

Table S1. Summary of LA-ICP-MS operating conditions.

ICP-MS	
Model	Thermo Elemental Plasma Quad3
Forward power	1380 W
Lens	VG CHICANE Lens
Ar gas flow rate	Cool 13.5 l/min Auxiliary 1.0 l/min Nebuliser 0.9–1.1 l/min
He gas flow rate	0.7–0.8 l/min
N ₂ gas flow rate	0.8 ml/min
Expansion pump	S-option
Scanning mode	Peak jump
Integration time	20 sec
Monitor isotope	²⁰² Hg, ²⁰⁴ Pb, ²⁰⁶ Pb, ²⁰⁷ Pb, ²⁰⁸ Pb, ²³² Th, ²³⁸ U
Standard	NIST SRM610
Laser ablation	
Model	New Wave Research UP213
Laser type	UV 213 nm (frequency quintupled Nd-YAG-Laser)
Energy density	11–13 J/cm ²
Crater size	30 μm
Repetition rate	10 Hz
Preablation	3 s
Carrier gas	He
Focus	Fixed focus on sample surface