GAS SENSING PROPERTIES OF 2, AMINOBENZOPHENONE-2, CARBOXYLIC ACID THIN FILM PREPARED USING DIPPING TECHNIQUE

Muhamad Mat Salleh, Akrajas and Muhammad Yahaya
School of Applied Physics
Faculty of Science and Technology
43600 UKM Bangi, Selangor
MALAYSIA

ABSTRACT

Biosensors are the sensitive materials for some particulars application which was built from the bioorganic substances such as protein, lipid and enzyme. These types of sensors show a rapid growing with increasing of the application area such as, environmental, foods industries and medical. This paper reports the use of an amino acid derivative, 2, aminobenzophenone-2, carboxylic acid thin films prepared by dipping technique as sensitive layer to detect several vapor samples, cyclohexane, 2-propanol, acetone and ethanol. The sensing sensitivity was based on the change in the optical properties of the thin film upon exposure toward vapor. It was found that the thin film was sensitive to the presence of the vapor samples by the change of its optical absorption spectrum. The average time to reach the maximum value of the response is within 15 seconds. The responses may recover to its initial state when the vapor molecules driven out from the sensor surface within 10 seconds. The sensor responses towards the samples were distinguishable and reproducible.

Keywords: Amino acid, gas sensor, dipping technique, optical sensing technique

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