Electronic Supplementary Information

Out-of-Substrate Ag–Ag_2O Nanoplates: Surfactantless Photochemical Synthesis, Structural Evolution, and Mechanistic Study

Meng Yin Li,[†,∥] Yao Quan Mao,[†,∥] Su Ke Yang,[†] Ting Ting Dai,[†] Hua Yang,[†] Feng Feng,[†] Tao Wu,[†] Muzi Chen,[‡] Guo Qin Xu,*[,§] Ji Hong Wu,*[,†]

[†] *College of Chemistry, Chemical Engineering and Materials Science, Soochow University, 199 RenAi Road, Suzhou 215123, Jiangsu, China*

[§] *Department of Chemistry, National University of Singapore, 3 Science Drive 3, Singapore 117543*

[‡] *Testing & Analysis Center, Soochow University, 199 RenAi Road, Suzhou 215123, Jiangsu, China*

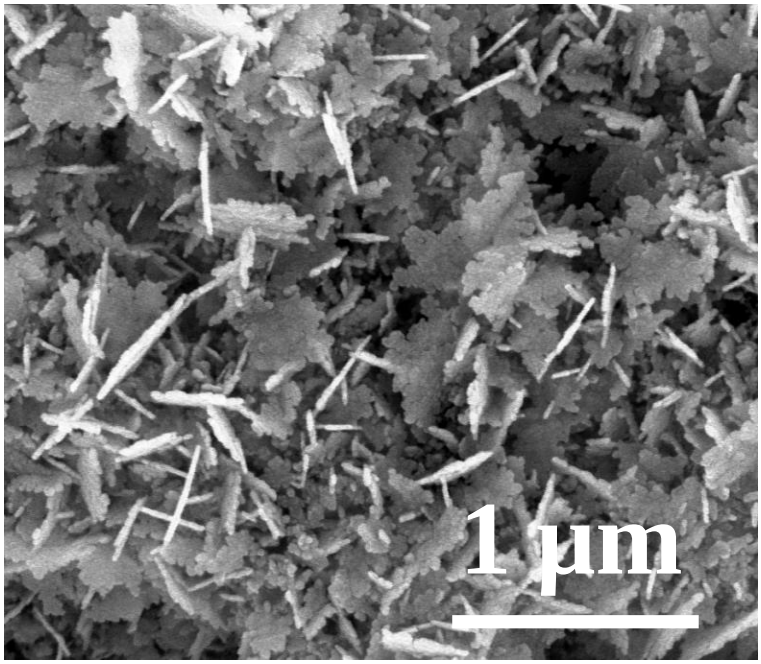

Figure S1. Small nanoplates with rough surfaces and ragged edges grown from a 0.1M $AgNO_3$ aqueous solution after UV illumination for 180 min.

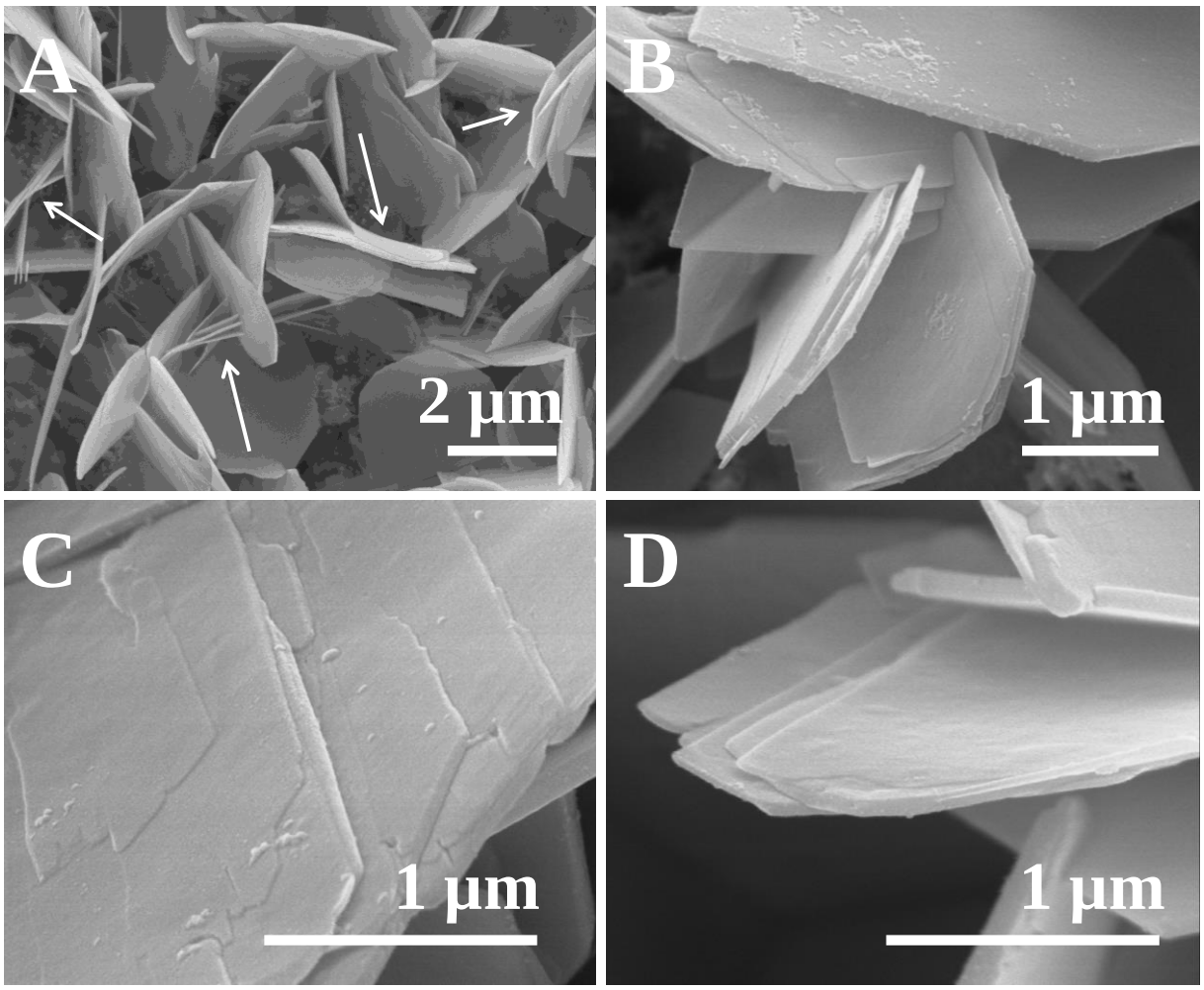

Figure S2. SEM characterization reveals polymerization of the large nanoplates. Growth time: (A) 130 min, (B) 150 min, (C) 160 min, and (D) 180 min.

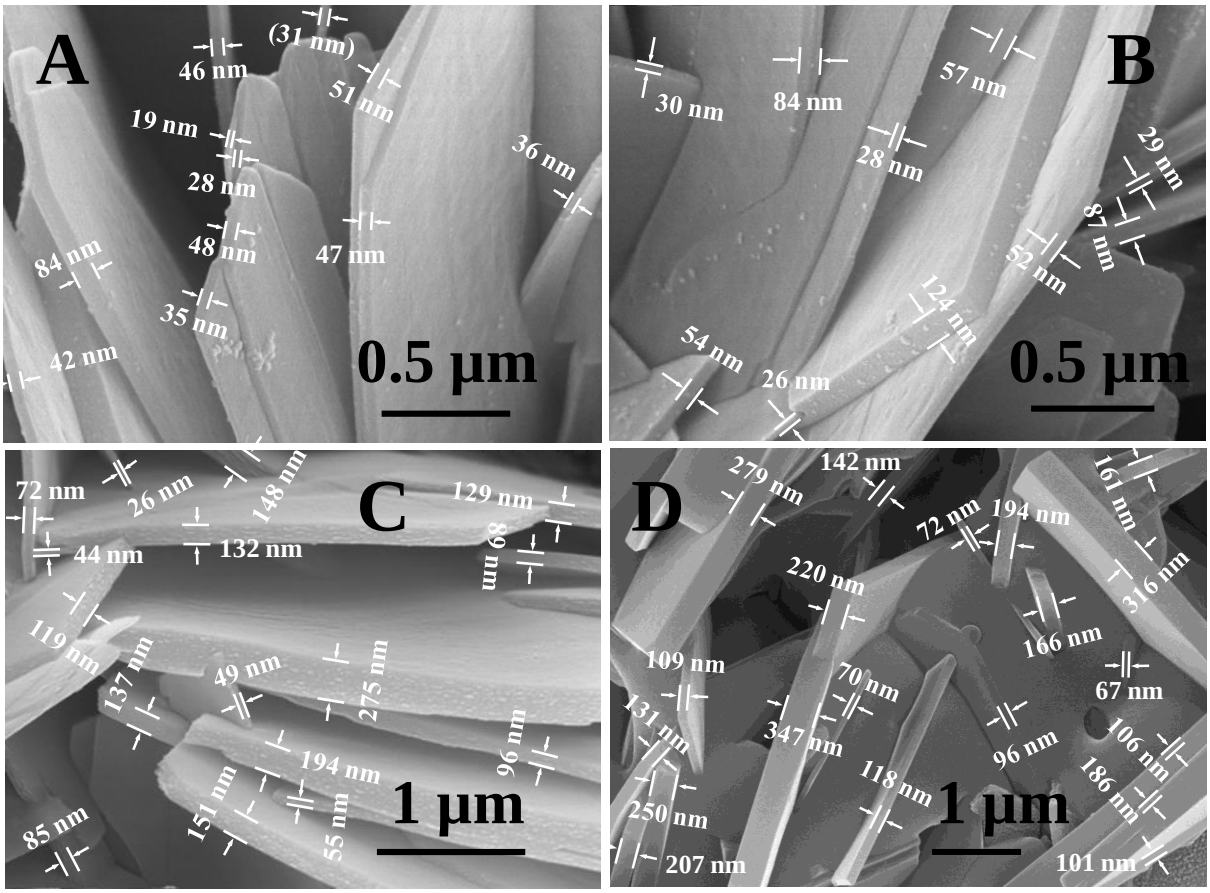

Figure S3. (A-D) Close-up side view of THE large smooth nanoplates obtained at 180 min and measurements of the nanoplate thicknesses. Concentration of $AgNO_3$ precursor: 5 M.

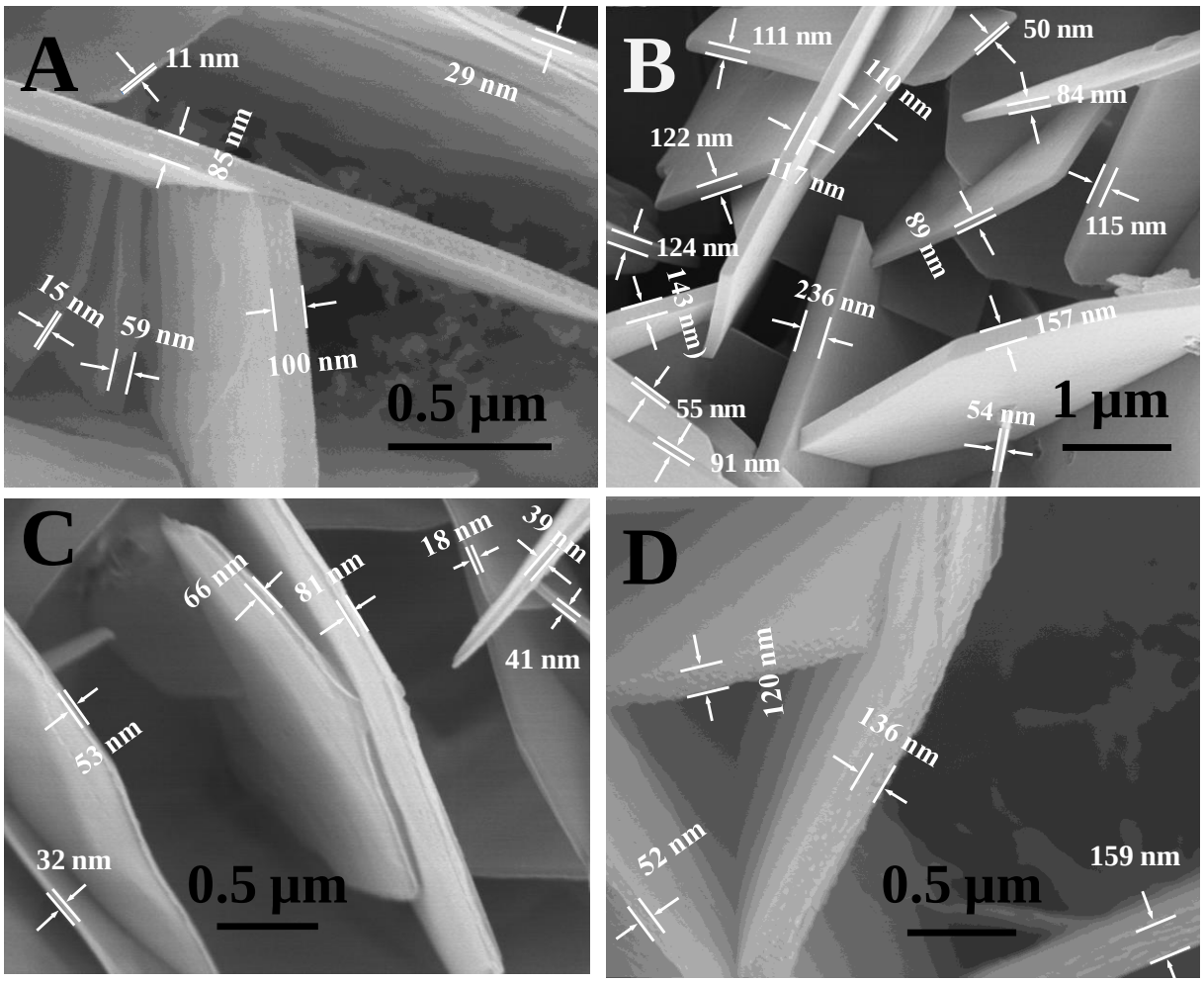

Figure S4. (A-D) Close-up side view of the large smooth nanoplates obtained at 180 min and measurements of the nanoplate thicknesses. Concentration of $AgNO_3$ precursor: 1 M.