Modelling of thermodynamics of adsorption on sensor array films: application to the generalized multicomponent adsorption model of Langmuir

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Abstract: In the present study, by using of Gibbs Duhem formalism and simple mathematics, new models, which describe the response of the elements of a sensor array, have been developed. In addition, the thermodynamic ehavior of the interfaces sensor array fims gas mixture has been treated. Finally, the derived models were used for the generalized model of adsorption of Langmuir.

Keywords: adsorption of Langmuir, Gibbs Duhem equations, intrinsic conducting polymers, modeling, sensor array