Electronic Supplementary Material (ESI) for Analytical Methods.

Sensitive and selective detection of nitrite ions with highly fluorescent glutathione-stabilized copper nanoclusters

Dan-Ling Zhou,[1] Hong Huang,[2] Yan Wang*[3]

1 Shaoxing Senior High School, Shaoxing 312000, China

2 College of Chemistry and Life Science, Zhejiang Normal University, Jinhua 321004, China

3 College of Materials Science and Engineering, Donghua University, Shanghai 201620, China

**Corresponding author: wy@dhu.edu.cn (Y. Wang)*

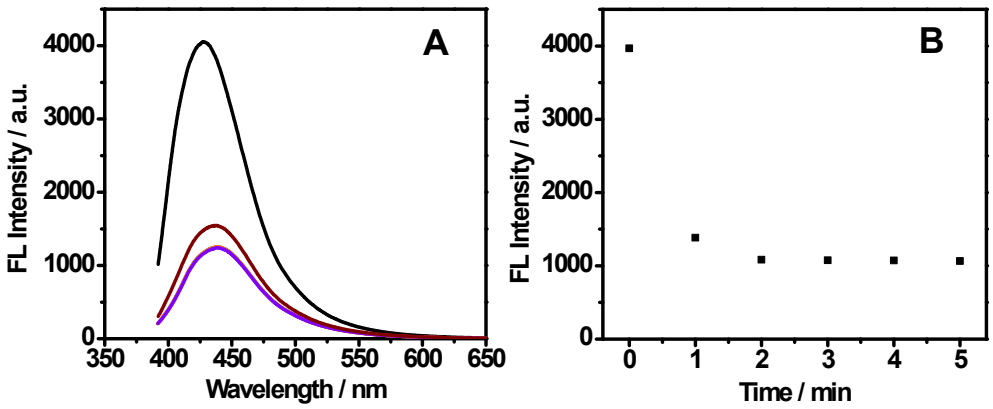

Fig. S1 Time dependent fluorescence spectra of Cu NCs in the presence of 225 μM NO_2^-.

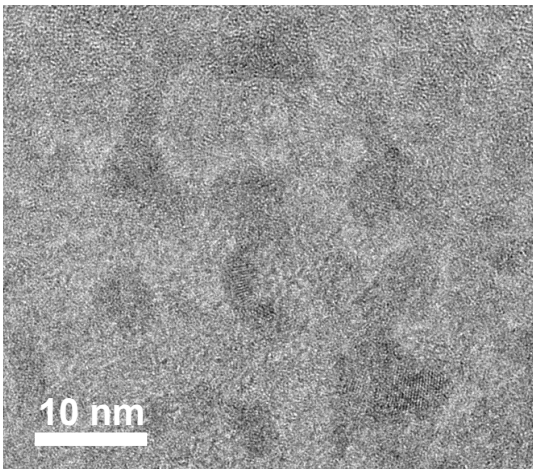

Fig. S2 TEM image of Cu NCs in the presence of 225 μM NO_2^-.

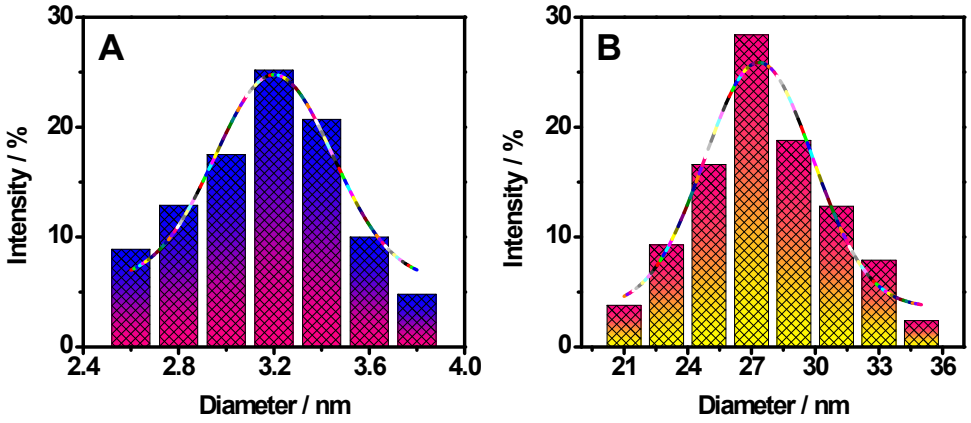

Fig. S3 Hydrodynamic size distribution of the GSH-Cu NCs in the absence (A) and presence of 225 μM NO_2^- (B).

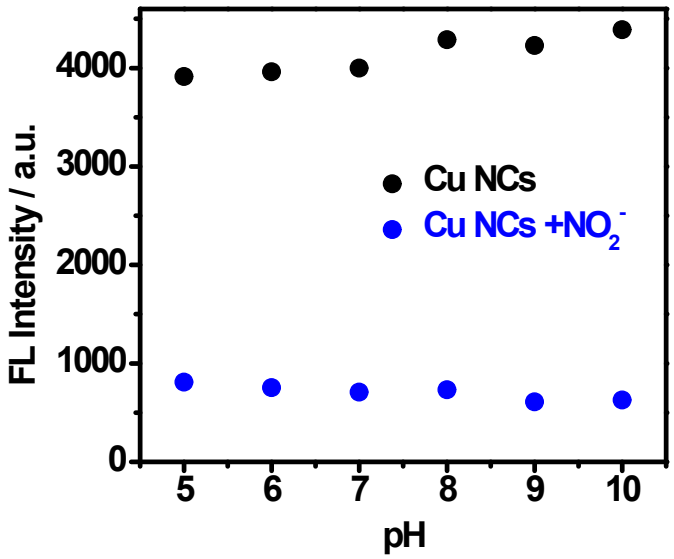

Fig. S4 Effects of solution pH on the fluorescence of Cu NCs in the absence (black dots) and presence of NO_2^- (blue dots).

Table S1 Comparison of the results for the determination of NO_2^- by other fluorophores.

Fluorescent probe	Linear range (μM)	LOD (μM)	Ref.
Upconversion nanoparticles	0 - 625	4.67	52
Graphene quantum dots	0.005 - 0.03	0.0025	53
Carbon nanodots	0 - 1000	1.0	10
2-amino-5,7-dimethyl-1,8-naphthyridine	0.1 - 2.5	0.0406	54
CdSe	1 - 500	0.2	55
Rh 6G-silicon nanoparticles	2 - 60	1.2	56
Ag NCs	0 - 7	0.1	57
Au NCs	0.1- 1.5	0.04	58
Cu NCs	0.0125 – 125; 125 - 5000	0.0036	59
Cu NCs	10 - 225	3.4	This work