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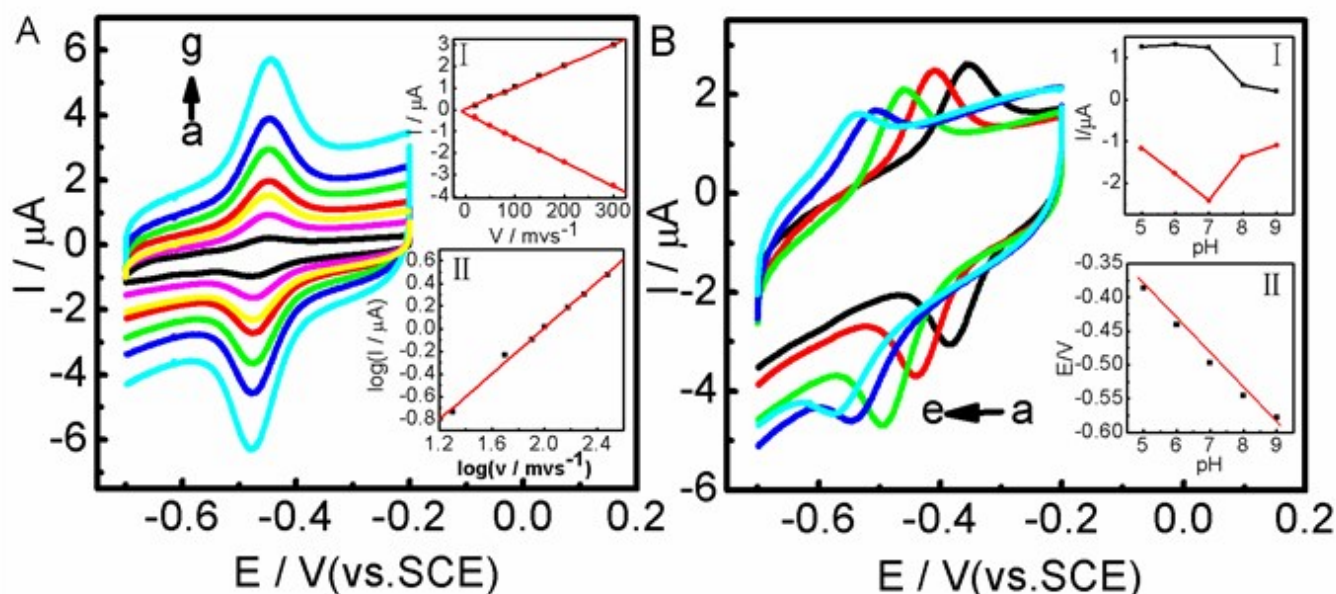
**Facile synthesis of daisy-like MoS<sub>2</sub> nanostructure for sensitive electrochemical biosensing application**

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**Effects of solution scan rate and pH on the electrochemical behavior at the GOx/MoS<sub>2</sub>/chitosan modified GCE.**



**Figure S1** (A). Cyclic voltammograms of GOx/MoS<sub>2</sub>/chitosan in 0.1 M N<sub>2</sub>-saturated PBS (pH=7.0) at 10, 20, 50, 80, 100, 150 and 200 mV s<sup>-1</sup> (a-g), inset I: plot of anodic and cathodic peak currents vs. scan rates, inset II: plot of logarithm of ipc vs. logarithm of V and (B) cyclic voltammograms of GOx/MoS<sub>2</sub>/chitosan in N<sub>2</sub>-saturated PBS with different pH values of 5.0, 6.0, 7.0, 8.0 and 9.0 at a scan rate of 100 mV s<sup>-1</sup> (a-e), inset I: plot of anodic and cathodic peak currents vs. pH, inset II: plot of formal potentials vs. pH.

**Comparison between this glucose biosensor and others previous glucose biosensors reported in recent literatures.**

**Table S1 Comparison of analytical performance between GOx/nanorod-like MoS<sub>2</sub>/CS/GCE and other modified electrodes**

Electrode	Applied potential (V)	Sensitivity (mA M <sup>-1</sup> cm <sup>-2</sup> )	Detection limit (mM)	Linear range (mM)	Reference
GOx/ nanorod-like MoS <sub>2</sub> / chitosan /GCE	-0.45	25.06	0.005	0.015-0.325 0.325-1.43	This Work
GOx/CoS-MWCNTs/Nafion/GCE	-0.43	14.96	0.005	0.008-1.5	S1
GOx/SnS <sub>2</sub> /Nafion/GCE	-0.45	7.6	0.01	0.025-1.1	S2
Nifion/GOx/silver-ZnO/GCE	-0.37	18.7	0.007	0.01-1.5	S3
GOx/cage-like PbS/Nafion/GCE	-0.45	11.02	0.01	0.15-1.45	S4
GOx/CNT–AuNPs–ZnSHSs/GCE	+0.50	–	0.01	0.02-7.0	S5
GOx/G-CdS/GCE	-0.335	1.76	0.7	2-16	S6
GOD/chitosan/ $\alpha$ -ZrP	-0.435	–	0.076	0.25-0.8	S7

*MWCNTs: Multi-walled carbon nanotubes*

*G: graphene*

*AuNPs: Au nanoparticles*

*HSs: hollow spheres*

*HNPs: Hybrid nanorods*

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