

Supplementary Material Figures S1 and S2

Aspects of the Bi_8Te_3 lamellae in the mounted chip and the location of samples extracted for nanoscale study.

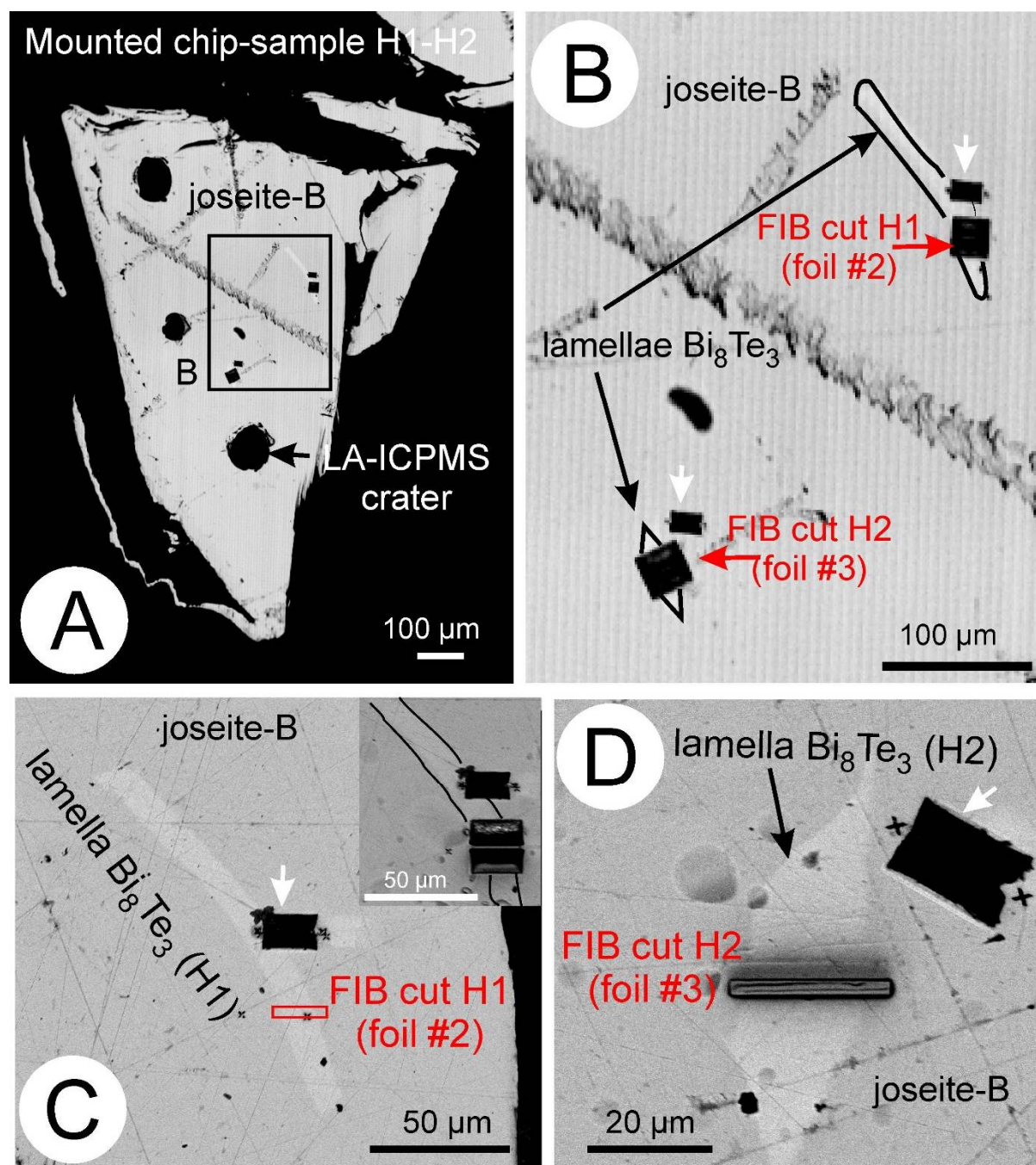


Figure S1. Back scatter electron images showing the mounted chip sample (H1-H2) comprising joesite-B with lamellae of Bi_8Te_3 . (A) Overview of the mounted chip. White arrows show location of FIB cuts from Ciobanu et al. (2009) [2]. The vertical stripes on A and B are artifacts of the images cropped from a larger image. (B) Detail of the area with the two lamellae (rectangle marked in A) showing location of the FIB cuts. (C,D) Details of areas of interest from (B) showing the exact position of the FIB cuts across the width of each Bi_8Te_3 lamella.

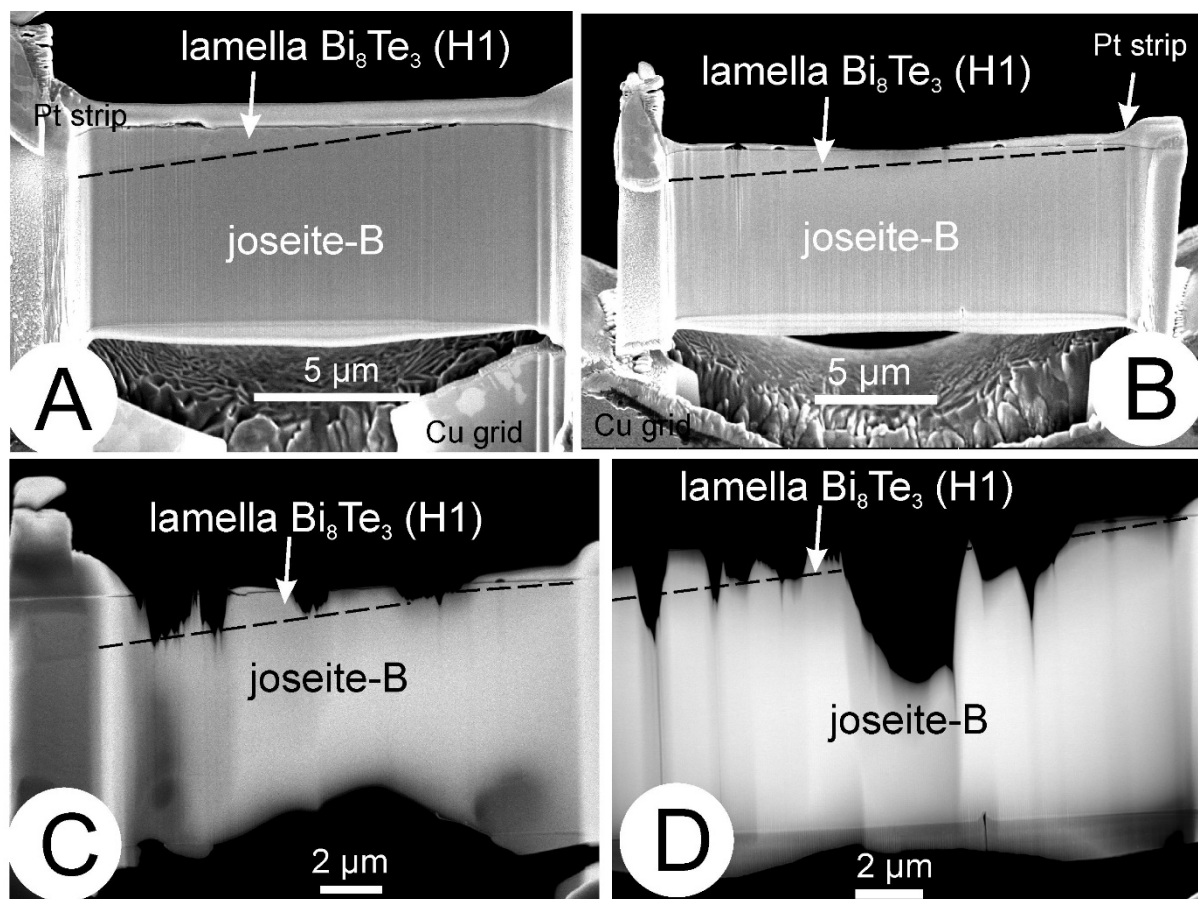


Figure S2. (A,B) Secondary electron images (A,B) showing the FIB slices mounted on the copper grids at the beginning of thinning. Note that the Bi_8Te_3 occurs as thin (few μm -wide lamellae) at the top of joesite-B. (C,D) HAADF STEM images showing foils #2 and #3, respectively, which were analysed at the nanoscale. The orientation of both Bi_8Te_3 and joesite-B is quasi-horizontal. Figure 4 in the main text was rotated for the purpose of comparison with data from foil #1.