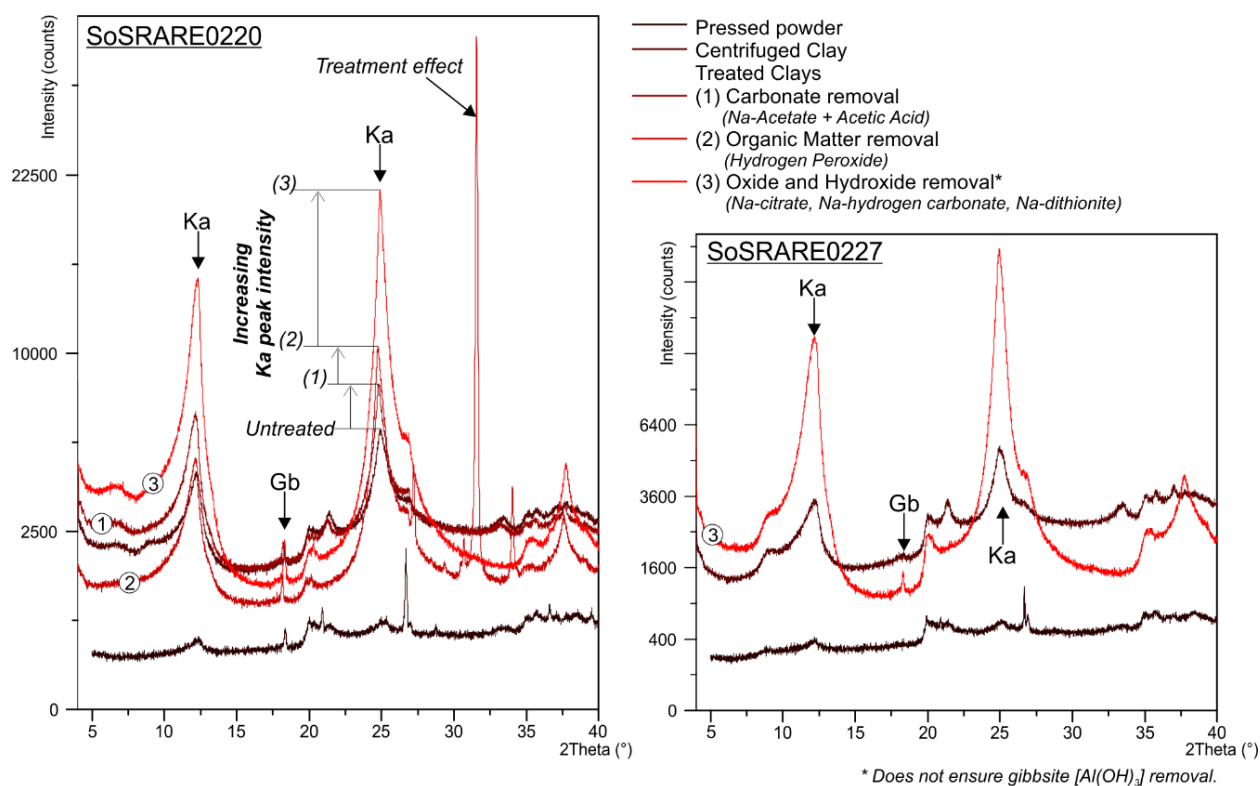
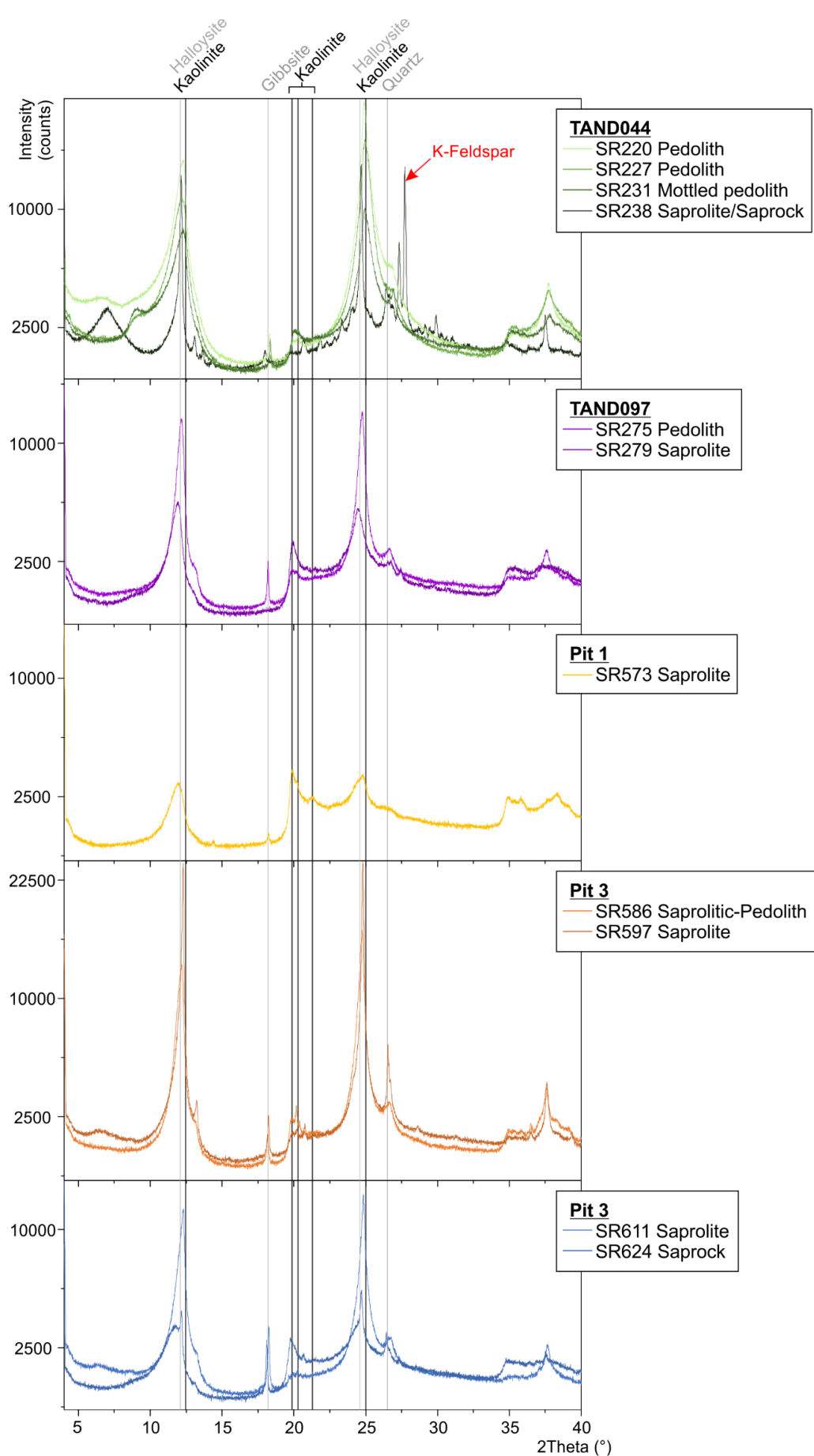
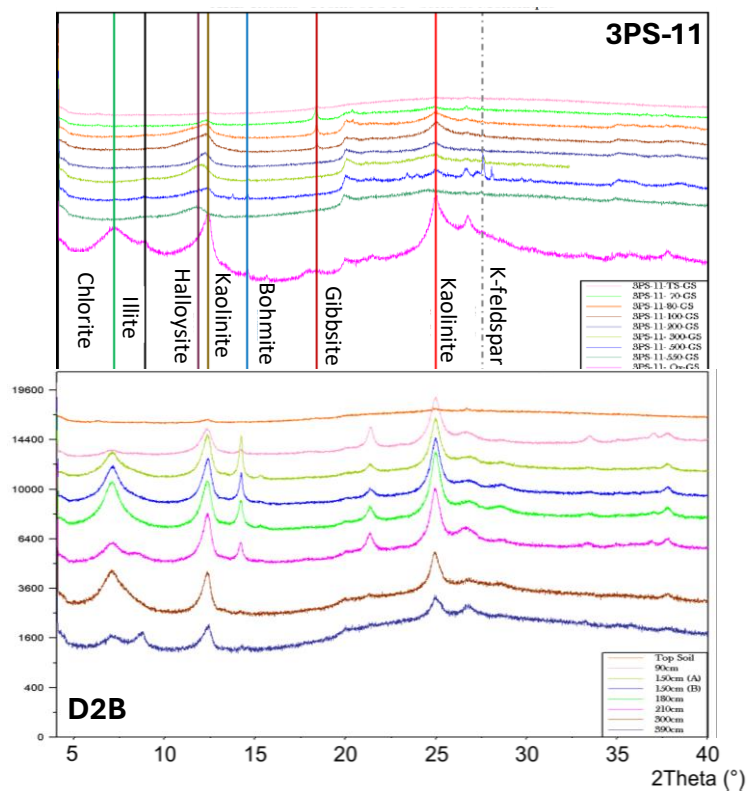




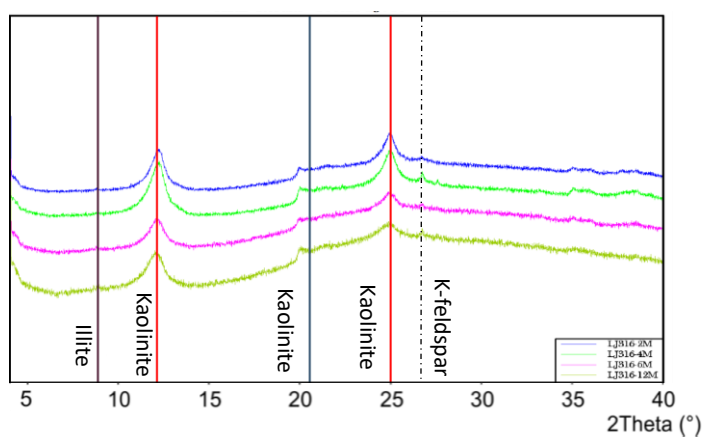
Supplementary Figure 1: XRD spectra of untreated, centrifuged clay fraction and chemically purified kaolinite separates for samples SR220 and SR227 Ambohimirahavavy, Madagascar. Abbreviations: Ka, Kaolinite; Gb, Gibbsite.



Supplementary Figure 2: XRD spectra for orientated clay samples of purified kaolinite separates analysed for $\delta^{18}\text{O}$ and δD , Ambohimirahavavy, Madagascar.



Supplementary Figure 3: XRD spectra for orientated clay samples of purified kaolinite separates analysed for $\delta^{18}\text{O}$ and δD from Monchique, Portugal.



Supplementary Figure 4: XRD spectra for orientated clay samples of purified kaolinite separates analysed for $\delta^{18}\text{O}$ and δD from ZhaiBei, China.