

Electronic Supplementary Information

Synthesis of Silver Nanowires with Tunable Diameter by Halide Ions for Flexible Transparent Conductive Films

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Supplementary figures

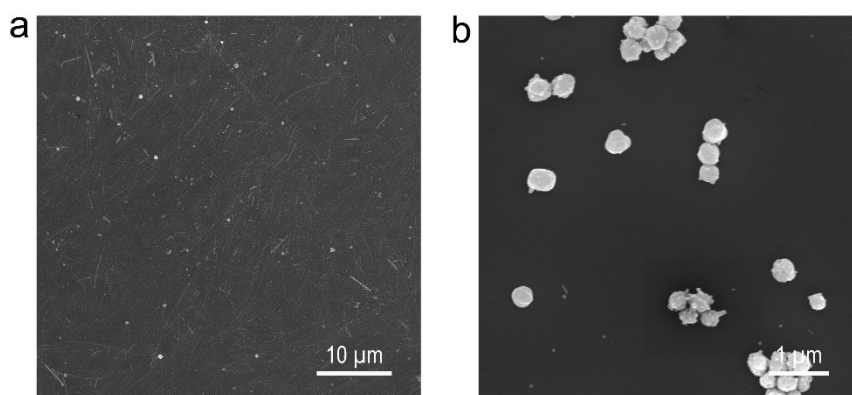


Fig. S1 (a) SEM image of Ag nanoparticles in supernatant solution. (b) SEM image of Ag nanoparticles in precipitate after standing for one night.

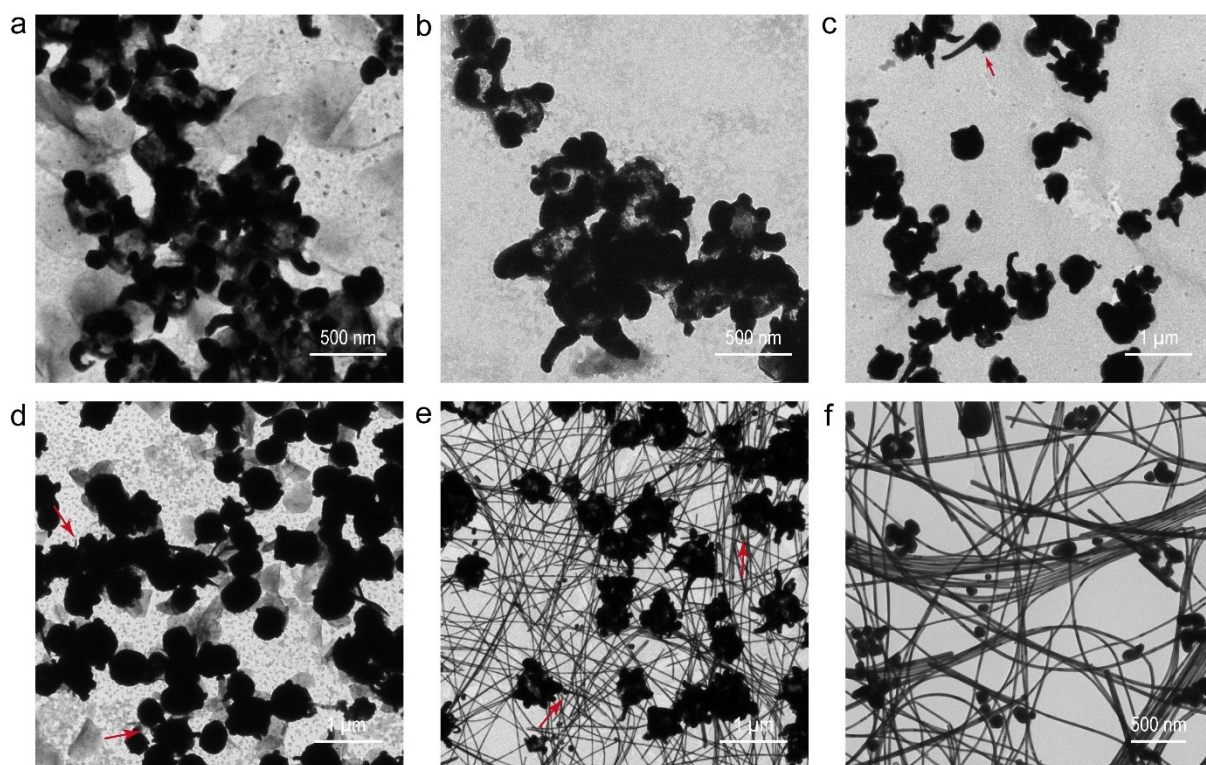


Fig. S2 TEM images of the intermediate products among the synthetic process obtained at (a) 10 min, (b) 20 min, (c) 30 min, (d) 40 min, (e) 45 min and (f) 50 min, respectively.

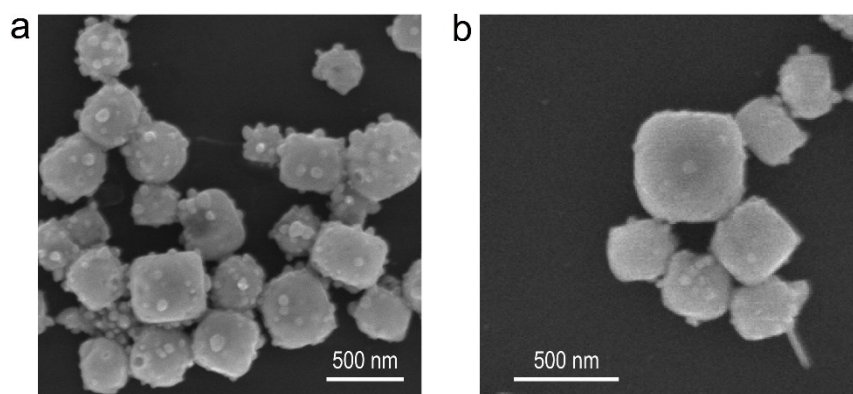


Fig. S3 (a) SEM image of Ag nanoparticles in solution when the reaction was prolonged to 30 min. (b) SEM image of Ag nanoparticles which began to form the Ag NWs.

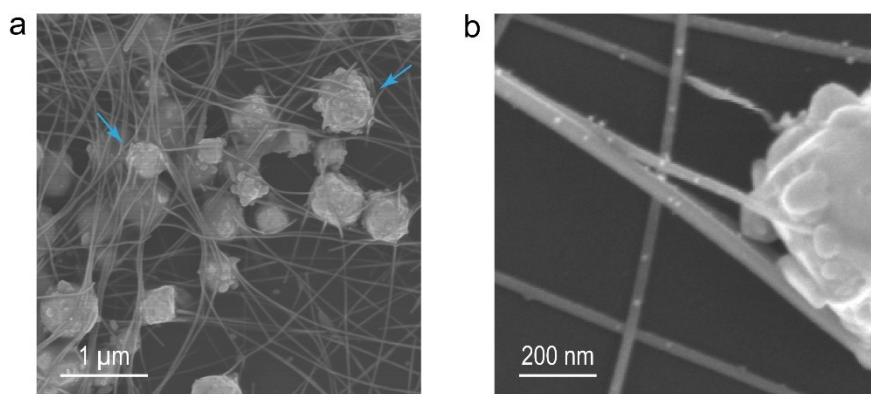


Fig. S4 SEM images of Ag NWs obtained at 45 min.

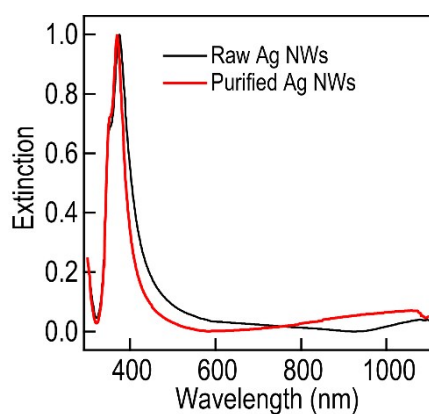


Fig. S5 Extinction spectra of the Ag NWs before (black) and after (red) purifications.

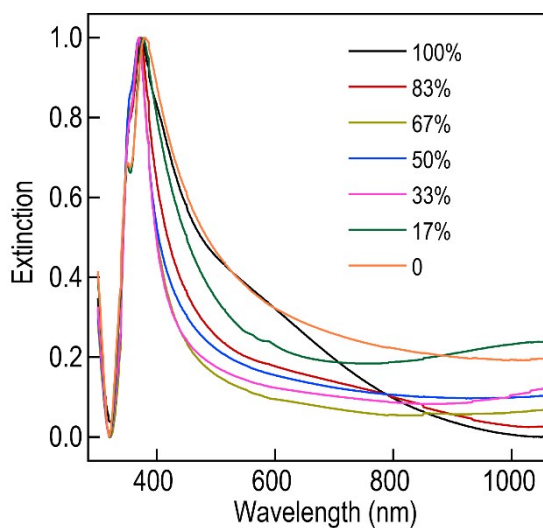


Fig. S6 Extinction spectra of the Ag NWs obtained with different ratios of NaCl/(NaCl+NaBr) when the total concentration of NaCl and NaBr is 1.8 mM.

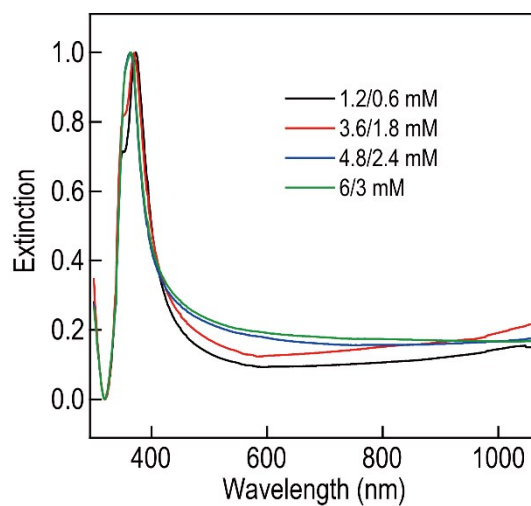


Fig. S7 Extinction spectra of the Ag NWs obtained with different concentration of NaCl/NaBr, while the ratio between them keeps constant.

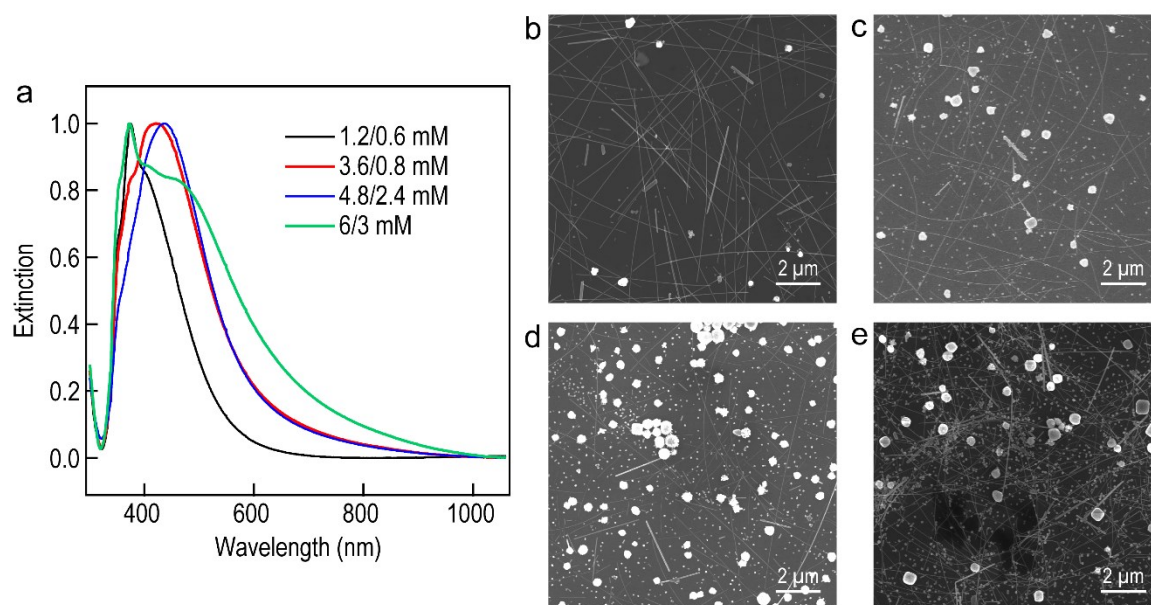


Fig. S8 (a) Extinction spectra and (b–e) SEM images of the products obtained at different concentration of NaCl/NaBr when the AgNO_3 was injected once into the reaction.

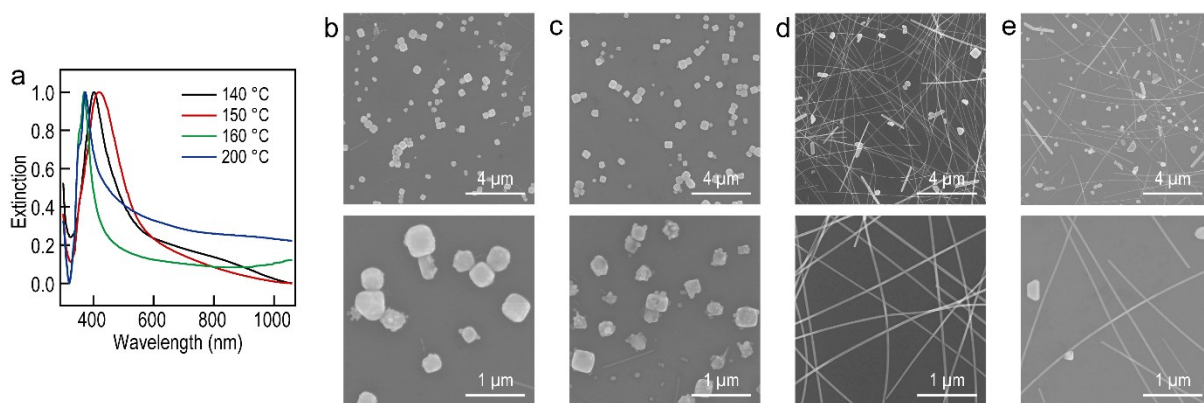


Fig. S9 (a) Extinction spectra of the products obtained at different temperatures. (b–e) SEM images of the products obtained at 140 °C, 150 °C, 160 °C, 200 °C, respectively.

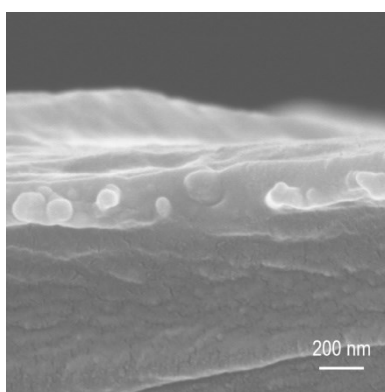


Fig. S10 Cross-sectional SEM image of the Ag NW/PMMA FTFCs.

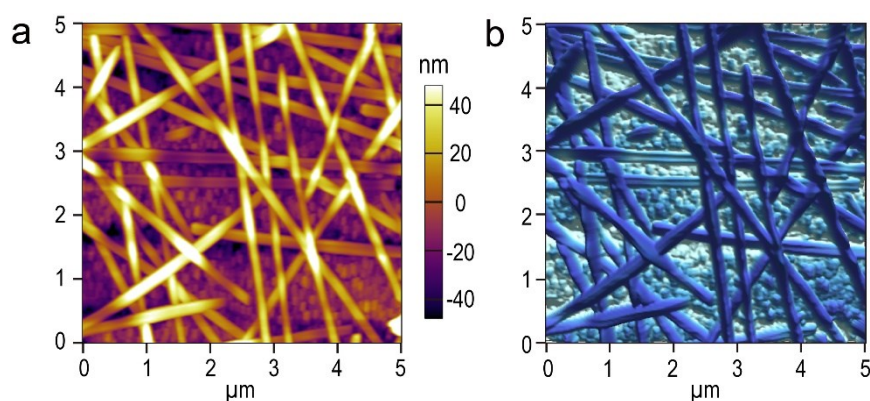


Fig. S11 (a) AFM topographical and (b) three dimension image of the original Ag NW films prepared with 9.2 mg/mL Ag NW.

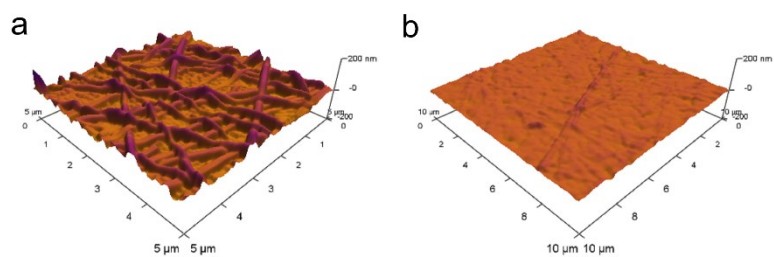


Fig. S12 Three-dimension AFM image of (a) the original Ag NW films and (b) the Ag NW/PMMA FTCEs.

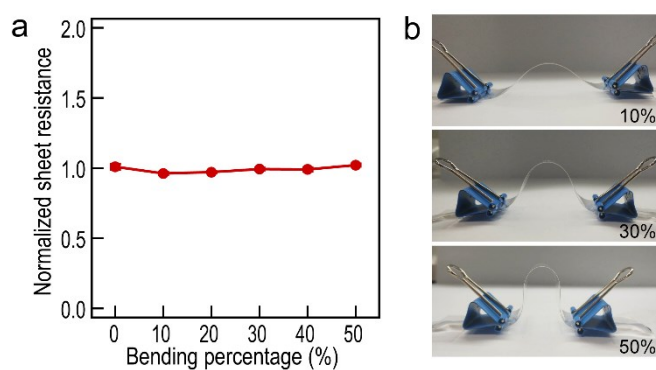


Fig. S13 (a) Normalized sheet resistances of Ag NW/PMMA FTCEs with different bending percentages. (b) Photographs of the Ag NW/PMMA FTCEs at bending percentages of 10%, 30% and 50%, respectively.