FABRICATION OF ZINC OXIDE NANORODS CHEMICAL SENSOR

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ABSTRACT

FABRICATION OF ZINC OXIDE NANORODS CHEMICAL SENSOR

ZnO nanorods were synthesized by sol-gel method and applied as sensoring material. This material, ZnO nanorods thin film was growth on the glass slide surface. The ZnO nanorods was characterized by using photoluminescence (PL) spectrometer. The sensor was fabricated by sputtering the gold on ZnO nanorods surface. The different concentration at a range of 0.2 M, 0.4 M, 0.6 M, 0.8 M and 1.0 M of K_2HPO_4 solution was produces as a reagent to investigate a sensitive of ZnO nanorods sensor were. ZnO nanorods sensors showed the sensitivity to detect different concentration of K_2HPO_4 solution. The sensitivity of the ZnO nanorods chemical sensor was determined by I-V measurements testing. Through this measurement the capability of sensor was determined which are sensitivity and selectivity.