Abstract Submitted
for the MAR10 Meeting of
The American Physical Society

Study on the surface enhanced ordering effect of liquid crystal films LIDONG PAN, SHUN WANG, University of Minnesota, CHAIN-SHU HSU, National Chiao Tung University, CHENG-CHER HUANG, University of Minnesota
— Null Transmission Ellipsometer was employed to study the surface enhanced ordering effect in one smectic liquid crystal. In the SmA temperature window of free standing films with thickness around 15 molecular layers, we studied the response of the surface arrangement as a function of temperature and transverse electric field. From the results we obtained the interaction between the two surfaces as a function of temperature and film thickness. The effective range of surface interaction is found to be around 20 molecular layers.

LiDong Pan
University of Minnesota

Date submitted: 18 Nov 2009 Electronic form version 1.4