Electronic supplementary information

Synthesis and growth mechanism of triangular Ag-rich AgAu alloy prisms in an aqueous solution in the presence of PVP, citrate and H₂O₂

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(a) colorless and transparency (b) yellow (c) orange (d) red (e) violet (f) bluish purple (g) blue

Fig. S1. Color changes of HAuCl₄·4H₂O/AgNO₃/NaBH₄/PVP/Na₃CA/H₂O₂ solution at Au/Ag molar ratio of 4% (a) before and (b)–(g) after addition of NaBH₄.
Fig. S2. UV-Vis spectra of products after addition of NaBH₄ to HAuCl₄·4H₂O/AgNO₃/PVP/Na₃CA solution at Au/Ag molar ratio of 4%.
Fig. S3. Colors of product solutions of (a) Ag prisms obtained from AgNO$_3$/NaBH$_4$/PVP/Na$_3$CA/H$_2$O$_2$ solution and (b)–(e) Ag-rich AgAu alloy prisms obtained from HAuCl$_4$$\cdot$4H$_2$O/AgNO$_3$/NaBH$_4$/PVP/Na$_3$CA/H$_2$O$_2$ solution at Au/Ag molar ratios of 2.5–5%.
Fig. S4. Colors of product solutions obtained after various timing of addition of HAuCl₄·4H₂O to AgNO₃/NaBH₄/PVP/Na₃CA/H₂O₂ solution at Au/Ag molar ratio of 4%.
Fig. 5. UV-Vis spectra of Ag-rich AgAu prisms after addition of H$_2$O$_2$. AgAu prisms were prepared at Au/Ag molar ratio of 4%. The concentration of H$_2$O$_2$ after addition was 7.0 mM.