|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Precision on ICPMS Trace Element Concentrations**  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **NA-064-** | **114** | **115** | **116** | **120** | **123** | **127** | **129** | **131** | **132** | **133** | **134** | **135** |
| **Li\_sigma** | 0.14 | 0.18 | 0.14 | 0.10 | 0.22 | 0.16 | 0.12 | 0.24 | 0.13 | 0.24 | 0.18 | 0.16 |
| **Sc\_sigma** | 0.80 | 1.23 | 1.08 | 0.62 | 1.14 | 0.57 | 0.85 | 1.50 | 1.00 | 1.11 | 0.80 | 1.25 |
| **V\_sigma** | 7.48 | 10.41 | 10.06 | 5.20 | 8.56 | 6.35 | 6.49 | 13.07 | 7.58 | 10.07 | 10.25 | 11.00 |
| **Cr\_sigma** | 5.06 | 8.28 | 6.24 | 2.71 | 7.72 | 5.75 | 4.55 | 10.44 | 5.80 | 11.50 | 10.00 | 11.78 |
| **Co\_sigma** | 2.13 | 1.72 | 2.03 | 1.21 | 2.23 | 1.55 | 1.90 | 2.10 | 2.05 | 1.98 | 2.14 | 3.04 |
| **Ni\_sigma** | 5.22 | 5.97 | 3.70 | 3.46 | 4.38 | 4.68 | 7.61 | 5.89 | 5.43 | 7.81 | 6.78 | 6.72 |
| **Cu\_sigma** | 2.13 | 2.86 | 2.50 | 2.02 | 2.61 | 1.65 | 2.32 | 4.36 | 2.79 | 3.10 | 2.78 | 3.33 |
| **Zn\_sigma** | 3.63 | 5.23 | 3.15 | 3.18 | 4.37 | 4.06 | 3.70 | 5.36 | 9.79 | 5.62 | 4.66 | 6.38 |
| **Ga\_sigma** | 0.38 | 0.65 | 0.44 | 0.34 | 0.55 | 0.43 | 0.59 | 0.75 | 0.53 | 0.77 | 0.64 | 0.72 |
| **Rb\_sigma** | 0.23 | 0.29 | 0.32 | 0.22 | 0.33 | 0.17 | 0.22 | 0.28 | 0.22 | 0.46 | 0.28 | 0.43 |
| **Sr\_sigma** | 12.54 | 12.49 | 16.61 | 10.96 | 19.74 | 7.93 | 13.40 | 18.08 | 12.73 | 16.80 | 16.66 | 17.40 |
| **Y\_sigma** | 1.06 | 1.16 | 1.20 | 0.61 | 1.33 | 0.58 | 0.94 | 1.39 | 1.11 | 1.40 | 1.70 | 1.35 |
| **Zr\_sigma** | 6.89 | 13.82 | 6.64 | 3.81 | 9.74 | 3.41 | 5.39 | 9.27 | 6.90 | 9.32 | 8.46 | 6.81 |
| **Nb\_sigma** | 0.41 | 0.52 | 0.55 | 0.29 | 0.67 | 0.49 | 0.49 | 0.72 | 0.59 | 0.65 | 0.58 | 0.82 |
| **Cs\_sigma** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| **Ba\_sigma** | 2.31 | 2.23 | 2.83 | 1.35 | 3.69 | 2.59 | 2.63 | 2.90 | 3.06 | 3.09 | 3.10 | 3.87 |
| **La\_sigma** | 0.31 | 0.48 | 0.30 | 0.18 | 0.53 | 0.48 | 0.33 | 0.52 | 0.50 | 0.46 | 0.59 | 0.59 |
| **Ce\_sigma** | 1.17 | 0.98 | 0.84 | 0.78 | 1.37 | 1.09 | 0.90 | 1.39 | 1.26 | 1.37 | 1.64 | 1.37 |
| **Pr\_sigma** | 0.17 | 0.18 | 0.14 | 0.10 | 0.22 | 0.14 | 0.13 | 0.20 | 0.23 | 0.18 | 0.24 | 0.17 |
| **Nd\_sigma** | 0.68 | 0.75 | 0.66 | 0.64 | 0.81 | 0.56 | 0.88 | 1.00 | 0.86 | 1.04 | 1.01 | 1.18 |
| **Sm\_sigma** | 0.22 | 0.23 | 0.15 | 0.23 | 0.24 | 0.20 | 0.17 | 0.26 | 0.22 | 0.34 | 0.29 | 0.24 |
| **Eu\_sigma** | 0.07 | 0.05 | 0.06 | 0.04 | 0.09 | 0.07 | 0.06 | 0.10 | 0.09 | 0.08 | 0.06 | 0.10 |
| **Gd\_sigma** | 0.34 | 0.26 | 0.19 | 0.24 | 0.32 | 0.13 | 0.17 | 0.25 | 0.28 | 0.33 | 0.23 | 0.27 |
| **Tb\_sigma** | 0.04 | 0.04 | 0.02 | 0.03 | 0.05 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.04 | 0.05 |
| **Dy\_sigma** | 0.22 | 0.15 | 0.17 | 0.17 | 0.32 | 0.20 | 0.23 | 0.25 | 0.17 | 0.26 | 0.27 | 0.28 |
| **Ho\_sigma** | 0.03 | 0.06 | 0.05 | 0.04 | 0.07 | 0.04 | 0.04 | 0.05 | 0.04 | 0.06 | 0.05 | 0.07 |
| **Er\_sigma** | 0.12 | 0.13 | 0.10 | 0.10 | 0.11 | 0.12 | 0.09 | 0.10 | 0.09 | 0.15 | 0.13 | 0.15 |
| **Tm\_sigma** | 0.02 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| **Yb\_sigma** | 0.10 | 0.12 | 0.10 | 0.06 | 0.13 | 0.09 | 0.13 | 0.11 | 0.09 | 0.11 | 0.12 | 0.17 |
| **Lu\_sigma** | 0.02 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.02 | 0.02 | 0.01 | 0.02 | 0.02 | 0.02 |
| **Hf\_sigma** | 0.15 | 0.13 | 0.13 | 0.13 | 0.23 | 0.09 | 0.10 | 0.23 | 0.17 | 0.23 | 0.23 | 0.23 |
| **Ta\_sigma** | 0.05 | 0.04 | 0.03 | 0.04 | 0.05 | 0.04 | 0.03 | 0.05 | 0.04 | 0.05 | 0.04 | 0.05 |
| **Pb\_sigma** | 0.10 | 0.04 | 0.04 | 0.05 | 0.06 | 0.03 | 0.03 | 0.11 | 0.05 | 0.06 | 0.07 | 0.06 |
| **Th\_sigma** | 0.04 | 0.03 | 0.02 | 0.03 | 0.04 | 0.02 | 0.03 | 0.04 | 0.02 | 0.06 | 0.05 | 0.04 |
| **U\_sigma** | 0.01 | 0.03 | 0.01 | 0.02 | 0.04 | 0.01 | 0.01 | 0.02 | 0.01 | 0.08 | 0.01 | 0.04 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Supplementary Data: Analytical precision for trace element concentrations, reported as the 1-sigma standard deviation of 3 analyses for each sample.**  |
|