Electronic Supplementary Material (ESI) for Analyst.

Facile sonochemical synthesis of pH-responsive copper nanoclusters for selective and sensitive detection of Pb^{2+} in living cells

Chuanxi Wang,* Hao Cheng, Yijun Huang, Zhenzhu Xu, Huihui Lin and Chi Zhang*

China-Australia Joint Research Centre for Functional Molecular Materials, School of Chemical & Material Engineering, Jiangnan University, Wuxi 214122, P. R. China

E–mail address: chizhang@jiangnan.edu.cn; wangcx@jiangnan.edu.cn

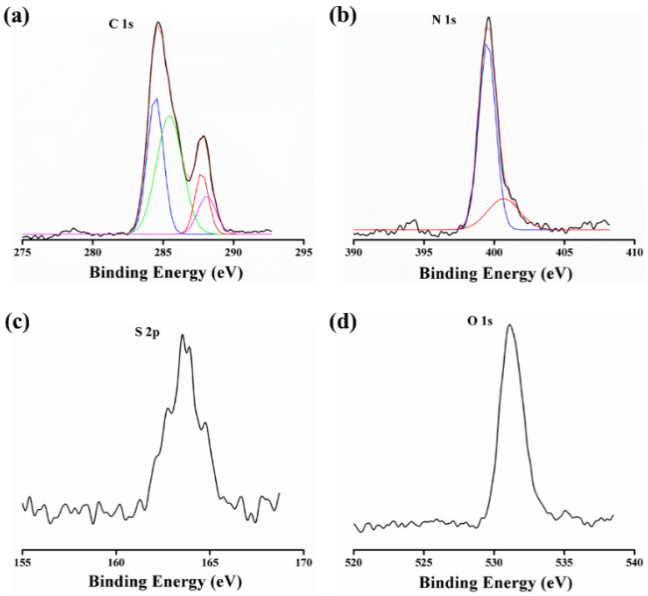

Fig S1. Typical XPS spectra of (a) C 1s; (b) N 1s; (c) S 2p and (d) O 1s involved in resultant GSH–CuNCs.

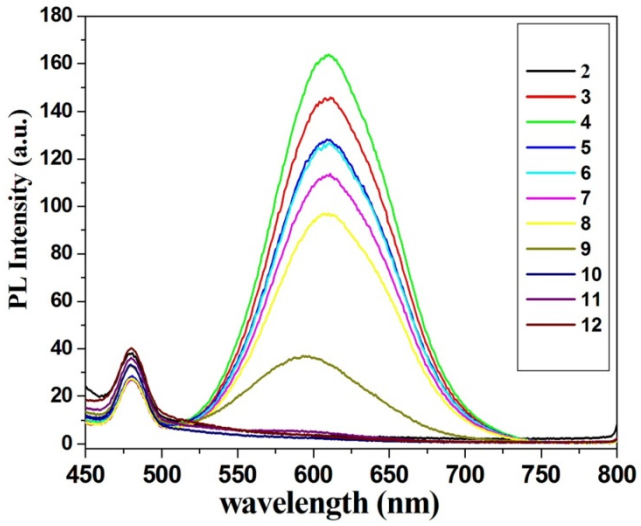

Fig S2. PL spectra of GSH–Cu NCs as a function of pH (ranging systematically from pH = 2-12).

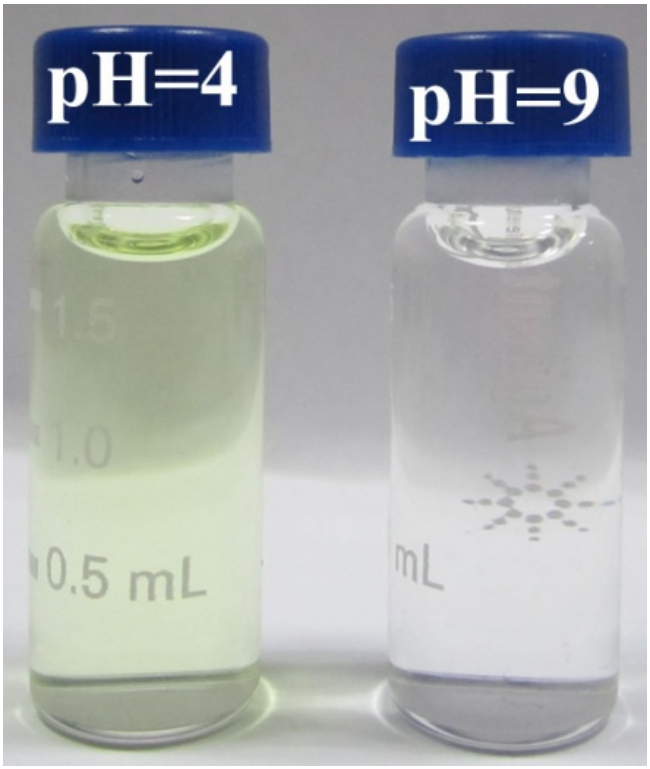

Fig S3. The photographs of resultant GSH–Cu NCs in the different pH conditions.

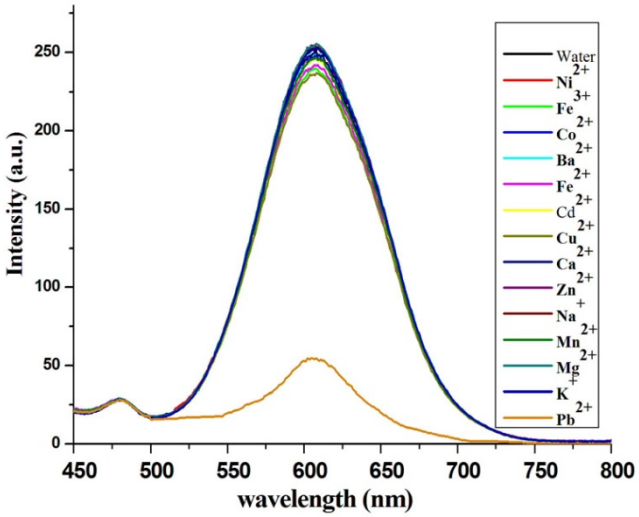

Fig S4. Fluorescence spectra of as-prepared GSH–Cu NCs in the presence of 10^{-6} M metal ions.

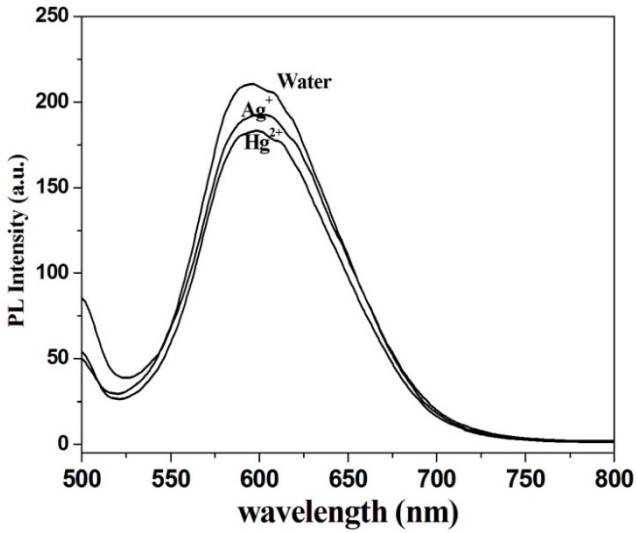

Fig S5. PL spectra of as-prepared GSH–Cu NCs in the presence of 10^{-6} M Hg(II) and Ag(I) ions.

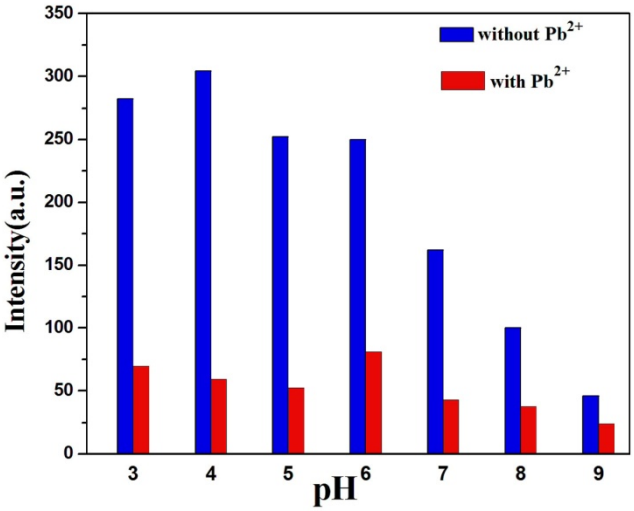

Fig S6. PL responses of as-prepared CuNCs in the absence (blue) and presence (red) of 10^{-6} M Pb^{2+} ions at different pH values.

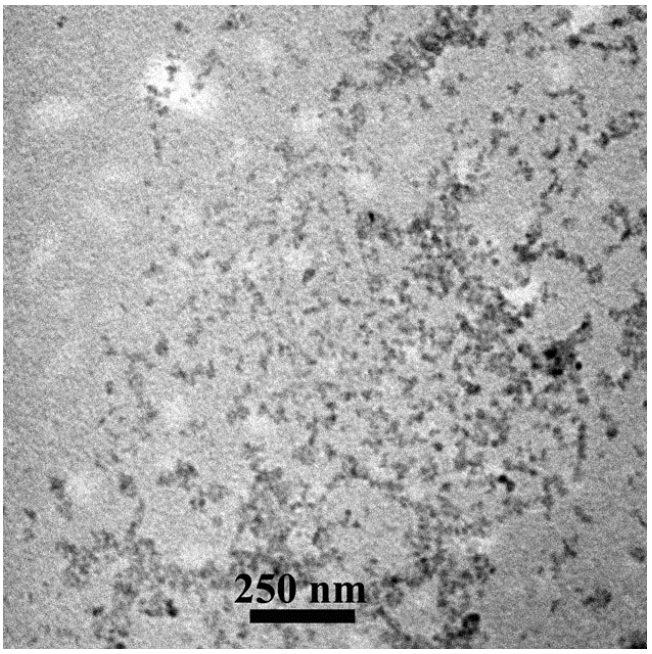

Fig S7. TEM image of the aggregated GSH-Cu NCs in the presence of Pb^{2+} ions