Supporting Information

In-situ TEM observations of void movement in Ag nanowire to the electrical properties under biasing

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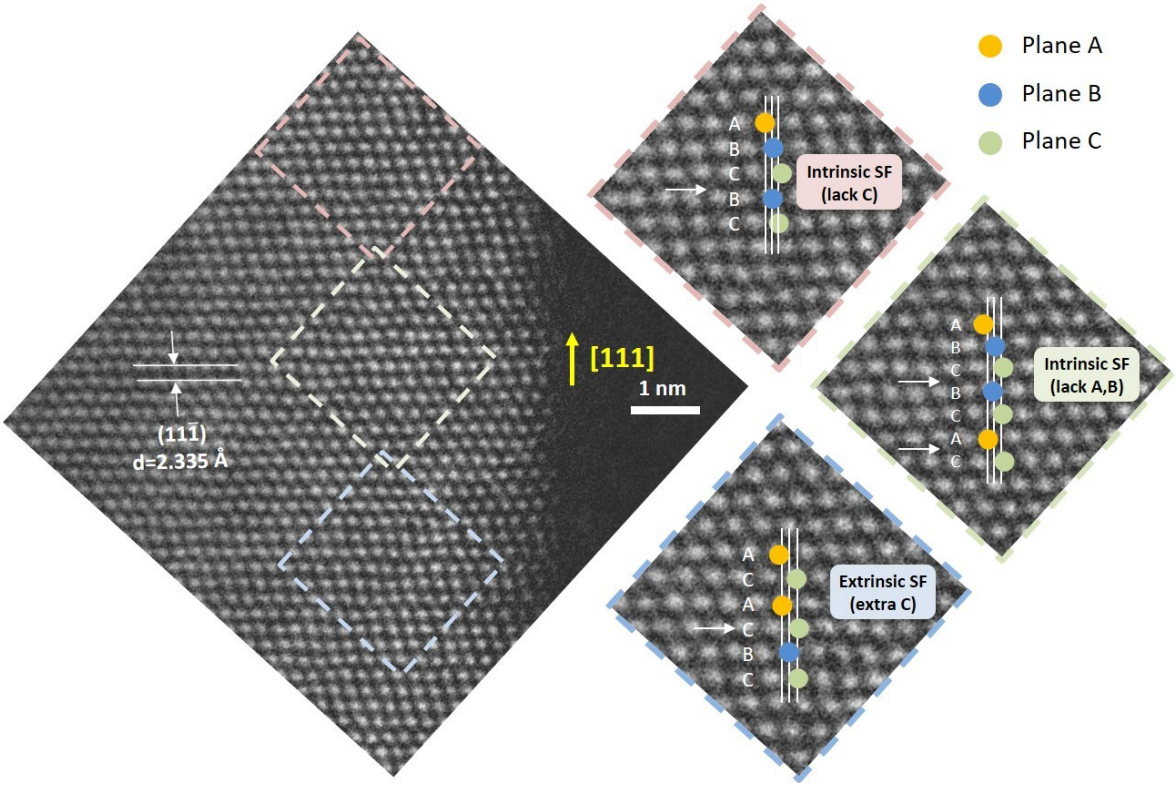

Fig. S1 Two types of stacking faults in the Ag NW are known as Intrinsic stacking fault (ISF, pink and green dashed box) and Extrinsic stacking fault (ESF, Blue dashed box)

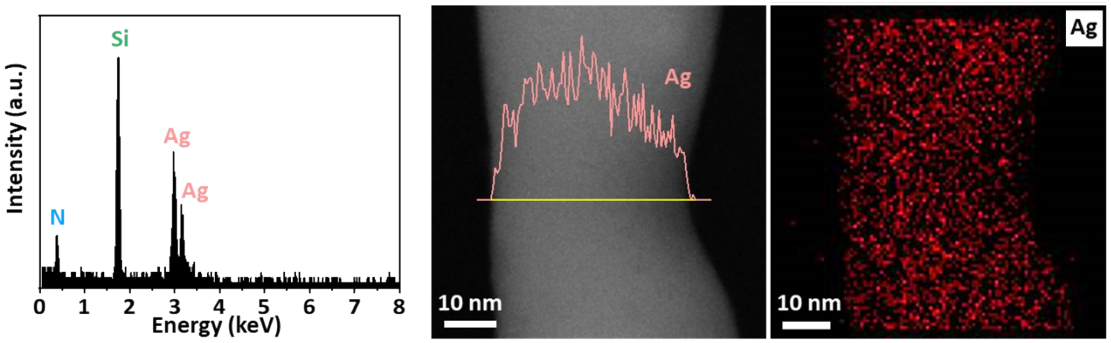

Fig. S2 EDS spectra and line scan indicating that no remaining surfactant or organic layer present in the NW. The signal from the Si and N in the EDS spectra are from the homemade Si_3N_4 TEM membrane.

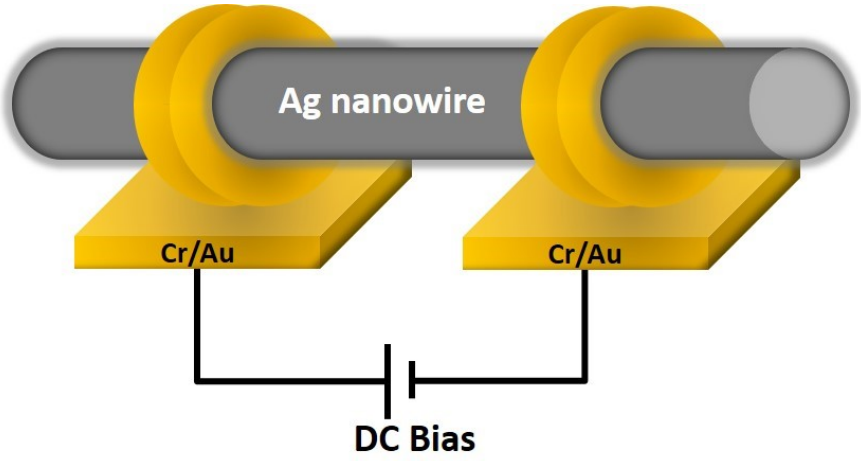

Fig. S3 Schematic diagram of Ag NW connected with Cr/Au electrode for in-situ observation of Ag NW under DC bias.

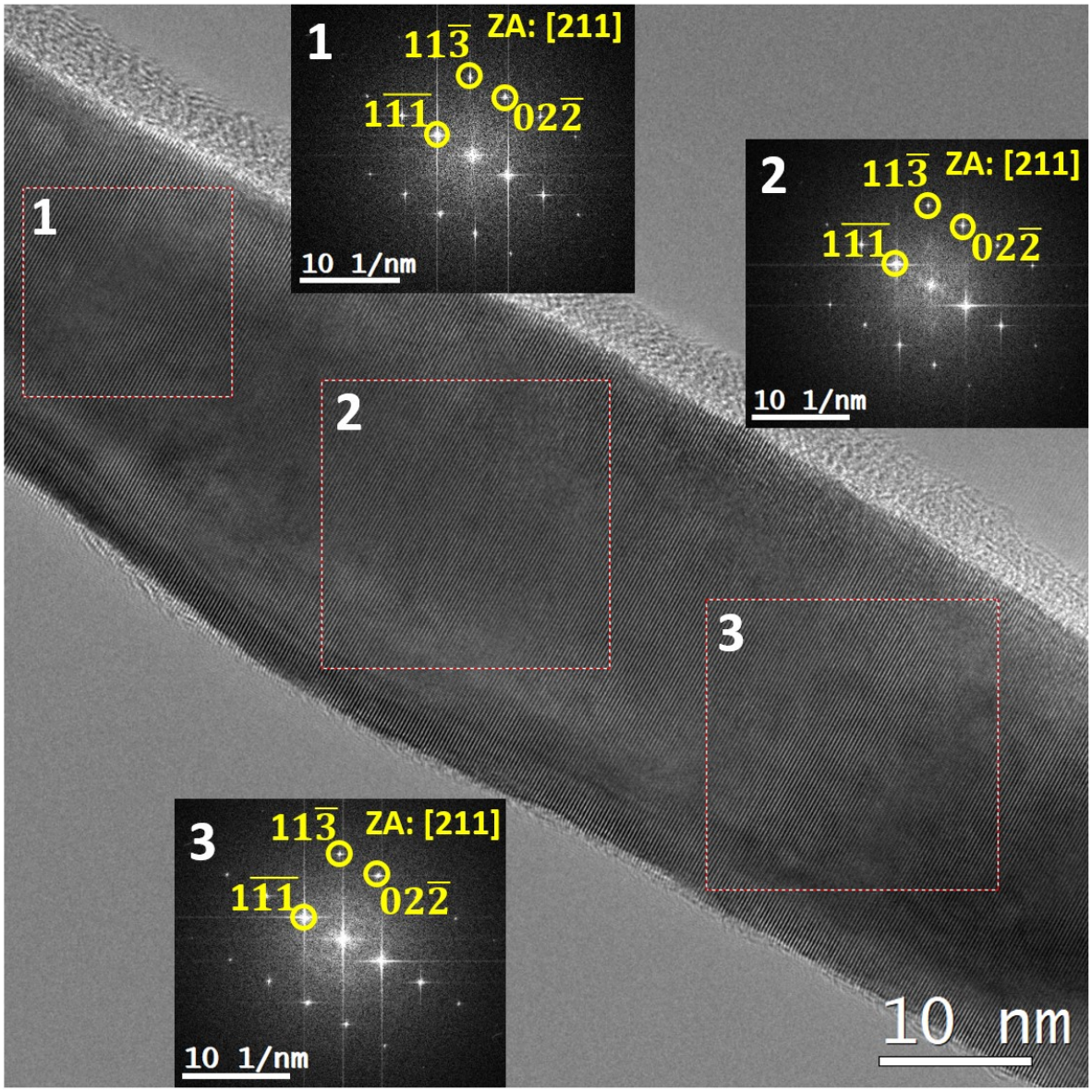

Fig. S4 HRTEM image of the Ag NW w/o stacking faults. Insets 1-3 are diffraction patterns from area 1-3 in the image. Both the image and the diffraction pattern confirm that Ag NW we analysed is without stacking faults.