

Correction

Correction: Hu et al. Ultrasensitive Silicon Nanowire Biosensor with Modulated Threshold Voltages and Ultra-Small Diameter for Early Kidney Failure Biomarker Cystatin C. *Biosensors* 2023, 13, 645

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1. Errors in Figure and Table

In the original publication [1], there was a mistake in Figure 7b as published. Figure 7b contained a human error. When creating the figure, due to the similarity with the other figures, we chose the wrong one by mistake. The correct version of Figure 7 appears below.



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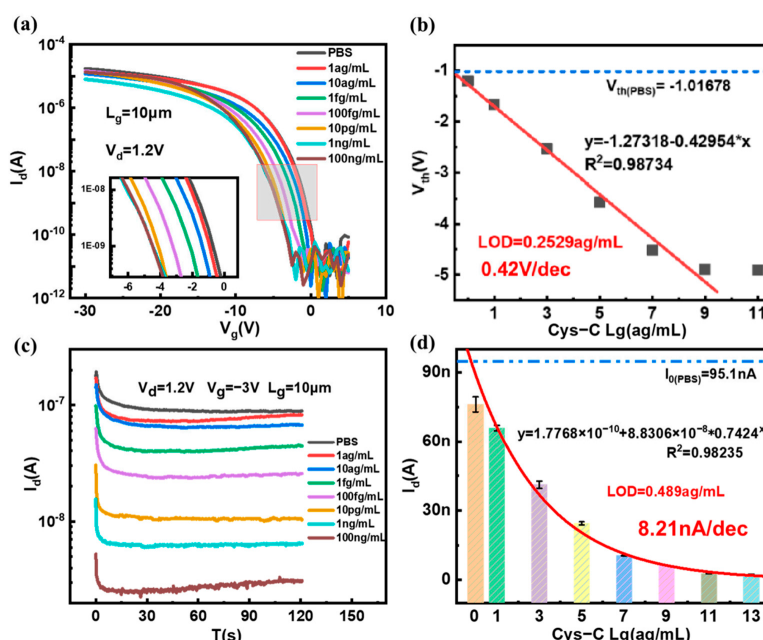


Figure 7. The electrical response of the SiNW FET biosensor to different concentrations of Cys-C. (a) Transfer curves of the SiNW FET biosensor interacting with varying concentrations of Cys-C (the red frame indicates the change in the curve around the sub-threshold region and is shown enlarged), (b) the V_{th} s of the SiNW FET biosensor in a series of Cys-C concentrations, (c) the real-time response of the Cys-C solution with different concentrations, and (d) the relationship between the steady-state drain current and the concentration of Cys-C.

Correspondingly, there was a mistake in Table 1. The LOD of this work should be 0.2529 ag/mL. The correct version of Table 1 appears below.

Table 1. Biosensors and immunosensors for detection of Cys-C.

Method	Material	Linear Range (LOD)	Reference
Differential pulse Voltammetry (DPV)	Au@Fe ₃ O ₄	0.01 pg/mL~30 ng/mL (3 fg/mL)	Yang et al., 2016 [16]
Photocurrent response	TiO ₂ nanotubes	0.72 pM~3.6 nM (0.14 pM)	Mi et al., 2016 [17]
Square wave voltammetry (SWV)	Prepared poly(thionine)-Au	100 ng/mL~10 fg/mL (4.6 fg/mL)	Wang et al., 2017 [40]
Cyclic voltammetry and differential pulse voltammetry	Multiwalled carbon nanotube (MWCNT)	0.6~6.6 ng/mL (0.58 pg/mL)	Desai et al., 2018 [18]
Linear sweep voltammetry (LSV)	AuNPs	10~100 ng/mL (6.0 ng/mL)	Lopes et al., 2019 [15]
Square wave voltammetry (SWV)	Graphene oxide-ferrocene nanofilm	0.1~1000 ng/mL (0.03 ng/mL)	Erika et al., 2019 [41]
Electrochemiluminescent (ECL)	Graphene composite (G/mRub)	1.0 fg/mL~10 ng/mL (0.38 fg/mL)	Zhao et al., 2019 [19]
Interdigitated electrode (IDE)	Polypyrrole/carbon nanotube	0~300 ng/mL (28 ng/mL)	Ferreira et al., 2020 [20]
Field effect transistor (FET)	Silicon nanowire	1 ag/mL~1 ng/mL (0.2529 ag/mL)	This work

2. Text Correction

There were some textual errors related to Figure 7b in the original publication.

There was an error in the Abstract Section, “in the range of Cys-C concentration from 1 ag/mL to 10 pg/mL”, in which “10 pg/mL” is wrong.

A correction has been made to the Abstract Section as follows:

“in the range of Cys-C concentration from 1 ag/mL to 1 ng/mL”.

There was an error in the Introduction Section, “The detection limit of Cys-C solution using SiNW FET biosensor is as low as 0.43 ag/mL”, in which “0.43 ag/mL” is wrong.

A correction has been made to the Introduction Section, paragraph 4, as follows:

“The detection limit of Cys-C solution using SiNW FET biosensor is as low as 0.25 ag/mL”.

There was an error in the Results and Discussion Section, “the linear regression equation after calibration and fitting is $y = -1.20982 - 0.45073 \times x$ and $R^2 = 0.999509$, where x is the logarithm of Cys-C concentration, and the detection limit of Cys-C was obtained through linear fitting, with LOD = 0.43341 ag/mL. The average sensitivity to V_{th} change is 0.41 V/dec.”, in which “ $y = -1.20982 - 0.45073 \times x$ and $R^2 = 0.999509$ ”, “LOD = 0.43341 ag/mL” and “ V_{th} change is 0.41 V/dec” is wrong.

A correction has been made to Results and Discussion Section, subsection 3.3, Detection of Cys-C and Sensitivity, paragraph 2, as follows:

“the linear regression equation after calibration and fitting is $y = -1.27318 - 0.42954 \times x$, $R^2 = 0.98734$, where x is the logarithm of Cys-C concentration, and the detection limit of Cys-C was obtained through linear fitting, with LOD = 0.2529 ag/mL. The average sensitivity to V_{th} change is 0.42 V/dec”.

There was an error in the Conclusions Section, “the detection limit fitted is 0.43 ag/mL”, in which “0.43 ag/mL” is wrong.

A correction has been made to the Conclusions Section as follows:

“the detection limit fitted is 0.25 ag/mL”.

The authors apologize for any inconvenience caused and state that the scientific conclusions are unaffected. This correction was approved by the Academic Editor. The original publication has also been updated.

Reference

1. Hu, J.; Li, Y.; Zhang, X.; Wang, Y.; Zhang, J.; Yan, J.; Li, J.; Zhang, Z.; Yin, H.; Wei, Q.; et al. Ultrasensitive Silicon Nanowire Biosensor with Modulated Threshold Voltages and Ultra-Small Diameter for Early Kidney Failure Biomarker Cystatin C. *Biosensors* **2023**, *13*, 645. [[CrossRef](#)] [[PubMed](#)]

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