Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

Atomic Force Microscopy and Quartz Crystal Microbalance Study of Surface Roughness of Polymer Films Prepared from Solutions
NANXIA RAO, YINGZI HAO, DA-MING ZHU, Department of Physics, University of Missouri-Kansas City — In order to gain detailed insight on how a polymer film's surface morphology depends on the temperature as well as the thickness, we used quartz crystal microbalance to monitor the thickness of polymer films prepared from solution with different concentrations, and then use atomic force microscope to investigate the roughness of the surface as a function of film thickness and temperature. Several systems have been studied so far, which include polystyrene poly (vinyl chloride). The results will be discussed in terms of dewetting of the polymer films.

Nanxia Rao

Date submitted: 30 Nov 2004 Electronic form version 1.4