

Molecular Organization in Langmuir Films of Dichroic Azo Dye Liquid Crystal Mixtures.

II. Surface Potential Measurements

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Two-component films of 4-octyl-4'-cyanobiphenyl (8CB) and non-amphiphilic azo dye (**1**) at different molar fractions were studied at the air-water interface on the basis of the surface potential-mean molecular area dependence recorded simultaneously with the surface pressure-mean molecular area isotherm. Conventional Langmuir technique was used to form **1**/8CB (guest-host) films during reduction and expansion of an area occupied by the molecules. From the surface potential value the effective dipole moment in the first monolayer formed on the water was calculated. Moreover, the number of dipole moments directed to the air with respect to those directed towards the water was estimated. A model of the microscopic polar ordering of the molecules in **1**/8CB films at the air-water interface is proposed.

Key words: Azo Dye; Liquid Crystal; Langmuir Film; Surface Pressure-Area Isotherm; Surface Potential.