

Supplementary data

Table S1. Limits of detection (LoD) for the 8 minerals determined*

Mineral	LoD ($\mu\text{g}/100\text{g}$)
Ca	16.65
Mg	1.55
Cu	0.09
Mn	0.04
Zn	0.21
Fe	4.86
Mo	0.02
Se	0.69

* * The ICP-MS instrument was equipped with a MicroMistTM nebulizer (Glass Expansion, Port Melbourne, Australia), standard Peltier-cooled baffled cyclonic spray chamber, quartz torch and two-cone interface design (nickel sample and skimmer cones). High-purity (99.9997%) argon was used as the nebulizer and plasma gas. The ICP-MS instrument was operated under the following conditions: RF power, 1550 W; argon flow rate, 14 L/min; auxiliary argon flow rate, 0.8 L/min; nebulizer flow rate, 1.04 L/min.

Table S2. Results obtained from the analysis of the certified reference material BCR 679 (mean $\pm$ SD; $n=3$)

Element	Certified value $\pm$ uncertainty ($\mu\text{g}/\text{g}$)	Determined value $\pm$ standard deviation ($\mu\text{g}/\text{g}$)
Ca	7768 $\pm$ 655	7729 $\pm$ 186
Mg	1362 $\pm$ 127	1338 $\pm$ 36
Fe	55.0 $\pm$ 2.5	54.4 $\pm$ 4.2
Mn	13.3 $\pm$ 0.5	13.4 $\pm$ 0.5

Cu	2.89 ± 0.12	2.81 ± 0.22
Mo	14.8 ± 0.5	14.7 ± 0.1
Zn	79.7 ± 2.7	79.3 ± 4.0