

Humidity Sensing Behavior of Graphene Oxide on Porous Silicon Substrate

Authors : Amirhossein Hasani, Shamin Houshmand Sharifi

Abstract : In this work, we investigate humidity sensing behavior of the graphene oxide with porous silicon substrate. By evaporation method, aluminum interdigital electrodes have been deposited onto porous silicon substrate. Then, by drop-casting method graphene oxide solution was deposited onto electrodes. The porous silicon was formed by electrochemical etching. The experimental results showed that using porous silicon substrate, we obtained two times larger sensitivity and response time compared with the results obtained with silicon substrate without porosity.

Keywords : graphene oxide, porous silicon, humidity sensor, electrochemical

Conference Title : ICBST 2014 : International Conference on BioSensing Technology

Conference Location : Paris, France

Conference Dates : September 22-23, 2014