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Fabrication of ZnO tetrapod based flexible ethanol sensor. Amir Abidov <sup>1,2</sup>, Wanghoon Lee <sup>2</sup>, Myungchan An<sup>2</sup>, Bunyod Allabergenov<sup>1</sup>, Feiyi Xiao<sup>1</sup>, Xing Jin<sup>1</sup>, Hitoshi Habuka<sup>3</sup>, Yong Bae Kim<sup>2</sup>, Sungjin Kim<sup>1</sup> <sup>1</sup>Department of Advanced Materials Science and Engineering, Kumoh National Institute of Technology, Gumi, South Korea <sup>2</sup>IT Convergence Research Team, Gumi Electronics and Information Technology Research Institute, Gumi, South Korea



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ZnO nanostructures have various fabrications such as photocatalyst, drug delivery and sensors. ZnO tetrapods were fabricated using microwave heating and thermal evaporation in furnace. Obtained nanostructures were deposited on flexible substrate. Optical properties were analyzed using UV-visible spectrophotometer. Crystallinity was investigated using X-ray Diffractometry. Morphology was observed using Field Emission Electron Microscope. Sensor output was measured using digital oscilloscope. Influence of fabrication method on sensitivity to ethanol is compared results were discussed.