Abstract Submitted
for the 4CF06 Meeting of
The American Physical Society

Chemical Patterning by Mechanical Removal of Aqueous Polymers KATHERINE BARNETT, JODI KNOEBEL, ROBERT C. DAVIS, Brigham Young University — We are developing a new method for micro and nanoscale patterning of lipids and proteins on solid surfaces. A layer of polyethylene glycol (PEG) teminated polyallyl amine (PAA) was initially applied to a mica surface. The PEG surface is a low adhesion surface for proteins. Following polymer deposition an Atomic Force Microscope (AFM) tip was used to remove the polymer layer in desired regions. AFM imaging of the surface after mechanical polymer removal shows squares of exposed MICA surrounded by the PEG surface. The clean mica regions are now available for specific adsorption of lipid or protein layers.

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Date submitted: 21 Sep 2006 Electronic form version 1.4