

Supplemental Information

Using the interfacial barrier effects of p-n junction on electrochemistry for
detection of phosphate

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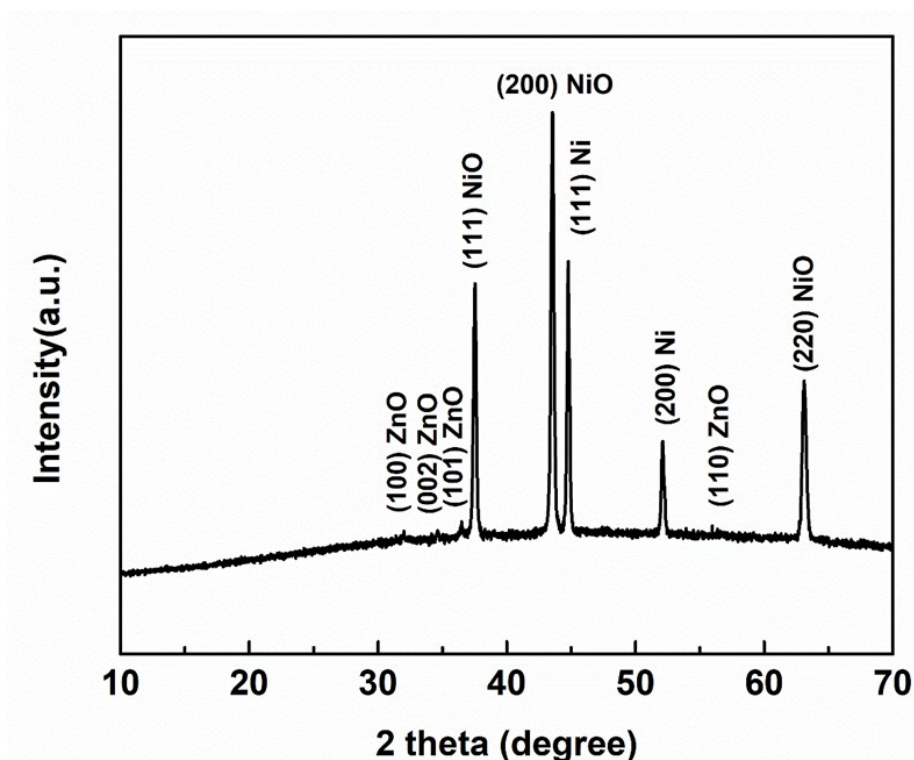


Fig. S1 XRD patterns of the NiO/ZnO foam.

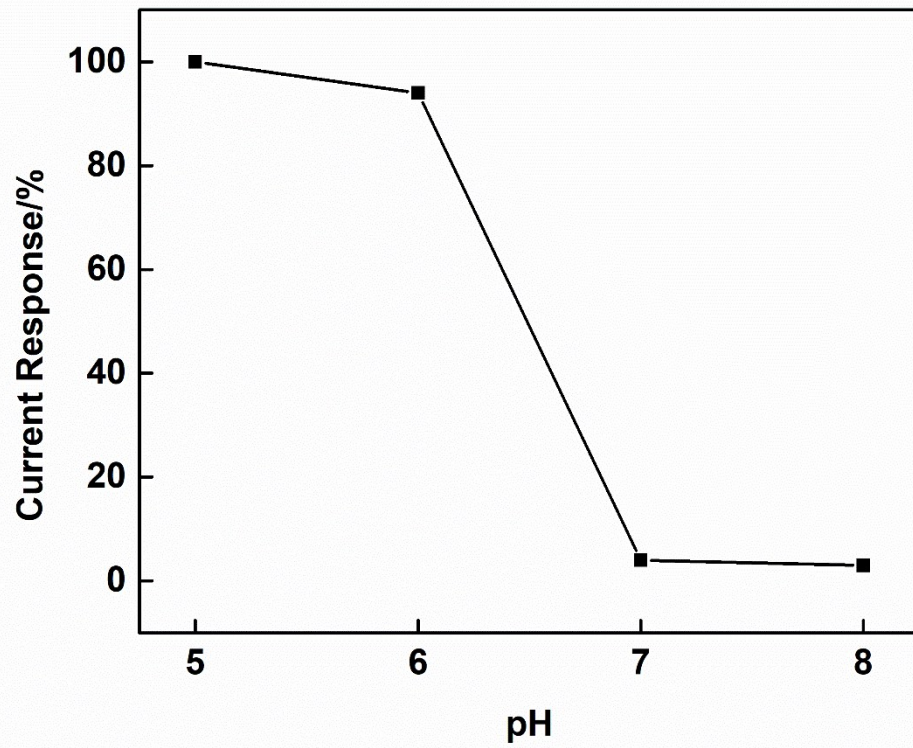


Fig. S2 Response of electrode material to phosphate in solutions with different pH values.

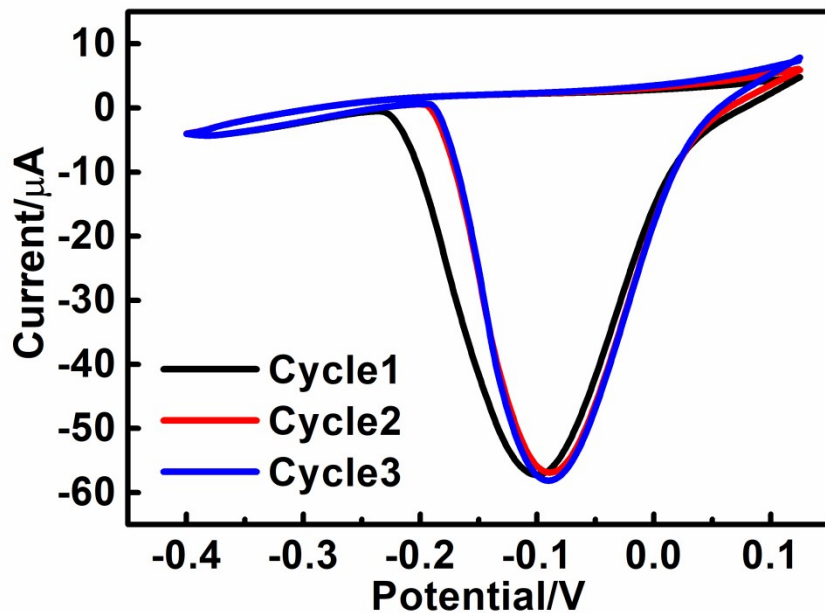


Fig. S3 The electrochemical response of the NiO/ZnO p-n junction foam to no phosphate addition.

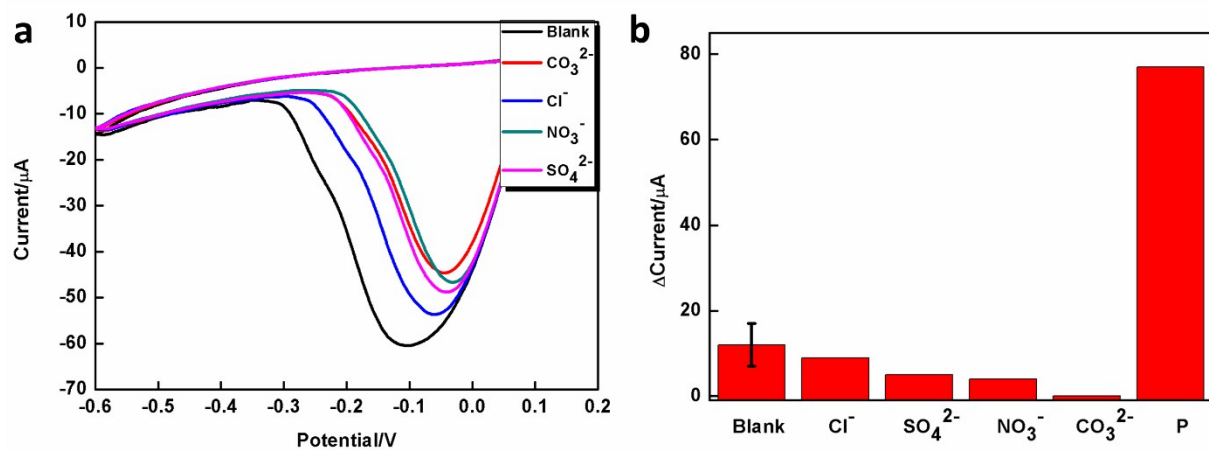


Fig. S4 (a) The response current of NiO/ZnO when put in different kind of disturb charged ions in same concentration. (b) The selectivity of the NiO/ZnO foam, NaCl, CuSO₄, Zn(NO₃)₂ and Li₂CO₃ were used as the similarities toward phosphate.

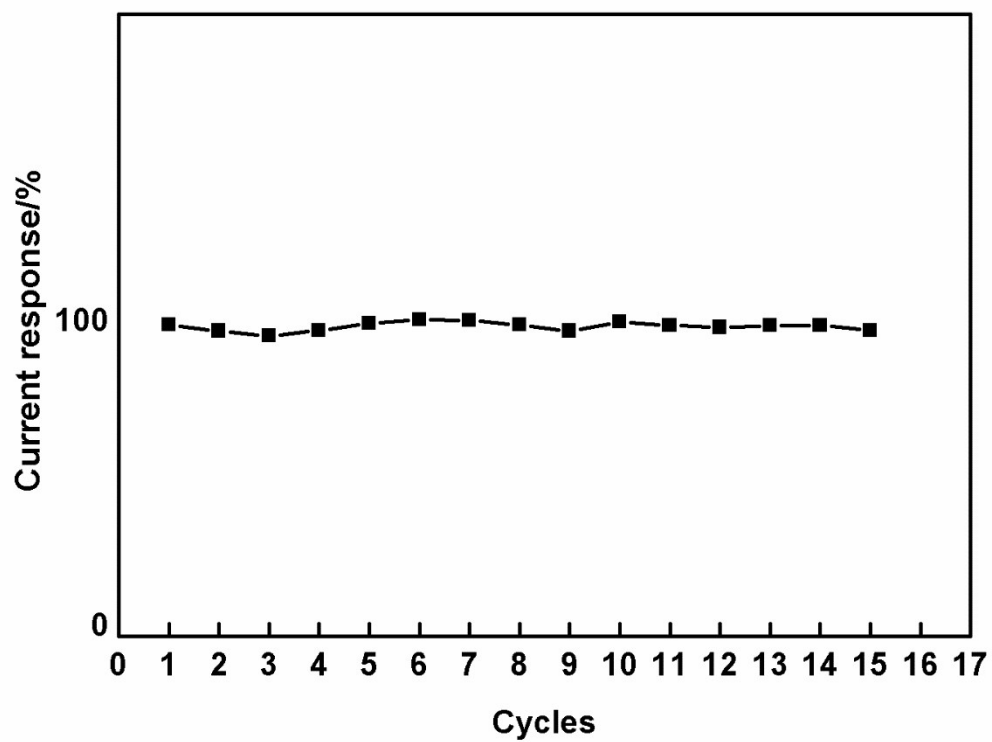


Fig. S5 The response to phosphate by successively cycling the electrode for 15 repeated cycles.