Table S5: Modelled mantle moderately siderophile element abundances compared to measured (nominal) abundances and their uncertainties from Palme and O'Neill (2014). We also report the relative error of modelled values to the measured values. Bold elements were used in the least squares fitting routine described in the text.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Nominal Values | Nominal Uncertainty | Relative Error (%) | Modelled Values\* | Relative Error (%) |
| Mantle |  |  |  |  |  |  |
| MgO | wt% | 36.77 | 0.37 | 1 | **37** | 1 |
| FeO | wt% | 8.1 | 0.05 | 1 | **8.08** | 0 |
| SiO2 | wt% | 45.4 | 3.178 | 7 | **45.6** | 0 |
| Ni | ppm | 1860 | 93 | 5 | **1930** | 4 |
| Co | ppm | 102 | 5.1 | 5 | **112** | 10 |
| Nb | ppb | 595 | 119 | 20 | **575** | 3 |
| Ta | ppb | 43 | 2.2 | 5 | **41** | 5 |
| V | ppm | 86 | 4.3 | 5 | **86.9** | 1 |
| Cr | wt% | 2520 | 252 | 10 | **2807** | 11 |
| *Reduced Chi Sq = 1.02* | | |  |  |  |  |
| \*fitted values in bold | |  |  |  |  |  |