

Supporting Information

Preparation of amino-functionalized magnetic nanoparticles for enhancement of bacterial capture efficiency

Weijun Fang^{* a,b}, Chen Han^c, Huabing Zhang^a, Wenmei Wei^a, Rui Liu^a, Yuxian Shen^{* a,b}

^a School of Basic Medical Sciences, Anhui Medical University, Hefei 230032, P.R. China.

^b Biopharmaceutical Research Institute, Anhui Medical University, Hefei 230032, P.R. China.

^c Institute of Quality Inspection of Light Industry & Chemical Products Shanghai Institute of Quality Inspection and Technical Research, Shanghai 201114, P.R. China.

[*] Associate Prof. Weijun Fang, E-mail: wjfang81@163.com

[*] Prof. Yuxian Shen, E-mail: shenyx@ahmu.edu.cn

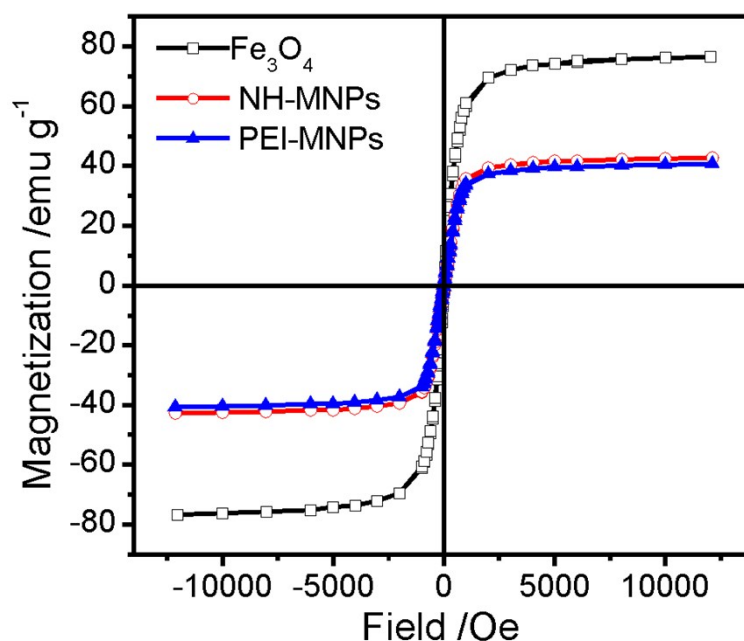


Figure S1. Hysteresis loops of Fe₃O₄ nanoparticles, NH-MNPs and PEI-MNPs.

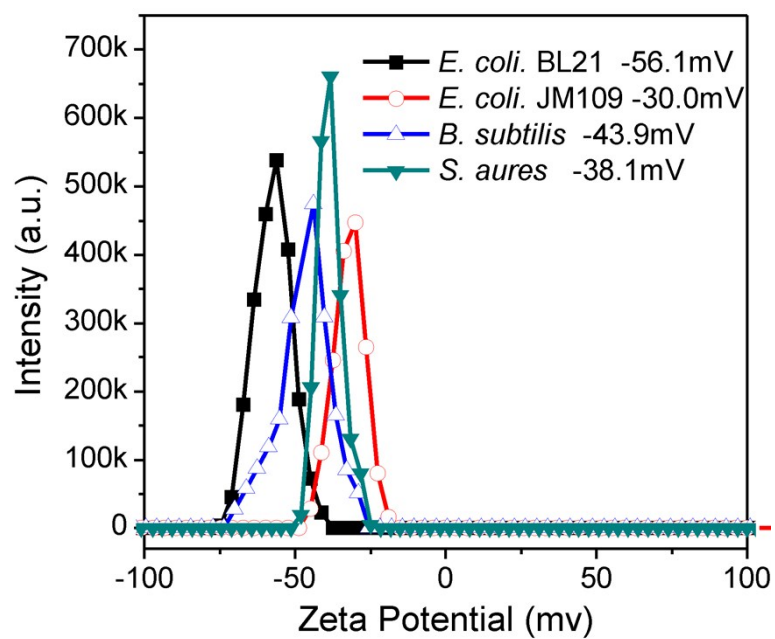


Figure S2. Zeta potential of *E.coli*. BL21, *E.coli*. JM109, *B. subtilis* and *S. aureus* in ultra-pure water.

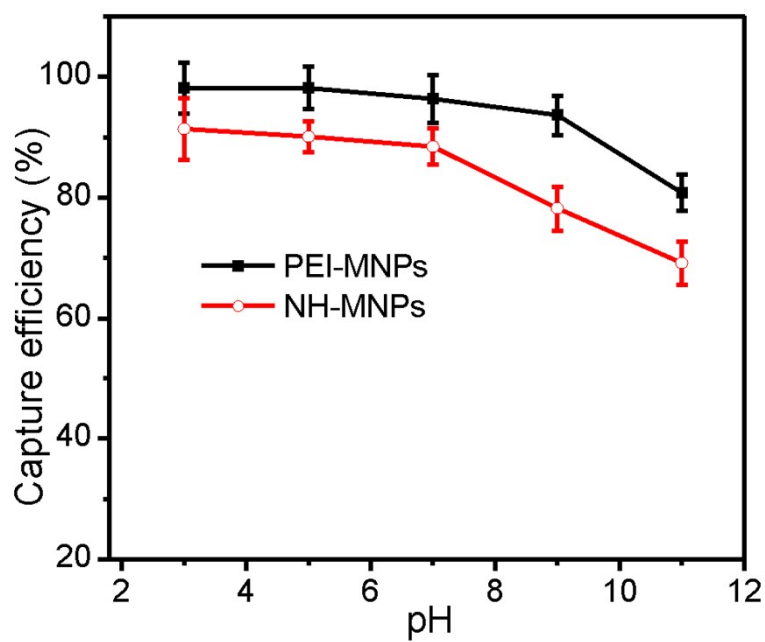


Figure S3. Effect of pH value on the capture efficiency of *E. coli* BL21 using NH-MNPs and PEI-MNPs. the concentrations of bacteria, $\sim 2.5 \times 10^8$ CFU/mL (0.5 OD₆₀₀).