Supporting Information

Preparation of MoS_2@AuNPs nanocomposite by a self-reduction method and its application for electrochemical glucose sensing

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Figure S1

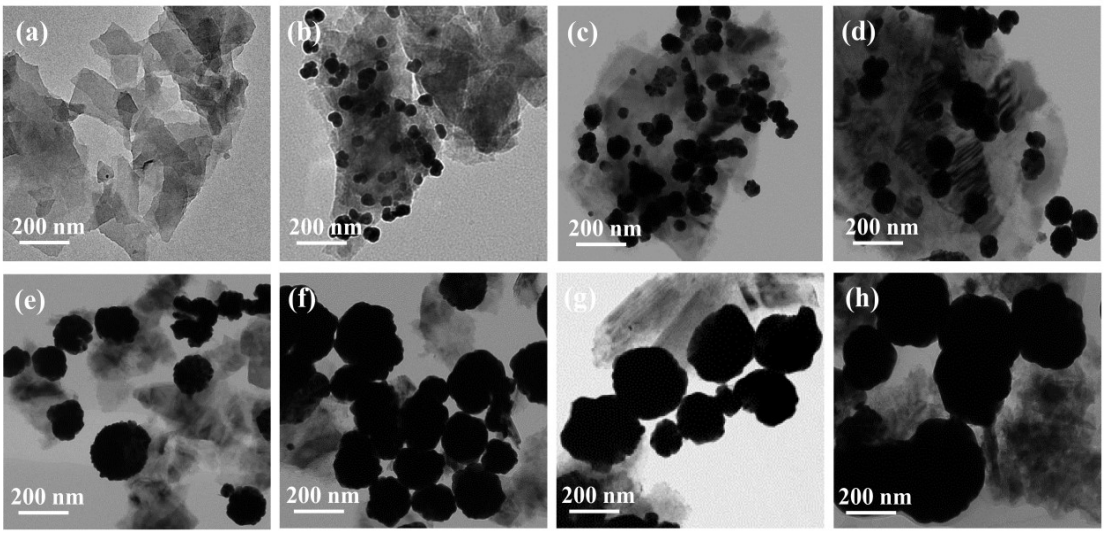

Figure S1. TEM images of (a) MoS_2 nanosheets and (b-h) MoS_2@AuNPs nanocomposites (the concentration of $HAuCl_4$ was 1 mM, 5 mM, 7.5 mM, 10 mM, 15 mM and 20 mM in sequence).

Figure S2

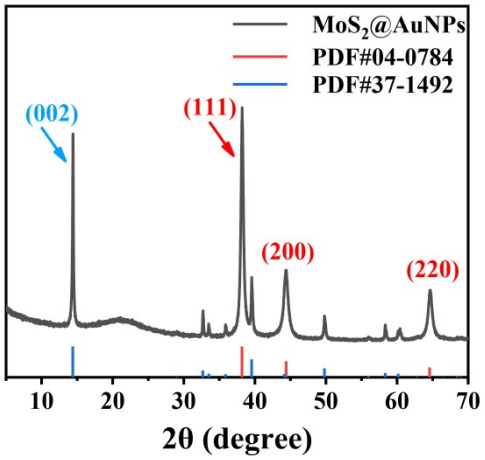

Figure S2. PXRD spectra of MoS_2@AuNPs.

Figure S3

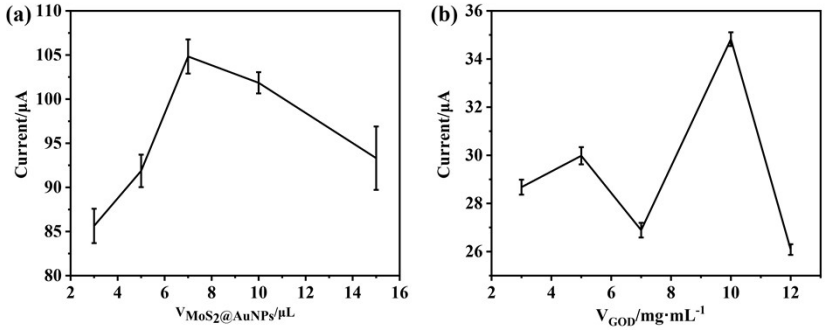

Figure S3. The effects of (a) the coating amounts of MoS_2@AuNPs nanocomposites and (b) the concentration of GOD on the performance of glucose sensor.

Figure S4

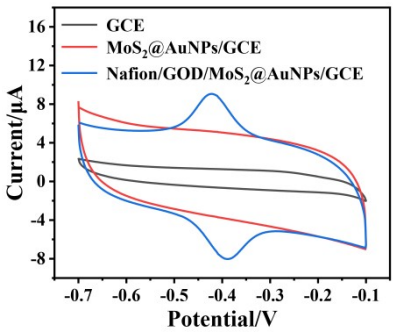

Figure S4. CVs of GCE, MoS_2@AuNPs/GCE, Nafion/GOD/MoS_2@AuNPs/GCE in N_2-saturated 0.1 M pH 5.5 PBS at scan rate of 50 mV/s.

Figure S5

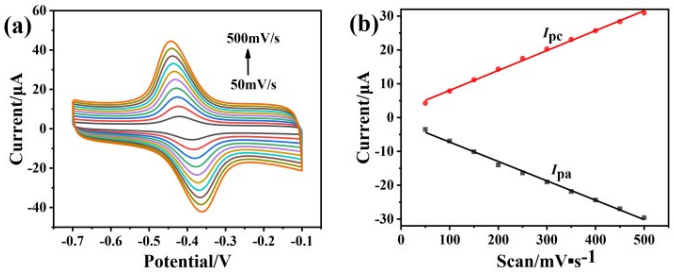

Figure 9. (a) CVs of the Nafion/GOD/MoS_2@AuNPs/GCE in N_2-saturated 0.1 M pH 5.5 PBS at 50, 100, 150, 200, 250, 300, 350, 400, 450, 500 mV/s (from inner to outer), respectively; (b) plots of anodic and cathodic peak currents vs. scan rates.

Figure S6

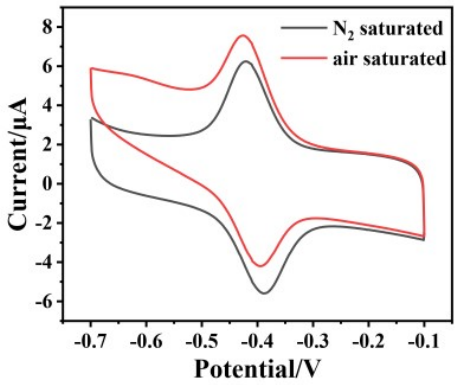

Figure S6. CVs of Nafion/GOD/MoS_2@AuNPs/GCE in N_2-saturated (black line) and air-saturated (red line) 0.1 M pH 5.5 PBS at 50 mV/s.

Figure S7

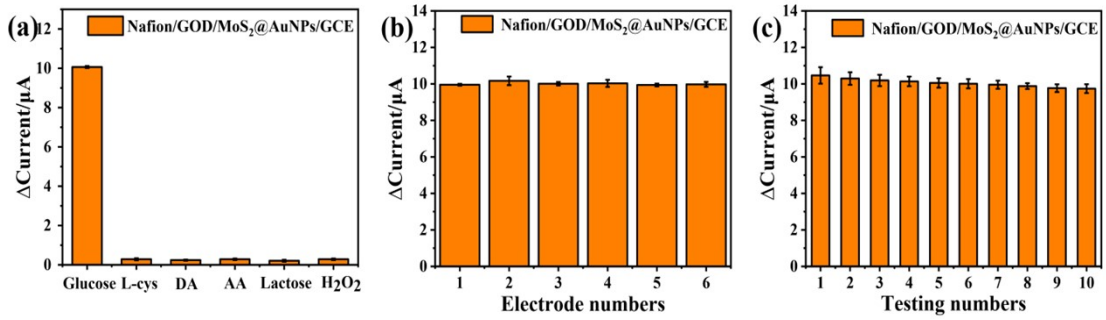

Figure S7. (a) Specificity (b) repeatability and (c) reproducibility of Nafion/GOD/MoS_2@AuNPs/GCE.