Electronic Supplementary Information

Synthesis of very thin Ag nanowires with fewer particles by suppressing secondary seeding

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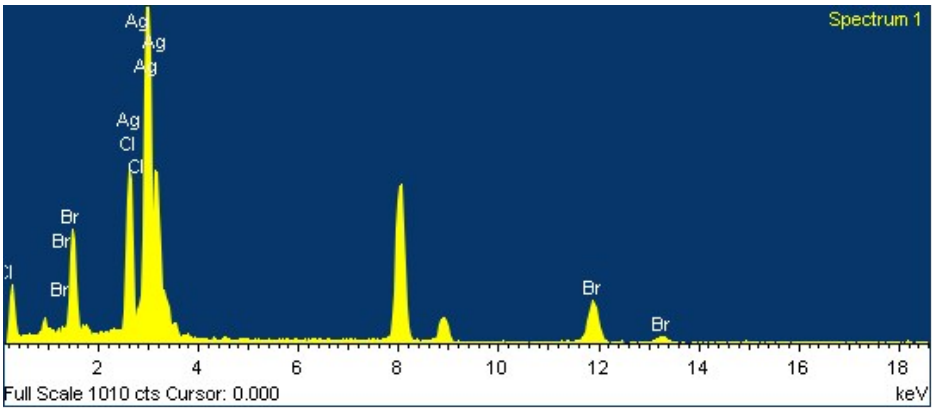

Fig. S1. EDX spectrum of the product by mixing the precursor at room temperature.

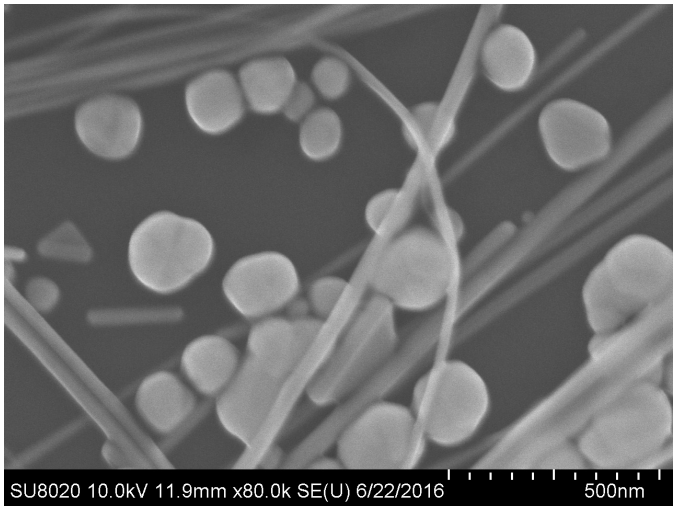

Fig. S2. SEM image of AgNWs together with multiple twinned particles, synthesized at constant 180°C for 1 h.

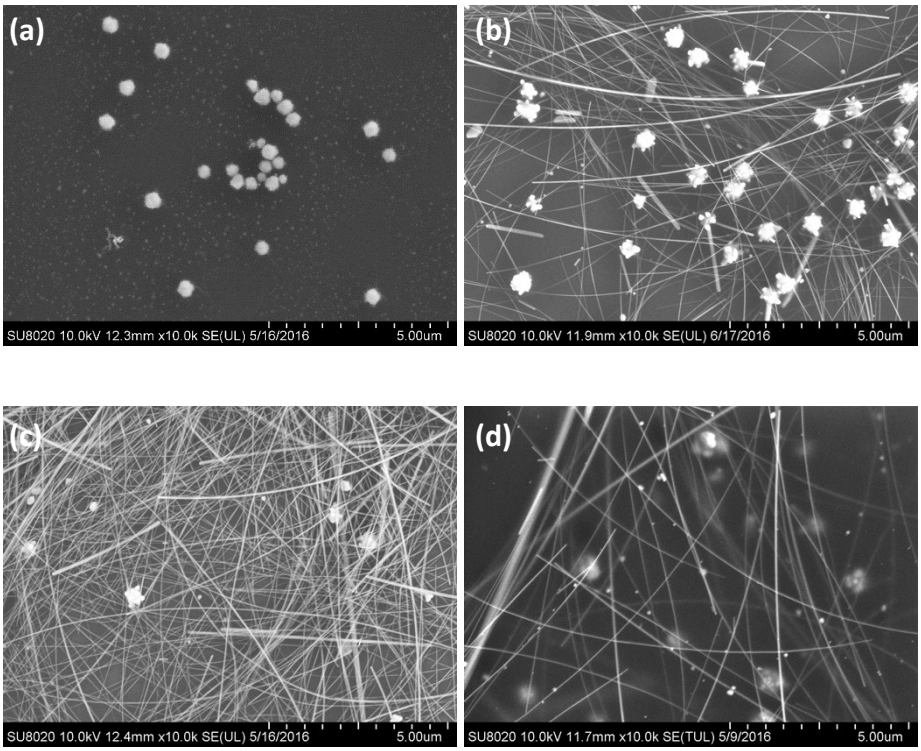

Fig. S3. SEM images of the product synthesized at different process temperatures for 2 h after lowering from 180°C: (a) 140°C, (b) 150°C, (c) 160°C, and (d) 170°C.

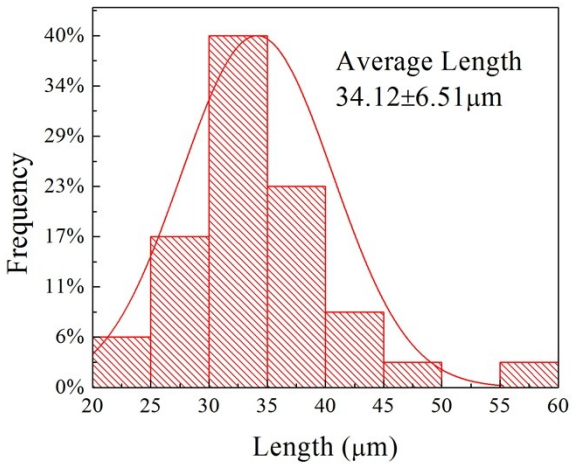

Fig. S4. Statistics for length distribution of AgNWs, synthesized by first heating to 180°C and then cooling to 160°C with a holding time of 2 h.

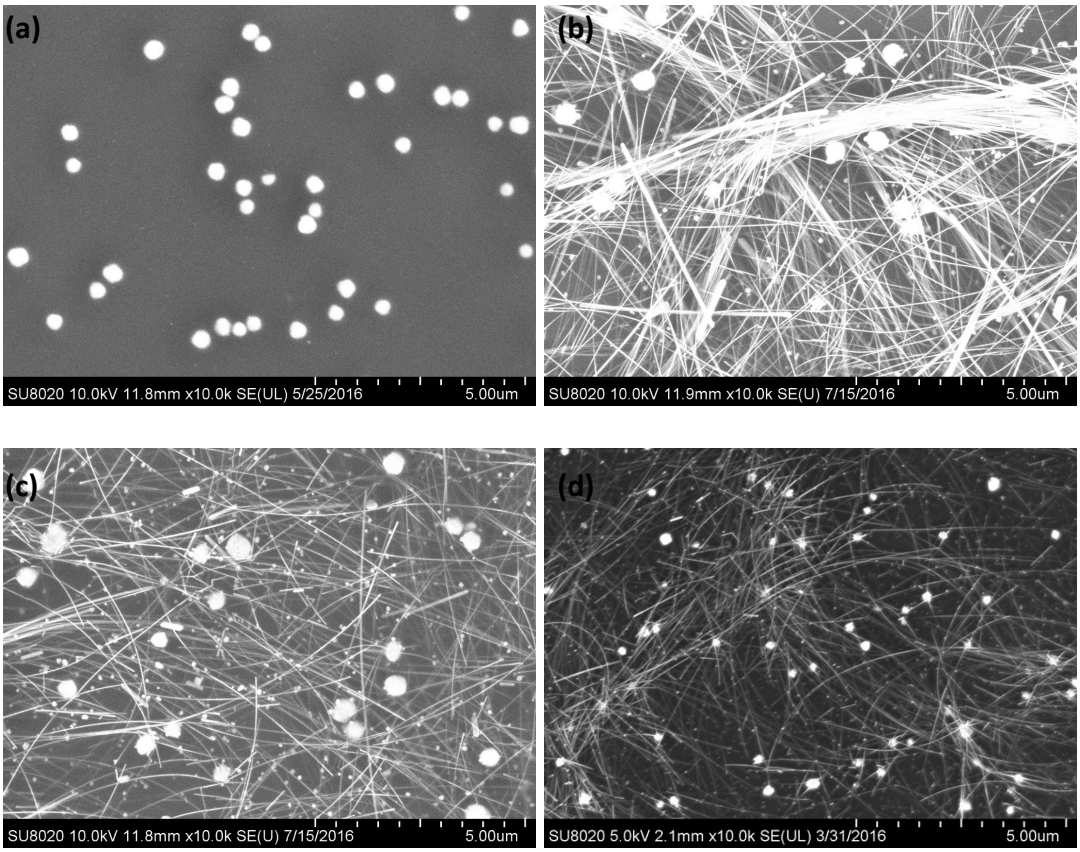

Fig. S5. SEM images of products synthesized for 2 h at constant temperatures of (a) 140°C, (b) 150°C, (c) 160°C, and (d) 170°C.

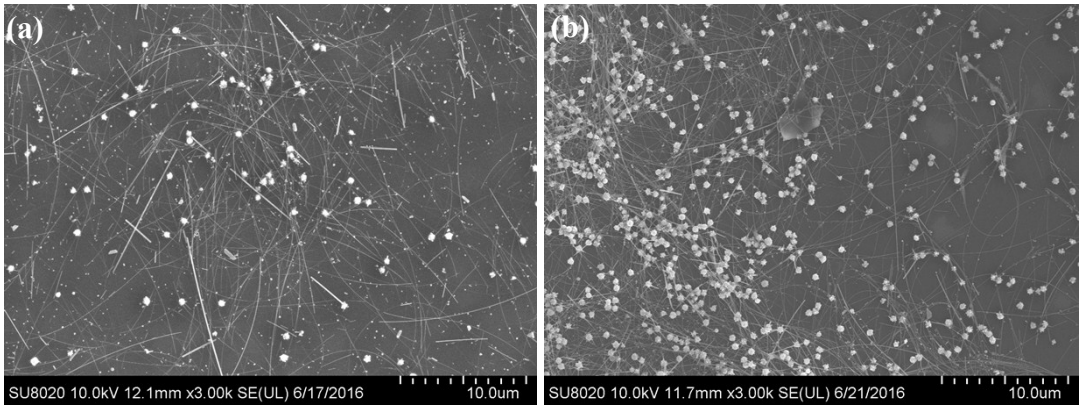

Fig. S6. SEM images of the products synthesized by first heating to 180°C and then cooling to 160°C with a holding time of 30 min: (a) with the addition of 1 mL H_2O, (b) without H_2O.

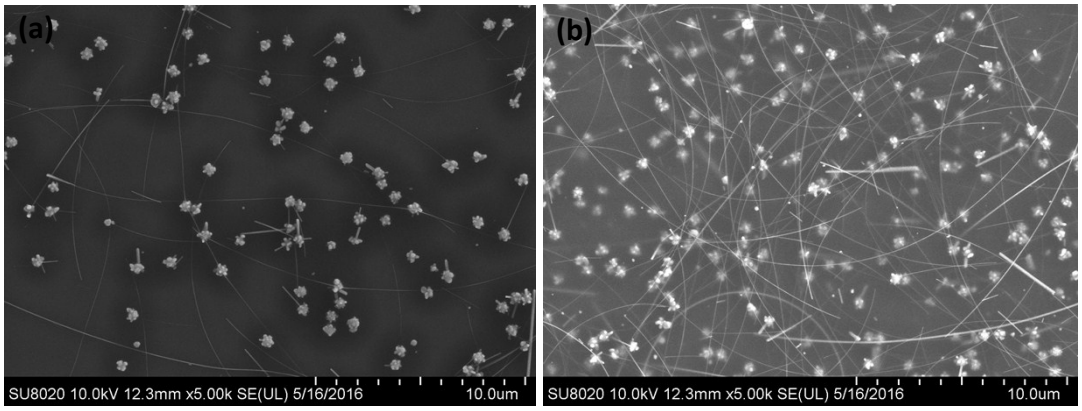

Fig. S7. SEM images of the product synthesized by first heating to 180°C, then cooling to 140°C with a holding time of 1 h, and then heating to 160°C with different holding times of (a) 30 min, (b) 60 min.

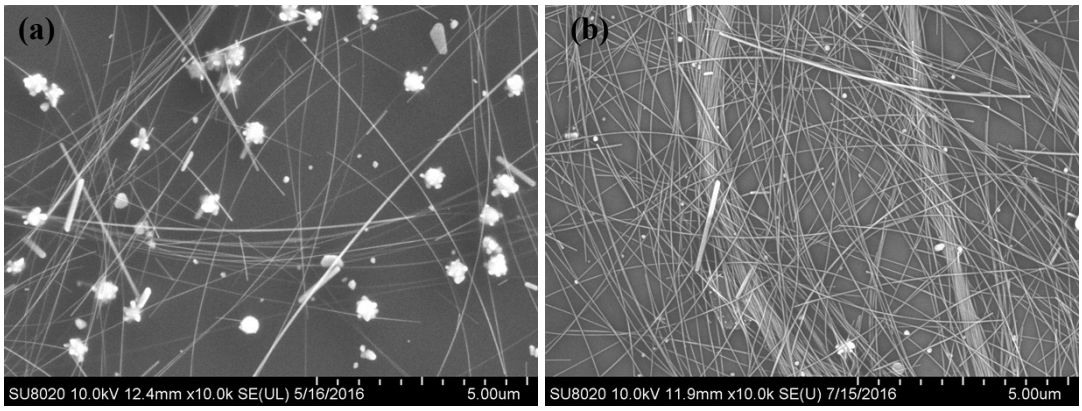

Fig. S8. SEM images of the products, synthesized by using different concentration of Br^- and Cl^- ions as well as nucleation times: (a) 100% of its original value as well as 13 min, (b) 80% of its original value as well as 17 min.

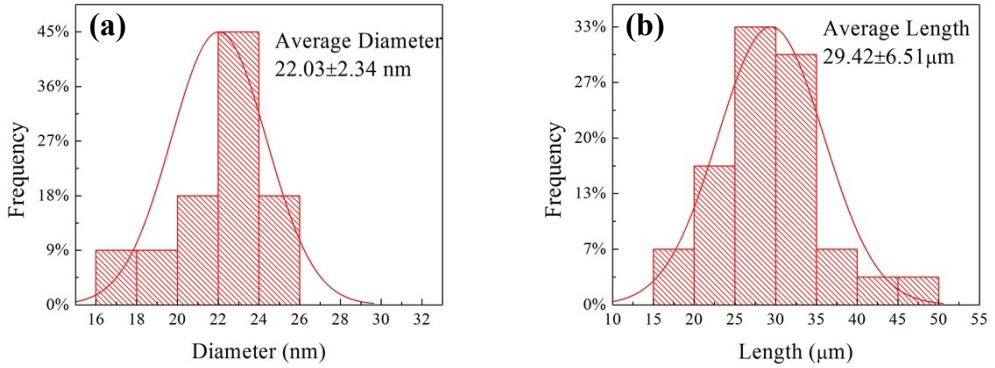

Fig. S9. Statistics for size distribution of AgNWs, synthesized by first heating to 180°C in 17 min and then cooling to 160°C with a holding time of 60 min: (a) diameter, (b) length. The concentration of Br^- and Cl^- ions was reduced to 80% of its original value.

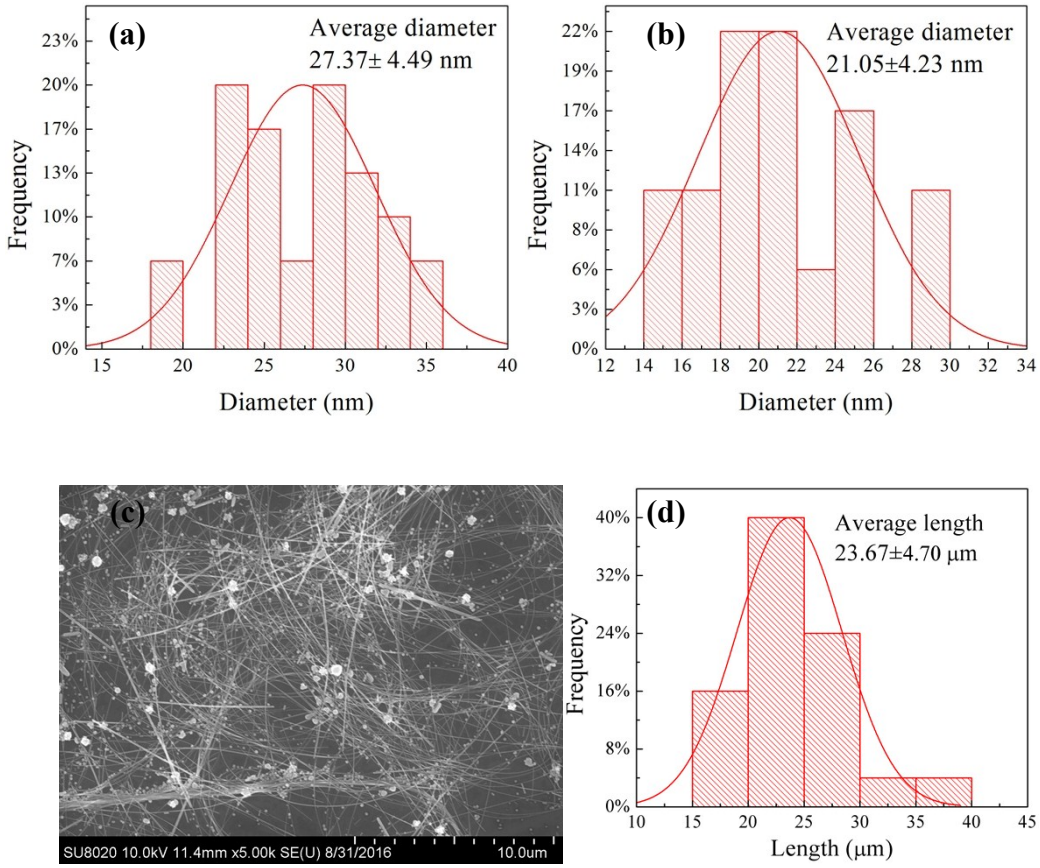

Fig. S10. Statistics for diameter distribution of AgNWs synthesized using only Bromine ions at (a) low and (b) high concentration. (c) SEM characterization of products and (d) statistics for length distribution of AgNWs synthesized at high concentration.

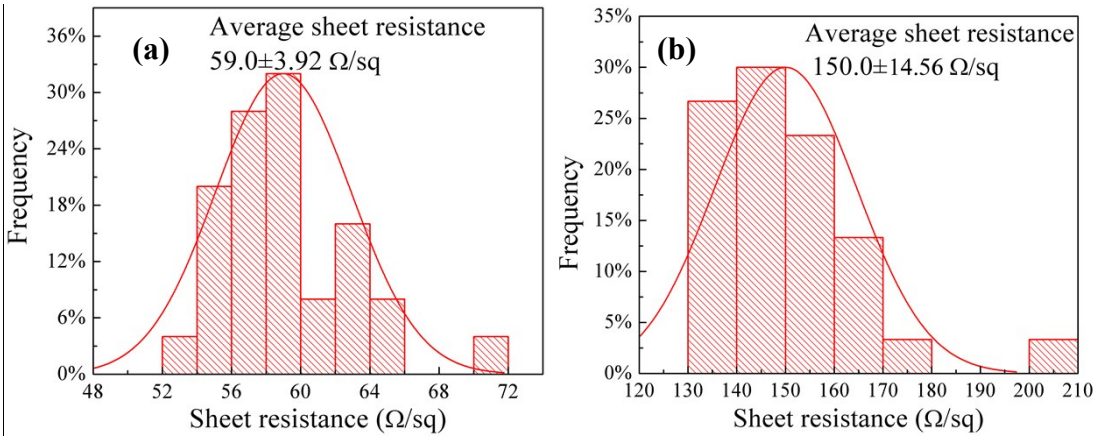

Fig. S11. Statistics for distribution of their sheet resistance: (a) TCFs made of AgNWs (controlled), (b) TCFs made of AgNWs (non-controlled).