

Room-Temperature Synthesis of $\text{Ni}_{1-x}\text{Fe}_x$ (Oxy)hydroxides: Structure-Activity Relationship over Oxygen Evolution Reaction

Xiaodong Yan,^{a,*} Qing-Tao Hu,^a Wen-Da Zhang,^a Tao Li,^a Haiyan Zhu,^a Zhi-Guo Gu^{a,b,*}

^a Key Laboratory of Synthetic and Biological Colloids, Ministry of Education, School of Chemical and Material Engineering, Jiangnan University, Wuxi 214122, China

^b International Joint Research Center for Photoresponsive Molecules and Materials, School of Chemical and Material Engineering, Jiangnan University, Wuxi 214122, China

Corresponding author:

*E-mail addresses: xiaodong.yan@jiangnan.edu.cn (X. Yan); zhiguogu@jiangnan.edu.cn (Z.-G. Gu)

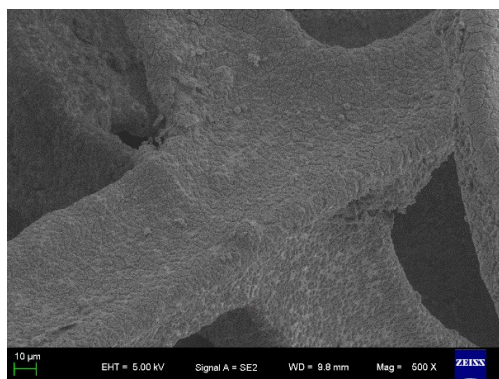


Figure S1 SEM image of Fe_{0.3}Ni_{0.7} hydroxides.

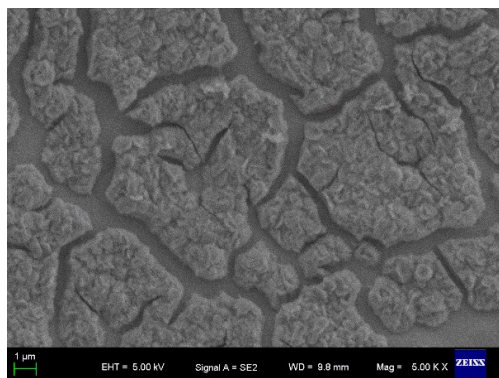


Figure S2 Magnified SEM image of Fe_{0.3}Ni_{0.7} hydroxides.

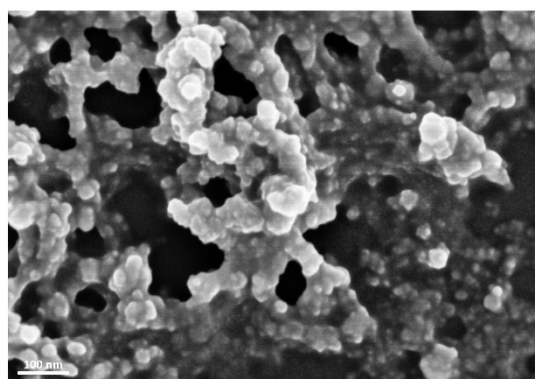


Figure S3 SEM image of Ni(OH)₂.

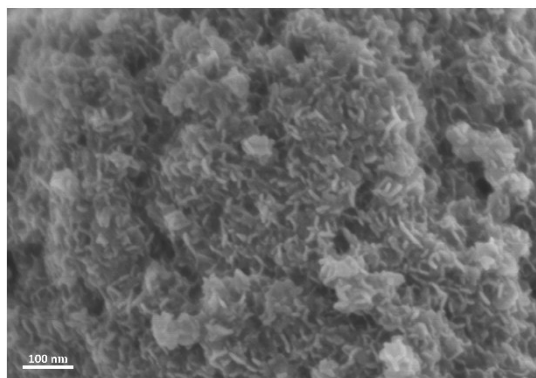


Figure S4 SEM image of Fe_{0.5}Ni_{0.5} hydroxides.

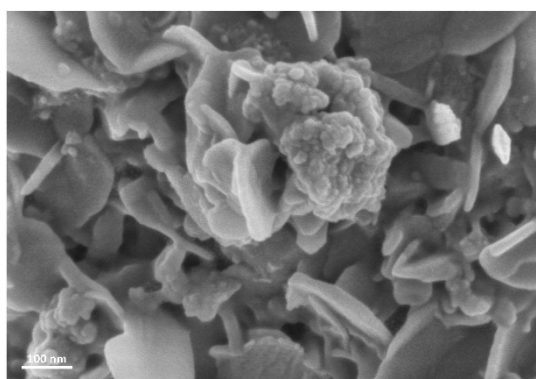


Figure S5 SEM image of Fe_{0.7}Ni_{0.3} oxyhydroxides.

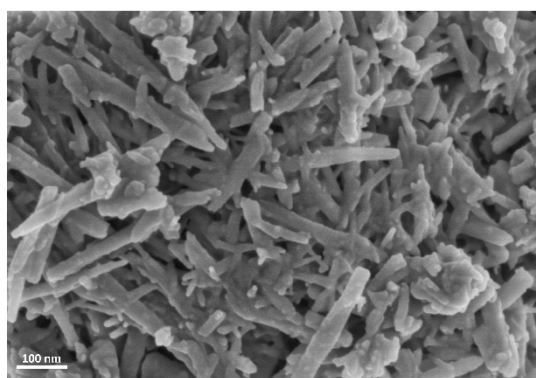


Figure S6 SEM image of FeOOH.

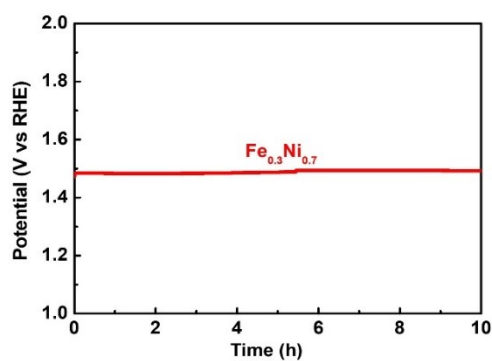


Figure S7 Chronopotentiometric potential-time profile of $\text{Fe}_{0.3}\text{Ni}_{0.7}$ hydroxides.

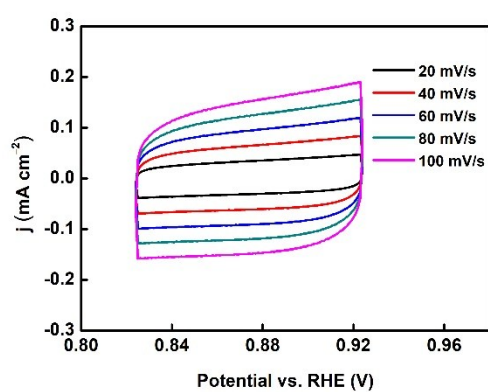


Figure S8 Cyclic voltammograms of the $\text{Ni}(\text{OH})_2$ electrode at various scan rates.

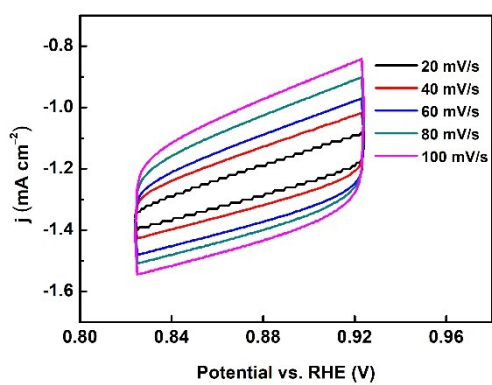


Figure S9 Cyclic voltammograms of the $\text{Fe}_{0.3}\text{Ni}_{0.7}$ electrode at various scan rates.

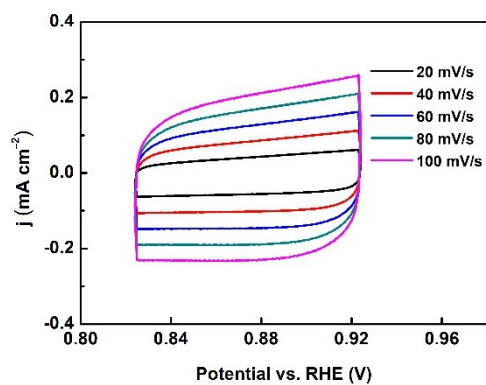


Figure S10 Cyclic voltammograms of the $\text{Fe}_{0.5}\text{Ni}_{0.5}$ electrode at various scan rates.

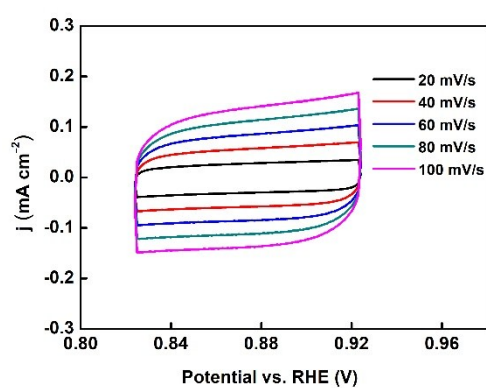


Figure S11 Cyclic voltammograms of the $\text{Fe}_{0.7}\text{Ni}_{0.3}$ electrode at various scan rates.

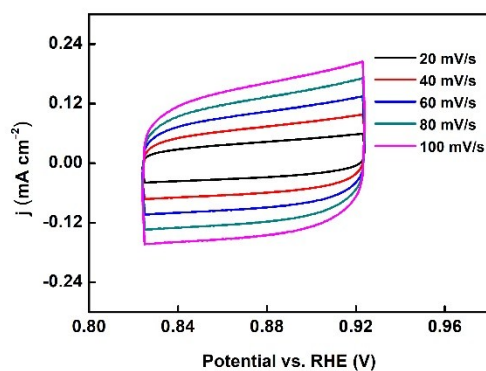


Figure S812 Cyclic voltammograms of the FeOOH electrode at various scan rates.

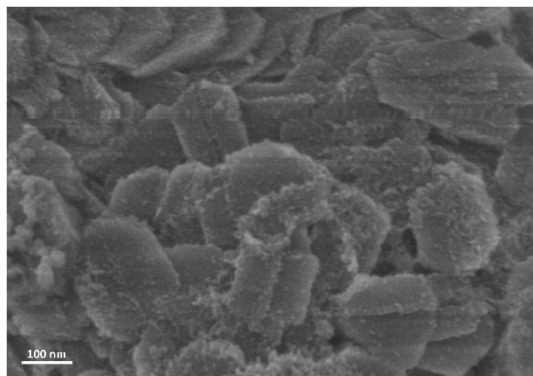


Figure S13 SEM image of the Fe_{0.3}Ni_{0.7} after long-term stability test.

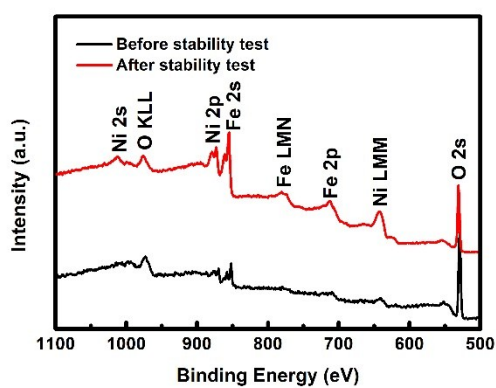


Figure S14 XPS survey spectra of the Fe_{0.3}Ni_{0.7} before and after long-term stability test.