Fig. S1 SEM and TEM image of as-prepared silica spheres

Fig. S2 TEM image of silver particles prepared with the same method as the composite
Fig. S3 XRD patterns of samples resulted from the Ag₂O powder in ethanol solution

(a) in the absence of NaOH and (b) in the presence of NaOH.
Fig. S4 FTIR spectra of ethanol and the reaction solution.
Fig.S5 UV-vis absorption spectrum of the reaction solution.