Electronic Supplementary Information

For

A novel non-enzymatic glucose sensor based on Cu nanoparticles modified linear graphene edge nanoelectrode

Jingyun Jiang,[a] Pu Zhang,[a] Yan Liu[a] and Hongxia Luo[a*]

[a] *Department of Chemistry, Renmin University of China, Beijing 100872, China*

Fig. S1 HR-TEM image of a cross-section of graphene film.

Fig. S2 CVs of Cu-GNE with different modified time (from 120 s to 600 s) for the oxidation of glucose in 0.1 M NaOH at 100 $mV \cdot s^{-1}$.

Fig. S3 SEM images of the Cu-GNE with different modified time (120 s (a) and 600 s (b)) in 10 mM $CuSO_4$.

Fig. S4 CVs of Cu-GC electrode in 0.1 M NaOH in the absence (black) or presence (red) of 1.0 M glucose at 50 $mV \cdot s^{-1}$.

Fig. S5 The linear sweep voltammograms of Cu-GNE in 0.1 M NaOH with different concentrations of glucose from 0.2 to 2.0 mM.

Fig. S6 The current change for the detection of 0.1 mM glucose in 0.1 M NaOH as the Cu-GNE was stored in air for thirty days.

Fig. S7 High magnification SEM image of the Cu-GNE after sensing glucose.

Fig. S8 CVs of Cu-GNE in 0.1 M NaOH containing 1 mM glucose with (red) and without (black) 0.15 M NaCl. Scan rate: 50 $mV \cdot s^{-1}$.

Fig. S9 SEM image of the Cu-GNE electrode.

* Corresponding authors.
E-mail addresses: luohx@ruc.edu.cn (H. Luo).

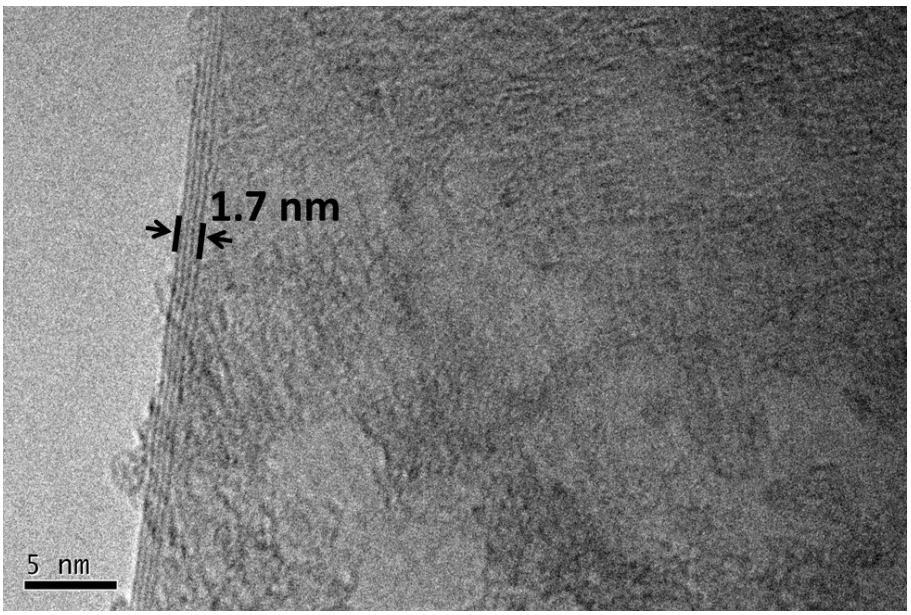
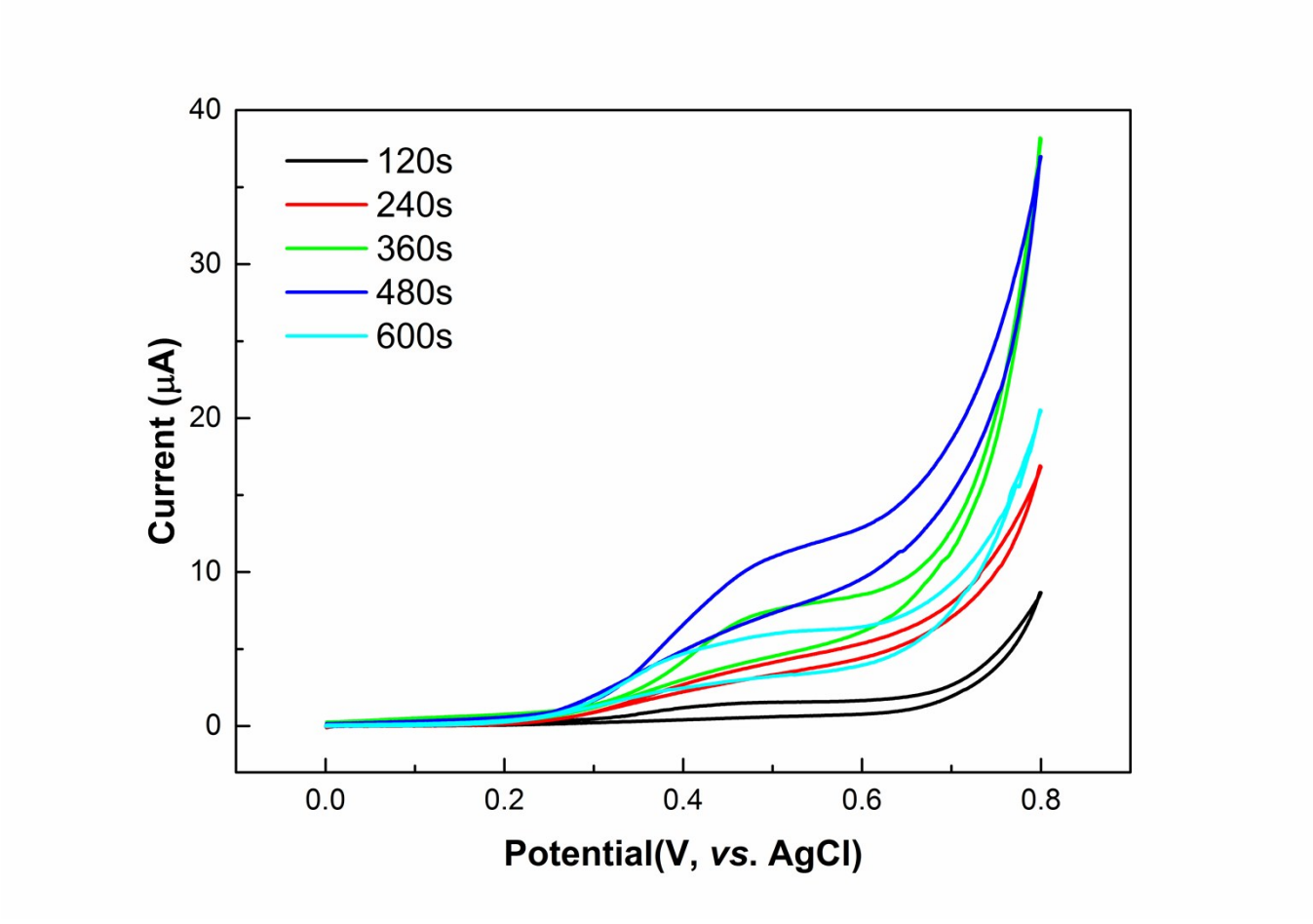


Fig. S1 HR-TEM image of a cross-section of graphene film.



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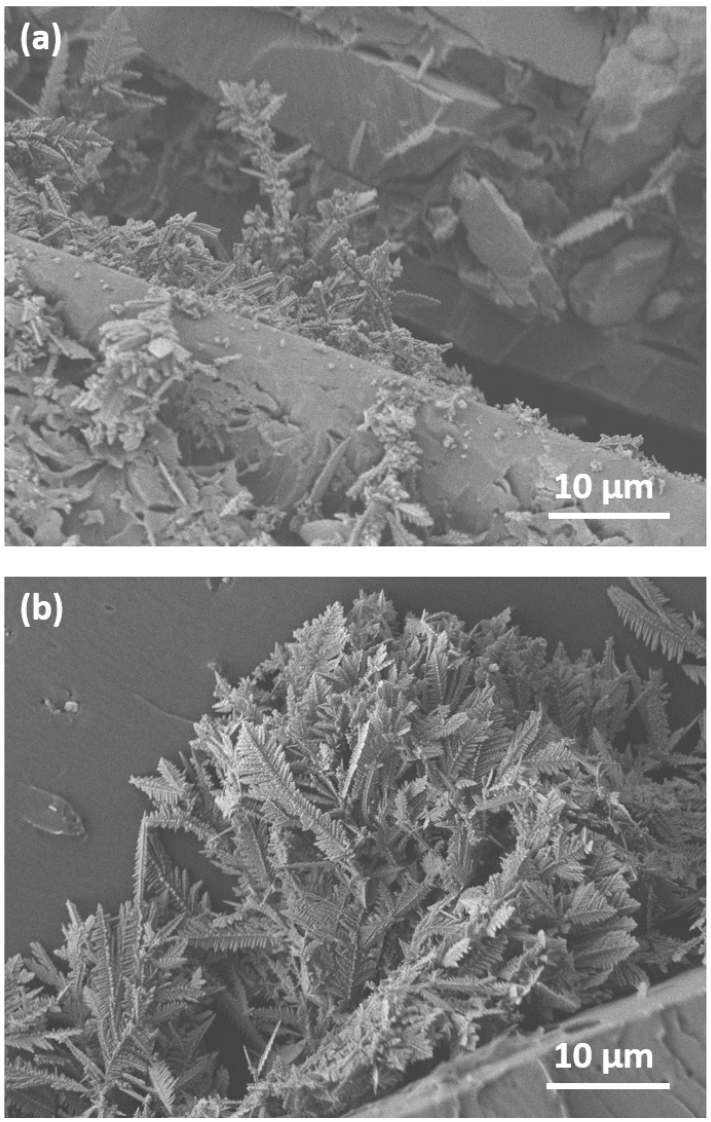
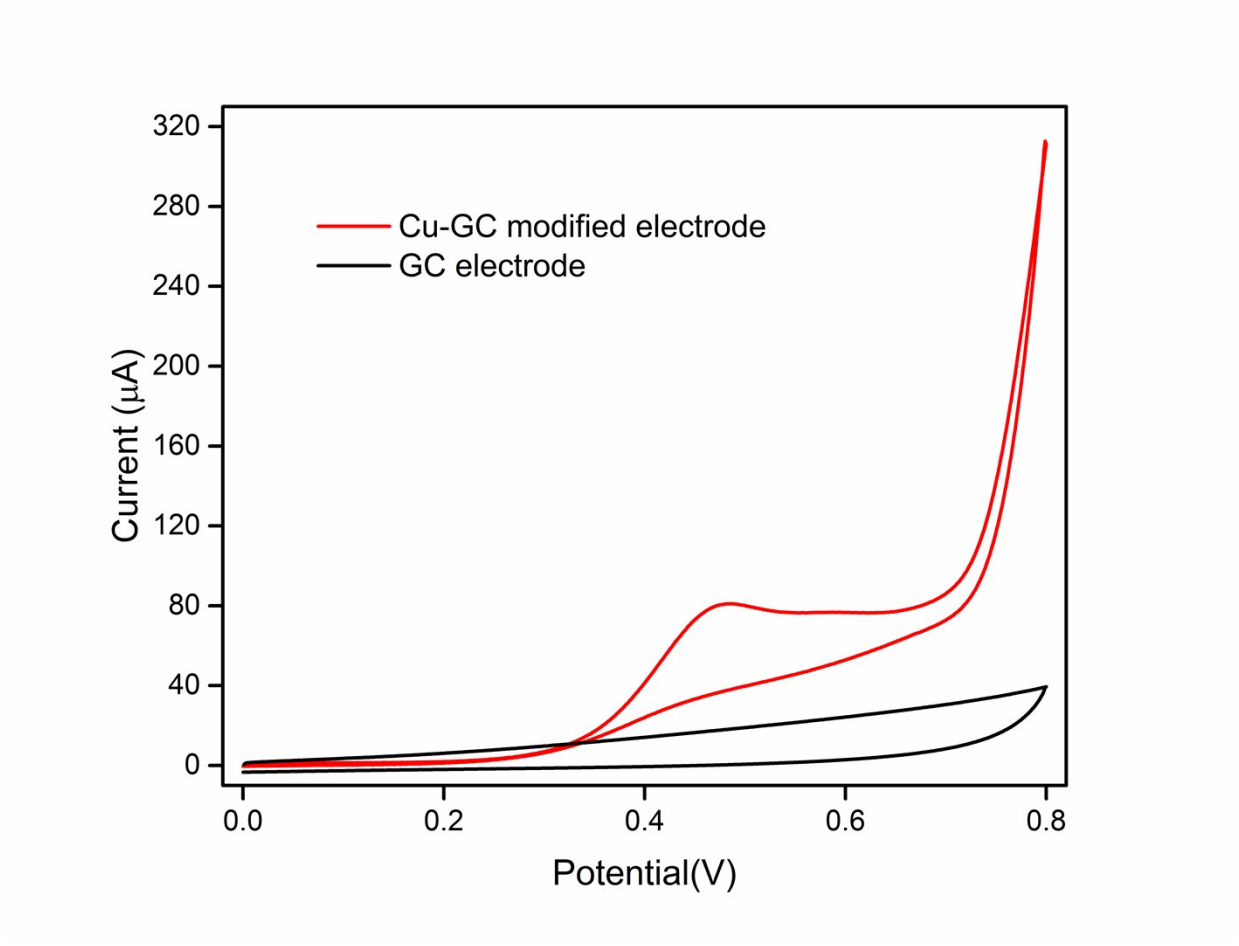


Fig. S3 SEM images of the Cu-GNE with different modified time (120 s (a) and 600 s (b)) in 10 mM $CuSO_4$.



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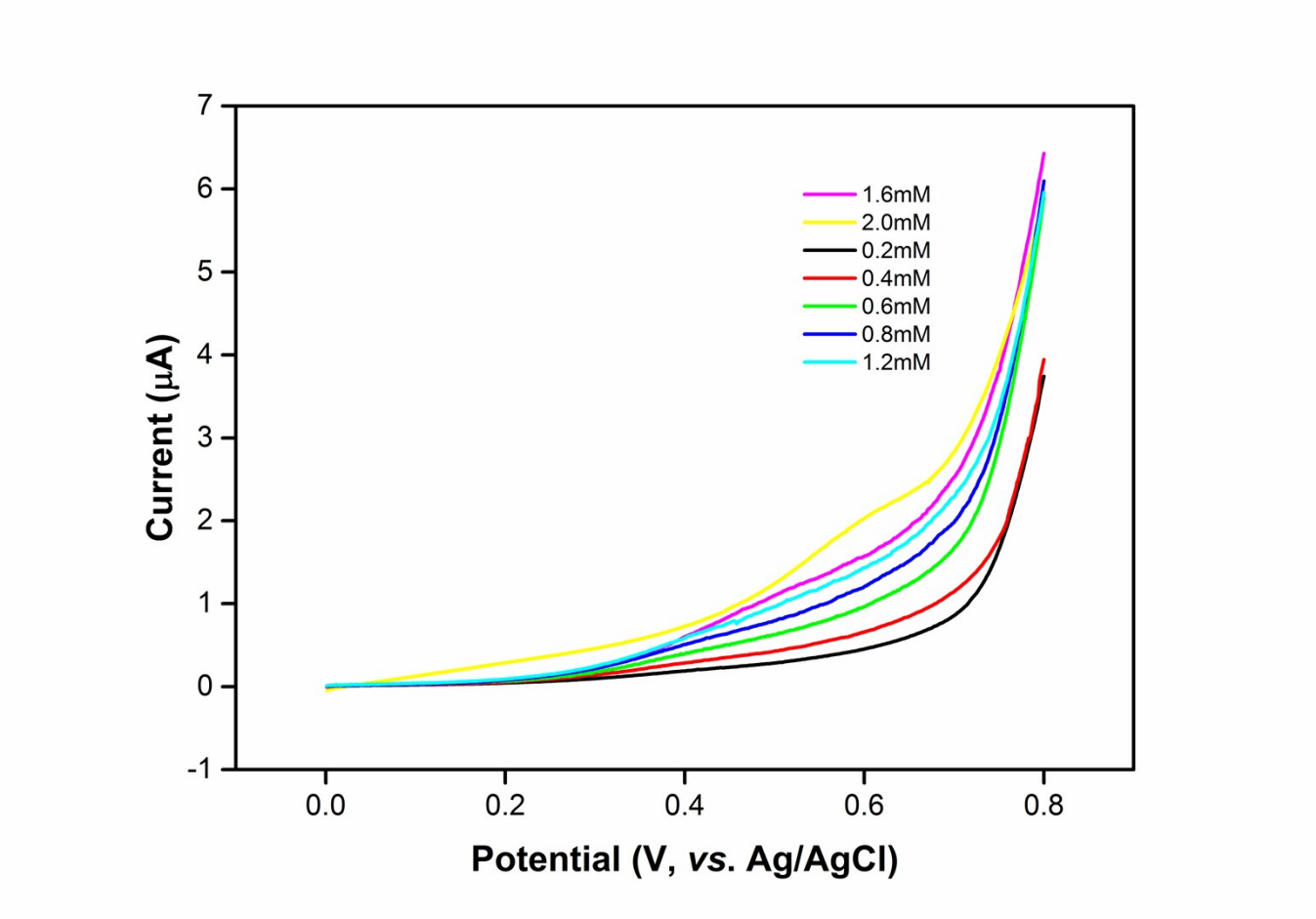

Fig. S5 The linear sweep voltammograms of Cu-GNE in 0.1 M NaOH with different concentrations of glucose from 0.2 to 2.0 mM.

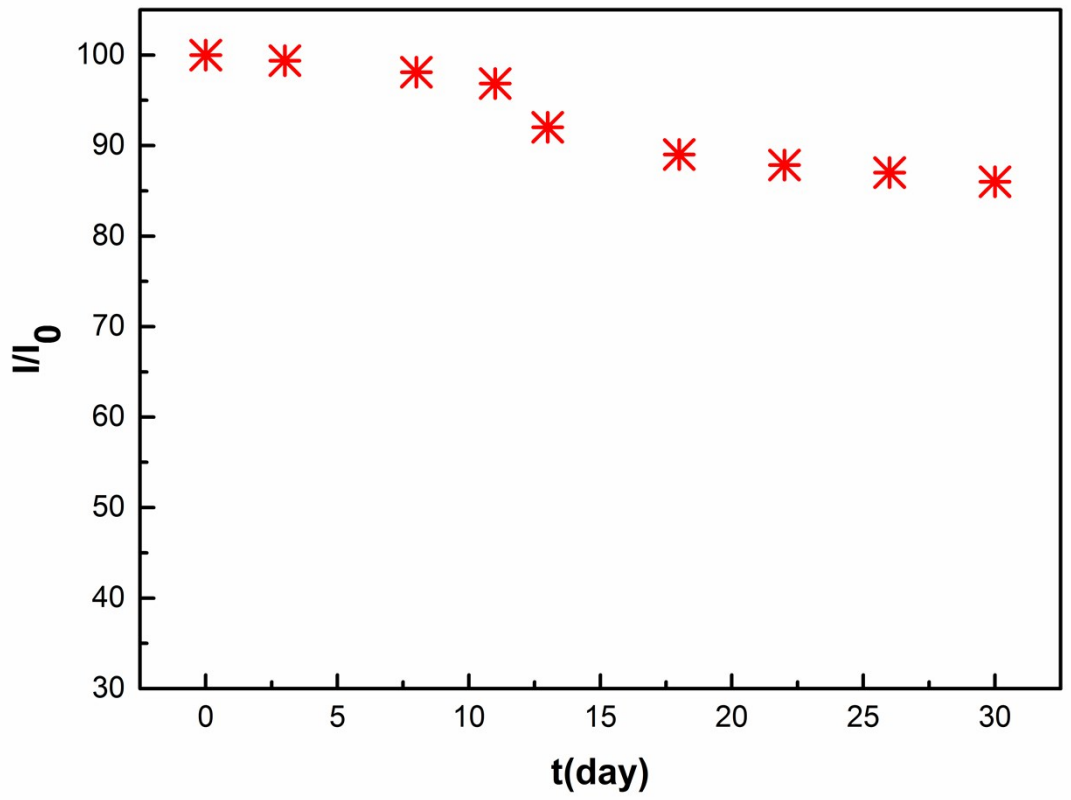

Fig. S6 The current change for the detection of 0.1 mM glucose in 0.1 M NaOH as the Cu-GNE was stored in air for thirty days.

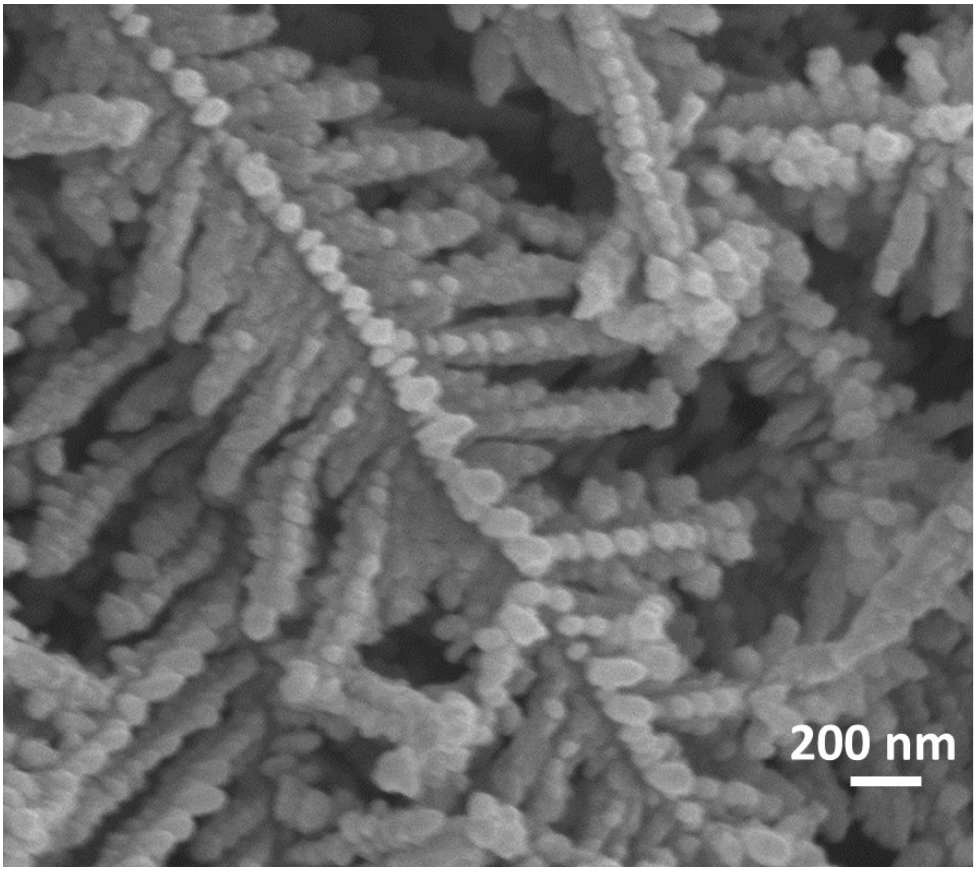

Fig. S7 High magnification SEM image of the Cu-GNE after sensing glucose.

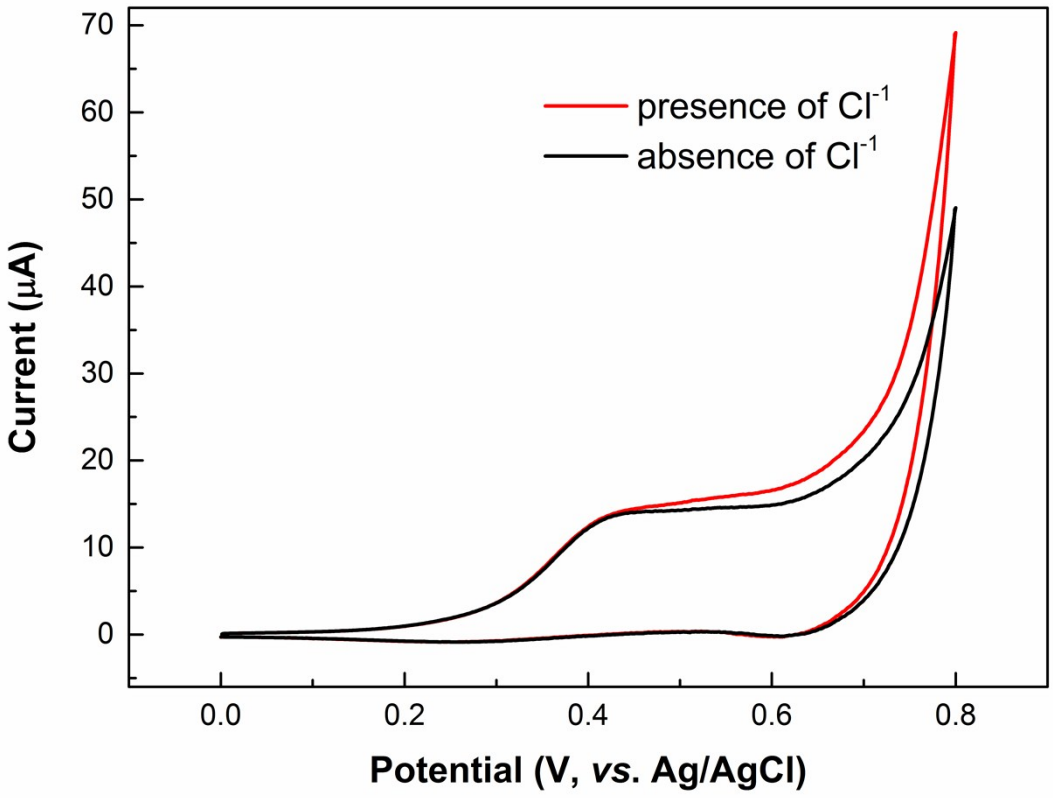

Fig. S8 CVs of Cu-GNE in 0.1 M NaOH containing 1 mM glucose with (red) and without (black) 0.15 M NaCl. Scan rate: 50 $mV \cdot s^{-1}$.

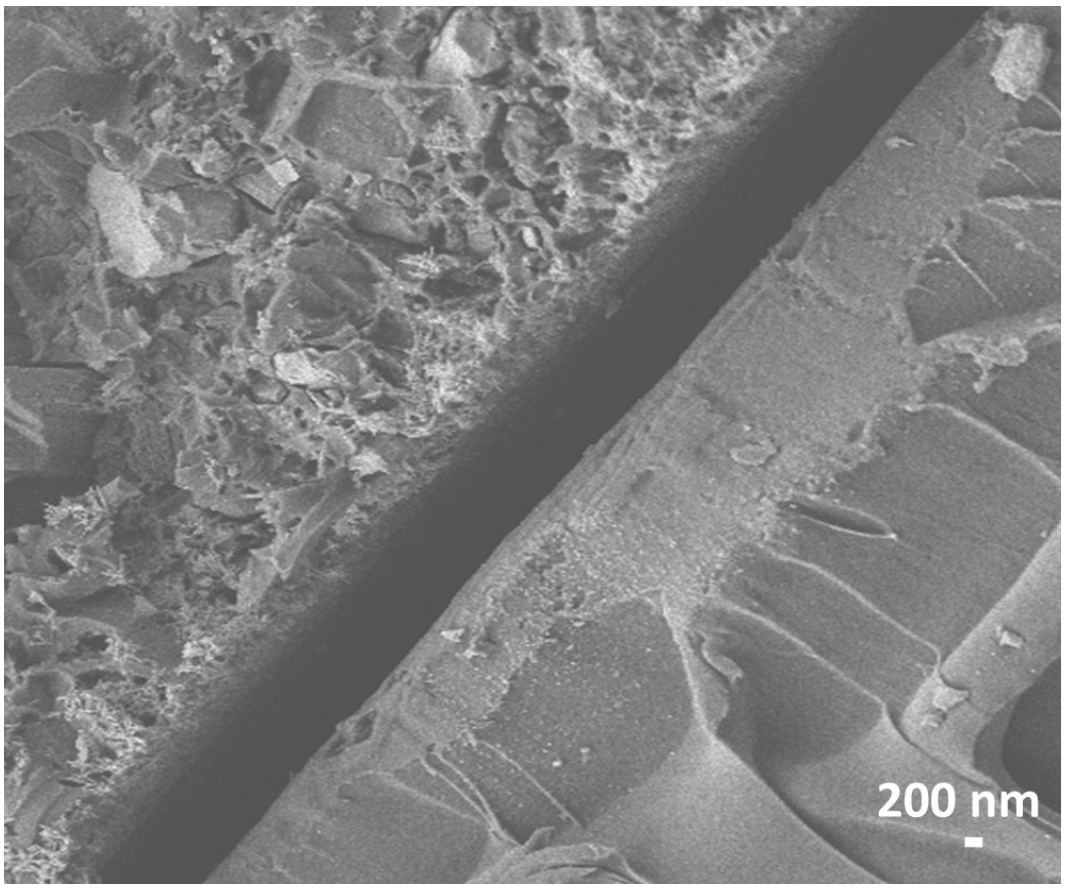

Fig. S9 SEM image of the GNE electrode.