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Supporting Information

The paper-based visual detection of silver ions and L-cysteine with dual-emissive nano system of carbon quantum dots and gold nanoclusters

Bingyan Han, Ying Li, Xixi Hu, Qin Yan, Jingmei Jiang, Mingbo Yu, Tingting Peng,

Gaohong He*

State Key Laboratory of Fine Chemicals, School of Petroleum and Chemical Engineering, Dalian University of Technology, Panjin, Liaoning 124221, China.

E-mail: hgaohong@dlut.edu.cn; Tel: +86427-2631809

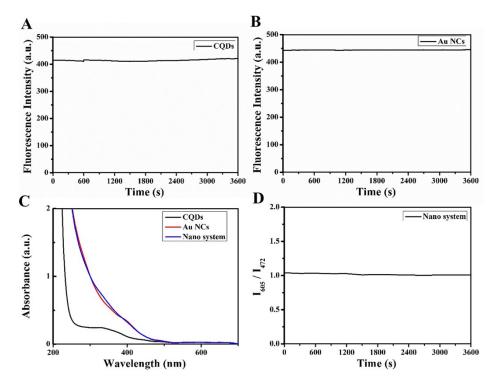


Figure S1. The fluorescence spectra of (A) CQDs, (B) Au NCs and (D) Nano system recorded each 5 min for 1 h under UV at 375 nm and (C) UV-vis spectra of CQDs, Au NCs and nano system.

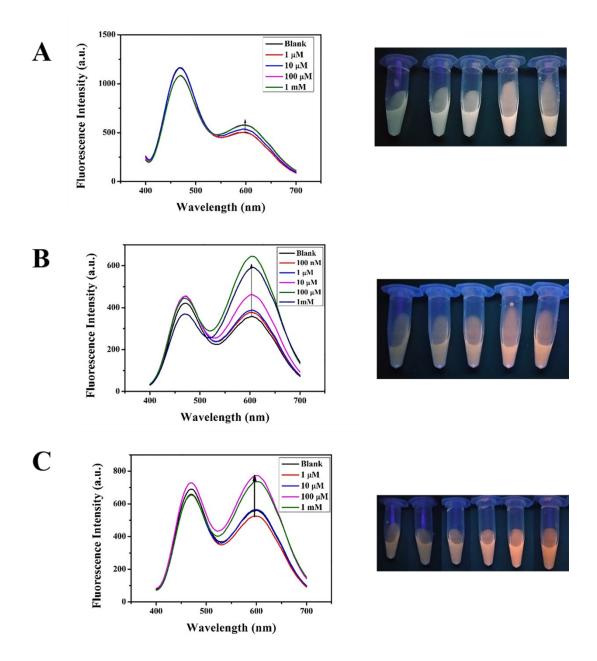


Figure S2. The fluorescence response of the nano system under the CQDs/Au NCs volume ratio (A) 1:1, (B) 2:1, (C)3:1 in the presence of different concentration of Ag⁺; Insets: the corresponding fluorescence photographs under a 365 nm UV lamp.

Table S1. Zeta potential of CQDs, Au NCs and Nano system.

Material	Zeta potential (mV)
CQDs	+3.73
Au NCs	+26.7
Nano system	+34.8

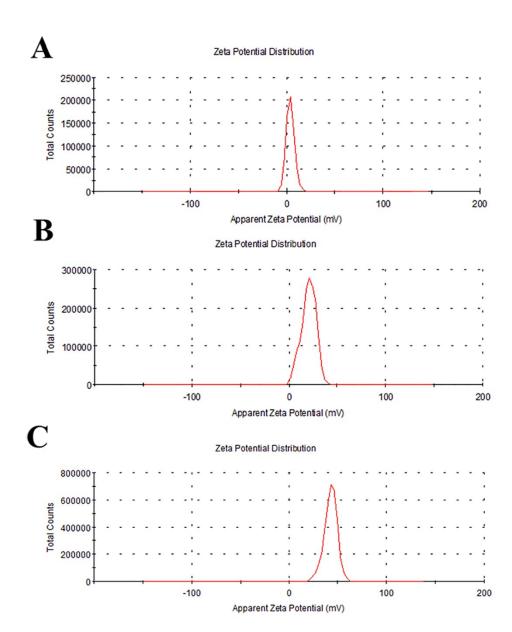


Figure S3. The zeta potential of (A) CQDs, (B) Au NCs and (C) Nano system.

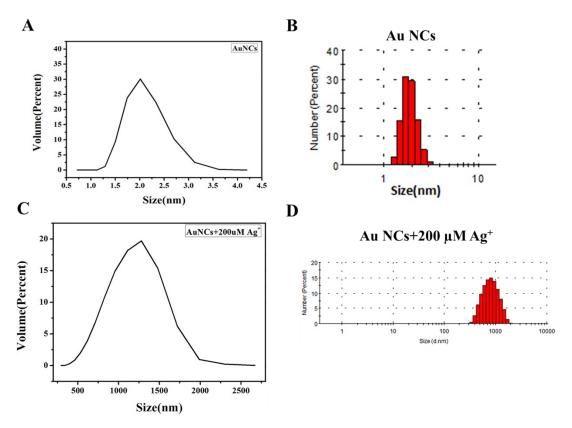


Figure S4. DLS analysis and corresponding size distribution histograms of AuNCs in the absence(A, B) and presence (C, D) of Ag⁺.