Electronic supplementary information

Aqueous Synthesis of Silver Nanoparticles Immobilized on Cationic Cellulose Matrix and Their Catalytic and Antibacterial Activities

Jun You\textsuperscript{a}, Mengxiong Xiang\textsuperscript{b}, Haoze Hu\textsuperscript{a}, Jun Cai\textsuperscript{b}, Jinping Zhou\textsuperscript{a\ast}, Yaping Zhang\textsuperscript{c}

\textsuperscript{a}Department of Chemistry, Wuhan University, Wuhan 430072, China

\textsuperscript{b}Hubei Provincial Cooperative Innovation Center of Industrial Fermentation and Key Laboratory of Fermentation Engineering (Ministry of Education), Hubei University of Technology, Wuhan 430068, China

\textsuperscript{c}State Key Laboratory Cultivation Base for Nonmetal Composites and Functional Materials, Southwest University of Science and Technology, Mianyang, 621010, China

\textsuperscript{\ast}Corresponding author, Tel: +86-27-87219274, Fax: +86-27-68754067
E-mail: zhoujp325@whu.edu.cn (J. Zhou)
**Fig. S1** Time dependence of the UV-Vis absorption spectra of the QC-Ag7 aqueous solutions.
Fig. S2 TEM images (left, the scale bar is 100 nm) and size distribution histograms (right) of the redispersed QC-Ag NPs in distilled water.
**Fig. S3** Time dependence of the absorption of Nip at 400 nm at various initial Nip concentrations in the presence of QC-Ag7 NPs. ($c_{\text{Ag NPs}} = 3.7 \times 10^{-6}$ mol/L, $c_{\text{NaBH}_4} = 8 \times 10^{-3}$ mol/L)