

Supplementary Materials

Electrocatalysis of Methanol Oxidation in Alkaline Electrolytes over Novel Amorphous Fe/Ni Biphosphate Material Prepared by Different Techniques

Mai M. Khalaf^{1,2}, Hany M. Abd El-Lateef^{1,2,*}, Van-Duong Dao^{3,*} and Ibrahim M. A. Mohamed²

¹ Department of Chemistry, College of Science, King Faisal University, Al-Ahsa 31982, Saudi Arabia

² Department of Chemistry, Faculty of Science, Sohag University, Sohag 82524, Egypt

³ Faculty of Biotechnology, Chemistry and Environmental Engineering, Phenikaa University, Hanoi 10000, Vietnam

* Correspondence: hmahmed@kfu.edu.sa or hany_shubra@science.sohag.edu.eg (H.M.A.E.-L.); duong.daovan@phenikaa-uni.edu.vn (V.-D.D.)

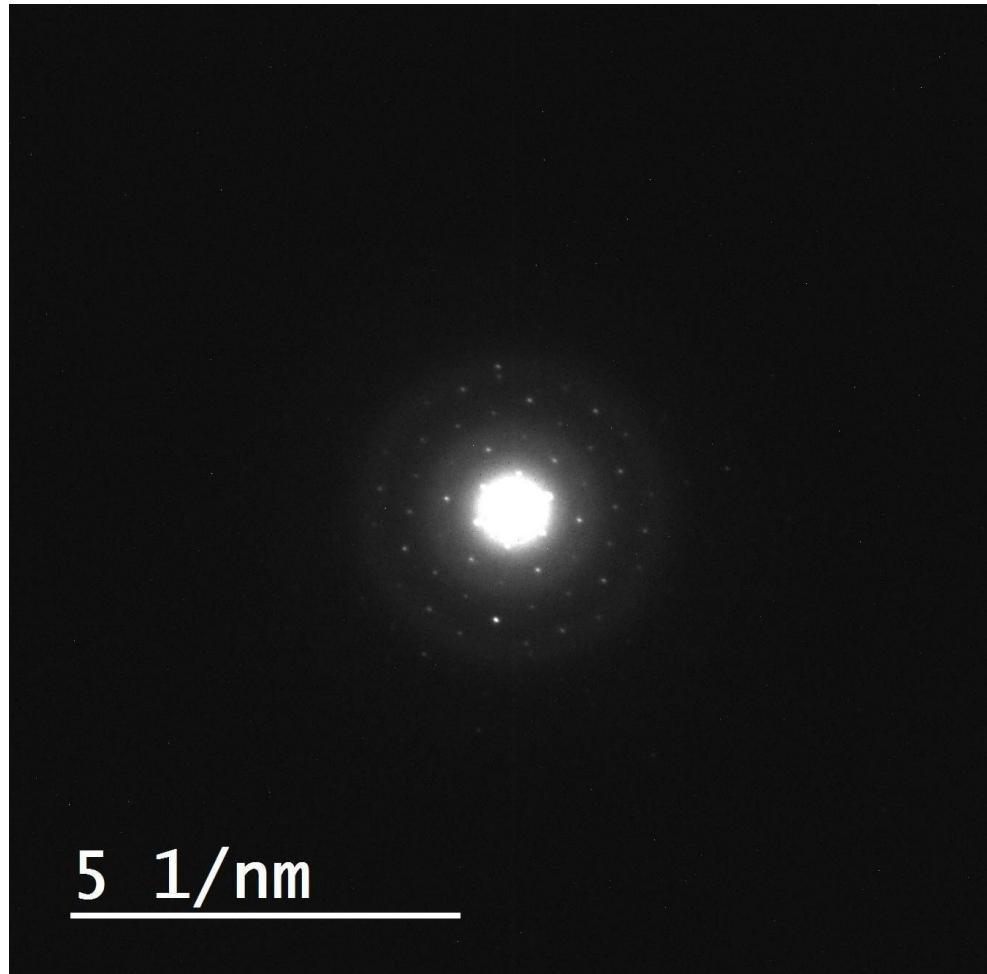


Figure S1. SAED of the synthesized FeNiP-R material.

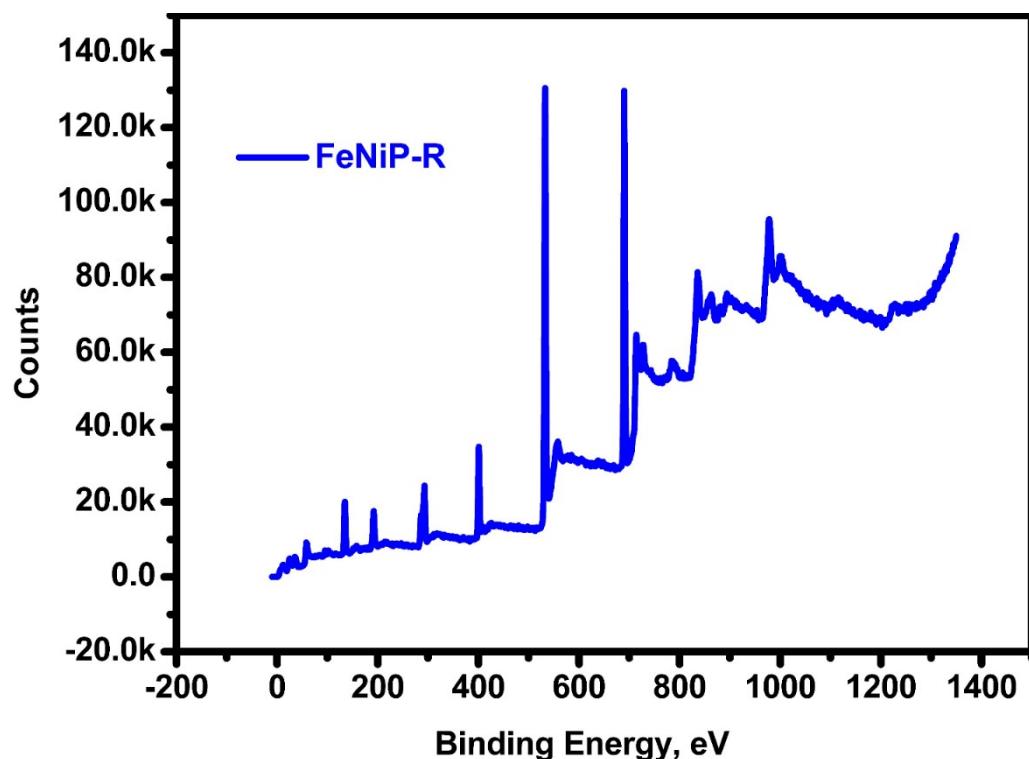


Figure S2. Total survey XPS of the prepared FeNiP-R material in the range of 0–1400 eV.

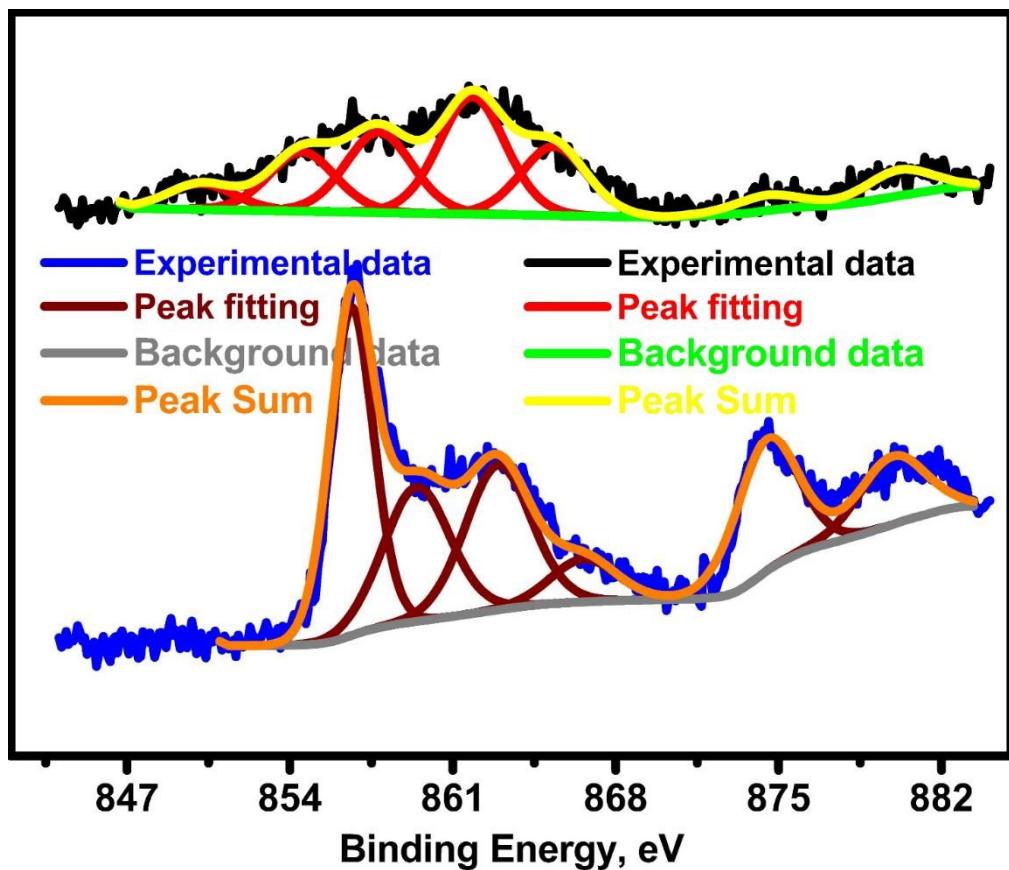


Figure S3. XPS fine spectra of the fabricated FeNiP-R and FeNiP-S materials in the nickel region.

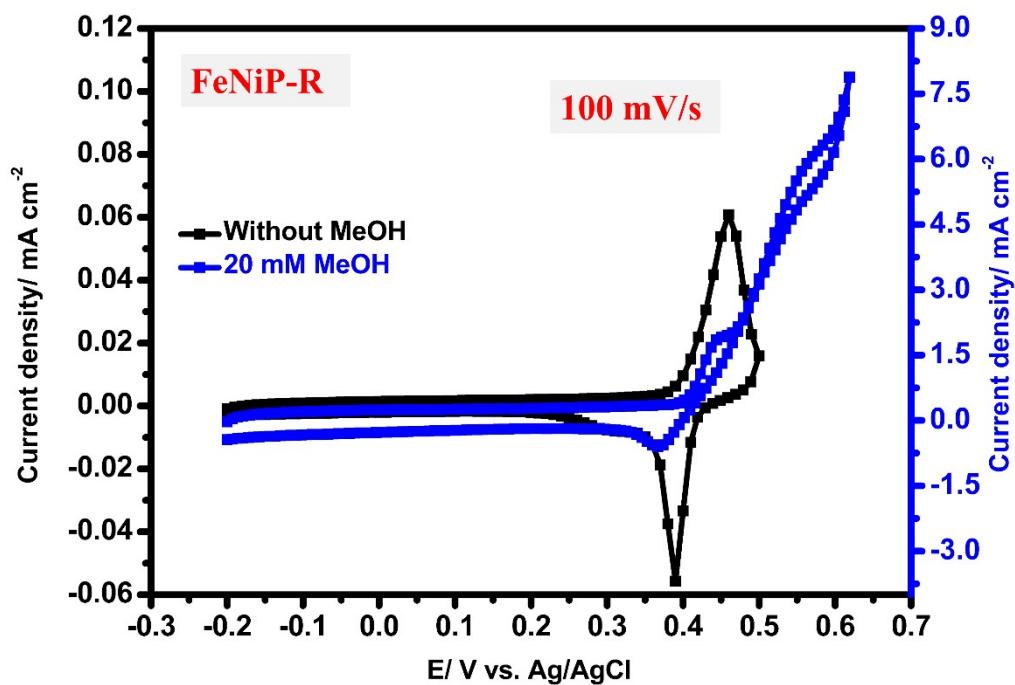


Figure S4. Cyclic voltammograms of the FeNiP-R working electrode in KOH medium with and without 20 mM methanol at 100 mV/s.

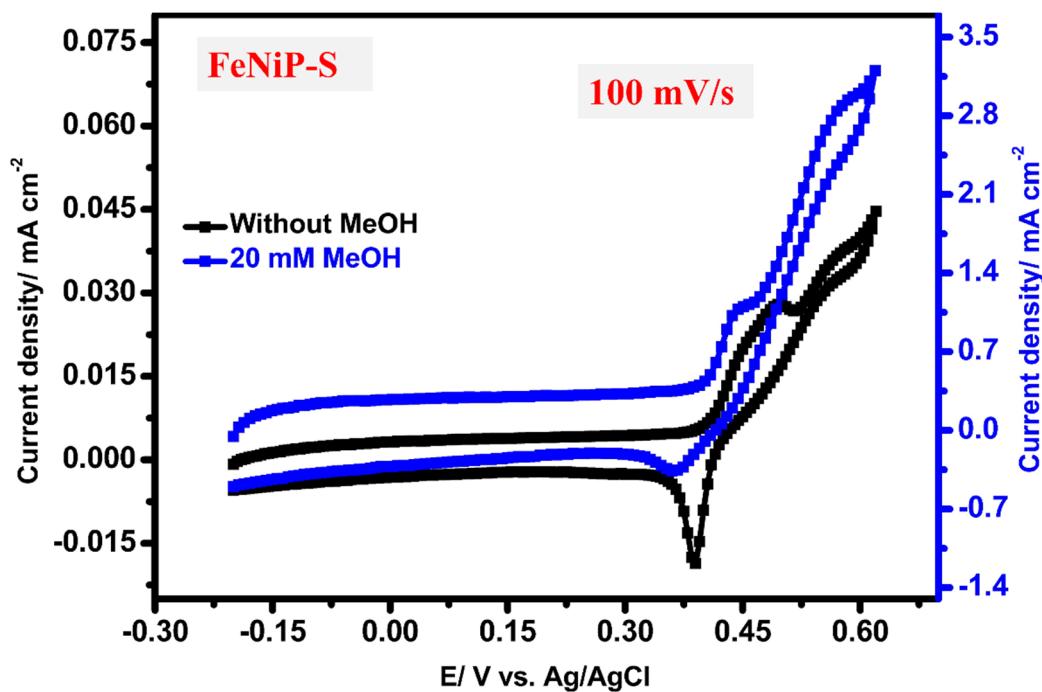


Figure S5. Cyclic voltammograms of the FeNiP-S working electrode in KOH medium with and without 20 mM methanol at 100 mV/s.

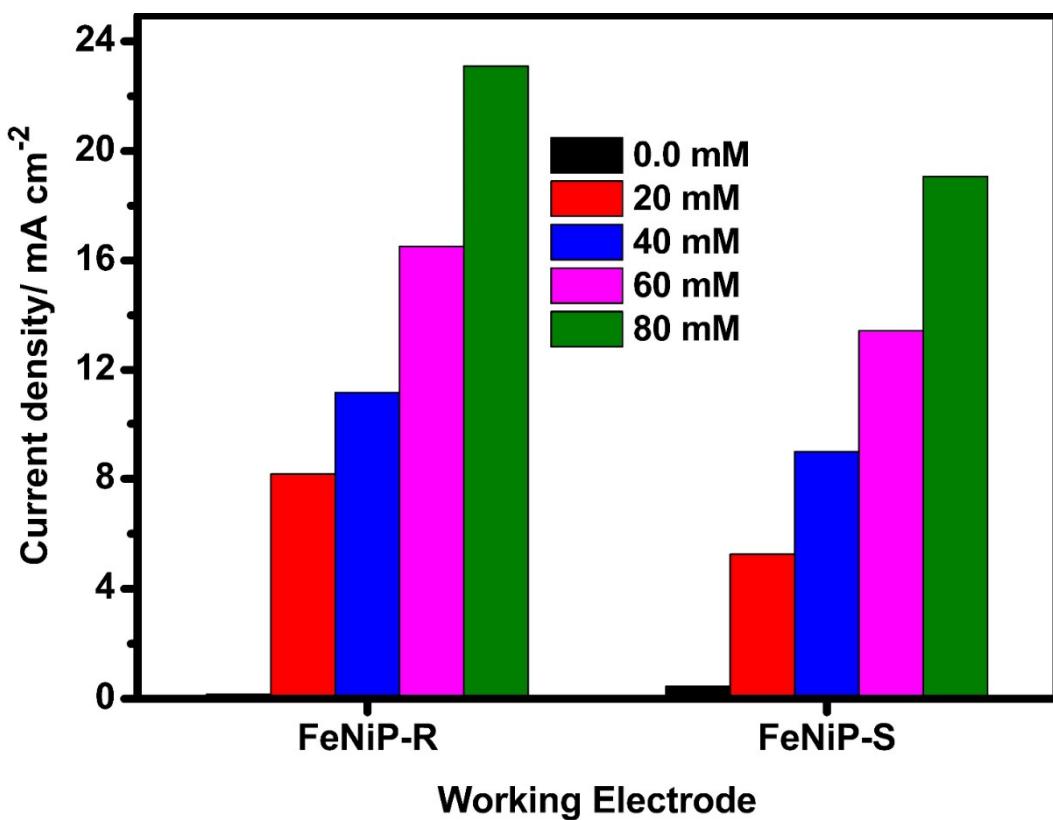


Figure S6. The obtained current values of FeNiP-R and FeNiP-S working electrodes after 1016 s.