Figure 1. Scatterplot of XRF data for Rb and Sr for three Rare-3 artifacts analyzed at LBNL to sources in Peru analyzed at MURR.

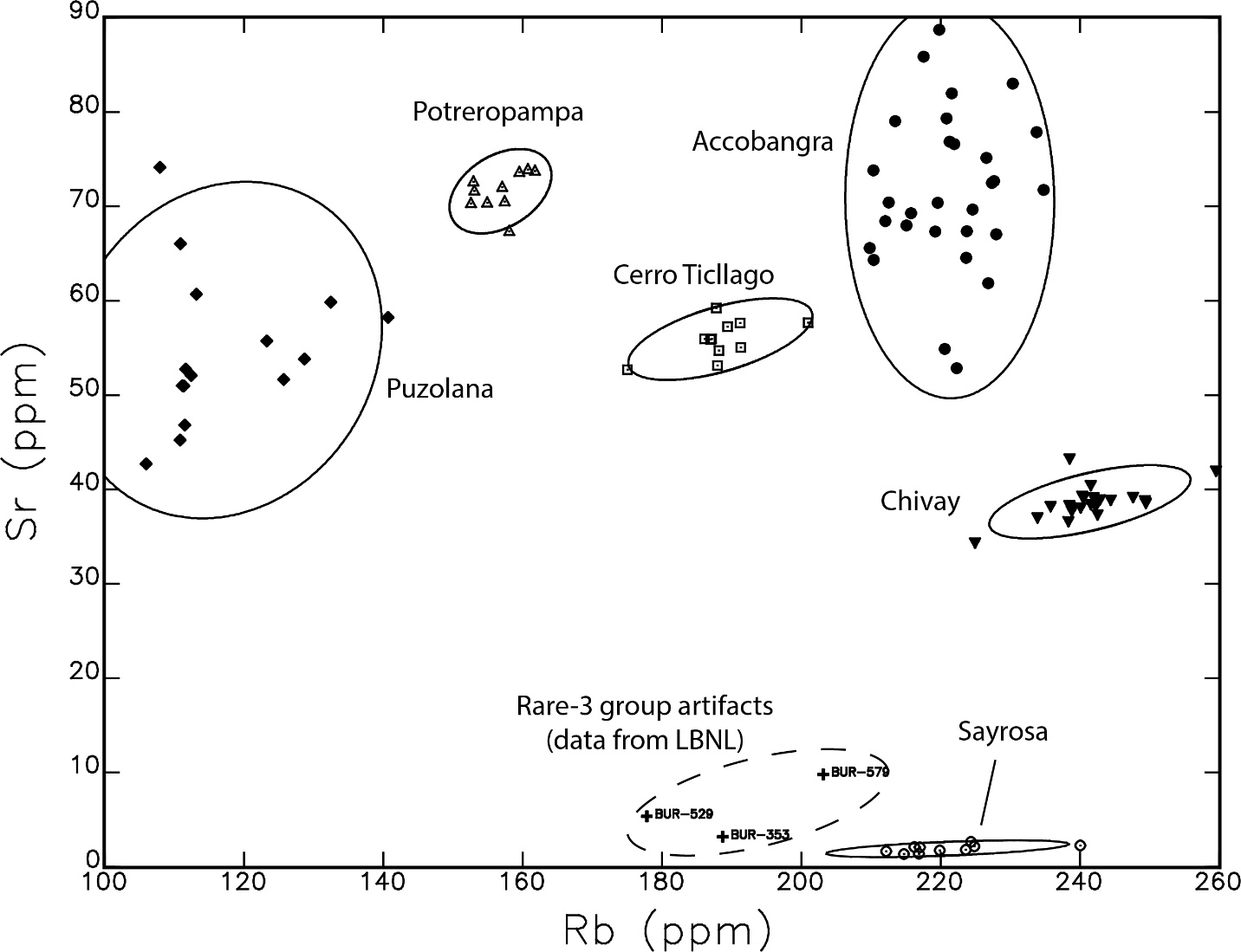


Figure 2. Scatterplot of NAA data for Cs and Hf for Rare-3 artifact BUR-35 analyzed at LBNL to sources in Peru analyzed at MURR.

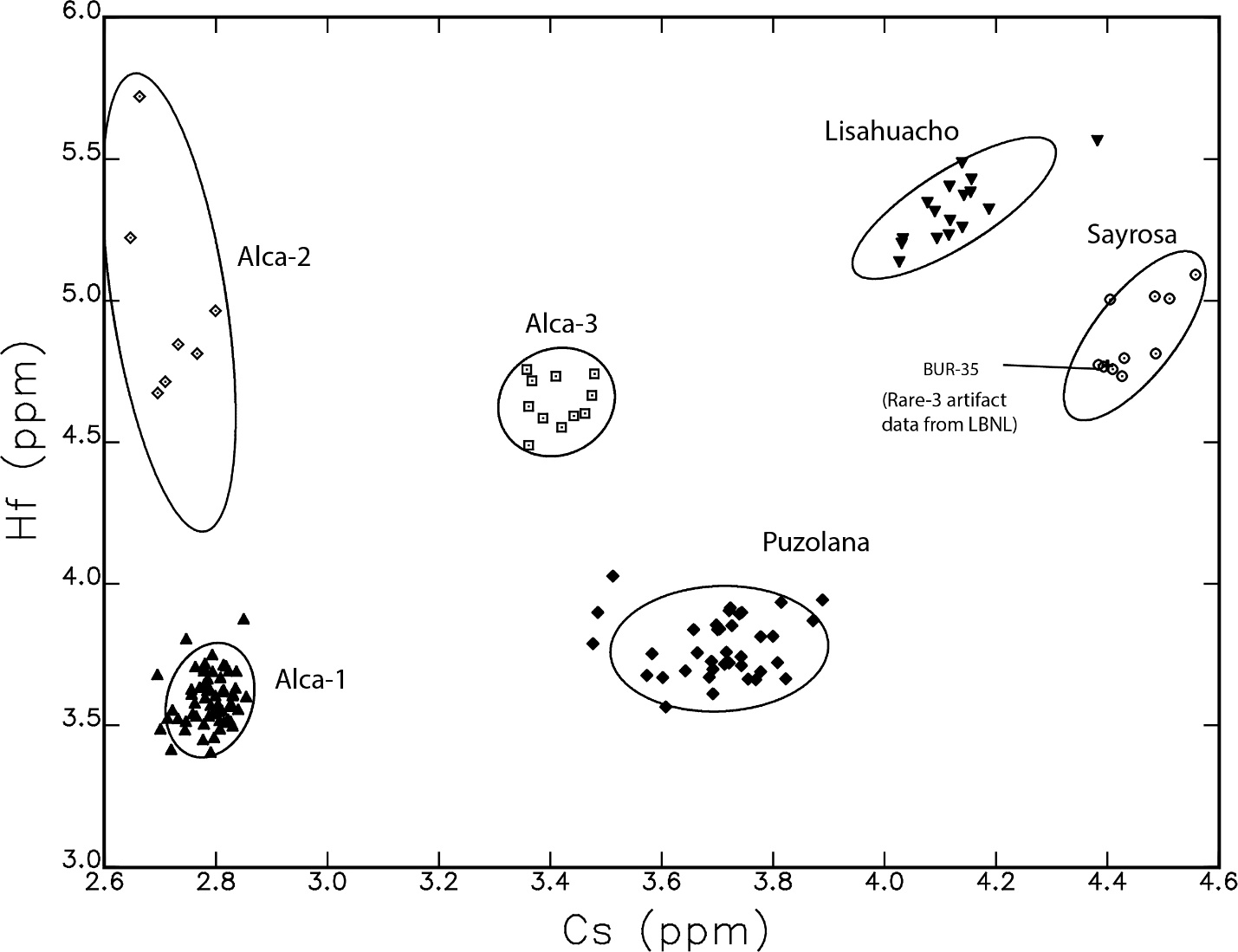


Table 1. Comparison of XRF results for three Rare-3 artifacts analyzed at LBNL to Sayrosa source samples analyzed at MURR.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Data from LBNL | | | Sayrosa (n=10) at MURR | | |
| Element | BUR-353 | BUR-529 | BUR-579 | mean & std. dev. | | |
| Mn (ppm) | 226 | 286 | 574 | 621 | ± | 54 |
| Fe (%) | 0.33 | 0.33 | 0.52 | 0.50 | ± | 0.04 |
| Zn (ppm) | 34 | 60 | 72 | 47 | ± | 3 |
| Rb (ppm) | 189 | 178 | 203 | 221 | ± | 8 |
| Sr (ppm) | 3.2 | 5.3 | 9.8 | 1.9 | ± | 0.4 |
| Y (ppm) | 22 | 21 | 32 | 22 | ± | 1 |
| Zr (ppm) | 98 | 101 | 138 | 102 | ± | 7 |
| Nb (ppm) | 17 | 15 | 27 | 20 | ± | 1 |

Table 2. Comparison of NAA results for Rare-3 artifact BUR-35 analyzed at LBNL to Sayrosa source samples analyzed at MURR.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Data from LBNL | Sayrosa (n=10) at MURR | | |
| Element | BUR-35 | mean & std. dev. | | |
| Na (%) | 3.30 | 3.18 | ± | 0.19 |
| Al (%) | nm | 6.76 | ± | 0.25 |
| Cl (ppm) | nm | 692 | ± | 102 |
| K (%) | 3.59 | 3.96 | ± | 0.31 |
| Sc (ppm) | 1.74 | 1.56 | ± | 0.03 |
| Mn (ppm) | 630 | 640 | ± | 11 |
| Fe (%) | 0.51 | 0.49 | ± | 0.01 |
| Co (ppm) | nm | 0.052 | ± | 0.02 |
| Zn (ppm) | nm | 43 | ± | 1 |
| Br (ppm) | nm | 1.59 | ± | 0.27 |
| As (ppm) | 2.3 | <5 | | |
| Rb (ppm) | 229 | 221 | ± | 2 |
| Sr (ppm) | 45 | <50 | | |
| Sb (ppm) | 0.22 | 0.24 | ± | 0.01 |
| Cs (ppm) | 4.40 | 4.45 | ± | 0.06 |
| Ba (ppm) | 9 | <15 | | |
| La (ppm) | 28.9 | 28.9 | ± | 0.4 |
| Ce (ppm) | 91.6 | 49.8 | ± | 1.1 |
| Sm (ppm) | 1.52 | 2.29 | ± | 0.13 |
| Eu (ppm) | 0.101 | 0.105 | ± | 0.005 |
| Tb (ppm) | nm | 0.23 | ± | 0.02 |
| Dy (ppm) | 1.58 | 1.64 | ± | 0.17 |
| Yb (ppm) | 1.50 | 1.41 | ± | 0.05 |
| Lu (ppm) | nm | 0.34 | ± | 0.01 |
| Hf (ppm) | 4.77 | 4.88 | ± | 0.14 |
| Ta (ppm) | 1.40 | 1.49 | ± | 0.04 |
| Th (ppm) | 30.3 | 28.6 | ± | 0.3 |
| U (ppm) | 6.8 | 7.6 | ± | 0.4 |