



JOURNAL OF
SYNCHROTRON
RADIATION

Volume 25 (2018)

Supporting information for article:

**A compact and flexible induction furnace for in-situ X-ray
microradiography and computed microtomography at Elettra:
design, characterisation and first tests**

**Marko Kudrna Prašek, Mattia Pistone, Don R. Baker, Nicola Sodini, Nicoletta
Marinoni, Gabriele Lanzafame and Lucia Mancini**

Figure S1 (a) A selection of radiographic images and (b) the corresponding temperature calibration curve at ambient pressure using materials with known melting points: Borax ($\text{Na}_2\text{B}_4\text{O}_7$; 1020 K; green diamonds), Au (1337 K; red triangles) and Cu (1358 K, red squares). Empty blue circles and empty orange squares indicate temperature readings during two different calibrations at the TomoLab station. Temperature uncertainty is ± 5 K and is the size of the symbols.

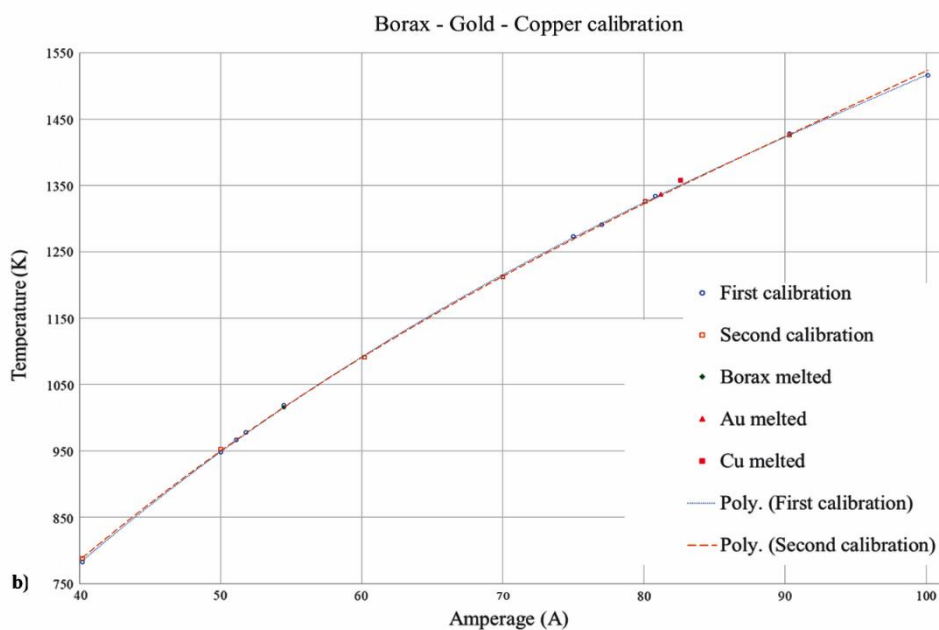
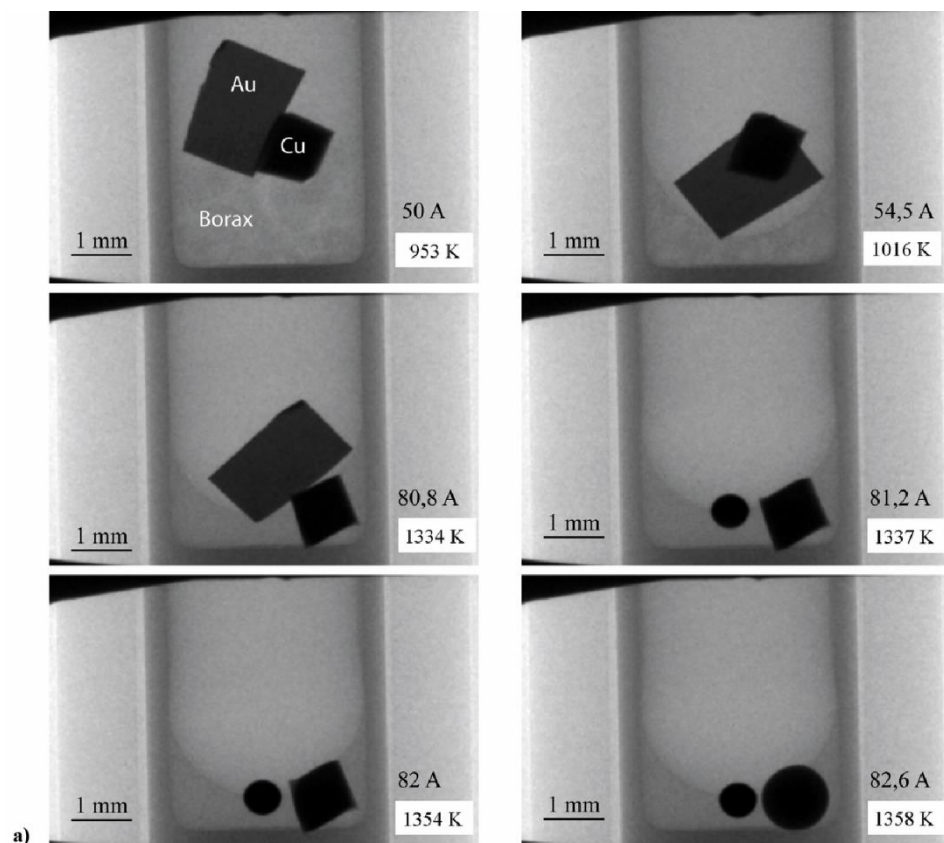
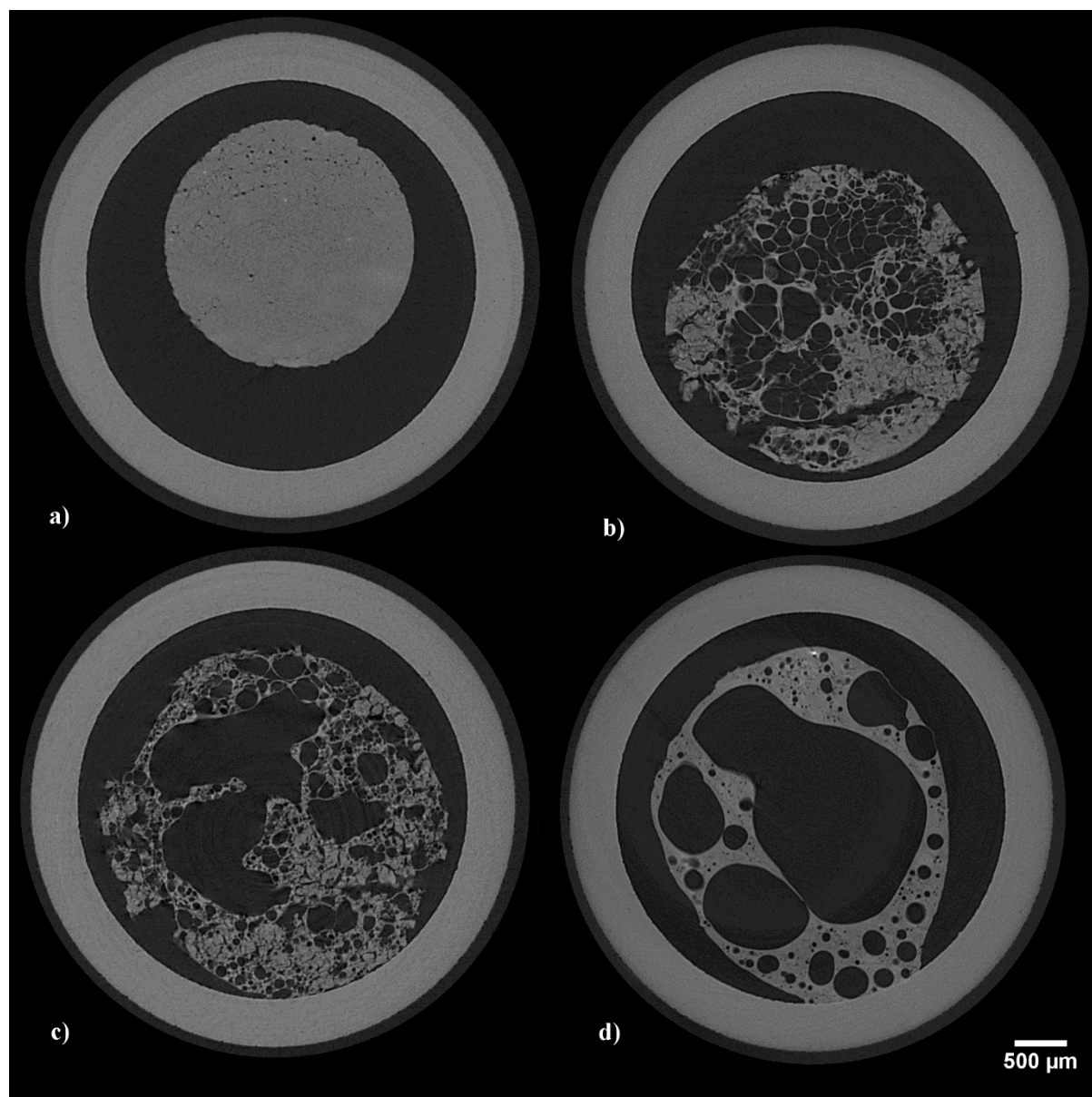


Figure S2 Supplementary figure showing reconstructed axial slices of sample *F60b* after ex situ μ CT experiments performed in the TomoLab station: a) at room temperature before heating, and at room temperature after quenching at b) 1073 K, c) 1373 K and d) 1673 K. The sample was kept at each temperature for 10 minutes and then quenched by switching off the furnace.



Movie S1 Supplementary movie showing a sequence of *in situ* X-ray microradiographs acquired at the SYRMEP beamline during temperature calibration (see details in section 2.4).

Movie S2 Supplementary movie showing a sequence of *in situ* X-ray microradiographs acquired at the TomoLab station during temperature calibration (see details in section 2.4).

Movie S3 Supplementary movie representing concatenated sequences of *in situ* X-ray microradiographs acquired at the SYRMEP beamline for sample *F60a* during each phase of sample heating and quenching following the temperature ramps detailed in section 3.3.