## **Supporting Information**

## A pH-induced Size Controlled Deposition of Colloidal Ag Nanoparticles on Alumina Support for Catalytic Application

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**Fig. S1** UV-vis absorption spectra of the colloidal Ag NPs stabilized by 3-MPA under various pH conditions. The plasmon absorption peaks at around 400 nm was shifted and broaden to longer wavelength region at lower pH conditions, which was recovered again with increasing the pH value.



**Fig. S2** TEM and size distribution diagrams of (a)  $Ag/Al_2O_3$  (3.2) and (b)  $Ag/Al_2O_3$  (3.4). The average diameters were estimated to be 19.2 and 15.5 nm, respectively



**Fig. S3** Plot of the average diameter of Ag NPs as a function of pH value in the preparation sequence.