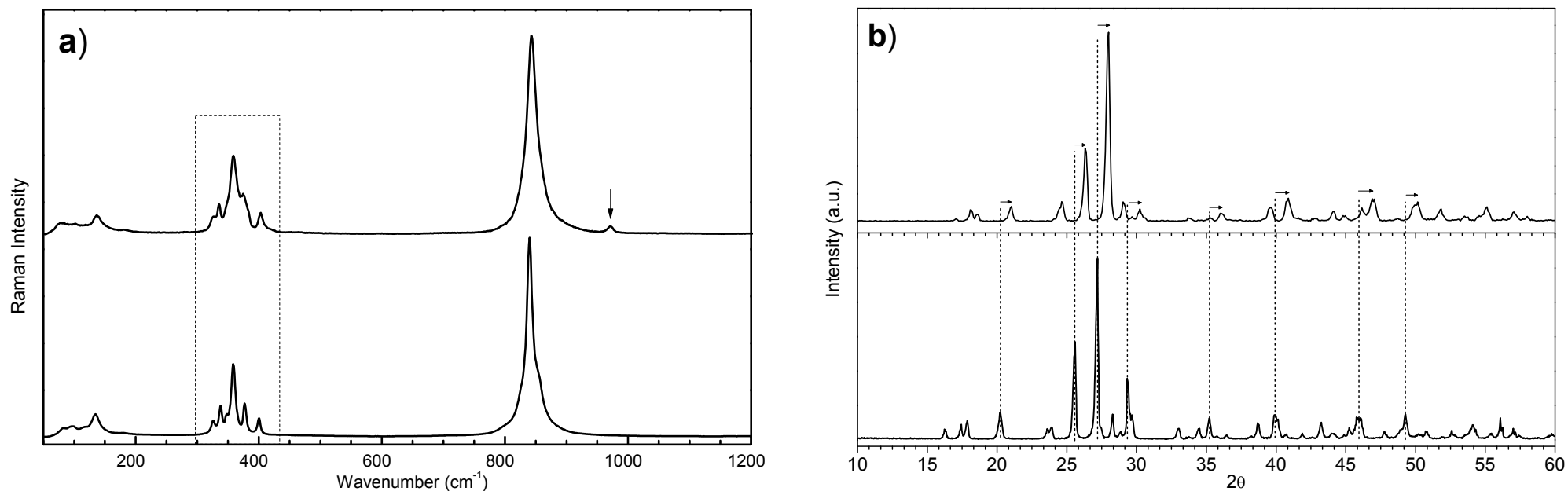


## Supplementary Material



**Fig. A.1** **a)** Raman spectra of PbCrO<sub>4</sub> below and Pb(Cr,S)O<sub>4</sub> on top, and **b)** Diffractograms of PbCrO<sub>4</sub> below and Pb(Cr,S)O<sub>4</sub> on top (JCPDS: 01-73-1332). The differences due to the introduction of sulfur ions in the crystalline structure of crocoite may be observed. See text for more details.