

Supplemental Materials

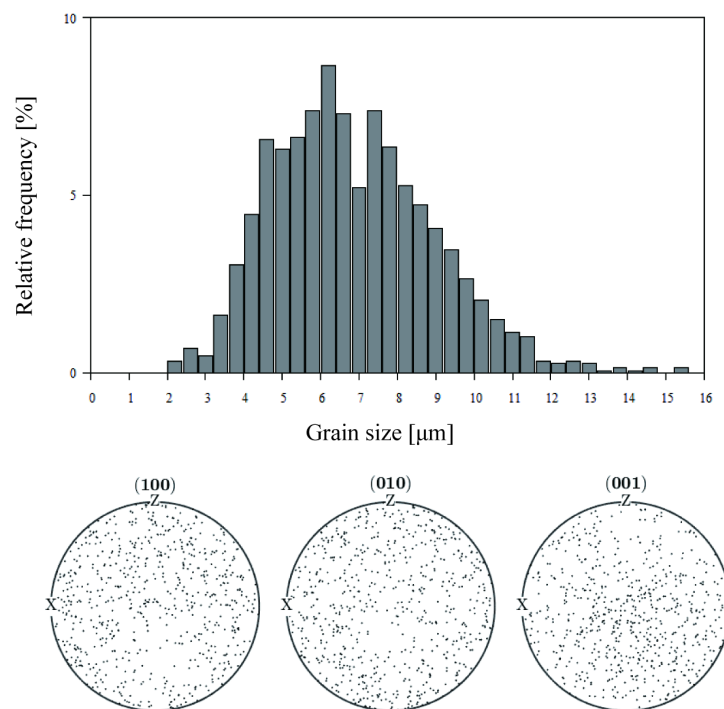


Figure S1. Grain size distribution and pole figure of an initial sample acquired by EBSD.

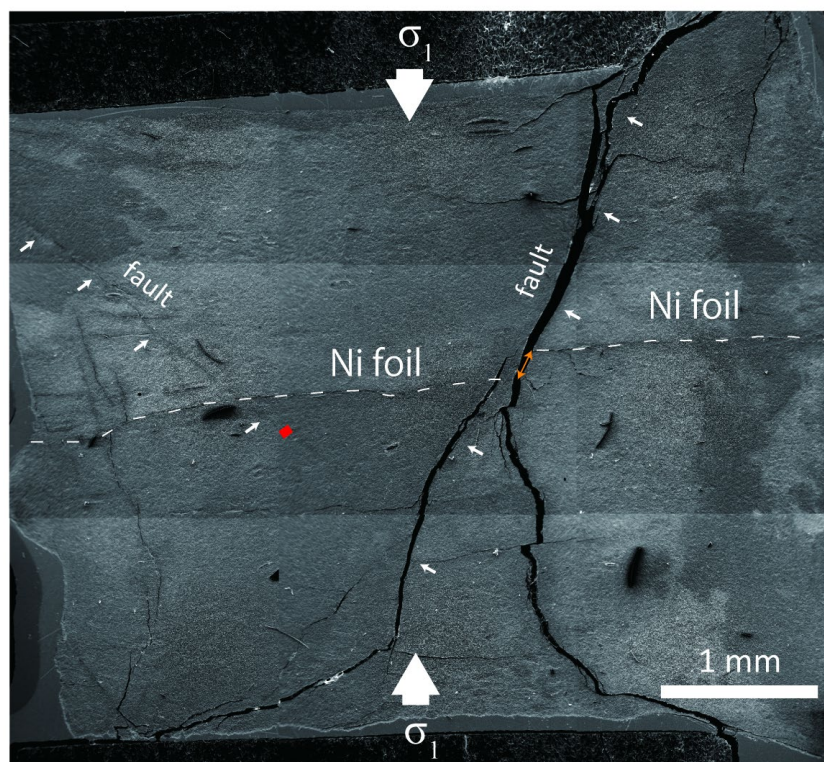


Figure S2. A whole SEM image of GO126. A large and small fault run along the northeast-southwest and the northwest-southeast diagonal (shown by white arrows), respectively. An orange arrow shows the fault offset. The FIB foil was extracted from the red rectangle.

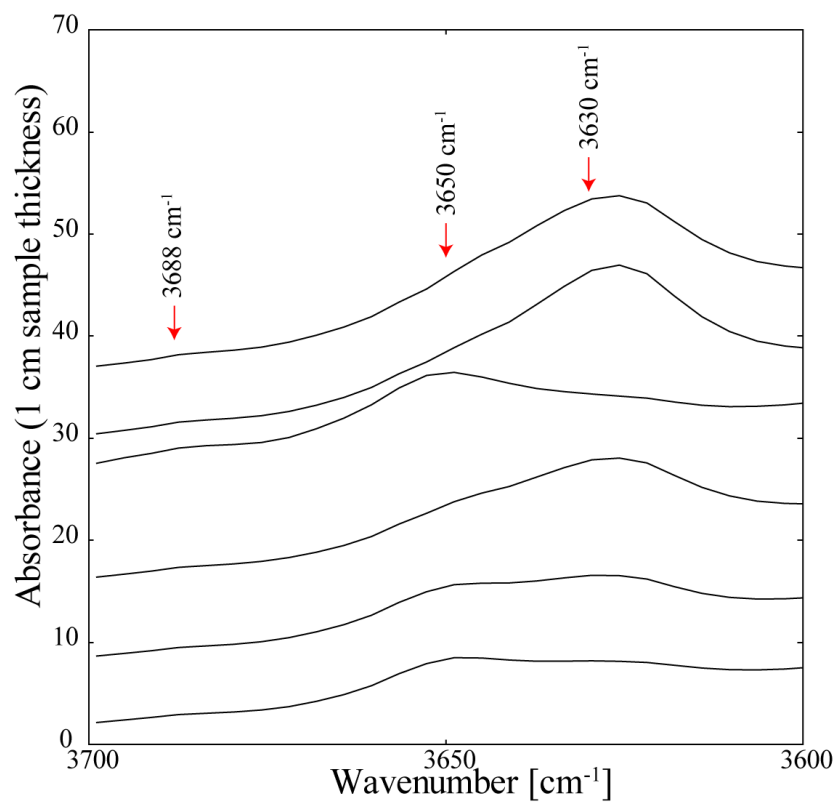


Figure S3. The transmitted infrared spectra of GO125 from 3600 to 3700 cm^{-1} . An absorption peak at 3630 cm^{-1} is assigned to an OH-band of germanate antigorite, whereas absorption peaks of 3650 and 3688 cm^{-1} are assigned to the OH-band originated from the germanate spinel phase.

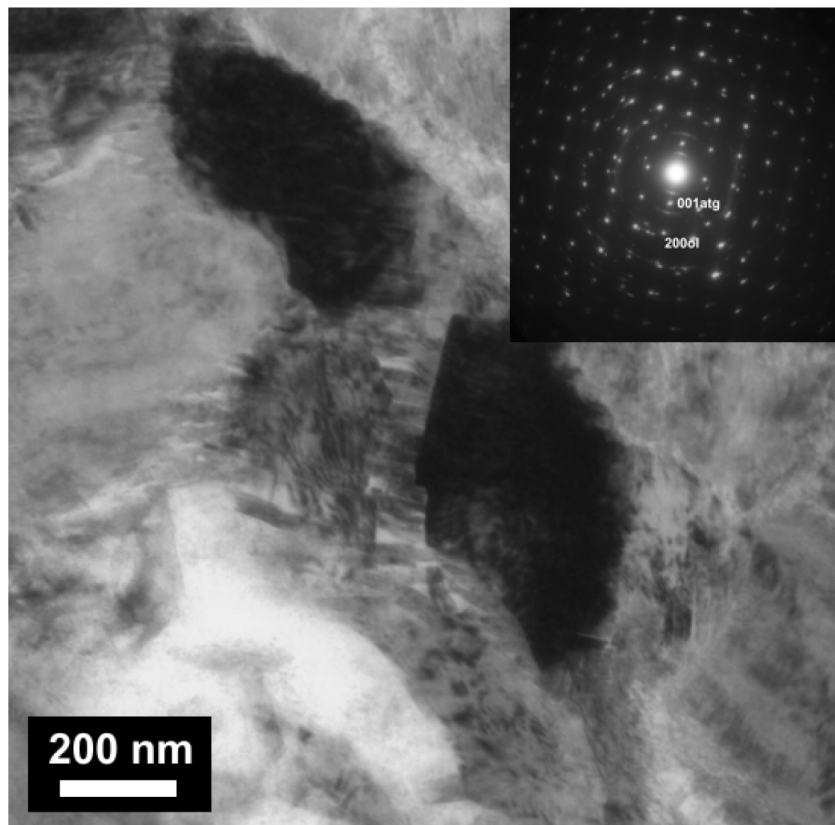


Figure S4. Bright field TEM image and the selected area electron diffraction (SAED) pattern (Inset) corresponding to Figure 4c (by 90° degrees to the right). The SAED pattern shows topotactic relations between the parent black-colored germanate olivine (ol) grains and the germanate antigorite (atg) platelets (between black-colored grains).