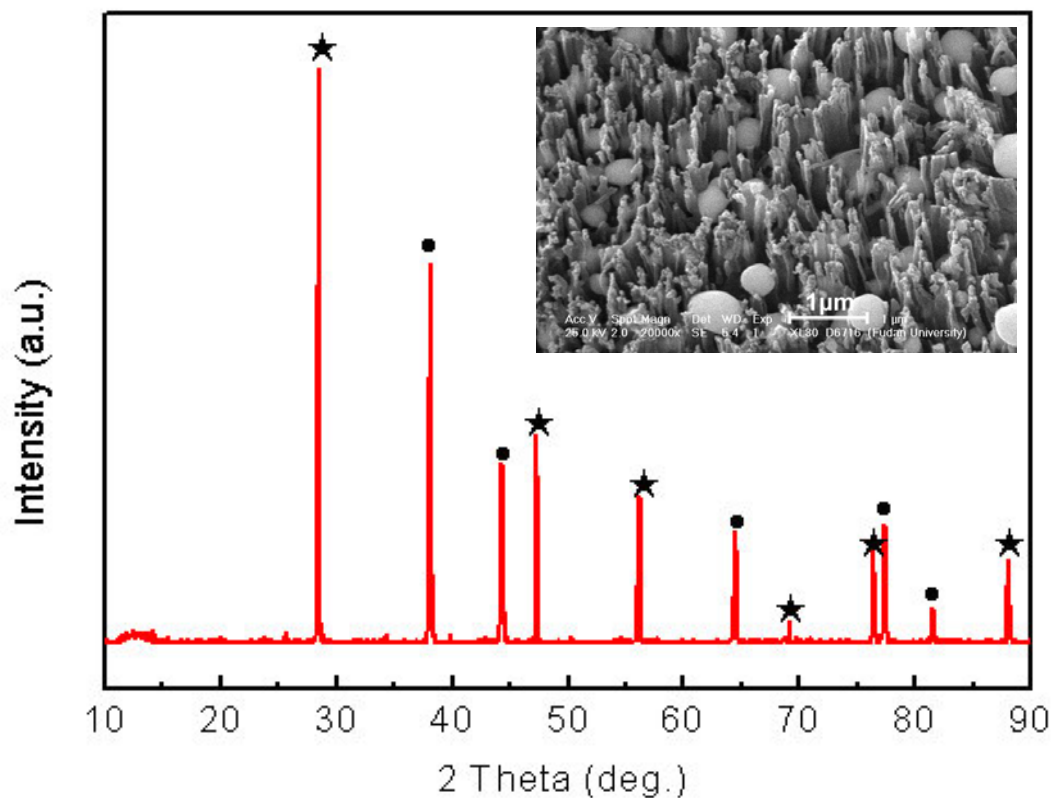


## Electronic Supplementary Information



**Fig. S1** XRD pattern of Ag@SiNW after being calcined at 450 °C for 2 h (● - Ag, ★ - Si). The inset is SEM image of Ag@SiNW, scale bar 1 μm. It indicates the existence of Ag in SiNW arrays as metallic silver after calcination.