

Electronic Supplementary Information

Performance improvement strategies of cobalt based electrode for the electrooxidation of sodium borohydride

Ya Li, Tong Sun, Youzhi Liu, Weizhou Jiao, Jing Gao, Dongming Zhang*

Shanxi Province Key Laboratory of Hige-Oriented Chemical Engineering,

North University of China, Taiyuan, 030051, P.R.China.

E-mails: zhangdongming06@outlook.com; Fax: +86 351 3921497; Tel: +86 351

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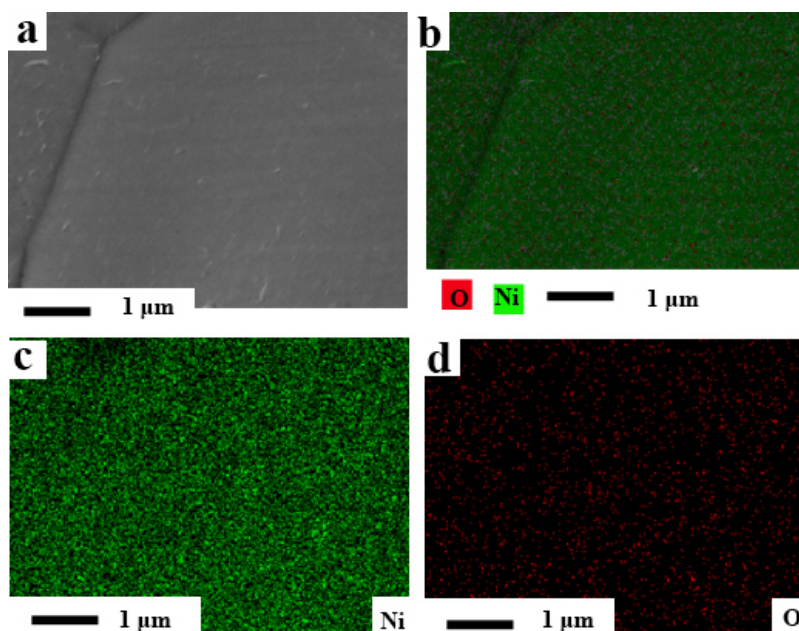


Fig. S1 SEM image (a) of the NF electrode and corresponding EDS images (b-d).

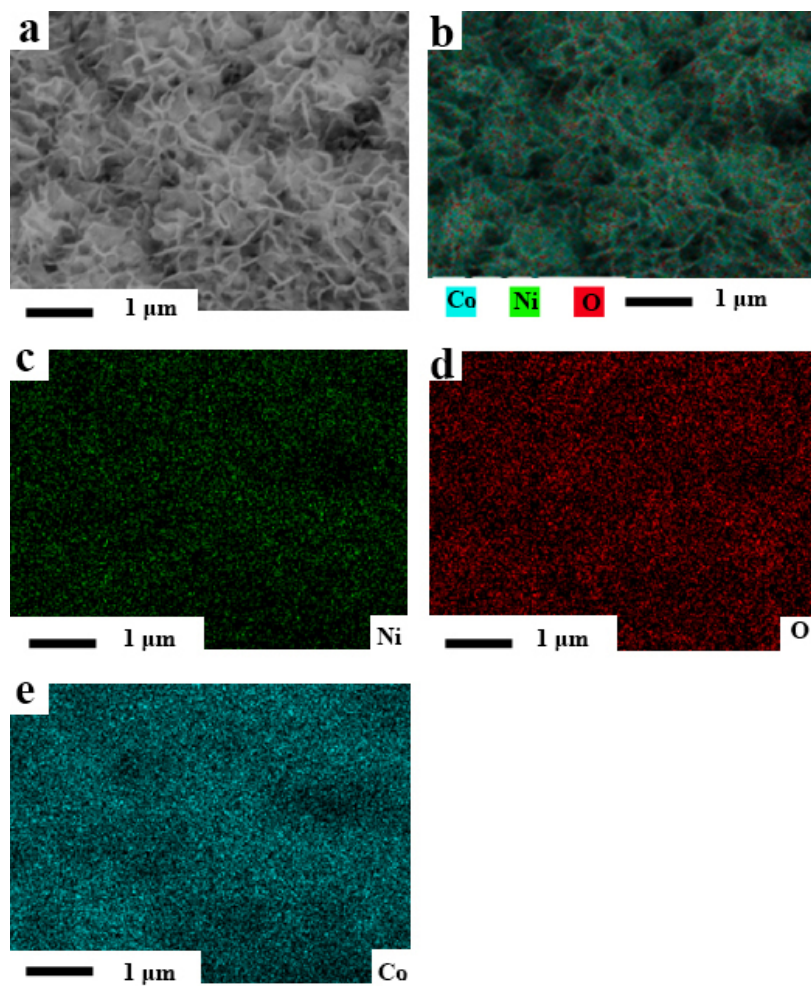


Fig. S2 SEM image (a) of the Co/NF electrode and corresponding EDS images (b-e).

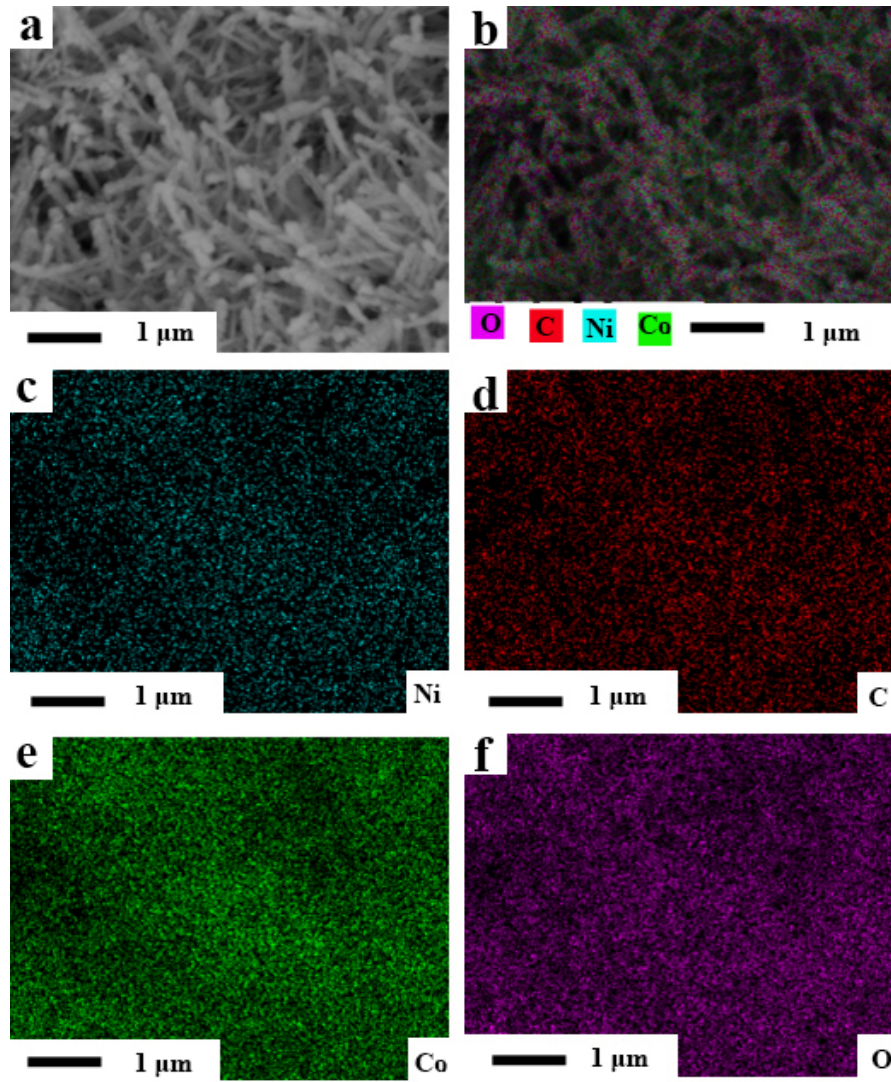


Fig. S3 SEM image of the Co/NF-CoC₂O₄ electrode (a) and corresponding EDS images (b-f).

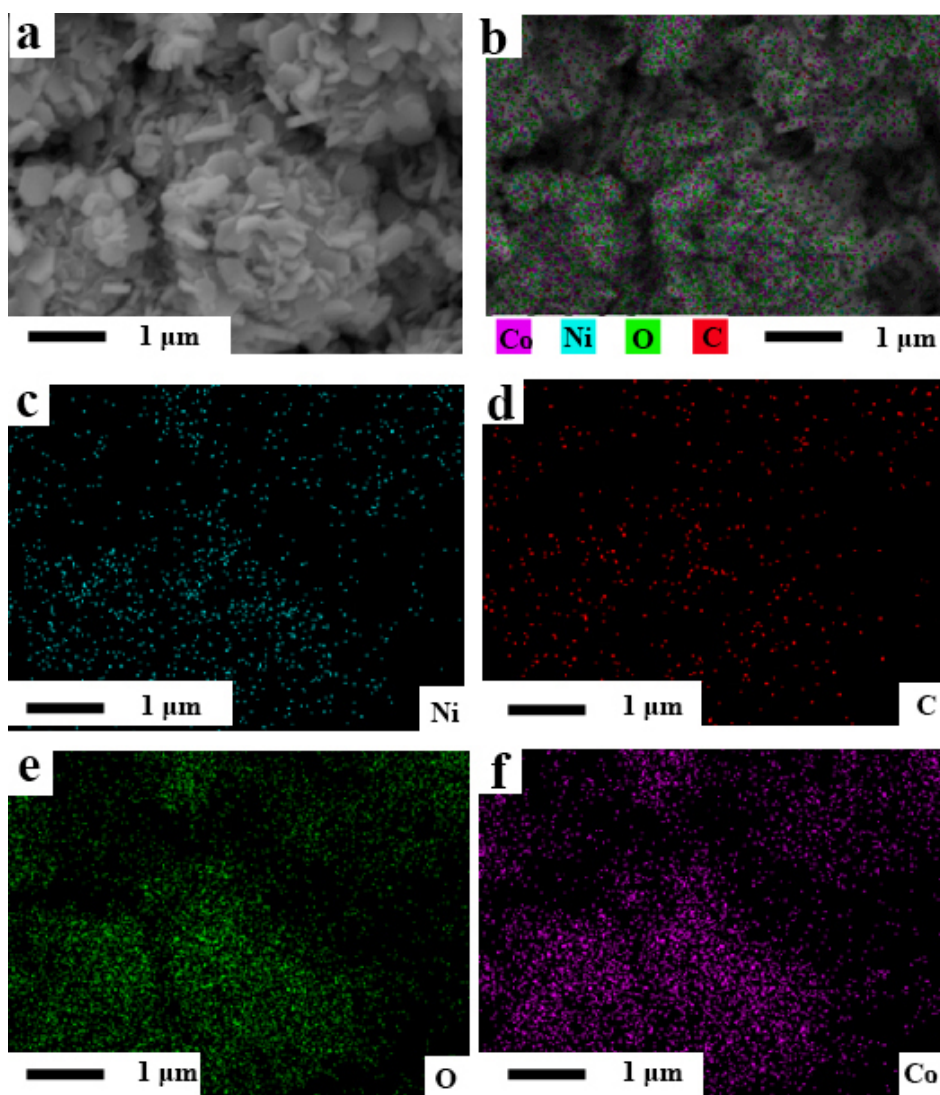


Fig. S4 SEM image of Co/NF-CoC₂O₄-Co electrode after the CV test in 1.5 mol dm⁻³ NaOH (a) and corresponding EDS images (b-f).

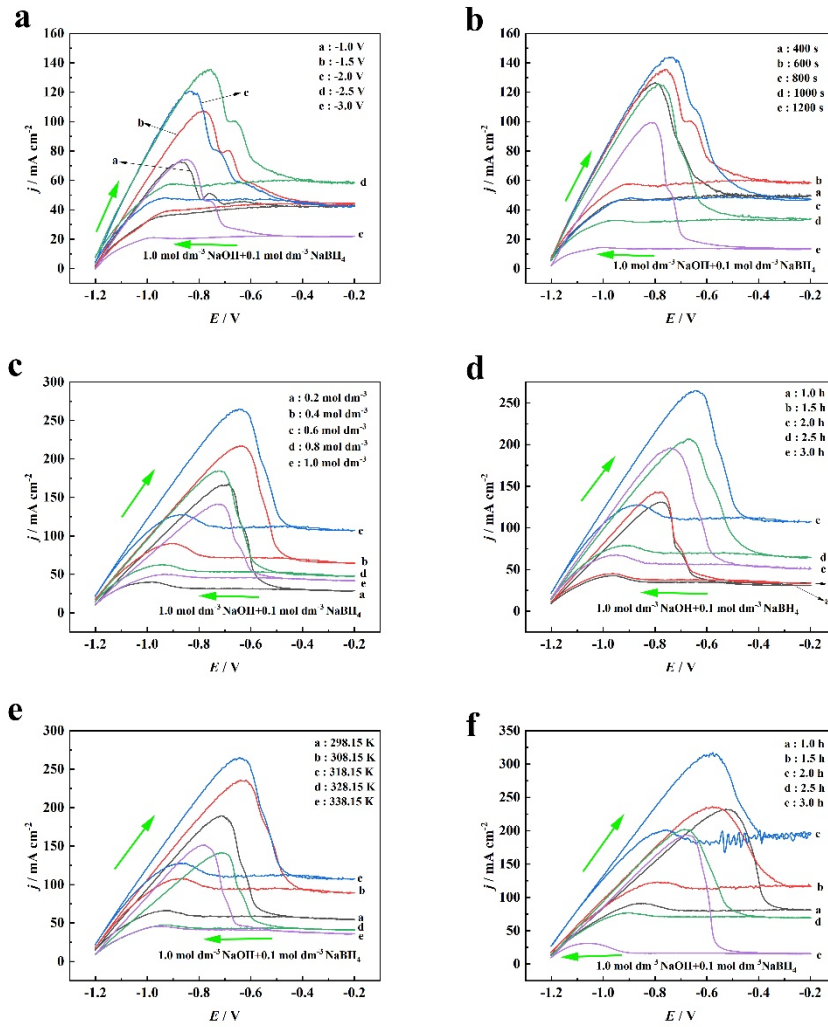


Fig. S5 CV curves of Co/NF electrode prepared under different deposition conditions: deposition potential (-1.0~-3.0 V) (a), deposition time (400~1200 s) (b); CV curves of Co/NF- CoC_2O_4 electrode prepared under different etching conditions: concentration of $\text{H}_2\text{C}_2\text{O}_4$ (0.2~1.0 mol dm^{-3}) (c), time of $\text{H}_2\text{C}_2\text{O}_4$ etching (1~3 h) (d) and temperature of $\text{H}_2\text{C}_2\text{O}_4$ etching (298.15~338.15 K) (e); CV curves of Co/NF- CoC_2O_4 -Co electrode prepared under different reduction times (1~3 h) (f). All CV tests were performed in 1.0 mol dm^{-3} NaOH+0.1 mol dm^{-3} NaBH_4 solution at the scan rate of 10 mV s^{-1} .