Electronic Supplementary Material (ESI) for RSC Advances.

Electronic Supporting Information

Hydrothermal Synthesis of Ultra-high Aspect Ratio Ag Nanoflakes and Performance as conductive fillers in Film Heater and paste

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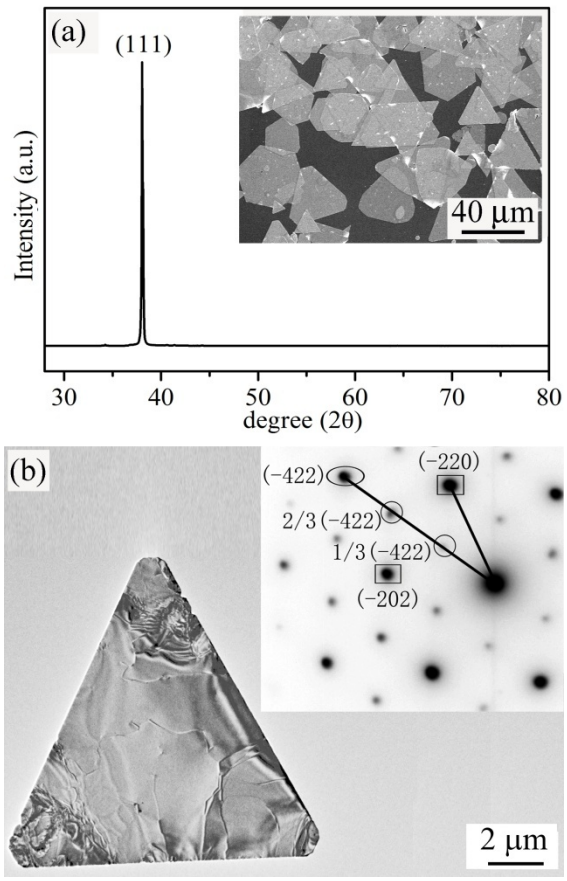

Fig. S1. (a) XRD pattern and FESEM image of Ag nanoflakes, (b) a typical TEM image of a triangle Ag nanoflakes and the corresponding SAED pattern.

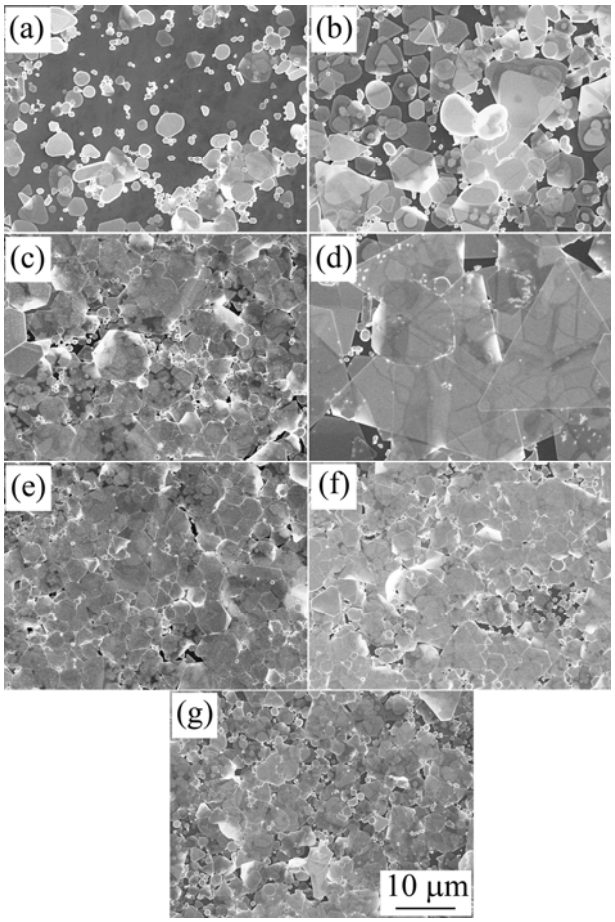

Fig. S2. FESEM images of Ag nanoflakes with PVP-K60 concentration of (a) 0.09, (b) 0.18, (c) 0.27, (d) 0.36, (e) 0.45, (f) 0.54 and (g) 0.63 M.

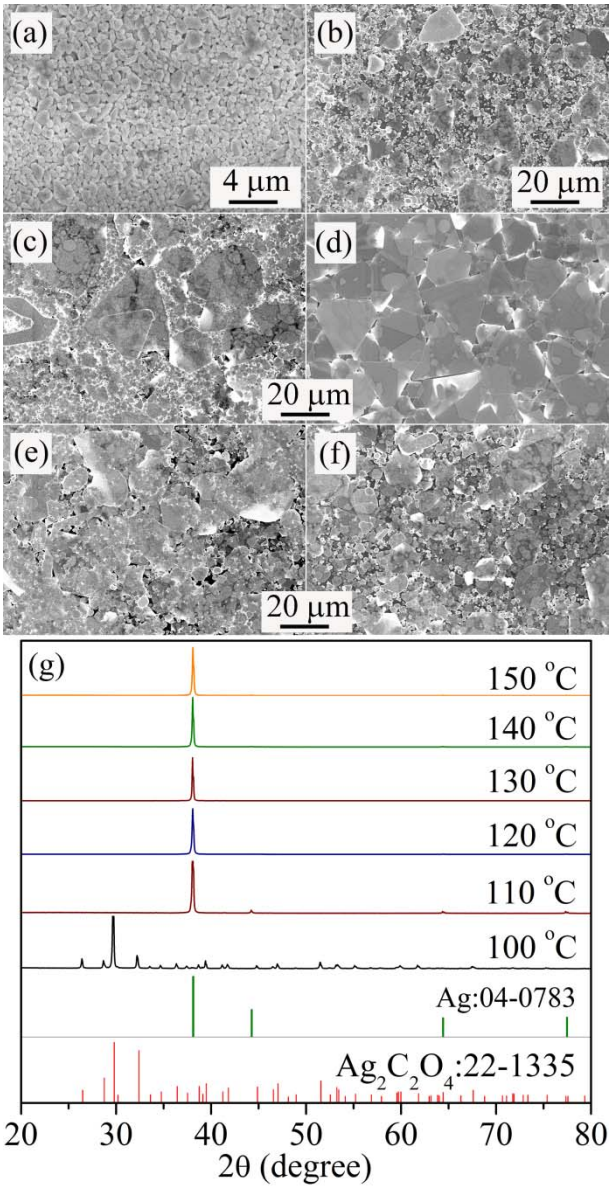

Fig. S3. FESEM images of Ag nanoflakes at reaction temperature of (a) 100, (b) 110, (c) 120, (d) 130, (e) 140, and (f) 150 °C. (g) The corresponding XRD spectra of the products at different temperatures.

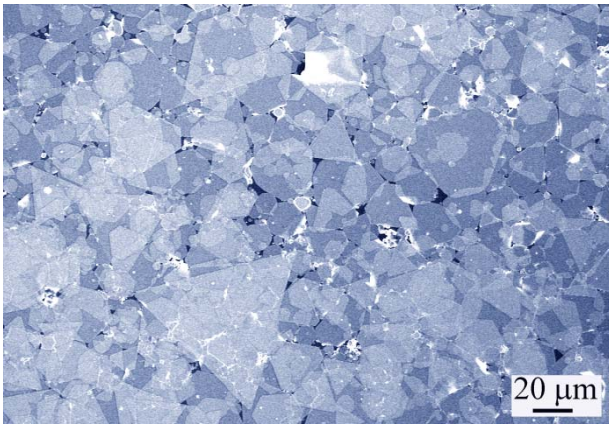

Fig. S4. FESEM image of Ag nanoflakes with a total output of about 1.5 g.

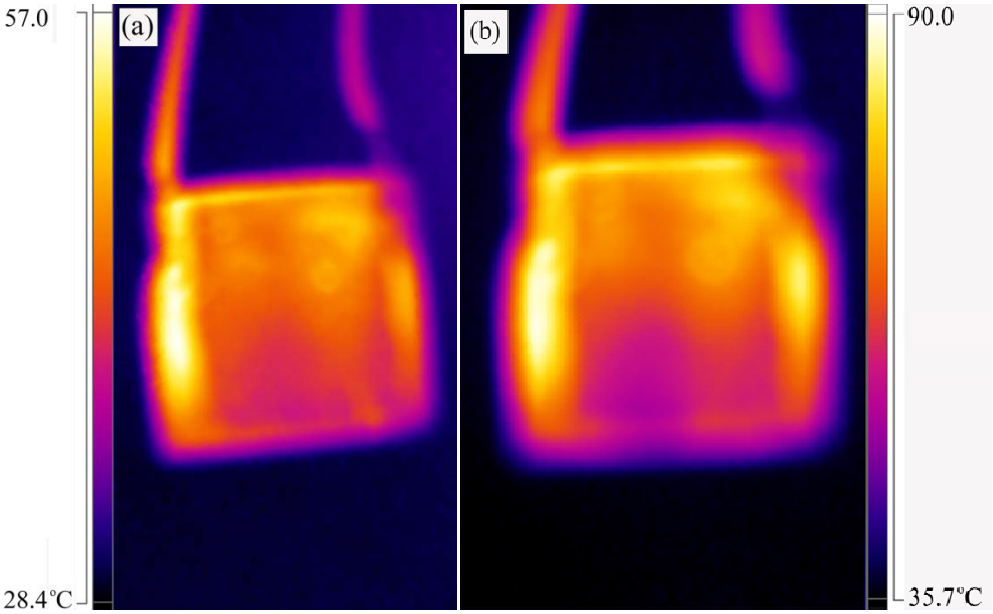

Fig. S5. Infrared photographs of Ag nanoflakes film heater at constant input voltage of (a) 0.5 and (b) 0.8 V with the surface temperature of 43.1 and 62.8 ^{o}C, respectively.

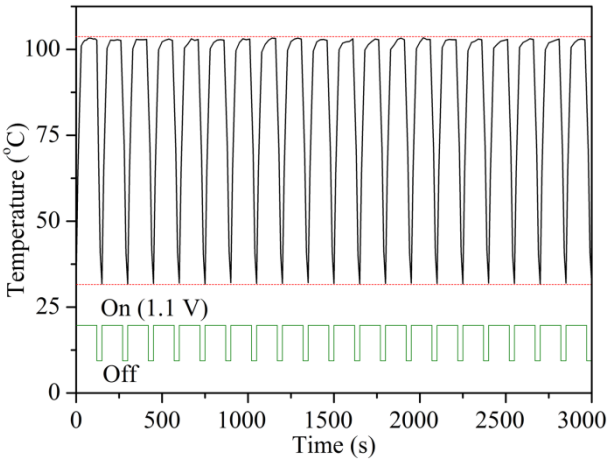

Fig. S6. Temperature profile of Ag nanoflakes heater within 20 cycles at an applied voltage of 1.1 V.