Electronic Supplementary Material

Dual colorimetric and ratiometric fluorescent responses for determination of glutathione based on fluorescence quenching and oxidase-like activity of the MnO_2 nanosheets

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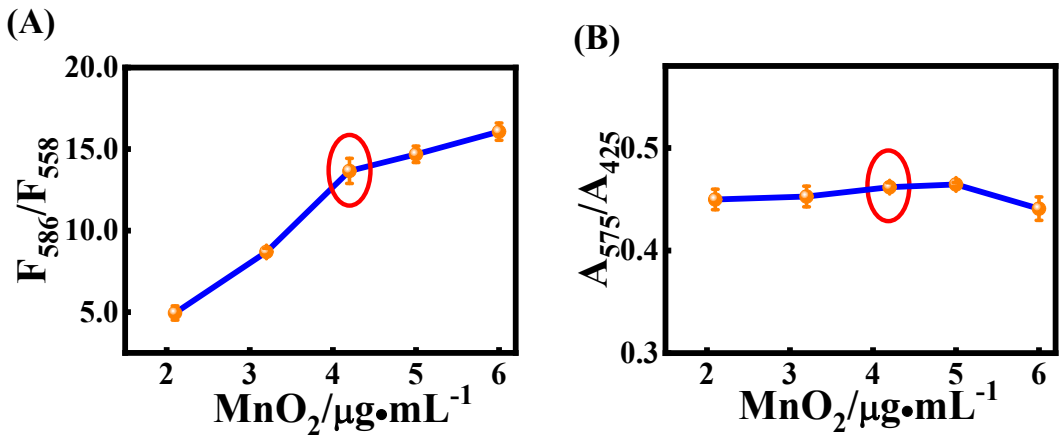

Figure S1. Effect of amount of MnO_2 nanosheets on different systems: **(A)** Fluorometric signal; **(B)** Colorimetric signal.

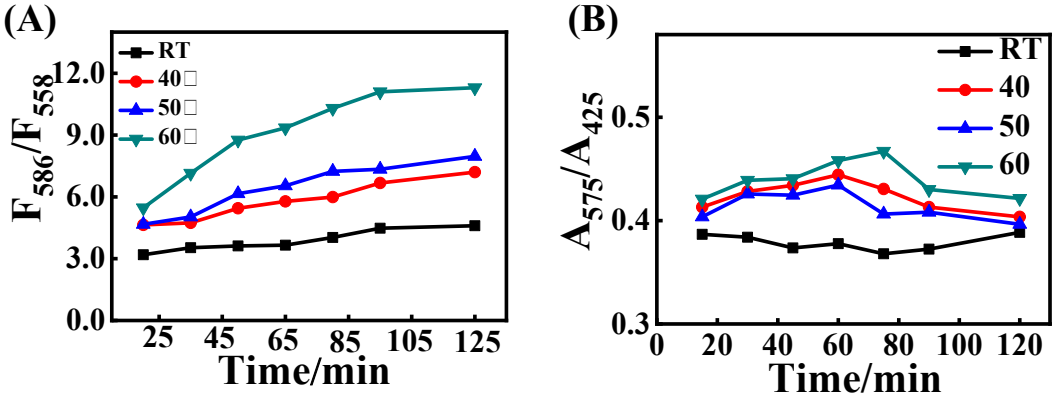

Figure S2. Effect of reaction temperature at different time on signal intensity: **(A)** Fluorometric system; **(B)** Colorimetric system.

Table S1. Performances of the dual colorimetric and ratiometric fluorescent strategy.

Methods	Probes	LOD	Liner range	Ref.
Ratiometric fluorescent	synthesized organic QG-1	5.4 mM	0-10 mM	[1]
	organic BODIPY dye	86 nM	0-60 μM	[2]
	organic BODIPY dye	96 nM	4-40 μM	[3]
	chlorinated coumarinyl aldehyde	380 nM	0-10 μM	[4]
	simultaneous use of SC & AR	6.7 nM	20-2000 nM	[5]
Colorimetry	TMB and porphyrin-functionalized titanium dioxide	57 nM	0.1-20 μM	[6]
	Fe_3O_4/CNDs	58 nM	0.1-20 μM	[7]
Ratiometric fluorescent	MnO_2 nanosheet/AR/CUR	4.2 nM	10-5000 nM	This work
Ratiometric colorimetry	MnO_2 nanosheet/AR/CUR	16	50-15000 nM	This work

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