

## Electronic Supplementary Information

### A novel platform for enhanced biosensing based on the synergy effects of electrospun polymer nanofibers and graphene oxides

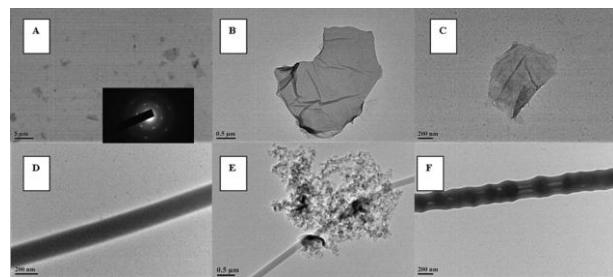
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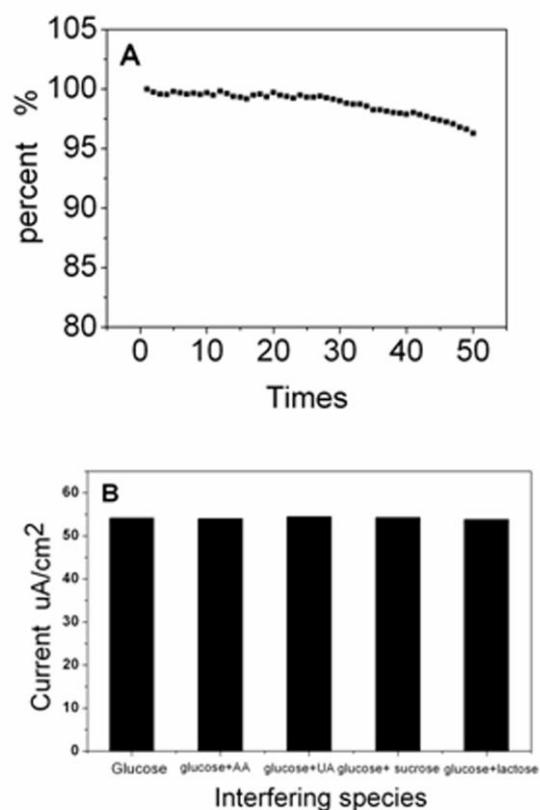
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**Table S1** The comparison of the proposed biosensor with other work.

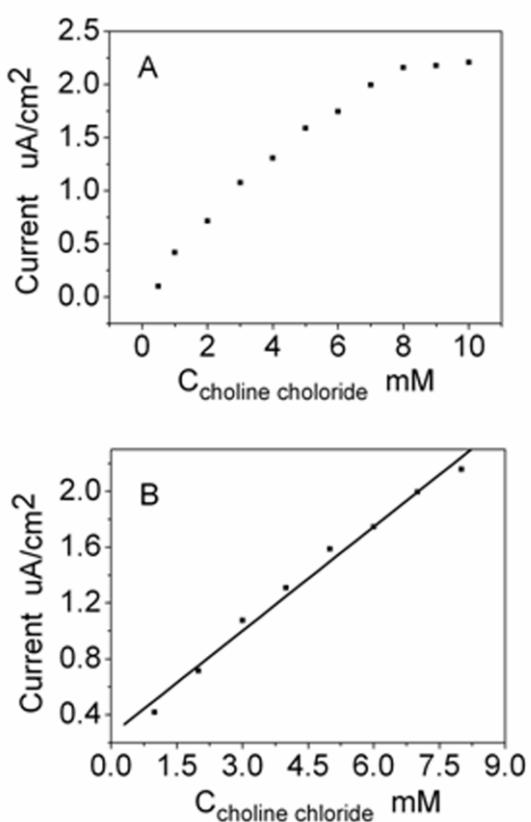
The style of biosensor	Sensitivity	Detection limit	Linear range	references
Electrospun MWCNT-filled PANCAA nanofiber/Pt	$0.18354 \mu\text{A mM}^{-1}$	$668 \mu\text{M}$	0.668-7 mM	[1]
Electrospun nylon nanofiber/Pt	$1.9 \mu\text{A mM}^{-1}$	$6 \mu\text{M}$	1-10 mM	[2]
Electrospun $\text{TiO}_2$ nanofiber/Pt	$9.25 \mu\text{A cm}^{-2} \text{mM}^{-1}$	$10 \mu\text{M}$	0.01-6.98 mM	[3]
Graphene/ionic liquid/Au	$0.64 \mu\text{A mM}^{-1}$	$376 \mu\text{M}$	2-20 mM	[4]
Graphene/CdS/GCE	$1.76 \mu\text{A cm}^{-2} \text{mM}^{-1}$	$700 \mu\text{M}$	2-16 mM	[5]
Graphene/CNT/GCE	$1.27 \mu\text{A cm}^{-2} \text{mM}^{-1}$	unkown	1-8 mM	[6]
Graphene/Ag/GCE	unkown	$100 \mu\text{M}$	2-10 mM	[7]
<u>The proposed biosensor</u>	<u><math>11.98 \mu\text{A cm}^{-2} \text{mM}^{-1}</math></u>	<u><math>5 \mu\text{M}</math></u>	<u>0.005-3.5 mM</u>	<u>This paper</u>



**Fig. S1** The TEM images of (A) the graphene oxides at low magnification, the inset is the selected –area electron diffraction pattern from a graphene oxide nanosheet, (B)-(C) the graphene oxide at high magnification, (D) the PVA/chitosan/GOD nanofiber, (E)-(F) the PVA/chitosan/GOD/GO nanofiber.



**Fig. S2** (A) The measurement stability of the naftion/PVA/chitosan/GOD/GO/Pt electrode in 2.5 mM glucose. (B) The anti-interference study of the naftion/PVA/chitosan/GOD/GO/Pt electrode in 5 mM glucose, with addition of 0.1 mM AA, 0.1 mM UA, 3 mM sucrose and 3 mM lactose.



**Fig. S3** (A) The current response to choline chloride of the choline biosensor. (B) The calibration curve for choline chloride of the choline biosensor.

#### References

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