



FIGURE S1. Microphotograph in cross-polarized light **(a)** and back scattered electron image **(b)** showing metasomatic texture of olivine-rich (Ol+Cpx) vein crosscutting orthopyroxene. The olivines from the veins have higher Ca, Al and Cr, lower Ti contents than those in matrix. The detailed interpretation about this metasomatic reaction is referred to Su et al., (2016a).