

Figure S1

b^* - $-a^*+c^*$ reciprocal lattice plane reconstructed from the oscillation XRD images, showing fundamental reflections every eight spots and the Debye-Scherrer rings from polycrystalline Ag.

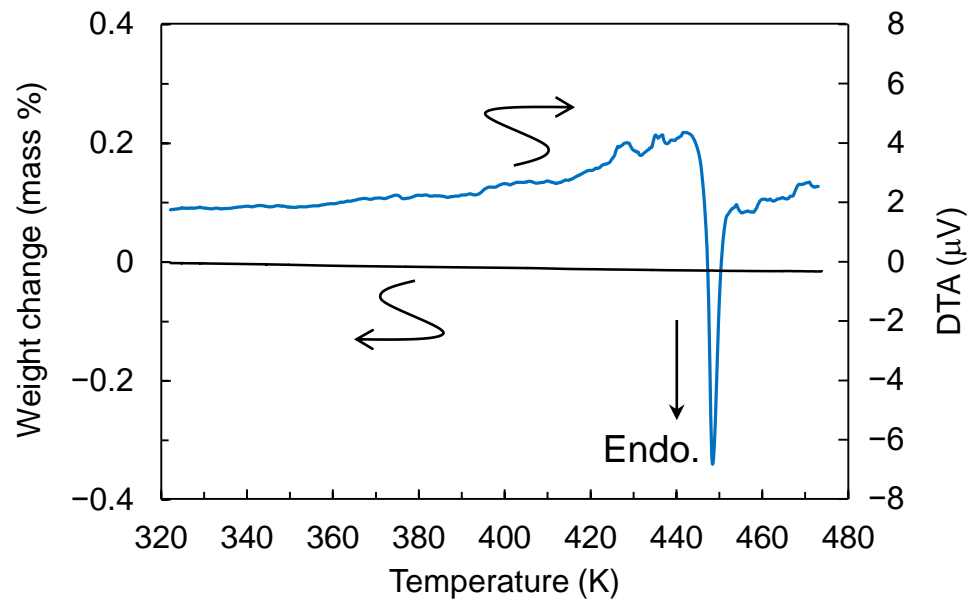


Figure S2

Thermogravimetric and differential thermal analysis curves of the starting mixture with a molar ratio of $\text{AgI}:\text{Ag}_2\text{CO}_3 = 4:3$ under constant flow of synthetic air.

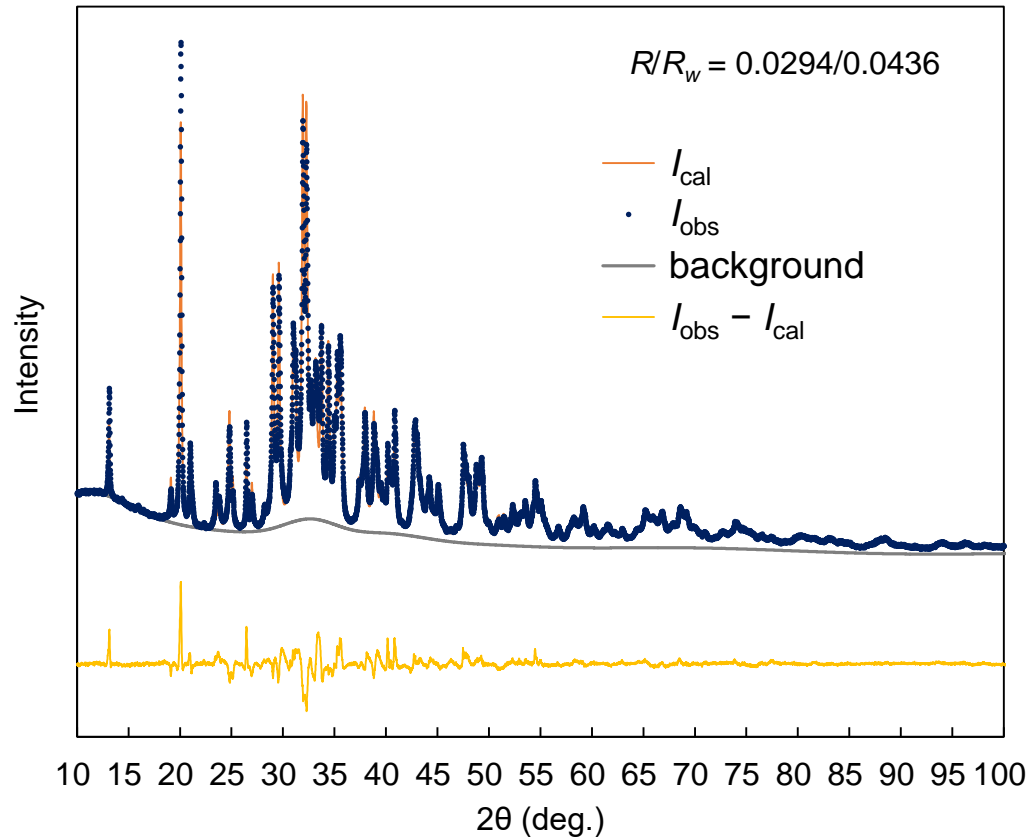


Figure S3

Fitting result of Rietveld analysis with the positional parameters fixed on the values refined in the single-crystal XRD analysis at 90 K.