Electronic Supplementary Information for the paper

Sustainable one-step-solid state synthesis of antibacterially active silver nanoparticles using mechanochemistry

by

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Milling of pure $AgNO_3$

The XRD pattern of pure $AgNO_3$ subjected to milling under the same conditions as the Ag:plant mixtures showing just reflections of $AgNO_3$ (no reduction to Ag^0) can be seen in Fig. S1.

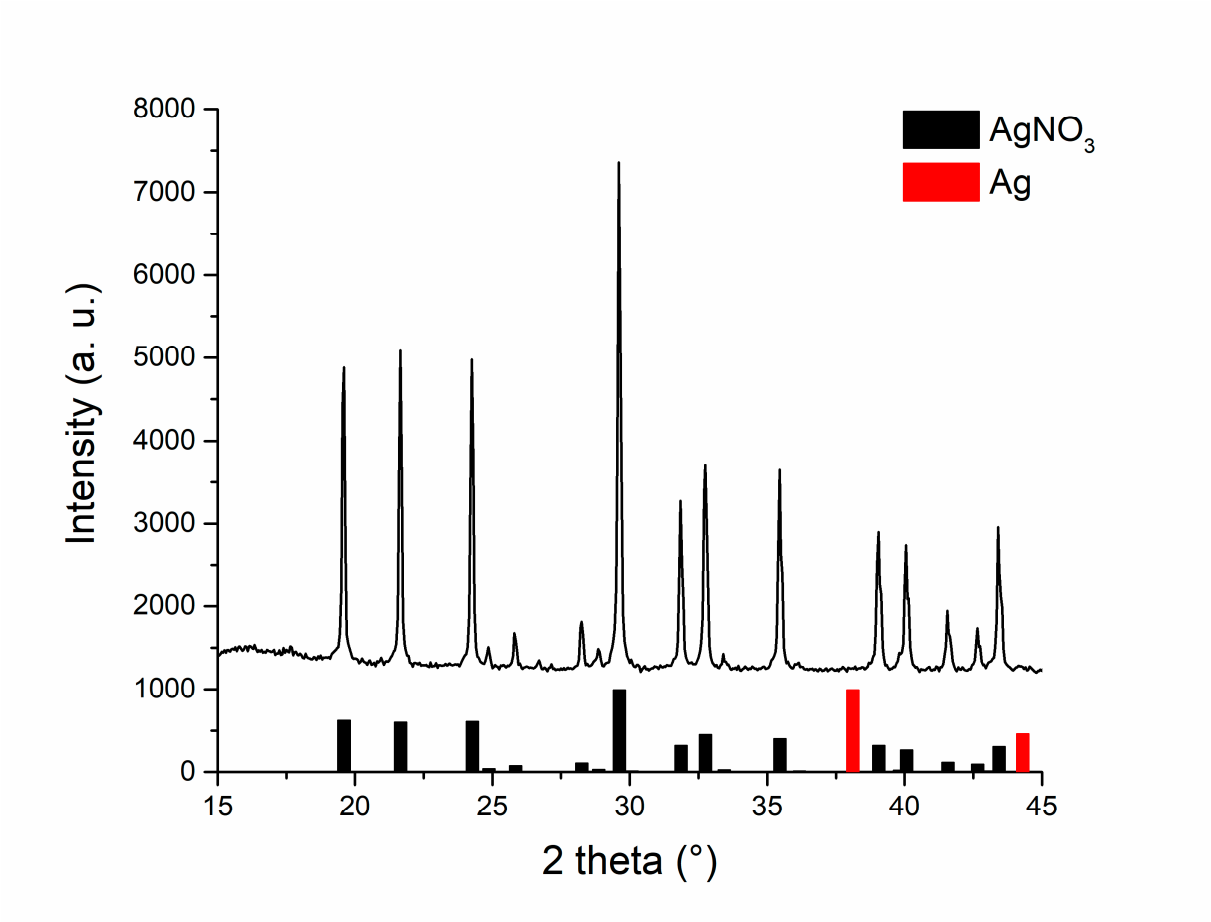


Figure S1: XRD pattern of milled $AgNO_3$

Selected area diffraction patterns obtained during the TEM analysis

As outlined in the main body of the paper, SAED was used to confirm the presence of Ag^0 in all samples shown in Figure 5. The SAED patterns are shown in Fig. S2.

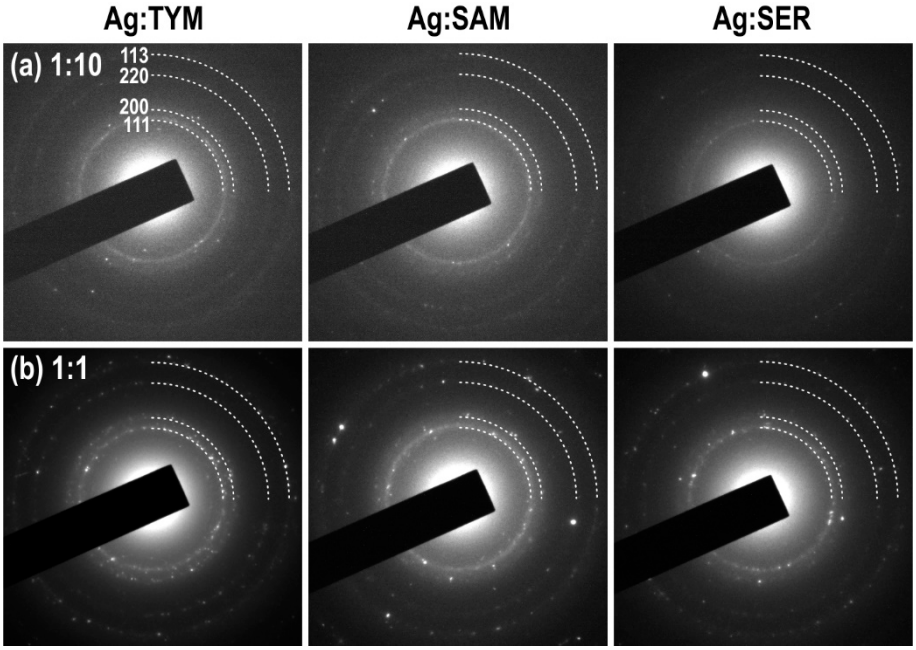


Figure S2: SAED patterns of the samples with Ag:plant ratio (a) 1:10 and (b) 1:1. Dotted ring patterns indicate random orientation of Ag NPs. Only reflections from face-centered cubic Ag are present (indices marked in the Ag:TYM 1:10 pattern) The patterns in the 1:10 samples are composed of finer spots indicating smaller average particle size, whereas in the 1:1 samples brighter reflections from few larger Ag NPs are observed.