

# Supplementary Documentation

Rietveld fits to the x-ray diffraction data for the series  $\text{PbTi}_{(1-x)}\text{Fe}_x\text{O}_{(3-\delta)}$  at room temperature.

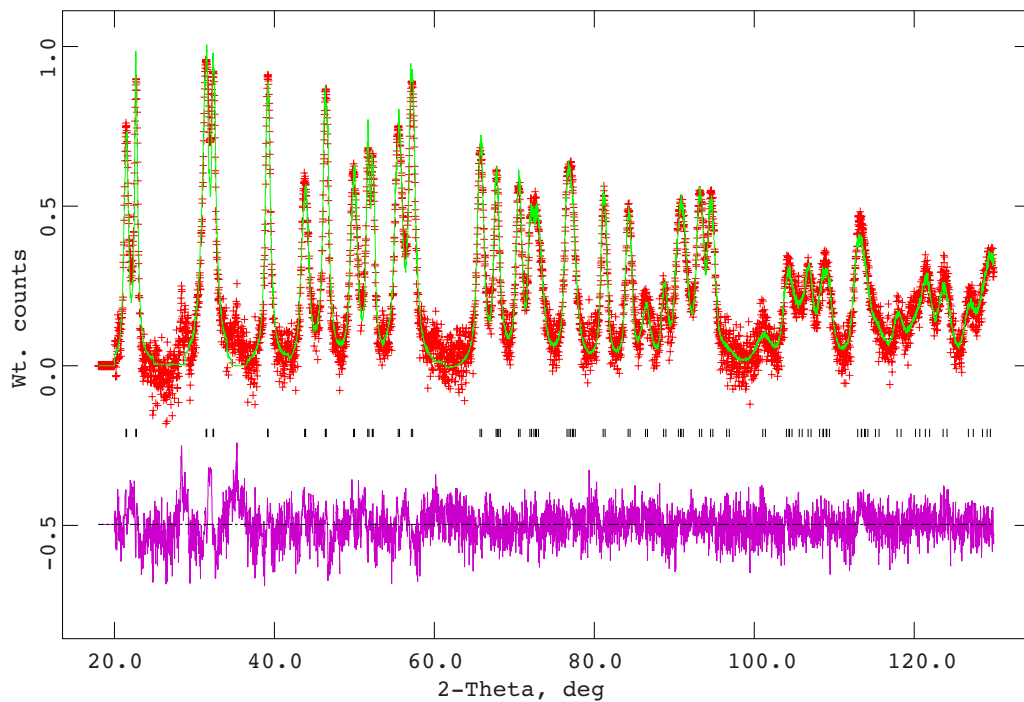


FIG S1: GSAS fit for  $x = 0$ : experimental data (red crosses), fit (green), reflections (black tics), and residual (violet).

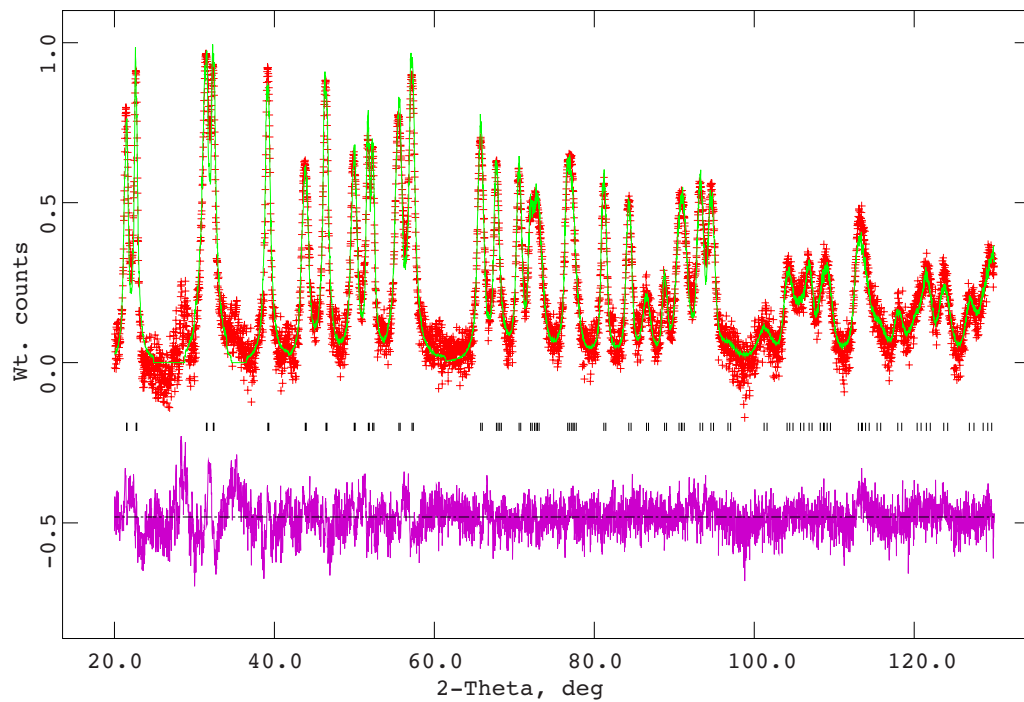


FIG S2: GSAS fit for  $x = 0.005$ : experimental data (red crosses), fit (green), reflections (black tics), and residual (violet).

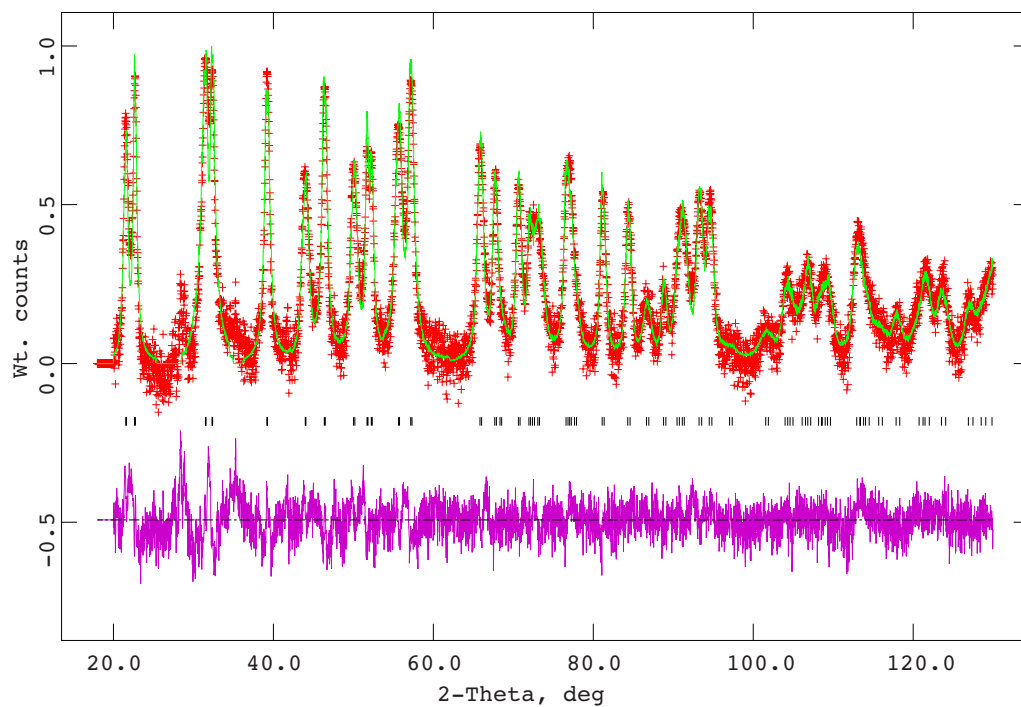


FIG S3: GSAS fit for  $x = 0.01$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).

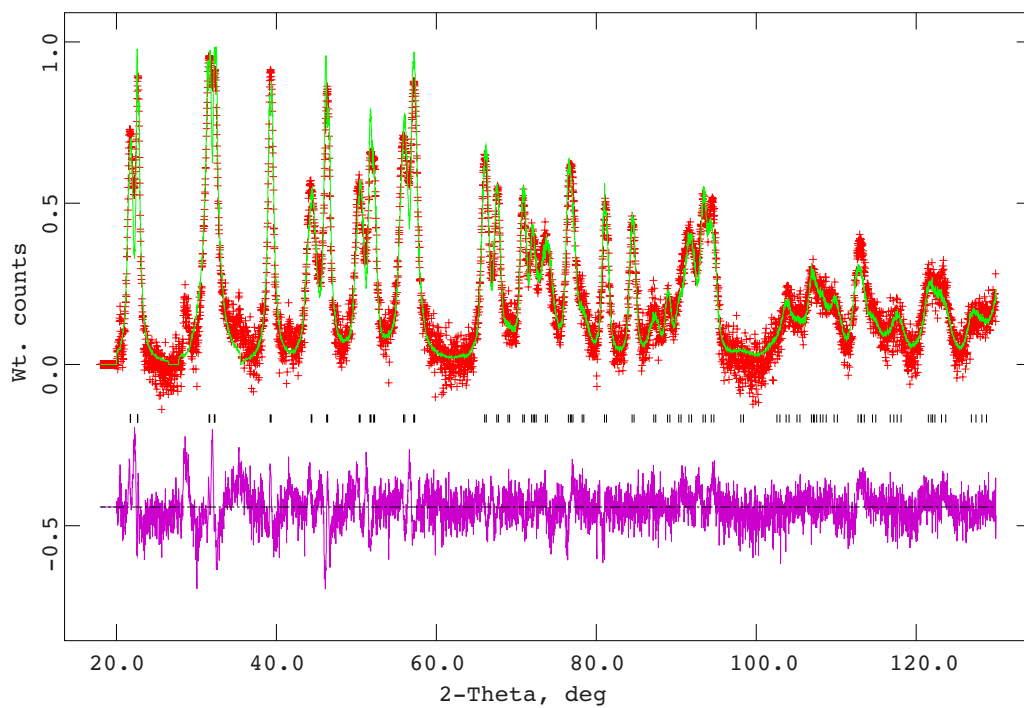


FIG S4: GSAS fit for  $x = 0.025$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).

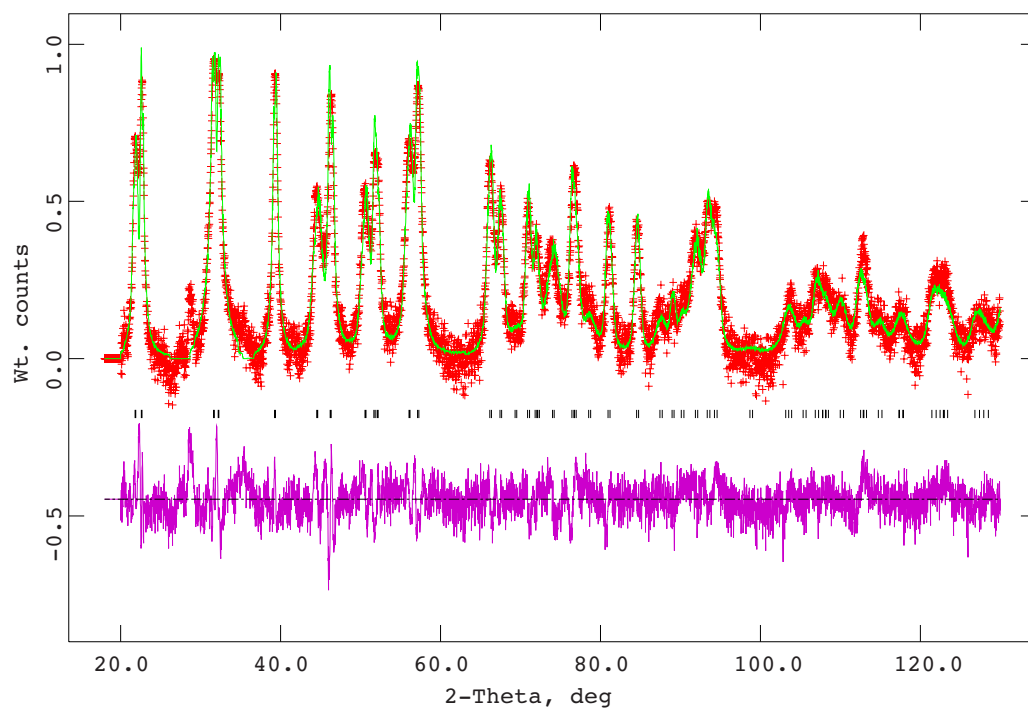


FIG S5: GSAS fit for  $x = 0.05$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).

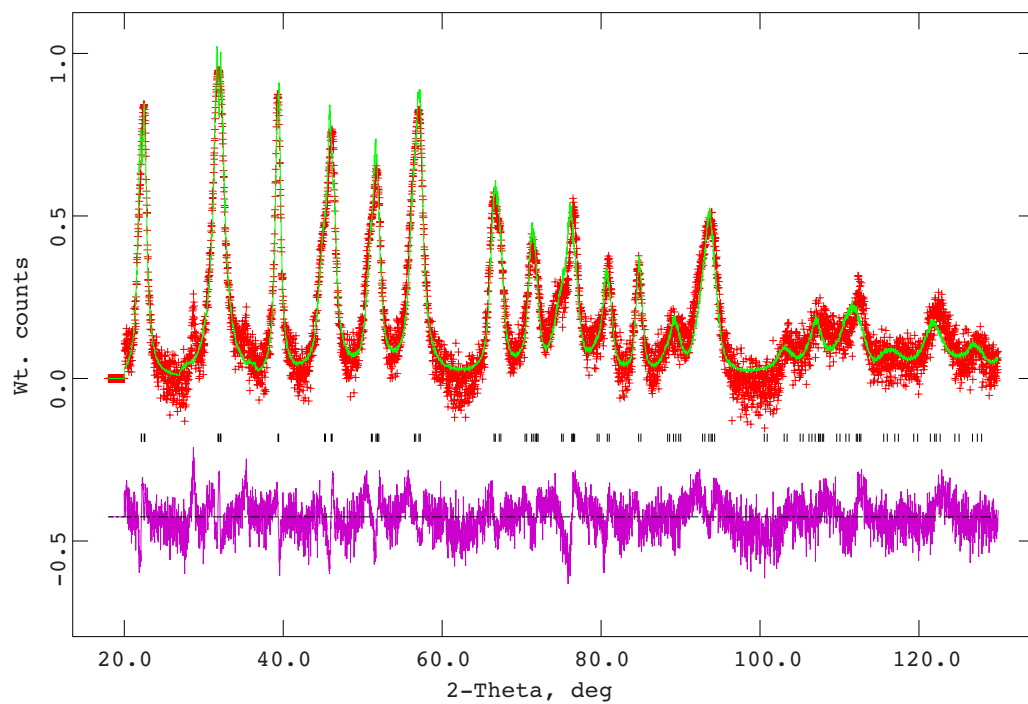


FIG S6: GSAS fit for  $x = 0.075$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).

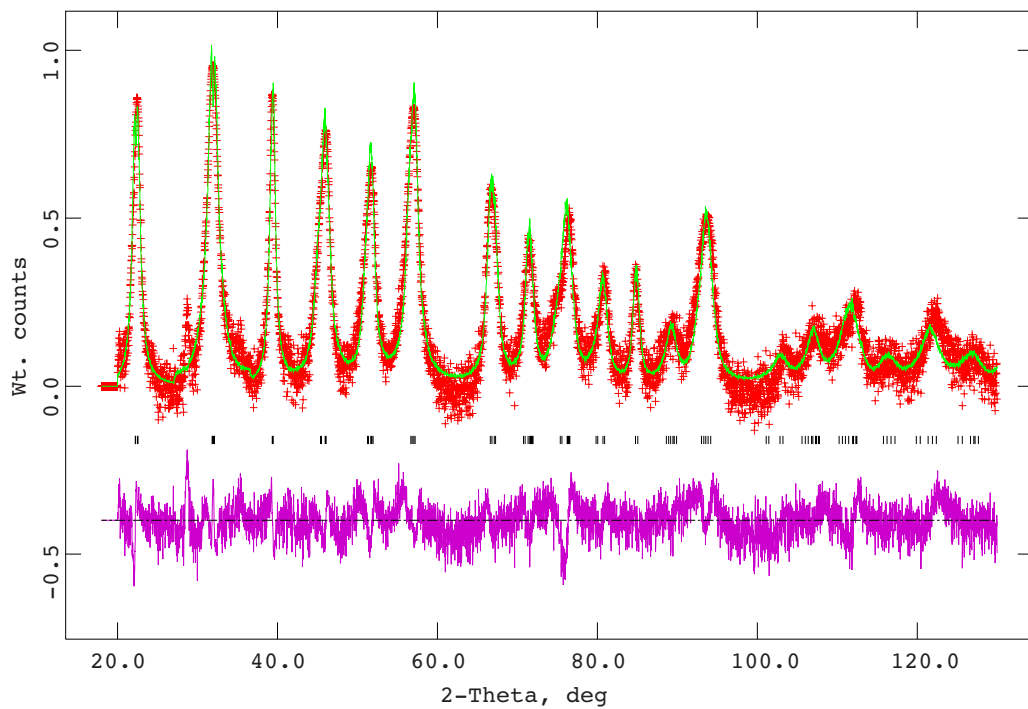


FIG S7: GSAS fit for  $x = 0.1$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).

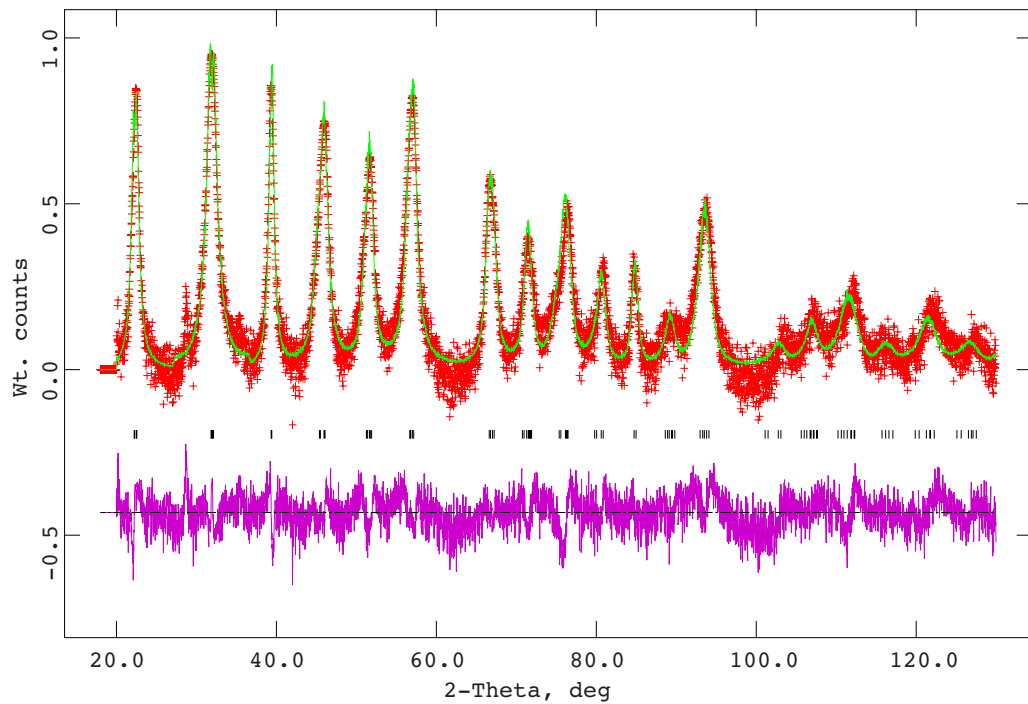


FIG S8: GSAS fit for  $x = 0.125$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).

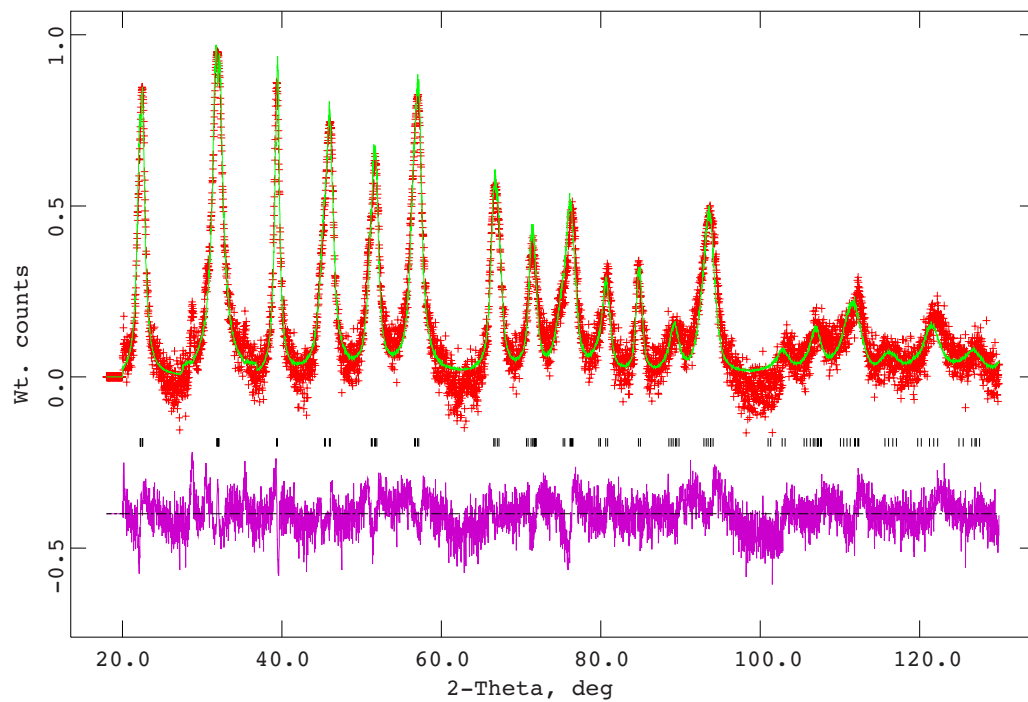


FIG S9: GSAS fit for  $x = 0.15$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).

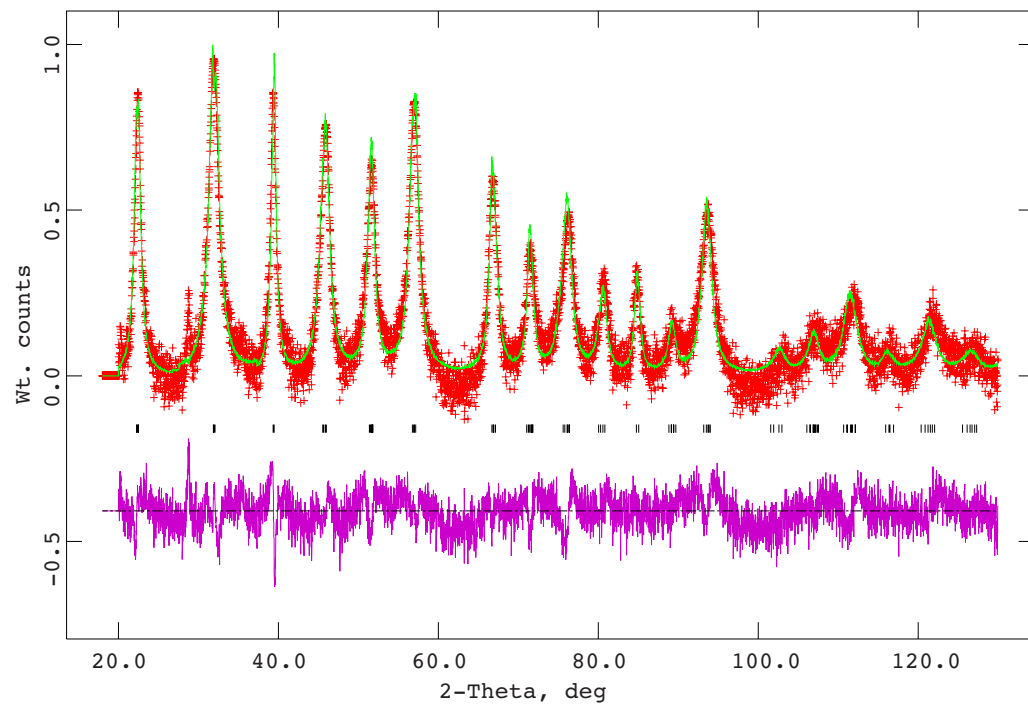


FIG S10: GSAS fit for  $x = 0.175$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).

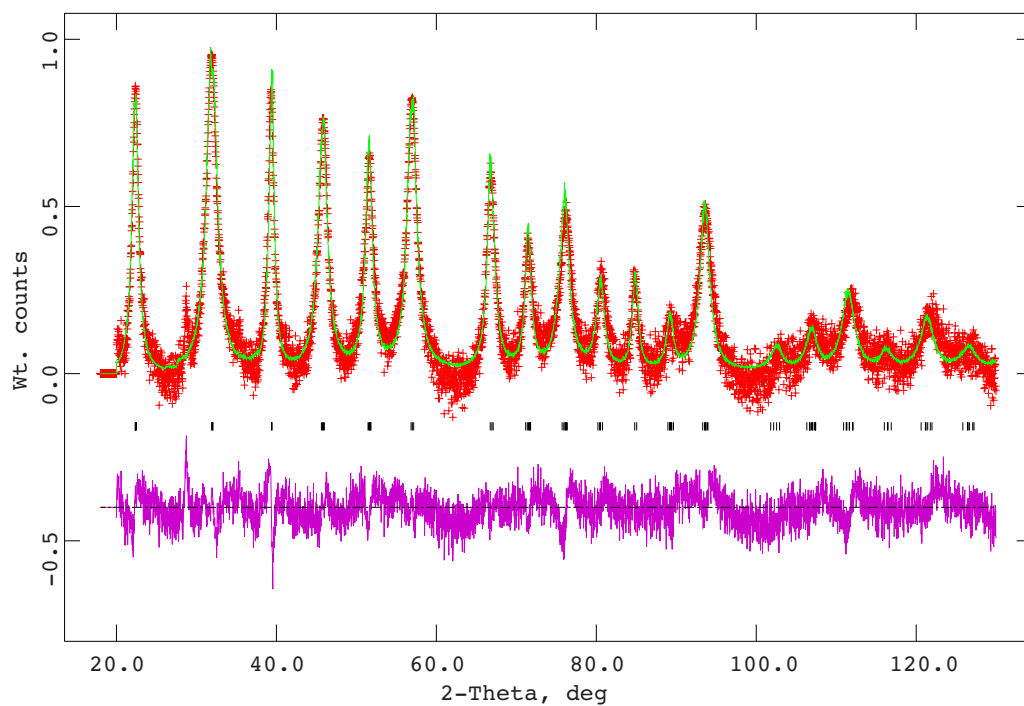


FIG S11: GSAS fit for  $x = 0.2$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).

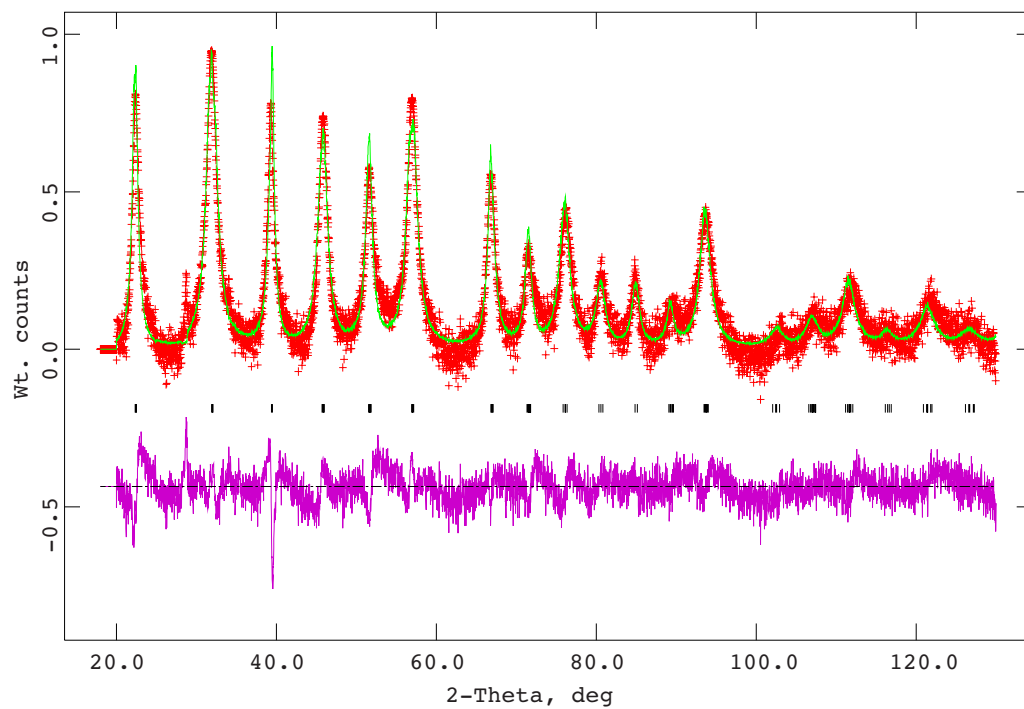


FIG S12: GSAS fit for  $x = 0.3$ : experimental data (red crosses), fit (green), reflections (black ticks), and residual (violet).