Supporting Information

Effects of Ar or O_2 Gas Bubbling for Shape, Size, and Composition Changes in Silver-Gold Alloy Nanoparticles Prepared from Galvanic Replacement Reaction

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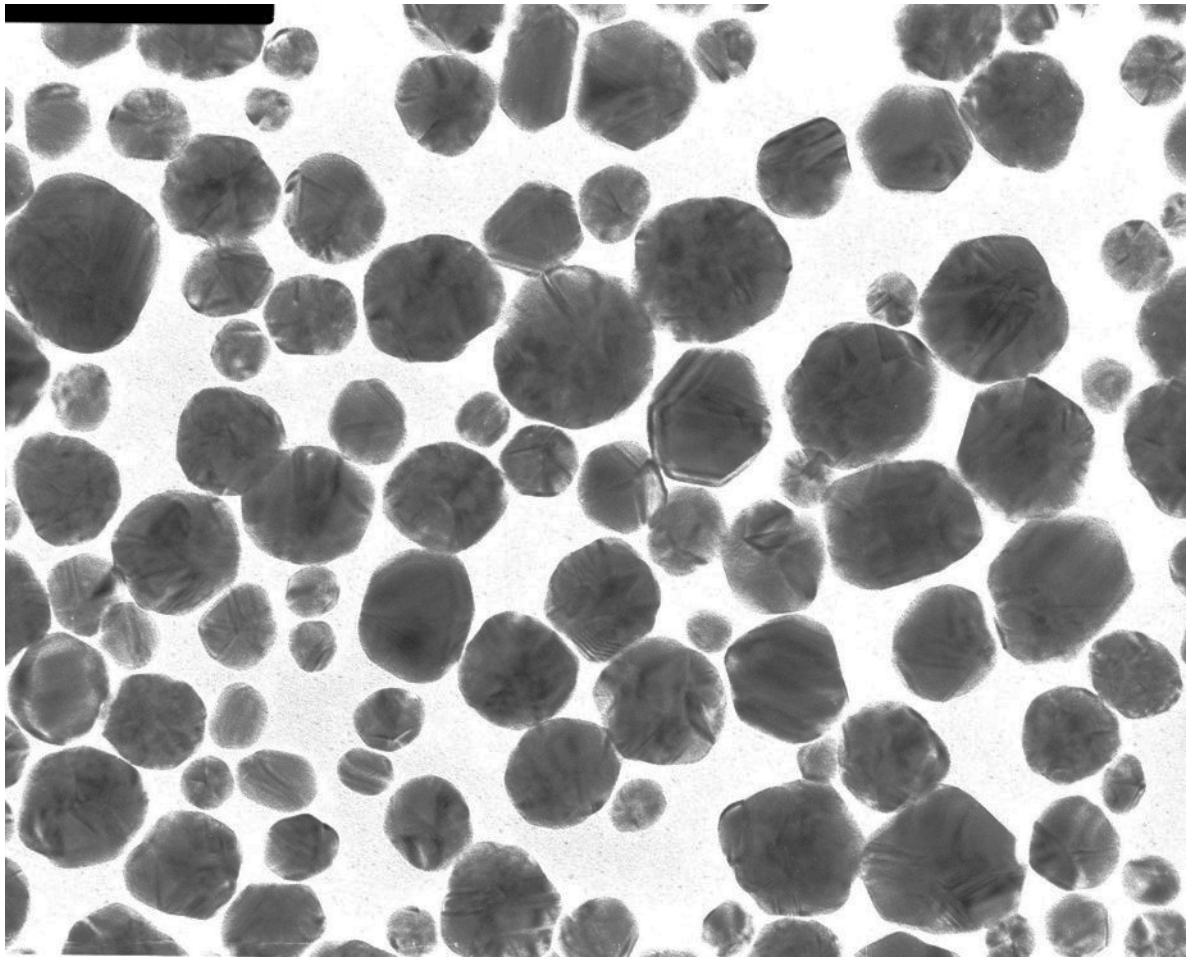

Figure S1: TEM image Ag nanoparticles obtained from $AgNO_3$/PVP/EG solution after heating for 50 min under Ar gas bubbling.

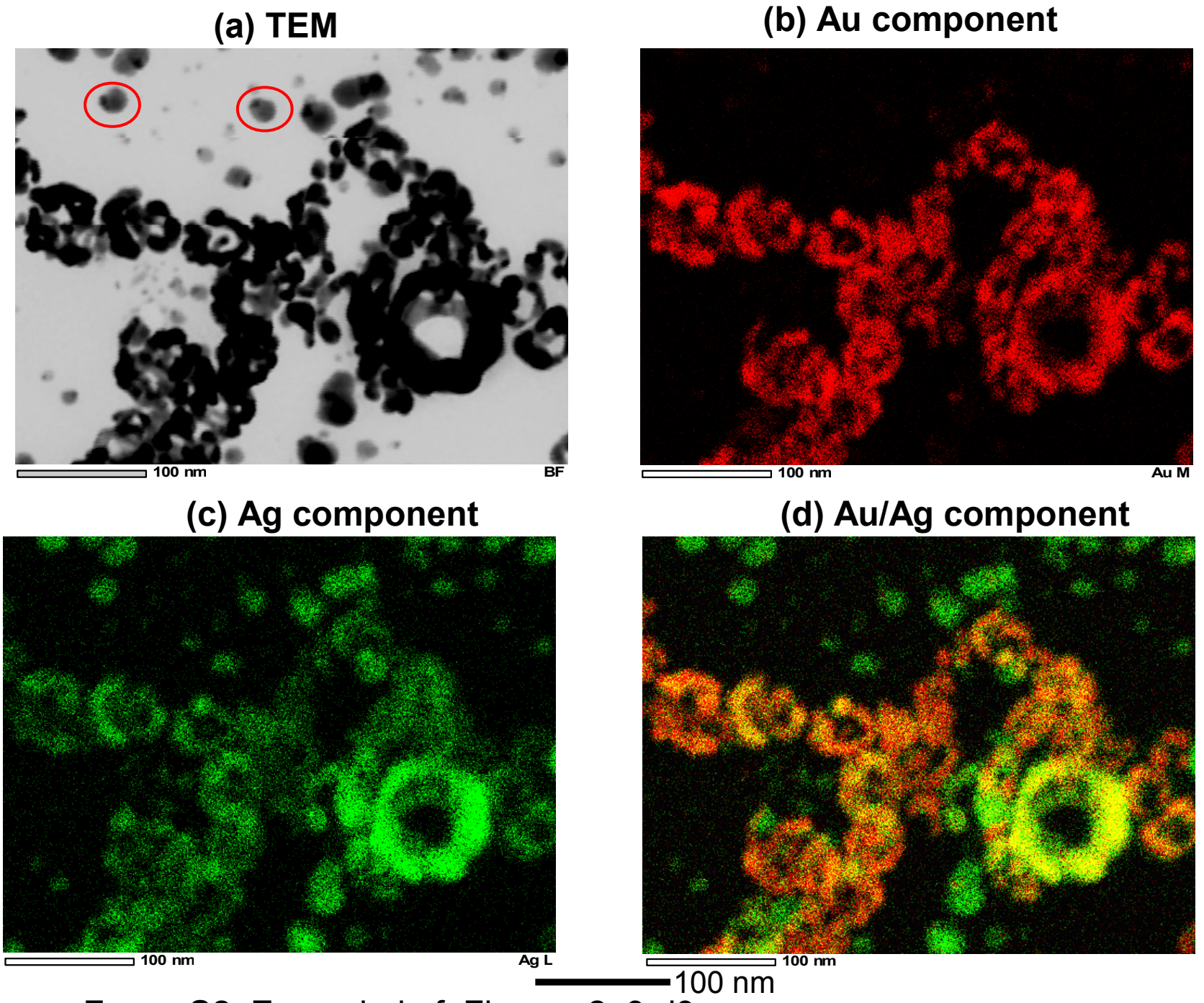

Figure S2: Expanded of Figures 2a3-d3.

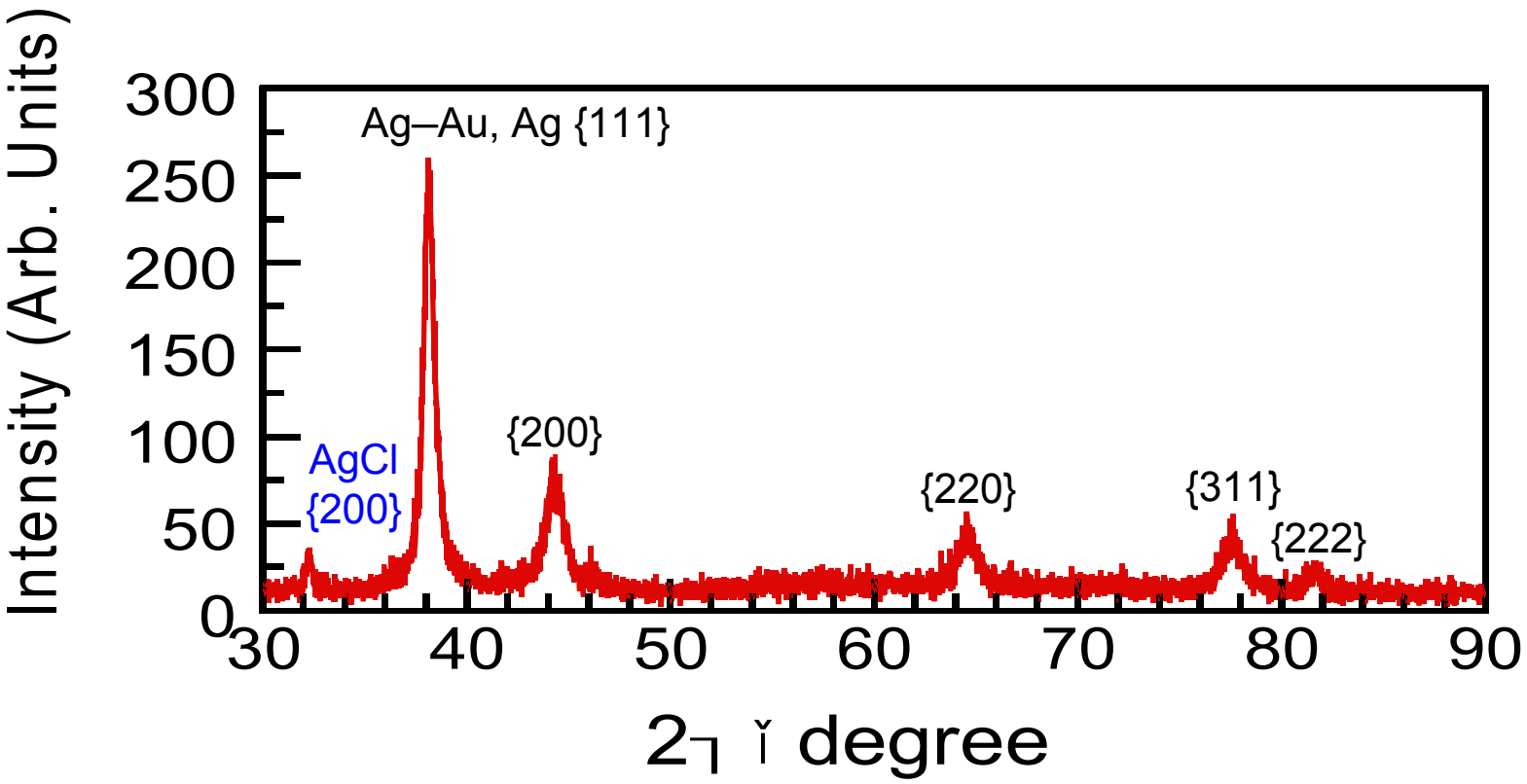

Figure S3: XRD pattern of products obtained under Ar bubbling for 60 min.

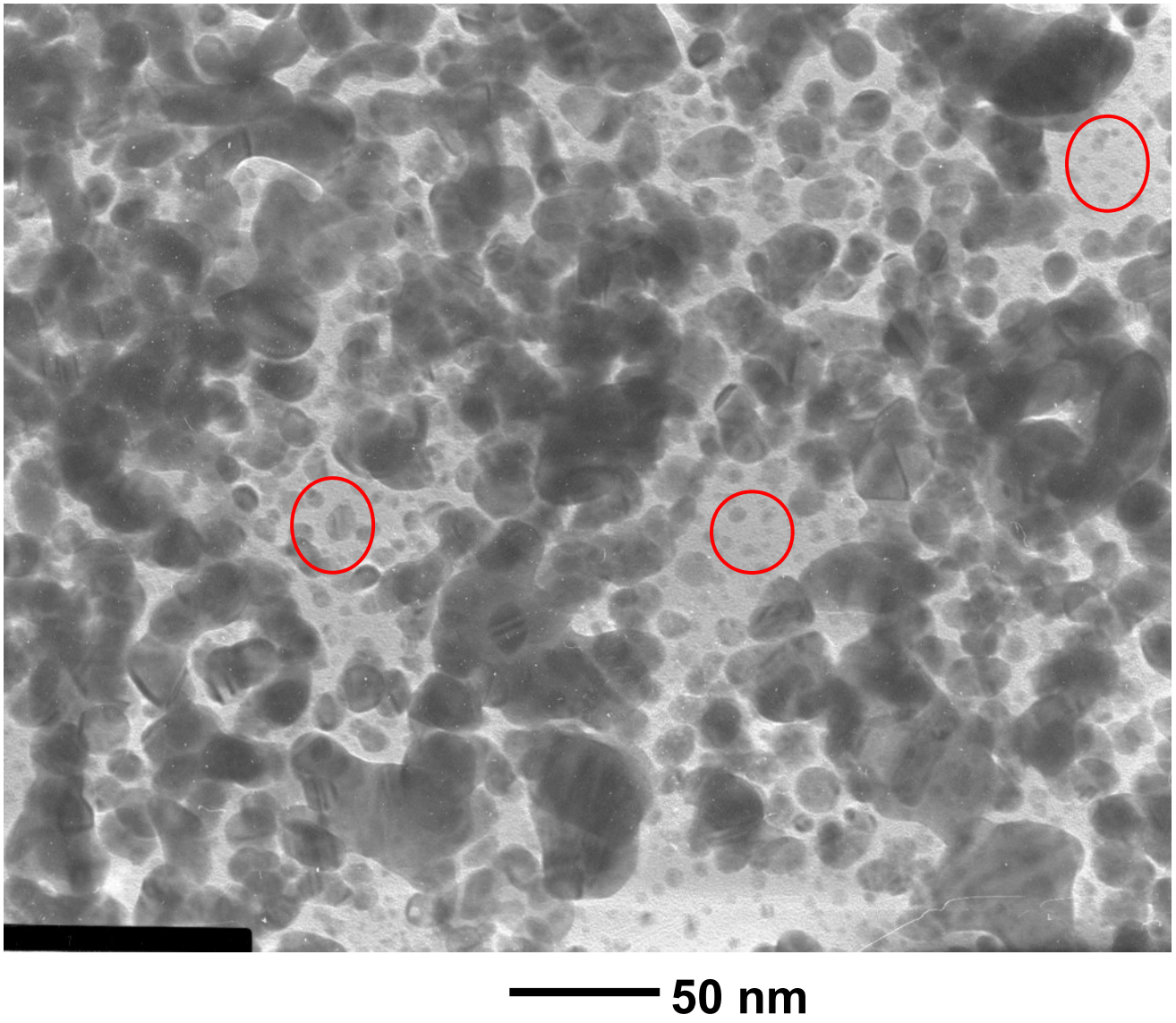

Figure S4: Expanded Figure of ribbon type Au rich Ag/Au alloy particles and small Ag particles that are obtained under O_2 bubbling for 60 min.

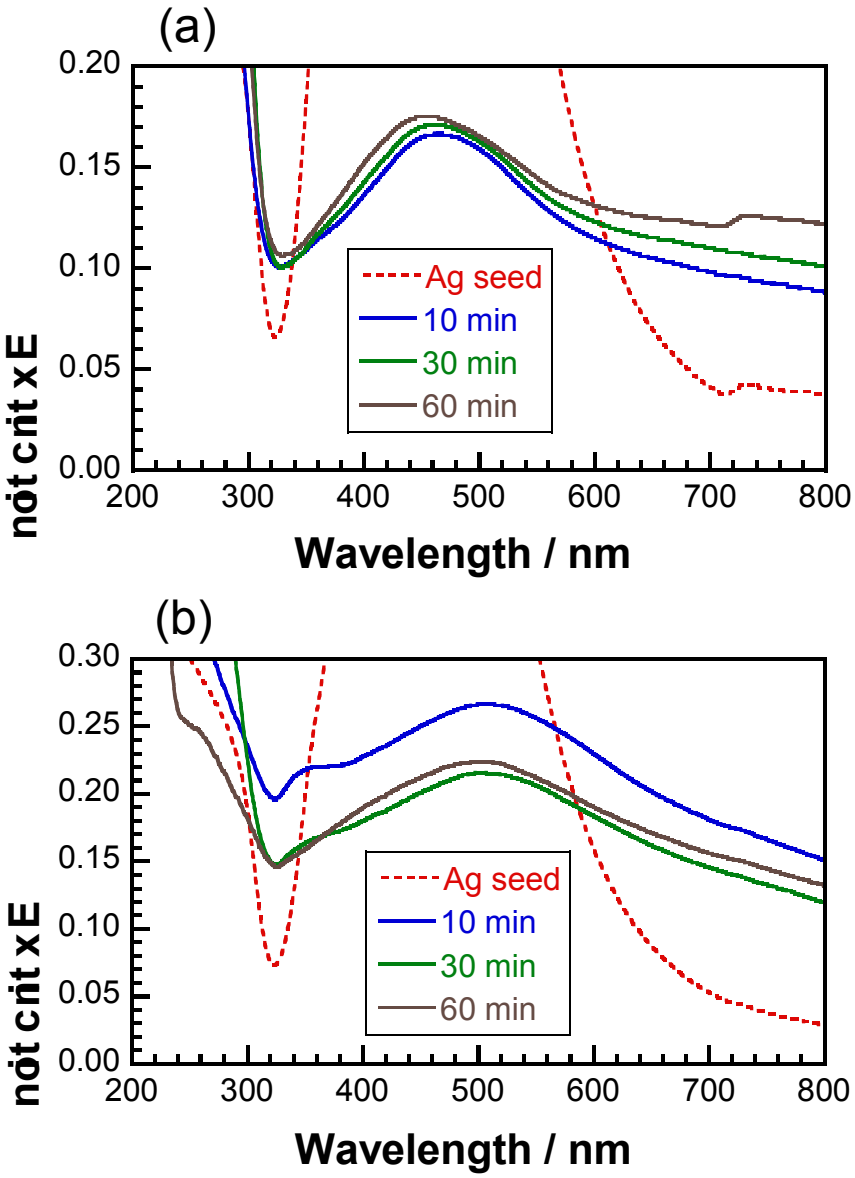

Figure S5: Expanded scales of Figures 5a and 5b.