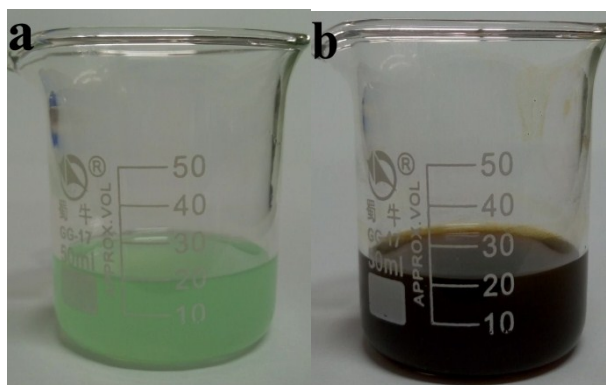
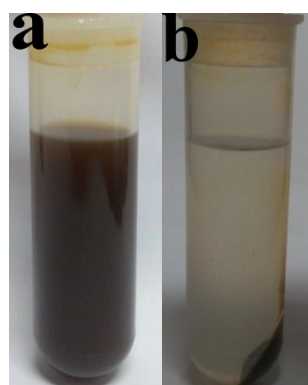


## Electronic Supplementary Information (ESI)

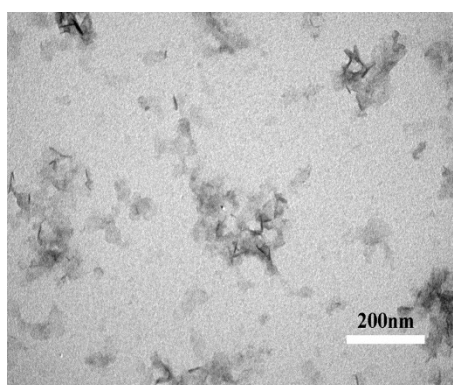
### Facile preparation of Ag / Ni (OH)<sub>2</sub> composites with enhanced catalytic activity for reduction of 4-nitrophenol



**Fig. S1.** Photos of the samples: (a) before and (b) after reaction



**Fig. S2.** Photos of the samples: (a) before and (b) after centrifugation



**Fig. S3.** TEM image of the Ni(OH)<sub>2</sub> nanosheets

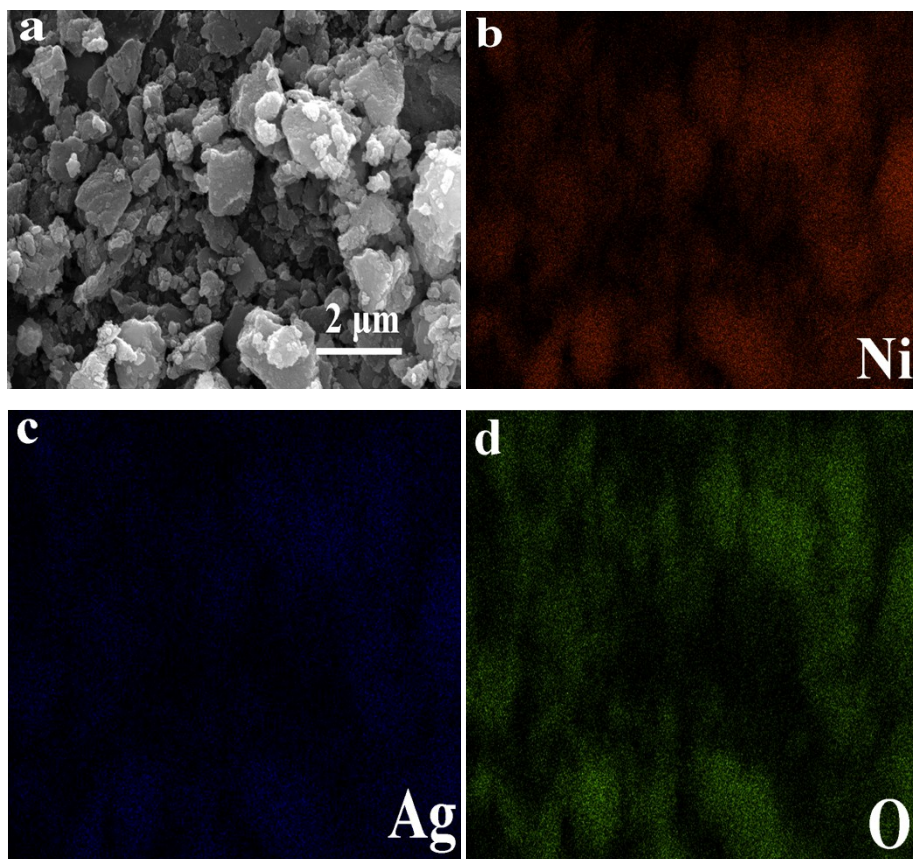


Fig. S4 SEM image of Ag(10)/Ni(OH)<sub>2</sub> (a) and correspondent EDS elemental mapping of Ni (b), Ag (c), O (d)

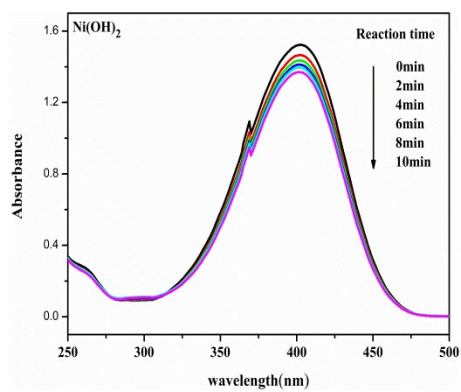
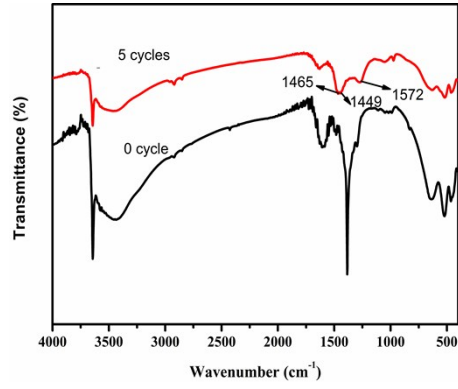
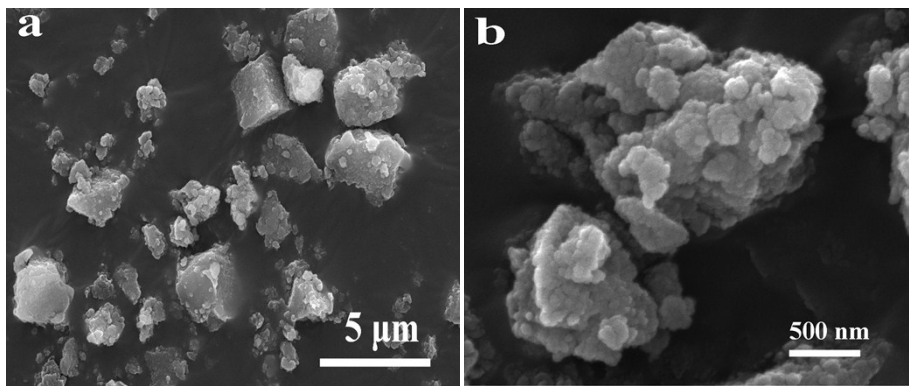


Fig. S5. UV-vis spectra of the reduction of 4-NP using Ni(OH)<sub>2</sub> as a catalyst



**Fig. S6** FTIR spectrum of Ag(10)/ Ni(OH)<sub>2</sub> for 0 cycle and 5 cycles



**Fig S7** SEM images of Ag(10)/ Ni(OH)<sub>2</sub> after 5 cycles with low magnification (a) and high magnification (b)