Systematic Study of Triangular Silver Nanoplates: One-Pot Green Synthesis, Chemical Stability, and Sensing Application

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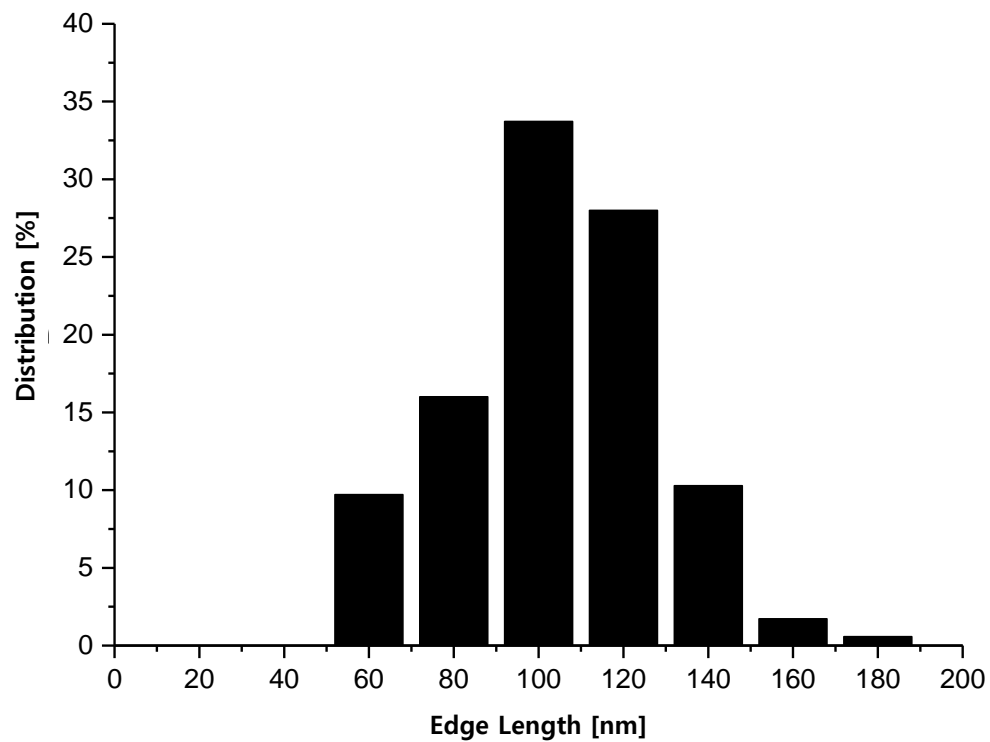
Supporting Figures

Fig. S1. Size distribution of Ag nanoplates formed in the presence of PAM (sample shown in Fig. 1B).
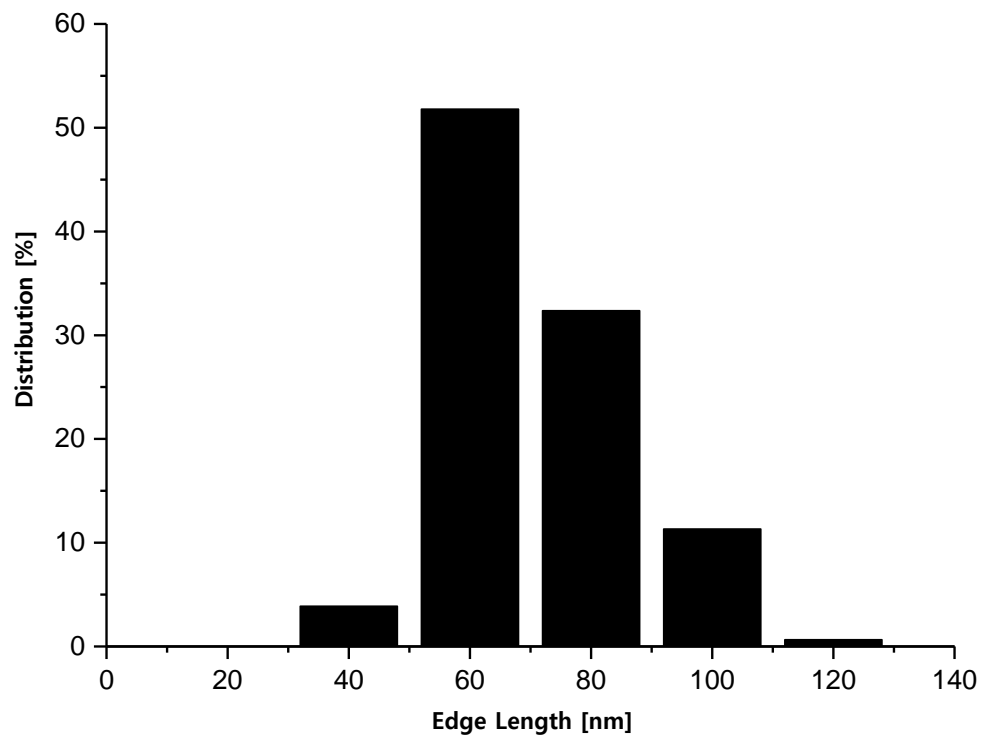
Fig. S2. Size distribution of Ag nanoplates formed in the presence of PAM and acetonitrile (sample shown in Fig. 1C).
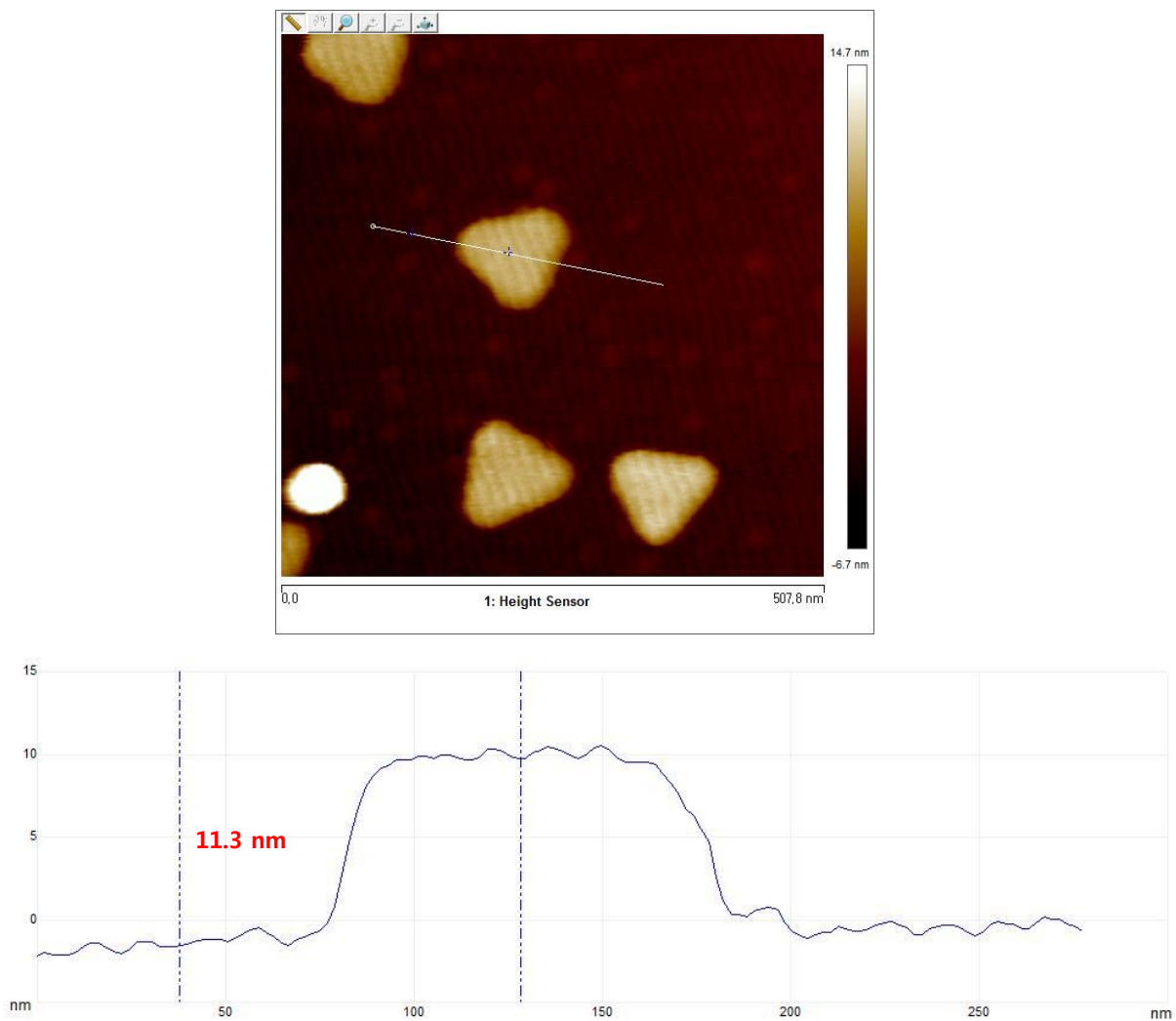
Fig. S3. AFM image of the Ag nanoplates shown in Figure 1C. The thickness of these Ag nanoplates was measured to be approximately 11.3 nm.
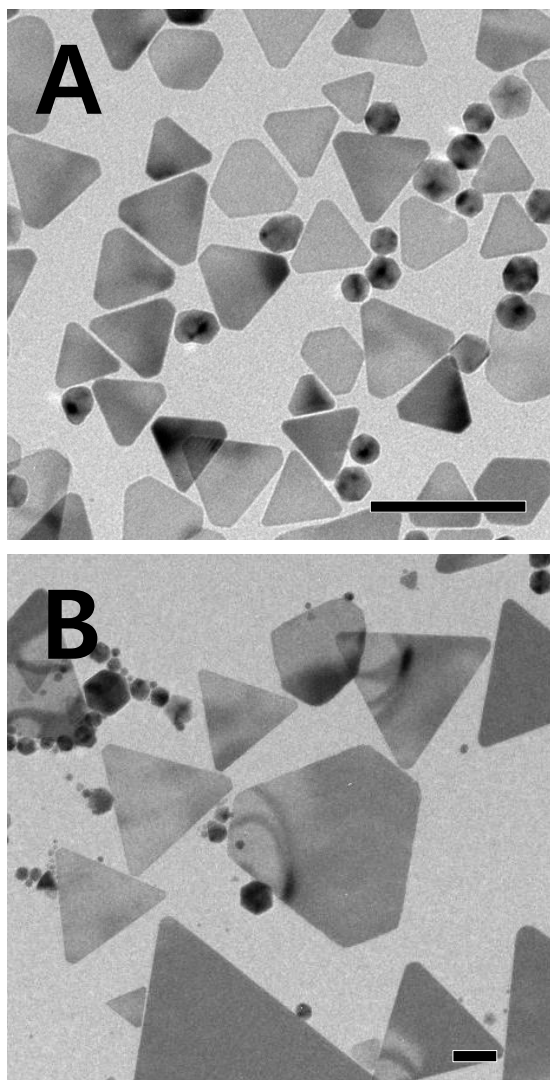
Fig. S4. TEM images of the Ag nanoplates. PVP to AgNO$_3$ w/w ratio were (A) 9.8 and (B) 39, respectively (scale bar = 100 nm).
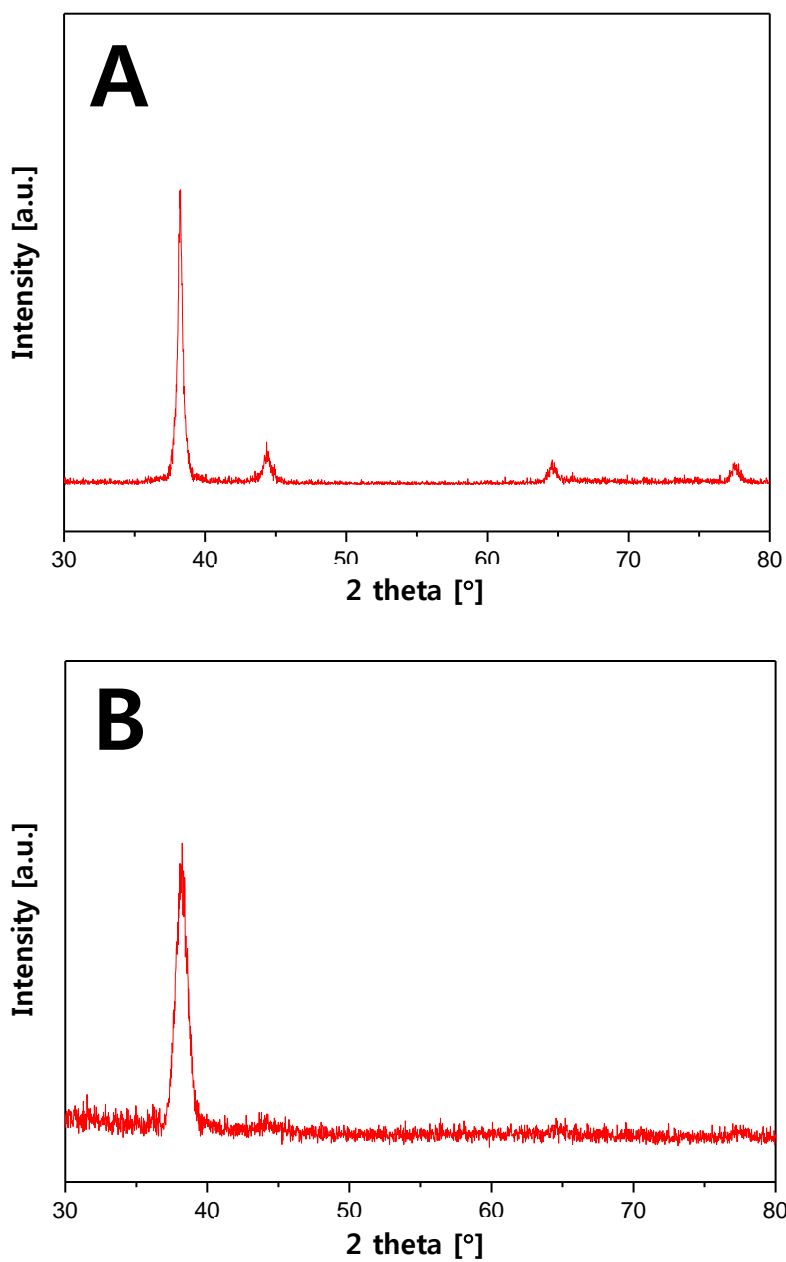
Fig. S5. XRD patterns of the Ag nanoplates formed in water medium (A) in the absence of PAM and acetonitrile and (B) in the presence of PAM and acetonitrile.
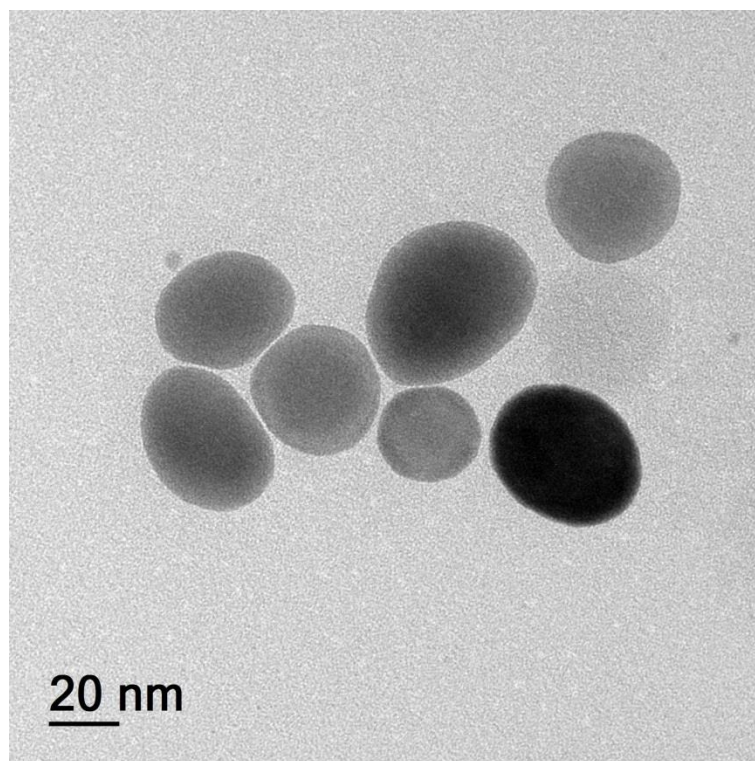
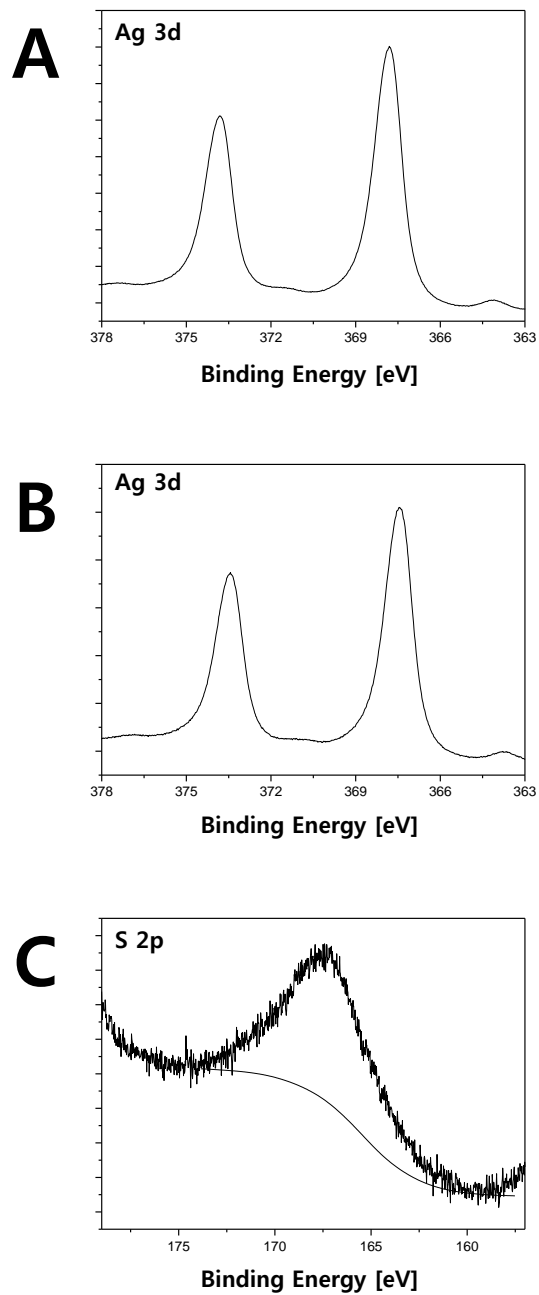**Fig. S6.** TEM image of the Ag nanoplates aged for 7 h after addition of VBS.

Fig. S7. XPS data of the Ag nanoplates (A) before and (B, C) after VBS treatment.
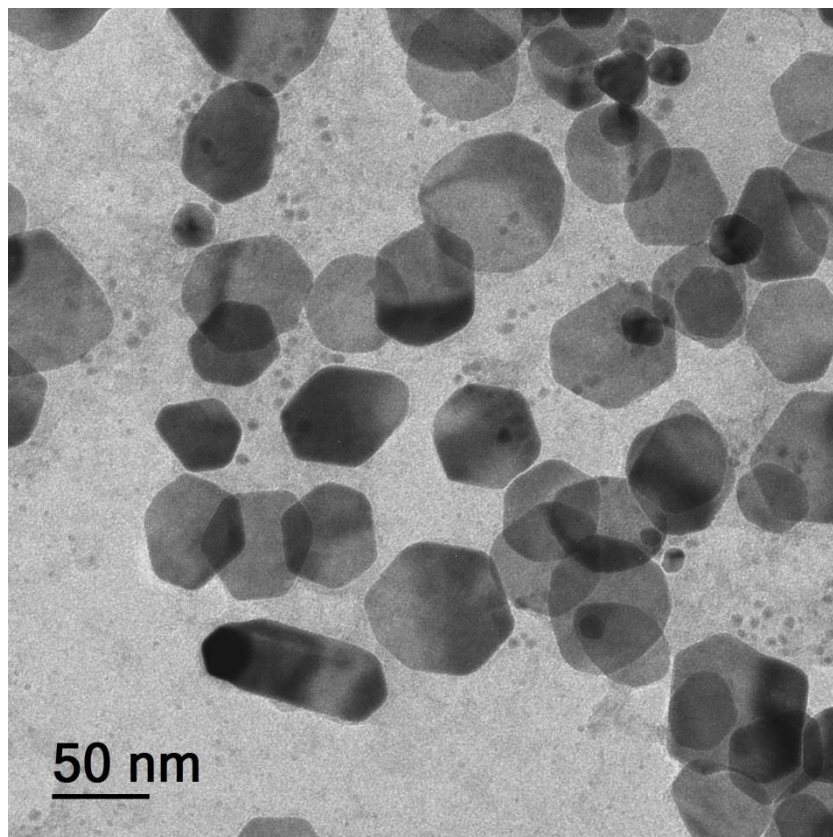
Fig. S8. TEM image of Ag nanoplates that were aged with KPS at 60 °C for 2 h.
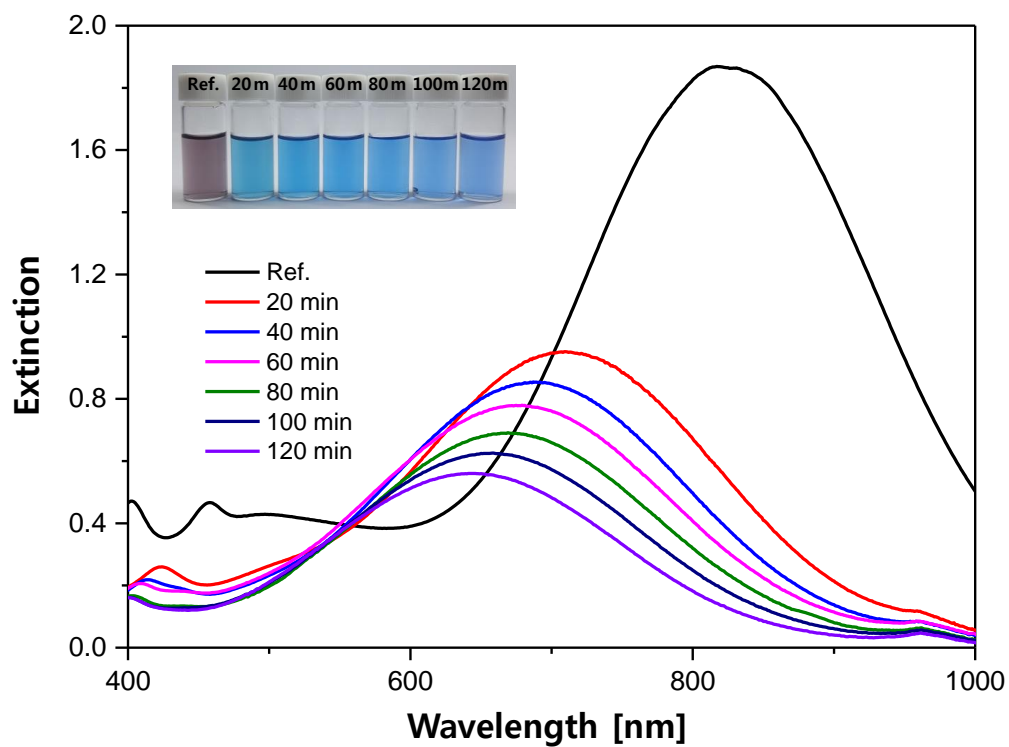
Fig. S9. Extinction spectra of Ag nanoplate aqueous solutions containing APS and aged at 60 °C for various different periods of time (differing by 20 min intervals). Inset of shows a photograph of the samples.
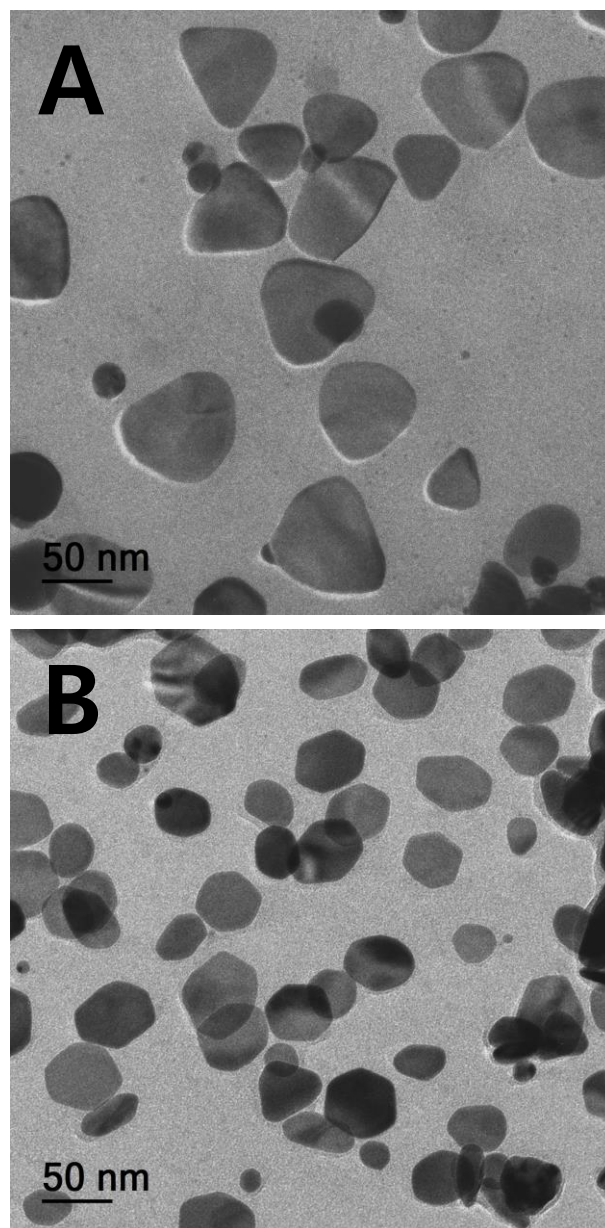
Fig. S10. TEM images of Ag nanoplates that were aged with KPS at (A) 40°C and (B) 80 °C for 2 h.
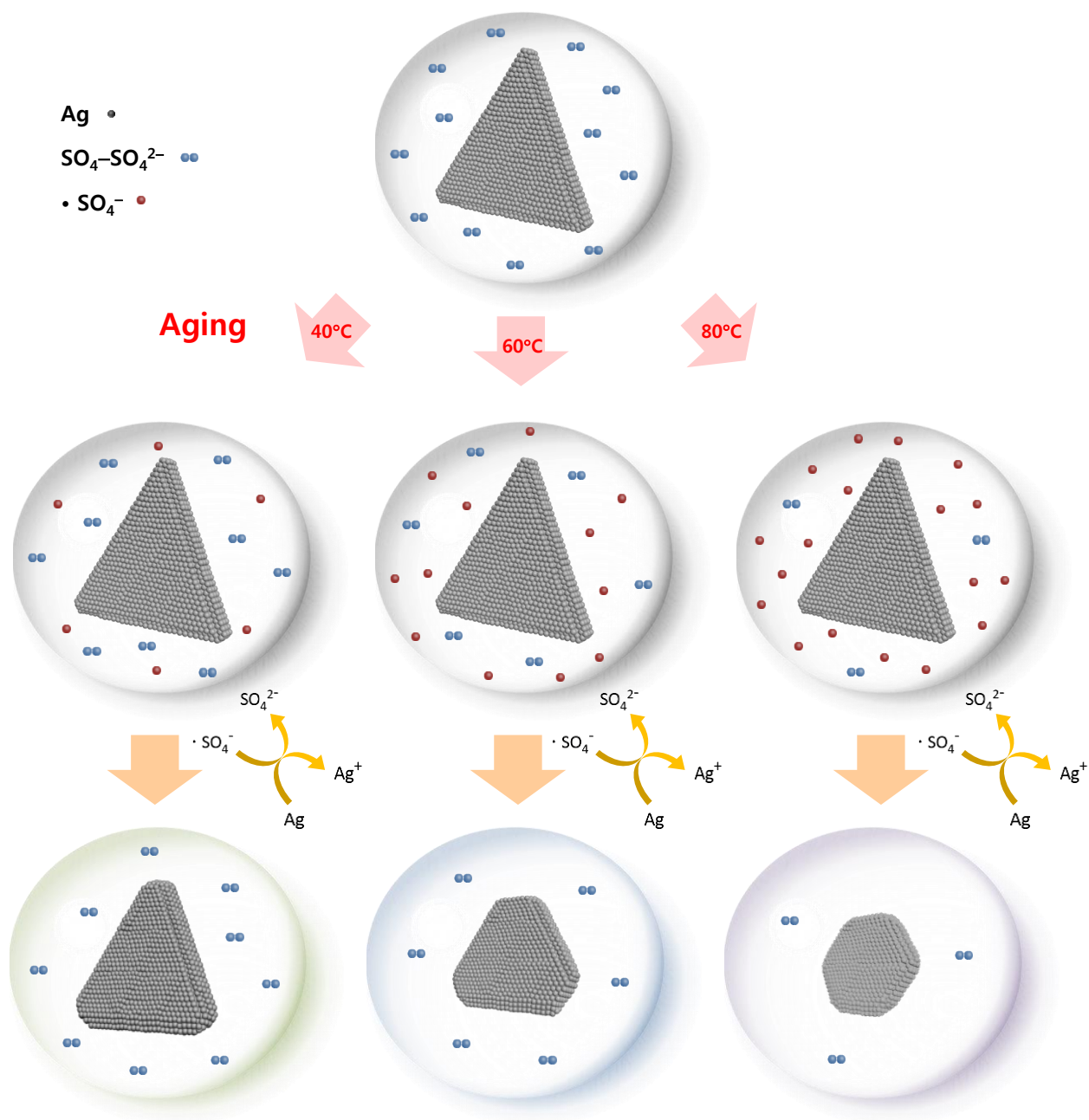
Fig. S11. Schematic diagram illustrating the shape evolutions of Ag nanoplates in the presence of KPS at different aging temperatures.