Electronic Supplementary Material (ESI) for CrystEngComm

Supplementary Information

Syntheses of Au–Cu-rich AuAg(AgCl)Cu alloy and Ag–Cu-rich AuAgCu@Cu core–shell and AuAgCu alloy nanoparticles using polyol method

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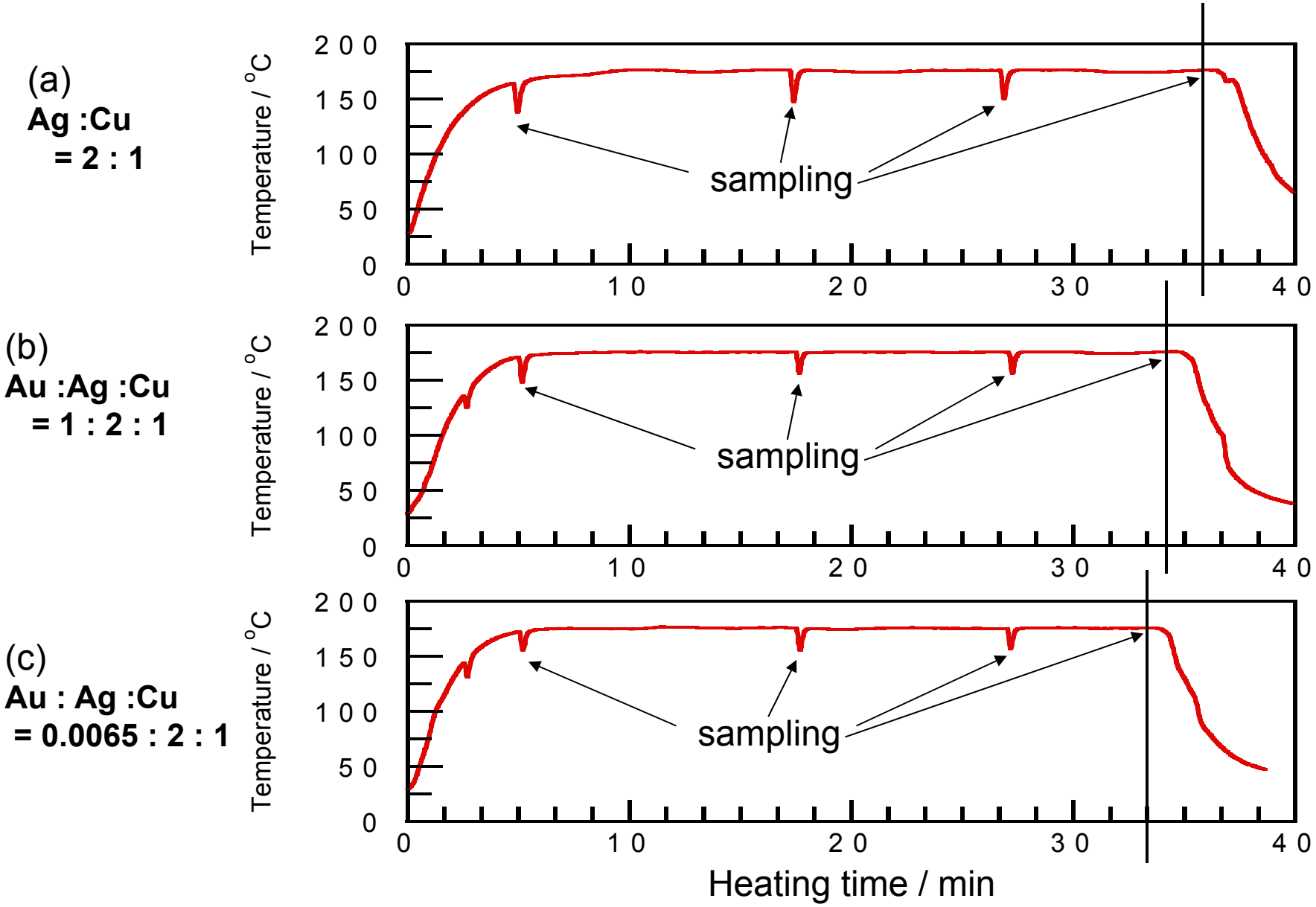

Fig. S1. Temperature profiles in each experiment.

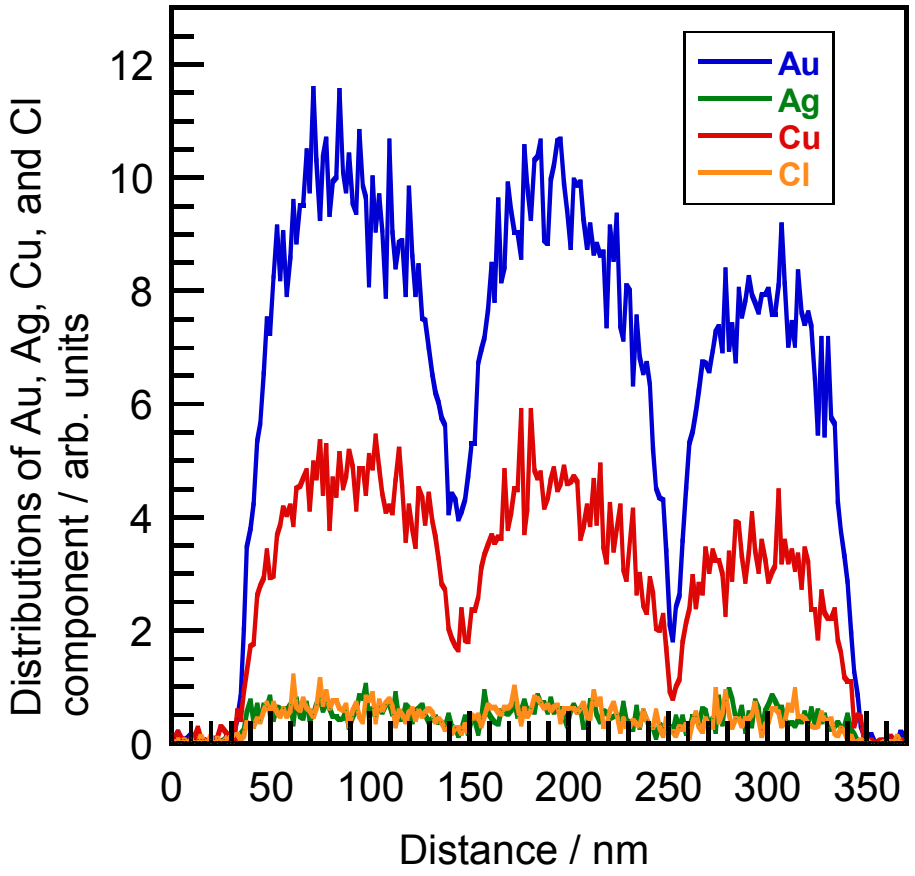

Fig. S2. Line analysis data of Au, Ag, Cu, and Cl components along a line shown in Fig. 2c.

Fig. S3. Precipitate deposited on the bottom of flask.

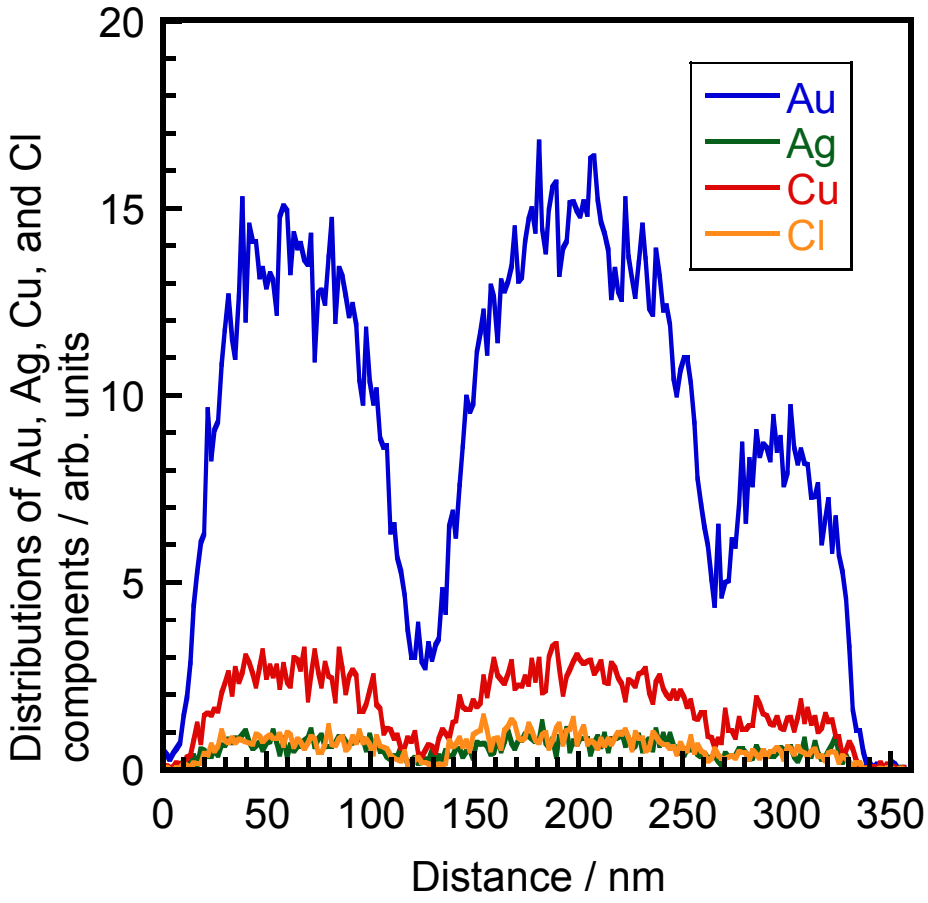

Fig. S4. Line analysis data along a blue line in Fig. 2f.

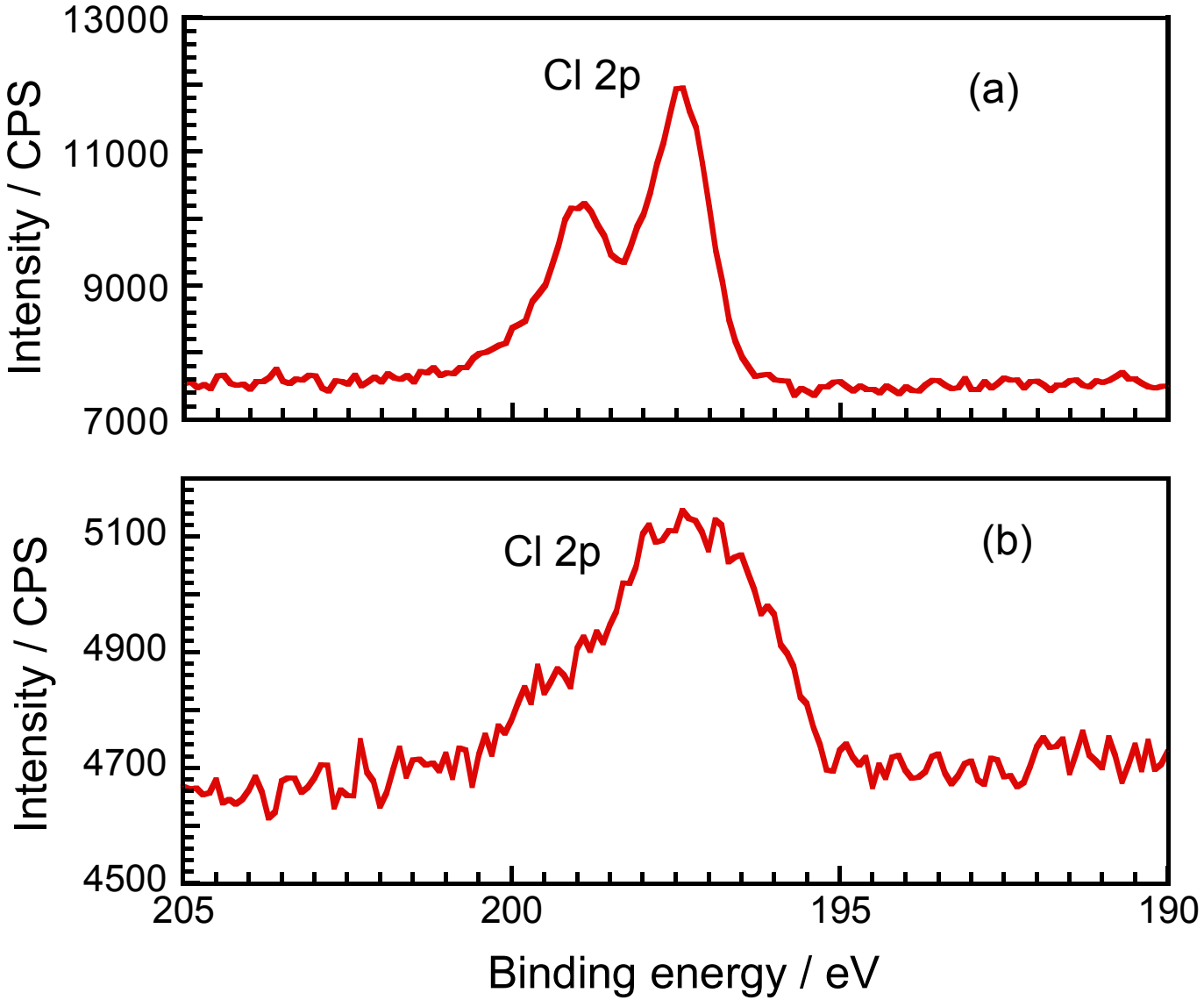

Fig. S5. XPS spectra of Cl 2p component of AuAg(AgCl)Cu particles prepared from $HAuCl_4 \cdot H_2O$/$AgNO_3$/$Cu(OAc)_2 \cdot H_2O$/PVP mixtures in EG at a Au : Ag : Cu molar ratio of 1 : 2 : 1. (a) before and (b) after saturated NaCl treatment for AgCl removal.

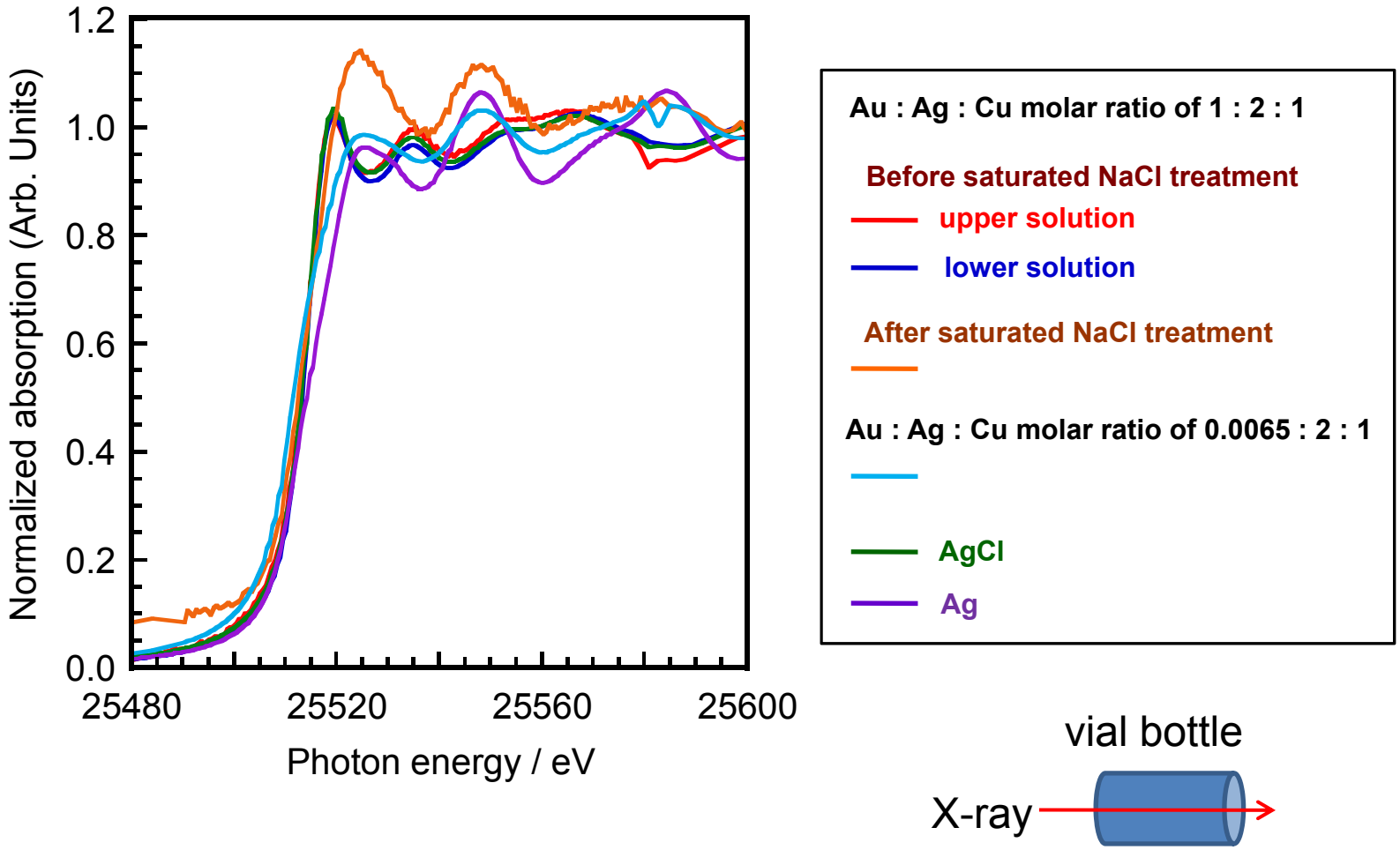

Fig. S6. Ag K-edge XANES spectra of AuAg(AgCl)Cu particles prepared from $HAuCl_4 \cdot H_2O/AgNO_3/Cu(OAc)_2 \cdot H_2O$/PVP mixtures in EG at a Au : Ag : Cu molar ratios of 1 : 2 : 1 before and after saturated NaCl treatment and 0.0065 : 2 : 1. For comparison XANES spectra of AgCl and Ag are shown.

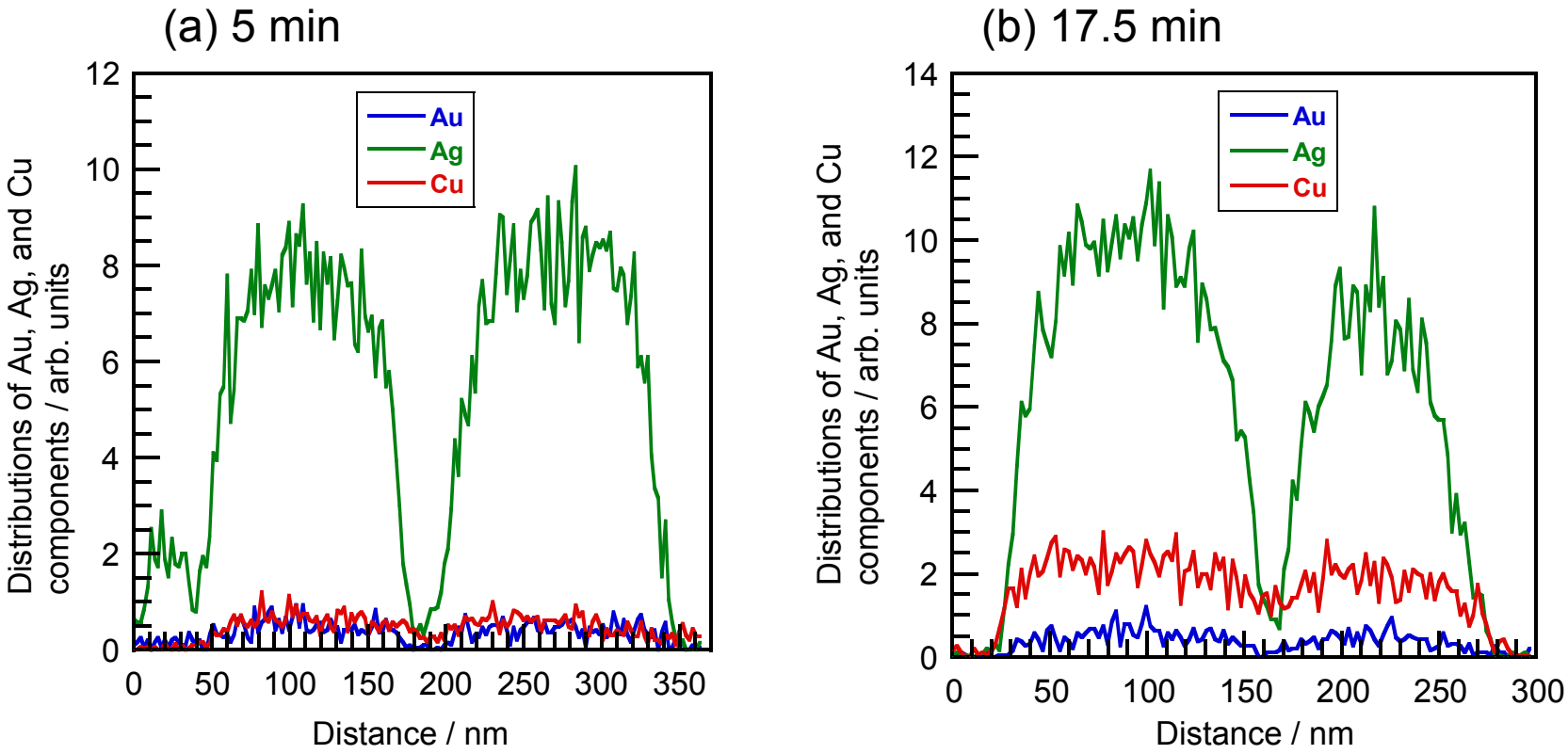

Fig. S7. Line analysis data of Au, Ag, and Cu components along blue lines shown in Fig. 5b and Fig. 5c.

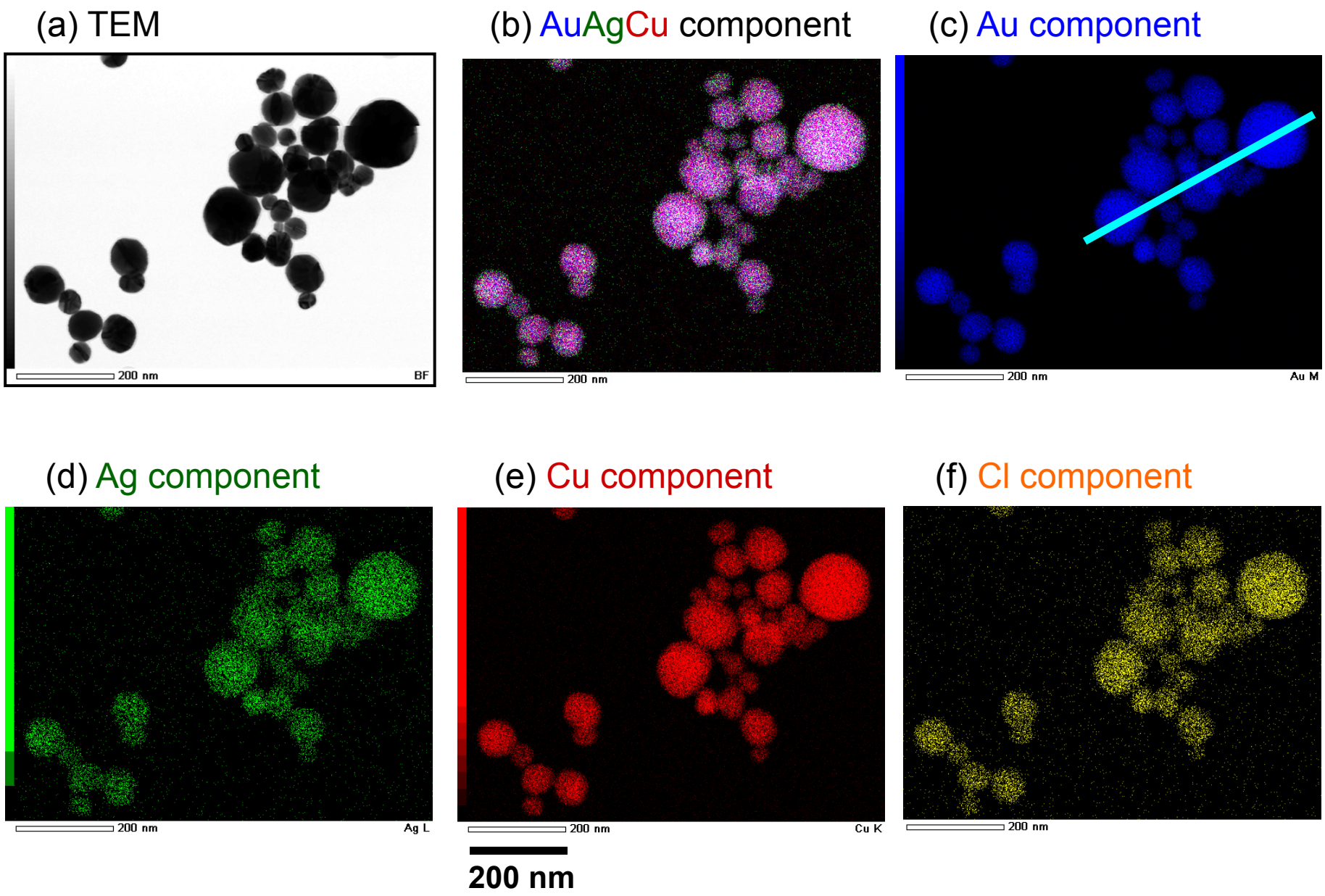

Fig. S8. TEM and TEM-EDS data of Au, Ag, Cu, and Cl components of AuAg(AgCl)Cu alloy particles.

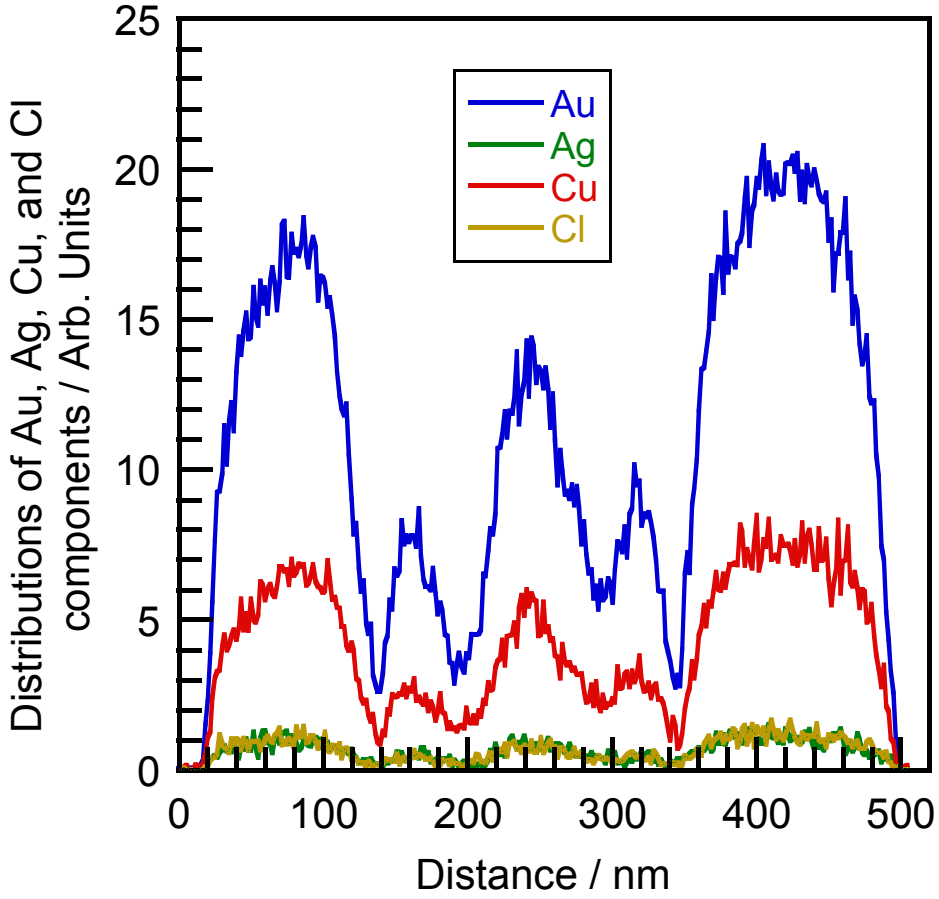

Fig. S9. Line analysis data along a blue line in Fig. S8c.