ECS Transactions, 14 (1) 21-26 (2008)
10.1149/1.2956013 © The Electrochemical Society

ELECTRICAI AND OPTICAI RESPONSE OF A CONDUCTING POLYMER GAS SENSOR

J. P. H. Lima [a] and A. M. de Andrade [a,b,]

[a] Departamento de Engenharia de Sistemas Eletrônicos, Universidade de São Paulo, São Paulo, Brazil

[b] Instituto de Energia e Eletrotécnica, Universidade de São Paulo, São Paulo, Brazil

This work deals with the electrical and optical response of poly *(o*-methoxyaniline) (POMA) thin films exposed to nitrogen and nitrogen with methanol. A low cost apparatus was developed for the optical assessment of the presence of methanol in an ambient. It is shown that thick POMA films exhibits a wide optical absorption variation when in presence of methanol. It was observed that the optical absorption characteristics retum to the initial condition when methanol exposition ceases. Electrical response of a photoresistor to methanol showed larger relative variations but also presented large noise interference. A residual drift in the resistance is presented after every cycle and it need to be better evaluated.