

SUPPLEMENTAL MATERIAL

Villa Bosio Supplement Captions

Supplemental Material: Tables S1, S2, Figure S1.

Table S1. Complete Ar isotope data. All Ar isotopes are given in mL/g. All uncertainties (labelled unc) are 1 sigma. TGA is the total gas age, PR39 is the percent release of ³⁹Ar.

Table S2. Electron microprobe data. Elements are given in wt% and in apfu (atoms per formula unit, normalized to 22 oxygens).

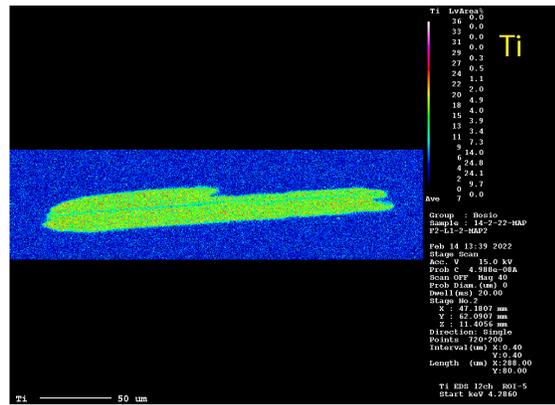
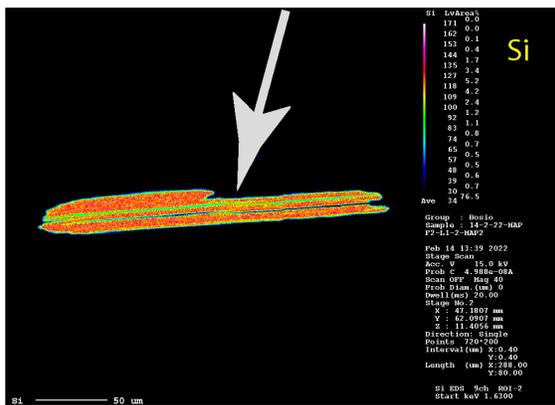
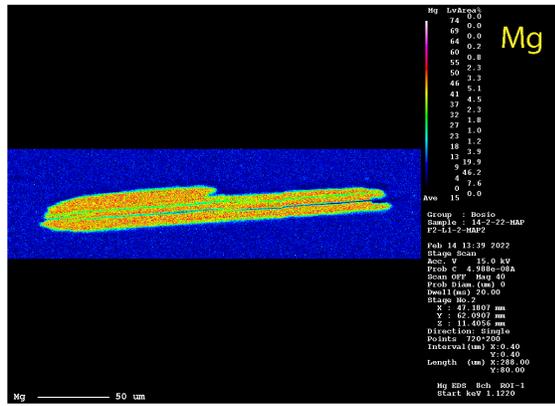
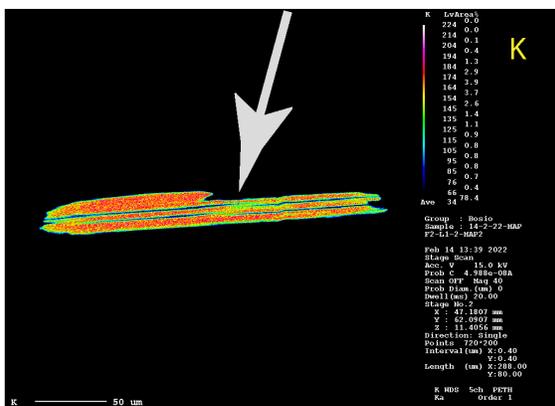


Figure S1a

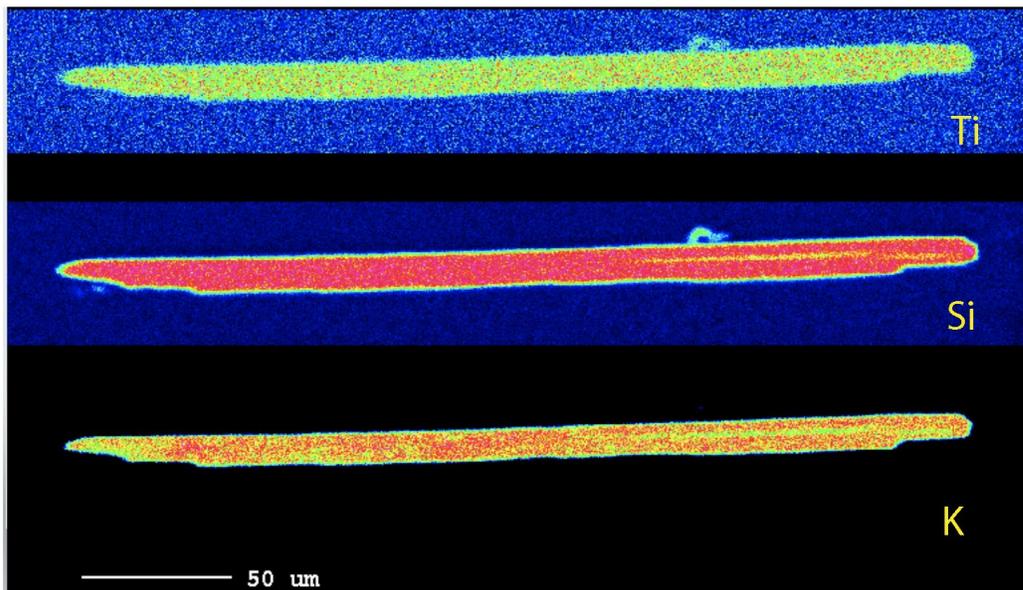


Figure S1b

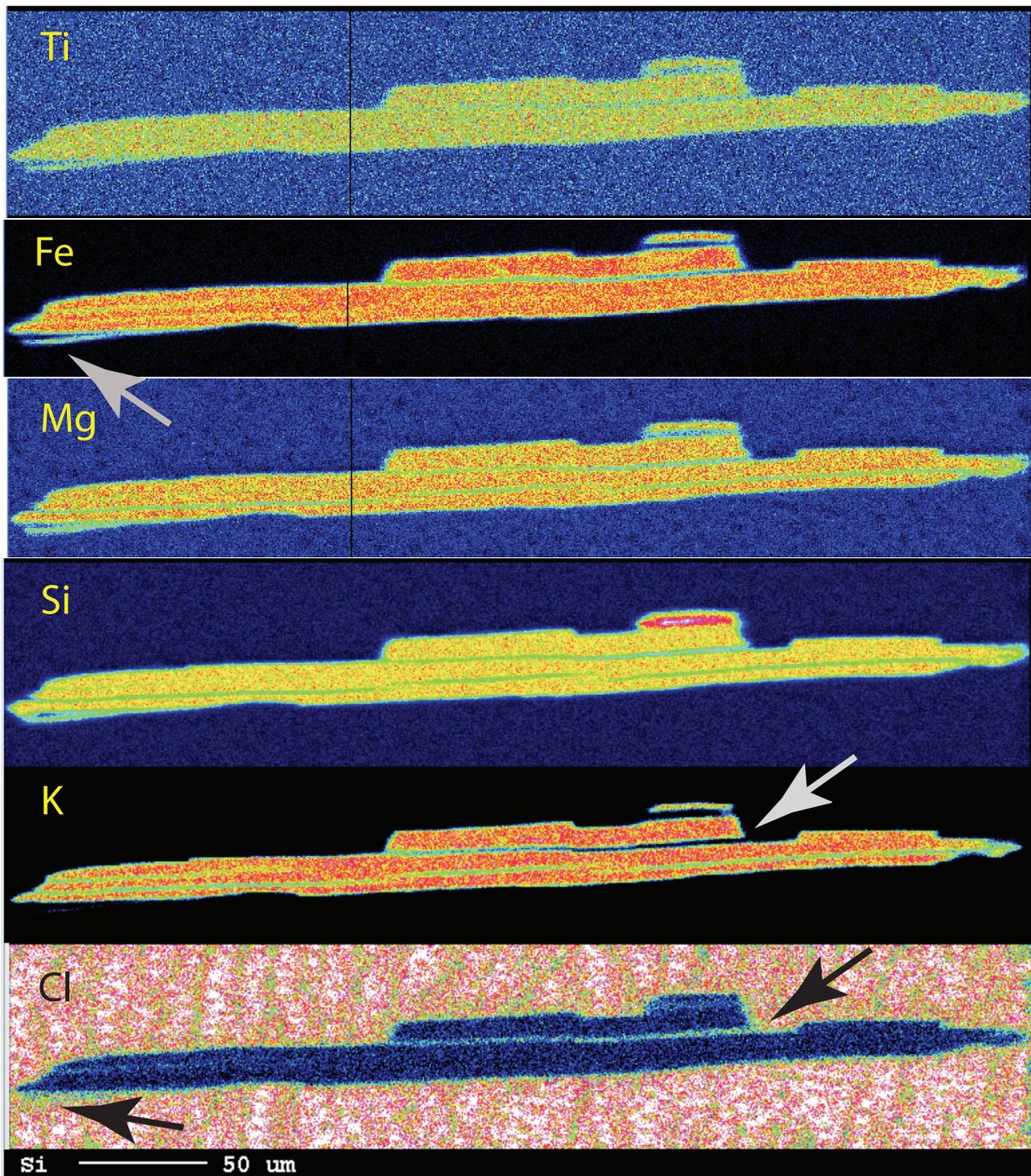


Figure S1c

Figure S1. Additional element maps. (a) Grain B.2.2. The Si map shows two prominent bands parallel to the (001) plane corresponding to cleavage planes. The arrow marks a ca. 30 μm patch, not seen in the Si map, depleted in K that connects, but is distinct from, two cleavage planes. (b) Grain B.2.8. The K map is markedly different from the Ti and Fe maps, in that the entire grain shows numerous cloudy patches with 0-20% K loss. (c) grain B.2.10. The arrow on the left marks a part of the crystal evident in the Ti, Si, Mg and Fe maps, but completely depleted of K and strongly enriched in Cl. The arrow on the right marks a surface parallel to (001), barely visible in the first four maps, strongly depleted in K and enriched in Cl. The correlation between K depletion and Cl enrichment, also visible in Fig. 2, denounces a local alteration patch at the (sub-) μm scale.