



Supplementary Information

Enzyme Method-Based Microfluidic Chip for the Rapid Detection of Copper Ions

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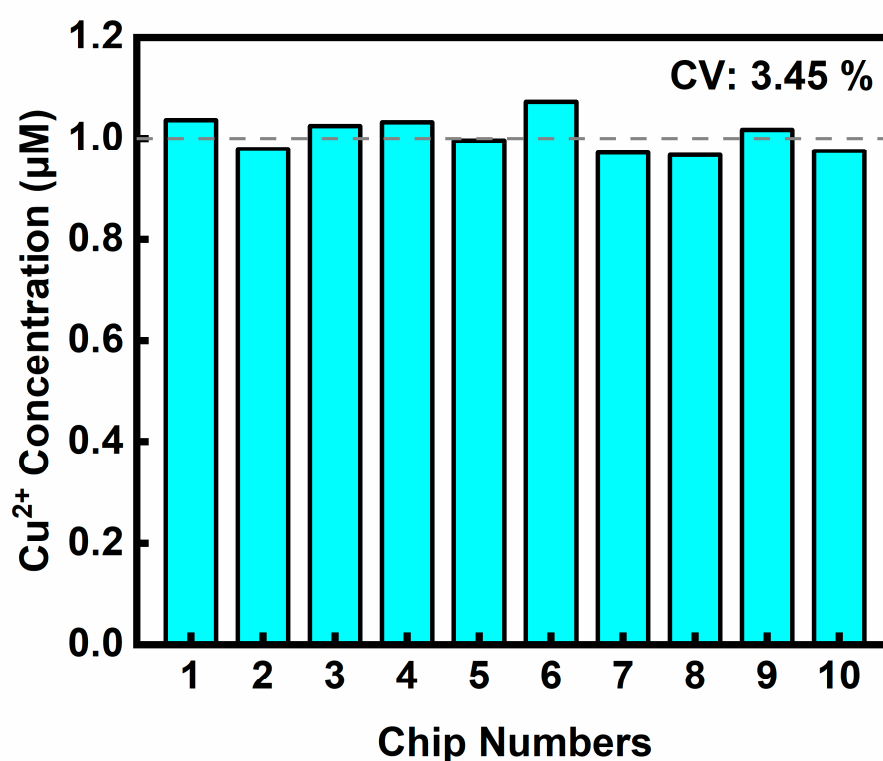


Figure S1. Reproducibility of the biological logic gates. The quantitative results of 1 μM Cu^{2+} in 10 chips.

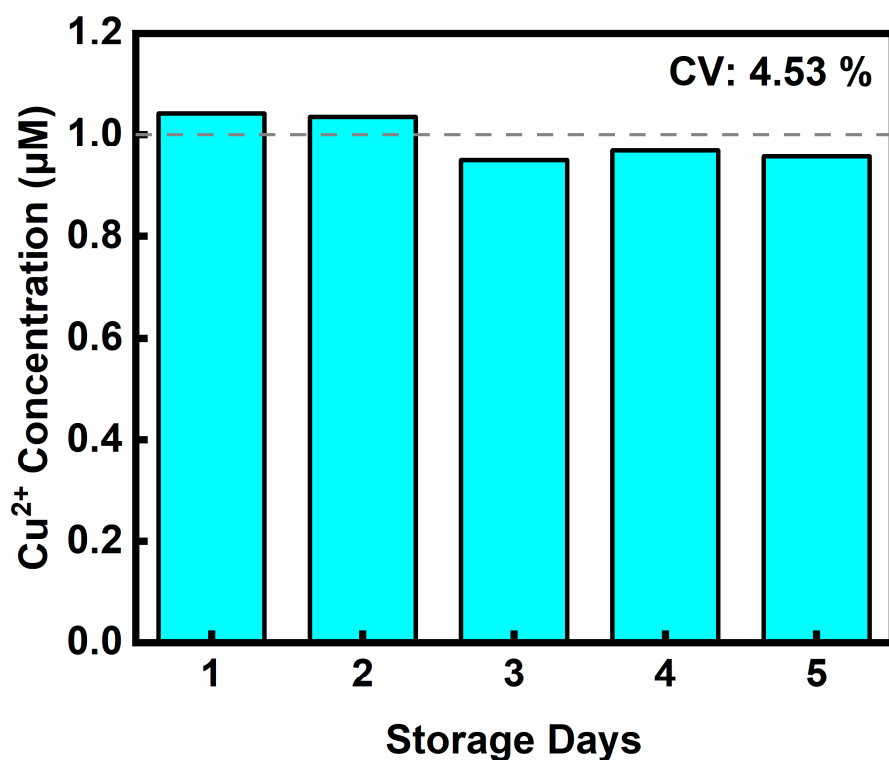


Figure S2. Storage stability of the biological logic gates. The quantitative results of 1 μM Cu^{2+} are detected on the biological logic gates stored in 4 $^{\circ}\text{C}$ for 1–5 days.

Table S1. Comparison of biological logic gates detection capabilities.

Detection Method	Colorimetric	Colorimetric	Fluorescence	Photoelectrochemistry
Cost	Low	Low	High	High
Performance of operations	Simple	Simple	Complicated	Complicated
Liner range	3.91 nM–256 μM	5 nM–1.28 μM	0.01–80 μM	0.1–100 μM
LOD	0.87 nM	0.37 nM	4.2 nM	0.02 μM
References	This work	[1]	[2]	[3]

References

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