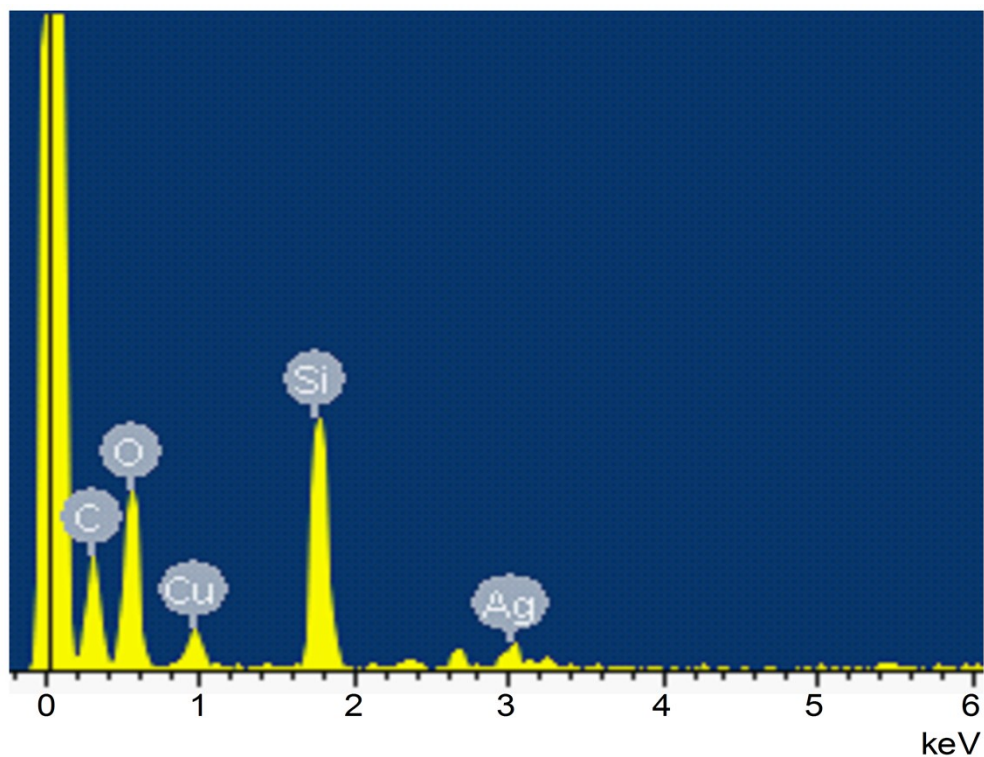


### Electronic Supplementary Information for

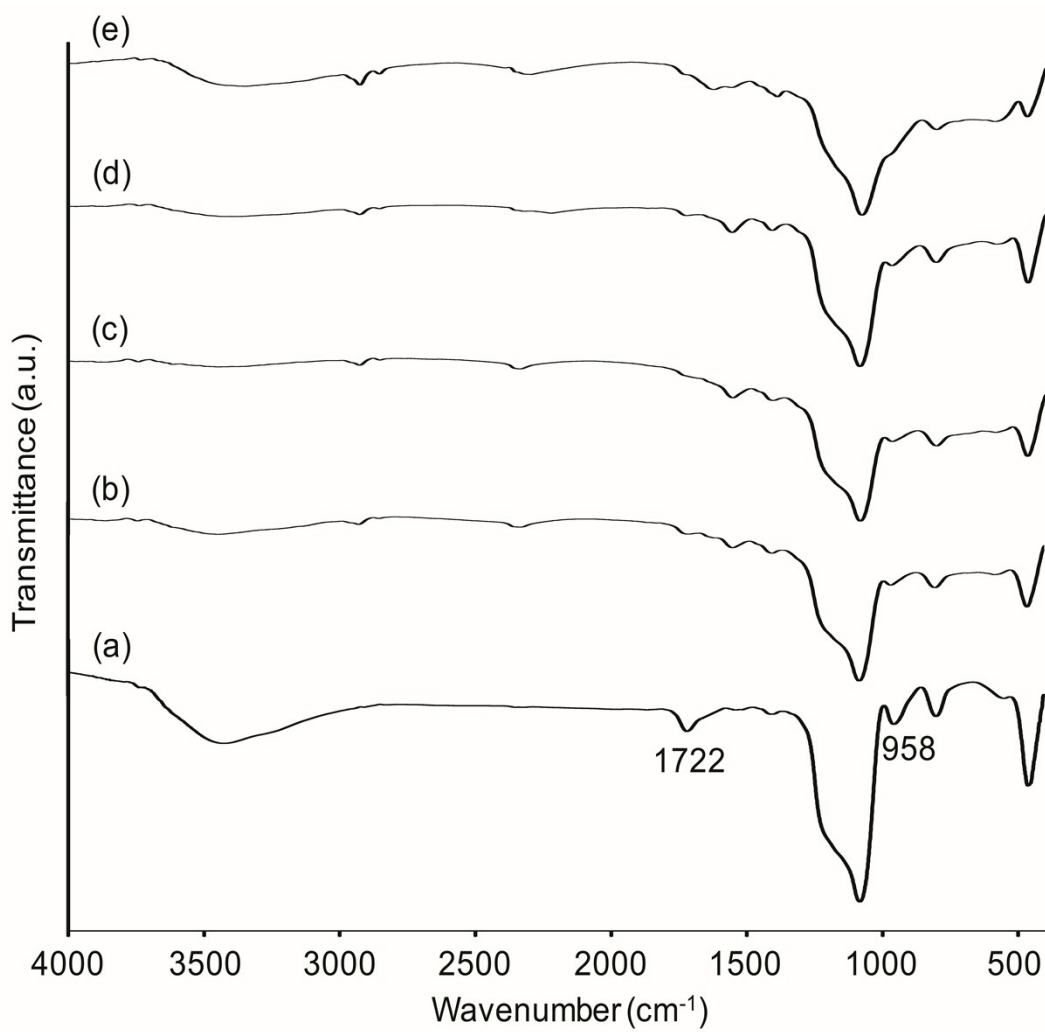
Size dependence of silver nanoparticles in carboxylic acid functionalized mesoporous silica SBA-15 for catalytic reduction of 4-nitrophenol

Diganta Saikia, Ya-Yang Huang, Cheng-En Wu and Hsien-Ming Kao\*

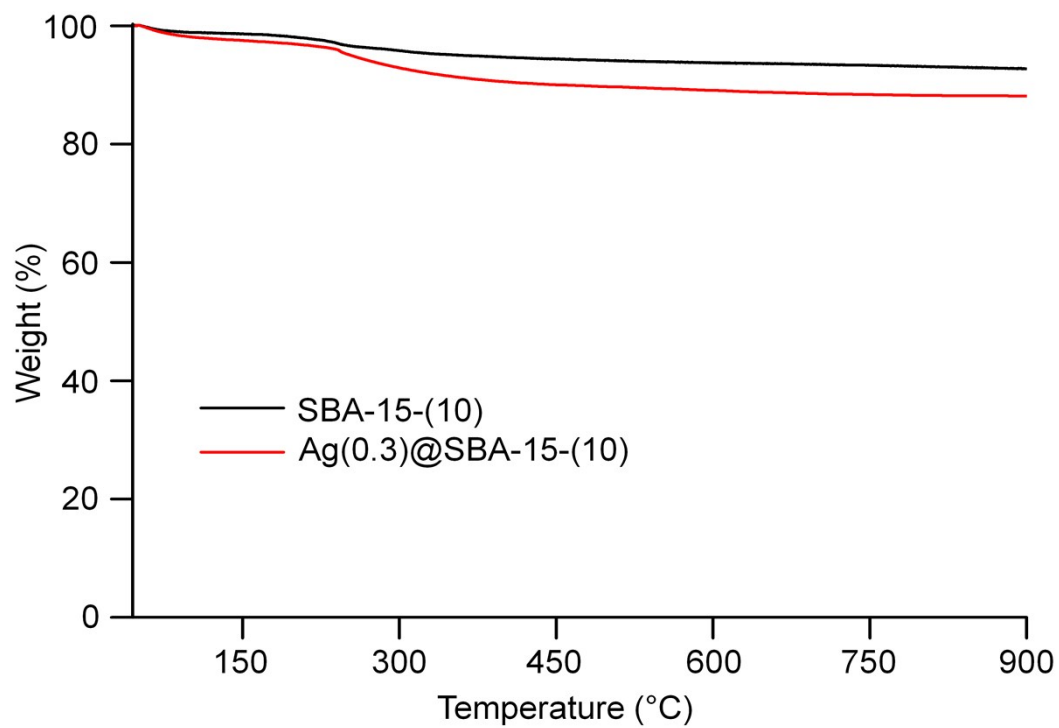
Department of Chemistry, National Central University, Chung-Li, 32054, Taiwan, R.O.C.



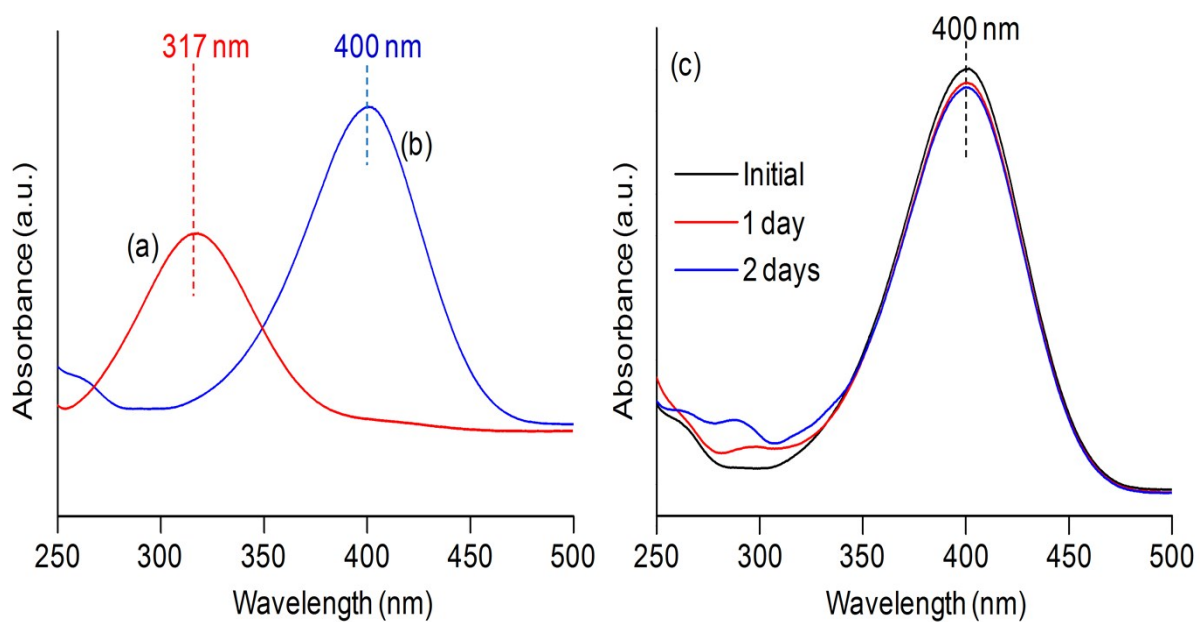
**Fig. S1.** EDS of Ag(0.3)@SBA-15-(10).



**Fig. S2.** FTIR spectra of Ag(y)@SBA-15-(x), where (y, x) = (a) (0, 10), (b) (0.3, 10), (c) (0.6, 10), (d) (0.9, 10), and (e) (1.5, 10).



**Fig. S3.** TGA curves of SBA-15-(10) and Ag(0.3)@SBA-15-(10).



**Fig. S4.** UV-Vis spectra of the successive reduction of 4-NP (a) before and (b) after addition of  $\text{NaBH}_4$ , and (c) SBA-15-(0).