

Supporting Information

Surface charge modulation enhanced high stability of gold oxidation intermediate for electrochemical glucose sensors

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Table S1 Inductively coupled plasma emission spectra result of Au300 Cu Foam, Au300 Fe Foam and Au300 Ni Foam.

Inductive Coupled Plasma Emission Spectrometer			
Sample Name	Element	Weight (%)	Atomic Ratio
Au300 Cu Foam	Cu	99.4403	1
	Au	0.4317	0.0014
Au300 Fe Foam	Fe	99.3168	1
	Au	0.0419	0.00012
Au300 Ni Foam	Ni	99.1595	1
	Au	0.5682	0.0017

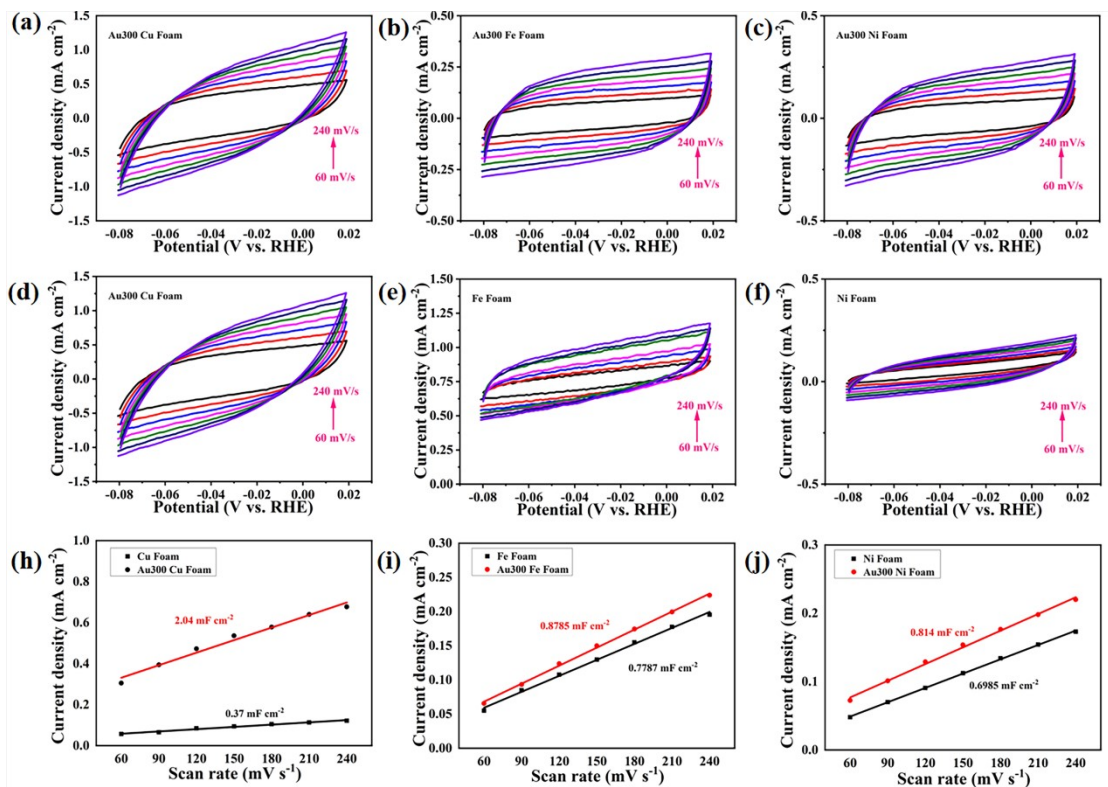


Fig S1. (a)CV curves of (a)Au300 Cu Foam, (b)Au300 Fe Foam, (c)Au300 Ni Foam, (d)Cu Foam, (e)Fe Foam, and (f)Ni Foam in 0.1 M KOH with scan rate of 60, 90, 120, 150, 180, 210, and 240 mV s⁻¹. (g-i) The C_{dl} of different samples.

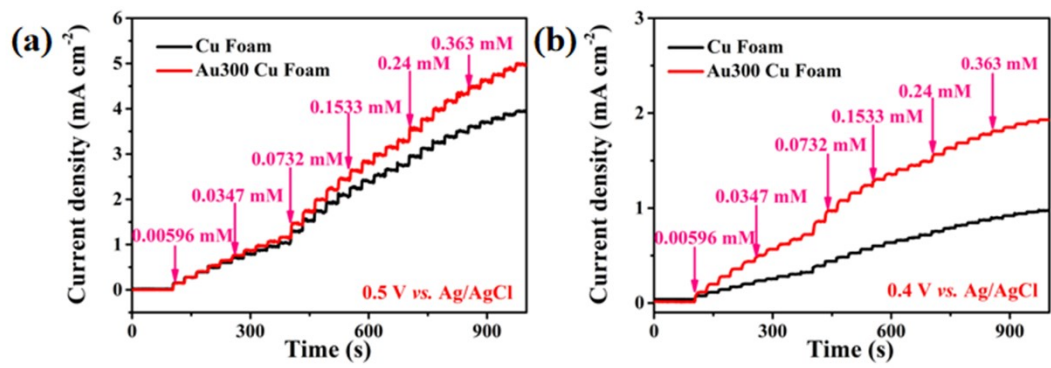


Fig S2. (a)Chronoamperometry response of Cu Foam and Au300 Cu Foam toward glucose in 0.1 M KOH with continuous glucose at 0.5 V vs. Ag/AgCl. (b)Chronoamperometry response of Cu Foam and Au300 Cu Foam toward glucose in 0.1 M KOH with continuous glucose at 0.4 V vs. Ag/AgCl.

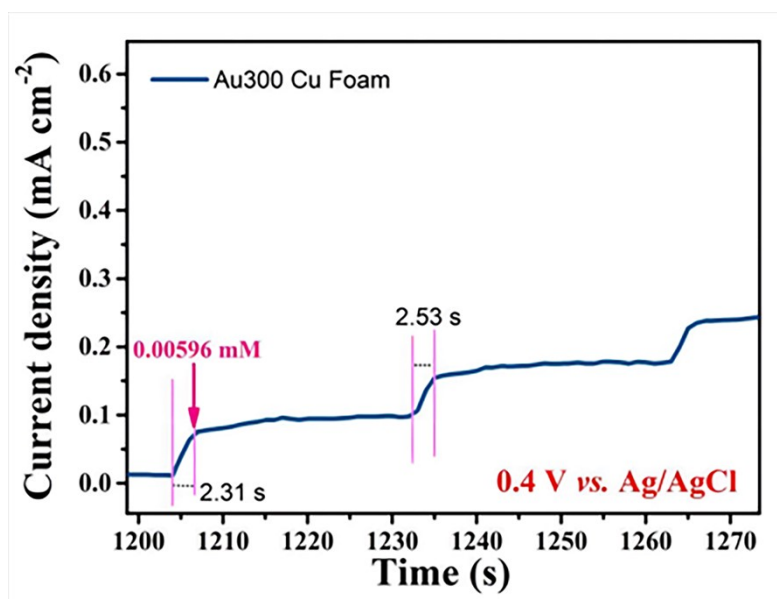


Fig S3. The enlarged figure of Chronoamperometry response of Au300 Cu Foam toward glucose in 0.1 M KOH with continuous glucose at 0.4 V vs. Ag/AgCl.

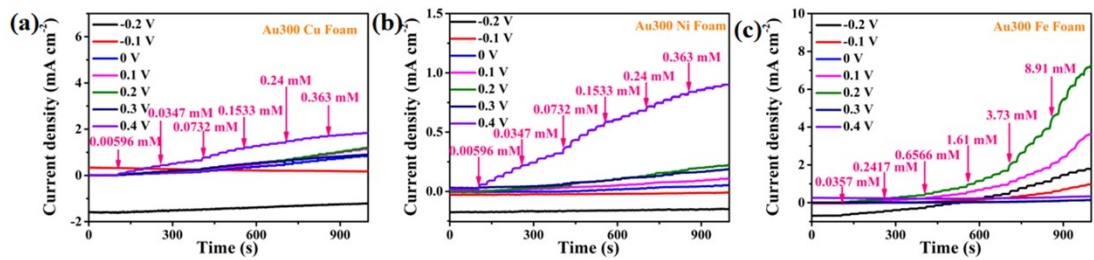


Fig S4. Chronoamperometry response of (a)Au300 Cu Foam, (b)Au300 Fe Foam, and (c)Au300 Ni Foam

toward glucose in 0.1 M KOH with continuous glucose at the various test potential.

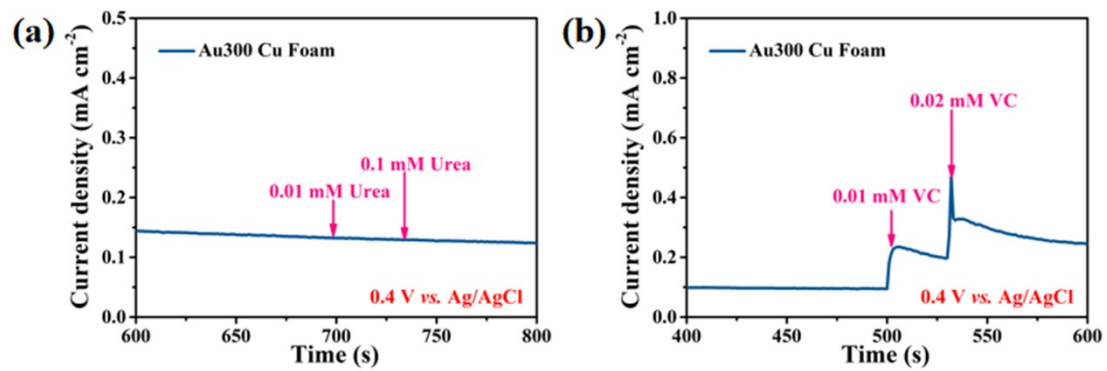


Fig S5. Chronoamperometry response of Au300 Cu Foam toward (a) urea and (b) ascorbic acid (VC) in 0.1 M KOH in the absence of glucose at 0.4 V vs. Ag/AgCl.

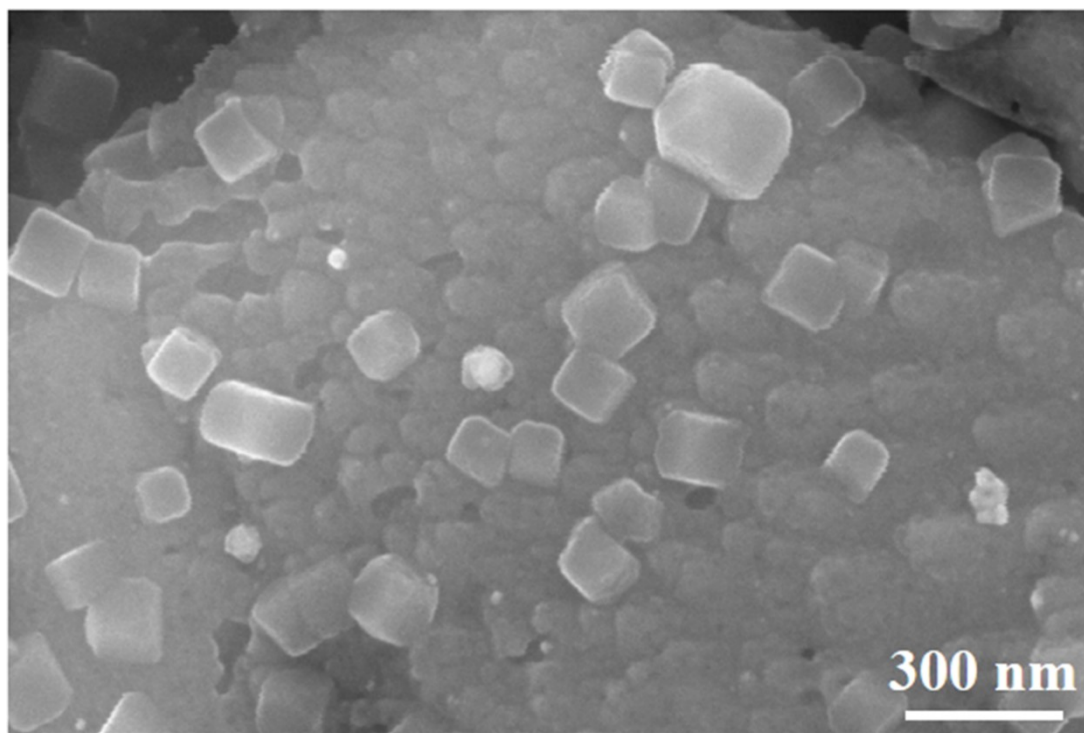


Fig S6. SEM image of Au₃₀₀ Cu Foam after the stability test.