

Efficient improvement in non-enzymatic glucose detection induced by the hollow prism-like NiCo₂S₄ electrocatalyst

Dandan Chu, Li Yan, Qiwen Chen, Xue-Qiang Chu, Danhua Ge,* Xiaojun Chen*

College of Chemistry and Molecular Engineering, Nanjing Tech University, Nanjing, 211800, PR China.

E-mail: chenxj@njtech.edu.cn.

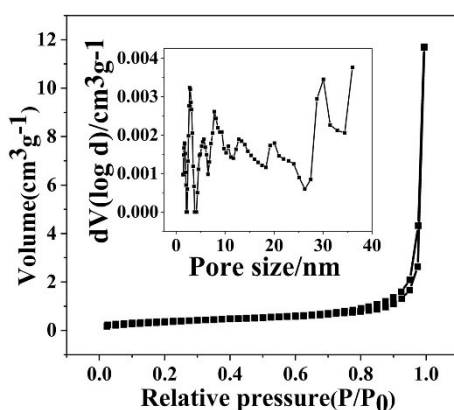


Fig. S1 N₂ adsorption-desorption isotherm of NiCo₂S₄ nanoprisms, Inset: the pore size distribution curve of NiCo₂S₄ HNPs.

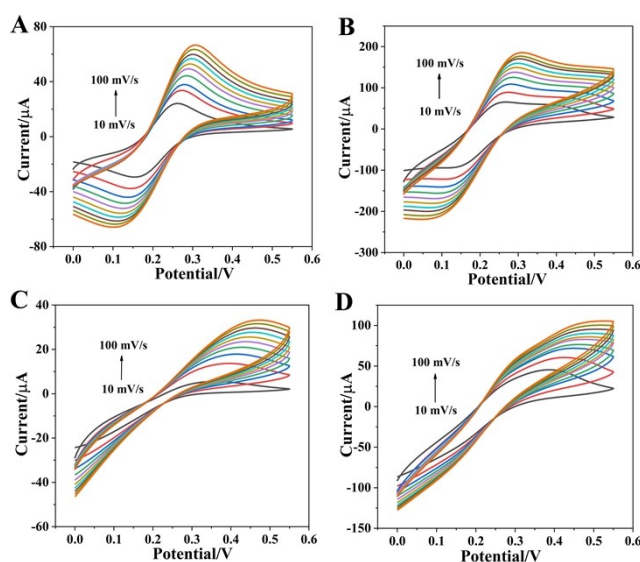


Fig. S2 The scan rate study of NiCo₂S₄ electrodes annealed at 350 °C for 1, 2, 3 and 4h in 0.1 M KCl solution containing 5 mM K₃[Fe(CN)₆].

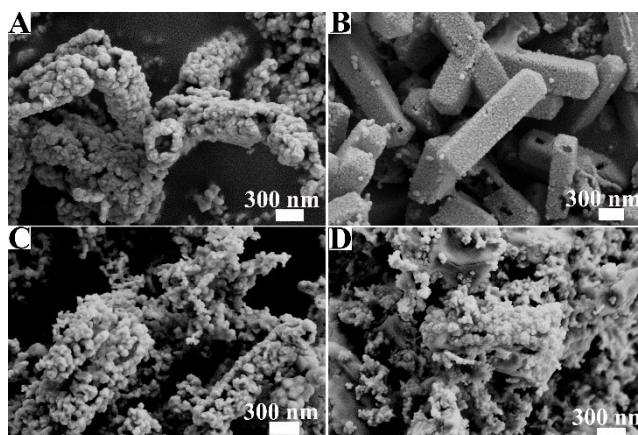


Fig. S3 SEM images of samples for different calcination time: (A) 1h, (B) 2h (C) 3h and (D) 4h.

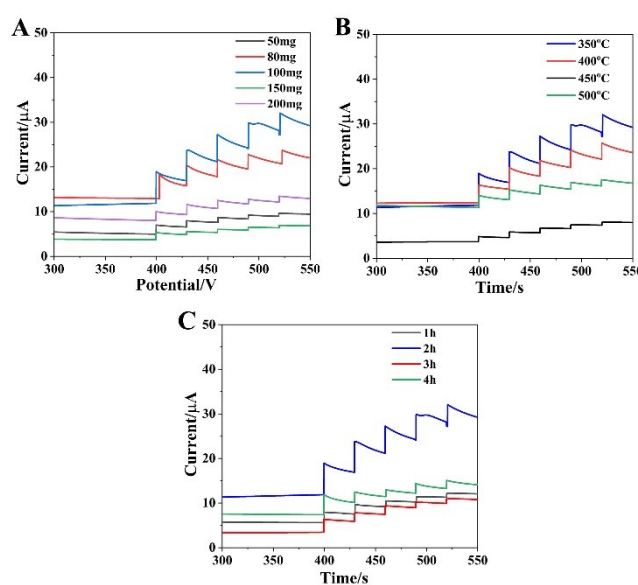


Fig. S4 Current-time (i-t) curves of (A) Co/Ni precursor with different amounts of TAA, (B) under different calcination temperature and (C) treated by different holding time at 0.55 V in 0.2 M NaOH with successive addition of 1 mM of glucose.

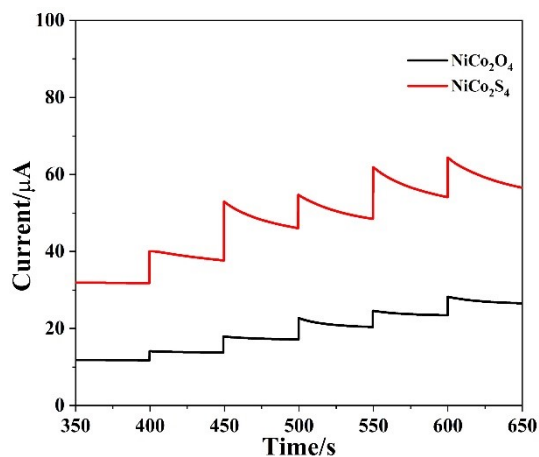


Fig. S5 Current-time (i-t) curves of NiCo_2O_4 and NiCo_2S_4 modified electrodes at 0.55 V in 0.2 M NaOH with successive addition of 1 mM of glucose.

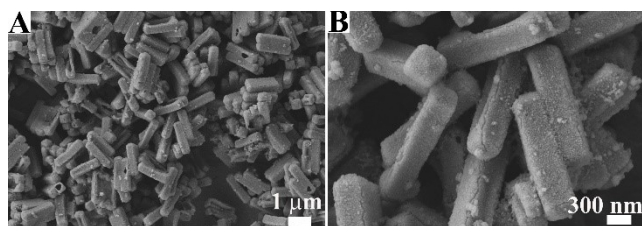


Fig. S6 SEM images of NiCo₂S₄ modified electrodes after electrocatalysis.

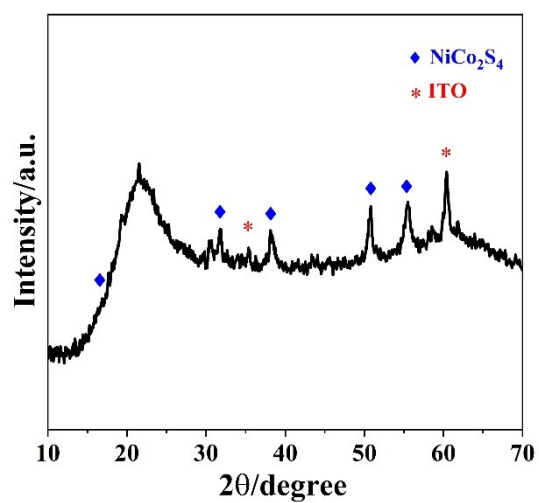


Fig. S7 XRD pattern of NiCo₂S₄ modified electrodes after electrocatalysis.