

Ni-based metal-organic framework derived Ni@C nanosheets on Ni foam substrate as a supersensitive non-enzymatic glucose sensor

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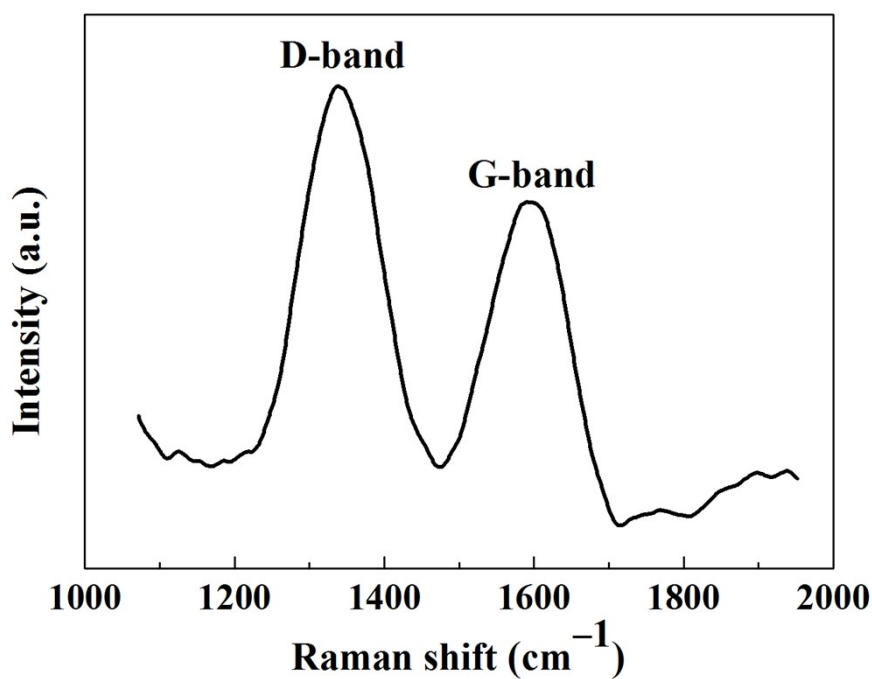


Fig. S1 Raman spectra of the prepared Ni@C powder sample

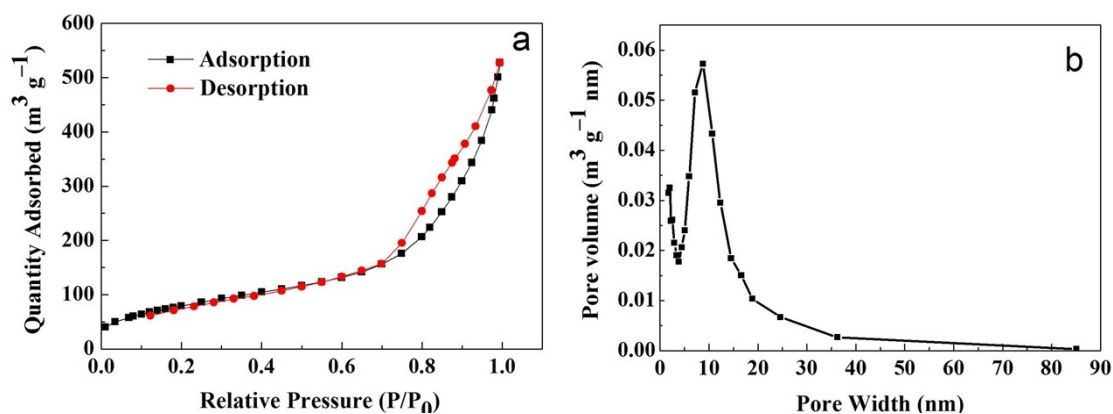


Fig. S2 (a) N_2 adsorption and desorption isotherms of Ni@C powder; (b) Pore size distributions of Ni@C powder.

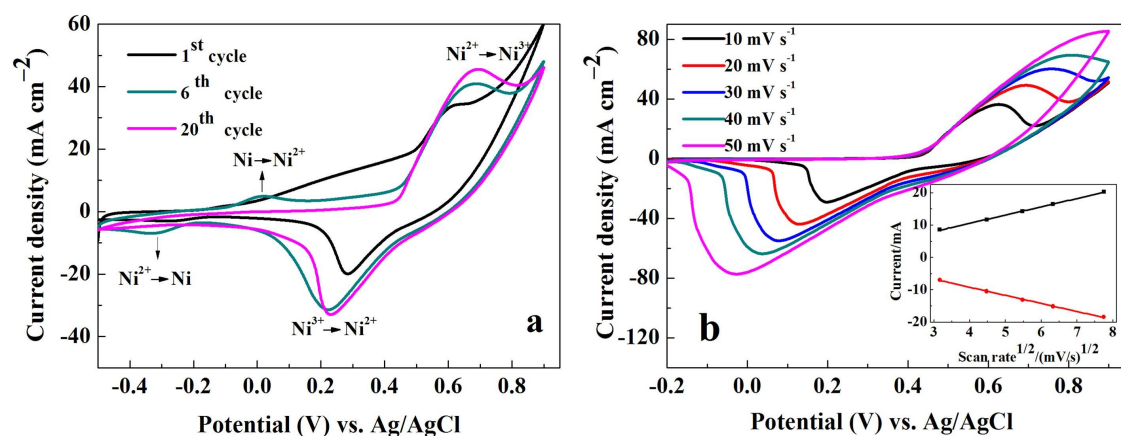


Fig. S3 Cyclic voltammograms (CV) (a) at different cycles with a scan rate of 20 mV s^{-1} in the absence of glucose; (b) at different scanning rate ranging from 10 mV s^{-1} to 60 mV s^{-1} with addition of 0.2 mM glucose (Inset: linear plots of peak currents versus the square root of the scan rates);

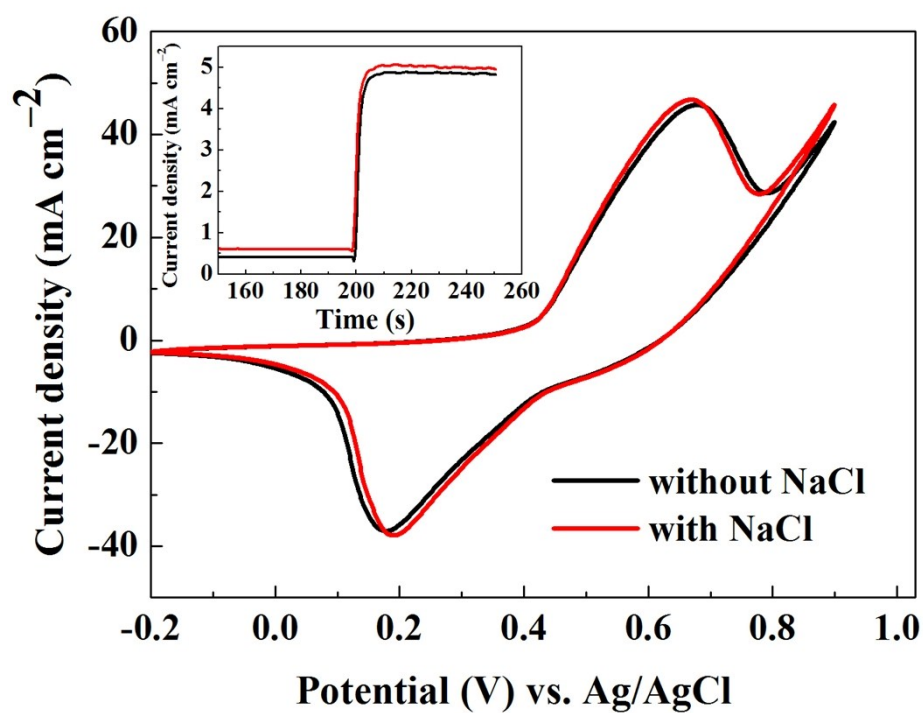


Fig. S4 CVs of the Ni@C/Ni foam electrodes containing 0.2 mM glucose with and without 20 mM NaCl in 0.1 M NaOH solution, the inset is the corresponding amperometric responses.

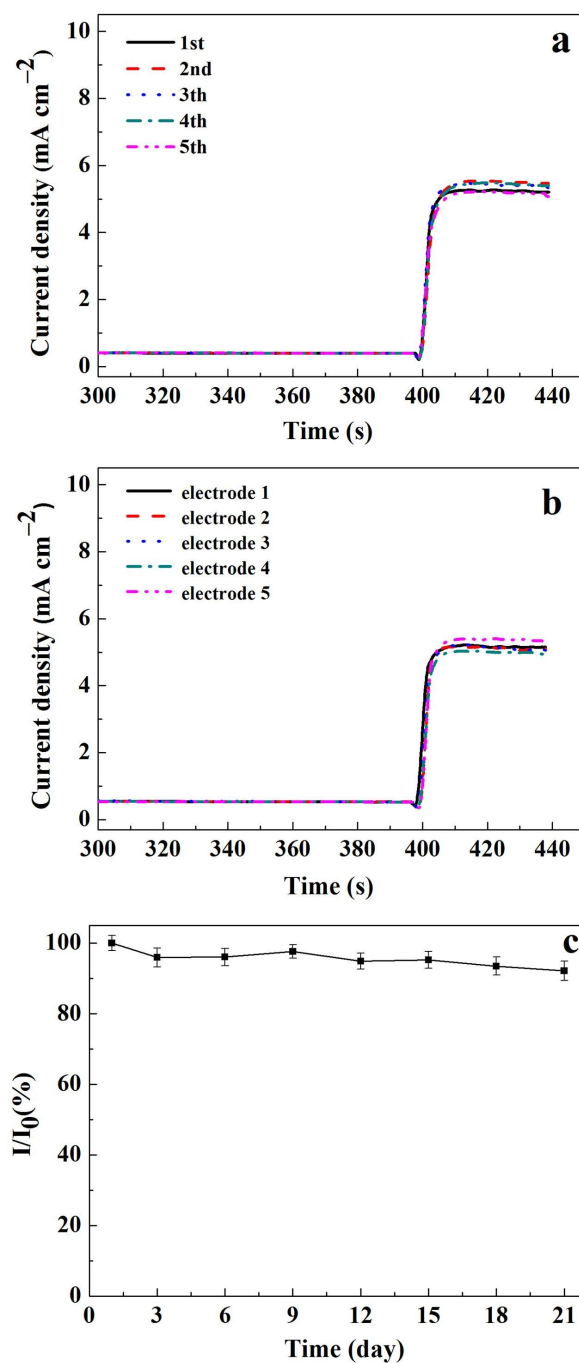


Fig. S5 (a) Amperometric responses of an electrode to the addition of 0.1 mM glucose solution for respective five times; (b) Amperometric responses of five electrodes fabricated on the same condition to the addition of 0.1 mM glucose solution; (c) long-term stability test of Ni@C/Ni foam electrodes stored at room temperature over a 21-day period.