Electronic Supplementary Information

Antibody-biotemplated HgS Nanoparticles: Extremely Sensitive Labels for Atomic Fluorescence Spectrometric Immunoassay

Xing Liu,^a Rui Liu,^a Yurong Tang,^a Lichun Zhang,^a Xiandeng Hou,^{a,b} and Yi Lv^{a*}

^aCollege of Chemistry and ^bAnalytical and Testing Center, Sichuan University, Chengdu, Sichuan 610064, P. R. China

Corresponding author: E-mail: lvy@scu.edu.cn (Y Lv). Tel./Fax: +86-28-8541-2798.

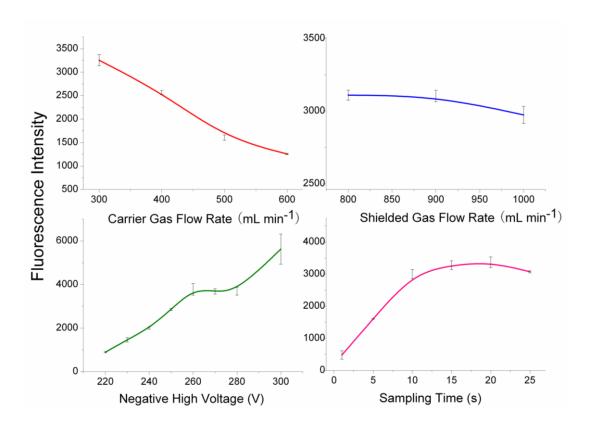


Fig. S1 The effect of carrier gas flow rate (a), shielded gas flow rate (b), negative high voltage (c), and sampling time (d) on the fluorescence signal, with 5 ng mL^{-1} Hg²⁺ solution.

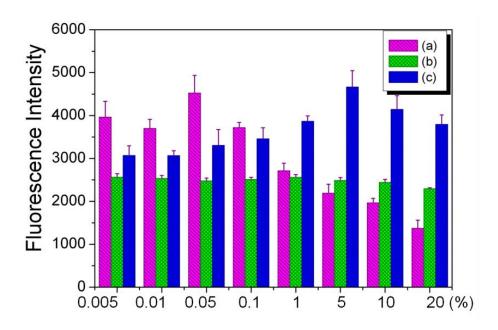


Fig. S2 (a) The effect of potassium borohydride concentration on the fluorescence signal, with 5 ng mL⁻¹ Hg²⁺ solution; (b) the effect of potassium hydroxide concentration on the fluorescence signal, with 5 ng mL⁻¹ Hg²⁺ solution; and (c) the effect of hydrochloric acid concentration on the fluorescence signal, with 5 ng mL⁻¹ Hg²⁺ solution.

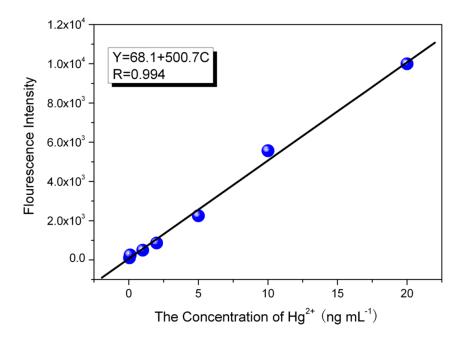


Fig. S3 Calibration curve of mercury standard solution by CVG–AFS. The concentrations of $HgCl_2$ were 0.05, 0.1, 1, 2, 5, 10, and 20 ng mL^{-1} , respectively.