Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting Information

Fluorescent probes based on core-shell structure of molecular imprinted materials and gold nanoparticles for highly selective glutathione detection

Guoli Wu [a], Yongdan Zhao [b], Xiaofang Li [c], Xiaolin Lu [b]and Tingli Qu [b]*

[a] Department of Pharmacy, Children's Hospital of Shanxi, Taiyuan 030013, China.

[b] College of Pharmacy, Shanxi Medical University, Taiyuan 030001, China.

[c] College of Life Science, Inner Mongolia Agricultural University, huhehot, 010000, China.

*Correspondence: Tingli Qu, Shanxi Medical University, 56 Xinjian Nan Lu, Taiyuan,030013, China.
E-mail:qu_tingli@163.com, ORCID: 0000-0002-5219-2724.

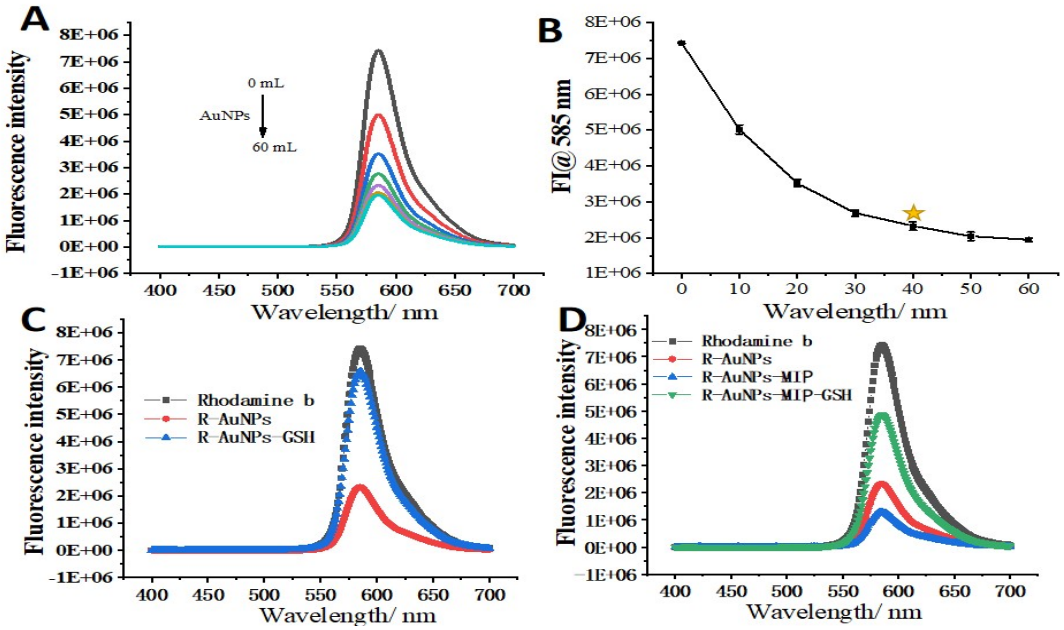

Figure S1. Fluorescence spectra of R-AuNPs, R-AuNPs-MIP under different conditions.(A) Quenching of rhodamine b fluorescence by gold nanoparticles at a series of concentrations. (B) Fluorescence intensity at 585nm after quenching rhodamine B by gold nanoparticles at a series of concentrations. The star illustration represents the concentration selection for subsequent experiments in this paper. (C) Fluorescence intensity comparison of Rhodamine b, R-AuNPs and R-AuNPs with GSH. (D) Fluorescence intensity comparison of Rhodamine b, R-AuNPs and R-AuNPs-MIP, and R-AuNPs-MIP with GSH.

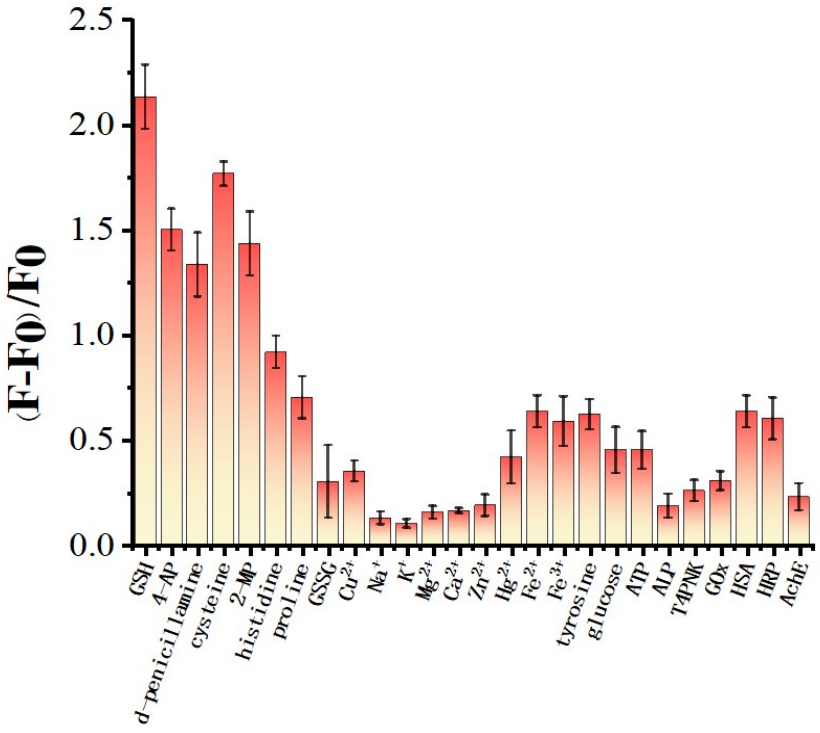

Figure S2. Selective testing of R-AuNPs detection systems.

Table S1. glutathione analysis methods.

Materials and methods	Detection range/ μM	LOD/ μM	analysis time*/ min	selectivity	Ref.
Colorimetric method based on Fe-doped MoS_2 nanomaterials	1 - 30	0.577	20	No obvious interference items	[1]
HPLC with coulometric electrochemical detection	5 - 2000	2.1	15	#	[2]
Ratiometric Fluorescent Probe	16 - 200	0.89	15	#	[3]
Voltammetric detection based on copper ion complex	1-12.5	0.14	#	No obvious interference items	[4]
Fluorescence Switching of Graphene Quantum Dots	20-500	3.4	20	No obvious interference items	[5]
Electroanalytical Monitoring based on Novel Pt/SWCNTs-Ionic Liquid	0.1-225	0.02	15	No obvious interference items	[6]
Red-emission carbon dots fluorescent probe	1-70	0.41	5	No obvious interference items	[7]
Core-shell structure of molecular imprinted materials and gold nanoparticles	0-100	0.18	15	No obvious interference items	This work

**:Time required to test or prepare for testing, excluding preparation of materials.*

#: Not mentioned in the paper

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