

Electronic Supplementary Information

Electrodeposition of Silver Nanostructures: From Polygons to Dendrites

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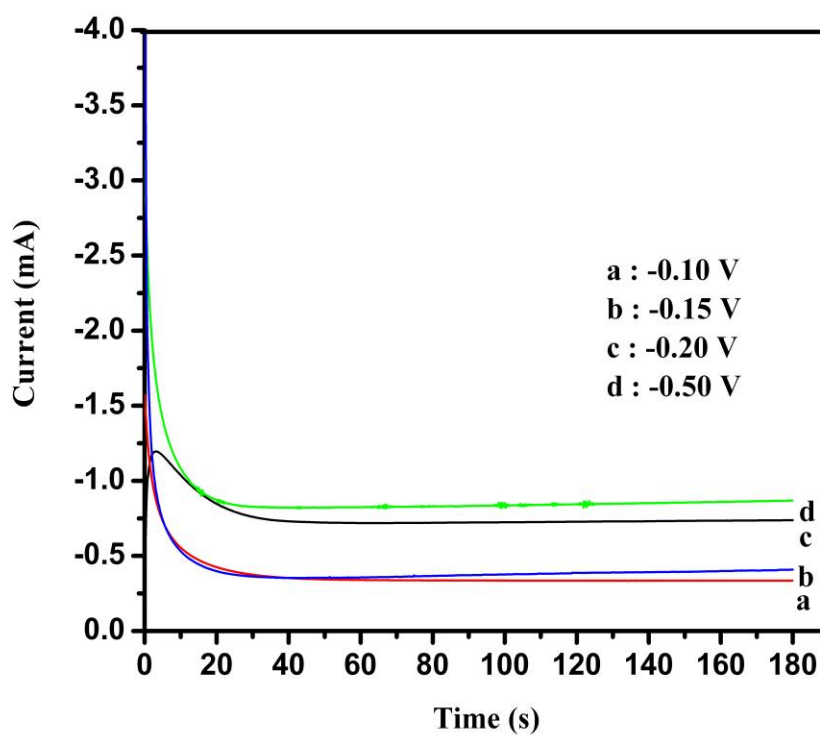


Fig. S1 Chronoamperometric current for the deposition of Ag on ITO at various potentials from a solution of 0.1 M KNO_3 and AgNO_3 taken at different concentrations, 10 mM (a-c) and 5 mM (d).

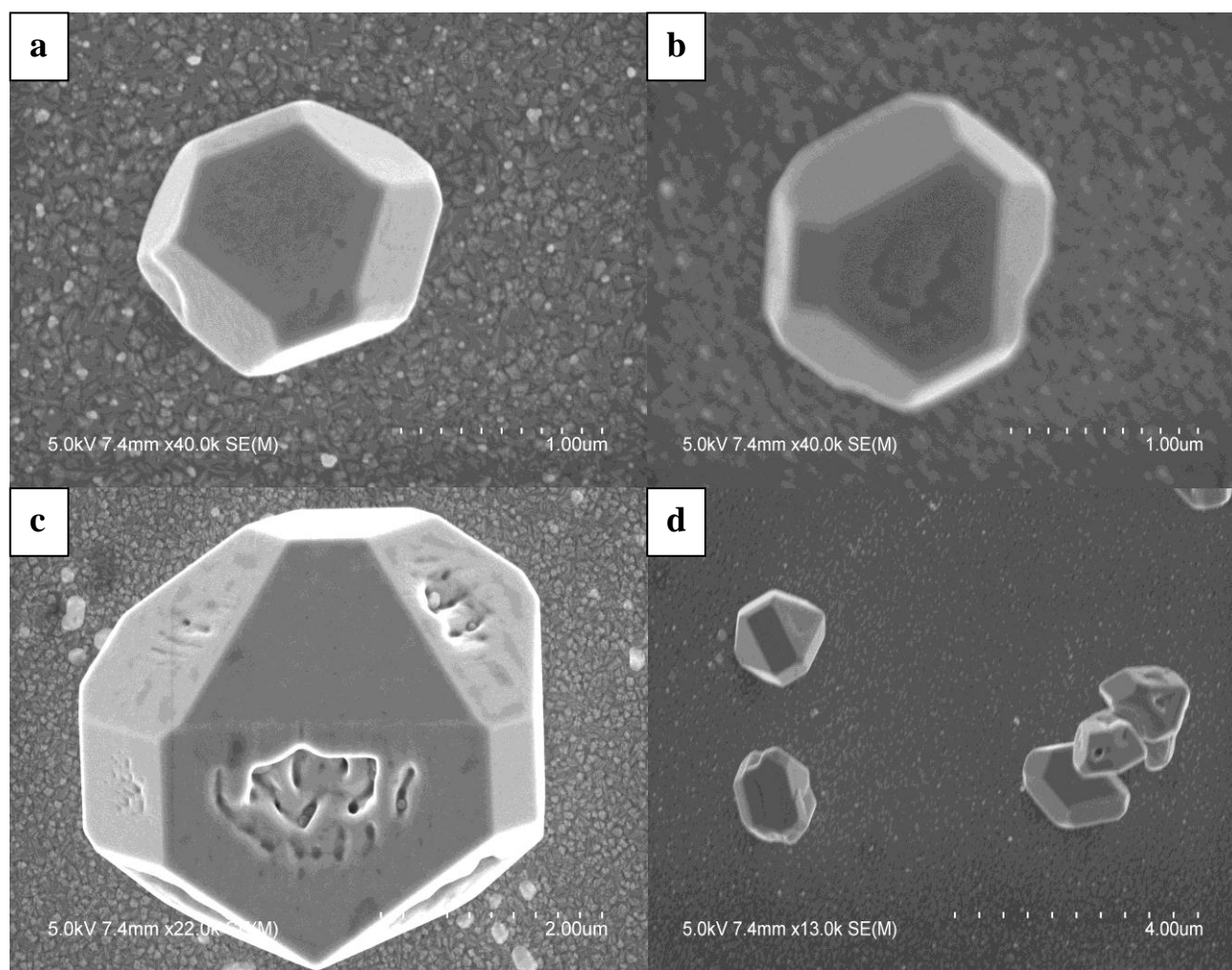


Fig. S2 SEM images of silver polyhedron structures obtained from a solution of 0.1 M KNO_3 and 10 mM AgNO_3 at different deposition potentials (a) and (b) -0.15 V; (c) and (d) -0.10 V.

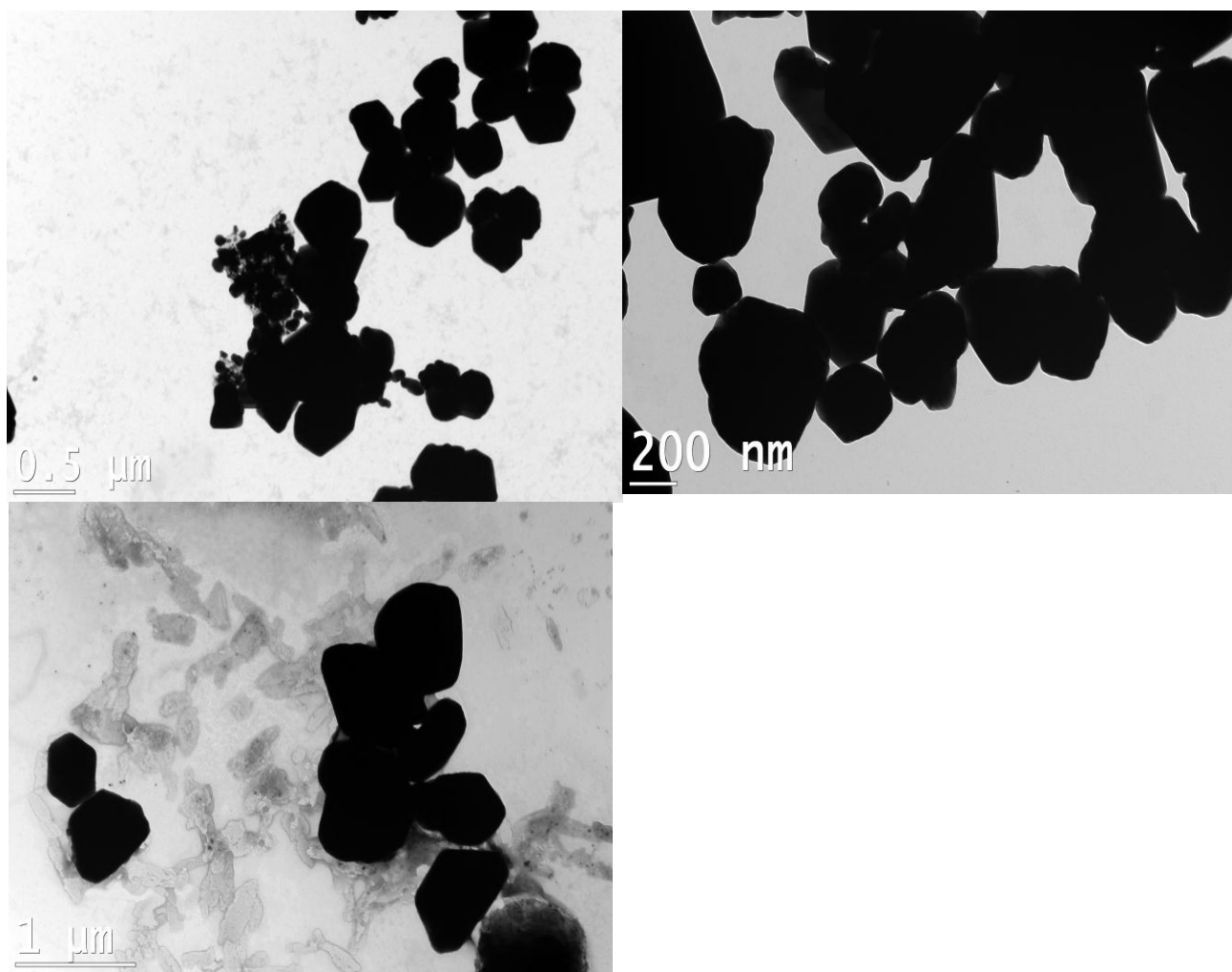


Fig. S3 Enlarged TEM images of Silver polygonal nanostructures obtained from a solution of 0.1 M KNO_3 and 10 mM AgNO_3 at a deposition potential of -0.15 V for a period of 180 s.

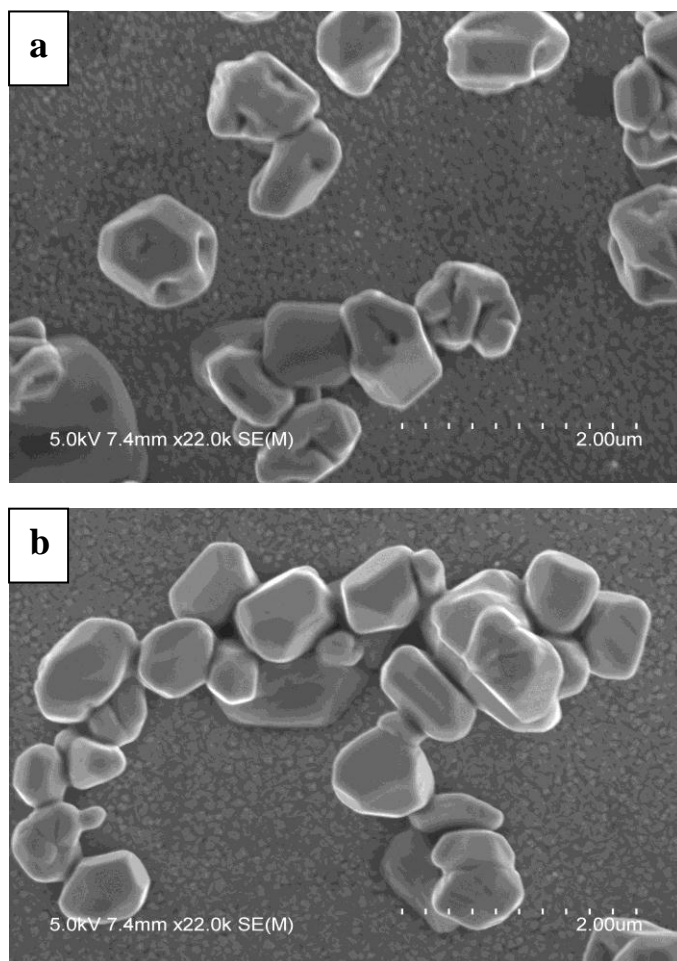
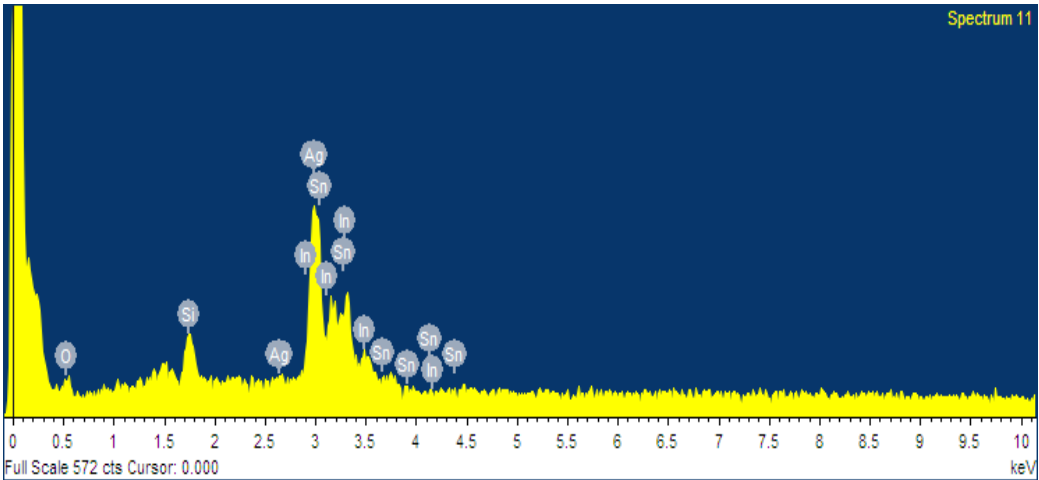


Fig. S4 SEM images of ITO surface upon deposition of silver from 0.1 M KNO_3 and 10 mM AgNO_3 at two different potentials; (a) -0.1 V : polygons with pores and (b) -0.2 V : polygons with aggregations. The deposition time is 180 s in each.



| Elements | Weight % | Atomic % |
|----------|----------|----------|
| O k | 15.95 | 52.87 |
| Si K | 4.68 | 8.83 |
| Ag L | 55.14 | 27.10 |
| In L | 24.19 | 11.19 |
| Sn L | 0.05 | 0.01 |

Fig. S5 EDAX spectrum of electrodeposited silver on ITO at a potential of -0.15 V from a solution of 0.1 M KNO₃ and 10 mM AgNO₃.

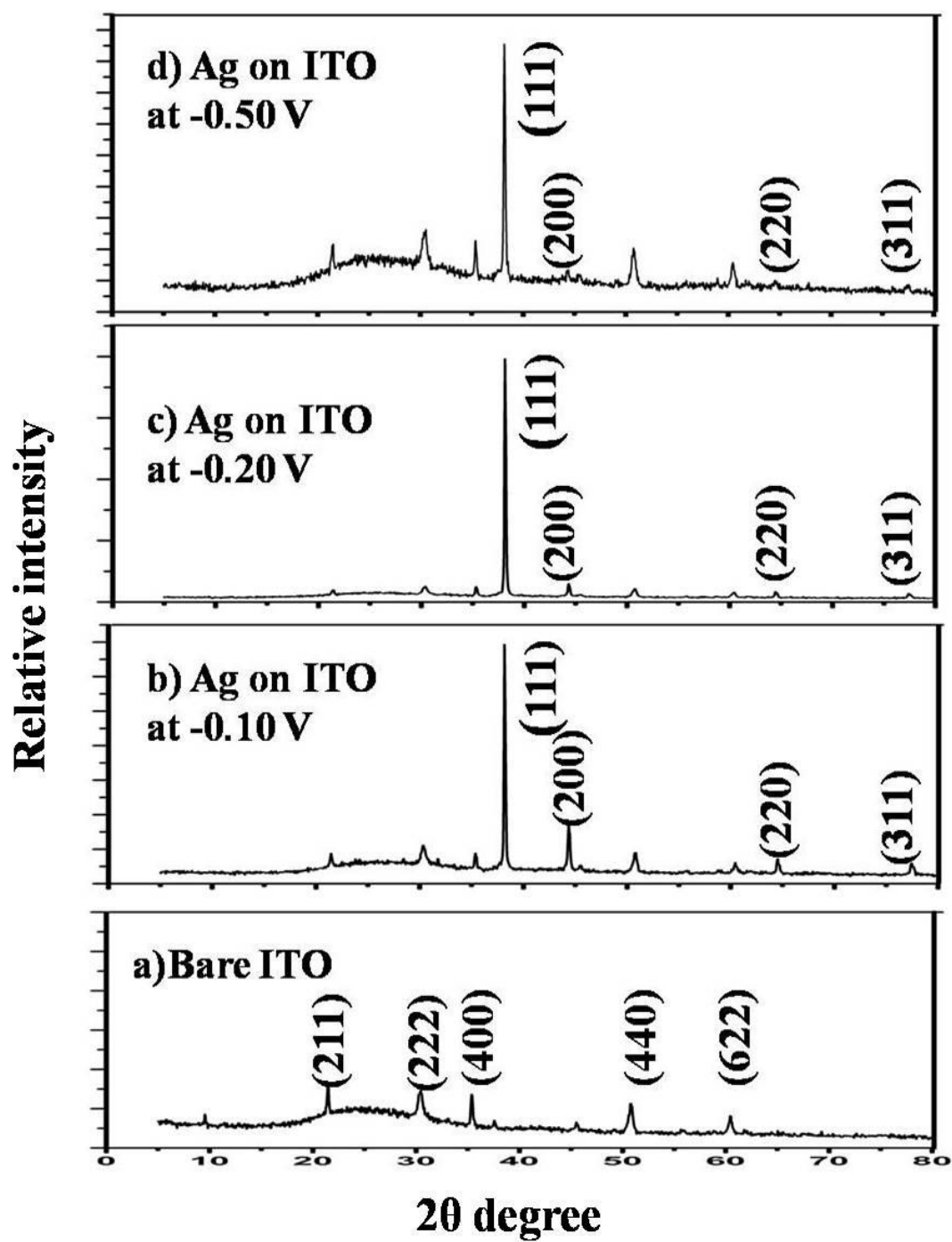


Fig. S6 XRD spectrum of electrodeposited Ag on ITO at various potentials.