0.0069 |
| La139 | 0.001 | 0.0011 | 0.00063 | 0.0011 | 0.00055 | 0.00076 | 0.0011 | 0.0015 | 0.0014 | 0.001 |
| Ce140 | 0.0014 | 0.00058 | 0.00087 | 0.00062 | 0.001 | 0.001 | 0.00045 | 0.0014 | 0.00055 | 0.0006 |
| Gd157 | 0.0045 | 0.0016 | 0.0057 | 0.0047 | 0.0027 | 0.0049 | 0.0043 | 0.0079 | 0.0074 | 0.0036 |
| Yb172 | 0.0054 | 0.004 | 0.0032 | 0.0049 | 0.0027 | 0.0037 | 0.0037 | 0.0023 | 0.003 | 0.0021 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | FS1/FS1 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 5 | 6 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 1.399 | 0.878 | 0.935 | 1.981 | 2.605 | 2.851 | 2.616 | 2.693 | 2.448 | 1.587 |
| B11 | 24.09 | 22.02 | 21.58 | 20.81 | 19.96 | 19.95 | 19.14 | 19.5 | 17.86 | 17.9 |
| Na23 | 111.25 | 89.96 | 90.76 | 93.65 | 93.55 | 95.21 | 92.44 | 92.35 | 204.73 | 94.26 |
| Mg24 | 395265.8 | 409251.5 | 417705.7 | 392924 | 396575.5 | 397296.8 | 393281 | 397353.9 | 373935.6 | 386797.4 |
| Mg25 | 424163.7 | 440672.7 | 447207 | 426896.8 | 427245.8 | 428667.8 | 424475.5 | 430995.9 | 397800.5 | 421461.6 |
| Mg26 | 415125.9 | 434578.4 | 438805.2 | 406389.9 | 414582.1 | 423924.3 | 415801.2 | 420947.1 | 394436.1 | 413280.4 |
| Al27 | 33.14 | 22.63 | 22.84 | 13.29 | 15.8 | 15.88 | 15.42 | 15.83 | 101.78 | 25.94 |
| Si29 | 194221.1 | 193192.7 | 195623.4 | 192164.3 | 193613.4 | 192211.1 | 191977.4 | 193239.5 | 188752.1 | 186975.8 |
| Si30 | 174612.8 | 178859.4 | 183928.1 | 179067.4 | 178750.6 | 179689.1 | 176890.6 | 180615.4 | 178319.7 | 173295.8 |
| P31 | 27.89 | 51.54 | 57.26 | 44.66 | 64.78 | 68.12 | 63.75 | 67.7 | 109.1 | 34.54 |
| Ca43 | 93.41 | 75.41 | 85.29 | 98.17 | 109.93 | 95.2 | 67.93 | 92.2 | 315.13 | 72.96 |
| Ca44 | 477.9 | 504.97 | 490.39 | 493.92 | 515.85 | 506.28 | 507.39 | 510.49 | 678.05 | 478.72 |
| Sc45 | 5.38 | 5.44 | 5.4 | 5.83 | 5.66 | 5.85 | 5.65 | 5.74 | 5.37 | 5.06 |
| Ti47 | 47.12 | 24.27 | 25.81 | 106.76 | 101.59 | 101.7 | 99.8 | 105.74 | 187.01 | 69.99 |
| Ti49 | 50.24 | 23.97 | 24.27 | 110.15 | 110.17 | 110.78 | 106.93 | 108.45 | 204.04 | 71.77 |
| V51 | 5.95 | 5 | 5.14 | 3.68 | 3.62 | 3.8 | 3.62 | 3.68 | 11.54 | 5.78 |
| Cr53 | 258.79 | 302.41 | 310.27 | 258.15 | 223.27 | 220.64 | 223.47 | 225.57 | 159.36 | 220 |
| Mn55 | 778.23 | 693.74 | 701.28 | 990.36 | 1163.2 | 1187.29 | 1157.4 | 1194.73 | 1119.63 | 892.46 |
| Co59 | 119.05 | 117.66 | 119.49 | 145.74 | 147.98 | 152.7 | 148.1 | 151.1 | 167.01 | 137.16 |
| Ni60 | 2581.72 | 2581.69 | 2599.78 | 3020.42 | 3093.88 | 3120.78 | 3082.53 | 3113.69 | 2589.14 | 2647.01 |
| Ni62 | 2534.29 | 2567.04 | 2598 | 3154.81 | 3060.81 | 3153.58 | 3091.03 | 3143.58 | 2647.96 | 2728.89 |
| Cu63 | 2.64 | 0.589 | 0.637 | 1.383 | 1.258 | 1.385 | 1.271 | 1.268 | 5.37 | 2.13 |
| Zn66 | 58.22 | 42.27 | 43.11 | 59.45 | 67.66 | 69.04 | 68.02 | 68.3 | 119.77 | 61.47 |
| Zn67 | 52.19 | 36.9 | 38.51 | 54.59 | 62.1 | 63.62 | 61.99 | 63.24 | 111.22 | 56.1 |
| Ga69 | 0.0965 | 0.037 | 0.0296 | 0.0436 | 0.0595 | 0.309 | 0.056 | 0.059 | 0.314 | 0.0781 |
| Sr88 | 0.1167 | <0.0019 | 0.0032 | 0.0044 | <0.00178 | 0.0092 | <0.0031 | <0.0039 | 0.009 | <0.00238 |
| Y89 | 0.224 | 0.0034 | <0.0032 | <0.0045 | 0.0036 | 0.0153 | 0.0054 | 0.0045 | 0.0127 | 0.0024 |
| Zr90 | 0.103 | 0.303 | 0.325 | 0.245 | 0.36 | 6.89 | 0.305 | 0.33 | 0.164 | 0.143 |
| Nb93 | 0.142 | 0.223 | 0.226 | 0.194 | 0.205 | 0.227 | 0.221 | 0.207 | 0.0137 | 0.1125 |
| Ba135 | 0.216 | <0.049 | 0.0149 | <0.043 | <0.0207 | <0.029 | <0.029 | <0.029 | <0.0200 | <0.034 |
| Ba137 | 0.351 | <0.033 | <0.0176 | <0.035 | <0.0118 | 0.0163 | <0.0118 | <0.0261 | <0.0162 | <0.0252 |
| La139 | 0.0114 | 0.00063 | 0.00164 | <0.0038 | 0.00121 | 0.0103 | <0.00253 | <0.0031 | 0.00113 | <0.00240 |
| Ce140 | 0.1194 | <0.00268 | <0.0041 | <0.0038 | <0.00206 | 0.0145 | <0.00204 | 0.00167 | 0.00251 | <0.00193 |
| Gd157 | 0.0212 | <0.0090 | <0.0238 | <0.0254 | <0.0086 | 0.0087 | <0.0121 | <0.0085 | <0.0118 | <0.0116 |
| Yb172 | 0.123 | 0.00096 | <0.0083 | <0.0165 | 0.0074 | 0.0058 | <0.0110 | <0.0109 | <0.0093 | <0.0105 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | FS1/FS1 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 5 | 6 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.06 | 0.039 | 0.041 | 0.075 | 0.09 | 0.098 | 0.091 | 0.094 | 0.086 | 0.059 |
| B11 | 0.76 | 0.7 | 0.69 | 0.67 | 0.64 | 0.65 | 0.63 | 0.64 | 0.6 | 0.6 |
| Na23 | 3.35 | 2.71 | 2.73 | 2.82 | 2.82 | 2.87 | 2.79 | 2.78 | 6.17 | 2.84 |
| Mg24 | 12076.47 | 12511.59 | 12780.01 | 12032.95 | 12156.53 | 12192.35 | 12084.06 | 12225.74 | 11522.12 | 11937.36 |
| Mg25 | 16536.73 | 17401.73 | 17921.55 | 17391.79 | 17722.36 | 18130.74 | 18329.24 | 19021.31 | 17960.56 | 19482.71 |
| Mg26 | 15520.8 | 16434.25 | 16813.13 | 15802.18 | 16383.58 | 17049.81 | 17041.01 | 17599.84 | 16841.09 | 18036.03 |
| Al27 | 1.32 | 0.91 | 0.93 | 0.56 | 0.67 | 0.68 | 0.68 | 0.71 | 4.62 | 1.21 |
| Si29 | 6143.16 | 6110.22 | 6187.12 | 6078.11 | 6123.49 | 6079.15 | 6071.74 | 6111.65 | 5969.71 | 5913.54 |
| Si30 | 6129.11 | 6318.99 | 6548.19 | 6431.59 | 6481.85 | 6585.41 | 6557.78 | 6778.87 | 6780.96 | 6681.69 |
| P31 | 3.38 | 6.17 | 7.07 | 5.77 | 8.58 | 9.38 | 9.13 | 10.1 | 16.93 | 5.62 |
| Ca43 | 13.59 | 8.58 | 9.25 | 12.6 | 9.84 | 9.84 | 8.42 | 9.84 | 20.19 | 8.78 |
| Ca44 | 20.06 | 20.81 | 20.52 | 21.36 | 22.2 | 22.21 | 22.69 | 23.29 | 31.4 | 22.84 |
| Sc45 | 0.22 | 0.22 | 0.22 | 0.24 | 0.24 | 0.25 | 0.25 | 0.26 | 0.25 | 0.24 |
| Ti47 | 2.15 | 1.14 | 1.23 | 5.03 | 4.87 | 5 | 5.03 | 5.47 | 9.9 | 3.84 |
| Ti49 | 2.27 | 1.13 | 1.17 | 5.07 | 5.14 | 5.29 | 5.23 | 5.43 | 10.43 | 3.81 |
| V51 | 0.19 | 0.16 | 0.16 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.36 | 0.19 |
| Cr53 | 9.46 | 11.14 | 11.56 | 9.77 | 8.57 | 8.6 | 8.86 | 9.11 | 6.57 | 9.24 |
| Mn55 | 23.92 | 21.35 | 21.62 | 30.59 | 36 | 36.83 | 36 | 37.27 | 35.03 | 28.02 |
| Co59 | 3.69 | 3.66 | 3.72 | 4.55 | 4.63 | 4.79 | 4.67 | 4.78 | 5.3 | 4.37 |
| Ni60 | 101.52 | 102.83 | 105.1 | 124.16 | 129.5 | 133.22 | 134.36 | 138.73 | 118.03 | 123.55 |
| Ni62 | 153.28 | 159.28 | 165.91 | 207.87 | 208.49 | 222.47 | 226.14 | 238.76 | 208.95 | 223.83 |
| Cu63 | 0.1 | 0.027 | 0.03 | 0.06 | 0.052 | 0.058 | 0.054 | 0.055 | 0.21 | 0.09 |
| Zn66 | 2.96 | 2.19 | 2.28 | 3.21 | 3.73 | 3.9 | 3.95 | 4.07 | 7.34 | 3.88 |
| Zn67 | 1.94 | 1.38 | 1.45 | 2.06 | 2.3 | 2.38 | 2.35 | 2.42 | 4.24 | 2.21 |
| Ga69 | 0.008 | 0.004 | 0.0037 | 0.005 | 0.0047 | 0.014 | 0.0044 | 0.0047 | 0.014 | 0.0053 |
| Sr88 | 0.0091 | 0.001 | 0.001 | 0.0014 | 0.00087 | 0.0021 | 0.0012 | 0.0017 | 0.0019 | 0.00097 |
| Y89 | 0.015 | 0.0014 | 0.0015 | 0.0017 | 0.0014 | 0.003 | 0.0018 | 0.0013 | 0.0022 | 0.0012 |
| Zr90 | 0.013 | 0.022 | 0.023 | 0.021 | 0.026 | 0.38 | 0.023 | 0.025 | 0.015 | 0.014 |
| Nb93 | 0.0097 | 0.012 | 0.013 | 0.012 | 0.012 | 0.013 | 0.013 | 0.012 | 0.002 | 0.0077 |
| Ba135 | 0.036 | 0.017 | 0.0075 | 0.019 | 0.0094 | 0.012 | 0.012 | 0.012 | 0.0084 | 0.014 |
| Ba137 | 0.034 | 0.011 | 0.0081 | 0.012 | 0.0036 | 0.0073 | 0.0057 | 0.0089 | 0.0068 | 0.008 |
| La139 | 0.0025 | 0.00044 | 0.00073 | 0.0013 | 0.00061 | 0.0018 | 0.00093 | 0.0011 | 0.00057 | 0.00093 |
| Ce140 | 0.0081 | 0.00093 | 0.0013 | 0.0014 | 0.00072 | 0.002 | 0.00083 | 0.00063 | 0.00076 | 0.00075 |
| Gd157 | 0.0067 | 0.004 | 0.0074 | 0.0084 | 0.0042 | 0.0036 | 0.0049 | 0.0026 | 0.0058 | 0.0051 |
| Yb172 | 0.014 | 0.00096 | 0.0029 | 0.0051 | 0.0027 | 0.0032 | 0.0038 | 0.0036 | 0.0036 | 0.0034 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | FS4/FS4 | | | | | | | | | |
| Grain # | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 5 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 2.347 | 2.698 | 2.16 | 2.183 | 2.573 | 2.723 | 2.819 | 2.294 | 2.569 | 2.599 |
| B11 | 21.31 | 18.05 | 17.56 | 16.54 | 16.66 | 16.06 | 15.67 | 15.72 | 14.6 | 14.85 |
| Na23 | 222.98 | 246.26 | 89.4 | 92.73 | 237.26 | 129.86 | 129.17 | 122.9 | 99.84 | 96.04 |
| Mg24 | 348628.2 | 355139.2 | 368378.2 | 361086 | 343894.5 | 362278 | 354283.2 | 362883 | 350251.7 | 344871.4 |
| Mg25 | 380634.7 | 378224.4 | 391560 | 388200.7 | 373388 | 395013.8 | 381912.2 | 386442.7 | 369466.3 | 372264.6 |
| Mg26 | 372628.4 | 365487.3 | 390130.8 | 380746.2 | 365869.6 | 383051.3 | 376593.2 | 380302.9 | 363583.8 | 368183.7 |
| Al27 | 136.37 | 115.51 | 11.6 | 10.82 | 115.15 | 22.29 | 21.72 | 28.38 | 29.62 | 30.7 |
| Si29 | 191556.7 | 193987.4 | 193519.9 | 193379.7 | 193099.2 | 193660.1 | 192538.3 | 192024.1 | 191883.9 | 186975.8 |
| Si30 | 179190.9 | 182686.1 | 184837.1 | 184945.2 | 180643.7 | 185148.5 | 183320.4 | 187231.9 | 179856.2 | 175857.3 |
| P31 | 40.81 | 50.95 | 27.96 | 26.34 | 44.42 | 40.49 | 40.6 | 46.1 | 49.62 | 40.76 |
| Ca43 | 383.05 | 320.71 | 105.03 | 94.13 | 303.15 | 108.32 | 101.94 | 109.01 | 83 | 111.2 |
| Ca44 | 720.28 | 691.06 | 447.04 | 464.23 | 685.69 | 479.6 | 477.12 | 487.79 | 461.15 | 467.86 |
| Sc45 | 5.38 | 5.41 | 5.54 | 5.59 | 5.28 | 5.13 | 4.99 | 4.7 | 4.49 | 4.61 |
| Ti47 | 124.28 | 106.83 | 116.9 | 109.96 | 108.97 | 117.14 | 114.65 | 130.76 | 130.83 | 133.44 |
| Ti49 | 131.46 | 112.87 | 118.16 | 115.77 | 115.87 | 125 | 119.84 | 137 | 137.13 | 138.44 |
| V51 | 11.55 | 12.18 | 3.88 | 3.86 | 12.12 | 4.66 | 4.67 | 6.28 | 5.75 | 5.83 |
| Cr53 | 354.03 | 377.24 | 204.05 | 201.82 | 375.69 | 269.22 | 264.81 | 230.25 | 107.83 | 107.88 |
| Mn55 | 1048.17 | 1093 | 1051.02 | 1092.34 | 1153.75 | 1211.78 | 1198.96 | 941.62 | 1058.96 | 1041.48 |
| Co59 | 161.33 | 174.06 | 155.86 | 159.88 | 173.35 | 167.85 | 168.9 | 157.07 | 156.25 | 152.48 |
| Ni60 | 3247.12 | 3385.55 | 3552.21 | 3486.41 | 3392.59 | 3575.73 | 3599.19 | 3010.93 | 3200.58 | 3094.55 |
| Ni62 | 3328.11 | 3473.5 | 3715.68 | 3706.72 | 3560.31 | 3743.99 | 3749.44 | 3139.84 | 3266.3 | 3177.39 |
| Cu63 | 8.17 | 8.81 | 0.669 | 0.591 | 8.79 | 0.826 | 0.875 | 2.365 | 2.75 | 2.43 |
| Zn66 | 89.8 | 95.43 | 59.72 | 59.93 | 93.59 | 70.09 | 74.42 | 77.36 | 100.81 | 95.6 |
| Zn67 | 83.35 | 88.78 | 56.87 | 55.94 | 88.25 | 66.07 | 67.2 | 67.65 | 92.77 | 87.98 |
| Ga69 | 0.256 | 0.291 | 0.0201 | 0.0208 | 0.275 | 0.0824 | 0.0698 | 0.1191 | 0.1519 | 0.1621 |
| Sr88 | <0.0039 | 0.0068 | <0.0034 | <0.00189 | <0.0039 | <0.0028 | <0.0037 | 0.00136 | <0.0038 | <0.0026 |
| Y89 | 0.0103 | 0.0068 | <0.0054 | 0.0132 | 0.0059 | <0.0044 | <0.0042 | <0.0041 | 0.0045 | 0.0026 |
| Zr90 | 0.139 | 0.092 | 0.441 | 0.46 | 0.0872 | 0.231 | 0.224 | 0.149 | 0.162 | 0.181 |
| Nb93 | 0.0161 | 0.0091 | 0.394 | 0.367 | 0.0182 | 0.12 | 0.0889 | 0.0612 | 0.0934 | 0.0781 |
| Ba135 | <0.033 | 0.029 | <0.00 | 0.0076 | 0.0038 | <0.034 | <0.053 | 0.025 | 0.0112 | <0.039 |
| Ba137 | 0.0023 | <0.024 | <0.030 | 0.0086 | <0.0135 | <0.0136 | 0.0048 | <0.029 | 0.0105 | <0.0127 |
| La139 | <0.0028 | <0.0044 | <0.0028 | 0.00158 | <0.00200 | <0.00201 | 0.00035 | <0.0021 | <0.00193 | <0.00 |
| Ce140 | <0.0038 | <0.0034 | <0.00222 | <0.0026 | <0.00221 | 0.00101 | <0.00172 | <0.0033 | 0.009 | 0.00321 |
| Gd157 | 0.0099 | <0.0214 | 0.0063 | <0.0094 | <0.0138 | 0.0063 | 0.0069 | <0.0104 | <0.0211 | <0.0130 |
| Yb172 | <0.0134 | 0.0025 | <0.0086 | 0.0048 | <0.0122 | <0.0122 | <0.00 | <0.0092 | 0.00095 | 0.01 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | FS4/FS4 | | | | | | | | | |
| Grain # | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 5 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.079 | 0.092 | 0.073 | 0.074 | 0.086 | 0.09 | 0.094 | 0.079 | 0.086 | 0.087 |
| B11 | 0.68 | 0.58 | 0.57 | 0.54 | 0.54 | 0.53 | 0.52 | 0.53 | 0.49 | 0.51 |
| Na23 | 6.74 | 7.45 | 2.71 | 2.81 | 7.19 | 3.94 | 3.92 | 3.73 | 3.04 | 2.92 |
| Mg24 | 10538.24 | 10736.19 | 11137.25 | 10917.95 | 10399.39 | 10956.78 | 10716.61 | 10978.44 | 10597.96 | 10437.02 |
| Mg25 | 13970.72 | 14026.23 | 14694.27 | 14764.39 | 14412.06 | 15492.85 | 15238.15 | 15701.57 | 15300.74 | 15725.84 |
| Mg26 | 12513.4 | 12347.24 | 13271.52 | 13055.08 | 12656.06 | 13379.25 | 13292.42 | 13575.14 | 13134.29 | 13469.15 |
| Al27 | 4.91 | 4.2 | 0.43 | 0.41 | 4.34 | 0.86 | 0.85 | 1.13 | 1.19 | 1.26 |
| Si29 | 6058.53 | 6135.62 | 6120.58 | 6116.13 | 6107.26 | 6125.02 | 6089.63 | 6073.36 | 6068.81 | 5913.56 |
| Si30 | 7189.24 | 7418.47 | 7609.97 | 7733.3 | 7682.97 | 8020.42 | 8098.14 | 8443.01 | 8286.53 | 8284.64 |
| P31 | 3.63 | 4.61 | 2.61 | 2.52 | 4.28 | 4.01 | 4.14 | 4.82 | 5.33 | 4.51 |
| Ca43 | 20.51 | 19.46 | 9.5 | 8.62 | 17.74 | 9.83 | 10.41 | 10.38 | 9.62 | 10.29 |
| Ca44 | 28.48 | 27.82 | 18.38 | 19.32 | 28.68 | 20.63 | 20.99 | 21.85 | 21.05 | 21.77 |
| Sc45 | 0.2 | 0.21 | 0.21 | 0.22 | 0.21 | 0.21 | 0.21 | 0.2 | 0.19 | 0.2 |
| Ti47 | 4.67 | 4.08 | 4.49 | 4.28 | 4.3 | 4.69 | 4.68 | 5.42 | 5.51 | 5.73 |
| Ti49 | 5.46 | 4.79 | 5.05 | 5.04 | 5.13 | 5.64 | 5.53 | 6.45 | 6.59 | 6.81 |
| V51 | 0.35 | 0.37 | 0.12 | 0.12 | 0.37 | 0.15 | 0.15 | 0.2 | 0.18 | 0.18 |
| Cr53 | 18.68 | 20.31 | 11.25 | 11.41 | 21.8 | 16.08 | 16.3 | 14.62 | 7.07 | 7.3 |
| Mn55 | 31.94 | 33.33 | 32.08 | 33.38 | 35.3 | 37.13 | 36.79 | 28.95 | 32.61 | 32.14 |
| Co59 | 4.95 | 5.35 | 4.8 | 4.93 | 5.35 | 5.19 | 5.23 | 4.88 | 4.87 | 4.76 |
| Ni60 | 127.42 | 134.61 | 143.36 | 143.09 | 141.82 | 152.47 | 156.75 | 134.08 | 145.86 | 144.45 |
| Ni62 | 234.09 | 250.42 | 275.35 | 283.07 | 280.75 | 305.29 | 316.51 | 274.6 | 296.05 | 298.53 |
| Cu63 | 0.29 | 0.32 | 0.031 | 0.029 | 0.33 | 0.038 | 0.041 | 0.097 | 0.11 | 0.1 |
| Zn66 | 4 | 4.32 | 2.76 | 2.83 | 4.51 | 3.46 | 3.77 | 4.02 | 5.38 | 5.24 |
| Zn67 | 3.15 | 3.4 | 2.22 | 2.21 | 3.47 | 2.66 | 2.75 | 2.81 | 3.87 | 3.74 |
| Ga69 | 0.012 | 0.014 | 0.0033 | 0.0038 | 0.013 | 0.0061 | 0.0062 | 0.0077 | 0.0087 | 0.009 |
| Sr88 | 0.0018 | 0.0017 | 0.0015 | 0.00085 | 0.0018 | 0.0014 | 0.0013 | 0.00068 | 0.0012 | 0.0012 |
| Y89 | 0.0023 | 0.0023 | 0.0018 | 0.0022 | 0.0019 | 0.0019 | 0.0017 | 0.0017 | 0.0019 | 0.00093 |
| Zr90 | 0.012 | 0.01 | 0.026 | 0.028 | 0.0093 | 0.017 | 0.017 | 0.013 | 0.013 | 0.014 |
| Nb93 | 0.0025 | 0.0018 | 0.018 | 0.017 | 0.0024 | 0.0075 | 0.0065 | 0.005 | 0.0065 | 0.0056 |
| Ba135 | 0.012 | 0.012 | <0.00 | 0.0053 | 0.0038 | 0.015 | 0.018 | 0.01 | 0.0065 | 0.015 |
| Ba137 | 0.0023 | 0.01 | 0.01 | 0.0043 | 0.0047 | 0.0064 | 0.0034 | 0.011 | 0.0047 | 0.0063 |
| La139 | 0.001 | 0.0017 | 0.0011 | 0.00071 | 0.00062 | 0.00062 | 0.00035 | 0.0011 | 0.00074 | <0.00 |
| Ce140 | 0.0014 | 0.0014 | 0.00077 | 0.001 | 0.00094 | 0.0005 | 0.00076 | 0.0014 | 0.0017 | 0.00087 |
| Gd157 | 0.0055 | 0.0069 | 0.0031 | 0.0036 | 0.0059 | 0.0031 | 0.0035 | 0.005 | 0.0078 | 0.0045 |
| Yb172 | 0.0049 | 0.0017 | 0.0031 | 0.0022 | 0.0046 | 0.0041 | <0.00 | 0.003 | 0.00095 | 0.003 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C3946/39 | | | | | | | | | |
| Grain # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8 | 9 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 2.713 | 2.873 | 2.951 | 4.8 | 3.25 | 2.793 | 2.79 | 2.616 | 2.483 | 2.731 |
| B11 | 13.08 | 13.53 | 12.82 | 12.17 | 11.66 | 11.54 | 11.34 | 11.69 | 12.06 | 11.79 |
| Na23 | 118.28 | 110.53 | 121.34 | 176.9 | 143.5 | 111.68 | 112.75 | 111.06 | 134.44 | 103.44 |
| Mg24 | 323750 | 324839.3 | 331419.6 | 317869.3 | 315287.9 | 321172.2 | 318355.2 | 323143.5 | 332993 | 328762.5 |
| Mg25 | 348860 | 349902.5 | 354031.8 | 343361.1 | 342143.9 | 344431.6 | 346040.7 | 346459.4 | 363188.1 | 350748.1 |
| Mg26 | 338455.6 | 346720.5 | 343934.1 | 333046.7 | 330928.6 | 332826.3 | 332985.9 | 336688.7 | 352343 | 337044 |
| Al27 | 97.05 | 80.89 | 87.01 | 90.01 | 82.23 | 183.95 | 68.61 | 103.43 | 181.87 | 105.11 |
| Si29 | 188331.3 | 188752 | 188752 | 188097.6 | 188191.1 | 188191.1 | 189266.2 | 188985.7 | 192538.3 | 189032.5 |
| Si30 | 175191.1 | 184244.5 | 181928.6 | 180374.2 | 177956.7 | 177848.1 | 178231.1 | 179860.2 | 181467.2 | 180572.4 |
| P31 | 51.23 | 52.96 | 62.42 | 101.46 | 62.27 | 60.96 | 58.37 | 55.94 | 35.49 | 57.82 |
| Ca43 | 1304.2 | 1712.56 | 1354.95 | 1309.04 | 1541.1 | 1427.6 | 1759.74 | 1443.35 | 1007.58 | 1941.54 |
| Ca44 | 1647.58 | 1994.43 | 1670.25 | 1643.64 | 1820.97 | 1771.69 | 2114.36 | 1737.46 | 1342.72 | 2222.35 |
| Sc45 | 4.96 | 5.32 | 5.18 | 4.9 | 5.05 | 5.02 | 5.17 | 5.13 | 4.59 | 5.42 |
| Ti47 | 130.89 | 124.79 | 127.04 | 134.38 | 130.4 | 222.3 | 123.79 | 139.87 | 332.44 | 176.89 |
| Ti49 | 133.14 | 126.18 | 127.62 | 139.29 | 130.76 | 230.21 | 128.53 | 140.85 | 336.64 | 180.94 |
| V51 | 2.717 | 1.896 | 2.395 | 3.42 | 2.642 | 5.07 | 1.829 | 2.851 | 3.95 | 2.478 |
| Cr53 | 414.51 | 244.09 | 326.39 | 551.11 | 305.17 | 1293.17 | 258.6 | 548.19 | 529.23 | 473.89 |
| Mn55 | 1819.94 | 1943.48 | 1909.19 | 1792.24 | 2059.31 | 1955.43 | 2080.63 | 1939.88 | 1427.32 | 2151.94 |
| Co59 | 163.66 | 158.54 | 163.66 | 163.63 | 167.47 | 163.48 | 161.12 | 162.11 | 160.34 | 162.17 |
| Ni60 | 2056.64 | 1690.6 | 2022.88 | 1833.6 | 1921.22 | 1794.64 | 1600.77 | 1906.18 | 3084.52 | 1504.56 |
| Ni62 | 2110.49 | 1714.56 | 2011.53 | 1872.43 | 1927.14 | 1811.27 | 1637.11 | 1906.07 | 3111.81 | 1535.5 |
| Cu63 | 3.23 | 2.74 | 2.76 | 3.75 | 3.03 | 2.9 | 2.86 | 3.24 | 4.46 | 2.397 |
| Zn66 | 102.05 | 99.23 | 104.25 | 117.52 | 106.88 | 103.04 | 101.68 | 102.57 | 90.67 | 103.32 |
| Zn67 | 92.11 | 87.89 | 94.22 | 99.62 | 94.76 | 93.8 | 90.4 | 93.37 | 84.45 | 90.62 |
| Ga69 | 0.1396 | 0.0888 | <0.034 | 0.218 | 0.1534 | 0.252 | 0.0784 | 0.1586 | 0.867 | 0.1212 |
| Sr88 | 0.0421 | 0.14 | 0.0379 | 1.724 | 0.865 | 0.1122 | 0.0221 | 0.0301 | 2.493 | 0.0361 |
| Y89 | 0.0306 | 0.0481 | 0.0337 | 0.0321 | 0.0459 | 0.0364 | 0.0547 | 0.0337 | 0.0829 | 0.0503 |
| Zr90 | 0.0406 | 0.0455 | 0.0561 | 0.523 | 0.254 | 0.0792 | 0.0562 | 0.061 | 0.957 | 0.0515 |
| Nb93 | 0.0039 | <0.0047 | <0.0235 | 0.176 | 0.1255 | 0.0183 | 0.005 | 0.0088 | 2.063 | 0.0165 |
| Ba135 | 0.042 | 3.98 | 3.49 | 1.99 | 1.37 | 0.091 | <0.045 | <0.044 | 9.75 | <0.037 |
| Ba137 | <0.0166 | 0.036 | 0.153 | 1.84 | 1.283 | 0.098 | 0.0047 | 0.035 | 9.28 | <0.0177 |
| La139 | <0.0017 | <0.0057 | <0.0073 | 0.178 | 0.0727 | 0.0163 | <0.0042 | 0.0034 | 1.594 | 0.0134 |
| Ce140 | 0.0039 | 0.0069 | <0.0091 | 0.532 | 0.262 | 0.0377 | 0.0094 | 0.0128 | 4.96 | 0.0979 |
| Gd157 | <0.0163 | <0.0242 | <0.031 | 0.0154 | 0.0134 | <0.0117 | 0.0163 | 0.009 | 0.07 | 0.0073 |
| Yb172 | <0.0072 | 0.0109 | <0.040 | <0.0120 | 0.0113 | 0.0069 | 0.0075 | 0.0065 | <0.0078 | <0.0077 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C3946/39 | | | | | | | | | |
| Grain # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8 | 9 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.09 | 0.097 | 0.1 | 0.16 | 0.11 | 0.092 | 0.092 | 0.087 | 0.084 | 0.091 |
| B11 | 0.42 | 0.43 | 0.41 | 0.4 | 0.38 | 0.37 | 0.37 | 0.38 | 0.4 | 0.39 |
| Na23 | 3.59 | 3.36 | 3.69 | 5.38 | 4.37 | 3.4 | 3.44 | 3.4 | 4.12 | 3.17 |
| Mg24 | 10074.48 | 10129.32 | 10360.25 | 9964.55 | 9914.11 | 10134.16 | 10084.02 | 10278.38 | 10639.54 | 10554.91 |
| Mg25 | 13706.75 | 13942.18 | 14336.13 | 14156 | 14384.55 | 14788.63 | 15193.02 | 15571 | 16723.6 | 16558.93 |
| Mg26 | 11186.98 | 11525.99 | 11510.63 | 11231.43 | 11254.36 | 11424.43 | 11545.94 | 11801.22 | 12492.82 | 12095.95 |
| Al27 | 2.99 | 2.5 | 2.7 | 2.79 | 2.55 | 5.69 | 2.13 | 3.21 | 5.66 | 3.28 |
| Si29 | 5956.92 | 5970.24 | 5970.87 | 5950.29 | 5952.47 | 5952.1 | 5986.28 | 5977.31 | 6089.83 | 5978.77 |
| Si30 | 5472.82 | 5756.73 | 5685.97 | 5638.7 | 5563.54 | 5561.08 | 5574.89 | 5627.54 | 5679.97 | 5653.83 |
| P31 | 5.35 | 5.74 | 7.02 | 11.86 | 7.62 | 7.79 | 7.82 | 7.86 | 5.25 | 8.93 |
| Ca43 | 46.72 | 59.06 | 51.59 | 50.09 | 53.8 | 48.63 | 59.65 | 49.57 | 37.12 | 64.91 |
| Ca44 | 51.31 | 62.14 | 52.45 | 51.73 | 57.09 | 55.55 | 66.46 | 54.85 | 42.71 | 70.5 |
| Sc45 | 0.16 | 0.17 | 0.17 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.15 | 0.17 |
| Ti47 | 6.2 | 6.03 | 6.32 | 6.84 | 6.78 | 11.82 | 6.81 | 7.92 | 19.37 | 10.66 |
| Ti49 | 4.9 | 4.7 | 4.88 | 5.37 | 5.05 | 8.9 | 5.11 | 5.68 | 13.71 | 7.55 |
| V51 | 0.09 | 0.065 | 0.084 | 0.12 | 0.089 | 0.16 | 0.063 | 0.094 | 0.13 | 0.083 |
| Cr53 | 12.81 | 7.58 | 10.17 | 17.13 | 9.52 | 40.18 | 8.11 | 17.17 | 16.64 | 14.95 |
| Mn55 | 55.64 | 59.49 | 58.53 | 55.03 | 63.34 | 60.27 | 64.27 | 60.07 | 44.32 | 67.01 |
| Co59 | 4.99 | 4.84 | 5.01 | 5.01 | 5.13 | 5.01 | 4.95 | 4.99 | 4.94 | 5.01 |
| Ni60 | 62.09 | 51.05 | 61.11 | 55.41 | 58.04 | 54.22 | 48.38 | 57.62 | 93.25 | 45.51 |
| Ni62 | 99.12 | 82.34 | 99.06 | 94.76 | 100.32 | 97.22 | 90.8 | 109.3 | 184.66 | 94.43 |
| Cu63 | 0.12 | 0.1 | 0.11 | 0.15 | 0.12 | 0.11 | 0.11 | 0.12 | 0.17 | 0.096 |
| Zn66 | 3.69 | 3.62 | 3.86 | 4.4 | 4.04 | 3.94 | 3.96 | 4.05 | 3.65 | 4.23 |
| Zn67 | 3.06 | 2.93 | 3.22 | 3.41 | 3.18 | 3.12 | 3.05 | 3.15 | 2.9 | 3.1 |
| Ga69 | 0.0092 | 0.007 | 0.014 | 0.014 | 0.0097 | 0.013 | 0.0065 | 0.0095 | 0.036 | 0.0079 |
| Sr88 | 0.0043 | 0.0088 | 0.0054 | 0.064 | 0.033 | 0.0068 | 0.0031 | 0.0034 | 0.088 | 0.0035 |
| Y89 | 0.0039 | 0.0053 | 0.0049 | 0.0049 | 0.0048 | 0.0037 | 0.005 | 0.0038 | 0.0066 | 0.0046 |
| Zr90 | 0.0063 | 0.0067 | 0.0095 | 0.033 | 0.018 | 0.008 | 0.0074 | 0.0078 | 0.045 | 0.0063 |
| Nb93 | 0.0019 | 0.0022 | 0.008 | 0.011 | 0.0078 | 0.0024 | 0.0016 | 0.0019 | 0.068 | 0.0022 |
| Ba135 | 0.016 | 0.22 | 0.22 | 0.15 | 0.1 | 0.018 | 0.015 | 0.018 | 0.54 | 0.015 |
| Ba137 | 0.0081 | 0.01 | 0.049 | 0.11 | 0.073 | 0.016 | 0.0033 | 0.011 | 0.36 | 0.0091 |
| La139 | 0.0011 | 0.002 | 0.0025 | 0.012 | 0.0059 | 0.0023 | 0.0014 | 0.001 | 0.056 | 0.0021 |
| Ce140 | 0.0015 | 0.0015 | 0.0032 | 0.024 | 0.013 | 0.0032 | 0.0017 | 0.002 | 0.17 | 0.006 |
| Gd157 | 0.0069 | 0.0086 | 0.01 | 0.0079 | 0.0051 | 0.0055 | 0.0052 | 0.0037 | 0.013 | 0.0033 |
| Yb172 | 0.0039 | 0.0037 | 0.013 | 0.0059 | 0.0043 | 0.0024 | 0.0034 | 0.0025 | 0.0042 | 0.0039 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C6098/32 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 2.549 | 2.723 | 2.692 | 2.498 | 2.259 | 2.386 | 2.243 | 2.39 | 2.765 | 2.574 |
| B11 | 13.43 | 13.44 | 13.28 | 13.17 | 13.3 | 13.59 | 13.79 | 14.04 | 14.19 | 14.8 |
| Na23 | 241.53 | 226.41 | 219.82 | 202.73 | 202.52 | 202.39 | 126.66 | 127.03 | 270.95 | 280.17 |
| Mg24 | 336160.2 | 340061.2 | 336764.9 | 347624.8 | 347410.4 | 343075.8 | 355361.8 | 346353.4 | 341516.7 | 348146.7 |
| Mg25 | 349908 | 350794.1 | 353958.5 | 358228.1 | 362242.2 | 355972.5 | 367388.4 | 369496.8 | 360000.3 | 361273.8 |
| Mg26 | 342655.8 | 349142.8 | 347479.3 | 356522.4 | 361142.7 | 354280.8 | 363198.1 | 366567.4 | 352104.3 | 360767.4 |
| Al27 | 115.73 | 117.25 | 118.73 | 112.2 | 126.99 | 144.25 | 115.48 | 106.31 | 136.93 | 130.97 |
| Si29 | 190621.8 | 189406.4 | 190575 | 190201 | 192585 | 190341.3 | 191322.9 | 190855.5 | 191322.9 | 191790.3 |
| Si30 | 199155.5 | 203894.7 | 201471 | 200848.4 | 202652 | 197079.8 | 198782.2 | 199826.7 | 193456.1 | 196016.9 |
| P31 | 46.55 | 47.17 | 47.74 | 27.44 | 36.96 | 60.96 | 74.27 | 57.27 | 49.67 | 49.56 |
| Ca43 | 516.69 | 403.04 | 405.52 | 353.01 | 356.68 | 380.78 | 834.5 | 759.53 | 405.04 | 386.78 |
| Ca44 | 916.83 | 832.25 | 801.43 | 767.55 | 772.55 | 784.7 | 1211.33 | 1180.85 | 791.76 | 796.94 |
| Sc45 | 5.18 | 5.21 | 5.28 | 5.21 | 5.41 | 5.57 | 5.97 | 6.01 | 5.95 | 6.16 |
| Ti47 | 108.93 | 82.3 | 82.67 | 78.11 | 96.41 | 153.4 | 161.61 | 149.83 | 103.4 | 101.07 |
| Ti49 | 149.74 | 110.65 | 107.45 | 102.25 | 122.27 | 196.54 | 203.53 | 184.17 | 122.62 | 120.36 |
| V51 | 6.15 | 7.41 | 7.25 | 8.59 | 9.81 | 11.07 | 2.331 | 2.588 | 8.71 | 8.61 |
| Cr53 | 497.21 | 558.26 | 548.78 | 498.84 | 513.5 | 362.35 | 724.25 | 548.55 | 472.3 | 487.9 |
| Mn55 | 1036.13 | 1083.71 | 1145.02 | 1109.73 | 1132.37 | 1159.03 | 1188.28 | 1224.32 | 1126.16 | 1137.22 |
| Co59 | 163.45 | 169.57 | 170.6 | 157.64 | 163.46 | 165.21 | 166.39 | 171.58 | 173.68 | 178.19 |
| Ni60 | 3437.29 | 3361.47 | 3410.92 | 3202.83 | 3332.26 | 3518.83 | 3505.89 | 3625.46 | 3468.47 | 3555.01 |
| Ni62 | 3386.65 | 3320.29 | 3271.81 | 3162.62 | 3262.72 | 3526.04 | 3564.24 | 3598.68 | 3512.26 | 3505.95 |
| Cu63 | 5.37 | 7 | 7.45 | 8.1 | 8.49 | 11.37 | 3.47 | 4.05 | 8.76 | 7.21 |
| Zn66 | 113.89 | 107.72 | 102.56 | 92.68 | 86.44 | 91.4 | 98.25 | 104.64 | 109.36 | 111.24 |
| Zn67 | 101.16 | 96.6 | 93.43 | 83.73 | 79.67 | 83.03 | 87.53 | 94.82 | 100.02 | 102.64 |
| Ga69 | 0.236 | 0.2218 | 0.251 | 0.234 | 0.245 | 0.306 | 0.2023 | 0.1744 | 0.266 | 0.27 |
| Sr88 | 0.0278 | 0.0258 | 0.0183 | 0.0162 | 0.0159 | 0.0173 | 0.0689 | 0.0249 | 0.0191 | 0.0144 |
| Y89 | 0.0165 | 0.0095 | 0.0086 | 0.0061 | 0.0109 | 0.0122 | 0.0231 | 0.0343 | 0.0071 | 0.0074 |
| Zr90 | 1.896 | 2.67 | 0.571 | 0.172 | 0.0746 | 0.452 | 0.166 | 4.57 | 0.172 | 0.0943 |
| Nb93 | 0.0249 | 0.00353 | 0.0047 | 0.009 | 0.00427 | 0.0065 | 0.0101 | 0.00256 | 0.0102 | 0.0168 |
| Ba135 | 0.322 | <0.0116 | 0.0076 | 0.0127 | <0.0116 | 0.0076 | 0.098 | 0.058 | <0.0198 | <0.0228 |
| Ba137 | 0.0093 | 0.097 | <0.0067 | 0.0063 | 0.0066 | <0.0148 | 0.105 | 0.3 | 0.0056 | <0.0095 |
| La139 | 0.00095 | 0.0894 | <0.00186 | <0.00147 | 0.0057 | 0.111 | 0.00478 | 0.00187 | 0.0336 | <0.00148 |
| Ce140 | 0.00267 | 0.00496 | 0.00178 | 0.0076 | <0.00144 | 0.0352 | 23.02 | 0.1946 | 0.1534 | 0.0022 |
| Gd157 | 0.0024 | <0.0066 | 0.0108 | <0.0045 | 0.0069 | 0.0016 | <0.0047 | <0.0096 | 0.0024 | <0.0048 |
| Yb172 | 0.0078 | <0.0061 | 0.001 | <0.0041 | <0.0075 | 0.0045 | <0.0043 | 0.0046 | <0.0043 | <0.0052 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C6098/32 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.083 | 0.089 | 0.088 | 0.082 | 0.075 | 0.079 | 0.075 | 0.081 | 0.093 | 0.088 |
| B11 | 0.8 | 0.85 | 0.89 | 0.94 | 1.01 | 1.11 | 1.22 | 1.36 | 1.5 | 1.73 |
| Na23 | 7.45 | 6.99 | 6.8 | 6.29 | 6.29 | 6.31 | 3.96 | 3.98 | 8.53 | 8.85 |
| Mg24 | 11806.11 | 12055.57 | 12068.62 | 12610.85 | 12774.76 | 12803.09 | 13474.53 | 13358.02 | 13410.37 | 13931.04 |
| Mg25 | 12003.59 | 12135.29 | 12364.09 | 12651.3 | 12950.11 | 12897.25 | 13504.97 | 13794.74 | 13663.49 | 13952.11 |
| Mg26 | 10617.7 | 10841.16 | 10815.72 | 11128.14 | 11307.92 | 11132.11 | 11456.74 | 11612.17 | 11205.59 | 11538.61 |
| Al27 | 4.2 | 4.3 | 4.41 | 4.23 | 4.86 | 5.61 | 4.57 | 4.29 | 5.63 | 5.5 |
| Si29 | 6028.55 | 5990.1 | 6027.04 | 6015.19 | 6090.59 | 6019.64 | 6050.75 | 6035.91 | 6050.69 | 6065.46 |
| Si30 | 6554.69 | 6719.53 | 6650.91 | 6643.91 | 6719.59 | 6552.53 | 6629.11 | 6685.84 | 6495.8 | 6606.93 |
| P31 | 1.94 | 1.97 | 2.02 | 1.2 | 1.61 | 2.66 | 3.28 | 2.57 | 2.27 | 2.31 |
| Ca43 | 20.14 | 16.22 | 16.28 | 14.6 | 14.73 | 15.88 | 31.97 | 29.33 | 17.03 | 16.57 |
| Ca44 | 32.41 | 29.7 | 28.9 | 28 | 28.55 | 29.41 | 45.98 | 45.55 | 31.14 | 31.91 |
| Sc45 | 0.24 | 0.25 | 0.27 | 0.28 | 0.3 | 0.32 | 0.37 | 0.39 | 0.41 | 0.45 |
| Ti47 | 5.02 | 3.9 | 4.03 | 3.94 | 5.04 | 8.32 | 9.13 | 8.84 | 6.39 | 6.54 |
| Ti49 | 6.35 | 4.78 | 4.73 | 4.59 | 5.61 | 9.21 | 9.78 | 9.09 | 6.23 | 6.29 |
| V51 | 0.19 | 0.23 | 0.22 | 0.26 | 0.3 | 0.34 | 0.075 | 0.082 | 0.27 | 0.27 |
| Cr53 | 18.57 | 21.11 | 21.05 | 19.45 | 20.38 | 14.67 | 29.9 | 23.15 | 20.4 | 21.58 |
| Mn55 | 34.89 | 36.77 | 39.19 | 38.36 | 39.58 | 41.01 | 42.6 | 44.52 | 41.58 | 42.67 |
| Co59 | 5.52 | 5.78 | 5.86 | 5.47 | 5.74 | 5.88 | 6 | 6.28 | 6.46 | 6.74 |
| Ni60 | 109.92 | 107.96 | 110.11 | 103.99 | 108.9 | 115.84 | 116.34 | 121.36 | 117.2 | 121.35 |
| Ni62 | 171.45 | 172.25 | 174.43 | 173.72 | 185.05 | 206.87 | 216.65 | 226.89 | 229.91 | 238.44 |
| Cu63 | 0.19 | 0.24 | 0.26 | 0.29 | 0.3 | 0.41 | 0.13 | 0.15 | 0.33 | 0.28 |
| Zn66 | 3.54 | 3.36 | 3.2 | 2.9 | 2.71 | 2.88 | 3.11 | 3.32 | 3.48 | 3.55 |
| Zn67 | 4.27 | 4.14 | 4.08 | 3.73 | 3.63 | 3.86 | 4.18 | 4.63 | 5.01 | 5.28 |
| Ga69 | 0.01 | 0.0097 | 0.011 | 0.01 | 0.011 | 0.013 | 0.0096 | 0.0085 | 0.012 | 0.012 |
| Sr88 | 0.0024 | 0.0022 | 0.0018 | 0.0018 | 0.0017 | 0.0018 | 0.0043 | 0.0023 | 0.0019 | 0.0017 |
| Y89 | 0.002 | 0.0014 | 0.0015 | 0.0011 | 0.0015 | 0.0016 | 0.0025 | 0.0031 | 0.0014 | 0.0015 |
| Zr90 | 0.095 | 0.13 | 0.032 | 0.012 | 0.0067 | 0.028 | 0.013 | 0.27 | 0.013 | 0.0085 |
| Nb93 | 0.0022 | 0.00091 | 0.0011 | 0.0013 | 0.00089 | 0.001 | 0.0015 | 0.00082 | 0.0014 | 0.002 |
| Ba135 | 0.028 | 0.0056 | 0.0038 | 0.0048 | 0.0045 | 0.0038 | 0.016 | 0.012 | 0.0067 | 0.0082 |
| Ba137 | 0.0033 | 0.011 | 0.0023 | 0.0026 | 0.0027 | 0.0048 | 0.012 | 0.021 | 0.0025 | 0.004 |
| La139 | 0.00043 | 0.0053 | 0.00085 | 0.00051 | 0.0013 | 0.0062 | 0.001 | 0.00092 | 0.0028 | 0.0006 |
| Ce140 | 0.00079 | 0.00091 | 0.0005 | 0.001 | 0.00065 | 0.0025 | 0.73 | 0.008 | 0.0067 | 0.00054 |
| Gd157 | 0.0014 | 0.0031 | 0.0029 | 0.0014 | 0.0023 | 0.0011 | 0.0025 | 0.0041 | 0.0014 | 0.002 |
| Yb172 | 0.0021 | 0.0026 | 0.00071 | 0.0017 | 0.0026 | 0.0015 | 0.0022 | 0.0015 | 0.0021 | 0.0021 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C6066/30 | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 2.069 | 2.069 | 2.307 | 2.231 | 2.78 | 1.908 | 17.42 | 2.253 | 1.566 | 2.303 |
| B11 | 14.27 | 13.09 | 13.07 | 12.39 | 12.3 | 12.19 | 11.82 | 11.56 | 11.66 | 12 |
| Na23 | 195.16 | 185.2 | 174.17 | 184.67 | 226.83 | 229.29 | 142.03 | 208.65 | 140.74 | 191.26 |
| Mg24 | 354525.8 | 345552.7 | 354584.5 | 352021.7 | 355776.3 | 351587.9 | 352643.1 | 347469.8 | 355002.8 | 344770.2 |
| Mg25 | 382841.2 | 374689 | 381370.1 | 380912.4 | 383123.2 | 378785.3 | 383144.9 | 370939.3 | 380739.2 | 373158 |
| Mg26 | 374790.9 | 361019.7 | 367492.5 | 360740.4 | 369809 | 370432.6 | 371145.8 | 365788.3 | 373737.3 | 361776.6 |
| Al27 | 104.59 | 106.66 | 121.97 | 121.49 | 119.39 | 145.77 | 128.02 | 127.2 | 80.38 | 79.84 |
| Si29 | 196184.3 | 192304.5 | 192444.7 | 190060.8 | 191930.6 | 191369.7 | 191837.1 | 191463.2 | 191743.6 | 191182.7 |
| Si30 | 192119.5 | 187474 | 192151.3 | 189251.5 | 190970.1 | 189476.5 | 191058.6 | 188696.5 | 188713.8 | 187192.8 |
| P31 | 40.64 | 41.04 | 27.14 | 31.8 | 50.21 | 47.5 | 58.7 | 33.44 | 44.28 | 79.76 |
| Ca43 | 486.02 | 482.31 | 412.4 | 436.2 | 522.2 | 531.21 | 918.06 | 469.89 | 659.24 | 647.38 |
| Ca44 | 863.02 | 845.06 | 780.95 | 789.8 | 874.37 | 881.46 | 1274.85 | 808.13 | 979.29 | 941.32 |
| Sc45 | 5.01 | 4.95 | 4.95 | 4.98 | 5.13 | 5.06 | 5.56 | 4.9 | 5.03 | 5.14 |
| Ti47 | 144.32 | 136.74 | 92.92 | 127.67 | 87.06 | 95.91 | 125.34 | 126.93 | 99.22 | 84.19 |
| Ti49 | 151.71 | 143.51 | 97.37 | 136.05 | 89.72 | 101.15 | 130.65 | 132.69 | 98.95 | 85.86 |
| V51 | 5.87 | 5.87 | 7.6 | 8.14 | 8.41 | 9.57 | 3.02 | 8.31 | 2.84 | 3.55 |
| Cr53 | 655.75 | 652.19 | 851.08 | 792.98 | 767.61 | 664.61 | 610.65 | 867.12 | 725.66 | 772.81 |
| Mn55 | 1201.28 | 1155.91 | 1206.37 | 1133.53 | 1160.8 | 1134.85 | 1472.4 | 1167.11 | 1176.73 | 1271.86 |
| Co59 | 183.03 | 175.62 | 166.86 | 164.23 | 169.81 | 168.07 | 162.16 | 169.37 | 156.5 | 157.92 |
| Ni60 | 3757.61 | 3661.22 | 3494.2 | 3468 | 3587.61 | 3484.49 | 3066.96 | 3438.7 | 3697.6 | 3538.17 |
| Ni62 | 3755.04 | 3658.45 | 3546.01 | 3549.59 | 3643.59 | 3615.18 | 3116.93 | 3493.46 | 3729.2 | 3472.81 |
| Cu63 | 6.76 | 6.32 | 8.04 | 7.8 | 6.72 | 7.39 | 10.25 | 7.59 | 3.79 | 3.13 |
| Zn66 | 90.99 | 88.85 | 80.25 | 79.2 | 79.63 | 81.54 | 84.88 | 78.55 | 63.31 | 73.54 |
| Zn67 | 82.74 | 81.03 | 74.06 | 73.69 | 72.73 | 75.18 | 79.26 | 71.64 | 59.52 | 64.85 |
| Ga69 | 0.1899 | 0.1909 | 0.183 | 0.1855 | 0.1692 | 0.212 | 0.1877 | 0.1869 | 0.1256 | 0.1004 |
| Sr88 | 0.0196 | 0.0189 | 0.0194 | 0.0241 | 0.0174 | 0.0227 | 0.532 | 0.0206 | 0.0372 | 0.0224 |
| Y89 | 0.0156 | 0.0127 | 0.0103 | 0.0108 | 0.0069 | 0.0094 | 0.0252 | 0.0093 | 0.0205 | 0.0093 |
| Zr90 | 0.239 | 0.1324 | 0.29 | 0.0881 | 0.618 | 0.0592 | 0.378 | 0.1107 | 0.0735 | 0.06 |
| Nb93 | 0.0046 | 0.00331 | 0.008 | 0.0055 | 0.0046 | 0.00419 | 0.0523 | 0.00368 | 0.00266 | 0.0039 |
| Ba135 | <0.0127 | <0.0217 | <0.0128 | <0.00 | <0.0128 | <0.0256 | 1.231 | 0.521 | 0.015 | <0.0189 |
| Ba137 | <0.0104 | <0.0073 | <0.0105 | <0.0073 | 0.0025 | <0.0074 | 1.036 | 0.0118 | <0.0074 | 0.0209 |
| La139 | 0.0119 | 0.00262 | <0.00194 | <0.00155 | 0.00131 | 0.00093 | 0.1197 | <0.00111 | 0.00131 | <0.00116 |
| Ce140 | 0.0197 | 0.0103 | 0.00406 | 0.0048 | 0.00371 | 0.00292 | 0.873 | 0.0144 | 0.0065 | 0.0083 |
| Gd157 | 0.0038 | <0.0094 | <0.0096 | <0.0077 | <0.0078 | 0.0092 | <0.0076 | <0.0077 | <0.0110 | <0.0057 |
| Yb172 | 0.0065 | 0.0058 | 0.0073 | <0.0075 | <0.0048 | 0.0034 | 0.0026 | <0.0048 | 0.0034 | 0.0058 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C6066/30 | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.076 | 0.076 | 0.085 | 0.084 | 0.1 | 0.074 | 0.66 | 0.089 | 0.064 | 0.097 |
| B11 | 0.45 | 0.42 | 0.42 | 0.4 | 0.4 | 0.39 | 0.38 | 0.38 | 0.38 | 0.41 |
| Na23 | 6.05 | 5.75 | 5.42 | 5.76 | 7.1 | 7.2 | 4.47 | 6.6 | 4.47 | 6.1 |
| Mg24 | 11449.72 | 11204.26 | 11550.65 | 11528.22 | 11720.71 | 11659.03 | 11778.09 | 11695.2 | 12047.77 | 11804.41 |
| Mg25 | 12582.69 | 12377.24 | 12672.7 | 12743.14 | 12914.02 | 12874.04 | 13140.02 | 12845.01 | 13320.86 | 13199.58 |
| Mg26 | 13915.93 | 13553.17 | 13972.57 | 13912.97 | 14488.5 | 14761.9 | 15061.75 | 15132.32 | 15775.46 | 15594.08 |
| Al27 | 3.29 | 3.36 | 3.85 | 3.84 | 3.79 | 4.63 | 4.09 | 4.08 | 2.59 | 2.59 |
| Si29 | 6204.51 | 6081.81 | 6086.23 | 6010.84 | 6069.98 | 6052.25 | 6067.12 | 6055.24 | 6064.07 | 6047.43 |
| Si30 | 6049.45 | 5904.66 | 6053.82 | 5964.61 | 6021.26 | 5976.93 | 6030.03 | 5958.78 | 5962.93 | 5920.19 |
| P31 | 1.79 | 1.82 | 1.24 | 1.46 | 2.3 | 2.21 | 2.77 | 1.63 | 2.17 | 3.99 |
| Ca43 | 18.48 | 18.1 | 16.03 | 16.64 | 19.44 | 19.83 | 32.29 | 17.99 | 23.76 | 28.18 |
| Ca44 | 27.57 | 27.06 | 25.11 | 25.49 | 28.31 | 28.67 | 41.57 | 26.6 | 32.34 | 31.67 |
| Sc45 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.18 | 0.16 | 0.16 | 0.17 |
| Ti47 | 4.8 | 4.58 | 3.14 | 4.33 | 2.99 | 3.32 | 4.37 | 4.47 | 3.54 | 3.13 |
| Ti49 | 8.07 | 7.79 | 5.42 | 7.75 | 5.27 | 6.11 | 8.12 | 8.51 | 6.55 | 5.93 |
| V51 | 0.2 | 0.2 | 0.27 | 0.29 | 0.3 | 0.34 | 0.11 | 0.31 | 0.11 | 0.14 |
| Cr53 | 21.71 | 21.7 | 28.48 | 26.72 | 26.07 | 22.76 | 21.12 | 30.26 | 25.6 | 27.61 |
| Mn55 | 41.04 | 39.77 | 41.85 | 39.69 | 41.07 | 40.61 | 53.34 | 42.83 | 43.79 | 48.03 |
| Co59 | 5.97 | 5.75 | 5.5 | 5.44 | 5.67 | 5.65 | 5.5 | 5.79 | 5.4 | 5.51 |
| Ni60 | 127.4 | 124.98 | 120.22 | 120.39 | 125.79 | 123.52 | 110.02 | 124.92 | 136.14 | 132.16 |
| Ni62 | 202.38 | 201.74 | 200.62 | 206.54 | 218.49 | 223.77 | 199.43 | 231.23 | 255.54 | 246.59 |
| Cu63 | 0.25 | 0.24 | 0.3 | 0.3 | 0.26 | 0.29 | 0.41 | 0.31 | 0.16 | 0.14 |
| Zn66 | 2.85 | 2.79 | 2.53 | 2.5 | 2.52 | 2.59 | 2.71 | 2.52 | 2.04 | 2.41 |
| Zn67 | 2.6 | 2.55 | 2.34 | 2.33 | 2.3 | 2.38 | 2.52 | 2.29 | 1.91 | 2.2 |
| Ga69 | 0.009 | 0.009 | 0.0087 | 0.0089 | 0.0083 | 0.01 | 0.0095 | 0.0093 | 0.0068 | 0.0084 |
| Sr88 | 0.0021 | 0.002 | 0.002 | 0.0022 | 0.0019 | 0.0022 | 0.019 | 0.0021 | 0.0029 | 0.0035 |
| Y89 | 0.0019 | 0.0019 | 0.0015 | 0.0016 | 0.0014 | 0.0015 | 0.0027 | 0.0015 | 0.0022 | 0.0024 |
| Zr90 | 0.014 | 0.009 | 0.015 | 0.007 | 0.028 | 0.0056 | 0.02 | 0.0084 | 0.0064 | 0.0091 |
| Nb93 | 0.0011 | 0.00077 | 0.0012 | 0.0012 | 0.0011 | 0.00095 | 0.0036 | 0.00083 | 0.00088 | 0.0014 |
| Ba135 | 0.0055 | 0.0085 | 0.0049 | <0.00 | 0.0045 | 0.0099 | 0.07 | 0.04 | 0.0057 | 0.0084 |
| Ba137 | 0.0041 | 0.0031 | 0.0044 | 0.0033 | 0.0018 | 0.004 | 0.053 | 0.004 | 0.0036 | 0.0086 |
| La139 | 0.0017 | 0.00071 | 0.00079 | 0.00075 | 0.0005 | 0.00042 | 0.0066 | 0.00063 | 0.0005 | 0.00064 |
| Ce140 | 0.0018 | 0.0013 | 0.00083 | 0.0012 | 0.0008 | 0.00092 | 0.031 | 0.0016 | 0.001 | 0.0018 |
| Gd157 | 0.0019 | 0.0041 | 0.0033 | 0.0027 | 0.0027 | 0.0029 | 0.0041 | 0.0032 | 0.0046 | 0.0018 |
| Yb172 | 0.002 | 0.0022 | 0.0024 | 0.0026 | 0.0019 | 0.0014 | 0.0013 | 0.0022 | 0.0014 | 0.0039 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C5775/26 | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 3 | 4 | 5 | 5 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 1.986 | 2.021 | 2.111 | 1.915 | 1.995 | 1.969 | 2.108 | 2.145 | 2.033 | 2.402 |
| B11 | 16.47 | 18.73 | 16.64 | 17.5 | 15.38 | 16.94 | 15.11 | 13.79 | 19.38 | 15.13 |
| Na23 | 78.02 | 81.24 | 83.47 | 78.67 | 81.02 | 79.54 | 85.04 | 83.26 | 65.75 | 71.08 |
| Mg24 | 325405.7 | 333381.8 | 333376.6 | 324552.4 | 330291.2 | 324027.2 | 330079 | 322506.7 | 312148.6 | 323642.5 |
| Mg25 | 341360.7 | 349856.2 | 351199.6 | 349442.3 | 351487 | 353177.5 | 346562.4 | 349922.8 | 338069.3 | 339855 |
| Mg26 | 337700.8 | 344200.6 | 349182.5 | 336668.4 | 339206 | 337555.1 | 340723.6 | 341880.4 | 326831 | 333964.3 |
| Al27 | 58.15 | 62.66 | 63.24 | 69.23 | 65.87 | 72.89 | 65.21 | 60.22 | 63.99 | 55.94 |
| Si29 | 187770.4 | 188565.1 | 188331.3 | 189313 | 187256.2 | 188705.3 | 187770.4 | 187723.7 | 186975.7 | 187209.5 |
| Si30 | 184664.4 | 196304.1 | 192510.8 | 191144.1 | 188699 | 191378.6 | 186745.7 | 189250.8 | 190159.7 | 185349 |
| P31 | 34.33 | 54.36 | 47.9 | 38.7 | 53.98 | 44.4 | 58.85 | 61.17 | 50.97 | 66.88 |
| Ca43 | 1033.02 | 1170.63 | 1681.52 | 1093.2 | 1074.85 | 1058.97 | 972.57 | 947.25 | 1994.26 | 1633.38 |
| Ca44 | 1388.04 | 1536.55 | 2015.11 | 1472.63 | 1423.35 | 1415.43 | 1370.66 | 1302.71 | 2386.89 | 2003.59 |
| Sc45 | 6.72 | 6.97 | 7.69 | 6.98 | 6.84 | 6.91 | 6.65 | 6.49 | 8.89 | 8.58 |
| Ti47 | 110.4 | 112.11 | 129.02 | 129.09 | 122.18 | 115.82 | 107.18 | 95.29 | 149.51 | 135.39 |
| Ti49 | 121 | 121.76 | 143.24 | 137.24 | 134.58 | 123.49 | 113.13 | 104.09 | 160.65 | 146.31 |
| V51 | 2.682 | 2.75 | 1.749 | 2.968 | 2.863 | 2.86 | 2.808 | 2.651 | 1.507 | 1.943 |
| Cr53 | 136.01 | 134.15 | 120.79 | 129.09 | 137 | 164.01 | 164.15 | 158.09 | 104.75 | 168.74 |
| Mn55 | 1999.59 | 2007.81 | 2304.4 | 2022.6 | 2046.06 | 1927.63 | 1992.94 | 1981.88 | 2038.92 | 2215.3 |
| Co59 | 179.17 | 185.35 | 174.9 | 190.45 | 188.88 | 181.73 | 182.55 | 187.67 | 170.29 | 173.52 |
| Ni60 | 1538.14 | 1560.79 | 1198.8 | 1518.88 | 1543.01 | 1708.88 | 1733.49 | 1735.21 | 900.09 | 1085.07 |
| Ni62 | 1543.79 | 1601.94 | 1190.05 | 1567.16 | 1560.02 | 1753.82 | 1741.17 | 1717.27 | 883.65 | 1120.95 |
| Cu63 | 3 | 3.17 | 2.369 | 3.28 | 3.29 | 2.914 | 3.05 | 3.12 | 2.301 | 2.541 |
| Zn66 | 106.51 | 109.07 | 107.14 | 111.92 | 107.85 | 105.19 | 109.41 | 106.19 | 98.69 | 103.37 |
| Zn67 | 100.23 | 99.48 | 96.85 | 103.25 | 99.59 | 95.57 | 101.06 | 99.67 | 89.29 | 93.23 |
| Ga69 | 0.1145 | 0.0956 | 0.1082 | 0.1137 | 0.1101 | 0.1038 | 0.118 | 0.1154 | 0.0796 | 0.202 |
| Sr88 | 0.0082 | 0.0065 | 0.0708 | 0.0302 | 0.0234 | 0.0114 | 0.0261 | 0.0094 | 0.0194 | 0.0186 |
| Y89 | 0.0272 | 0.0345 | 0.0523 | 0.0254 | 0.0315 | 0.0295 | 0.029 | 0.0308 | 0.0816 | 0.1084 |
| Zr90 | 0.0718 | 0.0688 | 0.1092 | 0.353 | 0.1004 | 0.0823 | 0.0636 | 0.086 | 3.5 | 0.344 |
| Nb93 | 0.00272 | <0.0043 | 0.0054 | 0.0022 | 0.00411 | 0.0029 | 0.0057 | 0.00127 | <0.0042 | 0.0094 |
| Ba135 | <0.0230 | <0.035 | <0.030 | 0.272 | 0.0168 | 0.821 | <0.018 | <0.0172 | 0.0074 | <0.026 |
| Ba137 | <0.0110 | 0.0035 | 0.029 | <0.0196 | <0.0133 | <0.0112 | 0.0196 | <0.0100 | 0.029 | 0.019 |
| La139 | <0.00205 | <0.0031 | 0.00362 | 0.304 | <0.0023 | <0.00239 | 0.0047 | 0.432 | <0.0046 | 0.0144 |
| Ce140 | 0.0058 | 0.0655 | 0.1307 | 1.68 | 0.0207 | <0.0022 | 0.01 | 0.048 | 0.0893 | 0.0135 |
| Gd157 | 0.0107 | 0.0051 | <0.0082 | <0.0117 | <0.0080 | 0.0076 | 0.0067 | 0.0034 | 0.0159 | 0.0084 |
| Yb172 | 0.0066 | 0.0133 | 0.0097 | <0.0089 | 0.009 | <0.0072 | 0.0104 | 0.0042 | 0.057 | 0.0384 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C5775/26 | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 3 | 4 | 5 | 5 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.064 | 0.067 | 0.068 | 0.065 | 0.065 | 0.066 | 0.07 | 0.072 | 0.076 | 0.083 |
| B11 | 0.62 | 0.71 | 0.64 | 0.69 | 0.62 | 0.7 | 0.64 | 0.6 | 0.88 | 0.7 |
| Na23 | 2.35 | 2.45 | 2.52 | 2.37 | 2.44 | 2.4 | 2.57 | 2.51 | 1.99 | 2.15 |
| Mg24 | 10783.5 | 11107.59 | 11177.16 | 10959.55 | 11242.47 | 11126.62 | 11442.86 | 11295.58 | 11053.32 | 11592.51 |
| Mg25 | 12665.14 | 13125.89 | 13346.15 | 13472.17 | 13767.31 | 14073.37 | 14065.79 | 14481.15 | 14279.27 | 14661.59 |
| Mg26 | 11509.51 | 11811.35 | 12077.45 | 11750 | 11957.3 | 12030.22 | 12287.52 | 12486.24 | 12098.14 | 12536.63 |
| Al27 | 1.96 | 2.13 | 2.16 | 2.39 | 2.29 | 2.56 | 2.31 | 2.16 | 2.34 | 2.06 |
| Si29 | 5938.4 | 5963.77 | 5956.15 | 5987.44 | 5922.14 | 5968.2 | 5938.6 | 5937.42 | 5914.76 | 5921.48 |
| Si30 | 6097.53 | 6502.17 | 6399.13 | 6380.37 | 6327.54 | 6450.74 | 6329.79 | 6454.05 | 6529.11 | 6407.08 |
| P31 | 1.47 | 2.33 | 2.05 | 1.72 | 2.36 | 2 | 2.64 | 2.8 | 2.49 | 3.18 |
| Ca43 | 36.11 | 42.1 | 57.15 | 39.81 | 37.96 | 38.93 | 35.87 | 36.6 | 76.52 | 61.45 |
| Ca44 | 46.29 | 51.6 | 67.87 | 50.14 | 48.73 | 48.99 | 47.85 | 46.05 | 85.36 | 72.31 |
| Sc45 | 0.23 | 0.25 | 0.27 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.35 | 0.34 |
| Ti47 | 4.08 | 4.2 | 4.86 | 4.94 | 4.73 | 4.57 | 4.31 | 3.92 | 6.29 | 5.77 |
| Ti49 | 3.91 | 3.97 | 4.65 | 4.5 | 4.41 | 4.09 | 3.77 | 3.53 | 5.52 | 5.01 |
| V51 | 0.087 | 0.09 | 0.058 | 0.098 | 0.093 | 0.095 | 0.093 | 0.09 | 0.059 | 0.07 |
| Cr53 | 4.72 | 4.71 | 4.27 | 4.62 | 4.95 | 6.01 | 6.1 | 5.98 | 4.08 | 6.6 |
| Mn55 | 69.64 | 70.5 | 81.68 | 72.47 | 74.18 | 70.8 | 74.23 | 74.92 | 78.31 | 86.48 |
| Co59 | 5.87 | 6.1 | 5.79 | 6.35 | 6.35 | 6.16 | 6.24 | 6.48 | 5.95 | 6.13 |
| Ni60 | 47.52 | 48.31 | 37.17 | 47.21 | 48.07 | 53.39 | 54.33 | 54.58 | 28.45 | 34.41 |
| Ni62 | 49.02 | 51.06 | 38.08 | 50.37 | 50.34 | 56.93 | 56.85 | 56.48 | 29.51 | 37.51 |
| Cu63 | 0.098 | 0.1 | 0.078 | 0.11 | 0.11 | 0.098 | 0.1 | 0.11 | 0.089 | 0.092 |
| Zn66 | 3.4 | 3.5 | 3.44 | 3.62 | 3.5 | 3.43 | 3.59 | 3.51 | 3.31 | 3.47 |
| Zn67 | 4.39 | 4.45 | 4.39 | 4.79 | 4.71 | 4.64 | 5.02 | 5.1 | 4.76 | 5.05 |
| Ga69 | 0.0059 | 0.0059 | 0.0057 | 0.0066 | 0.0058 | 0.0064 | 0.0066 | 0.0073 | 0.0082 | 0.012 |
| Sr88 | 0.0012 | 0.0017 | 0.0043 | 0.0032 | 0.0022 | 0.0018 | 0.0027 | 0.0018 | 0.0039 | 0.0029 |
| Y89 | 0.0026 | 0.0035 | 0.004 | 0.003 | 0.0029 | 0.0032 | 0.0031 | 0.0037 | 0.0086 | 0.0089 |
| Zr90 | 0.0063 | 0.0071 | 0.0083 | 0.021 | 0.0079 | 0.008 | 0.0068 | 0.0093 | 0.18 | 0.025 |
| Nb93 | 0.00098 | 0.0019 | 0.0011 | 0.0011 | 0.00085 | 0.0012 | 0.0012 | 0.00064 | 0.0021 | 0.002 |
| Ba135 | 0.0092 | 0.012 | 0.014 | 0.031 | 0.006 | 0.056 | 0.01 | 0.0086 | 0.0074 | 0.011 |
| Ba137 | 0.0045 | 0.0025 | 0.0086 | 0.0082 | 0.0054 | 0.0045 | 0.0057 | 0.0045 | 0.013 | 0.011 |
| La139 | 0.0008 | 0.0013 | 0.00096 | 0.015 | 0.001 | 0.00078 | 0.0011 | 0.021 | 0.0017 | 0.0028 |
| Ce140 | 0.001 | 0.0041 | 0.0059 | 0.055 | 0.0019 | 0.001 | 0.0014 | 0.0039 | 0.0073 | 0.0022 |
| Gd157 | 0.0031 | 0.0025 | 0.0037 | 0.0046 | 0.0039 | 0.0031 | 0.0036 | 0.0024 | 0.0071 | 0.0054 |
| Yb172 | 0.0019 | 0.0033 | 0.0034 | 0.0042 | 0.0026 | 0.0033 | 0.0029 | 0.0025 | 0.011 | 0.0081 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2878/15 | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 5.73 | 5.65 | 6 | 4.63 | 4.59 | 5.11 | 5.29 | 5.1 | 5.41 | 6.05 |
| B11 | 9.96 | 9.88 | 9.01 | 8.62 | 8.54 | 9.7 | 8.47 | 8.41 | 8.24 | 8.66 |
| Na23 | 60.84 | 61.44 | 66.54 | 48.97 | 74.5 | 52.33 | 56.86 | 56.39 | 61.48 | 65.13 |
| Mg24 | 226003.1 | 229836.5 | 228461 | 237969.6 | 234787.6 | 231037.5 | 229003 | 230404.7 | 233264.1 | 245276.6 |
| Mg25 | 232109.3 | 238268.3 | 237702 | 252669.3 | 246726.1 | 242202.8 | 241207.1 | 245015.7 | 241597.3 | 254588.9 |
| Mg26 | 234223.8 | 233880.7 | 234922 | 250005 | 245054.3 | 239057 | 238082.3 | 243244.4 | 239707.1 | 251597 |
| Al27 | 119.6 | 121.08 | 133.24 | 128.16 | 169.6 | 125.3 | 139.26 | 112.86 | 124.61 | 127.96 |
| Si29 | 179076 | 177206.3 | 178094.4 | 180291.4 | 178842.3 | 179543.5 | 178047.7 | 177627 | 178935.8 | 186975.8 |
| Si30 | 166139 | 171988.1 | 172527.8 | 176172.2 | 170950.9 | 176717.3 | 170187.6 | 171959.2 | 173523.3 | 180849.9 |
| P31 | 172.94 | 171.57 | 198.32 | 44.93 | 37.54 | 102.65 | 117.05 | 73.65 | 133 | 148.77 |
| Ca43 | 1787.87 | 1819.79 | 1758.54 | 1561.16 | 1570.16 | 1815.55 | 1545.41 | 1639.18 | 1759.3 | 1737.74 |
| Ca44 | 2052.09 | 2087.71 | 2021.04 | 1846.47 | 1838.67 | 2092.16 | 1835.53 | 1881.64 | 1996.98 | 2107.51 |
| Sc45 | 7.16 | 7.21 | 7.07 | 6.69 | 6.54 | 7.29 | 6.96 | 6.53 | 6.83 | 7.23 |
| Ti47 | 198.71 | 197.33 | 247.13 | 106.46 | 133.98 | 165.44 | 163.09 | 149.56 | 211.11 | 213.02 |
| Ti49 | 217.01 | 214.94 | 268.44 | 114.64 | 142.48 | 175.83 | 174.34 | 156.39 | 227.25 | 227.93 |
| V51 | 17.98 | 17.68 | 20.71 | 17.21 | 15.72 | 17.04 | 16.93 | 15.43 | 17.49 | 18.61 |
| Cr53 | 19.4 | 20.54 | 22.71 | 49.59 | 56.07 | 19.72 | 26.48 | 21.48 | 17.78 | 17.59 |
| Mn55 | 3852.79 | 3851.5 | 3833.72 | 3603.3 | 3641.34 | 3795.2 | 3788.18 | 3854.82 | 3938.63 | 4220.06 |
| Co59 | 219.04 | 218.59 | 227.64 | 214.18 | 216.78 | 214.77 | 222.19 | 230.83 | 225.88 | 240.45 |
| Ni60 | 315.07 | 327.12 | 333.34 | 430.09 | 465.23 | 331.85 | 330.05 | 346.6 | 338.15 | 354.02 |
| Ni62 | 313.34 | 327.56 | 334.34 | 432.11 | 463.78 | 339.77 | 339.52 | 360.5 | 346.86 | 353.91 |
| Cu63 | 0.902 | 1.075 | 0.915 | 0.931 | 5.73 | 0.83 | 0.875 | 0.84 | 0.99 | 0.938 |
| Zn66 | 249.22 | 248.84 | 253.79 | 244.3 | 256.11 | 253.06 | 249.92 | 259.71 | 261.84 | 275.97 |
| Zn67 | 227.06 | 231.06 | 235.37 | 225.16 | 235.91 | 236.77 | 235.89 | 235.97 | 241.47 | 259.56 |
| Ga69 | 0.216 | 0.186 | 0.214 | 0.217 | 0.285 | 0.189 | 0.23 | 0.206 | 0.225 | 0.231 |
| Sr88 | 0.0278 | 0.0276 | 0.0586 | 0.0297 | 0.557 | 0.0218 | 0.0227 | 0.0275 | 0.0221 | 0.0139 |
| Y89 | 0.36 | 0.359 | 0.342 | 0.319 | 0.302 | 0.381 | 0.326 | 0.313 | 0.385 | 0.393 |
| Zr90 | 0.172 | 0.16 | 0.184 | 0.317 | 0.322 | 0.104 | 0.101 | 0.125 | 0.168 | 0.178 |
| Nb93 | <0.0049 | <0.0044 | 0.0266 | <0.0039 | 0.0818 | <0.0046 | 0.0034 | 0.004 | <0.0040 | <0.0042 |
| Ba135 | <0.043 | <0.055 | 0.126 | 0.085 | 1.355 | 0.082 | <0.022 | 0.09 | <0.050 | <0.041 |
| Ba137 | <0.0179 | 0.03 | 0.112 | 0.04 | 1.477 | 0.0278 | 0.0268 | <0.026 | <0.026 | 0.0203 |
| La139 | 0.0175 | 0.233 | 0.0318 | 0.1012 | 0.1061 | 0.0152 | 0.0249 | 0.0799 | 0.071 | 0.0307 |
| Ce140 | 0.329 | 1.147 | 0.228 | 0.67 | 0.793 | 0.0915 | 0.248 | 0.66 | 3.03 | 2.937 |
| Gd157 | <0.0126 | 0.03 | <0.0213 | <0.0183 | <0.0162 | 0.0154 | 0.0275 | 0.0149 | 0.058 | 0.0125 |
| Yb172 | 0.114 | 0.114 | 0.098 | 0.072 | 0.087 | 0.12 | 0.124 | 0.108 | 0.128 | 0.109 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2878/15 | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.18 | 0.18 | 0.19 | 0.15 | 0.15 | 0.17 | 0.17 | 0.16 | 0.17 | 0.19 |
| B11 | 0.35 | 0.34 | 0.31 | 0.31 | 0.3 | 0.35 | 0.3 | 0.3 | 0.3 | 0.32 |
| Na23 | 1.97 | 1.99 | 2.16 | 1.61 | 2.45 | 1.74 | 1.9 | 1.89 | 2.08 | 2.22 |
| Mg24 | 10147.57 | 10502.41 | 10649.98 | 11341.42 | 11460.27 | 11569.13 | 11779.51 | 12188.13 | 12701.13 | 13756.37 |
| Mg25 | 17640.79 | 18620.53 | 19159.89 | 21059.99 | 21307.82 | 21707.99 | 22462.21 | 23726.67 | 24341.09 | 26693.54 |
| Mg26 | 8916.79 | 9013.11 | 9181.41 | 9926.69 | 9899.23 | 9839.85 | 9997.58 | 10432.83 | 10511.66 | 11290.42 |
| Al27 | 3.67 | 3.7 | 4.07 | 3.93 | 5.18 | 3.84 | 4.26 | 3.46 | 3.82 | 3.92 |
| Si29 | 5665.04 | 5605.09 | 5633.09 | 5703.77 | 5656.67 | 5679.39 | 5631.57 | 5618.26 | 5659.64 | 5913.95 |
| Si30 | 5241.86 | 5428.69 | 5449.71 | 5571.24 | 5410.09 | 5599.83 | 5398.7 | 5462.25 | 5519.99 | 5762.15 |
| P31 | 9.17 | 9.19 | 10.77 | 2.61 | 2.2 | 5.97 | 6.91 | 4.47 | 8.21 | 9.4 |
| Ca43 | 67.63 | 65.06 | 62.66 | 61.88 | 56.87 | 67.53 | 56.51 | 59.78 | 64.07 | 64.14 |
| Ca44 | 65.01 | 65.96 | 63.98 | 59.07 | 58.59 | 67.08 | 58.94 | 60.66 | 64.64 | 68.55 |
| Sc45 | 0.23 | 0.23 | 0.23 | 0.22 | 0.21 | 0.24 | 0.22 | 0.21 | 0.22 | 0.24 |
| Ti47 | 7.02 | 6.96 | 8.75 | 3.94 | 4.87 | 6.11 | 6.06 | 5.63 | 8.03 | 8.22 |
| Ti49 | 9.86 | 9.85 | 12.48 | 5.58 | 6.94 | 8.77 | 8.86 | 8.15 | 12.11 | 12.47 |
| V51 | 0.56 | 0.55 | 0.64 | 0.54 | 0.49 | 0.53 | 0.53 | 0.48 | 0.55 | 0.58 |
| Cr53 | 0.87 | 0.89 | 0.98 | 2.16 | 2.42 | 0.92 | 1.21 | 1.01 | 0.86 | 0.87 |
| Mn55 | 118.79 | 118.91 | 118.57 | 111.68 | 113.1 | 118.18 | 118.28 | 120.72 | 123.74 | 133.05 |
| Co59 | 6.83 | 6.83 | 7.13 | 6.73 | 6.83 | 6.79 | 7.04 | 7.35 | 7.22 | 7.72 |
| Ni60 | 10.71 | 11.17 | 11.47 | 14.95 | 16.29 | 11.77 | 11.83 | 12.58 | 12.44 | 13.21 |
| Ni62 | 12.86 | 13.52 | 14.02 | 18.59 | 20.17 | 15.22 | 15.51 | 16.88 | 16.68 | 17.5 |
| Cu63 | 0.075 | 0.087 | 0.076 | 0.084 | 0.48 | 0.078 | 0.083 | 0.083 | 0.1 | 0.099 |
| Zn66 | 11.14 | 11.31 | 11.76 | 11.6 | 12.43 | 12.61 | 12.79 | 13.67 | 14.19 | 15.41 |
| Zn67 | 8.9 | 9.08 | 9.37 | 9.23 | 9.7 | 9.97 | 10.08 | 10.3 | 10.78 | 11.85 |
| Ga69 | 0.014 | 0.011 | 0.012 | 0.015 | 0.014 | 0.012 | 0.012 | 0.012 | 0.012 | 0.013 |
| Sr88 | 0.0044 | 0.0042 | 0.005 | 0.005 | 0.023 | 0.0039 | 0.0031 | 0.0033 | 0.0033 | 0.0025 |
| Y89 | 0.02 | 0.017 | 0.016 | 0.019 | 0.014 | 0.019 | 0.015 | 0.015 | 0.018 | 0.018 |
| Zr90 | 0.018 | 0.014 | 0.015 | 0.027 | 0.021 | 0.012 | 0.01 | 0.012 | 0.014 | 0.015 |
| Nb93 | 0.0017 | 0.0018 | 0.0031 | 0.0019 | 0.0058 | 0.0019 | 0.0013 | 0.0017 | 0.0017 | 0.0018 |
| Ba135 | 0.019 | 0.022 | 0.028 | 0.027 | 0.091 | 0.031 | 0.011 | 0.023 | 0.019 | 0.016 |
| Ba137 | 0.0083 | 0.011 | 0.017 | 0.014 | 0.079 | 0.0099 | 0.0081 | 0.011 | 0.012 | 0.0072 |
| La139 | 0.0035 | 0.012 | 0.0037 | 0.0091 | 0.0068 | 0.003 | 0.0031 | 0.0059 | 0.0055 | 0.0036 |
| Ce140 | 0.016 | 0.04 | 0.011 | 0.029 | 0.029 | 0.0068 | 0.011 | 0.025 | 0.1 | 0.098 |
| Gd157 | 0.0073 | 0.012 | 0.0094 | 0.0075 | 0.008 | 0.0081 | 0.0069 | 0.0071 | 0.01 | 0.0047 |
| Yb172 | 0.016 | 0.012 | 0.011 | 0.013 | 0.01 | 0.015 | 0.012 | 0.011 | 0.013 | 0.012 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2831/11 | | | | | | | | | |
| Grain # | 1 | 2 | 3 | 4 | 5 | 5 | 6 | 6 | 7 | 8 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 8.09 | 9.35 | 8.65 | 9.02 | 6.83 | 7.74 | 9.11 | 9.48 | 9.3 | 7.78 |
| B11 | 10.88 | 10.69 | 10.55 | 10.25 | 9.84 | 9.66 | 9.2 | 9.42 | 9.71 | 9.69 |
| Na23 | 55.08 | 148.13 | 62.28 | 71.53 | 46.68 | 53.13 | 64.27 | 65.5 | 68.74 | 55.57 |
| Mg24 | 218727 | 218530.3 | 224563.3 | 218319.2 | 240308.5 | 221439.2 | 215728.7 | 211240.9 | 211292 | 225212.5 |
| Mg25 | 233028.4 | 224340.7 | 231989 | 231432.9 | 253453.1 | 235931.2 | 228502.1 | 223342.9 | 222865.6 | 233686.2 |
| Mg26 | 226987 | 223746.5 | 228773.7 | 225578.3 | 246097.7 | 232581.8 | 220317.8 | 218363.7 | 220964.1 | 231917.9 |
| Al27 | 118.25 | 499.37 | 114.11 | 121.23 | 128.59 | 116.66 | 121.18 | 118.01 | 129.3 | 105.92 |
| Si29 | 178702.1 | 174915.8 | 179122.8 | 176925.8 | 180525.1 | 177580.3 | 176925.8 | 177253 | 177159.6 | 178842.3 |
| Si30 | 168666.2 | 167855.3 | 172761.3 | 174043.6 | 175994.5 | 173342.4 | 169571.8 | 169830.7 | 167961.2 | 172825.8 |
| P31 | 113.86 | 213.85 | 128.76 | 166.03 | 49.45 | 66.51 | 206.63 | 219.54 | 212.73 | 71.02 |
| Ca43 | 1738.45 | 1980.06 | 1698.1 | 1725.75 | 1097.35 | 1439.51 | 1632.55 | 1652.16 | 1829.34 | 1716.45 |
| Ca44 | 2049.31 | 2219.25 | 2004.67 | 1986.49 | 1409.34 | 1735.55 | 1919.42 | 1932.03 | 2087.56 | 1906.48 |
| Sc45 | 6.64 | 5.99 | 6.21 | 6.06 | 6.29 | 6.09 | 6.25 | 6 | 6.16 | 6.05 |
| Ti47 | 189.65 | 205.51 | 184.35 | 171.7 | 110.9 | 135.03 | 173.81 | 163.7 | 206.13 | 139.7 |
| Ti49 | 196.52 | 212.64 | 190.66 | 178.6 | 115.41 | 139 | 184.86 | 174.23 | 219.01 | 147.41 |
| V51 | 16.76 | 15.2 | 17.04 | 16.79 | 17.21 | 17.08 | 16.74 | 18 | 16.89 | 16.91 |
| Cr53 | 23.63 | 23.82 | 23.76 | 29.95 | 55.84 | 35.6 | 24.54 | 29.64 | 26.38 | 26.14 |
| Mn55 | 4279.83 | 4096.44 | 4364.45 | 4407.33 | 3675.24 | 4151.62 | 4283.02 | 4139.02 | 4252.28 | 4199.52 |
| Co59 | 226.89 | 215.86 | 228.98 | 235.63 | 223.49 | 232.31 | 230.68 | 228.08 | 227.21 | 232.95 |
| Ni60 | 378.17 | 395.1 | 391.92 | 396.73 | 410.82 | 402.57 | 394.73 | 390.39 | 388.19 | 389.8 |
| Ni62 | 382.01 | 378.97 | 387.5 | 399.54 | 408.06 | 416.01 | 384.85 | 384.77 | 382.73 | 382.35 |
| Cu63 | 0.879 | 1.24 | 0.948 | 0.97 | 0.719 | 0.858 | 0.957 | 0.942 | 0.972 | 0.861 |
| Zn66 | 282.05 | 272.61 | 290.11 | 303.11 | 292.85 | 290.01 | 289.38 | 290.67 | 283.32 | 285.63 |
| Zn67 | 256.95 | 252.95 | 270.86 | 278.19 | 265.2 | 261.84 | 269.23 | 265.25 | 262.85 | 258.63 |
| Ga69 | 0.213 | 0.556 | 0.1788 | 0.203 | 0.228 | 0.234 | 0.233 | 0.209 | 0.212 | 0.205 |
| Sr88 | 0.0201 | 7.65 | 0.032 | 0.0348 | 0.0159 | 0.018 | 0.0595 | 0.0224 | 0.1624 | 0.0265 |
| Y89 | 0.412 | 0.397 | 0.377 | 0.358 | 0.255 | 0.333 | 0.387 | 0.367 | 0.367 | 0.374 |
| Zr90 | 0.136 | 0.307 | 0.581 | 0.121 | 0.127 | 0.102 | 0.148 | 0.181 | 0.144 | 0.117 |
| Nb93 | 0.0034 | 0.07 | 0.00124 | 0.0051 | <0.0025 | 0.0027 | 0.003 | <0.0035 | 0.0217 | 0.0024 |
| Ba135 | 0.069 | 3.3 | <0.043 | 0.144 | <0.038 | <0.031 | <0.022 | <0.031 | 0.114 | 0.0082 |
| Ba137 | 0.022 | 3.4 | <0.025 | 0.085 | <0.0184 | <0.0224 | 0.028 | 0.0196 | 0.087 | 0.021 |
| La139 | 0.113 | 0.329 | 0.0847 | 0.0411 | 0.0416 | 0.0457 | 0.0752 | 0.102 | 0.0587 | 0.0683 |
| Ce140 | 1.46 | 1.842 | 0.871 | 0.231 | 0.422 | 0.487 | 0.535 | 0.371 | 0.468 | 1.183 |
| Gd157 | <0.0192 | <0.019 | 0.0273 | 0.0178 | <0.0130 | 0.0231 | 0.0214 | 0.0303 | 0.0298 | 0.0195 |
| Yb172 | 0.13 | 0.161 | 0.126 | 0.119 | 0.0664 | 0.106 | 0.106 | 0.0649 | 0.099 | 0.129 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2831/11 | | | | | | | | | |
| Grain # | 1 | 2 | 3 | 4 | 5 | 5 | 6 | 6 | 7 | 8 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.27 | 0.32 | 0.29 | 0.31 | 0.23 | 0.27 | 0.32 | 0.33 | 0.33 | 0.28 |
| B11 | 0.38 | 0.4 | 0.38 | 0.37 | 0.36 | 0.36 | 0.35 | 0.36 | 0.38 | 0.38 |
| Na23 | 1.75 | 4.71 | 1.98 | 2.29 | 1.5 | 1.72 | 2.09 | 2.14 | 2.26 | 1.84 |
| Mg24 | 9398.91 | 9534.53 | 9967.1 | 9877.98 | 11102.73 | 10462.64 | 10436.47 | 10474.47 | 10747.47 | 11758.92 |
| Mg25 | 16119.41 | 15875.45 | 16842.03 | 17279.65 | 19499.53 | 18731.28 | 18740.82 | 18936.55 | 19542.82 | 21196.89 |
| Mg26 | 8966.71 | 8952.71 | 9286.51 | 9307.16 | 10336.46 | 9958.29 | 9627.48 | 9748.66 | 10086.97 | 10833.19 |
| Al27 | 3.62 | 15.29 | 3.5 | 3.72 | 3.94 | 3.58 | 3.72 | 3.63 | 3.98 | 3.27 |
| Si29 | 5652.28 | 5535.24 | 5665.49 | 5596.02 | 5709.81 | 5616.84 | 5595.94 | 5606.29 | 5603.37 | 5656.69 |
| Si30 | 5381.01 | 5365.95 | 5528.27 | 5579.86 | 5654.39 | 5582.62 | 5475.19 | 5499.12 | 5455.36 | 5631.96 |
| P31 | 12.43 | 23.93 | 14.8 | 19.65 | 6.07 | 8.43 | 27.03 | 29.75 | 29.87 | 10.36 |
| Ca43 | 61.94 | 81.35 | 60.68 | 61.91 | 41.6 | 53.54 | 59.42 | 60.39 | 66.97 | 64.01 |
| Ca44 | 65.47 | 71.96 | 64.43 | 64.1 | 45.82 | 56.65 | 62.86 | 63.65 | 69.19 | 63.7 |
| Sc45 | 0.21 | 0.21 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.19 | 0.2 | 0.2 |
| Ti47 | 8.7 | 9.73 | 8.75 | 8.32 | 5.52 | 6.87 | 9.04 | 8.74 | 11.3 | 7.89 |
| Ti49 | 7.24 | 8.16 | 7.17 | 6.81 | 4.49 | 5.49 | 7.36 | 7.06 | 9.02 | 6.23 |
| V51 | 0.51 | 0.48 | 0.52 | 0.51 | 0.52 | 0.52 | 0.51 | 0.55 | 0.51 | 0.52 |
| Cr53 | 1.07 | 1.19 | 1.12 | 1.42 | 2.68 | 1.77 | 1.26 | 1.55 | 1.43 | 1.46 |
| Mn55 | 131.57 | 126.15 | 134.56 | 136.13 | 113.74 | 128.78 | 133.18 | 129.06 | 132.98 | 131.75 |
| Co59 | 7.24 | 6.93 | 7.36 | 7.61 | 7.25 | 7.58 | 7.58 | 7.54 | 7.56 | 7.81 |
| Ni60 | 12.68 | 13.39 | 13.29 | 13.55 | 14.14 | 13.99 | 13.84 | 13.83 | 13.9 | 14.13 |
| Ni62 | 24.7 | 25.28 | 26.23 | 27.79 | 29.2 | 30.7 | 29.3 | 30.25 | 31.09 | 32.1 |
| Cu63 | 0.072 | 0.11 | 0.08 | 0.084 | 0.065 | 0.08 | 0.091 | 0.092 | 0.098 | 0.091 |
| Zn66 | 10.71 | 10.52 | 11.26 | 11.93 | 11.69 | 11.77 | 11.94 | 12.21 | 12.13 | 12.47 |
| Zn67 | 11.25 | 11.47 | 12.22 | 12.79 | 12.44 | 12.57 | 13.2 | 13.32 | 13.53 | 13.66 |
| Ga69 | 0.012 | 0.032 | 0.01 | 0.011 | 0.012 | 0.012 | 0.012 | 0.011 | 0.011 | 0.011 |
| Sr88 | 0.0028 | 0.25 | 0.0034 | 0.0038 | 0.0024 | 0.0027 | 0.0047 | 0.0027 | 0.0087 | 0.0032 |
| Y89 | 0.02 | 0.027 | 0.018 | 0.018 | 0.014 | 0.017 | 0.019 | 0.018 | 0.019 | 0.02 |
| Zr90 | 0.012 | 0.031 | 0.03 | 0.011 | 0.011 | 0.01 | 0.012 | 0.013 | 0.012 | 0.011 |
| Nb93 | 0.0013 | 0.009 | 0.00062 | 0.0014 | 0.001 | 0.0014 | 0.0013 | 0.0015 | 0.0029 | 0.0011 |
| Ba135 | 0.021 | 0.26 | 0.021 | 0.025 | 0.014 | 0.013 | 0.012 | 0.013 | 0.032 | 0.0058 |
| Ba137 | 0.0074 | 0.21 | 0.011 | 0.015 | 0.0082 | 0.0093 | 0.01 | 0.0082 | 0.017 | 0.01 |
| La139 | 0.0072 | 0.022 | 0.0059 | 0.004 | 0.0042 | 0.0045 | 0.0054 | 0.0065 | 0.0049 | 0.0055 |
| Ce140 | 0.049 | 0.07 | 0.031 | 0.011 | 0.017 | 0.019 | 0.02 | 0.015 | 0.018 | 0.041 |
| Gd157 | 0.0093 | 0.011 | 0.0067 | 0.0054 | 0.0066 | 0.0082 | 0.0075 | 0.0076 | 0.0077 | 0.0079 |
| Yb172 | 0.012 | 0.025 | 0.012 | 0.012 | 0.0083 | 0.011 | 0.01 | 0.008 | 0.011 | 0.012 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2823/10 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 6 | 7 | 8 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 4.18 | 3.66 | 3.68 | 3.57 | 3.5 | 3.57 | 3.39 | 3.65 | 3.91 | 4.77 |
| B11 | 31.53 | 25.75 | 23.21 | 23.61 | 19.5 | 18.29 | 16.3 | 15.77 | 19.48 | 15.15 |
| Na23 | 49.93 | 54.26 | 53.41 | 48.57 | 55.2 | 56.22 | 54.22 | 56.64 | 47.09 | 54.63 |
| Mg24 | 286267.7 | 296884.6 | 288160.2 | 277536 | 285347.1 | 288871 | 274932.7 | 279926.4 | 288384.2 | 283250.9 |
| Mg25 | 312453.9 | 317172.8 | 315155.1 | 303705.4 | 308595.1 | 307512.6 | 305688.2 | 307614.8 | 312061.3 | 313430.5 |
| Mg26 | 303987.6 | 309086 | 306867.7 | 294698.8 | 303129.5 | 304435.3 | 293446.8 | 297487 | 301502.5 | 300463.4 |
| Al27 | 129.43 | 128.9 | 121.5 | 127.1 | 119.75 | 114.35 | 118.81 | 124.57 | 137.91 | 121.84 |
| Si29 | 182628.6 | 183329.7 | 184077.6 | 182581.8 | 183750.4 | 184077.6 | 183703.7 | 184124.4 | 183142.8 | 183002.5 |
| Si30 | 183209.3 | 184199.1 | 184568.4 | 181941.2 | 178495.6 | 179687.7 | 177954.8 | 179841 | 193970.7 | 182220.4 |
| P31 | 112.68 | 141.1 | 136.68 | 135.19 | 128.85 | 126.98 | 142.4 | 159.93 | 105.06 | 116.13 |
| Ca43 | 1286.62 | 1165.3 | 1229.33 | 1328.85 | 1192.59 | 1215.17 | 1150 | 1192.08 | 1566.61 | 1312.25 |
| Ca44 | 1684.04 | 1576.31 | 1561.56 | 1680.41 | 1554.35 | 1575.51 | 1459.87 | 1478.85 | 1753.34 | 1595.53 |
| Sc45 | 6.61 | 6.29 | 6.25 | 6.44 | 6.14 | 5.93 | 5.97 | 5.96 | 6.61 | 6.16 |
| Ti47 | 140.32 | 142.13 | 134.92 | 156.11 | 138.91 | 124.42 | 136.34 | 149.9 | 148.07 | 127.63 |
| Ti49 | 143.61 | 147.22 | 136.55 | 162.17 | 144.85 | 130.94 | 145.59 | 157.3 | 154.47 | 135.89 |
| V51 | 7.13 | 8.18 | 7.85 | 7.27 | 7.78 | 7.37 | 8.08 | 8.53 | 6.97 | 7.56 |
| Cr53 | 49.71 | 38.8 | 37.37 | 44.61 | 39.86 | 51.7 | 37.93 | 34.68 | 41.85 | 58.1 |
| Mn55 | 3034.83 | 3034.52 | 3015.84 | 2964.91 | 3052.89 | 3087.72 | 2945.83 | 3009.82 | 2762.24 | 2929.72 |
| Co59 | 211.85 | 223.39 | 220.09 | 205.94 | 218.19 | 221.73 | 215.21 | 214.58 | 194.91 | 216.09 |
| Ni60 | 257.8 | 231.83 | 233.1 | 210.34 | 229.93 | 281.33 | 237.05 | 221.02 | 232.12 | 315.37 |
| Ni62 | 266.14 | 241.35 | 240.44 | 218.85 | 235.9 | 286.02 | 234.43 | 219.48 | 237.39 | 313.14 |
| Cu63 | 0.232 | 0.27 | 0.268 | 0.248 | 0.685 | 0.314 | 0.298 | 0.25 | 0.218 | 0.173 |
| Zn66 | 188.22 | 176.89 | 179.13 | 184.43 | 193.66 | 193.83 | 186.6 | 183.65 | 173.03 | 188.78 |
| Zn67 | 172.03 | 159.08 | 164.46 | 171.81 | 170.45 | 166.55 | 170.24 | 169.13 | 151.29 | 168.79 |
| Ga69 | 0.172 | 0.1611 | 0.1651 | 0.158 | 0.1583 | 0.1565 | 0.181 | 0.19 | 0.177 | 0.145 |
| Sr88 | 0.0095 | 0.0108 | 0.0098 | 0.0058 | 0.023 | 0.0135 | 0.0107 | 0.0059 | 0.0114 | 0.0064 |
| Y89 | 0.1153 | 0.1095 | 0.1024 | 0.1171 | 0.0982 | 0.1105 | 0.0912 | 0.1087 | 0.119 | 0.1181 |
| Zr90 | 0.0639 | 0.0489 | 0.0554 | 0.0583 | 0.0428 | 0.0471 | 0.0513 | 0.0655 | 0.074 | 0.08 |
| Nb93 | <0.0027 | <0.0036 | <0.00188 | <0.0037 | 0.0038 | 0.00248 | <0.0041 | <0.0038 | <0.0063 | <0.0060 |
| Ba135 | <0.035 | <0.033 | <0.058 | 0.0112 | <0.038 | <0.042 | <0.033 | <0.034 | <0.066 | <0.059 |
| Ba137 | <0.028 | <0.0189 | 0.0024 | 0.013 | <0.0128 | <0.0279 | <0.0136 | 0.007 | <0.027 | 0.0136 |
| La139 | <0.00 | <0.00195 | 0.00069 | <0.0049 | 0.0417 | <0.0029 | <0.0028 | <0.00203 | <0.0055 | 0.0035 |
| Ce140 | 0.00199 | 0.00262 | 0.0039 | 0.0089 | 0.0692 | 0.0211 | <0.00222 | 0.0056 | <0.0054 | 0.0209 |
| Gd157 | 0.0099 | <0.0212 | 0.0117 | 0.09 | <0.0156 | 0.0064 | <0.0234 | <0.0196 | 0.0129 | <0.0138 |
| Yb172 | 0.0434 | 0.0353 | 0.0302 | 0.0414 | 0.0275 | 0.0331 | 0.0197 | 0.0331 | 0.029 | 0.0213 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2823/10 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 6 | 7 | 8 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.14 | 0.12 | 0.12 | 0.12 | 0.11 | 0.12 | 0.11 | 0.12 | 0.14 | 0.16 |
| B11 | 1.39 | 1.15 | 1.05 | 1.09 | 0.91 | 0.87 | 0.8 | 0.79 | 1 | 0.79 |
| Na23 | 1.55 | 1.69 | 1.66 | 1.52 | 1.73 | 1.77 | 1.71 | 1.79 | 1.5 | 1.75 |
| Mg24 | 8716.42 | 9043.73 | 8783.26 | 8465.65 | 8710.27 | 8825.62 | 8407.83 | 8569.66 | 8839.65 | 8692.49 |
| Mg25 | 14666.21 | 15149.9 | 15356.52 | 15128.8 | 15743.21 | 16091.01 | 16426.45 | 16991.71 | 17732.23 | 18330.02 |
| Mg26 | 10614.5 | 10878.16 | 10900.45 | 10578.64 | 11007.7 | 11195.71 | 10939.12 | 11251.11 | 11578.56 | 11723.01 |
| Al27 | 3.97 | 3.95 | 3.72 | 3.9 | 3.67 | 3.51 | 3.65 | 3.83 | 4.25 | 3.75 |
| Si29 | 5777 | 5798.54 | 5822.23 | 5775.38 | 5811.77 | 5822.19 | 5810.28 | 5823.69 | 5793.81 | 5788.74 |
| Si30 | 5887.2 | 5927.15 | 5950.62 | 5880.09 | 5782.27 | 5837.51 | 5799.12 | 5880.59 | 6368.14 | 6004.6 |
| P31 | 5.02 | 6.23 | 6.1 | 6.14 | 5.88 | 5.88 | 6.68 | 7.62 | 5.22 | 5.78 |
| Ca43 | 50.51 | 43.22 | 45.42 | 50.8 | 43.8 | 45.15 | 43.03 | 44.77 | 63.5 | 51.92 |
| Ca44 | 53.96 | 50.32 | 50.02 | 54.23 | 50.12 | 51.07 | 47.55 | 48.47 | 58.33 | 53.13 |
| Sc45 | 0.21 | 0.2 | 0.2 | 0.21 | 0.19 | 0.19 | 0.19 | 0.19 | 0.22 | 0.2 |
| Ti47 | 5.87 | 5.97 | 5.76 | 6.79 | 6.12 | 5.6 | 6.25 | 7.02 | 7.14 | 6.28 |
| Ti49 | 6.42 | 6.63 | 6.27 | 7.62 | 6.93 | 6.42 | 7.3 | 8.1 | 8.24 | 7.43 |
| V51 | 0.23 | 0.26 | 0.25 | 0.23 | 0.25 | 0.24 | 0.26 | 0.27 | 0.23 | 0.25 |
| Cr53 | 1.78 | 1.39 | 1.35 | 1.63 | 1.45 | 1.89 | 1.41 | 1.31 | 1.65 | 2.23 |
| Mn55 | 93.31 | 93.41 | 92.98 | 91.57 | 94.47 | 95.75 | 91.57 | 93.81 | 86.35 | 91.85 |
| Co59 | 6.46 | 6.81 | 6.71 | 6.29 | 6.67 | 6.78 | 6.59 | 6.58 | 5.99 | 6.65 |
| Ni60 | 9.09 | 8.23 | 8.35 | 7.62 | 8.4 | 10.4 | 8.88 | 8.4 | 8.97 | 12.34 |
| Ni62 | 10.83 | 9.86 | 9.95 | 9.25 | 10.02 | 12.33 | 10.3 | 9.83 | 10.96 | 14.57 |
| Cu63 | 0.02 | 0.018 | 0.018 | 0.021 | 0.037 | 0.021 | 0.02 | 0.019 | 0.023 | 0.017 |
| Zn66 | 6.64 | 6.28 | 6.42 | 6.69 | 7.1 | 7.2 | 7.03 | 7.02 | 6.75 | 7.47 |
| Zn67 | 12.48 | 11.79 | 12.51 | 13.47 | 13.75 | 13.88 | 14.66 | 15.07 | 14 | 16.13 |
| Ga69 | 0.012 | 0.0099 | 0.0099 | 0.011 | 0.0096 | 0.0099 | 0.011 | 0.011 | 0.014 | 0.011 |
| Sr88 | 0.0027 | 0.0021 | 0.0019 | 0.002 | 0.0028 | 0.0026 | 0.0021 | 0.0018 | 0.0028 | 0.0018 |
| Y89 | 0.009 | 0.0075 | 0.0074 | 0.0089 | 0.0069 | 0.0076 | 0.0066 | 0.0076 | 0.01 | 0.0093 |
| Zr90 | 0.0089 | 0.0064 | 0.0069 | 0.0082 | 0.0057 | 0.0062 | 0.0068 | 0.0075 | 0.013 | 0.011 |
| Nb93 | 0.0013 | 0.0016 | 0.00074 | 0.0018 | 0.0011 | 0.00088 | 0.0018 | 0.0016 | 0.0022 | 0.0022 |
| Ba135 | 0.014 | 0.015 | 0.018 | 0.008 | 0.017 | 0.019 | 0.013 | 0.014 | 0.023 | 0.021 |
| Ba137 | 0.011 | 0.0067 | 0.0024 | 0.0065 | 0.0066 | 0.0092 | 0.0067 | 0.0041 | 0.013 | 0.0068 |
| La139 | <0.00 | 0.00083 | 0.00049 | 0.0017 | 0.004 | 0.0011 | 0.0012 | 0.00093 | 0.002 | 0.0013 |
| Ce140 | 0.00089 | 0.00083 | 0.0012 | 0.0018 | 0.0047 | 0.0026 | 0.00091 | 0.0017 | 0.0023 | 0.0031 |
| Gd157 | 0.005 | 0.0071 | 0.0045 | 0.015 | 0.0057 | 0.0032 | 0.0084 | 0.0069 | 0.0065 | 0.0054 |
| Yb172 | 0.009 | 0.0061 | 0.0057 | 0.0079 | 0.0056 | 0.0059 | 0.0049 | 0.0068 | 0.011 | 0.0074 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2797/06 | | | | | | | | | |
| Grain # | 7 | 1 | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 6.51 | 7.81 | 7.56 | 7.22 | 7.3 | 7.41 | 7.58 | 8.55 | 6.85 | 8.24 |
| B11 | 8.29 | 8.23 | 7.94 | 7.97 | 7.8 | 7.52 | 7.19 | 7.57 | 8.3 | 7.4 |
| Na23 | 44.18 | 60.91 | 59 | 56.73 | 64.58 | 58.99 | 58.58 | 107.35 | 55.28 | 65.81 |
| Mg24 | 233921.8 | 224604.3 | 223016.3 | 218828.6 | 222819 | 216556.6 | 218189.6 | 223679.3 | 221650.3 | 220290.1 |
| Mg25 | 253817.7 | 234186.3 | 238763.8 | 234467.4 | 240583.8 | 238279.4 | 237306 | 236025.3 | 241093.4 | 243651.3 |
| Mg26 | 251146.5 | 230703.1 | 233675.8 | 234947.4 | 233535.5 | 230979.9 | 231252 | 229705.5 | 234045 | 234639.5 |
| Al27 | 121.99 | 135.84 | 124.83 | 121.21 | 160.43 | 120.27 | 107.2 | 335.5 | 114.28 | 139.48 |
| Si29 | 179076 | 177253 | 175990.9 | 175944.2 | 176832.3 | 177112.8 | 175383.3 | 176177.9 | 176131.1 | 177299.8 |
| Si30 | 168408.2 | 171638.7 | 169429.6 | 171209.8 | 168840.9 | 169130.8 | 174763.8 | 176686 | 178528.5 | 171839.6 |
| P31 | 82.43 | 171.38 | 151.53 | 124.37 | 119.42 | 137.19 | 108.48 | 217.88 | 103.84 | 174.05 |
| Ca43 | 1618.59 | 1975.26 | 2031.34 | 2077.97 | 2067.9 | 2012.3 | 1834.62 | 2098.01 | 2064.7 | 1996.97 |
| Ca44 | 1874.59 | 2238.3 | 2232.38 | 2249.83 | 2257.93 | 2218.19 | 2158.75 | 2416.65 | 2374.97 | 2290.03 |
| Sc45 | 6.31 | 6.49 | 6.23 | 6.16 | 6.22 | 6.26 | 6 | 6.32 | 6.56 | 6.38 |
| Ti47 | 108.65 | 261.66 | 217.69 | 221.27 | 218.64 | 213.3 | 160.21 | 230.3 | 185.12 | 228.33 |
| Ti49 | 116.14 | 279.66 | 225.23 | 232.89 | 222.68 | 224.96 | 165.53 | 237.88 | 191.28 | 236.3 |
| V51 | 13.55 | 15.95 | 14.22 | 13.94 | 14.2 | 14.23 | 13.37 | 14.55 | 13.29 | 15.11 |
| Cr53 | 27.53 | 7.62 | 7.07 | 7.24 | 8.35 | 7.08 | 6.88 | 7.18 | 6.03 | 7.32 |
| Mn55 | 3884.35 | 4522.54 | 4488.45 | 4461.76 | 4473.48 | 4451.42 | 4512.42 | 4702.06 | 4377.12 | 4613.38 |
| Co59 | 205.25 | 209.42 | 213.06 | 218.44 | 213.75 | 216.01 | 215.14 | 220.65 | 207.25 | 220.78 |
| Ni60 | 244.31 | 197.32 | 203.48 | 193.66 | 206.24 | 203.87 | 200.37 | 199.65 | 193.53 | 195.3 |
| Ni62 | 252.26 | 212.97 | 208.56 | 206.75 | 218.55 | 204.4 | 214.39 | 207.45 | 201.2 | 212.1 |
| Cu63 | 0.623 | 0.82 | 0.764 | 0.924 | 0.824 | 0.717 | 0.687 | 0.766 | 0.846 | 0.773 |
| Zn66 | 255.23 | 274.81 | 269.32 | 262.63 | 279.14 | 270.06 | 287.14 | 290.86 | 274.35 | 263.24 |
| Zn67 | 239 | 264.08 | 253.15 | 246.7 | 260.91 | 262.67 | 260.6 | 268.48 | 249 | 249.91 |
| Ga69 | 0.199 | 0.207 | 0.213 | 0.229 | 0.235 | 0.234 | 0.212 | 0.343 | 0.177 | 0.216 |
| Sr88 | 0.0157 | 0.0178 | 0.0681 | 0.0982 | 0.669 | 0.0269 | 0.0383 | 3.06 | 0.0375 | 0.293 |
| Y89 | 0.221 | 0.375 | 0.371 | 0.355 | 0.385 | 0.356 | 0.354 | 0.409 | 0.399 | 0.436 |
| Zr90 | 0.0484 | 0.161 | 0.119 | 0.145 | 0.134 | 0.157 | 0.0874 | 0.238 | 0.124 | 0.156 |
| Nb93 | 0.0025 | 0.0104 | 0.0067 | <0.0026 | 0.0066 | 0.0046 | 0.0034 | 0.0338 | 0.0352 | 0.0115 |
| Ba135 | <0.046 | <0.043 | <0.024 | 0.078 | 0.287 | <0.058 | 0.037 | 1.117 | 0.069 | 0.198 |
| Ba137 | <0.0133 | <0.025 | 0.079 | 0.069 | 0.237 | 0.025 | 0.026 | 1.066 | <0.045 | 0.141 |
| La139 | 0.0364 | 0.0047 | 1.185 | 0.0646 | 0.1091 | 0.0111 | 0.0757 | 0.0384 | 0.187 | 0.078 |
| Ce140 | 1.244 | 0.0308 | 0.224 | 1.916 | 0.945 | 0.0588 | 0.1601 | 0.241 | 3.78 | 0.162 |
| Gd157 | <0.0164 | <0.0147 | 0.0316 | 0.13 | 0.028 | 0.021 | 0.0183 | 0.0167 | 0.095 | 0.0157 |
| Yb172 | 0.0566 | 0.097 | 0.102 | 0.133 | 0.111 | 0.101 | 0.117 | 0.105 | 0.115 | 0.105 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2797/06 | | | | | | | | | |
| Grain # | 7 | 1 | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.2 | 0.25 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.26 | 0.22 | 0.26 |
| B11 | 0.3 | 0.32 | 0.3 | 0.31 | 0.3 | 0.3 | 0.28 | 0.31 | 0.34 | 0.31 |
| Na23 | 1.45 | 2.01 | 1.95 | 1.89 | 2.17 | 2 | 2 | 3.7 | 1.93 | 2.32 |
| Mg24 | 7374.73 | 7100.53 | 7071.06 | 6963.46 | 7117.87 | 6948.85 | 7034.43 | 7249.26 | 7224.06 | 7223.15 |
| Mg25 | 16077.03 | 15216.03 | 15959.76 | 16164.56 | 17140.66 | 17572.47 | 18136.04 | 18709.23 | 19832.91 | 20806.82 |
| Mg26 | 8698.6 | 8053.86 | 8230.63 | 8361.12 | 8404.9 | 8417.02 | 8539.49 | 8603.94 | 8899.23 | 9063.56 |
| Al27 | 3.75 | 4.19 | 3.84 | 3.75 | 4.94 | 3.72 | 3.31 | 10.35 | 3.54 | 4.33 |
| Si29 | 5664 | 5607.9 | 5566.47 | 5566.1 | 5593.07 | 5602.9 | 5547.28 | 5572.62 | 5571.43 | 5608.9 |
| Si30 | 5345.8 | 5456.15 | 5390.84 | 5456.74 | 5388.74 | 5408.99 | 5599.14 | 5673.46 | 5746.79 | 5545.84 |
| P31 | 5.45 | 11.55 | 10.43 | 8.82 | 8.68 | 10.28 | 8.37 | 17.32 | 8.56 | 14.77 |
| Ca43 | 56.04 | 74.25 | 69.27 | 75.86 | 70.59 | 73.45 | 63.94 | 73.46 | 74.14 | 74.08 |
| Ca44 | 57.57 | 69.23 | 68.58 | 69.55 | 69.5 | 68.7 | 66.65 | 74.75 | 73.74 | 71.35 |
| Sc45 | 0.2 | 0.21 | 0.2 | 0.2 | 0.2 | 0.2 | 0.19 | 0.2 | 0.21 | 0.21 |
| Ti47 | 3.74 | 9.08 | 7.53 | 7.8 | 7.7 | 7.66 | 5.79 | 8.41 | 6.89 | 8.62 |
| Ti49 | 4.7 | 11.45 | 9.27 | 9.83 | 9.48 | 9.84 | 7.36 | 10.78 | 8.91 | 11.27 |
| V51 | 0.42 | 0.51 | 0.45 | 0.44 | 0.45 | 0.45 | 0.42 | 0.46 | 0.43 | 0.49 |
| Cr53 | 0.99 | 0.39 | 0.31 | 0.36 | 0.35 | 0.35 | 0.31 | 0.33 | 0.31 | 0.37 |
| Mn55 | 119.4 | 139.24 | 138.38 | 137.84 | 138.47 | 138.13 | 140.36 | 146.68 | 136.96 | 144.84 |
| Co59 | 6.27 | 6.41 | 6.52 | 6.69 | 6.55 | 6.64 | 6.61 | 6.8 | 6.4 | 6.83 |
| Ni60 | 7.8 | 6.37 | 6.55 | 6.29 | 6.69 | 6.68 | 6.58 | 6.6 | 6.45 | 6.56 |
| Ni62 | 10.88 | 9.57 | 9.33 | 9.58 | 10.17 | 9.87 | 10.46 | 10.41 | 10.4 | 11.3 |
| Cu63 | 0.029 | 0.046 | 0.034 | 0.046 | 0.036 | 0.038 | 0.032 | 0.036 | 0.041 | 0.041 |
| Zn66 | 11.68 | 12.82 | 12.79 | 12.76 | 13.87 | 13.78 | 15.02 | 15.64 | 15.18 | 15 |
| Zn67 | 8.91 | 10.09 | 9.64 | 9.63 | 10.2 | 10.52 | 10.52 | 11.04 | 10.46 | 10.75 |
| Ga69 | 0.011 | 0.016 | 0.012 | 0.016 | 0.013 | 0.016 | 0.012 | 0.018 | 0.012 | 0.015 |
| Sr88 | 0.0026 | 0.0041 | 0.0053 | 0.0088 | 0.027 | 0.0042 | 0.0041 | 0.11 | 0.0045 | 0.018 |
| Y89 | 0.012 | 0.022 | 0.017 | 0.02 | 0.018 | 0.02 | 0.017 | 0.02 | 0.02 | 0.024 |
| Zr90 | 0.0063 | 0.018 | 0.01 | 0.016 | 0.011 | 0.016 | 0.0091 | 0.018 | 0.015 | 0.016 |
| Nb93 | 0.0011 | 0.0029 | 0.0018 | 0.0016 | 0.0018 | 0.002 | 0.0016 | 0.0037 | 0.0044 | 0.0027 |
| Ba135 | 0.016 | 0.013 | 0.012 | 0.025 | 0.035 | 0.022 | 0.015 | 0.084 | 0.024 | 0.039 |
| Ba137 | 0.0056 | 0.011 | 0.016 | 0.02 | 0.025 | 0.01 | 0.011 | 0.07 | 0.017 | 0.026 |
| La139 | 0.0037 | 0.0019 | 0.042 | 0.0068 | 0.007 | 0.0028 | 0.0056 | 0.0041 | 0.011 | 0.0075 |
| Ce140 | 0.042 | 0.0045 | 0.01 | 0.067 | 0.033 | 0.0056 | 0.0082 | 0.012 | 0.12 | 0.01 |
| Gd157 | 0.0069 | 0.0089 | 0.0098 | 0.022 | 0.0095 | 0.011 | 0.0056 | 0.0084 | 0.015 | 0.0071 |
| Yb172 | 0.0096 | 0.016 | 0.011 | 0.017 | 0.011 | 0.014 | 0.012 | 0.012 | 0.014 | 0.015 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2787/04 | | | | | | | | | |
| Grain # | 8 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 1.703 | 2.006 | 1.848 | 1.625 | 1.804 | 1.822 | 1.843 | 2.09 | 1.673 | 1.7 |
| B11 | 11.86 | 11.55 | 10.92 | 10.79 | 10.49 | 10.24 | 10.35 | 10.17 | 9.37 | 9.71 |
| Na23 | 101.02 | 105.54 | 108.58 | 116.98 | 102.96 | 104.2 | 106.51 | 109.45 | 76.08 | 99.18 |
| Mg24 | 346576 | 352463.4 | 344974.4 | 347366.7 | 345622 | 345578.3 | 350314.8 | 347504.2 | 344761.5 | 351567.6 |
| Mg25 | 363516.7 | 376103.2 | 370111.7 | 372741.2 | 363296.7 | 365348.7 | 365548.1 | 362613.7 | 359734.8 | 369205.8 |
| Mg26 | 363886.1 | 371049 | 366024.5 | 370744.5 | 358193 | 362170 | 360559.1 | 363733.7 | 354590 | 362518.3 |
| Al27 | 188.52 | 148.98 | 152.06 | 167.03 | 172.68 | 156.55 | 153.38 | 148.31 | 53.55 | 196.09 |
| Si29 | 190762 | 196932.2 | 190762 | 190434.8 | 190201.1 | 190247.8 | 188424.8 | 188845.5 | 189172.7 | 190481.6 |
| Si30 | 182778.6 | 194615.6 | 190950.4 | 188099.9 | 188452.2 | 190548 | 191523.5 | 188871.5 | 185967.6 | 192398.6 |
| P31 | 52.55 | 60.65 | 77.58 | 32.39 | 72.42 | 56.75 | 53.61 | 79.11 | 57.2 | 59.97 |
| Ca43 | 1622.4 | 1747 | 1742 | 1376.14 | 1684.4 | 1634.84 | 1767.84 | 1472.6 | 1670.69 | 1621.5 |
| Ca44 | 1898.12 | 2061.35 | 2061.55 | 1709.97 | 1968.73 | 1947.43 | 2055.86 | 1775.21 | 2006.53 | 1929.13 |
| Sc45 | 6.39 | 6.51 | 6.37 | 5.75 | 6.43 | 6.33 | 6.44 | 6.24 | 6.31 | 6.45 |
| Ti47 | 77 | 66.05 | 63.71 | 55.91 | 69.68 | 62.38 | 69.88 | 60.63 | 60.04 | 77.04 |
| Ti49 | 79.6 | 67.27 | 64.25 | 58.06 | 71.59 | 64.97 | 72.28 | 62.5 | 60.43 | 80.78 |
| V51 | 5.7 | 5.33 | 5.22 | 4.19 | 5.61 | 5.31 | 5.33 | 5.01 | 4.94 | 6.1 |
| Cr53 | 591.97 | 525.27 | 573.86 | 628.51 | 556.67 | 546.85 | 476.27 | 489.33 | 439.09 | 596.82 |
| Mn55 | 1585.73 | 1717.06 | 1640.4 | 1473.43 | 1632.06 | 1667.53 | 1651.65 | 1682.63 | 1722.11 | 1641.99 |
| Co59 | 173.8 | 179.66 | 177.67 | 165.19 | 176.6 | 177.29 | 177.18 | 171.83 | 175.39 | 175.41 |
| Ni60 | 1956.43 | 1790.23 | 1921.8 | 2677.77 | 1910.23 | 1902.78 | 1638.5 | 2304.79 | 1452.7 | 1988.6 |
| Ni62 | 2020.42 | 1816.07 | 1932.37 | 2791.04 | 1988.28 | 1938.3 | 1670.53 | 2340.04 | 1452.92 | 2049.48 |
| Cu63 | 4.34 | 3.08 | 4.92 | 4.6 | 3.51 | 3.32 | 4.28 | 2.42 | 1.101 | 4.62 |
| Zn66 | 71.27 | 79.13 | 75.93 | 72.23 | 74.47 | 76.64 | 75.48 | 85.03 | 69.25 | 73.84 |
| Zn67 | 65.84 | 73 | 69.77 | 65.88 | 68.03 | 70.57 | 70.03 | 80.03 | 64.09 | 71.07 |
| Ga69 | 0.1603 | 0.1382 | 0.1455 | 0.1516 | 0.1634 | 0.13 | 0.1577 | 0.1566 | 0.0714 | 0.1905 |
| Sr88 | 0.0129 | 0.0313 | 0.0302 | 0.0161 | 0.0204 | 0.0198 | 0.1433 | 0.0307 | <0.0246 | 0.0152 |
| Y89 | 0.0467 | 0.0401 | 0.0452 | 0.0473 | 0.0453 | 0.0457 | 0.0505 | 0.0527 | 0.0401 | 0.0476 |
| Zr90 | 0.0574 | 0.483 | 0.419 | 0.069 | 0.605 | 0.0616 | 0.0992 | 4.38 | <0.127 | 0.0447 |
| Nb93 | <0.00185 | 0.00319 | 0.00317 | 0.00217 | 0.0018 | 0.00238 | 0.0125 | <0.00159 | <0.0114 | 0.00156 |
| Ba135 | 0.0087 | 0.0242 | 0.384 | <0.0189 | 0.089 | 0.0063 | 0.245 | 0.072 | <0.134 | <0.0229 |
| Ba137 | 0.0176 | 0.0114 | 0.226 | 0.0075 | 0.0279 | 0.0144 | 0.23 | 0.078 | <0.111 | <0.0107 |
| La139 | 0.0127 | 0.755 | 2.53 | 0.012 | 0.223 | 0.0812 | 0.452 | 2.81 | <0.22 | 0.0229 |
| Ce140 | 0.1413 | 0.428 | 134.99 | 0.0479 | 0.313 | 1.293 | 2.342 | 0.865 | <0.61 | 2.115 |
| Gd157 | <0.0114 | <0.0061 | 0.0551 | <0.0057 | 0.0173 | 0.0541 | 0.0079 | 0.0142 | <0.057 | 0.0673 |
| Yb172 | 0.0087 | <0.0076 | 0.0105 | 0.0112 | 0.013 | <0.0052 | 0.0129 | 0.0111 | 0.0161 | 0.0148 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C2787/04 | | | | | | | | | |
| Grain # | 8 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| PPM |  |  |  |  |  |  |  |  |  |  |
| Li7 | 0.067 | 0.079 | 0.074 | 0.066 | 0.074 | 0.076 | 0.079 | 0.091 | 0.077 | 0.077 |
| B11 | 0.38 | 0.37 | 0.35 | 0.35 | 0.34 | 0.34 | 0.34 | 0.34 | 0.32 | 0.33 |
| Na23 | 3.24 | 3.4 | 3.51 | 3.8 | 3.37 | 3.43 | 3.53 | 3.65 | 2.57 | 3.37 |
| Mg24 | 11076.69 | 11304.38 | 11109.67 | 11239.24 | 11241.78 | 11306 | 11534.37 | 11521.15 | 11515.94 | 11835.85 |
| Mg25 | 11511.23 | 11945.59 | 11796.82 | 11928.64 | 11679.23 | 11804.27 | 11875.89 | 11850.85 | 11832.71 | 12226.3 |
| Mg26 | 12232.3 | 12551.42 | 12472.12 | 12738.03 | 12420.9 | 12686.59 | 12769.59 | 13034.38 | 12866.98 | 13328.21 |
| Al27 | 7.62 | 6.11 | 6.33 | 7.08 | 7.46 | 6.9 | 6.91 | 6.84 | 2.57 | 9.48 |
| Si29 | 6033.04 | 6228.17 | 6033.07 | 6022.7 | 6015.31 | 6016.76 | 5959.26 | 5972.61 | 5983.63 | 6024.16 |
| Si30 | 5751.74 | 6125.95 | 6012.65 | 5925.14 | 5938.79 | 6007.65 | 6041.75 | 5961.54 | 5874.37 | 6080.37 |
| P31 | 2.66 | 3.1 | 4.03 | 1.74 | 3.91 | 3.14 | 3.05 | 4.59 | 3.44 | 3.66 |
| Ca43 | 57.48 | 62.06 | 62.38 | 50.17 | 61.23 | 59.93 | 65.84 | 56.17 | 66.96 | 62.02 |
| Ca44 | 67.13 | 73.5 | 74.23 | 62.28 | 72.55 | 72.72 | 77.9 | 68.34 | 78.64 | 76.65 |
| Sc45 | 0.25 | 0.26 | 0.26 | 0.24 | 0.27 | 0.27 | 0.28 | 0.28 | 0.29 | 0.3 |
| Ti47 | 2.52 | 2.17 | 2.11 | 1.86 | 2.32 | 2.09 | 2.36 | 2.08 | 2.13 | 2.64 |
| Ti49 | 4.31 | 3.73 | 3.65 | 3.39 | 4.29 | 4.01 | 4.6 | 4.11 | 4.15 | 5.65 |
| V51 | 0.2 | 0.19 | 0.19 | 0.15 | 0.21 | 0.2 | 0.2 | 0.19 | 0.2 | 0.24 |
| Cr53 | 19.15 | 17.07 | 18.74 | 20.63 | 18.39 | 18.19 | 15.97 | 16.55 | 15.01 | 20.53 |
| Mn55 | 51.13 | 55.6 | 53.37 | 48.21 | 53.73 | 55.27 | 55.15 | 56.64 | 58.48 | 56.26 |
| Co59 | 5.75 | 5.98 | 5.95 | 5.57 | 6.01 | 6.08 | 6.14 | 6.02 | 6.21 | 6.28 |
| Ni60 | 69.39 | 64.04 | 69.44 | 97.83 | 70.67 | 71.35 | 62.34 | 89.05 | 57.07 | 79.43 |
| Ni62 | 110.92 | 101.87 | 111.04 | 164.66 | 120.71 | 121.25 | 107.84 | 155.96 | 100.14 | 145.88 |
| Cu63 | 0.17 | 0.12 | 0.2 | 0.19 | 0.15 | 0.14 | 0.18 | 0.11 | 0.089 | 0.21 |
| Zn66 | 2.21 | 2.45 | 2.36 | 2.25 | 2.32 | 2.39 | 2.36 | 2.67 | 2.2 | 2.33 |
| Zn67 | 3.03 | 3.41 | 3.33 | 3.22 | 3.4 | 3.62 | 3.7 | 4.35 | 3.65 | 4.09 |
| Ga69 | 0.008 | 0.0073 | 0.0077 | 0.008 | 0.0084 | 0.0071 | 0.0087 | 0.0089 | 0.0092 | 0.0099 |
| Sr88 | 0.0016 | 0.0027 | 0.0027 | 0.0019 | 0.0021 | 0.0021 | 0.0084 | 0.003 | 0.0096 | 0.0018 |
| Y89 | 0.0038 | 0.0035 | 0.0038 | 0.0039 | 0.0039 | 0.0038 | 0.0045 | 0.0047 | 0.0059 | 0.0041 |
| Zr90 | 0.0057 | 0.026 | 0.023 | 0.0064 | 0.032 | 0.0062 | 0.0089 | 0.22 | 0.085 | 0.0051 |
| Nb93 | 0.0009 | 0.00098 | 0.00098 | 0.00085 | 0.00071 | 0.00064 | 0.0018 | 0.00084 | 0.0037 | 0.00066 |
| Ba135 | 0.0043 | 0.0073 | 0.033 | 0.0058 | 0.015 | 0.0037 | 0.027 | 0.015 | 0.045 | 0.0085 |
| Ba137 | 0.0055 | 0.0038 | 0.02 | 0.0031 | 0.0067 | 0.0059 | 0.021 | 0.013 | 0.04 | 0.0039 |
| La139 | 0.0017 | 0.032 | 0.1 | 0.0016 | 0.011 | 0.0052 | 0.022 | 0.13 | 0.53 | 0.0024 |
| Ce140 | 0.0064 | 0.016 | 4.34 | 0.0031 | 0.012 | 0.044 | 0.08 | 0.031 | 4.05 | 0.073 |
| Gd157 | 0.0041 | 0.0028 | 0.0089 | 0.0031 | 0.0061 | 0.0074 | 0.003 | 0.0053 | 0.02 | 0.0085 |
| Yb172 | 0.003 | 0.0036 | 0.0035 | 0.0032 | 0.0034 | 0.0024 | 0.0034 | 0.0029 | 0.0052 | 0.003 |

GLITTER!: Trace PPM Concentrations MDL filtered.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C5619/24 | | | | | | | |
| Grain # | 1 | 1 | 1 | 2 | Not olivine | Not olivine | 3 | 3 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PPM |  |  |  |  |  |  |  |  |
| Li7 | 5.08 | 5.1 | 5.37 | 4.69 | 7.1 | 5.49 | 4.34 | 2.523 |
| B11 | 10.02 | 9.26 | 8.39 | 12.56 | 9.44 | 7.92 | 12.34 | 9.91 |
| Na23 | 89.1 | 92.6 | 90.64 | 98.59 | 2325.5 | 2039.29 | 69.96 | 86.01 |
| Mg24 | 298617.2 | 305105.7 | 299955.8 | 292858.5 | 107683.8 | 111082.7 | 326891.4 | 326204.1 |
| Mg25 | 327011.8 | 331009.7 | 317482.8 | 317652.4 | 115827.2 | 118899 | 344498.2 | 342661.5 |
| Mg26 | 313875.1 | 325161.8 | 308576.8 | 309776.8 | 114653.7 | 115990.7 | 341907.6 | 332132.9 |
| Al27 | 71.95 | 94.7 | 71.39 | 218.06 | 11673.36 | 8635.22 | 94.11 | 82.26 |
| Si29 | 187349.7 | 183797.2 | 184264.6 | 185059.3 | 234327.4 | 235496 | 188331.3 | 186975.8 |
| Si30 | 178526.1 | 178196.5 | 174551.5 | 196513 | 221763.8 | 224577.5 | 196525.3 | 188991.1 |
| P31 | 73.68 | 84.08 | 83.13 | 64.63 | 20.54 | 21.69 | 39.55 | 68.38 |
| Ca43 | 1884.75 | 1095.77 | 1128.9 | 2634.87 | 158744.9 | 150821.5 | 1420.48 | 1160.05 |
| Ca44 | 2130.47 | 1361.85 | 1429.15 | 2989.08 | 161478.3 | 151113.9 | 1734.84 | 1413.92 |
| Sc45 | 4.82 | 4.48 | 4.2 | 5.15 | 63.8 | 64.76 | 4.98 | 4.61 |
| Ti47 | 154.87 | 126.76 | 106.78 | 235.66 | 11220.85 | 9249.49 | 127.37 | 98.46 |
| Ti49 | 160.47 | 137.86 | 106.19 | 256.72 | 11743.39 | 9569.33 | 127.8 | 102.33 |
| V51 | 3.29 | 4.35 | 4.26 | 4.77 | 101.9 | 89.44 | 3.73 | 4.12 |
| Cr53 | 70.76 | 234.26 | 227.42 | 71.79 | 149.64 | 77.76 | 216.48 | 240.75 |
| Mn55 | 3346.44 | 2116.25 | 2452.38 | 3277.18 | 691.31 | 730.87 | 1830.53 | 1942.8 |
| Co59 | 228.13 | 203.57 | 208.47 | 218.53 | 31.88 | 30.05 | 187.21 | 207.6 |
| Ni60 | 1084.42 | 1659.81 | 1630.71 | 804.74 | 77.83 | 70.09 | 1466.37 | 1696.7 |
| Ni62 | 1098.97 | 1620.39 | 1615.92 | 813.23 | 78.25 | 73.04 | 1432.97 | 1642.73 |
| Cu63 | 0.721 | 3.19 | 16.27 | 1.188 | 2.001 | 1.566 | 2.05 | 4.88 |
| Zn66 | 161.45 | 123.4 | 138.34 | 159.28 | 23.61 | 22.36 | 102.65 | 117.6 |
| Zn67 | 137.89 | 107.56 | 128.03 | 141 | 20.36 | 19.89 | 92.62 | 106.96 |
| Ga69 | 0.154 | 0.186 | 0.13 | 0.367 | 6.37 | 5.55 | 0.097 | 0.0886 |
| Sr88 | 0.1285 | 0.1331 | 0.1234 | 0.797 | 281.41 | 302.8 | 0.0266 | 0.0173 |
| Y89 | 0.0756 | 0.0308 | 0.0395 | 0.167 | 2.8 | 2.64 | 0.151 | 0.0136 |
| Zr90 | 0.18 | 0.454 | 0.12 | 2.47 | 48.89 | 57.55 | 13.69 | 1.187 |
| Nb93 | 1.69 | 1.521 | 0.474 | 8.92 | 1.089 | 0.827 | 0.0246 | <0.0040 |
| Ba135 | 0.616 | 0.396 | 0.106 | 3.1 | 0.508 | 0.401 | <0.091 | 0.0092 |
| Ba137 | 0.675 | 0.475 | 0.095 | 2.82 | 0.316 | 0.36 | 0.0171 | 0.0053 |
| La139 | 0.0701 | 0.0632 | 0.0369 | 0.261 | 8.86 | 6.74 | 0.0059 | 0.0265 |
| Ce140 | 0.295 | 0.477 | 0.185 | 0.491 | 36.51 | 26.71 | 0.353 | 0.0923 |
| Gd157 | <0.0126 | 0.0193 | 0.0117 | <0.021 | 1.953 | 1.68 | <0.044 | 0.019 |
| Yb172 | 0.0196 | <0.0088 | <0.0127 | 0.026 | 0.157 | 0.169 | <0.033 | 0.0095 |

GLITTER!: 1 sigma error.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C5619/24 | | | | | | | |
| Grain # | 1 | 1 | 1 | 2 | Not olivine | Not olivine | 3 | 3 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PPM |  |  |  |  |  |  |  |  |
| Li7 | 0.16 | 0.16 | 0.18 | 0.17 | 0.23 | 0.18 | 0.16 | 0.095 |
| B11 | 0.36 | 0.33 | 0.31 | 0.48 | 0.35 | 0.3 | 0.49 | 0.4 |
| Na23 | 2.68 | 2.79 | 2.73 | 2.98 | 69.85 | 61.26 | 2.12 | 2.59 |
| Mg24 | 9972.3 | 10263.83 | 10177.51 | 10034.7 | 3728.96 | 3892.23 | 11602.45 | 11736.95 |
| Mg25 | 11479.23 | 11742.77 | 11401.66 | 11566.96 | 4281.35 | 4467.67 | 13175.95 | 13352.17 |
| Mg26 | 12193.5 | 12830.89 | 12396.39 | 12695.65 | 4801.07 | 4970.98 | 15017.99 | 14967.16 |
| Al27 | 2.41 | 3.19 | 2.43 | 7.46 | 401.16 | 299.95 | 3.34 | 2.95 |
| Si29 | 5926.38 | 5813.69 | 5829.01 | 5855.98 | 7411.58 | 7448.27 | 5958.46 | 5915.4 |
| Si30 | 5638.41 | 5633.22 | 5525.24 | 6232.09 | 7038.47 | 7139.32 | 6262.7 | 6033.97 |
| P31 | 4.14 | 4.81 | 4.91 | 4.13 | 1.46 | 1.51 | 2.94 | 4.82 |
| Ca43 | 74.36 | 45.77 | 49.32 | 112.26 | 5815.82 | 5609.21 | 67.03 | 55.72 |
| Ca44 | 73.39 | 47.47 | 50.46 | 106.56 | 5754.23 | 5459.04 | 64.78 | 53.64 |
| Sc45 | 0.17 | 0.16 | 0.15 | 0.2 | 2.14 | 2.19 | 0.19 | 0.18 |
| Ti47 | 5.7 | 4.72 | 4.09 | 9.11 | 428.66 | 360.18 | 5.25 | 4.17 |
| Ti49 | 10.83 | 9.59 | 7.68 | 19.2 | 904.18 | 766.94 | 10.79 | 9.02 |
| V51 | 0.11 | 0.14 | 0.14 | 0.17 | 3.12 | 2.74 | 0.13 | 0.14 |
| Cr53 | 2.39 | 7.71 | 7.57 | 2.57 | 5.07 | 2.68 | 7.51 | 8.42 |
| Mn55 | 101.02 | 63.9 | 74.09 | 99.07 | 20.91 | 22.11 | 55.42 | 58.85 |
| Co59 | 7.52 | 6.75 | 6.97 | 7.38 | 1.09 | 1.04 | 6.52 | 7.32 |
| Ni60 | 44.4 | 69.12 | 69.28 | 35 | 3.49 | 3.22 | 68.69 | 81.68 |
| Ni62 | 51.58 | 77.71 | 79.63 | 41.56 | 4.24 | 4.07 | 80.21 | 95.15 |
| Cu63 | 0.041 | 0.14 | 0.68 | 0.074 | 0.096 | 0.077 | 0.11 | 0.24 |
| Zn66 | 5.41 | 4.16 | 4.71 | 5.51 | 0.85 | 0.81 | 3.67 | 4.24 |
| Zn67 | 8.98 | 7.22 | 8.9 | 10.24 | 1.58 | 1.59 | 7.56 | 9.06 |
| Ga69 | 0.011 | 0.011 | 0.01 | 0.025 | 0.2 | 0.18 | 0.011 | 0.0099 |
| Sr88 | 0.0094 | 0.0089 | 0.0096 | 0.041 | 9.86 | 10.74 | 0.0052 | 0.0042 |
| Y89 | 0.0073 | 0.0042 | 0.0054 | 0.016 | 0.11 | 0.11 | 0.014 | 0.0045 |
| Zr90 | 0.016 | 0.027 | 0.014 | 0.12 | 1.73 | 2.06 | 0.52 | 0.064 |
| Nb93 | 0.06 | 0.053 | 0.022 | 0.29 | 0.04 | 0.031 | 0.0045 | 0.0016 |
| Ba135 | 0.067 | 0.048 | 0.03 | 0.24 | 0.055 | 0.047 | 0.041 | 0.0093 |
| Ba137 | 0.055 | 0.041 | 0.021 | 0.17 | 0.032 | 0.032 | 0.0099 | 0.0054 |
| La139 | 0.0066 | 0.0057 | 0.005 | 0.019 | 0.3 | 0.23 | 0.0022 | 0.0053 |
| Ce140 | 0.015 | 0.02 | 0.011 | 0.027 | 1.22 | 0.9 | 0.02 | 0.0082 |
| Gd157 | 0.0075 | 0.0065 | 0.0059 | 0.014 | 0.096 | 0.083 | 0.018 | 0.01 |
| Yb172 | 0.0062 | 0.0047 | 0.0053 | 0.011 | 0.016 | 0.015 | 0.013 | 0.0048 |

EMP data collected by JGU Mainz Germany all values are wt% oxide. Data is pre rejection. Additional information found in online appendix.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C5619/24 | | | | | | | |
| Grain # | 1 | 1 | 1 | 2 | Not olivine | Not olivine | 3 | 3 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Wt% |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0064 | 0.0089 | 0.0121 | 0.017 | 2.54 | 2.45 | 0.0281 | 0.0241 |
| SiO2 | 40.08 | 39.32 | 39.42 | 39.59 | 50.13 | 50.38 | 40.29 | 39.88 |
| CaO | 0.4733 | 0.4643 | 0.4423 | 0.4582 | 23.91 | 24.01 | 0.3205 | 0.2558 |
| MnO | 0.3792 | 0.3791 | 0.3218 | 0.3512 | 0.09 | 0.09 | 0.2328 | 0.2059 |
| CoO | 0.029 | 0.0214 | 0.026 | 0.0404 | 0.01 | 0.01 | 0.0224 | 0.0363 |
| MgO | 42.92 | 42.93 | 43.45 | 42.91 | 14.84 | 14.92 | 46.25 | 45.94 |
| TiO2 | 0.0679 | 0.0234 | 0.0331 | 0.0334 | 2.45 | 2.29 | 0.029 | 0.0228 |
| Cr2O3 | 0.0202 | 0.0208 | 0.0387 | 0.0278 | 0.00 | 0.02 | 0.0556 | 0.0537 |
| FeO | 16.98 | 17.02 | 16.3 | 17.12 | 4.84 | 4.88 | 13.87 | 13.25 |
| NiO | 0.1044 | 0.1067 | 0.1103 | 0.0922 | 0.00 | 0.01 | 0.1374 | 0.188 |
| V2O3 | 0 | 0 | 0.0125 | 0 | 0.04 | 0.07 | 0 | 0.0108 |
| Total | 101.06 | 100.29 | 100.17 | 100.64 | 98.86 | 99.13 | 101.24 | 99.87 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C5775/26 | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 3 | 4 | 5 | 5 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0122 | 0.0081 | 0.0056 | 0.0102 | 0.0214 | 0.0168 | 0.0199 | 0.0262 | 0.0151 | 0.0187 |
| SiO2 | 40.17 | 40.34 | 40.29 | 40.5 | 40.06 | 40.37 | 40.17 | 40.16 | 40 | 40.05 |
| CaO | 0.2381 | 0.2337 | 0.3959 | 0.2316 | 0.2319 | 0.2146 | 0.225 | 0.2273 | 0.4356 | 0.3565 |
| MnO | 0.2062 | 0.2115 | 0.2403 | 0.1971 | 0.2014 | 0.1912 | 0.2066 | 0.2045 | 0.24 | 0.1951 |
| CoO | 0.0119 | 0.03 | 0.0308 | 0.0322 | 0.0353 | 0.0301 | 0.0237 | 0.0282 | 0.033 | 0.0295 |
| MgO | 45.84 | 45.87 | 45.92 | 45.43 | 45.56 | 45.71 | 45.85 | 45.89 | 45.21 | 45.72 |
| TiO2 | 0.0222 | 0.0277 | 0.0228 | 0.0293 | 0.0382 | 0.0278 | 0.0402 | 0.0303 | 0.0429 | 0.0319 |
| Cr2O3 | 0.0428 | 0.0343 | 0.0286 | 0.0462 | 0.0501 | 0.0293 | 0.0429 | 0.0294 | 0.0397 | 0.0514 |
| FeO | 12.67 | 12.51 | 12.44 | 12.35 | 12.52 | 12.31 | 12.19 | 12.29 | 12.64 | 11.8 |
| NiO | 0.1744 | 0.1719 | 0.1037 | 0.1643 | 0.1679 | 0.1765 | 0.1734 | 0.1988 | 0.082 | 0.1049 |
| V2O3 | 0 | 0 | 0.0106 | 0.0089 | 0 | 0.0046 | 0.0051 | 0.0106 | 0 | 0.0069 |
| Total | 99.39 | 99.44 | 99.49 | 98.9999 | 98.89 | 99.08 | 98.95 | 99.10 | 98.74 | 98.36 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C6066/30 | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0161 | 0.0275 | 0.0275 | 0.0256 | 0.0203 | 0.0475 | 0.0264 | 0.0217 | 0.0035 | 0.0124 |
| SiO2 | 41.97 | 41.14 | 41.17 | 40.66 | 41.06 | 40.94 | 41.04 | 40.96 | 41.02 | 40.9 |
| CaO | 0.1328 | 0.1236 | 0.101 | 0.1043 | 0.1347 | 0.1275 | 0.1572 | 0.1328 | 0.1354 | 0.2396 |
| MnO | 0.1146 | 0.1158 | 0.1315 | 0.1187 | 0.1282 | 0.1306 | 0.1151 | 0.1222 | 0.126 | 0.1639 |
| CoO | 0.0317 | 0.0298 | 0.0321 | 0.0254 | 0.0227 | 0.0234 | 0.03 | 0.0351 | 0.0254 | 0.0217 |
| MgO | 49.43 | 49.62 | 49.85 | 49.94 | 50 | 49.91 | 50.46 | 49.49 | 50.54 | 49.32 |
| TiO2 | 0.0319 | 0.0281 | 0.0252 | 0.003 | 0.0272 | 0.0147 | 0.0293 | 0.0444 | 0.0181 | 0.0396 |
| Cr2O3 | 0.1062 | 0.1091 | 0.126 | 0.0992 | 0.1283 | 0.1048 | 0.1236 | 0.129 | 0.1128 | 0.106 |
| FeO | 8.87 | 9.02 | 8.37 | 8.39 | 8.22 | 8.55 | 7.86 | 8.61 | 7.4 | 8.89 |
| NiO | 0.4172 | 0.4189 | 0.394 | 0.3789 | 0.3958 | 0.3964 | 0.3991 | 0.3773 | 0.4189 | 0.3033 |
| V2O3 | 0 | 0 | 0.0017 | 0 | 0.006 | 0.0039 | 0 | 0 | 0.0031 | 0 |
| Total | 101.12 | 100.63 | 100.23 | 99.75 | 100.15 | 100.25 | 100.24 | 99.92 | 99.80 | 100.00 |
| Sample/slide | C6098/32 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0284 | 0.0175 | 0.0309 | 0.0117 | 0.0129 | 0.1152 | 0.0138 | 0.0214 | 0.0349 | 0.0211 |
| SiO2 | 40.78 | 40.52 | 40.77 | 40.69 | 41.2 | 40.72 | 40.93 | 40.83 | 40.93 | 41.03 |
| CaO | 0.103 | 0.0939 | 0.1025 | 0.0996 | 0.0852 | 0.0931 | 0.1922 | 0.1749 | 0.1059 | 0.0952 |
| MnO | 0.1054 | 0.1177 | 0.1218 | 0.1081 | 0.1209 | 0.124 | 0.1314 | 0.133 | 0.1316 | 0.1109 |
| CoO | 0.0227 | 0.0205 | 0.0333 | 0.0283 | 0.0266 | 0.0367 | 0.0282 | 0.0209 | 0.0257 | 0.033 |
| MgO | 48.39 | 48.92 | 49.11 | 49.49 | 49.18 | 48.57 | 49.24 | 49.03 | 48.37 | 48.89 |
| TiO2 | 0.033 | 0.0267 | 0.0322 | 0.0295 | 0.0305 | 0.0897 | 0.0557 | 0.0578 | 0.0225 | 0.0106 |
| Cr2O3 | 0.0909 | 0.0862 | 0.1072 | 0.0946 | 0.0771 | 0.0791 | 0.0943 | 0.1059 | 0.0833 | 0.0779 |
| FeO | 10.1 | 9.64 | 9.67 | 9.12 | 8.87 | 9.54 | 9 | 9.41 | 9.92 | 10.05 |
| NiO | 0.3925 | 0.399 | 0.4082 | 0.3938 | 0.3843 | 0.4182 | 0.3932 | 0.4042 | 0.4148 | 0.4086 |
| V2O3 | 0 | 0 | 0 | 0 | 0.0266 | 0.0192 | 0.0157 | 0.0041 | 0 | 0.0201 |
| Total | 100.05 | 99.84 | 100.39 | 100.07 | 100.01 | 99.81 | 100.10 | 100.19 | 100.04 | 100.75 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample/slide | C3946/39 | | | | | | | | | |
| Grain # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8 | 9 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0314 | 0.0197 | 0.02 | 0.0117 | 0.0233 | 0.0181 | 0.0191 | 0.005 | 0.0332 | 0.0261 |
| SiO2 | 40.29 | 40.38 | 40.38 | 40.24 | 40.26 | 40.26 | 40.49 | 40.43 | 41.19 | 40.44 |
| CaO | 0.186 | 0.2844 | 0.271 | 0.2663 | 0.3196 | 0.3877 | 0.5192 | 0.436 | 0.354 | 0.4771 |
| MnO | 0.1552 | 0.2294 | 0.1954 | 0.1917 | 0.2179 | 0.2197 | 0.2612 | 0.2554 | 0.2366 | 0.2479 |
| CoO | 0.0307 | 0.0272 | 0.0231 | 0.0312 | 0.0267 | 0.033 | 0.0328 | 0.0156 | 0.0174 | 0.0189 |
| MgO | 48.07 | 47.27 | 47.65 | 47.09 | 46.94 | 46.95 | 47.21 | 46.93 | 47.17 | 47.37 |
| TiO2 | 0.036 | 0.0217 | 0.0251 | 0.0304 | 0.0172 | 0.0194 | 0.041 | 0.0268 | 0.0395 | 0.027 |
| Cr2O3 | 0.0789 | 0.0598 | 0.0715 | 0.0759 | 0.0671 | 0.0584 | 0.0644 | 0.0542 | 0.0631 | 0.0421 |
| FeO | 10.72 | 12.01 | 11.49 | 11.97 | 12.27 | 11.82 | 11.66 | 11.66 | 11.82 | 11.69 |
| NiO | 0.352 | 0.2314 | 0.275 | 0.2581 | 0.2243 | 0.1714 | 0.1461 | 0.164 | 0.1943 | 0.1447 |
| V2O3 | 0.0127 | 0 | 0 | 0.0039 | 0.0081 | 0.0014 | 0.0159 | 0.0205 | 0.0068 | 0.0083 |
| Total | 99.96 | 100.53 | 100.40 | 100.17 | 100.37 | 99.94 | 100.46 | 100.00 | 101.12 | 100.49 |

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| Sample/slide | C2787/4 | | | | | | | | | |
| Grain # | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 8 |
| Spot # | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.093 | 0.0397 | 0.0493 | 0.0468 | 0.0505 | 0.0477 | 0.047 | 0.0323 | 0.0539 | 0.0737 |
| SiO2 | 42.13 | 40.81 | 40.74 | 40.69 | 40.7 | 40.31 | 40.4 | 40.47 | 40.81 | 40.75 |
| CaO | 0.3762 | 0.4017 | 0.3215 | 0.3836 | 0.3914 | 0.3927 | 0.3296 | 0.4202 | 0.376 | 0.4002 |
| MnO | 0.1608 | 0.1731 | 0.1735 | 0.1704 | 0.1605 | 0.1589 | 0.1696 | 0.1695 | 0.1742 | 0.1797 |
| CoO | 0.0242 | 0.0199 | 0.0227 | 0.0283 | 0.0306 | 0.0345 | 0.0319 | 0.0354 | 0.0107 | 0.0292 |
| MgO | 46.3 | 48.41 | 49.64 | 48.72 | 48.26 | 48.68 | 48.47 | 48.21 | 48.78 | 48.2 |
| TiO2 | 0.0067 | 0.0193 | 0.0019 | 0.0127 | 0.0038 | 0.0068 | 0.014 | 0.001 | 0.0139 | 0.0104 |
| Cr2O3 | 0.0803 | 0.0984 | 0.1126 | 0.0772 | 0.098 | 0.0904 | 0.0848 | 0.0877 | 0.1001 | 0.1066 |
| FeO | 10.6 | 10.06 | 8.94 | 10.11 | 10.2 | 9.77 | 10.16 | 10.56 | 9.84 | 9.9 |
| NiO | 0.204 | 0.2119 | 0.3084 | 0.221 | 0.2141 | 0.2042 | 0.2772 | 0.1712 | 0.2323 | 0.2282 |
| V2O3 | 0 | 0.0066 | 0.0055 | 0 | 0.0144 | 0.0107 | 0.0042 | 0 | 0 | 0 |
| Total | 99.98 | 100.25 | 100.32 | 100.46 | 100.12 | 99.71 | 99.99 | 100.16 | 100.39 | 99.88 |

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| Sample/slide | C2797/6 | | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 7 |
| Spot # | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0225 | 0.026 | 0.0338 | 0.0295 | 0.0243 | 0.0152 | 0.0373 | 0.0245 | 0.0242 | 0.0203 |
| SiO2 | 37.92 | 37.65 | 37.64 | 37.83 | 37.89 | 37.52 | 37.69 | 37.68 | 38.31 | 37.93 |
| CaO | 0.3937 | 0.4068 | 0.3977 | 0.4079 | 0.4034 | 0.4087 | 0.4079 | 0.4052 | 0.3114 | 0.4031 |
| MnO | 0.4981 | 0.5296 | 0.5152 | 0.5481 | 0.5262 | 0.5168 | 0.5296 | 0.4918 | 0.439 | 0.5111 |
| CoO | 0.0311 | 0.0352 | 0.0272 | 0.0316 | 0.0181 | 0.0406 | 0.0281 | 0.0292 | 0.0273 | 0.0234 |
| MgO | 33.94 | 33.99 | 33.73 | 33.47 | 33.85 | 33.77 | 33.59 | 33.77 | 36.49 | 33.98 |
| TiO2 | 0.036 | 0.0611 | 0.0551 | 0.0352 | 0.0359 | 0.0466 | 0.0514 | 0.0522 | 0.0285 | 0.0463 |
| Cr2O3 | 0.0258 | 0.0077 | 0.0292 | 0.0231 | 0.0404 | 0.012 | 0.0173 | 0.0163 | 0.0309 | 0.021 |
| FeO | 29 | 29.05 | 29.04 | 29.17 | 29.39 | 28.99 | 29.08 | 29.24 | 26.26 | 28.88 |
| NiO | 0.0308 | 0.0162 | 0.0131 | 0.0216 | 0.0123 | 0.0267 | 0.0204 | 0.0155 | 0.0341 | 0.0123 |
| V2O3 | 0.0087 | 0.005 | 0 | 0.007 | 0.0074 | 0.016 | 0.0229 | 0.0013 | 0 | 0 |
| Total | 101.91 | 101.78 | 101.48 | 101.57 | 102.20 | 101.36 | 101.47 | 101.73 | 101.96 | 101.83 |

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| Sample/slide | C2823/10 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 6 | 7 | 8 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0383 | 0.0392 | 0.0197 | 0.0319 | 0.0329 | 0.0221 | 0.0262 | 0.0293 | 0.0227 | 0.0365 |
| SiO2 | 39.07 | 39.22 | 39.38 | 39.06 | 39.31 | 39.38 | 39.3 | 39.39 | 39.18 | 39.15 |
| CaO | 0.2824 | 0.2657 | 0.263 | 0.263 | 0.2692 | 0.2684 | 0.2562 | 0.2536 | 0.2686 | 0.2706 |
| MnO | 0.3421 | 0.3377 | 0.3122 | 0.3535 | 0.3209 | 0.3366 | 0.3031 | 0.2872 | 0.3316 | 0.335 |
| CoO | 0.0247 | 0.0212 | 0.0408 | 0.0302 | 0.0172 | 0.0353 | 0.0262 | 0.0234 | 0.0233 | 0.027 |
| MgO | 41.35 | 42.14 | 41.94 | 41.26 | 41.82 | 41.84 | 41.69 | 41.74 | 41.92 | 40.48 |
| TiO2 | 0.0381 | 0.0332 | 0.0435 | 0.0439 | 0.0295 | 0.053 | 0.0395 | 0.0125 | 0.029 | 0.0569 |
| Cr2O3 | 0.017 | 0.0241 | 0.0306 | 0.0344 | 0.0088 | 0.0352 | 0.0324 | 0.0281 | 0.0321 | 0.0258 |
| FeO | 19.59 | 19.29 | 19.1 | 19.99 | 19.57 | 19.54 | 19.43 | 19.34 | 19.42 | 20.62 |
| NiO | 0.0276 | 0.0242 | 0.0262 | 0.0221 | 0.0266 | 0.0322 | 0.0332 | 0.022 | 0.0272 | 0.0245 |
| V2O3 | 0 | 0.0104 | 0 | 0.0086 | 0.0218 | 0.0008 | 0.0295 | 0 | 0.0233 | 0.0007 |
| Total | 100.78 | 101.41 | 101.16 | 101.10 | 101.43 | 101.54 | 101.17 | 101.13 | 101.28 | 101.03 |

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| Sample/slide | C2831/11 | | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 3 | 4 | 5 | 5 | 6 | 6 | 7 | 8 |
| Spot # | 1 | 1(b) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0283 | 0.04 | 0.0376 | 0.0268 | 0.036 | 0.0236 | 0.0283 | 0.0293 | 0.0308 | 0.0275 | 0.021 |
| SiO2 | 38.23 | 38.55 | 37.42 | 38.32 | 37.85 | 38.62 | 37.99 | 37.85 | 37.92 | 37.9 | 38.26 |
| CaO | 0.3693 | 0.38 | 0.3515 | 0.3316 | 0.3414 | 0.2338 | 0.2916 | 0.3372 | 0.3346 | 0.3627 | 0.3341 |
| MnO | 0.4959 | 0.48 | 0.4766 | 0.5044 | 0.4919 | 0.4263 | 0.478 | 0.5189 | 0.4829 | 0.4704 | 0.4733 |
| CoO | 0.0147 | 0.04 | 0.0394 | 0.0303 | 0.0317 | 0.0151 | 0.035 | 0.0301 | 0.0348 | 0.0302 | 0.0295 |
| MgO | 33.99 | 33.71 | 34.4 | 33.76 | 33.55 | 36.61 | 34.45 | 33.94 | 33.91 | 34 | 34.49 |
| TiO2 | 0.0323 | 0.04 | 0.0464 | 0.0403 | 0.0276 | 0.0288 | 0.0267 | 0.0563 | 0.0334 | 0.0405 | 0.0254 |
| Cr2O3 | 0.0338 | 0.03 | 0.033 | 0.022 | 0.0377 | 0.0338 | 0.0324 | 0.031 | 0.0295 | 0.0303 | 0.0295 |
| FeO | 28.87 | 29.00 | 28.62 | 28.94 | 29.42 | 25.4 | 28.28 | 29.02 | 28.85 | 28.86 | 28.47 |
| NiO | 0.0446 | 0.04 | 0.0289 | 0.0394 | 0.0423 | 0.0471 | 0.0466 | 0.0418 | 0.0441 | 0.0376 | 0.0374 |
| V2O3 | 0.0043 | 0.02 | 0.0018 | 0.0029 | 0.007 | 0.0031 | 0 | 0.0066 | 0 | 0 | 0.005 |
| Total | 102.11 | 102.33 | 101.46 | 102.02 | 101.84 | 101.44 | 101.66 | 101.86 | 101.67 | 101.76 | 102.18 |

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| Sample/slide | C2878/15 | | | | | | | | | |
| Grain # | 1 | 1 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0321 | 0.017 | 0.0398 | 0.0211 | 0.023 | 0.0278 | 0.0327 | 0.0269 | 0.0239 | 0.0266 |
| SiO2 | 38.31 | 37.91 | 38.1 | 38.57 | 38.26 | 38.41 | 38.09 | 38 | 38.28 | 38.13 |
| CaO | 0.3726 | 0.3628 | 0.3401 | 0.3143 | 0.3449 | 0.3387 | 0.3468 | 0.341 | 0.3613 | 0.3576 |
| MnO | 0.4532 | 0.4504 | 0.439 | 0.4568 | 0.4352 | 0.4467 | 0.4405 | 0.4235 | 0.4621 | 0.4636 |
| CoO | 0.0184 | 0.0243 | 0.03 | 0.0371 | 0.0252 | 0.0295 | 0.034 | 0.0413 | 0.0215 | 0.0202 |
| MgO | 35.11 | 35.1 | 35.18 | 36.19 | 36.09 | 35.08 | 36.12 | 35.85 | 35.06 | 35 |
| TiO2 | 0.0455 | 0.0494 | 0.0265 | 0.0329 | 0.028 | 0.0244 | 0.0334 | 0.0557 | 0.0454 | 0.0199 |
| Cr2O3 | 0.035 | 0.0347 | 0.0287 | 0.026 | 0.0227 | 0.016 | 0.028 | 0.0368 | 0.0353 | 0.038 |
| FeO | 27.69 | 27.45 | 27.53 | 26.02 | 26.17 | 27.22 | 26.88 | 27.24 | 27.36 | 27.34 |
| NiO | 0.0498 | 0.043 | 0.042 | 0.0528 | 0.0441 | 0.0426 | 0.0535 | 0.036 | 0.0393 | 0.0327 |
| V2O3 | 0.0032 | 0.0047 | 0.0114 | 0 | 0 | 0 | 0.014 | 0.0016 | 0.0093 | 0.0142 |
| Total | 102.12 | 101.45 | 101.77 | 101.72 | 101.44 | 101.64 | 102.07 | 102.05 | 101.70 | 101.44 |

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| Sample/slide | LK1/LK1 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 5 | 6 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0728 | 0.0234 | 0.0323 | 0.0162 | 0.0176 | 0.0389 | 0.0209 | 0.003 | 0.0033 | 0.0186 |
| SiO2 | 41.27 | 40.72 | 40.89 | 40.91 | 40.84 | 40.77 | 41.51 | 40.09 | 41.49 | 41.74 |
| CaO | 0.085 | 0.0758 | 0.0791 | 0.0738 | 0.0737 | 0.0837 | 0.0499 | 0.0296 | 0.0193 | 0.021 |
| MnO | 0.1063 | 0.1522 | 0.1218 | 0.1157 | 0.1316 | 0.1243 | 0.1102 | 0.1807 | 0.0931 | 0.104 |
| CoO | 0.0291 | 0.0279 | 0.0314 | 0.0322 | 0.0258 | 0.027 | 0.0284 | 0.0229 | 0.0233 | 0.0264 |
| MgO | 48.18 | 46.99 | 47.12 | 47.31 | 47.05 | 47.23 | 50.06 | 45.23 | 50.6 | 50.49 |
| TiO2 | 0.0193 | 0.0295 | 0.0327 | 0.0475 | 0.021 | 0.0318 | 0.0039 | 0.0186 | 0.0136 | 0.0162 |
| Cr2O3 | 0.056 | 0.0538 | 0.0391 | 0.046 | 0.0469 | 0.0333 | 0.0604 | 0.0348 | 0.0661 | 0.0421 |
| FeO | 10.69 | 11.93 | 11.87 | 11.92 | 11.88 | 11.94 | 8.01 | 15.11 | 7.05 | 7.85 |
| NiO | 0.3669 | 0.3356 | 0.3295 | 0.3315 | 0.3446 | 0.334 | 0.3902 | 0.1355 | 0.3489 | 0.3967 |
| V2O3 | 0.0175 | 0.0042 | 0.0025 | 0.0032 | 0 | 0.0088 | 0.0019 | 0 | 0 | 0.0113 |
| Total | 100.89 | 100.34 | 100.55 | 100.81 | 100.43 | 100.62 | 100.25 | 100.86 | 99.71 | 100.72 |

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| Sample/slide | FS1/FS1 | | | | | | | | | |
| Grain # | 1 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 5 | 6 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0112 | 0.0105 | 0.0072 | 0.0076 | 0.0051 | 0.0007 | 0.0046 | 0.004 | 0.0193 | 0.0053 |
| SiO2 | 41.55 | 41.33 | 41.85 | 41.11 | 41.42 | 41.12 | 41.07 | 41.34 | 40.38 | 41.12 |
| CaO | 0.0313 | 0.0298 | 0.0205 | 0.0335 | 0.0286 | 0.0306 | 0.0272 | 0.0254 | 0.0781 | 0.0246 |
| MnO | 0.0959 | 0.0958 | 0.0731 | 0.1197 | 0.1277 | 0.1186 | 0.1132 | 0.1204 | 0.1373 | 0.0983 |
| CoO | 0.0365 | 0.0185 | 0.0259 | 0.0226 | 0.034 | 0.0235 | 0.0268 | 0.0307 | 0.0345 | 0.0234 |
| MgO | 51.17 | 51.76 | 51.85 | 50.73 | 50.12 | 50.07 | 50.07 | 49.82 | 47.97 | 50.63 |
| TiO2 | 0.0131 | 0 | 0.0125 | 0.0245 | 0.0234 | 0.0182 | 0.0186 | 0.0107 | 0.0526 | 0.011 |
| Cr2O3 | 0.0555 | 0.0698 | 0.0553 | 0.0528 | 0.0496 | 0.051 | 0.0383 | 0.058 | 0.0467 | 0.0574 |
| FeO | 6.91 | 5.6 | 5.74 | 7.34 | 8.28 | 8.32 | 8.38 | 8.39 | 11.02 | 7.54 |
| NiO | 0.3685 | 0.3411 | 0.3411 | 0.4075 | 0.3954 | 0.4089 | 0.3947 | 0.4015 | 0.3393 | 0.3495 |
| V2O3 | 0 | 0.0017 | 0.0003 | 0.0031 | 0.0046 | 0.0104 | 0.0253 | 0.0236 | 0.0037 | 0 |
| Total | 100.24 | 99.26 | 99.98 | 99.85 | 100.49 | 100.17 | 100.17 | 100.22 | 100.08 | 99.86 |

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| Sample/slide | FS4/FS4 | | | | | | | | | |
| Grain # | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 5 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0254 | 0.0492 | 0.0054 | 0.0015 | 0.0189 | 0 | 0.0068 | 0.0109 | 0.0035 | 0.0084 |
| SiO2 | 40.98 | 41.5 | 41.4 | 41.37 | 41.31 | 41.43 | 41.19 | 41.08 | 41.05 | 41 |
| CaO | 0.0663 | 0.0739 | 0.0178 | 0.0255 | 0.0734 | 0.037 | 0.0426 | 0.0531 | 0.0374 | 0.0364 |
| MnO | 0.1327 | 0.1307 | 0.1131 | 0.1091 | 0.128 | 0.1063 | 0.1122 | 0.108 | 0.1013 | 0.1039 |
| CoO | 0.0317 | 0.0271 | 0.0276 | 0.0326 | 0.0339 | 0.0246 | 0.0284 | 0.0344 | 0.0254 | 0.0195 |
| MgO | 48.85 | 48.71 | 50.7 | 50.66 | 48.7 | 50.17 | 50.01 | 49.96 | 49.6 | 49.47 |
| TiO2 | 0.0311 | 0.0105 | 0.0211 | 0.04 | 0.0392 | 0.0306 | 0.0235 | 0.0477 | 0.0253 | 0.0456 |
| Cr2O3 | 0.0763 | 0.0601 | 0.0468 | 0.0475 | 0.0724 | 0.0463 | 0.0532 | 0.0422 | 0.0415 | 0.0302 |
| FeO | 9.66 | 9.83 | 7.44 | 7.32 | 9.82 | 8.25 | 8.2 | 7.91 | 9.13 | 9.11 |
| NiO | 0.3971 | 0.402 | 0.4024 | 0.4066 | 0.3888 | 0.4074 | 0.4084 | 0.3241 | 0.3644 | 0.3662 |
| V2O3 | 0.0102 | 0.0051 | 0 | 0 | 0.0017 | 0 | 0 | 0.0022 | 0 | 0 |
| Total | 100.26 | 100.80 | 100.17 | 100.01 | 100.59 | 100.50 | 100.08 | 99.57 | 100.38 | 100.19 |

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| Sample/slide | RVK1/RVK1 | | | | | | | | | |
| Grain # | 1 | 1 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Spot # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| wt% |  |  |  |  |  |  |  |  |  |  |
| Al2O3 | 0.0056 | 0.0061 | 0.011 | 0.0035 | 0 | 0.0074 | 0.0033 | 0.0036 | 0 | 0.001 |
| SiO2 | 41.11 | 41.09 | 41.25 | 41.11 | 41.61 | 41.72 | 41.46 | 41.57 | 41.01 | 41.5 |
| CaO | 0.0235 | 0.0181 | 0.0238 | 0.0221 | 0.0286 | 0.0079 | 0.0181 | 0.0247 | 0.0192 | 0.0118 |
| MnO | 0.128 | 0.1427 | 0.1291 | 0.1448 | 0.0824 | 0.1053 | 0.1022 | 0.0761 | 0.1303 | 0.0951 |
| CoO | 0.0277 | 0.0272 | 0.0304 | 0.0286 | 0.032 | 0.0244 | 0.0329 | 0.0302 | 0.0297 | 0.0336 |
| MgO | 50.15 | 50.35 | 50.15 | 50.16 | 52.32 | 50.31 | 51 | 51.3 | 48.28 | 50.93 |
| TiO2 | 0.0292 | 0.0271 | 0.0307 | 0.0125 | 0.0028 | 0 | 0.0117 | 0.0095 | 0.0102 | 0 |
| Cr2O3 | 0.0325 | 0.0407 | 0.0383 | 0.0407 | 0.042 | 0.0252 | 0.0391 | 0.0467 | 0.0418 | 0.0353 |
| FeO | 8.15 | 8.31 | 8.21 | 8.29 | 5.01 | 7.93 | 7.2 | 6.35 | 10.31 | 6.84 |
| NiO | 0.3176 | 0.3303 | 0.3183 | 0.3321 | 0.3334 | 0.3934 | 0.3347 | 0.3526 | 0.3735 | 0.3518 |
| V2O3 | 0.0215 | 0.005 | 0.0015 | 0 | 0 | 0.0077 | 0 | 0 | 0.008 | 0 |
| Total | 100.00 | 100.35 | 100.19 | 100.14 | 99.46 | 100.53 | 100.20 | 99.76 | 100.21 | 99.80 |

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| Sample | Slide | Regional location | Local location | Volcano name | Historical name | Modern name | Typical Mineralogy under transmitted light |
| C5619 | 24 | Toro-Ankole | Katwe-Kikorongo | Mbuga | Leucite ankaratrite | clinopyroxene-leucite- Nephelinite | Clinopyroxene dominate phenocryst phase (>95% of phenocrysts), Olivine minor phenocryst phase (<5% of phenocrysts). Groundmass dominantly nepheline with minor leucite, clinopyroxene, phlogopite and opaque’s, Note: Kalsilite absent, plagioclase absent |
| C5775 | 26 | Toro-Ankole | Katwe-Kikorongo | Katwe | Katungite | Kalsilite-leucite-Olivine Melilitite | Olivine dominant phenocryst phase (>95% of phenocrysts), groundmass dominated by melilite micro-phenocrysts (>40%) with minor groundmass minerals including opaque’s, kalsilite, phlogopite and leucite. Note: clinopyroxene absent. |
| C6066 | 30 | Toro-Ankole | Bunyaruguru | Mafuru | Mafurite | Olivine-Pyroxene Kalsilitite | Olivine dominant phenocryst phase (>95% of phenocrysts), minor phenocryst phase clinopyroxene (<5%), groundmass clinopyroxene, phlogopite, chrome spinel perovskite and kalsilite (>10% of groundmass) and opaque’s note: no leucite or melilite |
| C6098 | 32 | Toro-Ankole | Bunyaruguru | Kyamuhogo | Ugandite | Olivine-Kalsilite Leucitite | Olivine dominant phenocryst phase (>95% of phenocrysts), minor phenocryst phase clinopyroxene (<5%), micro-phenocryst phase leucite (>60% of micro-phenocrysts), groundmass dominated by clinopyroxene with minor leucite, opaque’s, phlogopite and nepheline/kalsilite |
| C3946 | 39 | Toro-Ankole | Katunga | Katunga | Katungite | Kalsilite-leucite-Olivine Melilitite | Olivine dominant phenocryst phase (>95% of phenocrysts), groundmass dominated by melilite micro phenocrysts (>60% of micro-phenocrysts) with minor groundmass minerals including oxides, kalsilite, phlogopite and leucite. Note: clinopyroxene absent. |
| C2787 | 4 | Virunga | Bufimbira | Katarara | Ugandite | Olivine-Kalsilite Leucitite | Olivine dominant phenocryst phase (>95% of phenocrysts), minor phenocryst phase clinopyroxene (<5%), micro-phenocryst phase leucite (>60% of micro-phenocrysts), groundmass dominated by clinopyroxene with minor leucite, opaque’s, , phlogopite and nepheline/kalsilite |
| C2797 | 6 | Virunga | Bufimbira | Muhavura | Leucite-basanite | Leucite basanite | Clinopyroxene dominant phenocryst phase (>60% of phenocrysts) Plagioclase phenocrysts (~30%) and olivine phenocrysts minor (<10%), plagioclase dominant micro-phenocrysts, groundmass plagioclase and leucite with minor phlogopite and opaque’s |
| C2823 | 10 | Virunga | Bufimbira | Busalu | Murambite transitional to Kivite B | Leucite basanite | Olivine main phenocryst phase (>95% of phenocrysts), clinopyroxene minor phenocryst phase. Groundmass plagioclase and leucite Note: groundmass very fine/glassy so other minor phases hard to identify |
| C2831 | 11 | Virunga | Bufimbira | Muhavura | Kivite M. (Leucite basanite) | Potassic trachybasalt (TAS) Foid-Bearing Andesite (QAPF) | Olivine and clinopyroxene approximately equal main phenocryst phases, Plagioclase main micro phenocryst phase (>95%) and olivine minor micro-phenocryst phase (<5%). Groundmass dominantly plagioclase and clinopyroxene minor leucite and sanidine and opaque’s |
| C2878 | 15 | Virunga | Bufimbira | Gahinga | Shoshonitic absarokite M | Potassic trachybasalt (TAS) Foid bearing latite (QAPF) | Plagioclase dominant phenocryst phase (~40%% of phenocrysts) ~20% sanidine phenocrysts clinopyroxene phenocrysts (~30%) and olivine phenocrysts minor (<10%), Groundmass dominantly plagioclase and clinopyroxene minor leucite and opaque’s |