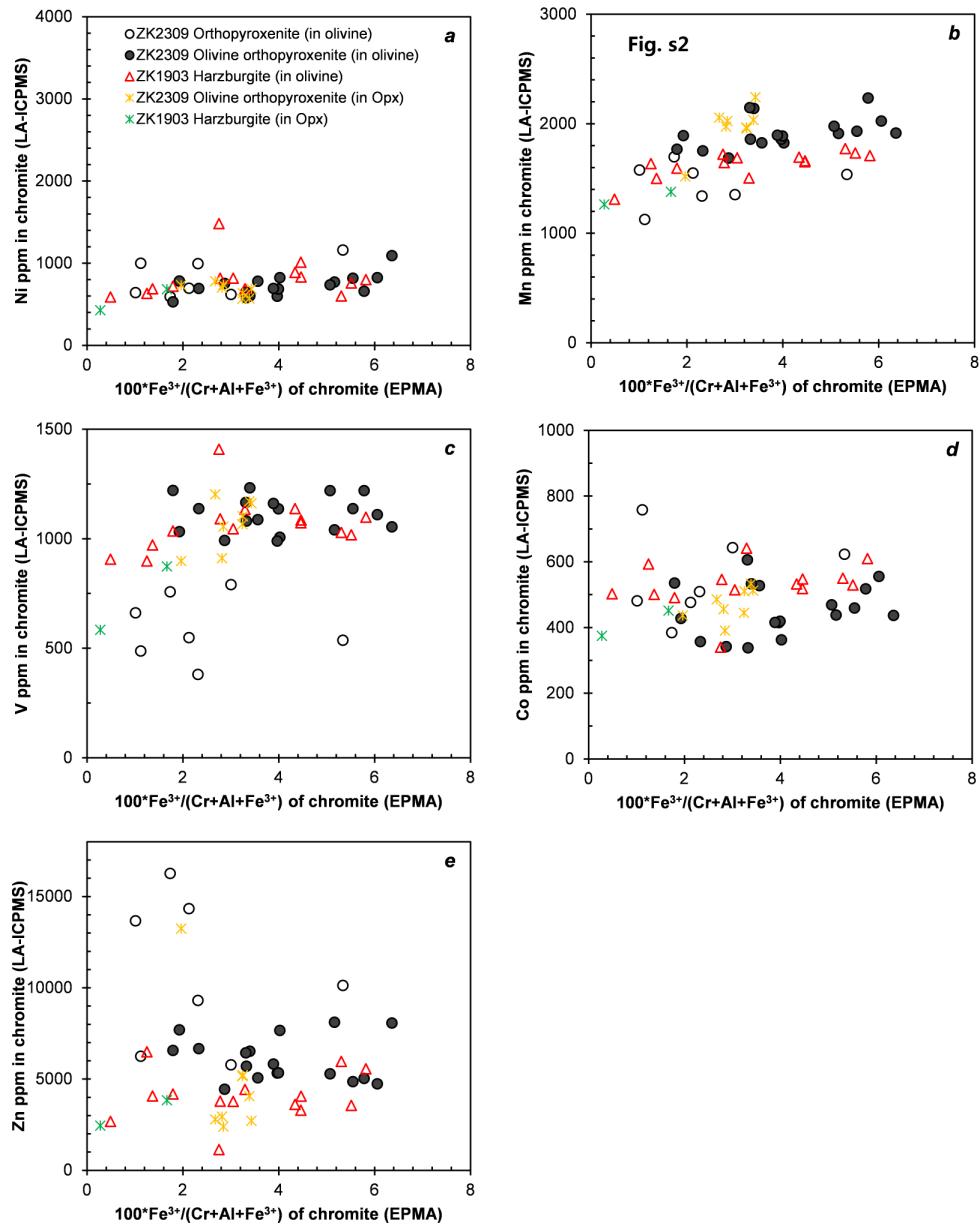
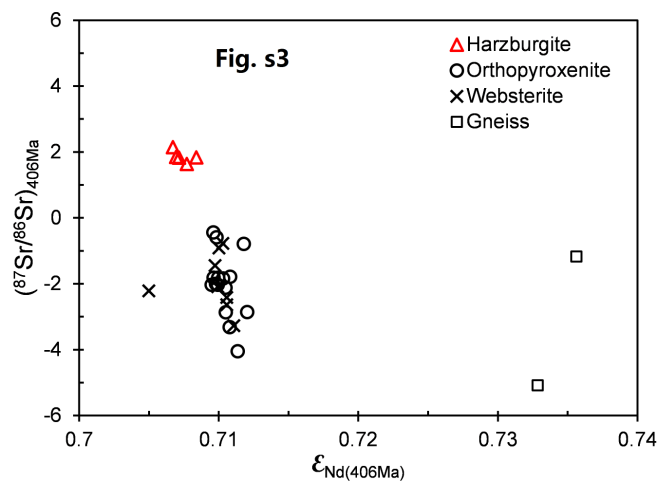


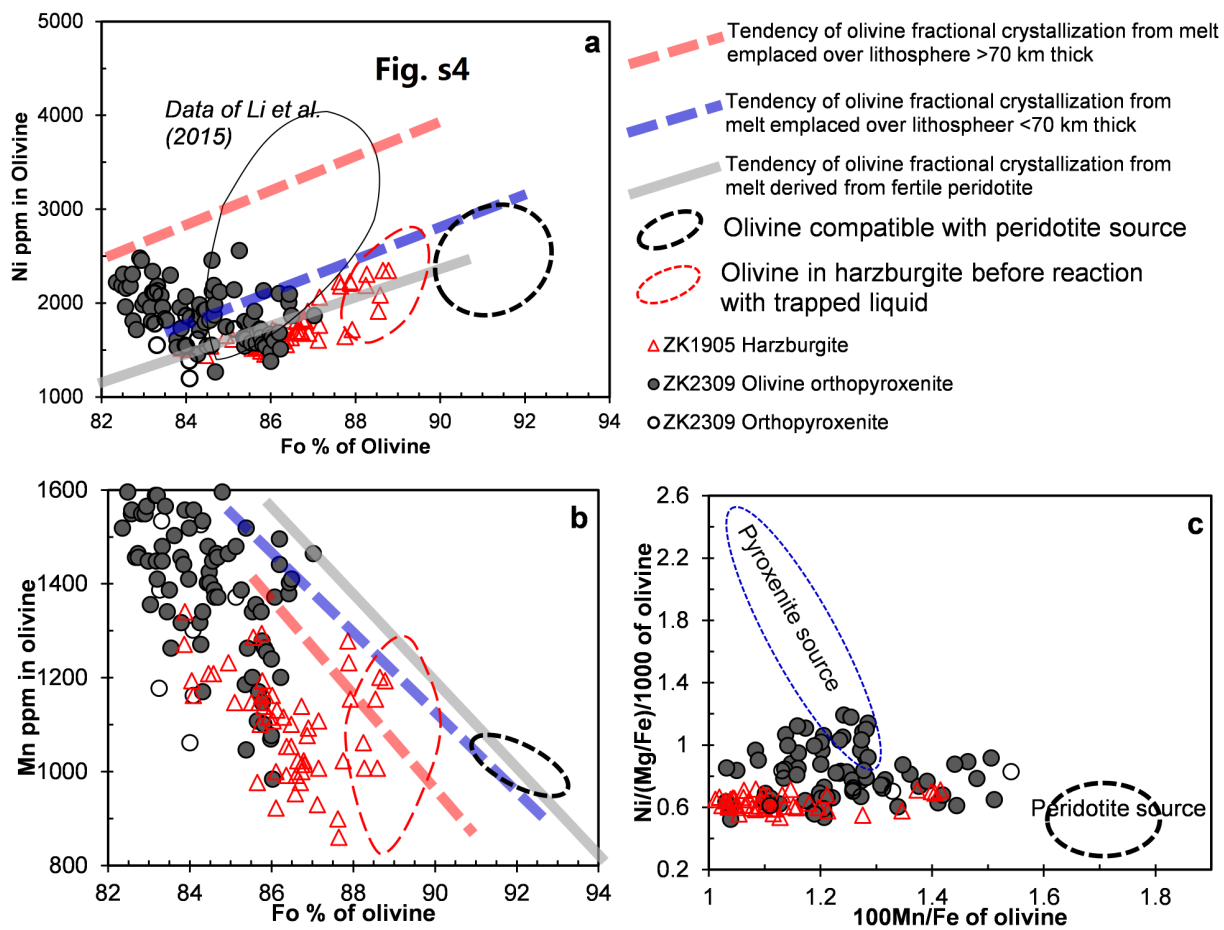
**SUPPLEMENTAL FIGURE S1.** Correlation diagrams for selected elements in the chromite measured by EPMA and LA-ICPMS.



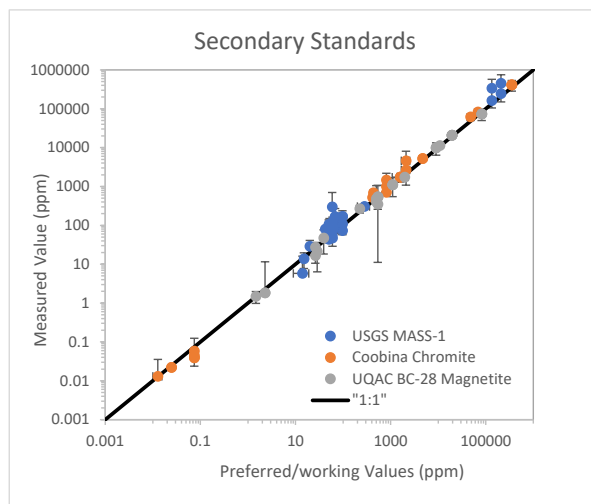
SUPPLEMENTAL FIGURE S2. Binary plots of  $100 \cdot \text{Fe}^{3+}/(\text{Fe}^{3+} + 1223 + \text{Cr} + \text{Al})$  vs. Ni (a), Mn (b), V (c), Co (d) and Zn (e) in the chromite.



**SUPPLEMENTAL FIGURE S3.** Correlation of Nd–Sr isotopes for the Xiarihamu ultramafic rocks and the gneiss surrounding the intrusion (data from Yi 2016).



**SUPPLEMENTAL FIGURE S4.** Correlations between fosterite percentage and concentrations of Ni (a) and Mn (b) of the olivine, as well as correlation of  $100 \times \text{Mn/Fe}$  vs.  $\text{Ni}/(\text{Mg/Fe})/1000$  of the olivine (Ni in ppm).



**SUPPLEMENTAL FIGURE S5.** A comparison between the measured values and the preferred/working values for the secondary standards. The USGS FeS pressed powder MASS-1 (n=8), the UQAC magnetite BC-28 (n=4) from the Bushveld Complex with working values from Barnes et al. (2004) and Dare et al. (2012) and an in-house chromite standard from the Coobina Chromite.