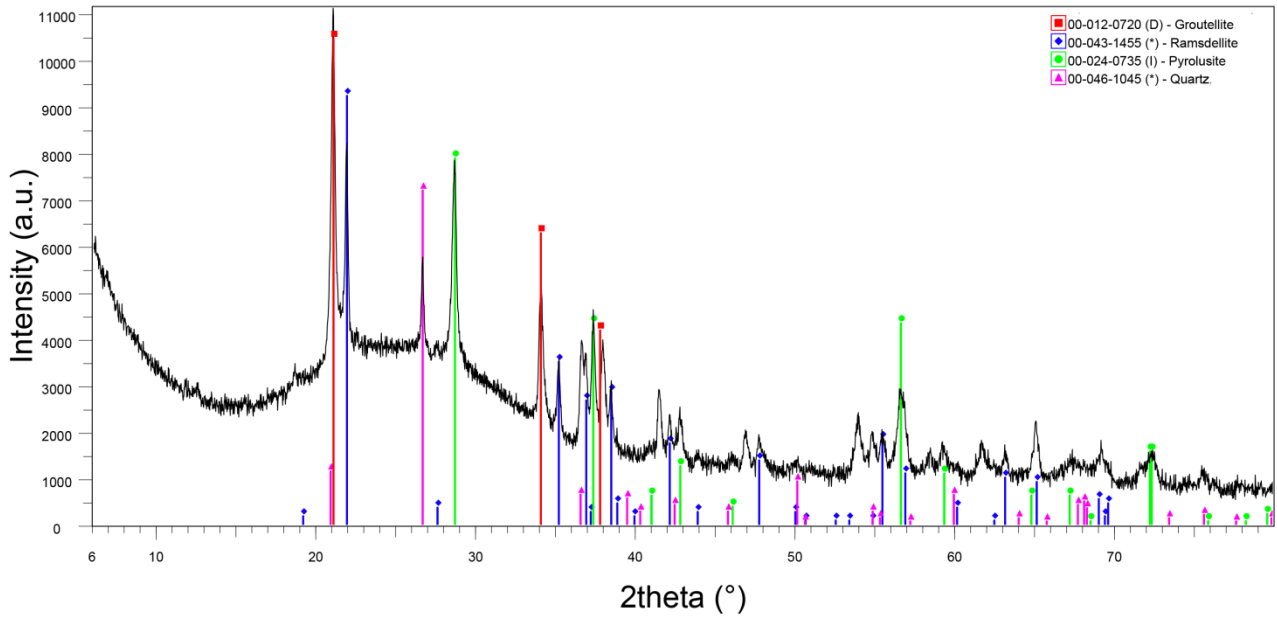
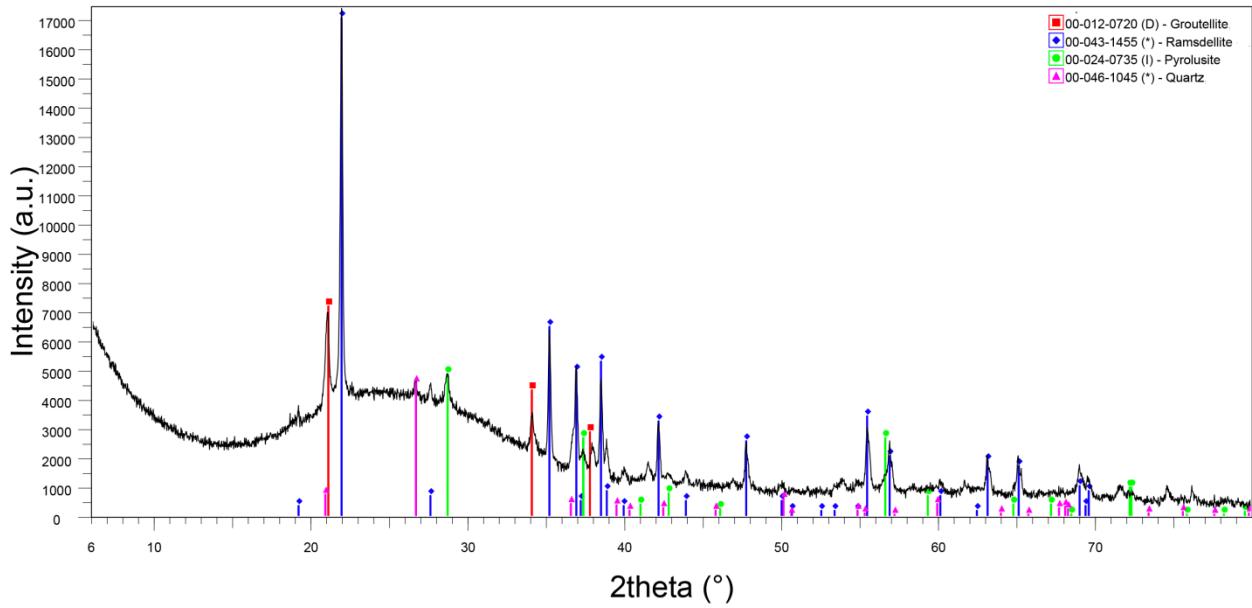


Figure S1. SEM images of sample G5502 (A) and sample G5695 (B)

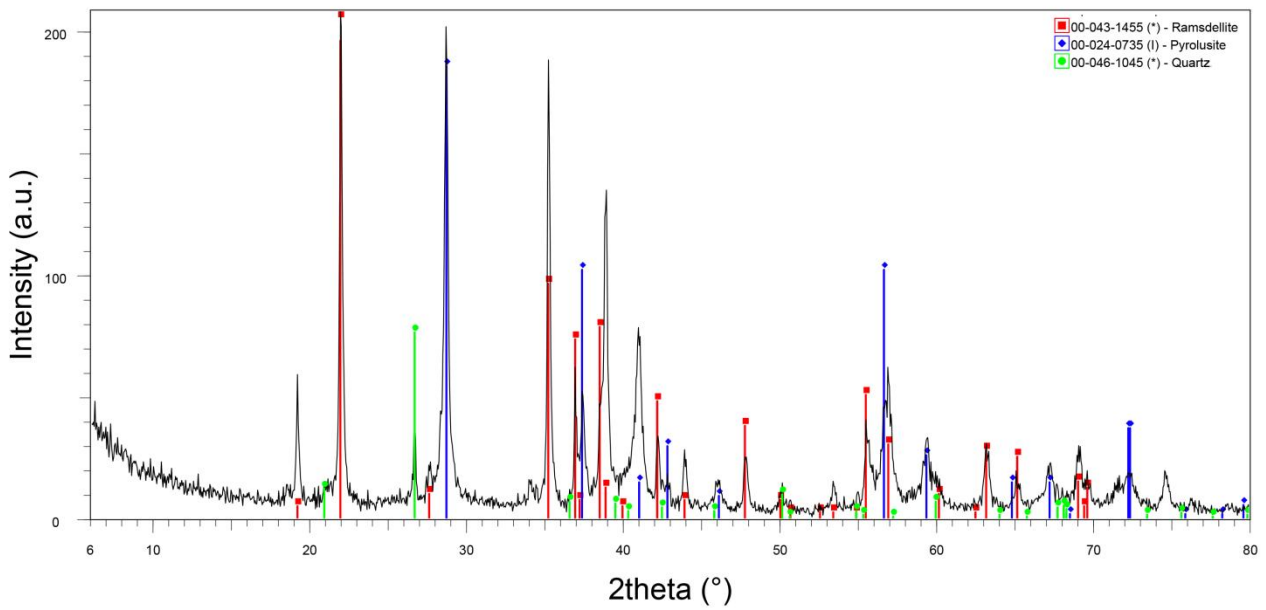
G5502



G5695



G5502 600K



G5502 673K

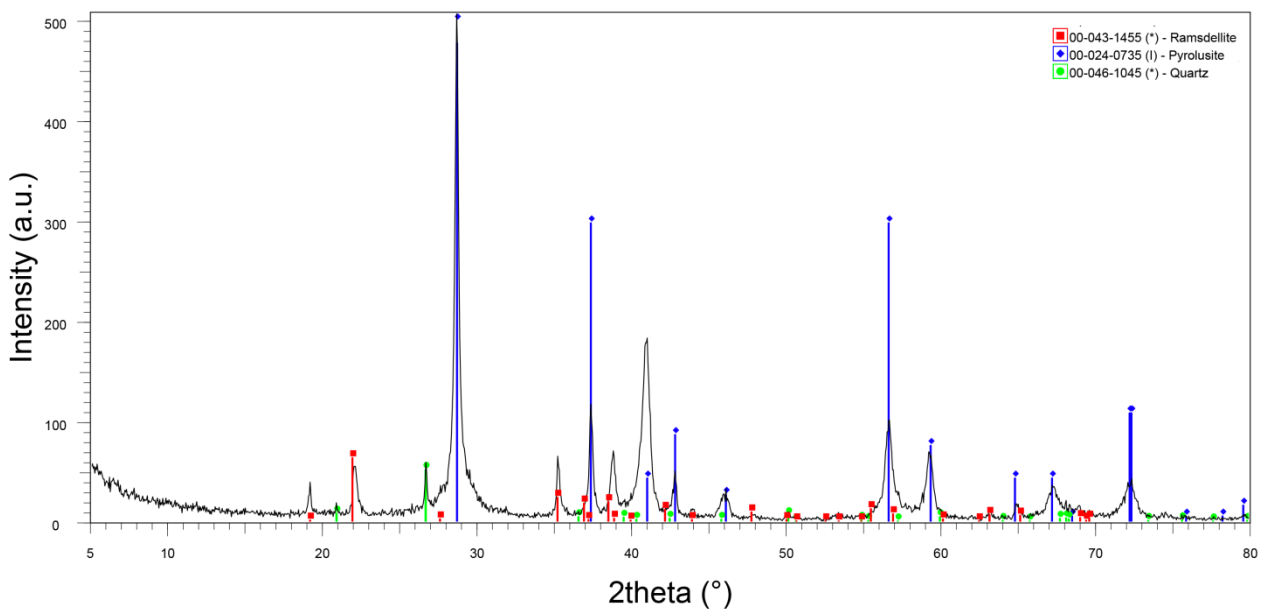


Figure S2 XRPD data of the investigated samples. Vertical colored bars identify the reflections of the various phases as listed by the relevant PDF.

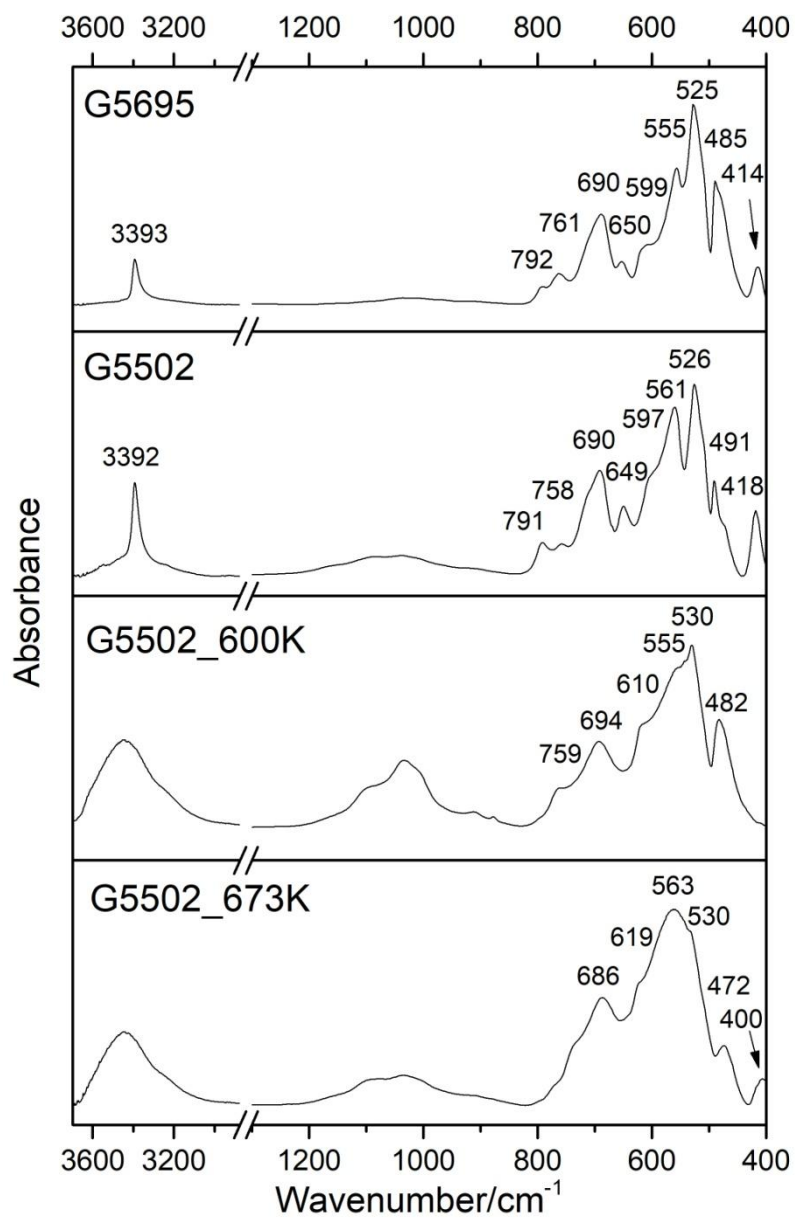


Figure S3 FT-IR spectra of the investigated samples

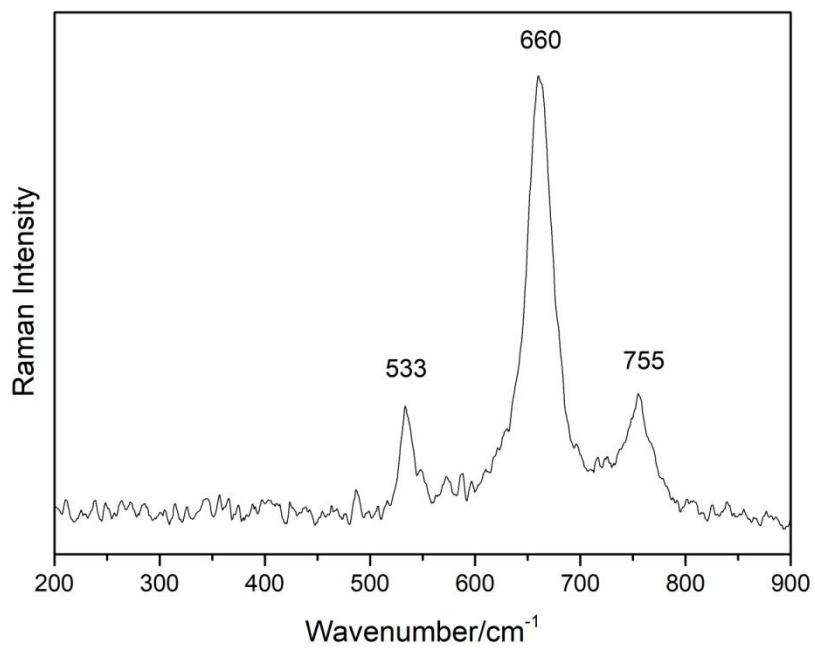


Figure S4 Raman spectra of pyrolusite collected on sample G5502. Spectra collected at $\lambda = 532$ nm, laser power 1.15 mW