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A Fabrication Method for PEDOT: PSS Based Humidity Sensor

Authors : Nazia Tarannum, M. Ayaz Ahmad

Abstract : The main goal of this article is to report some interesting features for the fabrication/design of PEDOT:PSS based humidity sensor. Here first we fabricated humidity sensor and then studied its electro-mechanical characteristics. In general the humidity plays an important role in various private and government sectors all over the world. Monitoring and controlling the humidity is a great task for the reliable operation of various systems. The PEDOT:PSS is very much promising humidity sensor and also is fabricated by performing various analyses. The interdigited electrode (IDE) has channel length 200 microns prepared by lithography. Lithography of IDE was done on PPR coated glass substrate using negative mask and exposing it with UV light for 10 secs via DSA. During the above said fabrication, we have taken account for the following steps: •Plasma ashing of IDE •Spincoating of PEDOT:PSS was done @3000 rpm on IDE substrace •Baked the substrace at 130 °C up to time limit 15 mins. •Resistance measurement using Labtracer 2.9 software via Keithley 2400source meter.

Keywords : fabrication method, PEDOT:PSS material, humidity sensor, electro-mechanical
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