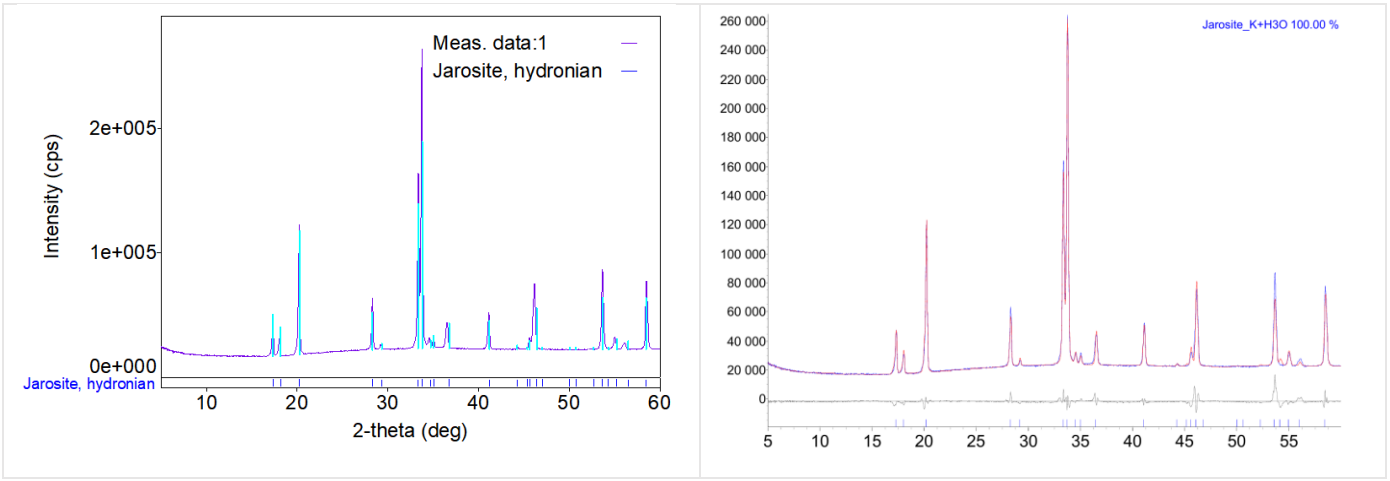
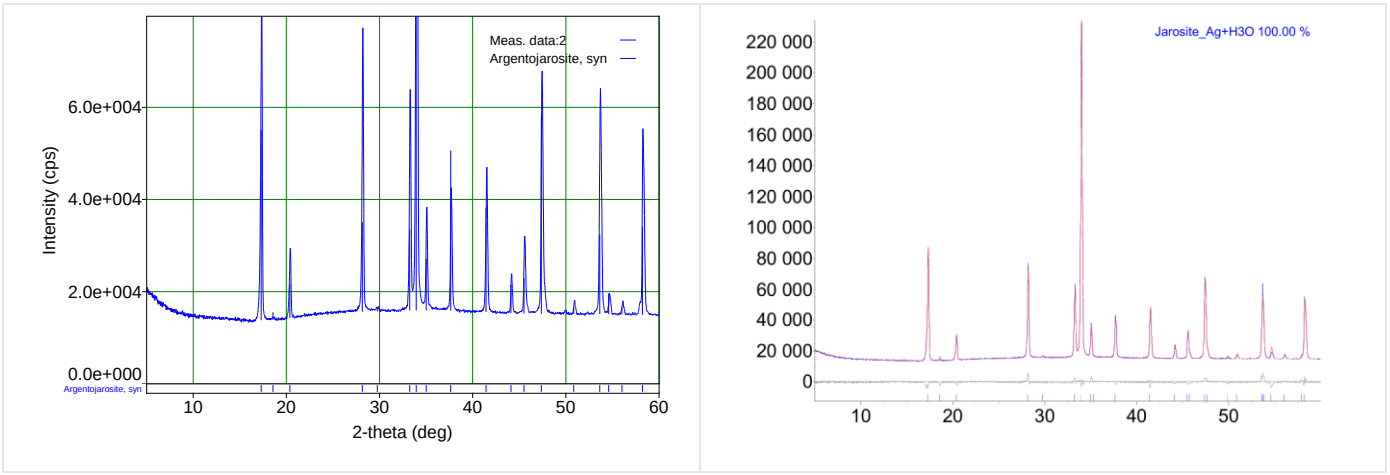


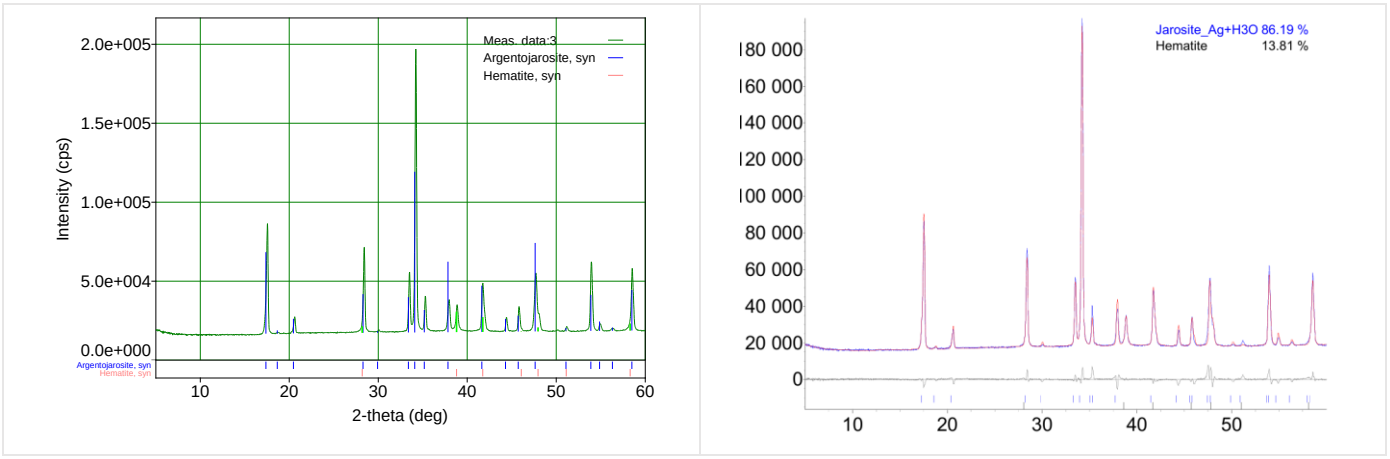
(**a**) (**b**)

Figure S1. X-ray diffraction analysis of potassium jarosite from the first series of experiments (T = 120 °C, time = 300 min): (**a**) via PDXL2 program using X-ray PDF mineral databases.; (**b**) via Topas 5 program using the Rietveld method



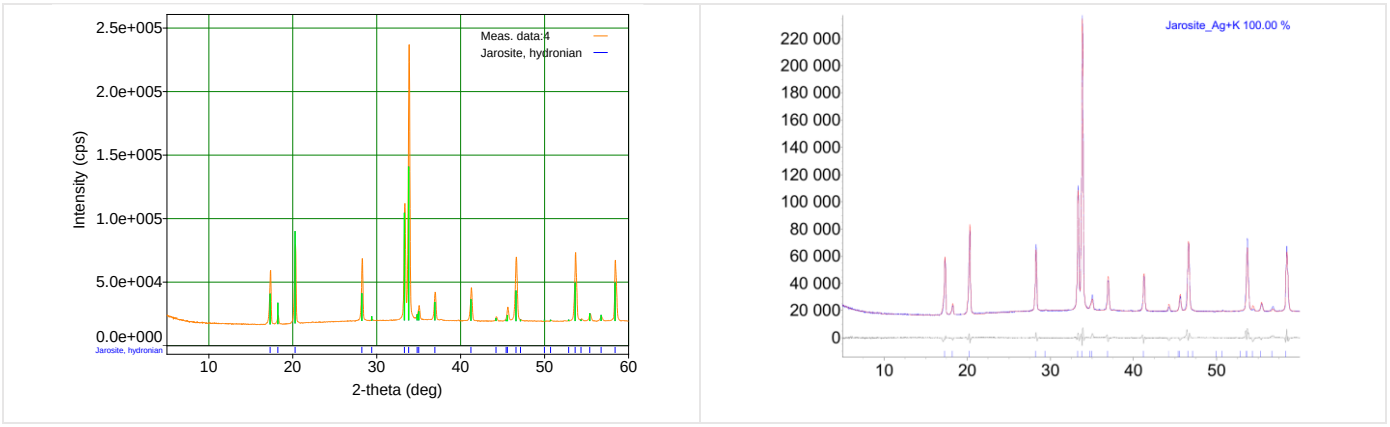
(**a**) (**b**)

Figure S2. X-ray diffraction analysis of argentojarosite from the second series of experiments (T = 120 °C, time = 300 min): (**a**) via PDXL2 program using X-ray PDF mineral databases.; (**b**) via Topas 5 program using the Rietveld method



(**a**) (**b**)

Figure S3. X-ray diffraction analysis of argentojarosite from the second series of experiments (T = 200 °C, time = 120 min): (**a**) via PDXL2 program using X-ray PDF mineral databases.; (**b**) via Topas 5 program using the Rietveld method



(**a**) (**b**)

Figure S4. X-ray diffraction analysis of potassium and silver jarosite from the third series of experiments (T = 120 °C, time = 300 min): (**a**) via PDXL2 program using X-ray PDF mineral databases.; (**b**) via Topas 5 program using the Rietveld method