



Figure S3 BSE, TEM images and XFe^{3+} estimates for mylonite ZA16-133 and little deformed sample ZA16-79. (a) Location of FIB section in a BSE image of sample ZA16-133. (b) TEM view of alternating chlorite crystallites in ZA16-133 with XFe^{3+} estimates. (c) Iron raw spectra for Chl1 and Chl2 along the FIB section and corresponding XFe^{3+} estimates. (d) BSE image of the location of FIB section in sample ZA16-79. (e) TEM view of the FIB section. Yellow squares: frames for EELS analyses at TEM. Yellow lines: profiles analysed by EELS and STXM. (f) Raw iron spectra for Chl1 and Chl2 along profiles and XFe^{3+} estimates for Chl1 and Chl2.