Supplementary information

**Successive detection of glucose and bio-copper in human serum based on multiplex biosensor of gold nanorods**

Shenna Chen, Qian Zhao, Lingyang Zhang, Xiaodong Xia, Haowen Huang*

*Key Laboratory of Theoretical Organic Chemistry and Function Molecule, Ministry of Education, Hunan Provincial University Key Laboratory of QSAR/QSPR, School of Chemistry and Chemical Engineering, Hunan University of Science and Technology, Xiangtan, China.*
Figure S1. The relationship between degree of blue-shift of LPW and the intensity of UV light.

Figure S2. Absorption spectra obtained from the GNRs reacting with various concentration of Cu$^{2+}$ in the presence of Na$_2$S$_2$O$_3$. (a: as-synthesized GNRs, b:1×10$^{-10}$, c: 1×10$^{-9}$, d: 1×10$^{-8}$, e:1×10$^{-7}$, f: 1×10$^{-6}$ M Cu$^{2+}$)
Figure S3. Photographs of the copper nanoclusters under visible light (a) under UV light (b).