

Supporting Information

Electrochemical solid-state phase transformations of silver nanoparticles

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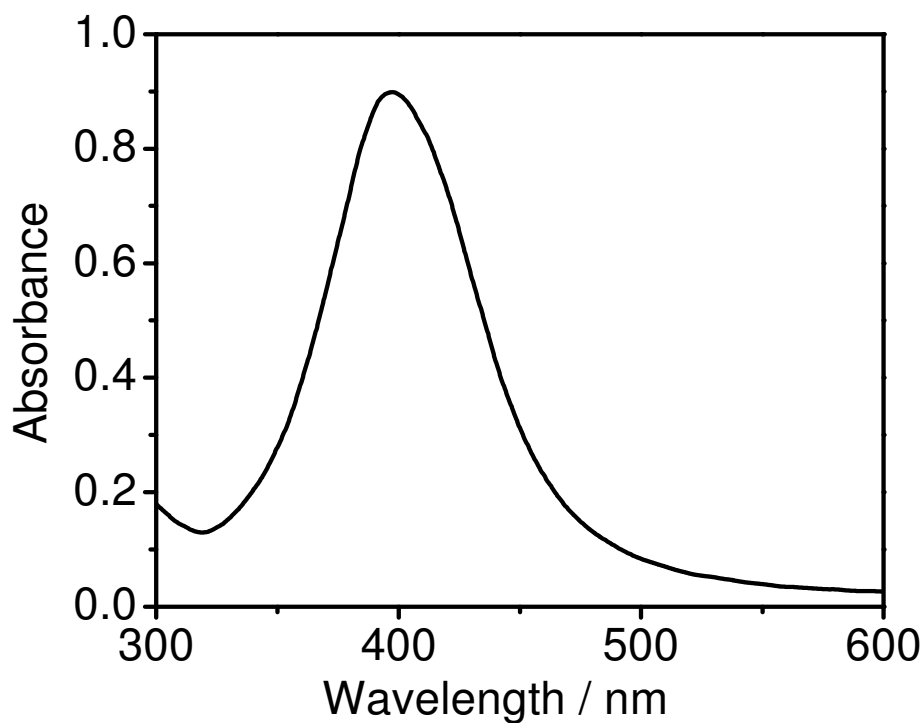


Figure S1. UV-vis absorption spectrum of diluted ATP-Ag NP solution.

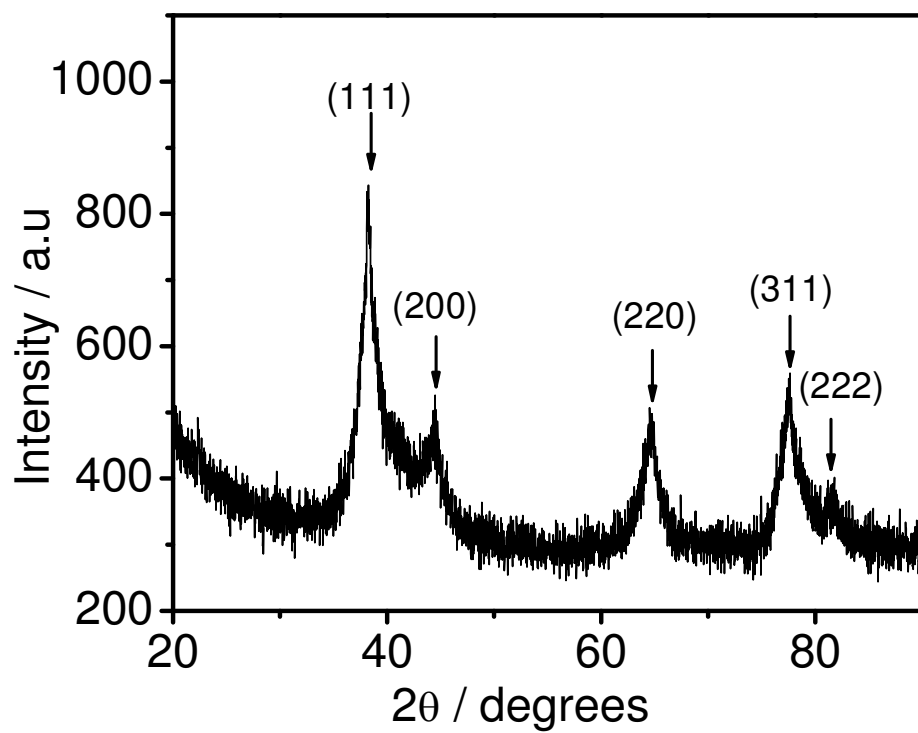


Figure S2. Powder X-ray diffraction pattern of ATP-Ag NPs.

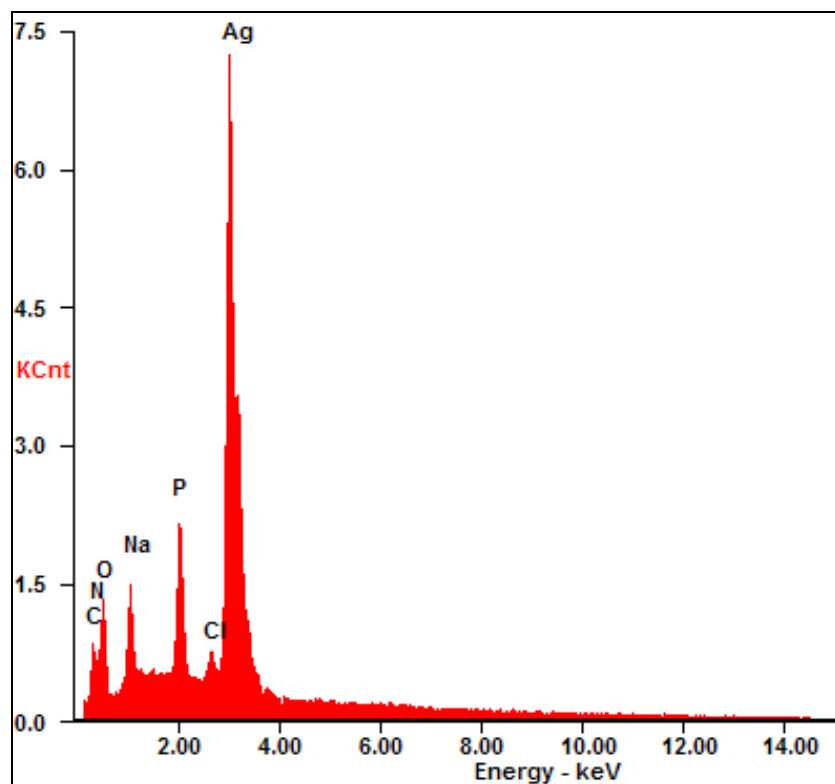


Figure S3. Elemental analysis of solid ATP-Ag NPs using EDX.

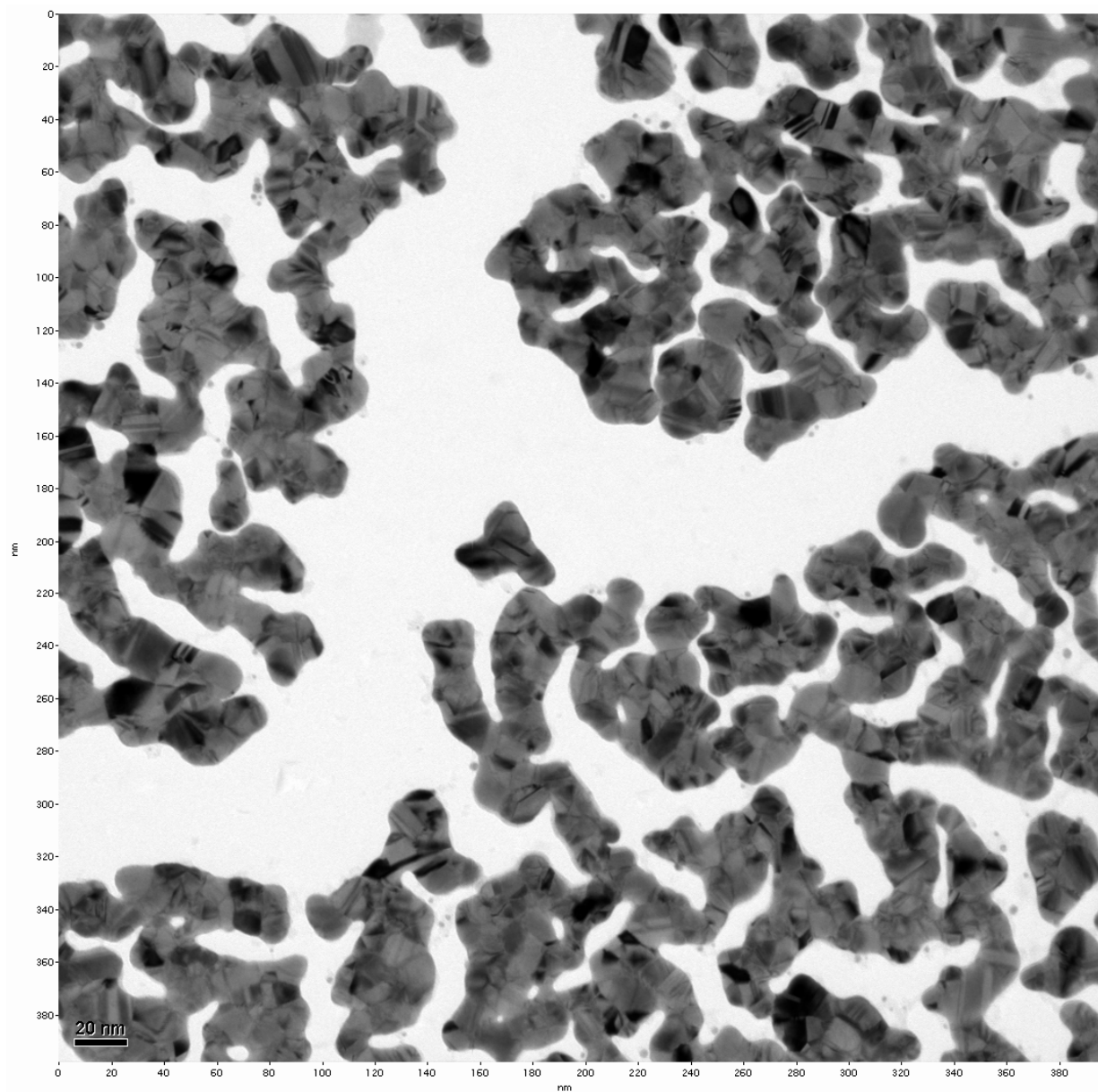


Figure S4. TEM of a blank (uncoated) Au-coated Au TEM grid similar to those used to prepare NP LbL films. The grids are characterized by very thin regions of Au (lighter contrast) connecting slightly thicker regions (darker contrast), with the average thickness of the Au film being 2 nm

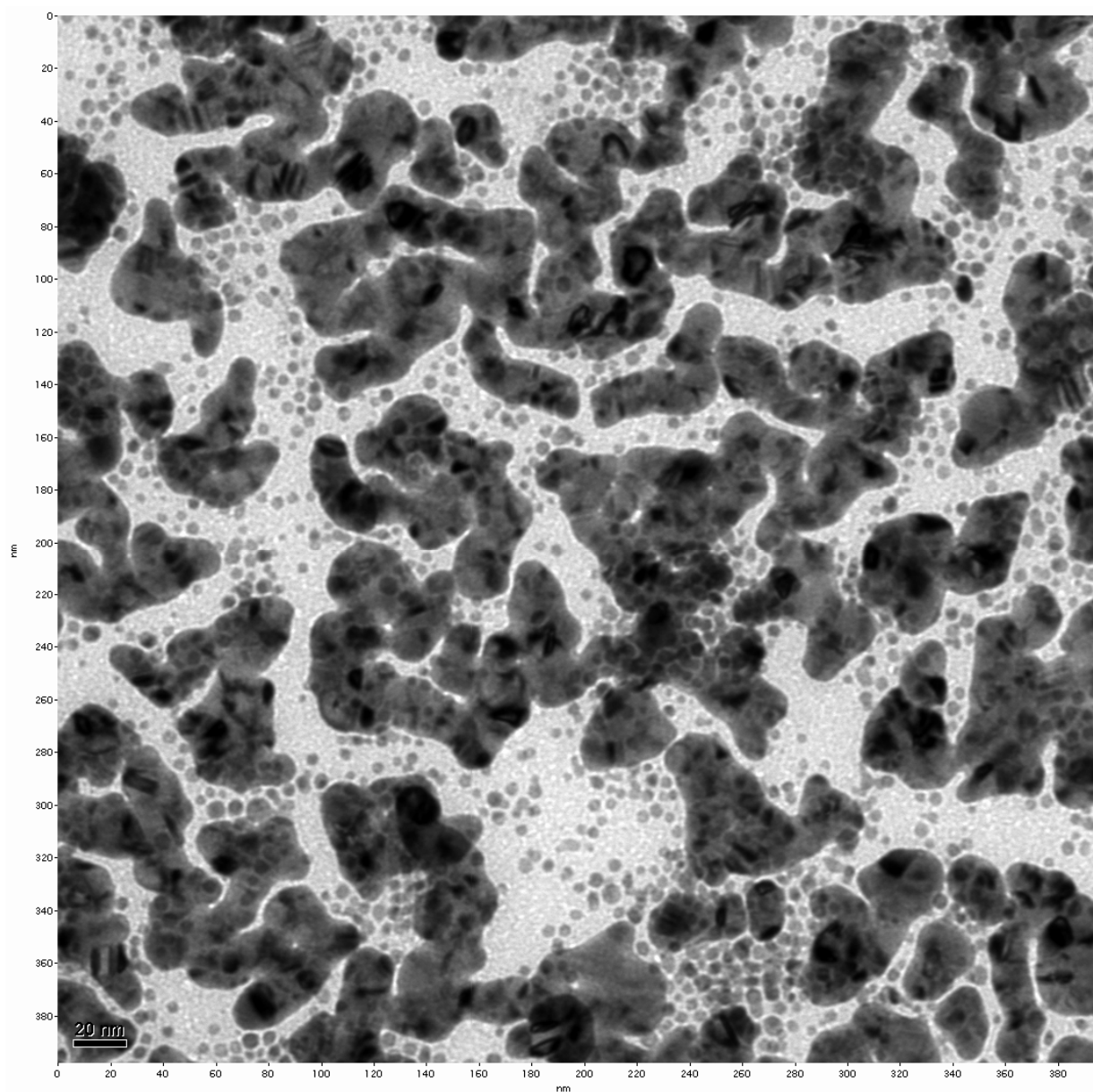


Figure S5. TEM image of a Ag-ATP NP 1L LbL film similar to that in Figure 4 in the Ag_2O state, i.e. after oxidation from Ag to Ag_2O .

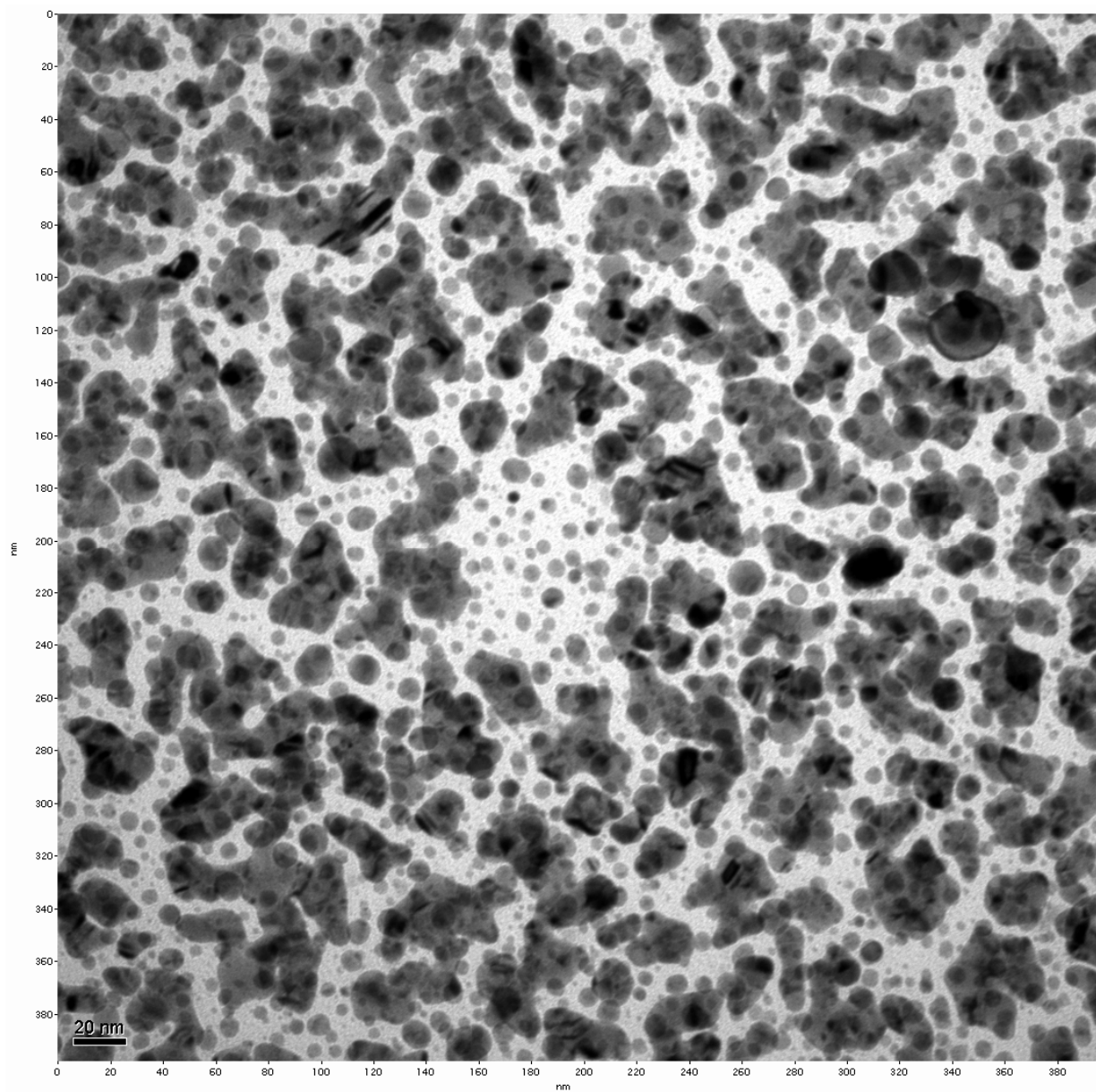


Figure S6. TEM image of a Ag-ATP NP 1L LbL film similar to that in Figure 4 in the AgCl state, i.e. after oxidation from Ag to AgCl.

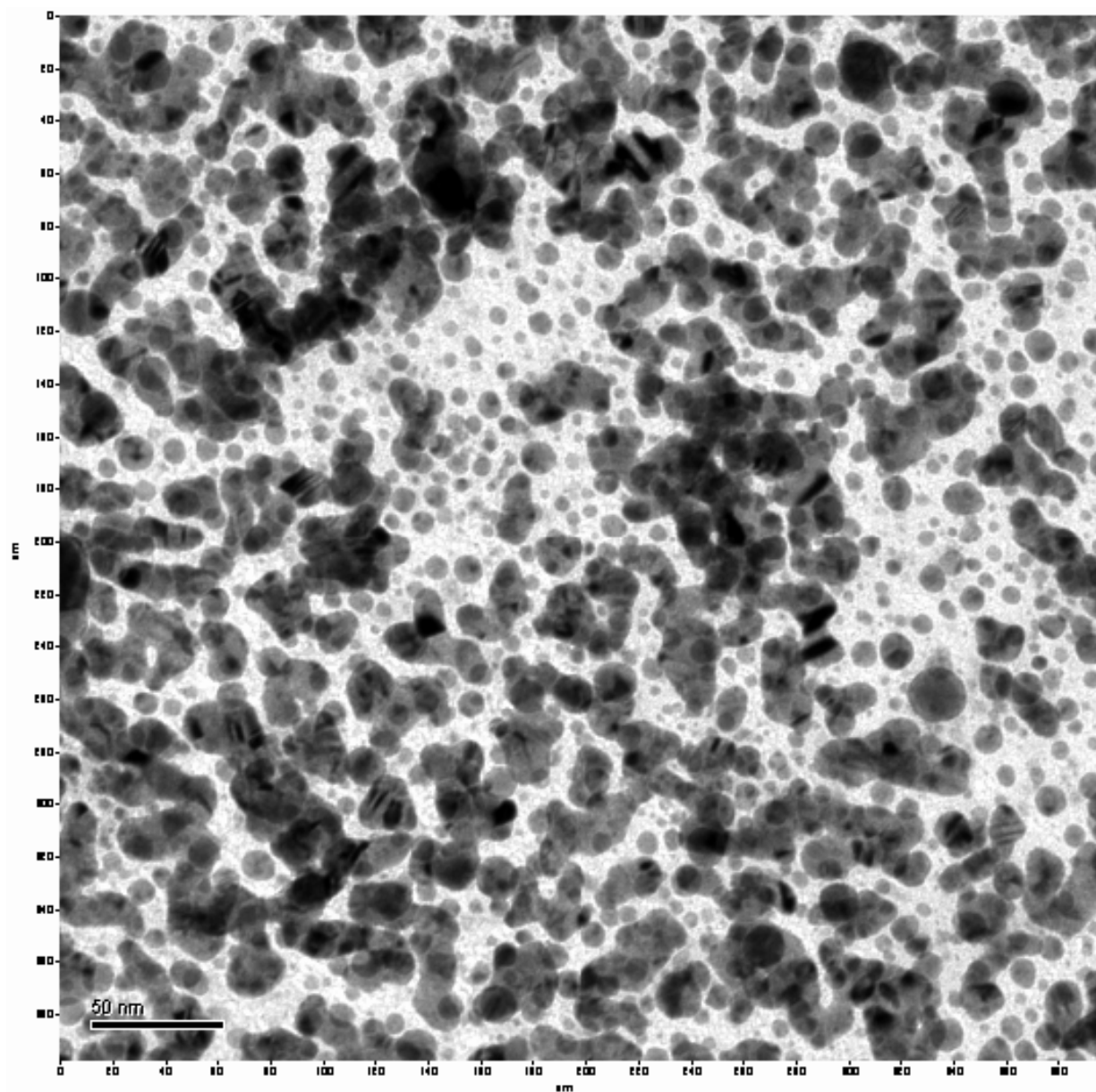


Figure S7. TEM image of the same Ag-ATP NP 1L LbL shown in Figure S6 after reduction back to the Ag state.

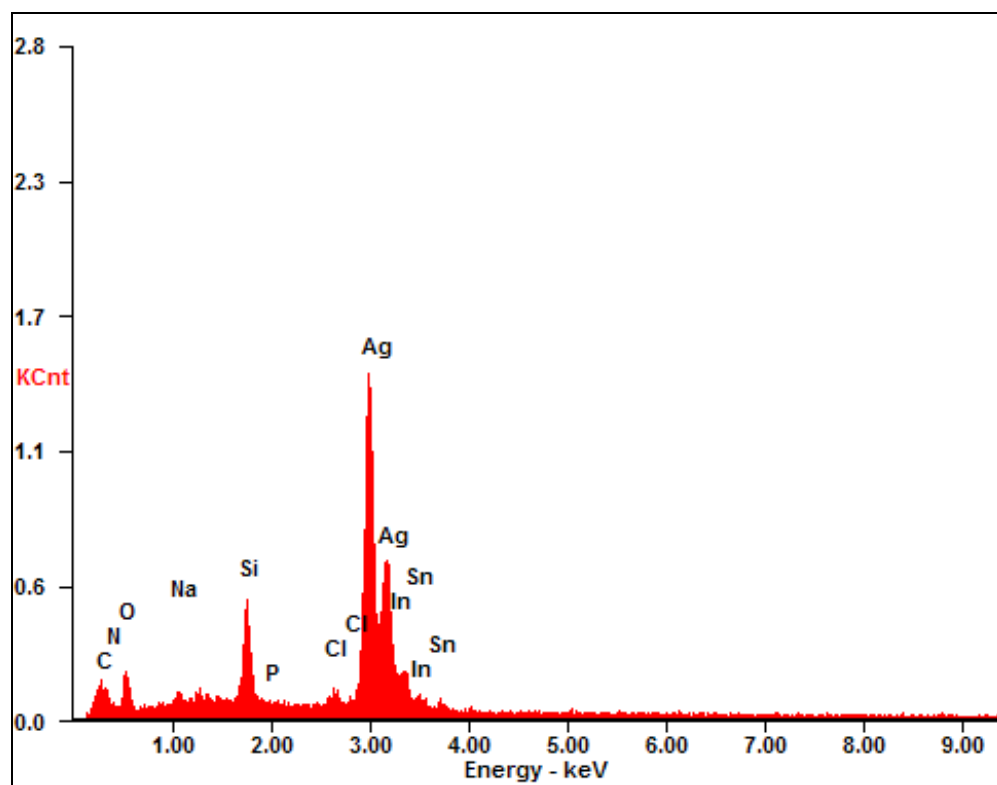


Figure S8. EDX spectrum of 7L LbL film of ATP-Ag NPs on ITO substrate after scanning through a redox cycle in N_2 -saturated 0.5M NaCl.