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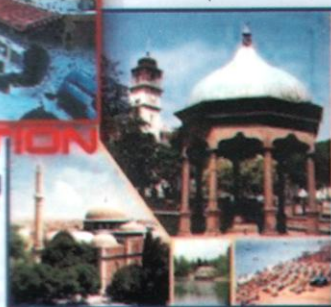


7 - 10 OCTOBER 2004
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THE INVESTIGATION OF ORGANIC VAPOUR SENSING PROPERTIES FOR ULTRA THIN FILM USING POLY(METHYL METHACRYLATE) POLYMER

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Langmuir properties of poly(methyl methacrylate) (PMMA) polymer have been investigated using area per molecule graph at the air-water interface. PMMA monolayer deposited onto gold-coated glass substrate using Langmuir-Blodgett thin film deposition technique. Surface Plasmon Resonance (SPR) is employed to investigate the organic vapours sensing of PMMA LB film using benzene, toluene, ethyl benzene and m-xylene. Benzene vapours for PMMA LB film shows a highly sensitive, fast and reversible response than other organic vapours. Similar results have been found for spun coated thin film of poly(methyl methacrylate) polymer [1]. The behaviour of PMMA monolayer at the air-water interface, LB film deposition conditions and the properties of organic vapours for PMMA LB film will be discussed in here.

A part of this work is supported by Turkish Research Council (TUBITAK) in Turkey TBAG-1940(100T047).

References

1. R. Capan, A.K. Ray, A.K. Hassan, T. Tanrısever, Journal of Physics D; Applied Physics, 36 (2003) 1115-1119.