Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

High performance three-phase enzyme electrode based on superhydrophobic mesoporous silicon nanowire arrays for glucose detection

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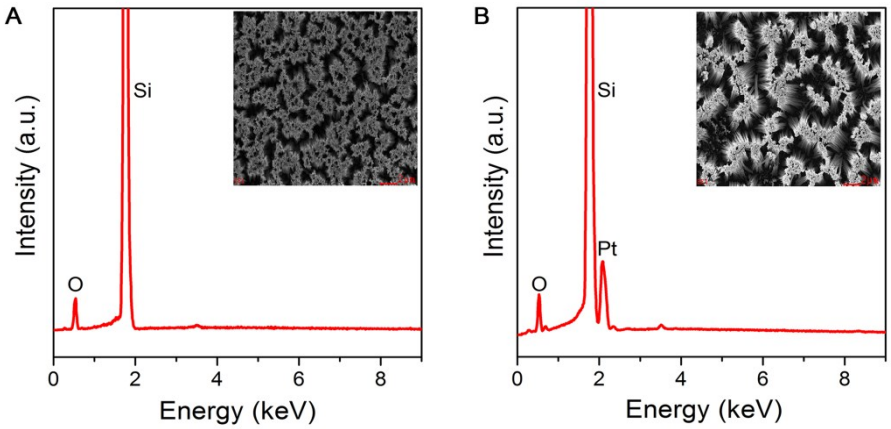

Figure S1. EDX spectra for mpSiNWAs (A) before and (B) after the Pt sputtering treatment. Inset: ESEM top views of the samples.

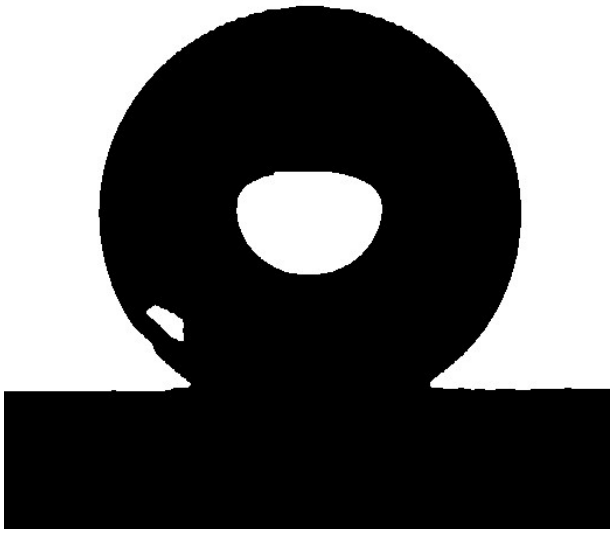

Figure S2. Shape of water droplet on the surface of the mpSiNWAs after Pt sputtering and OTS treating. The water contact angle is measured to be 151.1°.

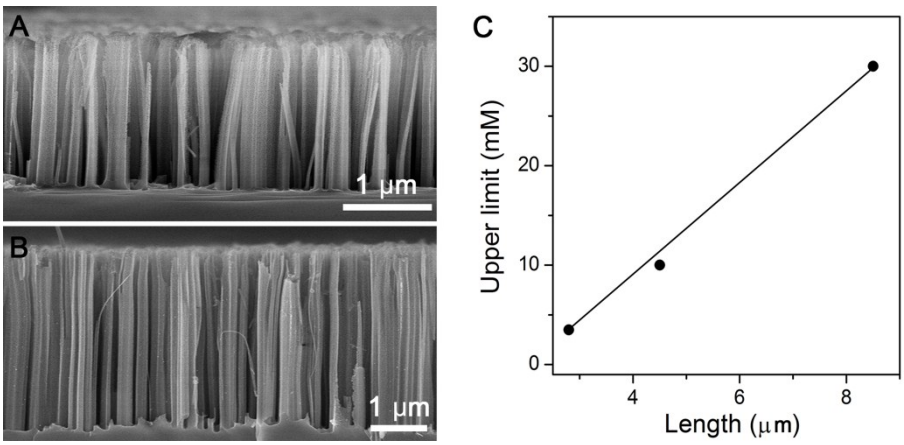

Figure S3. Side-views of the mpSiNWAs prepared using the etching time of (A) 5 and (B) 12 min. (C) Plots of the upper limit of the linear range versus the length of mpSiNWAs for the TPE-electrode.

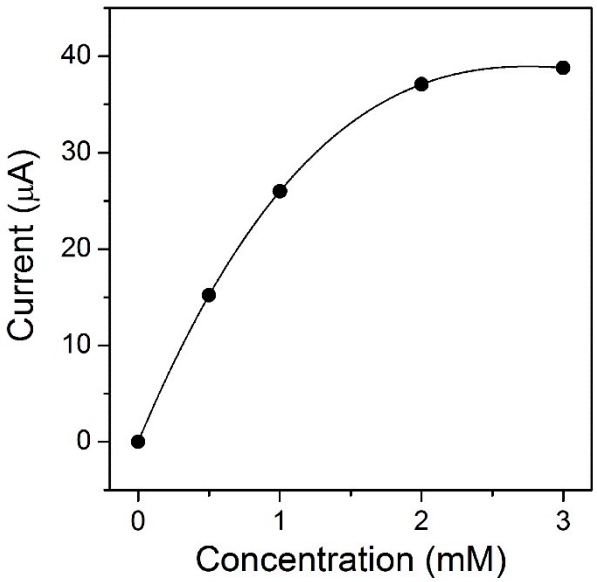

Figure S4. Plots of anodic current versus the glucose concentration for the enzyme electrode without OTS modification.

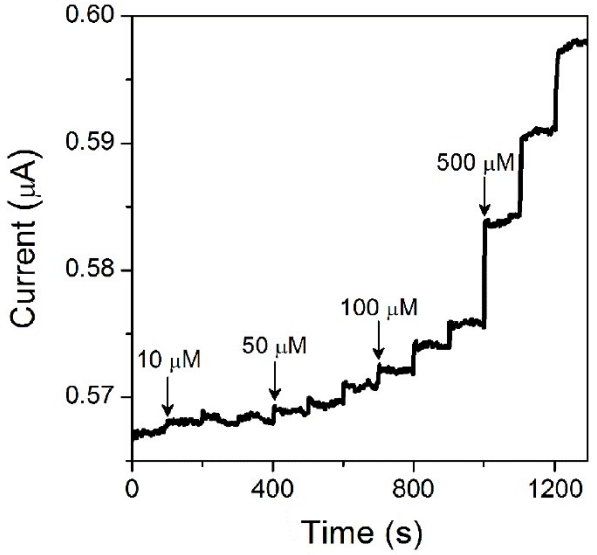

Figure S5. Amperometric response of the TPE-electrode after successive addition of glucose. Applied potential: +0.5 V.